

Our Ref: 7476/LRW/kc

Date 13th February 2024

Lead Local Flood Authority
Surrey County Council

For the attention of: Amey Rodwell

By Email

Dear Amy

Re: **Land rear of Chicane and Quintons, Ockham Road North, East Horsley, KT24 6PU** – Condition 8 Ref LLFA-GU-22-0445 Rev B

Further to the recent holding objection relating to the clearance of Condition 8 of the reserved matters planning approval for this site we enclose our response to queries along with supporting documentation.

8a. No comments

8b.

LLFA Comments

Calculations have been cross checked with the engineering layout and the following queries remain:
- Network 3 (NW Area) tanked permeable paving and swale not included in the model. It is noted that this provides further resilience in the design and slows the time of entry however Network 4 (SW Area) the tanked permeable paving has been included in the model. Please confirm why there are inconsistencies in the modelling approach between the areas.

WACL response

Network 3 has significantly more available storage in the three ponds than network 4. The pond size in network 4 is constrained by the layout and Stratford Brook and subsequently is working harder than the ponds in network 3. It was therefore necessary to review the exceedance flooding for network 4 and as a result the permeable paving etc was included in the model to show that it could be accommodated.

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8c.

LLFA comments

- i. Basin sections. No levels or development layout shown on drawing for context and to enable cross check with calculations. – Section lines not indicated.
- ii. Southern basin outfall location has now changed – no justification provided. Retained ditch / Swales appears to being filled in and moved in a southerly direction – not as indicated through planning.
- iii. Is the base of the low flow channel just below the inlet out/inlet invert levels or the area below this is to remain wet? Sections do not show inlet/outlets and not clear from labelling.
- iv. Concrete headwall details provided but some sandbag headwalls proposed. Detail required. What are the details for the outfalls to the main river and have these been agreed with the EA?
- v. Outlet headwalls (i.e. those into the flow control chambers) should have angled trash screens to protect the flow control and for ease of maintenance.
- vi. Can surface water be retained above ground for the east development area rather than in the cellular storage tank?
- vii. Pond 4 is indicated on the section drawing as being a dry pond base. The engineering drawing has the base hatched as if it will have a permanent water level. If it is a dry basin both Pond 1 and Pond 4 should include sediment forebays and low flow channels to promote flow through the pond and improve the habitat. It is unclear if the ponds are proposed to be planted with grass or will provide wider ecological benefits.
- viii. Trash screen comments has not been addressed above. A table with each of the proposed headwalls, the construction type, trash screen type, pipe size etc would present this information clearly and ensure the design is followed through to construction.
- ix. As above it is unclear why the eastern outfall (calcs Network 1) can not discharge to the ordinary watercourse. Why can surface water not be retained above ground opposite the commercial plot rather than in 2 crated areas. The outfall from the crates appears to be through retained trees – is this constructable? Alternatively, can storage be integrated with the existing retained pond in this location?
- x. SW Manholes AS7, AS21 and the gullies in front of plots 49-52 (and these areas in general) – confirm why the SW in these areas can not discharge to the swale where there are opportunities for losses through evapotranspiration and through vegetation. Only the 'lower' third of the swale has any surface water discharging to it?

xi. Adoptable Drainage Construction Details – Sheet 1 of 2 provided however no sheet 2 of 2 submitted.

WACL response

i. The development layout had been removed from the drawing for clarity. Context in regard to development layout and levels is provided on the engineering plans. However as requested the development layout has been added back to the plan along with the section markers.

ii. The southern basin outfall location was identified as being beneath the bridge. This would cause a clash with the pipe and bridge foundation and make access for maintenance difficult. Thames water would also not accept this. The outfall location was therefore moved south to a gap in the trees. This revised location does not affect the modelling or the working of the Stratford Brook and has been approved by the EA as part of the FRAP agreement.

iii. The low flow channels will sit below the inlet and outlets so will remain wet. Pond sections updated for clarity and reflect this.

iv. All basin inlet and outlet headwalls are to be precast concrete as noted on the basin drawing. Sandbag head walls are only used for the swale and ordinary watercourse and are noted accordingly on the engineering plans. We have updated the schedules to state which types they are. The outlet headwall to the main river are to be insitu cast as per Sewers for Adoption details and this has been submitted and agreed with the EA as part of the FRAP agreement.

v. All basin outlet headwalls have angled trash screens as noted on the section on drawing C7476/CE13E.

vi. We did consider the use of an above ground pond for the eastern network, however there is insufficient room available in this area due to tree constraints.

vii. Pond 4 is to have a low flow channel and this has been updated on the engineering plans and sections. Ponds are to be planted with a wet wildflower seed mix in line with the landscape details submitted at planning.

viii. Trash screens have been added to the outlet headwall as requested. We have updated the drainage schedules to indicate the type and detail of the headwalls as requested.

ix. The ordinary water course is not deep enough to drain the area in question. This would also go against the approved planning strategy where all discharge was to the Stratford Brook. Although before our time on the project, i also believe there were concerns by the residence at the planning stage in regard to flooding downstream of the ordinary watercourse. The route of the outfall has been carefully positioned to avoid trees and has been approved by Thames water. There is

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insufficient capacity in the existing pond, the area is severely constrained by trees and again the levels do not work.

x. The swale at 600mm deep does not have sufficient depth to accommodate the drainage from AS7 and AS21. There may have been scope to connect some gullies to the swale, however i believe these may have already been installed as per the current design, which does provide suitable levels of treatment. There were previously gullies located further up the swale however these have since been removed.

xii. Sheet 2 of 2 is provided with this response.

8d.

LLFA Comments

i. As requested above proposed external levels should be clearly indicated on the plan, this information has not been provided. The only proposed level information which has been included are the FFL'S. Do gardens all towards properties or any road / access levels fall towards entrances – are threshold/patio drains required?

WACL response

i. All external level are shown on the engineering plans and were omitted from the exceedance plans for clarity. As requested, we have added level sot the exceedance plan. All building FFLs are set 150mm above adjacent ground levels for DPC reasons and where falls are towards entrances channel drains or suitable drainage has been installed in accordance with building regulations.

8e.

LLFA comments

i. As requested above please include a drawing which clearly shows the areas and drainage assets within the site that the management company will be responsible.

ii. Has ordinary watercourse consent been granted for the amendments to the existing ditch within the site (relocated south to become a swale).

iii. Who will be responsible for the culvert, if this is SCC Highways, have they approved the detail here?

iv. The drainage Management plan drawing indicates the swale as being privately maintained but it is not clear by whom (management company-maintained SuDS features indicated for the ponds but

not the swale?). This conflicts with the conveyance plan which shows the swale in managed open space. OWC application has not been received for the relocation of the ditch (now shown as swale). V. We note an OWC application has been made for the culvert extension. It is unclear what or if there is a difference between plot owner maintained and privately maintained shared drainage runs such as in front of plots 106-110 shown as privately maintained – is this the management company or homeowner – this should be clearly differentiated on the plan at the moment they are all shown the same.

vi. Has EA consent been granted for the outfalls to the main river?

vi. Section 2.8 'Adoptions' lists 2no. headwall connections to the main river however 3 are proposed. The outfall for the eastern area is not listed under statutory water company although shown as adopted on the management plan drawing.

WACL responses

i. Ownership and management details are covered on the drainage management plan C7476/CE51A

ii. The ditch within the site (now swale) was not a watercourse and had no physical inlets or outlets to it. It was therefore considered to be just a field drain. As a result, no OWC consent application has been submitted.

iii. The ordinary water course culvert extension will be the responsibility of the management company.

iv. The swale will be maintained by the management company, there was an error on the colour of the hatching which has now been resolved on the updated drainage management plan attached.

v. Plot owner maintained, and privately owned drainage runs are the same and as such are coloured the same on the management plan. Only drainage adopted by Thames Water, or the management company is coloured separately.

v. The EA have approved the connections to the main river.

vi. The report has been corrected to state 3 no outfall headwalls.

We trust that you find the above acceptable, however would welcome the opportunity to discuss directly any remaining comments or queries you have in order to expedite the process.

I look forward to hearing from you in due course.

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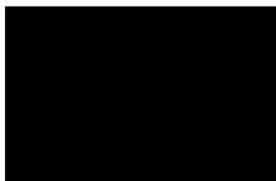
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