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

Sent: 10 August 2021 11:58

To: Planning.Responses <Planning.Responses@arun.gov.uk>; Amber Willard <Amber.Willard@arun.gov.uk>

Cc: Giles Vos [REDACTED]

Subject: RE: Planning Consultation on: AL/80/21/DOC

Engineers Comments Regarding Surface Water Drainage

It is recommended that Condition 4 imposed under application reference AL/59/19/HH is discharged. All surface water drainage to be constructed in accordance with the following drawings:

- Stanwick-BPS PL03 Attenuation rev D
- Drainage Layout Drawing 2021_P0137_002
- Attenuation Design Drawing 2021_P1037_001
- SCL-0070-2000-0400-2000_Design_Drawing

Kind regards

Sarah Burrow
Engineering Assistant, Engineering Services

T: 01903 737815

E: sarah.burrow@arun.gov.uk



Current working pattern: Monday 8am-2:30pm, Tuesday 8am-5:30pm, Wednesday 8am-5pm, Thursday 8am-5:30pm, Friday 8am-11:30am.

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From: Giles Vos | Acopia Group [REDACTED]
Sent: 28 July 2021 22:37
To: Sarah Burrow <Sarah.Burrow@arun.gov.uk>; Planning.Responses <Planning.Responses@arun.gov.uk>; Amber Willard <Amber.Willard@arun.gov.uk>
Subject: RE: Planning Consultation on: AL/80/21/DOC
Importance: High

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Hello Sarah,

Apologies for the delay in coming back, there have been a few details to amend as requested.

1. Please change the Hydrobrake to have a minimum aperture of 50mm. This will increase the discharge rate, we are happy to accept a discharge rate of 2l/s even though this is faster than QBAR for the site. We believe a lower discharge rate (and smaller aperture) will increase risk of blockage, and thus risk of flooding on site.

Please see SCL-0070-2000-0400-2000 Hydraulic Characteristics , SCL-0070-2000-0400-2000 Design Drawing. Please also see Suds Design report RevD page 3.

2. Please can the crates be lined with a **permeable** liner and the outflow set 50mm above the base of the tank. This will allow regular small scale events to infiltrate where possible but still ensure that high volume events can overflow to the watercourse. Within the current design there is capacity to do this and still attenuate 1 in 100 year event +40% above 500mm as there is spare storage capacity. If the capacity is reduced as a result of point 1 please ensure that the storage requirement can be met at 350mm depth. The invert level of the tank will need to be set above 0.8mbgl.

Please see Attenuation Design Drawing(400mm) – Permeable Rev3 (typical design showing permeable lining for crates and note showing height of outflow from the tank) , Attenuation Design (400mm) – Permeable Rev2 (showing reduced tank size which allows for infiltration with a 350mm effective depth) and SUDS Design Report Rev D page 4

3. The applicant will need to apply for Ordinary Watercourse Land Drainage Consent to connect to the watercourse. Please provide evidence that this application has been made

Already covered on email dated 16th July.

4. The drainage layout requires further detail, please label attenuation crates, silt trap and flow control with invert levels, cover levels and sump levels where appropriate. Please also label the restricted flow rate,

design head and the product number on the flow control. Please encase all pipes in concrete as cover depth will be less than 600mm.

Please see Drainage layout Drawing, Stanwick-BPS PL03 Attenuation rev D (section through 1:100), SCL-0070-2000-0400-2000 Hydraulic Characteristics , SCL-0070-2000-0400-2000 Design Drawing

5. Hydrobrake detail should include invert level, cover level, incoming and outgoing pipe diameters and sump depth (min 300mm)

Please see SCL-0070-2000-0400-2000 Hydraulic Characteristics , SCL-0070-2000-0400-2000 Design Drawing, Pipe design calculations, SUDS Design Report RevD and Drainage Layout Drawing

6. Headwall construction details should include hard bed, soft bed and top of bank levels. Invert levels of proposed pipes must be at least 150mm above the bed of the watercourse

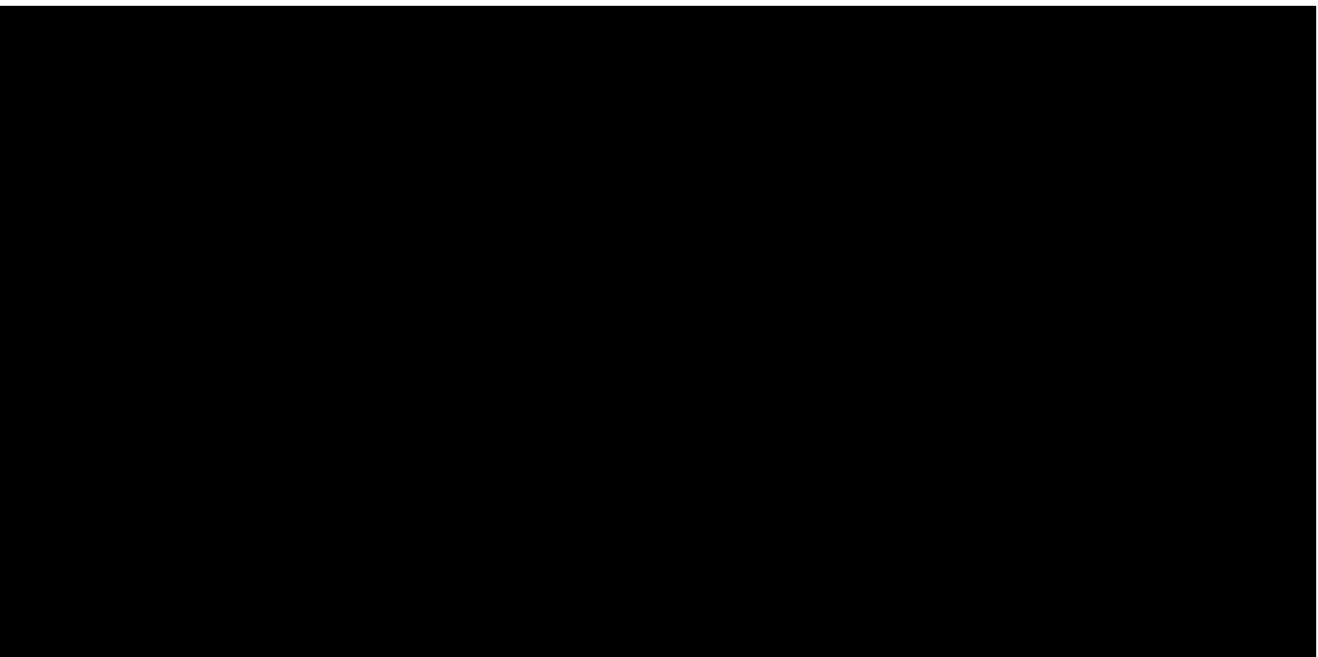
Please see Stanwick-BPS PL03 Attenuation rev D (section through 1:100 and typical headwall details). With the ditch being de-silted we should be able to achieve around 250mm fall between the invert of the outflow and the bed of the ditch. Subject to final bed levels being agreed with Paul Cann.

The consulting engineer has commented as follows: Typical bagwork headwall construction drawings are shown, exact detail regarding hard bed, soft bed and top of bank levels to be determined and agreed at point of construction once the ditch is cleared of vegetation and de-silted. Final ditch bed level to be agreed with ADC as part of ordinary watercourse application.

I trust that this covers the questions raised. Please contact me for any further details required. We look forward to receiving the discharge of conditions.

Kind Regards,

Giles Vos
Operations Manager



From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: 16 July 2021 10:16
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Amber Willard <Amber.Willard@arun.gov.uk>
Subject: RE: Planning Consultation on: AL/80/21/DOC

Engineers Comments Regarding Surface Water Drainage

The applicant is proposing to attenuate surface water before discharging it to the bordering watercourse, the proposed method of surface water disposal is suggested due to high groundwater (at 0.8mbgl) and a slow infiltration rate (3.39×10^{-6} m/s). If the site conditions were such that only one of these factors was affecting the choice of disposal method we would normally still encourage the applicant to find a fully infiltrating system, however, with both factors it is acknowledged that only a very large blanket would meet the storage requirements and this would still not meet the half drain requirements. Therefore we are happy that an overflow to the watercourse will be necessary.

However, we would like to see some alterations to the design to maximise (what little) infiltration potential there is and reduce the risk of blockage. Please can the following alterations be made:

1. Please change the Hydrobrake to have a minimum aperture of 50mm. This will increase the discharge rate, we are happy to accept a discharge rate of 2l/s even though this is faster than QBAR for the site. We believe a lower discharge rate (and smaller aperture) will increase risk of blockage, and thus risk of flooding on site.
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4. The drainage layout requires further detail, please label attenuation crates, silt trap and flow control with invert levels, cover levels and sump levels where appropriate. Please also label the restricted flow rate, design head and the product number on the flow control. Please encase all pipes in concrete as cover depth will be less than 600mm.
5. Hydrobrake detail should include invert level, cover level, incoming and outgoing pipe diameters and sump depth (min 300mm).
6. Headwall construction details should include hard bed, soft bed and top of bank levels. Invert levels of proposed pipes must be at least 150mm above the bed of the watercourse.

I am happy to provide one more review within this DOC application, if further adjustments are required a second DOC will need to be made.

Kind regards

Sarah Burrow
Engineering Assistant, Engineering Services

T: 01903 737815



E: sarah.burrow@arun.gov.uk

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

Sent: 25 June 2021 11:19

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

Subject: Planning Consultation on: AL/80/21/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: AL/80/21/DOC

Registered: 21st June 2021

Site Address: Stanwick Northfields Lane Westergate Chichester PO20 3UH

Description of Works: Approval of details reserved by condition imposed under ref AL/59/19/HH relating to Condition No 4 - surface water drainage.

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 **9th July 2021**.

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

Amber Willard

Planning Case Officer- Arun District Council

Telephone: 01903 737500 x37445

Email: amber.willard@arun.gov.uk

FLCONDOC (ODS) 2020

<http://www.arun.gov.uk>

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

Sent: 16 July 2021 10:16

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Sent: 25 June 2021 11:19

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

Subject: Planning Consultation on: AL/80/21/DOC

To: **Engineers (Drainage)**

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Yours sincerely

Amber Willard

Planning Case Officer- Arun District Council

Telephone: 01903 737500 x37445

Email: amber.willard@arun.gov.uk

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