

FLOOD RISK ASSESSMENT

LOCATION:

Church Street, Darton

CLIENT:

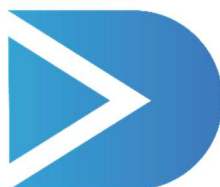
North Gawber Colliery FC Ltd

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Revision	Description	Date	Author	Checked
A	First Issue	October 2025	O Mountain	A Dyson

1.0 INTRODUCTION

This Flood Risk Assessment (FRA) is compliant with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance. The FRA has been produced on behalf of North Gawber Colliery FC Ltd in respect of a planning application for the proposed residential development at Church Street, Darton.

Site Name	Church Street, Darton
Location	Church Street, Darton, Barnsley, S75 5JA
Application Site Area (ha)	4.027 ha
Development Type	Recreational
NPPF Vulnerability	More
EA Flood Zone	Flood Zone 3
EA Office	Yorkshire
Local Planning Authority	Barnsley Metropolitan Borough Council

Table 1.1 - Site Summary

1.1 SOURCES OF DATA

The report is based on the following information:

- i. Proposed Site Layout
- ii. EA Flood Data
- iii. Flood Evacuation Plan

1.2 EXISTING SITE

The site in question is located to the North West of Barnsley, approximately 6.6km away from the town centre. The site is approximately 4.027ha in size and is bounded by the M1 to the west.

From Appendix A it can be considered that the development area is relatively flat. At the far east region of the site, the lowest level is approximately 61.00 AOD. Contrastingly, in the far western area, the highest level is approximately 61.79 AOD. Therefore, there is only a 0.79m change in levels on this site.

There is one watercourse within the neighbouring areas of the site. Approximately 6m to the east of the site lies River Deame.



Figure 1.1 - Site Location

1.3 PROPOSED DEVELOPMENT

The proposed development is set to consist of proposed recreational development to form sports pitches and changing facilities.

1.4 FLOOD RISK PLANNING POLICY

National Planning Policy Framework

The NPPF sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk. Planning Practice Guidance is also available online.

The Planning Practice Guidance sets out the vulnerability to flooding of different land uses. It encourages development to be located in areas of lower flood risk where possible and stresses the importance of preventing increases in flood risk off site to the wider catchment area.

The Planning Practice Guidance also states that alternative sources of flooding, other than fluvial (river flooding), should also be considered when preparing a Flood Risk Assessment.

This Flood Risk Assessment is written in accordance with the NPPF and the Planning Practice Guidance.

Flood Zones

The Flood Zone Map for Planning has been prepared by the Environment Agency. This identifies areas potentially at risk of flooding from fluvial or tidal sources. An extract from the mapping is included as Figure 1.2.



Figure 1.2 - Environment Agency Flood Zone Mapping

The site is shown to be located partially within Flood Zone 1 (Low Probability), Flood Zone 2 (Medium Probability) and Flood Zone 3 (High Probability) therefore the site is considered to be medium risk of flooding. Flood Zone 1 is defined as land assessed as having less than a 0.1% annual probability of flooding from fluvial and tidal sources. Flood Zone 2 is defined as land assessed as having between 0.1 and 1% annual probability of flooding from fluvial and tidal sources. Flood Zone 3 is defined as land assessed as having more than 1% annual probability of flooding from fluvial and tidal sources.

The sports pitches proposed are mainly in Flood Zone 1 with the eastern end slightly encroaching into Flood Zone 2. The proposed changing facilities are in Flood Zone 1.

Table 2 of the Planning Practice Guidance classifies land use. Under these classifications the proposed recreational development is considered to be 'More Vulnerable' to the potential impacts of flooding.

Table 3 of the Planning Practice Guidance identifies that any development is considered appropriate within Flood Zone 1, 2 and 3.

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable
Flood Zone 1	✓	✓	✓	✓
Flood Zone 2	✓	✓	Exception test required	✓
Flood Zone 3a	Exception test required	✓	x	Exception test required
Flood Zone 3b	Exception test required	✓	x	x

1.5 OTHER RELEVANT POLICY AND GUIDANCE

Strategic Flood Risk Assessment

The Barnsley Metropolitan Council Strategic Flood Risk Assessment (SFRA) was prepared to review flood risks on a much wider scale to assess the potential for new development within the study area. The SFRA was used as an evidence base for Local Development Frameworks for each Local Planning Authority.

The SFRA therefore aims to bring together all available flood risk information for a variety of sources to provide a robust assessment. The SFRA therefore is useful for this site-specific FRA by highlighting available data and instances of known flooding in the area. Although written under the guidance of Planning Policy Statement 25, the SFRA is still considered to include relevant information.

2.0 POTENTIAL SOURCES OF FLOOD RISK

The table below identifies the potential sources of flood risk to the site, and the impacts which the development could have in the wider catchment prior to mitigation. These are discussed in greater detail in the forthcoming section. The mitigation measures proposed to address flood risk issues and ensure the development is appropriate for its location are discussed within Section 3.0.

Flood Source	Potential Risk				Description
	High	Medium	Low	None	
Fluvial	X	X	X		The site is located in flood zones 1, 2 and 3. However the proposed sports pitches are mainly in Flood Zone 1, with a small area in Flood Zone 2. The changing facilities are located in Flood Zone 1.
Tidal	X				There are tidal influences effecting the site.
Canals				X	None present.
Groundwater			X		Ground conditions are not conducive to fluctuating groundwater levels.
Reservoirs and waterbodies				X	The site is shown to fall outside of the catchment for reservoir and waterbodies flooding.
Sewers			X		The site in question is higher than the surrounding sewers therefore there is a very low risk.
Pluvial runoff			X		An area of site is within pluvial flood risks however this is outside of the development area.
Effect of Development on Wider Catchment		X			The impermeable area of the site is being altered.

Table 2.1 - Pre-Mitigation Sources of Flood Risk

2.1 FLUVIAL FLOOD RISK

As previously mentioned, the site is shown to be within Flood Zone 3 and therefore poses a high risk to the proposed development.

The risk of flooding posed to the proposed development is high. This is because there is one watercourse near the site that can pose a threat. The watercourse is located approximately 6m away from the site.

Mitigation measures to address the residual risk posed by the watercourses surrounding the site are discussed within Section 3.0 of this report.

2.2 GROUNDWATER FLOOD RISK

Subject to completion of site investigation to confirm we would assume that natural ground water level is located well below the site surface and the nature of the strata means it is unlikely that there will be perched water above this level.

We therefore do not consider there is a risk of groundwater flooding affecting the development subject to final confirmation upon completion of suitable site investigation.

2.3 FLOOD RISK FROM RESERVOIRS & LARGE WATERBODIES

Reservoir failure flood risk mapping has been prepared by the Environment Agency, this shows the largest area that might be flooded if a reservoir were to fail and release the water it holds. The map displays a worst-case scenario and is only intended as a guide. An extract from the mapping is included as Figure 2.1.

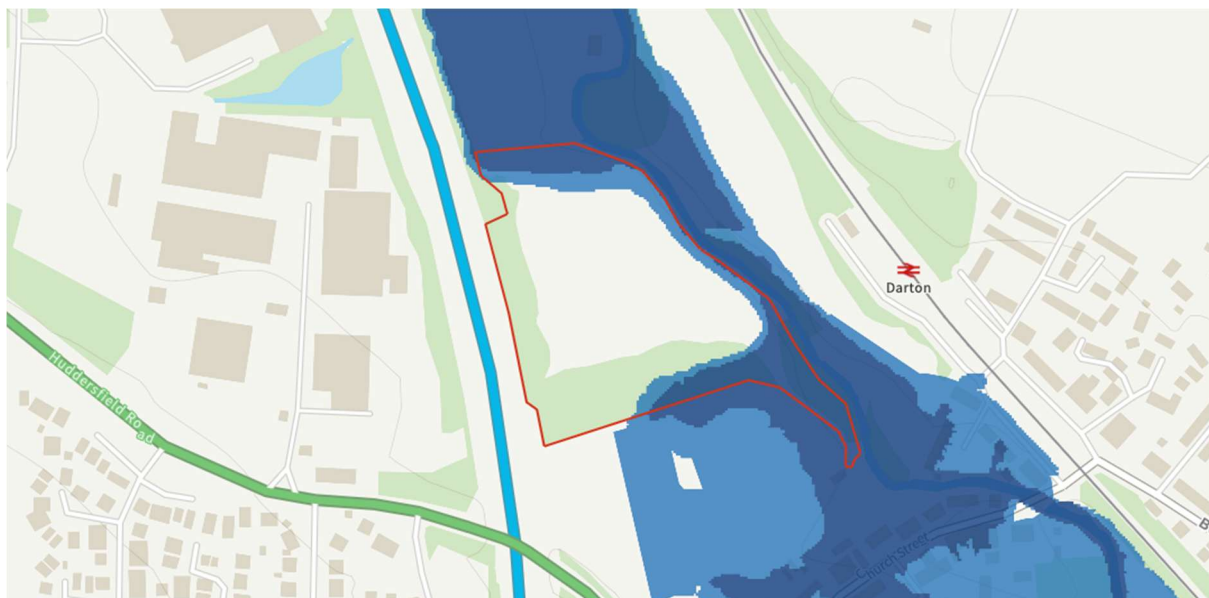


Figure 2.1 - Environment Agency Reservoir Failure Flood Risk Map

Mapping demonstrates the site and possible access routes are within the flood extent associated with flooding from large reservoirs.

2.4 FLOOD RISK FROM SEWERS

The site in question lies above any main roads which is potentially where any Yorkshire Water sewers will lie.

As such, it is considered that there is no risk of flooding from sewers.

2.5 PLUVIAL FLOOD RISK

Risk of flooding from surface water mapping has been prepared by the Environment Agency, this shows the potential flooding which could occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead. An extract from the mapping is included as Figure 2.2

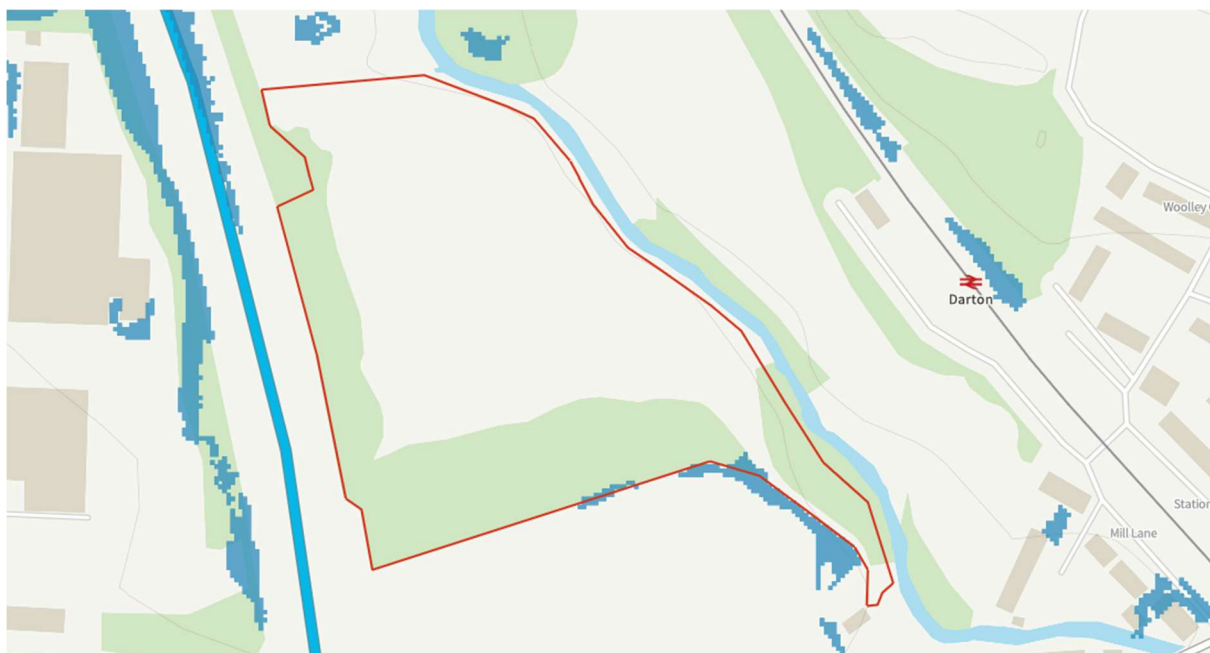


Figure 2.2 - Risk of Flooding from Surface Water Mapping

The mapping produced by the Environment Agency shows that there are several small areas of the site that are at risk of surface water flooding. These areas are far removed from the proposed development.

Therefore, the risk posed by this threat is considered low.

2.6 EFFECT OF DEVELOPMENT ON WIDER CATCHMENT

2.6.1 Development Drainage

The existing site is greenfield. The amount of impermeable area will be altered. However a surface water system will be designed to SUDs (Sustainable Urban Drainage) guidance and will restrict surface water to green field run off rate. Therefore the risk posed to the wider development is negligible.

3.0 FLOOD RISK MITIGATION

Section 2.0 has identified the sources of flooding which could potentially pose a risk to the site and the proposed development. This section of the FRA sets out the mitigation measures which are to be considered within the proposed development detail design to address and reduce the risk of flooding to within acceptable levels.

3.1 SITE ARRANGEMENTS

3.1.1 Sequential Arrangement

The Flood Zone mapping shows the site to be located within flood zone 3.

3.1.2 Finished Levels

Given the site is in Flood Zone 1,2 and 3, suitable mitigation is needed to remove flood risk. However as noted the sports pitches are mainly in Flood Zone 1 and only slightly in Flood Zone 2. The proposed changing facilities are in Flood Zone 1.

EA Flood Data has been requested from the EA and is awaited, this will be reviewed against the topographical survey for the site and extent of flooding assessed and the FRA updated.

Due to the sports pitches being in partially in Flood Zone 2 it is recommended the facility manager should register for the Flood Warning Line on 0345 988 1188 to be advised in the event of a potential flood.

In the event of flood flows encroaching into the development area, the pitches will be closed for use until flood levels subside and a Flood Evacuation Plan put in place as required (Appendix C).

4.0 CONCLUSIONS AND RECOMMENDATIONS

This Flood Risk Assessment (FRA) is compliant with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance. The FRA has been produced on behalf of North Gawber Colliery FC Ltd.

This report demonstrates that the proposed development is at significant flood risk, and mitigation measures have been recommended to address any residual risks that may remain. The identified risks and mitigation measures are summarised within Table 4.1.

Flood Source	Proposed Mitigation Measure
Fluvial	Site is shown to be in Flood Zones 1, 2 & 3.
Impact of the Development	Strategic surface water drainage strategy prepared for wider development will ensure a sustainable approach to surface water management.

Table 4.1 - Summary of Flood Risk Assessment

In compliance with the requirements of National Planning Policy Framework, and subject to the mitigation measures proposed, the development could proceed without being subject to significant flood risk. Moreover, the development will not increase flood risk to the wider catchment area as a result of suitable management of surface water runoff discharging from the site.

5.0 APPENDICES

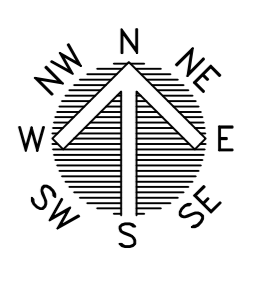
Appendix A – Proposed Site Layout

Appendix B – EA Flood Data

Appendix C – Flood Evacuation Plan

Appendix A

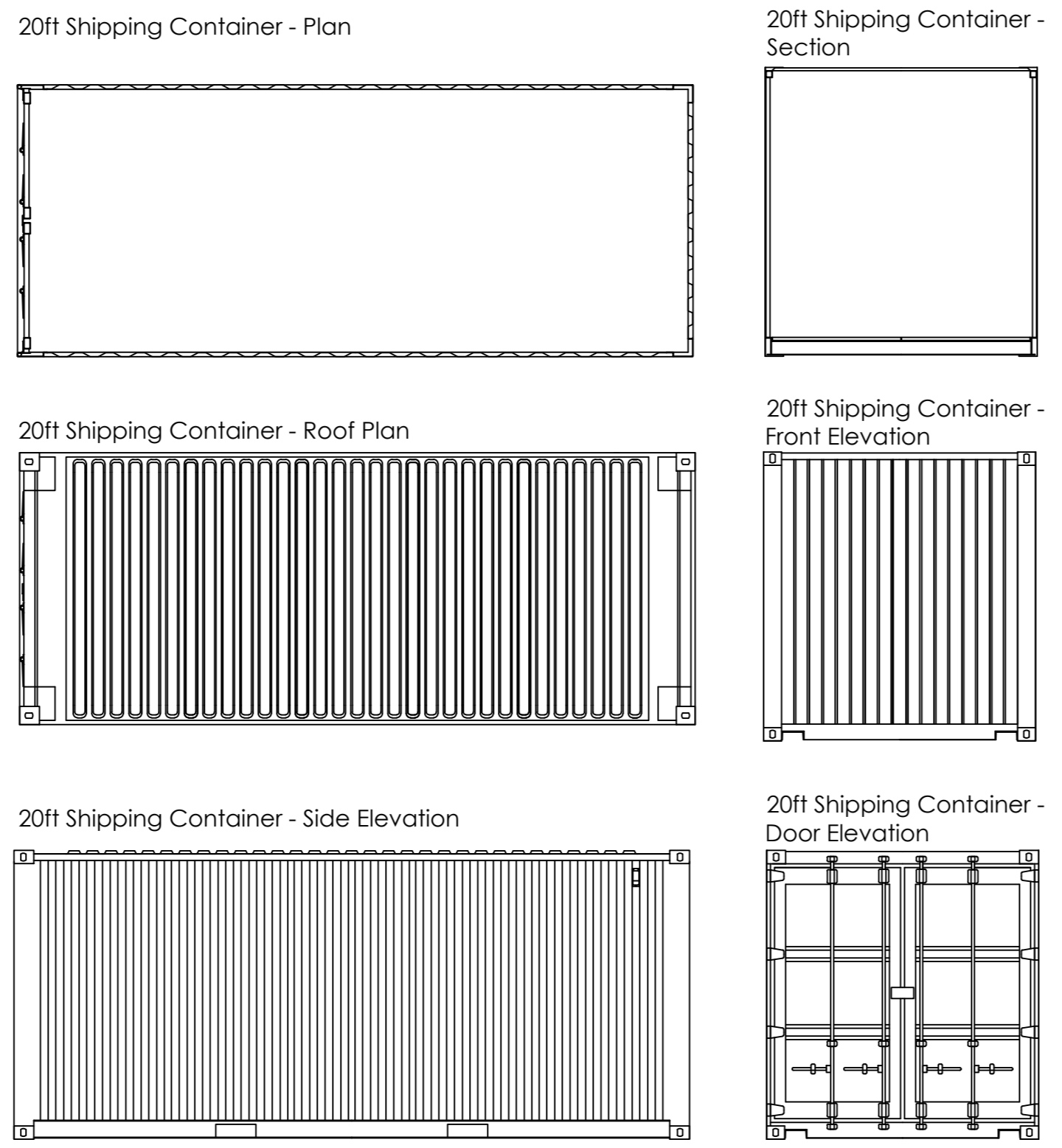
Proposed Site Layout



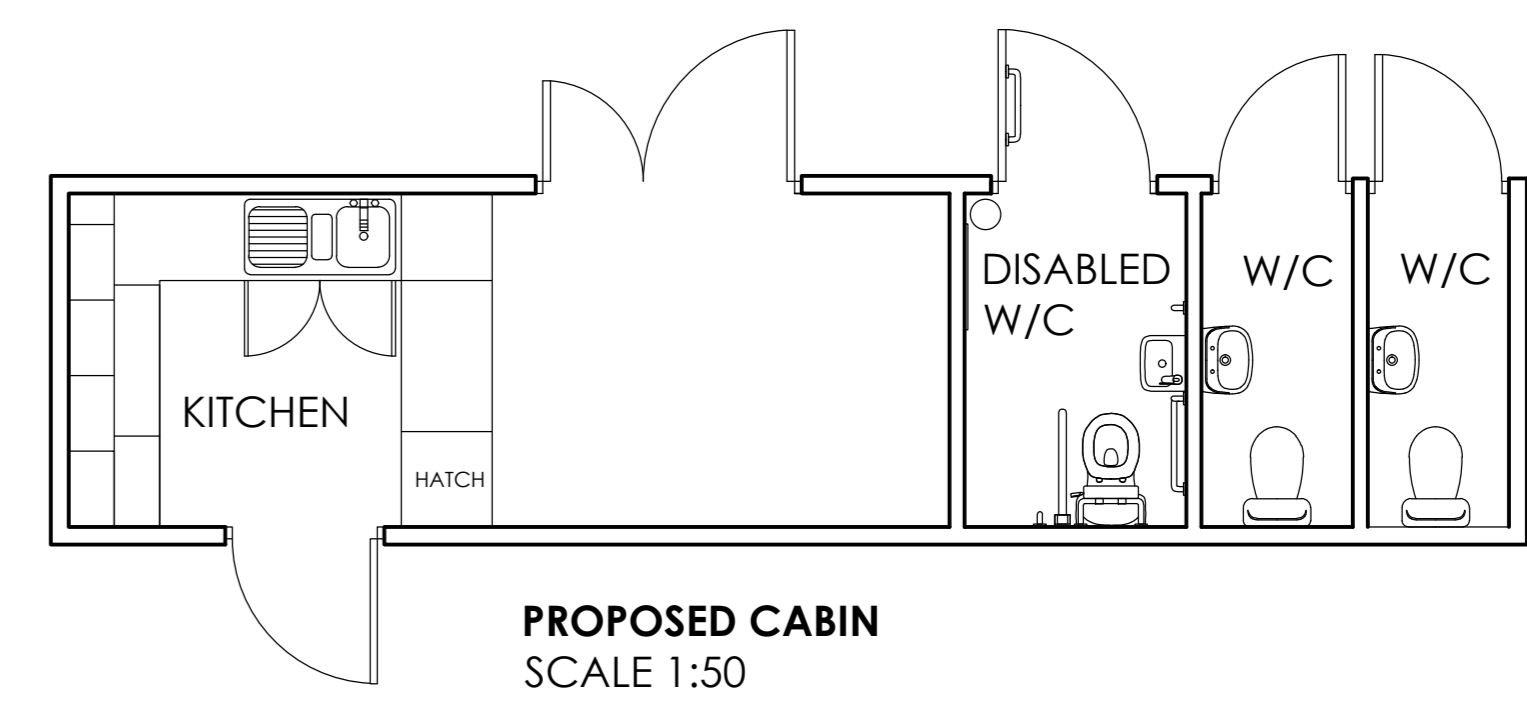
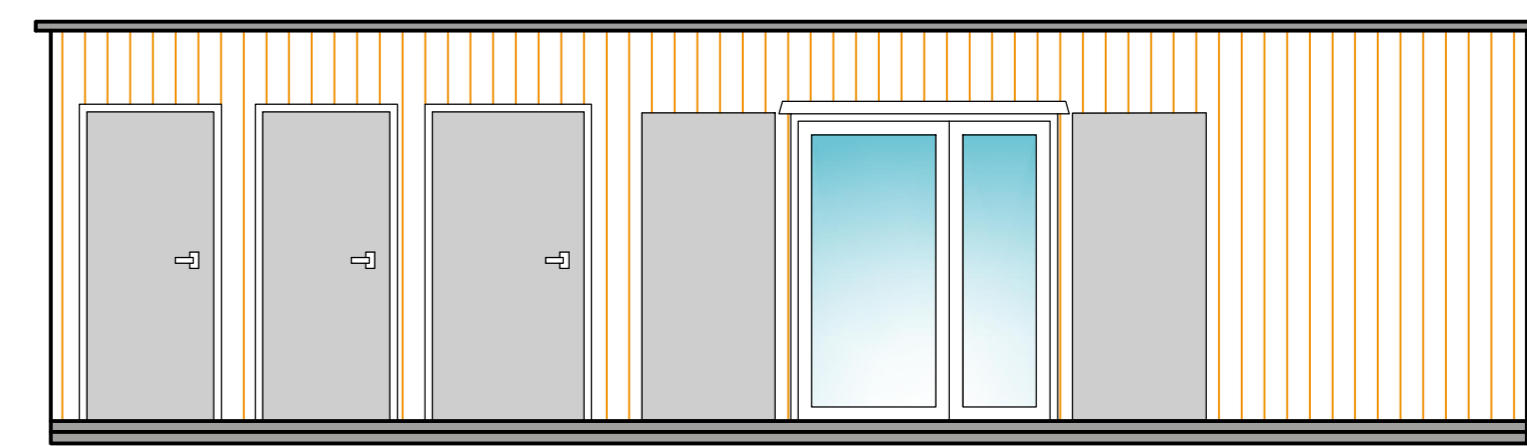
- 2.4m HIGH V MESH SECURITY FENCING
 - 9.9M X 2.6M CABIN
 - GRASS REINFORCEMENT MESH
 - BODPAVE PERMEABLE PAVING
- line indicates top of bank
- line indicates 8 metre buffer zone, free from development, from top of bank



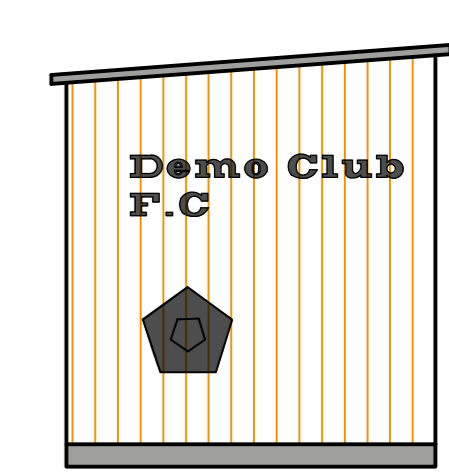
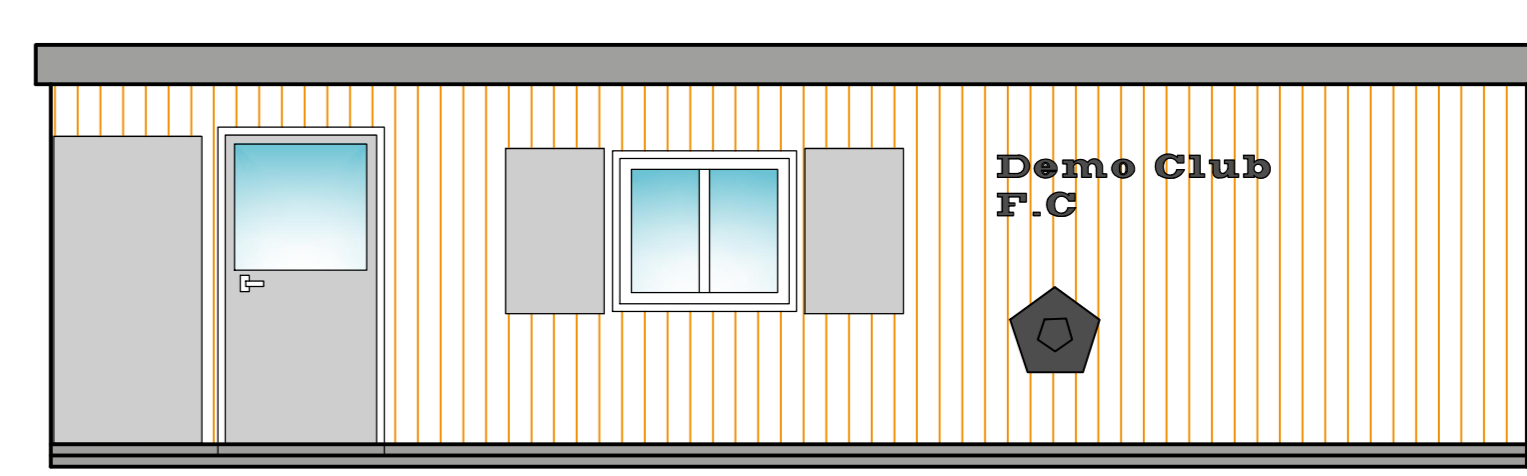
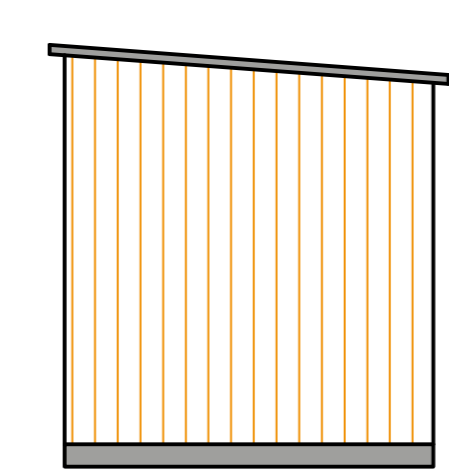
LOCATION PLAN
SCALE 1:1250



PROPOSED CONTAINERS (TWO IN TOTAL)
SCALE 1:50



PROPOSED CABIN
SCALE 1:50



SITE PLAN
SCALE 1:500

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Project: PROPOSED SECURITY FENCE AND ASSOCIATED FACILITIES DARTON LONGFIELDS			Client: NORTH GAMBER COLLIERY FOOTBALL CLUB		
Drawing Title: PLANS			Date: DECEMBER 2024		Scale: 1:50 @A0
Ref: 23-171			Dwg. No.: 02		Rev.: J
Date	Suffix	Description	Date	Suffix	Description
12/12/2024	A	PLAN REVISED AND GEN NOTED	20/09/2025	F	UPDATES FOR PLANNING
20/12/2025	B	REVISIONS	20/09/2025	G	TOP OF BANK NOTED
02/01/2025	C	REVISED TO CLIENTS REQUIREMENTS	07/09/2025	H	PLAN UPDATED
02/01/2025	D	REVISED	20/09/2025	I	UPDATES FOR PLANNING
07/01/2025	E	REVISED	17/10/2025	J	CAR PARK REMOVED

Appendix B

EA Flood Data

EA Flood Data has been requested from the Environment Agency. The FRA will be updated accordingly when received.

Appendix C
Flood Evacuation Plan

FLOOD EVACUATION PLAN

PROPOSED RECREATIONAL DEVELOPMENT, CHURCH STREET, DARTON

Introduction

The objective of this plan is to raise awareness of the risk of flooding onsite to site occupiers, to detail the Flood Warnings and estimated lead time available, and to detail how the Plan is triggered by who and when, and what actions are required by those people in the area.

The Plan describes the evacuation procedure and need for safe refuge. The location covered by this Plan is shown in red below:



Flood Risk

The location covered by this Plan is at risk from flooding from tidal surge and is covered by the Environment Agency (EA) Flood Warning System.

The site lies specifically within Flood Zone 3 (high probability of flooding) on the Environment Agency Flood Map for Planning and the proposal is for a new recreational development, which is classed as a 'more vulnerable' development in Table 2: Flood Risk Vulnerability Classification of the Planning Practice Guidance (PPG): Flood Risk and Coastal Change.

Flood Warnings

The EA operate a flood forecasting and warning service in areas at risk of flooding from rivers or the sea, which relies on direct measurements of rainfall, river levels, tide levels, in-house predictive models, rainfall radar data and information from the Met Office. This service operates 24 hours a day, 365 days a year.

If flooding is forecast, warnings are issued using a set of easily recognisable codes. A description of the codes is shown in Appendix 1.

Flood Register

Floodline Warning is a free service operated by the EA that provides flood warnings direct to you by phone, email or text message. Sign up for Flood Warnings by calling Floodline on 0345 988 1188 or online by following the link included in appendix 2.

The future occupiers will be responsible for activating this plan and will register with the EA Flood Warnings Service and should receive a warning through this system

Estimated Flood Warning Time

For this location the estimated lead time provided by the EA is 2-3 days, however 1-2 hours lead time is guaranteed. A more accurate estimation will be provided when the warning is made.

Decision Making

Once a Flood Warning has been received residents will need to decide what actions they or others now have to take.

If immediate flooding is forecast and the opportunity to safely evacuate is gone, pre-emptive flood protection tasks must be implemented (if time allows) and the order given for moving to the area of safe refuge, see below.

The decision regarding evacuation will be made by the future property owners on receipt of the flood warning notification from the EA.

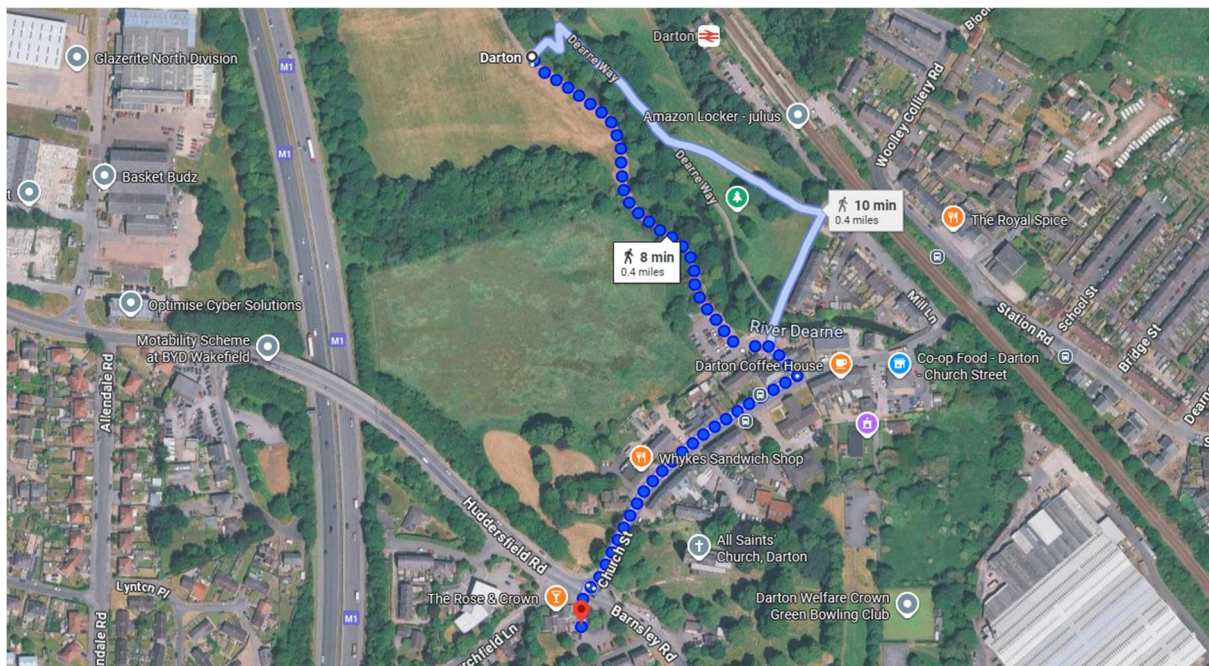
Response Actions / Considerations

Site Evacuation Procedures & Routes

It is anticipated that the EA's flood warning alerts will allow occupiers sufficient time to evacuate the site, facilities would be closed and occupiers would leave site and access Flood Zone 1 area in Darton where suitable facilities are available.

The arena will be closed to use during a flood event and residents will await the flood waters to sufficiently subside before attempting to evacuate.

It will be the responsibility of the site owner to ensure that everyone is out of the arena area safely.



Reoccupation of The Site

There may well be environmental hazards, loss of utilities and other such issues, which may have to be rectified before people are allowed back to the arena area.

Training & Exercising

All individuals who will use the facilities will be made aware of this plan and briefed accordingly.




This Plan should form part of any site induction for users of the facilities.

Document Control

This Plan is owned, maintained, and updated by the property owners. All users are asked to keep the plan updated if changes in circumstances occur that may materially affect the plan in any way.

The plan will be reviewed at least every three years, as a result of lessons identified after an activation event or exercise, following changes ownership of the property or following any change to the flood risk or warning process that is used by the Environment Agency.

Appendix 1 - Environment Agency Warning Codes

<p><u>Flood Alert</u></p> 	<p>Key Message: Flooding is possible. Be prepared Timing: 2 hours to 2 days in advance of flooding Actions: Be prepared for flooding Prepare a flood kit of essential items Monitor local water levels and flood forecasts</p> <p><i>Flood Alerts are to warn people of the possibility of flooding and encourage them to be alert, stay vigilant and to make early preparations for flooding.</i></p>
<p><u>Flood Warning</u></p> 	<p>Key Message: Flooding is expected. Immediate Action Required Timing: Half an hour to 1 day in advance of flooding Actions: Act now to protect your property Block doors with flood boards or sandbags and cover airbricks and other ventilation holes Move family, pets and valuables to a safe place Turn off gas, electricity and water supplies if safe to do so Keep a flood kit ready Move cars, pets, food, valuables and important documents to safety</p> <p><i>Flood Warnings are to warn people flooding is expected and encourage them to take immediate action to protect themselves and their property.</i></p>
<p><u>Severe Flood Warning</u></p> 	<p>Key Message: Severe flooding. Danger to life Timing: When flooding poses a significant threat to life and different actions are required Actions: Stay in a safe place with a means of escape Be ready should you need to evacuate from your home Co-operate with the emergency services Call 999 if you are in immediate danger</p> <p><i>Severe Flood Warnings are to warn people of a significant risk to life or significant disruption to communities caused by widespread or prolonged flooding, and encourage them to take immediate action to protect themselves and follow the advice of the emergency services.</i></p>
<p><u>Warnings no longer in force</u></p> <p>(no icon)</p>	<p>Key Message: No further flooding is currently expected for your area Timing: When river or sea conditions begin to return to normal Actions: Be Careful. Flood water may still be around for several days and could be contaminated If you've been flooded, ring your insurance company as soon as possible</p> <p><i>Warnings are removed to inform people that the threat has now passed.</i></p>