



Project No: 25293

Project: 3 Grindleton View
Chatburn
Clitheroe
Lancashire
BB7 4BE

Subject: SuDS Drainage Statement

Date: 01 September 2025

FLOOD FLOW LTD

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1.0 GENERAL

This drainage statement has been prepared to support the planning application for the proposed erection of a new dwelling at 3 Grindleton View, Chatburn, Clitheroe, Lancashire, BB7 4BE.

The development site comprises part of the residential garden area situated immediately to the north of the existing dwelling. The land is currently grassed with scattered trees and boundary vegetation. The proposed scheme will introduce a new dwelling with associated hardstanding, which will require a suitable strategy for the disposal of surface water in accordance with national and local planning policy.

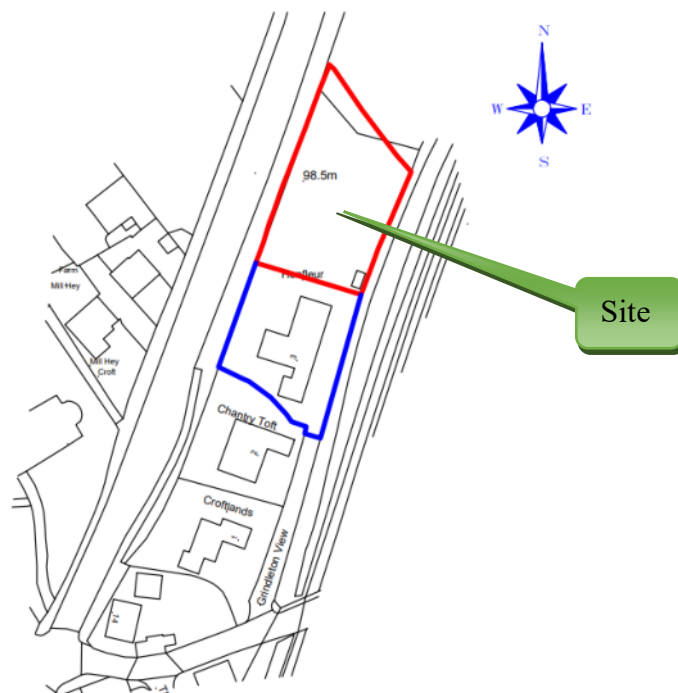


Figure 1 – Site Location Plan

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2.0 DRAINAGE DESIGN

2.1 Surface Water Drainage

2.1.1 Flood Risk

The site is less than 1.0 ha and lies within the Zone 1 Flood Map. This means the land is assessed as having a low probability of flooding, which is less than 1 in 1000 (<0.1%). On this basis, a Flood Risk Assessment is not required.

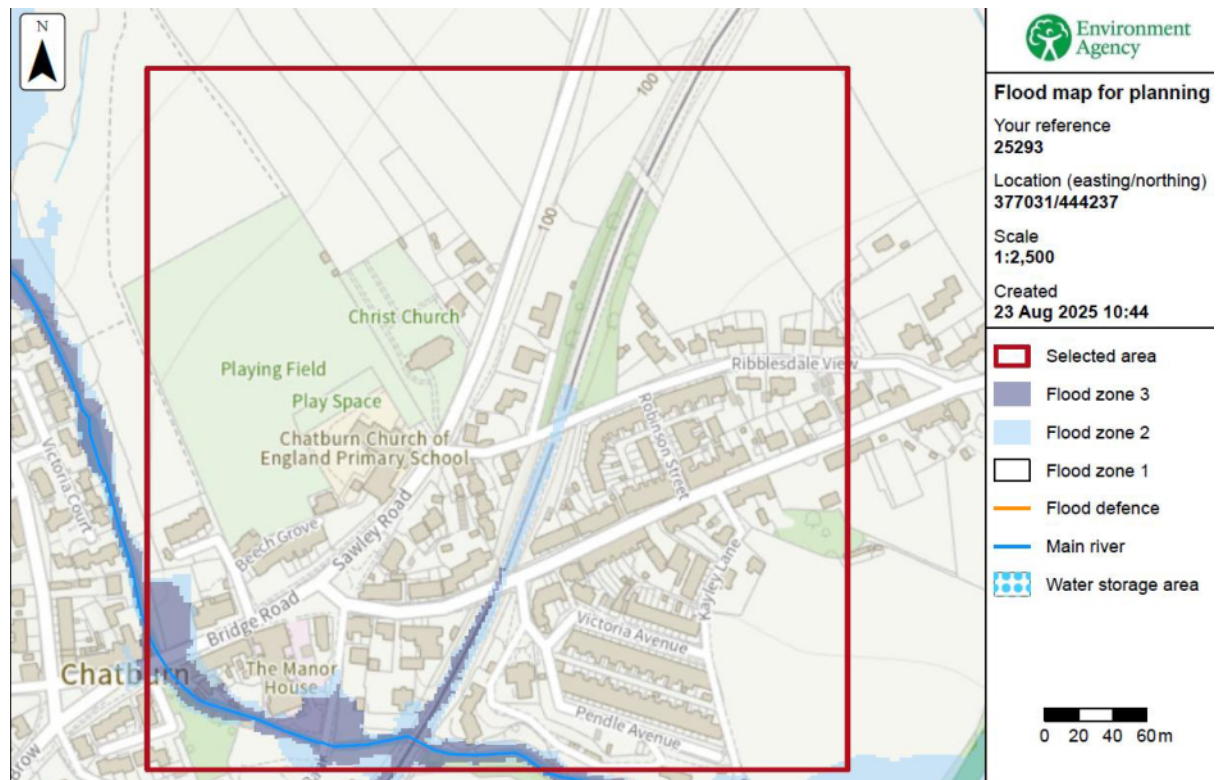


Figure 2 – Flood Map for Planning

2.1.2 Drainage Strategy

1st Choice - Discharge to Soakaway

In accordance with the Building Regulations hierarchy for the disposal of surface water drainage, the initial consideration must be for a soakaway system.

Infiltration testing (BRE 365) has been undertaken on site and is reported separately. The test results demonstrated extremely slow and incomplete water level reductions, with trial pits remaining waterlogged after two hours. In addition, the site investigation boreholes confirm that the ground comprises made ground over firm sandy and gravelly clays, with shallow refusal at 1.4–2.5 m depth on probable bedrock. Groundwater was not encountered.

This corresponds with published geological mapping, which identifies the superficial deposits in the area as alluvium (clay, silt, sand and gravel) overlying the Chatburn

Limestone Formation (limestone) at depth. At this site, the cohesive clay strata and shallow refusal prevent effective infiltration.

The investigation therefore demonstrates that infiltration drainage is **not feasible**, as incident rainfall will generate surface water runoff rather than infiltrate naturally.

On this basis, soakaway drainage is considered non-viable, and alternative methods of surface water management should be adopted.

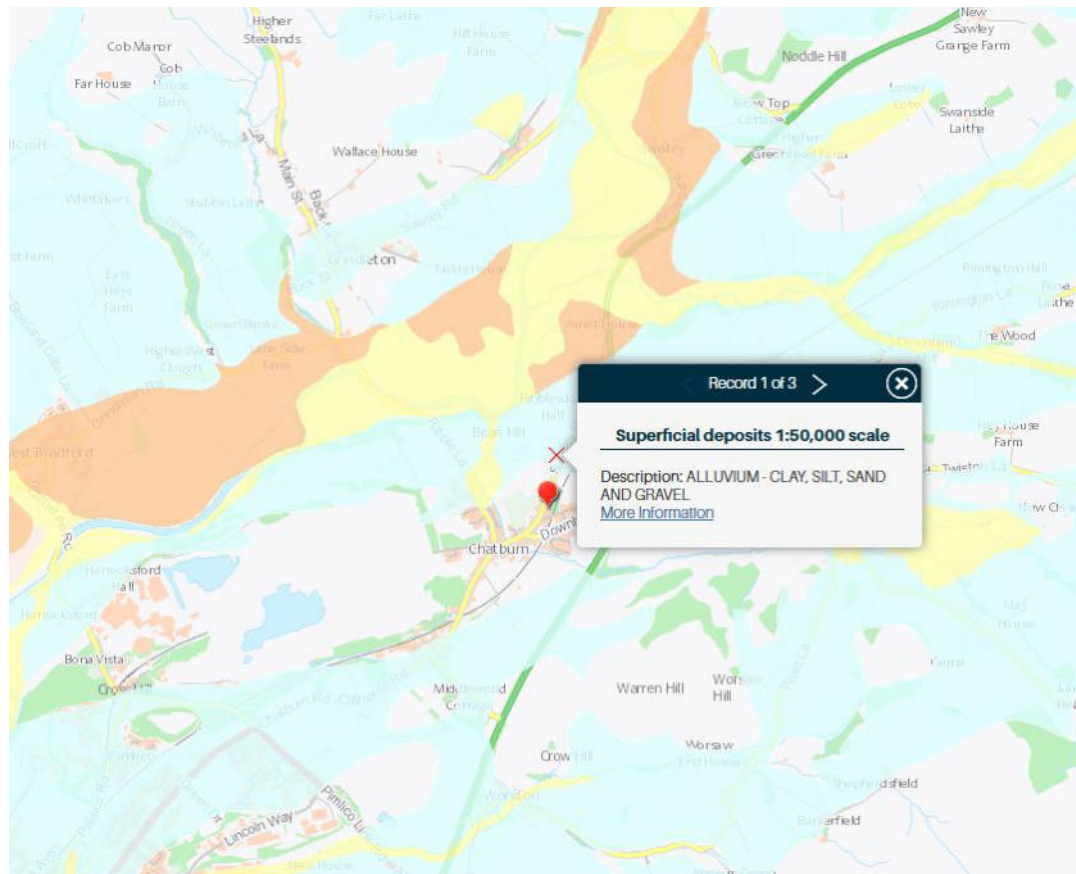


Figure 3 – Superficial Deposits

2nd Choice - Discharge to Watercourse

In accordance with the drainage hierarchy, the next option for surface water disposal is discharge to a watercourse. The Environment Agency's Main River Map confirms the presence of a designated Main River flowing through Chatburn to the west of the site, eventually discharging to the River Ribble.

However, the development plot at 3 Grindleton View does not adjoin this watercourse, and there is no ordinary watercourse within or immediately adjacent to the site boundary. A direct outfall to a watercourse is therefore not available without crossing third-party land, which is not feasible in this case.

Accordingly, discharge to a watercourse is not achievable, and the strategy must proceed to consideration of the third hierarchy option: discharge to a public surface water sewer.

3rd Choice - Discharge to Surface Water Sewer

The third option in the drainage hierarchy is discharge to a public surface water sewer. United Utilities asset records confirm the presence of an adoptable surface water sewer within the adjacent highway (Grindleton View). This sewer provides a viable outfall for attenuated discharge, subject to agreement with United Utilities. Flows from the development will therefore be restricted to the agreed greenfield runoff rate, with on-site attenuation sized for the 1 in 100 year storm plus 50% climate change allowance.

4th Choice - Discharge to Combined Sewer

The fourth and least preferable option is discharge to a combined public sewer. United Utilities records indicate that combined sewers are present within the wider network. However, connection to a combined sewer is only considered where infiltration, watercourse, and surface water sewer outfalls are not available. In this case, a direct surface water sewer outfall exists within the highway and will be used. Accordingly, discharge to the combined sewer is not proposed.

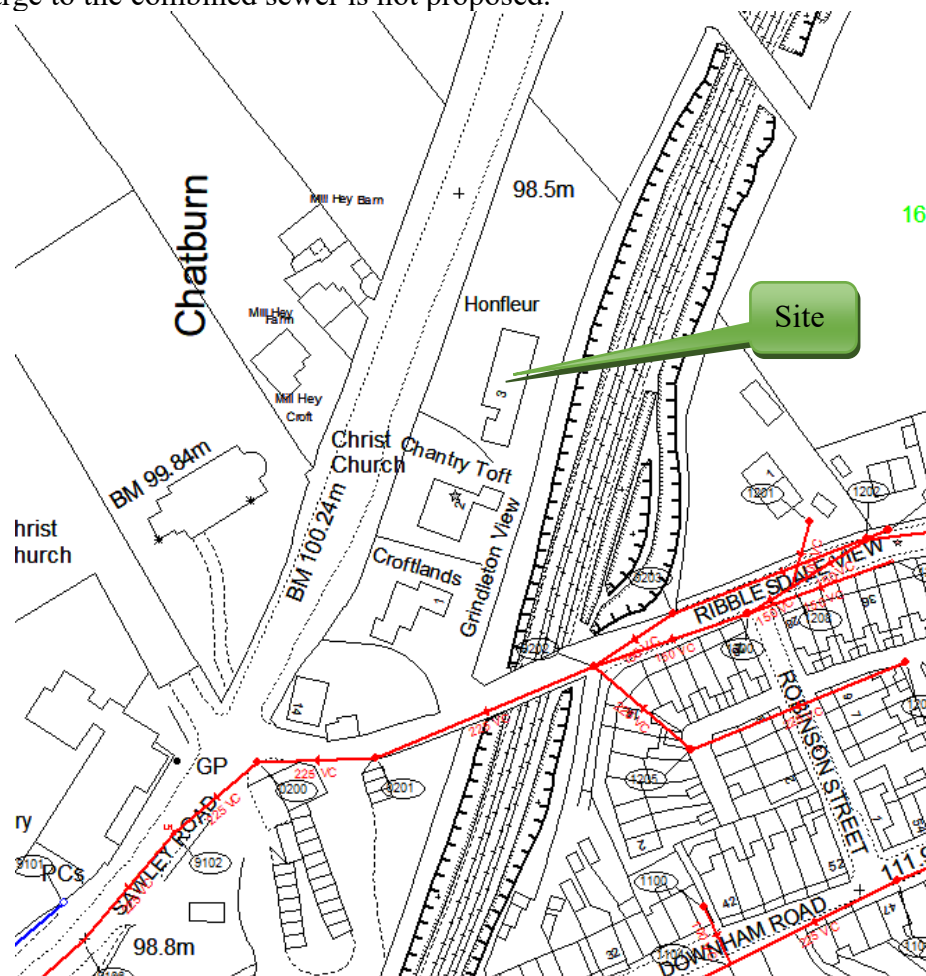


Figure 4 – Extract from United Utilities records

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The surface water discharge from the development will be restricted to the greenfield QBAR rate of 3.0 l/s, calculated for the 0.127 ha red-line site area using the ICP SuDS Mean Annual Flood method (Soil = 0.45, SAAR = 976 mm, Region 10).

The proposed impermeable area is 0.043 ha (434.5 m²). Runoff from roofs and hardstanding will pass through SuDS treatment and on-site attenuation before being discharged at the restricted rate of 3.01 l/s. Storage will be provided for the 1 in 100-year + 50% climate change event, equivalent to a 6-hour critical duration storm, requiring approximately 19 m³ of attenuation. This ensures post-development runoff rates and volumes will not exceed pre-development conditions.

2.1.3 Climate Change

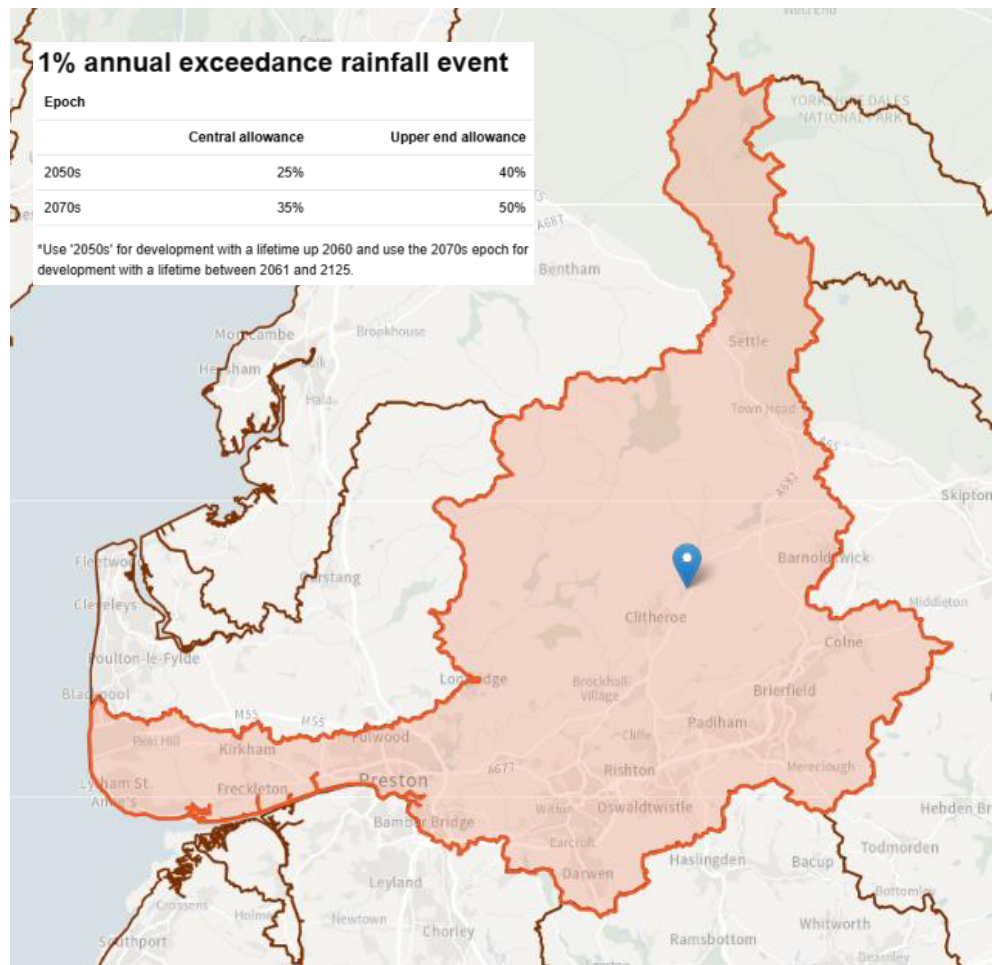


Figure 5 – Climate Change

The design criteria for network modelling to be used for the site is:

- 1 in 30 year no surcharging of the surface water network.
- 1 in 100 year (+ 50% climate change, see Figure 5 above) will be contained within the attenuation, and the volume has been indicated for the development site.
- Roof water and hardstanding runoff will be directed to the proposed SuDS network, with discharge restricted to the agreed greenfield runoff rate prior to outfall to the local watercourse.
- A bypass separator upstream of the proposed attenuation structure is not considered a requirement due to the limited number of parking bays for the proposed development.

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2.2 **Foul Drainage**

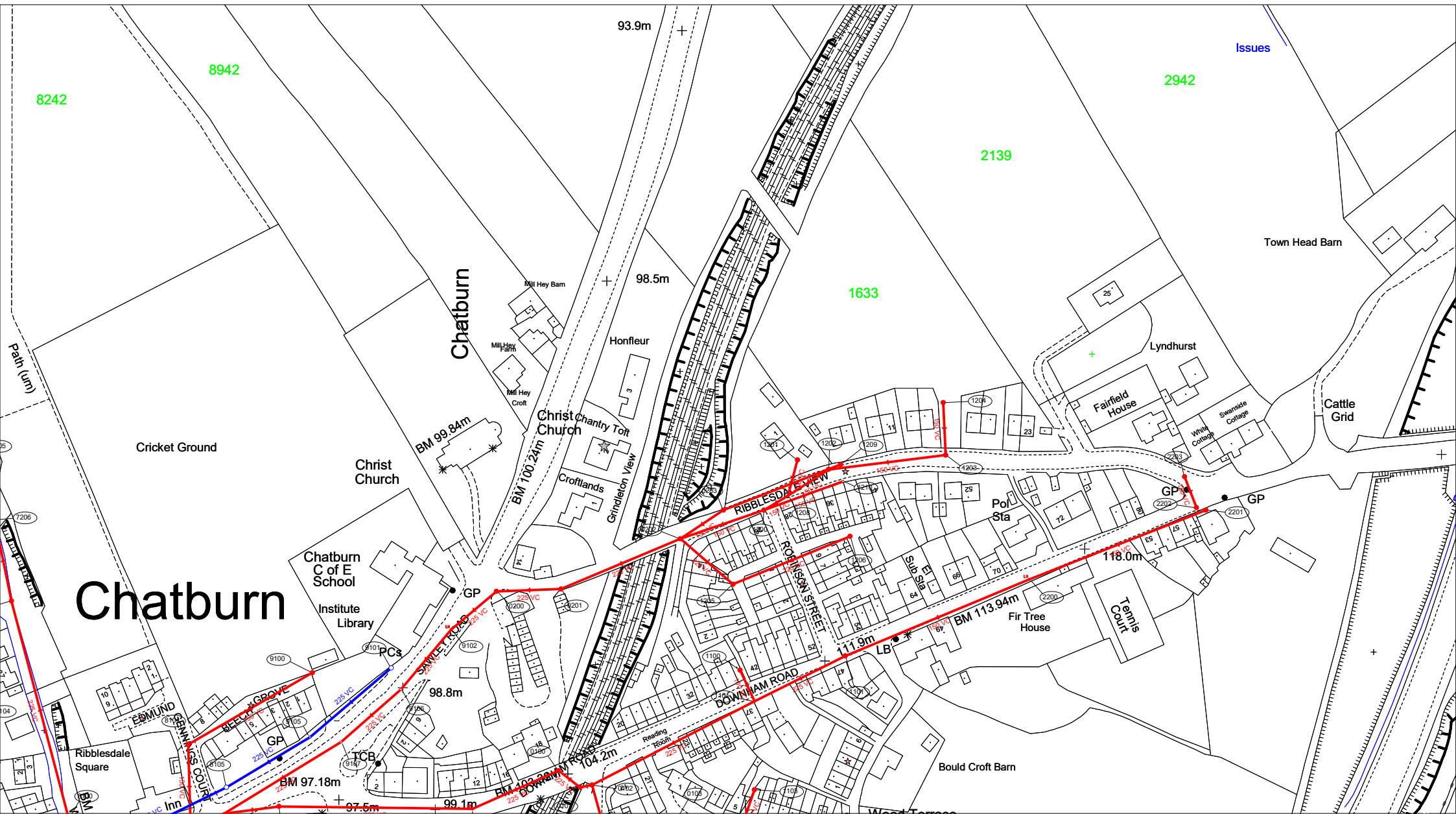
The foul drainage for the proposed development is to be connected into the combined public sewer.

Appendices

- Appendix A - United Utilities Drainage Records
- Appendix B - Flood Flow Drawing Number 25293.001 – Drainage Layout.
- Appendix C – Flood Map for Planning
- Appendix D – Attenuation Calculations



APPENDIX A





APPENDIX B



APPENDIX C

Flood map for planning

Your reference
25293

Location (easting/northing)
377031/444237

Created
23 August 2025 10:44

Your selected location is in flood zone 3, an area with a high probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see <https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2025 AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



Flood map for planning

Your reference

25293

Location (easting/northing)







377031/444237


Scale

1:2,500

Created

23 Aug 2025 10:44

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area



0 20 40 60m



APPENDIX D

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Microdrainage Attenuation Calculations

Quick Storage Estimate

Micro Drainage

Variables

FSR Rainfall

Return Period (years) 100

Region England and Wales

Map

M5-60 (mm) 17.300

Ratio R 0.250

Cv (Summer) 0.750

Cv (Winter) 0.840

Impermeable Area (ha) 0.043

Maximum Allowable Discharge (l/s) 3.0

Infiltration Coefficient (m/hr) 0.00000

Safety Factor 2.0

Climate Change (%) 50

Analyse OK Cancel Help

Enter Area between 0.000 and 999.999

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of 19 m³.

Analyse OK Cancel Help

Enter Area between 0.000 and 999.999

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