Flood Risk Assessment

Nutts Lane
Hinckley
LE10 3EG

April 2025

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Civil Engineering Design | Utilities Design Consultancy

Rev /

Document Control

Date	Revision	Comments
April 2025	/	First issue.

Nutts Lane, Hinckley LE10 3EG

Contents

1.0 INTRODUCTION

1.1 Introduction

A planning application is being prepared for the construction of 2no detached dwellings on land off Nutts Lane, Hinckley.

The site is located within Flood Zone 1 and less than 1 hectare (ha) in size; however, the site is identified to be at risk of flooding from surface water on Environment Agency (EA) mapping. Therefore, a Flood Risk Assessment (FRA) has been prepared in support of the planning application.

1.2 Proposed Development

Planning permission is sought for the construction of 2no detached dwellings in the west of the site.

Associated parking areas and access are also proposed. The development will be supported by new surface water drainage infrastructure.

The Proposed Site Plan is provided as **Appendix 1**.

1.3 National Planning Policy

This Flood Risk Statement (FRS) has been prepared with due consideration of the statutory requirements of the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG).

The proposals are considered to be 'More Vulnerable' in accordance with the PPG. It is considered appropriate for 'More Vulnerable' development to be located within Flood Zone 1.

The Sequential Test is therefore considered to be passed, and the Exception Test does not need to be applied.

2.0 BASELINE CONDITIONS

2.1 Location and setting

The site is located off Nutts Lane, Hinckley, Leicestershire, LE10 3EG. An approximate grid reference for the site is 440912, 292670. A Site Location Plan is included as **Appendix 2**.

The site is located in the southwest of Hinckley, approximately 2km from the town centre. Existing residential properties are located to the north and south of the site, undeveloped land to the west, and Nutts Lane to the east, off which the site is accessed.

The site is approximately 0.13 hectares (ha) in size.

The site is currently occupied predominantly with caravans and gravel surfacing. The site is considered to be brownfield.

2.2 Topography

A topographical survey of the site was carried out by Castle Surveys Ltd in March 2025 and is included as **Appendix 3**. The site is relatively flat, with elevations across the site between approximately 90 metres Above Ordnance Datum (mAOD) in the west and 90.4mAOD adjacent to Nutts Lane. Ground elevations are around 90.25mAOD in the vicinity of proposed dwellings.

Ground elevations in the local area generally decline westwards.

2.3 Geology and Ground Conditions

The GeoIndex provided by the British Geological Survey (BGS) identifies bedrock geology beneath the site to comprise 'Triassic Rocks (Undifferentiated) - Mudstone, Siltstone and Sandstone'. This is overlain by superficial deposits of 'Till'.

The nearest BGS borehole record, SP49SW159, is from approximately 180m southeast of the site. This recorded 'silty clay' overlying Alluvium to a depth of 2.8 m below ground level (bgl). A groundwater level was not recorded.

According to mapping produced by the Environment Agency (EA), the site is underlain by a Secondary B aquifer within the bedrock geology, and a Secondary A aquifer within the superficial deposits. The site is within an area of 'Medium' groundwater vulnerability and is not within a groundwater Source Protection Zone (SPZ).

2.4 Watercourses and Waterbodies

The nearest watercourse to the site is the Sketchley Brook, which is located approximately 150 m southeast of the site at its closest approach. This watercourse conveys water generally westwards in this location, before joining the River Anker.

The Ashby de la Zouch Canal is located approximately 400m east of the site.

There are no waterbodies at or in the vicinity of the site.

3.0 FLOOD RISK

3.1 History of flooding at the site

No records of historical flooding affecting the site have been identified.

3.2 Fluvial Flooding

Fluvial (river) flooding occurs when a watercourse cannot accommodate the volume of water draining into it from the surrounding catchment. The EA Flood Map for Planning identifies the site to be located wholly within Flood Zone 1 – see Figure 1:

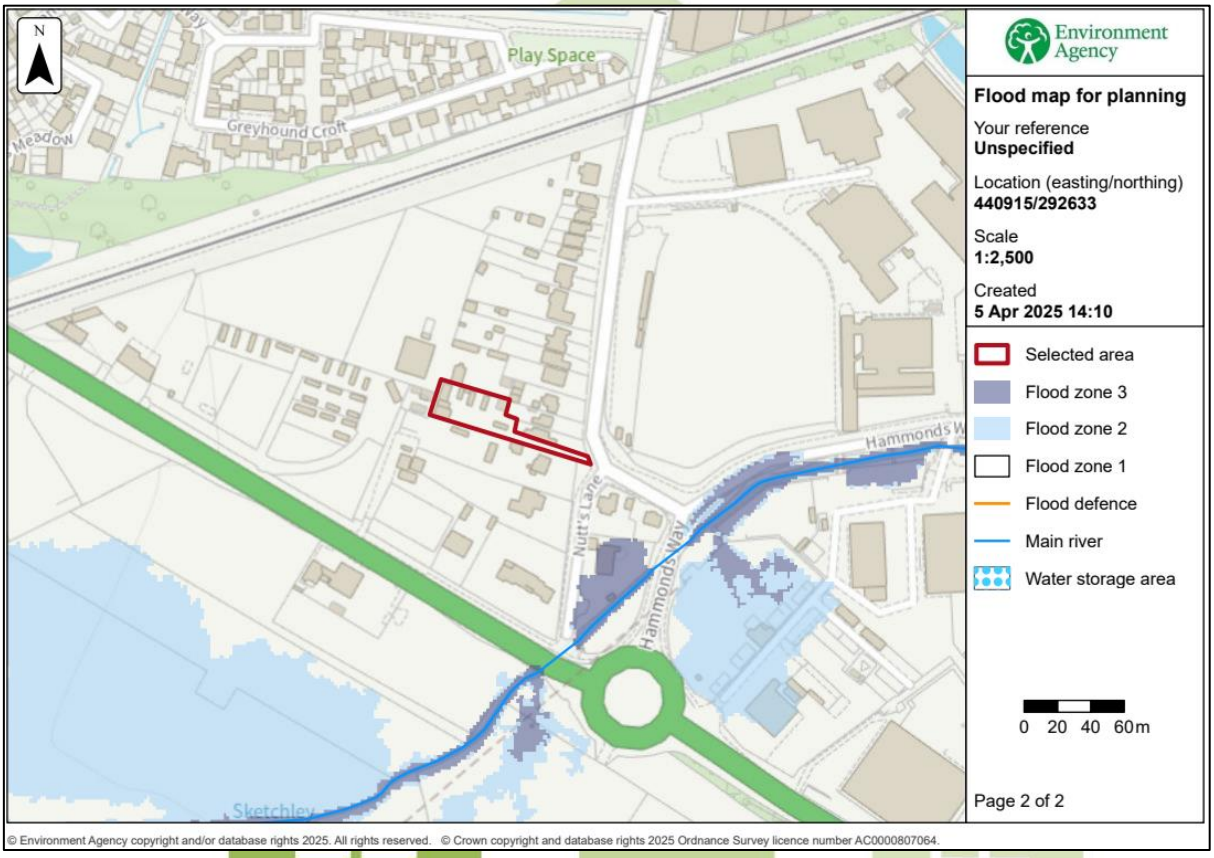

Figure 1 – EA Flood Map for Planning

The site will therefore not affect any fluvial flow paths or floodplain storage.

There are no records of historic fluvial flooding affecting the site. The risk of fluvial flooding is considered to be very low.

3.3 Surface Water Flooding

Surface water (pluvial) flooding occurs when rainwater does not drain away through the normal drainage system or soak into the ground, but instead lies on or flows over land. This can typically happen following high rainfall storm events when a drainage system is unable to accommodate the amount of surface run-off, or when ground profiles are uneven and facilitate ponding.

The site is not identified to be at risk of flooding during a 1 in 30-year or 1 in 100-year event according to the EA Flood Map for Planning for Surface Water. The EA's Flood Risk from Surface Water mapping is shown in Figure 2 below:

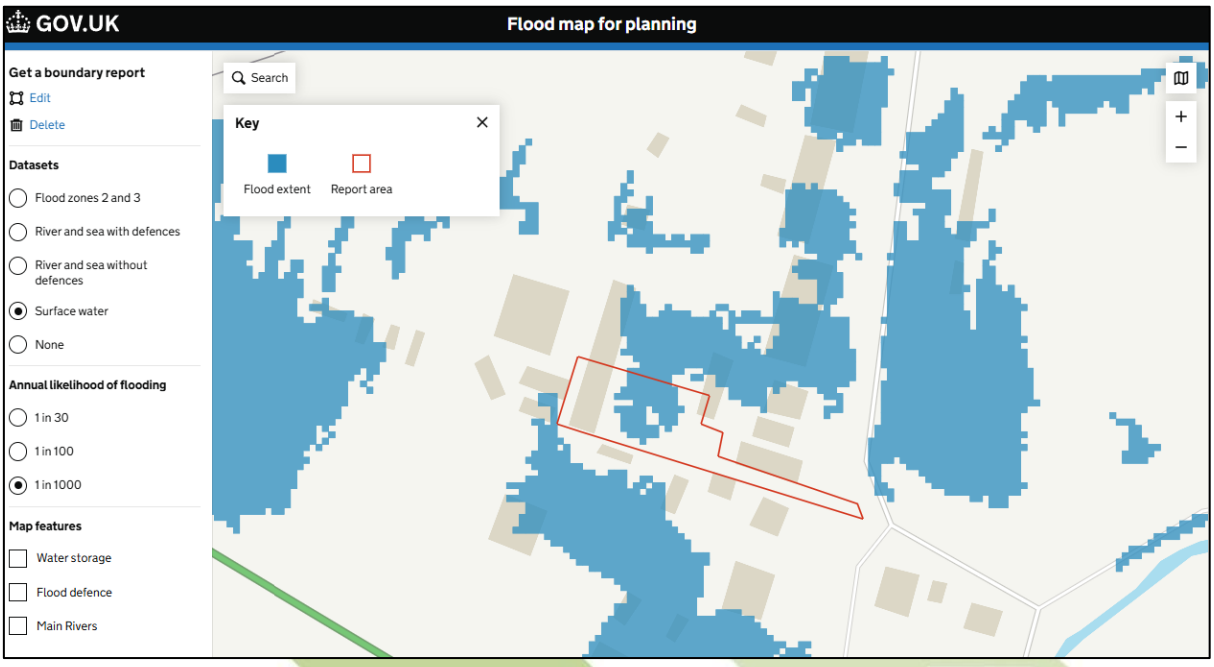

Figure 2 - EA Flood Risk from Surface Water Mapping

The EA's 'Check your long-term flood risk' mapping indicates that the site has between a 'Low' and 'High' chance of flooding between 2040 and 2060, which considers the impact of future climate change - see Figure 3. However, it is acknowledged that the information presented in this mapping '*falls short of what is required to assess planned development*', according to the EA.

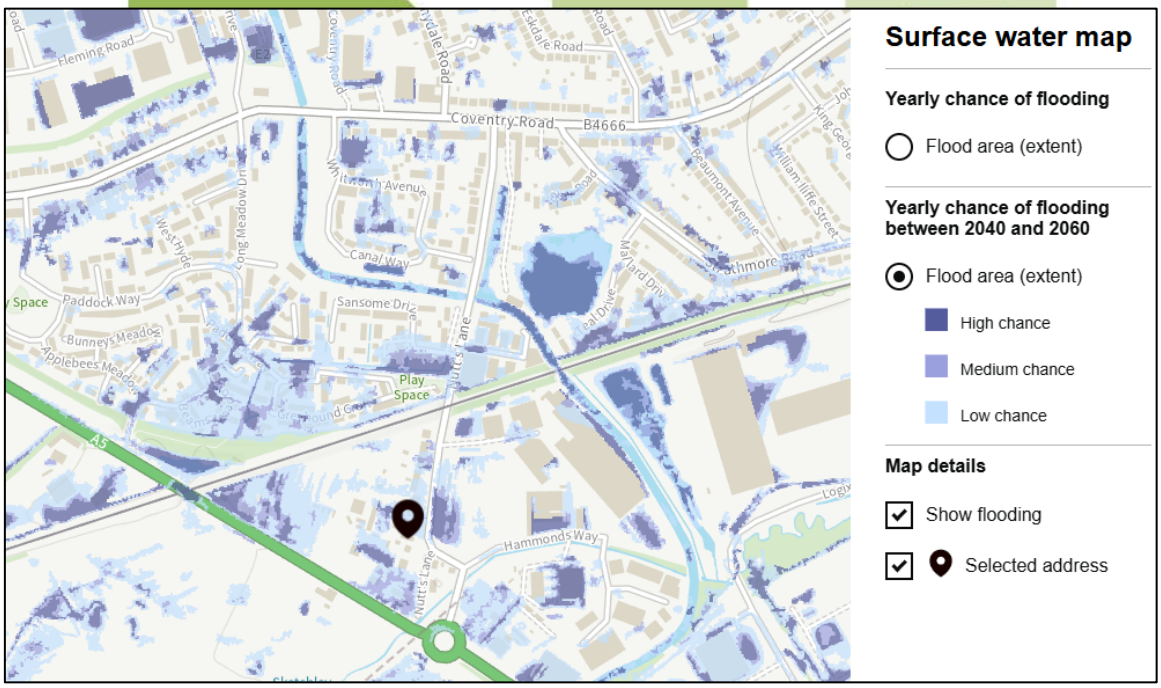

Figure 3 - EA Long-term Flood Risk from Surface Water Mapping

The EA's surface water flood risk mapping does not consider the impact of infiltration into underlying ground, or conveyance within surface water drainage such as highway drainage, or watercourses. In reality, surface water runoff will be conveyed through such systems away from the site, and flooding is not anticipated to encroach onto the site as the mapping suggests.

Finished floor levels (FFL's) will be set at a minimum of 90.45mAOD. This is approximately 200mm above ground elevations in the vicinity of proposed dwellings. It is therefore highly unlikely that proposed properties will be affected by surface water flooding.

Post-development, impermeable areas (roof and hardstanding) will drain to the new on-site surface water drainage system. Surface water will be discharged at the greenfield runoff rate. Therefore, the proposals will not increase the risk of flooding elsewhere.

There are no records of surface water flooding affecting the site and the proposals do not affect any surface water flow paths. The risk of flooding from surface water is therefore considered to be low.

3.4 Groundwater Flooding

Groundwater levels at the site are not currently known. No significant below ground construction works are anticipated, therefore interaction with groundwater is unlikely. Should groundwater be encountered during construction, normal safe working practices will be followed.

There are no records of groundwater flooding at or in the vicinity of the site. The risk of flooding from groundwater is considered to be low.

3.5 Flooding from Sewers and Drains

Any sewerage infrastructure currently serving the site will be abandoned and replaced with a new on-site drainage system. In the unlikely event the capacity of the new on-site drainage system is exceeded, flooding would be directed away from vulnerable receptors.

Public sewers are assumed to be present within Nutts Lane to the east. In the unlikely event of flooding from these sewers, flows would likely be contained within the highway and enter the highway drainage system within and not affect the site.

There are no records of the site or surrounding area being affected by sewer flooding in the past. The risk of flooding from sewers and drains is considered to be low.

3.6 Flooding from Reservoirs, Canals and Lakes

Flooding of reservoirs, canals and lakes occurs after the failure or breaching of a dam wall or embankment and is rare in the UK due to regulatory inspections and maintenance.

There are no waterbodies or reservoirs in the vicinity of the site. The site has not been identified to be at risk of flooding from reservoirs on EA mapping.

Flooding associated with canals is rare due to regular inspections and maintenance. Significant built development is located between the site and the Ashby de la Zouch Canal, therefore should flooding of the canal occur in this location, flood waters would enter the highway drainage or public sewerage systems and/or the Sketchley Brook and not affect the site.

The risk of flooding from reservoirs, canals and lakes is considered to be low.

3.7 Other Artificial Sources

There are no other artificial sources of flooding in the vicinity of the site, therefore the risk of flooding from such sources is very low.

4 SUMMARY AND CONCLUSION

The proposals are for the construction of 2no residential dwellings on land off Nutts Lane, Hinckley, LE10 3EG.

The site is located wholly within Flood Zone 1 according to EA mapping and is considered to be at low risk of flooding from all sources.

It is considered that the proposals are acceptable in terms of flood risk.

The development is considered to be at low risk of flooding from all other sources.

Appendix 1
Proposed Site Plan

0 1 5 10 20 40

Disclaimer

Revisions

- -

Contact + Location

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Details

Client	A5 Property
Job Title	Land Off Nutts Lane, Hinckley
Job Type	New Residential Development
Drawing Title	Illustrative Site Plan
Job Number	NJ420
Drawing Number	PL-03
Scale	1:200 A1
Status	PLANNING

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Appendix 2
Location Plan

Location Plan
Scale 1:1250

Block Plan
Scale 1:500

0 10 25 50 75 100 200

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Revisions

-	-	-

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Details

Client	A5 Property
Job Title	Land Off Nutts Lane, Hinckley
Job Type	New Residential Development
Drawing Title	Location + Block Plan
Job Number	NJ420
Drawing Number	PL-01
Scale	1:1250 + 1:500 A1
Status	PLANNING

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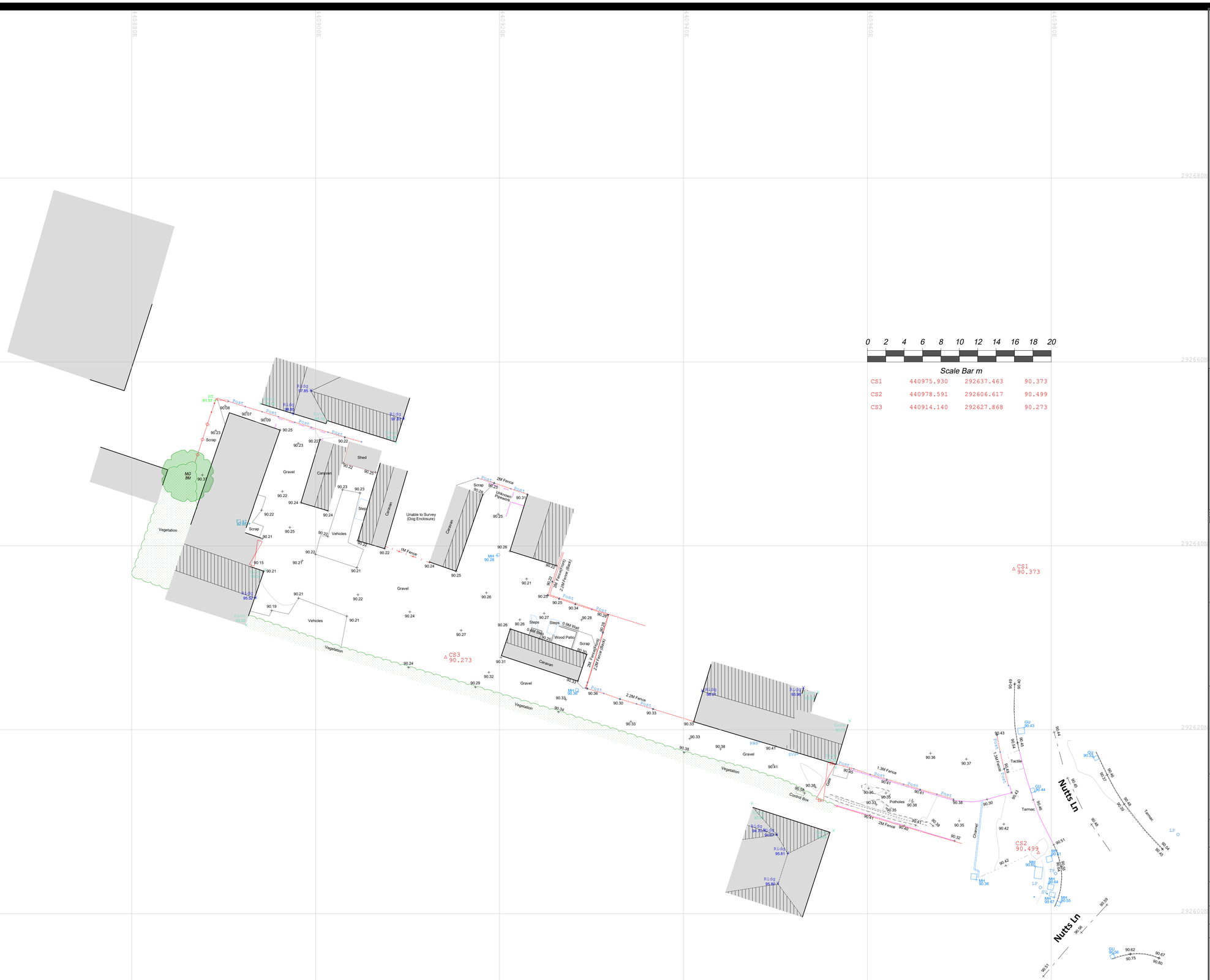
Appendix 3
Topographical Survey



Floor Plan Legend:

- SHt 1.00m / HHt 2.00m — Window Cill & Head Height; SHt: Sill Height From FFL; HHt: Head Height From FFL
- Ht 2.00 — Door Height From FFL
- Overhead Detail
- Stairs/Step
- RAD — Radiator
- Ventilation / Overhead
- Hatch — Access Hatch
- TV — TV Point
- Phone Point
- 13A Power Socket
- Fused Socket
- Shaver Socket
- Extractor Fan
- Lantern Light
- Down Light
- Light Dimmer Switch
- Light Switch
- Fixed Lighting
- FA — Fire Alarm Button
- FX — Fire Extinguisher
- Reception — Room Name
- Carpet — Floor Covering
- 2.49 — Ceiling Height
- IFL 145.80 — Internal Floor Level

Topographic Legend:

- Buildings / Walls
- Building Canopy / Overhang
- Concrete edge
- Kerb line
- Centre Line
- Barrier
- Hedge
- Security Fence
- Panel Fence
- Gate
- Overhead Line
- SAP — Tree / Sapling
- Tree Canopy Line
- Chambers
- CS1 — Survey Station & Name
- BM 100.00 — Bench Mark
- TBM 100.00 — Temporary Bench Mark
- CL — Cover level
- IL — Invert level
- Inv Ø 0.25 — Pipe invert (diameter)
- GU — Gully
- MH — Manhole
- IC — Inspection chamber

Trig	Trig Pillar		FS	Flag Staff	
Ridg	Ridge Level		Mrk	Gas Marker	
Eave	Eave Level		EP	Electric Post	
DPC	Dpc Level		TP	Telegraph Post	
FL	Floor Level		invt	Pipe Invert	
Soff	Soffit Level		GU	Gully	
TrBo	Control Box		RP	Rodding Point	
LP	Lamp Post		BT	Bt Cover	
SP	Sign Post		CO	Cover Unknown	
Post	Post		EC	Electricity Cover	
WM	Water Meter		TL	Traffic Light	
BB	Bellsha Beacon		FH	Fire Hydrant	
BOL	Bollard		GAS	Gas Cover	
BS	Bus Stop		SV	Stop Valve	
ER	Earthing Rod		TV	Tv Cover	
Box	Pivot Box		GV	Gas Valve	
MS	Mile Stone		Peg	Peg	

0 10 20 30 40

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SITE DETAILS: Nutts Lane Hinckley

TITLE: Topographical

DRAWING NO.: 25171-25-01

REV: -

SCALE: 1: 200

DATE: 14/03/25

DRAWN: JZ

CHECKED: AH

LEVEL DATUM: OSGB36(15)

Paper Size - A1

Comments:

This plan should only be used for its original purpose. Castle Surveys Ltd dos not accept any responsibility for this plan if supplied to any other party, other than the original client.

All dimensions and levels should be check on site prior to design and construction.

Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only. Some services may have been omitted due to parked vehicles or due to the site being overgrown with vegetation.

Tree information (where applicable) has been surveyed from ground level and therefore should be treated as approximate only. Advise that a tree survey should be carried out.

Roof linework (where applicable) is indicative only.

DO NOT SCALE