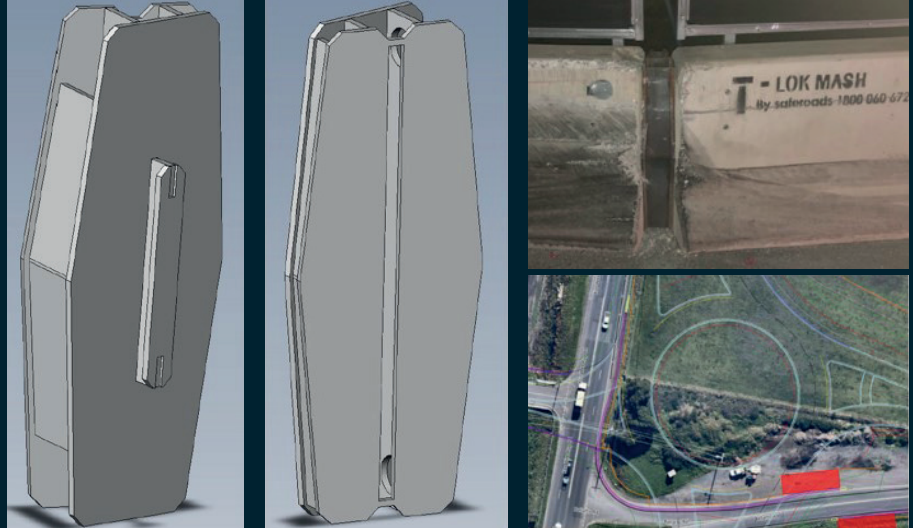


# T-LOK STEEL WEDGE PIECE – SAFETY BARRIER

The T-Lok Steel Wedge Piece is placed in-between individual T-Lok MASH concrete barriers, and greatly increases the workable construction areas behind barriers in constrained locations.

On the Healesville-Koo Wee Rup Road Upgrade (Southern Package), a new 'T-Lok Steel Wedge Piece' has been used between joints of temporary concrete barriers, to reduce the offset radii from 30m to 7m.

This 7m (min.) radius at the intersections has increased the offline construction space (separation of workers from live traffic) for the workers on-site and has provided efficiency in the program to complete the activities in a safe and timely manner.



3D model of the T-Lok Steel Wedge Piece (left), Installed T-Lok Steel Wedge Piece on Concrete Barriers on site (top), proposed layout of concrete barriers with T-Lok Steel Wedge Piece at Ballarto Road Intersection (right).

## The Situation

Healesville-Koo Wee Rup Road is a high-speed road, with no median separation and very narrow (or nil) shoulders. The road is a two-lane, dual direction single carriageway road carrying over 29,000 vehicles per day.

Safety incidents at earlier stages of the project prompted Seymour Whyte to bring forward the construction of Ballarto Road Roundabout with a focus on minimising the number of stages and provide a safer outcome for the public earlier in the project.

To have less disruption to traffic the team needed to maximise the area under construction, it was proposed that the roundabout be constructed offline from the existing road, with roadworks shielded by continuous concrete barriers.

## The Solution

Seymour Whyte engaged SafeRoads to develop the 'T-Lok Steel Wedge Piece', that is inserted at the joints of T-Lok concrete barriers to tighten the radius at intersections. SafeRoads undertook several crash-test simulations using specific crash test software.

The Project in conjunction with SafeRoads was able to obtain endorsement by the Australian Safety Barrier Assessment Board, and the approval to use on Department of Transport and Planning projects.

Compared to a 30-metre radius without the wedge pieces, T-Lok Steel Wedge Piece can be placed in between individual T-Lok concrete barriers to provide a continuous run of concrete barriers at a radius of 7 metres.

This is a significant advantage at intersections.

## Benefits and Learnings

- By tightening the intersections with temporary concrete barriers, the productivity and efficiency on the construction site increases.
- Provide a continuous temporary traffic barrier solution at the most notorious intersection of the project.
- Decreased safety risk to workers behind the barriers due to the simulated testing capabilities.
- Maximise construction area for project to extract production efficiencies.
- Improve efficiency of works, which will enable early delivery of the Ballarto Road roundabout.
- Project savings of greater than \$200k.

**Program Office:** MRPV

**Work Package:** Healesville – Koo Wee Rup Road Upgrade (Southern Section: Ellett Road to Manks Road)

**Principal Contractor:** Seymour Whyte Construction

**Solution Vendor:** Road Safety Rentals / SafeRoads

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