



TERRA FIRMA™
INDUSTRIES

CASE STUDY

LAUNCESTON CITY COUNCIL



PROBLEM

The **Launceston City Council** governs approximately half of the greater Launceston area in northern Tasmania with a population of nearly 70,000. Concrete pit lids placed behind the kerb around the City of Launceston had been causing the Council endless issues. With each single slab weighing around 120kg it was too dangerous for workers to lift them manually, and the lack of lifting points put workers at further risk when operating a mechanical lift. Using a crane truck for lifting required a lot of time and other resources, which was expensive for the Council to support.

Vehicles mounting the kerb also put significant strain on the durability of the concrete pit lids, often resulting in breakages. Launceston City Council reported that in some cases the difficulty in lifting the concrete pit lids prevented inspections and some maintenance from being carried out altogether.



NEED

While cost is always a factor in buying decisions, the Launceston City Council identified safety as their primary concern. Any safety improvements far exceeded any cost considerations (such as installation or ongoing maintenance costs).

Therefore, the most important features required for their pit lids were:

- **OH&S**
- **Strength**
- **Performance**
- **Durability**
- **Weight**



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SOLUTION

The Launceston City Council identified Terra Firma's lightweight composite fibreglass pit lids as a viable alternative to their heavy concrete pit lids. Composite fibreglass met all their required needs:



Terra Firma Pit Lids can be opened and closed by one person in 17 seconds.

OH&S

The lightweight nature of the pit lids also dramatically reduces the risk of injury to workers – such as finger, shoulder and back injuries – and means the lids can be easily lifted by one person. Secondly, these pit lids and the keys to open them have been ergonomically designed which reduces the risk of injury during maintenance.

Strength & Performance

Composite fibreglass pit lids can bear heavy loads, and easily meet Australian standard AS-3996. **Terra Firma's B-Class** composite fibreglass pit lids are destructive load tested to 110kN (11 tonne) and C-Class to 190kN (19 tonne).

Durability

Composite fibreglass pit lids last much longer than concrete, due to their ability to bear greater loads. For example, there are still **Terra Firma's B-Class** composite fibreglass pit lids in use that were installed 20 years ago.

Weight

Composite fibreglass pit lids are approximately one quarter of the weight of same sized concrete pit lids. **Terra Firma's B-Class** composite fibreglass pit lids are the lightest available in Australia, with a 900x600 pit lid weighing in at 25kg. This significantly reduces the environmental impact of the lids with manufacturing, distribution and installation requiring less energy.



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BENEFIT

Terra Firma's lightweight composite fibreglass pit lid and frame made it possible for a single person to place and install the frame and pit lid without the use of any mechanical lifting devices. Ease of installation also eliminated the need for traffic control, as the Terra Firma pit lid could be opened and closed by one person in 17 seconds.

There is a significant OH&S advantage by using these lightweight pit lids, as it reduces the incidence of worker injury when conducting maintenance activities.

"The OH&S benefit for our maintenance workers, and the reduction in maintenance costs demonstrated during the initial trial installation has now led to the Council rolling out a budgeted annual pit lid replacement program using light-weight composite lids."

Uriel Walters
Engineer, Launceston City Council



Are you ready to improve the safety of staff working for you?

Contact Terra Firma Industries today on:

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