

Engineers Comments Regarding Surface Water Drainage

Application Reference:	Y/48/25/PL	Reviewer Reference:	ADC/KW and SB
Planning Officer:	Harry Chalk	Date of Review:	11/11/2025
Site Name:	Church Farm House Church Road Yapton BN18 0EP		
Application Description:	Removal of tennis court and construction of 1 No. self-build single storey energy efficient dwelling. This application is a Departure from the Development Plan, may affect the setting of listed buildings, affects the character and appearance of the Church Lane, Yapton Conservation Area and is in CIL Zone 3 and is CIL Liable as a new dwelling.		
Assessment Number:	1 of 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
----------	-----------

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 The NsTS have been superseded by the National Standards for Sustainable Drainage Systems [NSfS] from 19 June 2025.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	No objection subject to conditions
3. Extreme Rainfall and Flooding	Insufficient	Objection
4. Water Quality	Compliant	No objection subject to conditions
5. Amenity	Compliant	Support
6. Biodiversity	Insufficient	No objection subject to conditions
7. Construction, operation, maintenance, decommissioning and structural integrity	Insufficient	No objection subject to conditions

Reviewed Plans

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

- SuDS and Drainage Report, reference C3267, revision P1, dated 9 July 2025. Referred to as the **SDR**.
- Tree Protection Plan dated 12/08/2025.
- Location Plan P001 Rev A
- Foul and Surface Water Drainage Report, reference C3267, revision P, dated 5 November 2025. Referred to as the **FSWDR**.
- Proposed Drainage Strategy Sheet 1: C3267-P-101 Rev P.
- Proposed Drainage Strategy Sheet 2: C3267-P-102 Rev P.
- Contributing Area Plan & Exceedance Flow Routes: C3267-P-201 Rev P.
- Topographic Survey: 240206.
- Ecological Appraisal Report

Consultation comments to the planning officer

0. General

- 0.1. Insufficient information regarding surface water drainage has been submitted to evidence that flood risk will not be increased as due to the proposed development.

1. Runoff destination

- 1.1. The proposed SuDS design includes a rainwater harvesting tank for water reuse and allows for all remaining surface water to be drained to ground via infiltration. This accords with the sustainable drainage hierarchy and we support the design in principle. However, there remains some uncertainty regarding the viability of infiltration and the space that is needed to drain the site as proposed.
- 1.2. Winter site specific groundwater monitoring has been submitted which demonstrates that there may be potential for shallow infiltration on the site. The peak groundwater level was evidenced to be at 1.65m below ground level (bgl) on 22 November 2024. Groundwater was monitored from 25 October 2024 to 11 March 2025. This period is likely to capture the peak groundwater level, although the observations were fortnightly which may have meant a peak could be missed between observations. Due to the scale of the development the groundwater monitoring completed to date is not challenged and no further monitoring is required.
- 1.3. To allow for 1m of unsaturated ground between the base of an infiltration feature and the peak groundwater level, any infiltration feature must be set at a level higher than 9.6mAOD (0.6mbgl). It is noted that the borehole record in the groundwater monitoring report is the only record of the geological strata on the site. This shows that there was MADE GROUND to a depth of 0.8m in the borehole. This may impact the potential for infiltration on the site as infiltration should be avoided into made ground without the advice of a geotechnical expert. Such advice has not been submitted and there is no evidence to demonstrate that this borehole is an anomaly.
- 1.4. The FSWDR includes infiltration testing completed on 26 October 2025. Records of the strata in the trial pits were not submitted. The testing was completed outside of the winter period and therefore does not accord with BRE DG 365 and may not be used for detailed design purposes. The testing provides some comfort that infiltration is likely to be viable. However, the space needed for storage may be greater than that designed due to slower infiltration potential in worse case winter conditions.
- 1.5. As space is extremely limited for further storage and there is uncertainty regarding the stratum at shallow depth where infiltration is proposed we must **object** to the proposed development until further detail is submitted. This is because if there is insufficient space to store surface water, or infiltration is not possible due to the made ground, then it is unclear how the development may be drained without increasing flood risk.

2. Interception drainage

- 2.1. No formal interception assessment has been submitted. However, the design uses both a rainwater harvesting tank and full infiltration to ground. These methods deliver interception drainage, and it may be assumed that interception will be achieved if no changes are made to the design in response to our comments regarding standards 1 and 3. As such we have no objection to the application on this ground.

3. Extreme rainfall and flooding

- 3.1. The FSWDR includes drainage plans and modelling. The simulation for the 1% AEP + 45% event has a maximum water level of 7.468mAOD. This is higher than the bank at the north east extent of the infiltration basin (7.45mAOD) and the cover levels of both inspection chambers and the rodding eye. The model demonstrates that the system may flood on the 1% AEP + 45% event. This may be permissible, however, such planned flooding must be demonstrated to remain on site and not flood the property. The submission does not demonstrate that.
- 3.2. It is acknowledged that the modelling does not include the upstream network and that additional storage will be provided by the pipework and inspection chambers. However, it is unknown if this storage is sufficient to contain all surface water within the designed system.
- 3.3. The assessment is further complicated by other elements of the standard which demand design adjustments to ensure that the SuDS design is compliant and not increasing flood risk. As submitted, there is insufficient freeboard between the maximum water level in the critical 1% AEP + 45% event and the finished floor levels (FFL). It is expected that a minimum (reduced) freeboard of 300mm is maintained between FFL and the maximum flood depth or water level in the basin. At present FFL are set to 7.6mAOD, allowing for only 132mm freeboard. The minimum freeboard may be achieved by raising FFL or by having a shallower maximum water depth, alternatively the freeboard could be potentially contained within the basin itself. The submitted design represents an unacceptable risk in this regard.
- 3.4. The designer has included two land drains, north and west of the proposed dwelling. These are designed to capture surface water flowing towards the proposed dwelling. This design feature is apparently included due to the need for the FFL to closely align with the existing tennis court level. Where there is a need for surface water to be intercepted this should be accounted for in the design. It may be the surface water is diverted around the building without contributing to the SuDS scheme. This may be appropriate if the natural catchments are followed.
- 3.5. Alternatively, land drainage features can contribute to the SuDS design (as drawn). However, if they positively connect to the system then the contributing surface water volume from these features should be accounted for. This involves analysis of the contributing catchment which has not been submitted. The submitted SuDS allows an unquantified volume of surface water to be drained into the infiltration basin. This surface water volume will consume storage which is set aside for the rainwater that falls on the new contributing area. This means that there is an increased likelihood that the basin will flood. The design must be altered to account for this volume or to manage the land drainage in an alternative manner.
- 3.6. A factor of safety of 2 has been used in the design. As the contributing area is between 100m² and 1000m² the factor of safety is expected to be 1.5 or 3. The onus is on the designer to justify the factor of safety that is used, however, 1.5 may only be used where there can be expected to be no damage or inconvenience from flooding.

4. Water quality

- 4.1. The submission includes a water quality assessment which demonstrates that the water quality standard will be met if no changes are made to the design in response to our comments regarding standards 1 and 3. As such we have no objection to the application on this ground.

5. Amenity

5.1. The design provides amenity benefit with a multifunctional open feature which provides visual amenity and landscape character. The proposed water depths are safe and details to ensure climate resilient and adaptable planting can be secured via condition. As such we **support** the proposal with regards to this standard.

6. Biodiversity

6.1. There is no formal assessment of biodiversity benefit, and the ecological appraisal report does not appear to consider or acknowledge the SuDS design in delivering ecological and biodiversity benefit. However, it is believed that when the biodiversity benefit of the drainage system is properly assessed it will be found to have a positive contribution. This is because it includes an open infiltration basin. As such we have **no objection subject to a condition** which will secure the details of any biodiversity benefit delivered by the SuDS.

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

7.1. Insufficient information regarding the construction, operation and maintenance of the SuDS system, and therefore Standard 8 of the Systems NSfS has been submitted. However, most elements of this standard can normally be secured via condition. The submission of a Management and Maintenance Plan is unlikely to affect the scale or layout of the development.

7.2. There are a significant number of good quality trees on the site, most of which are to be retained. These existing trees are a constraint to the drainage strategy as any drainage installations should not damage the trees, and the drainage infrastructure itself needs to be protected from tree root damage. The design as submitted avoids conflict with the existing trees and their current root protection areas. However, the design may need to be altered to account for the comments relating to standards 1 and 3. The presence of the existing trees and potential conflict should be considered a significant constraint to the possibility of a fully compliant SuDS design being delivered.

7.3. Due to the lack of conflict in the submitted design there is **no objection subject to condition** with regards to this standard. However, the standard must be reassessed with any newly submitted design to ensure that it is met with any later revisions.

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 ...**ECOLOGY**.....
- ☐ None

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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

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



Our priorities...

 Improving the wellbeing of Arun	 Delivering the right homes in the right places	 Supporting our environment to support us	 Fulfilling Arun's economic potential	 
--	---	---	--	--

From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: 11 November 2025 17:15
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Harry Chalk <Harry.Chalk@arun.gov.uk>; Paul Cann <Paul.Cann@arun.gov.uk>; Kathryn Welch <Kathryn.Welch@arun.gov.uk>
Subject: RE: Planning Consultation on: Y/48/25/PL

Hi Harry,

Find the consultation – an objection – attached. Apologies for the delay in response.

Kind regards

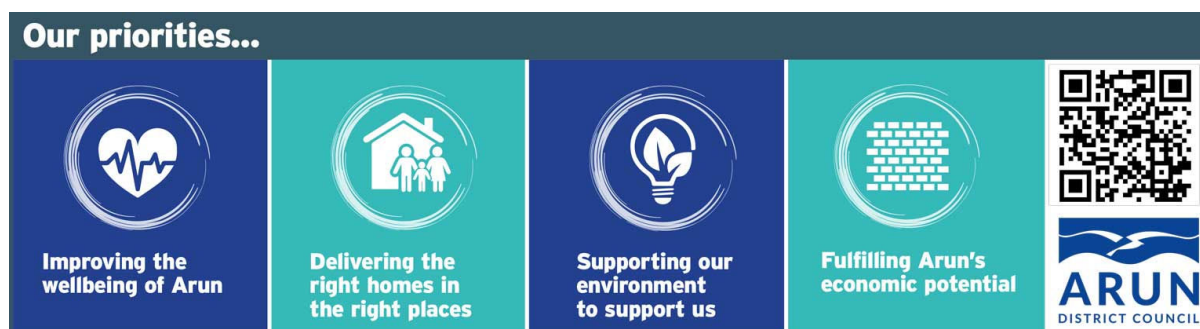
Sarah Burrow

Flood Risk and Drainage Engineer, Coastal Engineers and Flood Prevention

T: 01903 737815

E: sarah.burrow@arun.gov.uk

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



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

Sent: 14 August 2025 09:04

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

Subject: Planning Consultation on: Y/48/25/PL

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

Town & Country Planning Act 1990 (as amended)

Town and Country Planning (Development Management Procedure) (England) Order 2015

Planning Permission

Application No: Y/48/25/PL

Registered: 13th August 2025

Site Address: Church Farm House Church Road Yapton BN18 0EP

Grid Reference: 498202 103561

Description of Works: Removal of tennis court and construction of 1 No self-build single storey energy efficient dwelling. This application is a Departure from the Development Plan, may affect the setting of listed buildings, affects the character and appearance of the Church Lane, Yapton Conservation Area and is in CIL Zone 3 and is CIL Liable as a new dwelling.

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.

This application has been identified as CIL Liable. Therefore please be aware that, in accordance with Appendix 2 of the Arun CIL Charging Schedule, your consultation response should only include requests for Section 106 for onsite mitigation, Pagham Harbour Management Contributions (if applicable) or Affordable Housing. "Off" Site mitigation measures directly related to this development should be dealt with by condition if possible to ensure the scaling back of Section 106 if possible. CIL contributions will be used for "off" site infrastructure mitigation schemes. Therefore if this proposal triggers the need for "off" site mitigation, please ensure that you engage in the CIL Infrastructure List Consultation process upon receipt of a consultation letter.

Should you have any comments to make, these should be sent by replying to this email by 18th September 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

Harry Chalk

Planning Officer- Arun District Council

Telephone: 01903 737577

Email: harry.chalk@arun.gov.uk