

Engineers Comments Regarding Surface Water Drainage

Application Reference:	FP/78/25/DOC	Reviewer Reference:	ADC/EXT4
Planning Officer:	Amber Willard	Date of Review:	05/09/2025
Site Name:	1 Burley Road Felpham PO22 7NF		
Application Description:	Approval of details reserved by condition imposed under reference FP/176/24/PL relating to condition number 3 -surface water drainage scheme , condition number 4 - acoustic, condition number 5 - Biodiversity Enhancement Layout and condition number 6 - schedule of materials and finishes.		
Assessment Number:	1 of 2		

Policy and Guidance Information

Arun District Council Surface Water Drainage Guidance - <https://www.arun.gov.uk/surfacewater>

Land Drainage Consent – <https://www.westsussex.gov.uk/fire-emergencies-and-crime/dealing-with-extreme-weather/flooding/flood-risk-management/ordinary-watercourse-land-drainage-consent/> and <https://www.arun.gov.uk/land-drainage-consent/>

Arun District Council surface water pre-commencement conditions - <https://www.arun.gov.uk/planning-pre-commencement-conditions>

The SuDs Manual [C753] by CIRIA

Sustainable drainage systems: non-statutory technical standards' <https://assets.publishing.service.gov.uk/media/5a815646ed915d74e6231b43/sustainable-drainage-technical-standards.pdf>

Response	Condition 3: Objection
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Critical Items for Surface Water Drainage Design Conditions

The failure to adequately address the following items will result in an objection to a surface water drainage design.

If any of these items are inadequately addressed by the submission, then their correction may result in a redesign of the surface water drainage scheme. A redesign is likely to have site wide implications such as the potential for storage structures to increase in volume or plan area.

Critical Item	Reason	Status
Winter groundwater monitoring data.	Adequate winter groundwater monitoring data must be supplied to evidence that infiltration designs have sufficient freeboard from the base of structures and the peak groundwater level. The same data is necessary to ensure that the potential for buoyancy has been adequately considered in attenuation designs.	Not supplied

Winter infiltration testing data.	Adequate winter infiltration testing must be supplied to justify the proposed discharge method and design infiltration rates. Infiltration tests must be completed strictly in accordance with BRE DG 365, CIRIA R156 or a similar approved method. Testing depths must account for peak groundwater levels and correspond with the location and depth of proposed infiltration features. Designs must be based upon the <u>slowest</u> infiltration rate evidenced closest to a proposed infiltration feature. Average design rates will not be accepted. The results of incomplete tests should not be extrapolated to obtain design values for infiltration rates.	Not supplied
The hierarchy for sustainable drainage.	The proposed discharge method must accord with the SuDS hierarchy as given below. Evidence must be supplied to justify the proposed discharge method. 1. Rainwater reuse where possible. 2. Complete discharge into the ground (infiltration). 3. Hybrid infiltration and restricted discharge to an appropriate water body or surface water sewer. 4. Restricted discharge to an appropriate water body. 5. Restricted discharge to a surface water sewer. 6. Restricted discharge to a combined sewer. A water body may be defined as a river, watercourse, ditch, culverted watercourse, reservoir, wetland or the sea. Engineers cannot support any proposed connection of surface water to the foul sewer.	Insufficient
Calculations	Calculations for pre-development run off rates must be based upon the positively drained area only. Proposed discharge rates must not increase flood risk on site or elsewhere. Discharge	Insufficient

	rates must be restricted to QBAR or 2 l/s/ha, depending on whichever is higher.	
	Designs must be based on the most recently available rainfall data at the time of conditions being applied. <u>FSR rainfall data will not be accepted.</u> FEH rainfall data is based upon more recent records and continues to be updated.	Compliant
	Designs must use the correct climate change allowances at the time of determination of the outline or full planning application. CV values for all events must be set to 1. This includes summer, winter, design, and simulation events. The correct allowance for urban creep must be applied. Additional storage must be set to zero unless it can be evidenced where this is provided. Infiltration half-drain times must be less than 24 hours. Infiltration design rates must be applied to the sides of soakaways, or to the base of infiltration blankets. Design rates must not be applied to both the base and sides of infiltration structures. A surcharged outfall must be modelled.	Insufficient
Natural catchments design.	The submission must define the natural drainage characteristics within, and hydraulically linked to, the site and demonstrate that the drainage proposals will integrate with and not compromise the function of the natural and existing drainage systems. The condition, performance (including capacity where appropriate) and ownership of any existing site surface water drainage infrastructure must be accurately reported. Appropriate easements to watercourses and other services must be shown on all plans. Where there are areas of flood risk from any source on the site, it must be shown how a sustainable surface water drainage design can	Insufficient

	be accommodated on the site without conflicting with those areas of flood risk. Designs must replicate the natural drainage catchments of the site. All surface water drainage designs must therefore drain via gravity to corresponding points of discharge. The use of pumps for surface water drainage is not sustainable and will only be considered where the designer has fully demonstrated that they are proposed as a last resort.	
Plans	Plan areas, depths and levels of drainage infrastructure must accurately correspond with the supporting calculations.	Compliant
Water quality benefits.	An assessment of water quality is necessary to evidence that the proposed design provides adequate treatment of surface water.	Not supplied
Biodiversity and amenity benefits.	The surface water drainage design must provide biodiversity and amenity benefits.	Insufficient
Trees and planting	There should be no conflict between surface water drainage infrastructure and existing or proposed trees or planting. The design must consider the potential growth of proposed trees and adequate mitigation must be provided to protect drainage infrastructure where conflict cannot be avoided.	Insufficient

Drainage Impact on Other Planning Matters

This application has been assessed with regards to surface water drainage design only.

Other planning matters occasionally effect the surface water drainage design. If plans relating to other matters have been assessed for their impact on the proposed drainage, then it must not be assumed that they have been assessed for any other purpose. The planning officer is advised to check for conflicts with any existing approved plans and to consult any relevant consultees as appropriate.

It has been identified that the following consultees may have comments about the plans that have been submitted and reviewed for this application:

- ☒ Landscaping officer (proposed trees and landscaping)
- ☒ Tree officer (existing trees)

- ☐ Environment Agency (main rivers and fluvial/tidal flood risk, groundwater source protection zones)
- ☒ Southern Water (foul drainage and surface water disposal to public sewer network)
- ☐ Portsmouth Water (groundwater source protection zones)
- ☐ Lead local flood authority (all other sources of flooding and ordinary watercourses)
- ☐ Other:
- ☐ None

Additional comments to the planning officer

The NPPF states that when determining any planning application, local planning authorities should ensure that flood risk is not increased elsewhere (paragraph 181, 182 and 187e). The PPG guides local planning authorities to refer to 'Sustainable drainage systems: non-statutory technical standards' and detailed industry guidance like The SuDS Manual [C753] by CIRIA to guide decisions about the design, maintenance, and operation of sustainable drainage systems for non-major development.

This consultation has been primarily informed by The SuDS Manual.
Condition 3 is worded as follows:

"No development apart from demolition of the existing buildings shall commence, until full details of the proposed surface water drainage scheme is submitted to and approved in writing by the local planning authority. The full details submitted for approval shall include:

1. Winter groundwater monitoring,
 2. Winter infiltration testing strictly in accordance with BRE DG 365 or similar approved,
 3. Details of the proposed method and location of surface water disposal, in accordance with the SuDS hierarchy,
 4. Impermeable area plan,
 5. Calculations modelling the surface water drainage network for the following storm events:
 - a. 100% Annual Exceedance Probability
 - b. 10% AEP + climate change allowance
 - c. 3.3% AEP + climate change allowance
 - d. 1% AEP + climate change allowance
- All storm events must include an allowance for urban creep and surcharged outfalls where appropriate,*
6. Detailed drainage plans conforming to Local Planning Authority guidance,
 7. Specifications for all surface water drainage components and associated infrastructure or flow control mechanisms,
 8. Any relevant permissions relating to the discharge location, works to watercourses or adoption of the SuDS scheme.

The scheme shall then be constructed as per the approved plans. The surface water drainage scheme shall remain for the lifetime of the development unless agreed in writing by the local planning authority."

The following documents have been submitted and reviewed to inform this consultation with reference to surface water drainage:

- Drainage Layout 1111-2528-CIV-10 RevP2
- Drainage Construction Details Sheet 1 of 2 - 1111-2528-CIV-50 RevP1
- Drainage Construction Details Sheet 2 of 2 - 1111-2528-CIV-51 RevP1
- Storm Network Flow Data FEH-22 10 year - (Causeway - 1111-2528-A.pfd)
- Storm Network Flow Data FEH-22 100 year - (Causeway - 1111-2528-A.pfd)

The current scheme proposes to discharge the surface water via a new soakaway. There is no supporting groundwater monitoring or infiltration testing that has been supplied to verify the calculations and the suitability for using a soakaway at this location. This information needs to be provided by the applicant along with addressing the other comments noted in the associated comment tracker

Application Reference: FP/78/25/DOC Site Name: 1 Burley Road Felpham PO22 7NF	Initial Issue Date: 05/09/2025 Issue Date: 05/09/2025 Reviewer Reference: ADC/EXT4
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Summary and Recommendation:

Condition 3: **Objection**

Please note: Any DOC application should only have a maximum of two consultation responses. If this is the second response for an open application and there are still comments outstanding, then please object to the application.

	ADC Drainage Comments	Designer Response			
Date:	04/09/2025				
Condition Number:					
Comment Number					
1.	Please provide Winter Groundwater monitoring results as well as winter infiltration test results to BRE365 to support the use of the soakaway on the site				
2.	Please review calculations to use the correct climate change allowance of 45% for the 100 year return period and 40% for the 30 year return period				
3.	Please update calculations with a CV of 1				
4.	Please provide an exceedance flow layout				
5.	Please provide an impermeable areas plan				
6.	Please provide a construction detail for the soakaway which is specific for the proposal being proposed for the site. The current detail provided is generic.				

If a designer would like a .docx version of this document to aid administration of responses, please request this by email to land.drainage@arun.gov.uk.

[REDACTED]

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Arun District Council, Civic Centre, Maltravers Rd
Littlehampton, West Sussex, BN17 5LF
www.arun.gov.uk

To register to receive notifications of planning applications in your area please go to
<https://www1.arun.gov.uk/planning-application-finder>



Our priorities...



Improving the wellbeing of Arun



Delivering the right homes in the right places



Supporting our environment to support us



Fulfilling Arun's economic potential




From: Paul Cann <Paul.Cann@arun.gov.uk>
Sent: 05 September 2025 15:20
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Sarah Burrow <Sarah.Burrow@arun.gov.uk>; Amber Willard <Amber.Willard@arun.gov.uk>
Subject: RE: Planning Consultation on: FP/78/25/DOC

Please find enclosed our external consultants response, an objection.

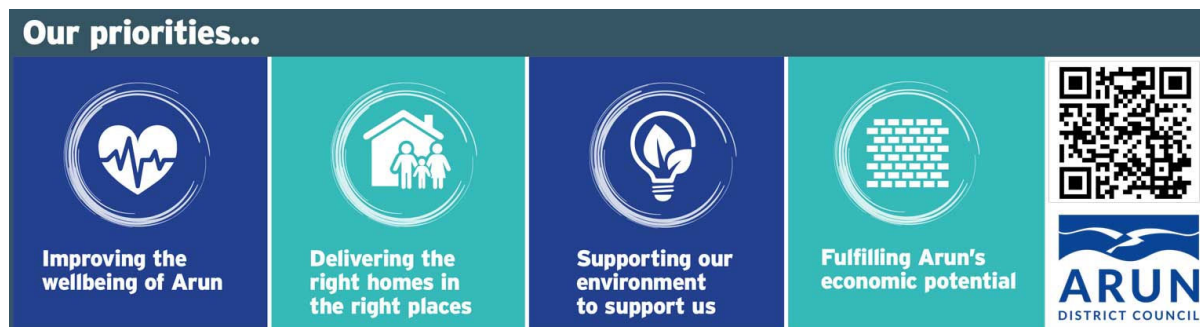
Regards

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From: Planning.Responses <Planning.Responses@arun.gov.uk>

Sent: Friday, June 13, 2025 10:37:26 AM (UTC+00:00) Monrovia, Reykjavik

To: Land Drainage <Land.Drainage@arun.gov.uk>

Subject: Planning Consultation on: FP/78/25/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: FP/78/25/DOC

Registered: 12th June 2025

Site Address: 1 Burley Road Felpham PO22 7NF

Description of Works: Approval of details reserved by condition imposed under reference FP/176/24/PL relating to condition number 3 -surface water drainage scheme, condition number 4 - acoustic, condition number 5 - Biodiversity Enhancement Layout and condition number 6 - schedule of materials and finishes.

The Council have received the above application to discharge conditions. I shall be pleased to receive any observations you may wish to make in respect of those conditions relating to your field of expertise.

[Click here to view the Discharge of Condition application and view the documents](#) The website is updated once a day in the evening, so you may need to wait until the day after this notification to view the documents.

[Click here to view the original application and decision notice](#)

Should you wish to make any comments click on the link and click into ?Enter Comment? or if this is not possible email your response to planning.responses@arun.gov.uk by **27th June 2025**.

Please be aware that any comments you may make will be available on our website so please do not insert personal details or signatures on your reply.

In the absence of a reply within the period stated, I shall assume that you have no observations to make.

Yours sincerely

Amber Willard

Planning Case Officer- Arun District Council

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Email: amber.willard@arun.gov.uk

PLCONDOC (ODB) 2020