



Lead Local Flood Authority Response in respect of M/23/01711/OUT - Outline planning permission for up to 55 dwellings (with means of access to the site be considered at this stage and all other matters reserved) at Land At (Os 7500 5952), Berrow Green Road, Martley

Statutory obligations

These comments represent those of Worcestershire County Council as the Lead Local Flood Authority (as determined by the Flood and Water Management Act 2010) and are officer comments only.

The LLFA have reviewed the submitted information relating to surface water drainage only; South Worcestershire Land Drainage Partnership will provide comments in relation to flood risk.

Introduction

This application is for the development of 55 dwellings and associated infrastructure on 3.86ha of predeveloped greenfield land. The total proposed impermeable area is 1.49ha.

Drainage hierarchy

Discharging surface water from the site has been considered in accordance with the drainage hierarchy. In accordance with the drainage hierarchy and Box 1.2 of the Ciria SuDS manual (C753), rainwater harvesting should be the first means of surface water discharge which is entirely appropriate for this development type with the use of water butts. Please include water butts in further plans. Infiltration testing at the BRE 365 standard has not been proposed and will need to be conducted to confirm if infiltration SuDS are unfeasible as a surface water discharge method. If tests find infiltration to be feasible, surface water discharge via infiltration SuDS will be expected within the drainage network. There is an existing open watercourse (ditch) parallel to the eastern boundary, current proposals are to discharge surface water to this ditch. The ditch doesn't appear to lead anywhere and may not be suitable for an outfall. Further details need to be submitted clarifying the condition, ownership and where the ditch leads to. If the ditch leads to a culverted watercourse or drain, the condition of the pipework and able capacity will need to be confirmed along with any remedial works needed.

Calculations

The greenfield runoff rate (Q_{bar}) has been calculated at 4.3l/s for the site and the proposed discharge rate is 4.75l/s up to the 1:100-year return period (1% AEP) + 40% climate change (CC) uplift. Why is the proposed discharge rate higher than Q_{bar} , please justify this. The total attenuation storage proposed for the impermeable area

is 1,486m³ up to the 1%AEP + 40% CC. There are no drainage calculations in the appendix to review.

SuDS design

The site will be split into two catchments, each draining via pipework to two separate attenuation ponds. The ponds are appreciated as above ground SuDS are favoured by the LLFA. Please could detailed drainage designs show the permanently wetted pond area and include a staged base, shelves, and informal design to adhere to the SuDS objectives. Where water volume considerations reduce flood risk, water quality is restored, and biodiversity and amenity value are enhanced. These objectives can be achieved through a SuDS design distributed around the entire site, where interception and storage are as close to the source of rainfall as possible and conveyance with treatment is above ground before entering the pond. The LLFA prefers two stages of treatment in the SuDS train, please consider the addition of further SuDS. SWDP 29-B. states *"Lack of space, prohibitive costs, inadequate infiltration and land contamination will not be accepted as reasons for not including SuDS. Given the wide range of SuDS techniques available, there is a sustainable drainage solution to suit all sites."*

Water treatment

A water treatment appraisal in line with the Ciria simple index approach will need to be completed and show the mitigation of all pollution hazards on site.

Exceedance flow route

Exceedance flow route drawings are not within the appendix as stated. An exceedance flow route drawing, demonstrating site wide flows will not be directed to properties or private land and will be directed to roads and areas of POS will need to be submitted in further plans.

Maintenance

SuDS maintenance details are satisfactory in principle. A detailed maintenance plan including a schedule for all drainage assets, who will provide the maintenance and how the maintenance of drainage assets in private ownership will be communicated to private landowners, will need to be submitted in further plans.

Conclusion

It is not known if the site will be suitable for infiltration SuDS and the only other way to drain the site is to a roadside ditch which appears to be disconnected from other watercourses. The flow route of the ditch, if any, and capacity need to be confirmed before any conditions or approval can be recommended. This is to ensure there is a

viable method for draining the site. All appendices are missing from the FRA/DS, please can these be amended. I would like to place a holding objection until the details requested have been submitted and approved by the LPA.

Jason Trueman
For the Lead Local Flood Authority
