

From: Amanda Scholes on behalf of Planning.Responses
Sent: 27 July 2020 08:12
To: Planning Scanning
Subject: FW: FW: FW: Planning Consultation on: BN/57/20/DOC

Amanda Scholes | Receptionist, Department, [Arun District Council](#) | Location: Ground Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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From: Michael Eastham <Michael.Eastham@arun.gov.uk>
Sent: 25 July 2020 09:17
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Subject: FW: FW: FW: Planning Consultation on: BN/57/20/DOC

Please upload onto Ocella the email below which is the further consultation response from **ADC Drainage Engineers** to discharge of condition application **BN/57/20/DOC**.

Thanks,

Michael

Michael Eastham
Principal Planning Officer,
Planning Department

T: 01903 737772

E: michael.eastham@arun.gov.uk

Arun District Council, Civic Centre, Maltravers Rd, Littlehampton, West Sussex, BN17 5LF
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From: Laura Gibbons [REDACTED]
Sent: 21 July 2020 14:50
To: Michael Eastham <Michael.Eastham@arun.gov.uk>
Cc: Paul Cann <Paul.Cann@arun.gov.uk>
Subject: Re: FW: FW: Planning Consultation on: BN/57/20/DOC

Michael,

Comments below.

Key

ADC comments 07/07/20

ADC clarification 14/07/20

IF response 17/07/20

ADC response 21/07/20

Condition 6 – Surface Water Drainage Design

1. I note you are proposing to discharge at 5l/s, this is greater than 1 year greenfield rate of 2.9l/s. The reasoning stated within the document for this is “5l/s, this being the minimum acceptable discharge rate that many authorities are willing to adopt”, this statement appears to be taken from outdated guidance. We accept discharge down to 2l/s as technology has improved meaning that smaller flow restrictions can be achieved with acceptable aperture sizes. Please revise flow or seek clarification from Southern Water regarding their minimum acceptable discharge. Comment 1 on condition 6 can be noted as closed. All of my other comments stand and need addressing. *It is unlawful for a planning condition to be more onerous than the consent to which that condition is attached. Therefore, we will not be restricted the discharge to lower than that approved at planning. As stated on 17/07/20 this point is closed.*
2. A surcharged outfall should be modelled with water levels at top of ditch. *It is not appropriate to model surcharge levels as the top of the ditch. We have already informed the planning authority of the ground water levels therefore there is no technical justification, nor engineering sense, to assume a surcharge level at the top of the ditch.* A surcharged outfall will be modelled, without this we will not recommend discharge of this condition as it will not be possible for us to review the adequacy of design in accordance with policy requirements. It is a standard request when discharging to a watercourse.
3. No consistency between orifice invert levels on plan and those shown on drawings. Please update calculations or drawings. *Updated drawings/calcs attached.* Updated calculations with surcharged outfall awaited.
4. Porous car park area invert levels and sub base depths in calculations are inconsistent with those shown on plan. Please update calculations or drawings. *Checked and updated. Note in the the manhole number in brackets on the plan depicts the manhole the porous car parks have been modelled on. Also where there are connecting areas, the mean average of the minimum depths have been used.* To be reviewed with revised calculations.
5. Where is porous car park manhole 4 in calculations? *Please refer to plan and referenced manhole number*
6. Porous car park m10 is 4 separate areas, with two different orifice controls. Yet this is modelled as one porous car park area. This is not appropriate, please calculate as separate structures. *Checked and updated.* To be reviewed with revised calculations.
7. Porous car park manhole 8 has a modelled invert level which is far lower than that shown on plan. Please update calculations or drawing. *Checked and updated* To be reviewed with revised calculations.
8. An impermeable areas plan needs to be provided. Preferably in dwg format to facilitate paperless review whilst office working is heavily restricted. *Attached.* Thank you, this will be reviewed once revised calculations are submitted.

9. Pond cross section construction detail drawings are required- 2 sections required, perpendicular to one another. Details should include liner. *Details of the liner are as per the e-mail correspondence to Paul Cann. Attached Please provide details of what liner is proposed, or a specification that the liner must achieve if a specific liner is yet to be selected.*
10. Flotation calculations required. Please provide winter groundwater monitoring October- March. Otherwise, assume groundwater is at surface. *Refer to the comments provided in the e-mail chain below. Please supply calculations. If monitoring has been completed October to March inclusive you can use observed groundwater levels, without this you must assume a worst case. You will note that in correspondence with Paul Cann he stated "Winter groundwater monitoring was undertaken on the development site immediately next door to the west. They encountered standing groundwater levels between 600mm and 1000mm deep which is comparable to our knowledge of Barnham. In fact levels can be much higher." Your attention is directed to where he states that in fact levels can be much higher, without full on site winter groundwater monitoring we cannot know how high levels will get, a worst case must be assumed, alternatively we are happy to wait for a full winters monitoring to be completed.*
11. Cover levels must be detailed on plans *Finished ground levels are detailed on the plans. The CL and ILs for the adaptable drainage is shown on MH schedules and longsections. This information is provided and we will not be duplicating the information. MH Schedules were not previously provided as per comment 16 below. These will be reviewed once revised calculations are submitted.*
12. Please provide details of correspondence with southern water. *We are awaiting SW comments. The applications were submitted and registered on SW system on the 22/08/2019 we are yet to have any response despite chasing. Noted.*
13. Please provide details of connections into and out of permeable paving. These should be diffuser blocks. *This matter was dealt with -refer to correspondence with Paul Cann. Drawing not included on planning website or in correspondence regarding this DOC application, please provide, all documents must be publically available and be able to be referenced in any approvals.*
14. Include invert levels and dimensions of connecting pipes between permeable paving areas. For example the link pipe between M4 permeable paving areas near plots 7 and 6 does not have a diameter or upstream invert level. *This is shown on the private permeable paving construction details Drawing 17748-BARN-5-921 and dealt with in correspondence with Paul Cann. Drawing not included on planning website or in correspondence regarding this DOC application, please provide, all documents must be publically available and be able to be referenced in any approvals.*
15. Detail how water will flow between sub-base either side of service corridor construction for foul sewer. *This is shown on the private permeable paving construction details Drawing 17748-BARN-5-921 and dealt with in correspondence with Paul Cann. Drawing not included on planning website or in correspondence regarding this DOC application, please provide, all documents must be publically available and be able to be referenced in any approvals.*
16. Please include a manhole schedule. *This matter was dealt with -refer to correspondence with Paul Cann and is subject to a S104. Included, to be reviewed when revised calculations are provided.*
17. Please detail how ACO drain near hydrobrake connects, this is not clear. *It connects into private lateral as you would expect of private parking bays. Make clear on plans, must be clear to ensure constructed properly.*
18. Please provide further detail on ACO drain, i.e. bedding, silt trap, etc. *This is of no consequence to the drainage engineer how the ACO is bedded. Notwithstanding it will be bedded in accordance with the manufacturers details. Please supply details, as stated previously by others sufficient information to ensure construction has been completed in accordance with approvals is required.*
19. Cranked grille must be provided. *This issue was dealt with in correspondence with Paul Cann. Please supply details, as stated previously by others sufficient information to ensure construction has been completed in accordance with approvals is required.*

20. Please provide further detail of granular material proposed for filter drain. *Type B filter material in accordance with SHW. Provide details on construction detail drawing. Please indicate ditch invert level at proposed point of connection to watercourse. The topo is shown on the drawing. It does not require further levels to be added. Please provide details.*
21. Please provide construction detail drawings of orifice control chambers. Including detail of blockage protection. *This was dealt with in the correspondence with Paul Cann. Please supply details, as stated previously by others sufficient information to ensure construction has been completed in accordance with approvals is required.*
22. Permeable paving construction detail drawing required. *Drawing 17748-BARN-5-921 Please supply details, as stated previously by others sufficient information to ensure construction has been completed in accordance with approvals is required.*

Condition 7- discharge of flows to watercourse

1. See comment 1 to condition 6. Closed.
2. Please provide an update regarding works to the downstream watercourses. This is fundamental to drainage of the site. *The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land Drainage Act, is on the land owner and subsequently the LLFA. Your drainage proposals are reliant upon this system, please reconsider.*

Condition 8- Maintenance of Suds

1. See comments to condition 6 above. Until these are resolved, the maintenance document cannot be approved. *The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land Drainage Act, is on the land owner and subsequently the LLFA. This comment had no relevance to the land drainage act, maintenance of a system cannot be approved until the design of that system is finalised.*
2. I do not believe it is realistic to expect adjacent homeowners to maintain the filter drain, access to this will be from the ditch, i.e. a communal area. Please reconsider. *The filter drain came at the suggestion of Paul Cann. There is rodding access at the opposite end to the ditch. It is entirely commonplace for filter drains in gardens to protect from water logged gardens. We are not arguing about them being proposed, but have asked that maintenance responsibility is reconsidered given the main point of access.*
3. The maintenance document refers to flap valves. Where are these? *The maintenance plans refers to examples of possible activities. There are no flap valves currently specified unless SW request one as part of their S104 audit. The maintenance manual must be site specific.*
4. Please include requirement for permeable paving within the document, including the brushing of permeable paving within the schedule of maintenance activities *See para 3.8 of the document. Insufficient, please provide details that are similar in detail to those in CIRIA SuDS manual. For example frequency of brushing, inspections, replacement all must be referenced.*

Condition 9- future access and maintenance of watercourse

1. Please provide an update regarding works to the downstream watercourses. This is fundamental to drainage of the site. *The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land*

Drainage Act, is on the land owner and subsequently the LLFA. Your drainage proposals are reliant upon this system, please reconsider.

2. Please indicate distance between fence of plot 17 and top of bank of watercourse. 3.146m okay.

Condition 10- drainage design and maintenance

1. See comments to condition 6 above. *The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land Drainage Act, is on the land owner and subsequently the LLFA. Your drainage proposals are reliant upon this system, please reconsider.*

2. I do not believe it is realistic to expect adjacent homeowners to maintain the filter drain, access to this will be from the ditch, i.e. a communal area. Please reconsider. *The filter drain came at the suggestion of Paul Cann. There is rodding access at the opposite end to the ditch. It is entirely commonplace for filter drains in gardens to protect from water logged gardens. We are not arguing about them being proposed, but have asked that maintenance responsibility is reconsidered given the main point of access.*

3. The maintenance document refers to flap valves. Where are these? *As above* The maintenance manual must be site specific.

4. Please include requirement for permeable paving within the document, including the brushing of permeable paving within the schedule of maintenance activities. *As above* Insufficient, please provide details that are similar in detail to those in CIRIA SuDS manual. For example frequency of brushing, inspections, replacement all must be referenced.

Kind regards,

On Sun, 19 Jul 2020 at 08:19, Michael Eastham <Michael.Eastham@arun.gov.uk> wrote:

Hi Paul and Laura,

Please see the email below and the attachments from John Freeman regarding discharge of condition application **BN/57/20/DOC** for the Lillies, Yapton Road, Barnham.

I look forward to receiving you response.

Kind regards,

Michael

Michael Eastham

Principal Planning Officer,

Planning Department



T: 01903 737772

E: michael.eastham@arun.gov.uk

Arun District Council, Civic Centre, Maltravers Rd, Littlehampton, West Sussex, BN17 5LF
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From: John Freeman [REDACTED]
Sent: 17 July 2020 16:50
To: Michael Eastham <Michael.Eastham@arun.gov.uk>
Cc: Paritosh Job [REDACTED]
[REDACTED] Carina Smith [REDACTED] Paul Cann
<Paul.Cann@arun.gov.uk>; Laura Gibbons [REDACTED]
Subject: FW: FW: Planning Consultation on: BN/57/20/DOC

Dear Michael,

Further to your recent e-mail we would respond as follows:

Condition 6 – Surface Water Drainage Design

1. I note you are proposing to discharge at 5l/s, this is greater than 1 year greenfield rate of 2.9l/s. The reasoning stated within the document for this is “5l/s, this being the minimum acceptable discharge rate that many authorities are willing to adopt”, this statement appears to be taken from outdated guidance. We accept discharge down to 2l/s as technology has improved meaning that smaller flow restrictions can be achieved with acceptable aperture sizes. Please revise flow or seek clarification from Southern Water regarding their minimum acceptable discharge. It is unlawful for a planning condition to be more onerous

than the consent to which that condition is attached. Therefore, we will not be restricted the discharge to lower than that approved at planning.

2. A surcharged outfall should be modelled with water levels at top of ditch. It is not appropriate to model surcharge levels as the top of the ditch. We have already informed the planning authority of the ground water levels therefore there is no technical justification, nor engineering sense, to assume a surcharge level at the top of the ditch.
3. No consistency between orifice invert levels on plan and those shown on drawings. Please update calculations or drawings. Updated drawings/calcs attached.
4. Porous car park area invert levels and sub base depths in calculations are inconsistent with those shown on plan. Please update calculations or drawings. Checked and updated. Note in the the manhole number in brackets on the plan depicts the manhole the porous car parks have been modelled on. Also where there are connecting areas, the mean average of the minimum depths have been used.
5. Where is porous car park manhole 4 in calculations? Please refer to plan and referenced manhole number
6. Porous car park m10 is 4 separate areas, with two different orifice controls. Yet this is modelled as one porous car park area. This is not appropriate, please calculate as separate structures. Checked and updated
7. Porous car park manhole 8 has a modelled invert level which is far lower than that shown on plan. Please update calculations or drawing. Checked and updated
8. An impermeable areas plan needs to be provided. Preferably in dwg format to facilitate paperless review whilst office working is heavily restricted. Attached
9. Pond cross section construction detail drawings are required- 2 sections required, perpendicular to one another. Details should include liner. Details of the liner are as per the e-mail correspondence to Paul Cann. Attached
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11. Cover levels must be detailed on plans Finished ground levels are detailed on the plans. The CL and ILs for the adoptable drainage is shown on MH schedules and longsections. This information is provided and we will not be duplicating the information.
12. Please provide details of correspondence with southern water. We are awaiting SW comments. The applications were submitted and registered on SW system on the 22/08/2019 we are yet to have any response despite chasing.
13. Please provide details of connections into and out of permeable paving (including on plan). These should be diffuser blocks. This matter was dealt with -refer to correspondence with Paul Cann.
14. Include invert levels and dimensions of connecting pipes between permeable paving areas. For example the link pipe between M4 permeable paving areas near plots 7 and 6 does not have a diameter or upstream invert level. This is shown on the private permeable paving construction details Drawing 17748-BARN-5-921 and dealt with in correspondence with Paul Cann.
15. Detail how water will flow between sub-base either side of service corridor construction for foul sewer. This is shown on the private permeable paving construction details Drawing 17748-BARN-5-921 and dealt with in correspondence with Paul Cann.
16. Please include a manhole schedule. This matter was dealt with -refer to correspondence with Paul Cann and is subject to a S104.

17. Please detail how ACO drain near hydrobrake connects, this is not clear. It connects into private lateral as you would expect of private parking bays.
18. Please provide further detail on ACO drain, i.e. bedding, silt trap, etc. This is of no consequence to the drainage engineer how the ACO is bedded. Notwithstanding it will be bedded in accordance with the manufacturers details.
19. Cranked grille must be provided. This issue was dealt with in correspondence with Paul Cann.
20. Please provide further detail of granular material proposed for filter drain. Type B filter material in accordance with SHW. Please indicate ditch invert level at proposed point of connection to watercourse. The topo is shown on the drawing. It does not require further levels to be added.
21. Please provide construction detail drawings of orifice control chambers. Including detail of blockage protection. This was dealt with in the correspondence with Paul Cann.
22. Permeable paving construction detail drawing required. This has already been provided: Drawing 17748-BARN-5-921

Condition 7- discharge of flows to watercourse

1. See comment 1 to condition 6.
2. Please provide an update regarding works to the downstream watercourses. This is fundamental to drainage of the site. The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land Drainage Act, is on the land owner and subsequently the LLFA.

Condition 8- Maintenance of Suds

1. See comments to condition 6 above. Until these are resolved, the maintenance document cannot be approved. The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land Drainage Act, is on the land owner and subsequently the LLFA.
2. I do not believe it is realistic to expect adjacent homeowners to maintain the filter drain, access to this will be from the ditch, i.e. a communal area. Please reconsider. The filter drain came at the suggestion of Paul Cann. There is rodding access at the opposite end to the ditch. It is entirely commonplace for filter drains in gardens to protect from water logged gardens.
3. The maintenance document refers to flap valves. Where are these? The maintenance plans refers to examples of possible activities. There are no flap valves currently specified unless SW request one as part of their S104 audit.
4. Please include requirement for permeable paving within the document, including the brushing of permeable paving within the schedule of maintenance activities. See para 3.8 of the document.

Condition 9- future access and maintenance of watercourse

1. Please provide an update regarding works to the downstream watercourses. This is fundamental to drainage of the site. The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land Drainage Act, is on the land owner and subsequently the LLFA.

2. Please indicate distance between fence of plot 17 and top of bank of watercourse. 3.146m

Condition 10- drainage design and maintenance

1. See comments to condition 6 above. The land drainage act requires the land owner to maintain the watercourse. If the LLFA have concerns they should contact the land owners direct. The developer has no right to go on to third party land and there is no statutory obligation on the developer to do so. The statutory obligation, under the Land Drainage Act, is on the land owner and subsequently the LLFA.
2. I do not believe it is realistic to expect adjacent homeowners to maintain the filter drain, access to this will be from the ditch, i.e. a communal area. Please reconsider. The filter drain came at the suggestion of Paul Cann. There is rodding access at the opposite end to the ditch. It is entirely commonplace for filter drains in gardens to protect from water logged gardens.
3. The maintenance document refers to flap valves. Where are these? As above
4. Please include requirement for permeable paving within the document, including the brushing of permeable paving within the schedule of maintenance activities. As above

Regards,

Regards,
For & on behalf of Woods Hardwick Infrastructure LLP

John Freeman MEng (Hons) CEng MICE MCIHT MIOd
Partner



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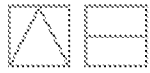
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Regards,
For & on behalf of Woods Hardwick Infrastructure LLP

John Freeman MEng (Hons) CEng MICE MCIHT MIOd
Partner



Woods Hardwick

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Woods Hardwick Infrastructure LLP. Registered in England No. OC335911 Registered office: 1 RUSHMILLS, NORTHAMPTON, NN4 7YB
VAT Number: 930842137GB

From: John Freeman
Sent: 09 July 2020 13:19
To: 'Michael Eastham' <Michael.Eastham@arun.gov.uk>
Cc: Carina Smith [Redacted]
Subject: FW: FW: Planning Consultation on: BN/57/20/DOC

Michael,

Hope you are well given the circumstances.

I have received the attached comments and have to same I am somewhat vexed and largely disappointed.

We had spent a long time agreeing a long list of requirements from Paul Cann (see below). This list was, as far as we were aware, dealt with in full. It is therefore a surprise to see some one new providing comments which even question already approved discharge rates.

Can I ask that these comments are vetted by Paul Cann in the first instance against the list below that was going back and forth between us and Paul.

1. Comments from Southern Water awaited.
2. Ok
3. Ok
4. -
5. -
6. Bottle gully detail noted. Rather than have a removable section of downpipe, it would be preferred for the downpipe to discharge onto a grated cover to collect any larger items of debris before they can enter the system. It is critical that the diffuser units are protected as much as possible. Once any debris/silt is in the diffuser, then the only way to get it out is to dig it up. Hence, a grated cover gives easy visual access into the gully, so maintenance/issues can be recognised more readily. Please adjust and make specific reference to their importance/arrangement in the maintenance manual. We have added a note to all relevant drawings that balloon leaf guards are to be added to all gutters.
7. Ok
8. -
9. -
10. Ok
11. -
12. Ok
13. Southern Water's comments awaited.
14. -
15. If Southern Water are happy with the type B manhole for the shallow manholes, then fine. Await Southern Waters comments.
16. Indicate the depth of pipe cover to suit each bedding type detail, on the drawing. Amended
17. -
18. -
19. Ok (Drawing 601 amended), drawing 600 needs to be too. Amended
20. -
21. -
22. -
23. Ok
24. Winter groundwater monitoring was undertaken on the development site immediately next door to the west. They encountered standing groundwater levels between 600mm and 1000mm deep which is comparable to our knowledge of Barnham. In fact levels can be much higher. Therefore, the pond will need to receive an impermeable liner to prevent groundwater flowing into the system. Provide construction detail/floating calcs. We note this is different to being asked to assume ground water is at ground level. We also note that the SI done on our site indicates that the ground water in the (typically wet) months the two SI's were undertaken was not this high. Notwithstanding we have undertaken the calcs and they are as follows. If you do assume a dry pond and groundwater at finished ground level, you'll need sufficient soil above the liner to equal 188m³ of water (pond volume), ie 188 tonnes. With soil at 2 tonnes/m³ this means 94m³ of soil are required. For a 248m² pond area, the soil thickness over the liner will need to be 380mm thick throughout. Therefore an impermeable liner will be installed, with 380mm of as dug material placed over it.
25. Add note to say that the channel drains to be installed as per manufacturers recommendations (including concrete bed and surround, sloping invert where there is no surface fall, and silt trap sump unit on the end). Added
26. -
27. -
28. Ok
29. -
30. Ok
31. -
32. -

33. Ok
34. -
35. Ok
36. Not connecting the 150mm pipe at soffit to soffit level is bad practice. Please rectify, irrespective of the S104 application. *Adjusted*
37. Await Southern Waters response.
38. Filter drain noted, however it needs to extend up to and including the rear of plot 12. Specify a 100mm pipe as opposed to 50mm. Rodding eye or manhole access required at head of run. Simple concrete bag headwall to be in accordance with the enclosed detail. *Adjusted*
39. Pipeline 3.000 is showing flooding - please provide evidence that this water will be contained on site without detriment to property or adjoining land. *Reviewed and flooding rectified.*
40. Please note that we are not the LLFA, so the revision schedule should not make reference to them. Whilst there is minimal risk of blockage of the orifices, please specifically mention them in the maintenance schedule under flow control devices. Approved drawings to be included when available. *Adjusted*
41. Polypipe orifice chamber is fine. Add note to say to be installed as per manufacturers recommendations. At least two orifice chambers are directly serving areas other than permeable paving ie. roofs. Notably the control chambers adjacent plots 9 and 13. These will require filters. Please adjust as necessary and note in the maintenance manual as required. We have added a note to all relevant drawings that balloon leaf guards are to be added to all gutters and note added regarding orifice chamber
42. Land drainage consent application awaited. This will be required for the two headwall connections to the ditch. Submission to follow

From: Laura Gibbons <[REDACTED]>
Sent: 07 July 2020 10:22
To: planning.responses@arun.gov.uk
Cc: michael.eastham@arun.gov.uk; Paritosh Job <[REDACTED]>; Tom Griffin
[REDACTED]
Subject: Fwd: FW: Planning Consultation on: BN/57/20/DOC

Dear Michael,

We have the following comments regarding this application to discharge drainage conditions.

Condition 6 – Surface Water Drainage Design

1. I note you are proposing to discharge at 5l/s, this is greater than 1 year greenfield rate of 2.9l/s. The reasoning stated within the document for this is “5l/s, this being the minimum acceptable discharge rate that many authorities are willing to adopt”, this statement appears to be taken from outdated guidance. We accept discharge down to 2l/s as technology has improved meaning that smaller flow restrictions can be achieved with acceptable aperture sizes. Please revise flow or seek clarification from Southern Water regarding their minimum acceptable discharge.
2. A surcharged outfall should be modelled with water levels at top of ditch.

3. No consistency between orifice invert levels on plan and those shown on drawings. Please update calculations or drawings.
4. Porous car park area invert levels and sub base depths in calculations are inconsistent with those shown on plan. Please update calculations or drawings.
5. Where is porous car park manhole 4 in calculations?
6. Porous car park m10 is 4 separate areas, with two different orifice controls. Yet this is modelled as one porous car park area. This is not appropriate, please calculate as separate structures.
7. Porous car park manhole 8 has a modelled invert level which is far lower than that shown on plan. Please update calculations or drawing.
8. An impermeable areas plan needs to be provided. Preferably in dwg format to facilitate paperless review whilst office working is heavily restricted.
9. Pond cross section construction detail drawings are required- 2 sections required, perpendicular to one another. Details should include liner.
10. Flotation calculations required. Please provide winter groundwater monitoring October- March. Otherwise, assume groundwater is at surface.
11. Cover levels must be detailed on plans
12. Please provide details of correspondence with southern water.
13. Please provide details of connections into and out of permeable paving (including on plan). These should be diffuser blocks.
14. Include invert levels and dimensions of connecting pipes between permeable paving areas. For example the link pipe between M4 permeable paving areas near plots 7 and 6 does not have a diameter or upstream invert level.
15. Detail how water will flow between sub-base either side of service corridor construction for foul sewer.
16. Please include a manhole schedule.
17. Please detail how ACO drain near hydrobrake connects, this is not clear.
18. Please provide further detail on ACO drain, i.e. bedding, silt trap, etc.
19. Cranked grille must be provided.
20. Please provide further detail of granular material proposed for filter drain. Please indicate ditch invert level at proposed point of connection to watercourse.
21. Please provide construction detail drawings of orifice control chambers. Including detail of blockage protection.
22. Permeable paving construction detail drawing required.

Condition 7- discharge of flows to watercourse

1. See comment 1 to condition 6.
2. Please provide an update regarding works to the downstream watercourses. This is fundamental to drainage of the site.

Condition 8- Maintenance of Suds

1. See comments to condition 6 above. Until these are resolved, the maintenance document cannot be approved.

2. I do not believe it is realistic to expect adjacent homeowners to maintain the filter drain, access to this will be from the ditch, i.e. a communal area. Please reconsider.
3. The maintenance document refers to flap valves. Where are these?
4. Please include requirement for permeable paving within the document, including the brushing of permeable paving within the schedule of maintenance activities.

Condition 9- future access and maintenance of watercourse

1. Please provide an update regarding works to the downstream watercourses. This is fundamental to drainage of the site.
2. Please indicate distance between fence of plot 17 and top of bank of watercourse.

Condition 10- drainage design and maintenance

1. See comments to condition 6 above.
2. I do not believe it is realistic to expect adjacent homeowners to maintain the filter drain, access to this will be from the ditch, i.e. a communal area. Please reconsider.
3. The maintenance document refers to flap valves. Where are these?
4. Please include requirement for permeable paving within the document, including the brushing of permeable paving within the schedule of maintenance activities.

Regards,

From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: 04 June 2020 14:49
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: BN/57/20/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: BN/57/20/DOC
Registered: 3rd June 2020
Site Address: Land Rear of Lillies Yapton Road Barnham PO22 0AY
Description of Works: Approval of details reserved by condition imposed under ref BN/32/15/OUT relating to Condition Nos 6 - surface water drainage, 7 - discharge flows, 8 - SudS, 9 - future access & maintenance of any watercourse and 10 - surface water drainage

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 wish to make any comments click on the link www.arun.gov.uk/planning and click into ?Enter Comment? or if this is not possible email your response to planning.responses@arun.gov.uk by **25th June 2020**.

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.

Yours sincerely

Michael Eastham

Planning Case Officer- Arun District Council

Telephone: 01903 737772

Email: michael.eastham@arun.gov.uk

PLCOND00 (ODS) 2020

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Laura Gibbons

Engineer, Adur & Worthing Councils



Address: Facilities & Technical Services, Worthing Town Hall, Chapel Road, Worthing, West Sussex, BN11 1HA

Adur and Worthing Councils are working in partnership with Arun District Council



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Laura Gibbons

Engineer, Adur & Worthing Councils



Address: Facilities & Technical Services, Worthing Town Hall, Chapel Road, Worthing, West Sussex, BN11 1HA



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