Parkwood Road, Golcar
Huddersfield

Flood Risk Assessment and Drainage Strategy Report

Date 9th January 2026

Notice

This report was produced by Lynas Engineers on behalf of Mandale Group for the specific purpose of assessing the risk of flooding along with the strategy for draining the proposed development on land at Parkwood Road, Golcar, Huddersfield.

This report may not be used by any person other than Mandale Group without their express permission. In any event, Lynas Engineers accepts no liability for any costs, liabilities or losses arising as a result of the use of or reliance upon the contents of this report by any person other than Mandale Group.

Document History

Job No. – 25016		Document No. – 25016-LE-ZZ-05-RP-D-0001				
Rev.	Status	Purpose Description	Orig.	Check	Auth.	Date
P01	S2	First Issue – For Information	OS	WF	RSL	09.01.26

Contents

Summary

1. Lynas Engineers was commissioned by Mandale Group to undertake a Flood Risk Assessment (FRA) report in respect of the proposed development located at Parkwood Road, Golcar, Huddersfield.
2. The red-line boundary for the overall development plan covers an area approximating 0.889ha.
3. A location plan of the area can be found in Appendix A.
4. The FRA has been produced in accordance with the National Planning Policy Framework (NPPF), standing advice and general requirements of the Environment Agency (EA), and Kirklees Council's Local Plan – Strategy and Policies (2013-2031).
5. The Local Plan Strategy and Policies document can be viewed through this link: https://www.kirklees.gov.uk/beta/planning-policy/pdf/local-plan-strategy-and-policies.pdf
6. The FRA demonstrates the following:
    - The specific location designated for the surface water drainage system is located within Flood Zone 1 and is at a very low probability of fluvial flooding.
    - The proposed site is at a very low risk of flooding from surface water.
    - The proposed site is not at risk of flooding from a reservoir failure.
    - The risk of flooding elsewhere from all sources of flooding will not change from the existing situation.

Introduction

Development Proposal

1. The proposal is to develop the site area, which is currently occupied by farming land. The proposed development will comprise of 28 residential units, each similar in construction and size.
2. The nearest post code to the development site is HD3 4TT.
3. The overall development area equates to 0.889ha and will be accessed off Weavers Lane.
4. Figure 1 illustrates the proposed layout for the commercial development, with the red line boundary indicating the proposed site extents. A larger scale layout of the proposed development can be viewed in Appendix B.

Figure 1 – Proposed Layout

Purpose

1. A preliminary review of the flood maps for the area indicates that the site is located wholly within Zone 1 of the Environment Agency Flood Map, which is defined as land assessed as having a less than 1 in 1000 years (<0.1% AEP) annual probability of river or sea flooding in any one year.
2. The report is intended to provide an understanding of the flood risk associated with the existing site, assess whether the proposed drainage would be susceptible to flood risk and, if so, consider whether and how that flood risk can be managed in an acceptable manner, whilst also allowing for any climate change.
3. To assess whether the proposed development would increase the risk of flooding elsewhere.
4. A more detailed technical note outlining the surface water drainage philosophy for the proposed development site can be found in the accompanying planning document number 25016-LE-ZZ-05-RP-D-0002.
5. The above stand-alone technical note includes the following:
    - Assesses how surface water run-off from the existing site is disposed.
    - Assesses the potential solutions for the disposal of surface water run-off from the proposed development site against relevant standards.
    - Identifies any constraints associated with the potential solutions and identifies the preferred solution for the discharge of surface water run-off from the proposed development.

Legislation, Policy and Guidance

National Planning Policy Framework

1. NPPF sets out the Government's national policies on different aspects of land use planning in England.

2. Section 14: Meeting the challenge of Climate Change, Flooding and Coastal Change, states that "Planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development".

3. The NPPF provides the following guidance in respect of Planning and Flood Risk:

3.1 Paragraph 159 states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

3.2 Paragraph 160 states that strategic policies should be informed by a strategic flood risk assessment and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.

3.3 Paragraph 161 states that all plans should apply a sequential, risk-based approach to the location of development – considering the current and future impacts of climate change – to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by:

a) applying the sequential test and then, if necessary, the exception test as set out below;
b) safeguarding land from development that is required, or likely to be required, for current or future flood management;
c) using opportunities provided by new development to reduce the causes and impacts of flooding (where appropriate through the use of natural flood management techniques); and
d) where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations.

3.4 Paragraph 162 states the aim of the sequential test is to steer new development to areas with the lowest risk of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding.

3.5 Paragraph 163 states that if it is not possible for development to be in zones with a lower risk of flooding (considering wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend

on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in national planning guidance.

3.6 Paragraph 164 states the application of the exception test should be informed by a strategic or site-specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. For the exception test to be passed it should be demonstrated that:

a) The development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

3.7 Paragraph 165 states that both elements of the exception test should be satisfied for development to be allocated or permitted.

3.8 Paragraph 166 states where planning applications come forward on sites allocated in the development plan through the sequential test, applicants need not apply the sequential test again. However, the exception test may need to be reapplied if relevant aspects of the proposal had not been considered when the test was applied at the plan making stage, or if more recent information about existing or potential flood risk should be considered.

3.9 Paragraph 167 states when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;
b) the development is appropriately flood resistant and resilient;
c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;
d) any residual risk can be safely managed; and
e) e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

3.10 Paragraph 168 states that applications for some minor development and changes of use should not be subject to the sequential or exception tests but should still meet the requirements for site-specific flood risk assessments.

3.11 Paragraph 169 states that major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should:

a) take account of advice from the lead local flood authority;
b) have appropriate proposed minimum operational standards;
c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and
d) where possible, provide multifunctional benefits.

4. Using NPPF Technical Guidance Table 3 (see Table 2), as a simple chart, it shows whether the development should or should not be permitted and whether further information will be required for the planning application.

Table A: NPPF Technical Guidance Table 2

Vulnerability Classification	
Less Vulnerable	• Police, ambulance and fire stations which are not required to be operational during flooding. • Buildings used for shops, financial, professional and other services, restaurants and cafes, hot food takeaways, offices, general industry, storage and distribution, non–residential institutions not included in "more vulnerable", and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • • Water treatment works which do not need to remain operational during times of flood. • • Sewage treatment works (if adequate measures to control pollution and manage sewage during flooding events are in place).

Table B: NPPF Technical Guidance Table 3

Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test Required	✓	✓	✓
Zone 3a	Exception Test Required	×	Exception Test Required	✓	✓
Zone 3b	Exception Test Required	×	×	×	✓

Key:

✓ Development is appropriate.

× Development should not be permitted.

Local Plan – Kirklees Council

1. Kirklees Council's Local Plan was adopted in February 2019 and provides statutory planning guidance for the borough up to 2031. This plan replaces development frameworks and sets out policies for housing, employment, climate change, and flood risk.
2. This plan provides planning guidance for developers in the form of core strategies policies and allocations and can be viewed using this link: https://www.kirklees.gov.uk/beta/planning-policy/pdf/local-plan-strategy-and-policies.pdf.
3. Kirklees Local Plan requires developments to mitigate and adapt to climate change by using low-emission layouts, renewable energy, green infrastructure, and flood-resilient design. Projects must manage water effectively and comply with national policies to reduce greenhouse gas and support sustainable development.
4. Figure 2 is an extract of the local plan document and discusses what criteria developments must meet to mitigate and adapt to climate change and avoid flood risk.

Figure 2 – Policy GR7 – Climate Change and Flood Risk

Policy LP27

Flood risk

Proposals for development which require a Sequential Test in accordance with national planning guidance will need to demonstrate that development has been directed to areas at the lowest probability of flooding, following a sequential risk based approach. The whole Kirklees district should be the starting point for the sequential test with applicants required to provide justification where a smaller area of search is proposed. If following application of the sequential test, there are no reasonably available sites which could accommodate the development in zones with a lower probability of flooding, it should also be demonstrated that a sequential approach has been applied within sites. This is to ensure that highly vulnerable and more vulnerable uses are directed towards the areas of lowest flood risk within the site. Proposals will also need to demonstrate that the exception test is passed, where applicable, as set out in national planning policy.

Proposals within flood zone 3ai will be assessed in accordance with national policies relating to flood zone 3a but with all of the following additional restrictions:

a. no new highly vulnerable or more vulnerable uses will be permitted;
b. less vulnerable uses may only be permitted provided that the sequential test has been passed and;

i. where extensions are linked operationally to an existing business or,

ii. where redevelopment of a site provides buildings with the same or a smaller footprint;

c. all proposals will be expected to include flood mitigation measures such as compensatory storage which should be identified and considered through a site specific Flood Risk Assessment;

d. development will not be permitted on any part of the site identified through a site specific Flood Risk Assessment as performing a functional floodplain role.

Proposals must be supported by an appropriate site specific Flood Risk Assessment in line with national planning policy. This must take account of all sources of flooding set out in the Strategic Flood Risk Assessment and demonstrate that the proposal will be safe throughout the lifetime of the development (taking account of climate change). The proposal must also not increase flood risk elsewhere and where possible should reduce flood risk. Mitigation measures, where necessary, should be proposed.

Proposals involving building over existing culverts or the culverting or canalisation of water courses will not be permitted unless it can be demonstrated to be in the interests of public safety or to provide essential infrastructure and that there will be no detrimental effect on flood risk and biodiversity. Where feasible, development proposals should incorporate re-opening of culverts, modification of canalised water courses and consideration of mitigation measures to achieve a more natural and maintainable state.

Proposals for natural management such as targeted vegetation planting in upper catchments and along river banks will be supported in appropriate locations where consistent with national and local plan policies and relevant water catchment management plans to reduce flood risk and improve water quality.

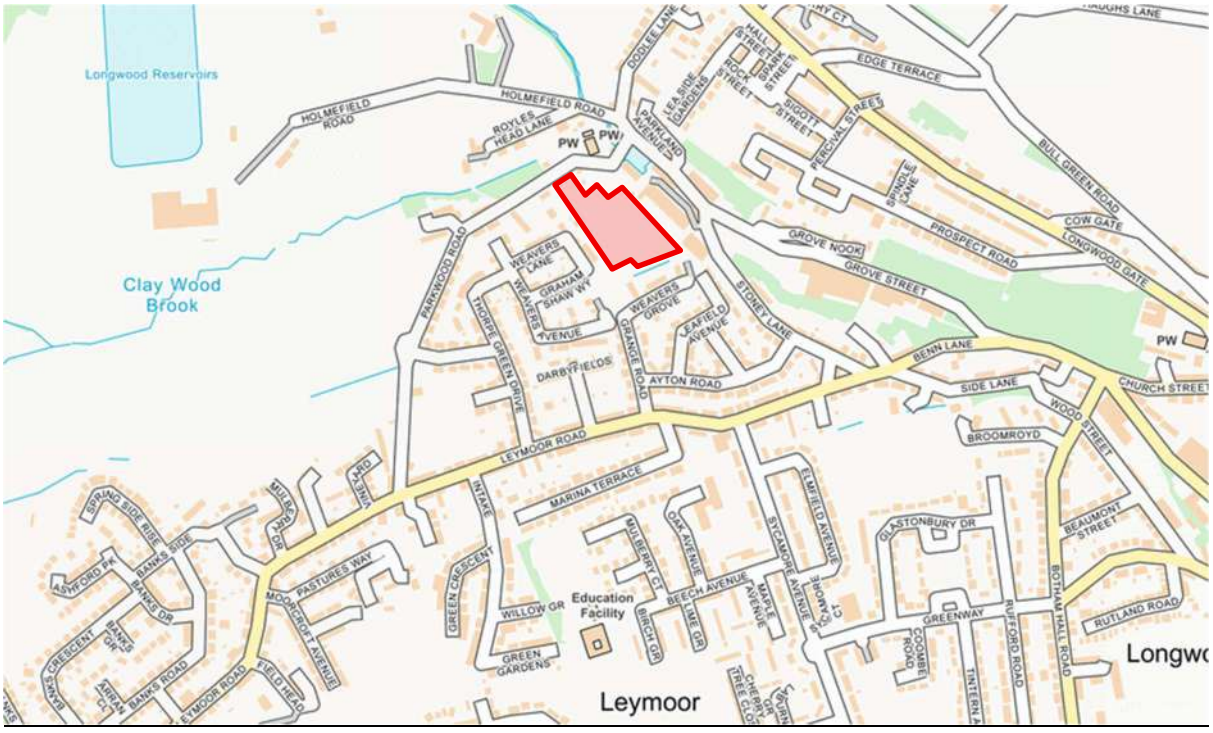
5. Local Planning Authorities are required to undertake a Strategic Flood Risk Assessment (SFRA). Such assessments will identify areas that are at risk from flooding and will also identify factors that influence both the current and future flood risk.
6. Where appropriate, evidence and recommendations from this report and the Local Plan have been incorporated into the FRA, prepared by Lynas Engineers, for the proposed development.

Development Site

General

1. The site lies to the south of Parkwood Road and south of Royles Head Lane, near Quarry Bank Mill in Longwood, Huddersfield.
2. The proposed site consists mainly of open grassed land with scattered vegetation and a small cluster of buildings linked to Quarry Bank Mill. It is largely undeveloped and bordered by residential properties to the south and west, with access from Parkwood Road. Surrounding uses include established housing and light industry, with green space to the north. The site is bounded by Parkwood Road to the north, Weavers Avenue to the south, open green space near Royles Head Lane to the west, and residential streets such as Grove Street to the east. Longwood Bowling and Social Club lies further northeast.
3. The site is located at grid ref. SE103168 (co-ordinates X: 410312, Y: 416818) and the nearest postcode to the development site is HD3 4TT.
4. Figure 3 below shows the approximate location of the proposed development, indicted by the red line boundary, in the context of the wider conurbation.

Figure 3 - Location Plan



5. The application site is 0.889hectares (ha) in area and comprises of 28 residential units.

Topography

1. A topographical survey on the existing site was commissioned by Mandale Group in April2 2025 and is available to view in Appendix C.

2. All information relating to levels presented in this report have been taken from this topographical survey.

3. There is an access road into the proposed development from Parkwood Road along the northern boundary of the site. The site itself consists mainly of open grassed areas with scattered vegetation, and there are clusters of trees and greenery along the western edge near Royles Head Lane.

4. The general topography of the site falls from northwest to the southeast.

5. The highest point on the survey is 171.98m AOD along the western boundary of the site and the lowest point is 157.1m AOD in the southeast corner of the site.

Hydrological Setting and Historical Flooding

1. The nearest body of water to the site is an unnamed minor watercourse approximately 10m to the south of the development boundary.
2. The River Colne is approximately 1.2km southeast of the site.
3. The Flood and Water Management Act 2010, Section 21 requires lead Local Flood Authorities such as Kirklees Council to maintain a register of structures and features, which are likely to have a significant effect on flood risk within their area. At the time of writing this report, Lynas Engineers are not aware of any of these assets on the site.
4. The Kirklees Council Strategic Flood Risk Management Strategy states that the Authority holds historical flooding records on their database, as does Yorkshire Water and West Yorkshire Fire and Rescue service. No flood events were recorded at the proposed development site.
5. The strategy can be viewed using this link:

   https://www.kirklees.gov.uk/beta/planning-policy/strategic-flood-risk-assessment.aspx

Hydrogeological Setting

1. Figure 4 is the record from the British Geological Survey's mapping system. The development site is represented by the red outline.

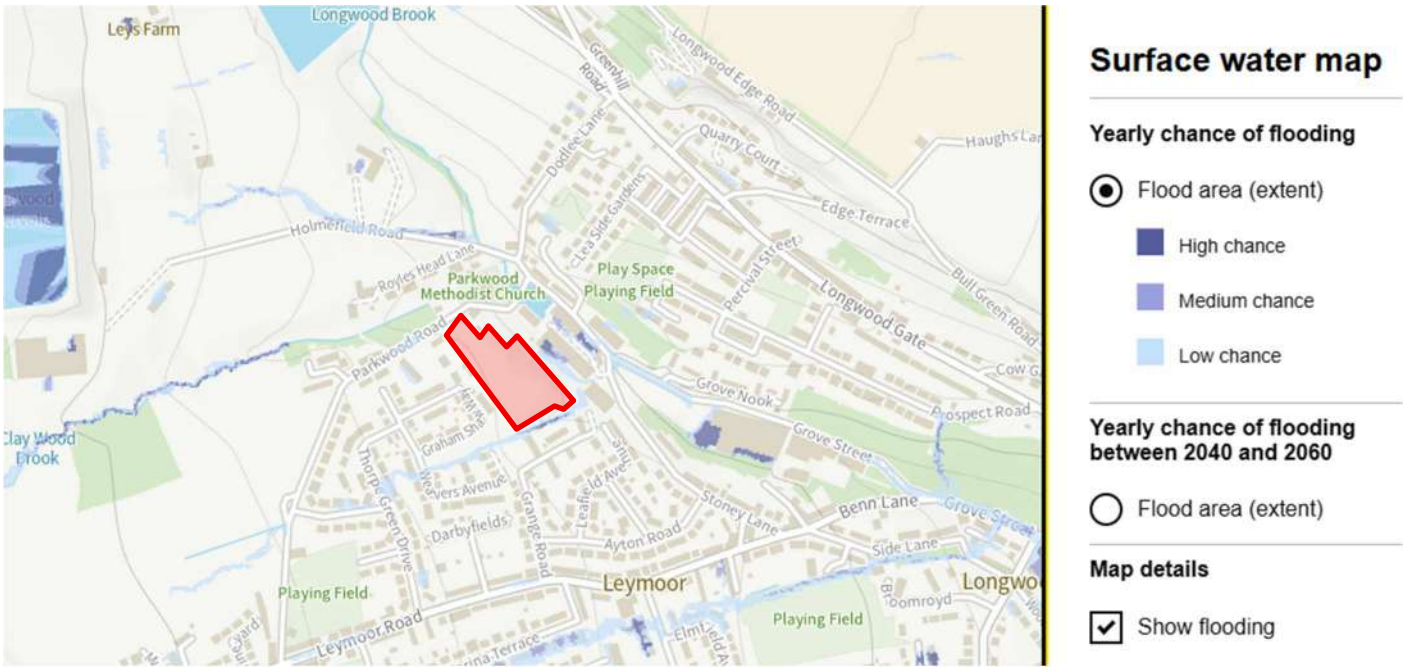
Figure 4 – Combined Site Geology

2. A review of the BGS mapping data identified that the development site is in an area which is underlain by superficial deposits of Huddersfield White Rock, sandstone. It was formed during the Carboniferous period and associated with fluvial and shallow-marine environments.
3. Huddersfield White Rock is highly permeable sandstone formations with good drainage characteristics. Water infiltrates easily through the porous structure.
4. However, according to the DEFRA Groundwater Vulnerability Map, the proposed development is at risk of ground water flooding. This site has been classified as having a high risk of groundwater vulnerability and therefore infiltration-based drainage methods are deemed unsuitable for this site.

Surface Water Flooding

1. Figure 5 shows the proposed site, outlined in red, in relation to the Environment Agency's surface water flooding records.
2. The site is in a very low risk area of surface water flooding.

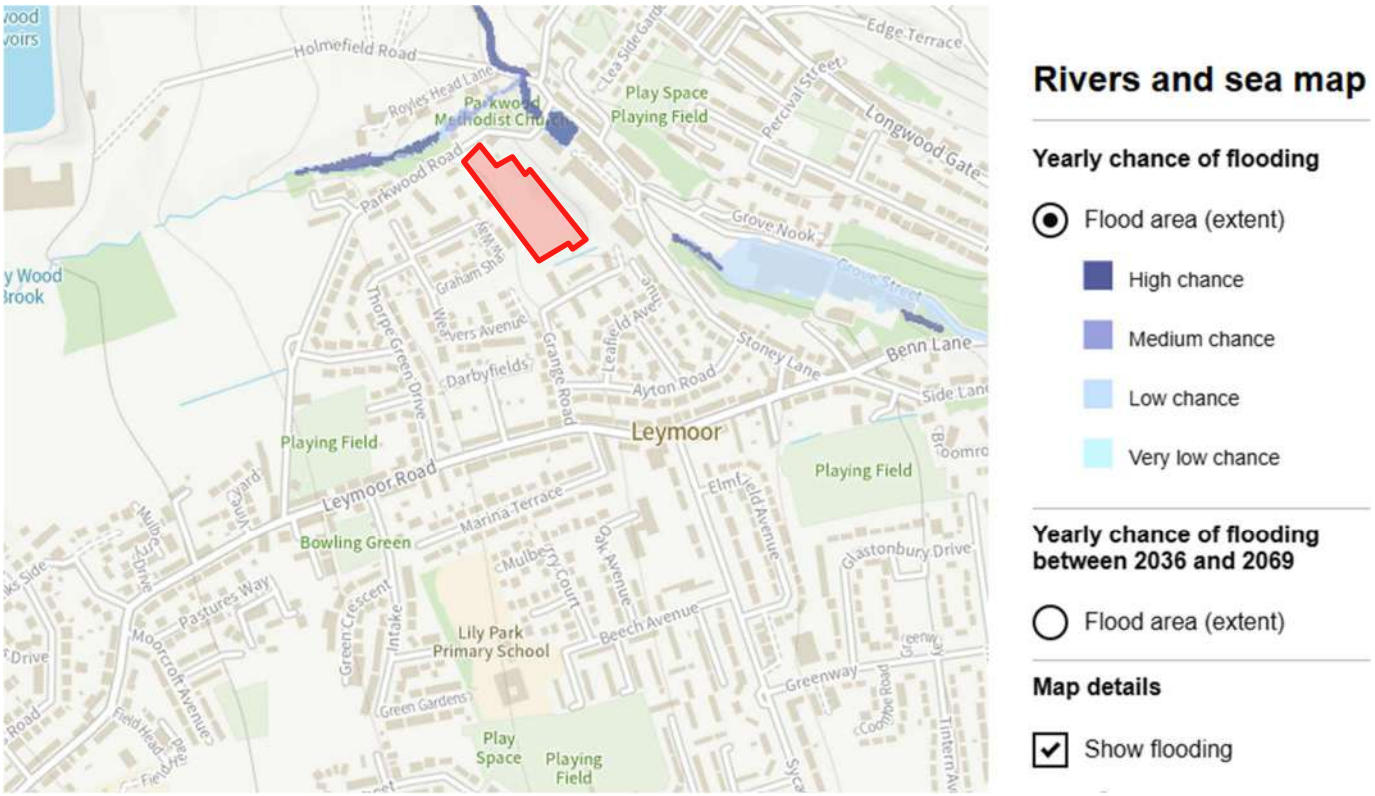
Figure 5 - Flood Risk from Surface Water



Fluvial Flooding

1. Figure 6 shows the proposed site, outlined in red, in relation to the Environment Agency's River and sea flooding records.
2. The map indicates that the site is in Flood Zone 1 which has a very low risk of flooding from the river. The development site is not in a coastal location and therefore is not at risk of flooding from the sea.

Figure 6 - Flood Risk from Rivers or the Sea



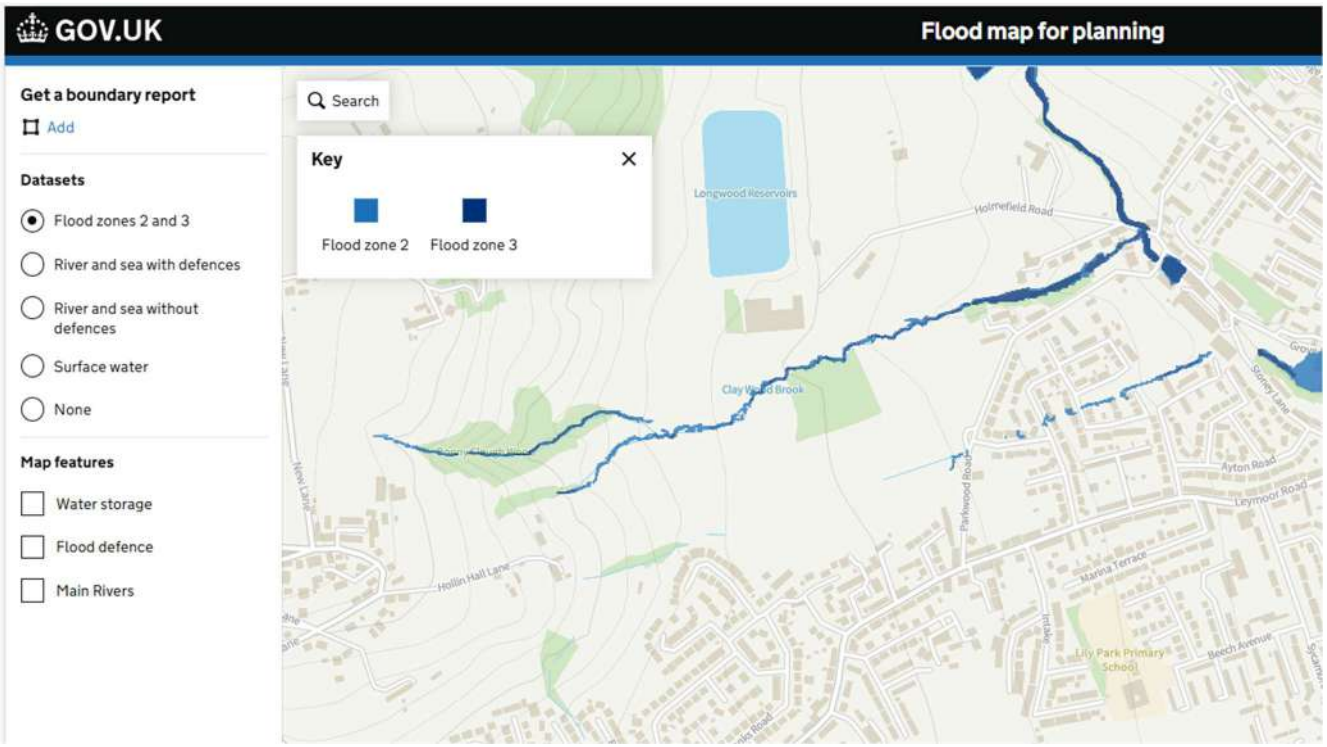
Reservoir Flooding

1. The Environment Agency website shows the development site does not lie within the flooding extents should a reservoir breach occur. Therefore, flooding from a reservoir is unlikely in this area.

Flood Zones

1. Flood zones show the probability of flooding without the presence of defences and significant man-made structures such as bridges, culverts, and rail and motorway embankments. They also show areas that may be at risk from flooding, and which might require further investigation in the form of an FRA to ascertain the exact risk of flooding the site.
2. The site sits within Flood Zone 1 which is currently defined by the Environment Agency as a low-risk zone and therefore should be treated as within a low-risk zone.
3. Figure 7 shows the Flood Zone for the proposed development. The extents of the development are outlined in red.

Figure 7 – Environment Agency Flood Zone Map



Conclusion

Flood Risk Assessment

1. The risk of river, reservoir, groundwater, and surface water runoff has been assessed and measures have been recommended to minimise this flood risk to/from the site.
2. In summary:
    - The proposed development site is located inside Flood Zone 1 and is therefore currently defined as land having a less than 1 in 1,000 annual probability of river or sea flooding;
    - There are no records of fluvial flooding, or sewer surface water flooding at the existing site;
    - There is no risk of a reservoir breach flooding the site when river levels are normal;
    - The site is not affected by groundwater flooding;
    - The proposals for the site will not impact on the current flood risk.
    - The proposals have minimal impact on increasing the existing flood risk from any source, with minimal impact of causing flooding elsewhere.
    - Using Table C to determine the appropriateness of the drainage, it is concluded that the development is appropriate.

Table C. Appropriateness of Development

Source/Pathway	Significant?	Comment/Reason
Tidal/Coastal	No	The site is not located in a coastal location; therefore, the development has a very low risk of tidal/coastal flooding.
Pluvial	No	Environment Agency Mapping indicates that the probability surface water flooding is classified as very low.
Fluvial	No	Environment Agency Mapping indicates that flooding from any nearby water courses will not affect the site.
Infrastructure Failure: Reservoir	No	Environment Agency Mapping indicates that flooding from a reservoir is unlikely in this area,

Appendices

Appendix A – Location Plan

GENERAL NOTES:

1. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS & SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS OR OTHER DRAWINGS.
2. DO NOT SCALE FROM THIS DRAWING, WORK TO DIMENSIONS OR CO-ORDINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS OTHERWISE NOTED. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS, SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY.

GENERAL KEY:

- PROPOSED SITE WORKS BOUNDARY
- OWNERSHIP BOUNDARY

LEVELS KEY:

- EXISTING MAJOR CONTOUR (0.25m)
- EXISTING MINOR CONTOUR (1.00m)
- -1:11 EXISTING SURFACE GRADIENT

SITE LOCATION:

PARKWOOD ROAD, GOLCAR, HUDDERSFIELD, HD7 4RZ
EASTINGS: 410337, NORTHINGS: 416788

Stat	Purpose of Issue	Date	Auth
S2	FOR INFORMATION	17.12.25	WF

Rev	Description	By	Date	Chk'd	Auth
P01	FIRST ISSUE	MF	17.12.25	WF	WF

Lynas Engineers
Suite 10, Cargo Fleet Offices
Middlesbrough Road
Middlesbrough
TS6 6XH
Tel: +44 (0)1642 720280
www.lynasengineers.com

Client: MANDALE HOMES

Project: PARKWOOD ROAD, GOLCAR

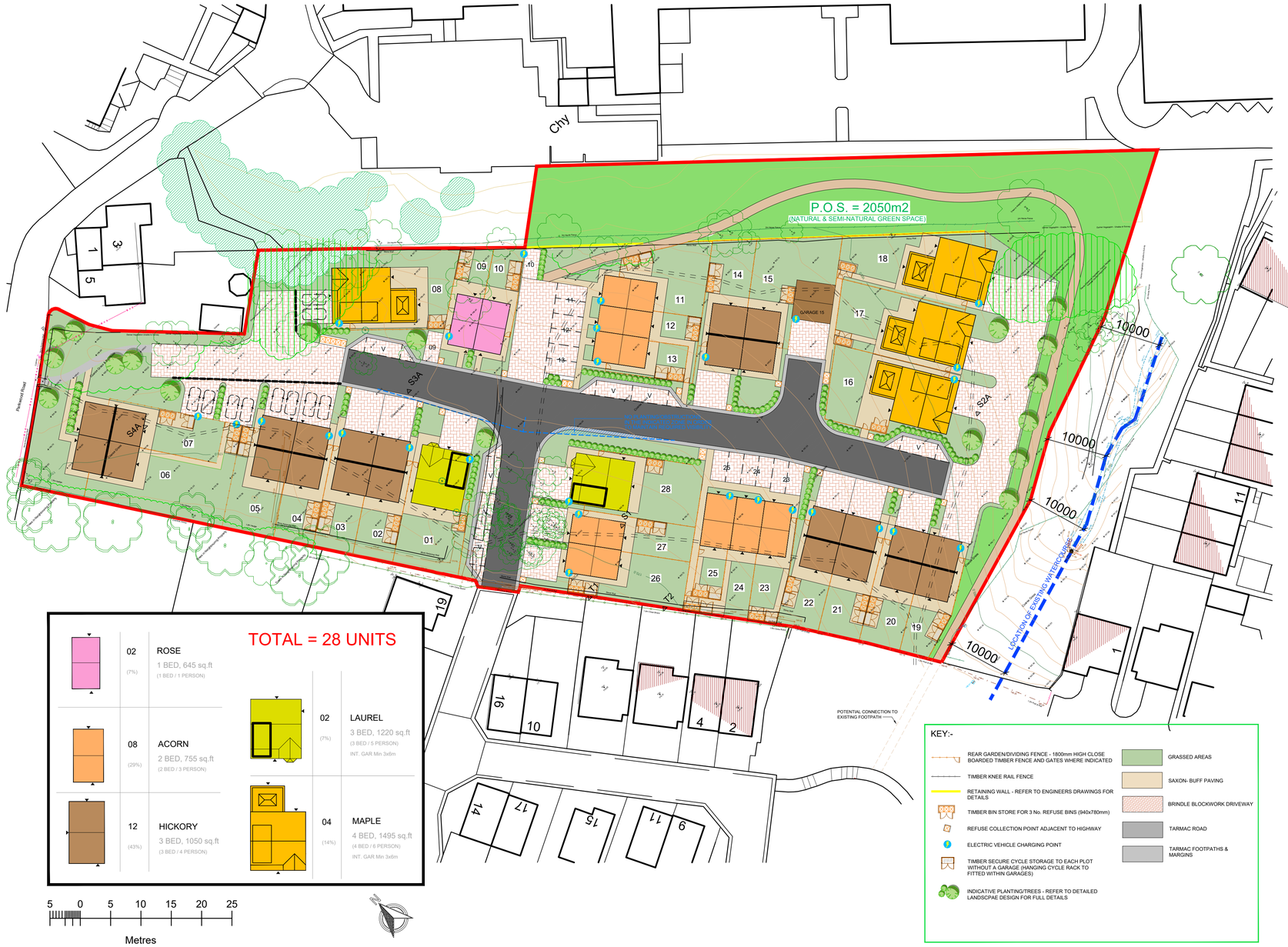
Title: SITE LOCATION & EXISTING GROUND LEVELS

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A1	1:500	MF Date 17.12.25	WF Date 17.12.25	WF Date 17.12.25

Status	Drawing Number	Rev
S2	25016-LE-00-ZZ-DR-C-0001	P01

E:\Work\MASTER\Lynas\jobs_and_details\25016-Mandale-Parkwood_Road_Golcar\04_Project_Delivery\02_Drawings\DR_2D_Drawing\25016-LE-00-ZZ-DR-C-0001_-_Site_Location_&_Existing_Ground_Levels.dwg

Appendix B – Proposed Development Layout



TOTAL = 27 UNITS

02	ROSE	1 BED, 645 sq.ft	
03	ACORN	2 BED, 750 sq.ft	
14	HICKORY	3 BED, 1050 sq.ft	
04	LAUREL	3 BED, 1180 sq.ft	
04	MAPLE	4 BED, 1495 sq.ft	

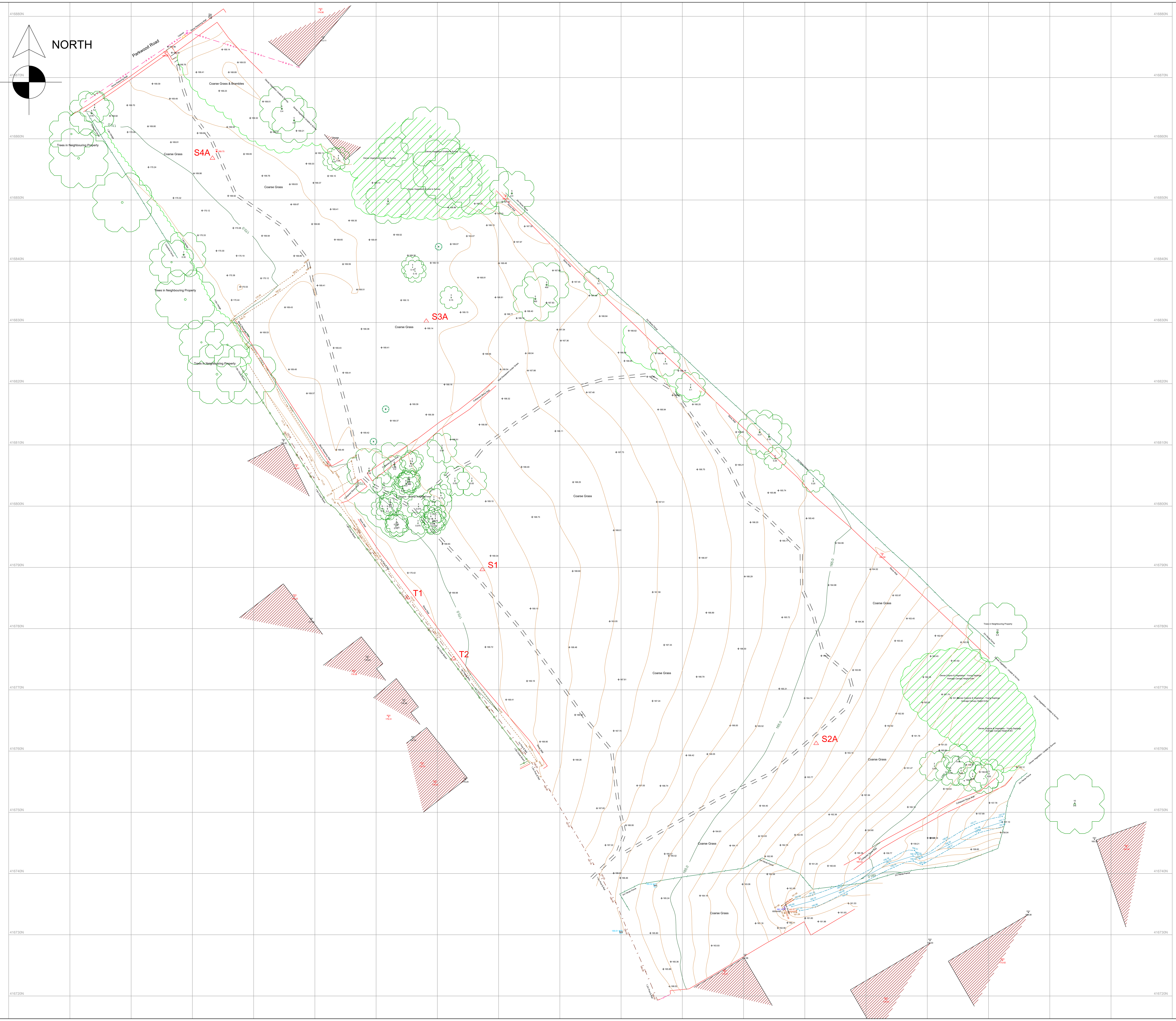
TOTAL = 28 UNITS

02	(7%)	ROSE	1 BED, 645 sq.ft (1 BED / 1 PERSON)
08	(29%)	ACORN	2 BED, 755 sq.ft (2 BED / 3 PERSON)
12	(43%)	HICKORY	3 BED, 1050 sq.ft (3 BED / 4 PERSON)
02	(7%)	LAUREL	3 BED, 1220 sq.ft (3 BED / 5 PERSON) INT. GAR Min 3x6m
04	(14%)	MAPLE	4 BED, 1495 sq.ft (4 BED / 6 PERSON) INT. GAR Min 3x6m

5 0 5 10 15 20 25

Metres

Appendix C – Topographical Survey Plan



Legend

Topographical Line Features

Building Line, Building Canopy, Bottom of Bank, Cliff Face, Drainage Channel, Centreline, Concrete Edge, Canopy, Change of Surface, Ditch Left/Right, Ditch Base, Ditch Top, Edge of Tarmac, Edge of grass, Footpath, Hedge (centre & width), Hedge (one/both sides, Kerb Channel, Kerb Top, Level String, Overground Pipe, Road, Ramp Edge, Road Channel, Road Sign, Retaining Wall, Street Furniture, Sign Post, Top of Bank, Track, Utility Box, Verge, Vegetation Edge, Wall, Water Line

Fence Types

Barbed Wire, Chain Link, Close Board, Knee Rail, Open Board, Palisade, Post/Rail, Post/Wire, Railing, Wire Mesh, Unspecified

Utility Features

Cable TV, Combined Sewer, Electric, Foul Sewer, Gas, GPR Detection, Storm Sewer, Telecoms, Unknown Utility, Water

Symbols

Electricity Pylon, Telecoms Mast, Shrub/Bush, Tree

Abbreviations

BL Building Line, BM Benchmark, BO Bollard, CTV Cable TV, DO Door, DP Down Pipe, EAV Eave Level, EP Electricity Pylon, ER Earth Rod, EPY Electricity Pylon, FH Fire Hydrant, FL Floor Level, FP Fence Post, GP Gate Post, GV Gas Valve, GY Gully, IC Inspection Cover, IL Invert Level, LC Lamp Column, L/EP Lamp/Electric Pole, LP Lamp Post, MH Manhole, OH Overhead, PO Post, RDG Ridge Level, RE Rodding Eye, RS Road Sign, SC Stop Cock, SP Sign Post, SV Stop Valve, TFL Top of Fence Level, TWL Top of Wall Level, WL Water Level, WM Water Meter, VP Vent Pipe

Utility Abbreviations

EOT End of trace, EOS End of sonde, EUD Empty utility ducs, UTS Unable to sonde, UTL Unable to Lift, UTT Unable to trace

Station Coordinates

Station	Easting	Northing	Level
S1	410307.338	416789.642	169.668
S2A	410361.852	416761.246	164.043
S3A	410298.190	416830.216	169.484
S4A	410263.279	416856.829	169.959
T1	410295.116	416785.051	171.981
T2	410302.631	416775.070	171.442

Sheet Layout

DRAWING REVISION RECORD

No.	Description	Date	By

Notes

Survey Information

Grid Reference System & Orientation

Survey co-ordinates are oriented to Ordnance Survey National Grid (OSGB36) Plane Grid System, using OSTN15 transformation, established by GNSS observations tied to Ordnance Survey OSNET at station S1, via VRS corrections service.

The remainder of the survey is at a scale factor of 1.0 plane grid, so co-ordinates shown are not true OS co-ordinates, which have a scale factor applied.

Height Datum

Elevations are to Ordnance Datum Newlyn (ODN) using OSGM15 geoid model via OSNET.

Survey stations are established for mapping purposes only, and not to be used for construction without notice and written approval from Gridmark Survey Limited.

Gridmark SURVEY

Gridmark Survey Ltd, Castle Eden Studios, Stockton Road, Castle Eden, Co. Durham, TS27 4SD

T: 01429 225 712 W: www.gridmarksurvey.com

Client

Mandale Group

Site

Land off Parkwood Road, Golcar

Drawing Title

Topographical Survey

Surveyed By	CB	Drawn By	CB	QA By	CM
Scale	1:200 @ A0	Date	23 Apr 2025		
Drawing No.	2197-1	Rev No.	A	Sheet No.	1 OF 1