

[REDACTED]

From: Matthew Utting [REDACTED]
Sent: 21 September 2019 07:29
To: Anita Gardner <Anita.Gardner@arun.gov.uk>

[REDACTED]

Subject: FW: Mayflower Way, Angmering: Planning Consultation A/46/19/PL-Drainage Conditions
Importance: High

Morning, Anita,

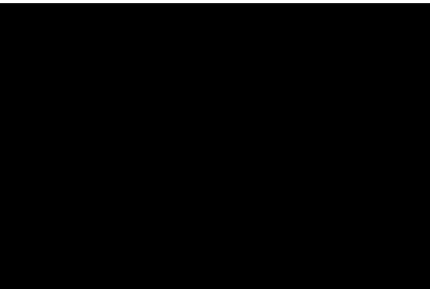
I refer to your email sent yesterday (as below) to my client's Drainage Consultant, Kazys Narbutas.

As you know, Kazys has satisfactorily concluded direct negotiations with your Authority's Drainage Engineer, Laura Gibbons, to the extent that Laura has confirmed in her email dated 18 September 2019 (as below) that all matters relating to foul and surface water drainage can be dealt with by pre-commencement conditions. As such, please regard the two strings of emails attached, including their attachments, as forming part of my client's planning application; and by all means formally re-consult Laura on the same.

I hope this email is helpful – please contact me if you have any queries. Otherwise, I am aware that you have been contacted by my client's solicitor with regard to the application's S106 Agreement – please confirm that you have issued the necessary instructions to your Authority's Legal Department to expedite this matter.

Many thanks and regards,

Matthew Utting BSc (Hons) DipTP MRTPI
Director



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From: Kazys Narbutas Consulting [REDACTED]
Sent: 20 September 2019 15:42
To: 'Matthew Utting' [REDACTED]
Cc: 'Kevin Wawman' [REDACTED] Ian Sellar [REDACTED]
Subject: FW: Mayflower Way, Angmering: Planning Consultation A/46/19/PL-Drainage Conditions

Matthew

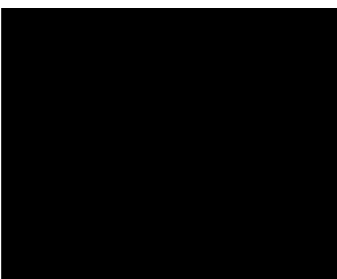
Please see response from Anita. Not sure what information you need to submit to her that she doesn't already have. You should have all the details I have supplied to Laura along with e-mails. Let me know if I can supply anything further.

Regards

Kazys

Kazys Narbutas

K A Z Y S · N A R B U T A S · C O N S U L T I N G
Civil Engineering Consultant



From: Anita Gardner <Anita.Gardner@arun.gov.uk>

Sent: 20 September 2019 14:53

To: Kazys Narbutas Consulting [REDACTED]

Subject: RE: Mayflower Way, Angmering: Planning Consultation A/46/19/PL-Drainage Conditions

Dear Kazys,

Please can you request that the agent, Mr Utting, provides me with the additional drainage information so that it can be scanned against the application and then I can reconsult Laura Gibbons.

Regards

Anita Gardner

[Anita Gardner](#) | Principal Planner, Directorate of Place, [Arun District Council](#) | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

Internal: 37529 | External: +44 (0) 1903 737529 | E-mail: anita.gardner@arun.gov.uk

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From: Kazys Narbutas Consulting [REDACTED]

Sent: 20 September 2019 14:23

To: Anita Gardner <Anita.Gardner@arun.gov.uk>

Subject: Mayflower Way, Angmering: Planning Consultation A/46/19/PL-Drainage Conditions

Importance: High

Anita

I'm writing to you to advise that I have had discussions with Laura Gibbons and furnished her with sufficient details to enable her to advise you that pre-commencement conditions relating to drainage can be applied to a consent.

I'm sure Laura will be advising you directly.

Regards

Kazys

Kazys Narbutas

KAZYS · NARBUTAS · CONSULTING
Civil Engineering Consultant

From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>

Sent: 18 September 2019 15:42

To: Kazys Narbutas Consulting [REDACTED]
Subject: FW: Mayflower Way, Angmering: Planning Consultation A/46/19/PL

Kazys,

As a result of the level of information supplied to date we would be okay with pre-commencement conditions.

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

Internal: 37818 | External: +44 (0) 1903 737818 | Fax: +44 (0) 1903 716018 | E-mail: laura.gibbons@arun.gov.uk

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From: Laura Gibbons

Sent: 18 September 2019 09:24

Subject: FW: Mayflower Way, Angmering: Planning Consultation A/46/19/PL

Kazys,

I've had a look and permeable driveways and ch0-20 okay.

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: 11 September 2019 15:03

Subject: RE: Mayflower Way, Angmering: Planning Consultation A/46/19/PL

Kazys,

Thank you for providing the information. I have the following comments:

1. What gives you confidence that better infiltration rates will be obtained to the south east of the site? I.e. you have presumed zone 3 will extend across, but what is there to evidence that zone 2 will not extend down into the areas of plots 1-4?
2. Please clearly provide invert and cover levels on plan. Please also clarify what the depth of soakaway at each location is.
3. Please provide finish and formation levels of permeable paving on plan.
4. I am not keen on seeing road drainage being taken to domestic soakaways. Please examine alternatives.
5. Please examine alternatives to using a reduced factor of safety, the base of the infiltrating structures and the loop in zone 2. Given that infiltration rates were very poor, rates were determined from extrapolation, and three repeat tests were not completed I have significant concerns. I am also not confident that the ground will not just become saturated around SA14-17. We would allow a deep round of testing to be completed now if required, from experience of sites in the area we would expect you to find gravel at 4-5m depth. If this was found a potential solution which could be considered is permeable paving (to ensure storage above groundwater level) linked to ring soakaways to get connectivity to good strata.

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: 02 September 2019 02:00
To: Laura Gibbons <Laura.Gibbons@arun.gov.uk>

Subject: Mayflower Way, Angmering: Planning Consultation A/46/19/PL

Laura

Crayfern have passed over your drainage planning comments, dated 22nd July, for the above site, apologies for the delay in responding.

I am attaching further information that should hopefully enable you to advise your planning colleague that the works and information required have been submitted to you and it will not be necessary to apply the conditions you suggested.

I believe you are in receipt of the groundwater monitoring results that showed water was only present in two readings at a depth of 3.84 in one well. I therefore believe that groundwater is not an issue on this site. For your information I attach a copy of these results

In order to assess the suitability of infiltration methods as the means of surface water disposal, tests to BRE365 were undertaken on 4th March this year at depths that it was proposed to construct the domestic soakaways and utilise sub-base construction for draining drives and access roads. Attached are the results of the tests as

undertaken by Soils Ltd. The results have been transposed to the attached drawing ES1539-500-00 and the site divided as shown in order to assist with the design of the infiltration proposals.

I have produced a detailed drainage strategy and this information can be seen on the attached drawing ES1539-502- Using the figures obtained for the shallow infiltration tests we were unable to achieve a satisfactory design for the domestic drives and access road, using a FoS of 5, 24hour half drain times were not achievable. This could only be achieved

with a FoS of 3 on the Shallow Zone 2 (SZ2) areas. Unless you are willing to accept a FoS of 3 on the drives in SZ2, (these are Plots 1-7 & 23-24) I feel that the drives will have to drain to domestic soakaways in the rear gardens. Unfortunately I cannot see an alternative solution to draining Ch0-30 of the access road to that which I have proposed.

This area has been designed with a FoS of 3 and is just slightly above the 24hours half drain time.

Shallow Zone 1 (SZ1) has a lower infiltration rate than SZ2 and a half drain time was not achievable even with a Fos of 1. I feel the only option for drives and the sections of access road in this zone is to drain them to domestic soakaways In the rear gardens of Plots 8,9 &10.

The low infiltration rate achieved on the eastern side of the site has necessitated a long narrow soakaway to serve the roof drainage for Plots 18-24. Things to note here are that the soakaway extends slightly deeper than the trial pit tests, although I feel the slope of the site should be regarded as a mitigating factor. I could only achieve a FoS of 2 in this location and that was in conjunction with including the soakaway base in calculations.

Utilising these results we have prepared MicrDrainage calculations substantiating the proposed design and a full set of these calculations are included with this submission. To help your assessment I have produced a tabulation on the drainage drawing that gives all the information on the soakaways.

I have also attached a *SuDS Operations and Maintenance Manual* for the site together with a *Water Quality Management Manual*.

Hopefully you will find the proposed designs to be acceptable given the limitations we are faced with, please give me a call

To discuss the proposals or if necessary I will arrange a meeting with you to discuss the proposals.

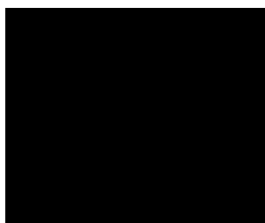
Many thanks.

Regards

Kazys

Kazys Narbutas

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From: Kazys Narbutas Consulting [REDACTED]
Sent: 18 September 2019 16:05
To: Laura Gibbons
Subject: RE: Mayflower Way, Angmering: Planning Consultation A/46/19/PL

Laura

Many thanks for that, greatly appreciated.

Regards

Kazys

Kazys Narbutas

KAZYS · NARBUTAS · CONSULTING
Civil Engineering Consultant

Roughton
A2 Omega Park
Electron Way
Chandlers Ford
Hampshire
SO53 4SE

From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>
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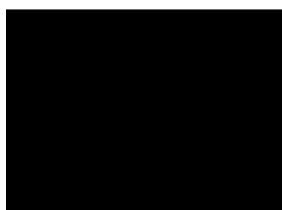
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Regards

Kazys

Kazys Narbutas

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