

TRISIGN – REMOTE-CONTROLLED MULTI-MESSAGE TRAFFIC MANAGEMENT SIGN



TriSign reduces traffic safety risks by providing remote controlled multi-message traffic signage

On the Healesville Koo Wee Rup Upgrade project, traditional traffic management signs have been replaced with Trisigns, which can transition to three different sign faces by remote control.

This reduces traffic related safety risks to workers and the travelling public by reducing the need to manually change traffic sign faces at the start and end of shifts.



The Trisign transitioning from one pre-determined sign face to another (QR code provides enactment)

The Situation

Healesville-Koo Wee Rup Rd is a two-lane, dual direction single carriageway road carrying over 20,000 vehicles per day. It is high speed (currently 60km/h, reduced from 100km/h due to safety concerns), with no median separation and very narrow (or nil) shoulders.

To manage traffic on this road, traffic controllers from the Healesville Koo Wee Rup Upgrade project would enter this dangerous environment daily to set up and pack up multi-message frame signs at the beginning and end of shifts. This requires the use of either a Truck Mounted Attenuator (TMA) and/or a shadow vehicle, crawling up the 10km long alignment. This resulted in the exposure of traffic controllers to traffic related safety risks and traffic disruption for the travelling public.

As a result, the project decided a fresh approach was required to limit the exposure of traffic controllers to live traffic.

The Solution

The TriSign is a next-generation multi-message frame sign for traffic management. The TriSigns replicate a traditional 1200x900mm multi-message frame sign, with each TriSign unit able to incorporate 3 pre-determined sign face arrangements.

The TriSigns can be operated remotely via an Android tablet app to display the desired arrangement. This allows traffic controllers to be positioned away from the live traffic flow and eliminates the associated risks during traffic management sign changes. Sign face changes are powered by a solar panel atop each unit and occur in a matter of seconds.

On the Healesville Koo Wee Rup Rd Project over 45 Trisign units have been installed as part of the project's long term traffic management arrangements. The Trisigns are installed at regular intervals and pole-mounted for improved visibility.

The Trisign positions and signfaces were determined as part of the standard Traffic Guidance Scheme design process. Each signage change is recorded and timestamped providing a verifiable record of which signage arrangement was in place at any point in time.

Benefits and learnings

Site safety

- Improved worker safety by reducing the need for traffic controllers to maintain and change signage on road.
- Improved driver safety by reducing interactions with traffic management crews during setup.
- Reduced traffic controller fatigue and recovery time.

Productivity

- Reduced traffic delays.
- Improved setup and pack down time (by up to 70 %), increasing site productivity and/or achieving reduced time under traffic control.
- Reduced traffic controller demands.
- Reduced cost of setup, i.e., less need for TMAs, advanced warning vehicles, traffic management crews, etc. (cost savings of approx \$1200-1500 per shift).

Quality and consistency

- Signs less likely to be disrupted by passing traffic as they are mounted on posts.
- Has wide application potential across sites with traffic management requirements and associated risks.

Program Office: MRPV

Work Package: Program F – Healesville Koo Wee Rup Rd

Principal Contractor: McConnell Dowell / Seymour Whyte

Solution vendor: Safetek Solutions

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