

FLOOD RISK ASSESSMENT AND DRAINAGE STRATEGY

Proposed Single Dwelling, 30 Kent End Road, Ashton Keynes, Wiltshire, SN6 6PU on Behalf of Mr Danny and Mrs Gemma Chivers.

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1.0 INTRODUCTION

- 1.1 This *Flood Risk Assessment* has been prepared by Cole Easdon Consultants Limited (CE) on behalf of Mr Danny and Mrs Gemma Chivers in support of an outline planning application for a proposed single dwelling at 30 Kent End, Ashton Keynes, Wiltshire, SN6 6PU. Refer to CE Figure 10343/500 Figure 1 [*Site Location Plan*] in Appendix 1.

Development Proposals

- 1.2 The development proposals for the site include the construction of a single dwelling with associated parking and driveway.
- 1.3 This study is based on Drawing No. 25-003PL20v8 [*Site Plan as Proposed*] by Halzac Design LTD in Appendix 2.

Need for Study

- 1.4 The purpose of this assessment is to demonstrate that the development proposal outlined above can be satisfactorily accommodated without worsening flood risk for the area and without placing the development itself at risk of flooding, as per National guidance provided within the National Planning Policy Framework document (NPPF).
- 1.5 Accordingly, this study has been prepared to:
- i. assess flood risk to the development from fluvial sources;
 - ii. assess flood risk to the development from other potential sources, including ditches, sewers, groundwater and overland flows;
 - iii. ensure that the proposed development will fully comply with the requirements of the Environment Agency's (EA's) policy on the safeguarding of floodplains; and,
 - iv. assess a surface water drainage strategy for the proposed development.
- 1.6 It has been prepared following a pre application consultation with Wiltshire Council, which included pre application comments regarding flood risk and drainage. Refer to Appendix 7.

Local Policy

- 1.7 This assessment demonstrates that the proposals meet the requirements of *Wiltshire Council's Core Strategy* (Wiltshire Council, January 2015), *Wiltshire Council's Surface Water Management Strategy* (SWMS) (May 2013) and the *Wiltshire Council Groundwater Management Strategy 2016* (October 2015). The surface water drainage proposals on site have

been prepared in accordance with the *Drainage and Betterment Strategy* (Wiltshire Council, June 2024).

Scope of Study

- 1.8 In Section 2.0, we describe the characteristics of the proposed development site and surrounding area. In Section 3.0, we assess flood risk issues. The proposed surface water drainage strategy is outlined in Section 4.0. Conclusions are presented in Section 5.0.
- 1.9 The following resources have been used for this study:
- Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) Map (EA, accessed December 2025);
 - Flood Map for Planning – Environment Agency (EA, accessed December 2025);
 - Flood Map for Surface Water – Environment Agency (EA, accessed December 2025);
 - Geological Map - British Geological Survey (BGS, accessed December 2025);
 - Hydrology Data Explorer – DEFRA (DEFRA, accessed December 2025);
 - Public Sewer Records (Thames Water Utilities, December 2025);
 - Revised Climate Change Allowances (EA, May 2022); and
 - Infiltration Test Report (Paddock Geoengineering January 2026).
- 1.10 The following publicly available documents have also been reviewed as part of this assessment:
- *Building Regulations 2015 – Approved Document H (Drainage and Waste Disposal)*;
 - *CIRIA C753 The SuDS Manual (November 2015)*;
 - *National Planning Policy Framework (February 2025)*;
 - *Non-Statutory Technical Standards for Sustainable Drainage Systems (Defra, March 2015)*;
 - *Planning Practice Guidance – Flood Risk and Coastal Change (September 2025)*;
 - *Rainfall Runoff Management for Developments (R&D Technical Report W5-074/A/TR/1 Revision E, Defra, June 2012)*;
 - *Wiltshire Council's Core Strategy (Wiltshire Council, January 2015)*;
 - *Wiltshire Council's Drainage and Betterment Strategy (Wiltshire Council, June 2024)*;
 - *Wiltshire Council's Surface Water Management Strategy (May 2013)*;
 - *Wiltshire Council Groundwater Management Strategy 2016 (October 2015)*;
 - *National Standards for SuDS (June 2025)*; and
 - Wiltshire Strategic Flood Risk Assessment Data Explorer (accessed February 2026).
<https://wiltscouncil.maps.arcgis.com/apps/webappviewer/index.html?id=74a353612a934bd48fee1f2bc564cdd8>

1.11 The following abbreviations have been used in this Report:

- AOD - Above Ordnance Datum;
- BGL – Below Ground Level;
- BGS – British Geological Survey;
- CC – Climate Change;
- EA – Environment Agency;
- FFL – Finished Floor Levels;
- LFRMS - Local Flood Risk Management Strategy;
- NPPF – National Planning Policy Framework;
- QBAR - Annual flood flow (return period of approximately 1:2.3 years);
- SFRA – Strategic Flood Risk Assessment;
- SuDS – Sustainable Drainage Systems;
- TWU – Thames Water Utilities; and
- WC – Wiltshire Council.

2.0 THE EXISTING SITE

2.1 The development site comprises the garden of No. 30 Kent End, Ashton Keynes SN6 6PU. It includes an existing driveway, garden and storage buildings. Refer to CE Figure 10343/500 Figure 1 [*Site Location Plan*] in Appendix 1.

2.2 The site is bounded to north east by an unnamed tributary of the River Thames; to the south east by No 30 Kent End Road; to the south west by Kent End Road; and to the north west by No 28 Kent End Road. Land use in the vicinity of the site is predominantly residential.

Existing Topography

2.3 The site topographical survey indicates that the site is relatively flat with a gentle fall to the north east. Existing ground levels vary from approximately 84.00mAOD in the southwest to approximately 83.50mAOD in the northeast of the site. Refer to Drawing No. SB13992-TOPO [*Topographical Survey of SITE*] (by surveybase). Refer to Appendix 2.

Nearby Watercourses/Drainage Features

2.4 The River Thames drains the local catchment. It flows in a southerly direction approximately 500m east of the site.

2.5 An unnamed tributary of the River Thames flows in a south easterly direction along the site's north eastern boundary. It appears to supply two lakes located approximately 500m south east of the site.

2.6 A number of lakes associated with Cotswold Water Park are located in the vicinity of the site.

Existing Ground Conditions

2.7 Records from the British Geological Survey indicate that the site is underlain by bedrock comprising Oxford Clay Formation (Mudstone) beneath superficial geology comprising Northmoor Sand and Gravel Member (Sand and gravel). Refer to Figures 2.1 and 2.2 below.

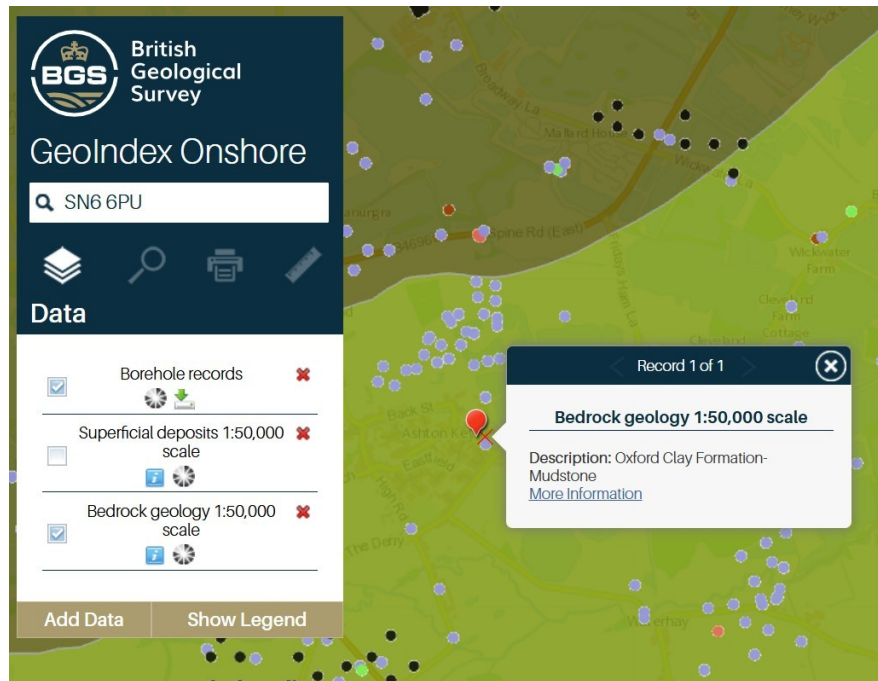


Figure 2.1: Bedrock Geology Map (Extract from British Geological Survey Geoindex)
Source: Geology of Britain viewer - British Geological Survey (bgs.ac.uk)

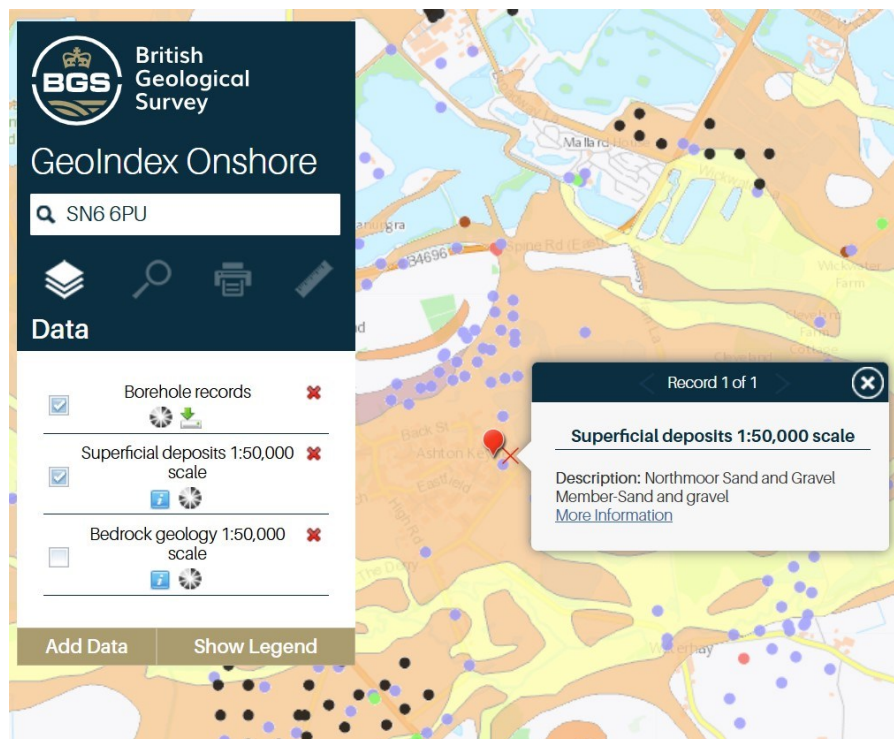


Figure 2.2: Superficial Geology Map (Extract from British Geological Survey Geoindex)
Source: Geology of Britain viewer - British Geological Survey (bgs.ac.uk)

- 2.8 An intrusive investigation comprising infiltration testing in accordance with BRE 365 guidance was undertaken in January 2026. Two trial pits (TPSK1 and TPSK2) were dug to depths between 0.42m-1.50m below ground level (bgl).
- 2.9 The investigation encountered topsoil containing limestone gravel to depths of approx. 0.40m-0.48m bgl. Underlying this stratum in both trial pits, Northmoor sand and gravel was present to depth in each pit. This is consistent with BGS mapping. Refer to the Paddock Geoengineering report in Appendix 3.
- 2.10 Groundwater was encountered within TP1 at depth of 0.55m bgl.
- 2.11 Infiltration testing was undertaken in TPSK2/SA2 in accordance with BRE365 Soakaway Design Digest (2016).
- 2.12 Testing within the pit was successful indicating that infiltration potential exists across the site. The lowest tested infiltration rate observed was 6.59×10^{-5} m/s. Refer to Table 2.1 below.

Table 2.1: Infiltration Test Results

Test Pit	Test Depth (mbgl)	Test 1	Test 2	Test 3
TPSK2/SA2	0.00-0.42	8.87×10^{-5} m/s	8.09×10^{-5} m/s	6.59×10^{-5} m/s

- 2.13 Infiltration potential exist across the site, however due to very shallow ground water (at 0.55m bgl) the requisite 1m buffer between the base of a soakaway and the groundwater table is not feasible in this instance, therefore an attenuation based surface water drainage strategy is required.

Existing Sewers

- 2.14 Asset records obtained from Thames Water Utilities (TWU) indicate that a 150mm diameter public foul sewer running flows in a southerly direction through the western edge of the site. A 150mm diameter public foul sewer to the rear of Nos. 30 and 31 Kent End Road connects to the sewer in the west of the site. Refer to TWU Sewer Records within Appendix 4.

Existing Drainage

- 2.15 It is assumed that surface water runoff from No 30 Kent End Road is discharged into the unnamed watercourse. The various outbuildings at the site are not permanent structures and do not have surface water drainage systems.

3.0 FLOOD RISK ISSUES

- 3.1 This Section presents an assessment of flood risk to the development and includes recommended flood risk mitigation measures appropriate to the level of perceived risk. Flood risk issues and proposed mitigation measures are summarised in Table 3.1 below.

Historic Flooding

- 3.2 The Strategic Flood Risk Assessment (SFRA) for Wiltshire (May 2019), the SFRA Data Explorer and the Local Flood Risk Management Strategy (LFRMS) for Wiltshire (April 2015) were reviewed to determine if any historic instances of flooding had occurred at the site. The SFRA Data Explorer mapping indicates that although floods covered a significant amount of the locality, there is no record of flooding at the site. Refer to Figure 3.1.

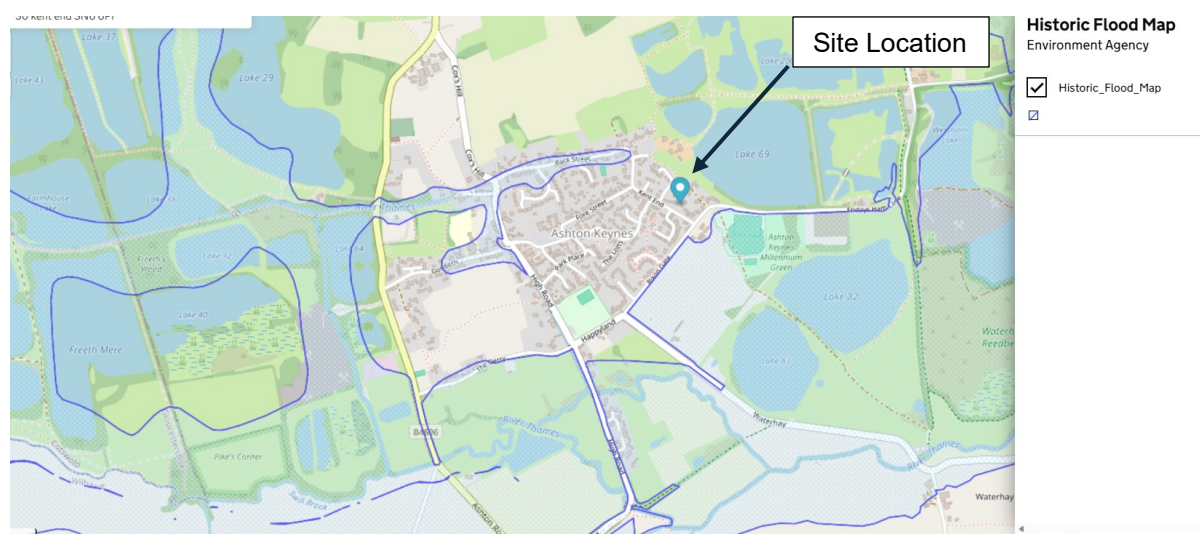


Figure 3.1: DEFRA Historic Flood Map
Source: Data Explorer - (<https://environment.data.gov.uk/>)

Assessment of Flood Risk from Fluvial/Tidal Sources

- 3.3 The Flood Map for Planning (FMP) for the locality is shown on Figure 3.2 below. According to the FMP, it can be seen that the majority of the site is within Flood Zone 1 (Low Risk), however the north-eastern part of the site lies within Flood Zone 2 (Medium Risk) associated with the unnamed watercourse at the site's north east boundary. Flood Zone 3 (High Risk) is contained within the watercourse channel.

- 3.4 The proposed house would be situated entirely within Flood Zone 1 (Low risk). Refer to CE Drawing 10474/501 (A) [*Flood Risk Constraints & Proposed Surface Water Drainage Strategy Plan*] in Appendix 1.

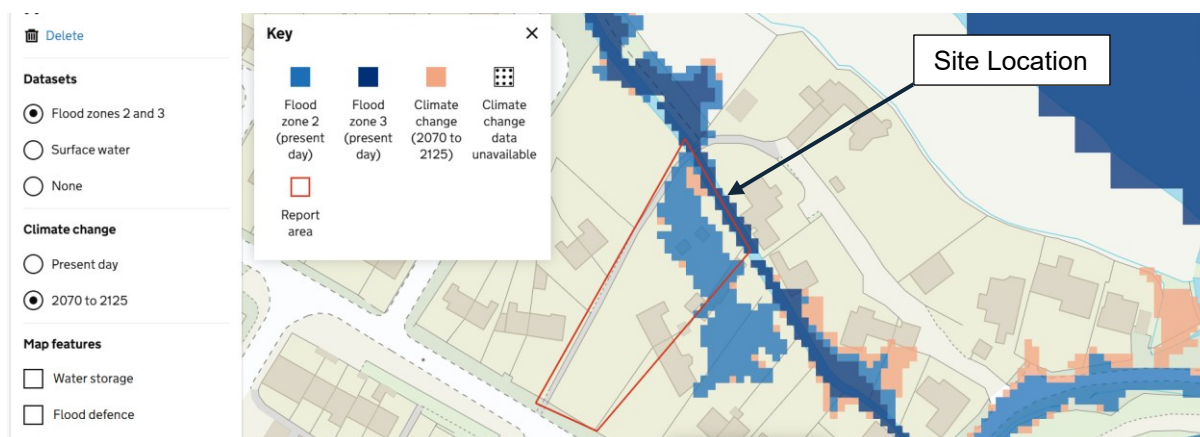


Figure 3.2: EA Flood Map for Planning
Source: <https://flood-map-for-planning.service.gov.uk/>

- 3.5 *NPPF Annex 3: Flood Risk Vulnerability Classification* classifies the proposed site usage 'Buildings used for dwelling' as 'More Vulnerable' development. In accordance with the *NPPF Practice Guidance Table 2 (Flood Risk Vulnerability and Flood Zone 'incompatibility')*, More Vulnerable Development is appropriate within Flood Zone 2, without the need for the Exception Test.

Modelled Flood Data

- 3.6 Modelled flood level data from the Thames (MRL to St Johns) 2014 modelling study has been obtained from the EA to allow a detailed assessment of fluvial flood risk. The EA has supplied the hydraulic model and result files in lieu of Product 4 data. Refer to Appendix 5.
- 3.7 2D flood data is not available for the site. 1D data relating to Node reference AKB 1226, located adjacent to the site has therefore been used in this assessment.

Climate Change

- 3.8 The latest EA guidance for the Gloucestershire and the Vale Management Catchment within which the site lies advises that a 26% allowance should be applied to the 1 in 100 year flood level in order to account for the predicted effects of future climate change. As the EA model outputs do not include a 1 in 100 year + 26% flood level, the 1 in 100 year + 35% level has been used as the basis of this assessment.

3.9 The 1 in 100year + 35% design flood level flood level at Node Reference AKB 1226 is 83.259 mAOD. Refer to Appendix 5.

3.10 Comparison of the flood level and topographical survey indicates that the site is above the design flood level. In the location of the proposed dwelling, existing ground level is approximately 83.60m AOD, 0.341m above the design flood level. Proposed finished floor level (FFL) will be set at 84.06mAOD, 0.801m above the design flood level. Refer to CE Drawing 10343/501(A) [*Flood Risk Constraints & Proposed Surface Water Drainage Strategy Plan*] in Appendix 1.

3.11 Fluvial flood risk is therefore considered to be low.

Fluvial/Tidal Flood Risk Mitigation Measures

3.12 Ground floor FFL will be set at 84.06mAOD, 0.801m above the 1 in 100 year + 35% design flood level. This will provide effective protection from internal flooding even during extreme flood events. Refer to CE Drawing 10474/501(A) [*Flood Risk Constraints & Proposed Surface Water Drainage Strategy Plan*] in Appendix 1.

Assessment of Flood Risk from Existing Sewers/Drains

3.13 TWU sewer records indicate the presence of public foul water sewers within the development site boundary.

3.14 If these sewers were to surcharge and flood, flood flow would follow the site topography and enter the unnamed watercourse, without accumulating within the site.

3.15 Flood risk from this source is therefore considered to be low.

Sewer/Drain Flood Risk Mitigation Measures

3.16 Mitigation is not required, however ground floor finished floor level (FFL) will be set 150mm above finished ground levels, as standard. This will mitigate any residual risk of sewer flooding.

3.17 Appropriate easements and/or permission to build over/near to an existing public sewer will be required.

Assessment of Flood Risk from Overland Flow (Pluvial)

- 3.18 According to the Surface Water Flood Map, the majority of the site is at very low risk of surface water flooding. Refer to figure 3.3.
- 3.19 A small area in the north of the site is shown to be at low risk (0.1% - 1% annual probability) from pluvial flooding. The area of flooding is an isolated localised area of ponding, and is not part of a flow path.
- 3.20 Surface water flood depth mapping does not show depths less than 75mm. No flooding is shown within the site on the depth mapping, thus anticipated flood depths are less than 75mm. Refer to Figure 3.4. The risk of surface water flooding is therefore considered to be low.

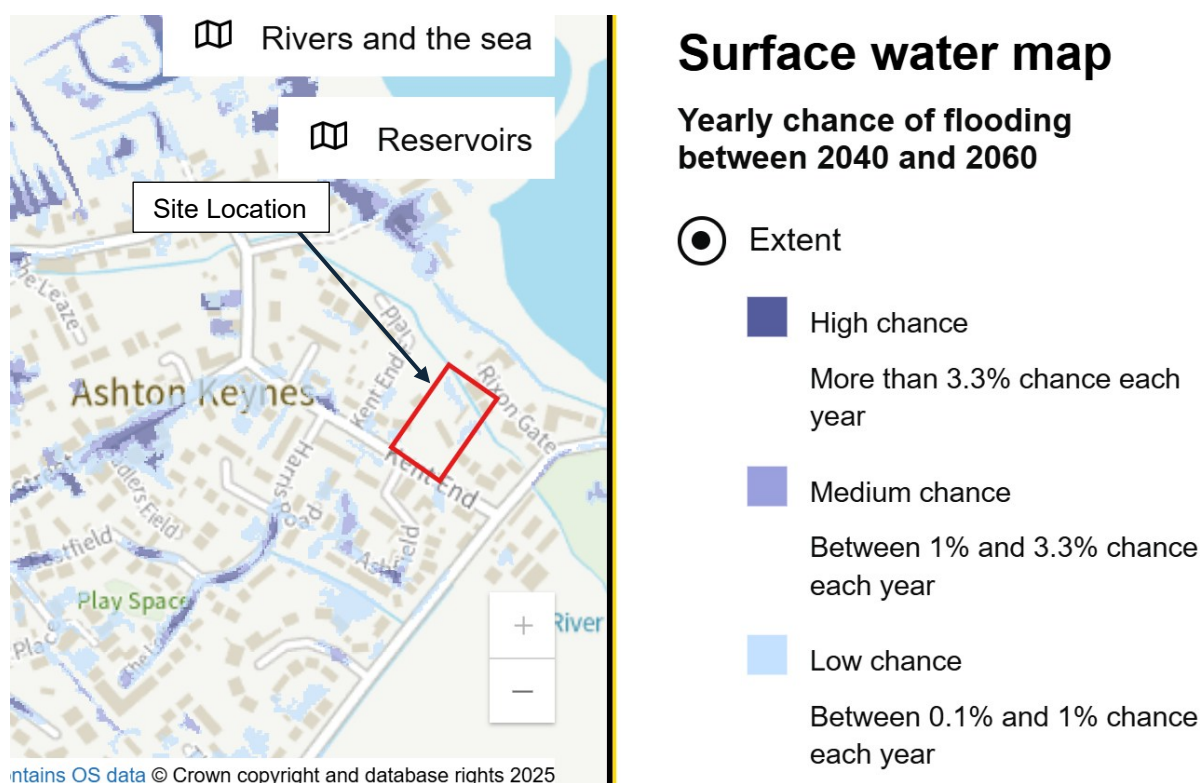


Figure 3.3: EA Surface Water Flood Map - Extent

Source: <https://flood-map-for-planning.service.gov.uk/>

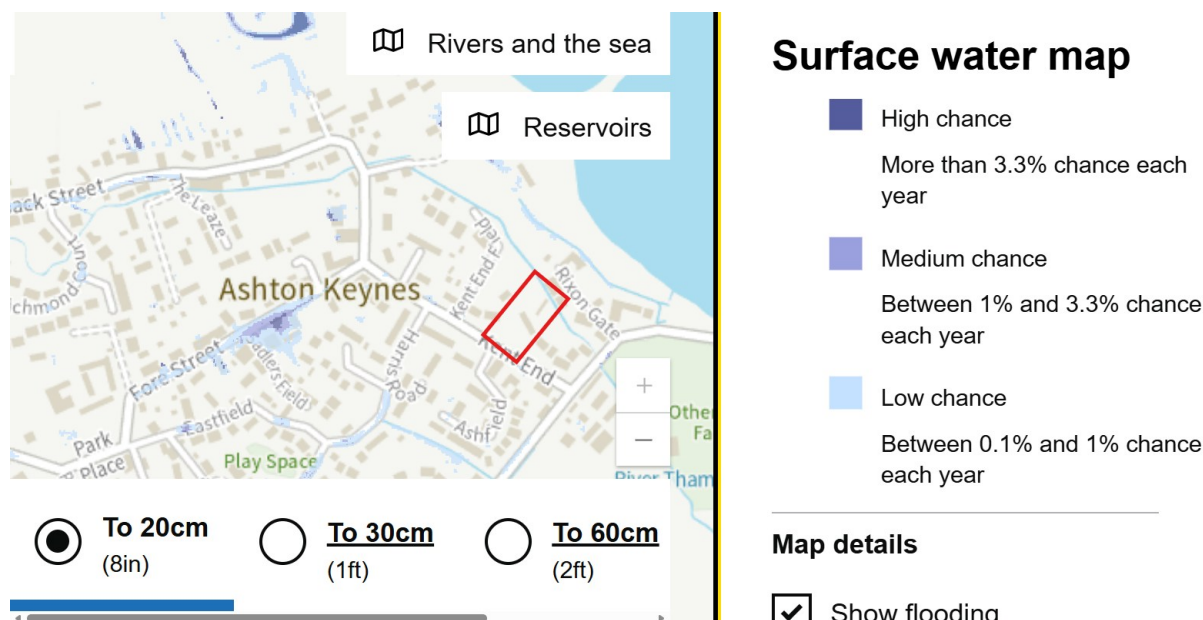


Figure 3.4: EA Surface Water Flood Map - Depth

Source: <https://flood-map-for-planning.service.gov.uk/>

Overland Flow Flood Risk Mitigation Measures

- 3.21 As the flooding is localised and is not part of a flow path, the existing low lying area can be filled to remove the area of low risk flooding without impacting flood risk at the site or locality. Alternatively, as the flooding is not in the vicinity of the proposed dwelling and is very shallow (<75mm), ground levels could be retained as existing.
- 3.22 Finished floor level (FFL) will be set 150mm above finished ground levels, as standard. This will mitigate any residual risk of surface water flooding.
- 3.23 The introduction of a SuDS scheme for the development will ensure that post development runoff is managed sustainably without any increase in surface water flood risk.

Assessment of Flood Risk from Groundwater

- 3.24 The LPA pre application response advises that the site is within an area considered to be at risk of groundwater flooding. Refer to Appendix 7.
- 3.25 The Wiltshire Council online Strategic Flood Risk Assessment (SFRA) contains no record of groundwater flooding at the site or in its vicinity. Refer to Figure 3.5.

- 3.26 Shallow groundwater (0.55m bgl) was recorded at the site in January 2026, when the groundwater table can be expected to be at its highest. Refer to Appendix 3.
- 3.27 The groundwater table at the site is likely to be in hydraulic continuity with the adjacent watercourse. The EA flood data discussed above under fluvial flooding indicates that even during the 1 in 100 year flood event including an allowance for future climate change, water levels are below existing ground level at the site. This also suggests that emergence of groundwater at the site is unlikely to occur.
- 3.28 Therefore, flood risk from this source is considered low.

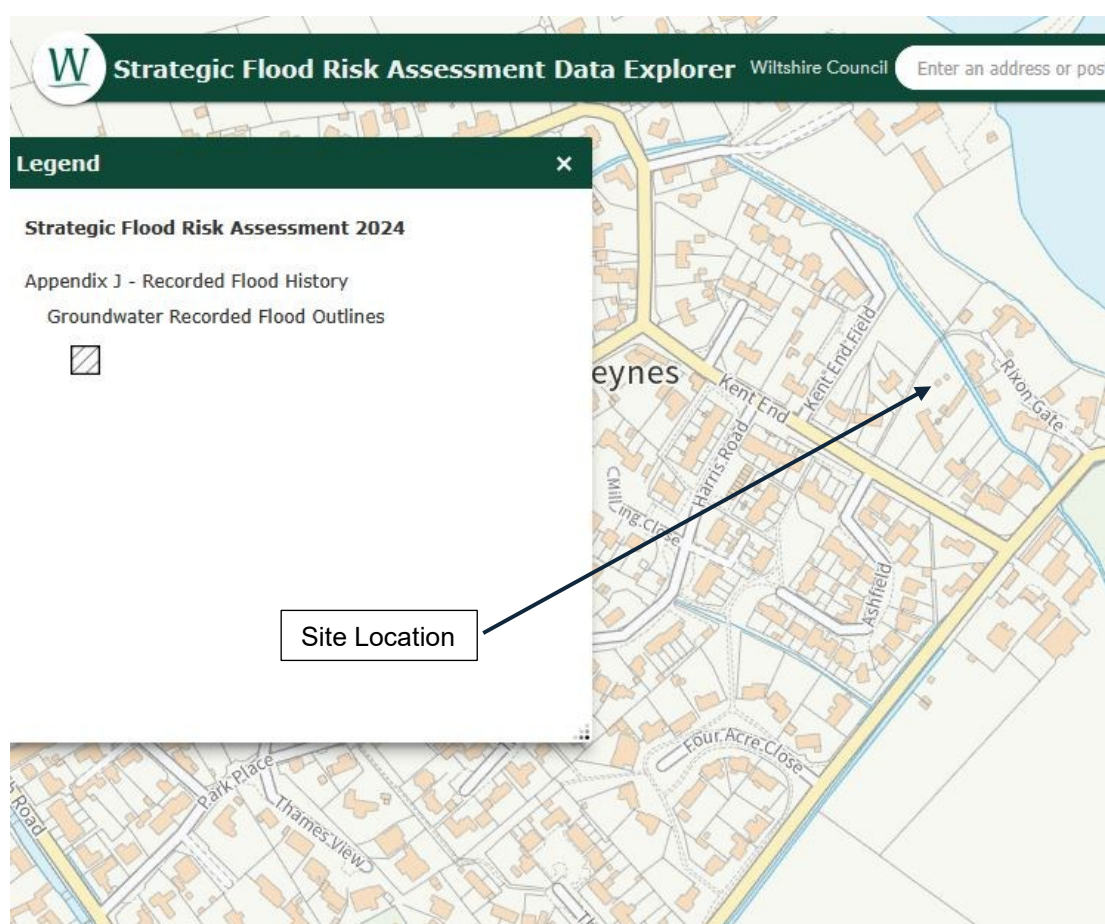


Figure 3.5: SFRA Historical Groundwater Flood Map
Source: Wiltshire Strategic Flood Risk Assessment Data Explorer

- 3.29 If groundwater were to emerge at the surface of the site, floodwater would flow into the unnamed watercourse, without accumulating within the site.

Groundwater Flood Risk Mitigation Measures

- 3.30 Mitigation is not required, however as standard FFLs will be set 150mm above finished ground levels as mitigation against residual risk.

Assessment of Flood Risk from Artificial Sources

- 3.31 The EA Risk of Flooding from Reservoirs map shows the site is not at risk from reservoir flooding. Refer to Figure 3.6 below. Flood risk from this source is therefore considered to be low.

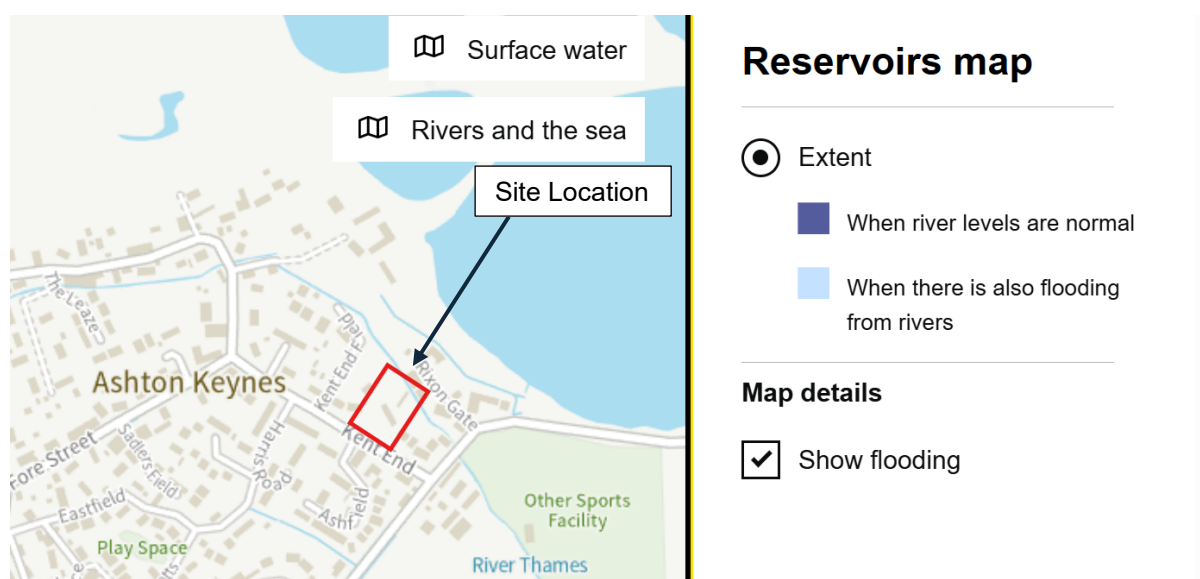


Figure 3.6: EA Risk of Flooding from Reservoirs
Source: <https://flood-map-for-planning.service.gov.uk/>

Artificial Sources Flood Risk Mitigation Measures

- 3.32 No mitigation is required.

Table 3.1: Assessment of Flood Risk to the Development Site Arising from External Sources

Source of Potential Flooding to the Development Site	Flood Risk	Mitigation/Comments
Fluvial/Tidal	Low	- EA modelled flood data indicates that the 1 in 100 year + 35% CC flood level is 83.259mAOD - The topographical survey confirms that the site is above the flood level - FFL will be set at 84.06mAOD, 0.801m above the 1 in 100 year + 35% CC design flood level.

FLOOD RISK ASSESSMENT AND DRAINAGE STRATEGY

Proposed Single Dwelling
30 Kent End Road
Ashton Keynes
Wiltshire
SN6 6PU



Source of Potential Flooding to the Development Site	Flood Risk	Mitigation/Comments
		The FMP confirms that the proposed dwelling is situated within Flood Zone 1 (Low Risk).
Overland Flow (Pluvial)	Low	- The proposed dwelling is at very low risk of surface water flooding - A small area at low risk of shallow (<75mm deep) surface water flooding is present in the north of the site. This would not affect the proposed dwelling or the use of the site. It can be filled or remain as existing
Groundwater	Low	- Site investigation indicated shallow ground water at a depth of 0.55m. - No record of groundwater flooding in the SFRA - Groundwater levels likely to be in hydraulic continuity with the adjacent watercourse, therefore groundwater levels are unlikely to exceed existing ground levels - Emerging groundwater would follow the existing site topography and flow into the unnamed watercourse at the site's north eastern boundary - FFLs to be set no lower than 150mm above finished ground levels
Public Sewer / Drains	Low	- In the event of sewer flooding, the flow would follow the site topography and be contained within the unnamed watercourse corridor. - FFLs to be set no lower than 150mm above finished ground levels
Reservoirs	Low	No mitigation is required.

4.0 SURFACE WATER DRAINAGE STRATEGY

Refer to CE Drawing 10474/501 (A) [*Flood Risk Constraints & Proposed Surface Water Drainage Strategy Plan*] in Appendix 1.

- 4.1 In order to mitigate flood risk posed by post development runoff, adequate control measures will be provided within the site. This will ensure that flood risk is not increased elsewhere as a result of the development, in line with national and local guidance.

Drainage Hierarchy

- 4.2 The proposed drainage strategy for the site has been prepared according to the surface water drainage hierarchy set out in *National Standards for Sustainable Drainage Systems (DEFRA, June 2025)*, as follows. Also, refer to Table 4.1 below.
1. Collected for non-potable uses;
 2. Infiltration to ground;
 3. Discharged to an above ground surface water body;
 4. Discharged to a surface water sewer, or another piped surface water drainage system; and
 5. Discharged to a combined sewer.

Non-potable Uses

- 4.3 The introduction of a rainwater harvesting system will be considered at the detailed design stage.

Infiltration Potential

- 4.4 BRE365 infiltration testing indicates positive infiltration potential, however due to the presence of shallow groundwater beneath the site (at 0.55m bgl) a 1m unsaturated zone cannot be provided between an infiltration based SuDS and the groundwater table. An attenuation based strategy is therefore proposed.

Proposed Discharge Location

- 4.5 In accordance with the drainage hierarchy it is proposed to discharge surface water runoff from the site to the existing unnamed watercourse at the site's north eastern boundary.

Proposed Discharge Rate

- 4.6 Due to the small scale of the proposed development, the QBAR greenfield runoff rate is less than 0.1 l/s. Refer to Appendix 6. Restriction to such a low rate would require a very small orifice

which would be prone to blockage. It is therefore proposed that post development surface water runoff is restricted to 1.6l/s; the lowest rate achievable with a 30mm diameter orifice flow control.

Proposed Sustainable Drainage Systems

Cellular Attenuation Tank

- 4.7 A cellular attenuation tank is proposed within the proposed rear garden, between the proposed dwelling and an existing outbuilding which will be retained as a bike shed.
- 4.8 Preliminary calculations indicate that a tank measuring 7m x 3m x 0.4m deep will be required to accommodate runoff from the proposed catchment with a 30mm orifice.
- 4.9 The proposed attenuation SuDS have been designed to accommodate and dispose of runoff from all storms up to and including the 1:100 year storm with a 40% allowance for future climate change, in accordance with the latest EA guidance for the Gloucestershire and Vale Management Catchment.
- 4.10 All surface water drainage design calculations have been undertaken using InfoDrainage software. Refer to Appendix 6.

Urban Creep

- 4.11 In accordance with Local Authority SuDS Officer Organisation (LASOO) guidance, a 10% urban creep allowance has been included in the drainage calculations.

Permeable Sub Base

- 4.12 Permeable sub base surfaced with gravel will be installed throughout the proposed driveway within the site.
- 4.13 The permeable sub base will provide water quality treatment for runoff from this trafficked area, and will not operate as an attenuation system. Installing an attenuation system in this area would impede access to the existing TW public foul sewers, which require a 3m maintenance easement clear of SuDS and buildings.

Table 4.1: Review of SuDS Components in accordance with the Drainage Hierarchy

SuDS Technique	Proposed	Not proposed	Reason
Store rainwater for later use	X		Rainwater harvesting tank proposed for roof water
Use infiltration techniques		X	Shallow groundwater levels (0.55m bgl) precludes the of infiltration-based SuDS.
Discharge to an above ground surface water body	X		Surface water runoff from the site will be discharged to watercourse.
Discharge to a surface water sewer, or another piped surface water drainage system		X	Connection not sought.
Discharge to a combined sewer		X	Connection not sought.

Interception

- 4.14 The permeable sub base area is 115m², which is 13m² greater than the impermeable area which will be drained into it. Additional interception SuDS are therefore not necessary, in accordance with National Standards for SuDS requirements. Refer to CE Drawing 10474/501(A) [*Flood Risk Constraints & Proposed Surface Water Drainage Strategy Plan*] in Appendix 1.

Design Exceedance

- 4.15 The proposed SuDS will be designed to accommodate runoff from the extreme 1 in 100 year + 40% storm event, therefore design exceedance is unlikely. If design exceedance were to occur, flows would follow the existing topography of the site and flow in a northerly direction, into the unnamed watercourse, without impacting upon the site or adjacent development. Refer to CE Drawing 10474/501(A) [*Flood Risk Constraints & Proposed Surface Water Drainage Strategy Plan*] in Appendix 1.

Water Quality

- 4.16 Water quality has been assessed in line with the Simple Index approach from Chapter 26 of CIRIA C753 *The SuDS Manual*:
- Step 1 – Allocate suitable pollution hazard indices for the proposed land use.
 - Step 2 – Select SuDS with a total pollution mitigation index that equals or exceeds the pollution hazard index.
- 4.17 The highest pollution hazard level for the proposed land use is Low (residential car parks and low traffic roads). The pollution hazard indices for the proposed land uses are shown in Table 4.2 below.

Table 4.2: Pollution Hazard Indices for the Proposed Site (from Table 26.2 of CIRIA C753 The SuDS Manual)

Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydrocarbons
Residential car parks & low traffic roads	Low	0.5	0.4	0.4

- 4.18 The individual Pollution Mitigation Indices for permeable sub base are greater than the Pollution Hazard Indices for residential car parks and low traffic roads. Refer to Table 4.3 below. Therefore, the proposed drainage strategy will provide sufficient water quality treatment.

Table 4.3: Pollution Mitigation Indices for Discharge to Surface Water from the Proposed Site (from Table 26.3 of CIRIA C753 The SuDS Manual)

SuDS Feature	Total suspended solids (TSS)	Metals	Hydrocarbons
Permeable Sub Base	0.7	0.6	0.7

Adoption and Maintenance

- 4.19 The proposed permeable paving and associated drainage network will be maintained by the site owner or by a private maintenance company acting on the owner's behalf. A draft Maintenance Schedule is outlined below and summarised in Tables 4.4 to 4.6.

Permeable Sub Base

- 4.20 Permeable surfaces need to be regularly cleaned of silt and other sediments to preserve their infiltration capability. The sweeping regime should be as follows:
1. End of winter (April) – to collect winter debris.
 2. Mid-summer (July/August) – to collect dust, flower and grass-type deposits.
 3. After autumn leaf fall (November).
- 4.21 If reconstruction is necessary, the following procedure should be followed:
1. Lift surface layer and laying course.
 2. Remove any geotextile filter layer.
 3. Inspect sub-base and remove, wash and replace if required.
 4. Renew any geotextile layer.
 5. Renew laying course, jointing material and concrete block paving.
- 4.22 Materials removed from the voids or the layers below the surface of the paving may contain hazardous substances such as heavy metals and hydrocarbons which may need to be disposed of as controlled waste.

Cellular Attenuation Tank

- 4.23 It is not envisaged that silt build up within the cellular crate systems will require a rigorous maintenance regime so long as silt is removed from upstream catch pits and inspection chambers on a regular basis. Notwithstanding this, a suitable maintenance regime for the systems will comprise of routine inspection and silt removal (as necessary). Inspection should be undertaken using CCTV equipment offered up the inspection tunnels located within the crate system. Camera access can be gained via inspection chambers and inlet pipework located at each end of the tunnels.
- 4.24 Silt removal can be achieved by jetting the inspection tunnels. Jetting should be undertaken in accordance with current jetting guidelines, in particular the Code of Practice for Sewer Jetting published by The Water Research Centre. Jetting at 150bar at 300l/min should be more than adequate in removing any build-up of material within the tunnel. The crate system will take higher pressures. However, unlike regular jetting which relies heavily on high pressure to remove hardened deposits on the inner bore of pipes, effective cleansing of a crate system relies more on the delivery flow rate to flush solids back through the system.
- 4.25 A standard jet head with rear facing nozzles should be used. The head should be fed to the far end of the crate tunnel via the nearest inspection chamber, activated and retracted. As the nozzle is removed, debris will be swept back into the inspection chamber where it can then be removed with the use of a standard gully sucker. This method will ensure the effective removal of gross solids (carrier bags, cans, leaf litter etc.) from the system. Whilst 100% removal cannot be guaranteed, it has been shown that this jetting method will also remove an element of finer material which would otherwise be 'lost' within the system.

Pipework and Catchpits

- 4.26 Silt build up within the pipework will not require a rigorous maintenance regime so long as silt is removed from upstream catch pits on a regular basis. Notwithstanding this, a suitable maintenance regime for the systems will comprise of routine inspection (every six months) and silt removal (as necessary).

Flow Control

- 4.27 The flow control should be inspected regularly for blockages and silt/ debris removed as necessary.

Table 4.4: Draft Maintenance Schedule for Proposed Permeable Sub Base

Drainage Element	Schedule	Maintenance Requirement	Frequency
Permeable Sub Base	Regular	Cleaning over whole surface	Once a year, after autumn leaf fall
	Occasional	Removal of weeds	As required
	Remedial	- Remedial work to any depressions or damage considered a hazard to end users or detrimental to performance - Rehabilitation of surface and upper sub-structure by remedial sweeping	- As required - Every 10 – 15 years, or as required
	Monitoring	- Initial inspection - Inspect for evidence of weed growth or poor operation - Inspect silt accumulation rates - Monitor inspection chambers	- Monthly for 3 months after installation - Three monthly, 48 hours after large storms in first six months - Annually - Annually

Table 4.5: Draft Maintenance Schedule for Cellular Attenuation Storage

Drainage Element	Schedule	Maintenance Requirement	Frequency
Cellular Attenuation Storage	Regular	- Inspect and identify any areas that are not operating correctly - Remove debris from the catchment surface - Remove sediment from pre-treatment structures and internal forebays	- Monthly for 3 months, then annually - Monthly - Annually, or as required
	Remedial	Repair and rehabilitate inlets, outlets, overflows and vents	As required
	Monitoring	- Inspect inlets, outlets, overflows and vents to ensure they are operating as designed - Survey inside of tank for sediment build-up and remove as necessary	- Annually - Every 5 years, or as required

Table 4.6: Draft Maintenance Schedule for Pipework, Catchpits and Flow Control

Drainage Element	Schedule	Maintenance Requirement	Frequency
Pipework, flow controls & catchpits	Regular	- Inspect for accumulation of silt - Inspect for debris and litter - Inspect inlets and outlets for blockages	Every six months
	Occasional	- Remove debris and litter - Remove silt	As required

5.0 DISCUSSION AND CONCLUSIONS

- 5.1 Flood risk to the proposed development from various sources, such as fluvial, sewers, groundwater, reservoirs and overland flow has been considered in this study. Flood risk from all sources is considered to be low.
- 5.2 EA flood data confirms that the site is wholly above the design 1 in 100 year + 35% fluvial flood level of 83.259mAOD. Ground floor FFL will be set at 84.06mAOD, 0.801m above the design flood level.
- 5.3 The Flood Map for Planning confirms that the proposed house will be situated within Flood Zone 1 (low risk).
- 5.4 The Wiltshire Council online Strategic Flood Risk Assessment (SFRA) contains no record of groundwater flooding at the site or in its vicinity.
- 5.5 Shallow groundwater (0.55m bgl) was recorded at the site in January 2026, when the groundwater table can be expected to be at its highest.
- 5.6 The groundwater table at the site is likely to be in hydraulic continuity with the adjacent watercourse. The EA flood data discussed above under fluvial flooding indicates that even during the 1 in 100 year flood event including an allowance for future climate change, water levels are below existing ground level at the site. This also suggests that emergence of groundwater at the site is unlikely to occur.
- 5.7 The surface water drainage strategy for the site has been prepared according to the drainage discharge hierarchy set out in *CIRIA C753 The SuDS Manual*. Due to the presence of shallow groundwater, infiltration based SuDS are not proposed. Post development runoff will be discharged into the existing watercourse at the site's north eastern boundary.
- 5.8 Post development surface water discharge will be restricted to 1.6l/s, the lowest rate feasible with a 30mm diameter orifice flow control.
- 5.9 Attenuation will be provided within a cellular attenuation tank located in the rear garden of the proposed dwelling.

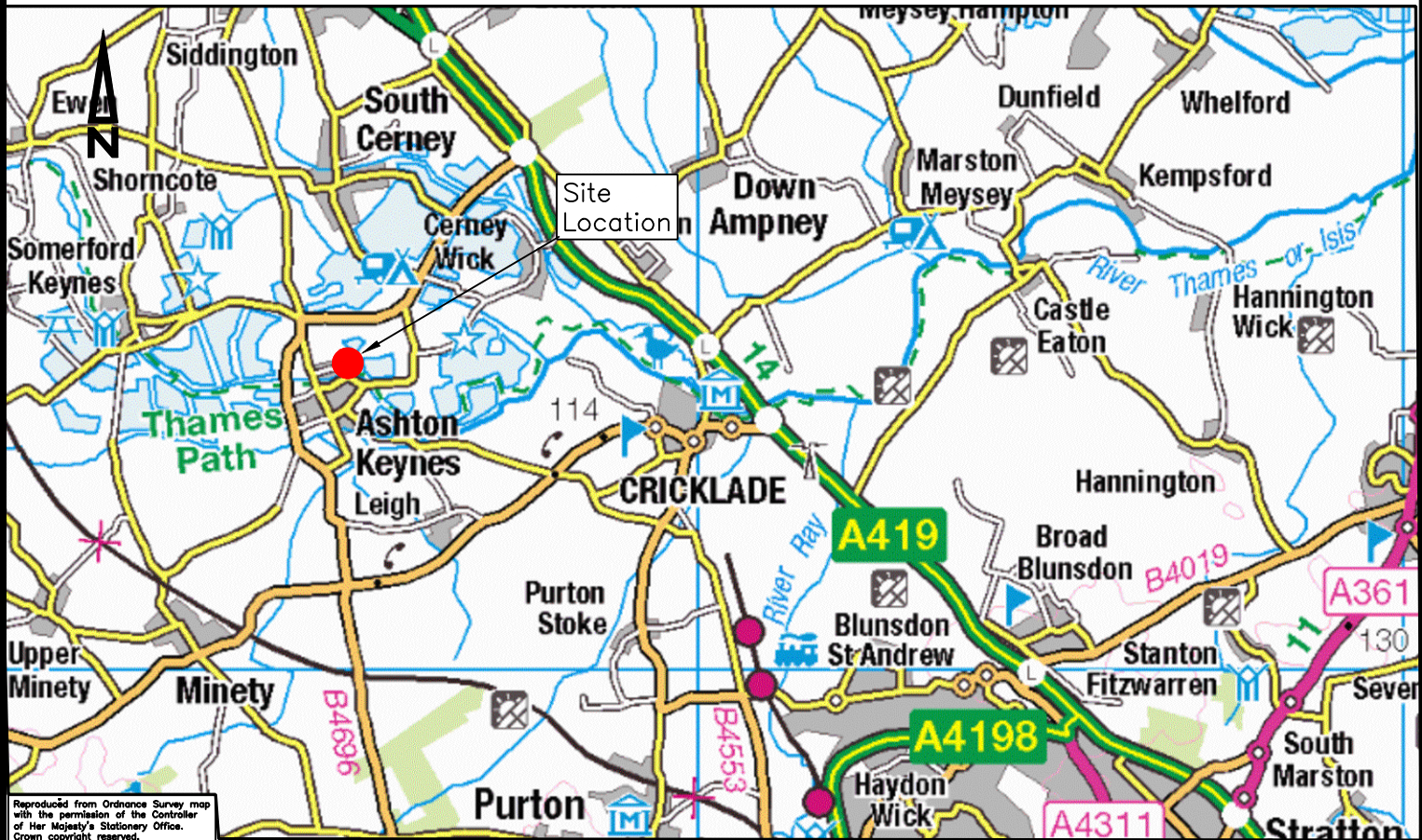
-
- 5.10 Permeable sub base is proposed within the proposed driveway/parking area for water quality treatment and interception purposes.
- 5.11 Water quality has been assessed in line with the Simple Index approach from Chapter 26 of CIRIA C753 The SuDS Manual. The proposed permeable sub base will provide adequate treatment for post development runoff.
- 5.12 SuDS exceedance flows would follow the existing topography of the site and flow in a northerly direction where it would be absorbed by the soils in the garden or enter the existing watercourse without impacting upon the development or neighbouring sites.
- 5.13 All on site surface water drainage systems will remain private and will be the responsibility of the site owner(s) or a private maintenance company acting on the owner's behalf.
- 5.14 This study has been undertaken in accordance with the principles set out in NPPF. We can conclude that providing the development adheres to the conditions advised in this Report, the said development proposals can be accommodated without increasing flood risk within the locality in accordance with objectives set by Central Government and the EA.

Cole Easdon Consultants Limited
March 2026

Appendix 1



Scale: 1:2,000



Scale: 1:100,000

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Job Title:
30 Kent End
Ashton Keynes
SN6 6PU

Drawing Title:
Site Location Plan

Client:
Mr Danny and Mrs Gemma
Chivers

Drawn By
AW

Checked By
JP

Date Drawn
February 2026

Drawing No.
10343/500 Figure 1

Drawing Status:	
CONSTRUCTION AT CLIENT AND/OR CONTRACTOR RISK	
FOR COMMENT	
FOR PLANNING	
FOR TENDER	
FOR APPROVAL	
FOR CONSTRUCTION	
AS BUILT	

Scale
As Shown (A4)

Revision
-

Appendix 2

Proposed Garden, Hard Landscaping and Boundary Arrangements

The existing, well-established garden will be retained largely as it is, preserving its current character and appearance. Two small fruit trees have been removed due to their limited condition and location. As part of the enhancement of the garden, a new small cherry blossom tree will be planted to provide seasonal interest and maintain the overall green quality of the site. The subdivision fence has been carefully positioned to allow approximately 50% of the existing sheds to be retained by the donor house. Although both properties are owned by the same family (father and daughter), the fence will not be installed at this stage. The established garden, sheds, planting and patio areas will therefore continue to be shared in the interim.

Hard Landscaping

New hard landscaping will be introduced immediately around the new building, comprising reconstituted stone paving slabs. These will provide accessible circulation for visitors with disabilities, along with a modest patio area and a defined bin-storage space.

A new parking area will be created to accommodate two cars for the proposed dwelling. This will be formed using a permeable gravel system, consisting of a compacted sub-base of MOT Type 3, a geotextile membrane, and a stabilising cellular grid filled with angular gravel. This construction allows surface water to drain naturally, reducing runoff and supporting sustainable drainage principles.

The existing parking area and established driveway serving the donor property will remain unchanged and will not be affected by the works, other than being made good on completion where any temporary construction access may have occurred.

Soft Landscaping

- A new beech hedge (Fagus sylvatica) will be planted to reinforce the garden boundary while maintaining the open character of the adjacent public right-of-way.
- Hedge to be planted as bare-root whips (6C-8C cm) at 3-5 plants per linear metre in a staggered double row.
- Planting trench to be cultivated and improved with topsoil; mulch applied after planting.
- Watering and formative pruning to be carried out during establishment.
- Two young cherry blossom tree - Prunus serrulata (small, early-stage specimen) will be planted within the garden to replace the two removed fruit trees.
- Tree to be supplied as a young container-grown plant (approx. 1-1.25 m high) suitable for early establishment and long-term growth.
- Planting pit to be improved with topsoil and finished with a 7 mm mulch layer.
- Tree to be lightly staked with a biodegradable tie; watering to be maintained during establishment.

Ecology Notes

- Integrated Wildlife Features
- One Schwegler 2FR integrated bat box will be installed on the new building, positioned on an elevation with minimal artificial lighting and mounted at least 2 m above ground level.
 - One woodstone swift next box fitted below the eaves of the external walls to support local swift populations.
 - To be installed as high as possible on the elevation, approximately 4.5 m above ground level, with clear, unobstructed flight access.
 - North- or east-facing elevation preferred to avoid overheating.
 - The existing hedgehog hotel will be retained, and hedgehog access routes will continue to be maintained across the site.
 - Existing boundary fences already allow hedgehogs to move freely between gardens, ensuring no new barriers to movement are created.

External Lighting - Wildlife Sensitive Strategy

- To avoid disturbance to bats, birds and other wildlife:
- External lighting will be kept to a minimum and only installed where necessary.
 - Warm-white LEDs will be used (>550 nm) to reduce ecological impact.
 - Illumination will be directed toward boundaries or the adjacent watercourse.
 - Hooded or directional fittings will be used to minimise light spill.
 - No lighting will be installed on or directed toward bat or bird enhancement features (bat box, swift brick).
 - Entrance-porch light will be fitted under the canopy, directed wards, and equipped with a cowl hood to prevent upward or outward spill.
 - Back-door light will be wall-mounted, also directed is and fitted with a cowl hood to ensure light is directed to the immediate doorway area.

Amphibian Protection & Watercourse Safeguarding - Temporary Barrier Specification

- A temporary amphibian barrier will be installed around the active working area to prevent newts, frogs and other small animals from entering the site during building works.
- The barrier will consist of a minimum 300 mm high geotextile membrane (e.g., polythene or proprietary amphibian fencing) supported by timber stakes at ~1.5 m centres.
- The base of the membrane will be buried or securely pinned to prevent amphibians passing underneath.
- The barrier will form a continuous enclosure around active working zones, with all gaps sealed.
- The fencing will remain in place for the duration of construction and will be regularly inspected to ensure it remains intact and functional.
- Any amphibians found within the working area will be carefully relocated to suitable habitat within the retained garden.

Additional Watercourse Protection Functions

- The amphibian barrier will also act as a runoff control line, preventing sediment, debris or contaminated water from entering the adjacent stream.
- It will clearly mark the no-storage zone, ensuring no materials, spoil, chemicals or equipment are placed beyond this point or closer to the watercourse.
- The barrier line will be shown on the site plan to ensure contractors understand the protected zone and working limits.

C:\Users\Colin\Dropbox\01_Holzac_Design_Ltd\01_HDL_Live_Jobs\25-003_Kent_End\25-003v854-schwelger2fr-875881.png

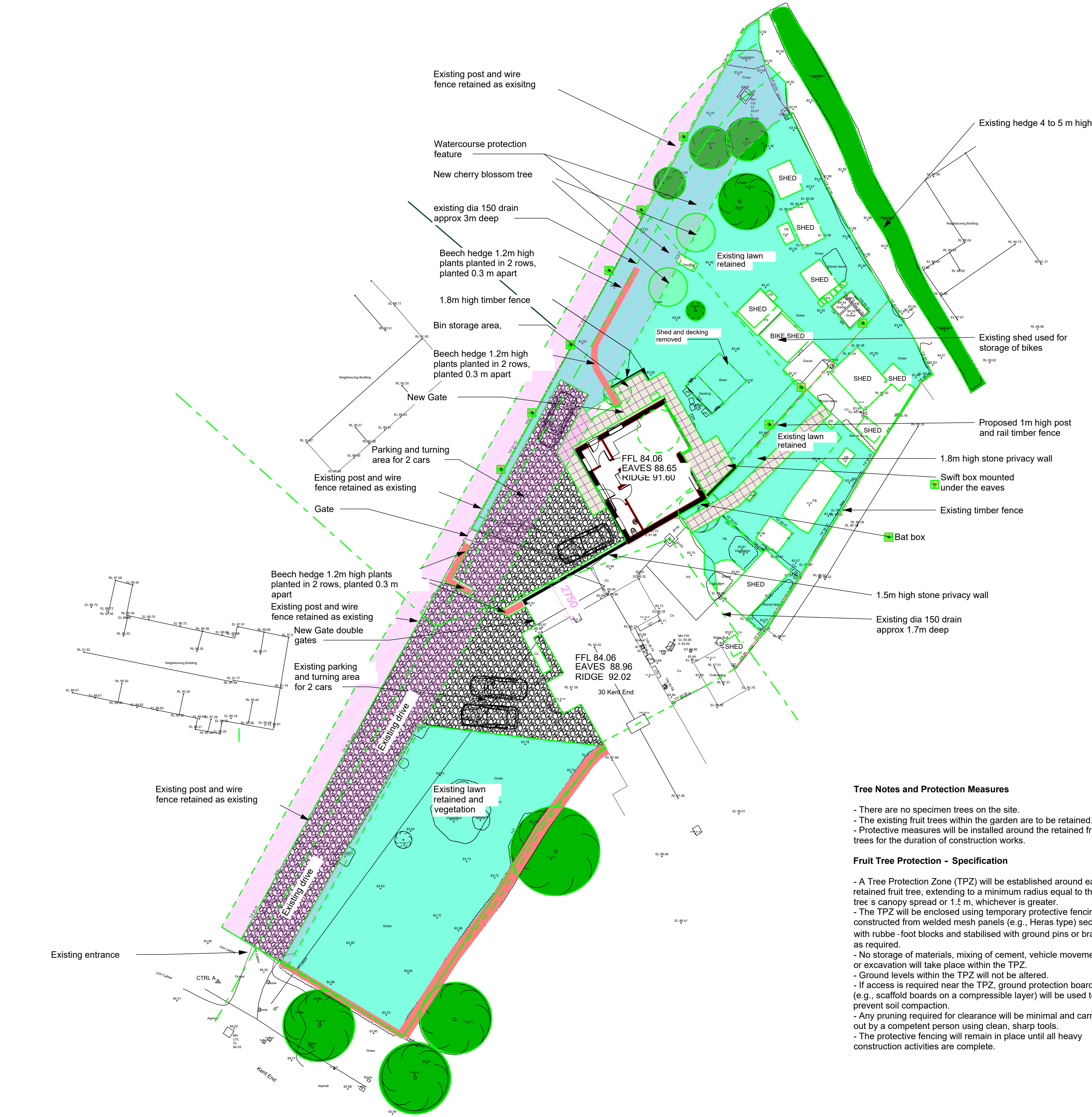
SHWELGER 2FR - BAT BOX

ImageS taken from web page
<https://www.schweglershop.de/en/2FR-for-forming-rows/00755-1>

C:\Users\Colin\Dropbox\01_Holzac_Design_Ltd\01_HDL_Live_Jobs\25-003_Kent_End\25-003v854-SWIF7B0X-875887.png

WOODSTONE SWIFT NEXT BOX

Image taken from web page
<https://www.birdfood.co.uk/swift-nest-box-woodstoner>



Tree Notes and Protection Measures

- There are no specimen trees on the site.
- The existing fruit trees within the garden are to be retained.
- Protective measures will be installed around the retained fruit trees for the duration of construction works.

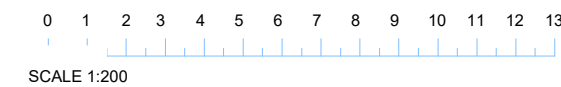
Fruit Tree Protection - Specification

- A Tree Protection Zone (TPZ) will be established around each retained fruit tree, extending to a minimum radius equal to the tree's canopy spread or 1.5 m, whichever is greater.
- The TPZ will be enclosed using temporary protective fencing constructed from welded mesh panels (e.g., Heras type) secured with rubber-foot blocks and stabilised with ground pins or bracing as required.
- No storage of materials, mixing of cement, vehicle movements, or excavation will take place within the TPZ.
- Ground levels within the TPZ will not be altered.
- If access is required near the TPZ, ground protection boards (e.g., scaffold boards on a compressible layer) will be used to prevent soil compaction.
- Any pruning required for clearance will be minimal and carried out by a competent person using clean, sharp tools.
- The protective fencing will remain in place until all heavy construction activities are complete.

PL Site Plan - As Proposed

1 : 200

INCLUDES LANDSCAPING AND ECOLOGY



SCALE 1:200

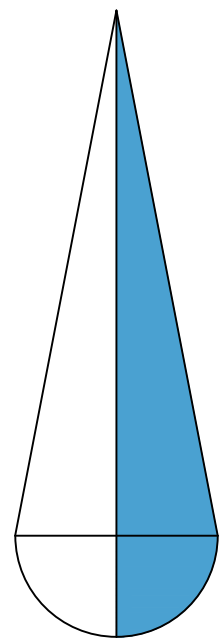
A1 TO ACCOMPANY A PLANNING APPLICATION

DRAWING NUMBER PREFIXED WITH:
EX = EXISTING DRAWING, NOT TO BE SCALED EXCEPT FOR PLANNING PURPOSES, BASED ON INFORMATION PROVIDED BY:
CHESLER
SK = SKETCH DRAWING, INFORMAL DRAWING, NOT FOR OFFICIAL USE, NOT TO BE USED FOR PLANNING PURPOSES, NOT TO BE SCALED
PL = DRAWING TO ACCOMPANY A PLANNING APPLICATION, CAN BE SCALED FOR PLANNING PURPOSES ONLY, NOT FOR CONSTRUCTION/INFCO
BR = DRAWING FOR A BUILDING REGULATION APPLICATION AND APPROVAL ONLY, USE GIVEN DIMENSION ONLY, NOT TO BE SCALED, N/C
WD = WORKING DRAWING, INCLUDES ADDITIONAL DETAIL OVER AND ABOVE BR DESIGNATION, USE GIVEN DIMENSION ONLY, NOT TO BE SCALED

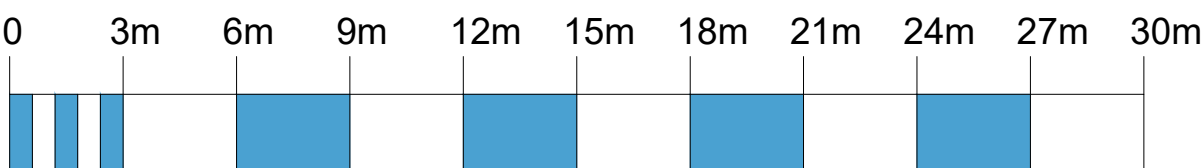
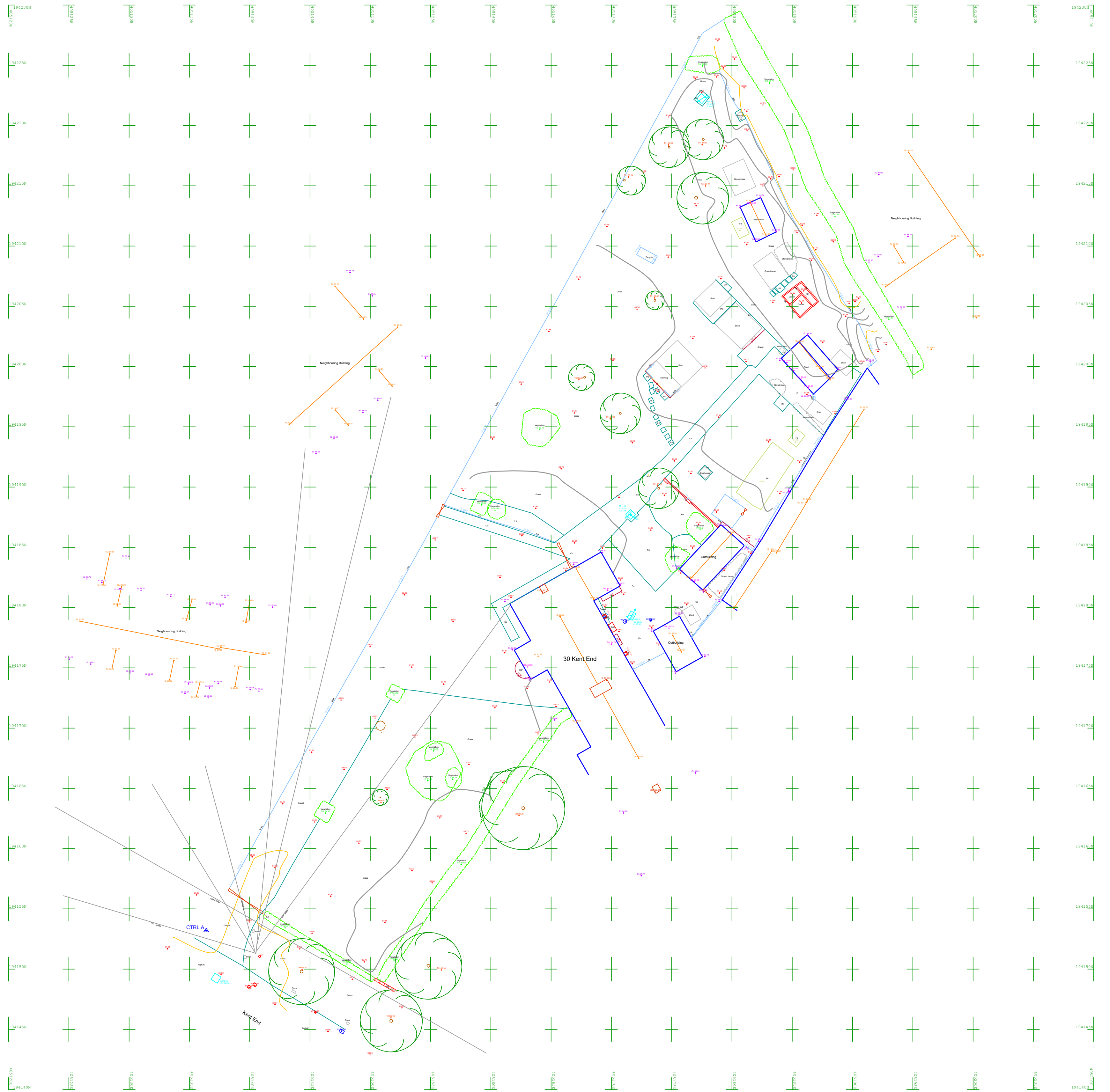
PROJECT TITLE:
NEW HOUSE IN THE GROUNDS OF
30 KENT END, ASHTON KEYNES SN6
6PU
CHIVERS
SITE PLAN - AS PROPOSED
INCLUDES LANDSCAPING AND ECOLOGY
1 : 200
DATE:
JAN26
DRAWN BY:
CR

ARCHITECTURAL DESIGN SERVICE
1 Whitgift Ct, Grange Park, Swindon, SN6 6HQ
halzacd@icloud.com halzacd@icloud.com
01793 951631 07801070166
JOB NUMBER: 25-003
DRAWING NUMBER: PL20
REV:

LATEST REVISION:



N



Notes: Coordinate System

The survey has been orientated to the O.S. National Grid (OSGB36) via GPS and the O.S. Active Network. True OSGB36 coordinates have been established at:

Station: CTRL A E: 405136.389 m N: 194153.192 m EL: 84.029 m

and a further OSGB36 point established to create a true O.S. bearing for angle orientation.

ON DETAIL SURVEY

A/C	Air Conditioning Unit	EP	Electricity Pole	O/H	Overhead	Tac	Tactile Paving
AV	Air Valve	FM	Fire Hydrant	PM	Parking Meter	TP	Telegraph Pole
B/L	Bed Level	FB	Flower Bed	PS	Paving Slab	TCB	Telephone Call Box
BB	Beisha Beacon	FW	Foul	PO	Post	THL	Threshold Level
B/B	Bollard	GV	Gas Valve	PB	Post Box	T/F	Top Of Fence
BH	Borehole	GY	Gully	RI	Riser	T/P	Top Of Parapet Level
Bk	Brick	IC	Inspection Cover	RE	Rodding Eye	T/V	Top Of Vegetation
BSP	Brick paving	IL	Invert Level	RS	Road Sign	T/W	Top Of Wall
BT	British Telecom	JB	Junction Box	SP	Sign Post	TL	Traffic Lights
CAB	Cabinet	KO	Kerb Outlet	S/A	Soakaway	UTL	Unable to Lift
CP	Catch Pit	LP	Lamp Post	SL	Slope	VP	Vent Pipe
Co	Concrete	LI	Light	SC	Stop Cock	WL	Water Level
CL	Cover Level	MH	Manhole Cover	SV	Stop Valve	WM	Water Meter
C/S	Culvert	MR	Master Post	S	Stump	WO	Water Wash Out
dl	Dilapidated	MB	Multiple Bole	SW	Surface Water		
DCH	Drainage Channel	NVP	No Visible Pipes	STN	Survey Control Station		
GR	Girth Rod	OVG	Overgrown				

ON FENCES/WALLS/DIVISIONS

A/B	Armco Crash Barrier	H/F	Hera's Fence	P/R	Post and Rail Fence	BW	Brick Wall
B/W	Barbed Wire Fence	H/R	Hand Rail	P/W	Post and Wire Fence	CW	Concrete Wall
CL	Chain Link Fence	I/R	Iron Rail Fence	S/F	Safety Fence	RM	Reinforcing Wall
C/B	Close Boarded Fence	P/L	Palisade Fence	T/F	Trellis Fence	SW	Stone Wall
E/F	Electric Fence	P/F	Picket Fence	W/M	Wire Mesh Fence	TW	Timber Wall

ON BUILDINGS

CHM	Chimney	EL	Eave Level	HH	Head Height	SH	Sill Height
DH	Door Head	FRL	Flat Roof Level	PL	Parapet Level	SWP	Soil Pipe
DP	Down Pipe	FL	Floor Level	RL	Ridge Level	THL	Threshold Level

SITE

Rev	Comments	By	Chkd	Date
-		-	-	-
-		-	-	-
-		-	-	-
-		-	-	-
-		-	-	-



www.surveybase.co.uk 0343 841 0112

Project Name
30 Kent End, Ashton Keynes, Swindon, SN6 6PU

CAD Drawing Name
SB13992 - TOPO

Drawing Title
Topographical Survey of
(SITE)

Client
LPC (Trull)

Date 24/11/2025
Scale A1 @ 1:200

Drawn By
SB - PD

Checked By
SB - ND

SB Code
SB13992

Revision
-

Grid Orientation
NORTH GPS

Site Level Datum
OS GPS

All dimensions are to be checked on site where applicable. This drawing must not be scaled, and only written dimensions should be reported.
Tree species and sizes on this drawing are not guaranteed, and if critical should be verified by an arboriculturist.
Tree spreads are average about the bole, and heights are approximate at the time of the survey.



Appendix 3



30 Kent Road, Ashton Keynes, SN6 6PU

BRE365 INFILTRATION TESTING



Mr D and Mrs G Chivers

January 2026

P26-002inf

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1.1	Objectives	2
1.2	Scope of Works	2
2.0	SITE DESCRIPTION	2
2.1	Sitework	2
2.2	Encountered Strata	3
2.3	Groundwater Details	3
3.0	LABORATORY ANALYSIS	3
4.0	INFILTRATION TESTING	3
4.1	Surface Water Soakaways	3

TABLES

Table 1: Encountered Strata	3
Table 2: Infiltration Factors	4

ISSUE	DATE	Written by:	Comment
1	29/01/2026	Matt Paddock MSc FGS	-
		Reviewed and approved by	
		Matt Paddock MSc FGS	
For and on behalf of Paddock Geo Engineering Limited			

APPENDICES

A	Exploration Point Location Plan
B	Trial Pit
C	Infiltration Test Results
D	Site Photographs

1.0 INTRODUCTION

Further to instructions received from Mr D and Mrs G Chivers; the Client, infiltration testing has been carried out to the BRE365 methodology in relation to assessing the infiltration properties of the underlying ground on the subject site referred as 30 Kent Road, Ashton Keynes, SN6 6PU.

1.1 Objectives

This assessment has been carried out to a scope of works as detailed by the Client prior to commencement. The assessment has been designed to assess the infiltration properties of the near surface strata and determine feasibility of soakaways design if applicable.

1.2 Scope of Works

The proposed works comprised the forming of 2no. machine excavated trial pits, with infiltration testing carried out in accordance with the BRE365 methodology.

It should be noted that this investigation was undertaken alongside a Soil Contamination Assessment (SCA), which will be reported under separate cover.

1.3 Terms of Reference

The assessment has been carried out generally in accordance with the following guidance.

- BRE Digest 365 – Soakaway Design 2016
- BS5930: 2015 - Code of Practice for Site Investigations, British Standards Institution

2.0 SITE DESCRIPTION

The site comprises and side garden of a mature residential dwelling, accessed from the south off Kent Road along a hardstanding driveway. The site was occupied by sporadic small trees, sheds and was surfaced with grass.

The main site area is generally level and was bound to the north by a stream and all other areas by low level wooden fencing.

2.1 Sitework

The sitework was carried out on 22nd January 2026 and comprise the forming 2no. machine excavated trial pits (TP1/SA1 and TP2/SA2) to depths of 1.50m and 0.42m below ground level (bgl) respectively, with infiltration testing conducted in accordance with the BRE365 methodology within SA2.

The trial pit TP1/SA1 was formed to assess groundwater levels and to allow the installation of a temporary groundwater monitoring well. The trial pit TP2/SA2 was formed to a depth above the steady groundwater level to allow infiltration testing.

The trial pits were formed in areas clear of obstructions and any detectable buried services following a Cable Avoidance Tool (CAT) and Signal Generator survey. The testing locations are indicated on the enclosed Exploratory point Location Plan presented in Appendix A.

The trial pits arisings were logged by a Geotechnical Engineer generally in accordance with BS5930:2015. No samples were recovered from the exploratory points.

The trial pits were reinstated upon completion of testing with compacted arisings.

A series of photographs taken during the fieldworks are presented in Appendix D.

2.2 Encountered Strata

Logs of the trial pits and an Exploratory Point Location Plan showing the positions investigated are presented in Appendix B and A respectively.

The strata encountered within the Trial Pits and Boreholes is summarised in the Table below. These details are also included on the Trial Pit Logs presented in Appendix B.

Table 1: Encountered Strata

Encountered Strata – Trial Pit Strata	Exploratory Hole and Basal Depths (m bgl)	
	SA1	SA2
TOPSOIL Grass over, dark brown slightly clayey very sandy slightly organic fine to medium limestone GRAVEL	0.48	0.40
Southmoor Sand and Gravel Member Light yellow brown slightly clayey very sandy fine to medium limestone GRAVEL	1.50	0.42
Total Depth (m bgl)	1.50	0.42

2.3 Groundwater Details

Groundwater was encountered in SA1/TP1 as a slow inflow at 0.55m depth and rose after a few hours to a steady level of 0.46m bgl. Trial pit TP2/SA2 was formed to a depth above the steady groundwater level.

It should be noted that groundwater levels may vary seasonally and with other factors. The reviewer should satisfy themselves with the groundwater levels at the time of any construction works.

3.0 LABORATORY ANALYSIS

Laboratory analysis was outside the scope of this commission and hence not carried out.

4.0 INFILTRATION TESTING

4.1 Surface Water Soakaways

Infiltration testing was carried out within trial pit TP2/SA2 to BRE365 methodology to allow an estimated infiltration factor for the site.

The water did not dissipate during the approximate 4hr test period, with the water levels remaining constant in both test pits.

The test details and results are summarised in Table 2 below and in presented in Appendix C.

Table 2: Infiltration Factors

Trial Pit	Strata Tested	Tested Depth (m bgl)	Infiltration Factor (ms ⁻¹)		
			Cycle 1	Cycle 2	Cycle 3
SA2	Southmoor Sand and Gravel Member	0.00 – 0.42	8.87×10^{-6}	8.09×10^{-6}	6.59×10^{-6}

Given the result of the infiltration test, it is considered that conventional soakaways may be acceptable at shallow depth, however, the SUDS/ Drainage Engineer should take into consideration the shallow groundwater.

General Notes

This report is produced for the sole use of the Client, and no responsibility of any kind, whether for negligence or otherwise, can be accepted for any Third Party who may rely upon it.

The conclusions and recommendations given in this report are based on our understanding of the future plans for the site and based on a scope of works agreed by the Client and afforded by the agreed budget. No responsibility is accepted for conditions not encountered, which are between exploratory points or outside of the agreed scope of work or if construction is commenced before regulatory approval of designs.

The report has been prepared following the guidelines and principles established in the British Standards, BS 5930, CIRIA Guidance and NHBC Standards. It necessarily relies on the co-operation of other organisations and the free availability of information and total access. No responsibility can, therefore, be accepted for conditions arising from information that was inaccurate or not available to the investigating team as a result of information being withheld or access being denied.

This report may suggest an opinion on a suspected configuration of strata or conditions between exploratory points and below the maximum depth of investigation. However, this is for guidance only and no liability can be accepted for its accuracy. Comments on the groundwater conditions are based on observations made at the time of the investigation unless otherwise stated. It should be noted, however, that groundwater levels might vary due to seasonal or other effects.

APPENDIX A

Exploration Points Location Plan

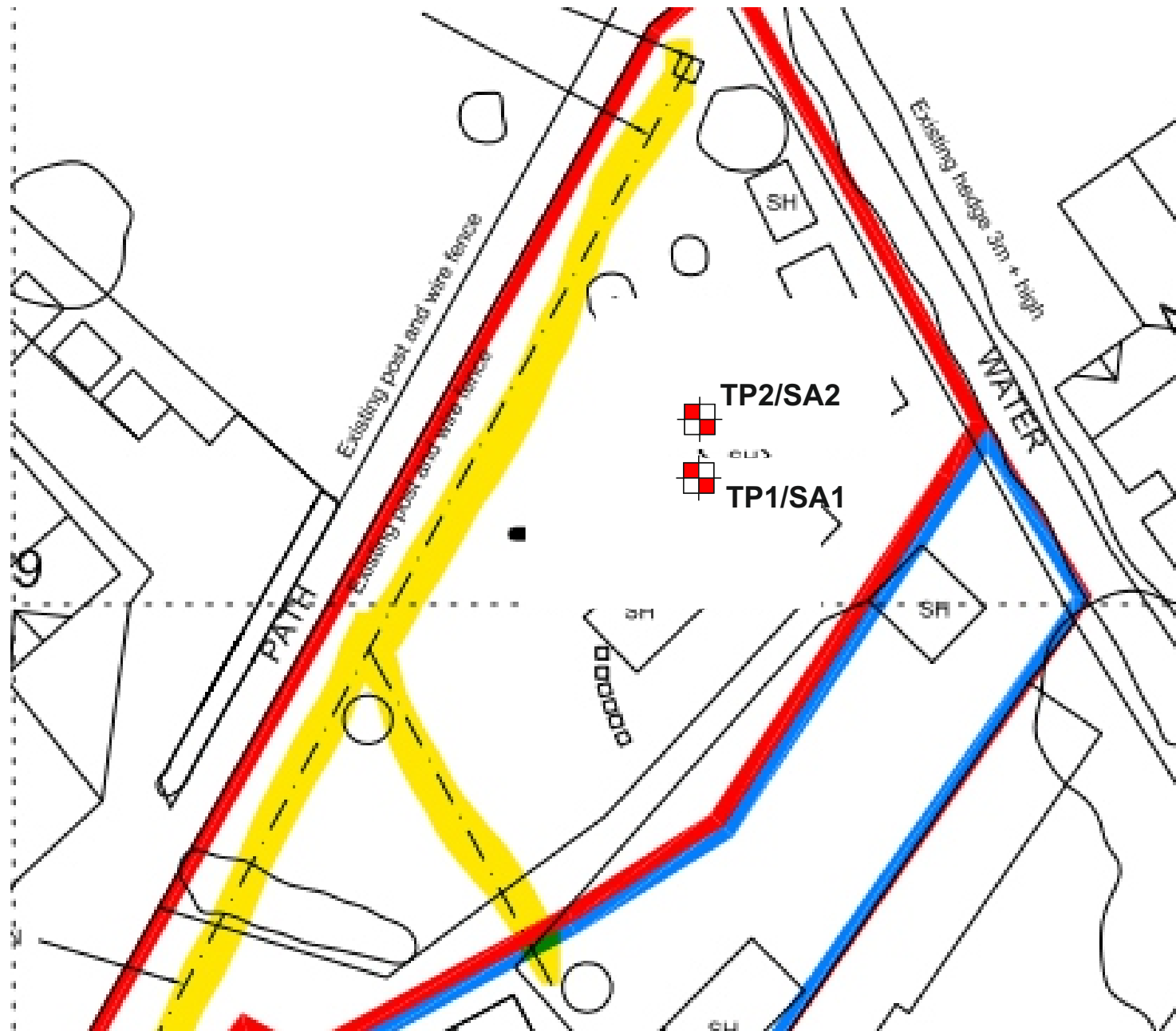
Trial Pit Plan

**30 Kent Road,
Ashton Keynes,
SN6 6PU**

P26-002

Mr D and Mrs G Chivers

January 2026



 **Infiltration testing
Locations**

**Not to scale.
All positions are approximate.
Based on proposed plan provided
by the Client.**

APPENDIX B

Trial Pit Logs

					Site 30 Kent Road, Ashton Keynes, SN6 6PU		Trial Pit Number TP1/SA1		
Machine : 2.5 tonne tracked Method : Trial Pit		Dimensions 1.10m x 0.30m		Ground Level (mOD)		Client Mr D and Rms G Chivers		Job Number P26-002	
		Location		Dates 22/01/2026		Project Contractor PGE		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
			Slow(1) at 0.55m, rose to 0.46m in 20 mins.		(0.48)	Grass over, dark brown slightly clayey very sandy slightly organic fine to medium limestone GRAVEL (TOPSOIL)		▼1 ∇1	
				0.48	Light yellow brown slightly clayey very sandy fine to medium limestone GRAVEL				
					(1.02)				
					1.50	Complete at 1.50m			
					Remarks Temporary monitoring well installed to full depth of 1.50m Trial pit formed to assess groundwater level Backfilled with arisings Trial pit stable to c. 0.60m unstable below.				
					Logged in accordance BS5930:2015				
					Scale (approx) 1:25		Logged By MIP		Figure No. P26-002.TP1/SA1

						Site 30 Kent Road, Ashton Keynes, SN6 6PU		Trial Pit Number TP2/SA2	
Machine : 2.5 tonne tracked Method : Trial Pit		Dimensions 1.00m x 0.30m		Ground Level (mOD)		Client Mr D and Rms G Chivers		Job Number P26-002	
		Location		Dates 22/01/2026		Project Contractor PGE		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
					Grass over, dark brown slightly clayey very sandy slightly organic fine to medium limestone GRAVEL (TOPSOIL) Light yellow brown slightly clayey very sandy fine to medium limestone GRAVEL Complete at 0.42m				
						Remarks No groundwater encountered Infiltration testing carried out to BRE365 Backfilled with arisings Trial pit stable			
						Logged in accordance BS5930:2015			
Scale (approx) 1:25		Logged By MIP		Figure No. P26-002.TP2/SA2					

APPENDIX C

Infiltration Testing Results

Infiltration Test to BRE365 - SA2 - TEST 1

Field Data

Time	Time Elapsed (min)	Time Elapsed (sec)	Depth of Water below GL (m)
	0	0	0.02
	3	180	0.05
	7	420	0.07
	15	900	0.09
	30	1800	0.14
	60	3600	0.20
	100	6000	0.25
	160	9600	0.32

Location: SA2

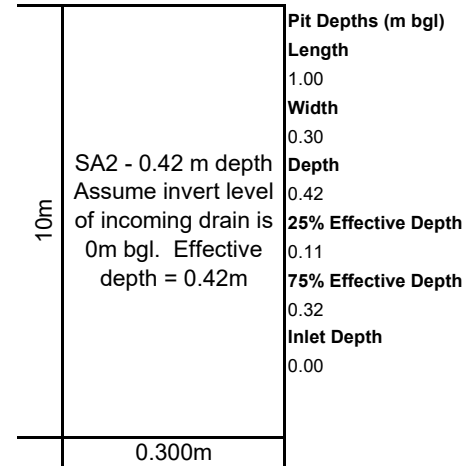
TEST 1

Weather: Raining

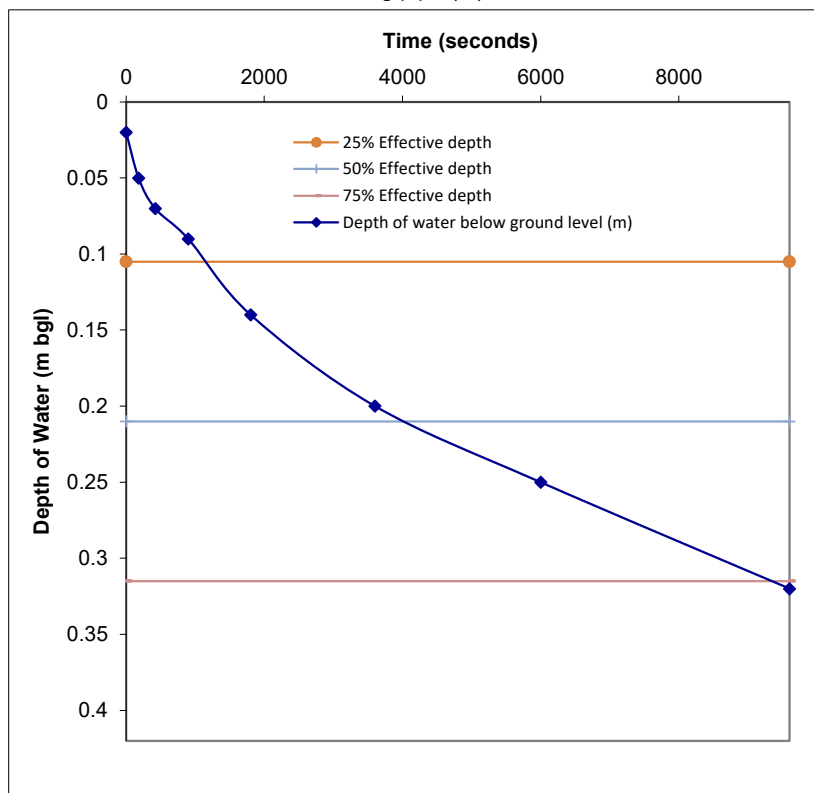
Engineer: MIP

Date: 22/01/26

Strata Tested Northmoor Sand and Gravel Member



Invert Level of incoming pipe (m): 0.00



CALCULATION:

Soil Infiltration Rate(f) =
 $V_{p75-25} / (ap_{50} \times tp_{75-25})$

Where:

V_{p75-25} = effective storage volume between 75% and 25% effective depth

$$1 \times 0.30 \times (0.315 - 0.105) = 0.063$$

ap_{50} = internal area of TP upto 50% effective depth + base of TP
 $2(1 \times 1) + 2(0.30 \times 1) + (1 \times 0.30)$

$$= 0.846$$

tp_{75-25} = the time for water level to fall from 75% - 25% effective depth

$$= 8400 \text{ secs}$$

$$f = 8.865E-06 \text{ m/s}$$

Comment

Infiltration test terminated after c.3hrs due to failure to reach 75% in the allowed time.



Client: Mr D and Mrs G Chivers
Project No: P26-002
Project: 30 Kent Road, Ashton Keynes, SN6 6PU

Infiltration Test to BRE365 - SA2 - TEST 2

Field Data

Time	Time Elapsed (min)	Time Elapsed (sec)	Depth of Water below GL (m)
	0	0	0.02
	10	600	0.08
	30	1800	0.12
	75	4500	0.23
	120	7200	0.29
	180	10800	0.32

Location: SA2

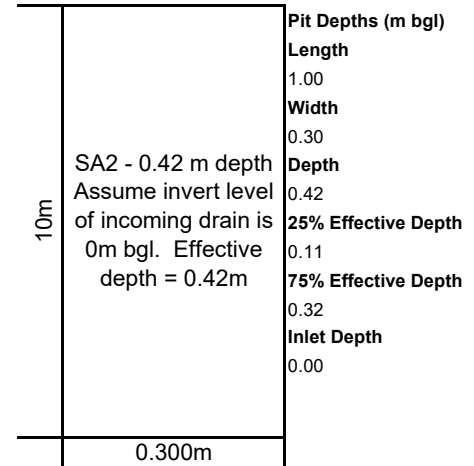
TEST 2

Weather: Raining

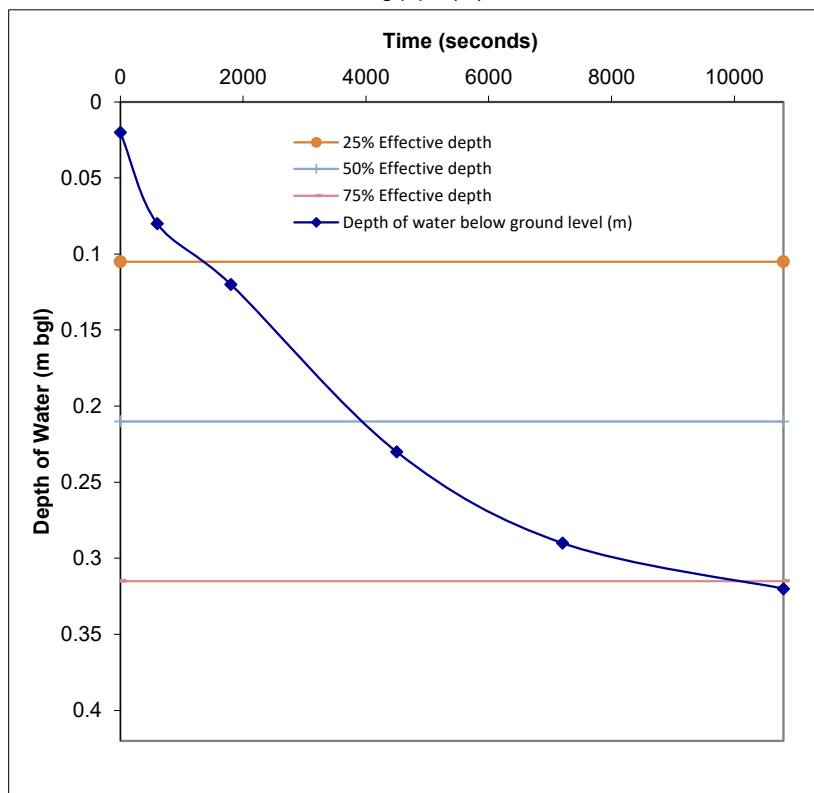
Engineer: MIP

Date: 22/01/26

Strata Tested Northmoor Sand and Gravel Member



Invert Level of incoming pipe (m): 0.00



CALCULATION:

Soil Infiltration Rate(f) =
 $V_{p75-25} / (ap_{50} \times tp_{75-25})$

Where:

V_{p75-25} = effective storage volume between 75% and 25% effective depth

$$1 \times 0.30 \times (0.315 - 0.105) = 0.063$$

ap_{50} = internal area of TP upto 50% effective depth + base of TP
 $2(1 \times 1) + 2(0.30 \times 1) + (1 \times 0.30)$

$$= 0.846$$

tp_{75-25} = the time for water level to fall from 75% - 25% effective depth

$$= 9200 \text{ secs}$$

$$f = 8.094E-06 \text{ m/s}$$

Comment

Infiltration test terminated after c.3hrs due to failure to reach 75% in the allowed time.



Client: Mr D and Mrs G Chivers
Project No: P26-002
Project: 30 Kent Road, Ashton Keynes, SN6 6PU

Infiltration Test to BRE365 - SA2 - TEST 3

Field Data

Time	Time Elapsed (min)	Time Elapsed (sec)	Depth of Water below GL (m)
	0	0	0.02
	20	1200	0.10
	55	3300	0.18
	102	6120	0.25
	175	10500	0.30
	210	12600	0.32

Location: SA2

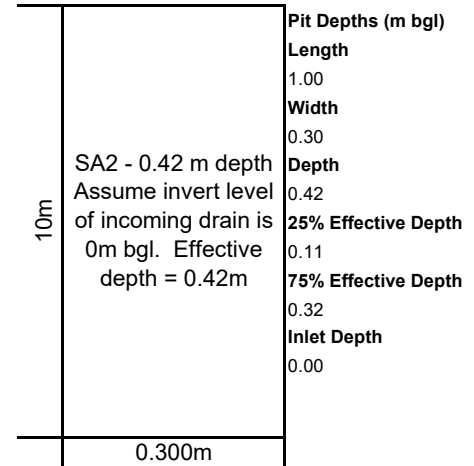
Weather: Raining

Engineer: MIP

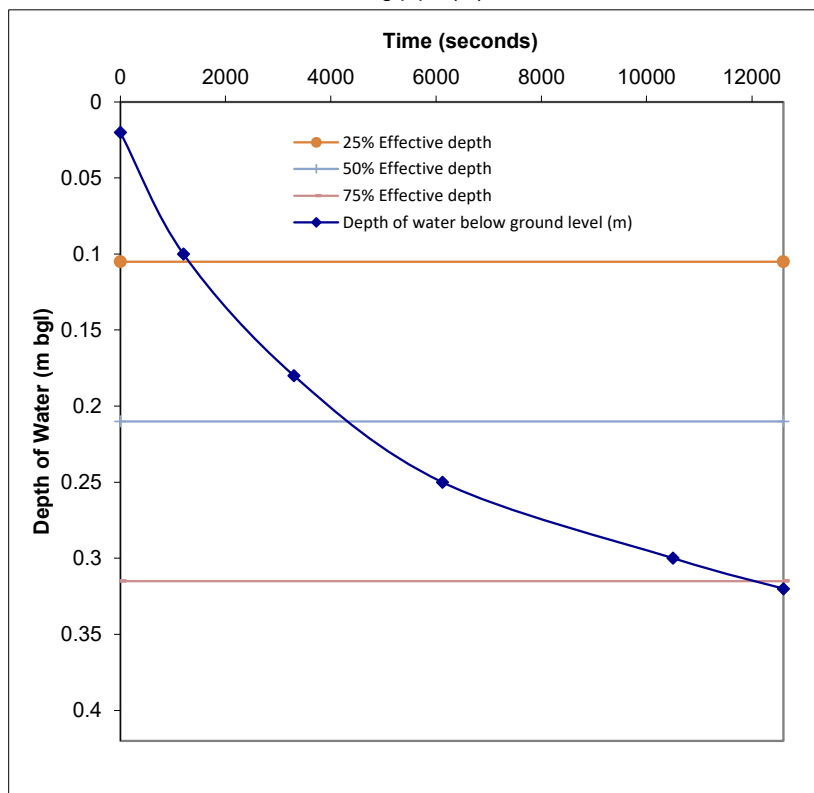
Date: 22/01/26

TEST 3

Strata Tested Northmoor Sand and Gravel Member



Invert Level of incoming pipe (m): 0.00



CALCULATION:

Soil Infiltration Rate(f) =
 $V_{p75-25} / (ap_{50} \times tp_{75-25})$

Where:

V_{p75-25} = effective storage volume between 75% and 25% effective depth

$$1 \times 0.30 \times (0.315 - 0.105) = 0.063$$

ap_{50} = internal area of TP upto 50% effective depth + base of TP
 $2(1 \times 1) + 2(0.30 \times 1) + (1 \times 0.30) = 0.846$

tp_{75-25} = the time for water level to fall from 75% - 25% effective depth

$$= 11300 \text{ secs}$$

$$f = 6.59E-06 \text{ m/s}$$

Comment

Infiltration test terminated after c.3hrs due to failure to reach 75% in the allowed time.



Client: Mr D and Mrs G Chivers
Project No: P26-002
Project: 30 Kent Road, Ashton Keynes, SN6 6PU

APPENDIX D

Site Photographs



Site area



Site area



TP1/SA1



TP1/SA1 Arisings



TP2/SA2



TP2/SA2 Arisings



Site at end of works

Appendix 4

Catherine Spanner
UNIT 1, YORK HOUSE, HINDLE WAY
SWINDON
SN3 3RB

Search address supplied 30
Kent End
Ashton Keynes
Swindon
SN6 6PU

Your reference (10343) 30 Kent End Ashton Keynes

Our reference ALS/ALS Standard/2025_5268387

Search date 22 December 2025

Keeping you up-to-date

Notification of price changes

We're changing our report prices from 4th June 2025. The price will increase by 3.5% based on Retail Price Index (RPI).

Find our new prices on our website thameswater.co.uk/property-searches

Any Questions? We're happy to talk through the changes with you – give our Property Searches team a call on 0800 009 4540 .



Thames Water Utilities Ltd
Property Searches,
Clearwater Court, Vastern Road, Reading RG1 8DB



property.searches@thameswater.co.uk
thameswater.co.uk/propertysearches



0800 009 4540

Search address supplied: 30, Kent End, Ashton Keynes, Swindon, SN6 6PU

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position and size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the contact details below:

Thames Water Utilities Ltd
Property Searches
Clearwater Court
Vastern Road
Reading
RG1 8DB

Email: property.searches@thameswater.co.uk

Web: thameswater.co.uk/propertysearches

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority. Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners. The public sewer map relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus. The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies. For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.



For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. You can do this by emailing customer.feedback@thameswater.co.uk with the email subject header 'Enquiry – TWOSA', along with details of the request.

If you have any questions regarding sewer connections, budget estimates, diversions or building over issues please direct them to our service desk which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Clean Water queries

Should you require any advice concerning clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
9306	83.72	82.06
9302	83.88	80.78
9303	83.88	81.03
9305	84.22	83.09
9201	83.77	81.45
9202	84.1	82.06
9102	83.89	82.29
0202	83.98	81.13
0153	83.74	82.64
0002	83.64	78.88
0051	83.52	82.24
0104	83.58	81.14
011C	n/a	n/a
0050	83.64	82.56
011D	n/a	n/a
0152	83.51	83.07
011E	n/a	n/a
0103	83.92	81.56
011F	n/a	n/a
011B	n/a	n/a
0105	83.58	82.37
0251	n/a	83.29
0203	83.95	80.79
011A	n/a	n/a
0102	83.92	79.2
0151	83.95	83.22
0250	n/a	83.43
0054	83.66	79.06
0101	84.02	79.69
0252	n/a	83.2
001I	n/a	n/a
001J	n/a	n/a
0206	83.88	82.81
9001	83.36	81.32
9052	83.75	82.45
9004	83.39	81.73
9050	83.36	82.55
9051	83.55	82.29
9005	83.55	81.91
9006	83.69	82.21
9150	84.01	83.06
991E	n/a	n/a
991D	n/a	n/a
2101	83.67	82.7
2001	83.8	82.2
211A	n/a	n/a
2102	83.69	81.53
211D	n/a	n/a
211C	n/a	n/a
2104	83.42	81.84
2103	83.89	82.34
001B	n/a	n/a
001K	n/a	n/a
001C	n/a	n/a
001D	n/a	n/a
001F	n/a	n/a
001H	n/a	n/a
001E	n/a	n/a
001G	n/a	n/a
101D	n/a	n/a
101B	n/a	n/a
1201	83.75	82.79
101E	n/a	n/a
101F	n/a	n/a
1151	84.06	82.86
1107	84.06	81.41
1106	84.11	81.3
1103	83.79	82.25
1101	83.95	80.48
1052	83.69	82.58
1051	83.88	82.68
1004	83.88	81.65
1003	83.68	81.88
1104	83.7	80.63
1105	83.74	82.04
1203	83.63	80.98
1102	83.4	82.49
1202	83.35	81.25
0204	83.74	82.35
0253	n/a	83.19
0207	83.85	83.03
0208	84.15	83
0205	84.13	83.52
021E	n/a	n/a
121B	n/a	n/a
0201	84.08	81.46
021D	n/a	n/a
0209	84.21	.72
021C	n/a	n/a
021B	n/a	n/a
021A	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
0301	83.81	81.89
9304	83.79	81.17
0302	83.89	81.67
0401	83.69	82.01
991C	n/a	n/a
991H	n/a	n/a
091A	n/a	n/a
001S	n/a	n/a
001R	n/a	n/a
001W	n/a	n/a
001T	n/a	n/a
101G	n/a	n/a
001A	n/a	n/a
1054	83.47	82.41
001O	n/a	n/a
1053	83.51	82.44
1002	83.58	82.07
001P	n/a	n/a
001M	n/a	n/a
101C	n/a	n/a
101A	n/a	n/a
001Q	n/a	n/a
001L	n/a	n/a
001N	n/a	n/a
9906	83.66	79.98
9903	83.48	81.31
991I	n/a	n/a
9904	83.65	79.46
991K	n/a	n/a
991J	n/a	n/a
031E	n/a	n/a
031D	n/a	n/a
031C	n/a	n/a
031B	n/a	n/a
031A	n/a	n/a
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.		



Asset Location Search - Sewer Key

Public Sewer Types (Operated and maintained by Thames Water)

	Foul Sewer: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water Sewer: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined Sewer: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Storm Sewer
	Sludge Sewer
	Foul Trunk Sewer
	Surface Trunk Sewer
	Combined Trunk Sewer
	Foul Rising Main
	Surface Water Rising Main
	Combined Rising Main
	Vacuum
	Thames Water Proposed
	Vent Pipe
	Gallery

Other Sewer Types (Not operated and maintained by Thames Water)

	Sewer		Culverted Watercourse
	Proposed		Decommissioned Sewer
	Content of this drainage network is currently unknown		Ownership of this drainage network is currently unknown

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plan are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate the direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve		Meter
	Dam Chase		Vent
	Fitting		

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Ancillary		Drop Pipe
	Control Valve		Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Inlet		Outfall
	Undefined End		

Other Symbols

Symbols used on maps which do not fall under other general categories.

	Change of Characteristic Indicator		Public / Private Pumping Station
	Invert Level		Summit

Areas

Lines denoting areas of underground surveys, etc.

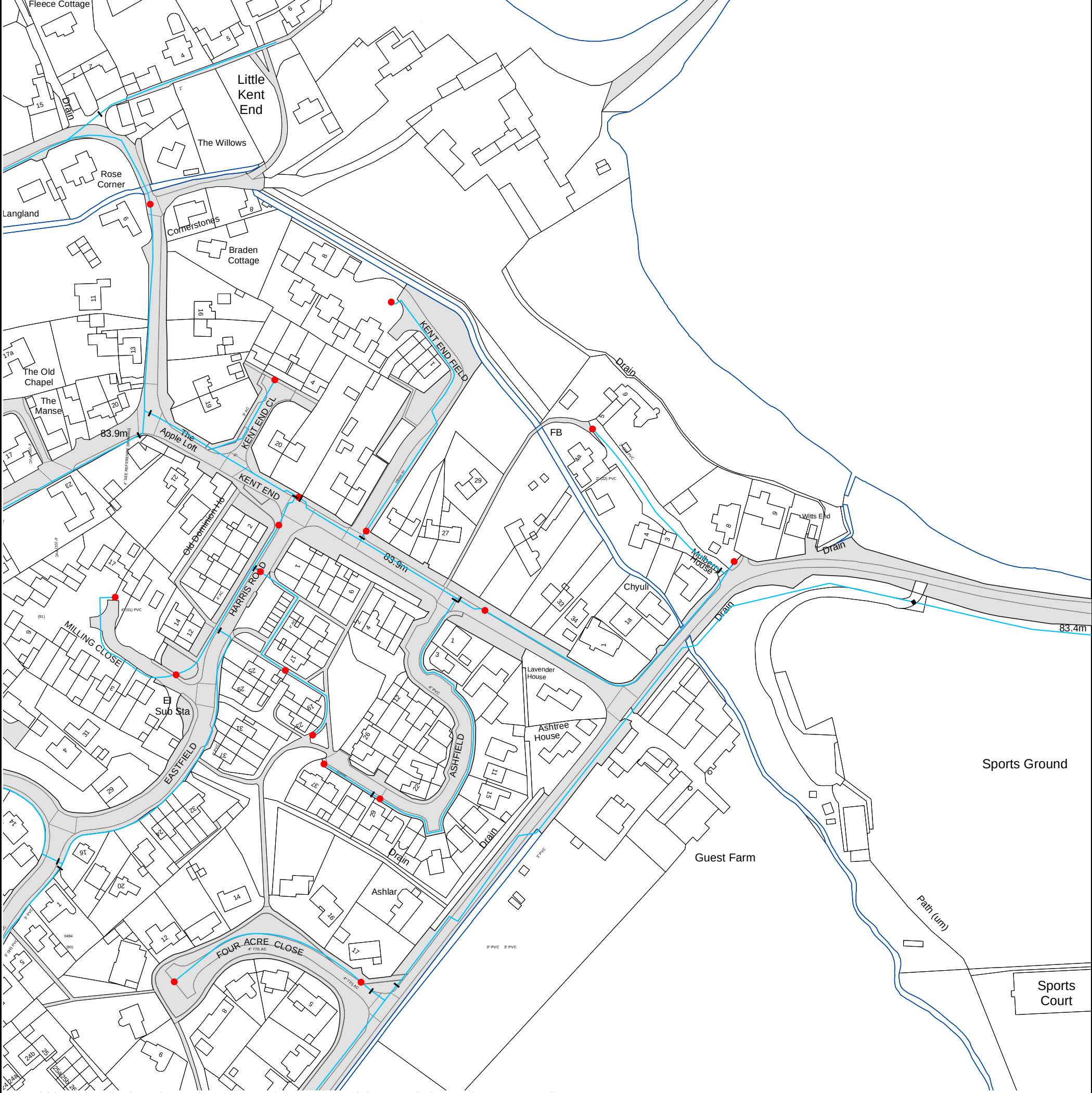
	Agreement
	Chamber
	Operational Site

Ducts or Crossings

	Casement	Ducts may contain high voltage cables. Please check with Thames Water.
	Conduit Bridge	
	Subway	
	Tunnel	

5) 'na' or '0' on a manhole indicates that data is unavailable.

6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimeters. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology, please contact Property Searches on 0800 009 4540.



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 405182, 194173.

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map (2024) with the Sanction of the controller of H.M. Stationery Office, License no. AC0000849556 Crown Copyright Reserved.



Asset Location Search - Water Key

Water Pipes (Operated & Maintained by Thames Water)

- 4"** **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- 16"** **Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- 3" SUPPLY** **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
- 3" FIRE** **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- 3" METERED** **Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger
- Casement:** Ducts may contain high voltage cables. Please check with Thames Water.

Other Water Pipes (Not Operated or Maintained by Thames Water)

- Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
- Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Appendix 5

Aleksandra Wasiljew
[REDACTED]

Our ref: EIR2025/49588

Date: 04 March 2026

Dear Aleksandra

RE: Environmental Information Regulations: EIR2025/49588

Thank you for your enquiry which was received on 30 December 2025.

We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

Due to an increased demand for flood risk information in 2025, we are reverting to our previous process for responding to modelled data requests, please read the information within this email for further details.

You have requested a Product 4. Please see below table detailing each product:

Product 4	Detailed Flood Risk Assessment Map, including flood zones, defences and storage areas, areas benefiting from defences, statutory main river designations, historic flood event outlines and more detailed information from hydraulic models (including model extents and 2D flood level data for specific points)
Product 5	Reports, including flood modelling reports, model user logs and guides, hydrology reports, etc
Product 6	Model Output Data, including product 5. flood outlines usually provided in shapefile format 2D grids (level (h), depth (d) velocity (v) and hazard ZKU0) usually provided in ASCII format 1D flow and level data Requires GIS software such as ArcGIS, MapInfo, QGIS or similar.
Product 7	Calibrated and Verified Model Input Data (CaVMID), including product 5.

	Enables customer to re-run and/or make changes to a hydraulic model. Requires specific hydraulic modelling software such as Flood Modeller, TUFLOW, or ICM InfoWorks.
Product 8	Breach Hazard Map Provides a hazard map of breaches in PDF format including maximum flood depth, maximum flood velocity and maximum flood hazard. Please note product 8 is not available for fluvial models.

Your request for a Product 4 falls under the exemption in provision 6(1)(a) and (b) of the Environmental Information Regulations 2004 (EIR) which states that
*‘.....6.—(1) Where an applicant requests that the information be made available in a particular form or format, a public authority shall make it so available, unless—
(a) it is reasonable for it to make the information available in another form or format;
or
(b) the information is already publicly available and easily accessible to the applicant in another form or format.....’*

On this occasion we are not providing the information in the Product 4 format for the following reasons:

Complying with the preference would incur a significant cost, which the public authority [The Environment Agency] cannot pass on to the requester;

Using a Product 5/6/7 allows us to make the information available at a lower cost; and

The impact on the available resources of the public authority [The Environment Agency], of supplying a Product 5/6/7, is therefore much less.

Please find the Quatrix link below that will enable you to download the Products 5, 6, and 7. Please note, the Quatrix link provided will expire within 30 days of 19 January, please download the data promptly.

Thames (MRL to St Johns) 2014	567	https://fcrm.quatrix.it/download/fe7e9999-d632-4398-8fa8-f16426aceeff
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Please refer to the tables below for the permitted use of the supplied information. The following information is not available under the Open Government Licence but

we may be able to license it to you under the Environment Agency Conditional Licence.

However, you MUST first check the supporting information and the link to determine if the conditions on use are suitable for your purposes. If they aren't, this information is not provided with a licence for use, and the data is provided for read right only.

Name	Product 5
Description	Report for Thames (MRL to St Johns) 2014
Licence	Environment Agency Conditional Licence
Information Warnings	<i>Any mapping of features provided as a background in this product is © Ordnance Survey. It is provided to give context to this product. The Open Government Licence does not apply.</i>
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2017 Ordnance Survey 100024198.

Name	Product 6
Description	Model Output Data for Thames (MRL to St Johns) 2014
Name	Product 7
Description	Calibrated and Verified Model Input Data for Thames (MRL to St Johns) 2014
Licence	Environment Agency Conditional Licence
Conditions	1. You may use the Information for your internal or personal purposes and may only sublicense others to use it if you do so under a written licence which includes the terms of these conditions and the agreement and in particular may not allow any period of use longer than the period licensed to you. 2. Notwithstanding the fact that the standard wording of the Environment Agency Conditional Licence indicates that it is perpetual, this Licence has a limited duration of 5 years

	at the end of which it will terminate automatically without notice. 3. We have restricted use of the Information as a result of legal restrictions placed upon us to protect the rights or confidentiality of others. In this instance it is because of third party data. If you contact us in writing (this includes email) we will, as far as confidentiality rules allow, provide you with details including, if available, how you might seek permission from a third party to extend your use rights. 4.1 The Information may contain some data that we believe is within the definition of “personal data” under the Data Protection Act 1998 but we consider that we will not be in breach of the Act if we disclose it to you with conditions set out in this condition and the conditions above. This personal data comprises names of individuals or commentary relating to property that may be owned by an individual or commentary relating to the activities of an individual. 4.2 Under the Act a person who holds and uses or passes to others personal data is responsible for any compliance with the Act and so we have no option but to warn you that this means you have responsibility to check that you are compliant with the Act in respect of this personal data. 5. The location of public water supply abstraction sources must not be published to a resolution more detailed than 1km². Information about the operation of flood assets should not be published.. 6.1 Where we have supplied model data which may include model inputs or outputs you agree to supply to the Environment Agency copies of any assessments/studies and related outputs, modifications or derivatives created
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	pursuant to the supply to you of the Information, all of which are hereinafter referred to as “the Data”. 6.2 You agree, in the public interest to grant to the Environment Agency a perpetual royalty free non-exclusive licence to use the Data or any part thereof for its internal purposes or to use it in any way as part of Environment Agency derivative products which it supplies free of charge to others such as incorporation into the Environment Agency's Open Data mapping products.
Information Warnings	Please be aware that model data is not raw, factual or measured but comprises of estimations or modelled results based on the data available to us.
Attribution	Contains Environment Agency information © Environment Agency and/or database rights.

Product 4 data is derived from the Product 6 supplied above and the following open data sources;

Please note, that the new Flood Map for Planning service, published 25 March 2025, is available to view and export maps for your site at: [Flood map for planning - GOV.UK](#)

Historic Flood Map <https://data.gov.uk/dataset/historic-flood-map1>

Recorded Flood Outlines <https://data.gov.uk/dataset/recorded-flood-outlines1>

Using modelling for flood risk assessments provides information regarding the use of modelling in flood risk assessments when applying for planning permission. You can view more information at: <https://www.gov.uk/guidance/using-modelling-for-flood-risk-assessments>

Please note that our historic flood event maps may not be comprehensive. We would therefore advise that you make further enquiries locally with specific reference to flooding at your location. You should consider contacting the relevant Local Planning Authority and/or water/sewerage undertaker for the area.

Please be aware that flooding can come from different sources. Examples of these are:

- from rivers or the sea
- surface water (i.e. rainwater flowing over or accumulating on the ground before it is able to enter rivers or the drainage system)
- overflowing or backing up of sewer or drainage systems which have been overwhelmed
- groundwater rising up from underground aquifers

It should be noted that the extents of our modelling may not reach your site and may have been provided for access and egress purposes.

Flood defence information / any other useful information

This location is not currently protected by any formal defences and we do not currently have any flood alleviation works planned for the area. However, we continue to maintain certain watercourses and the schedule of these can be found on our internet pages.

It should be noted that the extents of our modelling may not reach your site and may have been provided for access and egress purposes.

Flood Risk Assessment Checklist

If you are planning on using this data within a Flood Risk Assessment, we recommend that you take the time to fill in the attached FRA checklist, and to read the attachments which contain information relevant to the area that interests you. We would like to stress the importance of filling in the Flood Risk Assessment checklist, and providing up-to-date and correct data. The data will be checked against our records when we review the Flood Risk Assessment in our role as statutory consultee.

It is important that you provide a map in section 2 of the FRA checklist (See Appendix A), including the highest and most representative flood levels for your site. We recommend using a number of nodes that provide a fair representation of the modelled data across your site. For example, if it is a small extension (< 250 square

metres) then approximately 5-10 nodes would be sufficient. For larger sites, approximately 10 to 20 nodes would be appropriate.

Please be aware that from 20th July 2021 the climate change allowances required in flood risk assessments have been updated. Please see <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#contents> for more information.

If you have a new enquiry or would like us to review the information we have provided under the Freedom of Information Act 2000 and Environmental Information Regulations 2004 please contact us within two months

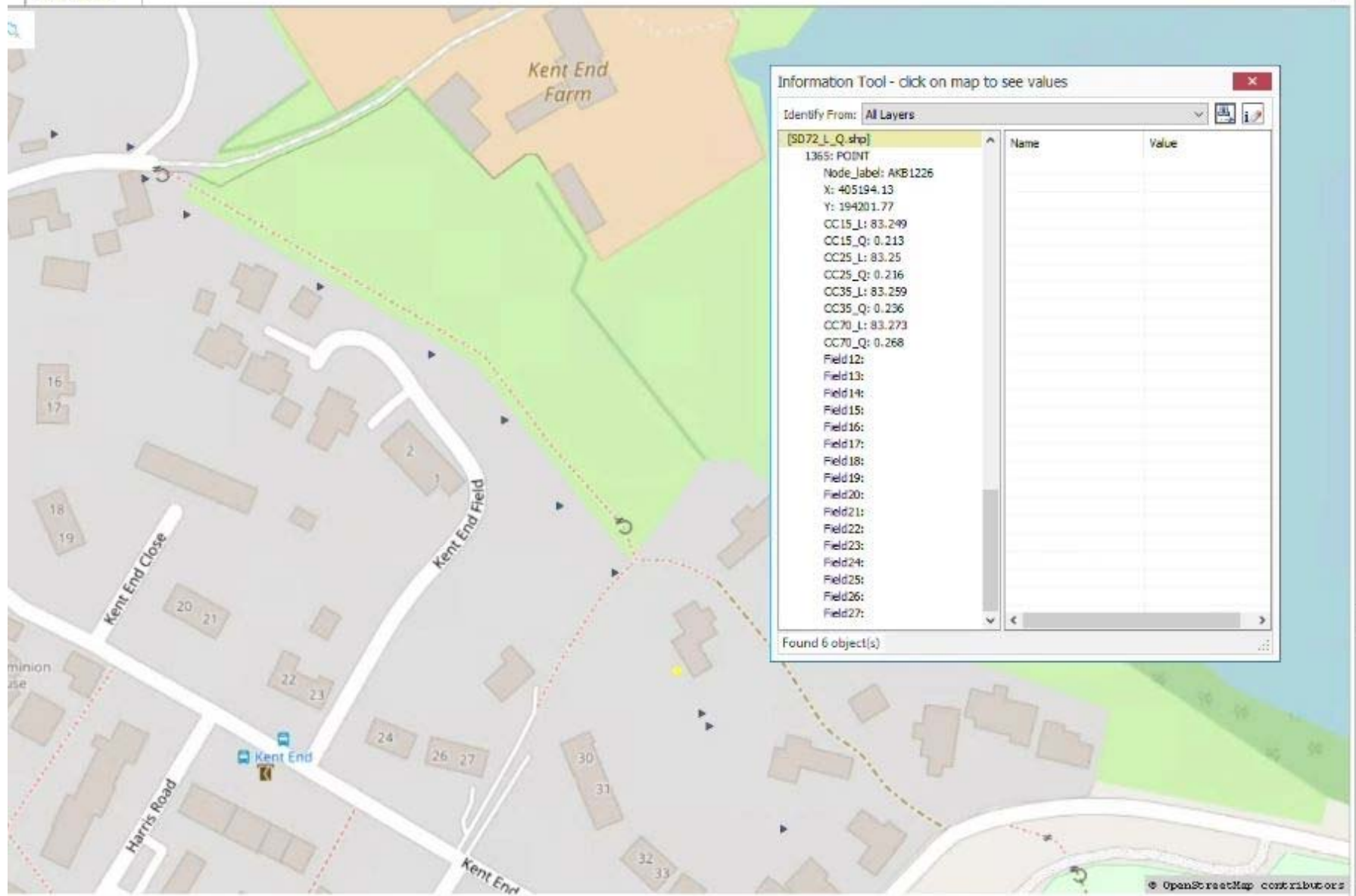
Kind Regards

Customers and Engagement Team – Thames Area

File View Map Tools Simulation Resources Catalogue

New Save Save as Add GIS Data New
 Zoom in Zoom out Pan Full Extent
 1D River Nodes Channel icons Non channel icons
 1D River Links Labels Overlaps
 1D Urban nodes 1D Urban links 1D Urban icons
 1D River Options General Layout
 Link Styles Online services Base Map

Simulation Grid



Appendix 6

FEH Statistical Method: Catchment Descriptor Equation (InfoDrainage)

Area (m2)	235	Area(Km2)	0.000235
SAAR	804	1000/SAAR	1.243781
FARL	0.937		
BFIHOST19	0.802	BFIHOST2	0.643204
Region	6		

QMED	x 1.07 =	QBAR
m3/s	l/s	l/s
7.27E-05	0.072736	0.077828

1yr	0.07
2yr	0.07
QBAR	0.08
10yr	0.13
30yr	0.18
100yr	0.25
200yr	0.29

Job: 10343 30 Kent End, Ashton Keynes

Project: 30 Kent End Ashton Keynes	Date: 27/02/2026		
	Designed by: AW	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Cole Easdon Consultants Unit 2, York House, Edison Park Dorcan Way, Swindon, SN3 3RB		



Cellular Storage

Type : Cellular Storage

Dimensions

Exceedance Level (m)	83.700
Depth (m)	0.400
Base Level (m)	82.900
Number of Crates Long	7
Number of Crates Wide	6
Number of Crates High	1
Porosity (%)	100
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m³)	8.800

Outlets

Outlet

Outgoing Connection	Pipe
Outlet Type	Orifice
Diameter (m)	0.030
Coefficient of Discharge	0.600
Invert Level (m)	82.900

Project: 30 Kent End Ashton Keynes		Date: 27/02/2026			
		Designed by: AW	Checked by:		Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase		Company Address: Cole Easdon Consultants Unit 2, York House, Edison Park Dorcan Way, Swindon, SN3 3RB			

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Parking Area	Cellular Storage		Time of Concentration	0.012	100	0	100	0.012
Roof	Cellular Storage		Time of Concentration	0.010	100	10	110	0.011
TOTAL		0.0		0.022				0.023

Project: 30 Kent End Ashton Keynes	Date: 27/02/2026			
	Designed by: AW	Checked by:	Approved By:	
Report Title: Rainfall Analysis Criteria	Company Address: Cole Easdon Consultants Unit 2, York House, Edison Park Dorcan Way, Swindon, SN3 3RB			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Use Catchment Values
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall		
FEH	Type: FEH	
Site Location	GB 405200 194150 SU 05200 94150	
Rainfall Version	2022	
Summer	☒	
Winter	☒	

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	40.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640
5760	11520
7200	14400
8640	17280
10080	20160

Project: 30 Kent End Ashton Keynes		Date: 27/02/2026			
		Designed by: AW	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Cole Easdon Consultants Unit 2, York House, Edison Park Dorcan Way, Swindon, SN3 3RB			



Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Cellular Storage	FEH: 100 years: +40 %: 120 mins: Summer	83.635	83.635	0.735	0.735	6.5	8.742	0.000	0.000	1.6	11.496	95	0.654

Project: 30 Kent End Ashton Keynes	Date: 27/02/2026		
	Designed by: AW	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Cole Easdon Consultants Unit 2, York House, Edison Park Dorcan Way, Swindon, SN3 3RB		



Status
OK

Appendix 7