MID SUSSEX DISTRICT COUNCIL

Flood Risk & Drainage Team
Estate Services & Building Control

Detailed Drainage Design Information Guide

Mid Sussex District Council's Flood Risk and Drainage requirements are based on relevant national and local policies and guidance. This guide aims to provide a checklist of information necessary at the detailed design stage for applicants and developers.

Please be aware that receipt of all information does not guarantee a design will be considered acceptable and does not preclude requests for further information.

Surface Water Drainage

Surface water drainage design should be based on the latest versions of the following policies and guidance:

- National Planning Policy Framework
- Planning Practice Guidance for Flood Risk and Coastal Change
- Environment Agency's Climate Change Guidance
- West Sussex Lead Local Flood Authority Policies and Guidance
- Mid Sussex District Council Planning Policy.

It is advised that the latest versions of these policies and guidance are obtained prior to works being undertaken on the detailed drainage design of any application.

Finalised detailed surface water drainage design is generally required to be submitted and approved prior to construction starting on site. However, we advise that drainage is considered at the earliest opportunity within the planning process.

The use of pumped surface water drainage is not considered to be sustainable and therefore would not be considered an appropriate means of managing surface water as part of a development.

The locating of drainage features within flood extents from any source is not generally acceptable, except where these are necessary to facilitate discharge of water from the site. Drainage should be designed to avoid areas of flood extents including an allowance for climate change.

Unless otherwise discussed and agreed with the Flood Risk and Drainage Team drainage calculations should utilise a CV value of 1.

Table 1 of this guide provides a checklist for all information the detailed surface water drainage design should include. Developers are encouraged to complete the table and provide as a cover page to future drainage design submissions.

Foul Water Drainage

Finalised detailed foul water drainage design is generally required to be submitted and approved prior to construction starting on site. However, we advise that drainage is considered at the earliest opportunity within the planning process.

In line with national guidance and the Environment Agency's General Binding Rules the use of a public foul sewer connection should always be prioritised over non-mains drainage options.

The use of non-mains foul drainage should consider the latest Environment Agency's General Binding Rules. We would advise all developers and applicants to review these requirements as additional rules were added to this in October 2023 which came into immediate effect.

The Environment Agency have advised that any existing septic tank foul drainage systems that are found to not comply with the latest Binding Rules will need to be replaced or upgraded. We would expect to this included within a foul water drainage design wherever necessary.

Table 2 of this guide provides a checklist of information the detailed foul water drainage design should include. Developers are encouraged to complete the table and provide as a cover page to future drainage design submissions.

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Table 1: Detailed **surface water** drainage design requirement checklist

	Requirement	Summary & Information location within submission
	For all designs	
	Greenfield runoff rate details for the area to be drained (using FEH or a similar approved method)	
	On-site infiltration test results	
	Plans / details of areas to be drained based on finalised development plans	
	Calculations showing the system has been designed to cater for the 1 in 30 with climate change and 1 in 100 with climate change storm events	
	Detailed drainage plans, including invert levels and pipe diameters, showing entire drainage system	
	Maintenance and management plan[1]	
	For soakaways	
	Sizing calculations (to cater for 6-hour, 1 in 100-year plus climate change event)	
	Half drain time (<24 hours)	
	Construction details	
	For discharge to watercourse	
	Discharge rate (1 in 1 or QBar Greenfield rate for drained area)[2]	
	Outfall location and construction details	
	Attenuation sizing calculations (to cater for 1 in 100-year plus climate change event[3])	
	For discharge to sewer	
	Discharge rates (restricted to 1 in 1 or QBar Greenfield rate for drained area unless otherwise agreed with sewerage provider)	
	Discharge location and manhole number	
	Outline approval from sewerage provider in relation to connection, discharge rate and connection location[4]	
	Attenuation sizing calculations (to cater for 1 in 100-year plus climate change event[5])	

[1] The scale of this document should reflect the scale of the development and the complexity of the drainage system.
[2] If the Q1 or QBar Greenfield runoff rate cannot be achieved, then evidence into why a higher discharge rate has been proposed should be provided as part of the detailed design. Due to improvements in drainage systems the 2l/s minimum will not be accepted without justification.
[3] If system does not attenuate up to the 1 in 100-year with climate change event, then evidence that the system shall not increase flood risk on, or off site shall be required.
[4] Formal approval via S106 etc is not required.
[5] If system does not attenuate up to the 1 in 100-year with climate change event, then evidence that the system shall not increase flood risk on, or off site shall be required.

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Table 2: Detailed **foul water** drainage design requirement checklist

	Requirement	Summary & Information location within submission
	For all designs	
	Plans showing entire drainage system, including invert levels, pipe diameters, falls and outfall/connection location	
	Foul flow calculations and confirmation proposed system is sized appropriately	
	For connection to main foul sewer	
	Discharge location and manhole number	
	Evidence of communication with Water Authority regarding connection[6]	
	For non-mains system with drainage field	
	Evidence of permeability (infiltration) test results specific to treated effluent drainage fields	
	Evidence that either: a) The system meets latest General Binding Rules, or b) An Environmental Permit application is to be submitted	
	For non-mains system with discharge to open water	
	Evidence that either: a) The system meets latest General Binding Rules, or b) An Environmental Permit application is to be submitted	
	Outfall location and construction details	

[6] Formal approval via S106 etc is not required.