



Longley Farm, Longley Lane, Holmfirth, HD9 2JD

Flood Risk Assessment

For Rogers Geotechnical Services Ltd

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Longley Farm, Longley Lane, Holmfirth, HD9 2JD

Project	Flood Risk Assessment
Client	Rogers Geotechnical Services Ltd
Status	Final
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EXECUTIVE SUMMARY

The Site would be expected to remain dry in all but the most extreme conditions. The consequences of flooding are acceptable, and the development would be in accordance with the requirements of the National Planning Policy Framework (NPPF). The Proposed Development would be operated with minimal risk from flooding, would not increase flood risk elsewhere and is compliant with the requirements of the NPPF.

The Proposed Development should not therefore be precluded on the grounds of flood risk or drainage.

1.0 INTRODUCTION

1.1 Background

This Flood Risk Assessment (FRA) has been prepared by KRS Enviro at the request of Rogers Geotechnical Services Ltd to support a planning application for the construction of a two-storey extension to the east of the existing dairy, and the reroofing of the existing dairy and a new extension together with associated works (“the Proposed Development”) at Longley Farm, Longley Lane, Holmfirth, HD9 2JD (“the Site”).

This FRA has been carried out in accordance with guidance contained in the National Planning Policy Framework (NPPF)¹, associated Planning Practice Guidance on flood risk and coastal change² (PPG) and the PPG ‘Site-specific flood risk assessment checklist’. This FRA identifies and assesses the risks of all forms of flooding to and from the development and demonstrates how these flood risks will be managed so that the development remains safe throughout the lifetime, taking climate change into account.

It is recognised that developments which are designed without regard to flood risk may endanger lives, damage property, cause disruption to the wider community, damage the environment, be difficult to insure and require additional expense on remedial works. The development design should be such that future users will not have difficulty obtaining insurance or mortgage finance, or in selling all or part of the development, as a result of flood risk issues.

1.2 National Planning Policy Framework (NPPF)

One of the key aims of the NPPF is to ensure that flood risk is taken into account at all stages of the planning process; to avoid inappropriate development in areas at risk of flooding and to direct development away from areas of highest risk.

This FRA has been prepared in accordance with the NPPF, in particular Paragraphs 174–181, which require that development:

- avoids inappropriate development in areas at risk of flooding;
- is directed to areas of lowest flood risk through the Sequential Test;
- is demonstrated to be safe for its lifetime, taking climate change into account;
- does not increase flood risk elsewhere; and
- incorporates appropriate opportunities for flood risk reduction and resilience.

The associated PPG has been used to structure this FRA and ensure that all sources of flooding, both now and in the future, have been assessed in accordance with current national policy.

The report findings are based upon professional judgement and are summarised below with detailed recommendations provided at the end of the report. The report includes rainfall data from the Flood Estimation Handbook (FEH) and hydrogeological information from the British Geological Survey (BGS). The assessment will summarise and refer to these datasets in the text.

¹ Ministry for Housing, Communities and Local Government (2025) National Planning Policy Framework: <https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf>

² Communities and Local Government (2022) Planning Practice Guidance - Flood Risk and Coastal Change: <https://www.gov.uk/guidance/flood-risk-and-coastal-change>

1.3 Report Structure

This FRA has the following report structure:

- Section 2 describes the location and the existing and Proposed Development;
- Section 3 outlines the flood risk to the existing and Proposed Development;
- Section 4 outlines the mitigation measures used to reduce the overall level of flood risk;
- Section 5 details the Sequential and Exception Tests; and
- Section 6 presents a summary and conclusions.

2.5 Catchment Hydrology/Drainage

There is a pond located on the Site which has water level of 290.49mAOD and a maximum depth of 1m. Mill Pond is located approximately 470m to the west of the Site and the River Ribble is located approximately 470m to the east of the Site. The Bashaw Whams Reservoir is located approximately 535m to the southeast of the Site and the Holme Styes Reservoir is located approximately 555m to the southwest of the Site. Dean Dike is located approximately 1.10km to the east of the Site.

The existing development discharges surface water runoff into the existing pond located on the Site. The pond outfalls to the north east via a concrete structure.

2.6 Ground Conditions

The British Geological Survey (BGS) map³ shows that the bedrock deposits underneath the majority of the Site consists of the Huddersfield White Rock – sandstone, an area to the east of the pond consists of the Marsden Formation – mudstone and siltstone and the southeast of the Site consists of the Rossendale Formation – mudstone and siltstone. There are no superficial deposits present.

Information from the National Soil Resources Institute⁴ details the Site area as being situated on slowly permeable wet very acid upland soils with a peaty surface with impeded drainage.

2.7 Source Protection Zone

The Site is not located within a Source Protection Zone (SPZ). SPZ's have been defined by the Environment Agency around major public water supplies with the intent to show the risk of contamination from any activities that might cause pollution in the area. Three zones are defined: SPZ 1 is the Inner Zone (highest risk); SPZ 2 is the Outer Zone (average risk); and SPZ 3 is the Total Catchment (least risk).

³ https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.14476159.932338379.1655890995-1831306757.1655472887

⁴ <http://www.landis.org.uk/soilscapes/>

3.0 FLOOD RISK

3.1 Sources of Flooding

All sources of flooding have been considered, these are; fluvial (river) flooding, tidal (coastal) flooding, groundwater flooding, surface water (pluvial) flooding, sewer flooding and flooding from artificial drainage systems/infrastructure failure.

3.2 Environment Agency

Information regarding the current flood risk at the application Site and local flood defences has been obtained from the Environment Agency.

3.3 Kirklees Council

Kirklees Council is the Local Planning Authority (LPA), and the Lead Local Flood Authority (LLFA) and has responsibilities for 'local flood risk', which includes surface runoff, groundwater and ordinary watercourses. Planning guidance written by Kirklees Council regarding flood risk was consulted to assess the mitigation policies in place. The Kirklees Council Strategic Flood Risk Assessment (SFRA) and the Kirklees Council Preliminary Flood Risk Assessment (PFRA) which cover the Site have been reviewed.

3.4 Climate Change

Projections of future climate change, in the UK, indicate more frequent, short-duration, high intensity rainfall and more frequent periods of long duration rainfall. Guidance included within the NPPF recommends that the effects of climate change are incorporated into FRA's. Recommended precautionary sensitivity ranges for peak rainfall intensities and peak river flows are outlined in the flood risk assessments: climate change allowances guidance⁵.

The flood risk assessments: climate change allowances guidance recommends that the central allowances are used and the higher allowances are used to test the sensitivity of flood risk across the anticipated lifespan of the development⁶. The lifetime of the Proposed Development, as per Environment Agency guidance, is 75 years. Therefore, the fluvial design event for the Site is the 1 in 100 year (+23%) event.

Table 1 - Peak River Flow Allowances by River Catchment

River Catchment	Allowance Category	2020s	2050s	2080s
Aire and Calder Management Catchment	Upper	+24%	+31%	+51%
	Higher	+15%	+18%	+31%
	Central	+11%	+13%	+23%

3.5 Environment Agency Flood Zones

A review of the Environment Agency's Flood Zones indicates that the Site is located within Flood Zone 1 and therefore has a 'low probability' of flooding, with less than a 1 in 1000 annual probability of river or sea flooding in any year (<0.1%), as shown in Figure 2.

⁵ <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#high-allowances>

⁶ <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#high-allowances>

The Flood Zones are the current best information on the extent of the extremes of flooding from rivers or the sea that would occur without the presence of flood defences, because these can be breached, overtopped and may not be in existence for the lifetime of the development. They show the worst-case scenario.

The Environment Agency Flood Zones and acceptable development types are explained in Table 2. Table 2 shows that all development types are generally acceptable in Flood Zone 1.

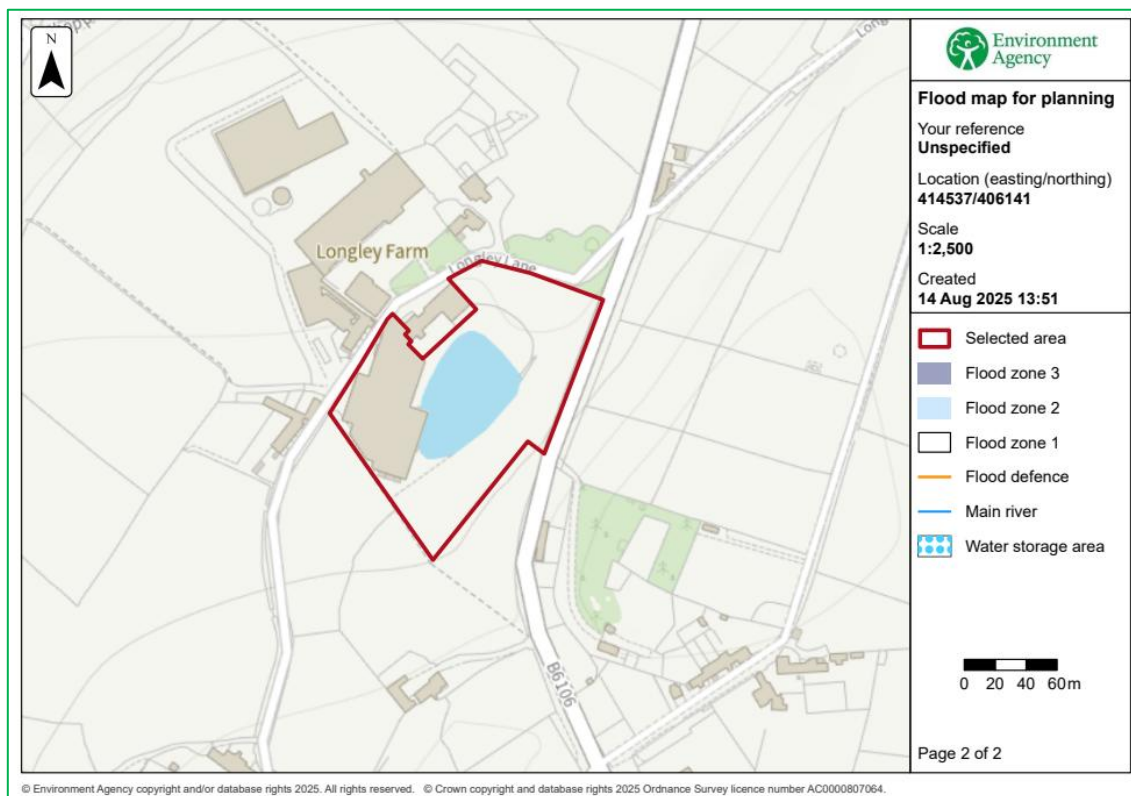


Figure 2 - Environment Agency Flood Zones

Table 2 - Environment Agency Flood Zones and Appropriate Land Use

Flood Zone	Probability	Explanation	Appropriate Land Use
Zone 1	Low	Less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%)	All development types generally acceptable
Zone 2	Medium	Between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% - 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% 0.1%) in any year	Most development type are generally acceptable
Zone 3a	High	A 1 in 100 or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year	Some development types not acceptable
Zone 3b	'Functional Floodplain'	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise:	Some development types not acceptable

		<ul style="list-style-type: none"> land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). <p>Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)</p>	
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3.6 Flood Vulnerability

In the PPG, appropriate uses have been identified for the Flood Zones. Applying the Flood Risk Vulnerability Classification in the PPG, the existing and proposed use is classified as 'less vulnerable'. Table 3 of this report and the PPG state that 'less vulnerable' uses are appropriate within Flood Zone 1.

Table 3 - Flood Risk Vulnerability and Flood Zone 'Compatibility'

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception test required	✓	✓
Zone 3a	Exception test required	✓	✗	Exception test required	✓
Zone 3b 'Functional Floodplain'	Exception test required	✓	✗	✗	✗

Key: ✓: Development is appropriate, ✗: Development should not be permitted.

3.7 Historic Flooding

The Environment Agency data (see Figure 3) and the Kirklees Council SFRA mapping (see Figure 4) shows that the Site has not historically flooded. There are no records of anecdotal information of flooding at the Site including within the British Hydrological Society "Chronology of British Hydrological Events". No other historical records of flooding for the Site have been recorded. Therefore, it has been concluded that the Site has not flooded within the recent past.



Figure 3 - Environment Agency Historic Flood Map

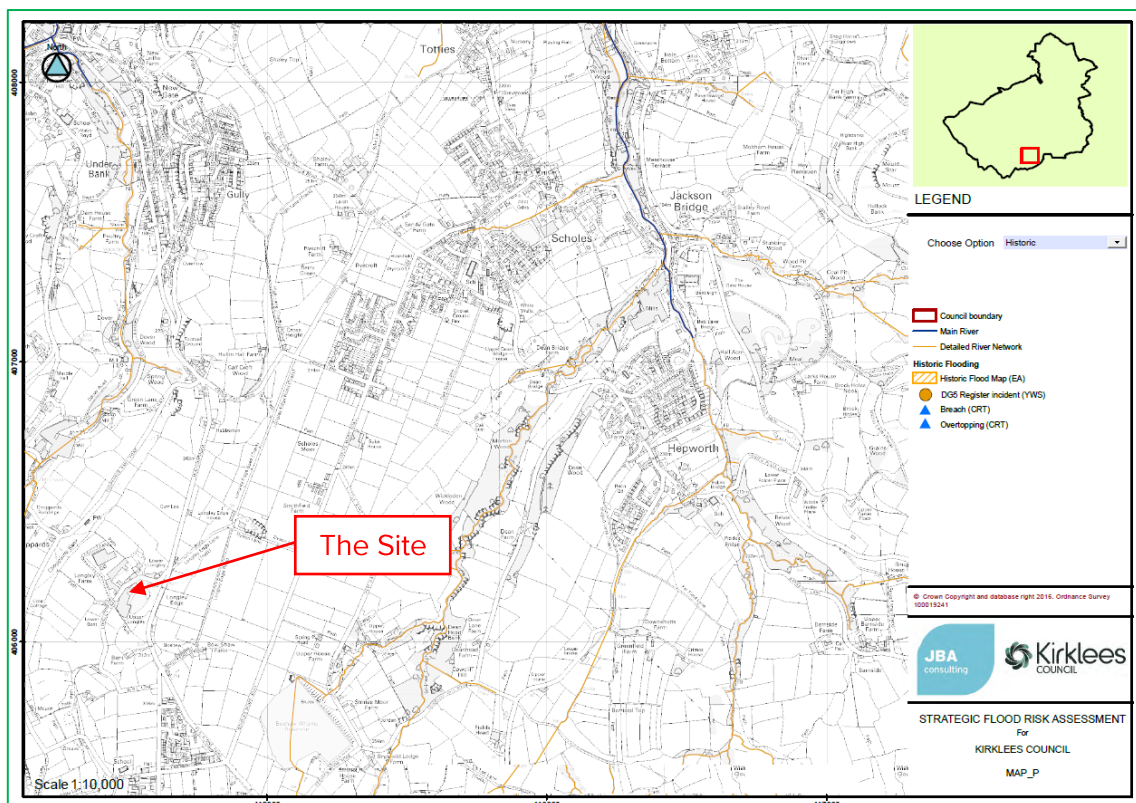


Figure 4 – Kirklees SFRA Historic Flood Map

3.8 Existing and Planned Flood Defence Measures

The Environment Agency data confirms that the Site is not protected against flooding by existing flood defence measures.

3.9 Fluvial (River) Flooding

The Site is not located within the vicinity of fluvial flooding sources and the risk of fluvial flooding is considered to be **not significant**.

3.10 Tidal (Coastal) Flooding

The Site is not located within the vicinity of tidal flooding sources and the risk of tidal flooding is considered to be **not significant**.

3.11 Groundwater Flooding

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

Groundwater flooding tends to occur sporadically in both location and time. When groundwater flooding does occur, it tends to mostly affect low-lying areas, below surface infrastructure and buildings (for example, tunnels, basements and car parks) underlain by permeable rocks (aquifers). The Environment Agency data shows that flooding from groundwater is unlikely in this area. Site ground conditions suggest a low potential for groundwater flooding.

The Environment Agency data shows that flooding from groundwater is unlikely in this area. Site ground conditions suggest a low potential for groundwater flooding. The Site is not located within an area of elevated groundwater emergence potential, and the bedrock geology does not suggest susceptibility to groundwater flooding. The risk of flooding from groundwater flooding is considered to be **not significant**.

3.12 Surface Water (Pluvial) Flooding

The local catchment is relatively small, and surface water flow pathways are shallow and limited in extent. The Site surroundings are relatively flat and there are no large catchments that would tend to generate surface water runoff towards the Site. Surface water flow flooding tends to occur sporadically in both location and time such surface water flows would tend to be confined to the streets around the development.

The Environment Agency Surface Water flood map shows that the majority of the Site has a very low risk of flooding with annual probability of flooding of less than 1 in 1000 years (0.1%). However, a very small area of the Site, at the location of the existing pond, has a high risk of flooding with an annual probability of flooding of more than a 1 in 30 years (3.3%), this is confined entirely within the existing pond footprint, as shown in Figures 5 to 7. The areas shown to be at risk of surface water flooding are associated with the existing pond on the Site, and does not extend outside of the pond extent and is shown to be very minor flooding with a water level of 290.49mAOD.

The proposed minimum finished floor level of 292.02mAOD provides a freeboard of approximately 1.53m above the maximum expected ponded water level. There are no overland flow paths linking the pond to the development footprint, and therefore no credible mechanism by which surface water could reach or affect the building. As such, the development is not exposed to surface water flooding.

The Environment Agency mapping indicates shallow, low-velocity ponded water only, with no defined overland flow paths towards the Proposed Development. As such, there is no credible mechanism for surface water ingress to the building.

Therefore, the risk of flooding from surface water flooding is considered to be of **low significance**. The risk from this source will be further mitigated by using a number of property level protection measures to manage and reduce the overall flood risk at the Site (see Section 4.0).

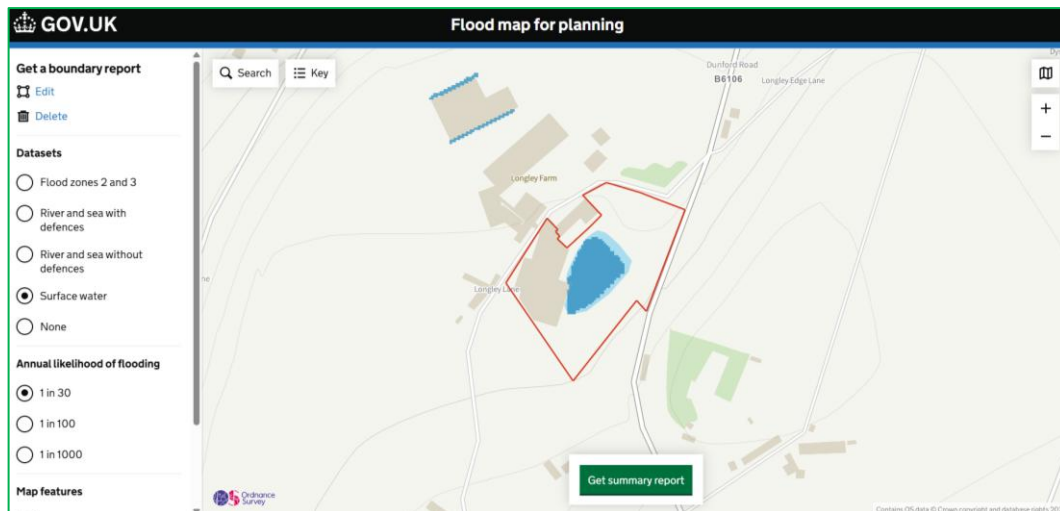


Figure 5 - Environment Agency Surface Water Flood Map: 1 in 30 Year Extent

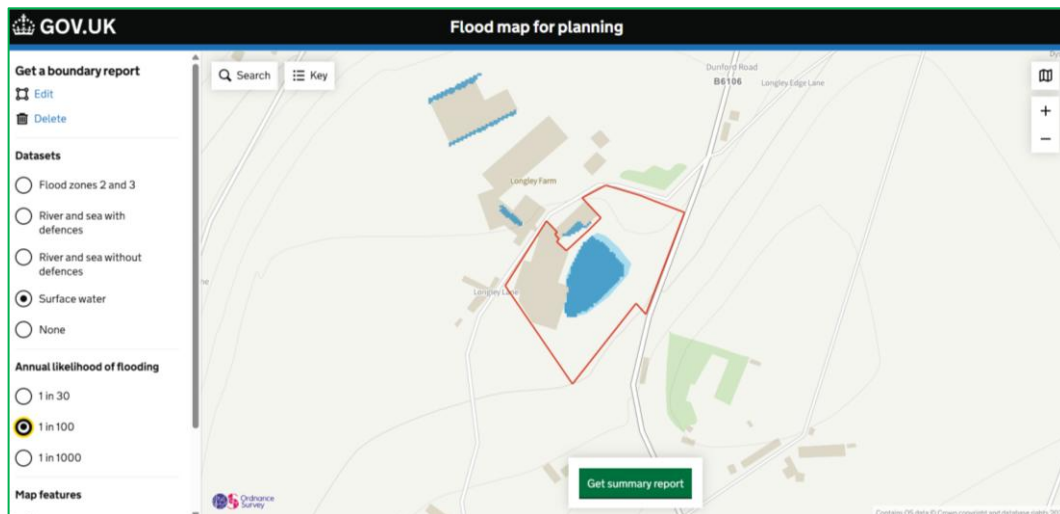


Figure 6 - Environment Agency Surface Water Flood Map: 1 in 100 Year Extent

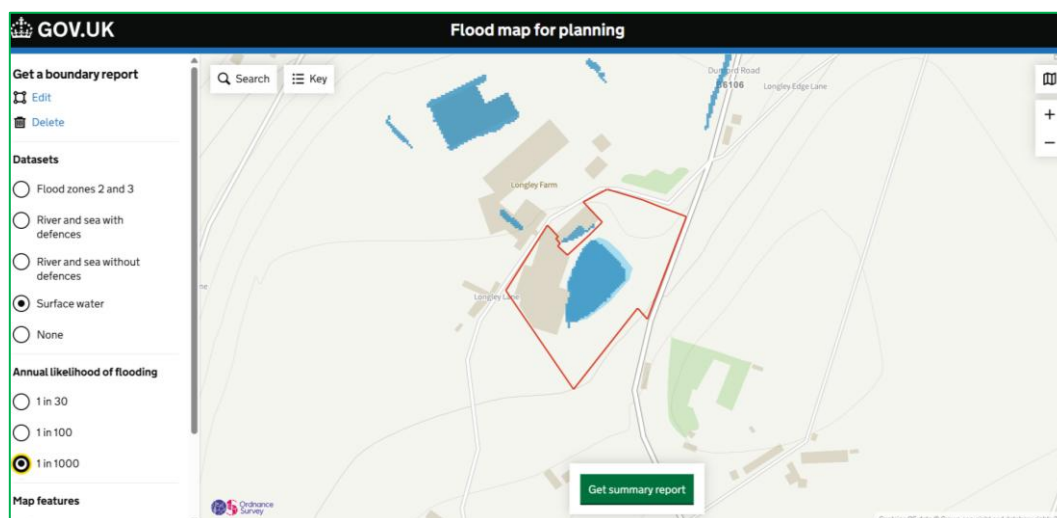


Figure 7 - Environment Agency Surface Water Flood Map: 1 in 1000 Year Extent

3.13 Sewer Flooding

Sewer flooding occurs when urban drainage networks become overwhelmed and maximum capacity is reached. This can occur if there is a blockage in the network causing water to back up behind it or if the sheer volume of water draining into the system is too great to be handled. Sewer flooding tends to occur sporadically in both location and time such flood flows would tend to be confined to the streets around the development.

There are existing sewers located within the vicinity of the Site and these will inevitably have a limited capacity so in extreme conditions there would be surcharges, which may in turn cause flooding. Flood flows could also be generated by burst water mains, but these would tend to be of a restricted and much lower volume than weather generated events and so can be discounted for the purposes of this assessment.

Given the design parameters normally used for drainage design in recent times and allowing for some deterioration in the performance of the installed systems, which are likely to have been in place for many years, an appropriate flood risk probability from this source could be assumed to have a return period in the order of 1 in 10 to 1 in 20 years.

The provision of adequate level difference between the ground floors and adjacent ground level would reduce the annual probability of damage to property from this source to 1 in 100 years or less. There are no records of sewer flooding in the vicinity of the Site, and in the absence of confirmed DG5 entries, sewer flood risk is considered. Therefore, the risk of flooding from sewer flooding is considered to be **not significant**.

3.14 Flooding from Artificial Drainage Systems/Infrastructure Failure

There are no other nearby artificial water bodies, reservoirs, water channels and artificial drainage systems that could be considered a flood risk to the Site. The Environment Agency Reservoir flood map shows that the Site is not at risk of reservoir flooding (see Figure 8). The risk of flooding from artificial drainage systems/infrastructure failure is considered to be **not significant**.

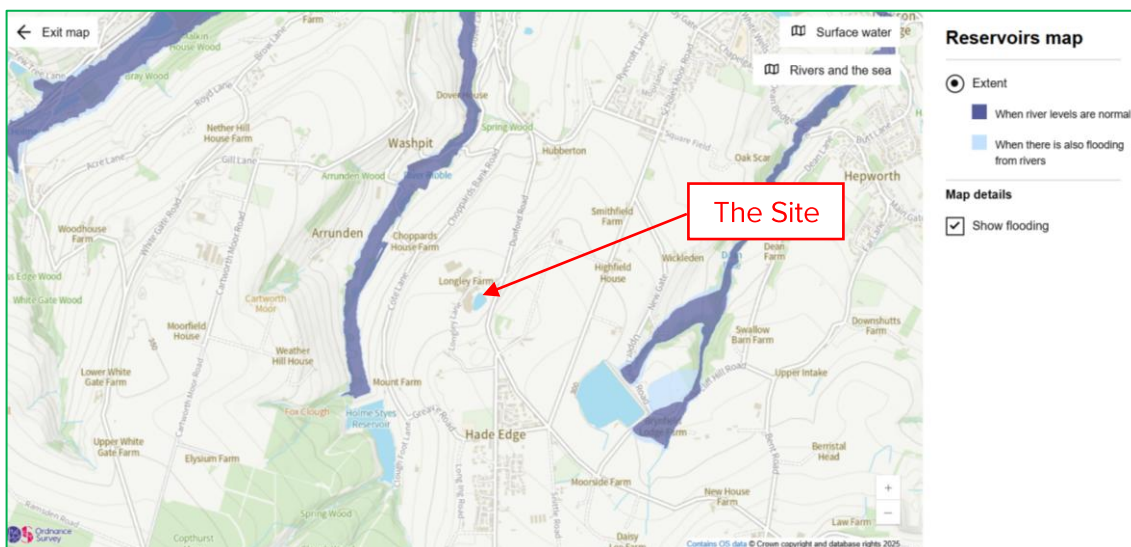


Figure 8 - Environment Agency Reservoir Flood Map

3.15 Impact of the Proposed Development on Flood Risk

No built development including access or escape routes, land raising or other potentially vulnerable elements, will be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).

The Proposed Development will have no impact on flood risk and the overall direction of the movement of water will be maintained within the developed Site and surrounding area. There will no net loss in flood storage capacity. The conveyance routes (flow paths) will not be blocked or obstructed. The Proposed Development will have no impact on flood risk.

3.16 Summary of Site Specific Flood Risk

A summary of the sources of flooding and a review of the risk posed by each source at the Site is shown in Table 4.

Table 4 - Risk Posed by Flooding Sources

Sources of Flooding	Potential Flood Risk	Potential Source	Probability/Significance
Fluvial Flooding	No	Non Reported	None
Tidal Flooding	No	None Reported	None
Groundwater Flooding	No	None Reported	None
Surface Water Flooding	Yes	Low Spots	Low
Sewer Flooding	No	None Reported	None
Flooding from Artificial Drainage Systems/Infrastructure Failure	No	None Reported	None

The Site is not at risk of flooding from a major source (e.g. fluvial and/or tidal). The Site has a ‘low probability’ of fluvial flooding as the Site is located within Flood Zone 1 with less than a 1 in 1000 annual probability of river or sea flooding in any year (<0.1%). The Site also has no history of flooding. The existing and proposed use of the Site is classified as ‘less vulnerable’, ‘less vulnerable’ uses are appropriate within Flood Zone 1 after the completion of a satisfactory FRA.

A secondary flooding source has been identified which may pose a **low significant** risk to the Site. This is:

- Surface Water Flooding

The areas shown to be at risk of surface water flooding are associated with the existing pond on the Site, and does not extend outside of the pond extent and is shown to be very minor flooding with a water level of 290.49mAOD. The proposed minimum finished floor level of 292.02mAOD provides a freeboard of approximately 1.53m above the maximum expected ponded water level. There are no overland flow paths linking the pond to the development footprint, and therefore no credible mechanism by which surface water could reach or affect the building. As such, the development is not exposed to surface water flooding.

The risk from this source will be further mitigated by using a number of property level protection measures to manage and reduce the overall flood risk at the Site (see Section 4.0).

No built development including access or escape routes, land raising or other potentially vulnerable elements, will be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).

The Proposed Development will have no impact on flood risk and the overall direction of the movement of water will be maintained within the developed Site and surrounding area. There will no net loss in flood storage capacity. The conveyance routes (flow paths) will not be blocked or obstructed. The Proposed Development will have no impact on flood risk.

In conclusion, the flood risk posed to the Site can be considered to be limited; the Site is located within Flood Zone 1 and has a low or very low annual probability of flooding from all sources. The Site is unlikely to flood except in very extreme conditions.

4.0 RISK MANAGEMENT

4.1 Introduction

The flood risk at this location is considered suitable for 'less vulnerable' developments within the NPPF. In this flood zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the use of flood mitigation measures.

The flooding sources will be mitigated on the Site by using a number of techniques, and mitigation strategies to manage and reduce the overall flood risk at the Site. This will ensure the development will be safe and there is:

- Minimal risk to life;
- Minimal disruption to people living and working in the area;
- Minimal potential damage to property;
- Minimal impact of the Proposed Development on flood risk generally; and;
- Minimal disruption to natural heritage.

The flood risk at the Site will be reduced by mitigation measures; these are discussed in more detail below.

4.2 Minimum Floor Level

The areas shown to be at risk of surface water flooding are associated with the existing pond on the Site, and does not extend outside of the pond extent and is shown to be very minor flooding with a water level of 290.49mAOD. The proposed minimum finished floor level will be 292.02mAOD which provides a more than adequate freeboard against any flooding.

4.3 Flood Resilience and Resistance

To improve the Sites resilience to flooding the following measures will be incorporated. All electrical wiring, switches, sockets, socket outlets, electrical, and gas meters etc. will be located a minimum of 450mm above the finished floor levels and sloping landscaping away from the building/s.

4.4 Safe Access and Egress

The Site access and surrounding area is not at risk of flooding therefore a permanently safe and dry access can be maintained.

4.5 Residual Risk

The mitigation measures detailed above show that the flood risk can be effectively managed and therefore the consequences of flooding are acceptable.

5.0 SEQUENTIAL APPROACH

5.1 Sequential and Exception Tests

The NPPF requires that the Sequential and Exception Tests should be applied when choosing the location of new development and the layout of the development site. The Sequential Test aims to promote development in low flood risk areas. The Exception Test is used where no suitable development areas can be found in low-risk zones.

The Sequential Test should be applied to identify suitable sites which are at low risk from all sources of flooding, avoiding medium and high-risk areas where possible. If no suitable areas can be identified in low-risk areas, then sites with the lowest flood risk should be considered next. If development is necessary within a medium or high-risk zone, an Exception Test may be required to demonstrate the need for the development in that location and plans to mitigate the flood risk.

Paragraph 175 of the NPPF confirms states that *“the sequential test should be used in areas known to be at risk now or in the future from any form of flooding, except in situations where a site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).”*

And paragraph 176 of the NPPF conforms that *“applications for some minor development and changes of use⁷ should also not be subject to the sequential test, nor the exception test set out below, but should still meet the requirements for site-specific flood risk assessments set out in footnote⁸.”*

As the Site lies within Flood Zone 1, and the FRA demonstrates that no part of the development (including access routes) is at risk from any source of flooding now or in the future, the Sequential Test does not apply, in accordance with NPPF Paragraph 175. The Exception Test is also not required for ‘less vulnerable’ uses in Flood Zone 1.

⁷ This includes householder development, small non-residential extensions (with a footprint of less than 250m²) and changes of use; except for changes of use to a caravan, camping or chalet site, or to a mobile home or park home site, where the sequential and exception tests should be applied as appropriate.

⁸ A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

6.0 SUMMARY AND CONCLUSIONS

6.1 Introduction

This report presents a FRA in accordance with the NPPF for the Proposed Development at Longley Farm, Longley Lane, Holmfirth, HD9 2JD.

This FRA identifies and assesses the risks of all forms of flooding to and from the development and demonstrates how these flood risks will be managed so that the development remains safe throughout the lifetime, taking climate change into account.

6.2 Flood Risk

The Site is not at risk of flooding from a major source (e.g. fluvial and/or tidal). The Site has a 'low probability' of fluvial flooding as the Site is located within Flood Zone 1 with less than a 1 in 1000 annual probability of river or sea flooding in any year (<0.1%). The Site also has no history of flooding. The existing and proposed use of the Site is classified as 'less vulnerable', 'less vulnerable' uses are appropriate within Flood Zone 1 after the completion of a satisfactory FRA.

A secondary flooding source has been identified which may pose a **low significant** risk to the Site. This is:

- Surface Water Flooding

The areas shown to be at risk of surface water flooding are associated with the existing pond on the Site, and does not extend outside of the pond extent and is shown to be very minor flooding with a water level of 290.49mAOD. The proposed minimum finished floor level of 292.02mAOD provides a freeboard of approximately 1.53m above the maximum expected ponded water level. There are no overland flow paths linking the pond to the development footprint, and therefore no credible mechanism by which surface water could reach or affect the building. As such, the development is not exposed to surface water flooding.

The risk from this source will be further mitigated by using a number of property level protection measures to manage and reduce the overall flood risk at the Site.

No built development including access or escape routes, land raising or other potentially vulnerable elements, will be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).

The Proposed Development will have no impact on flood risk and the overall direction of the movement of water will be maintained within the developed Site and surrounding area. There will be no net loss in flood storage capacity. The conveyance routes (flow paths) will not be blocked or obstructed. The Proposed Development will have no impact on flood risk.

In conclusion, the flood risk posed to the Site can be considered to be limited; the Site is located within Flood Zone 1 and has a low or very low annual probability of flooding from all sources. The Site is unlikely to flood except in very extreme conditions.

6.3 Risk Management

The flood risk at the Site will be reduced by mitigation measures, discussed below.

Minimum Floor Level: The areas shown to be at risk of surface water flooding are associated with the existing pond on the Site, and does not extend outside of the pond extent and is shown to be very minor flooding with a water level of 290.49mAOD. The proposed minimum finished

floor level will be 292.02mAOD which provides a more than adequate freeboard against any flooding.

Flood Resilience and Resistance: To improve the Sites resilience to flooding the following measures will be incorporated. All electrical wiring, switches, sockets, socket outlets, electrical, and gas meters etc. will be located a minimum of 450mm above the finished floor levels and sloping landscaping away from the building/s.

Safe Access and Egress: The Site access and surrounding area is not at risk of flooding therefore a permanently safe and dry access can be maintained.

6.4 Sequential/Exception Tests

As the Site lies within Flood Zone 1 and the FRA demonstrates that no part of the development (including access/egress routes) is at risk from any source of flooding now or in the future, the Sequential Test does not apply in accordance with NPPF Paragraph 175. The Exception Test is not required for 'less vulnerable' development in Flood Zone 1

6.5 Conclusion

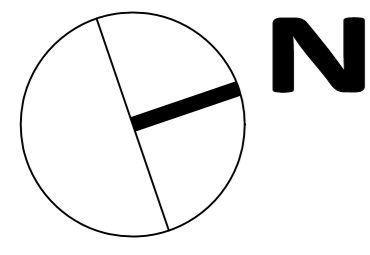
In conclusion, the Proposed Development, would be expected to remain dry in all but the most extreme conditions. Providing the recommendations made in this FRA are instigated, flood risk from all sources would be minimised, the consequences of flooding are acceptable and the development would be in accordance with the requirements of the NPPF.

This FRA demonstrates that the Proposed Development would be operated with minimal risk from flooding, would not increase flood risk elsewhere and is compliant with the requirements of the NPPF. The development should not therefore be precluded on the grounds of flood risk.



APPENDICES

APPENDIX 1 – Existing and Proposed Site Layout

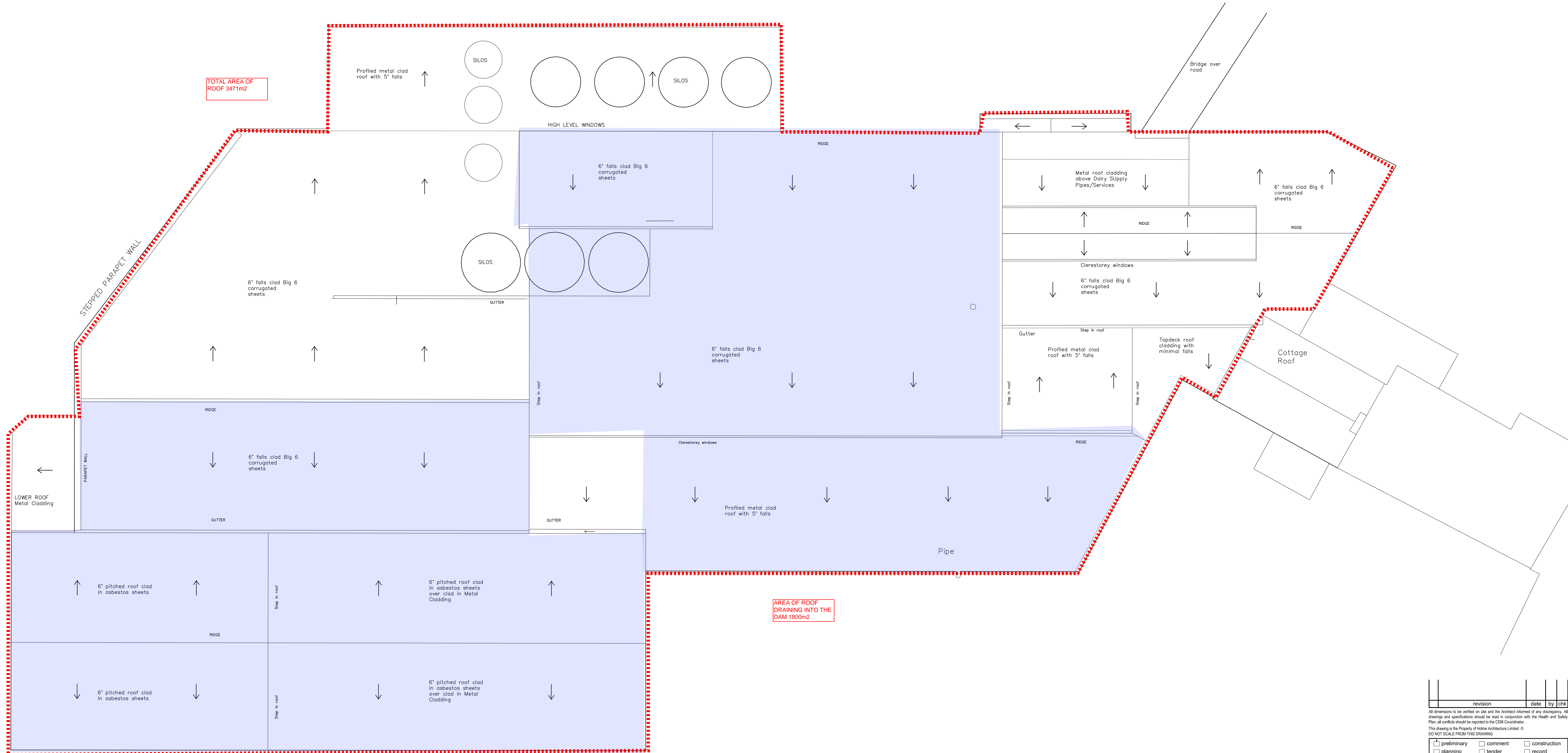


Construction staff and operatives must ensure the principal contractor has provided thorough and accurate information on all health and safety aspects relating to the design identified on this drawing including the review of:

- Design/contractor risk assessments
- Method statements
- Permit to work
- Pre construction information

The designer notes that the following health and safety risks relating to this drawing have not been eliminated during the design process:

ref	residual risk



TOTAL AREA OF ROOF 3471m²

AREA OF ROOF DRAINING INTO THE DAM 1800m²

revision	date	by	chk

All dimensions to be verified on site and the Architect informed of any discrepancy. All drawings and specifications should be read in conjunction with the Health and Safety Plan; all conflicts should be reported to the CDM Co-ordinator. This drawing is the Property of Holme Architecture Limited. © DO NOT SCALE FROM THIS DRAWING

<input type="checkbox"/> preliminary	<input type="checkbox"/> comment	<input type="checkbox"/> construction
<input type="checkbox"/> planning	<input type="checkbox"/> tender	<input type="checkbox"/> record

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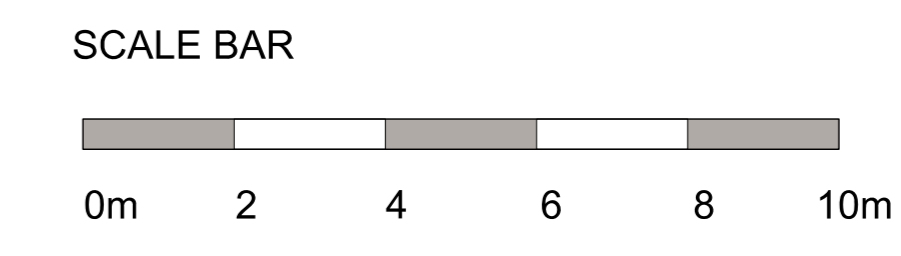
J&E DICKINSON
 Longley Lane Holmfirth HD9 2JD

drawn by	checked by	date	scale @ A0
MC	MC	22.08.25	1:100

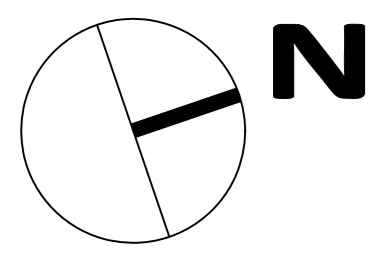
Cottage Cheese Extension and Dairy Reroofing

EXISTING DAIRY ROOF PLAN

project number	drawing number	revision
120	203	



Project: Longley Lane Dairy Reroofing (2023) - Page 103 of 103
 Drawing: Existing Dairy Roof Plan

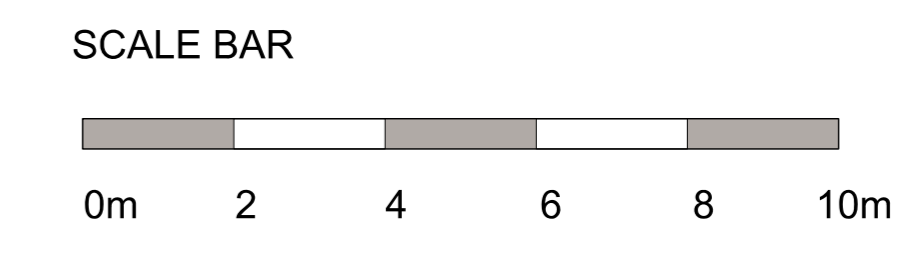
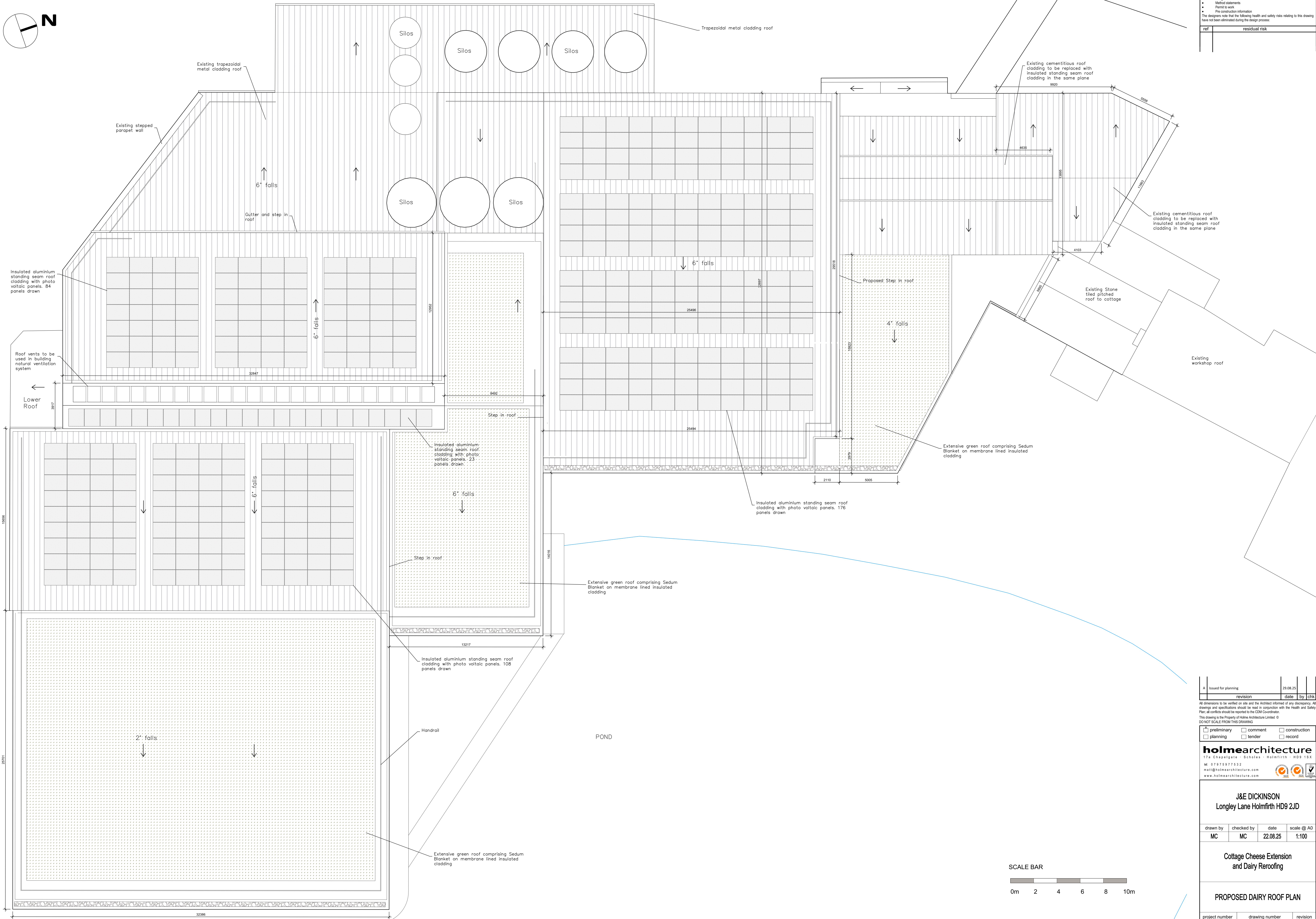


Construction staff and operatives must ensure the principal contractor has provided thorough and accurate information on all health and safety aspects relating to the design identified on this drawing including the review of:

- Design/contractor risk assessments
- Method statements
- Permit to work
- Pre construction information

The designers note that the following health and safety risks relating to this drawing have not been eliminated during the design process:

ref	residual risk



revision	date	by	
A	Issued for planning	29.08.25	chc

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drawn by	checked by	date	scale @ A0
MC	MC	22.08.25	1:100

Cottage Cheese Extension and Dairy Reroofing

PROPOSED DAIRY ROOF PLAN

project number	drawing number	revision
120	222	A

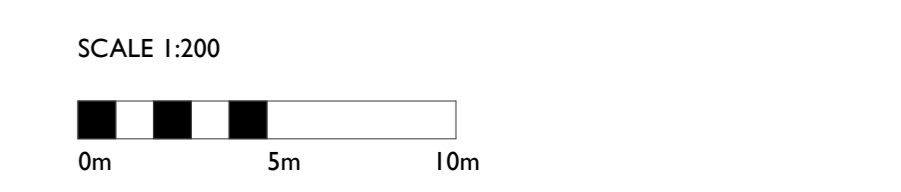


- KEY**
- Planning application boundary
 - Existing building extents
 - Existing boundary wall/ Low stone wall
 - Proposed sandstone wall
 - Proposed Extension
 - 14.00 Proposed levels (underlined)
FFL: Finished Floor Level; TOW: Top of Wall
TOK: Top of Kerb; BOK: Bottom of Kerb
 - 15.400 Existing levels (in brackets)
FFL: Finished Floor Level; TOW: Top of Wall
TOK: Top of Kerb; BOK: Bottom of Kerb
 - 1:0.00 Gradients
Proposed (underlined)
Existing (in brackets)
 - Fall of Ground
 - Proposed Footpath
 - Proposed Accessway: TTE heavy duty cell system, seeded with low growing meadow
 - Proposed Embankment Reinforcement: Flex MSE
Vegetated Wall System: Hydro seeded
 - Proposed Natural Erosion Protection: Salix Coir Rolls
 - Proposed Apron threshold: Self-binding gravel or similar crush & run finish
 - Proposed hedge planting
 - Proposed Marginal Aquatic Meadow
 - Proposed Mown Grass
 - Proposed Low Scrubland
 - Proposed Rough Grassland
 - Proposed Native Meadow
 - Proposed Woodland Understorey
 - Extents of Pond & Wading Pool
 - Proposed Pontoon Floating Wetland
 - Proposed Wading Pool Plug Planting
 - Existing Tree (Removed)
 - Existing Tree (Retained)
 - Proposed Tree

- GENERAL NOTES:**
1. Do not scale from this drawing.
 2. All levels, dimensions & setting out to be checked & agreed on site.
 3. All dimensions are in millimeters unless otherwise stated.
 4. All drawings must be read in conjunction with all Landscape, Civil, Geotechnical & Structural Engineers, National Highways, British Waterways and Architectural Documentation.
 5. The contractor shall be responsible for confirming the position of all existing services, structures and works including building set out, in and around the site, prior to the commencement of works.
 6. Contractor to confirm all dimensions and levels with Landscape Architect, prior to commencing work and ordering materials.
 7. The contractor is to protect all listed structures during works.
 8. This drawing is copyright protected & may not be reproduced in whole or part without written authority.
 9. Typical detail drawings are to be considered as design intent and not construction drawings. Selected Fabricators and Manufacturer's to provide fabrication drawings for XQLA approval.

- REFER TO:**
- XQLA Drawings:
 - 842-XQL-00-00-DR-L-0110 - General Arrangement
 - 842-XQL-00-00-DR-L-0200 - Sections
 - 842-XQL-00-00-DR-L-0300 - Typical Junction Detail
 - 842-XQL-00-00-DR-L-0400 - Softwork Plan
 - 842-XQL-00-00-DR-L-0401 - Typical Softwork Detail
 - 842-XQL-00-00-DR-L-0402 - Tree Protection Plan

Architects Drawing:
104-110-Proposed Cottage Cheese Site Plan Rev B
Refer to Architect's drawings for building interface
Refer to Arbonicultural & Topographical survey



NO.	DATE	DESCRIPTION	SK	XQ
1	25/06/24	Final Issue	SK	XQ

PLANNING

842_LONGLEY FARM, HOLMFIRTH
PROJECT
GENERAL ARRANGEMENT
DRAWING NAME
1:200 @ A0 JULY'25 SO PL01
SCALE DATE STATUS REVISION
842-XQL-00-00-DR-L-0110
DRAWING NO.
SK KO XQ
DRAWN BY CHECKED BY APPROVED BY



APPENDIX 2 – Topographical Survey

