FACT SHEET: Tauranga City Council B-type road markings

NZGTTM-aligned practice, enabling safer, smarter TTM

October 2025

Overview

Tauranga City Council (TCC) trialled a new temporary traffic management (TTM) approach during renewal of intersection road markings (such as give way triangles, limit lines, and stop lines – work completed by a B type machine) on local residential streets. Instead of full cone layouts with manual stop/go operations, the project used utes fitted with towball-mounted, remote-controlled traffic lights supported by simplified signage.

The trial applied principles of the New Zealand guide to temporary traffic management (NZGTTM), aiming to make line marking safer and more efficient. The new system allowed quicker deployment, smaller crews, and work that could adapt site-by-site. The trial has shown clear benefits for safety, efficiency, and community impact.

Project summary – trialling portable traffic lights for road marking TTM

Client: Tauranga City Council (TCC)

TTM contractor: Complete Traffic Services NZ Ltd

Project manager: Mike Bradford, TCC Maintenance Project Manager

Trial sponsor: Garry Oakes, Road Maintenance Contract Manager, TCC

Trial dates: December 2024 – June 2025

The trial focused on renewing give way and stop line markings at intersections on low-volume residential roads, typically at night. Conventional CoPTTM layouts relied on cones, tapers and manual stop/go operators. This pilot, delivered in line with NZGTTM principles, used three utes fitted with towball-mounted, remote-controlled traffic lights supported by simplified signage.

The approach was designed to reduce set-up and pack-down times, require smaller crews, and allow more sites to be completed per shift. See below for further operational details.

This trial shows how we can rethink TTM to deliver safer, more efficient results for the community.

— Garry Oakes, Road Maintenance Contract Manager, TCC

What was done

- **Vehicle-mounted portable traffic lights**
  Three utes were fitted with removable towball-mounted, remote-controlled traffic lights.

- **Simplified signage**
  Signage was reduced to two portable signs per approach, mounted on lightweight stands (L1), rather than the full CoPTTM cone and taper layouts.
- **Operational method**
  Main-road traffic retained right of way in both directions. When a side-road vehicle approached, the system briefly stopped main-road traffic and gave a green for the side road to exit, before returning right of way to the main road.
- **Crew set-up**
  Only two people were required on the road — the line-marking technician and an STMS acting as spotter. The lights were operated remotely from the cab or roadside berm. All staff were in direct communication via hand held radios.
- **Deployment rules**
  The system was limited to give way and stop line intersections on low-volume local roads at night. Vehicle counts of fewer than five per minute per approach were required before deployment, with records kept by the STMS at each site.
- **Rolling trial**
  The approach was applied over a one year period across suburbs in Tauranga, with sites managed sequentially through the night.

Why it was needed

"We don't have stop/go people standing out there anymore, which takes away one of the biggest risks on these jobs."
— Mike Bradford, Maintenance Project Manager, TCC

- **Inefficient set-ups**
  Conventional TTM for road marking required a full cone layout with stop/go operators, taking over an hour to establish and remove. As a result, crews were limited to 7–9 intersections per night, even though the actual marking work at each site took only 10–15 minutes.
- **Unnecessary worker exposure**
  Under the old approach, stop/go operators were exposed to live traffic, increasing both physical risk and the likelihood of road worker abuse.
- **High demand for renewal work**
  Demand for intersection renewals (B-type machine work) is constant, with markings needing to be refreshed by the time a full cycle is complete. Faster delivery was needed to keep up with this workload.
- **Resource pressures**
  Council and contractors needed a way to keep up with demand using existing budgets and staffing levels, without adding more people to every site.

NZGTTM principles applied

- **Hierarchy of controls**
  Decisions on traffic management were guided by the hierarchy of controls, with exposure risks managed through remote-controlled traffic lights and simplified signage.
- **Plan–Do–Check–Act cycle**
  Each site was planned, implemented, monitored in real time, and adjusted where needed — for example, deferring work on sites with higher traffic volumes and returning later.
- **Consultation, coordination and collaboration (the 3Cs)**
  The system was developed collaboratively between TCC and Complete Traffic Management, with trial

oversight by the Council's project manager and sponsor. The project team also worked closely with Tauranga City Council Corridor Access Team, who were involved from the outset providing guidance to ensure safety to the public and crew.

- **Lowest total risk**
  The trial method was selected and applied in line with NZGTTM's focus on lowest total risk — reducing overall exposure for workers, road users, and the community compared with conventional stop/go layouts.

Benefits

"With the old setups, we were lucky to get seven or eight sites done in a night. With this, we can double that, sometimes more."
— Mike Bradford, Maintenance Project Manager, TCC

- **Improved efficiency**
  Crews could complete two to three times more sites per shift compared with the conventional method.
- **Lower costs per site**
  Average cost per intersection was reduced by around a third, delivering better value within existing budgets.
- **Safer working conditions**
  The removal of stop/go operators from live traffic reduced physical risk and the likelihood of road worker abuse, while smaller crews meant less exposure overall. The reduction in signs per site from 15 to 6 also minimised the risks involved in sign placement.
- **Flexibility**
  Sites with higher traffic volumes could be skipped and completed later, reducing disruption and maintaining safety.

Refer to Additional details on page 4.

Building on the pilot

The trial has shown strong safety and efficiency benefits within strict limits. Further options under considerations include extending the operation to low volume sites during the day. In this scenario, the same traffic count — less than 5 vehicles per minute on each approach — would be applied. TCC is also considering whether this tactic can be adapted to other environments.

Appendices

Additional details

Measure	Conventional set-up	Trial method
Average sites per shift	7.7	18 (134% increase)
Time per intersection	~70 mins	~30 mins
Crew	4 people, 2 vehicles	3 people, 3 vehicles

Table 1 efficiency comparison

Measure	Cost comparison – trial method vs conventional
Average TTM cost per intersection	64% reduction in cost
Average cost per intersection (including TTM)	47% reduction in cost

Table 2 costs per intersection

Operational notes

- Only applied at give way and stop line intersections on low-volume residential roads, at night.
- Deployment restricted to traffic counts under 5 vehicles per minute per approach (STMS required to record counts at each site). If traffic volumes exceeded the threshold, sites were skipped and revisited later.
- Trial duration: six months, 30 December 2024 to 30 June 2025.