

[REDACTED]

Hi Planning Responses,

Could the attached additional information be uploaded to DOC application Y/114/19/DOC application and labelled as 'Additional Drainage Information' please?

Kindest regards,

[REDACTED]



[REDACTED]

Hi James,

Documents and e-mail as promised.

Sarah Burrow
Engineering Assistant

[REDACTED]

Paul

Further to your e-mail of 14 October regarding the surface water drainage proposals at the above site and our subsequent discussions please find attached revised details submitted for your approval and to discharge drainage conditions for the planning consent Y/5/17/OUT. From correspondence between the Planning Officer, James Cross and Emma Jones at Crayfern Homes, it would appear that you require further information to discharge conditions 16 & 17.

Since your earlier correspondence Crayfern have secured the site south of the consented site and ownership of this site, known as Phase 2, will enable a new ditch to be constructed that will re-instate the connection between the ditches on the west and east side of the development.

Consequently the 450mm dia. pipe that was going to connect these ditches has been removed from the proposed engineering design. In addition it has now been possible to rationalise the proposed attenuation on the east side of the site down to a single tank and outfall. Details of this revised proposal can be seen on the attached drawings KNC1826.

Details of the proposed 'Hydro Brake' flow control is shown on the attached drawing KNC1826-501-04.

In response to the specific points raised in your e-mail:

1. Bed levels at regular intervals, for both the east and west ditches have been indicated.
I appreciate the fall is slack but I have no other options in order to connect the ditches.
2. The cross sections produced, drawings KNC1826-03 & 04 show the regraded ditch sections.
I was not proposing to grass seed, I feel that nature will produce grass growth that will be maintained as part of the management company maintenance programme.
3. Invert levels have been identified for manholes H1 & H4. It is proposed to install precast headwalls rather than construct in-situ brick or concrete. Attached is a copy of the plan of the Tracey Concrete headwall that it is proposed to install where a headwall is required. Should you require grills to be installed these can be fixed to the wingwalls. As all the headwalls are outfalls rather than inlets is it going to be a requirement to install grills?
4. The gullies on the southern section of Cinders Lane have to discharge directly into the ditch, it was not possible, given the level restrictions to incorporate this drainage into any attenuation measures and it was felt that there would be somewhat of a 'status quo' as the existing road way, albeit not as impermeable as the new construction, would have had an inflow into this ditch section. The original drainage concept in this area was based on the low infiltration rate measured on this section and to have an overflow connection into the new culvert linking east and west ditch. I presented Laura with all the calculations and she accepted the proposal. The change in circumstances now means the discharge will join the east ditch through the existing ditch network rather than a piped connection. Levels and headwall details are now incorporated onto the drawings.
5. This comment is no longer applicable as the connecting culvert has been removed.
6. As 5. above
7. As 5. above
8. As 5. above
9. The only headwall discharging into the eastern ditch is H1. This has been re-positioned slightly down stream from the original intention. Unfortunately there is no scope to raise the outfall level from H1 into the ditch. Re-grading levels have been provided.
10. As 5. above
11. As 5. above
12. For ease of construction it is proposed to use a precast headwall. The proposed headwall is manufactured by Tracey Concrete and their standard detail and specification is shown on the attached drawing. as you will note there is an erosion control downstand incorporated into the spillway and if required a grill can be fitted to the wingwalls if access prevention is required.
13. Site location plan attached.
14. Our clients cheque for £300.00 has been sent under separate cover by post.

I trust all the foregoing information and details will enable you to advise your Planning colleague that the Planning conditions relating to drainage can now be discharged, however should you require anything further or need to discuss any issues please contact me.

Many thanks.

Regards

Kazys

Kazys Narbutas

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[REDACTED]

[REDACTED]

Hi Kazys

I can confirm that consent is required for all connections to watercourses and the associated ditch diversion/improvement works.

Comments on proposals;

1. Indicate proposed bed levels of the re-graded ditch at regular intervals, including the section to be unfilled. Ditch to have positive falls throughout – it is noted from a couple of levels provided ie. 5.300, that there is no fall on that particular section.
2. Provide a typical drawn cross section through the ditch to support the proposed ditch profile note. The note mentions swale, so are you proposing to grass seed? Include full details on the section.
3. Specify invert level of headwall H4. Provide construction detail.
4. I note a number of gullies being connected to the ditch (unattenuated). Has this been agreed during the planning process? If so, please specify invert levels, headwall details.
5. Rather than the D1 gully arrangement shown as the ditch outfall, we would like to see a headwall arrangement with sloped grille/sump set back into the bank. See attached photo – not a good example but you can see the principle. Please provide a fully detailed construction drawing. The grille will need to be angled to help reduce the full blockage risk. It should also be hinged and lockable (padlock to be positioned above typical potential water levels to help prevent corrosion).
6. Provide manhole construction details for proposed culvert. A sump will need to be included in each manhole. See attached detail for guidance.
7. Please confirm that you have checked for any potential level clashed where other pipes cross the line of the proposed culvert.
8. Provide culvert bedding details ie. 150mm concrete bed and surround with expansion joints. Also specify pipe material, etc. See attached drawing for guidance.
9. There doesn't appear to be much freeboard between east ditch bed levels and the proposed outfall inverts. We need to ensure as much freeboard as possible. Is there scope to regrade the ditch, raise pipe inverts of H1 and H3, etc?
10. Remove 90 degree bends on culvert by relocating manhole D4.

11. Manhole D6 can be omitted, unless there is a good reason for it to be retained.
12. The proposed headwall detail for outfalls H1 to H3 needs a bit more detailing, and to include mesh reinforcement in the aprons. See attached drawing for guidance. Please also include a section through the detail on the detailing. Erosion control measures may be required and should be detailed as required.
13. Provide a site location plan (scale 1/1250).
14. Application Fees will be £300. I have reduced the actual fee since you are providing significant betterment to the current land drainage situation on/off the site.

Look forward to receiving your revised details. Any queries, please let me know.

Regards

Paul Carr
Senior Engineer (Drainage & Coastal)

<http://www.arun.gov.uk>

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