Maes Emlyn, Rhyl

Flood Consequences Assessment

January 2026

Waterco

Assessment | Modelling | Design

Project Information	
Project:	Maes Emlyn, Rhyl
Report Title:	Flood Consequences Assessment
Client:	Enfys Developments Ltd
Instruction:	The instruction to undertake this Flood Consequences Assessment was received from Luke Morris of Enfys Developments Ltd.
File Ref:	14973-FCA-02

Approval Record	
Author:	Elin Rees BSc (Hons)
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Document History		
Revision	**Date**	**Comment**
01	15/12/2022	First issue
02	29/01/2026	Second issue- updated with revised site layout

Contents

Appendices

Introduction

Waterco has been instructed to prepare a Flood Consequences Assessment (FCA) in respect of a proposed residential re-development at Maes Emlyn, Rhyl, LL18 4AB.

The purpose of this report is to outline the potential flood risk to the site, the impact of the proposed development on flood risk elsewhere, and the proposed measures which could be incorporated to mitigate the identified flood risk. This report has been prepared in accordance with the guidance contained in Planning Policy Wales (PPW) and Technical Advice Note 15 (TAN15): Development, flooding and coastal erosion.

Existing Conditions

The site covers an area of approximately 8,095m² and is located at National Grid Reference (NGR) 301448, 381587. A location plan and an aerial image are included in Appendix A.

Online mapping (including Google Maps / Google Streetview imagery, accessed January 2026) shows that the site comprises existing residential properties with associated access and parking. The site is bordered by residential properties to the north, north-east and west, and a railway to the east and south. Access to the site is provided from Churton Road to the north.

Local Topography

Topographic levels to metres Above Ordnance Datum (m AOD) have been derived from a 1m resolution Natural Resources Wales (NRW) composite 'Light Detecting and Ranging' (LiDAR) Digital Terrain Model (DTM). A review of LiDAR data shows that the site slopes from approximately 7.63m AOD in the south-west to approximately 6.45m AOD in the east. A LiDAR extract is included as Appendix B.

Ground Conditions

The British Geological Survey (BGS) online mapping (1:50,000 scale) indicates that the site is underlain by superficial deposits of blown sand. The superficial deposits are identified as being underlain by the Kinnerton Sandstone Formation.

The geological mapping is available at a scale of 1:50,000 and as such may not be accurate on a site-specific basis.

The closest historical BGS borehole record (BGS reference: SJ08SW10) is located 320m north-west of the site and is included in Appendix C. The borehole record indicates that:

- Fill from 0-1.3 meters below ground level
- Sand from 1.3m.bgl to 2.89m.bgl.
- Silty Clay from 2.89m.bgl to 10m.bgl.
- Groundwater levels weren't recorded

Local Drainage

Public sewer records have been obtained from Dŵr Cymru Welsh Water (DCWW) and are included in Appendix D. The DCWW sewer records show that there is a 300mm public combined sewer originating in the eastern extent of the site flowing east. There are also public foul and surface water sewers serving residential properties in Y Gorlan to the north-west of the site. The public foul and surface water sewers in Y Gorlan discharge to a public combined sewer in Churton Road immediately north of the site.

A GPR utility survey was undertaken by PM Surveys UK Ltd in August 2022 and is included in Appendix E. The GPR survey shows that foul flows from the site drain to the public combined sewer in the eastern extent of the site. No details are provided for the existing surface water drainage arrangement.

Development Proposals

The proposal is for a residential re-development to include the demolition of 59no. existing dwellings and the erection of 23no. dwellings with associated access roads, parking and gardens. A proposed development plan is included in Appendix F.

Flood Zone Category and Policy Context

Flood Zone Category

The NRW 'Flood Map for Planning', included in Appendix G, shows that the south-western extent of the site is located within Flood Zone 1, meaning it has a less than 0.1% annual probability of flooding, including the effects of climate change. The eastern extent of the site is located within Flood Zones 2 and 3. Flood Zone 2 is defined as an area considered to be at a flood risk with between 1% (1in 100) and 0.1% (1 in 1000) annual probability of fluvial flooding and/or between a 0.5% (1 in 200) and 0.1% annual probability of tidal flooding, including the effects of climate change. Flood Zone 3 is an area considered to be at flood risk with 1% or greater annual probability of fluvial flooding and/or a 0.5% or greater annual probability of tidal flooding, including the effect of climate change.

The site is also shown within a 'TAN15 Defended Zone', meaning it benefits from the protection offered by flood defences.

Development Vulnerability Classification

The proposed residential development is considered to be 'highly vulnerable' development in accordance with Figure 4 of the Welsh Government's Technical Advice Note 15 – Development, Flooding and Coastal Erosion (TAN15).

Section 10.17 of TAN15 provides the following guidance for planning applications which are made in the TAN15 defended flood zone:

'…On brownfield sites redevelopment proposals should not over intensify use neither should they reduce the

area's ability to absorb flood water nor cause problems with flooding elsewhere. All applications should consider opportunities to incorporate flood resilient design as appropriate and any proposal involving highly vulnerable development must be compliant with the tolerable conditions set out in section 11.'

Section 11 of TAN15 (Figure 5) states that highly vulnerable developments must be flood free during a 1% annual probability plus climate change fluvial flood event and/or a 0.5% annual probability plus climate change tidal flood event (including allowance for a defence breach). Section 11 of TAN15 (Figure 6) states that the maximum tolerable depth of flooding during a 0.1% annual probability plus climate change event is 600mm for highly vulnerable development.

This report provides an assessment of the tolerable flooding conditions as required in section 11 of TAN15.

Local Policy

The Denbighshire County Council Local Plan 2006-2021 (adopted June 2013) contains the following policy relating to flood risk:

'Policy RD 1 - Sustainable development and good standard design

Development proposals will be supported within development boundaries provided that all the following criteria are met:

xi) Satisfies physical or natural environmental considerations relating to land stability, drainage and liability to flooding, water supply and water abstraction from natural watercourses.'

Local guidance documents including the Denbighshire County Council Strategic Flood Consequences Assessment (SFCA) (January 2018) and the Denbighshire County Council Preliminary Flood Risk Assessment (PFRA) (June 2011 and its 2017 addendum) have been reviewed and inform this report.

Consultation

A pre-planning opinion request was submitted to NRW in October 2022. In their response, provided as Appendix G, NRW have stated that:

'Flood Risk Management

The planning application proposes highly vulnerable development (Residential). The application site is within Zone A of the Development Advice Map (DAM) contained in TAN15 (2004). However, our Flood Map for Planning (FMfP) identifies the application site to be at risk of flooding and within Flood Zone 2/3 sea.

As confirmed in the letter from Welsh Government dated 15 December 2021, the FMfP represents better and more up-to-date information on areas at flood risk than the DAM. Therefore, we advise you produce a Flood Consequences Assessment (FCA), to demonstrate that the consequences of flooding can be acceptably managed over the lifetime of development. The criteria for the FCA, which should normally be undertaken by a suitable qualified person carrying an appropriate professional indemnity, are given in Section 7 and

Appendix 1 of TAN15 (2004). The FCA should be proportionate to the development proposed. You may also refer to our website, which contains technical advice and recommendations.

The site is currently occupied by 59 flats. The proposal is for the redevelopment of the site to provide up to 40 residential units. The information submitted does not confirm whether these would consist of flats or individual units all with ground floor living space. As such, is not clear if the proposal would result in an intensification of use of the site, and confirmation on this point would be needed from the Local Planning Authority (LPA).

There is a requirement to prepare a Flood Consequences Assessment (FCA) in support of the planning application. The FCA would need to demonstrate that the consequences of flooding are acceptable in accordance with the requirements of TAN15. The primary source of flood risk at the site is tidal flood risk. We would expect the FCA to refer to outputs from the Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) and the Denbighshire Strategic Flood Consequences Assessment (SFCA) when preparing the FCA, including specific reference to the 0.5% Annual Exceedance Probability (AEP) breach event with an allowance for climate change, which is the design event.

If the proposal is considered to be an intensification of use, then the FCA would need to demonstrate that the site can be designed to be flood free in the design event. If the LPA confirms that the proposal does not result in an intensification of use compared to the current highly vulnerable land use at the site, then we would expect flood risk betterment to be provided compared to the existing situation. We would expect this to include raising finished floor levels higher than existing and incorporation of flood resistance/resilience techniques.

The FCA should also consider the 0.1% AEP breach event with climate change, in relation to the requirements of sections A1.12 and A1.15 of TAN15. In order to comply with section A1.12, the FCA will need to show that the development proposal does not increase flood risk elsewhere in up to the 0.1% AEP breach event with climate change. This requirement will apply irrespective of whether the proposal is considered to be an intensification or not.

Any flood risk data we hold for the site can be requested by submitting a request for environmental data. The criteria for the FCA, which should normally be undertaken by a suitably qualified person carrying an appropriate professional indemnity, are given under Section 7 and Annex 1 of TAN15.'

Sources of Flooding and Probability

Fluvial and Tidal

The nearest watercourse is The Cut which is located approximately 260m east of the site. The Cut flows south-west to its confluence with the River Clwyd. The site is located approximately 600m south-east of the coastline and 2km north-east of the River Clwyd which is tidally influenced in this location.

The development site is located in an area which benefits from flood defences in the form of a coastal sea

wall and earth embankments along the River Clwyd. The minimum crest level of the sea wall is 7m AOD. The minimum crest level of the River Clwyd flood defences is 6m AOD. Flood defence crest levels have been obtained from the Welsh Government 'Lle' geoportal.

Fluvial flooding could occur if the Cut overtopped its banks during or following an extreme rainfall event. Tidal flooding could occur from overtopping of the defences along the River Clwyd or along the coastline during an extreme tidal event. Flooding could also occur from a breach of the flood defences coinciding with an extreme tidal flood event.

The NRW 'Recorded Flood Extents' map (Appendix G) indicates that there are no records of historical flooding at or near to the site.

NRW Fluvial and Tidal Modelled Data

Model Outputs have been obtained from NRW for the Rhyl Cut and Prestatyn Gutter Model (2019), the Point of Ayr to Pensarn Model (2017) and the Tidal Clwyd Model (2022). The model outputs have been processed by Waterco to create flood depth mapping which is provided as Appendix H.

Rhyl Cut and Prestatyn Gutter Model (fluvial)

This model considers defended and undefended scenarios. An undefended scenario represents the removal of all linear flood defences. Modelled outputs have been provided for the 3.33% Annual Exceedance Probability (AEP), 1% AEP, 1% AEP plus 30% climate change (CC), 1% AEP plus 75% CC and 0.1% AEP events. A mean high water spring (MHWS) tidal boundary is applied to all fluvial flood scenarios, which is increased by 1.12m to represent 100 years of sea level rise in the climate change scenarios.

The results from the hydraulic modelling (Appendix H) show that the site is flood free during all considered flood events up to and including the 0.1% AEP plus 75% CC event for both defended and undefended scenarios. The risk of flooding from The Cut is therefore considered to be very low.

Point of Ayr to Pensarn Model (tidal)

Modelled outputs have been provided for a range of events including the defended 1% AEP, 0.5% AEP and 0.1% AEP events for both the baseline (year 2016) and climate change (year 2117) scenarios. A review of the modelled outputs (Appendix H) shows that the site is flood free during all considered flood events up to and including the 0.1% AEP (year 2117) event.

The Point of Ayr to Pensarn tidal model also considers the risk of flooding from a tidal breach event. A total of 10 tidal breach locations has been considered as part of the NRW 'Point of Ayr to Pensarn' model for the 0.5% AEP (present day) and 0.5% AEP (year 2117) events. Breach 10 (Garford Road) is the closest breach location to the site and has been modelled as a 50m wide gap in the flood defence. As shown in the modelled outputs (Appendix H), the site is flood free during the 0.5% AEP (year 2117) Garford Road Breach event.

Tidal Clwyd Model

The Tidal Clwyd Model considers defended present day and climate change (year 2122) events for both the 70th and 95th percentile scenarios. As shown in Appendix H, the site is flood free during all tidal defended events up to and including the 0.1% AEP plus CC (year 2122) 95th percentile event.

The modelling also considers tidal breach locations at Marine Lake and Clwyd right embankment. The breach scenarios have been modelled for the 0.5% AEP and 0.1% AEP with climate change to the year 2122 events. Modelled outputs for the breach events are provided in Appendix H. As shown on the modelled outputs, the site is flood free during the 0.5% AEP plus CC (year 2122) 95th percentile and 0.1% AEP plus CC (year 2122) 95th percentile events for all breach scenarios considered.

It can be concluded that the risk of fluvial and tidal flooding is very low over the lifetime of the development.

Surface Water

Surface water flooding occurs when rainwater does not drain away through the normal drainage system or soak into the ground. It is usually associated with high intensity rainfall events but can also occur with lower intensity rainfall or melting snow where the ground is saturated, frozen or developed, resulting in overland flow and ponding in depressions in topography. Surface water flooding can occur anywhere without warning. However, flow paths can be determined by consideration of contours and relative levels.

The NRW 'Flood Risk from Surface Water and Small Watercourses' map (Appendix G) shows that the majority of the site is at very low risk of surface water flooding (Flood Zone 1), meaning it has a less than 0.1% annual probability of flooding. The existing internal access road and lower topographical points in the eastern extent of the site are identified in Flood Zone 2, with between a 1% and 0.1% annual probability of surface water flooding, including the effects of climate change.

The low flood risk identified by NRW surface water mapping is associated with isolated topographical low points within the site. The flood risk is unlikely to be realised when accounting for the function of the sites drainage system. Furthermore, there are no distinct flow routes in the area which would direct any potential surface water flooding towards the site.

The SFCA and PFRA contain no records of surface water flooding at or near to the site. It can therefore be concluded that the risk of surface water flooding is low.

Sewer

Flooding from sewers can occur when a sewer is overwhelmed by heavy rainfall, becomes blocked, is damaged, or is of inadequate capacity. Flooding is mostly applicable to combined and surface water sewers.

The DCWW sewer records (Appendix D) show that there is a 300mm public combined sewer originating in the eastern extent of the site. The combined sewer accommodates foul flows from the site. There is also a 300mm public combined sewer in Churton Road immediately north of the site.

Any potential flooding arising from the 300mm public combined sewer originating in the eastern extent of the site would be directed east, away from the site, following the local topography. There are no distinct flow routes in the area which would direct any potential flooding from the 300mm public combined sewer in Churton Road towards the site.

The SFCA and PFRA contain no records of sewer flooding at or near to the site. It can therefore be concluded

that the risk of sewer flooding is very low.

Groundwater

Groundwater flooding occurs when water levels underneath the ground rise above normal levels. Prolonged heavy rainfall soaks into the ground and can cause the ground to become saturated. This results in rising groundwater levels which leads to flooding above ground.

The SFCA and PFRA contain no records of groundwater flooding at or near to the site. The Western Wales River Basin District PFRA states, '*since 2011, there have been no recorded events of groundwater flooding within the Western Wales River Basin District*'.

It can therefore be concluded that the risk of groundwater flooding is low.

Artificial Sources

There are no canals in the immediate vicinity of the site. NRW's online 'Flood Risk from Reservoirs' map shows that the site is not at risk of flooding from reservoirs. Therefore, it can be concluded that the risk of flooding from artificial sources is very low.

Summary of Potential Flooding

Although the site is shown to be partially located within Flood Zones 2 and 3, it can be concluded that based on the modelled outputs the risk of flooding from all sources is very low. Therefore, no site-specific mitigation measures are considered necessary. However, in accordance with Building Regulations, finished floor levels should be set 150mm above surrounding ground levels.

Furthermore, safe access / egress is available during all considered fluvial and tidal flood events.

Conclusions

The proposal is for a residential re-development to include the demolition of 59no. existing dwellings and the erection of 23no. dwellings with associated access roads, parking and gardens.

The NRW 'Flood Map for Planning' map shows that the south-western extent of the site is located within Flood Zone 1. The north-east of the site is located within Flood Zones 2 and 3.

The site is also shown within a 'TAN15 Defended Zone', meaning it benefits from the protection offered by flood defences.

Fluvial and tidal modelled outputs have been obtained from NRW and show that the site is not considered to be at risk of fluvial or tidal flooding during all considered events up to and including the 0.1% AEP plus CC (year 2122) 95th percentile tidal breach event.

Furthermore, safe access / egress is available during all considered fluvial and tidal flood events.

The proposed development is therefore considered to be justified in this location and is compliant with TAN15.

Recommendations

1. Submit this Flood Consequences Assessment to the Planning Authority in support of the Planning Application.

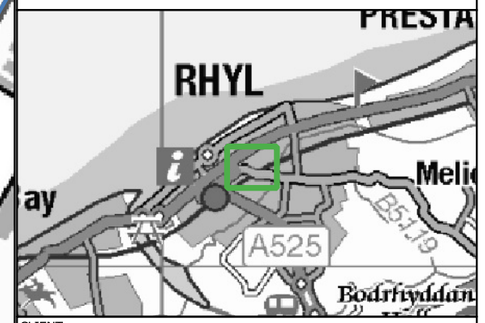
2. Set finished floor levels a minimum of 150mm above surrounding ground levels.

Appendix A Location Plan & Aerial Image

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

- Site Boundary
- Watercourses
- Waterbodies



CLIENT:
Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
Location Plan

PLOT STATUS:	DATE:
FINAL	27-01-2026

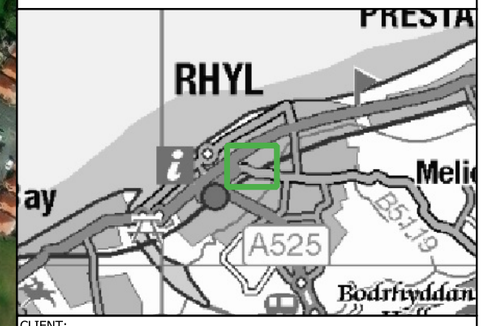
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:2500

PLOT NAME:	REVISION:
14973_Location_Plan	-

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

Site Boundary



CLIENT:

Enfys Developments Ltd

waterco

www.waterco.co.uk

SCHEME:

Maes Emlyn, Rhyl

PLOT TITLE:

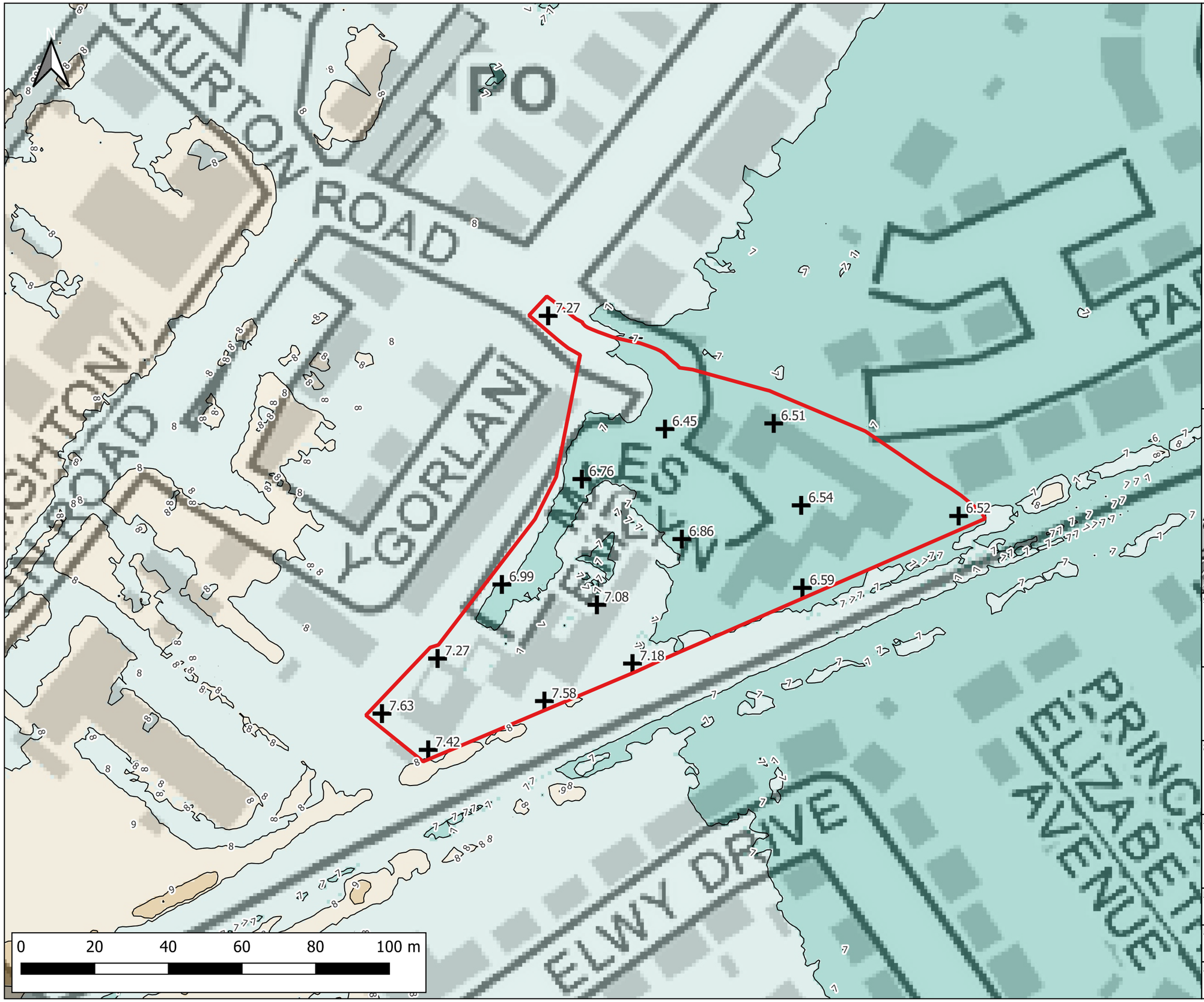
Aerial Plan

PLOT STATUS:	DATE:
FINAL	27-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:2500

PLOT NAME:	REVISION:
14973_Aerial_Plan	-

Appendix B LiDAR Plan



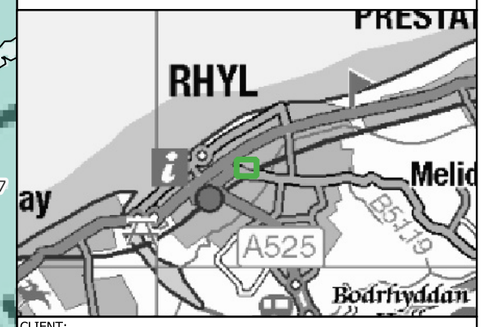
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

- Site Boundary
- Site Levels (m AOD)

Ground Elevation (m AOD)

- <= 7
- 7 - 8
- 8 - 9
- 9 - 10
- > 10



CLIENT:
Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
LiDAR Plan
1m Resolution
Data from Natural Resources Wales (flown January 2026)

PLOT STATUS:	DATE:
FINAL	27-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:1000

PLOT NAME:	REVISION:
14973_LiDAR_Plan	-

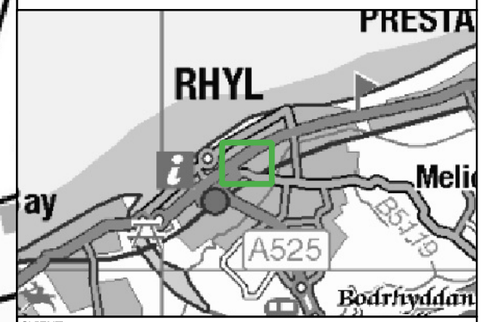
Appendix C Historical BGS Borehole Record

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

- Site Boundary
- BGS Borehole Location

SJ08SW10



CLIENT:

Enfys Developments Ltd

www.waterco.co.uk

SCHEME:

Maes Emlyn, Rhyl

PLOT TITLE:

Historical BGS Borehole Location Plan
Data from British Geological Survey (BGS)

PLOT STATUS:	DATE:
FINAL	29-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:2500

PLOT NAME:	REVISION:
14973_BGS_Borehole_Location_Plan	-

SJ 08 SW 10a

Geological Investigations Ltd.

RECORD OF BOREHOLE/TRIAL HOLE NO....1.....

0140 (~~8194~~) 8196
(1"95)

SITE ....RHYL.
Crown Building.
JOB REF. NO. FGE/673
GROUND LEVEL ....8.03m~~OD~~
METHOD/SIZE ....S&CC 152mm
DATE 7.11.77

Scale 1 : 50 metric

DESCRIPTION OF STRATA	Depth m	SAMPLES U4(1¾)	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
0 to 0.10m Tarmacadam surfacing. FILL.								7.93	
0.10 to 0.40m Mod.loose brick and stone FILL.								7.63	
0.40 to 1.30m Loose brown slightly silty medium grained SAND with very occasional fine to medium gravel,and small fragments of mortar,brick, and cinder. Possibly FILL.	1		•	•					6
1.30 to 2.20m Loose brown slightly silty medium grained SAND,with very occasional fine to medium gravel,and fine shells.	2		•		•			6.73	8
2.20 to 2.60m Loose saturated grey/brown patchy SILTY medium grained SAND.			•					5.83	
2.60 to 2.89m Mod compact dark grey/brown CLAYEY GRAVELLY SAND.								5.43	
2.89 to 3.15m Soft to firm orangy brown with grey fissures,SILTY CLAY with occasional fine to medium sub rounded and angular gravel with spent root traces.	3							5.14	
3.15 to 5.20m Firm to stiff reddish brown SILTY CLAY with occasional fine to medium sub rounded gravel,and fine near vertical fissures with spent root fibres.	4							4.88	
5.20 to 9.50m Firm to stiff reddish brown SILTY CLAY with occasional fine to medium sub rounded and angular gravel,and occasional partings and thin bands of wet sand.	5							2.63	
Hole terminated at 10.00m Standpipe inserted to 4.0m	6								
9.50 to 10.00m Stiff to very stiff reddish brown SILTY CLAY with occasional fine to medium gravel, and traces of silty partings.	7								
	8								
	9							-1.47	
	10							-1.97	

WATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.–NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING
1. Please refer to Section 5 of the written text.						
2.						

SJ 08 SW/10b.

Geological Investigations Ltd. (1"95)

RECORD OF BOREHOLE/TRIAL HOLE NO. 2

0140 8194

SITE RHYL. Crown Building.
JOB REF. NO. PGE/677
GROUND LEVEL 7.72m OD
METHOD/SIZE S&CC 152mm
DATE 8-11.11.77

Scale 1 : 50 metric

DESCRIPTION OF STRATA	Depth	SAMPLES U4/1X	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
0.70m Black TOPSOIL.									
to 1.80m Loose moist to saturated brown SILTY medium grained SAND with tree roots.								7.02	7
to 2.90m Mod compact saturated dark grey SILTY medium grained SAND.								5.92	11
to 4.50m Firm to stiff reddish brown with grey vertical fissures, SILTY CLAY with occasional fine to medium sub rounded gravel, spent root traces and small patches of silty fine to medium grained sand.								4.82	
to 5.50m Very stiff reddish brown with grey fissures SILTY CLAY with occasional fine to medium sub rounded and angular gravel and sandy partings.								3.22	
to 6.35m Firm reddish brown with grey fissures, SILTY CLAY with traces of fine sub rounded gravel.								2.22	
to 8.10m Firm reddish brown SILTY CLAY with traces of fine gravel.								1.37	
to 9.25m Stiff reddish brown SILTY laminated CLAY.								-0.78	
to 10.00m Dense saturated grey/brown medium grained SAND with occasional gravel, grading into well graded SAND and fine to coarse sub rounded GRAVEL.								-1.53	43

WATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.—NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING
Please refer to Section 5 of the written text.						

SJ 08 SW

Geological Investigations Ltd.

RECORD OF BOREHOLE/TRIAL HOLE NO. 2
continued.

SITE ....BHYL.....
Crown Building.
JOB REF. NO. .....FGS/67.....
GROUND LEVEL ....7.72m OD
METHOD/SIZE.....
DATE .....

Scale 1 : 50 metric

DESCRIPTION OF STRATA	m Depth	SAMPLES U4(1%	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
00 to 10.50m Dense saturated grey/brown well graded SAND and GRAVEL.									
50 to 12.00m Firm to stiff reddish brown SILTY CLAY with occasional fine to coarse sub rounded and angular gravel, and fine bands of wet silty sand.	11	NR		•	•			-2.78	
00 to 13.50m Firm to stiff reddish brown SILTY laminated CLAY with bands of silty clay with gravel, and bands of wet silty fine to medium grained SAND.	12		•	•				-4.28	12
50 to 16.00m Firm to stiff reddish brown SILTY partially laminated CLAY with bands of clayey silt, and wet silty fine grained sand.	13			•				-5.78	26
	14								
	15	NR		•					22
ole terminated at 16.00m tandpipe inserted to 12.0m	16			•				-8.28	
	17								
	18								
	19								
	20								

ATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.–NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING

SJ 08SW/10 c

Geological Investigations Ltd.

(1"95)

RECORD OF BOREHOLE/TRIAL HOLE NO. 4A

0138 8194

SITE RHYL. Crown Building.

JOB REF. NO. FGE/673

GROUND LEVEL 7.85m OD

METHOD/SIZE S&CC 152mm

DATE 9-11.11.77

Scale 1 : 50 metric

DESCRIPTION OF STRATA	Depth m	SAMPLES U4/1¾	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
0 to 0.40m Concrete over stone FILL.								7.45	
0.40 to 2.10m Loose to mod compact brown SILTY medium grained sand with occasional small fragments of clinker, brick, mortar and coal. Probably FILL.	1		•	•					7
	2			•					9
				•					8
2.10 to 3.30m Very loose wet grey/brown SILTY fine to medium grained SAND with traces of clay. +4.55				•				5.75	2
	3			•					3
3.30 to 3.50m Firm grey/brown SILTY CLAY with small +4.35 pockets of greyish green SILT.				•				4.55	
3.50 to 7.50m Very stiff becoming stiff to firm reddish brown with grey fissures and streaks, SILTY CLAY with occasional fine to medium sub rounded and angular gravel.	4			•				4.35	
	5			•					
	6								
	7			•					
7.50 to 10.00m Soft to firm reddish brown partially laminated SILTY CLAY with traces of fine gravel.								0.35	
	8			•					
	9								
	10								

WATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.—NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING
1. Please refer to Section 5 of the written text.						

SJ 08 SW /10c

Geological Investigations Ltd.

RECORD OF BOREHOLE/TRIAL HOLE NO. 4A
continued.

SITE RHYL. Crown Building.
JOB REF. NO. FGE/673
GROUND LEVEL 7.85m. OD
METHOD/SIZE
DATE

Scale 1 : 50 metric

DESCRIPTION OF STRATA	Depth m	SAMPLES U4/1%	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
10.00 to 10.80m Soft to firm reddish brown partially laminated SILTY CLAY with occasional coarse gravel. -2.95								-2.95	
10.80 to 13.40m Compact saturated grey/brown slightly silty fine to coarse SAND, and fine to coarse sub rounded and angular GRAVEL.	11				•				13
	12								15
13.40 to 15.80 Compact saturated orangy brown slightly silty fine to coarse SAND, and fine to coarse sub rounded and angular GRAVEL. -7.95	13				•			-5.55	30
	14				•	•			
	15				•				43
15.80 to 17.50m Firm to mod.stiff reddish brown SILTY CLAY with occasional fine to medium sub rounded gravel, and silt partings.	16			•				-7.95	
	17			•					
17.50 to 17.70m Stiff grey SILT								-9.65	
17.70 to 18.70m Bands of orangy brown slightly silty fine grained SAND, and firm to stiff reddish brown SANDY CLAY with occasional gravel.	18			•				-9.85	
18.70 to 20.00m Firm to stiff reddish brown VERY SILTY CLAY with fine silt and sand partings.	19			•				-10.85	29
	20								

WATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.—NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING

SJ 08 SW / 10 C

Geological Investigations Ltd.

RECORD OF BOREHOLE/TRIAL HOLE NO. 4A continued.

SITE RHYL, Crown Building.
JOB REF. NO. FGE/673
GROUND LEVEL 7.85m OD
METHOD/SIZE
DATE

Scale 1 : 50 metric

DESCRIPTION OF STRATA	Depth m	SAMPLES U4/1%	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
20.00 to 23.50m Stiff reddish brown VERY SILTY CLAY, with occasional fine gravel, silt and sand partings (wet).	21			•					48
	22			•					53
	23							-15.65	
23.50 to 25.00m Very stiff reddish brown VERY SILTY CLAY with occasional fine gravel, and thin wet sand partings.	24			•					53
Hole terminated at 25.00m	25			•				-17.15	
	26								
	27								
	28								
	29								
	30								

WATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.–NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING

SJ 08 SW/10a

Geological Investigations Ltd.

(1"95)

RECORD OF BOREHOLE/TRIAL HOLE NO....5.....

0136 8191

SITE ....RHYL.....
Crown Building.
JOB REF. NO ....FGE/673.....
GROUND LEVEL ....7.43m. OD
METHOD/SIZE....S&CC 152mm.....
DATE .....14/15.11.77.....

Scale 1 : 50 metric

DESCRIPTION OF STRATA	Depth	SAMPLES UW1%	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
0 to 0.60m Black TOPSOIL.									
0.60 to 1.95m Loose grey/brown medium grained SAND with traces of shell, glass and clinker. Possibly FILL.			•					6.83	7
1.95 to 2.50m Compact saturated grey/brown medium grained SAND.			•					5.48	24
2.50 to 3.00m Compact grey/black VERY SILTY medium to coarse grained SAND with patches of grey/black SILT, and traces of organic matter.				•				4.93	
3.00 to 3.65m Stiff orangy brown with grey fissures and streaks, SILTY CLAY with fine to coarse sub rounded gravel, and spent root fibres.								4.43	
3.65 to 3.70m Fine GRAVEL.								3.78	
3.70 to 8.70m Firm with local firm to stiff bands, reddish brown SILTY CLAY with occasional fine to medium sub rounded and angular gravel, and thin wet sandy partings.				•				3.73	
8.70 to 10.00m Stiff reddish brown VERY SILTY CLAY with occasional brown medium grained wet sand partings.				•				-1.27	
								-2.57	

WATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.–NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING
1. Please refer to Section 5 of the written text.						

SJ 08 SW / 10 d

Geological Investigations Ltd.

RECORD OF BOREHOLE/TRIAL HOLE NO....5.....
continued.

SITE .....RHYL.....
Crown Building.
JOB REF. NO .....FGE/673.....
GROUND LEVEL .....7.43m. OD
METHOD/SIZE .....
DATE .....

Scale 1 : 50 metric

DESCRIPTION OF STRATA	Depth	SAMPLES U4/1%	SPT	DIST.	BULK	Water	SYMBOL	INTER-FACE LEVEL m	N
10.00 to 15.30m Firm to stiff reddish brown SILTY CLAY with occasional fine to medium sub rounded and angular gravel.	11 12 13 14 15		•						
15.30 to 18.20m Soft to firm reddish brown VERY SILTY CLAY with traces of fine to medium gravel.	15 16 17 18		•					-7.87	
18.20 to 19.50m Firm to stiff reddish brown SILTY CLAY with occasional fine to medium sub rounded and angular gravel.	18 19		•					-10.77	
Hole terminated at 19.50m Standpipe inserted to 4.0m	20		•					-12.07	

WATER STRUCK AT DEPTHS	DEPTH OF CASING WHEN SEALED N.S.—NOT SEALED	ESTIMATED FLOW	WATER ADDED AT DEPTHS TO ASSIST BORING	WATER LEVEL IN CASED/UNCASED BOREHOLE ON COMPLETION		
				DATE	WATER LEVEL	DEPTH OF CASING
1.						

Appendix D DCWW Sewer Plan

Dŵr Cymru
Welsh Water

Maes Emlyn Rhyl Denbighshire LL18 4AB

N
W E
S

LEGEND(Representative of most common features)

Waste network:

- Foul chamber
- Surface water chamber
- Combined chamber
- Combined sewer overflow
- Special purpose chamber
- Treatment works
- Pumping station
- Outfall
- Lamphole
- Storm Overflow
- Rising main
- Gravity sewer
- Private sewer
- Private sewer subject to Sect. 104 adoption agreement
- Private Sewer Transfer
- Lateral Drain
- Inspection Chamber

NB: Sewer symbol colour indicates the type.

RED - Combined
GREEN - Surface Water
BROWN - Foul
Purple - Former 524 sewers (for indicative purposes only)

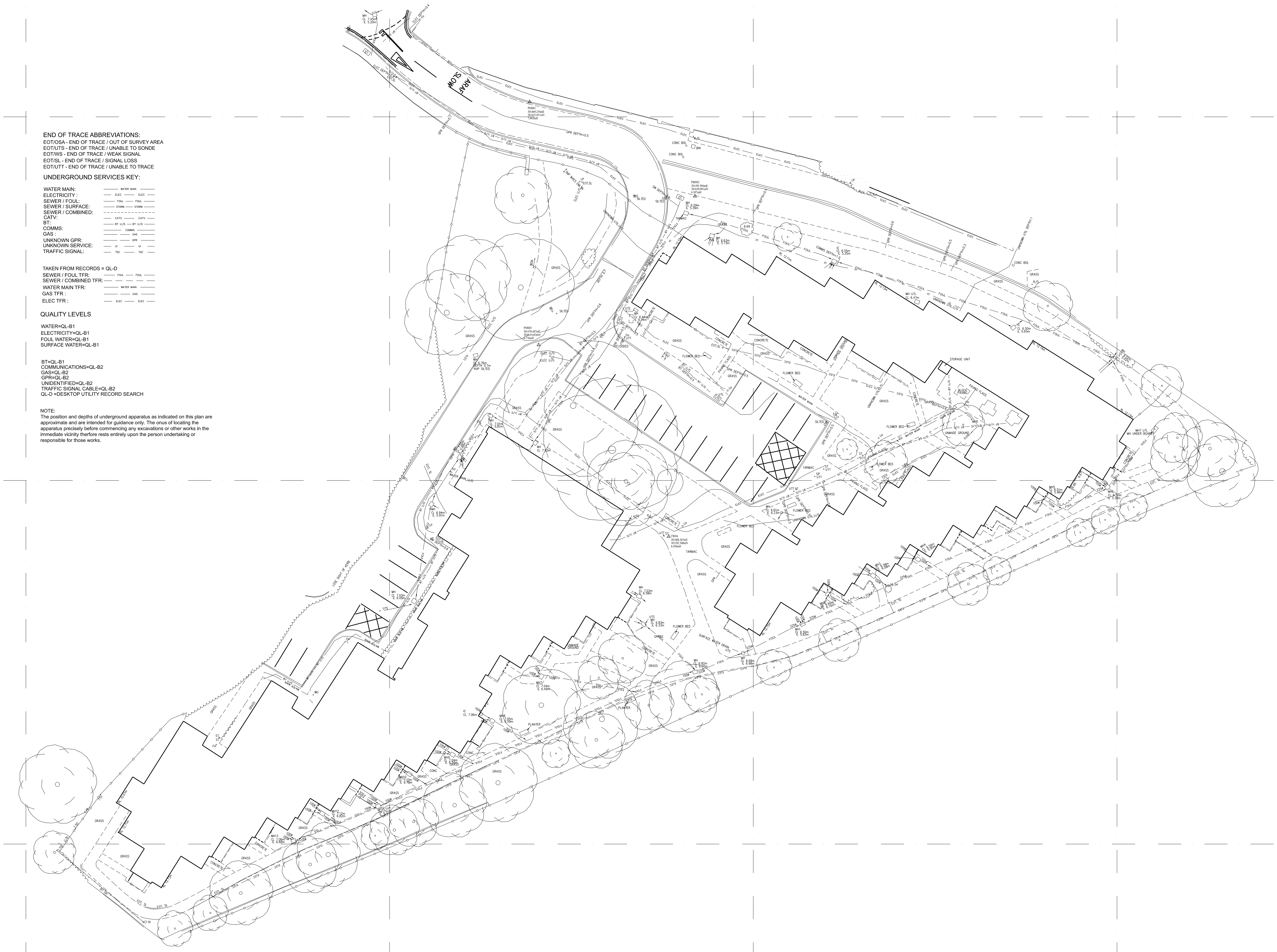
Notes:

Whilst every reasonable effort has been taken to correctly record the pipe material of DCWW assets, there is a possibility that in some cases pipe material (other than Asbestos Cement or Pitch Fibre) may be found to be asbestos cement (AC) or Pitch Fibre (PF) . It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation

EXACT LOCATIONS OF ALL APPARATUS TO BE DETERMINED ON SITE.

Map Ref:	301491,381594
Map scale:	1:1250
Printed by:	Zara Howells
Printed on:	18 Oct 2022

Appendix E GPR Survey



END OF TRACE ABBREVIATIONS:

EOT/OSA - END OF TRACE / OUT OF SURVEY AREA
EOT/UTS - END OF TRACE / UNABLE TO SONDE
EOT/WS - END OF TRACE / WEAK SIGNAL
EOT/SL - END OF TRACE / SIGNAL LOSS
EOT/UTT - END OF TRACE / UNABLE TO TRACE

UNDERGROUND SERVICES KEY:

WATER MAIN:	WATER MAIN
ELECTRICITY :	ELEC ELEC
SEWER / FOUL:	FOUL FOUL
SEWER / SURFACE:	STORM STORM
SEWER / COMBINED:	- - - - - -
CATV:	CATV CATV
BT:	BT U/G BT U/G
COMMS:	COMMS
GAS :	GAS
UNKNOWN GPR:	GPR
UNKNOWN SERVICE:	UI UI
TRAFFIC SIGNAL:	TSC TSC

TAKEN FROM RECORDS = QL-D

SEWER / FOUL TFR:	FOUL FOUL
SEWER / COMBINED TFR:	— — — —
WATER MAIN TFR:	WATER MAIN
GAS TFR :	GAS
ELEC TFR :	ELEC ELEC

QUALITY LEVELS

WATER=QL-B1
ELECTRICITY=QL-B1
FOUL WATER=QL-B1
SURFACE WATER=QL-B1

BT=QL-B1
COMMUNICATIONS=QL-B2
GAS=QL-B2
GPR=QL-B2
UNIDENTIFIED=QL-B2
TRAFFIC SIGNAL CABLE=QL-B2
QL-D =DESKTOP UTILITY RECORD SEARCH

NOTE:
The position and depths of underground apparatus as indicated on this plan are approximate and are intended for guidance only. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therfore rests entirely upon the person undertaking or responsible for those works.

Site Grid North

N W E S

Symbols/Abbreviations (Where Applicable):

AV:	AIR VALVE
BB:	BELISHA BEACON
BH:	BOREHOLE
BM:	BENCHMARK
BOL:	BOLLARD
B/S:	BUS STOP
CAM:	CAMERA
CS:	CABLE STAY
CATV:	C.A.T.V INSPECTION CHAMBER
CBOX:	ELECTRICITY BOX, CABLE BOX, ETC.
CCTV:	C.C.T.V CAMERA
C.PIT:	CATCH PIT
EC:	ELECTRICITY COVER
EP:	ELECTRICITY POLE
ER:	EARTH ROD
FH:	FIRE HYDRANT
FP:	FLAG POLE
G:	GULLY
G:	GULLY (ROUND)
GV:	GAS VALVE
IC:	INSPECTION COVER (SQUARE)
IC:	INSPECTION COVER (ROUND)
IL:	INVERT LEVEL
KO:	KERB OUTLET
LB:	LETTER BOX
LC:	LIGHTING COLUMN
LP:	LAMP POST
LP/BS:	LAMP POST/BUS STOP
MH:	MANHOLE (SQUARE)
MH:	MANHOLE (ROUND)
MKR:	MARKER
P:	POST
RE:	RODDING EYE
R/S:	ROAD SIGN
S/P:	SIGN POST
SNP:	STREET NAME PLATE
ST:	STOP TAP
SV:	STOP VALVE
TCB:	TELEPHONE CALL BOX
TL:	TRAFFIC LIGHT
TP:	TELEGRAPH POLE
TP/EP:	TELEGRAPH POLE/ELECTRIC POLE
T/IC:	TELECOM INSPECTION COVER
WO:	WATER OUTLET
WM:	WATER METER
	GATE
	DEFINED POINT
	CONTROL POINT
	TREE (CONIFEROUS)
	TREE (DECIDUOUS)
	FOLIAGE
	HEDGE
DPC 99.99m	DAMP PROOF COURSE LEVEL
EL 99.99m	EAVES LEVEL
FL 99.99m	FLOOR LEVEL
RL 99.99m	RIDGE LEVEL
SL 99.99m	SOFFIT LEVEL
TL 99.99m	THRESHOLD LEVEL

FENCE DESCRIPTIONS:

B/W:	BARBED WIRE FENCE
C/B:	CLOSE BOARDED FENCE
C/L:	CHAIN LINK FENCE
C/P:	CHESTNUT PALING FENCE
CONC/P:	CONCRETE PANEL FENCE
I/R:	IRON RAILING FENCE
P/R:	POST AND RAIL FENCE
P/W:	POST AND WIRE FENCE
P/C:	POST AND CHAIN FENCE
S/PAL:	STEEL PALISADE FENCE
S/B:	SAFETY BARRIER
T/PAL:	TIMBER PALISADE FENCE

Revision Information

Rev	Date	Description

INFORMATION

1) Ordnance Survey co-ordinates and level are derived from OSTN15 and OSGM15, transformed from WGS84.

2) Only services located during the site survey are shown on this plan. Further investigation may be required to ascertain the full extent of the site services.

3) Copyright of this drawing remains the property of PM Surveys UK Ltd. Do not scale from this drawing. In the event of any discrepancy, refer query to PM Surveys UK Ltd.

NOTES

PM SURVEYS UK

PM Surveys UK Ltd
Unit 3, Queensferry Industrial Estate
Pentre
Flintshire, CH5 2DJ
Tel: 01244 952477
Email: info@pmsurveys.co.uk

Client Info

Denbighshire CC
Caledfryn
Smithfield Road
Denbigh

Tel:
Email: melvyn.edwards@denbighshire.gov.uk

Project

Maes Emlyn
Rhyl
GPR Survey

Project No PMS22185	Sheet: A0 Scale: 1:200	Surveyed By:	DJ TW HBB
		Drawn By:	JW
		Approved By:	PM
Dwg PMS22185-02		Issued:	30/08/22

Appendix F Proposed Development Plan

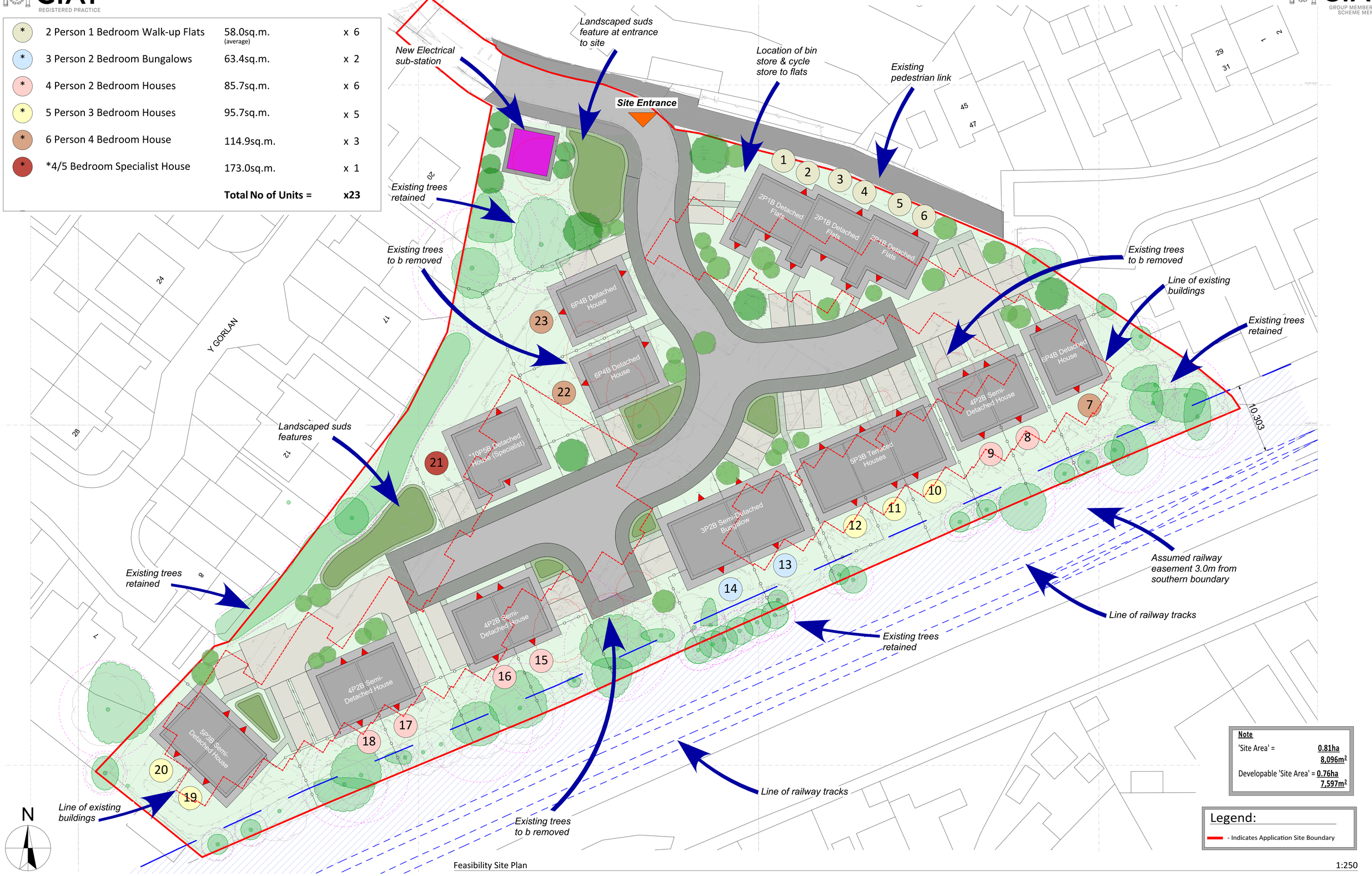
A1 Drawing sheet (594mm x 841mm)

CIAT
REGISTERED PRACTICE

Proposed Residential Development,Maes Emlyn, Rhyl, Denbighshire LL18 4AB

CIAT
GROUP MEMBERSHIP SCHEME MEMBER

*	2 Person 1 Bedroom Walk-up Flats	58.0sq.m. (average)	x 6
*	3 Person 2 Bedroom Bungalows	63.4sq.m.	x 2
*	4 Person 2 Bedroom Houses	85.7sq.m.	x 6
*	5 Person 3 Bedroom Houses	95.7sq.m.	x 5
*	6 Person 4 Bedroom House	114.9sq.m.	x 3
*	*4/5 Bedroom Specialist House	173.0sq.m.	x 1
		Total No of Units =	**x23**



Note

'Site Area' = **0.81ha / 8,096m²**

Developable 'Site Area' = **0.76ha / 7,597m²**

Legend:

- Indicates Application Site Boundary

Feasibility Site Plan

1:250

Revision:	Date:	By:
Revision A - Unit density increase to 25 with the addition of walk-up flats	11th November 2025	RH
Revision B - Walk-up flats to Plots 21 to 25 replaced with 2 x 4-bed houses, reducing density to 23 units	14th November 2025	RH

Notes:

RLH architectural
01348 435004
design@rlharchitectural.com
www.rlharchitectural.com

Tai Wales & West Housing

Client: Tai Wales & West Housing

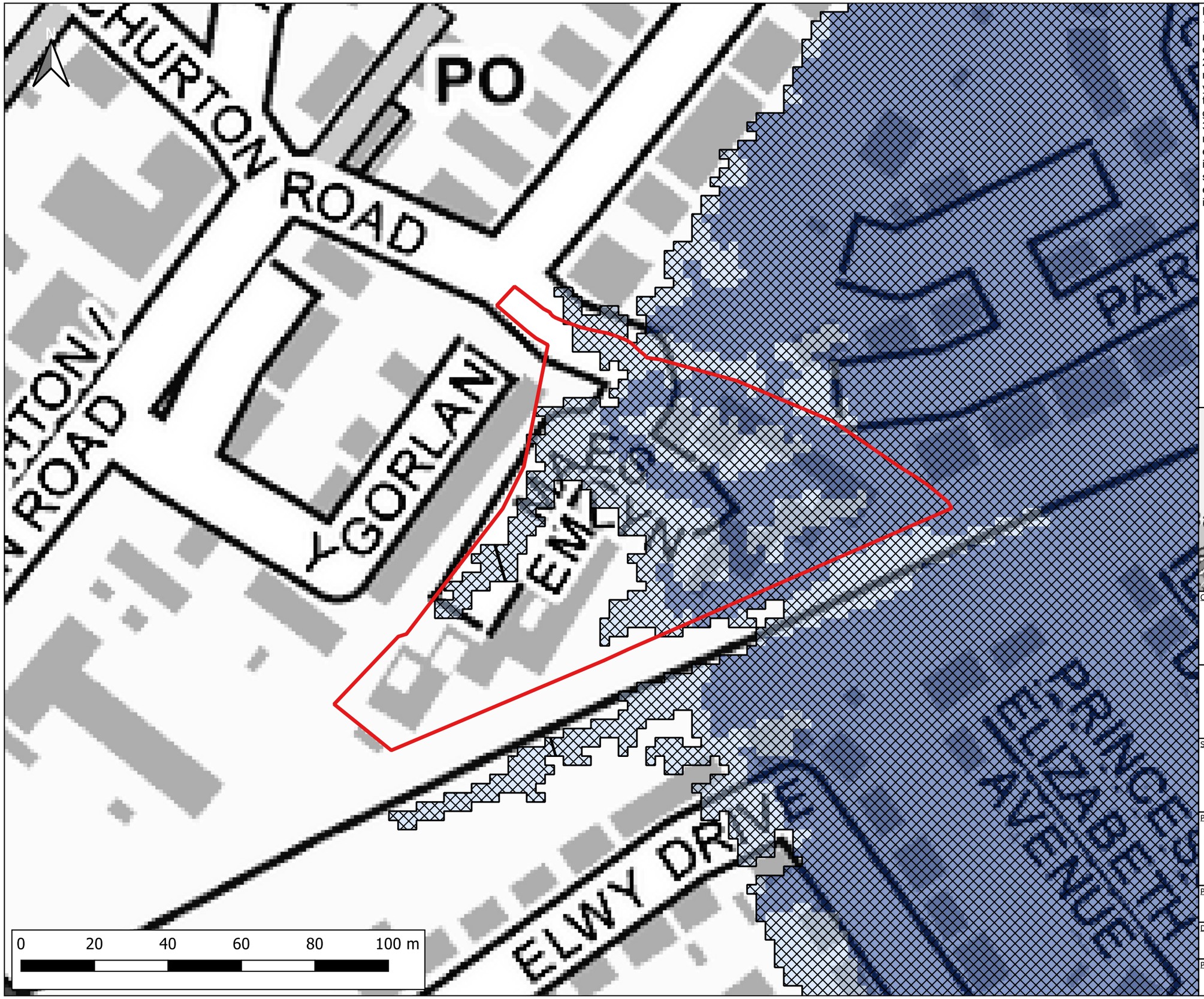
Scale: Noted
Date: Oct '25
Drawn: RH

Drawing Title: 100 SERIES DRAWINGS - Feasibility Site Plan

Job Title: Proposed Residential Development,Maes Emlyn, Rhyl, Denbighshire LL18 4AB

R622 - 104B

Appendix G NRW Maps and Correspondence



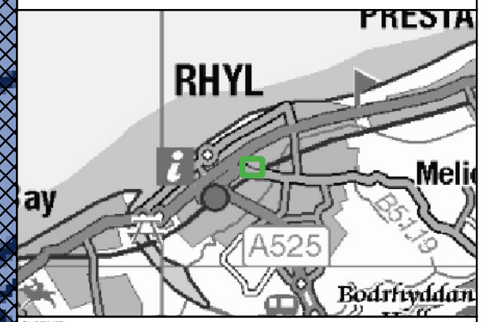
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise
2) Flood Zone 3 displays the extent of flooding from rivers with a 1% AEP or greater of flooding in a given year including and allowance for climate change and the sea with a 0.5% AEP or greater of flooding in a given year including and allowance for climate change
3) Flood Zone 2 displays the extent of flooding from rivers with a less than 1% AEP but greater than or equal to 0.1% AEP of flooding in a given year including and allowance for climate change and the sea with a less than 0.5% AEP but greater than or equal to 0.1% AEP of flooding in a given year including an allowance for climate change

LEGEND

- Site Boundary
- TAN15 Defended Zones

Flood Map for Planning

- Flood Zone 1
- Flood Zone 2
- Flood Zone 3



CLIENT:
Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
NRW Flood Map for Planning (Rivers and Sea)
Data published May 2025

PLOT STATUS:	DATE:
FINAL	27-01-2026

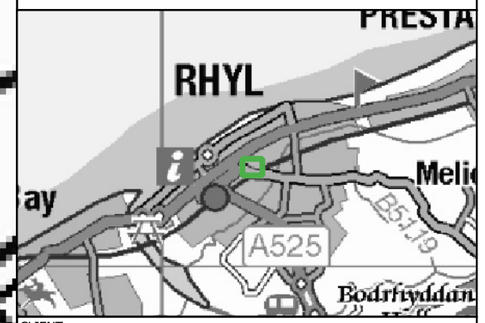
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:1000

PLOT NAME:	REVISION:
14973_NRW_FMfP	-

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

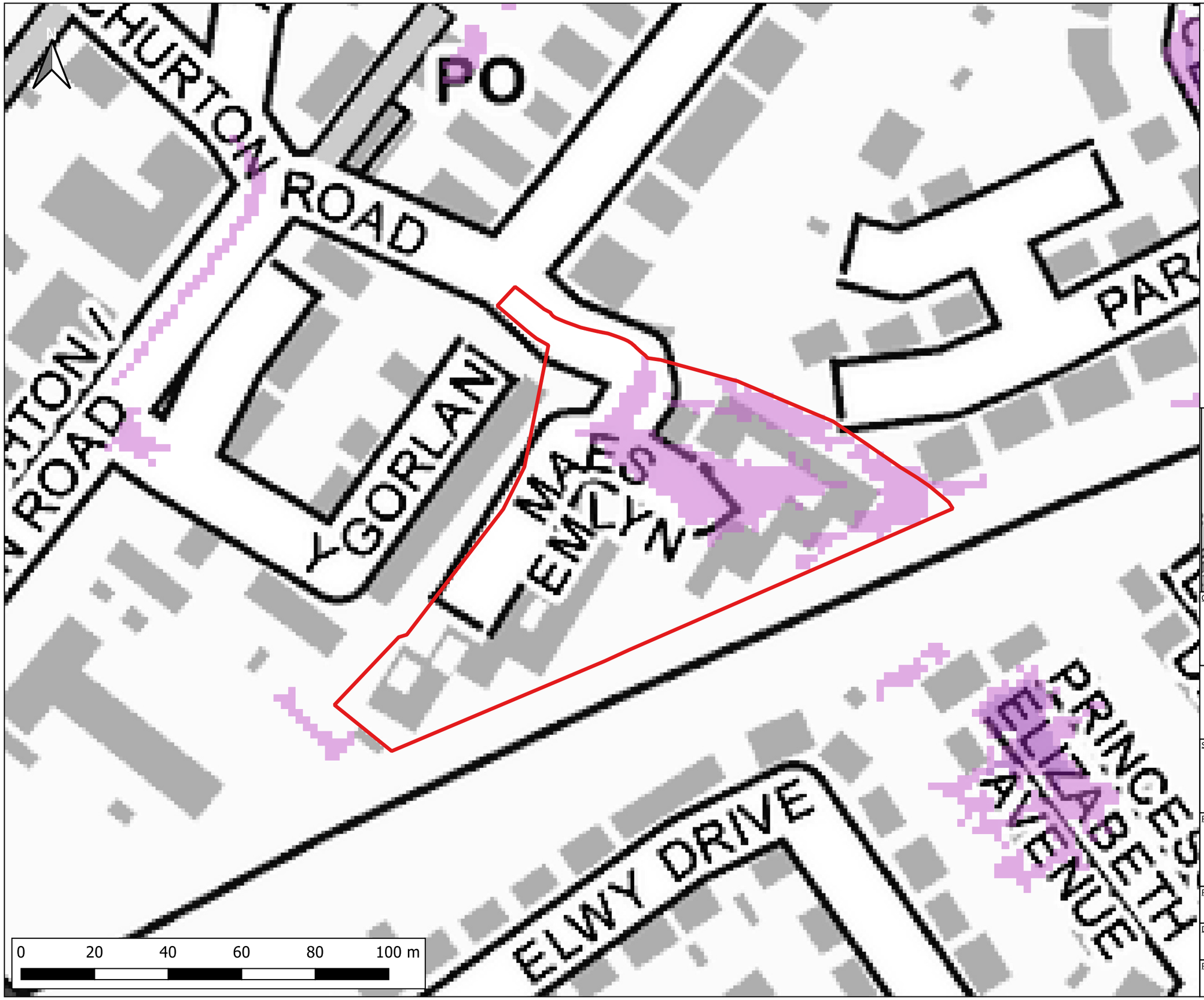
LEGEND

- Site Boundary
- Flood Zones - Rivers
  - Flood Zone 1
  - Flood Zone 2
  - Flood Zone 3



0 20 40 60 80 100 m

CLIENT:	Enfys Developments Ltd
	www.waterco.co.uk
SCHEME:	Maes Emlyn, Rhyl
PLOT TITLE:	NRW Flood Zones - Rivers Data published May 2025
PLOT STATUS: FINAL	DATE: 27-01-2026
DRAWN: ER / CHECKED: JJ / APPROVED: AW	PLOT SCALE AT A3: 1:1000
PLOT NAME: 14973_NRW_Flood_Zones_Rivers	REVISION: -



Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

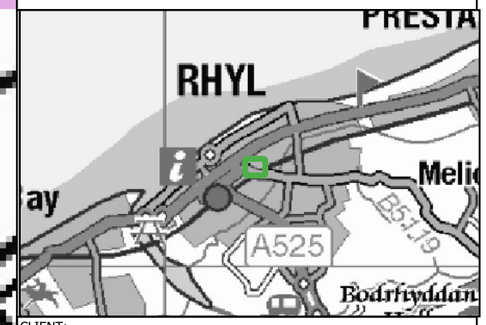
Site Boundary

Flood Zones - Surface Water & Small Watercourses

Flood Zone 1

Flood Zone 2

Flood Zone 3



CLIENT:

Enfys Developments Ltd

Waterco

www.waterco.co.uk

SCHEME:

Maes Emlyn, Rhyl

PLOT TITLE:

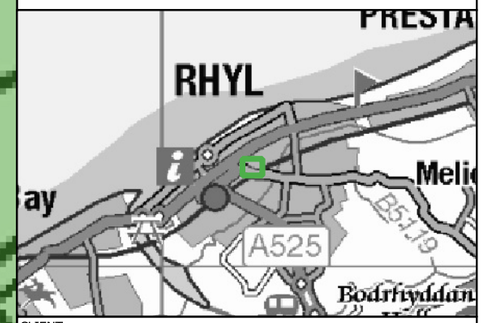
NRW Flood Zones - Surface Water & Small Watercourses
Data published May 2025

PLOT STATUS:			DATE:
FINAL			27-01-2026
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:1000
PLOT NAME:			REVISION:
14973_NRW_Flood_Zones_Surface_Water			-

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

- Site Boundary
- Flood Zones - Sea
  - Flood Zone 1
  - Flood Zone 2
  - Flood Zone 3



CLIENT:
Enfys Developments Ltd

Waterco
www.waterco.co.uk

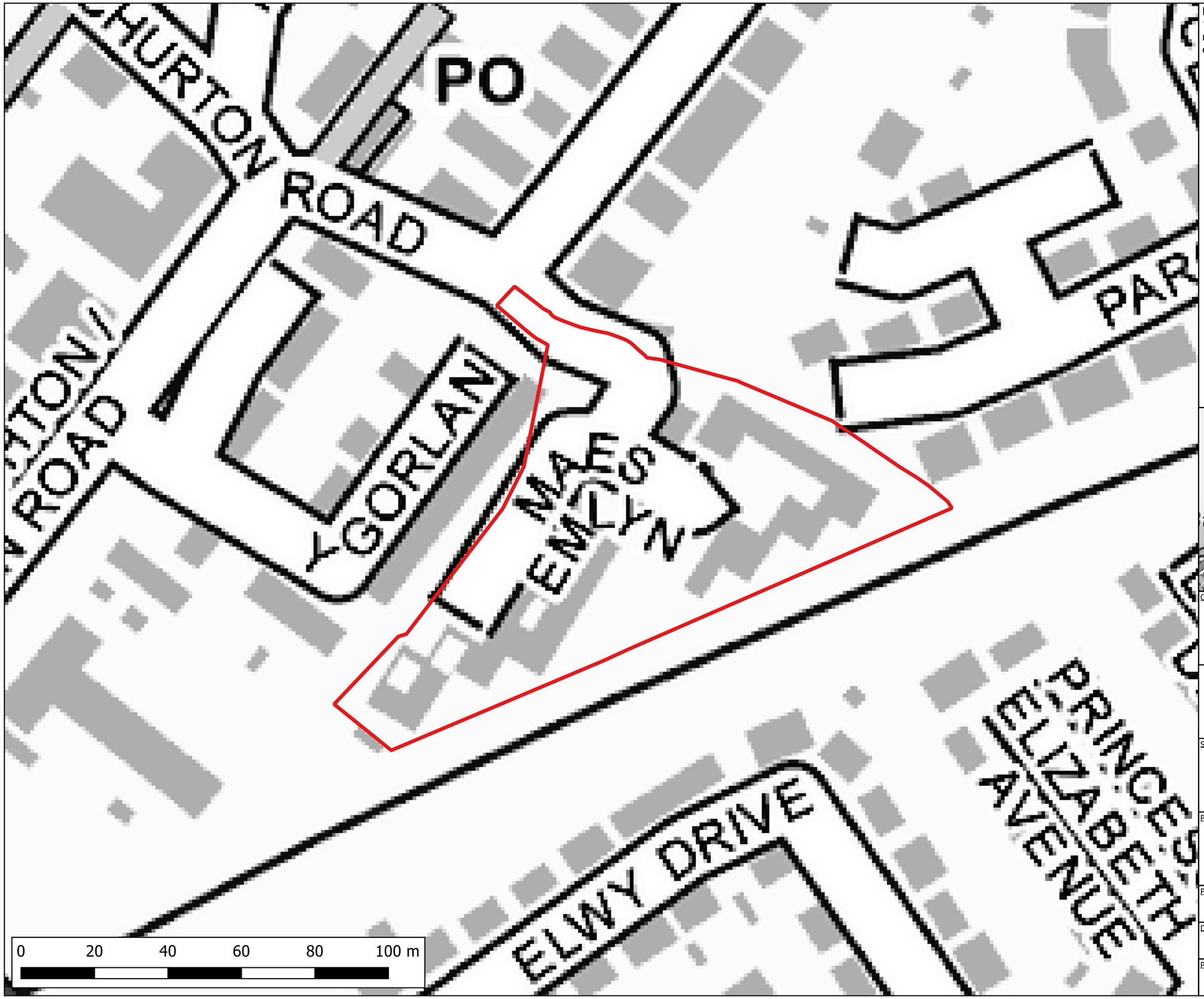
SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
NRW Flood Risk from the Sea
Data published May 2025

PLOT STATUS:	DATE:
FINAL	27-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:1000

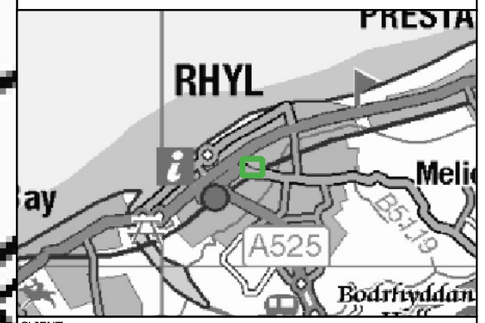
PLOT NAME:	REVISION:
14973_NRW_Flood_Zones_Sea	-



Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

- Site Boundary
- NRW Recorded Flood Extents



CLIENT:
Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
NRW Recorded Flood Extents
Data published May 2025

PLOT STATUS:	DATE:
FINAL	27-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:1000

PLOT NAME:	REVISION:
14973_NRW_Recorded_Flood_Extents	-

Cyfoeth Naturiol Cymru
Natural Resources Wales

Ein cyf/Our ref: CAS-201285-M8B0
Eich cyf/Your ref: 14973-FCA

Maes Y Ffynnon,
Penrhosgarnedd,
Bangor,
Gwynedd
LL572DW

Adam Muculloch
Waterco

ebost/email:
northplanning@cyfoethnaturiolcymru.gov.uk

25/10/2022

Dear Sir,

PRELIMINARY PRE-APPLICATION ADVICE

PROPOSAL: DEVELOPMENT PLANS ARE CURRENTLY BEING PREPARED HOWEVER WILL BE SUBJECT TO FLOOD RISK CONSTRAINTS. AS PER THE ATTACHED, THERE ARE CURRENTLY 59 FLATS ON SITE. DEVELOPMENT PROPOSALS WOULD BE FOR UP TO 40 UNITS.

LOCATION: MAES EMLYN, RHYL, LL18 4AB

Thank you for consulting Cyfoeth Naturiol Cymru / Natural Resources Wales about the above pre-application enquiry, which we received on 14th October 2022.

We have considered your enquiry in relation to our Development Planning Consultations Topics document (September 2018). We advise that the following matters are relevant to your site / proposed development and suggest you consider these further prior to the submission of any planning application:

Flood Risk Management

The planning application proposes highly vulnerable development (Residential). The application site is within Zone A of the Development Advice Map (DAM) contained in TAN15 (2004). However, our Flood Map for Planning (FMfP) identifies the application site to be at risk of flooding and within Flood Zone 2/3 Sea.

As confirmed in the letter from Welsh Government dated 15 December 2021, the FMfP represents better and more up-to-date information on areas at flood risk than the DAM. Therefore, we advise you produce a Flood Consequences Assessment (FCA), to demonstrate that the consequences of flooding can be acceptably managed over the lifetime of development. The criteria for the FCA, which should normally be undertaken by a suitably

qualified person carrying an appropriate professional indemnity, are given in Section 7 and Appendix 1 of TAN15 (2004). The FCA should be proportionate to the development proposed. You may also refer to our website, which contains technical advice and recommendations.

The site is currently occupied by 59 flats. The proposal is for redevelopment of the site to provide up to 40 residential units. The information submitted does not confirm whether these would consist of flats or individual units all with ground floor living space. As such, is not clear if the proposal would result in an intensification of use of the site, and confirmation on this point would be needed from the Local Planning Authority (LPA).

There is a requirement to prepare a Flood Consequences Assessment (FCA) in support of the planning application. The FCA would need to demonstrate that the consequences of flooding are acceptable in accordance with the requirements of TAN15. The primary source of flood risk at the site is tidal flood risk. We would expect the FCA to refer to outputs from the Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) and the Denbighshire Strategic Flood Consequences Assessment (SFCA) when preparing the FCA, including specific reference to the 0.5% Annual Exceedance Probability (AEP) breach event with an allowance for climate change, which is the design event.

If the proposal is considered to be an intensification of use, then the FCA would need to demonstrate that the site can be designed to be flood free in the design event. If the LPA confirms that the proposal does not result in an intensification of use compared to the current highly vulnerable land use at the site, then we would expect flood risk betterment to be provided compared to the existing situation. We would expect this to include raising finished floor levels higher than existing and incorporation of flood resistance/resilience techniques.

The FCA should also consider the 0.1% AEP breach event with climate change, in relation to the requirements of sections A1.12 and A1.15 of TAN15. In order to comply with section A1.12, the FCA will need to show that the development proposal does not increase flood risk elsewhere in up to the 0.1% AEP breach event with climate change. This requirement will apply irrespective of whether the proposal is considered to be an intensification or not.

Any flood risk data we hold for the site can be requested by submitting a request for environmental data. The criteria for the FCA, which should normally be undertaken by a suitably qualified person carrying an appropriate professional indemnity, are given under Section 7 and Appendix 1 of TAN15.

European Protected Species (EPS)
Our records show there may be protected species in the vicinity of the site. We advise liaison with the LPA ecologist to discuss and agree the scope of any surveys required.

We refer you to our website for further advice.

Foul Drainage
Before deciding a planning application, the LPA needs to be satisfied the foul drainage arrangements for the proposed development are suitable. From the details submitted there

is no reference to the foul drainage arrangements for the proposed development. We recommend you provide details regarding foul drainage arrangements with any planning application.

We refer you to WG Circular 008/2018 on private drainage, and specifically paragraphs 2.3-2.5, which stress the first presumption must be to provide a system of foul drainage discharging into a public sewer.

Groundwater protection and land contamination
Advice on environmental considerations and the assessments needed to support your planning application can be found on our external website.

- For advice on how to deal with possible land contamination on your development visit: http://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-developers/land-contamination/?lang=en
- For advice on how to protect groundwater at your development visit: http://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-developers/protecting-groundwater/?lang=en

Provision of Data
In addition to the above, please note, we can also provide certain data free of charge, as set out in our Open Data Policy. Customers can access our data via our website.

Other Matters

Please note the view expressed in this letter is a response to a pre-planning enquiry only. We trust these comments will prove helpful but they should not set a precedent for any future Natural Resources Wales' response to any formal application for planning permission or other legal consent. Such applications shall be assessed on the information submitted and regulations of relevance at that time. The details contained in this letter are based on the information available to date.

As part of our discretionary advice service we can provide further advice relating to land contamination, groundwater and flood risk prior to your planning application being submitted. There is a charge for this service. Further details are available on our website.

If you have any queries on the above please do not hesitate to contact us.

Yours faithfully

Ruth Prichard
Cynghorydd - Cynllunio Datblygu / Advisor - Development Planning
Cyfoeth Naturiol Cymru / Natural Resources Wales

Appendix H Modelled Output Maps

Rhyl Cut and Prestatyn Gutter Model (fluvial and tidal)

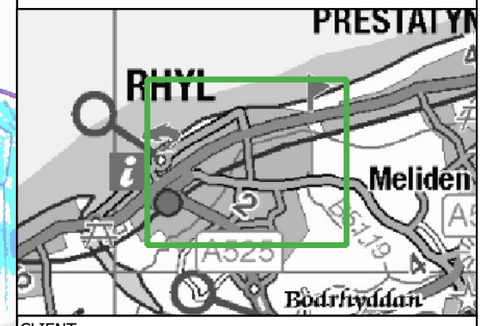
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'RhylPrestatyn_5_V1.0_2019 Model' and its 2021 update.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Development Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
RHYL CUT AND PRESTATYN GUTTER - FLUVIAL AND TIDAL
3.33% AEP FLUVIAL COINCIDING WITH A MHWS (2120) EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	13-12-2022

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
AM	JR	AW	1:10000

PLOT NAME: 14973_RCPGQ30DEF+100YEARMHWS_dMax
REVISION: -

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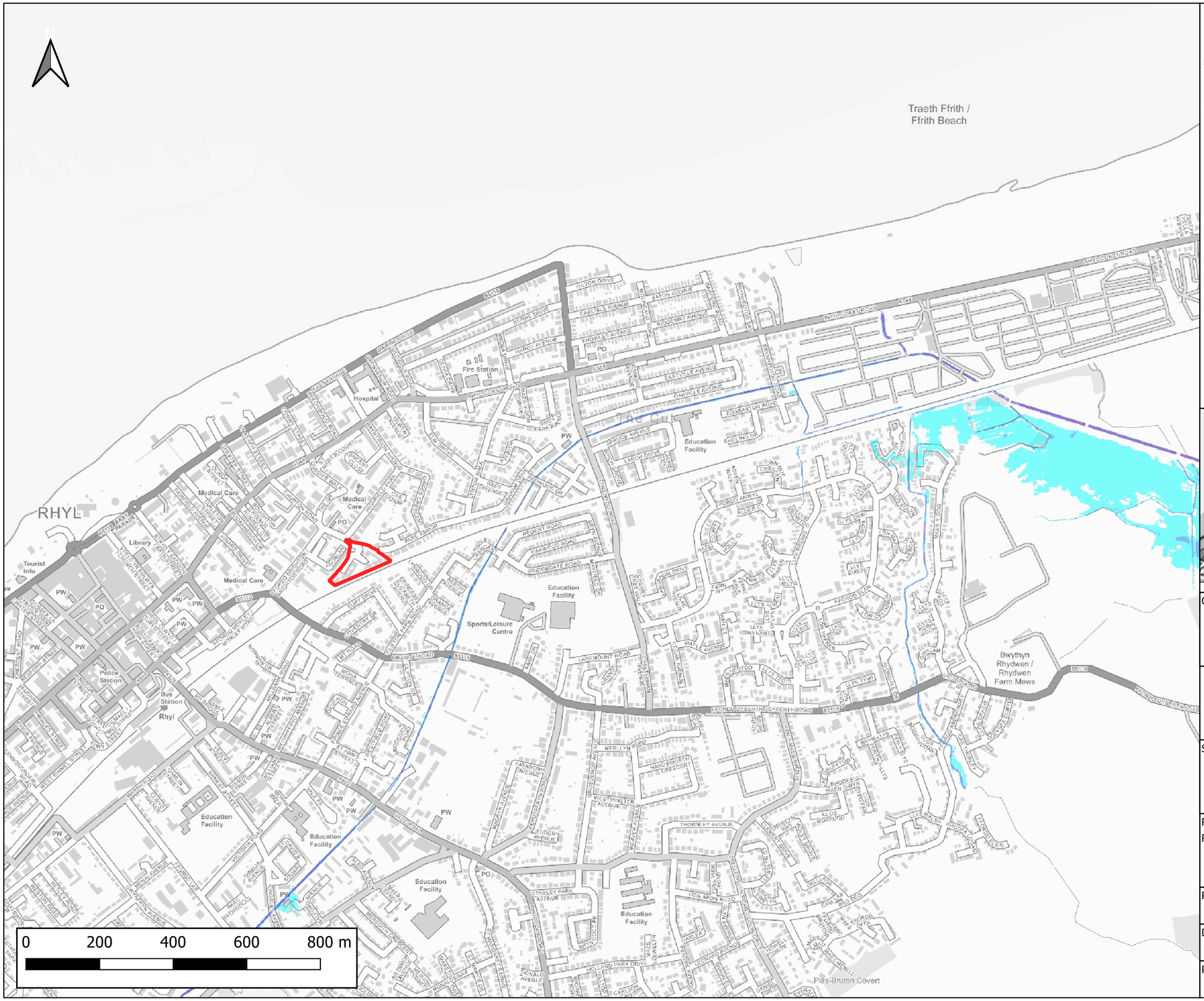

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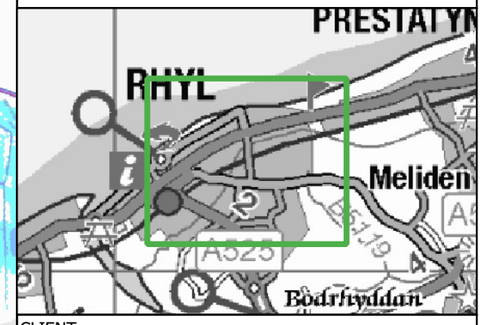

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PLOT NAME:	REVISION:
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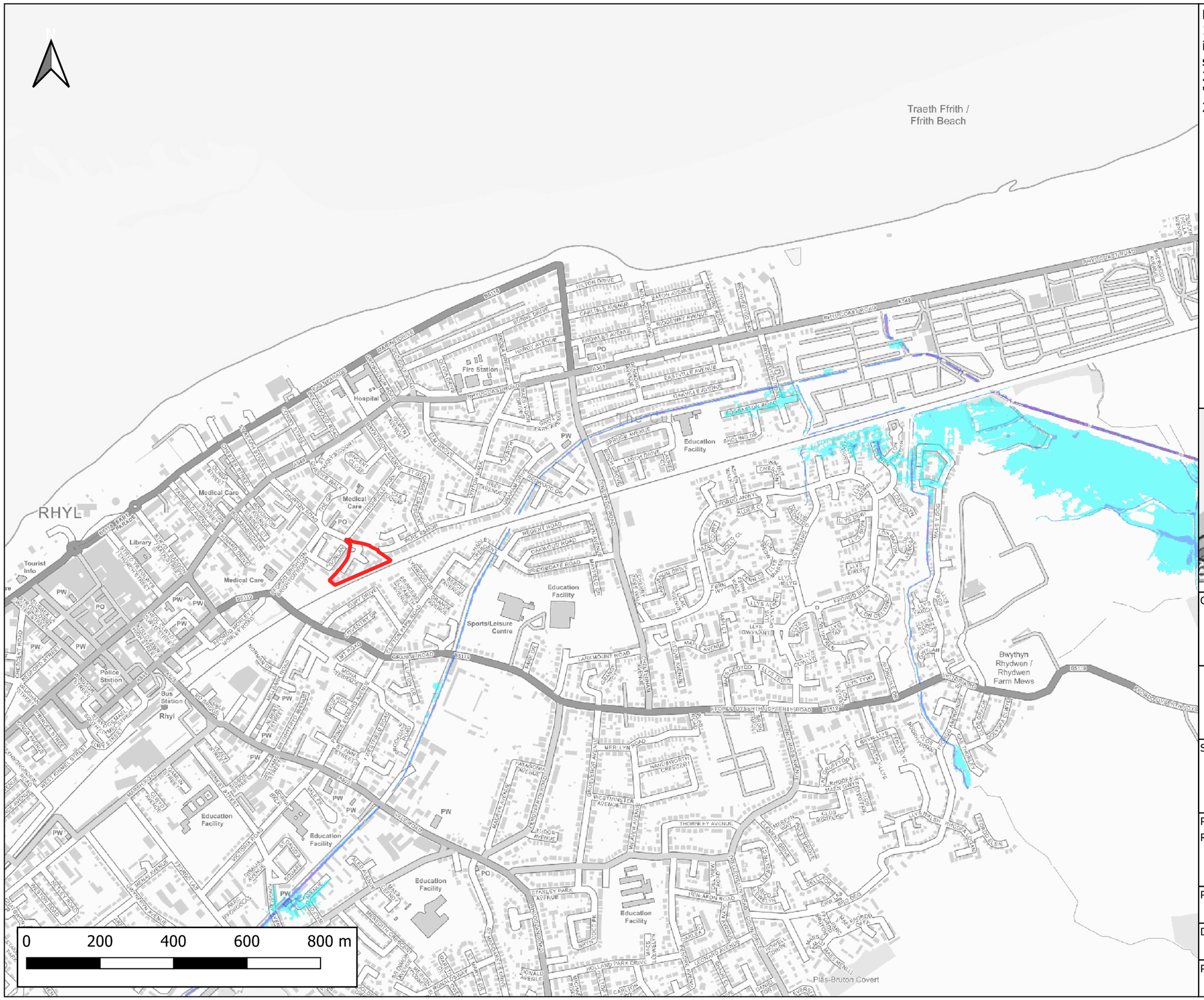

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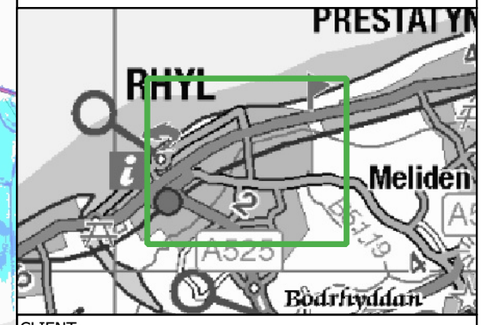

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SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
RHYL CUT AND PRESTATYN GUTTER - FLUVIAL AND TIDAL
1% AEP FLUVIAL COINCIDING WITH A MHWS (2120) EVENT
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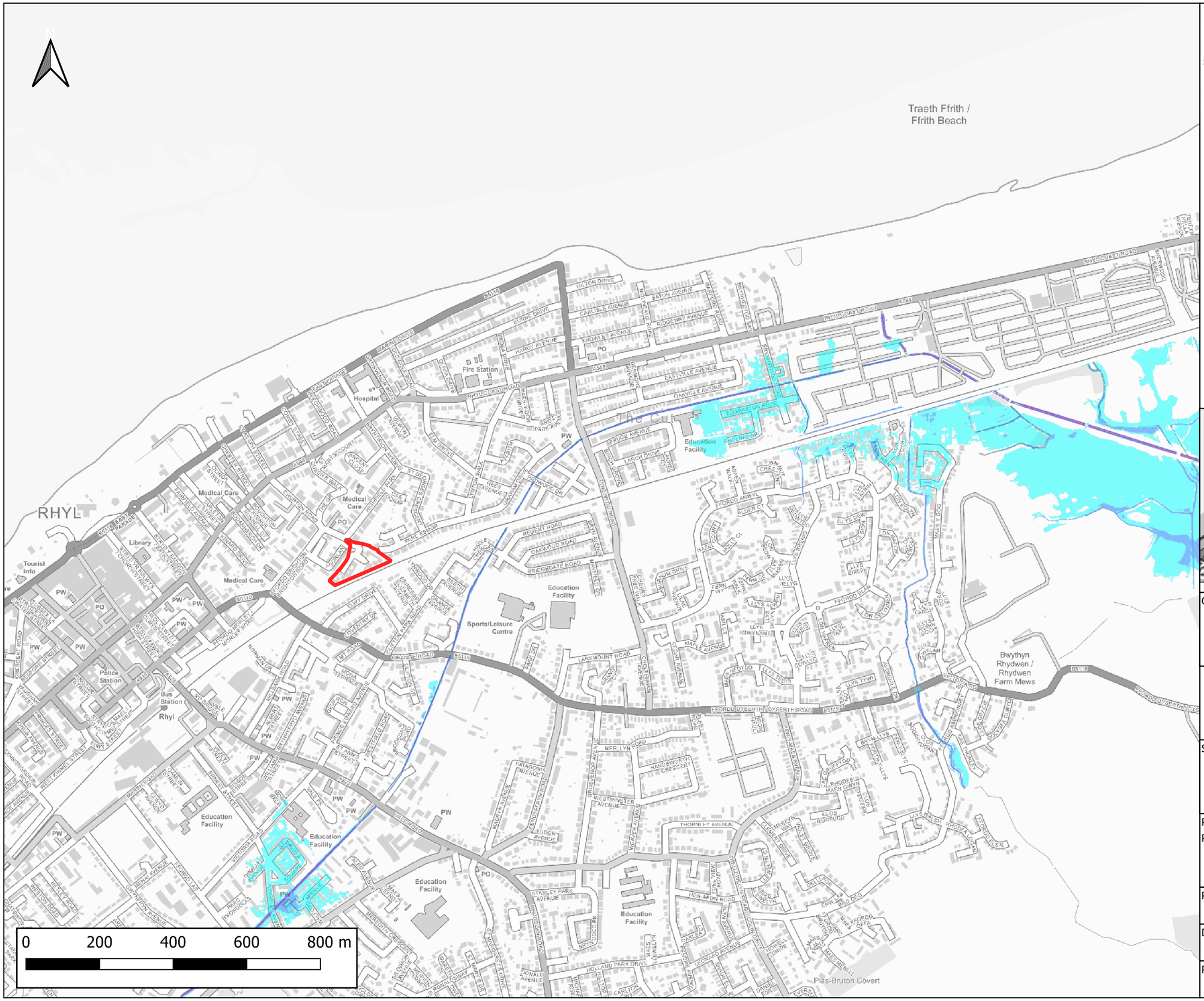

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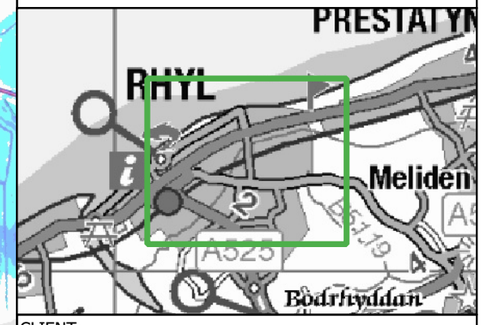

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SCHEME:
Maes Emlyn, Rhyl

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1% AEP PLUS 30% CC FLUVIAL COINCIDING WITH A MHWS (2120) EVENT
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PLOT NAME:	REVISION:
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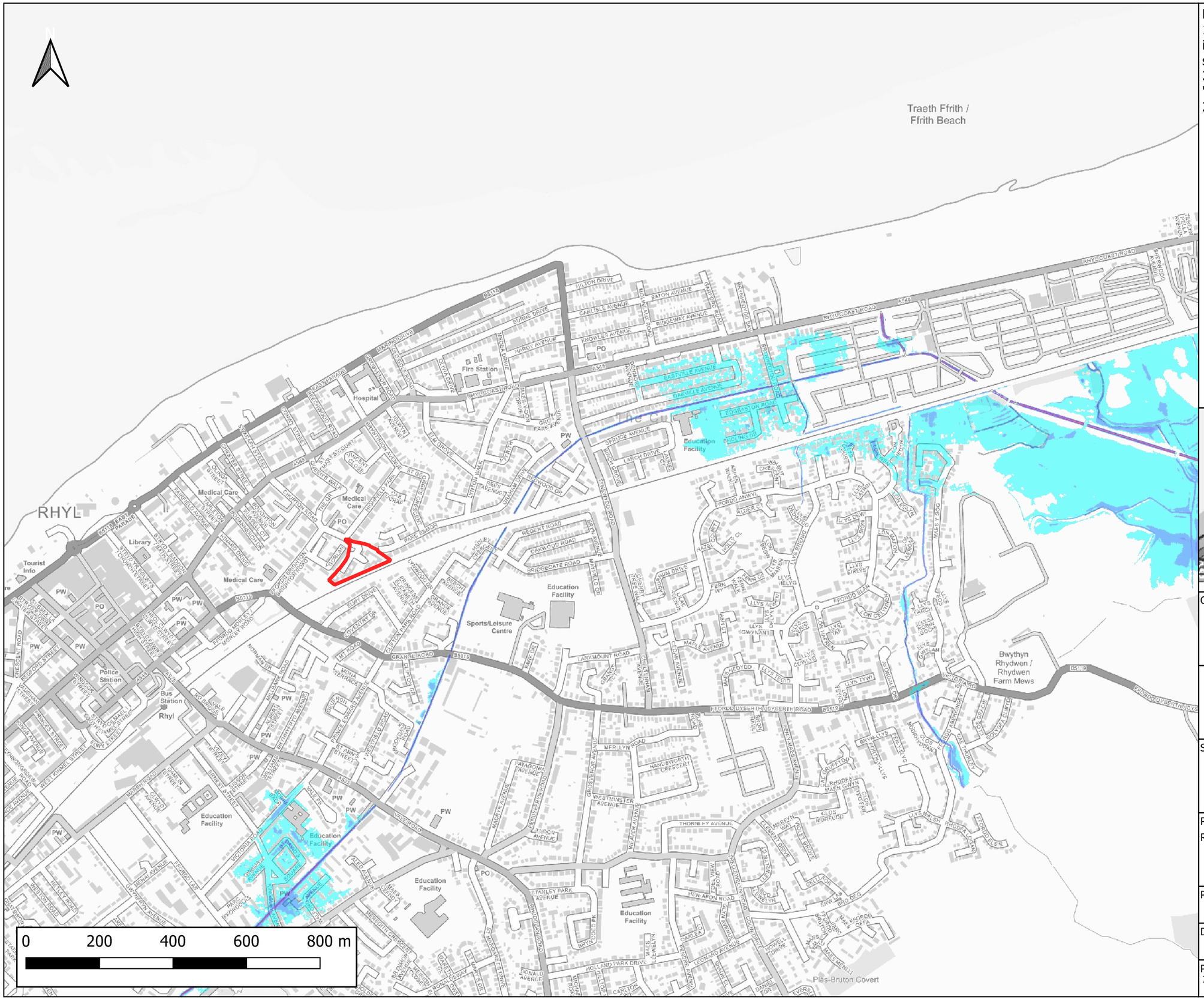

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1% AEP PLUS 75% CC FLUVIAL COINCIDING WITH A MHWS (2120) EVENT
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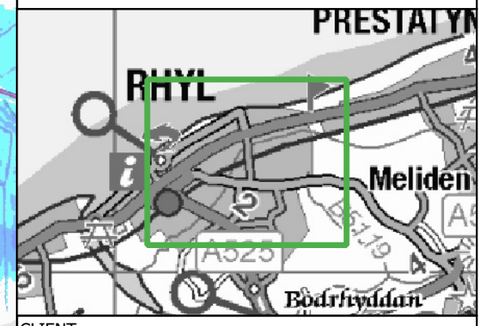

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SCHEME:
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PLOT TITLE:
MAXIMUM FLOOD DEPTH
RHYL CUT AND PRESTATYN GUTTER - FLUVIAL AND TIDAL
0.1% AEP FLUVIAL COINCIDING WITH A MHWS (2120) EVENT
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REVISION: -

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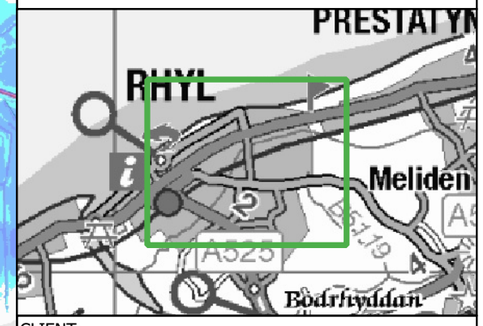

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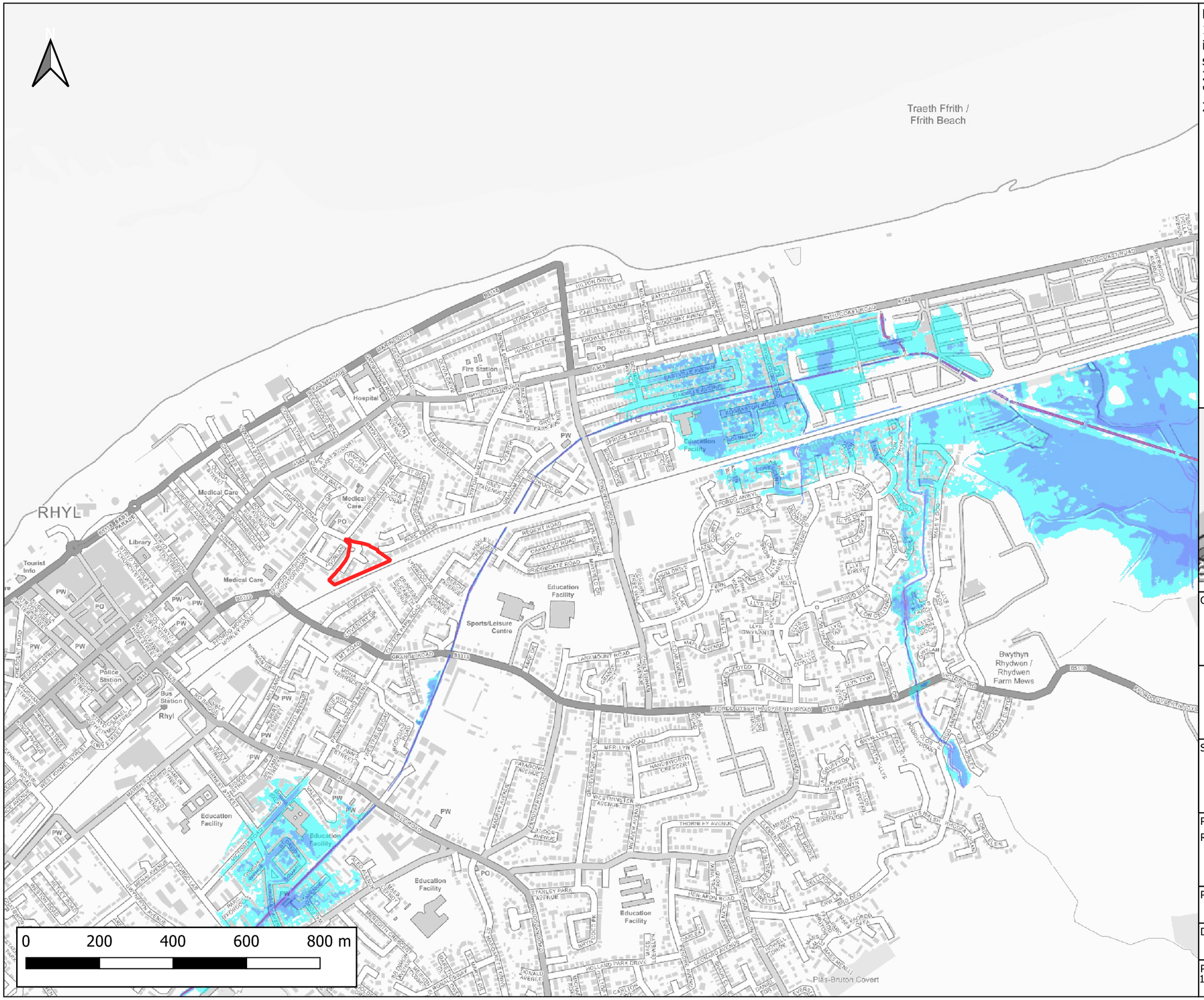

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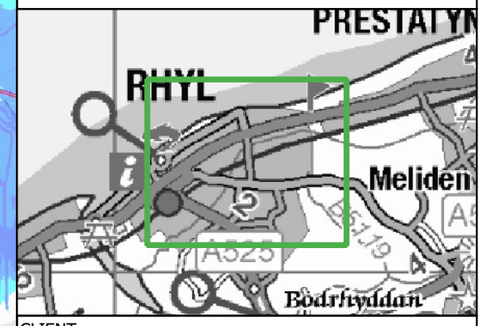

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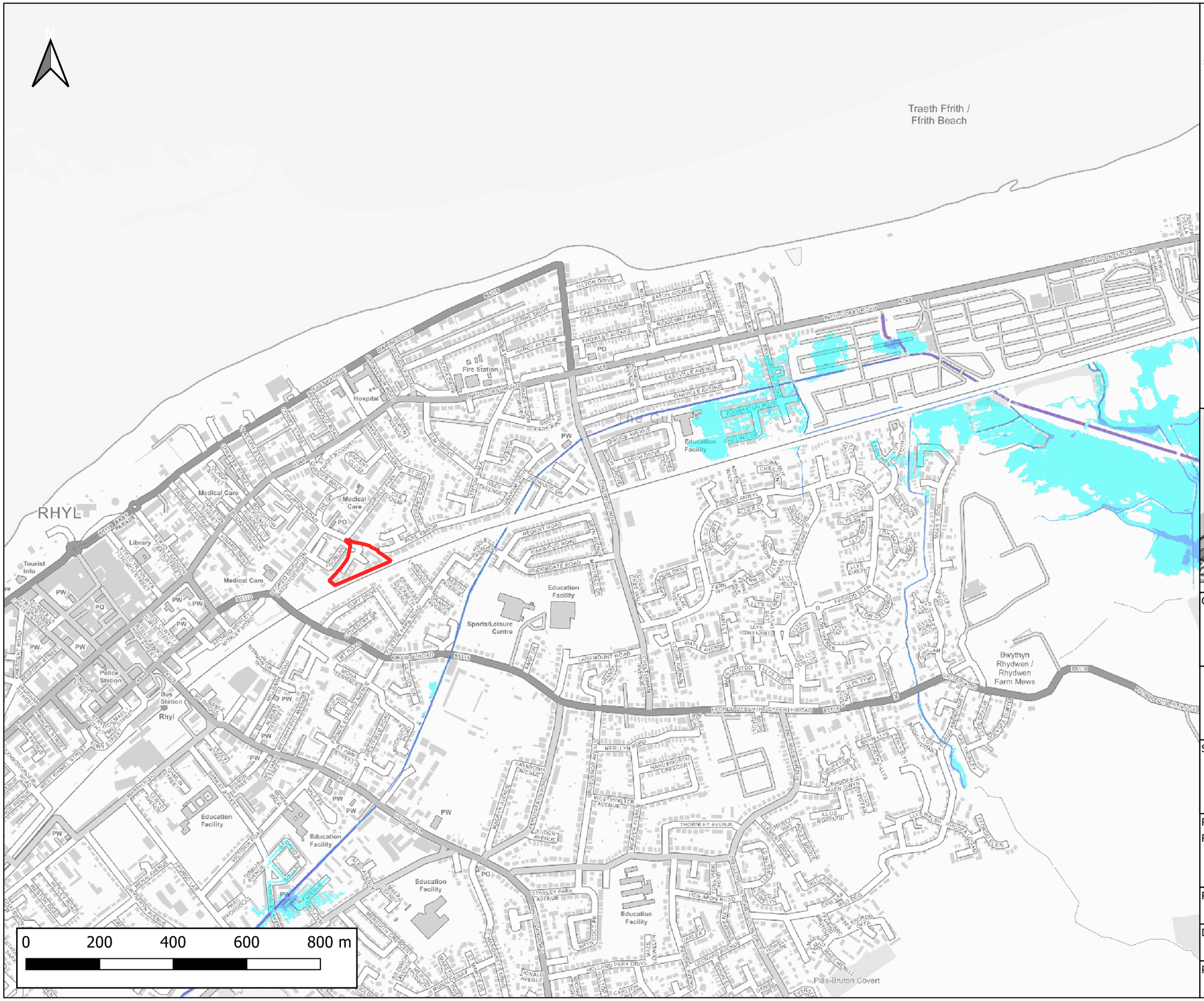

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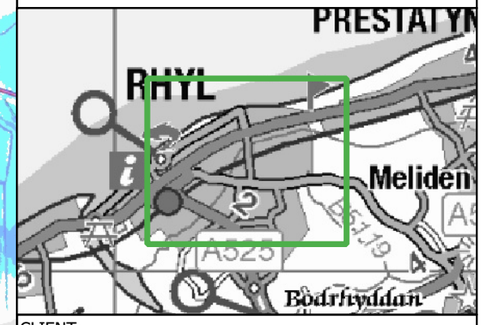

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3.33% AEP FLUVIAL COINCIDING WITH A MHWS (2120) EVENT EVENT
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PLOT NAME:	REVISION:
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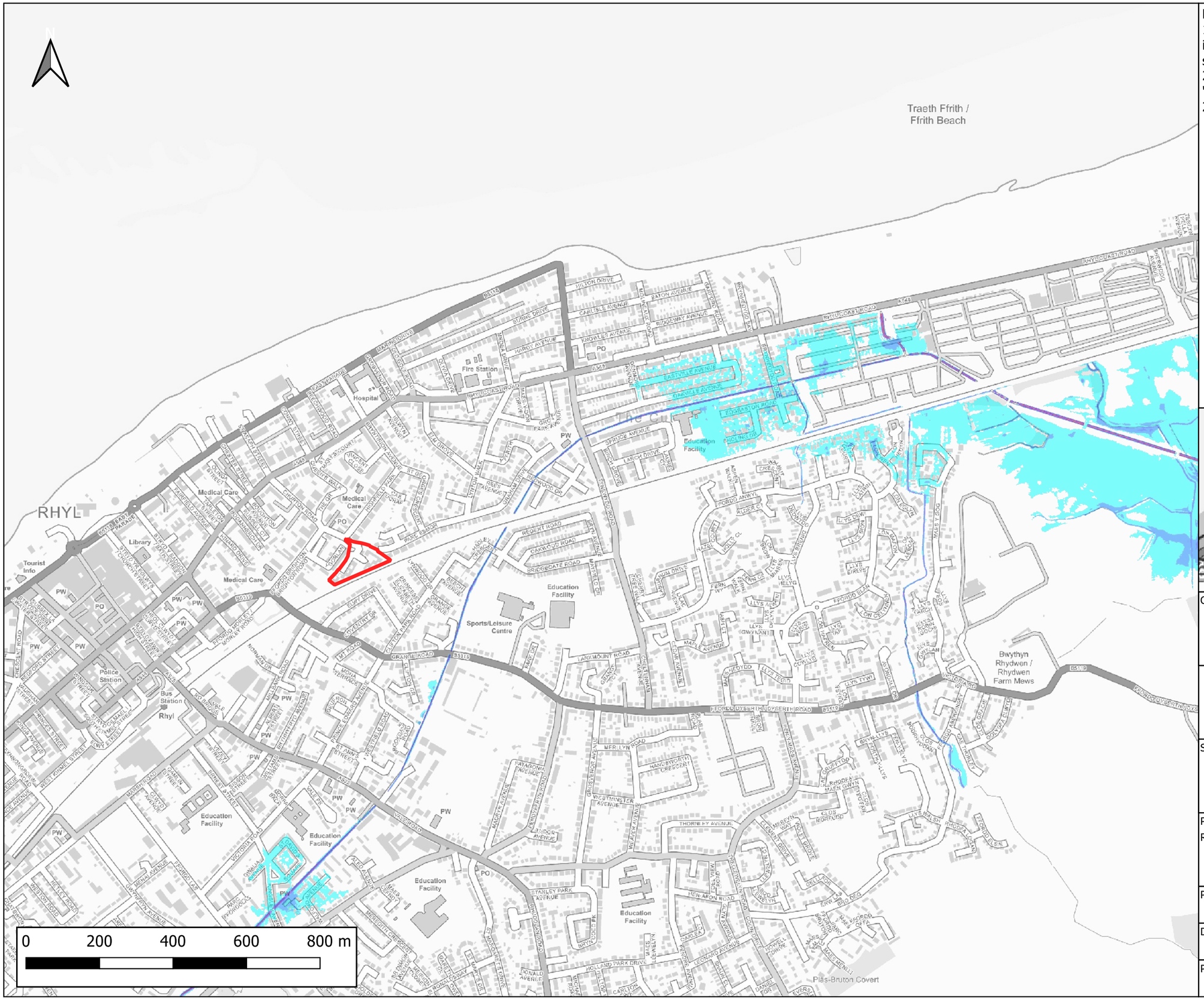

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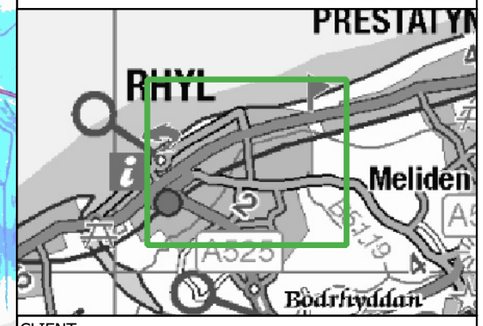

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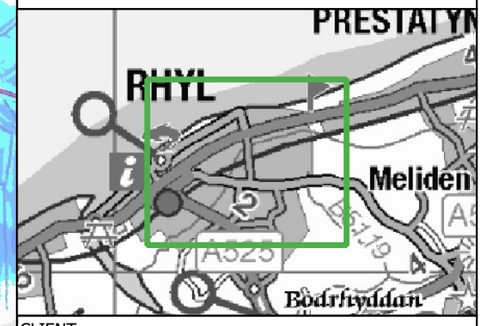

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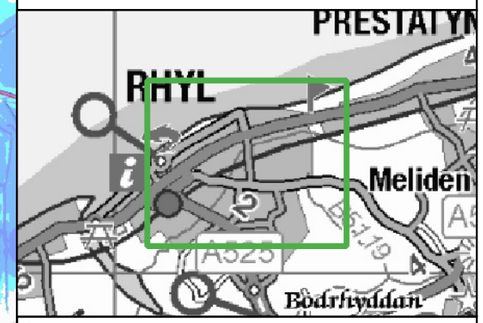

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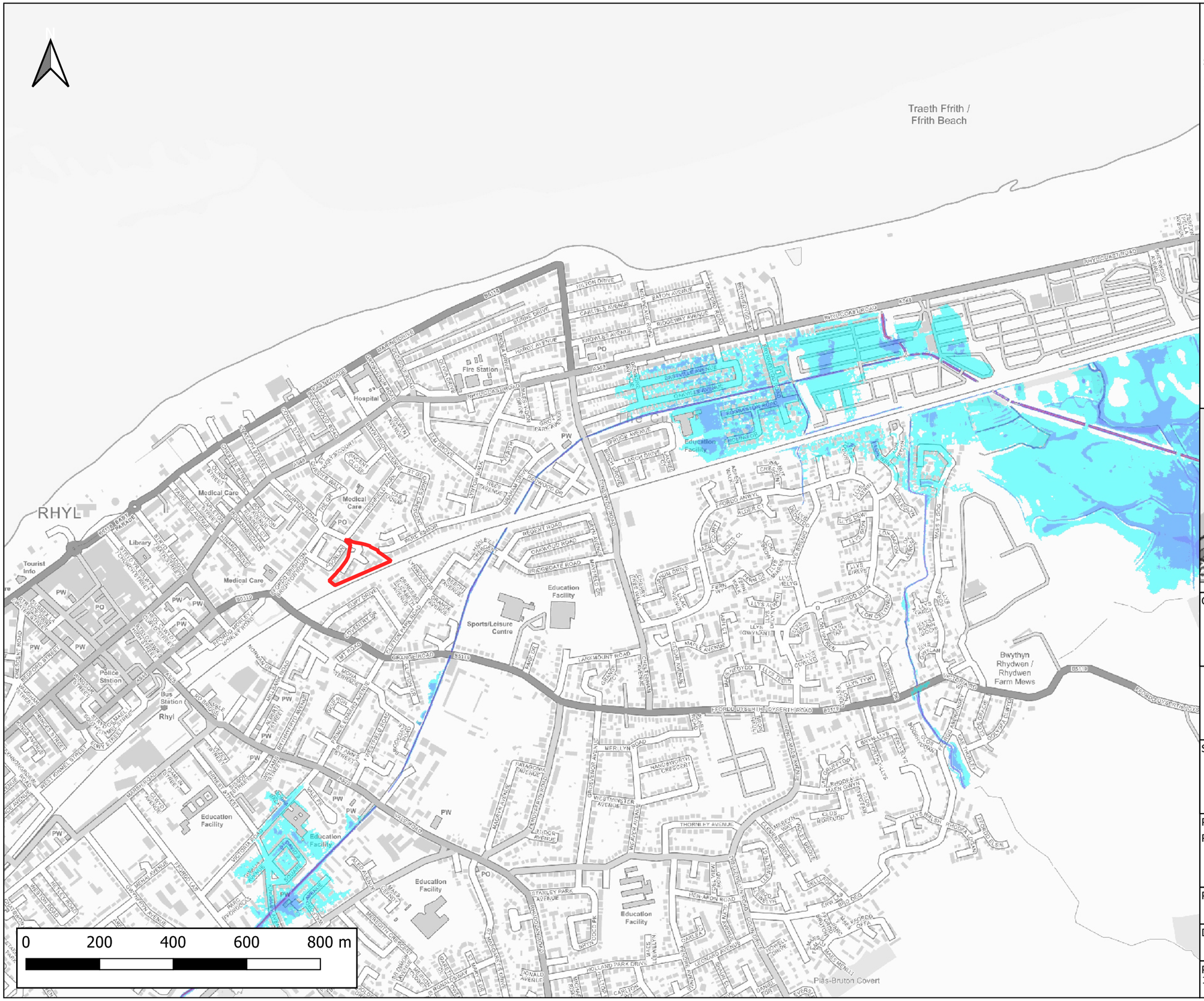

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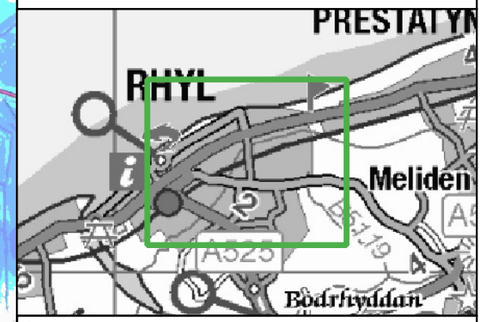

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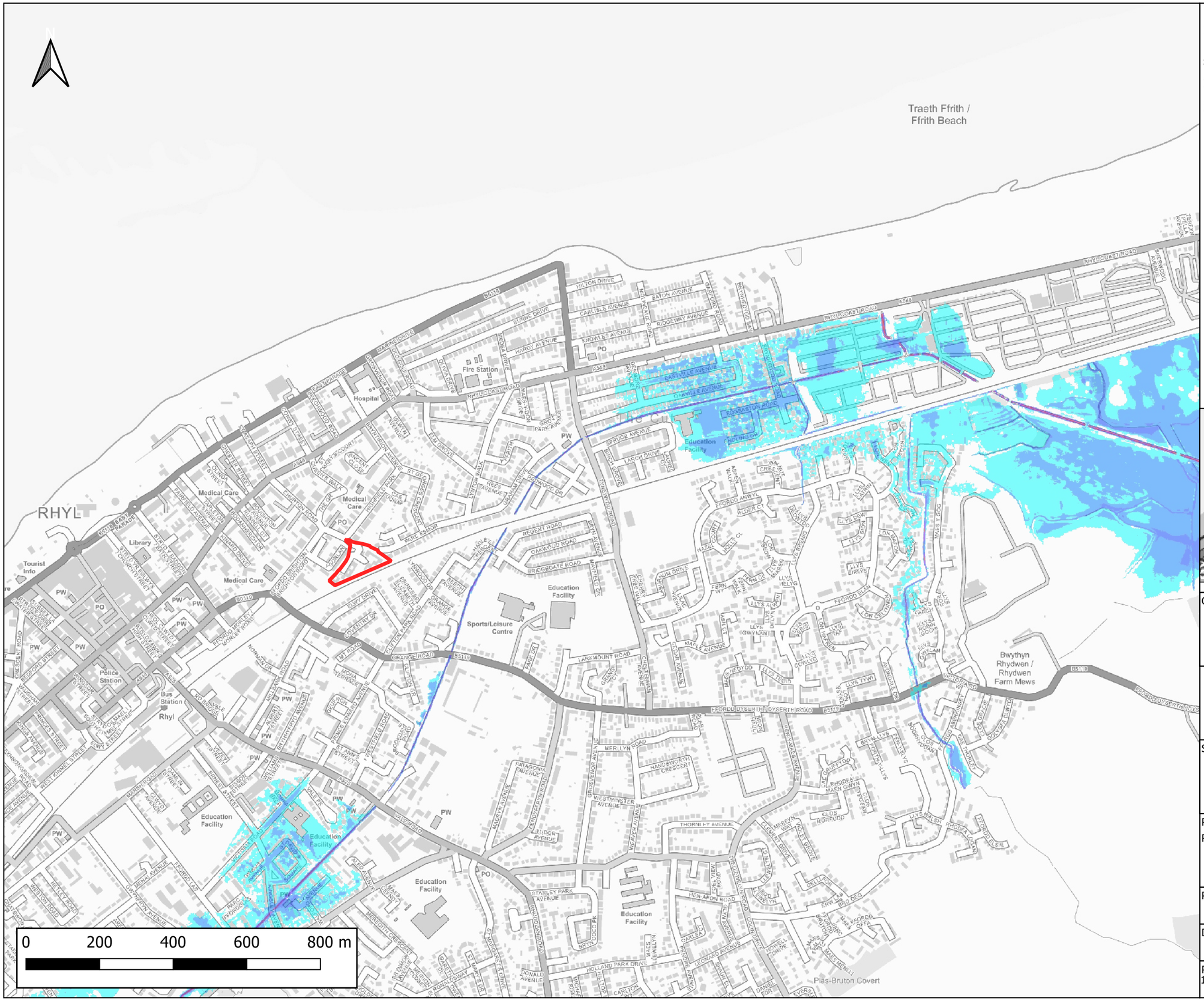
PLOT NAME:	REVISION:
14973_RCPGQ1000UND+100YEARMHWS_dMax	-



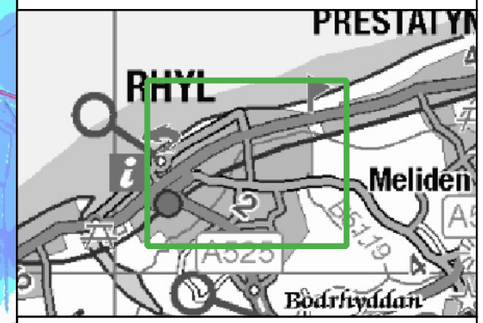
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'RhylPrestatyn_5_V1.0_2019 Model' and its 2021 update.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Development Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
RHYL CUT AND PRESTATYN GUTTER - FLUVIAL AND TIDAL
0.1% AEP PLUS 30% CC FLUVIAL COINCIDING WITH A MHWS (2120) EVENT
UNDEFENDED

PLOT STATUS:	DATE:
FINAL	13-12-2022

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
AM	JR	AW	1:10000

PLOT NAME:	REVISION:
14973_RCPGQ100030CC+100YEARMHWS_dMax	-

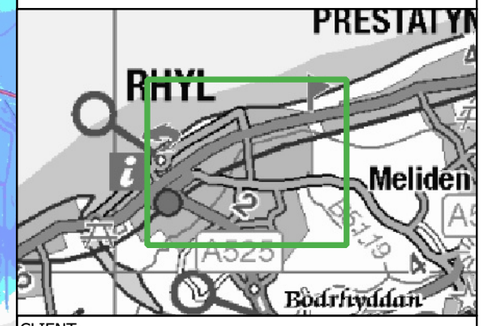
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'RhylPrestatyn_5_V1.0_2019 Model' and its 2021 update.

LEGEND

Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



0 200 400 600 800 m

CLIENT:
Enfys Development Ltd

www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
RHYL CUT AND PRESTATYN GUTTER - FLUVIAL AND TIDAL
0.1% AEP PLUS 75% CC FLUVIAL COINCIDING WITH A MHWS (2120) EVENT
UNDEFENDED

PLOT STATUS:	DATE:
FINAL	13-12-2022

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
AM	JR	AW	1:10000

PLOT NAME:	REVISION:
14973_RCPGQ100075CC+100YEARCCUND_dMax	-

Point of Ayr to Pensarn (tidal)

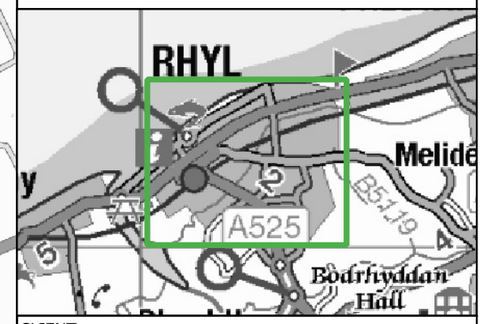
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) Model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:	Enfys Development Ltd
	www.waterco.co.uk
SCHEME:	Maes Emlyn, Rhyl
PLOT TITLE:	MAXIMUM FLOOD DEPTH POINT OF AYR TO PENSARN - TIDAL 1% AEP (2016) EVENT DEFENDED
PLOT STATUS:	FINAL
DATE:	13-12-2022
DRAWN:	AM
CHECKED:	JR
APPROVED:	AW
PLOT SCALE AT A3:	1:10000
PLOT NAME:	14973_POATPT_Q100DEF_dMax
REVISION:	-

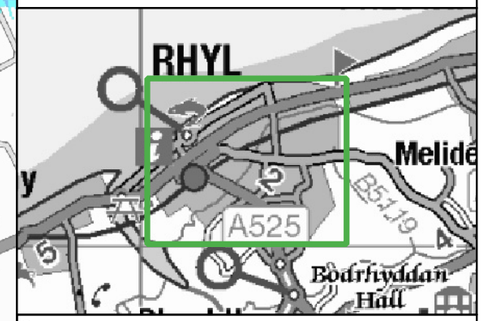
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) Model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Development Ltd

www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
POINT OF AYR TO PENSARN - TIDAL
1% AEP PLUS CLIMATE CHANGE (2117) EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	13-12-2022

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
AM	JR	AW	1:10000

PLOT NAME:	REVISION:
14973_POATPT_Q100CCDEF_dMax	-

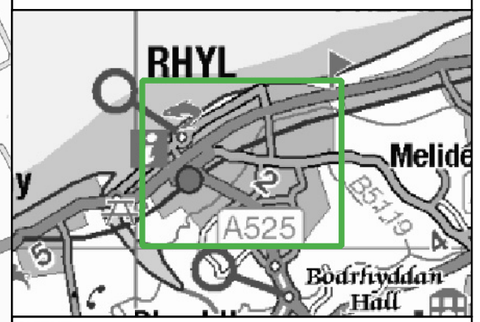
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) Model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT: Enfys Development Ltd

waterco
www.waterco.co.uk

SCHEME: Maes Emlyn, Rhyl

PLOT TITLE: MAXIMUM FLOOD DEPTH
POINT OF AYR TO PENSARN - TIDAL
0.5% AEP (2016) EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	13-12-2022

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
AM	JR	AW	1:10000

PLOT NAME:	REVISION:
14973_POATPT_Q200DEF_dMax	-

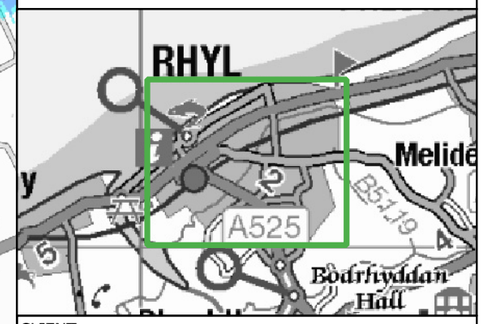
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) Model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Development Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE: MAXIMUM FLOOD DEPTH
POINT OF AYR TO PENSARN - TIDAL
0.5% AEP PLUS CLIMATE CHANGE (2117)
EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	13-12-2022

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
AM	JR	AW	1:10000

PLOT NAME:	REVISION:
14973_POATPT_Q200CCDEF_dMax	-

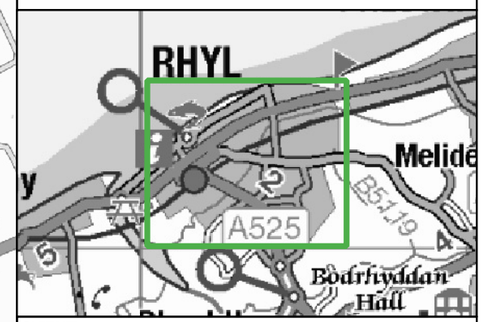
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) Model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:	Enfys Development Ltd
	www.waterco.co.uk
SCHEME:	Maes Emlyn, Rhyl
PLOT TITLE:	MAXIMUM FLOOD DEPTH POINT OF AYR TO PENSARN - TIDAL 0.1% AEP (2016) EVENT DEFENDED
PLOT STATUS: FINAL	DATE: 13-12-2022
DRAWN: AM / CHECKED: JR / APPROVED: AW / PLOT SCALE AT A3: 1:10000	
PLOT NAME: 14973_POATPT_Q1000DEF_dMax	REVISION: -

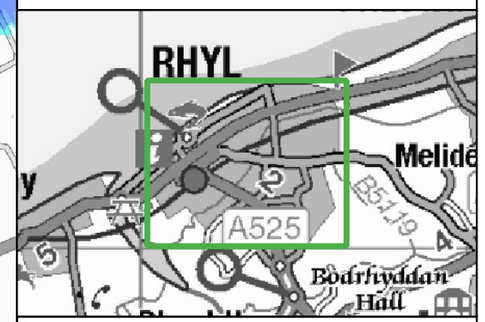
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) Model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT: Enfys Development Ltd

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SCHEME: Maes Emlyn, Rhyl

PLOT TITLE: MAXIMUM FLOOD DEPTH
POINT OF AYR TO PENSARN - TIDAL
0.1% AEP PLUS CLIMATE CHANGE (2117)
EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	13-12-2022

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
AM	JR	AW	1:10000

PLOT NAME:	REVISION:
14973_POATPT_Q1000CCDEF_dMax	-

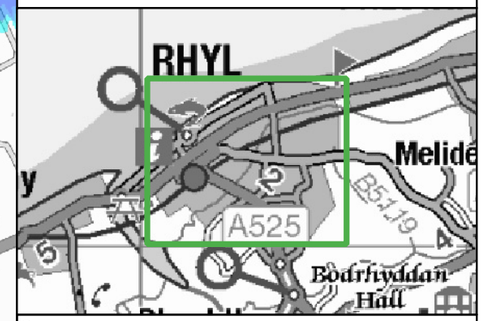
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Point of Ayr to Pensarn Tidal Flood Risk Analysis (2017) Model'.

LEGEND

- Site Boundary
- Garford Road, Rhyl Breach Location

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:	Enfys Development Ltd
	www.waterco.co.uk
SCHEME:	Maes Emlyn, Rhyl
PLOT TITLE:	MAXIMUM FLOOD DEPTH POINT OF AYR TO PENSARN - TIDAL 0.5% AEP (2117) EVENT GARFORD ROAD BREACH
PLOT STATUS:	FINAL
DATE:	13-12-2022
DRAWN:	AM
CHECKED:	JR
APPROVED:	AW
PLOT SCALE AT A3:	1:10000
PLOT NAME:	14973_POATPT_Q200BR_dMax
REVISION:	-

Clwyd Tidal

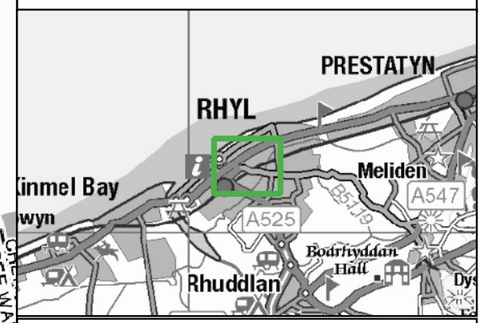
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Developments Ltd

www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
CLWYD - TIDAL
0.5% AEP 70TH PERCENTILE TIDAL EVENT
PLUS CC (YEAR 2122) EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	28-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_CT20070PER2122CC_dMax	-

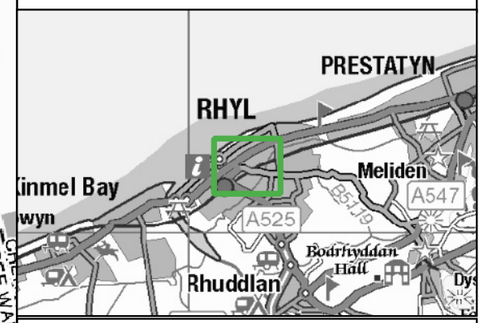
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
CLWYD - TIDAL
0.5% AEP 95TH PERCENTILE TIDAL EVENT
PLUS CC (YEAR 2122) EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	28-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_CT20095PER2122CC_dMax	-

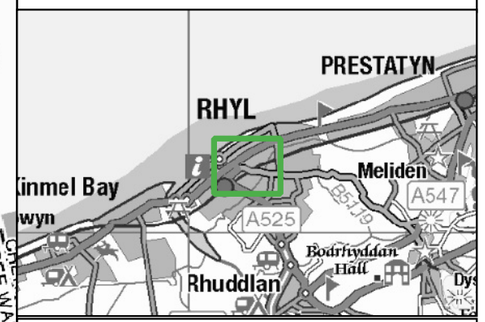
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT: Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME: Maes Emlyn, Rhyl

PLOT TITLE: MAXIMUM FLOOD DEPTH
CLWYD - TIDAL
0.1% AEP 95TH PERCENTILE TIDAL EVENT
PLUS CC (YEAR 2122) EVENT
DEFENDED

PLOT STATUS:	DATE:
FINAL	28-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_CT10095PER2122CC_dMax	-

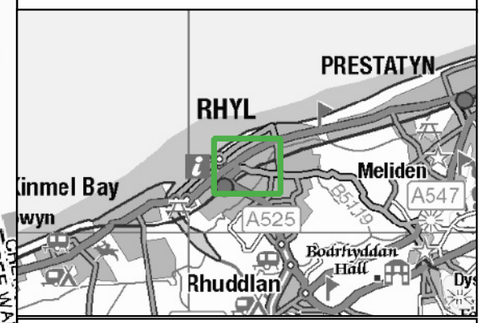
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Developments Ltd

www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
MARINE LAKE -TIDAL
0.5% AEP 70TH PERCENTILE EVENT PLUS CC
(YEAR 2122) EVENT
BREACH

PLOT STATUS:	DATE:
FINAL	28-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_MLT20075BRECC_dMax	-

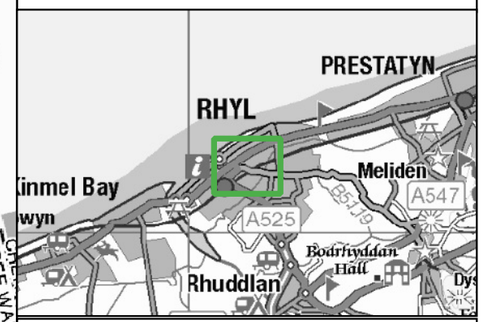
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT: Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME: Maes Emlyn, Rhyl

PLOT TITLE: MAXIMUM FLOOD DEPTH
MARINE LAKE -TIDAL
0.5% AEP 95TH PERCENTILE EVENT PLUS CC
(YEAR 2122) EVENT
BREACH

PLOT STATUS:	DATE:
FINAL	28-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_MLT20095BRECC_dMax	-

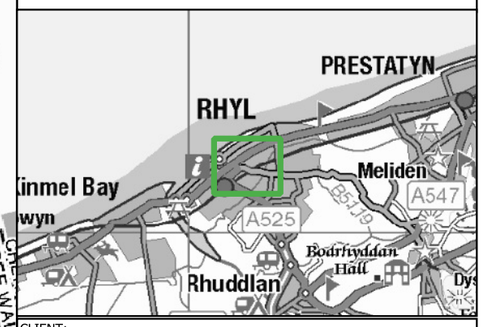
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

- Site Boundary

Maximum Flood Depth

- <= 0.3m
- 0.3m - 0.6m
- 0.6m - 1.2m
- 1.2m - 2.4m
- > 2.4m



CLIENT:
Enfys Developments Ltd

waterco
www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
MARINE LAKE -TIDAL
0.1% AEP 95TH PERCENTILE EVENT PLUS CC
(YEAR 2122) EVENT
BREACH

PLOT STATUS:	DATE:
FINAL	28-01-2026

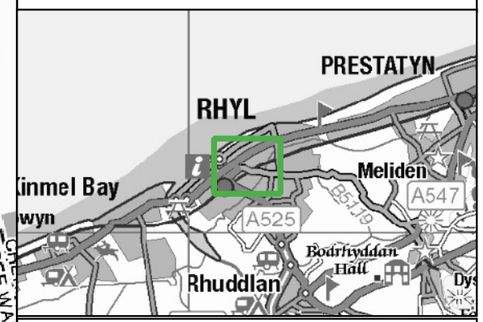
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_MLT100095BRECC_dMax	-

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

Site Boundary



CLIENT:
Enfys Developments Ltd

www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
RIVER CLWYD RIGHT EMBANKMENT - TIDAL
0.5% AEP 70TH PERCENTILE EVENT PLUS CC
(YEAR 2122) EVENT
BREACH

PLOT STATUS:	DATE:
FINAL	28-01-2026

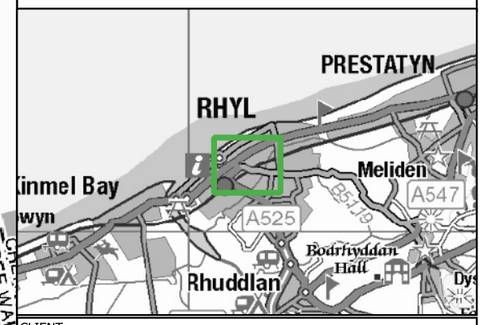
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_RCRT20070CC2122_dMax	-

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

Site Boundary



CLIENT:
Enfys Developments Ltd

www.waterco.co.uk

SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
RIVER CLWYD RIGHT EMBANKMENT - TIDAL
0.5% AEP 95TH PERCENTILE EVENT PLUS CC
(YEAR 2122) EVENT
BREACH

PLOT STATUS:	DATE:
FINAL	28-01-2026

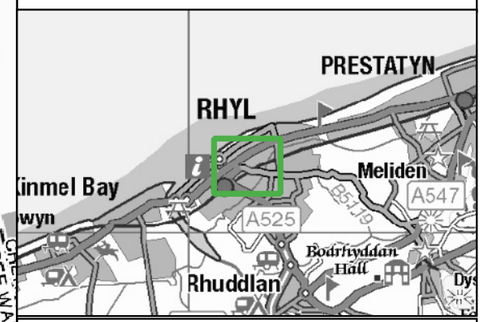
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_RCRT20095CC2122_dMax	-

Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise.
2) Modelled Outputs taken from the 'Clwyd Tidal 2022 model'.

LEGEND

Site Boundary



CLIENT:
Enfys Developments Ltd

www.waterco.co.uk

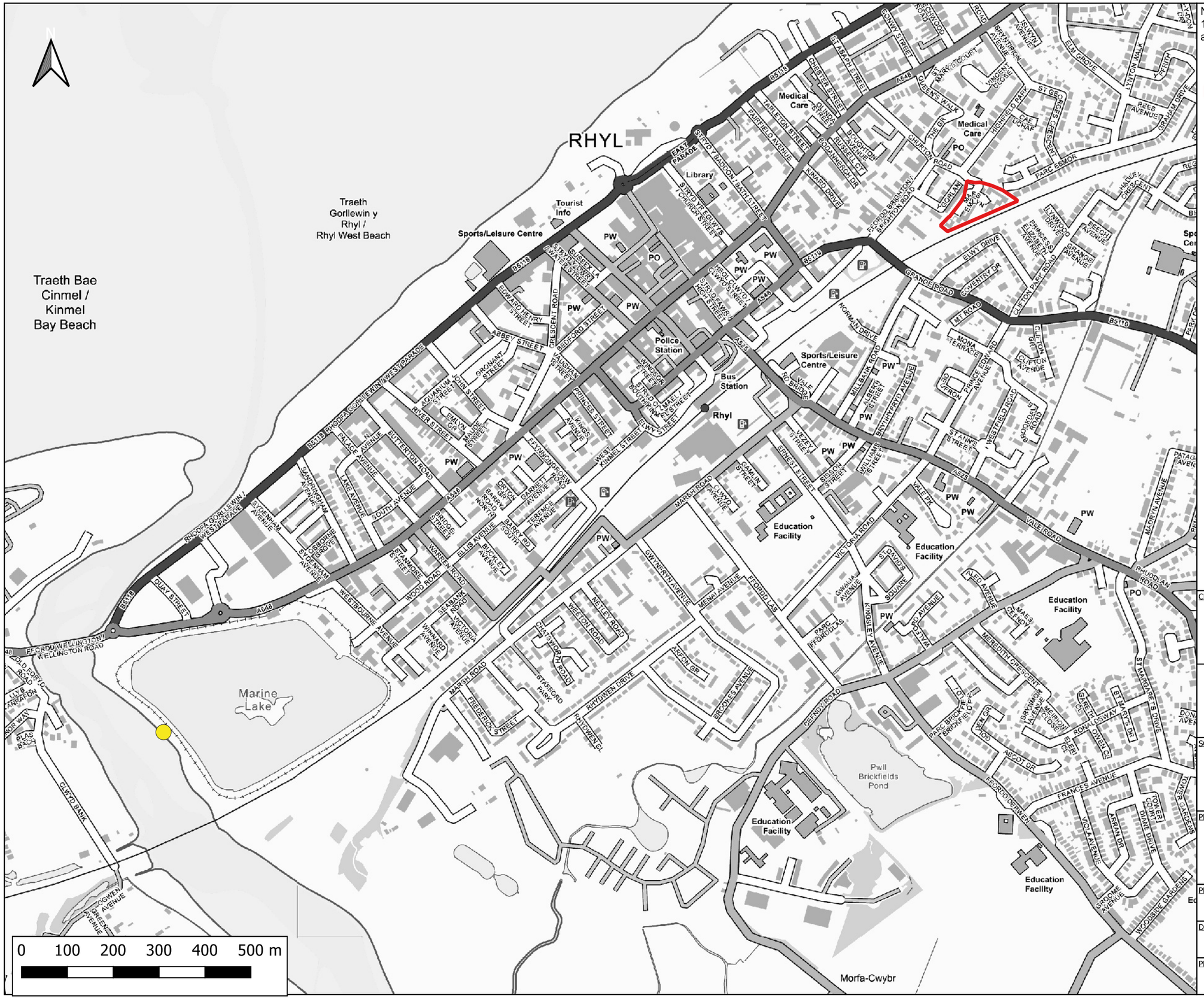
SCHEME:
Maes Emlyn, Rhyl

PLOT TITLE:
MAXIMUM FLOOD DEPTH
RIVER CLWYD RIGHT EMBANKMENT - TIDAL
0.1% AEP 95TH PERCENTILE EVENT PLUS CC
(YEAR 2122) EVENT
BREACH

PLOT STATUS:	DATE:
FINAL	28-01-2026

DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
ER	JJ	AW	1:5000

PLOT NAME:	REVISION:
14973_RCRT100095CC2122_dMax	-

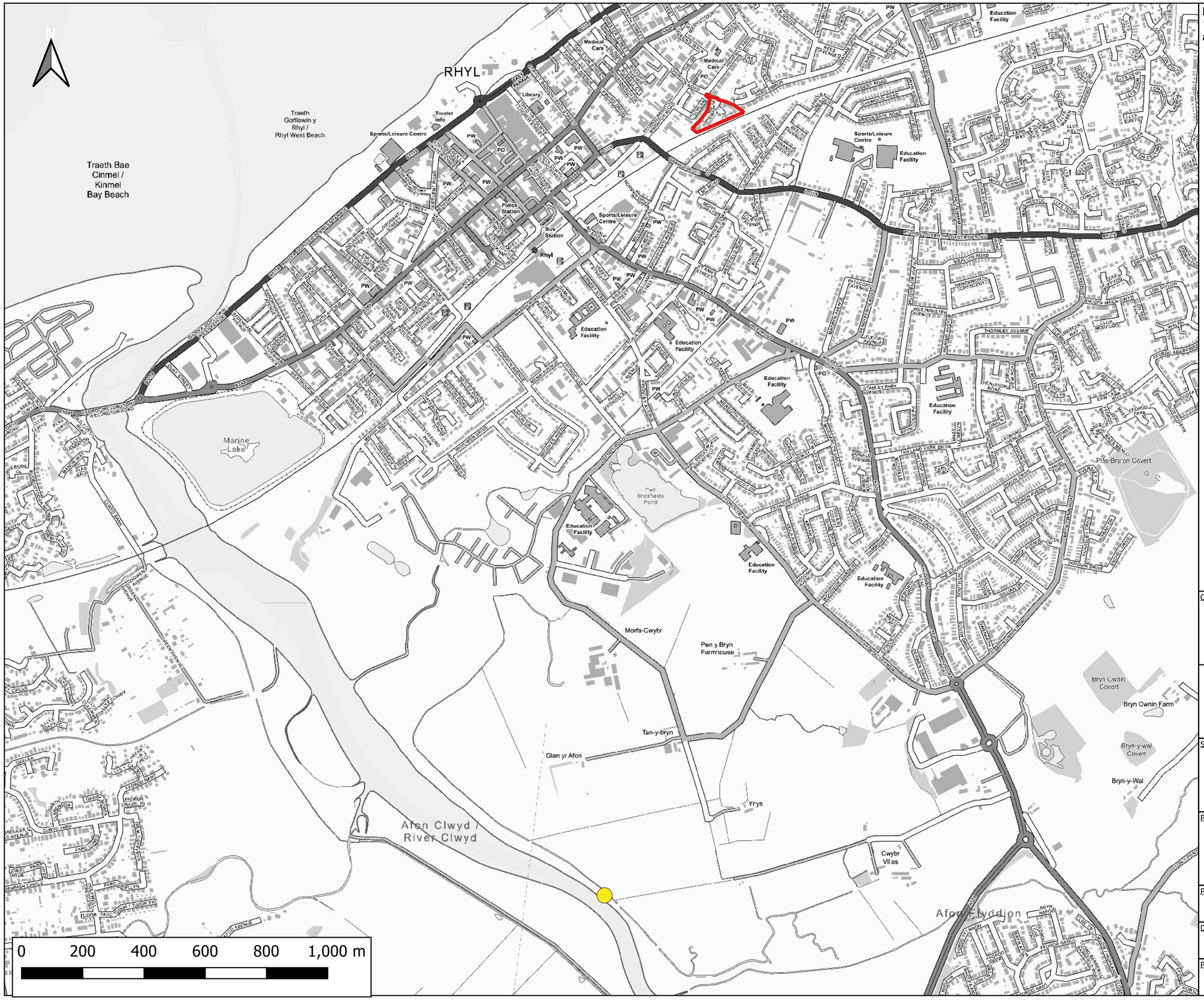


Notes:
1) All dimentions are in meters and all levels in meters above Ordanance Datum unless stated otherwise.

LEGEND

- Site Boundary
- Marine Lake Breach Location

CLIENT:	Enfys Development Ltd
	www.waterco.co.uk
SCHEME:	Maes Emlyn, Rhyl
PLOT TITLE:	Breach Location
PLOT STATUS: FINAL	DATE: 19-01-2026
DRAWN: MJW / CHECKED: AW / APPROVED: NJ	PLOT SCALE AT A3: 1:8000
PLOT NAME: 14973_Breach_Location	REVISION: -



Notes:
1) All dimentions are in meters and all levels in meters above Ordanance Datum unless stated otherwise.

LEGEND

- Site Boundary
- Clwyd Embankment Right Breach Location

CLIENT:	Enfys Development Ltd
	waterco www.waterco.co.uk
SCHEME:	Maes Emlyn, Rhyl
PLOT TITLE:	Breach Location
PLOT STATUS: FINAL	DATE: 28-01-2026
DRAWN: MJW / CHECKED: AW / APPROVED: NJ / PLOT SCALE AT A3: 1:12000	
PLOT NAME: 14973_Breach_Location	REVISION: -