



Case Study  
**Heathcote  
Reserve  
Stairs**



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## Customer

City of Melville, Western Australia

## Product

Public access staircase and lookout platform

## Project

Heathcote Reserve, Applecross

## Designer

Landmark Products

# Case study



## Overview

The City of Melville identified the need to replace the 20-year-old timber steps during an audit in 2015. Replacement rather than repair was deemed the best option.

Located in the exclusive suburb of Applecross, the steps joined the iconic Heathcote Reserve at

the top, to the base of the hill, close to the bank of the Swan River.

Landmark won the project through offering a full design and manufacturing service, as well as a through the quality of their consultation and design proposal.

## Challenges

The brief was to demolish the existing steps (right), and replace them, all within the existing footprint of the legacy structure.

The old stairs were used extensively by fitness groups and individuals, and due to the top of the structure's proximity to local residence, sound suppression was a priority.



## Risers and platform

The risers and lookout platform, made from FRP (fibre reinforced plastic) are impervious to decay, fire resistant, non-slip and are slightly lighter than steel.

Importantly for residents who live nearby the new staircase, FRP does not “drum” or reverberate (like metal), ensuring little or no noise from the fitness community's significant use of the stairs in the early and late hours.

## Our solution

Safer than the previous aging, and increasingly dangerous timber version, the Heathcote Reserve steps scale 11.5 metres – from top to bottom – via 57 risers.

The construction included a 3 x 3.5 metre lookout platform toward the top of the structure, giving some great views of the city and Swan River.

The combination of materials used were carefully chosen to fit the purpose. It is predominately made of aluminium, which will require little or no maintenance over its 100-year life cycle.

The structure is a significant achievement for the City of Melville and Landmark Products.



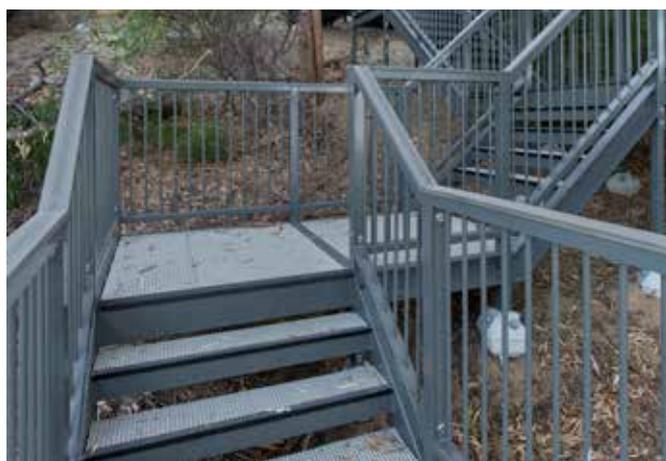
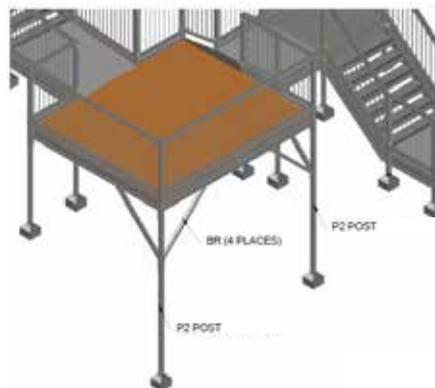


## Footings

The Diamond Piers and pre-constituted (off-site) concrete footings used meant no on-site concreting, no heavy equipment and its accompanying noise, and therefore, minimal site disruption.

These types of footings are easily removable, if the need arises.

The four Diamond Piers pins used on each pier were of the appropriate length and thickness to meet engineering specification requirements.



## Sub frame structure

The aluminium sub frame structure was prefabricated in kit form off-site for less site disturbance, designed to the required load bearing capacity.

The sub-frame structure included PFC aluminium posts that were bolted to diamond piers using stainless steel anti-vandal bolts.

## Balustrades

The aluminium balustrades were finished-off with modwood caprails, and supplied in pre-fabricated panels.

## Installation

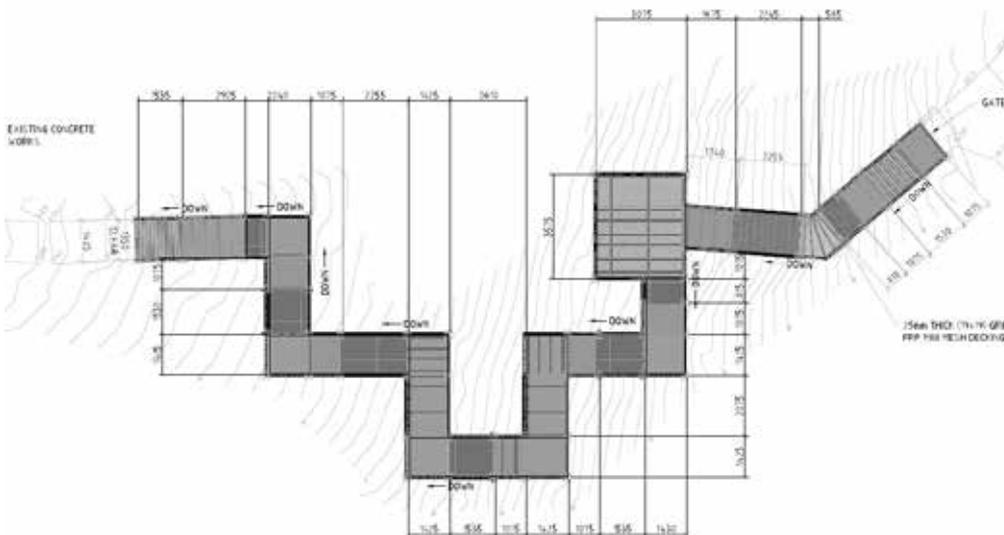
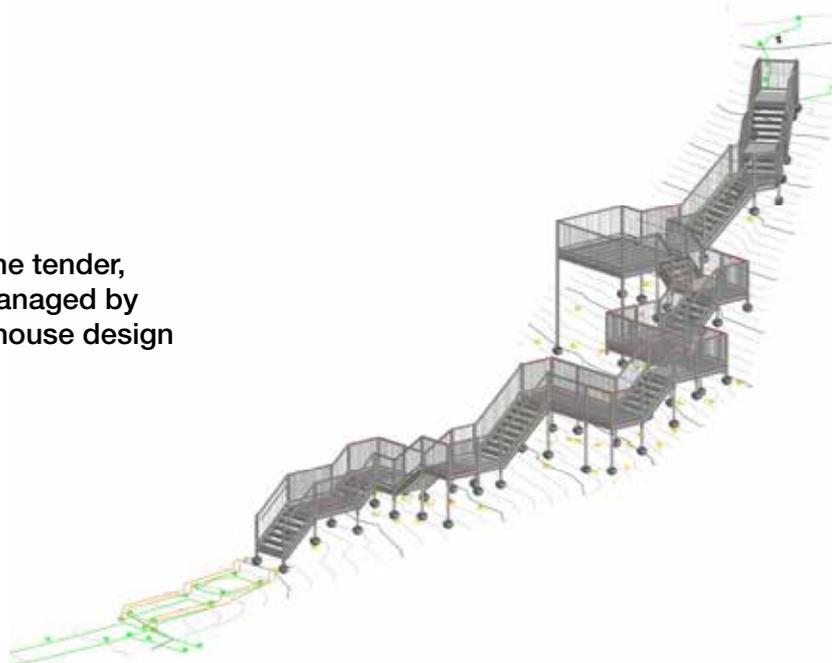
The project was installed and project managed by Landmark Products, Western Australian operation. From start to finish, including the demolition and removal of the previous structure, took four weeks.

As part of the service, Landmark Products assisted the City of Melville with all relevant compliance required, including the Swan River Trust Permits, Building Surveyor Certificate of Design Compliance, Access Consultants Assessment and building permits.



## CASE STUDY

**Design:** Upon winning the tender, the entire design was managed by Landmark Products' in-house design team.



**Site:** The bank, leading from Heathcote Reserve to the bank of the Swan River, delivered many environmental challenges due to its steep slope, and the project being restricted to the footprint of the previous timber steps.

**Outcome:** The City of Melville are delighted with the end results, as are the frequent users of the facility, such as fitness groups, and residents who are not awoken at all hours with the loud drumming of footsteps.