Email: [redacted]
Direct [redacted]
Our Ref: WIE -17469 – Project Otter
Your Ref: FR/23-000387
Date: 24th October 2024

Flood Risk Team
PO Box ALC2619
Eastfield House
PO Box 761
Huntingdon
PE29 9QR

Proposal: Outline application (with all matters reserved) for the demolition of existing buildings and structures and redevelopment of the site for a new local centre (E (a-f), F1(b-f), F2(b,d)), open space and employment (office and laboratory) floorspace (E(g)(i)(ii) to the ground floor and employment floorspace (office and laboratory) (E(g)(i)(ii) to the upper floors, along with supporting infrastructure, including pedestrian and cycle routes, vehicular access, car and cycle parking, servicing areas, landscaping and utilities. (The Development is the subject of an Environmental Impact Assessment)

Beehive Centre, Coldhams Lane, Cambridge, CB1 3ET, Cambridgeshire

Dear Jessica Gething,

Thank you for your consultation response dated 17th October 2024. We reviewed your comments and appreciated they are relatively minor amendments to the hydraulic calculations which we have now updated. Please refer to our responses below to ensure you can review the relevant Sections / Appendices of the Flood Risk Assessment and Drainage Strategy (*WIE17469-110-R-1-1-6-FRADS_Project Otter*).

Cambridgeshire County Council **Flood Risk Team Response 17/10/2024**	**Waterman Infrastructure and Environment Ltd** **Response 24/10/2024**
Calculations to show the performance of the system for a range of summer and winter storm durations from 15 minutes up to the 10080 minute (7 day) should be undertaken.	Please refer to the updated calculations for both Northern and Southern catchments to included storm events up to the 10,080 minutes.
At present the storage volume of the pond is stated in Table 8 of the report as 626m 3. The calculations show a storage volume of 464 m 3. Further clarification is required as to the required volume of attenuation and the storage volume that is proposed.	Table 8 has been updated to show 464m^3. Apologies for this typo and has been corrected now to suit the InfoDrainage results.
Within the hydraulic calculations several storage structures are showing 0l/s outflow and could therefore indicate instability in the hydraulic calculations.	We have tried to increase the run-time of the model and analysis time, this has improved this issue in InfoDrainage. The remaining few instances of 0 l/s from storage features is only in the 1:2 year events where the flows are close to 0 l/s so are most likely rounded down to 0 l/s.

Section 6.35 of the report states that the attenuation tanks will have a porosity of 95% which is what would be expected by the LLFA. However, the calculations show the site wide tank and tanks for block 5 and 6 to have a porosity of 100%.	InfoDrainage sets this as 100% as default. This was a simple oversight and all tanks across the site have now been updated to be 95%.

We hope the above satisfies all your queries regarding this application. The proposed surface water management plan is a clear demonstration of adhering to Cambridgeshire's local policy and promoting the best use of SuDS and green infrastructure.

We look forward to hearing from you.

Yours sincerely,

[redacted]
Civil Engineer

For and On Behalf of Waterman Infrastructure & Environment Ltd

Enc 23_03204_OUT-LLFA-6538909

Frank Jordan,
Executive Director
Place and Sustainability
Environment, Planning and Economy

Flood Risk Team
PO Box ALC2619
Eastfield House
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Huntingdon
PE29 9QR

My ref: FR/23-000387
Your ref: 23/03204/OUT
Date: 17/10/2024
Doc no:
Officer:
E Mail: [redacted]

Cuma Ahmet
Greater Cambridge Shared Planning
South Cambridgeshire Hall
Cambourne Business Park
Cambourne
CB23 6EA

Proposal: Outline application (with all matters reserved) for the demolition of existing buildings and structures and redevelopment of the site for a new local centre (E (a-f), F1(b-f), F2(b,d)), open space and employment (office and laboratory) floorspace (E(g)(i)(ii) to the ground floor and employment floorspace (office and laboratory) (E(g)(i)(ii) to the upper floors, along with supporting infrastructure, including pedestrian and cycle routes, vehicular access, car and cycle parking, servicing areas, landscaping and utilities. (The Development is the subject of an Environmental Impact Assessment)

Beehive Centre Coldhams Lane Cambridge CB1 3ET Cambridgeshire

Comments from Lead Local Flood Authority (LLFA)

Dear Cuma,

Thank you for your re-consultation which we received on 8th October 2024.

At present we **object** to the grant of planning permission for the following reasons:

1. **Hydraulic calculations**
   Calculations to show the performance of the system for a range of summer and winter storm durations from **15 minutes up to the 10080 minute** (7 day) should be undertaken.

At present the storage volume of the pond is stated in Table 8 of the report as 626m^3. The calculations show a storage volume of 464 m^3. Further clarification is required as to the required volume of attenuation and the storage volume that is proposed.

Within the hydraulic calculations several storage structures are showing 0l/s outflow and could therefore indicate instability in the hydraulic calculations.

Section 6.35 of the report states that the attenuation tanks will have a porosity of 95% which is what would be expected by the LLFA. However, the calculations show the site wide tank and tanks for block 5 and 6 to have a porosity of 100%.

Informatives

Signage
Appropriate signage should be used in multi-function open space areas that would normally be used for recreation but infrequently can flood during extreme events. The signage should clearly explain the use of such areas for flood control and recreation. It should be fully visible so that infrequent flood inundation does not cause alarm. Signage should not be used as a replacement for appropriate design.

Green Roofs
All green roofs should be designed, constructed and maintained in line with the CIRIA SuDS Manual (C753) and the Green Roof Code (GRO).

Pollution Control
Surface water and groundwater bodies are highly vulnerable to pollution and the impact of construction activities. It is essential that the risk of pollution (particularly during the construction phase) is considered and mitigated appropriately. It is important to remember that flow within the watercourse is likely to vary by season and it could be dry at certain times throughout the year. Dry watercourses should not be overlooked as these watercourses may flow or even flood following heavy rainfall.

Construction Surface Water Maintenance
Prior to final handover of the development, the developer must ensure that appropriate remediation of all surface water drainage infrastructure has taken place, particularly where the permanent drainage infrastructure has been installed early in the construction phase. This may include but is not limited to jetting of all pipes, silt removal and reinstating bed levels. Developers should also ensure that watercourses have been appropriately maintained and remediated, with any obstructions to flows (such as debris, litter and fallen trees) removed, ensuring the condition of the watercourse is better than initially found. This is irrespective of the proposed method of surface water disposal, particularly if an ordinary watercourse is riparian owned.

Assistance For Developers

- Cambridgeshire County Council has a surface water guidance document which is available to view here. This document provides checklists and templates to help ensure you include sufficient information within your drainage strategies. Following this guidance will help reduce the risk of an objection which can hold up a planning application.
- We also offer a pre-application service which enables you to discuss your drainage proposals with the LLFA Officers prior to submission of a formal application.

Yours sincerely,

[redacted]

Flood Risk Business Manager

If you have any queries regarding this application, please contact the Officer named at the top of this letter (contact details are above).

Please note: We are reliant on the accuracy and completeness of the reports in undertaking our review and can take no responsibility for incorrect data or interpretation made by the authors.