

Matthew Utting

From: kazys [REDACTED]
Sent: 22 August 2019 14:05
To: EmmaJ@crayfernhomes.co.uk; Crayfern (Kevin); Matthew Utting
Subject: Fwd: Cinders Nursery, Yapton: Surface Water Drainage

Please see below FYI.

Sent from my iPhone
Regards
Kazys

E S C H E R • S I L V E R M A N
Civil & Consulting Engineers

Begin forwarded message:

From: Laura Gibbons [REDACTED]
Date: 22 August 2019 at 13:37:29 BST
To: kazys [REDACTED]
Subject: RE: Cinders Nursery, Yapton: Surface Water Drainage

Hi Kazys,

Thank you for sending over the revised information and the evidence regarding the porosity. All seems okay.

Kind Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

Laura Gibbons | Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First Floor,
Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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From: kazys [REDACTED]
Sent: 13 August 2019 15:56
To: Laura Gibbons [REDACTED]
Cc: 'Kevin Wawman' [REDACTED] 'Emma James'
[REDACTED] ul Spratt [REDACTED]
Matthew Utting [REDACTED]
Subject: RE: Cinders Nursery, Yapton: Surface Water Drainage

Laura

Thank you for your positive response to my last e-mail. I have incorporated your suggestion into the drainage proposals along the access track. Aquacell soakaways B,C & D will be connected by a high level overflow, this is shown on the drainage layout and standard detail drawing attached.

In one of your earlier e-mails you requested information on the porosity of the stone backfill to the trench soakaways. You may recall we undertook the exercise at Clay Lane to establish the porosity of the proposed stone fill and I have attached the data for two of the appropriate gradings we obtained at the time. I have also attached the covering e-mail from Elliott Curtis, Technical Sales Support Manager at Aggregates/Asphalt South for clarity.

I trust this additional information will enable you to convey a positive message and approval recommendation to your planning colleagues.

However should you require anything further please contact me.

Regards

Kazys

Kazys Narbutas

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From: Laura Gibbons <[REDACTED]>
Sent: 07 August 2019 12:41
To: kazys <[REDACTED]>
Subject: FW: Cinders Nursery, Yapton: Surface Water Drainage

Kazys,

Thanks for the call earlier. I've had a look at total impermeable areas for the access track and predicted maximum water levels. We would be okay with not having a flow restriction as long as the overflows are located at the very top of the crates.

Thanks,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

Laura Gibbons | Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First Floor,
Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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From: Laura Gibbons

Sent: 05 August 2019 13:13

To: kazys [REDACTED]

Cc: Emma James [REDACTED]; Paul Spratt

[REDACTED]; kevin [REDACTED]

Subject: RE: Cinders Nursery, Yapton: Surface Water Drainage

Hi Kazys,

Thank you for sending this information over. The half drain times aren't good enough, and given I have already compromised by permitting infiltration through the base I would not be willing to let through a half drain time longer than requirements or a reduced factor of safety. I believe there are two options open to you:

1. Provide areas of permeable paving along the access track.
2. Provide high level overflow connections between the sections of aquacell.
These could be set at the top of the crates, a flow restriction may be needed at the downstream extent of these to ensure you're not increasing flows.

Let me know if you can think of any other alternatives or wish to discuss further.

Kind Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

Laura Gibbons | Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First Floor,
Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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From: kazys [REDACTED]
Sent: 05 August 2019 12:24
To: Laura Gibbons [REDACTED]
Cc: Emma James [REDACTED]; Paul Spratt
[REDACTED] kevin [REDACTED]
Subject: RE: Cinders Nursery, Yapton: Surface Water Drainage

Laura

thank you for your e-mail and positive response to my drainage proposals.
as discussed, and requested I have re-run calculations, which I have attached.
In summery these are as follows:

Access Track

Ch 15-104 Half Drain Time (HDT) 176 mins FoS 10

Ch 104-144 HDT 918 mins FoS 1; HDT 2015 mins FoS 2

Ch 144-205 HDT 955 mins FoS 1; HDT 2089 mins FoS 2

Ch 205-228 HDT 975 mins FoS 1; HDT 2149 mins FoS 2

Ch 228-312 HDT 1216 mins FoS 1; HDT 2625 mins FoS 2

(Note this is the section containing the swale which has an overflow connection to the eastern ditch)

I look forward to discussing any issues with you later.
Many thanks.

Regards

Kazys

Kazys Narbutas

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From: Laura Gibbons <[REDACTED]>
Sent: 02 August 2019 09:30
To: kazys <[REDACTED]>
Cc: Emma James <[REDACTED]> Paul Spratt
<[REDACTED]> kevin <[REDACTED]>
Subject: RE: Cinders Nursery, Yapton: Surface Water Drainage

Hi Kazys,

Thanks for sending in the revised information. I have removed my objection from the Reserved matters application. There are a few points which will need resolving prior to a successful DOC application but I now feel confident that an adequate drainage solution will be obtained.

It would be good to understand if half drain time requirements can be met on the access road with FOS in accordance with our checklist requirements. Therefore, could you please send over some calculations with this.

I also note that you are using a porosity of 0.4 for the rear garden soakaways, can you send over some material specifications that demonstrate this can be obtained?

Thanks,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

Laura Gibbons | Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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From: kazys <[REDACTED]>
Sent: 30 July 2019 13:19
To: Laura Gibbons <[REDACTED]>
Cc: Emma James <[REDACTED]> Paul Spratt
<[REDACTED]> >; kevin <[REDACTED]>
Subject: Cinders Nursery, Yapton: Surface Water Drainage

Laura

Further to our recent meeting and our subsequent discussions regarding the surface water drainage proposals for the above scheme I think I've put together a design for the access track that satisfies your requirements.

Based on the measured infiltration results along the track, previously submitted, your acceptance that the base of the proposed soakaway system can be included in the calculations and the requirement to keep the soakaways at a depth no greater than 1.0m I have produced a scheme, the details of which are being sent by WeTransfer but the calculations are attached. The Aquacell units specified are 400mm deep giving a total depth of 800mm below the footway construction, with the elevation of the footway I feel that your requirement has been met. We did mention the idea of introducing areas of permeable paving along the track but as I mentioned to you there is opposition from the statutory authorities regarding laying their services through such construction. I think my design overcomes the need for this although we have indicated a small section of permeable paving at the entrance, I'm hoping that this will not raise too much opposition.

I have undertaken calculations for each of the proposed soakaways serving Plots 1-11, I have also incorporated a 10% factor for 'urban creep'. MicroDrainage calculations have been included here with the engineering drawings being sent to you by WeTransfer.

For completeness I have included all my MicroDrainage calculations, although some have been previously submitted.

I trust the information and details supplied will enable you to advise your Planning colleague that the drainage proposals meet with your approval and no objection should be raised.

Please contact me should you wish to discuss any aspects or require a meeting to discuss any of the proposals.

Many thanks

Regards

Kazys

Kazys Narbutas

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