

INTERNATIONAL MARINA CONSULTANTS PTY LTD

CAPABILITY STATEMENT

**For the provision of
Marina Consultancy and Design Services**



INTERNATIONAL MARINA CONSULTANTS PTY LTD

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MISSION STATEMENT

**OUR AIM IS TO BE THE LEADING MARINA
CONSULTANCY IN THE WORLD**

TO ACHIEVE THIS WE WILL:

- **Be leaders in value and service**
- **Build mutually beneficial client relationships**
- **Understand the unique needs of each client**
- **Integrate marinas into the natural environment with sensitivity**

WHO IS IMC AND WHAT DOES IT DO?

International Marina Consultants is a professional firm with an engineering base that specialises in the planning, design and feasibility of marinas and associated waterfront facilities.

ELEMENTS OF THE PROJECTS WE DESIGN:

- Marinas
- Superyacht facilities
- Jetties
- Wave attenuators
- Breakwaters
- Boat ramps
- Boardwalks
- Public walkways
- Revetments
- Ferry terminals
- Floating fuel berths
- Sewage pump-out facilities
- Hardstand areas
- Boat yards
- Dry storage facilities
- Boat harbours
- Residential canal estates

THE SERVICES WE OFFER:

- Planning
- Design
- Feasibility Studies
- Construction Cost Estimates
- Market Research
- Demand Assessments
- Input to and management of Environmental Impact Studies
- Evaluation of marina systems
- Structural inspections of existing marinas
- Total project management (including Approvals process)
- Construction management and supervision
- Quality Audits during construction
- Specifications and drawings for tender
- Marina Management options and technical advice (see over).

In addition, IMC can provide the following using the services of specialist sub-consultants:

- Coastal Engineering Studies
- Hydrographic Surveys
- Marine Biology Studies

HOW TO USE IMC

INTRODUCTION:

As a consultancy, IMC provides its intellectual property to its clients for the benefit of their projects.

BASIS OF FEES:

IMC charges fees for its services and these will be established in one of the following ways:

Fixed Price Lump Sum Fee:

The Scope of Works of IMC's services must be established first.

Time Basis + Expenses at Cost:

Using pre-agreed hourly charge rates for its staff.

HOW TO COMMISSION IMC:

Unless there is a need to commission IMC very quickly, it is suggested that the services to be provided by IMC be identified. This may be done by the client or by IMC or by both organisations working together. Once the scope of the services has been defined, IMC will usually submit a fee proposal which sets out the following:

- Scope of Works
- Data/information to be supplied by client
- Deliverables
- Programme
- Fee including Terms of Payment

Once the proposal has been accepted by a client, IMC will commence work once it has received a written instruction to proceed with the work in accordance with the proposal.

Where the on-going Scope of Works is dependent upon the results of the first work to be done by IMC, a detailed proposal and fee is only supplied up to the point where the Scope of Works is known. From that point the on-going work that may be necessary is listed together with budget fees.

TERMINATION OF COMMISSION:

IMC's services may be terminated at the completion of any stage of commission without any cost penalty. Sometimes the first work that is undertaken is a Site Assessment and this may show that the project is not technically or financially feasible. If this is the case, the services of IMC can be terminated at this point even though the proposal may have included additional work.

BENEFITS OF USING IMC

EXPERIENCE:

Through its focus on marinas, IMC has developed a level of experience in this field that cannot be matched by larger or less specialised consultants.

ENGINEERING BASED:

The technical staff of IMC are professional engineers and drafters. This skill base enables practical, feasible solutions to be developed.

FEASIBILITY STUDIES:

IMC, through the experience of its staff, is very experienced in construction methods for waterfront developments. This enables practical cost-effective solutions to be developed and for the provision of accurate cost estimates early in the development of projects. By combining this special skill with an intimate knowledge of operating marinas, IMC provides realistic feasibility studies for marinas and their associated on-shore facilities.

INVOLVEMENT OF DIRECTOR:

As a small consultancy, IMC can ensure the significant involvement of its Director in all projects. This guarantees that the complete experience of IMC's staff will be brought to each project.

SERVICE:

IMC understands that exceeding our clients' expectations means more than just doing good engineering. It is meeting deadlines, being an attentive listener and completely satisfying its clients' requirements. Once deadlines have been established, IMC's clients take comfort in the knowledge that those deadlines will be met.

APPROVALS:

Most marina developments include obtaining the approval of a range of authorities before construction proceeds. Because of our special expertise in marinas, and our familiarity with the requirements of the checking authorities, IMC can guarantee that the approval process will take the minimum length of time.

USER-FRIENDLY DESIGN:

Through its intimate knowledge of the requirements of boat users and marina managers, IMC plans and designs its marinas to be user-friendly and efficient to manage. This ensures the long-term popularity of the marinas and their on-going financial viability

COMPANY PROFILE

INTERNATIONAL MARINA CONSULTANTS PTY LTD

INTRODUCTION

International Marina Consultants (IMC) was formed in 1992 in response to the demand in the rapidly growing field of marina and waterfront development, for a professional firm with an engineering background to specialise in the planning and design of marinas and associated waterfront facilities.

Since its formation, IMC has filled this niche remarkably well having contributed valuably to the planning and design process of a considerable number of marina projects in Malaysia, Thailand, Indonesia, Philippines, Hong Kong, Taiwan, PR China, The Middle East, New Zealand and Australia.

Its role has varied from marina sub-consultant to principal consultant, assembling and managing the consultant team comprising all disciplines of the waterfront development process.

APPROACH

IMC recognises that each project is unique and each client has different aims and objectives and it tailors its services to meet and balance these requirements. Good communication and service is the hallmark of the work of IMC

IMC understands fully the value a marina can add to a project and has a commercial approach towards maximising this aspect in each project.

Through an early involvement of IMC in marina projects, a client can be assured that the marina is correctly located on the site so as to minimise construction costs by taking full advantage of the natural features of the site. IMC's engineering background proves invaluable in this process through interaction with the masterplanner and other members of the consultant team.

IMC is also committed to assisting owners of existing marinas in maintaining their asset and in upgrading and expanding their marinas in the most cost effective manner.

COMPANY EXPERIENCE

**1.0 AWARDED MARINAS DESIGNED BY
IMC**

2.0 PROJECT COLOUR HIGHLIGHTS

3.0 MARINA PLANNING & DESIGN

4.0 MARINA DETAILED DESIGN

**5.0 DETAILED PROJECT DESCRIPTION
- PLANNING & DESIGN**

1.0

**AWARDED MARINAS DESIGNED BY
INTERNATIONAL MARINA
CONSULTANTS**

**AWARDED MARINAS DESIGNED BY
INTERNATIONAL MARINA CONSULTANTS**

AUSTRALIA:	AUSTRALIAN MARINA OF THE YEAR Awarded by Marina Industries Association of Australia every two years.
2015/2016	Soldiers Point Marina (Winner Commercial Marina over 140 boats) Gladstone Marina (Best Public Boat Harbour)
2013/2014	Empire Marina (Hall of Fame) Soldiers Point Marina, Port Stephens, NSW (Winner – Commercial Marina up to 140 Boats) Sandringham Yacht Club, Melbourne (Winner – Club Marina) Royal Prince Alfred Yacht Club, Sydney, NSW (Highly Commended – Club Marina)
2011/2012	Empire Marina, Bobbin Head, NSW (Winner of Large Commercial Marinas Category). Soldiers Point Marina, Port Stephens, NSW (Winner of Small Commercial Marinas Category). Royal Motor Yacht Club, Broken Bay, NSW (Winner of Club Marinas Category).
2009/2010	Empire Marina, Bobbin Head, NSW (Winner of Large Commercial Marinas Category).
2007/2008	Soldiers Point Marina, Port Stephens, NSW (Winner of Australian Marina of the Year).
2005/2006	Nelson Bay Marina, NSW (Winner of Australian Marina of the Year).
2003	Hindmarsh Island Marina, South Australia (Winner of Australian Marina of the Year).
2002	Akuna Bay Marina, NSW (Winner of Australian Marina of the Year).

INTERNATIONAL: ASIA (Awarded by Asia Boating Awards).

2013/2014 Marina at Keppel Bay, Singapore
(Winner – International Marina)

2011 Hong Kong Gold Coast Yacht and Country Club
(Winner of Best Asian Marina).

2010 Marina at Keppel Bay, Singapore
(Winner of Best Asian Marina).

2008 Marina at Keppel Bay, Singapore
(Winner of Best Asian Marina).

MIDDLE EAST

2010 Yas Marina, Abu Dhabi, UAE
(Winner of Best Arabian Marina of the Year).

2009 Dubai Marina Yacht Club, UAE
(Winner of Yacht Club of the Year).

2.0

PROJECT COLOUR HIGHLIGHTS



- (i) Cruising Yacht Club of Australia Marina**
- (ii) Rushcutters Bay Marina**
- (iii) Sydney 2000 Olympics Marina**

Project Description

- (i) 175 berth club marina
- (ii) 100 berth commercial marina
- (iii) 141 berth marina for the 2000 Olympic Games

Involvement

- (i) Layout detail to convert the original fixed marina to a modern international standard floating marina facility. Detailed design of floating structures and piling.
- (ii) Layout design to suit Client requirements and detailed design of floating structures, access gangways and piling.
- (iii) Detailed design of a floating marina as part of a design and construct package for Bellingham Marine Australia Pty Ltd



Royal Motor Yacht Club Broken Bay

Client: Royal Motor Yacht Club

Location: Sydney, Australia

Period of Involvement: 2002-2004

Project Phase: Completed

Project Description:

Replacement of old fixed marina structures with modern floating marina including floating wave attenuator to replace ineffective existing fixed panel breakwater in water depths up to 12 metres and soft sea bed soils conditions.

Involvement:

Design of new floating marina structures, review of wave climate studies and determination of suitable wave attenuation structures to provide satisfactory all weather wave climate.

Of Special Note:

The determination of a suitable wave attenuator included wave flume modelling and the design of a curved attenuator structure to achieve maximisation of berths and attenuator performance objectives.



BLUEWATER MARINA

Client: Multiplex Bluewater

Location: Cairns, Queensland, Australia

Period of Involvement: February 2005 – December 2008

Number of Berths: 108

Involvement: Feasibility Study, Marina Layout, Design of Floating Structures,
Construction Superintendence



Marlin Marina

Client: Cairns Cityport

Location: Queensland, Australia

Period of Involvement: 2001-2005

Project Phase: Completed

Project Description:

Replacement of 214 berth marina facilities including superyacht berthing for vessels up to 50 metres within new wave protection and reef fleet structures.

Involvement:

Market analysis, marina berth structures design and review of operational commercial strategies for business forward planning.



Birkenhead Point Marina

Client: Birkenhead Point Marina

Location: Sydney, Australia

Period of Involvement: 2000-2002

Project Phase: Completed

Project Description:

Replacement of old floating marina structures and floating attenuator.

The site is exposed to Sydney Harbour ferry wakes and significant potential storm waves.

Deep water and soft sea bed conditions required the design of a floating wave attenuator to provide satisfactory day-to-day as well as extreme weather protection.

Involvement:

Design of new marina layout to best suit current demands within the existing marina footprint.

Review of wave climate, determine suitable wave attenuator solutions and design of marina and attenuator floating structures.



Sandringham Marina

Client: Pacific Marina Developments and Bellingham Marine Australia Pty Ltd

Location: Melbourne, Australia

Period of Involvement: 1993-2001

Project Phase: Completed

Project Description:

Berth marina constructed in 2 stages behind concrete sheet pile breakwater. The marina also had to be constructed around an historic submarine that was sunk at the site.

Involvement:

Detailed design and construction drawings.



Royal Prince Alfred Yacht Club Marina

Client: Bellingham Marine Australia Pty Ltd

Location: Sydney, Australia

Period of Involvement: 1999

Project Phase: Completed

Project Description:

237 Berth yacht club marina, redevelopment to convert the fixed marina to a modern floating marina facility.

Involvement:

Adjust layout to maximise numbers of berths and minimise loss of berths during the demolition of the fixed structure and construction of the floating marina. Detailed Design of floating structures, gangways and piling.

Of Special Note:

Marina designed to withstand waves approaching the marina from the West and impacting on T-heads and also entering fairways.



Weinam Creek Ferry Terminal

Client: Redland Shire Council

Location: Brisbane

Period of Involvement: 2001 - 2004

Involvement: Design of Floating Structures
Contract Supervision



St George Motor Boat Club

Client: St George Motor Boat Club

Location: Sydney, Australia

Period of Involvement: 2001-2003

Project Phase: Completed

Subconsultants Used:

- Lawson and Treloar (Wave Study and Hydrology)
- Marine Pollution Research (Marine Biology)
- Peter Fielder Engineers (Dredging Approvals)
- Design Collaborative (Town Planning in EIS)

Project Description:

An existing fixed jetty marina to be replaced by a floating marina. The site is exposed to waves from the south to the west and the existing marina was rapidly deteriorating under the conditions at the site. The seabed material is very soft marina sediments overlying rock.

The project involved dredging and the removal and replanting of seagrass.

Involvement:

Marina layout drawings, cost estimates and tender documents for the new marina. This was followed by the management and technical input to an Environmental Impact Statement. All matters raised after the submission was made were dealt with. Following the construction approval being granted and a tender being awarded, quality audits and construction supervision were undertaken.

Of Special Note:

The site is exposed to quite large waves from the south. It was decided that a floating attenuator would be able to withstand the wave climate and to provide adequate attenuation. The existing timber fixed structure was unable to provide adequate attenuation. The new attenuator is one of the heaviest ever used in Australia and is curved in plan. Its performance has surpassed the predicted behaviour.



Brighton Marina

Client: Bellingham Marine Australia

Location: Melbourne, Australia

Period of Involvement: 2002-3

Project Phase: Completed

Project Description:

Replacement of berth fixed structure with berth floating marina. This includes a wave attenuator at the NW end where the existing rock breakwater provides little protection.

Involvement: Detailed design and construction drawings.



Maldives Ferry Terminal

Client: Bellingham Marine Australia Pty Ltd

Location: Maldives

Period of Involvement: 2004

Involvement: Design of Floating Structures



Dubai Marina

Location: Dubai, United Arab Emirates

Period of Involvement: 2003 - 2010

Project Phase: Design and Construction

Project Description:

A waterway over 3km long with up to 4 separate marinas, a boat servicing facility and water taxi terminals servicing the residential development around the waterway. Up to 800 berths will be constructed.

Involvement:

- Market demand for marina berths and vessel servicing facility
- Locate marinas and prepare concept layouts including water taxi terminals and vessel servicing facility
- Feasibility Study for first marina and vessel servicing facility
- Design and documentation of first marina



JUMERIAH BEACH HOTEL MARINA

Client: Septech Emirates LLC

Location: Dubai, United Arab Emirates

Period of Involvement: 2008/2009

Number of Berths: 54

Involvement: Design of floating marina structures



YAS ISLAND RACE TRACK MARINA

Location: Yas Island, Abu Dhabi, United Arab Emirates

Period of Involvement: 2008 - 2009

Project Description:

Yas Marina is positioned alongside the Formula One race track development in Abu Dhabi.

The marina has 142 berths to accommodate vessels from 15 metres to 66 metres with guest berthing available for superyachts up to 150 metres.

Involvement: Design of floating marina and superyacht berth structures, gangways and piling.

3.0

MARINA PLANNING AND DESIGN

Country	Project	Location	Scope of Works	Berths
Australia	Birkenhead Point Marina	Sydney	Provide recommended options for the redevelopment of the marina	108
Australia	Bluewater Marina	Cairns	Feasibility Study, Marina Layout, Design of Floating Structures, Construction Superintendence	
Australia	Boobegan Creek Lock and Weir	Queensland	Determination of water velocities for different flood conditions	
Australia	Bowen Tropical Marina	Queensland	Masterplan, Feasibility Study, Government Tender	
Australia	Champagne Bays	Queensland	Site Selection, Preliminary Design and Costing	20
Australia	Cairns Cityport Marina	Queensland	Market Analysis, Review of Operational Commercial Strategies for forward Business Planning, Planning and Design	213
Australia	Cova Marina	Queensland	Marina Planning and Design, Approvals	99
Australia	East Coast Marina	Brisbane	Inspection of existing Marina	350
Australia	Eastport Marina	WA	Preliminary Layout and Design	136
Australia	Elizabeth Bay Marina	Sydney	Preliminary design and Statement of Environmental Effects	102
Australia	Elizabeth St Pier Marina	Hobart	Market Research, Feasibility Study and Design	
Australia	Emerald Lakes Development	Queensland	Anticipated Demand Survey	16
Australia	Ferguson's Boat Shed Marina Extension	Sydney	Design	
Australia	Gardens Point Marina	Brisbane	Preliminary Design and Costing	76
Australia	Great Keppel Island Resort Redevelopment	Queensland	Marina Planning and Design	250
Australia	Gladesville Bridge Marina	Sydney	Preliminary Layout	39
Australia	Hamilton Island Marina Extensions	Queensland	Planning and Design	157
Australia	Hillary's Yacht Club Marina	WA	Preliminary Layout and Design	55
Australia	Horizon Shores Marina	Queensland	Marina Inspection and Evaluation	350
Australia	Keswick Island Marina	Queensland	Marina Location and Layout	45

Country	Project	Location	Scope of Works	Berths
Australia	Laguna Quays Marina Expansion	Queensland	Preliminary Layout	50
Australia	Lavender Bay Marina	Sydney	Alternative Layouts and Costing	5
Australia	Mandurah Ocean Marina	WA	Planning and Design	461
Australia	Mandurah Swimming Pontoon	WA	Preliminary Layout and Design	-
Australia	Marina Mirage Redevelopment	Gold Coast, Queensland	Marina Planning	
Australia	Marine Export Centre	Brisbane	Review of Feasibility Report	
Australia	Nelly Bay Marina	Queensland	Provision of Engineering Services for Section 86 Approval	106
Australia	Nelson Bay Marina Extension	NSW	Preliminary Layout and Design	58
Australia	New Quay Marina	Melbourne	Planning and Design	196
Australia	Ocean Pacific Seafood Mega-Berth	Queensland	Preliminary Layout	24
Australia	Pacific Harbour	Brisbane	Market Research, Design and Cost Estimate	150
Australia	Pier 2 Marina	Tweed Heads	Preliminary Design and Costing	28
Australia	Point Piper Anchorage	Sydney	Owners' Consent and DA Application	
Australia	Point Piper Marina	Sydney	Obtain Approvals Preliminary Planning and Design	35
Australia	Port Alma	Queensland	Design Work Boat Pontoon	
Australia	Port Geographe	WA	Masterplan, Preliminary and Detailed Design	350
Australia	Redcliffe Marina	Brisbane	Marina Facilities Planning and Design	148
Australia	River Pontoons	Brisbane	Design	
Australia	Rose Bay Marina	Sydney	Preliminary Planning and Design	95
Australia	Roseville Bridge Marina	Sydney	Preliminary Layout	28
Australia	Royal Motor Yacht Club Point Piper	Sydney	Tender Document and Construction Supervision	87
Australia	RQYS Marina	Brisbane	Cost of On-Going Maintenance	466
Australia	RSAYS Marina	Adelaide	Cost Estimate for Expansion	49

Country	Project	Location	Scope of Works	Berths
Australia	Runaway Bay Marina Redevelopment	Queensland	Marina Facilities Planning and Design	144
Australia	Scarborough Marina	Brisbane	Masterplan, Preliminary Design	163
Australia	Shute Harbour Terminal Redevelopment	Queensland	Anchoring Systems, Wave Climate, Preliminary and Detailed Design	-
Australia	Shute Harbour Terminal Redevelopment	Queensland	Roof Over Pontoons and Gangways	-
Australia	Soldier's Point Marina Berths Redevelopment	New South Wales	Planning and Design	55
Australia	Southport Yacht Club	Queensland	Alternative Layouts, Design and Costing Estimates	200
Australia	Spit Bridge Marina	Sydney	New Piles for Floating Breakwater	
Australia	Spit Bridge Marina	Sydney	Upgrade of Floating Breakwater	33
Australia	St. George Motor Boat Club Marina	Sydney	Preliminary Layout, detailed design, tender document and project administration	206
Australia	Swan River Marina	WA	Preliminary Layout and Design	40
Australia	Tennyson Marina	Brisbane	Marina Design	
Australia	Tin Can Bay Marina	Queensland	Dredging Cost Estimate	70
Australia	Toondah Harbour Redevelopment	Queensland	Facilities Planning	
Australia	Victoria Dock	Melbourne	Report on Conversion to Marina	
Australia	Victoria Harbour Marina	Melbourne	Planning and Design of Floating Structures	72
Australia	Victoria Harbour Superyacht Berths	Melbourne	Planning and Design of Floating Structures	5
Australia	Waterline Marina	Brisbane	Marina Design	
Australia	Whitsunday Sailing Club	Queensland	Preliminary Layout, Costing	550
Australia	Whyalla Marina	SA	Re-pile Marina and Repair	32
Australia	Woodwark Bay	Queensland	Masterplan, Costing	500
Australia	Wyndham Cove Marina	Victoria	Marina Planning	664
Australia	Yarra's Edge Marina	Melbourne	Marina Design and Tender Documentation	169
Australia	Yarra Waters Marina	Melbourne	Preliminary Layout	287

Country	Project	Location	Scope of Works	Berths
Brunei	Jerudong Park Marina	Brunei	Preliminary layout, wave penetration studies, mega yacht movements and Preliminary Design	30
(PR) China	Binhai Marina	Tianjin	Site Assessment, Preliminary Concept Planning	494
(PR) China	Dadeng Island Marina	Xiamen	Preliminary Marina Facilities Design and Layout	381
(PR) China	Dalian Jetties	Dalian	Site Assessment, Technical Feasibility Study, Preliminary Concept Layout, Preliminary Cost Estimate	
(PR) China	Golden Mountain Resort	Qingdao	Concept Design, Preliminary Marina Facilities Design	137
(PR) China	Longcheer Yacht Club	Shenzhen	Preliminary Design, Cost Estimate	221
(PR) China	Marina City, Ningbo	Ningbo	Site Assessment and Preliminary Concept Design	800
(PR) China	Ocean Marina Club	Shenzhen	Site Assessment, Technical Feasibility Study, Layout and review design by others of breakwater, Specification, Tender Documents, Call Tenders.	154
PR China	Poyang Lake Marina	Jiangxi	Site Assessment, Preliminary Marina Layout and Cost Estimate	300
(PR) China	Sunsea Yacht Club	Zhongshan	Preliminary Concept Planning, Demand Analysis, Design and Tender Documentation for Public Marina and Canal Berths	158
(PR) China	Sunshine City Marina	Hainan	Preliminary Planning	150
(PR) China	Xiamen International Yacht Club	Xiamen	Site Assessment and Feasibility Study of Marina, Breakwater and On-Shore Facilities, Dredging, Preliminary Design, Cost Estimate and Marina Management Plan	575
(PR) China	Zhoushan Marina	Zhoushan	Site Assessment and Concept Masterplan	500
(PR) China	Zhongzhai Wan International Marina	Xiamen	Masterplanning, Preliminary Design and Marina Facilities Layout	381
Indonesia	Kapuk Marina	Jakarta	Masterplan, Management Plan	200
Indonesia	Krakatoa Tropical Beach Marina	West Java	Masterplan, Preliminary Design, Wave Studies	160
Indonesia	Lebak South Ocean Front Resort	West Java	Site Assessment for Marina	240
Indonesia	Nongsa Point Marina		Planning and Floating Structures Design	

Country	Project	Location	Scope of Works	Berths
Indonesia	Paputungan Marina Resort	Manado	Site Assessment for Marina	220
Japan	Ashiya Marina	Japan	Preliminary Layout	288
Macau	Landmark Marina	Macau	Preliminary Layout and Design	9
Macau	Taipa Da Sul Marina	Macau	Preliminary Layout, Design and Cost Estimate	150
Malaysia	Bayan Bay Marina	Penang	Preliminary Layout and Design for marina, Floating Breakwater, Yacht Club. Tender Review	338
Malaysia	Labuan Marina Centre	Labuan	Preliminary & Detailed Design, Landscape & Free Form Pool Design	52
Malaysia	Admiral Cove Marina	Port Dickson	Masterplan, Preliminary & Detailed Design, Coastal Engineering Studies	170
Malaysia	Kelisa Marina Resort	Port Dickson	Site Assessment for Marina	250
Malaysia	PD International	Port Dickson	Preliminary Design of Marina & Breakwater, Wave Studies, Detailed Design of Marina	400
Malaysia	Penang Swimming Club Marina	Penang	Masterplan, preliminary design, cost estimate and feasibility study	
Malaysia	Palau Langkawi Mega-Berths	Malaysia	Preliminary Layout and Design	17
Malaysia	Rebak Marina	Langkawi	Masterplan , Breakwater, Revetment, Fuel Dock, Boatyard Design	123
Malaysia	Revetment Design	Kota Kinabalu	Masterplan, Preliminary Design	
Malaysia	Selangor Waterfront City	Klang	Masterplan, Preliminary Costing	300
Malaysia	Sutera Harbour	Kota Kinabalu	Detailed Design	129
New Zealand	Magazine Bay Marina	Lyttleton	Detailed Design	228
New Zealand	Viaduct Marina	Auckland	Alternative Layouts	44
New Zealand	Waikawa Marina Extensions	Picton	Marina Design	
Philippines	Peninsula de Punta Fuego	Luzon	Site Assessment, Preliminary Design and Cost Estimates	130
Philippines	Subic Bay Waterfront Village	Luzon	Masterplan, Preliminary Design, Cost Plan, Schematic Design, On-Shore Marina Facilities	500
Qatar	Marina	Doha	Preliminary Masterplan	95
Singapore	Republic of Singapore Yacht Club		Detailed Design and Construction Drawings	163

Country	Project	Location	Scope of Works	Berths
Taiwan	Green Island Marina Resort	Green Island	Masterplan, Preliminary Design, Implementation Plan	70
Taiwan	Hou-Liaw Harbour Marina	Taiwan	Layout and Design	15
Taiwan	Ji-Bee Harbour Marina	Taiwan	Layout and Design	88
Taiwan	Kaohsiung Ferry Terminal	Taiwan	Design	-
Taiwan	Lungtung Marina		Review Management Plan	70
Taiwan	Lungwei-Wan Fishing Harbour Marina	Taiwan	Layout and Design	131
Taiwan	Shi-Men-Tong Marina		Layouts and Detailed Design	41
Taiwan	Shih-Tee Fishing Port Marina	Taiwan	Layout and Design	12
Taiwan	Sun Yuan Marina	Taitung	Review Marina Layout and Wave Penetration	150
Taiwan	Tapeng Bay Marina	Taiwan	Survey of Marinas in SE Asia and Boat Heights	-
Taiwan	Wu-Chi Fish Basin Marina	Taichung	Layout and Pile Design	20
Thailand	Country Marina	Thailand	Layout	51
Thailand	Phuket Marina Club	Phuket	Masterplan, Feasibility Study	254
Thailand	Phuket Yacht Services Marina	Phuket	Masterplan, Cost Estimate	92
Thailand	River Villa Marina	Thailand	Preliminary Layout and Design	11
Thailand	Lakeside Marina	Bangpakong	Management, Marketing	41
United Arab Emirates	Al Bateen Fishermen's Marina	Abu Dhabi	Marina Planning and Design	324
United Arab Emirates	Al Bateen East Bay Marina	Abu Dhabi	Marina Planning and Design	167
United Arab Emirates	Saadiyat Island Marina	Abu Dhabi	Marina Facilities Planning and Design	1023

4.0

MARINA DETAILED DESIGN

IMC's ROLE								
Project Name	Country	No. of Berths	Layout	Design	Other Facilities	Const. Drgs.	Spec.	Contract Admin.
Abra Landing	Dubai			Yes	Yes			
Abtourk Private Mooring Facility	Australia	4	Yes					
Admiral Cove Marina	Malaysia	170	Yes		DS	Yes		
Al Bateen Coast Guard Pontoon	Abu Dhabi	5				Yes		
Albany Boat Harbour	Australia	384	Yes		FB			
Ascot Waters Marina	Australia	40				Yes		
Balmain Cove Private Berthing Facilities	Australia	30	Yes		FB/W	Yes		
Bar Al Jissah Marina	Oman		Yes	Yes		Yes		
Barcoo Boat Ramp	Australia				BR & BP	Yes		
Barwon Head Pontoon	Australia			Yes		Yes		
Bayan Bay Marina	Malaysia	275	Yes		FB/W	Yes		
Bayview Anchorage Redevelopment	Australia	70	Yes					
BBC Rowing Pontoon	Australia		Yes			Yes		
Birkenhead Point Marina	Australia	159	Yes			Yes		
Birkenhead Point Marina Upgrade	Australia	331	Yes		FB/W			
Birkenhead Point Marina Upgrade	Australia	108		Yes	FB/W	Yes		
Blairstown Safe Boat Harbour Marina	Australia	170		Yes		Yes		
Bluewater Marina	Australia	108	Yes	Yes		Yes	Yes	Yes
Boat Passage Marina	Australia	17		Yes				
Bobbin Head Boardwalk	Australia			Yes	BWK			
Bobbin Head Boatyard	Australia		Yes		BY			
Bobbin Head Marina	Australia	199	Yes					
Bobbin Head Marina - Stage 1	Australia	17	Yes	Yes	FB & WB	Yes		
Brooklyn Marina	Australia	54	Yes			Yes		
Caloundra Coast Guard Pontoon	Australia		Yes	Yes				
Calypso Bay Marina Stage 3	Australia			Yes				
Catalina/Orso Pontoon	Australia	4		Yes		Yes		
Chao Phraya Marina	Thailand	75	Yes			Yes		
Clontarf Marina Extension	Australia	11	Yes			Yes		
Commuter Ferry Pontoon	Thailand				FP	Yes		
Como Marina	Australia	19	Yes					
Coomera Waters Marina	Australia	64		Yes		Yes		
Corniche Pontoon					FP	Yes		
Cova Marina	Australia	99	Yes	Yes				
Cronulla Wharf Ferry Pontoon	Australia			Yes				
Cruising Yacht Club of Aust. – Rushcutters Bay	Australia	175	Yes			Yes		

IMC's ROLE								
Project Name	Country	No. of Berths	Layout	Design	Other Facilities	Const. Drgs.	Spec.	Contract Admin.
Cruising Yacht Club of Aust. – Rushcutters Bay – Arm D	Australia	28	Yes			Yes		
Cruising Yacht Club of South Australia Boat Ramp Pontoon	Australia			Yes	BR	Yes		
Cruising Yacht Club of South Australia Service Facility	Australia	6	Yes	Yes				
Dalian Jetties	PR China	2	Yes					
Darling Point Pontoon	Australia	6		Yes		Yes		
Denerau Marina Extensions	Fiji			Yes				
Dockside Marina	Australia	13	Yes			Yes		
Doha Marina	Qatar	130	Yes					
Double Bay Marina	Australia	39	Yes					
Dubai Marina	Dubai	200	Yes					
Eden Marina	Australia			Yes				
Elizabeth Bay Marina	Australia	16	Yes					
Evelyn Court	Australia	4	Yes			Yes		
Exmouth Boat Harbour	Australia	60				Yes		
Fantasea Port of Airline				Yes				
Ferguson's Boatshed Extension	Australia	8	Yes			Yes		
Ferguson's Boat Shed Stage 3	Australia	38	Yes			Yes		
Festival City Marina	Dubai	74		Yes				
Fieldwick Marina	Australia	12	Yes					
Fishmac Marina	Australia	11	Yes			Yes		
Fitzroy Avenue Pontoon	Australia			Yes	BP	Yes		
Francis Bay Marina	Australia	76	Yes			Yes		
Fu Ao & Bi Sha Ferry Pontoons	Taiwan		Yes		FP	Yes	Yes	
Ginowan Marina - Phase 1	Japan	91		Yes		Yes		
Ginowan Marina - Phase 2	Japan				FB, BP	Yes		
Gladesville Bridge Marina	Australia	39	Yes					
Gold Coast City Marina	Australia	184			BP, FB	Yes		
Gold Coast City Marina 60m Berths	Australia	12		Yes				
Gold Coast Yacht Club Marina	Hong Kong	250	Yes			Yes		
Gosford Sailing Club	Australia		Yes		BP	Yes		
Gulf Hotel Marina	Abu Dhabi	28				Yes		
Festival City Marina	Dubai			Yes				
Hamilton Island Boatyard	Australia	6	Yes	Yes		Yes		
Hamilton Island Marina Expansion	Australia	52	Yes	Yes		Yes		

IMC's ROLE								
Project Name	Country	No. of Berths	Layout	Design	Other Facilities	Const. Drgs.	Spec.	Contract Admin.
Havelock Marina Extensions	New Zealand			Yes				
Hervey Bay Boat Club Marina Extension	Australia			Yes				
Hindmarsh Marina	Australia	132		Yes				
Holdfast Quays	Australia	158		Yes		Yes		
Holdfast Shores Marina	Australia	68		Yes	FB	Yes		
Holmeport Marinas, Church Point - Stage 1	Australia	79	Yes					
Holmeport Marinas, Point Piper	Australia	40	Yes					
Homebush Bay Taxi Pontoon	Australia			Yes		Yes		
Hong Kong Marina Ltd Hebe Haven	Hong Kong	105	Yes		FB/W	Yes		
Hope Harbour Marina	Australia	24		Yes				
Hope Island Resort Marina - Phase 1	Australia	69		Yes		Yes		
Hope Island Resort Marina - Phase 2	Australia	187	Yes	Yes				
Hopetoun Quays Marina	Australia	53				Yes		
Hopetoun Quays Stage 2	Australia	13	Yes	Yes				
Hou-Liaw Harbour Marina	Taiwan	15	Yes			Yes	Yes	
J. Challoner Private Pontoon	Australia		Yes			Yes		
J. Rose Private Jetty	Australia	2		Yes	FJ		Yes	
Jebel Ali Floating Pontoon	Abu Dhabi	16	Yes					
Ji Bei Harbour Marina	Taiwan	110	Yes			Yes	Yes	
Joel's Boatshed Pontoon	Australia				BP	Yes		
Jones Bay Marina Expansion	Australia			Yes				
Jumeriah Beach Hotel Marina	United Arab Emirates	54		Yes				
Kangaroo Point Sewage Pump-out Facility	Australia			Yes				
Kaohsiung Ferry Terminal	Taiwan				FP	Yes	Yes	
Karuah Baths Pontoon	Australia		Yes		BP	Yes		
Kenting Marina	Taiwan	74	Yes			Yes	Yes	
Keppel Bay Marina – Stage 1	Singapore	75		Yes				
Keswick Island Marina	Australia	189	Yes		BR			
Kolic Marina	Australia			Yes	TB	Yes		
Ladies Beach	Abu Dhabi				FS	Yes		
Lake Eildon Floating Breakwater	Australia		Yes		FB/W			
Limeburners Point Boat Ramp	Australia			Yes	BR	Yes		

IMC's ROLE								
Project Name	Country	No. of Berths	Layout	Design	Other Facilities	Const. Drgs.	Spec.	Contract Admin.
Lincoln Cove Marina	Australia	10	Yes			Yes		
Lloyd's Private Pontoon	Australia		Yes			Yes		
Longcheer Yacht Club	PR China	221	Yes		FB			
Lugarno Marina	Australia	16	Yes					
Lungtung Marina	Taiwan	55	Yes			Yes		
Lyons Boatshed	Australia	26	Yes					
MAB Docklands (New Quay Marina)	Australia	12	Yes					
Maldives Ferry Berths	Maldives			Yes	FP			
Mandurah Ocean Marina	Australia	435	Yes					
Marina Da Taipa Sul	Macau	150	Yes		FP			
Marina Mirage Redev.	Australia			Yes				
Marks Point Marina	Australia			Yes				
Matiatia Marina	New Zealand			Yes				
Metung Marina	Australia			Yes				
Mirvac 5m Walkway	Australia		Yes	Yes		Yes		
Mosman Bay Marina	Australia	35	Yes			Yes		
Mosman Bay Rowing Club	Australia		Yes		RP	Yes		
Najmat Marina	Abu Dhabi		Yes	Yes		Yes		
Nelly Bay Harbour Marina	Australia	170	Yes	Yes				
Nelly Bay Harbour – Revetment Wall	Australia			Yes	RW			
Nelly Bay Marina -Stage 1	Australia	25	Yes	Yes		Yes		
Nelson Bay Marina Extension	Australia	74	Yes					
New Quay Marina	Australia	99	Yes	Yes			Yes	
New Quay Marina - Stage 1	Australia	30		Yes		Yes		
Newcastle Cruising Yacht Club Marina	Australia			Yes				
Newport Anchorage Marina	Australia	64				Yes		
Norman Park Marina Reconstruction	Australia			Yes				
Northshore Hamilton Marina	Australia			Yes				
Ocean Pacific Seafood Marina	Australia	80	Yes			Yes		
Olympic Marina	Australia	141			BP	Yes		
Olympic Temporary Water Police Marina	Australia	48	Yes			Yes		
O'Rourke's Boatshed	Australia	3				Yes		
Palm Tree Island Ferry Pontoon	Qatar				FP	Yes		
Patterson Lakes Marina	Australia	151	Yes					
Pier 2 Marina	Australia	29	Yes					

IMC's ROLE								
Project Name	Country	No. of Berths	Layout	Design	Other Facilities	Const. Drgs.	Spec.	Contract Admin.
Pier 35 Extension	Australia	11	Yes	Yes				
Piermont Marina	Australia			Yes				
Platform Pontoon	Japan			Yes				
Pontoon @ Alexander Street	Australia	9		Yes				
Port Alma	Australia				BP			
Port Dickson Marina	Malaysia	108				Yes		
Port Geographe Marina	Australia	264	Yes			Yes	Yes	
Port of Airlie	Australia	506	Yes					
Port of Airlie Ferry Terminal	Australia			Yes				
Port of Heshikiya	Japan	22				Yes		
Port River Marina Services Marina	Australia	8	Yes	Yes				
Port Vincent Marina	Australia	84	Yes	Yes				
Quarantine Bay Pontoon	Australia				BP	Yes		
Queenscliff Marina	Australia		Yes	Yes				
Race Track Marina	Abu Dhabi			Yes				
Ramp Pontoon for Hayes	Australia				BP	Yes		
Randall Pontoon	Australia		Yes		BP	Yes		
Rebak Marina Resort	Malaysia	250	Yes		B/W, RW	Yes		
Republic of Singapore Yacht Club Marina	Singapore	163			FB/W	Yes		
Rose Bay Marina	Australia	100	Yes					
Roseville Bridge Marina	Australia	30	Yes					
Royal Brighton Yacht Club	Australia	179		Yes				
Royal Hong Kong Yacht Club Marina	Hong Kong	44	Yes				Yes	
Royal Motor Yacht Club	Australia	85	Yes		FB	Yes	Yes	Yes
Royal Motor Yacht Club, Newport Marina	Australia	135	Yes					
Royal Motor Yacht Club, Point Piper	Australia	91	Yes			Yes	Yes	
Royal Motor Yacht Club, Port Hacking Marina Upgrade	Australia	42	Yes					
Royal Prince Alfred Yacht Club	Australia	237				Yes		
Royal South Australia Yacht Squadron	Australia	238	Yes				Yes	Yes
Royal Yacht Club of Tasmania	Australia			Yes				
Runaway Bay Marina	Australia			Yes		Yes		
Runaway Bay Private Pontoon	Australia			Yes				
Saham Fishery Pontoons	Oman			Yes	BP	Yes		
San Souci Water Police Marina	Australia	9	Yes					
Sandringham Marina	Australia	286	Yes			Yes		

IMC's ROLE								
Project Name	Country	No. of Berths	Layout	Design	Other Facilities	Const. Drgs.	Spec.	Contract Admin.
Sandringham Marina Extension	Australia	45				Yes		
Scarborough Marina	Australia	163	Yes			Yes		
Scarborough Marina	Australia	119	Yes					
Scarborough Marina Extension	Australia	25				Yes		
Scarborough Marina - Stage 3 Extension	Australia	34		Yes				
Senibong Cove Marina	Malaysia			Yes				
Sh Tahoon Jetty	Abu Dhabi			Yes	BP	Yes		
Shenzhen Ocean Marina	PR China	154	Yes	Yes			Yes	
Shi Men Tong Marina	Taiwan	41	Yes		DS	Yes	Yes	
Shute Harbour Terminal Re-Development	Australia		Yes		FB		Yes	
Sirsi Marina	Australia			Yes				
Slip Bight Marina	Australia			Yes				
Smiths Boat Shed	Australia							
Soldiers Point Marina	Australia	62	Yes	Yes	FB	Yes		
South Australia Power Pontoon	Australia				BP	Yes		
Southport Yacht Club Marina Extensions	Australia			Yes				
Spit Bridge Marina - Arm A	Australia	34	Yes			Yes		
Spit Bridge Marina - Arm C	Australia	32			FB/W	Yes		
St. George Motor Boat Club Marina	Australia	128	Yes		FB/W	Yes	Yes	Yes
St. Joseph's College Rowing Pontoon	Australia		Yes		RP	Yes		
St Kilda Pontoon	Australia		Yes		BP			
Stokes Hill Wharf	Australia		Yes		BP		Yes	
Stuart's Private Pontoon	Australia		Yes			Yes		
Sutera Harbour Marina	Malaysia	129			FLP	Yes		
Sunsea Yacht Club	PR China	158	Yes	Yes			Yes	
Sutton's Private Pontoon	Australia		Yes			Yes		
Sydney Boys High School Rowing Pontoon	Australia		Yes		RP	Yes		
Sydney Grammar School Rowing Pontoon	Australia		Yes		BP	Yes		
Sylvania Pontoon Facility	Australia		Yes		BP	Yes		
Tamshui Marina	Taiwan	137	Yes				Yes	
Tea Garden Public Wharf	Australia		Yes		BP	Yes		
Tennyson Marina	Australia			Yes				
The Quay's Marina	Australia	14	Yes			Yes		
The Quay's Marina Extension	Australia	7	Yes	Yes		Yes		

IMC's ROLE								
Project Name	Country	No. of Berths	Layout	Design	Other Facilities	Const. Drgs.	Spec.	Contract Admin.
The Wharf – Mooloolaba	Australia	7	Yes			Yes		
Thursday Island Pontoon Facility	Australia		Yes		BP	Yes		
Tom Ugly's Bridge Marina	Australia	21	Yes					
Tumby Bay Boat Ramp	Australia				BR	Yes		
Tumby Bay Marina	Australia			Yes				
Tuncurry Pontoon	Australia		Yes		BP			
USA Fishing Port	Japan					Yes		
Uto Marina	Japan				FB	Yes		
Victoria Harbour Superyacht Berths	Australia			Yes				
Victoria Park Pontoon	Australia			Yes		Yes		
Waikawa Marina Exetnsions	New Zealand			Yes				
Wakasa Marina	Japan	189	Yes		FB			
Wakayama Marina City - Stage 3	Japan	16	Yes			Yes		
Waterview Wharf	Australia		Yes		BP	Yes		
Wayne Dunbar Marina	Australia	3	Yes					
Weinam Creek Ferry Terminal	Australia				FP		Yes	
Werribee South Pontoon	Australia			Yes				
Whyalla Marina	Australia	26			REM		Yes	
Woolwich Marina	Australia	20	Yes					
Wu Chi Marina	Taiwan	20	Yes					
Xiamen Marina Development	China	396	Yes					
Yarras Edge Marina	Australia	169		Yes			Yes	
Yarra Waters Marina	Australia	218	Yes					
Young An Fishing Harbour	Taiwan	40		Yes				
Yuufutsu Marina 40m Dock	Japan					Yes		

LEGENDS

B/W – BREAKWATER

BP – BERTHING PONTOON

BR – BOAT RAMP

DS - DRY STORAGE

FB - FUEL BERTH

FB/W – FLOATING BREAKWATER

BWK – BOARDWALK

TB - TRAWLER BERTH

FLP – FORKLIFT PLATFORM

FP - FERRY PONTOON

FS – FLOATING SCREEN

REM – RELOCATION OF EXISTING MARINA

RW – REVETMENT WALL

SL – SHIPLIFT

BY - BOATYARD

WB - WORK BERTH

RP – ROWING PONTOON

FJ – FIXED JETTY

Last Revised December 2012

5.0

DETAILED PROJECT DESCRIPTION

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PLANNING & DESIGN

☐ **BLUEWATER MARINA, QUEENSLAND**

Design of the (108 berth) marina facilities.

☐ **CAIRNS CITYPORT MARINA, QUEENSLAND**

Design of marina facilities (213 berths) in conjunction with implementation of new ferry and breakwater protection works.

☐ **GREAT KEPPEL ISLAND RESORT REDEVELOPMENT, QUEENSLAND**

Responsible for marine facility design aspects and marine construction environmental mitigation strategies for a 250 berth marina, associated breakwater protection, barge and ferry facilities.

☐ **HAMILTON ISLAND MARINA EXTENSIONS, QUEENSLAND**

In conjunction with owner(s), development of Stages 2 to completion of 157 marina berths, Layouts and detailed design for construction.

☐ **SAADIYAT ISLAND, UNITED ARAB EMIRATES**

Responsible for the concept planning of a 1000 berth marina as part of an integrated residential and tourism development in Abu Dhabi.

☐ **ADMIRAL COVE MARINA DEVELOPMENT, PORT DICKSON, MALAYSIA**

The development consists of a five-star hotel, yacht club, retail centre, a private beach, various types of residential development, and a 300-berth marina with all support facilities. I.M.C. prepared a masterplan for development which would optimise the land and water areas while minimising the cost of reclamation. In addition to preparing the masterplan, I.M.C. carried out coastal engineering studies, cost estimates and preliminary and detailed design of all the marina components, including the breakwater.

☐ **BAYAN BAY MARINA DEVELOPMENT, PENANG, MALAYSIA**

I.M.C. undertook a review of the conditions at the site to determine whether a floating breakwater could be used instead of the currently proposed fixed breakwater. This includes determination of the long and short period waves at the site by mathematical modelling, as well as current measurement. It was found to be possible and has resulted in substantial cost savings to the developer. Various layouts were prepared for the 400-berth marina and on-shore facilities, and a detailed design was finally prepared. The slope stability of the revetments was checked and pontoons and jetties designed for the waterfront properties.

☐ **BOWEN MARINA, QUEENSLAND**

On behalf of a consortium of local businessmen, IMC was responsible for the preparation of the submission to the Queensland Government to develop a new marina and tourist complex for Bowen. The submission required market research (in conjunction with Herron Todd White Consulting Services), concepts, environmental assessments (Sinclair Knight), cost estimates and rental returns to complete the briefing/tender requirements issued by the Government. The final concept design indicates a marina for 200 craft, dry storage for 100 boats, public boat ramp, boat building, servicing and repair, fuelling, shiplift, ferry terminal, tavern, hotel/boatel, shops, condominiums and a residential canal estate. Future development provides for further commercial and light industrial development.

❑ **CARITA LAGUNA RESOR, WEST JAVA, INDONESIA**

IMC was commissioned in 1996 to provide marina consulting services for a development will consist of a resort hotel, a small 80-berth marina and yacht club and a residential development including both a high proportion of lots fronting onto man-made canals. The site covers an area of 25 ha with a 220 m ocean frontage. The breakwater to protect the marina will be constructed on top of the fringing coral reef through which a channel will be excavated. The masterplan to maximise the value that would be added to the land development by the marina. IMC provided input to the masterplan, undertook wave studies and prepared cost estimates and a feasibility study for the marina and its associated facilities.

❑ **DOCKLANDS STUDY, MELBOURNE, VICTORIA**

The Docklands Authority is responsible for the re-development of the operating port area adjoining the Melbourne CBD and railway yards. IMC was appointed by the Authority to undertake a study of establishing a marina and on-shore related facilities for the main pier, Victoria Dock. Alternative locations for a marina at Docklands and in the Greater Melbourne Area were also considered. The study highlighted two marina areas, premier yacht race berthing and viewing facilities (Round-the-World, Melbourne-Osaka, Melbourne-Hobart), a floating aquarium, maritime museum, artists studios, waterfront apartments, indoor/outdoor festival markets, specialist shops, fish and food markets, yacht clubs and cruise ship facilities. Special attention was paid to vehicle access and parking, the predominance of pedestrian and cycle ways, urban street furniture and landscaping.

❑ **DOHA, QATAR**

IMC prepared the masterplan for a waterfront development including marina, beach development, small boat hire, viewing areas, boardwalks, restaurants, fish market, shops, and parking areas.

❑ **EAST COAST MARINA, BRISBANE, AUSTRALIA**

Inspection of marina and preparation of a report for a prospective purchaser. The marina comprised 350 marina berths, fuel facility, and boat maintenance/repair and dry storage.

❑ **ELIZABETH STREET PIER RE-DEVELOPMENT, HOBART**

The Marine Board of Hobart commissioned IMC to investigate the feasibility of constructing a marina in Sullivans Cove adjacent to Elizabeth Street Pier. Work undertaken by IMC included a market evaluation, preliminary planning, design and financial analysis of the proposed marina. The brief was expanded to include Commercial Fishing Boat marina facilities also in Sullivans Cove adjacent to the entrance to Victoria Dock. In addition, a wave study was added to the brief since available ocean swell data was considered inadequate for determining whether a floating breakwater could be used. IMC also provided berth layouts and cost estimates for the construction of floating marinas in Constitution and Victoria Docks so that a comparison could be made with the construction of the marina in Sullivans Cove.

❑ **EXILE BAY, SYDNEY**

IMC assisted Pacific Marina Developments in being awarded a design and construction contract for a high quality marina for a residential development on Sydney Harbour. The design includes the use of floating breakwater technology.

❑ **GOLD COAST YACHT AND COUNTRY CLUB, HONG KONG**

IMC undertook engineering feasibility study and preliminary design for boat maintenance/repair facility, multi-level boat dry storage facility, workshop and marina operation centre. Upon acceptance of the feasibility study, our client, a subsidiary of Sino Land, commissioned IMC to undertake the detailed design.

❑ **GREEN ISLAND MASTERPLAN, TAIWAN, R.O.C**

In July 1992, IMC was commissioned by the Taiwanese Government to undertake a major study to identify, plan and carry out preliminary design for one of the first major recreation marina and resorts in Taiwan on Green Island, some 33 kilometres off the Taiwan mainland. The study into alternative sites for the marina has reviewed global trends (and predictions) in tourism and recreational boating, particularly in Pacific Rim and SE Asian countries. This study has also developed a new approach to sites analysis for marina/tourism projects, utilising mathematical models in addition to the traditional planning/engineering approach. Research has included analysis of typhoon statistics and hence wave parameters at the various sites and predictions on local (recreational) boat usage. The completed reporting process provided in addition an environmental assessment, economics report and recommended resort management plan. All reporting was completed in bilingual (Mandarin/English) format. A physical model of the total development was completed.

❑ **HORIZON SHORES MARINA, WOONGOOLBA, QUEENSLAND, AUSTRALIA**

Inspection of marina and preparation of a report for a prospective purchaser. The marina comprises over 300 berths using two marina systems, fuel facility and boat maintenance/repair facility.

❑ **KELISA RESORT, MALAYSIA**

IMC was commissioned in 1996 to undertake a Site Assessment for a 150-berth marina adjacent to a river to the north of Port Dickson. The overall site occupied 214 acres of flat land bordering on a river and the development is proposed to consist of holiday villas, serviced apartments, hotel, marina, marina centre and club. Soft marine sediments and a shallow river estuary were some of the issues addressed in the Site Assessment. The project is ongoing.

❑ **JERUDONG PARK MARINA, BRUNEI**

In 1995 IMC proposed preliminary layouts for a small marina and mega-yacht berthing facility. A wave penetration study was undertaken by Lawson and Treloar and a ship handling study for the mega-yachts.

❑ **KAPUK INDAH, JAKARTA, INDONESIA**

IMC prepared a preliminary masterplan for a 258 berth marina, yacht club, residential development and marine retail and marina support facilities as part of a major land development in the west of the CBD in Jakarta. IMC also prepared a management plan for the marina.

❑ **KURAMAN ISLAND, EAST MALAYSIA**

IMC prepared a Master plan and report for a large resort comprising 2 hotels, 27 hole golf course, 400 mixed residential units, marine villages, town centre, small boat harbour, etc.

❑ **KRAKATOA TROPICAL BEACH RESORT MARINA, WEST JAVA, INDONESIA**

In 1994, IMC was commissioned by PT Safiera Amalia to undertake the preliminary design of a 200-berth marina to form part of an integrated resort development on the West Coast of Java, North of Ujung Kulon National Park. The marina was to include mega berths, boat maintenance facility, dry storage and fuel. The work undertaken by IMC included determination of the wave climate at the site, preliminary design of entrance breakwaters, wave penetration studies, preliminary design of floating marina and on-shore facilities and performance specifications for the floating marina, shiplift and forklift.

❑ **PD INTERNATIONAL MARINA DEVELOPMENT, PORT DICKSON, MALAYSIA**

I.M.C. was commissioned to determine the optimum configuration of the marina basin to accommodate 400 boats. In addition, the design storm wave and operating wave heights at the site were calculated, longshore movement of sediment was estimated, as well as the rate of siltation in the marina. Various configurations of entrance breakwater were examined, cost estimates prepared and wave penetration studies were undertaken for each option. Preliminary designs were carried out for the breakwater and revetments. Reviews were undertaken of the detailed design and documentation of the breakwater and floating marina.

❑ **LABUAN MARINA CENTRE, EAST MALAYSIA**

This five star hotel, shopping centre, marina club, conference centre and marina is located on five hectares of reclamation and marina waterway on Labuan Island, near the coast of Brunei and Kota Kinabalu, East Malaysia. IMC has been involved in a review of layout concepts and preparing alternatives, the management of overall landscaping and its detailed design and the design of a free form large swimming pool, marina design and management. Specialist input has been into the hotel swimming lagoon and other unique landscape and associated structural features. Construction on Phase One, the marina, clubhouse and associated infrastructure, commenced in the latter half of 1993.

❑ **LAKESIDE VILLA RESORT, BANGPAKONG, THAILAND**

IMC was responsible for the planning and design for waterfront elements of a large integrated resort comprising an 18-hole golf course, marina and large residential components. The design incorporated urban design elements related to an already constructed yacht club building. The elements included boardwalks, avenues, landscape, retail, parking and areas associated with marina on-shore facilities. The work also included a study into marketing the project and the management and operation of the marina.

❑ **LANGKAWI INTERNATIONAL RESORT, MALAYSIA**

IMC has prepared a concept for the development of a large dredging/reclamation site in the exotic North-West of Malaysia. The design provides for a 500 berth marina with on-shore boat servicing facilities, charter boat terminal, customs clearance services, fishing port and village, hotel, apartments/condominiums, waterfront housing, Malay 'floating' village, active and passive recreational parks, a large swimming lagoon and beach and air-sea rescue operations centre. All services for the project are to be provided on-site. Because of the extensive waterways proposed, most travel around the resort will be by boat. Car/bus transport will be kept to a minimum.

❑ MARINE EXPORT CENTRE FEASIBILITY STUDY, QUEENSLAND

IMC as project manager is responsible for the preparation of a multi-staged report into the marine export industry in Queensland. The objective has been to determine industry needs to boost export sales and services through a comprehensive industry Strategic Plan. The stages have involved a SWOT analysis, interviews, workshops, local and global research and reporting to the Queensland Government (client). Also under consideration is the concept of a physical location for a Marine Export Centre, including R&D centre, indoor/outdoor display space, library, administration, conference centre and catering facilities, etc., located on a river/sea frontage.

❑ OCEAN FRONT RESORT, LEBAK SOUTH, WEST JAVA, INDONESIA

In 1996 IMC was commissioned to undertake a Site Assessment for one or more marinas to form part of the development of a 2500-hectare site with an 18 kilometre coastline. Nine sites were identified, the attributes of each were compared and the best sites identified. The main issues that had to be addressed were the effect of long period ocean swell, the large water depth, the limited area of flat land and the difficulty of obtaining access to some of the sites. The lowest cost options were to develop sites where a channel could be cut through the reef and the marina located behind in low-lying land. IMC will have an ongoing involvement in this project.

❑ PAPUTUNGAN MARINA RESORT, MANADO, INDONESIA

IMC was commissioned in 1996 to undertake a Site Assessment for a 150-berth marina as part of a large land development project north of Manado in North Sulawesi. The overall development includes two golf courses, resort hotels and residential development. The land area occupies a peninsula much of which is fringed with mangroves. The best site for the marina was selected bearing in mind topography, sea conditions, the overall staging of the project and the location of the existing services. It was decided to locate the marina in one of the larger bays largely filled with mangroves. IMC will have an ongoing involvement in this project.

❑ PENANG SWIMMING CLUB MARINA, MALAYSIA

Penang Swimming Club has facilities which occupy a 450 m frontage on the North Coast of Penang Island. The Club has decided to incorporate a marina in a further development of its facilities. In order to obtain the necessary land for the on-shore marina facilities the project will include a 2.4 ha reclamation. The development will consist of a 170 boat marina including mega berths, a 400 boat dry store, boat maintenance yard, shiplift fuel berth and marina club. The marina will be protected by a rock armoured breakwater. IMC's involvement in the project includes preparation of the masterplan, preliminary design of breakwaters, revetments, marina facilities and cost estimate, detailed design of the boat dry store and documentation for calling tenders for the floating marina.

❑ PENINSULA DE PUNTA FUEGO, PHILIPPINES

The overall project consists of the development of a peninsula to the North of Nasugbu, Luzon. The development will include residential land, a resort hotel, retail, marina and marina club. IMC was commissioned to undertake a site evaluation for the marina and advise on the type and size of facilities that should be included in the marina.

☐ **PHUKET MARINA CLUB AND LAKESIDE DEVELOPMENT, THAILAND**

In 1994, IMC was commissioned to prepare the masterplan, construction cost estimate and feasibility study for the first integrated marina development in Thailand. The site is located on Phuket Island adjacent to the International Airport. The site consists of three lakes formed during the mining of tin. The development consists of a staged development of each of the lakes. IMC prepared a masterplan, construction cost estimate and feasibility study for the development around the first lake. The water and land areas are 7 ha and 11 ha respectively. The development will consist of a hotel, yacht club, retail facilities, charter berth facilities, boat maintenance and dry storage, fuel berths, ferry terminal with single lot and condominium residential development. The second stage lake will be connected to the first lake with a lock.

☐ **PHUKET YACHT SERVICES, THAILAND**

IMC prepared a Masterplan, preliminary design and cost estimate of a floating marina for 100 boats and slipway to replace an existing small facility. The marina is to include a floating breakwater.

☐ **PORT ALMA, QUEENSLAND, AUSTRALIA**

In 1996, IMC was commissioned to design and prepare drawings for the purpose of obtaining a Section 86 Approval for a heavy-duty pontoon incorporating a small crane and approach gangways.

☐ **PORT GEOGRAPHE WATERFRONT DEVELOPMENT, WESTERN AUSTRALIA**

The development site covers 190 ha. and the current concept plan includes residential canals, town centre and marina for 400 berths. IMC reviewed the masterplan and developed options to increase the yield of waterfront blocks and improve the plan for the town centre and marina. The improvements have been adopted by the client. Input was provided to the layout of the marina and marina facilities. This project is ongoing.

☐ **REBAK MARINA RESORT, LANGKAWI, MALAYSIA**

IMC was responsible for Master planning, costs and design of Malaysia's first fully integrated resort, to include: 250 marina berths, private club facilities, hotel, golf course, recreational pursuits, bush trails, condominiums, etc. Currently under construction with Stage One to be completed by November 1993. IMC is also responsible, through its associated companies, for overall project management, specialist engineering design and construction management.

The development consists of a lagoon excavated in the centre of the Island to contain the marina and an entrance channel to the sea, with a protecting breakwater. A second stage included the design of boardwalks around part of the perimeter of the marina basin. Full use was made of precast concrete so as to minimise on-site construction time and thus the risk of delays due to wet weather.

☐ **SAN YUAN MARINA, TAITUNG, TAIWAN, R.O.C**

IMC undertook a review of the marina layout prepared by a Taiwanese engineering firm. The marina will contain 150 berths and boat maintenance facility, and the breakwater will be designed to withstand typhoon waves in excess of 10m in height.

☐ **SCARBOROUGH HARBOUR, BRISBANE**

For a private client, IMC has developed a concept for providing boat storage, workshops and boat launch facilities, as a private facility, within the partially developed Scarborough Harbour boat basin. The concept provides, in addition, for a boat sales and display area, fuelling (on and off-shore), restaurants - two - and floating pontoons serviced from a waterfront boardwalk.

☐ **SELANGOR WATERFRONT CITY, MALAYSIA**

IMC completed the masterplan of a 1500-acre site near the Port of Klang on the West Coast of Peninsula Malaysia. The development is to include two golf courses (one championship), three hotels, a town centre with marina and a combination residential development in navigable canals and dry blocks. The canals will require locks due to the five metre extreme tidal range. The masterplan took into account the need to balance cut and fill and the erodable perimeter of the development, much of which had mangrove cover. The work included a preliminary cost estimate of all the civil engineering works.

☐ **SOUTHPORT YACHT CLUB MARINA, QUEENSLAND**

In 1995, IMC was commissioned to prepare alternative layouts for a new floating marina to replace the existing fixed berths. Layouts took into account the wave action at the site and flood currents in the Nerang River. The alternatives were costed to enable the Yacht Club to decide which option to adopt.

☐ **SUBIC BAY WATERFRONT VILLAGE, PHILIPPINES**

Subic Bay Metropolitan Authority called tenders in 1994 for the construction, ownership and operation of a marina development in one of the bays forming the Subic Bay Naval Base, constructed by the United States Navy and handed over to the Philippine Government. IMC, working with other Australian and Philippines Companies, won the tender to develop the site. The masterplan for the development was prepared by IMC and consisted of a four star hotel, yacht club with its marina, a public marina, retail facilities, boat repair and dry storage facilities, condominiums, villas, restaurants, air sea rescue and training facilities. The work included the masterplan and preliminary design of the dry storage and boat repair facility. The project will be constructed over the next three years and its cost will be US\$80 million.

☐ **SUNSHINE CITY MARINA DEVELOPMENT, HAIKOU, HAINAN, PR CHINA**

IMC was engaged to assist the project planners in the design of a marina as part of a development of 250 ha. of land including three hotels, golf course, residential development, shopping centre, theme park and inland waterways. The marina will include a yacht club, fuel and maintenance facilities and dry boat storage.

☐ **VIETNAM FLOATING HOTELS**

For the Vietnamese Government, IMC has undertaken a major study into the most efficient way of providing flexible, quality accommodation to assist the potential for tourism growth in Vietnam. A unique 'floating' hotel concept has been developed. This provides economic construction techniques and an interesting visitor experience within an adaptable concept. The vision provides a range of accommodation sizes in a truly 'local' architectural style with maximum use of the surrounding waters for access and recreation. The hotel itself includes restaurants, bar/coffee lounge facilities and generous communal deck space for relaxation. The total theme provides accommodation in a true local lifestyle, of appeal to locals and international visitors alike. This innovation has been extended to provide a business hotel concept for Hanoi City.

The design provides for 192 accommodation units located as clusters (of 8 units, 2 storey: 4 up, 4 down) and connected by covered walkways and to the central facilities building on the lake foreshore. The central facilities house the reception, business centre, shops, restaurants and convention centre, and the back-of-house facilities.

□ **WOODWARK BAY RESORT COMMUNITY, NORTH QUEENSLAND**

Master Plan, costings and report for all waterfront elements at this proposed mega-resort in the Whitsundays for an eventual population of 10,000 persons was undertaken by IMC. Elements of the design include: a 500 berth marina; seawater lagoon (8 ha) with bathing areas for children and adults, scuba training pool and a recreational boating area for small craft; on-shore marina facilities; shops, tavern, ferry terminal, harbour administration; trailer parking, dry boat stores; children's play area; parking for 650 vehicles; small boat launch, etc. Alternatives for the adjoining bays were also provided.

□ **WHITSUNDAY SAILING CLUB MARINA, AIRLIE BEACH, NORTH QUEENSLAND**

Working in conjunction with Sinclair Knight Merz, IMC undertook the preliminary design and cost estimate for a 600 berth marina and marina support facilities at Muddie Bay. The project is to include 28 ha. of land reclaimed using the dredged material.

CURRICULUM VITAE

JOHN MICHAEL LEMAN

CURRICULUM VITAE

Date of Birth: 7 July 1956

Nationality: New Zealand

Present Position: Director

Qualifications:

Bachelor of Engineering, Civil 1982 – University of Auckland
Member of Institution of Professional Engineers New Zealand (MIPENZ)
Registered Professional Engineer of Queensland (RPEQ)
Accredited Building Practitioner (Structural & Civil), Tasmania

Current Employment:

International Marina Consultants Pty Ltd
Director, Engineer

Professional Experience:

International Marina Consultants Pty Ltd
January 2001 – Present

Responsible for design of:

- **Super Yacht Berths:** Roselle Bay, Sydney
Sovereign Islands, Gold Coast
Jebel Ali, United Arab Emirates
Yas Marina, Abu Dhabi, UAE
Brisbane Marine Industry Park, Queensland
Marlin Marina, Cairns
Victoria Harbour Super Yachts, Melbourne
Keppel Bay Marina, Singapore
- **Wave Attenuators:** Birkenhead Point Marina, Sydney
Penang Port Marina, Malaysia
Keppel Bay Marina, Singapore
Yarras Edge, Melbourne
Royal Yacht Club of Victoria
Matiatia Marina, New Zealand
Royal Motor Yacht Club, Pittwater
Royal Sydney Yacht Squadron, Sydney
Walsh Bay, Sydney
Westhaven Marina Y Pier, New Zealand
Royal Brighton Yacht Club, Victoria
- **Boat ramp pontoons, floating public walkways, jetties and ferry terminals:**
Maldives Ferry Terminal
Marina Mirage Port Douglas Ferry Berths, Qld
Vic Urban Yarra River Landings, Victoria
Scarborough Fishermens Facilities, Queensland
City Link Floating Walkway, Melbourne
Church Point Public Wharf, NSW
Manly Marina Disability Access Pontoons, Qld
Weinam Creek Ferry Terminal, Qld
Werribee South Boat Ramp, Victoria
Volvo Stopover Facilities, Victoria
Stony Point Boat Ramp, Victoria
Lee Wharf, Sydney
Brisbane Floating Walkway, Queensland
- **Marinas:**
Coomera Waters Marina, Queensland
Bayview Anchorage Redevelopment, NSW
Church Point Marina, NSW
Pier 2 Tweed Heads, NSW
Ephraim Island, Gold Coast, Queensland
Runaway Bay Redevelopment, Gold Coast, Qld
Chinderah Marina, NSW
Riverlinks, Queensland
Royal Brighton Marina, Victoria
Birkenhead Point Marina Upgrade, NSW
St George Motor Boat Club, NSW
RMYC Pittwater, NSW
Penang Port Marina, Malaysia
Yarras Edge, Victoria
Hope Island Resort, Queensland
Calypso Bay, Queensland

Parsons Marina, Victoria
 Scarborough Marina Extensions, Qld
 Bobbin Head Marina, NSW
 Havelock Marina Extensions, New Zealand
 Waikawa Marina Extensions, Marlborough Sound
 New Zealand
 Breakwater Marina Extensions, Townsville, Qld
 Hamilton Island Marina Extensions, Queensland
 Redcliffe Marina, Queensland
 Yarra's Edge Marina, Melbourne, Victoria
 Macquarie Street Marina, Brisbane, Queensland
 Victoria Harbour Marina, Melbourne, Victoria
 Motor Yacht Club Extensions, Tasmania
 Fergusons Boat Shed Marina, Sydney NSW
 Smiths Boat Shed Marina, Sydney, NSW
 Royal South Aust Yacht Squadron Redevelopment
 Adelaide, South Australia
 Penang Port Marina, Penang, Malaysia
 Matiatia Marina, New Zealand

Savage Marina, Victoria
 Soldier's Point Marina, NSW
 New Quay Marina, Victoria
 Cairns Cityport Marina, Qld
 Castlebar Cove Marina, Brisbane, Qld
 Norman park Marina, Brisbane, Qld
 Bluewater Marina, Cairns, Qld
 Keppel Bay Marina, Singapore
 Hervey Bay Boat Club, Queensland
 Marina Adelaide, South Australia
 Kings Pier, Tasmania
 Cruising Yacht Club of South Australia
 Gosford Sailing Club, New South Wales
 Woolwich Marina, Sydney, NSW
 Queenscliff Marina, Victoria
 Jones Bay Marina, Sydney, NSW
 Roseville Bridge Marina, Sydney, NSW
 Great Keppel Island Resort Redevelopment, Qld

- **Middle East Region Projects:**

Yas Marina, Abu Dhabi – Responsible for Design of Floating Structures
 Dubai Marina, Stages 2 and 3 – Responsible for Design of Floating Structures
 Saadiyat Island Development – Responsible for Planning and Marina Facilities Layout Design
 Al Bateen Fisherman's Marina – Responsible for Planning and Marina Facilities Layout Design
 Najmat Marina, Abu Dhabi – Responsible for Design of Floating Structures
 Jumeriah Beach Hotel Marina, Dubai – Responsible for Design of Floating Structures
 Festival City Marina, Dubai – Responsible for Design of Floating Structures
 Dareen Fishing Port Floating Dock, Saudi Arabia – Responsible for Design of Floating Structures
 CICPA Al Jazeera Al Hamra Island Harbour pontoons– Responsible for Design of Floating Structures
 CICPA(Arzannah and Sila Harbours) Interim Pontoons, - Responsible for Design of Floating Structures
 CICPA Interim Berths (Al Mirfa 2, Mina Zayed, Ghaga Island, Zirku Island) – Abu Dhabi – Responsible for Design of Floating Structures
 DIMC Superyacht Marina Extension, Dubai – Responsible for Design of Floating Structures
 Culture Village Phase 1, Dubai – Responsible for Design of Floating Structures

Burchill Partners Pty Limited

November 1990 – December 2000

Responsible for the engineering review of the Land Use Masterplan for a 100 hectare integrated waterfront development including functionality and navigation aspects of harbour entrance, marina and internal waterways, detailed design for the marina, technical input into the revised land plan for the overall development master plan and design management of the marina revetments and entrance works for Sentosa Development Corporation, Singapore.

Responsible for the master planning and engineering, cost estimates, approval authority liaison and documentation for a proposed integrated waterfront development including a proposed 600+ berth marina in the Whitsundays, Queensland.

Responsible for engineering aspects and infrastructure cost estimates for a Ro-Ro Ferry Service across the Spencer Gulf, South Australia. Preparation of the Environmental Impact Statement and liaison with statutory authorities.

Design of public floating walkways and gangway structures for the Melbourne Exhibition Centre.

Responsible for design of a 350 berth marina as part of the Wirrina Cove integrated resort development in South Australia.

Design of superyacht berths at Rozelle Bay, Sydney for the berthing of vessels up to 70 metres long for the Millennium and Olympic events.

Design of replacement floating structures for the Naval facilities at Garden Island, Sydney.

Planning and design for a 200 berth marina facility for Pantai Mutiara, Jakarta including planning, costings and feasibility studies for vessel maintenance and dry stock vessel storage facilities.

Design of berthing and mooring structures for 520 tonne sand barge at Paradise Point, Gold Coast.

MacKnight Pty Ltd - Senior Design Engineer

October 1989 - November 1990

Structural design of haulage platform at Halifax Bay, Queensland.

Structural design of transportable multi-pontoon dredge barge for Cable Sands.

Structural design of berthing dolphins for 70 m wave piercing catamaran for Tasmanian Ferries.

Design of various ship fender arrangements for Queensland Rubber.

Wilkins & Davies Australia Pty Ltd - Development Engineer

February 1987 - August 1989

Responsible for engineering aspects of development projects from concept through to construction.

Management of external engineering, architectural, planning and environmental consultants.

Feasibility studies and market survey for Kangaroo Point Redevelopment, Brisbane.

Design and feasibility studies for a proposed major vessel maintenance and repair facility at Homebush Bay, NSW.

Review of development strategy for the Trinity Point Redevelopment, Cairns with respect to marina layout, infrastructure and related onshore facilities.

Design of marina and submissions for development approvals for Inskip Point Resort development.

Preparation of development proposal submissions for various marina and resort projects.

Design, research and development of alternative pontoon flotation systems.

Wilkins & Davies Marina Design Ltd (NZ) - Design Engineer

February 1985 - February 1987

Research into marina design including floating breakwater model testing and the use of wind tunnel testing to formulate design wind loadings for marinas.

Design of marina development layout and structural design of floating structures and piling for the 900 berth Gulf Harbour Marina, Auckland, New Zealand.

Feasibility studies, concept layout and design of breakwaters, floating structures and infrastructure for the 550 berth Pine Harbour Marina, Auckland.

Supervision of design of a 100 berth marina for Bucklands Beach Yacht Club, Auckland including entrance configuration modelling to minimise wave energy inception into the marina.

Structural design and contract documentation of floating structures and piling and planning of vessel maintenance yard facilities for the Breakwater Marina, Townsville, Queensland.

Bruce Wallace & Partners, Auckland, NZ. - Graduate Engineer

August 1981 - February 1986

Administration and supervision of maintenance dredging contract for Half Moon Bay Marina, Auckland. Design of wave absorption pier ends and fuel jetty for the marina. Planning and design for various repair yard facilities and operations.

Investigation, design and costing of stormwater reticulation including a proposed tunnel for the Newmarket Borough Council.

Design of 600 tonne temporary Ro-Ro berth and fishing boat facilities for Petrocorp Developments, Taranaki Harbour Board.

Feasibility investigations, civil and structural design and costing, catchment appraisal and contract documentation for Tutukaka marina, New Zealand.

Design of sheet pile revetment structures and civil works for a large vessel slipping facility, Kiribati.

Marina and associated onshore service facilities layout and civil works design for redevelopment of the slipways area of Westhaven boat harbour, Auckland.

Geotechnical and hydrographic surveys including design and construction of a purpose built investigation platform to appraise possible marina development sites within Auckland Harbour for implementation into boating facilities strategic planning.

JOHN MICHAEL LEMAN

CURRICULUM VITAE ADDENDUM

FERRY TERMINAL FACILITIES RELATED PROJECTS

- Review of existing facilities and conditions, projection of future facilities requirements and formulation and review of alternatives including preliminary cost estimates for the Southern Moreton Bay Passenger Ferry Terminal for Redland Shire Council.
- Provision of advice for proposed ferry services for water transportation planning, at Putrajaya (the new Government Capital of Malaysia).
- Investigations, feasibility studies, preliminary facilities design, costings and preparation of Environmental Impact Statement for a Ro-Ro Ferry Service, across the Spencer Gulf, South Australia.
- Design of superyacht facilities for the Sydney millennium celebrations and Olympics.
- Design of berthing facilities for 520 tonne barge operation at Paradise Point, Gold Coast.
- Design of various ship fender arrangements for Queensland Rubber.
- Design of ferry berth facilities at Victoria Harbour, Docklands, Melbourne