



## ROAM MARINE

Z Marine Pty Ltd  
ABN 52 144 660 702  
11/20 Churchill Ave  
Subiaco, WA 6008, Australia

Mb 0413 933 163  
Phone 08 9381 9091  
Email [zmarine@roam-marine.com](mailto:zmarine@roam-marine.com)  
Web [www.roam-marine.com](http://www.roam-marine.com)

**Project:** CLA Dolphins – Temporary Jetty

**Client:** Austral Construction

**Project scope:** Austral were contracted to upgrade Cape Lambert A wharf including:

- Demolition of 24 dolphins and installation of 20 new dolphins at the four iron ore berths
- Supply and install associated dolphin walkways, stairs, services and wharf strengthening
- Additional piling and bracing of 9 anchor bents on the jetty

The project was challenging because of the tight schedule and operational facility only permitting access to one berth at a time.



Jetty at high tide prior to pontoon installation

Roam Marine assisted with the design of a temporary loadout jetty for a 300t crawler crane including:

- Development of concept and location including fender piles, pontoon and gangway for small boat access. There are two spans with the central piles positioned at the toe of the armour and the seaward piles in the dredge slope.
- Assessment of the capacity of existing beams for 250t crane and modifying as required for the bigger crane
- Detailed design of new piles including assessments of lateral capacity as some piles had shallow embedment due to the bedrock. The abutment piles were smaller with conical tips to enable penetration of the seawall.
- The jackup was used to install all but the abutment piles which were installed with a land based gate.
- Pontoon is a 12m and 6m float with custom brackets and fendering at the piles.
- Design of gangway 20m span
- A section of the seawall was removed for the crane access and can be closed with sea-containers during a cyclone to prevent inundation of the laydown area.



400t jackup with abutment piles in foreground



Pontoon with pile guides



Berth 6 formwork, 40t pile caps and driving 2.2m 50t pile