

From: Amanda Scholes on behalf of Planning.Responses
Sent: 24 November 2020 13:09
To: Planning Scanning
Subject: FW: Land at Stakers Farm, Yapton - Y/71/20/RES & Y/72/20/RES

Amanda Scholes | Receptionist, Department, [Arun District Council](#) | Location: Ground Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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Save the environment - think before you print.

From: Simon Davis <Simon.Davis@arun.gov.uk>
Sent: 24 November 2020 12:37
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Subject: FW: Land at Stakers Farm, Yapton - Y/71/20/RES & Y/72/20/RES

Further Drainage Engineer consultation advice.

From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>
Sent: 24 November 2020 08:34
To: Simon Davis <Simon.Davis@arun.gov.uk>
Cc: Paul Cann <Paul.Cann@arun.gov.uk>; Daniel Vick <Daniel.Vick@arun.gov.uk>; Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Subject: RE: Land at Stakers Farm, Yapton - Y/71/20/RES & Y/72/20/RES

Hi Simon,

Half drain time requirement

WSCC policy states the infiltration structure should drain 50% of its total volume in 24 hours or less for the 1 in 10 year event **and** for the 1 in 100 year event (**unless otherwise agreed with the LPA engineer**). They have demonstrated that they cannot half drain within 24 hours for the 1 in 100 year event and are therefore not meeting this requirement. WSCC policy has been worded so that some discretion can be applied to this criteria, we are clear that it must half drain for the 10 year event plus climate change. As indicated in NPPF and non-statutory guidance drainage design must be suitable for the lifetime of the development. To not include a climate change allowance would be unacceptable.

It is worth noting that our checklist asks for the half drain time for the 1 in 10 year plus climate change event, this requirement is transparent and has been so for about two years.

Self-cleansing velocity

The principle of self-cleansing velocity has been long established. It isn't stated in local policy because it is such a fundamental principle of all drainage design that it really shouldn't need to be stated.

The applicant is misinterpreting CIRIA where this should be read as on flat sites shallow conveyance features should be used, rather than "its okay if your pipe design doesn't meet industry wide minimum requirements".

Pipe gradients would have to slacken even further than they already are given they have to demonstrate that the incoming pipe inverts in soakaways are set above the 1 in 10 yr event. I would be very surprised if they managed to get the current layout to work given this, so I don't want to get drawn into a prolonged argument regarding minimum fall of pipes when it to me appears very likely that they will have to use shallow conveyance features anyway to meet our other requirements.

Site Layout

It currently appears very likely that they will have to change the layout as detailed above. We would maintain our objection and may recommend refusal, but this will be determined once we have their latest proposals.

It would be far more expedient for the applicant to accept our minimum requirements and work to them than argue them when they really are our absolute minimum requirements.

Thanks,

Laura Gibbons

Drainage Engineer

Engineering Services

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



T: 01903 221374

E: laura.gibbons@arun.gov.uk [REDACTED]

Arun District Council, Civic Centre, Maltravers Rd, Littlehampton, West Sussex, BN17 5LF

From: Simon Davis <Simon.Davis@arun.gov.uk>

Sent: 19 November 2020 17:54

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

Cc: Paul Cann <Paul.Cann@arun.gov.uk>; Daniel Vick <Daniel.Vick@arun.gov.uk>

Subject: FW: Land at Stakers Farm, Yapton - Y/71/20/RES & Y/72/20/RES

Hi Laura,

Can you assist with the agents questions below please. I just need to know that what we are presently asking for is based on policy/stated guidance etc.

Separately, what is your opinion as to whether the layouts on these sites are in principle capable of being achieved with the drainage requirements? Are we talking about the need for a few tweaks or is it more than that.

In the past where there has been a drainage objection (e.g. Y/63/19/RES – Bonhams Field), we approved on the basis that if it subsequently became clear that the drainage conditions could not be agreed due to the layout not providing sufficient space for drainage then a new Reserved Matters application would need to be submitted. I'm thinking that we could do the same here if they are unable to reach agreement with you. However, Kate Little at Dandara has said that if that is the case, then it may be better for them to go away and redesign the layout before getting the RM approval as there is no point getting PP if they can't implement.

Thanks

Simon.

From: Kate Little [REDACTED]
Sent: 16 November 2020 12:46
To: Simon Davis <Simon.Davis@arun.gov.uk>
Cc: Sam Pinkus [REDACTED]
Subject: FW: Land at Stakers Farm, Yapton - Y/71/20/RES & Y/72/20/RES

Morning Simon,

Further to the email received last week from Arun's Drainage Engineer and copied below for ease of reference, could I please ask that you provide advice regards two of the design criteria identified as required;

1. ADC criteria - All structures half draining within 24 hours for the 1 in 10 year plus 40% climate change event.

- ADC's Supplementary Requirements for Surface Water Drainage Proposals stipulate the climate change event is applied only to the 100 year event; 'There must be provision to ensure that there is capacity in the system to contain the 1 in 100 year storm event plus 40% on stored volumes, as an allowance for climate change and cater for the 1 in 10 year storm event between the invert of the lowest entry pipe into the infiltration structure and the base. The infiltration structure should also drain 50% of its total volume in 24 hours or less for both the 1 in 10 and 1 in 100 year (plus 40%) storm events, in order to provide spare capacity for subsequent storms.' <https://www.arun.gov.uk/surfacewater/>
- West Sussex LLFA Policy for the Management of Surface Water reads; 'The infiltration structure should drain 50% of its total volume in 24 hours or less for the 1 in 10 year event and for the 1 in 100 year event (unless otherwise agreed with the LPA engineer) in order to provide spare capacity for subsequent storms.' https://www.westsussex.gov.uk/media/12230/ws_llfa_policy_for_management_of_surface_water.pdf
- The site was discussed with Arun's Principle Engineer in emails dated 17th March 2020 & 24 September 2020, please find attached. The requirement to satisfy half emptying for the 1 in 10 year storm was identified. The 40% climate change event was applied only to the 1 in 100 year event.

Structures have been designed to achieve half drainage within 24 hours for the 1 in 10 year storm event as per ADC requirements & WSCC policy and as discussed with the Council's Principle Engineer. Could you please confirm such a policy compliant approach is acceptable?

2. ADC criteria - All pipes achieving 1m/s full bore velocity.

- No reference found within ADC Supplementary Requirements or WSCC policy.
- CIRIA SuDS Manual; 'On very flat sites, it is often not possible to construct piped drainage systems with sufficient falls to achieve minimum self-cleaning velocities, So using shallow SuDS components such as swales, pervious pavements or high capacity linear drainage channels is an advantage in these situations.' https://www.ciria.org/Memberships/The_SuDs_Manual_C753_Chapters.aspx

- British Standard EN 752; 'Where self-cleansing conditions cannot be achieved provision should be made for adequate maintenance activities.'

Maintenance proposals include management routines sufficient to ensure appropriate cleansing. Are you able to please confirm proposals should be designed to align with British Standards, Building Regulations & CIRIA guidance in the absence of local or county level advice or policy?

Dandara's Engineers are working to amend proposals to align with those other criteria identified, we remain keen to work with the authority in addressing concerns and would be happy to accept an informative on any forthcoming planning permission stipulating that drainage proposals remain to be determined.

Kind Regards

Kate Little
Regional Planning Manager