

# WARRNAMBOOL TUNNEL REHAB

## RESTORING RESILIENCE UNDERGROUND

The Simpson Street drainage tunnel is a key piece of stormwater infrastructure maintained by Warrnambool City Council, draining low-lying land in Warrnambool East across a 147-hectare catchment. Following inspections, the Council determined GRP segmented panels matched to the non-circular profile were the most effective solution.

## CUSTOM-PROFILE GRP LINERS FOR A NON-CIRCULAR TUNNEL

In 2019, Empire supplied 160 metres of Channeline 1700 x 890 non-circular GRP relining sections, complete with tongue and groove joints, designed to closely replicate the existing tunnel profile. Standard circular liner products were not suitable.

*"Non-circular tunnel rehabilitation is one of the more demanding supply challenges. The profile matching achieved on Warrnambool ensured the liner could be installed without major structural modification,"* said Aaron Mackley, Director of Sales & Operations at Empire Infrastructure.

GRP's smooth internal surface improved the hydraulic efficiency of the tunnel, partially offsetting the minor reduction in cross-sectional area resulting from the liner installation.

## REHABILITATION COMPLETED OVER EIGHT MONTHS

The relining works were completed over an eight-month program. Rob Carr Pty Ltd completed the installation and the tunnel was commissioned without significant surface disruption to the community.

## REDUCED FLOOD RISK FOR WARRNAMBOOL EAST

The completed rehabilitation has delivered a structurally restored tunnel with improved hydraulic performance, reducing flood risk for the Warrnambool East community.



## PROJECT DETAILS

**Location:** Warrnambool, VIC

**Contractor:** Rob Carr

**Client:** Warrnambool City Council

**Product:** Channeline GRP Non-Circular Segmented Liner Panels

**Scope:** 160m of 1700 x 890 Non-Circular Liner


**Pressure:** PN 1

**Installation:** Segmented Relining

The project demonstrates Empire's capability to supply specialised GRP rehabilitation products for non-standard tunnel profiles requiring bespoke engineering solutions.

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