

From: RM Floods Planning
Sent: 28 May 2019 14:36:22 +0000
To: Mills, Penelope
Subject: FW: 2019-05-24 - DC/19/0834/RM, Land Ne Haverhill, Wilsey Road, Little Wratting - SH

FAO Penny Mills

**Reserved Matters Application - Submission of details under Outline Planning Permission DC/15/2151/OUT (Residential development of up to 2,500 units (within use classes C2/C3); two primary schools; two local centres including retail, community and employment uses (with use classes A1/A2/A3/A4/A5, B1 and D1/D2; open space; landscaping and associated infrastructure). Submission of details for the reserved matters access, landscaping, layout and scale for the Spine Road and associated strategic infrastructure to support the delivery of the first phase of development at Great Wilsey Park.
Land Ne Haverhill Wilsey Road Little Wratting Suffolk**

Please see SCC comments on the above application regarding dispose of surface water and all other surface water drainage implications.

SCC Position

SCC Flood & Water Management have reviewed the following documents:-

Drainage Strategy Package (27 items) [Ref:- various by Royal HaskoningDHV and dated April 2019]

Currently SCC Flood & Water Management recommend a holding objection at this time as the strategy does not comply with our local SuDS standards and national guidance (BS:8582 & Ciria SuDS Manual C753). Specifically the current drainage strategy for Area 4 (sub-catchments 4.1, 4.2 and 4.3) is not acceptable as it will increase flood risk in the downstream catchment. There is a logical layout for the SuDS components over the whole site but there are questions raised about their scale and appearance and a number of landscape and visual impact issues that need additional assessment before approval can be granted (i.e. use of above-ground bunded storage basins).

Specific Comments

Firstly the proposed greenfield runoff rates for whole site are satisfactory. The baseline rates for the 1, 30 and 100yr storms are acceptable (2l/s/ha, 5.31l/s/ha and 7.37l/s/ha respectively). Secondly the location of the site control SuDS are spot on, no issues with location of these, they are located in the lowest portions of the site.

A general concern across the site is how the basins function for both peak flow and volume control; although the max. depths of the detention basins are in compliance with local standards (max water levels are 1.575m and majority less than this still) there are a number of issues relating to the provision of volume control, please show on the basin drawings the allocations for Long Term Storage (LTS) and interception storage (i.e. depth of storage below outfall invert). Secondly a concern is the setup of the complex control manholes – it appears the current setup will allow LTS volumes to be discharged simultaneously with the attenuation storage up to the overflow control, therefore LTS won't be

restricted to a max. flow rate of q_{bar} at all times but the chambers head/flow relationship instead, this will be more noticeable in the more extreme events especially; thus doesn't comply with national standards (and why SCC promote separate basins for LTS). Please provide calculations for the various LTS volumes as well.

Area 1 - Plots 1 and 1.2 – Peak flow control rates are fine and there appears to be plenty of spare capacity (freeboard) in the SuDS basin at the current time – please retain this in case of changes in plot layout (i.e. changes to the PIMP) and general issues raised above. However please confirm side slopes, especially the northern slopes where cutting is deeper. As per general comments please provide evidence that LTS is being discharged at Q_{bar} during all storms? What is the water level associated with max. long term storage event? Please add the invert level of the outfall to the cross section drawings and hence the interception storage requirement.

*An alternative approach would have been to use a weir in the basin set to the max head associated with LTS+Q1 volumes, then the rest of basin would store Q30 and Q100 volumes using a second control – provided you could still outfall positively to the river and the second compartment doesn't backflow into the LTS component.

Area 2 – Plots 2.1 – 2.5 (Central Corridor) – controlled by a set of cascading basins – please confirm how seepage is going to be prevented through the new bunds and underneath them. Minor variation in area summary (7.13ha) to the strategy (7.29ha) – but as its less not too concerned. Again storage structures missing from the calcs. Final flows meet or are below greenfield which is good.

The best approach for this corridor would have been to provide a singular LTS basin where basin 2.1 currently is - with a connection to the watercourse and then excess runoff overflowing into basins 2.2 and 2.3 to be attenuated to greenfield. Again low confidence that LTS will be able to be discharge @ q_{bar} continuously during all storms for this current proposal.

The riverside slope of bund 2.3 is over 3.2m high, this raises concerns from a landscape and visual aspect. Generally all bunds along this central corridor could have a negative visual impact on the development and further assessment needs to be undertaken, with second opinion needed from West Suffolk's urban designer and landscape officer.

Area 4 – Plots 4.1, 4.2, 4.3 – Assume Area 3 denoted on the hydrology table is a collation of all areas numbered 4? On the strategy drawings please split or colour code each contributing area for each sub area accordingly to match the hydrology table. Major concern with Flow Control Chamber S4.72 - its allowing considerable overflow to occur during the 30yr and 100yr storms – this is not acceptable and must be revised so that only greenfield runoff rates are leaving the site here. This could have a major effect on the overall size of the SuDS components for this sub-catchment and whether enough space is available. For ease please provide hydraulic calcs separately for each area (4.1, 4.2 and 4.3). Again the issues raised above for Area 1 and 2 are applicable – i.e. no storage structures in calcs, proof of LTS etc etc.

Area 5 and 6 - what is the design philosophy for these areas, the outfall locations are shown put how is attenuation storage/LTS/interception provided? 1yr greenfield flow not met for Area 5 and flooding in the 30yr storm for Area 6 – not acceptable.

Additional Comments:-

- Please add to the 'drainage network' drawings a line denoted the centre of the channel for the main watercourse.
- The layout of the conveyance swales appears satisfactory in Area 2 but please confirm longitudinal gradients and projected flow velocities?

King Regards

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SCC's Local SuDS Guide has been updated! If you're involved in the planning, design and construction of new developments this may be of interest to you. You will be expected to comply with this new local guidance. More information can be found here; <https://www.suffolk.gov.uk/roads-and-transport/flooding-and-drainage/guidance-on-development-and-flood-risk/>

-----Original Message-----

From: planning.help@westsuffolk.gov.uk <planning.help@westsuffolk.gov.uk>
Sent: 26 April 2019 15:35
To: RM Floods Planning <floods.planning@suffolk.gov.uk>
Subject: Planning Consultation - DC/19/0834/RM, Land Ne Haverhill, Wilsey Road, Little Wratting - PM

Planning consultation Please see attached

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