

## DRAINAGE & FLOOD RISK CONSULTATION

**PROJECT: A29 Realignment: Land to the north of Eastergate and north-west of Barnham, PO22 0DF.**

**Reference: WSCC/052/20**

**Recommendation: No Objection subject to Condition.**

**Date: 7 June 21**

### References:

- A. Comments from the Lead Local Flood Authority (LLFA) on the FRA for Proposed A29 Realignment January 2019.
- B. Flood Risk Assessment for A29 realignment dated October 2020.
- C. WSP Memo: A29 Realignment Phase 1 Drainage dated 24 October 2019.
- D. West Sussex LLFA Policy for the Management of Surface Water  
[https://www.westsussex.gov.uk/media/12230/ws\\_llfa\\_policy\\_for\\_management\\_of\\_surface\\_water.pdf](https://www.westsussex.gov.uk/media/12230/ws_llfa_policy_for_management_of_surface_water.pdf)
- E. Appendix E: Drainage Design and Road Alignment Provided by Capita / Jackson.
- F. WSCC LLFA response dated 18 January 20.
- G. WSCC LLFA response dated 26 May 21.

## 1 INTRODUCTION

- 1.1 West Sussex County Council (WSCC) Lead Local Flood Authority (LLFA) has been consulted on the above proposed development in respect of drainage & flood risk.
- 1.2 This response should be viewed in the context of the LLFA's earlier formal responses to the Planning Application made in January 2019 (Reference A), January 2020 (Reference F) and 26 May 21 (Reference G).
- 1.3 It should be noted that the LLFA has provided input to the design process through attendance at project meetings over the past three years. As per the response provided in January 2020 (Reference F) the LLFA is supportive of the drainage strategy for the above scheme.

## 2 FLOOD RISK

- 2.1 The LLFA largely concurs with the assessment of flood risk set out in the FRA dated October 2020 (Reference B).

- 2.2 The risk of flooding from groundwater sources at the site is therefore considered to be Medium-High (paragraph 4.5.4 of Reference B). The risk of flooding from pluvial / overland flows changes across the geographical extent of the scheme. The southernmost point of the site, has a low risk (between 0.1% and 1% annual exceedance probability); the western most point of the site has a medium (between 1% and 3.3% AEP) and high (greater than 3.3%) risk of flooding from surface water following the route of Fontwell Avenue (paragraph 4.4.1 of Reference B).
- 2.3 As a discrete impermeable linear structure, in order to satisfy the requirement of no increase in flood risk elsewhere, the realigned A29 effectively has to manage the run-off associated with a 1:100 storm event plus 40% allowance for climate change and demonstrate this through approved run-off and attenuation storage calculations. Additionally, the routing / design of the road must be such that it doesn't either impede existing flow routes or generate new flow routes so as to adversely affect people / property upstream or downstream. Overland flow routes were specifically identified as a potential flood risk issue as part of the design process (paragraph 6.2.9 of the FRA, Appendix 11.1).
- 2.4 Two CCTV condition surveys were carried out along Barnham Road to confirm the state of existing drainage. The surveys identified issues in the pipe work and the need for further works noting *that if the faults of and the obstruction in the pipes are not fixed then this will be a potential flood risk issue* (para 6.2.15). A number of the observations were classed as grade 5 defects requiring urgent action to prevent total failure.
- 2.5 The LLFA stresses that its position of **no objection is subject to a condition that the proposed works are not to be undertaken without the existing drainage defects being addressed either prior to commencement or as an integral part of the construction works.**

### 3 RECOMMENDATION

- 3.1 It is recommended that the works are approved subject to the following conditions:
- I. The proposed works are not to be undertaken without the existing drainage defects in Barnham Road (as identified by the CCTV survey plan and Report) being addressed either prior to commencement or as an integral part of the construction works. Completion of such works need to be verified by a post repair CCTV survey.  
**Reason:** to ensure no increased risk of flooding as a consequence of the new development.
  - II. Immediately following implementation of the approved surface water drainage system and prior to occupation of any part of the development, the developer/applicant shall provide West Sussex Highways Authority with as-built drawings of the implemented scheme together with a completion report prepared by an independent engineer that confirms that the scheme was built in accordance with the approved drawing/s and is fit for purpose. The scheme shall thereafter be maintained in perpetuity.  
**Reason:** to ensure that the proposed development is capable of being satisfactorily maintained and drained in accordance with LLFA SuDS Policy 6.

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West Sussex Lead Local Flood Authority

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7 June 2021