

Project No: 24172

Project: Barn to the south of Grove House,

Malt Kiln Brow

ENGINEERS

CONSULTING CIVIL AND Chipping

PR3 2GP

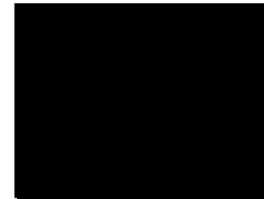
Subject: SuDS Drainage Statement

Date: 24th June 2026

FLOOD FLOW LTD



STRUCTURAL



Website: www.floodflow.co.uk Email: mail@floodflow.co.uk

1.0 GENERAL

This drainage statement has been prepared to support the planning application for a new dwelling.

The site is currently featuring the Old Barn including hard landscaping, shrubs and trees as shown below.



Figure 1 – Site Location Plan

2.0 DRAINAGE DESIGN

2.1 Surface Water Drainage

2.1.1 Flood Risk

The site is less than 1.0 ha and lies wholly 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%). Therefore, a site-specific 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 will be for a soakaway system.

Percolation tests have not been carried out at the development site. From online soil data the site is "Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils" and the BGS website states Alluvium - Clay, Silt, Sand and Gravel superficial deposits.

It is likely that there will be poor percolation results and therefore soakaways are not considered viable.

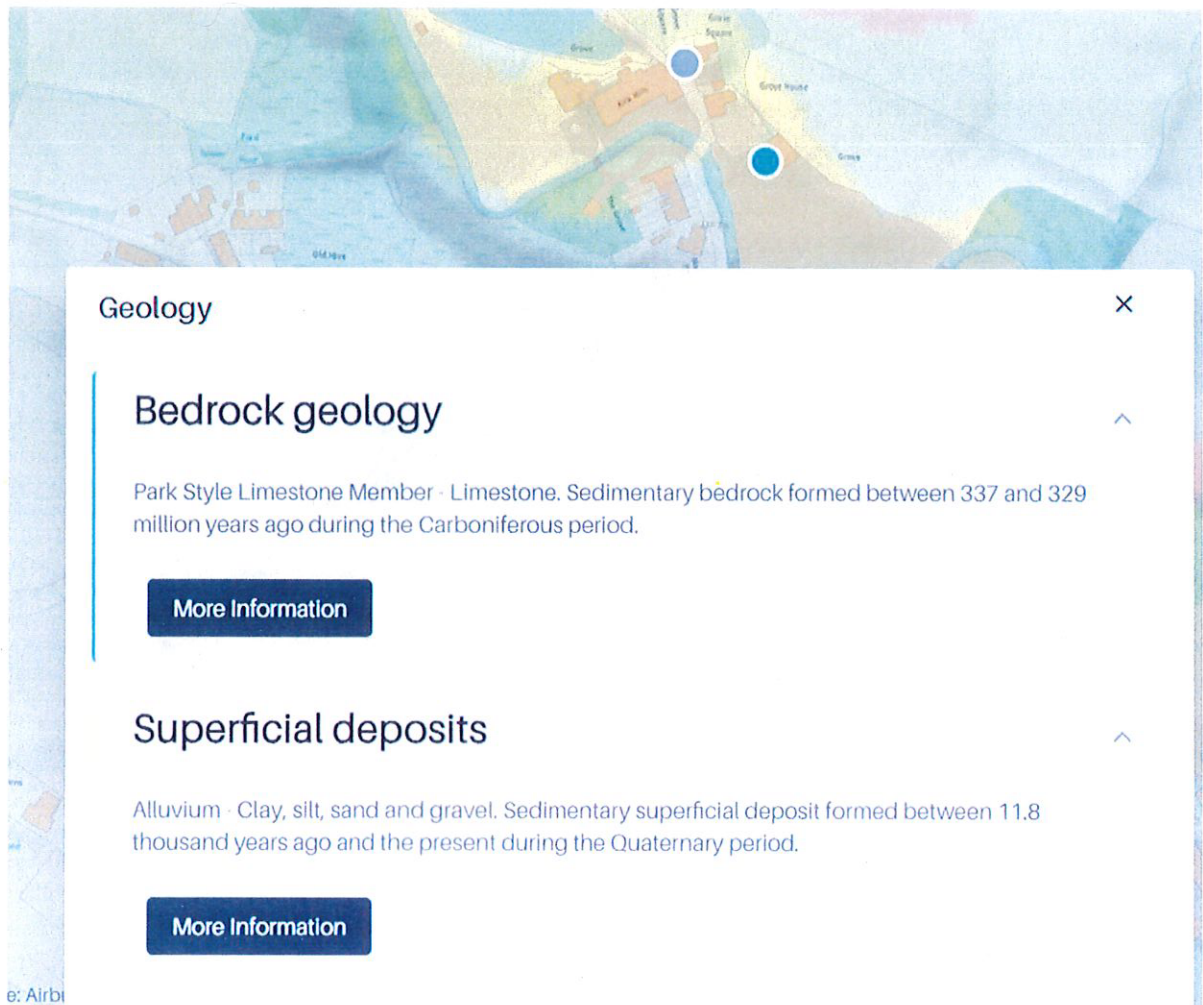


Figure 3 – Superficial Deposits

2nd Choice - Discharge to Watercourse

The second consideration is disposal of surface water to watercourses/ ditches. Chipping Brook is located on the southwest boundary of the development site. This is the preferred discharge option for surface water.

3rd Choice - Discharge to Surface Water Sewer

The third option in the drainage hierarchy is to discharge into the existing surface water sewers. There is no existing surface water sewer recorded in Malt Kiln Brow Lane, see Appendix A and Figure 4 below. This is not the preferred discharge option for surface water discharge.

4th Choice - Discharge to Combined Sewer

The forth option in the drainage hierarchy is to discharge into the existing combined sewers. There is an existing combined water sewer recorded in Malt Kiln Brow Lane, see Appendix A and Figure 4 below. This is not the preferred discharge option for surface water discharge.

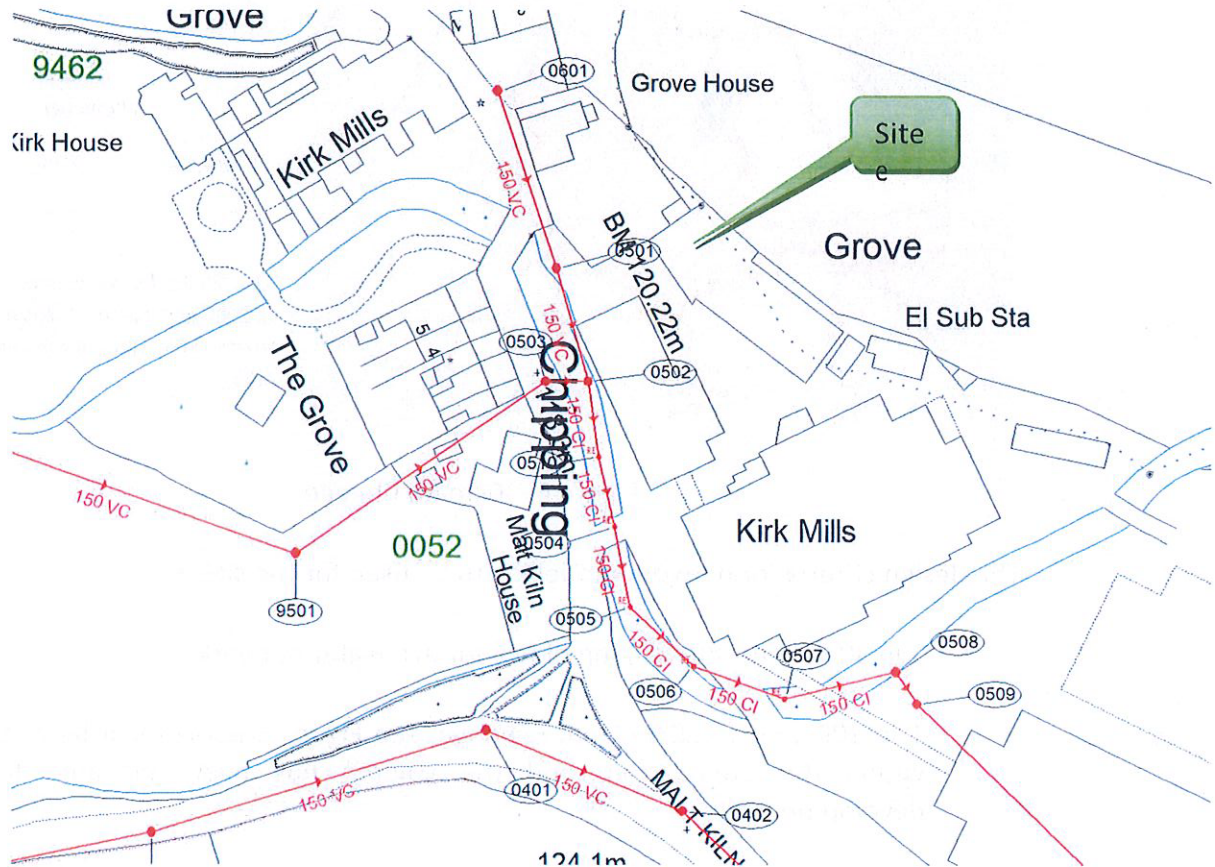


Figure 4 – Extract from United Utilities records

The surface water runoff generated from the existing site has been calculated at $Q=7.8\text{l/s}$ based on an area of 564m^2 , using the modified rational method and rainfall of 50mm/hr (See Appendix D for further details).

The proposed impermeable area has been calculated at 499m^2 , which is significantly less than the existing area. The flow rate proposed above has been used to restrict the flow and no attenuation is required.

2.1.3 Climate Change

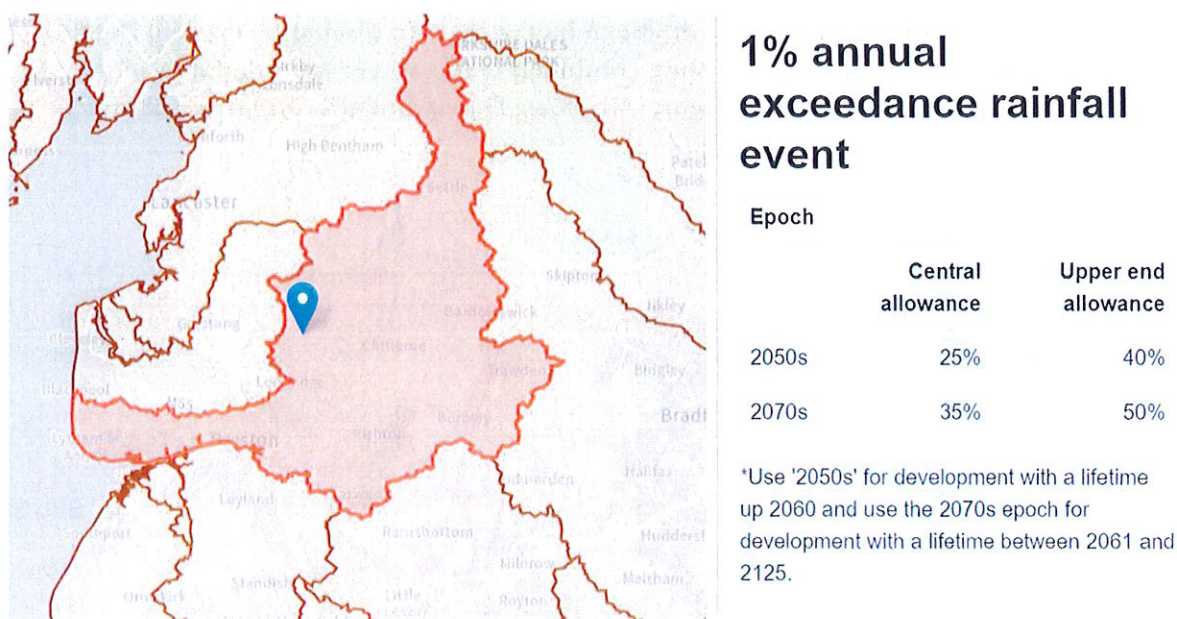


Figure 5 – Climate Change

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.
- The roof water for the proposed development will also enter Chipping Brook.
- 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.

2.2 Foul Drainage

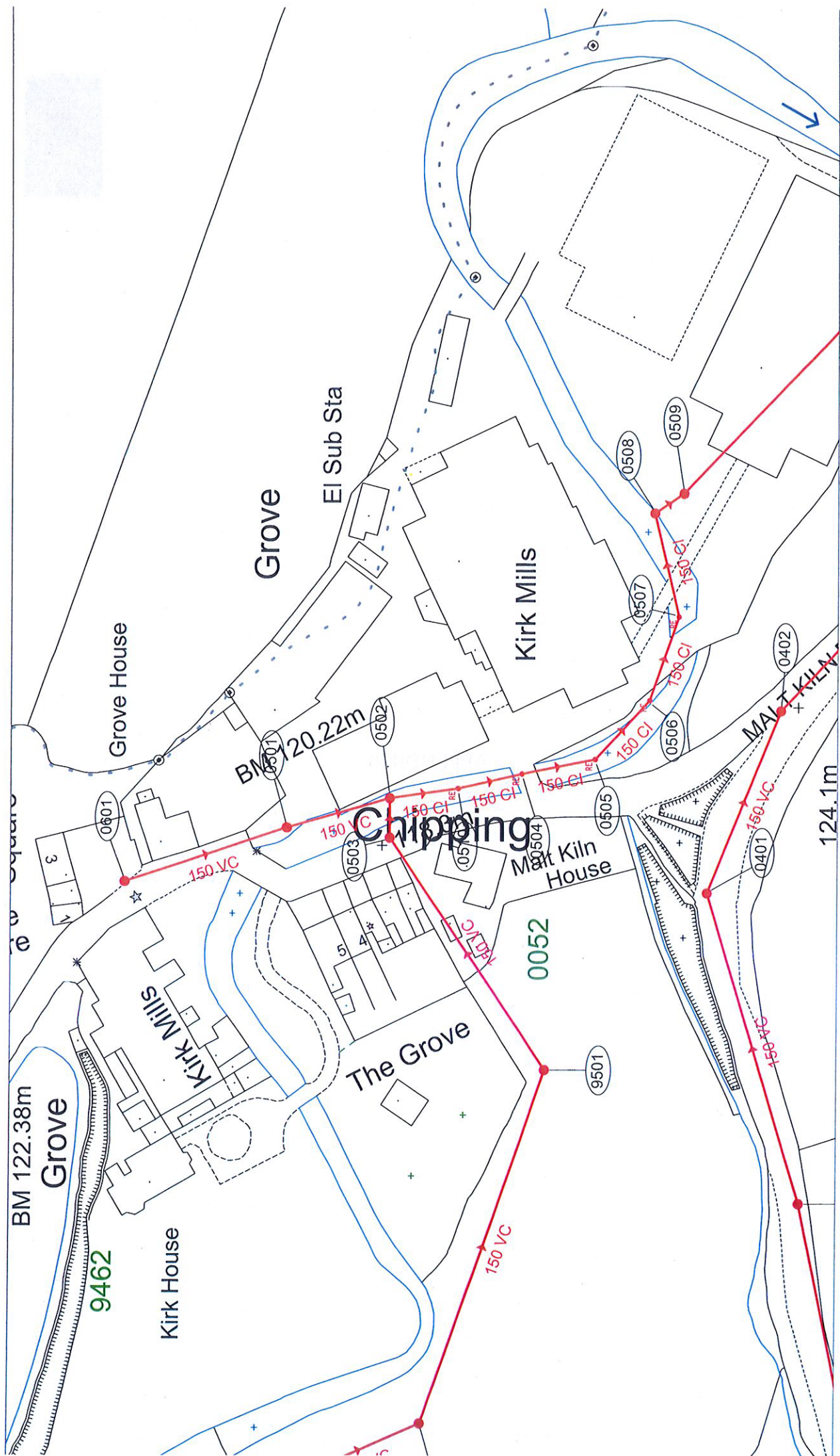
The foul drainage for the proposed development is to be connected into the combined public sewer.

Appendices

- Appendix A - United Utilities Drainage Records
- Appendix B - Flood Flow Drawing Number 24172.001 – Drainage Layout.
- Appendix C - Flood Map for Planning
- Appendix D – Attenuation Calculations



APPENDIX A





APPENDIX B



APPENDIX C

Flood map for planning

Your reference
24172

Location (easting/northing)
362032/443586

Created
24 Jun 2026 10:56

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following:**

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

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-governmentlicence/version/3/>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. <https://flood-map-forplanning.service.gov.uk/os-terms>



Flood map for planning

Your reference

24172

Location (easting/northing)

362032/443586

Scale **1:2500**

Created

24 Jun 2026 10:56



APPENDIX D



The proposed impermeable area has been calculated at 499m², which is significantly less than the existing area. The flow rate proposed above has been used to restrict the flow and no attenuation is required.

