

Arun District Council, Civic Centre, Mattravers Rd, Littlehampton, West Sussex, BN17 5LF

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**From:** Sarah Burrow <Sarah.Burrow@arun.gov.uk>

**Sent:** 29 April 2022 17:04

**To:** Planning.Responses <Planning.Responses@arun.gov.uk>

**Cc:** Maria Tomalova <Maria.Tomalova@arun.gov.uk>; Paul Cann <Paul.Cann@arun.gov.uk>

**Subject:** RE: Planning Consultation on: R/53/22/DOC

#### **Engineers Comments Regarding Surface Water Drainage**

We request that further surface water drainage information is submitted prior to determination of this discharge of conditions application and do not recommend that the relevant conditions are discharged if this information is not provided, or if the design remains inadequate.

#### **Additional Information (that must be provided)**

1. A full detailed drainage design including long sections, and details for all elements of the scheme has not been provided. This design should include the bespoke parts of the drainage system, e.g. showing how the connection to the retained outfall will be removed, and details of the service corridors and underdrains beneath the permeable paving (not just standard details).
2. For the permeable paving the details should specify:
  - a) Surface course - ensuring permeable pavers specified.
  - b) Laying course - should be clean single sized aggregate.
  - c) Could include a running course - i.e. tarmac used during construction, which should be detailed as being punctured at frequent centres to allow water to pass through.
  - d) Sub-base – this should be an engineered stone, no fines, with a minimum porosity of 30%. Type 3 stone is the preference.
  - e) Geotextile - permeable where infiltrating, impermeable if in close proximity to buildings. This must also fully wrap around the sub-base.
  - f) Details of the diffuser units, incoming and outgoing pipes should be included as applicable. Incoming inverts should be located above the predicted 1 in 10 year (+ climate change allowance) water levels. Units must be at least 5m from any building (existing and proposed).
  - g) Details of how the permeable surfacing and sub-base will integrate with any areas of no dig construction associated with the arboricultural constraints and mitigation strategy identified at planning.

3. Calculations to be included with the application to confirm that the proposed drainage system will provide sufficient treatment to runoff draining from the site. As infiltration is currently proposed, the Index methodology can be used. This appraisal should also include a groundwater screening assessment to confirm that this method is appropriate (ref. Ciria C753 table 26.6).
4. As the development comprises more than 5 units, an 'exceedance flow route plan' should be provided. This plan should delineate the flow routes expected if the drainage system was to fail, or become overwhelmed by an event that exceeds the design parameters.
5. Further information on the existing drainage is required, as there are still some unknowns which could have a significant impact on the constructed design. In particular the following points should be addressed:
  - At approximate grid reference TQ 04367 01504, there appears to be a set of garages (offsite) which drain onto the development site, potentially freely via a disconnected downpipe. The exact nature of the drainage in this area should be confirmed to identify the area which is drained through the site. You will not need to include these additional flows within your drainage calculations / sizing of the proposed SuDS if it can be demonstrated that this area is relatively small and is unlikely to result in regular flooding, or a hazard to site users.
  - At approximate grid reference TQ 04372 01552, the existing drainage drawing shows a manhole with inflows from the north, potentially indicating the adjacent carparking area drains through the existing site. As this drainage run is to be removed as part of the proposals, it is necessary for this to be surveyed and for any flows from the carpark (offsite) to be managed. This is to ensure that the risk of flooding is not increased. As with the previous point, if it is shown that the flows are fairly low, and the risk to the site and surrounding area is minimal, you will not have to incorporate these additional flows into the SuDS storage calculations.
6. The proposals are for a phased development, and include inflows from other areas / phases. Details must be provided to show an understanding of how the later phases of development will impact on the scheme, and how runoff from these phases will be managed. This is particularly important due to inflows from the existing house, that do not appear to have been quantified.
7. A drainage catchment plan showing the areas draining to each of the zones within the drainage model should be provided. This drawing should be scaled and include a scale bar to allow for spot checking of the areas used.
8. An Infiltration map / plan showing the infiltration rates used for each area should be provided, alongside the rates determined from the site investigations.

**Additional comments based on the design (as provided).**

- The root protection zones, and tree protection plan identified and proposed at the planning stage, do not appear to have been included within the final drainage design. It will be necessary to ensure the design takes into consideration the existing trees in accordance with the arboriculture constraints.
- A 5m easement between the permeable paving and any buildings will be required. This is considered necessary as there is a high percentage of impermeable area draining to the permeable paving zones (where infiltration is possible). This will result in the system concentrating runoff in a relatively small/confined area.

**Additional information for the planning officer**

Separate from the above comments, the planning officer should also be aware that the flood risk assessment (FRA), and EA response to the planning application, suggested finished floor level (FFL) requirements. Details of the flood mitigation to be provided should be agreed with the EA and consideration should be given to the proposed FFLs, to ensure that these can still be achieved if the site levels differ from the levels agreed in the original FRA (e.g. due to drainage requirements).

We would also recommend that Southern Water is contacted regarding the need to undertake a foul water capacity check. This is required as part of the FRA submitted at the planning application stage, and included as a caveat on the S106 (sewer connection) application, which states that one may still be required. Southern Water should also confirm that they are satisfied with the Applicant's proposal to remove the existing unmapped sewers / lateral drains crossing the site.

Kind Regards,

**Stephen Hayward** BSc (Hons) ARSM MCWEM

**Herrington Consulting Ltd.**

**herrington**  
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Current working pattern: Monday-Friday, 8am - 2:30pm

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**From:** Planning.Responses <[Planning.Responses@arun.gov.uk](mailto:Planning.Responses@arun.gov.uk)>

**Sent:** 15 March 2022 15:04

**To:** Land Drainage <[Land.Drainage@arun.gov.uk](mailto:Land.Drainage@arun.gov.uk)>

**Subject:** Planning Consultation on: R/53/22/DOC

To: **Engineers (Drainage)**

## NOTIFICATION FROM ARUN DISTRICT COUNCIL

### TOWN AND COUNTRY PLANNING ACT 1990

**Application No:** R/53/22/DOC

**Registered:** 7th March 2022

**Site Address:** Rustington Convalescent Home Sea Road Rustington BN16 2LZ

**Description of Works:** Approval of details reserved by condition imposed under ref R/187/16/PL relating to Condition Nos 13 - provision to prevent surface water discharging to public highway, 19 - foul and surface water sewerage disposal, 20 - surface water drainage and 22 - maintenance and management of SuDs system.

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](http://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](mailto:planning.responses@arun.gov.uk) by **29th March 2022**.

**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

Maria Tomalova

Planning Case Officer- Arun District Council

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PLCOW/DOC (008) 2020