Appendix A – FRA and Drainage Statement Reports

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LAND AT FOXHOLE FARM BOLNEY
DRAINAGE STRATEGY

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LAND AT FOXHOLE FARM BOLNEY
DRAINAGE STRATEGY

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CONTENTS

EXECUTIVE SUMMARY		**2**
1.	**INTRODUCTION**	**3**
1.1	Background	3
1.2	Scope of Works/Objectives	3
1.3	Ramboll and Climate Change	4
1.4	Consultation	4
1.5	General Limitations and Reliance	4
2.	**SITE DETAILS**	**6**
2.1	Site Location and Surroundings	6
2.2	Site Topography	6
2.3	Hydrological Setting	8
2.4	Geological and Hydrogeological Setting	9
2.5	Existing Drainage	10
2.6	Surface Water and Sewer Flood Risk	11
3.	**SURFACE WATER DRAINAGE STRATEGY**	**15**
3.1	Overview	15
3.2	Disposal of Surface Water	15
3.3	Runoff Rates and Storage	16
3.4	SuDS Options	16
3.5	Preferred SuDS Options	20
3.6	Biodiversity Net Gain	21
3.7	Treatment of Runoff	21
3.8	Drainage System Performance	22
3.9	Adoption and Maintenance	22
3.10	Management of Runoff from Construction	23
4.	**SURFACE WATER FLOODING MITIGATION**	**25**
5.	**SURFACE WATER RUNOFF BETTERMENT**	**27**
6.	**FOUL DRAINAGE**	**31**
7.	**SUMMARY**	**32**

EXECUTIVE SUMMARY

Ramboll UK Limited ('Ramboll') has been commissioned by Wates Developments Limited (the 'Applicant') to develop both surface water and foul water drainage strategies for the Proposed Development at 'Land at Foxhole Farm Bolney'. The site is located at approximate coordinates 525911E, 122766N, at postcode RH17 5NB.

The Proposed Development is for an outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

The proposed surface water drainage strategy consists of a series of swales and surface water attenuation areas that have been strategically located across the site.

In the northern development parcel, a connecting network of swales, surface water attenuation areas, and gravity driven surface water sewers, have been strategically located within the development, to collect and subsequently direct surface water toward the west into an existing watercourse that is culverted beneath Foxhole Lane. Across the eastern part of the northern development area, the existing drainage that would otherwise flow toward The Street will be intercepted and captured and subsequently directed west by the proposed SuDS features. Surface water will ultimately be transported away from this location and released at a controlled rate toward the west. This represents a significant betterment to the present situation where the properties adjacent to The Street are vulnerable to surface water runoff from the site.

In the southern development parcel and across the central part of the site where the proposed access road is located, a separate network of swales, surface water attenuation areas, and gravity driven surface water sewers, have been strategically located within the development, to collect and subsequently direct surface water into the existing east to west ditch running adjacent to Cowfold Road in the south of the site. Across the eastern part of the central development area, where the proposed access road is proposed to connect the northern and southern developments, the existing drainage that would otherwise flow toward The Street will be intercepted and captured and subsequently directed west and then south by the proposed SuDS features. Surface water will ultimately be transported away from this location and released at a controlled rate toward the south. This represents a significant betterment to the present situation where the properties adjacent to The Street are vulnerable to surface water runoff from the site.

Discharge rates emanating from the proposed surface water attenuation features will be released at the mean annual flood return period which represents a considerable reduction in the peak flows presently emanating from the site during high return period flooding events. The strategy will therefore improve upon the current situation with regard to surface water management and flood risk.

The proposed foul strategy is for connection into the existing network in Cowfold Road to the south of the site. Southern Water have confirmed that there is adequate capacity in the local sewerage network to accommodate a foul flow of 1.8 L/s in this location.

The overall drainage strategy is presented in the Drainage Layout sketches in Appendix A at the rear of the report.

1. INTRODUCTION

1.1 Background

1.1.1 Ramboll UK Limited ('Ramboll') has been commissioned by Wates Developments Limited (Wates) to develop both surface water and foul water drainage strategies for the Proposed Development at 'Land at Foxhole Farm Bolney'. The site is located at approximate coordinates 525911E, 122766N, at postcode RH17 5NB.

1.1.2 The Proposed Development is for an outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

1.1.3 The Site Masterplan is presented in Appendix A at the rear of the report.

1.2 Scope of Works/Objectives

1.2.1 The aim of this report is to provide a detailed overview of the surface water and foul water drainage strategies for the Proposed Development. This includes the proposed management and disposal of surface water, and how calculated surface discharge rates are to be controlled and discharged. This report includes the following:

- Review of existing drainage conditions at the site;
- Review of site topography;
- Determination of existing surface water runoff rates at the site and required storage volumes;
- High level calculation of anticipated foul water generation from the Proposed Development;
- Review of existing sewer records for the site and its surrounds;
- Options appraisal of SuDS and their suitability for the Proposed Development; and
- Proposals for measures to mitigate the generation of surface water runoff from the Proposed Development.

1.3 Ramboll and Climate Change

1.3.1 Ramboll UK Ltd is a Partner for Sustainable Change, and as such sustainability is central to our assessments and reporting. We have made specific considerations for climate change throughout this report, to ensure that our planning and design advice is supportive of an approach to ensure robust and sustainable societies.

1.4 Consultation

1.4.1 As part of the Ramboll scope of works, a new connection enquiry was sent to Southern Water in September 2024. This has requested confirmation of a suitable location and rate for the connection of foul water emanating from the development. Southern Water have confirmed that there is adequate capacity in the local sewerage network to accommodate a foul flow of 1.8 L/s in this location.

1.4.2 A previous wastewater enquiry was issued in February 2024 with a similar proposal but for two separate discharges for the two different parcels of the development, with the Southern Parcel proposed to connect into the existing network on Cowfold Road, and the Northern Parcel proposed to connect into the existing network on The Street. This proposal was approved by Southern Water but was ultimately decided against following a meeting with Southern Water representatives who stated that due to the narrow corridor by which the proposed discharge to The Street was proposed to be routed, the proposed sewer would not be adoptable. The new connection enquiry proposes a single discharge point on Cowfold Road for the entire site.

1.4.3 Pre-application consultations with West Sussex County Council acting as the Lead Local Flood Authority (LLFA), were undertaken on 29/11/2024 and on 14/02/2025. The first dated to the 29/11/2024 was regarding a draft Flood Risk Assessment and Drainage Strategy submission. The overall strategy was positively received but further detail was requested by the LLFA. The second dated to the 14/02/2025 was regarding the updated Environment Agency surface water risk mapping, its implications on the surface water drainage strategy, and the proposed solutions. In response to the updated mapping, the new areas of risk were considered and the site layout was updated accordingly.

1.5 General Limitations and Reliance

1.5.1 This report has been prepared by Ramboll exclusively for the intended use by the client in accordance with the agreement between Ramboll and the client defining, among others, the purpose, the scope and the terms and conditions for the services. No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended, or any other services provided by Ramboll.

1.5.2 In preparation of the report and performance of any other services, Ramboll has relied upon publicly available information, information provided by the client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete, and available to Ramboll within the reporting schedule.

1.5.3 Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are intended solely for the use and benefit of the client for this purpose only and may not be used by or disclosed to, in whole or in part, any other person without the express written consent of Ramboll. Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

1.5.4 Unless otherwise stated in this report, the scope of services, assessment and conclusions made assume that the site will continue to be used for its proposed end-use without further significant changes onsite. Unless stated otherwise, the geological information provided is for general environmental interpretation and should not be used for geotechnical and/or design purposes.

2. SITE DETAILS

2.1 Site Location and Surroundings

2.1.1 The site is located at Foxhole Farm, Bolney, on land immediately east of Foxhole Lane. The site is centred at approximately 525911E, 122766N, at an approximate postcode of RH17 5NB. The site will be developed in two parcels, with the southern development designated as the Southern Parcel and the northern development designated as the Northern Parcel. The Northern Parcel is the smaller of the two developments with approximately 92 dwellings and a community facility proposed. The Southern Parcel proposes approximately 108 dwellings. The total site area measures 16.89 ha. The proposed site access will be from Cowfold Road to the south of the site and will lead into the proposed Southern Parcel.

2.1.2 Adjacent and surrounding land uses to the site area are as follows:

- North: Existing wooded areas, green space, and some housing. Lodge Lane is located approximately 250 m from the site;
- East: The Street and adjacent housing. The A23 is located approximately 360 m from the site;
- South: A272 Cowfold Road and adjacent housing/green space; and
- West: Foxhole Lane and adjacent green space/agricultural land. The Bolney Wine Estate is located approximately 120 m from the site.

2.1.3 The village of Bolney is located immediately east/northeast of the site. The closest town is Haywards Heath, located approximately 6 km east of the site.

2.1.4 The Site Location Plan is presented in Figure 2.1 at the rear of the report.

2.2 Site Topography

2.2.1 A site topographical survey[1] was previously undertaken at the site. A description of the topography is summarised as follows:

<u>Southern Parcel</u>

2.2.2 Levels in the southern development are shown to fall from north to south. The survey indicates that levels at the northern end of the Proposed Development area are between approximately 34.3 and 35 m Above Ordnance Datum (AOD) at their highest, falling to approximately 22.2 m AOD at the southern end of the site, adjacent to the Cowfold Road (A272).

[1] CD Surveys Ltd, Topographical Survey, Foxhole Farm, Bolney, Haywards Heath, WD/2309028/1, December 2023.

Northern Parcel

2.2.3 Levels in the northern development are indicated to fall from a high of approximately 42 m AOD in the southeast of the Proposed Development area, to approximately 30.1 m AOD in the west. Levels are additionally shown to fall toward the north and east. Furthermore, levels are shown to fall from a high of approximately 37 m AOD in the north of the Proposed Development area toward the south, east and west. Together, these two high points are shown to connect to form a watershed running approximately north to south in the eastern half of the Proposed Development area, with land falling away more steeply toward both the east and west. The low point in the east of the site is recorded at approximately 34.2 m AOD.

Central Areas

2.2.4 Central areas of the site are typically shown to fall from west to east and north to south, with the highest level at the site (approximately 43 m AOD) located approximately 25 m south of the proposed northern development area.

2.2.5 Dividing the Central Areas into their eastern and western sections, in the east the survey shows how the land falls from a high of approximately 43 m AOD in the northwest to a low of approximately 31.8 m AOD in the southeast. In the west the survey shows how the land falls from a high of between approximately 39.1 and 40.1 m AOD to the levels shown at the northern end of the Proposed Development area for the Southern Parcel (i.e., between approximately 34.3 and 35 m AOD).

Summary and Surrounding Area

2.2.6 The site topographical survey is presented in Appendix B at the rear of the report.

2.2.7 A site visit was undertaken in February 2024 by representatives from both Ramboll and Wates. The topography was observed to be in line with that shown by the topographical survey. A series of photographs taken while onsite are presented in Appendix C at the rear of the report.

2.2.8 Light Detection and Ranging (LiDAR) data[2], acquired from the Environment Agency (EA), is shown to broadly agree with the findings of both the topographical survey and the site visit. Outside the site boundary, the topography is as follows:

[2] Department for Environment Food & Rural Affairs, Data Services Platform, LiDAR Composite Digital Terrain Model (DTM) – 1m [online]. Available at: https://environment.data.gov.uk/dataset/13787b9a-26a4-4775-8523-806d13af58fc. Accessed September 2024.

- North: Land is shown to rise more steeply with levels of approximately 50 m AOD shown to be present approximately 160 m from the site;
- East: Land is shown to rise to a high of approximately 43 m AOD before falling away again toward the A23;
- South: Land is shown to typically be lower than the site and to fall away toward local watercourses; and
- West: Land is shown to fall away toward local watercourses.

2.2.9 LiDAR Topography is presented in Figure 2.2 at the rear of the report.

2.3 Hydrological Setting

2.3.1 A review of the EA Statutory Main River Map[3] indicates there are no EA Main Rivers located within the boundary of the site. Ordnance Survey (OS) mapping[4] does suggest the presence of an ordinary watercourse in the northwest corner of the site, located adjacent to the western site boundary, which it indicates is directed into a culvert beneath Foxhole Lane and subsequently into another watercourse flowing away from the site toward the west. This latter watercourse is shown in the mapping to flow into the Rout Gill approximately 260 m west of the site. The Rout Gill (another ordinary watercourse) is shown to be flowing approximately north to south and joins the Holmbush Gill/River Adur (EA Main River) approximately 1.8 km to the south of the site. The Holmbush Gill/River Adur is the closest EA Main River to the site.

2.3.2 Furthermore, there is an extensive network of ponds, streams and larger watercourses draining the surrounding area. These are typically shown to be draining toward the Rout Gill either to the west or to the south of the site. In addition, the OS mapping indicates a watercourse is present approximately 70 m south of the site on the south side of Cowfold Road.

2.3.3 The Hydrological Setting is presented in Figure 2.3 at the rear of the report.

<u>February 2024 Site Visit – Observations</u>

2.3.4 During the site visit a culvert was observed taking flow from the northwest of the site beneath Foxhole Lane and into the subsequent watercourse flowing toward the west (as identified from OS mapping). A discernible watercourse in the northwest of the site, located adjacent to the western site boundary, was not identified. However, pooling was identified in the area prior to delivery into the culvert.

2.3.5 In the northeast of the site, saturated ground and standing water was observed in low lying areas. A watercourse (not identified in OS mapping) was also observed immediately to the northeast of the site flowing from north to south, with another branch flowing from west to east running parallel to the northern boundary of the site.

[3] Department for Environment Food & Rural Affairs, Data Services Platform, Statutory Main River Map [online]. Available at: https://environment.data.gov.uk/dataset/25dde009-ba7d-40de-8380-c5c3bb32ccdc. Accessed September 2024.

[4] Ordnance Survey, Data Hub, OS OpenMap – Local [online]. Available at: https://osdatahub.os.uk/downloads/open/OpenMapLocal. Accessed September 2024.

2.3.6 In the southern development area, two ditches were observed to be oriented in an east to west alignment, one adjacent to the southern boundary and Cowfold Road, and another approximately halfway up the Proposed Development area. The latter ditch was observed to be flowing from west to east. The former ditch was observed to be collecting flows from the site which were ultimately directed toward a manhole in the central area of the ditch. Further ditches were observed along the western and eastern boundaries of the proposed southern development area, with the eastern ditch partially culverted. Both were draining north to south.

2.3.7 A confluence of ditches was observed outside the southwest corner of the site on the west side of the entrance to Foxhole Lane. The ditch in the field to the west of the site was shown to be flowing from west to east. Observations made during a subsequent site visit in March 2025 revealed a culvert and headwall in this location on the west side of the entrance to Foxhole Lane that appeared to be directing flows into the main sewer network in Cowfold Road.

2.3.8 A number of manholes and surface water drains were observed along Cowfold Road as well as an open watercourse approximately 70 m south of the site (previously identified in OS mapping), flowing from north to south.

2.4 Geological and Hydrogeological Setting

2.4.1 Geology and ground conditions at the site were investigated by Geo-Environmental[5] in November 2023. A generalised summary of the ground conditions encountered at the site is presented in Table 2.1.

Table 2.1: Summary of Ground Conditions

Top (m BGL)	Base (m BGL)	Generalised Geology	Locations
0.00	0.30-0.41	**TOPSOIL**: Brown slightly silty clay with rootlets. Gravelly silty clay encountered within WS18 (southern development) only.	ALL
0.30-0.41	1.40-4.45	**UPPER TUNBRIDGE WELLS SAND FORMATION**: Soft to very stiff sandy CLAY and slightly gravelly sandy CLAY. Gravels are of fine to coarse, sub-angular of flint, sandstone and mudstone.	ALL
0.95-3.05	1.40-3.10	**UPPER TUNBRIDGE WELLS SAND FORMATION**: Orange brown gravelly SAND, very clayey SAND and SAND.	WS12 (central area), WS18

2.4.2 Groundwater monitoring investigations[6] undertaken between November 2023 and April 2024 across the site indicate a site-wide groundwater level typically shallower than 2 m Below Ground Level (BGL). In many areas of the site the level is shallower than 1 m BGL.

[5] Geo-Environmental, Land at Foxhole Farm, Bolney, West Sussex, RH17 5NB – Preliminary Report, GE22035/AP01/231115.
[6] Geo-Environmental, Land at Foxhole Farm, Bolney, West Sussex, RH17 5NB – Ground Gas Assessment & Winter Groundwater Monitoring, GE22035 – LRv1AP240501.

2.4.3 According to the Cranfield University LandIS soils map[7], the soil at the site is described as 'slightly acid loamy and clayey soils with impeded drainage'.

2.4.4 According to British Geological Survey (BGS) GeoIndex Onshore data[8], the underlying rock unit beneath the site is defined as a moderately productive aquifer and is summarised as sandstones of the Ashdown Formation yielding up to 60 L/s and Tunbridge Wells Sand yielding up to 10 L/s; separated by Wadhurst Clay.

2.4.5 According to the BGS Geology Viewer[9], the underlying geology beneath the site is divided between the Weald Clay Formation, described as mudstone, in the northern development area, and the Upper Tunbridge Wells Sand, described as sandstone and siltstone, across the rest of the site. No superficial geology layers are recorded. It is noted that the November 2023 site investigations[5] found the Upper Tunbridge Wells Formation across the entire site, including in the north where Weald Clay was anticipated.

2.5 Existing Drainage

2.5.1 At present, the site is comprised of undeveloped, greenfield land with no impermeable surfaces and therefore no areas which are positively drained (i.e., by conventional underground pipes, gullies, manholes etc.).

Surface Water

2.5.2 According to the LandIS soils map[7], the site is stated to drain to the 'stream network'. This statement is backed up by observations made during the site visit undertaken in February 2024, where saturated ground and pooling of water were observed in many places across the site, as well as the drainage of surface water to existing watercourses both on and offsite.

2.5.3 During the February 2024 site visit, surface water drainage was identified in Cowfold Road to the south of the site. Formal drainage features were observed adjacent to the road as well as another watercourse approximately 70 m to the south of the site which was observed to be taking surface water drainage from Cowfold Road and the site and directing it south.

2.5.4 In the northwest of the site, surface water was observed to drain toward an existing culvert which directed flows beneath Foxhole Lane and into an existing watercourse to the west of the site.

2.5.5 Saturated ground and pooling were observed across the east of the site where the terrain was observed to slope down toward the east.

[7] LandIS, Soilscapes Viewer [online]. Available at: https://www.landis.org.uk/soilscapes/. Accessed September 2024.
[8] BGS British Geological Survey, GeoIndex Onshore [online]. Available at: https://mapapps2.bgs.ac.uk/geoindex/home.html. Accessed September 2024.
[9] BGS Geology Viewer [online]. Available at: https://geologyviewer.bgs.ac.uk. Accessed September 2024.

2.5.6 In the south of the site, water was observed to be directed toward an existing ditch oriented approximately east to west adjacent to the southern boundary of the site, via a network of existing ditches to the north, east and west. Water was observed in a similarly oriented east to west ditch located approximately halfway up the southern development area as well as in separate ditches running from north to south along both the eastern and western site boundaries in this part of the site.

2.5.7 Observations made onsite suggested that water collecting in the ditch at the southern boundary was directed into the existing surface water network in Cowfold Road.

Foul Water

2.5.8 Southern Water sewer records are presented in Appendix D at the rear of the report. They show the presence of existing wastewater sewer networks in both The Street to the east of the site and in Cowfold Road to the south. To the south of the site where the proposed foul discharge from the site is intended, the sewer is sized at a 225 mm diameter. Observations made while onsite, combined with a detailed review of the Southern Water sewer records, indicate that these wastewater sewers are in reality combined sewers. While they are identified as wastewater sewers on the sewer records presented in Appendix D, no separate surface water sewers are marked on the sewer records. Furthermore, a separate overflow 'wastewater' sewer is observed on the sewer records adjacent to The Street measuring approximately 1,200 mm in diameter. A sewer this size is considered to far exceed the typical diameter required for foul sewers. Furthermore, road gullies were observed on both The Street to the east of the site and along Cowfold Road to the south with little other route for discharge other than to the foul/combined sewer.

2.5.9 The wastewater (combined) sewer network running south and southwest from The Street is shown on the sewer records to be disconnected from the sewer network running approximately east to west adjacent to the southern boundary of the site and Cowfold Road.

2.5.10 While onsite in February 2024, a foul pumping station was observed approximately 460 m south of the site and was considered to be the destination of the wastewater (combined) sewer network observed in the Southern Water sewer records.

2.6 Surface Water and Sewer Flood Risk

2.6.1 The topography of the site and the surrounding area is detailed in Section 2.2 and states how levels at the site are shown to fall away to the east, south and west from higher areas in the north and centre of the site. It also describes how higher levels are present to the north and east of the site.

2.6.2 The EA long term flood risk mapping[10] presents two scenarios for the yearly chance of flooding from surface water. The first is a present-day scenario and the second is a future scenario that presents a yearly chance of flooding between 2040 and 2060, the same as the present-day scenario but with an additional allowance for the impacts of climate change. According to the mapping under both scenarios, approximately 90% of the site is located in areas considered to be at a less than 0.1% risk from surface water flooding in any given year. Areas at High risk are present in the northeast and northwest of the site, as well as adjacent to the southern boundary, and are surrounded by areas at Medium and Low risk. Further areas of High, Medium and Low risk are present in the central part of the southern development area. The different surface water risk categories are defined below:

- High Chance – Greater than a 1 in 30 (3.3%) annual probability;
- Medium Chance – Between a 1 in 30 and 1 in 100 (3.3% to 1%) annual probability; and
- Low Chance – Between a 1 in 100 and a 1 in 1,000 (1% to 0.1%) annual probability.

2.6.3 Surface water flood risk under the future scenario is presented in Figure 2.4.



Figure 2.4: EA Surface Water Flood Risk Future Scenario

[10] GOV.UK, Check the long term flood risk for an area in England [online]. Available at: https://www.gov.uk/check-long-term-flood-risk. Accessed April 2025.

2.6.4 It is noted that the EA mapping[10] indicates areas at risk of flooding from surface water in addition to flood risk from rivers or the sea. It does not however account for building removal, ground raising, or site levelling. In addition, it does not consider specific drainage assets such as sewers, drains or ditches when calculating extents.

2.6.5 The EA state that the mapping may help to inform risk assessments[11]. However, it is further stated that further assessment is likely to be needed to assess planned development.

2.6.6 Whilst the surface water mapping indicates where there could be heightened surface water flood risks in some surrounding areas, this does not account for public surface water drainage measures which would be expected to significantly reduce surface water flood risks from that assumed and presented by the mapping.

2.6.7 The EA state that the Risk of Flooding from Surface Water map is an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead[12]. It is further stated that it includes information about flooding extents and depths and that it is produced using national scale modelling and enhanced with compatible, locally produced modelling from lead local flood authorities.

2.6.8 The EA state that the mapping[10] may help to inform risk assessments[13]. However, it is additionally stated that further assessment is likely to be needed to assess planned development.

2.6.9 EA Surface Water Flood Risk is additionally presented in Figures 2.5 and 2.6 at the rear of the report.

2.6.10 No potential overland flow paths are shown in the mapping[10] to be leading onto the site. The mapping does however indicate the presence of potential surface water flow paths to the west and south of the site, that could potentially be exacerbated by the Proposed Development. Existing potential flow paths are apparent along the tributary watercourse of the Rout Gill taking flows from the northwest of the site, along parts of The Street to the east of the site, along parts of Cowfold Road to the south of the site, and along the existing watercourse located approximately 70 m south of the site that is assumed to be taking surface water drainage from Cowfold Road.

[11] GOV.UK, Check your long term flood risk, Are you looking for information to support a planning application? [online]. Available at: https://check-long-term-flood-risk.service.gov.uk/information-for-planning. Accessed Match 2025.
[12] Department for Environment Food & Rural Affairs, Data Services Platform [online]. Available at: https://environment.data.gov.uk/dataset/b5aaa28d-6eb9-460e-8d6f-43caa71fbe0e. Accessed April 2025.
[13] GOV.UK, Check your long term flood risk, Are you looking for information to support a planning application? [online]. Available at: https://check-long-term-flood-risk.service.gov.uk/information-for-planning. Accessed March 2025.

2.6.11 It is noted that the proposed surface water drainage strategy, as visualised in the Drainage Layout sketches presented in Appendix A at the rear of the report, has been designed and sized to accommodate the expected runoff from the site with a suitable allowance included for the potential impacts of climate change and urban creep. Surface water from the site will be released at separate locations along the western and southern site boundaries and will be released at low return period runoff rates.

2.6.12 In the east of the site where the land is shown to slope down toward The Street, the proposed surface water drainage strategy captures and diverts surface water away from The Street and provides significant betterment to the present situation. This is detailed in Section 5.

2.6.13 Sewer assets previously identified in Section 2.5 have the potential to surcharge and overflow should the site drainage strategy not be suitably designed to accommodate the additional flows expected from the Proposed Development. In the event of sewer overflow the excess water would be expected to flow downslope and would likely remain broadly in line with the potential overland flow paths described above. As such, sewer flooding leading onto the site is not expected to be an issue.

3. SURFACE WATER DRAINAGE STRATEGY

3.1 Overview

3.1.1 The following section sets out a high-level strategy for the management of surface water emanating from the new development. The strategy has been developed through use of the sustainable drainage guidance for the South East of England[14], along with the National Statutory guidance outlined in the Non-Statutory Technical Standards for Sustainable Drainage Systems[15].

3.1.2 The Drainage Layout sketches as presented in Appendix A at the rear of the report should be read in conjunction with Section 3.

3.2 Disposal of Surface Water

3.2.1 Part H of the Building Regulations[16] establishes a hierarchy for surface water disposal, which encourages a SuDS approach. The hierarchy is that surface runoff must be discharged to one or more of the following in the following order of priority:

1. To ground via an adequate soakaway or some other adequate infiltration system; or where that is not reasonably practicable,
2. To a watercourse; or where that is not reasonably practicable,
3. To a sewer.

3.2.2 A review of the existing drainage, hydrology, and underlying ground conditions at the site (as described in Section 2), indicates that permeability is likely to be low across the site, and as such infiltration is unlikely to be a feasible option for the disposal of surface water.

3.2.3 On the assumption that infiltration is not a viable option, the most convenient points of connection for surface water would be as follows:

- Southern Parcel – Connection into the existing ditch oriented approximately east to west and located adjacent to Cowfold Road and the southern boundary of the site, with subsequent discharge into the existing sewer network in Cowfold Road;
- Northern Parcel – Connection into the existing culvert (and subsequent watercourse) beneath Foxhole Lane to the west of the Proposed Development area.

[14] AECOM, Water. People. Places. A guide for master planning sustainable drainage into developments. Prepared by the Lead Local Flood Authorities of the South East of England [online]. Available at: https://www.westsussex.gov.uk/media/2270/suds_design_guidance.pdf. Accessed September 2024.

[15] Department for Environment, Food and Rural Affairs [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf. Accessed September 2024.

[16] GOV.UK, Statutory guidance, Drainage and waste disposal: Approved Document H, 2010 [online]. Available at: https://www.gov.uk/government/publications/drainage-and-waste-disposal-approved-document-h#:~:text=The%20current%20edition%20covers%20details%20of. Accessed September 2024.

3.2.4 As per the pre-application consultations noted in Section 1.4.3, the LLFA have agreed in principle to the discharge points noted above.

3.3 Runoff Rates and Storage

3.3.1 The site is entirely greenfield in its current state, and as such runoff from the site post-development will need to be controlled to the equivalent low return period greenfield rate as agreed with WSCC acting as the LLFA. Surface water storage, attenuation and flow control will need to be of sufficient design and capacity to ensure the 1 in 100 year plus 45% climate change event can be attenuated within the site, restricting onward flow to the mean annual flood return period, considered a 1 in 2.33 year event.

3.3.2 Greenfield runoff rates for the site and required storage volumes have been determined and are recorded below:

- Southern Parcel (Southern and Central development areas) – Outfall into existing watercourse restricted to FEH greenfield rate at flow restriction of 46.3 L/s. Total storage volume within all areas of swales, attenuation basins, and permeable paving is 4,456 m^3.
- Northern Parcel (Northern development area) – Outfall into existing watercourse restricted to FEH greenfield rate at flow restriction of 44.2 L/s. Total storage volume within all areas of swales, attenuation basins, and permeable paving is 4,184 m^3.

3.3.3 The arrangement of all proposed storage is indicated on the Drainage Layout sketches as presented in Appendix A at the rear of the report. Relevant calculation sheets are additionally presented in Appendix A at the rear of the report.

3.4 SuDS Options

3.4.1 Table 3.1 provides an overview of potentially suitable SuDS options available for attenuating surface water runoff.

3.4.2 In the Drainage Layout sketches as presented in Appendix A at the rear of the report, the larger attenuation basin areas proposed at the site, at detailed design, could alternatively form balancing ponds, detention basins or wetlands, depending on which is most appropriate to each individual location. In addition, permeable paving is proposed to form part of the surface water storage strategy. The extent to which this is presently proposed to cover the site could increase where required at detailed design. Where permeable paving is indicated on the Drainage Layout sketches is where it is required for surface water storage. For the purposes of surface water treatment this could be extended to other internal roads and driveways.

Table 3.1: Sustainable Drainage Options

SUDS Group	Technique	Image	Description	Advantages	Disadvantages	Suitable for Use at Site?
Retention	Balancing pond		Provides both storm water attenuation and treatment. Runoff from each rain event is detained and treated in the pool. The retention time promotes pollutant removal through sedimentation.	Good removal of pollutants, can be used where groundwater is vulnerable, good community acceptability, high ecological, and amenity benefits.	No reduction in runoff volume, land take may limit use in high density sites.	✓ Potential for inclusion in lower-lying areas before discharge from the site.
	Sub-surface storage		Oversized pipes, tank systems and modular geocellular systems that can be used to create a below ground storage structure.	Modular and flexible, dual usage (infiltration/storage, high void ratios), can be installed beneath trafficked and soft landscaped areas.	No water quality treatment.	✗ Better options available considering nature and character of the development.
Wetland	Shallow wetland Extended detention wetland Pond wetland Pocket wetland Submerged gravel wetland Wetland channel		Wetlands provide stormwater attenuation and treatment. They comprise shallow ponds and marshy areas, covered in aquatic vegetation. Wetlands detain flows for an extended period to allow sediments to settle and to remove contaminants. They can provide significant ecological benefits.	Good pollutant removal and if lined can be used where groundwater is vulnerable. Good community acceptability, ecological and amenity benefits.	Land take is high, requires baseflow, little reduction in runoff volume, not suitable for steep sites.	✓ Potential for inclusion in lower-lying areas before discharge from the site. Impermeable ground would be well suited to wetlands.

SUDS Group	Technique	Image	Description	Advantages	Disadvantages	Suitable for Use at Site?
Infiltration	Infiltration trench Infiltration basin Soakaway		Surface water runoff can be discharged directly to ground for infiltration by soakaways, basins, or trenches. A prerequisite is that both groundwater and ground conditions are appropriate to receive the quality and quantity of water generated.	Reduces the volume of runoff, effective at pollutant removal, contributes to groundwater recharge, simple and cost-effective, easy performance observation.	Requires appropriate pre-treatment, basins require a large flat area, offset from foundations.	✗ Not considered viable due to nature of underlying ground.
	Porous paving Permeable paving		Block or porous paving allows runoff to infiltrate through to sub-base layer. Water can then be infiltrated into ground or conveyed into storage or drainage systems.	Reduces the volume of runoff and if designed for infiltration contributes towards groundwater recharge. Easy to install and retrofit. Simple to manage. If lined can be used where groundwater is sensitive.	Not suitable for heavily trafficked areas or adoptable roads. Requires regular sweeping to prevent clogging with dirt.	✓ Could be incorporated in all parking areas and access roads where appropriate.
Filtration	Surface sand filter Sub-surface sand filter Perimeter sand filter		Structures designed to treat surface water runoff through filtration using a sand bed filter medium. The filters can be designed with or without infiltration. Temporary storage of runoff is achieved through ponding above the filter layer. They are used where particularly high pollutant removal is required.	Flexibility of design, efficient in removing pollutants, suitable for retrofits and in tightly constrained urban locations.	Not for high sediment content, detention times can support algae growth, minimum hydraulic head of 1.2 m required, possible odour problems, high capital and maintenance cost.	✗ Unlikely to be viable due to impermeable nature of the site.
	Bioretention/filter swale		Vegetated strips of land designed to accept runoff as overland sheet flow between a hard-surfaced area and a receiving system.	Landscaping features, effective in removing pollutants, flexible layout to fit into landscape, suited for highly impervious areas, good retrofit capability, effective pre-treatment option.	Requires landscaping and management, large land requirement, not suitable for steep sites; no significant attenuation or reduction of flows.	✓ Could be used alongside highway areas for treatment of highway runoff.

SUDS Group	Technique	Image	Description	Advantages	Disadvantages	Suitable for Use at Site?
	Filter trench/drain		Shallow excavations filled with rubble or stone that create temporary subsurface storage for filtration of storm water runoff. Receive lateral inflow from an adjacent impermeable surface.	Hydraulic benefits achieved with filter trenches, trenches can be incorporated into site landscaping and fit well beside roads and car parks.	High clogging potential without effective pre-treatment, limited to small catchments, high cost of replacing filter material.	✗ Better options available considering nature and character of the development.
Detention	Detention basin		Surface storage basins that provide flow control through attenuation. Normally dry and in certain situations the land may also function as a recreational facility.	Cater for a wide range of rainfall events, can be used where groundwater is vulnerable, potential for dual land use, easy to maintain.	Land take, little reduction in runoff volume, detention depths constrained by levels.	✓ Potential for inclusion in lower-lying areas before discharge from the site.
	Enhanced dry swale Enhanced wet swale		Swales are linear vegetated drainage features in which surface water can be stored or conveyed. They can be designed to allow infiltration, where appropriate.	Incorporate into landscaping, good removal of pollutants, reduces runoff rates and volumes, low cost.	Not suitable for steep areas, significant land take, not suitable in areas with roadside parking.	✓ Should be used to form the spine of the blue-green network.
Conveyance	Conveyance swales Rills		Formal linear drainage features in which surface water can be stored or conveyed. They can be incorporated with water features such as ponds or waterfalls where appropriate.	Negate the need for underground pipework. Can provide some attenuation. Possible reduction in runoff volume via plant uptake and infiltration.	Potential trip/wheel hazard, disabled access issues.	✗ Better options available considering nature and character of the development.
Source control	Green/blue roof		Multi-layered system that covers the roof of a building with vegetation cover/landscaping over a drainage layer. Designed to intercept and retain precipitation, reducing the volume of runoff and attenuating peak flows.	Mimics greenfield state of building footprint for high density developments, good removal of pollutants, ecological benefits, insulates buildings, sound absorption.	Additional weight, not appropriate for steep roofs, maintenance of roof vegetation.	✗ Not suitable for private dwellings.

3.5 Preferred SuDS Options

3.5.1 Table 3.1 outlines briefly the suitability of each of the SuDS options in consideration of the site conditions. The following section provides more detail on the preferred SuDS options, and how these will combine to form the overall strategy for managing surface water.

3.5.2 SuDS are a suitable option for the site, due to the relatively low density of housing proposed, the large amount of amenity and open-space (which is highly suitable for 'doubling up' as SuDS storage), and the good drainage falls across both development areas.

3.5.3 The most value can be added by SuDS through adoption of a hierarchical model, whereby measures are incorporated at each level of the development, forming a tiered approach to managing surface water. Table 3.2 below summarises how this approach could work at the site.

Table 3.2: Proposed SuDS Hierarchy

Hierarchy	Measures	Flow Control Detail	Design Considerations
Street Level	Permeable paving for driveways. Permeable tarmac for internal roads. Rain Gardens, each serving 2-6 properties as a destination for roof water.	Check dams, small diameter pipes, low gradients, flow baffles. Hydrobrakes should be avoided for street level flow control.	Parking areas and driveways are particularly suitable for permeable paving. Rain gardens can be easily incorporated into grass verges and provide enhancement to green open space.
Neighbourhood Level	Swales to form the basis of connectivity for blue-green corridors. Small storage ponds.	Flow to be controlled through a system of regular check dams, orifices, natural weirs/informal overflows, and engineered levels. Formal/engineered flow control should be avoided at this stage.	Swales would be especially suitable for the controlled transmission of surface water through the site. Drop kerbs can be used to facilitate movement of surface water off highway areas towards SuDS/green infrastructure. Blue-green corridor routes should be used in parallel as overland flow routes for extreme surface water events.
Parcel Level	Wetlands, larger storage ponds.	Controlled via formal flow control, either hydrobrake or overflow weir.	Large amenity areas would be suitable for storage ponds and could be used to provide biodiversity net gain. Overland flow routes for exceedance events should be engineered to naturally flow to these areas.

3.5.4 The preferred configuration of the SuDS/blue-green infrastructure design has been agreed as part of the detailed site master-planning to be submitted as part of the planning application. The drainage strategy has been informed by the site masterplan and is illustrated in the Drainage Layout sketches as presented in Appendix A at the rear of the report. The strategy proposes the use of swales and larger storage or attenuation areas across the site, connected via surface water sewers where appropriate to do so. The intention is for ultimate disposal of surface water to the locations as stated in Section 3.2.

3.6 Biodiversity Net Gain

3.6.1 Biodiversity net gain (BNG) is an approach to development. It makes sure that habitats for wildlife are left in a measurably better state than they were before the development[17]. In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990[18], unless exempt.

3.6.2 The benefit of including SuDS measures across an effective hierarchy is that much of the BNG requirements can be fulfilled through the implementation of certain SuDS measures. The use of wetlands, rain gardens, swales and blue-green corridors in particular, are full in value in BNG, and their inclusion can reduce the onus elsewhere in the site.

3.7 Treatment of Runoff

3.7.1 The proposed treatment of runoff and removal of contaminants is summarised in Table 3.3.

Table 3.3: Treatment of Runoff

Development Component	Existing Contaminant Profile	Primary Treatment	Secondary Treatment
Low Traffic Roads/Individual Property Driveways	Runoff likely to have light hydrocarbon contamination. Using the CIRIA Report C753[19] indices, the pollutant loading profile will be as follows: • TSS = 0.5 • Metals = 0.4 • Hydrocarbons = 0.4	**Permeable Paving** Will treat surface water through filtration of silt and the attached pollutants; biodegradation of organic pollutants like petrol and diesel; adsorption of pollutants; and settlement and retention of solids. **Storage Ponds/Swales**	**Storage Ponds/Wetlands** Will provide treatment of surface water runoff through settling and biological uptake. Dense stands of vegetation facilitate the adhesion of contaminants to vegetation, aerobic decomposition of pollutants and can help stabilise settled sediment and prevent resuspension.

[17] GOV.UK, Guidance, Understanding biodiversity net gain, 2024 [online]. Available at: https://www.gov.uk/guidance/understanding-biodiversity-net-gain. Accessed September 2024.
[18] Legislation.gov.uk, Environment Act 2021, Schedule 14, Biodiversity Gain as Condition of Planning Permission [online]. Available at: https://www.legislation.gov.uk/ukpga/2021/30/schedule/14/enacted. Accessed September 2024.
[19] CIRIA, The SuDS Manual (C753F), 2015 [online]. Available at: https://www.ciria.org/CIRIA/Item_Detail.aspx?iProductCode=C753F&Category=FREEPUBS&WebsiteKey=3f18c87a-d62b-4eca-8ef4-9b09309c1c91&OrderLineId=315a5390-84ff-4072-9e87-0a360394b238. Accessed September 2024.

Residential Roof Areas	Using the CIRIA Report C753[19] indices, the pollutant loading profile will be as follows: • TSS = 0.2 • Metals = 0.2 • Hydrocarbons = 0.05	Will treat surface water runoff through pollutant retention. Will help to reduce the contaminant load discharged to surface waters. Coarse to medium sediments and associated pollutants can be removed by filtration through surface vegetation and groundcover. Fine particulates and associated contaminants can be removed by infiltration.

3.8 Drainage System Performance

3.8.1 The storage values calculated at this stage are indicative and are intended to provide enough detail to inform the next stage of development. When the detailed layout of each site is being undertaken, the performance of the SuDS system should be modelled, with adequate storage within the system being provided to ensure flooding does not occur:

- On any part of the site for a 1 in 30-year rainfall event.
- During a 1 in 100-year rainfall event in any part of:
    - a building (including a basement); or
    - a utility plant susceptible to water (e.g., a pumping station or electricity sub-station).
- On neighbouring sites during a 1 in 100-year rainfall event.

3.8.2 The performance of the system should also consider the occurrence of an extreme storm event over and above that for which the system was designed (i.e., the 1 in 100-year plus climate change storm event).

3.9 Adoption and Maintenance

3.9.1 At this stage, no definitive plan or agreement has been entered regarding the future adoption of surface water drainage. All SuDS features situated in private land (i.e., permeable paving, small rain gardens etc.) would be the responsibility of the homeowner. Surface water drainage in the form of sewers and SuDS features, located in public areas, are proposed to be placed under the responsibility of a private management company. Sufficient access space for maintenance has been provided in the design and is indicated on the Drainage Layout sketches presented in Appendix A at the rear of the report.

3.9.2 All drainage should be constructed in accordance with the following technical guidance:

- Sewers for Adoption 8th Edition[20]; and
- CIRIA report C753 The SuDS Manual[19].

3.9.3 Irrespective of eventual ownership, in order to ensure the long-term performance of the site drainage all aspects of the system should be periodically inspected and maintained with the indicative schedule outlined below. The following provides a summary of the typical maintenance activities associated with the different drainage features:

- **Permeable Paving** - Brushing and vacuuming three times per year; removal of weeds, repair of any broken blocks/damaged areas; maintenance of vegetation; three monthly inspection for poor operation and/or weed growth; annual inspection of inspection chambers; annual inspection for silt accumulation.
- **Swales/Rain Gardens** - Monthly removal of litter, grass cutting and vegetation management; annual re-seeding and pruning; repairs due to erosion, reinstatement of design levels, scarification and spiking of topsoil, removal of sediment, and removal of oils or petrol residues as required; monthly inspection for blockages, ponding, compaction and silt accumulation; monthly inspection for blockages and physical damage; six monthly inspection for silt accumulation and functioning of mechanical devices (where necessary).
- **Flow Control Devices** – To be inspected every three - six months, after a large storm event, or after an observed deterioration in system performance.
- **Attenuation Basins** – Main requirements include mowing along maintenance access routes, amenity areas and across any formed embankments. The remaining areas can be managed as 'meadow'. Grass clippings should be disposed of offsite to remove nutrients and pollutants. Sediment will occasionally require removal when reaching 25 mm depth.
- **Wetlands** – Monthly removal of litter and debris, cutting of grass in public areas; monthly inspection of inlets, outlets, banksides, structures, pipework etc. for evidence of blockage and/or physical damage; monthly inspection of waterbody for signs of poor water quality (May – October); six monthly cutting of meadow grass; six monthly inspection of silt accumulation rates; six monthly inspection of any mechanical devices; annual hand cut of submerged and emergent aquatic plants; annual removal of bank vegetation and tidying of dead growth; remedial repair, replanting, aeration, and realignment as required.

3.9.4 The above represents a typical maintenance schedule; a site-specific schedule should be fully developed and agreed upon detailed design of the site drainage.

3.10 Management of Runoff from Construction

3.10.1 During the stages of site preparation, earthworks, and construction there is the potential for contaminants and/or suspended sediments in surface water runoff entering the surrounding watercourses and existing drainage.

[20] Water UK, Sewers for Adoption, A Design and Construction Guide for Developers, 2018 [online]. Available at: https://www.water.org.uk/wp-content/uploads/2018/10/SfA-8-Master-2.pdf. Accessed September 2024.

3.10.2 A strategy for managing surface water runoff during the construction phase, including specific measures tailored to the level of risk should be developed and agreed with West Sussex County Council. The extent of sediment/contaminant runoff will vary across the construction cycle, and a strategy should be developed to encompass potential pollution from all stages of construction.

3.10.3 The strategy should include details of how during the earthworks and site preparation stages the contracting engineer will employ the approaches outlined in CIRIA C532 Control of Water Pollution from Construction Sites[21]. This will require a proper understanding of the sensitivity of the downstream watercourses in terms of existing water quality and the potential impact of change. It is expected potential mitigation measures will include:

- Avoiding mass overburden stripping at the site; exposing only that part of the site essential for operation;
- Placing silt fences of geo-fabric or similar material around open or exposed ground and stockpiles; and
- Re-seeding any exposed ground and stockpiles to stabilise the ground and reduce erosion and gullying of such features.

3.10.4 The strategy should be developed and agreed during detailed design and should be implemented prior to the commencement of any enabling and/or construction works onsite.

3.10.5 A strategy for managing surface water runoff during the construction phase, including specific measures tailored to the level of risk at the site should be developed and agreed with West Sussex County Council during detailed design.

3.10.6 It is noted that all watercourses/ditches within the red line boundary must not be infilled as part of the development proposals. The landowner (riparian owner) must maintain all watercourses/ditches now and as the development progresses, to ensure there are no blockages and that they are free-flowing.

[21] CIRIA, Control of water pollution from construction sites. Guidance for consultants and contractors (C532D), 2001 [online]. Available at: https://www.ciria.org/ItemDetail?iProductCode=C532D&Category=DOWNLOAD.

4. SURFACE WATER FLOODING MITIGATION

4.1.1 As part of our development of mitigation options, and in consideration of future site development, Ramboll has considered climate change in the following ways:

- Consideration of climate change allowances when considering peak fluvial flood levels – this is also a policy requirement of the EA for all NPPF-compliant FRAs;
- Consideration of greater frequency and higher magnitude of surface water flooding events and overland flow, and assessing how a site and building layout can be designed to manage this risk; and
- Consideration of the likely increased risk of seasonal groundwater flooding as a result of wetter winters.

4.1.2 Each of the above will be considered when assessing the mitigation measures, which are summarised as follows:

- Finished Floor Levels (FFLs) – All FFLs and threshold levels should be at least 150 mm above the surrounding ground to manage future risk from surface water flooding and overland flow.
- Site Access –As detailed in Appendix E of the Flood Risk Assessment[22], the existing ditch, oriented east to west adjacent to the southern boundary of the site, that the proposed access road is proposed to cross, is proposed to be cleared and lowered as part of the proposed drainage improvement works. The existing ditch will be culverted at the location of the proposed access and the proposed road level will be designed to provide at least 0.75 m of cover above the top of the culvert. Any surface water pooling upon the proposed access road is therefore considered to be negligible in terms of depth of water. The Hazard Rating at the proposed access location has been determined to be below the lowest threshold of 0.75 and as such is not even considered a "danger for some". The proposed access is therefore considered suitable for emergency access/egress.
- Planning for Exceedance Events - This risk relates to the occurrence of intensive rainfall events (expected to become more frequent with the advent of climate change) which could cause overland flow and surface water flooding or cause the capacity of the site drainage system to be exceeded and result in flooding. To manage this risk, the development should consider exceedance overland flow routes during extreme flood events, adopting the principles set out in CIRIA C634, Designing for Exceedance in Urban Drainage[23]. The design of exceedance routes should correlate with the proposed swales/surface water attenuation areas, which will make highly suitable exceedance flow paths.

  As noted in more detail in Section 5, excess runoff from the site will be released at the mean annual flood return period which represents a considerable reduction in the peak flows presently emanating from the site during high return period flooding events. As such the proposed surface water drainage strategy will provide betterment offsite.

[22] Ramboll, Land at Foxhole Farm Bolney, Flood Risk Assessment, April 2025 (RUK2021N00014-RAM-RP-00132).
[23] CIRIA, Management of accelerated low water corrosion in steel maritime structures (C634), 2005 [online]. Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C634&Category=BOOK.

- External Gradients - Along with the planning of exceedance routes, external gradients where possible, are to be designed to fall away from buildings, so that any overland flow resulting from extreme events would be channelled away from building entrances. Where this is not possible, linear interceptor drains should be located at all building entrances towards which there is a positive gradient for surface water to flow.
- Management of Flood Extents - Areas at risk from surface water were investigated during the February 2024 site visit and have been accounted for in the proposed surface water drainage strategy. Proposed surface water attenuation areas, connected by a network of proposed swales to convey surface water runoff, have been strategically located across the site.

5. SURFACE WATER RUNOFF BETTERMENT

5.1.1 It is noted that as part of the proposed surface water drainage strategy for the Proposed Development, excess runoff from the site will be released at the mean annual flood return period, considered a 1 in 2.33 year event, which represents a considerable reduction in the peak flows presently emanating from the site during high return period flooding events.

5.1.2 Across the eastern part of the northern development area, the existing drainage that would otherwise flow toward The Street will instead be collected by the proposed swale located adjacent to the eastern boundary of the site. The surface water will ultimately be transported away from this location and discharged at a controlled rate toward the west.

5.1.3 This therefore represents a significant betterment to the present situation where the properties adjacent to The Street are subject to surface water flood risk from the surface water runoff flowing downslope off the site. This is illustrated in Figures 5.1 and 5.2 below.



Figure 5.1: Surface Water Betterment in Northern Development – Pre-Development Drainage



Figure 5.2: Surface Water Betterment in Northern Development – Post-Development Drainage

5.1.4 The total storage volume required for the proposed northern development area would be approximately 4,200 m^3. The area will be required to discharge at a greenfield runoff rate of 44.2 L/s. Surface water within the northern area of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.

5.1.5 Across the eastern part of the central development area where an access road is proposed to connect the northern and southern developments, the existing drainage that would otherwise flow toward The Street will instead be collected by the proposed swale located adjacent to the eastern boundary of the site. The surface water will ultimately be transported away from this location and discharged at a controlled rate toward the west and then south.

5.1.6 This therefore represents a significant betterment to the present situation where the properties adjacent to The Street are subject to surface water flood risk from the surface water runoff flowing downslope off the site. This is illustrated in Figures 5.3 and 5.4 below.



Figure 5.3: Surface Water Betterment in Central Development – Pre-Development Drainage



Figure 5.4: Surface Water Betterment in Central Development – Post-Development Drainage

5.1.7 The total storage volume required for the proposed southern development area (including central development area) would be approximately 4,500 m^3. The area will be required to discharge at a greenfield runoff rate of 46.3 L/s. Surface water within the northern area of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.

6. FOUL DRAINAGE

6.1.1 No foul drainage is currently present at the site. The site will therefore be served by new foul drainage infrastructure, developed from first principles.

6.1.2 An initial wastewater enquiry was issued to Southern Water in February 2024 with a proposal for two separate discharges for the two different parcels of the development. The Southern Parcel was proposed to connect into the existing network on Cowfold Road, and the Northern Parcel was proposed to connect into the existing network on The Street. Southern Water approved this proposal, but it was ultimately decided against following a meeting with Southern Water representatives who stated that due to the narrow corridor by which the proposed discharge to The Street was proposed to be routed, the proposed sewer would not be adoptable.

6.1.3 A new wastewater enquiry was issued in September 2024 with a proposal for a single discharge for the entire site, proposed to connect into the existing network on Cowfold Road. Southern Water have confirmed that there is adequate capacity in the local sewerage network to accommodate a foul flow of 1.8 L/s in this location. It is proposed that this flow rate acts as a design rate for when the development progresses to detailed design stage.

6.1.4 The letters of confirmation and related communications are presented in Appendix E at the rear of the report. In addition, Southern Water have provided a detailed response regarding concerns about the capacity in the local sewer network and combined storm overflows. This can additionally be found in Appendix E.

6.1.5 The intended foul strategy for the site proposes the collection of foul sewage by conventional gravity sewers. For the Southern Parcel, the proposal is to collect the foul sewage and direct it into the existing network in Cowfold Road to the south of the site. For the Northern Parcel, the proposal is to collect the foul sewage and direct it toward a proposed foul pumping station in the northwest corner of the site which will subsequently direct flows at a controlled rate via a rising main along the route of the proposed adoptable road. Upon reaching the Southern Parcel, the rising main will connect into a proposed gravity sewer within the main access road serving the Southern Parcel.

6.1.6 It is intended that the foul pumping station proposed in the northwest of the site, and the foul water sewers as indicated on the Drainage Layout sketches presented in Appendix A at the rear of the report, are adopted by Southern Water. It is intended that the Northern Parcel foul pumping station be a Type 3 adoptable pumping station.

6.1.7 Furthermore, it is noted that the proposed surface water drainage strategy will capture and divert surface water away from The Street which will significantly reduce the peak flow and volume of surface water reaching the existing foul/combined sewer network in The Street, and will hence reduce the risk of sewer flooding by increasing capacity locally.

7. SUMMARY

7.1.1 The site at Foxhole Farm, Bolney is to be brought forward for development. The Proposed Development will consist of 200 residential dwellings split across two parcels, with a single new access from Cowfold Road leading into the south of the site.

7.1.2 The site is currently undeveloped, greenfield land, and as such a drainage strategy is required to demonstrate how newly introduced impermeable areas will collect, treat, and discharge runoff in a manner which does not cause a detrimental impact downstream, in terms of both water quality and quantity (i.e., not increase flood risk).

7.1.3 The development is split between two parcels, and surface water will be managed separately across these two areas, ultimately draining independently.

7.1.4 The ultimate disposal of surface water is intended to remain separate for each of the two parcels of development. For the Southern Parcel, the intent is to discharge to an existing ditch running adjacent to the southern boundary of the site. For the Northern Parcel, the intent is to discharge via an existing culvert that runs beneath Foxhole Lane to the west of the site, and subsequently into an existing unnamed watercourse located to the west of the site flowing approximately east to west. The mean annual flood return period, considered a 1 in 2.33 year event, to which discharge from the Proposed Development intends to be limited, is calculated at 46.3 L/s for the Southern Parcel, and 44.2 L/s for the Northern Parcel. This represents a considerable reduction in the peak flows presently emanating from the site area. The strategy will therefore improve upon the current situation with regard to surface water management and flood risk.

7.1.5 Foul water will be collected via conventional means and discharged to an existing Southern Water sewer within Cowfold Road. The proposal intends for foul water from the Northern Parcel to be brought south via a pumping station and rising main and to connect into the proposed foul network for the Southern Parcel. Southern Water have confirmed that there is adequate capacity in the local sewerage network to accommodate a foul flow of 1.8 L/s in this location. It is proposed that this flow rate acts as a design rate for when the development progresses to detailed design stage.

FIGURES

Figure 2.1 – Site Location Plan

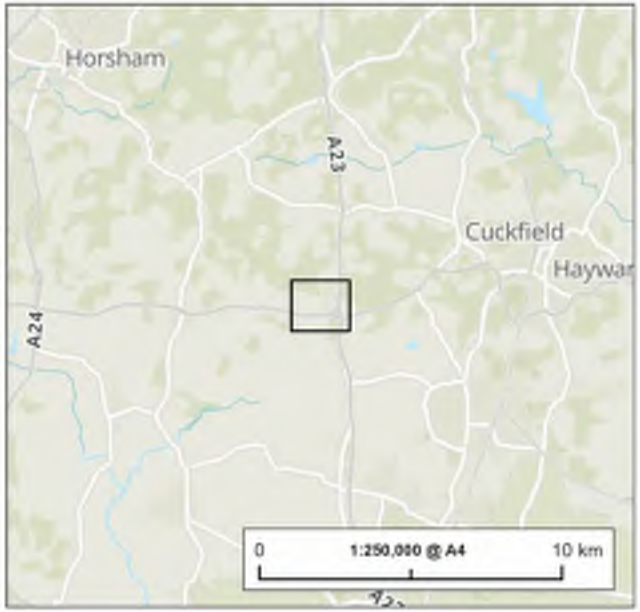
Figure 2.2 – LiDAR Topography

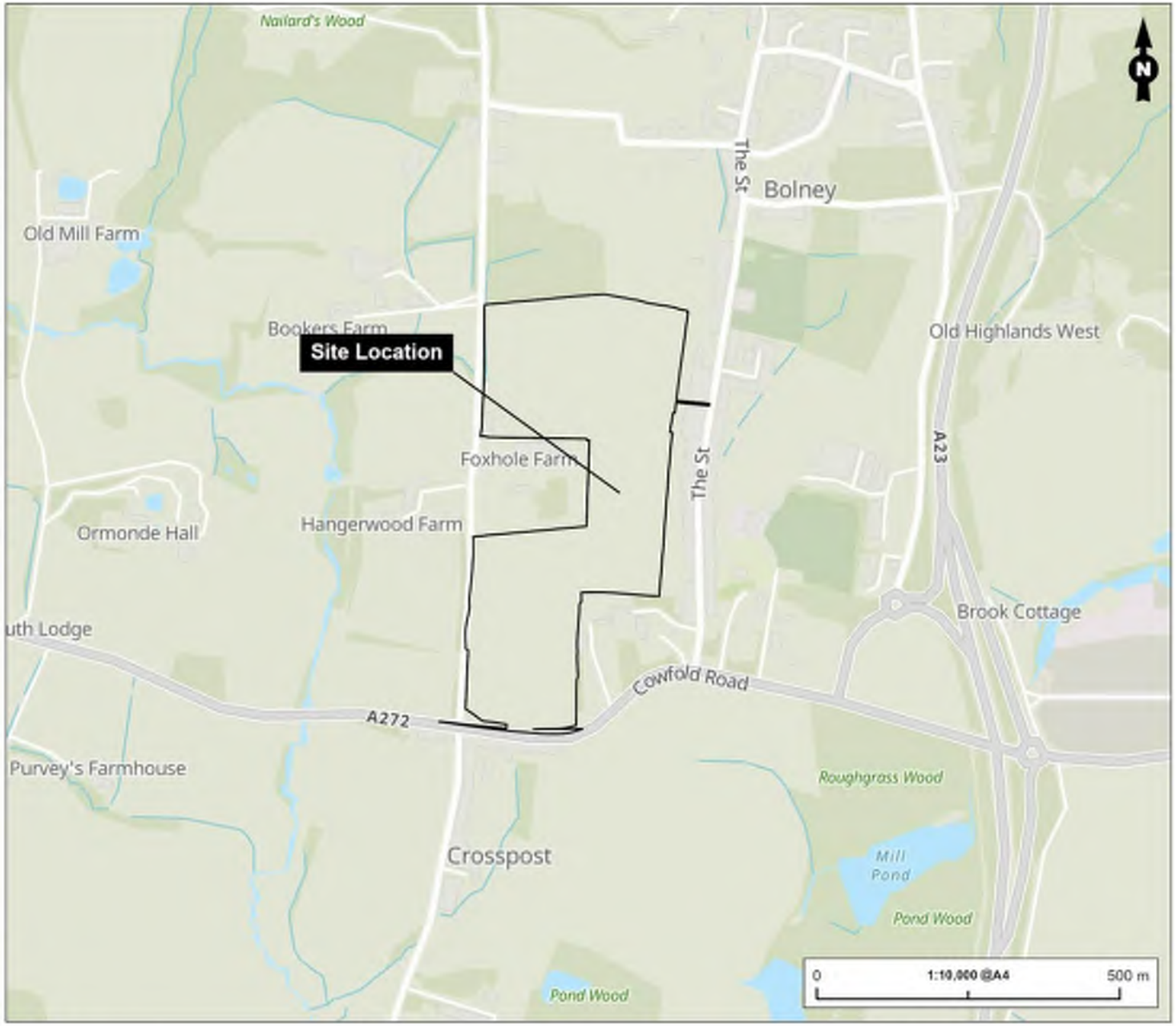
Figure 2.3 – Hydrological Setting

Figure 2.5 – EA Surface Water Flood Risk Present Day

Figure 2.6 – EA Surface Water Flood Risk Future Scenario







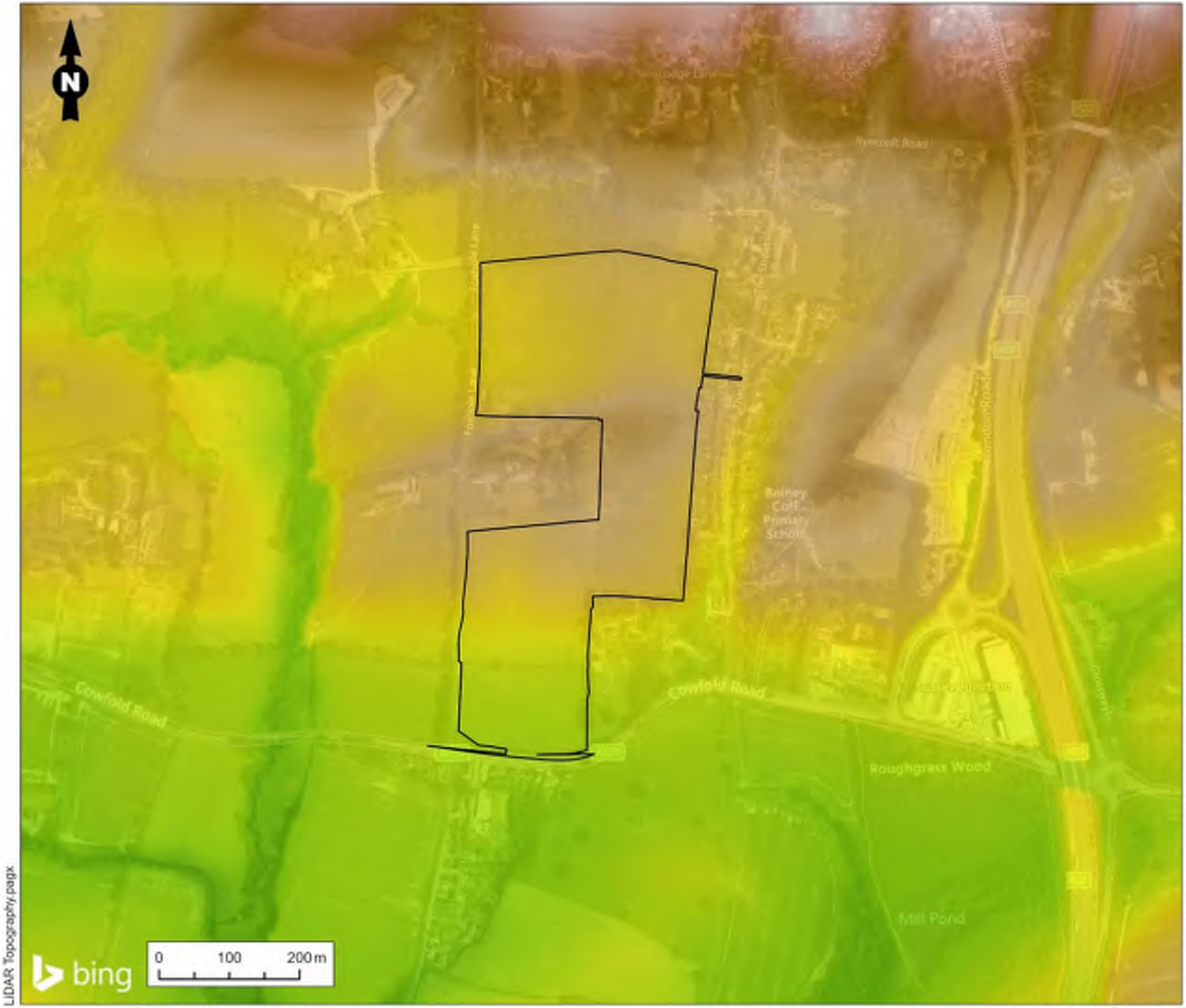
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Figure Title: Site Location Plan	Project Name: Land at Foxhole Farm, Bolney	Date: April 2025	
		Prepared By: DM	Figure No.: 2.1
Client: **Wates Developments Ltd**	Project No./Filery ID: 1620011691-012 / RUK2021N00014	Scale: As Shown	Revision: 2.0

Site Location Plan.pptx

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Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.



Legend

Site Boundary

LiDAR 1m DTM / m AOD

60

10

Figure Title
LiDAR Topography

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	2.2	2.0

Prepared By	Scale
DM	1:7,500 @A4

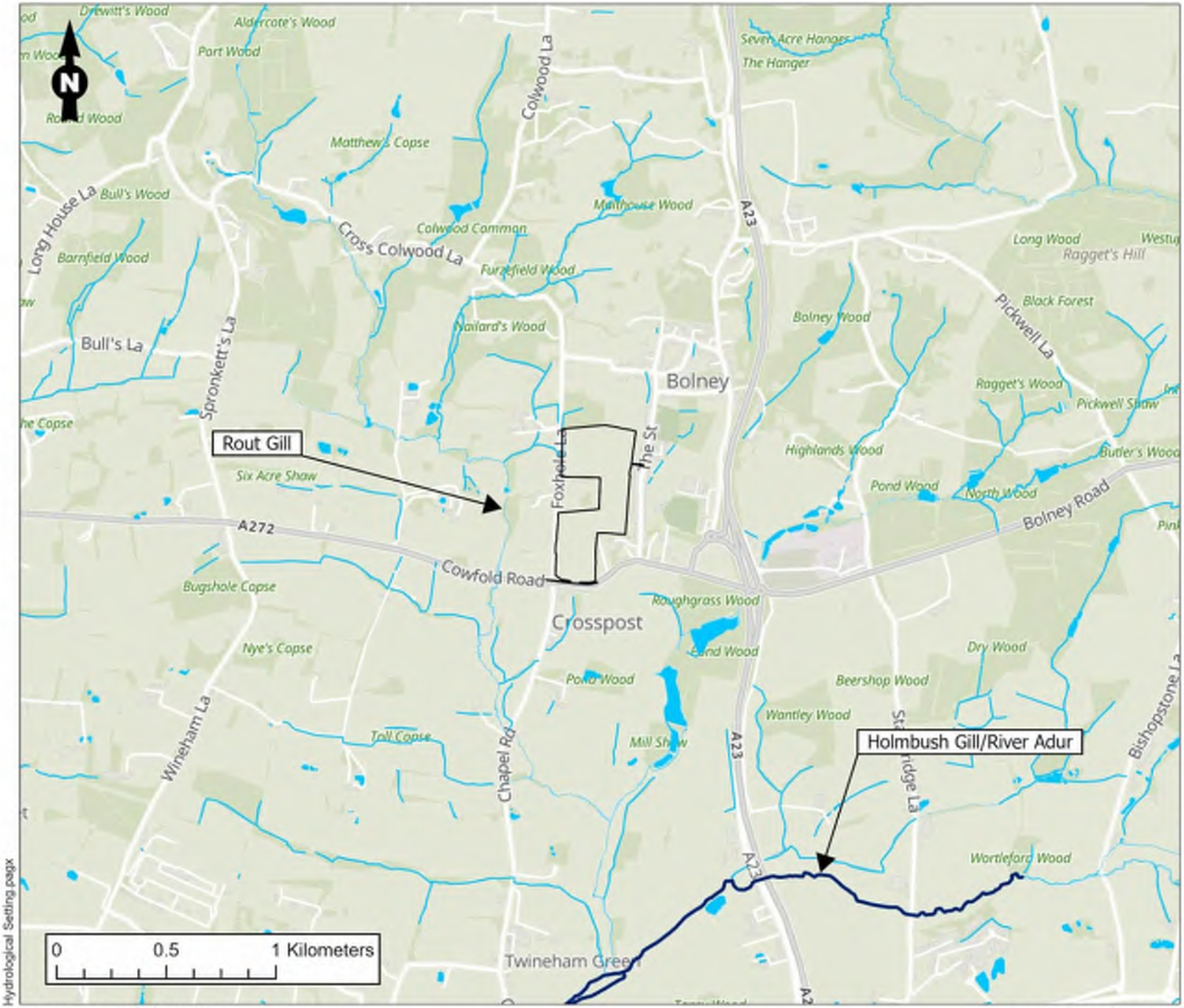
Client
Wates Developments Ltd

RAMBOLL

LIDAR Topography.pagx

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Legend

- Site Boundary
- **Watercourses**
  - EA Main River
  - OS Watercourses
  - OS Waterbodies

Figure Title	Hydrological Setting
Project Name	Land at Foxhole Farm, Bolney
Project No./Filery ID	1620011691-012 / RUK2021N00014
Date	April 2025
Figure No.	2.3
Revision	2.0
Prepared By	DM
Scale	1:24,000 @A4
Client	**Wates Developments Ltd**

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Hydrological Setting.pagx

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Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.



Legend

- Site Boundary

Surface Water Flood Risk

Yearly chance of flooding

- High (Greater than 3.3% AEP)
- Medium (Between 1% and 3.3% AEP)
- Low (Between 0.1% and 1% AEP)

Figure Title
EA Surface Water Flood Risk Present Day

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	2.5	1.0

Prepared By	Scale
DM	1:5,000 @A4

Client
Wates Developments Ltd

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EA Surface Water Flood Risk.pagx

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Legend

- Site Boundary

Surface Water Flood Risk

Yearly chance of flooding between 2040 and 2060

- High (Greater than 3.3% AEP)
- Medium (Between 1% and 3.3% AEP)
- Low (Between 0.1% and 1% AEP)

Figure Title
EA Surface Water Flood Risk Future Scenario

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	2.6	1.0

Prepared By	Scale
DM	1:5,000 @A4

Client
Wates Developments Ltd

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EA Surface Water Flood Risk.pagx

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APPENDIX A - SITE MASTERPLAN AND PROPOSED DRAINAGE LAYOUT PLANS AND SUPPORTING CALCULATIONS



KEY

1. New vehicular access from Cowfold Road
2. New pedestrian / cycle links to The Street
3. New pedestrian link to existing PRoW
4. Primary tree-lined access roads
5. Secondary informal 'rural' lanes / mews
6. New publicly accessible countryside open space
7. Viewpoint with seating area and interpretation
8. Community orchard
9. Community hub building
10. Children's play areas (LEAPs and LAPs)
11. Outdoor gym
12. Community allotments
13. Outdoor educational space
14. SuDS basins
15. Foul water pumping station
16. Electricity Substation
17. New woodland planting
18. Country estate road through countryside open space

rev.	date	changes description	status	issued by
P07	10/04/2025	Drawing updated to incorporate comments from pre-app	S4	DM
P06	07/01/2025	Drawing updated for planning; annotation added	S4	DM

N

0.0 12.5 25.0 50.0 62.5m

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www.re-format.co.uk
mail@re-format.co.uk
+44 (0)1730 778778

drawn by **DM**
date created **Aug 2024**
checked by **MS**
scale at A1 **1:1250**
project title **Foxhole Farm, Bolney**
document title **Illustrative Masterplan**

project	originator	volume	level	type	role	number
P20074	RFT	XX	XX	DR	A	0101

status **S4**
suitability description **For Planning**
revision **P07**

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KEY:

- ExFW — EXISTING FOUL WATER DRAINAGE
- FW — PROPOSED FOUL WATER DRAINAGE
- PROPOSED FOUL WATER RISING MAIN
- PUBLIC SEWER FOUL WATER DRAINAGE
- PROPOSED FOUL WATER MANHOLE/INSPECTION CHAMBER
- PROPOSED SURFACE WATER MANHOLE/INSPECTION CHAMBER
- FLOW CONTROL CHAMBER
- SW — PROPOSED SURFACE WATER DRAINAGE
- EXISTING DITCH RETAINED
- EXISTING CULVERT
- HEADWALL (EXISTING & PROPOSED)
- PERMAVOID STORAGE CRATES
- PERMEABLE PAVING
- SWALE / ATTENUATION BASIN
- FOUL PUMPING STATION

Rev	Description	Drawn	Checked	Approved	Date
P02	FIRST ISSUE	AP	DF	CL	11/04/2025
P01	FIRST ISSUE	AP	DF	CL	21/01/2025

Purpose of Issue: PURPOSE OF ISSUE

Status: SUITABILITY

FOXHILLS FARM
BOLNEY

RAMBOLL
tel 023 8081 7500 southampton@ramboll.co.uk
www.ramboll.co.uk

DRAINAGE LAYOUT SKETCH

Project No:	Scale (@A1):	Date:
1620011691	SCALE	JAN 25

Drawn:	Designed by:
AP	DF

Drawing No: 11691-RAM-HDG-XX-SK-C-00001 Rev: P02

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- FLOW CONTROL CHAMBER
- SW — PROPOSED SURFACE WATER DRAINAGE
- EXISTING DITCH RETAINED
- EXISTING CULVERT
- HEADWALL (EXISTING & PROPOSED)
- PERMAVOID STORAGE CRATES
- PERMEABLE PAVING
- SWALE / ATTENUATION BASIN
- FOUL PUMPING STATION

Rev	Description	Drawn	Checked	Approved	Date
P02	FIRST ISSUE	AP	DF	CL	11/04/2025
P01	FIRST ISSUE	AP	DF	CL	21/01/2025

Purpose of Issue: PURPOSE OF ISSUE

Status: SUITABILITY

FOXHILLS FARM BOLNEY

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DRAINAGE LAYOUT SKETCH

Project No:	Scale (@A1):	Date:
1620011691	SCALE	JAN 25

Drawn:	Designed by:
AP	DF

Drawing No: 11691-RAM-HDG-XX-SK-C-00001 Rev: P02

SURFACE WATER ATTENUATION PROVISION:

1. 305m³ STORAGE WITHIN 450mm PERMEABLE PAVING
2. 59m³ STORAGE IN SWALE
3. 1150m³ STORAGE IN ATTENUATION BASINS (1.0m DEEP)

SURFACE WATER ATTENUATION PROVISION:

1. 168m³ STORAGE WITHIN 250mm PERMEABLE PAVING
2. 1117m³ STORAGE IN ATTENUATION BASINS (1.0m DEEP)

PEAK FOUL FLOW RATE: 1.81l/s
CAPACITY CONFIRMED WITH SOUTHERN WATER

OUTFALL INTO EXISTING WATER COURSE RESTRICTED TO FEH GREENFIELD RATE. FLOW RESTRICTION: 46.3l/s

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- SW — PROPOSED SURFACE WATER DRAINAGE
- EXISTING DITCH RETAINED
- EXISTING CULVERT
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- PERMEABLE PAVING
- SWALE / ATTENUATION BASIN
- FOUL PUMPING STATION

Rev	Description	Drawn	Checked	Approved	Date
P02	FIRST ISSUE	AP	DF	CL	11/04/2025
P01	FIRST ISSUE	AP	DF	CL	21/01/2025

Purpose of Issue: PURPOSE OF ISSUE

Status: SUITABILITY

FOXHILLS FARM BOLNEY

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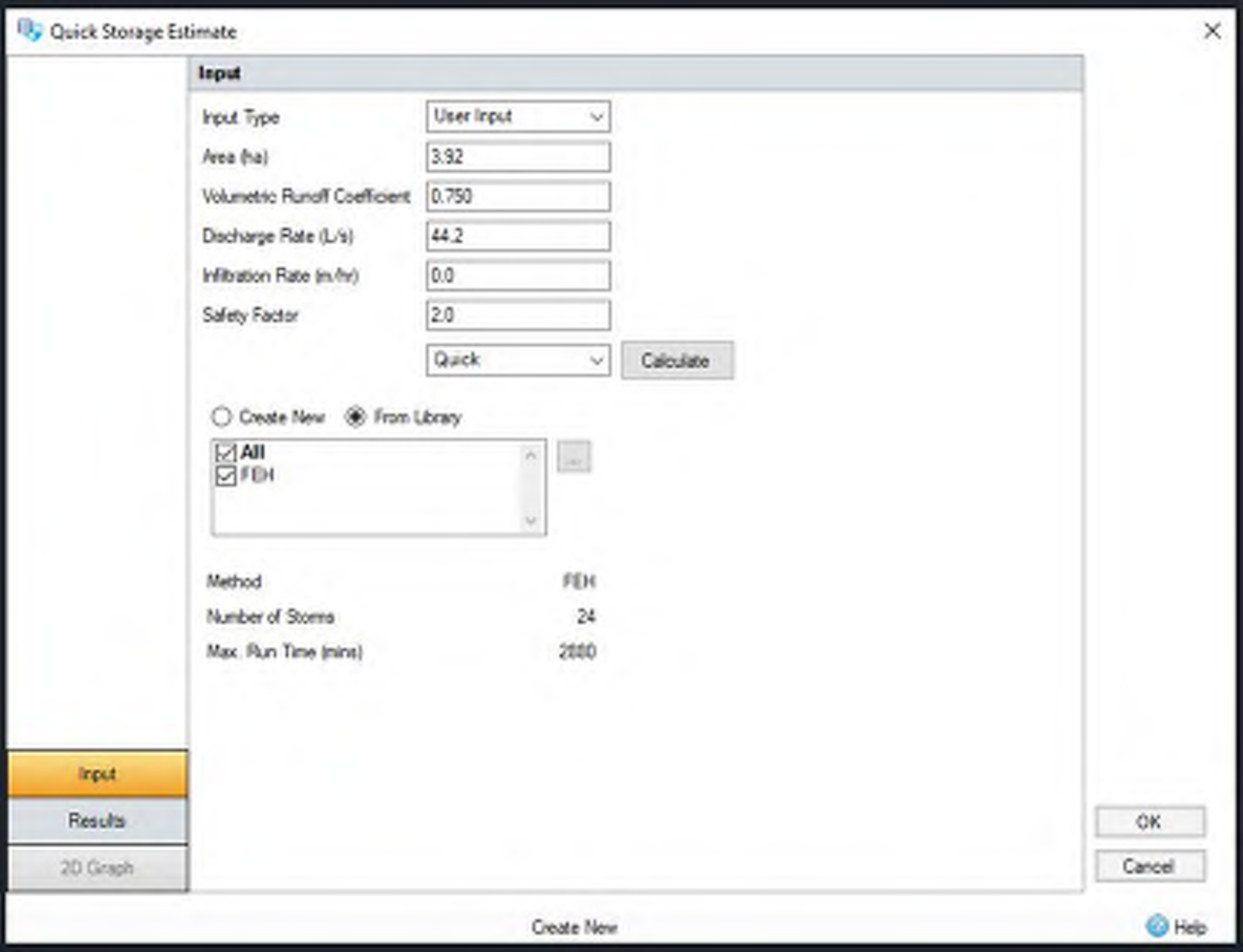
DRAINAGE LAYOUT SKETCH

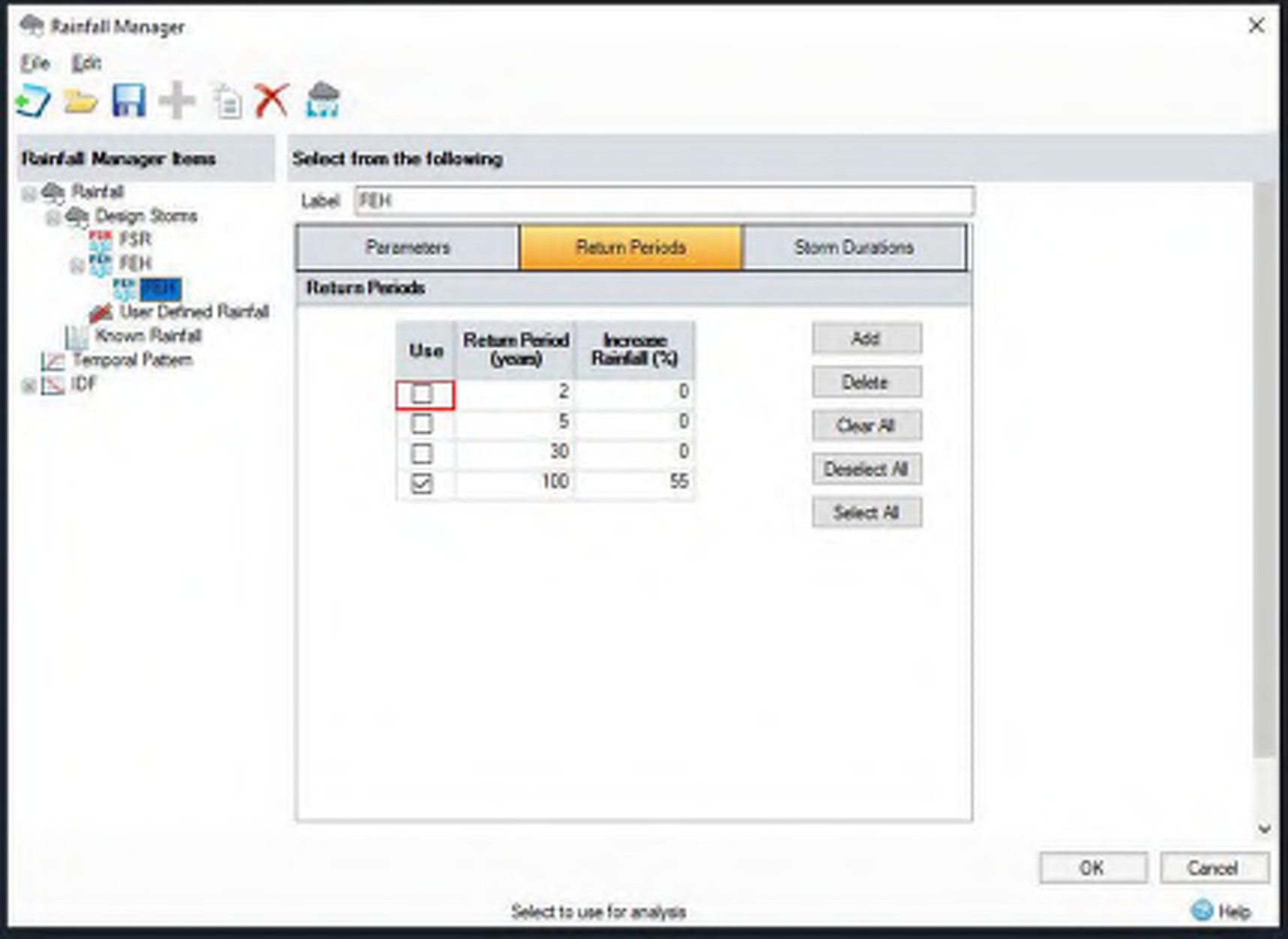
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1620011691	SCALE	JAN 25

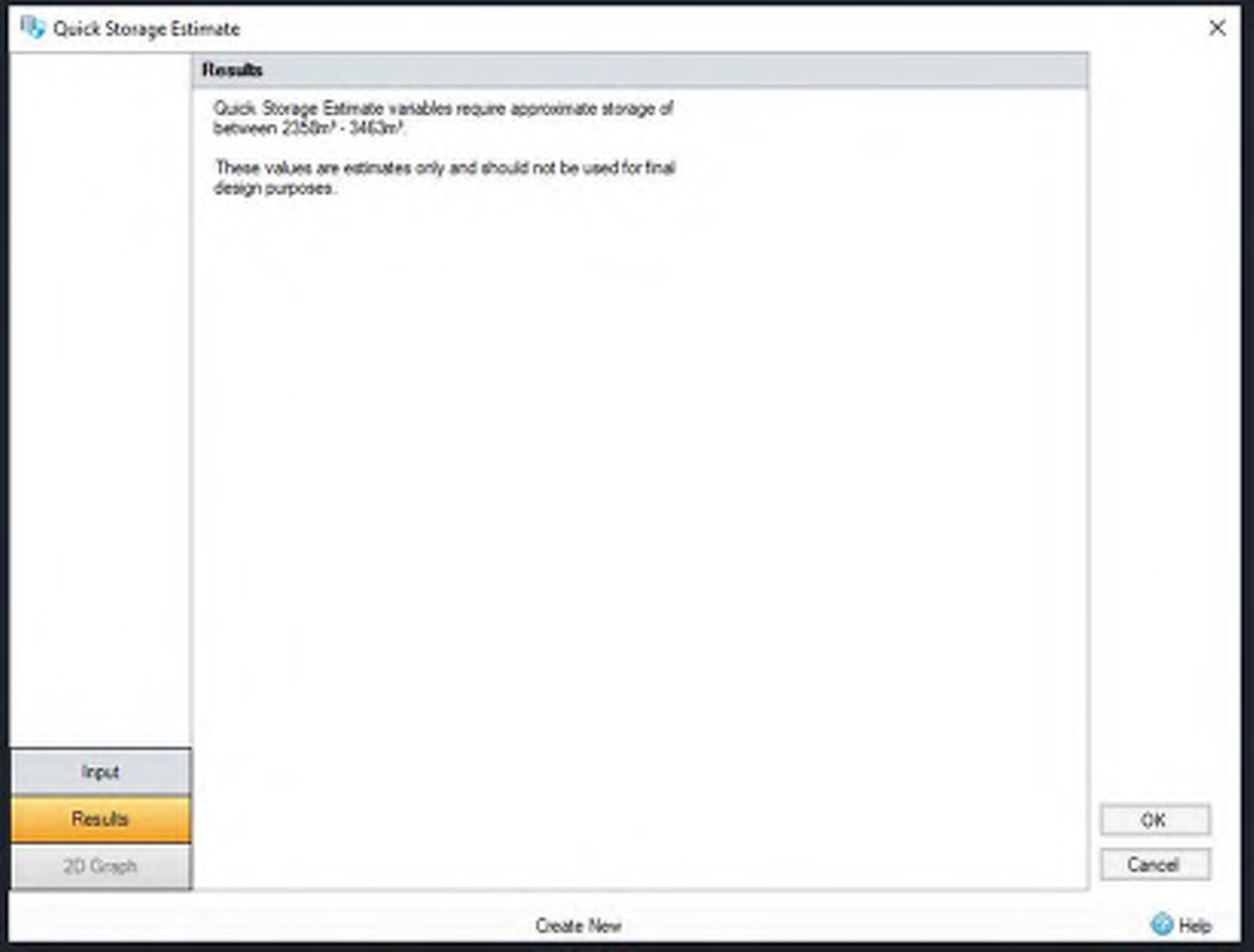
Drawn:	Designed by:
AP	DF

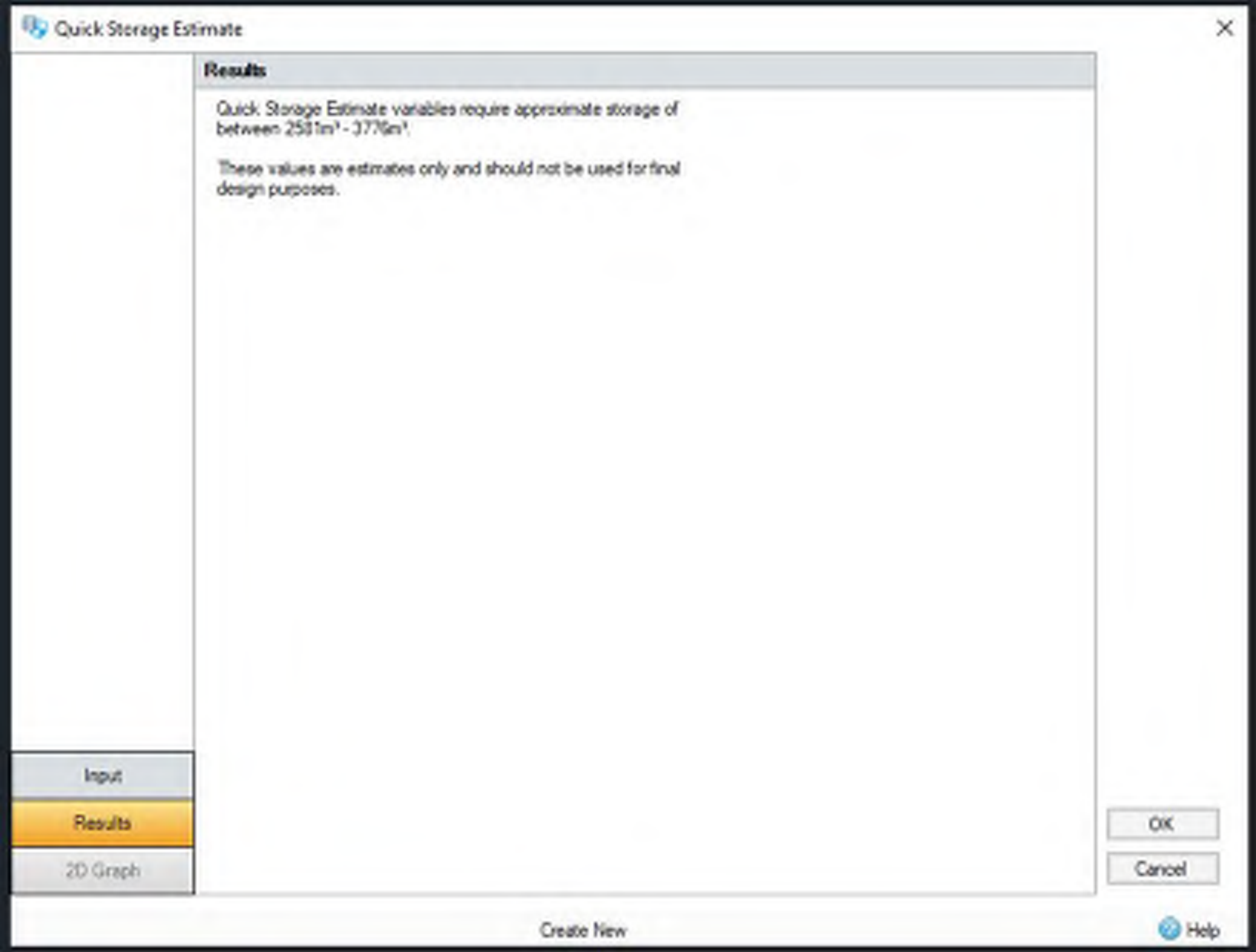
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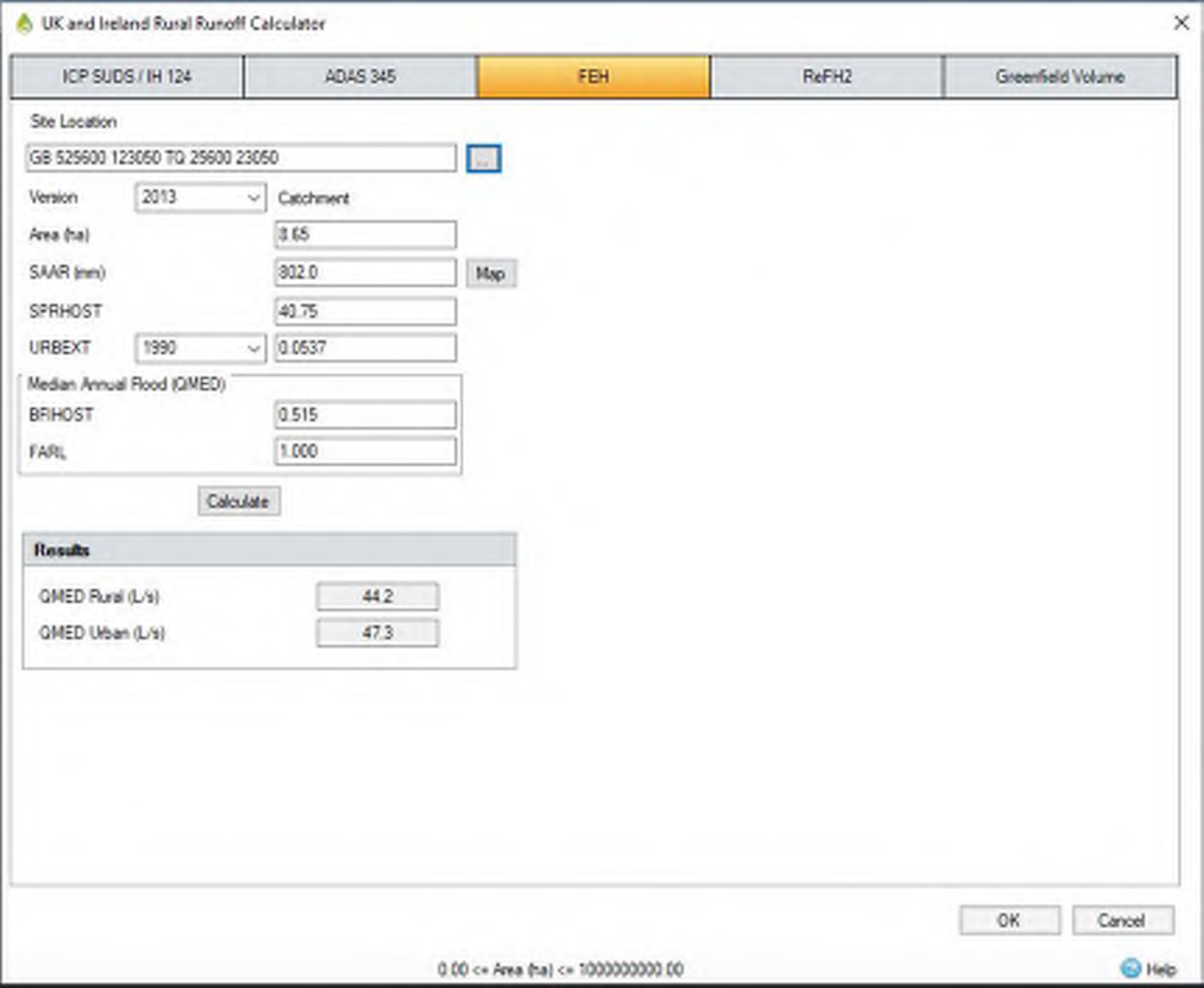
Rev: P02

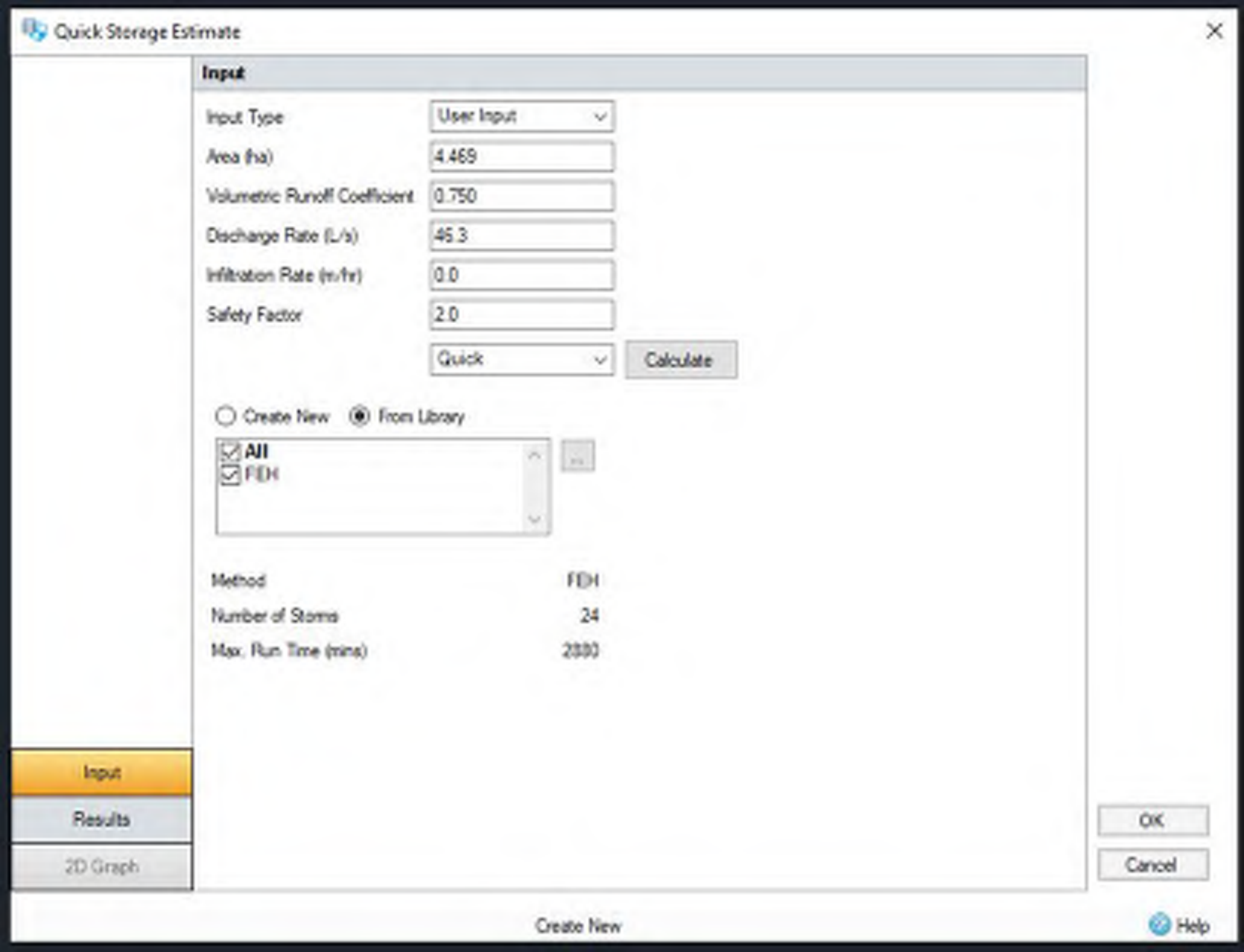

Quick Storage Estimate
Input
Input Type
User Input
Area (ha)
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Volumetric Runoff Coefficient
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Discharge Rate (L/s)
44.2
Infiltration Rate (in/hr)
0.0
Safety Factor
2.0
Quick
Calculate
Create New
From Library
All
FEH
Method
FEH
Number of Storms
24
Max. Run Time (mins)
2880
Input
Results
2D Graph
OK
Cancel
Create New
Help

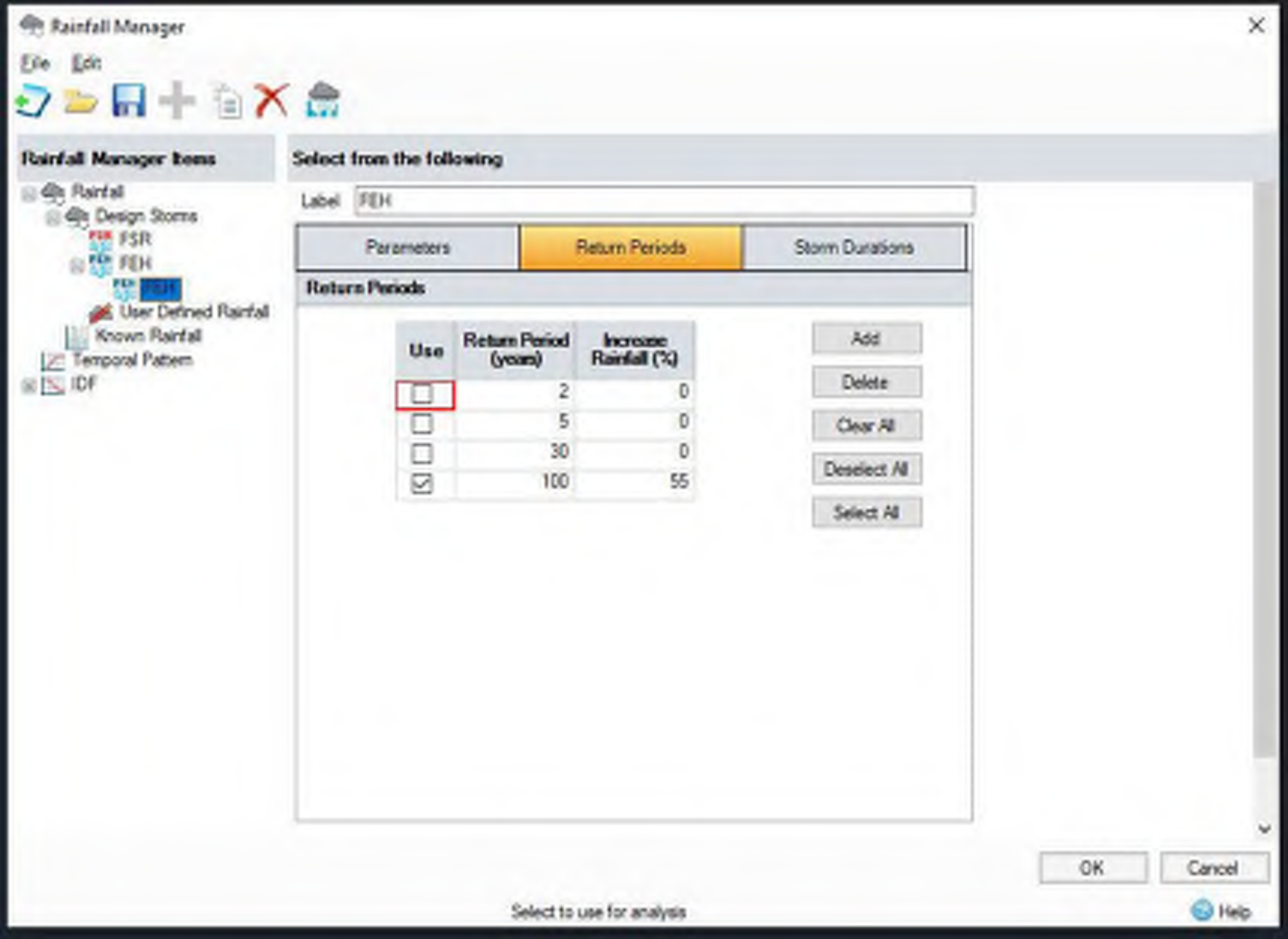

Rainfall Manager
File
Edit
Rainfall Manager Items
Rainfall
Design Storms
FSR
FEH
[redacted]
User Defined Rainfall
Known Rainfall
Temporal Pattern
IDF
Select from the following
Label
FEH
Parameters
Return Periods
Storm Durations
Return Periods
Use
Return Period (years)
Increase Rainfall (%)
2 0
5 0
30 0
100 55
Add
Delete
Clear All
Deselect All
Select All
OK
Cancel
Select to use for analysis
Help

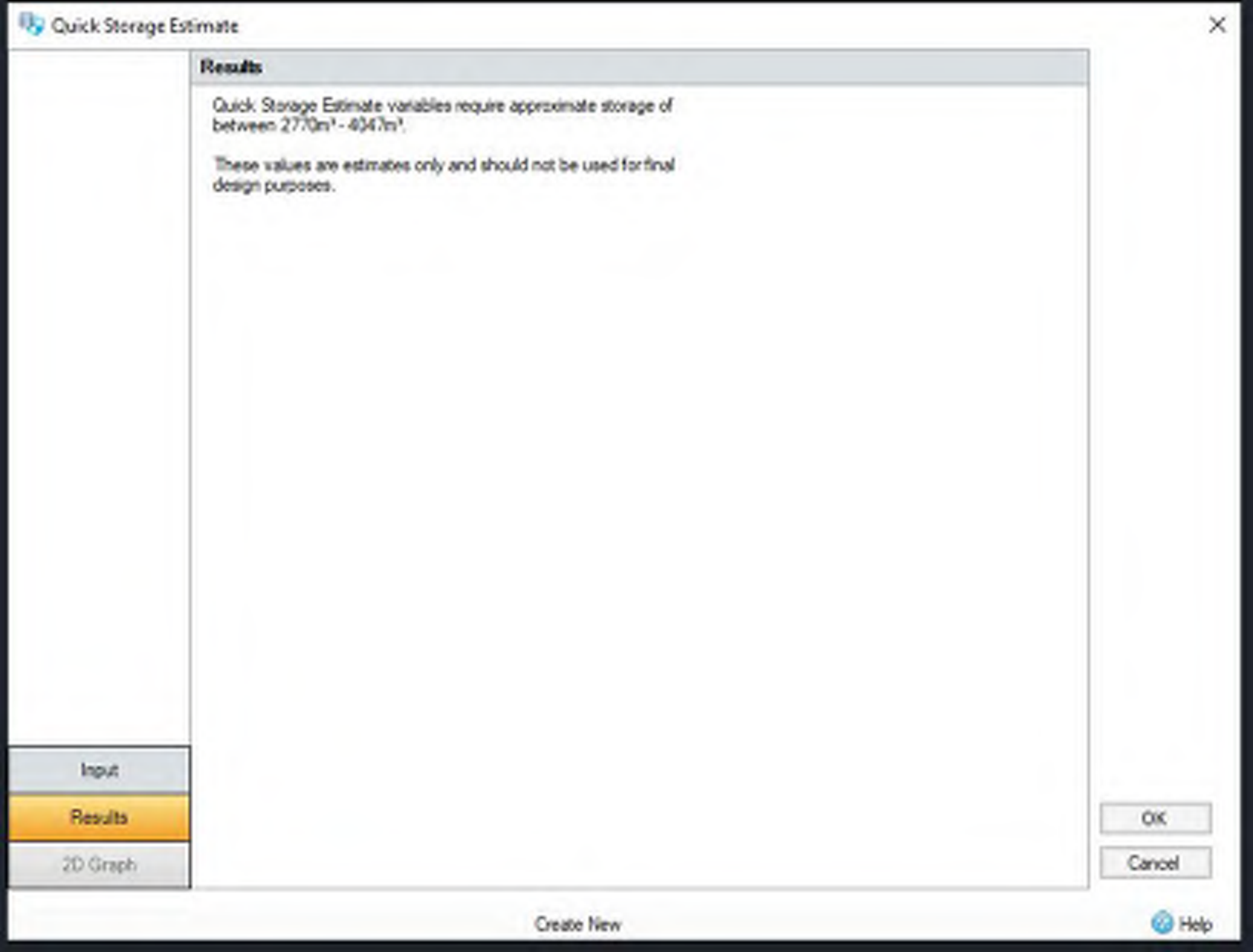

Quick Storage Estimate
Results
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These values are estimates only and should not be used for final design purposes.
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Results
2D Graph
OK
Cancel
Create New
Help

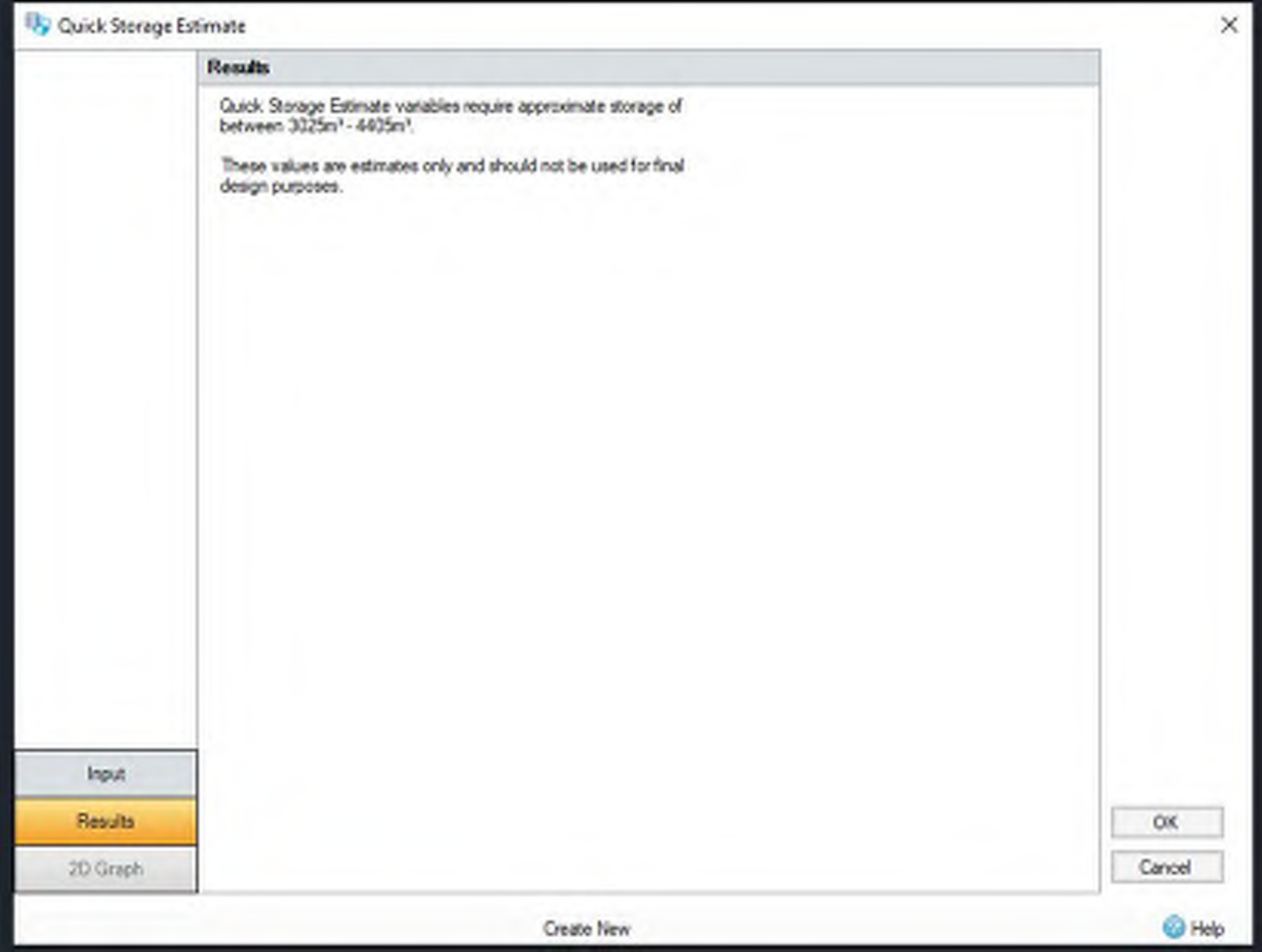

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These values are estimates only and should not be used for final design purposes.
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Results
2D Graph
OK
Cancel
Create New
Help

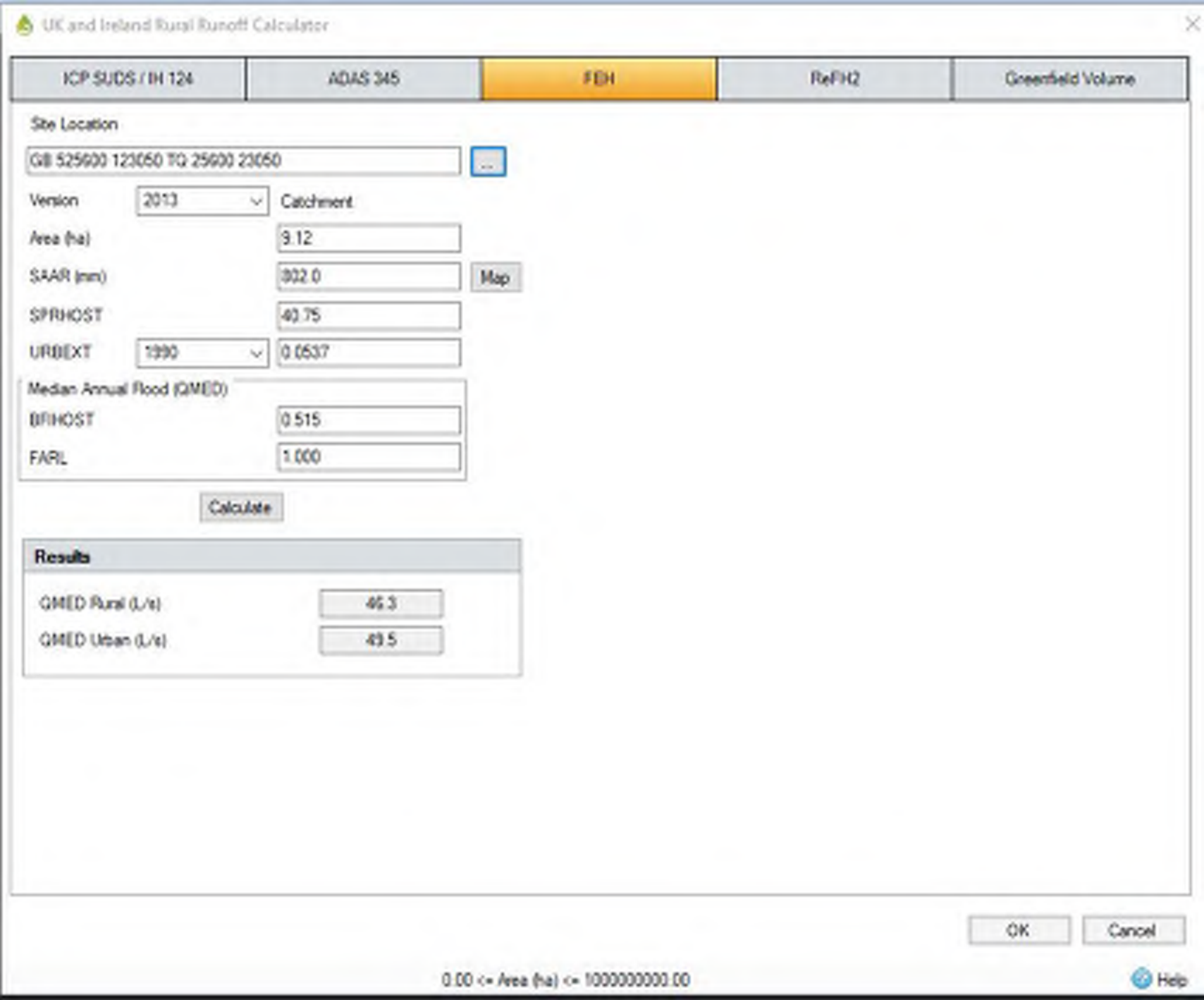

UK and Ireland Rural Runoff Calculator
ICP SUDS / IH 124
ADAS 345
FEH
ReFH2
Greenfield Volume
Site Location
GB 525600 123050 TQ 25600 23050
...
Version
2013
Catchment
Area (ha)
3.65
SAAR (mm)
802.0
Map
SPRHOST
40.75
URBEXT
1990
0.0537
Median Annual Flood (QMED)
BFIHOST
0.515
FARL
1.000
Calculate
Results
QMED Rural (L/s)
44.2
QMED Urban (L/s)
47.3
OK
Cancel
0.00 <= Area (ha) <= 100000000.00
Help


Quick Storage Estimate
Input
Input Type
User Input
Area (ha)
4.469
Volumetric Runoff Coefficient
0.750
Discharge Rate (L/s)
45.3
Infiltration Rate (m/hr)
0.0
Safety Factor
2.0
Quick
Calculate
Create New
From Library
All
FEH
Method
FEH
Number of Storms
24
Max. Run Time (mins)
2880
Input
Results
2D Graph
OK
Cancel
Create New
Help


Rainfall Manager
File
Edit
Rainfall Manager Items
Rainfall
Design Storms
FSR
FEH
[redacted]
User Defined Rainfall
Known Rainfall
Temporal Pattern
IDF
Select from the following
Label
FEH
Parameters
Return Periods
Storm Durations
Return Periods
Use
Return Period (years)
Increase Rainfall (%)
2 0
5 0
30 0
100 55
Add
Delete
Clear All
Deselect All
Select All
OK
Cancel
Select to use for analysis
Help


Quick Storage Estimate
Results
Quick Storage Estimate variables require approximate storage of between 2770m³ - 4047m³.
These values are estimates only and should not be used for final design purposes.
Input
Results
2D Graph
OK
Cancel
Create New
Help


Quick Storage Estimate
Results
Quick Storage Estimate variables require approximate storage of between 3025m³ - 4935m³.
These values are estimates only and should not be used for final design purposes.
Input
Results
2D Graph
OK
Cancel
Create New
Help


UK and Ireland Rural Runoff Calculator
ICP SUDS / IH 124
ADAS 345
FEH
ReFH2
Greenfield Volume
Site Location
GB 525600 123050 TQ 25600 23050
...
Version
2013
Catchment
Area (ha)
9.12
SAAR (mm)
802.0
Map
SPRHOST
40.75
URBEXT
1990
0.0537
Median Annual Flood (QMED)
BFIHOST
0.515
FARL
1.000
Calculate
Results
QMED Rural (L/s)
46.3
QMED Urban (L/s)
49.5
OK
Cancel
0.00 <= Area (ha) <= 1000000000.00
Help

APPENDIX B – SITE TOPOGRAPHICAL SURVEY

525760E 525780E 525800E 525820E 525840E 525860E 525880E 525900E 525920E 525940E

123160N 123140N 123120N 123100N 123080N 123060N 123040N 123020N

Notes:

Whilst every effort has been made to correctly identify species of trees on the site, we advise that an arborologist be consulted before any final decisions are made.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

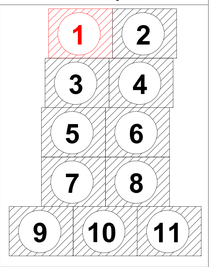
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:
Barbed Wire Fence BW
Chestnut Paling Fence CPF
Closed Board Fence CBF
Chestnut Paling Fence CPF
Post and Rail PR
Post and Chain Fence PCF
Post and Rail Fence PRW
Stockproof SP
Interwoven IW
Chain Link Fence CLF
Close Mesh Fence CMF
Wire Mesh Fence WMF

Abbreviations:

BOLLARD			
CONCRETE COLLUM IC	BD	MARKER	MK
CONCRETE PAVING SLABS	CPS	PARKING METER	PM
COVER LEVEL	CVL	ROAD SIGN	RSN
ELECTRIC	EL	ROAD SURFACE	RS
ELECTRICITY POLE	EP	RETAINING WALL	RW
FENCE POST	FP	SERVICE COVER	SCVR
FLOWER BED	FB	SOCKETED PIPE	SOP
HOARDING	HDG	STOP VALVE	SV
KERB STONE	KS	TELEGRAPH POLE	TELP
OIL VENT	OV	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB STONE DROP	KD	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Coordinate Table

Stn	Easting	Northing	Level
STN1	525861.838	122816.638	40.018
STN10	525933.807	122903.023	42.592
STN1001	526101.707	122809.821	32.495
STN11	525971.841	122855.023	41.426
STN12	526044.935	122741.166	35.370
STN13	526116.959	122741.739	28.656
STN14	525958.393	122676.956	35.758
STN15	525860.651	122679.868	35.375
STN16	525733.270	122561.774	26.300
STN17	525775.368	122551.600	25.888
STN2	525842.132	122866.167	42.394
STN2A	525766.950	122851.778	41.912
STN2B	525847.432	122891.134	42.495
STN2C	525891.580	122892.276	42.211
STN2D	525906.396	122900.808	41.953
STN3	525841.598	122903.239	39.624
STN4	525772.223	122903.708	36.225
STN5	525785.533	122935.155	32.967
STN6	525853.447	122950.731	33.480
STN7	525856.549	123023.943	32.554
STN8	525995.895	123020.293	36.338
STN9	526077.766	122974.281	35.866
STNE1	525824.836	122809.186	39.549
STNE10	525869.092	122863.445	42.298
STNE10A	525844.198	122830.060	40.127
STNE11	525934.873	122859.688	42.001
STNE1A	525808.546	122759.971	37.766
STNE2	525762.282	122789.699	39.533
STNE2A	525742.597	122837.063	39.886
STNE3	525801.072	122829.259	40.120
STNE4	525803.161	122845.195	41.049
STNE5	525779.253	122844.816	41.170
STNE9	525834.899	122839.852	40.363
STNG1	525718.298	122442.790	23.262
STNG10	526113.235	122713.290	28.378
STNG11	526105.477	122813.261	32.104
STNG12	526129.569	122915.347	34.552
STNG13	526152.963	123031.368	35.232
STNG2	525793.139	122438.483	22.834
STNG20	525723.315	122463.875	23.495
STNG3	525845.441	122428.005	22.478
STNG4	525897.799	122425.938	22.693
STNG5	525961.282	122456.755	23.114
STNG6	526035.054	122528.078	24.289
STNG7	526116.303	122536.115	25.049
STNG8	526112.862	122578.094	26.604
STNG9	526122.571	122644.410	29.990
STNL1	526134.668	122968.053	35.001

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 1 of 11

Job No.	2309028	Old Job No.	
Drawing Number	WD/2309028/1	Revision Suffix	
Scale	1:200m (A0)	Date	December 2023

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525960E 525980E 526000E 526020E 526040E 526060E 526080E 526100E 526120E 526140E 526160E

123160N 123140N 123120N 123100N 123080N 123060N 123040N 123020N

B/W Ht=1.2m

Brambles Ht=1.5m & Tree Canopy Ht=15.0m

B/W Ht=1.5m

Brambles Ht=1.5m & Tree Canopy Ht=15.0m

B/W Ht=1.2m

B/W Ht=1.2m

Hedge Ht=3.0m

Hedge Ht=2.5m

Hedge Ht=2.4m

Hedge Ht=2.0m

Hedge Ht=2.0m

Hedge Ht=2.0m

Fence

Fence

Fence

Bore Hole

Brick Pillar

Brick Pillar

Gate

Gate

Bus Shelter

Bus Stop

Ridge 43.19

Ridge 39.68

Ridge 43.24

Ridge 43.27

Ridge 42.83

Ridge 44.55

Ridge 44.05

Ridge 43.99

Ridge 42.75

Ridge 42.17

Ridge 40.47

Fence 39.88

Fence 39.99

Fence 40.24

Fence 38.29

Fence 37.78

Parapet 38.13

Parapet 38.49

20347 20348 20349 20350 20351 20352 20353 20354 20355 20356 20357 20358 20359 20360 20361

14290 14291 14292 14293

STN8

STNG13

The Street

Paynesfield

Tarmac

Grass

Notes:

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences: Barbed Wire Fence B/W; Corrugated Iron Fence CI; Closed Board Fence CB; Open Board Fence OB; Iron Railing Fence IR; Post and Train Fence P&T; Post and Wire Fence P&W; Picket Fence PF; Chain Link Fence CL; Close Mesh Fence C/M; Wire Mesh Fence W/M

Abbreviations:

BOLLARD		MARKER	MK
BRITISH TELECOM 'A'	BO	MANHOLE METER	MH
CONCRETE PADING SLABS	CPS	POST NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAINAGE	DR	ROAD SIGNS	RSS
ELECTRICITY POLE	EP	ROTARING MAIL	RM
FIRE HYDRANT	FH	SUBMARETE BOX	SMBX
GAS VALVE	GV	TELEGRAPH POLE	TP
GUARD RAIL	GR	TOP WATER	TOP
KERB	K	VIDEO	VDO
LAMP POST	LP	WATER VALVE	WV
MANHOLE COVER	MH	WATER VALVE	WV
FIRE INVERT LEVEL	FIL	WELL	W
MAN HOLE	MH	WIRE FENCE	WF
MAN HOLE	MH	WATER METER	WM

Sheet Layout

1	2	
3	4	
5	6	
7	8	
9	10	11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 2 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/2	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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525740E

123000N

122980N

122960N

122940N

122920N

122900N

122880N

122860N

Notes:

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INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chestnut Paling Fence C/P
Post and Rail Fence P/R
Post and Chain Fence P/Ch
Post and Rail Fence P/R
Post and Wire Fence P/W
Stakenet S/N
Chain Link Fence C/L
Hurdle Fence H/F
Wire Mesh Fence W/M

Abbreviations:

BOLLARD			
BRITISH TELECOM	BT	MARKER	Mr
CONCRETE SLABS	C/S	PARKING METER	PM
COVER LEVEL	CL	PLANTING PLATE	PP
DROP KERB	DK	ROAD SIGN	RS
ELECTRICITY POLE	EP	WOODING TREE	WT
FLAG POLE	FP	STREET LIGHT	SL
FLAGSTONES	FLS	DRAINAGE INSP.	DMH
FOOTBRIDGE	FB	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GUY WIRE	GW	TELEPHONE UNIT	TU
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB LEVEL	KL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout

1 2
3 4
5 6
7 8
9 10 11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 3 of 11

Job No.	2309028	Old Job No.	
Drawing Number	WD/2309028/3	Revision Suffix	
Scale	1:200m (A0)	Date	December 2023

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INDICATIVE

Legend:

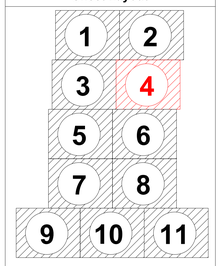
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences: Barbed Wire Fence B/W; Corrugated Iron Fence C/I; Closed Board Fence C/B; Chain Link Fence C/L; Iron Railing Fence I/R; Post and Train Fence P/T; Post and Wire Fence P/W; Post Box P/B; Chain Link Fence C/L; Timber Fence T/F; Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRICK/BLOCK/KERB/ EDGING	BK	MANHOLE/ METER	MH
CONCRETE PAVING SLABS	CPS	POST/ NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAIN/ GULLY	DR	STREET LAMP	SL
ELECTRICITY POLE	EP	RETAINING WALL	RW
FIRE HYDRANT	FH	SUMMERTIME BOX	SB
FLOOD LIGHT	FL	TELEPHONE POST	TP
FOUNDATION	FD	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
INSPECTION	IP	SLUICE/VALVE	SL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
INVERT LEVEL	IL	VENT PIPE	VP
MANHOLE	MH	WATER METER	WM
MINI KIOSK	MK		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 4 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/4	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

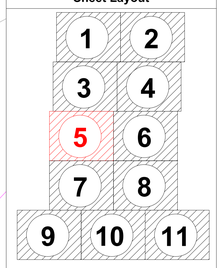
Fences
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chain Link Fence C/L
Iron Railing Fence I/R
Post and Chain Fence P/C
Post and Rail Fence P/R
Post Wire Fence P/W
Picket Fence PKT
Chain Link Fence C/L
Post and Wire Fence P/W
Wire Mesh Fence W/M

Abbreviations:

BOLLARD BO
CONCRETE/SILICOM /C C
CONCRETE PADING SLABS CPS
COVER LEVEL CL
DRAIN DR
ELECTRICITY POLE EP
FIRE HYDRANT FH
GAS VALVE GV
INVERT LEVEL IL
MANHOLE MH
OPEN VALVE OV
POST P
INSPECTION COVER RE
RISER / INVERT LEVEL R/L
STOP VALVE SV
WIRE HOLE WH

MARKER MK
PEDESTRIAN METER PM
ROAD NAME PLATE RNP
ROAD SIGN RS
STREET LIGHTING SL
RETAINING WALL RW
SHAMROCK BOX SB
TELEPHONE BOX TB
TRAFFIC LIGHT TL
UTILITY UTY
VALVE V
SILLCOCK/A SPIKE VP
WATER TAP WT
UNABLE TO LIFT UTL
VENT PIPE VP
WATER METER WM

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

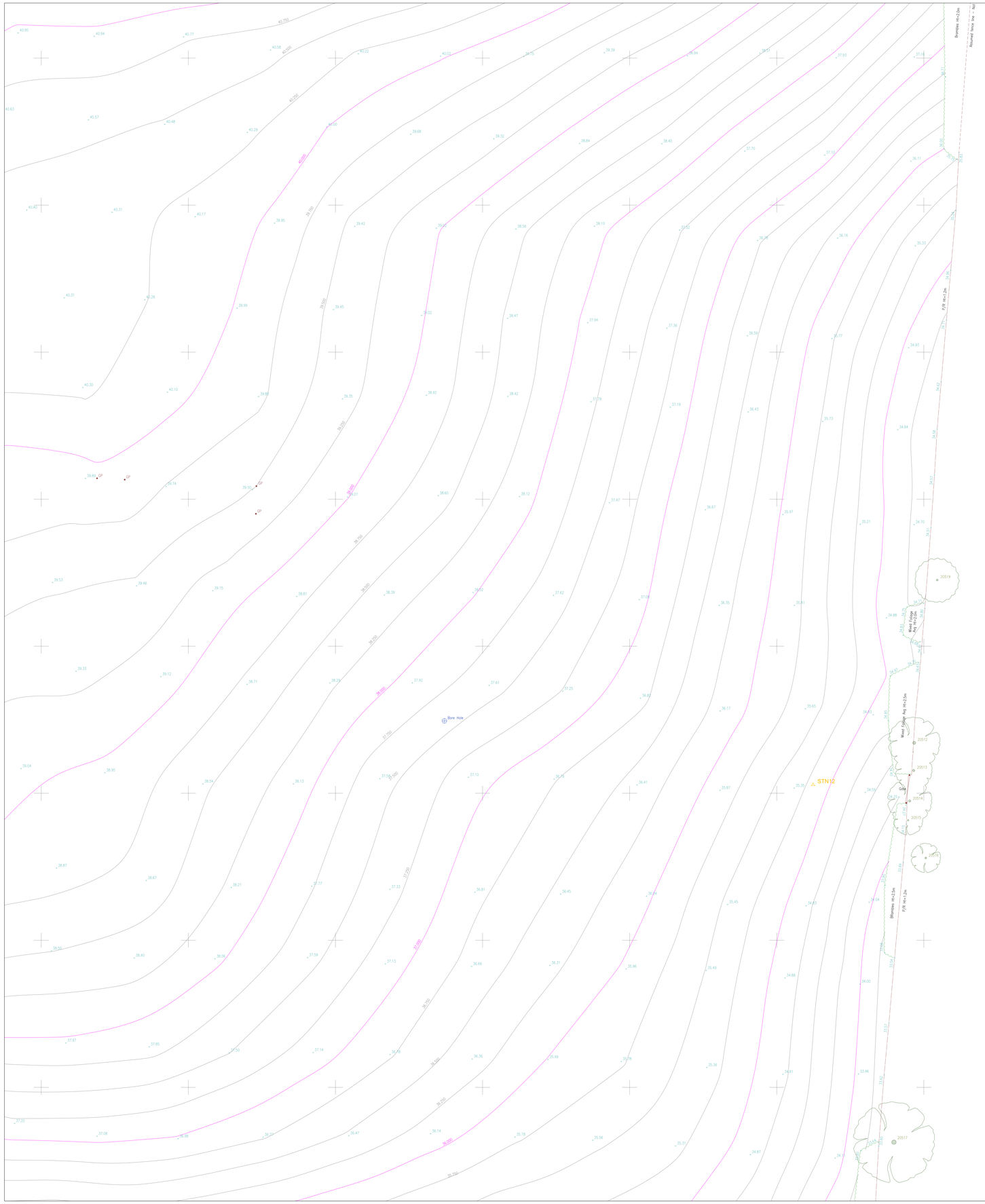
Client: Wates

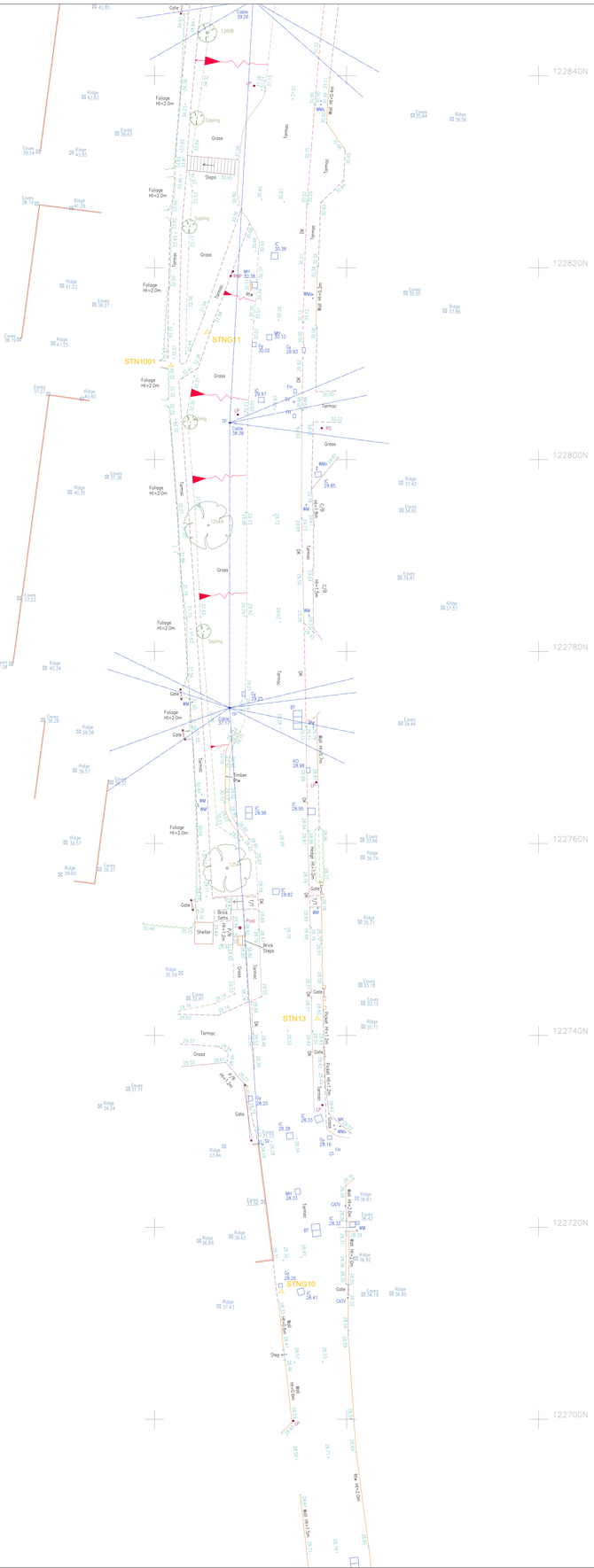
Location: Foxhole Farm, Bolney
Haywards Heath

Drawing Title: Topographical Survey
Sheet 5 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/5	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences
- Barbed Wire Fence B/W
- Corrugated Iron Fence C/I
- Closed Board Fence C/B
- Chain Link Fence C/L
- Iron Railing Fence I/R
- Post and Chain Fence P/Ch
- Post and Rail Fence P/R
- Post Wire Fence P/W
- Palisade Fence PAL
- Chain Link Fence C/L
- Post and Wire Fence P/W
- Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
CONCRETE SILLCOM /C	C/L	MANHOLE METER	MH
CONCRETE FACING SLABS	CFS	POST NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAIN MARKER	DM	RETAINING ACHE	RA
DESTINATION PYLE	DP	RETAINING WALL	RW
FIRE HYDRANT	FH	SHAMROCK BOX	SB
FLOOR LEVEL	FL	SOIL VENT PIPE	SVP
GULLY GRATED	GG	SIGN VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
INVERT	IN	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB RAISED LEVEL	KL	VENT PIPE	VP
MANHOLE	MH	WATER METER	WM
MIN KERB	MK		

Sheet Layout

1	2	
3	4	
5	6	
7	8	
9	10	11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

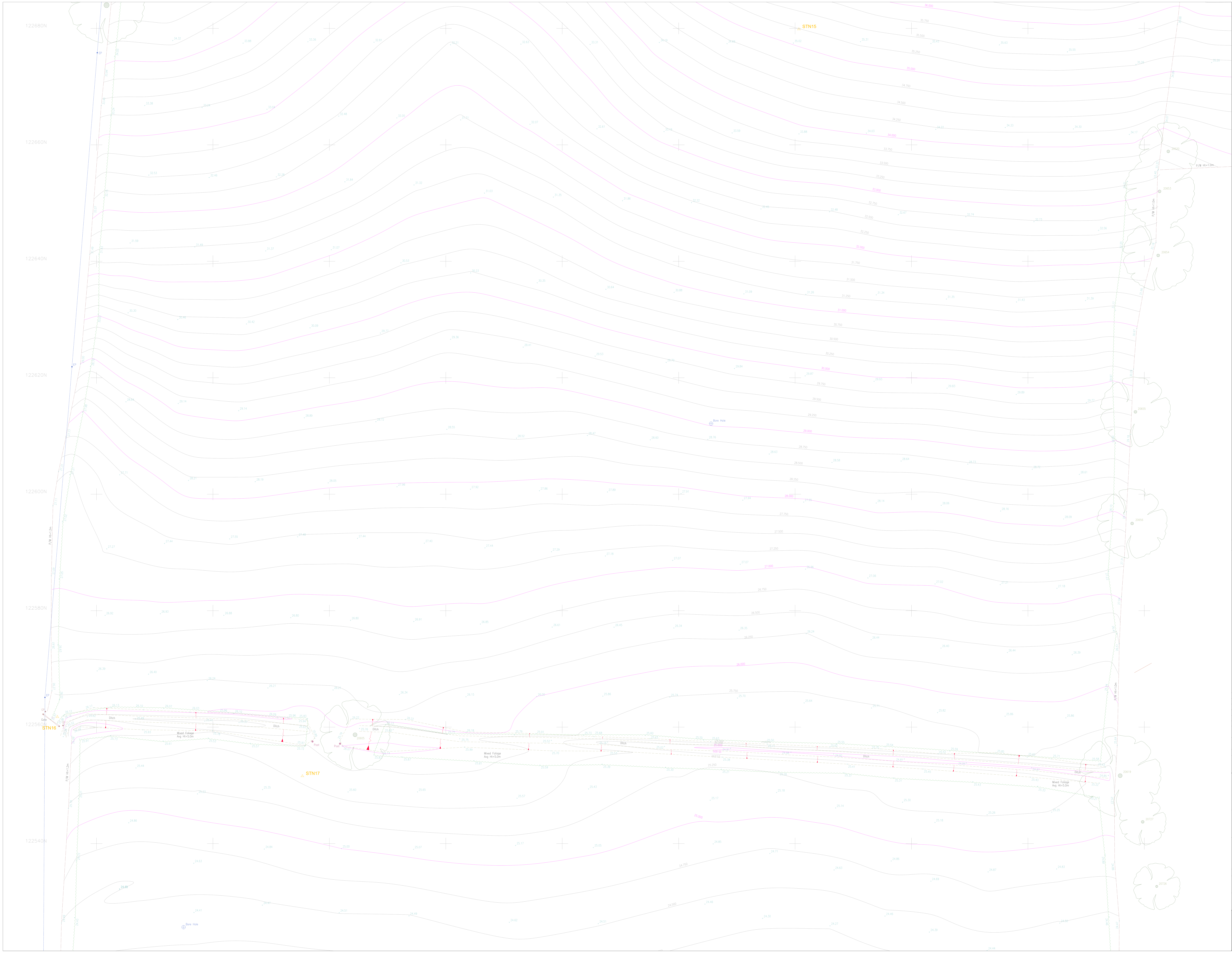
Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 6 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/6	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:	
Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chestnut Paling Fence	C/P
Iron Railing Fence	I/R
Post and Chain Fence	P/C
Post and Rail Fence	P/R
Post Wire Fence	P/W
Interwoven	I/W
Chain Link Fence	C/L
Larch Lap Fence	L/L
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
COVER LEVEL	CL	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	Rtw
FIRE HYDRANT	FH	RAINWATER PIPE	RPW
FLOWER BED	F/B	SOIL VENT PIPE	SVP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
PIPE INVERT LEVEL	IL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout

1	2
3	4
5	6
7	8

9	10	11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 7 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/7	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Notes:

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INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chain Link Fence C/L
Iron Railing Fence I/R
Post and Chain Fence P/Ch
Post and Rail Fence P/R
Post Wire Fence P/W
Palisade Fence PAL
Chain Link Fence C/L
Post and Wire Fence P/W
Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
DROP KERB	DK	ROD EYE	RE
DROP KERB	DK	ROGGING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	RW
ELECTRICITY POLE	EP	SOIL VENT PIPE	SVP
FLOWER BED	FB	SOIL VENT PIPE	SVP
GAS VALVE	GV	STEPS	S
GAS VALVE	GV	STREET LIGHT POLE	SLP
GULLY	G	TRAFFIC LIGHT	TL
MANHOLE COVER	MH	VENT PIPE OF LIFT	VP
PIPE RISER COVER	P	WATER BOLLARD	WB
SEWER OUTLET	SO	WATER METER	WM
WAN HOLE	WH		

Sheet Layout

1 2 3 4 5 6 7 8 9 10 11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

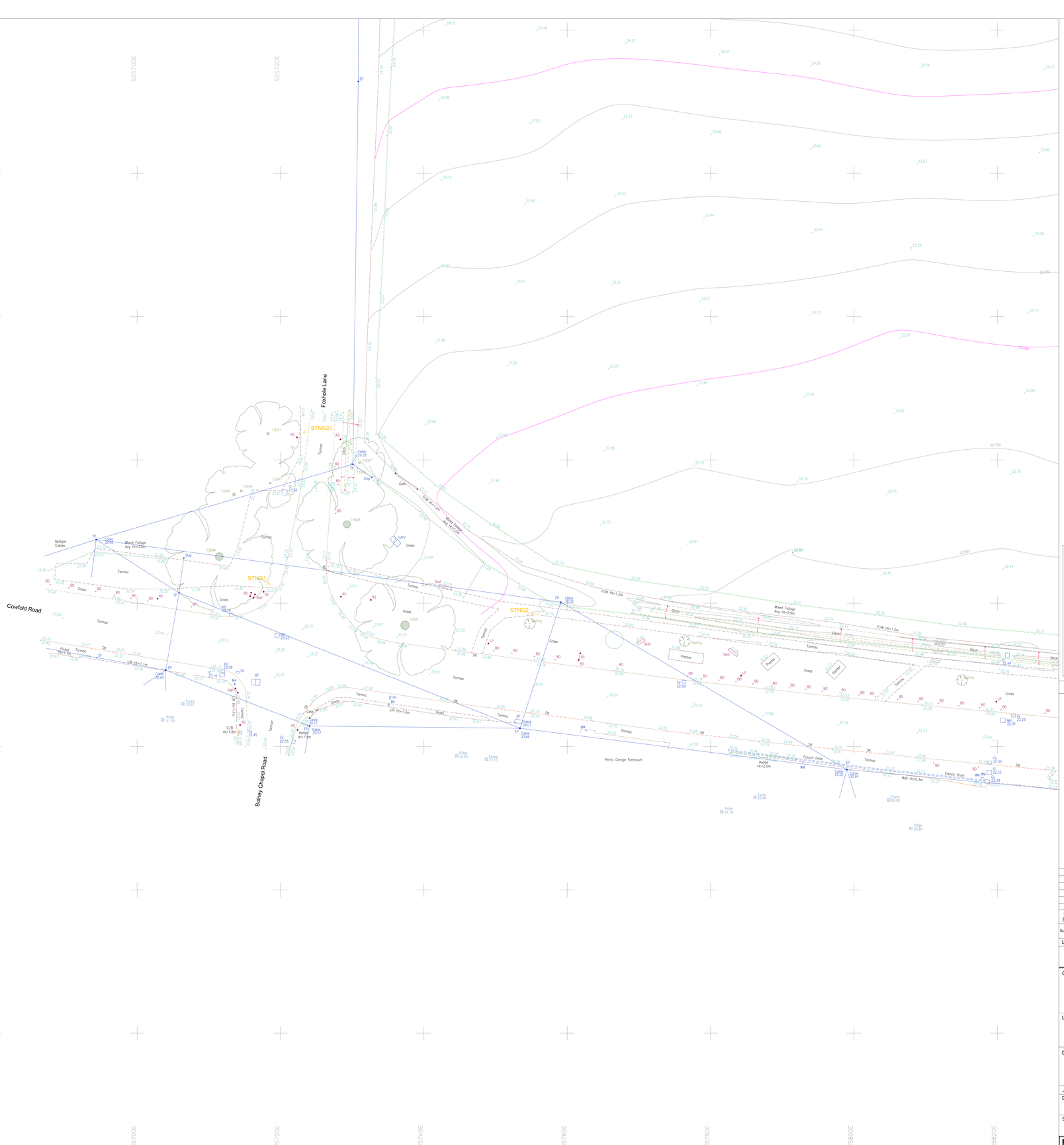
Drawing Title: Topographical Survey Sheet 8 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/8	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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525640E 525660E 525680E 525700E 525720E 525740E 525760E 525780E 525800E 525820E

122500N 122480N 122460N 122440N 122420N 122400N 122380N



Notes:

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

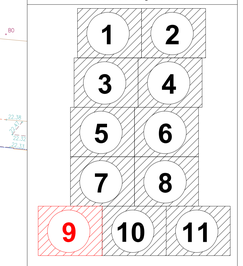
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Cote

Fences:
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chestnut Paling Fence C/P
Post and Rail Fence P/R
Post and Chain Fence P/C
Post and Rail Fence P/W
Post and Wire Fence P/W
Interwoven I/W
Chain Link Fence C/L
Iron Railings I/R
Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	Mr
BRITISH TELECOM	BT	PARKING METER	PM
CONCRETE SLABS	CS	POWER POLE/STATE	PP
COVER (SW)	CV	ROAD SIGN	SI
DROP KERB	DK	WOODING TREE	Wd
ELECTRICITY POLE	EP	SOIL VENT PIPE	SVP
FALL (ARROW)	F	STANDPIPE (WS)	STP
FLOODLIGHT	FL	STOP VALVE	SV
FOOTBALL	FB	STOP VALVE	SV
GAS VALVE	GV	SUPPORT POLE	SP
GPO (PO)	PO	SUSPENSION WIRE	SW
HEDGE	H	UNABLE TO LIFT	UTL
INSPECTION COVER	IC	VALVE	V
KERB LEVEL (KERB OUTLET)	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 9 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/9	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Notes:

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INDICATIVE

Legend:

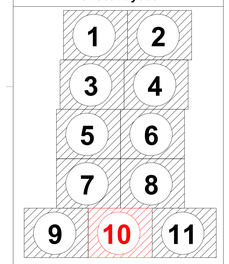
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences
- Barbed Wire Fence BW
- Corrugated Iron Fence CIS
- Closed Board Fence CB
- Hedge Mixed Species HM
- Iron Railing Fence IR
- Post and Chain Fence PCH
- Post and Rail Fence PR
- Post Wire Fence PW
- Chain Link Fence CL
- Close Board Fence CF
- Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
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CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
CONIFER	CF	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	RW
ELECTRIC BOX	EB	SOIL VENT PIPE	SVP
FLOWER BED	FB	SOIL VENT PIPE	SVP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	STREET LIGHT POLE	SLP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB STONE (FULL)	K	WATER TANK	WT
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 10 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/10	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Tree Schedule

Pt No	Spread	Bole	Height	Species
97	6.0	0.20	8.0	HAZEL
98	8.0	0.30	10.0	TREE UNKNOWN
99	10.0	0.50	13.0	TREE UNKNOWN
100	9.0	0.40	12.0	TREE UNKNOWN
101	5.0	0.40	8.0	CHERRY
102	8.0	0.25	10.0	TREE UNKNOWN
103	7.0	0.25	11.0	TREE UNKNOWN
104	7.0	0.25	12.0	TREE UNKNOWN
105	9.0	0.45	14.0	TREE UNKNOWN
106	11.0	0.45	13.0	TREE UNKNOWN
107	6.0	0.20	11.0	TREE UNKNOWN
108	7.0	0.40	11.0	TREE UNKNOWN
119	5.0	0.25	8.0	TREE UNKNOWN
120	6.0	0.30	5.0	TREE UNKNOWN
121	8.0	0.30	5.0	TREE UNKNOWN
122	8.0	0.40	12.0	TREE UNKNOWN
123	6.0	0.25	11.0	TREE UNKNOWN
124	8.0	0.30	11.0	TREE UNKNOWN
125	8.0	0.30	11.0	TREE UNKNOWN
126	7.0	0.20	10.0	TREE UNKNOWN
127	8.0	0.35	12.0	TREE UNKNOWN
128	8.0	0.35	12.0	TREE UNKNOWN
129	10.0	0.40	14.0	TREE UNKNOWN
130	12.0	0.40	15.0	TREE UNKNOWN
131	10.0	0.40	15.0	TREE UNKNOWN
132	7.0	0.35	11.0	TREE UNKNOWN
133	7.0	0.30	11.0	TREE UNKNOWN
134	8.0	0.40	11.0	TREE UNKNOWN
135	7.0	0.30	11.0	TREE UNKNOWN
136	8.0	0.30	7.0	TREE UNKNOWN
139	7.0	0.25	10.0	TREE UNKNOWN
140	5.0	0.25	10.0	TREE UNKNOWN
141	8.0	0.35	12.0	TREE UNKNOWN
142	8.0	0.35	12.0	TREE UNKNOWN
143	7.0	0.25	11.0	TREE UNKNOWN
144	7.0	0.40	11.0	TREE UNKNOWN
145	6.0	0.20	11.0	TREE UNKNOWN
146	6.0	0.20	11.0	TREE UNKNOWN
147	6.0	0.25	10.0	TREE UNKNOWN
148	6.0	0.25	10.0	TREE UNKNOWN
149	7.0	0.40	11.0	TREE UNKNOWN
150	7.0	0.30	6.0	TREE UNKNOWN
187	7.0	0.30	11.0	SILVER BIRCH
188	12.0	0.55	13.0	OAK
189	7.0	0.40	11.0	PINE
190	6.0	0.35	9.0	PINE
232	6.0	0.25	11.0	TREE UNKNOWN
233	6.0	0.35	12.0	PINE
234	5.0	0.20	10.0	CYPRESS
255	5.0	0.25	12.0	TREE UNKNOWN
256	5.0	0.25	12.0	TREE UNKNOWN
257	4.0	0.15	10.0	TREE UNKNOWN
258	6.0	0.25	12.0	TREE UNKNOWN
259	6.0	0.25	10.0	TREE UNKNOWN
260	3.0	0.10	6.0	CYPRESS
316	6.0	0.25	13.0	PINE
317	6.0	0.30	14.0	PINE
318	6.0	0.30	14.0	PINE
319	7.0	0.40	14.0	PINE
320	6.0	0.30	14.0	PINE
321	6.0	0.25	10.0	PINE
322	6.0	0.25	8.0	PINE
323	7.0	0.35	13.0	PINE
489	5.0	0.20	8.0	TREE UNKNOWN
490	7.0	0.40	15.0	PINE
491	8.0	0.45	13.0	PINE
492	7.0	0.25	9.0	TREE UNKNOWN
495	4.0	0.20	6.0	TREE UNKNOWN
603	7.0	0.20	9.0	TREE UNKNOWN
682	5.0	0.25	7.0	TREE UNKNOWN
683	4.0	0.20	6.0	TREE UNKNOWN
684	4.0	0.20	7.0	TREE UNKNOWN
685	9.0	0.40	12.0	TREE UNKNOWN
686	6.0	0.30	8.0	TREE UNKNOWN
687	4.0	0.20	8.0	TREE UNKNOWN
688	4.0	0.20	9.0	TREE UNKNOWN
689	6.0	0.35	15.0	TREE UNKNOWN
690	6.0	0.35	10.0	SILVER BIRCH
691	5.0	0.20	10.0	TREE UNKNOWN
692	5.0	0.20	7.0	TREE UNKNOWN
693	7.0	0.30	14.0	TREE UNKNOWN
694	8.0	0.30	13.0	TREE UNKNOWN
695	5.0	0.20	11.0	TREE UNKNOWN
696	6.0	0.20	8.0	TREE UNKNOWN
697	12.0	0.45	14.0	OAK
705	6.0	0.20	8.0	TREE UNKNOWN
898	7.0	0.25	9.0	TREE UNKNOWN
980	8.0	0.40	12.0	TREE UNKNOWN
981	8.0	0.40	12.0	TREE UNKNOWN
982	7.0	0.35	15.0	YEW
1018	11.0	0.40	14.0	OAK
1019	6.0	0.35	16.0	YEW
1088	7.0	0.45	11.0	PINE
1148	10.0	0.45	12.0	OAK
1149	10.0	0.45	12.0	TREE UNKNOWN
1245	4.0	0.15	8.0	TREE UNKNOWN
1246	8.0	0.40	14.0	TREE UNKNOWN
1247	8.0	0.40	13.0	TREE UNKNOWN
1248	8.0	0.40	13.0	TREE UNKNOWN
1249	7.0	0.25	12.0	TREE UNKNOWN
1250	9.0	0.25	12.0	TREE UNKNOWN
1251	9.0	0.35	14.0	TREE UNKNOWN
1252	8.0	0.30	14.0	TREE UNKNOWN
1253	9.0	0.40	14.0	TREE UNKNOWN
1254	9.0	0.30	12.0	TREE UNKNOWN
1255	9.0	0.35	14.0	TREE UNKNOWN
1256	8.0	0.30	14.0	TREE UNKNOWN
1257	8.0	0.30	15.0	TREE UNKNOWN
1258	8.0	0.40	15.0	TREE UNKNOWN
1259	8.0	0.40	15.0	TREE UNKNOWN
1260	7.0	0.30	13.0	TREE UNKNOWN
1261	7.0	0.35	13.0	TREE UNKNOWN
1262	13.0	0.40	15.0	OAK
1279	6.0	0.25	7.0	TREE UNKNOWN
12544	5.0	0.25	6.0	CHERRY
12549	5.0	0.20	6.0	TREE UNKNOWN
12597	6.0	0.30	7.0	TREE UNKNOWN
12600	6.0	0.30	7.0	TREE UNKNOWN
12608	2.0	0.25	6.0	CHERRY
13541	14.0	1.20	16.0	OAK
13566	7.0	0.15	9.0	TREE UNKNOWN
13567	7.0	0.25	10.0	TREE UNKNOWN
13621	9.0	0.35	9.0	TREE UNKNOWN
13644	15.0	1.10	14.0	TREE UNKNOWN
13645	8.0	0.40	14.0	TREE UNKNOWN
13646	7.0	0.30	14.0	TREE UNKNOWN
13647	7.0	0.25	12.0	TREE UNKNOWN
13648	14.0	1.00	13.0	OAK
13725	8.0	0.20	12.0	TREE UNKNOWN
13726	8.0	0.20	12.0	TREE UNKNOWN
13752	12.0	0.60	15.0	OAK
13753	9.0	0.70	13.0	TREE UNKNOWN
13853	15.0	1.20	16.0	OAK
13854	11.0	0.40	12.0	TREE UNKNOWN
14290	13.0	0.80	15.0	OAK
14291	13.0	0.70	15.0	OAK
14292	13.0	0.90	15.0	OAK
14293	13.0	0.90	15.0	OAK

Tree Schedule

Pt No	Spread	Bole	Height	Species
14294	12.0	0.70	13.0	EUCALYPTUS
20105	13.0	0.70	14.0	TREE UNKNOWN
20106	12.0	0.80	16.0	TREE UNKNOWN
20107	6.0	0.30	12.0	TREE UNKNOWN
20108	6.0	0.30	12.0	TREE UNKNOWN
20109	5.0	0.30	10.0	SILVER BIRCH
20110	14.0	0.60	16.0	OAK
20111	7.0	0.40	11.0	BEECH
20112	12.0	0.50	14.0	OAK
20120	6.0	0.20	8.0	TREE UNKNOWN
20136	11.0	0.90	14.0	TREE UNKNOWN
20137	13.0	1.00	16.0	TREE UNKNOWN
20138	13.0	0.60	15.0	OAK
20139	11.0	0.50	12.0	OAK
20140	16.0	0.75	16.0	OAK
20141	9.0	0.35	12.0	OAK
20160	7.0	0.30	9.0	TREE UNKNOWN
20161	7.0	0.30	9.0	TREE UNKNOWN
20162	5.0	0.30	5.0	TREE UNKNOWN
20163	8.0	0.35	11.0	TREE UNKNOWN
20164	10.0	0.35	10.0	TREE UNKNOWN
20165	8.0	0.35	10.0	TREE UNKNOWN
20167	5.0	0.30	9.0	CYPRESS
20171	20.0	1.10	18.0	OAK
20199	13.0	0.60	17.0	TREE UNKNOWN
20200	9.0	0.40	12.0	TREE UNKNOWN
20201	14.0	0.65	18.0	TREE UNKNOWN
20202	14.0	0.65	18.0	TREE UNKNOWN
20203	9.0	0.40	12.0	ASH
20204	13.0	0.80	17.0	TREE UNKNOWN
20205	6.0	0.25	9.0	TREE UNKNOWN
20206	6.0	0.25	9.0	CYPRESS
20213	15.0	1.00	15.0	TREE UNKNOWN
20214	7.0	0.25	8.0	OAK
20215	9.0	0.35	12.0	OAK
20218	7.0	0.50	8.0	HAZEL
20219	7.0	0.50	8.0	HAZEL
20220	13.0	0.60	14.0	OAK
20225	9.0	0.45	14.0	FIR
20226	10.0	0.35	12.0	TREE UNKNOWN
20227	9.0	0.35	12.0	FIR
20230	5.0	0.35	8.0	CYPRESS
20231	7.0	0.40	10.0	PINE
20232	7.0	0.40	10.0	PINE
20235	8.0	0.35	12.0	ASH
20243	9.0	0.35	11.0	OAK
20246	9.0	0.30	9.0	OAK
20247	9.0	0.30	9.0	OAK
20251	9.0	0.30	9.0	OAK
20290	12.0	0.50	12.0	OAK
20291	10.0	0.60	18.0	PINE
20292	13.0	0.60	14.0	OAK
20293	10.0	0.60	12.0	SILVER BIRCH
20294	6.0	0.30	7.0	OAK
20295	11.0	0.50	13.0	SILVER BIRCH
20296	8.0	0.30	10.0	SILVER BIRCH
20297	7.0	0.30	8.0	SILVER BIRCH
20298	6.0	0.30	5.0	FRUIT
20299	6.0	0.30	5.0	FRUIT
20346	12.0	0.50	13.0	OAK
20347	12.0	0.50	13.0	OAK
20348	13.0	0.65	16.0	OAK
20349	11.0	0.65	13.0	OAK
20350	7.0	0.30	10.0	OAK
20351	12.0	0.55	12.0	OAK
20352	12.0	0.50	13.0	OAK
20353	10.0	0.50	13.0	OAK
20354	10.0	0.50	11.0	OAK
20355	8.0	0.35	9.0	OAK
20356	8.0	0.35	9.0	OAK
20357	8.0	0.40	9.0	OAK
20358	10.0	0.40	11.0	OAK
20359	10.0	0.40	11.0	OAK
20360	5.0	0.20	9.0	SILVER BIRCH
20361	8.0	0.30	11.0	SILVER BIRCH
20422	3.0	0.40	6.0	TREE UNKNOWN
20423	3.0	0.40	6.0	TREE UNKNOWN
20424	3.0	0.40	7.0	TREE UNKNOWN
20425	3.0	0.40	4.0	TREE UNKNOWN
20426	3.0	0.40	4.0	TREE UNKNOWN
20427	7.0	0.30	10.0	SILVER BIRCH
20428	11.0	0.60	12.0	TREE UNKNOWN
20453	13.0	0.70	13.0	TREE UNKNOWN
20512	7.0	0.40	10.0	SYCAMORE
20513	5.0	0.30	10.0	SYCAMORE
20514	6.0	0.30	10.0	TREE UNKNOWN
20515	4.0	0.20	8.0	TREE UNKNOWN
20516	4.0	0.25	10.0	SILVER BIRCH
20517	11.0	0.60	12.0	TREE UNKNOWN
20519	6.0	0.25	8.0	FIR
20520	10.0	0.50	12.0	ASH
20524	12.0	0.70	13.0	HORSECHESTNUT
20529	12.0	0.65	14.0	ASH
20530	6.0	0.60	13.0	CYPRESS
20539	12.0	0.55	11.0	TREE UNKNOWN
20579	13.0	0.90	14.0	OAK
20605	12.0	0.70	14.0	OAK
20619	14.0	0.70	17.0	ASH
20653	12.0	0.50	16.0	SYCAMORE
20654	12.0	0.50	16.0	SYCAMORE
20655	12.0	0.50	16.0	SYCAMORE
20656	12.0	0.50	16.0	SYCAMORE
20721	8.0	0.60	15.0	TREE UNKNOWN
20722	8.0	0.60	15.0	TREE UNKNOWN
20723	8.0	0.60	15.0	TREE UNKNOWN
20724	8.0	0.60	15.0	TREE UNKNOWN
20725	8.0	0.60	15.0	TREE UNKNOWN
20726	8.0	0.40	10.0	TREE UNKNOWN
20727	8.0	0.50	13.0	TREE UNKNOWN
20781	6.0	0.25	9.0	TREE UNKNOWN
20782	8.0	0.30	8.0	TREE UNKNOWN
20875	7.0	0.30	9.0	TREE UNKNOWN
20876	6.0	0.30	5.0	FRUIT
20885	9.0	0.50	12.0	PINE
20891	7.0	0.25	8.0	CHERRY
20892	15.0	1.00	14.0	OAK
20893	5.0	0.20	8.0	FIR
20894	5.0	0.20	11.0	FIR
20895	5.0	0.25	11.0	FIR
20896	7.0	0.35	11.0	FIR
20897	7.0	0.40	11.0	FIR
20898	4.0	0.20	11.0	FIR
20899	7.0	0.45	13.0	FIR
20900	7.0	0.35	13.0	FIR
20901	7.0	0.40	13.0	FIR
20902	14.0	0.85	15.0	OAK
20903	5.0	0.30	12.0	PINE
20904	7.0	0.30	10.0	OAK
20931	7.0	0.45	12.0	PINE
20932	7.0	0.45	12.0	PINE
20933	6.0	0.35	12.0	PINE
20934	7.0	0.40	12.0	PINE
20935	6.0	0.30	12.0	PINE
20936	4.0	0.20	11.0	PINE
20937	4.0	0.25	11.0	PINE
20938	4.0	0.20	11.0	PINE
20939	4.0	0.25	11.0	PINE

Notes:

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

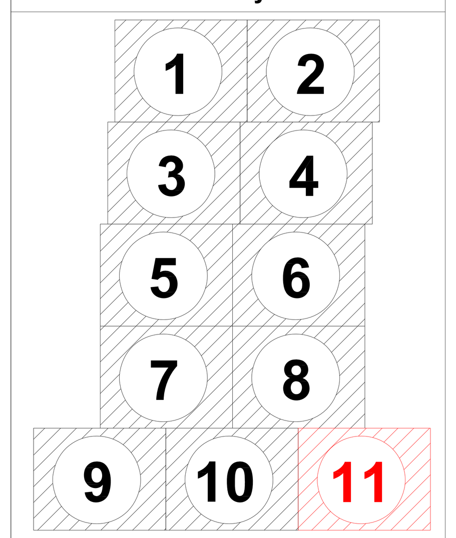
Fences:

Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chestnut Paling Fence	C/P
Iron Railing Fence	I/R
Post and Chain Fence	P/C
Post and Rail Fence	P/R
Post Wire Fence	P/W
Interwoven	I/W
Chain Link Fence	C/L
Larch Lap Fence	L/L
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
COVER LEVEL	CL	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	Rtw
FIRE HYDRANT	FH	RAINWATER PIPE	RPW
FLOWER BED	F/B	SOIL VENT PIPE	SVP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
PIPE INVERT LEVEL	IL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 11 of 11

Job No. 2309028
Old Job No.
Drawing Number
WD/2309028/11
Revision Suffix
Scale
1:200m (A0)
Date
December 2023

CD SURVEYS LTD
LAND, BUILDING & SITE ENGINEERING
PENTIRE - STABLE 1
FORDBRIDGE ROAD,
SUNBURY-ON-THAMES
MIDDLESEX, TW16 6AX
Tel (01932) 761196
Fax (01932) 786419
Email: mail@cdsurveys.com
Visit us at: www.cdsurveys.com

Notes:

Whilst every effort has been made to correctly identify species of trees on the site, we advise that an arborologist be consulted before any final decisions are made.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:

Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chestnut Paling Fence	C/P
Iron Railing Fence	I/R
Post and Chain Fence	P/C
Post and Rail Fence	P/R
Post Wire Fence	P/W
Interwoven	I/W
Chain Link Fence	C/L
Lynch Hek Fence	L/H
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
COVER LEVEL	CL	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	RTw
FLOWER BED	FB	SOIL VENT PIPE	SVP
FLOWER BED	FB	SUBSTANT PIPE	SUB
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
PIPE INVERT LEVEL	IL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

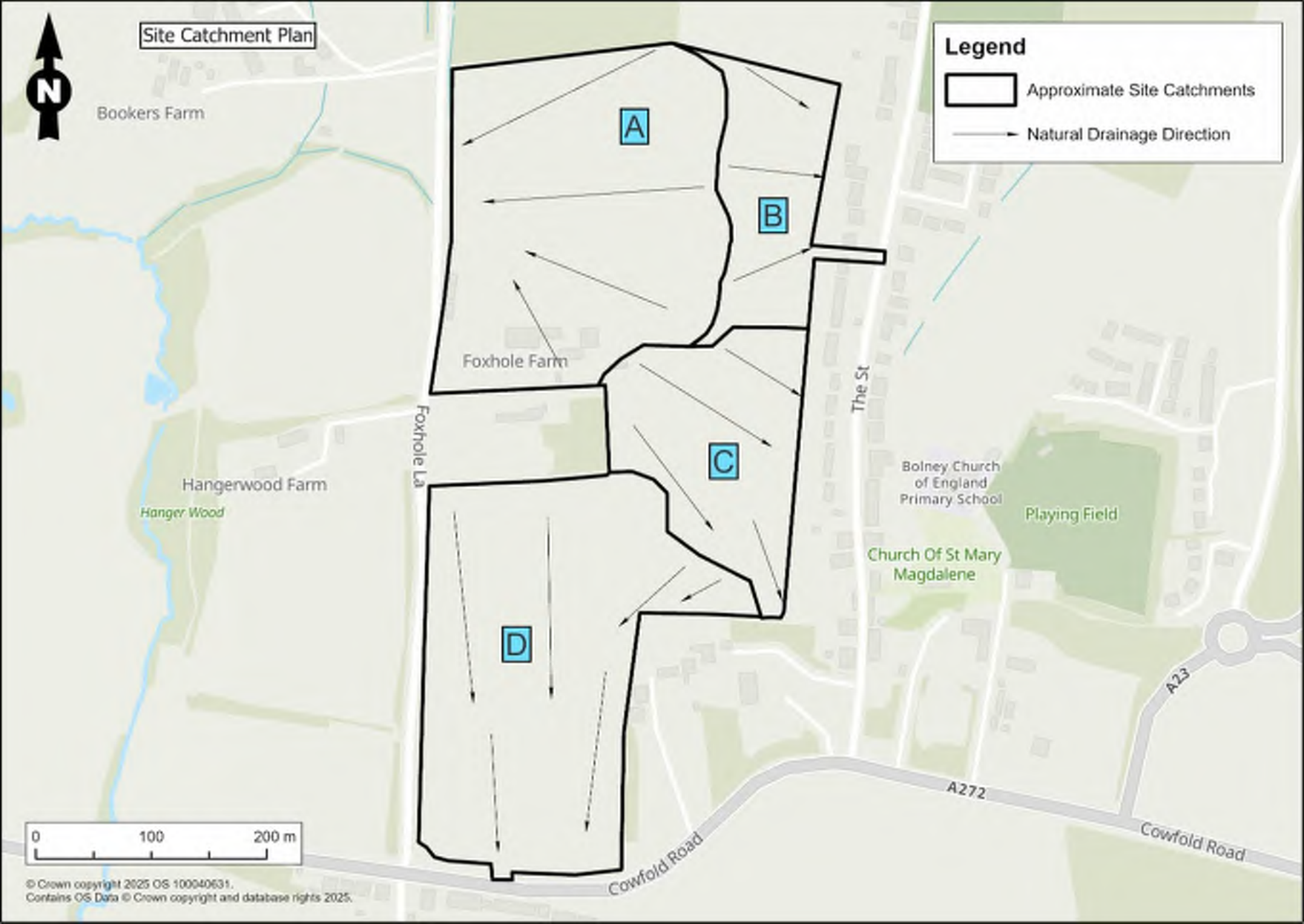
Drawing Title

Topographical Survey
Overall Sheet

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/O	Revision Suffix
Scale Not to Scale	Date December 2023

CD SURVEYS LTD
LAND, BUILDING & SITE ENGINEERING
PENTIRE - STABLE 1
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Email: mail@cdsurveys.com
Visit us at: www.cdsurveys.com

APPENDIX C - SITE VISIT PHOTOGRAPHS AND ACCOMPANYING FIGURES


Site Catchment Plan
N
Legend
Approximate Site Catchments
Natural Drainage Direction
A
B
C
D
Bookers Farm
Foxhole Farm
Foxhole La
The St
Hangerwood Farm
Hanger Wood
Bolney Church of England Primary School
Playing Field
Church Of St Mary Magdalene
A23
A272
Cowfold Road
Cowfold Road
0
100
200 m
© Crown copyright 2025 OS 100040631.
Contains OS Data © Crown copyright and database rights 2025.

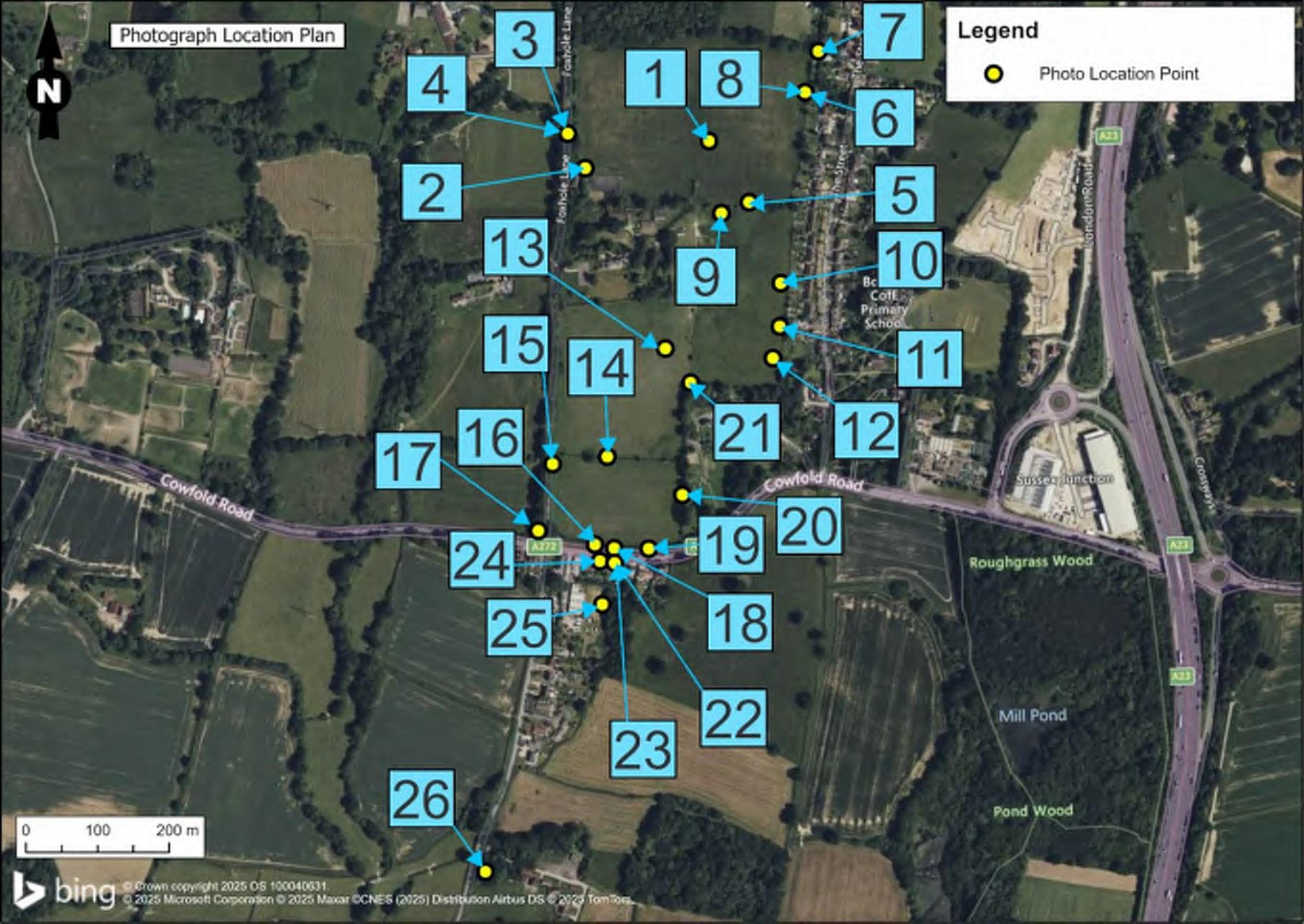

Photograph Location Plan
N
Legend
Photo Location Point
1
2
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4
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8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
Cowfold Road
Foxhole Lane
The Street
London Road
A23
A272
Roughgrass Wood
Mill Pond
Pond Wood
Sussex Junction
Crossways
0
100
200 m
bing
© Crown copyright 2025 OS 100040631
© 2025 Microsoft Corporation © 2025 Maxar ©CNES (2025) Distribution Airbus DS © 2025 TomTom

Table 3.1: Catchment A Photographs

	
1. View of Catchment A looking west from east side of catchment. Topography visibly sloping from east to west.	**2.** View of Catchment A looking north along western boundary. Standing water visible near gate.
	
3. View of watercourse exiting the site along the western boundary. Watercourse is flowing from east to	**4.** View of watercourse following exit from culvert beneath Foxhole Lane. Culvert visible in bottom left

west and passes through a culvert beneath Foxhole Lane.	corner of image. Watercourse noted to continue beyond the site.

Table 3.2: Catchment B Photographs

	
5. View of Catchment B looking north from south side of catchment. Topography visibly sloping from south to north.	**6.** Saturated ground and standing water in the northeast of the site. Clay based geology apparent.



7. Watercourse located immediately to the northeast of the site shown to be flowing from north to south and passing through private property back garden. Another branch of the watercourse flows from west to east and runs parallel to the northern boundary of the site and flows into this watercourse on the opposite side of the footbridge/footpath. Assumption is that watercourse is diverted eastwards through private property before connecting to existing surface water (or foul/combined) network along The Street.



8. View of standing water at north-eastern boundary. Area is approximately 5-8m west of the small watercourse shown in the image to the left.

Table 3.3: Catchment C Photographs

	
9. View of Catchment C looking southeast from north of catchment. Topography visibly sloping downhill from northwest to southeast.	**10.** Standing water and saturated ground in the east of the site. Looking east.

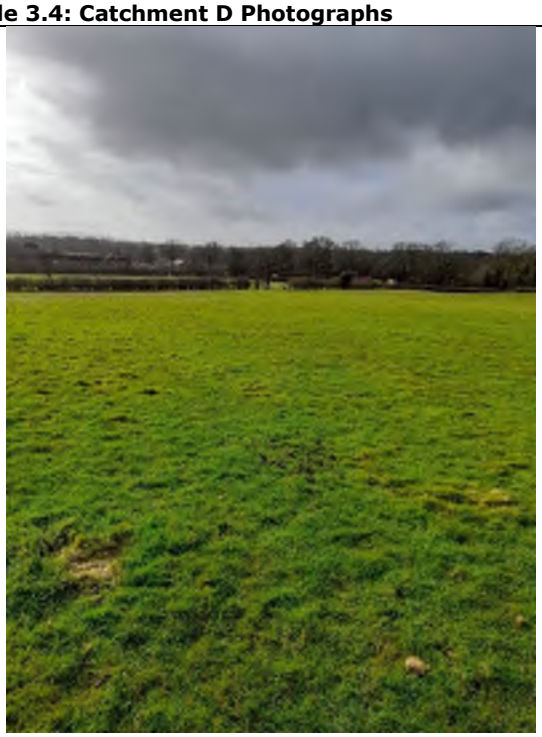


11. View of car park to the east of the site sloping downhill toward The Street. Looking east. Ground remains saturated.



12. View of Catchment C looking northwest from the southeast corner of the catchment. Topography visibly sloping uphill from southeast to northwest.

Table 3.4: Catchment D Photographs



13. View of Catchment D looking southwest from northeast of catchment. Topography visibly sloping downhill from north to south.



14. View looking east, of hedge line and field ditch bisecting Catchment D, flowing from west to east. Ground saturated.



15. Boundary ditch to west of site at Foxhole Lane, looking north. Flowing from north to south. Some debris in ditch restricting conveyance.



16. Field ditch at the southern boundary of the site, looking north. Water draining from the site collects along this southern boundary. Debris and partial ditch

	blockage creates standing water but drains down when cleared. See Table 3.5 below.

Other Observations

Further observations are presented in Table 3.5.

Table 3.5: Further Observations

 **17.** Confluence of ditches outside the southwest corner of the site on the west side of the entrance to Foxhole Lane. Ditch in field to west of site shown to be flowing from west to east and is not therefore suitable for discharge from the site.	 **18.** Manhole located in ditch along the southern boundary of the site. Flows drain to this location. Indication is that surface water runoff from the site is collected within this manhole and directed into the main surface water sewer and subsequent open channel to the south of the site and Cowfold Road.



19. Manhole to the south of the site adjacent to Cowfold Road considered to recognise the presence of foul drainage as it approximately aligns with foul water sewer records. Note that the cover was not lifted so confirmation was not able to be made.



20. Close up of inlet to piped system behind dense vegetation, to the immediate east of Catchment D (on private land) taking flow from a ditch flowing from north to south adjacent to Catchment D's eastern boundary. Flow from the ditch at the hedgerow across Catchment D drains to this location.



21. Saturated ground and early part of ditch flowing from north to south adjacent to Catchment D's eastern boundary. Looking south.



22. Catch pit to the south of the site, south of Cowfold Road. No flow visible at base of catch pit. Expectation is that connecting surface water network takes flow from the south of the site.



23. Cowfold Road drainage system. Looking north towards ditch outlet manhole.



24. Linear drainage channels visible at rear of footway on south side of Cowfold Road, to the south of the site.

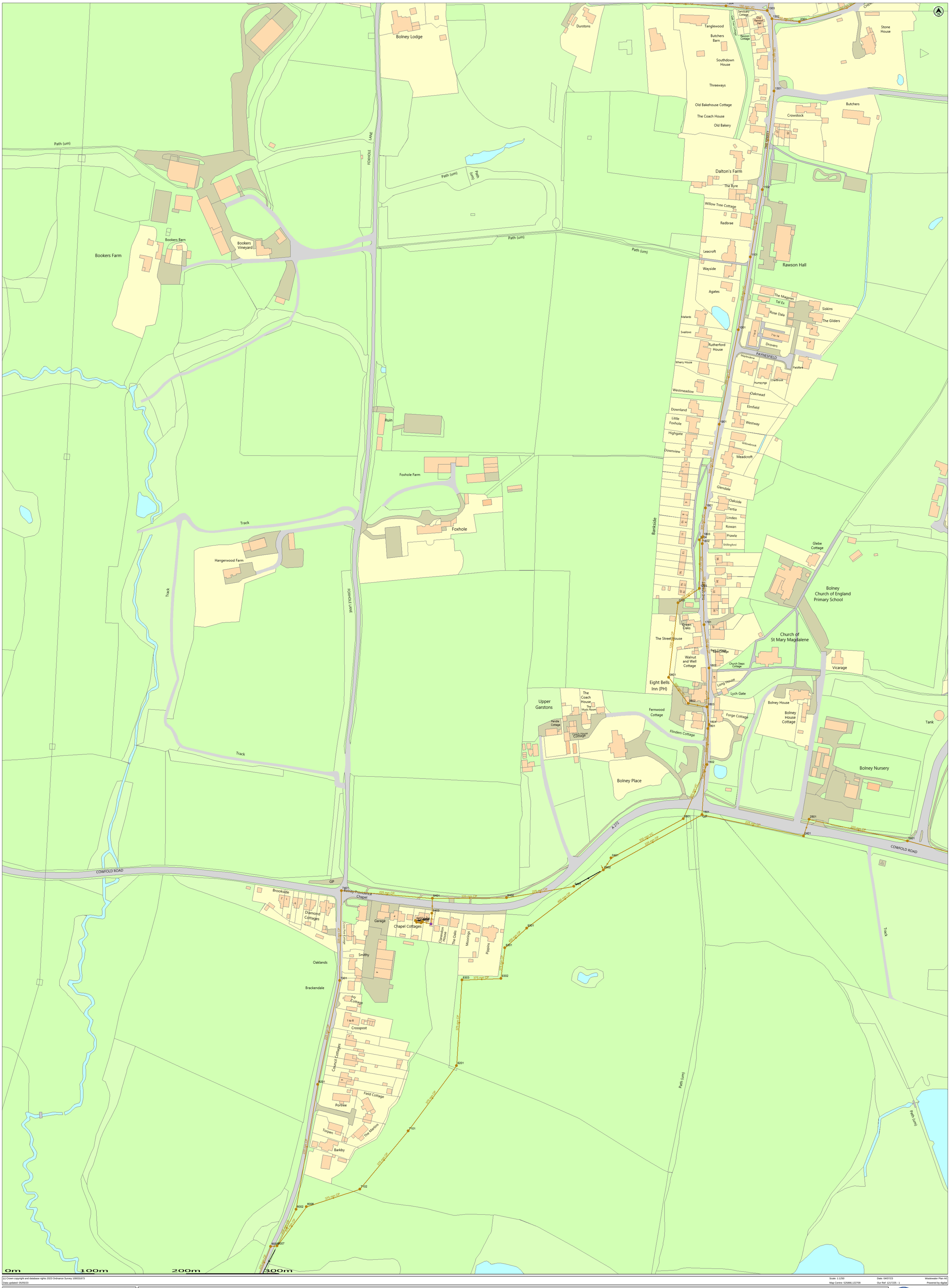


25. Continuation of surface water drainage in open channel to the south of Cowfold Road. Looking south. Photograph is taken approximately 70 m south of the site.



26. Southern Water foul pumping station located approximately 500m south of the site. Foul water from the area of the site and the surrounding area is expected to be directed to this station before being directed onward to the local wastewater treatment works.

APPENDIX D – SOUTHERN WATER SEWER RECORDS



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Data updated: 05/05/23

Scale: 1:1250 | Date: 04/07/23 | Wastewater Plan A0

Map Centre: 525866,122709 | Our Ref: 1217225 - 1 | Powered by digdat

Foul Gravity Sewer | Combined Gravity Sewer | Culverted Water Course or Treated Effluent | Surface Water Gravity Sewer | Rising Main, Vacuum or Syphon

Combined Outfall | Foul Outfall | Surface Water Outfall | Surface Water Inlet

Combined Pumping Station | Surface Water Pumping Station | Foul Pumping Station | Water Treatment Works | Section 104 Area | Building Over Agreement Area

Foul Manhole | Combined Manhole | Surface Water Manhole | Dely Entry Manhole, Decalcation Chamber, Duco's Machine or Vortex Separator, Dolosorbs

puneet.chauhan@ramboll.co.uk

land at Foxhole Lane

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2023 Ordnance Survey 100031673 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0401	F	23.44	20.15	
0402	F	23.16	18.70	
0501	F	24.20	20.80	
0601	F	0.00	26.07	
0602	F	0.00	25.31	
0701	F	30.00	26.69	
1001	F	35.20	32.81	
1101	F	36.03	34.25	
1102	F	37.46	35.78	
1301	F	42.19	40.62	
1302	F	47.62	46.23	
1303	F	48.31	46.71	
1304	F	48.92	47.28	
1501	F	24.79	19.12	
1502	F	25.79	22.29	
1601	F	28.30	25.67	
1602	F	28.93	26.41	
1603	F	29.04	29.04	
1604	F	28.41	25.06	
1701	F	28.37	26.85	
1703	F	28.95	26.95	
1801	F	31.76	29.84	
1802	F	30.13	28.89	
1803	F	30.38	0.00	
1804	F	30.37	28.65	
1901	F	34.98	31.85	
2301	F	49.83	48.42	
2401	F	25.15	19.63	
2501	F	24.80	19.69	
3401	F	25.17	20.12	
6002	F	17.58	0.00	
6006	F	18.16	16.93	
6007	F	18.10	16.58	
6008	F	17.99	16.54	
6201	F	20.39	17.25	
7101	F	18.96	17.18	
7102	F	19.14	17.18	
7301	F	21.37	17.57	
7401	F	23.12	17.77	
8201	F	20.23	17.75	
8301	F	21.39	18.34	
8302	F	20.68	18.26	
8303	F	19.83	18.08	
8401	F	22.52	18.09	
8402	F	22.57	18.35	
8403	F	0.00	0.00	
8404	F	0.00	0.00	
8405	F	99.86	99.27	
8406	F	99.86	0.00	
8407	F	99.86	99.48	
8408	F	99.86	99.46	
9301	F	22.07	18.39	
9401	F	0.00	18.75	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

APPENDIX E – SOUTHERN WATER COMMUNICATIONS

from Southern Water

Anthony Guay
Twenty3 Brunswick Place
Southampton
Hampshire
SO15 2AQ

Your ref

Our ref
13828

Date
20 February 2024

Contact
Tel 0330 303 0119

Dear Mr Guay,

Level 1 Capacity Check Enquiry: Land at Foxhill Farm, Bolney, Haywards Heath, West Sussex, RH17 5NB.

We have completed the capacity check for the above development site and the results are as follows:

Foul Water

There is currently adequate capacity in the local sewerage network to accommodate a foul flow of **0.72 l/s** and **1.08 l/s** for the above development at manhole reference TQ2622**1901** and TQ2522**7401** respectively. Please note that no surface water flows (existing or proposed) can be accommodated within the existing foul sewerage system unless agreed by the Lead Local Flood Authority in consultation with Southern Water, after the hierarchy Part H3 of Building Regulations has been complied with.

Connecting to our network

It should be noted that this information is only a hydraulic assessment of the existing sewerage network and does not grant approval for a connection to the public sewerage system. A formal Sewer Connection (S106) application is required to be completed and approved by Southern Water Services. To make an application visit: developerservices.southernwater.co.uk

Please note the information provided above does not grant approval for any designs/drawings submitted for the capacity analysis. The results quoted above are only valid for 12 months from the date of issue of this letter.

Southern Water Services Ltd, Registered Office: Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX Registered in England No. 2366670

Please get in touch via the Get Connected customer dashboard if you have any queries.

Yours sincerely,

Future Growth Planning Team
Developer Services

southernwater.co.uk/developing-building/planning-your-development

Southern Water Services Ltd, Registered Office: Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX Registered in England No. 2366670

from Southern Water

David Major
Ramboll
Twenty3 Brunswick Place
Southampton
SO15 2AQ

Your ref
17113

Our ref
DSA000037150

Date
04 October 2024

Contact
Tel 0330 303 0119

Dear Mr Major,

Level 1 Capacity Check Enquiry: Land at Foxhole Farm, Bolney, Sussex, RH17 5NB

We have completed the capacity check for the above development site and the results are as follows:

Foul Water

The enquiry has been reassessed to determine the capacity available for 1.8 l/s at manhole reference TQ25227401.

There is currently adequate capacity in the local sewerage network to accommodate a foul flow of 1.8 l/s for the above development at manhole reference TQ25227401. Please note that no surface water flows (existing or proposed) can be accommodated within the existing foul sewerage system unless agreed by the Lead Local Flood Authority in consultation with Southern Water, after the hierarchy Part H3 of Building Regulations has been complied with.

Please note, the assessment that has been undertaken using an assumed flow/pump rate of 1.8 l/s. This has been calculated using Southern Water's modelling specifications.

Connecting to our network

It should be noted that this information is only a hydraulic assessment of the existing sewerage network and does not grant approval for a connection to the public sewerage system. A formal Sewer Connection (S106) application is required to be completed and approved by Southern Water Services. To make an application visit: developerservices.southernwater.co.uk

Please note the information provided above does not grant approval for any designs/drawings submitted for the capacity analysis. The results quoted above are only valid for 12 months from the date of issue of this letter.

Southern Water Services Ltd, Registered Office: Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX Registered in England No. 2366670

Please get in touch via the Get Connected customer dashboard if you have any queries.

Yours sincerely,

Future Growth Planning Team
Developer Services

southernwater.co.uk/developing-building/planning-your-development

Southern Water Services Ltd, Registered Office: Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX Registered in England No. 2366670

David Major

From: Southern Water Planning <SouthernWaterPlanning@southernwater.co.uk>
Sent: 17 October 2024 09:33
To: David Major
Cc: Anthony Guay
Subject: RE: Land at Foxhole Farm, Bolney, Pre Development Enquiry Waste, 17113

Good Morning David,

I can confirm that the current proposed scenario is acceptable for the proposed development.

Kind Regards

Rachael Powys-Keck
Future Growth Planner, South East Region
T. 03303030119
M. 07922861263
southernwater.co.uk

Classification: Confidential

From: David Major <david.major@ramboll.co.uk>
Sent: Wednesday, October 16, 2024 1:47 PM
To: Southern Water Planning <SouthernWaterPlanning@southernwater.co.uk>
Cc: Anthony Guay <Ant.Guay@ramboll.co.uk>
Subject: RE: Land at Foxhole Farm, Bolney, Pre Development Enquiry Waste, 17113

Hi,

Based on the calculations you attached in your earlier email, I think we are ok.

Can you confirm that under the proposed scenario, where the north of the site will be pumped and the south of the site will drain by gravity, you have calculated an overall peak flow of 1.81L/s and that this is acceptable for the proposed development?

Kind regards
David Major

BSc (Hons), MSc, MCIWEM
Consultant
1622761 - Water

D +44 2380 817672
M +44 7866 055808
david.major@ramboll.co.uk

_____

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Registered office: 240 Blackfriars Road, London SE1 8NW

Classification: Confidential

From: Southern Water Planning <SouthernWaterPlanning@southernwater.co.uk>
Sent: Wednesday, October 16, 2024 12:54 PM
To: David Major <david.major@ramboll.co.uk>
Subject: FW: Land at Foxhole Farm, Bolney, Pre Development Enquiry Waste, 17113

Good Afternoon David,

Thank you for your email enquiry.

To clarify:

In app: 17113

Guest
Work notes12/09/2024 08:31:07
This application is an update to a previous enquiry (13828) at the same site. We previously got approval for two separate foul discharges, one toward The Street, and another south to Cowfold Road. We now seek a single discharge south to Cowfold Road (expected to be around 1.8L/s, MH7401).

- This was undertaken in Job 1017699

In app: 13828

The previous CC job 1017315 requested:
TQ26221901 – Split flow 0.72 l/s (80 units)
TQ25227401 – Split flow 1.08 l/s (120 units)

Are you requesting a new CC on 7l/s at TQ25227401?
In this case a new capacity check will need to be raised.

Kind Regards

Rachael Powys-Keck
Future Growth Planner, South East Region
T. 03303030119
M. 07922861263
southernwater.co.uk

Classification: Confidential

From: David Major <david.major@ramboll.co.uk>
Sent: Tuesday, October 15, 2024 8:09 AM
To: Developer Services <Developer.Services@southernwater.co.uk>
Cc: Anthony Guay <Ant.Guay@ramboll.co.uk>
Subject: Land at Foxhole Farm, Bolney, Pre Development Enquiry Waste, 17113

Sir/Madam,

On the 4th October 2024 we received a response regarding the above referenced Level 1 Capacity Check Enquiry. Within the response it was stated that there is currently adequate capacity in the local sewerage network to accommodate a foul flow of 1.8L/s at manhole reference TQ25227401. It was further stated that the assessment was undertaken using an assumed flow/pump rate of 1.8L/s.

While completing the application form, I referred to a previous application (13828) at the same site that proposed two separate discharges, one to Cowfold Road (MH7401) and one to The Street (MH1901). You previously confirmed adequate capacity for this previous application at two separate foul flow rates of 0.72L/s for the northern development discharging to The Street, and 1.08L/s for the southern development discharging to Cowfold Road. In completing the application form for this most recent enquiry, I stated in the additional comments section how I expected the final discharge capacity to be around 1.8L/s, as this was the sum of the two separate foul flow rates that you determined for the previous application. Did you use this rate as an assumed pump rate? If not, then it is not clear where the 1.8L/s that you used for the assessment has come from.

For the purposes of our own assessment, we need to determine what is the total capacity available at the site. Could you please advise on the maximum available capacity in the network for the application 17113?
If this is not possible then please could you determine whether a foul flow of 7L/s is available?

Kind regards

David Major

BSc (Hons), MSc, MCIWEM
Consultant
1622761 - Water

D +44 2380 817672
M +44 7866 055808
david.major@ramboll.co.uk

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David Major

From: Southern Water Planning <SouthernWaterPlanning@southernwater.co.uk>
Sent: 24 February 2025 13:21
To: David Major
Cc: Anthony Guay
Subject: RE: Land at Foxhole Farm, Bolney, Pre Development Enquiry Waste, 17113

Good Afternoon David,

Thank you for your email.

I have taken some time to gather the below information which I hope will assist in providing you with some information regarding capacity in the network, storm overflows and our Drainage and Waste Water Management Plan (DWMP). To clarify on the terminology, the 'network' refers to pipes and pumping stations used to convey wastewater from homes and businesses to a 'WTW' (wastewater treatment works), for treatment before it is returned to the environment. We assume that the 'regular pumping into the local stream' you refer to relates to the water industry's use of CSOs (Combined Storm Overflows) – please see the attached fact sheet for more detail on this, but we would stress that this is not an illegal act, but is a function of how the sewer system was historically designed, to release excess rainwater from the system into waterways, in order to prevent backup in the network causing flooding. We recognise that this is no longer acceptable and the water industry is taking significant steps to address this – please see more information on the work Southern Water is doing to address this issue on our website here Storm Overflows (southernwater.co.uk)

Southern Water assesses network capacity for development once it is consulted on a planning application, at which point models will be run to determine whether the existing levels of flow within the network can accommodate additional wastewater flows from the proposed development. Our assessment for the planning application in question showed that there is capacity in the foul network for additional wastewater flows that would be generated by this development. It is important to note that this relates to wastewater flows only, and surface water (ie rainwater that falls on roofs, patios and driveways) from new development should not be permitted to connect to the foul network, as this places increased pressure on the network during heavy rainfall, leading to increased risk of CSO use.

It should be noted that whilst Southern Water cannot object to development, as this would conflict with our legal obligation under Section 94 of the Water Industry Act 1991 (WIA 1991) to provide developers with the right to connect to a public sewer, capacity can always be provided by Southern Water to accommodate new development where we have identified that this is needed. Water companies have a statutory duty under section 94 of the WIA 1991 to plan and implement any works that are necessary to ensure the network of sewers (and sewage treatment facilities) continue to operate satisfactorily once they have received notification that a developer intends to exercise their right to connect under section 106 (1) WIA 1991.

Through our new Drainage and Wastewater Management Plan (DWMP) process, which is currently underway, we are working with stakeholders to better understand the range of flooding risks in drainage catchments across our region, to try to work towards a more collaborative and sustainable approach to managing surface water. Key to this is preventing rainwater from entering our foul network, in order to free up sewer capacity for new development, whilst minimising the risk of foul flooding. See https://www.southernwater.co.uk/media/q0gezba2/l3_burg.pdf for more information.

Whilst storm overflows are integral to the design of many of our WTWs and networks, we are working towards reducing their usage, in line with DEFRA's requirements which are set out here Storm_Overflows_Discharge_Reduction_Plan.pdf (publishing.service.gov.uk). See further information on our website; Flow and spill reporting (southernwater.co.uk) and Our response to The Storm Overflows Taskforce (southernwater.co.uk)

I hope this helps to explain a little more in detail.

Kind Regards

Rachael Powys-Keck
Future Growth Planner, South East Region
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from Southern Water

Classification: Confidential

From: David Major <david.major@ramboll.co.uk>
Sent: Thursday, February 20, 2025 4:01 PM
To: Southern Water Planning <SouthernWaterPlanning@southernwater.co.uk>
Cc: Anthony Guay <Ant.Guay@ramboll.co.uk>
Subject: RE: Land at Foxhole Farm, Bolney, Pre Development Enquiry Waste, 17113

Sir/Madam,

Thanks very much for your help regarding the below enquiry dated to last autumn.

Since the enquiry, the proposed planning application has moved forward significantly and there have been concerns raised by the local Parish Council about the capacity of the current foul sewer network. This is despite what you previously confirmed to us in the attached pdf. In particular they are keen to understand how there can be capacity despite reports of 'regular pumping into the local stream'?

Is there anything you can tell us that may help to ease local concerns regarding this matter?

Kind regards
David Major

BSc (Hons), MSc
Consultant
Water Team

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From: Southern Water Planning <SouthernWaterPlanning@southernwater.co.uk>
Sent: 17 October 2024 09:33
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Cc: Anthony Guay <Ant.Guay@ramboll.co.uk>
Subject: RE: Land at Foxhole Farm, Bolney, Pre Development Enquiry Waste, 17113

Good Morning David,

Intended for
Wates Developments Limited

Document type
Report

Date
April 2025

Land at Foxhole Farm Bolney

Flood Risk Assessment

RAMBOLL

Bright ideas.
Sustainable change.

Land at Foxhole Farm Bolney
Flood Risk Assessment

Project name	**Land at Foxhole Farm Bolney**
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Checked by	**Anthony Guay**
Approved by	**Anthony Guay**
Description	**Flood Risk Assessment Report**

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Contents

Executive Summary		2
1.	Introduction	3
1.1	Appointment and Brief	3
1.2	Scope and Objectives	3
1.3	General Limitations and Reliance	4
2.	Site Description	5
2.1	Site Location and Surroundings	5
2.2	Proposed Development	5
2.3	Site Topography	6
2.4	Existing Drainage	7
3.	Policy Framework	10
3.1	National Planning Policy Framework, 2024	10
3.2	Mid Sussex District Council, District Plan, 2018	10
3.3	Mid Sussex District Plan 2021 – 2039, Submission Draft (Regulation 19)	11
3.4	Bolney Neighbourhood Plan, September 2016	11
3.5	Mid Sussex District Council, Level 1 Strategic Flood Risk Assessment, 2024	11
3.6	Mid Sussex District Council, Level 2 Strategic Flood Risk Assessment, 2024	12
3.7	MSDC response to Action Point AP-020, November 2024	12
3.8	West Sussex County Council, Local Flood Risk Management Strategy, 2014	12
4.	Review of Baseline Flood Risk Data	14
4.1	Hydrological Setting	14
4.2	EA Flood Zone Designation (Fluvial and Tidal Flood Risk)	15
4.3	EA Hydraulic Modelling	15
4.4	Surface Water and Sewer Flood Risk	16
4.5	Geological and Hydrogeological Setting	19
4.6	Risks from Reservoirs, Canals, and Other Artificial Sources	20
4.7	Historic Flooding	20
4.8	Baseline Flood Risk Summary	21
5.	Assessment of Flood Risk	22
5.1	Fluvial	22
5.2	Surface Water	22
5.3	Groundwater	27
5.4	Flood Risk Vulnerability	27
5.5	Sequential Test	28
5.6	Further Mitigation/Assessment of Residual Risk	28
5.7	Summary	35
6.	Conclusions	36

Executive Summary

Ramboll UK Limited ('Ramboll') has been commissioned by Wates Developments Limited (Wates) to produce a Flood Risk Assessment for the site at 'Land at Foxhole Farm Bolney'. The site is located at approximate coordinates 525911E, 122766N, at postcode RH17 5NB.

The Proposed Development is for an outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

A review of all available information relating to flood risk has been undertaken, and an assessment has been made of the existing baseline flood risk and potential future risk to the development. A summary of the flood risk from each source is as follows:

- Fluvial/Tidal – Site is located in Flood Zone 1, and as such there is a Low risk from fluvial/tidal flooding;
- Surface Water – While there are areas considered to be at a High risk from surface water flooding present in the northeast, northwest and south of the site, approximately 90% of the site is located in an area considered to be at a Very Low risk from surface water flooding. Proposed dwellings are located outside the areas of risk which will be managed as part of the surface water drainage strategy; and
- Groundwater – Upon review of the proposed layout and the proposed surface water drainage strategy, the overall risk to the Proposed Development is considered to be low.

As part of the surface water strategy for the Proposed Development, excess runoff from the site will be released at the mean annual flood return period which represents a considerable reduction in the peak flows presently emanating from the site during high return period flooding events. The strategy will therefore improve upon the current situation with regard to surface water management and flood risk.

Across the eastern part of the northern and central development areas, the existing drainage that would otherwise flow toward The Street will instead be collected and transported by the proposed network of swales (drainage channels) and attenuation areas (basins/ponds) away from this location to be released at a controlled rate toward separate locations in the west and south of the site. This represents a significant betterment to the present situation.

An analysis of the Flood Hazard Rating at the location of the proposed site access indicates there is no danger at this location and that the proposed access location is considered safe for emergency use.

Subject to inclusion of the proposed mitigation measures, and adherence to the proposed surface water drainage strategy, it is expected that flood risk at the site can be managed in a safe and sustainable manner.

1. Introduction

1.1 Appointment and Brief

1.1.1 Ramboll UK Limited ('Ramboll') has been commissioned by Wates Developments Limited (Wates) to produce a Flood Risk Assessment (FRA) for the site at 'Land at Foxhole Farm Bolney'. The site is located at approximate coordinates 525911E, 122766N, at postcode RH17 5NB.

1.1.2 The Proposed Development is for an outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

1.2 Scope and Objectives

1.2.1 This report considers the risks of various sources of flooding to the site and has been carried out in accordance with the National Planning Policy Framework (NPPF)[1]. It is to be used to assist the Local Planning Authority (LPA) and relevant statutory consultees when considering the flooding issues of the Proposed Development, as part of a planning application.

1.2.2 The report provides the following information:

1. A review of the flood risk to the site based upon flood data and the flood maps provided by the Environment Agency (EA) and the relevant Strategic Flood Risk Assessment (SFRA);
2. An assessment of flood risk from all sources including tidal, fluvial, pluvial, groundwater and other artificial sources;
3. An assessment of the potential for flood risk to arise as a result of the introduction of the Proposed Development including an assessment of whether the Proposed Development is likely to be affected by current or future flooding, and whether it will increase flood risk elsewhere; and
4. Proposals to mitigate any residual flood risks to the development.

[1] GOV.UK, National Planning Policy Framework, 2024 [online]. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2. Accessed January 2025.

1.3 General Limitations and Reliance

1.3.1 This report has been prepared by Ramboll exclusively for the intended use by the client in accordance with the agreement between Ramboll and the client defining, among others, the purpose, the scope and the terms and conditions for the services. No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended, or any other services provided by Ramboll.

1.3.2 In preparation of the report and performance of any other services, Ramboll has relied upon publicly available information, information provided by the client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete, and available to Ramboll within the reporting schedule.

1.3.3 Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are intended solely for the use and benefit of the client for this purpose only and may not be used by or disclosed to, in whole or in part, any other person without the express written consent of Ramboll. Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

1.3.4 Unless otherwise stated in this report, the scope of services, assessment and conclusions made assume that the site will continue to be used for its proposed end-use without further significant changes onsite. Unless stated otherwise, the geological information provided is for general environmental interpretation and should not be used for geotechnical and/or design purposes.

2. Site Description

2.1 Site Location and Surroundings

2.1.1 The site is located at Foxhole Farm, Bolney, on land immediately east of Foxhole Lane. The site is centred at approximately 525911E, 122766N, at postcode RH17 5NB. The site measures 16.89 hectares (ha) in area.

2.1.2 Approximately 95% of the site currently consists of greenfield land, possibly used for pastoral farming, with the remaining 5% consisting of existing trees/hedgerows and farm buildings. Adjacent and surrounding land uses are as follows:

- North: Existing wooded areas, green space, and some housing. Lodge Lane is located approximately 250 m from the site;
- East: The Street and adjacent housing. The A23 is located approximately 360 m from the site;
- South: A272 Cowfold Road and adjacent housing/green space; and
- West: Foxhole Lane and adjacent green space/agricultural land. The Bolney Wine Estate is located approximately 120 m from the site.

2.1.3 The village of Bolney is located immediately to the east/northeast of the site. The closest town is Haywards Heath, located approximately 6 km east of the site.

2.1.4 The Site Location Plan is presented in Figure 2.1 at the rear of the report.

2.1.5 The Site Setting is presented in Figure 2.2 at the rear of the report.

2.2 Proposed Development

2.2.1 Outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

2.2.2 The Site Masterplan is presented in Appendix A at the rear of the report.

2.2.3 The southern development is designated as the Southern Parcel and proposes approximately 108 dwellings. The northern development is designated as the Northern Parcel and proposes approximately 92 dwellings.

2.2.4 The community building will ultimately sit within the Northern Parcel. It is noted however that this may be constructed at the same time as the development within the Southern Parcel. A confirmed commitment to phasing is not included at this stage as part of the application.

2.3 Site Topography

2.3.1 A site topographical survey[2] has been undertaken at the site. A description of the topography is summarised as follows:

Southern Parcel

2.3.2 Levels in the southern development are shown to fall from north to south. The survey indicates that levels at the northern end of the Proposed Development area are between approximately 34.3 and 35 m Above Ordnance Datum (AOD) at their highest, falling to approximately 22.2 m AOD at the southern end of the site, adjacent to the A272 (Cowfold Road).

Northern Parcel

2.3.3 Levels in the northern development are indicated to fall from a high of approximately 42 m AOD in the southeast of the Proposed Development area, to approximately 30.1 m AOD in the west. Levels are additionally shown to fall toward the north, east and west. Furthermore, levels are shown to fall from a high of approximately 37 m AOD in the north of the Proposed Development area toward the south, east and west. Together, these two high points are shown to connect to form a watershed running approximately north to south in the eastern half of the Proposed Development area, with land falling away more steeply toward both the east and west. The low point in the east of the site is recorded at approximately 34.2 m AOD.

Central Areas

2.3.4 Central areas of the site are typically shown to fall from west to east and north to south, with the highest level at the site (approximately 43 m AOD) located approximately 25 m south of the proposed northern development area.

[2] CD Surveys Ltd, Topographical Survey, Foxhole Farm, Bolney, Haywards Heath, WD/2309028/1, December 2023.

2.3.5 Dividing the Central Areas into their eastern and western sections, in the east the survey shows how the land falls from a high of approximately 43 m AOD in the northwest to a low of approximately 31.8 m AOD in the southeast. In the west the survey shows how the land falls from a high of between approximately 39.1 and 40.1 m AOD to the levels shown at the northern end of the Proposed Development area for the Southern Parcel (i.e., between approximately 34.3 and 35 m AOD).

Summary and Surrounding Area

2.3.6 The site topographical survey is presented in Appendix B at the rear of the report.

2.3.7 A site visit was undertaken in February 2024 by representatives from both Ramboll and Wates. The topography was observed to be in line with that shown in the topographical survey. A series of photographs taken while onsite are presented in Appendix C at the rear of the report.

2.3.8 Light Detection and Ranging (LiDAR) data[3], acquired from the EA, is shown to broadly agree with the findings of both the topographical survey and the site visit. Outside the site boundary, the topography is as follows:

- North: Land is shown to rise more steeply with levels of approximately 50 m AOD shown to be present approximately 160 m from the site;
- East: Land is shown to rise to a high of approximately 43 m AOD before falling away again toward the A23;
- South: Land is shown to typically be lower than the site and to fall away toward local watercourses; and
- West: Land is shown to fall away toward local watercourses.

2.3.9 LiDAR Topography is presented in Figure 2.3 at the rear of the report.

2.4 Existing Drainage

2.4.1 At present, the site is comprised of undeveloped, greenfield land with no impermeable surfaces and therefore no areas which are positively drained (i.e. by conventional underground pipes, gullies, manholes etc.).

Surface Water

2.4.2 According to the LandIS soils map[4], the site is stated to drain to the 'stream network'. This statement is backed up by observations made during the site visit undertaken in February 2024, where saturated ground and pooling of water were observed in many places across the site, as well as the drainage of surface water to existing watercourses both on and offsite.

[3] Department for Environment Food & Rural Affairs, Data Services Platform, LiDAR Composite Digital Terrain Model (DTM) – 1m [online]. Available at: https://environment.data.gov.uk/dataset/13787b9a-26a4-4775-8523-806d13af58fc. Accessed September 2024.

[4] LandIS, Soilscapes Viewer [online]. Available at: https://www.landis.org.uk/soilscapes/. Accessed September 2024.

2.4.3 During the February 2024 site visit, surface water drainage was identified in Cowfold Road to the south of the site. Formal drainage features were observed adjacent to the road as well as another watercourse approximately 70 m south of the site which was observed to be taking surface water drainage from Cowfold Road and the site and directing it south.

2.4.4 In the northwest of the site, surface water was observed to drain toward an existing culvert which directed flows beneath Foxhole Lane and into an existing watercourse to the west of the site.

2.4.5 Saturated ground and pooling were observed across the east of the site where the terrain was observed to slope down toward the east.

2.4.6 In the south of the site, water was observed to be directed toward the existing ditch oriented approximately east to west adjacent to the southern boundary of the site, via a network of existing ditches to the north, east and west. Water was observed in a similarly oriented east to west ditch located approximately halfway up the southern development area as well as in separate ditches running from north to south along both the eastern and western site boundaries in this part of the site.

2.4.7 Observations made onsite indicated that water collecting in the ditch at the southern boundary was directed into the existing sewer network in Cowfold Road.

Foul Water

2.4.8 Southern Water sewer records are presented in Appendix D at the rear of the report. They show the presence of existing wastewater sewer networks in both The Street to the east of the site and in Cowfold Road to the south. To the south of the site where the proposed foul discharge from the site is intended, the sewer is sized at a 225 mm diameter. Observations made while onsite, combined with a detailed review of the Southern Water sewer records, indicate that these wastewater sewers are in reality combined sewers. While they are identified as wastewater sewers on the sewer records presented in Appendix D, no separate surface water sewers are marked on the sewer records. Furthermore, a separate overflow 'wastewater' sewer is observed on the sewer records adjacent to The Street measuring approximately 1,200 mm in diameter. A sewer this size is considered to far exceed the typical diameter required for foul sewers. Furthermore, road gullies were observed on both The Street to the east of the site and along Cowfold Road to the south with little other route for discharge other than to the foul/combined sewer system.

2.4.9 The wastewater (combined) sewer network running south and southwest from The Street is shown on the sewer records to be disconnected from the sewer network running approximately east to west adjacent to the southern boundary of the site and Cowfold Road.

2.4.10 While onsite in February 2024, a foul pumping station was observed approximately 460 m south of the site and was considered to be the destination of the wastewater (combined) sewer network observed in the Southern Water sewer records.

3. Policy Framework

3.1 National Planning Policy Framework, 2024

3.1.1 The NPPF[1] was most recently updated in December 2024, with flood risk remaining primarily regulated through planning policy. The NPPF requires that a site-specific FRA be provided for all development in Flood Zones 2 and 3; all development sites over 1 ha in area; land which has been identified by the EA as having critical drainage problems; land which has been identified in an SFRA as being at increased flood risk in the future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

3.1.2 In terms of flood risk, the NPPF classifies land uses according to vulnerability as follows:

- Essential Infrastructure;
- Highly Vulnerable;
- More Vulnerable;
- Less Vulnerable; and
- Water-Compatible Development.

3.1.3 The Planning Practice Guidance[5] to the NPPF, advises on how to take account of and address the risks associated with flooding and coastal change in the planning process. This includes detail on when and how the Sequential and Exception Tests need be applied.

3.2 Mid Sussex District Council, District Plan, 2018

3.2.1 The Mid Sussex District Plan[6] sets out a vision for how Mid Sussex wants to evolve and a delivery strategy for how that will be achieved. It sets out broad guidance on the distribution and quality of development in the form of 'higher level' strategic policies.

3.2.2 Policy DP41 (Flood Risk and Drainage) states the following:

- Proposals for development will need to follow a sequential risk-based approach, ensure development is safe across its lifetime and not increasing the risk of flooding elsewhere. The District Council's SFRA should be used to identify areas at present and future flood risk from a range of sources including fluvial, surface water, groundwater, infrastructure, and reservoirs.

[5] GOV.UK, Guidance, Flood risk and coastal change [online]. Available at: https://www.gov.uk/guidance/flood-risk-and-coastal-change. Accessed January 2025.

[6] Mid Sussex District Council, Mid Sussex District Plan, 2018 [online]. Available at: https://www.midsussex.gov.uk/planning-building/mid-sussex-district-plan/. Accessed September 2024.

- Particular attention will be paid to those areas of the District that have experienced flooding in the past and proposals for development should seek to reduce the risk of flooding by achieving a reduction from existing runoff rates.
- Land that is considered to be required for current and future flood management will be safeguarded from development and proposals will have regard to relevant flood risk plans and strategies.

3.3 Mid Sussex District Plan 2021 – 2039, Submission Draft (Regulation 19)

3.3.1 The District Plan 2021 – 2039[7] comprises an updated vision and strategy, along new site allocations and policies and will supersede the 2018 District Plan upon its adoption. This emerging local plan details Policy DPS4 (Flood Risk and Sustainable Drainage) which includes the following:

- Proposals for development will need to follow a sequential risk-based approach directing development away from areas at highest (flood) risk.
- Development should consider flood risk in line with latest national guidance. The cumulative impacts of all sources of flooding should be considered.
- Surface water drainage schemes must be implemented in all new development.

3.3.2 The site forms a proposed allocation pursuant to Policy DPA14: Land at Foxhole Farm, Bolney which provides a site plan and details of proposed onsite infrastructure.

3.4 Bolney Neighbourhood Plan, September 2016

3.4.1 The Neighbourhood Plan[8] sets out a number of policies which together with the NPPF and the District Plan ensure that new development in the Bolney Neighbourhood Plan area will be sustainable and in accordance with the vision.

3.5 Mid Sussex District Council, Level 1 Strategic Flood Risk Assessment, 2024

3.5.1 The Mid Sussex Level 1 SFRA[9] aims to provide the Council with a robust evidence base to inform the application of the Sequential and, if necessary, Exception Tests to inform the future development strategy for the district. The objectives of the Level 1 SFRA are as follows:

- Inform the sustainability appraisal of the Local Plan (Mid Sussex District Plan), so that flood risk is fully taken into account when considering allocation options and in the preparation of Plan policies;
- Apply the Sequential Test and, where necessary, the Exception Test when determining land use allocations;
- Inform the allocation of land to safeguard it for flood risk management infrastructure;

[7] Mid Sussex District Council, Mid Sussex District Plan 2021 – 2039, Submission Draft (Regulation 19), December 2023.
[8] Bolney Parish Council, Bolney Neighbourhood Plan 2015 – 2031, September 2016 [online]. Available at: https://www.midsussex.gov.uk/media/3321/bolney-neighbourhood-plan.pdf. Accessed January 2025.
[9] Aegaea, Mid Sussex District Council, 2024 [online]. Available at: https://www.midsussex.gov.uk/media/sl2jhk0z/env11-strategic-flood-risk-assessment-level-1-2024.pdf. Accessed September 2024.

- Inform policies for change of use and reducing the causes and impacts of flooding;
- Identify the requirements for site-specific flood risk assessments in particular locations, including those at risk from sources other than river and sea flooding;
- Determine the acceptability of flood risk in relation to emergency planning capability; and
- Help demonstrate how the adaptation to climate change has been met.

3.6 Mid Sussex District Council, Level 2 Strategic Flood Risk Assessment, 2024

3.6.1 The Mid Sussex Level 2 SFRA[10] provides a Level 2 assessment of sites identified for proposed allocation within the Mid Sussex District Plan. The objectives of the Level 2 SFRA are as follows:

- Assess the flood risk to proposed sites using the latest available flood risk data and climate change uplifts where available;
- Provide information and mapping to show flood risk from all sources for each site option;
- Provide recommendations for making the site safe from flooding throughout its lifetime where the Exception Test is required; and
- Take into account, as far as practically possible the most recent policy and legislation in the NPPF, Planning Practice Guidance (PPG) and Lead Local Flood Authority (LLFA) SuDS guidance.

3.7 MSDC response to Action Point AP-020, November 2024[11]

3.7.1 In terms of flood risk the Council have set out a general note explaining the implications of the latest FRAs in the context of the Framework and the previous work which informed the submitted Plan. In commenting upon policy DPA14 this note states that no change has been determined following the updated assessment and that the site selection assessment remains Very Positive in terms of combined fluvial and surface water flood risk.

3.8 West Sussex County Council, Local Flood Risk Management Strategy, 2014

3.8.1 The Local Flood Risk Management Strategy[12] sets out how the Council intends to carry out its flood risk responsibilities as LLFA. The overall aim is to ensure the risk from flooding and erosion is properly managed by using the full range of options in a coordinated way. The aim is for local authorities, communities, individuals, and voluntary groups to work together to:

1. Manage the risk to people and their property;
2. Achieve environmental, social, and economic benefits, consistent with the principles of sustainable development; and

[10] Mid Sussex District Council, Mid Sussex District Council Level 2 Strategic Flood Risk Assessment, 2024 [online]. Available at: https://www.midsussex.gov.uk/media/xtgdydna/env15-strategic-flood-risk-assessment-level-2-main-report.pdf. Accessed September 2024.
[11] MSDC response to Action Point AP-020, November 2024.
[12] West Sussex County Council, Local Flood Risk Management Strategy, 2014 [online]. Available at: https://www.westsussex.gov.uk/media/1595/local_flood_risk_management_strategy.pdf. Accessed September 2024.

3. Facilitate decision-making and action at the appropriate level – individual, community, or local authority, river catchment, coastal cell or national.

3.8.2 To reflect national strategic objectives in the local context, the partners in West Sussex have agreed to guide local focus and progress. These are to:

- Understand the areas that flood;
- Manage the flood risk in West Sussex;
- Enable people, communities, business, and public bodies to work together more effectively; and
- Put communities at the heart of what we do and help West Sussex residents during flood events and recover as quickly as possible after incidents.

4. Review of Baseline Flood Risk Data

4.1 Hydrological Setting

4.1.1 A review of the EA Statutory Main River Map[13] indicates there are no EA Main Rivers located within the boundary of the site. Ordnance Survey (OS) mapping[14] does suggest the presence of an ordinary watercourse in the northwest corner of the site, located adjacent to the western site boundary, which it indicates is directed into a culvert beneath Foxhole Lane and subsequently into another watercourse flowing away from the site toward the west. This latter watercourse is shown in the mapping to flow into the Rout Gill (another ordinary watercourse) approximately 260 m west of the site. The Rout Gill is shown to be flowing approximately north to south and joins the Holmbush Gill/River Adur (EA Main River) approximately 1.8 km to the south of the site. The Holmbush Gill/River Adur is the closest EA Main River to the site.

4.1.2 Furthermore, there is an extensive network of ponds, streams and larger watercourses draining the surrounding area. These are typically shown to be draining toward the Rout Gill either to the west or to the south of the site. In addition, the OS mapping indicates an ordinary watercourse is present approximately 70 m south of the site on the south side of Cowfold Road.

4.1.3 The Hydrological Setting is presented in Figure 4.1 at the rear of the report. Furthermore, existing watercourses/ditches at and within the vicinity of the site are presented in Appendix E at the rear of the report.

<u>February 2024 Site Visit – Observations</u>

4.1.4 During the site visit a culvert was observed taking flow from the northwest of the site beneath Foxhole Lane and into the subsequent watercourse flowing toward the west (as identified from OS mapping). A discernible watercourse in the northwest of the site, located adjacent to the western site boundary, was not identified. However, pooling was identified in the area prior to delivery into the culvert.

4.1.5 In the northeast of the site, saturated ground and standing water was observed in low lying areas. A watercourse (not identified in OS mapping) was also observed immediately to the northeast of the site flowing from north to south, with another branch flowing from west to east running parallel to the northern boundary of the site.

[13] Department for Environment Food & Rural Affairs, Data Services Platform, Statutory Main River Map [online]. Available at: https://environment.data.gov.uk/dataset/25dde009-ba7d-40de-8380-c5c3bb32ccdc. Accessed September 2024.

[14] Ordnance Survey, Data Hub, OS OpenMap – Local [online]. Available at: https://osdatahub.os.uk/downloads/open/OpenMapLocal. Accessed September 2024.

4.1.6 In the southern development area, two ditches were observed to be oriented in an east to west alignment, one adjacent to the southern boundary and Cowfold Road, and another approximately halfway up the Proposed Development area. The latter ditch was observed to be flowing from west to east. The former ditch was observed to be collecting flows from the site which were ultimately directed toward a manhole in the central area of the ditch. Further ditches were observed along the western and eastern boundaries of the proposed southern development area, with the eastern ditch partially culverted. Both were draining north to south.

4.1.7 A confluence of ditches was observed outside the southwest corner of the site on the west side of the entrance to Foxhole Lane. The ditch in the field to the west of the site was shown to be flowing from west to east. Observations made during a subsequent site visit in March 2025 revealed a culvert and headwall in this location on the west side of the entrance to Foxhole Lane that appeared to be directing flows into the main sewer network in Cowfold Road.

4.1.8 A number of manholes and surface water drains were observed along Cowfold Road as well as an open watercourse approximately 70 m south of the site (previously identified in OS mapping), flowing from north to south.

4.2 EA Flood Zone Designation (Fluvial and Tidal Flood Risk)

4.2.1 According to the EA Flood Map for Planning[15], the site is located within Flood Zone 1. The nearest area of Flood Zone 2 or 3 is located approximately 25 m south of the site and is associated with local drainage that is directed south toward the ordinary watercourse located approximately 70 m south of the site. The Flood Zones are defined as follows:

- Flood Zone 1 – Land defined as having a less than 0.1% annual probability of river or sea flooding;
- Flood Zone 2 – Land defined as having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding; and
- Flood Zone 3 – Land defined as having a 1% or greater annual probability of river flooding; or land having a 0.5% or greater annual probability of sea flooding.

4.2.2 The EA Flood Map for Planning is presented in Figure 4.2 at the rear of the report.

4.3 EA Hydraulic Modelling

4.3.1 The EA have provided hydraulic modelling data in the form of the 'JFLOW Improvements for Solent and South Downs Area' project, issued in 2008[16].

[15] GOV.UK, Flood map for planning, Get flood risk information for planning in England [online]. Available at: https://flood-map-for-planning.service.gov.uk. Accessed September 2024.

[16] JBA Consulting, Environment Agency, JFLOW Improvements for Solent and South Downs Area, 2008.

4.3.2 The project modelled potential flood depths in the region under different return period scenarios. Under both the 1 in 100-year and 1 in 1,000-year scenarios, the site was modelled to not be affected by flooding. Under the 1 in 1,000-year scenario, the outer limit of the modelled extent of flooding is shown to be approximately 1.2 km from the south of the site.

4.4 Surface Water and Sewer Flood Risk

4.4.1 The topography of the site and the surrounding area is detailed in Section 2.3 and states how levels at the site are shown to fall away to the east, south and west from higher areas in the north and centre of the site. It also describes how higher levels are present to the north and east of the site.

4.4.2 The EA long term flood risk mapping[17] presents two scenarios for the yearly chance of flooding from surface water. The first is a present-day scenario and the second is a future scenario that presents a yearly chance of flooding between 2040 and 2060, the same as the present-day scenario but with an additional allowance for the impacts of climate change. According to the mapping under both scenarios, approximately 90% of the site is located in areas considered to be at a less than 0.1% risk from surface water flooding in any given year. Areas at High risk are present in the northeast and northwest of the site, as well as adjacent to the southern boundary, and are surrounded by areas at Medium and Low risk. Further areas of High, Medium and Low risk are present in the central part of the southern development area. The different surface water risk categories are defined below:

- High Chance – Greater than a 1 in 30 (3.3%) annual probability;
- Medium Chance – Between a 1 in 30 and 1 in 100 (3.3% to 1%) annual probability; and
- Low Chance – Between a 1 in 100 and a 1 in 1,000 (1% to 0.1%) annual probability.

[17] GOV.UK, Check the long term flood risk for an area in England [online]. Available at: https://www.gov.uk/check-long-term-flood-risk. Accessed April 2025.

4.4.3 Surface water flood risk under the future scenario is presented in Figure 4.3.



Figure 4.3: EA Surface Water Flood Risk Future Scenario

4.4.4 It is noted that the EA mapping[17] indicates areas at risk of flooding from surface water in addition to flood risk from rivers or the sea. It does not however account for building removal, ground raising, or site levelling. In addition, it does not consider specific drainage assets such as sewers, drains or ditches when calculating extents.

4.4.5 Whilst the surface water mapping indicates where there could be heightened surface water flood risks in some surrounding areas, this does not account for public surface water drainage measures which would be expected to significantly reduce surface water flood risks from that assumed and presented by the mapping.

4.4.6 The EA state that the Risk of Flooding from Surface Water map is an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead[18]. It is further stated that it includes information about flooding extents and depths and that it is produced using national scale modelling and enhanced with compatible, locally produced modelling from lead local flood authorities.

4.4.7 The EA state that the mapping[17] may help to inform risk assessments[19]. However, it is additionally stated that further assessment is likely to be needed to assess planned development.

4.4.8 EA Surface Water Flood Risk is presented in Figures 4.4 and 4.5 at the rear of the report.

4.4.9 No potential overland flow paths are shown in the mapping[17] to be leading onto the site. The mapping does however indicate the presence of potential surface water flow paths to the west and south of the site, that could potentially be exacerbated by the Proposed Development. Existing potential flow paths are apparent along the tributary watercourse of the Rout Gill taking flows from the northwest of the site, along parts of The Street to the east of the site, along parts of Cowfold Road to the south of the site, and along the existing watercourse approximately 70 m south of the site assumed to be taking surface water drainage from Cowfold Road.

4.4.10 It is noted that the proposed surface water drainage strategy, as detailed in the Drainage Strategy report[20], and as visualised in the Drainage Layout sketches at the rear of the Drainage Strategy report, has been designed and sized to accommodate the expected runoff from the site with a suitable allowance included for the potential impacts of climate change and urban creep. Surface water from the site will be released at separate locations along the western and southern site boundaries and will be released at low return period runoff rates.

4.4.11 In the east of the site where the land is shown to slope down toward The Street, the proposed surface water drainage strategy, as detailed in the Drainage Strategy report, captures and diverts surface water away from this location and provides significant betterment to the present situation. This is detailed in Section 5.6.

4.4.12 Individual areas identified in the surface water mapping[17] as being at risk have been assessed separately in Section 5.2.

[18] Department for Environment Food & Rural Affairs, Data Services Platform [online]. Available at: https://environment.data.gov.uk/dataset/b5aaa28d-6eb9-460e-8d6f-43caa71fbe0e. Accessed April 2025.

[19] GOV.UK, Check your long term flood risk, Are you looking for information to support a planning application? [online]. Available at: https://check-long-term-flood-risk.service.gov.uk/information-for-planning. Accessed March 2025.

[20] Ramboll, Land at Foxhole Farm, Bolney, Drainage Strategy, RUK2021N00014-RAM-RP-00081.

4.4.13 Sewer assets previously identified in Section 2.4 have the potential to surcharge and overflow should the site drainage strategy not be suitably designed to accommodate the additional flows expected from the Proposed Development. In the event of sewer overflow the excess water would be expected to flow downslope and would likely remain broadly in line with the potential overland flow paths described above. As such, potential sewer flooding leading onto the site is not expected to be an issue.

4.5 Geological and Hydrogeological Setting

4.5.1 Geology and ground conditions at the site were investigated by Geo-Environmental[21] in November 2023. A generalised summary of the ground conditions encountered at the site is presented in Table 4.1.

Table 4.1: Summary of Ground Conditions

Top (m BGL)	Base (m BGL)	Generalised Geology	Locations
0.00	0.30-0.41	**TOPSOIL**: Brown slightly silty clay with rootlets. Gravelly silty clay encountered within WS18 (southern development) only.	ALL
0.30-0.41	1.40-4.45	**UPPER TUNBRIDGE WELLS SAND FORMATION**: Soft to very stiff sandy CLAY and slightly gravelly sandy CLAY. Gravels are of fine to coarse, sub-angular of flint, sandstone and mudstone.	ALL
0.95-3.05	1.40-3.10	**UPPER TUNBRIDGE WELLS SAND FORMATION**: Orange brown gravelly SAND, very clayey SAND and SAND.	WS12 (central area), WS18

4.5.2 Groundwater monitoring investigations[22] undertaken between November 2023 and April 2024 across the site indicate a site-wide groundwater level typically shallower than 2 m Below Ground Level (BGL). In many areas of the site the level is shallower than 1 m BGL.

4.5.3 According to the Cranfield University LandIS soils map[23], the soil at the site is described as 'slightly acid loamy and clayey soils with impeded drainage'.

4.5.4 According to BGS GeoIndex Onshore data[24], the underlying rock unit beneath the site is defined as a moderately productive aquifer and is summarised as sandstones of the Ashdown Formation yielding up to 60 L/s and Tunbridge Wells Sand yielding up to 10 L/s; separated by Wadhurst Clay.

[21] Geo-Environmental, Land at Foxhole Farm, Bolney, West Sussex, RH17 5NB – Preliminary Report, GE22035/AP01/231115.
[22] Geo-Environmental, Land at Foxhole Farm, Bolney, West Sussex, RH17 5NB – Ground Gas Assessment & Winter Groundwater Monitoring, GE22035 – LRv1AP240501.
[23] LandIS, Soilscapes Viewer [online]. Available at: https://www.landis.org.uk/soilscapes/. Accessed September 2024.
[24] BGS British Geological Survey, GeoIndex Onshore [online]. Available at: https://mapapps2.bgs.ac.uk/geoindex/home.html. Accessed September 2024.

4.5.5 According to the British Geological Survey (BGS) Geology Viewer[25], the underlying geology beneath the site is divided between the Weald Clay Formation, described as mudstone, in the northern development area, and the Upper Tunbridge Wells Sand, described as sandstone and siltstone, across the rest of the site. No superficial geology layers are recorded. It is noted that the November 2023 site investigations[21] found the Upper Tunbridge Wells Formation across the entire site, including in the north where Weald Clay was anticipated.

4.6 Risks from Reservoirs, Canals, and Other Artificial Sources

4.6.1 According to EA mapping[17], the site is not shown to be at risk of flooding following a reservoir failure.

4.6.2 Dams in England are regulated by the Reservoirs Act 1975[26] which sets out stringent conditions for the operation of reservoirs to ensure high levels of safety. The EA routinely visits reservoirs across the country to assess risk, monitor progress and serve enforcement notices requiring operators to complete specific actions.

4.6.3 No other artificial sources have been identified that presently pose a flooding risk to the site.

4.7 Historic Flooding

4.7.1 According to the EA's Recorded Flood Outlines dataset[27], there are no records of historical flooding at the site. The nearest of which, dated to 1973, is located approximately 2 km southeast of the site and was attributed to channel capacity exceedance.

4.7.2 Historical Flooding is presented in Figure 4.6 at the rear of the report.

[25] BGS Geology Viewer [online]. Available at: https://geologyviewer.bgs.ac.uk. Accessed September 2024.

[26] Legislation.gov.uk, Reservoirs Act 1975 [online]. Available at: https://www.legislation.gov.uk/ukpga/1975/23/contents. Accessed September 2024.

[27] Department for Environment Food & Rural Affairs, Data Services Platform, Recorded Flood Outlines [online]. Available at: https://environment.data.gov.uk/dataset/8c75e700-d465-11e4-8b5b-f0def148f590. Accessed September 2024.

4.8 Baseline Flood Risk Summary

4.8.1 Table 4.2 should be considered in the assessment of flood risk for any proposed development at the site:

Table 4.2: Baseline Flood Risk Summary

Flood Risk	High	Medium	Low	Comment
Fluvial/Tidal			X	Site is located in Flood Zone 1.
Surface Water	X			Areas considered to be at a High risk from surface water flooding are present in the northeast and northwest of the site, in the south of the site, and adjacent to the southern boundary.
Groundwater		X		Shallow groundwater levels observed at the site, along with visibly poor infiltration, and a review of underlying geology, are suggestive of a moderate groundwater risk at the site, especially in low lying areas.
Reservoirs, Canals, and Other Artificial Sources			X	The site is not shown to be at risk following a reservoir failure.

5. Assessment of Flood Risk

5.1 Fluvial

5.1.1 The site is shown to be located in Flood Zone 1 and is therefore considered to be at a Low risk from fluvial (and tidal) flooding. The nearest area in Flood Zone 2 (Medium risk) or Flood Zone 3 (High risk) is located approximately 200 m west of the site and is associated with the Rout Gill.

5.2 Surface Water

5.2.1 As shown in Figures 4.4 and 4.5, no overland flow paths are indicated to be leading onto the site. A potential flow path is indicated to be present along the course of the ordinary watercourse leading away from the site in the northwest. This includes the area either side of the culvert beneath Foxhole Lane and extends into part of the site. The flow path is shown to cease when it reaches the course of the Rout Gill to the west of the site as it flows approximately north to south. Potential flow paths are also indicated in the mapping[17] along The Street to the east of the site and along Cowfold Road to the south. Adjacent to the south of the site, a potential flow path is shown to overlap with the ditch that is oriented approximately east to west and is located adjacent to the southern boundary.

5.2.2 In addition to the potential flow paths, an area of High risk is indicated in the northeast corner of the site. This is likely to be the result of lower topography in this area which is indicated on the site topographical survey[2] and it aligns with observations made onsite of saturated ground and pooling in this area (and lower topography).

5.2.3 Areas at Low risk shown to be present in the central part of the southern development area are considered to be the result of lower topography in these areas as indicated on the site topographical survey[2]. In the case of the extended area at Medium/Low risk in the northern part of the southern development area this is considered to be an existing drainage path. The formal drainage system will manage this and other areas of risk and transport excess surface water as described in the proposed drainage strategy report.

5.2.4 No dwellings are proposed to be located in any areas shown to be at risk from surface water flooding.

5.2.5 In each area of the site that is shown to be at risk from surface water flooding, the proposed masterplan has been designed to locate proposed dwellings outside these risk areas. It is noted that this is for the future scenario as shown in Figure 4.5. Each key area of risk within the site is considered below:

<u>Northeast development – Area at High, Medium and Low risk</u>

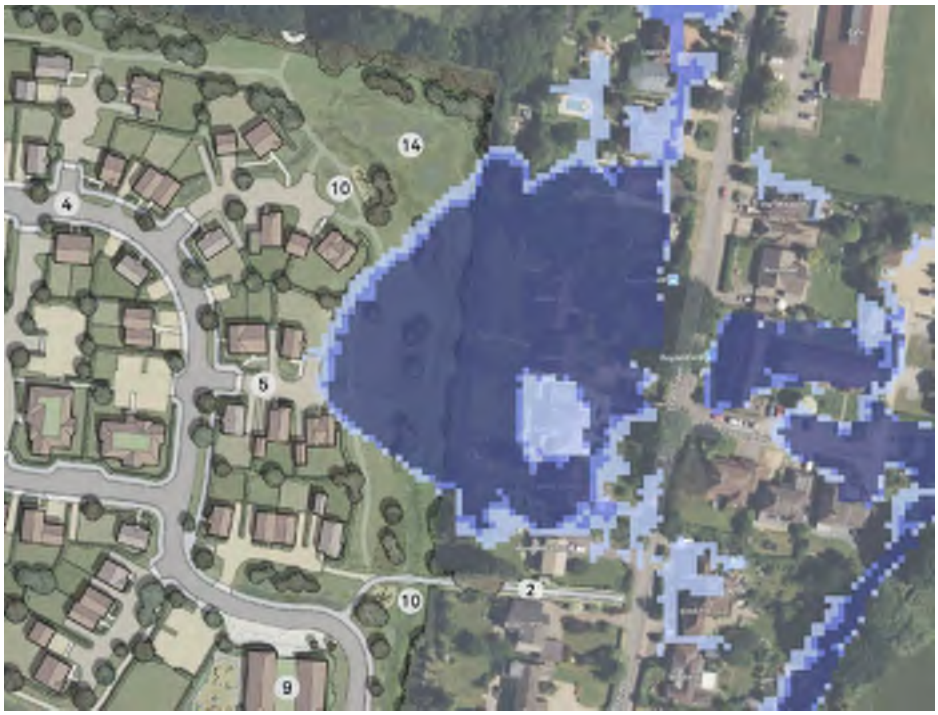


Figure 5.1: Surface Water Flood Risk – Northeast Development

5.2.6 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in the area of Low risk. This area is shown in the Drainage Layout sketches at the rear of the Drainage Strategy report[20] to be draining east to be intercepted by the proposed swale network located in the area.

Southern development – Linear area at Medium and Low risk



Figure 5.2: Surface Water Flood Risk Southern Development 1

5.2.7 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in the area of Low risk at the southern end of the linear area. As shown in the Drainage Layout sketches at the rear of the Drainage Strategy report[20], this linear area of risk will be intercepted by attenuation basin and swale features located in the area.

Southern development – Isolated areas at High, Medium and Low risk



Figure 5.3: Surface Water Flood Risk Southern Development 2

5.2.8 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in the area of Low risk. The area of High risk is shown to be associated with the existing ditch oriented approximately east to west and is located approximately halfway up the southern development area. A smaller swale/attenuation area has been proposed in the Low risk area next to the LAP area and will intercept any surface water falling in this area. Any runoff flowing south from the High risk area associated with the existing ditch will be intercepted by road drainage and will be directed away from the proposed housing.

Southern development – Southeast corner, area at High, Medium and Low risk

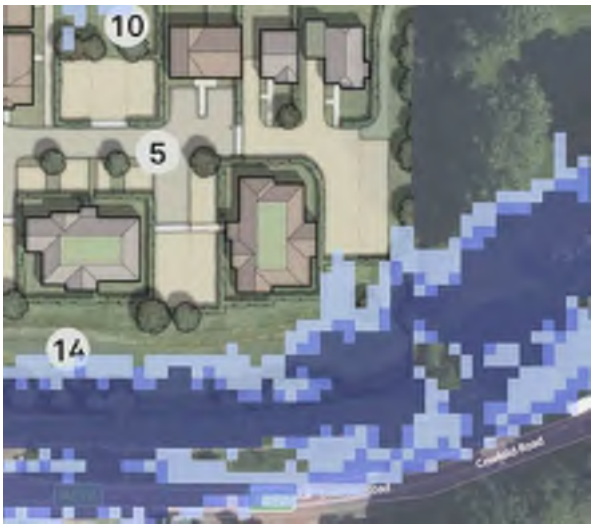


Figure 5.4: Surface Water Flood Risk Southern Development 3

5.2.9 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in an area of Low risk. As shown in the Drainage Layout sketches at the rear of the Drainage Strategy report[20], any surface water falling in this area will be intercepted and stored in the proposed areas of permeable paving and in the proposed attenuation basin.

Southern development – Proposed access road

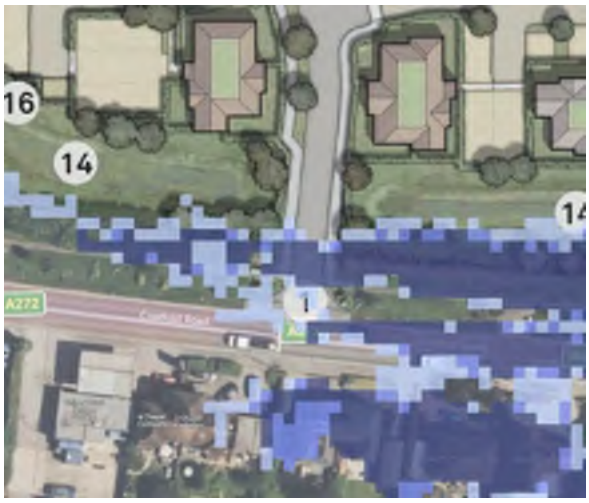


Figure 5.5: Surface Water Flood Risk Proposed Access Location

5.2.10 In the location of the proposed access road the existing site is indicated to be at a High chance of surface water flooding.

5.2.11 Further information regarding specific surface water flood risk areas at the site, including information regarding potential flood depths and velocities, and Flood Hazard Rating, with specific regard to access and egress, is presented in Appendix E at the rear of the report.

5.2.12 In summary, an analysis of local topography at the site access including along Cowfold Road to the south indicates that based on existing topography, surface water flood depths at the location of the proposed access road are unlikely to exceed 0.15 m.

5.2.13 Applying the Flood Hazard Rating as described in Flood Risks to People, FD2321/TR2[28], and assuming worst case values of 0.15 m for flood depth and 0.5 m/s for flow velocity, we get a Hazard Rating of 0.15 which is below the minimum threshold of 0.75 and as such is not even considered a "danger for some".

5.2.14 The proposed site access/egress is therefore considered safe for emergency use.

5.2.15 Furthermore, as noted in Section 4.4, the surface water modelling employed by the EA does not account for building removal, ground raising, or site levelling and does not consider specific drainage assets such as sewers, drains or ditches when calculating extents, of which many are known to be present either at or adjacent to the site. Measures such as site levelling would be expected as part of the development.

5.2.16 A proposed surface water drainage strategy has been developed for the site. The strategy has proposed a connecting network of surface water attenuation areas, swales, and permeable paving that have been sized sufficiently to accommodate additional surface water runoff under a 1 in 100-year flooding event with a 45% increase in flows to account for the potential impacts of climate change. A 10% allowance for urban creep has also been accounted for. Proposed swales and new surface water sewer connections have been strategically located within the drainage strategy plan to direct surface water runoff toward lower lying areas where the proposed surface water attenuation areas will collect and store additional runoff from the Proposed Development. The strategy will ensure the satisfactory management of surface water falling on the site. Further details/mitigation measures are detailed in Section 5.6.

5.2.17 It is noted that the proposed surface water attenuation areas will release runoff at the mean annual flood return period, considered a 1 in 2.33 year event, thereby considerably reducing the peak flows presently emanating from the site during higher return period flooding events.

5.2.18 Furthermore, it is noted that the proposed surface water drainage strategy will capture and divert surface water away from The Street which will significantly reduce the volume of surface water reaching the existing sewer network in The Street and will hence reduce the risk of sewer flooding. Surface water betterment in this location is discussed in more detail in Section 5.6.

5.2.19 The overall risk to the Proposed Development is considered to be low.

[28] Defra/Environment Agency, Flood and Coastal Defence R&D Programme, Flood Risks to People, Phase 2, FD2321/TR2, Guidance Document.

5.3 Groundwater

5.3.1 While a moderate groundwater flood risk has been determined at the site, groundwater flooding is not considered to pose a significant risk to the Proposed Development.

5.3.2 No dwellings are proposed to be located in the lower lying areas of the site where the risk of groundwater emergence is considered to be the most likely. At the location of the proposed access road at the southern boundary of the site, any groundwater emerging could only reach a certain level before the natural topography of the land would direct it into the sewer network in Cowfold Road to the south. This would not permit any groundwater to reach the area of built development. Furthermore, any groundwater emerging in external areas of the site would be expected to be managed by the proposed surface water drainage strategy. The Proposed Development will not therefore have an adverse impact on the houses located on the south side of Cowfold Road and where surface water flooding on Cowfold Road is a direct result of groundwater emergence within the site, this should see a significant reduction. The risk at the proposed access location is discussed in more detail in Appendix E at the rear of the report.

5.3.3 Furthermore, the Mid Sussex District Council Level 2 SFRA[29], states in its summary of the site that the majority of the site is located within an area classified as having a less than 25% susceptibility to groundwater flooding.

5.3.4 No basement levels are being proposed as part of the Proposed Development. The risk therefore to internal areas of the site is considered to be minimal.

5.3.5 The overall risk to the Proposed Development is considered to be low.

5.4 Flood Risk Vulnerability

5.4.1 According to Annex 3[30] (Flood risk vulnerability classification) in the Planning Practice Guidance[5] to the NPPF, 'buildings used for dwelling houses' should be classified as 'More vulnerable'.

[29] Mid Sussex District Council Level 2 Strategic Flood Risk Assessment, August 2024, Appendix 1 – Site Assessment Summary Tables [online]. Available at: https://www.midsussex.gov.uk/media/oxog2eh4/env15-strategic-flood-risk-assessment-level-2-appendix-1.pdf. Accessed April 2025.

[30] GOV.UK, National Planning Policy Framework, Annex 3: Flood risk vulnerability classification [online]. Available at: https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification. Accessed January 2025.

5.4.2 Table 2 (Flood risk vulnerability and flood zone 'incompatibility') in the Planning Practice Guidance[5] states that a 'More vulnerable' use is appropriate in Flood Zone 1 and that an Exception Test is not required.

5.5 Sequential Test

5.5.1 The aim of the Sequential Test, as defined by the Technical Guidance to the NPPF[1], is to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding.

5.5.2 While the Proposed Development is located entirely within Flood Zone 1 and while no dwellings are proposed to be located in areas considered to be at risk of surface water flooding, the proposed access off Cowfold Road is shown to be in an area at a High chance of surface water flooding and hence a Sequential Test Assessment[31] has been undertaken as part of the application. Given the proposed levels of the proposed access road and the reality of the flood hazard in this area (discussed in Appendix E), and given the unique requirements for development in the area of the parish, it was concluded that the site was the most suitable for development out of those that were available in the area. Hence the site is considered to have passed the Sequential Test.

5.5.3 No other sources of flood risk are considered to pose a significant risk to the site.

5.6 Further Mitigation/Assessment of Residual Risk

5.6.1 As part of our development of mitigation options, and in consideration of future site development, Ramboll has considered climate change in the following ways:

- Consideration of climate change allowances when considering peak fluvial flood levels – this is also a policy requirement of the EA for all NPPF-compliant FRAs;
- Consideration of greater frequency and higher magnitude of surface water flooding events and overland flow, and assessing how a site and building layout can be designed to manage this risk; and
- Consideration of the likely increased risk of seasonal groundwater flooding as a result of wetter winters.

5.6.2 Each of the above will be considered when assessing the mitigation measures, which are summarised in the remainder of Section 5.6.

<u>Fluvial Flooding</u>

5.6.3 The site has not been identified as being at risk from fluvial (or tidal) flooding and therefore no mitigation against this type of flooding is considered necessary.

<u>Surface Water Management</u>

[31] Land at Foxhole Farm Bolney, Sequential Test Assessment, Judith Ashton Associates in Liaison with Ramboll, April 2025.

5.6.4 The increase in impermeable area resulting from the Proposed Development will increase the surface water discharge generated at the site. To mitigate this, a surface water drainage strategy has been prepared by Ramboll and is detailed within the drainage strategy report[20]. The strategy is summarised as follows:

- The surface water drainage strategy is separate for the northern and southern development areas. The central areas of the site where no dwellings are proposed to be developed will be drained as part of the southern development area.
- The intention is for the site to discharge via a series of swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers to two separate locations within the boundaries of the site.
- For the northern development, the intention is to discharge into the existing culvert that is present beneath Foxhole Lane, to the west of the proposed development area. The majority of the proposed attenuation area will be located on this side of the site. In the east, runoff will be directed via swales to a smaller attenuation area in the northeast corner of the site before being redirected west via gravity driven surface water sewers.
- Across the eastern part of the northern development area, the existing drainage that would otherwise flow toward The Street will instead be collected by the proposed swale located adjacent to the eastern boundary of the site. The surface water will ultimately be transported away from this location and discharged at a controlled rate toward the west. This therefore represents a significant betterment to the present situation where the properties adjacent to The Street are subject to surface water flood risk from the surface water runoff flowing downslope off the site. This is illustrated in Figures 5.6 and 5.7.



Figure 5.6: Surface Water Betterment in Northern Development – Pre-Development Drainage



Figure 5.7: Surface Water Betterment in Northern Development – Post-Development Drainage

- The total storage volume required for the proposed northern development area would be approximately 4,200 m^3. The area will be required to discharge at a greenfield runoff rate of 44.2 L/s. Surface water within the northern area of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.
- For the southern development, the intention is to discharge into the existing east to west ditch that is currently present adjacent to the southern boundary. From here surface water will be directed into the existing sewer network in Cowfold Road, which subsequently directs flows south via an existing open watercourse located approximately 70 m south of the site. Surface water within both the central and southern areas of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.
- Across the eastern part of the central development area where an access road is proposed to connect the northern and southern developments, the existing drainage that would otherwise flow toward The Street will instead be collected by the proposed swale located adjacent to the eastern boundary of the site. The surface water will ultimately be transported away from this location and discharged at a controlled rate toward the west and then south.

- This therefore represents a significant betterment to the present situation where the properties adjacent to The Street are subject to surface water flood risk from the surface water runoff flowing downslope off the site. This is illustrated in Figures 5.8 and 5.9.



Figure 5.8: Surface Water Betterment in Central Development – Pre-Development Drainage



Figure 5.9: Surface Water Betterment in Central Development – Post-Development Drainage

- The total storage volume required for the proposed southern development area (including central development area) would be approximately 4,500 m^3. The area will be required to discharge at a greenfield runoff rate of 46.3 L/s. Surface water within the northern area of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.

5.6.5 Climate change has the potential to increase the risk of flooding in the future. As such, an allowance of 45% has been made when considering runoff volumes and associated attenuation storage, as noted in the drainage strategy report[20]. The residual risk is therefore considered to have been managed through design.

5.6.6 Full details regarding street, neighbourhood, and parcel level measures, and surface water mitigation, are presented in the drainage strategy report. If followed, the strategy would be expected to prevent any potential increase in flood risk associated with surface water runoff, both onsite and elsewhere/downstream.

Proposed Site Access

5.6.7 Whilst the proposed access is shown to pass through an area deemed to be at a high risk from surface water flooding, there is no other suitable location for the proposed access. There are highway capacity, landscape and heritage issues that prevent access off Foxhole Lane or The Street, and highway constraints that prevent access being moved further west along Cowfold Road. Furthermore, an analysis of local topography at the location of the proposed site access and to the south beyond the A272 Cowfold Road has determined that the risk from surface water is minimal, especially when the proposed access road design is accounted for. It is proposed that the existing ditch running east to west adjacent to the southern boundary of the site, where the surface water flood risk is sourced, is culverted at the location of the proposed access and it is proposed that at least 0.75 m of cover will be provided to the top of the culvert which will provide a significant freeboard to the considered maximum modelled flood level as determined from analysis of local topography at the access location and to the south beyond the A272 Cowfold Road. Further site-specific modelling at this location is not therefore considered necessary and the access as proposed is considered safe for emergency access and egress. A Flood Hazard assessment has been undertaken and is presented in Appendix E at the rear of the report along with further detail regarding topography at the proposed site access location.

5.6.8 It is noted that the existing east to west ditch adjacent to the southern boundary of the site will be cleared and re-profiled as part of the development works. The existing ditch is presently heavily silted and full of debris. The proposed works will provide significant betterment at the location of the proposed ditch which following the works will be able to provide significantly more storage volume than is presently available. The proposed culvert beneath the access road is designed to ensure a connection for surface water between the parts of the ditch to the east and west of the proposed access road location, and to ensure the existing capacity of the ditch is not reduced. It is noted that as a result of the proposed surface water drainage strategy and the proposed works described above, there will be a significant reduction in surface water reaching Cowfold Road from the site. The proposed development/works will not therefore have an adverse impact on the houses located on the south side of Cowfold Road and where surface water flooding on Cowfold Road is a direct result of runoff from the site/the existing ditch at the southern boundary, this should see a significant reduction.

5.6.9 Further to the above the following mitigation measures are recommended:

- Finished Floor Levels (FFLs) – All FFLs and threshold levels should be at least 150 mm above the surrounding ground to manage future risk from surface water flooding and overland flow.
- Planning for Exceedance Events - This risk relates to the occurrence of intensive rainfall events (expected to become more frequent with the advent of climate change) which could cause overland flow and surface water flooding or cause the capacity of the site drainage system to be exceeded and result in flooding. To manage this risk, the development should consider exceedance overland flow routes during extreme flood events, adopting the principles set out in CIRIA C634, Designing for Exceedance in Urban

Drainage[32]. The design of exceedance routes should correlate with the proposed swales/surface water attenuation areas, which will make highly suitable exceedance flow paths.

- External Gradients - Along with the planning of exceedance routes, external gradients where possible, are to be designed to fall away from buildings, so that any overland flow resulting from extreme events would be channelled away from building entrances. Where this is not possible, linear interceptor drains should be located at all building entrances towards which there is a positive gradient for surface water to flow.
- Management of Flood Extents – Areas at risk from surface water were investigated during the February 2024 site visit and have been accounted for in the proposed surface water drainage strategy. Proposed surface water attenuation areas, connected by a network of proposed swales to convey surface water runoff, have been strategically located across the site.

Groundwater Flood Risk Management

5.6.10 In the event of groundwater emergence at the site, it is considered unlikely this would lead to flooding of the Proposed Development.

5.6.11 As shown in Figures 4.4 and 4.5, there are no existing overland flow routes leading onto the site. Any groundwater emergence outside the site is therefore considered unlikely to pose a significant risk.

5.6.12 Within external areas of the site any emerging groundwater would be expected to be managed by the proposed surface water drainage strategy.

5.6.13 No basement levels are being proposed as part of the Proposed Development. This is considered to negate the groundwater flood risk to internal areas of the site.

5.7 Summary

5.7.1 In summary, the Proposed Development is considered to be appropriate development for the site and as such no specific mitigation measures beyond those already detailed are proposed.

5.7.2 The site is considered safe for the lifetime of the development.

[32] CIRIA, Management of accelerated low water corrosion in steel maritime structures (C634), 2005 [online]. Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C634&Category=BOOK.

6. Conclusions

6.1.1 Based on the findings of this Flood Risk Assessment, and in consideration of the recommendations made, it is concluded that any flood risk at the site would be appropriately managed by the development proposals over the lifetime of the development, taking climate change into account and fittingly for the vulnerability of proposed users.

6.1.2 No further flood risk assessment is deemed necessary.

Figures

Figure 2.1 – Site Location Plan

Figure 2.2 – Site Setting

Figure 2.3 – LiDAR Topography

Figure 4.1 – Hydrological Setting

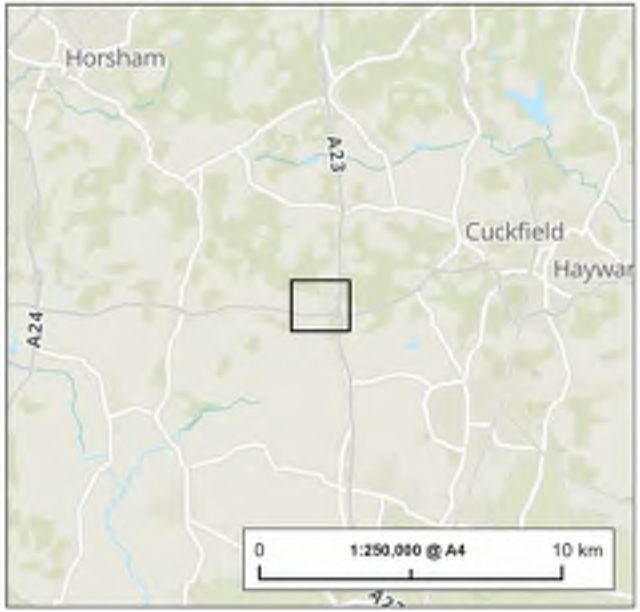
Figure 4.2 – EA Flood Map for Planning

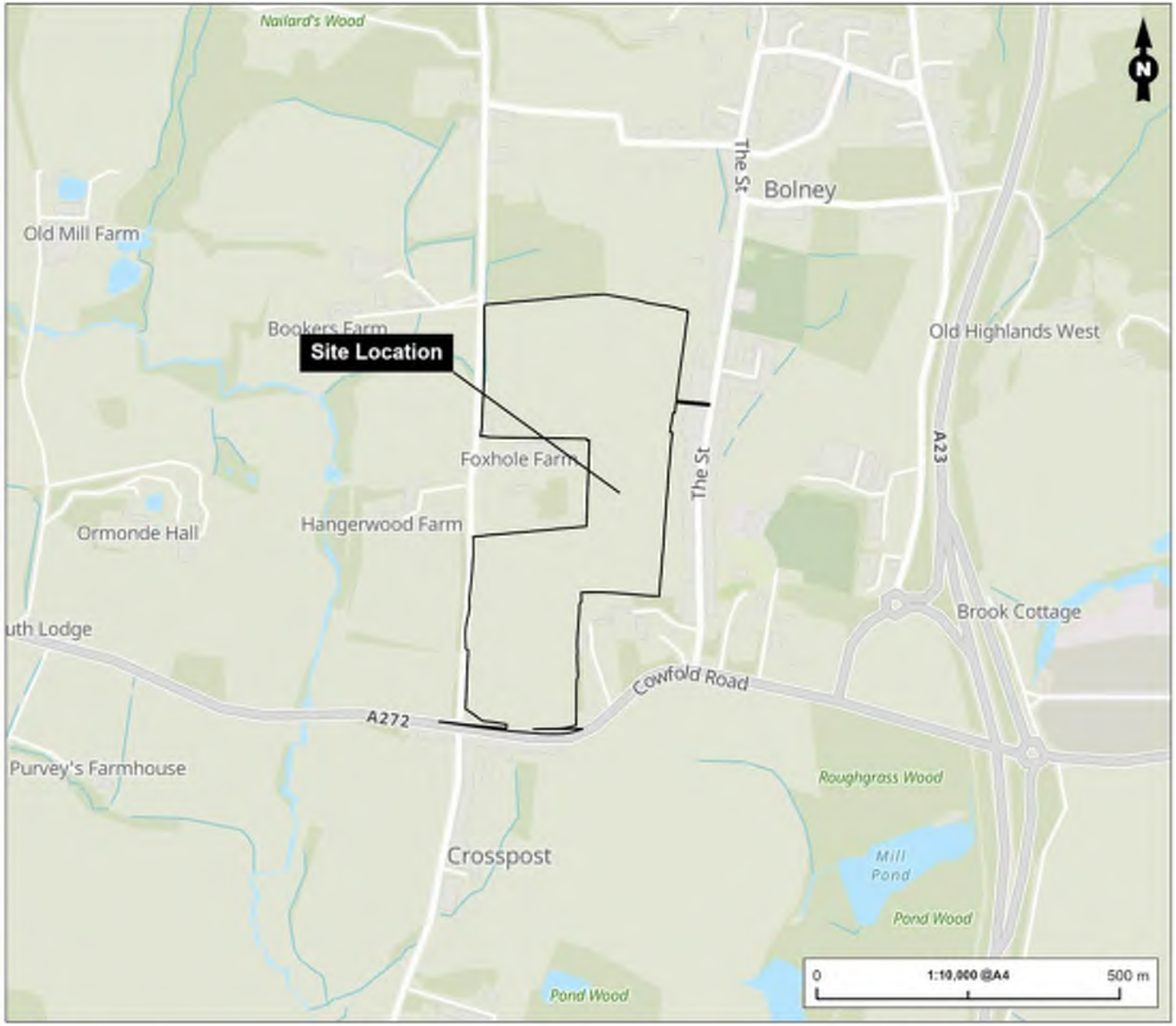
Figure 4.4 – EA Surface Water Flood Risk Present Day

Figure 4.5 – EA Surface Water Flood Risk Future Scenario

Figure 4.6 – Historical Flooding







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Figure Title: Site Location Plan	Project Name: Land at Foxhole Farm, Bolney	Date: April 2025	
		Prepared By: DM	Figure No.: 2.1
Client: **Wates Developments Ltd**	Project No./Filery ID: 1620011691-012 / RUK2021N00014	Scale: As Shown	Revision: 2.0

Site Location Plan.pptx

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Legend

Site Boundary

Figure Title
Site Setting

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	2.2	2.0

Prepared By	Scale
DM	1:5,000 @A4

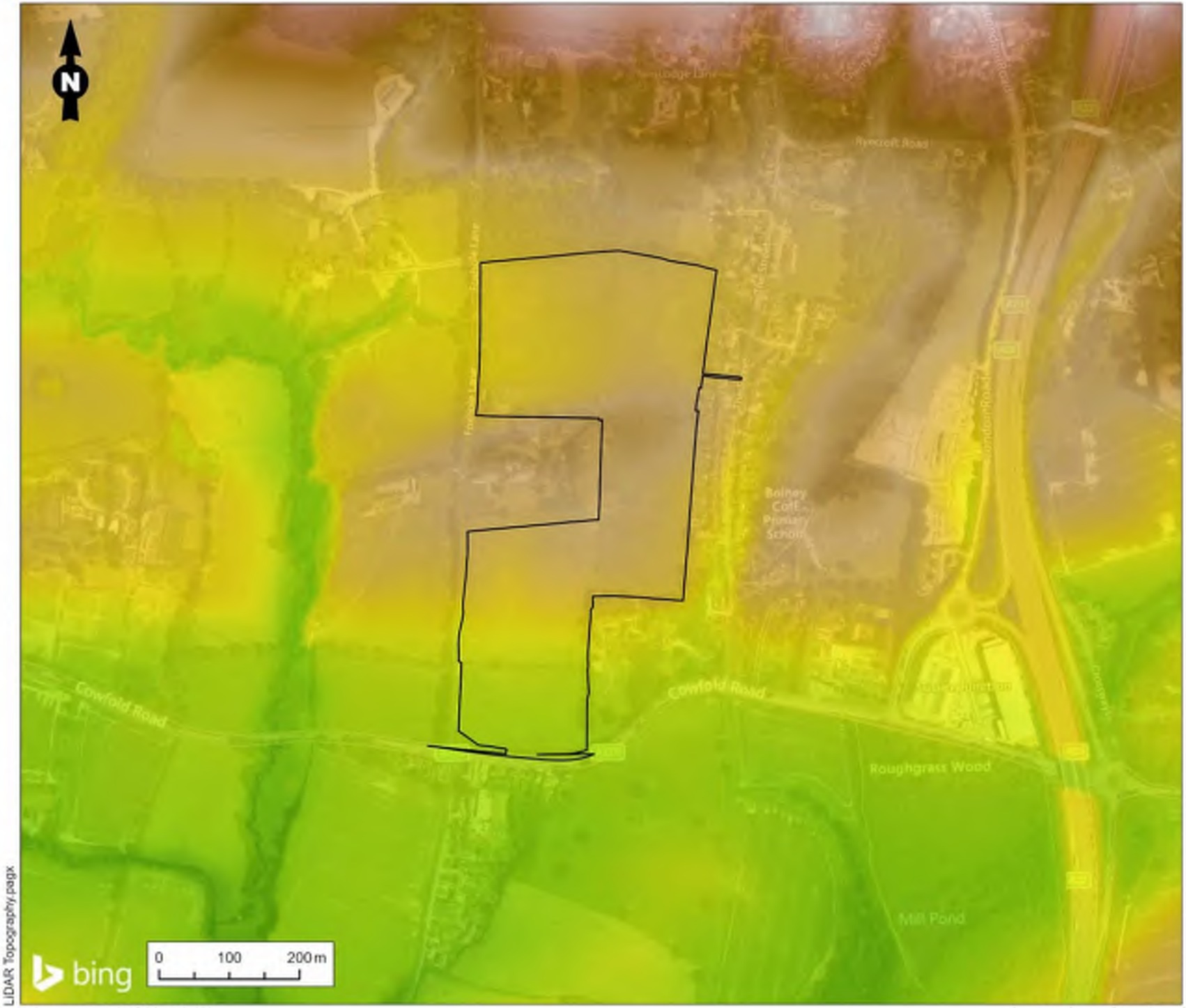
Client
Wates Developments Ltd

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SiteSetting.pagx

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Legend

Site Boundary

LiDAR 1m DTM / m AOD

60

10

Figure Title
LiDAR Topography

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	2.3	2.0

Prepared By	Scale
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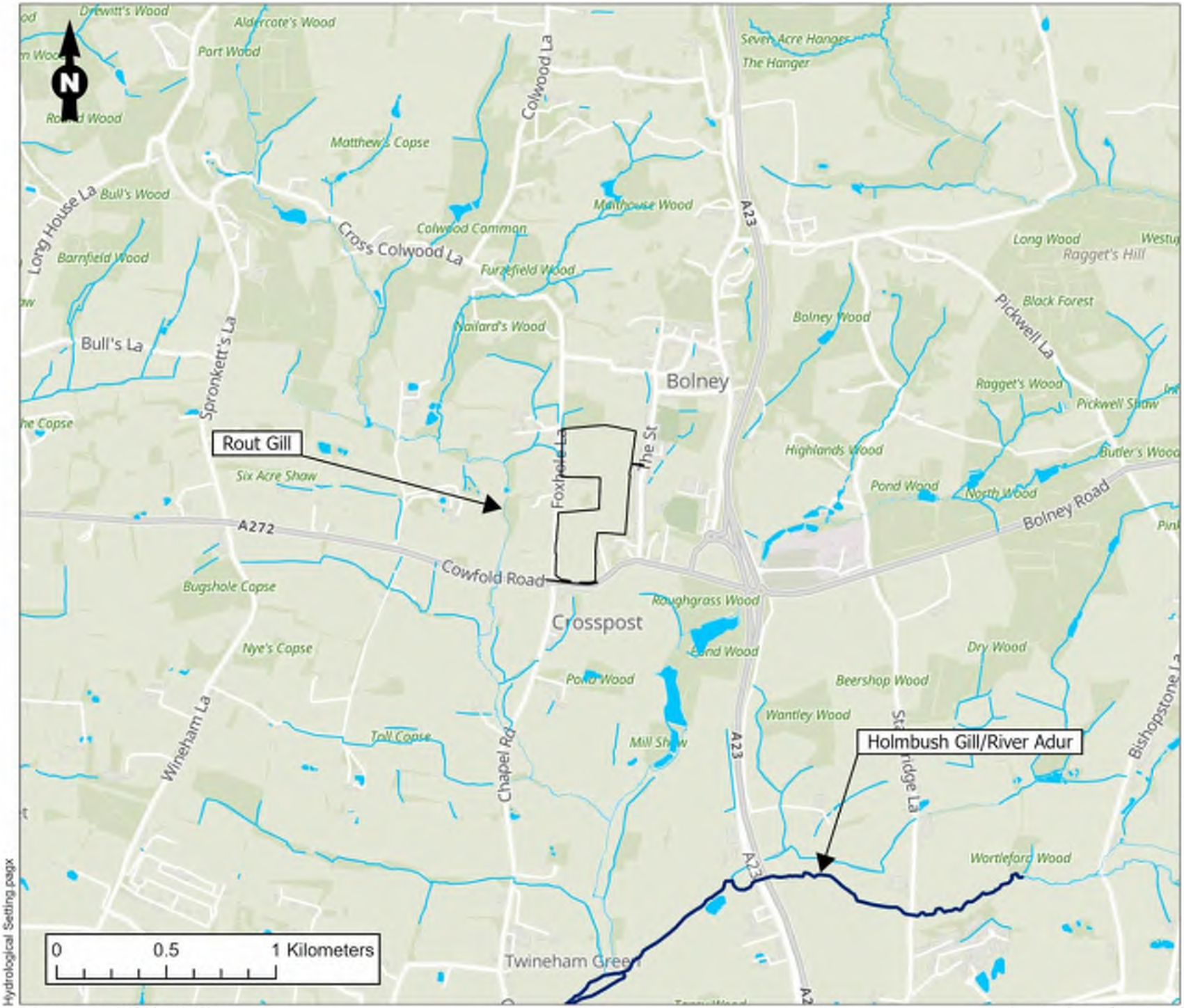
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LIDAR Topography.pagx

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Legend

- Site Boundary
- **Watercourses**
- EA Main River
- OS Watercourses
- OS Waterbodies

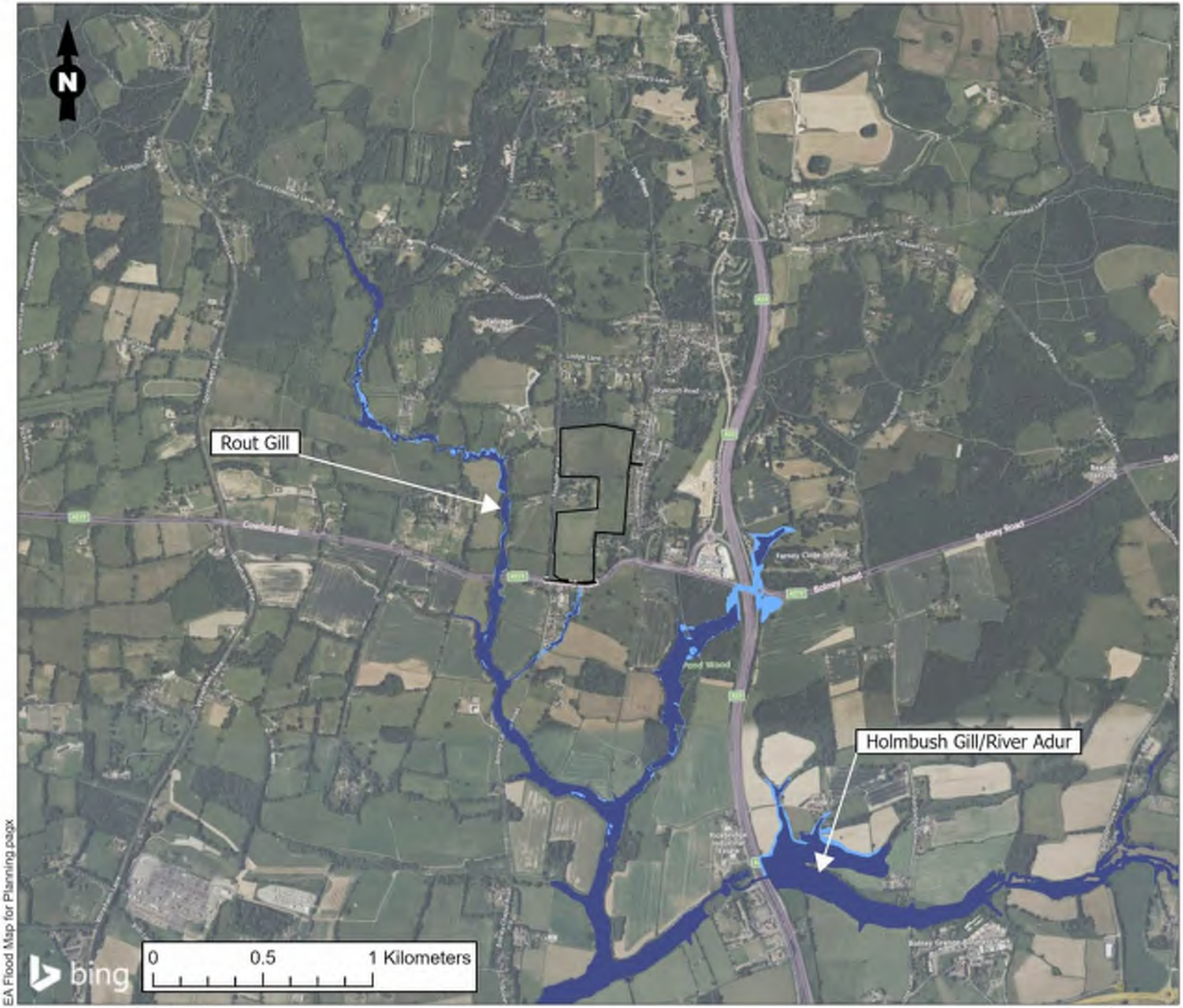
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Project Name	Land at Foxhole Farm, Bolney
Project No./Filery ID	1620011691-012 / RUK2021N00014
Date	April 2025
Figure No.	4.1
Revision	2.0
Prepared By	DM
Scale	1:24,000 @A4
Client	**Wates Developments Ltd**

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Hydrological Setting.pagx

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Legend

- Site Boundary
- EA Flood Zone 3
- EA Flood Zone 2

Figure Title
EA Flood Map for Planning

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	4.2	2.0

Prepared By	Scale
DM	1:24,000 @A4

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EA Flood Map for Planning.pagx

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Legend

- Site Boundary

Surface Water Flood Risk

Yearly chance of flooding

- High (Greater than 3.3% AEP)
- Medium (Between 1% and 3.3% AEP)
- Low (Between 0.1% and 1% AEP)

Figure Title
EA Surface Water Flood Risk Present Day

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	4.4	1.0

Prepared By	Scale
DM	1:5,000 @A4

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EA Surface Water Flood Risk.pagx

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Legend

- Site Boundary

Surface Water Flood Risk

Yearly chance of flooding between 2040 and 2060

- High (Greater than 3.3% AEP)
- Medium (Between 1% and 3.3% AEP)
- Low (Between 0.1% and 1% AEP)

Figure Title
EA Surface Water Flood Risk Future Scenario

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	4.5	1.0

Prepared By	Scale
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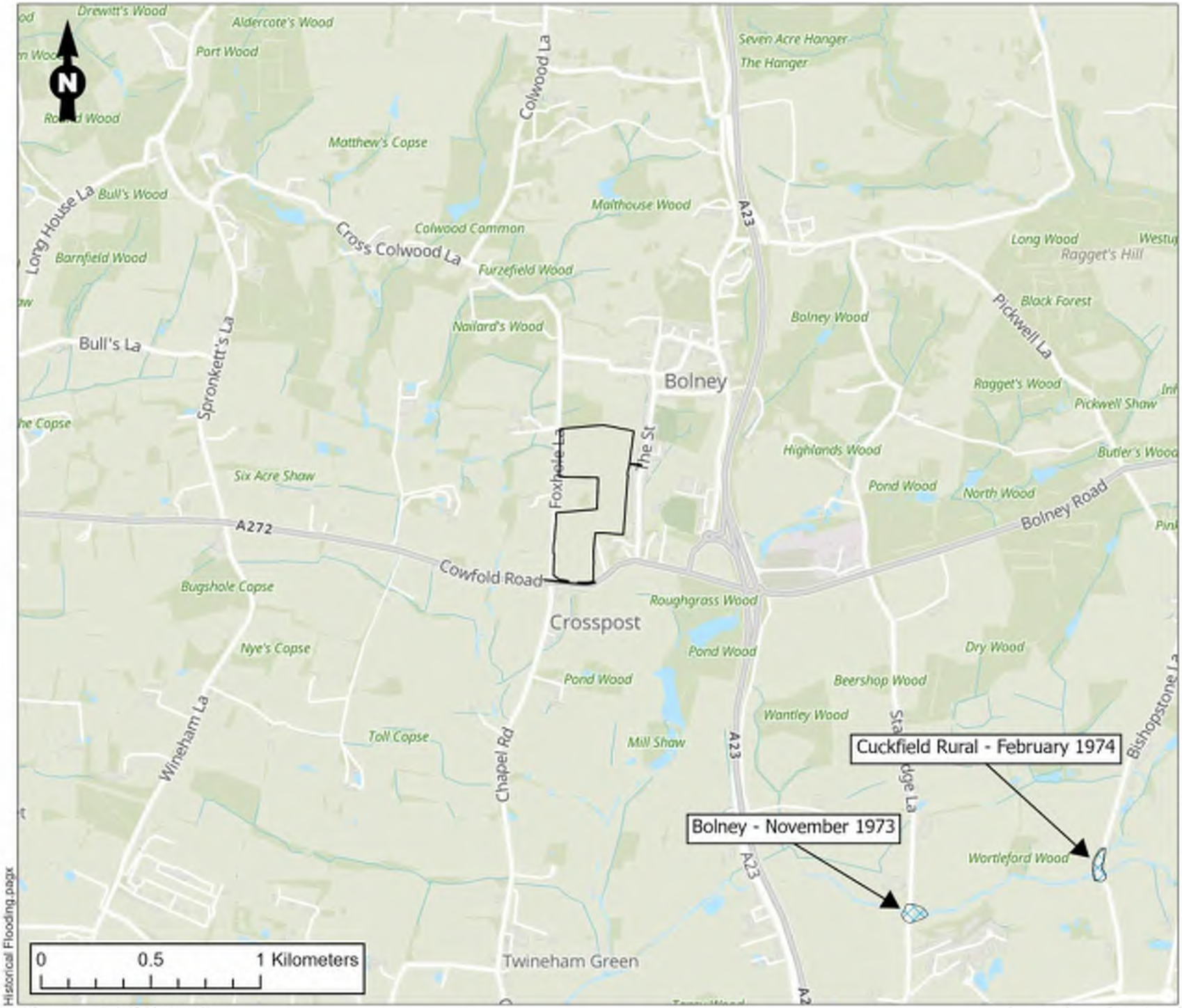
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EA Surface Water Flood Risk.pagx

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Legend

- Site Boundary
- Historical Flooding

Figure Title	Historical Flooding
Project Name	Land at Foxhole Farm, Bolney
Project No./Filery ID	1620011691-012 / RUK2021N00014
Date	April 2025
Figure No.	4.6
Revision	2.0
Prepared By	DM
Scale	1:24,000 @A4
Client	**Wates Developments Ltd**

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Historical Flooding.pagx

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Appendix A
Site Masterplan



KEY

1. New vehicular access from Cowfold Road
2. New pedestrian / cycle links to The Street
3. New pedestrian link to existing PRoW
4. Primary tree-lined access roads
5. Secondary informal 'rural' lanes / mews
6. New publicly accessible countryside open space
7. Viewpoint with seating area and interpretation
8. Community orchard
9. Community hub building
10. Children's play areas (LEAPs and LAPs)
11. Outdoor gym
12. Community allotments
13. Outdoor educational space
14. SuDS basins
15. Foul water pumping station
16. Electricity Substation
17. New woodland planting
18. Country estate road through countryside open space

rev.	date	changes description	status	issued by
P07	10/04/2025	Drawing updated to incorporate comments from pre-app	S4	DM
P06	07/01/2025	Drawing updated for planning; annotation added	S4	DM

N

0.0 12.5 25.0 50.0 62.5m

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drawn by **DM**
date created **Aug 2024**
checked by **MS**
scale at A1 **1:1250**
project title **Foxhole Farm, Bolney**
document title **Illustrative Masterplan**

project	originator	volume	level	type	role	number
P20074	RFT	XX	XX	DR	A	0101

status **S4**
suitability description **For Planning**
revision **P07**

Appendix B
Site Topographical Survey

525760E 525780E 525800E 525820E 525840E 525860E 525880E 525900E 525920E 525940E

123160N 123140N 123120N 123100N 123080N 123060N 123040N 123020N

Notes:

Whilst every effort has been made to correctly identify species of trees on the site, we advise that an arborologist be consulted before any final decisions are made.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

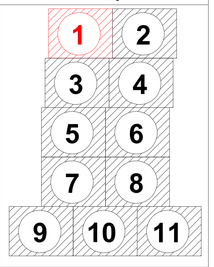
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:
Barbed Wire Fence BW
Chestnut Paling Fence CPF
Closed Board Fence CBF
Chestnut Paling Fence CPF
Post and Rail PR
Post and Chain Fence PCF
Post and Rail Fence PRW
Stockproof SP
Interwoven IW
Chain Link Fence CLF
Close Mesh Fence CMF
Wire Mesh Fence WMF

Abbreviations:

BOLLARD			
CONCRETE COLLUM IC	BD	MARKER	MK
CONCRETE PAVING SLABS	CPS	PARKING METER	PM
COVER LEVEL	CVL	ROAD SIGN	RSN
ELECTRIC	EL	ROAD SURFACE	RS
ELECTRICITY POLE	EP	RODDING EYE	RE
FENCE POST	FP	TELEPHONE MAST	TPM
FLOWER BED	FB	TRAFFIC LIGHT	TLP
HEDGEROW	HR	STOP VALVE	SV
GAS VALVE	GV	SUPPORTED POLE	SPOL
GAS SIGN	GS	SUPPORTED WIRE	SW
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB DROPPED	KD	WATER VALVE	WV
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Coordinate Table

Stn	Easting	Northing	Level
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STN12	526044.935	122741.166	35.370
STN13	526116.959	122741.739	28.656
STN14	525958.393	122676.956	35.758
STN15	525860.651	122679.868	35.375
STN16	525733.270	122561.774	26.300
STN17	525775.368	122551.600	25.888
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STN2A	525766.950	122851.778	41.912
STN2B	525847.432	122891.134	42.495
STN2C	525891.580	122892.276	42.211
STN2D	525906.396	122900.808	41.953
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STN4	525772.223	122903.708	36.225
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STNE2	525762.282	122789.699	39.533
STNE2A	525742.597	122837.063	39.886
STNE3	525801.072	122829.259	40.120
STNE4	525803.161	122845.195	41.049
STNE5	525779.253	122844.816	41.170
STNE9	525834.899	122839.852	40.363
STNG1	525718.298	122442.790	23.262
STNG10	526113.235	122713.290	28.378
STNG11	526105.477	122813.261	32.104
STNG12	526129.569	122915.347	34.552
STNG13	526152.963	123031.368	35.232
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STNG20	525723.315	122463.875	23.495
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STNG4	525897.799	122425.938	22.693
STNG5	525961.282	122456.755	23.114
STNG6	526035.054	122528.078	24.289
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Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 1 of 11

Job No.	2309028	Old Job No.	
Drawing Number	WD/2309028/1	Revision Suffix	
Scale	1:200m (A0)	Date	December 2023

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525960E 525980E 526000E 526020E 526040E 526060E 526080E 526100E 526120E 526140E 526160E

123160N 123140N 123120N 123100N 123080N 123060N 123040N 123020N

B/W Ht=1.2m

Brambles Ht=1.5m & Tree Canopy Ht=15.0m

B/W Ht=1.5m

Brambles Ht=1.5m & Tree Canopy Ht=15.0m

B/W Ht=1.2m

B/W Ht=1.2m

Hedge Ht=3.0m

Hedge Ht=2.5m

Hedge Ht=2.4m

Hedge Ht=2.0m

Hedge Ht=2.0m

Hedge Ht=2.0m

Fence

Fence

Fence

Bore Hole

Brick Pillar

Brick Pillar

Gate

Gate

Bus Shelter

Bus Stop

Ridge 43.19

Ridge 39.68

Ridge 43.24

Ridge 43.27

Ridge 42.83

Ridge 44.55

Ridge 44.05

Ridge 43.99

Ridge 42.75

Ridge 42.17

Ridge 40.47

Fence 39.88

Fence 39.99

Fence 40.24

Fence 38.29

Fence 37.78

Parapet 38.13

Parapet 38.49

20347 20348 20349 20350 20351 20352 20353 20354 20355 20356 20357 20358 20359 20360 20361

14290 14291 14292 14293

STN8

STNG13

The Street

Paynesfield

Tarmac

Grass

Notes:

Whilst every effort has been made to correctly identify species of trees on the site, we advise that an arborologist be consulted before any final decisions are made.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences: Barbed Wire Fence B/W; Corrugated Iron Fence CI; Closed Board Fence CB; Open Board Fence OB; Iron Railing Fence IR; Post and Train Fence P&T; Post and Wire Fence P&W; Picket Fence PF; Chain Link Fence CL; Close Mesh Fence C/M; Wire Mesh Fence W/M

Abbreviations:

BOLLARD		MARKER	MK
BRITISH TELECOM 'A'	BO	MANHOLE METER	MH
CONCRETE PADING SLABS	CPS	POST NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAINAGE	DR	ROAD SIGNS	RSS
ELECTRICITY POLE	EP	ROTARING MAIL	RM
FIRE HYDRANT	FH	SUBMARETE BOX	SMBX
GAS VALVE	GV	TELEGRAPH POLE	TP
GUARD RAIL	GR	TOP WATER	TOP
KERB	K	VIDEO	VDO
LAMP POST	LP	WATER VALVE	WV
MANHOLE COVER	MH	WATER VALVE	WV
FIRE INVERT LEVEL	FIL	WELL	W
MAN HOLE	MH	WIRE FENCE	WF
MAN HOLE	MH	WATER METER	WM

Sheet Layout

1	2	
3	4	
5	6	
7	8	
9	10	11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 2 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/2	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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525740E

123000N

122980N

122960N

122940N

122920N

122900N

122880N

122860N

Notes:

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chestnut Paling Fence C/P
Post and Rail Fence P/R
Post and Chain Fence P/Ch
Post and Rail Fence P/R
Post and Wire Fence P/W
Stakenet S/N
Chain Link Fence C/L
Hurdle Fence H/F
Wire Mesh Fence W/M

Abbreviations:

BOLLARD			
BRITISH TELECOM	BT	MARKER	Mr
CONCRETE SLABS	C/S	PARKING METER	PM
COVER LEVEL	CL	PLANTING PLATE	PP
DROP KERB	DK	ROAD SIGN	RS
ELECTRICITY POLE	EP	WOODING TREE	WT
FLAG POLE	FP	STREET LIGHT	SL
FLAGSTONES	FLS	DRAINAGE INSP.	DMH
FOOTBRIDGE	FB	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GUY WIRE	GW	TELEPHONE UNIT	TU
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB LEVEL	KL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout

1 2
3 4
5 6
7 8
9 10 11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 3 of 11

Job No.	2309028	Old Job No.	
Drawing Number	WD/2309028/3	Revision Suffix	
Scale	1:200m (A0)	Date	December 2023

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Notes:

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INDICATIVE

Legend:

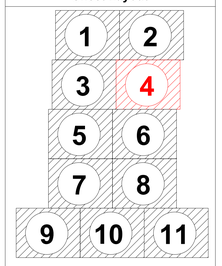
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences: Barbed Wire Fence B/W; Corrugated Iron Fence C/I; Closed Board Fence C/B; Chain Link Fence C/L; Iron Railing Fence I/R; Post and Train Fence P/T; Post and Wire Fence P/W; Post Box P/B; Chain Link Fence C/L; Timber Fence T/F; Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRICK/BLOCK/KERB/ EDGING	BK	MANHOLE/ METER	MH
CONCRETE PAVING SLABS	CPS	POST/ NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAIN/ GULLY	DR	STREET LAMP	SL
ELECTRICITY POLE	EP	RETAINING WALL	RW
FIRE HYDRANT	FH	SUMMERTIME BOX	SB
FLOOD LIGHT	FL	TELEPHONE POST	TP
FOUNDATION	FD	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
INSPECTION	IP	SLUICE/VALVE	SL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
INVERT LEVEL	IL	VENT PIPE	VP
MANHOLE	MH	WATER METER	WM
MINI KIOSK	MK		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 4 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/4	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

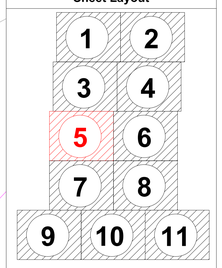
Fences
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chain Link Fence C/L
Iron Railing Fence I/R
Post and Chain Fence P/C
Post and Rail Fence P/R
Post Wire Fence P/W
Picket Fence PKT
Chain Link Fence C/L
Post and Wire Fence P/W
Wire Mesh Fence W/M

Abbreviations:

BOLLARD BO
CONCRETE/SILICOM /C C
CONCRETE PADING SLABS CPS
COVER LEVEL CL
DRAIN DR
ELECTRICITY POLE EP
FIRE HYDRANT FH
GAS VALVE GV
INVERT LEVEL IL
MANHOLE MH
OPEN VALVE OV
POST P
INSPECTION COVER RE
RISER / INVERT LEVEL R/L
STOP VALVE SV
WIRE HOLE WH

MARKER MK
PEDESTRIAN METER PM
ROAD NAME PLATE RNP
ROAD SIGN RS
STREET LIGHTING SL
RETAINING WALL RW
SHAMROCK BOX SB
TELEPHONE BOX TB
TRAFFIC LIGHT TL
UTILITY UTY
VALVE V
SILLCOCK/A SPIKE VP
WATER TAP WT
UNABLE TO LIFT UTL
VENT PIPE VP
WATER METER WM

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

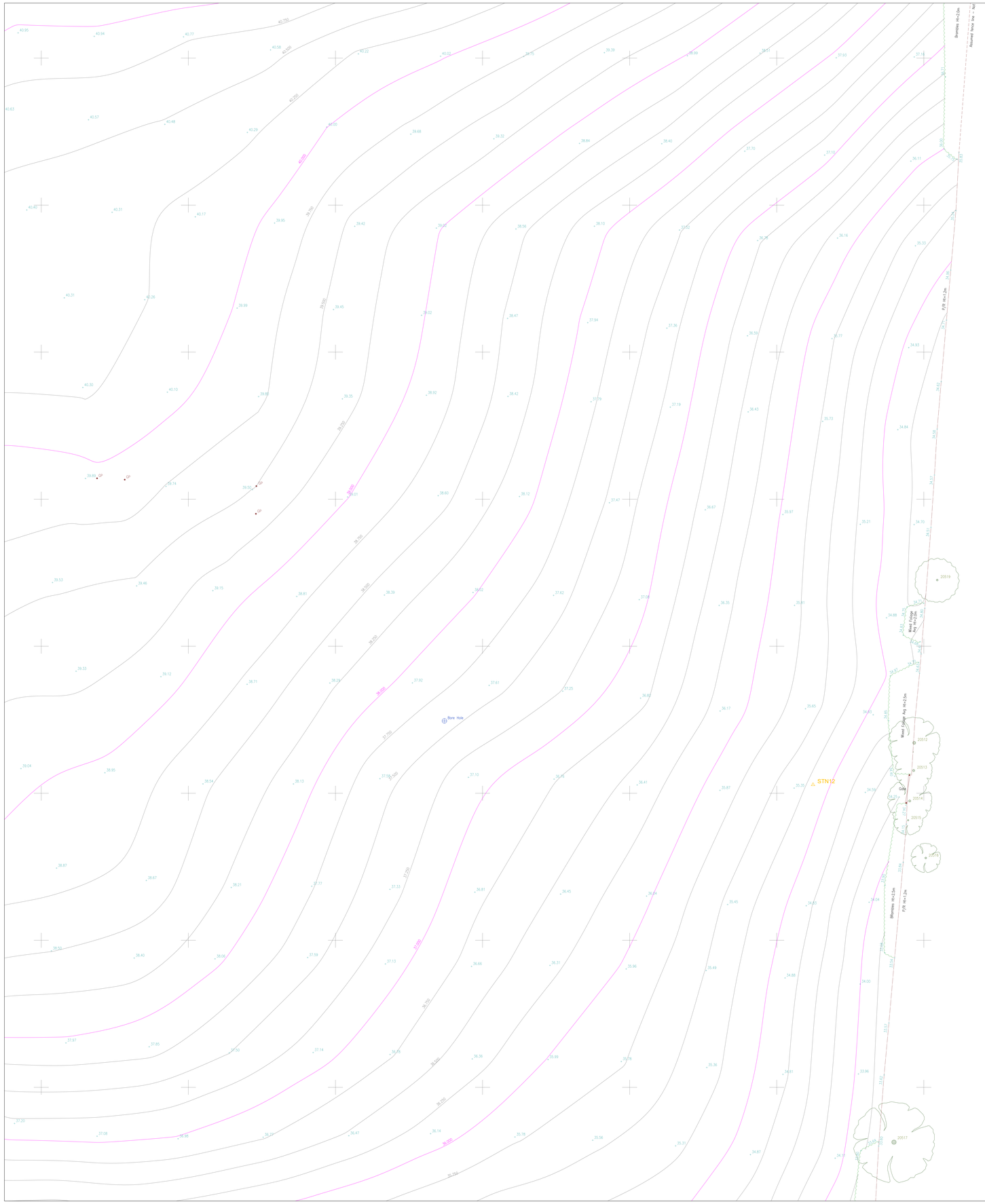
Client: Wates

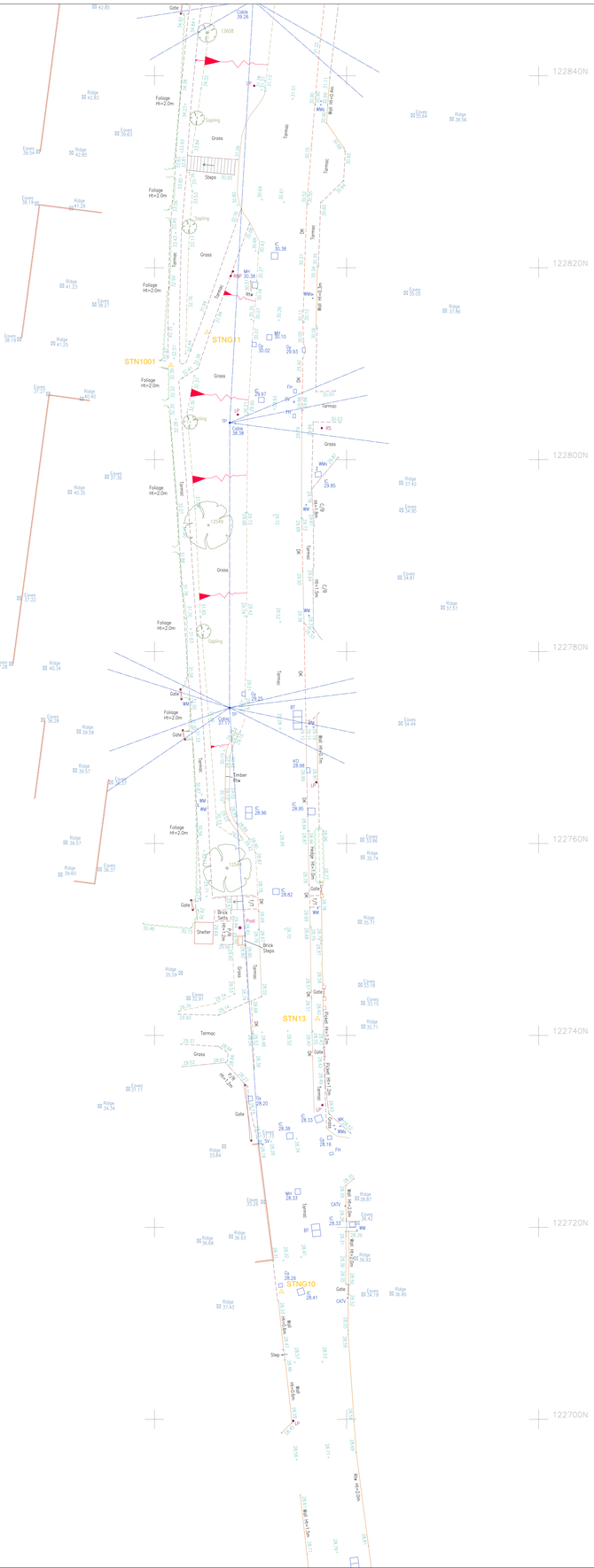
Location: Foxhole Farm, Bolney
Haywards Heath

Drawing Title: Topographical Survey
Sheet 5 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/5	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences
- Barbed Wire Fence B/W
- Corrugated Iron Fence C/I
- Closed Board Fence C/B
- Chain Link Fence C/L
- Iron Railing Fence I/R
- Post and Chain Fence P/Ch
- Post and Rail Fence P/R
- Post Wire Fence P/W
- Palisade Fence PAL
- Chain Link Fence C/L
- Post and Wire Fence P/W
- Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
CONCRETE SILLCOM /C	C/L	MANHOLE METER	MH
CONCRETE FACING SLABS	CFS	POST NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAIN MARKER	DM	RETAINING ACHE	RA
DESTINATION PYLE	DP	RETAINING WALL	RW
FIRE HYDRANT	FH	SHAMROCK BOX	SB
FLOOR LEVEL	FL	SOIL VENT PIPE	SVP
GULLY GRATED	GG	SIGN VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
INVERT	IN	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB RAISED LEVEL	KL	VENT PIPE	VP
MANHOLE	MH	WATER METER	WM
MIN KERB	MK		

Sheet Layout

1	2	
3	4	
5	6	
7	8	
9	10	11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

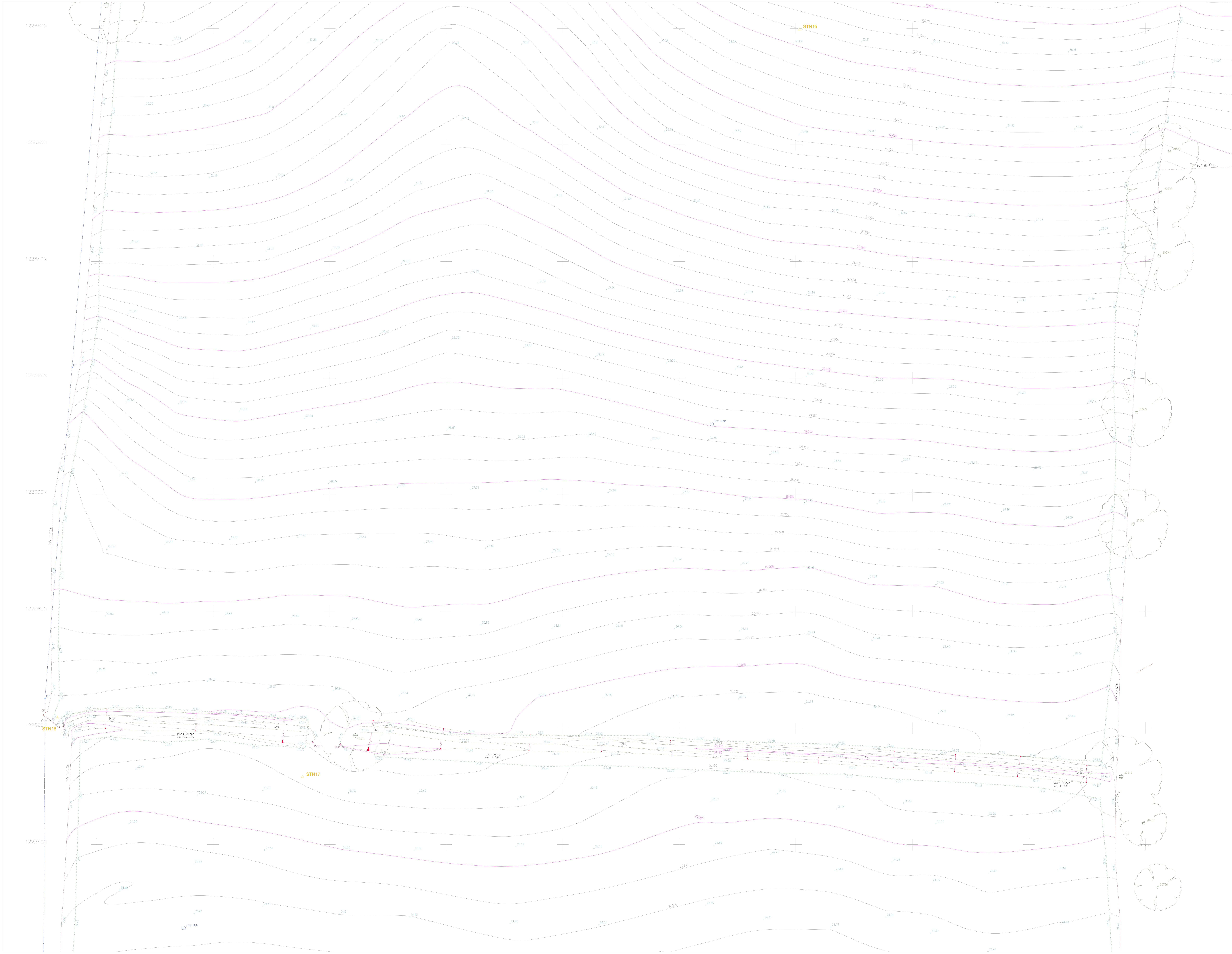
Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 6 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/6	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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N INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:	
Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chestnut Paling Fence	C/P
Iron Railing Fence	I/R
Post and Chain Fence	P/C
Post and Rail Fence	P/R
Post Wire Fence	P/W
Interwoven	I/W
Chain Link Fence	C/L
Larch Lap Fence	L/L
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
COVER LEVEL	CL	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	Rtw
FIRE HYDRANT	FH	RAINWATER PIPE	RPW
FLOWER BED	F/B	SOIL VENT PIPE	SVP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
PIPE INVERT LEVEL	IL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout

1	2
3	4
5	6
7	8

9	10	11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 7 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/7	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chain Link Fence C/L
Iron Railing Fence I/R
Post and Chain Fence P/Ch
Post and Rail Fence P/R
Post Wire Fence P/W
Palisade Fence PAL
Chain Link Fence C/L
Post and Wire Fence P/W
Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
DROP KERB	DK	ROD EYE	RE
DROP KERB	DK	ROGGING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	RW
ELECTRICITY POLE	EP	SOIL VENT PIPE	SVP
FLOWER BED	FB	SOIL VENT PIPE	SVP
GAS VALVE	GV	STEPS	S
GAS VALVE	GV	STREET LIGHT POLE	SLP
KIOSK	K	TRAFFIC LIGHT	TL
MANHOLE COVER	MH	VENT PIPE OF LIFT	VP
PIPE RISER COVER	P	WATER BOLLARD	WB
TELEPHONE	TEL	WATER METER	WM
WAN HOLE	WH		

Sheet Layout

1 2 3 4 5 6 7 8 9 10 11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney
Haywards Heath

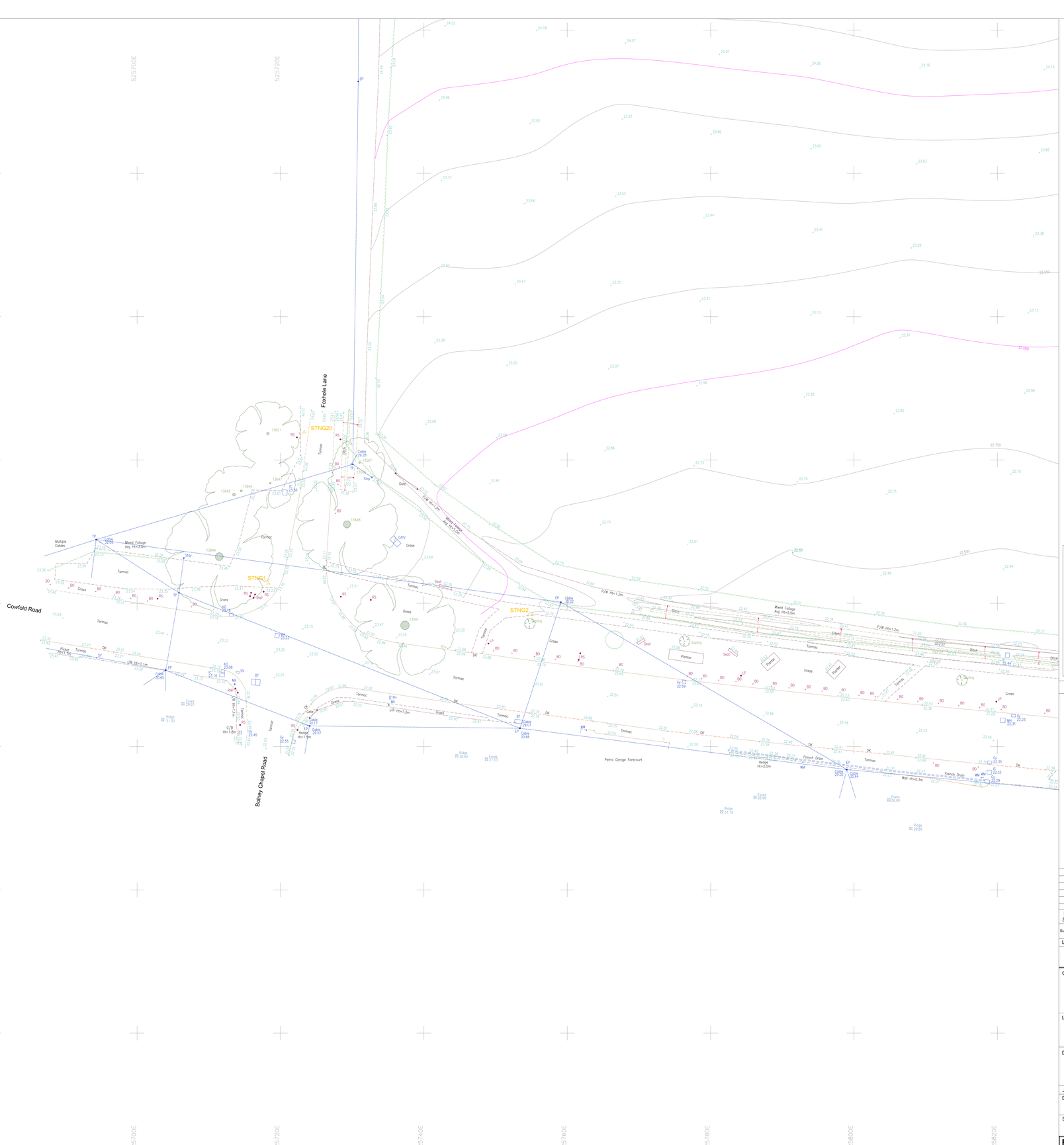
Drawing Title: Topographical Survey
Sheet 8 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/8	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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525640E 525660E 525680E 525700E 525720E 525740E 525760E 525780E 525800E 525820E

122500N 122480N 122460N 122440N 122420N 122400N 122380N



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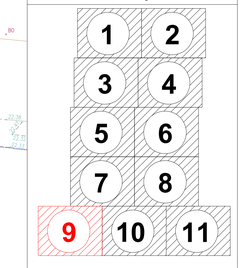
Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:



Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 9 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/9	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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INDICATIVE

Legend:

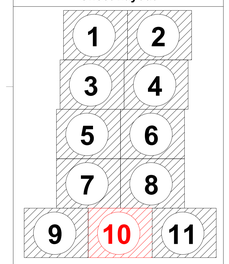
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences
- Barbed Wire Fence BW
- Corrugated Iron Fence CIS
- Closed Board Fence CB
- Hedge Mixed Species HM
- Iron Railing Fence IR
- Post and Chain Fence PCH
- Post and Rail Fence PR
- Post Wire Fence PW
- Chain Link Fence CL
- Close Board Fence CF
- Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
CONIFER	CF	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	RW
ELECTRIC BOX	EB	SOIL VENT PIPE	SVP
FLOWER BED	FB	SOIL VENT PIPE	SVP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	STREET LIGHT POLE	SLP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB STONE (FULL)	K	WATER TANK	WT
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 10 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/10	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Tree Schedule

Pt No	Spread	Bole	Height	Species
97	6.0	0.20	8.0	HAZEL
98	8.0	0.30	10.0	TREE UNKNOWN
99	10.0	0.50	13.0	TREE UNKNOWN
100	9.0	0.40	12.0	TREE UNKNOWN
101	5.0	0.40	8.0	CHERRY
102	8.0	0.25	10.0	TREE UNKNOWN
103	7.0	0.25	11.0	TREE UNKNOWN
104	7.0	0.25	12.0	TREE UNKNOWN
105	9.0	0.45	14.0	TREE UNKNOWN
106	11.0	0.45	13.0	TREE UNKNOWN
107	6.0	0.20	11.0	TREE UNKNOWN
108	7.0	0.40	11.0	TREE UNKNOWN
119	5.0	0.25	8.0	TREE UNKNOWN
120	6.0	0.30	5.0	TREE UNKNOWN
121	8.0	0.30	5.0	TREE UNKNOWN
122	8.0	0.40	12.0	TREE UNKNOWN
123	6.0	0.25	11.0	TREE UNKNOWN
124	8.0	0.30	11.0	TREE UNKNOWN
125	8.0	0.30	11.0	TREE UNKNOWN
126	7.0	0.20	10.0	TREE UNKNOWN
127	8.0	0.35	12.0	TREE UNKNOWN
128	8.0	0.35	12.0	TREE UNKNOWN
129	10.0	0.40	14.0	TREE UNKNOWN
130	12.0	0.40	15.0	TREE UNKNOWN
131	10.0	0.40	15.0	TREE UNKNOWN
132	7.0	0.35	11.0	TREE UNKNOWN
133	7.0	0.30	11.0	TREE UNKNOWN
134	8.0	0.40	11.0	TREE UNKNOWN
135	7.0	0.30	11.0	TREE UNKNOWN
136	8.0	0.30	7.0	TREE UNKNOWN
139	7.0	0.25	10.0	TREE UNKNOWN
140	5.0	0.25	10.0	TREE UNKNOWN
141	8.0	0.35	12.0	TREE UNKNOWN
142	8.0	0.35	12.0	TREE UNKNOWN
143	7.0	0.25	11.0	TREE UNKNOWN
144	7.0	0.40	11.0	TREE UNKNOWN
145	6.0	0.20	11.0	TREE UNKNOWN
146	6.0	0.20	11.0	TREE UNKNOWN
147	6.0	0.25	10.0	TREE UNKNOWN
148	6.0	0.25	10.0	TREE UNKNOWN
149	7.0	0.40	11.0	TREE UNKNOWN
150	7.0	0.30	6.0	TREE UNKNOWN
187	7.0	0.30	11.0	SILVER BIRCH
188	12.0	0.55	13.0	OAK
189	7.0	0.40	11.0	PINE
190	6.0	0.35	9.0	PINE
232	6.0	0.25	11.0	TREE UNKNOWN
233	6.0	0.35	12.0	PINE
234	5.0	0.20	10.0	CYPRESS
255	5.0	0.25	12.0	TREE UNKNOWN
256	5.0	0.25	12.0	TREE UNKNOWN
257	4.0	0.15	10.0	TREE UNKNOWN
258	6.0	0.25	12.0	TREE UNKNOWN
259	6.0	0.25	10.0	TREE UNKNOWN
260	3.0	0.10	6.0	CYPRESS
316	6.0	0.25	13.0	PINE
317	6.0	0.30	14.0	PINE
318	6.0	0.30	14.0	PINE
319	7.0	0.40	14.0	PINE
320	6.0	0.30	14.0	PINE
321	6.0	0.25	10.0	PINE
322	6.0	0.25	8.0	PINE
323	7.0	0.35	13.0	PINE
489	5.0	0.20	8.0	TREE UNKNOWN
490	7.0	0.40	15.0	PINE
491	8.0	0.45	13.0	PINE
492	7.0	0.25	9.0	TREE UNKNOWN
495	4.0	0.20	6.0	TREE UNKNOWN
603	7.0	0.20	9.0	TREE UNKNOWN
682	5.0	0.25	7.0	TREE UNKNOWN
683	4.0	0.20	6.0	TREE UNKNOWN
684	4.0	0.20	7.0	TREE UNKNOWN
685	9.0	0.40	12.0	TREE UNKNOWN
686	6.0	0.30	8.0	TREE UNKNOWN
687	4.0	0.20	8.0	TREE UNKNOWN
688	4.0	0.20	9.0	TREE UNKNOWN
689	6.0	0.35	15.0	TREE UNKNOWN
690	6.0	0.35	10.0	SILVER BIRCH
691	5.0	0.20	10.0	TREE UNKNOWN
692	5.0	0.20	7.0	TREE UNKNOWN
693	7.0	0.30	14.0	TREE UNKNOWN
694	8.0	0.30	13.0	TREE UNKNOWN
695	5.0	0.20	11.0	TREE UNKNOWN
696	6.0	0.20	8.0	TREE UNKNOWN
697	12.0	0.45	14.0	OAK
705	6.0	0.20	8.0	TREE UNKNOWN
898	7.0	0.25	9.0	TREE UNKNOWN
980	8.0	0.40	12.0	TREE UNKNOWN
981	8.0	0.40	12.0	TREE UNKNOWN
982	7.0	0.35	15.0	YEW
1018	11.0	0.40	14.0	OAK
1019	6.0	0.35	16.0	YEW
1088	7.0	0.45	11.0	PINE
1148	10.0	0.45	12.0	OAK
1149	10.0	0.45	12.0	TREE UNKNOWN
1245	4.0	0.15	8.0	TREE UNKNOWN
1246	8.0	0.40	14.0	TREE UNKNOWN
1247	8.0	0.40	13.0	TREE UNKNOWN
1248	8.0	0.40	13.0	TREE UNKNOWN
1249	7.0	0.25	12.0	TREE UNKNOWN
1250	9.0	0.25	12.0	TREE UNKNOWN
1251	9.0	0.35	14.0	TREE UNKNOWN
1252	8.0	0.30	14.0	TREE UNKNOWN
1253	9.0	0.40	14.0	TREE UNKNOWN
1254	9.0	0.30	12.0	TREE UNKNOWN
1255	9.0	0.35	14.0	TREE UNKNOWN
1256	8.0	0.30	14.0	TREE UNKNOWN
1257	8.0	0.30	15.0	TREE UNKNOWN
1258	8.0	0.40	15.0	TREE UNKNOWN
1259	8.0	0.40	15.0	TREE UNKNOWN
1260	7.0	0.30	13.0	TREE UNKNOWN
1261	7.0	0.35	13.0	TREE UNKNOWN
1262	13.0	0.40	15.0	OAK
1279	6.0	0.25	7.0	TREE UNKNOWN
12544	5.0	0.25	6.0	CHERRY
12549	5.0	0.20	6.0	TREE UNKNOWN
12597	6.0	0.30	7.0	TREE UNKNOWN
12600	6.0	0.30	7.0	TREE UNKNOWN
12608	2.0	0.25	6.0	CHERRY
13541	14.0	1.20	16.0	OAK
13566	7.0	0.15	9.0	TREE UNKNOWN
13567	7.0	0.25	10.0	TREE UNKNOWN
13621	9.0	0.35	9.0	TREE UNKNOWN
13644	15.0	1.10	14.0	TREE UNKNOWN
13645	8.0	0.40	14.0	TREE UNKNOWN
13646	7.0	0.30	14.0	TREE UNKNOWN
13647	7.0	0.25	12.0	TREE UNKNOWN
13648	14.0	1.00	13.0	OAK
13725	8.0	0.20	12.0	TREE UNKNOWN
13726	8.0	0.20	12.0	TREE UNKNOWN
13752	12.0	0.60	15.0	OAK
13753	9.0	0.70	13.0	TREE UNKNOWN
13853	15.0	1.20	16.0	OAK
13854	11.0	0.40	12.0	TREE UNKNOWN
14290	13.0	0.80	15.0	OAK
14291	13.0	0.70	15.0	OAK
14292	13.0	0.90	15.0	OAK
14293	13.0	0.90	15.0	OAK

Tree Schedule

Pt No	Spread	Bole	Height	Species
14294	12.0	0.70	13.0	EUCALYPTUS
20105	13.0	0.70	14.0	TREE UNKNOWN
20106	12.0	0.80	16.0	TREE UNKNOWN
20107	6.0	0.30	12.0	TREE UNKNOWN
20108	6.0	0.30	12.0	TREE UNKNOWN
20109	5.0	0.30	10.0	SILVER BIRCH
20110	14.0	0.60	16.0	OAK
20111	7.0	0.40	11.0	BEECH
20112	12.0	0.50	14.0	OAK
20120	6.0	0.20	8.0	TREE UNKNOWN
20136	11.0	0.90	14.0	TREE UNKNOWN
20137	13.0	1.00	16.0	TREE UNKNOWN
20138	13.0	0.60	15.0	OAK
20139	11.0	0.50	12.0	OAK
20140	16.0	0.75	16.0	OAK
20141	9.0	0.35	12.0	OAK
20160	7.0	0.30	9.0	TREE UNKNOWN
20161	7.0	0.30	9.0	TREE UNKNOWN
20162	5.0	0.30	5.0	TREE UNKNOWN
20163	8.0	0.35	11.0	TREE UNKNOWN
20164	10.0	0.35	10.0	TREE UNKNOWN
20165	8.0	0.35	10.0	TREE UNKNOWN
20167	5.0	0.30	9.0	CYPRESS
20171	20.0	1.10	18.0	OAK
20199	13.0	0.60	17.0	TREE UNKNOWN
20200	9.0	0.40	12.0	TREE UNKNOWN
20201	14.0	0.65	18.0	TREE UNKNOWN
20202	14.0	0.65	18.0	TREE UNKNOWN
20203	9.0	0.40	12.0	ASH
20204	13.0	0.80	17.0	TREE UNKNOWN
20205	6.0	0.25	9.0	TREE UNKNOWN
20206	6.0	0.25	9.0	CYPRESS
20213	15.0	1.00	15.0	TREE UNKNOWN
20214	7.0	0.25	8.0	OAK
20215	9.0	0.35	12.0	OAK
20218	7.0	0.50	8.0	HAZEL
20219	7.0	0.50	8.0	HAZEL
20220	13.0	0.60	14.0	OAK
20225	9.0	0.45	14.0	FIR
20226	10.0	0.35	12.0	TREE UNKNOWN
20227	9.0	0.35	12.0	FIR
20230	5.0	0.35	8.0	CYPRESS
20231	7.0	0.40	10.0	PINE
20232	7.0	0.40	10.0	PINE
20235	8.0	0.35	12.0	ASH
20243	9.0	0.35	11.0	OAK
20246	9.0	0.30	9.0	OAK
20247	9.0	0.30	9.0	OAK
20251	9.0	0.30	9.0	OAK
20290	12.0	0.50	12.0	OAK
20291	10.0	0.60	18.0	PINE
20292	13.0	0.60	14.0	OAK
20293	10.0	0.60	12.0	SILVER BIRCH
20294	6.0	0.30	7.0	OAK
20295	11.0	0.50	13.0	SILVER BIRCH
20296	8.0	0.30	10.0	SILVER BIRCH
20297	7.0	0.30	8.0	SILVER BIRCH
20298	6.0	0.30	5.0	FRUIT
20299	6.0	0.30	5.0	FRUIT
20346	12.0	0.50	13.0	OAK
20347	12.0	0.50	13.0	OAK
20348	13.0	0.65	16.0	OAK
20349	11.0	0.65	13.0	OAK
20350	7.0	0.30	10.0	OAK
20351	12.0	0.55	12.0	OAK
20352	12.0	0.50	13.0	OAK
20353	10.0	0.50	13.0	OAK
20354	10.0	0.50	11.0	OAK
20355	8.0	0.35	9.0	OAK
20356	8.0	0.35	9.0	OAK
20357	8.0	0.40	9.0	OAK
20358	10.0	0.40	11.0	OAK
20359	10.0	0.40	11.0	OAK
20360	5.0	0.20	9.0	SILVER BIRCH
20361	8.0	0.30	11.0	SILVER BIRCH
20422	3.0	0.40	6.0	TREE UNKNOWN
20423	3.0	0.40	6.0	TREE UNKNOWN
20424	3.0	0.40	7.0	TREE UNKNOWN
20425	3.0	0.40	4.0	TREE UNKNOWN
20426	3.0	0.40	4.0	TREE UNKNOWN
20427	7.0	0.30	10.0	SILVER BIRCH
20428	11.0	0.60	12.0	TREE UNKNOWN
20453	13.0	0.70	13.0	TREE UNKNOWN
20512	7.0	0.40	10.0	SYCAMORE
20513	5.0	0.30	10.0	SYCAMORE
20514	6.0	0.30	10.0	TREE UNKNOWN
20515	4.0	0.20	8.0	TREE UNKNOWN
20516	4.0	0.25	10.0	SILVER BIRCH
20517	11.0	0.60	12.0	TREE UNKNOWN
20519	6.0	0.25	8.0	FIR
20520	10.0	0.50	12.0	ASH
20524	12.0	0.70	13.0	HORSECHESTNUT
20529	12.0	0.65	14.0	ASH
20530	6.0	0.60	13.0	CYPRESS
20539	12.0	0.55	11.0	TREE UNKNOWN
20579	13.0	0.90	14.0	OAK
20605	12.0	0.70	14.0	OAK
20619	14.0	0.70	17.0	ASH
20653	12.0	0.50	16.0	SYCAMORE
20654	12.0	0.50	16.0	SYCAMORE
20655	12.0	0.50	16.0	SYCAMORE
20656	12.0	0.50	16.0	SYCAMORE
20721	8.0	0.60	15.0	TREE UNKNOWN
20722	8.0	0.60	15.0	TREE UNKNOWN
20723	8.0	0.60	15.0	TREE UNKNOWN
20724	8.0	0.60	15.0	TREE UNKNOWN
20725	8.0	0.60	15.0	TREE UNKNOWN
20726	8.0	0.40	10.0	TREE UNKNOWN
20727	8.0	0.50	13.0	TREE UNKNOWN
20781	6.0	0.25	9.0	TREE UNKNOWN
20782	8.0	0.30	8.0	TREE UNKNOWN
20875	7.0	0.30	9.0	TREE UNKNOWN
20876	6.0	0.30	5.0	FRUIT
20885	9.0	0.50	12.0	PINE
20891	7.0	0.25	8.0	CHERRY
20892	15.0	1.00	14.0	OAK
20893	5.0	0.20	8.0	FIR
20894	5.0	0.20	11.0	FIR
20895	5.0	0.25	11.0	FIR
20896	7.0	0.35	11.0	FIR
20897	7.0	0.40	11.0	FIR
20898	4.0	0.20	11.0	FIR
20899	7.0	0.45	13.0	FIR
20900	7.0	0.35	13.0	FIR
20901	7.0	0.40	13.0	FIR
20902	14.0	0.85	15.0	OAK
20903	5.0	0.30	12.0	PINE
20904	7.0	0.30	10.0	OAK
20931	7.0	0.45	12.0	PINE
20932	7.0	0.45	12.0	PINE
20933	6.0	0.35	12.0	PINE
20934	7.0	0.40	12.0	PINE
20935	6.0	0.30	12.0	PINE
20936	4.0	0.20	11.0	PINE
20937	4.0	0.25	11.0	PINE
20938	4.0	0.20	11.0	PINE
20939	4.0	0.25	11.0	PINE

Notes:

Whilst every effort has been made to correctly identify species of trees on the site, we advise that an arborologist be consulted before any final decisions are made.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

N

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

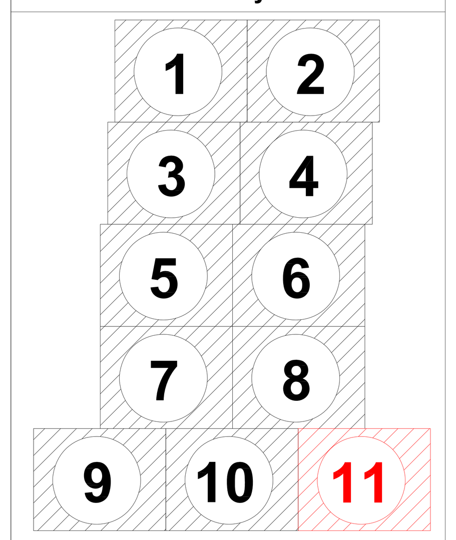
Fences:

Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chestnut Paling Fence	C/P
Iron Railing Fence	I/R
Post and Chain Fence	P/C
Post and Rail Fence	P/R
Post Wire Fence	P/W
Interwoven	I/W
Chain Link Fence	C/L
Larch Lap Fence	L/L
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
COVER LEVEL	CL	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	Rtw
FIRE HYDRANT	FH	RAINWATER PIPE	RPW
FLOWER BED	F/B	SOIL VENT PIPE	SVP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
PIPE INVERT LEVEL	IL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 11 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/11	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Notes:

Whilst every effort has been made to correctly identify species of trees on the site, we advise that an arborologist be consulted before any final decisions are made.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:

Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chestnut Paling Fence	C/P
Iron Railing Fence	I/R
Post and Chain Fence	P/C
Post and Rail Fence	P/R
Post Wire Fence	P/W
Interwoven	I/W
Chain Link Fence	C/L
Lynch Hek Fence	L/H
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
COVER LEVEL	CL	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	RTw
FLOWER BED	FB	SOIL VENT PIPE	SVP
FLOWER BED	FB	SUBSTANT PIPE	SUB
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
PIPE INVERT LEVEL	IL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

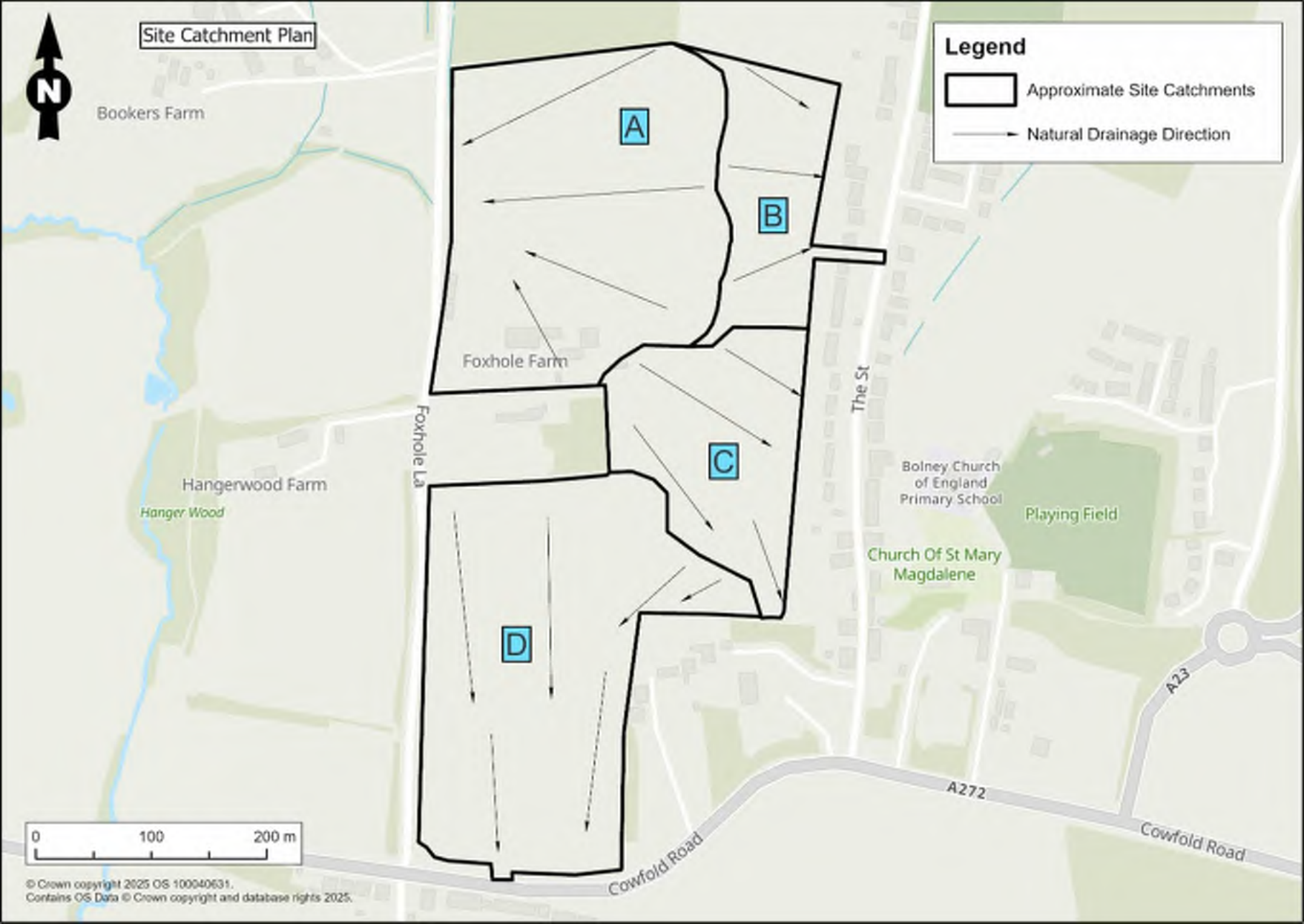
Drawing Title

Topographical Survey
Overall Sheet

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/O	Revision Suffix
Scale Not to Scale	Date December 2023

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Appendix C
Site Visit Photographs and Accompanying Figures


Site Catchment Plan
N
Legend
Approximate Site Catchments
Natural Drainage Direction
A
B
C
D
Bookers Farm
Foxhole Farm
Foxhole La
The St
Hangerwood Farm
Hanger Wood
Bolney Church of England Primary School
Playing Field
Church Of St Mary Magdalene
A23
A272
Cowfold Road
Cowfold Road
0
100
200 m
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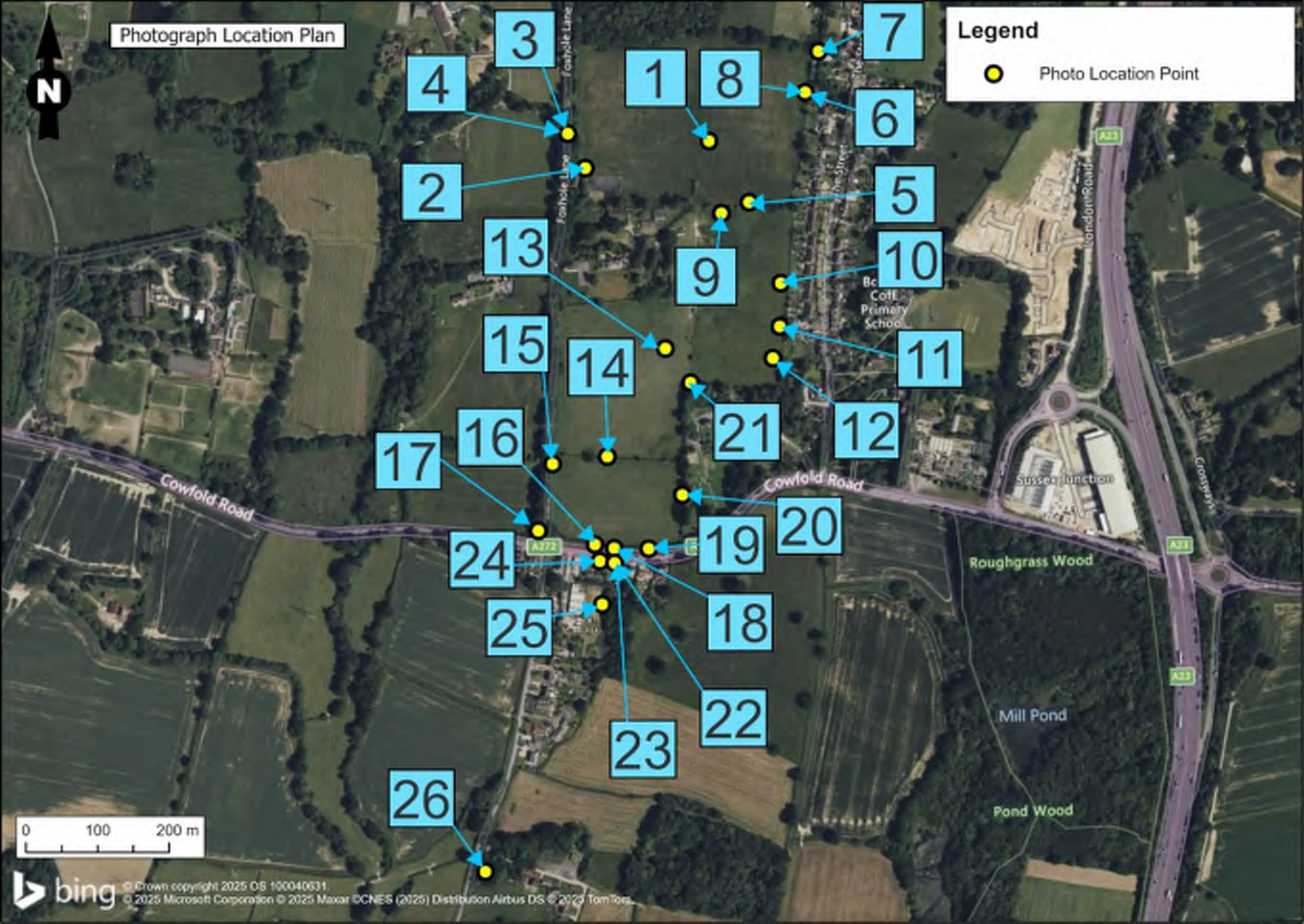

Photograph Location Plan
N
Legend
Photo Location Point
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
Cowfold Road
Foxhole Lane
The Street
London Road
A23
A272
Roughgrass Wood
Mill Pond
Pond Wood
Sussex Junction
Crossways
0
100
200 m
bing
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Table 3.1: Catchment A Photographs

	
1. View of Catchment A looking west from east side of catchment. Topography visibly sloping from east to west.	**2.** View of Catchment A looking north along western boundary. Standing water visible near gate.
	
3. View of watercourse exiting the site along the western boundary. Watercourse is flowing from east to	**4.** View of watercourse following exit from culvert beneath Foxhole Lane. Culvert visible in bottom left

west and passes through a culvert beneath Foxhole Lane.	corner of image. Watercourse noted to continue beyond the site.

Table 3.2: Catchment B Photographs

	
5. View of Catchment B looking north from south side of catchment. Topography visibly sloping from south to north.	**6.** Saturated ground and standing water in the northeast of the site. Clay based geology apparent.



7. Watercourse located immediately to the northeast of the site shown to be flowing from north to south and passing through private property back garden. Another branch of the watercourse flows from west to east and runs parallel to the northern boundary of the site and flows into this watercourse on the opposite side of the footbridge/footpath. Assumption is that watercourse is diverted eastwards through private property before connecting to existing surface water (or foul/combined) network along The Street.



8. View of standing water at north-eastern boundary. Area is approximately 5-8m west of the small watercourse shown in the image to the left.

Table 3.3: Catchment C Photographs

	
9. View of Catchment C looking southeast from north of catchment. Topography visibly sloping downhill from northwest to southeast.	**10.** Standing water and saturated ground in the east of the site. Looking east.

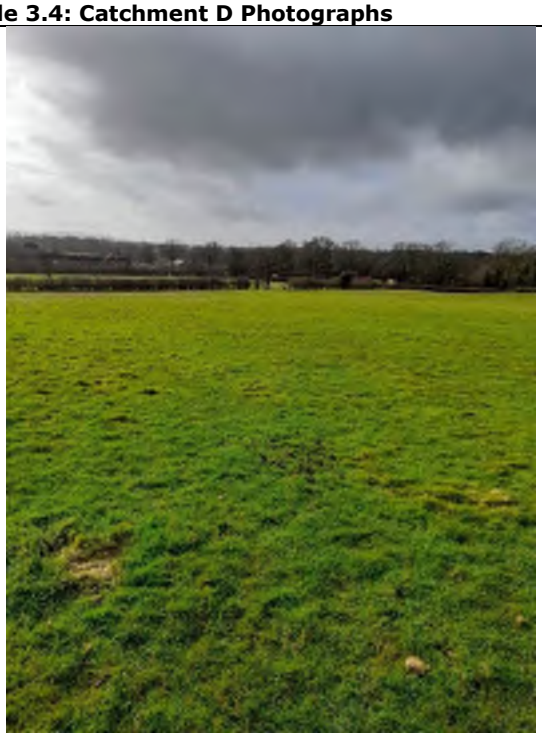


11. View of car park to the east of the site sloping downhill toward The Street. Looking east. Ground remains saturated.



12. View of Catchment C looking northwest from the southeast corner of the catchment. Topography visibly sloping uphill from southeast to northwest.

Table 3.4: Catchment D Photographs



13. View of Catchment D looking southwest from northeast of catchment. Topography visibly sloping downhill from north to south.



14. View looking east, of hedge line and field ditch bisecting Catchment D, flowing from west to east. Ground saturated.



15. Boundary ditch to west of site at Foxhole Lane, looking north. Flowing from north to south. Some debris in ditch restricting conveyance.



16. Field ditch at the southern boundary of the site, looking north. Water draining from the site collects along this southern boundary. Debris and partial ditch

	blockage creates standing water but drains down when cleared. See Table 3.5 below.

Other Observations

Further observations are presented in Table 3.5.

Table 3.5: Further Observations

 **17.** Confluence of ditches outside the southwest corner of the site on the west side of the entrance to Foxhole Lane. Ditch in field to west of site shown to be flowing from west to east and is not therefore suitable for discharge from the site.	 **18.** Manhole located in ditch along the southern boundary of the site. Flows drain to this location. Indication is that surface water runoff from the site is collected within this manhole and directed into the main surface water sewer and subsequent open channel to the south of the site and Cowfold Road.



19. Manhole to the south of the site adjacent to Cowfold Road considered to recognise the presence of foul drainage as it approximately aligns with foul water sewer records. Note that the cover was not lifted so confirmation was not able to be made.



20. Close up of inlet to piped system behind dense vegetation, to the immediate east of Catchment D (on private land) taking flow from a ditch flowing from north to south adjacent to Catchment D's eastern boundary. Flow from the ditch at the hedgerow across Catchment D drains to this location.



21. Saturated ground and early part of ditch flowing from north to south adjacent to Catchment D's eastern boundary. Looking south.



22. Catch pit to the south of the site, south of Cowfold Road. No flow visible at base of catch pit. Expectation is that connecting surface water network takes flow from the south of the site.



23. Cowfold Road drainage system. Looking north towards ditch outlet manhole.



24. Linear drainage channels visible at rear of footway on south side of Cowfold Road, to the south of the site.

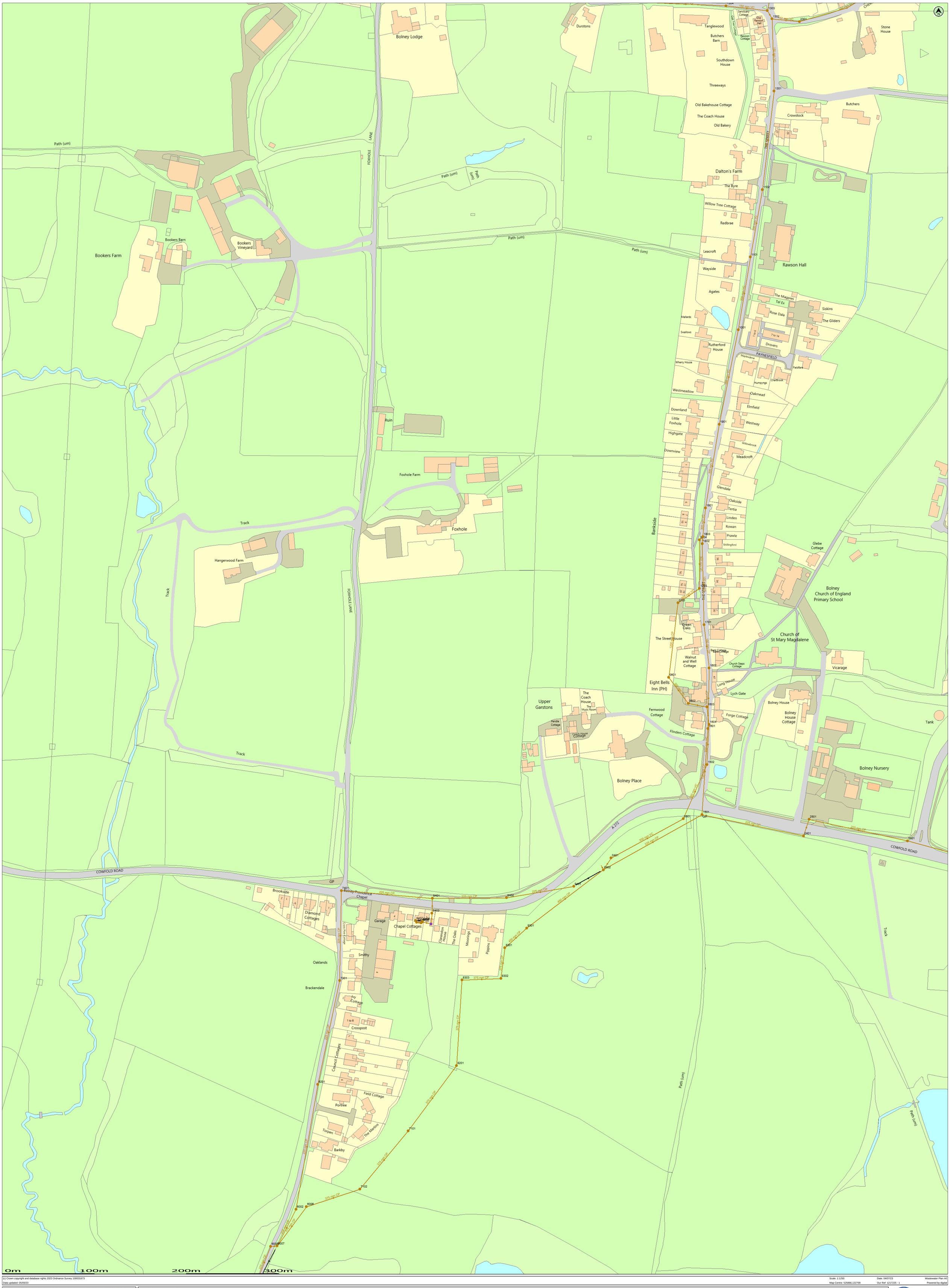


25. Continuation of surface water drainage in open channel to the south of Cowfold Road. Looking south. Photograph is taken approximately 70 m south of the site.



26. Southern Water foul pumping station located approximately 500m south of the site. Foul water from the area of the site and the surrounding area is expected to be directed to this station before being directed onward to the local wastewater treatment works.

Appendix D
Southern Water Sewer Records



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Data updated: 05/05/23

Scale: 1:1250 | Date: 04/07/23 | Wastewater Plan A0

Map Centre: 525866,122709 | Our Ref: 1217225 - 1 | Powered by digdat

Foul Gravity Sewer | Combined Gravity Sewer | Culverted Water Course or Treated Effluent | Surface Water Gravity Sewer | Rising Main, Vacuum or Syphon

Combined Outfall | Foul Outfall | Surface Water Outfall | Surface Water Inlet

Combined Pumping Station | Surface Water Pumping Station | Foul Pumping Station | Water Treatment Works | Section 104 Area | Building Over Agreement Area

Foul Manhole | Combined Manhole | Surface Water Manhole | Dely Entry Manhole, Decalcation Chamber, Duco's Machine or Vortex Separator, Dolosorbs

puneet.chauhan@ramboll.co.uk

land at Foxhole Lane

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2023 Ordnance Survey 100031673 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0401	F	23.44	20.15	
0402	F	23.16	18.70	
0501	F	24.20	20.80	
0601	F	0.00	26.07	
0602	F	0.00	25.31	
0701	F	30.00	26.69	
1001	F	35.20	32.81	
1101	F	36.03	34.25	
1102	F	37.46	35.78	
1301	F	42.19	40.62	
1302	F	47.62	46.23	
1303	F	48.31	46.71	
1304	F	48.92	47.28	
1501	F	24.79	19.12	
1502	F	25.79	22.29	
1601	F	28.30	25.67	
1602	F	28.93	26.41	
1603	F	29.04	29.04	
1604	F	28.41	25.06	
1701	F	28.37	26.85	
1703	F	28.95	26.95	
1801	F	31.76	29.84	
1802	F	30.13	28.89	
1803	F	30.38	0.00	
1804	F	30.37	28.65	
1901	F	34.98	31.85	
2301	F	49.83	48.42	
2401	F	25.15	19.63	
2501	F	24.80	19.69	
3401	F	25.17	20.12	
6002	F	17.58	0.00	
6006	F	18.16	16.93	
6007	F	18.10	16.58	
6008	F	17.99	16.54	
6201	F	20.39	17.25	
7101	F	18.96	17.18	
7102	F	19.14	17.18	
7301	F	21.37	17.57	
7401	F	23.12	17.77	
8201	F	20.23	17.75	
8301	F	21.39	18.34	
8302	F	20.68	18.26	
8303	F	19.83	18.08	
8401	F	22.52	18.09	
8402	F	22.57	18.35	
8403	F	0.00	0.00	
8404	F	0.00	0.00	
8405	F	99.86	99.27	
8406	F	99.86	0.00	
8407	F	99.86	99.48	
8408	F	99.86	99.46	
9301	F	22.07	18.39	
9401	F	0.00	18.75	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Appendix E
Additional Surface Water Flood Risk, Topographic Mapping & Other Information

Following the pre-application consultation with West Sussex County Council acting as the Lead Local Flood Authority (LLFA), on 29/11/2024, and a separate consultation on 14/02/2025, potential flood depths and velocities at the site have been considered in further detail.

Analysis

The areas at risk from surface water flooding remain the same as those shown in Figures 4.4 and 4.5, and hence the same discussions presented in Sections 5.2 and 5.6 regarding the limitations of the modelling and the proposed management and mitigation measures for surface water apply equally here.

The key area to be considered in further detail is the proposed site access onto Cowfold Road at the southern extent of the site. This is important as it will be the main access onto the site and it will need to be accessible in the event of an emergency.

According to the surface water flood maps, where the proposed site access is proposed to be located, the existing area is presently modelled to be at risk from surface water flooding.

It is noted that the surface water flooding data is only mapped to a 2 m resolution and is therefore unlikely to properly account for natural drainage features that are narrower in width than 2 m. A detailed long section for the proposed access road (ITB16634-GA-020) is presented in Appendix E at the rear of the report.

The proposed levels at the site access, as detailed in the long section (ITB16634-GA-020), indicate that water levels at the proposed location of the give-way would only need to reach negligible depths before they would naturally be directed away from the site and toward the south. For the purposes of the Flood Hazard Assessment below a worst-case depth of 0.15 m has been assumed. This has been based on existing levels at the site which are based on EA LiDAR data[3].This is presented in the long section shown in Figure AE.1 which broadly indicates levels along the route of the proposed access road from north to south. The long section extends across the width of Cowfold Road and further to the south of the site and highlights the natural fall of the land away from the site. Furthermore, it indicates a maximum flood depth of approximately 0.15 m at the location of the existing ditch and it highlights how after reaching this depth, any surface water falling in the location would naturally be directed away from the site and toward the south.



Figure AE.1: North – South Long Section at Proposed Access Location

The existing east to west ditch will be culverted at the location of the proposed access and the proposed road level at this location will be designed to provide at least 0.75 m of cover above the top of the culvert. Any surface water pooling upon the proposed access road is therefore considered to be negligible in terms of depth of water.

Any surface water runoff within the site would be managed by the proposed surface water drainage strategy.

Flood Hazard Rating

The Flood Hazard Rating as described in Flood Risks to People, FD2321/TR2[28] is calculated using the following equation:

- HR = d x (v+0.5) + DF

Where:

- HR = Flood Hazard Rating
- d = depth of flooding (m)
- v = velocity of floodwaters (m/s); and
- DF = debris factor.

The debris factor is determined as per Table AE.1 below.

Table AE.1: Debris factors for different flood depths, velocities, and dominant land uses

Depths	Pasture/Arable	Woodland	Urban
0 to 0.25 m	0	0	0
0.25 to 0.75 m	0	0.5	1
d>0.75 m and/or v>2 m/s	0.5	1	1

We have considered a worst-case depth of approximately 0.15 m, i.e., within the 0 to 0.25 m depth range, which is considered an absolute worst-case scenario given the proposed minimum design level of the proposed access road. The debris factor is therefore 0.

Previous EA data for surface water flow velocity has now been retired. For lack of a suitable alternative however we have assessed it as a broad indication of expected worst-case velocities in the location of the proposed site access road. We have determined a worst-case indicated flow velocity of between 0.25 and 0.5 m/s at the proposed access road location. We have therefore taken a worst-case figure of 0.5 m/s. Therefore:

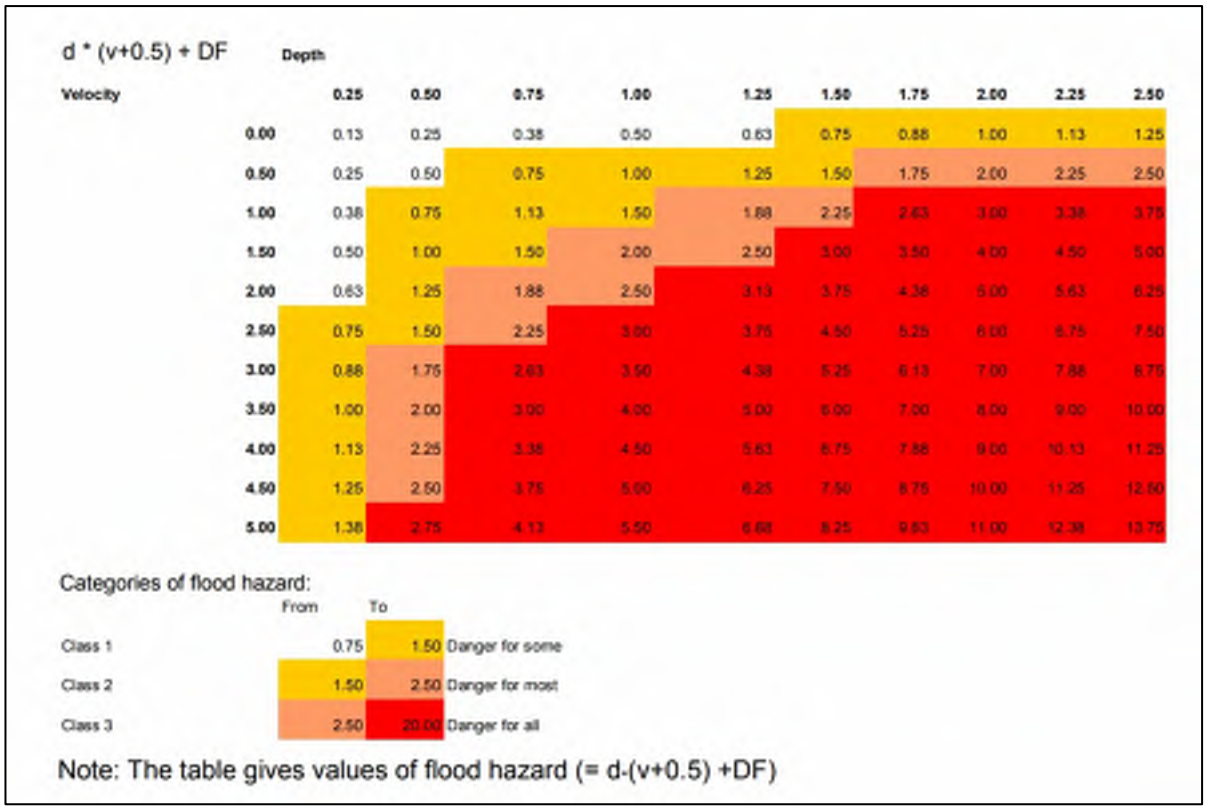
- HR = 0.15 x (0.5+0.5) + 0 = 0.15.

Figure 2.1 of the FD2321/TR2 guidance[28] (presented in Table AE.2 below), indicates that a Hazard Rating of 0.15 is below the lowest (Class 1) threshold of 0.75. As such the potential flood hazard rating at this location is therefore not even considered a "danger for some".

The proposed access road is therefore considered suitable for emergency access/egress.

It is noted that the existing ditch, oriented east to west adjacent to the southern boundary of the site, is proposed to be cleared and lowered as part of the proposed drainage improvement works. There will be a subsequent improvement in drainage and a reduction in flood risk as a result of these proposed works.

Table AE.2: Flood Hazard Matrix



d * (v+0.5) + DF

Velocity \ Depth	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50
0.00	0.13	0.25	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.25
0.50	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50
1.00	0.38	0.75	1.13	1.50	1.88	2.25	2.63	3.00	3.38	3.75
1.50	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
2.00	0.63	1.25	1.88	2.50	3.13	3.75	4.38	5.00	5.63	6.25
2.50	0.75	1.50	2.25	3.00	3.75	4.50	5.25	6.00	6.75	7.50
3.00	0.88	1.75	2.63	3.50	4.38	5.25	6.13	7.00	7.88	8.75
3.50	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
4.00	1.13	2.25	3.38	4.50	5.63	6.75	7.88	9.00	10.13	11.25
4.50	1.25	2.50	3.75	5.00	6.25	7.50	8.75	10.00	11.25	12.50
5.00	1.38	2.75	4.13	5.50	6.88	8.25	9.63	11.00	12.38	13.75

Categories of flood hazard:

	From	To	
Class 1	0.75	1.50	Danger for some
Class 2	1.50	2.50	Danger for most
Class 3	2.50	20.00	Danger for all

Note: The table gives values of flood hazard (= d·(v+0.5) +DF)

Existing Watercourses and Banks

As requested by the LLFA following the pre-application consultation meeting in November 2024, provided below are figures depicting existing watercourses/ditches at the site and separate figures marking the banks of said watercourses/ditches with a 3 m easement drawn from said banks.



Figure AE.2: Existing Watercourses/Ditches - Northern Development

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Figure AE.3: Existing Watercourses/Ditches – Southern Development

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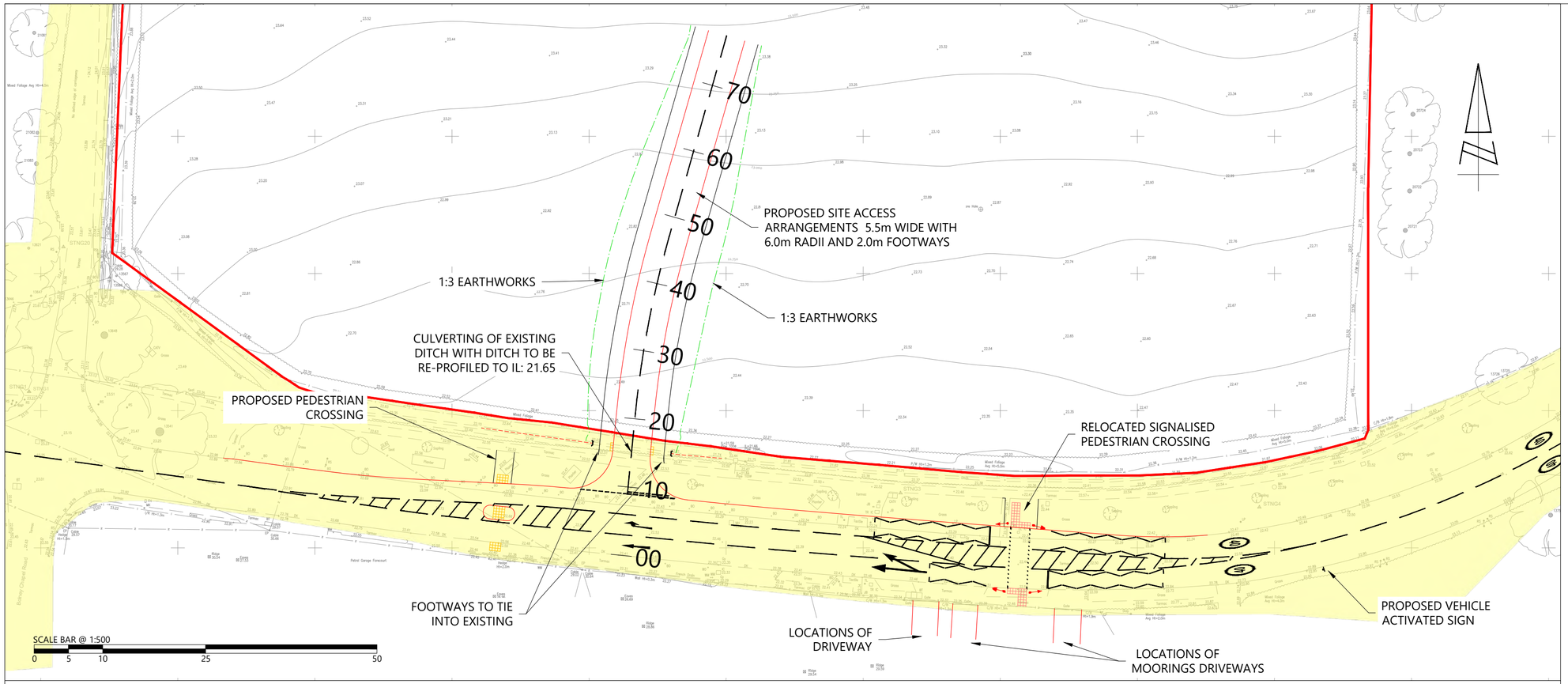
Figure AE.4: Existing Watercourses/Ditches Banks & Buffers – Northern Development



Figure AE.5: Existing Watercourses/Ditches Banks & Buffers – Southern Development

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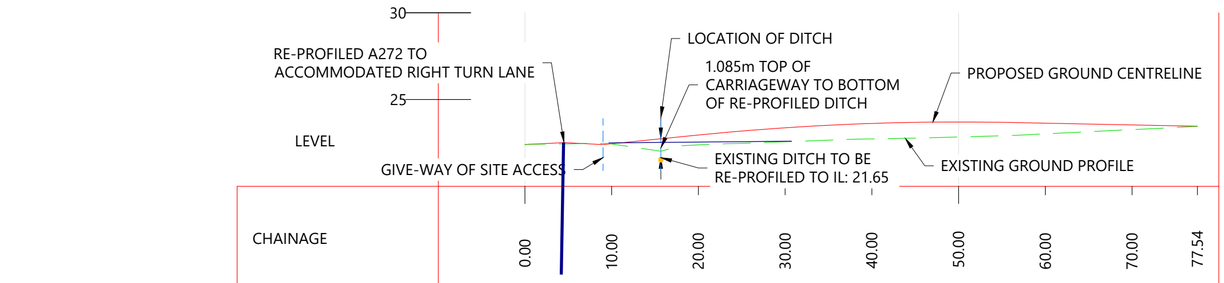
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KEY:

- SITE BOUNDARY BASED ON OS MAPPING
- HIGHWAY BOUNDARY BASED ON OS MAPPING

SITE ACCESS ALIGNMENT
SCALE: H 1:500,V 1:250. DATUM: 20.00



CHAINAGE	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	77.54
EXISTING LEVELS	22.404	22.440	22.387	22.566	22.730	22.841	23.020	23.265	23.460
PROPOSED LEVELS		22.454	22.954	23.371	23.622	23.705	23.636	23.536	23.460
LEVEL DIFFERENCE		-0.021	0.567	0.805	0.892	0.864	0.615	0.271	0.000
VERTICAL GEOMETRY		G =5.000% L =11.032	R =600.000 K =6.000 L =35.999				G =-1.000% L =21.511		

SCALE BAR @ 1:250
0 1 2 5 10 25

SCALE BAR @ 1:500
0 5 10 25 50

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REV	DATE	BY	DESCRIPTION	CHK	APD
A	27.03.26	MC	VERTICAL PROFILE REVISED	MC	DS

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TITLE: PROPOSED SITE ACCESS ARRANGEMENTS
VERTICAL ARRANGEMENT OPTION 1

PROJECT: LAND WEST OF BOLNEY

CLIENT: WATES DEVELOPMENTS

DRAWN:	CHECKED:	APPROVED:
MC	MC	DS
PROJECT No:	SCALE @ A2:	DATE:
ITB16634	AS SHOWN	18.03.25
DRAWING No:		REV:
ITB16634-GA-020		A

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