## Traffic Control Devices Manual Part 8

# Code of practice for temporary traffic management (CoPTTM)

manual number: SP/M/010

## Section A

© NZ Transport Agency

www.nzta.govt.nz

Fourth edition, Amendment 2 of Code of practice for temporary traffic management

Effective from July 2013

ISBN 978-0-478-40772-3 (print)

ISBN 978-0-478-40773-0 (online)

#### Copyright information

This publication is copyright © NZ Transport Agency. Material in it may be reproduced for personal or in-house use without formal permission or charge, provided suitable acknowledgement is made to this publication and the NZ Transport Agency (NZTA) as the source. Requests and enquiries about the reproduction of material in this publication for any other purpose should be made to: NZ Transport Agency Private Bag 6995 Wellington 6141

The permission to reproduce material in this publication does not extend to any material for which the copyright is identified as being held by a third party. Authorisation to reproduce material belonging to a third party must be obtained from the copyright holder(s) concerned.

#### Disclaimer

The NZTA has endeavoured to ensure material in this document is technically accurate and reflects legal requirements. However, the document does not override governing legislation. The NZTA and its employees and agents involved in the preparation and publication of this document do not accept liability for any consequences arising from the use of this document. Users of this document should apply and rely upon their own skill and judgment, and should not rely on the manual's contents in isolation from other sources of advice and information. In applying their own skill and judgment, the standards of safety and serviceability explicitly required or implied by this manual shall not be reduced. If the user is unsure whether the material is correct, they should make direct reference to the relevant legislation or regulations and contact the NZTA.

#### More information

Published 2013

ISBN 978-0-478-40772-3 (print)

ISBN 978-0-478-40773-0 (online)

## Document management plan

#### 1) Purpose

This management plan outlines the updating procedures and contact points for the document.

#### 2) Document information

Document name	Code of practice for temporary traffic management
Document number	SP/M/010
Document availability	This document is located in electronic form on the NZ Transport Agency's website at www.nzta.govt.nz.
Document owner	National Traffic and Safety Manager
Document sponsor	National Manager Professional Services
Prepared by	Professional Services, NZ Transport Agency

#### 3) Amendments and review strategy

All corrective action/improvement requests (CAIRs) suggesting changes will be acknowledged by the document owner.

	Comments	Frequency
Amendments (minor revisions)	Updates to be notified to users by publication of a technical memorandum placed on the NZ Transport Agency's website.	As required.
Review (major revisions)	Periodic updates will be undertaken where amendments fundamentally changing the content or structure of the manual or new technology resulting from research or ongoing refinement have been identified.	As required.
Notification	All users that have registered their interest by email to Copttm.update@nzta.govt.nz will be advised by email of amendments and updates.	Immediately.

#### 4) Distribution of this management plan

Copies of this manual management plan are to be included in the NZ Transport Agency intranet.

### Record of amendments

This document is subject to review and amendment from time to time. Amendments will be recorded in the table below.

Changes since the previous amendment are indicated by a vertical line in the margin. The date of issue or amendment of a page appears in the header on each page. This page will be updated each time a new amendment is released.

Amendment number	Description of change	Effective date	Updated by
0	The NZTA <i>Code of practice for temporary traffic management 4th</i> edition published on line only to replace the Transit New Zealand <i>Code of practice for temporary traffic management 3rd</i> edition	November 2012	Incorporated
1	Published on line only to make minor corrections and clarifications. Track changes are available on line	May 2013	Incorporated
2	The NZTA <i>Code of practice for temporary traffic management 4th</i> edition published to replace the Transit New Zealand <i>Code of practice for temporary traffic management 3rd</i> edition. (Available in print and on line)	July 2013	Stuart Fraser

#### **Foreword**

#### Code of Practice for Temporary Traffic Management

The NZ Transport Agency creates transport solutions for a thriving New Zealand.

We achieve this through our four core business functions:

- planning the land transport networks
- investing in land transport
- · managing the state highway network, and
- · providing access to and use of the land transport system.

Temporary traffic management is an important aspect of managing our construction and maintenance programmes. It is designed to ensure the safety of road workers and road users while maintaining access at a reasonable cost.

The New Zealand Transport Agency (NZTA) is pleased to release the fourth edition of the Code of Practice for Temporary Traffic Management (CoPTTM).

NZTA is committed to providing a safe and efficient state highway system that meets the needs of all road users and communities. A key element of this commitment is the continual improvement of road safety.

Road controlling authorities, their consultants, those who work on the roads, and those that drive on them must all share in the responsibility of making roadwork sites safe.

The interim version of the Code was released in July 2000 and over the last twelve years the roading industry has gained considerable experience and made improvements to the traffic management regime. NZTA recognises the key role that the roading industry has had in the development of this Code, through the contribution of their knowledge and experience.

The Industry Review Group provides governance and reviews the projects available to improve the Code and NZTA welcomes comment on this edition so that we may continue to improve our services to our customers.

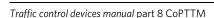
I trust that the safety of roadwork and event sites continues to improve through the guidance herein.

Kevin Reid

National Manager Professional Services - Highways and Network Operations

The N7 There --

The NZ Transport Agency



#### Preface to CoPTTM

#### General

The NZ Transport Agency's *Code of practice for temporary traffic management* (CoPTTM) describes best practice for the safe and efficient management and operation of temporary traffic management (TTM) on all roads in New Zealand.

Its application applies to any activity that varies the normal conditions of any road and applies to the total road reserve.

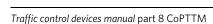
## Mission statement

The mission of the NZ Transport Agency is to be a world leader in road safety by maintaining consistent and high levels of TTM on all of the nation's roads.

#### **CoPTTM**

CoPTTM has been produced to meet the following:

- The statutory duty of road controlling authorities (RCA) to ensure the safe and efficient operation of the roading network under their authority.
- The need to improve the standard of TTM in New Zealand through consistency of application which simplifies the task for the road user by aiding recognition and understanding, thereby improving their behaviour and safety.
- The need to reduce the high rate of crashes occurring at worksites. The NZTA crash analysis system (CAS) over the period 2007 to 2011 has recorded in excess of 200 crashes each year.
- The need to manage the increasing incidence and variety of activities that are being undertaken on the road by individuals and organisations.
- Allowing industry review to maintain best practice.



#### **Contents**

#### Section A - Introduction and general

- A1 About CoPTTM
- A2 Scope of CoPTTM
- A3 Principles
- A4 Levels of temporary traffic management (TTM)
- A5 Powers and responsibilities
- A6 Training
- A7 Traffic management plans (TMPs)
- A8 Temporary traffic management (TTM) safety audit procedures

#### Section B - Equipment

- B1 Signs (including stands and supports)
- **B2** Delineation devices
- B3 High visibility garments
- B4 Logos, names and trademarks
- B5 Portable traffic signals
- **B6 Safety fences**
- **B7** Barricades
- B8 Horizontal arrow boards and light arrow system
- B9 Advance warning variable message sign (AWVMS)
- B10 Mobile variable message sign (VMS)
- B11 Truck-mounted attenuator (TMA)
- B12 Barrier systems
- B13 Temporary speed humps
- B14 Warning systems

#### Section C - Static operations

- C1 General
- C2 Worksite layout
- C3 Signs and worksite zones
- C4 Temporary speed limit (TSL)
- C5 Delineation devices
- C6 Safety zones
- C7 Tapers C8 Shoulder and lane closures
- C9 Road closures and detours
- C10 Positive traffic management
- C11 Temporary traffic management (TTM) installation, management and removal
- C12 Unattended worksites and activity at night
- C13 Pedestrians and cyclists

- C14 Work vehicles, equipment and materials
- C15 Worksite access
- C16 Managing traffic queues
- C17 Light arrow system (LAS), horizontal arrow board, truck-mounted attenuator (TMA) and variable message sign (VMS)
- C18 Temporary road safety barrier systems
- C19 Maintenance standards

#### Section D - Mobile operations

- D1 General
- D2 Work vehicles
- D3 Pilot vehicles
- D4 Shadow vehicles
- D5 Mobile closures operational requirements
- D6 Semi-static closures
- D7 Special mobile operations

#### Section E - Standard forms and descriptions

- E1 Appendix A: Traffic management plans
- E2 Appendix B: Temporary speed limit (TSL) decision matrix worksheet
- E3 Appendix C: Procedures for safety audit of worksites
- E4 Appendix D: Measure and payment for traffic management (guidelines only)
- E5 Appendix E: Newspaper advertisement standard
- E6 Appendix F: Example of notice of non-conformance
- E7 Appendix G: Example of notification of road closure/lane closure of state highways/local authority road
- E8 Appendix H: (Ex-LRS only applies to STMS-delegated authority to self-approve) Example of application for delegated authority to approve TMPs for selected level LV and level 1 roads
- E9 Appendix I: (Ex-LRS only applies to STMS-delegated authority to self-approve) Example of application for traffic management coordinator's (TMC) approval of traffic management plan (TMP)
- E10 Appendix J: (Ex-LRS only applies to STMS-delegated authority to self-approve) Database to record delegations to STMS

#### Section F - Level LV and level 1 layout drawings

Section G - Level 2 layout drawings

Section H - Level 3 layout drawings

## **Glossary of terms**

A list of terms used in this document having specialised meanings or interpretation in the NZ Transport Agency's *Code of practice for temporary traffic management* (CoPTTM).

AADT	See annual average daily traffic.
Activity	A planned event or operation undertaken within the road reserve or affecting the normal use of the road reserve. An activity covers, but is not limited to, the following:  construction projects  maintenance activities  utility service operations  mobile operations  on-road events and races  emergency services operations  tow truck operations  stock droving and crossing  survey and investigation operations  road inspections  adjacent activities, eg logging, blasting, building works  adjacent events, eg horse races, flower shows.
Active warning sign	A sign incorporating flashing lights and/or LED components that are only displayed when the presence of a hazard is automatically detected.
Advance warning variable message sign	A specialist variable message sign used at roadworks to provide advance warning and direction to approaching road users.
Alternating flow	The movement of vehicles in alternating opposing directions normally controlled by traffic signals or manual traffic controllers.
Annual average daily traffic (AADT)	The total volume of traffic passing a roadside observation point over the period of a calendar year, divided by the number of days in that year (365 or 366 days). The AADT is measured in vehicles per day (vpd).
AWVMS	See advance warning variable message sign.
Barricade	A sight rail which when erected on-site is positively attached to two end supports.
Barrier	An obstruction placed to prevent access to a working space which physically separates it from vehicles in live lanes and other road users.
Bidirectional flow	The controlled channelling of traffic flows, usually onto temporary alignments, to maintain a traffic flow in both directions. Delineation devices or physical barrier systems are normally used to separate the traffic flows.
CAR	See <i>corridor access request</i> .
Carriageway	The part of a road, sealed or unsealed and including any shoulder areas, where a normal wheeled vehicle can traverse. Two carriageways are deemed to exist where the carriageways are divided longitudinally by a physical island, median or barrier.

Centreline	<ul> <li>A centreline means the following:</li> <li>a. In relation to any portion of a roadway not marked with a flush median -a dotted or solid line or lines of paint, or raised studs (or any combination of those lines or studs) intended to separate opposing traffic.</li> <li>b. In relation to any portion of a roadway marked with a flush median -the longitudinal white line that forms the left side of the median as viewed by a driver facing forward.</li> <li>c. In relation to an unmarked roadway - the inferred line down the longitudinal centre of the roadway.</li> </ul>
Channelling	The defining of traffic lanes by use of traffic control devices, separately or in combination.
Chicane	The lateral movement of traffic from one or more lanes onto another alignment before a shift back toward the original road alignment but not necessarily into the original lane or lanes.
Clear sight distance (CSD)	<ul> <li>The distance a road user can clearly see along the road. Minimum CSD is expressed in terms of metres based on the permanent speed limit or operating speed. For example, for a road with a permanent speed limit of 100km/h the CSD required is (3 x 100) = 300m.</li> <li>The following CSD may be required for a mobile operation:</li> <li>Rear CSD - the clear sight distance required by drivers travelling in the same direction as a mobile operation to a tail pilot vehicle, and/or shadow vehicle, in a mobile operation.</li> <li>Forward CSD - the clear sight distance required by drivers travelling in the opposite direction to a mobile operation to the lead pilot vehicle or, when the activity is being carried out in a live lane on a two-way two-lane road and a lead pilot vehicle is not required, to the first work vehicle.</li> </ul>
Closure	In the context of road works a closure is the physical area from which the traffic is to be excluded. This includes but is not limited to shoulder closures, lane closures and road closures.
CoPTTM	See Code of practice for temporary traffic management.
Code of practice for temporary traffic management (CoPTTM)	The NZ Transport Agency's <i>Traffic control devices manual</i> part 8 <i>Code of practice for temporary traffic management</i> describes best practice for the safe and efficient management and operation of temporary traffic management (TTM) on all roads in New Zealand and is mandatory on state highways.
Contingency plan	The plan describing how unforeseen scenarios will be addressed (eg weather, excessive delays, queues of vehicles, two lanes unexpectedly reduced to one lane, one lane unexpectedly reduced to no lanes).
Contractor	Contractor means a person, organisation or company responsible for implementation of an activity on, or affecting, a road whether or not under a contract with the road controlling authority (RCA). This includes organisations such as, but is not limited to:  utility companies  surveyors  adjacent forestry operators  filming crews, and  personnel managing events on roads.  The terms contractor and applicant have the same meaning in this <i>Code of practice for temporary traffic management</i> (CoPTTM).
Contra-flow	Traffic flow in a direction opposite to the normal flow. For example, directing traffic into a lane that normally operates in the opposing direction.
CSD	See <i>clear sight distance (CSD).</i>
Corridor access request (CAR)	An application to undertake works in the road corridor.

Delineation device	A piece of equipment manufactured specifically for a wide range of purposes such as, but not limited to, marking temporary traffic lanes and drawing attention to specific hazards.
Department of Labour (DOL)	The Department of Labour has been integrated into the Ministry of Business, Innovation and Employment.  See <i>Ministry of Business, Innovation and Employment (Labour)</i> .
Detour	A temporary route to guide road users around a worksite operation.
DOL	See Department of Labour.
Edgeline	A continuous painted or audio-tactile line marked along the edge of a lane, or an inferred line along the edge of a lane.
Emergency	An uncontrolled event that has caused, or is risking to cause, loss of life, injury or serious property damage. It can include declarations of civil defence emergencies, traffic crashes or other significant incidents. It does not include delays unless these are the result of one of the above situations.
Emergency services	New Zealand Police, New Zealand Fire Service, Ambulance Services and Civil Defence.
Engineer	The professional engineer, consultant or another person named in the contract documentation, or agreement or consent, appointed to act as engineer to the contract under New Zealand Standard 3910:2003 <i>Conditions of contract for building and civil engineering construction</i> , or any agreement or consent which allows the activity to be undertaken, eg New Engineering Contract 3rd edition (NEC3), by the principal and/or the road controlling authority (RCA).
Engineering exception decision (EED)	A written decision made following consideration of all factors, including the safety of all concerned, to vary a code of practice(s), standard(s) and/or guideline(s), to suit a particular situation. The decision must be included with the traffic management plan (TMP).
Flare	The deflection of the leading end of a road safety barrier, or channellising device, away from the general alignment of the road and/or direction of traffic flow.
Flare rate	The rate at which a road safety barrier flares away from the general alignment of the road, nominally a 1:10 (10 percent) taper.
Flashing beacon	Flashing beacons refer to roof-mounted devices. Hazard warning lights should be used where appropriate but are <b>not</b> considered to be beacons. Flashing beacons consist of a light encapsulated in an amber casing that may either flash (strobe) or appear to flash when circled by a rotating reflector.
Flush median	A painted median that may be used to assist turning vehicles or in some cases crossing pedestrians, or to increase the separation of traffic moving in different directions.
Frangible	Collapsible on impact and resulting in less damage than an unyielding object.
Gated	<ul> <li>The installation of the same design of traffic sign on each side of a roadway. Signs are often 'gated':</li> <li>where other vehicles may obscure the view of a sign on one side of the roadway for an approaching driver, or</li> <li>at a threshold between two sections of road with markedly different characteristics and the size and placement of the signs impacts on the driver speed choice.</li> </ul>
Gating	A term used to describe the action of the end terminal of a road safety barrier that is designed to break away, pivot or hinge to allow a vehicle to pass through when impacted at an angle to the end, or at a point on the flare near the end.
Hazard	Any activity and/or condition that varies the normal operating conditions of a road that is an actual or potential cause or source of harm to road users and/or road workers.

IRG	The industry review group responsible for consideration of the content of the <i>Code of practice for temporary traffic management</i> (CoPPTM).
Intervisibility	This is the unobstructed sight between two points, eg for single-lane give way control it would be the unobstructed sight between the priority single lane – RP52 (RG-20), and the supplementary give way signs – RP51/RP22 (RG-19.1).
Lamp	A self-contained light which can be attached to any obstruction, delineation device or channelling equipment.
Lane	A longitudinal strip of roadway that is intended for the passage of vehicles or a specific class of vehicle, generally travelling in a single line that is separated from other parts of the roadway by a longitudinal line or lines of paint, or raised studs, or other form of channelisation, and includes:  • a cycle lane  • a lane for the use of vehicular traffic that is at least 2.5m wide  • a lane of a two-way road divided by a centreline.
Lane line	A painted continuous or segmented line or a line of raised pavement markers that divide two lanes of traffic.
Level 1 road	A low to medium-volume road designated by a road controlling authority (RCA) with an annual average daily traffic (AADT) less than 10,000 vehicles per day (vpd).
Level 2 road	For the purposes of the <i>Code of practice of temporary traffic management</i> (CoPTTM), a high-volume road designated by the road controlling authority (RCA) and with an annual average daily traffic (AADT) greater than 10,000 vehicles per day (vpd).
Level 3 road	For the purposes of the <i>Code of practice of temporary traffic management</i> (CoPTTM), a high-volume, high-speed, multi-lane road or motorway road designated by the road controlling authority (RCA) and with an annual average daily traffic (AADT) greater than 10,000 vehicles per day (vpd).
Live lane	A lane available for use by a class or classes of vehicles.
Long-term operation	An activity on a level 2 or level 3 road that occupies a worksite for more than one day. There is no differentiation between a short-term and long-term activity on <b>level LV</b> and <b>level 1</b> roads.
Local roads supplement (LRS)	See temporary traffic management for local roads supplement to NZTA CoPTTM.
LV	Low volume.
MTC	See manual traffic controller.
Manual traffic controller (MTC)	A person controlling the flow of traffic in a single lane past a closure with the use of stop/go paddles – RP4/RP41 (TW-33).
MBIE	See Ministry of Business, Innovation and Employment (Labour).
Median	The defined area separating two opposing carriageways not normally intended for use by traffic. This definition also includes flush and painted medians. See also <i>flush median</i> .
Ministry of Business, Innovation and Employment (Labour)	The Ministry's Health and Safety Service works to reduce work-related death and injury rates, and support employers and employees in productive work. It provides information and guidance to workplaces on occupational safety and health issues and managing hazardous substances. It
MBIE (Labour)	enforces health and safety legislation, researches workplace health and safety matters, and provides policy advice to government.

Mobile operations	Mobile operations are those activities or operations not contained within a fixed worksite where vehicles are progressively travelling in the same direction as, but at a speed less than, or in a manner different from normal traffic. Mobile operations may involve planned stops of up to ten minutes.
Motorway	Means a motorway declared as such by the Governor-General in Council under section 138 of the Public Works Act 1981 or under section 71 of the Government Roading Powers Act 1989 and includes all bridges, drains, culverts, or other structures or works that form a part of any motorway so declared but does not include any local road, access way or service lane (or the supports of any such road, way or lane) that crosses over or under a motorway on a different level.
MOTSAM	The NZ Transport Agency's <i>Manual of traffic signs and markings</i> .
NZ Transport Agency (NZTA)	The government agency in New Zealand responsible for:  • planning and delivering national transport networks  • supporting local networks  • making public transport and freight networks more effective  • improving road safety.
NEC	New Engineering Contract 3rd edition.
Notice of non- conformance	An instruction in writing to the traffic management supervisor or contractor to advise them that traffic management measures do not comply with the approved traffic management plan (TMP), or the actions of the site traffic management supervisor (STMS) do not comply with the requirements of the <i>Code of practice of temporary traffic management</i> (CoPTTM).
NZTA	See NZ transport Agency.
Operating speed	The 85th percentile speed of vehicles on a section of a road or the operating speed as declared by the road controlling authority (RCA).
Pavement	The structural layer(s) of the roadway, including metalled shoulders, that forms the running surface for vehicular traffic.
Peak	The times of the day or night, month or year, when the road carries the highest traffic flows, in one or both directions.
Peak period	The period (hour, half hour, etc) with the highest volume of traffic or number of passengers during the day.
Peak traffic flow	The traffic volume during a time period of specified length during which such volume is at its maximum.
Permanent speed limit	The legal speed limit for a specific section of road indicated by permanent speed limit signs.
Positive traffic management	A method of using signs, delineation devices, pavement markings, traffic signals or manual traffic controllers (MTC) together or separately to reduce speed at a worksite, while maintaining adequate safety and capacity.
Posted speed limit	The legal speed limit for a specific section of road indicated by permanent speed limit signs.
RCA	See road controlling authority.
RCA Forum	See Road Controlling Authority Forum.
Retro-reflectivity	Material with the specific property of reflecting illuminating light from a source, usually vehicle headlights, back towards the source.

Road	For the purpose of temporary traffic management (TTM), a road is defined as the entire road reserve (see <i>road reserve</i> ).
	For private roads, such as those on port authority land, within public car parks and airport authority land, etc the road must be defined as the portion of land set aside for the use of road users, including pedestrians and cyclists.
Road controlling	In relation to a road an RCA:
authority (RCA)	<ul> <li>means the authority, body or person having control of the road, and</li> <li>includes a person acting under and within the terms of a delegation or authorisation given by the controlling authority.</li> </ul>
Road Controlling Authority Forum (RCA Forum)	A closed, non-political group with representatives from the 73 territorial local authorities, the Department of Conservation, NZ Transport Agency and Local Government New Zealand.
Road levels	The designation given to a road by a road controlling authority (RCA), ie low volume (LV), levels 1, 2 and 3.
Road reserve	The area of land between the legal boundaries, usually fence line to fence line and including any safety run-off areas, which is dedicated to allow the passage of road users. The road reserve also includes an airspace of six metres directly above the road surface. The terms road and road reserve have the same meaning in the NZ Transport Agency's <i>Traffic control devices manual</i> .
Road user	Any user of the road, including motor vehicle drivers, motorcyclists, pedestrians and cyclists.
Roll-ahead distance	The distance to allow for forward movement of a vehicle following a rear impact from another vehicle.
Safety zones	A safety zone is a three-dimensional space extending to the front and back, to the sides and above a working space.
	This space also includes the areas within the coned tapers although these are not included in the safety zone dimensions.
Static operations	Static operations are those activities that are contained within a fixed area.
Semi-static operation	Semi-static operations are mobile type activities that stop for more than ten minutes and less than one hour at one location.
Short-term operation	An operation occupying a location for less than one day on a <b>level 2</b> or <b>level 3</b> road. There is no differentiation between a short-term and long-term activity on <b>level LV</b> and <b>level 1</b> roads.
Shoulder	The sealed or unsealed surface outside the edgeline or an inferred line along the outside edge of a lane.
Shy line	The distance from a hazard beyond which a typical road user will not perceive it as an immediate danger so they will not normally change their vehicle's speed or placement.
Side friction	A form of positive traffic management that uses delineation devices placed close to a live lane, to give road users the impression that they are travelling in a more restrictive width than they actually are.
Sign stand	A sign stand consists of a base and an upright.
Sign visibility distance	The minimum distance over which the driver of an approaching vehicle must be able to see the first advance warning sign. Where necessary, increase sign spacings to achieve visibility distance.
Site	See worksite. Also see closure.
Site access	An access point through which personnel or vehicles enter or leave a working space.

Site traffic management supervisor (STMS)	An NZ Transport Agency (NZTA) qualified person who has specific responsibility for documentation and management of temporary traffic management (TTM).
Site traffic management supervisor – non- practising (STMS-NP)	An NZ Transport Agency (NZTA) qualified person who has specific responsibility for traffic management plan (TMP) documentation. The STMS-NP may act as an STMS on level LV and level 1 roads and may manage temporary traffic management (TTM) on level 2 and 3 roads in restricted circumstances.
Speed environment	The speed that 85 percent of drivers do not exceed on a section of road that passes through relatively consistent terrain conditions and has similar horizontal curves, road widths and grades.
Static operations	An activity contained within a fixed area.
STMS	See site traffic management supervisor.
STMS-NP	See site traffic management supervisor - non-practising.
Taper	A straight or smoothly curved row of delineation devices used to shift traffic laterally, eg from a lane to the shoulder.
Target value	The visibility of an article and the ability of a chosen colour, pattern, graphic or light system to attract visual attention in a given environment.
TC	See traffic controller.
Temporary speed limit (TSL)	A speed limit that is in force for a period of less than six months and is set under the Land Transport Rule: Setting of Speed Limits 2003 by the RCA.
Temporary traffic management (TTM)	The process of managing road users through or past a closure in a safe manner with minimal delay and inconvenience.
Temporary traffic management for local roads supplement to NZTA CoPTTM (LRS)	This is a supplement to the <i>Code of practice for temporary traffic management</i> (CoPTTM) that provided and allowed authorised variations to CoPTTM, which suited local road environments. This document has now been amalgamated with CoPTTM and no longer applies.
TMC	See traffic management coordinator.
Traffic controller (TC)	An NZ Transport Agency (NZTA) qualified person who has specific responsibility to manage a worksite on a level LV and level 1 road.
TMA	See truck-mounted attenuator.
TMC	See traffic management coordinator.
TMD	See traffic management diagram
TMP	See traffic management plan.
Traffic management coordinator (TMC)	A person, or position, in an organisation that has the delegated authority from a road controlling authority (RCA) to approve traffic management plans (TMPs), coordinate temporary traffic management (TTM) and, where appropriate for local roads, to delegate power to approve TMPs to others.
Traffic management diagram (TMD)	The TMD is a traffic management diagram within, and forms part of, the TMP. A TMP may have more than one TMD included as part of it.
Traffic management plan (TMP)	A document describing the design, implementation, maintenance and removal of temporary traffic management (TTM) while the associated activity is being carried out within the road reserve or adjacent to and affecting the road reserve.

Travelled path	The swept path of a vehicle as it travels over a section of road.	
Truck-mounted attenuator (TMA)	A safety device fitted to the rear of a vehicle that collapses when impacted by another vehicle.	
TTM	See temporary traffic management.	
Variable message sign	This is an optional device that can be used to highlight specific hazardous situations (eg where visibility is restricted or where additional useful messages can be provided to road users).	
VMS	See variable message sign.	
vpd	Vehicles per day.	
vph	Vehicles per hour.	
WAP	See works access permit.	
Warning distance	The minimum distance between the first advance warning sign and the start of the cone taper or the beginning of the closure or working space.	
Warning lamp	Amber unidirectional flashing lamp used to warn oncoming traffic, pedestrians and cyclists of a hazard ahead. The illumination for these lamps may be supplied by conventional light bulbs, strobe light bulbs or light emitting diodes that meet the light intensity and beam width requirements. The Xenon warning light is a special form of warning lamp.	
Works access permit (WAP)	A written permission from the corridor manager to enable works on a road corridor to proceed.	
Work vehicle	In a mobile operation, a work vehicle is a vehicle carrying out activity adjacent to the road, or on the road carriageway, or supporting personnel on foot.	
Worksite	The section of road defined at each end by advance warning and end of works signs, or between vehicles in a mobile operation, including the vehicles themselves. In the NZ Transport Agency's <i>Code of practice for temporary traffic management</i> (CoPTTM) it is sometimes referred to as the site. Also see <i>closure</i> .	
Working space	The area within a worksite that is available for workers use to complete the activity.	

## Section A - Introduction and general

<b>A</b> 1	About CoPTTM	1	
	A1.1 Three components	1	
	A1.2 Availability of CoPTTM	1	
	A1.3 Sections of CoPTTM	2	
A2	Scope of CoPTTM	3	
	A2.1 General	3	
	A2.2 CoPTTM feedback	4	
А3	Principles	5	
Α4	A4 Levels of temporary traffic management (TTM)		
	A4.1 General	6	
	A4.2 Level LV roads	7	
	A4.3 Level 1 roads	7	
	A4.4 Level 2 roads	8	
	A4.5 Level 3 roads	9	
	A4.6 Road controlling authority's (RCA) guidelines for designating road levels	10	
A5	Powers and responsibilities	12	
	A5.1 Powers	12	
1	A5.2 Systems and procedures for compliance	13	
	A5.3 Road controlling authority (RCA)	14	
	A5.4 Non-road controlling authority (non-RCA) principal	17	
	A5.5 Traffic management coordinator (TMC)	18	
	A5.6 Engineer	19	
	A5.7 Contractors	22	
	A5.8 Site traffic management supervisor (STMS)	24	
	A5.9 Traffic controller (TC)	30	
	A5.10 Site personnel	31	
A6	A6 Training		
	A6.1 General	32	
	A6.2 Extract from the Health and Safety in Employment Act 1992	32	

	A6.3 Certification of temporary traffic management (TTM) training courses	33
	A6.4 Certification and registration	33
	A6.5 Level 1 traffic controller (TC) training	35
	A6.6 Level 1 site traffic management supervisor (STMS) training	36
	A6.7 Level 2/3 site traffic management supervisor non-practising (STMS-NP) training	38
	A6.8 Level 2/3 site traffic management supervisor training	39
Α7	Traffic management plans (TMPs)	41
	A7.1 General	41
	A7.2 Application and approvals procedure	42
	A7.3 Principles for traffic management plans (TMPs)	44
	A7.4 Contents of traffic management plans (TMPs)	46
	A7.5 Generic traffic management plan (GTMP)	47
	A7.6 Recommended response times	48
	A7.7 Availability of traffic management plans (TMPs)	49
	A7.8 Emergency situations not at a planned worksite	49
	A7.9 Engineering exception decisions	49
A8	Temporary traffic management (TTM) safety audit procedures	53

NZ Transport Agency A1 About CoPTTM

#### **A1 About CoPTTM**

#### A1.1 Three components

The overall system is made up of three components:

- 1. the body of knowledge (CoPTTM)
- 2. the training system
- 3. the audit system.

When all components are present the system operates effectively.

#### A1.2 Availability of CoPTTM

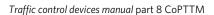
CoPTTM is available in two forms:

1. Electronic format:

CoPTTM is available as a PDF on the NZTA's website.

2. Printed format:

A complete copy or specific sections of CoPTTM are available to order from the NZTA's website (www.nzta.govt.nz/resources/code-temp-traffic-management/copttm.html).



NZ Transport Agency A1 About CoPTTM

#### A1.3 Sections of CoPTTM

CoPTTM is divided into the following sections:

#### System and operations

- Section A: Introduction and general
- Section B: Equipment
- Section C: Static operations
- Section D: Mobile operations
- Section E: Standard forms and descriptions.

#### • Example layout diagrams (illustrating principles)

- Section F: Example layout diagrams for level LV and level 1
- Section G: Example layout diagrams for level 2
- Section H: Example layout diagrams for level 3.

#### Specific activities (these will be available electronically from the NZTA's website)

- Section I: Specific activity procedures and diagrams

Subsection I:1 - Winter maintenance

Subsection I:2 - Road marking

Subsection I:3 - Events

Subsection I:4 - Vehicle crossing construction

Subsection I:5 - Stock droving

Subsection I:6 - Roadside assistance

Subsection I:7 - Kerbside collection

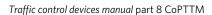
Subsection I:8 - Sealing and resealing operations

Subsection I:9 - Speed cameras (consult with the New Zealand Police)

Subsection I:10 - Level LV and level 1 traffic management diagrams.

#### Additional resources

Section J: - Level LV and level 1 temporary traffic management handbook.



NZ Transport Agency A2 Scope

## **A2 Scope of CoPTTM**

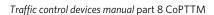
#### A2.1 General

This document supersedes and replaces the following:

- Transit New Zealand's:
  - G/1 specification (May 1996)
  - Working on the road handbook (June 1998)
  - Code of practice for working on high capacity highways (November 1997)
  - Code of practice for temporary traffic management (third edition, November 2004)
  - Temporary traffic management for local roads supplement to NZTA CoPTTM. (This has now been amalgamated with CoPTTM).

#### CoPTTM includes:

- a description of the powers and responsibilities of relevant government agencies, RCAs, emergency services, utility operators, event organisers, engineers, contractors and any other relevant parties
- levels of traffic management, assessed in terms of traffic volumes and speeds
- practices for the development of TMPs for all New Zealand roads
- specifications for TTM equipment
- requirements and guidelines for the installation and operation of static and mobile TTM
- typical layout diagrams for a wide range of activities.



NZ Transport Agency A2 Scope

#### A2.2 CoPTTM feedback

Feedback is important to the ongoing development of an effective and meaningful industry-supported code of practice. Comments on the content, format and overall methodology are encouraged.

Ongoing experience from a wide range of organisations using CoPTTM may result in further modification and upgrading.

Suggestions regarding innovation to improve safe working practices and TTM equipment are also welcome.

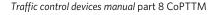
The NZTA will gratefully receive any improvement submissions to CoPTTM. These submissions will be reviewed by the IRG at their annual meeting.

Please forward suggestions to:

Senior Traffic and Safety Engineer (CoPTTM)
NZ Transport Agency
National Office
Private Bag 6995
Wellington 6141

Phone: +64 4 894 6355

Email: stuart.fraser@nzta.govt.nz.



NZ Transport Agency A3 Principles

## A3 Principles

To ensure safe and efficient TTM, CoPTTM is based on the following fundamental principles:

- TTM must be consistent throughout New Zealand.
- All on-road activities must be carried out in accordance with a TMP that
  has been approved by the RCA or delegated person (refer to section
  A7 Traffic management plans (TMPs)).
- The safety of road users and road workers must be an integral part of all
  activities carried out on the road from planning the activity through to
  completion.
- Clear and positive guidance must be provided for road users approaching, travelling through and exiting the worksite.

Activities on any road must be planned so as to cause as little disruption, delay or inconvenience to road users as possible without compromising safety. The length, width and duration of any TTM must be restricted to the minimum required for the safe operation of the activity.



## A4 Levels of temporary traffic management (TTM)

#### A4.1 General

## A4.1.1 Four levels of TTM

Roads are divided into different levels, to reflect their intensity of use and associated risk.

There are four primary levels of road:

1. Low volume (LV)

For level LV, the following subcategory can also be designated for roads that have particularly low volumes of traffic:

- o LV low-risk.
- 2. Level 1.
- 3. Level 2.
- 4. Level 3.

The designation for each road is made by the RCA.

#### A4.1.1.1 Guidelines for designation of road

The default level is level 1.

If level 1 is not appropriate, it is the responsibility of the RCA to designate any of the following:

- level LV roads
- level 2 roads
- level 3 roads.

#### A4.2 Level LV roads

## A4.2.1 LV roads (level LV)

These roads have an AADT volume of less than 500vpd.

This encompasses some urban streets and some local roads (with or without a centreline), sealed and unsealed.

Detailed guidelines to assist RCAs with the selection of road levels are included in subsection A4.6 Road controlling

authority's (RCA) guidelines for designating road levels



## A4.2.2 LV low-risk roads

This is a subcategory of level LV roads which may be declared by the RCA.

These roads have an AADT volume of less than 250vpd.



#### A4.3 Level 1 roads

## A4.3.1 Explanation of level 1 roads

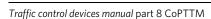
This encompasses most urban streets, most rural roads, and most state highways, (with or without a centreline) sealed or unsealed.

These level 1 requirements in CoPTTM include the local road requirements covered in the previous *Temporary traffic management for local roads supplement to NZTA CoPTTM*.



Usually 750mm x 750mm signs are used. Larger signs may be required in some circumstances.

Except for multi-lane roads and TSLs, where signs are required on both sides of the road, signs are only required on the left-hand side of the road. The RCA, engineer or contractor can request signs on both sides of a road, when this is considered desirable for safety or traffic management reasons.



#### A4.4 Level 2 roads

## A4.4.1 Explanation of level 2 roads

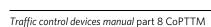
These are high-volume roads that have an AADT volume of greater than 10,000vpd. This lower limit is a guide only.

This encompasses major urban streets in the central business district, some arterial roads, two-lane two-way roads, one-way streets and multi-lane roads.



This level of traffic management generally requires larger 850mm x 850mm signs on 1200mm square backing boards and signs on both sides of the road.

Stringent criteria for mobile operations apply to this level of TTM.



#### A4.5 Level 3 roads

## A4.5.1 Explanation of level 3 roads

These are high-volume, high-speed multi-lane roads and motorways with a divided carriageway.

This will include any on-ramps or off-ramps.

#### They have:

- an AADT volume greater than 10,000vpd. This lower limit is a guide only
- a speed limit greater than 75km/h.



This encompasses major multi-lane highways and motorways in and around major urban areas, eg the Auckland motorway system.

RCAs need to have a contiguous length of road of at least 50km before level 3 TTM is considered.

They use the same size signs as for level 2 roads.

At this level static worksites must be set up and removed using a mobile operation.

#### A4.6 Road controlling authority's (RCA) guidelines for designating road levels

## A4.6.1

The following guidelines are recommended but need to be balanced with Recommended guidelines the need for consistency throughout the network for the road user and roading contractors:

#### Step 1 - Get started

Obtain spreadsheet of roads within network including:

- name
- sections
- displacements
- start and end names
- traffic volumes.

#### Step 2 - Identify which roads are to be declared level 2 and level 3

Identify any motorway/expressways and designate as the CoPTTM levels 2 or 3. Note: Include all ramps for these designations.

Identify all roads carrying more than 10,000vpd. Consider use of the CoPTTM level 2 for these roads. Consider grounds for not designating these roads as level 2 which could include:

• less than 50km of associated road network at this level

Note: An RCA needs to have a viable length of road on their network to designate as level 2 for TTM. To enable contractors to stock the larger signs, RCAs need to have a length of road that is commercially viable. RCAs need to have contiguous length of road of at least 50km of two-way undivided road or 25km of divided road before level 2 TTM is considered.

- more than 60 percent of the 10,000 plus traffic travels in peak times
- cases where the 10,000 is barely reached or where the majority of the traffic travels during peak times.

#### Step 3 - Identify which roads are to be declared LV

Roads that have a particularly low volume of vehicles may be classified as follows:

LV roads - AADT volume of 500vpd, less than 40vph.

This particularly applies to narrow roads with speeds less than 65km/h where risks are low and safety zones and tapers may be reduced.



• LV low-risk roads - AADT volume of 250vpd, less than 20vph.

This particularly applies to roads with a permanent or operating speed of less than 65km/h. This level utilises appropriate advance warning T1 (TW-1) type signs (static installation) and amber flashing beacon on working vehicle when on shoulder.

Stop/go or give way control of traffic is to be considered when activity encroaches onto live lane.

If the above requirements cannot be achieved the operation must be modified to comply with the requirements of a higher risk rating.

#### Step 4 - Identify which roads are to be declared level 1

The remaining roads are declared level 1.

A4.6.2 Do not mix level LV, 1, 2 and 3 roads

Levels LV,1, 2 and 3 may not be mixed for the following reasons:

- To ensure consistency of TTM on a road, route or network at all times.
- To avoid possible confusion with equipment requirements on a road, route or network.

The level of TTM on a road must not be altered after it is determined unless the AADT changes and a permanent change to another level is warranted.

The risk for road users and workers, and the safety needs of the network, are taken into account when setting TTM levels.

## A5 Powers and responsibilities

#### A5.1 Powers

A5.1.1 Relevant acts, regulations and rules

Relevant acts including any subsequent amendments or alterations include, but are not limited to, the following:

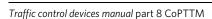
- Biosecurity Act 1993
- Building Act 2004
- Crimes Act 1961
- Electricity Act 1992
- Fencing Act 1978
- Fire Service Act 1975
- Gas Act 1992
- Health and Safety in Employment Act 1992
- Impounding Act 1955
- Land Transport Act 1998
- Land Transport Management Act 2003
- Litter Act 1979
- Local Government Act 1974 and 2002 (the roading provisions of the 1974 Act are still in force)
- Public Works Act 1981
- Resource Management Act 1991
- Summary Offences Act 1981
- Telecommunications Act 2001
- Transport Act 1962 (bylaw making powers still in force)

The acts listed above may impose obligations in respect of the activity and detail specific powers for officers from the New Zealand Police, New Zealand Fire Service, New Zealand Civil Defence, the NZTA, MBIE (Labour), territorial authorities, RCAs and network utility operators.

The acts are supplemented by regulations, orders, rules, bylaws and manuals made under their authority.

Local agreements between statutory bodies may exist.

All people and organisations undertaking activities on the road must install, or arrange to have installed, TTM before commencing their activities, except as necessary to save lives and/or prevent serious injury.



#### A5.2 Systems and procedures for compliance

A5.2.1 Default by the contractor work under contractual agreement Owing to the importance of public safety and the need to act immediately to correct unsatisfactory TTM measures, contracts need to state that unsatisfactory work is to be rectified immediately.

Where general conditions of contract are used (eg New Zealand Standard 3910:2003 Conditions of contract for building and civil engineering construction or New Zealand Standard 3915: 2005 Conditions of contract for building and civil engineering construction (where no person is appointed to act as engineer to the contract) or NEC3), these conditions must be modified as follows:

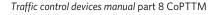
- These modifications must be in respect of the requirements for TTM works only.
- The duration of default and time allowed for replacement of defective work under section 14.2, ie ten working days, does not apply.
- Once a notice of non-conformance has been issued, the contractor must immediately rectify unsatisfactory TTM measures.
- The RCA must have recourse to the provisions of the general conditions of contract, section 14.2.3 under which they must have the power to:
  - appoint an alternative engineer and/or contractor for the traffic management portion of the work only, and/or
  - request police to remove measures implemented at the time, and
  - make payments in terms of section 14.2.4.

The above provisions must be implemented immediately following either:

- the second unsatisfactory performance of work by the contractor, or
- where an audit of the worksite results in a dangerous rating.
- Advice of such defective work must be in writing and be issued as a default notice.
- The engineer must have authority to act for the principal and is not required to advise the principal in writing as provided in section 14.2.1(d).

Normally the principal would be notified of the action taken, without delay.

The written notice of the engineer or engineer's representative to the contractor, or any subcontractor responsible for TTM, must be sufficient for the implementation of the above provisions. The contractor must then be prohibited from carrying out any traffic management measures for the duration of the contract, unless agreed otherwise by the principal.



A5.2.2 Default by the contractor work under consensual agreement (including service agreements) Where an organisation is working regularly within the road reserve they may apply to enter into a service agreement with the RCA (refer to subsection A7.1.3 Frequent non-invasive maintenance activities).

Where any organisation or individual causes, or allows an activity to occur on a road that does not comply with the principles of CoPTTM, the RCA may summarily issue a stop work notice to the party undertaking the work.

Upon receipt of this notice the recipient must immediately cease all works covered by the notice and withdraw from the road in a manner agreed with the RCA.

Where such a notice is issued, no payment for losses arising out of the notice will be made by the RCA, unless it can be established that the activity was in fact in compliance with an approved TMP or agreed variation to that plan.

If the organisation responsible for the traffic management of the worksite is unable to immediately implement remedial measures to make the worksite safe, then the RCA or the engineer is empowered to engage another contractor to install traffic management measures and reinstate safety at the worksite.

All costs involved in undertaking the above must be a direct charge to the organisation that was initially responsible for traffic management of the worksite.

A5.2.3 Eliminate, isolate or minimise the hazard

All those involved with activities on, or adjacent to, the road have a statutory duty to systematically identify any hazards and if a hazard is identified all practical steps must be taken to ensure no person is harmed. This will include steps to **eliminate**, **isolate** or **minimise** the hazard, in this order of priority.

#### A5.3 Road controlling authority (RCA)

A5.3.1 Responsibilities of The RCA has a statutory duty to ensure the safe and efficient operation of the RCA the roading network under their authority. The RCA is responsible for:

- ensuring that all TTM measures are in accordance with CoPTTM
- consulting with neighbouring RCAs with the objective of gaining consistency as to the level of TTM for roading networks
- notifying the contractor or those responsible for the TTM as to the level of traffic management to be used for the various sections of network
- appointing a TMC and notifying the contact details (refer to subsection A5.5 Traffic management coordinator (TMC))
- identifying, prior to tendering, any requirements with respect to a
  particular activity on a worksite which are additional or different from
  those covered in CoPTTM and which may not be evident to an
  experienced practitioner by site inspection, observation and knowledge
  of traffic volumes
- declaring operating speeds if chosen

- providing traffic volume data, upon request and where available, to assist traffic management planning, including:
  - 24-hour counts for all roads
  - hourly counts for roads with more than 10,000vpd
  - special events occurring on or near the site
  - formal approval or rejection of TMPs
- authorising:
  - temporary speed and parking restrictions, and the use of other regulatory signs
  - all planned road closures
- authorising and setting conditions for work and other activities on the road
- · approving:
  - public notices for media release or distribution to local residents.
     Appendix E in section E provides a standard format for newspaper advertisements
  - EEDs
- checking applications for recognition of previous experience (ROPE) when a level 2/3 STMS is renewing their warrant
- fulfilling legal responsibilities under relevant legislation.

#### For level LV and level 1 roads (non-state highways)

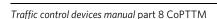
The RCA is responsible for:

- deciding which roads can use a generic traffic management diagram instead of a site-specific traffic management diagram as part of the TMP
- deciding whether TMP approvals will be delegated to selected STMS
- designating the minimum clear sight distance (CSD) on roads with a permanent speed of less than 55km/h
- identifying roads suitable for inspection activities to be completed by unaccompanied inspectors
- deciding whether level 2/3 sign sizes are required on selected multilane roads.

#### For all levels of road

The RCA is responsible for:

- ensuring appropriate delegation of authorities are set in place which may include:
  - delegating to an engineer or TMC the RCA's power to approve:
    - o TMPs
    - o TSLs
    - parking restrictions
    - o the use of approved portable traffic signals systems
    - o the use of regulatory signs
    - o all planned road closures



- delegating to selected STMS for selected level LV and level 1 roads, the power to authorise the following
  - approval of TMPs
  - o TSLs
  - o the use of regulatory signs.

**Note**: Consider a delegation period of between one and five years for STMS-delegated authority.

- ensuring there is adequate monitoring and audit of all traffic management within the RCA's roading network by monitoring documentation and worksite activities to ensure compliance with CoPTTM. These checks are to be selected randomly and it is recommended that the RCA aims for five percent coverage of worksites. Refer to section A8 Temporary traffic management (TTM) safety audit procedures
- identifying (or requiring a contractor/consultant to identify) the scope of disruption likely to be caused to road users by the proposed works
- showing (or requiring a contractor/consultant to show) that it is possible to construct the proposed design, including any required TTM measures
- showing (or requiring a contractor/consultant to show) that the traffic management measures listed in the estimate and schedule of prices have been correctly quantified.

If the RCA has decided to delegate powers to approve TMPs on selected level LV and level 1 roads to selected STMS it will need to:

prepare for the process:

- request STMS to complete the application form in section E, appendix I
- create a delegations database. Refer to section E, appendix J
- review the applications for delegated authority and decide:
  - whether delegation will be assigned
  - the extent of delegations

**Note:** The RCA may consider the following:

- track record of applicant and employer
- qualification history of applicant
- type of activity envisaged (eg lines work)
- o type of roads they will work on
- record the decision on the delegated authority form and return it to the applicant
- record details in the delegations database, if delegation is to be assigned
- communicate the decisions to adjoining RCAs, contractors and consultants.

A5.3.2 Process for delegating powers to selected STMS for approval of TMPs on selected level LV and level 1 roads

## A5.3.3 Renewal of delegations

Before the end of the delegation period the STMS submits the form in section E, appendix H to apply for renewal of their delegation.

The RCA will decide whether renewal of delegation will be granted.

The RCA may consider the following grounds for revoking powers:

- changed employment
- incurring a notice of non-conformance(s)
- any other sanction process adopted by the RCA.

#### A5.4 Non-road controlling authority (non-RCA) principal

## A5.4.1 Non-RCA principal's responsibilities

A non-RCA principal (eg a telecommunications company) is responsible to seek permission in the form of consent to undertake any activities within the road reserve or adjacent to the road reserve where the activity may affect road users.

A non-RCA principal is responsible for ensuring:

- it has RCA authorisation for any work or activity it intends to carry out in the road reserve. This may take the form of either:
  - a one-off authorisation
  - a consent to occupy
  - a consent for works
  - a service agreement (eg Agreement to work on state highway (ATWOSH))
- that their contractors undertake activity in the road reserve, or in an adjacent area affecting the road reserve, with an approved TMP in accordance with CoPTTM.

The non-RCA principal must make this information available to the TMC or engineer and contractor for the activity to be undertaken on the RCA's roads.

#### A5.5 Traffic management coordinator (TMC)

## A5.5.1 TMC's responsibilities

The RCA-appointed TMC responsibilities include:

- setting conditions for work and other activities on the road
- approving public notices for media release or distribution to local residents. Appendix E in section E provides a standard format for newspaper advertisements
- prioritising access to the network (eg where contractors apply to undertake activity in the same vicinity, the first notification received will generally be given approval to proceed unless the priority of another activity is deemed more important by the RCA)
- approving TMPs for non-RCA contractual activity on the network (including service agreements)
- approving compliant TMPs
- refusing to allow any TMP to be implemented where they consider it to be unsafe or in contravention of CoPTTM, or where reasonable alternatives may exist that may be safer, or cause less traffic delay. Brief reasons must be given
- checking, coordinating and accepting any previously approved TMPs
- considering applications for non-generic EED where the road environment constraints make the design and installation of CoPTTM compliant TTM impractical and/or unreasonable
- ensuring there is adequate monitoring and audit of all traffic management within the RCA's roading network by monitoring documentation and worksite activities to ensure compliance with CoPTTM. These checks are to be selected randomly and represent a minimum of five percent of all worksites in any month. Refer to section A8 Temporary traffic management (TTM) safety audit procedures.

If, after a TTM audit, a worksite is found to have a dangerous rating, then the TMC issues a notice of non-conformance to the contractor's STMS appointed for the worksite. Refer to section E, appendix F for the standard format of a non-conformance notice.

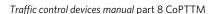
Send a copy to:

Senior Traffic and Safety Engineer (CoPTTM) NZ Transport Agency National Office Private Bag 6995 Wellington 6141

Phone: +64 4 894 6355

Email: stuart.fraser@nzta.govt.nz.

 requiring an activity to be stopped, where corrective action resulting from a notice of non-conformance is not achieved within the required time frame



- suspending the STMS and removing all TCs from the worksite without advance notice where a serious non-compliance with the TMP is found, or the STMS and/or the TC has been found to be acting outside the requirements of CoPTTM. The activity is to be stopped and the worksite made safe immediately
- notifying the New Zealand Automobile Association, emergency services, RCA, media, public transport operators, etc where the activity is likely to cause disruption to these organisations or their clients
- where requested, to identify (or require a contractor/consultant to identify) the scope of disruption likely to be caused to road users by the proposed works
- where requested by the RCA, to show (or require a contractor/ consultant to show) that it is possible to construct the proposed design, including any required TTM measures
- where requested to show (or require a contractor/consultant to show) that the traffic management measures listed in the estimate and schedule of prices have been correctly quantified
- notifying the RCA, within 24 hours of any crash at a worksite (definition of a crash is provided in A5.7.3 Definition of a crash)
- fulfilling legal responsibilities under relevant legislation.

### the TMC

A5.5.2 Requirements of The TMC must hold a TTM qualification appropriate for the highest level of road within the network area for which they are responsible.

> The TMC must be independent of the drafting of the TMP to be approved. Any relevant amendments made prior to the approval are to be recorded and summarised on the TMP.

### A5.6 Engineer

#### A5.6.1 Engineer's responsibilities

The engineer's TTM responsibilities are delegated in the contract of engagement.

The engineer's responsibilities include:

- preparing contract or consent documents
- evaluating tender documents
- setting conditions for work and other activities on the road
- approving public notices for media release or distribution to local residents. Appendix E in section E provides a standard format for newspaper advertisements
- approving compliant TMPs
- refusing to allow any TMP to be implemented where they consider it to be unsafe, in contravention of CoPTTM or where reasonable alternatives may exist that may be safer, or cause less traffic delay. Brief reasons must be given
- considering applications for EED where the road environment constraints make the design and installation of CoPTTM-compliant TTM impractical and/or unreasonable

 ensuring there is adequate monitoring and audit of all TTM for the project. Refer to section A8 Temporary traffic management (TTM) safety audit procedures.

If, after a TTM audit, a worksite is found to have a dangerous rating, then the engineer issues a notice of non-conformance to the contractor's STMS appointed for the worksite. Refer to section E, appendix F for the standard format of a non-conformance notice.

Send a copy to:

Senior Traffic and Safety Engineer (CoPTTM) NZ Transport Agency National Office Private Bag 6995 Wellington 6141

Phone: +64 4 894 6355

Email: stuart.fraser@nzta.govt.nz.

 requiring an activity to be stopped, where corrective action resulting from a notice of non-conformance is not achieved within the required time frame

The engineer has the authority to suspend the STMS and remove all TCs from the worksite without advance notice where a serious non-compliance with the TMP is found, or the STMS and/or the TC has been found to be acting outside the requirements of CoPTTM. The activity is to be stopped and the worksite made safe immediately

- where requested, to identify (or require a contractor/consultant to identify) the scope of disruption likely to be caused to road users by the proposed works
- where requested by the RCA, to show (or require a contractor/consultant to show) that it is possible to construct the proposed design, including any required TTM measures
- where requested, to show (or require a contractor/consultant to show) that the traffic management measures listed in the estimate and schedule of prices have been correctly quantified
- notifying the TMC where the activity is likely to cause disruption to road users
- reporting on the performance of a contractor or worksite operator. The report will cover the performance assessment of TTM and may include a summary of public delays, inconveniences and complaints
- notifying the RCA, within 24 hours of any crash at a worksite (definition of a crash is provided in A5.7.3 Definition of a crash)
- fulfilling legal responsibilities under relevant legislation.



NZ Transport Agency A5 Powers and responsibilities

A5.6.2 Requirements of the engineer

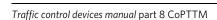
A5.6.3 Reporting on TTM

The engineer must hold a qualification appropriate for the highest level of road within the project area for which they are responsible.

The engineer must be independent of the TMP to be approved.

If asked to report on the TTM at a worksite, the engineer's report may include but not be limited to the criteria listed in subsections A5.8 Site traffic management supervisor (STMS) and A5.9 Traffic controller (TC). The engineer may also include, as appropriate:

- the requirements of any contract documents, including the schedule of specific job requirements for traffic management and safety. Refer to section E, appendix A
- the requirements of any other consent or agreement
- any specific requirements of the RCA
- the output from any completed audits
- detail any requirements recommended to improve safety, capacity or reduce road user delays.



#### A5.7 Contractors

### A5.7.1 Contractor's responsibilities

Contractors are responsible for:

- ensuring they have the authorisation of the RCA to carry out work or other activity in the road reserve or affecting the road reserve
- preparing accurate TMPs that reflect the worksite conditions, in accordance with CoPTTM and any contractual requirements or RCA authorisation conditions
- ensuring they have an approved and accepted TMP before starting any work
- ensuring those preparing TMPs are trained STMS (or STMS-NP for level 2/3) for the level of TTM for the road on which the activity will take place
- obtaining approval and timings for occupation of the worksite, from the TMC prior to commencing work
- implementing approved TMPs
- operating in terms of the traffic regulations and the requirements of The official New Zealand road code
- ensuring the safe and efficient movement of all road users through and around the working space, particularly cyclists and pedestrians.
   Adequate resources must be reasonably available to make changes to the TTM if worksite conditions require changes to be made
- ensuring that the STMS is supported in matters of safety
- ensuring that all TSLs have been authorised by the RCA (or person with delegated authority)
- storing any TTM equipment or plant not in immediate use, off the carriageway and in accordance with C14.1.4 Parking and storage of vehicles, plant and materials
- retaining a record of training and experience for each TC and STMS within the company or organisation
- the appointment of a suitably trained STMS and/or TC, and staff for each worksite (refer to section A6 Training)
- recording details of inspections/audits of TTM measures
- fulfilling their legal responsibilities under relevant legislation
- suspending any STMS issued with two notices of non-conformance within a three-month period from TTM supervision duties. A suspended STMS will be required to undergo retraining and a replacement STMS must be appointed immediately
- arranging for the publication of approved notices in local newspapers or other media as specified in the request for tender
- reporting on crashes at worksites to TMC within 24 hours (definition of a crash is provided in subsection A5.7.3 Definition of a crash).

The contractor or applicant must notify the TMC of the proposed road activity and request permission to proceed. Notification must be in the form of a letter, fax or email at least two working days in advance of the activity commencing.



## A5.7.2 Contractor's support of STMS in matters of safety

The contractor is responsible for ensuring that the STMS is supported in matters of safety.

In safety situations where the STMS is overridden by the contractor, any non-conformance will apply to the organisation. The STMS may contact the RCA with any concerns or contact the Ministry of Business, Innovation and Employment (Labour).

The following detail is provided from the Ministry of Business, Innovation and Employment (Labour) website

(http://www.osh.govt.nz/law/quickguide/administered/prosecutionothers. shtml):

#### PROSECUTION BY OTHERS

In limited circumstances the Act now allows for people other than an inspector to take prosecution action.

This possibility depends on what an inspector has decided to do about a particular incident or situation.

A prosecution by someone else is only possible if an inspector has looked at the circumstances and has decided to take no action at all against any of the parties involved. If the inspector has chosen to prosecute one party for one offence, or even issue an infringement notice to one party, then prosecution action by anyone else is no longer possible.

This is because the prosecuting authority (the Department of Labour) has made a judgement about what formal enforcement action is appropriate in the circumstances and the alleged offender(s) should not thereafter be subject to further scrutiny.

But if the inspector has decided to take no action at all, a private prosecution may proceed.

Persons interested in pursuing prosecution action need to express their interest to the Department so that the Department can tell them whether or not they are going to prosecute or use an infringement notice.

If a person wishes to pursue prosecution action after the Department decided to take no action at all, they normally need to do so within 6 months of the Department finding out about the offending. But they can get the District Court to give them longer if the inspector's decision-making took up most of the 6 month timeframe.

A person considering taking prosecution action needs to be able to prove the offending beyond reasonable doubt in the same way that an inspector would have had to.



Traffic control devices manual part 8 CoPTTM

### A5.7.3 Definition of a crash

A crash is defined as any incident involving a road user, resulting in damage to any installed TTM equipment, vehicles, plant or injury to a person.

Any crash resulting in a serious harm accident must be reported to the MBIE (Labour) as soon as the accident becomes known to:

- an employer
- a self-employed person, or
- the principal.

For the definition of serious harm see schedule 1 of the Health and Safety in Employment Act 1992.

# A5.7.4 Recording crashes and briefing the engineer and/or the RCA

The contractor must record all crashes at worksites and, within **24 hours** of any crash, brief the engineer and/or the RCA on the details of the crash, including the following:

- a copy of the signed and approved TMP for the worksite
- details of the incident including a diagram showing the layout of the worksite at the time of the crash. The diagram must also show any relevant crash details such as vehicle travel paths, skid marks, etc
- photographs of the crash site.

Minor incidents, such as one or two cones being struck, do not need to be recorded unless there appears to have been potential for a serious incident to have occurred.

### A5.8 Site traffic management supervisor (STMS)

#### A5.8.1 General

Appropriately trained and qualified staff must supervise TTM duties at all worksites.

The person in charge of TTM at each worksite is the STMS.

The qualified staff for level LV and level 1 roads are:

- TC
- STMS.

The qualified staff for level 2 and 3 roads are:

- STMS-NP in limited situations (eg shoulder closures)
- STMS.

#### A5.8.2 Authority of the STMS

The STMS has the authority to:

- postpone, cancel or modify operations due to adverse traffic, weather or other conditions that affect the safety of the worksite
- permit visitor entry to the worksite
- order people off the worksite for issues of non-compliance or safety.



The STMS cannot amend TSLs without delegated authority or prior approval of the RCA or the engineer.

responsibilities on and 3 roads

The general responsibilities of the appointed STMS for each worksite are to:

- arrange on-site meetings for discussions concerning TTM measures at:
  - the start of each set-up
  - on a regular basis (eg daily)
  - each change of a TTM measure due to a change in worksite conditions
- ensure all personnel and visitors on-site are wearing compliant highvisibility clothing in accordance with section B3 High-visibility garments, and any other safety equipment required by the activity
- ensure all personnel entering the worksite are briefed on the safety hazards and the safety procedures to be followed. Visitors are to sign confirming they have understood the briefing
- train MTC on how to carry out their function
- record and notify the RCA or engineer as appropriate of all crashes at the worksite and any complaints about the TTM
- ensure there is a copy of the approved TMP available on-site at all times when the worksite is attended and that this is available for inspection
- record and inform the RCA or engineer immediately of any significant modifications (eg change of detour) to TTM measures not included in the approved TMP. All other changes are to be noted on TMP and RCA or engineer to be advised as soon as possible or no later than the following working day

#### Note:

For level LV and level 1 roads if:

- the STMS has been delegated authority to approve TMPs, and
- the changes are not significant or are in excess of the minimum requirements, then

the STMS records any changes on the TMP or the on-site record, and notification is not required. Any modifications must be in accordance with CoPTTM

- ensure contingency plans are implemented when excessive traffic delays, emergencies, weather conditions or other factors occur
- ensure that they can be contacted by mobile phone or two-way radio at all times, for the duration of the installation, maintenance and removal of TTM at the worksite

- where shift work is involved, brief the STMS for the next shift (at the worksite) on the TTM and inspection requirements before handing over responsibility. Briefing must be confirmed in writing to acknowledge the handover
- brief the TC on the TTM requirements of the worksite before handing control of the worksite to the TC. Briefing must be confirmed in writing to acknowledge the handover
- ensure that persons on the worksite operate in terms of the traffic regulations and the requirements of *The official New Zealand road code*
- complete a traffic count before setting up closure and delay set-up if traffic is too high
- ensure traffic is monitored for queuing and delays. Take appropriate action as required
- ensure worksite inspections of all TTM equipment is completed at least two-hourly or as detailed in the minimum inspection frequency table in subsection C19.5.1 Monitoring frequency for TTM measures
- ensure that all corrective action detailed in a notice of non-conformance is undertaken within the required time frame
- ensure any TTM changes required by the New Zealand Police, MBIE (Labour), RCA or engineer are made immediately and documented on the TMP. The TMC is to be informed within 24 hours.

Where one worksite interferes with another operation, ie any signs or other devices overlap on the same piece of road, the STMS seeking to undertake activity on the affected piece of road must meet with the STMS of the established operation.

They should establish whether both worksites can co exist under jurisdiction of one TC/STMS. If necessary a new TMP should be drawn up by the STMS remaining in charge.

If the STMS cannot resolve the matter, the issue must be referred to the TMC or RCA for a decision.

### A5.8.4

Responsibilities of STMS on level LV and level 1 roads

On **level LV and level 1** roads the STMS may undertake other worker roles in addition to their STMS duties. The STMS role must take priority.

The STMS is restricted to managing a maximum of six attended worksites.

The STMS, or a TC, to whom the STMS has delegated worksite control, must be on-site at all times on an attended worksite.

During the period of delegation to a TC or for unattended worksites the STMS must be within the following requirements:

Level of road	Attended worksite delegated to a TC	Unattended worksite
Level 1	30 minutes travel time of each worksite	60 minutes travel time of each worksite
Level LV	60 minutes travel time of each worksite	120 minutes travel time of each worksite

The STMS must limit the number of unattended worksites they are responsible for subject to their ability to satisfactorily perform all their duties to the required standards at all times.

To ensure CoPTTM requirements continue to be met any attended worksite that has been delegated to a TC must be inspected by the STMS:

- for worksites in place for a full day or longer the worksite must be inspected, at least on a daily basis
- where a TC is in charge of static or mobile activities that move from worksite to worksite within a day the STMS must inspect one of the worksites on a daily basis.

These worksite inspections must be documented by the STMS.

**Note:** The STMS does not have to undertake an inspection of an activity being controlled by a TC where that activity is an inspection as defined in section D.

For a capital project (projects funded under the capital works vote as opposed to maintenance works) an STMS is permitted to control all worksites at any one time subject to the following:

- the STMS remains within 30 minutes of all worksites
- that a person with a minimum qualification of TC must be present and take charge of each attended worksite
- that TC must have been briefed by the STMS and the briefing documented.

For mobile operations and short-term operations, which do not require more than five personnel in total to satisfactorily undertake the work, the STMS may also undertake other aspects of the work.



#### A5.8.5 Responsibilities of STMS on level 2 and 3 roads

#### A5.8.5.1 When the level 2/3 STMS can take another role

On level 2 and level 3 roads the STMS responsibilities must be limited to TTM and activities of site safety officer. The only permitted exceptions to this rule are:

- mobile operations
- short-term static closures which require no more than five people to perform the activity.

In the above situations the STMS may also perform another function within the closure, providing that this does not interfere with the duties of the STMS which must always take first priority.

#### A5.8.5.2 When the level 2/3 STMS must be on-site

The STMS must be present at an attended worksite at all times except during a drive through when the STMS may need to leave the worksite to gain access to the front of the worksite. In this case the STMS may be away from the worksite for up to 30 minutes.

Exceptions to this rule are as follows:

#### Shoulder closures

An STMS is permitted to control up to **four attended shoulder closure worksites** on level 2 and level 3 roads at any one time subject to the following:

- an STMS remains within 30 minutes of all worksites
- a person with a minimum qualification of STMS-NP is present and takes charge of TTM at each attended worksite
- that STMS-NP must have been briefed by the STMS and the briefing documented
- the STMS must be present for the set up, alteration and removal for each of the worksites

#### Capital projects

An STMS is permitted to control all worksites for a capital project at any one time subject to the following:

- the STMS remains within 30 minutes of all worksites
- that a person with a minimum qualification of STMS-NP is present and takes charge of TTM at each attended worksite
- that STMS-NP must have been briefed by the STMS and the briefing documented
- the STMS must be present for the set-up, alteration and removal for each of the worksites

#### Unattended worksites

The STMS must limit the number of unattended worksites they are responsible for subject to their ability to satisfactorily perform all their duties to the required standards at all times.

The STMS must be within 60 minutes travel time of each worksite.

#### A5.8.5.3 Mobile operations on level 2 roads

On level 2 roads where all activity is at least two metres clear of the edgeline, an STMS-NP may take the role of an STMS and set up, maintain, alter and remove TTM under the following conditions:

- the STMS must brief the STMS-NP in charge of the operation on the TTM requirements
- all the above actions must be documented by the STMS.

### A5.8.6 Site safety briefings

#### A5.8.6.1 Toolbox briefing

Prior to activity commencing, everyone with an involvement with the activity at the worksite must be briefed by the STMS and/or the TC using the approved TMP to explain:

- identified hazards
- the TTM requirements for the worksite
- safety zone requirements and limits.

Briefings are to be completed:

- at the start of each set-up
- on a regular basis (eg daily)
- at each new phase of the works

#### A5.8.6.2 Site induction briefing

All people arriving on-site must receive a worksite induction before proceeding around the worksite. This will include the following:

- staff of subcontractors
- engineer and/or their representatives
- the principal.

The approved TMP is used to explain:

- the worksite hazards
- site driving and parking requirements
- the method of entering and leaving the worksite.

The contractor must keep a record of induction sessions held, who attended and the TTM configuration(s) explained.

### A5.8.7 Identification of STMS

The STMS must have with them their NZTA warrant card (or suitable certified documentation as evidence of qualification).

The STMS must ensure that they are readily identifiable on-site by wearing a fluorescent STMS garment in accordance with section B3 High-visibility garments.

On a level LV and level 1 road where there are less than three personnel onsite the STMS may wear the fluorescent red-orange high-visibility garment.

### A5.9 Traffic controller (TC)

### A5.9.1 Authority of the TC

When delegated control of a worksite, the TC has the authority to:

- postpone, cancel or modify operations due to adverse traffic, weather or other conditions that affect the safety of the worksite
- permit visitor entry to the worksite
- order people off the worksite for issues of non-compliance or safety.

## A5.9.2 When TC can take the role of an STMS

For **level LV and level 1** roads a TC may take the role of an STMS and set up, maintain, alter and remove TTM for the worksite under the following conditions:

- there is an approved (and where required accepted) TMP for the worksite
- the STMS must brief the TC in charge of the worksite on the TTM requirements
- to ensure CoPTTM requirements continue to be met the worksite is to be inspected by the STMS:
  - for worksites in place for a full day or longer the worksite must be inspected at least on a daily basis
  - where a TC is in charge of static or mobile activities that move from worksite to worksite within a day the STMS must inspect one of the worksites on a daily basis
- all the above actions must be documented by the STMS.

The TC may also perform other duties (eg foreman, grader driver) however TTM responsibilities must take priority.

A5.9.3 TC's general responsibilities for level LV and level 1 roads

The general responsibilities of the appointed TC for a worksite are to:

- carry out on-site briefings as described in subsection A5.8.6 Site safety briefings. The approved TMP is used to explain
  - the worksite hazards
  - site driving and parking requirements
  - the method of entering and leaving the worksite
- keep a record of induction sessions held, who attended and the TTM configuration(s) explained
- ensure all personnel and visitors on-site are wearing compliant highvisibility clothing in accordance with section B3 High-visibility garments and any other safety equipment required by the activity
- ensure traffic is monitored for queuing and delays
- ensure worksite inspections of all TTM equipment is completed at least two-hourly or as detailed in the minimum inspection frequency table in subsection C19.5.1 Monitoring frequency for TTM measures
- ensure that persons on the worksite operate in terms of the traffic regulations and the requirements of *The official New Zealand road code*

- contact the STMS immediately if there is a need to complete modifications to TTM measures not included in the approved TMP
- ensure contingency plans are implemented when excessive traffic delays, emergencies or weather conditions or other factors occur
- record and notify the STMS or contractor as appropriate of all crashes at the worksite and any complaints about the TTM (definition of a crash is provided in A5.7.3 Definition of a crash)
- ensure that they can be contacted by mobile phone or two-way radio at all times, for the duration of the installation, maintenance and removal of temporary traffic measures at the worksite
- ensure that all corrective action detailed in a notice of non-conformance is undertaken within the required time frame
- ensure any TTM changes required by the New Zealand Police, MBIE (Labour), RCA or engineer are made immediately and documented on the TMP. Notify the STMS immediately. The TMC is to be informed within 24 hours.

### A5.9.4 Identification of TC

The TC must have with them their NZTA warrant card (or suitable certified documentation as evidence of qualification).

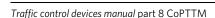
The TCs must wear the fluorescent red-orange high-visibility garment detailed in section B3 High-visibility garments.

### A5.10 Site personnel

Individual worksite personnel must:

- wear high-visibility garments in accordance with section B3 Highvisibility garments
- comply with the requirements of the approved TMP
- follow instructions given by the STMS or TC in charge
- follow company health and safety procedures, eg wear appropriate personal protective equipment (PPE)
- comply with the requirements of the traffic rules and *The official New Zealand road code*.

All worksite personnel need to be aware of the general configuration of signs and devices, and report any defect to the STMS or TC in charge.



### A6 Training

#### A6.1 General

### A6.1.1 Who must complete training

All personnel who have supervising responsibilities (TC, STMS and STMS-NP) must be trained to the appropriate standard for the:

- · level of road, and
- tasks that they are undertaking.

This includes:

- submitting and approving TMPs
- installing, maintaining or removing TTM
- inspecting or auditing TTM.

It is recommended that workers receive TC training or similar training based on the TC curriculum. Refer to subsections A6.4.2 Refresher training requirements and A6.4.4 Details of courses.

### A6.2 Extract from the Health and Safety in Employment Act 1992

Set out below are the duties of employers in relation to training and supervision as stated in the Health and Safety in Employment Act 1992 Part II Clause 13:

#### 13 Training and supervision

Every employer shall take all practicable steps to ensure that every employee who does work of any kind, or uses plant of any kind, or deals with a substance of any kind, in a place of work—

- (a) either—
  - (i) has; or
  - (ii) is so supervised, by a person who has,—

such knowledge and experience of similar places, and work, plant, or substances of that kind, as to ensure that the employee's doing the work, using the plant, or dealing with the substance, is not likely to cause harm to the employee or other people; and

(b) is adequately trained in the safe use of all plant, objects, substances, and protective clothing and equipment that the employee is or may be required to use or handle.

### A6.3 Certification of temporary traffic management (TTM) training courses

### A6.3.1 The NZTA's role

The NZTA is the certifying organisation for all CoPTTM training courses.

The NZTA is tasked with:

- · development of training curriculums
- certifying course tutors
- auditing training courses
- · issuing certificates of achievement
- maintaining a database of trained people
- issuing and withdrawing warrant cards.

The NZTA will hold Train the trainer workshops. Suitably qualified and experienced individuals can attend these workshops. Only those persons who attend a Train the trainer workshop and meet the pass requirements will be awarded trainer status.

Applications can be made to:

Senior Traffic and Safety Engineer (CoPTTM)

NZ Transport Agency

National Office

Private Bag 6995

Wellington 6141

Phone: +64 4 894 6355

Email: copttm.quals@nzta.govt.nz

Trainers can be certified to teach:

- TC and STMS level 1 courses, and
- STMS-NP level 2/3 courses.

Only a limited number of trainers will be certified to teach level 2/3 courses.

A limited number of assessors will be certified to carry out practical field assessments for the **level 2/3** STMS qualification.

### A6.4 Certification and registration

All persons who are certified will have their qualification registered on the NZTA's TTM database. There will be a small cost for the registration process. All those who are registered will receive a certificate and warrant card.

### A6.4.1 Levels of training

The NZTA awards the following qualifications:

- level 1 TC
- level 1 STMS
- level 2/3 STMS-NP
- level 2/3 STMS.

## A6.4.2 Refresher training requirements

Qualification	Lapse period and required action
Level 1 TC, Level 1 STMS and Level 2/3 STMS-NP	These qualifications lapse three years after the date of the course assessment. Once lapsed, the holder is deemed out of date and can no longer fulfil a TTM role.  Qualifications are renewed on successful completion of a refresher course. If the qualification has lapsed for over 12 months, the candidate will be required to successfully complete a full workshop for their lapsed level of qualification before being recertified.
Level 2/3 STMS	This qualification is tied to the time frame for the STMS-NP. They will lapse together and the STMS-NP must first be renewed as above.  In addition the applicant is required to either:  • re-sit a practical field assessment, or  • submit a recognition of prior experience (ROPE) form to the NZTA's Senior Traffic and Safety Engineer (CoPTTM).  ROPE  This form must contain the details of six closures completed while the practicing STMS held their qualification.  The six closures must be carried out in the nine months preceding submission of the ROPE application.  Non-conformance  Applicants who have received a non-conformance, or who have an application of the ROPE Haveners if a page.
	unsatisfactory report may not be considered for ROPE. However, if a non-conformance report is followed by a 12 month period of satisfactory performance the ROPE may still be allowed.

A6.4.3 Summary of certification pathway

Certification	Summary of pathway
Level 1 TC	Prerequisite: No prerequisite Pass rate: 60% On job assessment: None
Level 1 STMS	Prerequisite: Hold TC for one month  Pass rate: 60% (at the training, in the final exercise, must have developed a TMP that meets the minimum requirements)  On-job assessment: None
Level 2/3 STMS-NP	Prerequisite: Level 1 STMS  Pass rate: 60% (at the training, in the final exercise, must have developed a TMP that meets the minimum requirements)  On-job assessment: None
Level 2/3 STMS	Prerequisite: Level 2/3 STMS-NP On-job assessment: Yes

### A6.4.4 Details of courses

Details of courses for each level of training may be obtained from:

NZ Transport Agency National Office Private Bag 6995 Wellington 6141

Phone: +64 4 894 6355

Email: copttm.quals@nzta.govt.nz

### A6.5 Level 1 traffic controller (TC) training

### A6.5.1 About the training

This is the most basic qualification for this level of traffic management. There is no prerequisite qualification for this level of training.

This qualification enables the holder, once briefed by the STMS, to:

- set up, maintain, alter and remove level LV and level 1 TTM worksites
- undertake the on-site duties of an STMS for level LV and level 1 TTM.

Those who **must** hold this qualification are:

- all RCA project staff
- all engineer's project management, design and worksite supervision staff
- all contractor's on-site management staff including worksite managers, worksite forepersons and leading hands who set up, maintain, alter and remove a worksite without an STMS present.

Additional training may be required to operate specialist TTM equipment. The TC training is not mandatory for MTCs but they must be trained by the worksite STMS to carry out their function.

### A6.5.2 Type of course

This is a one-day workshop with an assessment at the end. Attendees must achieve a 60 percent pass of the assessment to gain the qualification.

Those who pass the course can apply through their trainers to receive a certificate of achievement and a warrant card that will be issued by the NZTA.

Those who take charge of a worksite in the absence of the STMS must be certified and registered on the NZTA's TTM database.

This qualification is a prerequisite for the New Zealand Qualifications Authority (NZQA) unit standard 5627 Temporary traffic management – Operate as a traffic controller (TC) for low volume and level 1 roads.

#### A6.6 Level 1 site traffic management supervisor (STMS) training

### A6.6.1 About the training

This is the highest qualification for this level of traffic management.

People attending this course must hold a current **level 1** TC certificate of achievement for a minimum of one calendar month prior to attending the STMS course.

This qualification enables the holder to:

- draft TMPs
- check and approve TMPs prepared by others
- undertake the duties of an STMS for level LV and level 1 TTM
- undertake TTM audits of TTM of worksites for level LV and level 1 TTM.

Those who **must** hold this qualification are:

- all RCA project managers
- all engineer's staff who:
  - approve contract documents
  - check and approve TMPs
- all engineer's project management and senior worksite supervision staff
- all contractor's staff who:
  - draftTMPs
  - undertake the duties of the STMS for level LV and level 1 TTM
- all contractor's project management staff
- all TTM auditors who will undertake TTM audits of TTM at worksites
- · others who will undertake similar activities for this level of road

Additional training may be required to operate specialist TTM equipment.

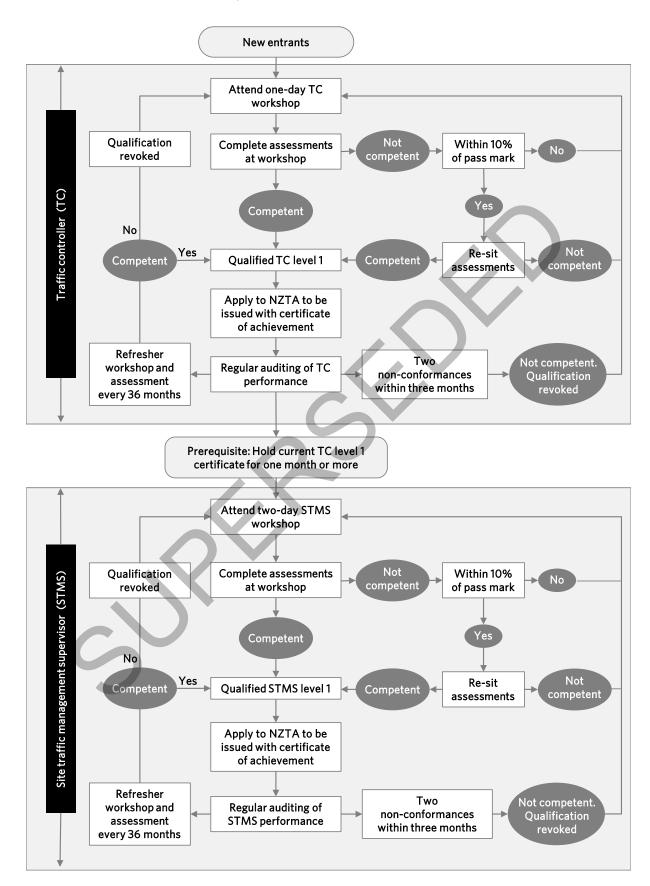
A6.6.2 Type of course

This is a two-day workshop with an assessment at the end. Attendees must achieve a 60 percent pass of the assessment to gain the qualification.

Those who pass the course can apply to the NZTA through their trainers to receive a certificate of achievement and a warrant card.

This qualification is a prerequisite for the NZQA unit standard 5628 Temporary traffic management – Operate as a site traffic management supervisor.

#### STMS assessment and certification process - level LV and level 1 roads



### A6.7 Level 2/3 site traffic management supervisor non-practising (STMS-NP) training

### A6.7.1 About the training

This is the highest qualification for this level of traffic management.

People attending this course must hold a current level 1 STMS certificate.

This qualification enables the holder to:

- draft TMPs for level 2 and level 3 roads
- check and approve TMPs prepared by others
- undertake TTM audits of worksites for level 2 and level 3 TTM.

Those who **must** hold this **level 2/3** qualification are:

- all RCA project managers
- all engineer's staff who draft, check and/or approve TMPs
- all engineer's project management and worksite supervision staff
- all contractor's staff who draft TMPs
- · all contractor's project management staff
- all TTM auditors who will undertake TTM audits of traffic management at worksites
- others who will undertake similar activities for this level of TTM.

Additional training may be required to operate specialist equipment such as TMAs and arrow boards.

A6.7.2 Type of course

A two-day workshop with an assessment at the end. Attendees must achieve a 60 percent pass of the assessment to gain the qualification.

Those who pass the course can apply to the NZTA through their trainers to receive a certificate of achievement and a warrant card.

At this stage of the qualification the attendees may be responsible for all aspects of TTM except for field operations involving installation, alteration and removal of TTM equipment.

**Level 2 /3** STMS-NP certificate will not include the STMS warrant. To become a fully qualified **level 2 /3** STMS, and hence be able to undertake full responsibility for all aspects of TTM, the applicant must undertake and pass a field assessment.

This qualification is a prerequisite for the NZQA unit standard 20879 Temporary traffic management – Operate as a site traffic management supervisor non-practicing.

### A6.8 Level 2/3 site traffic management supervisor training

### A6.8.1 About the training

This is the highest qualification for this level of traffic management.

The practical assessment for this qualification may be taken any time after passing the level 2/3 STMS-NP course. Candidates must be able to provide evidence of the successful establishment and removal of level 2 and 3 worksites, under the guidance of a fully qualified STMS.

There is no course for this qualification. It is awarded once the candidate has successfully completed a practical assessment. People undertaking this assessment must hold a current **level 2/3** STMS-NP certificate.

The level 2/3 STMS qualification enables the holder to:

- draft TMPs
- check and approve TMPs prepared by others
- undertake the duties of STMS for level 2 and level 3 TTM
- undertake TTM audits of TTM of worksites on level 2 and level 3 roads.

Those who **must** hold this qualification are:

- all contractor's staff who will undertake the duties of the STMS for level 2 and level 3 TTM
- others who will undertake similar activities for this level of TTM.

Additional training may be required to operate specialist equipment such as TMAs and arrow boards.

### A6.8.2 About the assessment

Candidates are advised to take the practical assessment for this qualification as soon as possible once they have passed the level 2/3 STMS-NP course. The period for this qualification is tied to the level 2/3 STMS-NP. If a candidate passed the assessment two years after attaining the level 2/3 STMS-NP their STMS qualification would only be valid for one year before requiring renewal.

A list of level 2/3 assessors is available on the NZTA website.

Before undertaking an assessment, it is recommended that candidates have at least three months practical experience as an STMS on **level 2** and **level 3** worksites under the guidance of a fully qualified STMS.

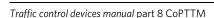
A probationary status may be awarded where there is no STMS to understudy. An application for the probationary status may be made in writing to the:

NZ Transport Agency National Office Private Bag 6995 Wellington 6141

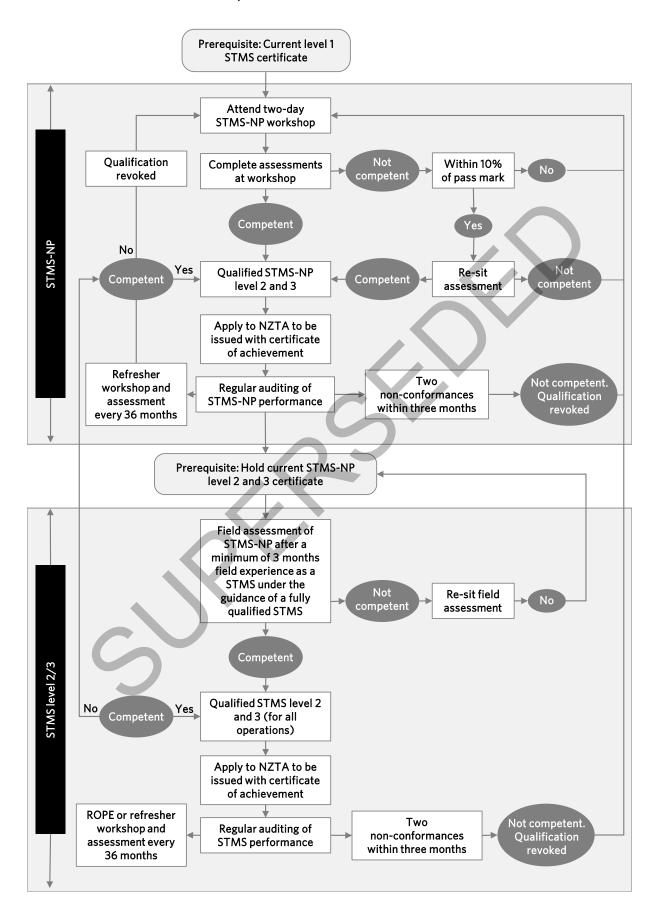
Phone: +64 4 894 6355

Email: copttm.quals@nzta.govt.nz

On passing the field assessment, the applicant will become a fully qualified level 2/3 STMS and can apply to the NZTA to receive an STMS warrant card. This qualification is a prerequisite for the NZQA unit standard 20880 Temporary traffic management – Operate as a site traffic management supervisor for level 2/3 roads.



#### STMS assessment and certification process - level 2 and level 3 roads



### A7 Traffic management plans (TMPs)

#### A7.1 General

#### A7.1.1 About TMPs

A TMP details the measures to ensure safety for all people involved in the activity.

It is a document describing the nature and extent of TTM at a worksite and how road users (including pedestrians and cyclists) will be managed by the use of TTM measures.

The TMPs are required for all activities that vary the normal operating conditions of a road, irrespective of whether the activity is on a carriageway, on a footpath, or on a road shoulder.

The TMPs are also needed for activities outside the road reserve, which will affect the normal operating conditions of the road.

Depending on the size, duration and location of the worksite multiple TMPs (or a TMP with multiple TMDs) may be required for various stages of the work.

### A7.1.2 Consent to works

The TMP does not replace the need to obtain the required consent from the RCA for the activity to be undertaken (eg road opening notice or after 1 July 2011 the Code of Practice for Utilities Access to the Transport Corridors - Corridor Access Permit No/s).

## A7.1.3 Frequent non-invasive maintenance activities

A variety of approaches are available for service authorities to carry out frequent non-invasive maintenance activities. These include:

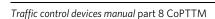
- service agreements
- letters of consent
- · road opening specifications.

These approaches spell out conditions designed to protect the:

- asset
- workers
- road users.

The approach chosen must:

- limit the activity (eg to inspections of switchboards)
- not cover the installation of new equipment or the need to dig to find a fault
- be reviewed at least every 12 months.



### A7.2 Application and approvals procedure

Step	Actions/Comments
RCA gives consent for the activity	Applicant requests authority from the RCA to carry out activity on road reserve.  The RCA or representative authorises the activity (subject to various conditions, including the use of TMP).  Note: Some RCAs may require the TMP to be submitted with the application for consent to carry out the activity.
TMP drafted	An STMS drafts the TMP using the CoPTTM TMP format as follows:  • If simple activity and RCA permits, use short TMP form  • If more complex activity, use full TMP form.
TMP submitted for approval (or if delegated authority, an STMS approves TMP)	<ul> <li>An STMS submits TMP to RCA for approval.</li> <li>For selected level LV and level 1 roads (non-state highways) an STMS can approve the TMP without submitting it to the RCA if the:</li> <li>STMS has been delegated authority to approve TMPs by the RCA, and</li> <li>situation is one where TMC approval is not required by the RCA. Refer to subsection A7.2.1 STMS-delegated authority – situations for TMC approval.</li> <li>For a detailed list of each RCA's requirements refer to the NZTA's website.</li> </ul>
TMP approval	The RCA acknowledges receipt of the TMP to the contractor within 24 hours of receiving the TMP.  Decision is made by the RCA's TMC/engineer who must:  • be independent of the preparation of the TMP  • have received training from an NZTA-certified training course for this purpose  • be delegated the authority by the RCA as suitable to approve such plans on their behalf.  TMC/engineer decides whether the TMP is approved or requires amendment. If the TMP is approved by the engineer it must be forwarded to the RCA/TMC for acceptance and coordination.  With stated reasons, the RCA/TMC/engineer may refuse to approve and/or accept any TMP if the proposed TTM is considered to be unsafe, in contravention of CoPTTM, or where reasonable alternatives may exist that may be safer or cause less traffic delay.  Examples where RCA/TMC/engineer may refuse to approve a TMP are:  • the closure of some lanes may lead to dangerous queuing  • merging tapers are too short to safely merge traffic.  Where two TMPs are lodged for the same stretch of road to undertake activities at the same time, the RCA/TMC/engineer may approve one TMP and allow both groups to undertake their activity within that TMP.
RCA returns TMP	A copy of the signed TMP is returned to the applicant, within the specified time frame.  If the TMP has not been approved, the applicant will be advised what amendments are required. If an amendment is required to the TMP, the applicant:  • makes the required amendment/s  • resubmits the TMP for approval.  For any minor changes, the TMC or approving engineer can mark changes on TMP and approve it. The applicant must be advised of the changes made to the TMP.  Approval must be obtained prior to commencing the activity.

Step	Actions/Comments
Approval to work	The applicant notifies the TMC at least two working days in advance of the works being undertaken.
	The TMC notifies the applicant as to whether they can proceed with the activity at the requested time.
Record hazard identification, set-up, maintenance and	Once TMP is approved the worksite can be set up following requirements in section C and/or section D.
removal of the worksite	Complete hazard identification before setting up the worksite and put in place any mitigation steps required.
	Record the set-up, maintenance and removal of the worksite on the CoPTTM on-site record. Refer to section E, appendix A or a company site safety checklist provided it includes the following information:
	• details of the STMS who is in charge of the worksite (name, qualification, identification and expiry date of qualification)
	• if worksite delegated to a TC (level 1) or STMS-NP (only on limited level 2 worksites), details of the TC/STMS-NP who is in charge of the worksite (name, qualification, identification and expiry date of qualification)
	<ul> <li>the worksite monitoring including:</li> <li>site set-up</li> </ul>
	<ul> <li>two-hourly monitoring</li> </ul>
	<ul><li>site removal</li><li>details of any TSLs installed:</li></ul>
	<ul><li>date installed</li><li>time installed</li></ul>
	<ul><li>placement (route position or street numbers)</li></ul>
	<ul><li>length of TSL (in metres)</li><li>date removed</li></ul>
	– time removed.
	Record all changes to the TSL (change of speed or change of location of TSL).

#### A7.2.1 STMSdelegated authority - situations for TMC approval

If the STMS has been delegated authority to approve TMPs on selected level LV and level 1 roads (non-state highways) they still must submit TMPs to the TMC for approval in the higher risk situations. Each RCA can declare its own situations but the common ones are where:

- approval has been requested by the RCA during the planning process for a particular worksite or collection of worksites
- there is no traffic management diagram in the level LV and level 1 example plans that represents the worksite
- a road needs to be closed or traffic delays for more than five minutes at any one time during the day, or for a cumulative period of 30 minutes in any one hour period, except where otherwise specified by the RCA
- a footpath will be closed and users will have to enter/cross a live lane
- a cycle lane will be closed
- a pedestrian crossing or traffic signal installation is affected
- restricted parking, bus stops, loading zones and/or taxi stands will be affected
- portable traffic signals are to be used
- a lane closure is required at an intersection
- signs need to be placed on a flush median
- traffic moving in one direction is split around a closure
- mobile operations are on roads with posted speed limit exceeding 50km/h (except for grading operations)
- the activity is an event
- other situation/s as may be stipulated by the RCA.

For a detailed list of each RCA's requirements refer to the NZTA's website.

### A7.3 Principles for traffic management plans (TMPs)

#### A7.3.1 Principles

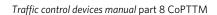
The following principles are to be used when designing a TMP:

- The TMP must be consistent with CoPTTM.
- Traffic management measures must prioritise the treatment of the hazard(s) created by the activity in the following order:
  - elimination
  - isolation
  - minimisation.

Actions to ensure this occurs on-site must be recorded on the TMP.

- The person approving the TMP must be satisfied that the hazards have been managed.
- The TMP must be designed and drafted by an STMS trained and qualified to the level of TTM required by the RCA for the activity.

- The activity and associated TTM must be carried out in such a manner
  as to avoid, or at least minimise, inconvenience or delay to road users
  whilst still providing safe conditions for both the road user and those
  carrying out the activity.
- The activity must be separated from road users wherever possible.
- The TTM measures proposed must not be over restrictive nor use an excessive number of signs.
- The TSLs must have the minimum possible reduction in speed limit for the minimum time and over a minimum length while still providing for the safety of road users and those carrying out the activity. Refer to section C4.
- Activities with varying on-site phases must have multiple TMPs or TMDs covering each phase. This includes unattended worksites.



### A7.4 Contents of traffic management plans (TMPs)

#### A7.4.1 Contents

#### Simple TMPs contain:

- contract/consent numbers
- location details and road characteristics
- description of work
- other aspects affecting the road
- proposed TTM, either in a referenced traffic management diagram (only for STMS approval) or in a worksite-specific layout
- organisations (contractor, principal/client, RCA/s)
- approvals.

In addition more complex TMPs may also contain:

- contact details
- work programme
- proposed traffic management method
- · positive traffic management measures
- contingency plans
- authorisations
- EED applicable
- delay calculations/trial plan to determine potential extent of delays
- public notification plan
- on-site monitoring
- method for recording daily worksite TTM activity (eg on-site record)
- detours
- AADT and peak hour flow
- alternative dates if activity delayed
- extraordinary safety measures
- other information (eg temporary speed issues)
- list of worksite-specific layout diagrams.

### A7.4.2 Layout diagrams

CoPTTM sets out the **minimum** requirements for TTM. Elements from two or more layouts may be used to produce the required design.

The layout diagrams must be of a standard which:

- allows the STMS to install the equipment correctly
- ensures the layout is fit for purpose
- provides protection for the activity
- allows for any worksite constraints.

Where conflict appears to occur between layout diagrams and the text or tables, then the text or tables will take precedence.

Particular consideration will be needed where an increased level of hazard is identified. Examples of these include:

 activities at or near intersections or commercial and other entrances where there are many turning and manoeuvring movements

- where there are pedestrian and cyclist amenities
- on- or off-ramps
- activities adjacent to rail crossings (consult with railway authorities)
- vertical and horizontal curves (hills and corners).

The worksite-specific requirements for TMPs, a blank TMP form and the schedule of specific job requirements for traffic management and safety form are contained in section E, appendix A.

### A7.5 Generic traffic management plan (GTMP)

### A7.5.1 Lodging a GTMP

Repetitive activities may have GTMPs.

The repetition could be either:

- the same type of activity at similar locations (eg edge break repairs on a straight stretch of road)
- returning to the same worksite to perform the same activity (eg mowing a centre island once a month).

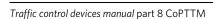
These repetitive activities may be performed by:

- network maintenance contractors
- utility maintenance contractors
- gardening contractors
- sports organisations
- others as approved by the RCA (the GTMP is not usually suitable for the overall planning of a construction contract, however where there are repetitive closures the contractor may apply to use a GTMP).

The GTMPs must be approved by the TMC and may be issued for a maximum time period of 12 months.

A GTMP must be resubmitted to the RCA for approval if it has been modified to accommodate:

- additional hazards
- statutory changes
- a lesser degree of protection.



### A7.5.2 Using GTMPs

The GTMPs may **not** be appropriate for every situation and it is the responsibility of the contractor, RCA and the engineer to check for this.

#### Notifying the TMC

Prior to using the GTMP the TMC must be notified of the GTMP number, the diagram(s) being used, the location and the date and time of the works to be undertaken.

The TMC may stipulate the method and extent of notification.

#### Actions on site

Each time a GTMP is used the following actions must be completed:

- Check that the diagram used is appropriate for the site Refer section E, appendix A for the checking process for generic TMPs
- Complete the onsite record Refer section E, appendix A.

### A7.6 Recommended response times

A7.6.1 Response times

The TMP is submitted in time to allow for any changes required by the RCA or engineer to ensure the TMP meets the requirements of CoPTTM.

The table below shows the time frames for the submission, review and approval of TMPs for short-term, mobile and long-term activities.

A7.6.2 Submission and acceptance times of TMPs

		Time frame (working days)		
Activity	Road category	Submit prior to start date*	RCA or engineer to approve	
All activities	Level LV and level 1	5	3	
Short-term and mobile operations	Levels 2 and 3	5	3	
Long-term operations	Levels 2 and 3	10	5	

<sup>\*</sup> Where there is a requirement for public notification, or an EED, the plan must be submitted a minimum of ten working days before it needs to be publicly notified.

### A7.7 Availability of traffic management plans (TMPs)

### A7.7.1 Copy of TMP on-site

A copy of the signed and approved TMP/generic TMPs must be available on-site at all times when the worksite is attended, and be available for inspection by the RCA, engineer, New Zealand Police or MBIE (Labour) - registered inspector.

### A7.7.2 Copy kept for one year

For selected level LV and level 1 roads, if the TMP has been approved by the STMS under delegated authority, a copy of the TMP must be kept for one year.

### A7.8 Emergency situations not at a planned worksite

### A7.8.1 Dealing with emergencies

TTM used in unforeseen emergency situations is to comply with the practices in CoPTTM as far as practicable. Emergencies are often dealt with initially by the police and/or other emergency services. If assistance is requested, TTM measures may be installed without a prior approval from the RCA.

Except in emergencies to save lives and/or prevent injury, TTM must be installed before activities commence.

New Zealand Police may direct a contractor to alter or remove TSLs. They may direct a contractor to erect, alter or remove all other signage. Civil defence officers and the fire service have similar levels of authority to the police in an emergency situation.

### A7.9 Engineering exception decisions

#### A7.9.1 About EEDs

Variations to the requirements of CoPTTM may be considered on a case by case basis if the road environment constraints make the design and installation of TTM impractical and/or unreasonable. Any variation to CoPTTM must be in terms of a written EED statement. An EED cannot be used to avoid a legal requirement.

The EED statement must describe:

- What the problem is:
  - a. Describe the road environment constraint.
  - b. State CoPTTM requirements for the proposed activity.
- Why CoPTTM-compliant TTM should not be installed.
- How will safety be ensured.

The EED is a form of contractual arrangement and must be approved and signed by both the contractor and RCA (or their delegated agent).

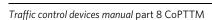
The EED must be attached to, and form part of, the TMP for the activity. The EED must be applied across boundaries where applicable. All NZTA offices or their consultants must send a copy of all generic EEDs and the relevant plan for approval to the:

Senior Traffic and Safety Engineer (CoPTTM) NZ Transport Agency National Office Private Bag 6995 Wellington 6141

Phone: +64 4 894 6355

Email: stuart.fraser@nzta.govt.nz

RCA staff and their representatives may forward any generic EEDs to the above address for information and/or feedback if appropriate. See example EED on following page.



### **Example of typical EED**

**ENGINEERING EXCEPTION DECISION** 

Name of RCA (For example, Auckland Transport or for state highways network description such as Northern Canterbury State Highways Network)		EED No						
	Basic description of the activity associated with EED							
Location de	etail and sc	heduled	dates					
Location	This EED r	s EED relates to TTM activities at:  Dates: From:  To:						
It is propose	It is proposed to vary the requirements of CoPTTM.							
WHAT the proposed ac		(a) desc	ribe the road environm	nent con	straint, (b	o) state (	CoPTTM requ	irements for the
a. The road environment constraint		nt	Work on a level 1 road at a rural intersection with a posted speed of 70km/h. The activity is a digout on centreline and part of the northbound lane. This reduces the lane width to 3.25 metres (m).					
b. CoPTTM the prope	requiremer		CoPTTM requires a 70m taper	r.				
WHY CoPT	TM complia	ant TTM	should not/cannot be	install	ed.			
A 70-meter tape	er will close the ir	ntersection t	o right hand turns and straight	through tra	ffic on the e	ast-west la	nes.	
HOW will s	afety be en	sured?						
To allow the side traffic to progress through the intersection we will place a short 10-meter taper immediately in front of the working space. Cones in this taper will be spaced at 1m. The lane width past the closure will be 2.75m with a TSL of 30km/h to provide positive traffic management.  To slow northbound traffic we will insert two 70m lines of cones prior to the intersection. One line of cones on the edgeline, and the other line on the centreline. The centreline cones will taper by 750mm and direct traffic towards the left-hand side of the northbound lane – away from the closure.  Workers will not be permitted to enter the area of the closure adjacent to the intersection (the bottom of the working space) and no plant and equipment will operate in this area.								
This EED must be attached to the TMP. Any generic EEDs must be forwarded to the NZ Transport Agency.								
EED – Prop	osal							
Signed for								
and behalf	OT: Insert of	Insert contractor's name						
Signed by:	Name			De	esignation		ID number	Expiry date
	Signatu	Signature			D	Date		
EED – Approved by								
Signed for and behalf	of: Insert F	RCA name	)					
Signed by:	Name			De	esignation		ID number	Expiry date
	Signatu	ıre				D	ate	

### Diagram showing the issue of the taper blocking traffic from side roads

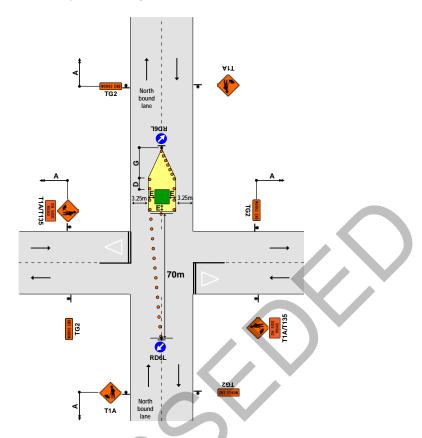
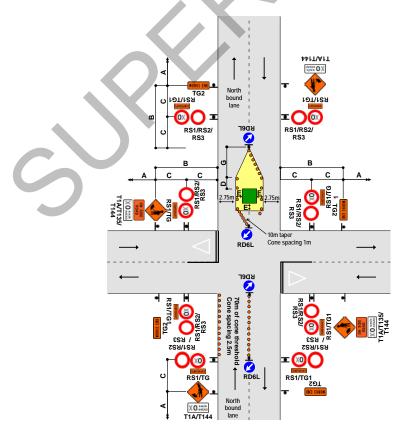


Diagram showing the solution – 70m taper substituted by a 10m taper with positive traffic management



NZ Transport Agency

A8 TTM audit procedures

## A8 Temporary traffic management (TTM) safety audit procedures

A8.1.1 About the TTM audit

It is recommended that auditing of worksites be carried out by both the RCA and any party who has activity completed for them on the roads. This is to provide assurance that good traffic management is being achieved and, if not, to identify problems that need to be remedied.

The RCA monitors documentation and activities to ensure continuing effectiveness and uniformity of TTM.

If worksites are found to have a dangerous site condition rating (refer to section E, appendix C), then the level and frequency of audits must be increased.

A8.1.2 Use of the TTM audit procedures

These procedures must be used to audit activities requiring TTM.

Refer to section E, appendix C for a full description of the audit methodology and actions to take after the audit.

There are two audit forms (full audit and short audit) which can be used for the following:

Full audit	Short audit
• Attended and unattended static worksites.	Attended and unattended static worksites.
Semi-static activities.	Day-time and night-time activities.
Mobile and inspections activities.	
Day-time and night-time activities.	

A8.1.3 Who could use the procedures

These procedures may be used by the following:

Who can use procedure	How procedures can be used
RCAs/TMCs	To establish the level of compliance for TTM installed and maintained for each activity in terms of CoPTTM, and to measure the level of safety within their network.
Consultant/engineers	To establish contractor safety compliance.
Principals	To meet their obligations for safety compliance of their staff and contractors.
Contractors	To self audit own activities.
MBIE (Labour)	MBIE (Labour) inspectors may use these procedures as part of their inspection process for any activity. The audit form can be used to support formal improvement notices.

A8.1.4 Training Requirements

People using these procedures must hold a current STMS or STMS-NP certification (refer to subsection A5.8 Site traffic management supervisor (STMS)) to the level of the TTM for which they are auditing.