Millers Lane – Public Park and Urban Realm Project

Site Specific Flood Risk Assessment

233114-PUNCH-KP-XX-RP-XX-0009

November 2025

Document Control

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C01	[EM2]A0	Planning Issue	October 2025	A Keane	E McMillan	M Greene
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1 Introduction

1.1 Background

PUNCH Consulting Engineers were appointed by Galway City Council to carry out a Site-Specific Flood Risk Assessment for their proposed development of a new public park and multi-purpose building. A full project description is included in Section 1.3.

The assessment is carried out in full compliance with the requirements of "The Planning System & Flood Risk Management Guidelines" published by the Department of the Environment, Heritage and Local Government in November 2009 and the Galway City Council Development Plan 2023-2029.

The proposed site layout and buildings is detailed in a series of planning drawings provided by DRLA Landscape Architects, Quinn Architects with Engineering drawings prepared by PUNCH Consulting Engineers.

1.2 Existing Site

The proposed site is approximately 2.2 hectares in area, located on the Gort na Bró road in Knocknacarra. It is bounded by Gort Gréine residential developments to the north, Millers Lane to the east, Gort na Bró residential development to the south and Gort na Bró road (L5000) to the west. On the opposite side of the L5000 road is primary school, Gaelscoil Mhic Amhlaigh. The existing site consists of two grass soccer pitches with a walkway around the perimeter, and an unmarked parking area. The site is primarily a greenfield with no existing buildings. The location of the site is shown in Figure 1.

Figure 1: Location of the Proposed development (site boundary indicated in red)

1.3 Nature of the Proposed Development

The proposed development consists of:

The refurbishment and expansion of the existing park (site area 2.44Ha) located on Millers Lane, including:

- Relocation and replacement of the 2 no. existing football pitches with: 1 no. new 4G synthetic turf multi-sport pitch (designed to 4G synthetic turf multi-sport pitch dimensions) with associated fencing and 6 no. floodlights; and 1 no. new 2G sand-filled synthetic multi-sport pitch (designed to hockey pitch dimensions) with associated fencing and 6 no. floodlights.
- New two-storey, multi-functional building which includes public and sports team changing rooms, showers and toilets; multi-purpose sports hall; multi-purpose activity rooms; kitchenette; 2 no. viewing terraces; first-aid room; store rooms; plant rooms; reception area; and roof-mounted solar panels.
- New public spaces and amenities including fenced children's play areas; internal paths; multi-use games area; climbing wall; calisthenics area; public plaza; pitch spectator areas; equipment storage shed; green space for passive recreation; public lighting; and public seating.
- Extensive landscape planting (including native genus and species) and nature-based drainage measures including pollinator-friendly raingarden/ bioretention areas and reinforced grass paving, as well as planting areas with typologies including native and naturalised wooded areas, avenue tree planting, clipped hedges, short-flowering meadow, and pollinator-friendly perennials.
- Relocated vehicular access on the L-5000 Road; 2 no. new active travel accesses from the L-5000 Road; and enhanced pedestrian / cyclist access from Millers Lane.
- 27 no. car parking spaces (2 no. standard EV charging spaces, 1 no. accessible space, 1 no. combined EV and accessible space, 1 no. family space, and 1 no. age-friendly space), 2 no. coach drop-off spaces with automated access control, 3 no. motorcycle spaces, and 64 no. cycle spaces (40 no. standard short-term spaces, 2 no. short term cargo-bike spaces, and a secure bike shed with 20 no. standard and 2 no. cargo-bike spaces).

An extract from the site layout is included in Figure 2.

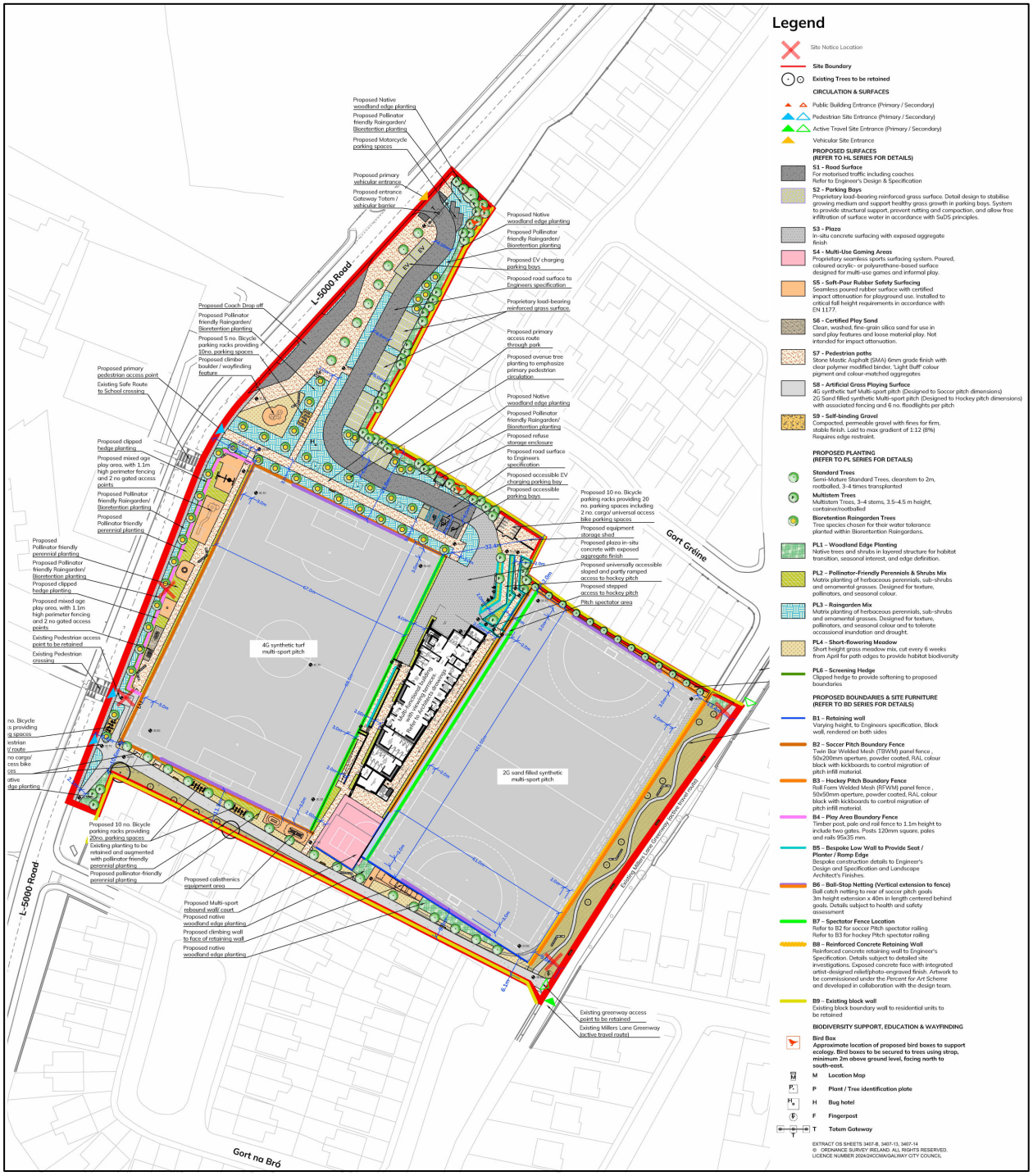


Figure 2: Proposed Site Layout

2 Relevant Guidance

2.1 The Planning System and Flood Risk Management Guidelines

In November 2009, "The Planning System and Flood Risk Management - Guidelines for Planning Authorities" was published by the OPW under the Department of the Environment, Heritage and Local Government.

The flood risk management guidelines provide direction on assessing flood risk in relation to development. They advocate for a precautionary approach when integrating flood risk management into the planning system. A key principle of the guidelines is the application of a sequential approach to flood risk management, prioritising the avoidance of development in high-risk areas. This approach relies on identifying flood zones for both river and coastal flooding. The guidelines define Flood Zones A, B, and C, as outlined in 2-1. Notably, these zones do not consider existing flood defences.

Table 2-1: Flood Zone Designation

Flood Zone	Type of Flooding	Annual Exceedance Probability (AEP)
Flood Zone A	Coastal	Less than a 1:200 (0.5% AEP) year event
	Fluvial	Less than a 1:100 (1% AEP) year event
Flood Zone B	Coastal	Greater than a 1:200 (0.5% AEP) and less than a 1:1000 (0.1% AEP) year event
	Fluvial	Greater than a 1:100 (1% AEP) and less than a 1:1000 (0.1% AEP) year event
Flood Zone C	Coastal	Greater than a 1:1000 (0.1% AEP) year event
	Fluvial	Greater than a 1:1000 (0.1% AEP) year event

After identifying a flood zone, the guidelines specify the types of development suitable for each zone. In certain cases, exceptions to development restrictions due to flood risk can be made through the Justification Test. This test requires demonstrating both the planning need for the development and the ability to sustainably manage flood risk to an acceptable level. It acknowledges that future development may be necessary in established towns and urban centres within flood risk zones and that completely avoiding development in these areas would be unsustainable. A three staged approach to undertaking an FRA is recommended:

Stage 1: Flood Risk Identification – Identification of any issues relating to the site that will require further investigation through a Flood Risk Assessment.

Stage 2: Initial Flood Risk Assessment – Involves establishment of the sources of flooding, the extent of the flood risk, potential impacts of the development and possible mitigation measures.

Stage 3: Detailed Flood Risk Assessment – Assess flood risk issues in sufficient detail to provide quantitative appraisal of potential flood risk of the development, impacts of the flooding elsewhere and the effectiveness of any proposed mitigation measures.

This report addresses the requirements for Stage 1 only.

2.2 Galway City Development Plan 2023-2029

The Galway City Development Plan 2023–2029, adopted by the Elected Members of Galway City Council on 24 November 2022 and effective from 4 January 2023, establishes a strategic framework for planning and sustainable development within Galway City.

Chapter 9 of the Plan addresses *Environment and Infrastructure*, with **Section 9.2** specifically focused on *Flood Risk Management*. The following policies are outlined:

1. **Compliance with National and EU Legislation**

Support, in collaboration with the Office of Public Works (OPW), the implementation of the EU Flood Risk Directive (2007/60/EC), the Flood Risk Regulations (SI No. 122 of 2010), and relevant planning guidelines, including the Planning System and Flood Risk Management Guidelines (2009). Regard shall be given to the findings and actions of the Corrib Catchment Flood Risk Management (CFRAM) Study.

2. **Implementation of Flood Relief Measures**

   Facilitate the delivery of the *Coirib go Cósta Galway City Flood Relief Scheme* in partnership with the OPW to enhance climate resilience, mitigate flood risks, and minimise the impact of future climate events. Associated mitigation and adaptation measures shall be supported, subject to environmental, visual, heritage, and other relevant considerations.

3. **Strategic Flood Risk Assessment (SFRA) Integration**

   Ensure that the recommendations of the SFRA are incorporated into the assessment of development proposals within identified flood risk areas. Site-specific Flood Risk Assessments (FRAs) and appropriate design and construction measures shall be required, even where only a portion of a site is at risk. A sequential approach shall be adopted in accordance with national planning guidelines.

4. **Protection of Water Bodies and Riparian Zones**

   Safeguard rivers, streams, wetlands, undeveloped riparian strips, and natural floodplains from inappropriate development to promote sustainable water management.

5. **Flood Risk in Future Planning**

   Integrate flood risk considerations into the preparation of future Local Area Plans, Framework Plans, and Masterplans within the city.

6. **Environmental Assessment of Flood Mitigation Measures**

   Ensure that any proposed flood or coastal erosion mitigation measures are subject to Appropriate Assessment under Article 6 of the EU Habitats Directive, where applicable.

7. **Coastal Protection**

   Continue to protect coastal areas and the foreshore by preventing inappropriate development in erosion-prone zones and avoiding actions that may exacerbate erosion in adjacent areas.

8. **Preservation of Riparian Zones and Floodplains**

   Protect and maintain, where feasible, undeveloped riparian zones and natural floodplains along the River Corrib and its tributaries.

Strategic Flood Risk Assessment Report

Policy 9.1 Flood Risk *"Ensure the recommendations of the Strategic Flood Risk Assessment (SFRA) for the Galway City Development Plan 2023-2029 are taken into consideration in the assessment of developments in identified areas of flood risk and require site specific Flood Risk Assessment (FRA) and associated design and construction measures appropriate to the scale and nature of the development and the risks arising, in all areas of identified flood risk including on sites where a only small proportion of the site is at risk of flooding and adopt a sequential approach in accordance with the Planning System and Flood Risk Management Guidelines for Planning Authorities (2009)."*

2.3 Land Zoning

The land on which the development is proposed is currently zoned as "RA: Recreation and Amenity" in the Galway City Development Plan. The surrounding areas are zoned for residential use, as illustrated in Figure 3. Table 2-1

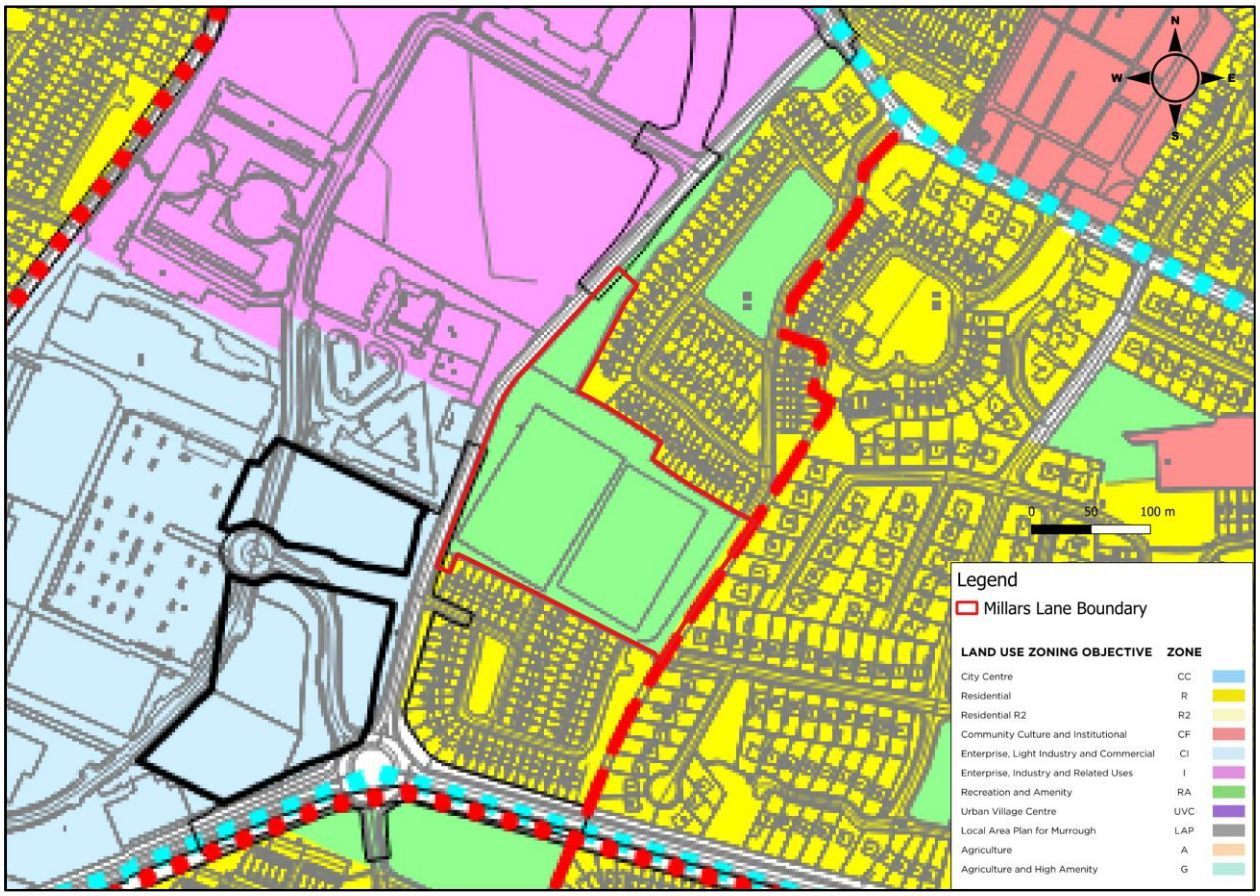


Figure 3: Galway City Development Plan - Land-Use Zoning (2023-2029)

3 Flood Risk Identification

3.1 Existing Hydrogeological Environment

The EPA River Network GIS data shows a river/stream flowing along the western side of the site. Following a review of the historical 25inch mapping the hydrological environment includes the Rahoon Stream, which flows in a southerly direction joins up with the Clybaun Stream just north of Kingston Park prior to discharging into Rusheen Bay. The stream is no longer present due to the rapid urban development in the Knocknacarra area of Galway in the 1990s and 2000s. Like Clybaun Stream the Rahoon Stream was culverted to facilitate this urban expansion. Please see Figure 4 to Figure 6.

Figure 4: Hydrological Environment surrounding the site (Ref: Google Maps & EPA)

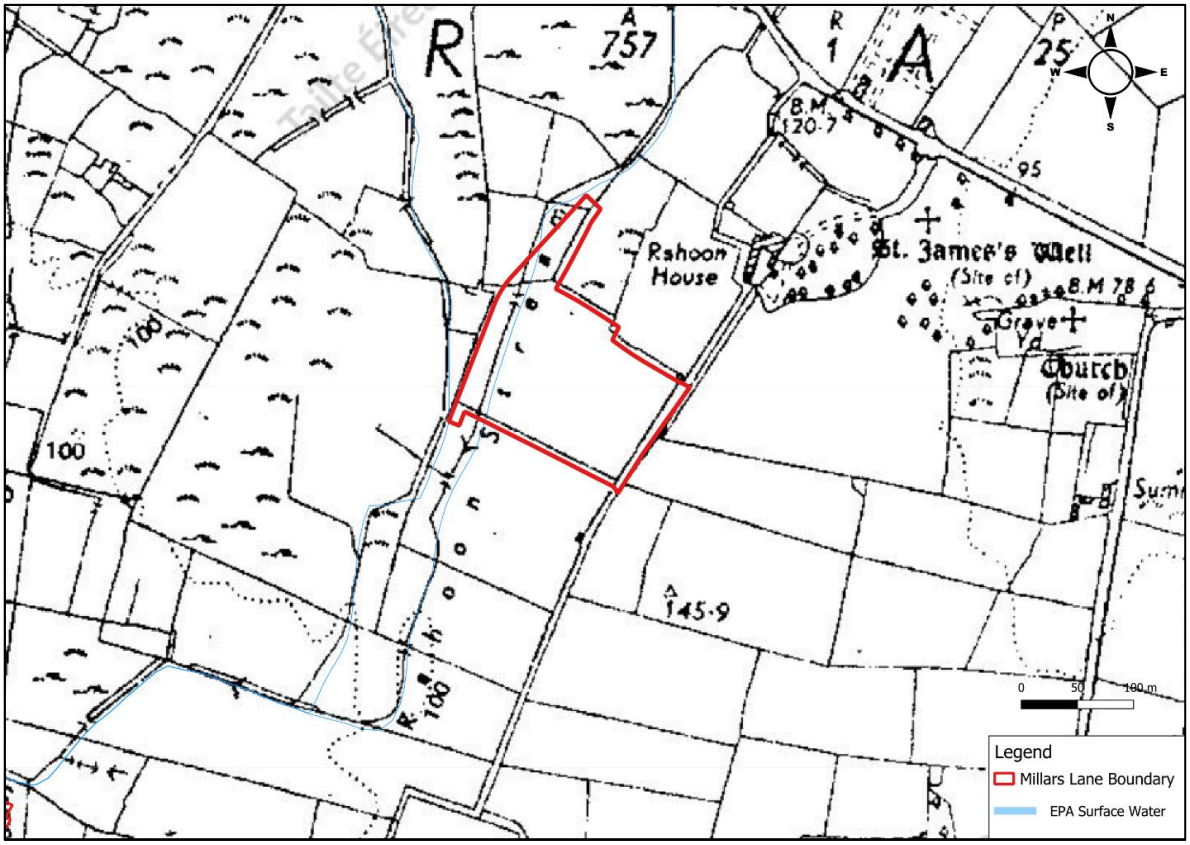


Figure 5 Hydrological Environment surrounding the site on 25" Map (Ref: Geohive & EPA)

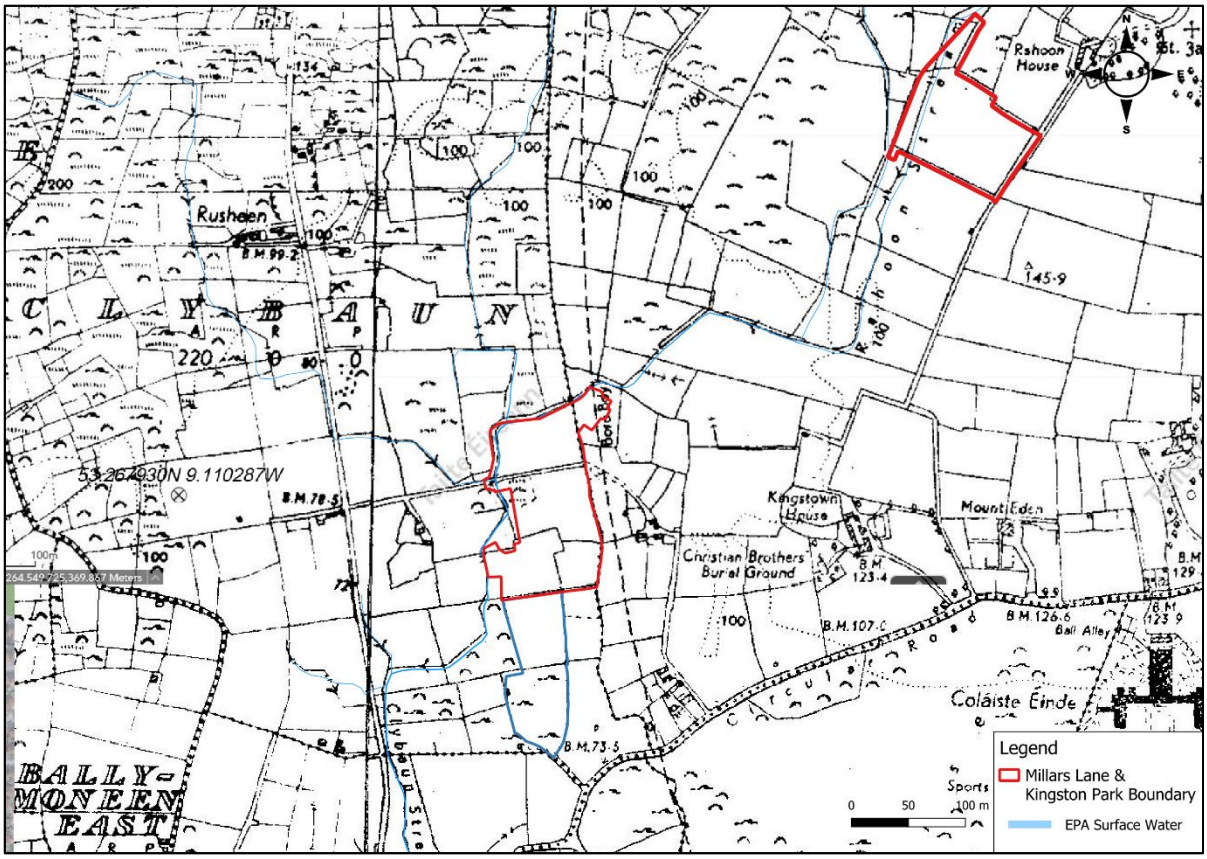


Figure 6 Hydrological Environment Rahoon and Clybaun Stream 25"Map (Ref: Geohive & EPA)

3.2 Topographical Survey

The topographical survey conducted by NCW Surveys in April 2025 showed that the terrain was predominantly flat, with a notable elevation rise along the southeastern edge of the site where there is a gradient bank along the boundary wall with peak height of 37.14 metres above ordnance datum (mAOD). This falls to a height of 32.84mAOD, resulting in an elevation differential of approximately 4 metres across this section.

Further analysis showed that, moving westward across the site, the elevation gradually decreases from 32.84 mAOD to 29.14 mAOD, reflecting a gentler slope with an average elevation change of approximately 3.7 metres.

Figure 7: Existing ground elevation for the site (Ref: QGIS)

3.3 Site Walkover

PUNCH Consulting Engineers visited the site on 20th May 2025 to assess the conditions and key features of the site, to establish any potential sources of flooding and to identify the likely routes of flood waters. Appendix A contains a selection of key images taken during the site visits.

The following was established from the site visit:

a) The site was accessed via the L5000 known locally as the Gort na Bró Road.
b) Ground was dry at the time of the visit.
c) The site currently consists of two grass pitches and appears to be well drained.
d) Site is generally flat. There is a significant level change and embankment along the eastern boundary of the site.

Figure 8: View from southwest corner looking northeast

Figure 9 View from Southeast corner of the site looking northwest

3.4 Review of Historic Mapping

A review of the OSI Historical maps was carried out. Figure 3-4 shows an extract from the six-inch historic map for the site. The site is not indicated as "liable to flood" in the available historic OSI maps.

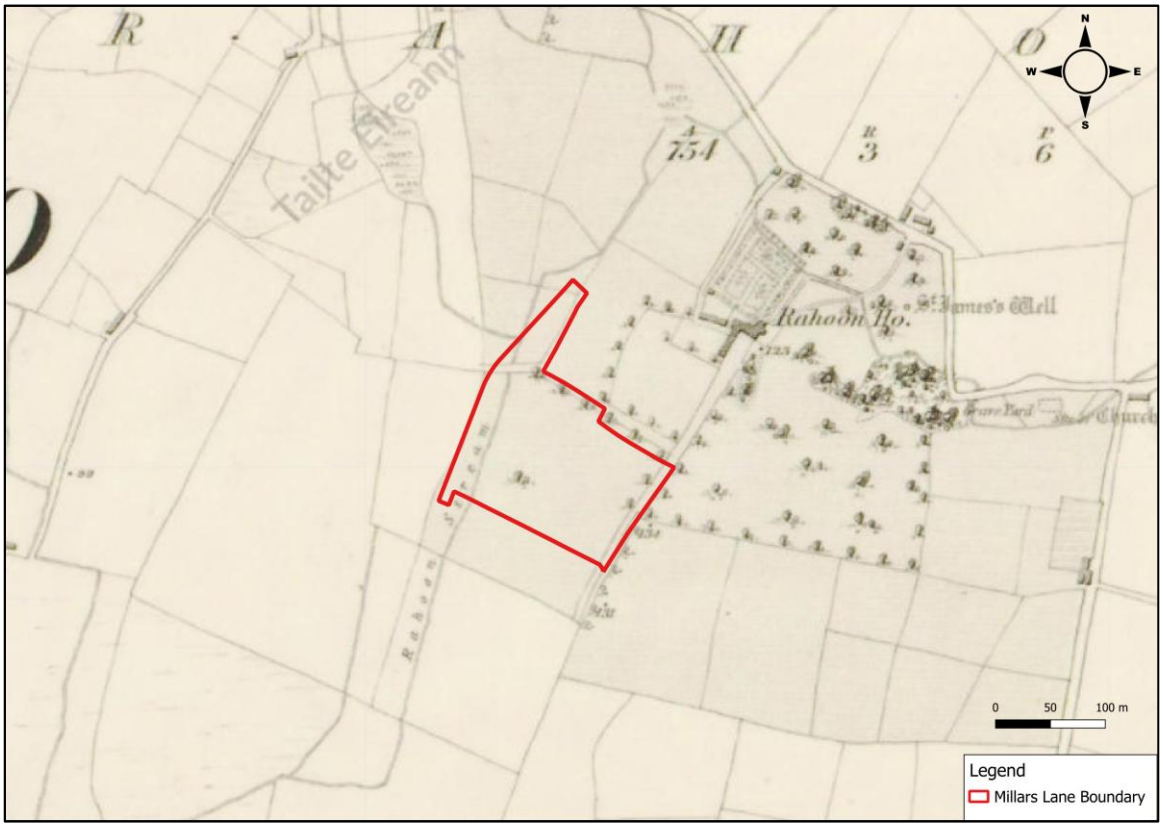


Figure 10: Extract from OSI historical 6" Map First Edition (Ref: GeoHive Map Viewer)

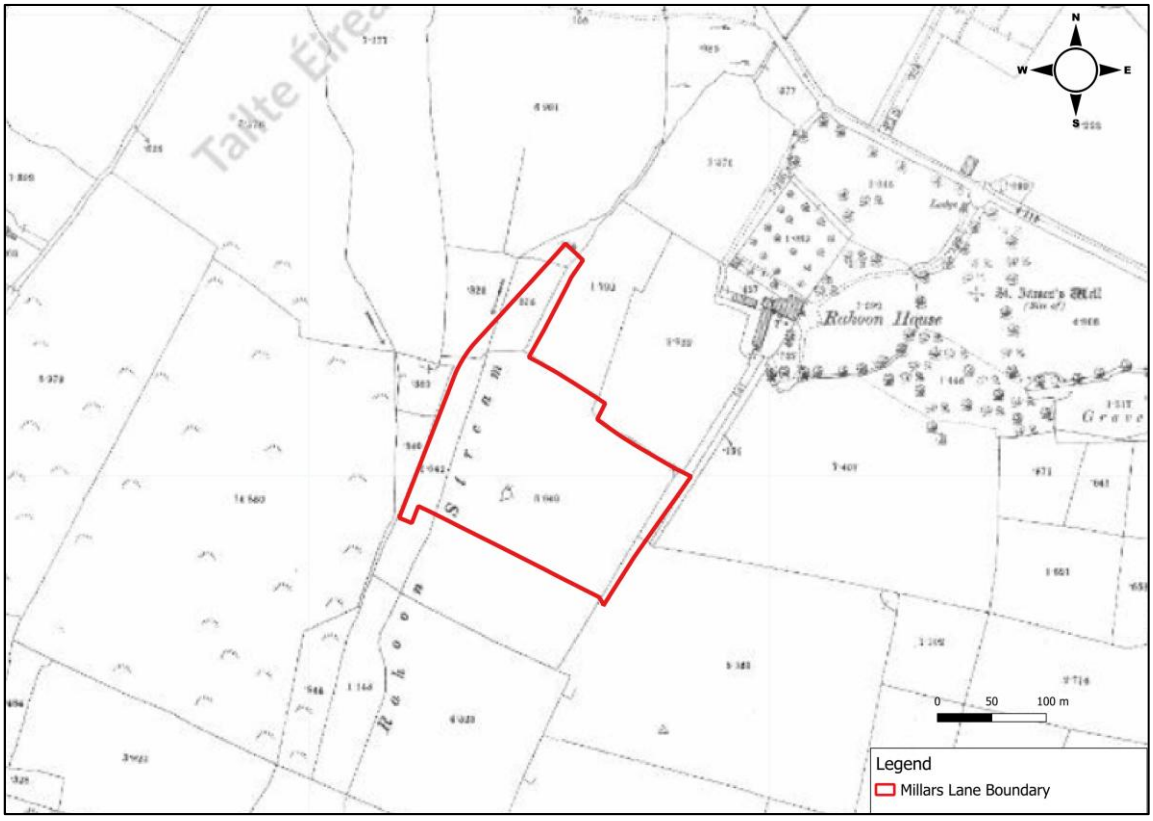


Figure 11: Extract from OSI historical 25" Map (Ref: GeoHive Map Viewer)

3.5 History of Flooding

The OPW Flood Hazard Mapping Website holds a record of historic flood events. This database indicates that there is no record of flooding incidents on site of the proposed development.

Please note that this is not a guaranteed record of all flood events.

There are 7 no. recorded flood events within 2.5 kilometres of the site. Details of these are provided below;

Flood summary ID – 13235 - Flooding at Salthill on 01/12/2015

Date: 01/12/2015

Flood Source: Coastal Flooding

Flood Summary ID – 12142 – Flooding in Galway and Salthill on 18/12/2013

Date: 18/12/2013

Flood Source: Coastal Flooding

Report: Completed 24/03/2014 "Flooding in Galway and Salthill 18th December 2013"

Flood summary ID – 14072 - Flooding at Salthill Promenade Galway on 18/12/2019

Date: 18/12/2019

Flood Source: Coastal Flooding

Flood summary ID – 13056 – Flooding at Salthill on 01/02/2014

Date: 01/02/2014

Flood Source: Coastal Flooding

Flood summary ID –13684 – Flooding at Galway City/ Salthill on 13/01/2020

Date: **13/01/2020**

Flood Source: Coastal Flooding

Flood summary ID – 13643 - Flooding at Galway City on the 08/02/2019

Date: 08/02/2019

Flood Source: Coastal Flooding

Flood summary ID – 12143- Flooding in Galway and Salthill on 01/02/2014

Date: 01/02/2014

Flood Source: Coastal Flooding

Report: Completed 24/03/2014 "Flooding in Galway and Salthill on 1st February 2014"

These extents of these flood events are shown in Figure 12 and it can be determined that the proposed site is not at risk of flooding associated with these areas.

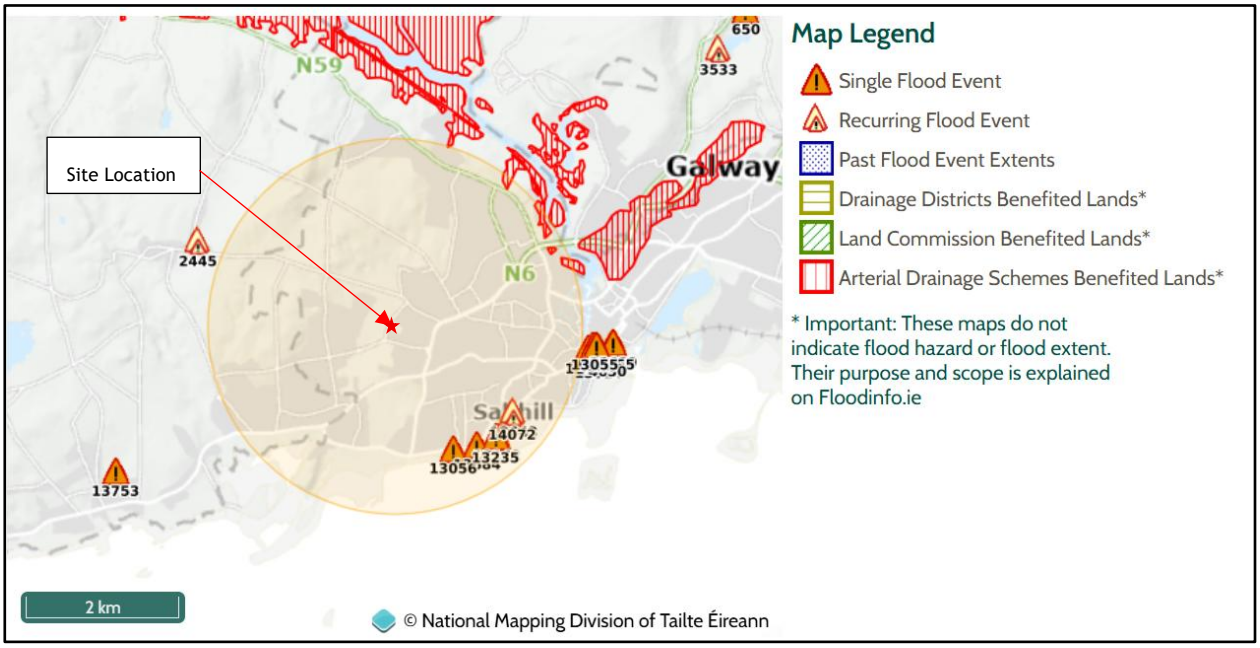


Figure 12: Extract from OPW Floodmaps Database Report (see Appendix B for full report)

3.6 Geophysical Site Investigation

A geophysical survey was undertaken on the 21st and 27th of May 2025 by Minerex Geophysics Limited. The purpose of the survey was to determine the depth of rock and to estimate the strength, stiffness or compaction of the overburden and the rock quality. The survey consisted of seismic refraction (p-wave) measurements spread evenly throughout the site.

Table 3-1 below shows the summary of interpretation of the results of the survey. The stiffness or compaction of overburden and the rock strength or quality have been estimated from the seismic velocity. The survey has identified two layers ranging from soil and granite.

Table 3-1 Summary of Interpretation of results

Layer	General Seismic Velocity Range (m/sec)	Thickness of Layer	Stiffness or Compaction or Rock Quality	Interpretation	Estimated Excavation Method
1	200-700	1-4.6mm	Soft or Loose	Soil	Diggable
2	4500-4600	1-4.6m	Good Rock	Granite	Breaking or Blasting

3.7 Site Geology

The geology of the site was reviewed using data from the Geological Survey of Ireland (GSI) available at www.gsi.ie.The quaternary sediments within the site boundary are till derived from granite and bedrock outcrop or subcrop as shown in Figure 13.

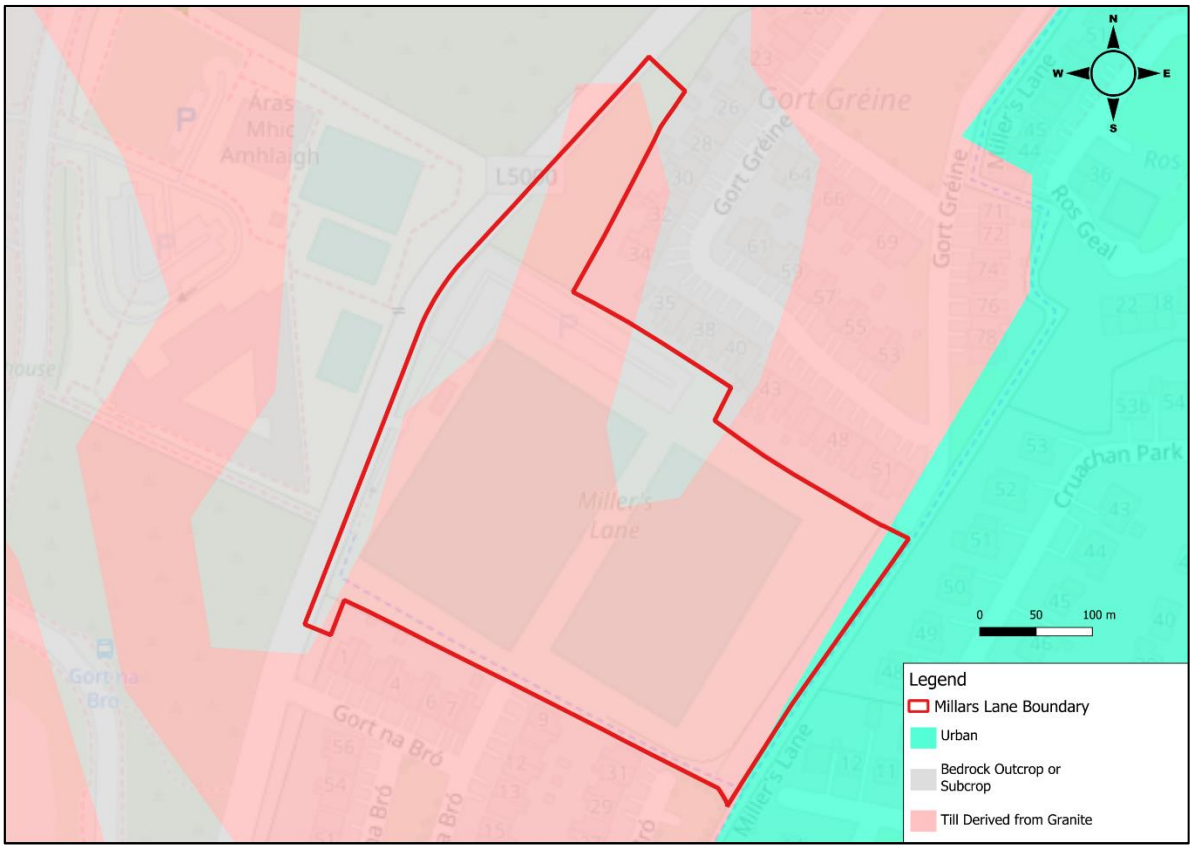


Figure 13: Quaternary Sediments Map (image taken from GSI)

3.8 Groundwater Flooding

Groundwater flooding occurs when the level of the water stored in the ground rises as a result of prolonged rainfall. A review of data from the Geological Survey of Ireland, does not indicate a groundwater flood risk to the site as can be seen in Figure 14.

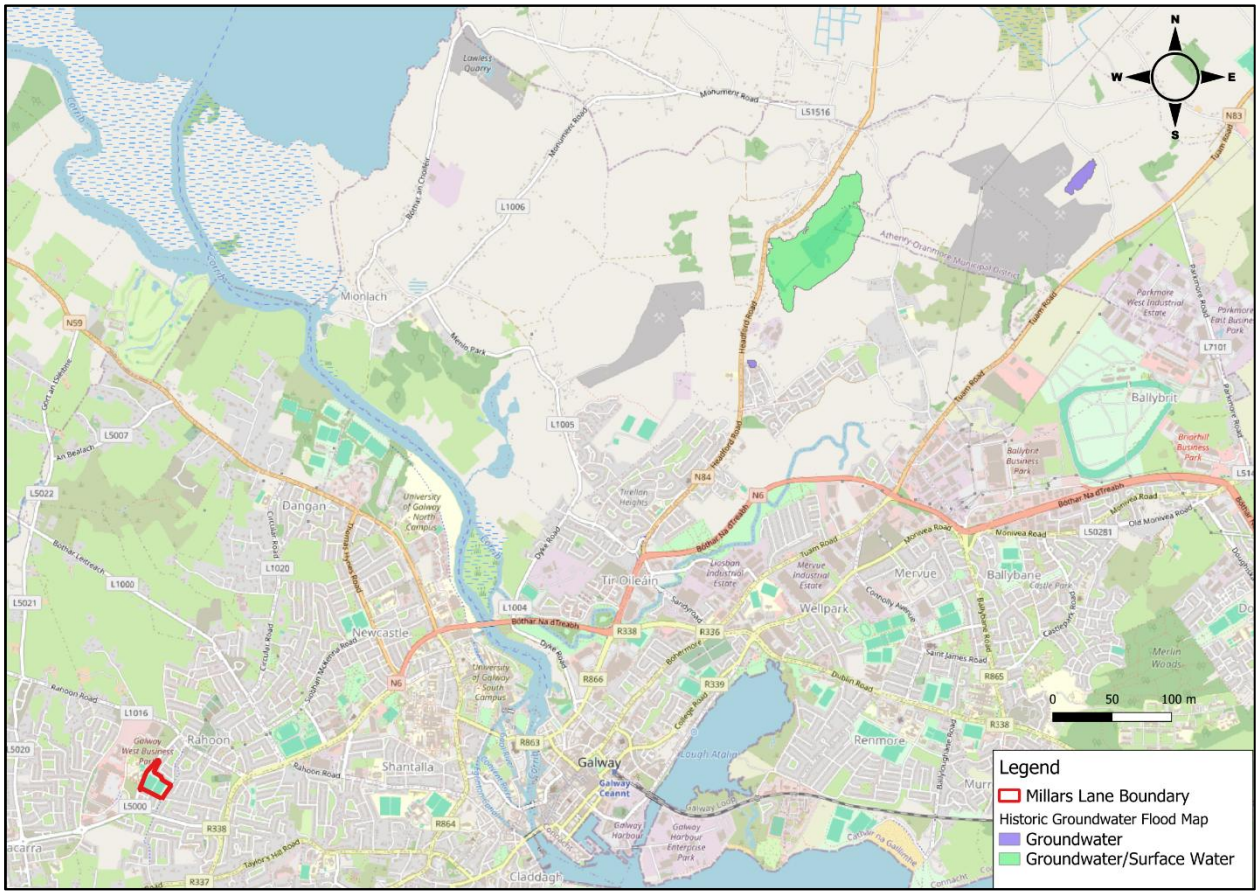


Figure 14: GSI Groundwater Flooding Data (Ref: Groundwater Flooding Data Viewer)

3.9 Groundwater Vulnerability

The location of the proposed site lies mainly in a region that has an Extreme groundwater vulnerability rating. Part of the site has rock at or near surface or Karst. The groundwater vulnerability is based on the predicted time taken for a pollutant released to the ground at surface level to reach an aquifer. Groundwater vulnerability mapping is presented in Figure 15.

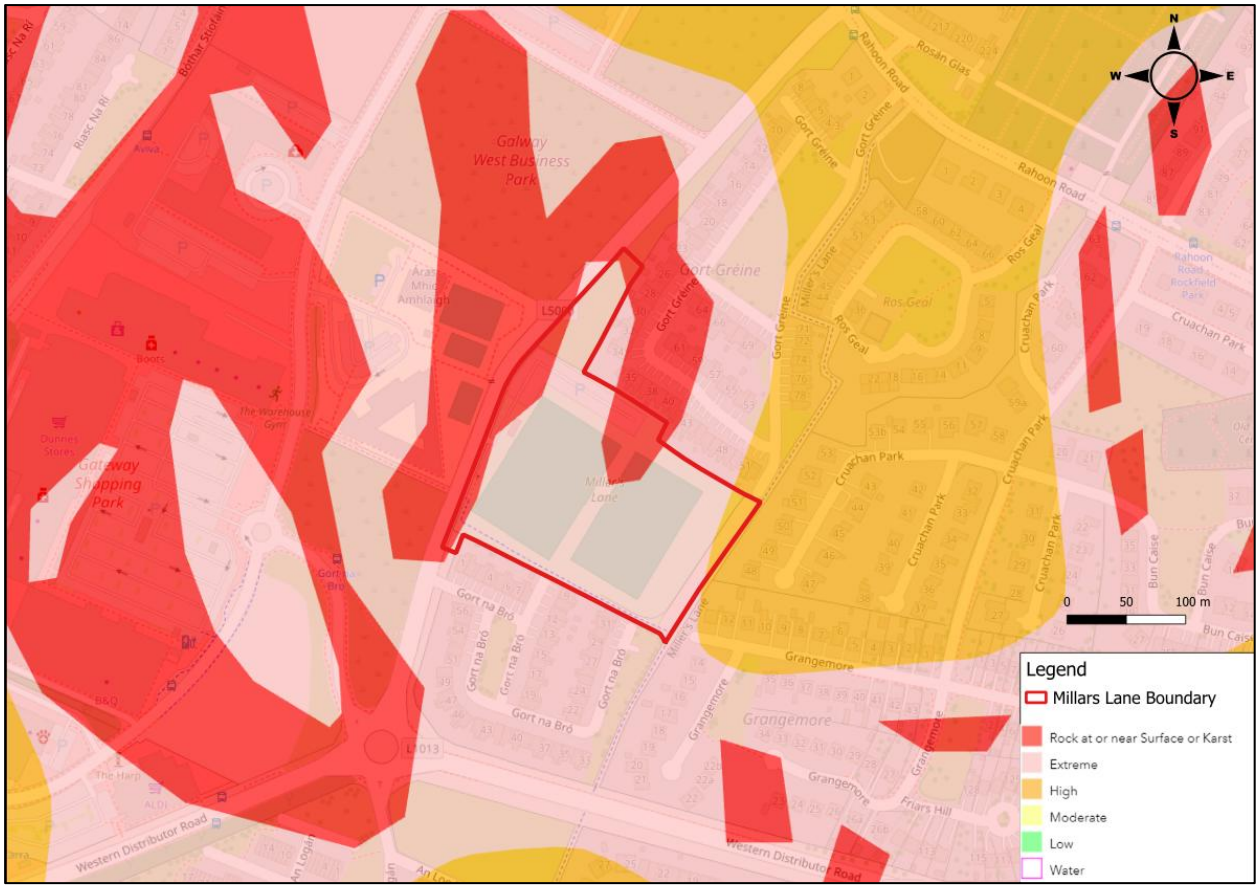


Figure 15: Groundwater Vulnerability Map (image taken from GSI)

3.10 Pluvial Flooding

Pluvial flooding is the result of rainfall-generated overland flows which arise before run-off can enter any watercourse or sewer. It is usually associated with high intensity rainfall. [EM3][MG4]

The provision of a suitable surface water drainage system for the proposed development on the site will mitigate against pluvial flood risk as demonstrated in the accompanying Engineering Planning Report. The redevelopment of the site will not adversely affect pluvial flood levels or extents.

3.10.1 Review of Existing Surface Water Infrastructure

A review of the surface water drainage network in the area was undertaken based on the Irish Water and GCC GIS database network as well as analysing existing record drawings provided by Uisce Éireann[EM5][EM6]. This enabled a detailed understanding of the surface water infrastructure in place as shown in Figure 16.

The assessment revealed the presence of a 300mm diameter concrete stormwater pipe that traverses the north of the site and a substantial 1,500mm diameter concrete stormwater pipe that slightly transverses the southwestern corner of the site. The stormwater system currently directs flow into an existing surface water manhole located to the south of the site at the L5000, known locally as Gort na Bró road.

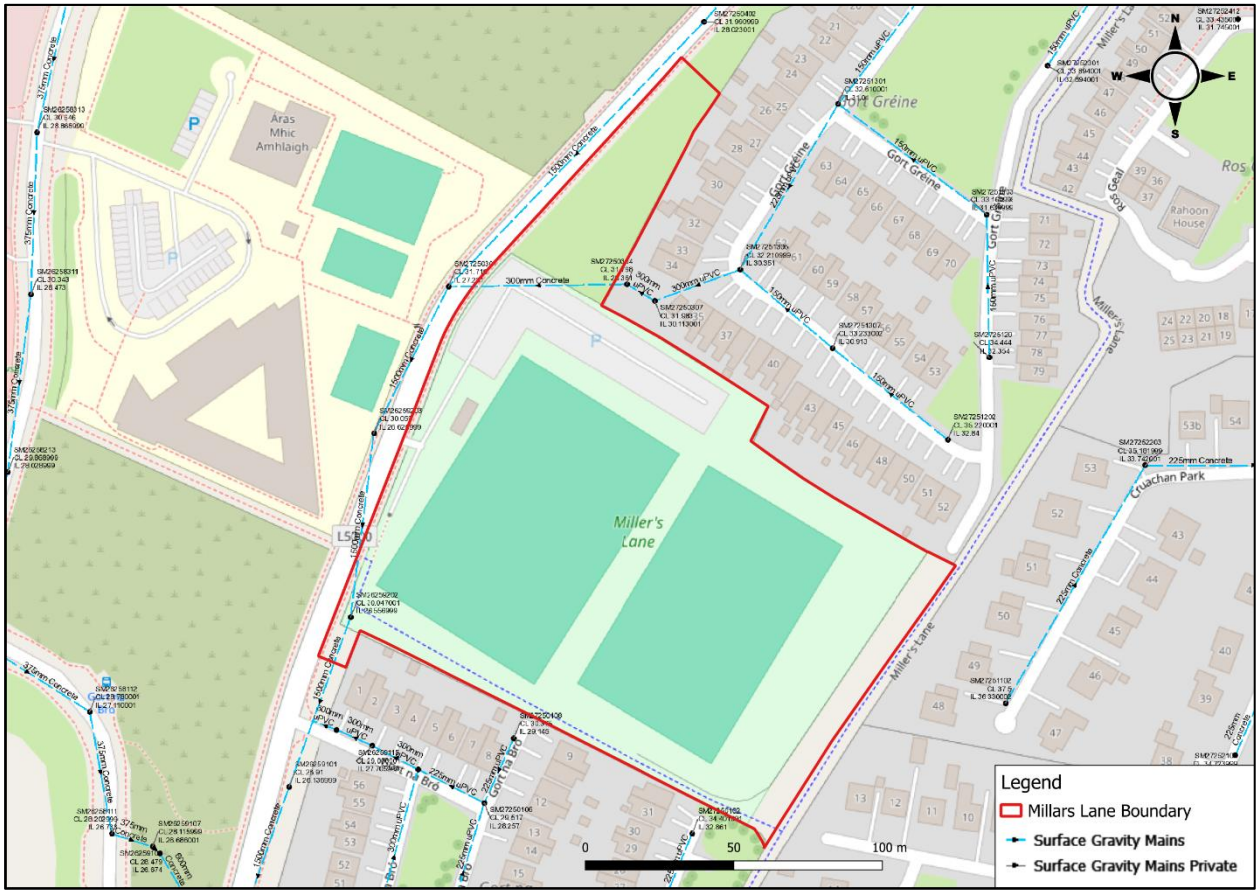


Figure 16: Stormwater Sewers (Ref: UÉ & GCC GIS Database)

3.11 Fluvial Flooding

Fluvial flooding is the result of a river exceeding its capacity and excess water spilling out onto the adjacent floodplain.

3.11.1 Catchment Flood Risk Assessment and Management Study (CFRAMS) Mapping

The CFRAMS is an OPW led national programme which seeks to identify and map potential existing and future flood hazard in areas at significant risk from flooding. It also aims to identify flood relief measures and prepare Flood Risk Management Plans for these areas.

The OPW has published detailed flood hazard mapping for the area based on results from the CFRAMS. This includes flood extent and flood depth mapping for a number of return periods for fluvial and coastal flood events. The CFRAMS assessment in this area is based on hydraulic modelling of the Corrib River and associated tributaries.

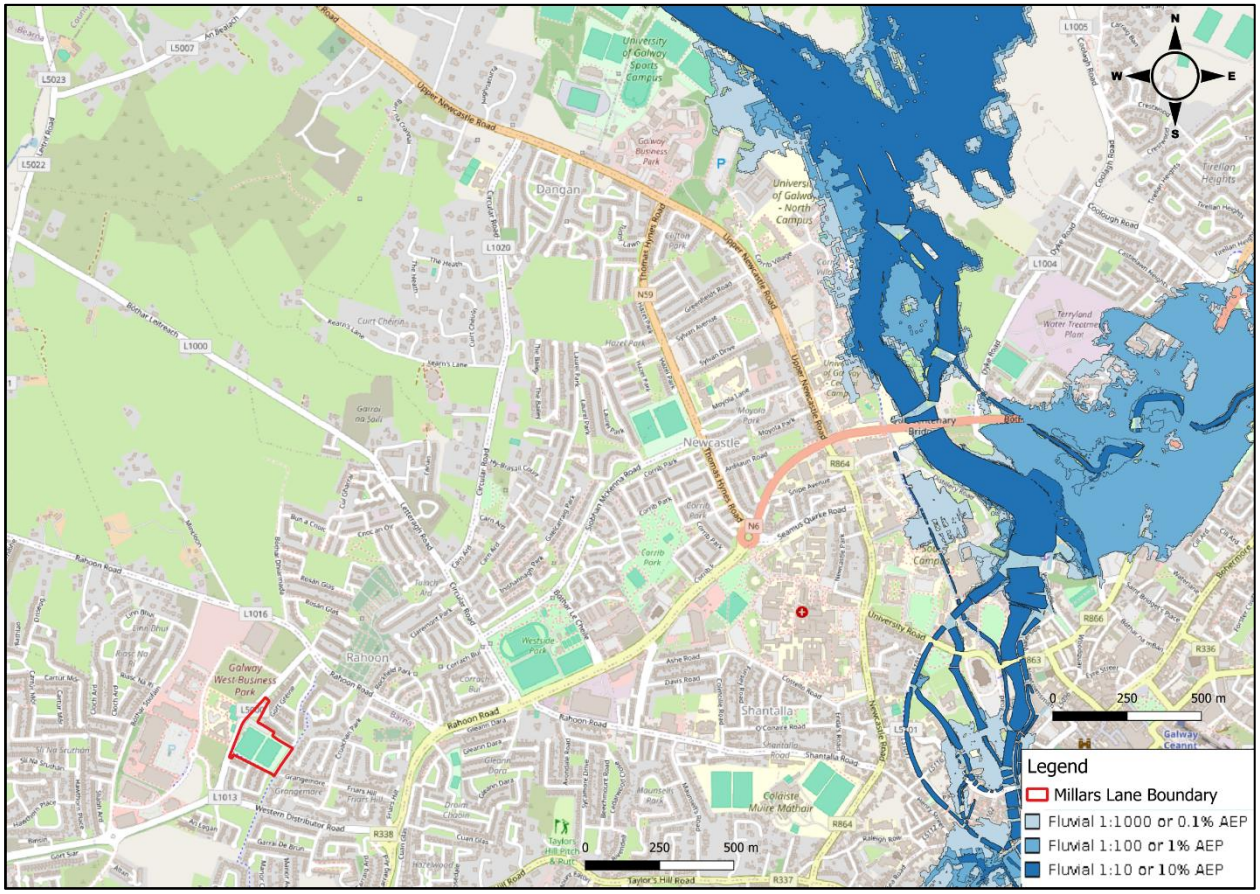


Figure 17: Extract from the CFRAMS fluvial map for the area (site indicated in red)
Maps available: http://www.floodinfo.ie/map/floodmaps/

The CFRAM mapping indicates that there is no fluvial flooding noted on the site. With the closest fluvial flooding area being approximately 2km east of the proposed site location.

3.12 Coastal Flooding

Coastal flooding results from sea levels which are higher than normal and result in sea water overflowing onto the land. Coastal flooding is influenced by the following three factors which often work in combination: high tide level, storm surges and wave action.

3.12.1 Catchment Flood Risk Assessment and Management Study

A review of the CFRAMS Coastal Flood Extent Mapping and the National Coastal Flood Hazard Mapping (NCFHM) indicates that the proposed site is not at risk of coastal flooding. The nearest projected flood zone is located approximately 1.6 km south of the site. This is illustrated in Figure 18, which presents an extract from the relevant CFRAMS coastal flood extent map.

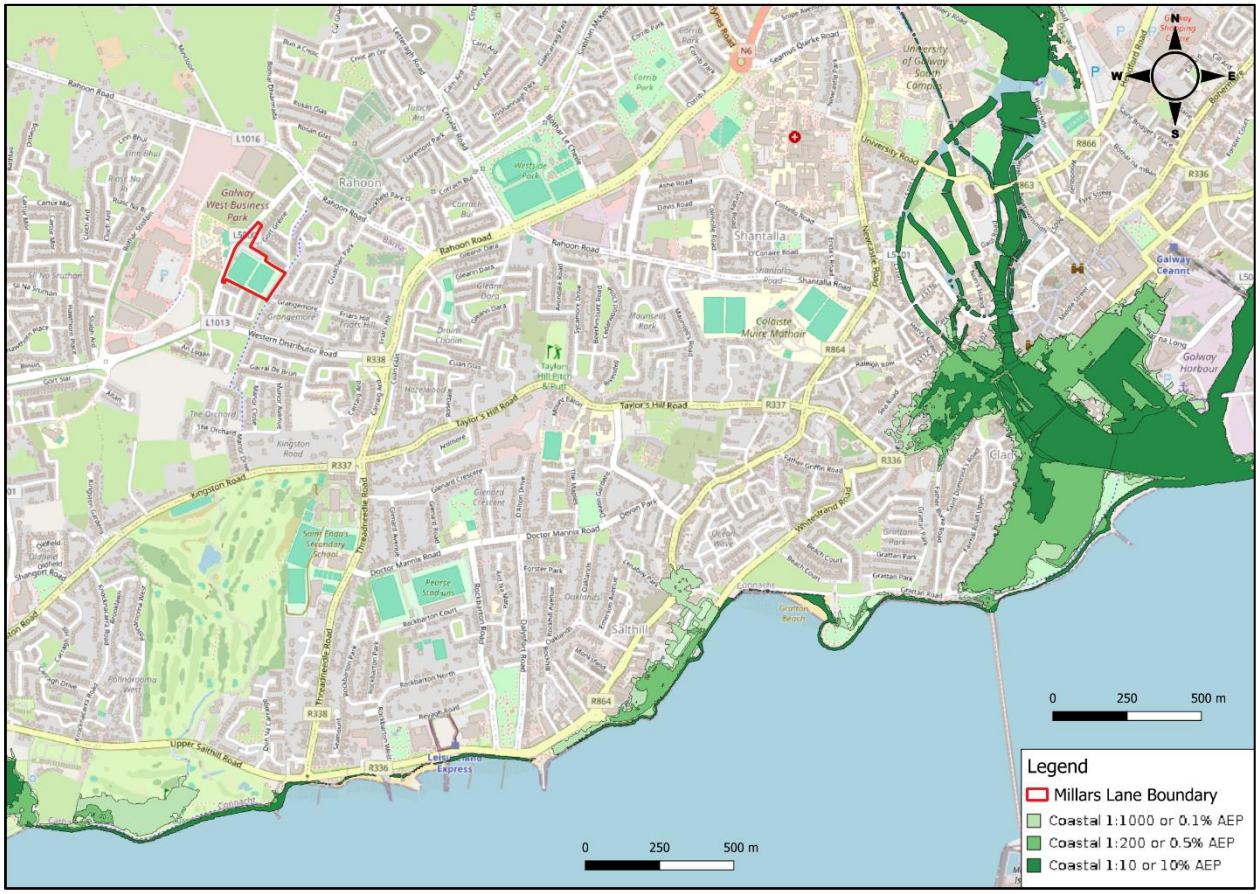


Figure 18: Extract from the CFRAMS Coastal Map for the Area (site indicated in red)

Maps available: http:// http://www.floodinfo.ie/map/floodmaps/

3.12.2 National Coastal Flood Hazard Mapping

The OPW published the National Coastal Flood Hazard Mapping (NCFHM) in 2021 and they are publicly available on https://www.floodinfo.ie/map/coastal_map/. The project produced updated national scale coastal flood extent and depth maps. These maps are 'predictive' flood maps showing indicative areas predicted to be inundated during a theoretical flood event with an estimated probability of occurrence. These flood maps do not take account of any existing flood defences.

Current Scenario NCFHM flood extents in the vicinity of the site can be seen below in Figure 19. The figure shows that the site is not subject to flooding during the 10%, 0.5% and 0.1% AEP events.

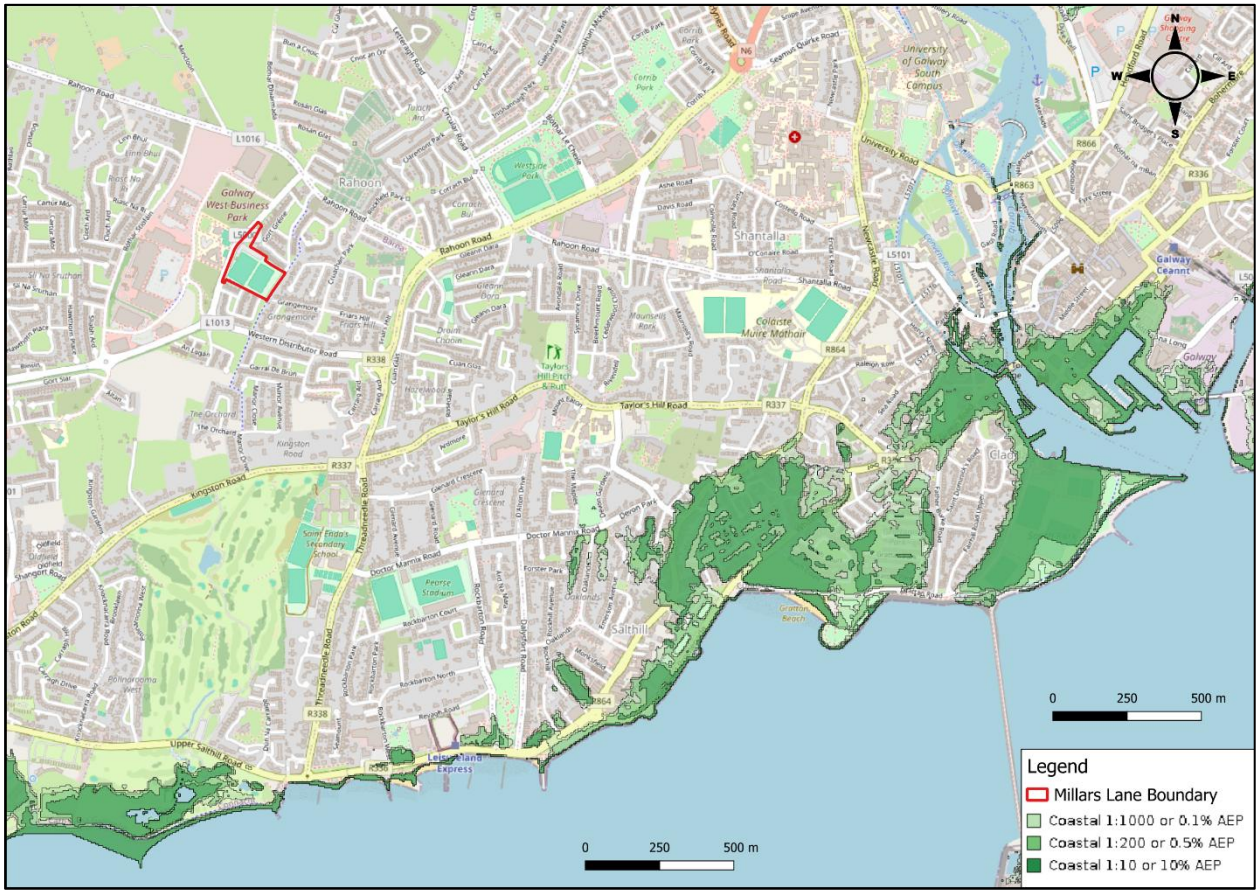


Figure 19: NCFHM Flood Extents – Current Scenario

3.13 Draft Strategic Flood Risk Assessment Report

Strategic Flood Risk Assessment dated January 2022 and prepared by JBA Consulting as a part of the Galway City Development Plan 2023-2029 provides guidance for the integration of flood risk management into the development strategy for Galway City. In the report, CFRAM flooding maps are provided for Galway City as shown below in Figure 3-10. As per the Executive Summary, the SFRA acknowledges that '*The Flood Zones are based on an undefended scenario and do not take into account the presence of flood protection structures such as flood walls or embankments. This is to allow for the fact that there is a residual risk of flooding behind the defences due to overtopping or breach and that there may be no guarantee that the defences will be maintained in perpetuity'*. Hence, the flood extents shown are a worst-case scenario based on all flood defences in Galway not being operational and ignored entirely.

Based on the SFRA mapping, the site is located in Flood Zone C and is not at risk of flooding.

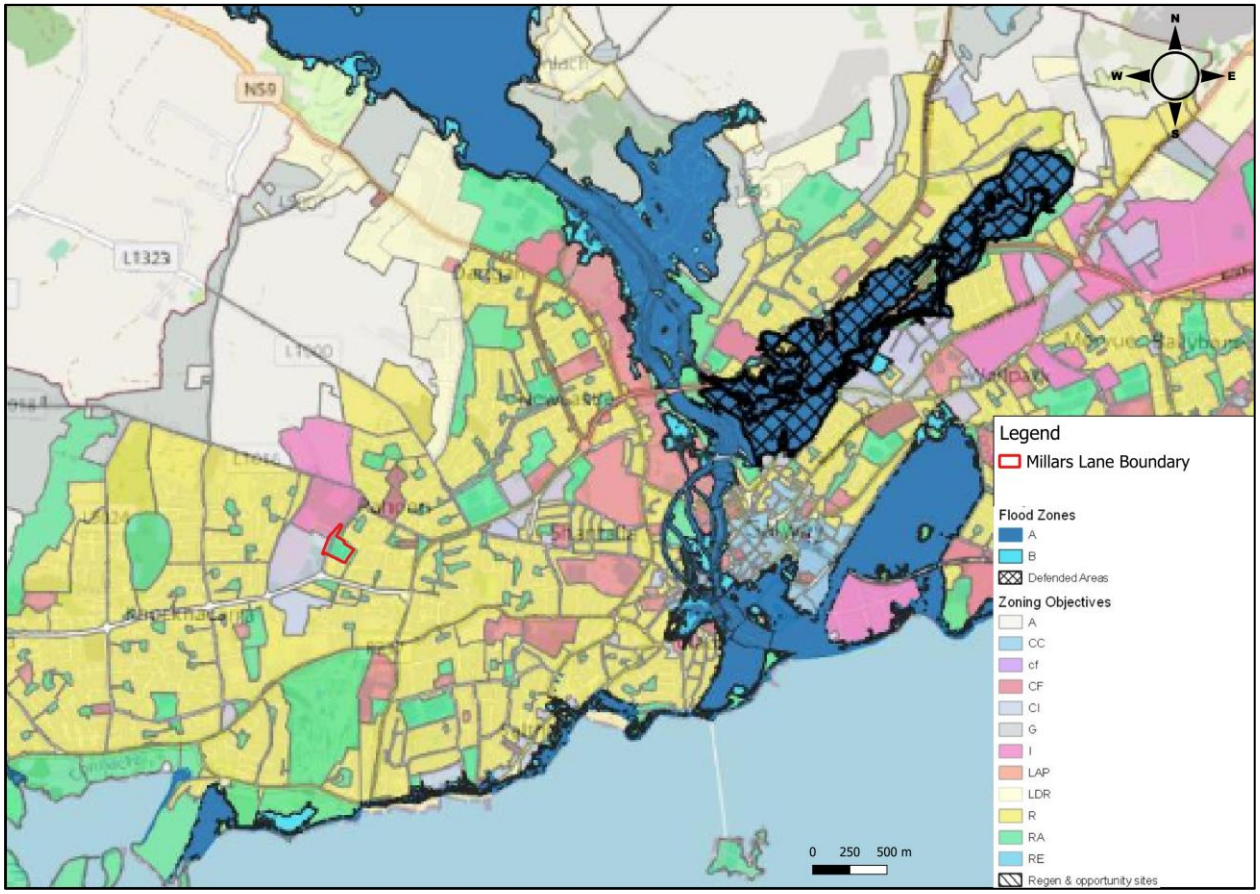


Figure 20: JBA Consulting Flood Zone Map for Galway City

3.14 Arterial Drainage Scheme

A review of available flood risk datasets has not identified any flood defences in the vicinity of the site.

A review of the database indicates that the site is located outside the Arterial Drainage Scheme as shown in Figure 21 below. Arterial Drainage Schemes were carried out by the OPW to improve land for agriculture and to alleviate flooding. The OPW is tasked with maintaining these drainage works in proper repair and effective condition.

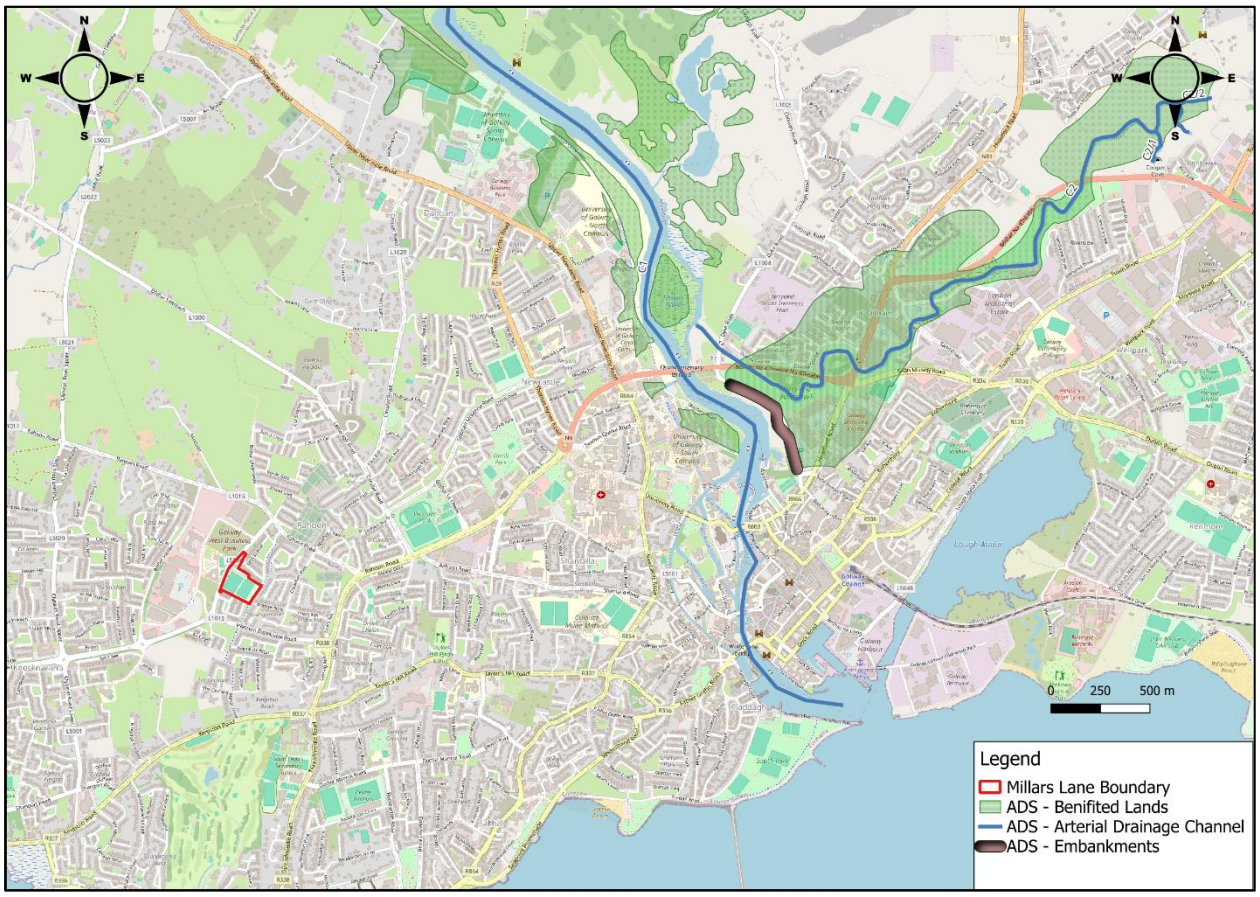


Figure 21: Extract from CFRAM Mapping indicating location of Arterial Drainage Scheme Channel (ref:floodinfo.ie)

3.15 Estimate of Flood Zone

PUNCH Consulting Engineers have reviewed the available information as outlined in the above sections and determined that the site is located in Flood Zone C and is therefore at low risk of flooding.

Flood Zone C was determined as per Section 2.23 of the Department of Housing, Local Government and Heritage Document 'Planning System and Flood Risk Management (DHPLG/OPW, 2009)'. Where Flood Zone[MG|P7] C is defined as an area;

"Where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding). Flood Zone C covers all areas of the plan which are not in zones A or B."

3.16 Sequential Approach

"The Planning System and Flood Risk Management" Guidelines published by the OPW set out a sequential approach to managing flood risk and to avoid development in areas that are at risk. A graphical representation of the Sequential Approach is included in the guidelines and is shown here as Figure 22.

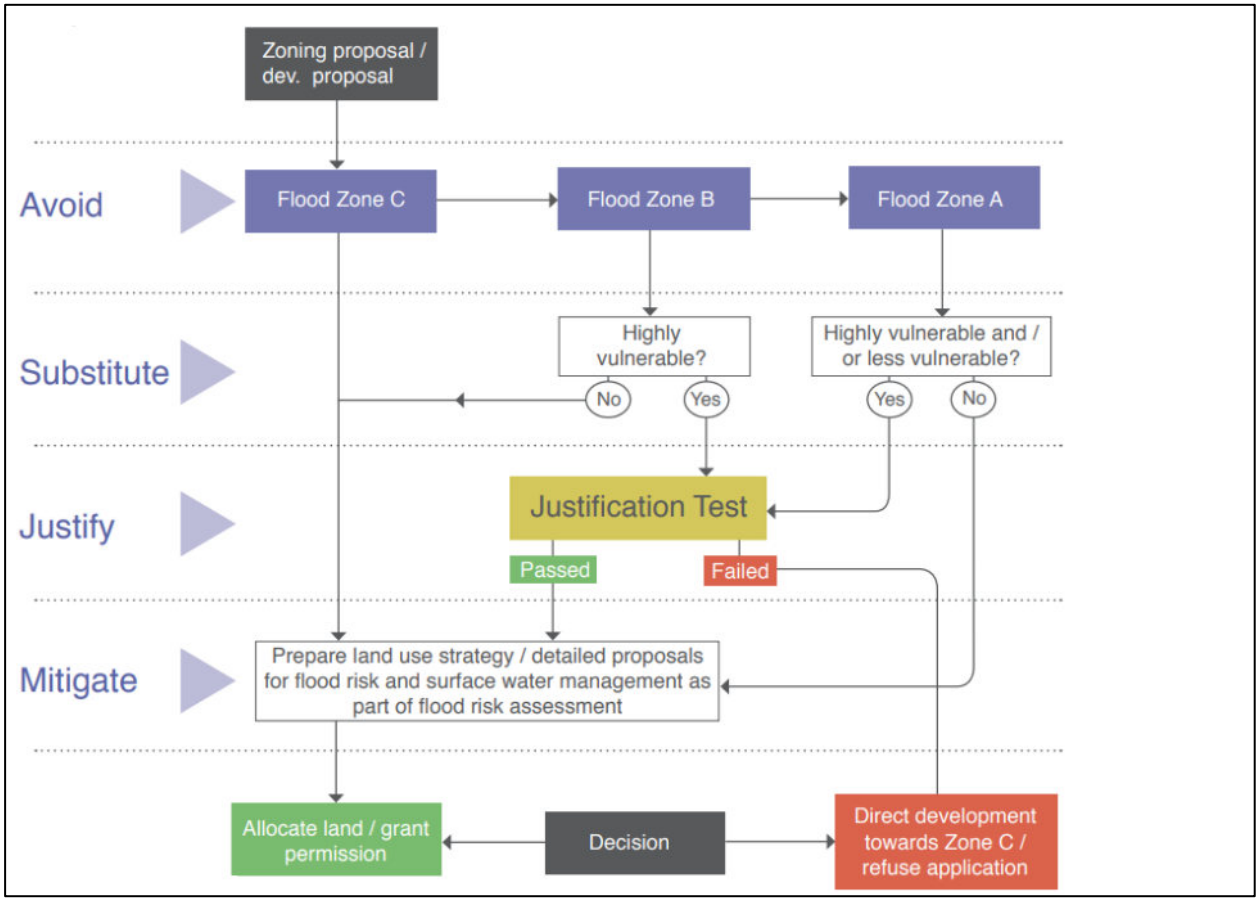


Figure 22: Graphical Representation of the Sequential Approach (The Planning System and Flood Risk Management" Guidelines 2009[1])

4 Conclusions

PUNCH Consulting Engineers were appointed by Galway City Council to carry out a Site-Specific Flood Risk Assessment for a proposed development at Millers Lane, Knocknacarra.

This Site-Specific Flood Risk Assessment has been carried out in accordance with *"The Planning System & Flood Risk Management Guidelines"* published by the Department of the Environment, Heritage and Local Government in November 2009 and the Galway City Council Development Plan.

Flood Maps produced as part of the CFRAMS were consulted to establish the Flood Zone. It was determined that the proposed development site is located in Flood Zone C.

The proposed development is at a low risk of flooding and is deemed appropriate provided the residual risk of pluvial flooding is addressed by a sufficiently sized surface water network.

[1] The Planning System and Flood Risk Management Guidelines 68fb690f-3c30-4649-a788-1b5129b3b610.pdf (www.gov.ie)

Appendix A Site Visit Images

Image 1: View from southeast corner of the site looking northwest

Image 2: View from south edge of grass pitch looking north/northwest

Image 3: View along embankment on eastern boundary, looking north

Image 4: View from southwest corner of grass pitch looking northeast

Image 5: View from southwest corner of grass pitch looking east

Image 6: View east from southwest corner of second grass pitch

Appendix B Topographical Survey

TOP SURVEY (1of2)

0 5 10 15 20 30 40 50m

SCALE 1:500 (A1), 1:1000 (A3)

KEYPLAN

0 50 100 150 200 250m

SCALE 1:5000 (A1), 1:10000 (A3)

LEGEND

TOPO SURVEY:

- AV — AIR VALVE
- AJ — ARMSTRONG JUNCTION
- ESB — ESB MINI PILLAR
- EP — ESB POLE
- OHD PWR LINES — ELECTRICITY LINE OVER
- OHD TEL LINES — TELECOM LINE OVER
- FH — FIRE HYDRANT
- WM — WATER METER
- GATE — GATE
- RG — ROAD GULLY
- IC — INSPECTION CHAMBER
- LP — LAMP POST
- MH CL=10.61m — MANHOLE
- SP — SIGN POST
- SV — SLUICE VALVE
- SC — STOPCOCK
- NCW1 / 100.00 — SURVEY STATION
- ICTE — TELECOM CHAMBER
- TP — TELECOM POLE
- LB — LIGHT BOLLARD
- TREES
- 225mmØ Approx. — COMBINED SEWER
- 225mmØ Approx. — FOUL SEWER
- 225mmØ Approx. — STORM SEWER

MEASURED BUILDING SURVEY:

- 2.00m — FLOOR TO CEILING HEIGHT DIMENSION
- FL=200.00m — FLOOR LEVEL - MALIN DATUM (Metres)
- FL=200.00m — FLOOR LEVEL - MALIN DATUM (Metres)
- FALL — ROOF FALL INDICATOR

NOTE:

01. Levels are in metres to OSGM15 (MALIN DATUM) unless otherwise noted. This datum was established using a Trimble Network Rover GPS system.
02. Co-ordinate system used - ITM95.
03. North refers to Grid North.
04. Only visible services have been surveyed.
05. Sewer TYPE, PIPE DIAMETER & FLOW direction have been estimated unless otherwise noted.
06. Building floor levels have been surveyed remotely and are approximate only, unless otherwise noted.
07. IF ANY DISCREPANCIES ARE FOUND IN THIS SURVEY, THEY SHOULD BE REPORTED TO NCWSURVEYS LTD IMMEDIATELY. FAILURE TO DO SO WILL INVALIDATE ANY SUBSEQUENT ISSUES ARISING FROM USING THIS SURVEY DATA.

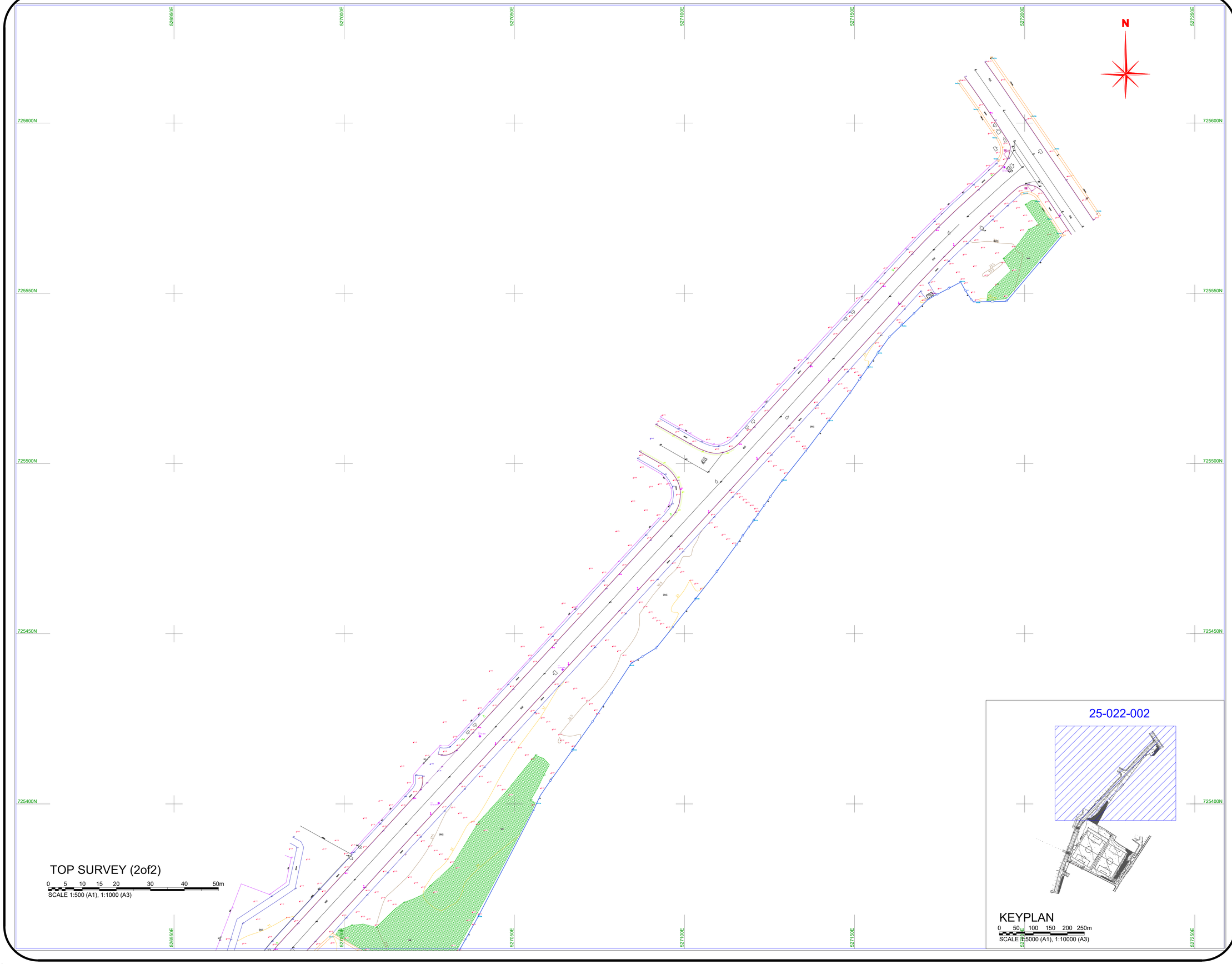
REVISIONS

No.	Date	Staff	Description
A	11-04-25	Bm	TREES ADDED

Ncw SURVEYS

Wood Road,
Upper Grange,
Newcastlewest,
Co. Limerick.
Tel: +353(0)69-77820
Mob: +353(0)87-8702148
Email: Eamon@Ncwsurveys.ie

Client :	Mko		
Scale:	1:5000 (A1), 1:10000 (A3)		
Project :	Miller Lane, Galway City.		
Site crew :	Mm, Cob, Ls	Date :	March 2025
Drawn by :	Bm	Date :	April 2025
Checked by :	Emc	Date :	April 2025
Description :	TOPO (1of2) SURVEY		
Drawing number :	25-022-001	Rev:	A



TOP SURVEY (2of2)

0 5 10 15 20 30 40 50m

SCALE 1:500 (A1), 1:1000 (A3)

LEGEND

TOPO SURVEY:

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- AJ — ARMSTRONG JUNCTION
- ESB — ESB MINI PILLAR
- EP — ESB POLE
- OHD PWR LINES — ELECTRICITY LINE OVER
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REVISIONS

No.	Date	Staff	Description
A	11-04-25	Bm	TREES ADDED

Ncw SURVEYS

Wood Road,
Upper Grange,
Newcastlewest,
Co. Limerick.
Tel: +353(0)69-77820
Mob: +353(0)87-8702148
Email: Eamon@Ncwsurveys.ie

25-022-002

KEYPLAN

0 50m 100 150 200 250m

SCALE 1:5000 (A1), 1:10000 (A3)

Client :	Mko
Scale:	1:5000 (A1), 1:10000 (A3)
Project :	Miller Lane, Galway City.
Site crew :	Mm, Cob, Ls — Date : March 2025
Drawn by :	Bm — Date : April 2025
Checked by :	Emc — Date : April 2025
Description :	TOPO (2of2) SURVEY
Drawing number :	25-022-002 — Rev: A

Appendix C Site Layout Plan

FILE: C:\USERS\LAURA\ONEDRIVE - DAVE RYAN\SHARED DOCUMENTS - DRLA\02_PROJECTS\2024 PROJECTS\02_KINGSTONPARK\01 WORKING\02_PLANNING\P612_MIL.DWG PLOTTED: 18/10/2025 18:41 BY USER: LAURA

Draft Issue:	For Pre-Planning Review	18/10/2025	LF	DR
Issue/Rev. no.	Description	Date	Sign	Chk'd

Client: Galway City Council
Project: Kingston and Millers Lane- Public Park and Urban realm Project
Drg Title: Site Layout Map
Stage: Planning
Drg. No.: P612-MIL-LD-GA-101
Scale: 1:500_1@ A0
Date: 18th October 2025
Drawn By: JC Checked by: DR

2025-10-Draft for Pre-Planning Review

DRLA LANDSCAPE ARCHITECTS
12 Barrington Street
Limerick. V94 XA4W
www.DRLA.ie
Tel.: 061 59 00 01
Email: info@DRLA.ie

Registered Landscape Architect