

Application Reference: Y/9/25/DOC Site Name: Fleurie Nursery Lake Lane Barnham PO22 0AL	Initial Issue Date: 21/02/2025 Issue Date: Reviewer Reference: ADC/SB
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Summary and Recommendation:

Condition 4: **Objection**
Condition 5: **Objection**
Condition 6: **Objection**

Please note: Any DOC application should only have a maximum of two consultation responses. If this is the second response for an open application and there are still comments outstanding, then please object to the application.

	ADC Drainage Comments	Designer Response			
Date:	21/02/2025				
Condition Number: 4 [Surface water design]					
Comment Number					
1.	Please submit greenfield run off rate calculations.	Please find Greenfield Runoff Calculations Attached. As it was confirmed that due to the high groundwater level and low infiltration results, infiltration was ruled out and SOIL type for Greenfield calculations has been updated to Soil Type 5.			
2.	Runoff rate must be restricted to QBAR or 2l/s/ha (whichever is higher) unless otherwise agreed. (Linked with comment 1). Please adjust or submit evidence of agreement to a different rate.	The Greenfield runoff calculations with Soil Type 5 indicate a Qbar of 0.162 l/s. However, to avoid any blockages and potential risk of flooding due to the small diameter of the orifice, surface water runoff is to be discharged at 1l/s with 20mm orifice diameter.			
3.	Please model a surcharged outfall (to the top of the bank if watercourse specific modelling is not available). Otherwise please justify why this is not necessary.	Please find the updated calculations attached. Kindly note that the surcharged depth has been set considering the top of the banking along the western side of the ditch, which is slightly lower than at our site.			
4.	Please correct discrepancies between cover and invert levels on the plans and the calculations. [It is acknowledged that this is unlikely to affect the design.]	Discrepancies are now updated, please find the revised drainage plan and drainage calculations attached.			
5.	Please correct the impermeable area contributions in the modelling. Currently less than described on the plan due to rounding down. The southern areas are also shown entering the system at S4 which is an inaccurate representation. If grouped together then they should be showing as entering at S5.	Please find the updated drainage calculations attached with impermeable areas being added to drainage nodes.			
6.	Please show any relevant easements on the plans.	The existing watercourse 3m easement is now indicated on drainage plan			

7.	Please demonstrate how any areas of surface water flood risk are accounted for within the design.	The proposed access road that is going to be raised in levels is to be graded following the existing site topography with levels being graded towards the existing watercourse. This is to mimic the existing flood water route.			
8.	[Water quality and treatment have not been assessed, this is accepted based on the design only draining roof water – The SuDS Manual stipulates that removal of debris and sediment is required which is provided by catch pits in S5, S3 and S2.]				
9.	The landscape and ecology management plan refers to a post and rail fence installed post-development to protect the rife. Please clearly demark this fence on the plans and ensure that is not within the easement for the watercourse.	The proposed post and rail fence is now indicated on the proposed drainage plan. Proposed fence is to be located min. 3m away from the top of the banking (easement).			
10.	The existing access appears to be artificially raised (previous level 8.55, proposed level 9.10). This is also an area of surface water flood risk – see comment 7 – please justify the change in level and demonstrate any impact on flood risk.	As per the response to comment 7, access road is to raised to meet the proposed site levels. Access road will be graded following the existing site levels with a slope toward the existing watercourse to mimic the existing runoff discharge regime.			
11.	The orifice for S5 is described on the layout as being 500mm diameter. This is assumed to be a typo (confused with the chamber diameter), please correct.	Orifice chamber diameter has been updated to 600mm diameter and orifice diameter to 20mm.			
12.	The modelling does not include the flap valve.	Flap Valve is now included			
13.	Please remove the standard (non-site specific) headwall details from C2904-P-501. These contradict the OWC drawings which are more detailed and site specific.	Headwall detail has been removed It should be noted that OWC drawings have been issued and comments have been received. Drawings are now updated and the updated drawings has been issued for final review.			
14.	Please detail the overflow level of the Sel Controflow 500 Orifice Chamber.	Overflow level is now indicated on orifice chamber detail.			
15.	The orifice for the design is very small, how is risk of blockage mitigated for in the design?	All downpipes are to be installed with Leaf separators. Orifice chamber is to be installed with orifice filter plate.			
16.	There is a risk of a clash between the surface water and foul drainage north of S4 and west of F6. Please adjust the design, if possible, to minimise this risk.	Clash has been reviewed and a separate note indicating proposed SW and FW pipes invert levels is now indicated.			

17.	Please submit a statement detailing how groundwater will be managed during construction. a) To ensure groundwater cannot enter the system. b) To demonstrate that flood risk will not be increased by dewatering excavations.	See additional statement attached.			
18.	Please submit evidence of the structural/buoyancy calculations to justify the design.	Please find buoyancy calculations attached. It should be noted that concrete slab weight has been excluded from floatation calculations.			
19.	Please propose water reuse or justify why not.	1000litres harvesting tank is now proposed to be installed for each caravan building.			
20.	Evidence how interception drainage is provided – links with point 19.	Surface water runoff is to be re-used either for harvesting or toilet flushing subject to buildings internal plumbing design. Each caravan building is to be constructed with 1000 litres above ground tank.			
Condition Number: 5 [Watercourses]					
Comment Number					
1.	Please submit evidence of ordinary watercourse consent and supporting approved plans and drawings.	First set of comments has been received and the updated drawings have been issued for a final review and approval.			
Condition Number: 6 [Maintenance and Management]					
Comment Number					
1.	It is not appropriate to approve the maintenance manual until it has been appended with the approved plans to discharge condition 4.	Maintenance and Management statement has been updated taking into account checklist comments.			
2.	See checklist for additional items required.				

If a designer would like a .docx version of this document to aid administration of responses, please request this by email to land.drainage@arun.gov.uk.