

From: Laura Gibbons
Sent: 04 February 2019 13:46
To: Planning.Responses
Cc: Andrew Wood
Subject: RE: Planning Consultation on LU/24/19/DOC

Engineers Comments Regarding Condition 9- surface water drainage

Infiltration rates are reported to be highly variable, i.e. $\times 10^{-5}$ to $\times 10^{-7} \text{ms}^{-1}$. Please can the applicant supply infiltration test results and groundwater monitoring results at the locations and depths of the proposed infiltrating structures, with calculations and design tailored to the results at each location. Using average infiltration test results is not appropriate with such widely varying results.

Cellular soakage structures and ring soakaways are proposed, yet calculations have only been supplied for cellular structures.

The schematic drainage layout plan states that winter monitoring is to be completed. Again within the documents supplied there is a lot of information supplied, but little of it to the point.

Insufficient detail has been submitted. For example, drainage layout plans should include:

- All surface water drainage pipes labelled with; diameters, pipe materials, falls and invert levels.
- All infiltrating and attenuating structures (including permeable paving) labelled with; dimensions, invert and cover levels.
- All manholes labelled with; cover levels, invert levels, cover types detailed.
- All silt traps clearly labelled with sump depths.
- Control structures with outflow rates and invert levels.
- Proposed/existing levels of any areas subject to ground raising, together with suitable measures/detailed drawings for the associated managing of surface water runoff. Please note that ground raising should be avoided unless there are exceptional circumstances.

I have attached our drainage checklist which explains the level of detail we require to be able to review a discharge of conditions application. I recommend the applicant completes this and submits it with further information.

Regards,

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

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Arun is Working in Partnership with Chichester District Council



From:

planning.responses@arun.gov.uk [<mailto:planning.responses@arun.gov.uk>]

Sent: 28 January 2019 13:03

To: Land Drainage

Subject: Planning Consultation on LU/24/19/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

APPLICATION NO: LU/24/19/DOC

Registered: 24-JAN-19

Site Address: Former Windroos Nursery Worthing Road Littlehampton BN17 6LY

Description of Works: Approval of details reserved by condition imposed under LU/229/10/ relating to condition 9-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 have any comments to make, these should be sent by replying to this email by 11th February 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



Surface Water Drainage Proposal Checklist

Foreword

Before completing this checklist you are advised to read “Arun/Chichester District Council Supplementary Requirements for Surface Water Drainage Proposals”.

The Surface Water Drainage Proposals Checklist is designed to clearly outline Arun/Chichester District Council’s expectations and requirements for Surface Water Drainage Proposals and to expedite their review. This document should be used when completing Discharge of Conditions Applications or if the applicant wishes to avoid pre-commencement conditions relating to surface water drainage.

The Town and Country Planning Regulations now require pre-commencement conditions to have the prior agreement of the applicant regarding their wording and use. If an applicant wishes to avoid surface water drainage pre-commencement conditions they will need to submit detailed surface water drainage proposals in line with the Surface Water Drainage Proposal Checklist.

The below details are required to enable Arun/Chichester District Council to examine if proposals follow the hierarchy for sustainable drainage and if the design will adequately drain the site.

N.B. It will be difficult for Arun/Chichester District Council to undertake an appropriate and therefore timely assessment of your application if you answer “no” to any of the questions below, or if you fail to provide any of the information requested.

Checklist

Winter groundwater monitoring results included	Y/N
Winter infiltration test results included	Y/N
Period of winter groundwater monitoring	
Maximum recorded groundwater level (AOD)	
Date of infiltration testing	
Depth of infiltration testing	
Minimum infiltration rate recorded (At location of infiltrating structure)	
Plan showing the location of winter groundwater monitoring and infiltration testing included	Y/N
Method of surface water disposal proposed (Delete as appropriate)	Infiltration / Attenuation with discharge to watercourse / Attenuation with discharge to surface water sewer / Attenuation with discharge to foul sewer
If infiltration is <u>not</u> to be used: Justification supplied	Y/N
If infiltration is proposed: half drain time for 10 year event + climate change allowance (hours)	

If infiltration is proposed: half drain time for 100 year event + climate change allowance (hours)			
If infiltration is proposed: lowest base level of infiltrating structure			
If attenuation is proposed: calculations of pre-development runoff rates included *	Y/N	Rate	l/s
If attenuation is proposed: is proposed discharge rate less than or equal to pre-development rate?*	Y/N	Rate	l/s
Calculations included demonstrating that the 1 in 100 year plus climate change event can be accommodated on site**	Y/N		
If proposing an impermeable lined attenuation feature/s, calculations included demonstrating that resistance to floatation (due to groundwater levels) is achieved and catered for in the design	Y/N/Not applicable		
If alterations or discharge to an ordinary watercourse is proposed: has Ordinary Watercourse Land Drainage Consent been sought?	Y/N		
Drainage layout plans included***	Y/N		
Construction detail plans included****	Y/N		
Exceedance flow route plans included (Not required for <5 properties)	Y/N/Not applicable		

*If developing brownfield sites, please provide fully detailed plans of the existing surface water drainage arrangements on site, including impermeable areas, gullies, outfalls, pipes & diameters, manholes, etc.

**If infiltration is proposed the following factor of safety should be applied to calculations (in accordance with CIRIA R156/ CIRIA C609)

Size of Area to be Drained	Consequences of failure					
	No damage or inconvenience		Minor inconvenience, e.g. surface water on car park		Damage to buildings or structures or roads.	
	Cv=1.0	Cv=0.75	Cv=1.0	Cv=0.75	Cv=1.0	Cv=0.75
<100 m ²	1.5	2	2	3	10	13
100m ² to 1000m ²	1.5	2	3	4	10	13
>1000m ²	1.5	2	5	6.5	10	13



***Please note that drainage layout plans should include:

- All surface water drainage pipes labelled with; diameters, pipe materials, falls and invert levels.
- All infiltrating and attenuating structures (including permeable paving) labelled with; dimensions, invert and cover levels.
- All manholes labelled with; cover levels, invert levels, cover types detailed.
- All silt traps clearly labelled with sump depths.
- Control structures with outflow rates and invert levels.
- Proposed/existing levels of any areas subject to ground raising, together with suitable measures/detailed drawings for the associated managing of surface water runoff. Please note that ground raising should be avoided unless there are exceptional circumstances.

****If your proposed drainage scheme includes any of the following elements site specific construction detail plans should be supplied: pipe bed and surround; infiltrating structures; attenuating structures; manholes; catchpits/silt traps; control devices; permeable paving; headwalls.