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)	An STMS submits TMP to RCA for approval. 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: • STMS has been delegated authority to approve TMPs by the RCA, and • 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. For a detailed list of each RCA's requirements refer to the NZTA's website.
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 removal of the worksite	Once TMP is approved the worksite can be set up following requirements in section C and/or section D. 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) • the worksite monitoring including: – site set-up – two-hourly monitoring – site removal • details of any TSLs installed: – date installed – time installed – placement (route position or street numbers) – length of TSL (in metres) – date removed – time removed. Record all changes to the TSL (change of speed or change of location of TSL).

A7.2.1 STMS-delegated 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 worksite-specific layout or a generic traffic management diagram
- 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
- liaison with emergency services and public transport operators (if they could be affected by the worksite)
- changes to parking controls
- 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
- materials storage
- plant operational requirements, eg truck waiting and filling areas
- pedestrian safety fences, delineation and equipment to be used
- extraordinary safety measures
- other information (eg temporary speed issues)
- list of worksite-specific layout diagrams.

TMPs for mobile operations should also include the following additional information:

- the type and function of each vehicle in the mobile team
- the vehicles that will be equipped with attenuators and arrow boards, and their location within the closure
- the number, location and duration of exposure, and tasks of personnel who are permitted to leave their vehicles
- the method of inter-vehicle communication.

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 and the STMS/TC in charge.

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

Activity	Road category	Time frame (working days)	
		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

* 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 WorkSafe NZ registered inspector.

A7.7.2 Copy kept for one year

Whether approved under delegated authority or by the RCA, the TMP (and any associated on-site records) must be 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 signed formal agreement. The EED proposal is submitted by the principal to the contract, and/or their contractor/supplier and approved by the RCA.

The EED must be attached to, and form part of, the TMP for the activity. The EED must be applied for 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 detail and scheduled dates			
Location	This EED relates to TTM activities at:	**Dates:**	From: To:
It is proposed to vary the requirements of CoPTTM.			

WHAT the problem is: (a) describe the road environment constraint, (b) state CoPTTM requirements for the proposed activity.	
a. The road environment constraint	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 requirements for the proposed activity	CoPTTM requires a 70m taper.

WHY CoPTTM compliant TTM should not/cannot be installed.
A 70-meter taper will close the intersection to right hand turns and straight through traffic on the east-west lanes.

HOW will safety be ensured?
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 – Proposal				
Signed for and behalf of:				
	Insert contractor's name			
Signed by:				
	Name	*Designation*	*ID number*	*Expiry date*
	Signature		*Date*	

EED – Approved by				
Signed for and behalf of:				
	Insert RCA name			
Signed by:				
	Name	*Designation*	*ID number*	*Expiry date*
	Signature		*Date*	

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

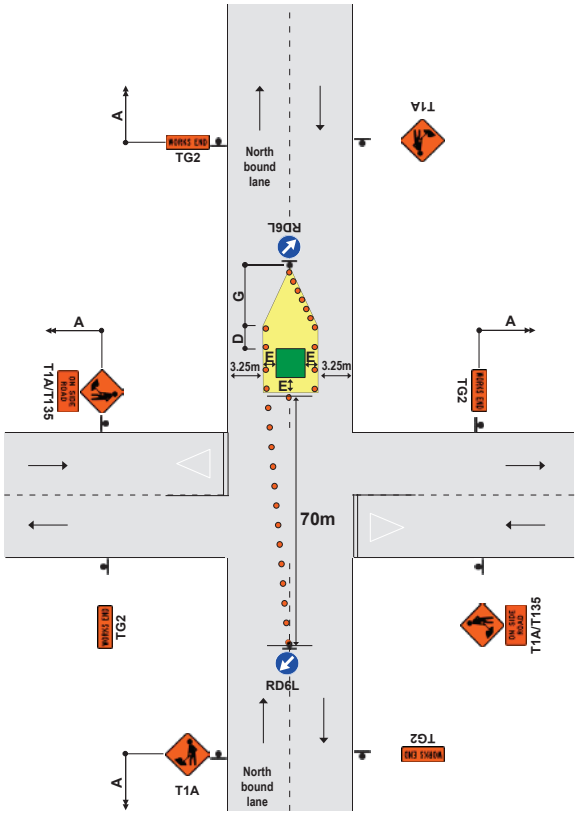

Diagram showing the solution – 70m taper substituted by a 10m taper with positive traffic management