

Engineers Comments Regarding Surface Water Drainage

Application Reference:	LU/72/25/OUT	Reviewer Reference:	ADC/PC
Planning Officer:	Amber Willard	Date of Review:	16/07/2025
Site Name:	Land to the West of New Courtwick Lane Wick BN17 7RZ		
Application Description:	Hybrid Planning Application comprising of the following: 1)- Outline application with all matters reserved (except access) for Phase 2 (West of Site) comprising development of approximately 8,800sqm GIA Light Industrial/Storage and Distribution (Use Class E(g)(iii) / B8), and 2)- Full Application for Phase 1 (East of the Site) for a food store (Use Class E(a)), 2 No Drive-Thru food/beverage units (Sui Generis) with revised vehicular access, associated parking and landscaping. This application may affect the setting of a listed building and is in CIL Zone 2 (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](https://www.gov.uk/national-standards-for-sustainable-drainage-systems)

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. The same data is necessary to ensure that the potential for buoyancy has been adequately considered in attenuation designs.	Insufficient
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.	Insufficient
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.	Compliant in part (infiltration) but unproven.

	Engineers cannot support any proposed connection of surface water to the foul sewer.	
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 rates must be restricted to QBAR or 2 l/s/ha, depending on whichever is higher.	Insufficient
	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.	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	Insufficient

	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 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.	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.

The applicant is proposing to discharge surface water via infiltration into the ground, however, no supporting groundwater monitoring or infiltration testing data has been provided to support such a proposal. The design has been based upon an 'assumed' infiltration rate and unknown peak groundwater levels. From discussions with the applicants engineers outside of the planning process, it is understood that limited groundwater monitoring and infiltration testing has been undertaken on the eastern side of the site only and predominantly outside of the winter period. The infiltration testing revealed very variable test results in terms of permeability. In order to confirm that a satisfactory design can be achieved within the proposed development layout, it is essential that further investigations are undertaken across the entire site. This includes full winter groundwater monitoring (October to March) and winter infiltration testing (at an agreed time) at the location/depth of any proposed infiltration structures. One metre freeboard must be achieved between the base of any infiltration structure and the peak recorded groundwater level at that location.

Whilst it is acknowledged that the eastern side of the existing site currently drains to soakaways, there are no guarantees that the site can continue to drain in this manner and meet current requirements, without the further investigations discussed above being carried out in order to verify infiltration potential.

The applicant has not proposed any 'open' SuDS features due to the presence of existing trees occupying areas of open/green space. However, the absence of such features, means that the

design fails to meet two of the 'pillars' of SUDS, namely 'Amenity' and 'Biodiversity'. These are essential elements to a sustainable drainage system. The applicant is therefore encouraged to review these opportunities. This could include the provision of swales for use in both conveyance and infiltration.

In terms of water treatment, in particular the car parking areas (considered medium risk), the applicant is proposing to utilise petrol interceptors. The use of such products should be avoided in favour of more sustainable treatment methods ie. permeable paving, etc, whilst achieving the necessary degree of treatment. It is noted that there is very limited use of permeable paving on the site, and its extended use should be explored, along with any other sustainable treatment measures.

Rainwater reuse should also be considered, in accordance with the SuDS hierarchy, where possible.

The applicant should note that no hydraulic calculations have been reviewed, due to the fact that insufficient ground investigations have been carried out. However, FEH rainfall data must be used in preference to FSR, and CV values of 1 must be used for both summer and winter events.

It should be noted that the Landscaping scheme may impact the drainage scheme in terms of the proximity of trees to pipework/SuDS features. It is recommended that the Landscaping Scheme is not approved at this stage, especially as the drainage scheme design could change. The proximity of root protection zones of both existing trees and new trees (at maturity) will need to be considered.

Discussions with the applicants engineers also revealed the presence of an open ditch on the northern boundary of the site. They have determined this to be a 'blind' ditch ie. no formal piped outlet. Therefore, utilising these ditches as part of a drainage scheme (should infiltration prove unviable), would not be possible without significant modifications to provide connectivity to the wider network.

Alternative disposal options (should infiltration prove unviable), would be to investigate a connection to the public surface water sewers in the area, which are located in Finches Close and Courtwick Lane, to the north and east of the site. Southern Water permission would be required and a gravity solution would need to be achieved. It should be noted that these sewers connect into Eels Spring Ditch (Main River) which is heavily silted and potentially impacting the performance of these systems. This is something that may need to be addressed. A connection direct to the 'Main River' could also be considered, again the siltation issue will need to be addressed.

For the **Outline** development for the western part of the site, the applicant may wish to pursue alternative disposal options at this stage, in order for us to consider removing our objection (for the western section only) and securing an implementable layout for that area. To achieve this, two designs will need to be presented, to ensure that a scheme is possible;

- i) Utilising an infiltration scheme, but using rates of 1×10^{-6} m/s.
- ii) Attenuated discharge to a Public Surface Water Sewer (Southern Water approval to be evidenced) or the 'Main River', by gravity. Flow to be restricted to an agreed QBAR rate.

If the two options are achievable and deemed acceptable, then the final design can be dealt with via conditions. Infiltration would need to be further evidenced with winter groundwater monitoring and infiltration testing, as discussed elsewhere in this consultation.

In summary, Insufficient information has been submitted to evidence that this design is achievable and will not increase flood risk, and the design also fails to meet current requirements in terms of sustainability, hence our objection.

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 also guided to our checklist below, where Outline and Full application versions are available.

It is strongly suggested that the applicant reviews our surface water design checklist to support any reapplication. It 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.**

From: Daun Johnson on behalf of Planning.Responses
Sent: 17 July 2025 14:26
To: Planning Scanning
Subject: FW: Planning Consultation on: LU/72/25/OUT
Attachments: LU-72-25-OUT - West of New Courtwick Lane.docx

Please upload attachment to LU/72/25/OUT, planning, consultee response, END

Daun Johnson
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To register to receive notification 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: 17 July 2025 11:59
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Simon Davis <Simon.Davis@arun.gov.uk>; Sarah Burrow <Sarah.Burrow@arun.gov.uk>; Emma Sheppard <Emma.Sheppard@arun.gov.uk>
Subject: RE: Planning Consultation on: LU/72/25/OUT

Please find enclosed my consultation, an objection.

Regards

Paul Cann
Principal Drainage Engineer, Coastal Engineers and Flood Prevention

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Supporting our environment to support us

Fulfilling Arun's economic potential

From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: Tuesday, April 29, 2025 12:19:18 PM (UTC+00:00) Monrovia, Reykjavik
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: LU/72/25/OUT

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

Town & Country Planning Act 1990 (as amended)
Town & Country Planning (Development Management Procedure) (England) Order 2015 - Article 5

Outline Consent

Application No: LU/72/25/OUT

Registered: 29th April 2025

Site Address: Land to the West of New Courtwick Lane Wick BN17 7RZ

Grid Reference: 502224 103596

Description of Works: Hybrid Planning Application comprising of the following:
1)-Outline application with all matters reserved (except access) for Phase 2 (West of Site) comprising development of approximately 8,800sqm GIA Light Industrial/Storage and Distribution (Use Class E(g)(iii) / B8), and
2)-Full Application for Phase 1 (East of the Site) for a food store (Use Class E(a)), 2 No Drive-Thru food/beverage units (Sui Generis) with revised vehicular access, associated parking and landscaping. This application may affect the setting of a listed building and is in CIL Zone 2 (Zero Rated) as other development.

The Council have received the above application.

[Click here to view the application and 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.

Should you have any comments to make, these should be sent by replying to this email by 30th May 2025 . You can also monitor the progress of this application through the Council web site:

<https://www.arun.gov.uk/planning-application-search>

The application will be determined having regard to the development plan policies (if any are relevant) and other material considerations. The development plan can be accessed via the website <https://www.arun.gov.uk/development-plan> as can information on what comments we can consider <https://www.arun.gov.uk/planning-application-comments>

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.

Should the application go to appeal the Planning Inspectorate will publish any comments made to the Council on their website: <https://acp.planninginspectorate.gov.uk/> but they will protect personal details.

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

Yours sincerely

Mr S Davis

Planning Officer- Arun District Council

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