ARDENT
CONSULTING ENGINEERS
AN EMPLOYEE OWNED COMPANY

LAND SOUTH OF BARROW GREEN ROAD, OXTED

BETWEEN:

TANDRIDGE DISTRICT COUNCIL

(Council)

AND

CROUDACE HOMES LIMITED

(Appellant)

APPEAL REF: APP/M3645/W/25/3372747

PLANNING REF: TA/2025/245

HYDROLOGY PROOF OF EVIDENCE

REV: FINAL
December 2025

BRIAN CAFFERKEY BEng (Hons) MSc CEng MICE MIEI MCIWEM

Contents

Glossary of Terms	
FEH	Flood Estimation Handbook is a UK-based resource that provides methods for estimating rainfall and river flood frequency
FEH22	FEH22 is a UK-wide rainfall depth-duration-frequency (DDF) model. It is a tool for estimating rainfall for flood risk management and planning in the UK
ReFH2	Revitalised Flood Hydrograph method is a widely used rainfall-runoff model in the UK for estimating flood flows and design flood hydrographs
TUFLOW	TUFLOW is a 1 and 2 dimensional computer simulation software used for flooding, urban drainage, coastal hydraulics, sediment transport, particle tracking and water quality.
Diffuse surface water discharge	Surface water runoff spread out over a large area – fields
Point discharge	Surface water flow leaving at one outlet (pipe or culvert)
LiDAR	Light Detection and Ranging is a technology used to create high resolution models of ground elevation
pSNCI	Potential Site of Nature Conservation Interest
The Bogs AW	The Bogs Ancient Woodland
Storm Event	Relates to probability of an event occurring, 1 in 100-year
AEP	Annual Exceedance Probability is the probability that an event of a certain magnitude, such as a flood, will be equaled or exceeded in any given year (1.0% equated to the 1 in 100-year event)
Return Period	The estimated average time between floods of a similar magnitude, often described as a "1-in-X year event

Return Periods / Annual Exceedance Probability Events

The following return periods / annual exceedance probability (AEP) events are referenced in the text:

Return Period	Annual Exceedance Probability
1 in 1-year	100%
1 in 2-year	50%
1 in 5-year	20%
1 in 10-year	10%
1 in 20-year	5%
1 in 30-year	3.3%
1 in 100-year	1%

1. Qualifications and experience

1.1. My name is Brian Cafferkey, BEng (Hons) MSc CEng MICE MIEI MCIWEM and I am a Director of Ardent Consulting Engineers, 3rd Floor, The Hallmark Building, 52-56 Leadenhall Street, London, EC3M 5JE.

1.2. I hold a Bachelor of Engineering degree in Civil Engineering and a Master of Science in Environmental Engineering. I am a Chartered Civil Engineer being a member of the Institution of Civil Engineers (ICE). I am also a Chartered Member of the Institution of Engineers of Ireland (MIEI) and the Chartered Institution of Water and Environmental Management (CIWEM).

1.3. I have over 35 years' experience in flood risk and drainage engineering. My skills range from undertaking foul and surface water drainage strategies for outline and detail planning as well as the detailed design of these systems which incorporate sustainable drainage systems (SuDS). In addition, I have carried out Drainage Area Studies and Plans under AMP2 and AMP3, River and Coastal Modelling, Strategic Flood Risk Assessments and Surface Water Managements Plans. I have been instrumental in delivering flood alleviation schemes in terms of fluvial, surface and tidal flooding for both private and public sector clients. This has involved preparing business cases for a number of Lead Local Flood Authorities (LLFA) and for submission to Defra/Environment Agency. I have provided flood risk advice on a national, regional and local level for clients and sit on the CIRIA Susdrain Project Steering Group.

1.4. I was the Project Director for the Thatcham Surface Water Management Plan (SWMP), responsible for preparing a case to Defra in relation to securing funds for undertaking a pilot study for Thatcham in West Berkshire. This bid was successful and received funding in December 2008. The Thatcham SWMP pilot study, one of six for Defra, was completed in February 2010 and was the only pilot study to truly deliver on all four phases of the SWMP process.

1.5. As part of English Partnership flagship development in Upton, Northampton in relation to sustainability, Newman Homes was selected as the preferred developer for the first 3.70 ha development Site. This Site was used as an exemplar in the design of SuDS. I was the project manager for the design of the SuDS serving the development and associated highway works.

1.6. I first became involved in this application following the refusal of planning permission by Tandridge District Council when I was instructed to provide expert advice for the planning appeal. I have visited the Site as part of the preparation of my evidence and gained an understanding of the Site and its surrounding environs.

1.7. The evidence presented within this Proof is accurate and given in accordance with the standards of my professional institutions' (MICE and CIWEM).

2. Introduction

Overview

2.1. I was instructed by Croudace Homes Limited (Appellant) in August 2025 to provide support relating to in part "*Hydrological Impacts*" specifically in relation to the "*continuity of surface water to feed The Bogs*". This proof focuses on surface water flows entering The Bogs AW from the watercourse, overland flows and surface water runoff from the proposed development. This is following a decision by Tandridge District Council (hereafter referred to as the Council) Officers to recommend refusal of the outline planning application for a proposed residential development of up to 190 dwellings. The planning application has planning reference TA/2025/245. The planning application description is as follows:

"*Outline planning permission for up to 190 dwellings (including affordable homes), an extra care facility with up to 80 beds, together with the formation of vehicular access, landscaping, parking, open space, green and blue infrastructure and all other associated development works. All matters reserved except access.*"

Council's Officer Report

2.2. This Officers report dated 15 August 2025 (**CD3.1**) raised two key issues in relation to "*Hydrological Impacts"* which fall under **Key issue 6** and **Key issue 9** as set out in the Council's Officer report on recommended reasons for refusal which are outlined below:

"**Key issue 6 - the implications of the proposed development for biodiversity, including The Bogs Potential Site of Nature Conservation Interest and ancient woodland:**

Para. 91- Page 35 of PDF:

Hydrological Impacts: the stream running down the western edge of the application site receives surface water runoff from that site as well as piped surface water drainage for the Oxted urban area. ***The importance of this surface water runoff for maintaining the ancient wet woodland habitat of The Bogs pSNCI, both on-site and off-site, needs to be assessed and factored into the surface water drainage proposals for the proposed development to ensure continuity of an adequate water supply to the ancient woodland and avoid any risk of deterioration of this irreplaceable habitat. (My Emphasis)*** *The review of the applicant's FRA by consultants acting for the local residents' group comments that the Hydraulic Modelling Report:*

"shows a reduction in flood levels to the south of the site, which would also mean a reduction in flow to The Bogs. Given the area of ancient woodland with a wet woodland dominated landscape, a reduction in flow may not be a desirable outcome

and could have adverse impacts on the biodiversity of the area. ***The hydraulic modelling studies should go further to demonstrate what would happen on a higher frequency lower magnitude basis*** *and look at a typical annual water balance to identify the full impact to The Bogs."* **(My Emphasis)**."

Key issue 9 - surface water flood risk:

Para. 121 – Page 42 and 43 of PDF: The Lead Local Flood Authority (LLFA) initially reviewed the applicant's Flood Risk Assessment and Drainage Strategy and raised objection … ***The applicant has considered these grounds for objection and provided further information in a Technical Note which has led the LLFA to withdraw its objection subject to the imposition of conditions*** *(including pre-commencement conditions) on any planning permission granted.* ***(My Emphasis)***

Para. 122 Page 43 of PDF: Your officers, however, continue to have a number of unresolved concerns about the applicant's surface water drainage strategy specifically related to potential adverse impacts on The Bogs AW and pSNCI within and adjacent to the site ***as set out under Key Issue 6 above****.*

Para. 124 Page 43 of PDF: ***Your officers accept, however, that with the exception of continuity of surface water runoff to feed The Bogs****, the provisions of the NPPF and Tandridge Local Plan Part 2 Detailed Policies (P2DP) policy DP21(E) are satisfied and this is a matter that attracts neutral weight in the planning balance.* ***(My Emphasis)***

2.3. Refer to **CD3.1** for Council Officers report, dated 15 August 2025 which was received by the Appellant on the 15 August 2025.

Council's Statement of Case

2.4. The Council issued their Statement of Case (SoC) to the Appellant on the 13 November 2025 (**CD7.1**). In it's SoC the Council seek to provide further clarification on the reasons for refusal which are related to *"Hydrological Impacts"* which fall under **Key issue 6** and **Key issue 9** as set out in the Council Officers report (**CD3.1**).

Para 13 – Page 26. ***"Key issue 6: The implications of the proposed development for biodiversity, including The Bogs Potential Site of Nature Conservation Interest and ancient woodland***

Para. 13.2 – Page 27: *The assessment of hydrological impacts is particularly relevant to impacts on The Bogs AW and wet woodland in the southwest corner of the site.* ***The hydrologist's evidence will detail what the assessment should provide, that is developing a conceptual hydrological model of the Bogs and wet woodland, and in particular showing the importance of the contribution of flow from the development site****."* ***(My Emphasis)***

Key issue 9: Surface water flood risk

Para 16.1 – Page 33: ***The LPA accepts that with the exception of continuity of surface water runoff to feed The Bogs AW and pSNCI****, the provisions of the NPPF and Tandridge Local Plan Part 2 Detailed Policies (P2DP) policy DP21(E)* ***with respect to surface water flood risk are satisfied*** *and this is a matter that attracts neutral weight in the planning balance."* **(My Emphasis)**

2.5 An online meeting with the Council and the Appellant was held on the 14 November 2025 to seek to agree on points that can be agreed on and those that cannot be agreed on. The outcomes of this meeting informed the preparation of the Statement of Common Ground (SoCG) between the Council's consultant and myself (**CD10.1**). The two areas not agreed were as follows:

A. It is not agreed that any further conceptual hydrological model is required; and

B. The hydrological impacts based on the continuity of an adequate water supply to The Bogs are not agreed.

2.6 A copy of the Council's Officer report and Statement of Case are contained in **Appendix A**.

2.7 In this proof, I focus my evidence and my opinion on the above points that have not been agreed by the Council, as part of the outline planning application for the Site.

Site Location

2.8 The Site is located to the northwest of Oxted and is currently an agricultural field. The National Grid Reference of the Site is TQ 38792 53131 (538792N, 153131E). The nearest post code is RH8 0NN. The Site is bound to the north by Barrow Green Road, a railway line and residential development further north of the railway line. There is an existing farm access off Barrow Green Road to the field. A junction between Barrow Green Road and Chalkpit Lane is located northwest of the Site. The railway line and cemetery are located to the east of the Site, with residential properties on Wheeler Avenue and The Bogs to the south. An ordinary watercourse flows southwards along the western boundary, leading to The Bogs woodland located to the southwest of the Site. The watercourse is primarily fed by a Southern Water surface water sewer that discharges into the watercourse in the northwest of the Site, along with a ditch that runs adjacent to Chalkpit Lane from the north. Refer to **Figure 2.1** below.

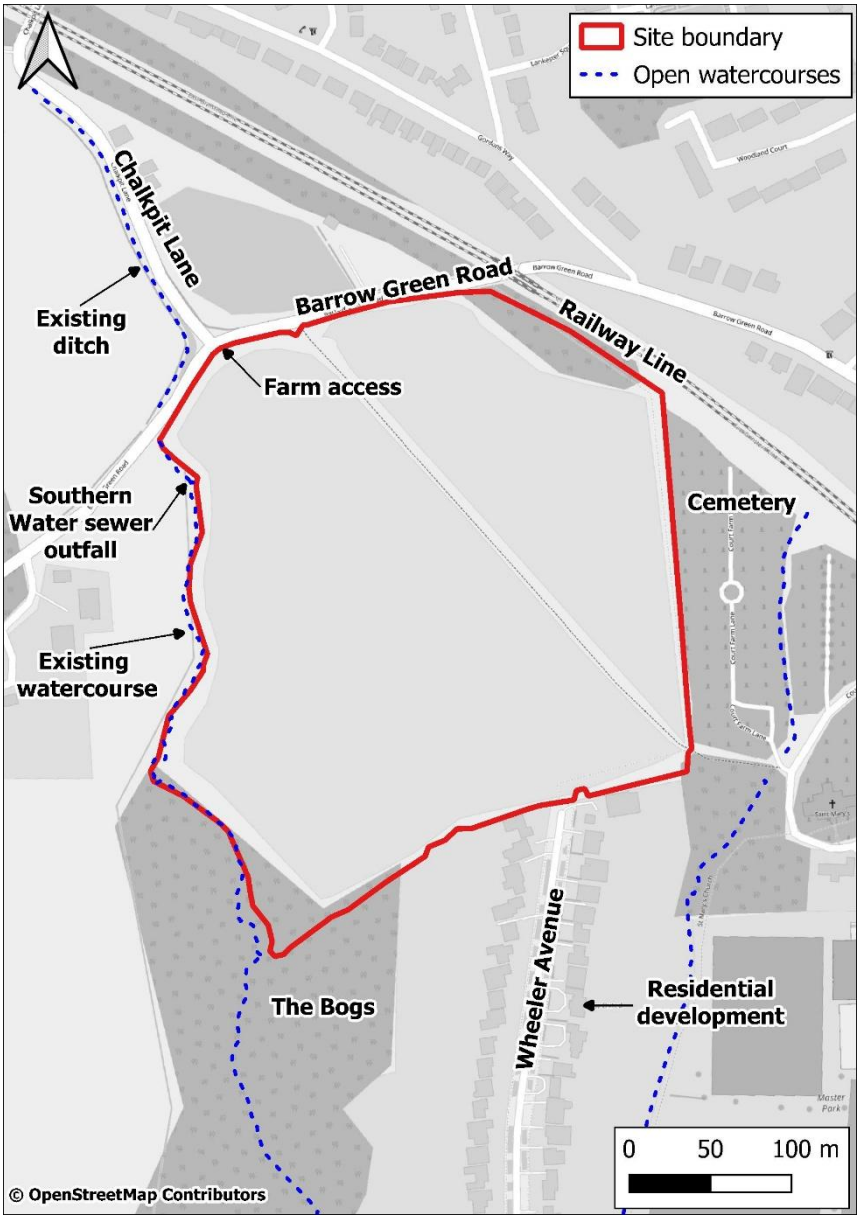

Figure 2.1: Site Location and Existing Watercourses

Proposed Development – Illustrative Masterplan for Outline Planning

2.9 The development proposals for the outline application consist of a residential development of up to 190 dwellings (including affordable homes) (Use Class C3), an extra care facility with up to up 80 beds (Use Class C2), together with the formation of vehicular access, landscaping, parking, open space, green and blue infrastructure, and all other associated development works. All matters are reserved except access. Refer to **Figure 2.2** below.

Figure 2.2: Illustrative Masterplan for Outline Planning

3. Policy Context

National Planning Policy Framework (December 2024)

3.1 The National Planning Policy Framework (the NPPF) and the Planning Practice Guidance set out the Government's planning policies, and how they are expected to be applied. Paragraphs 170-182 relate to planning and flood risk.

Tandridge District Council Core Strategy (Adopted October 2008)

3.2 The Core Strategy (**CD4.1**) sets out the vision and strategy to inform development up until 2026. The Core Strategy also contains policies that address the key issues across the district in relation to social progress, environmental protection and ensuring a sustainable economy. Policy CSP 17 relates to biodiversity and states:

"Policy CSP 17 – Page 42: Development proposals should protect biodiversity and provide for the maintenance, enhancement, restoration and, if possible, expansion of biodiversity, by aiming to restore or create suitable semi-natural habitats and ecological networks to sustain wildlife in accordance with the aims of the Surrey Biodiversity Action Plan. (34) The Council will seek to enhance biodiversity by supporting the work of the Downlands Countryside Management Project and by supporting Local Nature Reserves and Community Wildlife Areas."

Tandridge Local Plan Part 2: Detailed Polices 2014-2029 (Adopted July 2014)

3.3 Tandridge District Council Local Plan Part 2 (**CD4.2**) supports the adopted Core Strategy (Part 1 of the Tandridge Local Plan) by containing a set of detailed planning policies to be applied locally in the assessment and determination of planning applications over the plan period (2014 - 2029). Policy CSP 19 (Page 51) relates to Biodiversity, Geological Conservation & Green Infrastructure.

3.4 In relation to Sustainable Water Management, Policy DP21 (Page 56) deals with Sustainability Water Management, Water Quality, Ecology, Hydromorphology and Flood Risk. Policy DP21(E) relates to Flood Risk and states the following:

"E. Development within flood risk zones 2 and 3 or on sites of 1 hectare or greater in zone 1, and sites at medium or high risk from other sources of flooding as identified by the Council's Strategic Flood Risk Assessment, will only be permitted where:

1. The sequential and, where appropriate, exception tests as detailed in 'Technical Guidance to the National Planning Policy Framework'(32) have been applied and passed and the proposal is a development form compatible with the level of risk;

2. For all sources of flood risk, it can be demonstrated through a site specific Flood Risk Assessment (FRA) that the proposal would, where practicable, reduce flood*

risk both to and from the development or at least be risk neutral; and

3. Appropriate flood resilient and resistant design, and mitigation and adaptation measures are included in order to reduce any level of risk identified through a site specific FRA to acceptable levels.

** The FRA should demonstrate how flood risk is to be mitigated, development adapted and, where practicable, risk reduced including the consideration of risks from other sources where appropriate. The content and scope of the FRA should be commensurate with the scale of development and be agreed by the District Council in consultation with the Environment Agency."*

3.5 Surrey County Council acting in their role and Lead Local Flood Authority (LLFA), confirmed on the 4 August 2025 they have no objection to the proposals subject to conditions. Refer to **Appendix B** for LLFA correspondence (**CD3.2J**).

3.6 The Council has confirmed that flood risk is not a reason for refusal and have stated in the Officers Report para. 124, Page 43 of PDF and Statement of Case para. 16.1, Page 33 (**CD3.1 and CD7.1 respectively**) that *"with the exception of continuity of surface water runoff to feed The Bogs, the provisions of the NPPF and Tandridge Local Plan Part 2 Detailed Policies (P2DP) policy DP21(E) are satisfied and this is a matter that attracts neutral weight in the planning balance."*

3.7 Refer to **Appendix C** for relevant extracts of Tandridge District Council Core Strategy (**CD4.1**) (Adopted October 2008), Policy CSP 17 and the Tandridge Local Plan Part 2 (**CD4.2**): Detailed Polices 2014-2029 (Adopted July 2014), Policy DP21(E).

4 Review of the Conceptual Hydrological Approach Taken and the Hydrological Impacts on The Bogs

4.1 This section presents a review of the conceptual hydrological model approach adopted, along with an assessment of the hydrological impacts on The Bogs. It outlines how the methodology applied by Ardent Consulting Engineers (hereafter referred to as Ardent) represents the most robust approach for evaluating the hydrological approach and potential effects on The Bogs.

Conceptual Hydrological Approach

4.2 Conceptual hydrological models are simplified representations of the hydrological cycle designed to help simulate and understand how water moves through a catchment. The models comprise the basic components of the hydrological cycle such as rainfall, soil moisture, evaporation, runoff, and groundwater and represent how water interacts between them.

4.3 In general, there are three types of conceptual hydrological models which are as follows:

1) **A Lumped Model** which is where you treat the catchment as a single big area, so there is one calculation for flow at the catchment outlet;

2) **Semi-Distributed Model** which is where the catchment is divided into smaller sub-catchments, where there are several outflows, one from each sub-catchment; and

3) **Distributed Model** which is where the catchment is split into a grid system, where the flow of water within the catchment is calculated within each grid as flows pass through the catchment

Refer to **Figure 4.1** below for example of the above three conceptual hydrological models.

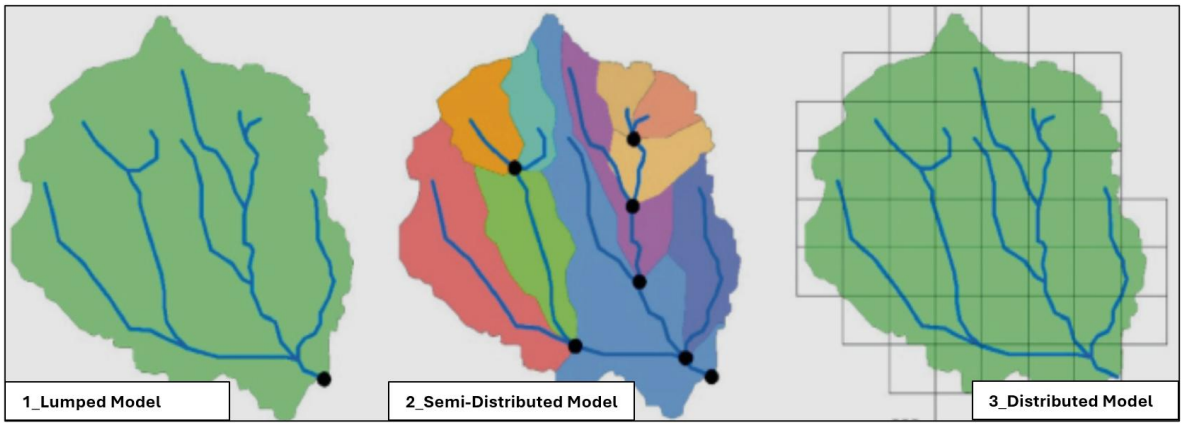

Figure 4.1: Types of Conceptual Hydrological Models

4.4 The Council in their SoC para. 13.2, Page 27 **(CD7.1)** stated that *"The hydrologist's*

evidence will detail what the assessment should provide, ***that is developing a conceptual hydrological model of The Bogs and wet woodland****, and in particular showing the importance of the contribution of flow from the development site."* **(My Emphasis)**

4.5 Ardent undertook hydraulic and hydrological modelling exercise using TUFLOW software which is a recognised industry standard software used for simulating flooding on urban and rural catchments, urban drainage, and coastal environments. The TUFLOW software works on a grid system when quantifying flows and flood risk.

4.6 In addressing the Councils concern in relation to developing a conceptual model for The Bogs and wet woodland, it can be seen that Ardent have used a distributed model which provided the most robust assessment in quantifying flows and flood risk, thereby addressing the Councils concern. This is discussed in more detail in Section 5 of this Proof.

The Hydrological Impacts Based on the Continuity of an Adequate Water Supply to The Bogs

4.7 While the Council accept that the proposals would not result in an increase in flood risk, following the LLFA removing their objection, concern still remains following comments raised by the Council's hydrology consultant, who was initially working with the Parish Council and Local Residents Group. The comments outlined in the Council Officer's report para. 91, (Page 34 and 35 of the PDF) under the heading "*Hydrological Impacts*" **(CD3.1)** related to the Ardent Hydraulic Modelling Report 1 dated December 2024 in **Appendix D** and were as follows:"… *The importance of this surface water runoff for maintaining the ancient wet woodland habitat of The Bogs pSNCI,* ***both on-site and off-site, needs to be assessed and factored into the surface water drainage proposals for the proposed development to ensure continuity of an adequate water supply to the ancient woodland*** *and avoid any risk of deterioration of this irreplaceable habitat…."* In addition, the Councils consultant stated that the hydraulic modelling report "… *shows a reduction in flood levels to the south of the site, which would also mean a reduction in flow to The Bogs. Given the area of ancient woodland with a wet woodland dominated landscape****, a reduction in flow may not be a desirable outcome and could have adverse impacts on the biodiversity of the area. The hydraulic modelling studies should go further to demonstrate what would happen on a higher frequency lower magnitude basis*** *and look at a typical annual water balance to identify the full impact to The Bogs."* **(My Emphasis)**

4.8 The Ardent Hydraulic Modelling Report 1 dated December 2024 (hereafter referred to as Ardent Modelling Report 1) in **Appendix D** and contained within Motion - FRA and Drainage Strategy Final C (27 February 2025) (**CD1.22.U**) looked at flows

entering The Bogs from the ordinary watercourse to the west, the overland flow route to the northwest, and runoff from the proposed development. The results showed that water levels in The Bogs would decrease by less than 10 mm during the 1 in 100-year event plus 45% climate change.

4.9 The only factor that affected water levels in the post-development model was restricting the proposed development's surface water runoff to The Bogs via a point source (pipe discharge) to the equivalent of the 1 in 2-year flow for all storm events. This change led to a reduction in flood risk downstream.

4.10 To address the Council's concerns, a revised post development model was simulated utilising the accepted model where surface water drainage proposals for the proposed Site were restricted to existing greenfield rates. This means that flows from the development will be discharged at equivalent greenfield rates so it does not exceed or reduce the natural runoff rate that would occur if the land were undeveloped (greenfield). As a result, the post-development catchment model was revised with rainfall applied across the entire Site, replicating the pre-development scenario with runoff generated in the model at greenfield rates. In addition, higher frequency lower magnitude events were also run as requested. This Ardent Hydraulic Modelling Report dated October 2025 (hereafter referred to as Ardent Modelling Report 2) was contained within the Motion Technical Note 3 issue to the Council in November 2025. A copy of the Ardent Modelling Report 2 dated October 2025 is within **Appendix D**.

4.11 In addition, following a meeting with the Council on the 14 November 2025, concern was raised about point discharges from the Site into The Bogs. To address this concern the Appellant undertook an additional modelling exercise. This work replicated the previous work agreed with the LLFA, the only other change to the post-development model was that rainfall was excluded from the developed area of the Site as this will be managed by the on-site drainage network. The discharge rates from the Site to The Bogs were restricted to a variable greenfield runoff rates for all return periods as specified in the drainage strategy. This means that the proposed discharge rate would increase with the severity of the rainfall event but remain equivalent to the existing greenfield runoff rate, to avoid increasing flood risk. This maximum discharge rate was applied for the duration of the model simulations. The results of this modelling exercise are outlined in Ardent Modelling Note 3 dated December 2025 and contained in **Appendix D**.

4.12 The above work was undertaken to address the Council's concern in relation to 1), continuity of an adequate water supply to The Bogs and 2), additional higher frequency lower magnitude events were assessed to quantify the impact of flows into The Bogs. This is discussed in more detail in Section 6 of this Proof.

Timeline of Submitted Reports

4.13 Over the course of the application and appeal process, the appellant has submitted a number of reports in relation to quantifying flood risk and flows to The Bogs. These changes have been undertaken as part of formal discussions with statutory consultees. These reports and the variation in the key parameters for the drainage strategy are summarised in **Table 4.1** below.

Table 4.1: Chronology Order of Events

Date	Event	Reference
27 February 2025	Issue of Ardent Hydraulic Modelling Report 1 to LLFA within Motion Technical Note 1 (**CD1.22.U**)	Ardent Hydraulic Modelling Report 1 – December 2024 Ref: *2404420-ACE-XX-XX-RP-C-0501AA*
8 July 2025	Objection by LLFA	LLFA Letter objection on flood risk grounds Ref: LLFA-TA-25-0769
24 July 2025	Motion Technical Note in response to LLFA comments	Motion Technical Note 2 (**CD2.13**)
04 August 2025	LLFA remove their objection subject to conditions	LLFA letter (**CD3.2.J**) Ref: LLFA-TA-25-0769RevA
November 2025	Issue of Ardent Hydraulic Modelling Report 2 within Motion Technical Note 3	Ardent Hydraulic Modelling Report 2 - October 2025 Ref:2404420_A-ACE-XX-XX-RP-C-0321
19 December 2025	Issue of Ardent Hydraulic Modelling Report 3 within Hydrology Proof of Evidence (**CD6.8**)	Ardent Hydraulic Modelling Report 3 - December 2025 Ref:2404420_A-ACE-XX-XX-RP-C-0401

5 Conceptual Hydrological Modelling Approach

5.1 The Council's hydrology consultant raised concern in relation to the approach taken by the Appellant in relation to the conceptual hydrological modelling. In the Councils SoC para. 13.2, Page 27 **(CD7.1)** stated that *"…The hydrologist's evidence will detail what the assessment should provide,* ***that is developing a conceptual hydrological model of The Bogs and wet woodland****, and in particular showing the importance of the contribution of flow from the development site.*

5.2 At a meeting with the Council's expert on the 14 November 2025, I explained our approach and identified that our distributed conceptual hydrological modelling was the most robust approach we could have taken in term of what is reasonable approach for a development of this type.

Elements of the Conceptual Hydrological Model

5.3 As stated above, hydrological conceptual models are simplified representations of the hydrological cycle designed to help simulate and understand how water moves through a catchment. The models comprise the basic components of the hydrological cycle such as rainfall, soil moisture, evaporation, runoff, groundwater and topography and represent how water interacts between them.

5.4 The hydrological conceptual model used here was comprised of a number of separate elements. These elements comprise of the following input data obtained from the Flood Estimation Handbook Web Service and software utilised to generate and simulate flows within the catchment in the pre and post development scenarios:

A. The **FEH22** rainfall depth-duration-frequency curves which is then used to generate specific design storm rainfall in specific software (ReFH2);

B. The **FEH** catchment descriptors which comprise in part the following;

- **AREA** - Catchment drainage area (km2).
- **SAAR** – Standard Average Annual Rainfall (mm).
- **URBEXT** – Extent of urbanisation, accounting for increased runoff.
- **BFIHOST** - Baseflow Index derived from soil type; indicates permeability and catchment storage.
- **DPLBAR** - Mean drainage path length, representing catchment size and drainage path configuration.
- **DPSBAR** - Mean drainage path slope, providing an index of catchment steepness.
- **PROPWET** - An index representing the proportion of time that soils are wet; influences soil moisture and runoff response.

C. The **ReFH2** software was used to generate rainfall profiles for the catchment for various storm events (1 in 1yr, 2yr, 5yr, 10 yr, 30yr, 100yr, 100yr + 45% Climate Change and 1000 yr or equivalent Annual Exceedance Probability (AEP) events 100%, 50%, 20%, 10%, 3.3%, 1%, 1%+45% CC and 0.1%).

D. The **TUFLOW** hydraulic model was used to route flows through the catchment as well as pick up the existing sewer catchment to the north of the railway line and surface water discharge from the proposed development.

5.5 The TUFLOW model applied rainfall profiles to quantify hydrological responses across both the urban and rural components of the catchment for different storm durations, thereby defining the surface water flow pathways discharging towards The Bogs. The modelling enabled a comparison of pre and post-development inflows to The Bog hydrological system, capturing changes in runoff generation and routing resulting from the proposed scheme.

5.6 The methodology employed a distributed conceptual hydrological modelling approach, which is recognised as the most robust and proportionate technique for evaluating catchment-scale hydrological impacts associated with a development of this nature. Therefore, in my opinion the conceptual hydrological modeling undertaken is robust.

Conclusion

5.7 The concerns raised by the Council's consultant have been addressed, and the modelling approach has been clearly explained. The distributed conceptual hydrological model drawing on FEH22 data, ReFH2 rainfall profiles, and TUFLOW hydraulic routing provides a comprehensive and proportionate assessment of pre- and post-development hydrological conditions. It captures all relevant flow pathways affecting The Bogs and reliably quantifies changes in runoff and routing associated with the proposed scheme. It is my opinion, the hydraulic and hydrological modelling approach is technically robust and appropriate for evaluating the development's hydrological impacts.

6 Continuity of an Adequate Water Supply to The Bogs

6.1 The Council have raised concerns in relation to the continuity of adequate water supply to The Bogs. In addition, the Council have requested that the hydraulic modelling studies should go further to demonstrate what would happen during higher frequency lower magnitude events. The aim is to quantify the various flows entering The Bogs for a range of storm events.

Pre-Development Catchment Modelled

6.2 The Site locations and surrounding area are shown in **Figure 6.1** below. Additionally, the approximate catchment areas draining to The Bogs are shown in **Figure 6.2**, with the catchment areas estimated from Environment Agency 1m LiDAR Digital Terrain Model (DTM) elevation data.

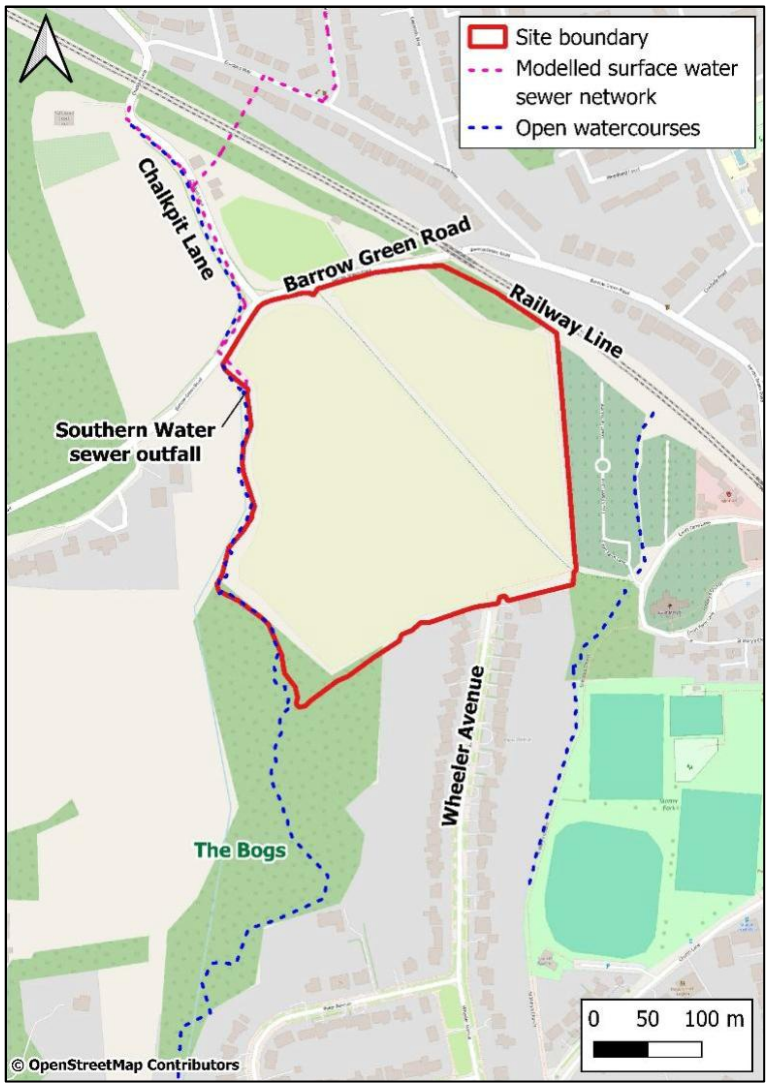

Figure 6.1: Site Location Plan

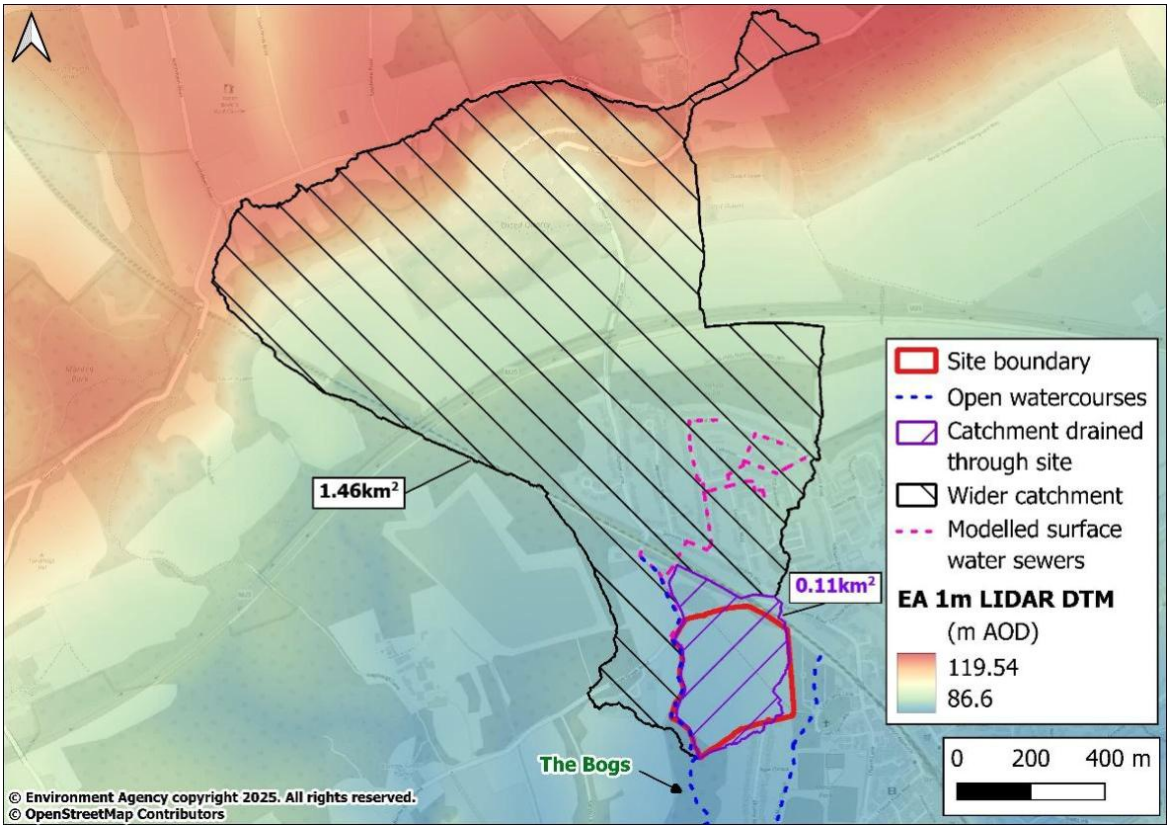

Figure 6.2: Catchment areas draining to The Bogs during rainfall events

6.3 The Bogs are primarily fed by an ordinary watercourse running along the western Site boundary. The ordinary watercourse receives flows from a Southern Water 1220mm diameter surface water sewer network draining a residential area to the north of the railway line. The sewer outfalls to the watercourse adjacent to the northwest corner of the Site. The sewer network mapping is provided in **Appendix E**. An open ditch also runs along Chalkpit Lane before connecting into the surface water sewer network at Barrow Green Road. Refer to **Figure 6.3** below.

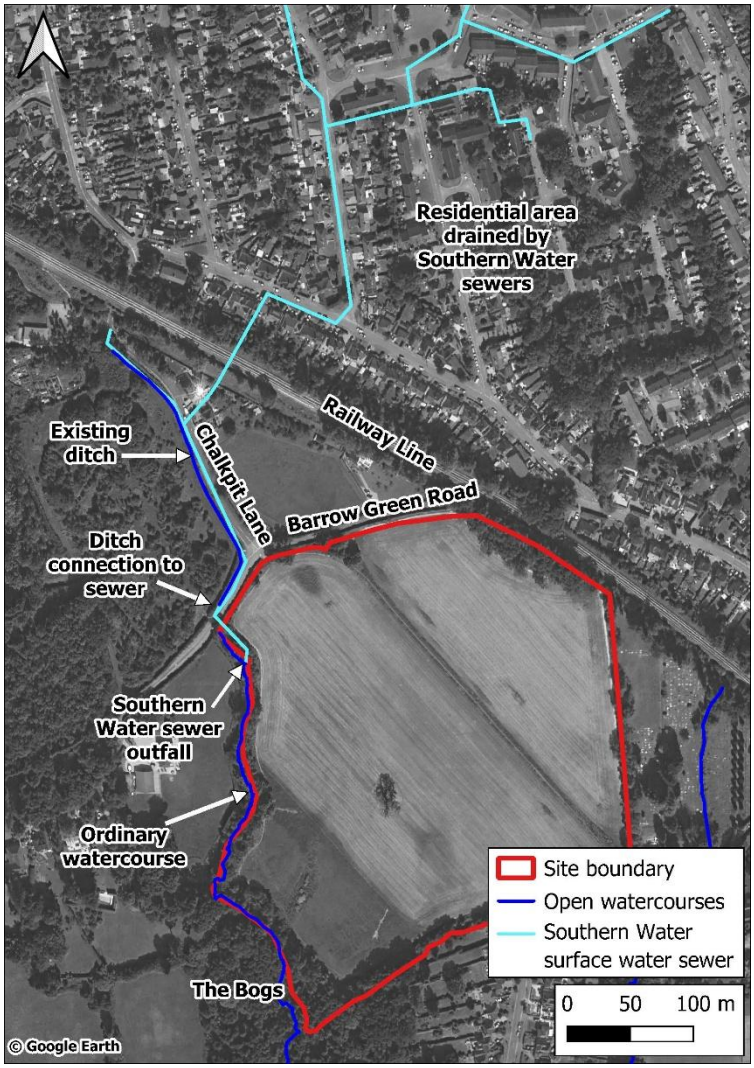

Figure 6.3: Existing Watercourse and Southern Water Sewer

6.4 During a typical rainfall event, the sewer network and ordinary watercourse drain an area of approximately 1.46km2 to The Bogs at the downstream extent of the Site.

6.5 The sub-catchment in which the Site is located drains through to The Bogs via a topographic catchment with an area of approximately 0.11km2. The Site itself has an area of 0.097km2. This sub-catchment and Site area represents 7.5% and 6.6% of the catchment contributing to flows passing through The Bogs respectively.

6.6 To allow for the impacts on The Bogs to be assessed, higher frequency, lower magnitude storm events and lower frequency, higher magnitude storm events were assessed in the pre- and post-development scenario. A hydrological assessment undertaken as part of the existing accepted hydraulic modelling was updated to derive new rainfall profiles for the higher frequency, lower magnitude events using ReFH2 methodologies. The assessment was undertaken in line with the approach used within the existing accepted modelling.

6.7 Rainfall hyetographs (rainfall profiles) were generated for the 1 in 1-year, 1 in 2-year, 1 in 5-year, 1 in 10-year, 1 in 30-year, 1 in 100-year, and 1 in 100-year plus

45% climate change uplift storm return periods (Equivalent Annual Exceedance Probability (AEP) events 100%, 50%, 20%, 10%, 3.3%, 1% and 1%+45% CC). The design and net rainfall profiles were derived and the net rainfall applied to the model in line with the approach used in the existing accepted model. The net rainfall means the amount of rainfall that runs off, including any losses, differing from the amount that falls.

Post-Development Catchment Modelling

December 2024 Ardent Model

6.8 Within the accepted post-development modelled scenario in the Ardent Modelling Report 1, the overall catchment model previously removed rainfall from the developed Site catchment as this area was picked up by the Site surface water piped drainage design. The outflow from the surface water network was applied as a point inflow within the overall catchment model. The outflow from the surface water drainage network was applied at a constant rate restricted to a 1 in 2-year greenfield discharge rate for all rainfall events.

October 2025 Ardent Model – Diffuse Discharge

6.9 The Ardent Modelling Report 2, restricted surface water runoff from the Site to variable greenfield runoff rates. This means that flows from the development will be discharged at equivalent greenfield rates so it does not exceed or reduce the natural runoff rate that would occur if the land were undeveloped (greenfield runoff rate). As a result, the post-development catchment model was revised with rainfall applied across the entire Site, replicating the pre-development scenario with runoff generated in the model at greenfield rates.

6.10 This approach allows for a direct comparison between the pre- and post-development scenarios to demonstrate the impacts of the ground level modifications associated with the development on flows reaching The Bogs.

December 2025 Ardent Model – Point Discharge

6.11 Following a meeting with the Council on 14 November 2025, concerns were raised regarding the potential effects of point discharges from various storm events on flows within The Bogs. These concerns relate to the difference between the existing pre-development condition, in which surface water enters The Bogs primarily as diffuse surface water overland runoff, and the post-development scenario, in which runoff would be conveyed to The Bogs via defined point discharges. Refer to **Figure 6.4** below.

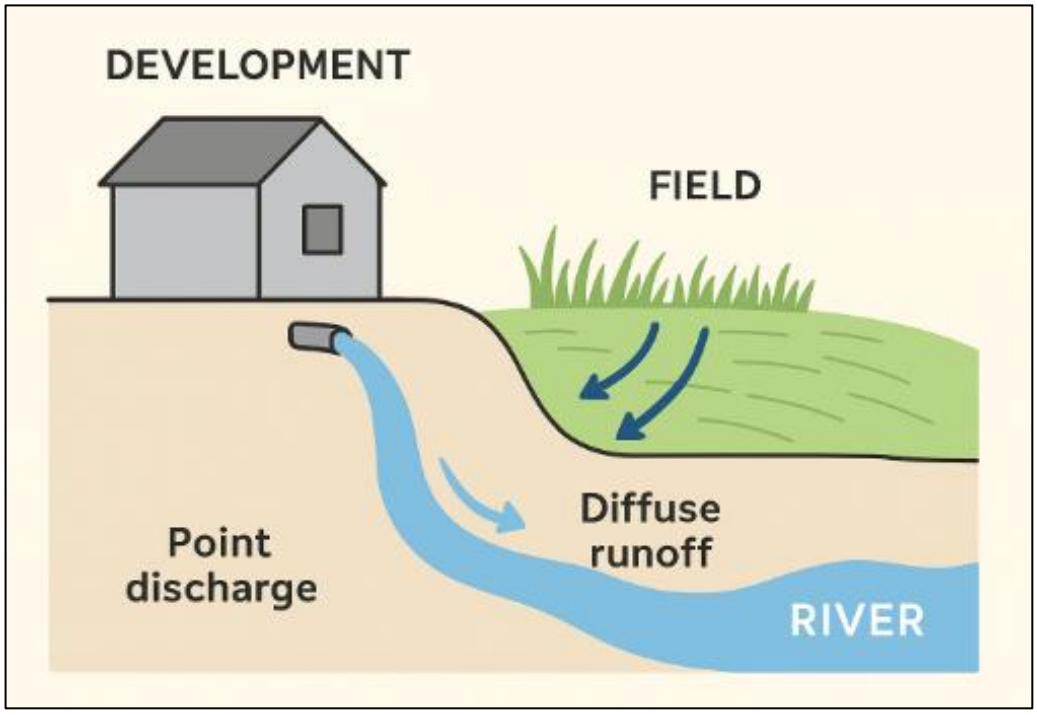

Figure 6.4: Diffuse and Point Surface Water Runoff

6.12 Consistent with the accepted post-development scenario presented in Ardent's December 2024 modelling report (Ardent Modelling Report 1), the overall catchment model excluded direct rainfall over the developed Site, as runoff from this area is intercepted and conveyed by the proposed surface water piped drainage network. The discharge from this network was represented within the catchment model as a point inflow at two locations for all storm events assessed. The outflow from the proposed Site drainage system was applied at a controlled, variable greenfield runoff rate corresponding to each rainfall event modelled, ranging from the 1 in 1-year to the 1 in 100-yr + 45% Climate Change event. The greenfield runoff rates were previously agreed between Motion, who are dealing with the onsite drainage, and the LLFA, and are identified in **Table 6.1** below, as per Appendix C of Motion Technical Note 2 dated 24 July 2025.

Table 6.1: Greenfield Runoff Rates from the Proposed Development Site

Return Period	Discharge Rate (l/s)
1 in 1-yr	10.7
1 in 2 yr	11.1
1 in 10-yr	20.5
1 in 30-yr	29.1
1 in 100-yr	40.3

Development Proposals

6.13 The development proposals include ground level reprofiling and the formation of an overland flow diversion route along the western boundary of the Site to redirect exceedance flows away from residential areas during extreme rainfall events. The proposed channel varies in depth from approximately 0.3m to 0.5m and in width

from 8m to 15m. No modifications are proposed to the existing watercourse located along the western edge of the Site.

6.14 The post-development scenario was updated to ensure the latest configuration of the reprofiling was represented, including the interaction with proposed drainage basins designed to be set above the peak flood levels during the 1 in 100-year plus 45% climate change storm event. As with the previous modelling, post-development ground levels represented within the model are indicative and subject to detailed design.

6.15 Flow result lines were added to the pre- and post-development models. These flow result lines will assess flows entering The Bogs in the pre and post development scenario and their impact.

6.16 No other updates were made to the pre- and post-development model, with the modelling undertaken in line with the existing accepted model that was used to inform the Motion - FRA and Drainage Strategy Final C (27 February 2025).

6.17 The revised pre- and post-development models were run for the following storm events: 1 in 1-year, 1 in 2-year, 1 in 5-year, 1 in 10-year, 1 in 30-year, 1 in 100-year, and 1 in 100-year plus 45% climate change uplift (Equivalent Annual Exceedance Probability (AEP) events 100%, 50%, 20%, 10%, 3.3%, 1% and 1%+45% CC).

Modelling Results Pre-Development Scenario

6.18 The peak modelled flood extents during the pre-development scenario are shown in **Figure 6.5**. The model outputs show that during the higher frequency, lower magnitude storm events, flows conveyed towards The Bogs are predominantly via the ordinary watercourse that is fed by flows from the Southern Water sewer and wider catchment. The overland flow path through the Site is predicted to form only during lower-frequency, higher-magnitude storm events, specifically during extreme storms equal to or greater than the 3.3% AEP (1-in-30-year) event.

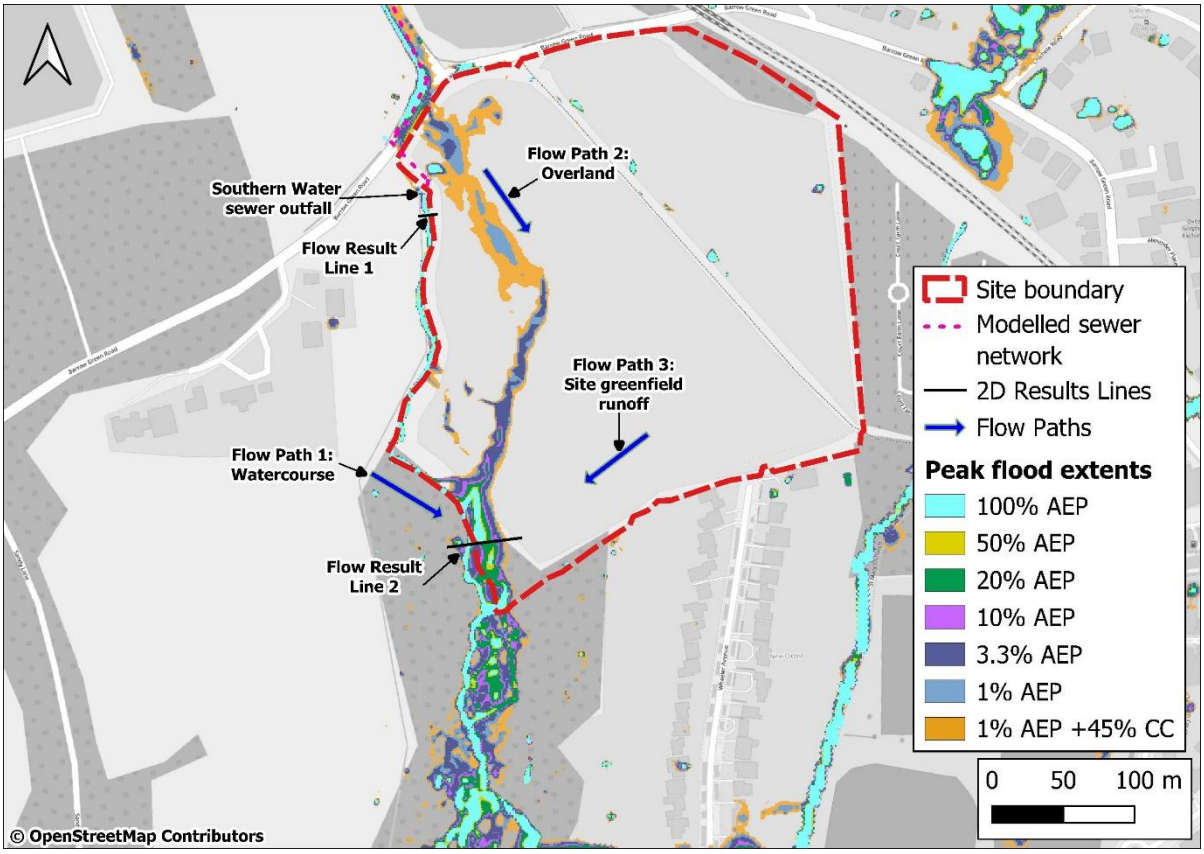

Figure 6.5: Pre-development scenario peak modelled flood extents

6.18 The first peak flow result line (1) is located within the ordinary watercourse immediately downstream of the outfall from the Southern Water sewer (result line 1). The second peak flow result line (2) is located within The Bogs at the downstream extent of the Site (result line 2). The flows associated with the various events are shown in **Table 6.2**. The locations of the flow result lines are shown in **Figure 6.5**.

Table 6.2: Pre-Development peak flows at results lines shown in Figure 6.5

Return period	Results Line peak flow (m^3/s)			
	1	2	Difference	% Flow within Watercourse
1 in 1-year	0.17	0.19	0.02	89
1 in 2-year	0.22	0.24	0.02	92
1 in 5-year	0.41	0.45	0.04	91
1 in 10-year	0.55	0.61	0.06	90
1 in 30-year	0.79	1.09	0.3	72
1 in 100-year	0.87	1.42	0.55	61
1 in 100-year + Climate Change	0.99	2.1	1.11	47

6.19 During the lower magnitude events most of the flows reaching The Bogs are from the ordinary watercourse. During the 100% AEP event (1 in 1-yr) there is only a minor increase of 0.02m^3/s in the peak flow between the outfall of the sewer

network and the downstream extent of the Site, with an increase of 0.02m^3/s also predicted during the 50% AEP event (1 in 2-yr). Refer to **Table 6.2** above.

6.20 During the higher magnitude events flows also reach The Bogs via the overland flow path through the Site, resulting in a greater difference in the peak flows between the outfall from the Southern Water sewers and the downstream extent of the Site. For example, an increase of 0.30m^3/s is predicted during the 3.3% AEP event (1 in 30-yr) and an increase of 0.55m^3/s in the 1% AEP event (1 in 100-yr).

6.21 It can be seen that the watercourse provided the larger contribution of flows to The Bogs for all return periods other than the climate change event. This is where the larger overland surface water flow path, which is generated by out of bank flows from the ditch watercourse along Chalk Lane to the north west of the Site, has a greater flow than the flows within the watercourse. Therefore, this pre-development modelling has shown that the continuity of an adequate water supply to The Bogs is more sensitive to flows reaching The Bogs via the existing watercourse flow path (1) rather than (2) the overland flow path (other than the climate change event) and (3) from the development Site itself. Refer to **Figure 6.5 and Table 6.2** above.

Modelling Results Post-Development Scenario – Diffuse Discharge Greenfield Runoff Rates from the Site

6.22 The peak modelled flood extents during the post-development scenario are shown in **Figure 6.6**.

6.23 As with the pre-development scenario, no overland flow path is predicted to form during the lower magnitude events. During the storm events larger than and including the 3.3% AEP event (1 in 30-yr) the overland flows are modelled to be diverted around the western area of the Site by an overland flow diversion route away from the residential development. The ground level reprofiling is designed to divert the flows back towards The Bogs in the same location as the pre-development scenario.

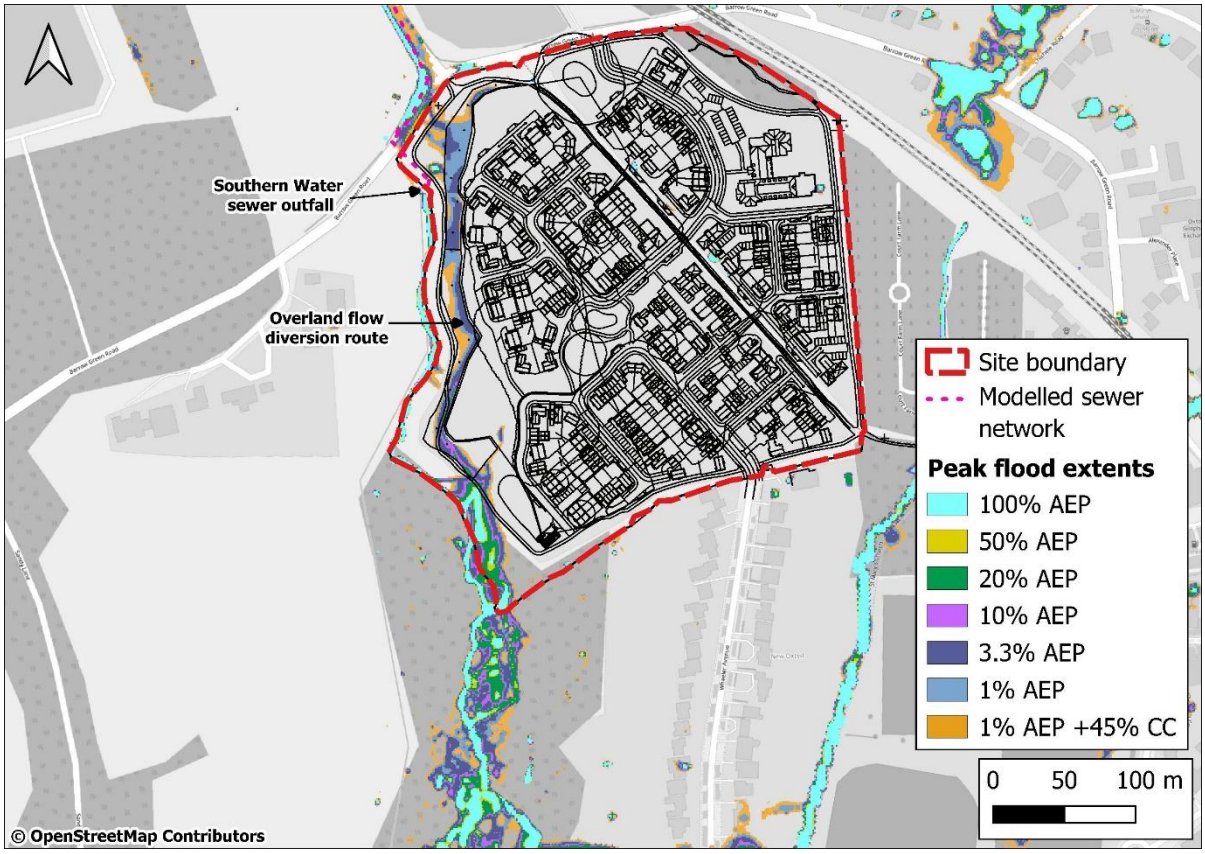

Figure 6.6: Post-development scenario peak modelled flood extents - *Diffuse Discharge Greenfield Runoff Rates from the Site*

Impact of proposals on flows to The Bogs with Diffuse Discharge Greenfield Runoff Rates from the Site

6.24 The peak flows during the pre-development and post-development scenarios for all modelled events for result lines 1 and 2 (see **Figure 6.5**) are shown in **Table 6.3**.

Table 6.3: Pre- and Post-development peak flows at results lines in Figure 6.5

	Results Line peak flow (m^3/s)							
Results Line	**1**				**2**			
Return Period	Pre-development	Post-development	Change	% Change	Pre-development	Post-development	Change	% Change
1 in 1-year	0.17	0.17	0	0	0.19	0.19	0	0
1 in 2-year	0.22	0.22	0	0	0.24	0.24	0	0
1 in 5-year	0.41	0.41	0	0	0.45	0.47	+0.02	4
1 in 10-year	0.55	0.55	0	0	0.61	0.63	+0.02	3
1 in 30-year	0.79	0.79	0	0	1.09	1.09	0	0
1 in 100-year	0.87	0.87	0	0	1.42	1.41	-0.01	-1
1 in 100-year + Climate Change	0.99	0.99	0	0	2.1	2.1	0	0

6.25 The development proposals will have no impact on flows reaching The Bogs via the ordinary watercourse. This is supported by the fact that during each modelled event there is predicted to be no change to the flows in the watercourse immediately downstream of the Southern Water outfall (flow path 1).

6.26 The comparison of peak flows at the downstream extent of the Site also shows a negligible impact in the peak flows reaching The Bogs during each modelled event. The model results therefore demonstrate that the proposed ground level modifications (flow path 2) within the Site and the defuse greenfield variable discharge rates (flow path 3) from the proposed Site have a negligible impact on the flows entering The Bogs.

6.27 This analysis has shown that the main flows to The Bogs remain to be from the watercourse and will not change post development. In addition, the negligible changes in flows identify a continuity of an adequate water supply to The Bogs for all storm events (higher frequency, lower magnitude storm events and lower frequency, higher magnitude storm events).

Modelling Results Post-Development Scenario - Point Discharge Greenfield Runoff Rates from the Site

6.28 The only changes made to the post-development modelling for the diffuse variable discharge greenfield runoff rates from the Site, is that the variable greenfield runoff

rates were extracted from the Motion onsite drainage model and incorporated into the catchment model as point discharges. In addition, rainfall was removed from the developed Site catchment as this area was picked up by the Site surface water piped drainage.

6.29 The peak modelled flood extents during the post-development scenario are shown in **Figure 6.7** below.

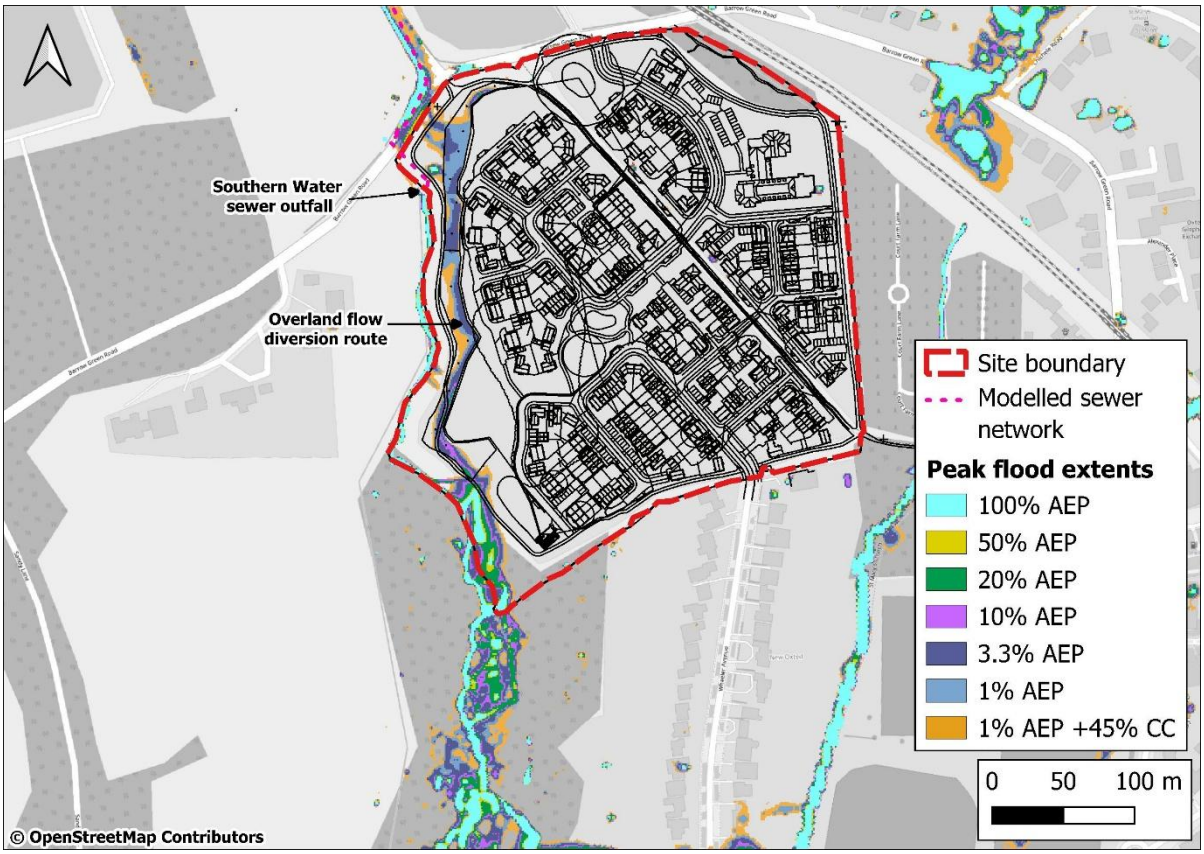

Figure 6.7: Post-development scenario peak modelled flood extents – ***Point Discharge Greenfield Runoff Rates from the Site***

Impact of proposals on flows to The Bogs with Point Discharge Greenfield Runoff Rates from the Site

6.30 The peak flows during the pre-development and post-development scenarios for all modelled events for result lines 1 and 2 (see **Figure 6.5**) are shown in **Table 6 4**.

Table 6.4: Pre- and Post-development peak flows at results lines in Figure 6.5

	Results Line peak flow (m^3/s)							
Results Line	**1**				**2**			
Return Period	Pre-development	Post-development	Change	% Change	Pre-development	Post-development	Change	% Change
1 in 1-year	0.17	0.17	0	0	0.19	0.19	0	0
1 in 2-year	0.22	0.22	0	0	0.24	0.24	0	0
1 in 5-year	0.41	0.41	0	0	0.45	0.46	0.01	2
1 in 10-year	0.55	0.55	0	0	0.61	0.62	0.01	2
1 in 30-year	0.79	0.79	0	0	1.09	1.06	-0.03	-3
1 in 100-year	0.87	0.87	0	0	1.42	1.37	-0.05	-4
1 in 100-year + Climate Change	0.99	0.99	0	0	2.1	2.03	-0.07	-3

6.31 As with the above post-development modelling, the development proposals will have no impact on flows reaching The Bogs via the ordinary watercourse. This is supported by the fact that during each modelled event there is no change to flows in the watercourse predicted immediately downstream of the Southern Water outfall (flow path 1).

6.32 The comparison of peak flows at the downstream extent of the Site also shows a negligible impact in the peak flows reaching The Bogs during each modelled event. The model results therefore demonstrate that the proposed ground level modifications (flow path 2) within the Site and the point discharge variable greenfield rates (flow path 3) from the proposed Site have a negligible impact on the hydrology of The Bogs. Therefore, the negligible changes in flows identify a continuity of an adequate water supply to The Bogs for all storm events (higher frequency, lower magnitude storm events and lower frequency, higher magnitude storm events).

Modelling Results Conclusions

6.33 The additional modelling runs undertaken, including both diffuse and point-discharge post-development scenarios across the full range of storm events, demonstrate the proposed development will not adversely affect the continuity of water supply to The Bogs. The analyses consistently show flows conveyed to The Bogs remain dominated by the ordinary watercourse, with only negligible differences in peak flows between the pre- and post-development conditions and as such, the impact is appropriately

assessed as neutral. The modelling therefore confirms that a continuity of an adequate water supply to The Bogs for all storm events to The Bogs will be maintained for all assessed storm frequencies and magnitudes.

7 Conclusions

7.1 The purpose of this evidence has been to address the two remaining areas of disagreement between the Appellant and the Council: (1) the necessity for any further conceptual hydrological modelling beyond that already undertaken, and (2) whether the proposed development would interrupt or diminish the continuity of an adequate water supply to The Bogs ancient woodland and pSNCI. These matters underpin Key Issue 6 and Key Issue 9 in the Council's Officer Report and Statement of Case.

Requirement for a Further Conceptual Hydrological Model

7.2 The Council's Statement of Case asserts that the hydrological assessment should provide a conceptual hydrological model of The Bogs and wet woodland, and in particular show the importance of the contribution of flow from the development Site. My proof has demonstrated that such a conceptual model has in fact already been provided through the hydraulic modelling undertaken by Ardent.

7.3 The modelling deployed, ReFH2-generated net rainfall profiles, and a TUFLOW hydraulic model, which routes rainfall-derived runoff, sewer discharges, and overland exceedance flows across both the urban and rural components of the catchment. A distributed model is, by definition, a conceptual hydrological model, but of higher sophistication than lumped or semi-distributed alternatives.

7.4 This constitutes the most rigorous and proportionate method available for a development scale assessment. Distributed modelling is standard industry practice for hydrological impact assessments in complex mixed catchments. Therefore, there is no technical justification for requiring an additional, separate conceptual model, as all hydrological pathways to The Bogs, including the relative scale of the Site's contribution which have already been represented within the model.

7.5 Accordingly, it is my view that the conceptual hydrological approach adopted is robust, appropriate, compliant with best practice, and satisfies the requirement identified by the Council. It is therefore my opinion that no further conceptual hydrological modelling is necessary.

Continuity of an Adequate Water Supply to The Bogs

7.6 The second issue concerns whether the development would threaten the continuity of water supply to The Bogs. The Council's concern originated from an interpretation of early modelling outputs suggesting marginal reductions in flood levels downstream of the Site. These concerns have been addressed comprehensively through the updated hydrological and hydraulic simulations undertaken in October and December 2025.

7.7 The pre-development modeling showed that The Bogs is predominantly sustained by flows from the 1.46 km² upstream catchment conveyed via the Southern Water surface water sewer and the ordinary watercourse to the west of the Site. As no works are proposed to the watercourse, the main flows to The Bogs will continue to be from the ordinary watercourse.

7.8 The catchment within which the Site sits is located immediately upstream of The Bogs and represents approximately 0.11 km² of natural catchment area. This is around 7.5% of the total contributing catchment area and plays a minor hydrological role in relation to the dominant inflows entering The Bogs.

7.9 Two post-development modelling scenarios were examined to address the Council's concerns:

A. **Diffuse discharge greenfield surface water runoff from the Site;** in which rainfall is applied uniformly across the Site replicating greenfield runoff in the post-development catchment scenario; and

B. **Point discharge greenfield surface water runoff from the Site**; in which the Site's surface water network intercepts runoff, and the resulting point discharges regulated to variable greenfield runoff rates which are incorporated into the catchment model and discharge to The Bogs at the corresponding greenfield runoff rates for each of the rainfall events assessed.

7.10 Both approaches demonstrate that post-development peak flows into The Bogs result in negligible changes for all storm events from the 1 in 1-year to the 1 in 100-year plus 45% climate change allowance, including the high-frequency, low-magnitude events specifically requested by the Council. As such, the impact to The Bogs in terms of flows is appropriately assessed as neutral.

7.11 Based on all evidence provided, it is my opinion that the proposed development will not compromise, diminish, or interrupt the continuity of an adequate water supply to The Bogs. The hydrological regime supporting the wet woodland will remain functionally unchanged.

Overall Conclusion

7.12 In conclusion, the hydrological assessments undertaken are robust, proportionate, and consistent with national and industry standards. The distributed conceptual model adopted already provides a complete representation of the catchment functioning needed to address Key Issue 6. The post-development hydrological regime has been demonstrated to preserve the continuity of an adequate water supply to The Bogs, consistent with Key Issue 9, such that the only matter of concern identified by the Council is resolved.

7.13 On this basis, there is no hydrological reason to refuse the outline planning application.

Appendices

Appendix A.1 Council's Officer Report

Application: 2025/245

Location: Land South of Barrow Green Road, Oxted

Proposal: Outline application for a residential development of up to 190 dwellings (including affordable homes) (Use Class C3), an extra care facility with up to up 80 beds (Use Class C2), together with the formation of vehicular access, landscaping, parking, open space, green and blue infrastructure, and all other associated development works. All matters reserved except access.

Ward: Oxted North

Constraints - Green Belt; Setting of the National Landscape; Proposed National Landscape; Ancient Woodland(s); Ancient Woodland(s) within 500m; Areas of Special Advertising Consent; Biggin Hill Safeguarding; Risk of Flooding from Surface Water - 30; Risk of Flooding from Surface Water - 100; Risk of Flooding from Surface Water - 1000; Tree Preservation Order(s) within 10m; Potential Sites Nature Conservation Interest area(s); Railway Line(s) within 30m; Public Right of Way; Source Protection Zone 3.

RECOMMENDATION: REFUSE

Summary

1. The site is located within the Green Belt and the application has been assessed in accordance with relevant policies relating to protection of the Green Belt. The proposal would result in inappropriate development, which is by definition, harmful to the Green Belt. Further harm would arise from the introduction of development into open countryside assessed to be a valued landscape. The application site is also in the setting of the Surrey Hills National Landscape and would have an adverse impact on the designated area and, additionally, is a proposed extension to the National Landscape and that proposal would be put at risk by this development. Ancient woodland, an irreplaceable habitat, lies in the southwest corner of the application site and it has not been demonstrated that this would not be adversely impacted by the proposed development. There is also a lack of information within the application to demonstrate that there would be no wider harm to biodiversity. The proposed development is in the setting of designated heritage assets, Grade I listed St Mary's Church and Grade II listed Court Farm House, and it would cause less than substantial harm to their setting which is not outweighed by the public benefits of the development proposals. The application site is 9.7 hectares of best and most versatile agricultural land, and the development would result in a significant loss of this agricultural resource. There would also be significant adverse harm to the enjoyment of public bridleway 97 which runs diagonally across the site and is an important recreational area.

2. Overall, and notwithstanding the claimed benefits of the scheme taken together, it is considered that the benefits do not "clearly outweigh" the Green Belt and other harm. The applicant has not demonstrated 'very special

circumstances' to justify inappropriate development in the Green Belt for the purposes of paragraph 153 of the NPPF.

3. The development proposals are consequently contrary to policies of the NPPF and policies of the Tandridge District Core Strategy 2008 and the Tandridge Local Plan: Part 2 - Detailed Policies 2014 and policies of the Surrey Hills Management Plan 2020-2025.

4. The application is therefore recommended for refusal.

Site Description

5. The application site is a roughly square parcel of land with an area of 9.7 hectares (ha) or 24 acres situated to the northwest of the built-up area of Oxted town. The site is predominantly agricultural land with a small area of woodland in the southwest corner. There is a gentle but perceptible fall across the site from northeast to southwest.

6. To the north, the site is bounded by a discontinuous hedgerow on the southern side of Barrow Green Road. The Oxted to London railway line borders the northeast corner of the site. On its eastern boundary is the Oxted Parish cemetery. Southeast of the site is a small area of woodland bordering Court Farm Lane, and through which runs a public bridleway which crosses the site diagonally southeast to northwest where it links to Barrow Green Road. The southern boundary of the site is a narrow belt of trees beyond which is residential development in Wheeler Avenue, Oxted, and an area of woodland. The western boundary is along a stream which runs north to south through a narrow belt of fringing woodland and then into the woodland within and beyond the southwest corner of the site. Surface water from the application site drains to this stream.

7. In a wider context, although the site borders the built-up area of Oxted to the south and there is residential development beyond the railway embankment to the northeast, both areas of urban development are visually contained by trees and woodland. The character of the application site remains rural.

8. Other important features of note are:
   - The close proximity to designated heritage assets, namely St Mary's Church a Grade I listed building which is a short distance away from the southeast boundary of the site, Court Farm House a Grade II listed building again a short distance away to the south east of the site and Blunt House a Grade II listed building to the west of the site.
   - The woodland known as The Bogs to the southwest, part of which is within the site, and which is ancient woodland and is a Potential Site of Nature Conservation Interest.
   - The public bridleway that crosses the site which connects southwards to Master Park which is a significant open space close to the centre of Oxted town; and
   - The field is Grade 3(a) best and most versatile agricultural land (BMV).

Previous Planning History

9. Previous planning applications relating to development of the site are:
   - GOR/449/73: residential development of 22 acres of land.

- 2024/596/EIA: request for EIA Scoping Opinion for the development of 140 dwellings and 80-unit care home, with associated access, parking, and landscaping.

Key Issues

10. The key planning issues to be considered in the determination of this planning application are:

    i) Housing land supply (that is market housing, affordable housing and extra care housing) and the weight that should be afforded to this in the planning balance in the determination of this application.
    ii) Whether the application site is Green Belt or Grey Belt, given the changes to the National Planning Policy Framework, 2024 (NPPF) and subsequent changes to Planning Practice Guidance, and if Green Belt or Grey Belt, the implications for the determination of this application.
    iii) Whether the site is a valued landscape to be protected and enhanced in accordance with paragraph 187 (a) of the NPPF.
    iv) Whether the proposed development in the setting of the Surrey Hills National Landscape is sensitively located and designed to avoid or minimise adverse impacts on the designated area in accordance with paragraph 189 of the NPPF.
    v) The weight to be given as a material consideration to the proposed inclusion of the appeal site in an extension to the Surrey Hills National Landscape.
    vi) The implications of the proposed development for biodiversity, including The Bogs Potential Site of Nature Conservation Interest (pSNCI) and ancient woodland.
    vii) Whether the Biodiversity Net Gain proposals within the application can adequately offset any harm to biodiversity arising from the proposed development.
    viii) The impact (if any) of the proposed development on the significance of nearby listed buildings.
    ix) The implications for the development of surface water flood risk to which the site is subject.
    x) Whether an adequate foul drainage connection can be provided for the proposed development.
    xi) Whether the site is best and most versatile agricultural land and the planning implications if so, given the provisions of paragraph 187 b) and footnote 65 of the NPPF.
    xii) The implication of the proposed development for the continued use and enjoyment of Public Bridleway 97 crossing the site as a material consideration.
    xiii) The impact of the proposed development on the character and appearance of the local area and the amenities of local residents.
    xiv) Whether the proposed development has implications for highway safety.
    xv) Whether the proposed development is sustainable; and
    xvi) Conclusions and planning balance.

Proposal

11. The applicant, Croudace Homes Ltd (the 'Applicant'), is seeking outline planning permission for a residential development of:
    - Up to 190 dwellings (Use Class C3) including 50% affordable housing.
    - An extra care facility with up to 80 beds (Use Class C2).

Application 2022/1161; Application 2022/1658; Application 2022/267; Application 2022/1523; Application 2024/1389; Application 2024/ 1393.

- Formation of vehicular access, landscaping, parking, open space, green and blue infrastructure, and all other associated development works.
- All matters are reserved for subsequent approval, except access. This means that information contained within the application relating to appearance of the development, scale and landscaping is illustrative and provided for information only and may vary from the details provided, although the applicant has provided a Land Use Parameter plan of the distribution of land uses across the site. This parameter plan is not illustrative.

12. For the purpose of determining the application, the applicant's Planning and Affordable Housing Statement at paragraph 4.4 states that the Proposed Development is set out on the following plans (to be approved as part of the application):

    i) Location Plan No.3129-A-1000-PL-A.
    ii) Land Use Parameter Plan No.3129-A-1200-PL-D.
    iii) Site Access Barrow Green Road Drawing 107491 PEF XX XX D H 0300 Rev P01 (in Appendix C to Transport Assessment).
    iv) Site Access Wheeler Avenue Drawing 107491-PEF-XX-XX-DR-H-0200 Rev P01 (in Appendix C to Transport Assessment)
    v) Refuse Access Barrow Green Road Drawing 107491 PEF XX XX D H 0300 Rev P01 (in Appendix C to Transport Assessment).

    Then at paragraph 4.6 of the Statement, supporting plans submitted for information purposes only, comprise the following:

    i) Illustrative Masterplan No.3129-C-1005-PL-A.
    ii) Illustrative Masterplan in Context No.3129-C-1006-PL-B.
    iii) Illustrative Landscape Strategy Plan No.6514_100_A.

    It should be noted that the Illustrative Masterplan in Context No.3129-C-1006-PL-B drawing is titled Site Layout in Context with the same drawing number.

13. In addition to the application documents, it was determined prior to the submission of the application that the proposed development was "EIA development". This assessment was made by Tandridge District Council ('the Council') in accordance with the Town and Country Planning (Environmental Assessment Impact) Regulations, 2017, following a screening request on behalf of the Applicant. Accordingly, the application is accompanied by an Environmental Statement (ES).

14. The application provides for two points of vehicular access, one on the northern boundary of the site and one on the southern boundary of the site. The northern point of access is to be constructed on Barrow Green Road, a single carriageway rural road, and this is proposed to be the main vehicular access. The southern point of access is to be constructed at the northernmost point of Wheeler Avenue, across highway land which is currently covered in trees and bushes. Wheeler Avenue is also a single carriageway road providing access to housing along its length and houses in Peter Avenue.

15. In addition to these two points of vehicular access, the public bridleway that crosses the site provides access for pedestrians and horse riders between Barrow Green Road in the north and Court Farm Lane and St Mary's Church to the southeast. There are visible signs on the ground that this is a very well-

used public right of way (PRoW). The Applicant proposes that the PRoW forms the spine of the proposed residential development with a nodal vehicle crossing point and improved surfacing and low-level lighting on the southern section.

16. The Design and Access Statement (DAS) forming part of the supporting documents with the application states that the Illustrative Masterplan evolved from detailed analysis of the site's character, opportunities and constraints. Essentially, the proposed development consists of three residential areas, one occupying the eastern part of the site and including the proposed extra care facility, one occupying the southern part of the site, and one occupying the centre and northern part of the site. The eastern and northern residential areas take vehicular access exclusively from Barrow Green Road. The southern residential area takes vehicular access exclusively from Wheeler Avenue.

17. This is an outline application with all matters reserved except access. Each of the residential areas is separated from each other by what is shown on the Land Use Parameter Plan as areas of green infrastructure that incorporate landscape and ecological enhancements. The green infrastructure includes a corridor, along the existing PRoW, flanked on each side by housing with built frontage facing onto the PRoW, heightened scale and density along the central PRoW route and with a nodal vehicular crossing point on the PRoW as set out in Section 3.3 of the DAS There is a narrow fringing belt of green infrastructure illustrated along part of the northern boundary and eastern and southern boundaries of the site. A wider belt of green infrastructure runs around the remaining part of the northern boundary and western boundary of the site and includes a footpath linking the northern and southern housing development areas, a locally equipped area of play (LEAP), surface water holding basins and swales. A central, landscaped open space is illustrated separating the northern and southern residential areas and will include informal areas of open space and footpath links to the development.
    A nodal
18. The design principles set out in the DAS are accompanied by a 'Design Commitment Statement' which is intended to establish a set of core design principles to guide the scheme design at reserved matters stage.

19. The proposed land uses within the development can be summarised as:

    - Land for Housing approximately 5.4ha.
    - Land for 80-bed Care Home approximately 0.6ha.
    - Green Infrastructure (landscape amenity green space, including SuDs) approximately 3.7ha.

    Total Site area approximately 9.7ha.

    This results in an average net residential density of 35dph (190 dwellings/5.4ha). The proposed dwellings and Care Home will have a maximum height of 2.5 storeys.

20. The Planning and Affordable Housing Statement accompanying the application lists the technical reports submitted in support of the application. Some of these are standalone reports and others (such as Landscape and Visual Impact) take the form of a technical chapter within the Environmental Statement (ES), as set out below:

    Standalone Reports:

- *Planning and Affordable Housing Statement (Woolf Bond).*
- *Design & Access Statement (Omega Architects) and Design Commitment Statement.*
- *Flood Risk Assessment and Drainage Strategy (Motion).*
- *Sequential Test (RPS).*
- *Transport Assessment (including Site Access Plans) and Travel Plan (Pell Frischmann).*
- *Heritage Impact Assessment and Archaeological Desk Based Assessment (RPS).*
- *Preliminary Ecological Appraisal and Protected Species Surveys reports (The Ecology Partnership).*
- *Biodiversity Net Gain Statement and Metric Calculation (The Ecology Partnership).*
- *Agricultural Land Classification and Considerations (Kernon Countryside Consultants Ltd).*
- *Archaeological Desk Based Assessment.*
- *Energy Strategy (Energist UK).*
- *Arboriculture Impact Assessment (Barton Hyett Associates).*
- *Older Persons Needs Assessment (Tetlow King).*

Environmental Statement:

- *Volume 1: Non-Technical Summary*
- *Volume 2: Main Report*
  - *Chapter 1 - Introduction*
  - *Chapter 2 - The Site*
  - *Chapter 3 - EIA Methodology*
  - *Chapter 4 - Alternatives Considered and Design Evolution*
  - *Chapter 5 -The Proposed Development and Construction Overview*
  - *Chapter 6 - Socioeconomics*
  - *Chapter 7 - Air Quality*
  - *Chapter 8 - Noise and Vibration*
  - *Chapter 9 - Traffic and Transport*
  - *Chapter 10 - Ecology*
  - *Chapter 11 - Heritage*
  - *Chapter 12 - Landscape and Visual Impact*
  - *Chapter 13 - Effect Interactions*
  - *Chapter 14 - Residual Effects and Conclusions*
  - *Volume 3: Technical Appendices*

Development Plan Policy:

The policies to be considered in the determination of this planning application are:

Tandridge District Core Strategy 2008 - Policies CSP1, CSP2, CSP3, CSP4, CSP7, CSP8, CSP9, CSP11, CSP12, CSP13, CSP14, CSP15, CSP17, CSP18, CSP20 and CSP21 and Tandridge Local Plan Part 2 - Detailed Policies 2014 - Policies DP1, DP5, DP7, DP10, DP13, DP19 and DP20.

Supplementary Planning Documents (SPDs), Supplementary Planning Guidance (SPGs) and Non-statutory Guidance:

- Tandridge Parking Standards SPD (2012).

Application 2022/1161; Application 2022/1658; Application 2022/267; Application 2022/1523; Application 2024/1389; Application 2024/ 1393.

- Tandridge Trees and Soft Landscaping SPD (2017).
- Surrey Design Guide (2002).

National Policy and Guidance and other Material Considerations:

- National Planning Policy Framework (NPPF) (December 2024).
- Planning Practice Guidance (PPG).
- Advice on the role of the Green Belt in the planning system (MHCLG February 2025).
- National Design Guide (2019).
- Guidance for relevant authorities in seeking to further the purposes of Protected Landscapes (DEFRA, December 2024).
- 'Ancient woodland, ancient trees and veteran trees: protecting them from development'; Forestry Commission and Natural England standing advice.
- Surrey Hills AONB Management Plan 2020-2025.
- Landscape Institute Technical Guidance Note 02/21: Assessing Landscape Value a Technical Guidance Note (May 2021).

Statutory Consultation Responses:

- Oxted Parish Council: object to the application in a very detailed 52 page representation, edited extracts of which are as follows:

  "The proposal would cause irrevocable harm to a valued landscape, to the setting of the Surrey Hills National Landscape and to the
  National Landscape itself. It constitutes inappropriate development in the Green Belt for which VSC that clearly outweigh the harm by way of inappropriateness
  and any other harms have not been demonstrated. As explained later, whether taken individually or collectively, there are insufficient VSC to clearly outweigh
  the very substantial harms to the Green Belt, to the setting of the Surrey Hills National Landscape, to the existing National
  Landscape, to land that Natural England have identified site for inclusion in the extended boundary of the National Landscape, together with numerous other
  planning harms.

  We have taken expert evidence from Landscape Architect, Louise Hooper, who has concluded that Stoney Field qualifies as a valued landscape for the purposes of NPPF paragraph 187a) and that it strongly contributes to the landscape and scenic beauty of the Surrey Hills National Landscape. As well as taking expert advice, we have studied the guidance for defining a valued landscape and considered the site itself and its qualities, together with their relationship with and the role they play within the site's context.

  There would be significant harm to biodiversity and loss of irreplaceable priority habitat. There would be adverse impacts on the hydrology of the adjacent pSNCI "The Bogs" which is ancient wet woodland, particularly rare in Surrey. The Bogs is sustained by the water running off the North Downs via Stoney Field. There is a complex, multi-faceted relationship between Stoney Field and The Bogs and The Bogs is understood to depend on surface water drainage from the site to maintain its biodiversity value. We have taken expert advice from Hydro-GIS, specialists in hydrology and flood risk which has informed bothsection 5 of our letter which deals with the effect

on The Bogs and section 6 which deals with high surface water flood risk and high ground water flood risk.

Part of The Bogs ancient wet woodland is within the site as shown in various of the applicant's documents: The Arboricultural Impact Assessment confirms at paragraph 4.4 "The feature W2 is designated as Ancient Semi-Natural Woodland (ASNW)." Photograph 5 on page 26 of the Preliminary Ecology Appraisal entitled "Wet woodland in the south of the site (May 2022)" shows Ancient Wet Woodland that is part of The Bogs.

There would also be harm to The Bogs arising from the close proximity of a large housing development and associated disturbance, pollution and recreational and other pressures, where previously there was no development and where there has been minimal human interference. The applicant has given no details of how the ancient woodland both inside and outside of the site would be protected, which is wholly inappropriate given that The Bogs is a high sensitivity receptor and a large area of irreplaceable priority habitat.

NPPF paragraph 193c) provides protection for Ancient Woodland and paragraph 195 removes the presumption in favour of sustainable development where development would significantly affect a habitats site.

Loss of agricultural land: Paragraph 187(b) of the NPPF requires a recognition of the economic and other benefits of the best and most versatile agricultural land (BMV). This large field has been in agricultural arable use for centuries and the whole of it is Grade 3a BMV, as shown in the applicant's Agricultural Land Classification and Considerations document which was submitted in July 2025 as a requirement of the Council. This is in contrast to the Planning and Affordable Housing Statement which accompanied the original application which stated: "The loss of agricultural land also attracts only limited weight, given the Site is moderate/poor quality agricultural land is not classified as 'best and most versatile agricultural land." The field is high quality where crops such as wheat do well as evidenced by this year's flourishing barley crop…...

Loss of a well-used and much valued open and recreational space: The field has significant community value and provides access to the open countryside for local residents, particularly young families, from the nearby housing area and is itself very widely used for recreational purposes. Many residents use it for walks and it was a much needed, open and safe space to enjoy during the Covid restrictions, helping to preserve mental health, aid recuperation and relieve stress which it continues to do to this day.

Major adverse effect on public Bridleway 97/Right of Way which is well used by horse riders and others for recreational activities including walking, running, dog walking and cycling: The proposal is in conflict with paragraph156(c) of the NPPF because it seeks to remove an existing, high quality green space that is accessible to the public and within a short walk of many residents' homes.

Paths around and across the field have been used for many years by residents and visitors walking locally or to access the National Landscape. Three of the paths around the field are currently the subject of a rights of

way application submitted to Surrey County Council for consideration in December 2022 with usage evidence forms from more than 100 residents.

There is harm to heritage assets, in particular to the setting of St Mary's Church, a Grade 1 listed building and heritage asset. Stoney Field adjoins the burial ground and forms part of the church's setting. The church is set on elevated ground and is part of the historic core of Oxted. It has a broad 12th century tower which is a local landmark. The field and the church are also linked by Bridleway 97 and the field forms part of the church's wider rural setting. There would be major adverse effects on the setting of the church and for visitors to the church. There would also be major adverse effects on visitors to the burial ground both in visual terms and through loss of tranquillity.

There is harm from adverse impact on highway safety and highway visibility. Access to the site (either via Barrow Green Road, a narrow country lane or the residential road Wheeler Avenue) is unsuitable and neither could safely accommodate the proposed development. There would be harmful effects on road safety, pedestrian/horse riders/cyclists fear and intimidation, and driver delay. The proposed alterations to the Bridleway and its use as the central routethrough the site with heightened scale and density along it and vehicle crossings, create safety issues for all users including horseriders, cyclists, motorists and pedestrians.

There would be harm arising due to inadequate capacity within the foul sewerage network (confirmed at paragraph 8.9.6 of the applicant's EIA scoping report) and inadequate surface water drainage. Existing problems would be exacerbated. Insufficient and, in some instances, incorrect information has been provided by the applicant regarding these issues.

The proposal would also exacerbate existing problems with other infrastructure in Oxted such as the already struggling health service which is under extreme pressure.

There would be harm to the amenities of existing nearby residential dwellings in various locations including but not limited to significant effects on visual receptors, air quality, noise and traffic pollution.

Therefore, we conclude that the proposal is contrary to Core Strategy Policies: CSP11, CSP13, CSP17, CSP18, CSP20, CSP21 and Tandridge Local Plan Policies: DP1, DP5, DP7, DP10, DP13, DP18, DP19, DP20, DP21, DP22 and the NPPF (December 2024).

Applications for planning permission must be determined in accordance with the statutory development plan unless material considerations indicate otherwise. The starting point, therefore, is that permission should be refused unless material considerations indicate otherwise. We find no material considerations that would override the adopted development plan."

- County Highway Authority: no objection subject to conditions and the applicant agreeing to fund the extension of the 30 MPH speed limit on Barrow Green Road requiring a Traffic Regulation Order and signage. Should the TRO process be unsuccessful as a result of the public consultation process required to deliver it, then the CHA would require the applicant to instead provide some suitable and proportionate physical

measures in the highway to ensure that vehicle speeds are kept low in the proximity of the proposed access junction. The final version of any such scheme would be determined as part of a Section 278 Agreement process with the CHA.

- Surrey County Council, Historic Environment Planning: Archaeology: considers that further archaeological investigation work is required which can be secured through a planning condition.

- Surrey County Council, Historic Environment Planning: Historic Buildings: objects to the application because of harm to the setting of Court Farm House (Grade II) and the Church of St Mary the Virgin (Grade I) as set out in more detail in paragraphs 98 to 102 below.

- Surrey County Council, Public Rights of Way: comments that the applicant should be informed:

  - Consideration should be given to a diversion of the current exit point of Bridleway 97 to Barrow Green Road to bring the route closer to the junction with Chalk Pit Lane

  - The applicant should be made aware an application for a claimed public footpath around the perimeter of 'Stoney Field' to be added to the Definitive Map & Statement was submitted in 2023 and can be viewed at the register of definitive map modification order applications - Surrey County Council (surreycc.gov.uk); the reference number is CP612

- Designing Out Crime Officer, Surrey Police: seeks a planning condition stating "The development shall achieve standards contained within the Secure by Design award scheme to be successfully granted the award."

- Environment Agency: have assessed this application as having a low environmental risk and therefore have no comments to make.

- Lead Local Flood Authority – no objection subject to the imposition of conditions on any planning permission granted .

- Surrey Hills National Landscape Management Board:

  "In balancing the different relevant planning considerations, the Planning Authority is asked to give substantial or even great weight to the proposed development spoiling the setting of the Surrey Hills National Landscape by harming important public views into it. The current Surrey Hills AONB Management Plan Policy P6, which is a material planning consideration, resists development that would spoil the setting of the AONB/National Landscape.

  Further, the Planning Authority will need to be confident that if they were to grant permission that other relevant planning considerations outweighed the Council's duty under the Levelling-Up and Regeneration Act 2023, that it must seek to further the purpose of conserving and enhancing the natural beauty of the National Landscape which includes its setting. That may be difficult. Lastly, some significant weight should be given to Natural England and its experienced landscape advisers considering that the site meets NE's

criteria of natural beauty and desirability for National Landscape designation in its proposals for extending the Surrey Hills National Landscape."

Collectively, the above would justify a landscape reason for refusal."

- Natural England: as submitted, the application could have potential significant effects on Surrey Hills National Landscape. Natural England requires further information in order to determine the significance of these impacts and the scope for mitigation. A revised landscape masterplan is required to address our concerns together with addressing LURA duties, the site layout and open space provision. Without this information, Natural England may need to object to the proposal. Natural England also advise that great weight should be given to the views of the Surrey Hills AONB Management Board about this application.

- Network Rail: due to the close proximity of the proposed development to Network Rail's land and the operational railway, Network Rail requests the applicant / developer engages Network Rail's Asset Protection and Optimisation (ASPRO) team prior to works commencing. This will allow the ASPRO team to review the details of the proposal to ensure that the works can be completed without any risk to the operational railway. In addition, Network Rail and GTR are keen to seek funding to be used towards Oxted Station, the station could do with a few extra improvements, and we would be seeking to secure this funding from the applicant / developer. These improvements include:
  - Improvements to the cycle parking, in particular new cycle parking outside the secondary entrance, and enhancements to the current cycle parking provision outside the main entrance.
  - Enhancements and internal layout changes to the ticket hall.
  - Enhancements to the waiting shelters on the platforms.

  There are also some further enhancements that could be performed within the station which may benefit the users of the proposed development.

- London Biggin Hill Airport: no response received.

- Active Travel Planning England: standing advice issued and would encourage the local planning authority to consider this as part of its assessment of the application.

Non-Statutory Comments / Advice Received or Considered:

- Surrey Wildlife Trust: comments that the ecological information with the application is insufficient to enable a full assessment of the ecological impacts of the proposed development, as follows:
  - based upon the boundaries and extent of the pSNCI, 'The Bogs' is located within the application site. The Preliminary Ecological Appraisal (Ecology Partnership, December 2024), the Environmental Statement Volume 2 – Chapter 10: Ecology and the overall proposal submission is therefore not based upon the proposed boundary of 'The Bogs' pSNCI.

    Therefore the Preliminary Ecological Appraisal (Ecology Partnership, December 2024), the Environmental Statement Volume 2 – Chapter 10: Ecology (and the arboricultural submission) has not assessed the proposal against the full extent of the pSNCI.

- the Environmental Statement Volume 2 – Chapter 10: Ecology, and Preliminary Ecological Appraisal (Ecology Partnership, December 2024) do not demonstrate a full assessment of the potential impacts upon 'The Bogs' pSNCI (to include the ancient wet woodland) and the priority wet woodland.
- we would conclude that there is insufficient evidence for us to confirm that the proposed development will not have an adverse effect upon 'The Bogs' pSNCI, the ancient & semi natural (wet) woodland and the priority wet woodland.
- in overall review we are not satisfied with the overall evidence submitted that discounts the presence of ancient & semi-natural woodland within the red line boundary.
- we conclude that there is insufficient consideration for ground nesting birds, such as skylark in the application submission.
- there is no evidence submitted that the bird assemblage would be of low environmental value/sensitivity, as the baseline bird assemblage of the application site is unknown.
- the impact that cat predation (and any other impact) would have upon priority species of bird is unknown and is not evidenced in any of the ecological submissions.
- in the absence of any assessment for invertebrates, we have insufficient information on the species group to review the application.
- it is unclear where the assessment of 'woody' species has been provided to show evidence that it is species-poor, as opposed to species-rich. If species-rich, for example, then the biodiversity net gain assessment would need to be updated accordingly.
- it is unclear where the Important Hedgerow assessment has been reported.
- it is unclear where the assessment of 'woody' species has been provided to show evidence that it is species-poor, as opposed to species-rich. If species-rich, for example, then the biodiversity net gain assessment would need to be updated accordingly. It is unclear where the Important Hedgerow assessment has been reported.
- the Applicant has failed to provide a draft Habitat Management and Monitoring Plan. The rationale for this is not clear. However, if the application is granted, then the applicant will be required to submit a Habitat Management and Monitoring Plan, in line with a Biodiversity Gain Plan.

- Localities Team: no comments received as yet

- Surrey Police: in the absence of developer contributions towards the provision of essential policing infrastructure, Surrey Police would raise **objection**, as the additional strain placed on resources would have a negative impact on policing of both the development and force-wide policing implications within the district. Costs of additional policing infrastructure resulting from the development would be a total of £84,674.48, made up of extra officers/support staff, accommodation for 2.65 additional police officers, vehicles and additional ANPR cameras in Oxted.

Public Representations / Comments:

- A total of 318 individual or joint third-party representations have been received (on 15 August 2025) about the application:

- ❖ Four third party representation have been received (on 22 July 2025) supporting the application for the following reasons:
- ➢ Shortage of affordable housing in Oxted both to purchase and to rent
- ➢ Development may assist in reducing the disproportionately high cost of houses in Oxted
- ➢ Boost to the economy of the town centre which is failing
- ➢ Development will bring families back together and bring life back to Oxted

- ❖ The remaining representations object to the application for the following reasons:
- ➢ Site is Green Belt and protected from inappropriate development such as proposed
- ➢ No very special circumstances have been advanced that justify the proposed development
- ➢ Adverse impact on the setting of the nationally protected Surrey Hills National Landscape
- ➢ Impressive views towards the National Landscape will be lost
- ➢ Site is proposed as an extension to the National Landscape which evidences its scenic beauty
- ➢ Adverse impact through loss of open countryside by way of encroachment of urban sprawl
- ➢ Loss of linked habitats and wildlife the site supports such as dormice, red deer, red kites and hares
- ➢ Potential for adverse impact due to changes in the drainage regime, recreational pressures and pollution on The Bogs as ancient woodland
- ➢ To grant planning permission would be an abrogation of the Council's statutory duty to protect the National Landscape and its wider duty to protect the countryside
- ➢ Permanent adverse impact on the setting of the Grade I listed Church of St Mary the Virgin
- ➢ Adverse impacts on the ambience and countryside experience afforded by Public Bridleway 97 which is well-used all seasons of the year
- ➢ Loss of a valuable recreational resource close to the Oxted urban area and its wildlife interest
- ➢ Loss of a valuable informal recreation resource given the network of informal paths around the site
- ➢ Site is accessible and important to the health and well-being of many people in Oxted
- ➢ Loss of good quality agricultural land which is an economic resource in its own right
- ➢ Site is not well-located in terms of access to Oxted town centre for residents of the prosed development
- ➢ Barrow Green Road is already a dangerous road, particularly for runners, cyclists and horse riders
- ➢ Proposed access to the site from Barrow Green Road, which is a rural road, is dangerous
- ➢ Proposed access from Wheeler Avenue which is quiet cul-de-sac will be detrimental to the amenities of existing local residents along that road
- ➢ Unacceptable impacts on local services and infrastructure which are already struggling, including health services and sewage capacity

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- The development will bring pollution, noise and wider highway dangers for existing local residents
- Some recently completed housing developments in Oxted remain unsold and unoccupied.
- The fact that the Council cannot show a 5-year housing land supply does not justify this housing development which causes so much other harm.

- Surrey Countryside Access Forum (SCAF): object because the field (Stoney Field) under consideration has a Bridleway crossing it diagonally (BW97). This is much used by equestrians, walkers and cyclists. It is a pleasant rural path, with direct communication and forming the opportunity of a circular route, The ambiance and character of this path / route, which is used by many, would be completely ruined if it ended up inside and dominated by a housing estate. Concurrently, the surrounding countryside would also be completely ruined with adverse impacts on the environment, wildlife etc etc; all of which contribute to the interest of this PRoW.
- Ramblers Association: object because of adverse impact on Green Belt, existing National Landscape, proposed National Landscape extension and the recreational resource provided by Bridleway 97.
- Limpsfield Parish Council: objects - at the outset, it is acknowledged that across Tandridge district as a whole, there is an issue relating to the supply of land for housing. This is an important issue which, in our view, will not and cannot be successfully resolved through the grant of planning permission for housing on land where development would otherwise be unacceptable. In our view, the only acceptable way forward is through the preparation of the new Local Plan, through a coordinated strategic approach, which ensures that new housing development adds to, rather than detracts from, the character and sustainability of the local community. Specific objection raised to the adverse impact the proposed development would have on the Green Belt, National Landscape and local services and infrastructure.
- Nature Spaces: we are satisfied with the ecological information submitted and recommend that with their implementation of some reasonable avoidance measures, the risks onto great crested newts and/or their habitats can be reduced to a minimum.

Assessment:

Procedural Note:

21. Section 70(2) of the Town and Country Planning Act 1990 and Section 38(6) of the Planning and Compulsory Purchase Act 2004 require decisions to be taken in accordance with the development plan, unless there are material considerations that indicate otherwise. The development plan comprises the Tandridge District Core Strategy (2008) and the Tandridge District Part 2 : Detailed Policies (2014).

22. Those development plan policies considered most important in the determination of this application are:

    Core Strategy policies: CSP1, CSP2, CSP8, CSP11, CSP12, CSP13, CSP14, CSP17, CSP18, CSP20 and CSP21.
    Part 2: Detailed Policies: DP1, DP5, DP7, DP10, DP19, DP20 and DP21.

23. The NPPF is a material consideration in planning decisions and its policies have to be taken into account in dealing with applications from the day of its publication.

24. It is important to note that even though the adopted Development Plan predates the publication of the most recent NPPF, its policies will be given due weight in accordance with their degree of consistency with the NPPF (December 2024, paragraph 232).

25. Part of the assessment of key issues below is to ascribe a weight to them for the purposes of arriving at a planning balance and decision whether to grant or refuse planning permission. In undertaking this balancing exercise, the weight afforded to each planning consideration by your officers will be, from highest to lowest:

- Great
- Substantial
- Significant
- Moderate
- Limited
- Negligible
- Neutral

The applicant's Planning and Affordable Housing Statement uses similar weightings.

Key Issue 1 - Housing Land Supply:

26.The NPPF at paragraph 78 sets out a requirement for local planning authorities to identify and update annually a supply of specific deliverable sites sufficient to provide a minimum of 5 years' worth of housing against their local housing need where strategic policies are more than five years old. The supply of specific deliverable sites should in addition include a buffer of 20% where there has been significant under delivery of housing over the previous three years to improve the prospect of achieving the planned supply. Footnote 39 of the NPPF provides that where local housing need is used as the basis for assessing whether a supply of specific deliverable sites exists, it should be calculated using the standard method set out in national planning guidance.

27.The Tandridge Core Strategy housing delivery policy (CSP2) is more than five years old. Five-year housing need assessed against the standard method, together with the required 20% buffer, gives a requirement of 4,964 dwellings, or 993 per annum, including a 20% buffer. Current housing land supply in Tandridge district is 1.71 years.

28.In September 2022, the Council adopted an Interim Policy Statement for Housing Delivery (IPSHD) which sets out criteria for bringing forward new housing to boost the supply because of the problems with the then emerging Local Plan which later had to be withdrawn. Since the IPSHD was adopted, permission has been granted by the Council for a number of large Green Belt sites that comply with the criteria in the IPSHD. These are:

Application 2022/1161; Application 2022/1658; Application 2022/267; Application 2022/1523; Application 2024/1389; Application 2024/ 1393.

a. Application 2022/1161, May 2023: Young Epilepsy, St Piers Lane, Lingfield - provision of a residential care community (Use Class C2) comprising 152 units of accommodation.

b. Application 2022/1658, December 2023: Plough Road, Smallfield - for 120 dwellings including 40% affordable housing and flood relief engineering works.

c. Application 2022/267, December 2023: Former Shelton Sports Club, Warlingham - for 150 dwellings including 45% affordable housing.

d. Application 2022/1523, September 2024: Land at Former Godstone Quarry - for 140 dwellings including 50% affordable housing and a new GP surgery.

e. Application 2024/1389, July 2025: Redehall Road, Smallfield - for 85 dwellings including 40% affordable housing.

f. Application 2024/1393, July 2025: 1 Park Lane, Warlingham - for 45 dwellings including 49% affordable housing.

29. The above sites have contributed significantly to the Council's current housing land supply. There are other sites that are likely to come forward that meet the criteria in the IPHSD and are expected to further boost the supply.

30. By way of demonstrating progress in housing delivery since the IPSHD was adopted, under the previous standard method (23/24 OAN) the most up to date figure would show an increase from 1.9 years to 2.68.

31. The Council has successfully defended the refusal of planning permission for housing development applications on sites in the Green Belt which did not accord with the IPSHD, as follows:

- APP/M3645/W/23/3319149: Station Road, Lingfield.

  The Inspector referenced the IPSHD in paragraph 15 of his decision letter stating: *"For this appeal it is a material consideration when considering the benefit arising from the additional supply of housing, but I only give it limited weight because of its non-statutory status."*

- APP/M3645/W/24/3345915: Chichele Road, Oxted.

  The Inspector referenced the IPSHD in paragraph 9 of her decision letter: *"..I note that the appeal site was not brought forward as a proposed housing allocation in the submitted eLP and thus does not meet the criteria for inclusion within the IPSHD. I shall treat the IPSHD as a material consideration for this appeal, particularly as a mechanism used by the Council to address its housing need. However, as it does not form part of the development plan, this limits the weight which can be afforded to this document."*

  In the determination of both of these appeals the IPSHD was found to be a material consideration.

32. The development proposal does not meet any of ~~fit~~ the criteria in the IPSHD, which are:

Application 2022/1161; Application 2022/1658; Application 2022/267; Application 2022/1523; Application 2024/1389; Application 2024/ 1393.

Applications will be invited to come forward that meet the following criteria and are in accordance with the Council's development plan and with the National Planning Policy Framework (NPPF) and with national planning guidance:

i) Provide for the re-development of previously developed land in the urban areas and the Green Belt.
ii) Housing sites included in the emerging Local Plan where the Examiner did not raise concerns.
iii) Sites allocated for housing development in adopted Neighbourhood Plans which will make a contribution to the overall delivery of housing in the district.
v) Provide for the release of infill or re-development sites in settlements washed over by the Green Belt where this would not conflict with maintaining the openness of the Green Belt.
vi) Constitute enabling development (for charitable development or heritage asset conservation purposes).
vii) Housing development meeting a recognised local community need or realising local community aspirations, including affordable housing and the bringing forward of rural exception schemes in appropriate locations.
viii) Sites that deliver flood mitigation measures for already identified areas of the district at serious risk of flooding.

The development proposal conflicts with the IPSHD which states that the primacy of the protection of "…..*candidate areas for AONB status will be the key planning consideration in determining planning applications under this interim Policy."*

33. The applicant's 'Planning and Affordable Housing Statement' is inaccurate in stating that under the December 2024 standard method requirement plus 20% buffer, Tandridge District Council annual housing requirement is raised to 1,011 dwellings per annum and the Council has 1.45 years of housing land supply. As noted above, the Council's annualised figure for housing need is slightly lower at 993 dwellings per annum while its five-year supply figure is slightly higher at 1.71 years. Moreover, this Statement makes no reference to the IPSHD.

34. Your officers accept that, in the absence of a five year housing land supply, and notwithstanding the progress being made in housing delivery in Tandridge District through the adoption and implementation of the IPSHD, significant weight should be given to the proposal in this planning application for the delivery of market and affordable housing in the overall planning balance.

35. Core Strategy policy CSP8 relates to Extra Care Housing Provision, the other type of housing proposed for delivery in the planning application. This policy states:

"The Council will, through the allocation of sites and/or granting of planning consents, provide for the
development of at least 162 units of Extra Care Housing in the period up to 2016 and additional units in
the period 2017-2026 following an updated assessment of need. In identifying sites and/or determining
planning applications, regard will be had to:

The need for each site to accommodate at least 50 Extra Care Housing units;
The Extra Care Housing Model in the East Surrey Extra Care Housing Strategy in respect of the
provision of services and facilities (and any further guidance received from Surrey County Council);
Sustainability – sites should be sustainable by virtue of their location and there will be a preference
for sites within defined settlements, but where such sites are not available regard will be had to the
potential for development to be self-contained to reduce travel requirements and the availability of
public transport;
The priority will be for the re-use of previously developed land, greenfield sites will only be acceptable
following allocation in the LDF; and
The potential to co-locate a nursing/residential care home on the site where there is an acknowledged
need.
The Council will also work with its partners, Surrey County Council, Reigate & Banstead Borough Council,
Surrey Supporting People and the Primary Care Trust in identifying suitable sites and securing the provision
of schemes.
The Council will support suitable proposals notwithstanding that such developments may result in or
exacerbate an excess of housing development against South East Plan requirements. *"*

This policy sought to establish both a quantum of development required and to provide criteria against which development proposals should be assessed. Your officers accept that with respect to quantum of need the policy is now out of date and that other indicators of need should be relied upon in determining planning applications. The criteria in the policy remain relevant.

36. The report "Older Persons Need Assessment" provided with the application documents makes an assessment of the local need for specialist care accommodation within Tandridge District in terms of both quantitative and qualitative need up to 2040 being 550 additional personal care beds and 104 nursing beds and 82 dementia beds, with significant demand in the period 2023 to 2027.

37. Recent information from Surrey County Council made available to the Council with respect to another planning application (Lingfield House, application reference TA/2024/1079) is:

"As of January 2024, Tandridge had 328 residential care home beds, with a projected need of 436 by 2035 - indicating a shortfall of 66 beds. Similarly, the demand for nursing care home beds is also expected to increase, leading to an additional shortfall by 2035. These figures highlight a sustained need for more residential and nursing care home beds in the area. However, as highlighted in the Older People Residential and Nursing Care - Market Positioning Statement, there is further emphasises on the growing demand for complex care in Surrey due to an aging population and rising cases of advanced dementia, physical frailty, and multimorbidity.

Addressing this need requires not only specialised care home development but also experienced care providers capable of effectively supporting residents with complex conditions. However, the planning application documents do not indicate a designated care provider with proven expertise in delivering this level of care, nor does it go into detail as to how it would meet the needs within a specialist environment. In summary, while there is a clear need to expand capacity in Tandridge to meet future demand, it is essential to ensure that the right type of provision is developed alongside a qualified care provider and suitable environment."

38. The planning application does not indicate a designated care provider with proven expertise in delivering the level of complex care identified by Surrey County Council, nor does it explicitly go into detail as to how it would meet these needs within a specialist environment. The challenges facing the care sector, including viability as businesses and recruitment of staff, are well documented nationally. The lack of information with the application, and particularly whether the extra care facility would meet the needs identified by Surrey County Council, detracts significantly from the weight that might otherwise be afforded to this specialist housing aspect of the proposed development. Your officers consider, given the limited information in the planning application on this aspect of the development, that limited weight should be afforded to the provision of an extra care facility in the overall planning balance.

Key Issue 2 - Is the Site Green Belt or Grey Belt

39. Paragraph 155 of the NPPF provides that development of homes in the Green Belt should not be regarded as inappropriate where all of the following apply:

a. The development would use Grey Belt land and would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan;
b. There is a demonstrable unmet need for the type of development proposed;
c. The development would be in a sustainable location, with particular reference to paragraphs 110 and 115 of the NPPF; and
d. Where applicable, the development meets the Golden Rules requirements set out in paragraphs 156-157 of the NPPF.

40. Annex 2:Glossary to the NPPF defines "grey belt" as follows:

"For the purposes of plan-making and decision-making, 'grey belt' is defined as land in the Green Belt comprising previously developed land and/or any other land that, in either case, does not strongly contribute to any of purposes (a), (b), or (d) in paragraph 143. 'Grey belt' excludes land where the application of the policies relating to the areas or assets in footnote 7 (other than Green Belt) would provide a strong reason for refusing or restricting development.

Paragraph 143 of the NPPF defines Green Belt purposes (a) to (e) as follows:

"a) to check the unrestricted sprawl of large built-up areas

b) to prevent neighbouring towns merging into one another

c) to assist in safeguarding the countryside from encroachment

d) to preserve the setting and special character of historic towns

e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land."

Based on consideration of these definitions, the applicant considers that the site is grey belt.

41. The applicant's Planning and Affordable Housing Statement addresses this key issue with particular regard to whether the application site contributes to Green Belt purpose (a), that is to check the unrestricted sprawl of large built-up areas. The conclusion set out in the table at paragraph 6.91 of the Statement is that:

"Oxted is not a large built-up area but in the local context, is one of the larger built-up areas of the district. Due to the settlement pattern of Oxted and the site's specific location within the form of the settlement, the proposal will not amount to 'unrestricted' sprawl and rather amounts to an infilling and rounding off of the settlement."

In another part of the Statement (paragraph 6.113) the development proposal is characterised as infilling a pocket of undeveloped land. The overall conclusion in paragraph 6.114 of the Statement is that:

"…the site does not play any strong role in preventing ***unrestricted sprawl*** *from a large built-up area. Any expansion into the site would be highly restricted."*

42. The applicant further concludes at paragraph 6.91 of the Planning and Affordable Housing Statement with respect to Green Belt purposes (b), (d) and (e) that the application site plays no role in meeting any of these purposes, while with respect to purpose c) the applicant concludes that the site does safeguard the countryside from encroachment..

43. Your officers agree that the site does not strongly contribute to Green Belt purposes b), d) and e) but agree with respect to purpose c) that the site does safeguard the countryside from encroachment.

44. However, your officers disagree with the applicant's assessment that the site does not make a strong contribution to Green Belt purpose (a) and consider that, on the contrary, the site does make a strong contribution to Green Belt purpose (a) for reasons set out below.

45. Advice in MHCLG's "Advice on the role of the Green Belt in the planning system" makes clear that purpose (a) relates to the sprawl of large built up areas. Villages should not be considered large built-up areas. Large built-up areas are not defined. The applicant asserts that Oxted is not a large built-up area, but in a local context is one of the larger built up areas of the district. Limpsfield / Oxted / Hurst Green, with all three built up areas running into one another, is one of the three main built up areas in Tandridge District and has a population of approximately 12,000. This is set out in the 2008 Core Strategy and was also explained in the now withdrawn Local Plan.

46. The applicant further states that due to the settlement pattern of Oxted, and the site's specific location within the form of the settlement, the proposal will not amount to 'unrestricted' sprawl and rather amounts to an infilling and rounding off of the settlement. Your officers disagree with this characterisation of the development proposals. The application site is a standalone parcel of land outside of the built-up area of Oxted with no built development to the

north, east and west. The proposed development will not infill between existing urban development but extend urban development out into open countryside. Furthermore, because of the containment of existing urban development by the railway embankment to the north, and with the parish cemetery to the east, the application site is not a "pocket" of land that will round off the urban area of Oxted. It will be a standalone residential neighbourhood.

47. The applicant also challenges the Council's Green Belt Assessment (Part 3): Appendix 1 (2018) carried out for the withdrawn Local Plan, which found that the site made "a strong contribution to openness and the Green Belt purposes in this location" and that its development would potentially harm the ability of the wider Green Belt to continue to serve the purposes. The Local Plan Inspector, although recommending withdrawal of the Plan, was content with the Green Belt assessments carried out by the Council, finding them to be adequate (Inspector's final report, Annex 1 - ID16-paragragh 42).

48. MHCLG's "Advice on the role of the Green Belt in the planning system" is that areas that contribute strongly to checking the unrestricted sprawl of large built-up areas are likely to be free of existing development and lack physical feature(s) in reasonable proximity that could restrict and contain development. They are also likely to include all of the following:

- Be adjacent to a large built-up area.
- If developed, result in an incongruous pattern of development (such as an extended "finger" of development into the Green Belt).

Considered against these criteria, the application site is free of development but adjacent to a large built-up area; it lacks strong physical features to the north and west that could restrict or contain development and, because of its physical isolation from the urban area of Oxted, would result in an incongruous pattern of development. This can be readily seen from Figure 12.2 "Site Context" in the Landscape and Visual Impact Assessment and the Illustrative Masterplan accompanying the planning application. For the reasons set out above, your officers considers that the site does strongly contribute to Green Belt purpose (a).

49. As such, the site is Green Belt not Grey Belt. Paragraphs 155 to 158 of the NPPF do not apply in the determination of this application. Given the finding that the site is Green Belt, the development proposal falls to be considered against national and development plan policies for the protection of the Green Belt.

50. Furthermore, and as will be explained in more detail below, the site is not Grey Belt because the application of the policies relating to the areas or assets in NPPF footnote 7 (other than Green Belt) would provide a strong reason for refusing or restricting development. The site contains an irreplaceable habitat, Ancient Woodland (AW) and is adjoined by an even larger area of AW called The Bogs as confirmed by the applicant's Preliminary Ecological Assessment and two arboricultural assessments. This AW is a wet woodland with a water supply currently fed by surface water run-off from the application site and a stream running along the western boundary of the application site. As will be explained in addressing Key Issue (vii) below, your officers consider that there could be loss or deterioration of this AW resulting from the proposed development contrary to NPPF paragraph 193c).

51. Paragraph 193c of the NPPF provides that development resulting in the loss or deterioration of irreplaceable habitats (such as AW) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

52. Paragraph 142 of the NPPF states that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open and that the essential characteristics of Green Belts are their openness and their permanence. Paragraph 143 of the NPPF provides that the Green Belt serves five purposes identified as a) to e) in paragraph 40 above. Purpose a), to check the unrestricted sprawl of large built-up areas applies in this case. Purpose c) to assist in safeguarding the countryside also applies. Paragraph 153 of the NPPF provides that local planning authorities should ensure that substantial weight is given to any harm to the Green Belt, including harm to its openness. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from a development proposal, is clearly outweighed by other considerations.

53. Paragraph 154 of the NPPF provides that development is inappropriate unless it comes within the category of a number of exceptions none of which applies in this case.

54. Local Plan Policy DP10 advises that within the Green Belt, planning permission for any inappropriate development which is, by definition, harmful to the Green Belt, will normally be refused and will only be permitted where 'very special circumstances' exist that clearly outweigh any potential harm to the Green Belt by reason of inappropriateness and any other harm.

55. The openness of the Green Belt has a spatial as well as a visual aspect and is therefore best viewed as the absence of development. The effect of a development on openness will be dependent to an extent on how visible it is. Even where a development is not visible, it will have a spatial impact by taking up space that was previously free from development.

56. The applicant's Planning and Affordable Housing Statement at paragraphs 1.28 to 1.32 addresses the definitional harm, visual harm and harm to openness and harm to Green Belt purposes that the proposed development would give rise to. Definitional harm is accepted. Visual harm is considered to be minor at site level with limited change given the level of visual containment of the site. Spatial harm is considered to be significant in terms of the openness of the site. The Statement further accepts that the proposed development would have a moderate impact in terms of conflict with purpose c) of the Green Belt, that is safeguarding the countryside from encroachment. Paragraph 6.91 of the Statement accepts that the application site does "safeguard countryside from encroachment". Paragraph 6.227 of the Statement summarises the harms of the proposed development as "limited localised change in landscape character/visual impact". Paragraph 7.8 of the Statement accepts that the adverse impacts of the proposed development include loss of countryside . The applicant's conclusion is that the benefits of the proposed development in providing much needed market, affordable and old persons' accommodation in a sustainable location amount to very special

circumstances that outweigh the identified harm to the Green Belt and other harm.

57. The findings of the Landscape and Visual Impact Assessment accompanying the application are noteworthy in concluding that the proposed development will have a major adverse effect at site level due to the permanent introduction of built form onto open agricultural land and this represents an acceptance of both the spatial and visual harm that will arise from the development.

58. The applicant accepts that there will be definitional harm to the Green Belt and thereby that the proposed development is inappropriate in the Green Belt. The NPPF and development plan policy DP10 provide that any harm to the Green Belt, including harm to its openness (that is spatial harm) and visual harm, has to be afforded substantial weight in determining this application. Your officers while agreeing with the applicant that there will be definitional harm to the Green Belt from the proposed development also consider that there will be spatial and visual harm and thereby loss of openness. Furthermore, any other harm resulting from the development also has to be taken into account and such other harm will be considered below. The applicant needs to demonstrate that very special circumstances exist that outweigh this Green Belt harm and other harm before the application can be approved. These are matters to be addressed in the planning balance.

59. The key issues considered below will be relevant in your officer's final assessment of harm to the open countryside and other harm the proposed development would cause.

Key issue 3 – whether the site is a valued landscape

60. The NPPF at paragraph 187 provides that planning decisions should contribute to and enhance the natural and local environment by, inter alia, protecting and enhancing valued landscapes in a manner commensurate with their statutory status or identified quality in the development plan. Core Strategy policy CSP18 states that:

"The Council will require that new development, within town centres, built up areas, the villages and the countryside is of a high standard of design that must reflect and respect the character, setting and local context, including those features that contribute to local distinctiveness. Development must also have regard to the topography of the site, important trees or groups of trees and other important features that need to be retained."

Core Strategy policy CSP21 states that the character and distinctiveness of the District's landscapes and countryside will be protected for their own sake, new development will be required to conserve and enhance landscape character.

61. The policies of the Surrey Hills Management Plan 2020-2025 are also an important material consideration in the determination of this application. The key policies in this respect are:

LU1 - Great weight will be attached to any adverse impact that a development proposal would have on the amenity, landscape and scenic beauty of the AONB and the need for its enhancement.

LU2 - Development will respect the special landscape character of the locality, giving particular attention to potential impacts on ridgelines, public views and tranquillity.

LU6 - Development that would spoil the setting of the AONB by harming public views into or from the AONB will be resisted.

62. The NPPF does not contain a definition of 'valued landscape'. The Landscape Institute has published Guidance Note TGN 02-21: "Assessing landscape value outside national designations" that enables an evaluation of whether landscapes possess demonstrable physical attributes beyond the ordinary that justify their status as valued landscapes. The Guidance Note advises that when assessing landscape value of a site as part of a planning application or appeal, it is important to consider not only the site itself and its features/elements/characteristics/qualities, but also their relationship with, and the role they play within, the site's context. Value is best appreciated at the scale at which a landscape is perceived – rarely is this on a field-by-field basis.

63. A range of factors are identified in the Guidance Note that can be considered when identifying landscape value. These factors are considered below with the Council's landscape consultant's assessment of their relevance to the application site and its wider landscape context:

Factor	Commentary
Natural heritage	The Site itself largely comprises arable land although it contains a number of mature trees and there is an area of tall herb vegetation in its western part. It contains an area of native woodland that forms a contiguous part of The Bogs, an area of ancient semi-natural woodland and candidate SNCI. A further small area of woodland is located at the north-eastern end of the Site. The contribution to this factor is therefore high.
Cultural heritage	The Site does not contain any heritage assets, but it is adjacent to the churchyard of the Grade I Listed Church of St Mary, and an area of ancient woodland. The contribution to this factor is therefore medium.
Landscape condition	The Site represents an area of well-managed arable land. The landscape in which it is located is in good condition with a healthy structure and a high proportion of trees and woodland. The landscape is of sufficient intactness to be promoted by Natural England as part of the extended Surrey Hills National Landscape. The contribution to this factor is therefore high.
Associations	There are no known associations with the Site and its landscape setting.

Distinctiveness	The Site is strongly representative of the published character of the Greensand Valley. The Site and its setting form the outlook from the Surrey Hills National Landscape. The contribution to this factor is therefore high.
Recreational	The Site contains a public bridleway that is a key connection between Oxted and the Surrey Hills National Landscape. The surrounding landscape contains the North Downs Way National Trail and a number of Long Distance Recreational Routes. The valley slopes to the north of the Site are designated Open Access Land, and the cemetery immediately east of the Site is also publicly accessible. The contribution to this factor is therefore high.
Perception (scenic)	The Site forms part of the outlook from the Surrey Hills National Landscape, and it is at an advanced stage of consideration for inclusion within the National Landscape. The contribution to this factor is therefore high.
Perception (wildness and tranquillity)	The Site represents an area of arable land, with some woodland and tall herb vegetation. It adjoins the settlement of Oxted and there is background noise from the railway and M25 motorway, but the strongly vegetated boundaries lend it a sense of seclusion in places. The contribution to this factor is therefore medium.
Functional	The Site is largely arable, but it also contains wet woodland that provides a variety of environmental functions as part of the wider complex of The Bogs. Its boundaries provide important green infrastructure connections to the wider landscape, and the bridleway that crosses it performs an important social function. The contribution to this function is therefore high.

Again, the view expressed by the planning advisor to the Surrey Hills AONB Management Board in his representations on this application that:

"The very fact that Natural England's (NE) consultant landscape consultants have assessed this site as meeting NE's criteria of natural beauty sufficient for National Landscape designation and meets its desirability requirement demonstrates the high landscape value of this site."

64. The applicant's LVIA forming part of the ES made an assessment whether the site was a valued landscape using the Landscape Institute Guidance Note TGN 02-21 and concluded that it was not.

65. Taking all the relevant factors assessed above together, your officer's assessment, and that of the Council's landscape consultant, is that the application site is elevated above the ordinary. In the words of the Stroud judgment on valued landscapes, the site exhibits many attributes that take it above mere countryside. Importantly, the site contributes to the landscape and scenic beauty of the Surrey Hills National Landscape. As Natural England explains in its boundary review assessment *"…the open arable field between Barrow Green Lane and the settlement edge forms part of a sweep of agricultural landscape to the north and affords dramatic views of the chalk scarp."* The Boundary Review Natural Beauty Assessment Final Report – February 2023 confirms at page 142 that this area has the same high quality landscape as the existing AONB to the north, stating: *"The landscape in this area blends seamlessly with the North Downs to the north."* Officers conclude, as does the Council's landscape consultant, that the site is a valued landscape and has a high degree of susceptibility to change, and as such, paragraph 187 a) of the NPPF is engaged in the determination of this application.

66. The applicant's LVIA assesses the anticipated landscape effects on landscape receptors and anticipated visual effects following implementation of the proposed development (ES paragraphs 12.6.9 to 12. 6. 22). The overall conclusions relating to landscape receptors are:
    - effects experienced by the Site are predicted to be direct, major and adverse, not untypical following the permanent introduction of built form to open land.
    - effects on retained trees and The Bogs as landscape features would be minor and neutral.
    - effects on the character of LCA G4 (Surrey Landscape Character Assessment) are predicted to be minor and adverse due to removal from the LCA of part of the site.
    - the proposed development would not impact on any ridgelines in the AONB and, due to intervening distance, would not impact on the tranquillity of the AONB.
    - although discernible from some locations within the AONB, the Proposed Development - located beyond the M25 and adjacent to the existing settlement - would not harm any public views from the AONB.
    - in terms of views towards the AONB, existing public views towards the scarp from the footpath as it crosses the Site would be maintained and new public views of the scarp would be created from the extensive areas of public open space which are proposed.
    - effects on the AONB are therefore predicted to be negligible.

    In terms of anticipated visual effects of the proposed development when completed would be:
    - users of Bridleway 97 an adverse and major effect
    - users of footpaths south of the site a negligible effect
    - users of footpaths in the AONB a negligible effect
    - users of Oxted burial ground an adverse and moderate effect
    - visitors to St Mary's Church and adverse and minor effect
    - visitors to Masterpark a negligible effect
    - users of Barrow Green Road an adverse minor effect

- users of Wheeler Avenue an adverse and minor effect
- residents of properties on Wheeler Avenue an adverse and moderate effect
- residents of properties north and west of the site an adverse and minor effect

It should be noted that no additional mitigation is proposed and therefore the residual effects of the proposed development on the landscape and visual receptors will remain as set out above.

67. Your officers do not consider that the LVIA's assessment of impacts on receptors or visual effects is always an accurate assessment of those impacts. Paragraph 12.10.4 of the ES chapter relating to Landscape and Visual effects states:

"In longer views, the Site is discernible in the wide, panoramic views from elevated locations on the scarp to the north. The value and sensitivity of the visual receptors ranges from medium to high."

The elevated location on the scarp to the north can only be within the National Landscape and where views of the site are obtained from public footpaths or public spaces would not be a negligible visual effect but an adverse major visual effect. The proposed development would extend built development into the open countryside, so having an urbanising effect on that countryside, and detracting from the experience of those resorting to the National Landscape and wanting to enjoy the elevated panoramic views it affords. The sensitivity of visual receptors in these elevated locations is assessed in the ES as medium to high but your officers assessment is that the sensitivity is high. Effects for receptors of retained landscape features, including The Bogs, are assessed as minor to neutral but these form an important part of the landscape features of the site where affects on receptors will be major adverse. The impact of the development on receptors in the wider LCA G4 assessed in the ES is said to be minor and adverse and as these receptors will be generally viewing the site from lower elevations your officers would not disagree. The impact of the development on visual receptors using Bridleway 97 as adverse and major, with which your officers agree, appears not to be reflected in the overall assessment of impacts in the ES.

68. Your officers would also question the conclusions of the ES with respect to some of the visual effects. Users of footpaths to the south of the site could be expected to experience a similar adverse and moderate effect as visitors to the adjoining Oxted burial ground. The users of Barrow Green Road which runs immediately adjacent to the northern boundary of the site will see a complete change in the character of the site from a rolling field to a housing development which must represent an adverse and major visual effect even with landscape mitigation. Users of Wheeler Avenue currently see a belt of vegetation which will be replaced by a wide gap with a road and footways passing through it with views of a housing development beyond which would be an adverse and moderate visual effect.

69. Paragraph 187 (a) of the NPPF provides that planning policies and decisions should protect and enhance valued landscapes in a manner commensurate with their identified quality in the development plan.ore Strategy policy CSP20(b) provides for the conservation and enhancement of important viewpoints, protecting the setting and safeguard views out of and into the AONB (now the National Landscape). Core Strategy policy CSP21 provides that the character and distinctiveness of the District's landscapes and countryside will be protected for their own sake and new development will be

required to conserve and enhance landscape character. Specifically, the application site is a valued landscape in the setting of the National Landscape and important in safeguarding views into and out of the National Landscape and has an identified quality in the development plan in terms of the provisions of Core Strategy policy CSP20(b). Furthermore, Core Strategy policy CSP21 requires that new development conserves and enhances this valued landscape which has qualities above those of ordinary countryside. Your officer's view is that the proposed development does not achieve compliance with either policy and is not commensurate with the development plan.

70. Furthermore, the proposed development is contrary to Policy CSP18. Based on the above review of the ES Landscape and Visual chapter, and officer's own assessment of landscape and impacts on the character of the wider area in which the site is situated, the proposed development does not reflect and respect the character, setting and local context, including those features (such as Bridleway 97) that contribute to local distinctiveness. The proposed development is also contrary to Core Strategy policy CSP21 which requires the Council to conserve and enhance important viewpoints, protect the setting and safeguard views out of and into the AONB (now the National Landscape). The proposed development is also contrary to Core Strategy policy CSP21 in that the character and distinctiveness of the District's landscapes and countryside, both within the site itself and its wider setting, will not be conserved and enhanced. The proposed development is also contrary to policies LU1, LU2 and LU3 of the Surrey Hills Management Plan 2020-2025 which is an important material consideration because it would have adverse impacts on the setting of the National Landscape and harming views into or from the National Landscape.

71. You officer's view is that the conflicts with national and development plan policy and material considerations relating to protection of this valued landscape set out above attract substantial weight against the grant of planning permission when weighed in the planning balance.

Key issue 4 - impact of the proposed development on the setting of the National Landscape:

72. The applicant's LVIA confirms that the site is within the setting of the Surrey Hills National Landscape and your officers and the Council's landscape consultant agree with this finding. The site is visible in view, particularly elevated views, on the scarp slope of the North Downs. The Council's landscape consultant comments that :

"The Site is front and centre in views from the Surrey Hills and it is absolutely within its setting."

As referred to above, there are dramatic views of the North Downs for users of the bridleway crossing the site.

73. The NPPF at paragraph 189 provides that development within the setting of the National Landscape should be sensitively located and designed to avoid or minimise adverse impacts on the designated area. Section 85(A1) of the Countryside and Rights of Way Act 2000 (as amended) places a duty upon the Council that it must "seek to further the purpose of conserving and enhancing the natural beauty of the AONB" in any planning decisions that may affect the designated area, including its setting.

74. Tandridge Core Strategy policies CSP20 and CSP21 provide that the conservation and enhancement of natural beauty of the National Landscape is of primary importance. Policy CSP20 sets out principles to be followed in considering development proposals affecting the National Landscape, including conserving and enhancing important viewpoints, protecting the setting and safeguarding views out of and into the AONB.

75. The letter form Natural England refers to views of the National Landscape from the site:
The visualisations from the bridleway which crosses the Site illustrate the change to public views towards the National Landscape which would be significant. Views to the north west, towards the National Landscape, are currently open and unspoilt and the wooded ridge and unsettled lower slopes are a prominent feature in the views. These views contribute to the sense of being beyond the settlement edge and part of the wider landscape which makes up the setting to the National Landscape. The proposed development would disrupt these views significantly with only a small, narrow views of the wider countryside possible and framed by residential development.
The current Surrey Hills AONB Management Plan, 2020-2025, includes Policy P6 which provides that development that would spoil the setting of the of the AONB by harming public views into or from the AONB will be resisted.

76. The applicant's LVIA concludes that the effects of the completed development (operational phase) on the National Landscape will be negligible. The findings of the LVIA in this regard are summarised in the applicant's Planning and Affordable Housing Statement at paragraph 6.147, as follows:
"The proposal would not impact on any ridgelines and, due to intervening distance, would not impact on the tranquillity of the national landscape, and will not harm any public views from the same. Existing public views towards the scarp from the footpath as it crosses the Site would be maintained and new public views of the scarp would be created from the extensive areas of public open space are proposed."
However, paragraph 1.148 of the Statement then goes on to state somewhat contradictorily:
"The requirements of CSP20 and 21 are inevitably not met in full, due to development of an open field within the setting of the national landscape, which will change the character of the Site at a local level."

77. Despite this apparent contradiction, there appears to be agreement between your officers, the Council's landscape consultant, Natural England, the Surrey Hills AONB Management Board planning advisor and the applicant that there will be adverse impacts from the development for the setting of the National Landscape. These adverse impacts are identified in the visualisations of the proposed development in the applicant's ES which show:
- That the proposed development will be clearly visible from public viewpoints on the scarp of the North Downs appearing as a substantial extension of the Oxted urban area into the open countryside at the foot of the Downs
- ES Appendix H3 Part 1. These visualisations from the bridleway crossing the middle of the site illustrate probably the most significant changes to public views into the National Landscape. Currently, a wonderful unspoilt and dramatic panoramic landscape view is gained of the scarp slope of the North Downs. That would be almost completely lost by the development as so clearly illustrated by the visualisations. That provides an attractive

backdrop to this part of Oxted. The bridleway is well used and of importance to the public. The manner in which the multitude of objectors to the application express themselves illustrate how important the protection of this view of the North Downs is to them. There are also informal footpaths around the periphery of the field where current views of the National Landscape would be lost due to the proposed development.

- ES Appendix H3 Part 3. Currently, visitors to the burial ground benefit from attractive and tranquil views of the North Downs and the absence of any intervening development. As the visualisations show, the massing of the care home would obstruct that view which would detract from visitors' experience to this publicly sensitive location. From the entrance to the burial ground the introduction of a dwelling close to the burial ground would spoil a lovely approach to the burial ground by blocking the view of the North Downs.
- ES Appendix H3 Part 5. Although not as widely important as the above views, the attractive view of the National Landscape at the end of the cul-de-sac of Wheeler Avenue would be obstructed by the proposed development.

Your officer's consider, based on the above assessment in the ES forming part of the application, that the degree of harm does not meet the requirement set out in NPPF paragraph 189 for developments within the setting of National Landscapes to be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. As set out above, the site contributes to the landscape and scenic beauty of the Surrey Hills National Landscape and has a high degree of susceptibility to change. These adverse impacts represent other significant harm that will be caused by the development proposals.

78. Based on the above assessment of significant adverse impact on the setting of the National Landscape, the proposed development is contrary to the provisions of paragraph 189 of the NPPF, Core Strategy policies CSP20 and CSP21, and Surrey Hills AONB Management Plan policy P6. Furthermore, given the findings above of adverse impact on the setting of the National Landscape, if the Council were to grant planning permission it would not be complying with its statutory duty under Section 85(A1) of the Countryside and Rights of Way Act 2000 (as amended), that it must "seek to further the purpose of conserving and enhancing the natural beauty of the AONB". These considerations attract substantial weight against the proposed development in the overall planning balance

Key issue 5 - extension of the Surrey Hills National Landscape to include the application site:

79. In June 2021, Natural England (NE) announced a new landscape designation programme which included a review of the Surrey Hills National Landscape boundary. NE conducted an early call for evidence that helped build an understanding of potential areas to extend the boundary. Specialist landscape consultants then undertook technical assessments of the landscape, identifying distinct extension areas. In 2023, NE held the first statutory and public consultation for the proposed extension to the Surrey Hills National Landscape. During their analysis work, NE revisited their initial assessments and undertook additional field work, especially where a review of the boundary was required. NE subsequently produced a detailed analysis report which presented the findings of the consultation analysis.

80. The evidence provided through the first consultation process presented strong arguments to include additional land in the Surrey Hills and this was reflected in the analysis tables, accompanying figures and changes to NE's proposals. This was the stage at which the application site was put forward as a candidate for inclusion in the National Landscape. Following the decision to add further land to the National Landscape, a second round of consultation was required in accordance with NE's duties under the Countryside and Rights of Way Act 2000.The second consultation was launched with stakeholders invited to provide a response on the changes to NE's proposals, including further additions, minor deletions and new land. The consultation ran from the 17th of September to the 10th of December,2024.

81. NE received over 375 responses to the second consultation, the vast majority of which were supportive of the proposals. Each proposed addition and deletion attracted respondents who wished to comment. Analysis of responses received during the second consultation has since been undertaken. During the analysis work, NE revisited their initial assessments and undertook additional field work, especially where a review of the boundary was required. They have now produced a detailed analysis report which presents the findings of the consultation analysis. This report confirmed the proposal for inclusion of the application site in the National Landscape.

82. The next stage will be to draw up the draft Variation Order. A Variation Order consists of the legal documents required to vary an AONB boundary. NE will then publish the Variation Order and other papers as required by Section 83(2) of the Countryside and Rights of Way Act 2000. NE will then plan and proceed with a formal period of Notice (referred to as the Notice Period) and this is expected to occur during 2025. The Notice Period allows anyone who wishes to do so to make representations to NE, objecting to, supportive of, or proposing amendments to the proposal, and stating the grounds on which they are made.

83. Following the Notice period, a further period of response analysis will be required, and any consequent changes made to the draft designation Order. NE will then proceed with preparing documentation for the making and submitting of an Order to the Secretary of State for confirmation. This is expected to happen early in 2026.

84. The above resume of progress in reviewing the boundaries of the Surrey Hills National Landscape shows that, after 4 years of field work by specialist consultants and public consultation work towards drafting a Variation Order for approval by the Secretary of State for DEFRA is well-advanced. The application site is proposed to be included in the National Landscape. This is consequently an important material consideration in the determination of this planning application.

85. The NPPF at paragraph 189 states that great weight should be given to conserving and enhancing landscape and scenic beauty in National Landscapes which have the highest status of protection in relation to this issue. The scale and extent of development in National Landscapes should be limited. Paragraph 190 of the NPPF provides that when considering applications for development within the National Landscapes, permission should be refused for major developments other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an

assessment of, inter alia, any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

86. The provisions of the NPPF set out in paragraph 83 above represent a very high bar for any planning application for major development in a National Landscape, such as that proposed in this application, to overcome before planning permission is granted. These provisions in paragraphs 189 and 190 of the NPPF do not apply ~~with full force~~ to the application site at present because it is not yet part of the designated National Landscape. However, the proposed inclusion of the application site is a weighty material consideration in the determination of this application and NPPF paragraphs 189 and 190 provide the context for determining the weight to be attached to this material consideration.

87. The proposed incorporation of the application site within the National Landscape could be confirmed by a Variation Order within the next 12 months. If the planning permission sought by this application were granted within that timescale the justification for the site's inclusion in the National Landscape would be negated. The applicant's Design and Access Statement, Illustrative Masterplan and Illustrative Landscape Masterplan do not provide for any effects on the environment, the landscape and recreational opportunities to be acceptably mitigated. The proposed development would have permanent adverse impacts on the National Landscape. In your officer's view, the proposed designation of the application site as part of the National Landscape is a material consideration to be given great weight in the planning balance.

Key issue 6 - the implications of the proposed development for biodiversity, including The Bogs Potential Site of Nature Conservation Interest and ancient woodland:

88. The NPPF at paragraph 187 provides that planning decisions should contribute to and enhance the natural and local environment by, inter alia, minimising impacts upon and providing net gains for biodiversity. NPPF paragraph 193 provides that when determining planning applications, local planning authorities should apply the following principles:

    - If significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated or, as a last resort, compensated for, then planning permission should be refused; and
    - Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland) should be refused, unless there are wholly exceptional reasons and a compensation strategy exists.

    Core Strategy policy CSP17 requires the protection of biodiversity and the maintenance, enhancement, restoration and (if possible) expansion of biodiversity. Local Plan Part 2 policy DP19 protects irreplaceable habitats (such as ancient woodland) and seeks to avoid harm to green infrastructure networks and Priority Species.

89. The application is accompanied and informed by a Preliminary Ecological Appraisal and an ecology chapter in the ES for which a separate ecological impact assessment was carried out. The general conclusions of the ES ecology chapter are:

"10.11.1 The site was made up of a large arable field, bisected by a public footpath and bounded by an informal footpath and belts of scrub with trees, lowland mixed deciduous woodland, wet woodland, and a small stream. An area of ancient woodland known as 'The Bogs' is noted as a potential site of importance for nature conservation (pSNCI). The site supports relatively low numbers of commuting bats and a good population of slow worm along the boundaries. Habitats are likely to also support widespread species of nesting birds and hedgehog. No badger setts have been recorded on site and surveys confirmed absence of dormouse on site. The site was considered to have negligible potential to support other protected species such as great crested newts, otters and water voles.

10.11.2 Baseline data gathered from the desk studies and ecology surveys undertaken on site between 2022 and 2024, have been assessed to determine the relevant ecological receptors on site and within the zone of influence and their sensitivity. Effects of construction and operation of the development on these receptors and their magnitude and significance have been evaluated in accordance with industry recognised methodology for Ecological Impacts Assessment (EcIA) developed by the Chartered Institute of Ecology and Environmental Management (CIEEM). Where potential negative effects were identified, measures to avoid, reduce or compensate have been described, and any residual effects following mitigation documented.

10.11.3 Embedded mitigation for the scheme includes:
• Production and adherence to a Construction and Environmental Management Plan (CEMP), to protect habitats and protected species during construction;
• Implementation of a landscape strategy which will create significant areas of new habitats and wildlife features across the site, such as trees, species-rich hedgerows, wildflower grassland and bird/bat boxes;
• Implementation of a Habitat Management and Monitoring Plan (HMMP) which will detail the long term management of the newly created habitats and ecological features on site; and,
• Implementation of Sensitive Lighting Strategy for Bats.

10.11.4 Potential impacts during the construction phase, relate to potential damage to sensitive habitats and harm/disturbance to protected species. However, mitigation measures to be outlined within the CEMP will ensure these impacts are avoided or significantly reduced and the landscape strategy will ensure adequate compensatory habitat is created across the site.

10.11.5 Potential impacts during the operational phase, relate to potential recreational pressure and pollution of sensitive habitats, harm to protected species associated with domestic pets and people, and disturbance to commuting bats as a result of increased artificial lighting. However, the landscape strategy and HMMP will ensure these impacts are avoided or significantly reduced in the long term.

10.11.6 Following embedded mitigation, no residual effects remaining and therefore no additional mitigation is required.

10.11.7 Following this assessment, it can be concluded that the development will result in no significant effects."

90. The ES makes specific comments about the impact of the proposed development on The Bogs Potential Site of Nature Conservation Interest (pSNCI) adjoining the south-west corner of the site:

"10.7.30 The Bogs pSNCI is located adjacent to the southern boundary of the Site. It is a private site and has no footpaths within it. Furthermore, the wet nature of the woodland and extensive nettles makes traversal difficult, and a fence will be installed in the south of the site to deter entry. As such, recreational impacts on this woodland associated with the development are unlikely to be significant.

10.7.31 The water within the woodland is primarily supplied by a small unnamed stream that runs along the western boundary of the development. The wastewater plan obtained from Southern Water, shows that this stream is fed by a pipe that connects to a surface water gravity sewer that covers an extensive area in the north-west of Oxted. This stream is to be unaffected by the development. The ground water within the Site itself emerges in a small spring in the south-west of the field, and likely seeps into the woodland as well, feeding the stream.

10.7.32 Groundwater monitoring wells were installed in the wet woodland area with trial pits subsequently excavated near the spring. The surveys showed that groundwater levels were below ground both when moving away from the saturated land associated with the spring and when land levels rose. As such, built form has been kept out of the wet area, and no buildings have been located either between the watercourse and the wet area, or within 10m of the wet area. This will minimise any effect upon the ground water flow which will continue in a northwest to southeast direction.

10.7.33 The proposals will not obstruct the flow of water from the spring, and surface water runoff will be directed to SUDS in the south-west of the Site, which will help to filter out any pollutants, before seeping into the woodland. Furthermore, the existing agricultural use of the Site likely contributes potentially significant levels of harmful runoff of fertiliser, pesticides, and herbicides into the woodland. This may account for the abundance of nettles in the wet areas, as this is an indicator of high nutrients. As such, cease of these agricultural practises with the creation of the development may improve the quality of water feeding from the spring into the woodland.

10.7.34 On the basis of the above, as the sensitivity of The Bogs pSNCI is considered to be classified as ***high*** *and the magnitude of impact is considered to be* ***negligible****, this is assessed to result in a* ***minor beneficial effect.***

The ES goes on to state:

"10.11.5 Potential impacts during the operational phase, relate to potential recreational pressure and pollution of sensitive habitats, harm to protected species associated with domestic pets and people, and disturbance to commuting bats as a result of increased artificial lighting. However, the landscape strategy and HMMP will ensure these impacts are avoided or significantly reduced in the long term. "

91. Notwithstanding the conclusions of the ES, your officers and Surrey Wildlife Trust have a number of unresolved concerns relating to the ancient woodland, as follows:

Extent: the area of ancient woodland adjoining the south-west corner of the site extends into the site itself. Based on the precautionary principle, your officers considers that all woodland within the south west corner of the site should be considered to have a high potential to be ancient woodland and should be treated as such in the determination of this application.

Potential for Increased Disturbance of the Ancient Woodland from Occupation of the Proposed Residential Development: as set out above, the ES identifies potential impacts on the AW when the development is occupied relating to recreational pressure and harm to protected species associated with domestic pets and people. The ES proposes that these potential impacts are dealt with through a HMMP but no details are given. The Arboricultural Impact Assessment accompanying the application refers to a 15-metre buffer zone and fencing to the ancient woodland. The fencing is shown as running around the edge of the adjacent woodland within the site where there is also ancient woodland as confirmed in the applicants Assessment. Again, based on the precautionary principle, your officers considers that specific management measures to deter human and domestic pets from entering any part of the ancient woodland need to be incorporated in these development proposals and then detailed in an appropriately worded planning condition; and

Hydrological Impacts: the stream running down the western edge of the application site receives surface water runoff from that site as well as piped surface water drainage for the Oxted urban area. The importance of this surface water runoff for maintaining the ancient wet woodland habitat of the Bogs pSNCI, both on-site and off-site, needs to be assessed and factored into the surface water drainage proposals for the proposed development to ensure continuity of an adequate water supply to the ancient woodland and avoid any risk of deterioration of this irreplaceable habitat. The review of the applicant's FRA by consultants acting for the local residents' group comments that the Hydraulic Modelling Report:

"shows a reduction in flood levels to the south of the site, which would also mean a reduction in flow to The Bogs. Given the area of ancient woodland with a wet woodland dominated landscape, a reduction in flow may not be a desirable outcome and could have adverse impacts on the biodiversity of the area. The hydraulic modelling studies should go further to demonstrate what would happen on a higher frequency lower magnitude basis and look at a typical annual water balance to identify the full impact to The Bogs."

The same consultants have then commented on the further information provided by the applicant's technical note in response to an initial objection to the application by the LLFA, as follows:

"there is nothing in the technical note to consider the impacts of the development on the hydrology of The Bogs. It appears that the SuDS design has been optimized to consider the flood risk at the site without considering the role that both surface and groundwater flowing from the site plays in sustaining the environment of The Bogs. A programme of monitoring should be undertaken to understand the seasonal variation in groundwater level and flows in The Bogs and surrounding area, which would at least provide an idea of the baseline conditions.

With the SuDS design including detention ponds which are sealed to prevent the upwelling of groundwater Motion should make an assessment of how this and the impermeable roads and building slabs of the site may affect the groundwater. The location of the spring which was identified may then move as the groundwater would take the path of least resistance to the lowest ground

elevation. Also, with the ponds being designed to store the surface runoff from the site and only have an outflow when levels reach a certain height under extreme conditions, a significant volume of surface water may be prevented from reaching The Bogs and instead would be stored and lost through evaporation. Motion should also undertake an annual pond water balance assessment over a number of years to identify how much water typically would be prevented from reaching The Bogs under the proposed design. Overall, the total storage capacity of the four ponds to the western side of the site is 2452 m3, according to the information in the layout drawing in Appendix B of the technical note which is a significant volume potentially lost from inflow to The Bogs."

Your officers agreed with much of this consultant's assessment and tried to obtain more information from the applicant on continuity of water supply to The Bogs but this has not been forthcoming at the date of determining this planning application. None of the applicant's relevant reports have made an assessment of flow rates of water into The Bogs prior to or following development. There is consequently no way of ascertaining that, post-development, current flows of water into The Bogs will be maintained and that irreparable harm to the AW will not result. Once again, based on the precautionary principle, the surface water drainage proposals for the development need to incorporate provision for no diminution in, or significant exceedances of, the supply of water from the application site by way of surface water run off or stream feed into The Bogs pSNCI. The quality of surface water to be discharged via the proposed SuDS drainage system to be built as part of the development also needs to be assured.

92. The Surrey Wildlife Trust in its comments on the application identifies another important habitat within the site, as follows:
"Section 10.6.1 of the Environmental Statement Volume 2 – Chapter 10: Ecology details that the construction phase will result in the permanent loss of a section of hedgerow in the north-east for a site access. ***However the overall submission, to include ecological, does not include any reference to the implementation of the mitigation hierarchy****. The hedgerow has been confirmed as being a Habitat of Principal Importance, and there is no evidence of the Applicant having consideration for an alternative access location, which would not result in the loss of any hedgerow. It is acknowledged that an alternative design may require the loss of bramble scrub, however bramble scrub is not a Habitat of Principal Importance."*

93. The Bogs is an irreplaceable habitat and its loss or deterioration needs to be assured. Your officer's consider that this is a matter of fundamental importance to whether the development is allowed to proceed. Similarly, it needs to be determined if the hedgerow Habitat of Principal Importance can be avoided or not in the course of development. These are not matters that could be made subject to a planning condition but need to be determined before a planning permission is granted.

94. Surrey Wildlife Trust has identified in its comments summarised above that the ecological information with the application is insufficient to enable a full assessment of the ecological impacts of the proposed development. As such, it is not possible for your officers to conclude that the development proposals will not cause harm to biodiversity. Most importantly, the proposed development has the potential to cause irreparable harm to an irreplaceable habitat, ancient woodland, both on-site and off-site and lead to the loss of a Habitat of Principal Importance. The development proposal is therefore contrary to the provisions

of NPPF paragraphs 187 and 193, and development plan policies CSP17 and DP19. This is a matter to be afforded substantial weight in the planning balance.

Key issue 7 - biodiversity net gain;

95. NPPF paragraph 187 seeks that planning decisions should contribute to and enhance the natural environment by minimising impacts on and providing net gains for biodiversity. Policy CSP17 of the Core Strategy requires development proposals to protect biodiversity and provide for the maintenance, enhancement, restoration and, if possible, expansion of biodiversity, by aiming to restore or create suitable semi-natural habitats and ecological networks to sustain wildlife in accordance with the aims of the Surrey Biodiversity Action Plan. Policy DP19 of the Local Plan Part 2: Detailed Policies 2014 advises that planning permission for development directly or indirectly affecting protected or priority species will only be permitted where it can be demonstrated that the species involved will not be harmed or appropriate mitigation measures can be put in place.

96. The principles of Biodiversity Net Gain (BNG) are enshrined within the Environment Act 2021 in England. This legislation mandates that most developments must achieve a minimum 10% increase in biodiversity value compared to pre-development levels. This increase can be achieved on-site, off-site, or through the purchase of statutory biodiversity credits. A Biodiversity Net Gain Metric Calculation is submitted with the application, alongside a Biodiversity Net Gain Feasibility Assessment report. The calculations show that the proposed development has the potential to deliver a +15.30% net gain in habitat units and a +271.39% net gain in hedgerow units, and +21.31% net gain in watercourse units, and all trading rules can be satisfied. The applicants Planning and Affordable Housing Statement refers to the assessment being reviewed and updated at reserved matters stage once there is a developed layout and landscaping strategy. Surrey Wildlife Trust also identify that the BNG assessment may need to be rerun when more information is available about the biodiversity value of the site.

97 BNG is a requirement of national legislation and, while any net gains to biodiversity are to be encouraged, this is not a consideration that should attract more than limited weight in favour of the application in the overall planning balance.

Key issue 8 - impact on the setting of nearby listed buildings:

98. The development of the site has the potential to affect the setting (and therefore the significance) of three heritage assets: Church of St Mary the Virgin (Grade I Listed); Court Farmhouse (Grade II) and Blunt House (Grade II). Most notably, the Grade I listed church of St Mary and Grade II listed Court Farm House are a short distance away from the south-east corner of the application site. The application includes a Heritage Impact Assessment which finds that the site makes a limited contribution to the setting of these listed buildings as a remnant of their historic rural setting. The proposed residential development on the application site will result in the loss of this historic rural setting but the applicant's Assessment is that the resultant harm to the significance of the listed buildings will be less than substantial.

99. Paragraph 215 of the NPPF provides that where a development proposal is likely to lead to less than substantial harm to a designated heritage asset, the

harm should be weighed against the public benefits of that proposal. Development plan policy DP20 seeks the protection, preservation and enhancement of the District's heritage assets. Only where the public benefits of a proposed development significantly outweigh the harm to the setting of a designated heritage asset, will planning permission exceptionally be granted.

100. The Historic Buildings Officer of Surrey County Council has assessed the impact of the proposed development on the three heritage assets identified above. He considers that there will be no impact on the setting of Blunt House. His comments with respect to impacts on Court Farm House and St Mary's Church are:

"I have quite significant concerns about the proposal. At present, the scheme will see the entire redevelopment of the last vestige of the rural setting of both St Mary's Church and Court Farm. While the impact on Court Farm will be lower, there will be quite a significant impact on St Mary's Church. This will be evident both in views from the western end of the church as well as in views from the application site, particularly in the winter months. In the summer months the impact will be lower, but this ultimately depends on the existing tree screening surviving and being retained. The potential impact from the scheme (bearing in mind it is indicative) can be seen from the VP04 in the viewpoint study which removes almost all view of the church from the footpath.

While the site and parameter plans provided by the applicants are indicative and the details are reserved matters, it does demonstrate the challenges of providing up to 190 dwellings and an extra care facility of 80 beds on this site. This shows that there will be roads, houses and boundaries all in proximity to St Mary's Church which will urbanise its setting. This will be evident not only in the built form, but also in the associated parking, lighting, noise and residential clutter from the development. Owing to other constraints on the site, I am not of the opinion that it has been demonstrated that the density or scale of development proposed would be possible without quite a harmful impact on St Mary's Church.

I note the concept plan in the Design and Access Statement shows the original intention was for a much wider area of open space to the south-east of the application site. This was in line with my original comments on the EIA asking for a buffer zone with a clear view from the footpath. This would have been more effective at mitigating the impacts of development the site and would better have reflected the historic rural setting of the church. This appears to have been gradually whittled down as the scheme developed. I consider the resulting small parcel of land to be insufficient in properly mitigating against the urbanising impact of the scheme. Had more of an open space (as shown in the original concept plan) been retained and the building heights remained the same then the impact on St Mary's Church could have been lower. As noted above, I cannot see how this can be achieved without quite significantly reducing the number of units.

I have assessed the scheme in line with paragraphs 208 and 212 of the NPPF. I consider the harm to Court Farm as a Grade II listed building to be at the lower end of less than substantial harm. This is specifically from the impact on its rural setting owing to the loss of its associative link with its former farmland, glimpsed views of roofs from the upper floors of the building during the winter months and the loss of rural approaches to and from the listed building across

the application site. In coming to this lower level of harm, I have taken into account the limited visibility of the building from the application site.

I consider the harm to St Mary's Church to be a moderate degree of less than substantial harm. This is specifically from the loss of the last vestige of its rural setting, which reveals its nature as an early medieval building constructed at a time when the parish had a widely dispersed settlement pattern with no nucleated centre. This will be evident from the buildings, roads, boundaries, vehicles, domestic paraphernalia, noise and lighting which will all be experienced from the church, as well as the impact on approaches to and from the building across the application site. In coming to this conclusion, I have taken into account the existing tree screening which is present during the summer months. The proposal will fully urbanise its surroundings and it will no longer be experienced as the rural parish church it has been since the 12th century.

Great weight will need to be applied to this harm in line with paragraph 212 of the NPPF and even greater weight applied owing to the greater importance of St Mary's Church as a Grade I listed building. As harm to a Grade I listed building is a serious consideration, I would consider this a strong reason for refusal. In line with paragraph 215 of the NPPF, you will need to weigh the benefits of the scheme against the harm to the heritage assets. As I am not aware of any specific heritage benefits from the scheme, you may wish to use this harm as a reason for refusal as part of a wider planning balance."

101. The applicant's Planning and Affordable Housing Statement list the public benefits of the proposed development (as set out in paragraph 164 below) and concludes that the limited harm to the setting of the listed buildings is outweighed by these benefits.

102. Your officers note the High Court judgement in the case of Barnwell Manor Wind Energy Ltd v E.Northants DC, English Heritage, National Trust & SSCLG ([2014] EWCA Civ 137). The Court held that in enacting section 66(1) of the Listed Buildings Act 1990, Parliament intended that the desirability of preserving the settings of listed buildings should not simply be given careful consideration by the decision-maker for the purpose of deciding whether there would be some harm but should be given "considerable importance and weight" when the decision-maker carries out the balancing exercise. The applicant has made no assessment of the degree of less substantial harm to the setting of the listed buildings and therefore whether there is just limited harm. In determining this planning application, your officers give considerable importance and weight to the harm the proposed development would cause to the setting of the listed buildings Court Farm House and St Mary's Church. The application is thereby contrary to paragraph 215 of the NPPF and development plan policy DP20 and this attracts moderate weight in the planning balance against the development proposals.

Key issue 9 - surface water flood risk:

103. Policy DP21 (E) requires that development within flood risk zones 2 and 3, and sites at medium or high risk from other sources of flooding as identified by the Council's Strategic Flood Risk Assessment, will only be permitted where:

1. The sequential and, where appropriate, exception tests as detailed in 'Technical Guidance to the National Planning Policy Framework have been

applied and passed and the proposal is a development form compatible with the level of risk;

2. For all sources of flood risk, it can be demonstrated through a site specific Flood Risk Assessment (FRA) that the proposal would, where practicable, reduce flood risk both to and from the development or at least be risk neutral; and

3. Appropriate flood resilient and resistant design, and mitigation and adaptation measures are included in order to reduce any level of risk identified through a site specific FRA to acceptable levels.

104. Paragraph 170 of the NPPF provides that inappropriate development in areas at high risk of flooding should be avoided by directing development away from areas at highest risk.

105. The NPPF provides at paragraph 181 and Footnote 63 that a site-specific Flood Risk Assessment (FRA) is required for proposals of 1ha or greater in Flood Zone 1, all proposals for development in Flood Zones 2 and 3, or in an area within Flood Zone 1 that has critical drainage problems (as notified to the local planning authority by the EA).

106. The FRA will identify and assess the risks of all forms of flooding to and from the development and, if necessary, demonstrate how these flood risks will be managed so that the development remains safe throughout its lifetime, taking climate change into account.

107. Paragraphs 173 and 174 of the NPPF provide that a sequential risk-based approach should be taken to individual applications in areas known to be at risk of any form of flooding. The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be permitted if there are reasonably available sites appropriate for the proposed development in areas at with a lower risk of flooding. The strategic FRA will provide the basis for applying this test.

108. Paragraph 175 of the NPPF provides that the sequential test should be used in areas known to be at risk now and in the future from any form of flooding, except in situations where a site-specific flood risk assessment demonstrates that no development within the site boundary would be at risk of flooding from any source.

109. Paragraph 177 of the NPPF provides that, having applied the sequential test, if it is not possible for development to be located in areas with a lower risk of flooding, the exception test should be applied depending on the potential vulnerability of the site in line with the Flood Risk Vulnerability Classification in Annex 3 of the NPPF.

110. Paragraphs 178 and 179 of the NPPF states that the exception test should be informed by a strategic flood risk assessment. To pass the exception test it should be demonstrated that:

a) The development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) The development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Both elements of the exception test should be satisfied for development to be permitted.

111. Paragraph 181 of the NPPF provides that development should only be allowed in areas at risk of flooding where, in the light of a flood risk assessment (and the sequential and exception tests, as applicable), it can be demonstrated that:

a) Within the site, the most vulnerable development is located in areas of lowest flood risk , unless there is an overriding reason to prefer a different location;
b) The development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;
c) It incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;
d) Any residual risk can be safely managed; and
e) Safe access and escape routes are included where appropriate , as part of an agreed emergency action plan.

112. Paragraph 182 of the NPPF provides that applications which could affect drainage on or around the site should incorporate sustainable drainage systems.

113. The planning application is accompanied by a site specific “Flood Risk Assessment and Drainage Strategy”. The FRA part of this document records that the site is shown as in Flood Zone 1 (that is an area of very low risk of flooding) on the Environment Agency’s Flood Map for Planning. However, there is a low, medium and high risk surface water flood flow path through the western half of the site (i.e. between 1 in 1000 and 1 in 100, between 1 in 100 and 1 in 30 and more than 1 in 30 chances of flooding each year respectively). There is also a spring and a permanently wet area of land towards the south-west corner of the site.

114. The FRA includes a Surface Water Hydraulic Modelling Report. This shows that through the northwest of the site the flow path is modelled to be shallow, typically less than 0.10m, ranging in width from approximately 5-20m. In the centre of the site the flow path becomes more concentrated within a slight valley in the local topography that directs the flow path southwest towards the stream on the western site boundary, with peak depths in this area typically around 0.15m. In the southwest corner where the flow path joins the stream, depths of approximately 0.25m are predicted.

115. To increase the developable area of the site, post-development modelling was undertaken to assess the potential impacts of reprofiling ground levels so the overland flow path is diverted along the western boundary, away from the proposed residential development in the centre of the site.

116. The model results demonstrate the reprofiling ground levels so the overland flow path is diverted along the western boundary of the site are not predicted

to have a detrimental impact on flood risk to third party land, with all increases in peak depths contained within the site boundary.

117. The applicant's FRA states that development has been kept out of the wet area in the southwest of the site, and no buildings have been located either between the stream and the wet area, or within 10m of the wet area. Proposed development ground levels will also be approximately 700mm-1000mm higher than existing levels in the southwest of the site post development. The proposed built development will be at low risk of groundwater flooding at the surface. Further mitigation will be provided by setting building floor levels at least 150mm above the existing ground levels and ensuring ground levels fall away from the proposed dwellings.

118. The NPPF requires that climate change should be factored into assessments of flood risk. Therefore, for the proposed development site, the climate change increase predictions that should be applied to the hydraulic model are 35% for the 1 in 30-year rainfall event and 45% for the 1 in 100-year event. The drainage strategy for the development will take the latest climate change predictions into account so that the surface water generated in the 1 in 100-year + 45% rainfall event will be attenuated on site and will not cause flooding locally or to neighbouring areas.

119. The SuDS drainage strategy for the development looks to use pervious pavements, geocellular storage/soakaways and open SuDS (swales, detention basins, infiltration basins and a pond) for the attenuation of surface water runoff. HydroBrake flow control chambers will be incorporated into the design to control discharge to the existing ordinary watercourse that flows along the western boundary of the site to 10.1 l/s for up to the 100 year + 45% climate change critical rainfall event.

120. In the hydraulic design of the surface water drainage strategy, the estimated maximum volume of water in the surface water drainage system based on the critical summary of results for the 100 year + 45% climate change critical rainfall event is around 2970m2, and the total volume of storage in the system is around 3610m3. On the basis the drainage strategy has around an additional 640m3 surface water storage capacity for in excess of the 100 year + 45% climate change critical rainfall event, it is proposed details of how the proposed surface water drainage system accommodates a 10% allowance for urban creep is provided at the detailed design stage. The proposal is considered appropriate because the surface water drainage system shows the negligible flooding is managed in the communal soft landscaping areas for the 1 in 100-year + 45% cc critical rainfall event, and an additional approximately 18% surface water storage capacity has been provided in the drainage strategy to account for urban creep and events in excess of the 1 in 100-year + 45% cc critical rainfall event.

121. The Lead Local Flood Authority (LLFA) initially reviewed the applicant's Flood Risk Assessment and Drainage Strategy and raised objection on the following grounds:
    - There is a need for a specific hydrological assessment to demonstrate the diverting flood flows within the site will not lead to a loss of flood storage or increase the risk of flooding to the site and surrounding area
    - Robust evidence should be presented to demonstrate the proposed diversion will not interfere with the development and SUDS features

- The applicant has not demonstrated that surface water will be managed and discharged from the site in accordance with the drainage hierarchy
- The stream on the western site boundary should be clearly presented on the application drawings, including bed and bank levels, and it is not clear that the applicant has rights to do works to this watercourse which should be evidenced
- Evidence must be provided to show the greenfield runoff rate for the site
- On site attenuation of flood flows should be provide for the 1 in 100 year +45% allowance for climate change but the preliminary calculations show flooding will occur
- All SUDS features and flow control devices should be shown on the application drawings
- Exceedance routes that minimise risks to people and property area required for rainfall events in excess of 1 in 100 year + climate change allowance
- The watercourse on the western site boundary should be included in any future maintenance regime.

The applicant has considered these grounds for objection and provided further information in a Technical Note which has led the LLFA to withdraw its objection subject to the imposition of conditions (including pre-commencement conditions) on any planning permission granted.

122. Your officers, however, continue to have a number of unresolved concerns about the applicant's surface water drainage strategy specifically related to potential adverse impacts on The Bogs AW and pSNCI within and adjacent to the site as set out under Key Issue 6 above.

123. The LLFA recommendation on this application is subject to the imposition of a pre-commencement conditions on any planning permission and the applicant's acceptance of this condition remains outstanding.Your officers also have an unanswered question concerns about the maintenance and management regime in perpetuity for the stream and SUDS features and how that regime will be financed which need to be satisfactorily answered and dealt with before planning permission could be granted.

124. Your officers accept, however, that with the exception of continuity of surface water runoff to feed The Bogs, the provisions of the NPPF and Tandridge Local Plan Part 2 Detailed Policies (P2DP) policy DP21(E) are satisfied and this is a matter that attracts neutral weight in the planning balance.

Key issue 10 - foul drainage:

125. Core Strategy policy CSP11 provides that:

"Developers will be required to contribute to improved infrastructure and services (including
community needs) necessary to support the proposed development; the Council will generally require
such provision to be made before the development is occupied.
Planning permission will only be granted for developments which increase the demand for off-site services
and infrastructure where sufficient capacity exists or where extra capacity can be provided, if necessary
through developer funded contributions."

126. A 75mm diameter foul water gravity public sewer runs south across the site. The low point of the site (around 95.00m AOD at the southwest corner) and the invert level (IL) of Southern Water Manhole 8901 in Wheeler Avenue (99.34 m AOD) confirm that a pumping station will be required for a proportion of the proposed dwellings and the care home to connect to this manhole. The Southern Water (SW) capacity check response states that there 'is currently inadequate capacity within the foul sewerage network' and 'Southern Water has a duty to provide Network capacity from the point of practical connection (point of equivalent or larger diameter pipe) funded by the ' New Infrastructure Charge'.

127. The applicant's "Flood Risk Assessment and Drainage Strategy" states: "Water and Sewerage Companies have a legal obligation under Section 94 of the Water Industry Act 1991 to provide developers with the right to connect to a public sewer regardless of capacity issues. The Strategy has identified the preferred point of foul water connection and the peak foul flow rate from the site, to allow for capacity to be considered by SW and any upgrading work to be programmed if required. The planning authority can make planning permission conditional upon there being in place adequate sewerage facilities to cater for the requirements of the development if required. Such an approach would allow the legal right to connect to be managed prior to implementation."

128. Your officers consider that the information proved by the applicant leaves unanswered questions. What is not clear is whether there is inadequate capacity in the foul sewer for any part of the proposed development to be connected, or whether some development could be connected then occupied before all capacity was used up. A letter provided from Southern Water refers to:

"The proposed development would increase flows to the public sewerage system which may increase the risk of flooding to existing properties and land."

The letter also refers to capacity to connect drainage for 50 dwellings to the current sewage system as assessed in June 2024 but this information could only be relied upon for 12 months. The Southern Water letter further states that:

"Southern Water has a duty to provide Network capacity from the point of practical connection (point of equivalent or larger diameter pipe) funded by the New Infrastructure Charge. Southern Water aim to provide this within 24 months following the date that planning has been granted for developments not identified as strategic sites in our current business plan. Strategic sites are larger developments and will often take longer than 24 months for a full solution to be provided."

Clarification is therefore required (and has been sought) whether the proposed development is a 'strategic site' for Southern Water purposes in which case there would be uncertainty when a foul drainage connection would be available. Your officers have raised all these points of uncertainty with the applicant and further information is awaited.

129. The outstanding information is important to drafting a planning condition or conditions in any planning permission to control how much, if any, development might be occupied before foul sewer capacity was increased. It is also important to determining if the proposed development is deliverable within a reasonable timescale (that is within 3 or 5 years of grant of planning permission) given that an outline permission is sought by the

applicant. The ES submitted with the application states at paragraph 6.7.4 that the development will be constructed between 2026 and 2030 and will be fully operational by 2030 but this could be made unachievable if foul sewer capacity cannot be provided by then to service the development. Without this assurance on deliverability, the provision of market and affordable housing could only be given limited not significant weight in the planning balance.

130. Your officers consider that, as matters stand, with uncertainty over when a foul drainage connection might be achievable the proposed development is contrary to Core Strategy policy CSP11 and this is a matter that attracts moderate weight against the grant of planning permission in the planning balance. If the current uncertainty can be overcome then this objection to the proposed development would fall away. Ensuring the provision of a foul drainage connection for the development could then be dealt with by way of a planning condition.

Key issue 11- whether the site contains best and most versatile agricultural land:

131. The National Planning Policy Framework (NPPF) (2024), paragraph 187 provides that planning policies and decisions should contribute to and enhance the natural and local environment by, inter alia, recognising "the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land". The best and most versatile (BMV) agricultural land is defined in Annex 2 of the NPPF as land, which is of Grade 1, 2 and Subgrade 3a of the Agricultural Land Classification (ALC). Footnote 67 of the NPPF advises that where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of higher quality.

132. The planning application when submitted was accompanied by a desk-based agricultural land quality assessment of the site. Based on the findings of this assessment the applicant's Planning and Affordable Housing Statement's overall conclusion with respect to loss of agricultural land was:

"7.12. The loss of agricultural land also attracts only limited weight, given the Site is moderate/poor quality agricultural land is not classified as 'best and most versatile agricultural land'."

133. Your officers considered given the size of the site (9.7 ha) that this was a significant agricultural resource as well as being a significant countryside and biodiversity resource. The site is in good condition agriculturally and has been continuously cropped over the years with cereals and sweetcorn. A full field assessment of agricultural land quality was therefore required from the applicant.

134. The detailed ALC undertaken shows that the site is wholly Grade 3a and is therefore BMV agricultural land.

135. The submitted ALC Report setting out the results of the ALC seeks to provide a context for assessing the significance of the ALC in terms of loss of an agricultural resource. The report notes that there is no definition in the NPPF of what constitutes "significant" development as referred to in Footnote 67 of the NPPF. Your officers note that the Town and Country Planning (Development Management Procedure (England) Order) (DMPO) 2015

requires that planning authorities must consult Natural England on all non-agricultural applications that result in the loss of more than 20 hectares (ha) of BMV land if the land is not included in a development plan. The "Guide to assessing development proposals on agricultural land" (Natural England, February 2021)" advises local planning authorities to:

"Use ALC survey data to assess the loss of land or quality of land from a proposed development. You should take account of smaller losses (under 20ha) if they're significant when making your decision. Your decision should avoid unnecessary loss of BMV land."

136. The authors of the ALC Report suggest that 20ha is a suitable threshold for defining "significant" in many cases. The inference of the report is that the loss to agriculture of the 9.7 hectares of BMV agricultural land contained in the application is not significant. However, this inference contradicts the Natural England advice to planning authorities quoted above that they should take account of smaller losses (under 20 ha) if they are significant.

137. Your officers further disagree with that inference in the ALC Report. Paragraph 187b) of the NPPF relates to planning policies and decisions. Planning policies in this context would include the identification of sites suitable for housing allocations which could be over 20 ha. The ALC Report appears to accept this position as well and paragraph 4.1 states "In plan making terms the NPPF requires that, where significant development of agricultural land is involved, poorer quality land should be used in preference". Your officer's interpretation of the provisions of the "Guide to assessing development proposals on agricultural land" (Natural England, February 2021)" is that local planning authorities should take account of smaller losses of agricultural land under 20 ha if they are considered significant in making development management decisions on individual applications such as this one.

138. The ALC Report also refers somewhat contradictorily to the Institute of Environmental Management and Assessment (IEMA) Guide "A New Perspective on Land and Soil in Environment Impact Assessment" of February 2022. The Guide identifies in table 3 (page 49) the magnitude of the impacts on soil resources. Losses of under 5ha is defined as minor magnitude losses. Losses of between 5 – 20 ha are classified as moderate losses. Losses of over 20ha is considered to be major losses. This is different terminology to that in the NPPF and the "Guide to assessing development proposals on agricultural land" (Natural England, February 2021)" and is not national policy or guidance.

139. Footnote 65 of the NPPF refers to areas of poorer quality agricultural land being preferred to those of higher quality where significant development of agricultural land is demonstrated to be necessary. The ALC Report's conclusions on this point are set as follows:

"4.32 The Site itself comprises Subgrade 3a land quality. In the event that there was a need to consider whether poorer land is available, based on the provisional and predictive mapping it cannot be concluded that land further afield is not of a poorer land quality. However, it cannot be determined that there is land within immediate proximity of the Site that is of poorer land quality than the Proposed Development Site.

4.33 Nevertheless, this Proposed Development Site is not classified as significant development and therefore whether there is poorer quality land within the area does not need to be assessed."

Your officers conclude that the ALC Report has not shown that there is not poorer quality land available for the same development elsewhere.

140. The ES prepared for the application considered the economic impact of the development in terms of the loss of agricultural land and concluded:

"6.7.13 The closure of the field will result in the eventual loss of jobs associated with the Site. The current employment of the Site is estimated to be 0.3 FTE.

6.7.14 This constitutes a negligible magnitude impact, likely to result in a negligible effect which is anticipated to be not significant."

In terms of the economic impact of the loss of agricultural land, the ES concludes:

"6.7.57 The closure of the arable field will result in the loss of jobs associated with the Site, which currently has an estimated FTE of 0.3."

Taking this conclusion into account in the overall assessment of the economic effects of the proposed development, the ES concludes:

"6.7.60 The sensitivity of local economy, employment and skills has been assessed as low. The above constitutes a minor magnitude impact, likely to result in a minor beneficial effect which is anticipated to be not significant."

141. The ALC Report does include an assessment of the economic benefits of the site. The preface to this section of the report states:

"4.4 In the absence of any empirical data, an economic assessment is inevitably crude."

The results of the assessment set out in the ES and the ALC Report lack meaningful context. There is no information relating to the wider agricultural holding of which the site forms part, how large and agriculturally diverse is that holding and the implications of the loss of the site to the continued economic viability of the agricultural enterprise that farms the land. Whatever, the economic benefit of the site may be, its loss as BMV to the agricultural economy would negate at least part of the wider economic benefits that the applicant considers will arise from the proposed housing development.

142. The overall conclusion of the Report (para 4.35) is that "At approximately 9.7ha of BMV land the Site is under 50% of the threshold for consultation with Natural England. Therefore, the quantum of BMV is not significant." Your officer's conclusion is that the loss of this 9.7ha site consisting of Grade 3a land is significant both in economic terms and sustaining the health and well-being of the countryside and supporting biodiversity. This is a consideration that attracts moderate weight against the development proposals in the overall planning balance.

Key issue 12: use and enjoyment of Public Bridleway 97:

Application 2022/1161; Application 2022/1658; Application 2022/267; Application 2022/1523; Application 2024/1389; Application 2024/ 1393.

143. Paragraph 96(c) of the NPPF provides that planning decisions should aim to achieve, healthy, inclusive and safe places which enable and support healthy lives. Paragraph 105 of the NPPF provides that planning decisions should protect and enhance public rights of way and access. Core Strategy policy CSP13 (Community, Sport and Recreation Facilities/ Services) seeks the protection and where possible enhancement of the public rights of way network.

144. The benefits of the bridleway to local residents and users of the countryside in the vicinity are set out in the section on valued landscape.

145. The Framework Masterplan in the Design and Access Statement identifies how the bridleway could be integrated into the development, as follows:

• Existing public right of way – safeguarded within a green corridor where new trees can be planted along the full length of the route;
• Vehicle crossings of bridleway – limited as much as possible, and where located priority to be given to pedestrians through narrowing of road and alternative surface treatment;
• Built frontage – concentrated along the bridleway route and in some locations opportunities for parking to be provided to the rear or side of dwellings – so homes and front doors can directly access the footpath rather than being separated by a road.

The Framework Masterplan shows a connection between the bridleway and Barrow Green Road at the junction of that road and Chalkpit Lane which is missing from later application drawings and is not therefore to be provided.

146. The change in the character of the bridleway and loss of the countryside experience and dramatic views of the National Landscape it provides are referred to in many of the public representations, including that from the Surrey Hills AONB Management Board, commenting on the planning application. The local representative of the British Horse Society has submitted a representation as follows:

"The field under consideration has a Bridleway crossing it diagonally (BW97). This is much used by equestrians, cyclists and walkers and is a pleasant rural path ,the ambience of which would be completely ruined if it ended up in the centre of a housing estate. For many years I rode from Tandridge Priory Stables and this path was (and is) used on a daily basis as part of circular rides."

The Surrey Countryside Access Forum also objects to the application for the following reasons:

"The field (Stoney Field) under consideration has a Bridleway crossing it diagonally (BW97). This is much used by equestrians, walkers and cyclists. It is a pleasant rural path, with direct communication and forming the opportunity of a circular route, The ambiance and character of this path / route, which is used by many, would be completely ruined if it ended up inside and dominated by a housing estate. Concurrently, the surrounding countryside would also be completely ruined with adverse impacts on the environment, wildlife etc etc; all of which contribute to the interest of this PRoW."

Your officers consider that the major adverse effect the proposed development would have for users of public bridleway 97 would not just be limited to the loss of views of the National Landscape, identified in the applicant's LVIA, but the loss of experience of open countryside that is a valued landscape and the health and well-being benefits the bridleway provides for existing Oxted residents. The proposed development is consequently contrary to Core Strategy policy CSP13. These are matters to be given significant weight against the development proposals in the overall planning balance.

Key issue 13: impact on character and appearance and amenities of local residents

147. The NPPF at paragraph 131 provides that the creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve.

148. The NPPF at paragraph 135 provides that planning decisions should ensure that developments:

a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;

b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;

c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);

d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;

e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users51; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.

149. Core Strategy policy CSP18 seeks to ensure that developments respect local character, setting and context. Policy CSP20 further states that the character and distinctiveness of the District's landscapes and countryside will be protected and new development will be required to conserve and enhance landscape character. Policy DP7 is a general policy which requires that development is appropriate to the character of the area.

150. The applicant's Planning and Affordable Housing Statement states that a landscape-led approach has been taken to the masterplan design, taking careful consideration of the relationship between the edges of Oxted and the countryside, to ensure that the landscape acts as an integrating framework for the proposal and an overarching green infrastructure provision forms part of the Land Use Parameter Plan.

151. The DAS refers to the Illustrative Masterplan having evolved from a detailed analysis of the Site's character, opportunities and constraints. This has resulted in the Illustrative Masterplan proposing the following principal components:

1. Landscaped open space proposed around existing pedestrian and cycle access via public right of way, connecting with Court Farm Lane;
2. Linear green route comprising of existing bridleway within tree lined green corridor including swales for surface water drainage;
3. All built form along linear green route designed to front directly onto the route to maximise activity and overlooking of route and promotion of sustainable travel modes into central Oxted
4. Nodal junction in centre of development joining linear route with green street leading to main vehicle arrival on Barrow Green Road. Key focal buildings designed to hold corners of space and provide frontage to both routes leading onto the nodal point;
5. Dwelling density and scale dissipates to the north along the linear route to reflect the outer edge of the development and rural setting;
6. Main vehicle access into development from Barrow Green Road;
7. Low density detached dwelling frontage orientated to face towards northern edge and arrival space;
8. Tree lined green street through northern development area;
9. Proposed location for Extra Care Home – built form should be located to front onto key corner and street frontage with rear of site reserved for landscaped

private gardens backing onto boundary with adjacent burial ground;

10. Residential 'lane' style streets 'siding' onto eastern edge to provide appropriate treatment to boundary – some limited surveillance and overlooking of adjacent footpath route whilst respecting sensitive edge with burial ground;
11. Secondary vehicle access into site from Wheeler Avenue, providing access to the southern development parcels only;
12. Arrival space designed around new access from Wheeler Avenue with opportunities for new planting;
13. Existing mature tree retained and treated as a landscape asset within thedesign of the open space centrally located to the development; surrounding dwellings to face towards the tree whilst respecting RPAs;
14. Opportunity for green corridor through the development area forming a link from the outer edge of the site through to the linear bridleway route;
15. Landscaped buffer area proposed as public open space with opportunities for SUDs attenuation;
16. Informal pedestrian routes through southern area of open space potentially design as 'boardwalk' style routes to ensure they can be used all year round;
17. Area of public open space where development edge set back from northern boundary, allowance for new tree planting within space to provide natural screening of new development from views from the north and north-west;
18. Lower density dwellings proposed facing towards the outer edges of the site along the landscape buffer to the west and north; mainly detached houses with hipped roofs and parking/garages to the side to provide gaps in the street scene and reduce massing of new built form facing the development edge, good natural surveillance.

A set of character areas has been proposed across the development to ensure the design of the buildings and landscaping, and the application of materials can help convey character, assist wayfinding, and provide variety and visual interest around the development.

152. The design principles proposed within the DAS are accompanied by a 'Design Commitment' Statement' which has been prepared to guide the detailed scheme design at the reserved matters stage. It establishes a set of core design principles that will ensure the delivery of a successful and integrated development.

153. However, your officers consider that the information submitted with the application failed to recognise the need for more information on the scale and layout of the proposed development at this outline application stage. This is a visually sensitive site in the Green Belt and therefore in the open countryside which is a valued landscape and forms part of the setting of the National Landscape. If more information had been provided with the application, particularly relating to scale and layout as requested by the Council, then some of the anticipated adverse effects of the development could have been avoided.

154. The applicant's ES concludes that the completed development will have a major adverse visual effect at site level due to the introduction of built form onto open agricultural land. There will be a minor neutral effect on landscaped features (the retained trees and The Bogs). The character of the wider area will experience a minor adverse effect, noting that the proposed development would not be uncharacteristic of the receiving townscape to the east and south.

155. Your officers agree with the ES assessment that the completed development will have a major adverse visual effect at site level. An attractive and valued piece of open countryside will be permanently lost. The development will not be seen as an extension of the urban area of Oxted which is largely screened from the site and its immediate surroundings by woodland and trees and hedgerows along the boundaries of the site. Instead, the development will be seen as an isolated residential development in open countryside with the resultant urbanisation having a major adverse effect on the character and appearance of the wider open countryside.

156. Your officers consider, however, that while there will be some adverse impact on the amenities of local residents, mainly due to increased vehicle and pedestrian movements along the Wheeler Avenue access to the site, these impacts will be localised.

157. In conclusion, your officers consider that the proposed development is contrary to paragraph 135 of the NPPF because the development will not add to the overall quality of the area over the lifetime of the development and will not be sympathetic to local character in terms of landscape setting. The adverse impacts on the character and appearance of the open countryside adjacent to the site mean that the proposed development is contrary to development plan policies CSP18 and DP7. Once again, it is noted that the applicant concludes that the requirements of development plan policy CSP21 are not met, due to development of an open field within the setting of the national landscape, which will change the character of the site at a local level. These adverse impacts on the character and appearance of the area

constitute other planning harm to be given moderate weight against the development proposal in the planning balance.

Key issue 14 - highway safety

158. Paragraph 116 of the NPPF December 2024 states that 'development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.' Policy CSP12 of the Core Strategy advises that new development proposals should have regard to adopted highway design standards and vehicle/other parking standards. Criterion 3 of Policy DP7 of the Local Plan also requires new development to have regard to adopted parking standards and Policy DP5 seek to ensure that development does not impact highway safety.

159. The County Highway Authority (CHA) raises no highway objection to the application, subject to the imposition of conditions on any permission, including construction access from Barrow Green Road only, the access from Wheeler Avenue serving no more than 60 of the proposed houses, and to the applicant agreeing to providing a financial contribution to the legal procedures for extending the current 30MPH speed limit on Barrow Green Road, or alternatively funding speed reduction measures on that road.

160. The CHA's proposed conditions include pre-commencement conditions and the applicant's confirmation of acceptance of the need for these conditions remains outstanding and, subject to that confirmation being received, highway safety considerations attract neutral weight in the planning balance.

Key issue 15 -sustainability

161. Paragraph 110 of the NPPF provides that significant development should be focused on locations which are or can be made sustainable and that opportunities to maximise sustainable transport solutions will vary between urban and rural areas. Paragraph 115 of the NPPF provides that it should be ensured safe and suitable access to the site can be achieved for all users.

162. Policy CSP1 of the Core Strategy seeks to promote sustainable patterns of travel and to make the best use of previously developed land. As such, it sets out that development will take place within the existing built up areas of the District and be located where there is a choice of mode of transport available and where the distance to travel to services is minimised. Policy DP1 of the Local Plan sets out the Council's positive approach to sustainable development and reflects the provisions of the NPPF with respect to sustainable development. Policy CSP14 (Sustainable Construction) of the Core Strategy sets a requirement to reach a minimum 20% saving in CO2 emissions through the incorporation of on-site renewable energy.

163. The Planning and Affordable Housing Statement sets out at Sections 5 and 6 a number of reasons why the proposed development is considered sustainable, as follows:

- The Site is accepted by your officers as a sustainable location (as evidenced by the 2018 HELAA process, and the conclusion that it is in accordance with the preferred strategy)
- The application site is an accessible location

- In highway terms the application site is a sustainable location
- The site is within safe and convenient walking access to local services and facilities.
- The improvements to walking and cycling infrastructure will support active travel
- Collectively the 'fabric first' and renewable energy measures to be incorporated in the proposed houses generate a 77.9% reduction in CO2 emissions that exceeds the Development Plan policy requirement
- There are no landscape designations affecting the site
- Use of low quality agricultural land for the development and its associated Green Infrastructure.

164. Your officers have a number of reservations concerning the applicant's analysis why the proposed development is sustainable. The site is close to the urban area of Oxted and an accessible location along certain routes from the town both for car users, pedestrians and cyclists. However, there are also accessibility limitations. The Barrow Green Road access is poor in not providing for pedestrians or cyclists. There are no existing footways along the road from the proposed site access and Barrow Green Road here has challenges for pedestrians because of its horizontal and vertical alignment, lack of forward visibility in key places for drivers and lack of pedestrian refuges off the carriageway. A short walk along Barrow Green Road from the site may have attractions because it represents a shorter walk to St Mary's Primary School than alternative routes.

165. Your officer's consider that, within the overall planning balance, moderate weight should be given to the sustainability of the proposed development.

Key issue 16 – conclusions and planning balance:

166. Section 7 of the applicant's Planning and Affordable Housing Statement sets out the applicant's assessment of the weighting to be afforded to benefits or adverse impacts of the proposed development in the planning balance, as follows:
    i) Adverse impacts: policy conflicts in terms of localised landscape change and loss of countryside and agricultural land- limited weight;
    ii) Benefits: provision of market and affordable housing and extra care facility – very significant weight;
    iii) Benefit: provision of housing in a sustainable location – moderate weight;
    iv) Benefit: Delivery green space and improved public rights of way network – moderate weight;
    v) Benefits: economic benefits of creation of jobs during the construction phase and increased spend during the operational phase – moderate weight;
    vi) Benefits: environmental and biodiversity enhancements – moderate weight; and
    vii) Benefit: compliance with "Golden Rules" (NPPF paragraph 156) – significant weight.

    Your officers agree that the applicant has identified the scope of benefits of the proposed development (although not necessarily agreeing that all of them are relevant or with the weighting ascribed to these benefits as will be set out below).

167. The overall compliance or conflict of the proposed development with development plan policies also needs to be taken into consideration. The consideration of key issues above has led to the following conclusions relating to either compliance or non-compliance with development plan policy:

A) Compliance with development plan policy:
The development proposals are in compliance with development plan policy with respect to the following policies:
- DP19 biodiversity net gain
- DP21(E) surface water flood risk
- DP7 highway safety
- CSP1 and DP1 sustainability

B) Non-compliance with development plan policy:
The development proposals are not compliant with development plan policy with respect to the following policies:
- CSP8 for extra car accommodation; the application lacks essential information and cannot be said to be compliant with this policy
- DP10 there is definitional, spatial and visual harm to the Green Belt and the development is in conflict with Green Belt purposes a) and c)
- CSP21 the development does not conserve and enhance a valued landscape
- CSP18 because the proposed development would not reflect and respect the character, setting and local context of the area in which it is situated
- CSP20 the proposed development would have an adverse impact on views into and out of the Surrey Hills National Landscape and therefore on its setting
- CSP17 and DP19 in the absence of information to demonstrate to the contrary, there will be a loss or deterioration of The Bogs AW
- DP20 because the less than significant harm to listed buildings caused by the proposed development would not be outweighed by benefits of the proposed development
- CSP11 given the uncertainty whether an adequate connection can be made to the foul sewage system
- CSP18 and DP7 the proposed development would not add to the overall quality of the area but would rather have adverse impacts on its character and appearance
- CSP13 adverse impacts for users of Bridleway 97 crossing the site.

Considered overall, the proposed development is non-compliant with the policies of the development plan.

168. Throughout this report in considering each key issue an assessment has been given of the weight to be afforded to each issue in the planning balance, as follows:

Proposed benefits of the application:

i) market and affordable housing – significant
ii) extra care accommodation – limited
iii) biodiversity net gain – limited
iv) foul drainage provision – moderate
v) highways – neutral
vi) sustainability – limited
vii) green space – limited
viii) economic – limited

ix) sustainable drainage - limited

Harm that will be caused:

i) harm to the setting of the National Landscape – great
ii) harm to the Green Belt- substantial
iii) harm to the The Bogs AW and pSNCI – substantial
iv) harm to a valued landscape – substantial
v) harm to users of Bridleway 97 – significant
vi) harm to character and appearance of the local area – moderate
vii) harm to significance of heritage assets – moderate
viii) harm due to loss of BMV agricultural land – moderate

168. Your officer's assessment of whether the application site should be considered Green Belt not Grey Belt is set out in Key Issue 2 above. The site contributes strongly to Green Belt purpose a), that is checking the unrestricted sprawl of a large built-up area, and, in consequence, is Green Belt. The applicant at paragraph 6.131 of the Planning and Affordable Housing Statement accepts that, in these circumstances, the site also contributes to Green Belt purpose c), that is safeguarding the countryside from encroachment. Accordingly, the application proposals for residential development constitute inappropriate development that would cause harm to openness by way of visual and spatial harm, and also definitional harm to the Green Belt. In accordance with paragraph 153 of the NPPF and Tandridge Local Plan Part 2: Detailed Policies policy DP10, substantial weight has to be given to Green Belt harm, in the determination of this application. Development harmful to the Green Belt should not be approved except in very special circumstances (VSC).

169. Throughout the consideration of the Key Issues raised by this application, your officers have applied the weightings set out in paragraph 25 above to each issue to derive the benefits and harm that would arise if the development was implemented, as summarised in paragraph 168 above. The proposed benefits of the application in the applicant's submissions constitute the VSC why the application should be approved. The most significant of these VSC's is the provision of market and affordable housing in circumstances where the Council cannot demonstrate a five year housing land supply.

170. Set against these VSC's are the identified harm to the Green Belt and other harm that would arise from the development. There are major policy constraints in the district. It is 94% Green Belt, there are two National Landscapes which are the Surrey Hills and High Weald, flooding affects much of the district and there are also major infrastructure capacity constraints. Your officer's assessment is that given the constrained nature of the site as discussed in this report, the harms resulting from the proposed development outweigh the benefits, and the VSC for the granting planning permission do not exist. This is a similar conclusion to that of the inspector examining the now withdrawn Local Plan who said: "It is clear to me that there are specific policies of the Framework which indicate that development should be restricted in Tandridge and that in principle, the Plan would be sound in not meeting the OAN in full" (Inspector's final report - Annex 1 ID-16 para 44). Although there is now a new NPPF, these constraints remain relevant in the determination of planning applications in the District.

171. Paragraph 11(d)(i) of the NPPF provides that where development plan policies for determining an application are out of date, planning permission

should be granted unless the application of policies in the Framework that protect areas or assets of particular importance provide a strong reason for refusing the development proposed. With this application, those policies protecting areas or assets of particular importance are those relating to Green Belt, the setting of the Surrey Hills National Landscape, an irreplaceable habitat (The Bogs AW) and a Grade 1 listed building (St Mary's Church) and a Grade II listed building (Court Farm House). In your officers' view, the application of those policies does provide a strong reason for refusing planning permission for the proposed development. The tilted balance (para. 11(d)(ii) of the NPPF) does not apply in the determination of this application, therefore.

172. Your officers have raised a number of questions relating to various aspects of the application with the applicant a response to which is still outstanding, as follows:

i) Change to the mix and internal layout of affordable housing, affordable house design to be tenure blind and, in the event of phased development, there should be 50% affordable housing in each phase ;
ii) Timescale for a new foul drainage sewer connection to the site;
iii) Maintenance of surface water inflows to The Bogs;
iv) Funding mechanism for maintenance of SuDS features of the proposed development;
v) Diversion of Bridleway 97 junction with Barrow Green Road to the junction at the foot of Chalkpit Lane;
vi) Whether new statutory PRoW are part of the development proposals; and
vii) Whether the applicant is prepared to accept the "prior to development commencing" conditions requested by the County Highway Authority.

There are also requests for futher information from Natural England and Surrey Wildlife Trust to address significant concerns they have about the development proposals. These outstanding matters might be capable of being resolved by submission by the applicant of further information or through planning conditions or Section 106 obligations. However, as the matters remain outstanding, for the purposes of the planning balance they technically attract limited weight against a grant of planning permission.

173. One other matter remains unresolved and that is the applicant's right to connect the southern point of vehicular and pedestrian access to the development to the existing public highway in Wheeler Avenue. The section of land required to make the connection is outside the red lined application site boundary. The applicant claims that the proposed highway connection can be made because that section of land is dedicated highway land. The Council has sought counsel's advice on whether the section of land is, or is not, dedicated highway land. Counsel's advice is that, based on the evidence currently available, it is not possible to properly conclude whether highway rights extend over that section of land. This is something that requires further exchanges of evidence between the Council and the applicant to resolve the matter.

174. Based on the consideration of all the matters set out above, your officers conclude that planning permission should **BE REFUSED** under delegated powers on the following grounds:

1) The proposed residential development represents inappropriate development in the Green Belt that would result in definitional harm and significant harm to openness both spatially and visually. The proposed development would also result in significant other planning harm. The Green Belt harm and other planning harm is not clearly outweighed by the benefits of the proposal (nor by any other material consideration(s)), such that very special circumstances do not exist. As such, the proposed development is contrary to paragraph 153 of the NPPF and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP10.

2) The application site is sensitive being in the setting of the Surrey Hills National Landscape. The proposed development would adversely impact upon the character and distinctiveness of the landscape and countryside of the site and wider area and significantly detract from the overall character and appearance of the area and thereby the setting of the National Landscape. As such, the proposed development is contrary to the provisions of NPPF paragraph 189 and Core Strategy Policies CSP20 and CSP21 and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP7.

3) The current proposal by Natural England to include the application site in the Surrey Hills National Landscape, based on advice of expert landscape consultants, has reached an advanced stage and is now a material planning consideration in the determination of this planning application. A grant of planning permission that would nullify this proposal would be unjustified. Planning permission should not be granted for development such as now proposed that would prejudice the outcome of the proposal to include the site in the National Landscape and damage an environmental asset contrary to Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP7.

4) The applicant has not demonstrated that the proposed development, and in particular the outline drainage proposals, will not result in the loss or deterioration of an irreplaceable habitat both on-site and off-site, that is The Bogs ancient woodland, within and adjoining the site boundary. This is contrary to NPPF 2024 paragraph 193 (c) which requires that such development should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists. The proposal is also contrary to Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP7 which requires that proposals protect and, where opportunities exist, enhance valuable environmental assets. The proposal is similarly contrary to Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP19 which provides that where a proposal is likely to result in direct or indirect harm to an irreplaceable environmental asset of the highest designation, such as ancient woodland, the granting of planning permission will be wholly exceptional, and in the case of ancient woodland exceptions will only be made where the need for and benefits of the development in that location clearly outweigh the loss, and that impact or loss should not just be mitigated but overall ecological benefits should be delivered.

5) The information provided with the application is insufficient to show that there will not be adverse impacts on biodiversity as a result of the proposed development contrary to the provisions of paragraphs 187 and 193 of the NPPF and Tandridge Local Plan Core Strategy policy CSP17 and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP19.

Application 2022/1161; Application 2022/1658; Application 2022/267; Application 2022/1523; Application 2024/1389; Application 2024/ 1393.

6) The proposed development would cause less than substantial harm to the setting of St Mary's Church, a Grade I listed building, and Court Farm House a Grade II listed building and is thereby contrary to paragraph 215 of the NPPF and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP20 because it has not been satisfactorily demonstrated that the public benefits of the development would outweigh that harm.

7) The proposed development would lead to the loss of a significant area of best and most versatile agricultural land contrary to the provisions of NPPF paragraph 187 b).

8) The proposed development would have a major adverse effect for users of public bridleway 97 which would not just be limited to the loss of views of the National Landscape but the degradation and loss of experience of open countryside that is a valued landscape and an important recreational and well-being resource for local residents, contrary to policies 96(c) and 105 of the NPPF and Tandridge Local Plan Core Strategy policy CSP13.

9) The harm that would arise to the Green Belt, the setting of the National Landscape, open countryside and Bridleway 97, and potentially biodiversity, from the development proposals makes the development unsustainable in the context of paragraph 8(c) of the NPPF and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP1.

This decision relates to drawings numbered and titled, as follows:

vi) Location Plan No.3129-A-1000-PL-A.
vii) Land Use Parameter Plan No.3129-A-1200-PL-D.
viii) Site Access Barrow Green Road Drawing 107491 PEF XX XX D H 0300 Rev P01 (in Appendix C to Transport Assessment).
ix) Site Access Wheeler Avenue Drawing 107491-PEF-XX-XX-DR-H-0200 Rev P01 (in Appendix C to Transport Assessment).
x) Refuse Access Barrow Green Road Drawing 107491 PEF XX XX D H 0300 Rev P01 (in Appendix C to Transport Assessment).

	Signed	Dated
Case Officer	CT	15/08/2025
Checked ENF		
Final Check	PB	15/08/2025

Appendix A.2 Council's Statement of Case

Tandridge District Council

Statement of Case

Town and Country Planning Act 1990 Appeal by Croudace Homes Ltd, Land south of Barrow Green Road, Oxted , Surrey

PINS Appeal Ref No.: APP/M3645/W/25/3372747

LPA Ref No.: TA/2025/245

November 2025

Contents

14. *Key issue 7:* Whether the Biodiversity Net Gain proposals within the application can adequately offset any harm to biodiversity arising from the proposed development.
15. *Key issue 8:* Impact on the setting of nearby listed buildings.
16. *Key issue 9:* Surface water flood risk.
17. *Key issue 10:* Foul drainage.
18. *Key issue 11:* Best and most versatile agricultural land.
19. *Key issue 12:* Use and enjoyment of Public Bridleway 97.
20. *Key issue 13:* The impact of the proposed development on the character and appearance of the local area and the amenities of local residents.
21. *Key issue 14:* Highway safety.
22. *Key issue 15:* Sustainability.
23. *Key issue 16:* Conclusions & the planning balance.

1. The application

1.1 This appeal relates to planning application TA/2025/245 for the following description of development:

"Outline application for a residential development of up to 190 dwellings (including affordable homes)(Use Class C3), an extra care facility with up to 80 beds (Use Class C2), together with the formation of vehicular access, landscaping, parking, open space, green and blue infrastructure, and all other associated development works. All matters reserved except access."

1.2 The application is for outline planning permission with all matters reserved for subsequent approval except access.

1.3 The application is accompanied by an Environmental Impact Assessment (EIA). On 25 May, 2023, the Local Planning Authority (LPA) had received a formal request for a Screening Opinion from the appellant. On 03 July, 2023, the LPA, having undertaken a screening exercise, formally determined that an EIA would be required. The development was considered to fall within Schedule 2 category 10(b) of the EIA Regulations 2017 (as amended) because the overall area of the development exceeded 5 hectares and the proposed development was for over 150 houses. The development project was also considered to have significant ecology/biodiversity and landscape/visual effects.

1.4 The LPA will refer in its evidence for this appeal to relevant parts of the EIA, particularly where the environmental information provided is considered deficient, as will be identified in this Statement of Case.

1.5 The application was refused by Tandridge District Council acting as LPA on the 15 August, 2025, and the grounds of refusal are:

1) The proposed residential development represents inappropriate development in the Green Belt that would result in definitional harm and significant harm to openness both spatially and visually. The proposed development would also result in significant other planning harm. The Green Belt harm and other planning harm is not clearly outweighed by the benefits of the proposal (nor by any other material consideration(s)), such that very special circumstances do not exist. As such, the proposed development is contrary to paragraph 153 of the NPPF and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP10.

2) The application site is sensitive being in the setting of the Surrey Hills National Landscape. The proposed development would adversely impact upon the character and distinctiveness of the landscape and countryside of the site and wider area and significantly detract from the overall character and appearance of the area and thereby the setting of the National Landscape. As such, the proposed development is contrary to the provisions of NPPF paragraph 189 and Core Strategy Policies CSP20 and CSP21 and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP7.

3) The current proposal by Natural England to include the application site in the Surrey Hills National Landscape, based on advice of expert landscape consultants, has reached an advanced stage and is now a material planning consideration in the determination of this planning application. A grant of planning permission that would nullify this proposal would be unjustified. Planning permission should not be granted for development such as now proposed that would prejudice the outcome of the proposal to include the site in the National Landscape and damage an environmental asset contrary to Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP7.

4) The applicant has not demonstrated that the proposed development, and in particular the outline drainage proposals, will not result in the loss or deterioration of an irreplaceable habitat both on-site and off-site, that is The Bogs ancient woodland, within and adjoining the site boundary. This is contrary to NPPF 2024 paragraph 193 (c) which requires that such development should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists. The proposal is also contrary to Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP7 which requires that proposals protect and, where opportunities exist, enhance valuable environmental assets. The proposal is similarly

contrary to Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP19 which provides that where a proposal is likely to result in direct or indirect harm to an irreplaceable environmental asset of the highest designation, such as ancient woodland, the granting of planning permission will be wholly exceptional, and in the case of ancient woodland exceptions will only be made where the need for and benefits of the development in that location clearly outweigh the loss, and that impact or loss should not just be mitigated but overall ecological benefits should be delivered.

5) The information provided with the application is insufficient to show that there will not be adverse impacts on biodiversity as a result of the proposed development contrary to the provisions of paragraphs 187 and 193 of the NPPF and Tandridge Local Plan Core Strategy policy CSP17 and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP19.

6) The proposed development would cause less than substantial harm to the setting of St Mary's Church, a Grade I listed building, and Court Farm House a Grade II listed building and is thereby contrary to paragraph 215 of the NPPF and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP20 because it has not been satisfactorily demonstrated that the public benefits of the development would outweigh that harm.

7) The proposed development would lead to the loss of a significant area of best and most versatile agricultural land contrary to the provisions of NPPF paragraph 187 b).

8) The proposed development would have a major adverse effect for users of public bridleway 97 which would not just be limited to the loss of views of the National Landscape but the degradation and loss of experience of open countryside that is a valued landscape and an important recreational and well-being resource for local residents, contrary to policies 96(c) and 105 of the NPPF and Tandridge Local Plan Core Strategy policy CSP13.

9) The harm that would arise to the Green Belt, the setting of the National Landscape, open countryside and Bridleway 97, and potentially biodiversity, from the development proposals makes the development unsustainable in the context of paragraph 8(c) of the NPPF and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP1.

The LPA will set out in its evidence at the public inquiry into this appeal a detailed justification of each of these grounds of refusal.

1.6 Prior to the appellant submitting application TA/2025/245, the LPA had responded to a request from them for written pre-application advice which will be referred to as appropriate in evidence by the LPA.

1.7 The documents referred to in the statement below can be made available for inspection at the Council offices on request by contacting the Tandridge District Council Planning Department by e-mail at 'planningapplications@tandridge.gov.uk' or by telephone 01883 722000 quoting 'Croudace Homes Ltd appeal, land south of Barrow Green Road, Oxted' and application reference number TA/2025/245.

2 Appeal site and Its surroundings

2.1 The application site is a roughly square parcel of land with an area of 9.7 hectares (ha) or 24 acres situated to the northwest of the built-up area of Oxted town. The site is predominantly arable agricultural land with small areas of woodland in the northeast and southwest corners. There is a gentle but perceptible fall across the site from northeast to southwest.

2.2 To the north, the site is bounded by a discontinuous hedgerow on the southern side of Barrow Green Road. The Oxted to London railway line borders the northeast corner of the site. On its eastern boundary is the Oxted Parish cemetery. Southeast of the site is a small area of woodland bordering Court Farm Lane, and through which runs a public bridleway (FP97) which crosses the site diagonally southeast to northwest where it links to Barrow Green Road. The southern boundary of the site is a narrow belt of trees beyond which is residential development in Wheeler Avenue, Oxted, and an area of woodland. The western

boundary is along a stream which runs north to south through a narrow belt of fringing woodland and then into the woodland within and beyond the southwest corner of the site. Surface water from the application site drains to this stream.

2.3 In a wider context, although the site borders the built-up area of Oxted to the south and there is residential development beyond the railway embankment to the northeast, both areas of urban development are visually contained by trees and woodland. The character of the application site remains rural.

2.4 Other important features of note are:

- The site is in the setting of the Surrey Hills National Landscape lying to the north.
- The close proximity to designated heritage assets, namely the Church of St Mary the Virgin a Grade I listed building which is a short distance away from the southeast boundary of the site, Court Farm House a Grade II listed building again a short distance away to the south east of the site and Blunt House a Grade II listed building to the west of the site.
- The woodland known as The Bogs to the southwest, part of which may be within the site, and which is a wet ancient woodland in part at least sustained by surface water run-off from the site and is a Potential Site of Nature Conservation Interest.
- The very well-used public bridleway (Bridleway 97) that crosses the site affords dramatic views of the National Landscape and connects southwards to Master Park which is a significant open space close to the centre of Oxted town; and
- As an arable field, the site is Grade 3(a) best and most versatile agricultural land (BMV).

These important features of the site are, in most cases, very relevant to the grounds of refusal of the application as will be addressed in detail in the LPA's evidence.

3 Planning history

3.1 Previous planning applications relating to development of the site are:

- GOR/449/73: residential development of 22 acres of land.
- 2024/596/EIA: request for EIA Scoping Opinion for the development of 140 dwellings and 80-unit care home, with associated access, parking, and landscaping.

4 Development plan policy & other relevant legislation

4.1 The adopted development plan consists of Tandridge District Core Strategy (2008) and Tandridge Local Plan Part 2 – Detailed Policies (2014). Within the development plan, the most important policies for the determination of this appeal , and as set out in the grounds of refusal of the planning application, are considered to be: ,

i) Tandridge District Core Strategy policies CSP8, CSP11, CSP13, CSP17, CSP18, CSP20 and CSP21; and

ii) Tandridge Local Plan Part 2 – Detailed Policies – Policies DP1, DP7, DP10, DP13, DP19 and DP20.

The relevance of these policies and key considerations to the determination of this appeal will be set out in detail in the Council's evidence. The Council reserves the right to comment on any additional development plan policies cited by the appellant as part of its case.

4.2 The LPA's evidence will be that Tandridge District Core Strategy housing policy CSP 2 is out of date. All other important policies of the development plan listed above are also, therefore, out of date. This does not mean these other important policies can be given no weight in the determination of this appeal. Due weight should be given to these other policies in the determination of this appeal according to their degree of consistency with the National Planning Policy Framework (NPPF). The closer the policies in the development plan are to the policies in the NPPF , the greater the weight that may be given to them in determining this appeal. The LPA will set out in evidence what weight should be given to each of the policies listed in paragraph 4.1 above.

4.3 There are also the following Supplementary Planning Documents (SPDs) that have been formally adopted by the LPA or the Surrey Hills National Landscape Management Board:

- Tandridge Parking Standards SPD (2012)
- Tandridge Trees and Soft Landscaping SPD (2017), and particularly key considerations 2 and 4
- Surrey Hills AONB – Building Design into the Surrey Hills
- Surrey Hills National Landscape Management Plan (2025-2030)
- Surrey Design Guide (2002)

4.4 The LPA will refer in its evidence to the provisions of these development plan policies, and where relevant, the provisions of the SPDs, and how these justify the dismissal of this appeal.

4.5 The LPA will also refer in evidence to the duties imposed on any decision maker by legislation and government policy relating to National Landscapes (formerly AONBs) as set out below.

4.6 Paragraph 189 of the NPPF now provides that great weight should be given to *conserving and enhancing* landscape and scenic beauty in National Landscapes which have the highest status of protection in relation to these issues. Paragraph 189 also provides that development within the setting of National Landscapes should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. The LPA considers that footnote 7 to the NPPF applies to the entirety of paragraph 189 of the NPPF, including the provision that paragraph 189 makes in respect of land within the setting of a National Landscape.

4.7 Section 85(A1) of the Countryside and Rights of Way Act 2000 (as amended) places a duty upon any decision maker that they must “seek to further the purpose of conserving and enhancing the natural beauty of the AONB” in any planning decisions that may affect the designated area, including its setting.

4.8 Reference will be made in the LPA's evidence to the High Court judgment in the case of Barnwell Manor Wind Energy Ltd v E.Northants DC, English Heritage, National Trust & SSCLG ([2014] EWCA Civ 137). The Court held that in enacting section 66(1) of the Listed Buildings Act 1990, Parliament intended that the desirability of preserving the settings of listed buildings should not simply be given careful consideration by the decision-maker for the purpose of deciding whether there would be some harm but should be given "considerable importance and weight" when the decision-maker carries out the balancing exercise.

5 The withdrawn "Our Local Plan 2033" and the emerging Local Plan

5.1 Tandridge District Council submitted 'Our Local Plan 2033' for independent examination in January 2019. The Inspector's Report was published on the 20 February 2024, bringing the examination to a close. The Inspector's final recommendation was that the submitted plan should not be adopted due to soundness issues. The Council has now withdrawn Our Local Plan 2033 and started work towards preparing a new local plan. The progress made towards preparing a new local plan, will be referred to in the LPA's evidence. It is anticipated that a report on Local Plan progress will be put to the LPA's Planning Policy Committee on 20 November 2025 and the contents of the report will be referred to in the LPA's evidence for this appeal where relevant.

5.2 The evidence base of the withdrawn local plan remains a material consideration in the determination of planning applications and this appeal and will be referred to in the LPA's evidence when relevant.

5.3 The appeal site was assessed as a potential development site in the LPA's Green Belt Assessment (Part 3): Appendix 1 (2018) for the emerging "Our Local Plan 2033". This assessment concluded that the site makes a *"strong contribution to openness and the Green Belt purposes in this location"* and concluded that the site should not be considered further in terms of exceptional circumstances, as follows:

"What is the nature and extent of the harm to the Green Belt if the site is developed? Given that the Green Belt in this location serves the purposes of preventing sprawl and assists in safeguarding the countryside from encroachment, development in this location is likely to result in harm to the ability of the Green Belt in this location to continue to serve these purposes. In addition, there is potential for harm to the ability of the wider Green Belt to meet the Green Belt purposes."

The inspector examining that Local Plan did not express disagreement with this assessment. The LPA will refer in evidence to why this conclusion still applies today and for the foreseeable future.

6. Material considerations

6.1 The National Planning Policy Framework 2024 (NPPF) is an important material consideration in the determination of this appeal. The LPA will in presenting its evidence at this appeal refer particularly to the following chapters of the NPPF:

- Chapter 2: Achieving sustainable development, and particularly paragraph 11 and its footnote 7
- Chapter 5: Delivering a sufficient supply of homes
- Chapter 8: Promoting healthy and safe communities
- Chapter 9: Promoting sustainable transport
- Chapter 11: Making effective use of land
- Chapter 12: Achieving well-designed places
- Chapter 13: Protecting Green Belt land
- Chapter 14 Meeting the challenge of climate change, flooding and coastal change
- Chapter 15: Conserving and enhancing the natural environment
- Chapter 16: Conserving and enhancing the historic environment

6.2 The LPA will refer to relevant parts of Planning Practice Guidance (PPG) and the National Design Guide in its evidence.

6.3 The LPA's Interim Policy Statement for Housing Delivery – September 2022 (IPSHD) is a material consideration identifying what measures the LPA will take to improve housing delivery in the period pending adoption of a new Local Plan.

This comprises sites that are coming forward on brownfield land and Green Belt sites from the emerging but now withdrawn Local Plan which have been through two regulation 18 consultations and a regulation 19 consultation and have been rigorously assessed via the HELAA and Green Belt assessments. The IPSHD sets out criteria where applications will be invited on Appendix A and Appendix B sites.

6.4 Appendix A sites comprise:

"The emerging Local Plan process identified a number of large sites (75+ units) that could potentially be brought forward where the Examiner did not raise concerns. These sites have been rigorously assessed via the HELAA process and Green Belt assessments. They have also been through two Regulation 18 consultations, one Regulation 19 consultation as well as site specific Examination hearings."

As the appeal site was not a proposed housing allocation in Our Local Plan 2033, it is not an Appendix A site for the purposes of the IPSHD .

6.5 Appendix B sites are those involving enabling development which means allowing development to take place that would not normally be granted permission because it is contrary to development plan policy (and possibly national planning policy) but which enables the delivery of a development which provides exceptional and significant public benefit. The appeal site is not an Appendix B site because the development proposed is not enabling development.

6.6 The LPA will refer to the published reports on Natural England's Consultation on its Surrey Hills National Landscape Boundary Variation Project and subsequent consideration of consultation responses. The appeal site and other adjoining open countryside has now been confirmed for inclusion in the National Landscape and this is now a material consideration in the determination of this appeal. The LPA will submit in evidence that the proposed inclusion of the appeal site in the National Landscape followed detailed assessment of its landscape qualities by expert consultants appointed by Natural England and a round of public consultation on this proposed boundary variation.

6.7 In a recent update of 09 October, 2025, it was stated on Natural England' s behalf: *"We are now working towards launching the notice period before the end of the year. The notice period will provide an opportunity for any outstanding representations to be made to Natural England and will run for a minimum of 28 days. Following the notice period, we will analyse the representations and, if no more land is added to the proposal, we will then be able to submit the proposals to the Secretary of State who makes the final decision on whether the proposals are confirmed."*

6.8 The outcome of the boundary variation review and its implications for the appeal site, and for adjoining land similarly proposed to become part of the National Landscape designation, must be accorded due weight as material considerations in the determination of this appeal and will be addressed in the LPA's evidence.

6.9 A further material consideration in the determination of this appeal is the Surrey Hills National Landscape Management Plan (2025-2030). Relevant policies in the determination of this appeal are P1, P2, P3, P4, P9 and P11. Policy P11 states as follows:

*"**P11:** Development proposals outside the boundary of the Surrey Hills National Landscape must not cause harm to the setting of the National Landscape in terms of public views to or from it or generate harmful additional traffic flows along country lanes within the National Landscape."*

6.10 The LPA will refer in evidence to the Planning Practice Guidance "Advice on the role of the Green Belt in the planning system".

7. Key planning issues for consideration at this appeal

7.1 The LPA considers that the following are key planning issues to be addressed in its evidence for this appeal:

i) Housing land supply (that is market housing, affordable housing and extra care housing) and the weight that should be afforded to this in the planning balance in the determination of this application.

ii) Whether the application site is Green Belt or Grey Belt, given the changes in 2024 to the NPPF and subsequent changes to Planning Practice Guidance, and if Green Belt or Grey Belt, the implications for the determination of this application.

iii) Whether the site is a valued landscape to be protected and enhanced in accordance with paragraph 187 (a) of the NPPF.
iv) Whether the proposed development in the setting of the Surrey Hills National Landscape is sensitively located and designed to avoid or minimise adverse impacts on the designated area in accordance with paragraph 189 of the NPPF.
v) The weight to be given as a material consideration to the proposed inclusion of the appeal site in an extension to the Surrey Hills National Landscape.
vi) The implications of the proposed development for biodiversity, including The Bogs potential Site of Nature Conservation Interest (pSNCI) and ancient woodland.
vii) Whether the Biodiversity Net Gain proposals within the application can adequately offset any harm to biodiversity arising from the proposed development.
viii) The impact (if any) of the proposed development on the significance of nearby listed buildings.
ix) The implications for the development of surface water flood risk to which the site is subject.
x) Whether an adequate foul drainage connection can be provided for the proposed development.
xi) Whether the site is best and most versatile agricultural land and the planning implications if so, given the provisions of paragraph 187 b) and footnote 65 of the NPPF.
xii) The implication of the proposed development for the continued use and enjoyment of Public Bridleway 97 crossing the site.
xiii) The impact of the proposed development on the character and appearance of the local area and the amenities of local residents.
xiv) Whether the proposed development has implications for highway safety.
xv) Whether the proposed development is sustainable; and
xvi) Conclusions and planning balance.

8. Key issue 1: Five-year housing land supply and affordable housing

A) Five-year Housing Land Supply (5YHLS)

8.1 Table 1 below determines that the Council is unable to demonstrate a Five-year Housing Land Supply (5YHLS) when calculated against the standard method prescribed in the December 2024 NPPF. As of October 1st 2025, the Council can make a provision of 2.19 years' worth of supply – consequently, paragraph 11D of the NPPF is engaged.

Table 1: 5YHLS position as of 01 October 2025

COMPONENT						OUTPUT
Standard Method annual requirement						827
Annual requirement +20%						993
Five-year requirement (inc. buffer)						**4964**
Total Supply						**2170**
Year	2025/26	2026/27	2027/28	2028/29	2029/30	**TOTAL**
FUL <=9	127	68	22	0	0	217
FUL >=10	43	123	133	95	80	474
UC <=9	38	13	5	0	0	56
UC >=10	20	20	20	20	9	89
OUT > 10	0	0	264	276	210	750
PA / CoU / CLU	33	3	4	0	0	40
C2 / Communal	0	20	20	20	24	84
Windfall	0	0	0	230	230	460
Over / Under Provision						-2794
Total Years Supply						**2.19**

8.2 The Council acknowledges that it is unable to demonstrate a 5YHLS and will agree this position in a Statement of Common Ground prior to the sitting of the Inquiry.

B) Interim Policy Statement for the Delivery of Housing

8.3 The 2022 iteration of the Housing Delivery Test Action Plan (HDTAP) introduced the Interim Policy Statement for Housing Delivery – this policy was adopted at Planning Policy Committee and provides criteria for Development Management to assess planning applications against and determine accordingly. It is an important material consideration in the determination of planning applications. The document expressed support for the proposed allocations included in the 'Our Local Plan 2033' where the Examiner did not raise concerns. Potential sites must also be deliverable and viable: having regard to the provision of any necessary on-site and off-site infrastructure, affordable housing requirements, payment of the

Community Infrastructure Levy; and accord with the policies in the adopted development plan.

8.4 Table 2 below presents the sites that have already delivered housing or have the potential for delivery as a result of the IPSHD (either identified in the IPSHD as a site for development or using the IPSHD as a material consideration to determine the application).

Table 2: IPSHD Sites Identified to Deliver Housing

Site	Withdrawn Local Plan Capacity	Planning Status	Current Status
Land North of Plough Road, Smallfield	120	Planning application 2022/1658 approved at committee on 7/12/23, referred to Secretary of State as a departure; not called in.	Permission granted by the Council
Former Shelton Sports Ground, Warlingham	150	Planning application number 2022/267 approved at committee on 7/12/23, referred to Secretary of State as a departure; not called in.	Permission granted by the Council
Land at Plough Road and Redehall Road, Smallfield	160	Application at Redehall Road for 85 dwellings 2024/1389; the site does not include the northern parcel of land, hence the reduction in dwellings.	Permission Permission granted by the Council pending completion of a s106 Agreement

Land to the west of Godstone	150	None	Awaiting an application to be submitted
Land West of Limpsfield Road, Warlingham	90	Southern part of site with the northern area granted permission and commenced construction under 2021/2178	Under construction
Land west of Red Lane	60	None	Awaiting an application to be submitted
Warren Lane Depot	50	Live application for 22 dwellings at Warren Lane – 2024/155; this site does not include the south western parcel of land hence the reduction in dwellings.	Application Submitted and awaiting decision.
Land at Green Hill Lane and Alexandra Avenue	50	Planning application under consideration for 50 dwellings and 72 bed care home 2024/1325	Application submitted and Awaiting decision.
Land at Farleigh Road	50	None	Awaiting an application to be submitted
North Tandridge One Public Estate	82	None	Awaiting an application to be submitted
1 Park Lane, Warlingham, Surrey, CR6 9BY	45	Application at 1 Park Lane,Warlingham for 45 dwellings - 2024/1393.	Granted permission by the Council pending completion of a

			s106 Agreement
Land at Former Godstone Quarry, Godstone, RH9 8ND	140 This wasn't a draft Local Plan allocation but enabling development.	Planning application 2022/1523 approved September 2024.	Permission granted by the Council
Young Epilepsy, St Piers Lane, Lingfield, Surrey, RH7 6PW	This wasn't a draft Local Plan allocation but enabling development.	2022/1161 application for residential care community comprising 152 units of accommodation	Permission granted by the Council

8.5 The Council now has a clear delivery pipeline of new housing and has evidenced increased housing supply and delivery as a direct result of the adoption of the IPSHD. The planning permissions listed in Table 2 were all granted by the Council under officer delegated powers or by members of its Planning Committee as opposed to through appeal. The IPSHD sites are also all within the Green Belt where the Council had to robustly balance significant local opposition when making its decisions to approve. This is further evidence that the Council is taking a proactive approach to meeting housing needs by positively using its IPSHD to significantly boost housing supply on suitable locations as required by the NPPF.

8.6 Although he went on to find it unsound, the Inspector who examined the Council's 'Our Local Plan: 2033' accepted that Tandridge would not be able to meet its objectively assessed need for housing in full[1]. This is due to the major

[1] Paragraph 44 Inspectors Report: It is clear to me that there are specific policies of the Framework which
indicate that development should be restricted in Tandridge and that in
principle, the Plan would be sound in not meeting the OAN in full.

policy and infrastructure constraints to development in this district, including the Green Belt (encompassing 94% of the district), two AONBs, areas of flood risk, and significant infrastructure capacity constraints including safety issues (for example around the M25 J6). These constraints can reasonably be expected to reduce any future housing requirement.

C) Affordable Housing

8.7 The LPA will provide information pertaining to the provision of affordable housing as part of its evidence to the public inquiry. This information will not be limited to how many affordable homes will be provided by the grant of new planning permissions. Tandridge Council is pro-actively seeking to build affordable homes on its land and land the Council can acquire on the right terms, and in other ways.

D) Extra Care Accommodation

8.8 With respect to the extra care housing that is proposed, the LPA's evidence will refer to advice it has received from Surrey County Council. The appeal application does not indicate a designated care provider with proven expertise in delivering the level of complex care identified by Surrey County Council, nor does it explicitly go into detail as to how it would meet these needs within a specialist environment. The challenges facing the care sector, including viability as businesses and recruitment of staff, are well documented nationally. The lack of information with the application, and particularly whether the extra care facility would meet the needs identified by Surrey County Council, detracts significantly from the weight that might otherwise be afforded to this specialist housing aspect of the proposed development. The LPA considers, given the limited information in the planning application on this aspect of the development, that limited weight should be afforded to the provision of an extra care facility in the overall planning balance.

8.9 The LPA's case will be that absence of a 5YHLS is insufficient to outweigh the substantial weight that must be afforded to the harm that the appeal scheme would cause to the Green Belt; and the weight to be given to the other harm that would result from the appeal scheme. Details of this other harm that the LPA considers

will arise is set out in this Statement of Case and will also be set out in the LPA's evidence.

9. Key issue 2: Green Belt or Grey Belt?

9.1 The LPA will set out in evidence why it is considered that the appeal site strongly contributes to purposes a) and c) of the Green Belt as set out in paragraph 143 of the NPPF and also contributes to purposes d) and e). This is a change from when the application was original considered by officers in that it was not then considered that the site contributed to purpose (d), that is "to preserve the setting and special character of historic towns". Preparation of the evidence base for the new Tandridge Local Plan has identified that the urban area of Oxted/Limpsfield/Hurst Green is an historic town and the appeal site forms part of the setting of that historic town. More detail will be provided in the Council's evidence.

9.2 With particular respect to Green Belt purpose (a), which is "to check the unrestricted sprawl of large built-up areas, PPG "Advice on the role of the Green Belt in the planning system" sets out criteria for assessing whether a Green Belt site contributes to purpose (a). In this respect, the application site is free of development but adjacent to a large built-up area; it lacks strong physical features to the north and west that could restrict or contain development and, because of its physical isolation from the urban area of Oxted, would result in an incongruous pattern of development. This can be readily seen in the appellant's Figure 12.2 "Site Context" in the Landscape and Visual Impact Assessment and the Illustrative Masterplan accompanying the planning application. The LPA considers, therefore, that the site does strongly contribute to Green Belt purpose (a).

9.3 The LPA will also show that the loss of the site to development will cause further harm to the Green Belt because the site currently strongly contributes to Green Belt purpose (c), as set out in paragraph 143 of the NPPF. By retaining the site as open countryside, it preserves the setting and special character of the historic town that is the combined urban area of Oxted, Limpsfield and Hurst Green, and safeguards the countryside itself from encroachment . In relation to the role which

the site plays in safeguarding the countryside from encroachment, the LPA will rely on the further evidence (addressed below) as to the quality of the countryside of which the site forms part. The LPA will also explain why there would be a loss of Green Belt openness due to intensification of impacts like traffic and artificial lighting resulting from the proposed development, and the duration of the development which will be permanent.

9.4 The urban area of Oxted/ Limpsfield/Hurst Green is an historic town and the countryside surrounding the town provides its setting. To the north of the town this countryside, including the appeal site, also lies within the setting of the Surrey Hills National Landscape. This countryside therefore strongly contributes to Green Belt purpose (d) to preserve the setting and special character of an historic town. Furthermore, constraining the supply of greenfield sites for housing development incentivises developers to bring forward derelict and other urban land, such as the Oxted and Whyteleafe former gas holder sites, so contributing to Green Belt purpose (e).

9.5 Furthermore, the site is not Grey Belt because the application of the policies relating to the areas or assets in NPPF footnote 7 (other than Green Belt) would provide a strong reason for refusing or restricting development. The site is in the setting of the Surrey Hills National Landscape. The site immediately adjoins an Ancient Woodland (AW) called The Bogs and as will be explained in evidence, the proposed development could result in the loss or deterioration of this irreplaceable habitat. The site is also in the setting of two listed buildings, the Grade I Church of St Mary the Virgin and the Grade II Court Farm House, and the proposed development will impact upon their heritage significance. Finally, the site is also subject to a risk of surface water flooding.

9.6 As such, the site is Green Belt not Grey Belt. Paragraph 155 of the NPPF does not apply in the determination of this application. Given the finding that the site is Green Belt, it will be the LPA's case that the development proposal falls to be considered against national and development plan policies as inappropriate development in the Green Belt. Both the NPPF at paragraph 153 and development plan policy DP10 regard the construction of the dwellings and associated infrastructure on the scale proposed in the appeal application as

inappropriate development in the Green Belt and thereby harmful to its primary purpose of retaining openness. Such inappropriate development should not be approved except in very special circumstances. The LPA's case will be that such very special circumstances do not apply to this planning application

10. Key issue 3: Is the site a valued landscape?

10.1 The Landscape Institute has published Guidance Note TGN 02-21: "Assessing landscape value outside national designations" that enables an evaluation of whether landscapes possess demonstrable physical attributes beyond the ordinary that justify their status as valued landscapes. Both officers of the LPA, and its landscape consultant, have made assessments in accordance with the Guidance Note. Their conclusions are that the application site is elevated above the ordinary. In the words of the Stroud judgment [(1)] on valued landscapes, the site exhibits many attributes that take it above mere countryside. Importantly, the site contributes to the landscape and scenic beauty of the Surrey Hills National Landscape. As Natural England explains in its boundary review assessment *"…the open arable field between Barrow Green Lane and the settlement edge forms part of a sweep of agricultural landscape to the north and affords dramatic views of the chalk scarp."* The Boundary Review Natural Beauty Assessment Final Report – February 2023 confirms at page 142 that this area has the same high quality landscape as the existing AONB to the north, stating: *"The landscape in this area blends seamlessly with the North Downs to the north."* The LPA's evidence will be that the site is a valued landscape and has a high degree of susceptibility to change, and as such, paragraph 187 a) of the NPPF is engaged in the determination of this appeal.

(1) Stroud DC v SSCLG & Gladman Developments Ltd [2015] EWHC 448 Admin.

11 Key issue 4: Impact on the setting of the Surrey Hills National Landscape

11.1 There is agreement between LPA officers, the Council's landscape consultant, Natural England, the Surrey Hills AONB Management Board planning advisor and the applicant that there will be adverse impacts from the development for the setting of the National Landscape. These adverse impacts are identified in the visualisations of the proposed development in the applicant's EIA which show:

- That the proposed development will be clearly visible from public viewpoints on the scarp of the North Downs appearing as a substantial extension of the Oxted urban area into the open countryside at the foot of the Downs (as expressed in the Conclusions of Landscape Consultation Response by Rowellian Environmental Consulting for the LPA, paragraphs 82 to 86).
- Appellant's EIA: Appendix H3, Part 1. These visualisations from the bridleway crossing the middle of the site illustrate probably the most significant changes to public views into the National Landscape. Currently, a wonderful unspoilt and dramatic panoramic landscape view is gained of the scarp slope of the North Downs. That would be almost completely lost by the development as so clearly illustrated by the visualisations. The bridleway is well used and of importance to the public. The manner in which the many of objectors to the application express themselves illustrate how important the protection of this view of the North Downs is to them. There are also informal footpaths around the periphery of the field where current views of the National Landscape would be lost due to the proposed development.
- Appellant's EIA: Appendix H3, Part 3. Currently, visitors to the burial ground benefit from attractive and tranquil views of the North Downs and the absence of any intervening development. As the visualisations show, the massing of the care home would obstruct that view which would detract from visitors' experience to this publicly sensitive location. From the entrance to the burial ground the introduction of a dwelling close to the burial ground would spoil a lovely approach to the burial ground by blocking the view of the North Downs.

- Appellant's EIA: Appendix H3, Part 5. Although not as widely important as the above views, the attractive view of the National Landscape at the end of the cul-de-sac of Wheeler Avenue would be obstructed by the proposed development.

The LPA's evidence will be, based on the assessment in the EIA forming part of the appeal application, that the degree of harm does not meet the requirement set out in NPPF paragraph 189 for developments within the setting of National Landscapes to be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. As set out above, the site contributes to the landscape and scenic beauty of the Surrey Hills National Landscape and has a high degree of susceptibility to change. These adverse impacts represent other significant harm that will be caused by the development proposals.

11.2 Based on the above assessment of significant adverse impact on the setting of the National Landscape, it will be the LPA's case that the proposed development is contrary to the provisions of paragraph 189 of the NPPF, Core Strategy policies CSP20 and CSP21, and Surrey Hills AONB Management Plan policy P11. Furthermore, given the findings above of adverse impact on the setting of the National Landscape, the LPA will submit that a grant planning permission would not be compliant with the statutory duty of the decision maker under Section 85(A1) of the Countryside and Rights of Way Act 2000 (as amended), that they must "seek to further the purpose of conserving and enhancing the natural beauty of the AONB". These considerations attract substantial weight against the proposed development in the overall planning balance.

12. Key issue 5: Extension of the Surrey Hills National Landscape to include the application site

12.1 The LPA's evidence will set out the background to the Surrey Hills National Landscape Boundary Review project and where this has reached both in terms of the proposed inclusion of the appeal site and wider swathes of adjoining countryside in the National Landscape, and submission of a formal Variation Order to the Secretary of State for DEFRA for approval.

12.2 The provisions of paragraphs 189 and 190 of the NPPF represent a very high bar for any planning application for major development in a National Landscape, such as that proposed in this application, to overcome before planning permission is granted. These provisions in paragraphs 189 and 190 of the NPPF do not apply to the appeal site at present because it is not yet part of the designated National Landscape. However, it will be the LPA's evidence that the proposed inclusion of the appeal site in the National Landscape is a weighty material consideration in the determination of this application. NPPF paragraphs 189 and 190 provide the context for determining the weight to be attached to this material consideration.

12.3 The proposed incorporation of the appeal site within the National Landscape could be confirmed by a Variation Order in the early part of 2026. If the planning permission sought by this appeal were granted within that timescale the justification for the site's inclusion in the National Landscape would be negated. The LPA's evidence will be that the applicant's Design and Access Statement, Illustrative Masterplan and Illustrative Landscape Masterplan do not provide for any effects on the environment, the landscape and recreational opportunities to be acceptably mitigated. The proposed development would have permanent adverse impacts on the National Landscape. In the LPA's view, the proposed designation of the appeal site as part of the National Landscape is a material consideration to be given great weight in the planning balance in the determination of this appeal.

13. Key issue 6: The implications of the proposed development for biodiversity, including The Bogs Potential Site of Nature Conservation Interest and ancient woodland

13.1 The EIA that accompanies the planning application, and Surrey Wildlife Trust as a consultee of the LPA, identify the following matters of biodiversity importance related to the appeal site:

i) habitats consisting of a large arable field, bisected by a public footpath and bounded by an informal footpath and belts of scrub with trees, lowland mixed deciduous woodland, wet woodland a habitat of principal importance (HPI), and a small stream;

ii) the Bogs Potential Site of Nature Conservation Interest (pSNCI) and Ancient Woodland on the south-west corner of the site, and possibly also within the site, which is fed by surface water runoff from the site and the small stream; and

iii) hedgerow in the northeast of the appeal site which is also a HPI.

13.2 Surrey Wildlife Trust, which will be providing an expert witness to appear on the LPA's behalf at the appeal inquiry, considers that the information with the application is insufficient to enable a full assessment of the ecological impacts. This is because the advice from the LPA's hydrological consultant, Hydro-GIS, is that an insufficient assessment of hydrological impacts of the proposed development has been carried out. The assessment of hydrological impacts is particularly relevant to impacts on The Bogs AW and wet woodland in the south west corner of the site. The hydrologist's evidence will detail what the assessment should provide, that is developing a conceptual hydrological model of the Bogs and wet woodland, and in particular showing the importance of the contribution of flow from the development site. Furthermore, no assessment has been made by the appellant whether the hedgerow habitat of principal importance can be avoided by the development scheme. This is a matter that the Council's expert ecology witness will address in evidence.

13.3 The LPA and Surrey Wildlife Trust also have concerns about the following considerations:

Extent they have continued to investigate whether there is evidence of ancient & semi-natural woodland within the red line application site boundary. However, they have not found sufficiently robust evidence to confirm this on-site to date. They agree with the Ecology Partnership that wet woodland HPI is located within the red line boundary (0.21ha). The information provided with the application is insufficient to show that there will not be adverse impacts on biodiversity, through a significant impact to the wet woodland HPI, through an impact to the hydrology of the wet woodland.

Potential for Increased Disturbance of the Ancient Woodland (AW) from Occupation of the Proposed Residential Development: the appellant's EIA

identifies potential impacts on the AW when the development is occupied relating to recreational pressure and harm to protected species associated with incursion of domestic pets and people. The EIA proposes that these potential impacts are dealt with through a management plan . The Arboriculture Impact Assessment accompanying the application refers to a 15-metre buffer zone and fencing to the ancient woodland. The fencing is shown as running around the edge of the adjacent woodland within the site where there is also ancient woodland as confirmed in the appellants' assessment. Again, based on the precautionary principle, the LPA considers that specific management measures to deter humans and domestic pets from entering any part of the ancient woodland need to be incorporated in the development proposals and then detailed in an appropriately worded planning condition. The appellant has submitted further information in preparation for the appeal which the LPA is assessing and which will be the basis of further discussion between all the parties prior to the inquiry; and

Hydrological Impacts: the stream running down the western edge of the application site receives surface water runoff from that site as well as piped surface water drainage for the Oxted urban area. The importance of this surface water runoff for maintaining the ancient wet woodland habitat of the Bogs pSNCI off-site, and wet woodland HPI within the site, needs to be assessed and factored into the surface water drainage proposals for the proposed development to ensure continuity of an adequate water supply to the ancient woodland and avoid any risk of deterioration of this irreplaceable habitat. None of the applicant's relevant reports have made an assessment of flow rates of water into The Bogs prior to or following development. There is consequently no way of ascertaining that, post-development, current flows of water into The Bogs will be maintained and that irreparable harm to the AW will not result. Once again, based on the precautionary principle, the surface water drainage proposals for the development need to incorporate provision for no diminution in, or significant exceedances of, the supply of water from the application site by way of surface water run off or stream feed into The Bogs pSNCI. The quality of surface water to be discharged via the proposed SuDS drainage system to be built as part of the development also needs to be assured.

13.4 The Bogs AW is an irreplaceable habitat and there needs to be assurance in the appellant's evidence that it will not be lost or suffer deterioration. Similar considerations arise with respect to the wet woodland HPI within the site. The LPA consider that these are matters of fundamental importance to whether the development is allowed to proceed. Similarly, it needs to be determined if the hedgerow HPI can be avoided or not in the course of development. These are not matters that could be made subject to a planning condition but need to be determined before a planning permission is granted. Based on the information presented by the appellant to date, the development proposal is contrary to the provisions of NPPF paragraphs 187 and 193, and development plan policies CSP17 and DP19. This is a matter to be afforded substantial weight in the planning balance.

14. Key issue 7: Whether the Biodiversity Net Gain proposals within the application can adequately offset any harm to biodiversity arising from the proposed development.

14.1 A Biodiversity Net Gain Metric Calculation is submitted with the application, alongside a Biodiversity Net Gain Feasibility Assessment report. The calculations show that the proposed development has the potential to deliver a +15.30% net gain in habitat units and a +271.39% net gain in hedgerow units, and +21.31% net gain in watercourse units, and all trading rules can be satisfied. The applicants Planning and Affordable Housing Statement refers to the assessment being reviewed and updated at reserved matters stage once there is a developed layout and landscaping strategy. Surrey Wildlife Trust also identify that the BNG assessment may need to be rerun when more information is available about the biodiversity value of the site. The LPA considers that until the potential for the proposed development to adversely affect the irreplaceable habitat of The Bogs AW immediately adjoining the site and the wet woodland HPI within the site is known following further hydrological assessment, then it is not possible to make a meaningful BNG assessment as the appellant has attempted to do. The significant net gain the appellant puts forward in the planning application as achievable through on site BNG enhancements could be significantly reduced if not nullified if there were to be adverse impacts on The Bogs AW. If, nevertheless, the appeal was to be allowed this could necessitate biodiversity offsetting off site. Pending the further hydrological assessment required the LPA's position will be that BNG is a

requirement of national legislation. As such, while any net gains to biodiversity are to be encouraged, this is not a consideration that should attract other than limited weight in favour of the application in the overall planning balance.

15 Key issue 8: Impact on the setting of nearby listed buildings

15.1 The development of the site has the potential to affect the setting (and therefore the significance) of three heritage assets: Church of St Mary the Virgin (Grade I Listed); Court Farmhouse (Grade II) and Blunt House (Grade II). Most notably, the Grade I listed church of St Mary and Grade II listed Court Farm House are a short distance away from the south-east corner of the application site. The application includes a Heritage Impact Assessment which finds that the site makes a limited contribution to the setting of these two listed buildings as a remnant of their historic rural setting. The proposed residential development on the application site will result in the loss of this historic rural setting but the applicant's Assessment is that the resultant harm to the significance of the listed buildings will be less than substantial.

15.2 The views of the historic buildings officer of Surrey County Council on the impact the proposed development would have on the heritage assets are:

"I have assessed the scheme in line with paragraphs 208 and 212 of the NPPF. I consider the harm to Court Farm as a Grade II listed building to be at the lower end of less than substantial harm. This is specifically from the impact on its rural setting owing to the loss of its associative link with its former farmland, glimpsed views of roofs from the upper floors of the building during the winter months and the loss of rural approaches to and from the listed building across the application site. In coming to this lower level of harm, I have taken into account the limited visibility of the building from the application site.

I consider the harm to St Mary's Church to be a moderate degree of less than substantial harm. This is specifically from the loss of the last vestige of its rural setting, which reveals its nature as an early medieval building constructed at a time when the parish had a widely dispersed settlement pattern with no nucleated centre. This will be evident from the buildings, roads, boundaries, vehicles, domestic paraphernalia, noise and lighting which will all be experienced from the church, as well as the impact on approaches to and from the building across the application

site. In coming to this conclusion, I have taken into account the existing tree screening which is present during the summer months. The proposal will fully urbanise its surroundings and it will no longer be experienced as the rural parish church it has been since the 12th century.

Great weight will need to be applied to this harm in line with paragraph 212 of the NPPF and even greater weight applied owing to the greater importance of St Mary's Church as a Grade I listed building. As harm to a Grade I listed building is a serious consideration, I would consider this a strong reason for refusal. In line with paragraph 215 of the NPPF, you will need to weigh the benefits of the scheme against the harm to the heritage assets. As I am not aware of any specific heritage benefits from the scheme, you may wish to use this harm as a reason for refusal as part of a wider planning balance."

15.3 The LPA notes the High Court judgement in the case of Barnwell Manor Wind Energy Ltd v E.Northants DC, English Heritage, National Trust & SSCLG ([2014] EWCA Civ 137) which is relevant to the determination of this appeal. The Court held that in enacting section 66(1) of the Listed Buildings Act 1990, Parliament intended that the desirability of preserving the settings of listed buildings should not simply be given careful consideration by the decision-maker for the purpose of deciding whether there would be some harm but should be given "considerable importance and weight" when the decision-maker carries out the balancing exercise. The applicant has made no assessment of the degree of less substantial harm to the setting of the listed buildings and therefore whether there is just limited harm. The LPA give considerable importance and weight to the harm the proposed development would cause to the setting of the listed buildings Court Farm House and St Mary's Church.

15.4 The NPPF at paragraph 215 provides that where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal. The appellant's Planning and Affordable Housing Statement forming part of the planning application lists the following public benefits of the proposed development:

- Provision of much needed homes in a sustainable location, that includes

50% affordable housing and specialist older persons' housing for which there is clear evidence of need.

- Provision of new public open space and provision of additional green infrastructure, which links into existing green infrastructure routes.
- Delivery of homes in an accessible location and delivery of new energy efficient housing stock.
- Increased local expenditure to sustain local services and facilities.
- Local job opportunities and increased economic activity in the short, medium and long term.
- The Scheme satisfies the economic, social and environmental roles of sustainable development, as sought by the NPPF.

The LPA will respond in detail in its evidence to the weight to be afforded to these purported benefits individually and collectively, as summarised below.

15.5 In summary, the LPA's case will be that the key public benefit arising from the proposed development is the delivery of both market and affordable housing. Some of the other public benefits listed by the appellant, such as economic benefits and energy efficient housing, are considered by the LPA to attract limited weight. Yet other benefits such as provision of new public open space and green infrastructure would come at the cost of diminution in the quality of existing recreational facilities (Bridleway 97) and the loss of 20 ha of open countryside and should be afforded minimal if any weight. Taken overall, the LPA case will be that it does not consider that the public benefits outweigh the great weight that should be given to the conservation of the setting of two listed heritage assets, particularly St Mary's Church a Grade 1 listed building.

15.6 The application is thereby contrary to paragraph 215 of the NPPF and development plan policy DP20 and the LPA's evidence will be that this consideration attracts significant weight in the planning balance against the development proposals.

16 Key issue 9: Surface water flood risk

16.1 The LPA accepts that with the exception of continuity of surface water runoff to feed The Bogs AW and pSNCI, the provisions of the NPPF and Tandridge Local Plan Part 2 Detailed Policies (P2DP) policy DP21(E) with respect to surface water flood risk are satisfied and this is a matter that attracts neutral weight in the planning balance.

16.2 The LPA, however, continues to have a number of unresolved concerns about the applicant's surface water drainage strategy specifically related to potential adverse impacts on The Bogs AW and pSNCI within and adjacent to the site as set out in Section 13 above.

16.3 The LLFA recommendation on this application is subject to the imposition of a pre-commencement conditions on any planning permission and the applicant's acceptance of this condition remains outstanding. The LPA also have an unanswered questions and concerns about the maintenance and management regime in perpetuity for the stream and SuDS features and how that regime will be financed. The LPA evidence will be that these concerns need to be satisfactorily answered and dealt with before planning permission could be granted.

17 Key issue 10: Foul drainage

17.1 The LPA considers that the information provided by the applicant leaves unanswered questions. What is not clear is whether there is inadequate capacity in the foul sewer for any part of the proposed development to be connected, or whether some development could be connected then occupied before all capacity was used up. A letter provided from Southern Water refers to:

> *"The proposed development would increase flows to the public sewerage system which may increase the risk of flooding to existing properties and land."*

The letter also refers to capacity to connect drainage for 50 dwellings to the current sewage system as assessed in June 2024 but this information could only be relied upon for 12 months. The Southern Water letter further states that:

> *"Southern Water has a duty to provide Network capacity from the point of practical connection (point of equivalent or larger diameter pipe) funded by the New Infrastructure Charge. Southern Water aim to provide this within 24 months following the date that planning has been granted for developments not identified as strategic sites in our current business plan. Strategic sites are larger developments and will often take longer than 24 months for a full solution to be provided."*

Clarification is therefore required (and has been sought but not yet forthcoming) whether the proposed development is a 'strategic site' for Southern Water purposes in which case there would be uncertainty when a foul drainage connection would be available. The LPA have raised all these points of uncertainty with the appellant and further information is awaited.

17.2 The outstanding information is important to drafting a planning condition or conditions in any planning permission to control how much, if any, development might be occupied before foul sewer capacity was increased. It is also important to determining if the proposed development is deliverable within a reasonable timescale (that is within 3 or 5 years of grant of planning permission) given that an outline permission is sought by the appellant. The EIA submitted with the application states at paragraph 6.7.4 that the development will be constructed between 2026 and 2030 and will be fully operational by 2030 but this could be made unachievable if foul sewer capacity cannot be provided by then to service the development. Without this assurance on deliverability, the provision of market and affordable housing could only be given limited not significant weight in the planning balance.

17.3 The LPA considers that, as matters stand, with uncertainty over when a foul drainage connection might be achievable the proposed development is contrary to Core Strategy policy CSP11 and this is a matter that attracts moderate weight against the grant of planning permission in the planning balance. If the current

uncertainty can be overcome then this objection to the proposed development would fall away. Ensuring the provision of a foul drainage connection for the development could then be dealt with by way of a Grampian planning condition.

18 Key issue 11: Best and most versatile agricultural land

18.1 The planning application when submitted was accompanied by a desk-based agricultural land quality assessment of the site. Based on the findings of this assessment the applicant's Planning and Affordable Housing Statement's overall conclusion with respect to loss of agricultural land was:

> "7.12. The loss of agricultural land also attracts only limited weight, given the Site is moderate/poor quality agricultural land is not classified as 'best and most versatile agricultural land'."

18.2 The LPA considered given the size of the site (9.7 ha) that this was a significant agricultural resource as well as being a significant countryside and biodiversity resource. The site is in good condition agriculturally and has been continuously cropped over the years with cereals and sweetcorn. A full field assessment of agricultural land quality was therefore required from the applicant.

18.3 The detailed ALC undertaken shows that the site is wholly Grade 3a and is therefore BMV agricultural land.

18.4 The submitted ALC Report setting out the results of the ALC seeks to provide a context for assessing the significance of the ALC in terms of loss of an agricultural resource. The report notes that there is no definition in the NPPF of what constitutes "significant" development as referred to in Footnote 67 of the NPPF. The LPA notes that the Town and Country Planning (Development Management Procedure (England) Order) (DMPO) 2015 requires that planning authorities must consult Natural England on all non-agricultural applications that result in the loss of more than 20 hectares (ha) of BMV land if the land is not included in a development plan. The "Guide to assessing development proposals on agricultural land" (Natural England, February 2021)" advises local planning authorities to:

> *"Use ALC survey data to assess the loss of land or quality of land from a proposed development. You should take account of smaller losses (under*

20ha) if they're significant when making your decision. Your decision should avoid unnecessary loss of BMV land."

18.5 The authors of the ALC Report suggest that 20ha is a suitable threshold for defining "significant" in many cases. The inference of the report is that the loss to agriculture of the 9.7 hectares of BMV agricultural land contained in the application is not significant. However, this inference contradicts the Natural England advice to planning authorities quoted above that they should take account of smaller losses (under 20 ha) if they are significant.

18.6 The LPA further disagree with that inference in the ALC Report. Paragraph 187b) of the NPPF relates to planning policies and decisions. Planning policies in this context would include the identification of sites suitable for housing allocations which could be under 20 ha in extent. The ALC Report appears to accept this position as well and paragraph 4.1 states "In plan making terms the NPPF requires that, where significant development of agricultural land is involved, poorer quality land should be used in preference". The LPA's interpretation of the provisions of the "Guide to assessing development proposals on agricultural land" (Natural England, February 2021)" is that local planning authorities should take account of smaller losses of agricultural land under 20 ha if they are considered significant in making development management decisions on individual applications such as this one.

18.7 The ALC Report also refers somewhat contradictorily to the Institute of Environmental Management and Assessment (IEMA) Guide "A New Perspective on Land and Soil in Environment Impact Assessment" of February 2022. The Guide identifies in table 3 (page 49) the magnitude of the impacts on soil resources. Losses of under 5ha is defined as minor magnitude losses. Losses of between 5 – 20 ha are classified as moderate losses. Losses of over 20ha is considered to be major losses. This is different terminology to that in the NPPF and the "Guide to assessing development proposals on agricultural land" (Natural England, February 2021)" and is not national policy or guidance.

18.8 Footnote 65 of the NPPF refers to areas of poorer quality agricultural land being preferred to those of higher quality where significant development of agricultural

land is demonstrated to be necessary. The ALC Report's conclusions on this point are set as follows:

"4.32 The Site itself comprises Subgrade 3a land quality. In the event that there was a need to consider whether poorer land is available, based on the provisional and predictive mapping it cannot be concluded that land further afield is not of a poorer land quality. However, it cannot be determined that there is land within immediate proximity of the Site that is of poorer land quality than the Proposed Development Site.

4.33 Nevertheless, this Proposed Development Site is not classified as significant development and therefore whether there is poorer quality land within the area does not need to be assessed."

The LPA concluded that the ALC Report had not shown that there is not poorer quality land available for the same development elsewhere.

18.9 The EIA prepared for the application considered the economic impact of the development in terms of the loss of agricultural land and concluded:

"6.7.13 The closure of the field will result in the eventual loss of jobs associated with the Site. The current employment of the Site is estimated to be 0.3 FTE.

6.7.14 This constitutes a negligible magnitude impact, likely to result in a negligible effect which is anticipated to be not significant."

In terms of the economic impact of the loss of agricultural land, the EIA concludes:

"6.7.57 The closure of the arable field will result in the loss of jobs associated with the Site, which currently has an estimated FTE of 0.3."

Taking this conclusion into account in the overall assessment of the economic effects of the proposed development, the EIA concludes:

"6.7.60 The sensitivity of local economy, employment and skills has been assessed as low. The above constitutes a minor magnitude impact, likely to result in a minor beneficial effect which is anticipated to be not significant."

18.10 The ALC Report does include an assessment of the economic benefits of the site. The preface to this section of the report states:

"4.4 In the absence of any empirical data, an economic assessment is inevitably crude."

The results of the assessment set out in the EIA and the ALC Report lack meaningful context. There is no information relating to the wider agricultural holding of which the site forms part, how large and agriculturally diverse is that holding and the implications of the loss of the site to the continued economic viability of the agricultural enterprise that farms the land. Whatever, the economic benefit of the site may be, its loss as BMV to the agricultural economy would negate at least part of the wider economic benefits that the applicant considers will arise from the proposed housing development.

18.11 The overall conclusion of the Report (para 4.35) is that "At approximately 9.7ha of BMV land the Site is under 50% of the threshold for consultation with Natural England. Therefore, the quantum of BMV is not significant." The LPA's conclusion is that the loss of this 9.7ha site consisting of Grade 3a land is significant both in economic terms and sustaining the health and well-being of the countryside and supporting biodiversity. This is a consideration that attracts moderate weight against the development proposals in the overall planning balance.

19. Key issue 12: Use and enjoyment of Public Bridleway 97

19.1 Paragraph 96(c) of the NPPF provides that planning decisions should aim to achieve, healthy, inclusive and safe places which enable and support healthy lives. Paragraph 105 of the NPPF provides that planning decisions should protect and enhance public rights of way and access. Core Strategy policy CSP13 (Community, Sport and Recreation Facilities/ Services) seeks the protection and where possible enhancement of the public rights of way network.

19.2 The Framework Masterplan in the Design and Access Statement identifies how the bridleway could be integrated into the development, as follows:

• Existing public right of way – safeguarded within a green corridor where new trees can be planted along the full length of the route;

• Vehicle crossings of bridleway – limited as much as possible, and where located priority to be given to pedestrians through narrowing of road and alternative surface treatment;

• Built frontage – concentrated along the bridleway route and in some locations opportunities for parking to be provided to the rear or side of dwellings – so homes and front doors can directly access the footpath rather than being separated by a road.

Earlier versions of the Framework Masterplan showed a connection between the bridleway and Barrow Green Road at the junction of that road and Chalkpit Lane which is missing from later application drawings and is not therefore to be provided.

19.3 The change in the character of the bridleway and loss of the countryside experience and dramatic views of the National Landscape it provides are referred to in many of the public representations, including that from the Surrey Hills National Landscape Management Board, commenting on the planning application. The local representative of the British Horse Society has submitted a representation as follows:

"The field under consideration has a Bridleway crossing it diagonally (BW97). This is much used by equestrians, cyclists and walkers and is a pleasant rural path ,the ambience of which would be completely ruined if it ended up in the centre of a housing estate. For many years I rode from Tandridge Priory Stables and this path was (and is) used on a daily basis as part of circular rides."

19.4 The Surrey Countryside Access Forum also objects to the application for the following reasons:

"The field (Stoney Field) under consideration has a Bridleway crossing it diagonally (BW97). This is much used by equestrians, walkers and cyclists. It is a pleasant rural path, with direct communication and forming the opportunity of a circular route, The ambiance and character of this path / route, which is used by many, would be completely ruined if it ended up inside and dominated by a housing estate. Concurrently, the surrounding countryside would also be

completely ruined with adverse impacts on the environment, wildlife etc etc; all of which contribute to the interest of this PRoW."

19.5 The LPA considers that the major adverse effect the proposed development would have for users of public bridleway 97 would not just be limited to the loss of views of the National Landscape, identified in the applicant's LVIA. It will include the loss of experience of open countryside that is a valued landscape and the health and well-being benefit the bridleway provides for existing Oxted residents. These matters are evidenced in numerous representations about the appeal application. The proposed development is consequently contrary to Core Strategy policy CSP13. These are matters to be given significant weight against the development proposals in the overall planning balance.

20. Key issue 13: The impact of the proposed development on the character and appearance of the local area and the amenities of local residents

20.1 The LPA considers that the information submitted with the application failed to recognise the need for more information on the scale and layout of the proposed development at this outline application stage. This is a visually sensitive site in the Green Belt and therefore in the open countryside which is a valued landscape and forms part of the setting of the National Landscape. If more information had been provided with the application, particularly relating to scale and layout as requested by the LPA, then some of the anticipated adverse effects of the development might have been avoided.

20.2 The appellant's EIA concludes that the completed development will have a major adverse visual effect at site level due to the introduction of built form onto open agricultural land. There will be a minor neutral effect on landscaped features (the retained trees and The Bogs). The character of the wider area will experience a minor adverse effect, the EIA asserting that the proposed development would not be uncharacteristic of the receiving townscape to the east and south.

20.3 The LPA agrees with the EIA assessment that the completed development will have a major adverse visual effect at site level. However, the LPA disagrees with

the appellant about the other visual impacts of the development. An attractive and valued piece of open countryside will be permanently lost. The development will not be seen as an extension of the urban area of Oxted which is largely screened from the site and its immediate surroundings by woodland and trees and hedgerows along the boundaries of the site. Instead, the development will be seen as an isolated residential development in open countryside with the resultant urbanisation having a major adverse effect on the character and appearance of the wider open countryside.

20.4 The LPA considers, however, that while there will be some adverse impact on the amenities of local residents, mainly due to increased vehicle and pedestrian movements along the Wheeler Avenue access to the site, these impacts will be localised

20.5 In conclusion, the LPA considers that the proposed development is contrary to paragraph 135 of the NPPF because the development will not add to the overall quality of the area over the lifetime of the development and will not be sympathetic to local character in terms of landscape setting. The adverse impacts on the character and appearance of the open countryside adjacent to the site mean that the proposed development is contrary to development plan policies CSP18 and DP7. These adverse impacts on the character and appearance of the area constitute other planning harm to be given moderate weight against the development proposal in the planning balance.

21. Key issue 14: Highway safety

21.1 The County Highway Authority (CHA) raises no highway objection to the application, subject to the imposition of conditions on any permission, including construction access from Barrow Green Road only, the access from Wheeler Avenue serving no more than 60 of the proposed houses, and to the applicant agreeing to providing a financial contribution to the legal procedures for extending the current 30MPH speed limit on Barrow Green Road, or alternatively funding speed reduction measures on that road.

21.2 The CHA's proposed conditions include pre-commencement conditions and the applicant's confirmation of acceptance of the need for these conditions remains outstanding and, subject to that confirmation being received, highway safety considerations attract neutral weight in the planning balance.

21.3 The LPA has outstanding concerns relating to whether the land for formation of the proposed new access from Wheeler Avenue is dedicated as highway land. The LPA is seeking further information from the CHA and counsel's advice. Depending on the further information received and counsel' advice, this may be a matter that the LPA will address in its evidence having reconsulted the CHA because it may affect the appellant's proposed creation of a second point of vehicular and pedestrian access from Wheeler Avenue. This second point of access is currently a precondition for the CHA finding the proposed development acceptable on highway grounds.

22 Key issue 15: Sustainability

22.1 The LPA has a number of reservations concerning the applicant's analysis in Sections 5 and 6 of the Planning and Affordable Housing Statement why the proposed development is sustainable, all of which is based on intrinsic aspects of the proposed development.

22.2 The site is close to the urban area of Oxted and an accessible location along certain routes from the town both for car users, pedestrians and cyclists and these considerations weigh in favour of the site being sustainably located.

22.3 However, there are also accessibility limitations. The Barrow Green Road access is poor in not providing for pedestrians or cyclists. There are no existing footways along the road from the proposed site access and Barrow Green Road here has challenges for pedestrians because of its horizontal and vertical alignment, lack of forward visibility in key places for drivers and lack of pedestrian refuges off the carriageway. A short walk along Barrow Green Road from the site may have

attractions to residents of the proposed housing development because it represents a shorter walk to St Mary's Primary School than alternative routes. These considerations weigh against the site being sustainably located.

22.4 The LPA also questions the walking distances from the site to certain key facilities within Oxted given in the appellant's Statement of Case and will set this out in its evidence.

22.5 The LPA considers that, looked at from the standpoint of the appellant's analysis of intrinsic aspects of the proposed development, moderate weight should be given to the sustainability of the proposed development.

22.6 However, the LPA's case will be that, as reflected in Ground of Refusal 9, sustainability also has to be assessed against the three objectives set out in paragraph 8 of the NPPF, namely:

- An economic objective
- A social objective
- An environmental objective.

Looked at from the standpoint of extrinsic effects of the proposed development, the LPA's case will be that the harm that would arise to the Green Belt, the setting of the National Landscape, open countryside which is a valued landscape. for users of Bridleway 97, heritage assets, BMV agricultural land and potentially biodiversity, makes the development unsustainable in the context of paragraph 8 of the NPPF and Tandridge Local Plan Part 2: Detailed Policies (2014) policy DP1.

23. Key issue 16: Conclusions and planning balance

23.1 The LPA will set out in its evidence its conclusions about the overall compliance or conflict of the proposed development with development plan policies. The LPA's consideration of the key issues set out above has led to the following conclusions relating to either compliance or non-compliance with development plan policy:

A) Compliance with development plan policy:

The development proposals are in compliance with development plan policy with respect to the following policies:

- DP19 in part with respect to biodiversity net gain
- DP21(E) surface water flood risk
- DP7 highway safety

B) Non-compliance with development plan policy:

The development proposals are not compliant with development plan policy with respect to the following policies:

- CSP1 and DP1 sustainability because extrinsically the proposed development will cause harm to countryside assets, heritage assets, BMV land and potentially biodiversity
- CSP8 for extra care accommodation; the application lacks essential information and cannot be said to be compliant with this policy
- DP10 there is definitional, spatial and visual harm to the Green Belt and the development is in conflict with Green Belt purposes a), c), d) and e)
- CSP21 the development does not conserve and enhance a valued landscape
- CSP18 because the proposed development would not reflect and respect the character, setting and local context of the area in which it is situated
- CSP20 the proposed development would have an adverse impact on views into and out of the Surrey Hills National Landscape and therefore on its setting
- CSP17 and DP19 (in part) because in the absence of information to demonstrate to the contrary, there will be a loss or deterioration of The Bogs AW and a wet woodland HPI, and loss of a hedgerow HPI
- DP20 because of harm to the significance of heritage assets caused by the proposed development would not be outweighed by benefits of the proposed development
- CSP11 given the uncertainty whether an adequate connection can be made to the foul sewage system

- CSP18 and DP7 the proposed development would not add to the overall quality of the area but would rather have adverse impacts on its character and appearance
- CSP13 adverse impacts for users of Bridleway 97 crossing the site.

Considered overall, the proposed development is non-compliant with the policies of the development plan.

23.2 The LPA will refer in its evidence to the weight to be afforded to each issue in the planning balance, as follows:

Proposed benefits of the application:

i) market and affordable housing – significant
ii) extra care accommodation – limited
iii) highways – neutral
iv) green space – limited
v) economic – limited
vi) sustainable drainage – limited
vii) biodiversity net gain - limited

Harm that will be caused:

i) harm to the setting of the National Landscape – great
ii) harm to the Green Belt- substantial
iii) harm to The Bogs AW and pSNCI , and wet woodland and hedgerow HPI – substantial
iv) harm to a valued landscape – substantial
v) harm to users of Bridleway 97 – significant
vi) harm to significance of heritage assets – significant
vii) lack of sustainability - significant
viii) harm to character and appearance of the local area – moderate
ix) harm due to loss of BMV agricultural land – moderate

Neutral or no weight

Foul drainage

23.3 Some of the weightings set out above have changed compared to those in the previous officer delegated report for the application. There has been a reassessment of the weight to be afforded to the sustainability of the proposed development. Previously this was afforded limited weight as a benefit of the appeal scheme. However, as set out in paragraph 22.6 above, when the extrinsic effects of the proposed development in totality are taken into account the conclusion is that the development is unsustainable. Following further discussion with the historic buildings officer of Surrey County Council, and his advice that great weight needs to be given to the harm to the significance of heritage assets, the weight afforded to that harm has increased from moderate to significant. The foul drainage works necessitated by the proposed development will not provide any betterment for the wider foul drainage network and therefore are neutral in terms of weighting rather than a moderate benefit.

23.4 The LPA's evidence will set out its full assessment of why the application site should be considered Green Belt not Grey Belt. The site contributes strongly to Green Belt purpose a), that is checking the unrestricted sprawl of a large built-up area, and, in consequence of this alone, is Green Belt. The applicant at paragraph 6.131 of the Planning and Affordable Housing Statement accepts that, in these circumstances, the site also contributes to Green Belt purpose c), that is safeguarding the countryside from encroachment. The LPA's case will be that the site also contributes to the other Green Belt purposes, which are d) and e). Accordingly, the application proposals for residential development constitute inappropriate development that would cause harm to openness by way of visual and spatial harm, and also definitional harm to the Green Belt. In accordance with paragraph 153 of the NPPF and Tandridge Local Plan Part 2: Detailed Policies policy DP10, substantial weight has to be given to Green Belt harm, in the determination of this appeal. Development harmful to the Green Belt should not be approved except in very special circumstances (VSC). The LPA will in its evidence relating to the consideration of the key issues raised by

this appeal, set out the weightings applying to each issue to derive the benefits and harm that would arise if the appeal was allowed, as summarised in paragraph 23.2 above. The proposed benefits of the application in the applicant's submissions constitute the purported VSC why the application should be approved. The most significant of these purported VSCs is the provision of market and affordable housing in circumstances where the LPA cannot demonstrate a five-year housing land supply.

23.5 Set against these purported VSCs are the identified harm to the Green Belt and other harm that would arise from the development. The LPA's assessment is that, given the constrained nature of the site, the harms resulting from the proposed development clearly outweigh the benefits, and the VSC for the granting of planning permission do not exist.

23.6 Paragraph 11(d)(i) of the NPPF provides that where development plan policies for determining an application are out of date, planning permission should be granted unless the application of policies in the Framework that protect areas or assets of particular importance provide a strong reason for refusing the development proposed. With this application, those policies protecting areas or assets of particular importance are those relating to Green Belt, the setting of the Surrey Hills National Landscape, an irreplaceable habitat (The Bogs AW) and a Grade 1 listed building (St Mary's Church) and a Grade II listed building (Court Farm House). The LPA's case will be that the application of those policies does provide a strong reason for refusing planning permission for the proposed development. The tilted balance (para. 11(d)(ii) of the NPPF) does not apply in the determination of this application, therefore.

23.7 The LPA has raised a number of questions relating to various aspects of the application with the appellant, a response to which is still outstanding, as follows:

i) Change to the mix and internal layout of affordable housing, affordable house design to be tenure blind and, in the event of phased development, there should be 50% affordable housing in each phase;

ii) Timescale for a new foul drainage sewer connection to the site;

iii) Maintenance of surface water inflows to The Bogs;
iv) Funding mechanism for maintenance of SuDS features of the proposed development;
v) Diversion of Bridleway 97 junction with Barrow Green Road to the junction at the foot of Chalkpit Lane;
vi) Whether new statutory public rights of way are part of the development proposals as indicated in the application; and
vii) Whether the applicant is prepared to accept the “prior to development commencing” conditions requested by the County Highway Authority and LLFA.

There are also requests for further information from Natural England and Surrey Wildlife Trust to address significant concerns they have about the development proposals. These outstanding matters might be capable of being resolved by submission by the applicant of further information or through planning conditions or Section 106 obligations. However, if the matters remain outstanding, the LPAs case will be that for the purposes of the planning balance they attract additional limited weight against a grant of planning permission.

Appendix B LLFA Correspondence

[redacted]

From: Laura Moyano <Laura.Moyano@surreycc.gov.uk>
Sent: 04 August 2025 13:45
To: Cliff Thurlow
Cc: Statutory
Subject: LLFA-TA-25-0769RevA - Land South Of Barrow Green Road, Oxted
Attachments: LLFA-TA-25-0769RevA Land South of Barrow Green Road.pdf

Our ref: LLFA-TA-25-0769RevA
Your ref: 2025/245
FAO Cliff Thurlow

Dear Cliff,

Please see attached our latest response regarding the above consultation, should you have any queries please do not hesitate to contact me.

Laura Moyano
Flood and Climate Resilience Specialist
Environment, Property and Growth

SuDS

Please consider the environment before printing this email

Case Officer: Laura Moyano
E-mail: SUDS@surreycc.gov.uk

Recommendation (mark one with X)

Further/amended information required	
No objection	
No objection – Subject to conditions	**X**
Objection	

SURREY COUNTY COUNCIL

Flood Risk, Planning, and
Consenting Team
Whitebeam Lodge
Merrow Lane
Guildford
Surrey
GU4 7BQ

Our ref: **LLFA-TA-25-0769RevA**
Your ref: **2025/245**
Date: **04/08/2025**

Dear Planning Authority,

Land South Of Barrow Green Road, Oxted

Thank you for consulting Surrey County Council (SCC) as the Lead Local Flood Authority (LLFA) on the above Outline Planning Application. We have reviewed the surface water drainage strategy for the proposed development and assessed it against the requirements of the NPPF, its accompanying PPG and the Non-Statutory Technical Standards for sustainable drainage systems.

As part of our statutory consultee role our advice relates to surface water flood risk and surface water drainage only, the Environment Agency should be contacted for advice in relation to fluvial flood risk.
The following documents submitted as part of the above application have been reviewed and should be referred to as part of any future submissions:
Consultation request date: **19/06/2025**

- Flood Risk Assessment and Drainage Strategy, February 2025, Rev C, Motion;
- Hydraulic Modelling Report, December 2024, REPORT REF. 2404420-ACE-XX-XX-RP-C-0501AA, ARDENT;
- Hydrological Sequential Test, January 2025, ENV-21564 Report 2 V0, rps group;

Re-consultation request date: **30/07/2025**

- Technical Note 2: Resolving LLFA Objection, July 2025, Motion;

The applicant has provided sufficient information to address our previous comments.

We are satisfied that the proposed drainage scheme meets the requirements set out in the aforementioned documents and are content with the development proposed, subject to our advice below.

Our advice would be that, should planning permission be granted, suitably worded conditions are applied to ensure that the SuDS Scheme is properly implemented and maintained throughout the lifetime of the development. Suggested conditions are below:

1) The development hereby permitted shall not commence until details of the final design of a surface water drainage scheme have been submitted to and approved in writing by the planning authority. The final solution should follow the principles set out in the approved drainage

strategy. The design must satisfy the SuDS Hierarchy and be compliant with the national standards for sustainable drainage systems and the NPPF. The required drainage details shall include:

a) The results of infiltration testing completed in accordance with BRE Digest: 365 and confirmation of groundwater levels. Where infiltration is proposed confirmation is required of a 1m unsaturated zone from the base of any proposed soakaway to the seasonal high groundwater level and confirmation of half-drain times.
b) Evidence that the receiving watercourse has onward connectivity and capacity to receive flows from the site.
c) Evidence that the proposed final solution will effectively manage the 1 in 30 (+35% allowance for climate change) & 1 in 100 (+45%) storm events and 10% allowance for urban creep. If infiltration is deemed unfeasible, associated discharge rates and storage volumes shall be provided using a maximum discharge rate of **11.1l/s for the 2 year, 29.1l/s for the 30 year, 40.3l/s for 1in100 year including multifunctional sustainable drainage systems.**
d) Detailed design drawings for all sustainable drainage elements including cross sections and detailed drainage layout plan including detailed levels and specification for the overland flow route corridor.
e) An exceedance flow routing plan demonstrating no increase in surface water flood risk on or off site. The plan must include proposed levels and flow directions.
f) Details of drainage management responsibilities and maintenance regimes for all drainage elements.
g) Details of how surface water will be managed during construction including measures to protect on site and downstream systems prior to the final drainage system being operational. Including details of how existing watercourse on and adjacent to the site will be protected.

Reason: To ensure the design meets the national Non-Statutory Technical Standards for SuDS and the final drainage design does not increase flood risk on or off site.

2) Prior to the first occupation of the development, a verification report must be submitted to and approved by the Local Planning Authority. This must demonstrate that the surface water drainage system has been constructed as per the agreed scheme (or detail any minor variations), confirming any defects have been rectified. Provide the details of any management company. Provide an 'As-Built' drainage layout and state the national grid reference of key drainage elements.

Reason: To ensure the Drainage System is designed to the National Non-Statutory Technical Standards for SuDS.

Informative
If proposed site works affect an Ordinary Watercourse, Surrey County Council as the Lead Local Flood Authority should be contacted to obtain prior written Consent.

If proposed works result in infiltration of surface water to ground within a Source Protection Zone the Environment Agency will require proof of surface water treatment to achieve water quality standards.

Sub ground structures should be designed so they do not have an adverse effect on groundwater.

If there are any further queries please contact the Flood Risk, Planning, and Consenting Team via SUDS@surreycc.gov.uk. Please use our reference number in any future correspondence.

Yours faithfully

Laura Moyano
Flood Risk & Climate Resilience Specialist

For the Flood Risk, Planning, and Consenting Team

Appendix C Extracts of Tandridge District Council Policy Documents

of the areas they cover continues to be protected. In particular the Council will consider if character appraisals should be carried out and whether design codes should be prepared for particular areas.

Policy CSP 18

Character and Design

The Council will require that new development, within town centres, built up areas, the villages and the countryside is of a high standard of design that must reflect and respect the character, setting and local context, including those features that contribute to local distinctiveness. Development must also have regard to the topography of the site, important trees or groups of trees and other important features that need to be retained.

Development must not significantly harm the amenities of the occupiers of neighbouring properties by reason of overlooking, overshadowing, visual intrusion, noise, traffic and any other adverse effect.

The Council will have regard to "Surrey Design" and Village Design Statements in determining planning applications. The Council will apply the principle of "good enough to approve rather than bad enough to refuse".

The Council will protect the wooded hillsides in the built-up areas by ensuring that new development does not adversely affect the character of these areas and that there is no overall loss of tree cover.

Within built up areas and villages existing green spaces that contribute to biodiversity, the quality of life, the character or amenities of the area or those that separate built up areas will be protected and where possible enhanced for the benefit of biodiversity and/or recreation.

Policy CSP 19

Density

Within the framework for the character and design of density as set out in Policy CSP18 the density of new development will be within the following ranges:

(a) Rural Areas (Larger Rural Settlements/Woldingham/Green Belt Settlements /countryside) – 30 to 40 dwellings per hectare, unless the design solution for such a density would conflict with the local character and distinctiveness of an area where a lower density is more appropriate; such character and distinctiveness may also be identified in Village Design Statements, Conservation Area Appraisals or Supplementary Planning Documents. Saved policy BE7 "Woldingham" of the Tandridge District Local Plan 2001 will also continue to apply to development within the settlement boundary until this is replaced by a policy in a Development Control DPD.

(b) Built up areas – 30 to 55 dwellings per hectare, unless the design solution for such a density would conflict with the local character and distinctiveness of an area where a lower density is more appropriate; such character and distinctiveness may also be identified in Village Design Statements, Conservation Area Appraisals or Supplementary Planning Documents.

(c) Oxted and Caterham Valley town centres (as defined on the proposals map) 40 to 75 dwellings per hectare, unless the design solution for a higher density scheme is compatible with local character and distinctiveness.

Within the lower density areas (a) and in the medium density areas (b) the Council will resist densities above the specified ranges unless it can be demonstrated that development proposals will not harm the character of the area and the quality of the environment and provided the site is in an area that is within

0.5km (approximately a 5 minute safe and level walk) from frequent public transport and a town, village or other centre containing convenience shopping.

DP21: Sustainable Water Management

A. Water will be retained in the natural environment as far as possible. Proposals which seek to restore natural flows in the river systems or re-establish areas of functional floodplain will be supported, particularly where they would provide opportunities for recreation, habitat restoration/enhancement or additional Green Infrastructure provision.

Water Quality, Ecology and Hydromorphology

B. Proposals should avoid damage to Groundwater Source Protection Zones, having regard to the Environment Agency's 'Groundwater Protection: Policy and Practice' guidance or successor documents.

C. Development adjacent to, or likely to affect underground or surface water bodies covered by the Water Framework Directive and Thames River Basin Management Plan should, where possible, make improvements to the quality, ecology and hydromorphology of these water bodies. Additionally, such proposals should contribute towards the maintenance or achievement of 'Good Ecological Status' for the affected water bodies. This may take the form of on-site measures or a financial contribution to off-site measures.

Flood Risk

D. Proposals should seek to secure opportunities to reduce both the cause and impact of flooding; for example through the use of Green Infrastructure for flood storage and, where necessary, the incorporation of Sustainable Drainage Systems (SuDS) suitable to the scale and type of the development, ensuring the discharge of surface run off is restricted to that of the pre-development site. Consideration should be given as to the future maintenance of any proposed SuDS schemes.

E. Development within flood risk zones 2 and 3 or on sites of 1 hectare or greater in zone 1, and sites at medium or high risk from other sources of flooding as identified by the Council's Strategic Flood Risk Assessment, will only be permitted where:

1. **The sequential and, where appropriate, exception tests as detailed in 'Technical Guidance to the National Planning Policy Framework'[32] have been applied and passed and the proposal is a development form compatible with the level of risk;**
2. **For all sources of flood risk, it can be demonstrated through a site specific Flood Risk Assessment (FRA)* that the proposal would, where practicable, reduce flood risk both to and from the development or at least be risk neutral; and**
3. **Appropriate flood resilient and resistant design, and mitigation and adaptation measures are included in order to reduce any level of risk identified through a site specific FRA to acceptable levels.**

**** The FRA should demonstrate how flood risk is to be mitigated, development adapted and, where practicable, risk reduced including the consideration of risks from other sources where appropriate. The content and scope of the FRA should be commensurate with the scale of development and be agreed by the District Council in consultation with the Environment Agency.***

32 http://www.communities.gov.uk/documents/planningandbuilding/pdf/2115548.pdf

Appendix D.1 Ardent Hydraulic Modeling Report 1 – December 2024

ARDENT
CONSULTING ENGINEERS
AN EMPLOYEE OWNED COMPANY

Croudace Homes Limited

Stoneyfields, Oxted

Hydraulic Modelling Report

REPORT REF.
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December 2024

HEAD OFFICE: 3rd Floor, The Hallmark Building, 52-56 Leadenhall Street, London, EC3M 5JE **T** | 020 7680 4088
EDINBURGH: Suite 35 4-5 Lochside Way Edinburgh EH12 9DT **T** | 0131 516 8111
ESSEX: 1 - 2 Crescent Court, Billericay, Essex, CM12 9AQ **T** | 01277 657 677
KENT: Suite 10, Building 40, Churchill Business Centre, Kings Hill, Kent, ME19 4YU **T** | 01732 752 155
MIDLANDS: Office 3, The Garage Studios, 41-43 St Mary's Gate, Nottingham, NG1 1PU **T** | 0115 697 0940
SOUTH WEST: Temple Studios, Bristol, England, BS1 6QA **T** | 0117 456 4994
SUFFOLK: Suffolk Enterprise Centre, 44 Felaw Street, Ipswich, IP2 8SJ **T** | 01473 407 321

Email: enquiries@ardent-ce.co.uk

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REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	DRAFT	JA	GA	DRAFT	November 2024
	FINAL	JA	GA	BC	November 2024
A	Update to include Illustrative Masterplan	JA	GA	BC	December 2024

Distribution

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1. Introduction

1.1. Ardent Consulting Engineers (hereafter referred to as Ardent) has been instructed by Croudace Homes Limited to undertake surface water hydraulic modelling to support a proposed development at Stoneyfields, Oxted.

1.2. The Site location is shown in **Figure 1-1**. The proposed development consists of residential dwellings and a care home with associated parking and landscaping, with vehicular access via Wheeler Avenue from the south and Barrow Green Road to the north.

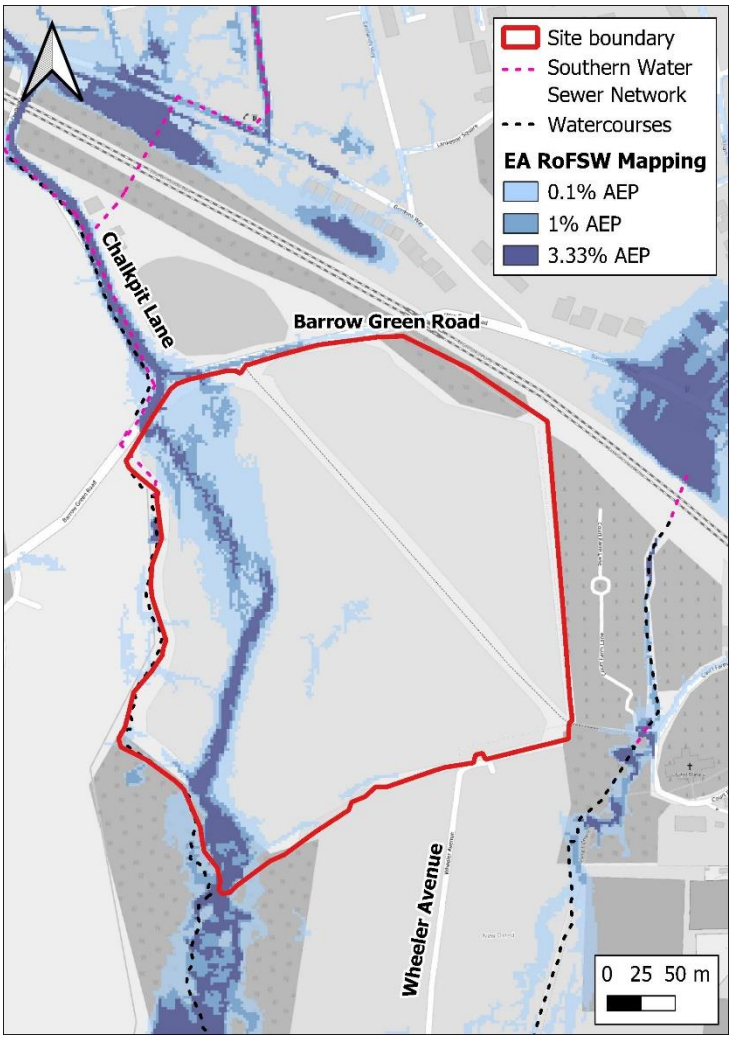


Figure 1-1: Site location plan and EA surface water flood mapping

1.3. An ordinary watercourse runs along the western boundary from north to south. The watercourse is primarily fed by a Southern Water surface water sewer that discharges into the watercourse in the northwest of the Site, along with a ditch that runs adjacent to Chalkpit Lane from the north. An ordinary watercourse is also located east of the Site through the adjacent cemetery.

1.4. The Environment Agency (EA) Risk of Flooding from Surface Water (RoFSW) shows parts of the Site are predicted to be at a low to high risk of surface water flooding (see **Figure 1-1**). However, the EA mapping is carried out at national scale and does not explicitly represent local drainage features such as the sewer network.

1.5. Therefore, a detailed 1D-2D linked direct rainfall-runoff model has been developed using TUFLOW software to refine the understanding of surface water flood risk to the Site and inform potential flood risk mitigation measures.

2. Site Visit

2.1. To support the hydraulic model build, a Site visit was undertaken on 24 May 2024 to identify any structures/drainage features that may influence the surface water flood risk to the Site and assess the condition of the watercourse. Features identified during the Site visit are shown in **Figure 2-1**, with photographs shown in **Appendix A**. The Site visit was supported by topographic survey (see **Appendix B**) and Southern Water sewer mapping (see **Appendix C**).

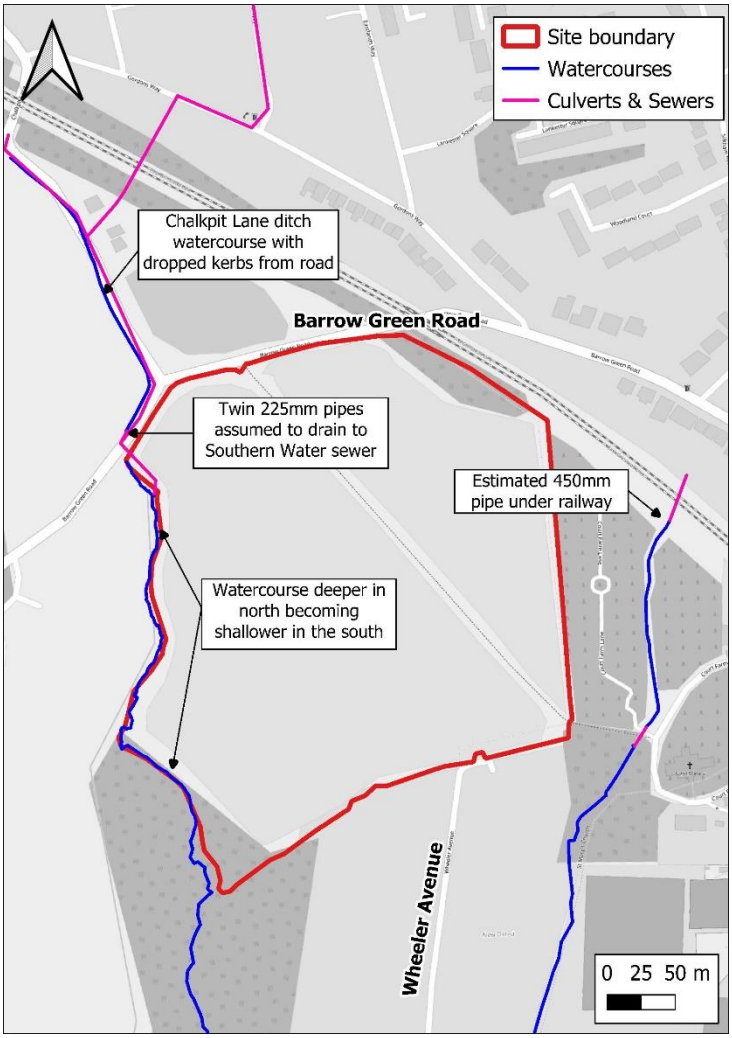


Figure 2-1: Culverts identified during Site visit

2.2. A ditch running north to south adjacent to Chalkpit Lane was identified during the Site visit, which then turns west for a short length along Barrow Green Road (see **Photo A.1**). A series of dropped kerbs along Chalkpit Lane leading into the ditch were also identified. The ditch was approximately 0.75m - 1m deep and 1m – 1.5m wide at bankfull. At the time of the visit the ditch contained a large amount of summer vegetation.

2.3. Several road gullies and manholes were identified along Chalkpit Lane and Barrow Green Road. It is assumed that these drain into a surface water sewer shown on Southern Water sewer mapping to run along Chalkpit Lane before entering the northwest corner of the site and discharging into the watercourse adjacent to the Site (see **Appendix C**).

2.4. At the downstream end of the ditch two 225mm culverts were observed, one concrete and one PVC (see **Photo A.2**). No culvert was identified immediately south of Barrow Green Road along the watercourse adjacent to the Site. The 225mm culverts are therefore assumed to drain into the Southern Water surface water network.

2.5. Due to vegetation growth it was not possible to view the outfall of the Southern Water network to the watercourse to the west of the Site. However, the location shown of the outfall on sewer mapping correlates with the Site topographic survey. Additionally, flow within the watercourse was only observed downstream of the mapped outfall location.

2.6. The watercourse is relatively deeply incised along boundary in the northwest of the Site (see **Photo A.3**), with a defined channel shown to be approximately 0.75 – 1.25m deep in the topographic survey. At the time of the Site visit the channel was largely clear, though with occasional debris and densely vegetated banks.

2.7. In the southwest of the Site the watercourse becomes shallower and spreads over a wider area with waterlogged ground (see **Photo A.4**). The channel becomes more overgrown within this area.

2.8. The watercourse to the east of the Site was also visited and is largely a clear channel approximately 1m deep with grass lined banks. The culvert under the railway into the cemetery from the north was estimated to be 450mm in diameter based on observations taken during the Site visit (see **Photo A.5**).

3. Hydrological Assessment

3.1. To inform the hydraulic modelling and assess surface water flood risk to the Site, rainfall hyetographs were derived to input to the hydraulic model.

3.2. FEH22 catchment descriptor data was obtained from the Flood Estimation Handbook (FEH) Web Service for the catchment covering the Site (see **Figure 3-1**). The catchments consist of rural areas to the north and west of Oxted, and a residential area in the north of Oxted.

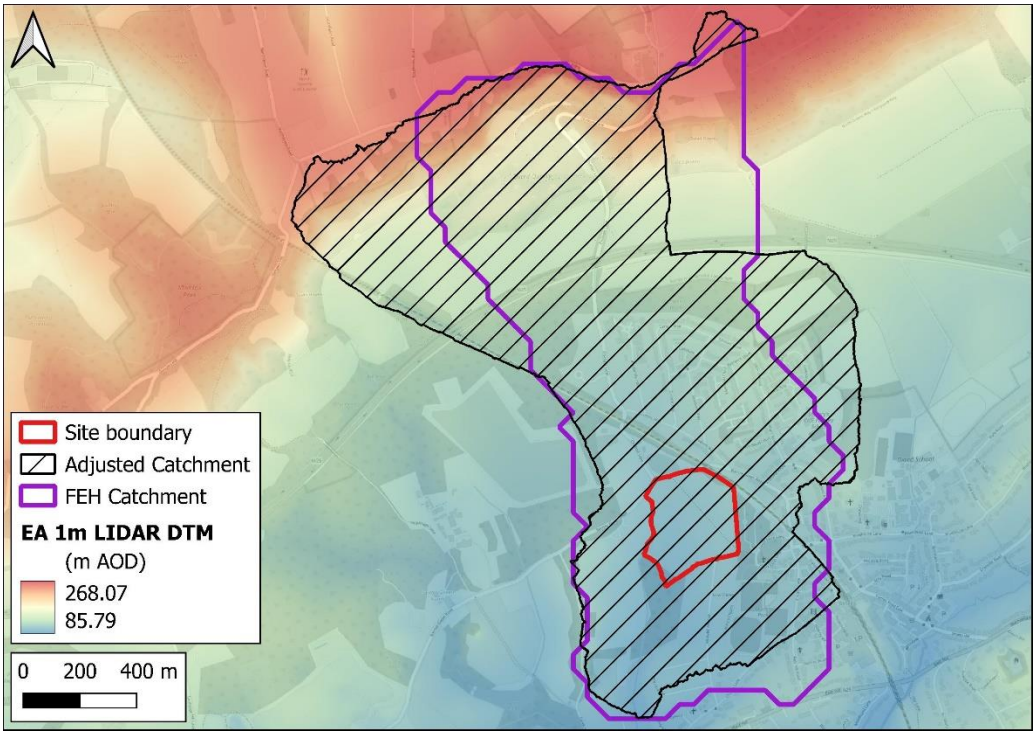


Figure 3-1: Estimated catchment boundary

3.3. A catchment analysis was undertaken using catchment delineation tools within QGIS to determine the catchment area draining to the Site based on the latest 1m EA LIDAR Composite DTM, with the LIDAR data last collected in 2018. The updated catchment area is shown in **Figure 3-1**. The adjusted catchment has an area of 2.28km^2, compared to the value of 2.12km^2 for the FEH catchment, with the adjusted area used to derive rainfall.

3.4. Analysis of satellite imagery indicated no major development had occurred within the catchment and as such URBEXT values were only updated to 2024 in line with available guidance.

3.5. The other catchment descriptors used to derive design rainfall and net rainfall for rural areas (SPRHOST, BFIHOST, SAAR, DPLBAR etc.) were assessed against

available data, such as British Geological Society geology mapping and LANDIS SoilScapes mapping. The key FEH catchment descriptors were considered appropriate and as a result only the catchment area and URBEXT values were updated.

3.6. The FEH22 data was inputted to the Revitalised Flood Hydrograph 2 (ReFH2) software, which was used to derive rainfall hyetographs for the 3.3%, 1%, and 0.1% Annual Exceedance Probability (AEP) events.

3.7. Rainfall hyetographs were also derived for the 3.3% AEP event uplifted by 35% and the 1% AEP event uplifted by 45% to account for the potential impacts of climate change, in line with the latest EA guidance for the 2070s epoch upper end allowance in the Medway Management Catchment[1].

3.8. A winter storm profile was used to derive the hyetographs in line with available ReFH2 guidance on critical seasonality for rural areas based on the BFIHOST value and updated URBEXT2000 value.

3.9. The default storm duration for the catchment is 3.25 hours. Hyetographs were also derived for a 1.25-hour, 2.25-hour, and 4.25-hour storm duration, with all four durations tested within the model for the 1% AEP plus 45% climate change event in the baseline model. The duration testing found the 2.25-hour storm event resulted in the highest peak flood depths at key locations in the Site, with this therefore used as the final design storm duration.

3.10. The design and net rainfall hyetographs were exported from ReFH2, with details of how rainfall losses from rural and urban areas were represented in the hydraulic model outlined in **Section 4**. An example ReFH2 report for the 1% AEP plus 45% climate change event is provided in **Appendix D**, including details of the descriptor data.

[1] Medway Management Catchment peak rainfall allowances, Environment Agency. Available: https://environment.data.gov.uk/hydrology/climate-change-allowances/rainfall?mgmtcatid=3055

4. Baseline model build

4.1. The baseline model has been built using the hydraulic modelling software TUFLOW. All scenarios have been run using Tuflow build version 2023-03-AC-iSP-w64.

2D build

4.2. A 2D model schematic is shown in **Figure 4-1**.

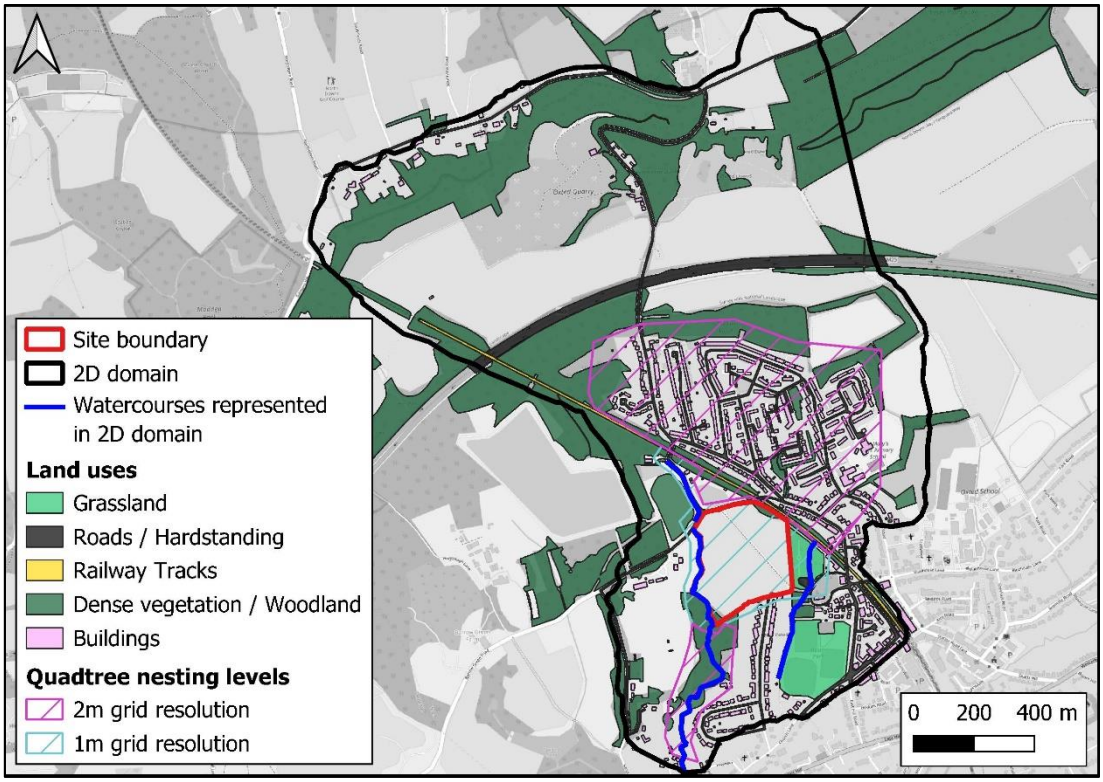


Figure 4-1: 2D Model schematic

4.3. Watercourses and the wider catchment are represented in the 2D domain, which covers an area of 2.78km^2, including the entire catchment derived in **Section 3**.

4.4. Ground levels at the Site have been informed by a topographic survey collected in March 2023 by Encompass Surveys (see **Appendix B**). Elevations across the wider catchment were derived from the 2018 EA 1m LIDAR DTM.

4.5. A 4m cell size has been applied across the model with Quadtree used to refine this to a 2m grid size within the urban area north of the Site and the watercourse downstream of the Site. A 1m grid size is applied at the Site, adjacent watercourse and along Chalkpit Lane. Sub-grid sampling has been enabled within TUFLOW, ensuring surface water flow paths were adequately represented.

4.6. Different land uses derived from topographic survey and OS VectorMapping have been assigned roughness values within the 2D domain. A general roughness value of 0.055 was applied to the model domain representing light vegetation/pasture and fenced gardens. '2D_mat' files were then used to specify roughnesses for different land uses (see **Figure 4-1**). The values applied are shown in **Table 4-1**.

Table 4-1: 2D Manning's 'n' roughness values

Land use	Manning's 'n' roughness value
Light vegetation / pasture / fenced gardens	0.055
Open areas / Grassland	0.045
Railway tracks	0.035
Roads / Hardstanding	0.02
Buildings	0.3
Woodland / Dense vegetation	0.1
2D Watercourses	0.048

4.7. The ordinary watercourse was represented in the 2D domain. Adjacent to the Site boundary a 'Z-line' was used to stamp in channel levels taken from the topographic survey (see **Figure 4-1**). Where survey data was not available the watercourse levels were taken from the LIDAR DTM. This approach is considered conservative as LIDAR data only captures the water surface and not the channel bed levels, therefore underestimating the channel capacity.

4.8. The ditch along Chalkpit Lane was poorly represented within the LIDAR DTM. As a result, a 'Z-line' was used to lower the ground model by 0.5m to conservatively represent the capacity of the ditch.

1D build

4.9. The culverts identified during the Site visit (see **Section 3**) and from topographic survey were represented in the 1D domain (see **Figure 4-2**). A culvert to southeast of the Site was represented as a 580mm circular pipe, with the dimensions and inverts taken from topographic survey.

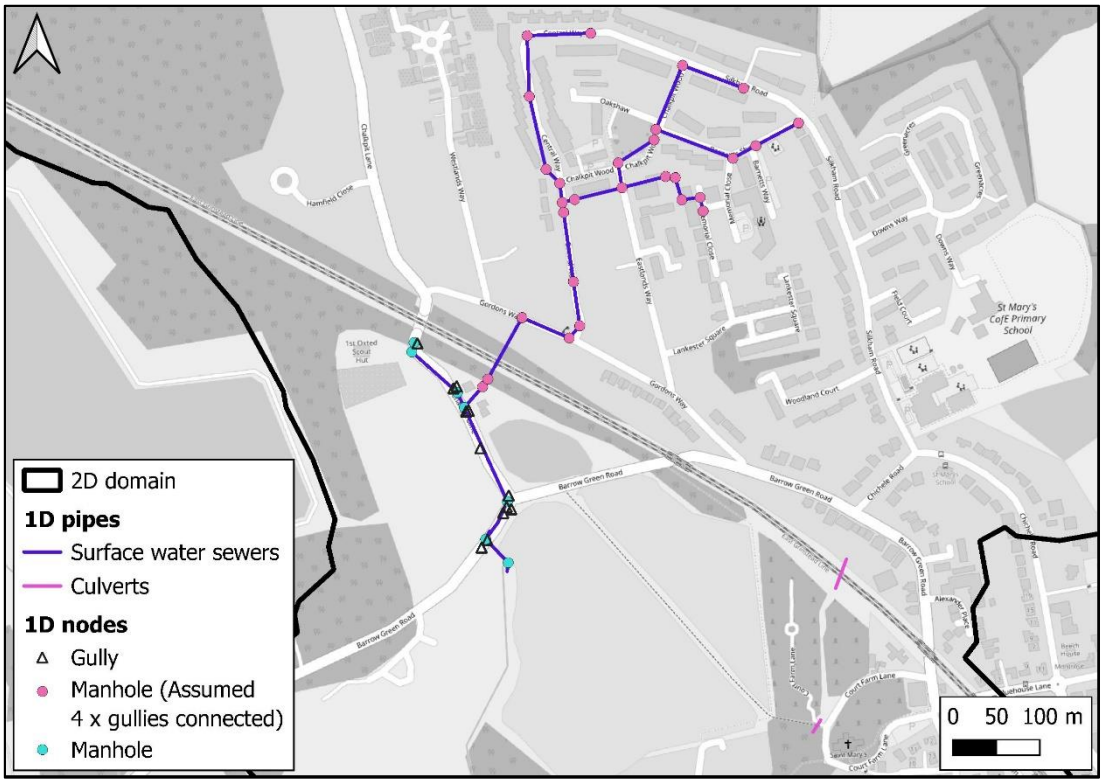


Figure 4-2: 1D model schematic

4.10. The two 225mm culverts at the downstream end of the ditch north the of Site were represented in the 1D domain, connecting into the adjacent sewer network, while the 450mm culvert under the railway line to the east of the Site was connected to the 2D domain at the upstream and downstream ends. In the absence of topographic survey, the culvert invert levels were inferred from the EA LIDAR data used to define the ground model. The culvert dimensions were informed by measurements and observations taken during the Site visit.

4.11. The sewers were represented using information obtained from Southern Water sewer mapping (see **Appendix C**). Pipe inverts and dimensions were taken from the mapping, with details inferred or interpolated where values were missing. A pipe roughness of 0.013 was applied in line with available guidance (i.e. Chow, 1959) assuming a good condition.

4.12. Road gullies along Chalkpit Lane identified during the Site visit were represented within the model (see **Figure 4-2**), with cover levels taken from the EA LIDAR DTM and invert levels set 0.5m below this. Manholes were represented with cover levels taken from the EA LIDAR DTM to ensure a linkage between the 1D and 2D domains using SXL connections (see **Figure 4-2**).

4.13. The flow in and out of road gullies was represented using standard head discharge curves, in line with industry guidance assuming 150mm pipe connections. The road gullies were set to connect to the nearest manhole in the 1D domain. Where road gullies were represented in the model, manholes were represented using standard head discharge curves that assume minimal inflows but allow surcharging to occur. Where no gullies were represented in the model upstream of the railway line the manholes were set to have a head discharge curve that assumed four gullies were connected to each manhole in the absence of gully mapping.

4.14. A blockage analysis of the twin 225mm culvert at the downstream end of the ditch north of the Site was undertaken to assess the residual flood risk to the Site and demonstrate the sensitivity of the model outputs to the assumptions made regarding their representation. The blockage analysis found only a minor impact on flood depths within the Site boundary meaning the representation of the culverts was considered appropriate (see **Appendix E** for further details).

4.15. Pipe roughness was applied in line with available guidance (i.e. Chow, 1959) based on observations and assumptions about the pipe material and condition. All sewers had a Manning's 'n' value of 0.013 applied, while the three culverts had values of 0.015 applied. Standard entry and exit losses were applied in line with TUFLOW guidance.

Boundary conditions

4.16. A '2d_rf' layer was used to apply rainfall directly to the 2D model domain. Rainfall losses associated with infiltration for the rural areas of the catchment were estimated within ReFH2, with the rural net rainfall hyetograph applied to the area shown in **Figure 4-3**.

4.17. The urban eastern half of the catchment is heavily urbanised, with indicative measurements indicating approximately 60-70% of the area is hardstanding. As a result, a conservative approach to apply rainfall to the urban catchment was undertaken, with the design rainfall hyetograph applied to the entire urban area shown in **Figure 4-3**. To account for infiltration losses and storage within urban areas (i.e. gutters, drains) 80% of the total design rainfall hyetograph was applied to the urban areas.

4.18. No losses were applied to account for the presence of surface water sewers within the catchment where these were not represented explicitly as it is assumed these would drain to the study watercourse and not be lost from the catchment.

4.19. Sensitivity testing of the application of rainfall to the model was undertaken and demonstrates the model has a low sensitivity to the approach used (see **Appendix E**).

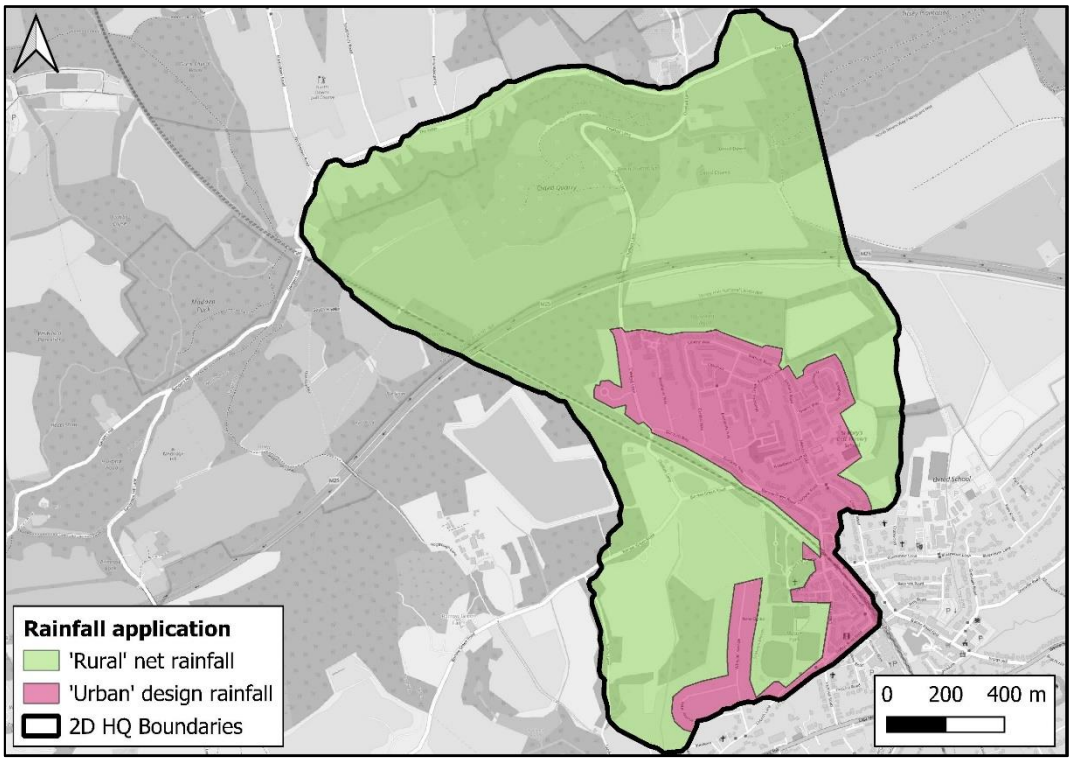


Figure 4-3: Model boundaries

4.20. To allow runoff to pass out of the 2D domain an HQ boundary was applied at the downstream extent of the watercourse and other flow paths in the model domain, with a gradient derived from the EA LIDAR DTM. The downstream boundary was located sufficiently downstream that it does not impact the model outputs at the Site. HQ boundaries with general slope values were applied to the rest of 2D domain to prevent glass-walling (see **Figure 4-3**).

4.21. 2D_bc 'SX' links have been used to link the 1D culverts to the 2D domain, with inverts taken from the EA LIDAR DTM. The 1D manholes and gullies were also connected to the 2D domain using 'SX' links.

Assumptions / limitations

4.22. The representation of any complex system by a model requires a number of assumptions to be made. In the case of the 1D and 2D elements of the model, the following assumptions have been made:

- Model parameters, such as roughness and structure coefficients, are representative of the general conditions;
- The units used to represent hydraulic structures within the model represent the situation accurately using the available information, including assumptions made to simplify representations where necessary;
- Culvert dimensions and inverts have been estimated where data is not available;
- The model hydrology accurately represents flows in the models given there was no flow / level data available for the catchment to calibrate flows in the model;
- Watercourses are modelled to be dry at the beginning of the simulation, with inflows solely from rainfall;
- The LIDAR and OS mapping are representative of the land surface and are an up to date reflection of current ground levels and land uses.

5. Baseline modelling results

5.1. The model has been run using the TUFLOW HPC solver with adaptive timestepping. The model is run for a total duration of 6 hours to allow the full storm event to pass through the Site. Model results have been filtered to remove depths below 0.05m.

5.2. Peak flood extents for the modelled storm events are shown in **Figure 5-1**.

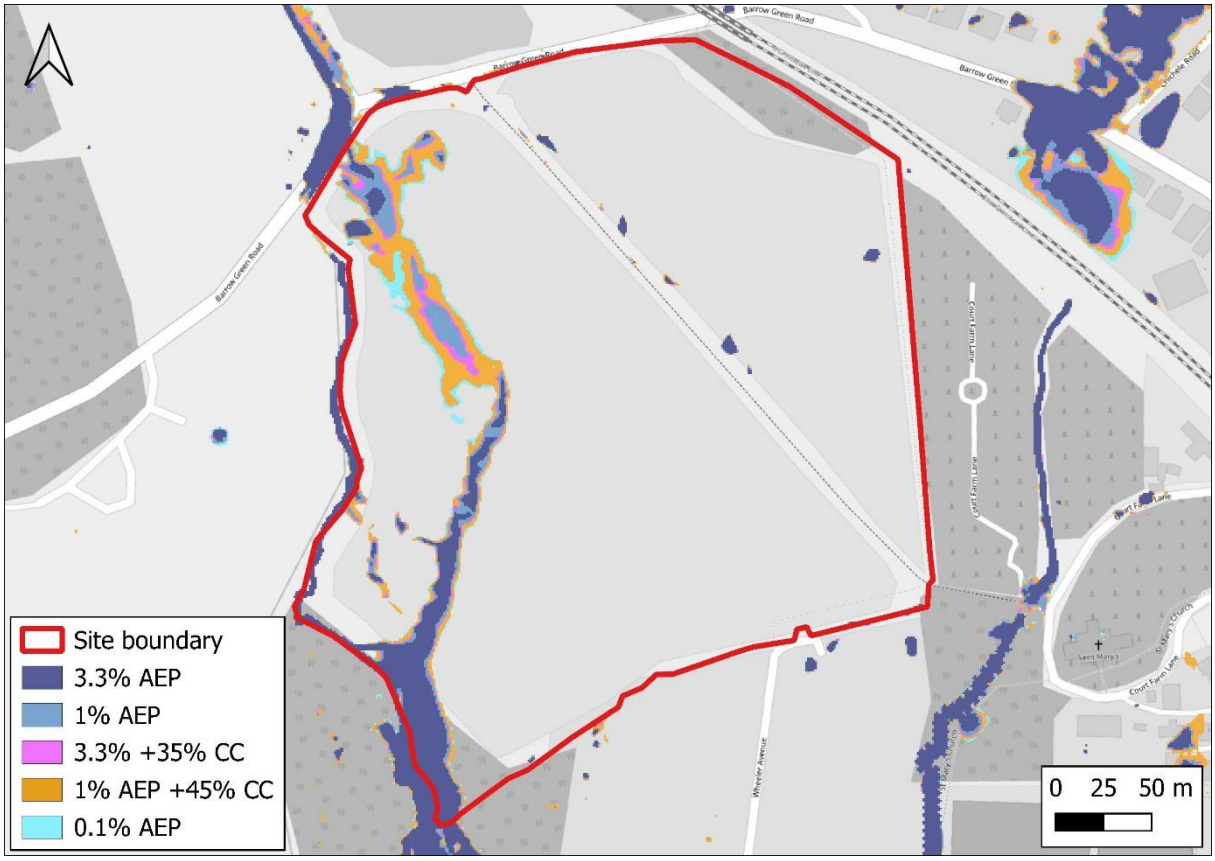


Figure 5-1: Baseline model flood extents

5.3. During all modelled events overland flows are predicted to enter the northwest corner of the Site, forming a shallow overland flow path that runs north to south through the Site separated from the adjacent watercourse by a slight ridge of higher land along the field boundary.

5.4. The capacity of the drainage ditch and surface water sewer network along Chalkpit Lane are modelled to be exceeded during all events, resulting in ponding on Barrow Green Road before flows spill into the Site. During the smaller magnitude events the flow path through the Site is very shallow (i.e. <0.05m).

5.5. The remainder of the Site is not predicted to be at risk of surface water flooding, with only isolated areas of surface water ponding shown in topographic depressions.

Additionally, the location of the proposed vehicular accesses are outside of the areas of flood risk.

5.6. The flow path is predicted to be very flashy with flows only conveyed through the Site for approximately 1.5-2 hours during the design storm for a 1% AEP plus 45% climate change event.

5.7. Peak modelled flood depths during the 1% AEP plus 45% climate change event are presented in **Figure 5-2**.

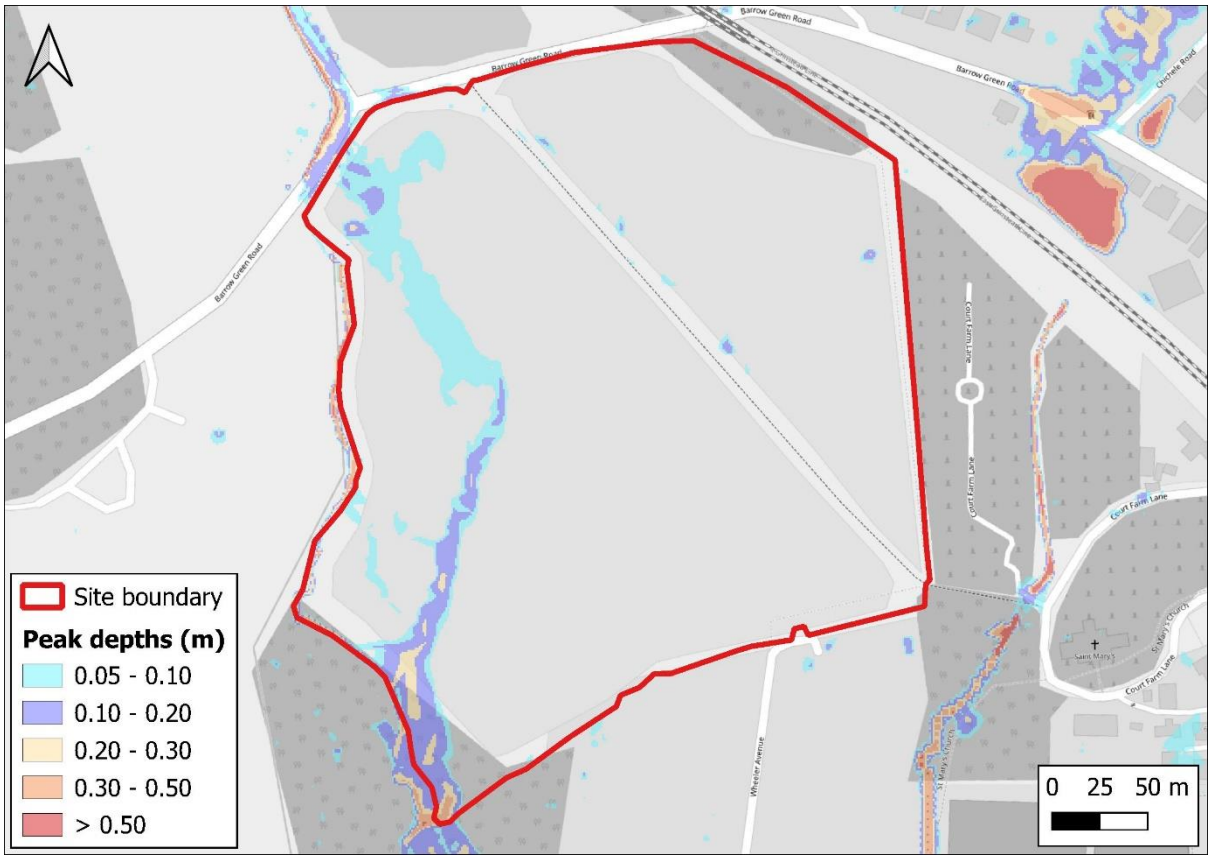


Figure 5-2: Peak modelled depths – 1% AEP +45% climate change

5.8. Through the northwest of the Site the flow path is modelled to be shallow, typically less than 0.10m, ranging in width from approximately 5-20m.

5.9. In the centre of the Site the flow path becomes more concentrated within a slight valley in the local topography that directs the flow path southwest towards the ordinary watercourse, with peak depths in this area typically around 0.15m.

5.10. In the southwest corner where the flow path joins the ordinary watercourse depths of approximately 0.25m are predicted.

Model Validation

5.11. No gauging data of flows or levels was available to inform the model validation. However, the modelling shows a good comparison with the existing EA RoFSW flood mapping (see **Figure 1-1**). The modelled flood extent is predicted to be slightly less extensive in the northwest of the Site due to the inclusion of the site specific topographic survey and local drainage features.

5.12. The similarities between the model outputs and the EA RoFSW mapping indicate the model is appropriately representing the flood risk to the Site.

5.13. The maximum uncertainty associated with the model outputs is approximately +/-50mm (see **Appendix E**).

Model stability

5.14. A review of the model outputs indicates the model is stable for the duration of the event, with total mass errors of 0% and timestep efficiency above 99% after the model initialisation. The model runs have no negative depths or repeated timesteps.

6. Post-development Modelling

Model updates

6.1. The proposed Site masterplan is provided in **Appendix F**. To increase the developable area of the Site post-development modelling was undertaken to assess the potential impacts of reprofiling ground levels so the overland flow path is diverted along the western boundary, away from the proposed residential development in the centre of the Site (see **Figure 6-1**).

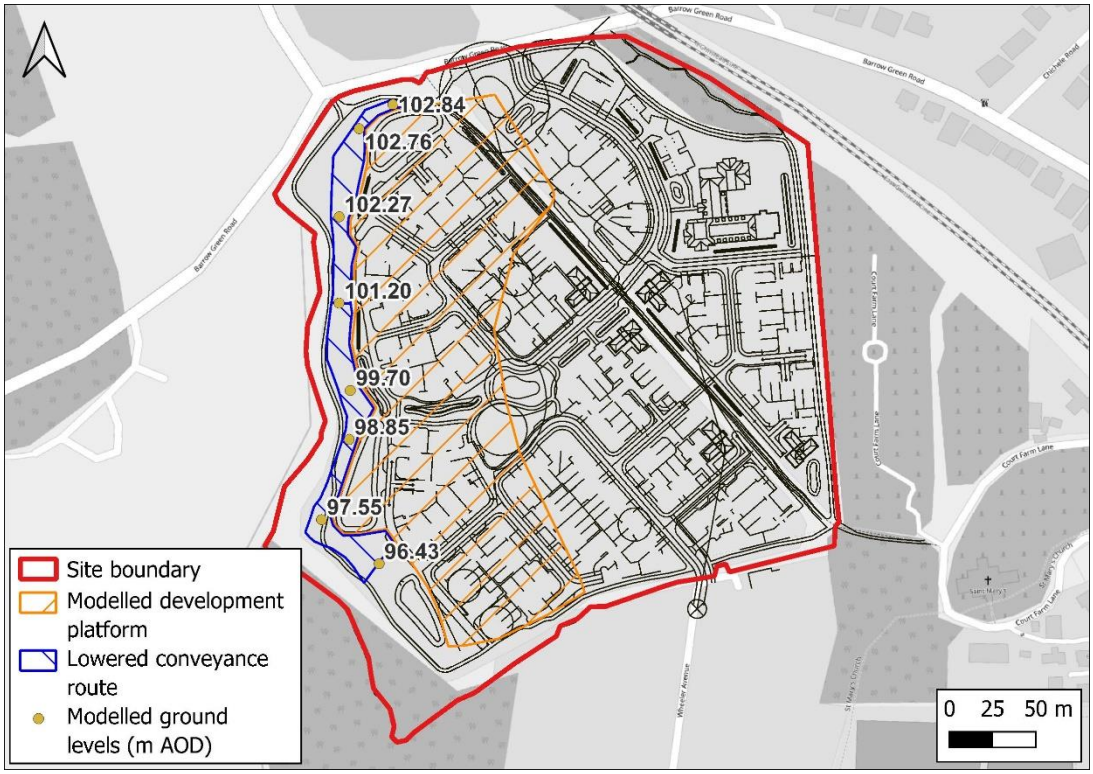


Figure 6-1: Proposed mitigation measures and Site layout

6.2. A conveyance route was formed along the western Site boundary, running from where the flow path enters the Site down to the southwest corner where the existing flow path joins the watercourse. The conveyance route was formed by slight ground lowering typically 100-300mm, with the modelled levels shown in **Figure 6-1**.

6.3. The conveyance route was represented within the post-development scenario using a Z-shape. Additionally, a development platform was represented adjacent to this, raising ground levels above the peak modelled flood levels for the purposes of the modelling so the platform remains dry.

6.4. The only other change to the post-development model was that rainfall was excluded from the developed area of the Site as this will be managed by the on-site drainage network. A '2D_bc' layer was used to apply the discharge from the drainage network to the watercourse at the proposed connection point, in line with the maximum discharge rate specified in the drainage strategy. This maximum discharge rate was applied for the duration of the model simulation, providing a conservative estimate of the outflow.

Post-Development Model Results

6.5. Peak flood depths and levels for the 1% AEP plus 45% climate change event during the post-development scenario are shown in **Figure 6-2**.

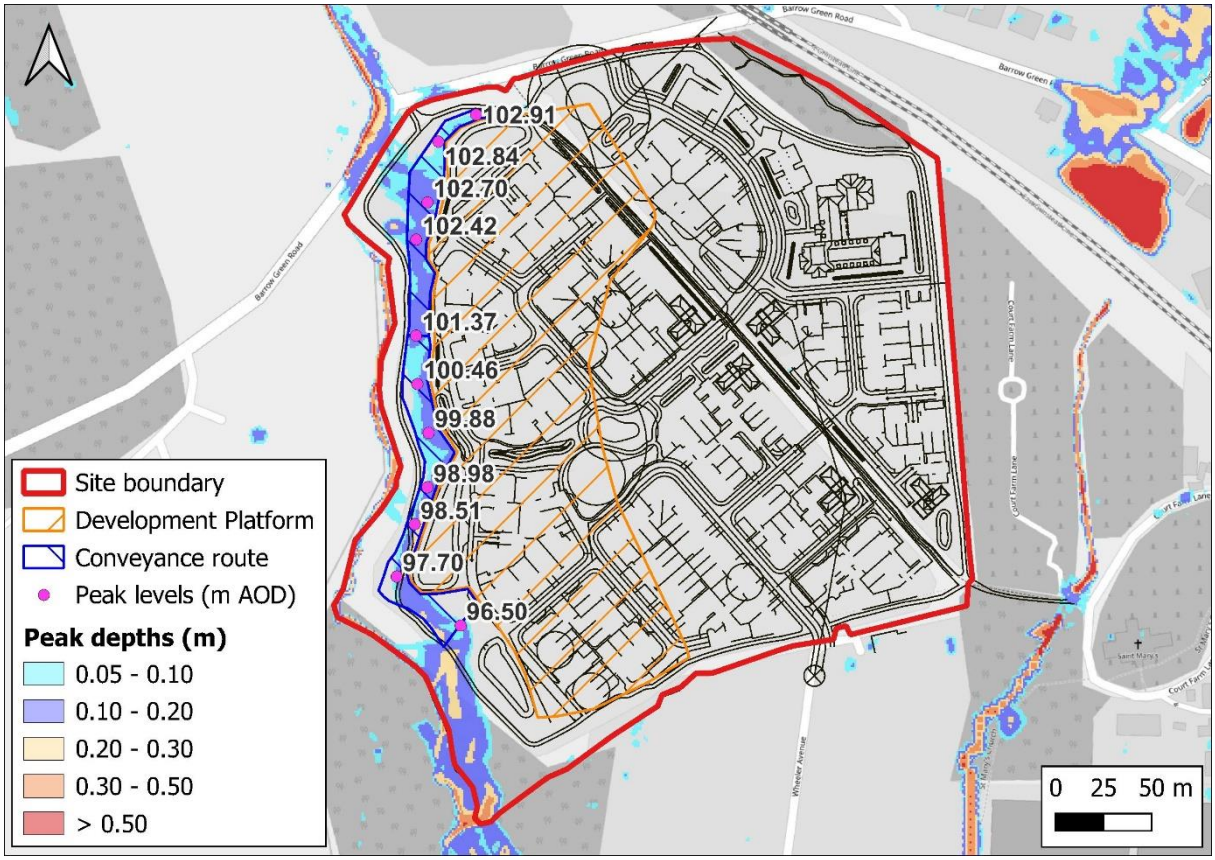


Figure 6-2: Peak modelled depths and levels – 1% AEP plus 45% climate change – Post-development scenario

6.6. The ground level reprofiling is modelled to divert the overland flows along the Site western boundary between the watercourse and the modelled development platform. All residential development and SuDS features are located outside of the western flow path.

6.7. The peak flood depths along the flow path are typically shallow, modelled to be approximately 150-170mm along much of the western boundary during the 1% AEP plus climate change event. Depths of up to approximately 250mm are predicted within the deepest areas.

6.8. The peak levels along the flow path range from 102.91m AOD in the north of the Site to 96.5m AOD in the southwest during the 1% AEP plus climate change event. It is recommended that the ground levels and SuDS features within the development platform, as well as residential finished floor levels, are set above the peak modelled flood levels during the 1% AEP plus climate change event with an appropriate freeboard.

6.9. A comparison of the peak flood depths between the baseline and post-development scenarios is shown in **Figure 6-3**. The model results demonstrate the proposals are not predicted to have a detrimental impact on flood risk to third party land, with all increases in peak depths contained within the Site boundary.

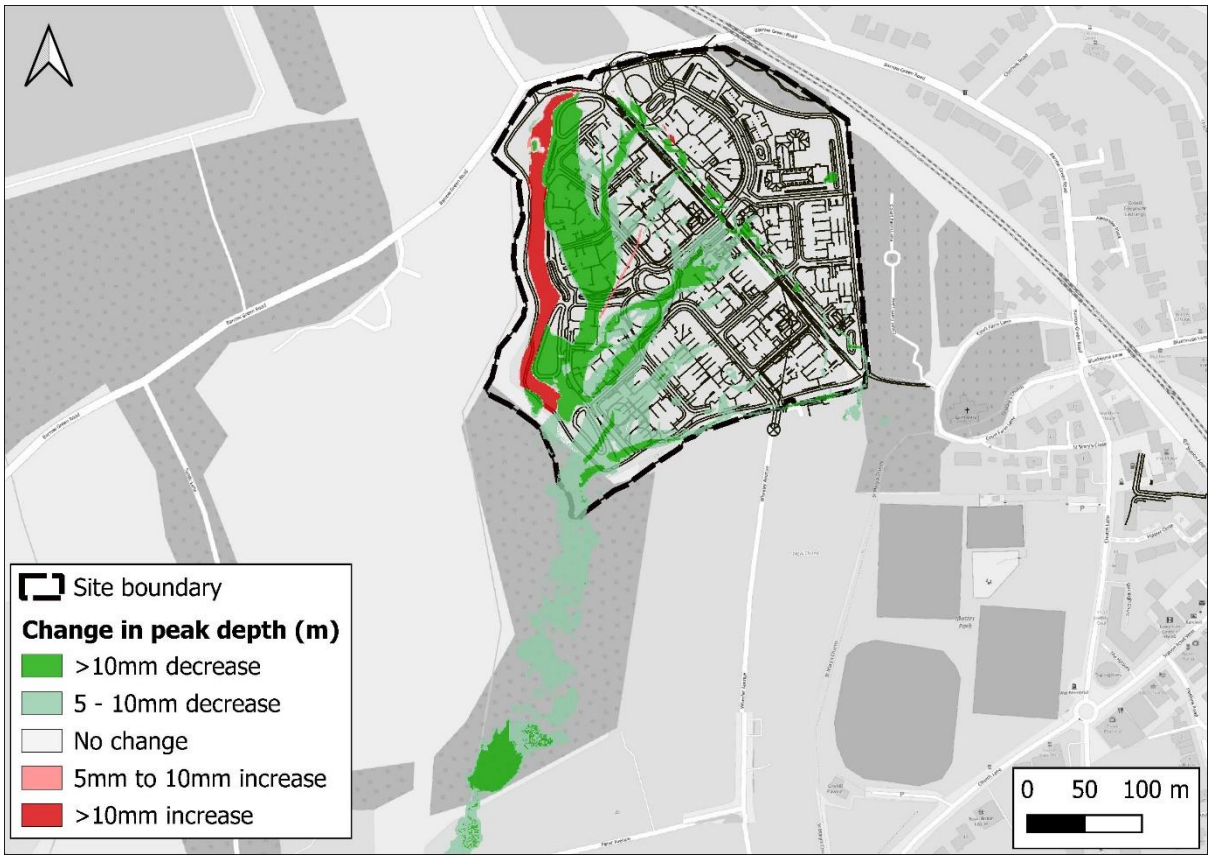


Figure 6-3: Change in peak modelled depths – 1% AEP +45% climate change

6.10. The area to the south of the Site is predicted to show slight benefits due to a reduction in the overall flows leaving the Site associated with the on-site

drainage network. The decreases in peak depths are typically around 6-7mm, with an area where decreases of up to 11-12mm are predicted.

6.11. The peak modelled flood hazard during the 1% AEP plus 45% climate change event is shown in **Figure 6-4**.

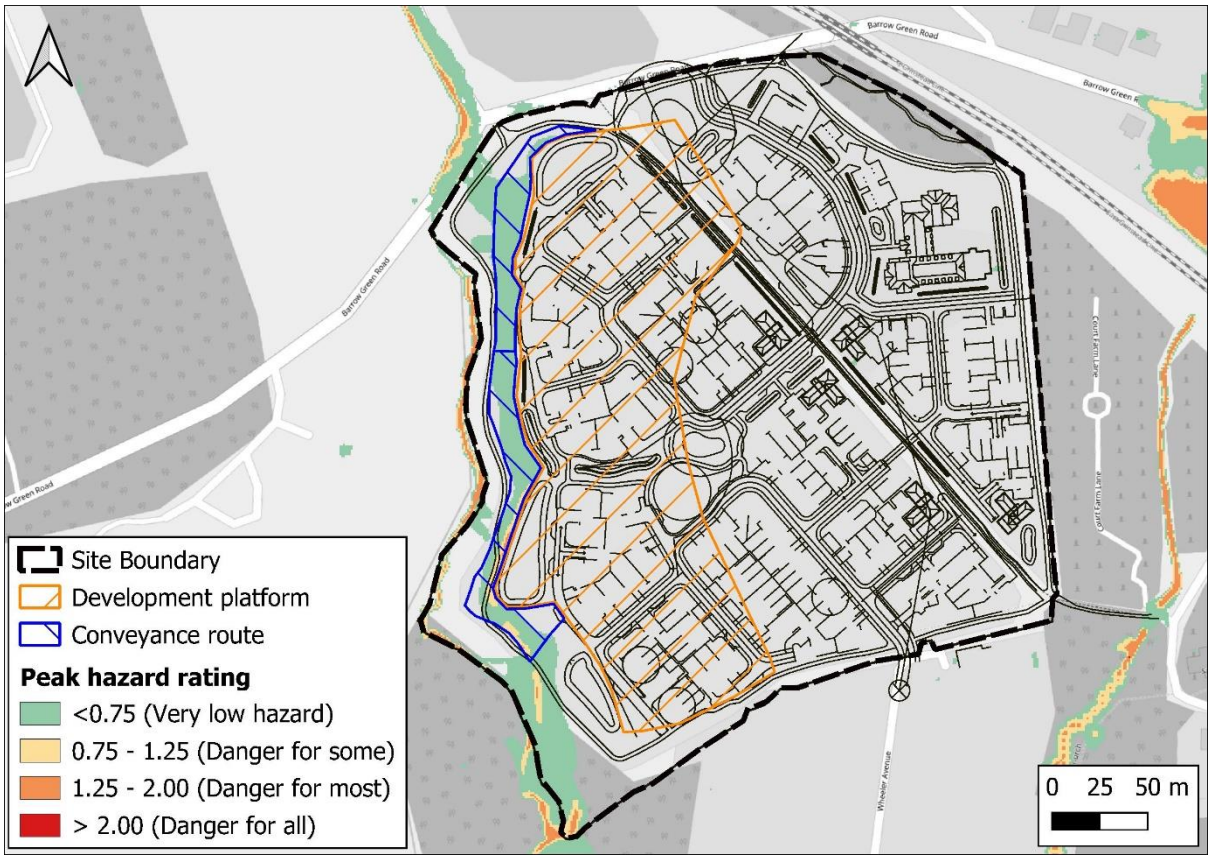


Figure 6-4: Peak modelled hazard rating – 1% AEP +45% climate change

6.12. The hazard rating is modelled to be very low during the 1% AEP plus climate change event along most of the flow path, with small areas at a 'danger for some'. As the development platform and associated accesses are shown to be outside the modelled flood extents the entire Site is provided safe dry access and egress.

7. Summary

7.1. Ardent Consulting Engineers has been instructed by Croudace Homes Limited to undertake surface water hydraulic modelling to support a proposed development at Stoneyfields, Oxted.

7.2. A detailed 1D-2D linked direct rainfall-runoff model has been developed using TUFLOW software to refine the understanding of surface water flood risk to the Site. The model outputs have also been used to inform the Site design and associated flood risk mitigation measures.

7.3. A hydrological analysis has been undertaken to derive rainfall hyetographs for the study area for the 3.3%, 3.3% plus 35% climate change, 1%, 1% plus 45% climate change uplift and 0.1% Annual Exceedance Probability Events.

7.4. A baseline hydraulic model has been built using a combination of LIDAR data, topographical survey data, Ordnance Survey land use data, sewer mapping, and information on the local drainage network obtained during a Site visit.

7.5. During all modelled events overland flows are predicted to enter the northwest corner of the Site, forming a shallow overland flow path that runs north to south through the Site separated from the adjacent watercourse by a slight ridge of higher land along the field boundary. Most of the Site is shown to be at a very low risk of surface water flooding.

7.6. The flow path is predicted to be very flashy with flows only conveyed through the Site for approximately 1.5-2 hours during the design storm for a 1% AEP plus 45% climate change event.

7.7. Post-development modelling was undertaken to assess the potential impacts of reprofiling ground levels so the overland flow path is diverted along the western boundary, away from the proposed residential development in the centre of the Site.

7.8. The ground level reprofiling is modelled to divert the overland flows along the Site western boundary between the watercourse and the modelled development platform, with peak depths of up to approximately 150-250mm during the 1% AEP plus 45% climate change event.

7.9. All residential development and SuDS features are located outside of the western flow path. It is recommended that the ground levels and SuDS features within the

development platform, as well as residential finished floor levels, are set above the peak modelled flood levels during the 1% AEP plus climate change event with an appropriate freeboard.

7.10. Comparison between the baseline and post-development model outputs during the 1% AEP plus 45% climate change event demonstrate the proposals are not predicted to have a detrimental impact on flood risk to third parties. The post-development scenario is predicted to result in a decrease in peak depths downstream of up to 11mm.

7.11. The entire Site is provided safe, dry access and egress during a 1% AEP plus 45% climate change flood event for vehicles and pedestrians. The modelled flood hazard along the western conveyance route is predicted to be 'very low' along most of its course.

7.12. Sensitivity testing of Manning's 'n' roughness values, critical storm duration, rainfall intensity, and structure blockage has been carried out. The results of the analysis show that the model is not overly sensitive to changes in these parameters and that the proposed development is appropriate.

7.13. The proposed residential development is compliant with national and local policy in terms of surface water flood risk and will not exacerbate flooding off Site. Therefore, there are no surface water flood risk issues to prevent the development from being implemented.

Appendices

Appendix A – Site visit photographs

Figure A.1 – Ditch along Chalkpit Lane (on left hand side of image)

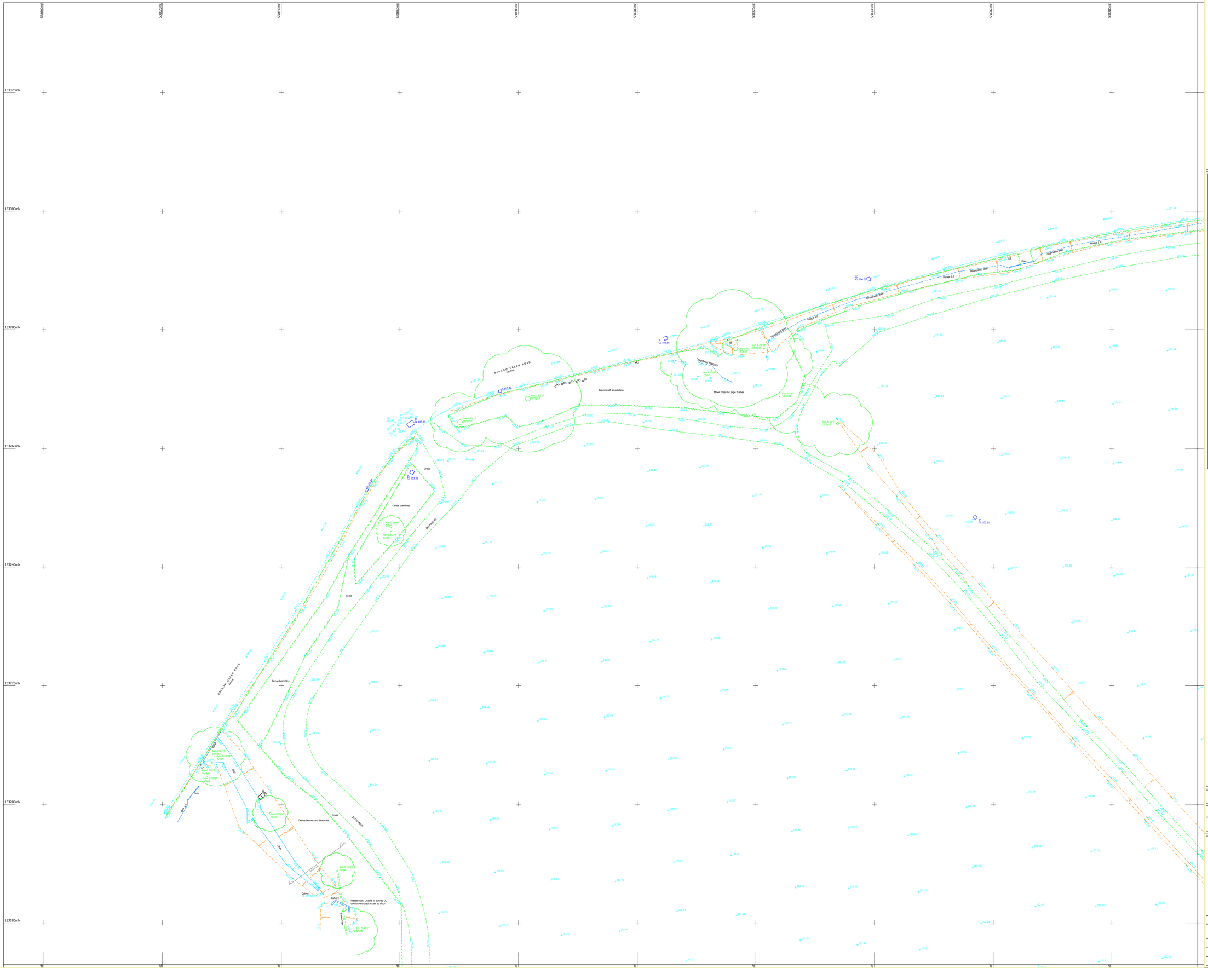
Figure A.2 – Two 225mm culverts identified at downstream end of ditch along Chalkpit Lane / Barrow Green Road

Figure A.3 – Upper reach of watercourse within Site boundary

Figure A.4 – Lower reach of watercourse within Site boundary

Figure A.5 – Culvert under railway line draining to watercourse within adjacent cemetery

Appendix B – Topographic Survey



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Copyright:

LEGEND

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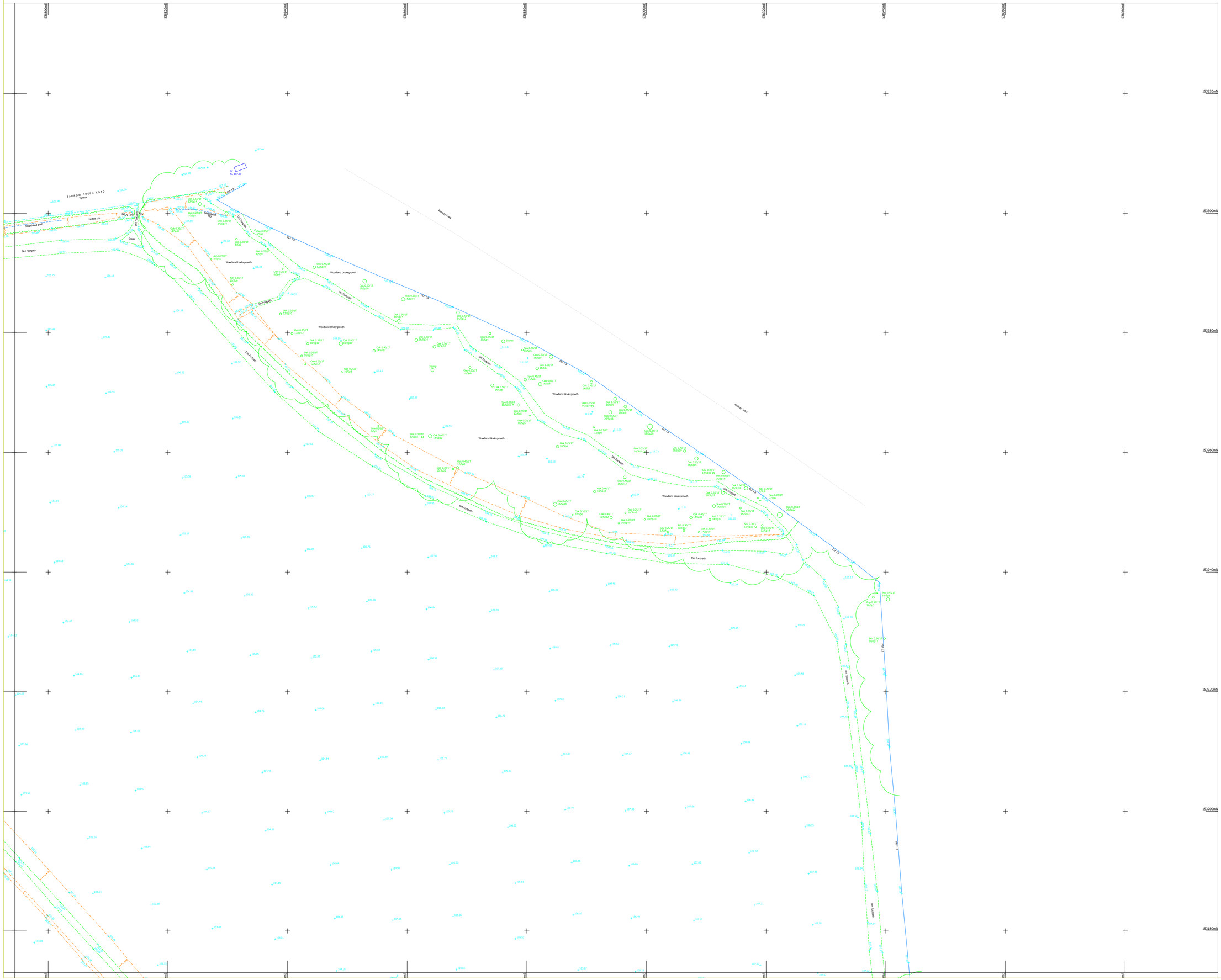
Tel: 023 80692002 Email: info@encompass-surveys.co.uk
Fax: 023 80697125 Website: encompass-surveys.co.uk

Client:	Croudace Homes		
Survey Location:	Stoneyfields Oxted RH8 9LF		
Survey type:	Topographical	Scale:	1:200@A0
Drawing ref:	ENC/220323/2699S1	Date:	March 2023
Drawn/QA:	BF/CH	Plot:	1 of 7



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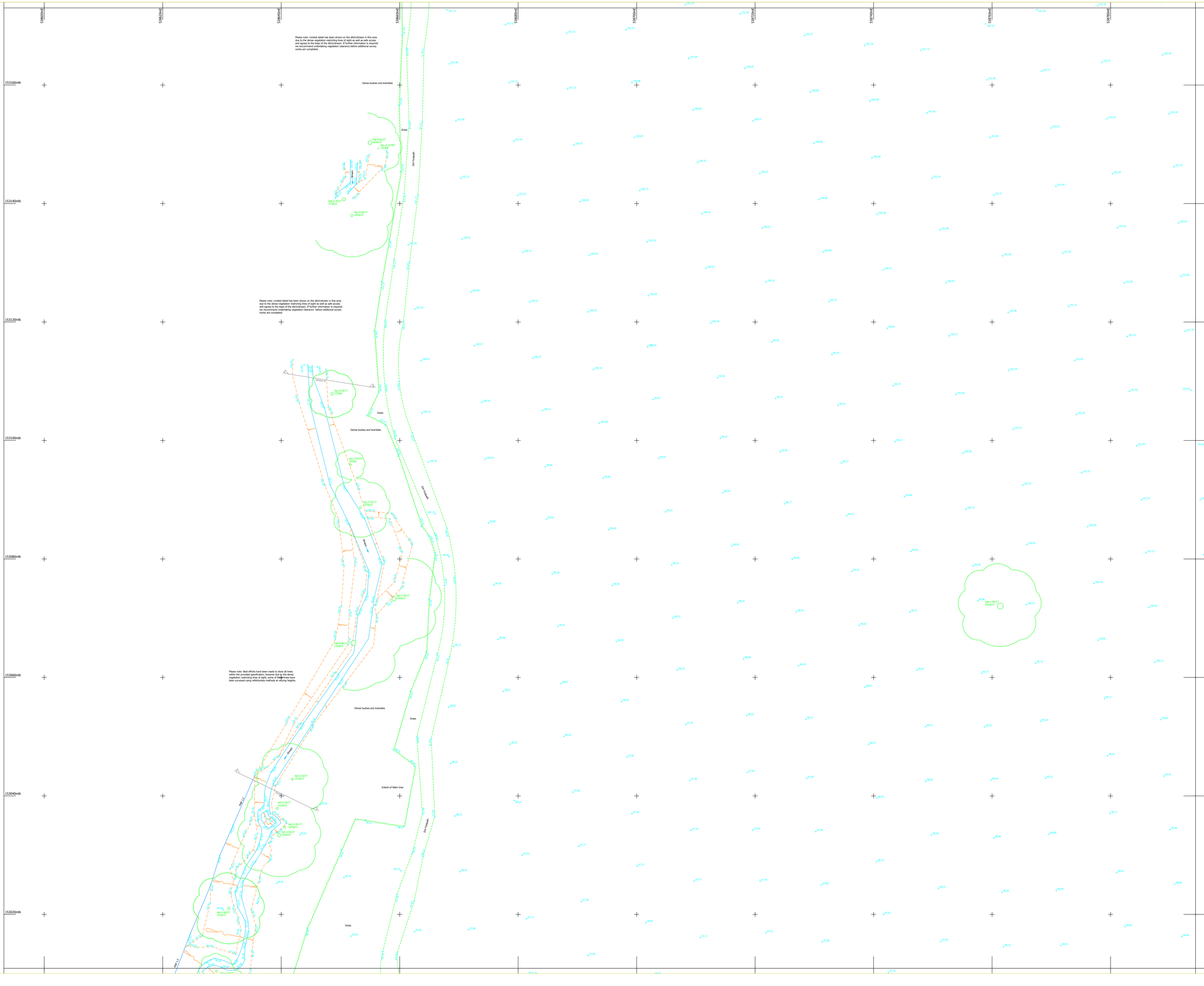
Survey Location:	Stoneyfields Oxted RH8 9LF		
Survey type:	Topographical	Scale:	1:200@A0
Drawing ref:	ENC/220323/269951	Date:	March 2023
Drawn/QA:	BF/CH	Plot:	2 of 7



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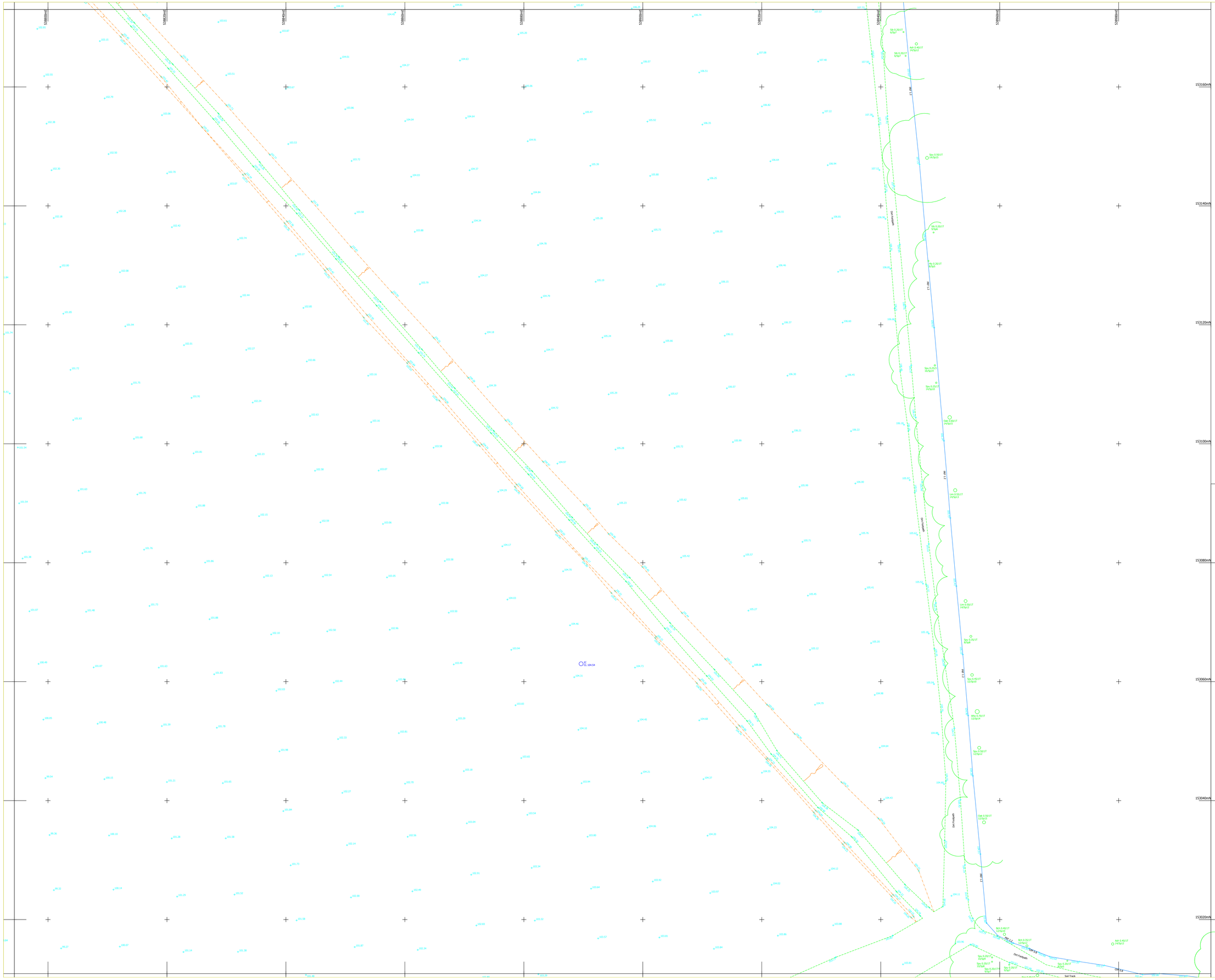

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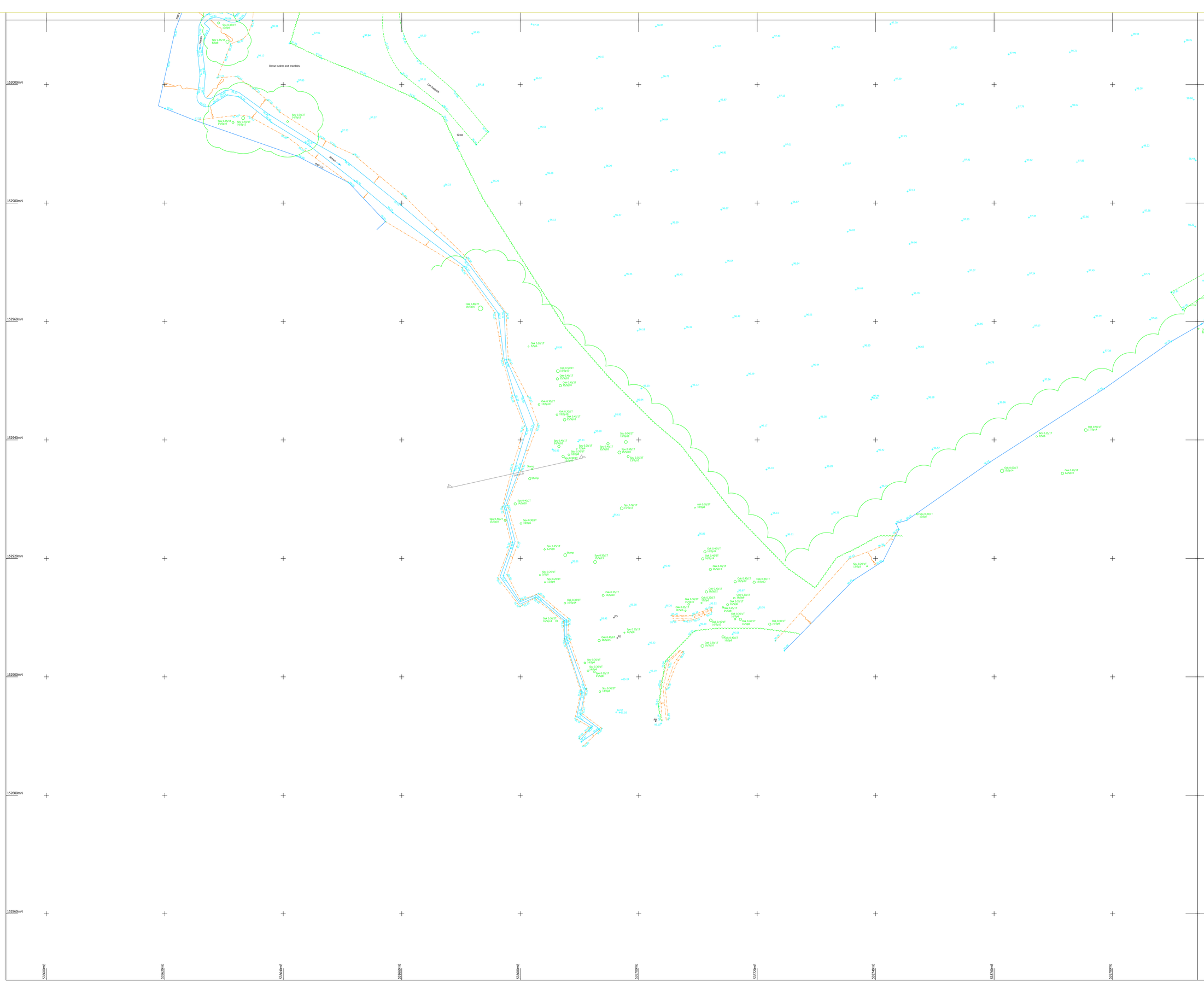

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BRITISH TELECOM IC	BTIC	RAIN WATER PIPE	RWP
BUS STOP	BS	RAISED FLOWERBED	RFB
CABLE TELEVISION BOX	CATB	ROAD SIGN	RS
CABLE TELEVISION IC	CATV	RODDING EYE	RE
EARTHING ROD	ER	SERVICE MARKER POST	SMP
ELECTRICITY CABLE PIT	ELCP	SOIL VENT PIPE	SVP
ELECTRICITY CONTROL BOX	ECB	STOP COCK	SC
ELECTRICITY POLE	EP	STOP VALVE	SV
FIRE HYDRANT	FH	TELEGRAPH POLE	TP
INSPECTION COVER	IC	TELEPHONE CALL BOX	TCB
LAMP POST	LP	TRAFFIC SIGNAL	TS
LETTER BOX	LB	TRAFFIC SIGNALS IC	TSIC
LITTER BIN	BIN	WATER METER	WM
KERB OUTLET	KO	WATER TAP	Tap
NAME PLATE	NP		

Level Datum:
Levels are related to OSGB15 derived from the GPS network

Grid:
Grid is related to OSGB15 derived from the GPS network

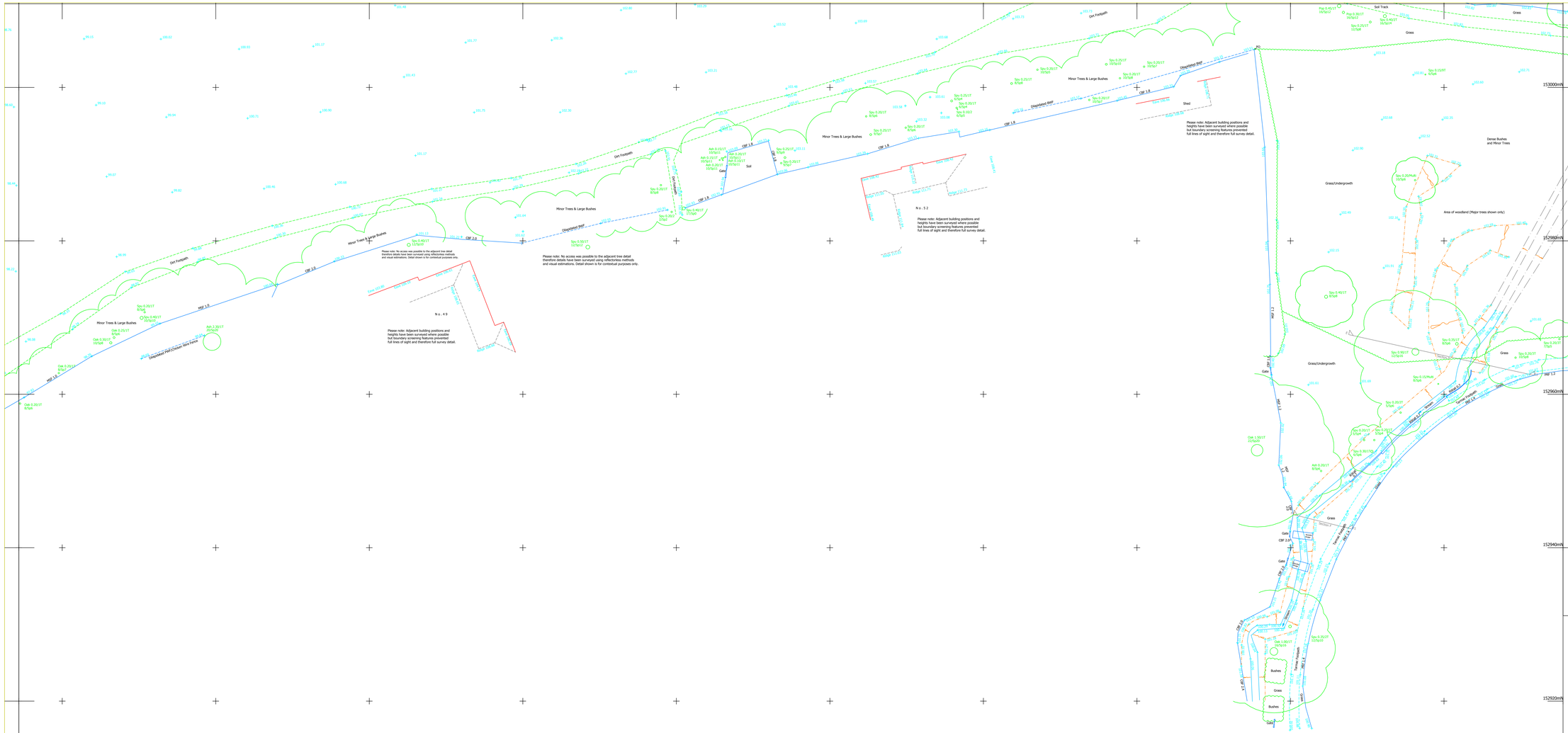
Northpoint:

ENCOMPASS SURVEYS

Encompass Surveys Ltd
Unit 2
Talisman Business Centre
Duncan Road
Park Gate, Southampton
Hampshire SO31 7GA

Tel: 023 80692002 Email: info@encompass-surveys.co.uk
Fax: 023 80697125 Website: encompass-surveys.co.uk

Client:	Croudace Homes		
Survey Location:	Stoneyfields Oxted RH8 9LF		
Survey type:	Topographical	Scale:	1:200@A0
Drawing ref:	ENC/220323/2699S1	Date:	March 2023
Drawn/QA:	BF/CH	Plot:	5 of 7



NOTES:

Drainage:
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Trees:
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Survey notes:
Survey specification is linked to the original purpose of the survey commissioned at source and is to be used for this purpose only. Survey is accurate within limitations of site conditions at the time of survey. In areas difficult to survey due to restricted access, lines of sight or dense vegetation, critical dimensions and positions should be verified following suitable clearance.
Survey detail obtained and shown is relative to the plotting scale.

LEGEND

TREE SPECIES INFORMATION

ALDER	ALD	LOCUST	LOC
ASH	ASH	LONDON PLANE	LPN
ASPEN	ASP	MAGNOLIA	MAG
BEECH	BCH	MAPLE	MPL
CEDAR	CED	OAK	OAK
CHERRY	CHY	PINE	PNE
CYPRESS	CYP	POPLAR	POP
ELM	ELM	PRUNUS	PNS
FIR	FIR	RHODODENDRONS	RDN
FRUIT	FRT	ROWAN	RWN
HAWTHORN	HAW	SILVER BIRCH	SBI
HAZEL	HAZ	SORBUS	SOR
HOLLY	HLY	SWEET CHESTNUT	SCH
HORSE CHESTNUT	HCH	SYCAMORE	SYC
HORNBEAM	HRM	WALNUT	WNT
LABURNUM	LBM	WILLOW	WLW
LARCH	LAR	YEW	YEW
LIME	LIM	SPECIES UNKNOWN	SPU
		COPPICED	COP

TREE ANNOTATIONS: Tree Species / Tree Bolt Size / No of Bolts
Tree Height / Tree Canopy Spread

FENCE INFORMATION

BARBED WIRE FENCE	BWF
CORRUGATED IRON FENCE	CIF
CLOSE BOARD FENCE	CBF
CHAIN LINK FENCE	CLF
CHESTNUT PALING	CPF
CRASH BARRIER	CBR
HANDRAIL	HDL
IRON RAILINGS	IRF
LARCH LAP FENCE	LLF
MISCELLANEOUS FENCE	MSF
PALISADE FENCE	PSF
PICKET FENCE	PKF
POST AND CHAIN FENCE	PCF
POST AND RAIL FENCE	PRF
POST AND WIRE FENCE	PWF
STOCK WIRE FENCE	SWF
TRELLIS FENCING	TLF

LEVEL INFORMATION

BASEMENT LEVEL	BTL
BED LEVEL	BL
COVER LEVEL	CL
DAMP PROOF COURSE	DPC
FLOOR LEVEL	FL
INVERT LEVEL	IL
OUTFALL LEVEL	OL
THRESHOLD LEVEL	THL
POOL WATER	PW
SURFACE WATER	SW
UNABLE TO LIFT	UTL
WATER LEVEL	WL

SURFACE INFORMATION

CONCRETE	Conc
BRICK PAVERS	BP
FLOWERBED	FB
PAVING SLABS	PS
RETAINING WALL	RtWall
TACTILE PAVING	Tac

FEATURE INFORMATION

BOLLARD	BD	NOTICE BOARD	NB
BRITISH TELECOM BOX	BTB	POST	P
BRITISH TELECOM IC	BTIC	RAIN WATER PIPE	RWP
BUS STOP	BS	RAISED FLOWERBED	RFB
CABLE TELEVISION BOX	CATB	ROAD SIGN	RS
CABLE TELEVISION IC	CATV	RODDING EYE	RE
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LETTER BOX	LB	TRAFFIC SIGNALS IC	TSIC
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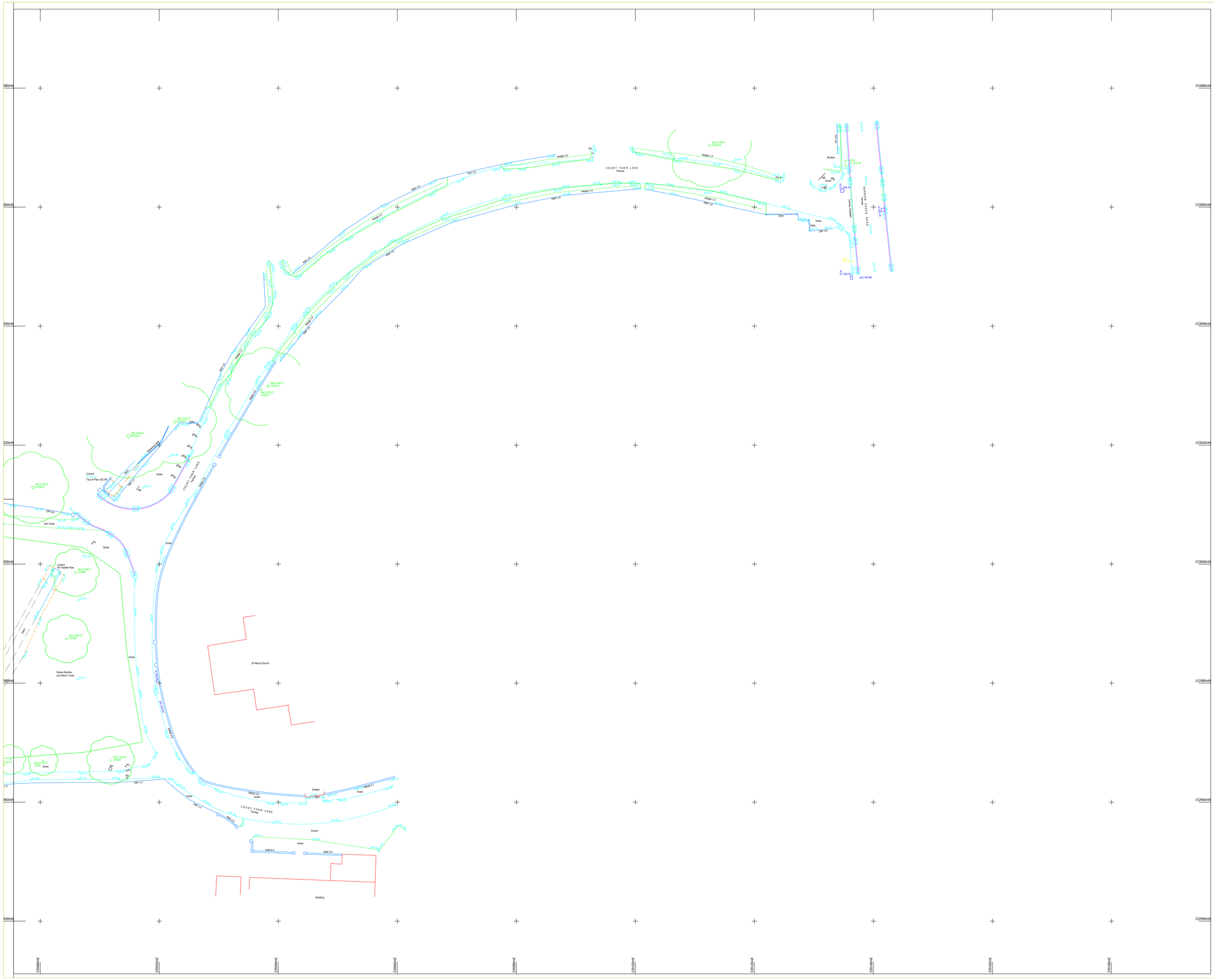
Hampshire SO31 7GA

Tel: 023 80692002 Email: info@encompass-surveys.co.uk
Fax: 023 80697125 Website: encompass-surveys.co.uk

Client:	Croudace Homes		
Survey Location:	Stoneyfields Oxted RH8 9LF		
Survey type:	Topographical	Scale:	1:200@A0
Drawing ref:	ENC/220323/269951	Date:	March 2023
Drawn/QA:	BF/CH	Plot:	6 of 7



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CYPRESS	CYP	POPLAR	POP
ELM	ELM	PRUNUS	PNS
FIR	FIR	RHODODENDRONS	RDN
FRUIT	FRT	ROWAN	RWN
HAWTHORN	HAW	SILVER BIRCH	SIB
HAZEL	HAZ	SORBUS	SOR
HOLLY	HLY	SWEET CHESTNUT	SCH
HORSE CHESTNUT	HCH	SYCAMORE	SYC
HORNBEAM	HRM	WALNUT	WNT
LABURNUM	LBM	WILLOW	WLW
LARCH	LAR	YEW	YEW
LIME	LIM	SPECIES UNKNOWN	SPU
		COPPICED	COP

TREE ANNOTATIONS: Tree Species / Tree Boll Size / No of Bolls
Tree Height / Tree Canopy Spread

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HANDRAIL	HDL
IRON RAILINGS	IRF
LARCH LAP FENCE	LLF
MISCELLANEOUS FENCE	MSF
PALISADE FENCE	PSF
PICKET FENCE	PKF
POST AND CHAIN FENCE	PCF
POST AND RAIL FENCE	PRF
POST AND WIRE FENCE	PWF
STOCK WIRE FENCE	SWF
TRELLIS FENCING	TLF

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BASEMENT LEVEL	BTL
BED LEVEL	BL
COVER LEVEL	CL
DAMP PROOF COURSE	DPC
FLOOR LEVEL	FL
INVERT LEVEL	IL
OUTFALL LEVEL	OL
THRESHOLD LEVEL	THL
POOL WATER	PW
SURFACE WATER	SW
UNABLE TO LIFT	UTL
WATER LEVEL	WL

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CONCRETE	Conc
BRICK PAVERS	BP
FLOWERBED	FB
PAVING SLABS	PS
RETAINING WALL	RtWall
TACTILE PAVING	Tac

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LETTER BIN	BIN	WATER METER	WM
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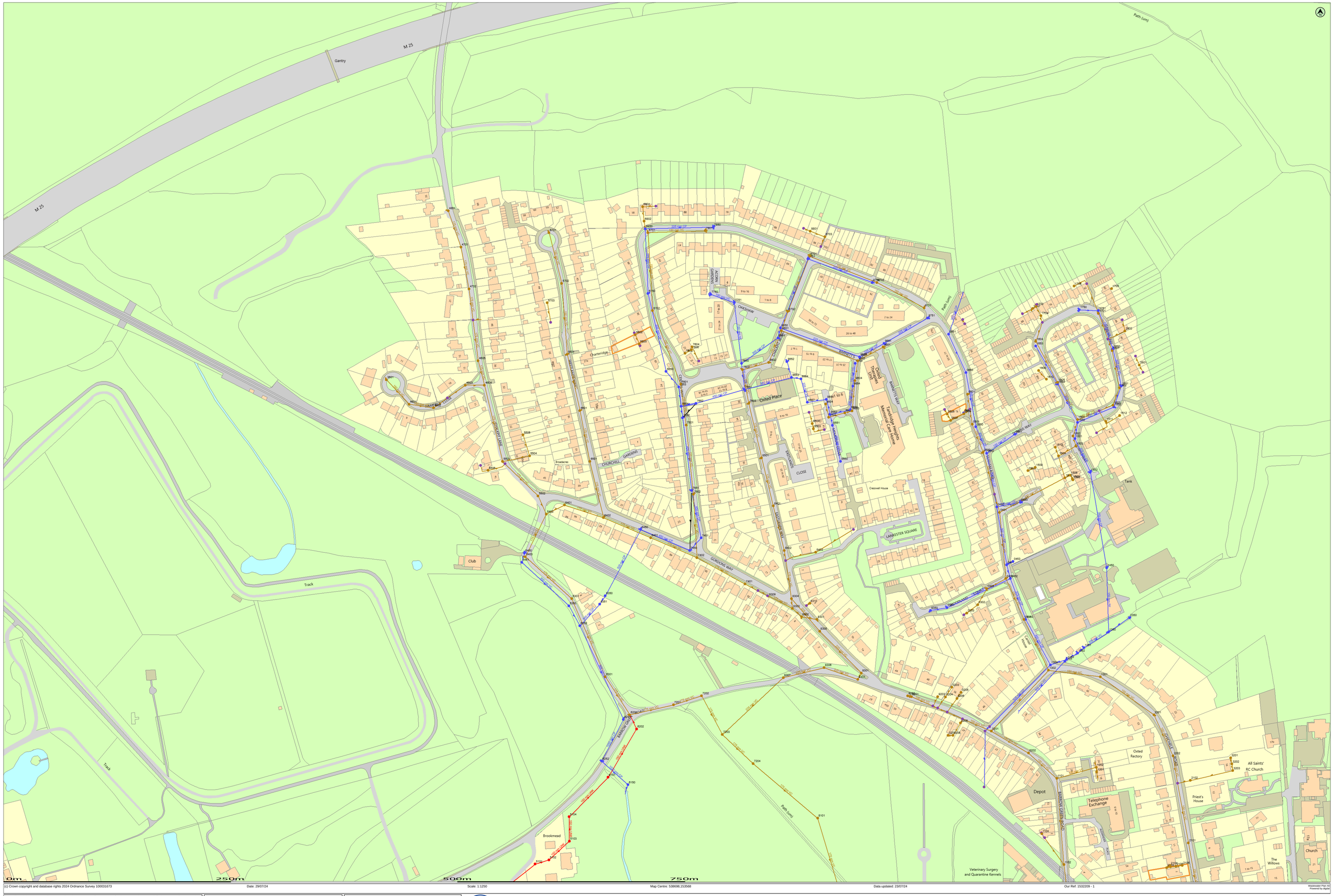
Client:	Croudace Homes		
Survey Location:	Stoneyfields Oxted RH8 9LF		
Survey type:	Topographical	Scale:	1:200@A0
Drawing ref:	ENC/220323/269951	Date:	March 2023
Drawn/QA:	BF/CH	Plot:	7 of 7

Appendix C – Southern Water Asset Mapping



Date: 29/07/24 | Scale: 1:1250 | Map Centre: 538698,153568 | Data updated: 23/07/24 | Our Ref: 1532209 - 1

Wastewater Plan A0
Powered by digital

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 2024 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.

Foul Gravity Sewer | Combined Gravity Sewer | Culverted Water Course or Inland Rivers | Surface Water Gravity Sewer | Rising Main, Vacuum or Siphon

Combined Outfall | Foul Outfall | Surface Water Outfall | Surface Water Weir

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 | Dual Entry Manhole, Association Overflow, Gulley Manhole or Surface Water Soakaway

javzon@ardent-ce.co.uk

Oxted

WATER for LIFE

from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
5101	C	0.00	0.00	
5102	C	0.00	0.00	
5103	C	0.00	0.00	
5104	C	0.00	0.00	
6101	C	0.00	0.00	
6202	C	0.00	0.00	
0201	F	107.96	105.80	
0202	F	109.53	105.38	
0203	F	0.00	0.00	
0204	F	0.00	0.00	
0205	F	0.00	0.00	
0206	F	0.00	0.00	
0207	F	0.00	0.00	
0208	F	0.00	0.00	
0209	F	0.00	0.00	
0301	F	110.35	108.14	
0302	F	0.00	0.00	
0303	F	0.00	0.00	
0401	F	117.23	115.19	
0402	F	112.61	110.18	
0403	F	112.96	110.52	
0501	F	122.16	119.91	
0502	F	120.83	118.70	
0505	F	0.00	0.00	
0506	F	0.00	0.00	
0507	F	0.00	0.00	
0508	F	0.00	0.00	
0601	F	123.23	121.73	
1101	F	110.67	104.97	
1102	F	105.95	103.98	
1104	F	0.00	0.00	
1201	F	0.00	0.00	
1202	F	0.00	0.00	
1301	F	111.68	109.58	
1302	F	109.31	107.45	
1501	F	119.67	116.92	
1502	F	119.24	116.73	
1503	F	118.92	116.67	
1504	F	119.66	116.29	
1505	F	118.32	116.09	
1506	F	0.00	0.00	
1507	F	0.00	0.00	
1508	F	0.00	0.00	
1509	F	0.00	0.00	
1510	F	0.00	0.00	
1511	F	0.00	0.00	
1512	F	0.00	0.00	
1601	F	120.98	119.10	
1602	F	119.30	117.47	
1603	F	118.74	0.00	
1604	F	123.93	122.47	
1605	F	121.85	119.90	
1609	F	0.00	0.00	
1610	F	0.00	0.00	
1701	F	122.79	120.75	
1702	F	0.00	0.00	
1703	F	0.00	0.00	
1704	F	0.00	0.00	
1705	F	0.00	0.00	
1706	F	0.00	0.00	
2003	F	0.00	0.00	
2101	F	109.44	106.53	
2102	F	0.00	0.00	
2104	F	0.00	0.00	
2105	F	0.00	0.00	
2106	F	0.00	0.00	
2201	F	114.64	112.72	
2202	F	114.60	0.00	
2601	F	0.00	0.00	
2602	F	0.00	0.00	
3201	F	0.00	0.00	
3202	F	0.00	0.00	
3203	F	0.00	0.00	
3601	F	115.97	113.73	
4601	F	114.53	112.83	
4602	F	113.76	112.29	
4603	F	113.49	111.81	
4604	F	113.37	111.41	
4605	F	114.34	112.38	
4701	F	119.66	117.59	
4702	F	117.51	115.59	
4801	F	121.55	119.41	
5301	F	104.84	102.81	
5401	F	109.36	106.28	
5402	F	108.13	106.03	
5403	F	107.18	105.28	
5501	F	110.13	0.00	
5502	F	109.16	107.18	
5504	F	0.00	0.00	
5505	F	0.00	0.00	
5506	F	0.00	0.00	
5601	F	114.76	113.10	
5701	F	120.13	118.78	
5702	F	117.74	116.23	
5703	F	0.00	0.00	
6201	F	103.51	101.79	
6301	F	103.59	102.06	
6401	F	109.62	106.97	
6402	F	108.97	106.50	
6501	F	110.27	108.80	
6601	F	112.26	110.77	
6602	F	0.00	0.00	
6603	F	0.00	0.00	
6701	F	121.42	119.72	
6702	F	117.26	115.85	
6801	F	0.00	0.00	
6802	F	0.00	0.00	
7201	F	103.52	101.56	
7202	F	103.97	101.39	
7203	F	103.60	101.11	
7204	F	103.95	100.87	
7401	F	110.25	107.45	
7402	F	110.46	107.14	
7501	F	112.34	110.14	
7502	F	111.85	108.93	
7601	F	113.27	111.95	
7602	F	115.09	113.64	
7603	F	115.29	112.78	
7604	F	0.00	0.00	
7605	F	0.00	0.00	
7606	F	0.00	0.00	
7801	F	122.36	120.28	
8101	F	104.29	100.37	
8301	F	112.10	110.87	
8302	F	111.71	109.14	
8303	F	111.42	108.49	
8304	F	111.63	108.76	
8305	F	112.11	108.23	
8306	F	109.08	107.51	
8307	F	106.88	105.35	
8309	F	0.00	0.00	
8310	F	0.00	0.00	
8401	F	114.19	111.03	
8402	F	112.68	0.00	
8403	F	0.00	0.00	
8501	F	115.01	112.20	
8502	F	0.00	0.00	
8503	F	0.00	0.00	
8504	F	0.00	0.00	
8601	F	117.89	116.37	
8602	F	115.94	114.41	
8603	F	0.00	0.00	
8604	F	119.82	118.96	
8701	F	121.88	120.45	
8702	F	118.93	117.50	
8703	F	0.00	0.00	
8801	F	0.00	0.00	
9201	F	109.46	0.00	
9202	F	109.68	0.00	
9203	F	0.00	0.00	
9301	F	112.33	108.02	
9302	F	111.01	107.86	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
9601	F	122.00	120.07	
9602	F	120.33	118.03	
9603	F	120.20	118.78	
9604	F	120.35	118.40	
9701	F	124.76	123.34	
9702	F	123.17	121.42	
0350	S	110.31	108.58	
0351	S	113.70	112.16	
0450	S	117.39	115.53	
0451	S	113.39	111.24	
0452	S	112.46	110.22	
0453	S	113.82	112.58	
0550	S	122.09	120.16	
0551	S	121.11	119.53	
0552	S	120.77	118.86	
0553	S	117.37	116.13	
0650	S	124.08	122.37	
0651	S	125.22	0.00	
0652	S	0.00	0.00	
1350	S	110.37	109.12	
1351	S	0.00	0.00	
1352	S	109.47	108.56	
1353	S	109.65	108.30	
1354	S	109.33	107.82	
1355	S	109.67	108.48	
1450	S	112.95	112.12	
1550	S	119.53	116.90	
1551	S	119.21	116.88	
1552	S	117.75	116.76	
1650	S	121.03	119.43	
1651	S	119.24	117.92	
1652	S	118.69	117.63	
1653	S	123.74	0.00	
1654	S	121.74	119.09	
1750	S	123.55	121.89	
1751	S	122.86	121.17	
2350	S	0.00	0.00	
5350	S	0.00	0.00	
5450	S	107.25	105.48	
5451	S	0.00	0.00	
6150	S	102.64	100.19	
6251	S	103.38	101.32	
6252	S	103.55	100.62	
6350	S	0.00	0.00	
6351	S	0.00	0.00	
6352	S	104.70	0.00	
6450	S	109.16	107.29	
6650	S	0.00	0.00	
6750	S	118.00	116.47	
6850	S	121.68	119.87	
7450	S	110.21	108.35	
7451	S	110.58	108.64	
7550	S	112.38	110.78	
7551	S	111.87	0.00	
7650	S	115.42	113.90	
7651	S	115.14	113.24	
7652	S	112.79	0.00	
7653	S	113.19	111.32	
7654	S	112.76	111.24	
7750	S	118.82	117.35	
7751	S	118.73	116.65	
7850	S	122.40	120.39	
8550	S	118.97	117.56	
8551	S	119.04	117.20	
8552	S	118.50	116.90	
8650	S	118.02	116.16	
8651	S	117.34	115.58	
8652	S	117.18	115.63	
8653	S	0.00	0.00	
8654	S	117.28	116.39	
8656	S	118.50	116.81	
8657	S	118.00	116.60	
8658	S	120.20	118.14	
8751	S	121.85	120.02	
9350	S	114.17	112.44	
9651	S	122.10	120.17	
9652	S	120.40	118.10	
9653	S	120.40	118.87	
9654	S	120.39	118.38	
9750	S	123.07	121.54	
9751	S	124.90	123.53	

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

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Appendix D – 1% AEP plus climate change ReFH2 outputs

UK Design Flood Estimation

Generated on 27 November 2024 13:45:27 by jaxton
Printed from the ReFH2 Flood Modelling software package, version 4.1.8879.22310

Summary of estimate using the Flood Estimation Handbook revitalised flood hydrograph method (ReFH2)

Site details Checksum: F423-9362

Site name: FEH_Catchment_Descriptors_538600_152450_v5_0_1_Edit

Easting: 538600

Northing: 152450

Country: England, Wales or Northern Ireland

Catchment Area (km²): 2.28

Using plot scale calculations: No

Model: 2.3

Site description: None

Model run: 30 year

Summary of results

Rainfall - FEH22 (mm):	43.75	Total runoff (ML):	15.92
Total Rainfall (mm):	27.56	Total flow (ML):	40.71
Peak Rainfall (mm):	7.50	Peak flow (m³/s):	1.58

Parameters

Where the user has overriden a system-generated value, this original value is shown in square brackets after the value used.
** Indicates that the user locked the duration/timestep*

Rainfall parameters (Rainfall - FEH22)

Name	Value	User-defined?
Duration (hh:mm:ss)	02:15:00 [03:15:00]	Yes
Timestep (hh:mm:ss)	00:15:00	No
SCF (Seasonal correction factor)	0.66	No
ARF (Areal reduction factor)	0.96	No
Seasonality	Winter	No

Loss model parameters

Name	Value	User-defined?
Cini (mm)	83.47	No
Cmax (mm)	508.54	No
Use alpha correction factor	No	No
Alpha correction factor	n/a	No

Routing model parameters

Name	Value	User-defined?
Tp (hr)	1.78	No
Up	0.65	No
Uk	0.8	No

Baseflow model parameters

Name	Value	User-defined?
BF0 (m^3/s)	0.05	No
BL (hr)	38.87	No
BR	2.43	No

Urbanisation parameters

Name	Value	User-defined?
Sewer capacity (m^3/s)	0	No
Exporting drained area (km^2)	0	No
Urban area (km^2)	0.63	No
Effective URBEXT2000	0.18	n/a
Impervious runoff factor	0.7	No
Imperviousness factor	0.4	No
Tp scaling factor	0.75	No
Depression storage depth (mm)	0.5	No

Time series data

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m^3/s)	Net Rain (mm)	Runoff (m^3/s)	Baseflow (m^3/s)	Total Flow (m^3/s)
00:00:00	0.788	0.000	0.178	0.000	0.041	0.041
00:15:00	1.478	0.000	0.343	0.004	0.041	0.045
00:30:00	2.748	0.000	0.648	0.019	0.041	0.060
00:45:00	5.020	0.000	1.218	0.057	0.041	0.097
01:00:00	7.496	0.000	1.905	0.136	0.041	0.177
01:15:00	5.020	0.000	1.332	0.283	0.042	0.325
01:30:00	2.748	0.000	0.749	0.499	0.045	0.544
01:45:00	1.478	0.000	0.408	0.752	0.050	0.802
02:00:00	0.788	0.000	0.219	1.011	0.057	1.068
02:15:00	0.000	0.000	0.000	1.245	0.066	1.310
02:30:00	0.000	0.000	0.000	1.414	0.077	1.491
02:45:00	0.000	0.000	0.000	1.488	0.089	1.578
03:00:00	0.000	0.000	0.000	1.473	0.103	1.576
03:15:00	0.000	0.000	0.000	1.384	0.117	1.501
03:30:00	0.000	0.000	0.000	1.254	0.131	1.385
03:45:00	0.000	0.000	0.000	1.108	0.143	1.251
04:00:00	0.000	0.000	0.000	0.968	0.155	1.122
04:15:00	0.000	0.000	0.000	0.838	0.164	1.003
04:30:00	0.000	0.000	0.000	0.720	0.173	0.893
04:45:00	0.000	0.000	0.000	0.614	0.180	0.794
05:00:00	0.000	0.000	0.000	0.520	0.186	0.706
05:15:00	0.000	0.000	0.000	0.435	0.191	0.626
05:30:00	0.000	0.000	0.000	0.357	0.195	0.553
05:45:00	0.000	0.000	0.000	0.288	0.199	0.487
06:00:00	0.000	0.000	0.000	0.228	0.202	0.430
06:15:00	0.000	0.000	0.000	0.181	0.205	0.385
06:30:00	0.000	0.000	0.000	0.141	0.206	0.347
06:45:00	0.000	0.000	0.000	0.106	0.207	0.314
07:00:00	0.000	0.000	0.000	0.076	0.208	0.283
07:15:00	0.000	0.000	0.000	0.048	0.208	0.256
07:30:00	0.000	0.000	0.000	0.027	0.207	0.234
07:45:00	0.000	0.000	0.000	0.013	0.206	0.219
08:00:00	0.000	0.000	0.000	0.005	0.205	0.210
08:15:00	0.000	0.000	0.000	0.002	0.204	0.205

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m^3/s)	Net Rain (mm)	Runoff (m^3/s)	Baseflow (m^3/s)	Total Flow (m^3/s)
08:30:00	0.000	0.000	0.000	0.000	0.203	0.203
08:45:00	0.000	0.000	0.000	0.000	0.201	0.201
09:00:00	0.000	0.000	0.000	0.000	0.200	0.200
09:15:00	0.000	0.000	0.000	0.000	0.199	0.199
09:30:00	0.000	0.000	0.000	0.000	0.197	0.197
09:45:00	0.000	0.000	0.000	0.000	0.196	0.196
10:00:00	0.000	0.000	0.000	0.000	0.195	0.195
10:15:00	0.000	0.000	0.000	0.000	0.194	0.194
10:30:00	0.000	0.000	0.000	0.000	0.192	0.192
10:45:00	0.000	0.000	0.000	0.000	0.191	0.191
11:00:00	0.000	0.000	0.000	0.000	0.190	0.190
11:15:00	0.000	0.000	0.000	0.000	0.189	0.189
11:30:00	0.000	0.000	0.000	0.000	0.187	0.187
11:45:00	0.000	0.000	0.000	0.000	0.186	0.186
12:00:00	0.000	0.000	0.000	0.000	0.185	0.185
12:15:00	0.000	0.000	0.000	0.000	0.184	0.184
12:30:00	0.000	0.000	0.000	0.000	0.183	0.183
12:45:00	0.000	0.000	0.000	0.000	0.182	0.182
13:00:00	0.000	0.000	0.000	0.000	0.180	0.180
13:15:00	0.000	0.000	0.000	0.000	0.179	0.179
13:30:00	0.000	0.000	0.000	0.000	0.178	0.178
13:45:00	0.000	0.000	0.000	0.000	0.177	0.177
14:00:00	0.000	0.000	0.000	0.000	0.176	0.176
14:15:00	0.000	0.000	0.000	0.000	0.175	0.175
14:30:00	0.000	0.000	0.000	0.000	0.174	0.174
14:45:00	0.000	0.000	0.000	0.000	0.172	0.172
15:00:00	0.000	0.000	0.000	0.000	0.171	0.171
15:15:00	0.000	0.000	0.000	0.000	0.170	0.170
15:30:00	0.000	0.000	0.000	0.000	0.169	0.169
15:45:00	0.000	0.000	0.000	0.000	0.168	0.168
16:00:00	0.000	0.000	0.000	0.000	0.167	0.167
16:15:00	0.000	0.000	0.000	0.000	0.166	0.166
16:30:00	0.000	0.000	0.000	0.000	0.165	0.165
16:45:00	0.000	0.000	0.000	0.000	0.164	0.164
17:00:00	0.000	0.000	0.000	0.000	0.163	0.163

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m^3/s)	Net Rain (mm)	Runoff (m^3/s)	Baseflow (m^3/s)	Total Flow (m^3/s)
17:15:00	0.000	0.000	0.000	0.000	0.162	0.162
17:30:00	0.000	0.000	0.000	0.000	0.161	0.161
17:45:00	0.000	0.000	0.000	0.000	0.160	0.160
18:00:00	0.000	0.000	0.000	0.000	0.159	0.159
18:15:00	0.000	0.000	0.000	0.000	0.158	0.158
18:30:00	0.000	0.000	0.000	0.000	0.157	0.157
18:45:00	0.000	0.000	0.000	0.000	0.156	0.156
19:00:00	0.000	0.000	0.000	0.000	0.155	0.155
19:15:00	0.000	0.000	0.000	0.000	0.154	0.154
19:30:00	0.000	0.000	0.000	0.000	0.153	0.153
19:45:00	0.000	0.000	0.000	0.000	0.152	0.152
20:00:00	0.000	0.000	0.000	0.000	0.151	0.151
20:15:00	0.000	0.000	0.000	0.000	0.150	0.150
20:30:00	0.000	0.000	0.000	0.000	0.149	0.149
20:45:00	0.000	0.000	0.000	0.000	0.148	0.148
21:00:00	0.000	0.000	0.000	0.000	0.147	0.147
21:15:00	0.000	0.000	0.000	0.000	0.146	0.146
21:30:00	0.000	0.000	0.000	0.000	0.145	0.145
21:45:00	0.000	0.000	0.000	0.000	0.144	0.144
22:00:00	0.000	0.000	0.000	0.000	0.143	0.143
22:15:00	0.000	0.000	0.000	0.000	0.142	0.142
22:30:00	0.000	0.000	0.000	0.000	0.141	0.141
22:45:00	0.000	0.000	0.000	0.000	0.140	0.140
23:00:00	0.000	0.000	0.000	0.000	0.139	0.139
23:15:00	0.000	0.000	0.000	0.000	0.139	0.139
23:30:00	0.000	0.000	0.000	0.000	0.138	0.138
23:45:00	0.000	0.000	0.000	0.000	0.137	0.137
24:00:00	0.000	0.000	0.000	0.000	0.136	0.136
24:15:00	0.000	0.000	0.000	0.000	0.135	0.135
24:30:00	0.000	0.000	0.000	0.000	0.134	0.134
24:45:00	0.000	0.000	0.000	0.000	0.133	0.133
25:00:00	0.000	0.000	0.000	0.000	0.132	0.132
25:15:00	0.000	0.000	0.000	0.000	0.132	0.132
25:30:00	0.000	0.000	0.000	0.000	0.131	0.131
25:45:00	0.000	0.000	0.000	0.000	0.130	0.130

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m^3/s)	Net Rain (mm)	Runoff (m^3/s)	Baseflow (m^3/s)	Total Flow (m^3/s)
26:00:00	0.000	0.000	0.000	0.000	0.129	0.129
26:15:00	0.000	0.000	0.000	0.000	0.128	0.128
26:30:00	0.000	0.000	0.000	0.000	0.127	0.127
26:45:00	0.000	0.000	0.000	0.000	0.127	0.127
27:00:00	0.000	0.000	0.000	0.000	0.126	0.126
27:15:00	0.000	0.000	0.000	0.000	0.125	0.125
27:30:00	0.000	0.000	0.000	0.000	0.124	0.124
27:45:00	0.000	0.000	0.000	0.000	0.123	0.123
28:00:00	0.000	0.000	0.000	0.000	0.123	0.123
28:15:00	0.000	0.000	0.000	0.000	0.122	0.122
28:30:00	0.000	0.000	0.000	0.000	0.121	0.121
28:45:00	0.000	0.000	0.000	0.000	0.120	0.120
29:00:00	0.000	0.000	0.000	0.000	0.120	0.120
29:15:00	0.000	0.000	0.000	0.000	0.119	0.119
29:30:00	0.000	0.000	0.000	0.000	0.118	0.118
29:45:00	0.000	0.000	0.000	0.000	0.117	0.117
30:00:00	0.000	0.000	0.000	0.000	0.116	0.116
30:15:00	0.000	0.000	0.000	0.000	0.116	0.116
30:30:00	0.000	0.000	0.000	0.000	0.115	0.115
30:45:00	0.000	0.000	0.000	0.000	0.114	0.114
31:00:00	0.000	0.000	0.000	0.000	0.114	0.114
31:15:00	0.000	0.000	0.000	0.000	0.113	0.113
31:30:00	0.000	0.000	0.000	0.000	0.112	0.112
31:45:00	0.000	0.000	0.000	0.000	0.111	0.111
32:00:00	0.000	0.000	0.000	0.000	0.111	0.111
32:15:00	0.000	0.000	0.000	0.000	0.110	0.110
32:30:00	0.000	0.000	0.000	0.000	0.109	0.109
32:45:00	0.000	0.000	0.000	0.000	0.109	0.109
33:00:00	0.000	0.000	0.000	0.000	0.108	0.108
33:15:00	0.000	0.000	0.000	0.000	0.107	0.107
33:30:00	0.000	0.000	0.000	0.000	0.106	0.106
33:45:00	0.000	0.000	0.000	0.000	0.106	0.106
34:00:00	0.000	0.000	0.000	0.000	0.105	0.105
34:15:00	0.000	0.000	0.000	0.000	0.104	0.104
34:30:00	0.000	0.000	0.000	0.000	0.104	0.104

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m^3/s)	Net Rain (mm)	Runoff (m^3/s)	Baseflow (m^3/s)	Total Flow (m^3/s)
34:45:00	0.000	0.000	0.000	0.000	0.103	0.103
35:00:00	0.000	0.000	0.000	0.000	0.102	0.102
35:15:00	0.000	0.000	0.000	0.000	0.102	0.102
35:30:00	0.000	0.000	0.000	0.000	0.101	0.101
35:45:00	0.000	0.000	0.000	0.000	0.100	0.100
36:00:00	0.000	0.000	0.000	0.000	0.100	0.100
36:15:00	0.000	0.000	0.000	0.000	0.099	0.099
36:30:00	0.000	0.000	0.000	0.000	0.099	0.099
36:45:00	0.000	0.000	0.000	0.000	0.098	0.098
37:00:00	0.000	0.000	0.000	0.000	0.097	0.097
37:15:00	0.000	0.000	0.000	0.000	0.097	0.097
37:30:00	0.000	0.000	0.000	0.000	0.096	0.096
37:45:00	0.000	0.000	0.000	0.000	0.095	0.095
38:00:00	0.000	0.000	0.000	0.000	0.095	0.095
38:15:00	0.000	0.000	0.000	0.000	0.094	0.094
38:30:00	0.000	0.000	0.000	0.000	0.094	0.094
38:45:00	0.000	0.000	0.000	0.000	0.093	0.093
39:00:00	0.000	0.000	0.000	0.000	0.092	0.092
39:15:00	0.000	0.000	0.000	0.000	0.092	0.092
39:30:00	0.000	0.000	0.000	0.000	0.091	0.091
39:45:00	0.000	0.000	0.000	0.000	0.091	0.091
40:00:00	0.000	0.000	0.000	0.000	0.090	0.090
40:15:00	0.000	0.000	0.000	0.000	0.089	0.089
40:30:00	0.000	0.000	0.000	0.000	0.089	0.089
40:45:00	0.000	0.000	0.000	0.000	0.088	0.088
41:00:00	0.000	0.000	0.000	0.000	0.088	0.088
41:15:00	0.000	0.000	0.000	0.000	0.087	0.087
41:30:00	0.000	0.000	0.000	0.000	0.087	0.087
41:45:00	0.000	0.000	0.000	0.000	0.086	0.086
42:00:00	0.000	0.000	0.000	0.000	0.086	0.086
42:15:00	0.000	0.000	0.000	0.000	0.085	0.085
42:30:00	0.000	0.000	0.000	0.000	0.084	0.084
42:45:00	0.000	0.000	0.000	0.000	0.084	0.084
43:00:00	0.000	0.000	0.000	0.000	0.083	0.083
43:15:00	0.000	0.000	0.000	0.000	0.083	0.083

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m^3/s)	Net Rain (mm)	Runoff (m^3/s)	Baseflow (m^3/s)	Total Flow (m^3/s)
43:30:00	0.000	0.000	0.000	0.000	0.082	0.082
43:45:00	0.000	0.000	0.000	0.000	0.082	0.082
44:00:00	0.000	0.000	0.000	0.000	0.081	0.081
44:15:00	0.000	0.000	0.000	0.000	0.081	0.081
44:30:00	0.000	0.000	0.000	0.000	0.080	0.080
44:45:00	0.000	0.000	0.000	0.000	0.080	0.080
45:00:00	0.000	0.000	0.000	0.000	0.079	0.079
45:15:00	0.000	0.000	0.000	0.000	0.079	0.079
45:30:00	0.000	0.000	0.000	0.000	0.078	0.078
45:45:00	0.000	0.000	0.000	0.000	0.078	0.078
46:00:00	0.000	0.000	0.000	0.000	0.077	0.077
46:15:00	0.000	0.000	0.000	0.000	0.077	0.077
46:30:00	0.000	0.000	0.000	0.000	0.076	0.076
46:45:00	0.000	0.000	0.000	0.000	0.076	0.076
47:00:00	0.000	0.000	0.000	0.000	0.075	0.075
47:15:00	0.000	0.000	0.000	0.000	0.075	0.075
47:30:00	0.000	0.000	0.000	0.000	0.074	0.074
47:45:00	0.000	0.000	0.000	0.000	0.074	0.074
48:00:00	0.000	0.000	0.000	0.000	0.073	0.073
48:15:00	0.000	0.000	0.000	0.000	0.073	0.073
48:30:00	0.000	0.000	0.000	0.000	0.072	0.072
48:45:00	0.000	0.000	0.000	0.000	0.072	0.072
49:00:00	0.000	0.000	0.000	0.000	0.071	0.071
49:15:00	0.000	0.000	0.000	0.000	0.071	0.071
49:30:00	0.000	0.000	0.000	0.000	0.071	0.071
49:45:00	0.000	0.000	0.000	0.000	0.070	0.070
50:00:00	0.000	0.000	0.000	0.000	0.070	0.070
50:15:00	0.000	0.000	0.000	0.000	0.069	0.069
50:30:00	0.000	0.000	0.000	0.000	0.069	0.069
50:45:00	0.000	0.000	0.000	0.000	0.068	0.068
51:00:00	0.000	0.000	0.000	0.000	0.068	0.068
51:15:00	0.000	0.000	0.000	0.000	0.067	0.067
51:30:00	0.000	0.000	0.000	0.000	0.067	0.067
51:45:00	0.000	0.000	0.000	0.000	0.067	0.067
52:00:00	0.000	0.000	0.000	0.000	0.066	0.066

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m^3/s)	Net Rain (mm)	Runoff (m^3/s)	Baseflow (m^3/s)	Total Flow (m^3/s)
52:15:00	0.000	0.000	0.000	0.000	0.066	0.066
52:30:00	0.000	0.000	0.000	0.000	0.065	0.065
52:45:00	0.000	0.000	0.000	0.000	0.065	0.065
53:00:00	0.000	0.000	0.000	0.000	0.064	0.064
53:15:00	0.000	0.000	0.000	0.000	0.064	0.064
53:30:00	0.000	0.000	0.000	0.000	0.064	0.064
53:45:00	0.000	0.000	0.000	0.000	0.063	0.063
54:00:00	0.000	0.000	0.000	0.000	0.063	0.063
54:15:00	0.000	0.000	0.000	0.000	0.062	0.062
54:30:00	0.000	0.000	0.000	0.000	0.062	0.062
54:45:00	0.000	0.000	0.000	0.000	0.062	0.062
55:00:00	0.000	0.000	0.000	0.000	0.061	0.061
55:15:00	0.000	0.000	0.000	0.000	0.061	0.061
55:30:00	0.000	0.000	0.000	0.000	0.060	0.060
55:45:00	0.000	0.000	0.000	0.000	0.060	0.060
56:00:00	0.000	0.000	0.000	0.000	0.060	0.060
56:15:00	0.000	0.000	0.000	0.000	0.059	0.059
56:30:00	0.000	0.000	0.000	0.000	0.059	0.059
56:45:00	0.000	0.000	0.000	0.000	0.059	0.059
57:00:00	0.000	0.000	0.000	0.000	0.058	0.058
57:15:00	0.000	0.000	0.000	0.000	0.058	0.058
57:30:00	0.000	0.000	0.000	0.000	0.057	0.057
57:45:00	0.000	0.000	0.000	0.000	0.057	0.057
58:00:00	0.000	0.000	0.000	0.000	0.057	0.057
58:15:00	0.000	0.000	0.000	0.000	0.056	0.056
58:30:00	0.000	0.000	0.000	0.000	0.056	0.056

Appendix

Catchment descriptors

Name	Value	User-defined value used?
Area (km²)	2.28	No
ALTBAR	140	No
ASPBAR	184	No
ASPVAR	0.69	No
BFIHOST	0.62	No
BFIHOST19	0.59	No
DPLBAR (km)	1.44	No
DPSBAR (mkm-¹)	95.1	No
FARL	1	No
LDP	2.67	No
PROPWET	0.36	No
RMED1H	11.2	No
RMED1D	33.5	No
RMED2D	44.8	No
SAAR (mm)	795	No
SAAR4170 (mm)	793	No
SPRHOST	30.49	No
URBEXT2000	0.18	No
URBEXT1990	0.07	No
URBCONC	0.79	No
URBLOC	0.73	No
DDF parameter C	-0.03	No
DDF parameter D1	0.36	No
DDF parameter D2	0.43	No
DDF parameter D3	0.27	No
DDF parameter E	0.32	No
DDF parameter F	2.44	No
DDF parameter C (1km grid value)	-0.03	No
DDF parameter D1 (1km grid value)	0.37	No
DDF parameter D2 (1km grid value)	0.44	No
DDF parameter D3 (1km grid value)	0.28	No
DDF parameter E (1km grid value)	0.32	No
DDF parameter F (1km grid value)	2.43	No

Appendix E – Sensitivity Analysis

A. It is standard hydraulic modelling practice to undertake a sensitivity analysis of key model parameters to consider any uncertainty attached to the adopted values and understand how sensitive the model is to changes in these parameters.

B. In the absence of any gauged data / recorded flood events / observable historic information, Ardent have undertaken a sensitivity test of key parameters in order to improve confidence in the model outputs and to ensure the model is robust to changes in these parameters. All sensitivity runs have been undertaken on the 1% AEP plus 45% climate change event.

C. Ardent have undertaken a sensitivity analysis on the following parameters for the post development scenario:

- Manning's 'n' roughness values +/- 20%;
- Rainfall Intensity; and
- Blockage analysis.

Manning's 'n' roughness

D. Manning's 'n' roughness values have been adjusted by +/- 20% in the 1D and 2D domains during post-development scenario. The peak modelled extents from the sensitivity testing are shown in **Figure E.1.**, with peak depths at the result points shown in **Figure E.1** presented in **Table E.1**.

Table E.1: Roughness sensitivity peak depths at points shown in Figure E.1

	+20% 'n'	1% AEP plus 45% CC	-20% 'n'
Point	Depth (m)	Depth (m)	Depth (m)
1	0.27	0.26	0.27
2	0.13	0.13	0.14
3	0.08	0.08	0.09
4	0.10	0.11	0.12
5	0.14	0.15	0.17
6	0.19	0.21	0.22

Figure E.1: Roughness sensitivity extents – 1% AEP plus 45% climate change

E. The results show the model has a negligible sensitivity to the roughness values applied to the model domain, with only minor changes in the peak flood extents and negligible differences in peak flood depths (<+/- up to 20mm) at key locations across the Site.

Rainfall intensity

F. The sensitivity to the rainfall intensity applied to the model have been assessed by increasing the rainfall profiles applied to rural and urban areas by 20%. Peak modelled extents in the sensitivity scenario are shown in **Figure E.2** with peak depths at the points shown in **Figure E.2** presented in **Table E.2**.

Table E.2 Rainfall Intensity sensitivity peak depths at points shown in Figure E.2

	1% AEP plus 45% CC	Rainfall sensitivity
Point	Depth (m)	Depth (m)
1	0.26	0.30
2	0.13	0.17
3	0.08	0.12
4	0.11	0.15
5	0.15	0.20
6	0.21	0.25

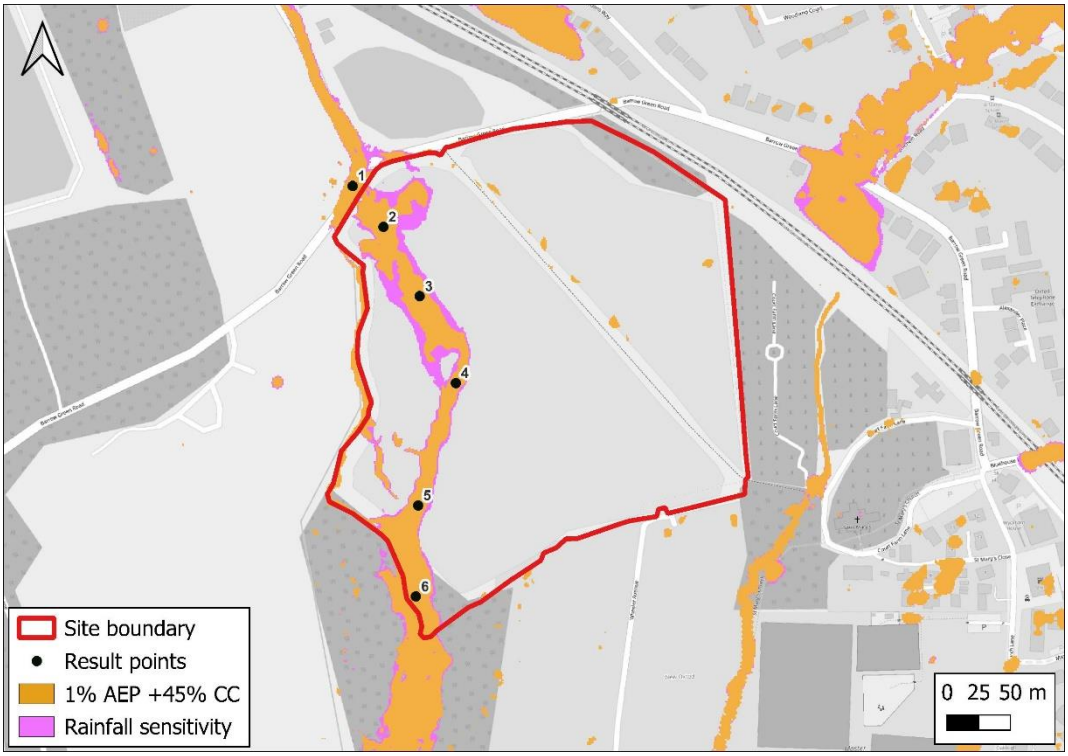


Figure E.2: Rainfall intensity sensitivity extents – 1% AEP plus 45% climate change

G. The results show the model has a low sensitivity to the rainfall intensity applied within the model as the higher volume of flows conveyed along the flow path only results in a slight increase in peak depth of 40-50mm within the Site boundary. The model therefore has a low sensitivity to the rainfall applied and associated losses.

Blockage Analysis

H. Blockage analysis has undertaken on the 225mm culvert linking the ditch north of the Site to the surface water drainage network. A 90% blockage was applied for the duration of the model run. Peak modelled extents in the sensitivity scenario are shown in **Figure E.3** with peak depths at the points shown in **Figure E.3** presented in **Table E.3**.

Table B.3 Blockage sensitivity peak depths at points shown in Figure E.3

	1% AEP plus 45% CC	Blockage Scenario
Point	Depth (m)	Depth (m)
1	0.26	0.28
2	0.13	0.14
3	0.08	0.09
4	0.11	0.12
5	0.15	0.16
6	0.21	0.21

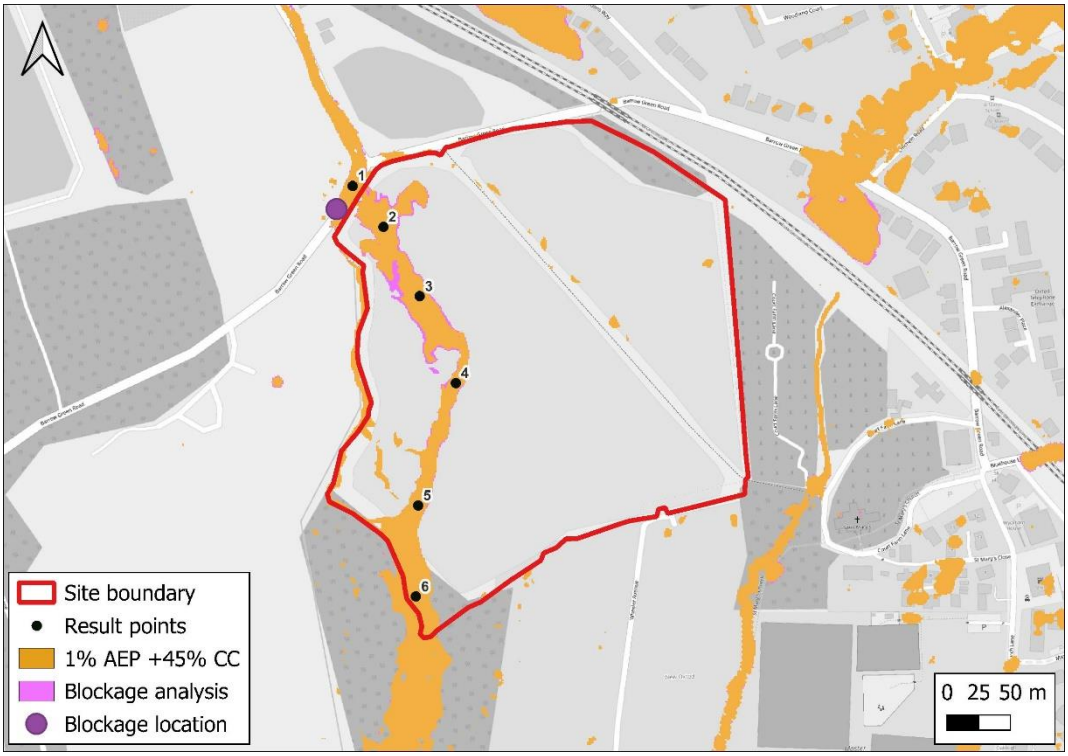


Figure E.3: Blockage sensitivity extents – 1% AEP plus 45% climate change

I. The blockage sensitivity analysis shows that the modelled blockage only has a minor impact on peak depths within the Site boundary, with increases of 10-20mm. This is due to the culvert being surcharged for the majority of the simulation during the baseline scenario. As a result, the residual risk of blockage is low. Additionally, assumptions made regarding the representation of the culvert are shown not to have a notable impact on the results at the Site.

Sensitivity test conclusions

J. Ardent has carried out a range of sensitivity tests on key parameters for the hydraulic model in order to test the validity of the model outputs and ensure that the proposed mitigation measures are appropriate, and that the proposed residential development can be made safe for the duration of its lifetime. The review of the sensitivity test outlined above suggests that the adopted model parameters are appropriate and that the proposed mitigation scheme is appropriate. The maximum uncertainty associated with the model outputs is approximately +/-50mm.

Appendix F – Site Masterplan


N
Sub Sta
LB
Grave Yard
GP
Pond
croudacehomes
Omega Architects
The Front Barn, 124 Manor Road North, Thames Ditton, KT7 0BH
T: 01372 470 313 W: www.omega-architects.co.uk
Client:
Croudace Homes Group
Project:
Land South of Barrow Green Road, Oxted
Drawing Title:
Illustrative Masterplan
Scale:
1:500 @ A0
Revision
Drawn
Check
Date
Project No'
Class
Dwg No'
Status
Rev
3129
C
1005
PL
A
CLASS: C - COLOURED, A - BLACK & WHITE
STATUS: SK - SKETCH, PR - PRELIMINARY, PL - PLANNING, WD - WORKING DRAWING
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0 m
10 m
20 m
30 m
40 m
50 m
100 m
Scale

Appendix D.2 Ardent Hydraulic Modeling Report 2 – October 2025

ARDENT
CONSULTING ENGINEERS
AN EMPLOYEE OWNED COMPANY

Croudace Homes Limited

Stoneyfields, Oxted

Hydraulic Modelling Report

REPORT REF. 2404420_A-ACE-XX-XX-RP-C-0321

October 2025

HEAD OFFICE (LONDON): 3rd Floor, The Hallmark Building, 52-56 Leadenhall Street, London, EC3M 5JE **T** | 020 7680 4088
SUFFOLK: Suffolk Enterprise Centre, 44 Felaw Street, Ipswich, IP2 8SJ **T** | 01473 407 321
ESSEX: 1 - 2 Crescent Court, Billericay, Essex, CM12 9AQ **T** | 01277 657 677
NOTTINGHAM: Office 3, Garage Studios, 41-43 St Mary's Gate, Lace Market, Nottingham, NG1 1PU **T** | 0115 697 0940
KENT: Suite 10, Building 40, Churchill Business Centre, Kings Hill, Kent, ME19 4YU **T** | 01732 752 155
BRISTOL: Temple Studios, Temple Gate, Bristol, BS1 6QA **T** | 0117 456 4994
EDINBURGH: 4-5 Lochside Way Edinburgh EH12 9DT **T** | 0131 516 8111
MANCHESTER: Chancery Place, 50 Brown Street, Manchester, M2 2JG **T** | 020 7680 4088

Email: enquiries@ardent-ce.co.uk

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Document Control Sheet

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	DRAFT	JA	BC	DRAFT	October 2025
	FINAL	JA	JA	BC	13 October 2025

Distribution

Return Periods / Annual Exceedance Probability Events

The following return periods / annual exceedance probability (AEP) events are referenced in the text:

Return Period	Annual Exceedance Probability
1 in 1-year	100%
1 in 2-year	50%
1 in 5-year	20%
1 in 10-year	10%
1 in 20-year	5%
1 in 30-year	3.3%
1 in 100-year	1%

1. Introduction

1.1. Ardent Consulting Engineers (hereafter referred to as Ardent) has been instructed by Croudace Homes Limited to undertake technical hydraulic modelling work in relation to a proposed development at Stoneyfields, Oxted.

1.2. A surface water hydraulic modelling study was undertaken in November 2024 covering the site and surrounding catchment. The modelling was used to refine the understanding of the existing surface water flood risk and to inform the development of mitigation measures for managing overland flow paths from offsite without increasing flood risk. Details of the modelling are outlined within a technical model report (report ref: **2404420-ACE-XX-XX-RP-C-0501**) accompanying the site Flood Risk Assessment (FRA).

1.3. The Lead Local Flood Authority (LLFA) provided no objection to the FRA and surface water hydraulic modelling, and were satisfied that the requirements of the NPPF and the Tandridge Local Plan were complied with.

1.4. Tandridge District Council refused the outline planning application, with one reason for refusal being '*The applicant has not demonstrated that the proposed development, and in particular the outline drainage proposals, will not result in the loss or deterioration of an irreplaceable habitat both on-site and off-site, that is The Bogs ancient woodland, within and adjoining the site boundary*'.

1.5. Within the accompanying Officer's Report it is detailed that concerns relating to The Bogs ancient woodland (hereafter referred to as The Bogs) are in part associated with a lack of information provided regarding the hydrological impacts of the development proposals on flows reaching The Bogs.

1.6. This included comments from a third party flood risk consultant instructed on behalf of the Parish Council that stated the modelling report '*shows a reduction in flood levels to the south of the site, which would also mean a reduction in flow to The Bogs. Given the area of ancient woodland with a wet woodland dominated landscape, a reduction in flow may not be a desirable outcome and could have adverse impacts on the biodiversity of the area.'*

1.7. This technical note has been prepared to assess surface water flows in the pre and post development scenario entering The Bogs. These surface water flows enter The Bogs via onsite and offsite overland flows. The offsite overland flow route is predicted to form during extreme storm events, entering the site in the northwest

corner and flowing overland towards The Bogs located to the south of the site. The Bogs receive flows from an ordinary watercourse running along the western site boundary before flowing through The Bogs.

1.8. This note outlines the updates made to the existing hydraulic modelling to support this assessment, and details the model outputs in terms of the impacts on flows to The Bogs from offsite.

1.9. A separate note is prepared by Motion to address the contribution of flows to The Bogs from runoff generated by rainfall falling within the site boundary in the existing and proposed conditions.

Site location and existing hydrology

1.10. The Site locations and surrounding area is shown in **Figure 1-1**. Additionally, the approximate catchment areas draining to The Bogs are shown in **Figure 1-2**, with the catchment areas estimated from Environment Agency 1m LIDAR Digital Terrain Model (DTM) elevation data and Southern Water asset data.

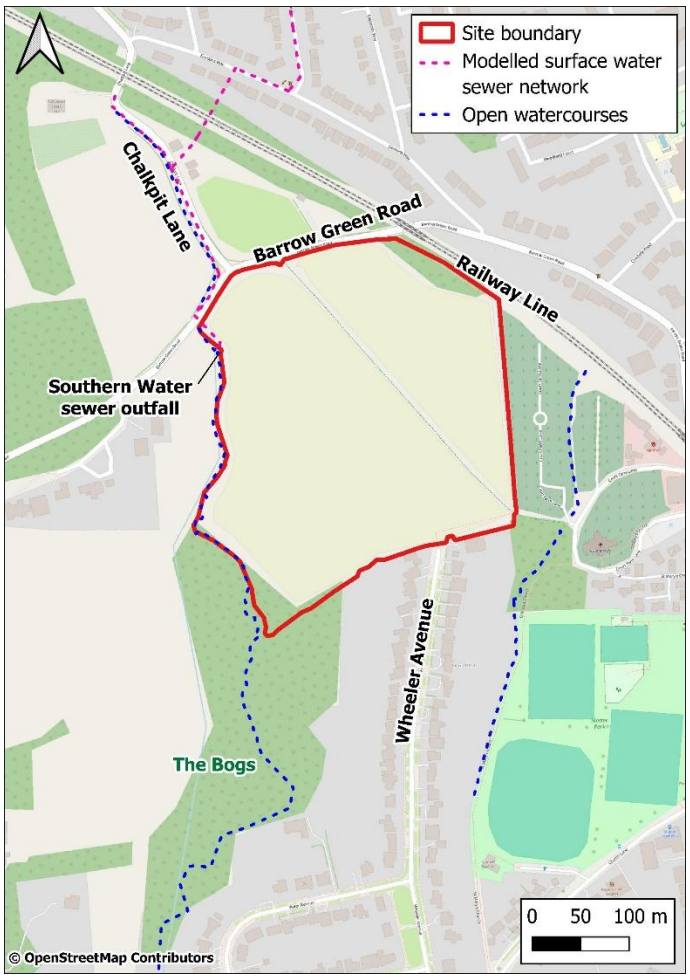


Figure 1-1: Site location plan

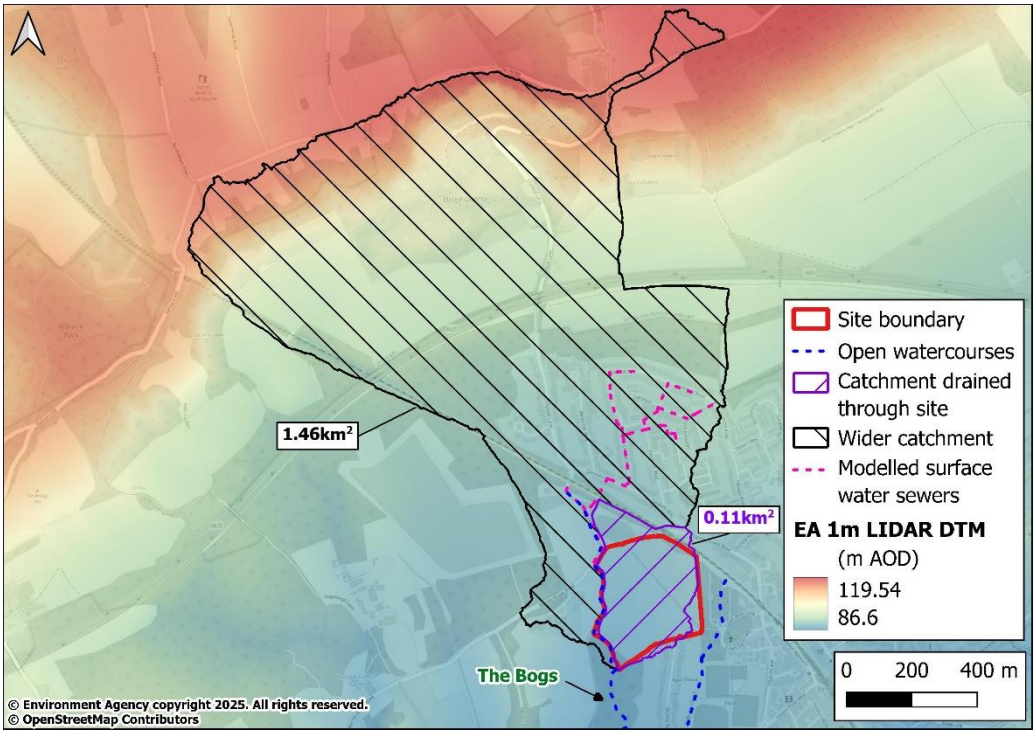


Figure 1-2: Catchment areas draining to The Bogs during rainfall events

1.11. The Bogs are primarily fed by an ordinary watercourse running along the western site boundary. The ordinary watercourse receives flows from a Southern Water surface water sewer network draining a residential area to the north of the railway line. The sewer outfalls to the watercourse adjacent to the northwest corner of the site. The sewer network mapping is provided in **Appendix A**. An open ditch also runs along Chalkpit Lane before connecting into the surface water sewer network at Barrow Green Road.

1.12. During a typical rainfall event, the sewer network and ordinary watercourse drain an area of approximately 1.46km^2 to The Bogs at the downstream extent of the site. The site and immediately adjacent area drains through to The Bogs via a topographic catchment with an area of approximately 0.11km^2.

2. Model Updates

2.1. To allow for the impacts on The Bogs to be assessed during higher frequency, lower magnitude storm events, the hydrological assessment undertaken as part of the existing hydraulic modelling was updated to derive new rainfall profiles using ReFH2 methodologies. The assessment was undertaken in line with the approach used in the existing modelling.

2.2. Rainfall hyetographs were generated for the 1 in 1-year, 1 in 2-year, 1 in 5-year, and 1 in 10-year storm return periods. The design and net rainfall profiles were derived and applied to the model in line with the approach used in the existing approved model.

2.3. Within the post-development scenario, the overall catchment model previously removed rainfall from the developed site catchment as this area was picked up by the site surface water piped drainage design. The outflow from the surface water network was applied as a point inflow within the overall catchment model. The outflow from the surface water drainage network was applied at a constant rate restricted to a 1 in 2-year greenfield discharge rate for all rainfall events.

2.4. The latest surface water drainage proposals restrict runoff to greenfield rates. This means that flows from the development will be discharged at equivalent greenfield rates so it does not exceed or reduce the natural runoff rate that would occur if the land were undeveloped (greenfield). As a result, the post-development catchment model was revised with rainfall applied across the entire site, replicating the pre-development scenario with runoff generated in the model at greenfield rates.

2.5. This approach allows for a direct comparison between the pre- and post-development scenarios to demonstrate the impacts of the ground level modifications associated with the development on flows reaching The Bogs. The technical note prepared by Motion provides more details on the impacts of the on-site surface water drainage network on runoff from The Site to The Bogs.

2.6. The development proposals incorporate ground level reprofiling along the west of the site to divert an overland flow path away from residential development during extreme rainfall events. The post-development scenario was updated to ensure the latest configuration of the reprofiling was represented, including the interaction with adjacent drainage basins designed to be set above the peak flood levels during the 1 in 100-year plus 45% climate change (CC) storm event. As with the previous

modelling, post-development ground levels represented within the model are indicative and subject to detailed design.

2.7. Flow result lines were added to the pre- and post-development models. These flow result lines will assess flows entering The Bogs in the pre and post development scenario and their impact.

2.8. No other updates were made to the pre- and post-development model, with the modelling undertaken in line with the existing approved model that was used to inform the FRA approved by the LLFA. As per the previous study the model outputs were filtered to remove depths below 0.05m.

2.9. The revised pre- and post-development models were also run for the following storm events: 1 in 1-year, 1 in 2-year, 1 in 5-year, 1 in 10-year, 1 in 30-year, 1 in 100-year, and 1 in 100-year plus 45% climate change uplift.

3. Impacts of development proposals on flows

Pre-development scenario

3.1. The peak modelled flood extents during the pre-development scenario are shown in **Figure 3-1**. The model outputs show that during the lower magnitude, higher frequency storm events, flows conveyed towards The Bogs are predominantly via the ordinary watercourse that is fed by flows from the Southern Water sewer and wider catchment. The overland flow path through the site is only predicted to form in the higher magnitude, more extreme storm events.

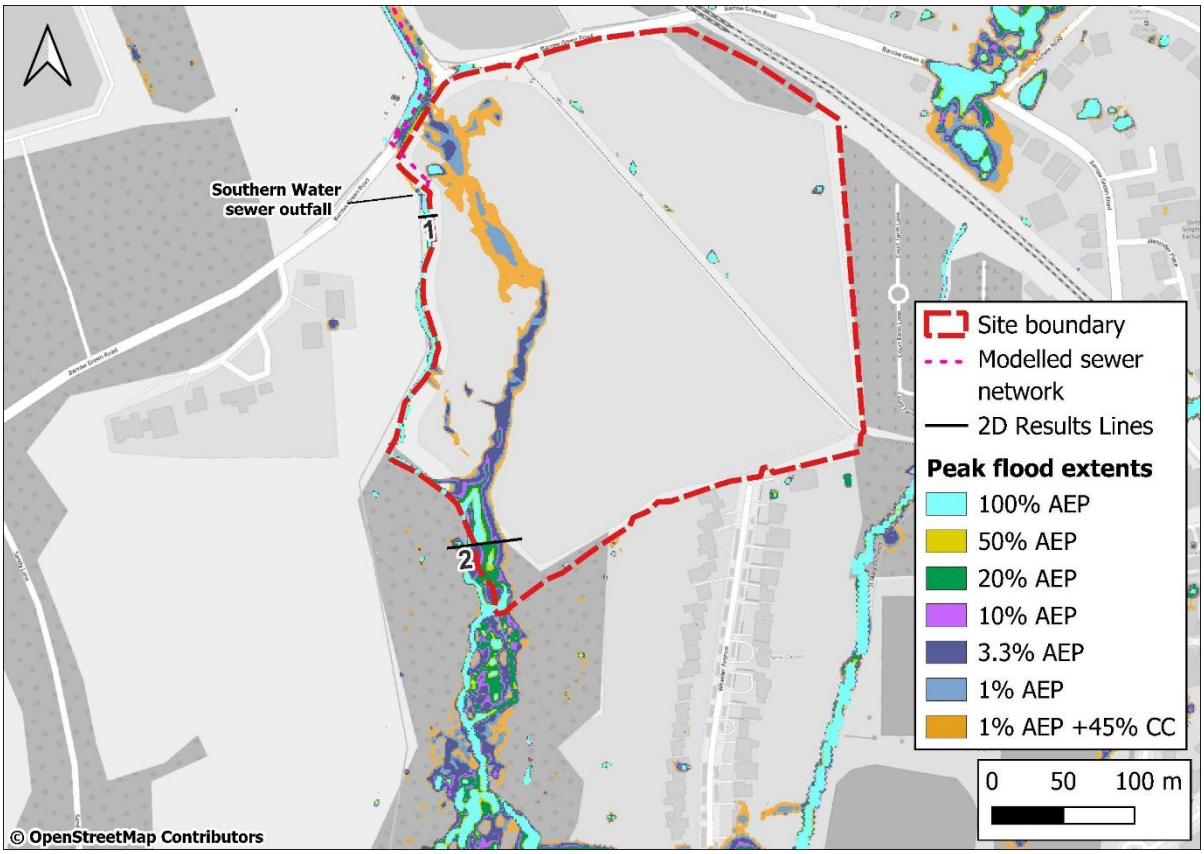


Figure 3-1: Pre-development scenario peak modelled flood extents

3.2. The first peak flow result line (1) is located within the ordinary watercourse immediately downstream of the outfall from the Southern Water sewer (result line 1). The second peak flow result line (2) is located within The Bogs at the downstream extent of the Site (result line 2). The flows associated with the various events are shown in **Table 3-1**. The location of the result lines is shown in **Figure 3-1**.

Table 3-1: Pre-Development peak flows at results lines shown in Figure 3-1

Return period	Results Line peak flow (m^3/s)		
	1	2	Diff
1 in 1-year	0.17	0.19	0.02
1 in 2-year	0.22	0.24	0.02
1 in 5-year	0.41	0.45	0.04
1 in 10-year	0.55	0.61	0.06
1 in 30-year	0.79	1.09	0.30
1 in 100-year	0.87	1.42	0.55
1 in 100-year + Climate Change	0.99	2.10	1.11

3.3. During the lower magnitude events most of the flows reaching The Bogs is from the ordinary watercourse. During the 100% AEP event there is only a minor increase of $0.02m^3/s$ in the peak flow between the outfall of the sewer network and the downstream extent of the Site, with an increase of $0.02m^3/s$ also predicted during the 50% AEP event. Refer to **Table 3-1** above.

3.4. During the higher magnitude events flows also reach The Bogs via the overland flow path through the site, resulting in a greater difference in the peak flows between the outfall from the Southern Water sewers and the downstream extent of the Site. For example, an increase of $0.30m^3/s$ is predicted during the 3.3% AEP event and an increase of $0.55m^3/s$ in the 1% AEP event.

Post-development condition

3.5. The peak modelled flood extents during the post-development scenario are shown in **Figure 3-2**.

3.6. As with the pre-development scenario, no overland flow path is predicted to form during the lower magnitude events. During the storm events larger than and including the 3.3% AEP event the overland flows are modelled to be diverted around the western area of the site away from the residential development. The ground level reprofiling is designed to divert the flows back towards The Bogs in the same location as the pre-development scenario. This approach ensures there is a negligible impact on how overland flows reach The Bogs.

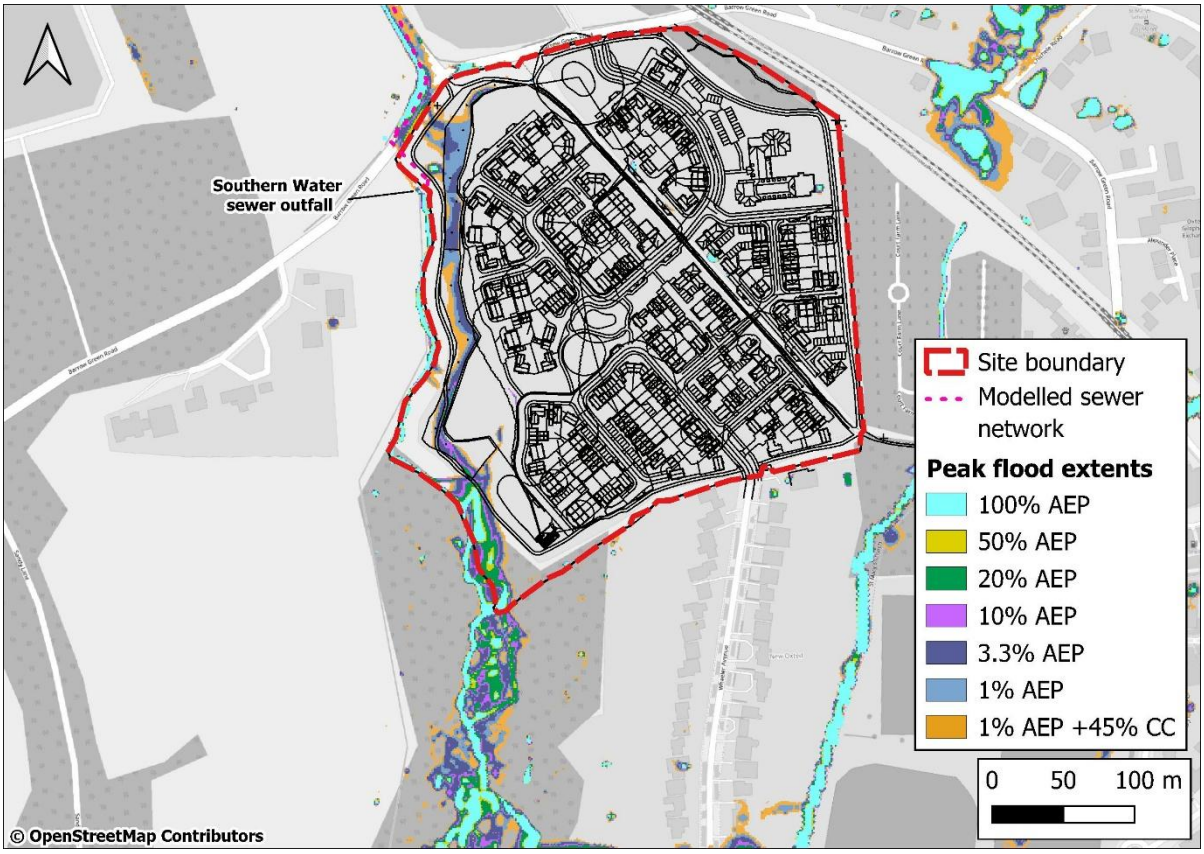


Figure 3-2: Post-development scenario peak modelled flood extents

Impact of proposals on flows to The Bogs

3.7. The peak flows during the pre-development and post-development scenarios for all modelled events for result lines 1 and 2 (see **Figure 3-1**) are shown in **Table 3-2**.

Table 3-2: Pre-Development and Post-development peak flows at results lines shown in Figure 3-1

	Results Line peak flow (m^3/s)					
Results Line	**1**			**2**		
Return Period	Pre-development	Post-development	Change	Pre-development	Post-development	Change
1 in 1-year	0.17	0.17	0	0.19	0.19	0
1 in 2-year	0.22	0.22	0	0.24	0.24	0
1 in 5-year	0.41	0.41	0	0.45	0.47	+0.02
1 in 10-year	0.55	0.55	0	0.61	0.63	+0.02
1 in 30-year	0.79	0.79	0	1.09	1.09	0
1 in 100-year	0.87	0.87	0	1.42	1.41	-0.01
1 in 100-year + Climate Change	0.99	0.99	0	2.10	2.10	0

3.8. The development proposals will have a negligible impact on flows reaching The Bogs via the ordinary watercourse. This is supported by the fact that during each

modelled event there is predicted to be no change to the flows in the watercourse immediately downstream of the Southern Water outfall.

3.9. The comparison of peak flows at the downstream extent of the site also shows a negligible change in the peak flows reaching The Bogs during each modelled event. The model results therefore demonstrate that the proposed ground level modifications within the site have a negligible impact on the hydrology of The Bogs in terms of routing of overland flows.

3.10. The change in peak flood depths between the pre-development and post-development scenarios is shown in **Figure 3-3**. The model results demonstrate that a negligible change in the peak flood depths is predicted during the high frequency, low magnitude 100% AEP event.

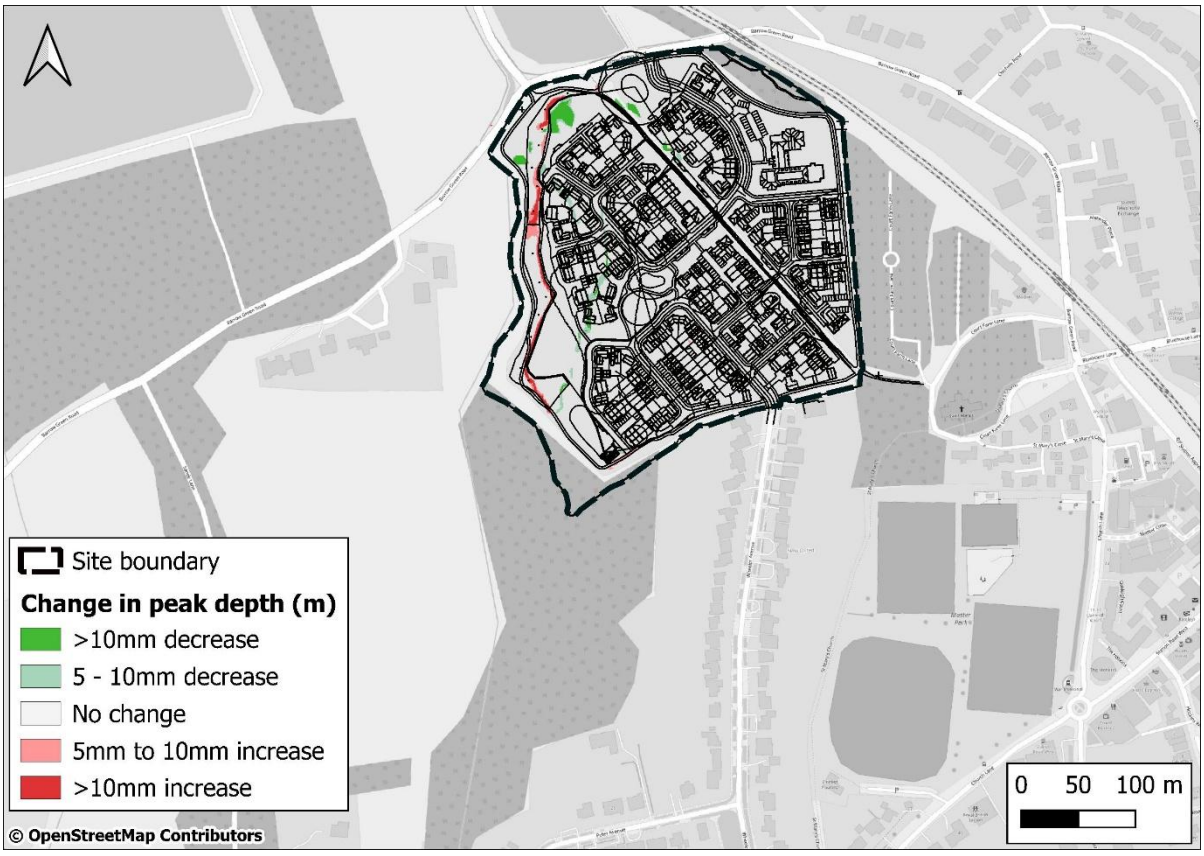


Figure 3-3: Change in peak flood depths – 100% AEP event – pre-development vs post-development scenario

3.11. The change in peak flood depths between the pre-development and post-development scenarios is shown in **Figure 3-4**. The model results demonstrate that a negligible change in the peak flood depths is also predicted during the low frequency, high magnitude 1% AEP plus 45% climate change event.

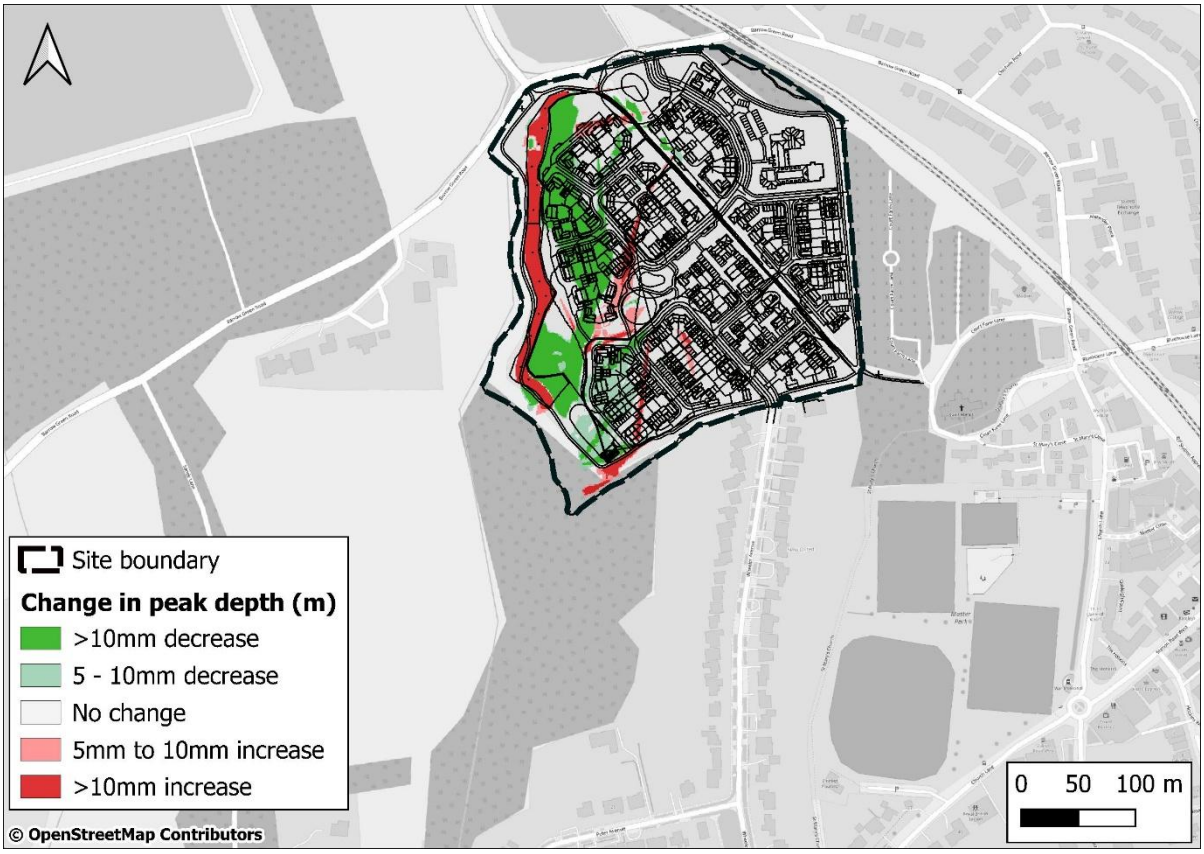


Figure 3-4: Change in peak flood depths – 1% AEP plus 45% climate change event – pre-development vs post-development scenario

3.12. The ground level changes associated with the post-development proposals are therefore considered to have a negligible impact on flood depths and flows within The Bogs during a range of storm events.

4. Summary

4.1. Ardent Consulting Engineers has been instructed by Croudace Homes Limited to undertake technical hydraulic modelling work in relation to a proposed development at Stoneyfields, Oxted.

4.2. This technical note has been prepared to assess surface water flows in the pre and post development scenario entering The Bogs. These surface water flows enter The Bogs via onsite and offsite overland flows. The offsite overland flow route is predicted to form during extreme storm events, entering the site in the northwest corner and flowing overland towards The Bogs located to the south of the site. The Bogs receive flows from an ordinary watercourse running along the western site boundary before flowing through The Bogs.

4.3. A separate note is prepared by Motion to address the contribution of flows to The Bogs from the surface water runoff generated by rainfall falling within the site boundary in the pre- and post-development scenarios.

4.4. The pre-development and post-development catchment models have been updated to reflect the latest proposals, with rainfall hyetographs derived for high frequency, low magnitude storm events not previously assessed. The updated models were rerun for the following storm events: 1 in 1-year, 1 in 2-year, 1 in 5-year, 1 in 10-year, 1 in 30-year, 1 in 100-year, and 1 in 100-year plus 45% climate change uplift.

4.5. The model results demonstrate that during low magnitude storm events the flows reaching The Bogs are primarily via the ordinary watercourse running along the western site boundary. An overland flow path through the site is only predicted to form during extreme rainfall events greater than and including the 3.3% AEP event.

4.6. The development proposals will have a negligible impact on flows reaching The Bogs via the ordinary watercourse. This is supported by the fact that during each modelled event there is predicted to be no change to the flows in the watercourse immediately downstream of the Southern Water outfall providing the dominant source of flow.

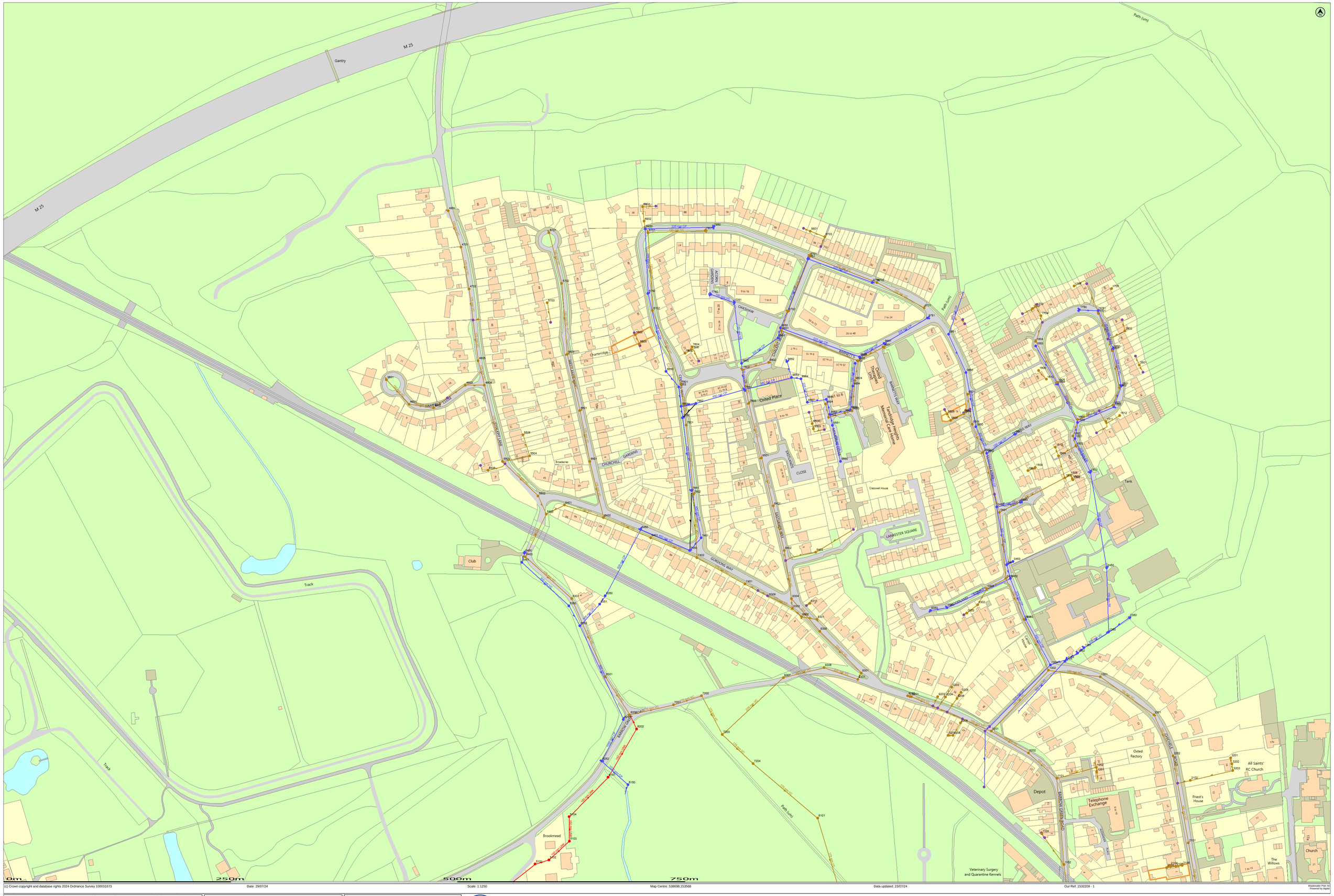
4.7. The comparison of peak flows at the downstream extent of the site also shows a negligible change in the peak flows reaching The Bogs during each modelled event. The model results therefore demonstrate that the proposed ground level modifications within the site have a negligible impact on the hydrology of the bogs in terms of the development.

4.8. Comparison of peak flood depths shows a negligible change between the pre-development and post-development scenarios during the high frequency, low magnitude 100% AEP event and during the low frequency, high magnitude 1% AEP plus 45% climate change event.

4.9. The ground level changes associated with the development proposals are therefore considered to have a negligible impact on flood depths and flows within The Bogs during a range of storm events.

Appendices

Appendix A – Southern Water Asset Mapping



Date: 29/07/24 | Scale: 1:1250 | Map Centre: 538698,153568 | Data updated: 23/07/24 | Our Ref: 1532209 - 1

Wastewater Plan A0
Powered by digital

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 2024 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.

Foul Gravity Sewer | Combined Gravity Sewer | Culverted Water Course or Inland Fluvial | Surface Water Gravity Sewer | Rising Main, Vacuum or Siphon

Combined Outfall | Foul Outfall | Surface Water Outfall | Surface Water Weir

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 | Dual Entry Manhole, Association Overflow, Gulley Manhole or Surface Water Soakaway

javton@ardent-ce.co.uk
Oxted

WATER for LIFE

from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
5101	C	0.00	0.00	
5102	C	0.00	0.00	
5103	C	0.00	0.00	
5104	C	0.00	0.00	
6101	C	0.00	0.00	
6202	C	0.00	0.00	
0201	F	107.96	105.80	
0202	F	109.53	105.38	
0203	F	0.00	0.00	
0204	F	0.00	0.00	
0205	F	0.00	0.00	
0206	F	0.00	0.00	
0207	F	0.00	0.00	
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0505	F	0.00	0.00	
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0507	F	0.00	0.00	
0508	F	0.00	0.00	
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1102	F	105.95	103.98	
1104	F	0.00	0.00	
1201	F	0.00	0.00	
1202	F	0.00	0.00	
1301	F	111.68	109.58	
1302	F	109.31	107.45	
1501	F	119.67	116.92	
1502	F	119.24	116.73	
1503	F	118.92	116.67	
1504	F	119.66	116.29	
1505	F	118.32	116.09	
1506	F	0.00	0.00	
1507	F	0.00	0.00	
1508	F	0.00	0.00	
1509	F	0.00	0.00	
1510	F	0.00	0.00	
1511	F	0.00	0.00	
1512	F	0.00	0.00	
1601	F	120.98	119.10	
1602	F	119.30	117.47	
1603	F	118.74	0.00	
1604	F	123.93	122.47	
1605	F	121.85	119.90	
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1703	F	0.00	0.00	
1704	F	0.00	0.00	
1705	F	0.00	0.00	
1706	F	0.00	0.00	
2003	F	0.00	0.00	
2101	F	109.44	106.53	
2102	F	0.00	0.00	
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2105	F	0.00	0.00	
2106	F	0.00	0.00	
2201	F	114.64	112.72	
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3203	F	0.00	0.00	
3601	F	115.97	113.73	
4601	F	114.53	112.83	
4602	F	113.76	112.29	
4603	F	113.49	111.81	
4604	F	113.37	111.41	
4605	F	114.34	112.38	
4701	F	119.66	117.59	
4702	F	117.51	115.59	
4801	F	121.55	119.41	
5301	F	104.84	102.81	
5401	F	109.36	106.28	
5402	F	108.13	106.03	
5403	F	107.18	105.28	
5501	F	110.13	0.00	
5502	F	109.16	107.18	
5504	F	0.00	0.00	
5505	F	0.00	0.00	
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5601	F	114.76	113.10	
5701	F	120.13	118.78	
5702	F	117.74	116.23	
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6401	F	109.62	106.97	
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6601	F	112.26	110.77	
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6603	F	0.00	0.00	
6701	F	121.42	119.72	
6702	F	117.26	115.85	
6801	F	0.00	0.00	
6802	F	0.00	0.00	
7201	F	103.52	101.56	
7202	F	103.97	101.39	
7203	F	103.60	101.11	
7204	F	103.95	100.87	
7401	F	110.25	107.45	
7402	F	110.46	107.14	
7501	F	112.34	110.14	
7502	F	111.85	108.93	
7601	F	113.27	111.95	
7602	F	115.09	113.64	
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8303	F	111.42	108.49	
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8310	F	0.00	0.00	
8401	F	114.19	111.03	
8402	F	112.68	0.00	
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8702	F	118.93	117.50	
8703	F	0.00	0.00	
8801	F	0.00	0.00	
9201	F	109.46	0.00	
9202	F	109.68	0.00	
9203	F	0.00	0.00	
9301	F	112.33	108.02	
9302	F	111.01	107.86	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
9601	F	122.00	120.07	
9602	F	120.33	118.03	
9603	F	120.20	118.78	
9604	F	120.35	118.40	
9701	F	124.76	123.34	
9702	F	123.17	121.42	
0350	S	110.31	108.58	
0351	S	113.70	112.16	
0450	S	117.39	115.53	
0451	S	113.39	111.24	
0452	S	112.46	110.22	
0453	S	113.82	112.58	
0550	S	122.09	120.16	
0551	S	121.11	119.53	
0552	S	120.77	118.86	
0553	S	117.37	116.13	
0650	S	124.08	122.37	
0651	S	125.22	0.00	
0652	S	0.00	0.00	
1350	S	110.37	109.12	
1351	S	0.00	0.00	
1352	S	109.47	108.56	
1353	S	109.65	108.30	
1354	S	109.33	107.82	
1355	S	109.67	108.48	
1450	S	112.95	112.12	
1550	S	119.53	116.90	
1551	S	119.21	116.88	
1552	S	117.75	116.76	
1650	S	121.03	119.43	
1651	S	119.24	117.92	
1652	S	118.69	117.63	
1653	S	123.74	0.00	
1654	S	121.74	119.09	
1750	S	123.55	121.89	
1751	S	122.86	121.17	
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5350	S	0.00	0.00	
5450	S	107.25	105.48	
5451	S	0.00	0.00	
6150	S	102.64	100.19	
6251	S	103.38	101.32	
6252	S	103.55	100.62	
6350	S	0.00	0.00	
6351	S	0.00	0.00	
6352	S	104.70	0.00	
6450	S	109.16	107.29	
6650	S	0.00	0.00	
6750	S	118.00	116.47	
6850	S	121.68	119.87	
7450	S	110.21	108.35	
7451	S	110.58	108.64	
7550	S	112.38	110.78	
7551	S	111.87	0.00	
7650	S	115.42	113.90	
7651	S	115.14	113.24	
7652	S	112.79	0.00	
7653	S	113.19	111.32	
7654	S	112.76	111.24	
7750	S	118.82	117.35	
7751	S	118.73	116.65	
7850	S	122.40	120.39	
8550	S	118.97	117.56	
8551	S	119.04	117.20	
8552	S	118.50	116.90	
8650	S	118.02	116.16	
8651	S	117.34	115.58	
8652	S	117.18	115.63	
8653	S	0.00	0.00	
8654	S	117.28	116.39	
8656	S	118.50	116.81	
8657	S	118.00	116.60	
8658	S	120.20	118.14	
8751	S	121.85	120.02	
9350	S	114.17	112.44	
9651	S	122.10	120.17	
9652	S	120.40	118.10	
9653	S	120.40	118.87	
9654	S	120.39	118.38	
9750	S	123.07	121.54	
9751	S	124.90	123.53	

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

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Appendix D.3 Ardent Hydraulic Modeling Report 3 – December 2025

ARDENT
CONSULTING ENGINEERS
AN EMPLOYEE OWNED COMPANY

Croudace Homes Limited

Stoneyfields, Oxted

Hydraulic Modelling Report 3

REPORT REF. 2404420_A-ACE-XX-XX-RP-C-0401

December 2025

HEAD OFFICE (LONDON): 3rd Floor, The Hallmark Building, 52-56 Leadenhall Street, London, EC3M 5JE **T** | 020 7680 4088
SUFFOLK: Suffolk Enterprise Centre, 44 Felaw Street, Ipswich, IP2 8SJ **T** | 01473 407 321
ESSEX: 1 - 2 Crescent Court, Billericay, Essex, CM12 9AQ **T** | 01277 657 677
NOTTINGHAM: Office 3, Garage Studios, 41-43 St Mary's Gate, Lace Market, Nottingham, NG1 1PU **T** | 0115 697 0940
KENT: Suite 10, Building 40, Churchill Business Centre, Kings Hill, Kent, ME19 4YU **T** | 01732 752 155
BRISTOL: Temple Studios, Temple Gate, Bristol, BS1 6QA **T** | 0117 456 4994
EDINBURGH: 4-5 Lochside Way Edinburgh EH12 9DT **T** | 0131 516 8111
MANCHESTER: Chancery Place, 50 Brown Street, Manchester, M2 2JG **T** | 020 7680 4088

Email: enquiries@ardent-ce.co.uk

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REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	DRAFT	JA	BC	DRAFT	December 2025
	FINAL	JA	JA	BC	December 2025

Distribution

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Return Periods / Annual Exceedance Probability Events

The following return periods / annual exceedance probability (AEP) events are referenced in the text:

Return Period	Annual Exceedance Probability
1 in 1-year	100%
1 in 2-year	50%
1 in 5-year	20%
1 in 10-year	10%
1 in 20-year	5%
1 in 30-year	3.3%
1 in 100-year	1%

1. Introduction

1.1. Ardent Consulting Engineers (hereafter referred to as Ardent) has been instructed by Croudace Homes Limited to undertake technical hydraulic modelling work in relation to a proposed development at Stoneyfields, Oxted.

1.2. A surface water hydraulic modelling study was undertaken in December 2024 covering the site and surrounding catchment. Details of the modelling are outlined within a technical model report (report ref: **2404420-ACE-XX-XX-RP-C-0501**) accompanying the site Flood Risk Assessment (FRA). The Lead Local Flood Authority (LLFA) provided no objection to the FRA and surface water hydraulic modelling, and were satisfied that the requirements of the NPPF and the Tandridge Local Plan were complied with.

1.3. Tandridge District Council refused the outline planning application, with one reason for refusal being '*The applicant has not demonstrated that the proposed development, and in particular the outline drainage proposals, will not result in the loss or deterioration of an irreplaceable habitat both on-site and off-site, that is The Bogs ancient woodland, within and adjoining the site boundary*'.

1.4. The existing modelling was updated in October 2025 to represent the latest version of the proposed development and to represent the impacts of the drainage strategy in restricting runoff to greenfield rates. The approach used within the modelling represented flows from the proposed drainage strategy as a diffuse discharge. Further details of the modelling are provided in the technical model note dated October 2025 (**Ref: 2404420_A-ACE-XX-XX-RP-C-0321**).

1.5. Following a meeting with the Council on 14 November 2025, concerns were raised regarding the potential effects of point discharges from various storm events on flows within The Bogs. As a result, the model was updated to represent the discharge from the proposed development at two point discharge locations in line with the proposed drainage strategy prepared by Motion.

1.6. This technical note details the model updates to represent point discharges from the proposed drainage network and assesses the impacts on surface water flows entering the Bogs from on and offsite.

2. Model Updates

2.1. Consistent with the accepted post-development scenario presented in the original December 2024 modelling report, the overall catchment model excluded direct rainfall over the developed area of the Site ('2D_RF' layer), as runoff from this area is intercepted and conveyed by the proposed surface water piped drainage network. The discharge from this network was represented within the model as point inflows at the two proposed discharge locations from the surface water drainage network (see **Figure 2-1**).

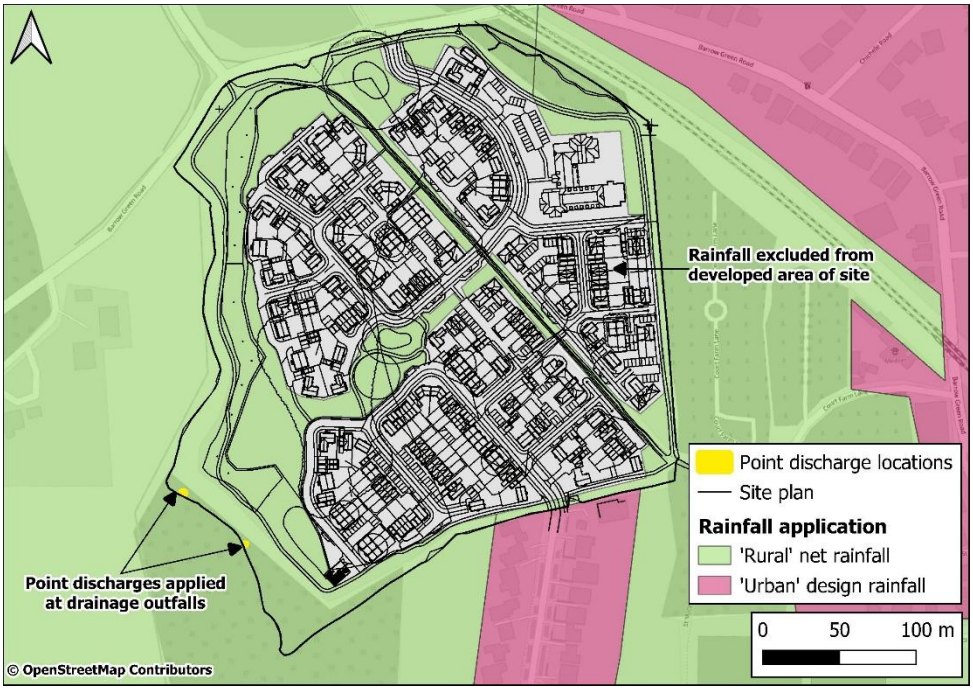


Figure 2-1: Post-development model schematic

2.2. The outflow from the proposed Site drainage system was applied at a controlled, variable greenfield runoff rate corresponding to each rainfall event modelled, ranging from the 1 in 1-year to the 1 in 100-yr + 45% Climate Change event. These greenfield runoff rates were previously agreed between Motion and the LLFA and are shown in **Table 2-1** below, as per Appendix C of Motion Technical Note 2 dated 24 July 2025.

Table 2-1: Greenfield Runoff Rates from the Proposed Development Site

Return Period	Discharge Rate (l/s)
1 in 1-yr	10.7
1 in 2 yr	11.1
1 in 10-yr	20.5
1 in 30-yr	29.1
1 in 100-yr	40.3

2.3. The modelled Microdrainage outflows over time for the each event were provided by Motion for inclusion within the direct rainfall model. The outflows were applied using '2D_SA' layers.

2.4. The revised post-development models was run for the following storm events: 1 in 1-year, 1 in 2-year, 1 in 5-year, 1 in 10-year, 1 in 30-year, 1 in 100-year, and 1 in 100-year plus 45% climate change uplift.

2.5. No other changes were made to the hydraulic modelling.

3. Impacts of development proposals on flows

Post-development condition

3.1. The peak modelled flood extents during the post-development scenario are shown in **Figure 3-1**.

3.2. As with the pre-development scenario, no overland flow path is predicted to form during the lower magnitude events. During the storm events larger than and including the 3.3% AEP event the overland flows are modelled to be diverted around the western area of the site away from the residential development. The ground level reprofiling is designed to divert the flows back towards The Bogs in the same location as the pre-development scenario. This approach ensures there is a negligible impact on how overland flows reach The Bogs.

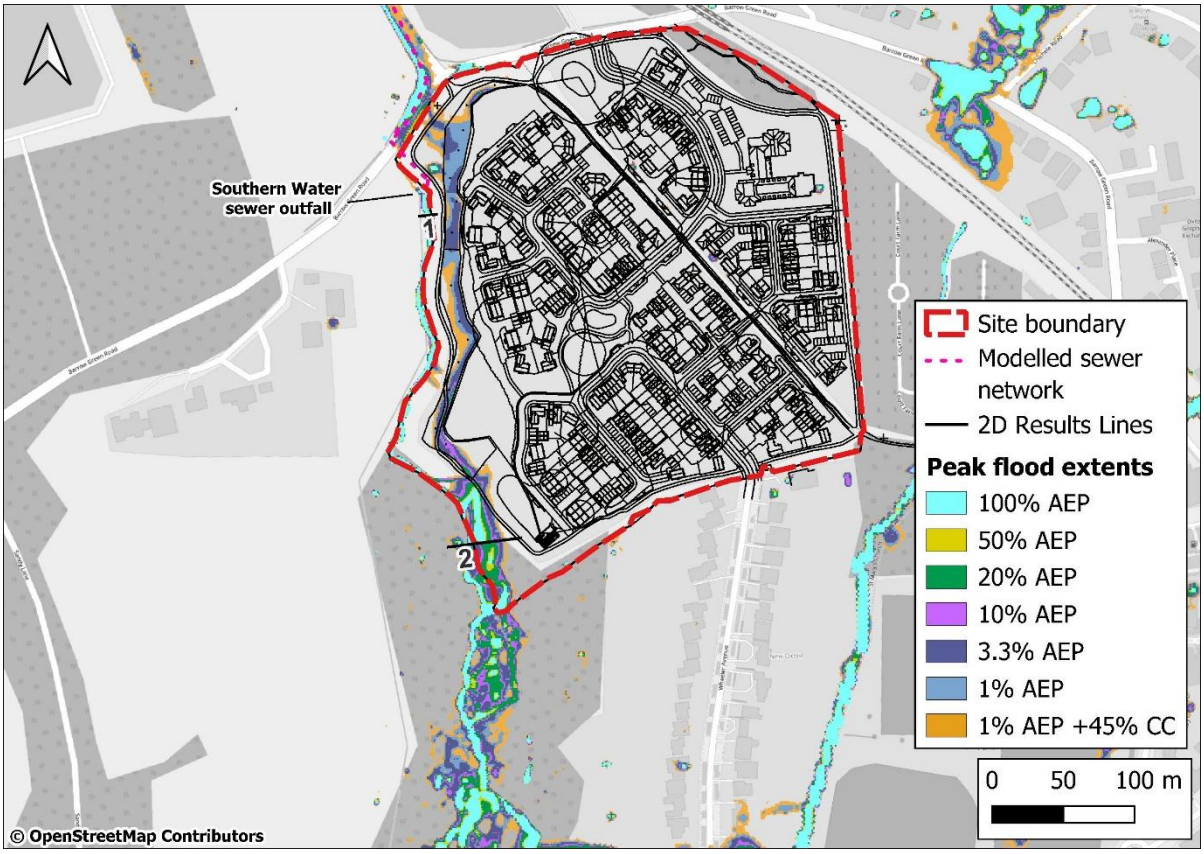


Figure 3-1: Post-development scenario peak modelled flood extents

Impact of proposals on flows to The Bogs

3.3. The peak flows during the pre-development and post-development scenarios for all modelled events for result lines 1 and 2 (see **Figure 3-1**) are shown in **Table 3-1** below.

3.4. The development proposals will have no impact on flows reaching The Bogs via the ordinary watercourse. This is supported by the fact that during each modelled event there is predicted to be no change to the flows in the watercourse immediately downstream of the Southern Water outfall (results line 1).

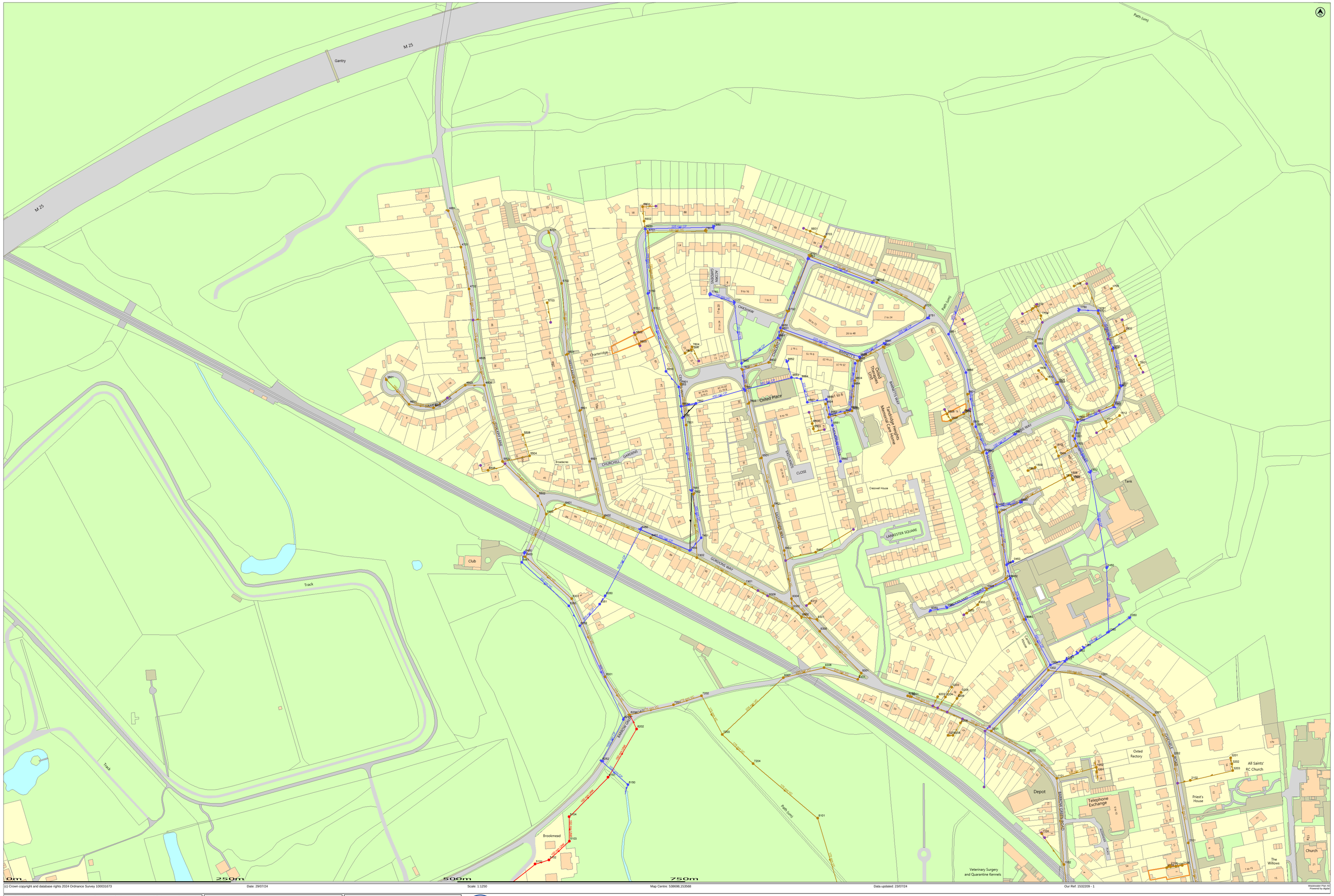
3.5. The comparison of peak flows at the downstream extent of the Site also shows a negligible impact in the peak flows reaching The Bogs during each modelled event. The model results therefore demonstrate that the proposed ground level modifications within the Site and the point discharge variable greenfield rates from the proposed Site have a negligible impact on the hydrology of The Bogs.

3.6. Therefore, the negligible changes in flows identify a continuity of an adequate water supply to The Bogs for all storm events (higher frequency, lower magnitude storm events and lower frequency, higher magnitude storm events).

Table 3-1: Pre-Development and Post-development peak flows at results lines shown in Figure 3-1

	Results Line peak flow (m^3/s)							
Results Line	**1**				**2**			
Return Period	Pre-development	Post-development	Change	% Change	Pre-development	Post-development	Change	% Change
1 in 1-year	0.17	0.17	0	0	0.19	0.19	0	0
1 in 2-year	0.22	0.22	0	0	0.24	0.24	0	0
1 in 5-year	0.41	0.41	0	0	0.45	0.46	0.01	2
1 in 10-year	0.55	0.55	0	0	0.61	0.62	0.01	2
1 in 30-year	0.79	0.79	0	0	1.09	1.06	-0.03	-3
1 in 100-year	0.87	0.87	0	0	1.42	1.37	-0.05	-4
1 in 100-year + Climate Change	0.99	0.99	0	0	2.1	2.03	-0.07	-3

Appendix E Southern Water Asset Mapping



Date: 29/07/24 | Scale: 1:1250 | Map Centre: 538698,153568 | Data updated: 23/07/24 | Our Ref: 1532209 - 1

Wastewater Plan A0
Powered by digital

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 2024 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.

Foul Gravity Sewer | Combined Gravity Sewer | Culverted Water Course or Inland Rivers | Surface Water Gravity Sewer | Rising Main, Vacuum or Siphon

Combined Outfall | Foul Outfall | Surface Water Outfall | Surface Water Weir

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 | Dual Entry Manhole, Association Overflow, Gulley Manhole or Surface Water Soakaway

javzon@ardent-ce.co.uk

Oxted

WATER for LIFE

from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
5101	C	0.00	0.00	
5102	C	0.00	0.00	
5103	C	0.00	0.00	
5104	C	0.00	0.00	
6101	C	0.00	0.00	
6202	C	0.00	0.00	
0201	F	107.96	105.80	
0202	F	109.53	105.38	
0203	F	0.00	0.00	
0204	F	0.00	0.00	
0205	F	0.00	0.00	
0206	F	0.00	0.00	
0207	F	0.00	0.00	
0208	F	0.00	0.00	
0209	F	0.00	0.00	
0301	F	110.35	108.14	
0302	F	0.00	0.00	
0303	F	0.00	0.00	
0401	F	117.23	115.19	
0402	F	112.61	110.18	
0403	F	112.96	110.52	
0501	F	122.16	119.91	
0502	F	120.83	118.70	
0505	F	0.00	0.00	
0506	F	0.00	0.00	
0507	F	0.00	0.00	
0508	F	0.00	0.00	
0601	F	123.23	121.73	
1101	F	110.67	104.97	
1102	F	105.95	103.98	
1104	F	0.00	0.00	
1201	F	0.00	0.00	
1202	F	0.00	0.00	
1301	F	111.68	109.58	
1302	F	109.31	107.45	
1501	F	119.67	116.92	
1502	F	119.24	116.73	
1503	F	118.92	116.67	
1504	F	119.66	116.29	
1505	F	118.32	116.09	
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1511	F	0.00	0.00	
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1703	F	0.00	0.00	
1704	F	0.00	0.00	
1705	F	0.00	0.00	
1706	F	0.00	0.00	
2003	F	0.00	0.00	
2101	F	109.44	106.53	
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2104	F	0.00	0.00	
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2106	F	0.00	0.00	
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3201	F	0.00	0.00	
3202	F	0.00	0.00	
3203	F	0.00	0.00	
3601	F	115.97	113.73	
4601	F	114.53	112.83	
4602	F	113.76	112.29	
4603	F	113.49	111.81	
4604	F	113.37	111.41	
4605	F	114.34	112.38	
4701	F	119.66	117.59	
4702	F	117.51	115.59	
4801	F	121.55	119.41	
5301	F	104.84	102.81	
5401	F	109.36	106.28	
5402	F	108.13	106.03	
5403	F	107.18	105.28	
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5505	F	0.00	0.00	
5506	F	0.00	0.00	
5601	F	114.76	113.10	
5701	F	120.13	118.78	
5702	F	117.74	116.23	
5703	F	0.00	0.00	
6201	F	103.51	101.79	
6301	F	103.59	102.06	
6401	F	109.62	106.97	
6402	F	108.97	106.50	
6501	F	110.27	108.80	
6601	F	112.26	110.77	
6602	F	0.00	0.00	
6603	F	0.00	0.00	
6701	F	121.42	119.72	
6702	F	117.26	115.85	
6801	F	0.00	0.00	
6802	F	0.00	0.00	
7201	F	103.52	101.56	
7202	F	103.97	101.39	
7203	F	103.60	101.11	
7204	F	103.95	100.87	
7401	F	110.25	107.45	
7402	F	110.46	107.14	
7501	F	112.34	110.14	
7502	F	111.85	108.93	
7601	F	113.27	111.95	
7602	F	115.09	113.64	
7603	F	115.29	112.78	
7604	F	0.00	0.00	
7605	F	0.00	0.00	
7606	F	0.00	0.00	
7801	F	122.36	120.28	
8101	F	104.29	100.37	
8301	F	112.10	110.87	
8302	F	111.71	109.14	
8303	F	111.42	108.49	
8304	F	111.63	108.76	
8305	F	112.11	108.23	
8306	F	109.08	107.51	
8307	F	106.88	105.35	
8309	F	0.00	0.00	
8310	F	0.00	0.00	
8401	F	114.19	111.03	
8402	F	112.68	0.00	
8403	F	0.00	0.00	
8501	F	115.01	112.20	
8502	F	0.00	0.00	
8503	F	0.00	0.00	
8504	F	0.00	0.00	
8601	F	117.89	116.37	
8602	F	115.94	114.41	
8603	F	0.00	0.00	
8604	F	119.82	118.96	
8701	F	121.88	120.45	
8702	F	118.93	117.50	
8703	F	0.00	0.00	
8801	F	0.00	0.00	
9201	F	109.46	0.00	
9202	F	109.68	0.00	
9203	F	0.00	0.00	
9301	F	112.33	108.02	
9302	F	111.01	107.86	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
9601	F	122.00	120.07	
9602	F	120.33	118.03	
9603	F	120.20	118.78	
9604	F	120.35	118.40	
9701	F	124.76	123.34	
9702	F	123.17	121.42	
0350	S	110.31	108.58	
0351	S	113.70	112.16	
0450	S	117.39	115.53	
0451	S	113.39	111.24	
0452	S	112.46	110.22	
0453	S	113.82	112.58	
0550	S	122.09	120.16	
0551	S	121.11	119.53	
0552	S	120.77	118.86	
0553	S	117.37	116.13	
0650	S	124.08	122.37	
0651	S	125.22	0.00	
0652	S	0.00	0.00	
1350	S	110.37	109.12	
1351	S	0.00	0.00	
1352	S	109.47	108.56	
1353	S	109.65	108.30	
1354	S	109.33	107.82	
1355	S	109.67	108.48	
1450	S	112.95	112.12	
1550	S	119.53	116.90	
1551	S	119.21	116.88	
1552	S	117.75	116.76	
1650	S	121.03	119.43	
1651	S	119.24	117.92	
1652	S	118.69	117.63	
1653	S	123.74	0.00	
1654	S	121.74	119.09	
1750	S	123.55	121.89	
1751	S	122.86	121.17	
2350	S	0.00	0.00	
5350	S	0.00	0.00	
5450	S	107.25	105.48	
5451	S	0.00	0.00	
6150	S	102.64	100.19	
6251	S	103.38	101.32	
6252	S	103.55	100.62	
6350	S	0.00	0.00	
6351	S	0.00	0.00	
6352	S	104.70	0.00	
6450	S	109.16	107.29	
6650	S	0.00	0.00	
6750	S	118.00	116.47	
6850	S	121.68	119.87	
7450	S	110.21	108.35	
7451	S	110.58	108.64	
7550	S	112.38	110.78	
7551	S	111.87	0.00	
7650	S	115.42	113.90	
7651	S	115.14	113.24	
7652	S	112.79	0.00	
7653	S	113.19	111.32	
7654	S	112.76	111.24	
7750	S	118.82	117.35	
7751	S	118.73	116.65	
7850	S	122.40	120.39	
8550	S	118.97	117.56	
8551	S	119.04	117.20	
8552	S	118.50	116.90	
8650	S	118.02	116.16	
8651	S	117.34	115.58	
8652	S	117.18	115.63	
8653	S	0.00	0.00	
8654	S	117.28	116.39	
8656	S	118.50	116.81	
8657	S	118.00	116.60	
8658	S	120.20	118.14	
8751	S	121.85	120.02	
9350	S	114.17	112.44	
9651	S	122.10	120.17	
9652	S	120.40	118.10	
9653	S	120.40	118.87	
9654	S	120.39	118.38	
9750	S	123.07	121.54	
9751	S	124.90	123.53	

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