

Rascals Farm, Southwater

Flood Risk Assessment and Drainage Strategy

December 2025



Woods Hardwick

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Report Reference

19711/FRA and DS

Revision History

Rev	Amendments	Prepared By	Checked By	Date
First Issue	N/A	YT	GBR	09/11/2025

Introduction



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Introduction

The following paragraphs state the purpose of this document, a summary of existing and future site details is also provided.

- 1.1 This Flood Risk Assessment (FRA) and Drainage Strategy has been prepared by Woods Hardwick Ltd (WH) on behalf of Barratt Redrow Southern Counties in support of their Reserved Matters application for a proposed residential development on a site known as 'Rascals Farm, Southwater'. A copy of the Site Location Plan is provided in **Appendix A**.
- 1.2 The application site benefits from Outline Planning permission (Ref: DC/20/0695), with all matters reserved except for access (excluding internal estates roads) for the erection of up to 100 residential units, with the associated vehicular and pedestrian access, which was approved at appeal (ref: APP/Z3825/W/20/3257700) in August 2021. A subsequent Non-Material Amendment (ref: DC/21/2126) to planning permission DC/20/0695 was approved in October 2021. Copies of the Decision Notices are included in **Appendix B**.
- 1.3 The outline planning application was accompanied by a FRA (dated March 2020) and associated Addendum 1 and 2 (both dated May 2020), prepared by Odyssey on behalf of Catesby Estates.
- 1.4 Reserved Matters approval (Ref: DC/24/0249) was granted in June 2025. The approved reserved matters Drainage Strategy Technical Note and associated addendum was prepared by Odyssey on behalf of Catesby Strategic land Ltd in July 2024. A copy of the Reserved Matters Decision Notice is included in **Appendix B**.
- 1.5 The site has since been acquired by Barratt Redrow Southern Counties who are seeking Reserved Matters approval for an amended scheme comprising 96 dwellings and associated infrastructure. A copy of the Proposed Site Layout is provided in **Appendix C**.
- 1.6 This report and proposed drainage strategy follows the same principles which were previously agreed during the outline and reserved matters applications. The purpose of the report is to demonstrate that the proposed drainage design complies with the outline FRA as well as the subsequent Addendums prepared by Odyssey, and to address Planning Conditions 11 and 12 of the Outline Planning Consent contained within the Appeal Decision.
- 1.7 In terms of flood risk, the application site is wholly situated in Flood Zone 1, land which has less than a 1 in 1,000 annual probability of river or sea flooding.
- 1.8 This document has been written in accordance with the guidance contained within the Flood Risk and Coastal Change section of the Government's Planning Practice Guidance (FRCC, PPG).

- 1.9 The FRA concludes that the proposed development will not lead to the impedance of flood flows and will not increase the risk of flooding on the site itself, adjacent properties or to third parties situated either upstream or downstream of the site.
- 1.10 This document includes a Surface Water Drainage Strategy that identifies a suitable sustainable strategy for the disposal of surface water from the proposed development site that conforms with the guidance contained within the following documents:
- CIRIA C753 SuDS Manual (2015)
 - West Sussex County Council's (WSCC) LLFA Policy for the Management of Surface Water (November 2018)
- 1.11 The proposed Drainage Strategy is based on a maximum allowance of 40% climate change in accordance with the approved principles.
- 1.12 A suitable foul water outfall by way of a gravity connection to Southern Water (SW) assets in Shipley Road has also been identified for the proposed development.
- 1.13 **From the findings of this report, the development proposals are considered appropriate for the site location; therefore, should be fully supported through the planning process in terms of Flood Risk, Foul and Surface Water Drainage.**

Overview of Approved Documents



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Overview of Approved Documents

This section reviews the approved documents to ensure that the proposals at this stage are in accordance with the principles proposed to support the previously approved planning applications.

- 2.1 As previously mentioned, the outline planning application was accompanied by a Flood Risk Assessment and Drainage Strategy (FRA) (dated March 2020) and associated Addendum 1 and 2 (dated May 2020) which were prepared by Odyssey.
- 2.2 The subsequent reserved matters approval (Ref: DC/24/0249) was supported drainage strategy technical note and associated addendum which was also prepared by Odyssey.

Outline Surface Water Drainage Strategy

- 2.3 The approved FRA identifies that the site lies on a bedrock of Weald Clay Formation - Mudstone, which has a limited permeability. It was therefore concluded that infiltration methods are not suitable for the disposal surface water runoff from the site.
- 2.4 The approved outline drainage strategy is to drain surface water runoff from the site via its natural catchments. The majority of the site drains to two attenuation basins in the southern extent of the site before ultimately discharging into the existing ditch network to the south, via two separate outfalls, restricted to 10.3l/s and 9.3l/ at the south eastern and south western outfalls, respectively.
- 2.5 The northern extent of the site drains independently to an existing highway drain on Shipley Road, with runoff from this catchment restricted to and 1.7l/s.
- 2.6 The agreed runoff rates for each catchment are equivalent to the QBAR greenfield runoff rate of 5.1l/s/ha, ensuring the development does not exacerbate any flood risk to downstream areas by increasing the surface water runoff.

Reserved Matters Surface Water Drainage Strategy

- 2.7 In accordance with the outline drainage strategy, the previously approved Reserved Matters drainage strategy attenuates surface water flows within attenuation basins in the southern extent of the site. Other forms of attenuation i.e. lined attenuation tanks are also proposed for use within parking courts, private roads and areas of open space to provide additional upstream storage.
- 2.8 From the basins, surface water flows are directed to the existing ditch network via one outfall located near the south eastern corner of the site. Site flows are restricted to 19.5l/s which is equivalent to the approved greenfield runoff rate of 5.1l/s/ha.

-
- 2.9 Flows from the smaller northern drainage catchment are attenuated using an attenuation tank beneath the open space area prior to being discharged to the existing highway drainage at a restricted rate of 1.7l/s (which is equivalent to Qbar rate of 5.1l/s/ha).
- 2.10 The proposed attenuation features are designed to accommodate flows during the 1 in 100 year event plus 40% climate change in line with the approved strategy. An additional a 10% allowance for urban creep is also included.

Outline / Reserved Matters Foul Water Drainage Strategy

- 2.11 The approved foul water drainage strategy is to discharge foul flows from the development site to the existing SW manhole ([Ref. 5201]), situated to the east of the site. For the majority of the site, foul flows drain to the pumping station located in the south eastern extent of the site, via gravity. From here, foul flows are pumped northwards to connect into the on-site gravity system before discharging to the SW public foul sewer in Shipley Road.

Flood Risk

Flood Risk

The following paragraphs will identify whether or not there are any flood risks associated with the future development which may affect the proposals impact on the surrounding environment.

- 3.1 This FRA has been prepared in accordance with the National Planning Policy Framework (NPPF) which was published in March 2012 (last updated February 2025) and accompanying Planning Practice Guidance (PPG) Flood Risk and Coastal Change (FRCC) published in March 2014 (last updated September 2025).
- 3.2 Table 1 of the Flood Risk and Coastal Change (FRCC), PPG seeks to define Flood Risk Zones. An extract of this table is shown in Figure 3.1 which follows.
- 3.3 Annex 3 of the FRCC, PPG defines 'Flood Risk Vulnerability Classification'. Whilst Table 2 of the same document compared the suitability of a development within a particular Flood Zone based on its corresponding Flood Risk Vulnerability Classification.
- 3.4 As previously mentioned, the proposals are for 96 residential dwellings plus associated infrastructure.
- 3.5 The Environment Agency (EA) Flood Map demonstrates that the site lies within Flood Zone 1 and is therefore classified as having less than a 1 in 1,000 annual probability of flooding from rivers or seas. A copy of the EA Flood Map covering the immediate surrounding area for the proposed development is shown in **Appendix D**.
- 3.6 According to Annex 3, residential dwellings are classified under the 'More Vulnerable' category, which is considered to be appropriate for development within Flood Zone 1 (Table 2). Therefore, there is no need to carry out a Sequential Test or Exception Test.

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 0.1% annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map for Planning – all land outside Zones 2, 3a and 3b)
Zone 2 Medium Probability	Land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding. (Land shown in light blue on the Flood Map)
Zone 3a High Probability	Land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: • land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or • land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

Figure 3.1: Flood Zone Definitions - Planning Practice Guidance Extract

Risk of Flooding to the Development from Known Sources

- 3.7 Notwithstanding the above, presented below is a summary and analysis of the potential for the site to flood from known sources.

Flooding from Rivers and/ or Watercourses

- 3.8 The topographical survey identifies sections of ditch adjacent to the western, eastern and southern boundaries of the site.
- 3.9 The nearest EA designated main river is the River Adur which is located approximately 3.4km to the south of the site.
- 3.10 As previously mentioned, the EA flood mapping show that the application site is situated in Flood Zone 1, land which has less than a 1 in 1,000 annual probability of river or sea flooding. On this basis, it is therefore concluded that the site is not at risk of flooding from this source.

Flooding from the Sea

- 3.11 The nearest sea to the site is the English Channel, which is located approximately 22km to the south. Given this distance and the fact that the site lies above 50m AOD; the proposed residential scheme is not considered to be at risk of flooding from this source.

Flooding from Land

- 3.12 The potential for overland flows needs to be considered to ensure that neither the development nor adjacent land and/ or property, including that which may be under the responsibility of a third party, is placed at an unacceptable risk of flooding.
- 3.13 The EA Surface Water Flood Map for the site, which is enclosed in **Appendix E**, shows that the majority of the development site is not at risk of surface water flooding. However, a small area in the north eastern corner of the site is identified as being at low to high risk of flooding. In addition, a small area in the north western extent of the site which is also shown to be at low to high risk of flooding.

- 3.14 It should be noted that there are no proposed dwellings within any of the areas shown to be at risk of surface water flooding.
- 3.15 At the detailed design stage, final external levels will be designed to ensure that surface water flows are routed away from any vulnerable areas and directed towards the proposed drainage network.

Flooding from Groundwater

- 3.16 Phase 1 and 2 Site Appraisals for the site were prepared by GRM Development Solutions Limited (GRM) in February 2020 and September 2021, respectively. From the Phase 2 Site Appraisal it is noted that groundwater seepage was not observed in any of the exploratory holes. Relevant extracts from the GRM reports are included in **Appendix F**.
- 3.17 In addition to the above, the Horsham District Council Strategic Flood Risk Assessment (SFRA) notes that there are no records of groundwater flooding within the study area.
- 3.18 Based on the information above, it is considered that the site is not at risk of groundwater flooding.

Flooding from Sewers

- 3.19 A copy of the SW Wastewater Plan illustrating the site extents and the immediate surrounding areas on Ordnance Survey (OS) mapping; together with approximate locations of SW assets is enclosed in **Appendix G**. From the plan, it can be seen that there are no SW assets located within the site boundary.
- 3.20 SW sewer records indicates the presence of existing surface and foul water sewers in Shipley Road to the east of the site.
- 3.21 The SFRA did not identify any historic sewer flooding incidents in the vicinity of the site. It is therefore considered that the site is not at risk of flooding from this source.

Flooding from Reservoirs, Canals and Other Artificial Sources

- 3.22 The EA Reservoir Flood Map shows that the site is not at risk of flooding from reservoirs. A copy of this mapping is enclosed in **Appendix H**.
- 3.23 It should be noted that an occurrence of flooding from reservoirs is considered by the EA to be extremely rare. There has been no loss of life in the UK from reservoir flooding since 1925.
- 3.24 Based on the above information, it is concluded that the risk of reservoir flooding to the site is low.

Proposed Drainage Strategy



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Proposed Development Drainage Strategy

The following paragraphs will provide detail on the proposed site surface water drainage strategy which follows the general principles of the previous FRA and subsequent Addendums with some amendments as necessary.

Surface Water Drainage Strategy

- 4.1 The surface water drainage strategy has been developed in accordance with the hierarchy for sustainable surface water disposal which states that the first choice for surface water disposal which should be pursued is via infiltration. Only where it has been determined that the ground conditions are not suitable should the second choice of disposal to a ditch and/or watercourse be considered. If there is no alternative, the third and last choice of disposal to the public sewer can be considered.
- 4.2 The approved FRA confirms that the underlying ground conditions are not suitable for infiltration drainage. As such, and in line with the hierarchy for surface water disposal and the previously approved drainage strategies, surface water runoff from the site will be discharged into the existing ditch network located along the southern and eastern site boundaries.
- 4.3 The latest drainage strategy for the application site, which has been prepared by WH, is shown on the drawings provided in **Appendix I**.
- 4.4 In line with the previously approved reserved matters drainage strategy, the proposed development will be served by two surface water drainage networks. Runoff from the majority of the site will be conveyed, via a gravity system, towards Attenuation Basin 1 or Attenuation Basin 2, both situated in southern extent of the site.
- 4.5 Basin 1, located in the south western extent of the site, will provide approximately 704m³ of surface water storage and will be constructed to a depth of 0.75m with 1 in 3 side slopes.
- 4.6 Surface water flows from Basin 1 will then be routed outfall in the south eastern corner of the site via Basin 2. Basin 2 is located in the south eastern extent of the site, will provide approximately 884m³ of storage, and will be constructed to a depth of 1.05m with 1 in 3 side slopes.
- 4.7 The proposed basins also incorporate a permanently wet ecology/biodiversity area, a low flow channel and a pre-treatment forebay (lined with check-dam).
- 4.8 The site's surface water flows will ultimately discharge to the existing ditch which runs adjacent to the southern site boundary. A short connecting ditch section is proposed downstream of Basin 2 to tie into the existing watercourse. Flows from this catchment will be restricted to 19.5l/s in line with the previously approved runoff rate for the catchment.

- 4.9 Flows from the northern drainage catchment will be conveyed, via a gravity network towards the existing watercourse alongside the eastern site boundary, via a new ditch which is proposed to tie into the existing watercourse. Runoff into the existing watercourse will be restricted to a rate of 1.7l/s (which is equivalent to Qbar rate of 5.1l/s/ha).
- 4.10 Surface water flows from this catchment will be attenuated within the proposed geocellular crates situated beneath the open space area to the east of the access road.
- 4.11 The surface water drainage calculations are provided in **Appendix K**. The calculations demonstrate that it is fully achievable to attenuate surface water discharge from the development during all events up to and including a 1 in 100 year event plus 40% climate change and 10% urban creep allowances on all impermeable areas whilst restricting discharge to the corresponding Qbar greenfield runoff rate (5.1l/s/ha).

Foul Water Drainage Strategy

- 4.12 In line with the previously approved reserved matters drainage strategy, it is proposed to discharge foul flows from the development site to the existing SW manhole (Ref. 5201), located in Shipley Road to the east of the site. For the majority of the site, foul flows will drain to the pumping station located in the south eastern extent of the site, via gravity. From here, foul flows will be pumped northwards to connect into the on-site gravity system before discharging to the SW public foul sewer in Shipley Road.
- 4.13 The proposed foul drainage strategy shown on the Drainage Strategy Drawing provided in **Appendix I**.

Foul Water Drainage Maintenance

- 4.14 In anticipation that the proposed residential development will be connected to the SW public foul sewer network; it is considered reasonable to expect SW will act in their full capacity as the wastewater provider for the local area, to ensure that maintenance of their public sewers will be carried out as required from the point at which the private sewer outfalls connect to the public sewer network.

Maintenance and Management



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Maintenance and Management

The following paragraphs provide detail on the proposed maintenance and management measures for the proposed SuDS features.

- 5.1 The onsite surface water drainage network including pipes, flow controls, headwalls, will be offered to Southern Water for adoption under Section 104 of the Water Industry Act. These systems will be subject to the maintenance regime of SW which is subject to regulatory approval.
- 5.2 The proposed geocellular crates and attenuation basin will be maintained by a Management Company.
- 5.3 The maintenance regime defines the scope of inspections and maintenance that is to be carried out on the surface water network. During and following construction, the stormwater drains will need to be regularly inspected in order to assess their performance and to schedule any required maintenance.
- 5.4 Items that are subjected to routine inspections for maintenance may comprise, but not limited to those listed in the table on the next page, the party that will potentially be responsible for the various components are listed in the fourth column.

Item	Routine Inspections for Maintenance	Min. Frequency	Responsibility
Pipes / Manholes / Gullies	Inspect surface access points to manholes and gullies as well as the surrounding area. Particular attention should be paid to damage or blockage. To be visually inspected after heavy rainfall events to ensure that they are free of debris and litter.	6 monthly As required	Southern Water
Attenuation Basin	Inspect basin for level of silt build up, general litter/debris build up and erosion or damaged areas. To be visually inspected after heavy rainfall events to ensure that they are free of debris and litter.	6 monthly As required	Management Company
Flow Control Device	Inspect flow control devices and grill for blockages damage and general condition. To be visually inspected after heavy rainfall events to ensure they are free of debris and litter.	6 monthly As required	Southern Water
Headwalls	Inspect headwalls and flap valves for signs of deterioration (scouring), blockage or damage. To be visually inspected after heavy rainfall events to ensure they are free of debris and litter.	6 monthly As required	Southern Water
Geocellular Crates	Inspect crates via upstream manhole for silt/debris build up and general condition. To be visually inspected after heavy rainfall events to ensure they are free of debris and litter.	6 monthly As required	Management Company

- 5.5 In addition, personnel completing the routine inspections for maintenance should be generally observant of items such as equipment failures, leaking water, scouring and/or signs of blockages of water flow. If such items are observed, an immediate inspection for engineering maintenance may be necessary.
- 5.6 Engineering inspections will generally comprise a walk over survey of the site, along with additional investigation activities as considered necessary. These inspections are primarily concerned with checking engineering aspects of the drainage that are not likely to be picked up during a routine inspection such as manhole damage and concrete deterioration.
- 5.7 During inspections for engineering maintenance, care is needed to look for signs of pipe blockages. This can only be checked at the inlet and outlet of manholes at the base. Items that are to be subject to Engineering Inspections for Maintenance will comprise of those listed in the table below:

Item	Engineering Inspections for Maintenance
Manholes / Gullies	All manholes/gullies will require to be inspected externally and internally. External inspections will determine the overall condition of the access points, and should record deterioration of exposed concrete, access lids, restricted access due to overgrown vegetation/debris.
Attenuation Basin	Inspections will determine the overall condition of the basin to ensure it is free from silt/debris build up, restricted access/flow due to overgrown vegetation/debris and should record any deterioration/erosion.
Flow Control Device	Inspections will determine the overall condition of the flow control device to ensure it is working efficiently and effectively.
Headwalls	Inspections will determine the overall condition of the headwalls and flap valves and should record deterioration of exposed concrete, evidence of exposed reinforcement or concrete staining due to deteriorating reinforcement below the surface, damage to flap valves and restricted access/flow due to overgrown vegetation/debris.
Geocellular Crates	Inspect via inspection chambers/accesses and upstream manhole will determine the overall condition of the geocellular crates to ensure it is free from silt/debris build up and should record any defects/deterioration.

- 5.8 As a result of the routine inspections, a schedule of maintenance activities shall be drawn up to address those issues identified during the inspection. Examples of possible maintenance activities may comprise, but not be limited to those listed in the table below:

Item	Scheduled Maintenance Activities	Min. Frequency
Manholes / gullies	Clear accumulated sedimentation	6 monthly
	Repair/replace damaged pit covers and grates	As required
Pipes / Flow Control Device	Clear accumulated sediment and debris	6 monthly
Attenuation Basin	Clear accumulated sediment and debris	6 monthly
Headwalls	Repair/replace damaged flap valves	6 monthly
	Clear vegetation/debris from outlet pipe/flap valve	As required
Geocellular Crates	Clear accumulated sedimentation	6 monthly
	Clear accumulated debris	Monthly

- 5.9 The table below highlights the likely renewal and replacement works that will be required and how this work will be funded.

Item	Renewal & Replacement Works	Undertaken / Financed by
Flow Control Device	Flow control to be replaced by a competent Contractor to the manufacturer specification	Southern Water will be responsible for the repair and replacement of the flow control device after the manufacturer's warranty expires.
Attenuation Basin	Build up of embankments due to erosion with suitable material	Work to be undertaken by Management Company

Summary and Conclusion

Summary and Conclusions

The following paragraphs summarise the findings of this Flood Risk Assessment and Drainage Strategy. Details of foul and surface water outfalls and SuDS features are also provided.

- 6.1 This Flood Risk Assessment (FRA) and Drainage Strategy has been prepared by Woods Hardwick Ltd (WH) on behalf of Barratt Redrow Southern Counties in support of their Reserved Matters application for a proposed residential development on a site known as 'Rascals Farm, Southwater'.
- 6.2 The application site benefits from Outline Planning permission (Ref: DC/20/0695), with all matters reserved except for access (excluding internal estates roads) for the erection of up to 100 residential units, with the associated vehicular and pedestrian access, which was approved at appeal (ref: APP/Z3825/W/20/3257700) in August 2021. A subsequent Non-Material Amendment (ref: DC/21/2126) to planning permission DC/20/0695 and Reserved Matters approval (Ref: DC/24/0249) was granted in October 2021 and June 2025, respectively.
- 6.3 The site has now been acquired by Barratt Redrow Southern Counties who are seeking Reserved Matters approval for an amended scheme comprising 96 dwellings and associated infrastructure.
- 6.4 In terms of flood risk, the application site is wholly situated in Flood Zone 1, land which has less than a 1 in 1,000 annual probability of river or sea flooding.
- 6.5 All other potential sources of flooding to the proposed development have been considered and it has been demonstrated that the site will not be at any significant risk of flooding.
- 6.6 It has been demonstrated that the proposed development will not exacerbate the risk of flooding to third parties either upstream or downstream from the site.
- 6.7 The Surface Water Drainage Strategy has been developed in accordance with the hierarchy for sustainable surface water disposal and the previously approved drainage strategies.
- 6.8 The approved FRA confirms that the underlying ground conditions are not suitable for infiltration drainage. Therefore, surface water runoff from the site will be discharged into the existing ditch network located along the southern and eastern site boundaries.
- 6.9 The proposed development will be served by two surface water drainage networks. Runoff from the majority of the site will be conveyed, via a gravity system, towards Attenuation Basin 1 or Attenuation Basin 2, both situated in southern extent of the site.

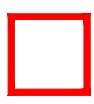
- 6.10 The site's surface water flows will ultimately discharge to the existing ditch which runs adjacent to the southern site boundary. A short connecting ditch section is proposed downstream of Basin 2 to tie into the existing watercourse. Flows from this catchment will be restricted to 19.5l/s in line with the previously approved runoff rate for the catchment.
- 6.11 Flows from the northern drainage catchment will be conveyed, via a gravity network towards the existing watercourse alongside the eastern site boundary, via a new ditch which is proposed to tie into the existing watercourse. Runoff into the existing watercourse will be restricted to a rate of 1.7l/s (which is equivalent to Qbar rate of 5.1l/s/ha).
- 6.12 Surface water flows from this catchment will be attenuated within the proposed geocellular crates situated beneath the open space area to the east of the access road.
- 6.13 The surface water drainage calculations demonstrate that it is fully achievable to attenuate surface water discharge from the development during all events up to and including a 1 in 100 year event plus 40% climate change and 10% urban creep allowances on all impermeable areas whilst restricting discharge to the corresponding Qbar greenfield runoff rate (5.1l/s/ha).
- 6.14 The proposed foul drainage strategy is to discharge foul flows from the development site to the existing SW manhole (Ref. 5201), located in Shipley Road to the east of the site. For the majority of the site, foul flows will drain to the pumping station located in the south eastern extent of the site, via gravity. From here, foul flows will be pumped northwards to connect into the on-site gravity system before discharging to the SW public foul sewer in Shipley Road.
- 6.15 From the information provided within this report, it is concluded that there is no reason in terms of drainage or flood risk why the residential development proposed on 'Rascals Farm, Southwater', should not be fully supported through the planning process.**

Appendix A

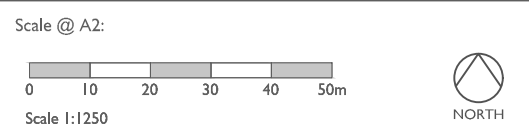
Site Location Plan



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 SITE BOUNDARY
14.855ac / 6.012ha

WHAT3WORDS:
///uproot.plotted.adventure



Rev	Date	Drawn	Checked
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Date:	OCTOBER 2025
Drawn by :	KJM
Checked by :	BB
Drg No:	CB_17_420_600
Rev:	-

Project:
RASCALS FARM, SHIPLEY ROAD,
SOUTHWATER, WEST SUSSEX

SITE LOCATION
PLAN



Please note these drawings are not for construction but for concept design and planning applications purposes only.
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Appendix B

Decision Notices



Appeal Decision

Hearing Held on 14-15 April 2021 and 9 June 2021

Site visit made on 16 April 2021

by Christopher Miell MPlan MRTPI

an Inspector appointed by the Secretary of State

Decision date: 2 August 2021

Appeal Ref: APP/Z3825/W/20/3257700

Rascals Farm, Shipley Road, Southwater RH13 9BG

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant outline planning permission.
 - The appeal is made by Catesby Strategic Land Limited against the decision of Horsham District Council.
 - The application Ref DC/20/0695, dated 30 March 2020, was refused by notice dated 7 July 2020.
 - The development proposed is an outline application with all matters reserved except for access (excluding internal estates roads), for the erection of up to 100 residential units, with the associated vehicular and pedestrian access.
-

Decision

1. The appeal is allowed and outline planning permission with all matters reserved except for access (excluding internal estates roads) is granted for the erection of up to 100 residential units, with the associated vehicular and pedestrian access at Rascals Farm, Shipley Road, Southwater RH13 9BG in accordance with the terms of application, Ref: DC/20/0695, dated 30 March 2020, subject to the schedule of conditions attached to this decision.

Procedural Matters

2. Outline planning permission is sought with all matters reserved except for access. In determining this appeal, I have had regard to the proposed site plans and the landscape masterplan but have regarded all elements of these drawings as indicative apart from the details of the proposed access.
3. At the hearing, the appellant submitted a completed section 106 legal agreement. The Council advised that the legal agreement overcomes the third reason for refusal, which relates to planning obligations. I do not disagree with the views of the Council in respect of this matter and hence it does not fall to be considered as a main issue. Nevertheless, I return to planning obligations later in my Decision.
4. As part of the appeal, the appellant has provided an amended masterplan¹, which shows an alternative way in which the appeal site could be developed. As the amended plan does not evolve the extent of residential development proposed, nor does it change the proposed access arrangements, and the nature of the concerns of those who would normally have been consulted are

¹ Drawing no: MP-01 REV:P7

clear from consultation on the original set of plans, I do not consider that their interests would be prejudiced if I determine the appeal taking account of the amended masterplan. Nevertheless, given that outline planning permission is sought with all matters reserved except for access, in determining this appeal, I will have had regard to all elements of this drawing as indicative apart from the details of the proposed access.

5. The first and second reason for refusal includes reference to Policy 27 of the Horsham District Planning Framework 2015-2031 (the 'HDPF'). However, Policy 27 is a strategic policy which relates to settlement coalescence. At the hearing, the Council explained that the inclusion of this policy was a typographical error and that it should be struck from the respective reasons for refusal. I have dealt with the appeal on this basis.

Planning Policy

6. The National Planning Policy Framework (the 'Framework') was revised in July 2021. It is incumbent on me to take into account the most relevant and up to date information in reaching a decision and I have therefore dealt with the appeal on this basis. The main parties have had an opportunity to address this matter as part of the appeal process.
7. The Council have commenced a review of HDPF and the draft plan prepared sets out the Council's planning policies and proposals to guide development up to 2038. At the hearing, the Council explained that the examination of the plan was expected to take place in Spring 2022. However, following the recent revisions to the Framework, the Council have advised that the local plan review has been postponed². Accordingly, it is unclear when the local plan review will occur.
8. On 6 May 2021 local referendums were held in respect of the Shipley Neighbourhood Plan (the 'Shipley NP') and the Southwater Neighbourhood Plan (the 'Southwater NP'). In both referendums, the majority of those who voted were in favour of the draft neighbourhood plan.
9. The Planning Practice Guidance (the 'PPG') explains that a neighbourhood plan comes into force as part of the statutory development plan once it has been approved at referendum. An Order must be made by the local authority before it has effect³. In this instance, both neighbourhood plans were formally made at Full Council on 23 June 2021.
10. Despite the location of Rascals Farm on the edge of Southwater, the appeal site falls within the neighbourhood area of the Shipley NP. Accordingly, the Shipley NP forms part of the development plan.
11. For the avoidance of doubt, the appeal site falls outside of the neighbourhood area of the Southwater NP. Consequently, it is a matter of fact that the Southwater NP does not form part of the development plan for the appeal site.

² Press Release from Horsham District Council dated 28 July 2021

³ PPG Paragraph: 064 – Reference ID: 41-064-20170728 (Revision date: 28 July 2017)

Main Issues

12. The main issues are:

- whether the proposed development would provide a suitable location for housing with particular reference to the spatial and locational strategies in the development plan;
- the effect of the development upon the character and appearance of the area; and
- if harm arises, whether this is outweighed by other material considerations, including whether the Council is able to demonstrate a five-year supply of deliverable housing sites.

Reasons

The spatial and locational strategy

13. The appeal site is located to the west of Shipley Road, on the south western edge of the settlement of Southwater. However, the site falls within the administrative boundary of Shipley Parish.
14. It is proposed to erect up to 100 dwellings at the appeal site, which would include 35% affordable housing. The development would be served by a new two-lane access on to Shipley Road, which would be positioned in a similar location to the existing access track. As part of the development off-site highway improvements would be undertaken, which would be secured as part of the legal agreement.
15. Policy 2 of the HDPF is a strategic policy which seeks to maintain the District's unique rural character whilst ensuring that the needs of the community are met through sustainable growth and suitable access to services and local employment. Amongst other things, the spatial strategy focuses development in and around the key settlement of Horsham and allows for growth in the rest of the district in accordance with the identified settlement hierarchy, this includes around 600 dwellings West of Southwater to meet the strategic requirement for new homes.
16. Policy 3 of the HDPF is a strategic policy which sets out the development hierarchy across the District. The settlement of Southwater is identified as one of the District's Small Towns and Large Villages. The policy states that development will be permitted within towns and villages which have defined built-up areas.
17. The supporting text to Policies 3 and 4 explains that the HDPF seeks to ensure development takes place in a manner that ensures that the settlement pattern and the rural landscape character of the District is retained and enhanced, but still enables settlements to develop in order for them to continue to grow and thrive. The mechanism by which this will be achieved is through the designation of built-up area boundaries and the planned expansion of existing settlements through the Local Plan or Neighbourhood Planning. Within built-up area boundaries development is accepted in principle, whereas land outside these boundaries is considered to be in the countryside and development will be more strictly controlled.

18. Policy 4 of the HDPF is a strategic policy which relates to settlement expansion. It states that the growth of settlements across the District will continue to be supported in order to meet identified local housing, employment and community needs. Outside built-up area boundaries, the expansion of settlements will be supported where it meets five criteria. Amongst other things, they state (1) the expansion of settlements will be supported where; the site is allocated in the Local Plan or in a Neighbourhood Plan and adjoins an existing settlement edge.
19. The appeal site adjoins the existing settlement edge of Southwater. However, the site falls outside of the built-up area boundary of Southwater and is therefore not allocated for housing in the Local Plan. In terms of a Neighbourhood Plan, the appeal site falls within the neighbourhood area of the Shipley NP. However, the Shipley NP does not allocate housing sites, nor does it establish a housing target for the Parish. Instead, Policy Ship HD1 directs new housing development within existing settlements through infill or the use of previously developed land. The policy does not support the outward extension of the Parish's villages or hamlets onto greenfield land.
20. Policy 15 of the HDPF sets out the Council's housing requirement for the period up to 2031. In addition to strategic sites, it requires that at least 1500 homes will be achieved through neighbourhood planning allocations and a further 750 homes through windfall units.
21. Policy 26 of the HDPF is a strategic policy which relates to countryside protection. It states that built-up area boundaries, the rural character and undeveloped nature of the countryside will be protected against inappropriate development. It sets out a list of four criteria where development outside of development boundaries may be permitted. At the hearing, the parties agreed that the proposal does not meet any of the exceptions listed.
22. The appeal site is located outside of built-up area boundary for Southwater and it is not allocated for housing within HDPF or the Shipley NP. Accordingly, the proposal would conflict with the Council's spatial strategy for new housing development as set out by Policies 2, 3 and 4 of the HDPF. Moreover, the proposal does not meet any of the exceptions for new development in the countryside set out by Policy 26 of the HDPF. Consequently, the proposal would not accord with this policy.
23. In conclusion, the proposals would be at odds with the spatial and locational strategies for housing in the development plan, which includes the recently adopted Shipley NP. Consequently, the proposal would harmfully undermine the public interest in having a planning system that is genuinely plan led. In this respect, the proposed development would not provide a suitable location for housing with particular reference to the spatial and locational strategies in the development plan.

Character and appearance

24. The appeal site is located within the countryside on the edge of Southwater. It has an area of approximately 6 hectares and a private track off Shipley Road provides access to an existing dwelling and outbuildings which are located at the site. The private track and a green corridor, comprising of a tree belt and mature hedgerows, acts to separate the appeal site into two distinctive fields, which have different characteristics.

25. The smaller field at the northern part of the site is enclosed by ancient woodland to the north and western boundaries with the tree belt to the south. Whilst the larger southern field, which includes the existing dwelling and outbuildings, is predominately used as a series of paddocks that are defined by post and rail fencing. The paddocks are enclosed by mature trees and established soft landscaping to the south and both sides, which includes the ancient woodland to the west of the appeal site.
26. The Council explain that Public Right of Way (PRoW) 1889 enters the site from Shipley Road and runs east-west at the edge of Rascals Woods and the northern boundary of the site. It leads into a network of public rights of way including PRoW 1888 and other well used informal paths within the woods.
27. The appeal site falls within the Landscape Character Area G4: Southwater and Shipley Woodland Farmlands, as identified by the Horsham District Landscape Character Assessment (the 'LCA'). The LCA explains that the landscape character area is gently undulating with a strongly wooded landscape with many small to medium sized woodland blocks enclosing an irregular pattern of pasture fields. It notes that due to the enclosing presence of woodlands, views are confined.
28. The LCA identifies several 'key issues' in respect of the landscape character area, which includes the potential pressure for urban development around Southwater. In terms of the landscape character area's sensitivity to change, the LCA states that the area's sensitivity to change is high reflecting the area's many intrinsic landscape qualities.
29. The appeal site is not within a designated landscape⁴, nor does it border such an area. Nevertheless, given its openness and large number of landscape features, such as the green corridor through the site, the appeal site contributes positively and distinctively to the semi-rural character at the settlement edge of Southwater.
30. Paragraph 174(b) of the Framework recognises the important value of the countryside and states that "planning policies and decisions should contribute to and enhance the natural and local environment by recognising the intrinsic character and beauty of the countryside."
31. The Council's spatial strategy is consistent with the aims of paragraph 174(b) and this is reflected by Policy 25(1) of the HDPF which states that the "The Council will support development proposals which: (1) Protects, conserves and enhances the landscape and townscape character, taking into account areas identified as being of landscape importance, the individual settlement characteristics, and maintains settlement separation".
32. On my site visit, I walked along the respective PRoWs as requested by the Council and other local residents. When walking along PRoW 1889, there were uninterrupted views of the appeal site's northern field, which for the most part is an area of unmanaged species rich mesotrophic grassland, in addition, the existing tree belt and surrounding ancient woodland formed strong landscape features, which enclosed the space. Moreover, as I walked through the ancient woodland, I observed that the views of the appeal site could be observed

⁴ See Paragraph 176 of the Framework

- through the trees. Accordingly, the proposed development would be readily perceived by users of the PRow, including from within the ancient woodland.
33. The proposed development would introduce residential development within a countryside location which forms part of the south western settlement edge of Southwater. The overall extent of the development would be significant and it would substantially erode the semi-rural character of the immediate area.
34. However, the appeal site is visually well contained due to its topography and the extent of existing landscape features, including the areas of ancient woodland to the north and western boundary and mature trees and extensive soft landscaping to the south and eastern boundaries of the site. Accordingly, views of the proposed development would be localised. Nevertheless, when viewed from local receptors, including from the network of PRows and from the southern approach into Southwater via Shipley Road, the proposal would result in harm through the urbanisation of this part of the settlement edge.
35. In conclusion, the proposed development would significantly erode the semi-rural character of the immediate area by developing the countryside on the south western edge of Southwater. This loss of countryside would be particularly apparent to users of the local PRow network and from the southern approach into the settlement. Therefore, the proposed development would result in harm to the character and appearance of the area. As such, the proposal would conflict with Policy 25 of the HDPF, which requires development proposals to protect, conserve and enhance the landscape and townscape character of the District. In addition, the proposal would not accord with Policy 26 of the HDPF which aims to protect the rural character and undeveloped nature of the countryside against inappropriate development outside of built-up area boundaries.
36. For these reasons, the proposal would also be inconsistent with paragraph 174(b) of the Framework.
37. At the hearing, the Council argued that the proposal would conflict with Policy Ship HD3 of the Shipley NP. However, policy relates to high quality design, as opposed to development within the countryside. Accordingly, this policy is not relevant to this main issue. Detailed details matters could be dealt with at reserved matters stage.

Other Considerations

Whether the Council can currently demonstrate a five-year housing land supply

38. At the hearing, the main parties agreed that the correct five-year period to be used for the purpose of calculating the Council's five-year housing land supply position was 1 April 2020 – 31 March 2025.
39. Paragraph 74 of the Framework states that "Local planning authorities should identify and update annually a supply of specific deliverable sites sufficient to provide a minimum of five years' worth of housing against their housing requirement set out in adopted strategic policies, or against their local housing need where the strategic policies are more than five years old. The supply of specific deliverable sites should in addition include a buffer".
40. The HDPF was adopted in November 2015. The plan became five years old on 27 November 2020. Therefore, the strategic policies are more than five years

old. Consequently, having regard to paragraph 74 of the Framework, the Council's housing requirement should be calculated according to local housing need.

41. Footnote 39 of the Framework clarifies that "Where local housing need is used as the basis for assessing whether a five-year supply of specific deliverable sites exists, it should be calculated using the standard method set out in national planning guidance."
42. At the hearing, the main parties agreed that the local housing need should be 897 dwellings per annum ('dpa')⁵ for the entire five-year period with a buffer of 5%, which would ensure choice and competition in the market for land. This gives a total requirement including the buffer of 4709 dwellings over the five-year period from 1 April 2020 – 31 March 2025.
43. Following the hearing, the appellant has drawn my attention to a statement of common ground, dated 24 June 2021, which was submitted to the Planning Inspectorate by the Council in respect of an appeal⁶ at a different site within the District. The document states that the local housing need should be 902 dpa for the entire five-year period, which including a 5% buffer, gives a total requirement of 4735 dwellings over the five-year period from 1 April 2020 – 31 March 2025.
44. However, I am not aware of the full circumstances of that case and why the Council agreed to a slight increase to the local housing need from 897 dpa to 902 dpa. Accordingly, for the purposes of this appeal, I will use the local housing need of 897 dpa, which gives a total requirement including the 5% buffer of 4709 dwellings over the five-year period.
45. Before the hearing, the Council's position was that they could demonstrate a supply of 4874 dwellings, which equated to a housing land supply of 5.24 years. However, the Council's latest position⁷ is that it can demonstrate a supply of 4714 dwellings. This is a surplus of 5 dwellings for the five-year period and equates to a supply of approximately 5.01 years.
46. The appellant argues that the Council is unable to demonstrate a five-year supply of deliverable housing sites. It is his position that the Council have a supply of 3340 dwellings, which equates to a supply of approximately 3.5 years.
47. The areas of dispute between the main parties cover strategic allocations, a large site, neighbourhood plan allocations and windfall development. I have considered these matters on the basis of the 1 April 2020 base date.
48. Annex 2: Glossary of the Framework states that "To be considered deliverable, sites for housing should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years. In particular:
 - a) sites which do not involve major development and have planning permission, and all sites with detailed planning permission, should be considered deliverable until permission expires, unless there is clear evidence

⁵ Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority – Appendix 1

⁶ Appeal Ref: APP/Z3825/W/20/3261401

⁷

that homes will not be delivered within five years (for example because they are no longer viable, there is no longer a demand for the type of units or sites have long term phasing plans).

b) where a site has outline planning permission for major development, has been allocated in a development plan, has a grant of permission in principle, or is identified on a brownfield register, it should only be considered deliverable where there is clear evidence that housing completions will begin on site within five years.”

49. The PPG goes on to state that “Such evidence, to demonstrate deliverability, may include: current planning status – for example, on larger scale sites with outline or hybrid permission how much progress has been made towards approving reserved matters, or whether these link to a planning performance agreement that sets out the timescale for approval of reserved matters applications and discharge of conditions; firm progress being made towards the submission of an application – for example, a written agreement between the local planning authority and the site developer(s) which confirms the developers’ delivery intentions and anticipated start and build-out rates; firm progress with site assessment work; or clear relevant information about site viability, ownership constraints or infrastructure provision, such as successful participation in bids for large-scale infrastructure funding or other similar projects.”⁸

Strategic Allocation: Land at North Horsham

50. The Land at North Horsham is a strategic allocation which has outline planning permission⁹ for up to 2750 dwellings. The reserved matters area plan¹⁰ shows that development will be delivered in ten phases, which are shown on the plan as ‘RM Area 1’ through to ‘RM Area 10’. As part of the development significant infrastructure will be delivered, which includes a footbridge/cycle bridge across the A264, which is expected to be installed this year, and a secondary school, which is expected to be completed in January 2022.
51. The main parties disagree on whether 700 dwellings at this site would be completed by 31 March 2025. The appellant contends that 83 dwellings will be delivered over the five-year period. If this were to be the case, it would result in a deficit of 617 dwellings.
52. The appellant explains that the Council’s calculation of 700 dwellings is based on expected completions at a rate of 25 dpa this year (2021/22), with a rise in delivery to 175 dpa for the following monitoring year (2022/23) and then 250 dpa for the two monitoring years thereafter (2023/24 and 2024/25). This has not been disputed by the Council.
53. At the hearing, the Council explained that one reserved matters application¹¹ for 193 dwellings had been approved in January 2021, which covers RM Area 1 and a further reserved matters application¹² for 197 dwellings was expected to be approved in June 2021, which covers RM Area 2. At the time of writing, I

⁸ PPG Paragraph: 007 – Reference ID: 68-007-20190722 (Revision date: 22 July 2019)

⁹ Council Ref: DC/16/1677/OUT

¹⁰ Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority – Appendix 5

¹¹ Council Ref: DC/20/2047/REM

¹² Council Ref: DC/21/0066/REM

- have been provided with no evidence by the Council to confirm that the latter reserved matters application has been approved.
54. In addition, the Council state pre-application discussions have been recently held with Legal and General Suburban Build to Rent ('L&G SBTR') and Legal and General Affordable Homes ('L&G AH') in respect of the reserved matters applications for RM Area 6 and RM Area 7. Collectively, these developments would provide 219 dwellings.
55. Legal and General explain that the dwellings would be of a modular construction and partly constructed off site and then components would then be transported and assembled on-site. Consequently, the modular dwellings can be constructed in approximately half of the time, when compared to traditional construction.
56. The pre-construction programme provided by Legal and General¹³ sets out that a reserved matters application will be submitted in June 2021, with site set-up and infrastructure provision occurring between December 2022 and March 2022. Given the modular construction, the Council expects all of the 219 dwellings to be completed by September 2023.
57. The respective developments that will take place at these four different areas (RM Area 1, RM Area 2, RM Area 6 and RM Area 7) will be undertaken by four different developers. If all of the respective developments over the four areas were all completed within the five year period up to 31 March 2025, this would provide a total of 609 dwellings.
58. The Council state that additional homes would be built in future phases and explain that pre-application advice has recently been given to a fifth developer for a further 178 homes to be developed on RM Area 1E of the site. Accordingly, they are satisfied that 700 dwellings will be delivered at the strategic allocation over the five-year period.
59. Given the significant infrastructure work and site preparation that has been undertaken to support large scale development at the strategic allocation, which includes the construction of a school and bridge across the A264, and, the fact the development of the respective RM Areas will be undertaken by different developers, I cannot agree with the appellant's position that only 83 dwellings will be delivered over the five-year period. This would equate to just over 20 dpa over the next four years, which is an unrealistically low estimate.
60. The evidence before me demonstrates that firm progress has been made in respect of the delivery of housing at RM Area 1 with detailed planning permission in place for 193 dwellings. In addition, a reserved matters application has been submitted for 197 dwellings at RM Area 2, which is likely to be approved within the coming months. Collectively, these developments would deliver 390 dwellings once completed.
61. Based on the evidence before me, I consider that there is a realistic prospect that the entire 193 dwellings will be delivered at RM Area 1 within the five-year period. In respect of RM Area 2, given that the reserved matters application remains undetermined, even if it were approved in the coming weeks, it is unlikely that any of the dwellings pursuant to the detailed planning permission would be completed this year. However, there appears to be sufficient progress

¹³ Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority – Appendix 6

to suggest that a proportion of those dwellings will be completed within the five-year period. On that basis, I have made a conservative estimate that approximately 100 homes would be delivered at RM Area 2 by 31 March 2025.

62. In respect of the delivery of housing at RM Area 6 and RM Area 7, whilst some progress being made towards the submission of a reserved matters application, this is yet to occur, and the timings set out with Legal and General's pre-construction programme appear to have slipped. Nevertheless, I am mindful the respective development at RM Area 6 and RM Area 7 would provide modular dwellings that would be constructed partially off-site, which would enable fast housing delivery. On that basis, I have made a conservative estimate that approximately 110 homes would be delivered across RM Area 6 and RM Area 7 by 31 March 2025.
63. In respect of RM Area 1E, no clear evidence, such as a planning performance agreement or written agreement between the local planning authority and the site developer(s) which confirms the developers' delivery intentions and anticipated start and build-out rates etc, has been provided by the Council to demonstrate that any of the dwellings will be completed within the five-year period. Accordingly, the submitted details fall short of the clear evidence required such that I therefore discount these 178 dwellings.
64. In conclusion, I have found that clear evidence has been provided which shows that 403 dwellings are deliverable from the Council's supply at Strategic Allocation known as 'Land at North Horsham'. Accordingly, I consider that the Council's supply should be reduced by 297 dwellings as there is not clear evidence that 700 dwellings are deliverable within the five-year period.

Strategic Allocation: Kilnwood Vale – Colegate Reserved Land

65. Kilnwood Vale is large strategic allocation located on the edge of Crawley. The Council relies upon two parts of the Kilnwood Vale site within its five-year housing land supply. They are known as the 'Colegate Reserved Land' and 'Rusper'. I deal with these sites on an individual basis.
66. The main parties disagree on whether 210 dwellings at the Colegate Reserved Land would be completed by 31 March 2025. The appellant contends that 143 dwellings will be delivered over the five-year period. If this were to be the case, it would result in a deficit of 67 dwellings.
67. In October 2018, the Council granted outline planning permission for between 204 and 250 dwellings at the site. In October 2019, the Council granted reserved matters consent¹⁴ for 86 dwellings. In May 2021, the Council granted reserved matters consent¹⁵ for 168 dwellings. The latest reserved matters application for 168 dwellings, superseded the initial reserved matters consent for 86 dwellings.
68. The Council have provided a build-out schedule from Crest Nicholson, dated August 2020, which projects that 218 units will be delivered at the site by 31 March 2025. This exceeds the number of dwellings permitted by the latest reserved matters consent. To this regard, the Council explain that they met with Crest Nicholson in April 2021 to discuss the submission an application for the final section of development at the site. The Council state that they expect

¹⁴ Council Ref: DC/19/0426/REM

¹⁵ Council Ref: DC/20/2223/REM

to receive a full application by July 2021, which would propose in excess of 86 dwellings. The Council state that they would be unlikely to resist such an application at the site, subject to suitable urban design.

69. However, no substantive evidence has been put forward to demonstrate that this full application has been submitted at this time. Accordingly, there is no clear evidence that the additional housing completions proposed as part of the forthcoming planning application will begin on site within five years.
70. As set out above, the appellant contends that 143 dwellings will be delivered at the site over the five-year period. This is marginally below the number of units approved by the detailed planning permission. Having regard to Crest Nicholson's build-out schedule, I am satisfied that sufficient progress has been made to suggest that all 168 dwellings will be completed within the five-year period.
71. On that basis, I consider that the Council's supply should be reduced by 42 dwellings as there is not clear evidence that 210 dwellings are deliverable at the site within the five-year period.

Strategic Allocation: Kilnwood Vale – Rusper

72. The main parties disagree on whether 180 dwellings at this site would be completed by 31 March 2025. If this were to be the case, it would result in a deficit of 180 dwellings.
73. At the hearing, the main parties agreed that no reserved matters applications have been submitted for development within this part of the Kilnwood Vale Strategic Allocation.
74. The appellant has drawn my attention to supporting documentation submitted by Crest Nicholson¹⁶ in respect of a reserved matters application for development at the Colegate Reserved Land, which confirms they have hit unforeseen issues in relation to land remediation within Phases 2 and 3, which will slow the delivery of housing at Kilnwood Vale.
75. This has been acknowledged by the Council, but they argue that the build-out schedule from Crest Nicholson demonstrates that approximately 180 dwellings will be delivered at the site by 31 March 2025. To this regard, the Council argue that if the reserved matters applications for Phases 4 and 5 were submitted in early 2022 and decided by summer 2022, this would allow sufficient time for 180 completions at the site within the five-year period.
76. The build-out schedule from Crest Nicholson predates the supporting documentation submitted in respect of reserved matters application for development at the Colegate Reserved Land. Therefore, I cannot be certain that the build-out schedule takes account of the land remediation issues. Moreover, no reserved matters applications have been submitted for development at the site. Accordingly, no clear evidence has been provided to demonstrate that housing completions will begin on site within five years.
77. On that basis, the submitted details fall short of the clear evidence required such that I therefore discount these 180 dwellings.

¹⁶ Hearing Statement – Housing Land Supply Matters by Neame Sutton (March 2021) – Appendix 9

Large Site: Former Novartis Site

78. Outline planning permission¹⁷ was granted in February 2020 for the erection of up to 300 dwellings, which includes the conversion of existing office buildings, and up to 25,000 square metres of employment floor space. The application was made by West Sussex County Council.
79. The appellant has drawn my attention to paragraph 6.80 of the Council's Committee Report¹⁸ which explains that the development would be phased with the first phase comprising 7,500 sqm of commercial floorspace, followed by the conversion of two existing buildings to residential. However, based on the evidence before me, this does not appear to be a condition of the outline planning permission.
80. At the hearing, the main parties agreed that no reserved matters applications have been submitted in respect of the proposed development. However, the Council explain that the West Sussex County Council have now selected Muse Developments as their delivery partner. Muse Developments¹⁹ explain that a reserved matters application for phase 1, which would comprise of 133 dwellings, will be submitted in November 2021. It is anticipated that construction would begin in August 2022 and the 133 dwellings would be delivered at the site by 2023/24.
81. Whilst some progress has been made towards the submission of a reserved matters application, this is yet to occur, and the timings set out with the email provided by Muse Development lacks substantive detail. Nevertheless, I am satisfied that a proportion of the phase 1 housing completions will begin on site within five years. As such, I have made a conservative estimate that approximately 67 homes would be delivered at the site by 31 March 2025.
82. On that basis, I consider that the Council's supply should be reduced by 66 dwellings as there is not clear evidence that 133 dwellings are deliverable at the site within the five-year period.

Neighbourhood Planning

83. The Council contends that the source of supply attributed neighbouring planning allocations should be 332 dwellings over the five-year period. The appellant argues that it should be reduced to 129 dwellings. If this were to be the case, it would result in a deficit of 203 dwellings.
84. The Land North of Passonage Farm is allocated in the Henfield Neighbourhood Plan (the 'Henfield NP') for approximately 205 dwellings. An email²⁰ from the planning agent explains that the developer intends to submit an outline planning application for 230 dwellings in June/July 2021 with an anticipated start date of Winter 2022/23 and completion at Winter 2024/25. At this time, I have not been made aware of the submission of an outline application at site. Nevertheless, it is clear that firm progress has been made towards the submission of an application and I am satisfied that the Council's estimate that 40 dwellings would be delivered at the site by 31 March 2025 is reasonable.

¹⁷ Council Ref: DC/18/2687

¹⁸ Hearing Statement – Housing Land Supply Matters by Neame Sutton (March 2021) – Appendix 10

¹⁹ Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority – Appendix 8

²⁰ Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority – Appendix 9

85. The Land East of Wantley Hill is allocated in the Henfield NP for approximately 25 dwellings. The Council explain that the development will be undertaken as a joint venture between West Sussex County Council and a development partner. The County Council approved their development partner in March 2021. An email²¹ from the County Council explains that they hope to submit a planning application by December 2021, with a view of completing the works by Mid-2024. However, they advise that these dates are subject to joint venture programming. I do not consider that this amounts to an indication of firm progress towards the submission of an application. Indeed, the County Council confirm no pre-application or site layout work has been undertaken. For these reasons, I have discounted these 25 dwellings.
86. The Land West of Backsettow, off Furners Lane is allocated in the Henfield NP for approximately 30 dwellings. An email²² from the planning agent explains that a full planning application is likely to be prepared in Early 2022 with the dwellings delivered in a single phase within the next five years. The timescales provided are vague and do not provide a clear indication of firm progress towards the submission of an application. For these reasons, I have discounted these 30 dwellings.
87. Crosby Farm is allocated in the Slinfold Neighbourhood Plan for up to 24 dwellings. In November 2020, an outline application²³ for 24 units was refused planning permission by the Council. The sole reason for refusal related to layout of the site access. An appeal was lodged against the decision by the planning agent. In addition, a revised outline application²⁴ was submitted in March 2021, whilst a full application²⁵ for 24 units was submitted by a different agent. Even if I were to assume that planning permission was not granted until the end of 2021, this would leave over three years to deliver 24 units. For a relatively small site, I am satisfied that the details provided amount to the clear evidence required.
88. Land North of Downsview Avenue is allocated within the Storrington, Sullington and Washington Neighbourhood Plan (the 'SSW NP') for at least 60 dwellings. Outline planning permission²⁶ for up to 62 dwellings was granted by the Council in May 2020 and an application to discharge an archaeological condition was approved in March 2021. A reserved matters application has been submitted to the Council. If this application were to be approved by the end of 2021, this would leave over three years to deliver 62 units. For a medium sized site, I am satisfied that the details provided amount to the clear evidence required.
89. The Ravenscroft Allotment Site is allocated within the SSW NP for at least 35 dwellings. An email²⁷ from the planning agent, dated March 2021, confirms that a hybrid application consisting of full permission for the relocation and enhancement of the Ravenscroft Allotment site and Outline Planning Permission for up to 78 homes with all matters reserved except access is very nearly ready for submission. Moreover, the Council explain that at a public exhibition held by the planning agents in December 2020, it was stated that construction of housing would begin in Summer 2022.

²¹ Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority -Appendix 10

²² Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority -Appendix 11

²³ Council Ref: DC/19/1386/OUT

²⁴ Council Ref: DC/21/0109/OUT

²⁵ Council Ref: DC/21/0498/FUL

²⁶ Council Ref: DC/19/2015/OUT

²⁷ Horsham District Council: Five-year housing land supply Statement of the Local Planning Authority -Appendix 13

90. The Ravenscroft Allotment Site spans two local planning authorities and the number of units proposed is significantly higher than the SSW NP allocation of at least 35 dwellings, which may generate public objection. On that basis, the Council explain that there could be delays in granting permission. Accordingly, the Council have made a conservative estimate that works may start in 2023, and, if that were the case, they argue that 35 dwellings could be completed over the five year period.
91. Whilst I am unaware of whether a current planning application has been made for development at the site, it is clear that firm progress has been made towards the submission of an application and I am satisfied that the Council's estimate that 35 dwellings would be delivered at the site by 31 March 2025 is reasonable.
92. Land East of Pound Lane is allocated in the Upper Beeding Neighbourhood Plan for approximately 70 dwellings. The Council explain that the site has an extensive planning history, whereby four previous applications have been made for residential development. Whilst none of the applications were granted permission, the Council argue that they collectively demonstrate that a lot of work has already been put into bringing the site forward for residential development.
93. In terms of a new application, the Council explain that they had pre-application discussions with a developer in July and September 2020. On that basis, the Council are hopeful that an application will be submitted and granted permission in 2022. Therefore, the Council argue that 40 dwellings could be completed over the five-year period.
94. The details provided are vague and do not provide a clear indication of firm progress towards the submission of an application. For instance, it is unclear why a formal application did not follow the pre-application discussions that were held with the Council in 2020. For these reasons, I have discounted these 40 dwellings.
95. In conclusion, I have found that the Council's supply from neighbourhood plan allocations should be 161 dwellings. On that basis, I consider that the Council's supply should be reduced by 171 dwellings as there is not clear evidence that 332 dwellings are deliverable across the respective sites within the five-year period.

Windfalls

96. The appellant disputes the Council's figures for major windfall sites (10+ dwellings) and medium windfalls sites (5-9 dwellings). The appellant accepts the Council's figures for small sites (1-4 dwellings). As such, the appellant argues that the contribution that should be attributed from the windfalls should be reduced from 605 dwellings to 431 dwellings over the five-year period. If this were to be the case, it would result in a deficit of 174 dwellings.
97. Paragraph 71 of the Framework states "Where an allowance is to be made for windfall sites as part of anticipated supply, there should be compelling evidence that they will provide a reliable source of supply. Any allowance should be realistic having regard to the strategic housing land availability assessment, historic windfall delivery rates and expected future trends".

98. The appellant argues that the Council's data is predicated on historic data trends, with little evidence that the supply of windfall development will continue at the same rate as seen previously.
99. At the hearing, the Council explained that the windfall allowance has been calculated by assessing windfall delivery for developments of 5+ dwellings over a six-year period. This is evidenced within the Council's latest Annual Monitoring Report.
100. The Council explain that they previously calculated their windfall allowance using data from a four-year period, but this period had been extended following an appeal decision from October 2019 for residential development at Sandy Lane, Henfield²⁸ where the Inspector concluded that "four years is a relatively short period from which to make assumptions on future trends".
101. In my view, the Council's analysis of historic rates of windfall delivery over the extended six-year period provides a robust data set over a prolonged period of time from which to make assumptions on future trends. Accordingly, I see no reason why the discount applied to the Council's windfall allowance by the previous Inspector should be maintained.
102. Moreover, at the hearing, the Council explained that following the Government's latest changes to permitted development rights, which provide further opportunities for the change of use and extension of existing buildings to provide residential development, they predict that such prior approval applications will deliver additional windfall development over and above historic trends over the five-year period up to 31 March 2025. I agree that this is a reasonable position.
103. Overall, I am satisfied that compelling evidence has been provided by the Council to demonstrate that windfalls will provide a reliable source of housing supply over the five-year period. As such, I agree with the Council's windfall allowance of 605 dwellings.

Conclusion on housing land supply

104. For the reasons set out above, 519 dwellings should be discounted from the Council's figures for the strategic allocations, 66 from the Norvatis Site and 171 from neighbourhood planning. This results in a total deduction of 756 dwellings, which results in a supply of 3958 dwellings over the five-period.
105. Based on the above, this results in a deficit of 751 dwellings below the five-year requirement of 4709 dwellings. Therefore, for the purposes of this appeal, I conclude that the Council has a 4.2 year supply of deliverable housing sites.
106. Given that I have found that the Council is unable to demonstrate a five-year supply of deliverable housing sites, the tilted balance contained in paragraph 11(d) of the Framework is engaged.

Are the 'most important' policies out of date

107. The appellant explains that the strategy and policies within the HDPF which are tasked with delivering housing are predicated on a housing requirement of 800 dwellings per annum. He argues that this figure is significantly lower

²⁸ Appeal Ref: APP/Z3825/W/19/3227192

than the housing requirement set by the standard methodology, which now applies because the strategic policies contained within the plan are over five years old²⁹.

108. Consequently, the appellant argues that the development plan will continue to fail to provide enough housing. Accordingly, the appellant contends that the most important policies contained within the development plan are out of date because the housing requirement set out within the plan has materially changed. Therefore, he argues that the tilted balance contained in paragraph 11(d) of the Framework is engaged regardless of whether or not the Council can demonstrate a five-year supply of deliverable housing sites.
109. For applications involving the provision of housing, footnote 8 to paragraph 11(d) of the Framework explains that the policies which are most important for determining the application will be out-of-date in situations where the local planning authority cannot demonstrate a five year supply of deliverable housing sites (with the appropriate buffer, as set out in paragraph 74).
110. Given that I have found that the Council cannot demonstrate a five-year supply of deliverable housing sites, which triggers the application of the tilted balance contained in paragraph 11(d) of the Framework as per footnote 8 of the Framework, it is not necessary for me determine whether the most important policies contained within the development plan are out of date as a collective basket of policies irrespective of the Council's housing land supply position.

Is Paragraph 14 of the Framework engaged?

111. Paragraph 14 of the Framework states "In situations where the presumption (at paragraph 11d) applies to applications involving the provision of housing, the adverse impact of allowing development that conflicts with the neighbourhood plan is likely to significantly and demonstrably outweigh the benefits, provided all of the following apply:
- a) the neighbourhood plan became part of the development plan two years or less before the date on which the decision is made;
 - b) the neighbourhood plan contains policies and allocations to meet its identified housing requirement;
 - c) the local planning authority has at least a three year supply of deliverable housing sites (against its five year housing supply requirement, including the appropriate buffer as set out in paragraph 74); and
 - d) the local planning authority's housing delivery was at least 45% of that required over the previous three years".
112. The PPG explains that in order for a neighbourhood plan to meet the criteria set in paragraph 14b of the Framework, the 'policies and allocations' in the plan should meet the identified housing requirement in full, whether it is derived from the housing figure for the neighbourhood area set out in the relevant strategic policies, an indicative figure provided by the local planning authority, or where it has exceptionally been determined by the neighbourhood planning

²⁹ Paragraph 74 of the Framework

body. For example, a neighbourhood housing requirement of 50 units could be met through 2 sites allocated for 20 housing units each and a policy for a windfall allowance of 10 units. However, a policy on a windfall allowance alone would not be sufficient.

113. The site falls within the neighbourhood area of the Shipley NP. The Shipley NP does not contain policies and allocations that meet an identified housing requirement for the neighbourhood area. Instead, Policy xx of Shipley NP relies upon windfall delivery.
114. At the hearing, the main parties agreed that paragraph 14 of the Framework was not engaged because the requirements of paragraph 14(b) were not met by the Shipley NP. Given the above, and, having regard to the PPG, I agree with this position.
115. I am cognisant that the Southwater NP contains policies and allocations to meet its identified housing requirement. However, the appeal site falls outside of the neighbourhood area of the Southwater NP. Consequently, regardless of the location of Rascals Farm adjacent to the settlement of Southwater, it is a matter of fact that the Southwater NP does not form part of the development plan for the appeal site. Accordingly, the Southwater NP cannot engage paragraph 14 of the Framework in respect of proposed development at the appeal site.

Planning obligations

116. The completed legal agreement makes provisions for 35% of the dwellings of the proposed development to be provided as affordable housing. Given that all matters except for access are reserved at this stage, the type, tenure, location and timing of the construction of the affordable housing units will be agreed with the Council at a later date as part of an affordable housing scheme and timetable.
117. The affordable housing provisions accord with the requirements of Policy 16 of the HDPF which requires new housing development of 15 dwellings or more to provide 35% of the number of dwellings as affordable housing units.
118. The legal agreement also makes provisions for highway works and for upgrades to the existing public right of way which runs along the northern boundary of the site. The works will promote an improved transport network in and a modal shift away from the use of private motor vehicles. This accords with the requirements of Policy 40 of the HDPF.
119. In addition to the above, the legal agreement makes provisions for a financial contribution towards the Council's air quality mitigation scheme. The contribution arises from Policies 24 of the HDPF and the payment has been calculated using a formula based on the air quality and emissions mitigation guidance for Sussex.
120. Finally, the legal agreement makes provisions for a LEAP and open amenity space, which includes landscaped boundaries. These areas of managed land would be managed by a management company in accordance with the provisions of the legal agreement. The requirement for a LEAP and open amenity space arises from Policy 43 of the HDPF which requires the provision of new community facilities where they meet the identified need of local communities.

121. Having regard to Regulation 122 of The Community Infrastructure Levy (CIL) Regulations 2010 (as amended) and paragraph 57 of the Framework, I am satisfied, that the planning obligations are directly related to the proposed development, fairly and reasonably related to it and necessary to make it acceptable in planning terms.

Planning Balance

122. Planning law³⁰, as noted by paragraph 12 of the Framework, dictates that planning applications must be made in accordance with the development plan unless material considerations indicate otherwise. The Framework is a material consideration in planning decisions.
123. I have found that the Council is unable to demonstrate a five-year supply of deliverable housing sites. As such, the tilted balance contained in paragraph 11(d) of the Framework is engaged. For decision making this means granting permission unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole.
124. Chapter 5 of the Framework relates to the delivery of a sufficient supply of homes. Paragraph 60 states "to support the Government's objective of significantly boosting the supply of homes, it is important that a sufficient amount and variety of land can come forward where it is needed, that the needs of groups with specific housing requirements are addressed and that land with permission is developed without unnecessary delay".
125. The Council have commenced a review of the HDPF. As part of the plan review, the Council will be required identify a sufficient supply and mix of sites to meet its housing requirements, taking into account their availability, suitability and likely economic viability. However, following the latest revisions to the Framework, the Council explain that the plan review has been suspended.
126. I am cognisant that the Council have significantly exceeded the number of homes required under the Housing Delivery Test (the 'HDT'). However, this is a measure of housing delivery, as opposed to housing supply. Despite the Council's good track record when assessed against the HDT, the supply of deliverable housing sites within the District has fallen below five years. In such circumstances, the tilted balance contained in paragraph 11(d) of the Framework is engaged. Given that the plan review has been suspended, additional strategic housing allocations, which would meet the Council's housing land supply requirements are unlikely to come forward for several years.
127. Paragraph 73 of the Framework explains that "the supply of large numbers of new homes can often be best achieved through planning for larger scale development, such as new settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities (including a genuine choice of transport modes)".
128. Chapter 9 of the Framework promotes sustainable transport. In this context, paragraph 105 of the Framework states "the planning system should actively manage patterns of growth in support of these objectives. Significant

³⁰ Section 38(6) of the Planning and Compulsory Purchase Act 2004

development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making”.

129. The appeal site is well located on the edge of Southwater, which is a second-tier settlement on the Council’s development hierarchy, as set out within the HDPF. The table to Policy 3 of the HDPF explains that these are settlements with a good range of services and facilities, strong community networks and local employment provision, together with reasonable rail and / or bus services. The settlements act as hubs for smaller villages to meet their daily needs, but also have some reliance on larger settlements/each other to meet some of their requirements.
130. The site is located approximately 1km away from the centre of Southwater. On my site visit, I observed that the walk from the site to the centre of Southwater was relatively level and could be made on the pavements, which featured street lighting. In addition, off-site highway improvements are proposed, which will encourage walking from the appeal site. Accordingly, I am satisfied that occupiers of the proposed development would be likely to walk to the local services from the appeal site.
131. In addition, the appellant explains³¹ that the site is located within close proximity of several existing bus routes, the closest of which is located 140m from the site on Foxfield Cottages. Collectively, the bus routes offer services to a range of destinations. The appellant explains that the No 98 service, which provides access to Horsham, runs every 15 minutes on weekdays and Saturdays and every 35 minutes on Sundays. In addition, the appellant states that less frequent services are available from Southwater to other settlements such as Worthing, Brighton and Shoreham. This information has not been disputed by the Council.
132. Given the close proximity of local services, which are accessible on foot, and the accessibility to public transport links, which would provide access to a range of services in nearby settlements, I consider that occupiers of the proposed development would have access to a genuine choice of transport modes to access local services and employment opportunities. Accordingly, occupiers of the proposed development would not be reliant upon the use of a private motor vehicle for all journeys.
133. The proposal would deliver up to 100 dwellings, which would make a sizeable contribution to the Council’s current shortfall. Of those new homes, 35% would be affordable housing. Given the extent of the Council’s housing shortfall and identified need for affordable housing within the District, I afford these benefits significant weight in the planning balance.
134. In addition, off-site highway improvements would be undertaken as part of the proposal, which would benefit the wider community of Southwater by providing improved pedestrian crossings along Shipley Road.

³¹ Sustainability Statement: Rascals Farm, Southwater – Prepared by Turley Sustainability (October 2020)

135. There would also be some limited benefits to the construction industry and the vitality and viability of local services within Southwater and nearby settlements from the spend of future occupiers, as such the proposal would have social and economic benefits. These matters attract limited weight in the planning balance.
136. The provision of a financial contribution towards the Council's air quality mitigation scheme and the provisions for a LEAP and open amenity space, which includes landscaped boundaries, as set out within the legal agreement, are required to mitigate the effects of the development and to meet minimum policy requirements. Accordingly, these matters attract neutral weight.
137. The proposed development would minimise impacts on and provide an opportunity for biodiversity enhancements, as set out with the ecological appraisals submitted with the planning application. The mitigation and enhancement measures that are to be undertaken as part of the development could be secured by a planning condition. Given that the development would be undertaken on land within the open countryside, this matter attracts limited weight in the planning balance.
138. On the other hand, I have found that the proposal would cause harm to the character and appearance of the area. However, for the reasons given above, I have found that the harm would be localised, and the proposal would not cause harm to the wider landscape.
139. In addition, based on the evidence before me, which includes my site observations, I consider that the location and overall density of the proposed development would appear well related to the existing settlement pattern of Southwater, which includes extensive development to the north of the appeal site to the west of Worthing Road, and a recent development, known as Rascals Close, which is located immediately to the east of the appeal site on the other side of Shipley Road. In this context, the proposal would not materially extend the settlement beyond the western and southern edges formed by the existing developments to the north and east of the appeal site. Moreover, the proposal would not result in any coalescence of settlements. For these reasons, I consider that the proposal would represent a logical extension to Southwater.
140. The Council's Landscape Capacity Study (2020) (the 'LCS') identifies that the appeal site lies within local landscape area 26 (Land South of Southwater). The study concludes that the local landscape area 26 has a 'low-moderate' capacity to accommodate medium scale development in limited locations without unacceptable adverse landscape and visual impacts or compromising the values attached to it, taking account of any appropriate mitigation. At the hearing, the Council accepted that the site had potential for some form of development, but not the overall quantum of development proposed, which the Council argue would fail to relate sympathetically to the surroundings and rural qualities of the site. For the reasons set out below, I do not agree with the Council's position.
141. The Council have expressed concern that the illustrative layout would not respond sympathetically to the surroundings. However, layout is a reserved matter at this stage. Nevertheless, I consider that the layout of the proposed development would need to be reflective of the site's position on the edge of the settlement where it would be necessary to deliver a layout which

successfully transitions from the urban context of Southwater into the surrounding open countryside.

142. In part, this transition could be achieved by retaining a significant proportion of the green corridor, which runs across the site and separates the two fields, and the provision of a buffer zone between the proposed dwellings and the surrounding ancient woodland. These features are shown on the illustrative masterplan of the site. Accordingly, and having regard to the relatively moderate density of the proposed development, I am satisfied that a suitable layout could be achieved and that the overall quantum of development proposed could come forward at the site.
143. Moreover, having regard to the relatively moderate density of the proposed development, I am satisfied that the development could meet the requirements of paragraph 131 of the Framework, which states that "Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible". In respect of the long-term maintenance, I have imposed a condition requiring the submission of a landscape management and maintenance plan with the reserved matters application.
144. In conclusion, I have found that the proposal would cause harm to the character and appearance of the area. Harm is also caused by the proposal's conflict with the Council's spatial strategy for new housing development within the District. Accordingly, the proposal would conflict with Policies 2, 3, 4, 25 and 26 of the HDPF. Nevertheless, for the reasons given above, which includes the Council's housing land supply position, and, when having regard to paragraphs 60, 73 and 105 of the Framework, I afford this collective harm limited weight.
145. In conclusion, the proposed development would meet identified local housing needs by delivering housing on a site, which is on the edge of an existing settlement and well related to local services in Southwater. In addition, I have found that occupiers of the development would have a genuine choice of transport modes to access local services and employment opportunities.
146. Overall, I conclude that the adverse impacts of granting permission would not significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole. This is a material consideration which indicates that planning permission should be granted.
147. I afford this matter significant weight in the overall planning balance and find that it outweighs the conflict with the aforementioned development plan policies. Accordingly, planning permission should be granted for the proposed development.

Other Matters

148. No substantive evidence has been put forward which demonstrates the proposal would place harmful pressure on local infrastructure, including school places, the doctor's surgery and the dentist. Nevertheless, the development would be liable for a CIL payment, which can be used by the Council to deliver infrastructure improvements.

149. The Local Highway Authority (the 'LHA') have assessed the proposal and raised no objection. I have no reason to disagree with the LHA in respect of this matter and I am satisfied that the drawings demonstrate the proposal would not be prejudicial to highway and pedestrian safety.
150. Concerns have been expressed about the impact of construction noise and air pollution on the living conditions of local residents. Such matters can be appropriately managed through a Construction Environmental Management Plan ('CEMP'), which can be secured via a planning condition.
151. Several Ecological Appraisals were submitted as part of the application which collectively set out the mitigation and enhancement measures that are to be undertaken as part of the development. This includes the provision of a 15 metre buffer strip between the proposed development and the adjoining ancient woodland. Substantive evidence is not before me that demonstrates I should not rely on the conclusions of the report, which was prepared by a suitably qualified ecologist and reviewed by the Council's Ecology Consultant. Moreover, I have imposed planning conditions which deal with protected species and the submission of a Construction Biodiversity Environmental Management Plan ('CBEMP').
152. At the hearing, I heard evidence about whether the use of the proposed areas of open space, such as the LEAP, would compromise the suitability of the proposed ecological mitigation. Based on the evidence before me, and having regard to modest density of development, which provides scope to deliver a variety of play areas, I am satisfied that these areas can be delivered as part of the final without causing to the proposed ecological mitigation. Indeed, the Council's Ecology Consultant has raised no objection to the proposal.
153. Concerns have been expressed by local residents about the management of surface water. The Lead Local Flood Authority and the Councils Drainage Engineer have raised no objection to the proposed drainage strategy. Furthermore, detailed drainage matters related to surface water drainage and foul water drainage can be dealt with by a planning condition. I see no reason why it would be inappropriate to follow this course of action in this appeal; especially as substantive evidence has not been provided to demonstrate the scheme could not address current policy expectations.
154. Local residents explain that the appeal site provides an important area for recreation and exercise. They contend that this would be lost if the appeal site were to be developed. However, the existing PRow through the appeal site would be retained, which would preserve access into the adjoining ancient woodland and nearby open countryside, both of which feature an extensive network of PRows. Moreover, the proposed development would include a LEAP and open amenity space, which would be accessible to the public and secured through the planning obligation. Accordingly, I am satisfied that the appeal site, if developed in the manner proposed, would continue to provide opportunities for recreation and exercise for local residents, which would include occupiers of the proposed dwellings.
155. Concerns have been raised by local residents about the impact of the proposed development upon air quality within the local area. However, no such concerns were raised by the Council. Moreover, no substantive evidence has been put forward which demonstrates the proposal would put existing development at unacceptable risk from unacceptable levels of air pollution.

156. Local residents argue that there is no housing need for additional development in Southwater. In support of this position, they explain that many new build properties located elsewhere within the settlement remain unsold. However, no substantive evidence has been provided to demonstrate that this case. Moreover, I have found that the Council are unable to demonstrate a five-year supply of deliverable housing sites.

Conditions

157. The Council have suggested 21 conditions, all of which except one condition relating to landscape management, have been agreed by the appellant within the statement of common ground.
158. I have considered against the conditions against the tests as laid out in paragraph 56 of the Framework. In the interests of consistency and precision, I have amended the wording of some of the conditions.
159. Outline planning permission is granted subject to the conditions relating to the submission of reserved matters and the time limits associated with this. I have also included a condition specifying that the development is carried out in accordance with the approved plans, for the avoidance of doubt and in the interests of certainty.
160. To safeguard human health and the wider environment, it is necessary to impose a condition relating to the investigation, and if required, the remediation of contaminated land. To ensure that such risks are appropriately managed, it is necessary for these details to be agreed prior to the commencement of development. In addition, I have also imposed a regulatory condition to control work if unsuspected contamination is found.
161. Due to the scale of the development and the proximity of neighbouring residents, it is necessary to impose a condition requiring a CEMP. To ensure that the interests of neighbouring residents are safeguarded during the entire construction period, it is necessary for the details of the CEMP to be agreed prior to the commencement of development.
162. Similarly, it is necessary to impose a condition to restrict the hours of construction and deliveries, in order to limit noise disturbance in the evenings and at weekends. In the interests of precision, I have amended the Council's suggested wording.
163. In the interest of ecology and biodiversity, it is necessary to impose conditions related to the submission of a CBEMP, Landscape and Ecological Management Plan and protected species. To safeguard ecological interests, it is necessary for these details to be agreed prior to the commencement of development.
164. I have also imposed a condition to secure the ecological mitigation and enhancement measures biodiversity enhancement and mitigation set out within the supporting ecological appraisals are undertaken as part of the development. I have amended the Council's suggested wording to ensure that the works are carried out prior to the occupation of the proposed dwellings. Furthermore, to safeguard important foraging routes used by bats and their associated territory, I have imposed a condition relating to the development's lighting scheme.

165. The Council's Historic Environment Record has indicated that the proposed development has potential for archaeological deposits. Accordingly, I have imposed a condition relating to the implementation of a programme of archaeological works, which includes a post investigation assessment. To minimise the risk of damage to archaeology, it is necessary for these details to be agreed prior to the commencement of development.
166. As set out within the other matters, I have imposed conditions relating to foul and surface water drainage. To ensure that adequate provision for drainage is provided as part of the proposal, it is necessary for these details to be agreed prior to the commencement of development.
167. In addition, I have imposed a condition which requires the submission of a sustainable urban drainage system verification report. This will ensure that an adequate drainage system has been provided as part of the development.
168. To ensure that the development achieves a high standard of sustainability and makes efficient use of resources, I have imposed a condition relating to internal water usage. In addition, to ensure that the occupiers of the proposed development will have access to reliable communications infrastructure, which are essential for economic growth and social well-being, I have imposed a condition relating to the provision of broadband internet connectivity.
169. In the interests of highway safety, it is necessary to impose conditions relating to the vehicular access and the maintenance of visibility splays onto Shipley Road.
170. To safeguard trees at the appeal site, it is necessary to impose a condition which requires the development to be carried out in accordance with the tree protection measures set out within the submitted arboricultural documents.
171. The Council have suggested a condition relating to the submission of a landscape management and maintenance plan. However, landscaping is a reserved matter at this stage. Nevertheless, I share the Council's position that a landscape management and maintenance plan is required in the interests of the character and appearance of the area and nature conservation. Accordingly, I have amended the wording of the suggested condition to require such details to be submitted at reserved matters stage.

Conclusion

172. For the reasons outlined above, and taking into account all other matters raised, I conclude that the appeal should be allowed.

Christopher Miell

INSPECTOR

SCHEDULE OF CONDITIONS:

- 1) Details of the appearance, landscaping, layout, and scale (hereinafter called "the reserved matters") shall be submitted to and approved in writing by the local planning authority before any development takes place and the development shall be carried out as approved.
- 2) Application for approval of the reserved matters shall be made to the local planning authority not later than three years from the date of this permission.
- 3) The development hereby permitted shall take place not later than two years from the date of approval of the last of the reserved matters to be approved.
- 4) The development hereby permitted shall be carried out in accordance with the following approved plans:
 - Drawing No: SLP-03 REV:P1 (Site Location Plan)
 - Drawing No: PAR 01 REV:P4 (Parameter Plan: Development Area)
 - Drawing No: 21007-03-1 REV:B (Proposed Site Access Arrangement Vehicle Tracking – Refuse Vehicle)
 - Drawing No: 21007-03-2 REV:B (Proposed Site Access Arrangement Vehicle Tracking – Internal Section)
 - Drawing No: 21007-03-3 REV:B (Proposed Site Access – General Arrangement)
 - Drawing No: 21007-03-3 REV:B (Proposed Site Access Arrangement)
 - Drawing No: 21007-03-4 REV:B (Proposed Site Access – Visibility Splays)
 - Drawing No: 21007-04-1 (Proposed 30/60 MPH Speed Limit Change)
- 5) No development shall commence until the following components of a scheme to deal with the risks associated with contamination, (including asbestos contamination), of the site, in accordance with the recommendations and conclusions of the P9249 Phase I Site Appraisal for Catesby Estate PLC by GRM Development Solutions dated Feb 2020, shall be submitted to and approved in writing by the local planning authority:
 - a) An intrusive site investigation scheme, based on the P9249 Phase I Site Appraisal to provide information for a detailed risk assessment to the degree and nature of the risk posed by any contamination to all receptors that may be affected, including those off site.
 - b) Full details of the remediation measures required and how they are to be undertaken based on the results of the intrusive site investigation (b) and an options appraisal.
 - c) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (c) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action where required.

The scheme shall be implemented as approved. Any changes to these components require the consent of the local planning authority.

- 6) No development shall commence until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include details of the following relevant measures:
- (i) An introduction consisting of a description of the construction programme, definitions and abbreviations and project description and location;
 - (ii) Details of how residents will be advised of site management contact details and responsibilities
 - (iii) Detailed site logistics arrangements, including location of site compounds, location for the loading and unloading of plant and materials, site offices (including height and scale), and storage of plant and materials (including any stripped topsoil)
 - (iv) Details regarding parking or site operatives and visitors, deliveries, and storage;
 - (v) The method of access to and from the construction site
 - (vi) The arrangements for public consultation and liaison prior to and during the demolition and construction works – newsletters, fliers etc.
 - (vii) Details of any floodlighting, including location, height, type and direction of light sources, hours of operation and intensity of illumination
 - (viii) Locations and details for the provision of wheel washing facilities and dust suppression facilities

The construction shall thereafter be carried out in accordance with the details and measures approved in the CEMP.

- 7) No development shall commence until a construction Biodiversity environmental management plan (CBEMP) has been submitted to and approved in writing by the local planning authority. The CBEMP shall include the following:
- a) Risk assessment of potentially damaging construction activities.
 - b) Identification of "biodiversity protection zones".
 - c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).
 - d) The location and timing of sensitive works to avoid harm to biodiversity features.
 - e) The times during construction when specialist ecologists need to be present on site to oversee works.
 - f) Responsible persons and lines of communication.
 - g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.
 - h) Use of protective fences, exclusion barriers and warning signs.

The approved CBEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

- 8) No development shall commence until a Landscape and Ecological Management Plan (LEMP) has been submitted to, and be approved in writing by, the local planning authority prior occupation of the development. The content of the LEMP shall include the following:
- a) Description and evaluation of features to be managed.
 - b) Ecological trends and constraints on site that might influence management.
 - c) Aims and objectives of management.
 - d) Appropriate management options for achieving aims and objectives.
 - e) Prescriptions for management actions.
 - f) Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).
 - g) Details of the body or organisation responsible for implementation of the plan.
 - h) Ongoing monitoring and remedial measures.

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured by the developer with the management body(ies) responsible for its delivery. The plan shall also set out (where the results from monitoring show that conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The approved plan will be implemented in accordance with the approved details.

- 9) No development shall commence until the local planning authority has been provided with either:
- a) A copy of the European Protected Species Mitigation licences for bats and hazel dormouse issued by Natural England pursuant to Regulation 55 of The Conservation of Habitats and Species Regulations 2017 authorizing the specified activity/development to go ahead; or
 - b) A statement in writing from the relevant licensing body to the effect that it does not consider that the specified activity/development will require a European Protected Species licence.
- 10) No development shall commence until a programme of archaeological work has been secured in accordance with a Written Scheme of Archaeological Investigation which has been submitted to and approved in writing by the local planning authority. The development hereby permitted shall not be commenced until the archaeological site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under this condition and that provision for analysis, publication and dissemination of results and archive deposition has been secured and approved by the local planning authority in writing.
- 11) No development shall commence until a detailed surface water drainage scheme including a Surface Water Drainage Statement, based on sustainable

drainage principles and an assessment of the hydrological and hydrogeological context of the development has been submitted to and approved in writing by the local planning authority. The submitted details shall be fully coordinated with the landscape scheme. The development shall subsequently be implemented prior to first occupation in accordance with the approved details and thereafter retained as such.

- 12) No development shall commence unless and until details of the proposed means of foul water sewerage disposal including the proposals for the associated off-site infrastructure improvements have been submitted to and been approved in writing by the local planning authority. Thereafter all development shall be undertaken in accordance with the approved details and no occupation of any dwelling shall take place until the approved works have been completed. The foul drainage system shall be retained as approved thereafter.
- 13) No development above ground floor slab level of any part of the development hereby permitted shall take place until confirmation has been submitted, in writing, to the local planning authority that the relevant Building Control body shall be requiring the optional standard for water usage across the development. The dwellings hereby permitted shall meet the optional requirement of building regulation G2 to limit the water usage of each dwelling to 110 litres per person. The subsequently approved water limiting measures shall thereafter be retained.
- 14) No development above ground floor slab level of any part of the development hereby permitted shall take place until a lighting design scheme for biodiversity has been submitted to and approved in writing by the local planning authority. The scheme shall identify those features on site that are particularly sensitive for bats and that are likely to cause disturbance along important routes used for foraging; and show how and where external lighting will be installed (through the provision of appropriate lighting contour plans, Isolux drawings and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent bats using their territory. All external lighting shall be installed in accordance with the specifications and locations set out in the scheme and maintained thereafter in accordance with the scheme.

No other external lighting or floodlighting shall be installed without prior consent from the local planning authority.
- 15) No part of the development shall be first occupied until such time as the site access arrangement has been provided onto Shipley Road in accordance with the approved planning drawings, and maintained as such thereafter.
- 16) No part of the development shall be first occupied until visibility splays of 2.4 metres by 74 metres to the south and 71 metres to the north have been provided at the proposed site vehicular access onto Shipley Road in accordance with the approved planning drawings. Once provided the splays shall thereafter be maintained and kept free of all obstructions over a height of 0.6 metre above adjoining carriageway level or as otherwise agreed.

- 17) Prior to the first occupation (or use) of any part of the development hereby permitted, a verification report demonstrating that the Sustainable Urban Drainage System has been constructed in accordance with the approved design drawings shall be submitted to and approved by the local planning authority. The development shall be maintained in accordance with the approved report.
- 18) Prior to the first occupation of each dwelling, the necessary infrastructure to enable connection to high-speed broadband internet (defined as having speeds greater than 24 megabits per second) shall be provided.
- 19) If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until the developer has submitted a remediation strategy to the local planning authority detailing how this unsuspected contamination shall be dealt with and obtained written approval from the local planning authority. The remediation strategy shall be implemented as approved.
- 20) All ecological mitigation and enhancement measures and/or works shall be carried out in accordance with the details contained in the EcIA (ACD Environmental Ltd, February 2020) as well as the Ecological Position Statements (ACD Environmental, 1st and 18th June 2020) as already submitted with the planning application and agreed in principle with the local planning authority prior to determination. No occupation of any dwelling shall take place until the approved works have been completed.
- 21) Demolition or construction works (including deliveries and dispatch) shall take place only between 08:00 and 18:00 on Mondays to Friday, 09:00 to 13:00 on Saturdays, and shall not take place at any time on Sundays or on Bank or Public Holidays.
- 22) All works shall be executed in full accordance with the approved Arboricultural Impact Assessment/Method Statement [SC39-1039 PLANNING SUBMISSION (ARBORICULTURE) TREE SURVEY TO BS5837;2012 - PROPOSED TREE RETENTION AND REMOVAL - OUTLINE TREE PROTECTION PLAN] Issued June 2020 by FLAC.
- 23) A landscape management and maintenance plan (including long term design objectives, management responsibilities, a description of landscape components, management prescriptions, maintenance schedules and accompanying plan delineating areas of responsibility) for all communal landscape areas shall be submitted with the reserved matters application. The landscape areas shall thereafter be managed and maintained in accordance with the approved details.

***** END OF CONDITIONS *****

APPEARANCES

FOR THE APPELLANT:

Ms V Groves	Catesby Strategic Land Limited
Mr D Morris	Catesby Strategic Land Limited
Mr A Driscoll	Landowner
Mr D Neame	Neame Sutton Limited
Ms A Sutton	Neame Sutton Limited
Ms R Jones	Neame Sutton Limited
Mrs C Brockhurst	Leyton Place Limited
Mr S White QC	Landmark Chambers

FOR THE LOCAL PLANNING AUTHORITY:

Mr A Smith	Horsham District Council
Mr M McLaughlin	Horsham District Council
Mr M Porter	Horsham District Council
Ms I Watson	Horsham District Council

OTHER INTERESTED PARTIES:

Cllr P Baxter	Shipley Parish Council
Mrs T Nash	Local Resident
Mr P Kornucky	Local Resident
Mr P Johnson	Local Resident
Mrs M Haire	Local Resident
Mr D Corcoran	Observer
Ms F Goodson	Observer
Mr A Munton	Observer

DOCUMENTS SUBMITTED AT THE HEARING:

1. Opening statement by Mr S White QC
2. CIL Compliance Statement from the Council
3. Suggested planning conditions (v2)
4. Statement of common ground
5. Extract from the Horsham District Council Landscape Capacity Assessment
6. Plan of the Kilnwood Vale development
7. Housing land supply position statement dated 13 April 2021
8. Legal agreement signed by the main parties
9. Statement of common ground (v2)
10. Data from the Council relating to major windfall sites evidence dated 29 November 2019
11. Decision notice regarding the Former Novartis Site
12. Decision notice regarding Phase 6A of the Kilnwood Vale development
13. Statement of Common Ground related to Appeal Ref: APP/Z3825/W/21/3266503
14. Appeal decision ref: APP/Z3825/W/20/3265681
15. Appeal decision ref: APP/Z3825/W/20/3262938
16. Suggested planning conditions (v4)

DOCUMENTS ACCEPTED AFTER THE HEARING:

1. Closing submissions by Mr S White QC
2. Closing submissions from the Council
3. Housing land supply position statement dated 9 June 2021
4. Statement of Common Ground related to Appeal Ref: APP/Z3825/W/20/3261401
5. Housing land supply position statement dated 28 June 2021
6. Appellant response to the revised Framework (July 2021)
7. Council response to the revised Framework (July 2021)
8. Press release from Horsham District Council regarding the local plan review



Ms Victoria Groves
Catesby Estates
Arena Business Centre
The Square
Basing View, Basingstoke
RG21 4EB

Application Number: DC/21/2126

TOWN & COUNTRY PLANNING ACT, 1990 (as amended)
TOWN & COUNTRY PLANNING (Development Management Procedure) (England) Order 2015

On behalf of: Victoria Groves Catesby Estates

In pursuance of their powers under the above-mentioned Act and Order, the Council hereby notify you that they PERMIT the following development, that is to say:

Non Material Amendment to planning permission DC/20/0695 (Outline application for the erection of up to 100 residential units with all matters reserved except access (excluding internal estates roads)). Amendment to list of approved plans to omit plan drawing 21007-04-1 (Proposed 30/60 mph speed limit change) and correction of plan drawing reference to read 21007-03 REV B Proposed Site Access Arrangement.

Rascalls Farm Shipley Road Southwater Horsham

to be carried out in accordance with Application No. DC/20/0695 as amended by application No. DC/21/2126 submitted to the Council on 14/09/2021 (as modified by relevant conditions, if any) and subject to compliance with the plans/documents and conditions specified.

Emma Parkes
Head of Development and Building Control

Date: 12/10/2021

Amended Condition 4:

- 4 The development hereby permitted shall be carried out in accordance with the following approved plans:
- Drawing No: SLP-03 REV:P1 (Site Location Plan)
 - Drawing No: PAR 01 REV:P4 (Parameter Plan: Development Area)
 - Drawing No: 21007-03-1 REV:B (Proposed Site Access Arrangement Vehicle Tracking - Refuse Vehicle)
 - Drawing No: 21007-03-2 REV:B (Proposed Site Access Arrangement Vehicle Tracking - Internal Section)
 - Drawing No: 21007-03-3 REV:B (Proposed Site Access - General Arrangement)
 - Drawing No: 21007-03 REV:B (Proposed Site Access Arrangement)

- Drawing No: 21007-03-4 REV:B (Proposed Site Access - Visibility Splays)
- Drawing No: 21007-04 (Existing 30/60 MPH Speed Limit Change)

Note to Applicant

For the avoidance of doubt Drawing 21007-04-1 (Proposed 30/60 MPH Speed Limit Change) is deleted from the list of approved drawings set out in condition 4 of DC/21/2126.

Note to Applicant:

This decision only relates to the non-material amendments sought and is not a reissue of the original planning permission, which still stands. The two documents should be read together.

Note to Applicant:

Statement pursuant to Article 35 of the Town and Country Planning (Development Management Procedure) (England) Order 2015. The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received, in order to be able to, where possible, grant permission.

ADDITIONAL INFORMATION

Planning Permission – Important Provisos

If planning permission has been granted, please note that your Notice of Decision refers only to consideration of your proposal under the Town and Country Planning Acts. It is not a building regulations approval and does not mean that you can disregard other Acts of Regulations, or avoid any other legal obligations. Some of these obligations, of particular relevance to your proposal are referred to elsewhere in this note. Before you proceed with your proposal you should ensure that a Building Control application is not required, or has been submitted. The Building Control Department can be contacted on 01403 215151.

If this permission relates to new dwellings, commercial premises or other buildings which will require a new postal address you should contact the Council's Street Naming & Numbering Department as soon as possible or before work commences on site. Further details are available on the Street Naming page on the Council's website or alternatively e-mail streetnaming@horsham.gov.uk or telephone 01403 215139.

It must be stressed that the information included on this Notice of Decision may not include all your legal obligations, and it does not grant you rights to carry out works on or over lands, or to access land that is not within your control or ownership.

Compliance with the Approved Plans and Conditions

The development hereby approved must be implemented in accordance with the approved plans and any conditions set out in the Notice. Some of the conditions may specify that works are to be carried out, and/or details submitted and approved before all or part of the development is started. These will appear in the 'Pre Commencement Conditions' section of the Notice.

If works on implementing this permission is started without these requirements being fully met, the development may be unauthorised and the permission invalidated, and could lead to enforcement proceedings or in some cases to prosecution.

Amendments

Should alterations or amendments be required to the approved plans, it will be necessary to apply either under Section 96A of the Town and Country Planning Act 1990 for non material alterations, or under Section 73 of the Act for minor material alterations. An application must be made using the standard application form and you should consult with us, to establish the correct type of application to be made.

Monitoring

Horsham District Council monitors the implementation of planning permissions. Please be aware that monitoring officers may visit the application site at various stages of the development to ensure compliance with the approved plans and conditions.

Conditions Compliance

Requests for confirmation of compliance with conditions associated with that permission should be made in writing or by using the application form 'Approval of Details Reserved by Conditions'.

A request may be for confirmation that one or more conditions imposed on the same permission have been complied with. We aim to respond within 8 weeks of receipt of the request.

Right of Appeals

If you are aggrieved by the decision to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under Section 78 of the Town and Country Planning Act 1990.

You must appeal within 12 weeks of the date of the decision notice for a householder application or 'minor commercial' (shop front) development, and within 6 months for other types of planning applications. There are different timescale – usually 28 days – if an enforcement notice is/has been served for the same (or very similar) land and development. Please note, only the applicant possesses the right of appeal.

Appeals can be made online at: <https://www.gov.uk/planning-inspectorate>. If you are unable to access the online appeal form, please contact the Planning Inspectorate to obtain a paper copy of the appeal form on tel: 0303 444 5000.

The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.

The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at least 10 days before submitting the appeal. Further details are at <https://www.gov.uk/government/collections/casework-dealt-with-by-inquiries>.



Mr Ian Humble
CATESBY STRATEGIC LAND LIMITED
Catesby Estates
Orchard House
Papple Close
Houlton
Rugby
CV23 1EW

Application Number: DC/24/0249

TOWN & COUNTRY PLANNING ACT, 1990 (as amended)
TOWN & COUNTRY PLANNING (Development Management Procedure) (England) Order 2015

On behalf of: CATESBY STRATEGIC LAND LIMITED

In pursuance of their powers under the above-mentioned Act and Order, the Council hereby notify their APPROVAL of the following application comprising:

Reserved matters application for the erection of 96 dwellings and ancillary parking and landscaping following approval of outline application DC/20/0695 (up to 100 residential units with associated vehicular and pedestrian access), relating to layout, scale, appearance and landscaping.

Rascals Farm, Shipley Road, Southwater, West Sussex

to be carried out in accordance with Application No. DC/24/0249 submitted to the Council on 21/02/2024 and subject to compliance with the plans/documents and conditions specified hereunder.

Emma Parkes
Head of Development and Building Control

Date: 05/06/2025

- 1 **Plans Condition:** The development hereby permitted shall be carried out in accordance with the approved plans listed in the schedule below.

Schedule of plans/documents:

Layout plan	Planning Layout	CB_08_353_001 Rev G	22.07.2024
Layout plan	Land Use Plan	CB_08_353_002 Rev A	28.06.2024
Location plan	Site Location Plan	CB_08_353_000 Rev	28.06.2024
Layout plan	Housing Mix Plan	CB_08_353_003 Rev A	28.06.2024

Layout plan	Affordable Housing Plan	CB_08_353_004 Rev A	28.06.2024
Layout plan	Building Heights Plan	CB_08_353_005 Rev A	28.06.2024
Layout plan	Parking Strategy	CB_08_353_006 Rev A	28.06.2024
Layout plan	Bin & Cycle Storage Plan	CB_08_353_007 Rev A	28.06.2024
Layout plan	External Finishes Plan	CB_08_353_008 Rev B	28.06.2024
Layout plan	External Enclosures Plan	CB_08_353_009 Rev A	28.06.2024
Layout plan	House Type Plan	CB_08_353_013 Rev A	28.06.2024
Design & Access Statement	Design and Access Statement		14.02.2024
Elevation plan	Street Scenes	CB_08_353_SS_01 Rev B	28.06.2024
Elevation plan	Street Scenes	CB_08_353_SS_02 Rev B	28.06.2024
Elevation & Floor plan	TYPE 2 FLOOR PLANS & ELEVATIONS	CB_08_353_2_01 Rev A	28.06.2024
Elevation & Floor plan	TYPE 2 FLOOR PLANS & ELEVATIONS	CB_08_353_2_02 Rev B	28.06.2024
Elevation & Floor plan	TYPE 2 FLOOR PLANS & ELEVATIONS	CB_08_353_2_04 REV B	28.06.2024
Elevation & Floor plan	TYPE 4B FLOOR PLANS & ELEVATIONS	CB_08_353_4B_01 REV A	28.06.2024
Elevation & Floor plan	TYPE 4W FLOOR PLANS & ELEVATIONS	CB_08_353_4W_01 REV A	28.06.2024
Elevation & Floor plan	TYPE 4 FLOOR PLANS & ELEVATIONS	CB_08_353_4_01 REV B	28.06.2024
Elevation & Floor plan	TYPE 4B FLOOR PLANS & ELEVATIONS	CB_08_353_4B_01 REV A	28.06.2024
Elevation & Floor plan	TYPE 7 (3) FLOOR PLANS & ELEVATIONS	CB_08_353_73B_01 REV B	28.06.2024
Elevation & Floor plan	TYPE 7 (3) FLOOR PLANS & ELEVATIONS	CB_08_353_73B_02 REV A	28.06.2024
Elevation & Floor plan	TYPE 7 (3) FLOOR PLANS & ELEVATIONS	CB_08_353_73B_03 REV A	28.06.2024
Elevation & Floor plan	TYPE 7 (3) FLOOR PLANS & ELEVATIONS	CB_08_353_73B_04 REV B	28.06.2024
Elevation & Floor plan	TYPE 7 (3) FLOOR PLANS & ELEVATIONS	CB_08_353_73B_05 REV A	28.06.2024
Elevation & Floor plan	TYPE 7 (3) FLOOR PLANS & ELEVATIONS	CB_08_353_73B_06 REV A	28.06.2024
Elevation & Floor plan	TYPE 6 FLOOR PLANS & ELEVATIONS	CB_08_353_6_01 REV A	28.06.2024
Elevation & Floor plan	TYPE 6 FLOOR PLANS & ELEVATIONS	CB_08_353_6_02 REV B	28.06.2024
Elevation & Floor plan	TYPE 6 FLOOR PLANS & ELEVATIONS	CB_08_353_6_03 REV A	28.06.2024
Elevation & Floor plan	TYPE 9 FLOOR PLANS & ELEVATIONS	CB_08_353_9_01 REV B	28.06.2024
Elevation & Floor plan	TYPE 9 FLOOR PLANS & ELEVATIONS	CB_08_353_9_02 REV A	28.06.2024
Elevation & Floor plan	TYPE 11 FLOOR PLANS & ELEVATIONS	CB_08_353_11_01 REV A	28.06.2024
Elevation & Floor plan	TYPE 11 FLOOR PLANS & ELEVATIONS	CB_08_353_11_02 REV A	28.06.2024
Elevation & Floor plan	1BM APARTMENTS FLOOR PLANS & ELEVATIONS	CB_08_353_1BM_01 REV A	28.06.2024

Elevation & Floor plan	2BF APARTMENTS FLOOR PLANS & ELEVATIONS	CB_08_353_2BF_01 REV B	28.06.2024
Elevation & Floor plan	2BF APARTMENTS FLOOR PLANS & ELEVATIONS	CB_08_353_2BF_02 REV B	17.07.2024
Elevation & Floor plan	TYPE 1A FLOOR PLANS & ELEVATIONS	CB_08_353_1A_01 REV A	28.06.2024
Elevation & Floor plan	TYPE 2A FLOOR PLANS & ELEVATIONS	CB_08_353_2A_02 REV A	28.06.2024
Elevation & Floor plan	TYPE 4A FLOOR PLANS & ELEVATIONS	CB_08_353_4A_01 REV A	28.06.2024
Elevation & Floor plan	1BF& 2BF APARTMENTS FLOOR PLANS & ELEVATIONS	CB_08_353_1BF&2BF_01 REV A	28.06.2024
Elevation & Floor plan	TYPE 1BCH FLOOR PLANS & ELEVATIONS	CB_08_353_1BCH_01	28.06.2024
Elevation & Floor plan	CAR PORTS FLOOR PLAN & ELEVATIONS	CB_08_353_GAR_01 REV B	28.06.2024
Elevation & Floor plan	CAR PORTS FLOOR PLAN & ELEVATIONS	CB_08_353_GAR_02 REV A	28.06.2024
Elevation & Floor plan	GARAGES FLOOR PLAN & ELEVATIONS	CB_08_353_GAR_03 REV B	28.06.2024
Elevation & Floor plan	CYCLE STORE FLOOR PLAN & ELEVATION	CB_08_353_CYC_01 REV A	28.06.2024
Details plan	BIN STORE FLOOR PLAN & ELEVATION	CB_08_353_BIN_01	
Details plan	SUB STATION FLOOR PLAN & ELEVATION	CB_08_353_SUB_01	28.06.2024
Details plan	BOREHOLE PLANT FLOOR PLAN & ELEVATIONS	CB_08_353_BOR_01	28.06.2024
Layout plan	Preliminary Levels Layout	23-225-009 REV E	28.06.2024
Details plan	SURFACE WATER DRAINAGE EAST BASIN & SWALE	23-225-SK03 REV A	28.06.2024
Details plan	Drainage Strategy	23-225-011 Rev C	24/07/2024
Details plan	Drainage Strategy - Technical Note Addendum 2	23-225-06	24/07/2024
Layout plan	Illustrative Landscape Masterplan	GLS_160_143_1200 REV C	28.06.2024
Tree plan	Tree Planting Detail	GLS_160_143_1700 REV A	21.02.2024
Tree plan	Tree Strategy	GLS_160_143_1500 REV C	28.06.2024
Layout plan	Landscape General Arrangement	GLS_160_143_1300 REV D	22.07.2024
Supporting Statement	Water Neutrality	HLEF 04191 REV 7	28.06.2024

Reason: For the avoidance of doubt and in the interest of proper planning.

- 2 **Pre-Commencement Condition:** Notwithstanding the details shown on the Preliminary Level Layout Plan [23-225-009 Rev E] no development shall commence until precise details (to include details shown on a plan) of the existing and proposed finished floor levels and external ground levels of the development in relation to nearby datum points adjoining the application site have been submitted to and approved by the Local Planning Authority in writing. The development shall be completed in accordance with the approved details.

Reason: As this matter is fundamental to control the development in detail in the interests of amenity and visual impact and in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 3 **Pre-Commencement Condition:** No development shall commence until full details of the public open spaces and play areas have been submitted to and approved by the Local Planning Authority in writing. The submitted details shall show accordance with the landscaping proposals and shall include, but not limited to, location of each area, type of play equipment, surfacing, planting, fencing, seating, bins, dog waste bins, and signage for each area) The public open spaces and play areas shall be installed in accordance with details approved by the Local Planning Authority and maintained as such thereafter.

Reason: To ensure that satisfactory provision for outdoor play and recreation is made within the development, in the interests of the amenity of future occupiers of the development, in accordance with Policies 32, 33, 39 and 43 of the Horsham District Planning Framework (2015) and the recommendations of the Open Space and Recreation Study.

- 4 **Pre-Commencement Condition:** No development shall commence until full details of underground services, including locations, dimensions and depths of all service facilities and required ground excavations for that phase, have been submitted to and approved by the Local Planning Authority in writing. The submitted details shall show accordance with the landscaping proposals and Arboricultural Method Statement, complete with root barriers if needed. The development shall thereafter be carried out in accordance with the approved details.

Reason: As this matter is fundamental to the acceptable delivery of this permission, to ensure the underground services do not conflict with satisfactory landscaping in the interests of amenity in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 5 **Pre-Commencement Condition:** No development shall commence, including demolition pursuant to the permission granted, ground clearance, or bringing equipment, machinery or materials onto the site, until the following preliminaries have been completed in the sequence set out below:

- All trees on the site shown for retention on approved Tree Strategy Plan [GLS_160_143_1500 Rev C], and the Arboricultural Method Statement [CC39-1039] as well as those off-site whose root protection areas ingress into the site, shall be fully protected throughout all construction works by tree protective fencing affixed to the ground in full accordance with section 6 of BS 5837 'Trees in Relation to Design, Demolition and Construction - Recommendations' (2012).
- Once installed, the fencing shall be maintained during the course of the development works and until all machinery and surplus materials have been removed from the site.
- Areas so fenced off shall be treated as zones of prohibited access, and shall not be used for the storage of materials, equipment or machinery in any circumstances. No mixing of cement, concrete, or use of other materials or substances shall take place within any tree protective zone, or close enough to such a zone that seepage or displacement of those materials and substances could cause them to enter a zone.

Any trees or hedges on the site which die or become damaged during the construction process shall be replaced with trees or hedging plants of a type, size and in positions agreed by the Local Planning Authority.

Reason: As this matter is fundamental to ensure the successful and satisfactory protection of important trees and hedgerows on the site in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 6 **Pre-Commencement (Slab Level) Condition:** Notwithstanding the indicative details shown on approved External Finishes Layout plan [CB_08_535_008], no development above ground floor slab level of any part of the development hereby permitted shall take place until a schedule of materials and finishes and colours to be used for external walls, windows, roof-

lights, doors and roofs of the approved buildings, and details of the porch canopy, have been submitted to and approved by the Local Planning Authority in writing and all materials used in the construction of the development hereby permitted shall conform to those approved.

Reason: As this matter is fundamental to enable the Local Planning Authority to control the development in detail in the interests of amenity by endeavouring to achieve a building of visual quality in accordance with Policy 33 of the Horsham District Planning Framework (2015) and Policy ShipHD3 of the Shipley Neighbourhood Plan.

- 7 **Pre-commencement (slab level) Condition:** No development above ground floor slab level shall commence until full details of the water efficiency measures required by the approved water neutrality strategy (HELF 04191_7_V7 received 28.06.2024) have been submitted to and approved in writing by the Local Planning Authority.

Reason: To ensure the development is water neutral to avoid an adverse impact on the Arun Valley SACSPA and Ramsar sites in accordance with Policy 31 of the Horsham District Planning Framework (2015), Paragraphs 185 and 186 of the National Planning Policy Framework (2023), its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), and s40 of the NERC Act 2006 (Priority habitats & species).

- 8 **Pre-Occupation Condition:** No part of the development hereby permitted shall be occupied until fire hydrant(s) to BS 750 standards or stored water supply (in accordance with the West Sussex Fire and Rescue Guidance Notes) has been installed, connected to a water supply with appropriate pressure and volume for firefighting, and made ready for use in consultation with the WSCC Fire and Rescue Service. The hydrant(s) or stored water supply shall thereafter be retained as such.

Reason: In accordance with fire and safety regulations in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 9 **Pre-Occupation Condition:** No dwelling hereby permitted shall be first occupied until evidence has been submitted to and been approved in writing by the Local Planning Authority that the approved water neutrality strategy for that dwelling has been implemented in full. The evidence shall include the specification of fittings and appliances used, evidence of their installation, and completion of the as built Part G water calculator or equivalent. The installed measures shall be retained as such thereafter.

Reason: To ensure the development is water neutral to avoid an adverse impact on the Arun Valley SACSPA and Ramsar sites in accordance with Policy 31 of the Horsham District Planning Framework (2015), Paragraphs 185 and 186 of the National Planning Policy Framework (2023), its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), and s40 of the NERC Act 2006 (Priority habitats & species).

- 10 **Pre-Occupation Condition:** Notwithstanding the details submitted as part of the application and superseded by way of revised details, no part of the development hereby permitted shall be first occupied until full details of all hard and soft landscaping works shall have been submitted to and approved, in writing, by the Local Planning Authority. The details shall include plans and measures addressing the following:

- Details of all existing trees and planting to be retained
- Details of all proposed trees and planting, including schedules specifying species, girth, planting size, densities and plant numbers and tree pit details
- Details of all hard surfacing materials and finishes
- Details of the treatment of the boundaries of the site. The boundary treatment details shall specify the siting, design, height and materials of the screen walls/fences to be constructed or erected and/or the species, spacing and height of hedging to be retained and / or planted together with a programme of implementation. The details shall address the recommended amendments within the Landscape Architect consultee response dated 16th July 2024.

The approved landscaping scheme shall be fully implemented in accordance with the approved details within the first planting season following the first occupation of any part of the development. Unless otherwise agreed as part of the approved landscaping, no trees or hedges on the site shall be wilfully damaged or uprooted, felled/removed, topped or lopped without the previous written consent of the Local Planning Authority until 5 years after completion of the development. Any proposed or retained planting, which within a period of 5 years, dies, is removed, or becomes seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species unless the Local Planning Authority gives written consent to any variation.

Reason: To ensure a satisfactory development that is sympathetic to the landscape and townscape character and built form of the surroundings, and in the interests of visual amenity in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 11 **Pre-Occupation Condition:** No dwelling hereby permitted shall be occupied until the car parking spaces (including garages and car ports where applicable) necessary for that dwelling have been constructed and made available for use in accordance with approved drawing numbers [CB_08_353_006 Rev A and CB_08_353_007 Rev A]. The car parking spaces, garages and car-ports permitted shall thereafter be retained as such for their designated use and used only as private domestic garages and car ports for the parking of vehicles incidental to the use of the properties as dwellings and for no other purposes.

Reason: To provide adequate and satisfactory car-parking provisions is made for the parking of vehicles clear of all carriageways in accordance with Policies 40 and 41 of the Horsham District Planning Framework (2015).

- 12 **Pre-Occupation Condition:** No buildings containing flats or maisonettes shall be occupied until a strategy for the provision of electrical vehicle charging points to serve the flats or maisonettes within that building has been submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be installed prior to first occupation of the building containing the flats or maisonettes and shall thereafter remain as such.

Reason: To provide electric vehicle car charging space for the use in accordance with Policies 35 and 41 of the Horsham District Planning Framework (2015) and the WSCC Parking Standards (2019).

- 13 **Pre-Occupation Condition:** No dwelling hereby permitted shall be occupied until the cycle parking facilities serving it have been provided within the garage or side or rear garden or cycle storage for that dwelling, in accordance with approved drawing numbers [CB_08_353_006 Rev A and CB_08_353_007 Rev A]. The cycle parking facilities shall thereafter be retained for use at all times.

Reason: To ensure that there is adequate provision for the parking of cycles in accordance with Policy 40 of the Horsham District Planning Framework (2015).

- 14 **Pre-Occupation Condition:** Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015, the obscure-glazed windows as shown on approved plans shall be implemented prior to occupation, and, once installed shall be retained permanently thereafter.

Reason: To protect the privacy of adjacent occupiers in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 15 **Pre-Occupation Condition:** No part of the development hereby permitted shall be occupied until provision for the storage of refuse and recycling has been provided within the garage or side or rear garden for that dwelling. The facilities shall thereafter be retained for use at all times.

Reason: To ensure the adequate provision of refuse and recycling facilities in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 16 **Regulatory Condition:** All mitigation and enhancement measures and/or works shall be carried out in accordance with the details contained in the Biodiversity Survey (ACD Environmental Ltd, February 2020) and the Ecology Technical Update (ACD Environmental Ltd., December 2023) as already submitted with the planning application and agreed in principle with the local planning authority prior to determination. This will include the appointment of an appropriately competent person e.g. an ecological clerk of works (ECoW) to provide on-site ecological expertise during construction. The appointed person shall undertake all activities, and works shall be carried out, in accordance with the approved details.

Reason: To conserve and enhance protected and Priority species and allow the LPA to discharge its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 as amended and s40 of the NERC Act 2006 (Priority habitats & species) and Policy 31 of the Horsham Development Framework.

- 17 **Regulatory Condition:** Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015 or Orders amending or revoking and re-enacting the same, no gate, fence, wall or other means of enclosure shall be erected or constructed in front of the forward most part of any proposed building which fronts onto a highway without express planning consent from the Local Planning Authority first being obtained.

Reason: In order to safeguard the character and visual amenities of the locality and/or highway safety and in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 18 **Regulatory Condition:** Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015 (and/or any Order revoking and/or re-enacting that Order) no development falling within Classes A, B and / or E of Part 1 of Schedule 2 of the order shall be erected, constructed or placed within the curtilage(s) of the development hereby permitted without express planning consent from the Local Planning Authority first being obtained.

Reason: In the interest of visual amenity and due to the size of the dwellings and outbuildings permitted in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 19 **Regulatory Condition:** The development hereby permitted shall be implemented fully in accordance with the approved Tree Strategy Plan [GLS_160_143_1500 Rev C], and the Arboricultural Method Statement [CC39-1039] and the revised measures set out in Drainage Provision Technical Note (Arboriculture) received 28.06.2024.

Reason: To ensure the satisfactory protection of trees in the interests of amenity and nature conservation and in accordance with Policy SD1, SD6 and 31 of the Horsham District Planning Framework (2015).

Note to Applicant

Please be advised that there are conditions on this notice that will require the submission of details to be submitted for approval to the Local Planning Authority. To approve these details, you will need to submit an "Application for approval of details reserved by condition" with an application form and pay the appropriate fee. Guidance and the forms can be found at planningportal.co.uk/planning/planning-applications

Note to Applicant

The applicant is advised that full details of the hard and soft landscape works include the provision of, but shall not be necessarily limited to:

- Planting and seeding plans and schedules specifying species, planting size, densities and plant numbers
- Tree pit and staking/underground guying details
- A written hard and soft landscape specification (National Building Specification compliant), including ground preparation, cultivation and other operations associated with plant and grass establishment
- Hard surfacing materials - layout, colour, size, texture, coursing, levels
- Walls, steps, fencing, gates, railings or other supporting structures - location, type, heights and materials
- Minor artefacts and structures - location and type of street furniture, play equipment, refuse and other storage units, lighting columns and lanterns

Note to Applicant

The applicant's attention is drawn to the provisions of both the Wildlife and Countryside Act 1981 and the Protection of Badgers Act 1992. Under these Acts, it is an offence to intentionally or recklessly kill, disturb, damage or destroy a protected species or its habitat. This includes but is not limited to wild birds, bats, badgers, dormice, reptiles and great crested newts.

Note to Applicant – Community Infrastructure Levy (CIL):

Horsham District Council has adopted a Community Infrastructure Levy (CIL) Charging Schedule which took effect on 1st October 2017. **This development constitutes CIL liable development.**

If you have not received a Liability Notice from the Council within 1 month of the decision date please contact the CIL Team at cil@horsham.gov.uk.

CIL is a mandatory financial charge on development. To avoid additional financial penalties, the requirements of CIL must be managed before development is commenced (including in the event of any successful appeal).

Payment must be made in accordance with the requirements of the CIL Demand Notice issued.

Note to Applicant:

Statement pursuant to Article 35 of the Town and Country Planning (Development Management Procedure) (England) Order 2015. The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received, in order to be able to, where possible, grant permission.

ADDITIONAL INFORMATION

Planning Permission – Important Provisos

If planning permission has been granted, please note that your Notice of Decision refers only to consideration of your proposal under the Town and Country Planning Acts. It is not a building regulations approval and does not mean that you can disregard other Acts of Regulations, or avoid any other legal obligations. Some of these obligations, of particular relevance to your proposal are referred to elsewhere in this note. Before you proceed with your proposal you should ensure that a Building Control application is not required, or has been submitted. The Building Control Department can be contacted on 01403 215151.

If this permission relates to new dwellings, commercial premises or other buildings which will require a new postal address you should contact the Council's Street Naming & Numbering Department as soon as possible or before work commences on site. Further details are available on the Street Naming page on the Council's website or alternatively e-mail streetnaming@horsham.gov.uk or telephone 01403 215139.

It is the responsibility of the developer to provide bins for the development. If you are a developer and need to purchase bins, please email hop.oast.admin@horsham.gov.uk.

It must be stressed that the information included on this Notice of Decision may not include all your legal obligations, and it does not grant you rights to carry out works on or over lands, or to access land that is not within your control or ownership.

Compliance with the Approved Plans and Conditions

The development hereby approved must be implemented in accordance with the approved plans and any conditions set out in the Notice. Some of the conditions may specify that works are to be carried out, and/or details submitted and approved before all or part of the development is started. These will appear in the 'Pre-Commencement Conditions' section of the Notice.

If works on implementing this permission is started without these requirements being fully met, the development may be unauthorised and the permission invalidated, and could lead to enforcement proceedings or in some cases to prosecution.

Amendments

Should alterations or amendments be required to the approved plans, it will be necessary to apply either under Section 96A of the Town and Country Planning Act 1990 for non-material alterations, or under Section 73 of the Act for minor material alterations. An application must be made using the standard application form and you should consult with us, to establish the correct type of application to be made.

Monitoring

Horsham District Council monitors the implementation of planning permissions. Please be aware that monitoring officers may visit the application site at various stages of the development to ensure compliance with the approved plans and conditions.

Conditions Compliance

Requests for confirmation of compliance with conditions associated with that permission should be made in writing or by using the application form 'Approval of Details Reserved by Conditions'.

A request may be for confirmation that one or more conditions imposed on the same permission have been complied with. We aim to respond within 8 weeks of receipt of the request.

Right of Appeals

If you are aggrieved by the decision to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under Section 78 of the Town and Country Planning Act 1990.

You must appeal within 12 weeks of the date of the decision notice for a householder application or 'minor commercial' (shop front) development, and within 6 months for other types of planning applications. There are different timescale – usually 28 days – if an enforcement notice is/has been served for the same (or very similar) land and development. Please note, only the applicant possesses the right of appeal.

Appeals can be made online at: <https://www.gov.uk/planning-inspectorate>. If you are unable to access the online appeal form, please contact the Planning Inspectorate to obtain a paper copy of the appeal form on tel: 0303 444 5000.

The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.

The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at

least 10 days before submitting the appeal. Further details are at <https://www.gov.uk/government/collections/casework-dealt-with-by-inquiries>.

Appendix C

Proposed Site Layout

Blinks Wood

RASCALS FARM, SOUTHWATER

96

HOUSE TYPE NAME	REF	DESCRIPTION	HEIGHT	BEDS	FINISHED (NET)		NO	SQ.FT. TOT.
					SQ.FT	SQ.M		(NET)
MARKET							65%	
2 BED							10	
BUXTON	BUX	2 BEDROOM HOUSE	2.0	2B4P	716	66.54	8	5728
BAKESWELL	BAK	2 BEDROOM HOUSE + STUDY	2.0	2B4P	832	77.32	2	1664
3 BED							31	
LETCHWORTH	LET	3 BEDROOM HOUSE	2.0	3B5P	983	91.36	8	7864
WARWICK	WAR	3 BEDROOM HOUSE	2.0	3B5P	1075	99.91	4	4300
AMBERLEY	AMB	3 BEDROOM HOUSE	2.0	3B6P	1144	106.32	6	6864
STRATFORD LIFESTYLE	STL	3 BEDROOM HOUSE	2.0	3B6P	1211	112.55	8	9688
OXFORD LIFESTYLE	OXL	3 BEDROOM HOUSE	2.0	3B6P	1316	122.30	5	6580
4 BED							19	
OVERTON	OVR	4 BEDROOM HOUSE	2.0	4B7P	1392	129.37	4	5568
HARBORCATE	HAR	4 BEDROOM HOUSE	2.0	4B8P	1553	144.33	3	4659
HENLEY	HEN	4 BEDROOM HOUSE	2.0	4B7P	1768	164.31	5	8840
LEDHAM	LED	4 BEDROOM HOUSE	2.0	4B7P	1841	171.10	2	3682
RICHMOND	RIC	4 BEDROOM HOUSE	2.0	4B8P	2030	188.66	5	10150
5 BED							2	
BLENHEIM	BLM	5 BEDROOM HOUSE	2.0	5B9P	2307	214.41	2	4614
SUB TOTAL							62	80201

AFFORDABLE RENT								25%
1 BED								6
1BF	1BF	1 BEDROOM FLAT	3.0	1B2P	539	50.10	6	3234
2 BED								14
2BF	2BF	2 BEDROOM FLAT	3.0	2B3P	672	62.50	6	4032
2BF	2BF	2 BEDROOM FLAT	3.0	2B3P	709	65.90	6	4254
2BCHA	2BCHA	2 BEDROOM COACH HOUSE	2.0	2B3P	777	72.19	2	1554
3 BED								4
3TOUR	3TOUR	3 BEDROOM HOUSE	2.0	3B5P	1017	94.48	4	4068
SUB TOTAL								24 17142

LOW COST OWNERSHIP								10%
2 BED								8
THIRLMERE	THIR	2 BEDROOM HOUSE	2.0	2B3P	783	72.74	8	6264
3 BED								2
3TOUR	3TOUR	3 BEDROOM HOUSE	2.0	3B5P	1017	94.48	2	2034
SUB TOTAL								10 8298

GRAND TOTAL								96 105641
-------------	--	--	--	--	--	--	--	-----------

KEY
CATESBY RESIDENTIAL
BOUNDARY

Scale @ A0:
0 5 10 15 20 25m
Scale 1:500
North

Rev Date Drawn Checked

Date: AUGUST 2025
Drawn by: KJM Checked by: BB
Dwg No: CB_17_430_601 Rev: 1

Project: RASCALS FARM, SHIPLEY ROAD,
SOUTHWATER, WEST SUSSEX
Title: PLANNING
LAYOUT
Client: Barratt
Redrow



Coopers & Lysons Limited, Coopers & Lysons House, 24 Gutterfield Road, Brighton, Sussex BN1 1BN. Telephone 01274 450031 - www.cooperslysons.co.uk
This plan is a preliminary design and is not to be used for construction purposes without the written consent of Coopers & Lysons. It is not to be relied upon for any other purpose.

Appendix D

Environment Agency - Flood Map for Planning

Flood map for planning

Your reference	Location (easting/northing)	Created
Unspecified	515412/125162	30 November 2025 21:07

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2025 AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



Flood map for planning

Your reference

Unspecified

Location (easting/northing)

515412/125162

Scale

1:2,500

Created

30 Nov 2025 21:07

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area



0 20 40 60m

Appendix E

Environment Agency - Surface Water Flood Map

← Exit map

 Rivers and the sea

 Reservoirs

Surface water map

Yearly chance of flooding

☐ Extent

☐ Depth

Yearly chance of flooding between 2040 and 2060

☒ Extent

 High chance
More than 3.3% chance each year

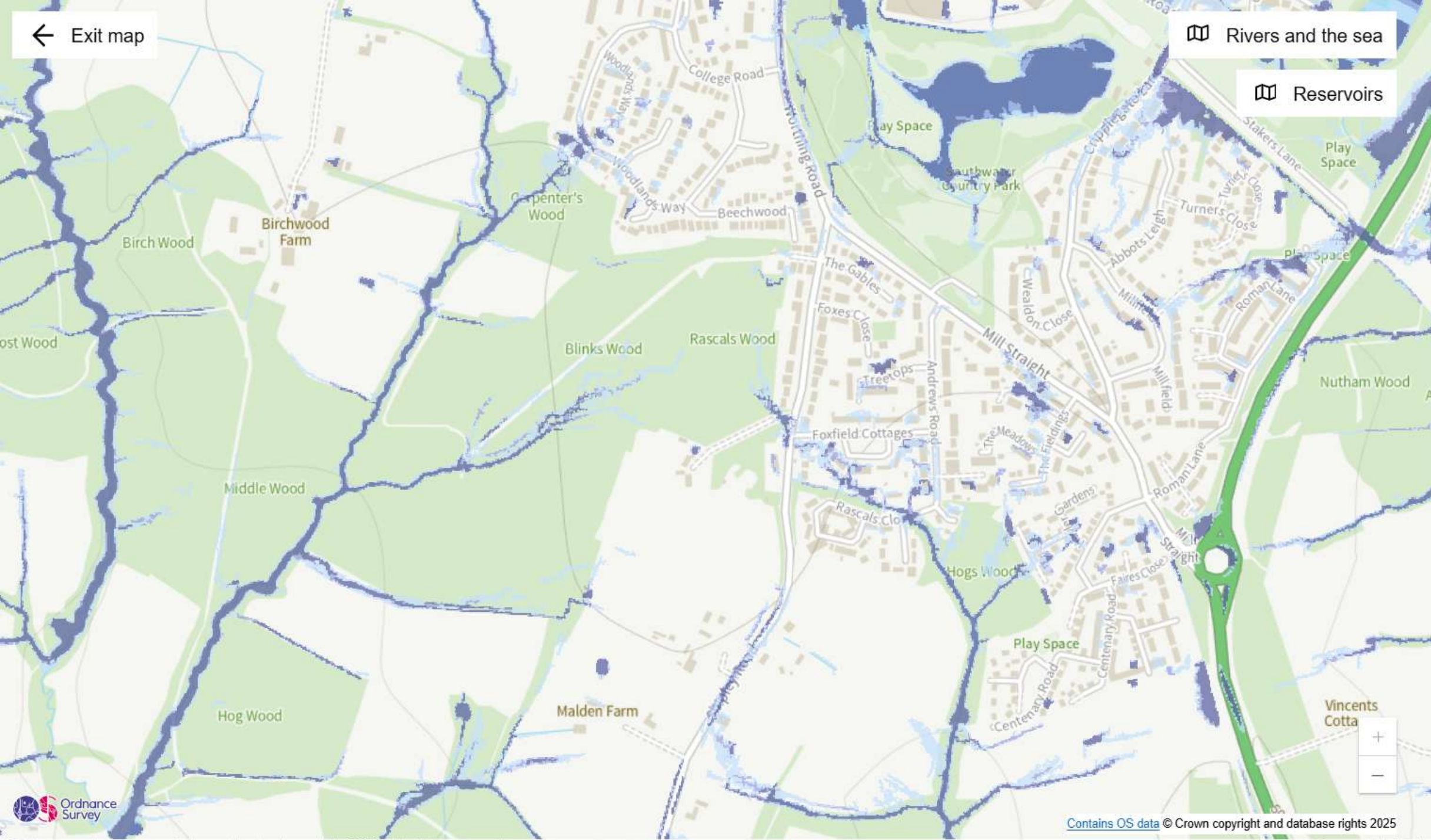
 Medium chance
Between 1% and 3.3% chance each year

 Low chance
Between 0.1% and 1% chance each year

☐ Depth

Map details

☒ Show flooding



Appendix F

GRM Report Extracts



Woods Hardwick

Architecture | Engineering | Planning | Surveying

GRM Development Solutions
Laurus House
First Avenue
Centrum 100
Burton upon Trent
Staffordshire, DE14 2WH
www.grm-uk.com
t. 01283 551249

GRM Development Solutions
14 Garden Court
Tewin Road
Welwyn Garden City
Hertfordshire, AL7 1BH
e. info@grm-uk.com
t. 01707 830213



RASCALS FARM, SHIPLEY ROAD, SOUTHWATER

PHASE I SITE APPRAISAL FOR CATESBY ESTATE PLC

Project Ref:
P9249

Date:
February, 2020

Prepared for:
Catesby Estates Plc
Arena Business Centres
First Floor, The Square
Basing View, Basingstoke
RG21 4EB

This report has been prepared in accordance with GRM's Accredited Quality Procedures.

If you have any queries regarding this report please contact the project manager in the first instance.

Prepared by:	Reviewed by:	Approved by:
Deborah Ashton Project Manager BSc MSc CGeol FGS (Principal) deborah.ashton@grm-uk.com	Dr Bill Peacock CGeol FGS (Director) bill.peacock@grm-uk.com	Dr Bill Peacock CGeol FGS (Director) bill.peacock@grm-uk.com
When required in-house geological, geotechnical, environmental, structural and civil staff helped to produce this document.		
Issue	Description of Revision	Signature



info@grm-uk.com

www.grm-uk.com

2.4 ANTICIPATED GEOLOGY

The BGS Geological Sheet for this area shows the site to be underlain by:

- Solid geology of Weald Clay Formation comprising dark grey thinly-bedded mudstones (shales) and mudstones with subordinate siltstones, fine- to medium-grained sandstones, including calcareous sandstone (e.g. Horsham Stone Member), shelly limestones (the so called "Paludina Limestones") and clay ironstones.
- There are no superficial deposits mapped below the site.

Limited thicknesses of made ground, local to the centre of the site and possibly in the area of the in filled pond can be expected.

It is anticipated that the Weald Clay Formation will be encountered as clay at shallow depth, becoming very weak shale, potentially with subordinate water bearing sandstone and limestone beds, both of which are mapped in proximity to the site.

There are no nearby BGS borehole records close to the site, however there are borehole records for the former brick works to the northeast, which are presented in Appendix E. The BGS boreholes suggest the stratum comprises shallow deposits of yellow clay and sandstone, with resting water levels at circa 3m, becoming hard blue clay/shale with thin sandstone beds. It should be noted that the upper materials may comprise reworked spoil from the quarry.

Significant Features identified from geological data:

Made Ground – potential source of contamination and low strength material.

Cohesive strata – deepened foundations in association with trees.

Pyritic strata – uprated concrete class.

2.5 HYDROGEOLOGICAL INFORMATION

The BGS borehole records, c. 300m northeast, reports water strikes associated with the Weald Clay Formation, though these are likely associated with shale, limestone and sandstone layers, which are unlikely to be encountered at shallow depth below the site.

The Environment Agency has classified the underlying strata (Weald Clay Formation) as unproductive strata.

There are no recorded groundwater abstraction licenses within 500m of the site or potable abstractions within 2000m of the site and the site is not recorded to be within a Groundwater Source Protection Zone.

Significant Features identified from hydrogeological data:

None.



RASCALS FARM, SHIPLEY ROAD, SOUTHWATER

PHASE II SITE APPRAISAL
FOR
CATESBY ESTATES PLC

Project Ref:
P9249

Date:
September 2021

Prepared for:
Catesby Estates PLC
Arena Business Centres
First Floor
The Square
Basing View
Basingstoke
RG21 4EB

This report has been prepared in accordance with GRM's Accredited Quality Procedures

If you have any queries regarding this report please contact the project manager in the first instance.

Prepared by:	Reviewed by:		Approved by:
Alex Thornber MGeol FGS (Geo-Environmental Engineer) alexandra.thornber@grm-uk.com	<i>Project Manager</i> Charlotte Mortimer BSc (Hons) MEnvSc (Senior Environmental Scientist) charlotte.mortimer@grm-uk.com	Geoffrey Beckett BSc CGeol (Director) geoff.beckett@grm-uk.com	Geoffrey Beckett BSc CGeol (Director) geoff.beckett@grm-uk.com
When required in-house geological, geotechnical, environmental, structural and civil staff helped to produce this document.			
Issue	Description of Revision		Signature



Land Appraisal | Environmental | Geotechnical | Design | Mining | Inspections

GRM Development Solutions Limited, Laurus House, First Avenue, Centrum 100, Burton upon Trent, Staffs DE14 2WH
www.grm-uk.com | info@grm-uk.com | 01283 551249 Company No. 3099018 (England), VAT Reg. No. 658 1005 48

Site Appraisal for Rascals Farm, Shipley Road, Southwater

SUMMARY OF RECOMMENDATIONS

Where further assessment is required it is indicated with a "Y" in the right hand column.		
Proposed Development	Residential properties with associated gardens, soft landscaping and infrastructure.	
CONTAMINATION ASSESSMENT - REMEDIATION / WASTE DISPOSAL		
End Users	No remediation required. Removal of existing stockpiles.	
Site Workers	Asbestos survey of existing buildings.	Y
Construction Materials	Appropriate concrete specification. PE water supply pipes required (to be confirmed by water authority).	Y
Groundwater	No remediation required.	
Surface Water	No remediation required.	
Waste Disposal	Preliminary Waste Classification: Non-Hazardous for topsoil. Hazardous for made ground. Possible made ground below existing structures may require further investigations. Inert for natural strata. Will need to be confirmed by receiving landfill.	Y
GEOTECHNICAL ASSESSMENT – FOUNDATIONS		
Ground Treatment Required	None required. Temporary Drainage for standing water (if encountered at the time of construction), temporary haul roads.	Y
Main Bearing Strata	Cohesive Weald Clay Formation.	
Nett Allowable Bearing Pressure	110kN/m ² (Clay); 150 kN/m ² (Clayey gravel), >300kN/m ² (Rock) for trench fill foundations. To be confirmed by a specialist for piles.	Y
Rockhead	Not encountered.	
Tree Influence	Some, along site and field boundaries. Extent to be confirmed by a tree survey.	Y
Volume Change Potential	Medium to high; further testing suggested to reduce volume change potential to medium.	Y
Likely Foundation Types	90% Trench Fill, 10% Pile.	Y
Likely Foundation Depth Range	1.00m begl minimum, >2.50m begl maximum depths, Average 1.5m, (maximum depths to be confirmed following tree survey and final layout plans, piling depths to be confirmed by a specialist).	Y
Excavation Hazards	Sub-structures below existing buildings.	Y
Floor Slab Types	Beam and block & cast <i>in situ</i> suspended.	Y
Gas Protection Requirements Radon and / or Landfill	No gas protection measures required. To be confirmed when gas monitoring is complete. No radon protective measures required.	
GEOTECHNICAL ASSESSMENT - GENERAL		
Slope Stability Risk	Low.	
Soakaways Potential	Not suitable.	
New Access Roads	Observational CBRs 2% to 4% in cohesive soils.	Y
Buried Concrete Class	DS – 1; AC – 1s. GEN – 1 unreinforced, RC35 reinforced.	Y
Retaining Walls and Boundary Features	None existing or proposed at this stage.	

Further Assessment Targets	Completion of ground gas monitoring programme. Tree survey. Delineation of the soft ground around WS02 which may reduce the area for deepened foundations. Asbestos survey of existing buildings prior to demolition. Further investigation beneath existing buildings and within areas of the historic ponds. Further plasticity index testing to classify the site as medium volume change or reduce high volume change area. Plot specific foundation investigation (if required). <i>In situ</i> CBR testing immediately prior to road construction. Plot specific desiccation testing. Should the development proceed it is recommended that further testing is conducted for waste disposal characterisation.	Y
Other Comments	A flood risk assessment is required for this site as it is over 1ha in size.	Y

This summary is based on the full report that provides the detailed assessment of the ground risks affecting the development and how to manage them. It should not be used in isolation.

2 PHASE I DESK STUDY SUMMARY

Project Name.	Rascals Farm, Shipley Road, Southwater.
Project Reference.	P9249.
Client.	Catesby Estates PLC.
Site Location (address).	Rascals Farm, Shipley Road, Southwater, West Sussex, RH13 9BG.
National Grid Reference.	TQ 515 125.
Site Area (Ha).	7.41 Ha.
Summary of Proposed Development.	Residential development, including areas of public open space and balancing ponds with associated infrastructure. Retained woodland is located to the north of the development area.
Client Supplied Information.	Site location plan, utilities and services appraisal, development plan.
Site Setting.	The site comprises Rascals Farm in the south, and woodland to the north of the development area. A Site Location and Boundary Plan is presented in Appendix C. An access track leads to an arrangement of buildings forming Rascals Farm, residence and stables, surrounded by horse paddocks to the south with an area of ancient woodland to the north.
Site History.	From earliest available mapping (1875), the site comprised three plots of agricultural land in the southern and central parts of the site and a plot of deciduous woodland, part of Rascals Wood, in the northern part of the site. By 1956-61 a small structure was noted in the centre of the site, with an track leading to Shipley Road. The site and surroundings remain substantially unchanged until 1975 when a small pond on the southern boundary of the site is no longer mapped, new structures and a pond is recorded in the centre of the site, an area to the east of these structures is shown as woodland and a track, later labelled as orchards, and the property is named as Rascals. By the early 2000's a new structure is developed on the site (2003), after which time little further change is mapped to the site or its surroundings.
Geology.	Limited thicknesses of made ground are anticipated associated with the infilled pond as well as the existing and historic farm buildings. No superficial deposits are recorded onsite. The Weald Clay Formation is recorded across the site. These strata are generally recorded to comprise dark grey thinly bedded mudstones which when weathered are generally recorded to be light brown in colour.

Hydrogeology.	The Environment Agency has classified the underlying strata (Weald Clay Formation) as unproductive strata. There are no recorded groundwater abstraction licenses within 500m of the site or potable abstractions within 2000m of the site, and the site is not recorded to be within a Groundwater Source Protection Zone.
Hydrology.	The nearest surface water features relate to records of inland rivers identified 70m south, and 133m east of the site at their nearest points. There are no nearby surface water abstraction licenses associated with these surface water features.
Flooding.	The Environment Agency indicates that the site is not within 50m of a Flood Zone 2 or 3 and is not within 250m of a recorded historical flood event, and that the risk of flooding from surface water and groundwater is negligible.
Mining and Quarrying.	The risk from coal mining is considered to be negligible. The site is in proximity to a large historical brick works which is now inactive, worked out and has been restored.
Environmental Information.	The following contamination risks have been identified: On-site - Existing structures which may contain asbestos containing materials. - Infilled pond with unknown fill materials close to the southern boundary. Off-site - Former brickwork excavations.
Potential Soil Contamination Sources.	The following contamination risks have been identified: - Potentially asbestos containing materials associated with stable roofing. - Potential highly localised TPH contamination associated with heating oil tank. - Potentially contaminated local areas of made ground associated with current development / fill associated with former pond / stacked materials / below ground sewage tank. The risk from contamination is considered to be very low.
Potential Ground Gas Sources (including Radon).	Small potentially infilled ponds both onsite and within a potentially influencing distance of the site. Former brickwork excavations 750m north east of the site. The risk from ground gas is considered to be low. The site is not within an area recorded to require radon protection measures.

The Phase I Ground Hazard Diagram is presented in Appendix D.

3 PHASE II GROUND INVESTIGATION

3.1 FIELDWORK

The ground investigation has been designed in accordance with the general comments outlined in Appendix A (iv).

The ground investigation fieldwork was conducted between the 24th and the 26th August 2021 with groundwater / gas monitoring visits continuing after that period. A total of twenty five exploratory holes (ten trial pits, twelve window sampler boreholes and three hand dug trial pits) were progressed to depths ranging between 0.30m and 5.00m below existing ground level (begl). The exploratory hole location plan and exploratory hole logs are presented in Appendix E and Appendix F respectively.

The rationale for the positioning of the individual exploratory holes is illustrated in the table below:

LIST OF TARGETED EXPLORATORY HOLES	
Exploratory Hole	Reason for Location and Type
HTP02	Below ground sewage tank, and stables.
HTP03	Above ground heating oil tank.
HTP01	Stockpiled materials.
WS01 – WS11 and TP01 – TP08	Horse paddocks.
WS11	Parking area.
WS12 and TP09	Meadow.
WS03, WS09 and WS12	Desiccation testing.
WS08 - WS12	Ground gas and groundwater monitoring wells.
WS07 and WS11	Orchard.
WS09 and TP01	Historic Ponds.
TP = Trial Pit, WS = Window Sample Hole & HTP = Hand Dug Trial Pit.	

Areas not accessible at the time of the ground investigation included an area in the central part of the site (close to where a pile of building materials was located) due to various unmapped underground water pipes in this area. Furthermore, some northern and central parts of the site were not accessible (including areas in close proximity to the house, access tracks and stables with associated outbuildings), as these were currently occupied. Retained protected woodland is located to the north of the development area.

Small historic ponds have been recorded in the northern and southern parts of the site, it may be prudent to undertake further exploratory work to fully delineate these, when all stockpiled materials and buildings have been removed, and all buried services have been marked out, to fully determine the impact of these on the development. The areas where investigation was not possible are illustrated on the Constraints Plan presented in Appendix G.

Five gas and water monitoring standpipes were installed during the site works, the rationale for these works are discussed fully in Section 6. A Gas Monitoring Plan, illustrating the locations of the standpipes, is presented in Appendix H. The standpipes will need to remain in place until November 2021.

3.2 PROVEN GROUND

The following ground conditions were encountered during the investigation fieldwork:

- Topsoil.
- Made Ground.
- Weathered Weald Clay Formation.

3.2.1 Topsoil

Topsoil including subsoil was encountered as a dark brown clay with variable proportions of sand and gravel in twenty one of the twenty five exploratory holes completed, to depths ranging between 0.10m begl (in WS01) and 0.30m begl (in WS12, TP01, TP02, TP04, TP07 and TP09) with a typical thickness of 0.20m.

3.2.2 Made Ground

Limited made ground was recorded in four locations HTP01, HTP02, HTP03 and WS11 only across the site.

Made ground comprising topsoil with brick and terracotta fragments was identified in HTP02 and HTP03 (to 0.30m begl) which was associated with gardens and soft landscaping around the existing buildings.

Made ground was also encountered in WS11 to 0.15m begl, and comprised a light grey gravel of concrete, brick and mudstone which was used as surfacing for a small parking area.

HTP01 was excavated into a stockpile containing building materials (mostly wood and plastic) located in the central part of the site and comprised a slightly sandy gravel of brick, wood, concrete, limestone and mudstone. The stockpile measured approximately 1.00m high and 5.00m across.

Further made ground (of variable depth and composition) can also be anticipated associated with the existing farm buildings, associated hardstanding and access track.

3.2.3 Weathered Weald Clay Formation

The Weald Clay Formation is recorded across the site on available BGS mapping. The BGS records these strata to comprise dark grey thinly bedded mudstones, which when weathered are generally recorded to be light brown. Dark grey mudstones were not identified in any of the exploratory locations completed, and the natural strata is therefore considered to be representative of the weathered Weald Clay Formation.

The weathered Weald Clay Formation was encountered across the whole site beneath the near surface soils to the depths of the holes between 1.65m and 5m begl. The materials were noted as cohesive and gradually becoming more granular in recovery with depth with extremely weak weathered mudstone bands recorded at the base of WS02, WS10 – WS12, TP02a, TP03 – TP05, TP07 and TP08.

The shallowest material recorded directly below the made ground or topsoil to depths between 1.0m and 1.5m begl was encountered as yellowish brown and occasionally mottled grey slightly gravelly clay.

This gradually graded to a material which was typically recorded as a light yellowish brown friable gravelly clay, which was generally recorded from between 1.0m begl (in WS07, WS08, TP03 and TP06) and 2.0m begl (in WS10).

At depth these materials graded to a completely weathered mudstone recovered as a gravel of weak mudstone (which contained variable proportions of sand and clay). This was recorded from depths of between 1.10m begl (in TP05) and 3.50m begl (in WS10) and was most often encountered from depths of between 2.00m begl and 2.50m begl.

Beneath the cohesive and granular weathered Weald Clay Formation bands of extremely weathered mudstone of the Weald Clay Formation was encountered in WS01, WS03 – WS09, TP01, TP02, TP06 and TP09. In all other locations the mudstone of the Weald Clay Formation was not recovered although it is considered likely that WS10, WS11 and WS12 refused at the interface with the extremely weathered Weald Clay Formation. These strata generally comprised weak light yellowish brown bedded extremely weathered mudstone recovered as a slightly clayey and slightly sandy gravel, which was recorded from depths of between 1.65m in WS05 and 3.90m in WS03.

Standard Penetration Test N-values for the slightly gravelly clay varied between 11 and 24 at 1.0m. Hand shear vane (HSV) results varied between 55 and 110 kPa in the slightly gravelly clay.

Standard Penetration Test N-values for the gravelly clay varied between 4 (WS02 only) to 24 at 1.00m, 17 to 33 at 2.0m and 26 at 3.0m. HSV results varied between 85 and 110 kPa in the gravelly clay.

Standard Penetration Test N-values for the completely weathered mudstone recovered as a gravel varied between 26 and 31 at 2.0m, 28 and 59 at 3.00m begl, 37 and 56 at 4.00m begl, and 43 at 5.00m begl.

All locations recorded SPT refusals ($N \geq 50$) in the extremely weathered mudstone.

For the cohesive weathered Weald Clay Formation strata utilising the empirical relationship formulated by Stroud (1974) where undrained shear strength is related to SPT N-values and a factor based on plasticity. The strength of the soils has been assessed below.

The shallow slightly gravelly clay are indicative of a medium to high strength in the shallower non friable soils.

For the deeper gravelly clay soils indicate a low (WS02 only) to high strength at 1.0m, a high strength at 2.0m begl, and a high strength at 3.0m begl. The lowest SPT of 4 was recorded in WS02 only, nearby boreholes and trial pits (WS01, TP05 and TP02) do not show any consistently lower SPT or HSV values, suggesting that an area of softer ground around is localised around WS02.

The completely weathered Weald Clay Formation (gravel) indicates medium dense to dense strata at 2.00m begl, medium dense to very dense strata at 3.00m begl, dense to very dense strata at 4.00m begl and dense at 5.00m begl.

3.3 CONTAMINATION OBSERVATIONS

No visual or olfactory evidence of potential contamination was encountered during the fieldwork and monitoring. In addition, there were no obvious signs of possible asbestos containing materials or other visible contaminants in either the stockpiles of building materials in the central part of the site, or the stockpiles of manure and building rubble in the southern part of the site.

Within the area of the above ground oil tank no visual or olfactory hydrocarbon contamination was observed in the materials of HTP03.

Due to the limited thickness of made ground it is not considered to be viable source of ground gas. No organic materials were recorded within the vicinity of the former pond to the south of the site (WS09). Therefore it is considered that a significant source of ground gas is not present beneath the site.

3.4 GROUNDWATER OBSERVATIONS

Groundwater seepage was not observed in any of the exploratory holes. However, the exploratory techniques used were rapid and may have masked small water seepages.

Two groundwater monitoring visits have been conducted at the time of writing, and no groundwater was recorded. The results of the monitoring are reported in Appendix I.

Long term monitoring of groundwater levels has not been conducted as part of this investigation and interpreted levels are approximate and may be dependent on seasonal variations.

Due to the lack of groundwater data for the site it has not been possible to accurately determine the groundwater flow direction beneath the site. However, the groundwater flow is considered to be to the south east following the local topography.

3.5 GROUND GAS AND VAPOURS

Ground gases are discussed in full in Section 6. In summary, the concentrations of ground gases recorded to date are presented in Appendix I and summarised below:

- Methane concentrations have not been detected above the instrument limit of detection (0.0% by volume (v/v)).
- Carbon dioxide concentrations were recorded between 1.00%v/v and 3.90%v/v.
- Oxygen concentrations ranged from 14.80%v/v to 20.10%v/v.

No flow has been noted during the monitoring completed to date.

3.6 SUMMARY OF FIELDWORK OBSERVATIONS

The fieldwork has revealed / confirmed the following:

Significant Features identified during fieldwork
Limited Made Ground – Potential source of contamination, limited extent. Existing stockpiles – Off-site disposal. Variable rockhead depth – Deepened foundations and potential localised excavation hazard. Ground Gas – Depleted oxygen concentrations, site workers risk. Cohesive strata – Deepened foundations within close proximity to trees. Variable strata – Potential requirement for deepened or reinforced foundations. Localised soft strata – Deepened foundations to competent strata.

The results of the water soluble sulphate and pH testing of are presented in Appendix J.

10.10 SLOPE STABILITY AND RETAINING STRUCTURES

Gentle gradients are present across the site and the surrounding area. Therefore, it is considered there is very low risk of slope instability occurring on the site at present gradients.

Grading of the site, cut and fill operations, removal of trees / vegetation from existing slopes, interference with drainage around existing slopes or the cutting of the toe or surcharging of the crest of existing slopes may cause instability and failure to occur.

The present gradients on site are likely to be adjusted by minor earthworks. Future ground profiles may require earth retaining structures, for which further advice may be required when more information is available.

10.11 SOAKAWAY DRAINAGE

The strata encountered during the investigation are unlikely to be suitable for soakaway drainage and an alternative drainage system should be considered for the disposal of surface water.

If soakaway drainage is to be considered, please see Section XV in Appendix A.

It is recommended that the Local Authority and Environment Agency be consulted with regards to the use of soakaways.

10.12 NEW ACCESS ROADS

Site observations suggest that made ground will have CBR values of <2% and approximately 2% to 4% in the cohesive natural soils when suitably drained. Proof rolling and the improvement of soft spots may result in increased CBR values and the incorporation of a geotextile grid into sub-base layers may allow for reduced capping thickness.

It should be noted that poorer CBR values are likely during periods of inclement weather and the formation should be suitable managed and protected.

Site observations should be confirmed by *in situ* or laboratory testing in accordance with the adopting Local Authority's preference.

Appendix G

Southern Water Sewer Records

SOUTHERN WATER



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.

Based upon Ordnance Survey Digital Data with the permission of the controller of
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O.S. REF: TQ1525SE

Scale: 1:2500



Printed By: Mercy

Site Plan

Requested By:

Date: 6-1-2020

Sewer Plot

WARNING: BAC pipes are constructed of Bonded Asbestos Cement

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



Appendix H

Environment Agency - Reservoir Flood Map

← Exit map

Surface water

Rivers and the sea

Reservoirs map

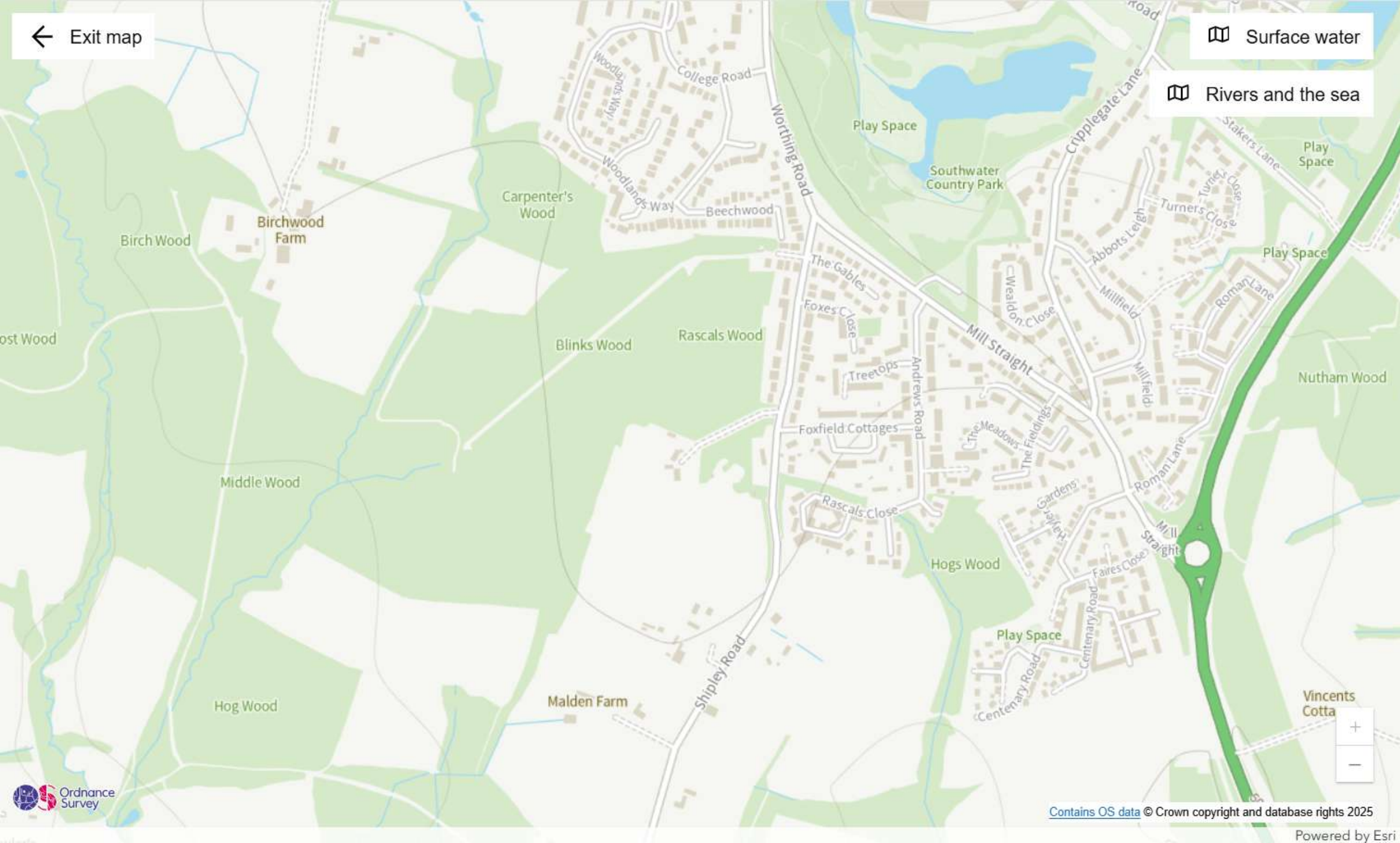
Extent

When river levels are normal

When there is also flooding from rivers

Map details

☒ Show flooding

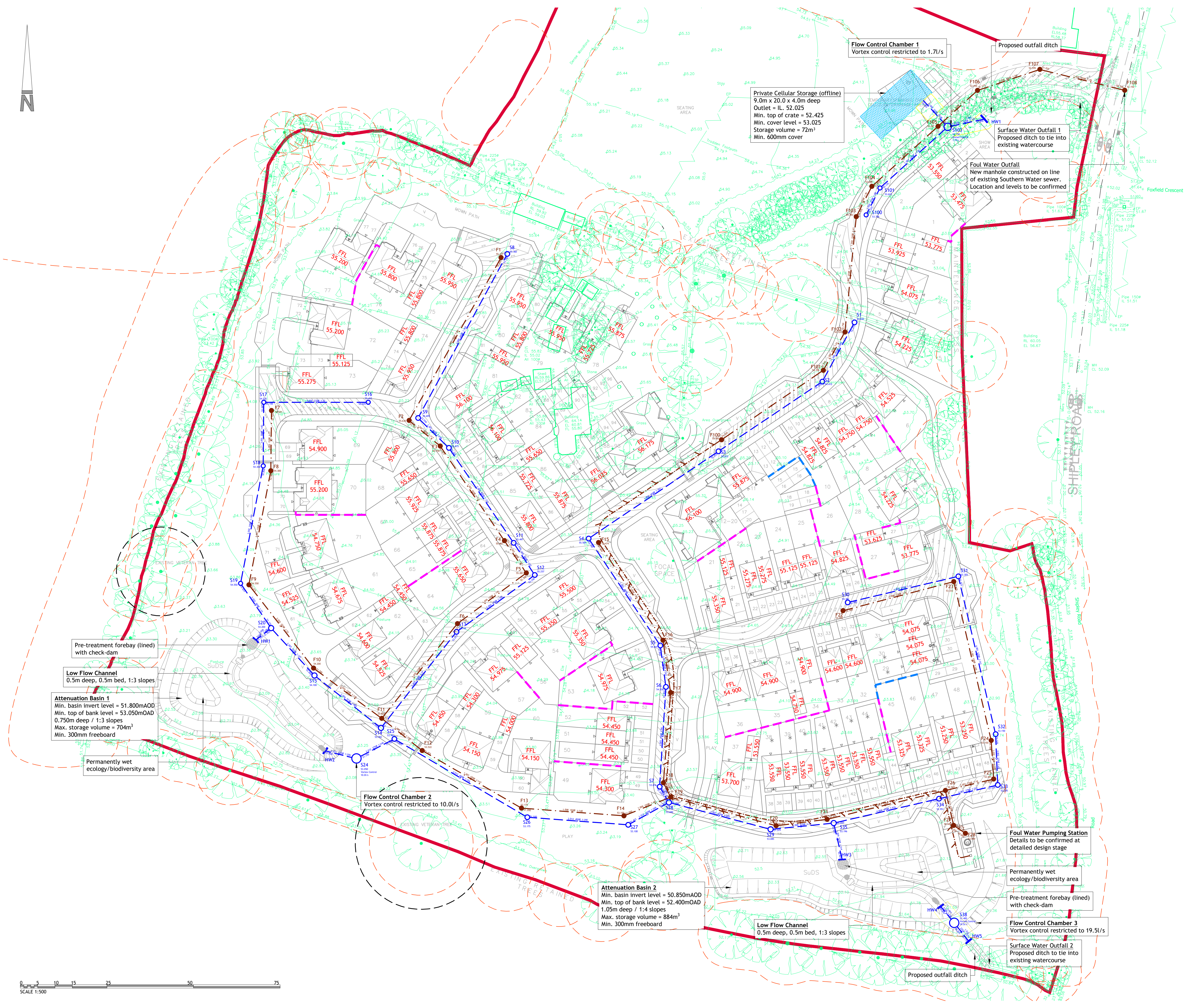


Appendix I

Proposed Drainage Strategy



Woods Hardwick
Architecture | Engineering | Planning | Surveying



- NOTES
- Contractors must check all dimensions on site. Only figured dimensions are to be worked from. Discrepancies must be reported to the Architect or Engineer before proceeding. © This drawing is copyright.
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 - Woods Hardwick cannot accept any discrepancies in terms of coordinates or any other information deciphered from .dwg files.
 - The exact location and level of all existing sewers, drains and services are to be confirmed on site prior to the commencement of any works.
 - Drainage to be designed in accordance with the Sewerage Sector Guidance, Design and Construction Guidance ("the Code") Approved Version 2.3, 11 November 2023.
 - All works to be in accordance with West Sussex County Council Design Guide

- KEY
- Development boundary
 - Root protection area
 - Veteran root protection area
 - Proposed surface water sewer to be adopted by Water Authority
 - Proposed bagwork headwall to be adopted by Water Authority
 - Proposed private cellular storage tank (lined - offline arrangement)
 - Existing foul water sewer (Southern Water)
 - Proposed foul water sewer to be adopted by Water Authority
 - Proposed foul water rising main to be adopted by Water Authority
 - Proposed sewer easement
 - FFL XX.XXX Finished floor level
 - Proposed retaining feature (0-0.45m)
 - Proposed retaining feature (0.45m-0.75m)

REV	DESCRIPTION	DRN	CHD	DATE
PRELIMINARY	INFORMATION			TENDER
CONSTRUCTION	AS BUILT			

SCALE	1:500 @ A1	DATE	SEPTEMBER 2025
-------	------------	------	----------------

DRAWN	AM	CHK	PK
-------	----	-----	----

DRAWING NO.	19711-RFSH-5-SK003	REV	-
-------------	--------------------	-----	---

TITLE	RASCALS FARM SOUTHWATER
-------	----------------------------

DETAILS	LEVELS AND DRAINAGE STRATEGY
---------	------------------------------

 **Woods Hardwick**
Architecture | Engineering | Planning | Surveying

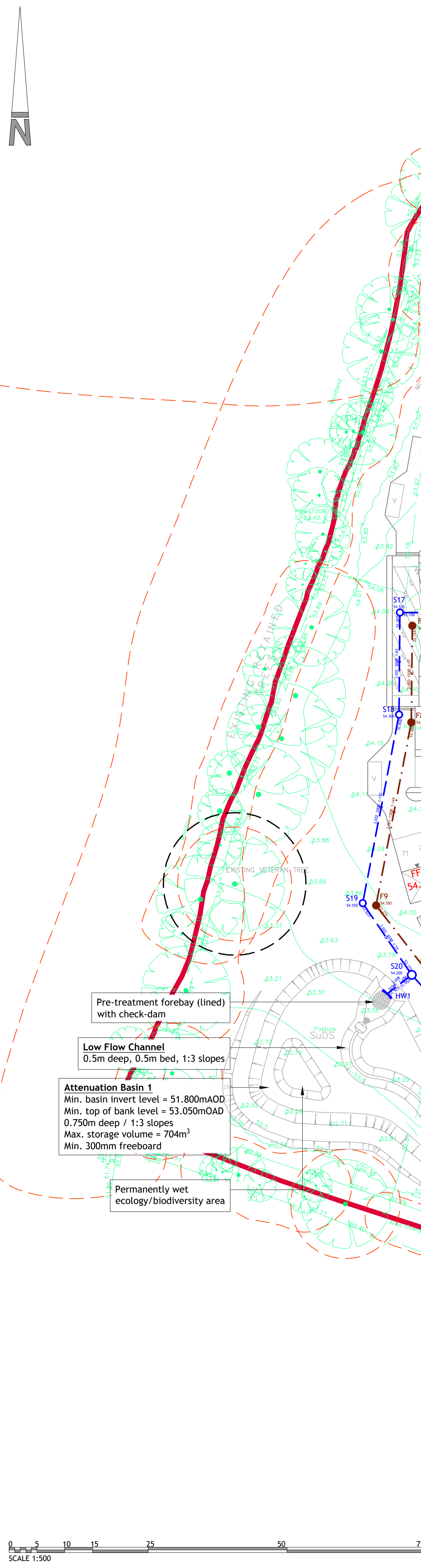
BEDFORD : HEAD OFFICE
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Bedford, MK40 3NH.
T: +44 (0) 1234 268862

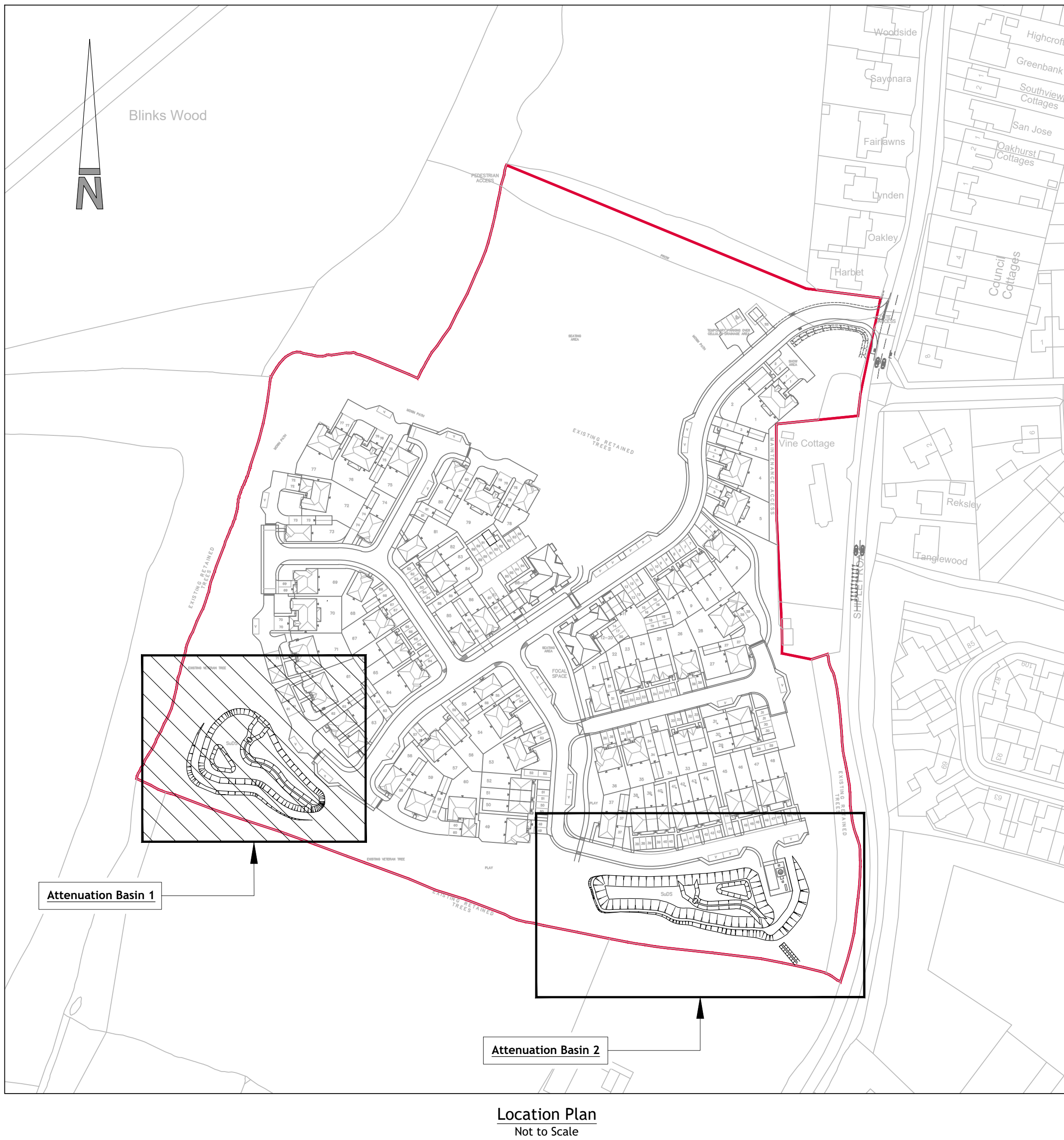
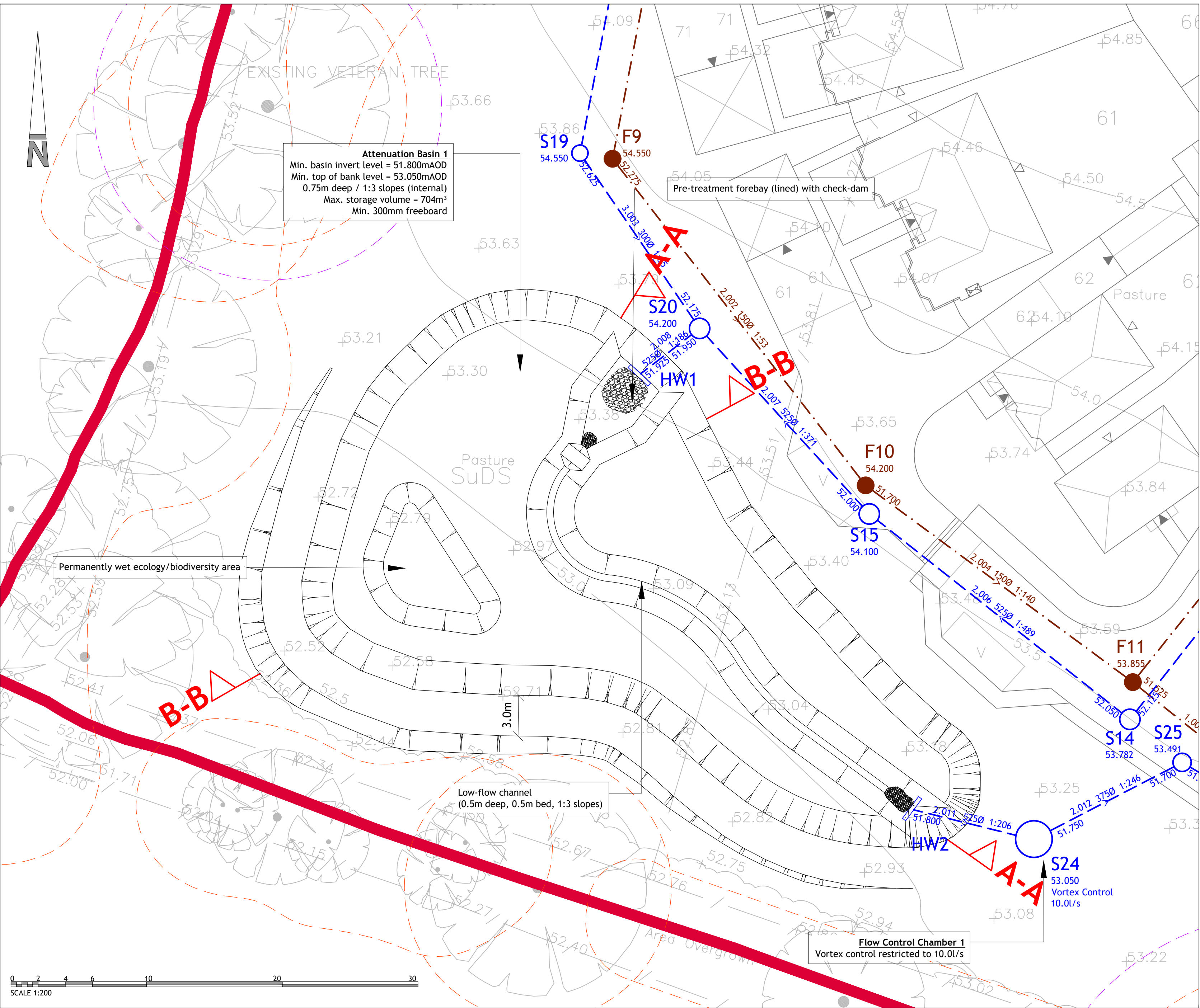
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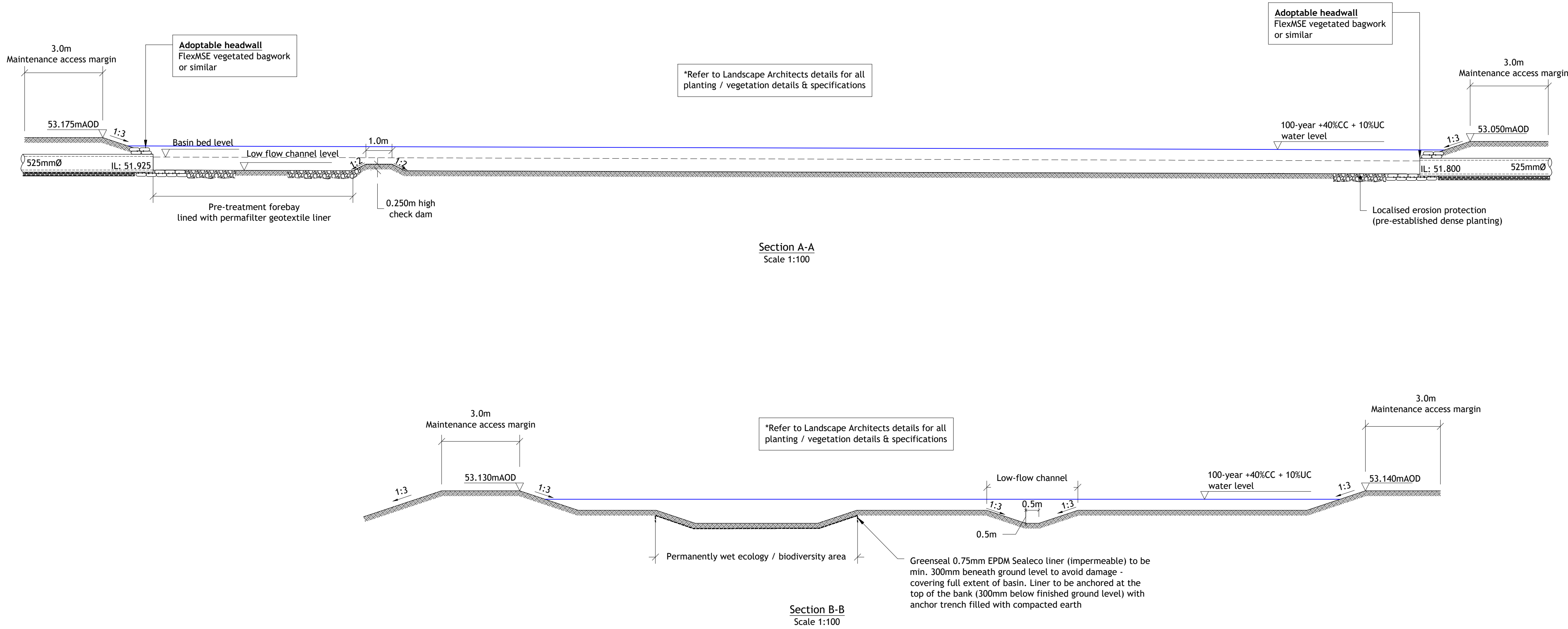
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- KEY
- Development boundary
 - Root protection area
 - Veteran root protection area
 - Proposed surface water sewer to be adopted by Water Authority
 - Proposed bagwork headwall to be adopted by Water Authority
 - Existing foul water sewer (Southern Water)
 - Proposed foul water sewer to be adopted by Water Authority
 - Proposed foul water rising main to be adopted by Water Authority
 - Proposed sewer easement
 - Proposed SuDS feature
 - Mixed glacial boulders (25kg medium/small minimum) & pre-established dense planting for erosion protection. Refer to Landscape Architects details



REV	DESCRIPTION	DRN	CHD	DATE
PRELIMINARY	INFORMATION	TENDER		
CONSTRUCTION	AS BUILT			
SCALE	AS SHOWN @ A0	DATE	NOVEMBER 2025	
DRAWN	AM	CHK	PK	
DRAWING NO.	19711-RFSH-5-SK006	REV	-	
TITLE	RASCALS FARM SOUTHWATER			
DETAILS	SUDS DETAILS SHEET 1 OF 2			

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Appendix J

Drainage Calculations

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.062	5.00	54.030	1350	515535.163	125270.928	1.655
2	0.060	5.00	54.415	1350	515525.892	125253.826	2.090
3	0.109	5.00	55.612	1350	515495.897	125233.695	3.387
4	0.150	5.00	55.509	1350	515458.406	125208.487	3.409
5	0.054	5.00	54.841	1350	515479.097	125177.594	2.841
6	0.023	5.00	54.530	1350	515480.734	125165.624	2.580
7	0.040	5.00	53.816	1350	515478.898	125136.794	2.166
8	0.175	5.00	55.360	1350	515434.927	125290.717	1.660
9	0.045	5.00	55.699	1350	515409.155	125243.318	2.149
10	0.062	5.00	55.815	1350	515418.047	125234.679	2.315
11	0.051	5.00	55.497	1350	515436.761	125207.233	2.097
12	0.048	5.00	55.257	1350	515442.855	125197.940	1.907
13	0.050	5.00	54.749	1350	515420.240	125181.520	1.674
14	0.044	5.00	53.782	1500	515398.450	125153.780	1.732
15	0.054	5.00	54.100	1500	515379.244	125168.926	2.100
16	0.039	5.00	55.457	1200	515394.747	125247.847	1.432
17	0.068	5.00	54.525	1200	515364.587	125247.847	1.500
18	0.022	5.00	54.300	1200	515364.431	125229.455	1.500
19	0.048	5.00	54.550	1200	515357.912	125195.532	1.925
20	0.000		54.200	1500	515366.732	125182.605	2.250
HW1	0.000		53.175		515363.035	125179.769	1.250
22	0.000		53.125		515366.575	125159.208	1.250
HW2	0.000		53.050		515381.288	125147.040	1.250
24	0.000		53.050	1500	515391.371	125144.949	1.300
25	0.024	5.00	53.491	1350	515402.305	125150.605	1.866
26	0.041	5.00	53.175	1350	515440.676	125127.977	1.650
27	0.000		53.100	1350	515469.821	125125.778	1.650
28	0.006	5.00	53.690	1500	515481.588	125132.260	2.365
29	0.063	5.00	53.085	1500	515510.953	125124.473	1.835
30	0.149	5.00	54.382	1350	515533.205	125190.025	1.582
31	0.124	5.00	53.305	1350	515565.156	125197.569	1.580
32	0.024	5.00	53.150	1350	515575.924	125151.958	1.575
33	0.009	5.00	52.535	1350	515576.547	125137.284	1.260
34	0.005	5.00	52.951	1350	515559.575	125133.340	1.826
35	0.060	5.00	53.196	1500	515529.177	125126.275	2.221
HW3	0.000		52.475		515531.602	125115.841	1.550
HW4	0.000		52.400		515559.954	125102.361	1.550
38	0.000		52.400	2700	515563.975	125097.438	1.575
HW5	0.000		51.250		515568.257	125092.081	0.475
40			51.185		515574.444	125084.728	0.575

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	19.453	0.600	52.375	52.325	0.050	389.1	450	5.32	50.0
1.001	2	3	36.124	0.600	52.325	52.225	0.100	361.2	450	5.88	50.0
1.002	3	4	45.178	0.600	52.225	52.100	0.125	361.4	450	6.59	50.0
1.003	4	5	37.182	0.600	52.100	52.000	0.100	371.8	450	7.18	50.0
1.004	5	6	12.081	0.600	52.000	51.950	0.050	241.6	450	7.34	50.0
1.005	6	7	28.888	0.600	51.950	51.650	0.300	96.3	450	7.57	50.0
1.006	7	28	5.272	0.600	51.650	51.400	0.250	21.1	450	7.59	50.0
2.000	8	9	53.952	0.600	53.700	53.550	0.150	359.7	450	5.84	50.0
2.001	9	10	12.398	0.600	53.550	53.500	0.050	248.0	450	6.00	50.0
2.002	10	11	33.219	0.600	53.500	53.400	0.100	332.2	450	6.50	50.0
2.003	11	12	11.113	0.600	53.400	53.350	0.050	222.3	450	6.64	50.0
2.004	12	13	27.947	0.600	53.350	53.075	0.275	101.6	450	6.87	50.0
2.005	13	14	35.275	0.600	53.075	52.125	0.950	37.1	450	7.05	50.0
2.006	14	15	24.460	0.600	52.050	52.000	0.050	489.2	525	7.45	50.0
2.007	15	20	18.538	0.600	52.000	51.950	0.050	370.8	525	7.72	50.0
3.000	16	17	30.160	0.600	54.025	53.100	0.925	32.6	225	5.22	50.0
3.001	17	18	18.393	0.600	53.025	52.800	0.225	81.7	300	5.39	50.0
3.002	18	19	34.544	0.600	52.800	52.625	0.175	197.4	300	5.91	50.0
3.003	19	20	15.649	0.600	52.625	52.175	0.450	34.8	300	6.01	50.0
2.008	20	HW1	4.659	0.600	51.950	51.925	0.025	186.4	525	7.77	50.0
2.009	HW1	22	20.864	0.035	51.925	51.875	0.050	417.3	500	8.36	2.0
2.010	22	HW2	19.093	0.035	51.875	51.825	0.050	381.9	500	8.87	2.0
2.011	HW2	24	10.298	0.600	51.800	51.750	0.050	206.0	525	8.98	2.0
2.012	24	25	12.310	0.600	51.750	51.700	0.050	246.2	375	9.16	2.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.024	162.9	8.4	1.205	1.640	0.062	0.0	69	0.548
1.001	1.064	169.2	16.5	1.640	2.937	0.122	0.0	94	0.685
1.002	1.063	169.1	31.3	2.937	2.959	0.231	0.0	131	0.820
1.003	1.048	166.7	51.6	2.959	2.391	0.381	0.0	171	0.927
1.004	1.303	207.3	59.0	2.391	2.130	0.435	0.0	164	1.130
1.005	2.072	329.5	62.1	2.130	1.716	0.458	0.0	131	1.605
1.006	4.442	706.4	67.5	1.716	1.840	0.498	0.0	93	2.844
2.000	1.066	169.5	23.7	1.210	1.699	0.175	0.0	113	0.759
2.001	1.286	204.6	29.8	1.699	1.865	0.220	0.0	116	0.929
2.002	1.110	176.5	38.2	1.865	1.647	0.282	0.0	141	0.891
2.003	1.359	216.2	45.1	1.647	1.457	0.333	0.0	138	1.082
2.004	2.016	320.7	51.6	1.457	1.224	0.381	0.0	121	1.494
2.005	3.344	531.9	58.4	1.224	1.207	0.431	0.0	100	2.231
2.006	1.006	217.7	64.4	1.207	1.575	0.475	0.0	195	0.880
2.007	1.157	250.5	71.7	1.575	1.725	0.529	0.0	191	1.004
3.000	2.299	91.4	5.3	1.207	1.200	0.039	0.0	36	1.262
3.001	1.740	123.0	14.5	1.200	1.200	0.107	0.0	69	1.176
3.002	1.115	78.8	17.5	1.200	1.625	0.129	0.0	96	0.902
3.003	2.675	189.1	24.0	1.625	1.725	0.177	0.0	72	1.853
2.008	1.637	354.4	95.7	1.725	0.725	0.706	0.0	185	1.399
2.009	0.589	588.7	3.8	0.750	0.750	0.706	0.0	42	0.147
2.010	0.615	615.4	3.8	0.750	0.725	0.706	0.0	41	0.151
2.011	1.557	337.0	3.8	0.725	0.775	0.706	0.0	39	0.531
2.012	1.150	127.0	3.8	0.925	1.416	0.706	0.0	44	0.523

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
2.013	25	26	44.546	0.600	51.625	51.525	0.100	445.5	450	9.94	50.0
2.014	26	27	29.228	0.600	51.525	51.450	0.075	389.7	450	10.41	50.0
2.015	27	28	13.434	0.600	51.450	51.400	0.050	268.7	450	10.60	50.0
1.007	28	29	30.380	0.600	51.325	51.250	0.075	405.1	525	11.05	50.0
1.008	29	35	18.313	0.600	51.250	50.975	0.275	66.6	525	11.16	50.0
4.000	30	31	32.830	0.600	52.800	51.725	1.075	30.5	375	5.17	50.0
4.001	31	32	46.865	0.600	51.725	51.575	0.150	312.4	375	5.93	50.0
4.002	32	33	14.687	0.600	51.575	51.275	0.300	49.0	375	6.03	50.0
4.003	33	34	17.424	0.600	51.275	51.200	0.075	232.3	375	6.27	50.0
4.004	34	35	31.208	0.600	51.125	51.050	0.075	416.1	450	6.80	50.0
1.009	35	HW3	10.712	0.600	50.975	50.925	0.050	214.2	525	11.28	50.0
1.010	HW3	HW4	31.393	0.035	50.925	50.850	0.075	418.6	500	12.17	50.0
1.011	HW4	38	6.356	0.600	50.850	50.825	0.025	254.3	500	12.25	5.0
1.012	38	HW5	6.858	0.600	50.825	50.775	0.050	137.2	225	12.35	2.0
1.013	HW5	40	9.610	0.012	50.775	50.610	0.165	58.2	500	12.39	2.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
2.013	0.957	152.1	98.9	1.416	1.200	0.730	0.0	265	1.016
2.014	1.024	162.8	104.5	1.200	1.200	0.771	0.0	262	1.084
2.015	1.235	196.4	104.5	1.200	1.840	0.771	0.0	233	1.253
1.007	1.106	239.5	172.8	1.840	1.310	1.275	0.0	331	1.200
1.008	2.747	594.7	181.3	1.310	1.696	1.338	0.0	198	2.426
4.000	3.289	363.2	20.2	1.207	1.205	0.149	0.0	60	1.805
4.001	1.019	112.6	37.0	1.205	1.200	0.273	0.0	148	0.917
4.002	2.595	286.6	40.3	1.200	0.885	0.297	0.0	94	1.850
4.003	1.184	130.8	41.5	0.885	1.376	0.306	0.0	145	1.055
4.004	0.990	157.5	42.1	1.376	1.696	0.311	0.0	159	0.844
1.009	1.526	330.4	231.6	1.696	1.025	1.709	0.0	325	1.645
1.010	0.588	587.8	231.6	1.050	1.050	1.709	0.0	333	0.464
1.011	1.357	266.5	23.2	1.050	1.075	1.709	0.0	98	0.843
1.012	1.114	44.3	9.3	1.350	0.250	1.709	0.0	70	0.887
1.013	4.608	3455.9	9.3	-0.025	0.075	1.709	0.0	22	0.804

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	✓	Check Discharge Rate(s)	✓
Rainfall Events	Singular	Drain Down Time (mins)	240	Check Discharge Volume	✓
Winter CV	1.000	Additional Storage (m³/ha)	20.0	100 year 360 minute (m³)	
Analysis Speed	Normal	Starting Level (m)			

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	0	0	0
100	40	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)		Betterment (%)	0
SAAR (mm)		QBar	
Soil Index	1	Q 1 year (l/s)	
SPR	0.10	Q 30 year (l/s)	
Region	1	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)		Storm Duration (mins)	360
Soil Index	1	Betterment (%)	0
SPR	0.10	PR	
CWI		Runoff Volume (m³)	

Node 24 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	51.750	Product Number	CTL-SHE-0141-1000-1300-1000
Design Depth (m)	1.300	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	10.0	Min Node Diameter (mm)	1500

Node 38 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	50.825	Product Number	CTL-SHE-0191-1950-1350-1950
Design Depth (m)	1.350	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	19.5	Min Node Diameter (mm)	1800

Node HW2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	52.300
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	788.0	788.0	0.750	1090.0	1100.7

Node HW4 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	51.350
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	517.0	517.0	1.050	1168.0	1176.6

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	52.437	0.062	7.1	0.1359	0.0000	OK
15 minute winter	2	11	52.409	0.084	13.8	0.1693	0.0000	OK
15 minute winter	3	11	52.340	0.115	25.5	0.2380	0.0000	OK
15 minute winter	4	11	52.256	0.156	41.1	0.3612	0.0000	OK
15 minute winter	5	11	52.148	0.148	46.2	0.2690	0.0000	OK
15 minute winter	6	12	52.073	0.123	47.8	0.1976	0.0000	OK
15 minute winter	7	12	51.744	0.094	51.8	0.1698	0.0000	OK
15 minute winter	8	10	53.802	0.102	20.1	0.3627	0.0000	OK
15 minute winter	9	11	53.666	0.116	24.7	0.2146	0.0000	OK
15 minute winter	10	11	53.631	0.131	31.1	0.2584	0.0000	OK
15 minute winter	11	11	53.531	0.131	36.3	0.2508	0.0000	OK
15 minute winter	12	11	53.464	0.114	40.8	0.2205	0.0000	OK
15 minute winter	13	11	53.163	0.088	45.7	0.1782	0.0000	OK
120 minute winter	14	88	52.300	0.250	21.4	0.5695	0.0000	OK
180 minute winter	15	132	52.300	0.300	18.4	0.6848	0.0000	OK
15 minute winter	16	10	54.059	0.034	4.5	0.0567	0.0000	OK
15 minute winter	17	10	53.088	0.063	12.2	0.1283	0.0000	OK
15 minute winter	18	11	52.890	0.090	14.5	0.1280	0.0000	OK
15 minute winter	19	11	52.693	0.068	19.7	0.1113	0.0000	OK
180 minute winter	20	132	52.300	0.350	23.4	0.6187	0.0000	OK
180 minute winter	HW1	132	52.300	0.375	22.4	0.0000	0.0000	OK
120 minute winter	22	92	52.300	0.425	23.5	0.0000	0.0000	OK
120 minute winter	HW2	94	52.300	0.500	15.5	0.4431	0.0000	OK
120 minute winter	24	94	52.300	0.550	10.7	0.9718	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	6.9	0.419	0.043	0.3269	
15 minute winter	2	1.001	3	13.5	0.521	0.080	0.9450	
15 minute winter	3	1.002	4	25.0	0.622	0.148	1.8223	
15 minute winter	4	1.003	5	40.4	0.857	0.242	1.7557	
15 minute winter	5	1.004	6	45.6	1.138	0.220	0.4851	
15 minute winter	6	1.005	7	48.2	1.641	0.146	0.8523	
15 minute winter	7	1.006	28	52.1	2.135	0.074	0.1373	
15 minute winter	8	2.000	9	19.5	0.677	0.115	1.5894	
15 minute winter	9	2.001	10	24.4	0.691	0.119	0.4385	
15 minute winter	10	2.002	11	30.8	0.804	0.174	1.2730	
15 minute winter	11	2.003	12	35.6	1.032	0.165	0.3872	
15 minute winter	12	2.004	13	40.6	1.536	0.126	0.7437	
15 minute winter	13	2.005	14	45.5	1.885	0.086	0.8956	
120 minute winter	14	2.006	15	20.4	0.580	0.094	2.8000	
180 minute winter	15	2.007	20	16.9	0.541	0.068	2.6007	
15 minute winter	16	3.000	17	4.4	1.182	0.048	0.1114	
15 minute winter	17	3.001	18	12.0	0.857	0.098	0.2600	
15 minute winter	18	3.002	19	14.5	0.976	0.183	0.5139	
15 minute winter	19	3.003	20	19.8	1.699	0.104	0.1820	
180 minute winter	20	2.008	HW1	22.4	0.650	0.063	0.7409	
180 minute winter	HW1	2.009	22	19.6	0.187	0.033	14.2326	
120 minute winter	22	2.010	HW2	15.5	0.188	0.025	15.9363	
120 minute winter	HW2	2.011	24	10.7	0.338	0.032	2.2053	
120 minute winter	24	2.012	25	10.0	0.677	0.079	0.1817	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	25	12	51.709	0.084	11.9	0.1419	0.0000	OK
30 minute winter	26	19	51.620	0.095	15.3	0.1829	0.0000	OK
30 minute winter	27	20	51.539	0.089	15.2	0.1277	0.0000	OK
15 minute winter	28	12	51.505	0.180	64.4	0.3271	0.0000	OK
180 minute winter	29	140	51.411	0.161	33.5	0.3943	0.0000	OK
15 minute winter	30	10	52.855	0.055	17.1	0.1808	0.0000	OK
15 minute winter	31	11	51.860	0.135	31.1	0.4065	0.0000	OK
15 minute winter	32	11	51.662	0.087	33.1	0.1513	0.0000	OK
15 minute winter	33	11	51.413	0.138	34.2	0.2166	0.0000	OK
240 minute winter	34	184	51.411	0.286	9.5	0.4256	0.0000	OK
180 minute winter	35	140	51.411	0.436	45.4	1.0066	0.0000	OK
240 minute winter	HW3	180	51.411	0.486	41.6	0.0000	0.0000	OK
240 minute winter	HW4	180	51.411	0.561	40.9	32.8701	0.0000	SURCHARGED
240 minute winter	38	180	51.411	0.586	20.4	3.3531	0.0000	SURCHARGED
15 minute winter	HW5	28	50.808	0.033	19.5	0.0000	0.0000	OK
15 minute winter	40	28	50.643	0.033	19.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	25	2.013	26	11.9	0.547	0.078	0.9772	
30 minute winter	26	2.014	27	15.2	0.654	0.093	0.6787	
30 minute winter	27	2.015	28	15.1	0.706	0.077	0.3109	
15 minute winter	28	1.007	29	63.9	1.280	0.267	1.5652	
180 minute winter	29	1.008	35	34.5	0.738	0.058	2.2686	
15 minute winter	30	4.000	31	16.9	0.777	0.046	0.7466	
15 minute winter	31	4.001	32	30.5	1.116	0.271	1.2938	
15 minute winter	32	4.002	33	33.2	1.200	0.116	0.4113	
15 minute winter	33	4.003	34	33.9	0.973	0.259	0.6086	
240 minute winter	34	4.004	35	10.6	0.467	0.067	3.7892	
180 minute winter	35	1.009	HW3	46.2	0.637	0.140	2.1457	
240 minute winter	HW3	1.010	HW4	40.9	0.151	0.070	34.1631	
240 minute winter	HW4	1.011	38	20.4	0.519	0.077	1.2433	
240 minute winter	38	1.012	HW5	19.5	1.915	0.440	0.0736	
15 minute winter	HW5	1.013	40	19.5	1.033	0.006	0.1814	90.5

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	52.538	0.163	28.3	0.3558	0.0000	OK
15 minute winter	2	11	52.532	0.207	53.9	0.4143	0.0000	OK
15 minute winter	3	11	52.514	0.289	98.3	0.6002	0.0000	OK
15 minute winter	4	11	52.468	0.368	158.0	0.8494	0.0000	OK
15 minute winter	5	11	52.329	0.329	180.4	0.5960	0.0000	OK
15 minute winter	6	11	52.218	0.268	189.8	0.4316	0.0000	OK
15 minute winter	7	12	51.895	0.245	206.6	0.4416	0.0000	OK
15 minute winter	8	10	53.919	0.219	79.9	0.7765	0.0000	OK
15 minute winter	9	11	53.836	0.286	98.3	0.5286	0.0000	OK
15 minute winter	10	11	53.802	0.302	123.6	0.5948	0.0000	OK
15 minute winter	11	11	53.693	0.293	145.6	0.5614	0.0000	OK
15 minute winter	12	11	53.600	0.250	166.0	0.4834	0.0000	OK
15 minute winter	13	11	53.256	0.181	187.2	0.3672	0.0000	OK
15 minute winter	14	11	52.540	0.490	205.5	1.1146	0.0000	OK
180 minute winter	15	176	52.495	0.495	57.2	1.1295	0.0000	OK
15 minute winter	16	10	54.094	0.069	17.8	0.1148	0.0000	OK
15 minute winter	17	10	53.168	0.143	48.8	0.2918	0.0000	OK
15 minute winter	18	10	52.995	0.195	57.9	0.2783	0.0000	OK
15 minute winter	19	10	52.770	0.145	78.9	0.2356	0.0000	OK
180 minute winter	20	176	52.495	0.545	75.9	0.9633	0.0000	SURCHARGED
180 minute winter	HW1	180	52.495	0.570	75.3	0.0000	0.0000	SURCHARGED
180 minute winter	22	180	52.495	0.620	72.8	0.0000	0.0000	SURCHARGED
180 minute winter	HW2	180	52.495	0.695	68.0	161.8627	0.0000	SURCHARGED
180 minute winter	24	180	52.495	0.745	13.9	1.3166	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	26.5	0.532	0.163	1.1941	
15 minute winter	2	1.001	3	48.8	0.653	0.288	3.2261	
15 minute winter	3	1.002	4	93.6	0.795	0.553	5.5633	
15 minute winter	4	1.003	5	157.2	1.195	0.943	4.8851	
15 minute winter	5	1.004	6	179.9	1.612	0.868	1.3446	
15 minute winter	6	1.005	7	189.4	2.037	0.575	2.6852	
15 minute winter	7	1.006	28	204.8	2.183	0.290	0.5698	
15 minute winter	8	2.000	9	77.7	0.874	0.459	4.9005	
15 minute winter	9	2.001	10	96.9	0.883	0.474	1.3602	
15 minute winter	10	2.002	11	123.7	1.114	0.701	3.6941	
15 minute winter	11	2.003	12	145.4	1.463	0.672	1.1085	
15 minute winter	12	2.004	13	165.7	2.211	0.517	2.0953	
15 minute winter	13	2.005	14	186.6	1.908	0.351	3.7463	
15 minute winter	14	2.006	15	202.2	0.974	0.929	5.0763	
180 minute winter	15	2.007	20	56.4	0.533	0.225	3.9595	
15 minute winter	16	3.000	17	17.7	1.743	0.194	0.3068	
15 minute winter	17	3.001	18	47.9	1.170	0.390	0.7519	
15 minute winter	18	3.002	19	57.6	1.408	0.731	1.4191	
15 minute winter	19	3.003	20	78.9	2.309	0.417	0.7100	
180 minute winter	20	2.008	HW1	75.3	0.651	0.212	1.0065	
180 minute winter	HW1	2.009	22	72.8	0.212	0.124	28.4209	
180 minute winter	22	2.010	HW2	68.0	0.180	0.111	30.0400	
180 minute winter	HW2	2.011	24	13.9	0.317	0.041	2.2247	
180 minute winter	24	2.012	25	10.0	0.677	0.079	0.1817	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	25	236	51.766	0.141	11.9	0.2384	0.0000	OK
240 minute winter	26	232	51.763	0.238	15.6	0.4590	0.0000	OK
240 minute winter	27	236	51.776	0.326	22.0	0.4663	0.0000	OK
180 minute winter	28	164	51.786	0.461	73.5	0.8383	0.0000	OK
240 minute winter	29	232	51.784	0.534	64.1	1.3093	0.0000	SURCHARGED
15 minute winter	30	10	52.908	0.108	68.1	0.3591	0.0000	OK
15 minute winter	31	11	52.034	0.309	124.2	0.9280	0.0000	OK
15 minute winter	32	11	51.794	0.219	130.1	0.3795	0.0000	OK
240 minute winter	33	232	51.764	0.489	27.2	0.7691	0.0000	SURCHARGED
240 minute winter	34	232	51.768	0.643	26.9	0.9555	0.0000	SURCHARGED
240 minute winter	35	228	51.777	0.801	94.4	1.8491	0.0000	SURCHARGED
240 minute winter	HW3	232	51.774	0.849	94.0	0.0000	0.0000	SURCHARGED
240 minute winter	HW4	240	51.763	0.913	92.0	266.7476	0.0000	SURCHARGED
240 minute winter	38	240	51.763	0.938	20.4	5.3720	0.0000	SURCHARGED
600 minute winter	HW5	225	50.808	0.033	19.5	0.0000	0.0000	OK
600 minute winter	40	225	50.643	0.033	19.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	25	2.013	26	11.9	0.546	0.078	2.8302	
240 minute winter	26	2.014	27	15.8	0.650	0.097	3.0318	
240 minute winter	27	2.015	28	28.8	0.702	0.147	1.7244	
180 minute winter	28	1.007	29	69.9	0.999	0.292	6.2341	
240 minute winter	29	1.008	35	62.7	0.807	0.105	3.9562	
15 minute winter	30	4.000	31	67.6	1.093	0.186	2.0280	
15 minute winter	31	4.001	32	119.8	1.465	1.064	3.8403	
15 minute winter	32	4.002	33	131.1	1.493	0.458	1.2995	
240 minute winter	33	4.003	34	26.5	0.617	0.203	1.9218	
240 minute winter	34	4.004	35	26.6	0.493	0.169	4.9447	
240 minute winter	35	1.009	HW3	94.0	0.695	0.285	2.3141	
240 minute winter	HW3	1.010	HW4	92.0	0.175	0.157	86.7115	
240 minute winter	HW4	1.011	38	20.4	0.619	0.077	1.2433	
240 minute winter	38	1.012	HW5	19.5	1.915	0.440	0.0736	
600 minute winter	HW5	1.013	40	19.5	1.033	0.006	0.1814	839.5

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	12	52.619	0.244	35.7	0.5331	0.0000	OK
15 minute winter	2	12	52.615	0.290	64.5	0.5812	0.0000	OK
15 minute winter	3	11	52.598	0.373	116.2	0.7744	0.0000	OK
15 minute winter	4	11	52.546	0.446	191.4	1.0296	0.0000	OK
15 minute winter	5	11	52.390	0.390	218.2	0.7073	0.0000	OK
15 minute winter	6	11	52.258	0.308	229.2	0.4965	0.0000	OK
15 minute winter	7	11	51.950	0.300	249.7	0.5396	0.0000	OK
15 minute winter	8	11	53.960	0.260	100.6	0.9215	0.0000	OK
15 minute winter	9	11	53.895	0.345	122.6	0.6380	0.0000	OK
15 minute winter	10	11	53.860	0.360	153.9	0.7082	0.0000	OK
15 minute winter	11	11	53.744	0.344	181.5	0.6604	0.0000	OK
15 minute winter	12	11	53.638	0.288	207.3	0.5572	0.0000	OK
15 minute winter	13	11	53.280	0.205	234.1	0.4161	0.0000	OK
15 minute winter	14	11	52.669	0.619	257.4	1.4090	0.0000	SURCHARGED
180 minute winter	15	180	52.572	0.572	71.3	1.3042	0.0000	SURCHARGED
15 minute winter	16	10	54.100	0.075	22.4	0.1261	0.0000	OK
15 minute winter	17	10	53.191	0.166	61.3	0.3374	0.0000	OK
15 minute winter	18	10	53.031	0.231	73.3	0.3285	0.0000	OK
15 minute winter	19	11	52.796	0.171	99.6	0.2795	0.0000	OK
180 minute winter	20	180	52.572	0.622	94.7	1.0988	0.0000	SURCHARGED
180 minute winter	HW1	180	52.572	0.647	94.1	0.0000	0.0000	SURCHARGED
180 minute winter	22	180	52.572	0.697	90.8	0.0000	0.0000	SURCHARGED
180 minute winter	HW2	180	52.572	0.772	84.3	229.5107	0.0000	SURCHARGED
180 minute winter	24	180	52.572	0.822	12.6	1.4521	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	30.5	0.544	0.187	1.9045	
15 minute winter	2	1.001	3	60.7	0.659	0.359	4.4769	
15 minute winter	3	1.002	4	115.8	0.819	0.685	6.7492	
15 minute winter	4	1.003	5	189.0	1.234	1.134	5.6567	
15 minute winter	5	1.004	6	216.7	1.651	1.046	1.5815	
15 minute winter	6	1.005	7	228.0	2.041	0.692	3.2915	
15 minute winter	7	1.006	28	246.8	2.195	0.349	0.7054	
15 minute winter	8	2.000	9	96.7	0.899	0.571	6.0797	
15 minute winter	9	2.001	10	120.3	0.903	0.588	1.6510	
15 minute winter	10	2.002	11	153.9	1.159	0.872	4.4202	
15 minute winter	11	2.003	12	181.3	1.533	0.839	1.3184	
15 minute winter	12	2.004	13	207.0	2.329	0.646	2.4792	
15 minute winter	13	2.005	14	233.6	1.935	0.439	4.0346	
15 minute winter	14	2.006	15	255.6	1.183	1.174	5.2842	
180 minute winter	15	2.007	20	70.4	0.556	0.281	4.0048	
15 minute winter	16	3.000	17	22.2	1.737	0.243	0.4003	
15 minute winter	17	3.001	18	60.6	1.228	0.493	0.9012	
15 minute winter	18	3.002	19	72.4	1.451	0.919	1.7153	
15 minute winter	19	3.003	20	99.2	2.286	0.525	0.8660	
180 minute winter	20	2.008	HW1	94.1	0.674	0.266	1.0065	
180 minute winter	HW1	2.009	22	90.8	0.220	0.154	35.3043	
180 minute winter	22	2.010	HW2	84.3	0.218	0.137	36.7786	
180 minute winter	HW2	2.011	24	12.6	0.236	0.037	2.2247	
180 minute winter	24	2.012	25	10.0	0.677	0.079	0.4965	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	25	352	51.886	0.261	11.7	0.4402	0.0000	OK
360 minute winter	26	352	51.885	0.360	14.9	0.6940	0.0000	OK
120 minute winter	27	102	51.898	0.448	75.4	0.6418	0.0000	OK
360 minute winter	28	352	51.885	0.560	90.7	1.0175	0.0000	SURCHARGED
360 minute winter	29	352	51.884	0.634	60.9	1.5568	0.0000	SURCHARGED
15 minute winter	30	10	52.922	0.122	85.7	0.4047	0.0000	OK
15 minute winter	31	11	52.271	0.546	156.4	1.6395	0.0000	SURCHARGED
15 minute winter	32	12	52.002	0.427	160.4	0.7411	0.0000	SURCHARGED
360 minute winter	33	352	51.884	0.609	25.0	0.9587	0.0000	SURCHARGED
360 minute winter	34	352	51.884	0.759	24.8	1.1281	0.0000	SURCHARGED
360 minute winter	35	352	51.884	0.909	86.2	2.0973	0.0000	SURCHARGED
360 minute winter	HW3	352	51.884	0.959	85.9	0.0000	0.0000	SURCHARGED
360 minute winter	HW4	352	51.884	1.034	79.8	364.6602	0.0000	SURCHARGED
360 minute winter	38	352	51.884	1.059	20.1	6.0622	0.0000	SURCHARGED
60 minute winter	HW5	20	50.808	0.033	19.5	0.0000	0.0000	OK
720 minute winter	40	255	50.643	0.033	19.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	25	2.013	26	11.7	0.547	0.077	5.1468	
360 minute winter	26	2.014	27	27.0	0.640	0.166	4.2815	
120 minute winter	27	2.015	28	57.5	0.713	0.293	2.1165	
360 minute winter	28	1.007	29	57.9	0.933	0.242	6.5631	
360 minute winter	29	1.008	35	56.6	0.786	0.095	3.9562	
15 minute winter	30	4.000	31	85.1	1.120	0.234	2.3207	
15 minute winter	31	4.001	32	146.6	1.430	1.302	5.1691	
15 minute winter	32	4.002	33	150.0	1.518	0.523	1.6199	
360 minute winter	33	4.003	34	24.4	0.582	0.186	1.9218	
360 minute winter	34	4.004	35	24.6	0.476	0.156	4.9447	
360 minute winter	35	1.009	HW3	85.9	0.637	0.260	2.3141	
360 minute winter	HW3	1.010	HW4	79.8	0.156	0.136	109.2890	
360 minute winter	HW4	1.011	38	20.1	0.237	0.075	1.2433	
360 minute winter	38	1.012	HW5	19.5	1.915	0.440	0.0736	
60 minute winter	HW5	1.013	40	19.5	1.033	0.006	0.1814	308.8

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	12	53.432	1.057	49.9	2.3044	0.0000	SURCHARGED
15 minute winter	2	12	53.429	1.104	78.9	2.2140	0.0000	SURCHARGED
15 minute winter	3	12	53.384	1.159	167.6	2.4053	0.0000	SURCHARGED
15 minute winter	4	12	53.257	1.157	265.2	2.6741	0.0000	SURCHARGED
15 minute winter	5	12	52.981	0.981	300.6	1.7771	0.0000	SURCHARGED
15 minute winter	6	12	52.810	0.860	310.1	1.3842	0.0000	SURCHARGED
15 minute winter	7	12	52.478	0.828	330.9	1.4918	0.0000	SURCHARGED
15 minute winter	8	11	54.242	0.542	140.9	1.9179	0.0000	SURCHARGED
15 minute winter	9	11	54.134	0.584	166.2	1.0805	0.0000	SURCHARGED
15 minute winter	10	11	54.072	0.572	214.2	1.1249	0.0000	SURCHARGED
15 minute winter	11	11	53.878	0.478	253.3	0.9160	0.0000	SURCHARGED
15 minute winter	12	11	53.727	0.377	289.1	0.7297	0.0000	OK
15 minute winter	13	11	53.394	0.319	321.9	0.6465	0.0000	OK
15 minute winter	14	11	52.948	0.898	347.3	2.0439	0.0000	SURCHARGED
15 minute winter	15	11	52.757	0.757	385.3	1.7276	0.0000	SURCHARGED
15 minute winter	16	10	54.115	0.090	31.4	0.1510	0.0000	OK
15 minute winter	17	11	53.291	0.266	85.9	0.5426	0.0000	OK
15 minute winter	18	11	53.176	0.376	97.8	0.5359	0.0000	SURCHARGED
15 minute winter	19	11	52.860	0.235	134.5	0.3829	0.0000	OK
240 minute winter	20	240	52.722	0.772	107.5	1.3640	0.0000	SURCHARGED
240 minute winter	HW1	240	52.722	0.797	107.2	0.0000	0.0000	SURCHARGED
240 minute winter	22	240	52.722	0.847	103.3	0.0000	0.0000	SURCHARGED
240 minute winter	HW2	240	52.722	0.922	95.2	368.7671	0.0000	SURCHARGED
240 minute winter	24	240	52.722	0.972	12.9	1.7174	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	41.6	0.549	0.256	3.0822	
15 minute winter	2	1.001	3	82.4	0.663	0.487	5.7236	
15 minute winter	3	1.002	4	150.1	0.948	0.888	7.1582	
15 minute winter	4	1.003	5	259.7	1.639	1.558	5.8912	
15 minute winter	5	1.004	6	292.7	1.847	1.412	1.9142	
15 minute winter	6	1.005	7	300.6	2.040	0.912	4.5771	
15 minute winter	7	1.006	28	322.5	2.194	0.457	0.8353	
15 minute winter	8	2.000	9	132.1	0.921	0.780	8.5483	
15 minute winter	9	2.001	10	167.2	1.055	0.817	1.9644	
15 minute winter	10	2.002	11	214.7	1.355	1.217	5.2633	
15 minute winter	11	2.003	12	252.7	1.625	1.169	1.6687	
15 minute winter	12	2.004	13	284.0	2.344	0.886	3.6593	
15 minute winter	13	2.005	14	314.0	2.093	0.590	4.9112	
15 minute winter	14	2.006	15	348.0	1.611	1.599	5.2842	
15 minute winter	15	2.007	20	384.6	1.780	1.535	4.0048	
15 minute winter	16	3.000	17	31.2	1.800	0.341	0.7591	
15 minute winter	17	3.001	18	81.1	1.276	0.659	1.2554	
15 minute winter	18	3.002	19	97.8	1.498	1.241	2.2385	
15 minute winter	19	3.003	20	134.2	2.313	0.710	1.0141	
240 minute winter	20	2.008	HW1	107.2	0.677	0.303	1.0065	
240 minute winter	HW1	2.009	22	103.3	0.225	0.175	50.9073	
240 minute winter	22	2.010	HW2	95.2	0.200	0.155	51.9172	
240 minute winter	HW2	2.011	24	12.9	0.311	0.038	2.2247	
240 minute winter	24	2.012	25	10.0	0.677	0.079	1.3241	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	25	11	52.385	0.760	52.2	1.2841	0.0000	SURCHARGED
15 minute winter	26	12	52.340	0.815	74.8	1.5706	0.0000	SURCHARGED
15 minute winter	27	12	52.329	0.879	53.0	1.2576	0.0000	SURCHARGED
15 minute winter	28	12	52.321	0.996	368.0	1.8106	0.0000	SURCHARGED
480 minute winter	29	472	52.109	0.859	88.3	2.1082	0.0000	SURCHARGED
15 minute winter	30	12	53.067	0.267	120.0	0.8844	0.0000	OK
15 minute winter	31	12	52.996	1.271	209.1	3.8132	0.0000	SURCHARGED
15 minute winter	32	12	52.532	0.957	207.4	1.6611	0.0000	SURCHARGED
15 minute winter	33	12	52.303	1.028	212.0	1.6175	0.0000	FLOOD RISK
480 minute winter	34	464	52.109	0.984	36.1	1.4618	0.0000	SURCHARGED
480 minute winter	35	472	52.109	1.134	98.8	2.6157	0.0000	SURCHARGED
480 minute winter	HW3	472	52.109	1.184	93.1	0.0000	0.0000	SURCHARGED
480 minute winter	HW4	472	52.109	1.259	93.6	570.9097	0.0000	FLOOD RISK
480 minute winter	38	472	52.108	1.283	19.8	7.3489	0.0000	FLOOD RISK
15 minute winter	HW5	8	50.808	0.033	19.5	0.0000	0.0000	OK
15 minute winter	40	8	50.643	0.033	19.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	25	2.013	26	31.8	0.542	0.209	7.0580	
15 minute winter	26	2.014	27	53.0	0.624	0.326	4.6310	
15 minute winter	27	2.015	28	63.7	0.447	0.324	2.1285	
15 minute winter	28	1.007	29	367.6	1.702	1.535	6.5631	
480 minute winter	29	1.008	35	70.4	0.775	0.118	3.9562	
15 minute winter	30	4.000	31	111.0	1.273	0.306	3.1871	
15 minute winter	31	4.001	32	189.2	1.716	1.680	5.1691	
15 minute winter	32	4.002	33	205.2	1.861	0.716	1.6199	
15 minute winter	33	4.003	34	209.7	1.902	1.603	1.9218	
480 minute winter	34	4.004	35	28.3	0.481	0.180	4.9447	
480 minute winter	35	1.009	HW3	93.1	0.656	0.282	2.3141	
480 minute winter	HW3	1.010	HW4	93.6	0.157	0.159	159.7600	
480 minute winter	HW4	1.011	38	19.8	0.172	0.074	1.2433	
480 minute winter	38	1.012	HW5	19.5	1.915	0.440	0.0736	
15 minute winter	HW5	1.013	40	19.5	1.033	0.006	0.1814	273.8

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
100	0.029	5.00	53.706	1350	515538.538	125301.959	1.481
101	0.026	5.00	53.623	1350	515542.543	125309.748	1.498
TANK	0.000	5.00	53.175	1200	515554.675	125335.444	1.150
103	0.061	5.00	53.159	2100	515562.078	125327.406	1.209
HW1	0.014	5.00	53.100		515572.515	125329.638	1.250
D1	0.012	5.00	52.700		515582.990	125335.478	0.925
D2	0.010	5.00	52.475		515598.204	125335.143	0.825
D3	0.000		52.125		515601.048	125330.799	0.500
D4	0.000		52.100		515599.441	125324.436	0.500

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	100	101	8.758	0.600	52.225	52.125	0.100	87.6	225	5.10	50.0
1.001	101	103	26.333	0.600	52.125	51.950	0.175	150.5	225	5.52	50.0
2.000	TANK	103	10.928	0.600	52.025	51.950	0.075	145.7	225	5.17	50.0
1.002	103	HW1	10.673	0.600	51.950	51.850	0.100	106.7	225	5.66	50.0
1.003	HW1	D1	11.993	0.035	51.850	51.775	0.075	159.9	250	6.00	50.0
1.004	D1	D2	15.218	0.035	51.775	51.650	0.125	121.7	250	6.38	50.0
1.005	D2	D3	5.192	0.035	51.650	51.625	0.025	207.7	250	6.55	50.0
1.006	D3	D4	6.563	0.035	51.625	51.600	0.025	262.5	250	6.79	49.5

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.398	55.6	3.9	1.256	1.273	0.029	0.0	40	0.809
1.001	1.063	42.3	7.5	1.273	0.984	0.055	0.0	64	0.805
2.000	1.081	43.0	0.0	0.925	0.984	0.000	0.0	0	0.000
1.002	1.265	50.3	15.7	0.984	1.025	0.116	0.0	87	1.123
1.003	0.582	72.7	17.6	1.000	0.675	0.130	0.0	119	0.401
1.004	0.667	83.3	19.2	0.675	0.575	0.142	0.0	116	0.454
1.005	0.510	63.8	20.6	0.575	0.250	0.152	0.0	139	0.381
1.006	0.454	56.7	20.4	0.250	0.250	0.152	0.0	147	0.348

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	✓	Check Discharge Rate(s)	✓
Rainfall Events	Singular	Drain Down Time (mins)	240	Check Discharge Volume	✓
Winter CV	1.000	Additional Storage (m³/ha)	20.0	100 year 360 minute (m³)	
Analysis Speed	Normal	Starting Level (m)			

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	0	0	0
100	40	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)		Betterment (%)	0
SAAR (mm)		QBar	
Soil Index	1	Q 1 year (l/s)	
SPR	0.10	Q 30 year (l/s)	
Region	1	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)		Storm Duration (mins)	360
Soil Index	1	Betterment (%)	0
SPR	0.10	PR	
CWI		Runoff Volume (m³)	

Node 103 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	51.950	Product Number	CTL-SHE-0059-1700-1200-1700
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.7	Min Node Diameter (mm)	1200

Node TANK Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	52.025
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	180.0	0.0	0.400	180.0	0.0	0.401	0.0	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.36%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	100	10	52.262	0.037	3.3	0.0671	0.0000	OK
15 minute winter	101	12	52.246	0.121	6.3	0.2148	0.0000	OK
180 minute winter	TANK	136	52.066	0.041	3.0	7.4267	0.0000	OK
15 minute winter	103	12	52.243	0.293	12.4	1.3125	0.0000	SURCHARGED
15 minute winter	HW1	10	51.893	0.043	3.0	0.0096	0.0000	OK
15 minute winter	D1	11	51.824	0.049	4.4	0.0128	0.0000	OK
15 minute winter	D2	11	51.717	0.067	5.4	0.0162	0.0000	OK
15 minute winter	D3	12	51.700	0.075	5.3	0.0000	0.0000	OK
15 minute winter	D4	12	51.633	0.033	5.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	100	1.000	101	3.3	0.538	0.059	0.1112	
15 minute winter	101	1.001	103	7.2	0.308	0.171	0.8093	
180 minute winter	TANK	2.000	103	-3.0	-0.275	-0.070	0.1395	
15 minute winter	103	Hydro-Brake®	HW1	1.4				
15 minute winter	HW1	1.003	D1	3.0	0.221	0.041	0.1637	
15 minute winter	D1	1.004	D2	4.3	0.243	0.052	0.2740	
15 minute winter	D2	1.005	D3	5.3	0.231	0.082	0.1185	
15 minute winter	D3	1.006	D4	5.2	0.318	0.092	0.1109	6.8

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.36%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	100	11	52.820	0.595	13.2	1.0849	0.0000	SURCHARGED
15 minute winter	101	11	52.810	0.685	25.0	1.2181	0.0000	SURCHARGED
180 minute winter	TANK	176	52.237	0.212	11.1	38.4257	0.0000	OK
15 minute winter	103	10	52.738	0.788	52.6	3.5248	0.0000	SURCHARGED
15 minute winter	HW1	10	51.925	0.075	7.8	0.0167	0.0000	OK
15 minute winter	D1	11	51.868	0.093	13.1	0.0240	0.0000	OK
15 minute winter	D2	11	51.777	0.127	17.3	0.0308	0.0000	OK
15 minute winter	D3	11	51.754	0.129	17.2	0.0000	0.0000	OK
15 minute winter	D4	11	51.671	0.071	17.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	100	1.000	101	15.3	0.619	0.275	0.3483	
15 minute winter	101	1.001	103	29.4	0.739	0.695	1.0473	
180 minute winter	TANK	2.000	103	-11.1	-0.424	-0.258	0.4295	
15 minute winter	103	Hydro-Brake®	HW1	1.4				
15 minute winter	HW1	1.003	D1	7.7	0.276	0.105	0.3337	
15 minute winter	D1	1.004	D2	12.9	0.327	0.155	0.6076	
15 minute winter	D2	1.005	D3	17.2	0.356	0.270	0.2516	
15 minute winter	D3	1.006	D4	17.2	0.494	0.304	0.2344	27.5

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.36%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	100	11	52.990	0.765	16.7	1.3948	0.0000	SURCHARGED
15 minute winter	101	11	52.974	0.849	31.6	1.5101	0.0000	SURCHARGED
240 minute winter	TANK	236	52.308	0.283	11.1	51.2620	0.0000	SURCHARGED
15 minute winter	103	10	52.875	0.925	66.4	4.1364	0.0000	FLOOD RISK
15 minute winter	HW1	10	51.934	0.084	9.6	0.0188	0.0000	OK
15 minute winter	D1	11	51.880	0.105	16.3	0.0271	0.0000	OK
15 minute winter	D2	11	51.792	0.142	21.6	0.0344	0.0000	OK
15 minute winter	D3	11	51.767	0.142	21.5	0.0000	0.0000	OK
15 minute winter	D4	11	51.681	0.081	21.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	100	1.000	101	18.9	0.594	0.339	0.3483	
15 minute winter	101	1.001	103	36.2	0.911	0.857	1.0473	
240 minute winter	TANK	2.000	103	-11.1	-0.369	-0.259	0.4346	
15 minute winter	103	Hydro-Brake®	HW1	1.5				
15 minute winter	HW1	1.003	D1	9.4	0.292	0.130	0.3887	
15 minute winter	D1	1.004	D2	16.0	0.349	0.192	0.7062	
15 minute winter	D2	1.005	D3	21.5	0.386	0.337	0.2892	
15 minute winter	D3	1.006	D4	21.5	0.533	0.379	0.2708	30.2

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.36%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	100	11	53.331	1.106	23.3	2.0167	0.0000	SURCHARGED
15 minute winter	101	11	53.301	1.176	43.7	2.0927	0.0000	SURCHARGED
240 minute winter	TANK	236	53.138	1.113	15.6	73.3492	0.0000	FLOOD RISK
240 minute winter	103	236	53.138	1.188	17.5	5.3154	0.0000	FLOOD RISK
15 minute winter	HW1	10	51.950	0.100	13.0	0.0223	0.0000	OK
15 minute winter	D1	11	51.899	0.124	22.5	0.0322	0.0000	OK
15 minute winter	D2	11	51.816	0.166	29.9	0.0403	0.0000	OK
15 minute winter	D3	11	51.789	0.164	29.7	0.0000	0.0000	OK
15 minute winter	D4	11	51.698	0.098	29.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	100	1.000	101	25.3	0.645	0.456	0.3483	
15 minute winter	101	1.001	103	48.5	1.220	1.148	1.0473	
240 minute winter	TANK	2.000	103	-15.6	-0.393	-0.364	0.4346	
240 minute winter	103	Hydro-Brake®	HW1	1.7				
15 minute winter	HW1	1.003	D1	12.8	0.316	0.176	0.4872	
15 minute winter	D1	1.004	D2	21.9	0.384	0.263	0.8817	
15 minute winter	D2	1.005	D3	29.7	0.434	0.466	0.3555	
15 minute winter	D3	1.006	D4	29.8	0.597	0.525	0.3345	34.6

