



miyamoto. ENGINEERS +
CONSTRUCTION
CONSULTANTS

Ports | Harbours | Marinas

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Miyamoto is a purpose-driven engineering company focused on delivering better outcomes through smarter solutions. We work closely with our clients, combining collaboration with shared expertise to achieve results.

With offices across New Zealand and the strength of a global network, our integrated teams bring a multidisciplinary approach to every project, delivering engineering solutions that balance cost, innovation, advanced technology, and risk management.

Our project portfolio demonstrates our specialist expertise and successful delivery of engineering solutions across the Ports, Harbours and Marinas sector.

Projects:

Reconfiguration of Marina Berth

Layout

Design of a new and repair of the existing seawalls.

Client: Mana Marina

Dates: 2021 - ongoing

Insurance Assessments

Structural assessment of wharves following impact from berthing vessels.

Various locations in NZ.

Client: P&I Insurance

Dates: 2021 - ongoing

Great Point Jetty, Wellington Harbour

Design of several options for repair and/or replacement of existing jetty.

Client: Private

Dates: 2018 - 2021

Retaining Wall at Beach Frontage, Paekakariki, Kapiti

Design of a new retaining wall in sand on the active beach.

Client: Private

Dates: 2020

Seawall, Oriental Bay, Wellington Harbour

Design of a new and repair of the existing seawalls.

Client: Wellington City Council

Dates: 2015

Te Awaparahi Bay Land Reclamation and New Wharves (Feasibility Studies And Concept Design)

The project scope involved the staged reclamation of approximately 30 hectares of new land and the construction of a new wharf. Significant geo-technical challenges included the presence of deep soft marine sediments and high seismic demand. High-level feasibility advice was provided on optimal construction sequencing, reclamation methodology, and the selection and use of fill materials. Concept-level geo-technical design for the reclamation works included a detailed evaluation of multiple design options, including alternative seawall systems and their interaction with the proposed wharf structure.

Client: Lyttelton Port Company (LPC), Christchurch

Dates: 2014-2017

Structural Peer Review, Major Wharf extension, Ports of Auckland

Peer review of design by another consultant of a major wharf extension.

Client: Ports of Auckland

Dates: 2013



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Passenger Gangway, Wellington Ferry Terminal

Geometrical and structural design and procurement of replacement passenger gangway at the Wellington Ferry terminal, including the modification of the existing passenger walkway structure to accommodate the new gangway.

Client: Centreport, Wellington

Dates: 2011

Timber Jetties Survey and Repairs

Structural survey and rehabilitation/repairs to four timber jetties within the Wellington Harbour. The repair work included both composite fibre wraps and concrete jackets to repair decayed timber piles, repair and replacement of heavy timber members and metalwork, fenders, handrails and ladders for public safety, and navigation lights. We have resurveyed the wharfs and managed maintenance contracts on a five-yearly basis since.

Client: Hutt City Council

Dates: 1990 - 2010

Harbours on Mauke and Mangaia Islands, Cook Islands

Report on cyclone damage to both harbours and options for rehabilitation.

Client: NZAID

Dates: 2004 - 2005

Investigation of Environmental Effects of Fast Ferry on Inland Lake

Study included wake wash and other effects of alternative types of fast ferries. Also considered regulatory and operating costs.

Client: Confidential

Dates: 2004

Dredged Channels

Prepared a report on construction costs, maintenance costs and expected life of dredged channels within harbours in NZ.

Client: Confidential

Dates: 2011

Valuation of Port Assets

Valuation of all port assets for insurance and other purposes.

Client: Port Marlborough

Dates: 2011

Tuvalu Reef Channel Construction

Independent Peer Review of feasibility study including both environmental and constructibility issues, and preparation of Contract Documents.

Client: NZSAID

Dates: 2008

Undaria Mitigation

Study of undaria (a noxious seaweed) spread mechanisms and concept Designs of Marina Facilities to minimise the risk of potential spread.

Client: Confidential

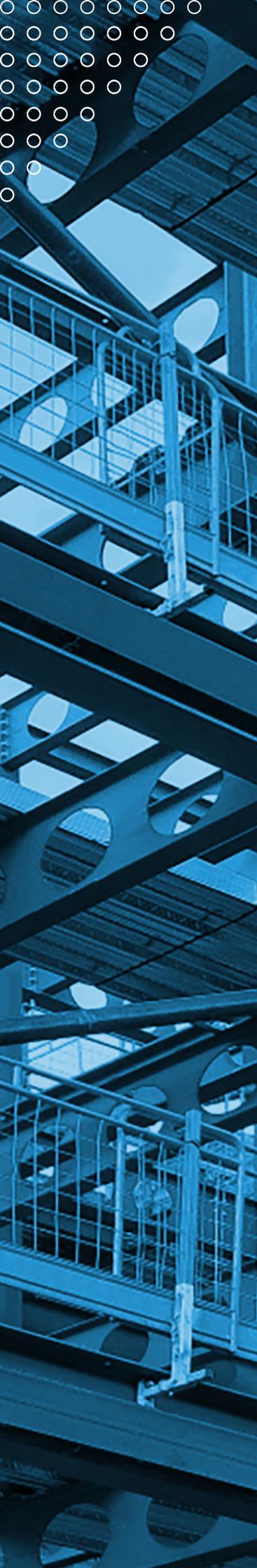
Dates: 2005

Kauri Point Wharf

Following the earlier survey and report, CPG designed and project managed reconstruction of wharf utilising original components whenever this was economic. The refurbished wharf cost less than half of the Navy's budget for a new wharf.

Client: Royal New Zealand Navy

Dates: 2004 - 2005



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Harbour Expansion Plan, Avatiu

Development Options Study - Avatiu Harbour, Western Basin Expansion, Rarotonga, Cook Islands. Several studies over three years considered dredging of reef flat, design of harbour walls and quays and other structures and included schedules of quantities and cost estimates for three options. Physical works based on CPG concept designs have since been completed.

Client: Cook Island Port Authority

Dates: 2002 - 2005

Ship Impact Repair, Picton

Picton Rail Ferry Terminal. Inspection of damage to the rail ferry linkspan at Port Marlborough. An incident had caused the main steel girders to yield. Recommended repairs were carried out. Port Marlborough Ltd..

Client: Port of Marlborough

Dates: 2002

RoRo Linkspan and Passenger Gangway

Design of a new roll-on roll-off vehicle linkspan and passenger gangway for Port Marlborough for The Interisland Line's The Lynx fast ferry. Linkspan is now used by Kaitaki. A similar linkspan was also designed for CentrePort Wellington but has not been constructed.

Client: Port Marlborough

Dates: 2001 - 2002

TopCat RoRo Linkspan

Design and supervision of a new ro-ro linkspan for the Fast Cat Ferries' TopCat a 96m fast catamaran ferry in Wellington. (Linkspan has since been sold to CentrePort) Subsequent modification of TopCat linkspan for The Lynx.

Client: CentrePort, Wellington

Dates: 1999 - 2001

Shore Protection Works

Shore protection to existing car park and road, South Coast, Wellington. Protection was to be in character with beach environment, allow beach access, be cost-effective and to minimise maintenance after storms. Five options were considered.

Client: Wellington City Council

Dates: 2002

Harbour Feasibility Study

Comprehensive feasibility study for a new harbour development on the island of Atiu in the Cook Islands. This study investigated the feasibility of a new harbour to be excavated on the reef flat and the construction of a new breakwater. The study considered harbour size, planning and environmental issues offered concept designs for alternative solutions and included a risk assessment and cost estimates.

Client: Cook Island Government

Dates: 2002

Passenger Gangways

Specifications for design and build of new passenger gangways; refurbishment, modifications and relocation of existing passenger gangways. Modifications to gangway to suit The Interisland Line's The Lynx.

Client: CentrePort, Wellington

Dates: 1999 - 2002

Strait Shipping RoRo Linkspan

Design and supervision of new ro-ro linkspan for CentrePort Wellington to service Strait Shipping's Kent and Suilven.

Client: CentrePort, Wellington

Dates: 2001

Structural Survey

Structural survey and report on wharf and dolphins for Royal New Zealand Navy. Assessment of residual strength. Recommendations made to reduce ongoing deterioration. Follow-up survey and report.

Client: Port of Wellington

Dates: 1997 - 2001



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Ship Impact Repair, Wellington

Structural Survey, report and procurement of repairs to ship impact damage at No.2 Berth of the Wellington Rail Ferry Terminal. Repairs included driven timber piles, spliced piles, replacement timber members, metalwork and fenders. Subsequent engagements after several ship impacts.

Client: Port of Wellington

Dates: 1995 - 2000

Iron Sailors

Structural design and project management of the shore components and attachments for Iron Sailors (mechanical mooring device by Mooring International) for The Interisland Line's Aratere.

Client: CentrePort and Port Marlborough

Dates: 1998

RoRo Linkspan

Preliminary Design Report including concept designs, and preliminary cost estimates for road/rail linkspans for proposed 16,000-tonne rail/road/passenger ferry.

Client: TranzRail Ltd

Dates: 1995

Clyde Quay Redevelopment

Clyde Quay, Wellington. A number of redevelopment options for the wharf were investigated and costs estimated. Options including the construction of basement car parking below the level of the existing wharf deck.

Client: Lambton Harbour Management Ltd

Dates: 1993

Seaview Wharf Structural Survey

Structural survey and report on Seaview Wharf. This is an oil berth, with a 1.3km long approach, wharf head and dolphins, constructed from reinforced and pre-stressed concrete on steel piles. We assessed the degree and causes of deterioration, and compared and specified alternative repair strategies. Physical works completed mid-1998.

Client: Port of Wellington

Dates: 1998

Strait Shipping RoRo Linkspan

Design and supervision of linkspan for Strait Shipping's Suilven. (Since replaced by new linkspan in 2001).

Client: Port of Wellington

Dates: 1995

Queens Wharf Structural Survey

Queens Wharf, Wellington. Comprehensive structural survey of this timber wharf. Report covered several rehabilitation options.

Client: Lambton Harbour Management Ltd

Dates: 1993

Cook Strait Ferry Terminal Survey

Surveys and Status Reports for the Interisland Line, NZ Railways, on the Cook Strait Ferry Terminals at Picton and Wellington. Replacement and Present-day valuations for the Picton Rail Ferry Terminals.

Client: NZ Railways

Dates: 1991

Clyde Quay Structural Survey

Clyde Quay, Wellington. Comprehensive structural survey of concrete and timber portions of the wharf. Report covered several rehabilitation options.

Client: Lambton Harbour Management Ltd

Dates: 1990

Engineering Sectors

Our range of innovative engineering and construction consultancy services is unique and holistic, specifically tailored to fit New Zealand's particular needs.



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projects@miyamoto.nz



www.miyamoto.co.nz



Auckland +64 (09) 940 4069

Wellington +64(04) 801 9016

Christchurch +64 (03) 377 4095

Kapiti +64 (04) 974 1272