## **Accredited Building Surveyors**

Planning NSW Accreditation No: BPB0043 ABN: 92 616 124 481 t 9868 2855 | f 9868 2655 e info@boycecorp.com.au PO Box 375, Strathfield NSW 2135 Suite 405, 51 Rawson Street, Epping NSW 2121

26 May 2017

Northern Beaches - Pittwater Council Attention: The General Manager PO Box 882 MONA VALE NSW 1660



Dear Sir / Madam

14 Mitala Street, Newport Submission of Construction Certificate BNBP17134

I have received application for a Construction Certificate ("CC") in respect of the above property in relation to Development Consent DAN0411/16. The CC has been approved.

As such, please find enclosed:

- 1. CC
- 2. Cheque for \$36 for the registration of the CC
- 3. Completed application form
- 4. Long Service Levy Corp receipts etc as required by DA conditions
- 5. Statement from the Applicant that the CC plans are generally in accordance with the DA.
- 6. Notice of Commencement
- 7. International Marina Consultants Design Certificate
- 8. Sydney Water receipt
- 9. Erosion & Sediment Control Plan
- 10. Waste Management details
- 11. Demolition Work Plan
- 12. Marina Reconfiguration
- 13. Pile layout, services layout etc.
- 14. Fire Safety Schedule

Should any of the above documents not be received please advise me immediately.

Yours faithfully

**Peter Boyce** 

PRNC \$36-00 REC: 411077

|\server\Company\Peter J Boyce\Certification File\Templates -#-#-#-\Certificate - CC [++++].docx

30/5/17

## **Accredited Building Surveyors**

Planning NSW Accreditation No. BPB0043 ABN: 92 616 124 481 t 9868 2855 | f 9868 2655 e info@boycecorp.com.au PO Box 375. Strathfield NSW 2135 Suite 405, 51 Rawson Street, Epping NSW 2121

## **Construction Certificate**

Certificate No.

BNBP17134

SECTION A. The Application			Weeks the state of						
1. Details of the Applicant									
Name  David Randall									
Address  c/- Royal Prince Alfred Yacht Club									
14 Mitala Street									
Suburb or town		State	Postcode						
Newport		NSW	2106						
		NOVV	2100						
2. Details of the Property			and the second s						
14 Mitala	Street								
Suburb or town State Postcode									
Newport		NSW	2106						
	ection	DP / SP no.	Volume/folio						
Lot		DP 824054							
3. Description of the proposed of	levelopment								
Replace and reconfigure	marina arm								
4. Development Consent									
Date of Development Consent	2 March 2017								
Development Consent reference no.	DAN0411/16								
Name of Council	Northern Beaches	- Pittwater Council							
5. Date of the Application for Co	Instruction Certificate								
19 April 2017									

## **Construction Certificate**

Certificate No.
BNBP17134

6. Date Application received by the Certifying Authority	
19 April 2017	
SECTION B. Certifying Authority	
Name	Accreditation no.
Peter Boyce	BPB0043
Address	
Suite 405, 51 Rawson Street, Epping NSW 2121	<u> </u>
SECTION C. Class of building	
Class of the proposed building under the Building Code of Australia.  Note: If parts of the building will have different classes, include all classes.	
SECTION D. Conditions	
This Certificate is subject to the conditions set out in the attached Schedule of Conditions (indicate	te if applicable)
SECTION E. Attachments (indicate as appropriate)	
Conditions schedule X Fire safety schedule	Fire link conversion schedule
SECTION F. Date	<b>分子生产</b> 基于
Date of this Certificate 2 6 MAY 2017	
SECTION G. Certification	"专家"。"是"
I certify that work completed in accordance with the documentation accompanying the Application for modifications, if any, verified by me as may be shown on that documentation) will comply with the replanning & Assessment Regulation 2000 as referred to in s.81A(5) of the Environmental Planning &	equirements of the Environmental
The documents listed below accompanied the Application for this Certificate.  Note: The Certificate is to be endorsed upon all relevant plans and specifications.	
Michael Fountain Architects Pty Ltd drawin nos 0704-DA090 to Marina Consultants drawing nos 5197-01 to 04	DA092; International
SECTION H. Signature*	
Pert Doyn	
* Must only be signed by the Certifying Authority	

Construction Certificate

**Accredited Building Surveyors** 

Planning NSW Accreditation No. BPB0043 ABN: 92 616 124 481 t 9868 2855 | f 9868 2655 --e info@boycecorp.com.au PO Box 375, Strathfield NSW 2135 Suite 405, 51 Rawson Street, Epping NSW 2121

## **Application for a Construction Certificate**

RECEIVED 19 APR 2017

### Information for the Applicant

This form may be used to apply for a construction certificate to carry out building work under your development consent from Council. To complete this form, please place a cross in the relevant boxes, fill out the white sections as appropriate and attach copies of all documents indicated in the form as being required to be provided. To minimise delays in receiving a decision about the Application, please ensure that all relevant information and documents are provided.

## Once completed, this Application form should be submitted to Peter J Boyce & Associates for determination. A construction certificate has no effect if it is issued after the building work or subdivision work to which it relates is physically commenced on the land to which the relevant development consent applies SECTION A Details of the Applicant \*An application for a construction certificate may only be made by a person who has the benefit of the development consent. An application may not be made by person who will carry out the building work or subdivision work unless that person owns the land on which the work is to be carried out. 1. Applicant name: Where the Applicant is a natural person or persons: Mr Ms Mrs Dr Other Mr . Ms . Mrs . Dr . Other . . First name First name Family name Family name Where the Applicant is a corporate entity: Company (if applicable) Company (if applicable) ROYAL PRINCE ALFRED 2. Applicant contact details: Street Name / Postal Address Unit/Street no. Postcode Suburb or town State NEWPORT NSW 2106 Daytime telephone Fax Mobile 02 99971022

SECTION B. Location and title work is to be carri	details of the land where the building work or subdivision ed out
Unit/Street no. Street Name  14 MITAL	
Suburb or town  NEWPORT	State Postcode  NSW 2106.
Lot no. Section	חנ
DP / SP no. Volur 824054	ne/folio
SECTION C. Description of th	e building work or subdivision work to be carried out
Briefly describe the development. For building (house, townhouse, villa etc), t (brick, brick veneer, timber clad etc).	example, if a dwelling is proposed, include information such as the type of he number of floors, the number of bedrooms, the major building material
REPLACE & RE	CONFIGURE MARINA ARM
<u> </u>	
4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
1	
Class(s) of building(s) under the Buildin of Australia	g Code #4. 198 76
SECTION D. Estimated so si e	i the development
\$ [1,987,714·30]	The contract price, or if there is no contract a genuine and accurate estimate, for all labour and material costs associated with all demolition and construction required for the development, including the cost of construction of any building and the preparation of a building for the purpose for which it is to be used (such as the costs of installing plant, fittings, fixtures and equipment). GST is also to be included.
SECTION E. Development Con	Sent
Date of Development Consent (if already granted)	[ 3/3/17
Development Consent reference no.:	NO411/16
Name of consent authority:	NORTHERN BEACHES COUNCIL
Name of applicant for Development Consent:	ROYAL PRINCE ALFRED YACHT CLUB.
Provide:  A copy of the Development Consent, in  approved plans endorsed by the conditions of Development Consent and the conditions of Development Consents referenced by	ne consent authority

SECTION F. Planning agreements
If the development or the land upon which the development is to be carried out is subject to a planning agreement as referred to in section 93F EP&A Act, provide a copy of the planning agreement.
SECTION G. Attachments relating to the proposed development
Applicants must provide the documents listed below that are relevant to the type of development that is proposed. Please place a cross in the appropriate box(s) to indicate the type of development involved. Please confirm with our office how many copies of each document are required prior to lodging this Application.
1. Does the Application relate ONLY to a FIRE LINK CONVERSION?   Yes  No
If Yes-provide:  A document that describes the design and construction and mode of operation of the new fire alarm communication link.
2. Does the development involve SUBDIVISION WORK?  Yes  No
If Yes-provide:  Appropriate subdivision work plans and specifications, which include copies of:  (a) details of the existing and proposed subdivision pattern (including the number of lots and the location of roads)  (b) details as to which public authorities have been consulted with as to the provision of utility services to the land concerned  (c) detailed engineering plans as to the following matters:  (i) earthworks  (ii) roadworks  (iii) road pavement  (iv) road furnishings  (v) stormwater drainage  (vi) water supply works  (vii) sewerage works  (viii) landscaping works  (ix) erosion control works  (d) copies of any compliance certificates to be relied on.
3. BUILDINGS
3.1 Does the development involve building work (including in relation to a dwelling house or building or structure ancillary to a dwelling house)? ☐ Yes ☑ No
If Yes-provide:  (1) A detailed description of the development, indicating:  (a) for each proposed new building:  (i) the number of storeys (including underground storeys) in the building  (ii) the gross floor area of the building (in square metres)  (iii) the gross site area of the land on which the building is to be erected (in square metres)  (b) for each proposed new residential building:  (i) the number of existing dwellings on the land on which the new building is to be erected  (ii) the number of those existing dwellings that are to be demolished in connection with the erection of the new building
<ul> <li>(iii) the number of dwellings to be included in the new building</li> <li>(iv) whether the new building is to be attached to any existing building</li> <li>(v) whether the new building is to be attached to any other new building</li> <li>(vi) whether the land contains a dual occupancy</li> <li>(vii) the materials to be used in the construction of the new building by completing the table in SECTION M</li> </ul>
(2) Appropriate building work plans and specifications, which include copies of: <ul> <li>(a) detailed plans, drawn to a suitable scale and consisting of a block plan and a general plan, that show:</li> </ul>

	(i) a plan of each floor section
	(ii) a plan of each elevation of the building
Entring to the second	(iii) the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the
	levels of the adjacent ground
	(iv) the height, design, construction and provision for fire safety and fire resistance (if any)
(b)	specifications for the development:
	(i) that describe the construction and materials of which the building is to be built and the
	method of drainage, sewerage and water supply, and
: ks.kir bil a l	(ii) that state whether the materials to be used are new or second-hand and (in the case of
	second-hand materials) give particulars of the materials to be used
(c)	
	complied with (if an alternative solution, to meet the performance requirements, is to be used)
(d)	a description of any accredited building product or system sought to be relied on for the purposes of section 79C(4) of the Environmental Planning and Assessment Act 1979 (EP&A Act)*
(e)	copies of any compliance certificate to be relied on
(b)	if the development involves building work to alter, expand or rebuild an existing building, a scaled
<b>"</b>	plan of the existing building
(g)	사람들이 열면서 열린 다양하게 있는 이렇게 되어 한 어떻게 되어 있는 것이 되었다. 그는 사람들이 되었다고 있는 사람들이 하는 사람들이 되었다. 그는 사람들이 살아
, , , , , , , , , , , , , , , , , , ,	certificate requires to be included in the plans and specifications.
	선택하면 경험 보통하면 사용하면 하면 하면 보다면 하면 보다고 있는 것이다.
relating to the de	A Act provides that a consent authority must not refuse to grant consent to development on the ground that any building product or system system to comply with a requirement of the Building Code of Australia if the building product or system is accredited in respect of in accordance with the EP&A regulation 2000.
	e development involve building work (other than work in relation to a
	g-house or a building or structure that is ancillary to a dwelling-house or work
that rela	ates only to fire link conversion) ?  Yes  No
ace rolling.	
If Yes-provide:	
(a)	A list of any existing fire safety measures provided in relation to the land or any existing building on
	the land.
(D)	A list of the proposed fire safety measures to be provided in relation to the land and any building on
	the land as a consequence of the building work.
	ne development involve an alternative solution under the Building Code of ia ("BCA") in respect of a fire safety requirement?   Yes   No
te Valada a sanatal a	
If Yes-provide:	그들은 일본 이 병을 가는 방법이 그는 이 아름다는 그 사람들은 그들은 그들은 그들은 그들은 사람들이 모르는 그들은
	or both of the following from a "fire safety engineer" (a private accredited certifier holding Category
	oreditation):
(a)	A compliance certificate (as referred to in s.109C(1)(a)(v) EP&A Act) that certifies that the
	alternative solution complies with the relevant performance requirements of the BCA.
(b)	A written report that includes a statement that the alternative solution complies with the relevant
	requirements of the BCA.
	[상품: 사용] [11] [12] [12] [12] [13] [14] [15] [15] [15] [15] [15] [15] [15] [15
	ove requirement only applies to building work in respect of: a class 9a building that is proposed to have a total floor area of 2000 square metres or more
(b) (	any building (other then a class 9a building) that is proposed to have:
	(i) a fire compartment with a total floor area of more than 2000 square metres or (ii) a total floor area of more than 6000 square metres
	olves en ulternative solution under the BCA in respect of the requirements set out in EP1.4, EP2.1, EP2.2, DP4 and DP5 in Volume 1 of the
BCA.	는 사람들이 가장 없는 사람들이 되어 있다. 그는 사람들이 바라가면 되었다면 보다 보고 있다면 보다 있다면 보다 있다면 보다 되었다면 보다 되었다면 보다 되었다면 보다 되었다면 보다 되었다면 보다 다른 사람들이 되었다면 보다
The state of the s	
3.4 Does th	ne Application relate to a residential flat development for which the
	ne Application relate to a residential flat development for which the
develop	ment application was required under Clause 50(1A) of the EP&A Regulation to
develop	
develop	oment application was required under Clause 50(1A) of the EP&A Regulation to ompanied by a design verification from a qualified designer?   Yes  No
develop be acco If Yes-provide	oment application was required under Clause 50(1A) of the EP&A Regulation to impanied by a design verification from a qualified designer?   Yes  No
develop be acco If Yes-provide A statement fro	oment application was required under Clause 50(1A) of the EP&A Regulation to impanied by a design verification from a qualified designer? Yes No No impart a qualified designer which verifies that the plans and specifications achieve or improve the
develop be acco If Yes-provide: A statement fro design quality of	oment application was required under Clause 50(1A) of the EP&A Regulation to impanied by a design verification from a qualified designer? Yes No
develop be acco If Yes-provide: A statement fro design quality of principles set of	oment application was required under Clause 50(1A) of the EP&A Regulation to empanied by a design verification from a qualified designer? Yes No  ima qualified designer which verifies that the plans and specifications achieve or improve the of the development for which development consent was granted, having regard to the design quality ut in Part 2 of State Environmental Planning Policy No. 65: Design Quality of Residential Flat
develop be acco If Yes-provide: A statement fro design quality of principles set of Development (S	oment application was required under Clause 50(1A) of the EP&A Regulation to empanied by a design verification from a qualified designer?   Yes No  In a qualified designer which verifies that the plans and specifications achieve or improve the of the development for which development consent was granted, having regard to the design quality ut in Part 2 of State Environmental Planning Policy No. 65: Design Quality of Residential Flat SEPP 65)
develop be acco If Yes-provide: A statement fro design quality of principles set of Development (\$ Note: If the de	oment application was required under Clause 50(1A) of the EP&A Regulation to empanied by a design verification from a qualified designer? Yes No  ima qualified designer which verifies that the plans and specifications achieve or improve the of the development for which development consent was granted, having regard to the design quality ut in Part 2 of State Environmental Planning Policy No. 65: Design Quality of Residential Flat
develop be acco If Yes-provide: A statement fro design quality of principles set of Development (\$ Note: If the des	oment application was required under Clause 50(1A) of the EP&A Regulation to empanied by a design verification from a qualified designer? Yes No  :  om a qualified designer which verifies that the plans and specifications achieve or improve the of the development for which development consent was granted, having regard to the design quality ut in Part 2 of State Environmental Planning Policy No. 65: Design Quality of Residential Flat SEPP 65)  evelopment application was also required to be accompanied by a BASDX certificate with respect to any building, the statement need not venity

3.5Has the Fire Commissioner granted an exemption under clause 188 EP&A Regulation from compliance with any specified Category 3 fire safety provision?  ☐ Yes ☐ No
If Yes-provide:
A copy of the exemption together with any conditions imposed.
3.6 Is any long service payment levy payable under s.34 of the Building and Construction Industry Long Service Payments Act 1986? ☐ Yes ☐ No
If Yes-provide:
A copy of a receipt for any long service payment levy that has been made (or, where such a levy is payable by instalments, a receipt for the first instalment of the levy).
Where a council is the certifying authority, the levy may be made to the council when this Application is lodged.
3.7 Does the Application involve a BASIX affected development, or a BASIX optional development for which a BASIX certificate has been obtained? ☐ Yes ☑ No
If Yes-provide:
The BASIX certificate(s) for the development (being either the BASIX certificate issued when the development consent was granted or some other BASIX certificate(s) that have been issued no earlier than three months before the date of the Application being made), and such other documents as the BASIX certificate(s) for the development requires to accompany the Application.
BASIX (the Building and Sustainability Index) ensures homes are built to be more energy and water efficient. BASIX uses an online program to assess a building's design and compares it against energy and water reduction targets. The design must meet these targets before a BASIX certificate can be printed. Any changes made to a building's design after a BASIX certificate has been issued requires another BASIX assessment and new BASIX certificate. "BASIX affected buildings" contain one or more dwellings (but do not include holets or moters).
A BASIX certificate MUST be obtained for every "BASIX affected development", which are any of the following (other than development that is "BASIX excluded development"):
(a) development that involves the erection (but not the relocation) of a BASIX affected building (b) development that involves a change of building use by which a building becomes a BASIX affected building (c) development that involves the alteration, enlargement or extension of a BASIX affected building, where the estimated construction cost of the development is \$50,000 or more (d) development for the purpose of a swimming pool or spa, or combination of swimming pools and spas, that services or service only one dwelling and that has a capacity, or combined capacity, of 40,000 litros or more.
"BASIX excluded development" is
<ul> <li>(a) development for the purpose of a garage, storeroom, car port, gazebo, verandah or awning</li> <li>(b) alterations, enlargements or extensions to a building listed on the State Heritage Register under the Heritage Act 1977</li> <li>(c) alterations, enlargements or extensions that result in a space that cannot be fully enclosed (for example, a veranda that is open or enclosed by screens, mesh or other materials that permit the free and uncontrolled flow of air), other than a space can be fully enclosed but for a vent needed for the safe operation of a gas appliance</li> <li>(d) afterations, enlargements or extensions that the Director-General has declared, by order published in the Gazette, to be BASIX excluded development.</li> </ul>
A BASIX Certificate MAY be obtained for certain developments by an Applicant even though there is no obligation to do so. This is called "BASIX optional development". "BASIX optional development" means any of the following development that is not BASIX excluded development:  (a) development that involves the alteration, enlargement or extension of a BASIX effected building, where the estimate of the construction cost of the development is less than \$50,000  (b) development for the purpose of a swimming pool or spa, or combination of swimming pools and spas, that services or service only one dwelling and that has a capacity, or combined capacity, of less than 40,000 litres.
If the proposed development involves the alteration, enlargement or extension of a BASIX affected building that contains more than one dwelling, a separate BASIX certificate is required for each dwelling concerned.
Further information about BASIX and to obtain a BASIX Certificate, go to http://www.basix.nsw.gov.au.
SECTION H. List of documents
Prepare and attach a list of all of the documents to be provided under SECTIONS E, F and G above and as may otherwise be advised as required.

## SECTION I. Authority to enter and inspect land

A certifying authority must not issue a construction certificate for development on a site which affects an existing building unless the certifying authority, or an accredited certifier, council or consent authority on behalf of the certifying authority, has carried out an inspection of the site of the development.

If the Applicant is the owner of the land, by signing this Application authority is given to the certifying authority, or an accredited certifier, council or consent authority, to enter the subject property at any reasonable time for the purpose of carrying out an inspection in connection with the assessment of this Application. The Applicant undertakes to take all necessary steps make access available to the property to enable the inspection to be carried out.

If the Applicant is not the owner of the land, the owner(s) must sign the following statement.

As the owner(s) of the above property, I/we consent to the certifying authority, or an accredited certifier, council or consent authority, to enter the subject property at any reasonable time for the purpose of carrying out an inspection in connection with the assessment of this Application. I/we undertake to take all necessary steps make access available to the property to enable the inspection to be carried out.

Owners Signature(s)
Leolol
Name(s)
DAUD LANDALC
Date
19-4-2017
SECTION I Didiveryor the Application
Applications for construction certificates must be delivered by hand, by post or transmitted electronically to this office at:
Suite 405, 51 Rawson Street, Epping NSW 2121; or
PO Box 375, Strathfield NSW 2135; or
<ul> <li>info@boycecorp.com.au</li> </ul>
Applications MAY NOT be sent by facsimile transmission.
SECTION IC Signature of Applicant(s)
Signature of Applicant(s)
Locloll
Name(s)
Doun Landell
Date
19-4-2017

SECT	ION L. Date o	f Rece	pt (	of Application	1						
To be	completed by the	certifying	aut	hority <b>immediat</b> e	ely after	rec	elving this Applic	ation,		The second section of the secti	
This A	pplication was rec	eived on		19 11	n Jo	17	(insert date)	Womaning and A			
SECT	ION M. Devel	opmen	tst	atistics							
Place	a cross in each a	propriate	e box	Service of the servic				a de destante ( a 1 cito) a de la cito ( a 1 cito) a de la cito ( a 1 cito) a de la cito ( a 1 cito)	and a comment		
	Walls Brick (double)	Code 11		Roof Tiles	_Code		Floor Concrete/slate	Code 20		Frame	Code 40
	Brick (veneer)	-12		Concrete/slate	20		Timber	40	П	Steel	60
	Concrete/stone	20		Fibre cement	30		Other	80		Aluminium	70
	Fibre cement	30		Steel	60		Not specified	90		Other	80
	Timber	40		Aluminium	70					Not specified	90
	Curtain glass	50		Other	E80						
	Steel = 0	60.		Not specified	90						
	Aluminium cladding	70	72.5								
	Timber/ weatherboard	40	•		a year and a second						
	Other	80	enu.							Management of the control of the con	
П	Not specified	90		The second state of the se							
Gross si	te area (m²)				Number	of dv	vellings to be demolis	hed			w
	por area of existing bu	ilding (m²)					vellings to be constru			And the second s	
Gross flo	oor area of new buildir	ig work (m	)		Will the	new t	oulding be attached t	o an exis	ting bu	ilding	And the second s
Number	of pre-existing dwellin	gs on the s	ile	The second secon	Does th	e site	contain a dual occup	ancy			
How ma	ny storeys will the bui	ding have									
	the current uses of t			The second of th							
What wil	I be the new building	uses (if cha	nged		e a productive in the second	45					And the second s

#### TO WHOM IT MAY CONCERN

RE: 14 MITALA ST NEWPORT(property address)

I hereby certify that the Architectural Plans submitted with the Construction Certificate application are generally in accordance with the Development Approved NO411/16 (DA number) plans approved by NORTHERN BEACHES (council name).

COUNCIL.

Signature

Name: Noun KANDAL

Address: 14 MITALA STREET NEWDOTT

Contact Number: 0439556885

## **Levy Online Payment Receipt**



**Building and Construction** 

BELLINGHAM MARINE AUSTRALIA U 4 341 ROCKY POINT RD SANS SOUCI NSW 2219

### **Application Details:**

Applicant Name: BELLINGHAM MARINE AUSTRALIA

Levy Number: 5162835

Application Type: DA

Application Number: N0411/16

Approving Authority: NORTHERN BEACHES COUNCIL-NORTH

#### Work Details:

Site Address: 14 MITALA ST

**NEWPORT NSW 2106** 

Value of work: \$1,987,714

Levy Due: \$6,956.00

### **Payment Details:**

LSC Receipt Number: 281236

Payment Date: 13/04/2017 3:36:37 PM

Bank Payment Reference: 991664921
Levy Paid: \$6,956.00

Credit card surcharge: \$27.82

Total Payment Received: \$6,983.82

## International Marina Consultants - Consultants to the Marina Industry

International Marina Consultants Pty Ltd Australian Company Number 079 905 481 GST Registration/Australian Business Number 85 079 905 481 "The skill of an engineer is to harness the forces of nature for the benefit of mankind"

473 Annerley Road ANNERLEY QLD 4103 AUSTRALIA

Phone: (07) 3892 5711
Fax: (07) 3892 5611
International Access (617)
Email: john@imc-marinas.com

12 May 2017

Bellingham Marine Australia Pty Ltd Unit 4 / 341 Rocky Point Road Sans Souci NSW 2219

Attn: Gary Charlwood

# RE: RPAYC MARINA A ARM RECONFIGURATION DESIGN CERTIFICATION

International Marina Consultants certify that the floating pontoons and piles as depicted in our drawing 5197-01 to 5197-07 have been designed in accordance with NSW Maritime Engineering Standards and Guidelines for Maritime Structures and the latest editions of the following Australian Standards.

AS 1170.2	Loading Code Part 2: Wind actions
AS1664	Aluminium Structures Code
AS1720	Timber Structures Code
AS2159	Piling Code
AS3600	Concrete Structures
AS3962	Guidelines for Design of Marinas
AS4100	Steel Structures
AS4997	Guidelines for the Design of Maritime Structures

We certify that the design of the pontoon complies with the relevant codes and will be structurally adequate for anticipated usage.

Yours faithfully

11

INTERNATIONAL MARINA CONSULTANTS PTY LTD

JOHN LEMAN BE, RPEQ No. 2938, MIPENZ, ATBP No. CC4190W Director

# **Transaction Summary**



Tax invoice: AAA-165124753

Company name: Combined Marina Services

Date requested 24 May 2017

Sydney Water Corporation PO Box 399 Parramatta NSW 2124 A.B.N 49 776 225 038

Applicant details

Alan Bentley

49 Keanes Rd, Rosewood, 4340

## **Transaction Details**

14 Mitala St, Newport 2106

Order number: SW-23442884

**Building Plan Assessment** 

Application number: 247770

Application Fee Manual Assessment

\$17.85

Transaction total

\$17.85 Incl. \$0.00 GST



Bellingham Marine Australia Pty. Ltd. ABN 80 074 864 887

Head Office: 22 Sinnamon Road Seventeen Mile Rocks Qld 4073 Australia

Head Office: Telephone Facsimile

(07) 3376 6955 (07) 3376 7955

Sydney Office:

Suite 4, 341 Rocky Point Road, Sans Souci NSW 2088

Sydney Office:

(02) 9439 9066 Telephone Facsimile (02) 9583 9265 Mobile

Email: gcharlwood@bellingham-marine

1 May 2017

## RPAYC - A arm replacement

## **EROSION & SEDIMENT CONTROL PLAN**

The Royal Prince Alfred Yacht Club have contacted Bellingham Marine Australia to demolish & reconstruct 'A' arm in accordance with DA No NO411/16 & approved drawings. Consistent with DA condition B6 this Erosion & Sediment Control plan addresses the requirements of that condition.

Bellingham marine contact responsible for the adherence to this plan is Gary Charlwood on mobile 0407 249 057. Site contact responsible for adherence to this plan is Steve Hill on mobile 0415 247 210.

The site is located at 14 Mitala Street, Newport NSW 2106. The works involve removal of existing piles, pontoons and construction of new piles & pontoons. All materials will be fabricated off site & delivered to site via Rowland Reserve & towed to site.

The works do not involve any excavation works, so soil erosion & sediment migration are

If drilling of piles is required a silt curtain will be deployed.

Nil building materials or other materials are to be placed on foreshore, seagrass beds, salt marshes or mangroves.

When extracting existing piles mud & clay stuck to extracted piles shall not be scaped off & allowed to fall in the waterway.

Gary Charlwood

Bellingham Marine Project Manager.



41 Marine Australia Pty. Ltd. ABN 80 074 864 887 Bellingham 22 Sinnamon Road Seventeen Mile Rocks Qld 4073 Australia Head Office: Head Office: Telephone (07) 3376 6955 (07) 3376 7955

Sydney Office:

Suite 4, 341 Rocky Point Road, San Souci NSW 2088 **Sydney Office:** 

Telephone Facsimile Mobile (02) 9439 9066 (02) 9583 9265 0407 249 057

Email: gcharlwood@bellingham-marine.com.au

1 May 2017

## **RPAYC** - A arm replacement

## **WASTE MANAGEMENT**

The Royal Prince Alfred Yacht Club have contacted Bellingham Marine Australia to demolish & reconstruct 'A' arm in accordance with DA NoNO411/16 & approved drawings. Consistent with DA condition D8 this Waste Management Plan addresses the requirements of that condition.

Bellingham Marine contact responsible for the adherence to this plan is Gary Charlwood on 0407 249 057. Site contact responsible for adherence to this plan is Steve Hill on mobile 0415 247 210.

The site is located at 14 Mitala Street, Newport NSW 2106. The works involve removal of existing piles & pontoons and construction of new piles & pontoons. All materials will be fabricated off site & delivered to site via Rowland Reserve & towed to site.

The demolition works will be carried out in accordance with AS2601-2001 & Workcover authority requirements.

#### WASTE MANAGEMENT PLAN.

The marina components will be dismantled by removing thru-rods. The marina walkway shall be dismantled into pieces under 12m & towed from site to be craned out of the water straight onto trucks for removal. The marina fingers shall be disconnected from the walkways by undoing thru-rods. The fingers also will be towed from site & craned from water straight onto trucks. There shall be nil jack hammering or 'breaking' of components, all shall be disassembled by undoing bolts & thru-rods.

We have commitment from two (2) separate marinas that want to take the removed pontoons. They plan on repairing any cracks & replacing walers & rods and re-using. One (1) of these marinas is in northern NSW and the other is in southeast QLD.

The pontoons that will be lifted onto trucks will be transported straight to those marinas. Ownership of the pontoons transfers to those third parties as soon as they are placed on third party trucks.

The piles shall be extracted by the barge using slow tidal force to lift the piles from there sockets. Should a pile not dislodge by tidal force we shall use a jetting probe to loosen material around the pile & then try tidal force once again.

If piles still do not extract we shall cut off at sea level whilst holding the top of pile with the barge crane.

Extracted piles shall be placed on a dumb barge & towed from side to be lifted from the water & placed on a truck for removal from site.

The piles extracted from site were not fit for re-use. These piles shall be transported to legal waste transfer station & tipping fees paid for their disposal. We shall keep receipts of tipping fees.

Gary Charlwood

Bellingham Marine Project Manager



41 Marine Australia Pty. Ltd. ABN 80 074 864 887 Bellingham 22 Sinnamon Road Seventeen Mile Rocks Qld 4073 Australia Head Office: Telephone Facsimile Head Office: (07) 3376 6955 (07) 3376 7955

Sydney Office:

Suite 4, 341Rocky Point Road, San Souci NSW 2088 Sydney Office: Telephone

Facsimile Mobile (02) 9439 9066 (02) 9583 9265 0407 249 057

Email: gcharlwood@bellingham-marine.com.au

1 May 2017

## **RPAYC** - A arm replacement

### **DEMOLITION WORK PLAN**

The Royal Prince Alfred Yacht Club have contacted Bellingham Marine Australia to demolish & reconstruct 'A' arm in accordance with DA No NO411/16 & approved drawings. Consistent with DA condition D2 this demolition Work Plan addresses the requirements of that condition.

Bellingham Marine contact responsible for the adherence to this plan is Gary Charlwood on 0407 249 057. Site contact responsible for adherence to this plan is Steve Hill on mobile 0415 247 210.

The site is located at 14 Mitala Street, Newport NSW 2106. The works involve removal of existing piles & pontoons and construction of new piles & pontoons. All materials will be fabricated off site & delivered to site via Rowland Reserve & towed to site.

The demolition works will be carried out in accordance with AS2601-2001 & Workcover authority requirements.

### PLAN REQUIREMENTS

- a. Workers shall wear appropriate PPE. Workers shall not walk or operate under crane loads.
- b. The erection of hoarding is not required but we will fence off the marina to isolate works from marina user.
- c. There is nil asbestos existing on the marina.
- d. All disused service shall be capped off in line with applicable Australian Standards.

#### PLAN WORK METHODS.

The marina components will be dismantled by removing thru-rods. The marina walkway shall be dismantled into pieces under 12m & towed from site to be craned out of the water straight onto trucks for removal. The marina fingers shall be disconnected from the walkways by undoing thru-rods. The fingers also will be towed from site & craned from water straight onto trucks. There shall be nil jack hammering or 'breaking' of components, all shall be disassembled by undoing bolts & thru-rods.

The piles shall be extracted by the barge using slow tidal force to lift the piles from there sockets. Should a pile not dislodge by tidal force we shall use a jetting probe to loosen material around the pile & then try tidal force once again.

If piles still do not extract we shall cut off at sea level whilst holding the top of pile with the barge crane.

Extracted piles shall be placed on a dumb barge & towed from side to be lifted from the water & placed on a truck for removal from site.

Gary Charlwood

Bellingham Marine Project Manager

## GENERAL NOTES:

- ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE.
- 2.0 WHEN IN DOUBT 'ASK' DO NOT SCALE.
- 3.0 ALL DIMENSIONS ARE SHOWN IN MILLIMETRES U.N.O.
- ALL LEVELS ARE SHOWN IN METRES AND ARE REDUCED TO 4.0 CHART DATUM (CD).
- 5.0 PILES
- TOLERANCE FOR DRIVING IN PLAN +/- 50 mm. MEASURED AS THE WORST COMBINATION OF PLAN DEVIATION AND OUT OF PLUMB OVER FULL TIDAL RANGE. VERTICAL = 1 IN 150 MAX OUT OF PLUMB.
- CONTRACTOR TO ADVISE ENGINEER IF BED LEVEL DIFFERS FROM DESIGN LEVEL BY MORE THAN 300mm.
- PONTOON DIMENSIONS ARE NOMINAL - DIMENSIONS ARE MEASURED TIMBER TO TIMBER
- ALL THRU-RODS ARE TO BE M20 NOMINAL FRP RODS U.N.O. SPACING TO VARY WITH LOCATION.
- ALL TIMBER DESIGN AND CONSTRUCTION TO BE IN ACCORDANCE WITH AS 1720.1 WALER SIZES
  - ONE PIECE FINGERS - 1/75 x 200 GRADE F8 SOFTWOOD TIMBER WALER MULTI PIECE FINGERS
    - 2/50 x 200 GRADE F17 HARDWOOD TIMBER WALERS
  - WALKWAYS, T-HEAD AND L-HEADS - 2/50 x 200 GRADE F17 HARDWOOD TIMBER WALERS PLUS 40 x 200 GRADE F8 SOFTWOOD COVERBOARD
  - ALL COVERBOARDS TO BE TREATED SOFTWOOD.
  - ALL TIMBER WALERS TO BE SEASONED AND TREATED TO HAZARD CLASS H4 IN ACCORDANCE WITH AS 1604.
  - STRUCTURAL TIMBER MUST NOT BE CUT OR DRILLED FOR ANY REASON OTHER THAN SHOWN ON THESE DRAWINGS.
- ALL STEEL SECTIONS TO BE GRADE 300 PLUS MINIMUM U.N.O. ALL STEEL PLATES TO BE GRADE 250 MINIMUM U.N.O.
  - ALL STEEL TO BE HOT DIP GALVANIZED IN ACCORDANCE WITH AS 4680.
  - PROTECTIVE COATINGS TO STEEL COMPONENTS:

    a. ACID DIP AND HOT DIP GALVANIZE IN ACCORDANCE
  - WITH AS4680. - AVERAGE COATING 750g/m<sup>2</sup>
  - EQUIVALENT THICKNESS 100 MICRONS.
- 10.0 ALL ALUMINIUM WORK TO BE IN ACCORDANCE WITH AS 1664.
  - ALL EXTRUSIONS TO BE TYPE 6061-T6 OR 6082-T5 U.N.O.
  - PLATES TO BE TYPE 5083 TEMPER H321.
  - ALL WELDS SHALL BE INERT GAS WELD USING PULSE M.I.G. OR T.I.G. FUSION WELDING PROCESS.
  - ALL WELDS TO BE COMPLETE PENETRATION BUTT WELD.
- ALL STEEL AND ALUMINIUM WORK SHALL BE NEATLY FINISHED WITH ALL SHARP EDGES GROUND SMOOTH.
- PILE GUIDE BLOCKS ARE TO BE ADJUSTED AS REQUIRED TO SUIT PILE SIZE AND POSITION ON SITE.
  - CLEARANCE MUST BE PROVIDED BETWEEN PILE AND GUIDE TO PREVENT "HANGING" OF PONTOON UNDER FULL TIDAL RANGE.
- 13.0 CONCRETE
  - ALL CONCRETE WORKS SHALL COMPLY WITH AS 3600.
  - MINIMUM CONCRETE STRENGTH I'C = 50MPa U.N.O.
  - ALL REINFORCEMENT TO BE HOT DIP GALVANIZED.
  - MINIMUM COVER TO STRUCTURAL REINFORCEMENT = 45mm.
- ALL PEDESTRIAN SURFACES SHALL BE FINISHED IN ACCORDANCE
  - -CLASS P4 FOR PONTOONS, PLATFORMS, ABUTMENTS, INFILL PANELS, LIDS, BEAMS, STRUCTURAL MEMBERS AND FRAMES
  - -CLASS P5 FOR GANGWAYS

#### 15.0 INSULATION

BOLTED MATERIAL	INSULATING MATERIAL
ALUMINIUM / GALV. STEEL	DURALAC ANTI CORROSION COMPOUND OR NYLON SEPARATION WASHERS
ALUMINIUM / CONCRETE	3mm NEOPRENE
STEEL / CONCRETE	3mm NEOPRENE

#### 16.0 DESIGN PARAMETERS

WND

- BASIC WIND SPEED Vso = 41 m/s - TERRAIN CATEGORY TC2

#### WAVE

- WIND GENERATED WAVE

HMAX = 0.6m To = 2.0s - BOAT WAKE HMAX = 0.6m

#### $T_p = 2.0s$ CURRENT

VMAX = 10m/s

#### BERTHING IMPACT

- NORMAL BERTHING VELOCITY v = 0.3 m/s
- ACCIDENTAL BERTHING VELOCITY v = 0.45 m/s

#### LIVE LOAD ON PONTOONS

- MAX. UNIFORMLY DISTRIBUTED LOAD 3 kPa
- CONCENTRATED LOAD 4.5kN

FREEBOARD UNDER DEAD LOAD 500 ± 25mm EXCEPT WHERE FLOATING STRUCTURES NEED TO ATTACH THE TO EXISTING LOWER FREEBOARD PONTOONS (NORTHERN CORNER)

#### DESIGN VESSELS

VESSEL LENGTH	WIND PROFIL	DISPLACEMENT		
(m)	BEAM	HEAD	(†)	
12	29.0	11.0	11.0	
14	39.7	15.7	16.0	
16	51.3	19.3	22.0	



LOCALITY MAP

W 1880 Associates 500

FOR CONSTRUCTION

Bellingham Beilingham

Australia Pty. Ltd.

ACN 074 864 887

The World's Wost Comprehensit

22 Sinnamon Road Seventeen Mile Rocks Old 4073

Phone (07) 3376 6955 Pac 107) 3276 7996 international (617) Email: sales@bellingham-marke.coma

Precision engineered flotation systems

Revisions

This plan is copyright and cannot be used or reproduced without the written permission of International Marina Consultants

> **I** nternational Marina onsultants

Consultants to the Marina industry.

International Marina Consultants Pty. Ltd. A.C.N. 079 905 481

473 Annerley Road ANNERLEY QLD 4103 Australla

Phone (07)3892 5711 Fax (07)3892 5611 Email: imc@imc-marinas.com

CLIENT:

BELLINGHAM MARINE AUSTRALIA PTY, LTD

PROJECT:

RPAYC MARINA A ARM RECONFIGURATION

GENERAL NOTES

29/03/2017

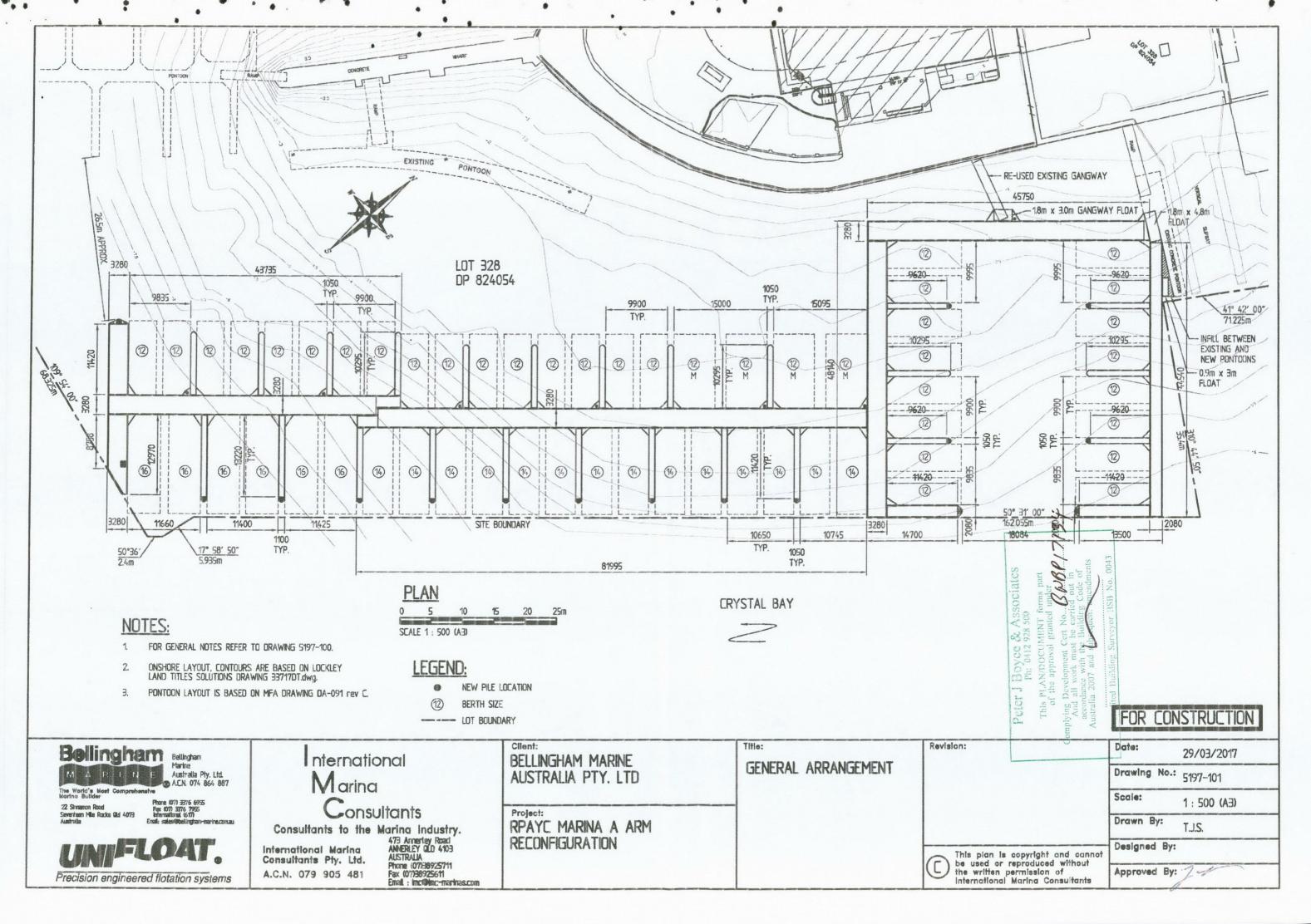
Drawing No.: 5197-100

Scale:

N.T.S.

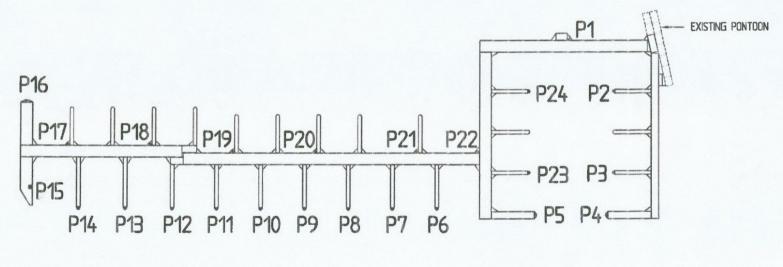
Drawn By: T.J.S. Designed By:

Approved By:



PILE	DESIGN	HARD CLAY/	PILE SCHEDULE	MINIMUM E	MBEDMENT (m)	PILE	OVERALL
No.	(m CD)	WEAK ROCK LEVEL (m C.D.)	PILE SIZE	TOTAL	HARD CLAY/ WEAK ROCK	TOP LEVEL (m CLD.)	PILE LENGTH (m)
P1	-1.10	-1,60	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	3.6	2.8	+3.8	8.5
P2	-2.60	-3.10	355¢ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	3.3	2.8	+∃.8	10.0
P3	-4.60	-	355¢ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.9		+3.8÷	19.5
P4	-5.10	-	406Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.7	40	+3.8	15.0
P5	-4.60	•	406Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.6	No.	+3.8	14.5
P6	-3.80	-4.80	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	3.8	2.8	+3.8	11.5
P7	-3.70	-4.70	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	3.8	2.8	+3.8	11.5
P8	-3.70	-4.70	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.0	3.0	+3.8	11.5
P9	-4.10	-	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.4	100	+3.8	19.5
P10	-5.10	-	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.6	ites .	+3.8	14.5
P11	-5.90		3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.7	- Na	+3.8	15.5
P12	-6.50	-	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.8	*	+3.8	16.5
P13	-7.00	-	457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	6.0	-	+3.8	17.0
P14	-7.60	-	4570 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.8	- 26	+3.8	17.5
P15	-8.10	- 1	4570 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	6.4		+3.8	18.5
P16	-7.30	-	4570 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.9	wa .	+3.8	17.5
P17	-7.30	-	4570 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.9	-	+3.8	17.5
P18	-5.80	-	4570 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	6.3	-	+3.8	16.0
P19	-4.20	-	457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.7	-	+3.8	14,0
P20	-2.30	-3.30	4060 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.4	3.4	+3.8	11.0
P21	-2.30	-3.30	406¢ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.3	3.3	+3.8	10.5
P22	-2.50	-3.50	4060 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.0	3.0	+3.8	10,5
P23	-3.50	-4.50	355¢ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	3.4	2.7	+3.8	11.0
P24	-1.90	-2.40	3550 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	3.4	2.5	+3.8	9.5

. . . .



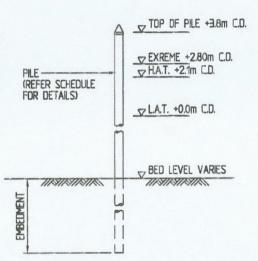
PLAN SCALE 1: 1000

NOTES:

- 1. FOR GENERAL NOTES REFER TO DRAWING No. 5197-100.

..

- TOLERANCE FOR DRIVING IN PLAN +/- 50 mm, MEASURED AS THE WORST COMBINATION OF PLAN DEVIATION AND OUT OF PLUMB OVER FULL TIDAL RANGE. VERTICAL = 1 IN 150 MAX OUT OF PLUMB.
- 3. CONTRACTOR TO ADVISE ENGINEER IF BED LEVEL DIFFERS FROM THE DESIGNED LEVELS BY MORE THAN 300mm.
- 4. ALL STEEL PILES SHALL BE CORROSION PROTECTED WITH HOPE SLEEVES, THE SLEEVE TO BE FROM TOP OF PILE TO 1.5m BELOW BED LEVEL AND SEALED AT THE TOP AFTER INSTALLATION.





## FOR CONSTRUCTION



Bellingham Australia Pty. Ltd. ACN. 074 864 887



Precision engineered flotation systems

International Marina Consultants

Consultants to the Marina Industry.

International Marina Consultants Pty. Ltd. A.C.N. 079 905 481 473 Annertey Road ANNERLEY QLD 4103 AUSTRALIA Phone (07)38925711 Fax (07)38925611 Email: Imc@hmc-marinas.com

Client: BELLINGHAM MARINE AUSTRALIA PTY. LTD

RPAYC MARINA A ARM RECONFIGURATION

Title:

PILE LAYOUT, PROFILE AND SCHEDULE

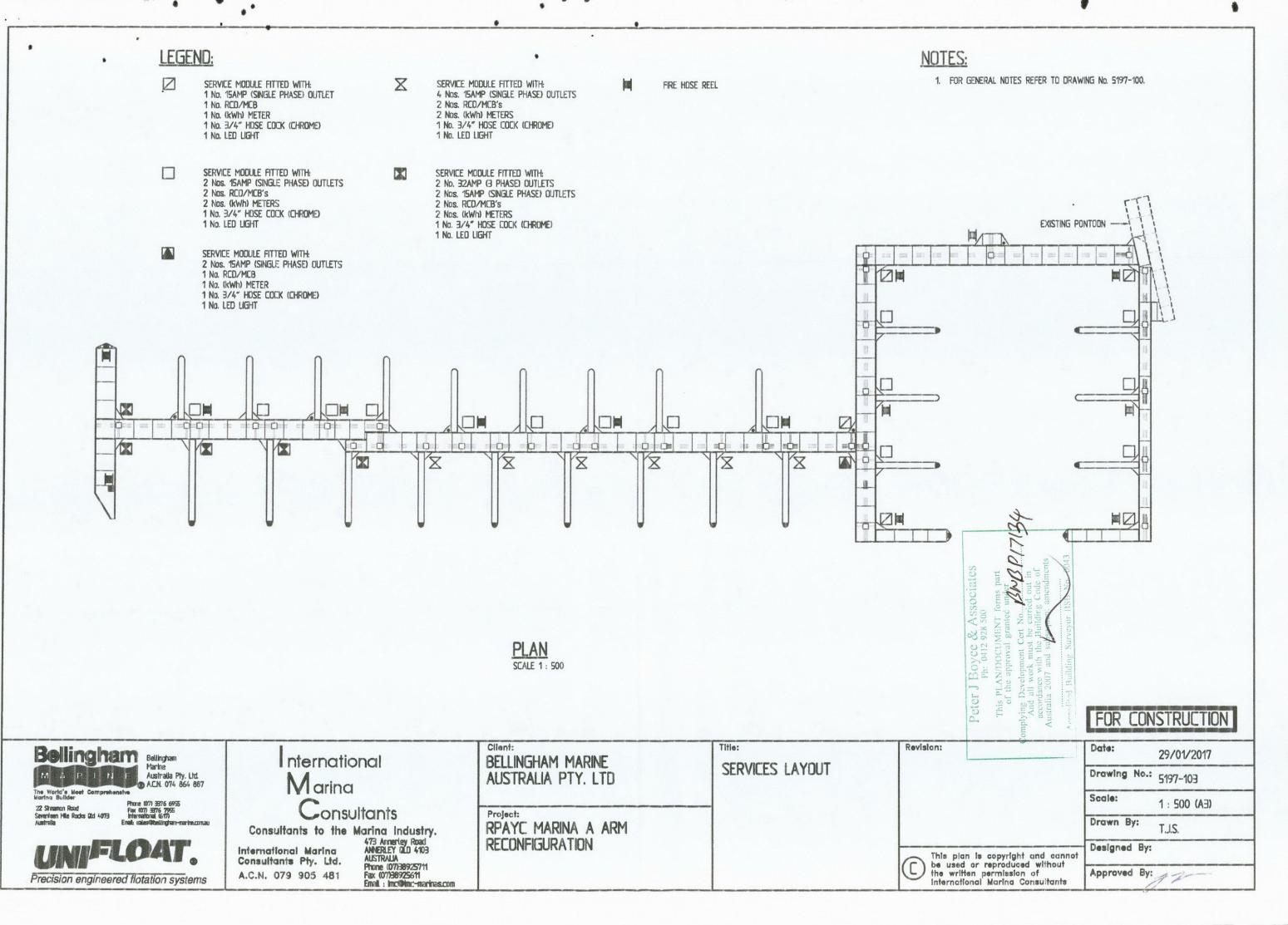
Revision:

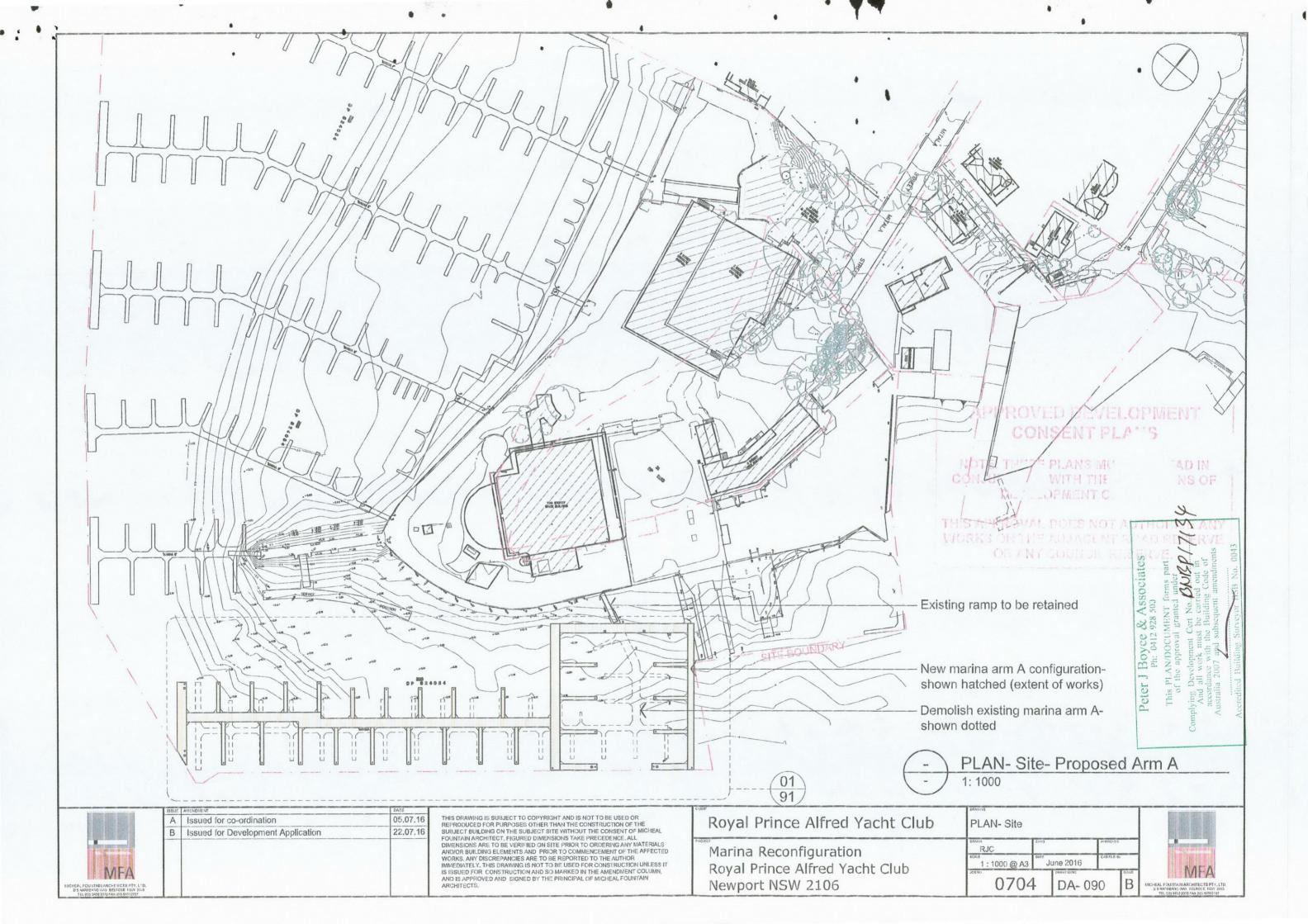
Date:

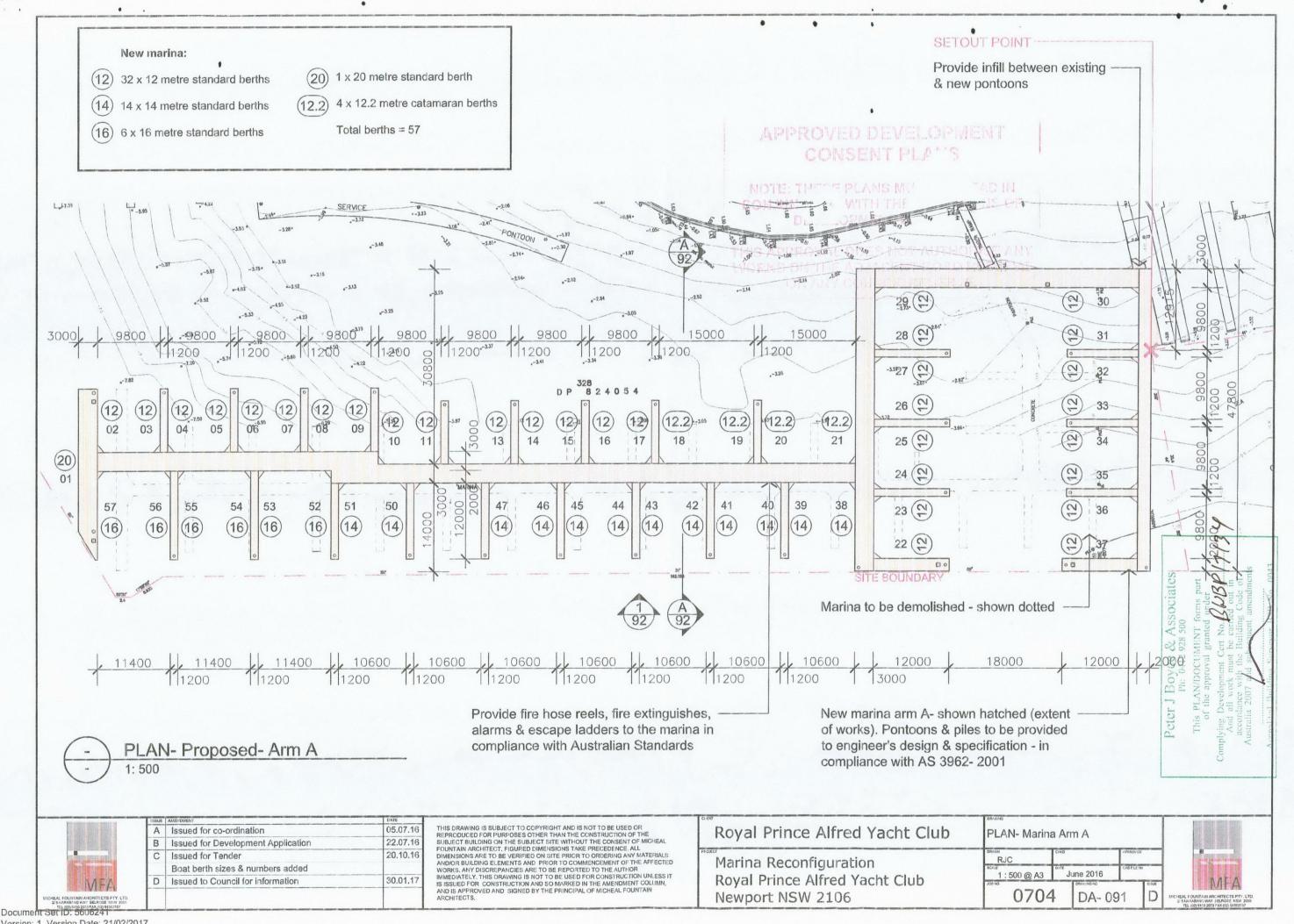
29/03/2017 Drawing No.: 5197-102 Scale: AS SHOWN Drawn By: T.J.S.

This pian is copyright and cannot be used or reproduced without the written permission of international Marina Consultants

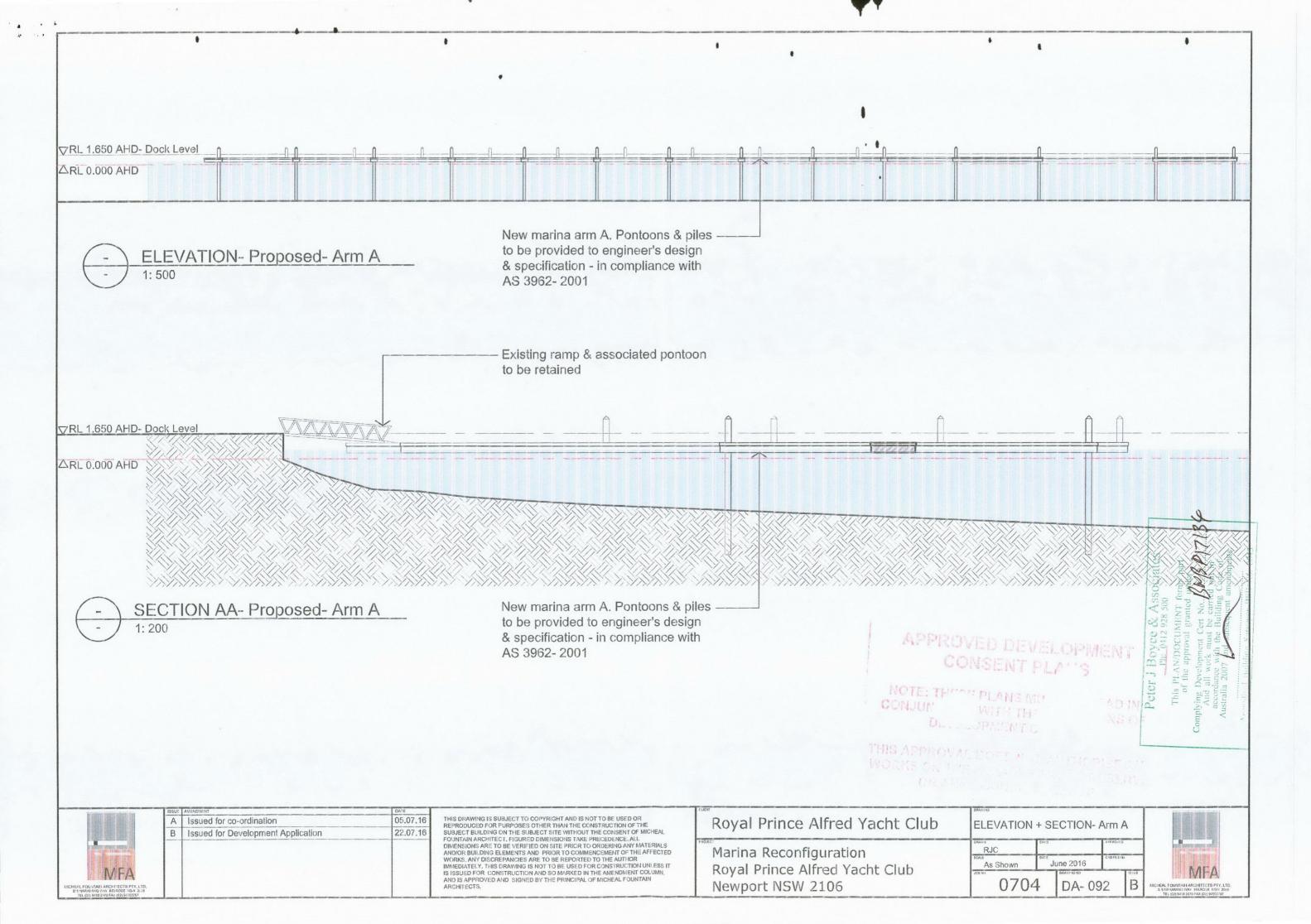
Designed By: Approved By:







Version: 1, Version Date: 21/02/2017



## **GENERAL NOTES:**

- ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE.
- WHEN IN DOUBT 'ASK' DO NOT SCALE. 2.0
- ALL DIMENSIONS ARE SHOWN IN MILLIMETRES U.N.O. OF
- ALL LEVELS ARE SHOWN IN METRES AND ARE REDUCED TO 40 CHART DATUM (CD).
- 5.0 PILES
  - TOLERANCE FOR DRIVING IN PLAN +/- 50 mm, MEASURED AS THE WORST COMBINATION OF PLAN DEVIATION AND OUT OF PLUMB OVER FULL TIDAL RANGE. VERTICAL = 1 IN 150 MAX OUT OF PLUMB.
  - CONTRACTOR TO ADVISE ENGINEER IF BED LEVEL DIFFERS FROM DESIGN LEVEL BY MORE THAN 300mm.
- PONTOON DIMENSIONS ARE NOMINAL - DIMENSIONS ARE MEASURED TIMBER TO TIMBER
- 7.0 ALL THRU-RODS ARE TO BE M20 NOMINAL FRP RODS U.N.O. SPACING TO VARY WITH LOCATION.
- ALL TIMBER DESIGN AND CONSTRUCTION TO BE IN ACCORDANCE WITH AS 1720.1 WALER SIZES

ONE PIECE FINGERS

- 1/75 x 200 GRADE F8 SOFTWOOD TIMBER WALER MULTI PIECE FINGERS

- 2/50 x 200 grade F17 Hardwood Timber Walers

WALKWAYS, T-HEAD AND L-HEADS

- 2/50 x 200 GRADE F17 HARDWOOD TIMBER WALERS PLUS 40 x 200 GRADE F8 SOFTWOOD COVERBOARD
- ALL COVERBOARDS TO BE TREATED SOFTWOOD.
- ALL TIMBER WALERS TO BE SEASONED AND TREATED TO HAZARD CLASS H4 IN ACCORDANCE WITH AS 1604.
- STRUCTURAL TIMBER MUST NOT BE CUT OR DRILLED FOR ANY REASON OTHER THAN SHOWN ON THESE DRAWINGS.
- ALL STEEL SECTIONS TO BE GRADE 300 PLUS MINIMUM U.N.O. ALL STEEL PLATES TO BE GRADE 250 MINIMUM U.N.O.
  - ALL STEEL TO BE HOT DIP GALVANIZED IN ACCORDANCE WITH AS 4680.
  - PROTECTIVE COATINGS TO STEEL COMPONENTS :
  - a. ACID DIP AND HOT DIP GALVANIZE IN ACCORDANCE WITH AS4680.
  - AVERAGE COATING 750g/m<sup>2</sup>
  - EQUIVALENT THICKNESS 100 MICRONS.
- ALL ALUMINIUM WORK TO BE IN ACCORDANCE WITH AS 1664.
  - ALL EXTRUSIONS TO BE TYPE 6061-T6 OR 6082-T5 U.N.O. - PLATES TO BE TYPE 5083 TEMPER H321.
  - ALL WELDS SHALL BE INERT GAS WELD USING PULSE M.I.G. OR T.I.G. FUSION WELDING PROCESS.
  - ALL WELDS TO BE COMPLETE PENETRATION BUTT WELD.
- ALL STEEL AND ALUMINIUM WORK SHALL BE NEATLY FINISHED WITH ALL SHARP EDGES GROUND SMOOTH.
- PILE GUIDE BLOCKS ARE TO BE ADJUSTED AS REQUIRED TO 12.0 SUIT PILE SIZE AND POSITION ON SITE.
  - CLEARANCE MUST BE PROVIDED BETWEEN PILE AND GUIDE TO PREVENT "HANGING" OF PONTOON UNDER FULL TIDAL RANGE.
- 13.0 CONCRETE
  - ALL CONCRETE WORKS SHALL COMPLY WITH AS 3600.
  - MINIMUM CONCRETE STRENGTH f'c = 50MPa U.N.O.
  - ALL REINFORCEMENT TO BE HOT DIP GALVANIZED.
  - MINIMUM COVER TO STRUCTURAL REINFORCEMENT = 45mm.
- ALL PEDESTRIAN SURFACES SHALL BE FINISHED IN ACCORDANCE -CLASS P4 FOR PONTOONS, PLATFORMS, ABUTMENTS, INFILL PANELS, LIDS, BEAMS, STRUCTURAL MEMBERS AND FRAMES
  - -CLASS P5 FOR GANGWAYS

#### 15.0 INSULATION

BOLTED MATERIAL	INSULATING MATERIAL		
aluminium / Galv. Steel	DURALAC ANTI CORROSION COMPOUND OR NYLON SEPARATION WASHERS		
ALUMINIUM / CONCRETE	3mm NEOPRENE		
STEEL / CONCRETE	3mm NEOPRENE		

#### 16.0 DESIGN PARAMETERS

WIND

- BASIC WIND SPEED  $V_{50} = 41 \text{ m/s}$
- TERRAIN CATEGORY TC2

#### WAVE

- WIND GENERATED WAVE
  - $H_{MAX} = 0.6m$  $T_p = 2.0s$
- BOAT WAKE
- $H_{MAX} = 0.6m$  $T_p = 2.0s$

#### CURRENT

VMAX = 1.0m/s

#### BERTHING IMPACT

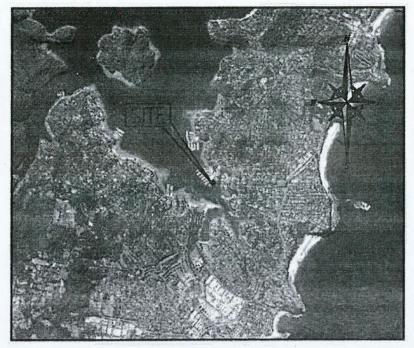
- NORMAL BERTHING VELOCITY
- v = 0.3m/s
- ACCIDENTAL BERTHING VELOCITY v = 0.45 m/s

#### LIVE LOAD ON PONTOONS

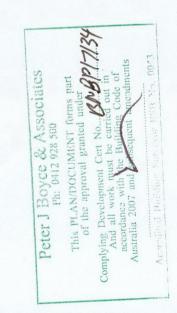
- MAX. UNIFORMLY DISTRIBUTED LOAD 3 kPa
- FREEBOARD UNDER DEAD LOAD 500 ± 25mm

#### DESIGN VESSELS

VESSEL LENGTH	WIND PROFILE AREA (m²)		DISPLACEMENT	
(m)	BEAM	HEAD	(1)	
12	29.0	11.0	11.0	
14	39.7	15.7	16.0	
16	51,3	19.3	22.0	



LOCALITY MAP



## PLAN OR DOCUMENT CERTIFICATION

I am a qualified Engineer.

hold the following qualifications or licence No.

## BE, REPQ No. 2938, MIPENZ, ATBP No. CC4190W

Further I am appropriately qualified to certify this component of the project I hereby state that these plans or details comply with the conditions of development consent the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards.

J.M. LEMAN

FOR APPROVAL

Bellingham Bellingham

Australia Pty. Ltd. A FN 074 864 887

The World's Most Com

venteen Mile Rocks Old 4073

Phone (07) 3376 6955 Fax (07) 3376 7955

Precision engineered flotation systems

Revisions

This plan is copyright and cannot be used or reproduced without the written permission of International Marina Consultants

> nternational **M** arina onsultants

Consultants to the Marina Industry.

International Marina Consultants Pty. Ltd. A.C.N. 079 905 481 473 Annerley Road

ANNERLEY QLD 4103 Australia

Phone (07)3892 5711 Fax (07)3892 5611 Email: imc@imc-marinas.com

CLIENT:

BELLINGHAM MARINE AUSTRALIA PTY, LTD

PROJECT:

RPAYC MARINA A ARM RECONFIGURATION

GENERAL NOTES

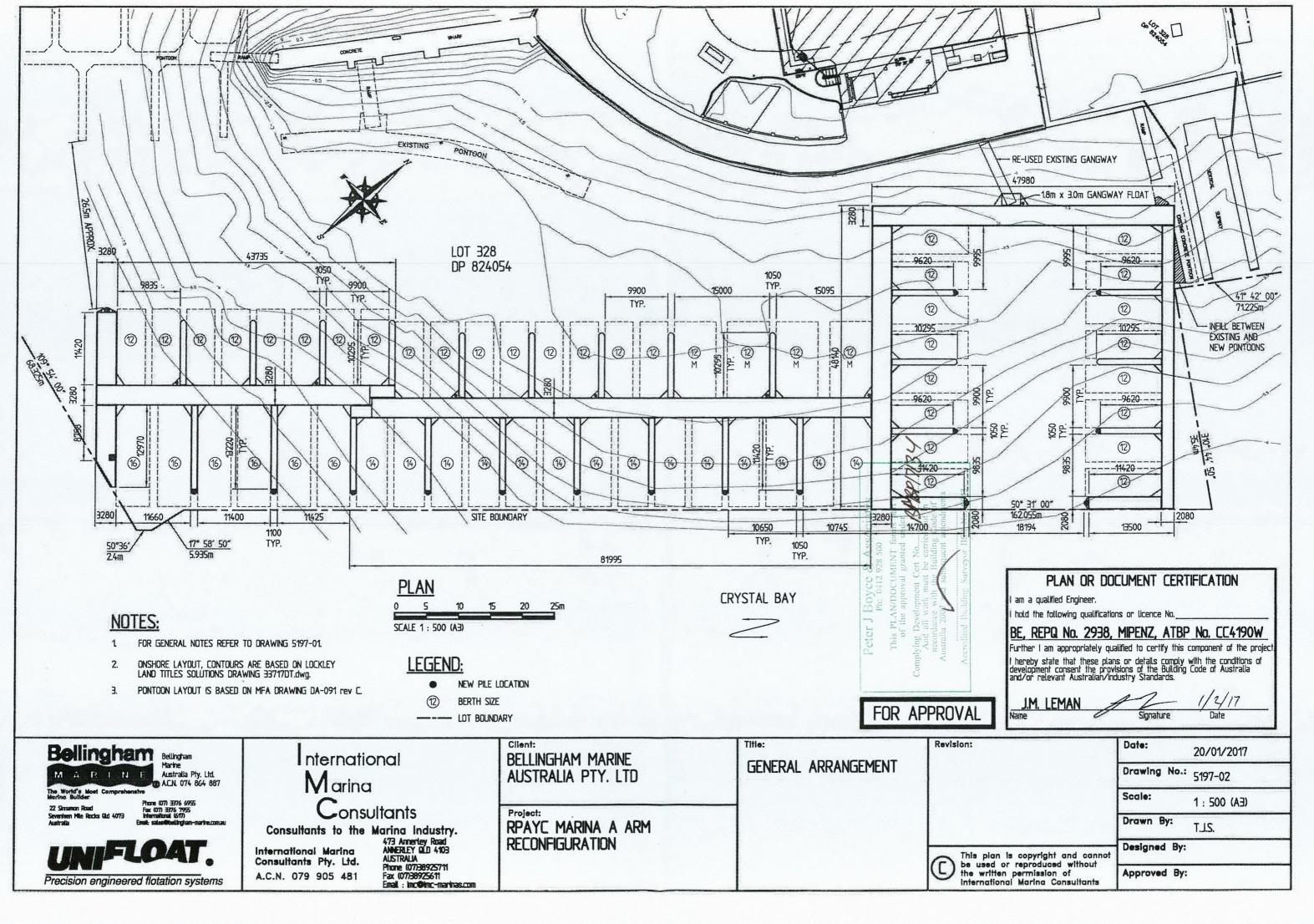
20/01/2017

Drawing No.: 5197-01

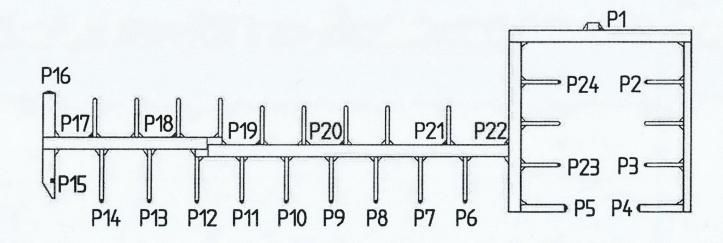
N.T.S. Scale:

Drawn By: T.J.S. Designed By:

Approved By:



PILE	DESIGN	HARD CLAY/		MINIMUM EMBEDMENT (m)		PILE	OVERALL
No.		WEAK ROCK LEVEL (m C.D.)	PILE SIZE	TOTAL	HARD CLAY/ WEAK ROCK	TOP LEVEL (m C.D.)	PILE LENGTH (m)
P1	-1.10	-1.60	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	3.6	2.8	+3.8	8.5
P2	-2.60	-3.10	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	3.3	2.8	+3.8	10.0
P3	-4.60	-	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	4.9	-	+3.8	13.5
P4	-5.10	-	406Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.7	-	+3.8	15.0
P5	-4.60	-	406φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.6	-	+3.8	14.5
P6	-3.80	-4.80	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	3.8	2.8	+3.8	11.5
P7	-3.70	-4.70	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	3.8	2.8	+3.8	115
P8	-3.70	-4.70	355¢ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.0	3.0	+3.8	11.5
P9	-4.10	:4:	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	5.4	***	+3.8	13.5
P10	-5.10	-	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	5.6	-	+3.8	14.5
P11	-5.90		355¢ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.7		+3.8	15.5
P12	-6.50		355¢ x 12.7 Wall grade 350 corrosion protected steel pile	5,8	•	+3.8	16.5
P13	-7.00	•	457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	6.0		+3.8	17.0
P14	-7.60		4570 x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.8		+3.8	17.5
P15	-8.10	13 13 13 13 13 13 13 13 13 13 13 13 13 1	457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	6.4	-	+3.8	18.5
P16	-7.30	-	457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.9	-	+3.8	17.5
P17	-7.30	- 1	457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.9	-	+3.8	17.5
P18	-5.80		457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	6.3	•	+3.8	16.0
P19	-4.20		457Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	5.7	-	+3.8	14.0
P20	-2.30	-3.30	406Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.4	3.4	+3.8	11.0
P21	-2.30	-3.30	406Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.3	3.3	+3.8	10.5
P22	-2.50	-3.50	406Φ x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	4.0	9.E	+3.8	10.5
P23	-3.50	-4.50	355¢ x 12.7 Wall grade 350 corrosion protected steel pile	3.4	2.7	+3.8	11.0
P24	-190	-2.40	355\phi x 12.7 WALL GRADE 350 CORROSION PROTECTED STEEL PILE	3.4	2.5	+3.8	9.5



PLAN SCALE 1: 1000

## NOTES:

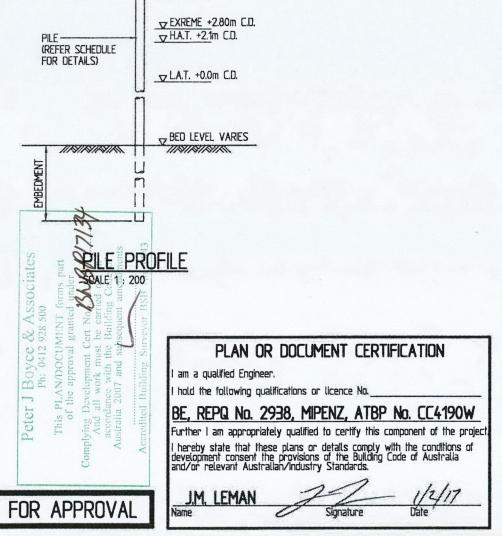
- 1. FOR GENERAL NOTES REFER TO DRAWING No. 5197-01.

TOLERANCE FOR DRIVING IN PLAN +/- 50 mm, MEASURED AS THE WORST COMBINATION OF PLAN DEVIATION AND OUT OF PLUMB OVER FULL TIDAL RANGE. VERTICAL = 1 IN 150 MAX OUT OF PLUMB.

3. CONTRACTOR TO ADVISE ENGINEER IF BED LEVEL DIFFERS FROM THE DESIGNED LEVELS BY MORE THAN 300mm.

TOP OF PILE +3.8m C.D.

4. ALL STEEL PILES SHALL BE CORROSION PROTECTED WITH HDPE SLEEVES, THE SLEEVE TO BE FROM TOP OF PILE TO 1.5m BELOW BED LEVEL AND SEALED AT THE TOP AFTER INSTALLATION.





Australia Pty. Ltd.

A.C.N. 074 864 887



Precision engineered flotation systems

**I**nternational Marina Consultants

Consultants to the Marina Industry.

International Marina Consultants Pty. Ltd. A.C.N. 079 905 481

473 Annericy Road ANNERIEY OLD 4103 ALISTRALIA Phone (07)38925711 Fax (07)38925611 Email: Inc**G**/mc-marinas.com BELLINGHAM MARINE AUSTRALIA PTY. LTD

Project: RPAYC MARINA A ARM RECONFIGURATION

PILE LAYOUT, PROFILE AND SCHEDULE

Revision:

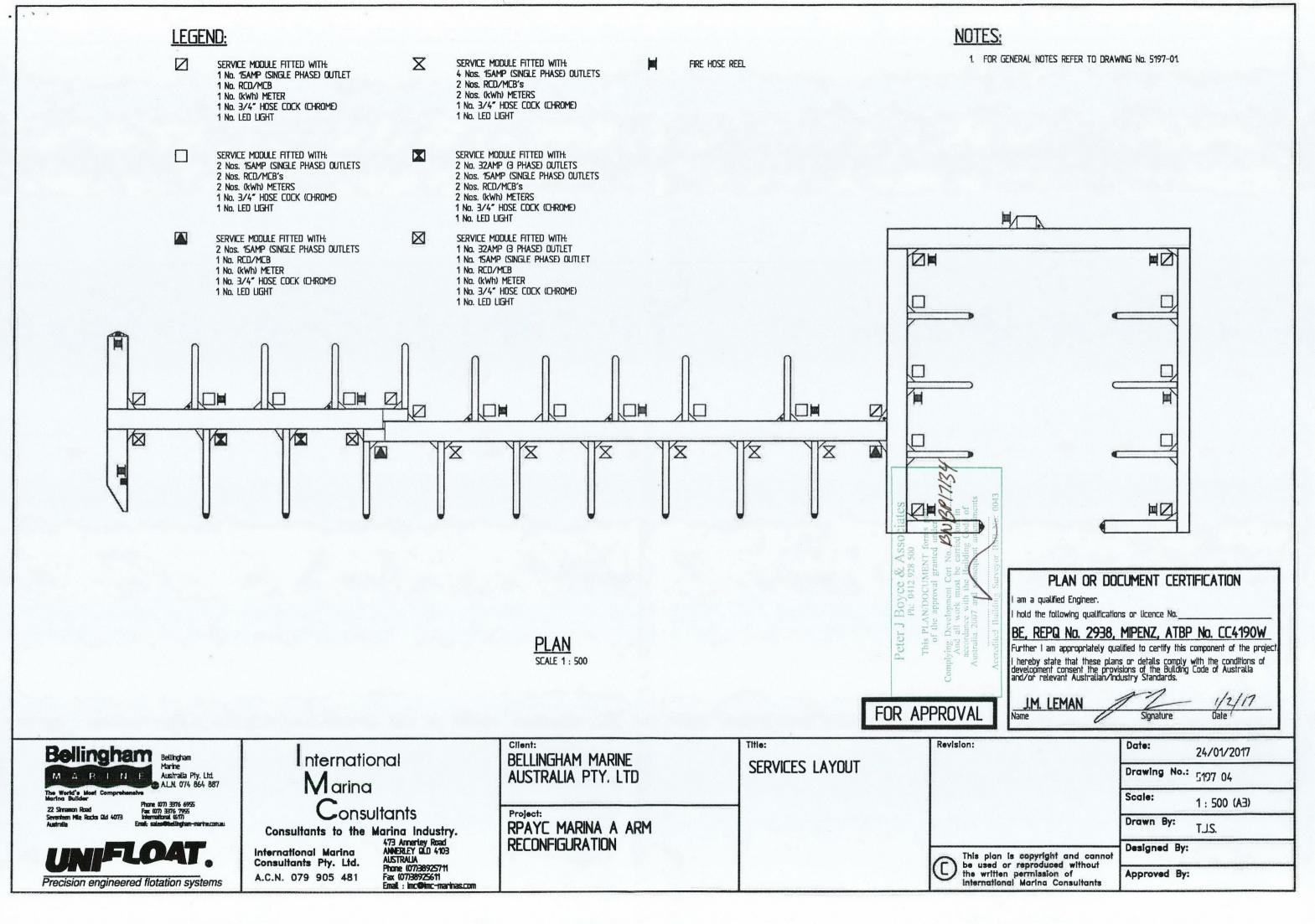
Drawing No.: 5197-03 Scale: AS SHOWN Drawn By: T.J.S.

24/01/2017

Designed By:

This plan is copyright and cannot be used or reproduced without the written permission of International Marina Consultants

Approved By:



## **Accredited Building Surveyors**

Planning NSW Accreditation No: BPB0043 ABN: 92 616 124 481 t 9868 2855 | f 9868 2655 e info@boycecorp.com.au PO Box 375, Strathfield NSW 2135 Suite 405, 51 Rawson Street, Epping NSW 2121

## Fire Safety Schedule

SEC	TION A. Development details						
U	Unit/Street no. Street name						
14 Mitala Str			eet				
S	uburb or town		Postcode				
N	Newport			2106			
SEC	TION B. Construction certificat	e details					
N	Name of certifying authority Certificate numb				Date of certificate		
Peter J Boyce & Associates BNBP17134							
SE®	TION C. Statutory fire safety m	easures (as set out under c	lause 166 EP&A Reg)				
No.	Measure	Particulars of measure including where the measures are set out, eg, alternative solution report or building plan	implemented Yes/No	Proposed implementation Yes/No	Minimum performance standard		
1	Portable Fire Extinguisher		No	Yes	BCA E1.6, AS 2444		
2	Fire Hose Reels		Yes	Yes	BCA E1.4, AS2441-1998, AS 1851- 2005		
SECTION F. Certifying authority							
Name	Peter J. Boyce		Signature Per Dogu				
Accre	editation No. BPB0043		Date				