DM COMPOSITES

DMMARINE™

LEWISHAM BOAT RAMPS

PROJECT OVERVIEW

Located on Tasmania's scenic coastline, the Lewisham Jetty Upgrade forms part of MAST's long-term infrastructure enhancement program aimed at improving public boating facilities and marine safety. The project involved a 12.8-metre extension of the existing northern jetty and the construction of an entirely new 30-metre southern jetty, both designed to meet the increasing demand from recreational boaters and fishing enthusiasts along the Dodges Ferry and Lewisham foreshore.

The new twin-jetties were designed not just for durability and performance, but also to complement the coastal aesthetic — providing a sleek, corrosion-resistant marine asset with a design life exceeding 50 years.

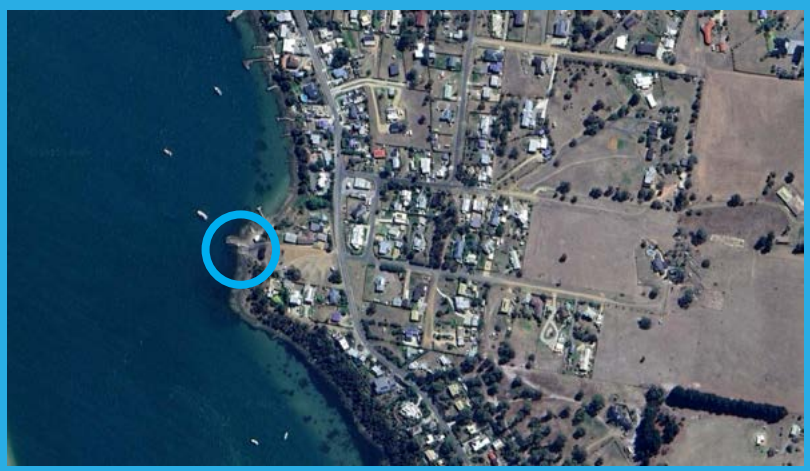
DM Composites was engaged to design, supply, and fabricate all FRP (Fibre Reinforced Polymer) components, including beams, bearers, joists, gratings, and handrails, using the company's proprietary DM BEAM, DM WOOD, DM GRATE, and DM SAFE systems.

LOCATION:

Lewisham (TAS)

CONSTRUCTION COMPLETION:

August 2025



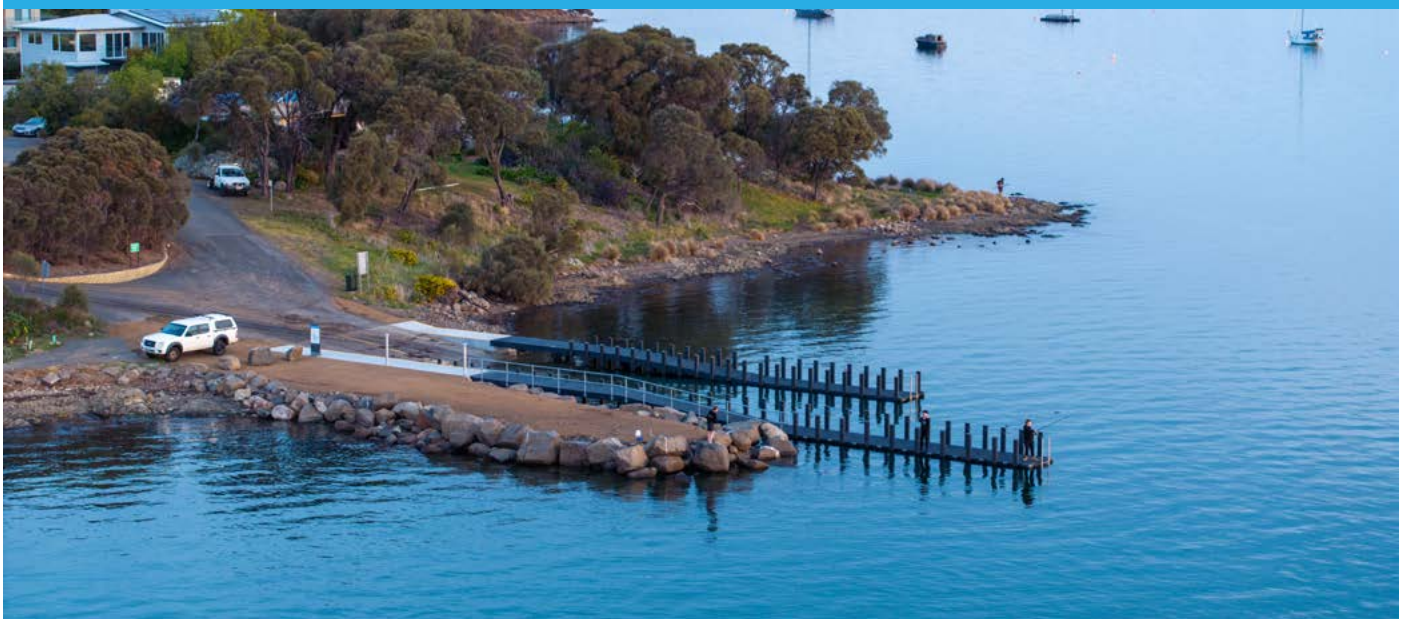
SCOPE OF WORKS

Northern Jetty Extension

- Extension of the existing jetty using FRP structural members engineered for marine exposure and heavy pedestrian use.
- Integration with the existing pile line through custom-fabricated stainless-steel connection plates.
- Full FRP handrail and balustrade system for visual continuity and corrosion resistance.
- Upgrading of the decking surface with high-strength FRP mini-mesh gratings providing long-term slip resistance and UV stability.

Southern Jetty Construction

- Entirely new fixed jetty structure using a fully modular FRP system, including beams, bearers, joists, decking, and safety rails.
- Incorporation of FRP wave deflection panels and WPC fenders to protect vessels and reduce impact damage.
- Coordination to ensure precise alignment between pile heads, crossheads, and FRP framing.
- Final finishing with a low-maintenance, fully pigmented resin colour system, avoiding the coating failures often seen in painted marine products.



TECHNICAL & DESIGN FEATURES

The Lewisham twin-jetty system is a testament to the precision and modularity of DM Composites' FRP marine structures. Working from engineering drawings, DM Composites tailored the FRP design and supply to comply with the demanding design parameters set out under AS 4997 – Guidelines for Maritime Structures and AS 2159 – Piling Design and Construction.

Key Engineering Features:

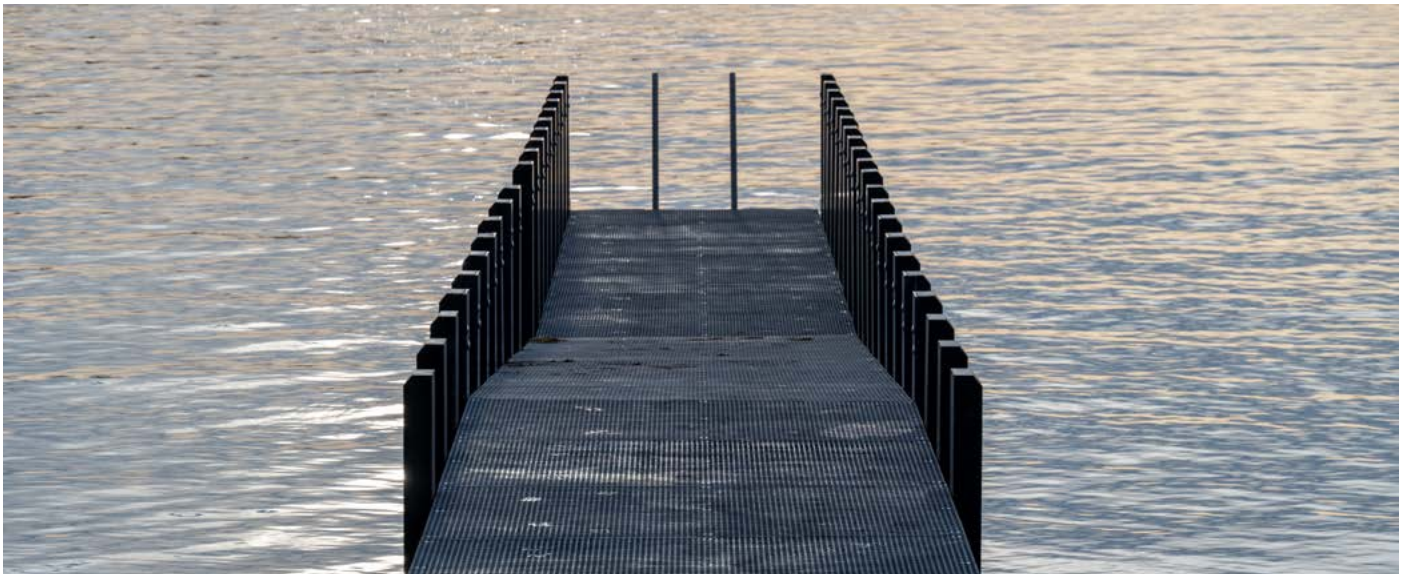
CHS Ø355 × 12.7 mm piles, concrete-filled and sleeved with HDPE OD 400 mm (SDR 33) grouted annulus, providing geotechnical capacity of ≥ 320 kN in compression.

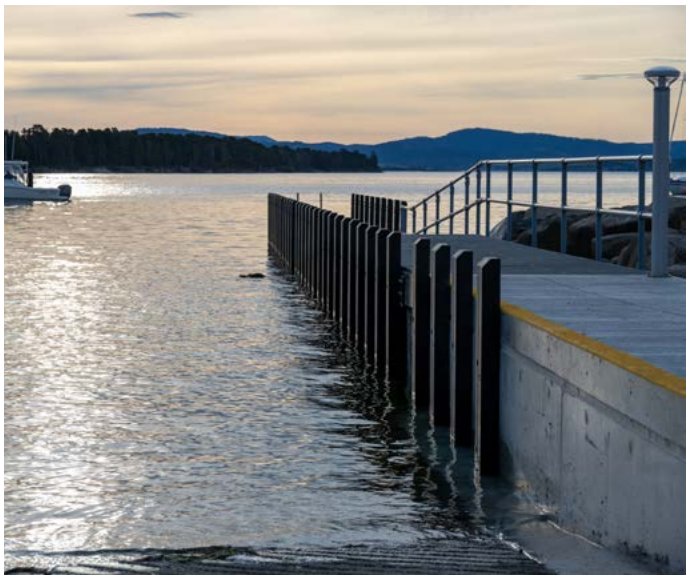
FRP I-Beams (254 × 127 × 13) and C-Sections (203 × 56 × 9.5) for cross-heads and joists.

Crosshead connections using M16 bolted 316 SS plates, engineered for serviceability under 5 kPa pedestrian loading and 2.5 t berthing capacity.

Wave deflection screens along exposed edges to mitigate wash from small craft, with FRP solid-face gratings designed to AS 1657 impact standards.

Handrail system: DM SAFE FRP posts and mid-rails, continuous RXR-SMB clamp fittings for clean aesthetics and corrosion resistance.

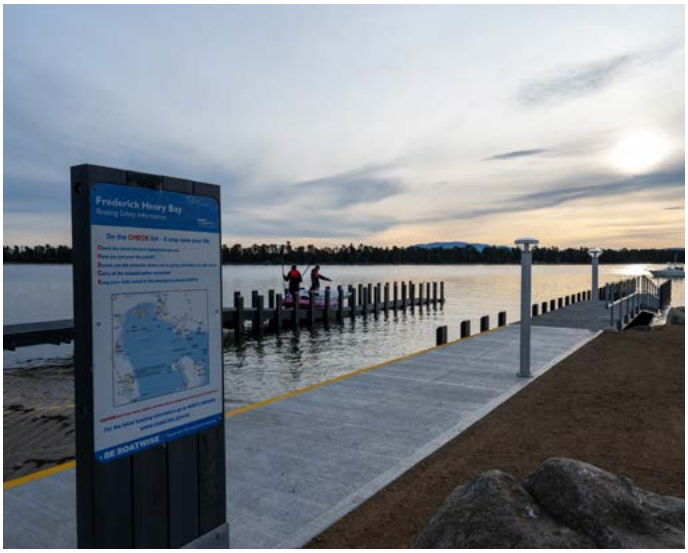


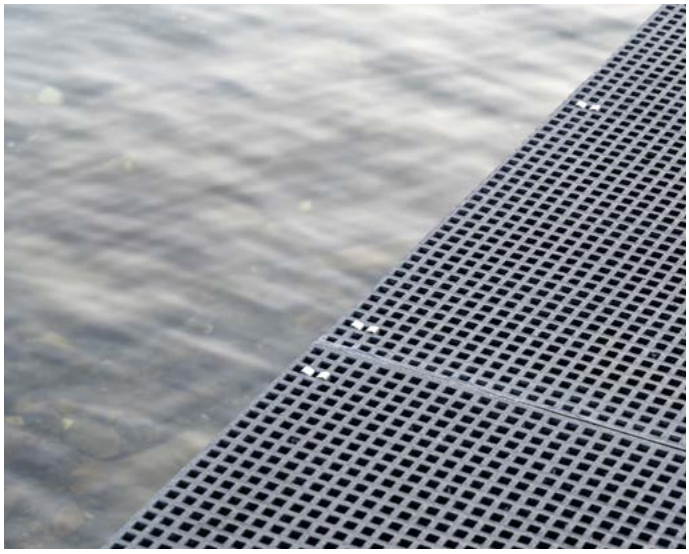


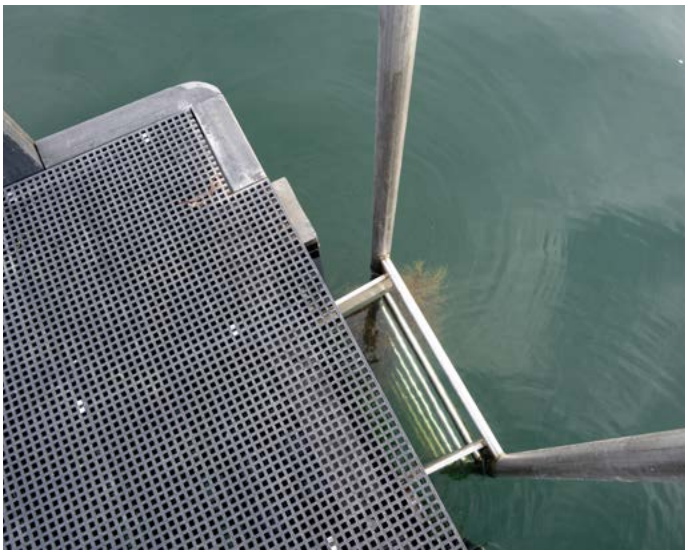
SUSTAINABILITY & INNOVATION

The Lewisham upgrade demonstrates how FRP technology transforms traditional marine construction:

- Zero corrosion risk in saltwater and UV environments.
- Reduced installation weight, enabling manual handling and smaller cranes.
- No painting or coating required — pigmentation is fully impregnated into the resin, eliminating the peeling and maintenance issues commonly seen in coated FRP profiles used elsewhere in Tasmania.
- Composite fenders and WPC bracing blocks, aligning with MAST's sustainability objectives.


Frederick Henry Bay
BE BOATWISE





VISUAL IMPACT & COMMUNITY BENEFITS

The new twin-jetty system extends gracefully into Clarks Bay, blending industrial performance with coastal simplicity. The dark-grey FRP decking contrasts against the natural sandstone shoreline, while the silver grey FRP rails glisten under sunlight, creating a modern aesthetic that complements Lewisham's coastal character.

For local residents and recreational users, the result is safer access, better boat mooring, and a durable public asset that enhances the local marine environment without intrusive maintenance or visual degradation.

The Lewisham Boat Ramp Jetties stand as a model of sustainable marine engineering — combining FRP innovation, aesthetic restraint, and long-term durability. DM Composites' precision-fabricated system ensures that the structure will endure Tasmania's harsh coastal conditions with virtually no maintenance, while delivering a timeless design that serves the community and the environment alike.

BEFORE

AFTER

DMWALK™

LEWISHAM BOAT RAMPS