



TERRA FIRMA™
INDUSTRIES

CASE STUDY

VICTORIAN GROWTH AREAS AUTHORITY



PROBLEM

The Victorian Growth Areas Authority (GAA) was established to coordinate planning activities across the Office of Local Government and the municipalities of Casey, Cardinia, Hume, Melton, Mitchell, Whittlesea, and Wyndham. Historically, many of these councils specified heavy concrete lids for new estates. However, on completion of development works, councils inherited significant maintenance costs and safety risks due to concrete pit lids. These costs included repeatedly replacing broken concrete pit lids.

Workers were exposed to OH&S risks handling heavy concrete lids and the public were exposed to damaged pit lids and open pits. Council's problems increased with the construction of new homes when heavy vehicles broke concrete pit lids. Municipal Works Officers Association (MWOA) research found the cost of replacing one broken concrete pit lid was between \$600 and \$1000. Across Victoria concrete pit lid breakages cost local government an incredible \$30.9 million every year. The MWOA research really confirmed the GAA's concerns.



NEED

The GAA needed pit lids with higher load ratings. They determined that class B rating was required. To best manage OH&S risk they calculated that a 900 x 600mm B-Class pit lid should weigh no more than 25kg based on international guidelines and industry best practice. The GAA also wanted to measure whole-of-life costs for pit lids to understand the real costs inherited from developers.

Taking safety improvements as non-negotiable, the GAA identified the most important features required for their pit lids were:

- **Cost effective;**
- **Strength and durability;**
- **Safe and secure;**
- **Lightweight (under 25kg).**



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SOLUTION

The GAA looked to the 10-15 years of experience some member councils already had using Terra Firma pit lids. They confirmed that Terra Firma lightweight, lockable, composite fibreglass pit lids were a safe, robust, and cost-effective alternative to brittle, heavy concrete lids. Terra Firma composite fibreglass pit lids met all their required needs.



Terra Firma industries pit lids can be safely opened and closed in 15 seconds. To see for yourself, click on the photo above.



Cost effective

Terra Firma's composite fibreglass pit lids safely eliminate the costs and risks of broken concrete pit lids. Terra Firma pit lids remove the need for crane trucks or other mechanical lifting. They can be installed by one person in under 20 minutes, which significantly reduces traffic management requirements and associated OH&S risks. Terra Firma have proven durability, with their composite fibreglass pit lids in continuous use for over 20 years. This means less risk, less maintenance, and less time and resources used, which all adds up to real whole-of-life cost savings.

Safe and secure

Using the ergonomically designed Terra Firma key lifter, one person can safely open and close a Terra Firma pit lid in 17 seconds. Terra Firma's tamper-resistant lock secures the pit lid in place.

Lightweight

Terra Firma's composite fibreglass pit lids are approximately one quarter of the weight of a same-sized concrete pit lid with a 900cm x 600cm Terra Firma B-Class lid weighing under 24kg.

Strength and Durability

Terra Firma's composite fibreglass pit lids meet and exceed AS:3996 requirements, including testing to 80kN (8 tonne) for B-Class and 150kN (15 tonne) for C-Class. Terra Firma's composite fibreglass pit lids are tested beyond Australian Standards to 110kN (11 tonne) for B-Class and 190kN (19 tonne) for C-Class



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BENEFIT

By specifying their pit lid needs the GAA has significantly reduced the costs and risks inherited from developers. MWOA research revealed one South Eastern Council saves in excess of \$500,000 each year simply by specifying AS:3996 compliant fibreglass composite pit lids. The incremental cost to developers was only \$40 per house. They have improved safety for works and the public and have freed up valuable council resources.

Supporting their member councils experience, the GAA has adopted AS:3996 compliant fibreglass composite pit lids as standard for their Engineering Design and Construction Manual for all Growth Area councils, effectively making concrete pit lids obsolete.



Are you ready to say goodbye to inherited costs and risk?

Contact Terra Firma Industries today on:

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