

## APPLICATION ON NOTIFICATION – Category 2

<b>Applicant:</b>	Australian Naval Infrastructure C/- Aurecon
<b>Development Number:</b>	040/L050/18
<b>Nature of Development:</b>	Early works (cut, fill and piling) associated with the preparation of the site for the future construction of assembly and outfitting facilities for the Future Submarine Program
<b>Subject Land:</b>	667-679 Mersey Road North, Osborne
<b>Development Plan:</b>	Port Adelaide Enfield Council Development Plan
<b>Zone / Policy Area:</b>	Industry Zone (Osborne Maritime Policy Area 11)
<b>Contact Officer:</b>	Benjamin Williams
<b>Phone Number:</b>	08 7109 7023
<b>Consultation Start Date:</b>	15 October 2018
<b>Consultation Close Date:</b>	5:00 PM 26 October 2018
<p><b>During the notification period, hard copies of the application documentation can be viewed at the Department of Planning, Transport and Infrastructure, Level 5, 50 Flinders St, Adelaide, during normal business hours. Application documentation may also be viewed during normal business hours at the local Council office (if identified on the public notice).</b></p>	

Written representations must be received by the close date (indicated above) and can either be posted, hand-delivered or emailed to the State Commission Assessment Panel.

**Any representations received after the close date will not be considered.**

Postal Address:

The Secretary  
State Commission Assessment Panel  
GPO Box 1815  
ADELAIDE SA 5001

Street Address:

Development Division  
Department of Planning, Transport and Infrastructure  
Level 5, 50 Flinders Street  
ADELAIDE

Email Address: [scapreps@sa.gov.au](mailto:scapreps@sa.gov.au)

Fax Number: (08) 8303 0753

**South Australian  
DEVELOPMENT ACT, 1993  
REPRESENTATION ON APPLICATION – CATEGORY 2**

**Applicant:** Australian Naval Infrastructure C/- Aurecon  
**Development Number:** 040/L050/18  
**Nature of Development:** Early works (cut, fill and piling) associated with the preparation of the site for the future construction of assembly and outfitting facilities for the Future Submarine Program  
**Zone / Policy Area:** Osborne Maritime Policy Area 11 within the Industry Zone  
**Subject Land:** 667-679 Mersey Road North, Osborne  
**Contact Officer:** Benjamin Williams  
**Phone Number:** 08 7109 7023  
**Close Date:** 5:00 PM 26 October 2018

My Name: \_\_\_\_\_ My phone number: \_\_\_\_\_

Primary method(s) of contact: \_\_\_\_\_ Email: \_\_\_\_\_  
Postal Address: \_\_\_\_\_ Postcode: \_\_\_\_\_

**You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard by the State Commission Assessment Panel in support of your submission.**

My interests are:  
(please tick one)

☐ owner of local property  
☐ occupier of local property  
☐ a representative of a company/other organisation affected by the proposal  
☐ a private citizen

**The address of the property affected is:**

\_\_\_\_\_  
Postcode \_\_\_\_\_

My interests are:  
(please tick one)

☐ I support the development  
☐ I support the development with some concerns  
☐ I oppose the development

**The specific aspects of the application to which I make comment on are:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**I:** ☐ wish to be heard in support of my submission  
(please tick one) ☐ do not wish to be heard in support of my submission  
(Please tick one)

**By:** ☐ appearing personally  
(please tick one) ☐ being represented by the following person  
(Please tick one)

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

# DEVELOPMENT APPLICATION FORM

PLEASE USE BLOCK LETTERS

**COUNCIL:** City of Port Adelaide Enfield

**APPLICANT:** Australian Naval Infrastructure (ANI)

Postal Address: C/- Aurecon  
Level 10, 55 Grenfell Street, Adelaide SA 5000

**Owner:** Australian Naval Infrastructure

Postal Address: 61 Veitch Road, Osborne SA, 5017

**BUILDER:** To Be Confirmed

Postal Address: To Be Confirmed

Licence No: \_\_\_\_\_

**CONTACT PERSON FOR FURTHER INFORMATION**

Name: Marcus Howard

Telephone: 08 8237 9987 [work] \_\_\_\_\_ [Ah]

Fax: \_\_\_\_\_ [work] \_\_\_\_\_ [Ah]

**EXISTING USE:** Vacant Land

**FOR OFFICE USE**

Development No: \_\_\_\_\_

Previous Development No: \_\_\_\_\_

Assessment No: \_\_\_\_\_

- ☐ Complying
- ☐ Non Complying
- ☐ Notification Cat 2
- ☐ Notification Cat 3
- ☐ Referrals/Concurrences
- ☐ DA Commission

Application forwarded to DA

Commission/Council on

/ /

Decision: \_\_\_\_\_

Type: \_\_\_\_\_

Date: / /

	Decision required	Fees	Receipt No	Date
Planning:	_____	_____	_____	_____
Building:	_____	_____	_____	_____
Land Division:	_____	_____	_____	_____
Additional:	_____	_____	_____	_____
<b>Development Approval</b>				

**DESCRIPTION OF PROPOSED DEVELOPMENT:** Early Works activities associated with the Future Submarine Program Development

**LOCATION OF PROPOSED DEVELOPMENT:** Multiple Locations

House No: \_\_\_\_\_ Lot No: 1001 Street: Mersey Road Town/Suburb: Osborne

Section No [full/part] \_\_\_\_\_ Hundred: Port Adelaide Volume: 6169 Folio: 228

Section No [full/part] \_\_\_\_\_ Hundred: \_\_\_\_\_ Volume: \_\_\_\_\_ Folio: \_\_\_\_\_

**LAND DIVISION:**

Site Area [m<sup>2</sup>] \_\_\_\_\_ Reserve Area [m<sup>2</sup>] \_\_\_\_\_ No of existing allotments \_\_\_\_\_

Number of additional allotments [excluding road and reserve]: \_\_\_\_\_ Lease: YES ☐ NO ☐

**BUILDING RULES CLASSIFICATION SOUGHT:** \_\_\_\_\_ Present classification: \_\_\_\_\_

If Class 5,6,78 or 9 classification is sought, state the proposed number of employees: Male: \_\_\_\_\_ Female: \_\_\_\_\_

If Class 9a classification is sought, state the number o persons for whom accommodation is provided: \_\_\_\_\_

If Class 9b classification is sought, state the proposed number of occupants of the various spaces at the premises: \_\_\_\_\_

**DOES EITHER SCHEDULE 21 OR 22 OF THE DEVELOPMENT REGULATIONS 2008 APPLY?** YES ☐ NO ☐

**HAS THE CONSTRUCTION INDUSTRY TRAINING FUND ACT 2008 LEVY BEEN PAID?** YES ☐ NO ☐

**DEVELOPMENT COST** [do not include any fit-out costs]: \$ 77 Million

I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the Development Regulations 2008.

**SIGNATURE:** 

Dated: 30 / 7 / 2018



Government  
of South Australia

DEVELOPMENT REGULATIONS 2008  
Form of Declaration (Schedule 5 clause 2A)

To: State Commission Assessment Panel (SCAP)

From: Naval Group

Date of Application: 31 / 7 / 2018

Location of Proposed Development: \_\_\_\_\_

House No: \_\_\_\_\_ Lot No: 1001 Street: Mersey Road

Town/Suburb: Osborne

Section No (full/part): \_\_\_\_\_ Hundred: \_\_\_\_\_

Volume: 6169 Folio: 228

**Nature of Proposed Development:**

Early works associated with the Future Submarine Program Development

I Marcus Howard being a person acting on behalf of the applicant (delete the inapplicable statement) for the development described above declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of section 86 of the Electricity Act 1996. I make this declaration under clause 2A(1) of Schedule 5 of the Development Regulations 2008.

Signed: Marcus Howard

Date: 30 / 7 / 2018





**Government  
of South Australia**

**Note 1**

This declaration is only relevant to those development applications seeking authorisation for a form of development that involves the construction of a building (there is a definition of 'building' contained in section 4(1) of the Development Act 1993), other than where the development is limited to –

- a) an internal alteration of a building; or
- b) an alteration to the walls of a building but not so as to alter the shape of the building.

**Note 2**

The requirements of section 86 of the Electricity Act 1996 do not apply in relation to:

- a) an aerial line and a fence, sign or notice that is less than 2.0 m in height and is not designed for a person to stand on; or
- b) a service line installed specifically to supply electricity to the building or structure by the operator of the transmission or distribution network from which the electricity is being supplied.

**Note 3**

Section 86 of the Electricity Act 1996 refers to the erection of buildings in proximity to powerlines. The regulations under this Act prescribe minimum safe clearance distances that must be complied with.

**Note 4**

The majority of applications will not have any powerline issues, as normal residential setbacks often cause the building to comply with the prescribed powerline clearance distances. Buildings/renovations located far away from powerlines, for example towards the back of properties, will usually also comply.

Particular care needs to be taken where high voltage powerlines exist; or where the development:

- is on a major road;
- commercial/industrial in nature; or
- built to the property boundary.

**Note 5**

An information brochure: 'Building Safely Near Powerlines' has been prepared by the Technical Regulator to assist applicants and other interested persons.

This brochure is available from council and the Office of the Technical Regulator. The brochure and other relevant information can also be found at [sa.gov.au/energy/powerlinesafety](http://sa.gov.au/energy/powerlinesafety)

**Note 6**

In cases where applicants have obtained a written approval from the Technical Regulator to build the development specified above in its current form within the prescribed clearance distances, the applicant is able to sign the form.

# **Future Submarine Program**

Planning Report – Stage 1 –  
Early Works

**Naval Group**

Reference: 501873

Revision: Final

31 July 2018

# Document control record

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Document control			aurecon
Report title	Planning Report – Stage 1 – Early Works		
Document ID	Planning Report – Stage 1 – Early Works	Project number	501873
Client	Naval Group		
Current revision	Final		

Approval			
Author signature		Approver signature	
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Title	Manager	Title	Technical Director

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# 1 Introduction

## 1.1 Purpose

This Planning Report has been prepared to support the development application (DA) for 'Early Works' on the Submarine Construction Yard which will construct the Future Submarine fleet within the Osborne Naval Shipbuilding Precinct at Osborne in South Australia.

This report provides background to the project, describes the Subject Land and its context, explains the proposed Early Works development activities and provides planning justification for the proposal having regard for relevant planning and environmental considerations.

The proposed development is located within the City of Port Adelaide Enfield and the locality of Osborne.

Figure 1 depicts the extent of the Australian Naval Infrastructure Maritime Precinct including the existing established facilities of the Osborne Naval Shipyard, and the anchor tenant ASC.



Figure 1 ANI Maritime Precinct



## 1.2 The Project

The Future Submarine Program (FSP or the 'Program') will facilitate the modernisation and successful delivery of the Future Submarine Program. The Program will contribute to the development of Australia's submarine construction capability through the creation of a new Submarine Construction Yard (the Project). The development of this purpose built Yard is a significant economic project for the State of South Australia and a critical component of establishing a sovereign and sustainable naval shipbuilding industry in Australia.

The Program will deliver a fleet of 12 regionally superior Future Submarines with construction to commence in the 2022-23 timeframe and expected to extend into the late 2040s, with the last of the boats expected to enter service in the early 2050s. The new fleet of submarines will replace Australia's current submarine class, the Collins Class that were constructed at the ASC- North facility at Osborne. This sizable investment in infrastructure and facilities at Osborne, in addition to the development of the surface shipyard, will see the area become a premier surface shipyard and submarine construction precinct that maximises the use of suitable existing facilities while providing further development for the precinct.

The new Submarine Construction Yard facilities are located to the west of Mersey Road and are focused on the fabrication, construction, assembly and testing of the Future Submarines and their associated components. Accordingly, the facilities are typically large, open workspaces with supporting infrastructure required for submarine construction.

There will be additional ancillary facilities laid down on this site in a staged manner which will include office accommodation and staff amenities. The following new buildings, workshops and infrastructure proposed for construction west of Mersey Road include:

**Table 1 Building Title & Descriptions (west of Mersey Road)**

Building #	Title / Description
1	Main Hall
2	Hull Workshop
3	Pressure Hull Workshop
4	Hull Support Workshop
5	Northern Main Hall - Support Workshop
6	Southern Main Hall - Support Workshop
7	Shipyard Maintenance and Utilities
8	Painting Workshop
9	Hazardous Product Storage
10	Main Warehouse
11	Raft Workshop
12	Canteen & Changeroom
13	Platform Land Based Test Facility (PLBTF)
14	High Voltage Substation
16	FSP Building
17	Combat System Physical Integration Facility (CSPIF)

The surface area around and between the buildings will have a concrete (or concrete paver) overlay connecting the facilities and enabling transport of large items such as steel shipments, submarine cans or rafts.

It is to be noted that car parking provisions to the west of the rail line, to accommodate the expected workforce, has been addressed through the Development (Designated Osborne Area) Variation Regulations 2018 which was Gazetted on 7 June 2018. See Appendix A for a copy of the Regulations.

Work on the new Submarine Construction Yard including its design will provide an understanding of what will be required to integrate production of the Future Submarine with the existing activity undertaken at ASC North. Whilst ASC continue in their important role of maintaining and sustaining the Collins class submarine fleet, work will commence to the West of Mersey Road for delivery of the Submarine Construction Yard in

which the Future Submarine fleet will be built. No decisions have been made regarding the location for Collins class submarine Full Cycle Docking work. Until a decision is made on this, options will continue to be reviewed to ensure efficient and effective construction of the Future Submarine can best proceed concurrently with the ongoing sustainment of the Collins fleet.

The proponent recognises the scale and complexity of this project and, as such, is seeking to stage the development into four discrete packages of work for development assessment;

- Stage 1 – A development application to commence early works onsite (primarily earthworks and piling)
- Stage 2 – A development application for New Buildings to the West of Mersey Road
- Stage 3 – A development application for New Buildings and the refurbishment and upgrade of existing buildings to the East of Mersey Road
- Stage 4 – A development application for the wharf extension and associated marine based works.

This development application encompasses the proposed Early Works (west of Mersey Road) for the Submarine Construction Yard that will deliver the fleet of Future Submarines.

## 1.3 Scope

The 'Early Works' that forms part of this development application is one of four stages of works which encompass the phased design and construction of the Project. The applications are listed in Section 1.4 below.

In general terms, the scope for this development application is limited to all of the Early Works required to establish the construction site and to commence works associated with excavation and filling the site and will include piling for the proposed site west of Mersey Road.

This DA relates to Early Works construction activities up to and including the stage of piling completion on the Submarine Construction Yard. Subsequent construction activities will be subject to further development applications, to be lodged at a later stage.

## 1.4 Development Applications for the Future Submarine Program

The proponent intends to stage the submission of four development applications to meet a phased design and construction program.

This development application, the first, has been submitted in anticipation of approval for commencement of the Early Works by October 2018. In addition to this DA, three subsequent and separate development applications will also be submitted by the proponent for the Principal Project Works. Table 2 denotes the indicative submission timeline for the development applications and their proposed works.

**Table 2 Development Application Timeline**

Title	Proposed Works	Submission Date	Scheduled Commencement on Site
FSP Early Works (Stage 1)	Site Establishment, Earthworks and Piling.	June 2018	October 2018
FSP Stage 2 Works	New Buildings to the West of Mersey Road	July 2018	March 2019
FSP Stage 3 Works	New Buildings to the East of Mersey Road	TBC	TBC

Title	Proposed Works	Submission Date	Scheduled Commencement on Site
FSP Stage 4 Works	Wharf upgrade and associated works	TBC	TBC

With regards to Stage 3 (works east of Mersey Road) work on the new Submarine Construction Yard, including its design, will provide an understanding of what will be required to integrate production of the Future Submarine Program with the existing activities undertaken at ASC North.

## 1.5 The Applicant

The applicant for the development application is Australian Naval Infrastructure (ANI).

Australian Naval Infrastructure Pty Ltd ('ANI') is a Commonwealth Company and a Government Business Enterprise (GBE). The creation of ANI followed a strategic review of the ASC Group in 2015-2016, which resulted in ASC Engineering Pty Ltd (as ANI was formerly known) being separated from ASC Pty Ltd on 26 March 2017.

The formation of ANI represents a nation building commitment by the Government. ANI's primary function is to support the Commonwealth's continuous naval shipbuilding program by being the owner and developer of infrastructure and related facilities. In addition, ANI is tasked with providing access and efficiently and effectively managing the infrastructure in a manner that ensures an integrated and co-ordinated approach to delivery of the shipbuilding programs.

Following its separation from the ASC Group, ANI has focused on fulfilling these functions through the acquisition of land and development of facilities.

ANI's shareholders are the Minister for Finance and the Minister for Defence Industry.

## 1.6 The Planning Report

This Planning Report has been prepared on behalf of ANI in support of the proposed early works development for the Submarine Construction Yard at Osborne, South Australia.

The report includes the following components:

- A description of the site and the surrounding locality
- A description of the proposal
- An assessment of the proposal against the City of Port Adelaide Enfield Development Plan
- Conclusion and Recommendation

This planning report is accompanied by a draft Construction Environmental Management Plan (CEMP) prepared by Aurecon which addresses early construction activities that will be taking place on site and the management of those activities to mitigate possible adverse environmental impacts. The managing contractor will use this CEMP as the basis for their final Plan that is intended to be used during construction activities.

## 1.7 Stakeholder Engagement

As part of the preliminary design and development of the Submarine Construction Yard Project and in preparation for submitting this development application, discussions have been held with key State Agencies and Local Government authorities. The discussions provided the opportunity to brief key stakeholders on the

Project and to gain an understanding of their requirements, expectations and their involvement in the assessment of the Project.

Table 3 below provides a record of the stakeholder engagement undertaken at the time of this application be lodged for assessment.

**Table 3 Stakeholder Record**

Department / Agency	Name	Title / Role
Department of Planning, Transport & Infrastructure (DPTI)	Robert Kleeman, Gabrielle McMahon, Elysse Kohar,	Relevant Planning Authority
Department of Planning, Transport & Infrastructure (DPTI) Transport Services	George Morias	Referral Agency
City of Port Adelaide Enfield	<u>Planning</u> Mt Steve Hooper, Mr Tim Hicks & Mr Russell Fink <u>Traffic</u> Yee-May Chang <u>UPCG</u> Mr Bill Zhang & Members	Referral Agency
Environment Protection Authority	Ms Hayley Riggs	Referral Agency

## 1.8 Background Project Discussions

ANI has undertaken stakeholder engagement with numerous agencies, including local council, Renewal SA, DPTI, DEW, Defence SA, ARTC, relevant service authorities and local interest groups. ANI appreciates the broader precinct implications of this development, particularly issues relating to stormwater management, traffic management, public access to reserves such as Mutton Cove, and the establishment of green corridors. ANI is committed to working with relevant stakeholders to ensure that these issues are appropriately addressed.

A copy of correspondence from Defence SA regarding the closure of Mersey Road is attached for reference in Appendix B.

## 1.9 Land Holdings for the Future Submarine Program

ANI has progressed property acquisitions within the development area and, for properties not currently owned by ANI, ANI is either about to acquire or is in negotiations to acquire these properties.

These negotiations are expected to be completed within the next 6 to 12 months.

## 2 Development Assessment Process

### 2.1 Nature of Development

This proposal involves the commencement of early works to prepare the site for future construction of assembly and outfitting facilities for the purposes of building Australia's Future Submarines at 667-669 Mersey Road, Osborne South Australia 5017.

The application constitutes a 'Consent on-merit' proposal, being neither a complying or non-complying form of development within the Industry Zone (Osborne Maritime Policy Area 11).

### 2.2 Relevant Authority

The development is located in the Osborne Maritime Policy Area 11, in the City of Port Adelaide Enfield council area. Pursuant to Section 6A of Schedule 10 of the Development Regulations, 2008 the Relevant Authority for the assessment of the Submarine Construction Yard Development Application is the State Planning Commission (SPC) with the State Commission Assessment Panel (SCAP) undertaking assessment functions on the application.

*6A—City of Port Adelaide Enfield—Osborne Maritime Policy Area*

*All classes of development in that part of the area of the City of Port Adelaide Enfield defined in the Industry Zone in the Port Adelaide Enfield Council Development Plan as Osborne Maritime Policy Area 11.*

### 2.3 Referrals

Pursuant to Schedule 8 of the Development Regulations (2008) the application does not require mandatory referrals to any state agency.

However, the City of Port Adelaide Enfield is the local government authority where the subject land for this development application is located and pursuant to Part 7, Section 38 (2)(b) of the Development Regulations 2008 the State Commission Assessment Panel (SCAP) will provide the City of Port Adelaide Enfield with an opportunity to comment on the application as prescribed below:

*"in any case---the Development Assessment Commission must give the council for the area in which the development is to be undertaken a reasonable opportunity to provide the Development Assessment Commission with a report on the matters under section 33(1) (as relevant)....."*

#### 2.3.1 Non-Mandatory Referrals

Having regard to the proposed development the following non-mandatory agencies may be referred the development application, by the SCAP, for their response or consideration. These may include:

- the Environment Protection Authority,
- the Coastal Protection Board,
- the Department of Planning, Transport and Infrastructure, Transport Services,
- SafeWork SA.

## 3 Subject Land and Locality

### 3.1 Subject Land

The Subject Land is located on the Lefevre Peninsula at 667-669 Mersey Road, Osborne.

The suburb of Osborne is the base for the State's naval shipbuilding industry precinct. The Subject Land is bounded directly by Mersey Road to the east; the Australian Rail Track Corporation's (ARTC) Adelaide – Outer Harbour Dual Gauge Track to the west; and allied Defence service industries including Babcock and PMB Defence to the north and south respectively. The site is adjacent to the Osborne Naval Shipyard east of Mersey Road which contains existing buildings and structures associated with present naval shipbuilding activities undertaken at Osborne Naval Shipyard's Common User Facility and the ASC South facilities.

The land is generally low lying with a downward gradient towards the southern portion of the site. The site itself, west of Mersey Road, is vacant cleared land. Access to the site will be gained via Mersey Road.

The subject land is located in the Industry Zone (Policy Area 11 – Osborne Maritime) as stated in the Port Adelaide Enfield (City) Development Plan – Consolidated 6 February 2018.

**Table 4 Property Address and Certificate of Title Details**

Address	Volume	Folio
Lot 20 Nelcebee Street, Osborne	6102	719
Lot 11 Nelcebee Street, Osborne	6150	247
Lot 10 Annie Watt Circuit	6024	186
Lot 14 Annie Watt Circuit	6012	875
Lot 15 Annie Watt Circuit	6012	876
Lot 99 Annie Watt Circuit	6067	113
Lot 8 Annie Watt Circuit	6012	869
Lot 7 Annie Watt Circuit	6012	868
Lot 21 Annie Watt Circuit	6120	958
Lot 1001 Mersey Road, Osborne	6169	228
Lot 202 Mersey Road, Osborne	6012	881
Lot 6 Mersey Road, Osborne	6120	972
Lot 5 Mersey Road, Osborne	6120	971

Copies of the Certificates of Title are included in Appendix C.

### 3.2 Locality

The subject land is located within the Lefevre Peninsula, approximately 18 kilometres northwest of the Adelaide Central Business District. Figures 2 and 3 below shows the location of the subject land in context to the Lefevre Peninsula. Much of the land on the Peninsula was reclaimed from the Port River and contains fill from dredging activities used to create the shipping channels into the inner harbour adjacent to Port Adelaide.

The Lefevre Peninsula provides for one of the State's major freight transport corridors linking South Australia's major port and rail terminals at Outer Harbor directly with the interstate mainline rail network to Perth, Sydney and Melbourne.



The importance of the Lefevre Peninsula and its available land cannot be understated for potential industry development. It has significant economic importance to South Australia in terms of reinforcing the State's industrial, defence, maritime and transport capabilities.

The locality surrounding the subject land is predominantly heavy industrial in nature along the peninsula's eastern and northern coastline supporting industries such as Adelaide Brighton Ltd's cement and lime operations at Birkenhead, Holcim Australia's Concrete operations at Osborne, Terminals Pty Ltd bulk liquid storage facility, ENGIE's gas-fired power station to the north (commonly known as Pelican Point Power Station) and further north west the Flinders Ports Adelaide Container Terminal and Outer Harbor.

Industry and its operations exist with residential areas extending inland from the western beaches coupled with significant open space and recreational activities dispersed around the Peninsula. The closest residential development to the subject land is approximately 300 metres to the west within the suburb of North Haven.

The Port River is approximately 400 metres east of the Subject Land and is also home to the established Dolphin Sanctuary. Established in 2005, the sanctuary protects the resident population of Indo-Pacific bottlenose dolphins who inhabit the river and Barker Inlet area.

A Locality Plan is provided in Figure 2 below.



Figure 2 Locality Plan

A plan highlighting the extent of the land associated with the Early Works development application is provided in Figure 3 below.



Figure 3 Extent of Works for Stage 1 Early Works DA

### 3.3 Osborne Naval Shipyard

The Osborne Naval Shipyard (formerly known as Techport Australia) will be the build location for Navy's future surface combatant ships and submarines. Owned by ANI, the Shipyard comprises land for the expansion of existing facilities to support the future ship and submarine build programs. The expansion of these facilities is critical to support the success and sustainability of the future programs. Other businesses such as Ferocut and PMB Defence, who are part of the naval shipbuilding supply chain, are also located near the Osborne Naval Shipyard and ASC.

Prior to ANI taking ownership, Defence SA had developed a Master Plan for Techport Australia which envisaged the subject land forming this development application being for the explicit purpose of shipbuilding expansion to ensure interconnectivity of existing and future shipbuilding facilities and improved economies of scale. ANI is currently working on a new Master Plan which maintains this intent.



## 4 Project Description

### 4.1 Overview

Having regard for the requirements of the Port Adelaide Enfield Council Development Plan (Consolidated – 6 February 2018) the proponent proposes a fully integrated development proposal for the upgrade and long-term growth prospects of the naval ship building industry at Osborne. The principal Project comprises the construction of new facilities to enable the construction of Australia's Suture Submarines at Osborne.

The new submarine manufacturing and fabrication development seeks to utilise facilities, where possible, from existing infrastructure and facilities. However, new facilities are also required to enable the assembly, erection and outfitting of the submarines. These new facilities are primarily located to the west of Mersey Road. Following the consolidation of the many individual can and raft sections into a submarine, the completed submarine is transported east towards the Port River. All outfitting will occur in the Main Hall and then transition to the shiplift on the Common User Facilities for final lowering into the water to undertake sea trials before being delivered to the Australian Navy.

The development is intended to occur in continuous stages with 'Stage 1 Early Works' due to commence October 2018 and 'Stages 2-4 Principal Project Works' following on from March 2019.

A Site Plan of the overall intended development on the Subject Land (west of Mersey road) is provided in Figures 4 and 5 below and is also provided in Appendix D.



Figure 4 Site Plan & Subject Land



Figure 5 Extent of Works for Stage 1 Early Works DA

## 4.2 Proposed Building Title, Activity Undertaken in Building and Floor Area

For the purposes of understanding the greater Future Submarine Construction Yard development proposal Table 5 below provides a summary of the proposed building description and approximate floor area for each building.

Table 5 Building & Title/Description

Building #	Title / Description	Dimensions L(m) x W(m) x H(m)
1	Main Hall	284 x 59 x 50
2	Hull Workshop	250 x 33 x 23
3	Pressure Hull Workshop	258 x 38 x 34
4	Hull Support Workshop	133 x 32 x 17
5	Northern Main Hall - Support Workshop	167 x 39 x 21
6	Southern Main Hall - Support Workshop	182 x 78 x 22
7	Shipyards Maintenance and Utilities	79 x 36 x 10
8	Painting Workshop	103 x 65 x 25
9	Hazardous Product Storage	24 x 36 x 7
10	Main Warehouse	150 x 80 x 19
11	Raft Workshop	150 x 53 x 27
12	Canteen & Changeroom	56 x 33 x 12
13	Platform Land Based Test Facility (PLBTF)	61 x 79 x 19
14	High Voltage Substation	30 x 15 x 19
16	FSP Building	56 x 41 x 15
17	Combat System Physical Integration Facility (CSPIF)	105 x 64 x 16

Elevations of the proposed buildings listed in the table above are located in Appendix E.

## 4.3 Proposed Development

The Early Works are located on the land that is subject to this development application (the Subject Land) (Figure 4). The primary purpose of the Early Works is to prepare the construction site for the Principal Project Works.

Table 6 below provides a description of the Early Works to be undertaken as part of this development application which involves site establishment and early construction works including:

**Table 6 FSP Early Works**

Project Element	Description
Site Establishment	<ul style="list-style-type: none"><li>■ Erection of temporary fencing/hoardings, signage and securing of site</li><li>■ Site offices and facilities including temporary buildings, ablutions, parking</li><li>■ Laydown and storage areas for plant and equipment.</li><li>■ Utility relocations and disconnection works (if required)</li><li>■ Traffic management modifications (if required)</li></ul>
Earth Works	<ul style="list-style-type: none"><li>■ Transportation of clean engineered fill to site.</li><li>■ Excavation of topsoil, earth, existing roadway excavations, and new footing excavations.</li></ul>
Piling	<ul style="list-style-type: none"><li>■ Piling for new facilities</li></ul>

### 4.3.1 Site Establishment

The subject land will be fenced along the construction site boundary (Figure 2) and entry will be controlled via secured gated entrance at Mersey Road. Boundary fencing is proposed as a 1.8 metre chain link mesh fencing with Project banner mesh where required.

The site's temporary car park for the commencement of the early works will be located within the site itself and will not impede access to adjacent properties. The site's temporary project offices will be located on site also.

### 4.3.2 Earth Works

Where the pavements are to be laid they will need to build up the site level to 3.35 metre AHD. In order to achieve this and ensure ground stability to receive such high load pressures from the transportation of the submarine cans through the site the following process will need to occur in 10 metre wide sections:

- 'Scrape' the site to a depth of approximately RL 1.5 metres,
- Hold surplus soil adjacent to the excavation site, investigate its worth as fill and reuse if possible,
- Remove unsuitable soil and transfer to a licensed waste disposal site, and
- Use and compact surplus fill and engineered fill to raise level of site where required.

If the surplus material from cutting is not of sufficient quality for reuse, it will be removed from site and received at an authorised landfill facility.

The site itself will require clean engineered fill to be brought in to raise the finished levels for the site.

## 4.4 Environment

Prior to European settlement the northern Lefevre Peninsula area was generally shrubland. The site has since been cleared, and for some time, the northern portion of the site has been used as a laydown area for the construction of the Osborne South facilities. A desktop review has been undertaken of the Subject Land's environmental aspects and its immediate surrounding area.

### 4.4.1 Commonwealth Environment Protection

To identify any *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC) Matters of National Environmental Significance (MNES) with potential to occur within or surrounding the subject land with 10 kilometres, a desktop search was conducted using the Department of the Environment and Energy Protected Matters Search Tool (PMST). The results are shown in Table 7 below.

**Table 7 Protected Matters Search Tool Results Summary**

Matters of National Environmental Significance	Results
World Heritage Properties	None
National Heritage Places	None
Wetlands of International Importance	None
Great Barrier Reef Marine Park	None
Commonwealth Marine Areas	None
Listed Threatened Ecological Communities	1 – Subtropical and temperate coastal saltmarsh
Listed Threatened Species	34
Listed Migratory Species	29

It is unlikely that construction of the proposed early works will have any impact on listed threatened community, species and migratory species listed under the EPBC Act. The proposed site contains no habitat or vegetation that would be suitable for supporting the threatened or migratory species identified in the PMST

Noise and activity during construction could potentially disturb migratory species in adjoining conservation areas if present; however, it is considered to be unlikely that the severity of indirect impacts would be sufficient to permanently disturb migratory birds from using these areas.

Some species may flyover the project area during their migratory season; construction is unlikely to have any influence with these species movement patterns.

### 4.4.2 State Environmental Protection

A desktop review was conducted of the South Australia Department's Environmental Water and Natural Resources Tool, NatureMaps. A summary of fauna and flora records was retrieved from NatureMaps and this identified within the subject land that:

- No threatened, native or introduced flora or fauna species are recorded, and
- No record of State Heritage Areas or Local Heritage Areas are recorded.

### 4.4.3 Contamination

Land contamination investigations and reporting will be completed by the Consultancy Team prior to construction commencing. Management of potential land contamination has been addressed in the CEMP at Appendix F.



#### **4.4.4 Indigenous Heritage**

The desktop review of the Register of Aboriginal Sites and Objects indicated that there were no registered Aboriginal sites, objects or remains known within the Subject Land. However, during early works if an Indigenous site, object or remains are identified a response procedure will be implemented to secure the site and contact made with relevant officials (police and/or Department of State Development – Aboriginal Affairs and Reconciliation).

#### **4.4.5 European Heritage**

The Heritage Places Database confirms no European heritage items in proximity to the Subject Land. The closest heritage place is local heritage class Lefevre Recreation Centre (former 'Glen Arif' house) located at 537-541 Victoria Road, Osborne which is approximately 800metres away from the subject land.

### **4.5 Traffic & Access**

#### **4.5.1 Overview**

The site is currently served by one access point to the north-east of the site on Mersey Road.

#### **4.5.2 Site Access**

The subject land and the vehicle entrance points will be secured to ensure that only those vehicles that need to enter the site can do so.

#### **4.5.3 Traffic Management**

##### **Traffic Movements Through Site**

Traffic movements to the site during the early works stage of the project will be principally managed by the appointed contractor who is undertaking the early work activities.

Access to the site from the public road network will be from the northern end of the site via Mersey Road & Pelican Point Road.

Access within the site during the early works activities will be carefully managed as part of the scheduling and program of on-site activities. The management of traffic will be part of specific project plans (including traffic management) that the contractor will develop prior to onsite works commencing.

Traffic management will include the location of temporary on-site parking for contractors and workers which will change on site as works progress through the site. The locations of these parking areas will be developed with the appointed contractor and local authorities as required.

##### **Heavy Vehicle Turnaround for Mersey Road**

A heavy vehicle turnaround will be designed and developed to manage heavy vehicles travelling to the site via Pelican Point Road and Mersey Road to arrive at the northern boundary of the Osborne Naval Shipyard. This turnaround will enable all vehicles to safely turnaround if required.

This turnaround will be located on Mersey Road in a location that has yet to be finalised. The location is expected to be in the vicinity of the existing northern ASC car park, the existing substation east of Mersey Road and the northern intersection of Annie Watt Circuit and Mersey Road.

The final design of the turnaround has not yet been completed at the time of lodging this Stage 1 development application. The ongoing design of the turnaround will be informed with discussions with DPTI and the City of Port Adelaide Enfield.

## **Mersey Road Closure**

**Mersey Road Closure** The closure of the northern half of Mersey Road for the Future Submarine Program will follow a similar process currently underway for the closure of the southern half of Mersey Road which is associated with the South Australian Shipbuilding Infrastructure Upgrade (SASIU) Project.

**Pedestrian Access and Bicycle Parking** Pedestrian access through the site and within the wider precinct and bicycle parking will be addressed in the Principle Works (Stage 2) development application.

# 5 Construction Environment Management Plan

## 5.1 Background

Aurecon was commissioned by KBR to produce a CEMP for the proposed works on the Subject Land.

The purpose of this CEMP is to identify the environmental protection measures, systems and tools to be implemented by the Managing Contractor and its subcontractors during the development and construction works of the Project. These measures are aimed at preventing potentially adverse environmental impacts arising during project development and construction activities whilst achieving compliance with environmental regulatory requirements. In addition, the CEMP also outlines a system for hazard and risk identification and determines appropriate management strategies to be adopted by the Managing Contractor and its contractors to mitigate or eliminate these risks.

The CEMP has been prepared having regard to the following legislation and guidelines.

- *Environment Protection Act 1993*
- Environment Protection (Water Quality) Policy 2003
- Environment Protection (Noise) Policy 2007
- Environment Protection (Waste to Resources) Policy 2010 (Waste Policy)
- National Environment Protection (Ambient Air Quality) Measure 2003
- National Environment Protection (Assessment of Site Contamination) Measure 1999
- Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government
- EPA Standard for the Production and Use of Waste Derived Fill (January 2010)
- EPA Guidelines: Construction environmental management plans (November 2016)
- EPA Guidelines 080/07: Bunding and Spill Management (June 2007)

It is recommended that this CEMP be reviewed and revised if necessary following receipt of development plan consent for the project to ensure all conditions of the consent are adequately addressed.

A copy of the CEMP is at Appendix F.

## 6 Development Plan Assessment

### 6.1 Overview

The subject land is located within the Osborne Maritime Policy Area of the Industry Zone of the City of Port Adelaide Enfield Development Plan (Consolidated –6 February 2018). This proposal is a development which must be considered on its merits within this zone and the respective Policy Area.

The following Development Plan Assessment has been prepared for the proposed early works development. Given the range of Development Plan provisions being considered, the planning assessment has been summarised within the following headings.

- Land Use
- Site Levels
- Stormwater Management
- Acoustic Management
- Air Quality Management
- Waste Management
- Vehicle Movement and Traffic Management

### 6.2 Relevant Development Plan Provisions

In terms of Development Plan considerations, the following list identifies those provisions considered most relevant to the assessment of the proposed development. These provisions have been selected from the Port Adelaide Enfield Council Development Plan (Consolidated –6 February 2018).

**Table 8 Relevant Development Plan Provisions**

Zone and Policy Area	
Industry Zone	
Desired Character Statement	
Objectives	1, 2, 3, 4.
Principles of Development Control	1, 2, 3, 4, 5, 6, 7, 10, 11.
Procedural Matters	Category 2 Development
Policy Area 11 – Osborne Maritime	
Desired Character Statement	
Objectives	1, 2, 3, 4, 5.
Principles of Development Control	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.

Council Wide (General Section)		
<b>Advertisements</b> Objective: 1 to 5. PDC: 1 to 22.	<b>Hazards</b> Objective: 1, 2, 4, 7, 8, 9, 10. PDC: 1, 3, 4, 5, 6, 7, 8, 9, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29.	<b>Orderly and Sustainable Development</b> Objective: 1, 2, 3, 4, 6. PDC: 1, 3, 7, 8.

<b>Council Wide (General Section)</b>		
<b>Coastal Areas</b> Objective: 1 to 8. PDC: 4, 5, 20, 21, 22, 23,	<b>Industrial Development</b> Objective: 1 to 7. PDC: 1, 4, 5, 6, 7, 8, 9, 10, 11, 15, 16, 17, 18, 19, 21, 22, 23.	<b>Siting and Visibility</b> Objective: 1. PDC: 1, 3, 4.
<b>Crime Prevention</b> Objective: 1. PDC: 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.	<b>Infrastructure</b> PDC: 1 to 12.	<b>Transportation and Access</b> Objective: 2. PDC: 1, 2, 5, 6, 8, 9, 10, 11, 12, 13, 15, 19, 20, 21, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53.
<b>Design and Appearance</b> Objective: 1, 2, 3. PDC: 1, 2, 3, 7, 8, 9, 10, 11, 12, 14, 15, 17, 18, 20	<b>Interface Between Land Uses</b> Objective: 1, 2, 3. PDC: 1, 2, 5, 7, 8, 11, 12	<b>Waste</b> Objective: 1, 2. PDC: 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15.
<b>Energy Efficiency</b> Objective: 1. PDC: 2	<b>Natural Resources</b> Objective: 1, 5, 6, 7. PDC: 1, 3, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18.	

### Maps and Plans

- Location Map PAdE/3
- Overlay Map PAdE/3 – Natural Resources
- Zone Map PAdE/3
- Policy Area Map PAdE/3
- Location Map PAdE/5
- Overlay Map PAdE/5 – Transport
- Overlay Map PAdE/5 – Heritage
- Overlay Map PAdE/5 – Natural Resources
- Zone Map PAdE/5
- Policy Area Map PAdE/5
- Concept Plan Map PAdE/14 Lefevre Peninsula/ Barker Inlet

### Tables

- Table PAdE/6 - Road Hierarchy and Function
- Table PAdE/7 - Contributory Items
- Table PAdE/8 - Local Heritage Places
- Table PAdE/9 - State Heritage Places

An assessment of the development application against the key provisions of the Zone as well as Council Wide policies follows.

## 6.3 Land Use

The proposed types of future activities to be carried out on site are industrial in nature and consistent with the spirit and intent of the Industry Zone, specifically the Osborne Maritime Policy Area, in which the development is located. The specific activities to be undertaken within the subject land include steel treatment and fabrication, submarine section fabrication, assembly and outfitting.

The Zone speaks to accommodating a wide range of industrial uses in which the Osborne Maritime Policy Area 11 envisages land for shipbuilding, submarine construction and supporting long-term growth of allied defence related shipbuilding industries.

The early works will support the future development of the shipbuilding facilities to the north and west of the existing facilities, enabling a cohesive extension of land for the purpose of submarine construction. The siting of the future facilities has been undertaken to achieve the shared use of facilities and provide the highest possible functionality between the existing and new facilities. This extension of industry capability meets the Desired Character of the Osborne Maritime Policy Area 11 which affirms:

*“Development in the policy area is to provide an industrial precinct primarily accommodating naval ship building and defence related support industries. New development will build upon existing economies of scale provided by the Australian Submarine Corporation site through the shared use of facilities, such as gantry and loading structures, ship lifting/launching facilities and wharf structures and car parking areas....*

*....Land without direct water frontage is envisaged to accommodate a range of compatible industries allied to naval ship building, such as fabrication warehouses, welding plants, and technology industries. However, development of supporting activities will not compromise the primary role and function of the policy area for naval ship building.”*

The proposal is sound in its intended use of the land and consistent with the existing naval shipbuilding activities to the east of the Subject Land.

The proposed development acknowledges that the Subject Land has direct western frontage to the existing Metropolitan Open Space System and relative proximity to established residential areas in the suburb of North Haven, approximately 300 metres west of the Subject Land.

The proposed early works will consider and implement noise and air quality measures to avoid adverse impacts to residences and the surrounding environment through the application of the CEMP.

We are of the view that the proposed early works to achieve the Future Submarine Construction Yard building facilities achieves an appropriate land use within the bounds of the Osborne Maritime Policy Area 11. Further, it realises the purpose of the land and offers a co-ordinated approach to expanding the ship and submarine building activities within the Policy Area; meeting the intent of orderly and sustainable development within the ambit of the Development Plans provisions.

The following land use planning provisions are considered to be addressed through this application:

### **COUNCIL WIDE – Interface between Land Uses**

#### **OBJECTIVES**

- 1 Development located and designed to minimise adverse impact and conflict between land uses.
- 2 Protect community health and amenity from adverse impacts of development.
- 3 Protect desired land uses from the encroachment of incompatible development.

#### **PRINCIPLES OF DEVELOPMENT CONTROL**

- 1 Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:
  - (a) the emission of effluent, odour, smoke, fumes, dust or other airborne pollutants;
  - (b) noise;
  - (c) vibration;
  - (d) electrical interference;
  - (e) light spill;
  - (f) glare;



(g) hours of operation; and

(h) traffic impacts.

2 Development should be sited and designed to minimise negative impacts on existing and potential future land uses desired in the locality.

#### **COUNCIL WIDE - Orderly and Sustainable Development**

##### **OBJECTIVES**

3 Development that does not jeopardise the continuance of adjoining authorised land uses.

4 Development that does not prejudice the achievement of the provisions of the Development Plan.

6 Urban development located only in zones designated for such development.

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

1 Development should not prejudice the development of a zone for its intended purpose.

3 Urban development should form a compact extension to an existing built-up area.

7 Vacant or underutilised land should be developed in an efficient and co-ordinated manner to not prejudice the orderly development of adjacent land.

8 Development should be undertaken in accordance with the following Concept Plan Maps:

(n) *Concept Plan Map PAdE/14 - Lefevre Peninsula/Barker Inlet*

#### **COUNCIL WIDE - Industrial Development**

##### **OBJECTIVES**

3 Industrial, warehouse, storage, commercial and transport distribution development occurring without adverse effects on the health and amenity of occupiers of land in adjoining zones.

4 Compatibility between industrial, warehouse, storage, commercial and transport distribution uses within industrial zones.

6 No future development of new special industries except within the following policy areas located within the **Industry Zone**:

(a) **Cast Metals Policy Area 9**

(b) **Coastal Resource Recovery Policy Area 10**

(c) **Osborne Maritime Policy Area 11**

(d) **Ports Policy Area 12.**

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

5 Industrial, warehouse, storage, commercial and transport distribution development abutting an arterial road, a non-industrial zone boundary, or significant open space should be developed in a manner that avoids adverse visual impacts on the locality.

16 Industrial, warehouse, storage, commercial and transport distribution development should control dust emissions through the incorporation of dust suppressers and the sealing of all associated roadways, entrances and main traffic areas to minimise adverse effects of dust on the amenity of an area.

#### **Zone – Industry Zone**

##### **OBJECTIVES**

4 Development that contributes to the desired character of the zone.

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

1 The following forms of development are envisaged in the zone:

- industry;
- transport distribution; and
- warehouse.

#### **Policy Area – Osborne Maritime Policy Area 11**

##### **OBJECTIVES**

1 An area comprising land for ship building and the long-term growth of defence related support industries.

5 Development that contributes to the desired character of the policy area.

#### **PRINCIPLES OF DEVELOPMENT CONTROL**

1 The following forms of development are envisaged in the policy area:

- berthing structure;
- development in association with ship building;
- educational establishment in association with ship building;
- technology and support industries related to ship building and defence industries;
- ship building/lifting/launching facility;
- structure in association with a wharf; and
- wharf.

4 Provision should be made for the shared use of facilities and structures so as to minimise the need for development extending into or over the Port Adelaide River.

7 Development should be compatible with the long term operation of the policy area for ship building and associated defence related industries.

## **6.4 Site Levels**

The preliminary design of the development has undertaken investigations into the topography and geology of the subject land to understand the structural design of the facilities and pavements areas.

The land itself grades slightly downwards towards the southern boundary of the site and will need an overall build up to meet a site level of 3.35m AHD and a finishing building level of 3.55m AHD which will include a pavement hardstand with a depth of 1.2 metres approximately.

In order to achieve this and ensure ground stability to receive such high load pressures from the transportation of the submarine cans through the site the following process will need to occur in 10 metre wide sections:

- 'Scrape' the site to a depth of approximately RL 1.5 metres;
- Hold surplus soil adjacent the excavation site, investigate its worth as fill and reuse if possible;
- Remove unsuitable soil and transfer to a licensed waste disposal site; and
- Use and compact surplus fill and engineered fill to raise level of site where required.

The new site levels will take into account and provide protection from coast flooding to the year 2050 and potential sea level rise to the year 2100.

The development's site levels will meet the following Objectives and Principles of Development Control as prescribed below.

#### **COUNCIL WIDE - Hazards**

##### **OBJECTIVES**

4 Development located and designed to minimise the risks to safety and property from flooding.

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

5 Development should not be undertaken in areas liable to inundation by tidal, drainage or flood waters unless the development can achieve all of the following:

- (a) it is developed with a public stormwater system capable of catering for a 1-in-100 year average return interval flood event; and
- (b) buildings are designed and constructed to prevent the entry of floodwaters in a 1-in-100 year average return interval flood event;

6 Development, including earthworks associated with development, should not do any of the following:

- (a) impede the flow of floodwaters through the land or other surrounding land;
- (b) increase the potential hazard risk to public safety of persons during a flood event;

- (c) aggravate the potential for erosion or siltation or lead to the destruction of vegetation during a flood;
- (d) cause any adverse effect on the floodway function;
- (e) increase the risk of flooding of other land; and
- (f) obstruct a watercourse.

#### **Zone – Industry Zone**

##### **OBJECTIVES**

2 To protect existing and future development in low-lying areas from the following during the 1-in-100 year average return interval extreme sea level event:

- (a) inundation by stormwater; and
- (b) inundation by seawater.

3 Development design to take into account:

- (a) anticipated sea level rise; and
- (b) land subsidence.

#### **Policy Area – Osborne Maritime Policy Area 11**

##### **OBJECTIVES**

4 The remediation of land to a level that is suitable for the proposed development.

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

9 All development should provide:

- (a) minimum site and floor levels of 3.3 metres AHD and 3.55 metres AHD respectively to provide protection from coastal flooding to the year 2050, unless it can be demonstrated that lower levels will provide adequate protection; and
- (b) provide for the practical establishment of protection measures against a further sea level rise of 0.7 metres and land subsidence to the year 2100.

## **6.5 Stormwater Management**

The management of stormwater during the early works stage will be undertaken to ensure no adverse stormwater pollution and/or impacts to receiving waters. The attached CEMP provides for a stormwater management strategy during the construction period which will encompass management of soil erosion and sediment control.

The capture and management of stormwater will be undertaken to prevent or minimise the risk of downstream flooding, particularly in adjacent low lying areas. The master planning and formation of the Osborne Maritime precinct included the design of a stormwater system that allowed for minor stormwater flows from sites within the precinct to be sent directly to the underground pipe network within Mersey Road. This infrastructure was constructed in 2009 as part of the Techport Australia Headworks projects.

During construction management practices will be implemented in order to restrict stormwater runoff generated on site from egressing into neighbouring properties and isolating sediment run-off. The CEMP recommends managing the quality of stormwater runoff through a diversion channel (or equivalent) to allow adequate containment of stormwater runoff generated from site. The CEMP also identifies sedimentation control and will seek the contractor to mitigate this potential impact by using such measures as sandbags, silt fences and or berms in areas that are prone to run-off and high sediment loads. Other considerations are the establishment of minor drainage lines to act as sediment traps.

Where soil stockpiles will be required during the segmented scraping of the site they will be covered using an appropriate liner to avoid additional sedimentation and not be located in the vicinity of highly trafficked areas or areas prone to disturbance to minimise soil disturbance.

These measures listed above will assist to minimise the loss of soil from site during construction and, as such, is consistent with the Council Wide Objectives and Principles of Development Control relating to stormwater management and soil conservation.

## **COUNCIL WIDE – Natural Resources**

### **PRINCIPLES OF DEVELOPMENT CONTROL**

#### **Soil Conservation**

44 Development should not have an adverse impact on the natural, physical, chemical or biological quality and characteristics of soil resources.

45 Development should be designed and sited to prevent erosion.

47 Development should minimise the loss of soil from a site through soil erosion or siltation during the construction phase of any development and following the commencement of an activity.

## **COUNCIL WIDE – Coastal Areas**

### **PRINCIPLES OF DEVELOPMENT CONTROL**

5 Development should be designed so that solid/fluid wastes and stormwater runoff is disposed of in a manner that will not cause pollution or other detrimental impacts on the marine and on-shore environment of coastal areas.

## **COUNCIL WIDE – Natural Resources**

### **OBJECTIVES**

2 Protection of the quality and quantity of South Australia's surface waters, including inland, marine and estuarine and underground waters.

### **PRINCIPLES OF DEVELOPMENT CONTROL**

9 Water discharged from a development site should:

(a) be of a physical, chemical and biological condition equivalent to or better than its pre-developed state

(b) not exceed the rate of discharge from the site as it existed in pre-development conditions.

11 Development should have adequate provision to control any stormwater over-flow runoff from the site and should be sited and designed to improve the quality of stormwater and minimise pollutant transfer to receiving waters.

13 Development should include stormwater management systems to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system.

18 Where it is not practicable to detain or dispose of stormwater on site, only clean stormwater runoff should enter the public stormwater drainage system.

45 Development should be designed and sited to prevent erosion.

## **6.6 Noise Impacts**

The proposed early works will consider and implement noise quality measures to avoid adverse impacts to residences and the surrounding environment through the application of the CEMP.

The potential noise and vibration impacts of the earthworks, piling and heavy machinery are considered within the CEMP.

Mitigation measures include restrictions on working times, taking measures to limit accumulative noise, as well as engaging with surrounding properties. Every effort will be made to limit impact to their operations and to provide communication pathways to enable complaints to be made with resolution of complaints within a timely manner. Options that are currently being reviewed with nearby residents are to sequence the works (primarily on the northern area of the site) to cater for lower impact times of the day or month.

The bulk of construction noise will be associated with heavy machinery operation during the preparation of the site and the installation of concrete foundations to support the superstructure.

There will be significant piling undertaken during this phase, utilising the precast concrete piles, which has relatively low noise and vibration levels compared with other driven pile methods.

It is considered that the development's proposed management and mitigation measures in respect to noise quality meets the Council Wide Objectives and Principles of Development Control in respect to Industrial Development and Interface between Land Uses.

#### **COUNCIL WIDE - Industrial Development**

##### **OBJECTIVES**

3 Industrial, warehouse, storage, commercial and transport distribution development occurring without adverse effects on the health and amenity of occupiers of land in adjoining zones.

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

7 Industrial, warehouse, storage, commercial and transport distribution development should minimise significant adverse impact on adjoining uses due to hours of operation, traffic, noise, fumes, smell, dust, paint or other chemical over-spray, vibration, glare or light spill, electronic interference, ash or other harmful or nuisance-creating impacts.

10 Development should control noise emissions through the use of attenuation devices and sound proofing, particularly adjoining the western boundary of the policy area and those activities requiring extended hours of operation.

#### **COUNCIL WIDE – Interface between Land Uses**

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

7 Development that emits noise (other than music noise) should include noise attenuation measures that achieve the relevant *Environment Protection (Noise) Policy* criteria when assessed at the nearest existing noise sensitive premises.

11 Development with the potential to emit harmful or nuisance-generating air pollution should incorporate air pollution control measures to prevent harm to human health or unreasonable interference with the amenity of sensitive uses within the locality.

## **6.7 Air Quality Impact**

The proposed early works will consider and implement air quality measures to avoid adverse impacts to residences and the surrounding environment through the application of the CEMP.

The potential impacts of the earthworks and additional vehicular movements on the surrounding locality may impact on air quality through higher than normal dust emissions and air-borne particulate matter.

The CEMP provides mitigation measures against dust from vehicular traffic, dust suppression activities and stockpiled materials. If in the event that odour generating activities are impacting upon site personnel and neighbouring properties the activity will be suspended and modified accordingly.

The development's proposed management and mitigation measures in respect to air quality meets the Council Wide Objectives and Principles of Development Control in respect to Industrial Development.

#### **COUNCIL WIDE - Industrial Development**

##### **OBJECTIVES**

3 Industrial, warehouse, storage, commercial and transport distribution development occurring without adverse effects on the health and amenity of occupiers of land in adjoining zones.

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

16 Industrial, warehouse, storage, commercial and transport distribution development should control dust emissions through the incorporation of dust suppressers and the sealing of all associated roadways, entrances and main traffic areas to minimise adverse effects of dust on the amenity of an area.

## **6.8 Waste Management**

In relation to construction waste management, this Development will primarily generate waste soils. Accordingly, the CEMP addresses waste management by instigating a number of principles to be followed to mitigate the impact of waste. These mitigation measures include the containment of waste to minimise litter, instigating sound site housekeeping procedures, the tracking and monitoring of waste as well as reusing waste soils as much as practicable.

It is considered that the development's proposed waste management and mitigation measures meet the Council Wide Objectives and Principles of Development Control in respect to Waste.

#### **COUNCIL WIDE – Waste**

##### **OBJECTIVES**



1 Development that, in order of priority, avoids the production of waste, minimise the production of waste, reuses waste, recycles waste for reuse, treats waste and disposes of waste in an environmentally sound manner.

2 Development that includes the treatment and management of solid and liquid waste to prevent undesired impacts on the environment including, soil, plant and animal biodiversity, human health and the amenity of the locality.

#### **PRINCIPLES OF DEVELOPMENT CONTROL**

1 Development should be sited and designed to prevent or minimise

wastewater) by applying the following waste management hierarchy in the order below:

- (a) avoiding the production of waste;
- (b) minimising waste production;
- (c) reusing waste;
- (d) recycling waste (e) recovering part of the waste for re-use;
- (f) treating waste to reduce the potentially degrading impact; and
- (g) disposing of waste in an environmentally sound manner.

6 Development that involves the production and/or collection of waste and/or recyclable material should include designated collection and storage area(s) that are:

- (a) screened and separated from adjoining areas;
- (b) located to avoid impacting on adjoining sensitive environments or land use;
- (c) designed to ensure that wastes do not contaminate stormwater or enter stormwater collection system;
- (d) located on an impervious sealed area graded to a collection point in order to minimise the movement of any solids or contamination of water;
- (e) protected from wind and stormwater and sealed to prevent leakage and minimise the emission of odours; and
- (f) stored in such a manner that ensures that all waste is contained within the boundaries of the site until disposed of in an appropriate manner.

## **6.9 Hazard and Risk Management**

The project will undertake initial site contamination investigations prior to commencing on site assessment and determine the potential impacts to construction and the land. This is currently being undertaken in accordance with Australian Standard AS 4482.

In relation to potential acid sulfate soils, extensive field testing and laboratory analysis confirms the absence of actual acid sulfate soils within both the fill and the natural materials to depths at or of around 20m below ground level. Accordingly, no specific management actions are anticipated.

Therefore, the proposed development is consistent with the intended management and protection against release of acid water as outlined in the Council Wide Objectives and Principles set out below.

#### **Council Wide – Hazards**

##### **OBJECTIVES**

7 The environmental values and ecological health of receiving waterways and marine environments protected from the release of acid water resulting from the disturbance of acid sulfate soils.

8 Protection of human health and the environment wherever site contamination has been identified or suspected to have occurred.

9 Appropriate assessment and remediation of site contamination to ensure land is suitable for the proposed use and provides a safe and healthy living and working environment.

#### **PRINCIPLES OF DEVELOPMENT CONTROL**

##### **Acid Sulfate Soils**

20 Development and activities, including excavation and filling of land, that may lead to the disturbance of potential or actual acid sulfate should be avoided unless such disturbances are managed in a way that effectively avoids the potential for harm or damage to any of the following:

- (a) the marine and estuarine environment;
- (b) natural water bodies and wetlands;

- (c) agricultural or aquaculture activities;
- (d) buildings, structures and infrastructure; and
- (e) public health.

21 Development, including primary production, aquaculture activities and infrastructure, should not proceed unless it can be demonstrated that the risk of releasing acid water resulting from the disturbance of acid sulfate soils is minimal.

22 Development, including excavation and filling of land, that may lead to the disturbance of acid sulfate soils should be managed in a way that minimises the potential for harm to the marine, estuarine and coastal environment, public health or damage to buildings, structures or infrastructure.

Site contamination in the context of the proposed development works is not anticipated, due to the general absence of any known source or site contamination and the absence of any visible exposure pathways to topside workers. Further detail of the soil profile is contained in the CEMP as well as details of further sampling and analysis that is planned prior to the commencement of development works for the purpose of pre-classifying these materials for disposal or reuse.

Therefore, the proposed development is consistent with the Principles of Development Control relating to assessment and remediation requirements as set out below.

#### **Council Wide – Hazards**

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

##### **Site Contamination**

23 Development, including land division, should not occur where site contamination has occurred unless the site has been assessed and remediated as necessary to ensure that it is suitable and safe for the proposed use.

24 Site contamination should be assessed to determine the potential impacts of past industrial activities and landfill practices on the proposed development potential of the land and should be conducted in accordance with Australian Standard AS 4482 Guide to the Investigation and sampling of sites with potentially contaminated soil.

## **6.10 Vehicle Movement and Traffic Impact**

In considering the traffic management needs during early works, we are of the view that the subject land is of a sufficient size to allow for all vehicles associated with the early works activity to be encompassed within the site boundary at all times. The subject land will be directly accessible via Mersey Road. The subject land and the vehicle entrance points will be secured and managed during the early works activities to ensure that only those vehicles that need to enter the site can do so. A detailed Traffic Impact Statement will be provided with lodgement of subsequent stages of the Future Submarines Program Principal Works project.

Therefore, the proposed development, with respect to the 'early works' being applied for in this development application, meets the intent of the Council Wide Objectives and Principles set out below.

#### **COUNCIL WIDE – Transportation and Access**

##### **OBJECTIVES**

2 Development that:

- (a) provides safe and efficient movement for all motorised and non-motorised transport modes;
- (b) ensures access for vehicles including emergency services, public infrastructure maintenance and commercial vehicles;
- (c) provides off street parking; and
- (d) is appropriately located so that it supports and makes best use of existing transport facilities and networks.

##### **PRINCIPLES OF DEVELOPMENT CONTROL**

12 Industrial/commercial vehicle movements should be separated from passenger vehicle car-parking areas.

13 Development should make sufficient provision on site for the loading, unloading and turning of all traffic likely to be generated.

30 Development should have direct access from an all weather public road.

#### **COUNCIL WIDE - Industrial Development**

##### **OBJECTIVES**

1 Industrial, warehouse, storage, commercial and transport distribution development on appropriately located land, integrated with transport networks and designed to minimise potential impact on these networks.

#### **PRINCIPLES OF DEVELOPMENT CONTROL**

4 Industrial, warehouse, storage, commercial and transport distribution development should enable all vehicles to enter and exit the site in a forward direction, where practical.

21 Transport terminals or land used for activities that are serviced by large or articulated vehicles, should satisfy the following requirements:

- (a) a turning circle at least 30 metres in diameter is provided to permit the safe and convenient manoeuvring of vehicles on site;
- (b) the subject land is of sufficient size to ensure that all vehicles associated with the activity are located on site at all times;
- (c) sites are located where access roads have a minimum constructed width between kerb lines of 13 metres;
- (d) all vehicles can enter and leave the site in a forward direction;
- (e) the subject land is not located within 100 metres of a residential zone; and
- (f) vehicular access to the subject land is not achieved via a residential road or area.

#### **Policy Area – Osborne Maritime Policy Area 11**

#### **PRINCIPLES OF DEVELOPMENT CONTROL**

11 Public access to the Conservation Policy Area 17 located to the north of the policy area via Mersey Road should be maintained, unless an alternative public access route is provided.

## 7 Conclusion

The subject land is a large consolidated site which presents the opportunity to advance and expand South Australia's naval shipbuilding capability at Osborne.

The Future Submarines Program is a major infrastructure investment by the Commonwealth Government to enable Australia's naval capability and also provide significant employment opportunity during the construction of the facilities themselves and the future shipbuilding programs. This is a critically important development in terms of Australia's security and South Australia's economy.

The proposed early works stage of the project represents the first, and very important, stage in the wider program and merits favourable consideration for assessment given:

- The subject site provides a significant opportunity to establish a facility that integrates well with the wider shipbuilding precinct and program.
- The use of this land is consistent with the intent of the zoning and policy area provisions within the City of Port Adelaide Enfield's Development Plan.
- The facility and the Future Submarine Program will further contribute to ongoing employment and economic growth for South Australia.

The proposal is therefore assessed as one which warrants the granting of Development Plan Consent.

For these reasons, it is considered that the early works proposed as part of this application will not result in any unreasonable off-site impacts to the surrounding area, and as such, does not contravene the public interest. We are of the opinion that the proposed development, which forms a key is not seriously at variance with the Port Adelaide Enfield (City) Development Plan and satisfies the general intent of the relevant Development Plan and should be granted Development Plan Consent.



A

Development (Designated Osborne  
Area) Variation Regulations 2018



South Australia

# **Development (Designated Osborne Area) Variation Regulations 2018**

under the *Development Act 1993*

---

## **Contents**

### **Part 1—Preliminary**

- 1 Short title
- 2 Commencement
- 3 Variation provisions

### **Part 2—Variation of *Development Regulations 2008***

- 4 Variation of Schedule 3—Acts and activities that are not development
  - 5 Variation of heading to Schedule 32
  - 6 Insertion of Schedule 33
- Schedule 33—Map of additional part of designated Osborne area
- 

## **Part 1—Preliminary**

### **1—Short title**

These regulations may be cited as the *Development (Designated Osborne Area) Variation Regulations 2018*.

### **2—Commencement**

These regulations come into operation on the day on which they are made.

### **3—Variation provisions**

In these regulations, a provision under a heading referring to the variation of specified regulations varies the regulations so specified.

## **Part 2—Variation of *Development Regulations 2008***

### **4—Variation of Schedule 3—Acts and activities that are not development**

- (1) Schedule 3, clause 20(1)(a)—delete paragraph (a) and substitute:
  - (a) development—
    - (i) for the purposes of car parks and pedestrian bridges over a railway; and

- (ii) involving the temporary placement of soil and other materials related to development in the vicinity of the designated Osborne area for the purposes of constructing a facility for the making of ships or a facility for the making of submarines (or both);
- (2) Schedule 3, clause 20(2), definition of *designated Osborne area*—delete the definition and substitute:
  - designated Osborne area*—the designated Osborne area is comprised of—
    - (a) the area designated as "car park" in the map set out in Schedule 32;  
and
    - (b) the area designated as "car park" in the map set out in Schedule 33.

## **5—Variation of heading to Schedule 32**

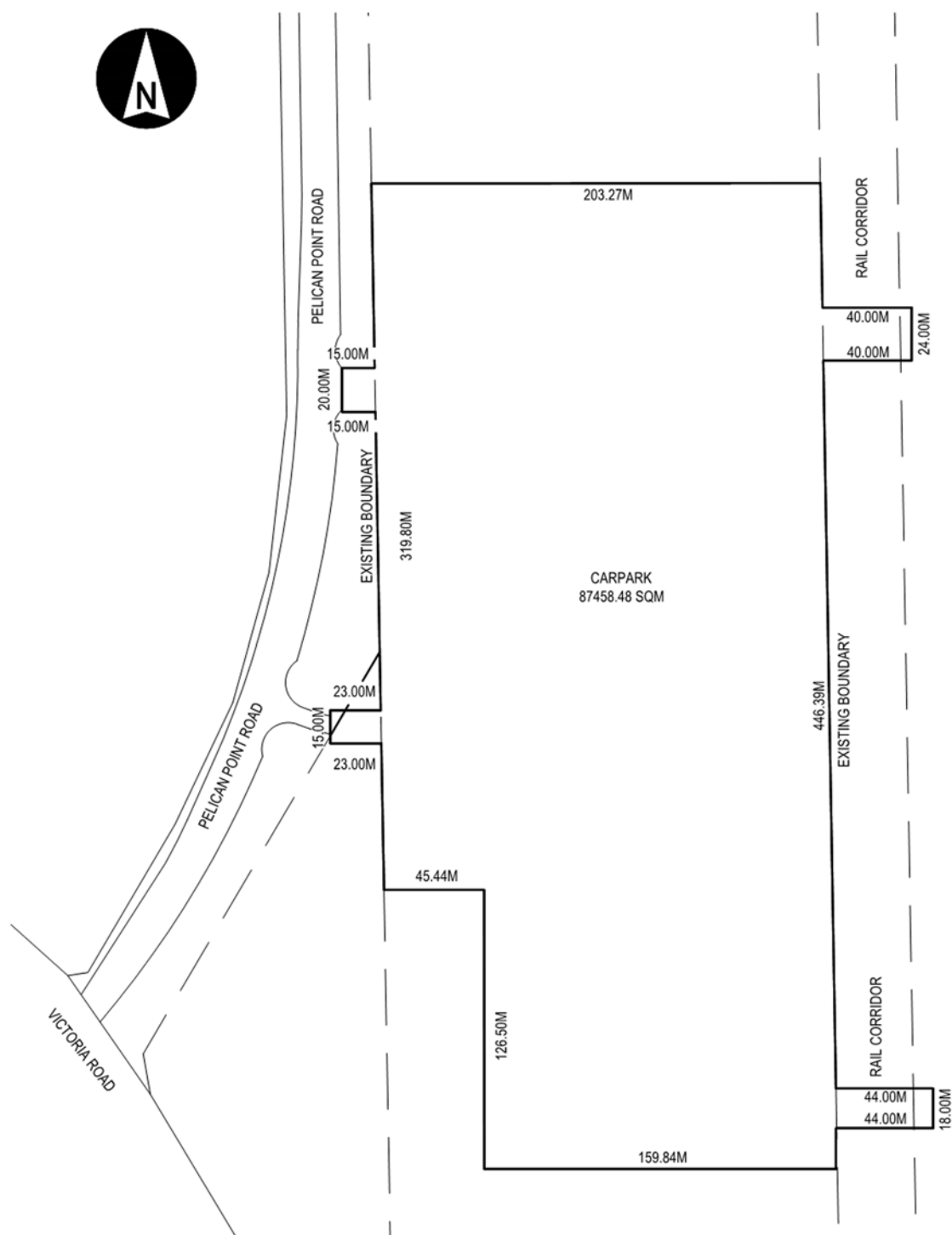
Heading to Schedule 32—before "designated" insert:

initial part of

**6—Insertion of Schedule 33**

After Schedule 32 insert:

**Schedule 33—Map of additional part of designated  
Osborne area**



**Note—**

As required by section 10AA(2) of the *Subordinate Legislation Act 1978*, the Minister has certified that, in the Minister's opinion, it is necessary or appropriate that these regulations come into operation as set out in these regulations.

**Made by the Governor**

with the advice and consent of the Executive Council  
on 7 June 2018

No 70 of 2018

DPC18/032CS

## Appendix A

### Development (Designated Osborne Area) Variation Regulations 2018



A large green parallelogram is the central element of the image. A diagonal line runs from the bottom-left corner towards the top-right corner. The area below this line is a lighter shade of green, while the area above is a darker shade. At the bottom-left corner, there is a small yellow triangle pointing towards the center of the parallelogram.

B

Closure of Mersey Road -  
Correspondence

## Appendix B

### Closure of Mersey Road – Correspondence

**Defence SA**

Level 4, 151 Pirie Street  
Adelaide SA 5000  
PO Box 3643  
Rundle Mall SA 5000 Australia  
T: +61 8 8463 7140  
F: +61 8 8463 7150  
enquiries@defencesa.com  
[defencesa.com](http://defencesa.com)  
ABN 42 912 246 233

Our reference: A3343823

Telephone No: 8463 7176

9 October 2017

Mr David Knox  
Chief Executive Officer  
Australian Naval Infrastructure Pty Ltd  
61 Veitch Road  
Osborne SA 5017

Dear David

**RE: MERSEY ROAD CLOSURE PROCESS**

We refer to the Memorandum of Understanding between the Commonwealth of Australia and the State of South Australia dated 18 May 2017 Ref: R29374509 (**MoU**).

Item 3 of Annex C to the MoU contemplates that Mersey Road North and part of Annie Watt Circuit to the west of ASC's ship and submarine yards and the Common User Facility (**Closure Section**) will be closed and transfer to Australian Naval Infrastructure Pty Ltd (**ANI**).

The MoU nominates 30 September 2018 for the transfer but recognises this date may change because the transfer is *"linked to both the development of the Osborne Naval Shipyard Precinct Infrastructure and also to arrangements to acquire privately owned land and relocate current tenants"*.

The road closure process was discussed at the meeting between ANI and Defence SA on Wednesday 27 September 2017. It was agreed the process would occur in two stages for the following reasons:

- development plans for Naval Group's future submarine facility (part of the Osborne Naval Shipyard Precinct Infrastructure) are not yet mature and it is therefore difficult to predict how this future development may impact the northern portion of the Closure Section;
- depending on the plans for the future submarine facility, it may be necessary to relocate services in the northern portion of the Closure Section. A relocation of services could require extensive consultation and agreement with the relevant service providers as part of the road closure process;
- negotiations with Pacific Marine Batteries (**PMB**) and Ferrocut regarding site access arrangements or a possible relocation are yet to be finalised. As part of the process of closing the northern portion of the Closure Section, consultation with PMB, Ferrocut and other land owners/occupiers will need to be finalised and resolved;
- development plans for the Osborne Naval Shipyard Precinct Infrastructure at the southern portion of the Closure Section are progressing. In order to avoid delays with construction of the shipyard in this area, the southern portion of the Closure Section should be closed and transferred to ANI as quickly as possible.

Notwithstanding there will be two stages in the road closure process, it is intended that those stages will be run in parallel as follows:

1. The first stage, being the closure of the southern portion of the Closure Section, is shown in the plan attached to this letter. The first stage is to occur by 30 September 2018 however all endeavours will be made to achieve the first stage earlier.
2. Once the plan for the first stage of the road closure is lodged, a consultation period will commence. To reduce the number of parties who may be inclined to comment on the first stage of the road closure, the second stage of the road closure will not be lodged until after the consultation phase of the first stage is complete.
3. Once the consultation phase on the first stage is complete, assuming there is sufficient clarity regarding the services which will need to be relocated (if any), and a plan for PMB and Ferrocut, the second stage will be lodged.
4. Both road closure applications will then run in parallel without impacting each other and it is likely the first stage will complete prior to the second stage.

We ask that you please respond to this letter by close of business on Thursday 12 October 2017 confirming ANI agrees to the road closure process discussed at the meeting on 27 September 2017 as set out above.

On receipt of your confirmation, Defence SA will arrange for lodgement of the first stage of the road closure.

Yours sincerely



Andy Keough  
Chief Executive  
Defence SA

Encl.

1. Attachment 1 – Preliminary Plan for Stage 1 closure of the southern end of Mersey Road North



C

Certificates of Title

## Appendix C

### Certificates of Title





REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6120 Folio 719

Parent Title(s)	CT 6023/589			
Creating Dealing(s)	DDA 12010008			
Title Issued	09/10/2013	Edition	6	Edition Issued 12/04/2018

## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 20 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTC 10984627)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE (RTC 10984627)

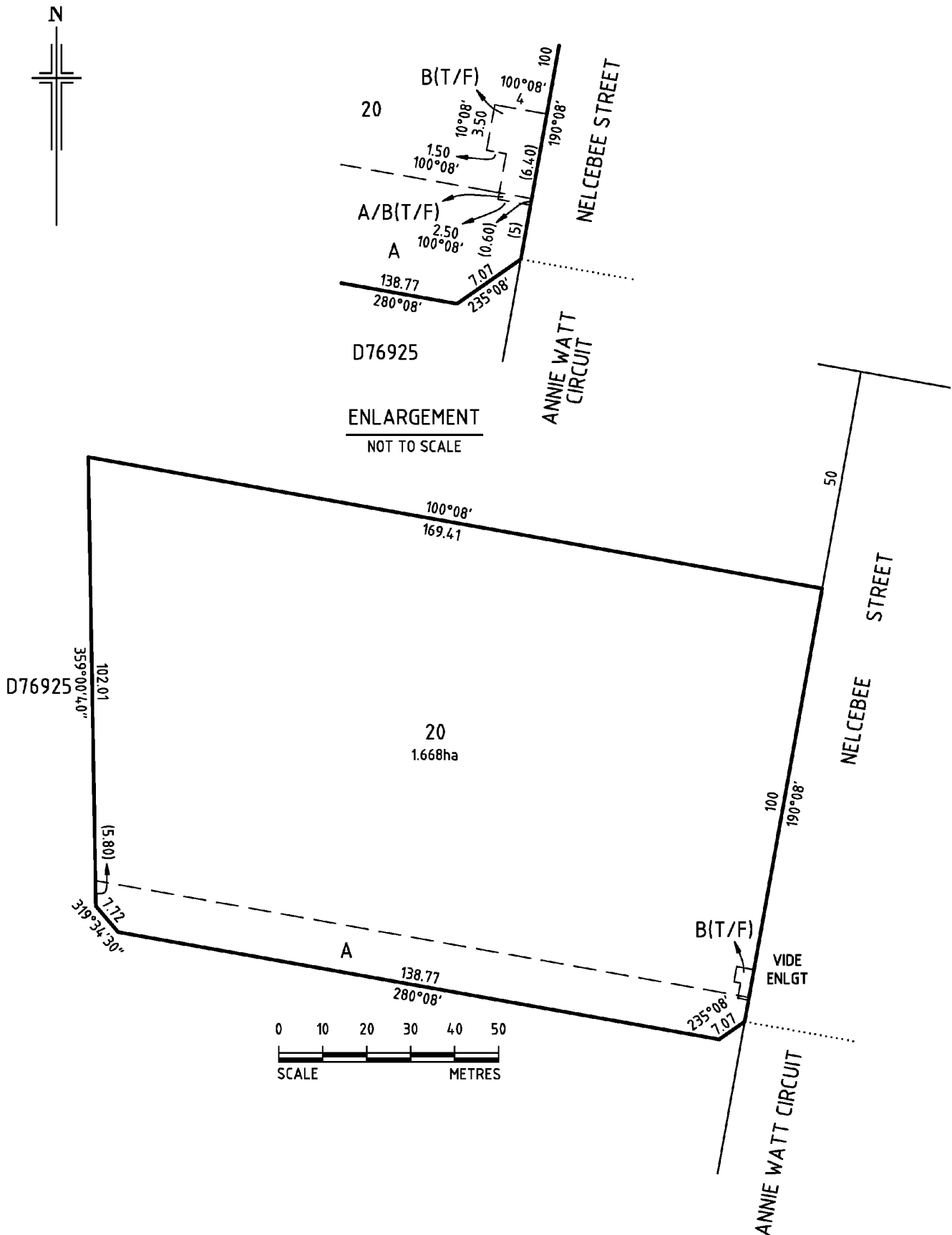
SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED B(T/F) FOR ELECTRICITY SUPPLY PURPOSES TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (223LG RPA)

## Schedule of Dealings

Dealing Number	Description
12900185	ENCUMBRANCE TO URBAN RENEWAL AUTHORITY

## Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL





REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6169 Folio 228

Parent Title(s)	CT 6080/668			
Creating Dealing(s)	TG 12442872			
Title Issued	10/02/2016	Edition	3	Edition Issued 22/08/2017

## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 1001 DEPOSITED PLAN 82082  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A ON F250042 TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTC 10984627)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A ON F250042 FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE (RTC 10984627)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED C AND E ON F250042 (TG 12442872)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED Q ON F250042 (TG 11593899)

## Schedule of Dealings

NIL

## Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

## Registrar-General's Notes

REFER TO ROADS GROUP RE PRELIMINARY PLAN 18/0019  
UNAPPROVED D87145

Administrative Interests NIL



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6012 Folio 875

Parent Title(s) CT 5861/410, CT 6011/465

Creating Dealing(s) RTC 10984627

Title Issued	07/07/2008	Edition	4	Edition Issued	22/08/2017
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## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 14 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

NIL

## Schedule of Dealings

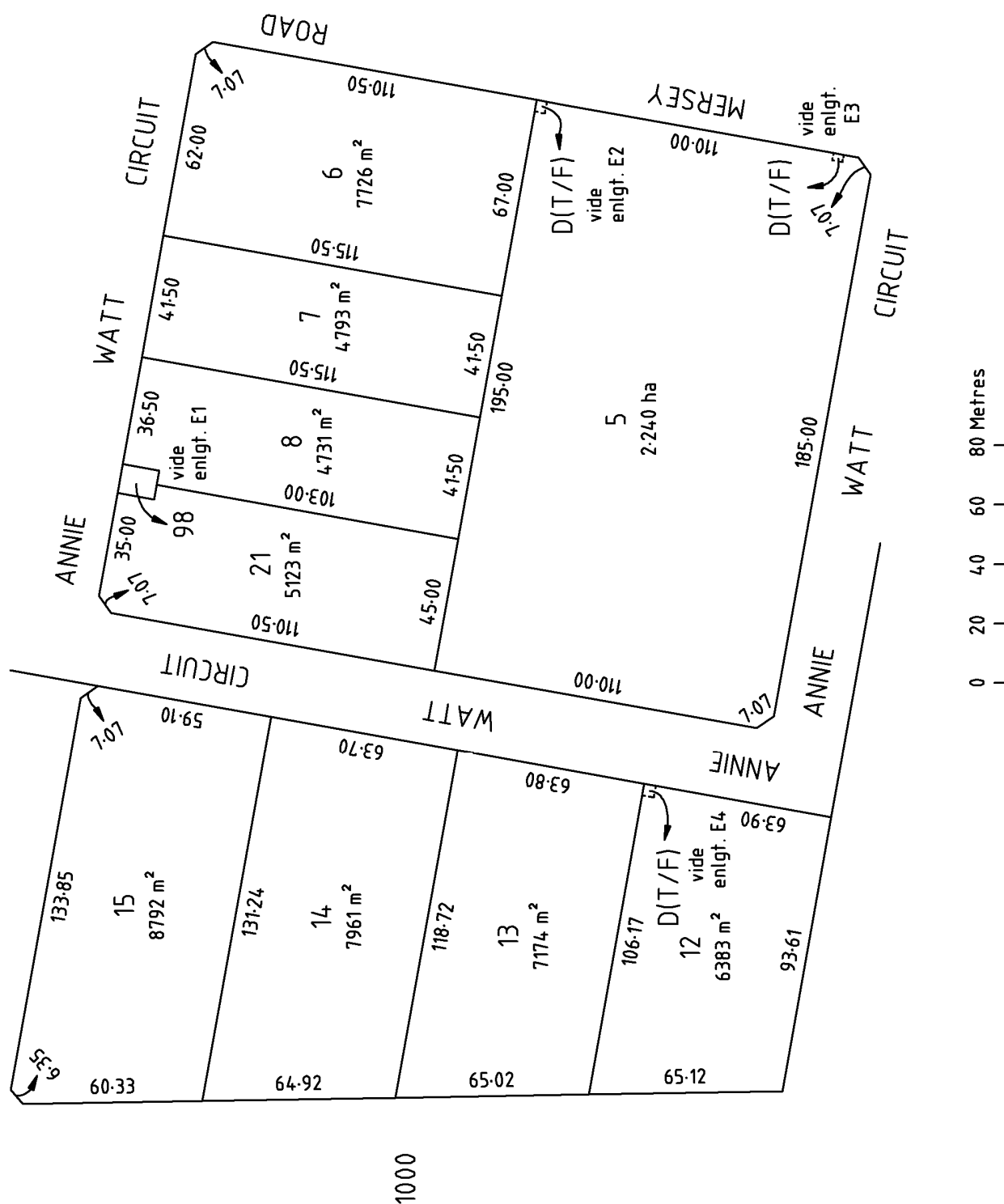
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## Notations

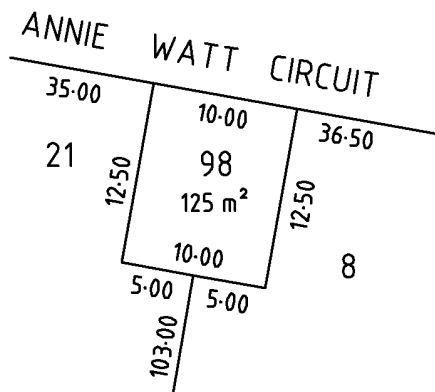
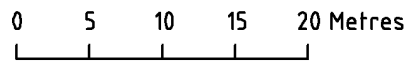
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Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



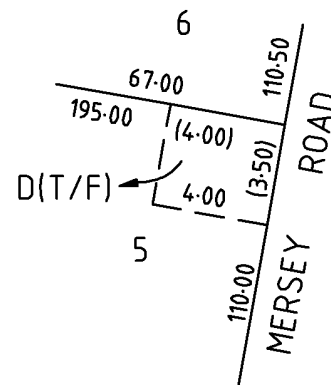
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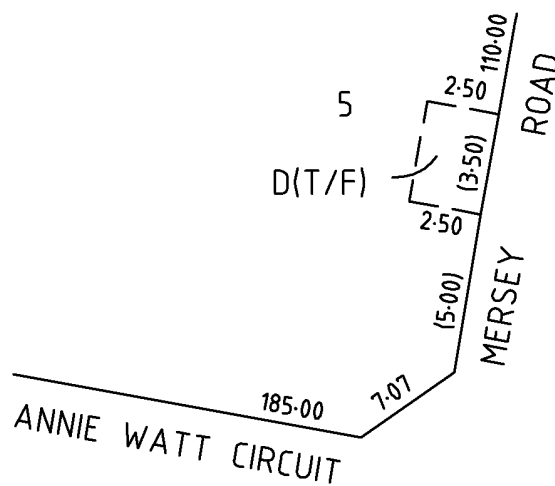
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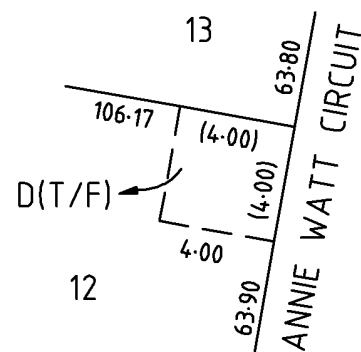
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ENLARGEMENT E3  
(NOT TO SCALE)



ENLARGEMENT E4  
(NOT TO SCALE)





REAL PROPERTY ACT, 1886



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## Certificate of Title - Volume 6012 Folio 881

Parent Title(s)	CT 5220/96, CT 6011/465		
Creating Dealing(s)	RTC 10984627		
Title Issued	07/07/2008	Edition 2	Edition Issued 09/07/2009

## Estate Type

FEE SIMPLE

## Registered Proprietor

SUBTRADE OF SB PTY. LTD. (ACN: 114 885 282)  
OF 655 MERSEY ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 202 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED B AND C TO DISTRIBUTION LESSOR CORPORATION  
(SUBJECT TO LEASE 8890000) (TG 7770772)

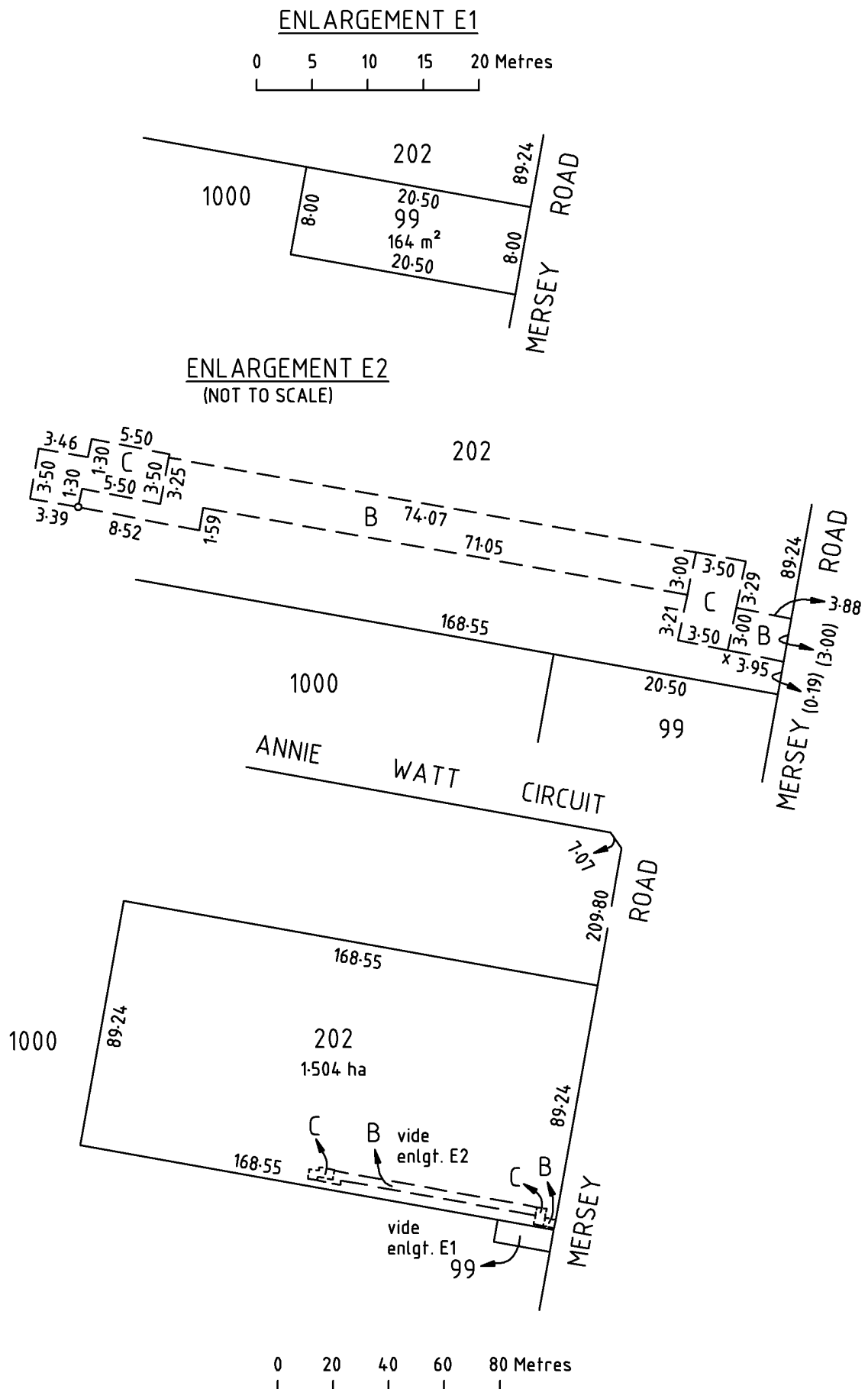
## Schedule of Dealings

Dealing Number	Description
10945520	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD.

## Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL







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## Certificate of Title - Volume 6120 Folio 971

Parent Title(s)	CT 6069/772			
Creating Dealing(s)	DDA 12016109			
Title Issued	15/10/2013	Edition	3	Edition Issued 13/04/2018

## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 5 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED E (TG 11472622)

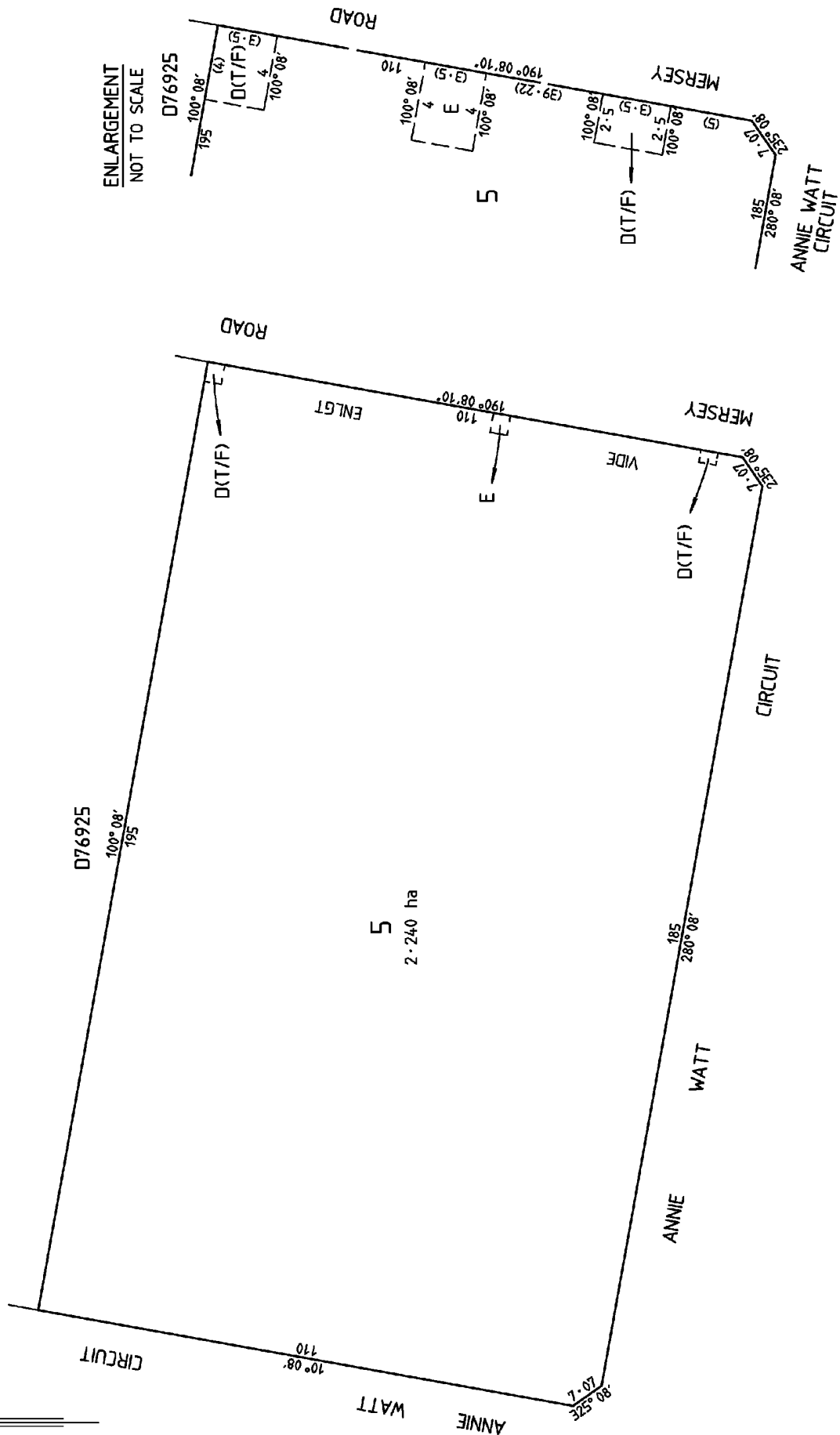
SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D(T/F) FOR ELECTRICITY SUPPLY PURPOSES TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (223LG RPA)

## Schedule of Dealings

NIL

## Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6120 Folio 958

**Parent Title(s)** CT 6012/878

**Creating Dealing(s)** DDA 12016109

**Title Issued** 15/10/2013      **Edition** 1      **Edition Issued** 15/10/2013

## Estate Type

FEE SIMPLE

## Registered Proprietor

LE FEVRE DEVELOPMENTS PTY. LTD. (ACN: 134 358 295)  
OF 6 KOORYONGA GROVE WEST LAKES SA 5021

## Description of Land

ALLOTMENT 21 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

NIL

## Schedule of Dealings

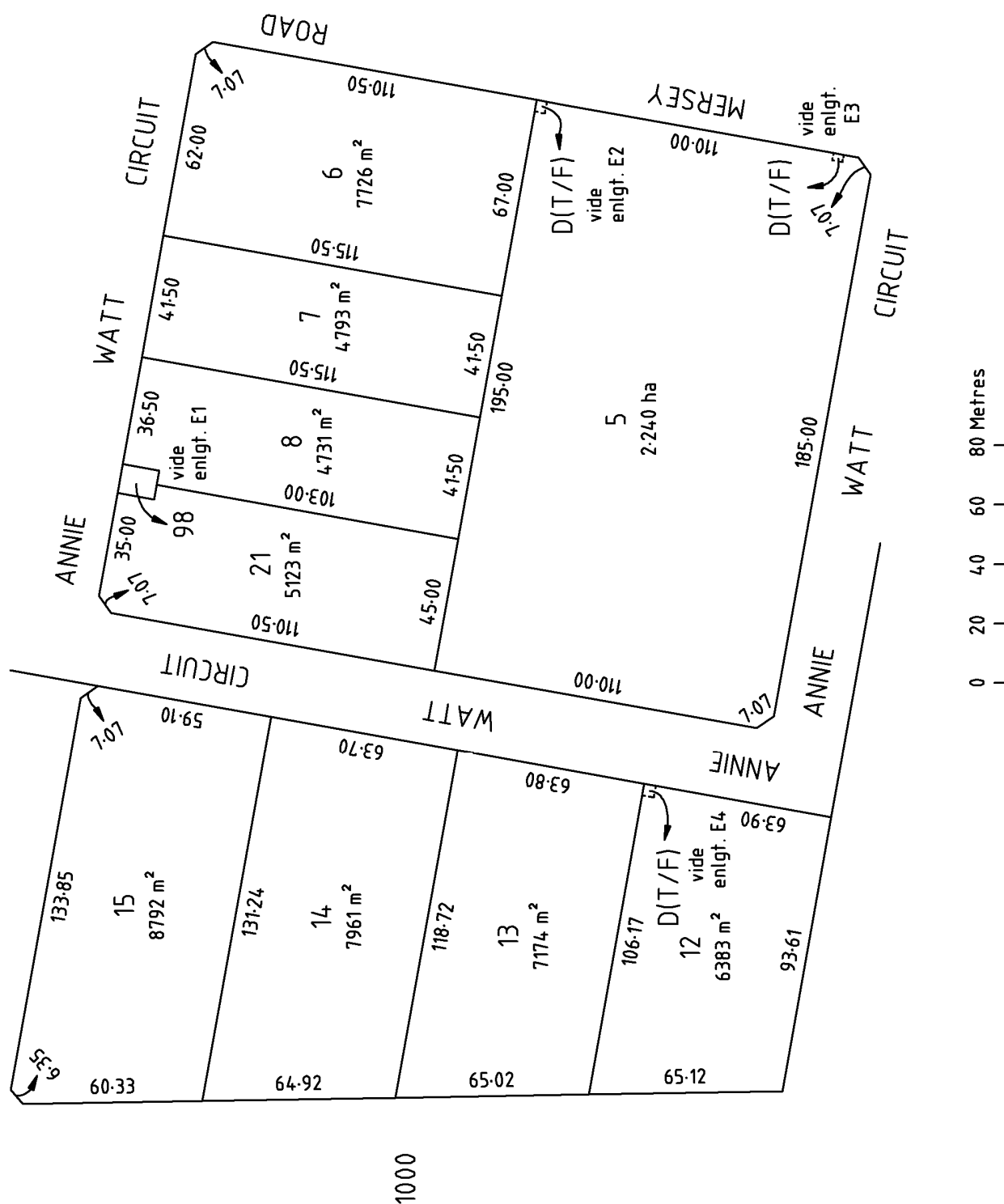
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11112209	ENCUMBRANCE TO URBAN RENEWAL AUTHORITY
12504872	LEASE TO HARBOUR BOTTLING PTY. LTD. (ACN: 604 581 375) COMMENCING ON 01/10/2015 AND EXPIRING ON 30/09/2018

## Notations

<b>Dealings Affecting Title</b>	NIL
<b>Priority Notices</b>	NIL
<b>Notations on Plan</b>	NIL
<b>Registrar-General's Notes</b>	NIL
<b>Administrative Interests</b>	NIL



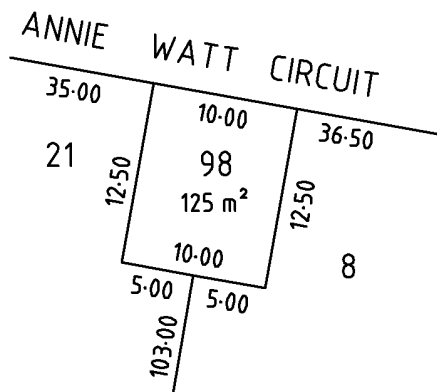
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\$28.25



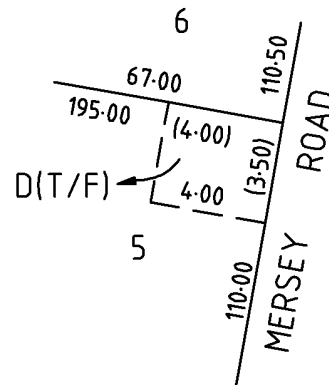


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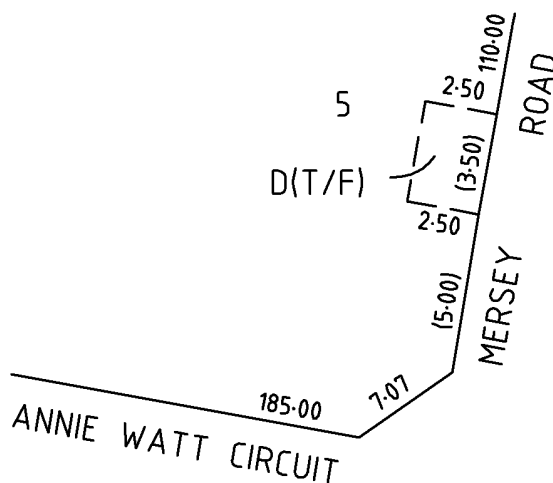
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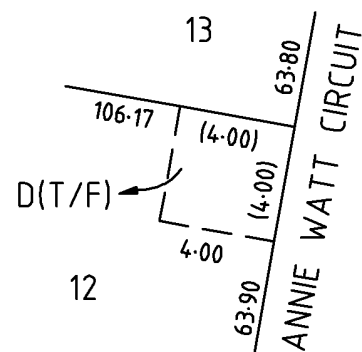
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### ENLARGEMENT E3 (NOT TO SCALE)



### ENLARGEMENT E4 (NOT TO SCALE)





REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6012 Folio 869

Parent Title(s) CT 5861/410, CT 6011/465

Creating Dealing(s) RTC 10984627

Title Issued	07/07/2008	Edition	4	Edition Issued	12/06/2018
--------------	------------	---------	---	----------------	------------

## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 8 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

NIL

## Schedule of Dealings

Dealing Number	Description
12930491	ENCUMBRANCE TO URBAN RENEWAL AUTHORITY

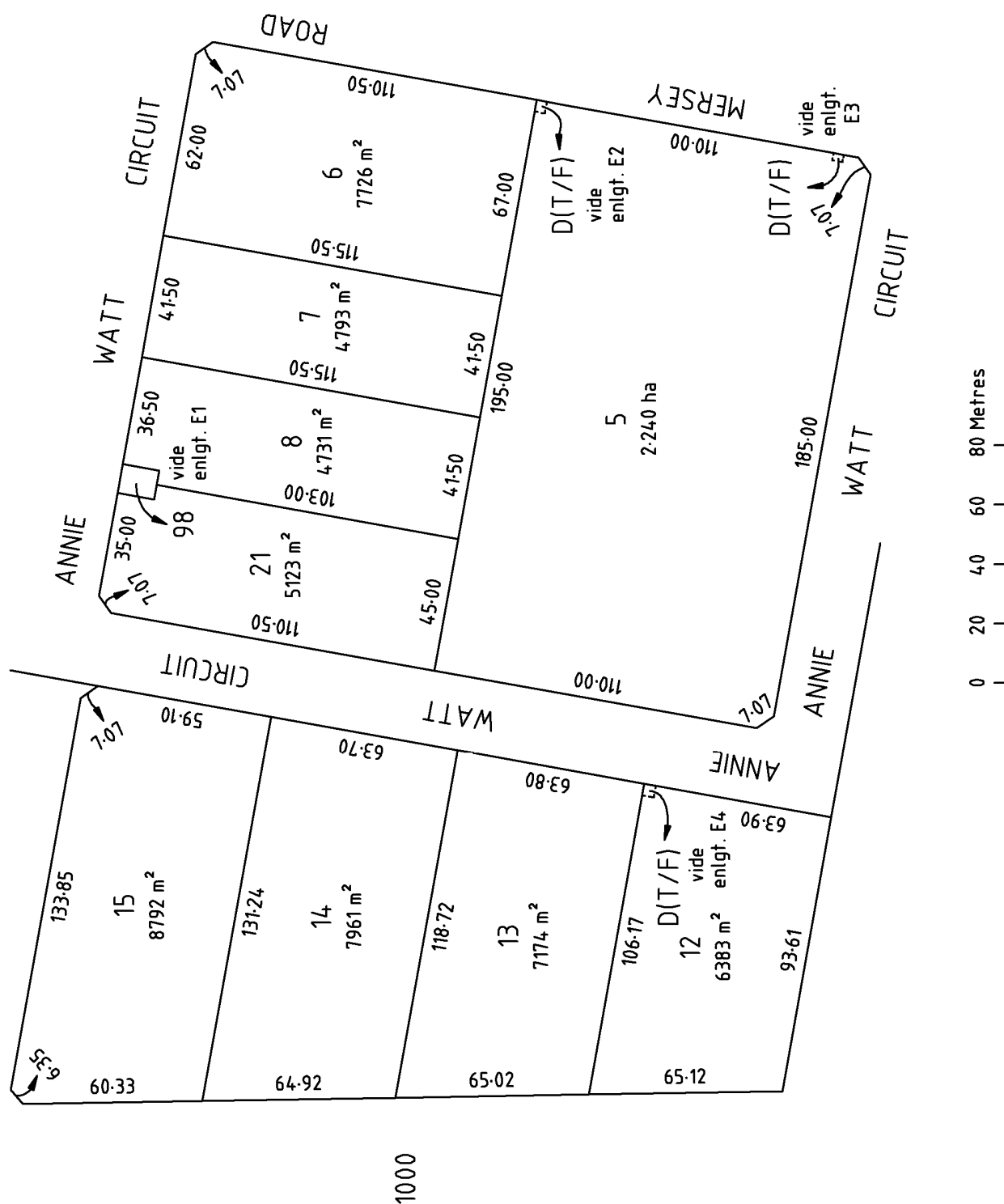
## Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL





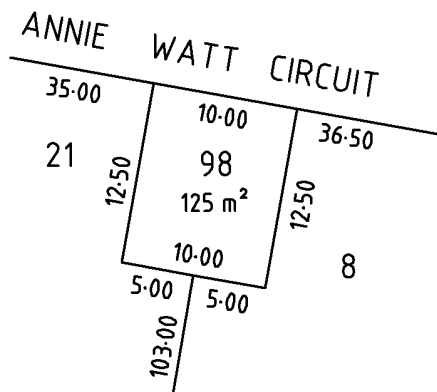
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20/06/2018 06:32PM  
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\$28.25



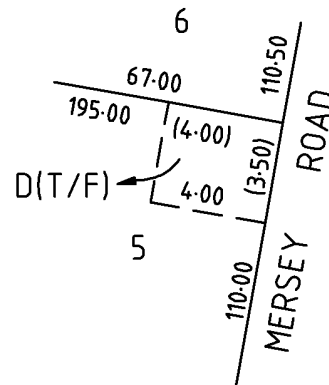


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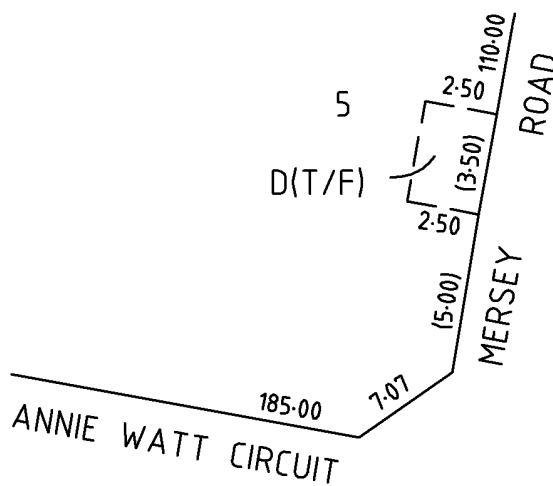
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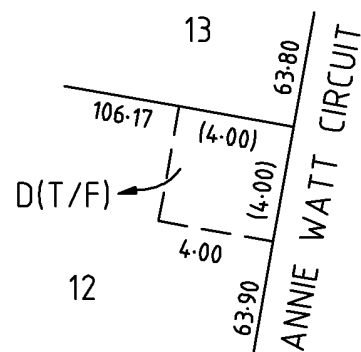
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### ENLARGEMENT E3 (NOT TO SCALE)



### ENLARGEMENT E4 (NOT TO SCALE)





REAL PROPERTY ACT, 1886



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## Certificate of Title - Volume 6012 Folio 868

Parent Title(s) CT 5861/410, CT 6011/465

Creating Dealing(s) RTC 10984627

Title Issued	07/07/2008	Edition	4	Edition Issued	12/06/2018
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## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 7 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

NIL

## Schedule of Dealings

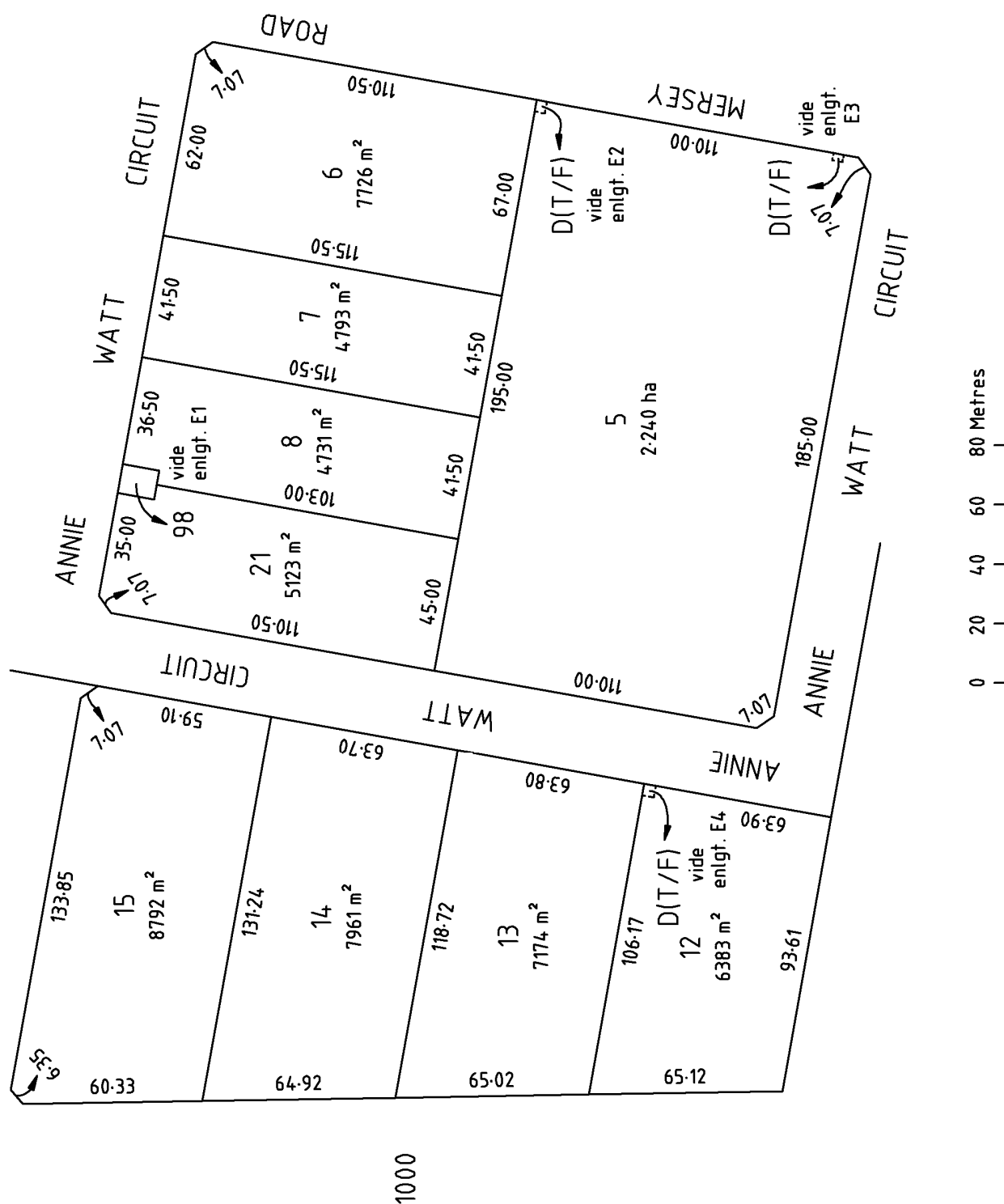
Dealing Number	Description
12930491	ENCUMBRANCE TO URBAN RENEWAL AUTHORITY

## Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



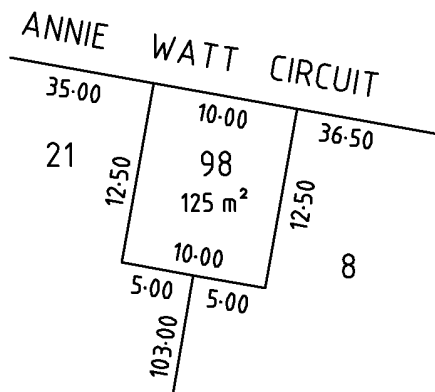
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FSP CTs  
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\$28.25



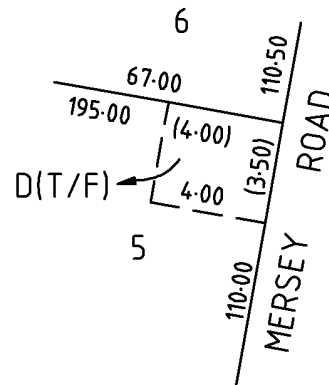


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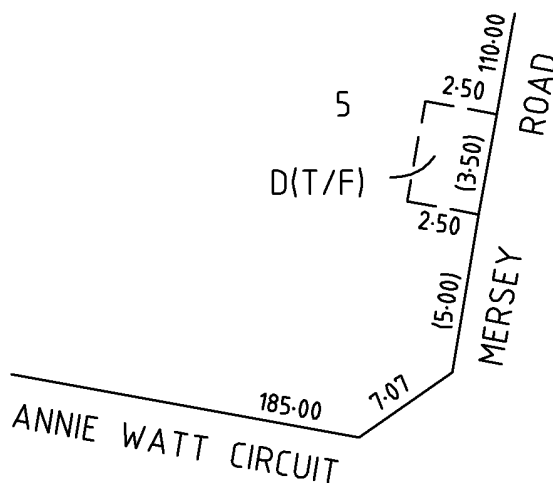
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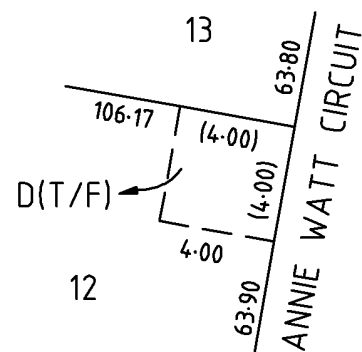
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### ENLARGEMENT E3 (NOT TO SCALE)



### ENLARGEMENT E4 (NOT TO SCALE)



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6120 Folio 972

<b>Parent Title(s)</b>	CT 6073/762			
<b>Creating Dealing(s)</b>	DDA 12016109			
<b>Title Issued</b>	15/10/2013	<b>Edition</b>	2	<b>Edition Issued</b> 17/02/2017

## Estate Type

FEE SIMPLE

## Registered Proprietor

THE PARK'S INVESTMENT GROUP PTY. LTD. (ACN: 090 737 652)  
OF 1181 MAIN NORTH ROAD POORAKA SA 5095  
1 / 2 SHARE

TONIC PTY. LTD. (ACN: 088 480 040)  
OF 1181 MAIN NORTH ROAD POORAKA SA 5095  
1 / 2 SHARE

## Description of Land

ALLOTMENT 6 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

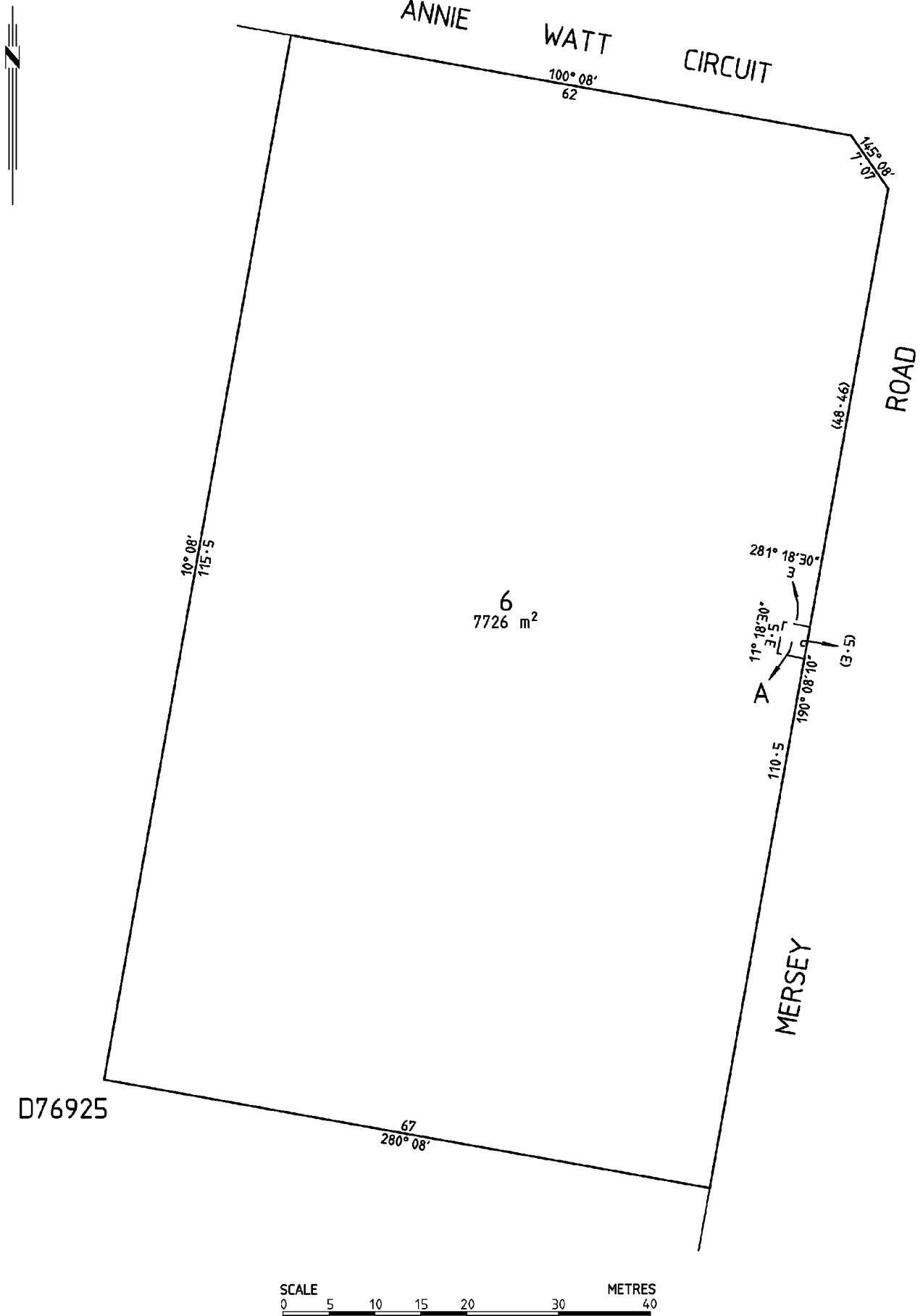
SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A (TG 11524446)

## Schedule of Dealings

Dealing Number	Description
11065904	ENCUMBRANCE TO URBAN RENEWAL AUTHORITY
12674169	MORTGAGE TO AUSTRALIA & NEW ZEALAND BANKING GROUP LTD. (ACN: 005 357 522)

## Notations

<b>Dealings Affecting Title</b>	NIL
<b>Priority Notices</b>	NIL
<b>Notations on Plan</b>	NIL
<b>Registrar-General's Notes</b>	NIL
<b>Administrative Interests</b>	NIL





REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



## Certificate of Title - Volume 6150 Folio 247

<b>Parent Title(s)</b>	CT 6120/678			
<b>Creating Dealing(s)</b>	SC 12230639			
<b>Title Issued</b>	19/12/2014	<b>Edition</b>	3	<b>Edition Issued</b> 19/06/2018

## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 11 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTC 10984627)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE (RTC 10984627)

## Schedule of Dealings

Dealing Number	Description
11459039	ENCUMBRANCE TO URBAN RENEWAL AUTHORITY

## Notations

### Dealings Affecting Title

Lodgement Date	Dealing Number	Description	Status
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08/06/2018	12936991	ENCUMBRANCE	UNREGISTERED

**Priority Notices** NIL

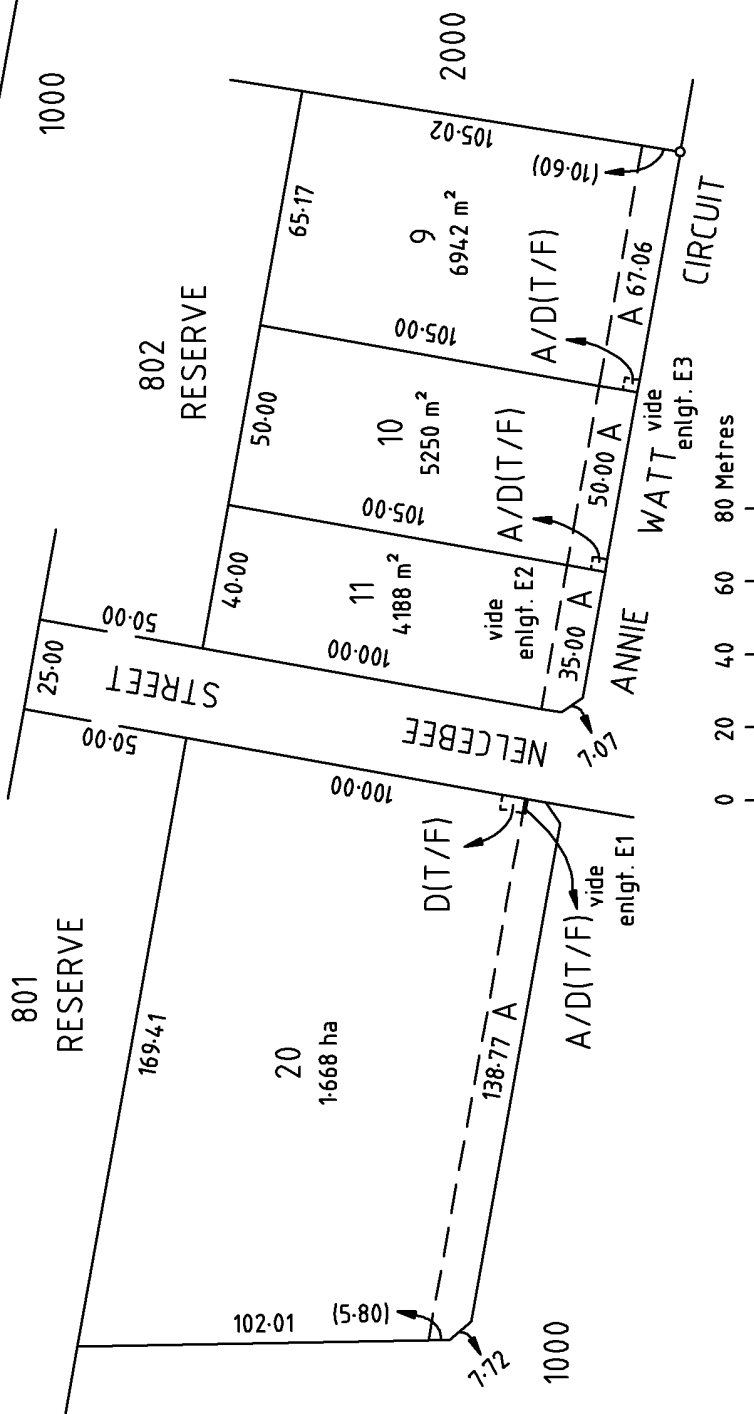
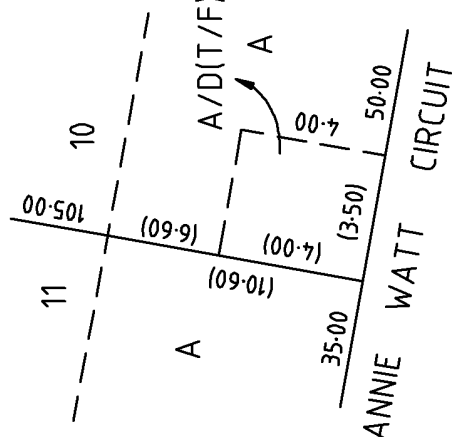
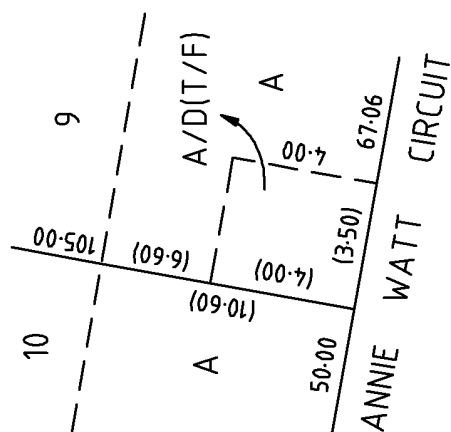
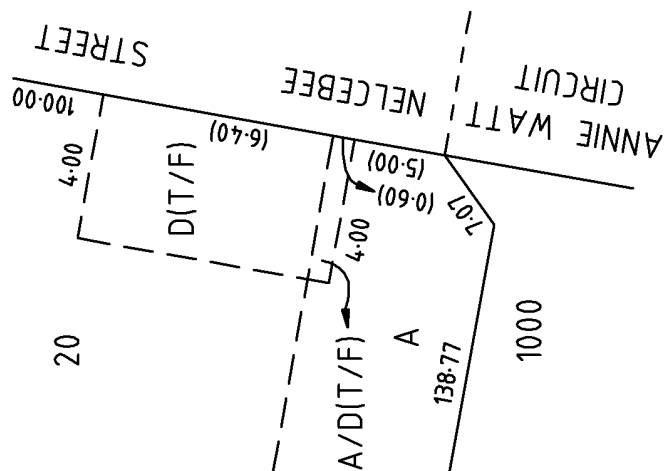
**Notations on Plan** NIL

**Registrar-General's Notes** NIL

**Administrative Interests** NIL



Register Search (CT 6150/247)  
20/06/2018 06:41PM  
FSP CTs  
20180620012898  
\$28.25





REAL PROPERTY ACT, 1886



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## Certificate of Title - Volume 6024 Folio 186

Parent Title(s)	CT 6012/871			
Creating Dealing(s)	VE 11028750			
Title Issued	20/11/2008	Edition	4	Edition Issued 22/08/2017

## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 10 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTC 10984627)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE (RTC 10984627)

## Schedule of Dealings

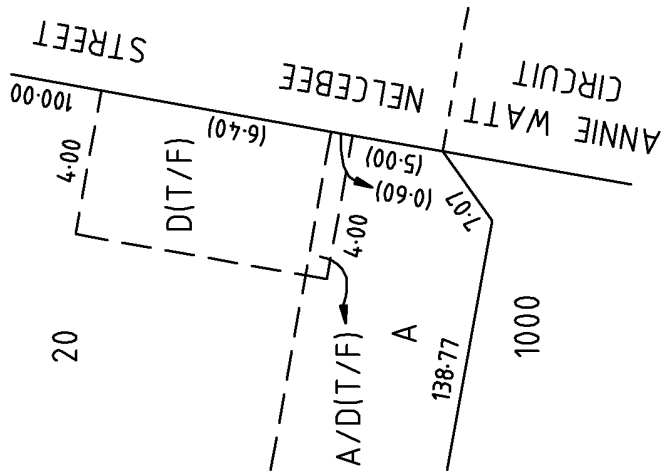
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## Notations

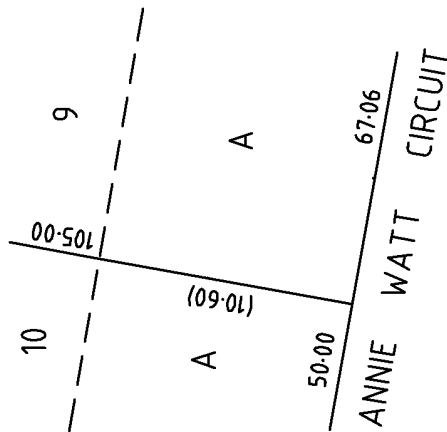
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



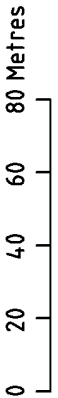
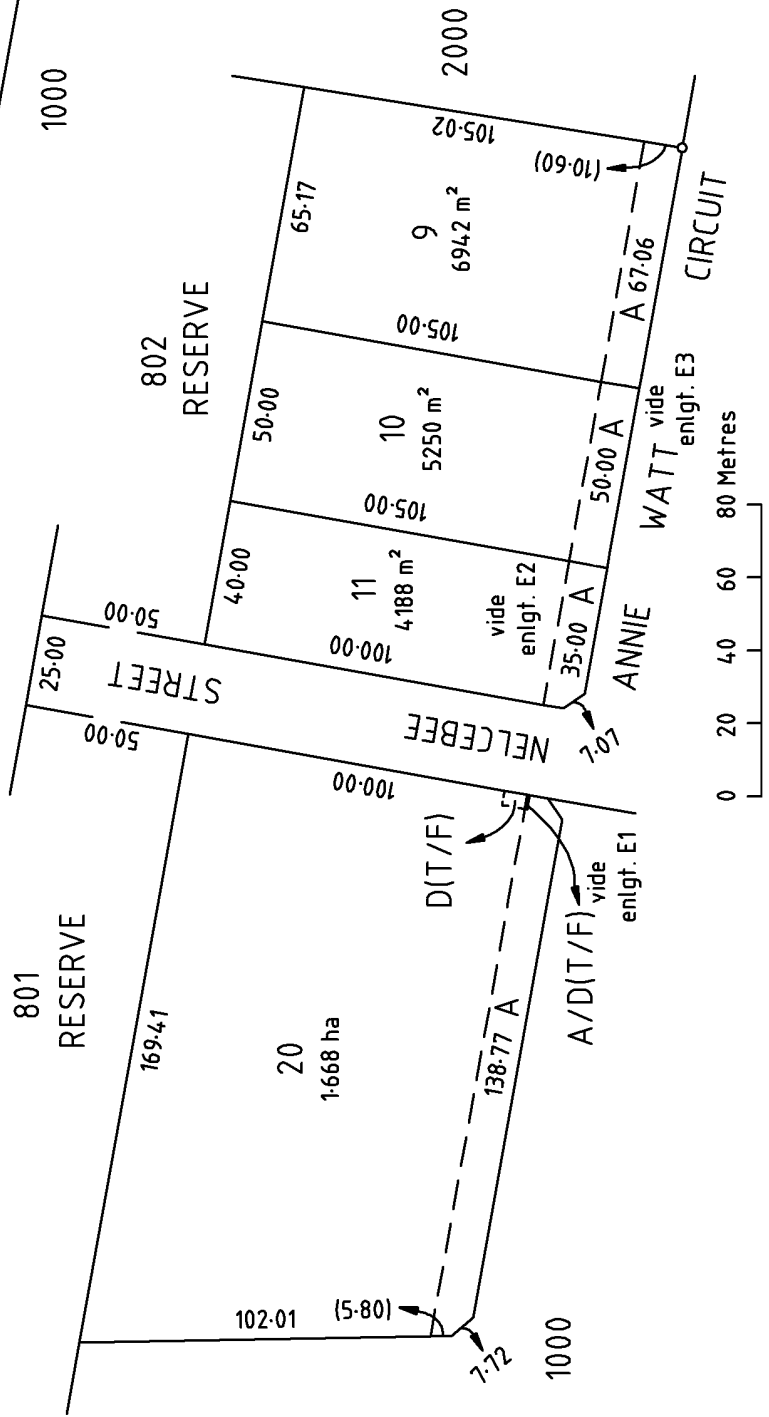
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ENLARGEMENT E3  
(NOT TO SCALE)



ENLARGEMENT E2  
(NOT TO SCALE)





REAL PROPERTY ACT, 1886



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## Certificate of Title - Volume 6067 Folio 113

Parent Title(s) CT 6012/883, CT 6024/185

Creating Dealing(s) RTU 11477330

Title Issued	01/11/2010	Edition	4	Edition Issued	22/08/2017
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## Estate Type

FEE SIMPLE

## Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

## Description of Land

ALLOTMENT 99 DEPOSITED PLAN 84951  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

## Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTC 10984627)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE (RTC 10984627)

## Schedule of Dealings

NIL

## Notations

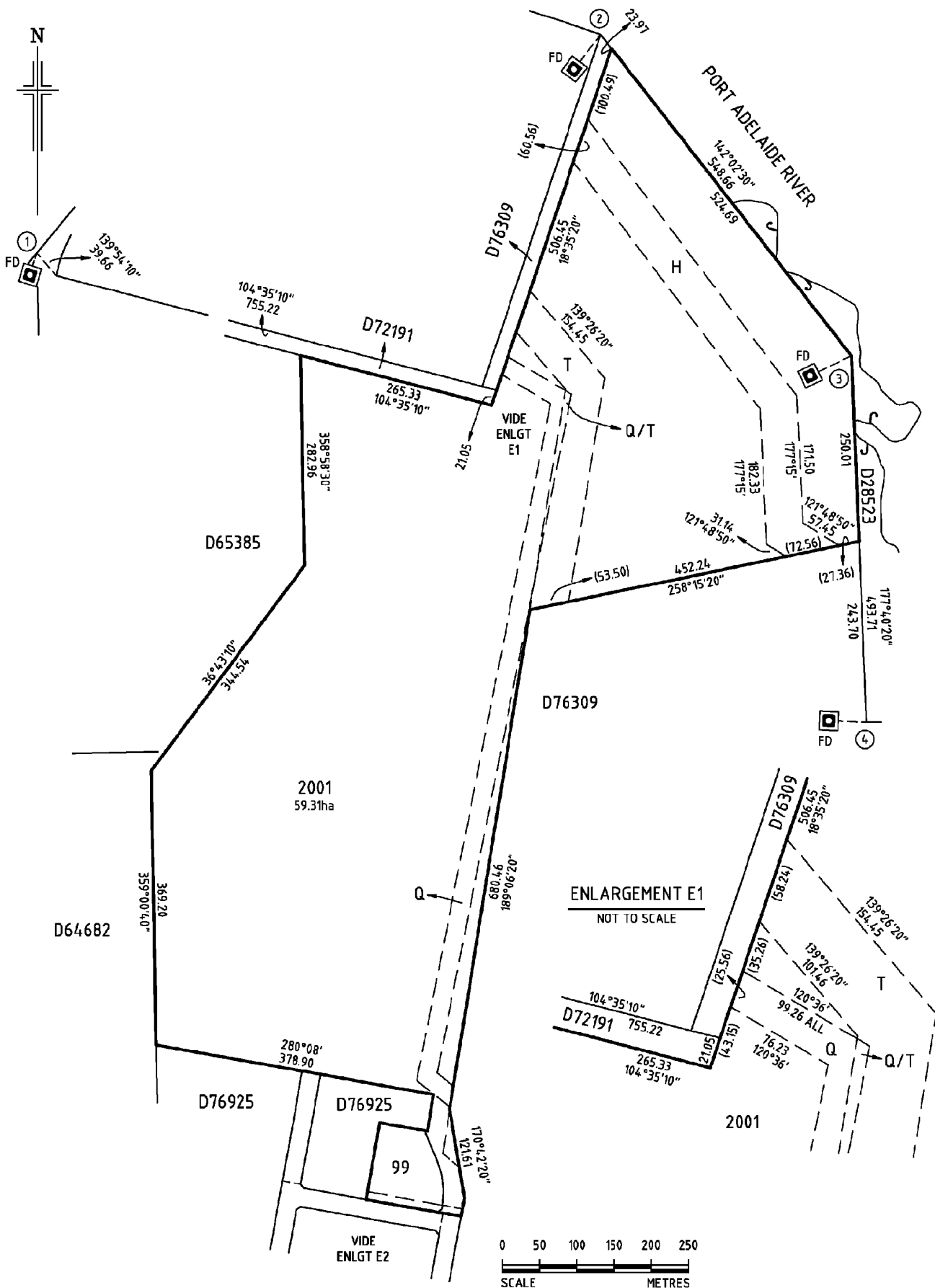
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Priority Notices NIL

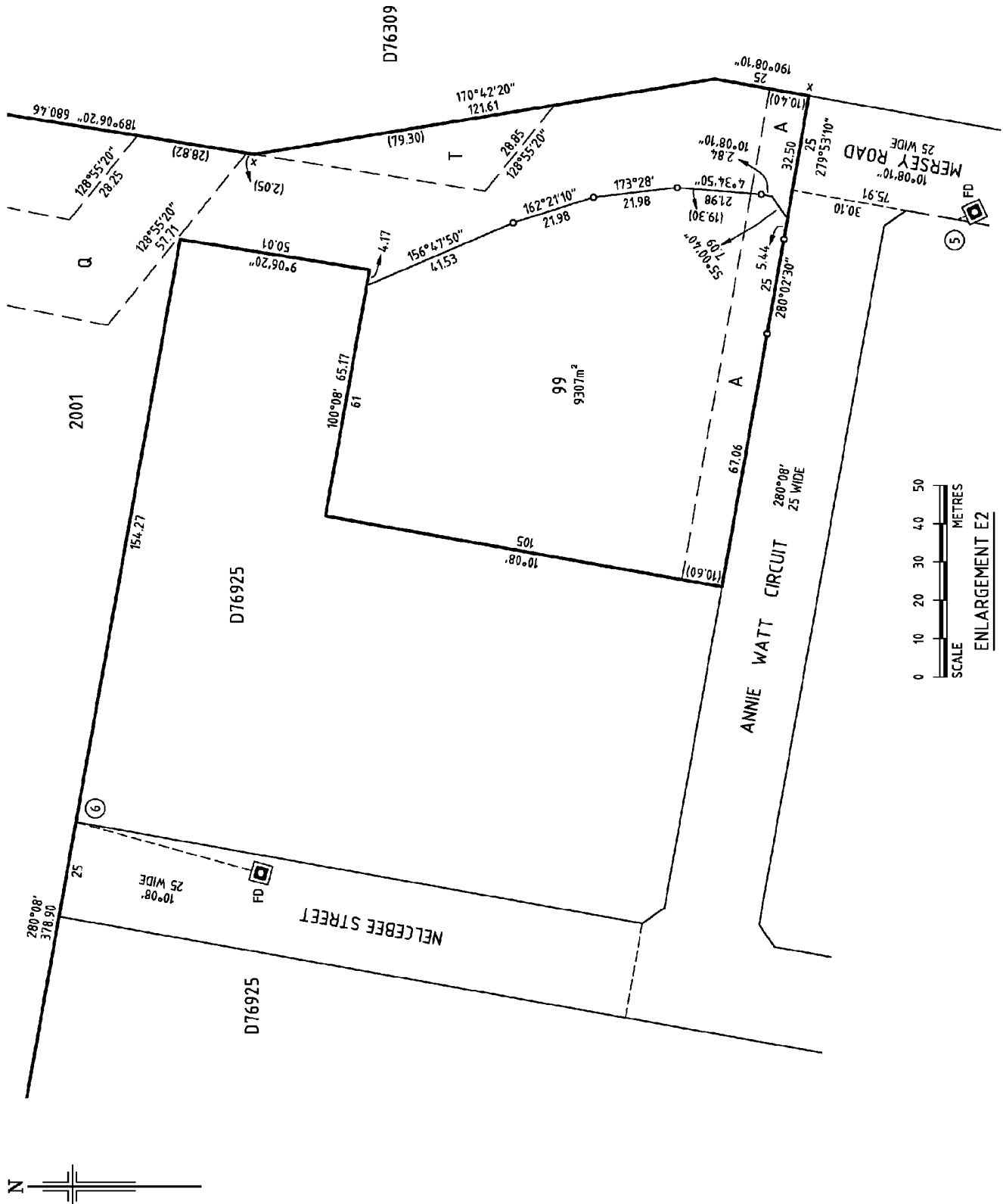
Notations on Plan NIL

Registrar-General's Notes NIL

Administrative Interests NIL



SURVEY INFORMATION IS DERIVED FROM DEPOSITED PLAN 84951







REAL PROPERTY ACT, 1886



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## Certificate of Title - Volume 6012 Folio 876

Parent Title(s)	CT 6011/465		
Creating Dealing(s)	RTC 10984627		
Title Issued	07/07/2008	Edition 4	Edition Issued 22/08/2017

### Estate Type

FEE SIMPLE

### Registered Proprietor

AUSTRALIAN NAVAL INFRASTRUCTURE PTY. LTD. (ACN: 051 762 639)  
OF 61 VEITCH ROAD OSBORNE SA 5017

### Description of Land

ALLOTMENT 15 DEPOSITED PLAN 76925  
IN THE AREA NAMED OSBORNE  
HUNDRED OF PORT ADELAIDE

### Easements

NIL

### Schedule of Dealings

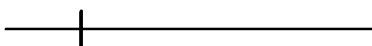
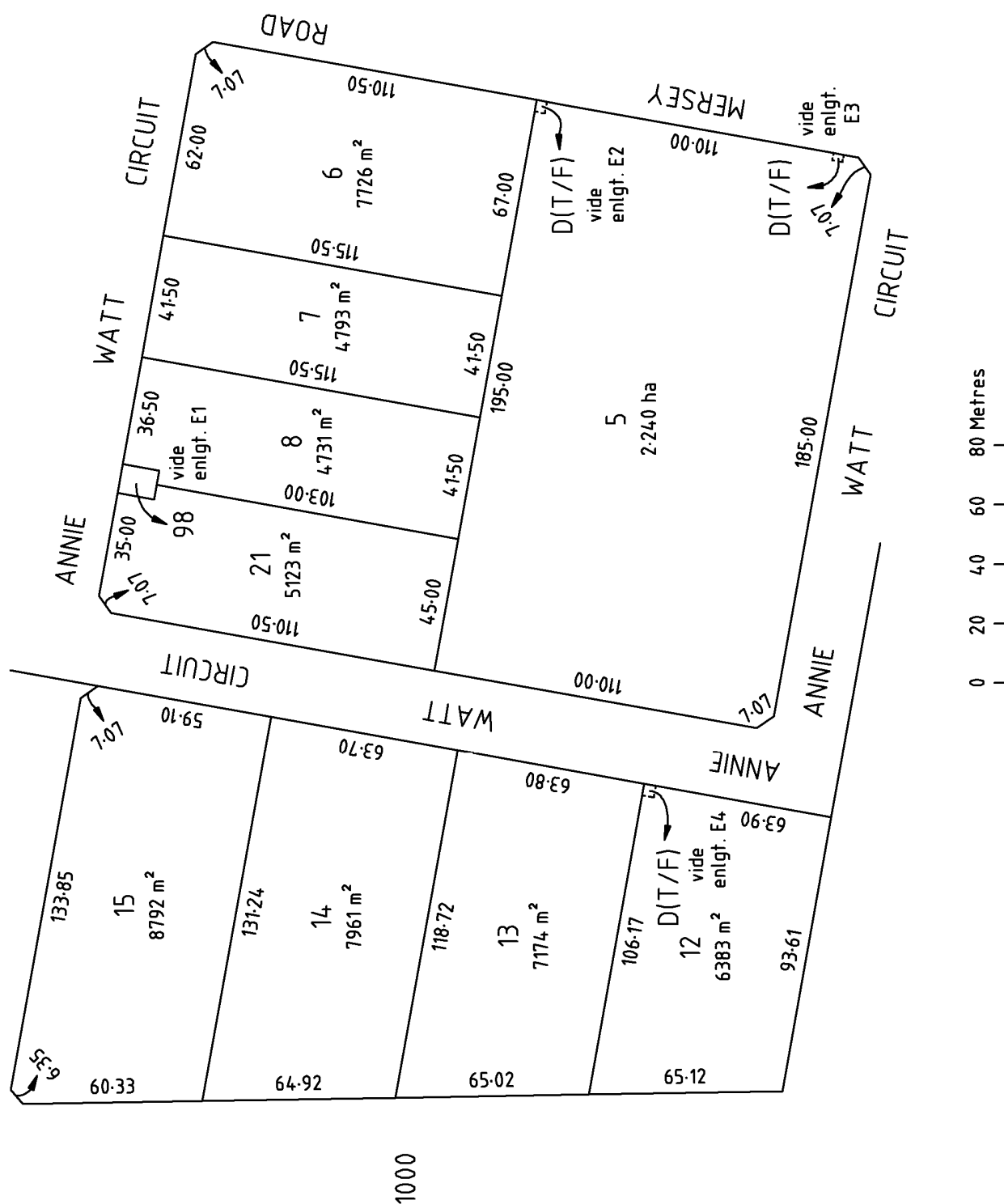
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### Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



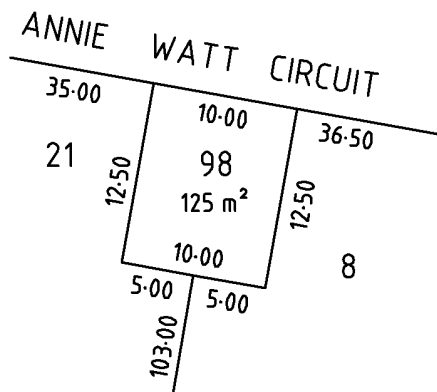
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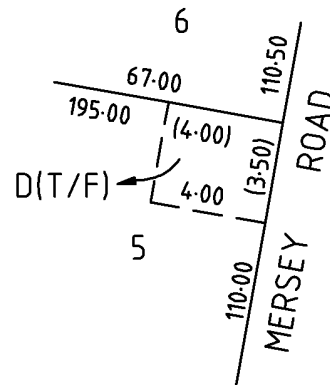


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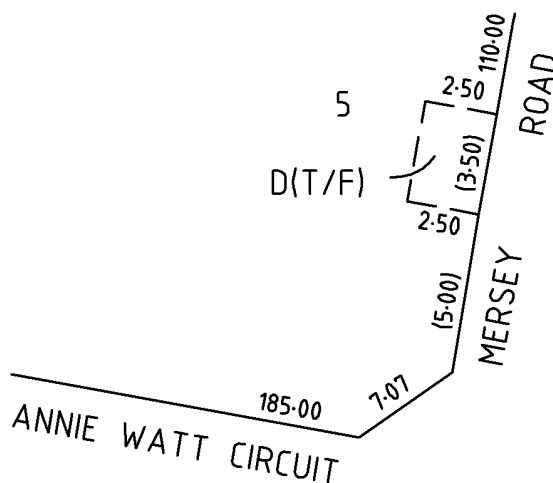
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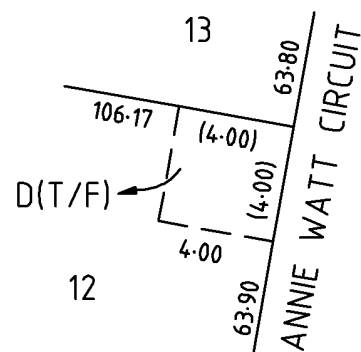
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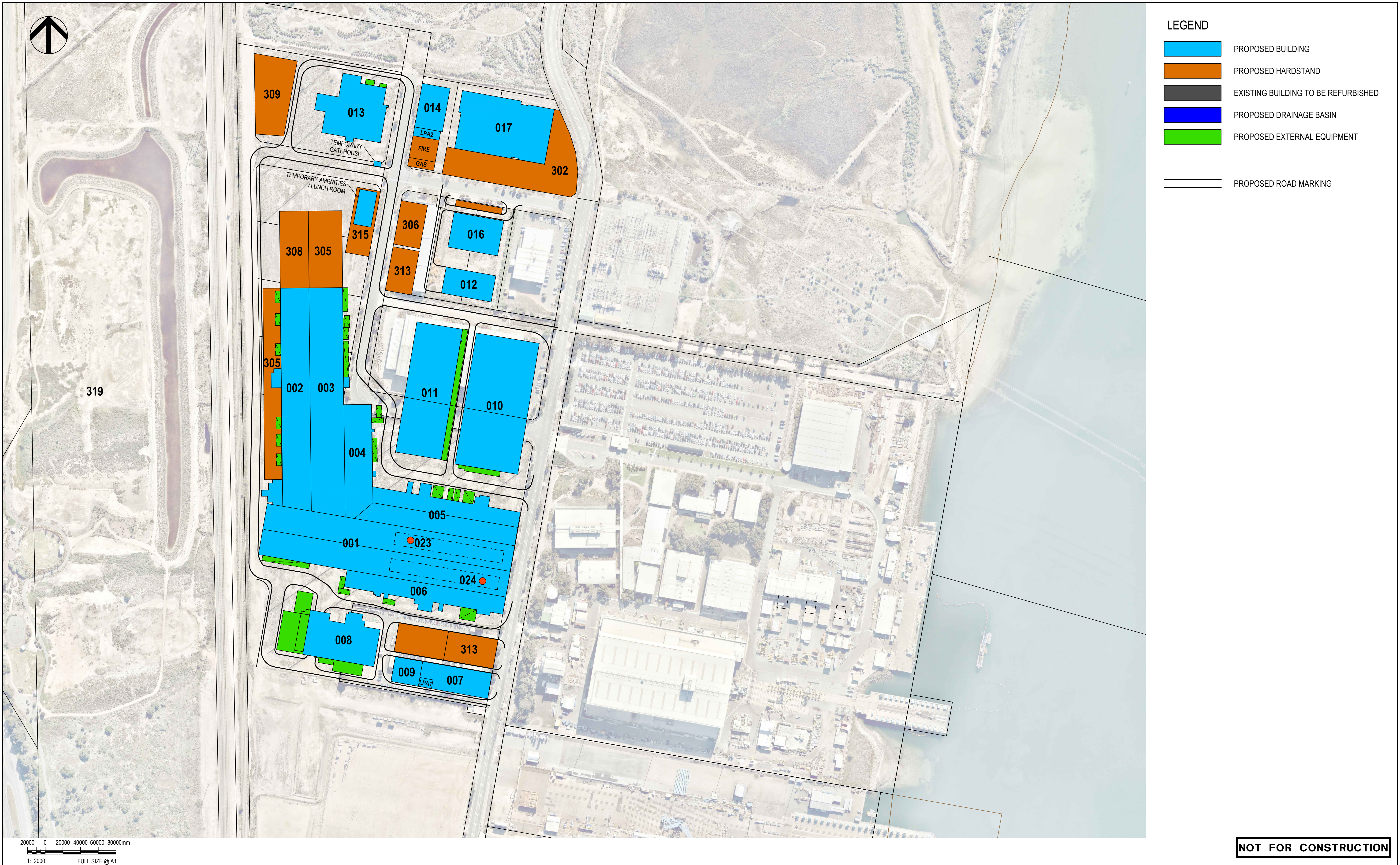
D

Site Plan

# Appendix D

## Site Plan







An abstract geometric design featuring a large green parallelogram tilted at an angle. A smaller yellow parallelogram is positioned at the bottom left, partially overlapping the green shape. The background is white.

E

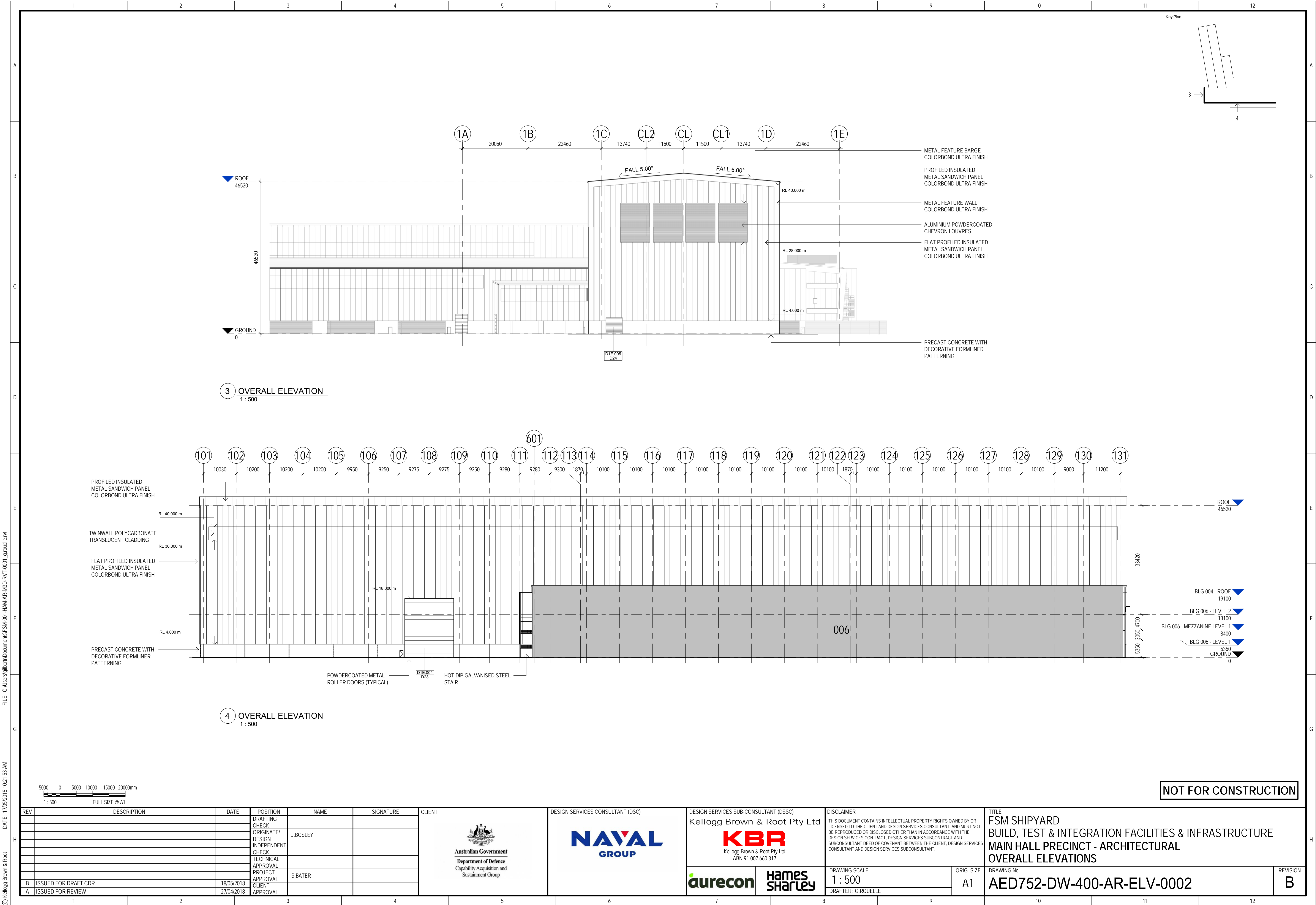
Building Elevations

# Appendix E

## Building Elevations





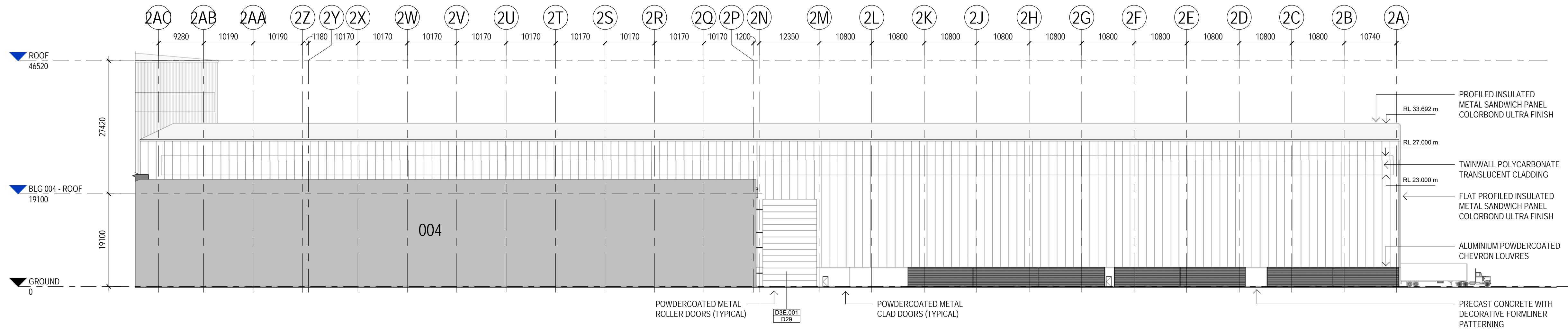


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© Kellogg Brown & Root

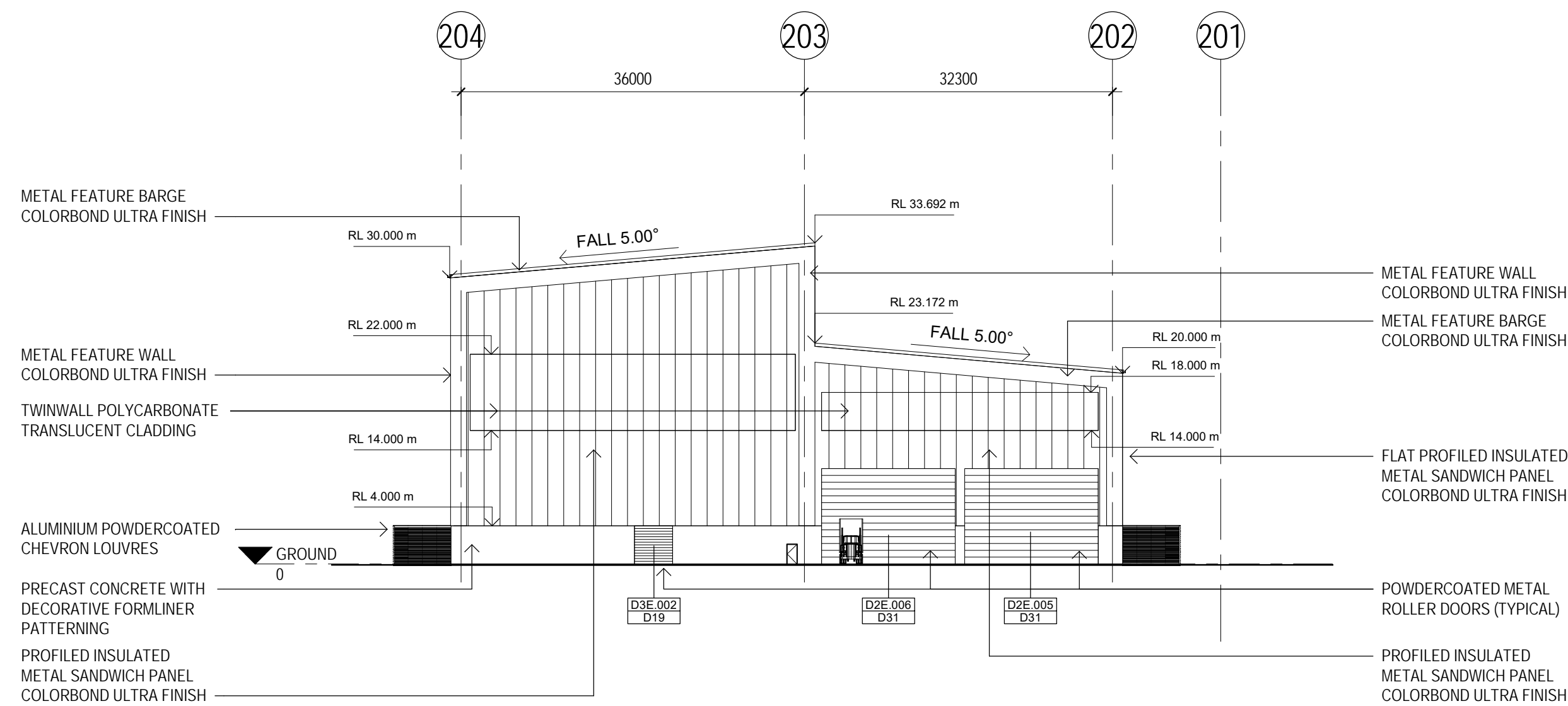
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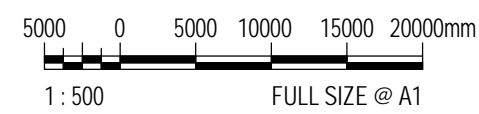
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5 OVERALL ELEVATION  
1 : 500



6 OVERALL ELEVATION  
1 : 500



NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT	DESIGN SERVICES CONSULTANT (DSC)	DESIGN SERVICES SUB-CONSULTANT (DSSC)	DISCLAIMER	TITLE	DRAWING No.	REVISION
			DRAFTING CHECK							FSM SHIPYARD		
			ORIGINATE/DESIGN	J.BOSLEY						BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE		
			INDEPENDENT CHECK							MAIN HALL PRECINCT - ARCHITECTURAL		
			TECHNICAL APPROVAL							OVERALL ELEVATIONS		
			PROJECT APPROVAL									
			CLIENT APPROVAL									
B	ISSUED FOR DRAFT CDR	18/05/2018		S.BATER								
A	ISSUED FOR REVIEW	27/04/2018										

1	2	3	4	5	6	7	8	9	10	11	12
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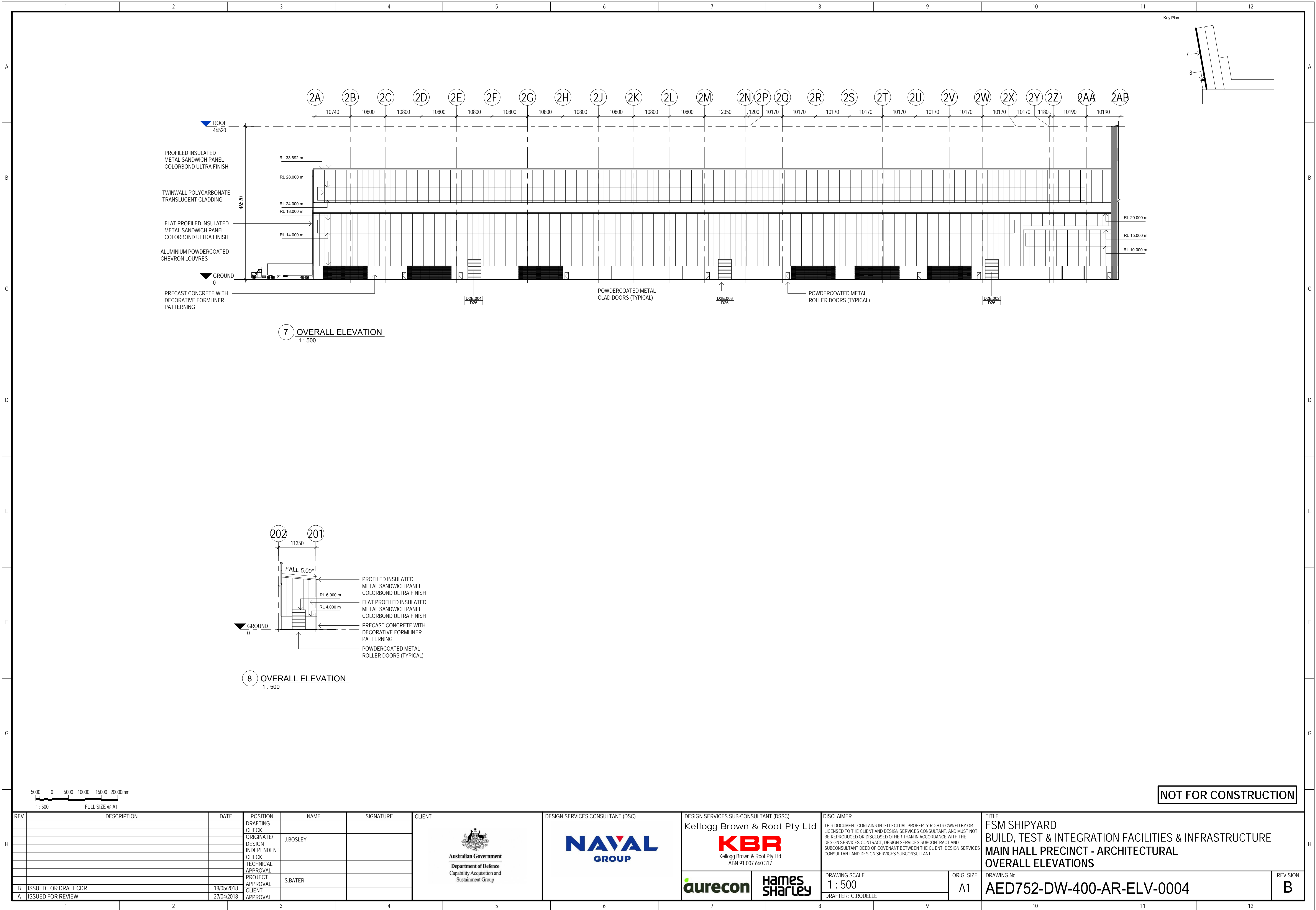
Australian Government Department of Defence Capability Acquisition and Sustainment Group	NAVAL GROUP	Kellogg Brown & Root Pty Ltd KBR Kellogg Brown & Root Pty Ltd ABN 91 007 660 317	DISCLAIMER THIS DOCUMENT CONTAINS INTELLECTUAL PROPERTY RIGHTS OWNED BY OR LICENSED TO THE CLIENT AND DESIGN SERVICES CONSULTANT, AND MUST NOT BE REPRODUCED OR DISCLOSED OTHER THAN IN ACCORDANCE WITH THE DESIGN SERVICES CONTRACT, DESIGN SERVICES SUBCONTRACT AND SUBCONSULTANT DEED OF COVENANT BETWEEN THE CLIENT, DESIGN SERVICES CONSULTANT AND DESIGN SERVICES SUBCONSULTANT.	DRAWING SCALE 1 : 500 DRAFTER: G.ROUELLE	ORIG. SIZE A1	DRAWING No. AED752-DW-400-AR-ELV-0003	REVISION B
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FILE: C:\Users\jlgiblin\Documents\FSM-001-HAW-AR-M3D-RVT-0001\_grouvellent

DATE: 17/05/2018 10:22:36 AM

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REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT
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			ORIGINATE/DESIGN	J.BOSLEY		
			INDEPENDENT CHECK			
			TECHNICAL APPROVAL			
			PROJECT APPROVAL	S.BATER		
B	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL			
A	ISSUED FOR REVIEW	27/04/2018	CLIENT APPROVAL			



DESIGN SERVICES SUB-CONSULTANT (DSSC)  
Kellogg Brown & Root Pty Ltd  
**KBR**  
Kellogg Brown & Root Pty Ltd  
ABN 91 007 660 317



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DRAWING SCALE  
1 : 500  
DRAFTER: G.ROUELLE

TITLE  
FSM SHIPYARD  
BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE  
MAIN HALL PRECINCT - ARCHITECTURAL  
OVERALL ELEVATIONS

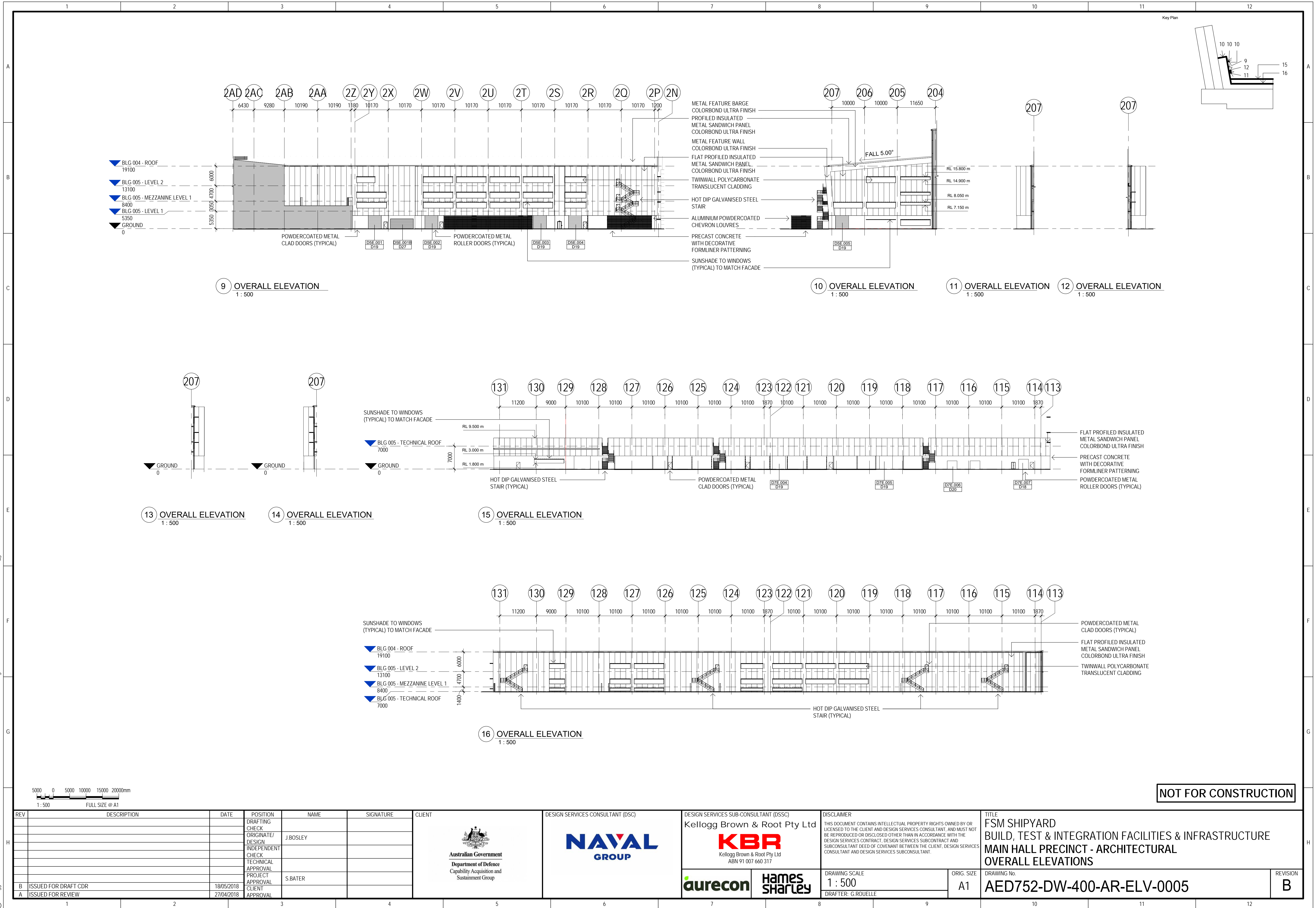
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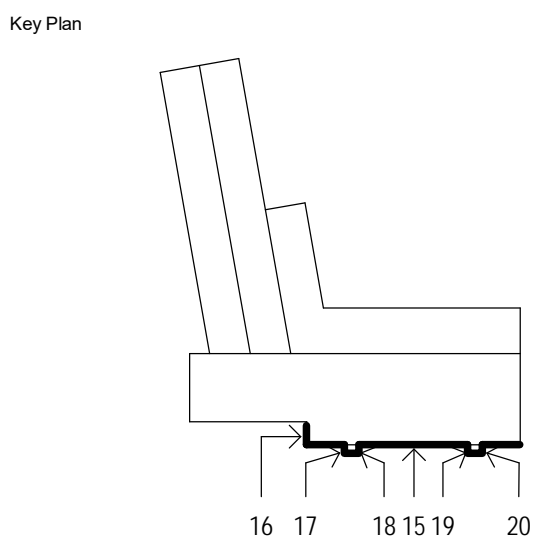
REVISION  
B




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DATE: 17/05/2018 10:24:06 AM

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REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT	DESIGN SERVICES CONSULTANT (DSC)	DESIGN SERVICES SUB-CONSULTANT (DSSC)	DISCLAIMER	TITLE	REVISION
			DRAFTING CHECK			 <b>Australian Government</b> Department of Defence Capability Acquisition and Sustainment Group	 <b>NAVAL GROUP</b>	 <b>KBR</b> Kellogg Brown & Root Pty Ltd ABN 91 007 660 317	THIS DOCUMENT CONTAINS INTELLECTUAL PROPERTY RIGHTS OWNED BY OR LICENSED TO THE CLIENT AND DESIGN SERVICES CONSULTANT, AND MUST NOT BE REPRODUCED OR DISCLOSED OTHER THAN IN ACCORDANCE WITH THE DESIGN SERVICES CONTRACT, DESIGN SERVICES SUBCONTRACT AND SUBCONSULTANT DEED OF COVENANT BETWEEN THE CLIENT, DESIGN SERVICES CONSULTANT AND DESIGN SERVICES SUBCONSULTANT.	FSM SHIPYARD BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE MAIN HALL PRECINCT - ARCHITECTURAL OVERALL ELEVATIONS	B
			ORIGINATE/DESIGN	J.BOSLEY							
			INDEPENDENT CHECK								
			TECHNICAL APPROVAL								
			PROJECT APPROVAL	S.BATER							
B	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL								
A	ISSUED FOR REVIEW	27/04/2018	CLIENT APPROVAL								

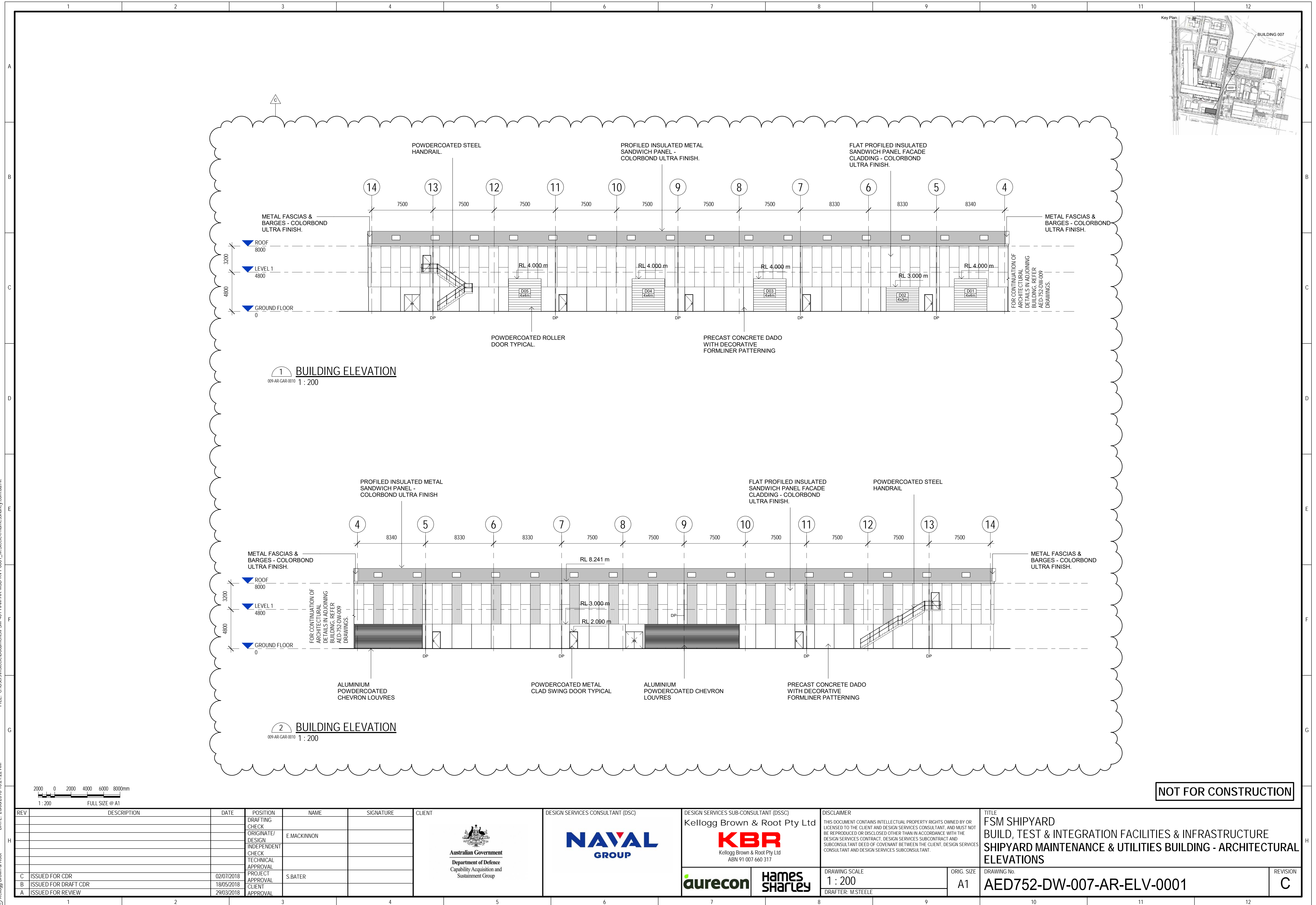
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REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT
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			CHECK			
			TECHNICAL			
			APPROVAL			
C	ISSUED FOR CDR	02/07/2018	PROJECT	S.BATER		
B	ISSUED FOR DRAFT CDR	18/05/2018	APPROVAL			
A	ISSUED FOR REVIEW	29/03/2018	CLIENT			
			APPROVAL			



DESIGN SERVICES SUB-CONSULTANT (DSSC)  
Kellogg Brown & Root Pty Ltd  
**KBR**  
Kellogg Brown & Root Pty Ltd  
ABN 91 007 660 317

**aurecon** **Hames Sharley**

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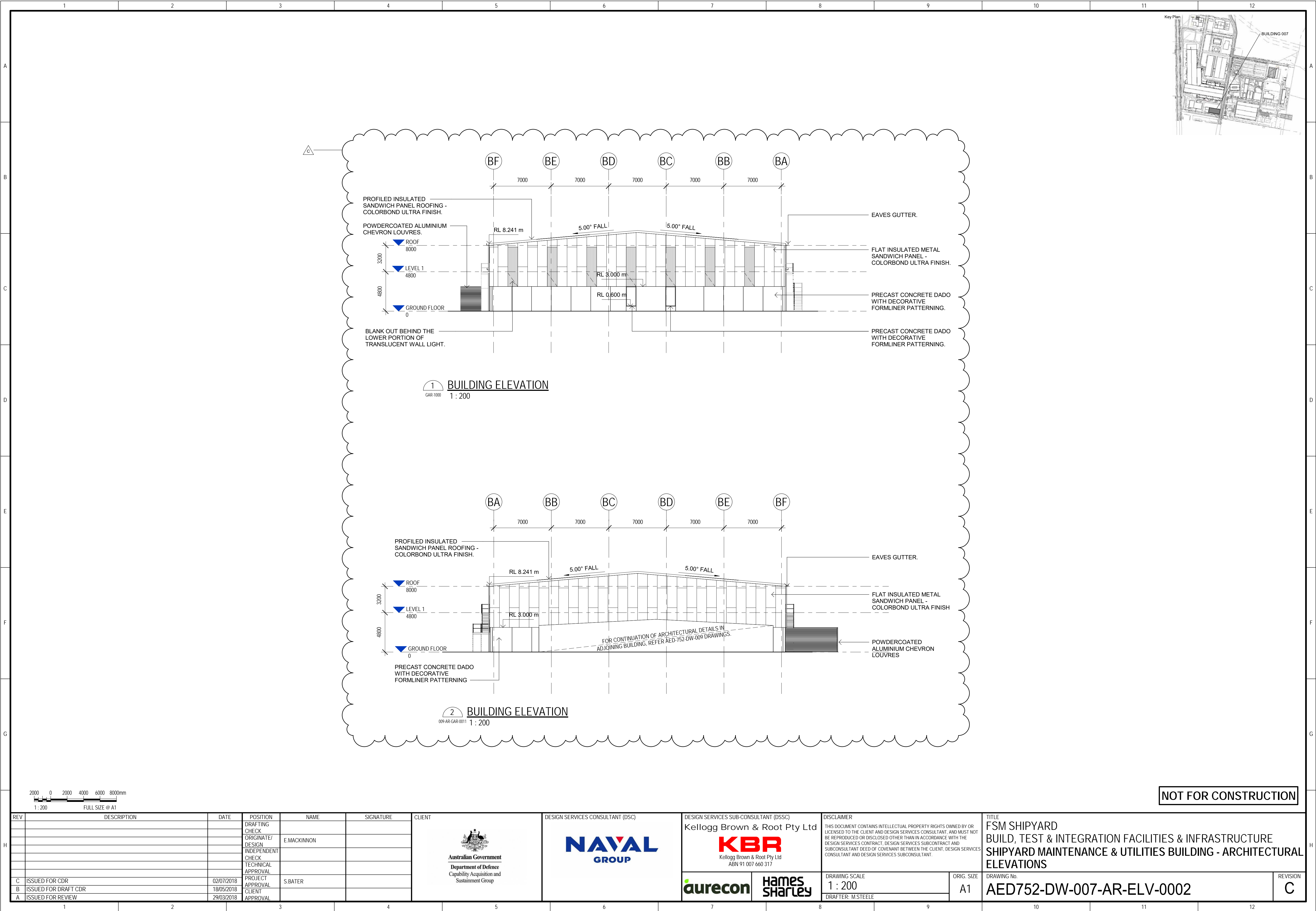
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1 : 200  
DRAFTER: M.STEELE

TITLE  
FSM SHIPYARD  
BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE  
SHIPYARD MAINTENANCE & UTILITIES BUILDING - ARCHITECTURAL  
ELEVATIONS  
DRAWING No.  
AED752-DW-007-AR-ELV-0001  
REVISION  
C

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DATE: 26/06/2018 10:21:29 AM

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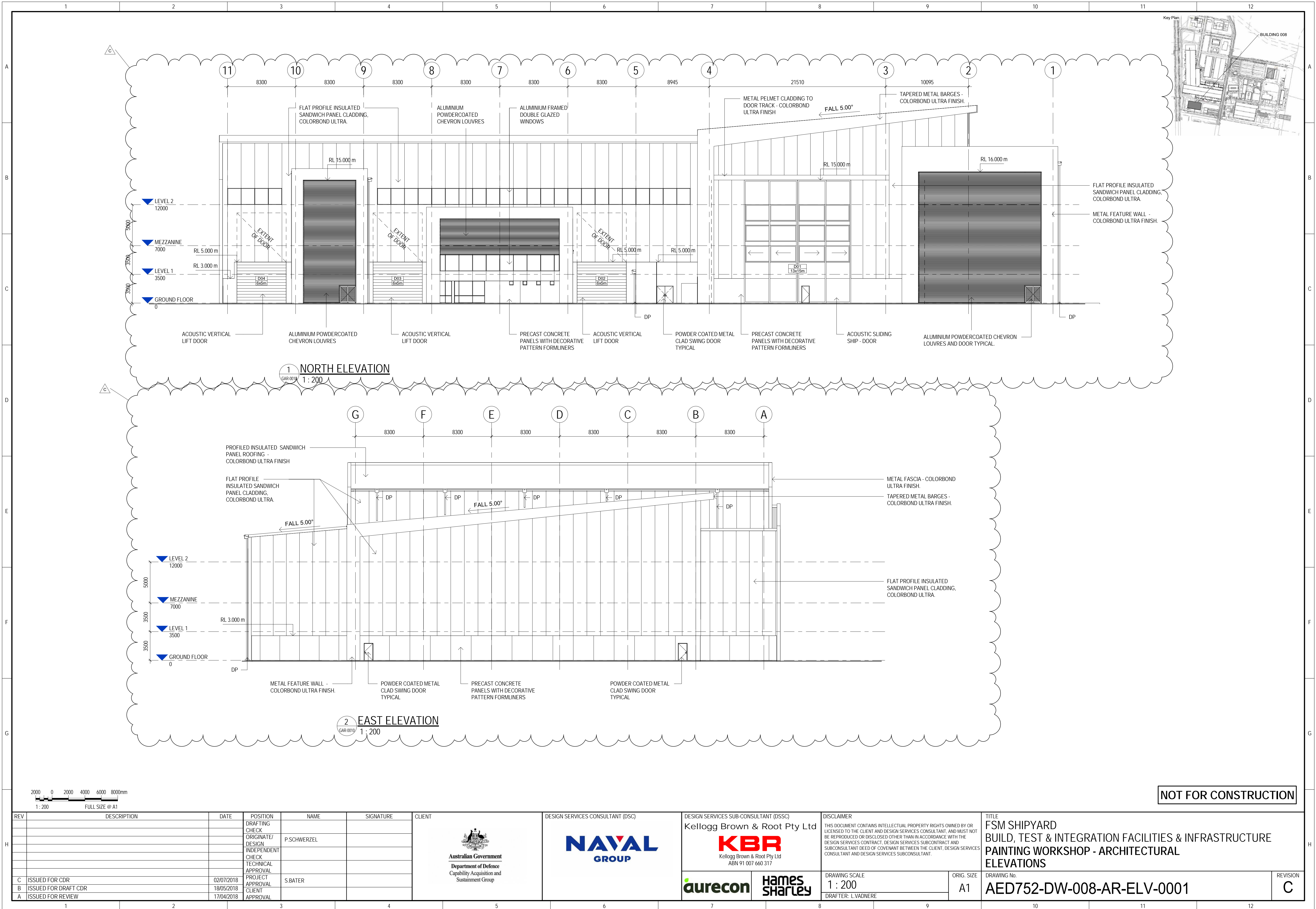




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REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT
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			CHECK			
			ORIGINATE/	P.SCHWERZEL		
			DESIGN			
			INDEPENDENT			
			CHECK			
			TECHNICAL			
			APPROVAL			
			PROJECT			
			APPROVAL			
			CLIENT			
			APPROVAL			



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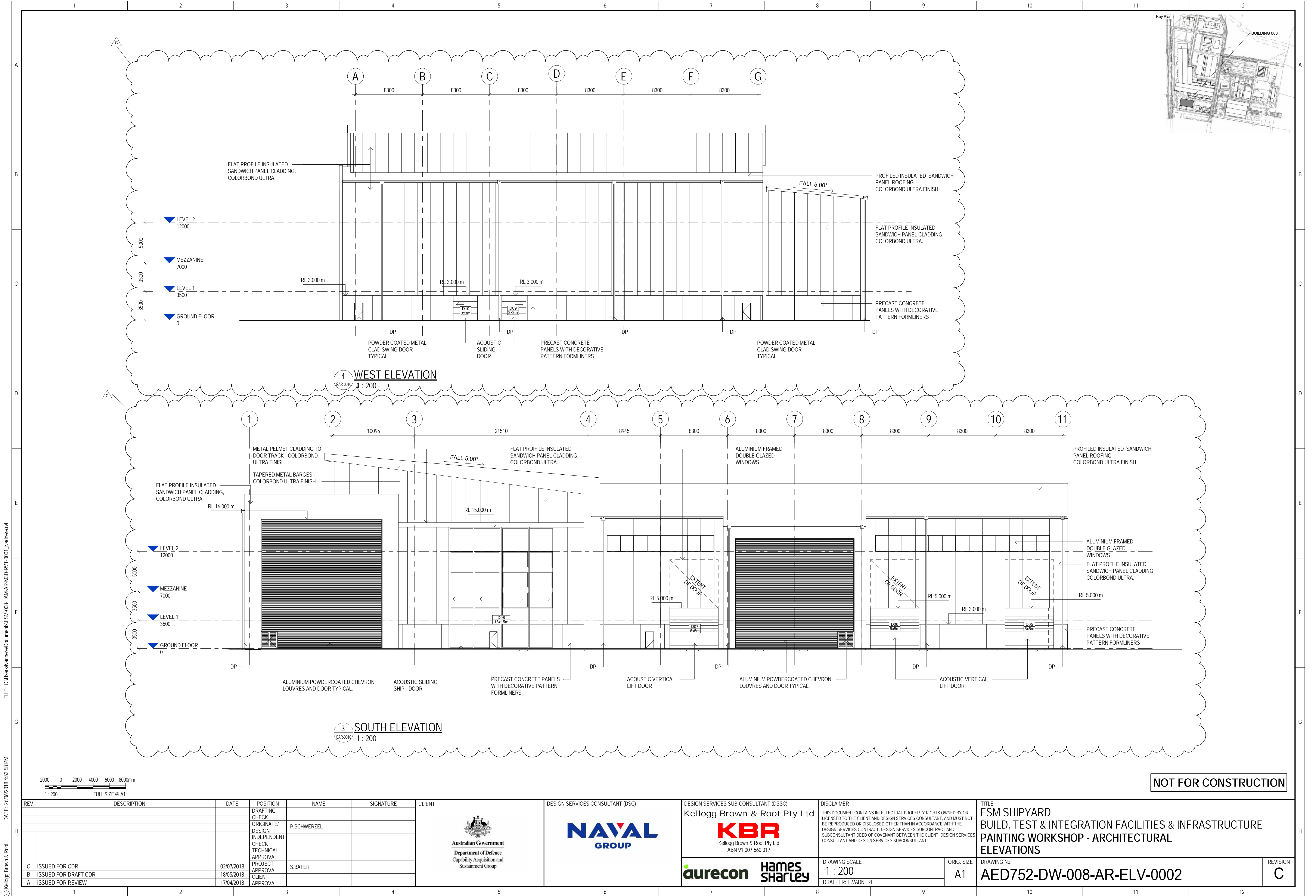
DRAWING SCALE  
1 : 200  
DRAFTER: L.VADNERE

TITLE  
FSM SHIPYARD  
BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE  
PAINTING WORKSHOP - ARCHITECTURAL  
ELEVATIONS

DRAWING No.  
AED752-DW-008-AR-ELV-0001

REVISION  
C

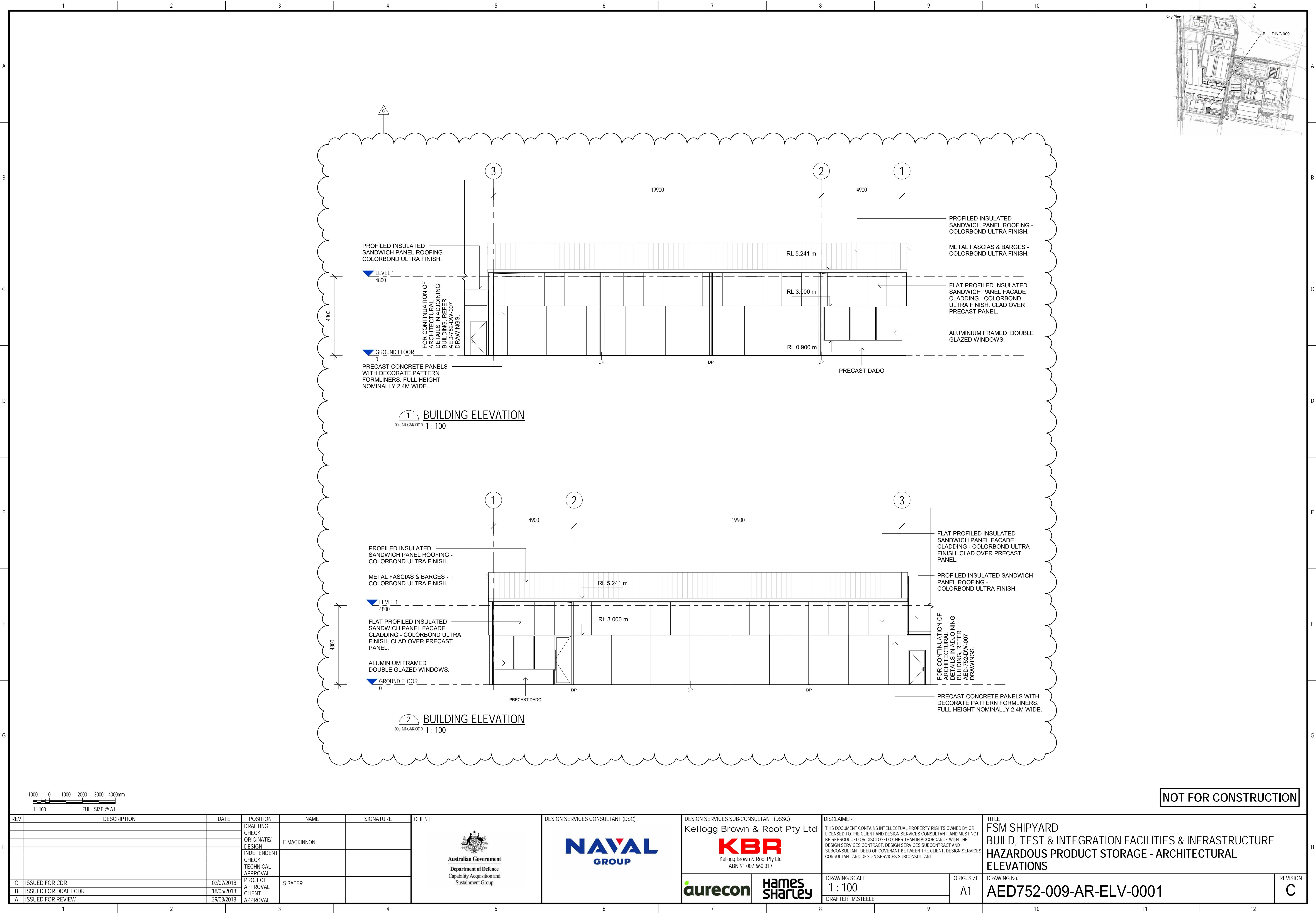




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			ORIGINATE/DESIGN	E.MACKINNON		
			INDEPENDENT CHECK			
			TECHNICAL APPROVAL			
C	ISSUED FOR CDR	02/07/2018	PROJECT APPROVAL	S.BATER		
B	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL			
A	ISSUED FOR REVIEW	29/03/2018				



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**KBR**  
Kellogg Brown & Root Pty Ltd  
ABN 91 007 660 317



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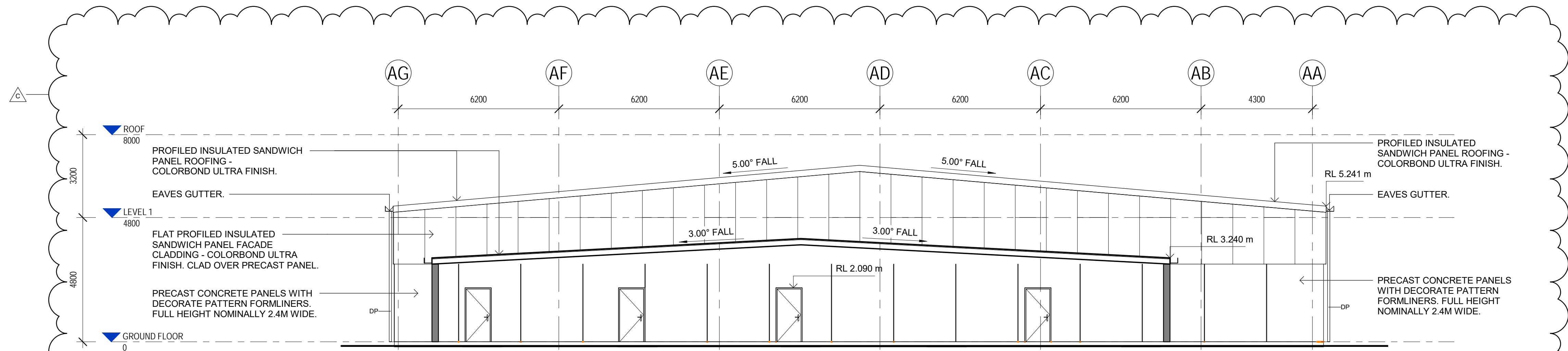
DRAWING SCALE  
1 : 100  
DRAFTER: M.STEELE

TITLE  
FSM SHIPYARD  
BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE  
HAZARDOUS PRODUCT STORAGE - ARCHITECTURAL  
ELEVATIONS

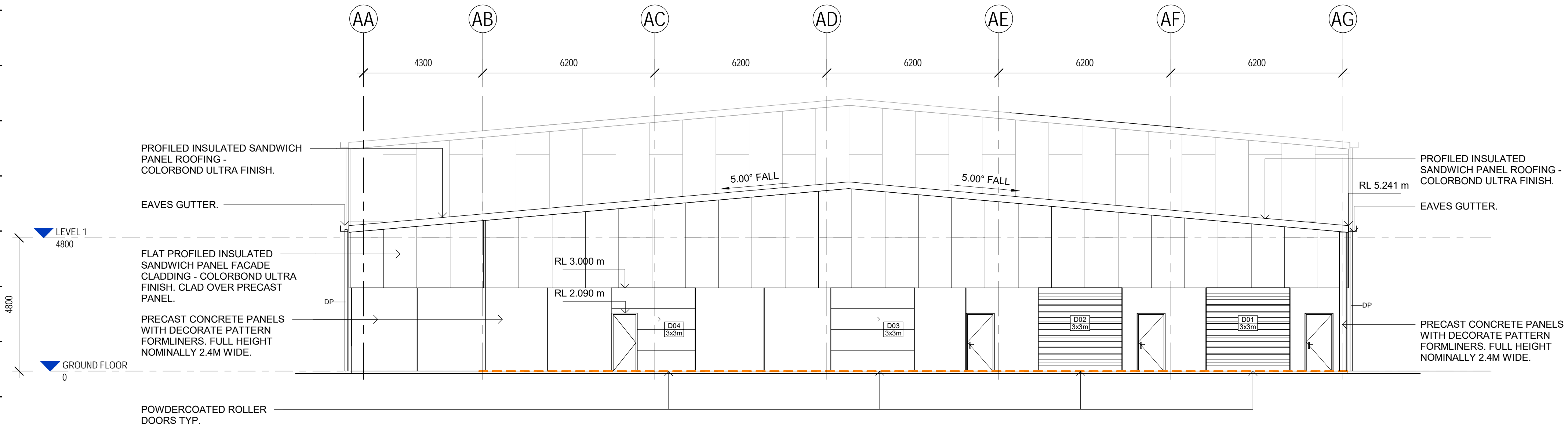
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AED752-009-AR-ELV-0001  
REVISION  
C



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DATE: 26/06/2018 10:20:18 AM  
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3 BUILDING ELEVATION  
009-AR-GAR-0010 1 : 100



4 BUILDING ELEVATION  
009-AR-GAR-0010 1 : 100

1000 0 1000 2000 3000 4000mm  
1 : 100 FULL SIZE @ A1

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT	DESIGN SERVICES CONSULTANT (DSC)	DESIGN SERVICES SUB-CONSULTANT (DSSC)	DISCLAIMER	TITLE	DRAWING No.	REVISION
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			ORIGINATE/DESIGN	E.MACKINNON								
			INDEPENDENT CHECK									
			TECHNICAL APPROVAL									
C	ISSUED FOR CDR	02/07/2018	PROJECT APPROVAL	S.BATER								
B	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL									
A	ISSUED FOR REVIEW	29/03/2018										
							 Australian Government Department of Defence Capability Acquisition and Sustainment Group	 NAVAL GROUP	 Kellogg Brown & Root Pty Ltd ABN 91 007 660 317	<small>THIS DOCUMENT CONTAINS INTELLECTUAL PROPERTY RIGHTS OWNED BY OR LICENSED TO THE CLIENT AND DESIGN SERVICES CONSULTANT, AND MUST NOT BE REPRODUCED OR DISCLOSED OTHER THAN IN ACCORDANCE WITH THE DESIGN SERVICES CONTRACT, DESIGN SERVICES SUBCONTRACT AND SUBCONSULTANT DEED OF COVENANT BETWEEN THE CLIENT, DESIGN SERVICES CONSULTANT AND DESIGN SERVICES SUBCONSULTANT.</small>	FSM SHIPYARD BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE HAZARDOUS PRODUCT STORAGE - ARCHITECTURAL ELEVATIONS	
							 aurecon	 Hames Sharley	DRAWING SCALE 1 : 100 DRAFTER: M.STEELE	ORIG. SIZE A1	AED752-009-AR-ELV-0002	C

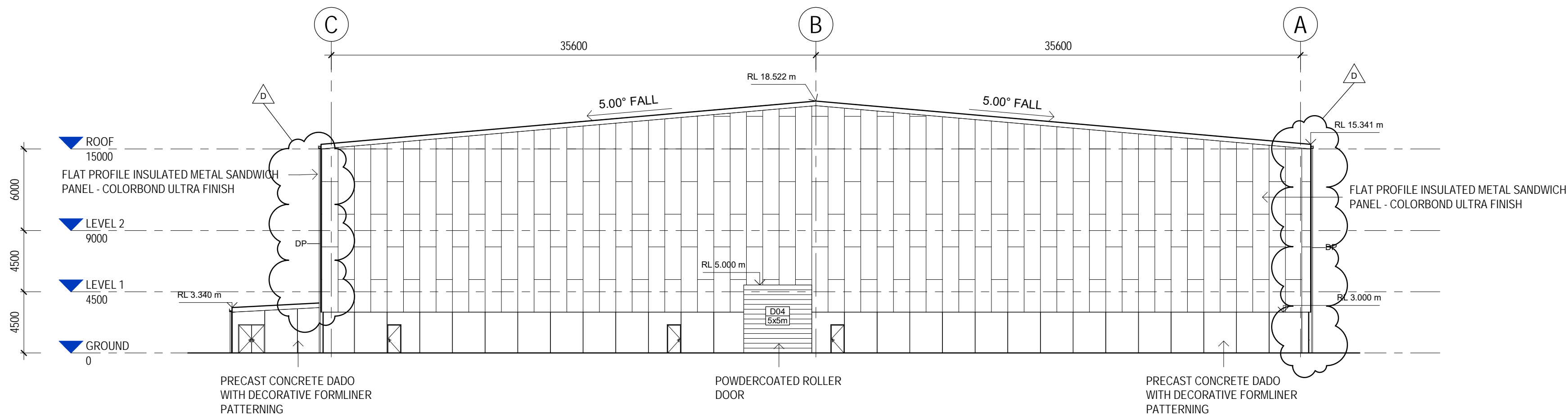




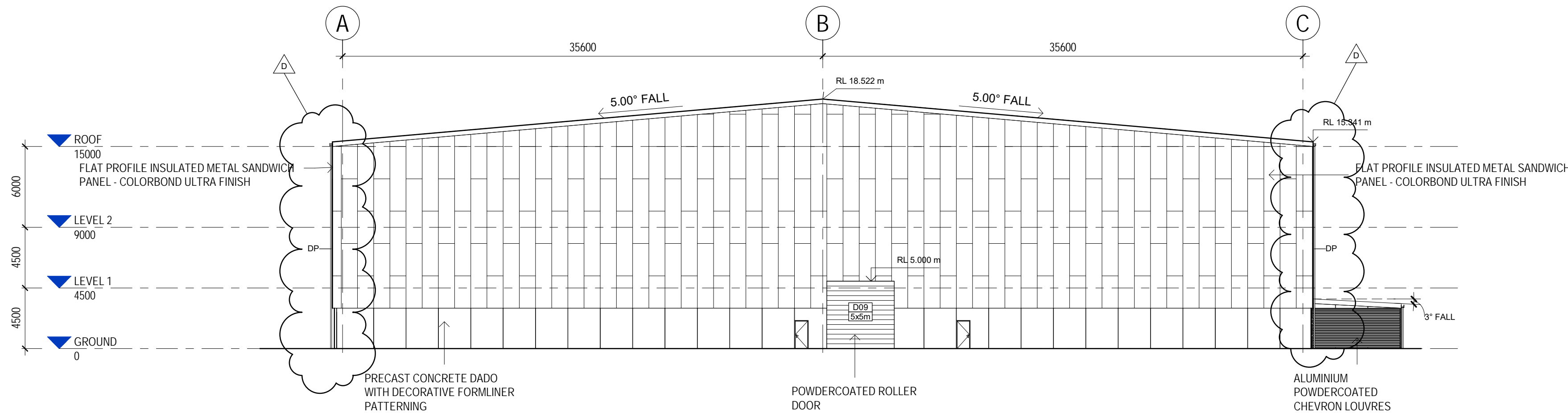
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DATE: 25/06/2018 4:48:21 PM

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1 ELV-0003 ELEVATION - NORTH  
GAR-0001 1 : 250



2 ELV-0004 ELEVATION - SOUTH  
GAR-0001 1 : 250

2500 0 2500 5000 7500 10000mm  
1 : 250 FULL SIZE @ A1

NOT FOR CONSTRUCTION

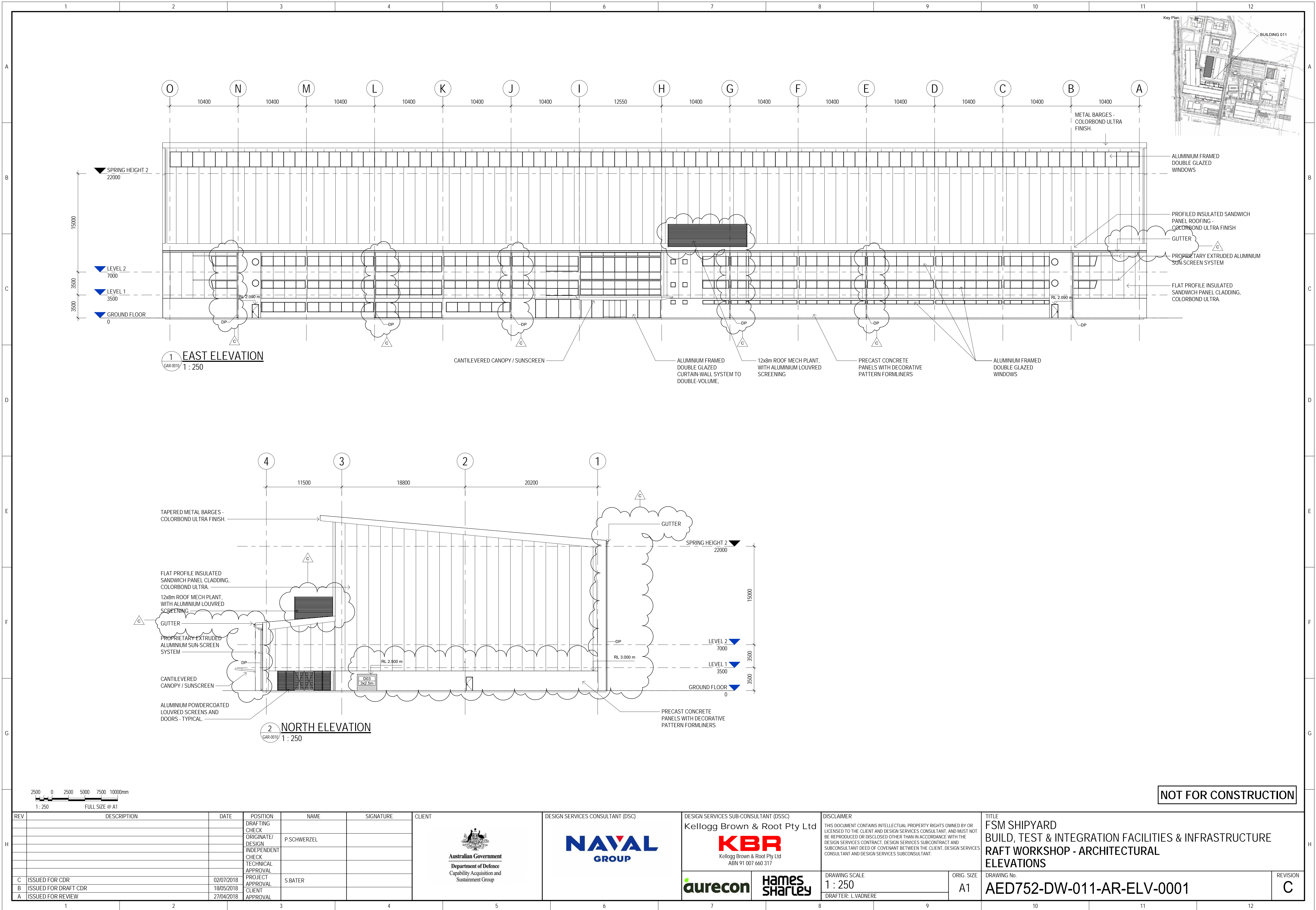
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			DRAFTING CHECK									
			ORIGINATE/DESIGN	E.MACKINNON								
			INDEPENDENT CHECK									
D	ISSUED FOR CDR	02/07/2018	TECHNICAL APPROVAL									
C	ISSUED FOR DRAFT CDR	18/05/2018	PROJECT APPROVAL	S.BATER								
B	ISSUED FOR REVIEW	27/04/2018	CLIENT APPROVAL									
A	ISSUED FOR REVIEW	29/03/2018										

 Australian Government Department of Defence Capability Acquisition and Sustainment Group		 Kellogg Brown & Root Pty Ltd ABN 91 007 660 317	 Hames Sharley	THIS DOCUMENT CONTAINS INTELLECTUAL PROPERTY RIGHTS OWNED BY OR LICENSED TO THE CLIENT AND DESIGN SERVICES CONSULTANT, AND MUST NOT BE REPRODUCED OR DISCLOSED OTHER THAN IN ACCORDANCE WITH THE DESIGN SERVICES CONTRACT, DESIGN SERVICES SUBCONTRACT AND SUBCONSULTANT DEED OF COVENANT BETWEEN THE CLIENT, DESIGN SERVICES CONSULTANT AND DESIGN SERVICES SUBCONSULTANT.	DRAWING SCALE 1 : 250 DRAFTER: M.STEELE	ORIG. SIZE A1	AED752-DW-010-AR-ELV-0002	D
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DATE: 26/06/2018 4:57:48 PM

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REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT
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			CHECK			
			ORIGINATE/	P.SCHWERZEL		
			DESIGN			
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			TECHNICAL			
			APPROVAL			
			PROJECT			
			APPROVAL			
			CLIENT			
			APPROVAL			
C	ISSUED FOR CDR	02/07/2018				
B	ISSUED FOR DRAFT CDR	18/05/2018				
A	ISSUED FOR REVIEW	27/04/2018				



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**KBR**  
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ABN 91 007 660 317



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DRAWING SCALE  
1 : 250  
DRAFTER: L.VADNERE

ORIG. SIZE  
A1

TITLE  
FSM SHIPYARD  
BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE  
RAFT WORKSHOP - ARCHITECTURAL  
ELEVATIONS

DRAWING No.  
AED752-DW-011-AR-ELV-0001

REVISION  
C



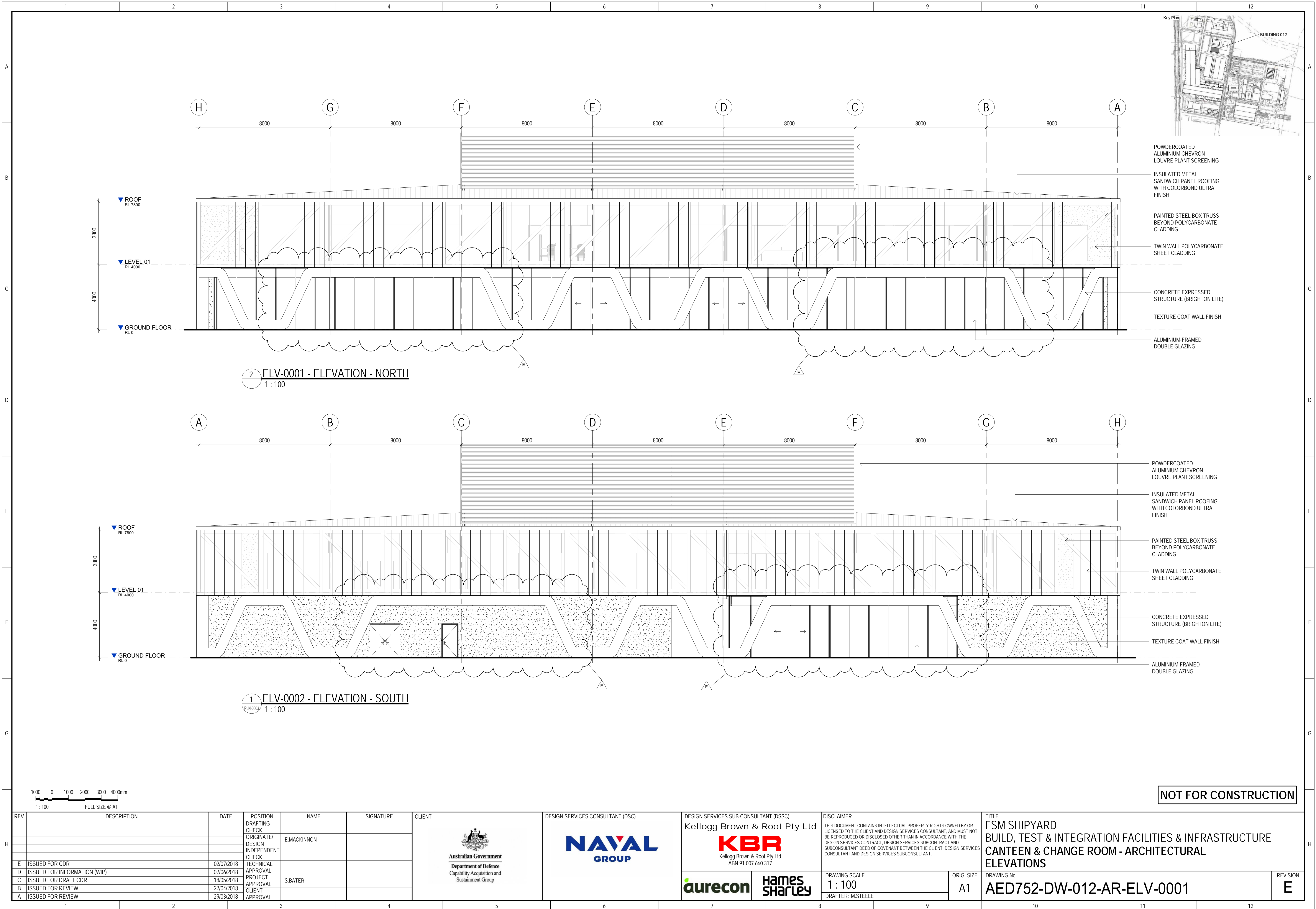




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REV	DESCRIPTION	DATE	POSITION	NAME	SIGNATURE	CLIENT
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			ORIGINATE/DESIGN	E.MACKINNON		
			INDEPENDENT CHECK			
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D	ISSUED FOR INFORMATION (WIP)	07/06/2018	PROJECT APPROVAL			
C	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL	S.BATER		
B	ISSUED FOR REVIEW	27/04/2018				
A	ISSUED FOR REVIEW	29/03/2018				



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**KBR**  
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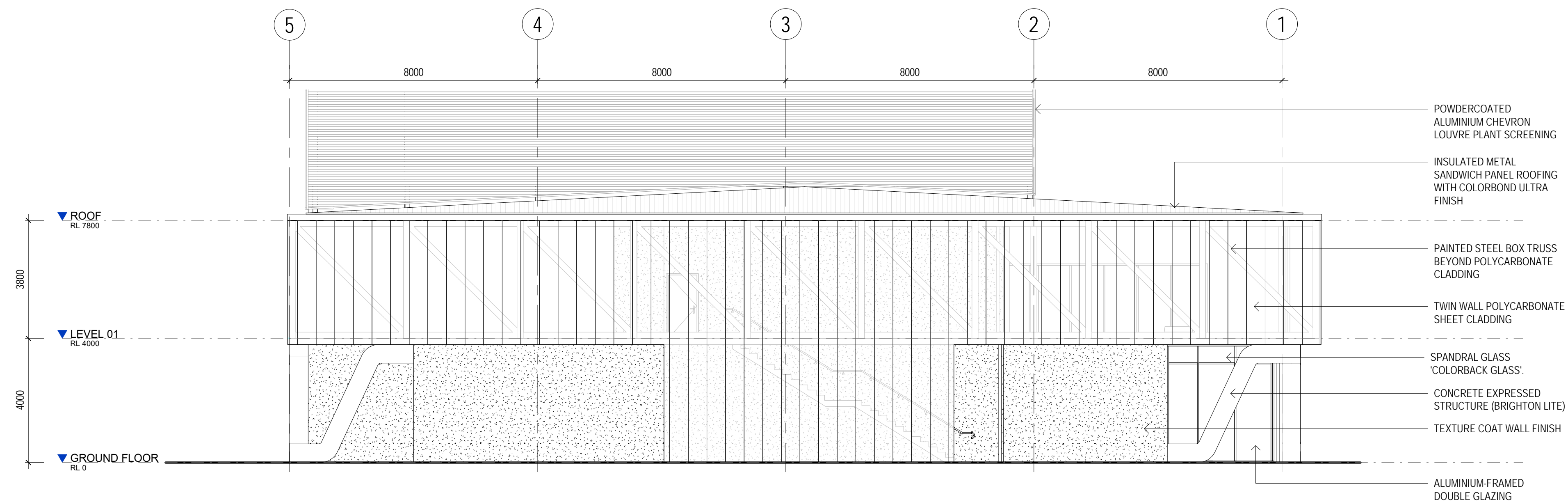
DRAWING SCALE  
1 : 100  
DRAFTER: M.STEELE

TITLE  
FSM SHIPYARD  
BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE  
CANTEEN & CHANGE ROOM - ARCHITECTURAL  
ELEVATIONS

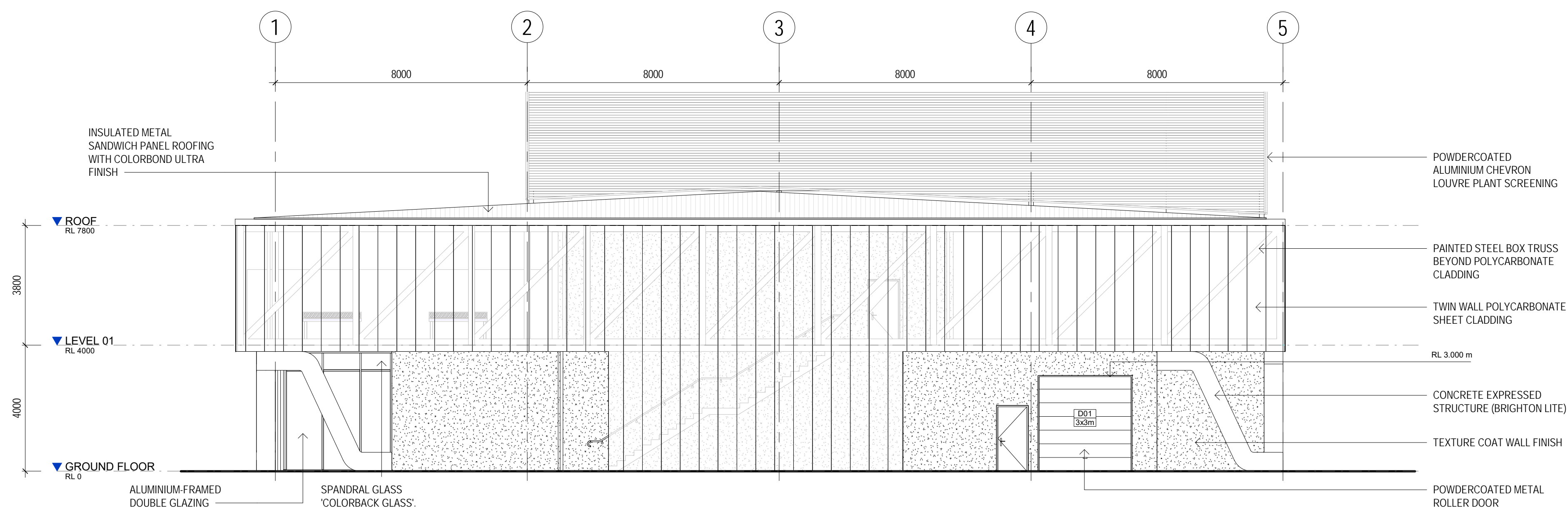
DRAWING No.  
AED752-DW-012-AR-ELV-0001

REVISION  
E

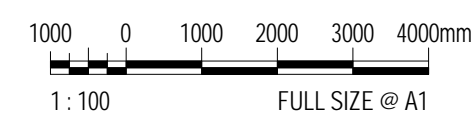




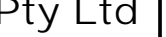

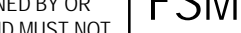
2 ELV-0003 - ELEVATION - EAST  
1 : 100





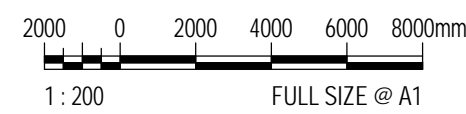
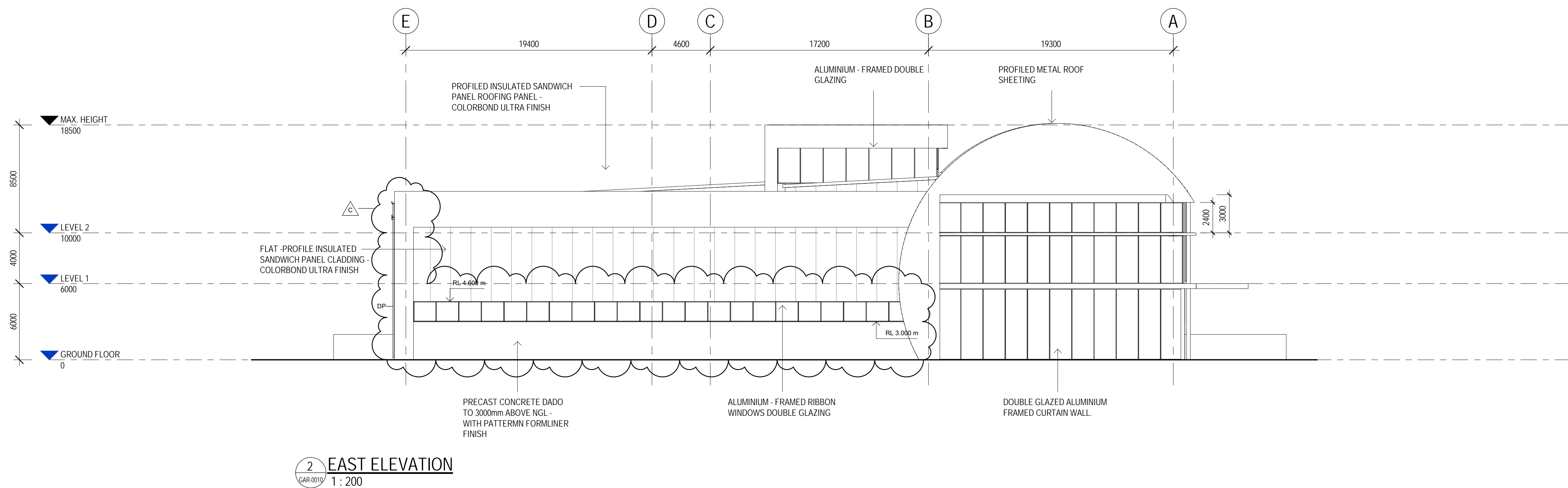
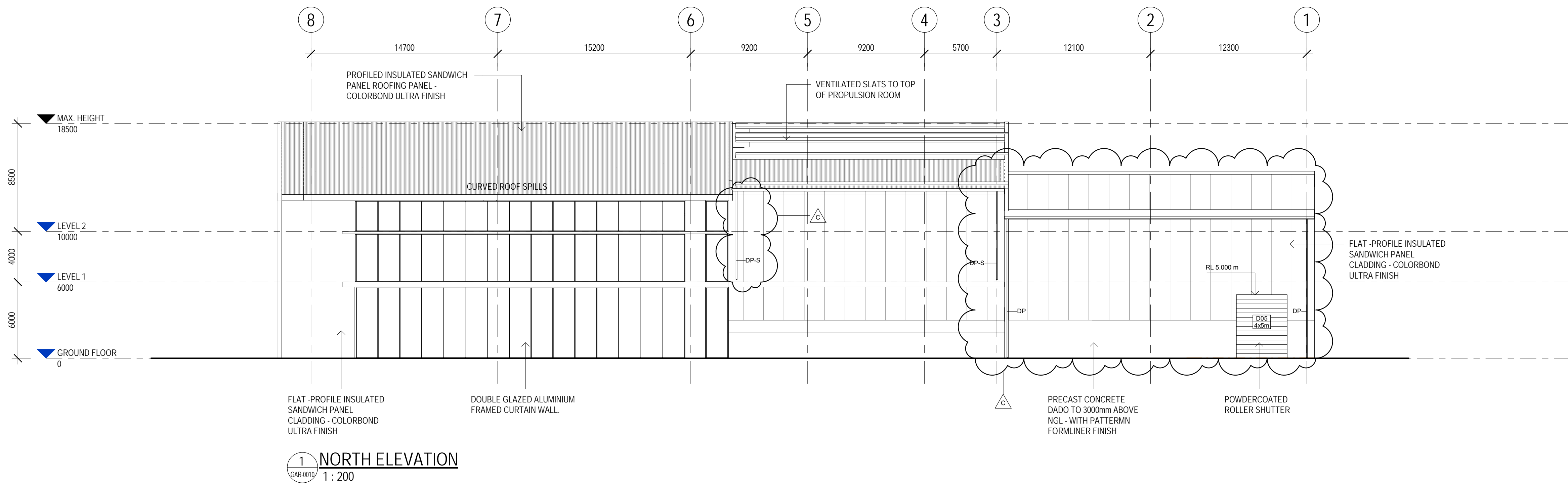
1 ELV-0004 - ELEVATION - WEST  
1 : 100



NOT FOR CONSTRUCTION

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				DRAFTING CHECK	E. MACKINNON		 <b>Australian Government</b> Department of Defence Capability Acquisition and Sustainment Group	 <b>NAVAL GROUP</b>	 <b>KBR</b> Kellogg Brown & Root Pty Ltd ABN 91 007 660 317	THIS DOCUMENT CONTAINS INTELLECTUAL PROPERTY RIGHTS OWNED BY OR LICENSED TO THE CLIENT AND DESIGN SERVICES CONSULTANT, AND MUST NOT BE REPRODUCED OR DISCLOSED OTHER THAN IN ACCORDANCE WITH THE DESIGN SERVICES CONTRACT, DESIGN SERVICES SUBCONTRACT AND SUBCONSULTANT DEED OF COVENANT BETWEEN THE CLIENT, DESIGN SERVICES CONSULTANT AND DESIGN SERVICES SUBCONSULTANT.	FSM SHIPYARD BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE CANTEEN & CHANGE ROOM - ARCHITECTURAL ELEVATIONS	E				
			INDEPENDENT CHECK													
E	ISSUED FOR CDR	02/07/2018	TECHNICAL APPROVAL													
D	ISSUED FOR INFORMATION (WIP)	07/06/2018	PROJECT APPROVAL													
C	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL	S. BATER												
B	ISSUED FOR REVIEW	27/04/2018	CLIENT APPROVAL													
A	ISSUED FOR REVIEW	29/03/2018	CLIENT APPROVAL													

 <b>aurecon</b>	 <b>Hames Sharley</b>	DRAWING SCALE 1 : 100	ORIG. SIZE A1	DRAWING No. AED752-DW-012-AR-ELV-0002	REVISION E
		DRAFTER: M.STEELE			



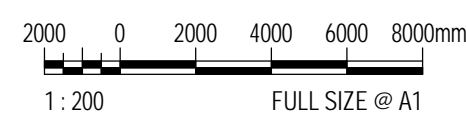
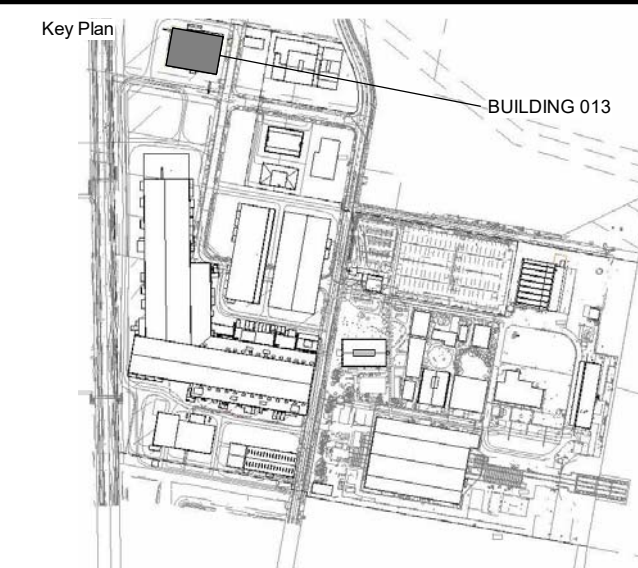
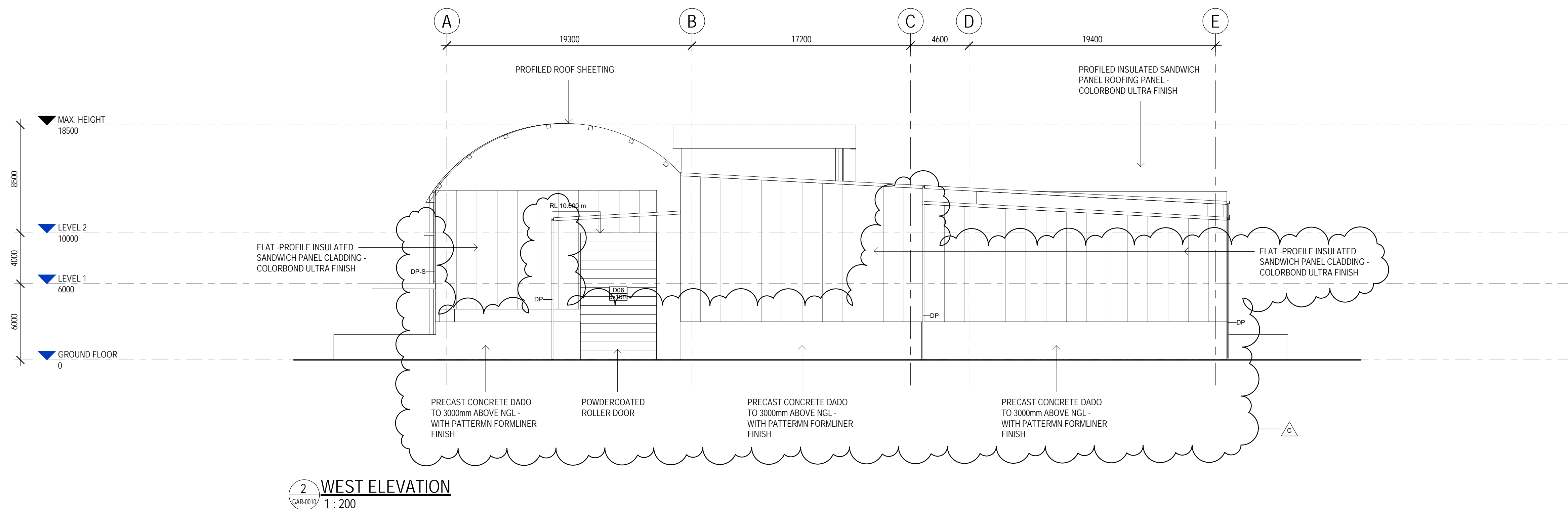
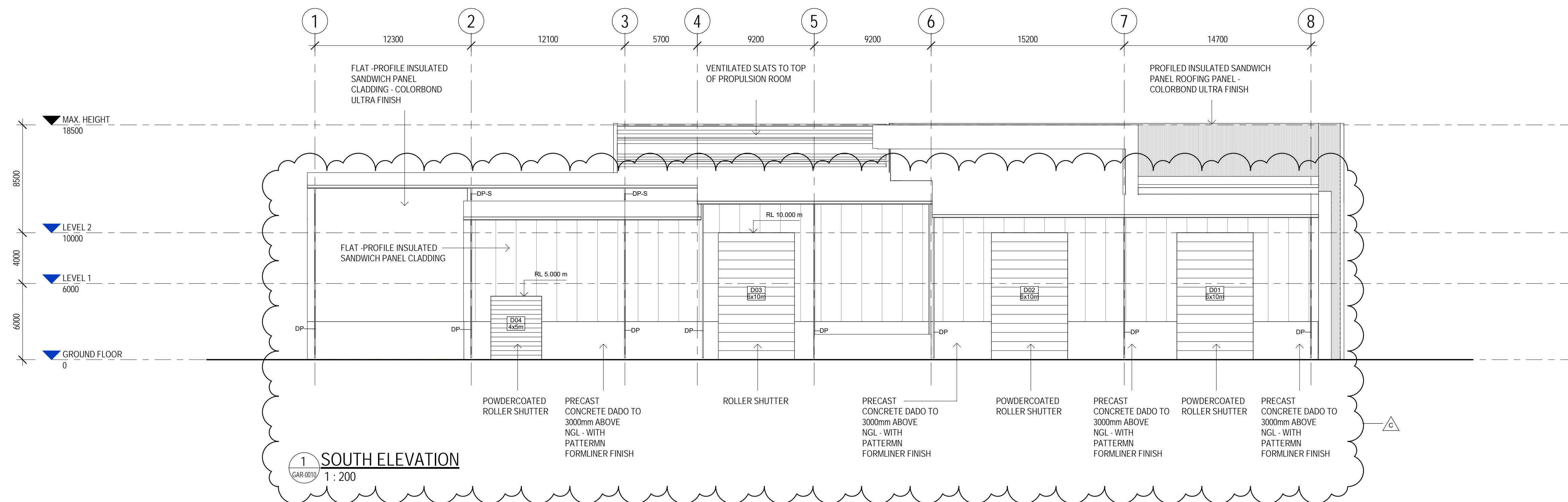
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			ORIGINATE/DESIGN	P.SCHWERZEL								
			INDEPENDENT CHECK									
			TECHNICAL APPROVAL									
C	ISSUED FOR CDR	02/07/2018	PROJECT APPROVAL	S.BATER								
B	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL									
A	ISSUED FOR REVIEW	17/04/2018										






 Australian Government Department of Defence Capability Acquisition and Sustainment Group		 Kellogg Brown & Root Pty Ltd ABN 91 007 660 317	 Hames Sharley	DRAWING SCALE 1:200 DRAFTER: L.VADNERE	ORIG. SIZE A1	THIS DOCUMENT CONTAINS INTELLECTUAL PROPERTY RIGHTS OWNED BY OR LICENSED TO THE CLIENT AND DESIGN SERVICES CONSULTANT, AND MUST NOT BE REPRODUCED OR DISCLOSED OTHER THAN IN ACCORDANCE WITH THE DESIGN SERVICES CONTRACT, DESIGN SERVICES SUBCONTRACT AND SUBCONSULTANT DEED OF COVENANT BETWEEN THE CLIENT, DESIGN SERVICES CONSULTANT AND DESIGN SERVICES SUBCONSULTANT.	DISCLAIMER
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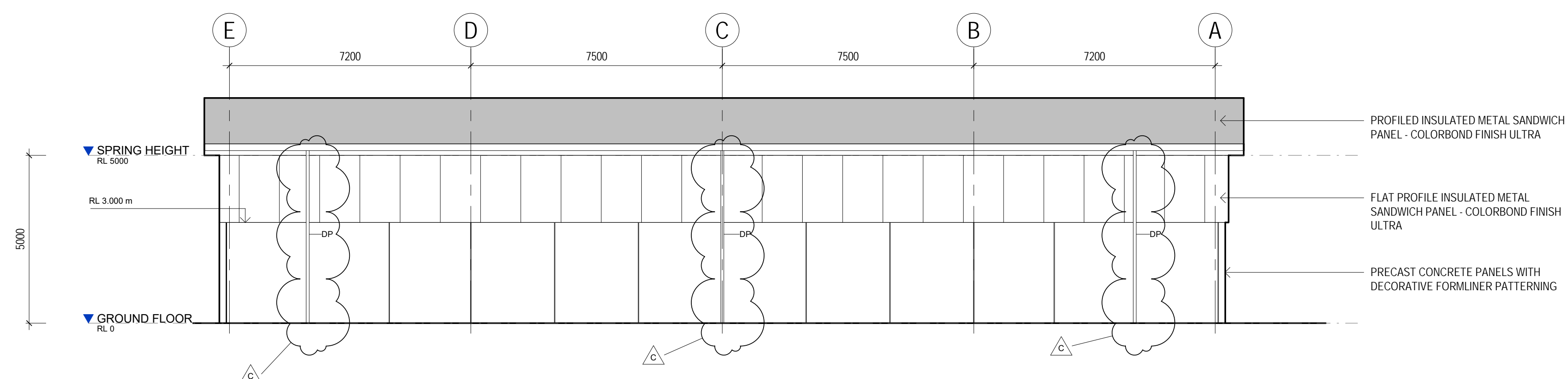
TITLE FSM SHIPYARD BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE PLATFORM LAND BASED TEST FACILITY - ARCHITECTURAL ELEVATIONS		DRAWING No. AED752-DW-013-AR-ELV-0001	REVISION C
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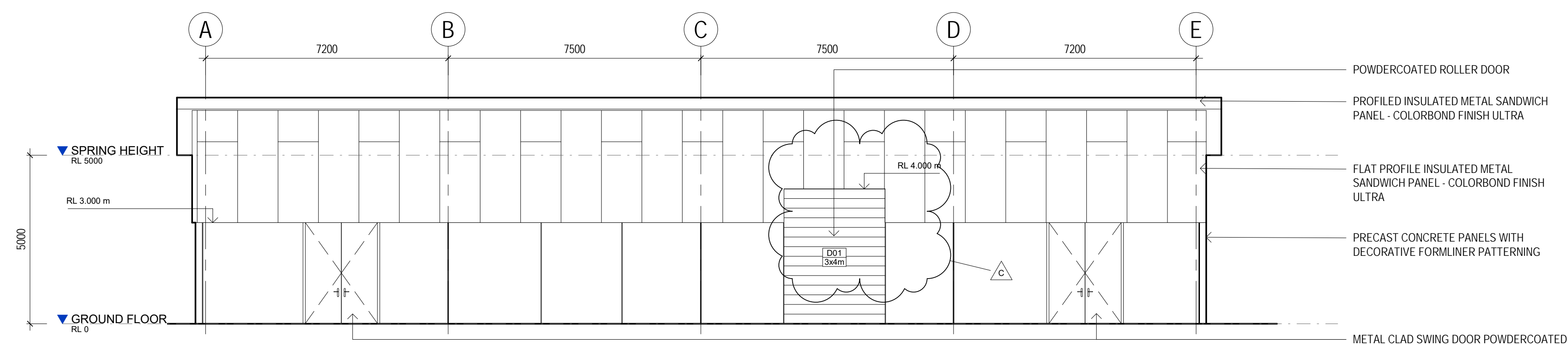


NOT FOR CONSTRUCTION

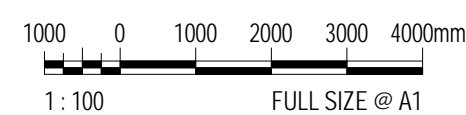
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			INDEPENDENT CHECK									
			TECHNICAL APPROVAL									
C	ISSUED FOR CDR	02/07/2018	PROJECT APPROVAL	S.BATER								
B	ISSUED FOR DRAFT CDR	18/05/2018	CLIENT APPROVAL									
A	ISSUED FOR REVIEW	17/04/2018					 <b>aurecon</b>	 <b>Hames Sharley</b>	DRAWING SCALE 1 : 200 DRAFTER: L.VADNERE	ORIG. SIZE A1	DRAWING No. AED752-DW-013-AR-ELV-0002	



1 ELV-0001 - ELEVATION - NORTH  
PLN-0001 1 : 100



2 ELV-0002 - ELEVATION - SOUTH  
PLN-0001 1:100



NOT FOR CONSTRUCTION

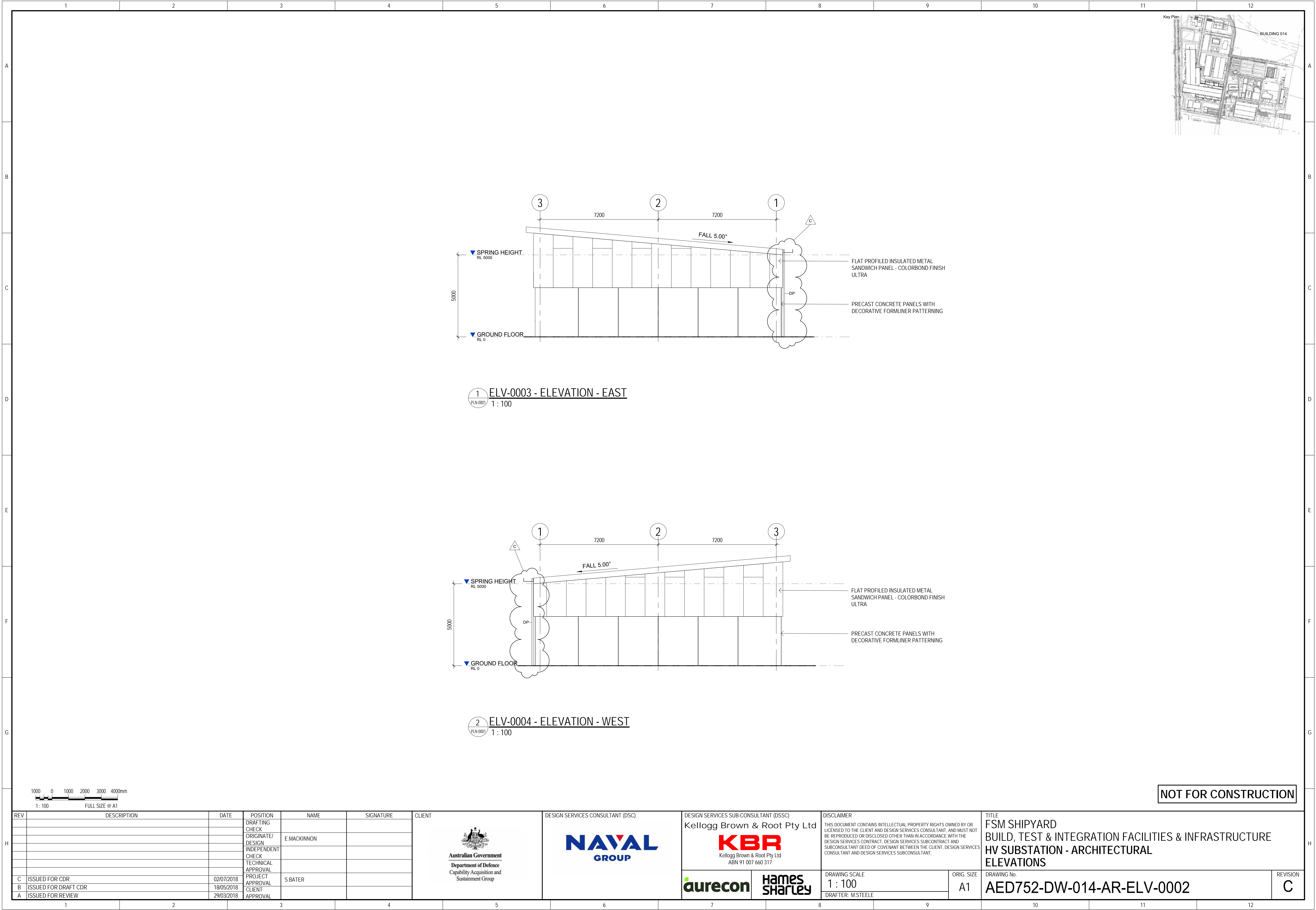
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				DRAFTING CHECK ORIGINATE/ DESIGN	E.MACKINNON		 <b>Australian Government</b> Department of Defence Capability Acquisition and Sustainment Group	 <b>NAVAL GROUP</b>	 <b>KBR</b> Kellogg Brown & Root Pty Ltd ABN 91 007 660 317	THIS DOCUMENT CONTAINS INTELLECTUAL PROPERTY RIGHTS OWNED BY OR LICENSED TO THE CLIENT AND DESIGN SERVICES CONSULTANT, AND MUST NOT BE REPRODUCED OR DISCLOSED OTHER THAN IN ACCORDANCE WITH THE DESIGN SERVICES CONTRACT, DESIGN SERVICES SUBCONTRACT AND SUBCONSULTANT DEED OF COVENANT BETWEEN THE CLIENT, DESIGN SERVICES CONSULTANT AND DESIGN SERVICES SUBCONSULTANT.	FSM SHIPYARD BUILD, TEST & INTEGRATION FACILITIES & INFRASTRUCTURE HV SUBSTATION - ARCHITECTURAL ELEVATIONS	REVISION <b>C</b>				
			INDEPENDENT CHECK													
			TECHNICAL APPROVAL													
			PROJECT APPROVAL													
C	ISSUED FOR CDR	02/07/2018	CLIENT APPROVAL	S.BATER				 <b>aurecon</b>	 <b>Hames Sharley</b>	DRAWING SCALE 1 : 100 DRAFTER: M.STEELE	ORIG. SIZE A1	DRAWING No. <b>AED752-DW-014-AR-ELV-0001</b>				
B	ISSUED FOR DRAFT CDR	18/05/2018														
A	ISSUED FOR REVIEW	29/03/2018														

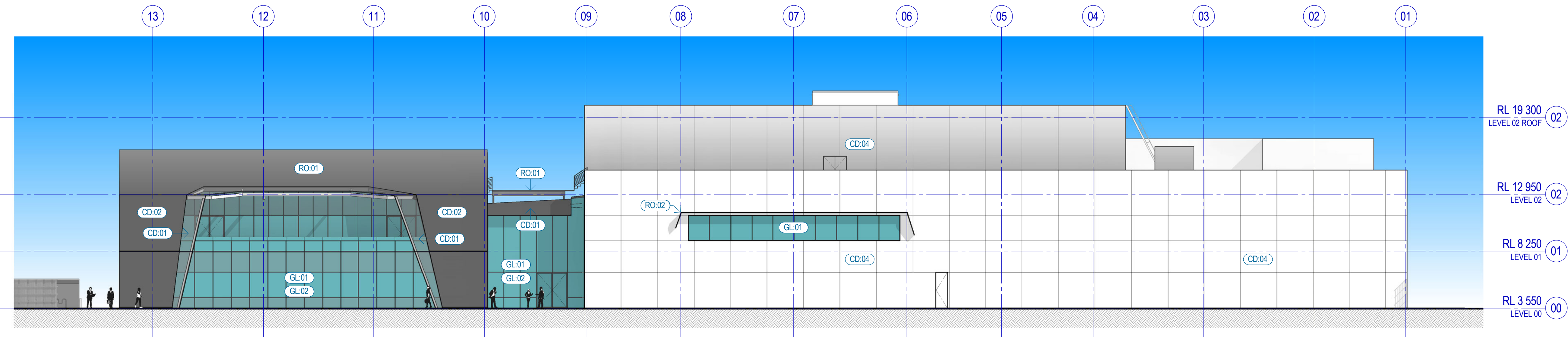


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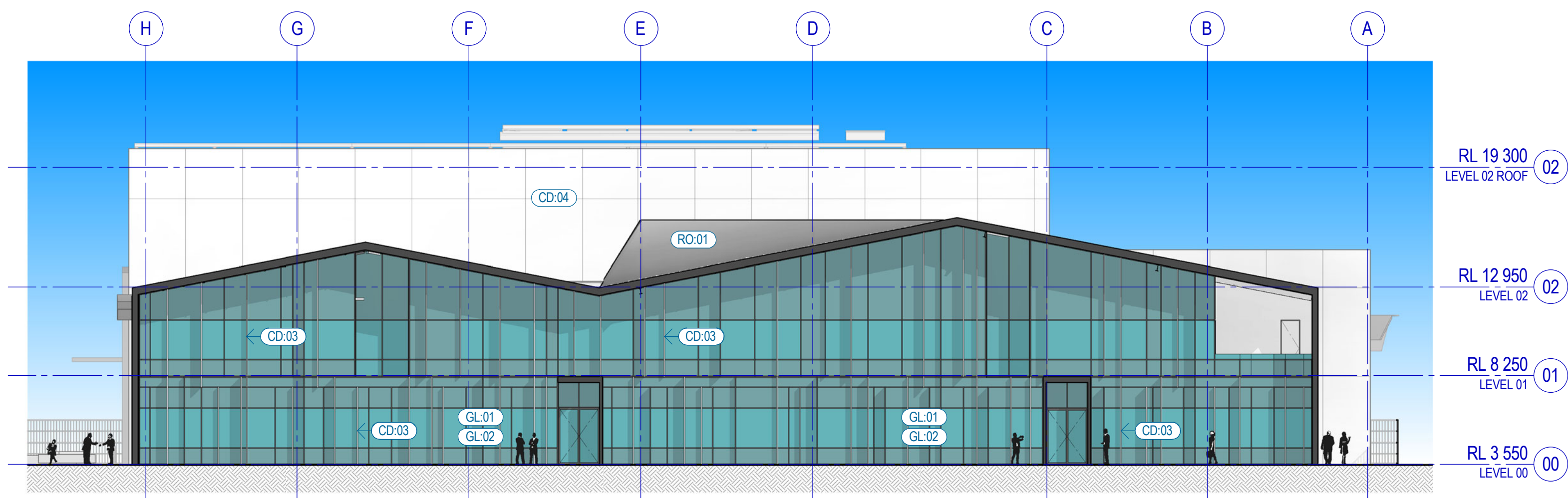
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1 NORTH ELEVATION  
SCALE 1 : 200



2 EAST ELEVATION  
SCALE 1 : 200

#### AMENDMENTS:

REV	N	DATE	DESCRIPTION	APPROVED
A	13/12/17	PRELIMINARY ISSUE FOR LMA REVIEW	DLK	
B	10/01/18	30% CONCEPT DESIGN REPORT	DLK	
C	19/01/18	30% CONCEPT DESIGN REPORT FOR COA	DLK	

CLIENT:



COMBAT SYSTEM INTEGRATOR:



LEAD CONSULTANT:



VERIFY DIMENSIONS AND LEVELS ON SITE BEFORE SETTING OUT. DO NOT SCALE. REFER TO FIGURED DIMENSIONS - IN mm UNLESS OTHERWISE STATED.

PRELIMINARY  
NOT FOR CONSTRUCTION  
UNCLASSIFIED

DEFENCE PROJECT:  
DESIGN SERVICES CONTRACT

PROJECT TITLE:  
LOCKHEED MARTIN AUSTRALIA  
COMBAT SYSTEM PHYSICAL INTEGRATION  
AND TEST FACILITY

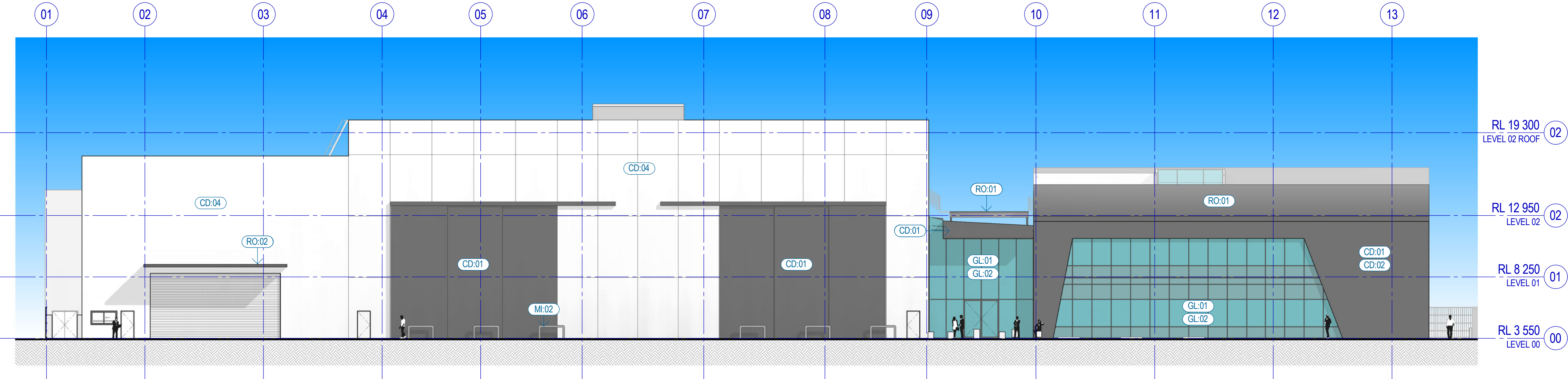
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A1 LCA-12910-AR-6000

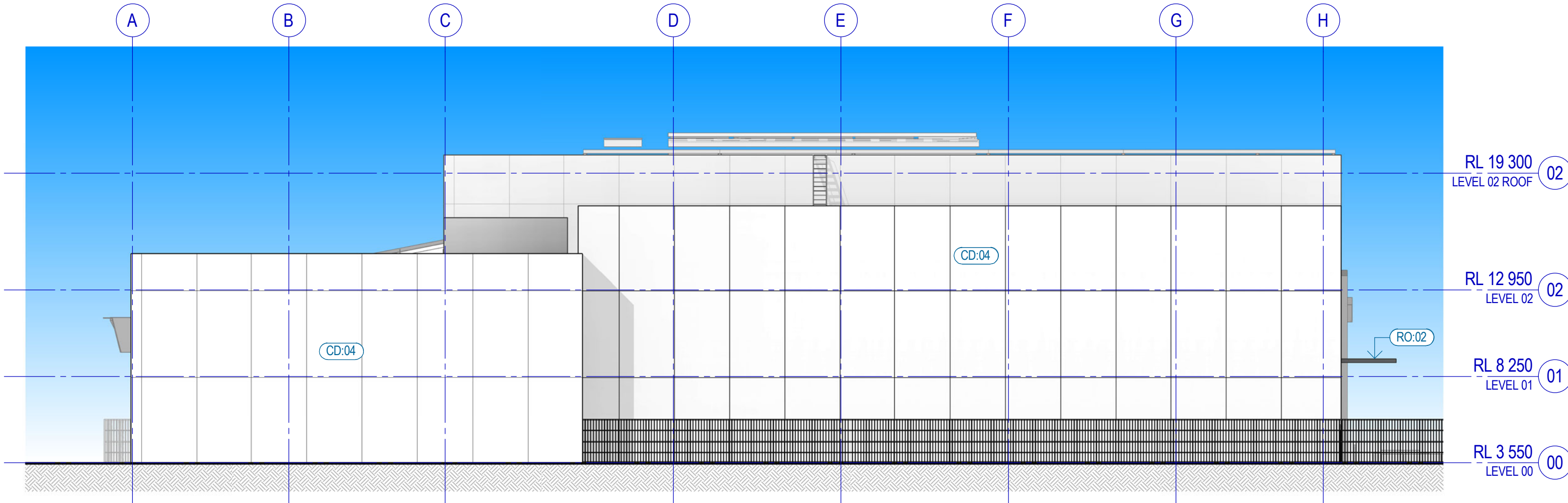
DRAWING  
ARCHITECTURAL SERVICES  
CS-PIF  
ELEVATIONS - NORTH AND EAST

DEFENCE EWP	SITE No:	ASSET No:	CONT. KEY:	CONT. REF:
No:	No:	No:	WBA	140287
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NN	NN	KM	SU	C





1 SOUTH ELEVATION  
SCALE 1:200



2 WEST ELEVATION  
SCALE 1:200

AMENDMENTS:			
REV	N	DATE	DESCRIPTION
A	1	13/12/17	PRELIMINARY ISSUE FOR LMA REVIEW
B	2	10/01/18	30% CONCEPT DESIGN REPORT
C	3	19/01/18	30% CONCEPT DESIGN REPORT FOR COA
APPROVED			
DLK			
DLK			
DLK			



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SCALEBAR 1:200

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**PRELIMINARY**  
NOT FOR CONSTRUCTION  
UNCLASSIFIED

DEFENCE PROJECT:  
DESIGN SERVICES CONTRACT

PROJECT TITLE:  
LOCKHEED MARTIN AUSTRALIA  
COMBAT SYSTEM PHYSICAL INTEGRATION  
AND TEST FACILITY

SHEET SIZE: DRAWING NO.  
A1 LCA-12910-AR-6001

DRAWING ARCHITECTURAL SERVICES CS-PIF ELEVATIONS - SOUTH AND WEST			
DEFENCE EWP	SITE No:	ASSET No:	CONT. KEY:
No:	No:	No:	WBA
140287			
DRAWN	DESIGNED	CHECKED	APPROVED
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			REVISION
			C





F

Constructing Environment  
Management Plan (CEMP)

## Appendix F

### Constructing Environment Management Plan (CEMP)



**Future Submarine Program – Early Works**

**Construction Environmental Management Plan**

**Naval Group**

**31 July 2018**

**Revision: Final**

**Reference: 501873**

*Bringing ideas  
to life*

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Document control			aurecon
Report title	Construction Environmental Management Plan		
Document ID	501873-REP-004 Future Submarine Program – Early Works CEMP	Project number	501873
Client	Naval Group		
Current revision	Final		

Approval			
Author signature		Approver signature	
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# 1 Introduction

## 1.1 Introduction

This Document has been prepared as a supplementing component of the Development Application for the Future Submarine Program (FSP) Stage 1 Early Works program, within the Techport Australia precinct at Osborne, South Australia.

The Construction Environmental Management Plan (CEMP) identifies the environmental protection measures to be implemented by all personnel and contractors during the implementation of the FSB Stage 1– Early Works. These measures are aimed at preventing or minimising potentially adverse environmental impacts arising from project activities and achieving compliance with environmental legislative and regulatory requirements.

Aurecon has been commissioned by Naval Group to prepare a CEMP as part of the Development Approval Report for the FSP Stage 1 Early Works. This CEMP document will contribute to the first of four Development Application (DA) Submissions, as outlined in Section 1.2 of the Development Application Report – *Future Submarine Program Stage 1 Early Works*. In accordance with the aforementioned ‘staged’ submission plan, this Document has been written in full relevance to the FSP Stage 1 Early Works Development Application only. Subsequent DA Submissions and their respective CEMPs are anticipated to be more comprehensive in detail (relevant to the Works) and expand on the potential environmental impacts and the relevant mitigation and management strategies.

## 1.2 Purpose of this Document

This Document has been prepared in accordance with the *Construction Environmental Management Plan Industry Guideline* (EPA, South Australia), for the purposes of providing a clear environmental statement to the Development Assessment Commission.

This CEMP addresses the relative environmental considerations identified in the Guideline and outlines the relevant management strategies for potential impacts to:

- Air emissions
- Noise and vibration
- Site contamination
- Erosion and stormwater
- Waste



### 1.3 Project Overview

This section outlines a general summary of the FSP proposal for the purposes of the CEMP. A detailed description of the Project can be found within Section 1 of the FSP - Early Works Development Application Report.

The Future Submarine (FS) Project (the Project) will facilitate the modernisation and successful delivery of the Future Submarine Program. The FS Project is designated to developing Osborne's future submarine building capability and is a significant economic project for the State of South Australia and for the future naval shipbuilding industry in Australia.

The Project will construct 12 Short Finned Barracuda Class submarines with construction expected to extend into the late 2040s to 2050 timeframe. These submarines will replace the aging Collins Class submarines that were also constructed at the Osborne facility. This sizable investment in infrastructure and facilities at Osborne will see the area become a premier surface ship and submarine construction facility and maximises the efficiencies of reusing suitable existing facilities while providing further development for the precinct.

The new facilities are primarily located to the west of Mersey Road and are focused on the fabrication, construction, assembly and testing of the new submarines and their associated components. Accordingly, the facilities are typically large, open workspaces with supporting infrastructure to facilitate the fabrication of large hull sections and the fabrication of raft sections.

The surface area around and between the buildings will be have a bitumen overlay connecting the facilities and enabling transport of large items such as steel shipments, submarine cans or rafts.

It is to be noted that car parking provisions are currently planned to the west of the rail line to accommodate additional personnel. This has been handled through a regulatory exemption.

The FS Project will also modernise existing facilities and build new facilities to the east of Mersey Road. A Site Plan of the overall intended development on the Subject Land is provided in **Appendix A** of the FSP - Early Works Development Application Report.

The proponent recognises the scale and complexity of this project and, as such, is seeking to stage the development into five discrete packages of work for development assessment;

- Stage 1 – A development application to commence early works onsite (primarily earthworks and piling)
- Stage 2 – A development application for New Buildings to the West of Mersey Road
- Stage 3 – A development application for New Buildings to the East of Mersey Road
- Stage 4 – A development application for the wharf extension and associated marine based works.

This development application encompasses the proposed Early Works that will support the overarching FS project.

## 1.4 FSP Project Team and Outstanding Roles

This section is relevant to the specific assignment of actions and responsibilities under this CEMP. As of the date of preparing this CEMP, the known Project Parties and their Roles are:

- Australian Naval Infrastructure (ANI) – the Project Sponsor and Proposal Applicant
- Naval Group Australia – Design Services Consultant
- KBR – Design Services Subconsultant Lead
- Aurecon Australasia Pty Ltd – Design Consultant

As of the date preparing this CEMP, the following parties relative to the current Environmental Management framework have yet to be procured and / or assigned:

- Project Manager and Contract Administrator (PMCA); manages and directs the Project as per the Sponsor's specifications and requirements
- Managing Contractor – Undertakes the physical construction works; comprising such roles but not limited to:
  - Site Manager
  - Construction Environmental Manager
  - Site WH&S Officer
  - Site Supervisor(s)
- Emergency Incident (WH&S) Point of Contact
- Environmental Incident Representative (EIR)



# 2 Environmental Objectives

## 2.1 Environmental Objectives

The principle objective of this CEMP is to detail the environmental management framework, practices and strategies that will be followed during the project construction works. This process is critical in minimizing potential environment impacts that may be incurred by the Project, and, in identifying the relevant environmental statutory obligations in which the Project Team will be required to fulfil.

All contractors will adhere to the outlined management practices during construction works, including all related and supplementary plans and conditions of Development Consent. Additionally, this Document (and its subsequent submissions) will provide the framework for the Contractor in developing their own CEMPs (where relevant and required) relative to the Scope of Works.

The key environmental objectives for the Project are:

- Achieve compliance with all relevant legislative regulations, local council conditions and any additional customer requirements relating to the environment
- Minimise impacts to the community, i.e. caused by noise and vibration
- Prevent pollution and environmental contamination
- Minimise waste through efficient material and plant utilisation, plus re-use or recycling of material when appropriate
- Respond promptly and appropriately to any emergency situation causing adverse environmental impacts
- Support the principles of Ecologically Sustainable Development



# 3 Proposed Works

The details of the FSP – Early Works Proposal are contained in detail within Section 4 of the Development Application.

# 4 Legislative Requirements

## 4.1 Legislative Framework

The following section outlines the key Legislation and other Regulations relative to the FSP – Early Works Proposal.

### 4.1.1 *Environmental Protection Act 1993*

The *Environment Protection Act 1993* (the Act) is the primary pollution control legislation in South Australia. Section 25 of the Act requires a 'general environmental duty' of all persons undertaking an activity that may pollute to take all reasonable and practicable measures to prevent or minimise any resulting environmental harm. Specific offences also exist under the Act including for:

- Causing serious or material environmental harm or an environmental nuisance (including noise) by polluting the environment
- Failing to inform the South Australia Environment Protection Authority (EPA) of an incident that has caused, or threatens to cause, serious or material environmental harm as soon as reasonably practicable
- Failing to notify the EPA of site contamination that threatens or affects groundwater.

### 4.1.2 *Environmental Protection (Water Quality) Policy 2015*

The *Environment Protection (Water Quality) Policy 2015* (Water Quality Policy) outlines the structure for regulating and managing the quality of South Australian inland surface waters, marine waters and groundwaters. The Policy also functions as a key regulatory framework in preventing stormwater pollution.

Under Division 2 - Clauses 10 and 11, the Policy states which pollutants cannot be discharged into water-sources, or, which pollutants cannot be stored *near* water sources (Class 1 Pollutants). These items are detailed in full within Schedules 1 and 2 of the Policy. Such items include but are not limited to:

- Asbestos
- Concrete waste
- Brick, bitumen or concrete cutting wastewater
- Hard waste
- Hazardous waste

#### **4.1.3 Environmental Protection (Noise) Policy 2007**

Part 6 of Division 1 of the *Environment Protection (Noise) Policy 2007* sets out mandatory noise control provisions that must be applied when undertaking construction activities to ensure compliance with the General Environmental Duty under Section 25 of the *Environment Protection Act 1993*, including:

- Details of the days and times during which noisy works can be undertaken
- Reasonable and practicable noise mitigation measures associated with certain activities
- The responsibility of those responsible for the activity to not commence works if there is likely to be an adverse impact on amenity
- The noise levels above which construction activities are considered to pose an adverse impact.

#### **4.1.4 National Environmental Protection (Ambient Air Quality) Measure**

The *National Environment Protection (Ambient Air Quality) Measure 2003* (NEPM) supplements the *Environment Protection Act 1993* and provides guidance and methods for measuring and monitoring ambient air quality to promote human health and well-being.

With regards to construction impacts on ambient air quality, the most relative part of the NEPM is in relation to dust particulates. The Air Quality NEPM details that particulate matter emitted as  $PM_{10}$  do not exceed  $50 \mu g/m^3$  averaged over 1 day on more than 5 days each year and particles emitted as  $PM_{2.5}$  do not exceed  $25 \mu g/m^3$  averaged over 1 day and  $8 \mu g/m^3$  averaged over 1 year.

#### **4.1.5 National Environmental Protection (Assessment of Site Contamination) Measure 1999**

The *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM, as amended 2013), which provides a nationally consistent approach to site contamination assessment, forms an Environment Protection Policy under the Act.

Relevant guidelines for management of excavated soils include:

- EPA Guidelines: Site Contamination – Acid Sulphate Soil Materials (dated November 2007);
- EPA Guideline: Environmental Management of On-site Remediation (dated March 2006)
- EPA Standard for the Production and Use of Waste Derived Fill (dated January 2010)
- EPA draft Guidelines for Solid Waste: Criteria for Assessment, Classification and Disposal of Waste (dated September 2009)
- EPA Guideline: Current criteria for the classification of waste - including Industrial and Commercial Waste (Listed) and Waste Soil (dated March 2010).



#### **4.1.6 Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government**

The *Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government* (EPA, 1998) is intended to inform government agencies and their contractors of their 'general environmental duty' with respect to stormwater under the Act. The code provides for the preparation of a Soil Erosion and Drainage Management Plan (SEDMP) where there is a risk of significant sediment pollution to adjoining lands or receiving waters. In addition, Stormwater Pollution Prevention Code of Practice for the Building & Construction Industry has been developed for soil erosion & drainage management plans.

#### **4.1.7 EPA Standard for the Production and Use of Waste Derived Fill (January 2010)**

This Standard describes the information and processes required by the EPA in order to support the beneficial reuse of a specified range of wastes specifically recovered for use as fill, including soils. Clause 4 of the *Environment Protection (Waste to Resources) Policy 2010* specifies that a waste remains a waste unless it meets a standard approved in writing by the EPA. Thus, to ensure the import or export of waste soils for reuse is not considered disposal of waste, the requirements of the Standard need to be implemented. For classification of waste soil and industrial listed wastes, reference should be made to EPA Guideline: *Current criteria for the classification of waste - including. Industrial and Commercial Waste (Listed) and Waste Soil* (March 2010, publication 889/10).

#### **4.1.8 EPA Guidelines 080/07: Bunding and Spill Management (June 2007)**

This guideline applies to facilities that use or store liquids above ground and provides information on bunds or spill containment systems to minimise the risk of environmental harm from liquid spills and leaks.

#### **4.1.9 Development Application (conditions of approval)**

The conditions of approval associated with the Development Approval will require a construction environment management plan (CEMP) to be prepared and implemented during construction works. The CEMP must be prepared in accordance with the EPA Industry Guideline 'Construction environmental management plans (CEMP)' issued November 2016 and be submitted to the reasonable satisfaction of the EPA prior to construction commencing.

#### **4.1.10 Cultural Heritage**

The desktop review of the Register of Aboriginal Sites and Objects indicated that there were no registered Aboriginal sites, objects or remains known within the Subject Land. However, during early works if an Indigenous site, objects or remains are identified a response procedure will be implemented to secure the site, contact relevant officials (police and/or Department of State Development – Aboriginal Affairs and Reconciliation).



#### **4.1.11 European Heritage**

The Heritage Places Database confirms no European heritage items in proximity to the Subject Land. The closest heritage place is local heritage class Lefevre Recreation Centre (former 'Glen Arif' house) located at 537-541 Victoria Road, Osborne which is approximately 800metres away.

However, during early works if any European site, objects are identified a response procedure will be implemented to secure the site, contact relevant officials from Heritage SA.

# 5 Organisational Roles and Responsibilities

## 5.1 Responsibilities

Table 2 below outlines the key Project roles and their responsibilities related to the implementation of this Construction Environment Management Plan (CEMP).

Table 1 - Key Roles and Responsibilities

Person(s) Responsible	Environmental Responsibilities
Project Manager / Contract Administrator (PMCA)	<ul style="list-style-type: none"><li>■ Act as the principal point of contact concerning the environmental performance of the Project</li><li>■ Ensuring that the construction of the Project complies with relevant legislation, approvals, and procedures</li><li>■ Manage overall Project scheduling</li><li>■ Require works to cease if required until environmental incidents of concern are adequately solved</li><li>■ Consider and advise on matters identified in the CEMP, and any relevant licences and approvals related to the environmental performance and impacts of the Project during construction</li><li>■ Support the Environmental Manager (when appointed) in managing the environmental performance of the Project</li></ul>
Design Manager	<ul style="list-style-type: none"><li>■ Ensure that all engineering requirements of the Project meet the fundamental Project design and fulfil safety and environmental criteria;</li><li>■ Ensure that all materials, equipment and installations utilized in the works fulfil the Projects required specifications;</li><li>■ Conduct routine inspections, testing and reviews to ensure that Project quality targets are being achieved;</li><li>■ Ensure that all subcontract design work is fulfilled to the specifications as scoped;</li><li>■ Ensure that all design and engineering documentation is checked, verified and approved.</li></ul>

Person(s) Responsible	Environmental Responsibilities
Managing Contractor	<ul style="list-style-type: none"> <li>■ Undertake all construction activities in accordance with relevant legislation and policy guidelines, management plans, statutory and contract requirements;</li> <li>■ Implement the appropriate environmental management and safety management strategies in line with the CEMP;</li> <li>■ Ensure all contractors and sub-contractors are aware of the purpose and contents of the CEMP;</li> <li>■ Prepares and provides training material to contractors to ensure environmental policy is followed;</li> <li>■ Report any environmental incidents or near misses to the environmental delegates (when appointed)</li> <li>■ Periodically review the CEMP and forward any perceived shortcomings to the Project Manager for review</li> </ul>



# 6 Emergency and Incident Response

All emergencies at the proposed work site shall be managed in accordance with the Emergency Response Plan (to be finalized pending the full appointment of the Project Team). Site specific emergency procedures are to be developed by the Contractor upon Contract Award.

Table 3 details the emergency contact numbers applicable to the Project:

Table 2 - Emergency Contact Numbers

Contact	Person / Agency	Telephone
Emergency Services	Ambulance, Fire, Police	000
Local Medical Centre	Port Adelaide Medical Centre	08 8447 7384
Local Hospital	The Queen Elizabeth Hospital	08 8222 6000
Environmental Incident Representative (EIR)	TBA	TBA
EPA Pollution Hotline	EPA South Australia (24/7)	08 8204 2004
Fauna Rescue of SA	Wildlife Hotline (24/7)	08 8289 0896

## 6.1 Environmental Incident Management and Reporting

An environmental incident is an unplanned event which may occur as a result of works on-site or off-site and has the potential to cause adverse environmental impacts to the site and/or surrounding area (including the community). This may include incidents relating to noise, air quality, odour, uncontrolled stormwater run-off etc. or any other potential impact that may result in a community complaint. The general emergency response to environmental incidents is:

- Ensure site safety, move people from immediate area if safety risk is present
- The relevant Party controlling the site will ensure the incident is raised accordingly
- Take any practical steps to contain the hazard and prevent it from spreading

Reporting of environmental incidents shall be managed by the nominated Environmental Incident Representative (EIR) - which has yet to be appointed (typically by the PMCA). The EIR must be informed immediately of any environmental incidents that occur during the Project. The EIR shall report environmental incidents to Regulatory Authorities as required and a determination will be made regarding any required remedial action.

Following the occurrence of an incident, the PMCA will determine if the incident is likely to have a continued environmental impact if the construction works continues and will respond accordingly. Construction works at the affected area will only recommence on the approval of the PMCA.

**Environmental incident notifications must be made using the EPA Pollution Hotline: 8204 2004**



# 7 Environmental Inspections and Auditing

## 7.1 Inspections

Items identified as having the potential to cause adverse environmental impact will be subject to routine inspections, in conjunction with the regular Health and Safety inspections (to be outlined in the WH&S Plan – when developed).

Contractor Supervisors (upon appointment) will be required inspect their work areas on a daily basis and take any corrective action to address any potentially unsafe or environmentally unsatisfactory situation. Such occurrences shall be reported to the Site Manager who shall ensure that remedial actions are implemented appropriately.

## 7.2 Audits

Internal audits should be carried out during the pre-construction phase, before the construction work commences, and then at least at regular intervals while the construction work proceeds (inspection schedule to be finalized upon Contract Award). Upon completion of the construction works, a final audit should be performed as part of the Project handover.

An independent audit held by a Party other than the Managing Contractor should also be undertaken at routine intervals (this schedule has yet to be finalized).

The Construction Environmental Manager (upon appointment) is responsible for coordinating internal environmental site audits and inspections. An audit schedule shall be developed for the duration of the Project and submitted to the PMCA (upon Award) prior to the commencement of construction. Audits should be undertaken by a suitably qualified Environmental Manager, proficient in auditing environmental management systems under ISO 14001.

## 7.3 Non-Conformance and Corrective / Preventative Action

Non-conformances identified during environmental inspections and audits will be formally documented. Significant items should be included in the regular Project reporting structure.

Where possible, minor non-conformance items identified during inspections and audits should be rectified during the inspection and actions should be noted on the form.

Notable non-conformances and hazards identified during inspections will be formally documented, with appropriate corrective and preventive actions, and rectified within an appropriate and agreed time frame.



## 8 Management Review

This CEMP shall be formally reviewed by the Project Team and an Environmental Specialist when significant changes are made to the Project and on an annual basis for long-term projects.

# 9 Environmental Impact and Management Plans

## 9.1 Identification of Environmental Aspects, Impacts and Management Measures

Aurecon have identified that the FSP – Early Works proposal has the potential to impact on the environment during the site preparation and earthworks undertaken at the Osborne Naval Shipbuilding Precinct on the LeFevre Peninsula. The potential impacts to the environment during construction include:

- Dust emissions and increased vehicle and plant exhaust emissions impacting upon adjacent properties and affecting ambient air quality
- Surface stormwater runoff carrying excavated soil materials (as sediment) and impacting upon neighbouring properties; ultimately discharging into marine environments and stormwater drains;
- Noise and vibration levels exceeding EPA Policy and Guidelines
- Potential to cause site contamination and/or potential to exacerbate any existing site contamination

In order to mitigate environmental impact, measures have been incorporated into the design and construction methodology to ensure the following:

- Dust and vehicle exhaust emissions will not impact upon surrounding properties and will be in line with the requirements as defined in the *National Environmental Protection (Ambient Air Quality) Measure*
- The off-site impacts of erosion and sediment movement will be mitigated by managing any surface water run-off during construction
- Impacts from noises and vibration will not negatively impact upon surrounding properties and will be managed in accordance to the *Environmental Protection (Noise) Policy 2007*
- Site contamination is not caused or if already existing is not exacerbated

## 9.2 Air Quality Management Plan

### 9.2.1 Objectives

The principle objectives of the Air Quality Management Plan (AQMP) are:

- To effectively identify sources of air-borne contaminants, dusts and odour, and;
- Mitigate and manage any potential air quality impacts throughout the construction phases of the Project.

### 9.2.2 Preliminary Findings

With regards to the proposed construction activities included under the FSP – Early Works proposal, the following items have been found to have potential impacts on air quality:

- Construction activities such as earthworks and vehicular traffic may result in higher than normal dust emissions and air-borne particulate matter;
- Emissions from vehicle or machinery exhaust may impact upon air quality

### 9.2.3 Performance Criteria

Ensure that practical and feasible management strategies are in place to minimize dust produced during construction activities and provisions are made to minimize exhaust emissions on site.

### 9.2.4 Key Performance Indicators

The following KPI(s) will be monitored to ensure the efficacy of the AQMP:

- In accordance with the NEPM, air quality monitoring will be implemented as required to ensure that particulate matter emitted as  $PM_{10}$  do not exceed  $50 \mu\text{g}/\text{m}^3$  averaged over 1 day on more than 5 days each year and particles emitted as  $PM_{2.5}$  do not exceed  $25 \mu\text{g}/\text{m}^3$  averaged over 1 day and  $8 \mu\text{g}/\text{m}^3$  averaged over 1 year.
- The Works do not receive complaints regarding air quality, dust or odours, from:
  - The neighbouring community, including:
    - Operators of surrounding industrial enterprises;
    - Residential homeowners;
  - Key environmental stakeholders (i.e. EPA, Local Council)

### 9.2.5 Mitigation and Management Strategies

Table 3 (below) details the relevant Project aspects with potential impacts to air quality. The Table further outlines the appropriate mitigation measured that should be implemented and the party responsible for their implementation.

Table 3 - AQMP Mitigation and Management Strategies

Air Quality Management Plan – Mitigation and Management Strategies		
<b>1 - Dust</b>		
Aspect	Mitigation Measure	Responsibility
Vehicular Traffic	Vehicles should utilize pre-defined access roads wherever possible to minimize dust disturbance	Managing Contractor
	Site access routes that are regularly trafficked (periods in excess of 4 weeks) should be sealed as soon as practicable. This may comprise of a loose gravel seal, blue metal etc.	Managing Contractor
	Vehicle speed limits should be reduced on unsealed roads (~10km/h)	Managing Contractor
	Vehicles that carry dust producing materials should be adequately covered when accessing the Site	Managing Contractor
Dust Suppression	Water carts should be maintained on site during activities prone to generating dust (as required)	Managing Contractor



### Air Quality Management Plan – Mitigation and Management Strategies

	Areas of exposed soil surface subject to the Works should be watered down (as required) to minimise dust generation <ul style="list-style-type: none"> <li>The extent of watering may increase under high temperature conditions.</li> </ul>	Managing Contractor
	Activities prone to producing dust should be modified or suspended in high-wind events	Managing Contractor
Stockpiled Materials	All materials being stockpiled should be pre-dampened as required with key attention to exposed surfaces	Managing Contractor
	All long-term (>1 month) stockpiled materials prone to producing dust should be stabilized and/or covered accordingly	Managing Contractor
<b>2 – Vehicle and Machinery Exhaust</b>		
<b>Aspect</b>	<b>Mitigation Measure</b>	<b>Responsibility</b>
Machinery Condition	All vehicles, plant and machinery must be routinely maintained to minimize any visible smoke or excessive exhaust emissions	Managing Contractor
Operational Periods	Machinery / vehicles should be turned off whenever practicably possible to avoid excess exhaust production	Managing Contractor
<b>3 – Odours</b>		
<b>Aspect</b>	<b>Mitigation Measure</b>	<b>Responsibility</b>
Presence of Odours	In the event that odour generating activities are impacting upon site personnel and neighbouring properties, the activity shall be suspended and modified accordingly	Managing Contractor
<b>4 – Monitoring Requirements</b>		
<b>Aspect</b>	<b>Mitigation Measure</b>	<b>Responsibility</b>
Visual inspections	The site should be continually monitored for any notable dust generation during the Works	All personnel on Site
Acknowledging Complaints	Any complaints put forward by Project Stakeholders and the neighbouring community concerning impacts to air quality must be followed up and reviews undertaken of the contributing activities	PMCA
Machinery Emissions Testing	Visual emissions checks should be undertaken on any plant arriving on Site, and routinely (once per month) for any plant remaining on Site for prolonged periods.	Managing Contractor

## 9.3 Soil Erosion and Stormwater Management Plan

### 9.3.1 Objectives

The principle objectives of the Soil Erosion and Drainage Management Plan (SESMP) are:

- To effectively identify Project elements prone to contribute to soil erosion, and those that impact on storm-water drainage
- Mitigate and manage any aspects of erosion and stormwater drainage throughout the construction phases of the Project.

### 9.3.2 Preliminary Findings

With regards to the proposed construction activities included under the FSP – Early Works proposal, the following considerations have been made:

- The proposed Site is relatively flat, as such there is unlikely to be adverse soil erosion impacting upon the Scope of Works;
  - The key consideration concerning soils will be controlling sedimentation associated with excavation and potential stockpiling activities, and, isolating any sediment run-off to the Site
- The existing civil infrastructure surrounding the Site provides includes an established storm-water drainage system, as such, it is unlikely to see notable amounts of external stormwater runoff entering the site.
  - Management practices will be required in order to restrict stormwater runoff generated on Site from egressing into neighbouring properties.

### 9.3.3 Performance Criteria

Ensure that practical and feasible management strategies are in place to minimize soil-degradation and sedimentation and that stormwater runoff is appropriately contained on site.

### 9.3.4 Key Performance Indicators

The following KPI(s) will be monitored to ensure the efficacy of the SESMP:

- Surface stormwater runoff (and sediments) from the Site will not be discharged onto neighbouring properties;

### 9.3.5 Mitigation and Management Strategies

Table 4 (below) details the relevant Project aspects with potential impacts concerning soil erosion and drainage. The Table further outlines the appropriate mitigation measures that should be implemented and the party responsible for their implementation.

Table 4 - SESMP Mitigation and Management Strategies

Soil Erosion and Stormwater Management Plan – Mitigation and Management Strategies		
<b>1 – Erosion</b>		
Aspect	Mitigation Measure	Responsibility
Sedimentation Control	<p>Ensure that areas prone to run-off and high sediment loads (with key attention to areas abutting neighbouring properties) are appropriately provisioned with sedimentation control measures. This may include:</p> <ul style="list-style-type: none"> <li>■ Sandbags</li> <li>■ Silt fences,</li> <li>■ Berms</li> </ul>	Managing Contractor
Earthworks	The works should be undertaken in the least invasive manner possible (wherever practicable) to avoid the extent of unconsolidated soils on site at a given time.	Managing Contractor
Stockpiles	<p>Soil stockpiles should be cleared identified and:</p> <ul style="list-style-type: none"> <li>- Not be located in the vicinity of highly trafficked areas or areas prone to disturbance;</li> <li>- Must allow for adequate access for transport and the management of each stockpile;</li> </ul>	Managing Contractor
	Any excavated soils stored on site must be appropriately stockpiled and covered using an appropriate liner, as to avoid additional sedimentation.	Managing Contractor
<b>2 – Stormwater Management</b>		
Aspect	Mitigation Measure	Responsibility
Storm-water Diversion and Control	A stormwater diversion channel (or equivalent) should be provisioned to allow for adequate containment of stormwater runoff generated on Site	Managing Contractor
	Suitable control measures should be implemented throughout minor drainage lines to act as sediment traps and reduce the runoff velocities	Managing Contractor
<b>3 – Monitoring Requirements</b>		
Aspect	Mitigation Measure	Responsibility

Soil Erosion and Stormwater Management Plan – Mitigation and Management Strategies		
Visual inspections	The site should be continually monitored for any notable sedimentation or stormwater discharge on Site	All personnel on Site
Acknowledging Complaints	Any complaints put forward by Project Stakeholders and the neighbouring community concerning sedimentation and discharge must be followed up and reviews undertaken of the contributing activities	PMCA

## 9.4 Noise and Vibration Management Plan

### 9.4.1 Objectives

The principle objectives of the Noise and Vibration Management Plan (NVMP) are:

- To identify instances in which construction noise or associated vibration may impact upon the Public Realm;
- To manage and mitigate noise and vibration to controlled levels, with respect to the *Environment Protection (Noise) Policy 2007* (the Policy).

### 9.4.2 Preliminary Findings

With regards to the proposed construction activities included under the FSP – Early Works proposal, the following considerations have been made:

- The bulk of construction noise will be associated with heavy machinery operation during the preparation of the Site and the installation of concrete foundations to support the superstructure.

### 9.4.3 Performance Criteria

Ensure that practical and feasible management strategies are in place to minimize construction noise and vibration associated with the Works.

Additionally, Works are to be carried out in accordance with the prescribed hours and requirements as detailed in the *Environment Protection (Noise) Policy 2007*.

### 9.4.4 Key Performance Indicators

The following KPI(s) will be monitored to ensure the efficacy of the NVMP:

- The noise generated will be within the prescribed limits as detailed in the *Environment Protection (Noise) Policy 2007*, unless otherwise approved by the Authority;
- The Works do not receive complaints regarding excessive construction noise from:
  - The neighbouring community, including:
    - Operators of surrounding industrial enterprises;
    - Residential homeowners;
  - Key environmental stakeholders (i.e. EPA, Local Council)

### 9.4.5 Mitigation and Management Strategies

Table 5 (below) details the relevant Project aspects with potential impacts concerning noise and vibration. The Table further outlines the appropriate mitigation measures that should be implemented and the party responsible for their implementation.

Table 5 - NVPM Mitigation and Management Strategies

Noise and Vibration – Mitigation and Management Strategies		
<b>1 - Noise</b>		
Aspect	Mitigation Measure	Responsibility
Hours of Work	As per the Policy, in order to mitigate the impacts of noise on the wider community, construction activity causing noise must be limited to the hours of: a) 7:00AM and 7:00PM Monday to Saturday; b) Must not occur on a Sunday or Public Holiday (unless permission has been granted by the relevant Authority)	Managing Contractor
Notice to Surrounding Properties	Adequate notice must be provided to surrounding community of the proposed construction activities generating noise. This should include the anticipated working hours (daily) and the estimated duration of the works. Relevant contact details (to be determined) should additionally be made available, in order to provide information or for the purposes of any complaints.	Managing Contractor
Reasonable Noise Prevention Measures	As per the Policy, all reasonable and practicable measures must be taken to minimise noise resulting from activity and to minimise its impact (i.e. shutting or throttling down machinery when not in use).	Managing Contractor
Vehicle Access Routes	Appropriate planning provisions should be made to establish dedicated vehicular access routes in order to reduce the impacts of vehicle noise on adjacent property	Managing Contractor
Machinery and Plant	Machinery and plant must be routinely maintained to ensure they are operating in such a manner as to avoid excessive noise. Additionally, such items of machinery should ideally be located in a position on Site where they will not impact upon neighbouring properties (wherever practicable)	Managing Contractor
Accumulative Noise	Prior to construction activities being undertaken on Site, the Contractor should assess the potential for operations to cause a high volume of noise cumulatively. Works should be managed accordingly to avoid excessive cumulative noise.	Managing Contractor
<b>2 – Vibration</b>		
Aspect	Mitigation Measure	Responsibility




### Noise and Vibration – Mitigation and Management Strategies

Hours of Work	<p>As outlined for noise under the Policy – similar restrictions on operating hours should be applied for activities generating vibration.</p> <p>In order to mitigate the impacts of vibration on the wider community, construction activity causing notable vibration must be limited to the hours of:</p> <ul style="list-style-type: none"> <li>a) 7:00AM and 7:00PM Monday to Saturday;</li> <li>b) Must not occur on a Sunday or Public Holiday (unless permission has been granted by the relevant Authority)</li> </ul>	Managing Contractor
Reasonable Vibration Prevention Measures	All reasonable and practicable measures must be taken to minimise vibration resulting from activity and to minimise its impact (i.e. shutting or throttling down machinery when not in use).	Managing Contractor
<b>3 – Monitoring Requirements</b>		
<b>Aspect</b>	<b>Mitigation Measure</b>	<b>Responsibility</b>
Noise and vibration monitoring	The site should be continually monitored for any excessive noise or vibration, or construction works occurring outside of Policy's required hours of work	All personnel on Site
Acknowledging Complaints	Any complaints put forward by Project Stakeholders and the neighbouring community concerning noise and vibration and discharge must be followed up and reviews undertaken of the contributing activities	PMCA

## 9.5 Site Contamination

Site contamination in the context of the proposed development works is not anticipated. This is attributed to the general absence of any known or suspected source of site contamination and the general absence of any viable exposure pathways to top side workers following construction (noting that the site will be predominantly sealed by way of thick concrete building slabs and engineered pavement for the external roadways).

Soil lithologies encountered during the recent (2017) drilling of 12 boreholes to depths exceeding 20m below ground level (bgl) in the adjacent land (i.e. site of the SASIU redevelopment works) encountered fill materials of various types and origins to depths around 3m bgl. These fill materials generally comprised engineered road base materials previously used to level the site and discrete lenses of 'Calsilt' and granular material understood to be cinders sourced from the former Osborne Power Station (which are known to have been widely used to fill low lying areas of the northern LeFevre Peninsula during the 1960s to late 1980s). These fill materials overlie natural soils of the St Kilda and Glanville Formations which in turn overlie Hindmarsh Clays to depths in excess of 20m bgl. Whilst previous analytical testing has identified elevated concentrations of heavy metals within the cinder materials, the reported concentrations are not anticipated to pose a risk to human health for the intended use of the site and proposed form of development.



Sampling and analysis of fill and natural soil materials will be undertaken prior to the commencement of development works for the purpose of pre-classifying these materials for disposal and/or reuse should they become surplus to site needs. Classification of these materials will be made in accordance with EPA *Standard for the production and use of Waste Derived Fill* (October 2013) and EPA Waste Disposal Information Sheet *Current criteria for the classification of waste – including industrial and Commercial Waste (Listed) and Waste Soil* (March 2010). These investigations will also verify the anticipated absence of site contamination in the context of the proposed use and development of the site. Should site contamination be identified as a result of these investigations appropriate remediation (including management) measures will be designed and implemented in accordance EPA *Guidelines for Environmental Management of On-Site Remediation* (2008).

### **9.5.1 Acid Sulfate Soils**

The soil boring program undertaken on the immediately adjacent land in 2017 did not identify the presence of either potential or actual acid sulfate soils within the upper fill materials and natural soils that will be disturbed by the FSP early works program. Accordingly, no specific management actions will be required for the purposes of potential or actual acid sulfate soils.

## **9.6 Solid Waste Minimisation and Management**

### **9.6.1 Objectives**

The principle objectives of the Solid Waste Management Plan (SWMP) are:

- To identify construction activities prone to result in the generation of solid waste on site and modify these wherever practicable to reduce generated waste
- To effectively manage and dispose of solid waste generated on site as required
- To divert as much waste as feasibly possible to recycling facilities as oppose to landfill.

### **9.6.2 Preliminary Findings**

With regards to the proposed construction activities included under the FSP – Early Works proposal, the following considerations have been made:

- Within the Early Works proposal, the majority of solid waste materials should be associated with Earthworks - such as steel reinforcement and any concrete products.
- Additional solid (domestic) waste will be generated by the Site Establishment (when erected), however this should be effectively managed by the Contractor (upon Award) and have negligible impact upon the environment.

### **9.6.3 Performance Criteria**

- Solid waste materials should be stored and contained within pre-defined areas that do not impede upon the delivery of Works
- Ensure that waste generation and disposal are monitored and tracked accordingly. Reviews of the waste tracking system should be undertaken to confirm that all efforts are being made to divert waste from landfill wherever practicable.
- Any potentially hazardous waste (if identified) must be handled by a responsible agency and disposed of at the correct licenced facility.

#### 9.6.4 Key Performance Indicators

The following KPI(s) will be monitored to ensure the efficacy of the SWMP:

- Wherever achievable, waste production is actively being mitigated and the materials are diverted to the respective recycling facilities
- Upon routine inspections, the Site is kept in an acceptable condition of tidiness and will not impede upon Site safety and access requirements.
- The Works do not receive complaints regarding solid waste and/or management of waste:
  - The neighbouring community, including:
    - Operators of surrounding industrial enterprises;
    - Residential homeowners;
  - Key environmental stakeholders (i.e. EPA, Local Council)

#### 9.6.5 Mitigation and Management Strategies

Table 6 (below) details the relevant Project aspects with potential impacts concerning solid waste. The Table further outlines the appropriate mitigation measured that should be implemented and the party responsible for their implementation.

Table 6 - SWMP Mitigation and Management Strategies

SWMP – Mitigation and Management Strategies		
1 – Solid Waste		
Aspect	Mitigation Measure	Responsibility
Mitigating Waste	The generation of construction waste will be minimised as far as practicable in line with the waste management objective of the <i>Environment Protection (Waste to Resources) Policy 2010</i> .	Managing Contractor
Waste Containment	Waste that is generated on site will be managed to prevent litter, including lids/covers on bins, within suitable areas designated for temporary storage.	Managing Contractor
Site Housekeeping	All litter (domestic waste) should be collected and appropriately contained to maintain a safe and accessible site.	Managing Contractor
Waste tracking and monitoring	All waste will be transported off site through the use of licenced waste transport agencies, that are suitably authorised under the Act and using relevant waste transport certificates or waste tracking forms as relevant in accordance with the SA EPA Guidelines	Managing Contractor
Reusing Waste Soils	Where practicable and of suitable quality, existing earthen fill / rock that is generated / excavated on site should be recycled on site.	Managing Contractor



SWMP – Mitigation and Management Strategies		
Classification of Soils	All other waste soils generated on site (including soil that is not suitable for reuse onsite or offsite) will be classified in accordance with EPA waste classifications and guidelines.	Managing Contractor
Disposal of waste soils	Waste soils will be disposed of at an authorised land fill, included any pre-treatment if needed	Managing Contractor
2 – Monitoring Requirements		
Aspect	Mitigation Measure	Responsibility
Site Inspections	The site should be continually monitored for any litter or waste left on site and ensured that the site is in a safe and manageable condition.	All personnel on Site
Acknowledging Complaints	Any complaints put forward by Project Stakeholders and the neighbouring community concerning site tidiness and waste management must be followed up and reviews undertaken of the contributing activities	PMCA



# 10 Environmental Training

All personnel working on the Project must have received the appropriate training and possess the required skills to fulfil their role in a competent manner.

Environmental training is listed below and will include at a minimum:

- Site induction
- Familiarisation with the scope of works of the project and the requirements of this CEMP
- Other specific training as required, e.g. Work Permit Training, Confined Space Training
- Specialised environmental training and instructions as required, e.g. installation and maintenance of sediment and erosion controls
- Awareness of environmental sub plans and emergency response procedures – as outlined in detail within the Contractors CEMP (upon development)

Environmental communications will be delivered by the Contractor to its staff. These will present information on the management of environmental risks and key site environmental issues.

It is the responsibility of the Contractor (upon award) to ensure all personnel are inducted, trained and aware of their environmental management responsibilities prior to commencing work.

All personnel are to attend induction and training sessions to be made aware of the issues associated with construction and development works on the site and the appropriate actions to be taken in any given situation as outlined in the CEMP, including general environmental duty and reporting obligations under the Act.



# 11 References

*Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)*

*Environment Protection Act 1993 (SA)*

*Environment Protection (Noise) Policy 2007 (SA)*

*EPA Standard for the production and use of Waste Derived Fill (October 2013)*

*Current criteria for the classification of waste – including industrial and Commercial Waste (Listed) and Waste Soil (March 2010).*

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<[http://www.epa.sa.gov.au/environmental\\_info/water\\_quality/programs/stormwater/pollution\\_prevention\\_for\\_building\\_and\\_construction\\_activities](http://www.epa.sa.gov.au/environmental_info/water_quality/programs/stormwater/pollution_prevention_for_building_and_construction_activities)>



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