From: Matthew Shepherd <Matthew.Shepherd@westberks.gov.uk> Sent: 10 Sep 2024 02:54:31 To: dmsimport@westberks.gov.uk Cc: Subject: FW: 4508 Eagle Quarter II - Drainage Strategy- 23/02094/FULMAJ Attachments:

From: Paul Bacchus <Paul.Bacchus1@westberks.gov.uk>
Sent: Monday, April 8, 2024 3:54 PM
To: Matthew Shepherd <Matthew.Shepherd@westberks.gov.uk>
Subject: RE: 4508 Eagle Quarter II - Drainage Strategy- 23/02094/FULMAJ

Matthew,

I do accept the applicant's argument that the proposed development has maximised the storage within the extent of the site and therefore has reduced the flow rate as low as is viable for the scheme.

Unfortunately, it does not appear possible to reduce the flow rate to the desired 50% of 1:2 year flow. As the applicant has stated previously Jon Bowden and Stuart Clarke did not stipulate criteria for the design flow rates clearly during the pre-application process, suggesting only 50% betterment of the existing rate which the proposal achieves for the 1 in 30 an 1 in 100 year event.

As can be seen below, despite not meeting the target rate for flow, the proposal does provide significant betterment of over the existing scenario. This proposal would alleviate pressure on Thames Water surface water sewers over the existing scenario. Without revising the entire development and proposed extent of impermeable surfaces, it is unlikely any further improvements can be made to reduce the flow rate or provide additional storage. There would be little merit in pursuing further reduction in discharge rates without providing a compromised scheme (i.e. requiring the use of pumping stations which adds to potential points of failure).

I am satisfied that the applicant will try to implement an acceptable variety of SuDS considering the complexity of the heavily urbanised area, including the use of green roofs, blue roofs and porous/permeable paving. We will seek to ensure the proper implementation of SuDS via condition for detailed design. Any attempt to reduce the scale or variety of SuDS will be contested.

The applicant has shown a willingness to try and find a resolution to outstanding matters and has presented a reasonable argument regarding the application of SuDS. The proposal development will not be intensifying the site from a flood risk or drainage perspective as the existing site is already comprised of almost entirely hardstanding surfaces. Additionally, the existing drainage does not appear to include any attenuation/flow control systems, so the proposal will provide a notable reduction to the risk of surface water flooding in the area.

With these matters considered, the proposal is acceptable subject to conditions to ensure the detailed design and construction of SuDS elements conforms with the approved FRA, Drainage statement (Revision P05) and subsequent emails below. Recommended conditions (two) below.

SUDS1 – Pre-approval and implementation of sustainable drainage measures

No development shall take place until details of sustainable drainage measures to manage surface water within the site have been submitted to and approved in writing by the Local Planning Authority.

These details shall:

- a) Incorporate the implementation of Sustainable Drainage methods (SuDS) in accordance with the approved FRA and Drainage Statement, Non-Statutory Technical Standards for SuDS (2015), the SuDS Manual C753 (2015) and the WBC SuDS Supplementary Planning Document (2018) with particular emphasis on Green SuDS and water re-use.
- b) Include flood water exceedance routes (low flow, overflow and exceedance routes), both on and off site;
- c) Include full information of catchments and flows discharging into and across the site and how these flows will be managed and routed through the development and, where the flows exit the site, both pre-development and post-development information must be provided;
- d) Demonstrate that proposed finished floor levels are set in accordance with Environment Agency Standing Advice on flooding (<u>https://www.gov.uk/guidance/flood-risk-assessment-standing-advice</u>) and BS8533;
- e) Include a detailed drainage strategy for surface water run-off within the site including attenuation measures and limiting discharge to the agreed rate;
- f) Include and be informed by a ground investigation survey which establishes the soil characteristics, infiltration rate and groundwater levels. Soakage testing shall be undertaken in accordance with BRE365 methodology;

- g) Include run-off calculations based on current rainfall data models, discharge rates (based on 1 in 1 year greenfield run-off rates), and infiltration and storage capacity calculations for the proposed SuDS measures based on a 1 in 100 year storm +40% for climate change;
- h) Include construction drawings, cross-sections and specifications of all proposed SuDS measures within the site;
- i) Include pre-treatment methods to prevent any pollution or silt entering SuDS features or causing any contamination to the soil, groundwater, watercourse or drain;
- j) Ensure permeable paved areas are designed and constructed in accordance with manufacturers guidelines if using a proprietary porous paved block system; otherwise ensure any permeable areas are constructed on a permeable sub-base material, such as MoT/DoT Type 3;
- k) Include written confirmation from Thames Water of their acceptance of the discharge from the site into the surface water sewer and confirmation that the downstream sewer network has the capacity to take this flow;
- Include a management and maintenance plan showing how the SuDS measures will be maintained and managed after completion for the lifetime of the development. This plan shall incorporate arrangements for adoption by the Council, Water and Sewage Undertaker, Maintenance or Management Company (private company or Trust) or individual property owners, or any other arrangements, including maintenance responsibilities resting with individual property owners, to secure the operation of the sustainable drainage scheme throughout its lifetime. These details shall be provided as part of a handover pack for subsequent purchasers and owners of the property/premises;
- m) Include details of how surface water will be managed and contained within the site during construction works to prevent silt migration and pollution of highway drainage, sewers and land either on or adjacent to the site;

The above sustainable drainage measures shall be implemented in accordance with the approved details before the use hereby permitted is commenced in accordance with a timetable to be submitted and agreed in writing with the Local Planning Authority as part of the details submitted for this condition. The sustainable drainage measures shall be maintained and managed in accordance with the approved details thereafter.

Reason: To ensure that surface water will be managed in a sustainable manner; to prevent the increased risk of flooding; to improve and protect water quality, habitat and amenity and ensure future maintenance of the surface water drainage system can be, and is carried out in an appropriate and efficient manner. This condition is applied in accordance with the National Planning Policy Framework, Policy CS16 of the West Berkshire Core Strategy (2006-2026), Part 4 of Supplementary Planning Document Quality Design (June 2006) and SuDS Supplementary Planning Document (Dec 2018). A pre-condition is necessary because insufficient detailed information accompanies the application; sustainable drainage measures may require work to be undertaken throughout the construction phase and so it is necessary to approve these details before any development takes place.

Additional post construction condition:

The proposed development shall not be brought into use unless the following conditions are satisfied:

a) Include a verification report carried out by a qualified drainage engineer demonstrating that the drainage system has been constructed as per the approved scheme (or detail any minor variations thereof), to be submitted immediately following construction to be approved by the Local Planning Authority. This Report shall include plans and details of all key drainage elements (surface water drainage network, attenuation devices/areas, flow restriction devices and outfalls) and details of any management company managing the SuDS measures thereafter.

Reason: To ensure that surface water will be managed in a sustainable manner; to prevent the increased risk of flooding; to improve and protect water quality, habitat and amenity and ensure future maintenance of the surface water drainage system can be, and is carried out in an appropriate and efficient manner. This condition is applied in accordance with the National Planning Policy Framework, Policy CS16 of the West Berkshire Core Strategy (2006-2026), Part 4 of Supplementary Planning Document Quality Design (June 2006) and SuDS Supplementary Planning Document (Dec 2018). A pre-condition is necessary because insufficient detailed information accompanies the application; sustainable drainage measures may require work to be undertaken throughout the construction phase and so it is necessary to approve these details before any development takes place.

Regards,

Paul Bacchus

Paul Bacchus Principal Engineer (Drainage and Flood Risk) Environment Department West Berkshire Council Market Street Newbury Berkshire RG14 5LD 01635 503938 | Ext 3938 | paul.bacchus1@westberks.gov.uk www.westberks.gov.uk

From: Matthew Shepherd <<u>Matthew.Shepherd@westberks.gov.uk</u>>
Sent: Wednesday, March 6, 2024 11:14 AM
To: Paul Bacchus <<u>Paul.Bacchus1@westberks.gov.uk</u>>
Subject: FW: 4508 Eagle Quarter II - Drainage Strategy- 23/02094/FULMAJ

Hi Paul,

Have you been able to review this matter?

Kind Regards

Matthew Shepherd Senior Planning Officer Development & Regulation West Berkshire Council Market Street, Newbury, RG14 5LD 01635 519583 | Matthew.Shepherd@westberks.gov.uk www.westberks.gov.uk

From: Jonathan GOLD <<u>jonathan.gold@robertbird.com</u>> Sent: Monday, February 26, 2024 2:26 PM To: Paul Bacchus <<u>Paul.Bacchus1@westberks.gov.uk</u>> Cc: Rudra Rhodes <<u>Rudra@lochailort-investments.com</u>>; Sarah Ballantyne-Way <<u>Sarah@lochailort-investments.com</u>>; Hugo Haig <<u>hugo@lochailort-investments.com</u>>; Matthew Shepherd <<u>Matthew.Shepherd@westberks.gov.uk</u>>; Natasha Brown <<u>Natasha.Brown@robertbird.com</u>> Subject: RE: 4508 Eagle Quarter II - Drainage Strategy

This is an EXTERNAL EMAIL. STOP. THINK before you CLICK links or OPEN attachments.

Good afternoon, Paul,

Did you have any further comments on the information below, or are you satisfied with the revised flow rate of 155 l/s (1:100 year storm +40%)?

Regards,

Jonathan Gold

Level 1, 47-51 Great Suffolk Street Southwark, London, SE1 0BS, United Kingdom Phone: +44 20 7633 2880 Mobile: +44 7703 818834 Website: www.robertbird.com



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From: Jonathan GOLD

Sent: Wednesday, February 7, 2024 12:06 PM

To: Paul Bacchus <<u>Paul.Bacchus1@westberks.gov.uk</u>>

Cc: Rudra Rhodes <<u>Rudra@lochailort-investments.com</u>>; Sarah Ballantyne-Way <<u>Sarah@lochailort-investments.com</u>>; Hugo Haig <<u>hugo@lochailort-investments.com</u>>; Matthew Shepherd <<u>Matthew.Shepherd@westberks.gov.uk</u>>; Natasha Brown <<u>Natasha.Brown@robertbird.com</u>> Subject: 4508 Fagle Quarter II. Drainage Strategy

Subject: 4508 Eagle Quarter II - Drainage Strategy

Dear Paul,

Following our meeting on 30th January 2024 to discuss the Eagle Quarter II Drainage Strategy, we have re-run our MicroDrainage model to explore ways of further reducing the surface water discharge rates.

By adjusting the Hydrobrake controls and maximising the surcharge within the tanks during the 1:100 +40% storm (ie. setting the water level at top of tank), we have been able to reduce the total discharge rate from 185 l/s to 155 l/s. This doesn't quite meet

the target of 50% of 1:2 year flow that you suggested, but it does reflect an 80.8% reduction in the 1:100 year flow, which is significantly better than the 50% reduction in 1:100 year flow that was agreed at the pre-application stage.

Please find attached a copy of the MicroDrainage results for the critical storms.

These results are summarised in the table below.

	L/S							
Storm event	Outfall 1 existing	Outfall 2 existing	Outfall 3 existing	Total	Outfall 1 proposed	Outfall 2 proposed	Outfall 3 proposed	Total
1:2	111.7	144.3	19.3	275.3	22.7	21.1	N/A	43.8
1:30	236.1	335.1	47.2	618.4	64.7	51.4	N/A	116.1
1:100	262.3	484.7	60.5	807.5	N/A	N/A	N/A	N/A
1:100 + 40%	N/A	N/A	N/A	N/A	98.3	56.7	N/A	155

*Reduction from 1:100 to 1:100 +40% CCA

Trust this is acceptable and look forward to hearing from you.

Regards,

Jonathan Gold



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