



RIDGE

**DRAINAGE TECHNICAL NOTE
COWPLAIN SCHOOL**

November 2022

DRAINAGE STRATEGY – TECHNICAL NOTE

DRAINAGE TECHNICAL NOTE COWPLAIN SCHOOL, WATERLOOVILLE

November 2022

Prepared for

Frontier Estates

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VERSION CONTROL

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DRAINAGE STRATEGY – TECHINCAL NOTE

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DRAINAGE STRATEGY – TECHNICAL NOTE

1. INTRODUCTION

This technical note has been prepared to supplement the drainage strategy document 5017735-RDG-XX-XX-DOC-C-9950 dated 02/03/2022 to respond to the comments raised by the LLFA.

1.1. Calculations

- 1.1.1. We refer to the accompanying Hydraulic calculations which show the updated peak rainfall allowances being taken in to account and that the network does not need updating to allow for this.

1.2. Flood Flows

- 1.2.1. We refer to the accompanying new drawing 5017735-RDG-XX-XX-DR-X-0502 which shows the flood flow routes. Where these flow towards buildings the FFI's are 150mm above the surrounding ground level enabling the flood flows to then follow the natural gradient away from the buildings.

1.3. Water quality.

- 1.3.1. The Proposed Development utilises flow paths through permeable paving and a downstream defender prior to discharge to the public sewer.
- 1.3.2. The proposed downstream defender will ensure that the receiving watercourse that is the eventual recipient of the surface water flows from the public sewer are protected from this site.
- 1.3.3. Subsequently the vulnerability of water quality within the existing sewer networks and river is considered to be low.

The Simple Index Approach has been utilised to assess the water quality management set out in the SuDS Manual, with appropriate cross referencing to the relevant 'Design Conditions'.

- 1.3.4. The results of these assessments are in the following tables and confirm that the proposed roof and parking areas are suitably designed to maintain water quality.

DRAINAGE STRATEGY – TECHINCAL NOTE

SUMMARY TABLE

Land Use Type	Residential roof
Pollution Hazard Level	Very Low
Pollution Hazard Indices	
TSS	0.2
Metals	0.2
Hydrocarbons	0.05
SuDS components proposed	
Component 1	Downstream defender (Vortex)
SuDS Pollution Mitigation Indices	
TSS	0.3
Metals	0.2
Hydrocarbons	0.2
Combined Pollution Mitigation Indices	
TSS	0.3
Metals	0.2
Hydrocarbons	0.2
Acceptability of Pollution Mitigation	
TSS	Sufficient
Metals	Sufficient
Hydrocarbons	Sufficient

DRAINAGE STRATEGY – TECHINICAL NOTE

SUMMARY TABLE

Land Use Type	Residential parking
Pollution Hazard Level	Low
Pollution Hazard Indices	
TSS	0.5
Metals	0.4
Hydrocarbons	0.4
SuDS components proposed	
Component 1	Pervious pavement
SuDS Pollution Mitigation Indices	
TSS	0.7
Metals	0.6
Hydrocarbons	0.7
Combined Pollution Mitigation Indices	
TSS	0.7
Metals	0.6
Hydrocarbons	0.7
Acceptability of Pollution Mitigation	
TSS	Sufficient
Metals	Sufficient
Hydrocarbons	Sufficient



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