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Date 23 December 2022

Dear Louise,

RE: 6/2022/2335/COND at Hertfordshire Constabulary Stanborough Road Welwyn Garden City Hertfordshire AL8 6XF

Thank you for your consultation on the discharge of condition 5 (Memorial Garden, the Attenuation Pond, the Dog's Unit and the Haul Road) on planning permission 6/2021/2125/MAJ for the partial redevelopment of the Hertfordshire Constabulary Headquarters site at Hertfordshire Constabulary, Stanborough Road, Welwyn Garden City, AL8 6XF.

Condition 5 states:

"No development of any phase of the development hereby approved shall take place until a detailed surface water drainage scheme for that phase based upon the site-based principles set out in the approved Drainage Strategy produced by Aecom, Project No 60600329 Ref HCHQ-ACM-XX-XX-RP-CE-000002, dated 15 June 2021, has been submitted to and approved in writing by the Local Planning Authority. The scheme shall subsequently be implemented in accordance with the approved details.

The scheme shall include:

1. Final infiltration testing to be conducted to BRE Digest 365 Standards at the exact location and depth of the proposed infiltration features.
2. A final detailed drainage plan including the location and provided volumes of all SuDS features, pipe runs, invert levels and discharge points. It should be highlighted where the restriction devices to limit the surface water discharge are to be located. If there are any areas to be designated for informal flooding these should be shown on a detailed site plan.
3. Based on the obtained infiltration testing results, final, detailed post development calculations/modelling in relation to surface water for all rainfall events up to and including the 1 in 100-year return period including a + 40% allowance for climate

change. Half drain down times of all SuDS structures have to be clarified and should be obtained at below 24 hours.

4. *Full assessment of proposed SuDS treatment and management stages for all surface water runoff from the proposed development including the haul road.*
5. *Detailed engineered drawings of the proposed SuDS features including cross section drawings, their size, volume, depth and any inlet and outlet features including any connecting pipe runs.*
6. *Clarification around lifetime of the proposed construction haul road whether it is a temporary feature to be used during construction or a permanent feature. The road will need to be positively drained during its lifetime.*

Reason

To prevent the increased risk of flooding, both on and off site in accordance with the National Planning Policy Framework and Policy R7 of the District Plan 2005.”

The applicant has provided the following information in response to the planning application.

- HCHQ Phase 1 Discharge of Condition Technical Note, prepared by AECOM, reference HCHQ-ACM-00-XX-RP00003, dated 7 October 2022.

Based on the information provided by the applicant we are not able to advise the local planning authority that condition 5 can be discharged as information is still required to address points 1-6. We have assessed the previously approved drainage layout with infiltration locations and compared this with the proposed drainage strategy drawing submitted with this application and we note that the scheme has been amended to no longer utilise infiltration due to the failure of the BRE 365 testing. We also note that since the submission of the original planning condition, the Decant Building has been moved to a later phase. As the Local Planning Authority, you will need to ensure that drainage information for the Decant Building to discharge Condition 5 will be provided through a separate submission.

1. As part of the condition, point 1 requires detailed infiltration testing at the locations of the infiltration features such as the proposed soakaways and permeable paving areas. It is understood that the preferred strategy to discharge via infiltration has not been taken forward. Infiltration testing to BRE Digest 365 standards was undertaken between 24 April and 5 May 2021 at three separate locations which failed the requirements of a valid infiltration test under BRE Digest 365. The strategy now proposes that the areas previously proposed to drain via infiltration will now be designed to drain via gravity to an existing surface water drain within the Herts Police Headquarters site. These features will continue to offer treatment and attenuation to runoff. No further information required.
2. Point 2 requires a detailed drainage plan as seen in Appendix B drawings, HCHQ-ACM-HQ-XX-DR-CE-01001-P02 and HQDTC-CON-X-XX-DR-C-1000. It is noted as part of the works the attenuation pond will be enlarged to accommodate inflow from the HQ building with the existing inlet maintained as well as restricted inflow from the Dog Unit. It would aid review if pipe and manhole numbering were included on the drainage plans.

3. Point 3 requires final detailed post development calculations/modelling for all rainfall events including half drain down times for the attenuation features. The attenuation pond will be enlarged to accommodate unrestricted discharge from the HQ building (which forms part of the Phase 2 works) and attenuated discharge from the Dog Units.

Attenuation for the HQ Building will be provided by rain gardens surrounding the building. It is noted as the proposed rain gardens surrounding the HQ could not satisfy the entire storage requirements of the HQ Building, the remaining storage requirement is to be provided through enlarging the existing attenuation pond. To represent a conservative approach, it was assumed that the existing attenuation pond has no available storage to accommodate runoff from the HQ building.

The previously agreed discharge rate for the site was 3.41l/s for the HQ building. However, as infiltration is not viable, the rate has been reduced to 2.51 l/s to share the discharge rate among other areas of the site.

Within the Technical Note it was demonstrated that the enlarged attenuation pond could still safely accommodate runoff contributions from existing areas, restricted discharge from the Dog Unit and the HQ building network. We understand it is proposed to enlarge the existing attenuation pond by 720 m³ to a total volume of 2070 m³, changing the discharge rate from the attenuation pond from 22.5l/s to 26.2l/s to allow for the maximum allowable runoff rates from the HQ building and Dog unit. The calculations provided with the enlarged attenuation pond show the ponds half drain down time of 537 minutes and the rain gardens between 4 and 39 minutes which is acceptable. We require confirmation from Thames Water that this increased discharge rate is acceptable.

Modelling calculations for the Dog Unit show all runoff can be contained below ground for up to the 1 in 100 year event with a maximum discharge of 1.2 l/s as proposed during the original planning application. Flooding of up to 8 m³ occurs for the 1 in 100 year plus 40% climate change event; but this volume can be accommodated within the estate road to the west of the Dog Unit. The geocellular attenuation that will serve the Dog Unit will provide a storage volume of 60.8 m³. Based on a discharge rate of 1.2 l/s, to half-drain this storage structure would take 7.0 hrs. Please can the applicant indicate the location of this proposed flooding and how it will be accommodated within the estate road and if any additional mitigation measures are proposed. We await further information.

We recommend that modelling is recalculated using FEH2013 rather than FSR/FEH 1999 to ensure that the water will remain in the system and the above assumptions on the required storage volumes is correct. Additionally, we require pipe and manhole numbering on the drainage plan in order to accurately assess the modelling calculations. We await further information.

4. We note that runoff will drain through rain gardens before entering the pipe network which discharges into the enlarged attenuation basin that includes sediment forebays. From the Simple Index Assessment sufficient treatment to mitigate the associated pollution hazards for all areas has been provided. No further information is required.

5. Detailed engineering drawings of the proposed SuDS features and other drainage elements for the Phase 2 and 3 drainage are presented in Appendix D. However, detailed drawings of the enlargement of the attenuations tank have not been provided. We await submission of this additional information for the attenuation feature proposed.
6. The existing gravel road that commences within Gosling Sports Park to the northern boundary of the Hertfordshire Constabulary HQ site will become a Haul Road which will be used as the main access route for Phase 1 construction works. The applicant notes that as there is no proposed surface upgrade or expansion of Haul Road, that it will drain as it currently stands, deeming that positive drainage is not required. However, we require the road to be positively drained.

It is noted that for Phases 2 and 3 of the redevelopments that the increased frequency of vehicles using Haul Road may lead to the surface of Haul Road potentially requiring improvements. We note that surveys of Haul Road have been commissioned by Hertfordshire Constabulary however, we require the conclusions from the survey to determine if Phases 2 and 3 will change the drainage strategy for Haul Road. We await further information.

Informative to the LPA

For further advice on what we expect to be contained within the drainage strategy to support a discharge of condition planning application, please refer to our Developers Guide and Checklist on our surface water drainage webpage <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/surface-water-drainage/surface-water-drainage.aspx> this link also includes HCC's policies on SuDS in Hertfordshire.

Please note if the LPA decides to discharge condition 5, we wish to be notified for our records.

Yours sincerely

Katherine

Katherine Ashworth
SuDS and Watercourses Support Officer
Environment & Transport and Sustainable Growth