Director of Environment & Infrastructure:
Mark Kemp

Hertfordshire

Clare Howe
Welwyn Hatfield Borough Council
The Campus
Welwyn Garden City
Herts
AL8 6AE

Post Point CHN 215
Hertfordshire County Council
County Hall, Pegs Lane
HERTFORD SG13 8DN

Contact Sana Shaikh
Email FRMConsultations@hertfordshire.gov.uk

Date 30 December 2020

RE: 6/2019/2714/OUTLINE – 1 YMCA, 90 Peartree Lane, Welwyn Garden City, AL7 3UL

Dear Clare,

Thank you for your re-consultation in relation to the above planning application for the outline planning application for a hybrid application for demolition of existing hostel, development of a four storey 100 bed YMCA Hostel(All details submitted for determination)and a 2,3 and 4 storey building providing up to 43 residential apartments (All details retained for future determination as reserved matters, except means of access) with associated car parking and landscaping, at 1 YMCA, 90 Peartree Lane, Welwyn Garden City, AL7 3UL.

We understand this application seeks outline planning permissions for major developments, and we have assessed the following documents submitted to support to this application:

- Drainage Strategy Report produced by Pinnacle Consulting Engineers, project number C190906, version 3.3, dated 03 December 2020;
- Flood Risk Assessment produced by Pinnacle Consulting Engineers, project number C190906, version 2.0, dated 3 June 2020.

We note that infiltration testing has been carried out onsite and Soil Infiltration rates of 4.5 x 10^{-5} m/s (good infiltration rate) and 7.0 x 10^{-6} m/s (poor infiltration rate) was found. A site-specific environmental report was produced by Delta-Simons in April 2020 to investigate for any potential risk of groundwater contamination. No significant source of contamination was found. Based on this infiltration rates and the location of the developments, the proposed surface water strategy involves the division of the entire site into two separate surface water networks.

Catchment A will have a cellular storage volume of 218m^3 (which includes the surface water runoff from Catchment C & the surface water drained from the identified pluvial

flooding locations during the 100 year plus 40% climate change event) with infiltration into the ground with satisfying the half-drain time requirements.

Catchment B will have a cellular storage volume 183m^3 (which includes the surface water drained from the identified pluvial flooding locations during the 100 year plus 40% climate change event) that discharges via infiltration into the ground and into Thames Water public sewer at 5l/s with satisfying the half-drain time requirements. Thames Water approval has been obtained for 5 l/s discharge rate.

We note that the surface water runoff from the existing carpark Catchment C with an impermeable area of 787m^2 will be collected using sponged gullies and infiltrated via soakaway located in Catchment A. The area at surface water flooding risk around the southern boundary is approximately 50m^2 Based on the flood depths an average of 0.20m flood depth is estimated. Therefore, additional storage volume of 10m^3 (50m^2 x 0.20m) has been provided within the soakaway to account for the surface water runoff drained by the filter drain.

We note in our previous response we have raised concerns regarding solution features onsite. It has been agreed by the applicant that should the geotechnical investigation find ground condition for potential sink holes, alternative surface water drainage strategy to be implemented. This will be based on replacing the soakaways attenuation tanks with discharge into the surface water sewer. In this scenario Catchment A, B & C will require total attenuation volume of 386m^3. Additional storage volume is required to account for the surface water drained by the filter drains at the identified pluvial flooding locations during the 100 year plus 40% climate change event in a total attenuation volume requirement of 436m^3 (386m^3 + 40m^3+ 10m^3). Based on this figure, for cellular attenuation tank 01 and cellular attenuation tank 02, attenuation volumes of 175m^3 and 262m^3 are allocated.

In order to secure the final detail of the drainage scheme, we therefore recommend the following conditions to the LPA should planning permission be granted.

Condition 1

The development permitted by this planning permission shall be carried out in accordance with the Drainage Strategy Report produced by Pinnacle Consulting Engineers, project number C190906, version 3.3, dated 03 December 2020 and Flood Risk Assessment produced by Pinnacle Consulting Engineers, project number C190906, version 2.0, dated 3 June 2020 and the following mitigation measures:

1. Provision of drainage strategy based on infiltration (for catchments A and C) and discharge into Thames sewer (Catchment B)
2. Limiting the surface water run-off rates to a maximum of 5l/s for all rainfall events up to and including the 1 in 100 year + climate change event with discharge into the Thames surface Water sewer.
3. Provide attenuation to ensure no increase in surface water run-off volumes for all rainfall events up to and including the 1 in 100 year + climate change event.
4. Implement drainage strategy utilising lined permeable paving with sub-base and attenuation tanks
5. Provision of a filter drain to manage exiting surface water flood risk

Reason

To reduce the risk of flooding to the proposed development and future occupants.

Condition 2

No development other than demolition, site clearance, or remediation works in respect of land contamination shall take place until the final design of the drainage scheme is completed and sent to the LPA for approval. The surface water drainage system will be based on the submitted the Drainage Strategy Report produced by Pinnacle Consulting Engineers, project number C190906, version 3.3, dated 03 December 2020 and Flood Risk Assessment produced by Pinnacle Consulting Engineers, project number C190906, version 2.0, dated 3 June 2020. The scheme shall also include:

1. Detailed infiltration testing in accordance with BRE Digest 365 at the proposed depth and location of the proposed SuDS feature
2. Provision of additional ground investigations to assess the potential for solution features.
3. Groundwater monitoring to be carried out following any ground remediation works to determine the level of groundwater. If the site is found to be impacted by groundwater, an assessment of this flood risk and its mitigation should be provided. Details on how the site drainage features will be secured against groundwater should also be provided.
4. A minimum of 1m buffer zone needs to be provided between a bottom of any infiltration feature and the existing groundwater levels on the proposed development site.
5. Detailed engineered drawings of the proposed SuDS features including their location, size, volume, depth and any inlet and outlet features including any connecting pipe runs and all corresponding calculations/modelling to ensure the scheme caters for all rainfall events up to and including the 1 in 100 year + 40% allowance for climate change event, with a supporting contributing area plan.
6. Demonstrate appropriate SuDS management and treatment for the entire site including the access road. To include exploration of source control measures and to include above ground features such as permeable paving.
7. Provision of half drain down times within 24 hours.
8. Exceedance plan for events greater than the 1 in 100 year plus 40% for climate change event.

Reason

To prevent flooding by ensuring the satisfactory storage of and disposal of surface water from the site

Condition 3

Upon completion of the drainage works for the site in accordance with the timing / phasing arrangements, the following must be submitted to and approved in writing by the Local Planning Authority:

1. Provision of a verification report (appended with substantiating evidence demonstrating the approved construction details and specifications have been implemented in accordance with the surface water drainage scheme). The verification report shall include photographs of excavations and soil profiles/horizons, installation of any surface water structure (during construction and final make up) and the control mechanism.
2. Provision of a complete set of as built drawings for site drainage.
3. A management and maintenance plan for the SuDS features and drainage network.
4. Arrangements for adoption and any other measures to secure the operation of the scheme throughout its lifetime.

Reason

To prevent flooding by ensuring the satisfactory storage of/disposal of surface water from the site.

Yours sincerely,

Sana Shaikh
SuDS Officer
Hertfordshire County Council