Planning Response

Flosh Meadows Cleator The Meadows (SR12, SR12A, Top Meadows) 4/22/2092/001, 4/21/2554/0R1, 4/22/2255/DOC

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Client: Lakeland Associates (Cleator) Limited

Revision C



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1.00 Planning response

1.01 Context

The following text sets out Coast Consulting Engineers formal response to comments received relating to a proposed residential development adjacent to Flosh Meadows, Cleator, dated 08 July 2022. The comments relate to the entire development.

2.00 LLFA comments

There are a few fundamental outstanding matters which if you can explain satisfactorily I think we might be able to reach an agreeable strategy:

2.01 **LLFA comment** - Regarding the 'mill races'. Despite what you say in the report and the sketch plan, I have studied the topography and old OS maps and can see no evidence of there being a mill that these could feed, nor a watercourse that could feed these races. It is clear from old OS maps that the two mills just off the River Ehen were fed from mill races placed just above weirs as is normal for mills. So I think we will have to agree to disagree that these are mill races. They are more likely part of the land drainage system to drain the clay soil and improve the ground. In which case these would become riparian ownership drains or watercourses.

Coast response – For reference, we have previously designed a full drainage scheme based upon surface water discharging to an adjacent UU combined sewer at a restricted rate of 5 litres/sec, set by UU.

Following many discussions between the developer, Homes England, the developers legal team, UU and the LLFA it has been agreed to discharge surface water from the proposed development to the on site mill race/watercourse. Qbar for the development is set at approximately 32 litres/sec, therefore the drainage strategy has been updated to take account of the increased discharge rate. The scheme is designed to discharge 32 litres/sec for all events up to and including the 100-year event with a 50% allowance for climate change.



2.02 **LLFA comment** - You state that the field drains via land drains to the culverts at present, so in principle, the land should continue to do so in the proposed design. However, having looked at the invert and cover levels more closely, the relatively flat topography and shallow culvert might be problematic for a gravity solution whilst maintaining cover. You state ' Furthermore, a number of exercises have been completed to prove that a connection to a nearby surface water network cannot be achieved without the use of a surface water pump. '. You are correct - we would not accept a SW pumped solution so understanding the constraints for a route to an existing SW system is crucial. Apart from the drainage long sections and option A and Option B design plans, is there any other information I should be reviewing? If we are satisfied that a gravity solution to the watercourse or existing SW drains is not practicable, or viable, then the proposed option would be the next available option in the hierarchy.

Coast response – This comment is no longer applicable.

2.03 **LLFA comment** - Can you send me the impermeable surfaces drawing showing the contributing areas to the surface water drainage system.

Coast response – Impermeable areas plan enclosed within the DS document.

2.04 **LLFA comment** - For the sake of clarity and simplicity can you also include a HR Wallingford storage calculation overview for the whole site (or split it into two as necessary) and show the storage volumes for the crates and over-sized carrier drains. I note you have done the HR Wallingford Greenfied Run-off rate calculations and that is really useful.

Coast response – HR Wallingford calculations enclosed.

2.05 **LLFA comment** - I don't quite understand the four sections of filter drains for draining the road on the southern meadow layout. The LHA would not want the added burden of filter drains and I can't see why these sections of road cannot drain into the SW carrier drain. Please explain or remove.

Coast response – The filter drains were still included from the original proposal to discharge to the mill race. They have now been removed.

2.06 **LLFA comment** - I note the alignment of the perimeter land drain through the gardens and that it does not cross under the road. However, I still have some reservations over the risk that this carries into the future

Coast response – It is intended to include information describing the purpose of the perimeter drainage within the homeowners pack. This will also include a maintenance schedule.

