Engineers Comments Regarding Surface Water Drainage

Application Reference:	M/12/24/DOC	**Reviewer Reference:**	ADC/SB
Planning Officer:	Kathryn Welch	**Date of Review:**	03/04/2024
Site Name:	188 Elmer Road Middleton-on-sea PO22 6JA		
Application Description:	Approval of details reserved by condition imposed under M/109/21/PL relating to condition 5-surface water drainage.		
Assessment Number:	1 of 2		

Policy and Guidance Information

Arun District Council Surface Water Drainage Guidance - https://www.arun.gov.uk/surfacewater

WSCC Policy for the Management of Surface Water- https://www.westsussex.gov.uk/media/12230/ws_llfa_policy_for_management_of_surface_water.pdf

Land Drainage Consent - https://www.arun.gov.uk/land-drainage-consent/

Arun District Council surface water pre-commencement conditions - https://www.arun.gov.uk/planning-pre-commencement-conditions

Response	Condition 5: **Recommend refusal**

Critical Items for Surface Water Drainage Design Conditions

The failure to adequately address the following items has resulted in a recommendation to **refuse** this application to discharge a surface water drainage design condition.

If any of these items are inadequately addressed by the submission, then their correction may result in a redesign of the surface water drainage scheme. A redesign is likely to have site wide implications such as the potential for storage structures to increase in volume or plan area.

Items are further elaborated upon in the attached comment tracker where necessary.

Further comments which are unlikely to impact the design methodology will be provided in the comment tracker, these relate to the detailed design. Unless clearly stated, it is considered that these additional comments are unlikely to result in a redesign of the system. These can be addressed following a second consultation to prevent unnecessary refusals.

Critical Item	Reason	Status
Winter groundwater monitoring data	Adequate winter groundwater monitoring data must be supplied to evidence that infiltration designs have sufficient freeboard from the base of structures and the peak groundwater level. The same data is necessary to ensure that the potential for buoyancy has been adequately considered in attenuation designs.	**Compliant**
Winter infiltration testing data	Adequate winter infiltration testing must be supplied to justify the proposed discharge method and design infiltration rates.	**Compliant**

	Infiltration tests must be completed strictly in accordance with BRE DG 365, CIRIA R156 or a similar approved method. Testing depths must account for peak groundwater levels and correspond with the location and depth of proposed infiltration features. Designs must be based upon the slowest infiltration rate evidenced closest to a proposed infiltration feature. Average design rates will not be accepted.	
The hierarchy for sustainable drainage	The proposed discharge method must accord with the Building Regulations & SuDS hierarchy, evidence must be supplied to justify the proposed discharge method.	**Insufficient**
Calculations	Calculations for pre-development run off rates must be based upon the positively drained area only. Proposed discharge rates must not increase flood risk on site or elsewhere. A minimum discharge rate of 2 l/s/ha must be applied.	**Insufficient**
	Designs must be based on the most up to date rainfall data at the time of conditions being applied. **FSR rainfall data will not be accepted.** FEH rainfall data is based upon more recent records and continues to be updated.	**Insufficient**
	Designs must use the correct climate change allowances at the time of conditions being applied. CV values for all events must be set to 1. This includes summer, winter, design, and simulation events. The correct allowance for urban creep must be applied. Additional storage must be set to zero unless it can be evidenced where this is provided. Infiltration half-drain times must be less than 24 hours. A surcharged outfall must be modelled.	**Insufficient**

Natural catchments design	Designs must replicate the natural drainage catchments of the site. All surface water drainage designs must therefore drain via gravity. **The use of pumps for surface water drainage is not sustainable and will not be accepted**.	**Insufficient**
Plans	Plan areas and depths of drainage infrastructure must accurately correspond with the supporting calculations. A 3m easement must be provided from all watercourses and open SuDS features for maintenance purposes. This easement must be clearly shown on all plans.	**Compliant**
Water quality benefits	An assessment of water quality is necessary to evidence that the proposed design provides adequate treatment of surface water.	**Insufficient [Non-major]**
Biodiversity and amenity benefits	The surface water drainage design must provide biodiversity and amenity benefits.	**Insufficient [Non-major]**
Trees	There should be no conflict between surface water drainage infrastructure and existing or proposed trees. The design must consider the potential growth of proposed trees and adequate mitigation must be provided to protect drainage infrastructure where conflict **cannot** be avoided.	**Compliant [Non-major]**

Additional comments to the planning officer

It is recommended that this application to discharge condition 5 imposed under application M/109/21/PL is refused. The design proposes to pump surface water that overflows from the rainwater harvesting system over the sea wall on to the foreshore. The use of pumps is unsustainable, and we do not support their use for surface water drainage purposes. Equally we are not willing to accept a solution that could compromise the standard of protection of the sea wall by drilling through it.

The design will therefore need reconsideration. Further investigation is required into the possibility of connecting into the highway drainage system adjacent to the property.

The applicant will need to provide a plan of the existing drainage on the site, photographs of the downpipes, overland flow routes and impermeable areas so there is a clear indication of how much of the site currently drains into the highway drainage system. This will need to be presented to WSCC to further discussion about the possibility of connecting surface water into the highway drainage system.

When a new application is made, it will need to be supported by updated calculations and construction detail drawings for all components. It is expected that silt traps are provided to capture silt and debris from the roof water.

[redacted]

Arun District Council, Civic Centre, Maltravers Rd
Littlehampton, West Sussex, BN17 5LF
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From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: Thursday, April 4, 2024 9:31 AM
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Kathryn Welch <Kathryn.Welch@arun.gov.uk>; Paul Cann <Paul.Cann@arun.gov.uk>; Karl Mclaughlin <Karl.Mclaughlin@arun.gov.uk>
Subject: RE: Planning Consultation on: M/12/24/DOC

Hi Kathryn,

Find my consultation – recommending refusal – attached. Apologies for the delay in response.

Kind regards

Sarah Burrow
Engineering Assistant, Coastal Engineers and Flood Prevention

T: 01903 737815
E: sarah.burrow@arun.gov.uk
[redacted]

Usual working pattern:
Monday – Flexible between 8am and 4pm
Tuesday and Wednesday – 9:15am to 2:45pm
Thursday – 9am to 5pm
Friday – 8am to 2:45pm

Arun District Council, Civic Centre, Maltravers Rd
Littlehampton, West Sussex, BN17 5LF
www.arun.gov.uk



From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: Thursday, February 22, 2024 10:03 AM
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: M/12/24/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No:	**M/12/24/DOC**
Registered:	20th February 2024
Site Address:	188 Elmer Road Middleton-on-sea PO22 6JA
Description of Works:	Approval of details reserved by condition imposed under M/109/21/PL relating to condition 5-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 **7th March 2024.**

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

Kathryn Welch

Planning Case Officer- Arun District Council

Telephone: 01903 737789

Email: kathryn.welch@arun.gov.uk

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