

From: Anna Brindle

Sent: 29 January 2025 18:36

To: Richardson, Joe <Joe.Richardson@wiltshire.gov.uk>

Cc: Alex Smith

Subject: PL/2024/09976 - Land off Southampton Road and Junction Road, Alderbury, Wiltshire

Hi Joe,

Following receipt of the drainage comments (dated 13th December 2024) submitted in connection with our application, we have reviewed the matters raised and would like to provide the following response to the LLFA, which we hope addressed the concerns.

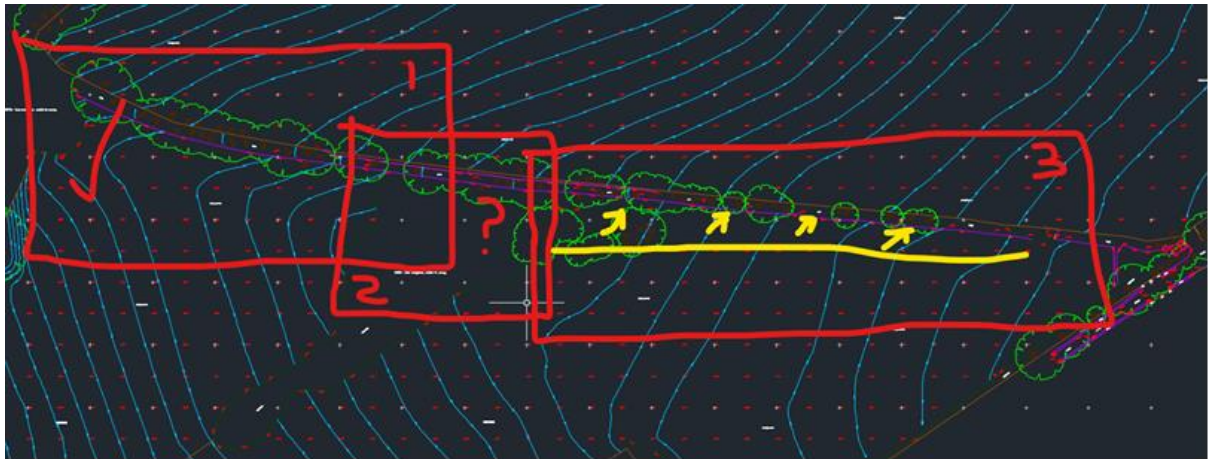
Firstly, the LLFA state that the surface water flow path running through the site has not been considered in the submitted FRA. We would disagree with this statement, as the areas of LOW-risk surface water flooding have been considered/identified within the application and a dedicated flood map (attached) has been included at Appendix C of the FRA. As outlined within the FRA, this low-risk overland flow is generated by the Site only, and will, by default, be removed by applying good engineering practice when designing the road and drainage infrastructure for the new development.

The consultation response provides two objections to the proposed application, along with ways that these matters can be overcome. These are discussed in greater detail below:

1. The applicant should undertake a capacity assessment of the drainage ditch and any downstream drainage infrastructure to demonstrate that flows from the proposed development can be accommodated without increasing flood risk elsewhere.

Response to recommendation 1:

It does not make sense that there is a depression located just south of the ditch. This has therefore been assumed to be erroneous. Upon close review of the numbers (not the contours) the land to the north of the yellow line on the image below falls towards the ditch (topographic survey is attached). We don't have enough level information to determine what is happening in the overgrown marsh area, identified as box 2 in the image below.



All surface water eventually finds its way into the high risk flood areas to the south, adjacent to the A36, as identified in the attached flood map and on shown on the image below.



Applying the 1 litre/second rate to the developed catchments (see below response to recommendation 2) we will be alleviating the flooding downstream.

The overall flow from the completed development site could be as low as 8 litres/second (Catchment 01 @ 1l/sec, Catchment 02 @ 1in100yr greenfield rate of 6 l/s, Catchment 03 @ 1l/sec). A maximum flow of 8.0 litres for the 1in100yr storm will therefore have a negligible impact on the capacity of the existing ditch along the

northern boundary. We believe that at least 8 litres/second drains into this ditch, from the 4.95 hectare site already. On this basis, there should be no requirement to undertake a capacity assessment of the ditch and downstream drainage infrastructure.

2. The applicant should submit a drainage strategy that demonstrates that post-development discharges provide 30% betterment over pre-development discharges for all storm events between the 1 in 1 year and 1 in 100 year return period events in line with Wiltshire Council's betterment policy. Where this is not practically achievable, we expect flow control devices to be restricted to 1l/s as a minimum

Response to recommendation 2:

The Qbar greenfield rate is very low at 0.48 litres/second/hectare. With this in mind, the peak allowable run-off from catchments 01 (1.3Ha) & 03 (1.4Ha) would be 0.62 litres/second and 0.67 litres/second respectively. These rates are extremely low. On this basis, the drainage has been amended so that each flow control device is restricted to 1 litre/second. The calculations have been carried out on the basis of these lower rates and the changes are as follows:

- The Detention Basin remains as proposed, but the modelled top water level increases by 100mm. The critical modelled top water level in the basin for the 1in100yr return period plus 45% climate change is now 73.00m, so there is a freeboard of 200mm with a capacity of approximately 200m³ provided.
- The attenuation tank has been increased in volume by 290m³, from 580m³ to 870m³. There is no change required to the tank plan, as the increase in volume is achieved by an increase in depth of the tank, from 0.75m to 1.125m.

Please can you forward this response to the LLFA to address their comments. Please note that an updated Drainage Strategy plan has also been attached. This version will now supersede the previous Drainage Strategy provided at Appendix G of the FRA and Drainage Strategy Report.

We look forward to hearing feedback on the above.

Kind Regards

Anna

Anna Brindle

Associate