

Arun District Council, Civic Centre, Maltravers Rd
Littlehampton, West Sussex, BN17 5LF
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From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>

Sent: 20 September 2022 13:14

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

Cc: Paul Cann <Paul.Cann@arun.gov.uk>; Maria Tomalova <Maria.Tomalova@arun.gov.uk>

Subject: RE: Planning Consultation on: Y/52/22/DOC

Engineers Comments Regarding Surface Water Drainage

Please see the response below prepared by our external consultant. I apologise for the delay in our consultation.

At this stage we **would not recommend discharge of conditions** until the following comments are addressed.

1. Additional information is required on the design drawings.

- The invert level for the diffusion boxes has been provided, however, we request that the invert levels of the paving sub-base / bed levels are also provided in these locations, as the section drawing shows these to be different. This is also being requested to enable us to check that the diffusion boxes are located above the critical 1:10 (+40% climate change) water level within the sub-base. Without these values insufficient information is available to confirm that the peak water level within the paving sub-base will be contained within the sub-base.
 - Service corridors for other services provided to the buildings should be shown, or a statement provided detailing how these will be successfully implemented within the scheme.
 - The Hydro-Brake manhole is deeper than 1m, building regulations recommends manholes of this depth to have rungs or a ladder, which is not shown on the cross-section drawing. Justification for why this has not been shown should be provided, or the drawings updated accordingly.
2. If the drainage calculations only account for runoff draining from impermeable surfaces, then the calculations should use a CV of 1.0.
 - The requirement to use CV 1.0 is based on recent clarifications from HR Wallingford which suggest the values of 0.84 and 0.75 often used are in error and confirm that a value of CV = 1 should be used in situations where runoff from only the impermeable areas is considered.
 - It is noted that CV 1.0 is only considered applicable to the sizing of the SuDS, and pipework may still be designed to lower values.
 3. The drainage calculations include a 20m³ per ha additional storage volume, which is not included within the design. A justification for this value should be provided, or this value reduced to 0.
 4. The applicant should explore the potential to connect into the existing highway drainage network, prior to proceeding with the proposed connection to the public foul sewer system, which should be taken as a last resort. We require confirmation of approval for any highway or sewer connection.
 - We appreciate a reduction in flows has been achieved, however, we need to see agreement with Southern Water for any connection to the public sewer system. In this case, we also note our mapping shows a surface water highway drain on the opposite side of the road to the proposed development, which would present a preferred point for discharge in our hierarchy of discharge options. We therefore require:

- The design to be amended so that runoff is discharged into the highway drainage network, alongside an agreement with West Sussex Highways for this connection.

Or

- Justification for why a highway connection is not possible, (e.g. confirmation from Highways that they will not permit a connection in this area) and an agreement with the sewerage undertaker for the proposed connection.
- This is particularly important as the development site is located within the Lidsey treatment catchment.
5. The applicant should be aware that if the base of the permeable paving sub-base needs to increase, such that it intersects the water table, measures will need to be put in place to prevent the discharge of groundwater to the highway drainage network, or public sewer system. This is likely to require tanking the permeable sub-base, in which case, buoyancy calculations for the permeable paving system will be required.
- We are concerned that the use of Type B drainage system (infiltration and overflows to the sewer system or highway drainage network) could create a new pathway for groundwater to enter the existing drainage network. This is likely to be a major concern for both the sewerage undertaker and highways in regard to permitting any offsite discharge, due to existing groundwater ingress within this catchment. On this basis, we would permit the tanking of the permeable sub-base, should this become an issue. However, we would require buoyancy calculations to demonstrate that the system will not become buoyant if groundwater levels were to become elevated.
6. The drainage calculations should typically include an allowance for urban creep. In this case, we are satisfied that there are limited opportunities for including additional hardstanding, however, the applicant should provide a justification for its exclusion within the report or calculations.

It is also noted that recent changes have been made to climate change allowances. As this proposal was submitted prior to these changes being made, this does not need to be considered as part of this submission.

Please reconsult us when further information has been provided.

Kind regards

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

Sent: 28 April 2022 08:49

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

Subject: Planning Consultation on: Y/52/22/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: Y/52/22/DOC

Registered: 27th April 2022

Site Address: Stakers Farm North End Road Yapton BN18 0DU

Description of Works: Approval of details reserved by condition imposed under Y/105/19/PL relating to conditions 3-flint flooring and stall dividers, timber ceiling details, 4-flint flooring details, 5-surface water drainage and 9-electric vehicle charging.

The Council have received the above application to discharge conditions. I shall be pleased to receive any observations you may wish to make in respect of those conditions relating to your field of expertise.

[Click here to view the Discharge of Condition application](#)

[Click here to view conditions on original application - click on decision tab](#)

Should you wish to make any comments click on the link www.arun.gov.uk/planning and click into ?Enter Comment? or if this is not possible email your response to planning.responses@arun.gov.uk by **13th May 2022**.

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.

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

Yours sincerely

Maria Tomalova

Planning Case Officer- Arun District Council

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Email: maria.tomalova@arun.gov.uk

PLCOW/DOC (008) 2020