Engineers Comments Regarding Surface Water Drainage

Application Reference:	WA/108/24/PL	**Reviewer Reference:**	ADC/PC
Planning Officer:	Amber Willard	**Date of Review:**	27/06/2025
Site Name:	Stoneybrook Farm Eastergate Lane Walberton BN18 0BA		
Application Description:	Erection of a re-purposed building for use as Class E (g) (iii) floor space, access, parking, drainage and landscaping. This application is in CIL Zone 3 (Zero Rated) as other development.		
Assessment Number:	1 of 1		

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

National standards for sustainable drainage systems
National standards for sustainable drainage systems - GOV.UK

Response	**Objection**

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.	**Insufficient – not site specific.**

	The same data is necessary to ensure that the potential for buoyancy has been adequately considered in attenuation designs.	
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 slowest 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.**	**Compliant but unproven.**
Calculations	Calculations for pre-development run off rates must be based upon the positively drained area only.	**Insufficient**

	Proposed discharge rates must not increase flood risk on site or elsewhere. Discharge 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. **FSR rainfall data will not be accepted.** FEH rainfall data is based upon more recent records and continues to be updated.	**Insufficient**
	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.	**Insufficient**

	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 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.	**Insufficient**
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.	**Not supplied**
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.

It should be noted that the Landscaping scheme does impact the drainage scheme in terms of the proximity of trees to pipework and the pond. It is recommended that the Landscaping Scheme is not approved at this stage, especially as the drainage scheme is likely to change significantly during detailed design.

Insufficient information has been submitted to evidence that this design is achievable and will not increase flood risk. Our objection is therefore sustained.

Overcoming the objection

As this is not a holding objection or a request for further information, requested conditions are not listed. If you are minded to approve this application, please reconsult for a list of suggested conditions to ensure that the development is adequately drained and does not increase flood risk elsewhere.

The imposition of conditions at this stage rather than overcoming the objection could result in a circumstance where the condition cannot be discharged. In the event of attaching a condition that cannot be discharged, permission may be invalid.

If the planning officer is minded to allow the applicant additional time to submit further documents to support this application, then the following evidence may overcome our objection. Please do not submit further documents without prior discussion with the planning officer as to whether it will be possible for these to be assessed or influence their determination.

The designer is guided to our comment tracker for further comments. Items 1 to 4 are critical in terms of addressing our objection.

Our surface water design checklist is available on our website at https://www.arun.gov.uk/surfacewater/. **If the design is amended following receipt of our consultation the designer may need to refer to this checklist to ensure that the revised design meets our requirements.**

Surface Water Drainage Comment Tracker

Application Reference: WA/108/24/PL **Site Name: Stoneybrook Farm Eastergate Lane Walberton BN18 0BA**	**Initial Issue Date: 27/03/2025** **Issue Date: 27/06/2025** **Reviewer Reference: ADC/SB & PC**

Summary and Recommendation:

Objection

Objection comments in **bold**, remaining comments to be addressed via condition.

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	ADC Drainage Comments		
Date:	**27/03/2025**	**31/03/25**	**27/06/2025**		
Condition Number: WA/108/24/PL					
Comment Number					
1.	**Please clarify the true bed level, top of bank level and existing connection level to the watercourse.**	The bank level is 10.49m The inlet invert level set 1.102m below bank level = 9.388m Watercourse level set 9.350m	This does not achieve the best practice minimum 150mm freeboard required between ditch bed and pipe invert (38mm being achieved). This requirement is stated in our previous consultation response. The layout plan should be updated to clearly show the ditch bed levels/top of bank levels along the entire southern boundary. The existing levels along the length of the watercourse will potentially provide an insight into the true longitudinal profile and may present opportunities to lower the bed levels without compromising gradients and thereby help achieve greater freeboard. Also, it is noted that the existing 100mm diameter pipe outfall which you intend to utilise, passes through the RPZ (root protection zone) of an existing oak tree. This is a potential future/existing issue in terms of root damage to the pipework, thus increase to flood risk. In fact the pipe may already have issues in this respect. It is therefore strongly suggested that a new pipe is installed avoiding any RPZ's. This will help avoid it being questioned during the discharge of any planning conditions.		
2.	**Please clarify the proposed connection level and demonstrate that a gravity connection can be achieved. This will include pipe gradients and invert levels at nodes.**	Existing connection to be retained, proposed to connect into existing chamber by gravity. Hydraulic network calcs attached	See item 1 above. The calculations have not been reviewed as they currently do not take account of criteria as set out in previous comments (ie. items 13,14,15). It is likely that storage will need to be increased once this is taken account of, however, as there is scope within the site to do this, it can be dealt with during the discharge of any planning		

			conditions. The applicant should also be aware that the landscaping scheme currently conflicts with the drainage scheme in part (ie. proximity of trees to pipework/pond), and will therefore need to be adjusted before either scheme is approved.		
3.	**Clarify any land raising that is proposed on the site and demonstrate that this will not increase flood risk.**	The Exceedance Plan is attached, Surface Water routes to the existing low spots on the southern boundary.	Please clearly indicate all areas of the site where the ground it to be raised and the level to which it is being raised. This information should be included on the exceedance plan, ensuring that the flow arrows are adjusted if necessary.		
4.	**Clearly show the location and easement for the watercourse on plans.**	The watercourse easement is shown.	The easement shown exceeds the required minimum 3m distance from the top of the bank of the watercourse and is therefore deemed acceptable. For clarity, clearly show the watercourse on the layout plan, together with the measured distance from the top of bank to any structure.		
5.	Site specific groundwater monitoring will be required. If infiltration is ruled out due to high groundwater levels and monitoring is abandoned, then groundwater must be assumed to be at ground level.		To be addressed via condition.		
6.	If groundwater levels allow then winter infiltration testing at the location, depth and head of water appropriate for the design must be completed. The testing depth must be at least 1m above the peak recorded groundwater level.		To be addressed via condition.		
7.	Ordinary watercourse land drainage consent or ADC Land Drainage Byelaw consent may be required. Evidence of this will need to be submitted.		To be addressed via condition.		
8.	Illustrate natural and exceedance flow paths on plans.		To be addressed via condition.		
9.	Submit an assessment of interception drainage and that surface water from the majority of frequent rainfall events will not leave the site.		To be addressed via condition.		
10.	Water quality assessment will need adjustment to reflect that the permeable paving does not serve all of the impermeable area and that the swale and detention basin are in fact one feature rather than acting in series.		To be addressed via condition.		
11.	Buoyancy calculations and a construction method statement relating to high groundwater may be required.		To be addressed via condition.		

12.	Contributing area plan must include the basin and the access road if this ultimately drains to this system.		To be addressed via condition.		
13.	Rainfall data must be adjusted to FEH22.		To be addressed via condition.		
14.	Please use the upper end climate change allowances correct at the time of determinations (currently 45% on the !% AEP event and 40% on the 3.33% AEP event).		To be addressed via condition.		
15.	A surcharged outfall will need to be modelled, this should be to the top of the bank where detailed watercourse modelling is not available.		To be addressed via condition.		
16.	Detailed plans and construction detail drawings will be required in accordance with the checklist.		To be addressed via condition.		
17.	If infiltration is not viable then the runoff rate is still subject to approval.		To be addressed via condition.		

From: Nicola Oktay on behalf of Planning.Responses
Sent: 01 July 2025 08:40
To: Planning Scanning
Subject: FW: Planning Consultation on: WA/108/24/PL
Attachments: WA-108-24-PL - Stoneybrook Farm.docx; WA-108-24-PL - Stoneybrook Farm Comment Tracker.docx

Drainage Engineers response

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

From: Paul Cann <Paul.Cann@arun.gov.uk>
Sent: 27 June 2025 15:01
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: WA/108/24/PL

Please find enclosed my consultation, objection sustained.

Regards

Paul Cann
Principal Drainage Engineer, Coastal Engineers and Flood Prevention

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From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: Tuesday, April 1, 2025 7:48:43 AM (UTC+00:00) Monrovia, Reykjavik

To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: WA/108/24/PL

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No:	**WA/108/24/PL**
Registered:	8th January 2025
Site Address:	Stoneybrook Farm Eastergate Lane Walberton BN18 0BA
Grid Reference:	496045 106057
Category:	Plan Applicat'n
Description of Works:	Erection of a re-purposed building for use as Class E (g) (iii) floor space, access, parking, drainage and landscaping. This application is in CIL Zone 3 (Zero Rated) as other development.

I am able to inform you that I have received an amendment to the above application dated 1st April 2025 relating to:- response to comment tracker, exceedance plans and calcs

If you should wish to make further representations as a result of this amendment, please make any further comment by **11th April 2025.**

Click here to view the application, documents and make further comments

Please be aware that Planning Services operate an 'open file' policy and will publish your comments including your name and address on the website. We will aim to redact signatures, telephone numbers and email addresses but please help us by not incorporating them in the body of your text. Please make sure that you only include information that you are happy will be published in this way. If you supply information belonging to a third party, you must make sure you have their permission to do so.

Yours sincerely

Amber Willard

Planning Case Officer- Arun District Council

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