



From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: 10 January 2020 09:17
To: Andrew Wood <Andrew.Wood@arun.gov.uk>
Cc: Planning.Responses <Planning.Responses@arun.gov.uk>
Subject: RE: Planning Consultation on A/132/19/DOC

Engineers Comments Regarding Surface Water Drainage

At this stage we are not able to recommend that the relevant conditions are discharged we have the following comments regarding each condition.

Condition 4: Surface Water Drainage

1. The information provided about the testing is sparse, however details were confirmed with engineers at time of testing and the proposed method of draining surface water is acceptable. (No Action Required)
2. Pre-development run-off rate calculations. The calculations use a SOIL type of 2, when it should be 3 (according to map) – particularly given the conditions experienced on site. This will likely reduce storage volume. (We will accept calculations as submitted but the applicant may wish to adjust).
3. There should be a manhole/inspection chamber between S3 and S4 where surface water from two units join the network.
4. Pipe materials need to be covered in notes.
5. The attenuation tank detail should show one pipe for flows both entering and leaving the tank at the base. A vent pipe is required for the smaller tank.
6. If there is any risk of heavy vehicles parking over the large attenuation tank then the cover level needs to be 650mm.
7. Need a sump manhole detail for S9 and S10. (S10 not currently shown as a catch pit manhole but it is recommended that this is changed as the Hydrobrake does not have a full catch pit only a small sump.)
8. Buoyancy calculations are required for both tanks – the only mention of these is that they will be covered in a later addition.
9. Pipe diameter and invert levels are required for S11 to tank.
10. Hydrobrake manhole detail needs more detailing, i.e. Ring diameter, cover type, brickwork etc, similar to type B detail. Pipe diameters on the detail are incorrect.
11. Note 15 on the plan – add D400 required in carriageways (access road).
12. Junction detail – Square is not permitted, the junction must be oblique and is applicable to pipes of equal diameter or not.
13. Detail required for the concrete baffle just beyond S10.
14. Permeable pavements – specify finished levels/base (formation) levels on plan.
15. Detail required for proposed land drains – some plots don't have one, amend to help with run off from patios.

Condition 6: Flows to Watercourses

1. Land drainage consent for culverting the outfall has been applied for, we are awaiting reply to an e-mail dated 23/10/2019 from Paul Cann to Luke Honeywill. Have paid fees since but not responded to the points raised. This could affect condition 4 and needs to be addressed.

Condition 7: SuDS System Maintenance

1. The manual needs information on how the maintenance and replacement of the features will be funded.
(How will the maintenance company be funded?)
2. Plus what will happen if the management company fails to carry out duties or has insufficient funds to do so.
3. Please specifically reference the Hydrobrake and catch pits and the specific maintenance required to those.
4. Include the ditch and culvert under the access road and the outlet headwall.

Kind Regards

Sarah Burrow
Engineering Assistant

Paul Cann
Principle Drainage Engineer

From: Andrew Wood <Andrew.Wood@arun.gov.uk>
Sent: 04 December 2019 11:15
To: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Subject: FW: Planning Consultation on A/132/19/DOC

Comments please.

Thank you,

Andrew Wood

Andrew Wood MRTPI | Senior Planning Officer, Planning Department, Arun District Council |
Location: 1st Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF
Internal: 37768 | External: +44 (0) 1903 737768 | E-mail: andrew.wood@arun.gov.uk

Visit Arun's web site at www.arun.gov.uk



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From: Chris Slade [REDACTED]
Sent: 04 December 2019 10:55
To: Andrew Wood <Andrew.Wood@arun.gov.uk>
Cc: Sarah Burrow <Sarah.Burrow@arun.gov.uk>; James Elsey <[REDACTED]> Dean Mugeridge <[REDACTED]>
Subject: RE: Planning Consultation on A/132/19/DOC

Dear Andrew

Please find attached revised drainage design package issued for approval following on from the winter testing.

I trust that all is in order and look forward to your response.

Please do not hesitate to ask if you require any further information or clarification.

Kind regards

Chris Slade **FIHE**
CGS Civils Ltd

Drainage Design | SuDS | Flood Risk Assessments | Highways | External Works

Richard Cobden House | Lion Street | Chichester | West Sussex | PO19 1LW

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From: Andrew Wood <Andrew.Wood@arun.gov.uk>
Sent: 16 October 2019 15:30
To: Chris Slade <[REDACTED]>
Subject: RE: Planning Consultation on A/132/19/DOC

Chris ,

I would advise that you need to do the full winter groundwater monitoring results to be submitted. And infiltration tests must be completed three times and then re-submit in April.

Laura is in until Friday then the new engineer taking over will be sarah.burrows@arun.gov.uk as of Monday 21st October.

Thank you,

Andrew Wood

Andrew Wood MRTPI | Senior Planning Officer, Planning Department, Arun District Council |
Location: 1st Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF
Internal: 37768 | External: +44 (0) 1903 737768 | E-mail: andrew.wood@arun.gov.uk

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From: Chris Slade <[REDACTED]>
Sent: 16 October 2019 11:15
To: Andrew Wood <Andrew.Wood@arun.gov.uk>
Cc: James Elsey <[REDACTED]>
Subject: Re: Planning Consultation on A/132/19/DOC

Hi Andrew

Ok many thanks. Do you have details of the engineer taking over?

Thanks

Chris

Sent from my Samsung Galaxy smartphone.

----- Original message -----

From: Andrew Wood <Andrew.Wood@arun.gov.uk>
Date: 16/10/2019 11:09 (GMT+00:00)
To: Chris Slade [REDACTED]
Subject: RE: Planning Consultation on A/132/19/DOC

I would note Laura is leaving the authority tomorrow so please provide information as requested for the new engineer.

Thank you,

Andrew Wood

Andrew Wood MRTPI | Senior Planning Officer, Planning Department, Arun District Council |
Location: 1st Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF
Internal: 37768 | External: +44 (0) 1903 737768 | E-mail: andrew.wood@arun.gov.uk

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From: Chris Slade [REDACTED]
Sent: 15 October 2019 16:18
To: Andrew Wood <Andrew.Wood@arun.gov.uk>
Cc: James Elsey [REDACTED]
Subject: RE: Planning Consultation on A/132/19/DOC

Hi Andrew

Thank you for your email. We will discuss with Laura.

Kind regards

Chris Slade FIHE
CGS Civils Ltd



Drainage Design | SuDS | Flood Risk Assessments | Highways | External Works

Richard Cobden House | Lion Street | Chichester | West Sussex | PO19 1LW

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From: Andrew Wood <Andrew.Wood@arun.gov.uk>
Sent: 15 October 2019 16:00
To: Chris Slade [REDACTED]

Cc: James Elsey [REDACTED]

Subject: FW: Planning Consultation on A/132/19/DOC

Please provide information as requested below.

Thank you,

Andrew Wood

Andrew Wood MRTPI | Senior Planning Officer, Planning Department, Arun District Council |
Location: 1st Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF
Internal: 37768 | External: +44 (0) 1903 737768 | E-mail: andrew.wood@arun.gov.uk

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From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>

Sent: 15 October 2019 15:56

To: Andrew Wood <Andrew.Wood@arun.gov.uk>

Subject: RE: Planning Consultation on A/132/19/DOC

Hi Andrew,

We require full winter groundwater monitoring results to be submitted. And infiltration tests must be completed three times.

I would advise the applicant comes back to us in April and complies with this pre-commencement condition.

Thanks,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

Laura Gibbons | Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First Floor, Arun Civic Centre,
Maltravers Road, Littlehampton, BN17 5LF

Internal: 37818 | External: +44 (0) 1903 737818 | Fax: +44 (0) 1903 716018 | E-mail: laura.gibbons@arun.gov.uk

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From: Chris Slade <[REDACTED]>

Sent: 14 October 2019 13:33

To: Andrew Wood <Andrew.Wood@arun.gov.uk>

Cc: Laura Gibbons <Laura.Gibbons@arun.gov.uk>; James Elsey <[REDACTED]> Dean
Muggeridge <[REDACTED]>

Subject: Re: Planning Consultation on A/132/19/DOC

Dear Andrew

Thank you for your email. As the Consulting Engineers, it has been passed onto us for a response.

I attach an extract from the geotechnical report indicating the soakaway test results and the first recordings of the ground water monitoring which began at the start of the month.

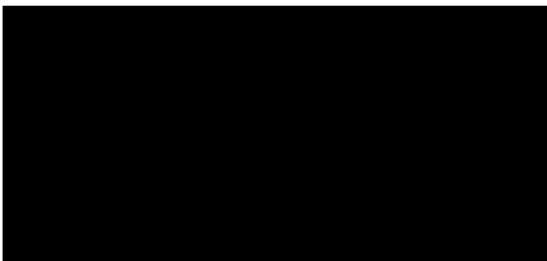
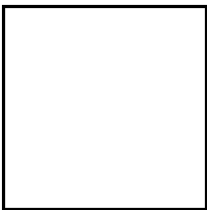
Due to time restrictions on site during the geotechnical testing, the geotechnical engineers only managed to perform one test for all three trial pits. Only TP1 drained fully with TP2 and TP3 being extrapolated. The results from TP1 was satisfactory however TP2 and TP3 were poor and should full testing have been carried out all results would have been poorer during the third test. Therefore, a full infiltration solution was discounted in favour of a hybrid solution i.e. partial discharge and infiltrating porous surfaces. This seems to be the most pragmatic approach given the varied geology.

The geotechnical Engineer working on this scheme also worked on the adjacent site and noted water levels rose to around 0.5m below ground level during peak GW levels. It is therefore anticipated that the groundwater will rise considerably higher than what is shown.

Kind regards

Chris Slade **FIHE**

CGS Civils Ltd



Drainage Design | SuDS | Flood Risk Assessments | Highways | External Works

Richard Cobden House | Lion Street | Chichester | West Sussex | PO19 1LW

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From: Andrew Wood <Andrew.Wood@arun.gov.uk>

Sent: 14 October 2019 11:55

To: James Elsey

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

Subject: FW: Planning Consultation on A/132/19/DOC

Can you please provide the following information as requested by the Drainage Engineers in the email below.

Thank you,

Andrew Wood

Andrew Wood MRTPI | Senior Planning Officer, Planning Department, Arun District Council |
Location: 1st Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF
Internal: 37768 | External: +44 (0) 1903 737768 | E-mail: andrew.wood@arun.gov.uk

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From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>

Sent: 14 October 2019 11:29

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

Cc: Andrew Wood <Andrew.Wood@arun.gov.uk>

Subject: RE: Planning Consultation on A/132/19/DOC

Engineers Comments Regarding Condition 4

No winter groundwater monitoring or infiltration testing results have been submitted. It is not appropriate to review the surface water drainage strategy without this information.

Engineers Comments Regarding Condition 6

It is not possible to review the proposed flows to watercourse until it has been proven if infiltration is viable or not.

Engineers Comments Regarding Condition 7

It is not appropriate to review maintenance arrangements until the surface water drainage strategy is agreed.

Please re-consult us once winter ground water monitoring and winter infiltration testing has been completed and results are provided. Please note, that this information may not be available until April after the winter monitoring period has ended.

Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

Laura Gibbons | Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First Floor, Arun Civic Centre,
Maltravers Road, Littlehampton, BN17 5LF

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From: planning.responses@arun.gov.uk <planning.responses@arun.gov.uk>

Sent: 30 September 2019 13:51

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

Subject: Planning Consultation on A/132/19/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

APPLICATION NO: A/132/19/DOC

Registered: 30-SEP-19

Site Address: Merry England Nursery Dappers Lane Angmering BN16 4EN

Description of Works: Approval of details reserved by condition imposed under ref A/142/16/OUT relating to Condition Nos 4 - surface water drainage, 6 - flows to watercourses, 7 - SuDs system, maintenance of any watercourse, 11 - Construction Management Plan, 12 - road safety audit, 14 - ecological, 17 - tree protection and 21 contamination.

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 have any comments to make, these should be sent by replying to this email by 14th October 2019.

www.arun.gov.uk/planning

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.

The officer dealing with this application is Andrew Wood who can be contacted on telephone number 01903 737768.

Thanking you in anticipation

Planning Case Officer
Arun District Council

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

DX 57406 Littlehampton

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