



Hampshire County Council

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Enquiries to	Thomas Callaway	My reference	SWM/2021/0660/
Direct Line		Your reference	APP/21/01071
Date	14 October 2022	Email	Swm.consultee@hants.gov.uk

Dear Sir/Madam,

Outline planning application for up to 43 dwellings, with access from Lower Road and associated landscaping, open space and allotments, and all other matters reserved at Land south of, Lower Road, and west of Old Manor Farm, Havant(Application No. APP/21/01071

Hampshire County Council as Lead Local Flood Authority has provided comments in relation to the above application in our role as statutory consultee on surface water drainage for major developments.

This response does not reflect the position of Hampshire County Council as the Highway Authority. If there is a potential for the drainage features to be offered for adoption, this will need to be discussed separately with Highways development planning as they might not be considered acceptable by the Highway Authority.

In order to assist applicants in providing the correct information to their Local Planning Authority for planning permission, Hampshire County Council has set out the information it requires to provide a substantive response at <https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/planning>

The County Council has reviewed the following documents relating to the above application:

- SuDS Management & Maintenance Plan SS/21/0433/6430 (MJA Consulting, 24/9/21)
- Groundwater monitoring and infiltration testing GE20565/FG01/220111 (Geo-Environmental, 11/1/22)
- Winter groundwater monitoring results GE20565 (March 2022)
- Correspondence SS/22:0133/6430 (MJA Consulting, 4/4/22)

*Director of Economy, Transport and Environment
Stuart Jarvis BSc DipTP FCIHT MRTPI*

- Proposed Drainage Strategy 6430:001 P3 (MJA Consulting, 21/6/22)
- Micro Drainage calculations (MJA Consulting, 21/6/22)
- Correspondence SS/22:0133/6430 (MJA Consulting, 22/6/22)

Previous consultation responses by the LLFA have requested that suitable evidence is provided to ensure that infiltration is viable at this site. The applicant has provided groundwater monitoring results from two 5 metre dynamic sampler boreholes screened from 1 to 5 metres, and one 10 metre cable percussion borehole screened from 8 to 10 metres. The highest groundwater level of 1.71 metres below ground level was recorded in WS01 on 3rd March 2022. There is a chance that groundwater could have reached higher levels as the last date of monitoring coincided with the highest levels in each borehole, however levels would be expected to recede shortly after that time of year.

The depth of screening of the dynamic sampler boreholes suggests that the results could have been influenced by any perched water table that exists in this area. The screened part of the cable percussion borehole was installed beyond the depth of the superficial deposits and presumably would react in a similar way to the proposed infiltration boreholes. The levels of groundwater monitored in this borehole suggest that any proposed drainage boreholes would mostly be full of water and allow for only limited infiltration until groundwater levels have receded.

Infiltration testing in the superficial deposits was not successful, but was achieved somewhat through falling head tests into the chalk bedrock. The rate achieved would not be sufficient to support a surface water drainage system, and this is likely to be due to the high groundwater levels experienced. A faster rate is referred to in correspondence from MJA Consulting, but the updated investigations report ref. GE20814/WP02/220518 may not have been submitted for planning. This faster rate was used for the design calculations. It is also suggested in the application documents that structures should be 20 metres away from infiltration features in the chalk at this location.

The number of boreholes proposed has increased to eight since the application was made, however it is not clear whether the increase in number resolves the issue of discharging surface water from the site effectively. The calculations for the boreholes require further explanation. A faster rate than that initially recorded in the ground has been used for the infiltration coefficient, and the depth of the borehole has been modelled at 50m. The calculations consider only three boreholes in addition to the attenuation pond.

The LLFA is expecting to see calculations for the pond and total number of boreholes, using infiltration rates as achieved in the ground and only considering the volume of the boreholes that will be available at peak groundwater levels for each storm event up to the 1 in 100 year event plus an allowance for climate change. In addition, we require the network calculations for the entire system for each storm event to ensure the network does not

cause flooding up to the 1 in 30 year event. Flooded volumes and exceedance flows should be shown for the 1 in 100 year event plus an allowance for climate change. Half drain times should be of a reasonable period – the attenuation storage may be available for one storm but there are concerns over how quickly water can be discharged from the system as proposed.

SuDS management and maintenance details have been provided for the surface water drainage system as proposed.

In order for us to provide a substantive response, the following information is required:

- Explanation for the increased number of borehole soakaways proposed,
- Explanation of the figures used for borehole depth in the Micro Drainage calculations and how this relates to available storage in the model,
- Evidence of the faster falling head rate into saturated chalk at a greater depth used for the design calculations
- Revised calculations for the drainage system using appropriate data as necessary,
- Calculations are to include the network and the attenuation pond and borehole soakaways, and provide acceptable half drain times,
- Evidence of any correspondence with the Environment Agency relating to the proposed surface water drainage design (particularly regarding infiltration capacity rather than groundwater protection),
- Confirmation that Network Rail will accept infiltration structures within 20 metres of its infrastructure.

We require this further information before we can make a decision on whether to recommend to the Local Planning Authority that planning permission is granted.

As a statutory consultee, the County Council has a duty to respond to consultations within **21 days**. The 21 day period will not begin until we have received sufficient information to enable us to provide a meaningful response.

Please ensure all data is sent to us via the relevant Local Planning Authority.

If you require additional guidance on providing the correct information, we recommend you use our **Surface Water Management Pre-application service** which will enable discussions with the reviewing engineer and scope out works that would address the points raised. For full details, please visit:

<https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/planning> and click on [pre-application advice request form](#).

This response has been provided using the best knowledge and information submitted by the applicant as part of the planning application at the time of responding and is reliant on the accuracy of that information.

Yours faithfully,



Thomas Callaway
Flood and Water Management Engineer

General guidance for the application

It is important to ensure that the long-term maintenance and responsibility for Sustainable Drainage Systems is agreed between the Local Planning Authority and the applicant before planning permission is granted. This should involve discussions with those adopting and/or maintaining the proposed systems, which could include the Highway Authority, Planning Authority, Parish Councils, Water Companies and private management companies.

For SuDS systems to be adopted by Hampshire Highways it is recommended that you visit the website at:
<https://www.hants.gov.uk/transport/developers/constructionstandards> for guidance on which drainage features would be suitable for adoption.

Where the proposals are connecting to an existing drainage system it is likely that the authorities responsible for maintaining those systems will have their own design requirements. These requirements will need to be reviewed and agreed as part of any surface water drainage scheme.

Works in relation to ordinary watercourses

*PLEASE NOTE: If the proposals include works to an ordinary watercourse, under the Land Drainage Act 1991, as amended by the Flood and Water Management Act 2010, prior consent from the Lead Local Flood Authority is required. **This consent is required as a separate permission to planning.***

Information on ordinary watercourse consenting can be found at the following link
<https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/c/hangewatercourse>

It is strongly recommended that this information is reviewed before Land Drainage consent application is made.

*For guidance on providing the correct information, we recommend you use our **Ordinary Watercourse Consents Pre-application service** and help avoid delays occurring at the formal application stage. A Pre-application service for Ordinary Watercourse Consents is available, allowing consents to go through in a smoother, often more timely manner. For full information please visit:*

[https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/c
hangewatercourse](https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/c
hangewatercourse)