



Project Title: 00453 E M Edwards Works

Product: Level 3 Flood Consequence Assessment

Date: 29 October 2024

Find us at:

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Report Revision Log

Report Reference	Date Issued	Issued To	Notes
00453	29/10/2024	Client	

1. INTRODUCTION

1.1. PURPOSE OF THE REPORT

FloodPlan have been commissioned on behalf of T. Rees to produce a Flood Consequence Assessment for a site at E M Edwards Works, Llandarcy, Neath, SA10 6JY. This assessment has been conducted with the understanding that the document will be used as part of a planning permission proposal by T. Rees.

1.2. LOCATION OF SUBJECT SITE

The site is located a site at E M Edwards Works, Llandarcy, Neath, SA10 6JY. The site is located to the west of the M4. Access to the site is gained via Junction 43 of the M4 motorway.

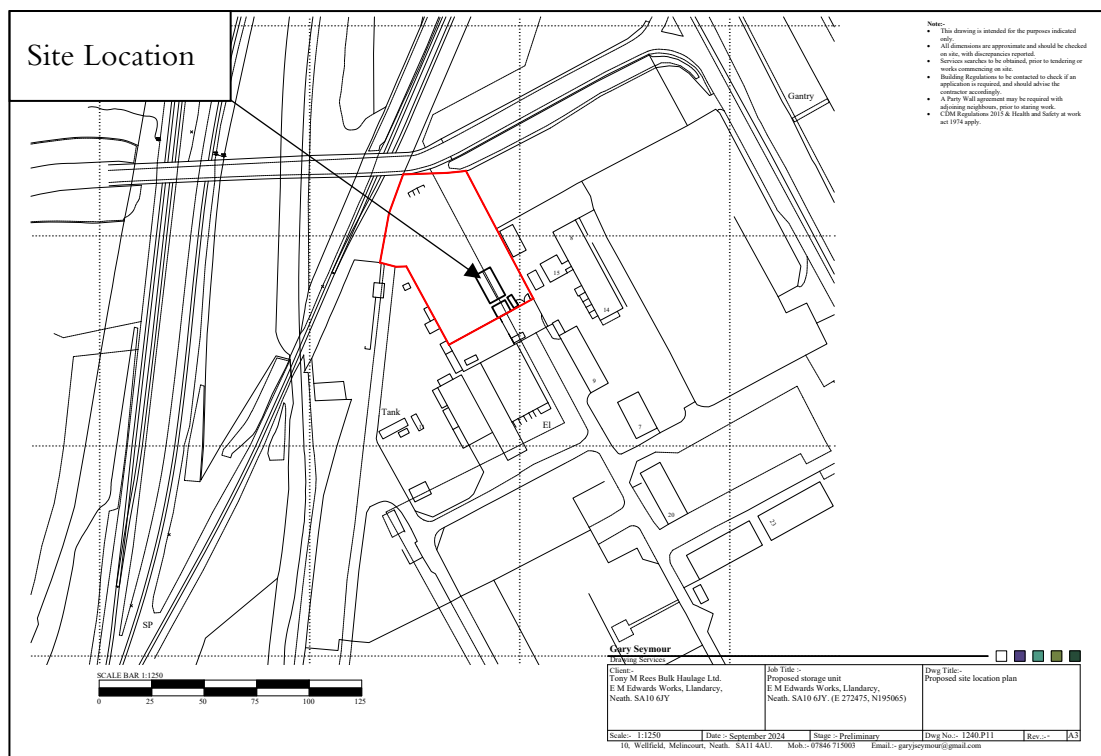


Figure 1: Site Location

1.3. SITE PROPOSALS

The existing site is largely hardstanding and is used for commercial purposes. The development proposes the construction of an industrial storage. The development is unlikely to increase the impermeable area on site due to the hardstand nature of the exiting surface. Development proposals can be seen in Appendix A: Development Proposals.

2. ASSESSMENT OF TAN15

2.1. INTRODUCTION TO TAN15

Technical Advice Note 15 (TAN15 is a Welsh Government published document. This document provides guidance to local planning authorities to ensure the effective implementation of the planning policy. The policy seeks to direct development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. For these purposes:

- Direct new development away from those areas which are at high risk of flooding.
- Where development has to be considered in high-risk areas (zone C) only those developments which can be justified on the basis of the tests outlined in section 6 and section 7 are located within such areas

Flood risk (from river and sea) are categorised into one of the below:

2.2. FLOOD RISK CLASSIFICATIONS

Flood Zone	Description
Zone A	Little or no risk
Zone B	Known to have flooded in the past
Zone C	EA extreme flood outline (0.1%)
Zone C1	Areas of floodplain which are developed and served by significant infrastructure, including flood defence.
Zone C2	Areas of the floodplain without significant flood defence infrastructure

2.3. FLOOD RISK VULNERABILITY CLASSIFICATION

TAN15 categorises buildings by vulnerability. A summary of categories can be seen below:

Vulnerability Class	Infrastructure
Emergency Services	Hospitals, emergency depots, police stations etc
Highly vulnerable	All residential premises, public buildings, schools, libraries etc.
Less vulnerable	General industrial, commercial, retail, car parks etc

2.4. SUITABLE DEVELOPMENT MATRIX

The below table outlines the suitable development type for the flood zone classification assigned by the Environment Agency flood maps.

Flood risk vulnerability classification	Emergency Services	Highly Vulnerable	Less Vulnerable
Zone A			
Zone B			
Zone C1	Justification Test Required	Justification Test Required	Justification Test Required
Zone C2			Justification Test Required

Figure 2: Suitable Development Matrix

Key: Blue Development is appropriate; Red Development should not be permitted; Green Development is appropriate with a sufficient Justification Test.

3. TAN15 SITE ASSESSMENT

3.1. FLOOD ZONE CLASSIFICATION

As per Figure 3, the site is wholly within flood zone C2. The site does not benefit from flood defences.

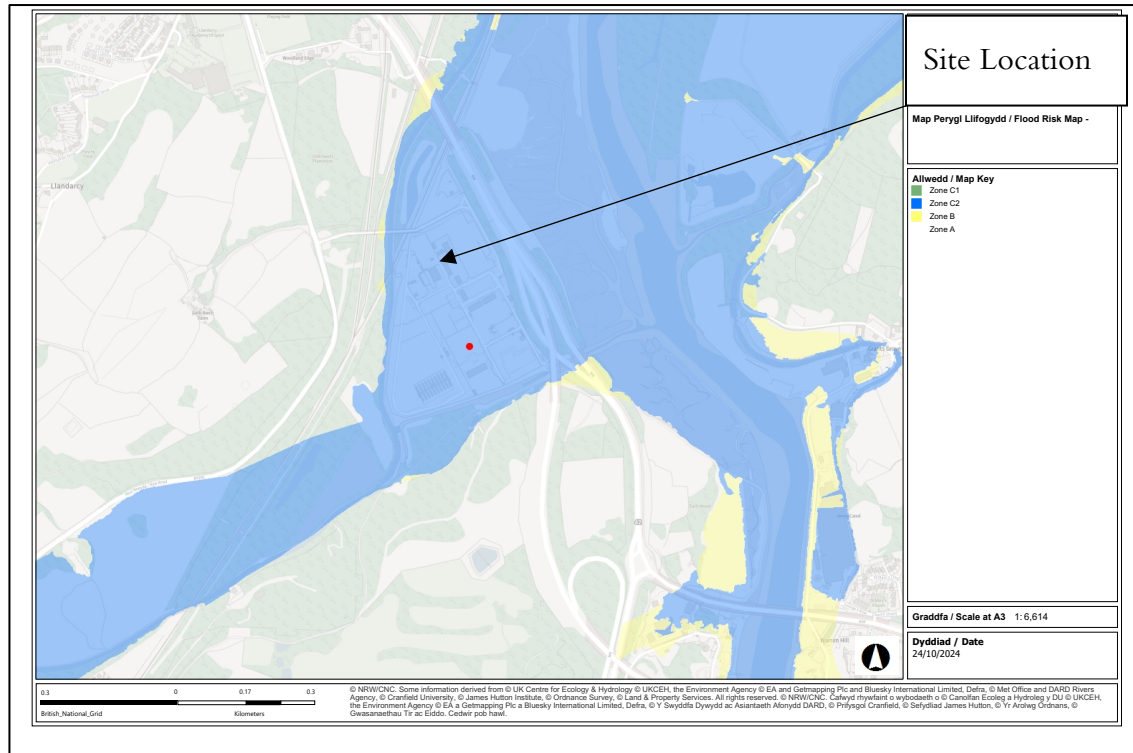


Figure 3: NR W Flood Zone

Where the blue shaded area notates flood zone C2, the green shaded area notated flood zone C1, yellow area notates flood zone B, and the non-shaded areas notates flood zone A.

As part of this FCA, Natural Resources Wales were contacted to release hydraulically modelled flood depths and velocities for the subject site, no detailed flood modelling data was available.

3.2. LAND VULNERABILITY CLASSIFICATION

The existing site is used for commercial purposes and is therefore designated as ‘less vulnerable development’ by Tan15. The proposed development will also be designated ‘less vulnerable development’. The development therefore proposes no increases the vulnerability classification.

3.3. SITE SUITABILITY (TAN15)

‘Less vulnerable development’ is suitable for flood zone C2, with a successful justification test, as per Figure 2.

4. SITE FLOOD RISK

4.1. THIRD PARTY FLOOD RISK DATA SUMMERY

A 'Groundsure' flood report has been acquired for advising this assessment. The full report can be found in Appendix B. The main findings are summarised below:

Type of Risk	Assessment of Risk
Overall Flood Risk	Negligible
Rivers and the Sea	Very Low
Surface Water	Negligible
Groundwater	Low
Historic Flood	Not identified
Flood Defences	No
FloodScoreTM – insurance rating	Very Low

4.2. SURFACE WATER FLOODING

The Environment Agency surface water flood map Figure 4, shows the site is not considered to be at risk from surface water flooding. The risk profile is consistent with the groundsure flood report.

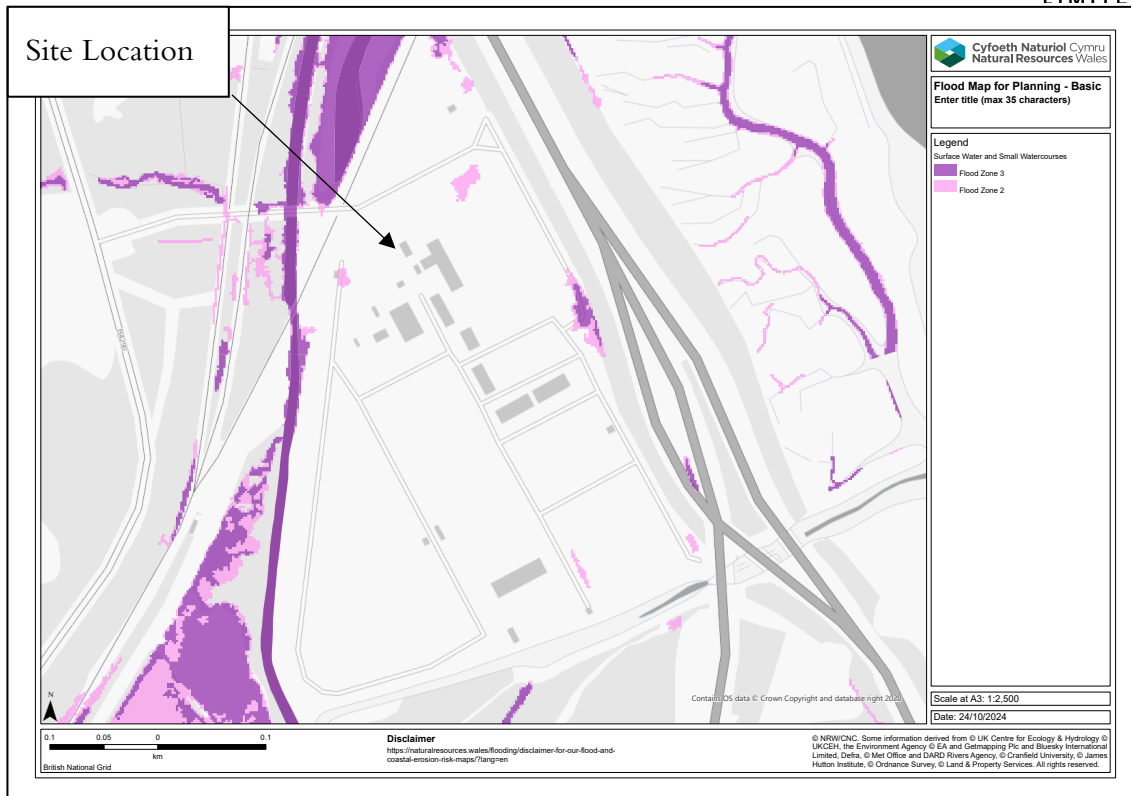


Figure 4: NR W Surface Water Flood Map

Where the dark purple shaded area denotes high risk of surface water flooding; the lighter purple notates medium risk, and the pink area denotes low risk.

4.3. TIDAL AND FLUVIAL FLOODING

The site is classified as mapped by the Flood Map for Planning as being located within flood zone 3 (tidal). The site is not believed to be protected by formal flood defences.

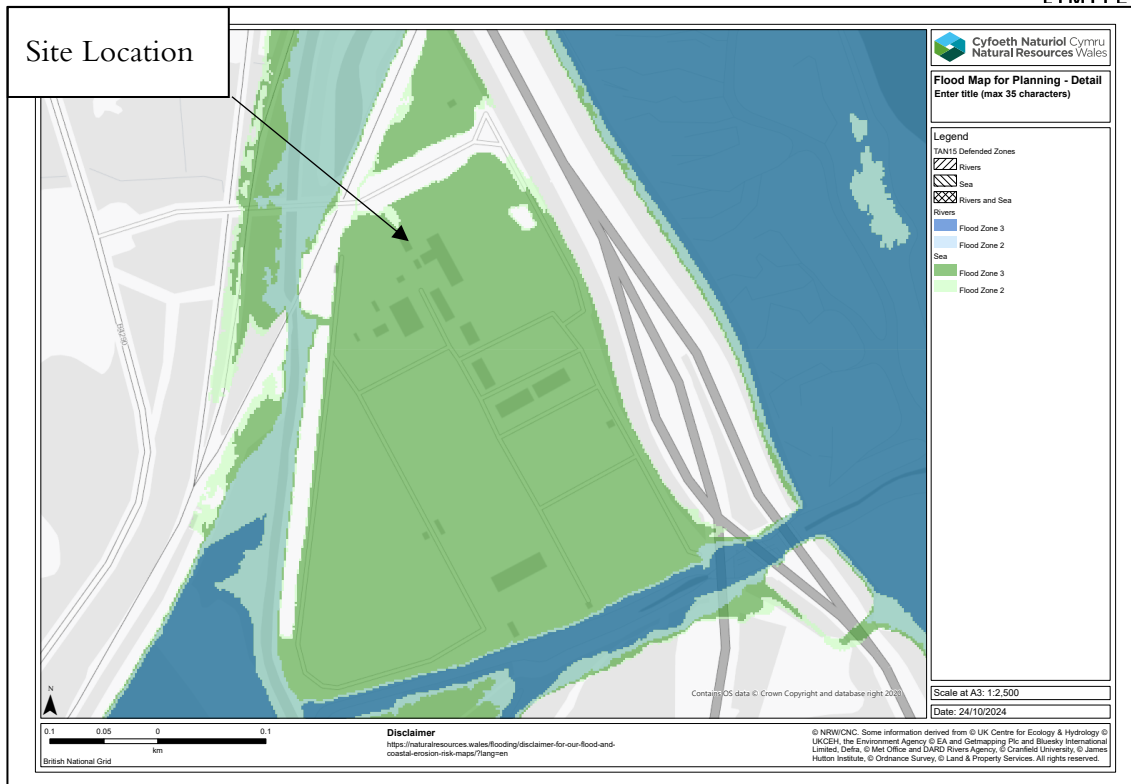


Figure 5: NRW Tidal and Fluvial Flood Map

Tidal: Where the dark green shaded area denotes flood zone 3, the light green area denotes flood zone 2.

Fluvial: Where the dark blue shaded area denotes flood zone 3, the light blue area denotes flood zone 2.

The site is believed to be 'at most' risk from tidal flooding. LiDAR data shows the site to be at an elevated level of 7.0mOD.

As part of the commission, Floodplan contacted NRW to obtain any flood modelling reports and outputs they may hold for the site. NRW confirmed they hold no suitable data for use within an FCA.

4.4. EXTREME TIDE LEVELS

The coastal flood boundary extreme sea levels node '482' is the closest node to the development site. The T200 level for 2024 (present day) is 6.40mAOD. The expected lifetime of the development is 75 years (2099). The predicted T200 still water 2099 level (climate change applied) is 7.20mOD. The site is therefore subject to 0.2m of flood depth (still water) during the extreme tidal water level.

The development is experience 0.50m of flooding during the T1000 (2099) event with the maximum still water level being 7.50mOD.

This report recommends that the FFL for the proposed building is set to 7.50mOD to allow for a 300mm freeboard above the T200 (2099) level.

4.5. GROUNDWATER FLOODING

The 'Groundsure' flood report indicates that the site has a low risk of groundwater flooding.

4.6. RESERVOIR FLOODING

The site is at not believed to be at risk of flooding from reservoir sources.

4.7. CANAL AND ARTIFICIAL WATER FLOODING

The site is at not believed to be at risk of flooding from artificial water sources.

4.1. HISTORIC FLOODING

A google search for 'Llandarcy historic flooding' yielded no definitive flood history. The 'Groundsure' flood report also failed to identify any historic flood events for the site.

5. FURTHER SITE ASSESSMENT

5.1. SITE ACCESS AND EGRESS ROUTES

Access to the site is gained via Junction 43 of the M4 motorway. The access road may experience some fluvial, tidal, and surface water flood risk. The site may become severed during extreme flood events.

5.2. FLOOD COMPENSATION

The development is not proposing the increase in impermeable area. Any development proposals should have suitable SuDS features to compensate for water pollution generated by the proposed development and comply with SAB requirements and regulations.

5.3. FLOOD WARNING AREAS

The below Figure 6, highlights the areas that are considered to benefit from Natural Resources Wales flood alerts. The site is within the flood alert area.

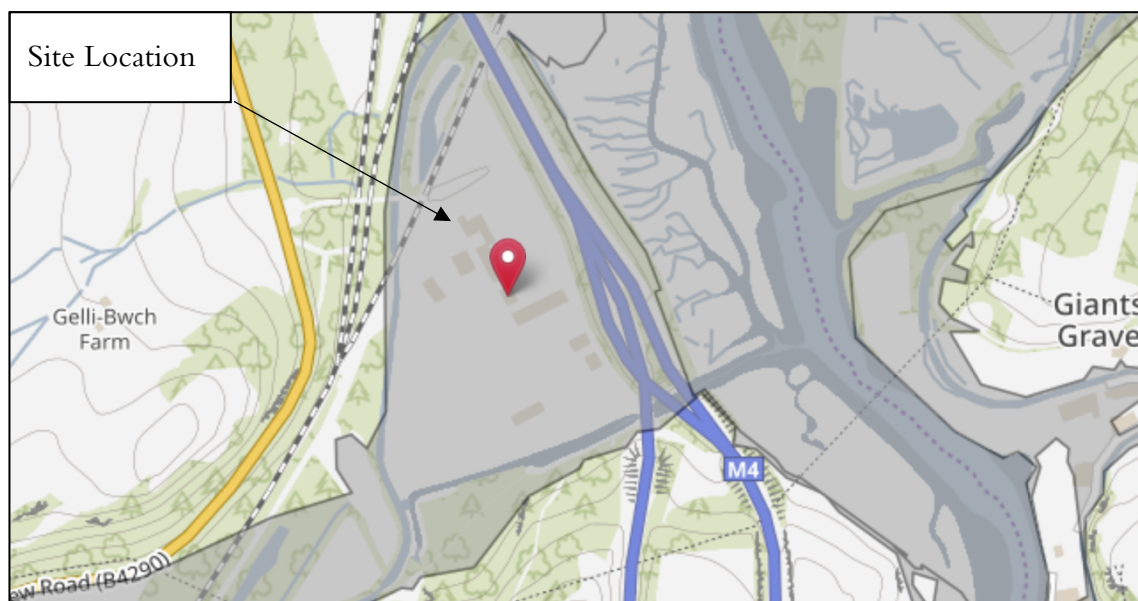


Figure 6: NRW Flood Warning Areas

5.4. AWARENESS OF FLOOD RISK

The developer should be aware that the site is not immune from flooding. It is recommended that future occupiers take the opportunity to develop emergency and non-emergency plans. Further, it is recommended that anyone responsible for the building sign up to receive flood alerts as soon as available.

5.5. JUSTIFICATION TEST

New development should be directed away from zone C and towards suitable land in zone A, otherwise to zone B, where river or coastal flooding will be less of an issue. In zone C the tests

outlined in sections 6 and 7 will be applied, recognising, however, that highly vulnerable development and Emergency Services in zone C2 should not be permitted. All other new development should only be permitted within zones C1 and C2 if determined by the planning authority to be justified in that location. Development, including transport infrastructure, will only be justified if it can be demonstrated that: –

- i. Its location in zone C is necessary to assist, or be part of, a local authority regeneration initiative or a local authority strategy required to sustain an existing settlement; or,
- ii. Its location in zone C is necessary to contribute to key employment objectives supported by the local authority, and other key partners, to sustain an existing settlement or region.

And

- iii. It concurs with the aims of PPW and meets the definition of previously developed land (PPW fig 2.1); and,
- iv. The potential consequences of a flooding event for the particular type of development have been considered, and in terms of the criteria contained in sections 5 and 7 and appendix 1 found to be acceptable.

The Neath Port Talbot County Borough Council Local Development Plan (2011–2026) identifies the need for high quality jobs and economic growth within its literature. The document iterates the requirement for local business to develop to be able to generate economic growth. The proposed development will stimulate economic growth in the area and provide opportunity for employment for local people. This report concludes that the development proposal meets the requirements i & ii.

The development proposes the construction of an industrial unit. The existing land use is largely used as an industrial car park. The existing land is classified as brownfield and is therefore previously developed land. This report concludes that the development proposal meets the requirements iii.

The site is to be used for industrial purposes; no persons are to be sleeping within the development, nor will it at any time be used for residential purposes. The report has found the site to be at risk from circa 0.2m of flooding during the T200 climate change event scenario. The report has also identified the FFL should be set no lower than 7.50mOD to allow for a 300mm freeboard. This report also recommends a flood evacuation plan should be created and maintained for the site. This report concludes that the development proposal meets the requirements iv.

6. FINDINGS AND RECOMMENDATIONS

6.1. FINDINGS

The development plans propose the construction of an industrial use warehouse and an office unit. TAN15 categorises warehouses as 'less vulnerable development'. 'Less vulnerable development' is suitable for flood zone C2. NRW flood risk mapping indicates that the site is affected by tidal sources. The risk of flooding is not negligible but should be found acceptable for the development vulnerability classification with the inclusion of a justification test, as per TAN15.

6.2. RECOMMENDATIONS

This report recommends the following be considered to lower the risk and/or consequences that flooding may cause to the proposed development:

- Any impermeable areas created should be subject to SuDS treatment and attenuation with a controlled discharge.
- An evacuation plan should be in place for site users.
- FFLs should be set no lower than 7.50mOD.

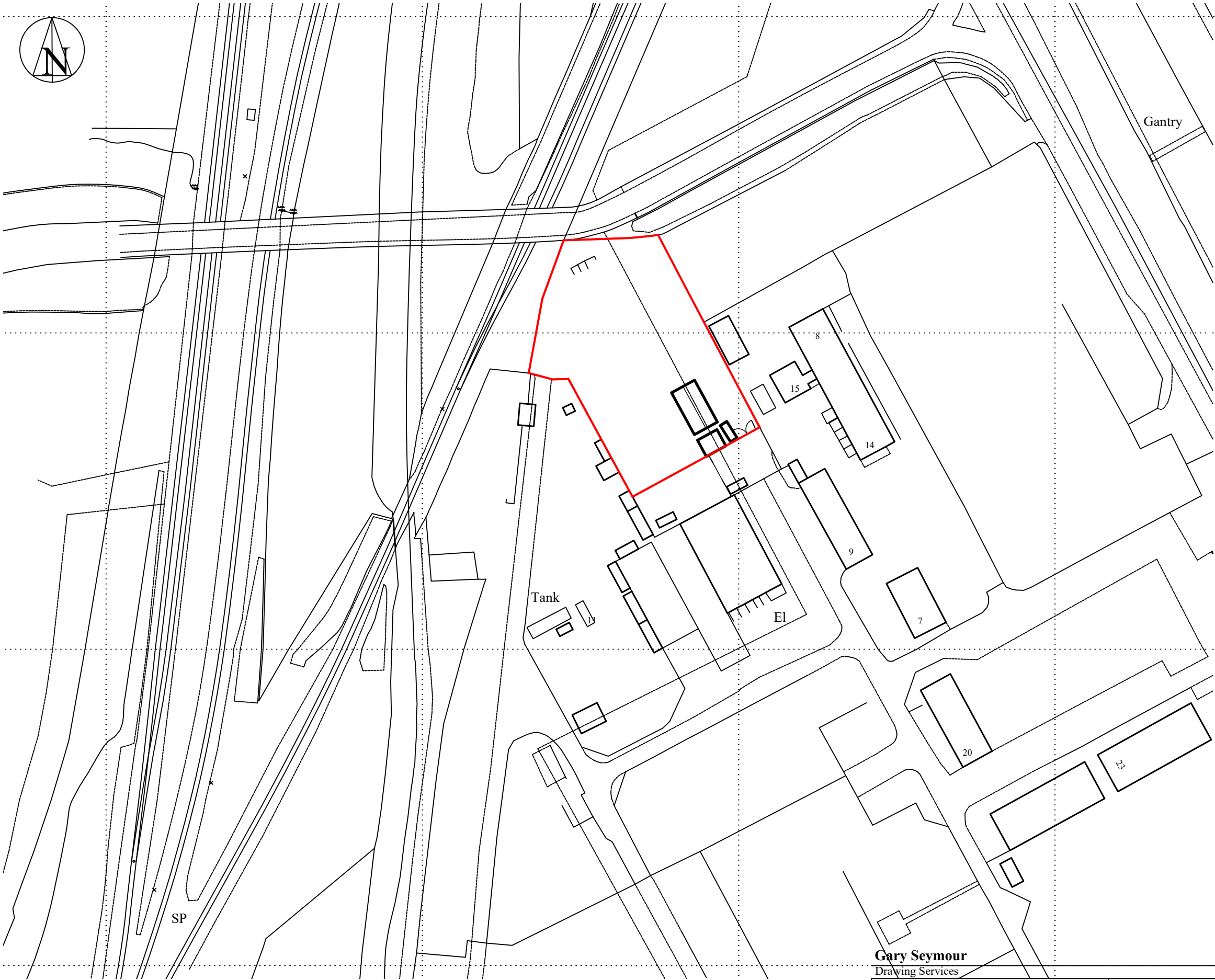
List of Appendices

Appendix A: Development Proposals

Appendix B: Groundsure Flood Report

List of Appendices

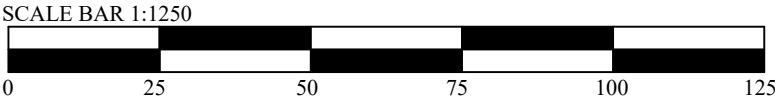
Appendix A: Development Proposals



Note:-

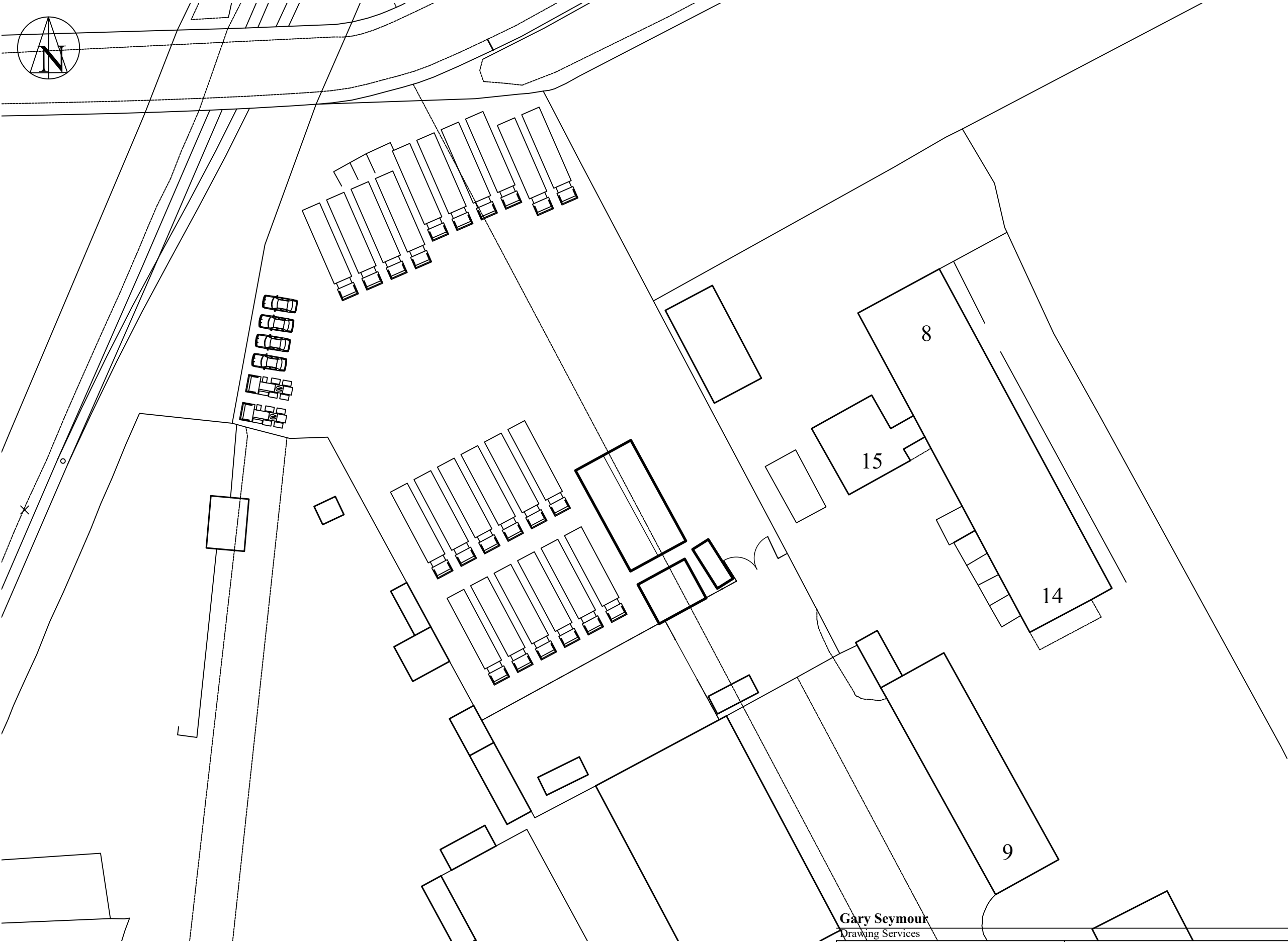
- This drawing is intended for the purposes indicated only.
- All dimensions are approximate and should be checked on site, with discrepancies reported.
- Services searches to be obtained, prior to tendering or works commencing on site.
- Building Regulations to be contacted to check if an application is required, and should advise the contractor accordingly.
- A Party Wall agreement may be required with adjoining neighbours, prior to staring work.
- CDM Regulations 2015 & Health and Safety at work act 1974 apply.

Gary Seymour
Drawing Services



Client:- Tony M Rees Bulk Haulage Ltd. E M Edwards Works, Llandarcy, Neath. SA10 6JY		Job Title :- Proposed storage unit E M Edwards Works, Llandarcy, Neath. SA10 6JY. (E 272475, N195065)	Dwg Title:- Proposed site location plan		
Scale:- 1:1250	Date :- September 2024	Stage :- Preliminary	Dwg No.:- 1240.P11	Rev.:-	A3

10, Wellfield, Melincourt, Neath. SA11 4AU. Mob.:- 07846 715003 Email.:- garyjseymour@gmail.com

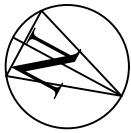


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Gary Seymour
Drawing Services

Client:- Tony M Rees Bulk Haulage Ltd. E M Edwards Works, Llandarcy, Neath. SA10 6JY		Job Title :- Proposed storage unit E M Edwards Works, Llandarcy, Neath. SA10 6JY. (E 272475, N195065)		Dwg Title:- Proposed block plan	
Scale:- 1:500	Date :- September 2024	Stage :- Preliminary	Dwg No.:- 1240.P12	Rev.:-	A3

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Yard

Gates

Workshop

Store

Store
(steel
container)

Access
road

Gates

SCALE BAR 1:100



Gary Seymour

Drawing Services

Client:-
Tony M Rees Bulk Haulage Ltd.
E M Edwards Works, Llandarcy,
Neath. SA10 6JY

Job Title :-
Proposed storage unit
E M Edwards Works, Llandarcy,
Neath. SA10 6JY. (E 272475, N195065)

Dwg Title:-
Proposed ground floor plan

Scale:- 1:100

Date :- September 2024

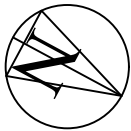
Stage :- Preliminary

Dwg No.:- 1240.P13

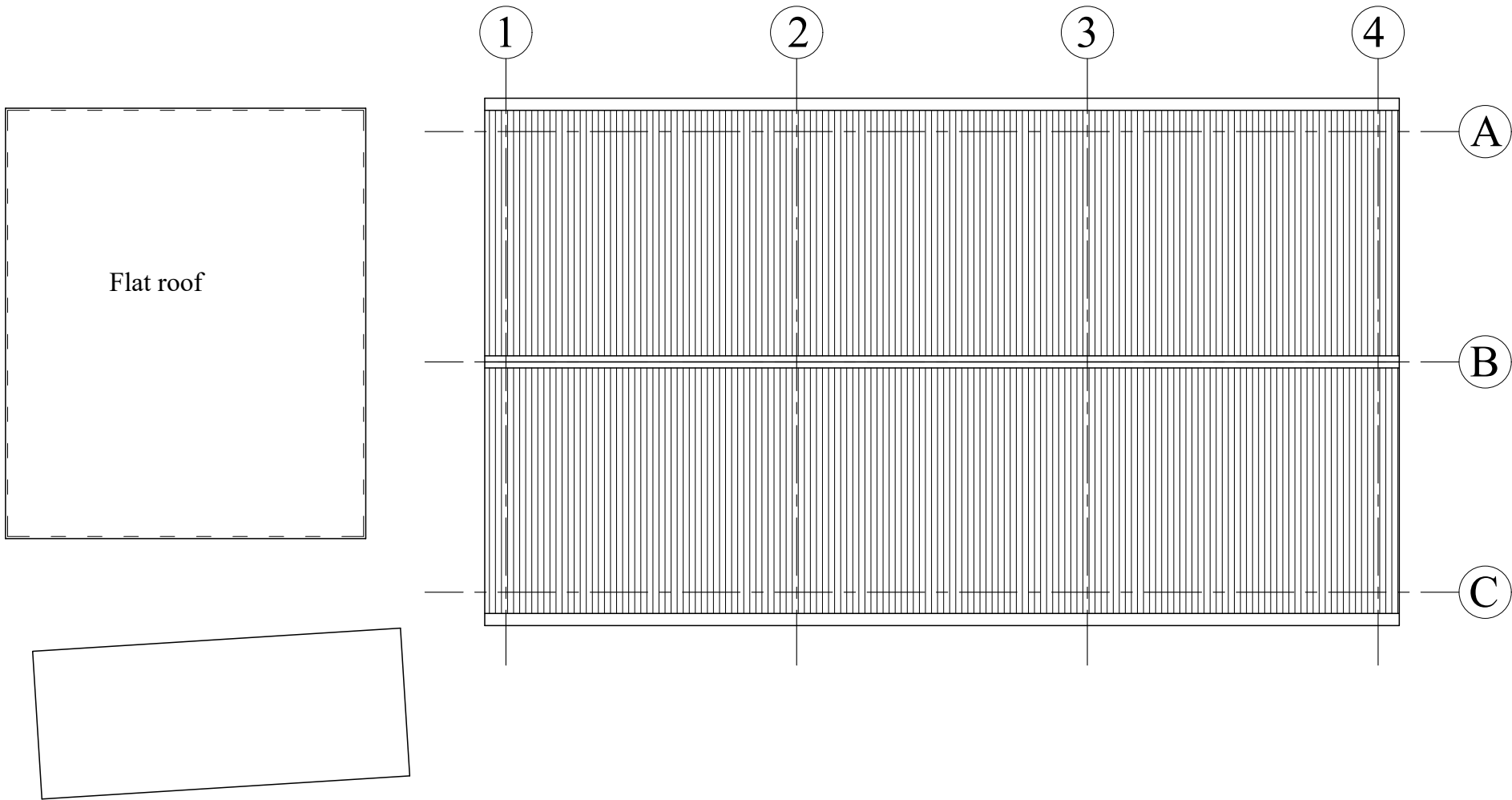
Rev.:-

A3

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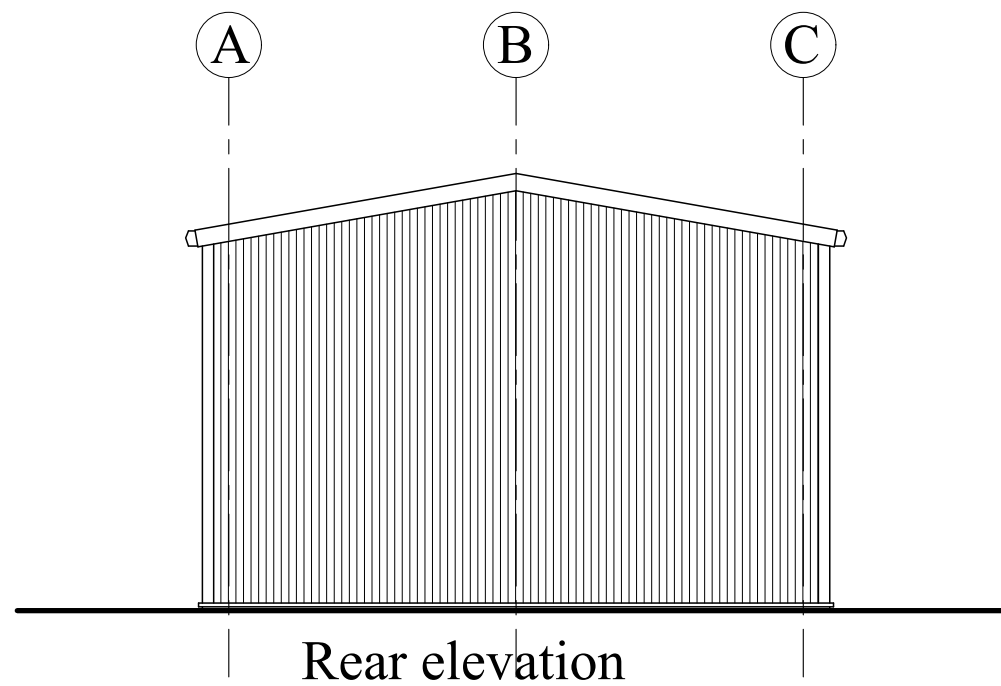
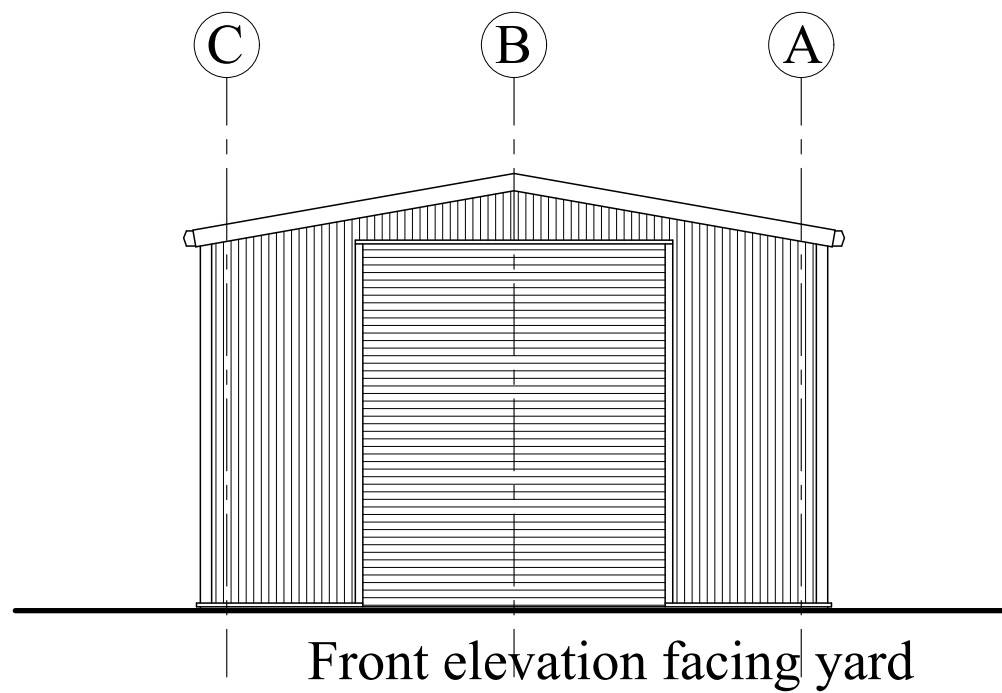
Gary Seymour

Drawing Services

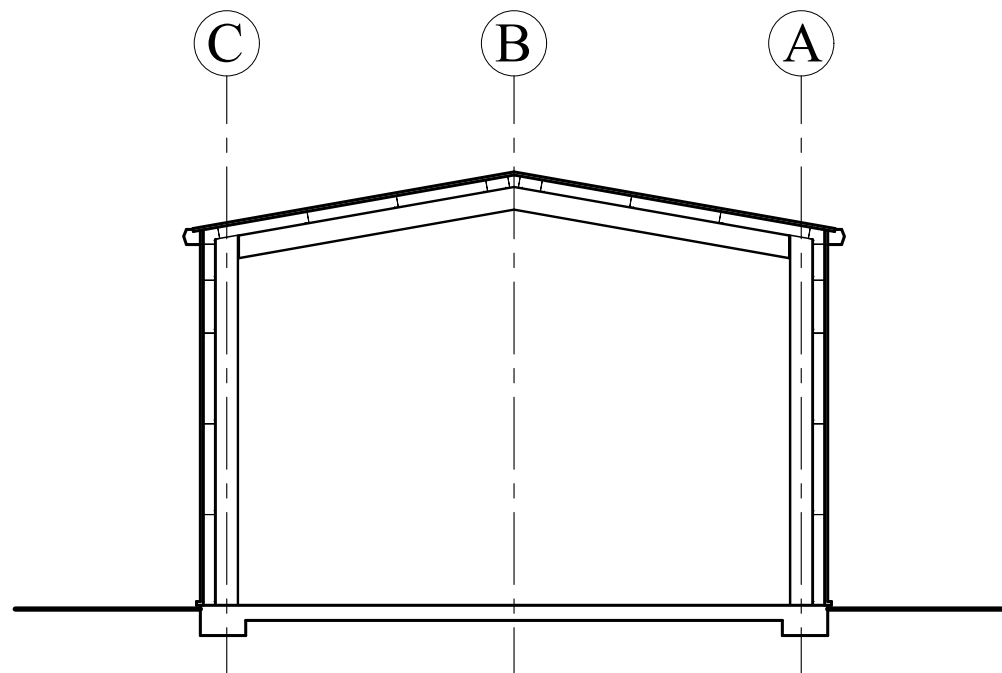


Client:- Tony M Rees Bulk Haulage Ltd. E M Edwards Works, Llandarcy, Neath. SA10 6JY		Job Title :- Proposed storage unit E M Edwards Works, Llandarcy, Neath. SA10 6JY. (E 272475, N195065)		Dwg Title:- Proposed roof plan	
Scale:- 1:100	Date :- September 2024	Stage :- Preliminary	Dwg No.:- 1240.P14	Rev.:- -	A3

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 - A Party Wall agreement may be required with adjoining neighbours, prior to starting work.
 - CDM Regulations 2015 & Health and Safety at work act 1974 apply.



Planning Notes

External walls to be finished in single skin corrugated paint coated steel cladding sheets fixed vertically. Colour Juniper Green.

Roof to be finished in single skin corrugated paint coated steel cladding sheets fixed vertically. Colour Juniper Green.

Flashings, drips and trims to be paint coated steel. Colour Juniper Green.

Roller shutter door to have a galvanized finish.

Rainwater goods to be paint coated steel, Colour to match cladding.

All surface water drains to connected to a soakaway. Roof area approximately 125 sqm.

SCALE BAR 1:100



Gary Seymour

Drawing Services



Client:- Tony M Rees Bulk Haulage Ltd. E M Edwards Works, Llandarcy, Neath. SA10 6JY	Job Title :- Proposed storage unit E M Edwards Works, Llandarcy, Neath. SA10 6JY. (E 272475, N195065)	Dwg Title:- Proposed elevations and section
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Scale:- 1:100	Date :- September 2024	Stage :- Preliminary	Dwg No.:- 1240.P16	Rev.:- - A3
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Appendix B: Groundsure Flood Report

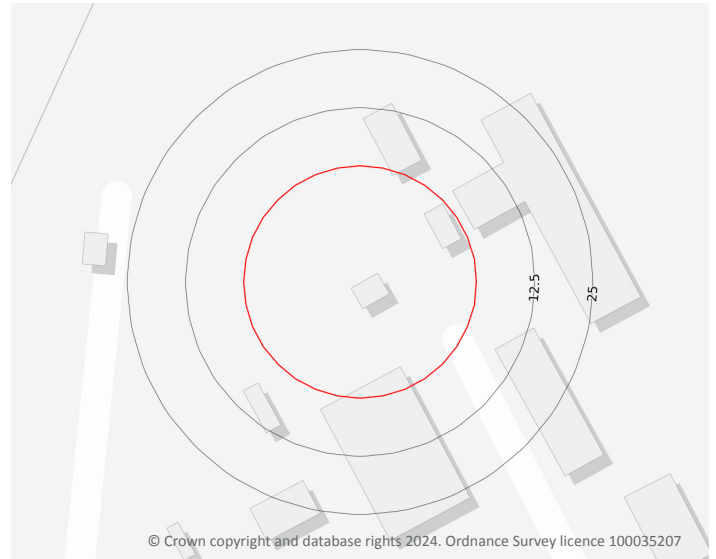
Overall Flood Risk



NEGLECTIBLE

Groundsure Flood complies with relevant Law Society practice notes on flood risk in property transactions.

Site plan



Search Results



Rivers and the Sea
Very Low



Surface Water
Negligible



Groundwater
Low



Historic Flood
Not identified



Flood Defences
No



FloodScore™ insurance rating
Very Low

[page 4 >](#)

Full assessments for other environmental risks are available in additional Groundsure searches including the Groundsure Avista 7 in 1 report. Contact Groundsure or your search provider for further details.

Overview of findings and recommendations

To save you time when assessing the report, we only provide maps and data tables of features within the search radius that we have identified to be of note. These relate to environmental risks that may have liability implications, affect insurance premiums, property values and/or a lender's willingness to lend.

You can view the fully comprehensive library of information we have searched on [page 3 >](#).

No environmental risks that Groundsure believe require further action have been identified in relation to the property.

Please note this report has been run on a point location buffered to 25m to account for uncertainties of the size of the property. Therefore some risk assessments and measurements may be overestimated.



Datasets searched

This is a full list of the data searched in this report. If we have found results of note we will state "Identified". If no results of note are found, we will state "Not identified". Our intelligent filtering will hide "Not identified" sections to speed up your workflow.

Flooding	
Risk of flooding from rivers and the sea	Not identified
Flood storage areas: part of floodplain	Not identified
Historical flood areas	Not identified
Reduction in Risk of Flooding from Rivers and Sea due to Defences	Not identified
Flood defences	Not identified
Proposed flood defences	Not identified
Surface water flood risk	Not identified
Groundwater flooding	Not identified



Methodologies and limitations

Groundsure's methodologies and limitations are available here: knowledge.groundsure.com/methodologies-and-limitations ↗.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information in your Flood report. To find out who they are and their areas of expertise see www.groundsure.com/sources-reference ↗.

Conveyancing Information Executive and our terms & conditions

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- a charity with an annual income of less than £3 million;
- a Trust with a net asset value of less than £3 million.

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If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure.

If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

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- acknowledge it within 5 working days of receipt
- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:

Operations Director, Groundsure Ltd, Nile House, Nile Street, Brighton, BN1 1HW. Tel: 01273 257 755. Email: info@groundsure.com

↗ If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk ↗ We will co-operate fully with the Ombudsman during an investigation and comply with their final decision.

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