

From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>
Sent: 27 April 2021 10:42
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Simon Davis <Simon.Davis@arun.gov.uk>
Subject: Y/22/21/PL- North Barn, Hoe Lane, Flansham

Dear Simon,

Thank you for consulting us on this application. We have the following comments on surface water drainage.

1. The drainage strategy states that a net reduction of impermeable area is being provided (paragraph 5.6, 5.12 and 7.11), but earlier in the document (paragraph 3.2) it is evident that this is not the case. Please can the applicant correct the statement or provide an impermeable areas plan.

	Pre-development	Post development
Roof area	60.8m ²	80.1+8.8 bunded
Hard standing/ lined permeable paving	36m ²	68.8m ² (80m ² shown on plan and in calculations)

2. the permeable paving. However, the total construction depth of permeable paving is now proposed to be 360mm, which means groundwater (observed at 495mm bgl) is clear of the base. The decision to line should be reconsidered to allow infiltration in drier conditions.
3. Invert levels of diffusers should be detailed on plan. Or if applicable, confirm in a note that invert levels of diffusers are at formation level.
4. Location of catchpits must be clearly shown on plan.
5. It should be clearly stated on plan whether the formpave formation level is to be even. It is noted from the standard construction detail that the formpave formation level is flat, please confirm if this is to be the case and add a note on the layout.
6. The formation level of the formpave to the south of the building should be detailed on plan.
7. The drainage plan and statement state that flow will be restricted to 0.7l/s, however calculations show a restriction of 0.8l/s. Please be consistent across details.
8. A construction detail of the flow control must be provided.
9. Further details of the downstream connection and suitability of this network for discharge of surface water should be supplied.

Due to the timescales of the application we understand that it is unlikely that these matters can be secured prior to determination. We therefore request that the following condition is applied to secure the drainage design and ensure that flood risk is not increased elsewhere (it is noted that groundwater monitoring and infiltration testing have been completed, no further site investigation is required, we request resubmission of the existing data for ease of assessment at a later date):

PCENG2- adjusted

"Construction shall not occur beyond DPC, until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority. The design should follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the

Building Regulations, and the recommendations of the SuDS Manual produced by CIRIA. Winter groundwater monitoring to establish highest annual ground water levels and winter Percolation testing to BRE 365, or similar approved, will be required to support the design of any Infiltration drainage. No building / No part of the extended building shall be occupied until the complete surface water drainage system serving the property has been implemented in accordance with the agreed details and the details so agreed shall be maintained in good working order in perpetuity."

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W SP1, W DM1, W DM2 and W DM3 of the Arun Local Plan. This is required to be a pre-commencement condition because it is necessary to implement the surface water drainage system prior to commencing any building works.

And the accompanying informative:

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 percolation tests must be carried out in accordance with BRE365, CIRIA R156 or a similar approved method and cater for the 1 in 10 year storm between the invert of the entry pipe to the soakaway, and the base of the structure. It must also have provision to ensure that there is capacity in the system to contain below ground level the 1 in 100 year event plus 40% on stored volumes, as an allowance for climate change. Adequate freeboard must be provided between the base of the soakaway structure and the highest recorded annual groundwater level identified in that location. Any SuDS or soakaway design must include adequate groundwater monitoring data to determine the highest winter groundwater table in support of the design. The applicant is advised to discuss the extent of groundwater monitoring with the Council's Engineers.

Supplementary guidance notes regarding surface water drainage are located here

<https://www.arun.gov.uk/surfacewater> on Arun District Councils website. A surface water drainage checklist is available on Arun District Councils website, this should be submitted with a Discharge of Conditions Application."

Kind regards,

Laura Gibbons

Drainage Engineer

Engineering Services

Please note that I work Tuesdays 08:00-16:00 for Arun only.



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