Engineers Comments Regarding Surface Water Drainage

Application Reference:	WA/108/24/PL	**Reviewer Reference:**	ADC/SB
Planning Officer:	Amber Willard	**Date of Review:**	12/09//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:	3 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

Response	**No objection subject to condition and change to block plan**

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.	**Insufficient – not site specific.**

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. 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. **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. 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.	**Insufficient**
Water quality benefits.	An assessment of water quality is necessary to evidence that the proposed design provides adequate treatment of surface water.	**Insufficient**
Biodiversity and amenity benefits.	The surface water drainage design must provide biodiversity and amenity benefits.	**Compliant**
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.

The following documents have been submitted to support the application with reference to surface water drainage:

- Flood Risk Assessment, reference A001-013, revision A, dated 11/11/2024. Referred to as the **FRA**.
- Landscape Proposal LSDP 2360.012
- Block Plan 4494-02 Rev G
- A001-013/101 Rev D – Proposed Surface Water Drainage
- A001-013/301 – Proposed Surface Water Drainage Extent of Cut and Fill
- A001-013/300 – Proposed Surface Water Drainage Watercourse and Pond Sections
- Updated comment tracker dated 22/07/2025.

Within the FRA the following plans:

- A001-013/101 Rev B – Proposed Surface Water Drainage. Referred to as the **Drainage Layout (superseded)**.

The applicant has provided some useful information to illustrate how they may be able to drain surface water from the site. This is adequate to demonstrate that surface water drainage is unlikely to impact the scale and layout of the proposed development. However, the suggested design is inadequately evidenced for detailed design approval purposes.

It is therefore critical that the proposed pond is not approved in plan area via the block plan. The size or plan area of the pond may vary through the detailed design and modelling. Whilst this can be achieved without compromising the layout of the rest of the development, the explicit boundary of the pond on the block plan may prove to be too restrictive later. There is no objection to the pond being described as indicative or subject to change as long as the planning officer is

satisfied with this approach. There is no need to reconsult engineers on this matter if the issue is resolved between the planning officer and the applicant.

It is unclear if there may be infiltration potential on the site. This is because the designer has relied on site investigations from a neighbouring site. Infiltration tests must be completed in winter, at the proposed location, depth and head of water that any infiltration structure is proposed. The tests (and feature) must be at least 1m above the peak recorded groundwater level to provide adequate depth of unsaturated ground.

This means that the designer must have an accurate understanding of the groundwater levels. The proposed design relies on assumptions regarding the groundwater level based on the difference between the cover levels between this and the neighbouring site. This introduces an unacceptable level of uncertainty. It is likely that groundwater will be high enough that infiltration will not a be a viable means of surface water disposal, even for a hybrid system (as proposed), due to the risk of groundwater entering the system during the lifetime of the development. However, this must be evidenced prior to approval of the drainage design.

If infiltration is not viable then the applicant can propose to discharge surface water to the boundary watercourse as suggested in the hybrid design. This is an acceptable interim design approach to evidence that an alternative to infiltration is available.

There is an existing tree within the maintenance easement of the pond as drawn. The future growth potential of the tree will need to be considered, and the boundary of the pond (and liner) adjusted to account for this. The designer is also aware of the potential root damage caused by an existing tree close to the outfall. This shall be surveyed and remediated as necessary prior to commencement.

The designer is guided to our comment tracker for further comments which are deemed not to affect determination but will influence any application to discharge a condition in future.

Suggested condition

Prior to the commencement of development, full details of the proposed surface water drainage scheme must be submitted and approved in writing by the local planning authority. The full details submitted for approval shall include:

I. winter groundwater monitoring,
II. winter infiltration testing strictly in accordance with BRE DG 365 or similar approved,
III. details of the proposed method and location of surface water disposal, in accordance with the SuDS hierarchy,
IV. impermeable area plan,
V. calculations modelling the surface water drainage network for the following storm events:
    a. 100% Annual Exceedance Probability [AEP]
    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,
VI. detailed drainage plans conforming to local planning authority guidance,
VII. specifications for all surface water drainage components and associated infrastructure or flow control mechanisms,
VIII. 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.

INFORMD

"Infiltration rates for soakage structures are to be based on percolation tests undertaken in the winter period and at the location and depth of the proposed structures. The infiltration tests must be carried out in accordance with BRE365, CIRIA R156 or a similar approved method. All design storms must include a climate change allowance, as per https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances on stored volumes or rainfall intensity. Infiltration structures must cater for the critical 1 in 10 year storm event, (plus 40%) between the invert of the entry pipe to the soakaway and the base of the structure. All surface water drainage designs must also have provision to ensure there is capacity in the system to contain the critical 1 in 100 year + climate change allowance storm event on site.

Suitable water treatment is required upstream to the point of discharge in all circumstances to minimise any groundwater pollution risk or detriment to the drainage network.

Any SuDS or soakaway design must include adequate groundwater monitoring data to determine the highest groundwater table in support of the design.

Designers are guided to refer to 'National Standards for Sustainable Drainage Systems (SuDS)' and The SuDS Manual [C753] by CIRIA as these guide our decisions about the design, maintenance, and operation of sustainable drainage systems. Supplementary guidance notes and design checklists regarding surface water drainage are located at https://www.arun.gov.uk/drainage-planning-consultations and https://www.arun.gov.uk/surfacewater on Arun District Council's website."

Checklist

A reduced **site-specific** version of our full surface water drainage design checklist is provided below. This has been edited to remove elements that are not applicable to this site, either due to the scale of the proposal or the method of disposal. The checklist is provided to assist the applicant and designer in preparing a revised design to meet our requirements. It is applicable to **Stoneybrook Farm** only.

- Items highlighted as ☐ must be provided prior to determination to overcome our objection.
- Additional comments or notes are provided by the reviewer **in bold**.
- If an item has been submitted this is checked: ☒
- For HH, OUT, RES and PL applications only: All other items are assumed to be handled via a condition applied to the permission if given.

Our requirements and comments are elaborated upon or condensed within a separate comment tracker where necessary. If a comment tracker is provided a designer is encouraged to refer to this and respond to comments to aid further review. Please request a .docx version of this document to by email to land.drainage@arun.gov.uk if needed.

The full unedited 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 the full checklist to ensure that the revised design meets our requirements.

Stoneybrook Farm Designer Checklist

Ground Investigation Results

Groundwater monitoring
☐ Plan showing location of monitoring points provided.
☐ Depths of holes detailed.
☐ Dates of observations and depth to groundwater recorded.
☐ Evidence of the strata within borehole or monitoring pits provided.

Requested to aid speed of assessment
☐ Plan showing the peak groundwater levels at each monitoring point in mAOD.
☐ Peak groundwater levels recorded in metres below ground level and mAOD.
☐ If in an area of possible tidal influence, provide a comparison of readings against tide times/levels.

Infiltration testing – if groundwater levels allow (assumed unlikely)
☐ Completed strictly in accordance with BRE DG 365, CIRIA R156 or a similar approved method.
☐ Plan showing location of trial pits provided.
☐ Pit dimensions provided.
☐ Depths of testing provided.
☐ Dates, times and readings of each test recorded.
☐ Calculations for the infiltration rate for each test provided.
☐ Evidence of the strata within trial pits provided.
☐ Test locations, and depths correspond with the expected location and depths of proposed infiltration features.

Requested to aid speed of assessment
☐ Depths of testing provided in m below ground level and mAOD.

Other
As appropriate, dependent upon specific site conditions
☐ Appropriate geotechnical advice is sought where infiltration may have negative effects due to the ground conditions on the site – please see our guidance linked above for information.

Surface Water Drainage Statement

Disposal method (Select as appropriate)
☐ Rainwater reuse is proposed where possible.
~~☐ Infiltration is proposed and maximised wherever possible.~~
☒ Hybrid infiltration and restricted discharge to an appropriate water body or surface water sewer is proposed where a full infiltration design is not possible.
☐ Restricted discharge to a water body is proposed where a full infiltration design is not possible.

Disposal method justification
☐ Infiltration has been adequately investigated, in winter, at appropriate and varying depths where appropriate, above peak recorded winter groundwater levels at the given location.
☒ Onsite and boundary, open and culverted water bodies are investigated (location, mapping, network, flow direction, ownership/responsibility, **depth**, and condition).

☐ Any relevant permissions or legal agreements from asset or landowners that are needed are identified and evidence of consents provided.

Requested to aid speed of assessment

☐ Any previous relevant correspondence or pre-application advice from the Local Planning Authority [LPA] or the Lead Local Flood Authority [LLFA] regarding the surface water drainage design is included with the statement.

Existing Site

Essential

☐ It is clear what the natural drainage characteristics of the site and hydraulically linked areas are.
☐ Natural flow paths are identified on a plan (where applicable).
☒ Existing site drainage features are investigated – condition, performance, and ownership.
☐ Any appropriate easements to watercourses or other infrastructure are investigated.
☒ Existing and future flood risk from any source is detailed.

It is suggested that the above is achieved with the following, which may be combined where appropriate:

☒ An existing topographical plan.
☒ An existing site surface water drainage plan (where applicable).
☒ Flood maps (fluvial, tidal, pluvial, groundwater, sewer, and reservoir) are supplied (or Flood Risk Assessment referred to).
☐ Confirmation and surveys of any existing drainage infrastructure on the site.
☐ Full details of any known flooding on the site.

Proposed Design

Essential

☐ Statement confirming the proposed design criteria including fixed design calculation inputs for the SuDS system. Examples include:

- Climate change allowances,
- Urban creep allowance,
- CV values,
- Rainfall data,
- MADD factor or additional storage.

☒ Natural catchments are followed.
☒ The design is gravity based with no use of pumps.
☒ Natural systems that deliver specific hydrological function, such as watercourses or wetlands, are preserved.
☐ Where there is existing drainage infrastructure on the site it is clearly explained or illustrated what is being retained, upgraded, or removed.
☐ Details of necessary off-site works and consents are provided.
☐ If the surface water drainage is designed to flood in the 1% Annual Exceedance Probability [AEP] + Climate Change Allowance [CCA] event, then the flood volume is contained safely on site without flooding any part of a building or utility plant susceptible to water or affecting safe access or egress.

☐ The design provides and evidences interception drainage and is able to capture and retain on site the first 5mm of the majority of all rainfall events. **Assessment required.**
☐ Water quality and treatment is adequately assessed – with an assessment appropriate for the scale and proposed use of the site. **Assessment needs amendment to reflect design.**

☐ Adequate freeboard is provided between the top water level of any open storage features and the top of the bank.
☐ There are no clashes with other infrastructure.
☒ Self-cleansing velocities are achieved where pipes are proposed.

☐ 1m freeboard is provided between peak groundwater levels and the base of any infiltration feature.

☒ The proposed discharge rate is explained and justified (for attenuation designs).
☐ Where there is a risk that the base of an attenuation feature may penetrate peak groundwater levels, additional mitigation measures to prevent groundwater ingress are incorporated into the design and construction method statement.
☐ Where there is a risk that the base of an attenuation feature may penetrate peak groundwater levels the effects of buoyancy have been considered in the design.

☒ Amenity benefits are provided by the drainage system (assessed by others).
☒ Biodiversity benefits are provided by the drainage system (assessed by others).
☒ Landscaping has been designed to ensure ease of maintenance of drainage assets.
☒ The justification and criteria for tree root avoidance and mitigation measures is clear, referencing adopting body standards where applicable.
☒ Biodiversity and ecological enhancements do not impede the functionality, maintenance or capacity of the drainage system.

☒ It is confirmed what elements of the SuDS will be private.
☒ It is confirmed what the adoption arrangements for SuDS components will be.
☐ A construction method statement for the SuDS system, appropriate to the scale of the development, is submitted. **May be required for high groundwater only.**
☐ A maintenance plan for the SuDS system, appropriate to the scale of the development, is submitted. **[Please refer to our SuDS Maintenance Checklist where this is stipulated by condition.]**
☐ Any potential health and safety issues relating to SuDS implementation and management have been considered and managed.

Preferred
☐ Ground raising is avoided where possible.
☒ The drainage system is considered by and contributes to the biodiversity net gain statement (assessed by others).

Impermeable Area/Catchment Plan

Essential
☐ An impermeable area plan is provided showing all positively drained areas including open surface water storage plan areas. **Include basin and access road.**

Preferred
☐ Impermeable areas are shown in m^2 on the impermeable areas plan(s).
☐ Demarcated impermeable areas correspond with the distribution of those areas in the supporting calculations.

Surface Water Drainage Calculations

General

☐ The most recently applicable, or previously agreed FEH rainfall data is used.
☒ CV values for all events are set to 1. This includes summer, winter, design, and simulation events.
☐ The correct climate change allowances, appropriate for the full lifetime of the development, have been applied to all calculations.
☐ 100% Annual Exceedance Probability [AEP] + Climate Change Allowance [CCA] (1 in 1 year) event calculations provided.
☐ 10% AEP + CCA (1 in 10 year) event calculations provided showing that the incoming pipe to any infiltration feature is above this level.
☐ 3.33% AEP + CCA (1 in 30 year) event calculations provided showing that the full surface water volume is contained within the designed system without flooding.
☐ 1% AEP + CCA (1 in 100 year) event calculations provided showing that the full surface water volume is contained safely on site, without flooding any part of a building or utility plant susceptible to water or affecting safe access or egress.

Infiltration

☐ Half drain times do not exceed 24 hours for the 10% AEP + CCA and 1% AEP + CCA events.
☐ If half drain times exceed 24 hours for the 1% AEP + CCA event, then advice and agreement from the LPA has been sought and submitted.
☐ The most precautionary design infiltration rate is used.
☐ Design infiltration rates are applied to the sides of soakaways only.
☐ Design infiltration rates are applied to the base of permeable paving, infiltration blankets or basins only.
☐ Where the design infiltration rate is applied to the base an appropriate factor of safety is applied.

Attenuation and Restricted Discharge – if infiltration is not viable

☒ Greenfield run off rates are based upon the positively drained area of the site only. **Need to include the basin and full access road.**
☐ Discharge rates are restricted to QBAR or 2 l/s/ha, depending on whichever is higher, for all storms up to the 1% AEP + CCA event.
☐ Half drain times and available capacity in the drainage system for subsequent storms are considered.
☐ A surcharged outfall to a watercourse or sewer has been modelled. The surcharge level is the 1% AEP + CCA flood event for the receiving watercourse, or to the top of the bank if appropriate hydraulic modelling is not available.

Requested to aid assessment

☐ FEH22 point descriptors for the site are provided.

Drainage Plans and Specifications

Essential

Plans are provided showing:
☒ The proposed design within the proposed site layout.
☒ Existing and proposed levels.
☐ Long and cross sections for the proposed drainage system including final finished floor levels.
☐ Exceedance flow management routes.
☐ Details of connections to watercourses and sewers.
☐ Maintenance access and any arisings storage and disposal arrangements.

These plans must be of sufficient detail that a reviewer can be confident that the design can be constructed without flood risk being increased on site or elsewhere.

Specifications are required for all materials used in the design. We suggest that this is best achieved and illustrated with site specific construction detail drawings. The combination of construction details, with plans and sections, ensure that the proposed standard of construction will facilitate adoption and maintenance by an appropriate body and have structural integrity.

The following checklist is designed to demonstrate the level of detail required:

Easements

☒ 3m easements are shown from the top of the bank of all ordinary watercourses, and from the edge of all culverted watercourses on all plans.
☐ Any appropriate easements as stipulated by any public or private utility provider shown on all plans.
☐ Infiltration features (aside from permeable paving that does not take any extra impermeable catchment such as a roof) are shown at least 5m from buildings or structures.
☒ Maintenance easements are shown from the top of the bank from all open SuDS features on all plans.
☐ Existing trees and their root protection zones are shown on any drainage layout.
☐ Proposed trees and appropriate easements are shown on any drainage layout.

Detail

☒ It can be clearly determined what a pipe's diameter, pipe materials, gradients, flow directions and invert levels are from the plans.
☐ It can be clearly determined what an inspection chamber or manhole's **cover level, invert leve**l, cover loading grade and sump depth (where applicable) are from the plans. **TBC – gradients based on levels.**
☐ All infiltration or attenuation features (including permeable paving) are clearly labelled with their dimensions, invert/base levels and cover levels.
☐ Control structures are labelled with discharge rates, hydraulic head, invert and cover levels and ideally model number.
☐ Measures to protect drainage from tree root damage are clearly shown on any drainage layout.
☒ **Any areas of necessary ground raising are clearly justified and demarked on a plan, with depths and levels.**
☐ If the 1% AEP + CCA event floods, then the extent and depth of the flooding is shown on a site plan. This plan includes proposed external ground levels and finished floor levels of buildings.
☐ Potential flow routes off site are shown. The plan also includes proposed external ground levels, finished floor levels of buildings and designed slopes on all impermeable surfaces such as highways or car parks.
☐ Cross sections and long sections of all open features are provided.
☐ Construction detail drawings are site specific.
☐ Construction detail drawings are provided for all components including but not limited to:

- ☐ Infiltration structures
- ☐ Attenuation structures
- ☐ Manholes/inspection chambers
- ☐ Catchpits/silt traps
- ☐ Flow control devices
- ☐ Permeable paving
- ☐ Headwalls

- ☐ Channel drains
- ☐ Gullies
- ☐ Pipe bed and surround
- ☐ Pipe to pipe connections
- ☐ Filter strips or drains
- ☐ Swales
- ☐ Bio-retention systems
- ☐ Ponds and wetlands
- ☐ Tree pits and measures to protect drainage from root incursion
- ☐ Water treatment features
- ☐ Green roofs
- ☐ Measures to protect drainage from tree roots.
- ☐ Water butts or alternative methods of water reuse – also to be shown on plans.

<u>The following items are requested to aid assessment or confidence in construction:</u>

☐ Where features have a non-uniform plan area, a plan showing the coordinates of the perimeter is provided.
☐ All drainage infrastructure is labelled to correspond with the supporting calculations.

Other
☐ Open feature planting specification is provided (to be assessed by others).

This checklist is designed to aid an applicant with their submission. The list is not exhaustive, and our engineers may request additional information to enable them to review a proposal to their satisfaction.

The checklist may also request information that an applicant does not feel is relevant to their submission. In this case the applicant can provide an explanation as to why they have omitted certain information in their drainage statement. However, the appraising engineer reserves the right to request this information if they believe it is necessary for their review.

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** **Second Issue Date: 27/06/2025** **Third Issue Date: 12/09/2025** **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	Designer Response	ADC Drainage Comments
Date:	**27/03/2025**	**31/03/25**	**27/06/2025**	**22/07/25**	**12/09/2025**
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.	Following a site visit July '25 and survey of the existing embankment to the watercourse it is confirmed a freeboard of 209mm is provided. The southern boundary to the watercourse is added to the plan. The survey identified the bed gradient to be flat. A CCTV serve of the outfall pipe will be carried out prior the connection of the new system, and should the survey identify tree roots, these will be cleared and the pipe lined should it be required.	Freeboard looks to be 182mm which is acceptable. The flat bed to the watercourse is noted, the riparian owner may need to undertake maintenance works and introduce a positive fall to ensure free flow of water. Noted. Point closed.
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	Existing levels are shown on the plan, with the Hydraulic network calc attached which also covers the points of 13,14 and 15.	Updated modelling has not been submitted, but the plans demonstrate that a gravity connection can be achieved. It is noted that the plan area of features may increase due to updated modelling and therefore any plans which include the pond must not be listed as approved. Point closed.

			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.	The Cut & Fill model shows the areas to be dug and filled across the site. The exceedance flows are shown in considering the level changes across the site.	
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.	The easement is shown for the 15m protection zone for the watercourse. The watercourse location is shown on the plan.	Point closed.
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.	The modelling has been based on groundwater level being set at 10.45m as a worst-case situation.	Updated modelling has not been submitted. Can 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.	Existing access road infiltrates into the ground.	To be addressed via condition. If infiltration is not viable then water may end up in this system.
13.	Rainfall data must be adjusted to FEH22.		To be addressed via condition.	Drainage Calculations have been provided with FEH22 rainfall data.	Updated modelling has not been submitted. Can 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.	The model has considered the surcharged water level of 10.45m.	Updated modelling has not been submitted. Can 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: 15 September 2025 11:22
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

Nikki Oktay
Planning Receptionist, Planning Department

T: 01903 737965
E: Nicola.Oktay@arun.gov.uk

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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: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: 12 September 2025 11:18
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Amber Willard <Amber.Willard@arun.gov.uk>; Paul Cann <Paul.Cann@arun.gov.uk>
Subject: RE: Planning Consultation on: WA/108/24/PL

Hi Amber,

Find the consultation – no objection subject to condition – attached. Please note my comments about the pond being removed or marked as indicative only from the block plan.

Kind regards

Sarah Burrow
Flood Risk and Drainage Engineer, Coastal Engineers and Flood Prevention

T: 01903 737815
E: sarah.burrow@arun.gov.uk
M: 07733 125764

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From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: 01 April 2025 08:49
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

Telephone: 01903 737942

Email: amber.willard@arun.gov.uk

PLRECON (ODB) 2018