

Please upload the email trail below which is the **ADC Drainage Engineers** consultation response onto Ocella for **BE/21/20/DOC** – Salt Box.

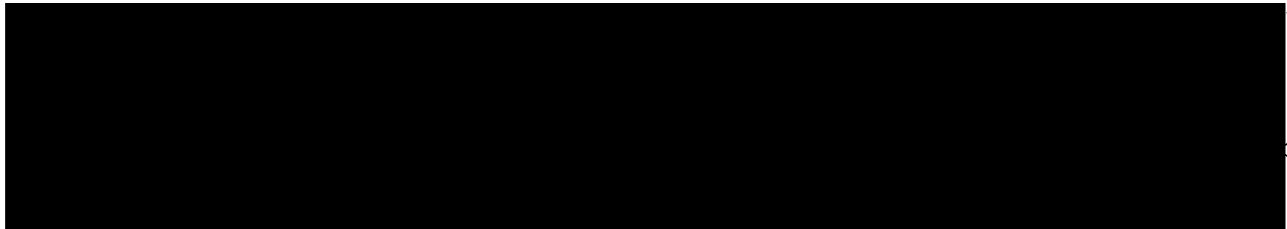
Thanks,

Michael

 or,

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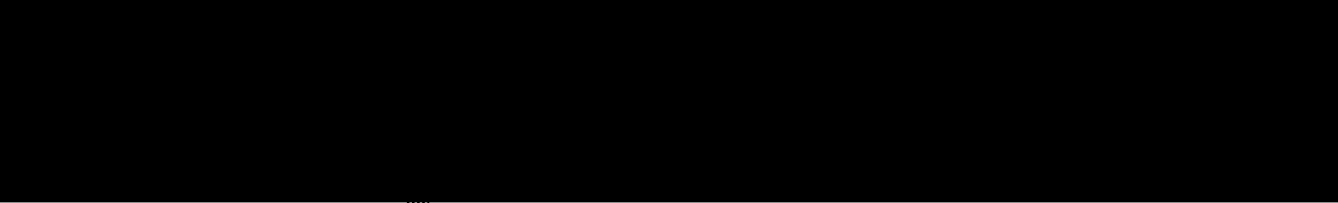
ponses

Hi David

Comments in brown;

Regards

Paul Cann
Principal Engineer (Drainage)



 Save the environment - think before you print.

[REDACTED]

Paul,

Drawings attached and comments below.

I trust this will be sufficient for approval and then as stated we will follow up with the updated reports.

Regards,

David Gallimore
Infrastructure Engineer

Following government advice, I am currently working from home. If we need to speak, drop me a line and I'll get straight back to you. For wider information on working with Hydrock during COVID-19 visit hydrock.com/coronavirus.

[REDACTED]



Six consecutive years in the 'Sunday Times' 100 Best Companies to Work For' listing, and winner of the NCE100 'Health and Wellbeing Leader of the Year' award, 2019.



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[REDACTED]

nses

Hi David

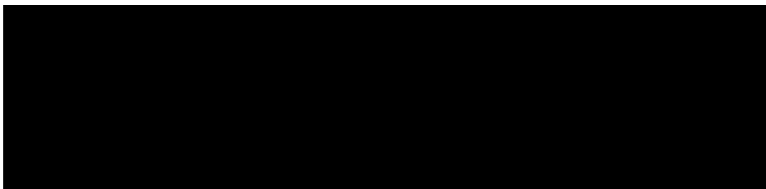
Comments in red below and await revised drawings.

I note that you will be forwarding revised calculations/reports.

In respect to the land drainage consent for headwall no.3, once drawing 7111 has been updated, I can issue the consent.

Regards

Paul Cann
Principal Engineer (Drainage)



Engineers comments in respect to surface water drainage;

1. An overall plan of the drainage network layout would be useful, due to the many separate overlapping plans. The overall plan can obviously be of a smaller scale and doesn't need to include all the finer details.
Noted. Please see attached drawing PH2-7000 Key plan. Ok
2. Provide units 1, 3, 6, 7 and 9 detailed drainage design (permeable paving to be provided where ever possible). If this information is not readily available or to be designed by others, then the planning officer will need to be informed as it may mean a partial discharge of conditions. Also, no spur to receive these flows appears to be indicated for unit 3?
Noted this will be a partially discharged condition. ok Spur added to unit 3. Note added but pipeline missing pipeline added. ok
3. Invert level manhole 505b is 0.73 on drawing 7104 and 0.65 on plan. Manholes 505a and 505b have the same invert levels on the plan. However, the gradient on the tank needs improving, along the lines of what was previously agreed before the recent tank changes.
Minimum Gradient Added to tanks in road. ok
4. Specify the diameter/depth of the dry flow channel and include more details of the internal precast wall, to show how water passes through and to ensure that future maintenance/inspection is still possible.

Awaiting details from Carlow. They have indicated we should get this tomorrow. Received in separate email. Increase dry channel width to 600mm to match incoming and outgoing pipes. The dividing wall details are not very clear and need some clarity/further dimensions of openings, etc. Some additional details and dims added. Carlow confirms that a 300mm dry channel in the culvert should be sufficient to handle the flows. Add suitable note to drawing regarding tapering the dry weather channel to the 600mm pipes. I now note the dividing wall arrangements with a series of 600mm circular apertures which have inverts set approx. 195mm above the tank base. This will help prevent silt entering that part of the tank, which is fine.

Note from Carlow: 300mm wide is sufficient for the dry weather flow however it is worth noting that the width at the inlet and outlet is flared to match the pipe diameter.

5. Improve gradient on length SW-503 to SW-510 to at least 1 in 240.
Noted. Gradient improved. ok
6. Add general note to layout plans 'All connections not made to manholes to be connected via oblique 45 degree junctions with the incoming connecting pipe positioned at 10 or 2 o'clock in section. 12 o'clock being

the crown of the pipe being connected to. Also adjust drawing 7102 to suit – ie. connecting pipe is show to be more at 1 o'clock.

Note added to all drainage plans. Detail amended. ok

7. Manhole SW-900 invert level is different on plans 7011 and 7022. Noted.
PH1-7022 IL revised to suit PH2-7011. ok
8. Provide detailed headwall construction details for outfall no.3. This will also require Land Drainage Consent from myself since the connection is being made to an ordinary watercourse. See enclosed application form and guidance notes.
Phase 2 headwall detail added. Drawing 7111 noted, however, outfall has been labelled 2 rather than 3. Noted. Changed to 3. ok
9. Drawings 7011 and 7012 – Remove any trees etc being shown within proximity of the proposed pipeline.
Noted. Trees removed. ok
10. Improve gradient FC-401 to 01-401 to min 1 in 400.
Pipe gradient updated. ok
11. Specify gradient and pipe diameter (FC-401 to SW-1000) on drawings 7010 and 7021.
Pipe gradient added ok
12. Provide PG paved area gully construction detail (to incorporate silt trap).
PG detail added ok
13. Unit 5 – Where PG's connect to sub base, specify pipe diameters/connection invert levels. Provide diffuser units on each discharge point and provide construction detail.
Diffuser unit detail added. Inverts/pipe diameters to sub base added. ok
14. Drawing 7010 – specify sub base levels for ALL permeable paving areas. On drawing 7300 – add note to refer to sub base levels on drawing 7010.
Sub base levels added To 7010 and note added to 7300. ok
15. Drawing 7010 - SW-405 to tank – specify pipe diameter and a reasonable gradient.
Gradient added ok
16. Drawing 7103 (Phase 2)– Section 2-2 – should this be labelled AT-401?
401 label added. ok
17. Drawings 7103 (Phase 1 & 2) ie. AT-201 and AT-401 – specify granular surround to pipe including thickness. Provide permeable geotextile wrapping to bedding.
Granular material detail note added and permeable textile wrapping note added. Done for AT-401. AT-201 – no drawing supplied? Added to AT-201. Ok but I note that at some point the geotextile surrounding all crated tanks has changed from impermeable to permeable. Please change back to impermeable to prevent groundwater intrusion. Only the geotextile surround to the perforated pipes should be permeable.
18. AT-401 – Provide integral catchpit manhole in crates at connecting junction as opposed to a 300mm vertical pipe.
SDS tanks do not have a tank spec that allows for manholes to be installed within the tank but can provide a rodding access similar to what is shown and they allow for junctions in the pipe. ok but T junction access detail needs to refer to AT-401. Note added. ok
19. Drawings 7101 & 7102 – there are slightly different versions (phase 1 and phase 2) – create just one drawing for 7101 and one drawing for 7102 are they are pretty much applicable to both phases.
Phase 2 drainage details amended to only show phase 2 specific details (sheet 1 and 2) ok
20. Improve gradients SW-418 to SW-406.
Minimum gradient added. Drg 7101 needs to reflect level change at SW-418 noted. Section updated. ok
21. SW-408 to SW-409 – Specify pipe diameter and gradient.
Gradient added. ok
22. FC-401 – specify hydrobrake model and discharge on drawing 7103 (Phase 2)
Full detail can be found on drawing 7103. Flow note added. Now shown on 7101 but hydrobrake model not indicated? Model added. ok
23. Drawing 7300 - Grasscrete construction detail – specify manufacturer & product. Specify 30% void sub base and wrapped in permeable geotextile. Detail amended – Manufacturer/product = Grasscrete Provide permeable geotextile wrapping to sub base. Noted and added. Sub base needs to be fully wrapped not just laid at formation level
24. Permeable paving construction details – provide full permeable geotextile wrapping in order to make use of any infiltration potential.

MT120 permeable textile added ok

25. Maintenance manuals – include reference to remedial works attention on manholes, flow controls, gullies, etc.

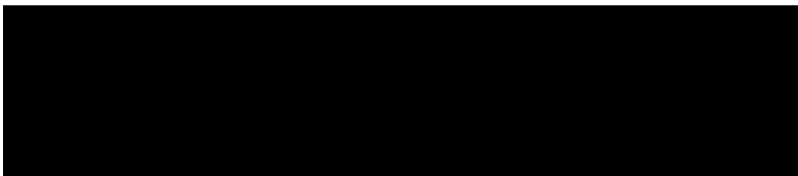
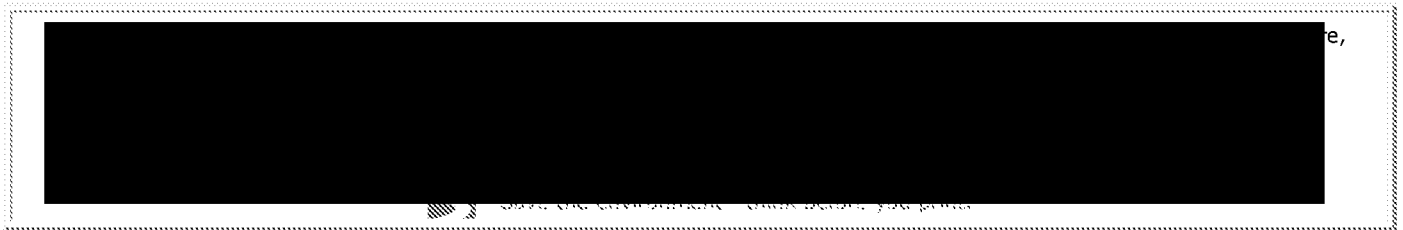
Noted. will update with approved drawings. Awaiting Updated report to follow upon approval of updated drawings. awaiting

26. Maintenance manuals - please update with ALL the approved drawings once available. Manuals will be needed for units 1, 3 and 9 when available – as per item 2, it may be necessary to consider part discharge of conditions if these documents are not going to be available in the near future. *Noted. Awaiting as above.*

Look forward to receiving your revised details, etc.

Regards

Paul Cann
Principal Engineer (Drainage)



To: Engineers (Drainage)

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

APPLICATION NO: BE/21/20/DOC

Registered: 06-MAR-20

Site Address: Land At Salt Box West Of Shripney Road Bognor Regis PO22 9NW

Description of Works: Approval of details reserved by condition imposed under hybrid application BE/135/18/PL relating to Full Condition Nos 10 - hard and soft landscaping including proposed and existing functional services above and below ground, 12 - surface water drainage, 13 - discharge flows to watercourses, 14 - maintenance and management of surface water drainage, 16 - foul drainage and 45 existing and proposed ground levels

The Council have received the above application to discharge conditions. I shall be pleased to receive any observations you may wish to make in respect of those conditions relating to your field of expertise.

[Click here to view the Discharge of Condition application](#)

[Click here to view conditions on original application - click on decision tab](#)

Should you have any comments to make, these should be sent by replying to this email by 30th March 2020.

www.arun.gov.uk/planning

Please be aware that any comments you may make will be available on our website so please do not insert personal details or signatures on your reply.

In the absence of a reply within the period stated, I shall assume that you have no observations to make.

The officer dealing with this application is Michael Eastham who can be contacted on telephone number 

Thanking you in anticipation

Planning Case Officer
Arun District Council

post_con_email

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

DX 57406 Littlehampton

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