

Arun Civic Centre
Maltravers Road
Littlehampton
West Sussex
BN17 5LP

23rd April 2021

Dear Sir/Madam,

Land to the south of Ford Lane, east of North End Road, Yapton
Application to Discharge Condition 11 (SuDS) of approved consent Y/80/16/OUT.

Please find enclosed an application for the discharge of condition 11 of approved consent Y/80/16/OUT for the construction of a residential development, comprising 3.4 hectares of land for up to 100 dwellings at Land south of Ford Lane, east of North End Road, Yapton. The condition requires the submission of details relating to the implementation, maintenance and management of the sustainable drainage scheme.

The following plans and documentation has been submitted in support of this application:

- Application Form;
- Drainage Statement; and
- Management and Maintenance Manual.

This application has been submitted following the refusal of discharge of conditions application Ref: Y/133/20/DOC and Y/26/21/DOC.

Following the most recent refusal, a meeting was held with Redrow Homes, Odyssey Consult, Michael Eastham (Arun DC Principal Planning Officer) and Roger Spencer (Arun DC Engineering Services Manager) on 6th April 2021. In the meeting it was agreed that Condition 11 does not require the submission of a detailed drainage scheme, instead it requests details for the implementation, maintenance and management of a sustainable drainage scheme, omitting the need for a number of details requested by the Council in the previously refused discharge of conditions applications.

The email trail attached to this letter sets out what previously requested information is no longer applicable, and what additional information is still required for the discharge of this condition. In response to these emails, the information submitted with this application includes the following:

- Updated catchment plan showing breakdown areas.
- Note added to drawings to confirm overflow pipes laid with no falls.
- Note added to standard detail and Management Plan showing depth of sump.
- Clarity on catch pits to be added to standard detail and Management Plan
- Label added to sections showing the geotextile on the drawings
- Note added to build route plan to confirm that no dwelling will be constructed prior to downstream drainage being installed.
- Note added to Maintenance Manual stating typical expected lifespan of product subject to maintenance. Note added to confirm CCTV surveys to check cellular conditions are to take place every 5 years.

- Note added to Management Plan confirming that the catchpits are fitted with a permafilter.
- Detail of headwalls added to standard detail.

Redrow have made a substantial effort to work with the Council despite the confusion over the requirements of the condition. I trust that the enclosed is sufficient for the discharge of this condition and fully accords with the requirements agreed between Redrow and Roger Spencer. We look forward to receiving confirmation that this condition has been discharged at your earliest convenience.

Yours faithfully,

Tilly Whishaw

Planner

Redrow Homes Ltd

Tilly Whishaw

From: Roger Spencer <[REDACTED]>
Sent: 09 April 2021 15:51
To: Ryan Saul
Cc: Michael Eastham; Robert Phelps; Simon Jane; Craige Burden; Luke Hart; Sam Gregory; Mitchell Garrington; Mike Dodds; Tilly Whishaw
Subject: RE: Land South of Ford Lane and East of North End Road

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THIS EMAIL ORIGINATED FROM AN EXTERNAL SOURCE.
CHECK THE EMAIL ADDRESS, AS IT MAY BE SPAM!

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Dear Ryan,

I can confirm that the **BOLD BLACK CAPITALS** reflects our discussion this afternoon.

Regards

Roger Spencer
Engineering Services Manager, Place



ARUN DISTRICT COUNCIL, Civic Centre, Mannavers Rd, Littlehampton, West Sussex, BN17 5LF
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From: Ryan Saul <[REDACTED]>
Sent: 09 April 2021 15:36
To: Roger Spencer <[REDACTED]>
Cc: Michael Eastham <[REDACTED]>; Robert Phelps <[REDACTED]>; Simon Jane <[REDACTED]>; Craige Burden <[REDACTED]>; Luke Hart <[REDACTED]>; Sam Gregory <[REDACTED]>; Mitchell Garrington <[REDACTED]>; Mike Dodds <[REDACTED]>; Tilly Whishaw <[REDACTED]>
Subject: FW: Land South of Ford Lane and East of North End Road
Importance: High

Dear Roger,

Further to our conversation earlier, please see below in **BOLD BLACK CAPITALS** my notes from our discussion on the agreed actions.

As discussed, if you can please respond to all on this chain ASAP to confirm this reflects our discussion; we will then seek to undertake the work and return the updated information to allow you to discharge Condition 11.

Thanks

Kind Regards

Ryan Saul | Partner

BEng (Hons) IEng MICE MCIMEM MCINT

Tuscany House | White Hart Lane | Basingstoke | RG21 4AF



Key

LG comments to Y/113/20/DOC 10/02/21

Odyssey response 22/02/21

LG comments to Y/26/21/DOC 16/03/21

1. Lots of calculations are missing. **CALCULATIONS NOT APPLICABLE. CATCHMENT PLAN TO BE UPDATED TO BREAKDOWN AREAS**

a. Please provide calculations for permeable paving areas/ roads for each discrete area and each test pit area to accurately represent the design in areas which have different infiltration potential, and different areas draining to them. Additional calculations have been provided based on the criteria agreed with Ryan Saul

The calculations for road areas are not clearly defined, please label road 1, etc. on plan. Impermeable areas diagram does not clearly show which areas are draining to where, i.e. please break down the road area into the catchments modelled. Please clearly show road areas numbers on drainage layout drawing.

Road 4 has an unacceptable half drain time. Impermeable area modelled is greater than permeable paving area, please clarify why this is the case.

Road 5 has an unacceptable half drain time. Impermeable area modelled is greater than permeable paving area, please clarify why this is the case.

Road 5 plus plots 85-92- area is not clearly defined on the impermeable area plan, the modelled infiltration rate is not representative of the results from the nearest infiltration test. Diffusers are set too low in the sub-base (i.e. below 1 in 10 yr plus cc water level).

Road 8 has an unacceptable half drain time.

Plot 47-50pp has an unacceptable half drain time.

Calculations have not been supplied for permeable paving areas 63-70, 71-78,

b. Please provide calculations for rear garden soakaways for plots 25-33, 35 and 36. If one or more houses have the same area, have the same soakaway dimensions, and are located near to the same test pit then one calculation set for all will be sufficient, but this calculation set must reference all plots that it represents. Rear garden soakaway calculations for plots 25-36 and 79-82 have been provided for both the 10yr + CC and 100yr + CC return periods. *Tanks for plots 27-33 have an unacceptable half drain times.*

2. Please provide an impermeable areas plan in dwg format. Please also state areas on the impermeable areas plan (pdf and dwg). Impermeable areas have been added to catchment plan key. DWG also provided in link above. *Please see comments above, please better define your catchments so it is clear what areas are draining to what road areas.* **CATCHMENT PLAN TO BE UPDATED TO BREAKDOWN AREAS**

3. Please provide further detail regarding the unacceptably low factors of safety. As discussed if you are to use a FOS of 2 we wish to see evidence that your infiltration rates are representative of tests

completed properly, i.e. you will need to do a couple of BRE365 tests with three repeat tests at each location in close proximity to the existing testing and compare rates. Some FoS calculations provided previously for separate review. Further FoS can be provided if requested, as agreed with Ryan Saul. *The factors of safety are low, a review of the information presented by Ryan shows that significant flood exceedance volumes were observed, and half drain times were exceedingly long. It is a real shame that compliant testing has not been completed, this leaves us in a very difficult position.* **NOT APPLICABLE**

4. Tank 5 has a half drain time beyond 24 hours. Is there any potential to raise this crate up so that the better infiltration rate can be utilised? We are unable to raise the tank due the road levels being drained to it. *The half drain time of tank 5 is unacceptably long and design does not meet requirements.* **NOT APPLICABLE**

5. The Road calculation also has a half drain time beyond 24 hours. It is also unclear where exactly these calculations are meant to represent. PP areas with slow drain times have been linked to adjacent systems via high level overflows (above 100+cc WL as agreed). Please refer to updated/latest drawings. *A linked system is appropriate if assurances upon this linked system functioning correctly are provided, i.e. it would be good to see calculations that evidence how this linked system will work in reality. Due to a lack of clarity on which road is which it has not been possible to review check dam overflow levels.* **NOT APPLICABLE**

6. The calculations for tank plot 34 have a tank area which is different to that on the layout plan, and the infiltration rate used does not seem to correlate. Tank reference amended and new calculation provided. Okay. **APPROVED**

7. Why do some plots have diffuser blocks located in the drive, and some in the road? E.g. around plots 51-60 and 79-82? Surely they all need to go through to the road as you have not shown additional linkages with diffuser blocks through these service corridors. They are based on offsets, storage volume and catchment. Driveway was preference but if could not be met then linked to road. *Please better define impermeable areas draining to road/ drive areas.* **CATCHMENT PLAN TO BE UPDATED TO BREAKDOWN AREAS**

8. Please detail invert levels of all diffuser blocks, some of the blocks which are used to cross service corridors are missing. Invert levels have been added to all diffuser blocks. *Invert levels of diffuser blocks on driveways to plots 63-70, 79-82, etc. appear to be at the base of sub-bases, this does not meet policy requirements. Please review all diffuser invert levels to ensure they are all above the 1 in 10 year plus cc water level in the areas.* **NOT APPLICABLE**

9. Please provide additional SBILs closer to diffuser blocks. Diffuser blocks are located at the base of the PP. Further SBILs/ILs have been added for clarity. *Please review all diffuser invert levels to ensure they are all above the 1 in 10 year plus cc water level in the areas.* **NOT APPLICABLE**

10. It does not appear that all rwp's are connected. Please adjust, or add not to explain. A review has been carried and we can confirm that all RWP's are connected. Okay. **APPROVED**

11. Some of the roads are missing SBILs. SBIL's have been added to roads in addition to the depth given for clarity. Okay. **APPROVED**

12. Where connections are being made to pipelines rather than direct to manholes – add note 'all connections to be made using oblique 45 degree junctions' Note added to all Engineering Layouts. Okay. **APPROVED**

13. Your layout plans show baffles are to be provided in some locations. The construction details are labelled as check dams, but from the construction detail it appears that these are to fully separate sub base areas- consider changing name as check dam or baffle implies water can spill over. Renamed as check dams. *Still implies that water can spill over in the sub-base, which is not shown on the construction detail. What you have in reality according to your drawings is areas of fully divided sub-base. Where an overflow pipe is not provided water would have to spill out of the surface to travel to adjacent permeable paving.* **NOT APPLICABLE (DRAWN AS DESIGNED)**

14. I note from the layout that some baffles are to have 100mm diameter pipes through them to link sub-base areas. Please provide a construction detail drawing. Detail has been added to drawing 18-344/825. *Please make it clear if it is intended for these overflow pipes to be set level.* **ADD NOTE TO CONFIRM OVERFLOW PIPE LAID WITH NO FALLS / LEVEL**

15. Please state unit reference of hydrobrakes on plan. Detail has been added to new drawing 18-344/836 and hydrobrake unit references are specified in table. Okay. **APPROVED**

16. Please provide site specific construction detail drawings of the hydrobrakes. Detail has been added to new drawing 18-344/836 and hydrobrake unit references are specified in table. *Cover levels, invert levels and pipe diameters should be provided. Depth of sump should also be stated.* **ADD DEPTH OF SUMP TO STANDARD DETAIL AND MANAGEMENT PLAN**

17. Are all catchpits to have a permafilter? Why is this being specified? To protect the infiltration system/diffuser from debris. *These could become blocked easily, frequency of maintenance and its importance must be clearly included within the maintenance document.* **CLARIFY ON STANDARD DETAIL AND MANAGEMENT PLAN**

18. Please specify no/ reduces fines for sub-base materials. I would prefer to see the proposed type of material also specified. Note amended to specify no fines on detail drawing 18-344/821. Okay. **APPROVED**

19. Please add sand bedding and permeable geotextile surround to the basin sections to clearly show that granular material will be kept out of the crates. Sections have been updated to show permeable geotextile and construction detail referenced. *Please label the geotextile on the section drawing.* **LABEL TO BE ADDED TO SECTION**

20. A detailed plan showing a timetable for implementation of the drainage scheme has not been provided. Sequencing Plan provided by Redrow has been referenced and appended to MMP. *This is not clear. It must be very clear how it will be ensured that the drainage elements serving each phase of development will be constructed and completed prior to occupation of these phases.* **ADD NOTE AND HATCHING (TO CENTRAL/TANK/BASIN SYSTEM) TO CONFIRM NO DWELLING WILL BE CONSTRUCTION PRIOR TO DOWNSTREAM DRAINAGE BEING INSTALLED. ALL OTHER PLOTS DRAIN TO REAR SOAKAWAYS AND/OR IMMEDIATELY ADJACENT PERMEABLE PAVING**

21. Details of how maintenance will be funded are not included. Statement has been added regarding costs being levied to residents. Okay. **APPROVED**

22. The maintenance manual describes maintenance of cellular systems. Please make it clear that these are infiltrating cellular systems. Report amended to suit request. Okay, **APPROVED**

23. Basin maintenance should remove reference to submerged and emergent aquatic plants. Remove all other irrelevant details relating to wet basins, the basin will not be wet. Report amended to suit request. Okay. **APPROVED**

24. Please detail the requirement for opening and oiling of hydrobrake bypass doors. Detail has been added on the maintenance/inspection of the bypass operating rope. We have spoken with Hydro-International who have confirmed the door is made of stainless steel and therefore there is no requirement for oiling. Okay. **APPROVED**

25. Design lifetimes and requirements for replacement are not detailed within the maintenance manual. Refer to corrective maintenance sections of the MMP for cellular systems, permeable paving and hydrobrakes. *Cellular systems should include requirement for CCTV survey, and potential requirement for replacement of clogged geotextile. Ideas of lifespans of these features should be included, rather than just as required.* **ADD A NOTE TO STATE 'TYPICAL' EXPECTED LIFESPAN OF PRODUCT SUBJECT TO MAINTENANCE. ADD CCTV (H&S TO AVOID MANUAL ACCESS INTO MANHOLE) TO CHECK CELLULAR CONDITION EVERY 5 YEARS**

26. As per point 17 above your maintenance manual does not state that catchpits are fitted with a permafilter. *The importance of maintenance of these must be detailed, along with the maintenance frequency.* **ADD TO MANAGEMENT PLAN**

27. Please provide construction detail drawings of headwalls. WEST SUSSEX DETAIL REFERED, FOR BAGWORK HEADWALL. DETAIL TO BE COPIED/DRAWN INTO STANDARD DETAIL.

It would be good to have a meeting on Tuesday 6th April 2021 to go through the consultation response.

Kind regards,

Michael

Michael Eastham
Principal Planning Officer,
Planning Department



ARUN DISTRICT COUNCIL, 10000 Centre, Haverers Rd, Littlehampton, West Sussex, BN17 5LF
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Essential maintenance is being carried out to the planning, building control and local land charges database during the week commencing 12 April 2021.

During this time there will be no public or staff access to any records held within this database, and it will not be possible to carry out any of the following tasks via the Arun website:

- Research planning and building control history
- View any planning applications, plans, agreements, tree preservation orders or competent persons data
- Submit building control applications
- Submit planning application comments
- Report any planning compliance issues

The publicity and consultation period for all planning applications that fall over this week will be extended by a further week to ensure no one is disadvantaged.

All other aspects of planning, building control and local land charges will be limited during this week and you are strongly advised to contact the individual departments before 12 April 2021 for specific restrictions during this time.

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