

FACILITY DESCRIPTION



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CONTENTS

1.0	Introduction.....	6
1.1	Overview of the AMC-CUF.....	6
1.2	Overview of the AMC-CUF North	7
1.3	Other Facilities within the AMC	7
2.0	Harbour Channels, Island Breakwater, Harbour Basin and Berthing Pockets	8
2.1	CUF Shipping Access.....	8
2.2	CUF North Shipping Access	8
3.0	Wharves, Hard-Stand Areas / Pavements, Access Roads and High-Wide Load Corridors	12
3.1	Wharves.....	12
3.2	Wharf Specifications.....	14
3.3	Laydown Areas and Pavements.....	20
3.4	Internal Access Road and High-Wide Load Corridor (HWLC) Access	20
4.0	On Site Facilities – Buildings	22
4.1	Building B001 - Fabrication Hall No. 1	26
4.2	Building B002 - Project Office and Amenities	32
4.3	Building B003 – Project Offices.....	34
4.4	Building B004 - Trade Shops and Workshop	36
4.5	Building B006 – Office/toilet.....	39
4.6	Building B009 – Fabrication Hall (No. 2)	40
4.7	Building B010 - Warehouse.....	45
4.8	Building B020 – Crib Room	48
4.9	Building B021 – Office.....	49
4.10	Building B022 – Ablutions.....	50
4.11	Building B053 – Office.....	51
4.12	Building B056 – Office.....	52
4.13	Building B057 – Crib Room	52
4.14	Building B058 – Project Offices.....	52
4.15	Building B061 – Ablution.....	54
4.16	Building B064 – Office and Crib Room	54
4.17	Building B065 – Ablutions	54
4.18	Building B067 – Office and Cribroom	54
4.19	Building B068 – Ablution.....	54
4.20	Building B072 – Ablution.....	54
4.21	Building B073 – Single Room	54
4.22	Public Toilets.....	54
5.0	Floating Dock	55
6.0	Self Propelled Modular Transporters (SPMTs).....	56

7.0	On Site Facilities –Services.....	57
7.1	<i>Electrical Facilities.....</i>	57
7.2	<i>Potable Water Supply.....</i>	57
7.3	<i>Waste Water (Sullage)</i>	57
7.4	<i>Sewerage</i>	57
7.5	<i>Fire Water</i>	57
7.6	<i>Communications.....</i>	58
7.7	<i>Security.....</i>	58
7.8	<i>Port Facility Security Plan</i>	58
7.9	<i>Australian Customs.....</i>	58
8.0	CLIMATE.....	59
8.1	<i>Current climate statistics</i>	59
8.2	<i>Tide</i>	59
8.3	<i>Storms</i>	59
8.4	<i>Wind.....</i>	59



GLOSSARY

AMC	Australian Marine Complex
AMC-CUF	Australian Marine Complex – Common User Facility
AMCM	AMC Management (Aust) Pty Ltd – current Manager of the CUF and Operator of the Infrastructure.
CUF	Common User Facility (See above)
ACEPT	Australian Centre for Energy and Process Training Facility
CD	Chart Datum
FM	Facility Manager
HWLC	High Wide Load Corridor
RoRo	Roll on Roll off berth
SPMT	Self Propelled Modular Transporters

1.0 INTRODUCTION

This document provides Users of the Australian Marine Complex, Common User Facility (AMC-CUF) with an overview and technical information of the AMC-CUF, sufficient to allow potential Users to commence early evaluation and planning for use of the Facility. More detailed data can be made available if required.

The Western Australian Government owned AMC-CUF is a large, 40ha, integrated facility, with an open access policy for multiple users. It has been operating since 2003 and is part of the Fabrication Precinct at the AMC.

It is a safe and secure location for fabrication, assembly, commissioning, maintenance and repair activities, with off loading and load-out facilities. Key features of the AMC-CUF:

- It is a key component of the AMC in Western Australia, which has financial backing from the Australian Federal and Western Australian State Governments.
- It is located on the north-east sector of Cockburn Sound, 23 kilometres south of the state's capital city, Perth.
- The AMC-CUF is split into two geographical areas known as AMC-CUF and AMC-CUF North



1.1 Overview of the AMC-CUF

The AMC-CUF has:

- A fully accessible and protected Harbour with deep access/approach channel (depth 10.0 metres) and Harbour Basin suitable for large heavy lift vessels, barges and FPSOs (dredged to 11.0m and 12.7m)
- Loadout wharves connected to the Fabrication/Assembly Hall and Laydown/Assembly areas by internal paved corridors. These corridors, within the AMC-CUF, are connected to the local High Wide Load Corridors utilising the Regional Highway System.
- Berths able to be utilised for maintenance and ship repair as well as load outs

- Land backed wharf suitable for barge operations which includes a stern ramp configured RoRo berth.
- Floating Dock capable of transferring up to 4,600t to land
- 129 lines of Self Propelled Modular Transporters (SPMTs) capable of approximately 36T per line (4,600t capacity)
- A serviced Common User Fabrication and assembly area. Approximately 50% of the laydown area is serviced by power, water, communications and sewerage.
- A mobile Fabrication/Assembly hall (80m long x 60m wide internally x 45m high) built for flexibility of operations in fabrication, assembly and loadout modes, with extensive portal and gantry crane systems. A 150 tonne portal crane can be moved on a internal 160m track with 32m clearance below the hook.
- Administrative support, project management offices and amenities, trade shops, workshops/warehouses and security systems.

1.2 Overview of the AMC-CUF North

Also located in Cockburn Sound, 2 km north of the CUF is a 4.6 hectare Common User fabrication, assembly and storage area.

The AMC-CUF North has:

- Protected shallow water harbour
- Jetty, lay-by berths on both sides (chart datum varying from 6m to 2m (foreshore end))
- Lay down and storage area of approximately 4.6 Ha
- Vessel jetty only

1.3 Other Facilities within the AMC

Immediately adjacent to the AMC-CUF is the 80 hectare Fabrication Precinct. Included in this Precinct is a Sub Sea Cluster with direct access to shipping via the Common User Facility deep water channel.

The nearby Technology Precinct provides office space for companies specialising in high tech areas and education.

More than 150 businesses are located within the AMC which is made up of four main precincts:

- Maritime
- Technology
- Support Industry
- Fabrication

Situated within these precincts, the AMC also provided world-class multi-user facilities including:

- Common User Facility (CUF)
- AMC Jakovich Centre
- Australian Centre for Energy and Process Training Facility (ACEPT)
- Marine Support Facility

2.0 HARBOUR CHANNELS, ISLAND BREAKWATER, HARBOUR BASIN AND BERTHING POCKETS

2.1 CUF Shipping Access

Shipping access to the CUF is from the southern opening. The northern opening has been designed to provide suitable flushing of the Harbour and limited access for small vessels.

The dredged depth in the access/approach channel and the harbour basin is 10.0 metres. The approach channel is 160 metres wide and the dredged area in the harbour basin is 32 hectares.

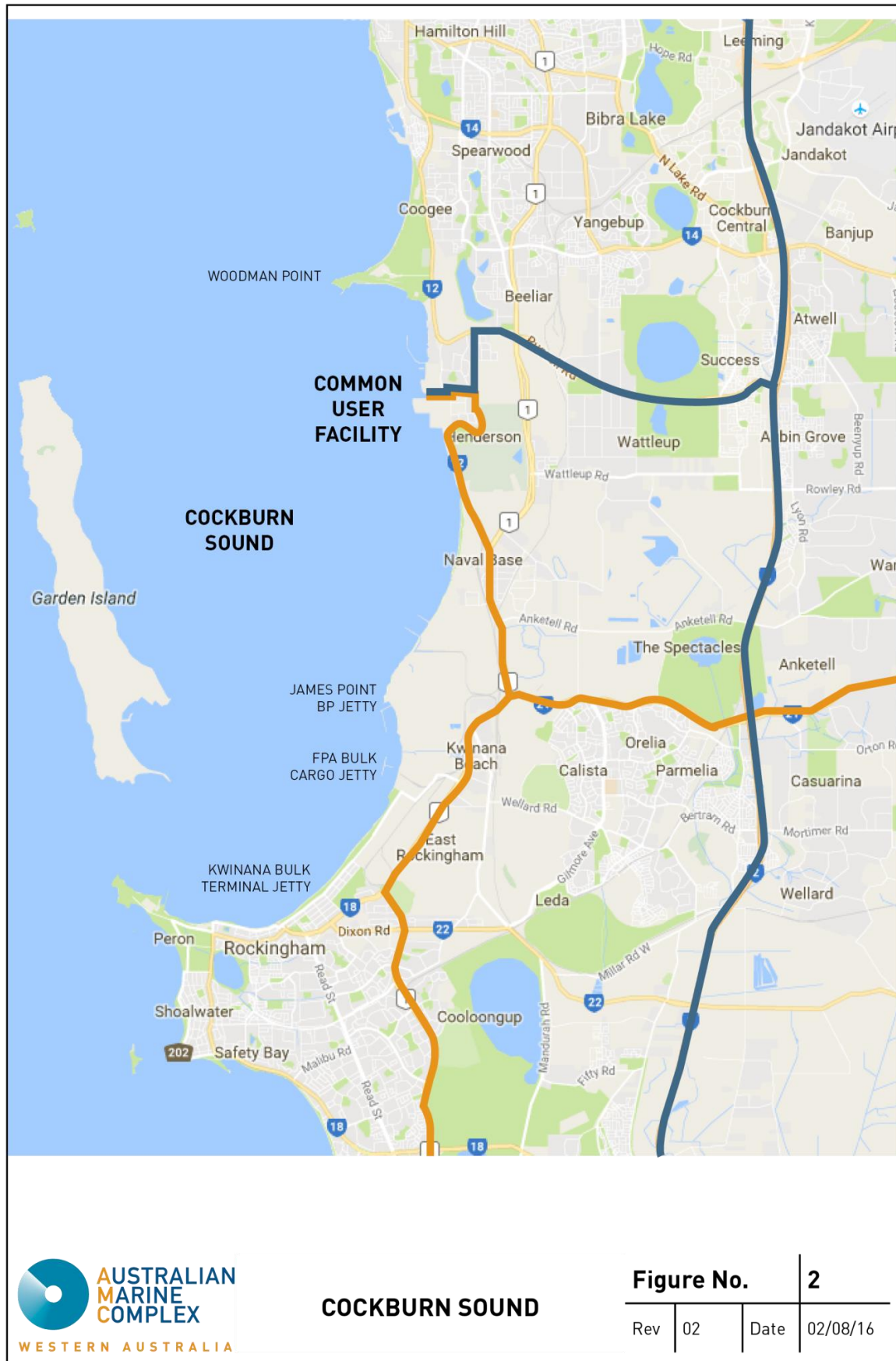
Shipping activities in this area are under control of the Fremantle Port (Outer Harbour).

2.2 CUF North Shipping Access

The AMC-CUF North is accessible through a separate sea wall opening as indicated on Figure 3. The harbour is suitable for vessels of 5.0 metre draft.

Shipping activities in this area are under control of the Department of Transport.







3.0 WHARVES, HARD-STAND AREAS / PAVEMENTS, ACCESS ROADS AND HIGH-WIDE LOAD CORRIDORS

3.1 Wharves

3.1.1 Types and size of vessels.

The harbour and wharves have been designed to accommodate a range of different vessels and configurations. The following tables show typical vessels that use the facility.

Barges

Barge Capacity	Length	Width	Moulded Depth	Laden Draft	Deck Height
3,000t	76m	22m	6.0m	3.5m	2.5m
4,000t	90m	27m	6.5m	4.0m	2.5m
6,000t	170m	45m	11.0m	6.0m	5.0 m
15,000t	225m	55m	12.0m	8.5m	3.5m

Naval Vessels

Vessel Type	Length	Width	Displacement DISP	
Anzac class Frigate	118m	14.8m	3,600 tonnes	
Collins class Submarine	93m	8m		Special fender mounts provided

Heavy Lift Vessels

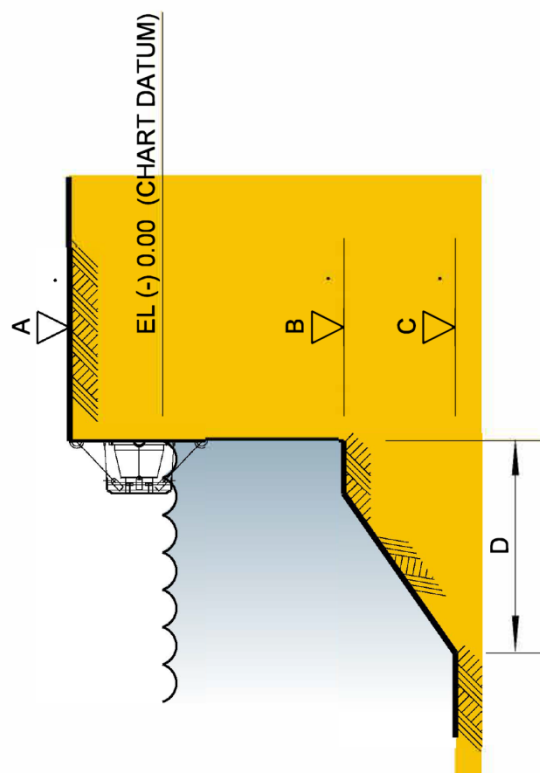
Vessel Type	Length	Width	Moulded Depth	Laden Draft	Deck Height
Swan/Tern	181m	32m	13.3m	7.2 - 10.0m	3.3 - 6.1m
Dock Express 11	159m	24m	7.0m	6.0 - 7.8m	-0.8 - 1.0m
Transshelf	173m	40m	12.0m	7.0 - 8.8m	3.2 - 5.0m
M Servant 3	181m	40m	12.0m	7.0 - 9.1m	2.9 - 5.0m
M Servant 1	190m	50m	12.0m	7.0 - 9.3m	3.2 - 5.0m
Blue Marlin	225m	63m	13.3m	8.0 - 10.2m	3.1 - 5.3m
Black Marlin	218m	42m	13.3m	8.0 - 10.1m	3.2 - 5.3m
Enterprise	158m	29m	5.3m	4.4m	0.9m

3.1.2 Harbour Depth and Wharf Elevations

The harbour depth is nominally 10.0 meters below chart datum with 12.7m dredged pocket for grounded barge loadout (AMC 4) and 17m deep sink pocket for floating dock (also AMC 4).

The wharves (AMC 1 through AMC 6) have variable heights and water depths as below.

WHARF	ELEVATIONS (METRES)			
	A	B	C	D
AMC 1	3.6	(-)10.0	(-)11.0	8.0
AMC 2	3.6	(-)10.0	(-)10.0	N/A
AMC 3	3.6	(-)9.3	(-)9.3	N/A
AMC 4	4.5	(-)12.7	(-)12.7	N/A
AMC 5	4.5	(-)8.0	(-)8.0	N/A
AMC 6	4.5	(-)8.0	(-)8.0	N/A
C UF North	4.5	(-)8.0	(-)8.0	N/A



WHARF ELEVATIONS (1-6, CUF NORTH)

Figure No.

4

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3.2 Wharf Specifications

The wharves have been designed for varying loads and load combinations. The following summarises the critical design live loads and combinations for each of the main structures.

3.2.1 AMC 1

The wharf is 115m long and has a height of 3.6m above CD. It has the capability to load out large project structures onto vessels berthed either alongside or stern-to. The bollards are designed to take a load of 120 tonnes each. Their locations are shown in Figure 5.

SPMTs can operate anywhere on the wharf. Cranes are not able to be closer than 3m to the wharf edge.

Allowable Loads:

- SPMT loading not to exceed 10t/m²
- Total crane load (including counterweight and dynamic loads) not to exceed 3,200t
- Crawler track pressures do not exceed 90t/m²
- Outrigger pad loading not to exceed 1350t
- Separation between operating cranes, or cranes and SPMT's is greater than 3m.

3.2.2 AMC 2

The wharf is 69m long and has a height of 3.6m above CD. The wharf is suitable for vessel maintenance with a deck generally capable of operating 100t mobile cranes. Dolphins and deck areas are equipped with 50 tonne bollards. Onshore bollards have a capacity of 120 tonnes. Their locations are shown in Figure 5.

Allowable Loads:

- Total crane load does not exceed 100t
- Crawler track pressures do not exceed 10t/m²
- Outrigger pad loading do not exceed 50t

Dolphins and deck areas are equipped with bollards with a load capacity of 50 tonnes. Onshore storm bollards have a capacity of 120 tonnes. Their locations are shown below. Services for ships include shore power (incl. 50 Hz & 60Hz supply), sewerage, potable water and fire services.

3.2.3 AMC 3

The wharf is 132m long and has a height of 3.6m above CD. AMC 3 has similar capabilities and services as AMC 2. Dolphins and deck areas are equipped with 50 tonne bollards. Onshore bollards have a capacity of 120 tonnes. Their locations are shown below. A low level landing for vessels up to 12m is provided at the south end of AMC 3. Their locations are shown in Figure 5.

3.2.4 AMC 4

The wharf is 115m long and has a height of 3.6m above CD. It has the capability to load out large project structures onto vessels berthed either alongside or stern-to. Bollards are designed to take a load of 120 tonnes each. Their locations are shown in Figure 6.

The dolphin and crane platforms have been designed for the same allowable loading conditions.

Allowable Loads:

- SPMT loading not to exceed 10t/m²
- Total crane load (including counterweight and dynamic loads) not to exceed 3,200t
- Crawler track pressures do not exceed 90t/m²
- Outrigger pad loading not to exceed 1350t
- Separation between operating cranes, or cranes and SPMT's is greater than 3m.

SPMTs can operate anywhere on the wharf. Cranes are not able to be closer than 3m to the wharf edge.

3.2.5 AMC 5

The wharf is 177m long and has a height of 4.5 above CD. It includes a 45m wharf suitable to land a stern ramp for RORO operations. Bollards are designed to take a load of 60 tonnes each. Their locations are in Figure 7.

Allowable Loads:

- Total crane load not to exceed 100t
- Crawler track pressures not to exceed 10t/m²
- Outrigger pad loading not to exceed 50t
- SPMT loading not to exceed 10t/m²

SPMTs can operate anywhere on the wharf. Cranes are not able to be closer than 3m to the wharf edge.

3.2.6 AMC 6

The wharf is 75m long and has a height of 4.5 above CD. It has been designed to berth vessels alongside or to land a stern ramp onto the wharf. Bollards are designed to take a load of 60 tonnes each. Their locations are shown in Figure 8.

Allowable loads:

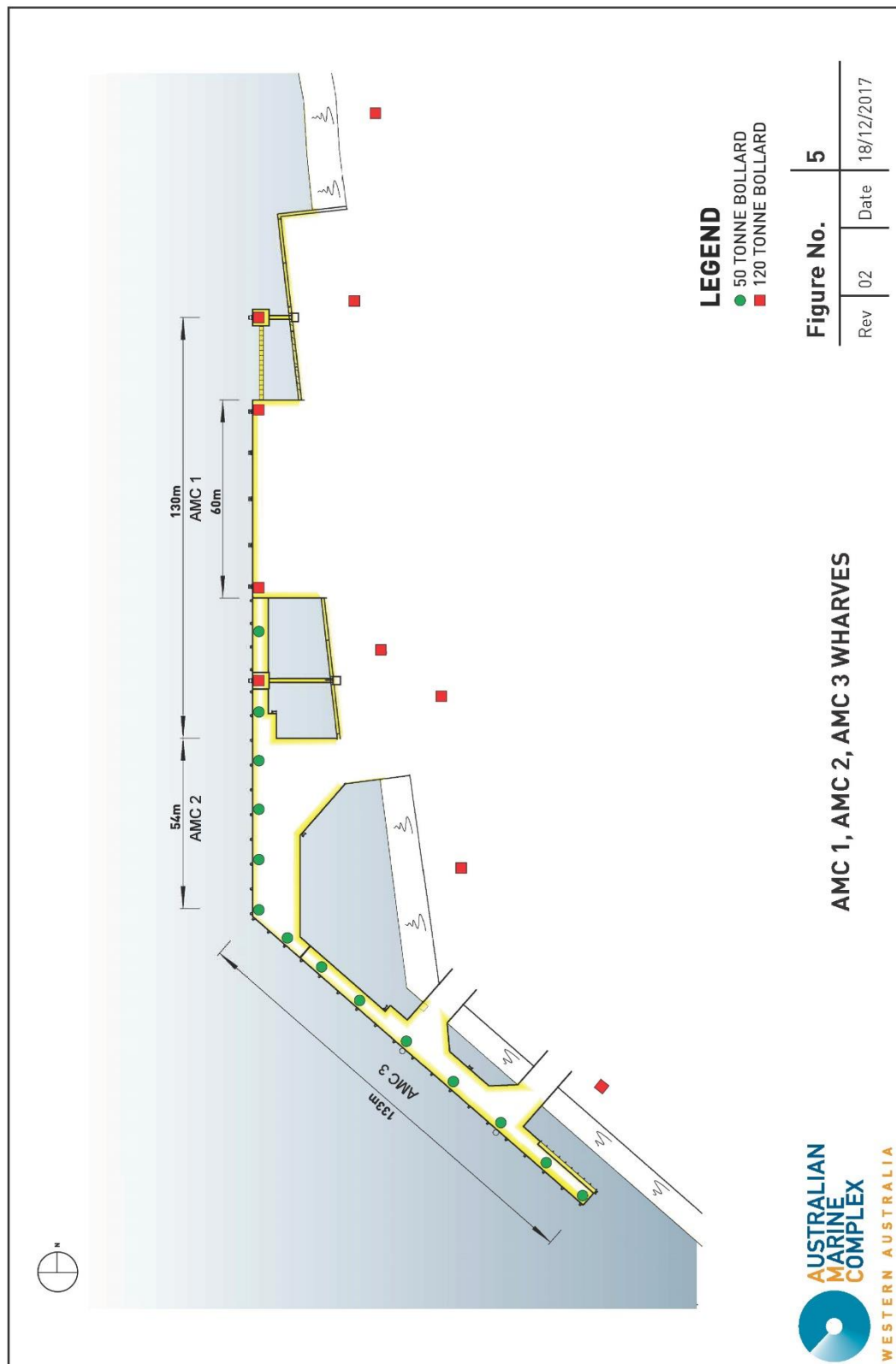
- Total crane load not to exceed 100t.
- Crawler track pressures not to exceed 10t/m²;
- Outrigger pad loading not to exceed 50t
- SPMT loading not to exceed 10t/m².

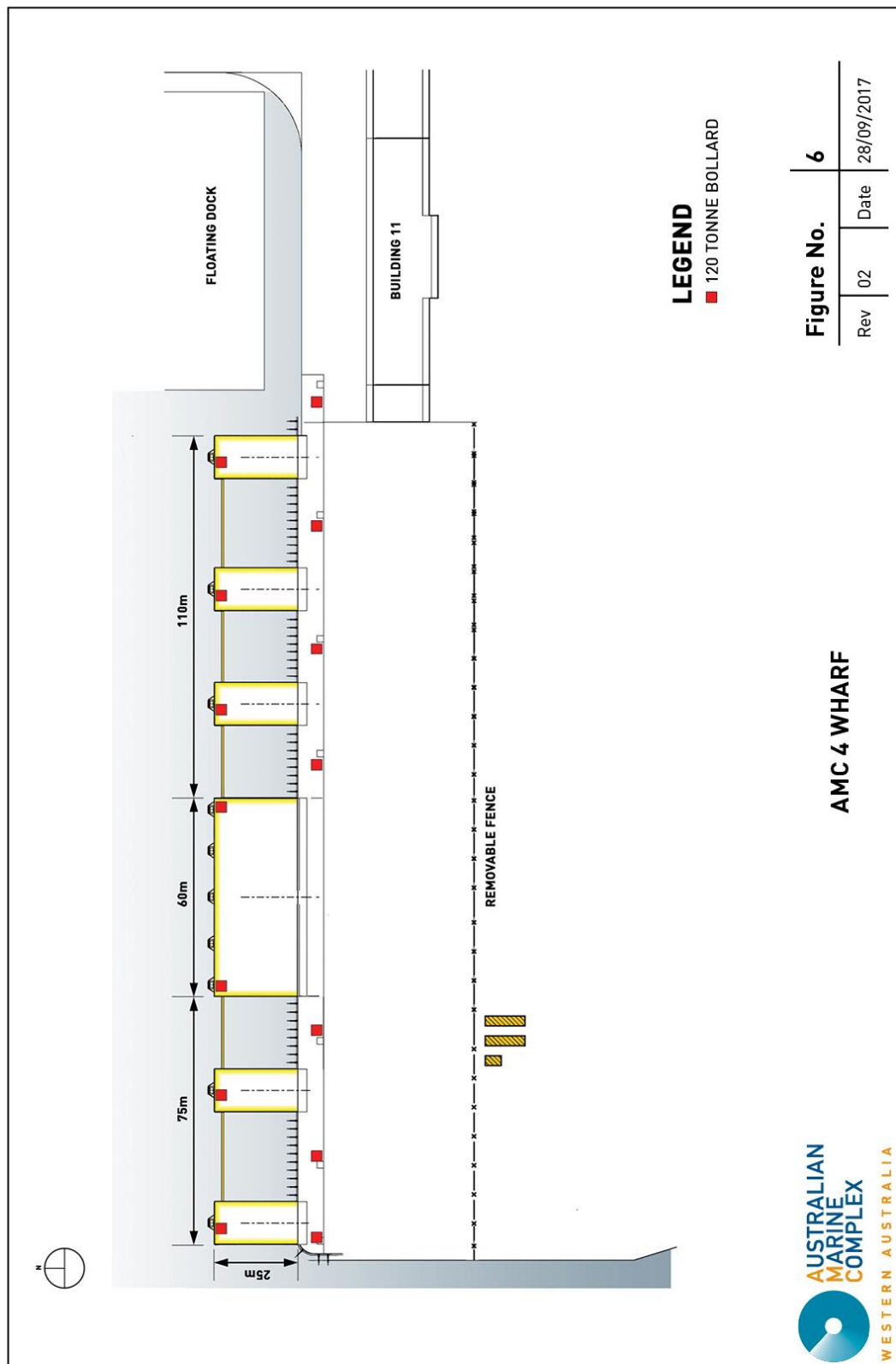
SPMTs can operate anywhere on the wharf. Cranes are not able to be closer than 3m to the wharf edge.

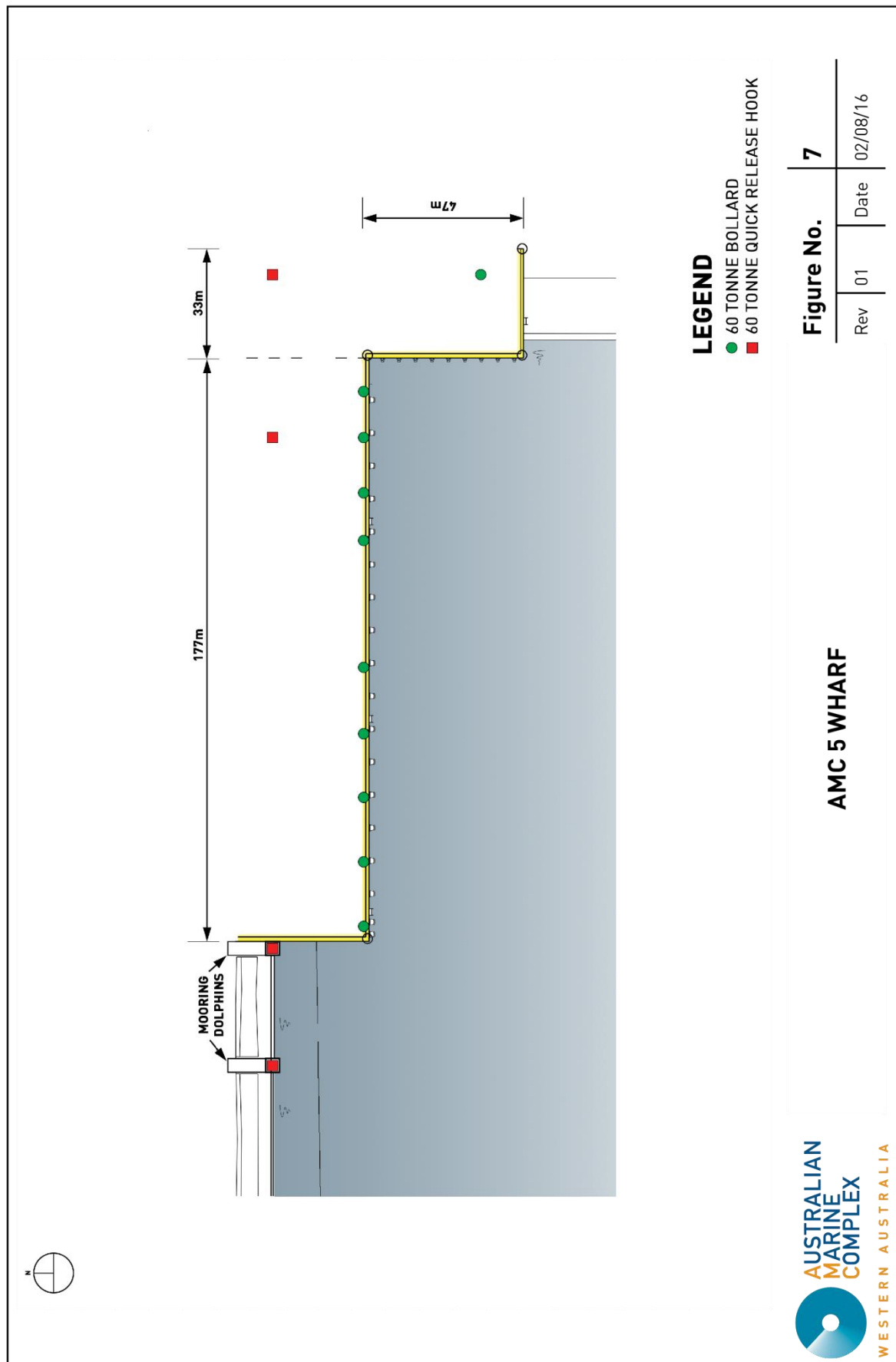
3.2.7 Floating Dock Transfer Wharf

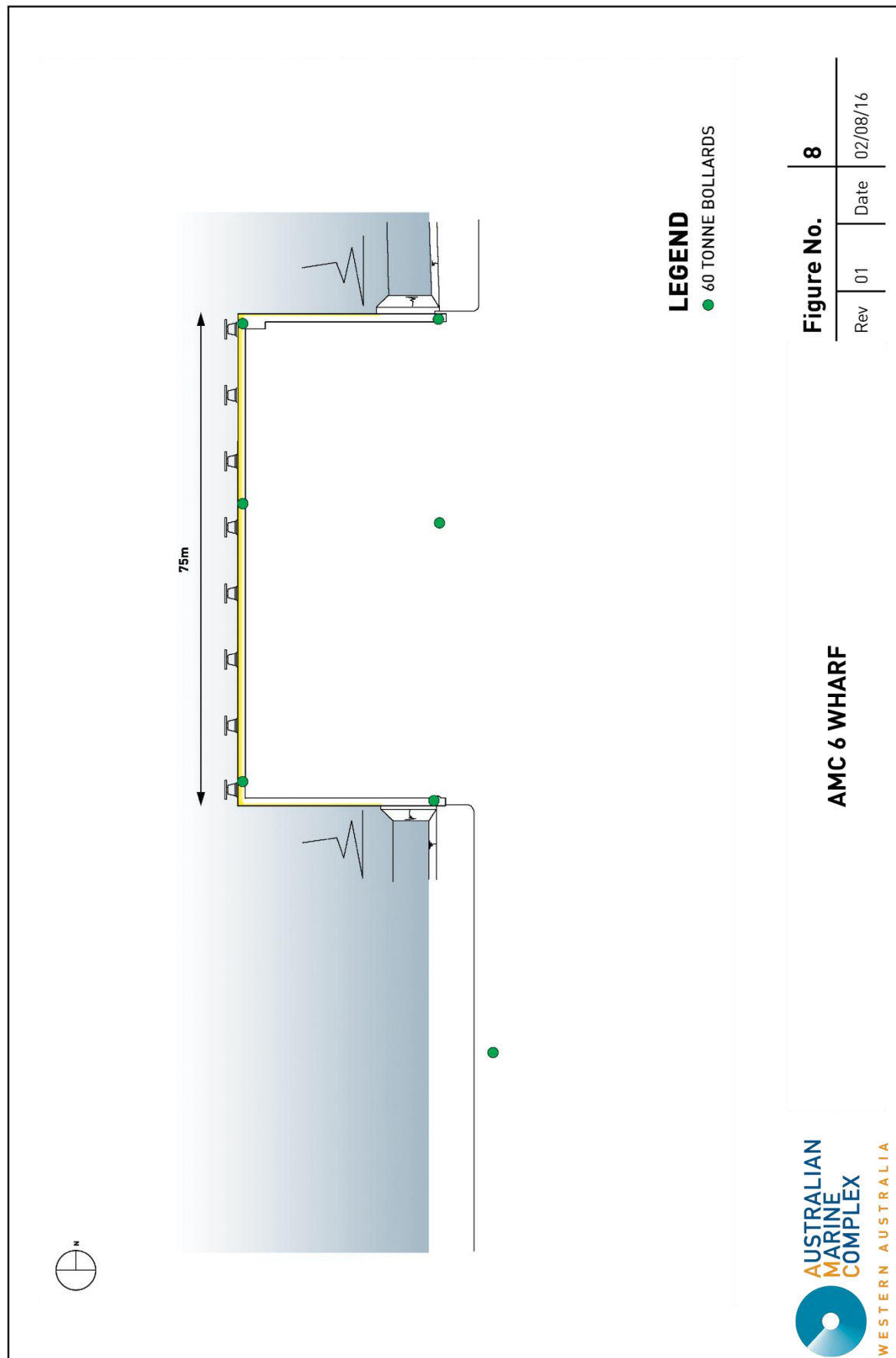
Transfer location for vessels transported from Floating Dock to laydown area on SPMTs.

For all other loading conditions or clarification please contact the Facility Manager.









3.3 Laydown Areas and Pavements

The service wharf and loadout wharf corridor pavements have been designed for a nominal distributed load of 10t/m² (100Kn/m²). The corridors onto AMC 1 and AMC 4 wharves are 60m wide and a nominal 60m wide connecting corridor is also provided between each wharf. The corridor pavement has a thickness of 450mm (consisting of 40mm asphalt wearing surface, 10mm primer seal, 150mm crushed rock base course and 250mm limestone sub-base).

The laydown area has a thickness of 100mm of crushed rock base course overlaid with bituminous seal and gravel to prevent erosion. This area is nominally rated at 10t/m² and can be used for storage, assembly and general usage such as car parking. These pavements have been designed to support a 600 tonne mobile crane, fully loaded and in any orientation, and a 40 tonne forklift truck (not simultaneously).

Loads greater than 10 t/m² are likely to cause some level of plastic and elastic deformation, depending on the nature and frequency of the load. The User has the option of repairing the surfaces after, or undertaking some ground improvements prior to the loads being applied.

Collection and disposal of stormwater runoff from the pavement corridors, wharves and reclamation area is through an extensive piped drainage system which discharges into a primary wastewater filtration system.

3.4 Internal Access Road and High-Wide Load Corridor (HWLC) Access

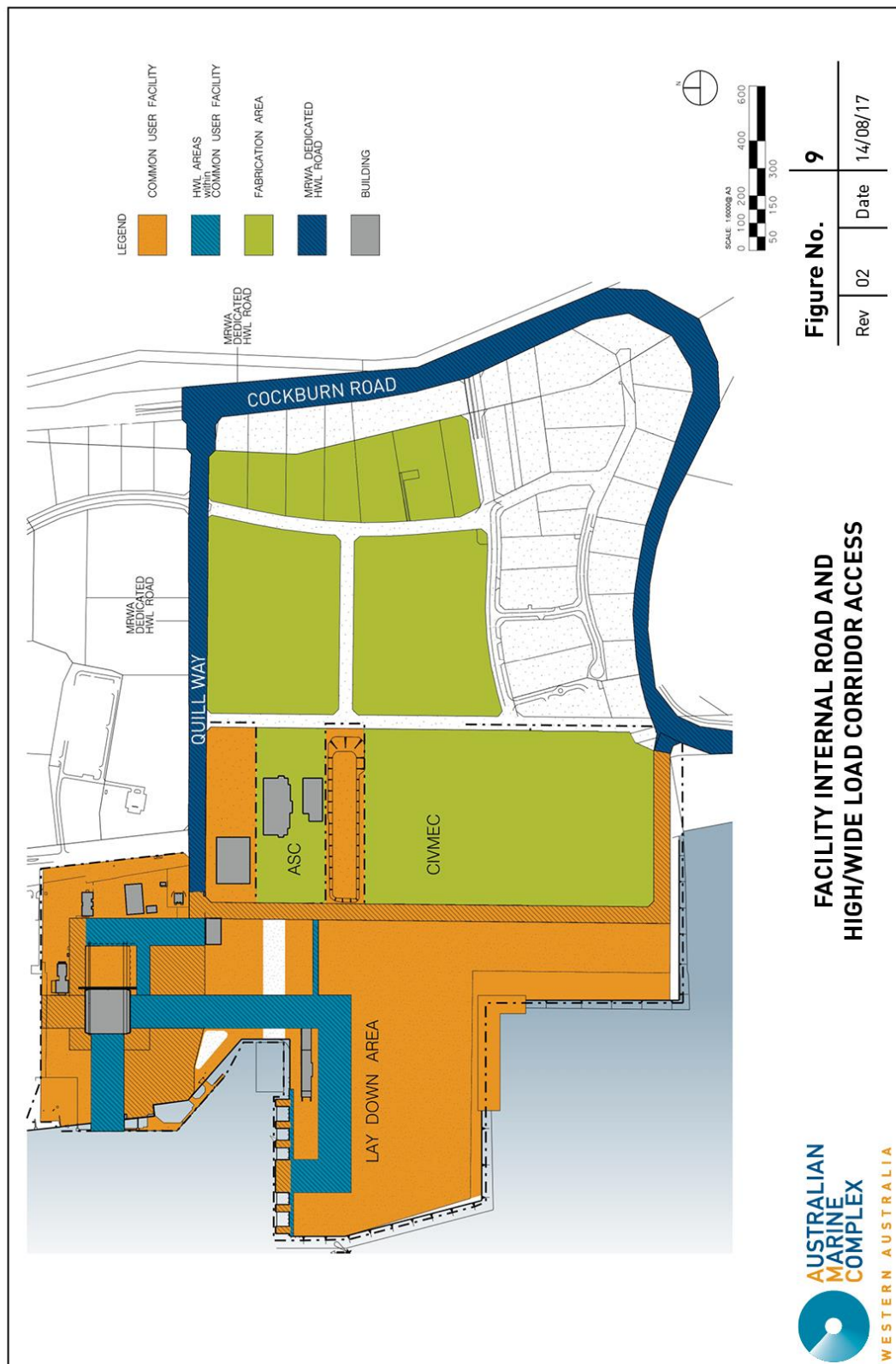
The Western Australian Government has provided a High-Wide Load Corridor to the Kwinana / Rockingham area to connect the fabrication and related facilities in the Kwinana area and has scoped similar corridors to the Welshpool and Bassendean industrial areas to the east and north of the AMC-CUF respectively.

The HWLC allows modules with dimensions **9m x 9m by 50m** and weighing less than 300 tonnes to be moved to and from the AMC-CUF with relatively few approval requirements. Loads that exceed these dimensions or weight will need special planning and Users should contact Main Roads Western Australia for approval.

The roads within the AMC-CUF and their connections to the public road systems have been designed to at least satisfy the specifications set by Main Roads Western Australia for the HWLC. A few relevant specifications for the roads within the AMC-CUF are as follows:

- The heavy haulage roads and wharf pavements have been designed for loads of 10T/m².
- The pavement at the intersections to Cockburn Road have been designed to take 6 tonnes per single steer axle or 3.0 tonnes/tyre, or 9 tonnes per dual wheeled axles (2.25 tonnes/tyre).

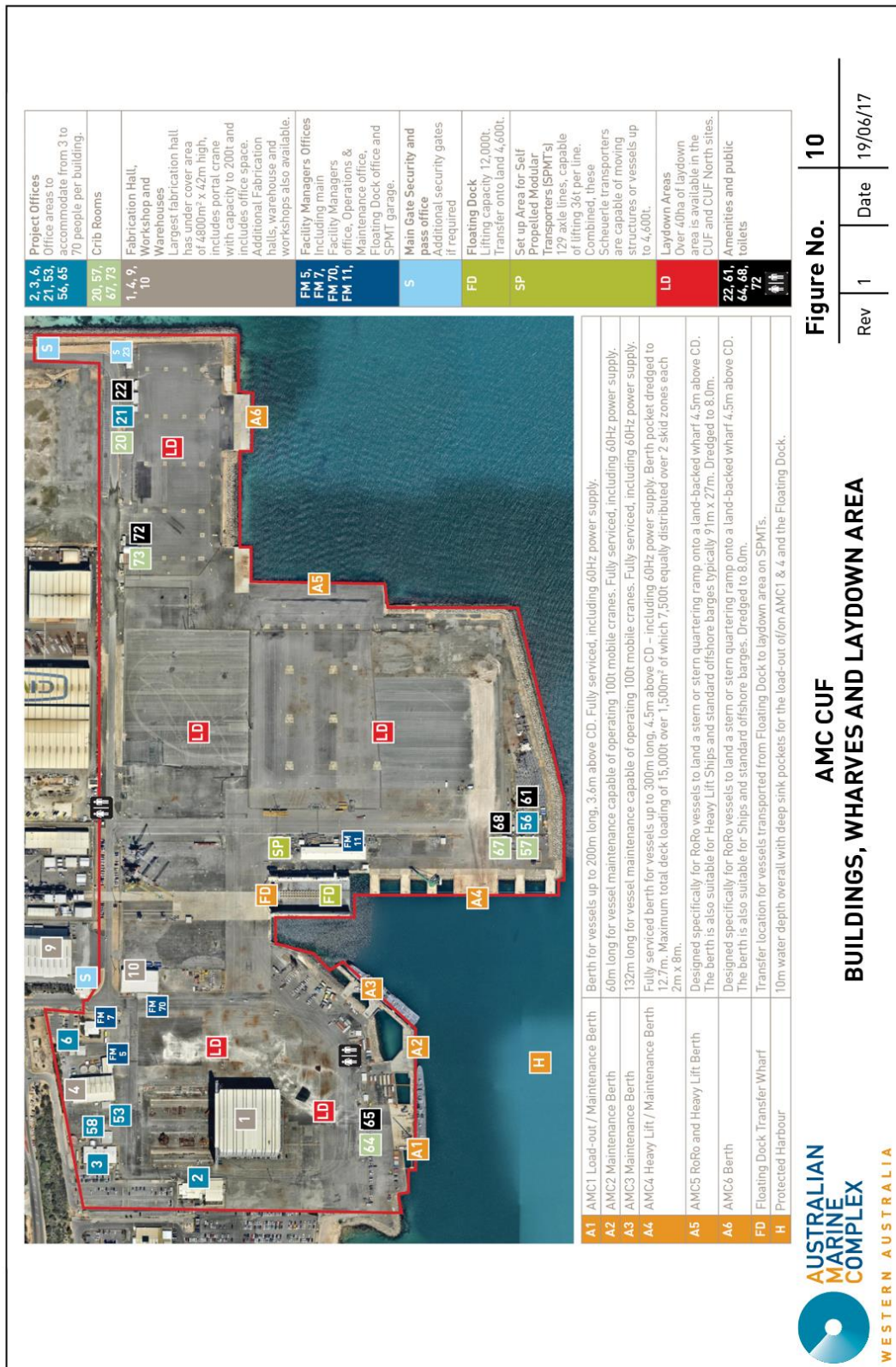
Loads moving to or from areas other than the Kwinana / Rockingham area generally need to be restricted to 6.5m wide x 6.5m high and weigh less than 200 tonnes.

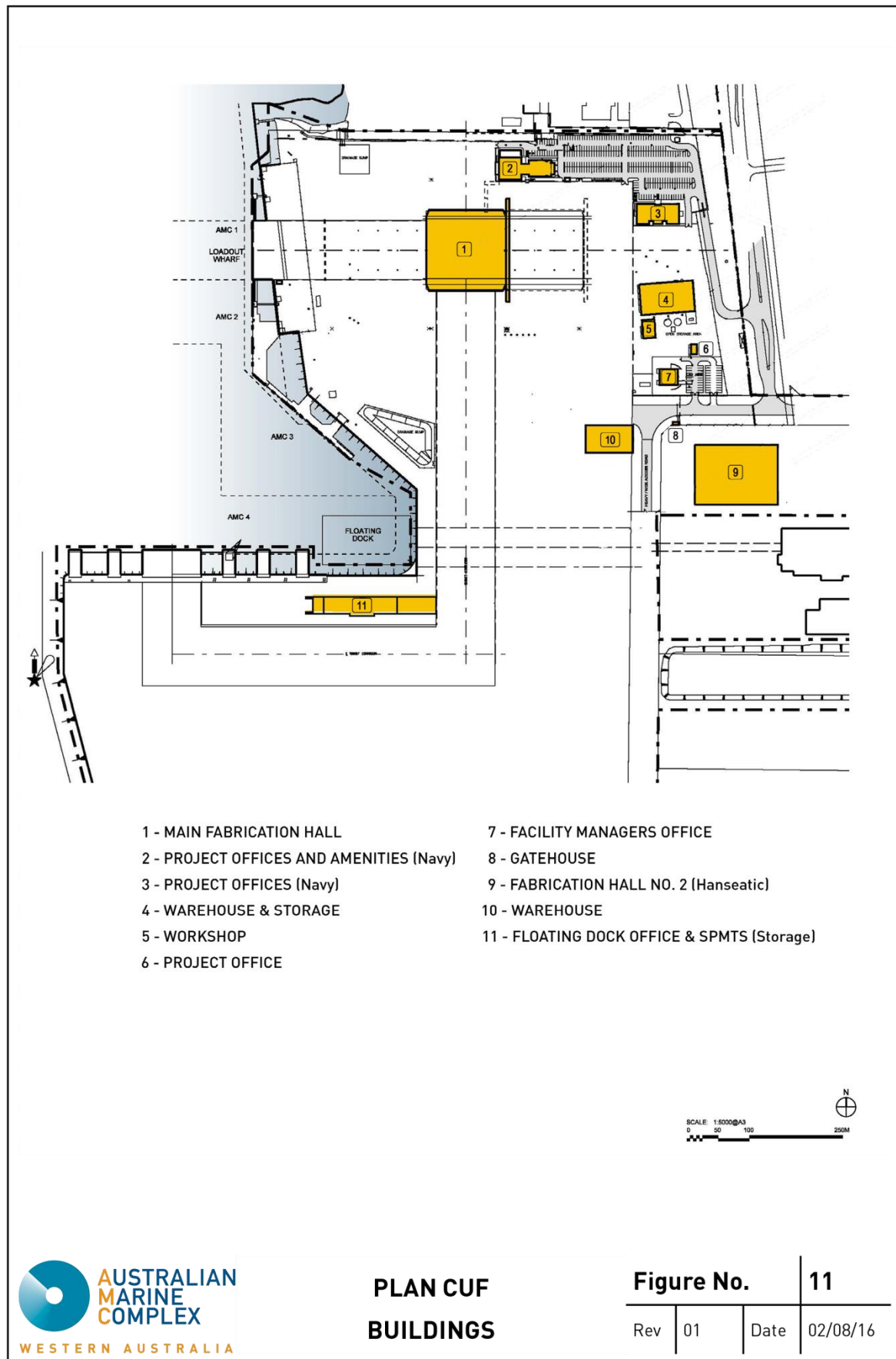


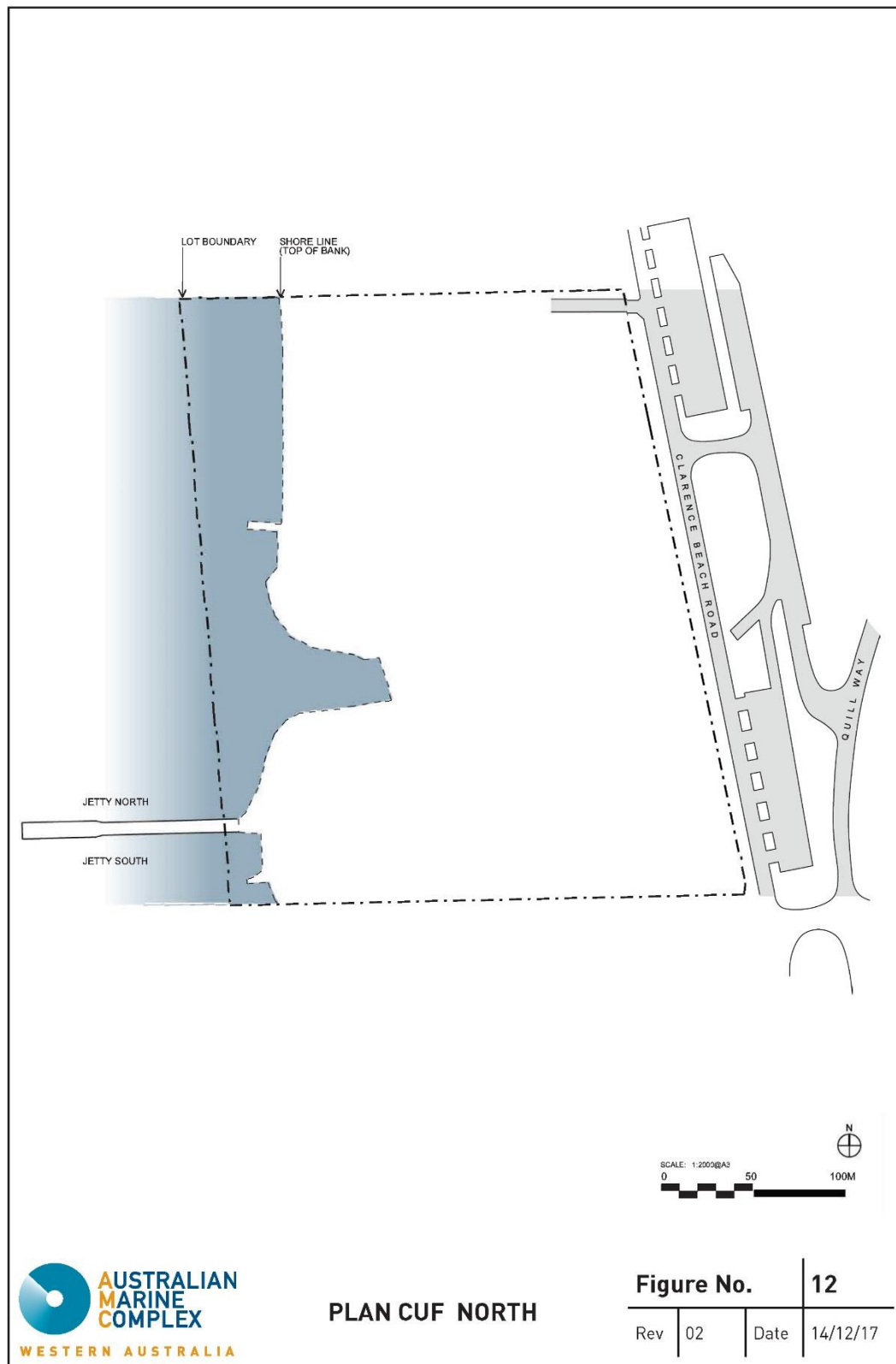
4.0 ON SITE FACILITIES – BUILDINGS

A range of on-site buildings and amenities have been designed to enhance the effectiveness of the overall AMC-CUF, providing a complete range of support services and infrastructure for a number of concurrent users. Users should be able to make use of the site with relatively low set up or establishment costs.

Figure 10 shows the buildings, wharves and laydown areas on AMC-CUF. Figure 11 shows the buildings provided at the AMC-CUF and Figure 12 shows layout of CUF North.







4.1 Building B001 - Fabrication Hall No. 1

Building No 1, the Main Fabrication Hall is one of the key features of the AMC-CUF. It provides for the fabrication and assembly of major structures in a fully protected, well ventilated, acoustically suitable and well lit environment capable of 24 hour operation. It provides year round weather protection in a marine environment, with good access from all sides and multiple methods for lifting and moving substantial modules (nominal limit of AMC 4 is 15,000 tonnes).

The entire building is supported on bogies that allow it to move 80m in an east/west direction. This allows a second module to be built under cover before the first module is ready for transport or load-out. There are tie down points for the building at 12.5 m intervals.

Figure 13, 14, 15 and 16 provide layouts and elevations of the fabrication hall.

Access

The eastern wall has four electronically operated sections that can be opened to allow full access to the building's cross section and for the 150 tonne portal crane to move out of the building. There are also two electronically operated roller doors with dimensions of 5m by 5m to allow for vehicle access in the northern and southern walls.

The western wall is fully demountable and can be removed and replaced (requires crane). The bottom section has been designed to allow 10m x 10m panels to be removed.

Surfaces

The Fabrication Hall floor has been designed for a uniform distributed load of 10 tonne/ m² and to support a 600 tonne mobile crane lifting at full capacity at any location and with any orientation, or a 40 tonne forklift truck operating anywhere of the floor.

Power

Underfloor pits exist on a 20m x 20m grid across the fabrication hall assembly area which provides 1 x 63A or 2 x 32A three phase outlets plus 4 x 10A single phase outlets. Power connection points are provided to allow the building to be moved at 12.5m increments.

Water

Water points are also provided to allow the building to be moved at 12.5m increments.

Amenities

Within the northern wall offices and amenities have been provided to enhance project supervision and avoid the need for workers to move outside of the building during work periods. The offices / amenities have been located on two levels, one 7.5m and the other 10m above the Fabrication Hall floor. They include:

- 4 x 15 m² offices
- 5 x 30 m² offices
- male and female toilets to cater for 250 people
- a rest room/first aid room
- administration/stationery stores

- a photocopy/fax area
- tea/coffee pantry

The offices have doubled glazed walls on their interior face. They are air conditioned and have normal power supplies, data and voice outlets.

Cranes

A 150 tonne portal crane has been provided in the fabrication hall. The crane also has two 50 tonne auxiliary hoists, one located on the main hoist trolley, the other on an independent trolley. The 150 and one of the two 50 tonne hoists can be used concurrently allowing a 200 tonne load to be lifted.

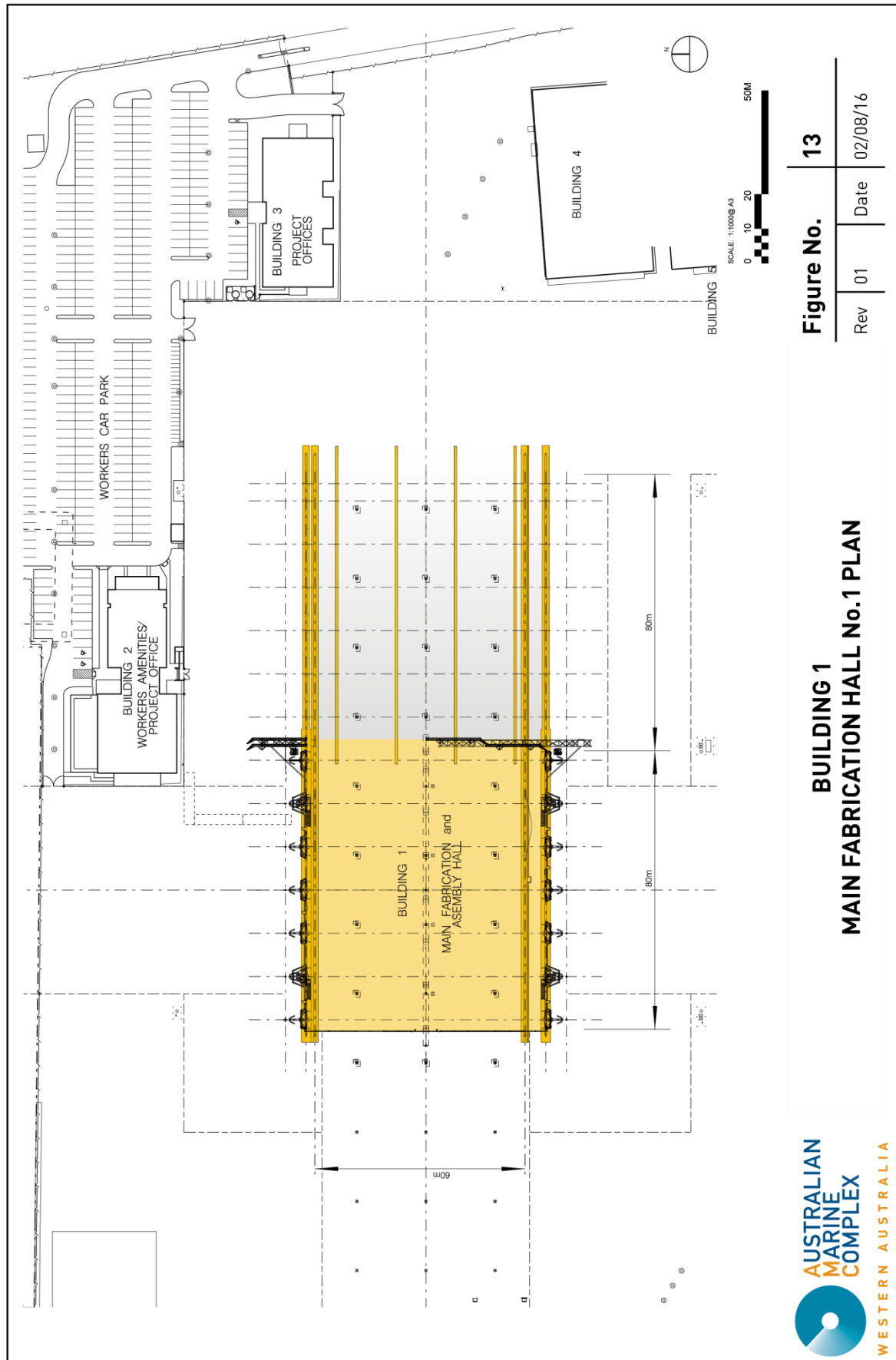
The facility also provides two overhead 20 tonne travelling cranes, each spanning one half of the building and capable of traversing the full length of the fabrication hall.

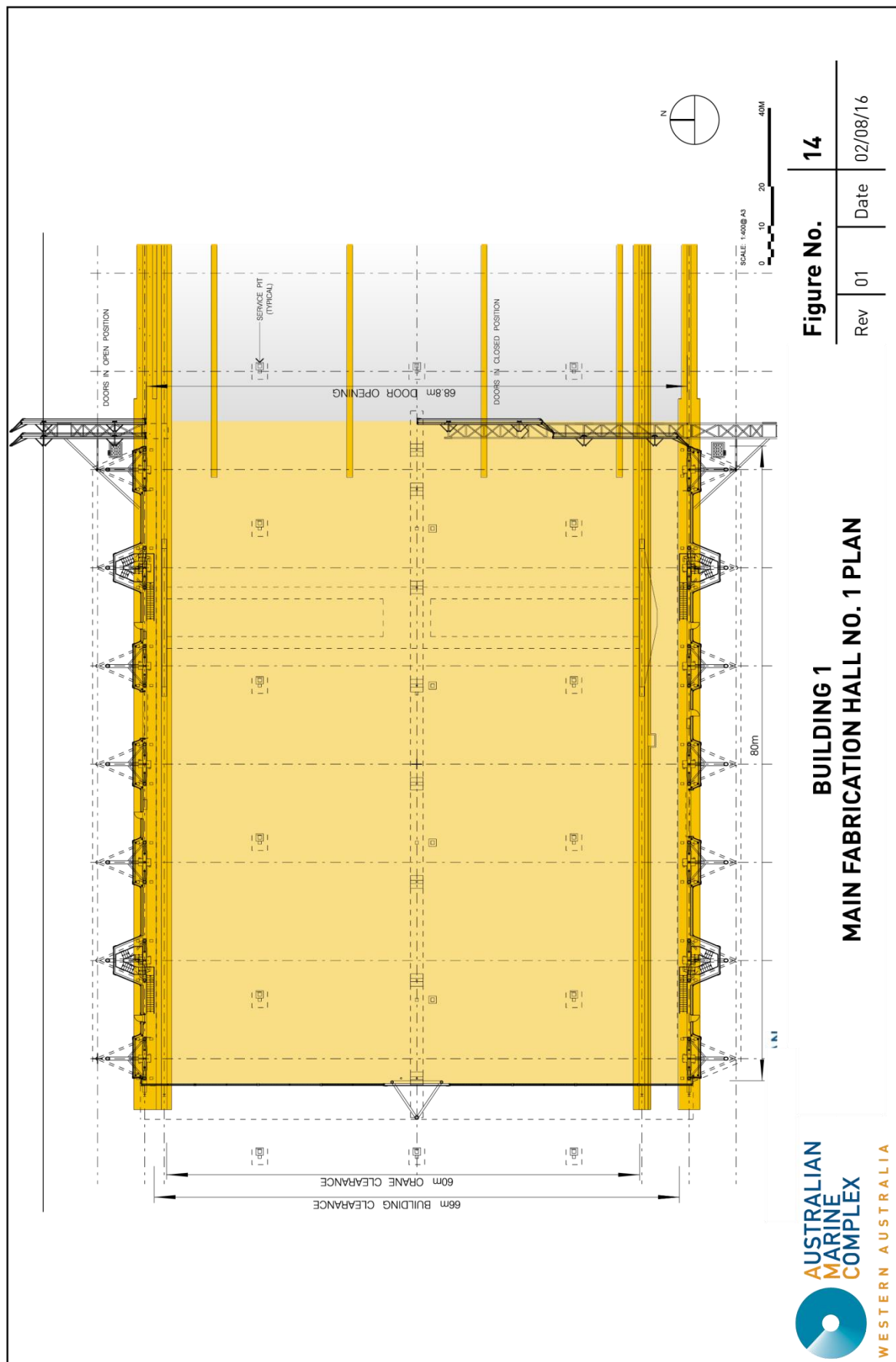
The 150 tonne portal crane can move on an internal 160m track and has been designed for internal and external use.

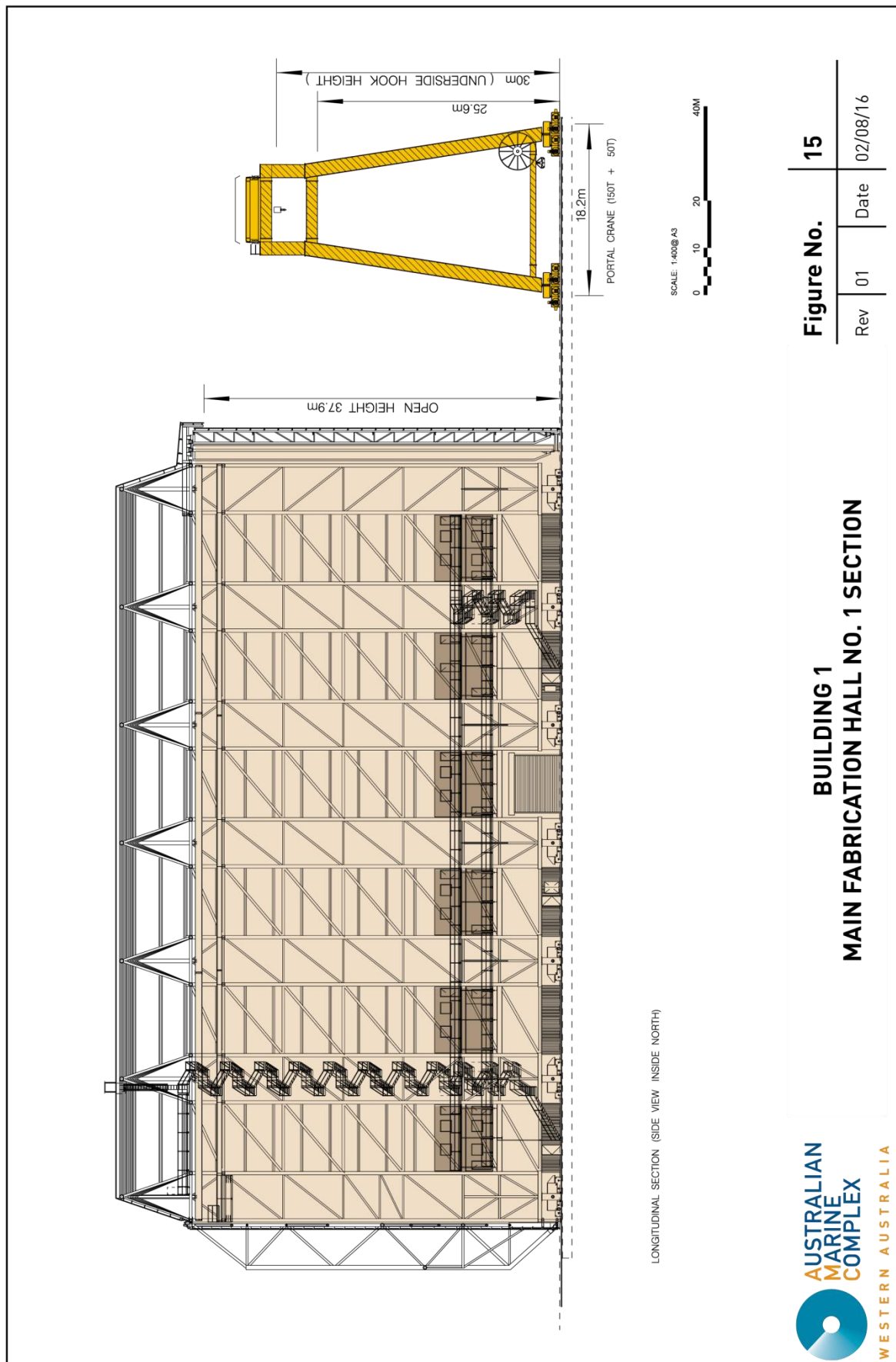
Dimensions

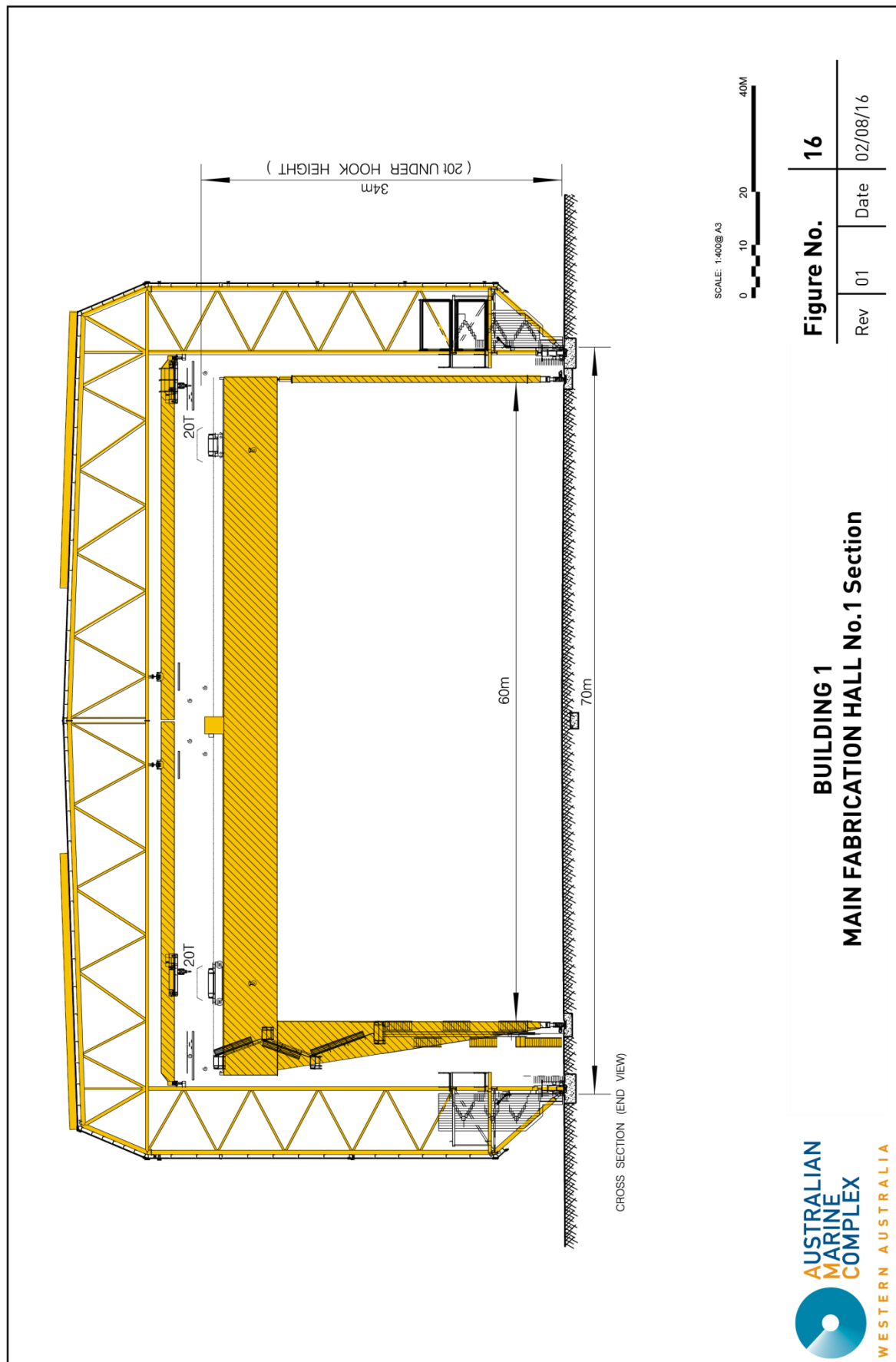
The undercover internal free working area of the fabrication hall is as follows:

- Length 80m
- Width 60m clear (between 150 tonne portal crane supports)
- Height 30m under hook of 150 tonne hoist / 34m to underside of 20 Tonne travelling crane.





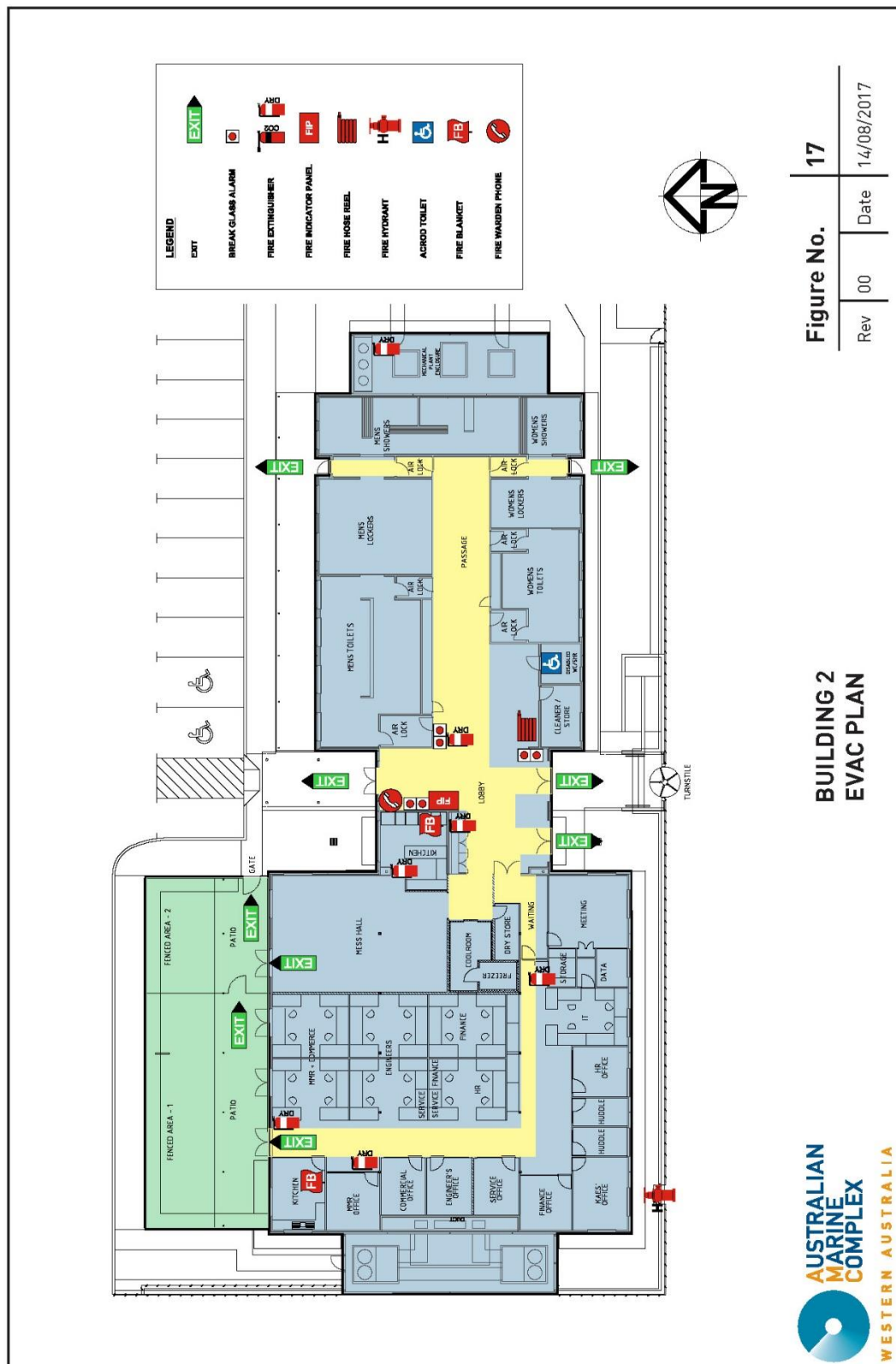




4.2 Building B002 - Project Office and Amenities

Building No 2 is located to the north of Building No 1 and adjacent to the car parking area. Figure 17 shows the floor and evacuation plan for the building.

- The west side of the building contains an office area of approx. 400m² for 35 persons including desks and chairs:
 - 7 x enclosed offices
 - 28 x open plan workstations
 - 1 x larger meeting room
 - 2 x small breakout rooms
 - 1 x kitchenette.
- A mess room for up to 60 persons per sitting. A fully functional galley suitable for catering up to 300 people.
- The east side of the building provides male and female toilets showers, locker rooms, change rooms and a cleaner's room. The change rooms include showers, benches and coat hooks to service up to 500 persons. Lockers have been provided in a separate area for 250 persons;



4.3 Building B003 – Project Offices

Building No.3 provides general offices for AMC-CUF users. It has been designed symmetrically around a common reception area to allow for two stand-alone projects to be run from the project offices at one time. Refer to Figure 18.

The total area of the building is 850 m2 and includes 2 of the following:

- 1 x 35 m2 meeting room; capable of combining
- 6 x 20 m2 offices;
- Open plan work area, each 180 m2; and
- Computer/equipment room and staff lunch room.
- Male and Female toilets

Depending on layout, the building can accommodate up to 70 persons.

Computing equipment is not provided but all offices and open plan areas have voice and data conduits in place.

A card swipe security/access system has been provided for the entrance door and four internal doors so that the two sides of the building can be secured independently.



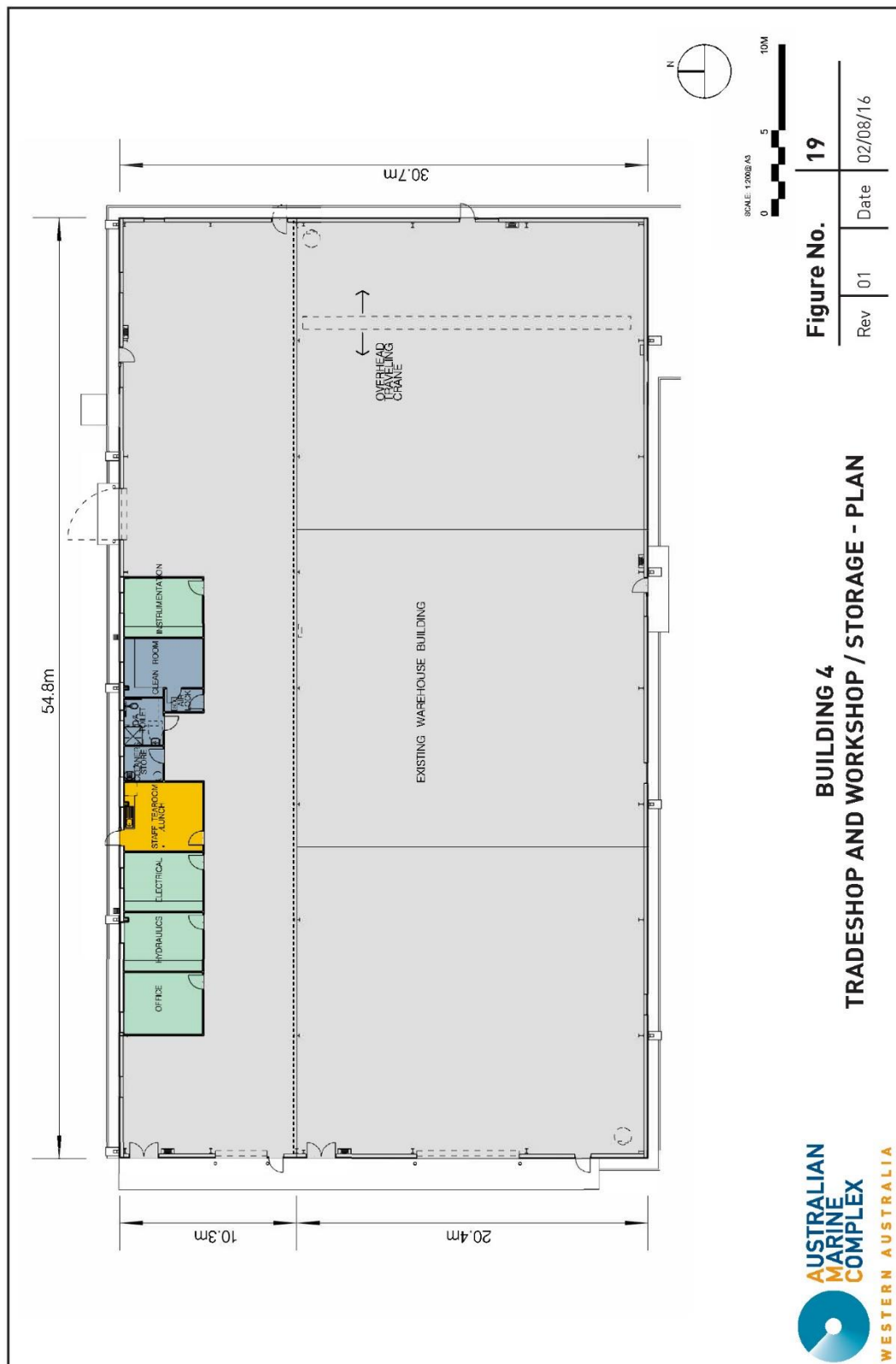
4.4 Building B004 - Trade Shops and Workshop

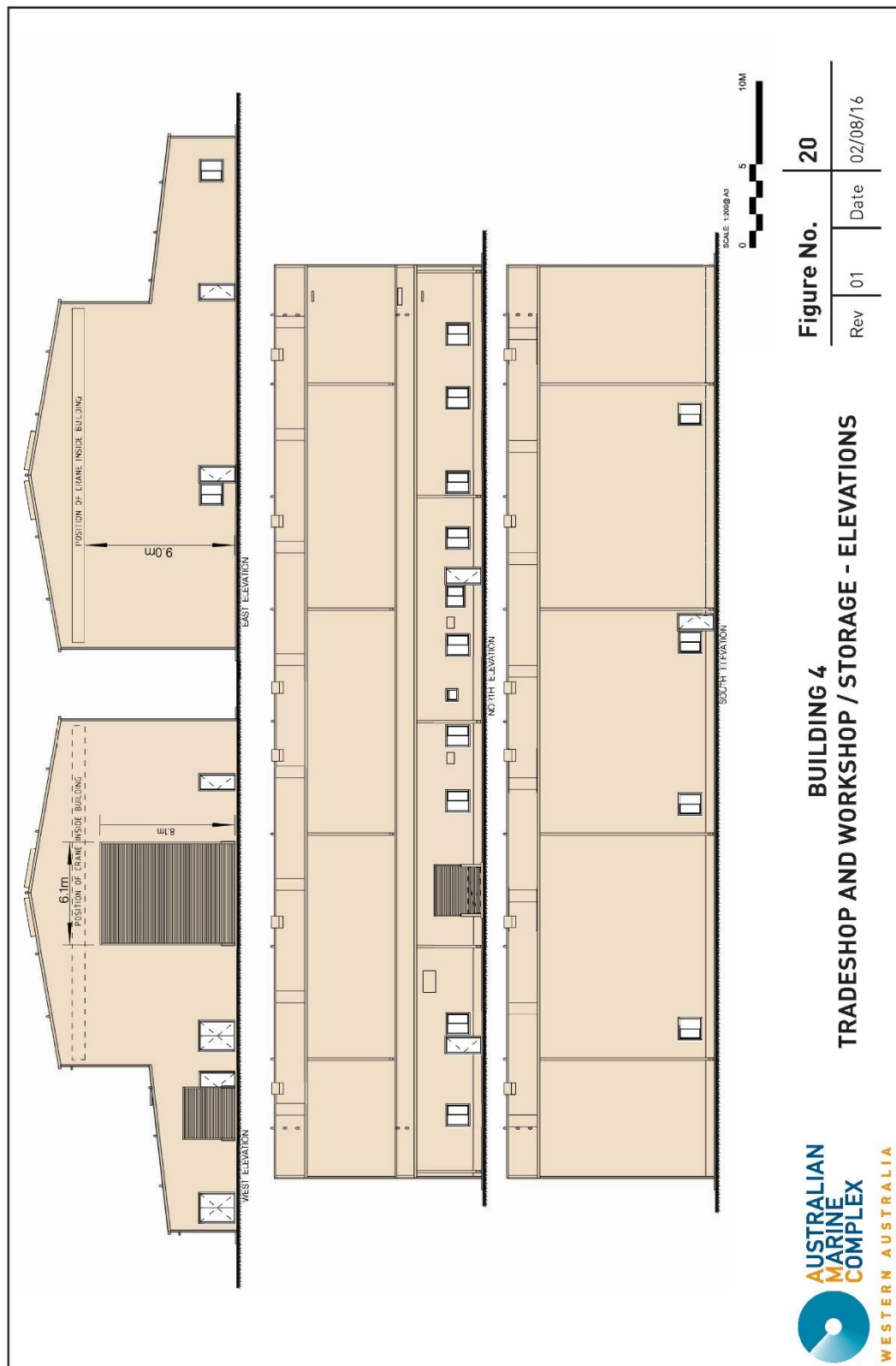
Building No 4 is 1500 m². The building has a 10 tonne overhead travelling crane with 5m under the crane hook and is designed for 20 tonne forklift truck access.

The Trade Shop area of 500 m² allows for specialist assembly offices and laboratories, with 4 specialist offices (hydraulics, electrical, instrumentation and clean room) and a 200 m² general maintenance area. Benches, power and communication conduits have been provided in the specialist offices. Two electronic roller doors exist on the western wall to allow for vehicle access.

The building has a staff office, pantry and toilet facilities in adjoining office block.

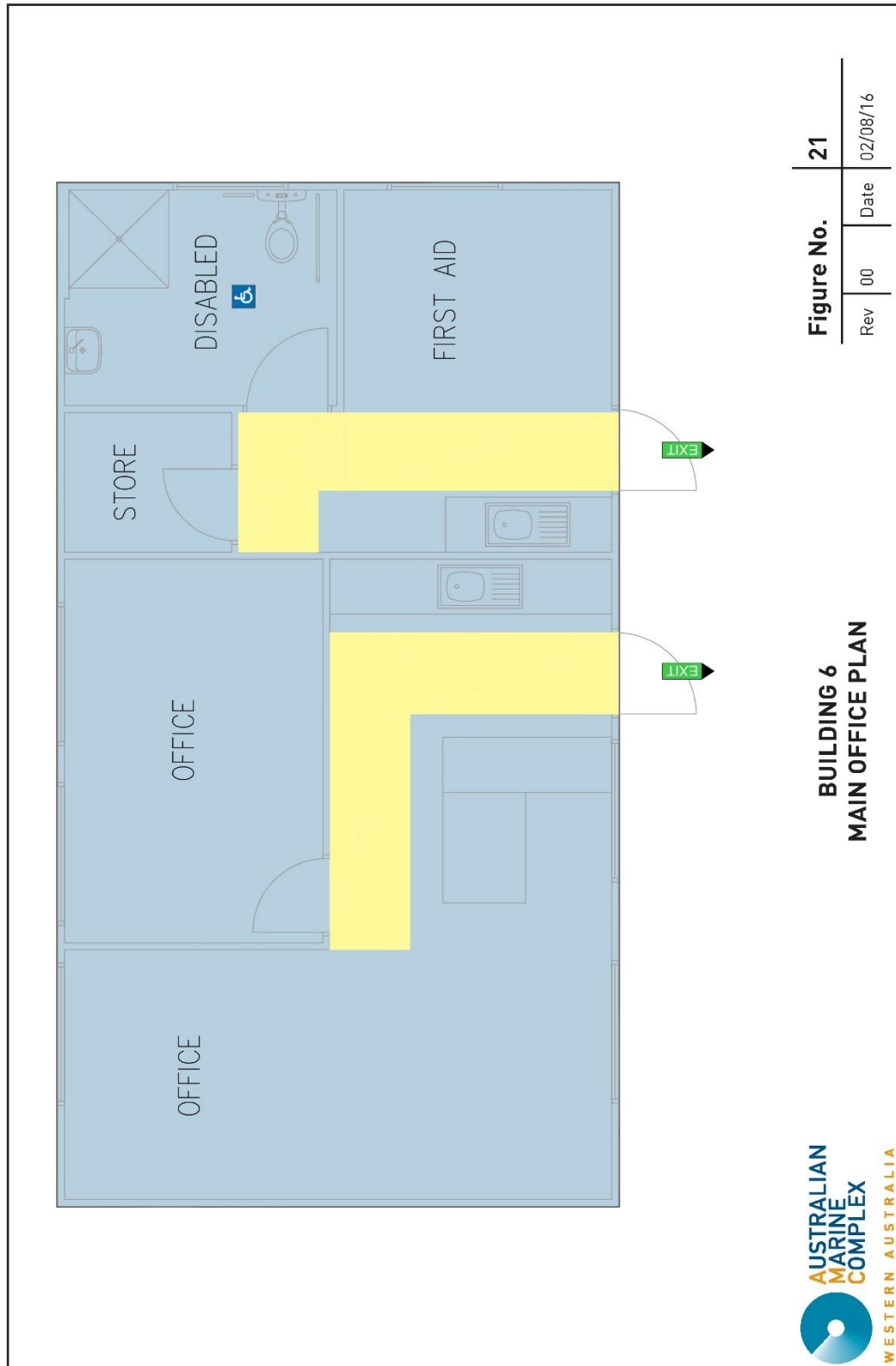
Figure 19 and Figure 20 show the layout and elevations of this building.





4.5 Building B006 – Office/toilet

Building No 6 consists of a small office for 3 people with kitchenette and a toilet facility. A separate private office is located in the southeast corner of the building.



4.6 Building B009 – Fabrication Hall (No. 2)

Building No 9, Fabrication Hall (No. 2) provides for the fabrication and assembly of major structures in a fully protected, well ventilated, acoustically suitable and well lit environment capable of 24 hour operation. It provides year round weather protection in a marine environment and is designed for 2 separate Users, one in each bay, or one User occupying both.

Figure 22, 23 and 24 provide layouts and elevations and section of Building 9.

Access

The western wall has two electronically operated sections that can be opened to allow full access to the building's cross section. There are also two electronically operated roller doors with dimensions of 5.0m by 4.5m to allow for vehicle access in the eastern wall.

Surfaces

Fabrication Hall concrete floor has been designed for:

- uniformly distributed load of 10 t/m²
- forklift truck of 5t rated capacity (pneumatic tires only)
- single-axle vehicles of maximum 12t axle load
- tandem-axle vehicles of maximum 20t tandem-axle load

Workshop and Store areas are suitable for vehicles of 5t axle load.

Power

Connection points are provided for 10, 20, 32 & 64 Amp outlets.

Water

Water is provided by way of three internal and two external hose-cocks. A separately-metered 65mm BIC outlet is provided.

Amenities (per tenancy)

Adjacent to the general fabrication area, and within each of the northern and southern sides a series of offices and amenities have been provided to enhance project supervision and avoid the need for workers to move outside of the building during work periods. The offices / amenities are located on ground levels and include:

- 2 x 17 m² offices
- 1 x 36 m² general office
- male and female toilets to cater for 95 men and 8 women
- crib room for 103 persons
- 1 x 75 m² Store (not suitable for the storage of flammable materials or substances).
- 1 x 256 m² Workshop.

The offices have doubled glazed walls on their interior face, air conditioned and have normal power supplies and data and voice connections.

Cranes

The facility provides two overhead 20 tonne travelling cranes, each spanning one half of the building and capable of traversing the full length of the fabrication hall. The crane rail system is designed for an additional 5 tonne travelling crane each for a total capability of 25 tonnes per bay.

Dimensions

The undercover internal free working area of the fabrication hall is as follows:

- Length 84m
- Width of each of the 2 bays is 22m centre-to-centre of the 20 tonne overhead crane supports
- Height 16m under hook of 20 tonne hoist.

Compressed Air (per tenancy)

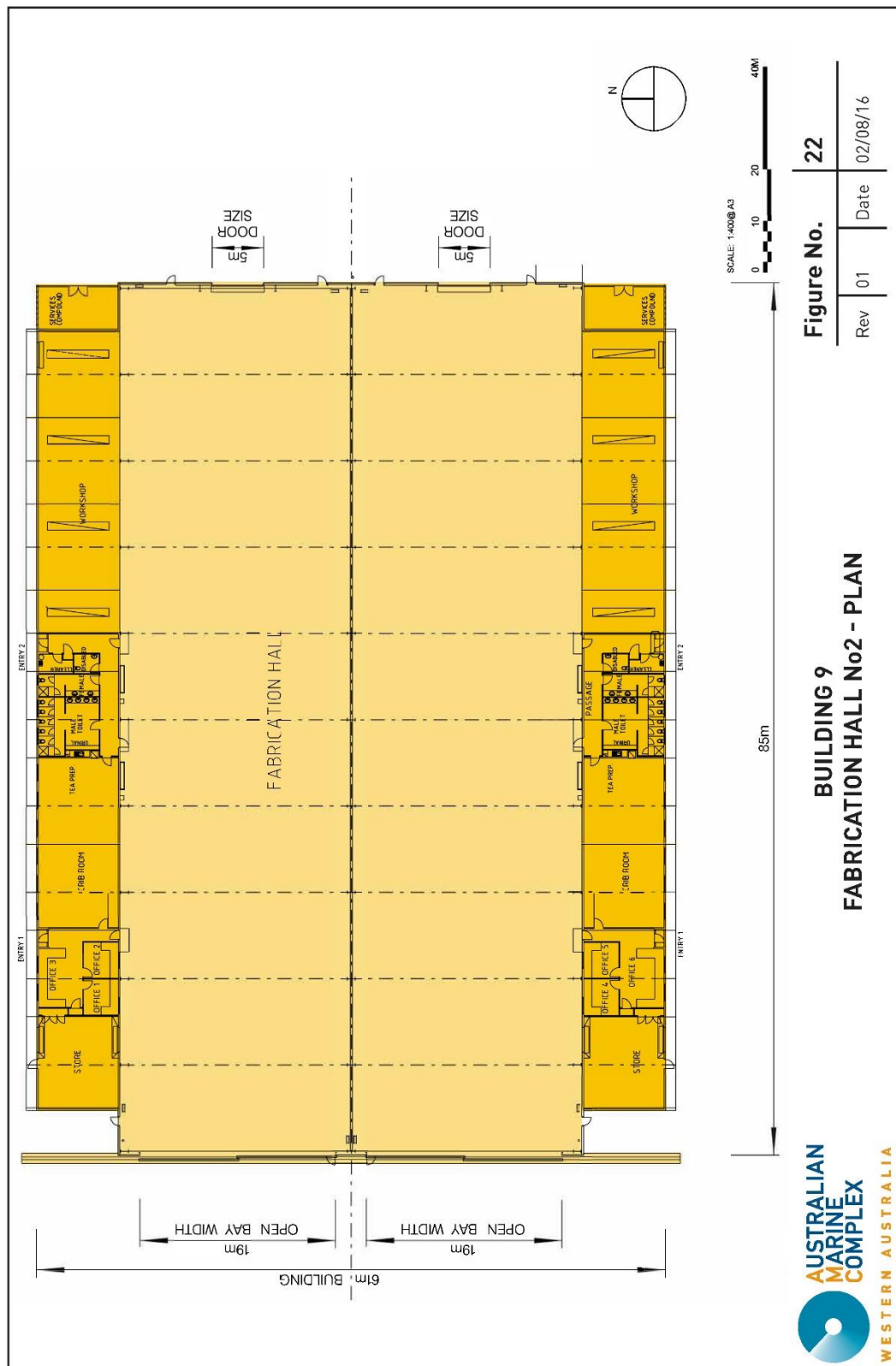
22 x Compressed air droppers, each with a Legris outlet

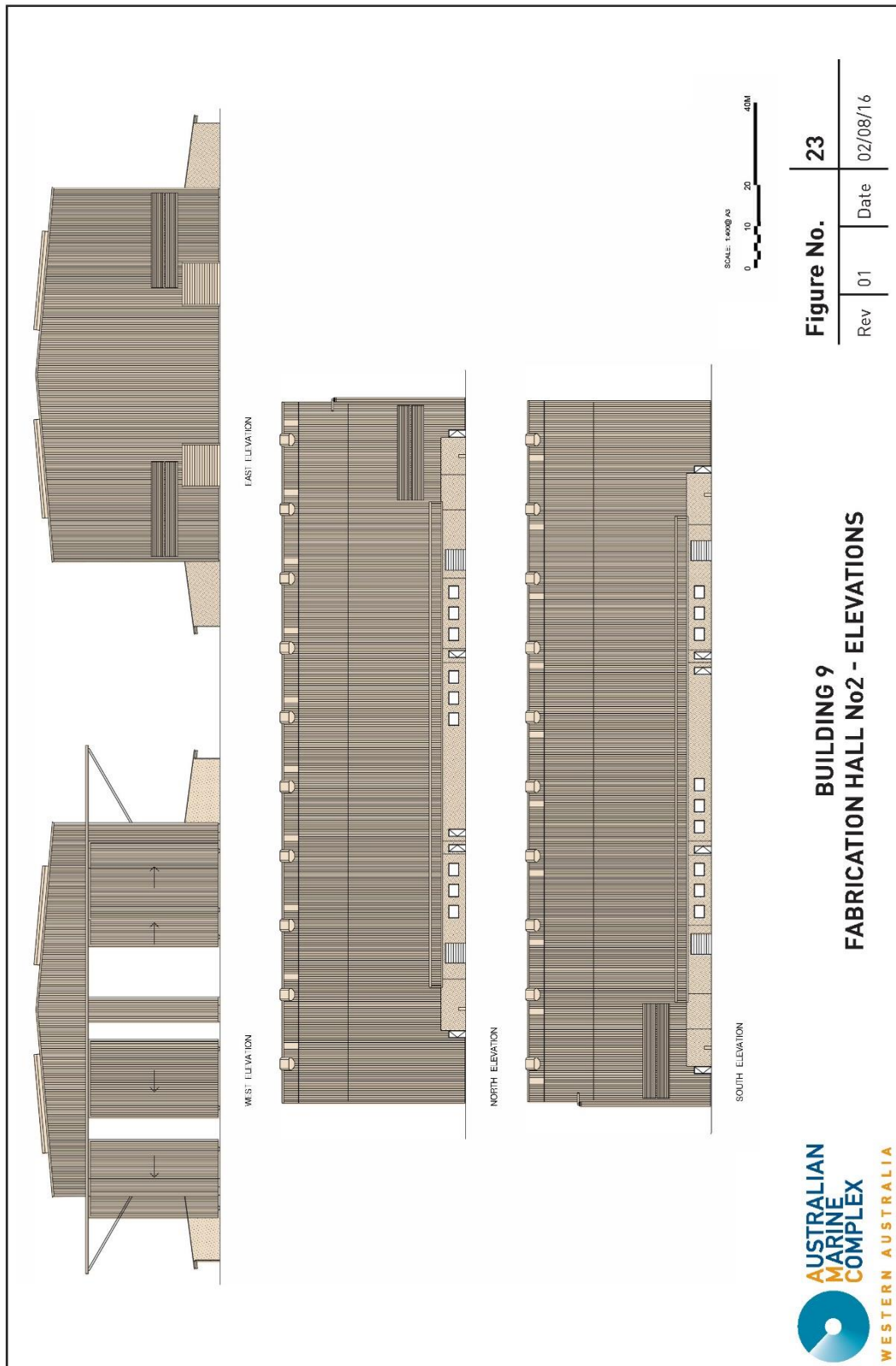
Telephone

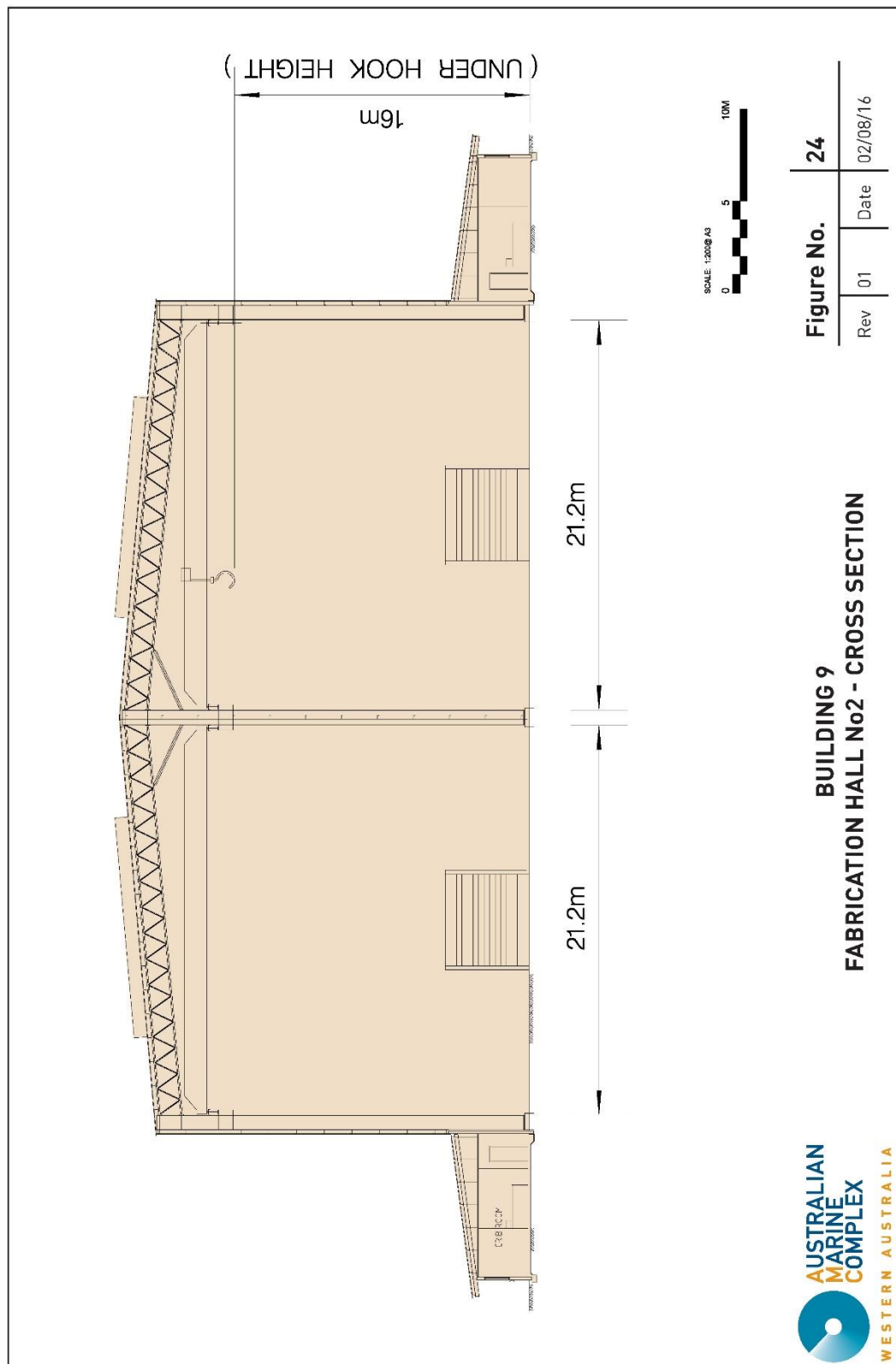
Connection points are located in the building. Communication between this building and the rest of the facility is in place.

Car Park

A car park is provided for the use of Building 9's Users. Admittance is restricted by the use of access cards by pedestrian turnstiles and boom gates.



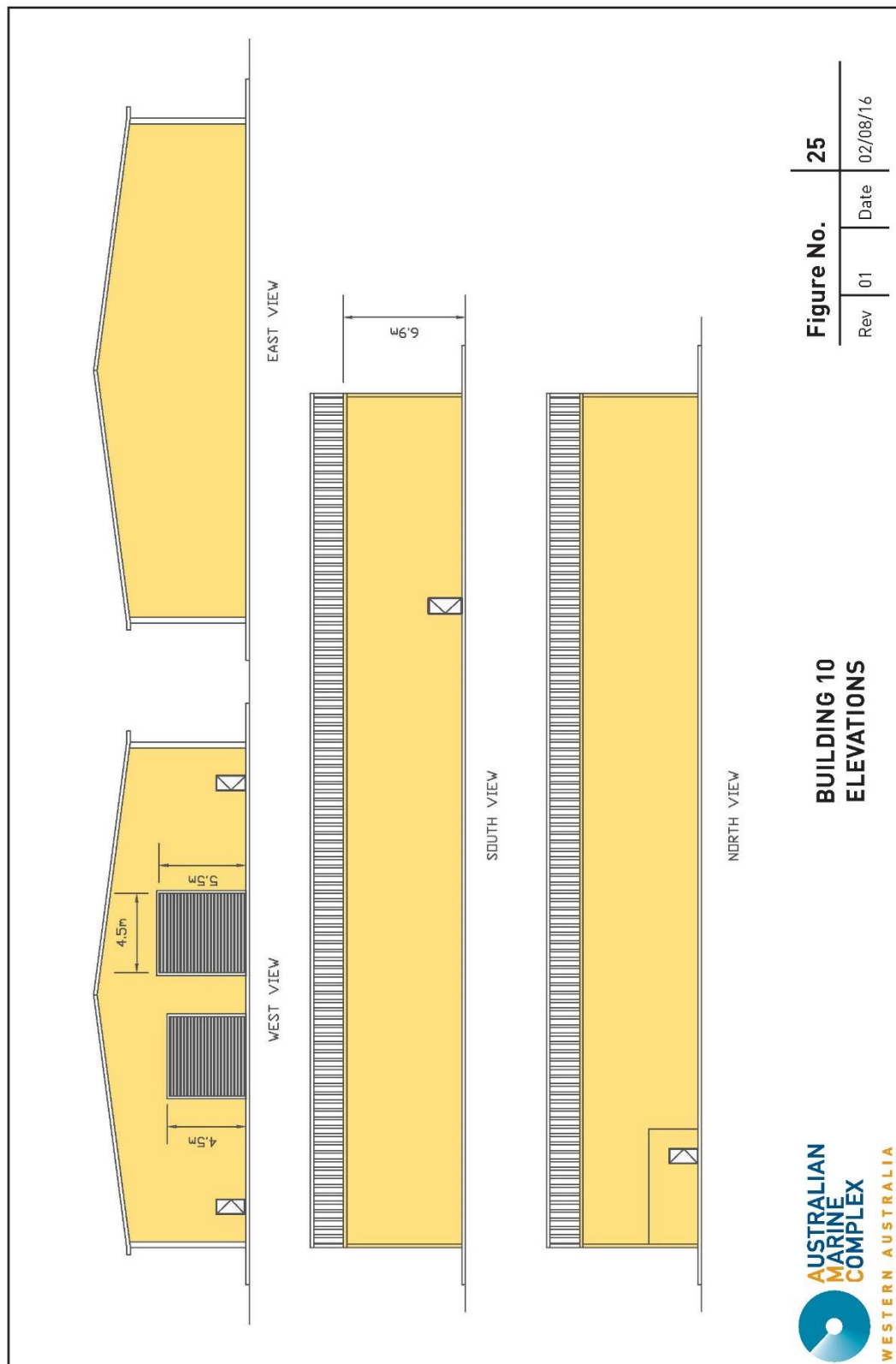


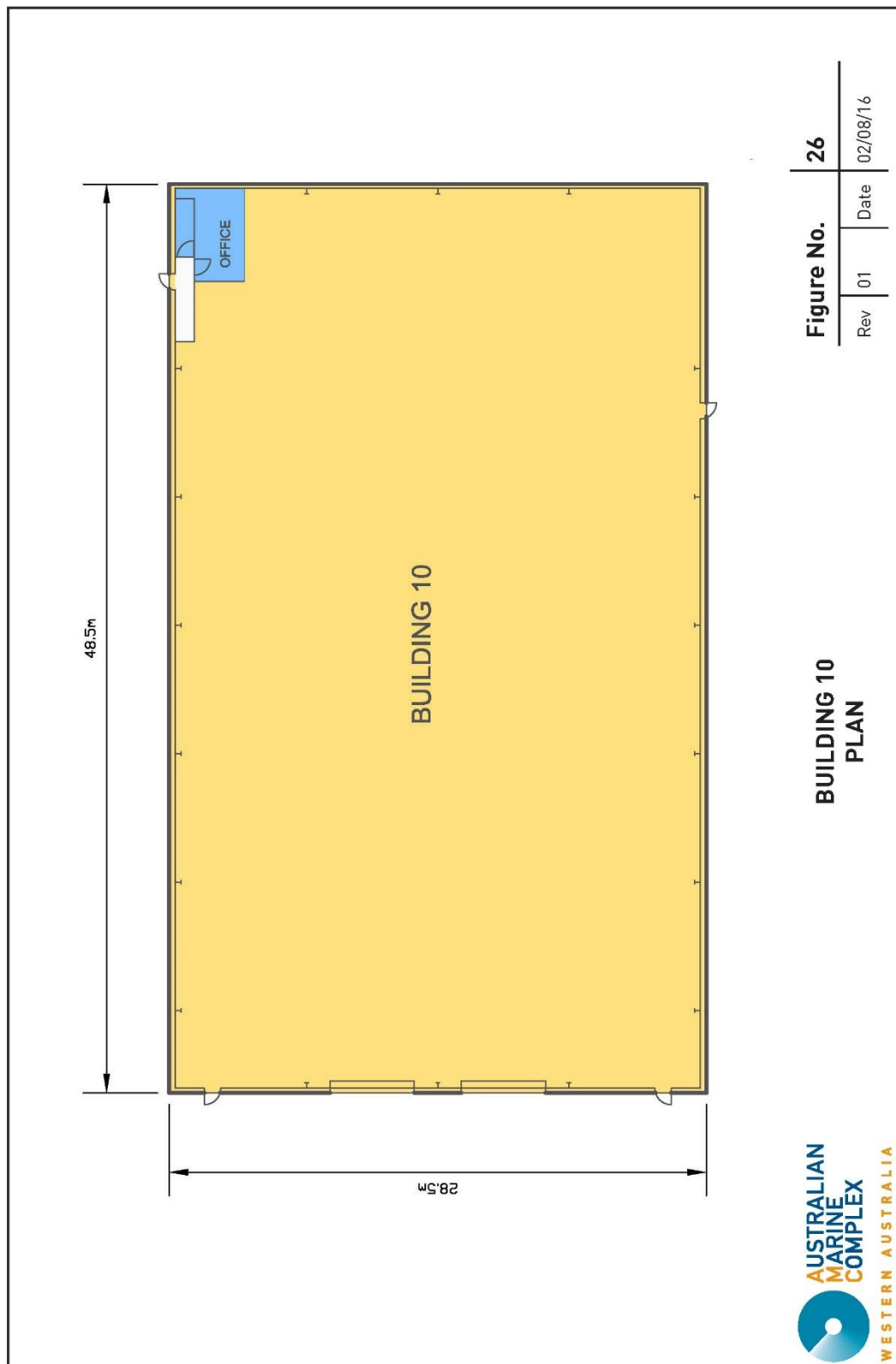


4.7 Building B010 - Warehouse

Building No 10 is centrally located adjacent to the Main Gate. This Common User Warehouse is an open configuration and can be segregated to User's requirements. An office and toilet are included within the building. The floor is designed to cater for a 4 tonne axle loading. Total floor area is 1300m² with one 4.5m x 4.5m and one 5.5m x 4.5m roller door in the Western wall. Two large electronic roller doors exist on the western wall to allow for tall vehicular access.

Figure 25 and 26 show the elevations and plan of this building.





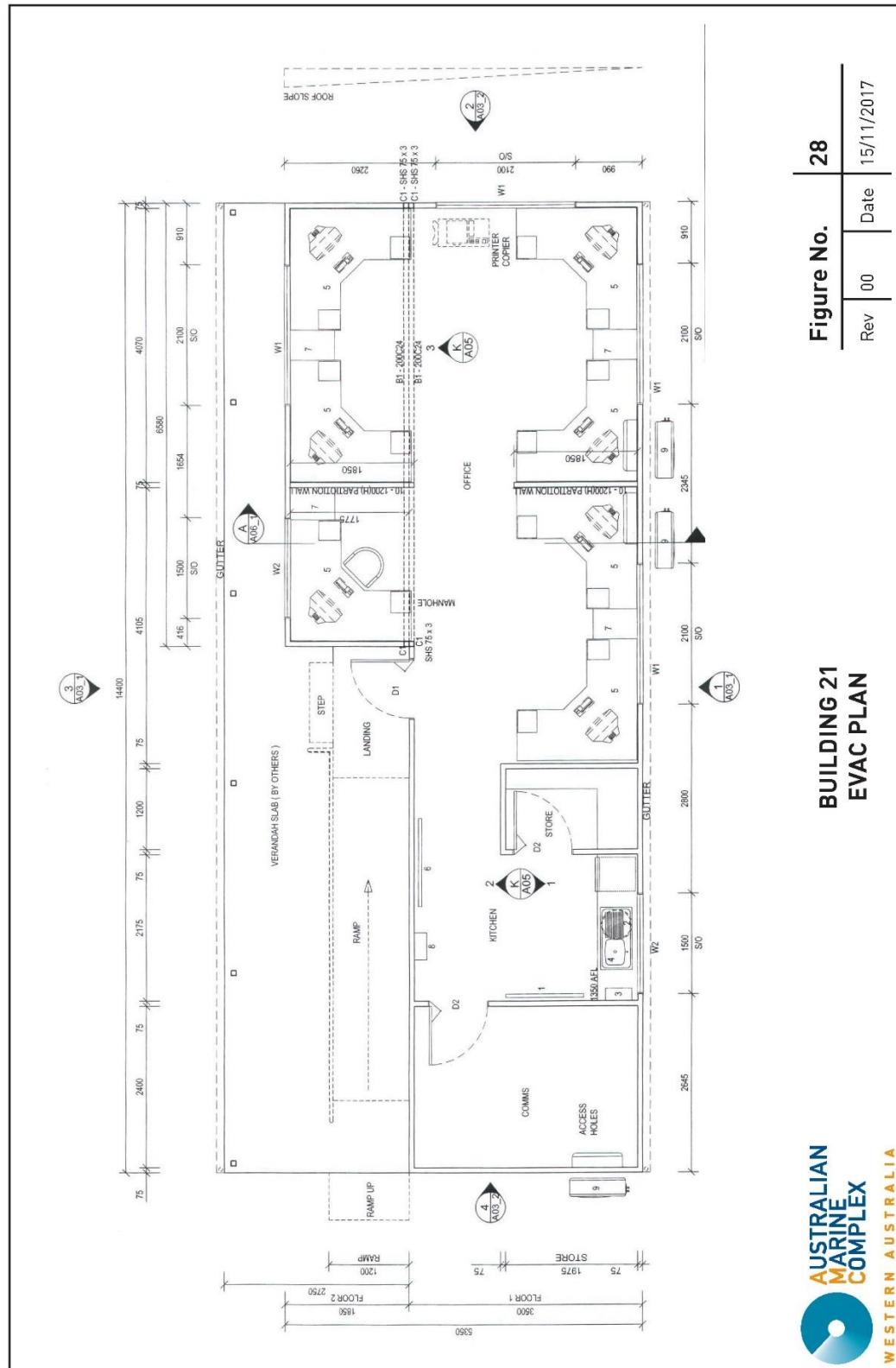
Crib room, open room 7mx3m with 21m2 of space. Located at AMC6.



Rev	00	Date	15/11/2017
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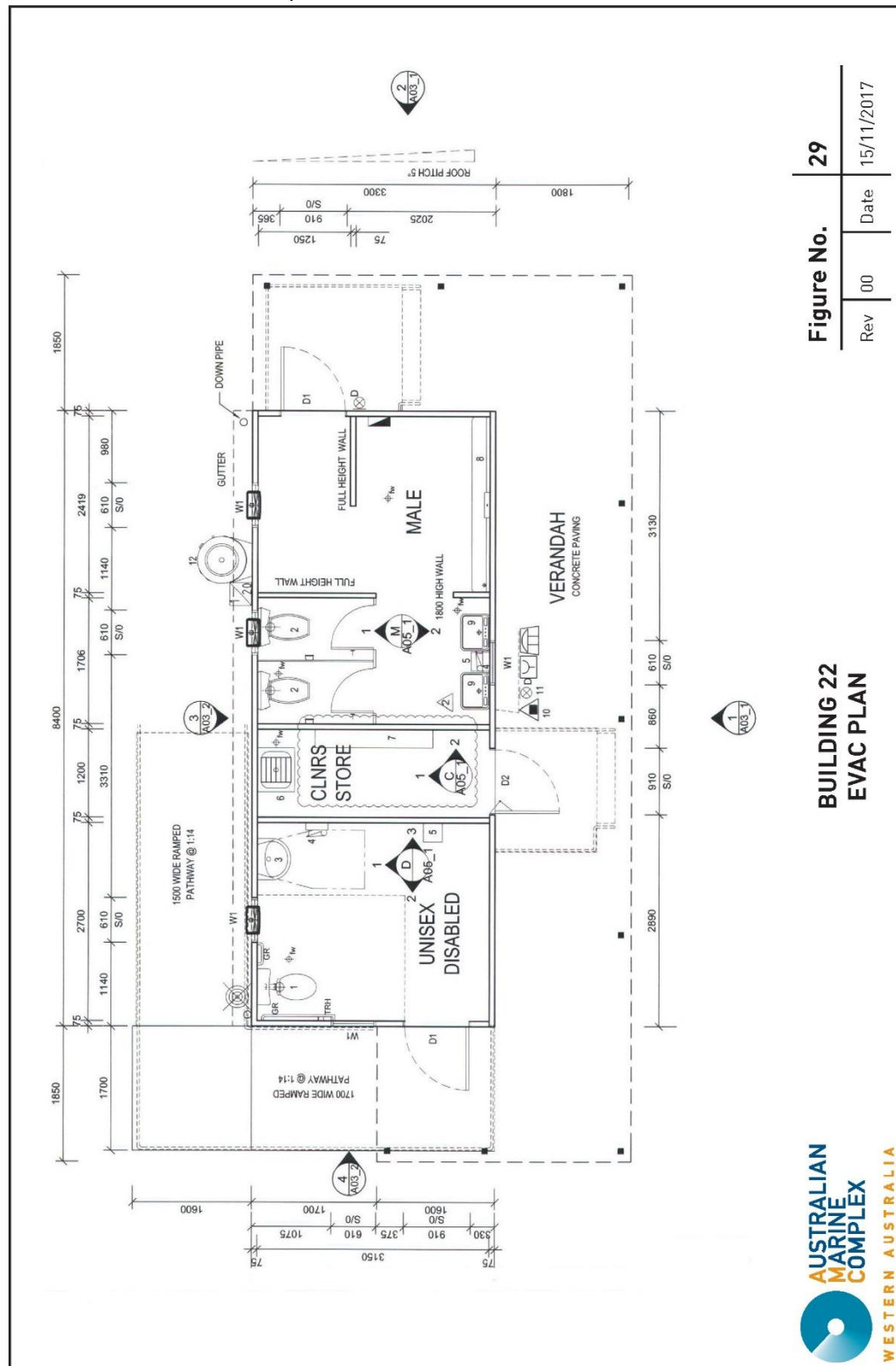
4.9 Building B021 – Office

Large open plan office with kitchen and comms room. Building is 14m x 3.5m. 48m² of area. Located at AMC6.



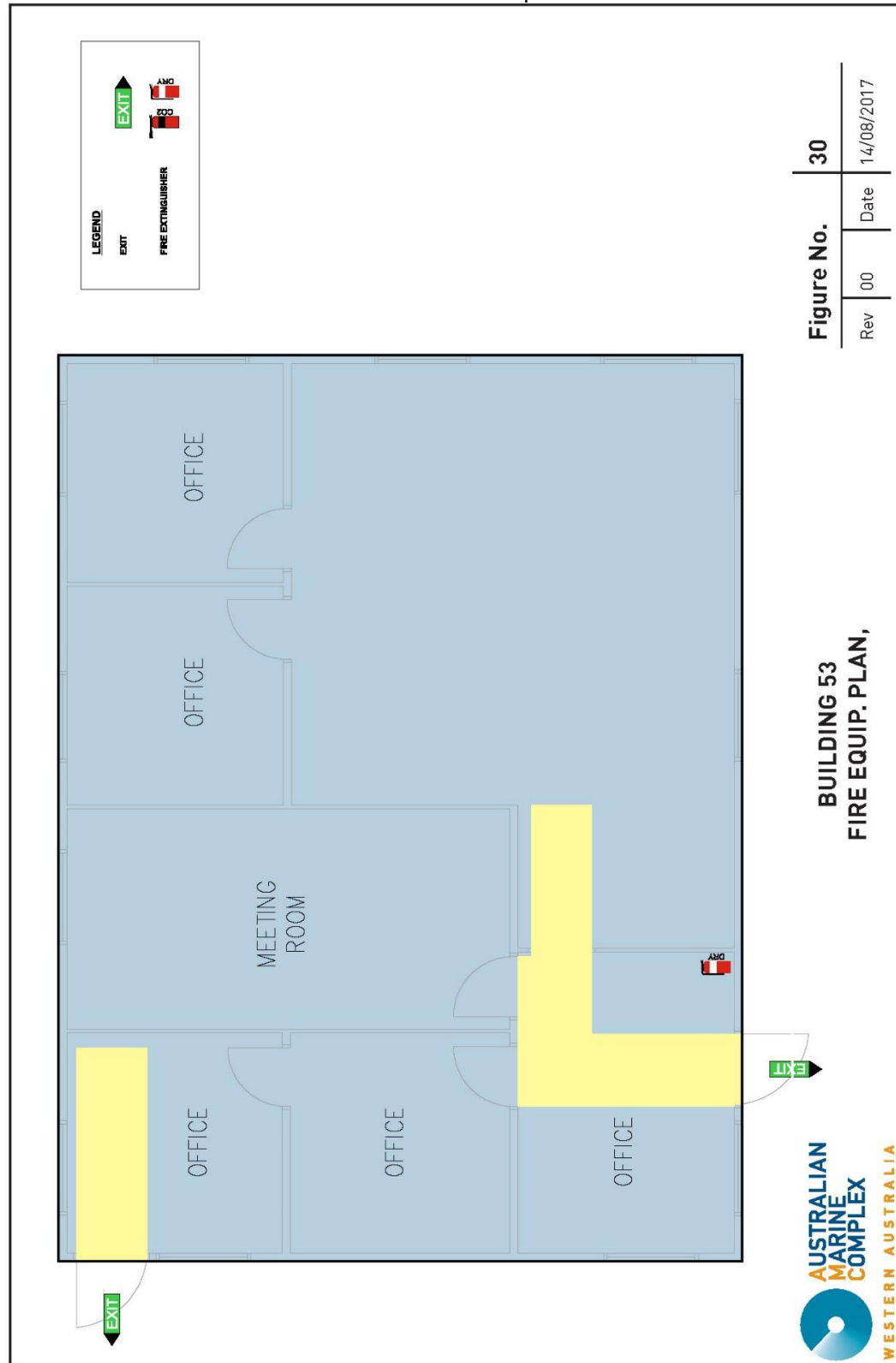
4.10 Building B022 – Ablutions

Ablutions with male and unisex/disabled facilities. 8mx3m total area. Located at AMC6.



4.11 Building B053 – Office

Office building - Four offices, meeting room and a open plan office. Located near building 3. Overall dimensions are 15m x 12m and 180m² of space.



4.12 Building B056 – Office

2 person office located near AMC4. No drawing available.

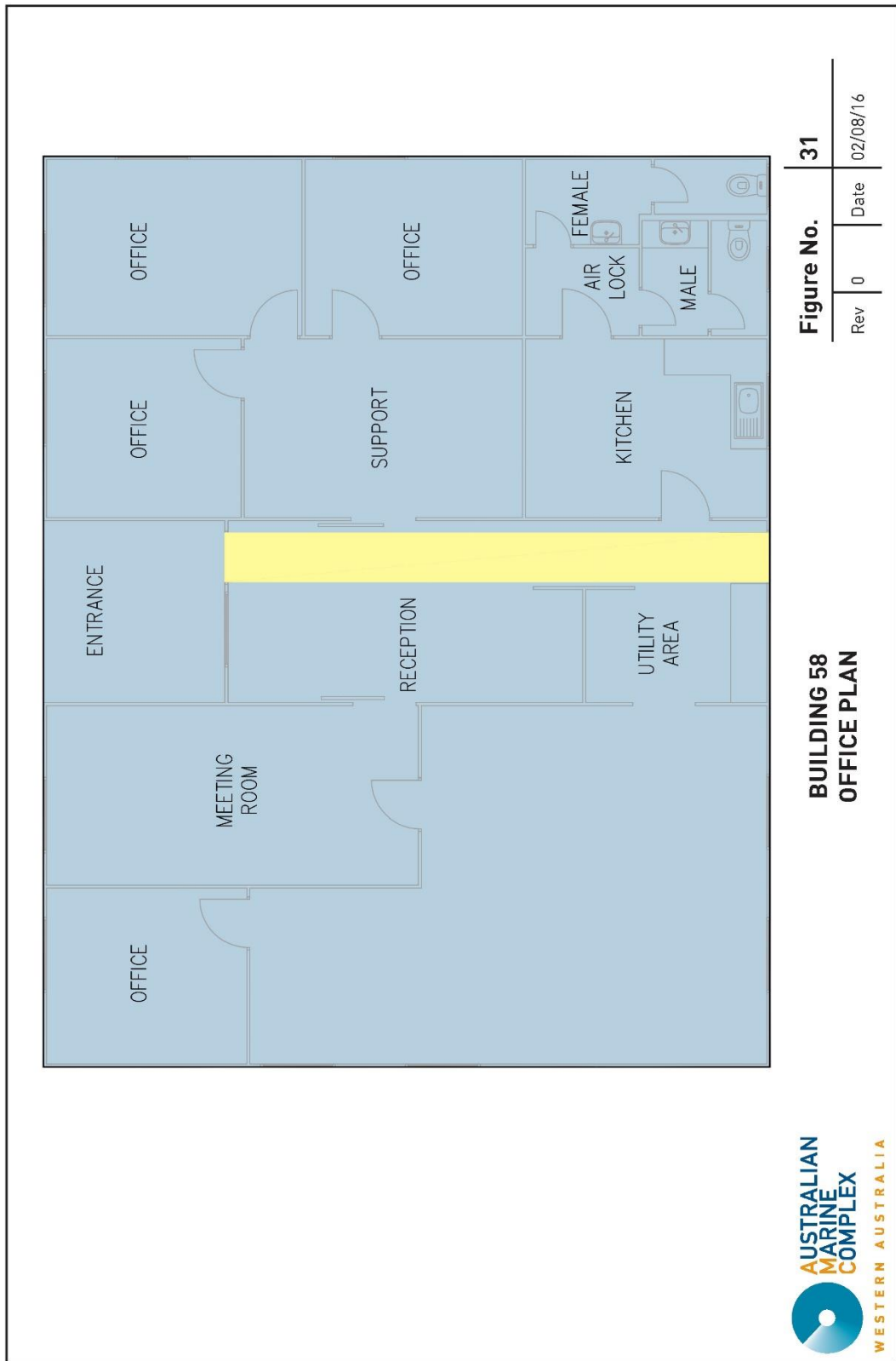
4.13 Building B057 – Crib Room

30 person crib room located near AMC4. No drawing available.

4.14 Building B058 – Project Offices

Building No. 58 provides general offices for AMC-CUF Users. The building is stand alone and comprises the following:

- Total Area 180m²
- 4 x 10m² offices
- 1 x 18m² meeting room
- 1 x 42m² open plan office
- Reception, utility and support areas
- Male and female toilets
- Office equipment including tables and chairs



4.15 Building B061 – Ablution

Male and female ablution located near AMC4. No drawing available.

4.16 Building B064 – Office and Crib Room

Office located at AMC 1 wharf. This is available when hiring AMC 1 wharf. No drawing available

4.17 Building B065 – Ablutions

Male ablutions located at AMC 1 wharf. This is available when hiring AMC 1 wharf. No drawing available

4.18 Building B067 – Office and Cribroom

Cribroom located at AMC 4 wharf. This is available when hiring AMC 4 wharf. No drawing available

4.19 Building B068 – Ablution

Male and Female ablutions located at AMC 4 wharf. This is available when hiring AMC 4 wharf. No drawing available

4.20 Building B072 – Ablution

Male and female ablution located near AMC 5 and AMC 6. No drawing available.

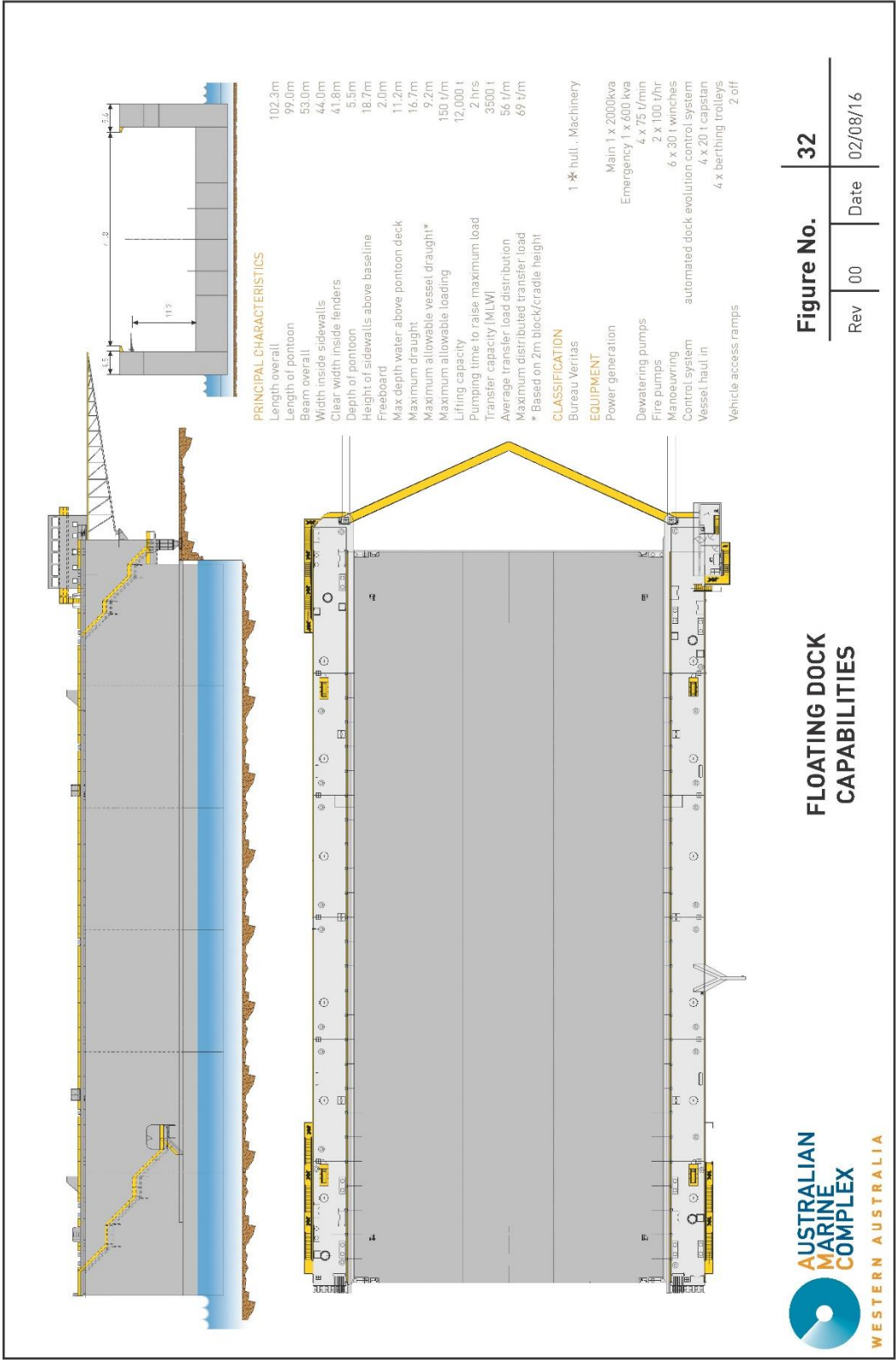
4.21 Building B073 – Single Room

This is a large single room 12mx6m crib facility located close to AMC5 and AMC6. Hired building from Coates hire. No drawing available.

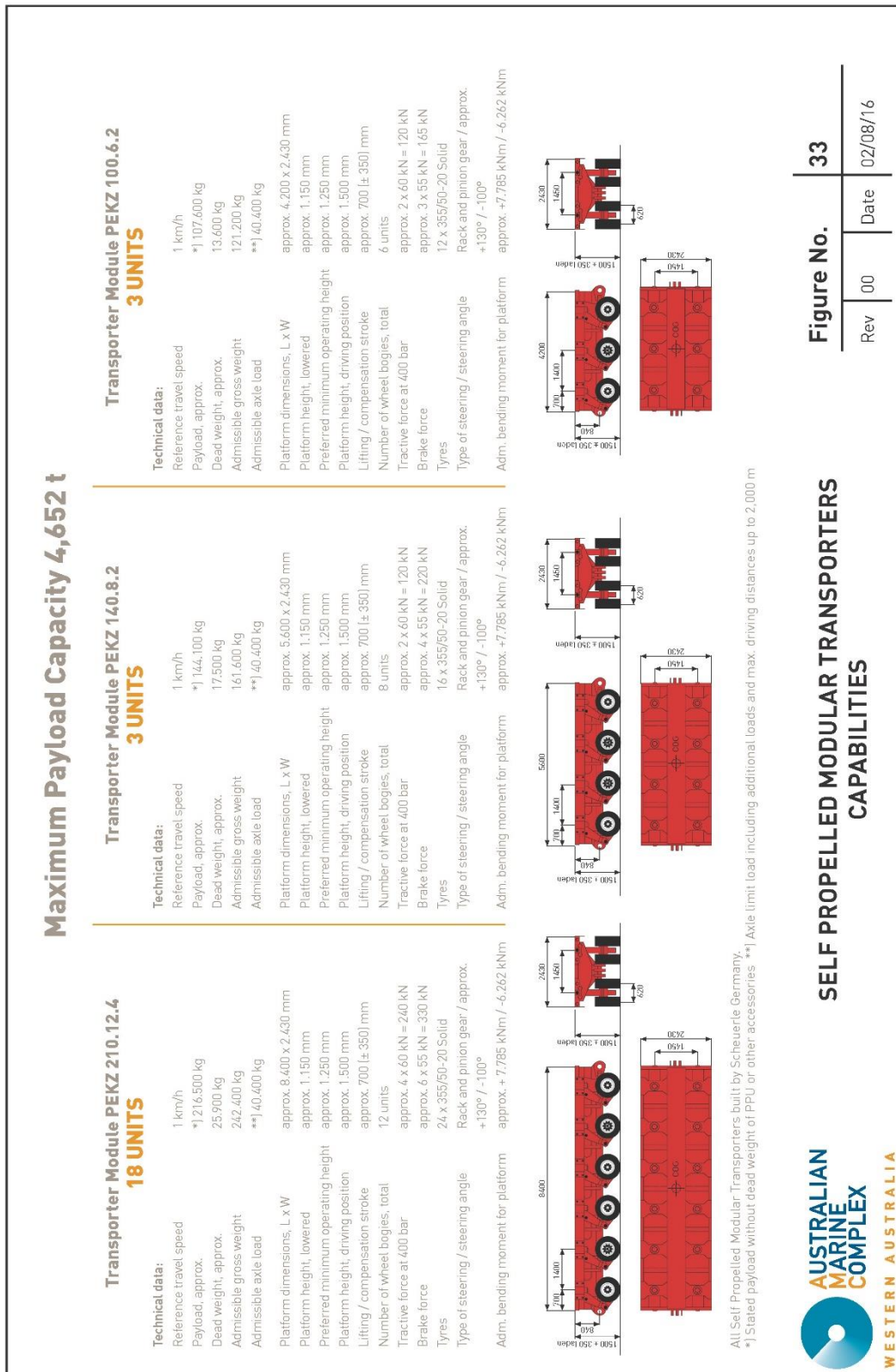
4.22 Public Toilets

Two public toilets are available on the site. Located near ASC Facility on Road 'A' and at the entrance to AMC 2 Wharf.

5.0 FLOATING DOCK



6.0 SELF PROPELLED MODULAR TRANSPORTERS (SPMTs)



7.0 ON SITE FACILITIES –SERVICES

7.1 Electrical Facilities

A 22kV Substation at the northern end of the Facility is located adjacent to the main access road from the north. The Substation has been designed to meet the projected long-term electrical loads when the site is fully developed.

From the Substation, electrical power is reticulated around the site by a system of 22kV underground cabling. The reticulation comprises of three ring mains such that there are dual feeds to each site HV substation.

There are a number of transformers located onsite supplying LV (415V, 3 phase) power to distribution boards, each of which can supply a number of facilities via temporary aerial reticulation.

At various locations on the site there are light towers available to Users for safe 24 hour load out and transport around the site.

Wharves AMC 1, AMC 2, AMC 3 & AMC 4 have power reticulated to the wharf edges in COPE BOXES. There are no power supplies to AMC 5 or AMC 6.

The capacities range from 240V single phase up to 150A, 415V, 3 phase.

There are solid state converters located near the wharves which convert 50 Hz power to 60 Hz power for use by ships if required.

Additional electrical fittings include earth bonding points.

7.2 Potable Water Supply

AMC 1, AMC 2, AMC 3 & AMC 4 wharves provide outlets for potable water for ships via a 50 mm BIC coupling. Wharf AMC 5 has a single 32mm potable water outlet.

7.3 Waste Water (Sullage)

There is no facility at the wharves to allow discharge of ship sullage. Such discharge is to be carried out by licensed waste removal contractors using road transport.

7.4 Sewerage

AMC 1, AMC 2, AMC 3 & AMC 4 are all fitted with 100 mm KAMLOCK couplings to enable sewage to be discharges from vessels in the AMC system.

7.5 Fire Water

AMC 1, AMC 2, AMC 3 & AMC 4 are fitted with salt water outlets 50 mm to allow connection to vessels. This is supplied by 2 pump stations.

7.6 Communications

AMC 1, AMC 2, AMC 3 & AMC 4 are also fitted with a single point connection for communications i.e.: phone, fax, and data.

7.7 Security

The entire AMC-CUF site, excluding the waterfrontage, is fenced with 1.8m high chain link plus three rows of barbed wire.

Access to the main CUF site for authorised personnel is through the boom gates at the corner of Quill Way. The gatehouse is managed by security guards 24 hours a day.

CCTV - A series of CCTV cameras operate within the CUF to enhance physical security. Cameras operate 24 hrs /day 7 days per week. Monitoring of the system is carried out using 24 hour manned security guards.

7.8 Port Facility Security Plan

The AMC has a Maritime Security Plan which has been developed in accordance with MTOFSA Act and Regulations 2003.

The Port Facility Security Plan for the Australian Marine Complex makes an appropriate contribution to maritime security outcomes by fulfilling AMC Management's legislated obligations to;

- reduce the vulnerability of terrorist attack against ships and port facilities within the Port of Fremantle
- reduce the likelihood of maritime transport through AMC being used to facilitate terrorist or other unlawful activities, and
- enhance distribution of security information among maritime industry participants and relevant government agencies with maritime security responsibilities
- Each of the six wharves are identified as land side restricted zones, any person entering these areas require a valid MSIC card on them at all times if the LRZ is active.

7.9 Australian Customs

The wharf AMC is a proclaimed port for the import and export of international cargo. All wharves are gazetted Australian Customs Section 15.

AMC4 and AMC5 wharves are declared Cargo Terminal Operating (CTO) areas and as such require a full time security guard at the entrance to each wharf while a vessel is alongside. Every person entering / leaving the wharf area will be entered into the security log book.

8.0 CLIMATE

For all current weather information go to the Bureau of Meteorology www.bom.gov.au.

8.1 Current climate statistics

Fremantle - http://www.bom.gov.au/climate/averages/tables/cw_009017.shtml

Kwinana - http://www.bom.gov.au/climate/averages/tables/cw_009064.shtml

Garden Island - http://www.bom.gov.au/climate/averages/tables/cw_009256.shtml

8.2 Tide

Tide times and heights for high and low waters for Fremantle

2019 - http://www.bom.gov.au/ntc/IDO59001/IDO59001_2019_WA_TP015.pdf

8.3 Storms

For information relating to Storms please refer to the Bom website

<http://www.bom.gov.au/australia/stormarchive/>

8.4 Wind

For wind speed and direction rose for Perth Airport

http://www.bom.gov.au/cgi-bin/climate/cgi_bin_scripts/windrose_selector.cgi?period=Annual&type=9&location=09021