

Detailed drainage design technical summary

Table 1: Detailed drainage design summary- surface water

Requirement	Information	Location of information/ drawing number
For all designs		
Greenfield runoff rate details for the area to be drained (using FEH or a similar approved method)		Appendix F
On-site infiltration test results		N/A Attenuation Storage
Plans / details of areas to be drained based on finalised development plans		Appendix C & D
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		Appendix D
Calculations should use a CV value of 1.0		
Detailed drainage plans, including invert levels and pipe diameters, showing entire drainage system		Appendix C
Maintenance and management plan ¹		Already submitted and accepted.
For soakaways		
Sizing calculations (to cater for 6-hour, 1 in 100-year plus climate change event)		N/A
Half drain time (<24 hours)		N/A
Construction details		N/A
For discharge to watercourse		
Discharge rate (1 in 1 or QBar Greenfield rate for drained area) ²		Appendix F and D
Outfall location and construction details		Appendix D
Attenuation sizing calculations (to cater for 1 in 100-year plus climate change event ³)		Appendix D
For discharge to sewer		
Discharge rates (restricted to 1 in 1 or QBar Greenfield rate for drained area unless otherwise agreed with sewerage provider)		N/A
Discharge location and manhole number		N/A
Outline approval from sewerage provider in relation to connection, discharge rate and connection location ⁴		N/A
Attenuation sizing calculations (to cater for 1 in 100-year plus climate change event ⁵)		N/A

¹ The scale of this document should reflect the scale of the development and the complexity of the drainage system.

² If the 1 in 1 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.

Table 2: Detailed drainage design requirements - foul water

Requirement	Summary	Location of information/ drawing number
<i>For all designs</i>		
Plans showing entire drainage system, including invert levels, pipe diameters, falls and outfall/connection location		Appendix C & D
Drainage systems should be located within land under the control of the applicant		
Foul flow calculations and confirmation proposed system is sized appropriately		Appendix D
<i>For connection to main foul sewer</i>		
Discharge location and manhole number		Unknown chamber still underconstruction by Taylor Wimpey estate.
Evidence of communication with Water Authority regarding connection ⁶		To be completed by the owner (section 106 or equivalent & permission from TW).
<i>For non-mains system with drainage field</i>		
Evidence of permeability (infiltration) test results specific to treated effluent drainage fields		N/A
Evidence that either: a) The system meets latest General Binding Rules, or b) An Environmental Permit application is to be submitted		N/A
<i>For non-mains system with discharge to open water</i>		
Evidence that either: a) The system meets latest General Binding Rules, or b) An Environmental Permit application is to be submitted		N/A
Outfall location and construction details		N/A