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Date: Friday, 15 November, 2019 11:48

Subject: Fw: Kingspark 17/00765/FULL - Flood Risk and Drainage Related Comments

Hi [REDACTED]

Further to my email below, and in connection with point 10, consideration must also be given to routing the drain/culvert bypass sewer around the edge of the land to the south of the site, and not through the middle of it.

regards,

[REDACTED]
Engineer
Infrastructure Team
City Development
Dundee City Council
Floor 6, Dundee House
Dundee
DD1 1LS
Tel (direct dial): [REDACTED]

-----Forwarded by [REDACTED]/CD/dundeecity on 15/11/2019 11:23AM -----

To: "[REDACTED]@persimmonhomes.com">
From: [REDACTED]/CD/dundeecity
Date: 14/11/2019 10:22AM
Cc: [REDACTED]/CD/dundeecity@dundeecity, [REDACTED]/CD/dundeecity@dundeecity, [REDACTED]@persimmonhomes.com>
Subject: Kingspark 17/00765/FULL - Flood Risk and Drainage Related Comments

[REDACTED]
Apologies the delay in responding.

Below are flood risk and drainage related comments on the above application which are based on my initial review of the information submitted up to 13/3/18 which included Millard Drainage Layout drawing 14325/02/001G and updated Microdrainage calculations/simulation results dated 8/3/18.

If the above drawing and calculations are not current then can you forward any updated information available.

Note that I have also still to fully review the Appeal Decision Notice dated 1/10/19 and will get back to you by the end of the week with any additional information required in relation to any flood risk or drainage related conditions.

1. Location and maintenance responsibility for cut-off drains to side slope located in southern part of site to be confirmed.
2. It is stated that the drainage associated with the development's access road to the north is to connect to the existing surface water drainage. Confirmation is required as to whether

this is ultimately connected to the existing Public sewer network or to the Gelly Burn. If connected to the existing Public Sewer then Scottish Water approval to connect will be required and evidence of this approval to be submitted.

3. Maintenance access arrangements to the SUDS basin to be confirmed along with evidence of Scottish Water agreement to the maintenance access proposals. Also refer to point 18 below.

4. Calculations/statement to be submitted to demonstrate that the attenuated surface water discharge from the development site to the Gelly Burn culvert (1.5l/s during the 1:30 year event plus allowance for climate change and 1.8l/s during the 1:200 year event plus allowance for climate change) will not increase flood risk elsewhere. If any other additional flow is to be introduced to the culvert/Gelly Burn (ie. from the cut off drainage to side slope in the southern part of the site, then calculations/statement to be submitted to demonstrate that this additional flow will not increase flood risk elsewhere.

5. Completed/signed DCC Flood Risk Assessment "Compliance" and "Independent Check" certificates still to be submitted.

6. I will consult my Legal Team to get advice on whether any consent is required by Persimmon Homes from the individual owners of the existing open drain/culverted sections within the properties located to the west of the development before the private watercourse within their property is diverted.

7. Ownership of the footpath south of 19 Clive Road (where the proposed drain/culvert bypass sewer is to be routed) to be clarified and evidence of any arrangement/approval required with the land owner should be submitted as part of the Planning Application.

8. Clarification required as to whether the planning application red boundary will need to be changed to include the proposed drain/culvert bypass sewer works. Planning Case Officer to confirm.

9. Proposed ownership/maintenance responsibilities of/for the proposed drain/culvert bypass sewer to be clarified and a Maintenance Schedule submitted.

10. The FRA, particularly pages 22, 23, 24 should be updated to reflect the current drain/culvert bypass sewer layout.

11. Clarification required as to whether the secondary culvert shown to run through the 19, 21, 23, 25 and 27 Clive Road properties is also to be connected to the proposed drain/culvert bypass sewer. The detail for connecting the culvert(s) to the proposed drain/culvert bypass sewer to be submitted.

12. No pedestrian access/egress to/from the eastern part of the development site (as recommended in the FRA) is shown as part of the current proposals. Clarification to be provided as to whether this is to be included to provide access/egress during potential flood events.

13. The updated Microdrainage calculations/simulation results do not appear to include the detention basin storage and this should be submitted.

14. Overland flow from the path to the east of the site onto Gillburn Road (to the east of the proposed SUDS basin shown Millard drawing 14325/02/001A) has been witnessed in the past. This has not been mentioned in the FRA and should be investigated and included in the FRA if appropriate.

15. Completed/Signed DCC Drainage Design Compliance and Independent Check Certificates to be submitted.

16. Evidence of compliance with the Simple Index Approach to be submitted.

17. Evidence of Scottish Water Technical Approval for proposed surface water drainage system to be submitted.

18. As previously advised and with reference to point 3 above, in the long term maintenance of the surface water drainage system is likely to be undertaken through a joint maintenance agreement between DCC and Scottish Water. This agreement will make Scottish Water responsible for desilting the SUDS feature, any inlet/outlet forebay cleaning and repairs/maintenance to engineering structures. Therefore evidence to be provide (in the form of swept path analysis) to demonstrate that a Scottish Water maintenance vehicle can access the SUDS feature. The Scottish Water maintenance vehicle type is currently a DAF CF400, FAS 6x2 (axle configuration), rigid, double mounted training axle, 11.97m long but this should be confirmed with Scottish Water. See below link to DAF website where the above vehicle specification sheet can be found using the above vehicle information.

<http://www.daf.co.uk/en-gb/trucks/specsheets-search-page>

It should be noted that if an access track is required around the full perimeter of the basin then this may have an impact on the layout of the surrounding area.

Completed/signed "Confirmation Of Future Maintenance Of Sustainable Drainage Apparatus" certificate also to be submitted.

regards,

[REDACTED]

Engineer

Infrastructure Team

City Development

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Floor 6, Dundee House

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