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Lead Local Flood Authority

Date 11th May 2023

James Appleton
Local Planning Authority
Planning and Development
Adur & Worthing Councils
Portland House
Richmond Road
Worthing
BN11 1HS

Dear James,

RE: **AWDM/0270/23 – Land East of Shadwells Road At Marsh Barn Estate, Marsh Barn Lane, Lancing, West Sussex**

Thank you for your consultation on the above site, received on 1st March 2023. We have reviewed the application as submitted and wish to make the following comments.

The applicant is applying to discharge the surface water drainage condition (Condition 9), construction environmental management plan (Condition 12), buffer zone (Condition 13), watercourse management plan (Condition 14) and ditch works (Condition 15). This is related to Phase 2 of the New Monks Farm allocated site within the Adur Local Plan 2017.

We have **no objection** to the information submitted in relation to Condition 13 and 14.

We **object** to the information submitted in relation to Condition 9, 12 and 15.

We object to this planning application in the absence of an acceptable information relating to:

- The documents are not in accordance with NPPF, PPG Flood risk and coastal change (Aug 2022) or local policies.

Reason
To prevent flooding in accordance with National Planning Policy Framework paragraph 167, 169 and 174 by ensuring the satisfactory management of local flood risk, surface water flow paths, storage and disposal of surface water from the site in a range of rainfall events and ensuring the SuDS proposed operates as designed for the lifetime of the development.

We will consider reviewing this objection if the following issues are adequately addressed:

1. A Cv value of 0.75 is currently being used in MicroDrainage calculations, which means that not all the water within the catchment is draining into the proposed drainage system. A Cv value of 1 should be used instead for all calculations in all documents.
2. The modelling is currently using FSR which has been superseded and should not be used as underestimates the volume of water that may affect the site. FEH 2013 is required to used for all calculations in all documents.
3. The calculations for Qbar, calculated by previous consultants, are not included in any of the documents within this application. We request confirmation of discharge rates from each discharge location and the calculations for Gbar/greenfield runoff rates.
4. Calculations for a 1 in 1 year and 1 in 30 year event modelled storms.
5. In the CEMP there is a comment about a surface water management company supported by the LLFA. Can we have further clarification/details on this please?
6. The Marsh Barn Lane cycle/footway culvert could cause backing up. We request confirmation that the design will not increase flood risk elsewhere. Could a clear span bridge be used instead of a culvert?
7. The calculations should include all storm durations available in the software.
8. Although the ordinary watercourses are tidally influenced, they have a finite capacity. This must be considered when finalising discharge rates, to ensure flood risk is not increased elsewhere (upstream or downstream).

Erection of flow control structures or any culverting of an ordinary watercourse requires consent from the appropriate authority, which in this instance is West Sussex County Council. It is advised to discuss proposals for any works at an early stage of proposals.

In December 2022 it was announced FEH rainfall data has been updated to account for additional long term rainfall statistics and new data. As a consequence, the rainfall statistics used for surface water modelling and drainage design has changed. In some areas there is a reduction in comparison to FEH2013 and some places an increase (see FEH22 - User Guide (hydrosolutions.co.uk)). Any new planning applications that have not already commissioned an FRA or drainage strategy to be completed, should use the most up to date FEH22 data. Other planning applications using FEH2013 rainfall, will be accepted in the transition period up to the 1st April 2024. This includes those applications that are currently at and advanced stage or have already been submitted to the Local Planning Authority. For the avoidance of doubt the use of FSR and FEH1999 data has been superseded by FEH 2013 and 2022 and therefore, use in rainfall simulations are not accepted.

Yours sincerely,
Flood Risk Management Team

Annex

The following documents have been reviewed, which have been submitted to support the application;

- Cover Letter, by Cala Homes, dated 21st February 2023.

Condition 9:

- Construction Details-Drainage, by The Civil Engineering Practice, 12/10/2022, rev A
- Construction Details-Headwall, by The Civil Engineering Practice, Feb 2022,
- Construction Details-Surface Finishes-Private, by The Civil Engineering Practice, Feb 2022
- Network 1 calculations for residential drainage, by The Civil Engineering Practice, 23/9/2022, v 1.4
- Network 10 calculations for residential drainage, by The Civil Engineering Practice, 14/12/2022, v 1.9
- Network 11 calculations for residential drainage, by The Civil Engineering Practice, 8/11/2022, v 1.6
- Network 2 calculations for residential drainage, by The Civil Engineering Practice, 2/9/2023, v 1.3
- Network 3 calculations for residential drainage, by The Civil Engineering Practice, 29/9/2022, v 1.5
- Network 4 calculations for residential drainage, by The Civil Engineering Practice, 8/11/2022, v1.6
- Network 6 calculations for residential drainage, by The Civil Engineering Practice, 8/11/2022, v 1.6
- Network 6 calculations for residential drainage, by The Civil Engineering Practice, 10/2/2023, v 2.0
- Private Surface Water Manhole Schedules-Sheet 1, by The Civil Engineering Practice, 13/2/2023, Rev E
- Private Surface Water Manhole Schedules-Sheet 2, by The Civil Engineering Practice, 13/2/2023, Rev A
- Site Layout-Proposed Drainage-Sh1, by The Civil Engineering Practice, 13/02/2023, Rev E
- Site Layout-Proposed Drainage-Sh10, by The Civil Engineering Practice, 13/02/2023, Rev C
- Site Layout-Proposed Drainage-Sh2, by The Civil Engineering Practice, 13/02/2023, Rev E
- Site Layout-Proposed Drainage-Sh3, by The Civil Engineering Practice, 13/02/2023, Rev F
- Site Layout-Proposed Drainage-Sh4, by The Civil Engineering Practice, 13/02/2023, Rev A

- Site Layout-Proposed Drainage-Sh5, by The Civil Engineering Practice, 13/02/2023, Rev A
- Site Layout-Proposed Drainage-Sh6, by The Civil Engineering Practice, 13/02/2023, Rev E
- Site Layout-Proposed Drainage-Sh7, by The Civil Engineering Practice, 13/02/2023, Rev B
- Site Layout-Proposed Drainage-Sh8, by The Civil Engineering Practice, 13/02/2023, Rev A
- Site Layout-Proposed Drainage-Sh9, by The Civil Engineering Practice, 13/02/2023, Rev E
- Surface Water Manhole Schedules-Sheet 1, by The Civil Engineering Practice, 13/2/2023, Rev K
- Surface Water Pipe Schedules, by The Civil Enginering Practice, 13.2.2023, rev G

Condition 12:

- CALA Homes Construction Environmental Management Plan (CEMP), by CALA Homes, 7/1/2020, Version 003

Condition 13:

- Country Park Planting Plan 01, by Hyland Edgar Driver, 1/6/2017, revision 00
- Country Park Planting Plan 02, by Hyland Edgar Driver, 1/6/2017, revision 00
- Country Park Sections 01, by Hyland Edgar Driver, 2/6/2017, revision 00.
- Country Park Sections 02, by Hyland Edgar Driver, 1/6/2017, revision 00
- Country Park Sections 03, by Hyland Edgar Driver, 1/6/2017, revision 00
- Country Park Sections 04, by Hyland Edgar Driver, 1/6/2017, revision 00
- Country Park Sections 05, by Hyland Edgar Driver, 1/6/2017, revision 00
- Guard Rail Detail, by Hyland Edgar Driver, 1/6/2017, Rev 00.
- Construction Method Statement, by O'Halloran & O'Brien Ltd., 1/12/2022, revision 1
- Seed & Shrub Planting Schedule, by Hyland Edgar Driver, 1/6/2017, Rev 00.
- Strategy and Specification for Landscape Maintenance, by Hyland Edgar Driver, 23/03/2020, Rev 03.
- Watercourse and Flood Defence Bund Management Plan, by The Civil Engineering Practice, 31.3.2020, issue 1.5
- Watercourse Buffer Zone Sheet 1 of 3, by The Civil Engineering Practice, 23.03.2020, rev E
- Watercourse Buffer Zone Sheet 2 of 3, by The Civil Engineering Practice, 23.03.2020, rev E
- Watercourse Buffer Zone Sheet 3 of 3, by The Civil Engineering Practice, 23.03.2020, rev E

Condition 14:

- Watercourse and Flood Defence Bund Management Plan, by The Civil Engineering Practice, 31.3.2020, issue 1.5

Condition 15:

- 1-207 Proposed Volumes-Southern Ditches, by The Civil Engineering Practice, Feb 2020.
- A27 Highway Drainage Headwall 6/1, by The Civil Engineering Practice, 25.11.2019, rev D
- A27 Highway Drainage Headwall 6/1, by The Civil Engineering Practice, 22.10.2019, rev C
- Culvert 1 Headwalls, by The Civil Engineering Practice, 22.10.2019, rev D
- Culvert 1 Intermediate Unit, by FP McCann, 22.10.2019, P01
- Culvert 1 Stop Log Detail, by Althon Limited, 12/11/2019
- Culvert 2 Headwalls, by The Civil Engineering Practice, 22.10.2019, rev D
- Culvert 2 Intermediate Unit, by FP McCann, 21.10.2019, P01
- Culvert 3, by The Civil Engineering Practice, 8.10.2019, rev E
- Culvert 4, by The Civil Engineering Practice, 6.10.2019, rev D
- Culvert 5, by The Civil Engineering Practice, 6/10/2019, rev C
- Culvert 7, by The Civil Engineering Practice, 8.10.2019, rev D
- Culvert 8 Intermediate Unit, by FP McCann, 23.10.2019, P01.
- Culvert 8 Sheet 1 of 2, by The Civil Engineering Practice, 22.10.2019, rev C
- Culvert 8 Sheet 2 of 2, by The Civil Engineering Practice, 22.10.2019, rev D
- Culvert 8 Stop Log Detail, by Althon Limited, 12/11/2019
- Culvert 9, by The Civil Engineering Practice, 22.10.2019, rev C
- General Arrangement of Invert Culvert Headwall Culvert 2, by FP McCann, 29.11.2019, P01
- General Arrangement of Invert Culvert Headwall Culvert 9/1, by FP McCann, 29.11.2019, P01
- General Arrangement of Invert Culvert Headwall Culvert 9/2, by FP McCann, 29.11.2019, P01
- Proposed Culvert 2 Unit Layout, by FP McCann, 6/11/2019, P01.
- Reed Bed, by The Civil Engineering Practice, 22.10.2019, rev D
- Sedge Bed, by The Civil Engineering Practice, 19.12.19, Rev F
- Surface Water Drainage Detailed Design and Water Quality Treatment Summary, by The Civil Engineering Practice, 5/2/2020, issue 1.1
- Watercourse 1, Sheet 1 of 3, by The Civil Engineering Practice, 19.12.19, rev G.
- Watercourse 1, Sheet 2 of 6, by The Civil Engineering Practice, 22.10.19, rev G
- Watercourse 1, Sheet 3 of 6, by The Civil Engineering Practice, 22.10.19, rev G
- Watercourse 1, Sheet 4 of 6, by The Civil Engineering Practice, 22.10.19, rev G
- Watercourse 1, Sheet 5 of 6, by The Civil Engineering Practice, 8.10.19, rev F
- Watercourse 1, Sheet 6 of 6, by The Civil Engineering Practice, 11.10.19, rev E
- Watercourse 2, Sheet 2 of 2, by The Civil Engineering Practice, 22.10.19, rev D.

- Watercourse 3, Sheet 1 of 2, by The Civil Engineering Practice, 22.10.19, rev D.
- Watercourse 3, Sheet 2 of 2, by The Civil Engineering Practice, 22.10.19, rev D.
- Watercourse 4, Sheet 1 of 2, by The Civil Engineering Practice, 22.10.19, rev D
- Watercourse 4, Sheet 2 of 2, by The Civil Engineering Practice, 22.10.19, rev D
- Watercourse 5, Sheet 1 of 2, by The Civil Engineering Practice, 22.10.19, rev E
- Watercourse 5, Sheet 2 of 2, by The Civil Engineering Practice, 22.10.19, rev D
- Watercourse 6, by The Civil Engineering Practice, 22.10.2019, rev D
- Watercourse and Flood Defence Bund Management Plan, by The Civil Engineering Practice, 31.3.2020, issue 1.5