

Engineers Comments Regarding Surface Water Drainage

Application Reference:	R/62/26/PL	Reviewer Reference:	ADC/EXT5/AF
Planning Officer:	Hebe Smith	Date of Review:	10/07/2026
Site Name:	Croft Works 52 Mill Lane Rustington BN16 3JN		
Application Description:	Demolition of existing commercial buildings, erection of 3 No 2 bed detached bungalows with integral garaging and creation of 3 individual vehicular crossovers onto Fircroft Crescent. This application is in CIL Zone 4 and is CIL Liable as new dwellings.		
Assessment Number:	1		

Policy and Guidance Information	
Arun District Council Surface Water Drainage Guidance (including design checklists) - 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/ Arun District Council Land Drainage Byelaws - https://www.arun.gov.uk/byelaws/ Arun District Council surface water pre-commencement conditions - https://www.arun.gov.uk/planning-pre-commencement-conditions The National Standards for SuDS - https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds The SuDs Manual [C753] by CIRIA	

Response	Objection
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References
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' [NsTS] 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. The NsTS have been superseded by the National Standards for Sustainable Drainage Systems [NSfS] from 19 June 2025. This consultation has been primarily informed by the NSfS and The SuDS Manual.

Summary

This summary highlights if critical items aligning with each of the standards have been met. Critical items are highlighted in **bold** on our surface water drainage design checklist (linked above). A failure to address these will likely result in an **objection** to an objection to a full or reserved matters planning application.

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, or the provision of other important infrastructure to satisfy the NSfS set out below.

A full written explanation of the assessment and response is given in the consultation comments to the planning officer.

Standard	Assessment	Response
1. Runoff destination	Insufficient	Objection
2. Interception drainage	Compliant	Further information
3. Extreme Rainfall and Flooding	Insufficient	Objection
4. Water Quality	Insufficient	Further information
5. Amenity	Insufficient	No objection
6. Biodiversity	Insufficient	No objection
7. Construction, operation, maintenance, decommissioning and structural integrity	Insufficient	Further information

Reviewed Plans

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

- PROPOSED SITE SETUP LAYOUT 2223.PL02
- CONSTRUCTION METHOD STATEMENT
- CONTAMINATION ASSESSMENT
- FOUL AND SURFACE WATER DRAINAGE STATEMENT
- SOAKAWAY DESIGN
- SUSTAINABILITY STATEMENT
- WASTE MANAGEMENT STATEMENT
- LOCATION AND BLOCK PLANS, FLOOR PLANS, ELEVATIONS, STREET SCENE 2223.PL01
- PROPOSED SITE SETUP LAYOUT 2223.PL02
- PROPOSED HARD/SOFT LANDSCAPING LAYOUT 2223.PL04
- PROPOSED HARD/SOFT LANDSCAPING LAYOUT 2225.PL.04 REVA
- APPEAL DECISION R/197/20/PL
- PROPOSED DRAINAGE LAYOUT 2223.PL.03 REVA
- **LMA Factor of Safety Technical Note**
- **LMA Drainage Response (Rebuttal)**
- **Infiltration Test Results**

Plans/Documents to be listed as approved

The following plans/documents should be listed as approved:

N/A

Consultation comments to the planning officer

0. General

- 0.1. The proposals will affect drainage on and around the site, therefore the development will require sustainable drainage in accordance with NPPF Paragraph 182.
- 0.2. The development is non-major and the measures should be proportionate to the nature and scale of development.
- 0.3. We note the previous (outline, lapsed) appeal consent which was prior to the current sustainable drainage standards and guidance issued.
- 0.4. We have reviewed the Rebuttal Note, Factor of Safety Technical Note, and supplementary infiltration testing information.
- 0.5. The additional infiltration testing dated February 2024 appears to be undertaken on three consecutive days but does not meet the ADC Ground Investigation Criteria. There are no calculations for infiltration rates for each test, which may be worse than the testing previously presented.
- 0.6. The LMA rebuttal note seeks to assert that there is no detriment to the infiltration testing by (arbitrarily) leaving one or two days between fills and that if anything this makes the results conservative. This is a miss-understanding of the engineering principles which support the reason for *'filling the soakage trial pit several times in quick succession'* (BRE365). The saturated conditions are achieved by the second and third tests following on straight away from the first fill. The longer the time between the fills, the more the ground will become unsaturated and the better and therefore less conservative the worst case infiltration rate will be. The allowance within ADC guidance for following a slow test the following day is given in acknowledgement of there being occasions that tests can take many hours and up to a day, depending on the ground conditions and size of pit, and it may not be feasible to restart a further test at night time, for example. This does not mean that leaving a second and third test several days from the first is acceptable and there is no mention in the guidance of a 'one day gap', this interpretation is wrong. We reject the assertion in the Rebuttal Note.
- 0.7. Furthermore, the design does not follow the BRE method in that it includes infiltration from the base, which is excluded in the BRE method and therefore an increase factor of safety in accordance with guidance within Ciria 156 and the NSfS is required. This has not been incorporated.
- 0.8. Where the evidence base for designs and assessments is not compliant with guidance a robust precautionary approach must be followed which for this design may require an additional factor of safety beyond the recommendations within Ciria 156 and the NSfS. This has not been addressed.
- 0.9. Both sets of testing are at a different base level to the design and possibly with a base within a different stratum. The initial sections of the deeper structureless chalk may have very low infiltration as structureless or 'putty chalk' is known to exhibit. The designer should review this and ensure the testing is applicable to the design.
- 0.10. The suggestion that the Council has acted unreasonably in upholding these design standards is not appropriate and the Applicant should address the deficiencies in the proposed design and assessment of risk in light of the inadequate ground investigation.

1. Runoff destination

- 1.1. No reuse of rainwater is proposed. This is the highest priority in the SuDS hierarchy and should be included in the strategy. Residential water butts for small scale irrigation would be acceptable for the type and scale of development.
- 1.2. Ground Investigation is provided but does not meet the standards set out in the ADC ground investigation checklist requirements. Guidance is provided on ADC webpages here:
<https://www.arun.gov.uk/designer-checklists>
- 1.3. The groundwater monitoring is noted in a summary document appended to the soakaway design report but the locations and borehole logs are not presented. The groundwater monitoring measurements are once per month and therefore do not accord with the ADC ground investigation checklist requirements. The results appear to be sufficiently robust to demonstrate groundwater levels are comfortably below the 1m vertical buffer from the proposed base of soakaways, however, the full ground investigation report should be provided.
- 1.4. Infiltration calculations are provided with supporting evidence in the form of test pit logs but not as part of a ground investigation report. The location of Infiltration testing is not shown and the tests are not shown to be similar depth to the proposed soakaways. Ground conditions at the existing site may include made ground which increases infiltration at shallower depths beyond the natural subsoil and may inflate infiltration testing results. The full ground investigation report should be provided.
- 1.5. Information is provided on dates, times and recorded water depths throughout the tests. Three fills were recorded but were undertaken over a six day period and therefore do not achieve saturated conditions. The current evidence base does not fully demonstrate that the runoff destination is feasible.
- 1.6. There is no testing at shallow depth for the infiltration from the permeable driveway design.
- 1.7. The design is not currently in accordance with the requirements of the NSfS (Standard 1).
Therefore, we **object** to the application.

2. Interception drainage

- 2.1. Interception drainage is currently provided by discharge to ground. This will need to be confirmed as part of determining runoff destination.

3. Extreme rainfall and flooding

- 3.1. Calculations are provided for the design storm and show no flooding. The following aspects are not in accordance with ADC guidance, available on ADC webpages here -
<https://www.arun.gov.uk/designer-checklists>
- 3.2. Urban creep has not been added.
- 3.3. Cv values should be set to 1.0.
- 3.4. Currently both the base and sides for both the soakaway and permeable paving have been allocated the infiltration coefficient. Infiltration should be applied to the sides of soakaways and the base of permeable paving.
- 3.5. The half drain time for the 3.3% AEP storm is calculated for the 1440 minute storm whereas the drainage assessment results indicate the 960 minute storm is critical.
- 3.6. Further information is required to confirm infiltration is viable see standard 1 above and supplementary comments within the General subheading above.
- 3.7. The design is not currently in accordance with the requirements of the NSfS (Standard 3).
Therefore, we **object** to the application.

4. Water quality

- 4.1. No assessment is provided for mitigation of water quality and risk of groundwater pollution. No treatment is currently proposed for the roof runoff.
- 4.2. Further information is required to confirm the design is in accordance with the requirements of the NSfS (Standard 4).

5. Amenity

- 5.1. No mitigation or specific design is proposed for amenity / multifunctionality and no assessment is provided on the amenity aspect for the sustainable drainage system.
- 5.2. However, due to the small scale of the development and use of the site, amenity value delivered through the sustainable drainage system is not required and an Exception to Standard 5 is allowable.

6. Biodiversity

- 6.1. No mitigation or specific design is proposed for biodiversity and no assessment is provided on the biodiversity aspect for the sustainable drainage system.
- 6.2. However, due to the small scale of the development and use of the site, biodiversity value delivered through the sustainable drainage system is not required and an Exception to Standard 6 is allowable.

7. Construction, operation, maintenance, decommissioning and structural integrity

- 7.1. The soakaways are close to the property boundary and are indicated to be 2.5-3 metres deep which may cause buildability issues. Consideration should be given to moving the soakaways away from the boundary if suitable offset distances can be maintained from building foundations.
- 7.2. A maintenance plan should be provided to the homeowners to provide information on the maintenance of the permeable pavements.

8. Suggested conditions / Overcoming the objection

- 8.1. 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 engineers for a list of suggested conditions to ensure that the development is adequately drained and does not increase flood risk elsewhere.
- 8.2. 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 or that condition could be deemed to be unreasonable.**
- 8.3. If you are minded to allow the applicant additional time to submit further documents to support this application, then further evidence may overcome our objection. Please do not allow the applicant to submit further documents without prior discussion as to whether it will be possible for these to be assessed or influence your determination.

Drainage Impact on Other Planning Matters

This application has been assessed with regards to surface water drainage design only, together with land drainage aspects if deemed necessary.

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, River Arun internal drainage board, groundwater source protection zones)
- ☐ Southern Water (foul drainage and surface water disposal to public sewer network/groundwater source protection zones)
- ☐ Portsmouth Water (groundwater source protection zones)
- ☐ Lead local flood authority (all other sources of flooding and ordinary watercourses)
- ☐ Other: Specify
- ☒ None

PL- Consultation- Engineers response



Arun District Council, Civic Centre, Maltravers Rd
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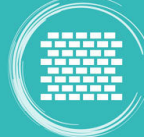
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Supporting our environment to support us



Fulfilling Arun's economic potential



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From: Paul Cann <Paul.Cann@arun.gov.uk>
Sent: 13 July 2026 14:41
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Land Drainage <Land.Drainage@arun.gov.uk>; Hebe Smith <Hebe.Smith@arun.gov.uk>
Subject: RE: Planning Consultation on: R/62/26/PL

Please find enclosed our consultants response, an objection.

Regards

Paul Cann
Principal Drainage Engineer, Coastal Engineers and Flood Prevention

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From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: 29 June 2026 12:33
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: R/62/26/PL

To: **Engineers (Drainage)**

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NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No:	R/62/26/PL
Registered:	29th April 2026
Site Address:	Croft Works 52 Mill Lane Rustington BN16 3JN
Grid Reference:	505678 103021
Category:	Plan Applicat'n
Description of Works:	Demolition of existing commercial buildings, erection of 3 No 2 bed detached bungalows with integral garaging and creation of 3 individual vehicular crossovers onto Fircroft Crescent. This application is in CIL Zone 4 and is CIL Liable as new dwellings.

I am able to inform you that I have received an amendment to the above application dated 22nd June 2026 relating to:- Additional drainage docs - LMA drainage response, technical note and BSE ground test

If you should wish to make further representations as a result of this amendment, please make any further comment by **21st July 2026**.

[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

Hebe Smith

Planning Case Officer- Arun District Council

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