

# BUILDING CODE OF AUSTRALIA CONSULTANTS

(A Division of Australian Loss Prevention Pty Ltd) ABN 91 073 302 280  
**TOWN PLANNING, BUILDING SURVEYING & FIRE TECHNOLOGY**

Email: [bca@buildingcodeaust.com.au](mailto:bca@buildingcodeaust.com.au)



Suite 6, Level 1  
2a Redman Road  
Dee Why NSW 2099  
Tel: (02) 9982 1199  
Fax: (02) 9971 1388  
Mobile: (0412) 09 29 29

Our ref: 03086-7/das

14<sup>th</sup> April 2005

The General Manager  
Pittwater Council  
P O Box 882  
MONA VALE NSW 1660

Dear Sir

**Re: ROYAL MOTOR YACHT CLUB – 46 PRINCE ALFRED PDE, NEWPORT  
REPLACEMENT OF MARINA AND 14 NEW BIRTHS  
OCCUPATION CERTIFICATE DETERMINATION No 03086-OC  
DA - 133-3-2003-1 (Department of Infrastructure, Planning and Natural Resources)**

Please find attached my determination of the Occupation Certificate together with a cheque for \$30.00 being the lodgement fee for the above mentioned premises including all relevant details for your records.

A copy of the documents has been forwarded to DIPNR as the Consent Authority.

If you require any further information or explanation, please do not hesitate to contact me.

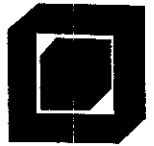
Yours faithfully

Damian O'Shannassy  
**DIPNR Accredited Certifier No 6175**

F0cc - \$30.

# BUILDING CODE OF AUSTRALIA CONSULTANTS

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TOWN PLANNING, BUILDING SURVEYING & FIRE TECHNOLOGY  
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Fax: (02) 9971 1388  
Mobile: (0412) 09 29 29

Form 12

## Occupation Certificate Determination

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### Determination

type of certificate Final certificate  
approved/refused approved  
date of determination 14<sup>th</sup> April 2005

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### Subject Land

Address 46 Prince Alfred Parade, Newport NSW 2107  
(Royal Motor Yacht Club)  
Lot no./ DP/MPS, etc. volume/folio

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### Attachments

- Letter from Docker Smith Pty Limited consulting Structural & Civil Engineers dated 29.7.04 & 3.12.04 re as built details and services.
- As built details from International Marina Consultants, drawing nos 2187-100/N, 101/K & 102/H;
- As built survey from Symmetry Surveying Pty Ltd, dated 24.6.2004, Drawing no 201102/A.

### Right of Appeal

Under a Section 109K, where the certifying authority is a council, an applicant may appeal to the land and Environment Court against the refusal to issue an occupation certificate within 12 months from the date of the decision.

### Applicant

Name Graham Chatfield - General Manager  
Address Royal Motor Yacht Club  
Contact no. (telephone/fax) 46 Prince Alfred Parade, Newport NSW 2107  
Ph: (02) 9997 5511 Fax: (02) 9997 4318

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### Owner

Name Department of Lands  
Address Land NSW - Sydney Metropolitan Office, Parramatta  
Contact no. (telephone/fax) Ph: (02) 9895 6244

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# Certificate

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**Certificate Final**

- I Damian O'Shannassy certify that:
- I have been appointed as the principal certifying authority under Section 109E
- A development consent is in force with respect to the building
- A construction certificate has been issued with respect to the plans and specifications for the building
- The building is suitable for occupation or use in accordance with its classification, 10b, under the Building Code of Australia,

signature  
endorsement date  
certificate no.



14<sup>th</sup> April 2005  
03086-OC

---

**Principal Certifying Authority**  
name of principal certifying authority  
where accredited certifier:  
accreditation no.  
address  
contact no.

Damian O'Shannassy  
6175 "DIPNR - NSW"  
Suite 4, 470 Sydney Road, Balgowlah NSW 2093  
Ph: (02) 9400 2335 Fax: (02) 9400 2405

---

**Development Consent**  
number and date of determination

DA-133-3-2003-1 Date of Determination: 16.9.2003

---

**Construction Certificate**  
number and date of determination

03086-OC Date of Determination: 17.10.2003

---

**BCA Classification**

10b

**DOCKER SMITH PTY LIMITED**

ABN 17 001 705 237

CONSULTING STRUCTURAL & CIVIL ENGINEERS

553 WILLOUGHBY ROAD, WILLOUGHBY NSW 2068 TELEPHONE 9967 2355 FACSIMILE 9967 2533  
Email: docksmith@bigpond.com



01001/078  
29 July, 2004

Building Code of Australia Consultants  
Suite 6, Level 1  
20 Redman Road  
DEE WHY NSW 2099

Attention: Mr Bob Killorn

Dear Sir,

**re: RMYC Marina**

I am acting on behalf of the Royal Motor Yacht Club and request that you issue an Occupation Certificate in accordance with your brief with the Club.

I enclose the following as built documents to assist you in providing this certificate:-

Drawings No	2187-100N	-	Marina Layout
	2187-101K	-	Pile Layout
	2187-102H	-	Services Layout
	201102A	-	Survey Plan - As Constructed Marina.

Please do not hesitate to contact me if I can be of further assistance in this matter.

Yours faithfully,

**DOCKER SMITH PTY LIMITED**

**K. B. Smith**

# **DOCKER SMITH PTY LIMITED**

ABN 17 001 705 237

CONSULTING STRUCTURAL & CIVIL ENGINEERS

553 WILLOUGHBY ROAD, WILLOUGHBY NSW 2068 TELEPHONE 9967 2355 FACSIMILE 9967 2533  
Email: docksmith@bigpond.com



01001/081

3 December, 2004

Building Code of Australia Consultants  
Suite 6, Level 1  
20 Redman Road  
DEE WHY NSW 2099

Attention: Mr Bob Killorn

Dear Sir,

**re: Occupation Certificate**  
**RMYC Marina**

Please find enclosed one copy of signed Services Layout 2187-102J where under Note 2 it is stated that the provision of hose reels complies with AS 3962.

We note that the code reference for the provision of fire fighting services for marinas is the Guidelines for Design of Marinas, AS 3962 and not the BCA which, as you would know, applies only to buildings. As for fire extinguishers, AS 3962 is not explicit and the Client specification for this marina calls for a 9 kg dry chemical extinguisher at each hose reel. The contractor has complied with this requirement.

The Club looks forward to receiving the Occupation Certificate.

Yours faithfully,

**DOCKER SMITH PTY LIMITED**

**K. B. Smith**

Piitwater Council

ABN: 61340837871

**TAX INVOICE**  
**OFFICIAL RECEIPT**

18/04/2005 Receipt No 165679

To DK Building Certifiers Pty  
Ltd

Suite 6 Level 1  
2a Redman Road  
DEE WHY 2099

Qty/ Applic	Reference	Amount
----------------	-----------	--------

46	FODC-Occu	\$27.27
----	-----------	---------

GL Rec	46 Prince Alfred Pde	
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	BST	\$2.73
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GL Rec		
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To GL Receipt:

Total Amount:	\$30.00
---------------	---------

Includes GST of:	\$2.73
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Amounts Tendered

Cheque	\$30.00
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Total	\$30.00
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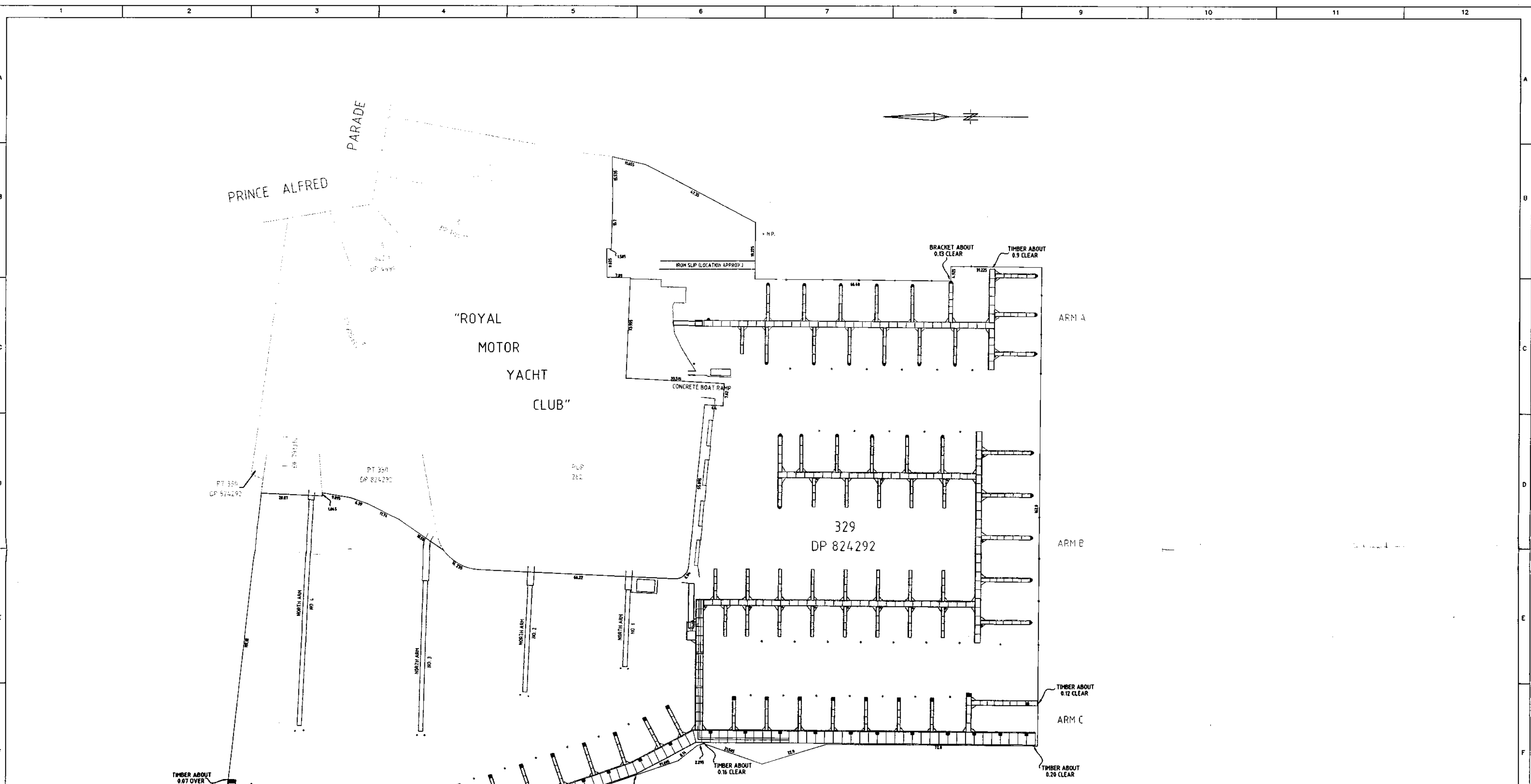
Rounding	\$0.00
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Change	\$0.00
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Nett	\$30.00
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Printed 18/04/2005 1:57:01 PM

Cashier PLewis



PRINCE ALFRED  
PARADE

"ROYAL  
MOTOR  
YACHT  
CLUB"

PITTWATER

329  
DP 824292

ARM A

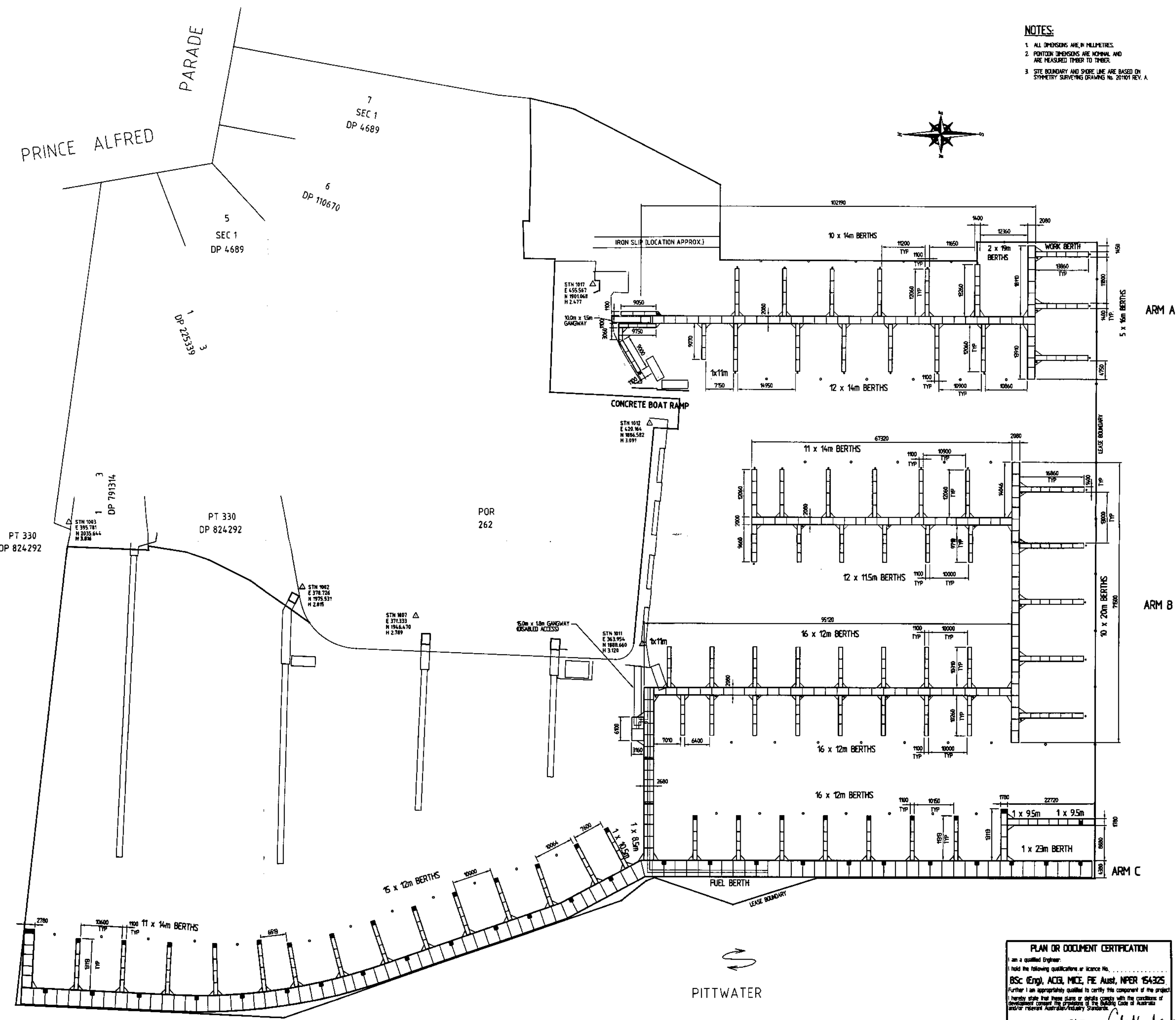
ARM B

ARM C

**ADDED NOTES:**

1. THIS PLAN IS DRAWN IN METRES.
2. NO BELOW GROUND INVESTIGATION OF SERVICES HAS BEEN CARRIED OUT FOR THE PREPARATION OF THIS PLAN.
3. THIS PLAN SHOWS VISIBLE FEATURES ONLY AND NO BELOW GROUND INVESTIGATION OF STRUCTURES HAS BEEN MADE IN ITS PREPARATION.
4. NO BOUNDARIES HAVE BEEN DEFINED BY THIS PLAN.
5. PONTOON LOCATION  $\pm 30$ mm DUE TO WIND, WAVE, & TIDAL ACTION.
6. NOT ALL FINGERS / WALKWAYS SURVEYED FOR THE PURPOSES OF THIS PLAN. LOCATIONS DERIVED FROM IMC DWG No.'s: 2187-233, 2187-313, 2187-314, 2187-313A, 2187-314A, & 2187-100L/M.
7. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN.

<p><b>IMPORTANT NOTE:</b> This plan is prepared for Bellingham Marine Aust. from a combination of field survey and existing records for the purpose of designing new construction on the land and should not be used for any other purpose.</p> <p>The site boundaries shown herein were not marked by the author at time of survey and have been determined by plan dimensions only and not by field measurement.</p>	<p>Services shown herein have been located where possible by field survey.</p> <p><b>IMPORTANT NOTE:</b> Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of underground services and detailed locations of all services.</p> <p>This note is an integral part of this plan.</p>	<p><b>LEGEND 1:</b></p> <table style="width: 100%; font-size: small;"> <tr> <td>● SEWER ACCESS CHAMBER</td> <td>○ 300</td> <td>□ WATER METER</td> <td>△ STATE SURVEY MARK</td> </tr> <tr> <td>○ SEWER TRAP</td> <td>○ UNKNOWN ELECTRICITY</td> <td>△ STOP VALVE</td> <td>△ SURVEY MARK</td> </tr> <tr> <td>○ SEWER VENT</td> <td>○ POWER POLE</td> <td>△ TWP</td> <td>△ VENT</td> </tr> <tr> <td>○ SEWER LAMP HOLE</td> <td>○ LIGHT POLE</td> <td>△ VENT</td> <td>△ GAS PIT</td> </tr> <tr> <td>□ TELECOM PIT 1.2x1.0</td> <td>○ ELECTRICITY METER</td> <td>□ GULLY PIT</td> <td>○ GAS MARKER POST</td> </tr> <tr> <td>□ UNKNOWN TELECOM</td> <td>○ TELEPHONE SERVICE</td> <td>□ MANHOLE BOX</td> <td>○ UNKNOWN GAS</td> </tr> <tr> <td>□ TWIN TELECOM PIT</td> <td>○ UNKNOWN WATER</td> <td>□ CRATED PIT</td> <td>○ GAS METER</td> </tr> <tr> <td>□ TELECOM PIT</td> <td>○ UNKNOWN WATER</td> <td>□ SPANNE MARKING</td> <td>□ TRAFFIC SIGNAL BOX</td> </tr> <tr> <td>○ BELLAIR</td> <td>○ UNKNOWN WATER</td> <td>○ TRAFFIC SIGNAL PIT</td> <td></td> </tr> <tr> <td>○ SPINE PILLAR</td> <td></td> <td></td> <td></td> </tr> </table>	● SEWER ACCESS CHAMBER	○ 300	□ WATER METER	△ STATE SURVEY MARK	○ SEWER TRAP	○ UNKNOWN ELECTRICITY	△ STOP VALVE	△ SURVEY MARK	○ SEWER VENT	○ POWER POLE	△ TWP	△ VENT	○ SEWER LAMP HOLE	○ LIGHT POLE	△ VENT	△ GAS PIT	□ TELECOM PIT 1.2x1.0	○ ELECTRICITY METER	□ GULLY PIT	○ GAS MARKER POST	□ UNKNOWN TELECOM	○ TELEPHONE SERVICE	□ MANHOLE BOX	○ UNKNOWN GAS	□ TWIN TELECOM PIT	○ UNKNOWN WATER	□ CRATED PIT	○ GAS METER	□ TELECOM PIT	○ UNKNOWN WATER	□ SPANNE MARKING	□ TRAFFIC SIGNAL BOX	○ BELLAIR	○ UNKNOWN WATER	○ TRAFFIC SIGNAL PIT		○ SPINE PILLAR				<table style="width: 100%; font-size: small;"> <tr> <td>SCALE: HOR. 1:650 VERT. (AT A1 SIZE)</td> <td></td> </tr> <tr> <td>HORIZONTAL ORIGIN</td> <td></td> </tr> <tr> <td>MARK ADOPTED:</td> <td></td> </tr> <tr> <td>COORDINATES: E H</td> <td></td> </tr> <tr> <td>VERTICAL DATUM</td> <td></td> </tr> <tr> <td>BM ADOPTED:</td> <td></td> </tr> </table>	SCALE: HOR. 1:650 VERT. (AT A1 SIZE)		HORIZONTAL ORIGIN		MARK ADOPTED:		COORDINATES: E H		VERTICAL DATUM		BM ADOPTED:		<p>SYMMETRY SURVEYING Pty Ltd P.O. Box 583, Alexandria NSW 2015 PHONE 0413 489 688 FAX (02) 9550 5458 EMAIL: symmetrysurvey@optusnet.com.au</p> <table style="width: 100%; font-size: x-small;"> <tr> <td>SURVEYED RDC</td> <td>DRAWN MH</td> <td>CHECKED RDC</td> </tr> <tr> <td>PASSED DIRECTOR</td> <td></td> <td></td> </tr> </table>	SURVEYED RDC	DRAWN MH	CHECKED RDC	PASSED DIRECTOR			<p>PROJECT: RMYC BROKEN BAY PLAN SHOWING SELECTED DETAIL OVER THE 'AS INSTALLED' NEW FLOATING MARINA AT RMYC, BROKEN BAY</p> <p>CLIENT: BELLINGHAM MARINE AUSTRALIA</p>	<p>BCS REF:</p> <p>CAD REF:</p> <p>DATE: 22.06.2004</p> <p>SHEET 1 OF 1</p> <p>DRAWING NO: 201102 REV A</p>
● SEWER ACCESS CHAMBER	○ 300	□ WATER METER	△ STATE SURVEY MARK																																																													
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<p>REVISION: A DATE: 22/06/2004 DESCRIPTION: ORIGINAL ISSUE APPROVED: RDC</p>																																																																



- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES.
  2. POSITION DIMENSIONS ARE NORMAL AND ARE MEASURED THUS TO THESE.
  3. SITE BOUNDARY AND SHORE LINE ARE BASED ON SYDNEY SURVEYING DRAWING NO. 20701 REV. A.



ARM A

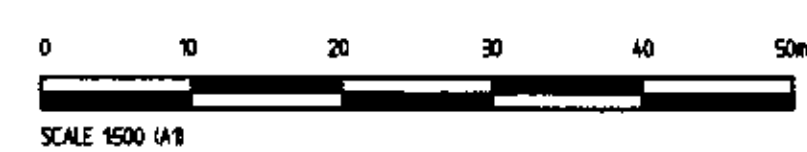
ARM B

ARM C

**PLAN OR DOCUMENT CERTIFICATION**  
 I am a qualified Engineer  
 and hold the following qualifications or licence No. ....  
 BSc (Eng), ACB, MICE, FE Aust, NPER 154325  
 I hereby declare that these plans or details comply with the conditions of  
 the Statutory Instruments made under the provisions of the Building Code of Australia  
 and/or relevant Australian Industry Standards.  
 CH. ABRAHAM 26.7.04  
 Name Date Signature

29 JUL 2004

**AS BUILT**



FILE NAME : 2187-100  
 PLOT SCALE : 1:500  
 PLOT DATE : 17/04/2003  
 PATH : G:\PROJECTS\2187\DRAWINGS\

**Bellingham** Bellingham  
 MARINE Marine  
 Australia Pty. Ltd.  
 ACN. 074 864 887  
 Innovative harbour  
 and waterfront solutions  
 22 Shannan Road  
 Seawater Hill Rocks Qld 4075  
 Australia  
 Phone 077 3976 6955  
 Fax 077 3976 7955  
 International GST  
 Email sales@bellingham-marine.com.au

**UNIFLOAT.**  
 Precision engineering flotation systems

No.	Date	Description	BY	CHK
N	1/07/04	AS BUILT	JC	JML
M	15/06/04	ADDITIONAL FINGER AT ARM A GANGWAY EXTENDED	JC	JML
L	10/06/04	JUNIOR SALING PONTON DELETED/ ARM A HOODPIES & SOME HOODING PILES IN ARM B DELETED	WL	KC
K	18/04/04	JUNIOR SALING PONTON ADDED/ ARM A REVISD	WL	JML
J	18/10/03	LINK WALKWAY & FUEL BERTH POINTON REVISD	JC	JML
H	19/08/03	ATTENUATOR LAYOUT REVISD	JC	JML
G	23/07/03	ATTENUATOR LAYOUT REVISD	JC	JML
F	22/07/03	ATTENUATOR LAYOUT REVISD	WL	JML
E	04/07/03	CHANGES AS PER BMA MARK UP	WL	JML
D	11/06/03	ARM C WALKWAY CURVE REVISD	WL	JML
C	16/05/03	SURVEY DRAWINGS ADDED FILE AT ARM C & ARM A REVISD	JC	KC
B	01/05/03	HOODING PILES ADDED TO ARM A	WL	KC
A	22/1/03	FILES ADDED	WL	KC

Revisions

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**International Marina Consultants**  
 Consultants to the Marina Industry.  
 International Marina Consultants Pty. Ltd.  
 A.C.N. 079 905 481  
 A.B.N. 85 079 905 481  
 473 Arnerley Road  
 ANNERLEY QLD 4103  
 AUSTRALIA  
 Phone (07) 3892 5711 Fax (07) 3892 5611  
 Email : admin@imc-marinas.com

Client:  
**BELLINGHAM MARINE AUSTRALIA PTY. LTD.**

PROJECT:  
**ROYAL MOTOR YACHT CLUB - BROKEN BAY**

Title:  
**MARINA LAYOUT**

Drawn By: \_\_\_\_\_  
 Drawing Check: \_\_\_\_\_  
 Approved: \_\_\_\_\_  
 Drawing No. 2187-100

Designed By: \_\_\_\_\_  
 Engineering Check: \_\_\_\_\_  
 Scale: 1:500

Sheet No. N



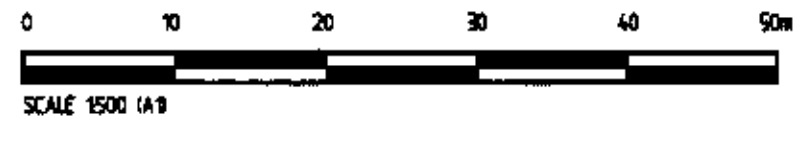
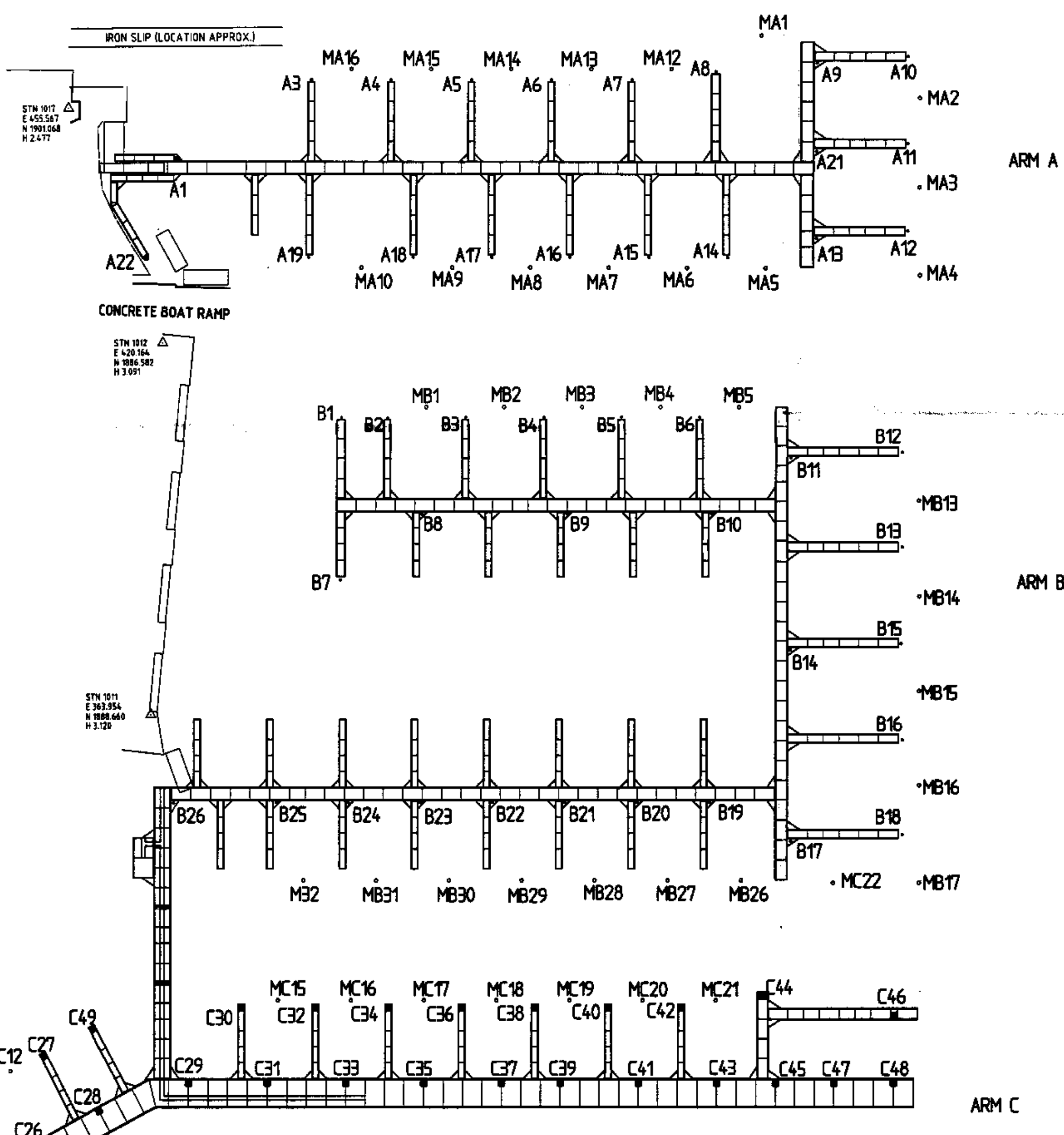
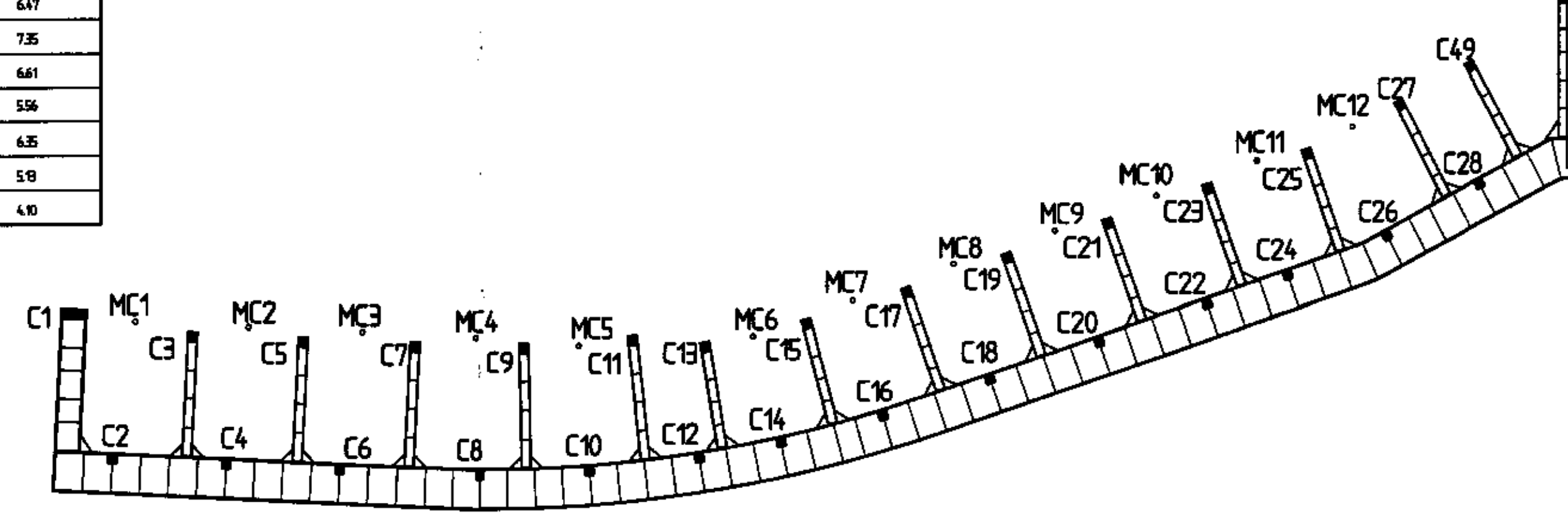
PILE SCHEDULE - MARINA PILES			
PILE NO.	AS BUILT BED LEVEL (m LAT)	PILE SIZE	AS BUILT EMBEDMENT (m)
A1	-1.2	4060 x 95 WALL GRADE 350 STEEL PILE	3.25
A2	-4.7	4060 x 95 WALL GRADE 350 STEEL PILE	5.27
A3	-5.5	4060 x 95 WALL GRADE 350 STEEL PILE	6.90
A4	-5.8	4060 x 95 WALL GRADE 350 STEEL PILE	3.78
A5	-6.4	4060 x 95 WALL GRADE 350 STEEL PILE	5.55
A6	-6.8	4060 x 95 WALL GRADE 350 STEEL PILE	5.93
A7	-7.0	4060 x 95 WALL GRADE 350 STEEL PILE	4.45
A8	-7.9	4060 x 95 WALL GRADE 350 STEEL PILE	3.35
A9	-7.5	4060 x 95 WALL GRADE 350 STEEL PILE	3.29
A10	-8.5	4060 x 95 WALL GRADE 350 STEEL PILE	4.39
A11	-8.9	4060 x 127 WALL GRADE 350 STEEL PILE	5.02
A12	-7.9	4060 x 95 WALL GRADE 350 STEEL PILE	5.52
A13	-8.5	4060 x 127 WALL GRADE 350 STEEL PILE	7.70
A14	-8.1	4060 x 95 WALL GRADE 350 STEEL PILE	7.95
A15	-7.7	4060 x 95 WALL GRADE 350 STEEL PILE	5.12
A16	-7.1	4060 x 95 WALL GRADE 350 STEEL PILE	6.73
A17	-6.5	4060 x 95 WALL GRADE 350 STEEL PILE	5.79
A18	-4.7	4060 x 95 WALL GRADE 350 STEEL PILE	3.73
A19	-8.3	4060 x 95 WALL GRADE 350 STEEL PILE	4.97
A20	-9.9	4060 x 95 WALL GRADE 350 STEEL PILE	2.97
A21	-5.0	4060 x 95 WALL GRADE 350 STEEL PILE	2.44
A22	-6.0	4060 x 95 WALL GRADE 350 STEEL PILE	3.34
B1	-7.6	4570 x 127 WALL GRADE 350 STEEL PILE	3.63
B2	-8.1	4060 x 95 WALL GRADE 350 STEEL PILE	4.20
B3	-8.7	4060 x 127 WALL GRADE 350 STEEL PILE	7.48
B4	-10.0	4060 x 127 WALL GRADE 350 STEEL PILE	7.80
B5	-4.1	4060 x 95 WALL GRADE 350 STEEL PILE	2.43
B6	-5.0	4060 x 127 WALL GRADE 350 STEEL PILE	2.82
B7	-8.3	4060 x 127 WALL GRADE 350 STEEL PILE	3.00
B8	-10.4	4060 x 95 WALL GRADE 350 STEEL PILE	4.52
B9	-11.2	5000 x 127 WALL GRADE 350 STEEL PILE	9.76
B10	-11.2	5000 x 127 WALL GRADE 350 STEEL PILE	12.17
B11	-11.8	5000 x 127 WALL GRADE 350 STEEL PILE	10.56
B12	-11.3	5000 x 127 WALL GRADE 350 STEEL PILE	3.86
B13	-12.1	5000 x 127 WALL GRADE 350 STEEL PILE	9.64
B14	-12.2	5000 x 127 WALL GRADE 350 STEEL PILE	7.88
B15	-12.3	5000 x 127 WALL GRADE 350 STEEL PILE	6.28
B16	-12.7	5000 x 127 WALL GRADE 350 STEEL PILE	7.98
B17	-12.9	4060 x 95 WALL GRADE 350 STEEL PILE	3.17
B18	-9.6	4060 x 127 WALL GRADE 350 STEEL PILE	4.85
B19	-8.3	4060 x 127 WALL GRADE 350 STEEL PILE	4.28
B20	-6.8	4060 x 127 WALL GRADE 350 STEEL PILE	3.08
B21	-5.6	4570 x 127 WALL GRADE 350 STEEL PILE	2.44
B22	-4.6	4060 x 127 WALL GRADE 350 STEEL PILE	2.61
B23	-3.6	4060 x 127 WALL GRADE 350 STEEL PILE	2.55
B24	-2.0	4060 x 127 WALL GRADE 350 STEEL PILE	2.70
C1	-8.7	6100 x 16 WALL GRADE 350 STEEL PILE	10.41
C2	-9.5	6100 x 16 WALL GRADE 350 STEEL PILE	12.95
C3	-8.8	6100 x 16 WALL GRADE 350 STEEL PILE	10.29
C4	-9.5	6100 x 16 WALL GRADE 350 STEEL PILE	9.92
C5	-8.8	6100 x 16 WALL GRADE 350 STEEL PILE	4.98
C6	-9.5	6100 x 16 WALL GRADE 350 STEEL PILE	9.06
C7	-8.9	6100 x 16 WALL GRADE 350 STEEL PILE	6.05
C8	-9.8	6100 x 16 WALL GRADE 350 STEEL PILE	7.32
C9	-8.9	6100 x 16 WALL GRADE 350 STEEL PILE	5.47
C10	-9.7	6100 x 16 WALL GRADE 350 STEEL PILE	5.77
C11	-9.0	6100 x 16 WALL GRADE 350 STEEL PILE	4.02
C12	-10.1	6100 x 16 WALL GRADE 350 STEEL PILE	4.77
C13	-8.6	6100 x 16 WALL GRADE 350 STEEL PILE	4.20
C14	-10.0	6100 x 16 WALL GRADE 350 STEEL PILE	7.25
C15	-8.3	6100 x 16 WALL GRADE 350 STEEL PILE	6.47
C16	-10.0	6100 x 16 WALL GRADE 350 STEEL PILE	7.35
C17	-7.8	6100 x 16 WALL GRADE 350 STEEL PILE	6.61
C18	-9.9	6100 x 16 WALL GRADE 350 STEEL PILE	5.56
C19	-7.5	6100 x 16 WALL GRADE 350 STEEL PILE	6.35
C20	-9.6	6100 x 20 WALL GRADE 350 STEEL PILE	5.9
C21	-7.5	6100 x 16 WALL GRADE 350 STEEL PILE	4.10

PILE SCHEDULE - MARINA PILES			
PILE NO.	AS BUILT BED LEVEL (m LAT)	PILE SIZE	AS BUILT EMBEDMENT (m)
C22	-9.4	6100 x 20 WALL GRADE 350 STEEL PILE	5.66
C23	-7.2	6100 x 16 WALL GRADE 350 STEEL PILE	4.47
C24	-9.2	6100 x 20 WALL GRADE 350 STEEL PILE	5.24
C25	-7.3	6100 x 16 WALL GRADE 350 STEEL PILE	2.85
C26	-9.3	6100 x 20 WALL GRADE 350 STEEL PILE	5.14
C27	-6.6	6100 x 16 WALL GRADE 350 STEEL PILE	4.44
C28	-8.8	6100 x 20 WALL GRADE 350 STEEL PILE	6.39
C29	-9.3	6100 x 20 WALL GRADE 350 STEEL PILE	4.82
C30	-7.8	6100 x 16 WALL GRADE 350 STEEL PILE	4.65
C31	-10.2	6100 x 16 WALL GRADE 350 STEEL PILE	7.84
C32	-8.7	6100 x 16 WALL GRADE 350 STEEL PILE	5.73
C33	-11.3	6100 x 16 WALL GRADE 350 STEEL PILE	9.12
C34	-8.9	6100 x 16 WALL GRADE 350 STEEL PILE	6.85
C35	-11.7	6100 x 16 WALL GRADE 350 STEEL PILE	10.01
C36	-11.0	6100 x 16 WALL GRADE 350 STEEL PILE	8.73
C37	-12.2	6100 x 16 WALL GRADE 350 STEEL PILE	10.73
C38	-11.9	6100 x 16 WALL GRADE 350 STEEL PILE	8.71
C39	-12.3	6100 x 20 WALL GRADE 350 STEEL PILE	12.01
C40	-12.2	6100 x 16 WALL GRADE 350 STEEL PILE	9.77
C41	-12.3	6100 x 20 WALL GRADE 350 STEEL PILE	11.93
C42	-12.4	6100 x 16 WALL GRADE 350 STEEL PILE	10.70
C43	-12.5	6100 x 20 WALL GRADE 350 STEEL PILE	11.75
C44	-12.3	6100 x 20 WALL GRADE 350 STEEL PILE	11.05
C45	-12.6	6100 x 20 WALL GRADE 350 STEEL PILE	11.67
C46	-12.1	6100 x 20 WALL GRADE 350 STEEL PILE	12.19
C47	-12.3	6100 x 20 WALL GRADE 350 STEEL PILE	12.02
C48	-12.2	6100 x 20 WALL GRADE 350 STEEL PILE	12.07
C49	-6.7	6100 x 16 WALL GRADE 350 STEEL PILE	3.90

PILE SCHEDULE - MOORING PILES			
PILE NO.	AS BUILT BED LEVEL (m LAT)	PILE SIZE	AS BUILT EMBEDMENT (m)
MB26	-12.16	3500 x 95 WALL GRADE 350 STEEL PILE	5.60
MB27	-11.63	3500 x 95 WALL GRADE 350 STEEL PILE	3.23
MB28	-10.16	3500 x 95 WALL GRADE 350 STEEL PILE	2.42
MB29	-8.6	2750 TOE GRADE F27 TIMBER POLE	2.64
MB30	-7.7	2750 TOE GRADE F27 TIMBER POLE	1.35
MB31	-6.4	2750 TOE GRADE F27 TIMBER POLE	1.42
MB32	-5.2	2750 TOE GRADE F27 TIMBER POLE	1.79
MC1	-8.63	3500 x 95 WALL GRADE 350 STEEL PILE	10.20
MC2	-8.82	3500 x 95 WALL GRADE 350 STEEL PILE	6.69
MC3	-8.9	2750 TOE GRADE F27 TIMBER POLE	4.75
MC4	-8.4	2750 TOE GRADE F27 TIMBER POLE	3.38
MC5	-8.6	2750 TOE GRADE F27 TIMBER POLE	2.70
MC6	-9.1	2750 TOE GRADE F27 TIMBER POLE	2.69
MC7	-8.9	2750 TOE GRADE F27 TIMBER POLE	2.30
MC8	-9.3	2750 TOE GRADE F27 TIMBER POLE	2.00
MC9	-8.0	2750 TOE GRADE F27 TIMBER POLE	2.21
MC10	-7.9	2750 TOE GRADE F27 TIMBER POLE	2.61
MC11	-7.9	2750 TOE GRADE F27 TIMBER POLE	2.10
MC12	-7.7	2750 TOE GRADE F27 TIMBER POLE	1.47
MC13	-8.2	2750 TOE GRADE F27 TIMBER POLE	2.68
MC14	-9.8	3000 TOE GRADE F27 TIMBER POLE	3.45
MC15	-10.7	3000 TOE GRADE F27 TIMBER POLE	4.02
MC16	-11.1	3000 TOE GRADE F27 TIMBER POLE	3.89
MC17	-11.97	3500 x 95 WALL GRADE 350 STEEL PILE	6.91
MC18	-12.4	3500 x 95 WALL GRADE 350 STEEL PILE	7.50
MC19	-12.49	3500 x 95 WALL GRADE 350 STEEL PILE	7.33
MC20	-12.59	3500 x 95 WALL GRADE 350 STEEL PILE	6.25

PILE SCHEDULE - MOORING PILES			
PILE NO.	AS BUILT BED LEVEL (m LAT)	PILE SIZE	AS BUILT EMBEDMENT (m)
MA1	-1.86	3500 TOE GRADE F27 TIMBER POLE	2.85
MA2	-7.90	3250 TOE GRADE F27 TIMBER POLE	3.42
MA3	-6.25	3500 TOE GRADE F27 TIMBER POLE	4.07
MA4	-9.32	4060 x 95 WALL GRADE 350 STEEL PILE	4.02
MA5	-10.03	3000 TOE GRADE F27 TIMBER POLE	3.57
MA6	-8.97	3000 TOE GRADE F27 TIMBER POLE	4.70
MA7	-7.95	3000 TOE GRADE F27 TIMBER POLE	4.50
MA8	-7.36	3000 TOE GRADE F27 TIMBER POLE	2.35
MA9	-6.6	3000 TOE GRADE F27 TIMBER POLE	5.00
MA10	-5.8	3000 TOE GRADE F27 TIMBER POLE	4.50
MA11	-7.51	2750 TOE GRADE F27 TIMBER POLE	3.34
MA12	-7.05	2750 TOE GRADE F27 TIMBER POLE	4.78
MA13	-5.74	2750 TOE GRADE F27 TIMBER POLE	5.44
MA14	-5.51	2750 TOE GRADE F27 TIMBER POLE	4.50
MA15	-5.29	2750 TOE GRADE F27 TIMBER POLE	5.59
MA16	-6.0	2750 TOE GRADE F27 TIMBER POLE	2.24
MA17	-6.9	2750 TOE GRADE F27 TIMBER POLE	5.14
MA18	-8.5	2750 TOE GRADE F27 TIMBER POLE	6.80
MA19	-9.7	2750 TOE GRADE F27 TIMBER POLE	7.20
MA20	-11.47	4060 x 95 WALL GRADE 350 STEEL PILE	10.45
MA21	-11.4	4060 x 95 WALL GRADE 350 STEEL PILE	9.50
MA22	-12.03	4060 x 95 WALL GRADE 350 STEEL PILE	7.07
MA23	-12.39	4060 x 95 WALL GRADE 350 STEEL PILE	6.57
MA24	-12.49	4060 x 95 WALL GRADE 350 STEEL PILE	7.41

FILE NAME : 2187-101  
 PLOT SCALE : 1500  
 PLOT DATE : 22/04/2003  
 PATH : G:\PROJECTS\2187\DRAWINGS\



**PLAN OR DOCUMENT CERTIFICATION**  
 I am a qualified Engineer.  
 I hold the following qualifications or license No.  
 BSC (Eng), AQCF, MICE, PE, Aust. NFER 154325  
 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.  
 CH. ABRAHAM 26/04/03  
 Name Date Signature

29 JUL 2004  
**AS BUILT**

- NOTES:**
- PILE CUT-OFF LEVEL AT +3.0m LAT.
  - SPLICE JOINT FOR COMPOSITE PILE AT -2.0m LAT. WITH 20m OVERLAPPING.
  - ALL STEEL PILES TO BE CORROSION PROTECTED WITH HOPE SLEEVE FROM TOP OF PILE TO 10m BELOW BED LEVEL.
  - BED LEVELS ARE BASED ON SOUNDINGS TAKEN ON 6-7/06/02 AS SHOWN ON JACK'S GEOTECHNICAL REPORT FIGURE 1.
  - HORIZONTAL WAVE FORCE OF 0.5kN/m HAS BEEN ADOPTED FOR DESIGNING THE WAVE ATTENUATOR PILES.

**Bellingham Marine**  
 Australia Pty. Ltd.  
 ACN 074 864 887  
 22 Simons Road  
 Sevenham Hills QLD 4073  
 Australia  
 Phone (07) 3976 6955  
 Fax (07) 3976 7955  
 Email admin@bellingham-marine.com.au

**UNIFLOAT**  
 Precision engineering flotation systems

No.	Date	Description	BY	CHK
K	17/07/04	MOORING PILE AS BUILT RECORDS ADDED	JL	JML
J	1/07/04	AS BUILT	JL	JML
H	18/04/04	INNER SALING POSITION ADDED/ARM A REVISSED	WL	JML
G	13/03/04	MARINA LAYOUT UPDATED	JL	JML
F	19/08/03	MARINA LAYOUT REVISSED	JL	JML
E	22/07/03	ATTENUATOR LAYOUT REVISSED PILE MC23 DELETED	JL	JML
D	04/07/02	CHANGES AS PER BMA MARK UP	WL	JML
C	18/06/03	PILE SIZE FOR B3 & B8 REVISSED	JL	KC
A	01/05/03	PILE AT ARM A & ARM C REVISSED	JL	KC
A	01/05/03	MOORING PILES ADDED TO ARM A	WL	KC

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**International Marina Consultants**  
 Consultants to the Marina Industry.  
 International Marina Consultants Pty. Ltd.  
 A.C.N. 079 905 481  
 A.B.N. 85 079 905 481  
 473 Annerley Road  
 ANNERLEY QLD 4103  
 AUSTRALIA  
 Phone (07) 3892 5711 Fax (07) 3892 5611  
 Email : admin@imc-marinas.com

Client: **BELLINGHAM MARINE AUSTRALIA PTY. LTD.**

PROJECT: **ROYAL MOTOR YACHT CLUB - BROKEN BAY**

Title: **PILE LAYOUT**

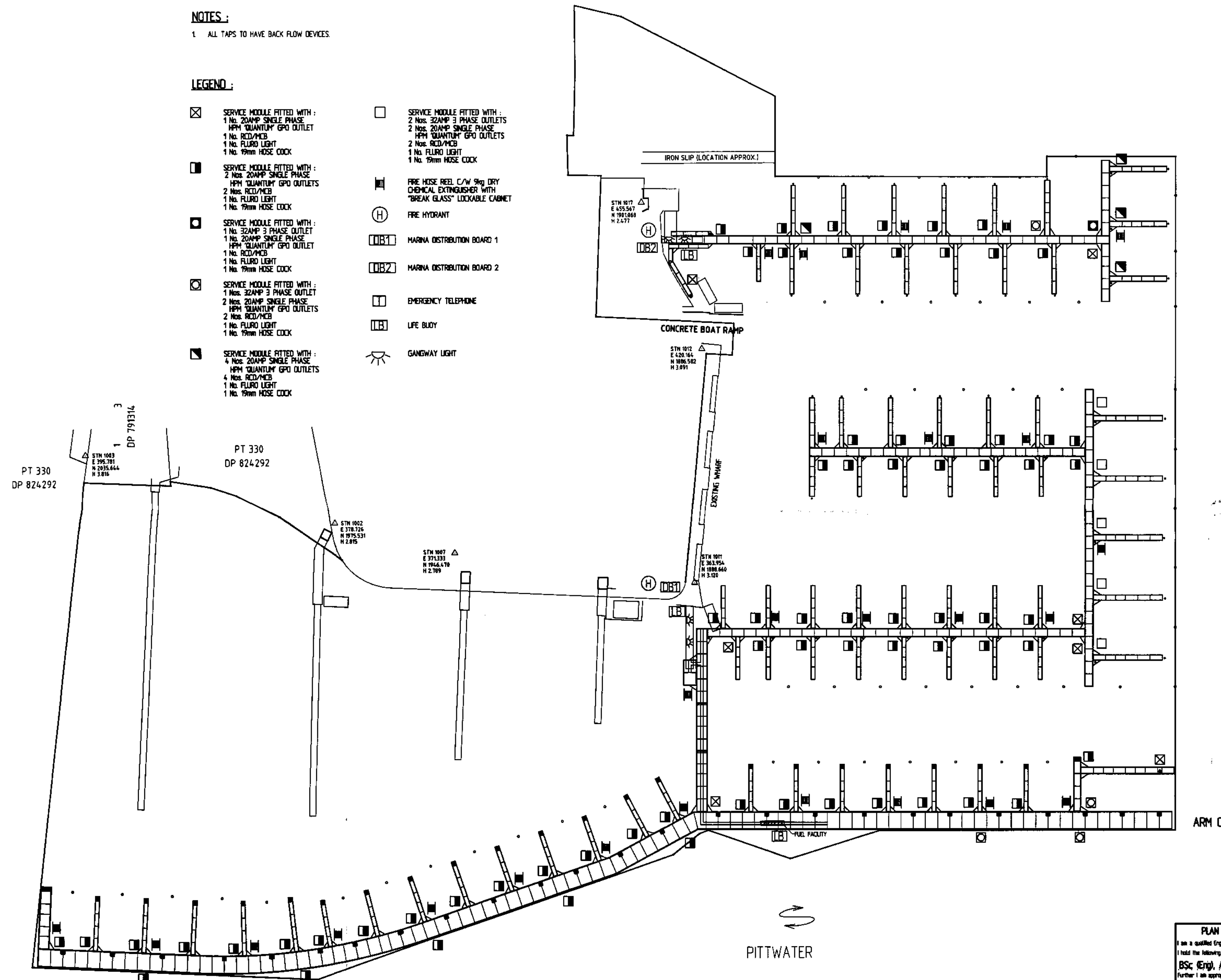
Drawn By:	Designed By:
Drawing Check:	Engineering Check:
Approved:	Scale: 1500
Drawing No. 2187-101	Am1) K

**NOTES:**

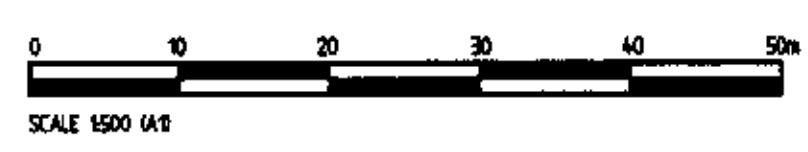
- 1. ALL TAPS TO HAVE BACK FLOW DEVICES

**LEGEND:**

- ☒ SERVICE MODULE FITTED WITH :  
1 No. 20AMP SINGLE PHASE  
HPM QUANTITY GPO OUTLET  
1 No. RCD/MCB  
1 No. FLURO LIGHT  
1 No. 19mm HOSE COCK
- ☐ SERVICE MODULE FITTED WITH :  
2 Nos. 20AMP SINGLE PHASE  
HPM QUANTITY GPO OUTLETS  
1 No. RCD/MCB  
1 No. FLURO LIGHT  
1 No. 19mm HOSE COCK
- ☐ SERVICE MODULE FITTED WITH :  
1 No. 32AMP 3 PHASE OUTLET  
1 No. 20AMP SINGLE PHASE  
HPM QUANTITY GPO OUTLET  
1 No. RCD/MCB  
1 No. FLURO LIGHT  
1 No. 19mm HOSE COCK
- ☐ SERVICE MODULE FITTED WITH :  
1 No. 32AMP 3 PHASE OUTLET  
2 Nos. 20AMP SINGLE PHASE  
HPM QUANTITY GPO OUTLETS  
2 Nos. RCD/MCB  
1 No. FLURO LIGHT  
1 No. 19mm HOSE COCK
- ☐ SERVICE MODULE FITTED WITH :  
4 Nos. 20AMP SINGLE PHASE  
HPM QUANTITY GPO OUTLETS  
4 Nos. RCD/MCB  
1 No. FLURO LIGHT  
1 No. 19mm HOSE COCK
- ☐ SERVICE MODULE FITTED WITH :  
2 Nos. 32AMP 3 PHASE OUTLETS  
2 Nos. 20AMP SINGLE PHASE  
HPM QUANTITY GPO OUTLETS  
2 Nos. RCD/MCB  
1 No. FLURO LIGHT  
1 No. 19mm HOSE COCK
- ☐ FIRE HOSE REEL C/W 9kg DRY  
CHEMICAL EXTINGUISHER WITH  
"BREAK GLASS" LOCKABLE CABINET
- ⊙ FIRE HYDRANT
- ☐ MARNIA DISTRIBUTION BOARD 1
- ☐ MARNIA DISTRIBUTION BOARD 2
- ☐ EMERGENCY TELEPHONE
- ☐ LIFE BUOY
- ☐ GANGWAY LIGHT



FILE NAME : 2187-102  
 PLOT SCALE : 1500  
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 PATH : G:\PROJECTS\2187\DRAWINGS\



**PLAN OR DOCUMENT CERTIFICATION**  
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**BSc (Eng), ACQI, MICE, FRE Aust, MFER 154325**  
 Further I am appropriately qualified to carry the 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.  
 CH. ABRAHAM 26.7.03 *Ch. Abraham*  
 Name Date Signature

**AS BUILT**

29 JUL 2004

**Bellingham** Bellingham  
 Marine  
 Australia Pty. Ltd.  
 A.C.N. 074 864 887  
 Integrating harbour  
 and waterfront solutions  
 22 Sirrison Road  
 Sevenoaks NSW 2147  
 Australia  
 Phone (07) 3876 6955  
 Fax (07) 3876 7795  
 Email: office@bellingham-marine.com.au

**UNIFLOAT**  
 Precision engineering flotation systems

No.	Date	Description	BY	CHK
H	1/07/04	AS BUILT	J.C.	J.M.L.
G	13/04/04	JUNIOR SALING PORTION ADDED/ ARM A REVERSED	W.L.	J.M.L.
F	5/01/04	MARNIA LAYOUT UPDATED	J.C.	K.C.
E	18/08/03	ATTENUATOR LAYOUT & SERVICES REVERSED	J.C.	J.M.L.
D	22/07/03	ATTENUATOR LAYOUT & SERVICES REVERSED	J.C.	J.M.L.
C	04/07/03	CHANGES AS PER BNA MARK UP	W.L.	J.M.L.
B	04/07/03	REVERSE MARNIA ARM LAYOUT	J.C.	K.C.
A	01/05/03	MOORING PILES ADDED TO ARM A	W.L.	K.C.

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**International Marina Consultants**  
 Consultants to the Marina Industry.  
 International Marina Consultants Pty. Ltd.  
 A.C.N. 079 905 481  
 A.B.N. 85 079 905 481  
 473 Annerley Road  
 ANNERLEY QLD 4103  
 AUSTRALIA  
 Phone (07) 3892 5711 Fax (07) 3892 5611  
 Email: admin@imc-marinas.com

Client:  
**BELLINGHAM MARINE AUSTRALIA PTY. LTD.**

PROJECT:  
**ROYAL MOTOR YACHT CLUB - BROKEN BAY**

Title:  
**SERVICES LAYOUT**

Drawn By:	Designed By:
Drawing Check:	Engineering Check:
Approved:	Scale: 1500
Drawing No. 2187-102	Rev'd H