

FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY

Proposed Agricultural Building

Land at Chipping, Ribble Valley, Lancashire

Date: 25/02/26

1. Introduction

This Flood Risk Assessment (FRA) and Drainage Strategy has been prepared in support of a planning application for the erection of a new agricultural building on land at Chipping, within the administrative area of Ribble Valley Borough Council (RVBC).

The site lies approximately 200m from a minor watercourse (tributary of the River Loud) and therefore requires assessment of potential fluvial and surface water flood risk in accordance with:

- National Planning Policy Framework (NPPF)
- Planning Practice Guidance (PPG)
- Ribble Valley Core Strategy Policy DMG1 & DME6
- Lancashire County Council (LLFA) SuDS guidance

The development is classified as **Less Vulnerable** (agricultural building).

2. Site Location & Context



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The site is located within open agricultural land outside the main settlement boundary of Chipping in the borough of Ribble Valley.

Relevant local context:

- Approximately 200m from a minor watercourse flowing toward the River Loud
- Gently sloping agricultural pasture
- No existing built development on the application footprint
- Ground generally falls toward the watercourse

The site is not within a designated functional floodplain.

3. Flood Risk Assessment (Ribble Valley Requirements)

3.1 Fluvial Flood Risk (Rivers)

Based on Environment Agency Flood Map for Planning:

- Site located within **Flood Zone 1 (Low Probability)**

- Less than 1 in 1000 annual probability of river flooding

Although close to a watercourse, mapping confirms the site lies outside Flood Zones 2 and 3.

Conclusion: Acceptable in principle under NPPF and RVBC policy.

3.2 Surface Water Flood Risk

Environment Agency Risk of Flooding from Surface Water mapping indicates:

- Potential shallow ponding in extreme rainfall events
- No significant flow routes crossing the proposed footprint

Given the rural greenfield setting, runoff is currently unmanaged and infiltrates naturally.

Risk Level: Low to moderate during 1 in 100 year + climate change events.

3.3 Groundwater

The site is not located within a known groundwater flood susceptibility zone.
Risk considered low.

3.4 Artificial Sources

No known risk from reservoirs, canals, or critical infrastructure.

4. Ribble Valley Policy Compliance

The proposal complies with:

Core Strategy Policy DMG1

- No increased flood risk to or from the development.
- Surface water managed appropriately.

Core Strategy Policy DME6

- Appropriate flood risk assessment provided.
- Sequential approach satisfied.
- Incorporates sustainable drainage principles.

As agricultural development on an operational holding, no sequentially preferable site is available.

5. Drainage Strategy

(Prepared in line with Lancashire County Council LLFA guidance)

5.1 Existing Drainage

The site currently drains via:

- Natural overland sheet flow
- Infiltration into permeable agricultural soils
- Runoff toward the adjacent watercourse

There are no public sewers within the site.

5.2 Proposed Drainage Hierarchy

Drainage has been designed in accordance with the NPPF drainage hierarchy:

1. **Infiltration (Primary Strategy)**
 2. Discharge to watercourse (if required)
 3. No discharge to public sewer proposed
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5.3 Surface Water Management Proposals

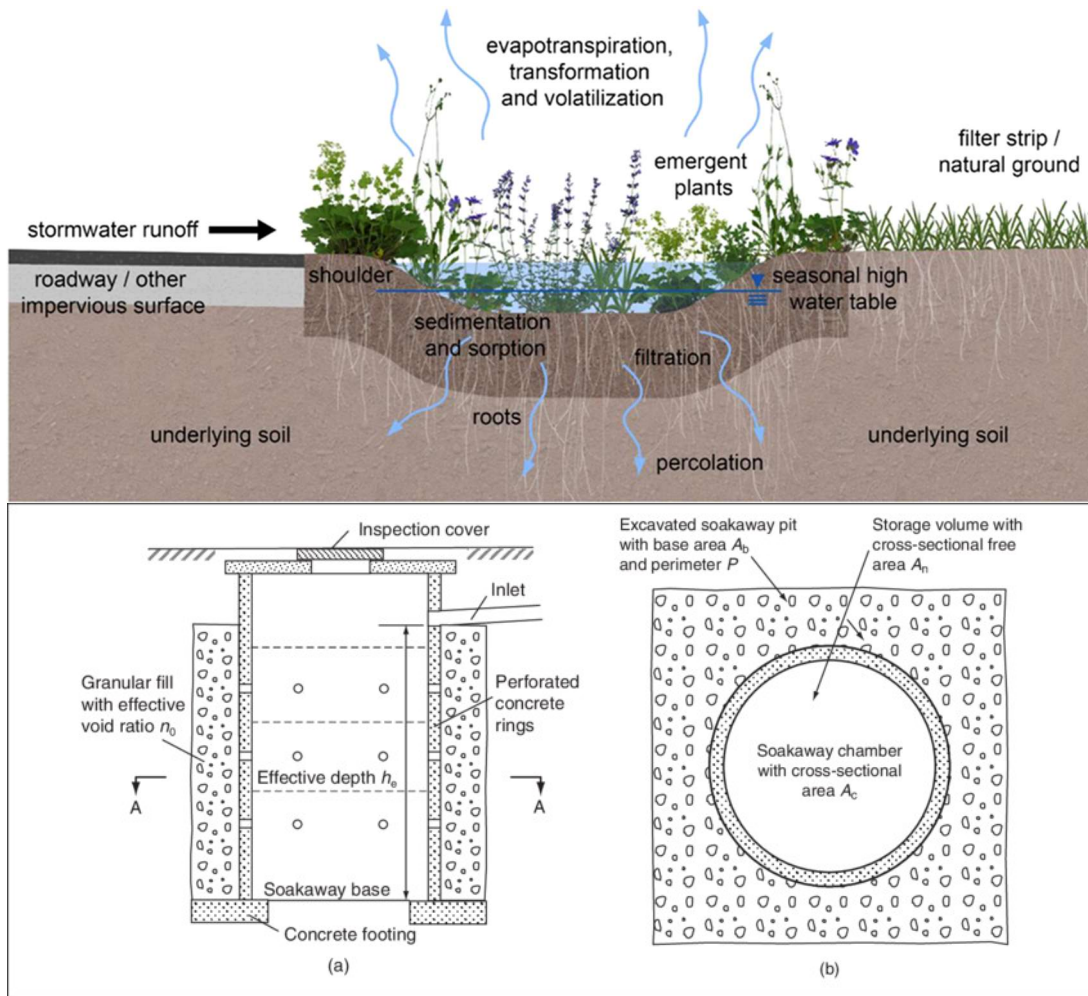
The proposed agricultural building will:

- Be constructed with a concrete floor slab
- Include roof gutters discharging to downpipes
- Direct runoff to a soakaway system located downslope of the building
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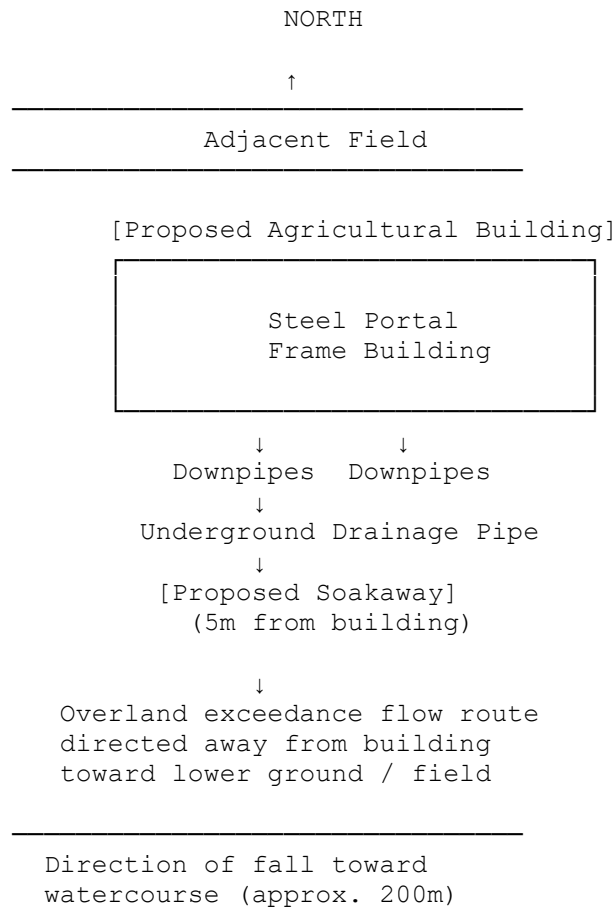
Proposed Mitigation:

- Soakaway designed in accordance with BRE 36
- Located minimum 5m from building
- Sized to accommodate 1 in 100 year rainfall event + 40% climate change allowance
- Finished floor level raised minimum 150mm above surrounding ground
- External ground graded to direct water away from structure
- No increase in runoff rate above existing greenfield rates

6. Drainage Strategy Sketch



Key (Indicative Layout)



This layout ensures:

- No concentration of flow toward neighbouring land
- No obstruction of natural runoff routes
- Exceedance flows safely directed away from structure

7. Climate Change Allowance

Surface water drainage designed to accommodate:

- 1 in 100 year storm event
- +40% climate change allowance (in accordance with EA guidance for peak rainfall intensity)

This satisfies LLFA requirements for minor development.

8. Flood Risk Mitigation Summary

Risk Source	Mitigation
Fluvial	Site in Flood Zone 1
Surface Water	Soakaway + raised FFL
Climate Change	+40% storm allowance
Off-site impact	No increased runoff
Overland Flow	Ground regrading

9. Conclusion

The proposed agricultural building at Chipping:

- Lies within Flood Zone 1.
- Is appropriate development under NPPF and RVBC policy.
- Will not increase flood risk on or off site.
- Incorporates sustainable drainage in accordance with Lancashire LLFA guidance.
- Includes climate change allowances.
- Manages exceedance flows safely.

The development is therefore acceptable in flood risk and drainage terms.