

Our ref: 680117 L01 LLFA
 1st February 2024

Andrew Gambrill
Canterbury City Council
 Planning Department
 Military Road,
 Canterbury
 CT1 1YW

Application No: CA/23/00484

Location: Land At The Hill, Bekesbourne Lane, East Of Bekesbourne Hill, Bekesbourne, Canterbury, CT4 5EA

Proposal: Outline planning application for up to 300 residential dwellings (including affordable housing and older person accommodation), a new community hub, introduction of structural planting and landscaping, informal public open space and children's play area and surface water flood mitigation and attenuation. All matters reserved except for access.

I refer to the recent consultation response received from the LLFA (Kent County Council) dated 7th November 2023 and the previous response dated 24th August 2023 in relation to flood risk at the above application site.

This consultation response details three points in which further clarification is required and these will be addressed below in turn;

LLFA Comment	Applicant response
<p>The LLFA understand from the latest FRA that a CCTV investigation has been undertaken into the condition and pathway of the 225mm culvert. From the outputs contained within Appendix B, there would appear to be fractures and cracks noted for a long section of the culvert, between MH1 and MH3. Further to this, the last part of the culvert survey was unable to be carried out due to high water level within the pipe. It is unknown if this was as a result recent rainfall as recorded during the investigation or a wider issue at that particular section of pipe.</p> <p>The imagery provided does appear to show that water is flowing through the culvert and into the Little Stour. Whilst the pipe is currently functioning the LLFA have concerns as to its continued ability to convey flows into the</p>	<p>The culvert in question is a KCC Highways asset. Consultation is underway with KCC to make a contribution towards the remedial works required.</p>

<p>future. With the additional reliance of a housing development (including treatment works), discharging into this feature, we would view the potential impacts if this pipe fails to be much greater. The fractures and cracks shown in the supporting imagery indicate to us that this pipe will need to be replaced. We would view that this needs to be considered as part of this outline stage as this outfall/ culvert is essential to the feasibility of the scheme.</p> <p>If the pipe is to be replaced, we would advise consideration on whether this would need to be enlarged to take account of the increased frequency, intensity and durations of storm events as a result of climate change.</p>	
<p>As raised within our previous consultation response, the LLFA had concerns around the allowable discharge rate for the site. It is understood that the rate has been derived using the loH124 method and applying a 0.4 soil value. It is understood that the soil rate of 0.4 is based upon infiltration testing undertaken at the site. The application of this rate would suggest that the superficial layer of soil at this site is relatively impermeable in nature and more in line with clay geology. It is noted that the that the infiltration test sheet referenced within the report has not been included and as such we would request this is provided for completeness. This is to support the rate used.</p>	<p>A copy of the infiltration report is enclosed with this response. Infiltration tests were carried out in all four trial pit locations to establish the infiltration rate of the shallow geology. The trial pit tests were carried out generally in accordance with the method described in BRE Digest 365 (BRE, 2016). It is noted that that three (3no.) repeat infiltration tests were not permissible within any exploratory positions, owing to the comparatively low infiltration rates.</p>
<p>The LLFA are aware that the intention is for a Waste Water Treatment Plant to be constructed on site to treat foul flows. The treated water is understood to then be discharged into the existing 225mm culvert, located at the north eastern corner of the site. Final agreement of this approach is required with the Environment Agency however, with this additional flow, we have concern that the greenfield runoff rate will be exceeded. In line with other developments proposals utilising similar treatment systems, we request that the</p>	<p>Required consenting for the discharge will be carried out with the Environment Agency. In terms of the additional flows generated from the treatment plant an allowance of 110l/person/day has been considered and has been factored into the discharge rates from the attenuation basin and detailed in section 8.4.1 of the Flood Risk Assessment (680117-R1(02) FRA dated June 2023. The report states 'A wastewater treatment plant is proposed for the site to treat and manage waste water, the outfall from which will be to the onsite ditch</p>

surface water discharge rate is lowered to compensate for these additional treated flows.

network. Based on the number of units and the package treatment plant being considered, this will result in a discharge of 1.2l/s. This has been considered in the drainage calculations with the discharge from the northern basin being limited to 9.5l/s and 10.7l/s for the southern basin. The total peak discharge from the site will total 21.4l/s.'

24.1l/s is the calculated Greenfield run off rate from the developable area of the site and therefore factoring the additional flows from the treatment plant, the offsite discharge rates are not exceeding the pre-development greenfield rates.

We trust that the above meets with your approval but should you have any queries, please do not hesitate to contact the writer.

Yours sincerely,
 For RSK LDE Limited



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 Director