Environmental Information Regulations – Response - 27181

Drainage Braking Road, Needham Market

Could I also please ask for a copy of the calculations used to calculate the anticipated run-off, including area of land to be drained and estimated rainfall - and therefore the number of drains and the size of the pipework required.

Highway drainage responsibilities are limited to the management of surface water within the boundaries of the adopted highway. In this location, the total area of highway surface amounts to 1,714 m².

Suffolk County Council recognise, however, that local topography can, in practice, make it challenging for adjoining landowners to manage all surface water run-off within their own boundaries. Accordingly, the drainage design was developed to accommodate a proportion of run-off from adjacent land. This provision exceeds our statutory obligations as the highway authority, but the additional investment was considered justified in order to reduce the frequency, depth, and duration of flooding on the carriageway, and to mitigate the risk of overland flow towards Foxglove Avenue, where properties experienced flooding during the 2023/24 storm events. The estimated area of adjacent land incorporated into the drainage design calculations was 33,892 m².

The calculations supporting the original proposal are provided in the attached document. It should be noted, however, that certain modifications were required during detailed design to address shallow utilities and constraints associated with the site extent.

Redacted Information

All information released in response to a Freedom of Information Act 2000 (FOIA) or Environmental Information Regulation 2004 (EIR) request is deemed to be in the public domain. As such we must consider whether or not the requested information qualifies as personal information and should therefore not be released into the public domain.

The council has determined that this is personal information and is therefore exempt from disclosure under **section 40** of the FOIA and **regulation 13** of the EIR.

The Council considered the following, including the possible consequences of disclosure for the data subjects concerned and their reasonable expectations as to the use of their data:

- expectations of the individuals concerned about personal information being put into the public domain;
- reasonable expectations - the data subjects concerned would have a legitimate expectation of privacy concerning their personal information and would not have anticipated this being put into the public domain;

- whether or not the requested information could be anonymised; and
- balancing the individual's rights and the legitimate interests - In past cases the Information Commissioner has weighed the individual's rights to privacy against the public interest in disclosure. There is no presumption in favour of releasing personal data.

This is an absolute exemption, which means that if the condition is satisfied there is no additional public interest test to consider.

In assessing fairness, the Council considered the likely consequences of disclosure of the requested information. Personal information should not be used in ways that have unjustified adverse effects on the individuals concerned. The council also considered whether such disclosure would be within the reasonable expectations of the individuals, given that any response to a request under the FOIA or EIR is deemed to be in the public domain. The council believes that in this instance it is not fair to disclose personal data and is therefore withholding the requested information under section 40 of the FOIA and regulation 13 of the EIR.

	Job Name:	Barking Road, Needham Market Pharmacy		Job Number	258313
	Calc. Title:	Drainage Calcs		Calc. No. 1	Sheet No. 001
	Check by: [redacted]	Date: 11/03/2025	Calc. by: [redacted]	Date: 11/03/2025	Prior Checkprint: 01

Reference			Output
	Rainfall event		
	Refer to drainage layout for catchment plan		
	Rainfall event		1:100
	Peak runoff rate - Q = CiA		
	Q = Peak Runoff rate (m³/s)		
	C = Runoff coefficient		0.42
CIRIA 753	i = Rainfall intensity (m/h)		50 mm/hr
	A = Catchment area (m²)		35000 m²
	Q		0.20417 m³/s
	Gullies		
	According to CD526		
	For steeper gradients > 1/90 Gullies spacing to be max		45 m
	For flatter gradients < 1/150 Gullies spacing can be increased to		30 m
	No Gullies required - Q/gully capacity		

Template version: 3

	Job Name:	Barking Road, Needham Market Pharmacy		Job Number	258313
	Calc. Title:	Drainage Calcs		Calc. No. 1	Sheet No. 002
	Check by:	Date: 11/03/2025	Calc. by:	Date: 11/03/2025	Prior Checkprint: 01

Reference				Output	
	Assume gully width			450	mm
	Gully Type			D400	
	Maximum capacity			7	l/s
	No. of Gulles required			29.167	l/s
	Pipes				
	Pipe size			467	mm
	Pipe material			PVC	
	Mannings Equation	$Q = \frac{1.49}{n} * A * R^{\frac{2}{3}} * S^{\frac{1}{2}}$			
BS EN 752	n (mannings roughness coefficient)			0.009	
	S (slope angle)			0.0025	
	A (cross sectional area)			0.1713	m²
	P (Wetted perimeter)			1.4671	m
	R (Hydraulic Radius) A/P			0.1168	m
	Q (flow rate in pipe)			0.2273	m³/s
			eqv to.	227.31	l/s
	Compare to Peak Runoff rate			0.9	PASS
	Anglian water system pipe size			900	mm
	Cover Level			25.126	m
	Depth to invert			1.43	m
	Invert level			23.696	m
	First Gully road level			24.954	m
	Length			90	m
	Approx gradient	1: 71.542		0.014	m
	Approx invert level of new pipe in existing manhole			23.868	m

Template version: 3

	Job Name:	Barking Road, Needham Market Pharmacy		Job Number	258313
	Calc. Title:	Drainage Calcs		Calc. No. 1	Sheet No. 003
	Check by: [redacted]	Date: 11/03/2025	Calc. by: [redacted]	Date: 11/03/2025	Prior Checkprint: 01

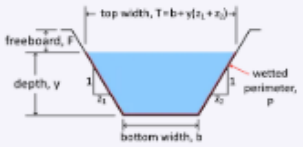
Reference
CD 527 B4 Minimum gradient required

Output
1:417

Earth Ditch

Channel specifications

Cross section
- Rectangular
- Trapezoidal
- Triangular
- Semi-circular



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Design
- Most efficient design
- Custom design

Surface: Enter a custom Manning's coe…

Manning's coefficient (n): 0.03

Channel slope (s): 0.01 %

Water flow depth (y): .65 m

Bottom width (b): .625 m

Slope (z1): 2

Slope (z2): 2

Top width (T): 3.225 m

Channel water flow output values

Cross-sectional area (A)	1.2513 m²
Wetted perimeter (P)	3.532 m
Hydraulic radius (R)	0.3543 m
Freeboard (F)	0.065 m
Mass flow rate (v)	0.1669 m/s
Volumetric flow rate (Q)	0.20882 m³/s

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