



ASSOCIATED BRITISH PORTS

HILL AND SMITH (NEWPORT DOCKS) DISCHARGE OF CONDITIONS

FLOOD EVACUATION PLAN AND RESISTANCE/RESILIENCE MEASURES (CONDITION 3)

MARCH 2025

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FLOOD EVACUATION PLAN AND RESISTANCE/RESILIENCE MEASURES (CONDITION 3)

MARCH 2025

PREPARED BY:

Bryn Galicia-Griffiths Principal Flood Risk
Consultant

REVIEWED BY:

Emma Keegan Technical Director

APPROVED BY:

Emma Keegan Technical Director

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Appendix 2	Natural Resources Wales Business Flood Plan
Appendix 3	Example Flood Alert Notice

DRAWINGS	TITLE
CA13312-002	Evacuation Procedure
CA12034-004	Proposed Office

1 INTRODUCTION

1.1 General

1.1.1 Wardell Armstrong LLP (WA) has been instructed by Associated British Ports to prepare a report outlining an evacuation plan and proposed resistance and/or resilience measures for the proposed development on land west of Tom Lewis Way, Alexandra Docks, Newport.

1.1.2 This report addresses Planning Condition 3 of Planning Approval Ref 24/0633 (Demolition of Existing Container Offices and Construction of New Portakabin Offices and Associated Works) issued by Newport City Council on 30th January 2025. The condition states:

Prior to construction of the development hereby approved, an evacuation plan and details of flood resistance measures and/or resilience measures shall be submitted to and agreed in writing by the Local Planning Authority. Development shall be carried out in accordance with the agreed details.

1.2 Methodology

1.2.1 The methodology for this Plan has comprised a desktop study supplemented by the relevant plans, data and documents, including:

- Planning Policy Wales Technical Advice Note 15: Development and Flood Risk;
- National Resources Wales (NRW) modelled flood data;
- NRW flood risk mapping;
- NRW flood preparation guidance;
- Newport City Council flood preparation guidance.

2 BACKGROUND

2.1 Site Description and Location

2.1.1 The proposed development ('the site') is located on land off Tom Lewis Way at the Alexandra Docks in Newport (grid reference ST 31173 84616). The 0.16ha parcel of land is located in the south-eastern corner of the wider Hill and Smith Infrastructure site which comprises large areas of hardstanding, stockpiled materials and a warehouse building.

2.1.2 The site itself comprises 3no. two-storey 'portacabin' structures containing offices and welfare facilities along the southern boundary, with areas of hardstanding and car parking in the north. The entrance to the main Hill and Smith development is located at the eastern boundary, with the main access road extending through the site area.

2.1.3 The site is bounded to the north and west by hardstanding within the main Hill and Smith site. The site is bounded to the east by Tom Lewis Way and to the south by areas of vegetation within an industrial site.

2.2 Flood Risk

2.2.1 The Ebbw River is located approximately 0.15km to the west of the site. This is a Main River flowing southwards to discharge to the River Usk and onwards to the mouth of the River Severn and is a tidally-influenced watercourse.

2.2.2 The NRW flood risk mapping (see Appendix 1 and Figure 1) shows that large areas of Alexandra Docks are at risk of tidal flooding. This includes parts of the Hill and Smith development to the north and west of the site. The site area itself is, however, located outside of areas at an increased risk of tidal flooding.

2.2.3 NRW modelling shows that the flood level in an extreme 1 in 200 year event would be approximately 8.50mAOD. Existing ground levels in the vicinity of the proposed building are approximately 9.76mAOD.

2.2.4 NRW modelling shows that a more extensive area of Alexandra Docks would be at risk of flooding in the future when climate change is considered. Flood levels during the 1 in 200 year event would be 9.56mAOD and the site would be unaffected.

2.2.5 Mapping shows that a small area adjacent to the site entrance is at risk of surface water flooding in an extreme storm event (an annual probability of flooding of between 1 in 1000 and 1 in 100). Based on the site topography, this is a low-lying area adjacent to Tom Lewis Way where runoff could accumulate during a storm event.

Ground levels are approximately 0.2m lower than ground levels around the footprint of the proposed building.

- 2.2.6 As shown on Drawing No CA12034 - 004 C 'Proposed Office', the Finished Floor Levels of the building will be approximately 0.5m above the existing ground level, further elevating the building above any tidal or surface water flooding.

3 PREPARING FOR FLOODING

3.1.1 The Natural Resources Wales' Flood Warning Service monitors rainfall, river levels and tides to determine the risk of tidal and river flooding and provides a free service providing flood warnings by phone, text message or email. Registration for this service will be made on the NRW website¹. In addition, NRW also provides a live flood warning map on their website² which is updated every 15 minutes. Further details on the types of flood warning are contained in Section 4.

3.1.2 Flood warnings will be received by:

Gavin Teague

Manager

Hill and Smith

07738 640000

gavin.teague@hill-smith.co.uk

3.1.3 A flood emergency kit will be prepared for a situation where it is not possible for all staff to evacuate the site. This will include the following items:

- first aid kit and medication;
- mobile telephones;
- emergency contacts list;
- torch, radio and batteries;
- non-perishable food;
- bottled water;
- blankets and warm clothes;
- rubber gloves and wellington boots; and
- back-up generator operating instructions.

¹ NATURAL RESOURCES WALES 'Sign up to Receive Flood Warnings' available from:
<https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings/>

² NATURAL RESOURCES WALES 'Check Flood Warnings' available from:
<https://naturalresources.wales/flooding/check-flood-warnings/>

- 3.1.4 Prior to the facility becoming operational, awareness training will be carried out for all staff and the NRW 'Business Flood Plan' summary sheet (contained in Appendix 2) will also be completed. This training will be carried out upon the employment of any new staff and it is recommended that refresher training is undertaken annually for all staff.
- 3.1.5 Flood alert notices and maps of evacuation routes will be displayed at prominent locations within the building to be visible to staff and members of the public. An example of a flood alert notice is contained in Appendix 3.

4 FLOOD WARNINGS

4.1.1 The NRW flood warning service has three types of flood warning code which are used in the free flood warning service and on the live flood warning map website. The three warning codes are summarised in Table 1 below.

Table 1: Flood Warning Codes		
Warning	When is it Issued?	What to do
Flood Alert "Flooding is possible. Be prepared" 	Between two hours and two days in advance of flooding	• Be prepared to act on the Flood Plan • Prepare a flood emergency kit of essential items • Monitor local water levels and the flood forecast on the NRW website
Flood Warning "Flooding is expected. Immediate action is required" 	Between half an hour and one day in advance of flooding	• Prepare to implement the Flood Plan • Notify staff • Put any flood protection equipment in place
Severe Flood Warning Severe flooding, danger to life	When flooding poses a significant threat to life	• Implement Flood Plan and carry out evacuation if safe to do so • If evacuation is not possible, then direct staff to upper floor where refuge is available • Turn off gas, water and electricity. • Move equipment requiring

Table 1: Flood Warning Codes		
Warning	When is it Issued?	What to do
		protection from flood water to a safe location • Cooperate with the emergency services • Call 999 if you are in immediate danger
Warning No Longer In Force	No further flooding is expected. Used when river/sea conditions begin to return to normal	• Return to site once emergency services confirm it is safe to do so • Be aware flood water may be around for several days • Inspect damage

5 FLOOD PREPARATION AND EVACUATION PROCEDURE

- 5.1.1 Flood warnings will be received by the Hill and Smith manager Gavin Teague (contact number: 07738 640000)
- 5.2 Preparation of Premises
 - 5.2.1 To minimise any potential contamination of flood waters or damage to building contents, upon receipt of a 'Flood Warning' (issued between 30 minutes and 1 day in advance of flooding), actions will be taken to prepare the facility for a flooding event.
 - 5.2.2 Upon receipt of the 'Flood Warning', the situation will be assessed and if it is deemed necessary (based on the likelihood of flooding and how imminent this will be) equipment and furniture will be stored above ground or relocated to the first floor and flood mitigation equipment such as door planks and sandbags will be located and prepared.
 - 5.2.3 Prior to evacuation, gas, water and electricity supplies in the facility will be turned off.
 - 5.2.4 Flood mitigation procedures, such as flood barriers, will be put in place by designated personnel to 'lock down' the premises prior to evacuation, limiting the ingress of flood water.
- 5.3 Evacuation of Staff and Visitors
 - 5.3.1 If the severity of the situation increases, or upon the issue of a 'Severe Flood Warning', the orderly evacuation of the building will be implemented.
 - 5.3.2 The evacuation of staff and visitors will follow standard evacuation procedures for fire and other hazards at the unit. An alarm will be sounded, and all staff and visitors will move via the emergency exits to an assembly point. All staff and visitors will be accounted for against records of people currently present on-site.
 - 5.3.3 Based on NRW mapping, Tom Lewis Way to the north of the site would be unaffected by tidal flooding and this should be followed by vehicle or on foot.
 - 5.3.4 Surface water flooding of the low lying ground at the site entrance could, however, potentially reach depths of 0.2m in extreme storm events. Guidance for motorists generally advises against driving through flood waters with depths greater than 0.1m.
 - 5.3.5 Evacuation to Tom Lewis Way may, therefore, only be viable on foot (with DEFRA guidance stating that standing water is passable on foot at depths of up to 1.25m). There are no other areas of standing water along Tom Lewis Way to the north.

- 5.3.6 This evacuation route is shown on Drawing CA13312-002 'Evacuation Procedure'.
- 5.3.7 Whilst the facility and surrounding roads may be unaffected by floods, it is important to be aware that there may be severe disruption to roads and footpaths in the wider area. Information on this will be confirmed from Natural Resources Wales, emergency services or the local news when planning an evacuation route.
- 5.3.8 If evacuation is not possible due to the depth or velocity of flood waters, refuge will be taken on the upper floor with the flood emergency kit. All staff and visitors will assemble in the staff canteen on the upper floor and will be accounted for against records of people currently present on site.
- 5.3.9 Staff and visitors will continue to take refuge on the upper floor until the NRW Flood Warning Service issue a 'Warning No Longer in Force' status to indicate conditions have returned to normal and no further flooding is expected, or until rescue arrives.
- 5.4 Returning to Site
- 5.4.1 When conditions have returned to normal and no further flooding is expected, the NRW Flood Warning Service will issue a 'Warning No Longer in Force' status. Management will then consult the emergency services to confirm it is safe to return to site.
- 5.4.2 With confirmation that it is safe to return to site, the building will be inspected by a senior member of staff. Protective clothing will be worn and cuts covered during the initial inspection when handling any items or debris. Re-entry by other personnel will not be permitted until it is declared safe to do so.
- 5.4.3 Gas, water and electricity supplies to the site will only be restored after consultation with the utilities providers.

6 REVIEW

- 6.1.1 The Flood Management and Evacuation Plan will be reviewed annually and following any organisational changes or flooding incidents.
- 6.1.2 Following any review or revision, the plan will be tested to ensure that it is effective.

7 FLOOD RESISTANCE AND RESILIENCE

7.1.1 To minimise the impacts of flooding, resistance and resilience measures can be incorporated into the design of a development. The NRW 'Preparing for a Flood' webpage³ includes examples of these measures, including:

- use synthetic doors/window frames;
- installing tiles in ground floor rooms rather than fitted carpets;
- raising the height of electrical sockets to at least 1.5 metres above the ground floor level;
- fit stainless steel or plastic kitchens instead of chipboard ones, or have freestanding units which can be moved;
- position any main parts of a heating or ventilation system, like a boiler, upstairs or raised well above the ground floor;
- fit non-return valves to all drains and water inlet pipes.

7.1.2 The proposed structure will incorporate external steel doors and PVC window frames, vinyl flooring within the majority of ground floor rooms, vinyl-faced plasterboard walls and it is considered, therefore, that some flood resilience is incorporated.

7.1.3 The main canteen will be located on the first floor, along with two WC's and it is considered, therefore, it would be feasible for occupants to take refuge on the first floor and await rescue.

³ NATURAL RESOURCES WALES 'Preparing for a Flood' Available from:
<https://naturalresources.wales/flooding/preparing-for-a-flood/?lang=en>

APPENDICES

APPENDIX 1

Natural Resources Wales Flood Mapping

Flood Risk Maps
Site

Legend

--- Flood Defence Locations

Flood Risk from the Sea

High

Medium

Low

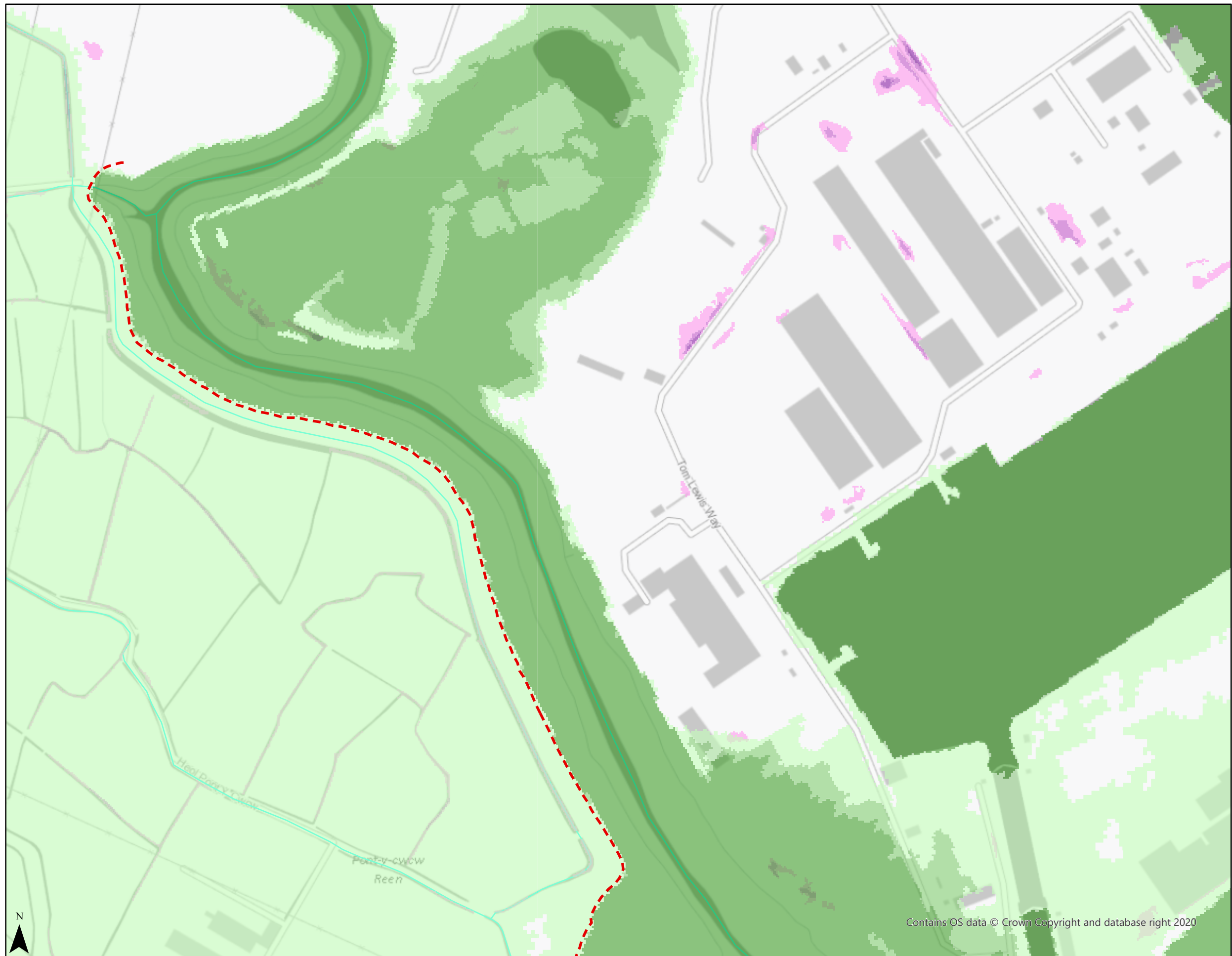
Flood Risk from Surface Water & Small Watercourses

High

Medium

Low

— Main Rivers



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Scale at A3: 1:4,699

Date: 10/03/2025

0.2 0.1 0 0.2
km

British National Grid

Disclaimer

<https://naturalresources.wales/flooding/disclaimer-for-our-flood-and-coastal-erosion-risk-maps/?lang=en>

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APPENDIX 2

Natural Resources Wales Business Flood Plan



Business Flood Plan

Address:

Postcode:

Flood warning trigger:

**Quick action
flood plan:**

- Activate your Business Flood Plan
- Contact Floodline or tune in to local media for up to date information
- Evacuate everyone to a safe location away from the flood affected area
- Call 999 if anyone is trapped or in danger and await instructions from emergency services

Floodline number: 0345 988 1188 (choose option 1)

Receiving warning: 0345 988 1188

Alerting staff / customers (and how):

Installing flood protection products:

Switching off – gas, water, electricity:

Taking action on business items:

Taking action on hazardous substances / items:

Other:

Location of First Aid kit:

Assembly point:

Staff contact list:

Staff who may require assistance in the event of a flood:

Location of switch off points (mains supply):

Electricity:

Gas:

Water:

Other:

Business Items:

(stock, equipment and possessions that may need special protective measures (for example: move to a higher position)

Item	Storage location	Action location

Hazardous Substances / Items:

(stock, equipment and possessions that may need special protective measures (for example: things that could contaminate water)

Oil Based Item	Chemicals	Other

Useful numbers:

APPENDIX 3

Example Flood Alert Notice

Flood Alert Notice

This building is located in an area at risk of tidal flooding.
Flooding may occur when high winds during storms coincide with high tides.

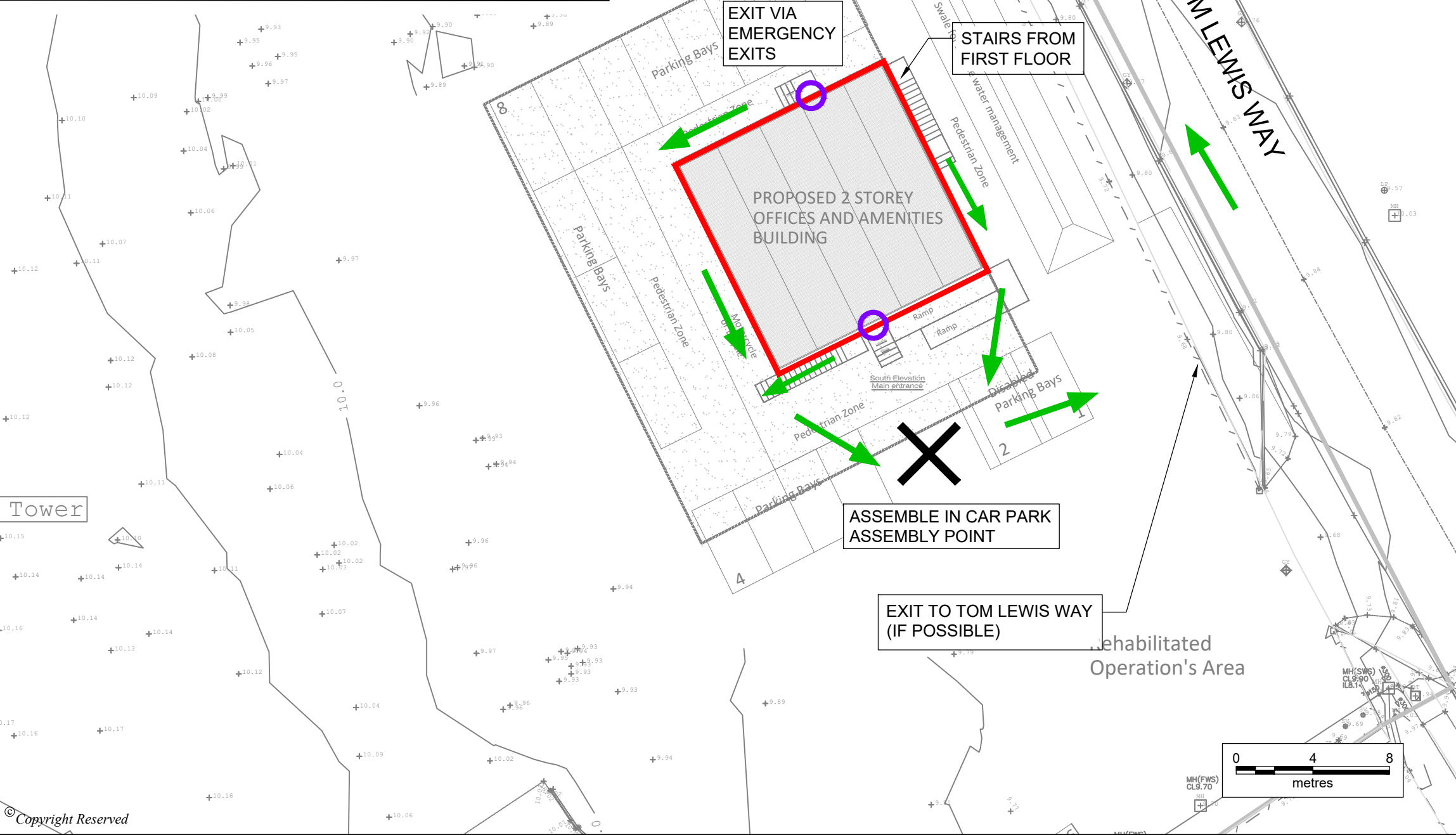
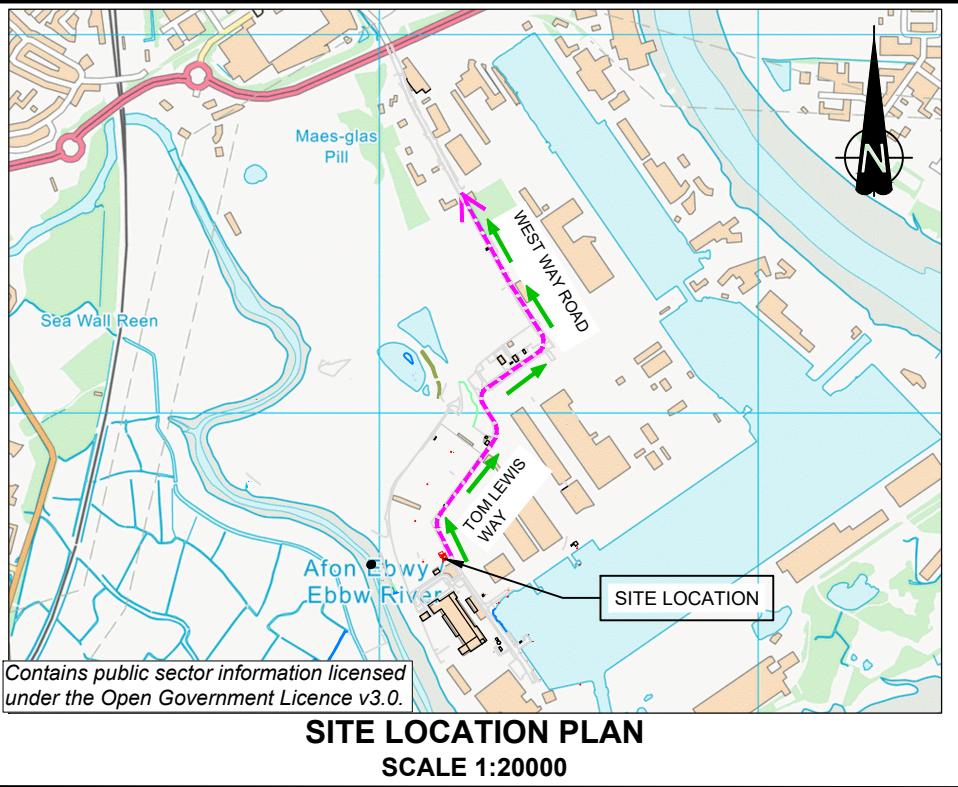
Do not walk or drive through deep floodwater

Up-to-date flood warning information and advice can be obtained from:
Natural Resources Wales Floodline 0345 988 1188 (24 hour service)

Or visit their website:

www.naturalresources.wales/flooding/check-flood-warning

DRAWINGS



DO NOT SCALE FROM THIS DRAWING

KEY

- OFFICE BUILDING
- ASSEMBLY POINT
- GROUND FLOOR EMERGENCY EXIT
- EVACUATION ROUTE

NOTE:-
LAYOUT PRODUCED FROM CA13057-03-04-LAYOUT BUILDINGS

A	FIRST ISSUE	19-03-25	DR	BGG	EK
REVISION	DETAILS	DATE	DRN	CHK'D	APP'D

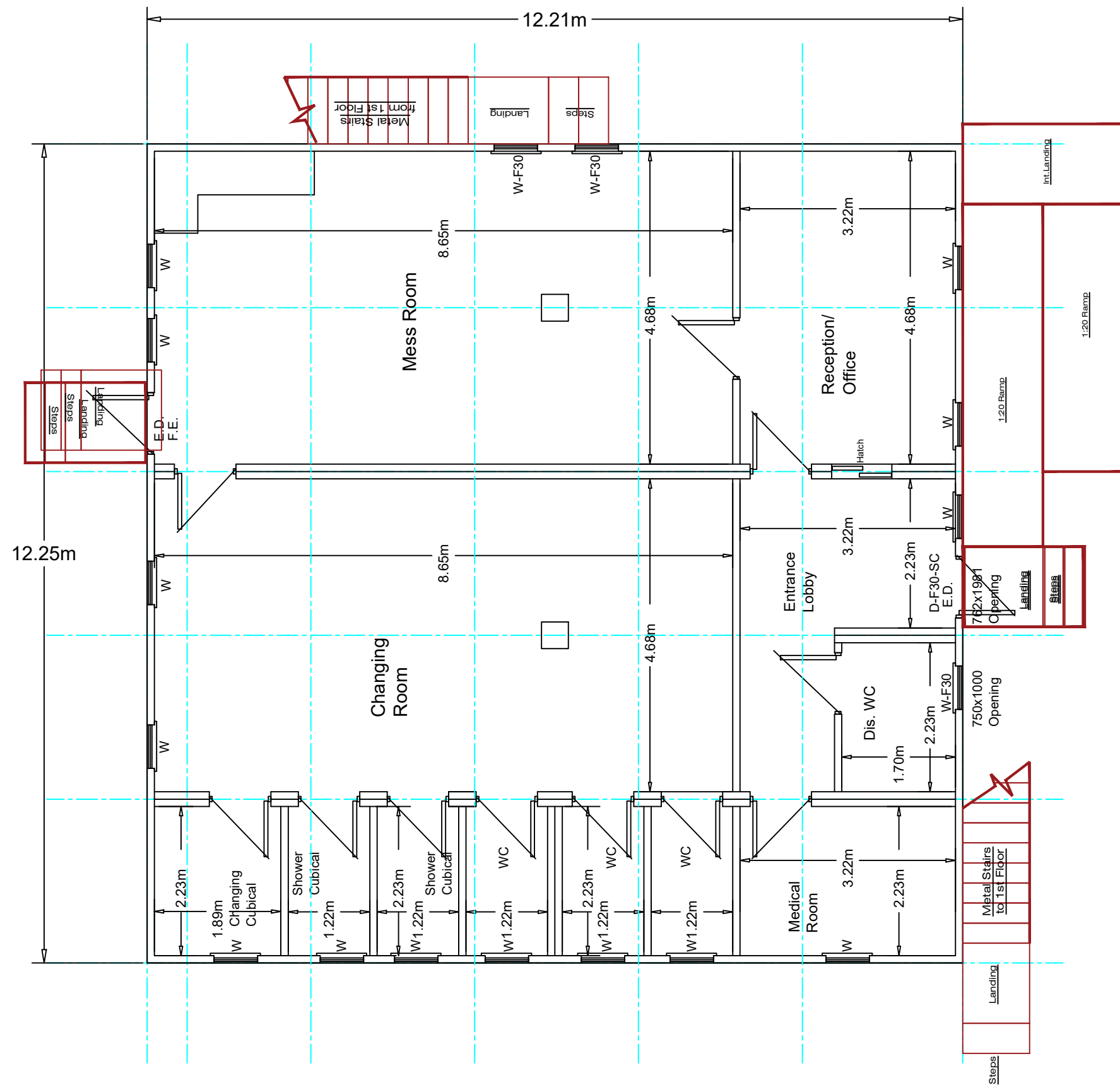
CLIENT
ASSOCIATED BRITISH PORTS

PROJECT
ALEXANDRA DOCKS,
NEWPORT HILL & SMITH COMPOUND

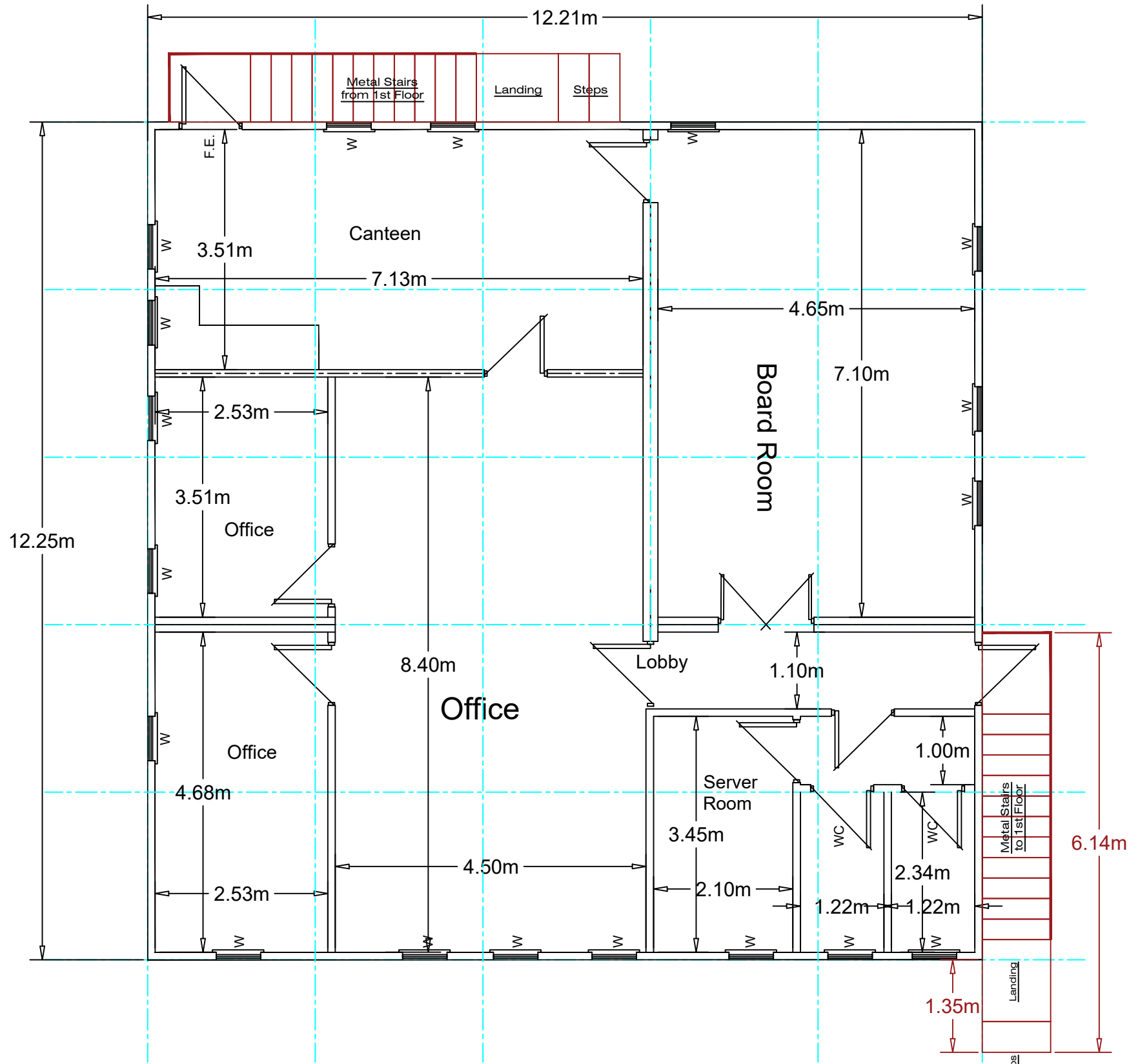
DRAWING TITLE
PROCEDURE IN EVACUATION

DRG No.	CA13312-002	REV	A	SUIT. CODE	-
DRG SIZE	A3	SCALE	1:200	DATE	13-03-25
DRAWN BY	DR	CHECKED BY	BGG	APPROVED BY	EK

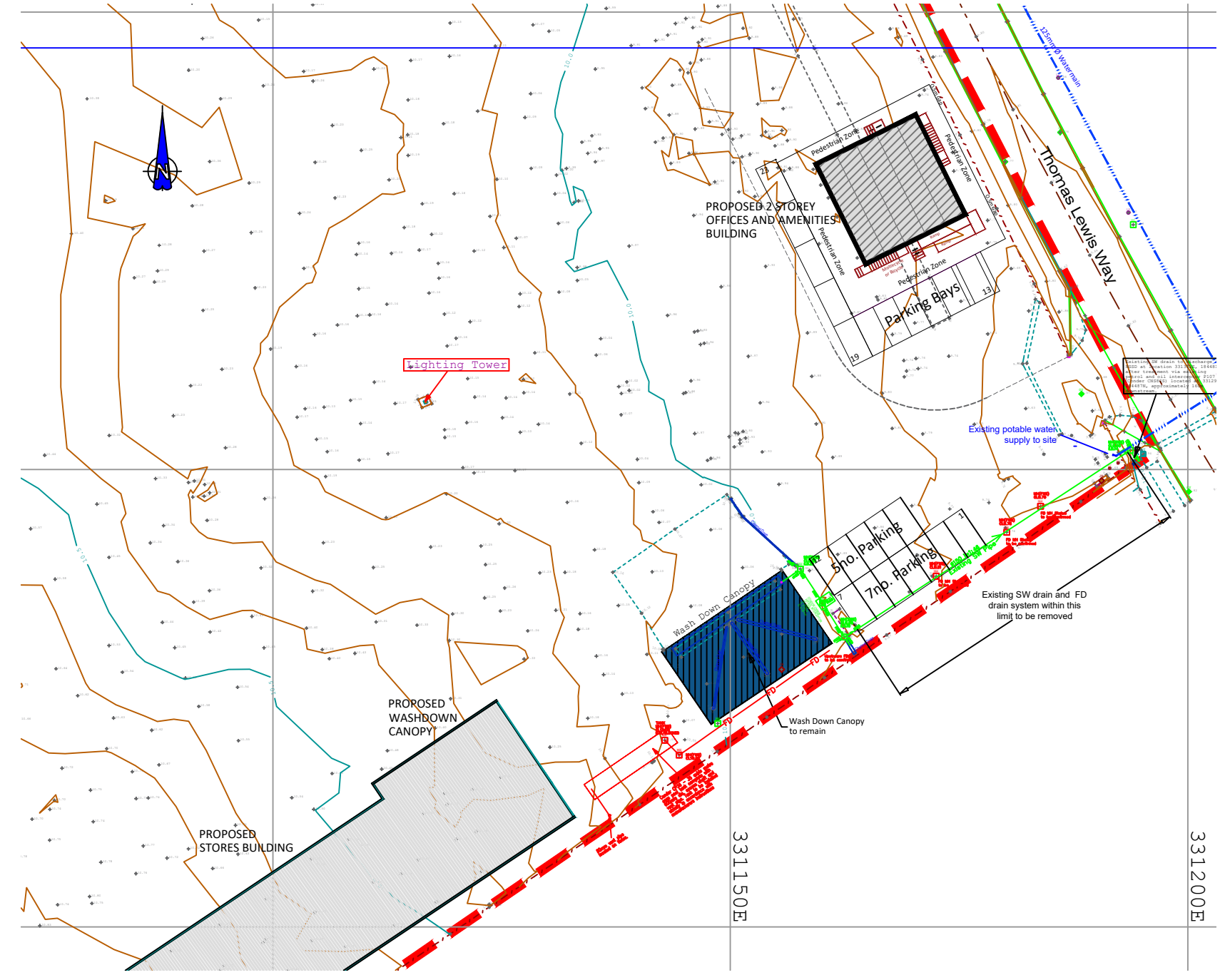
wardell armstrong
PART OF **SLR**



GROUND FLOOR LAYOUT 1:50



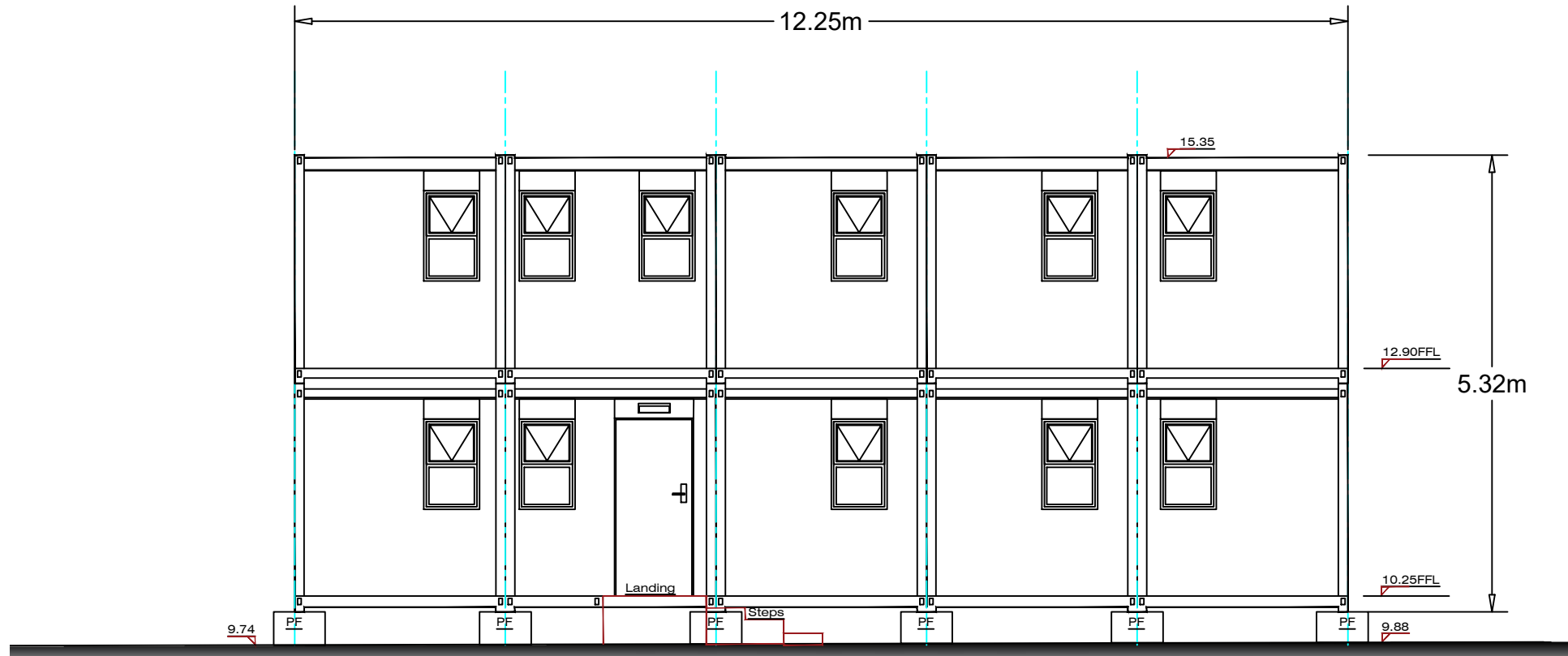
FIRST FLOOR LAYOUT 1:50



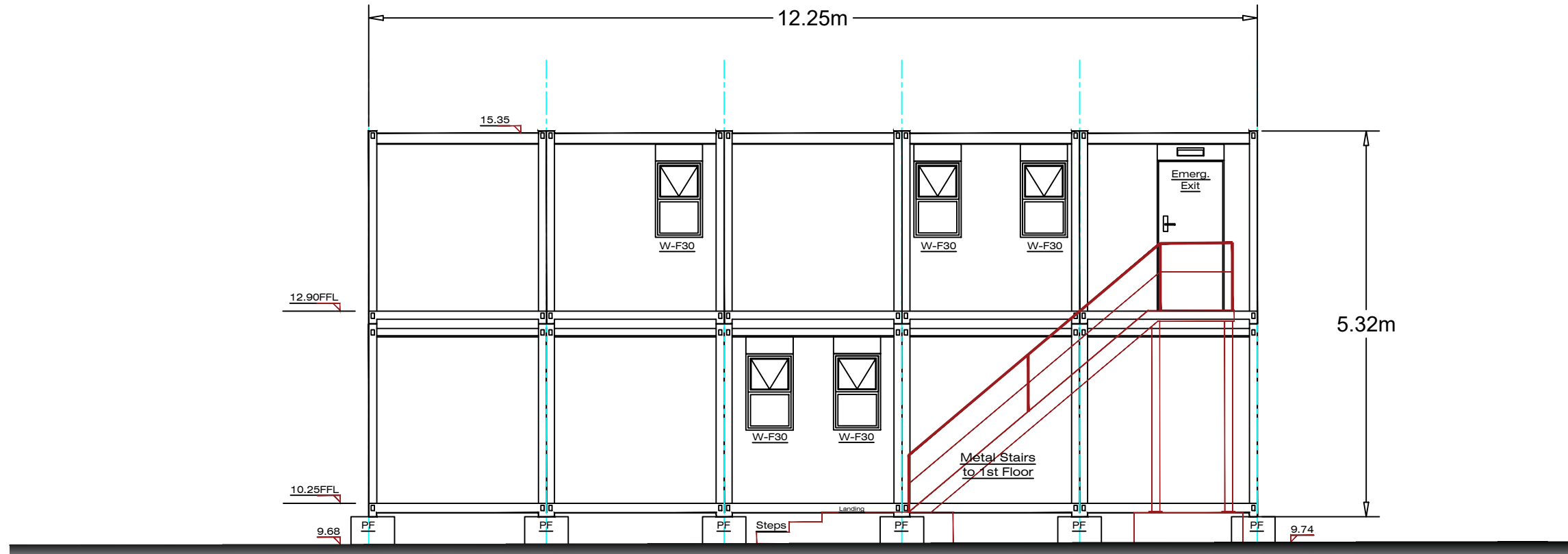
KEY PLAN
NTS

GENERAL:

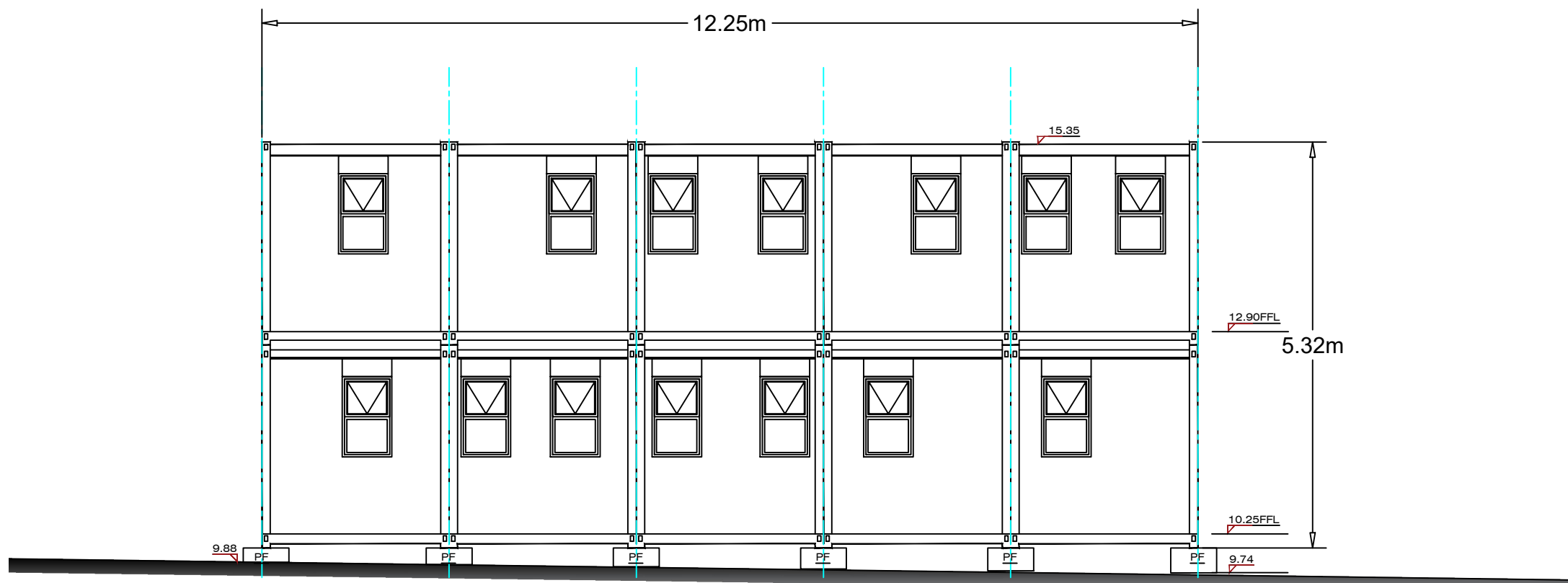
- All dimensions are in millimetres. All levels are in metres.
- All structural elements, foundation pads and DCB walls are indicative only.
- The design, installation and commissioning of the modular offices and amenities building to be responsibility of the specialist modular offices Contractor.
- External finishes and trim colour to be determined in due course to meet with Hill & Smith's requirement.
- W-F30 denote window with 30 minutes fire resistance construction.
- D-F30-SC denote door with 30 minutes fire resistance construction, self-closing.



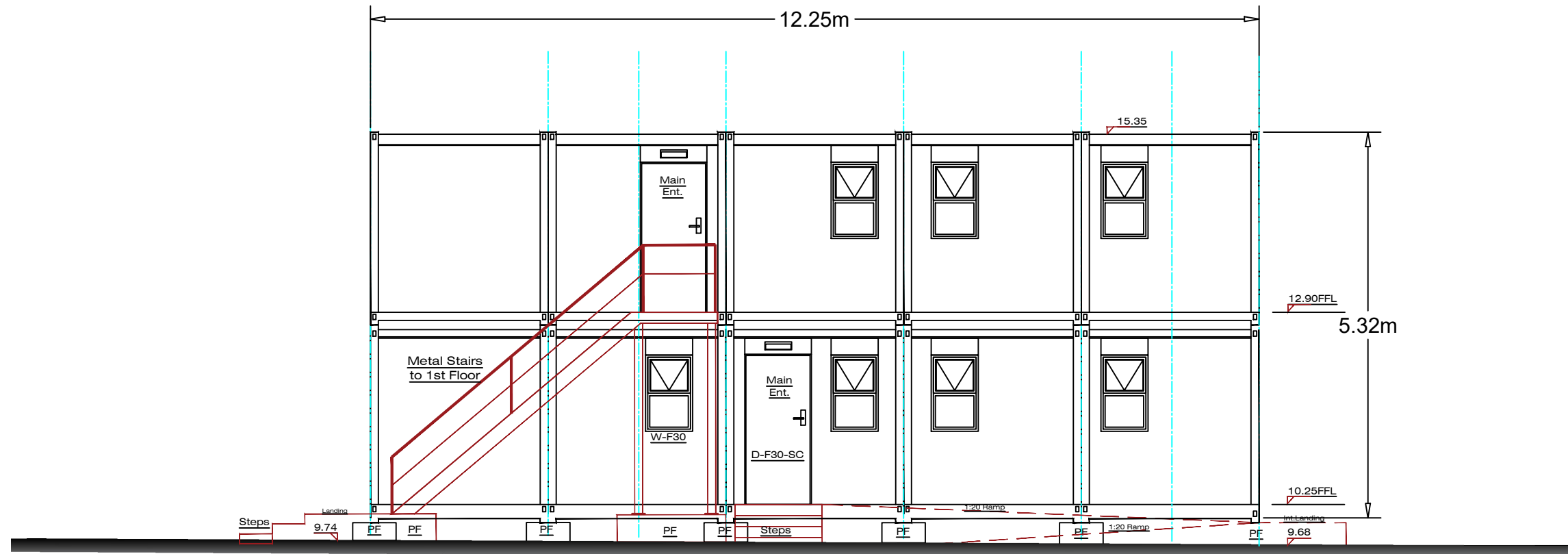
NORTH ELEVATION 1:50



EAST ELEVATION 1:50



WEST ELEVATION 1:50



SOUTH ELEVATION 1:50

C	Office first layout layout revised	16.12.21	PP	SW
REVISION	DETAILS	DATE	ISSUED	APPROVED
CLIENT	ABP South Wales and Shortsea			
PROJECT	Alexandra Docks, Newport Hill & Smith Compound Extension			
DRAWING TITLE	Office & Amenities Building Layout and Elevations			
DRG No.	CA12034 - 004	REV	C	
DRG SIZE	A1	SCALE	As Shown	DATE
DRAWN BY	PP	CHECKED BY		08.04.21
		APPROVED BY		
STOKE ON TRENT TEL 01782 276700 WWW.WARDELLARMSTRONG.COM				
BIRMINGHAM GLASGOW BOLTON LEEDS CARDIFF LONDON CARLISLE MANCHESTER EDINBURGH NEWCASTLE UPON TYNE				

STOKE-ON-TRENT

Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM

Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON

41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

BRISTOL

3rd Floor
Brew House
Jacob Street
Tower Hill
Bristol
BS2 0EQ
Tel: +44 (0)117 203 4477

BURY ST EDMUNDS

Armstrong House
Lamdin Road
Bury St Edmunds
Suffolk
IP32 6NU
Tel: +44 (0)1284 765 210

CARDIFF

Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE

Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH

The Tun
4 Jackson's Entry
Edinburgh
EH8 8PJ
Tel: +44 (0)131 555 3311

GLASGOW

24 St Vincent Place
Glasgow
G1 2EU
Tel: +44 (0)141 428 4499

LEEDS

36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON

Summit House
12 Red Lion Square
London
WC1R 4QH
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE

City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO

Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International office:

ALMATY

29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310