



**PERSIMMON HOMES THAMES VALLEY
HAMPTON PARK
LITTLEHAMPTON**

**PHASE 6A RESERVED MATTERS
APPLICATION
SURFACE & FOUL WATER DRAINAGE**

DECEMBER 2025



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APPLICATION
SURFACE & FOUL WATER DRAINAGE**

DECEMBER 2025

Project Code:	PHHAMTONPARK_PHASE6A
Prepared by:	SF
Approved by:	PA
Issue Date:	04.12.2025
Status:	1st Planning Issue



**Persimmon Homes Thames Valley
Hampton Park
Littlehampton
Phase 6a Reserved Matters Application
Surface & Foul Water Drainage**

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1 Introduction

1.1 Mayer Brown Ltd (MBL) has been commissioned by Persimmon Homes Thames Valley (PHTV) to produce this surface and foul water drainage technical note to accompanying their reserved matters application (RMA) for **Phase 6a** located within Hampton Park, Littlehampton.

1.2 The purpose of this report is to demonstrate the proposed Phase 6a RMA will be:

- Safely drained of surface water run-off and will not cause flooding to itself or increase the risk of flooding to adjacent / downstream areas
- Can be drained of foul water effluent into the nearest public sewer.

Outline Planning Approval & Drainage Conditions

1.3 Outline Planning Consent was granted for Hampton Park in 2011, under Arun District Council planning reference **LU/47/11**, for up to 1,260 residential dwellings, B1 employment use, Class A facilities, a 100 bed hotel, 60 bed care home, primary school, plus many other facilities and improvements to the local infrastructure.

1.4 The decision notice in the outline consent includes two drainage related planning conditions with a high-level description as follows:

- Condition 10 – Surface Water Drainage Strategy
- Condition 13 – Foul Water Drainage

1.5 This surface and foul water drainage report provides enough information to prove that Phase 6b can be adequately drained and is sufficient for the LLFA to recommend planning approval of the 6b RMA.

Drainage Report Coverage

1.6 The Phase 6a RMA boundary in Figure 1.1 below covers a total area of approximately 24.7 hectares divided as follows:

- Residential Area: 11.2 hectares
- Black Ditch Open Space: 13.5 hectares

1.7 This drainage report **focuses entirely** on the **11.2-hectare residential** area. The remaining 13.5-hectare Black Ditch open space is an existing greenfield area will that remain as a greenfield space that will not require drainage.

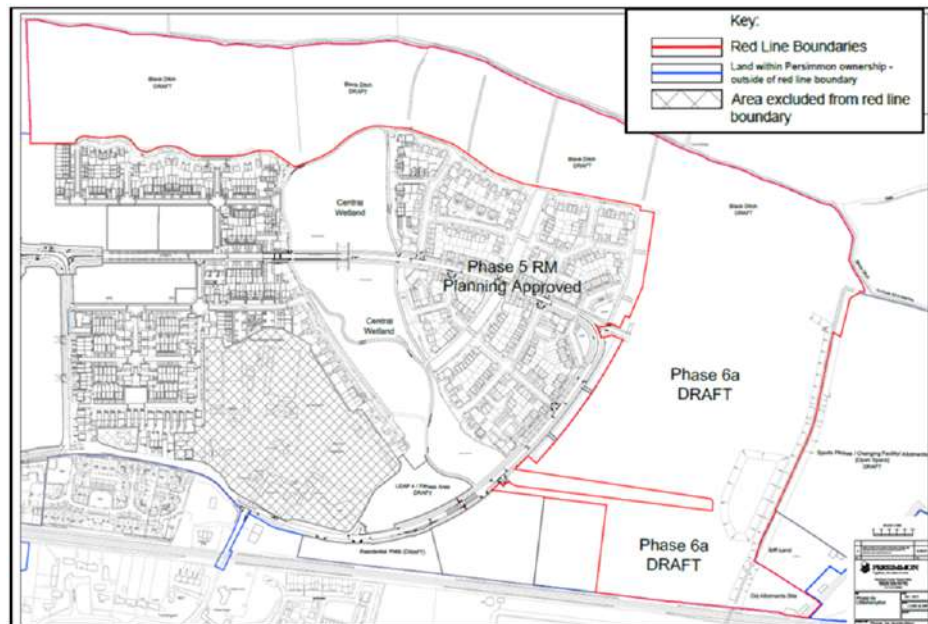


Figure 1.1: Phase 6a RMA Boundary

Format of this Drainage Report

- 1.8 Phase 6a residential area, covering approximately 11.2 hectares, is partially located within Catchment 3 of the much larger overall South and East Central Wetlands drainage catchment that covers a total of 24.3 hectares.
- 1.9 The drainage of this much larger overall catchment is described in sections 2 and 3 of this report. **It is imperative** this is read and fully understood because it **informs the allowable discharge rate, attenuation volume and surface water treatment applied at 6a RMA.**
- 1.10 The Appendices attached to this report are divided into two categories:
 - Sitewide Information: Relating to the overall drainage catchment
 - Phase 6a RMA Information: Just relating to the proposed drainage of Phase 6a RMA

Engineering Consultancies

Flood Risk – Stantec

- 1.11 A Flood Risk Assessment report that covers the Phase 6a development has been prepared by Stantec to accompany the Reserved Matters Application. The document dated November 2025 is titled 'Flood Risk Assessment – Addendum (Phase 6a Reserve Matters Application)'.

Surface and Foul Water Drainage – Mayer Brown Limited

- 1.12 Mayer Brown Limited (MBL) designed the overall South and East Central Wetland Drainage Strategy and carried out the detailed design of the Main Avenue and drainage infrastructure. Therefore, MBL have a thorough understanding of the overall drainage systems, both existing and proposed.

2 Hampton Park – Surface Drainage Overview & Approvals

Pre-Demolition Site

- 2.1 The pre-demolition site was heavily developed comprising large glasshouses with associated outbuildings and areas of hardstanding. Refer to the site location plan in Appendix A that shows the extent of the glasshouses covering the site to the east and west of the wetlands.

Outline Approved Surface Water Strategy (2011)

- 2.2 Greencore obtained outlined planning consent for the scheme in 2011 and the approved drainage strategy from 2011 is contained in Appendix A. This is a high-level drawing identifying a central swale (dark blue dashed line) that forms a distinct break running through the centre of the overall development. This central collection swale is in similar location as the Central Wetland Areas (CWA).
- 2.3 This central swale is fed by secondary swales from within the development parcels. The secondary swales are also shown to discharge into the wetland area to the north using the existing ditch network. There is also an attenuation pond connected to the head of the central swale that is formed by partially filling in an existing lake.

Hampton Park Drainage Catchments

- 2.4 From a drainage perspective the outline approved masterplan (in Appendix A) can be viewed as two distinct areas that are divided by central wetlands area (CWA):
- **West of Central Wetlands:** The west of central wetlands catchment covers a total area of 19 hectares that is subdivided into 18 land parcels. A large proportion of this catchment has already been constructed and the overall surface water strategy has been reviewed and approved by Arun DC.
 - **South and East of Central Wetlands:** The south and east central wetlands catchment covers a total area of 24.3 hectares that is subdivided into phases / land parcels. A breakdown of this catchment is as follows:
 - Phase 5 (DOC10 approved & constructed) – Residential for 206 dwellings (approved and constructed)
 - Central Spine Road (DOC10 approved and constructed) – Approximately 1.0 kilometre of tree lined main road/main road looping from the west of wetlands through the east of wetlands

residential areas, past the new school and linking back onto Toddington Lane.

- **Phases 6a** – Residential for 288 dwellings (**Subject to this RM Application**)
- Phases 6b – Residential for 17 dwellings on the south of the central spine road plus a LEAP/Fitness area to the north of the central spine road



Figure 2.1: Phase 6a Developed Area Location within South and East of Wetlands (Not RMA boundary)

South and East of Central Wetlands Strategy & Approval

- 2.5 Following lengthy discussions with Arun DC the overall South and East of Central Wetlands drainage strategy was approved by Arun DC in August 2024 under planning reference LU/122/24/DOC. The overall approved drainage strategy is contained in Appendix C.

2.6 The approved strategy was reviewed Arun DC's external consultants who assess developments against a consultation document provided by Arun DC. The consultation document assesses 9 critical drainage items and the approved strategy was determined as being compliant against each heading. As follows:

- Winter groundwater monitoring data: Compliant.
- Winter infiltration testing data: Compliant.
- The hierarchy for sustainable drainage: Compliant
- Calculations: Compliant
- Natural catchments design. Compliant.
- Plans: Compliant.
- Water quality benefits: Compliant.
- Biodiversity and amenity benefits: Compliant
- Trees: Insufficient.

2.7 The overall South and East of Central Wetlands surface water strategy drainage, and how it relates to 6a RMA, is discussed in more detail in the following Section 3

3 South and East of Central Wetlands Strategy

- 3.1 The approved South and East of Central Wetlands surface water strategy (S&ESWS) **retains the principles** set out in the outlined approved drainage strategy by keeping the swales and pond in similar locations.
- 3.2 Refer to the overall strategy drawing in Appendix C that has been updated to include 6a RMA and 6b RMA.
- 3.3 This strategy covers a total area of approximately 24.3 hectares that has been progressed/engineered significantly where swale dimensions, bed levels, top of bank levels have all been established. The proposed ground levels in the development parcels have been engineered to ensure their drainage networks flow on a gravity basis into the swales that turn discharge into the central wetlands, northern wetland or proposed new lake to the east.
- 3.4 A micro drainage model for the entire interconnecting network of swales and pipes was created to ensure the required volume of attenuation is accurately calculated.

Catchments Outfall Locations

- 3.5 The 24.3 hectares is divided into 4 catchments that are identified on the overall drainage strategy drawing in Appendix C. Each catchment has a corresponding separate outfall into the central wetland area.
- 3.6 With the above in mind the proposed peak discharge rates from the 4 catchments are as follows:
- Catchment 01 (0.47 hectares): Restricted to 50 litres/sec (1 outfall)
 - Catchment 02 (6.50 hectares): Restricted to 150 litres/sec (2 outfalls)
 - Catchment 03 (15.80 hectares): Restricted to 44 litres/sec (3 outfalls)
 - Catchment 04 (1.53 hectares): Restricted to 120 litres/sec (1 outfall)
- Total Combined Peak Discharge: **No greater than 364 litres/second**
- 3.7 **Phase 6a RMA** is located within **Catchment 3**.

Calculations

- 3.8 Individual micro drainage models for the entire interconnecting network of swales and pipes were created to ensure the pipes were sized adequately and the required volume of attenuation is accurately calculated.
- 3.9 **Phase 6a RMA** network model is located within **Catchment 3**.

Outfall Locations

- 3.10 There are 4 primary outfalls discharging into the central wetland area. Most of the surface water run-off discharges via these 4 outfalls
- 3.11 There are 3 secondary outfalls along the northern boundary to enable the swale network and attenuation pond to drain down. The discharge rates from these outfalls are very low because we are pushing as much water as possible to the south into the central wetland area. The reason for pushing most of the flow towards the central wetland area is to maintain a flow of water in this area and to also increase the travel distance in swales before it reaches the Black Ditch that helps with improved water quality
- 3.12 **Phase 6a RMA** has three outfall locations
- **Outfall 3:** Is the primary outfall that discharges into a swale before eventually discharging into the central wetlands.
 - **Outfall 3A:** Is a secondary outfall that discharges into the open area to the north of swale 03.
 - **Outfall 03B:** Is a secondary outfall that discharges into the Norway Stream to the east of the proposed pond.

Attenuation Structures

- 3.13 Most of the surface water attenuation is achieved in the proposed swales. In total there are seven swales across the entire network. The Development parcels and their respective swales are all set higher than the central and northern wetland, which enables them to discharge/empty into the wetland outfalls without being affected by the 1in100yr flood level of 1.83 AOD.
- 3.14 In addition to the swales there is new attenuation pond to the east that will be created by partially filling in an existing lake, and a proprietary attenuation tank in the LEAP area in the northern parcel of Phase 06b.

3.15 The approximate volumes of the attenuation structures are as follows:

- Swales 01 - 07 Combined Attenuation Volume 10,000m³.
- Attenuation Pond (existing lake partially filled in): Attenuation Volume 7,220m³.
- Attenuation Tank: Attenuation Volume 213m³.

3.16 **Phase 6a RMA** is located within **Catchment 3** and the attenuation is provided Swales 3 to 7 plus the attenuation pond.

Catchment Discharge Rates

3.17 The peak rate of surface water discharge for up to the 1 in 100-year return period + 30% climate change will be restricted to 15 litres / second / hectare. The proposed total combined discharge from the 4 catchments will not exceed **364 litres/second** (15 litre/sec/hectare x 24.27 hectares) for up all storm events up to the 1in100 year return period plus 30% climate change. This has **already been approved by Arun DC** Engineering Services Team.

3.18 With the above in mind the proposed peak discharge rates from the 4 catchments are as follows:

- Catchment 01 (0.47 hectares): Restricted to 50 litres/sec (1 outfall)
- Catchment 02 (6.50 hectares): Restricted to 150 litres/sec (2 outfalls)
- **Catchment 03 (15.80 hectares): Restricted to 44 litres/sec (3 outfalls)**
- Catchment 04 (1.53 hectares): Restricted to 120 litres/sec (1 outfall)

Total Combined Peak Discharge: **No greater than 364 litres/second**

3.19 **Phase 6a RMA** is located within **Catchment 3** and the agreed discharge rate into central wetland area is **120 litres/second** using a hydro-brake flow control chamber.

Surface Water Treatment

3.20 Table 26.2 of the SuDS Manual identifies the pollution hazard level associated with the land uses within the Proposed Development as being 'Low'. On a scale from 0-1 a 'Low' pollution hazard level relates to the following pollution hazard indices (See table 26.2 of the SuDS Manual) This is applicable to runoff from residential roofs, driveways, paths, residential parking areas and low traffic roads:

- Total Suspended Solids = 0.5
- Metals = 0.4
- Hydrocarbons = 0.4

- 3.21 Table 26.3 of the SuDS Manual sets out the indicative mitigation indices provided by different SuDS features for discharges to surface water.

Swale Networks (& Ditch in Central Wetland Area)

- 3.22 The new swales within the Development platforms will not have any longitudinal fall and eventually outfall into the central wetland area will flow through a swale before it connects into the new ditch passing through the central wetland area and eventually into the Black Ditch.
- 3.23 This new ditch will also be entirely flat (similar to the local existing ditch network) so the water will be extremely slow-moving allowing pollutants to drop out before it reaches the Black Ditch. Swales can remove coarse to medium sediments and associated pollutants by filtration through surface vegetation and groundcover, providing mitigation indices of 0.5, 0.6 and 0.6, which exceed the requirement set out in paragraph 3.22.

Traditional Gullies

- 3.24 Full size precast concrete gully pots draining the asphalt roads that will act as the first line of defence to trap silt and sediments in the drainage network.

Hydro Dynamic Vortex Control

- 3.25 In the Main Avenue network there are a few areas where there is limited potential for the main swales to treat the run-off before it discharges into the CWA. Two “Aqua Swirls” (Hydro Dynamic Vortex Control manholes) have been included to the drainage network.
- 3.26 **Phase 6a RMA** is located within **Catchment 3** and surface water treatment is provided by 4 swales, an attenuation pond, gullies and an aqua swirl chamber before discharging primarily into the downstream central wetland area.

Adoption and Maintenance

- 3.27 The proposed surface water drainage below ground network up to and including the pre-cast concrete headwalls into the swales will be offered for adoption to ICOSA Water under a S104 agreement, which will ensure they are maintained in perpetuity.
- 3.28 The swales and attenuation pond will be maintained by a management company organised by the applicant.

Exceedence Flows

- 3.29 The entire drainage network drainage network is designed to cope with all rainfall events up to the 1in100yr return period+30%CC and this water will be contained on site within the developed area (not the wetlands).
- 3.30 The ground and road levels have been engineered so they fall either towards a swale, pond or outwards towards the wetlands away from the new dwellings. The proposed overall drainage plan in Appendix C show the proposed levels and the route of overland flow in the event of system failure, blockage or overload.

4 Phase 6b Site Location and Description

Site Location

- 4.1 The site is located to the east of Hampton Park, Littlehampton and falls under the administrative boundary of Arun District Council.
- 4.2 The nearest postcode is BN17 7UD and the approximate co-ordinates to the centre are E504000, N103950. Refer to figure 1 below and Appendix A for the site location plan.
- 4.3 The recently constructed Main Avenue provides access to the site. The most up to date main avenue construction drawing in this area is contained in Appendix H.



Figure 2.1: Existing Site (Phase 5 & Main Avenue under Construction)

Pre-Demolition Site

- 4.4 The pre-demolition site was heavily developed comprising large glasshouses with associated outbuildings and areas of hardstanding. Refer to the site location plan in Appendix A that shows the extent of the glasshouses covering the site to the east and west of the wetlands.

Topography (Residential Area)

- 4.5 An as-built topographical drone survey of the recently constructed Main Avenue was undertaken by Survey Solutions in November 2024. The drone survey only recorded the surface levels so does not include existing Main Avenue drainage. Therefore, MBL have produced a topographic survey drawing in Appendix E that merges the drone survey with the existing Main Avenue drainage. Ground levels from a previous survey along the boundary with the railway and the public open space to the north have also been added to this drawing.
- 4.6 There are numerous earth mounds across the site that is surplus earthworks and arisings associate with the construction works on Hampton Park since 2014
- 4.7 The levels across the 11.2-hectare development platforms are relatively flat and ranges between 4.2 metres to 5.0 metres. (This makes sense because the site used to contain very large glasshouse and flat slabs)

Existing Ditches & Watercourses

- 4.8 There is a disused irrigation reservoir in the northeast corner and a small lake immediately to the south.
- 4.9 There are no ordinary watercourses flowing the residential areas. There are existing swales (No's 3, 4 & 7) that have recently constructed as part of the Phase 5 and Main Avenue works.
- 4.10 Norway Stream, an EA controlled Main River, flows north along the eastern boundary. And eventually flows into the Black Ditch to the north.

Existing Drainage

- 4.11 The Main Avenue and Phase 5 with associated drainage has already been constructed and is clearly identified on the topographic survey in Appendix E.

4.12 Surface and foul water provision for Phase 6a was incorporated into the Main Avenue network as follows:

- Ex Surface: There are numerous existing sewers and swales that includes
 - Swales 3, 4 & 7 and their associated outfalls 03 & 03A
 - 225mm spur from the existing Main Avenue network into 6a RMA area that enables connectivity into existing swales 03 & 04.
- Ex Foul: An existing 150mm spur from the existing Main Avenue network into 6a RMA area that will provide connectivity from a proposed 288 dwellings into the existing foul pump station.

5 Phase 6a Proposed Residential Area

- 5.1 The proposed 6a RMA application seeks to secure planning approval for the following:
- 288 residential dwellings and associated highways and drainage infrastructure.
 - Children's play spaces in the form of 4 LAPS
 - Public access to part of the Black Ditch Open Space
- 5.2 The proposed residential area for Phase 6a RMA is contained in Appendix D and figures 5.1 below.
- 5.3 Phase 6aRMA area will be accessed by the recently constructed Main Avenue.



Figure 5.1: Phase 6a Residential Area (Not the RMA boundary)

6 Phase 6a – Surface Water Drainage

- 6.1 The surface water strategy for Phase 6a RMA will retain the principles already agreed in the approved South and East of Central Wetlands surface water strategy.
- 6.2 Phase 6a RMA is located within **Catchment 3** of the approved strategy.
- 6.3 The proposed drainage general arrangement drawings for Phase 6a is contained in Appendix F.
- 6.4 The drainage design has been completed in conjunction with the proposed levels design and engineering plans contained in Appendix G, also completed by MBL.

Existing Drainage

- 6.5 The main avenue and associated drainage have already been constructed and is clearly identified on the topographic survey in Appendix E.
- 6.6 Surface water provision for Phase 6a was incorporated into the Main Avenue network as follows:
- Swales 3, 4 & 7 and their associated outfalls 03 & 03A
 - 225mm spur from the existing Main Avenue network into 6a RMA area that enables connectivity into existing swales 03 & 04.

Discharge location

- 6.7 The proposed surface water network for 6b RMA will discharge into the existing sewers as described above, which have been designed specifically for this purpose.
- 6.8 The only new outfall to be constructed will be the outfall 03B into Norway Stream to the east of the new pond.

Discharge Rate

- 6.9 Phase 6a RMA is located within Catchment 3 that has maximum allowable discharge rate of 44 litres/second using hydro-brake flow control chambers. This has already been agreed and two have already been constructed.
- 6.10 Phase 6a RMA will **discharge freely** into these existing main avenue sewers and swales as described above, which have been designed specifically for this purpose.

- 6.11 Phase 6a RMA will also discharge freely into the remaining swales (05 & 06) and the new pond to be constructed as part of this RMA (described below)

Attenuation Structure & Volume

- 6.12 Phase 6a RMA is located within Catchment 3 and the attenuation is provided Swales 3 to 7 plus the attenuation pond.
- 6.13 This has already been agreed and partially constructed.
- Swales 03, 04 & 07 already constructed withing the Phase 5 & Main Avenue RMA
 - Swales 05, 06 and attenuation pond to be constructed as part of Phase 6a RMA

Calculations

- 6.14 Phase 6a RMA network model is located within Catchment 3, which is contained in Appendix J.

Surface Water Treatment

- 6.15 Phase 6a RMA is located within Catchment 3 and surface water treatment is provided by 4 swales, an attenuation pond, gullies and an aqua swirl chamber before discharging primarily into the downstream central wetland area.
- 6.16 This has already been agreed and partially constructed.
- Swales 03, 04 & 07 already constructed withing the Phase 5 & Main Avenue RMA
 - Swales 05, 06 and attenuation pond to be constructed as part of Phase 6a RMA

Exceedance Flows

- 6.17 The entire drainage network drainage network is designed to cope with all rainfall events up to the 1in100yr return period+30%CC and this water will be contained on site within the developed area (not the wetlands).
- 6.18 The proposed overall drainage plan in Appendix C show the proposed levels and the route of overland flow in the event of system failure, blockage or overload.

Adoption and Maintenance

- 6.19 The proposed surface water drainage below ground network up to and including the pre-cast concrete headwalls into the swales will be offered for adoption to ICOSA Water under a S104 agreement, which will ensure they are maintained in perpetuity

Drainage Network Design Criteria

- 6.20 The positive drainage will be designed in accordance with Sewers for Adoption, and BS EN 752 – Drain and sewer systems outside buildings and the Building Regulations - part H (2002).
- 6.21 The surface water network design and rate of surface water runoff would be based on the Modified Rational method and designed in accordance with the Wallingford Procedure. In order to carry out the design of the networks, a number of Global Variables are used. These Global Variables / parameters are related to the location of the site in the UK and have been obtained from the **Flood Estimation Handbook (FEH)**.
- 6.22 The positive surface water system would be designed such that:
- The pipes remain unsurcharged during the 1 in 2 year design storm;
 - The system should not flood during the worst case 1 in 30 year storm with a free outfall;
 - The surface water run-off from the proposed development would be safely contained on site for up to and including the worst case 1 in 100 year storm event, plus an additional for climate change;
 - The pipe velocities are such that self-cleansing is achieved at lesser more moderate storm intensities:
 - Pipe roughness (ks) = 0.6
 - Minimum pipe velocity at full flow = 1.0 m/s
 - Cv Value of 1.0
 - Percentage Impermeable areas
 - Buildings = 100%
 - Carriageways and footpaths = 100%
 - Private and Communal Parking = 100%

7 Foul Drainage – Phase 6a & Offsite Connections

On Site Foul Drainage

- 7.1 The proposed foul sewers from the 288 new dwellings will drain into the existing Phase 5 Type 3 adoptable pump station located centrally in the east of wetlands development area. This pump station has been designed to accept the flows from the 288 new dwellings in Phase 6a RMA
- 7.2 The proposed foul sewers within the 6b RMA are shown on the drainage general arrangement plans in Appendix F.

Existing Drainage

- 7.3 An existing 150mm spur has been provided especially for the future Phase 6a RMA area, which will provide connectivity from a proposed 288 dwellings into the existing foul pump station.

Design Criteria

- 7.4 The proposed foul sewers have been designed in accordance with Sewers for Adoption, BS EN 12056 – Gravity Drainage Systems Inside buildings, and Building Regulations - part H (2015).

Adoption & Maintenance

- 7.5 The proposed foul sewers will be adopted by ICOSA Water under a Section 104 agreement, which will ensure they are maintained in perpetuity.

Offsite Foul Drainage & Connections

Phase 5, Phase 4 & Phase Foul Drainage

- 7.6 Phase 6a will drain into the existing Phase 5 Type 3 pump station located centrally in the east of wetlands development area. This pump station has been designed to accept the flows from the 288 new dwellings in Phase 6a RMA
- 7.7 The Phase 5 pump station pumps effluent approximately 340 metres to the northern crossing, which then drains by gravity through Phase 4 and Phase 2 into the large Type 3 foul pump station that has been designed and constructed by Southern Water
- Approval of outline planning Condition 13 (foul drainage) for Phase 5, Phase 4 and Phase 2 has already been granted by Arun DC.

- Phase 2 and Phase 4 have been constructed and Phase 5 is partially constructed.
- S104 Technical Approval has also been obtained from ICOSA Water to enable them to adopt the Phase 2 and Phase 4 foul sewers.

Hampton Park Central Foul Pump Station

- 7.8 Foul drainage from the entire outline approved scheme will drain to a new Type 3 foul pump station located in the southeast corner of Block A Parcel, which is positioned within the 19-hectare catchment to the west of the wetlands.
- 7.9 This will pump the effluent via a new 2.0km rising main to an existing Southern Water gravity sewer located by Fitzalan Road to the south. The location of the pump station and route of the rising main are contained in Appendix K of this report.
- 7.10 The design of the Type 3 pump station compound, the optimum route of the rising main and its connection / discharge point have been decided by Southern Water under a Section 98 Agreement.
- 7.11 These works have been completed by Southern Water and the pump station is fully operational (see Appendix H).

8 Summary & Conclusion

Flood Risk

- 8.1 The residential area of the Phase 6a RMA is in a low-risk Flood Zone 1 area, so the proposed levels are dictated by boundary and engineering constraints as opposed to a predicted fluvial or tidal flood level.

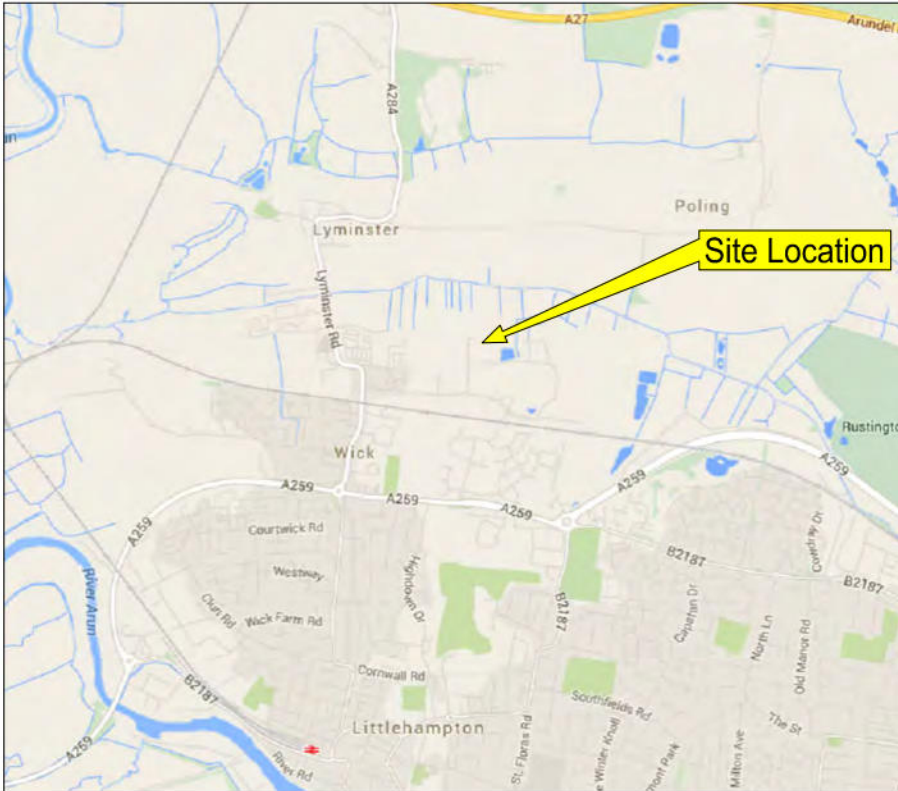
Surface Water Drainage

- 8.2 Phase 6a RMA is embedded within Catchment 3 of the 24.3-hectare South and East of Central Wetlands Catchment where the form and function of the system, the allowable discharge rates, the attenuation volumes and method of surface water treatment have already been approved by Arun DC.
- 8.3 The surface water strategy for 6a RMA will retain the principles already agreed for catchment 3 and discharge into this approved network. The drainage design for 6a RMA has been undertaken using the proposed levels design and engineering plans produced by MBL.
- 8.4 With the above in mind, this surface water drainage strategy report, with accompanying drawings and calculations, demonstrates that the 6a RMA within the greater Hampton Park development can be drained of surface water run-off satisfactorily without flooding itself or increasing flood risk elsewhere.

Foul Water Drainage

- 8.5 Phase 6a will drain into the existing Phase 5 Type 3 pump station located centrally in the east of wetlands development area. The Phase 5 pump station pumps effluent approximately 340 metres to the northern crossing, which then drains by gravity through Phase 4 and Phase 2 into the large Type 3 foul pump station that has been designed and constructed by Southern Water.
- 8.6 The information contained within this report demonstrates that adequate foul infrastructure is provided to enable foul effluent from the proposed Phase 6b RMA to be satisfactorily drained.

APPENDIX A: Hampton Park Site Location



NOTES

1. This drawing is to be read in conjunction with all relevant documents and specifications.

2. Dimensions not to be scaled.

LOCATION

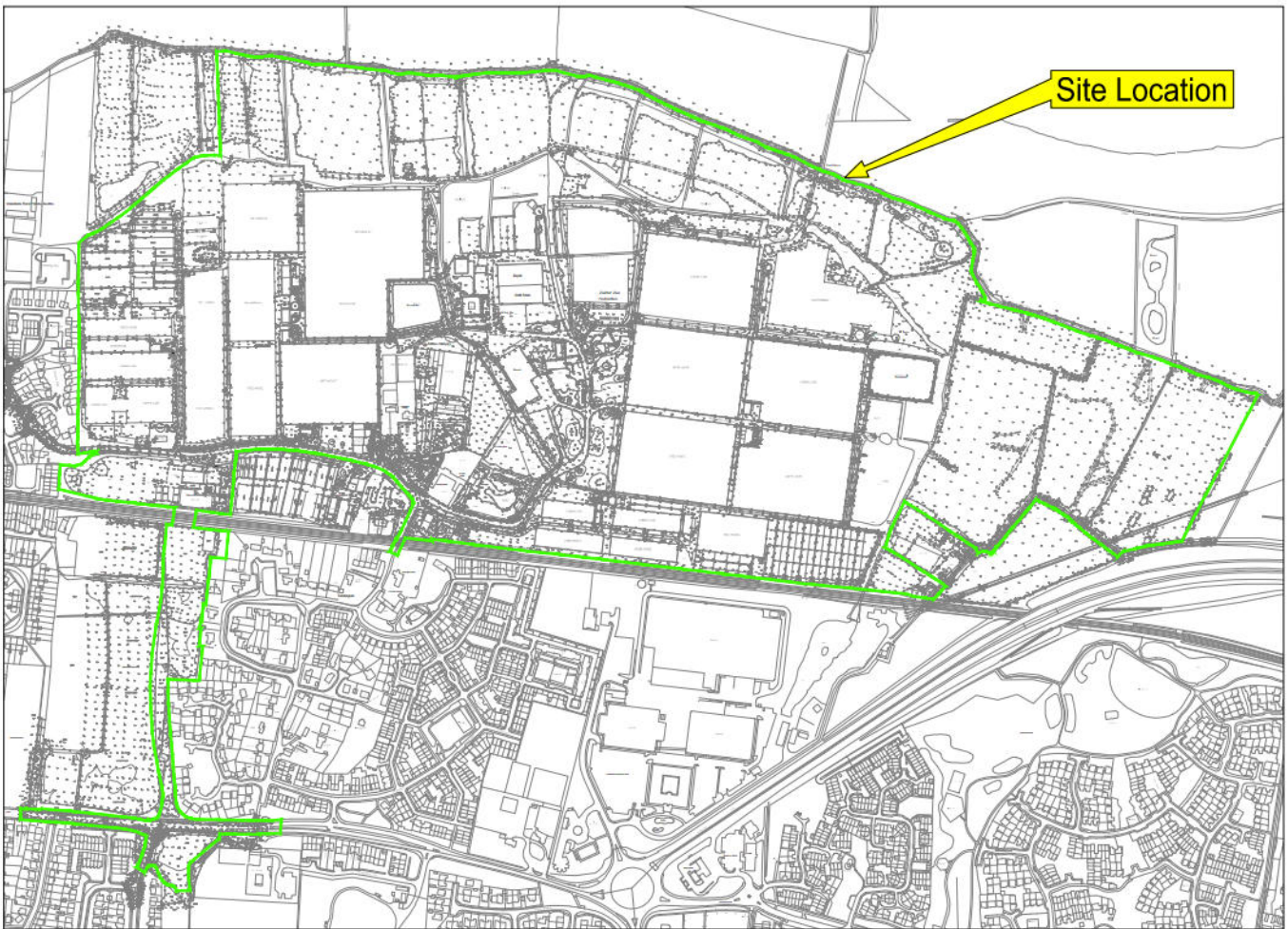
Address: Toddington Lane
Wick
Littlehampton
West Sussex
BN17 7PP

National Grid reference: TQ 03414 03979



Plan NTS

Plan 1:10000



Project :

Land North of Toddington Lane, Littlehampton

Title :

Site Location Plan

Project Engineer : J O'Kelly

Scale : As Shown@A4

Project Director : k Rayner

Date : December 14

Drawing No.

N/A

Rev

-

APPENDIX B: Outline Application - Illustrative Masterplan & Surface Water Strategy



Rev		Date
-	-	-
-	-	-
-	-	-
-	-	-

**PERSIMMON**
Together, we make a home

Persimmon Homes Thames Valley
Persimmon House, Knoll Road,
Camberley, Surrey GU15 3TQ
Tel: 01276 808080

Site:	Toddington Lane Littlehampton	Date:	27.06.16
Scale:	1:2500 @ A1		
Orig No:	519-GR.L_002		

Drawing Title:	Illustrative Masterplan
Drawing Status:	PRELIMINARY
Drawn:	KJ
Rev:	-



KEY

- EXISTING DRAINAGE DITCH TO BE RETAINED
- PROPOSED 'CENTRAL' SWALE DISCHARGING TO BLACK DITCH
- PROPOSED 'SECONDARY' SWALE

PROPOSED INDICATIVE SURFACE WATER MANAGEMENT PLAN
NOT TO SCALE

- PROPOSED AREA TO BE DRAINED VIA 'WESTERN' SWALE
- PROPOSED BALANCING POND

DO NOT SCALE; CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS

NOTES:

1. LEVELS TO BE ESTABLISHED DURING DETAILED DESIGN
2. EXISTING DITCH AND DRAIN INFORMATION TAKEN FROM ENVIRONMENT AGENCY RIVER ARUN CATCHMENT DRAWING NO. 7 DATED DEC 2003
3. PERMEABLE PAVING AND BELOW GROUND GEOCELLULAR STORAGE TO BE IMPLEMENTED IN ALL AREAS OF DEVELOPMENT WHERE POSSIBLE
4. SOAKAWAYS AND INFILTRATION METHODS TO BE IMPLEMENTED WHERE GROUND CONDITIONS AND TOPOGRAPHY ALLOW
5. PIPED DRAINAGE SYSTEMS MAY BE REQUIRED TO SUPPLEMENT OPEN WATER FEATURES
6. NO SURFACE WATER ATTENUATION WILL BE LOCATED WITHIN AREA OF FLOODPLAIN
7. MASTERPLAN INFORMATION TAKEN FROM JTP DRAWING SK020A DATED DEC 2010
8. ESTIMATE OF TOTAL ATTENUATION REQUIRED FOR DEVELOPMENT IS 15,564m³

REV	DESCRIPTION	BY	CHK	APP	DATE
A	MASTERPLAN UPDATED	JP	JP	CT	10/02/11

CLIENT

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Project:

LAND AT
NORTH LITTLEHAMPTON

Drawing Title:

PROPOSED SURFACE WATER
MANAGEMENT PLAN

Scale @ A4	Drawn	Date	Checked	Date	Approved	Date
NTS	JP	24-11-2009	CT	24-11-2009	CT	24-11-2009
Project No.	Office	Type	Drawing No.	Revision		
A044029	35	12	SK04	A		

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