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## **GLOSSARY OF TERMS**

A list of terms used in this document having specialised meanings or interpretation in this Code of Practice.

## AADT

Annual Average Daily Traffic. AADT is the total traffic volume in both directions divided by the number of days in the year and expressed in units of vehicles per day (vpd).

## Activity

A planned event undertaken within the road reserve. An activity covers, but is not limited to, the following:

- Construction projects
- Maintenance activities
- Utility Service operators
- Mobile operations
- On road events and races
- Emergency services operators
- Tow truck operations
- Stock droving and crossing
- Survey and investigation operations
- Road inspections
- Adjacent activities e.g. logging, blasting, building works etc.

## **Alternating Flow**

The movement of vehicles in alternating opposing directions, normally controlled by traffic signals or Manual Traffic Controllers.

## Barricade

A sight rail set between two end supports.

## Barrier

An obstruction placed to prevent access a work site which physically separates it from vehicles in live lanes and other road users.

## Carriageway

The part of a road, sealed or unsealed and including any shoulder areas, which 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 for a distance in greater than 300m.

## Centreline

A continuous or segmented painted line, or a line of raised pavement markers down the centre of a sealed road which separates traffic flowing in opposite directions, or an inferred line down the centre of an unmarked road.

## Channelling

The defining of temporary traffic lanes by delineation devices approved for that purpose.



## Chicane

The lateral movement of traffic from one or more lanes of a divided carriageway onto another alignment before a shift back toward the original road alignment, but not necessarily into the original lanes(s).

## Closure

The physical area between the 'Advance Warning' sign and the 'End of Works' sign including all devices required to divert traffic, from which the traffic is to be excluded.

## **Contingency Plan**

A description of the method by which the road can be cleared during inclement weather conditions, when traffic delays are excessive, if emergency vehicles need to pass and in the event of a traffic crash at the work site.

## Contractor

Contractor means a person, organisation, or company that is responsible for implementation of an Activity on a road whether or not under a contract with the RCA. This includes organisations such as, but not limited to: utility companies, surveyors, adjacent forestry operators, stock drovers, filming crews and personnel managing events on roads. The terms 'contractor' and 'applicant' have the same meaning in this code.

## **Contra-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.

## **Delineation Device**

A piece of equipment manufactured specifically for the purpose of temporary traffic management. Used for a wide range of purposes such as, but not limited to, marking temporary traffic lanes and drawing attention to specific hazards.

## Detour

A temporary alternative route to allow road users to bypass a work site operation.

## Edge Line

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, 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**

Includes NZ Police, NZ Fire Service, Ambulance Service 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 NZS 3910 (or any agreement or consent which allows the activity to be undertaken) by the Principal and/or the RCA.

#### **Engineering Exception Decision**

A written decision made following consideration of all factors, including safety of all concerned, to vary a Code of Practice(s), Standard(s) and/or Guideline(s), to suit a particular situation. The decision shall be included with the contract documentation and the traffic management plan.

#### 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%) taper.

#### Flashing Beacon

A light encapsulated in an amber or yellow casing that may either flash (strobe) or appear to flash when used with a rotating reflector.

#### Frangible

Collapsible on impact and resulting in less damage than an unyielding object.

#### 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.

#### Lamp

A self-contained light which can be attached to any obstruction, delineation device or channelling equipment.

## Lane

The area of pavement surface provided for the use of vehicles travelling in single file.

## Lane Line

A painted continuous or segmented line, or a line of raised pavement markers that divide two lanes of traffic travelling in the same direction.

#### Live Lane

A lane being used by vehicles.



## Long-term Operation

An activity on a **Level 2** or **Level 3** road that occupies a work site for more than one day. There is no differentiation between a short-term and long-term activity on a **Level 1** road.

## LTSA

Land Transport Safety Authority (or any successor organisation).

## Manual Traffic Controller

A person managing the flow of traffic in a single lane past a work site with the use of TW-33 "Stop/Go" paddles.

#### Median

The defined area separating two opposing carriageways not normally intended for use by traffic. This definition also includes flush and painted medians.

#### **Mobile Operations**

Mobile operations are those activities or operations not contained within a fixed site 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

A length of legal road designated as a "Motorway" in terms of the Transit New Zealand Act. Generally such roads are identified with "Motorway Starts" and "Motorway Ends" signs.

#### MOTSAM

Abbreviation for the joint Land Transport Safety Authority/Transit New Zealand Manual of Traffic Signs and Markings, Part I: Traffic Signs and Part II: Markings.

#### Notice of Non-Conformance

An instruction in writing to the Traffic Management Supervisor and/or Contractor to advise them that the traffic management measures do not comply with the approved Traffic Management Plan or the actions of the Site Traffic Management Supervisor do not comply with the requirements of this Code of Practice.

#### **Operating Speed**

The 85% speed of vehicles on a section of a road or the operating speed as declared by the RCA.

#### OSH

Occupational Health and Safety Service of the Department of Labour

#### Pavement

The structural layer of the roadway, including metalled shoulders, that forms the running surface for vehicular traffic.

#### Peak

Associated with traffic flows. The times of the day or night, month or year, when the road carries higher traffic flows, in either one or both directions.



#### Positive Traffic Management

A method of using signs, delineation devices, pavement markings, traffic signals or traffic controllers together or separately to reduce speed at a work site, while maintaining adequate safety and capacity.

## Posted Speed Limit (Permanent Speed Limit)

The legal speed limit indicated by the permanent speed limit sign.

## **Retro-Reflectivity**

Material with the specific property of reflecting illuminating light from a source, usually vehicle headlights, back towards the source.

## **Road Controlling Authority (RCA)**

An organisation that manages roads. ie. Transit New Zealand for State Highways and Territorial Authorities for other roads.

## **Road Reserve**

The area between the legal boundaries, usually fence line to fence line and including any safety runoff areas, which is dedicated to allow the passage of road users. The road reserve also includes a 6m airspace directly above the road surface. The terms 'Road' and 'Road Reserve' have the same meaning in this code.

## **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 Zone

A safety zone is a three-dimensional space extending to the front and back, to the sides and above the working space. This space also includes the areas within the coned tapers although these are not included in the safety zone dimensions. The safety zone should be kept clear of personnel, equipment or materials.

## 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 1 hour at one location.

#### **Short-term Operation**

An operation occupying a location for less than one day on a **Level 2** or **Level 3** road. There is no differentiation between a short-term and long-term activity on a **Level 1** road

#### Shoulder

Pavement 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 space than they actually are.

## Site Access

An access point through which personnel or vehicles enter and/or exit a work site.

## Site Traffic Management Supervisor (STMS)

The person nominated by the Contractor in the Traffic Management Plan to have the specific responsibility for managing traffic at the work site. This person must be trained to the **Level** of temporary traffic management required for the road at that work site.

#### **Speed Environment**

The speed that 85% 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.

#### 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.

## **Temporary Speed Limit (TSL)**

A speed limit approved by the RCA, or a person with delegated authority, to temporarily replace the posted speed limit.

#### **Temporary Traffic Management**

The process of managing road users through or past a work site in a safe manner with minimal delay and inconvenience.

#### Traffic Management Co-ordinator (TMC)

A person, or position, in an organisation that has the delegated authority from an RCA to coordinate TTM.

## **Traffic Controller (TC)**

The person nominated by the contractor in the Traffic Management Plan to have the specific responsibility to manage a worksite on level LV and Level 1 roads, following a briefing from the site STMS.



#### Traffic Management Plan (TMP)

A document describing the design, implementation, maintenance and removal of temporary traffic management 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.

#### Work Site

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.

#### Working Space

The area around a hazard or work site that is available for workers use to complete the activity.



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## UNDERSTANDING THE CODE OF PRACTICE

This Code of Practice for Temporary Traffic Management in New Zealand is divided into 8 sections:

- A Introduction and General
- B Equipment
- C Static Operations
- D Mobile Operations
- E Level LV and Level 1Layout Diagrams
- F Level 2 Layout Diagrams
- G Level 3 Layout Diagrams
- H Appendices

Sections E, F and G contain examples of typical temporary traffic management site layouts. These only cover a limited number of situations and users of this manual must give precedence to the relevant text and tables contained within it when producing temporary traffic management plan diagrams for their activities.

All comments in boxes on the left hand page that are marked '*Explanatory Note*' are intended as supplementary information to the main text of the Code of Practice. Each '*Explanatory Note*' contains the section number to which the comments refer.



## **EXPLANATORY NOTE - Safety through Consistency (Refer Section A1.1)**

Consistent temporary traffic management:

- simplifies the task for the road user by aiding recognition and understanding, thereby improving their behaviour and safety
- allows effective enforcement
- reduces the cost of installation, maintenance and administration of temporary traffic management



## A1 SCOPE

## A1.1 General

This Code of Practice describes the safe and efficient management and operation of temporary traffic management on all roads in New Zealand.

This Code supersedes and replaces the following:

- Transit New Zealand G/1 Specification May 1996;
- Transit New Zealand Working on the Road handbook June 1998;
- Code of Practice for Working on High Capacity Highways November 1997.

The Code includes:

- A description of the powers and responsibilities of relevant government agencies, road controlling authorities, 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 traffic management plans for all New Zealand roads;
- Specifications for temporary traffic management equipment;
- Requirements and guidelines for the installation and operation of static and mobile temporary traffic management;
- Typical layout diagrams for a wide range of activities.

## A1.2 Systems and Procedures for Compliance

## A1.2.1 Default by the Contractor - Work Under Contractual Agreement

Where used, General Conditions of Contract (NZS 3910:2003) Section 14 should be modified as follows (other conditions of contract should use similar provisions):

- (a) These modifications shall be in respect of the requirements for temporary traffic management works only.
- (b) The duration of default and time allowed for replacement of defective work under Section 14.2, i.e. ten working days, shall not apply. Once a Notice of Non-Conformance has been issued, the Contractor must immediately rectify unsatisfactory temporary traffic management measures.
- (c) The RCA shall have recourse to the provisions of the General Conditions of Contract, Section 14.2.3, under which they shall have the power to appoint an alternative Engineer and/or Contractor for the traffic management portion of the work only and/or to request Police to remove measures implemented at the time and to make payments in terms of Section 14.2.4.



(d) Because of the importance of public safety, the temporary nature of the work and the need to act immediately to correct unsatisfactory temporary traffic management measures, the above provisions shall be implemented immediately following the second unsatisfactory performance of work by the Contractor, or where an audit of the work site results in a 'Dangerous' rating. Advice of such defective work shall be in writing, and be issued as a Default notice.

The Engineer shall have authority to act for the Principal and shall not be required to advise the Principal in writing as provided in Section 14.2.1 (d). The Principal should however 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 temporary traffic management, shall be sufficient for the implementation of the above provisions. The Contractor shall then be prohibited from carrying out any traffic management measures for the duration of the contract, unless agreed otherwise by the Principal.

## A1.2.2 Default by the Contractor - Work under Consensual Agreement

Where any organisation or individual causes or allows an activity to occur on a road that does not comply with the principles of the Code, 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 traffic management plan or agreed variation to that plan.

If the organisation responsible for the traffic management of the work site is unable to immediately implement remedial measures to make the work site safe, then the RCA or Engineer is empowered to engage another contractor to install traffic management measures and reinstate safety at the work site. All costs involved in undertaking the above shall be a direct charge to the organisation that was initially responsible for traffic management of the work site.

## A1.3 Code of Practice 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 this Code of Practice may result in further modification and upgrading.

Innovation to improve safe working practices and equipment is also welcome.



Transit New Zealand will gratefully receive any improvement submissions to this Code of Practice. These submissions will be reviewed by the Industry Review Group at their annual meeting.

Please forward suggestions to:

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## A2 PRINCIPLES

To ensure safe and efficient temporary traffic management, this Code of Practice is based on the following fundamental principles:

- Temporary traffic management must be consistent throughout New Zealand;
- All on road activities must be carried out in accordance with a Traffic Management Plan (TMP) that has been approved by the Road Controlling Authority (RCA) refer Section A6: Traffic Management Plans;
- 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 work site;
- Activities on any road should 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 temporary traffic management should be restricted to the minimum required for the safe operation of the activity.



EXPLANATORY NOTE - Selection of Temporary Traffic Management on Low Volume Roads					
Traffic Count (vph)	1 to 20	21 to 40	Over 40		
Risk Rating	Low Risk	Medium Risk	High Risk		
Activity Type					
Mobile Operations (stopped for no longer than 10 minutes) Examples: Refuse / rubbish collection and stock droving along road	Appropriate TW – 1 type signs (rear mounted) and an amber flashing rotating beacon on working vehicle. This working vehicle must be positioned to give 3 times the posted speed limit in m's visibility for oncoming vehicles.	TTM must comply with the requirements of the COPTTM for Level LV roads.	TTM must comply with the requirements of the COPTTM for Levels 1, 2 or 3, as appropriate,		
	** This method applies to roads with a posted or operating speed of less than 65 km/hr. If the above requirements cannot be achieved the operation must be modified to comply with the requirements of a higher risk rating. Approval must be obtained from the RCA.				
Static Operations Examples: Road crash recovery operations, pot hole repairs and stock crossing (large numbers, say 300 plus animals)	Appropriate TW – 1 type signs (static installation) and an amber flashing rotating beacon on working vehicle when on shoulder. Stop / Go or "Give Way" control of traffic when activity encroaches onto live lane should be considered.	TTM must comply with the requirements of the COPTTM for Level LV roads.	TTM must comply with the requirements of the COPTTM for Levels 1, 2 or 3, as appropriate.		
	** See Note above				
Notes: 1. 80 plus vehicles per hour equates approximately to an AADT of 1000 vehicle per day.					

- 2. 40 plus vehicles per hour equates approximately to an AADT of 500 vehicles per day.
- 3. 20 plus vehicles per hour equates approximately to an AADT of 250 vehicles per day.
- 4. If the requirements for TTM seem excessive for the type of on-road activity, then the "Contractor" should choose a time of the day when the traffic counts are lower, to allow the use of a TTM with a lower risk rating



## A3 LEVELS OF TEMPORARY TRAFFIC MANAGEMENT

## Four levels of temporary traffic management are described within this code.

It is the responsibility of the RCA to determine the level of temporary traffic management applicable to every road within its control.

# **Notes:** 1. Temporary traffic management levels must not be mixed for the following reasons:

- Consistency of temporary traffic management on a road, route or network at all times;
- To avoid possible confusion with equipment requirements on a road, route or network.
- 2. The level of temporary traffic management on a road must not be altered after it is determined unless the AADT changes and a permanent change to another level is warranted.
- 3. The risk for road users and workers, and the safety needs of the network, should be taken into account when setting of temporary traffic management levels.

Temporary traffic management levels, in increasing order of complexity and approximate AADT range, are:

## A3.1 Level LV: Low Volume Roads - AADT less than 500 vpd

- This level of temporary traffic management encompasses some urban streets and some local roads (with or without a centreline), sealed and unsealed, except for those roads that comply with the criteria for **Level 1**;
- This level (LV) has, unless otherwise stated, the same requirements as Level 1.

## A3.2 Level 1: Low to Moderate Volume Roads - AADT 500 to 10,000 vpd

- This encompasses most urban streets, most rural roads, low volume state highways, some local roads (with or without a centreline) sealed or unsealed, except those that comply with the criteria of **Level 2** and **Level 3** roads below;
- Standard 750mm x 750mm signs is a minimum requirement Except for multilane roads 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.



## A3.3 Level 2: High Volume Roads - AADT greater than 10,000 vpd

- This encompasses major urban streets in the CBD, some arterial roads two lane two-way roads, one-way streets and multi lane roads;
- This level of traffic management requires bigger 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 temporary traffic management.
- **Note:** An RCA needs to have a viable length of road on their network to designate as Level 2 for temporary traffic management. As a guide there should be at least 50 kilometres of two-way undivided road or 25 kilometres of divided road before Level 2 temporary traffic management is considered. This is to enable contractors to carry a reasonable and cost effective stock of signs, and to present road users with consistent temporary traffic management signing.

# A3.4 Level 3: High Volume, High Speed Multilane Roads and Motorways - AADT greater than 10,000 vpd and speed greater than 75 km/h

- This encompasses major multi-lane highways and motorways in and around major urban areas, eg. the Auckland motorway system;
- The same size signs as for **Level 2** roads;
- Stringent criteria for mobile operations apply to this level of temporary traffic management.



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## EXPLANATORY NOTE - Example of a Localised Agreement (Refer Section: A4.1)

Transit New Zealand Auckland and the Motorways Police Unit had an agreement that police will normally only direct the removal or alteration of temporary traffic measures or work activity after consultation with the relevant Police Traffic Safety Branch Senior Sergeant.



## A4 POWERS AND RESPONSIBILITIES

## A4.1 Powers

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

- Transit New Zealand Act 1989
- Biosecurity Act 1993
- Building Act 1991 (the building Bill 2003, No 78-2 still before Parliament in July 2004 will replace the 1991 Act)
- Crimes Act 1961
- Electricity Act 1992
- Fencing Act 1978
- Fire Service Act 1975
- Gas Act 1992
- Health and Safety in Employment Act 1992
- Litter Act 1979
- Local Government Act 1974 and 2002 (some roading provisions of the 1974 Act are still in force)
- Public Works Act 1981
- Telecommunications Act 2001 and Telecommunications (Residual Provisions) Act 1987
- Transport Act 1962 (to be repealed 1 July 2005)
- Land Transport Act 1998
- Land Transport Management Act 2003
- Impounding Act 1955
- Resource Management Act 1991
- Summary Offences Act 1981

The Acts listed above may impose obligations in respect of the activity and detail specific powers for officers from the Police, Fire Service, Civil Defence, Land Transport Safety Authority, Department of Labour, Occupational Safety and Health Service, and Road Controlling Authorities. 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, temporary traffic management before commencing their activities, except as necessary to save lives and/or prevent serious injury.



## **EXPLANATORY NOTE - Follow Up Action (Refer Section A4.2)**

## If the work is being completed under contract

Appropriate action for identified non-compliance's may include the following:

- Issue Notice to Contractor detailing non-compliance and expected corrective action
- Replacement of the Contractors nominated Site Traffic Management Supervisor
- Arrange for another Contractor to make the site safe
- Apply liquidated damages
- Close the site down

## If the work is not being completed under contract to the RCA

Standards for safety must still be met. Authorisation for works on roads must require the appropriate standard for traffic management to be met.

Appropriate action for identified non-compliance's may include the following:

- Issue a notice to the person carrying out the work detailing the non-compliance and expected corrective action.
- Close down the site as an unauthorised work site
- Lay a complaint with the Police
- Lay a complaint with the Department of Labour Occupational Safety and Health Service

# **EXPLANATORY NOTE - Road Controlling Authority Responsibilities (Refer Section** A4.2)

The responsibilities listed for RCA may be extended to include some or all of the responsibilities of Section A4.3 Engineer Responsibilities, depending on individual circumstances.

## EXPLANATORY NOTE - Required Actions where the Principal is not the RCA

Where the Principal (say for instance a telecommunications company) is not the road controlling authority, it is the Principal's responsibility to seek permission in the form of a consent to undertake any activities within the road reserve or adjacent to the road reserve where the activity may affect road users.

The consent shall, among other things, detail the requirements for temporary traffic management.

The Principal shall make this information available to the Engineer and Contractor for the activity to be undertaken on the RCA's roads.

## A4.2 Responsibilities

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.

## A4.2.1 Road Controlling Authority Responsibilities

The Road Controlling Authority (RCA) have a statutory duty to ensure the safe and efficient operation of the roading network under their authority. They are responsible for:

- Ensuring that all temporary traffic management measures are in accordance with this Code of Practice;
- Notifying the Contractor or those responsible for the temporary traffic management as to the **Level** of traffic management to be used for the various sections of network;
- Consulting with neighbouring RCAs with the objective of gaining consistency as to the **Level** of temporary traffic management for roading networks;
- Appointing a Traffic Management Co-ordinator (refer Section A4.8);
- Identifying, prior to tendering, any requirements with respect to a particular activity site which are additional or different from those covered in this Code of Practice and which may not be evident to an experienced practitioner by site inspection, observation and knowledge of traffic volumes;
- 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 10,000 vehicles per day
  - special events occurring on or near the site
- Formal approval, or rejection, of TMPs (the approval of TMPs may also be undertaken by the Engineer with delegated authority);
- Authorising temporary speed and parking restrictions and the use of other regulatory signs;
- Authorising all planned road closures;
- Authorising and setting conditions for work and other activities on the road;
- To approve public notices for media release or distribution to local residents. Refer to Appendix E: Newspaper Advertisement Standard, which gives a typical standard format for newspaper advertisements;
- Fulfilling legal responsibilities under relevant legislation;
- Ensuring appropriate delegation of authorities are set in place;
- Ensuring there is adequate monitoring and audit of all traffic management on roads within their jurisdiction;

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- 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 temporary traffic management 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.

The RCA should monitor documentation site activities to ensure continuing effectiveness and uniformity of measures. These checks are to be selected randomly and represent a minimum of 5% of all sites in any month. If sites are found to have a "Dangerous" site condition rating (when conducted in accordance with the Procedures for Safety Audit of Temporary Traffic Management of Work Sites (refer to Appendix C in Section H: Appendices of this Code), then the level and frequency of audits must be increased.

Those conducting the audits must be trained and certified to STMS (NP) standard for the level of TTM being audited to ensure they have a thorough understanding of the principles and practices in this Code of Practice and of Safety Auditing.

## EXPLANATORY NOTE - Approval of Traffic Management Plans (TMP) (Refer Section A4.2)

The Engineer shall ensure that the TMP complies with this Code. Should the Engineer be aware of any inaccuracy in the TMP they must require this to be corrected before approving the TMP.

The Engineer should always be willing to consider whether a particular site requires a variation to the requirements in this Code of Practice. If, based on their knowledge and experience of the site, the Engineer approves a TMP that departs from the requirement of this Code of Practice; they should be in a position to justify the departure. This is commonly known as an 'Engineering Exception Decision'. It should not compromise safety (refer A6.4).

## EXPLANATORY NOTE - Reporting on Temporary Traffic Management (Refer Section A4.2)

If asked to report on the temporary traffic management at a work site, the Engineer's report should include but not be limited to the criteria listed under Section A4.3. The Engineer should also include, as appropriate:

- The requirements of any contract documents, including the 'Schedule of Specific Job Requirements for Traffic Management and Safety' refer Appendix A: Traffic Management Plans
- 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.

## A4.2.2 Engineer's Responsibilities

The Engineer's responsibilities, included or delegated within the contract of engagement and with respect to temporary traffic management, include:

- To be trained to the appropriate standard.
- To be independent of the preparation of the TMP.
- To prepare contract or consent documents.
- To evaluate tender documents.
- To approve complying TMPs (under delegated authority if appropriate), based on the information supplied by the applicant.
- To monitor the temporary traffic management at the work site.
- To ensure that the approved TMP continues to comply with the requirements of this code.
- To audit temporary traffic management in the following manner:
  - Auditing should be conducted in accordance with the Procedures for the Safety Audit of Traffic Management of Work Sites, refer to Appendix C in Section H: Appendices of this Code.
  - The Engineer has the authority to suspend the Site Traffic Management Supervisor (STMS) and remove all Traffic Controllers (TC) from the site without advance notice where a serious noncompliance with the TMP is found, or the STMS and/or the TC has been found to be acting outside the requirements of this Code. The activity is to be stopped and the site made safe immediately;
  - If, after a safety audit, a site is found to have a "Dangerous" rating, then the Contractor's STMS is to be issued with a Notice of Non-Conformance. Appendix F gives a typical standard format for a Notice of Non-Conformance. The frequency of monitoring the site should then be increased;
  - Persons conducting audits must have received training in, and have a thorough understanding of, the principles and practices of Safety Auditing and this Code of Practice, to ensure they are competent to carry out this work.
  - Sending copies of any Notices of Non-Conformance to Transit's Training and Education Manager.
- To require an activity to be stopped, where corrective action resulting from a Notice of Non-Conformance is not achieved within the required timeframe.
- To approve temporary speed limits when delegated to do so by the RCA.
- To fulfil legal responsibilities under relevant legalisation.
- To report on the performance of a Contractor or site operator. The report will cover the performance assessment of temporary traffic management and should include a summary of public delays, inconveniences and complaints.

(continued on next page)



- 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 temporary traffic management 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.

## A4.2.3 Contractor Responsibilities

## A4.2.3.1 General

Contractors are responsible for:

- Ensuring they have the authorisation of the RCA to work on the road;
- Ensuring they have an approved, accepted TMP before starting any work.
- Preparing accurate TMPs that reflect the site conditions, in accordance with this Code of Practice and any contractual requirements or RCA authorisation conditions;
- Ensuring those preparing TMPs are trained STMSs for the level of TTM for the road on which the activity will take place;
- Obtaining approval for timing etc, from the Traffic Management Co-ordinator 2 days prior to commencing work (refer Section A4.8);
- Implementing approved TMPs;
- Operating in terms of the traffic regulations and the requirements of the road code;
- Ensuring the safe and efficient movement of all road users through and around the site, particularly cyclists and pedestrians. Adequate resources must be reasonably available to make changes to the temporary traffic management should site conditions require changes to be made;
- Ensuring that all temporary speed limits 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 more than 5m from edge line;
- Retaining a record of training and work 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 site. Refer Section A5: Training;
- Suspending any STMS issued with two Notices of Non-Conformance within a three-month period from temporary traffic management supervision duties. A suspended STMS will be required to undergo re-training 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;
- Recording details of regular inspections/audits of temporary traffic management measures;
- Fulfilling their legal responsibilities under relevant legislation;
- Reporting on crashes at work sites.



# EXPLANATORY NOTE - Accident or Crashes at Work Sites and OSH (Refer Section: A4.2.3.2)

In the event of an accident or crash occurring at a work site the Contractor or STMS may be required to demonstrate to OSH that they have properly advised all personnel of all hazards at the site. Refresher courses should be held regularly, including those prior to any significant changes in temporary traffic management.

In terms of this Code and the HSE Act 1992 and the HSE Amendment Act 2002 a crash is defined as any incident resulting in damage to installed Temporary Traffic Management equipment, vehicle damage or injury to a person. In terms of the HSE Act and Amendment any crash resulting in a serious harm accident must be reported to OSH as soon as the accident becomes known to either by an:

- Employer, or
- Self Employed, or
- Principal

Within 7 days after the occurrence (or as soon as possible after it becomes known) an Employer, Self employed or Principal must notify OSH in writing of the circumstances of the serious harm accident.

Serious harm, means death, or harm of a kind or description declared by the Governor General by Order in Council – ie injury that results in permanent loss of function, amputation, burns, loss of consciousness and/or harm that requires a person to be hospitalised for a period of 48 hours or more within 7 days of the accident.

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.



## A4.2.3.2 Crashes at Work Sites

The Contractor shall record all crashes at work sites, and within 24 hours of any crash, brief the Engineer or RCA on the details of the crash, including the following:

- A copy of the signed and approved TMP for the work site;
- Details of the incident including a diagram showing the layout of the work site 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.



# EXPLANATORY NOTE - Alteration of Traffic Management Measures (Refer Section A4.3.2)

It is possible that the Police, RCA or Engineer could instruct that changes to the traffic management measures be made immediately. Any changes that are made shall be documented on the TMP for the site and the TMC informed within 24 hours.

### A4.3 Traffic Controllers and Site Traffic Management Supervisors

#### A4.3.1 General

Appropriately trained and qualified Traffic Controllers (TC) must carry out temporary traffic management duties on all work sites. Traffic Controllers (TC) with on site management responsibilities must qualify on a Basic Temporary Traffic Management Training (TTM) Course. The head Traffic Controller is called the Site Traffic Management Supervisor (STMS) and that person has responsibility for traffic management at the work site.

#### A4.3.2 Responsibilities of the STMS

The STMS must have delegated responsibility to postpone, cancel or modify work site operations.

On Level LV and Level 1 roads a qualified worker or foreman may have a dual role as STMS. The STMS is restricted to managing a maximum of 6 attended sites. For Level LV roads the STMS must be within 60 minutes travel time of all the sites. On Level 1 roads the STMS must be on site or within 30 minutes travel time of the sites.

For mobile operations and short-term operations, which do not require more than 5 personnel in total to satisfactorily undertake the work, the STMS may also undertake other aspects of the work.

On Level 2 and Level 3 roads the STMS's responsibilities must be limited to temporary traffic management and activities of Site Safety Officer. The STMS must be present at an active site at all times. However, when the STMS is undertaking an audit of the site, the STMS may be away for up to 30 minutes.

The STMS must be present for the establishment, removal and alteration of temporary traffic management measures at all sites they are in charge of.

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

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

- Arrange on site meetings for discussions concerning temporary traffic management measures at:
  - the start of each set-up,
  - on a regular basis (eg daily), and
  - each change of a temporary traffic management measure due to a change in site conditions;

(continued on next page)



- Ensure all personnel and visitors on site are wearing compliant high visibility clothing in accordance with Section B3: High Visibility; Garments, and any other safety equipment required by the activity;
- Brief all those entering the site on the safety hazards and the safety procedure to be followed.;
- Record and notify the RCA or Engineer as appropriate of all crashes at the site and any complaints about the temporary traffic management;
- Record and inform the RCA or Engineer immediately of any modifications to temporary traffic management measures not included in the approved TMP. Any modifications must be in accordance with this Code of Practice;
- Implement contingency plans when excessive traffic delays, emergencies or weather conditions or other factors occur;
- Ensure that they can be contacted by mobile phone or two-way radio at all times, 24 hours a day, for the duration of the installation, maintenance and removal of temporary traffic measures at the site;
- Ensure, where shift work is involved, the STMS for the next shift is briefed (at the site) on the temporary traffic management and inspection requirements before assuming responsibility;
- Ensure that the Traffic Controller (TC) is briefed on the temporary traffic management requirements of the site before handing control of the site to the TC. This briefing must documented;
- Ensure that persons on the worksite operate in terms of the traffic regulations and the requirements of the road code.
- To monitor traffic queues and delays;
- Ensure that all corrective action resulting from the issue of a Notice of Non-Conformance is undertaken within the required timeframe.

#### A4.3.2.1 Authority of 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 site. The STMS cannot amend TSLs without prior approval of the RCA or the Engineer;
- Order people off the work site for issues of non-compliance or safety.

#### A4.3.3 Site Safety Briefing

Prior to work commencing, the Contractor should ensure that everyone with an involvement with the work at the site have been briefed by the STMS and/or the Safety Officer on identified hazards and the temporary traffic management requirements for that site, including safety zone requirements and their limitations. This should include the staff of subcontractors, the Engineer, their representatives, and the Principal. All people arriving on site



after work has commenced shall be briefed by the STMS before proceeding around the site.

Use should be made of the approved TMPs to explain the work site hazards, site driving and parking requirements. The method of entering and leaving the site areas should also be explained. The Contractor should keep a record of induction courses held, who attended and the temporary traffic management configuration(s) explained.

## A4.3.4 Identification

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. All other TCs must wear the standard high visibility garments detailed in Section B3: High Visibility Garments.

## A4.4 Responsibilities of the TC

On **Level LV** and **Level 1** roads a certified TC may take the role of an STMS with respect to the establishment, removal and alteration of temporary traffic management measures under the following conditions:

- the TMP must be designed by an STMS,
- the STMS must brief the TC in charge of the site on the temporary traffic management requirements,
- the site must be inspected, at least on a daily basis, by the STMS, and
- all the above actions must be documented by the STMS.

While acting as the STMS a TC may also perform their normal duties, eg. foreman, grader driver, etc.

For mobile Operations on **Level LV** and **Level 1** roads a certified TC may take the role of an STMS with respect to the establishment, operation and removal of temporary traffic management measures under the following conditions:

- The total activity including any pilot vehicles required must be clear of the carriageway and at least 2m clear of the edgeline on Level 2 roads.
- The TMP must be designed by a STMS.
- The STMS must brief the TC in charge of the site (activity) on the temporary traffic management requirements.
- All the above actions must be documented by the STMS.

## A4.4.1 Authority of TC

When a TC has control of a site under the conditions stated in Clause A4.6 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 site;
- Allow in and order people off the work site for issues of non-compliance or safety.



#### A4.5 Site Personnel Responsibilities

Individual site personnel are responsible for ensuring they comply with:

- Wearing of high visibility garments in accordance with Section B3: High Visibility Garments;
- The requirements in the approved TMP;
- The instructions given by the appointed STMS or TC if the STMS is not present;
- The specific responsibilities of Section 19 of the Health and Safety in Employment Act 1992;
- The requirements of the traffic regulations and the road code.

All site personnel should be aware of the general configuration of signs and devices, and should report any defect to the STMS.

#### A4.6 Traffic Management Co-ordinator (TMC)

The TMC shall hold a qualification level appropriate to the highest level of road within the network area for which they are responsible.

The TMC (or RCA) may refuse to allow any TMP to be implemented where they consider it to be unsafe, or in contravention of this code, or where reasonable alternatives may exist that may be safer, or cause less traffic delay. Brief reasons shall be given.

The contractor or applicant must notify the TMC of the proposed road activity and request permission to proceed. Notification shall be in the form of a letter, fax or email at least two working days in advance of the activity commencing. A copy of the signed and approved TMP for the activity must be provided. Where different Contractors notify the TMC of conflicting road requirements for different activities, the first notification received will generally be given approval to proceed unless the priority of another activity is deemed more important by the RCA.

The TMC is responsible for:

- Receiving a copy of the approved TMP, including EEDs and TSLs where applicable;
- Co-ordinating all activities so that there are no conflicts between Contractors wishing to operate on the same section of road;
- Notifying the AA, emergency services, RCA, media, public transport operators etc. where the activity is likely to cause disruption to these organisations or their clients.



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## **EXPLANATORY NOTE - Training (Refer Section A5.1)**

The requirements for training are stated and are implicit in the Health and Safety in Employment Act 1992 - Part II Clause 13:

Duties of Employers in relation to Training and Supervision

- **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.

## EXPLANATORY NOTE - Certification of Traffic Management Training Courses (Refer Section A5.2)

Many organisations are offering training courses for different types of traffic management. Some of the courses being offered are Transit New Zealand Certified Training Courses, and others are partly certified or have no certification at all. Due to this wide range of training courses the certificates of attendance and achievement are generally of a non-standard and varied format. The procedures in A5.3 will ensure that training is to an approved standard, consistent throughout New Zealand.



## A5 TRAINING

## A5.1 General

All personnel who are involved in:

- Submitting and approving TMPs;
- Installing, maintaining or removing temporary traffic management measures;
- Inspecting or auditing temporary traffic management measures.

must have current training to the appropriate level of competency for the task and the Level of traffic management required. Personnel without supervising responsibilities are not required to undertake formal training but it is recommended that they receive in house training based on a curriculum similar to the Basic Traffic Controller (TC). Refer to Section A5.3.1 and A5.3.3.

## A5.2 Certification of Temporary Traffic Management Training Courses

Transit New Zealand (Transit) is the certifying organisation for all training courses for all **Levels** of temporary traffic management.

As such Transit is tasked with:

- Development of training curriculum's;
- Certifying of course tutors;
- Auditing of training courses;
- Issuing of certificates of achievement;
- Maintaining a database of trained people;
- Issuing and withdrawing wallet cards.

Transit New Zealand will hold "Train the Trainer" workshops. Suitably qualified 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. Trainers will be certified to teach:

- Basic TC and STMS for Level 1 courses, and
- STMS (NP) for Level 2 and Level 3 courses.

Only a limited number of trainers will be trained and certified to teach **Level 2** and **Level 3** TTM courses and to carry out practical field assessments for the **Level 2** and **Level 3** STMS qualification.

## A5.3 Levels of Training

The following paragraphs detail the extent of training, the **Level** of temporary traffic management to which that training applies, and who requires that training to undertake activities related to traffic management.



All qualifications lapse after a period of time and the holder can no longer fulfil the role. Attendance at a refresher course, as described below, is required which are only available for up to 12 months after the qualification has lapsed. After 12 months attendance at a full workshop is required to re-qualify.

Qualification	Lapse Period and Required Action	
Level 1 Basic - Traffic Controller (TC) Level 1 Site Traffic Management Supervisor (STMS)	The qualification lapses <b>36 months</b> from the date of passing the course assessment. Holders can renew their qualification at a refresher workshop to reconfirm their knowledge and update with current practice.	
Level 2 and 3 Site Traffic Management Supervisor - Non- Practicing (STMS NP)	The qualification lapses <b>24 months</b> from the date of passing the course assessment. Holders can renew their qualification at a refresher workshop to reconfirm their knowledge and update with current practice.	
Level 2 and 3 Site Traffic Management Supervisor (STMS)	As above and re-sit a practical field assessment <b>or</b> if a regularly practicing Level 2/3 STMS production of evidence of recent activity (eg last 5 TMPs) may be accepted by Transit's Training and Education Manager.	

## **Table A5.1: Refresher Training Requirements**

## A5.3.1 Level 1 Basic – Traffic Controller (TC) Training

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

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

- All RCA project staff;
- All Engineer's project management, design and site supervision staff;
- All Contractor's on site management staff including Site Managers, Site Forepersons and Leading Hands, those who establish, manage and de-establish a worksite without an STMS present, provided the following conditions are met:
  - The TMP is prepared by an STMS;
  - The Basic TC is fully briefed by the STMS and this is documented;
  - The STMS carries out a daily inspection of the site, and this is documented.

Additional training may be required to operate specialist temporary traffic management equipment. The Basic TC training is not mandatory for Manual Traffic Controllers (MTC) but they must be trained by the site STMS to carry out their function.

## A5.3.1.1 Type of Course

This is a one-day workshop with an assessment at the end. Attendees must achieve an 60% pass of the theoretical assessment to gain the qualification. Those who pass the course can apply through their trainers to receive a certificate of achievement and a wallet card that will be issued by Transit. Those who undertake supervising responsibilities in the absence of the STMS must be certificated and registered on the Transit TTM database.

## A5.3.2 Level 1 - Site Traffic Management Supervisor (STMS) Training

This is the highest qualification for this level of traffic management. People attending this course must hold a current **Level 1 Basic – Traffic Controller (TC)** certificate for a minimum of one calendar month.

This qualification enables the holder to:

- Prepare TMPs;
- Check and approve TMPs, prepared by others;
- Undertake the duties of a STMS for Level 1 TTM;
- Undertake safety audits of TTM of worksites for Level 1 TTM.

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

- All RCA Project Managers;
- All Engineer's staff who:
  - prepare contract documents
  - check and approve TMPs
- All Engineer's project management and senior site supervision staff;
- All Contractor's staff who:
  - prepare TMPs
  - will undertake the duties of the STMS for Level 1 TTM
- All Contractor's project management staff;
- All Safety Auditors who will undertake safety audits of temporary traffic management at work sites;
- Others who will undertake similar work for this Level of road.

Additional training may be required to operate specialist temporary traffic management equipment.



## A5.3.2.1 Type of Course

This is a two-day workshop with an assessment at the end. Attendees must achieve an 60% pass of the theoretical assessment to gain the qualification. Those who pass the course can apply to Transit through their trainers to receive a certificate of achievement and a wallet card.



Figure A5.1: Level 1 Training Diagram

# A5.3.3 Level 2 and 3 – Site Traffic Management Supervisor – Non Practising (STMS NP) Training

This is the highest theoretical qualification for this level of traffic management. People attending this course must hold a current **Level 1 Site Traffic Management Supervisor (STMS)** certificate.

This qualification enables the holder to:

- Prepare TMPs;
- Check and approve TMPs prepared by others;
- Undertake safety audits of temporary traffic management of work sites for Level 2 and Level 3 TTM.

Those who must hold this qualification are:

- All RCA Project Managers;
- All Engineer's staff who:
  - prepare contract documents
  - check and approve TMPs
- All Engineer's project management and site supervision staff;
- All Contractor's staff who prepare TMPs;
- All Contractor's project management staff;
- All Safety Auditors who will undertake safety audits of traffic management at work sites;
- Others who will undertake similar work for this Level of TTM.

Additional training may be required to operate specialist equipment such as truck mounted attenuators and arrowboards.

## A5.3.3.1 Type of Course

A two-day workshop with an assessment at the end. Attendees must achieve an 60% pass of the theoretical assessment to gain the qualification. Those who pass the course can apply to Transit NZ through their Trainers to receive a certificate of achievement and a wallet card.

At this stage of the qualification the attendees may be responsible for all aspects of temporary traffic management except for field operations involving installation, alteration and removal of temporary traffic management equipment. Level 2 and Level 3 Site Traffic Management Supervisor – Non Practising (STMS NP) certificate will not include the STMS warrant. To become a fully qualified Level 2 and Level 3 STMS, and hence be able to undertake full responsibility for all aspects of temporary traffic management, the applicant must undertake and pass a field assessment.



## A5.3.4 Level 2 and Level 3 - Site Traffic Management Supervisor (STMS) Training

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

The practical assessment for this qualification must be undertaken within 9 months of passing the Level 2 and Level 3 Site Traffic Management Supervisor – Non Practising (STMS NP) course and candidates must have at least 3 months practical experience as an STMS on Level 2 or Level 3 work sites 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 should be made in writing to the:

Training and Education Manager Transit New Zealand PO Box 5084 Wellington Phone: +64 4 499 6600.

This qualification enables the holder to:

- Prepare TMPs;
- Check and approve TMPs prepared by others;
- Undertake the duties of STMS for Level 2 and Level 3 TTM;
- Undertake safety audits of temporary traffic management of work sites 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 work for this Level of TTM.

Additional training may be required to operate specialist equipment such as truck-mounted attenuators.

## A5.3.4.1 Type of Course

A practical field assessment must be undertaken after a minimum of 3 months field operations under the guidance of a fully qualified STMS. On passing the field assessment, the applicant will become a fully qualified **Level 2** and **Level 3** STMS and can apply to Transit NZ to receive an STMS wallet card.





Figure A5.2: Level 2 and 3 Training Diagram



## A5.4 Certification and Registration

All persons who are certificated will have their qualification registered on the Transit Temporary Traffic Management Database. There will be a small cost for the registration process. All those who were registered will receive a certificate and wallet card.

## A5.5 Training Courses

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

Stuart Fraser Training and Education Manager Transit New Zealand P O Box 5084 Wellington



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## **EXPLANATORY NOTE - Definition of a Road (Refer Section A6.1)**

A road in terms of the requirement to design, install and maintain temporary traffic management measures is defined as the road reserve. This is the portion of land from boundary line to boundary line or commonly from fence line to fence line.

For "Private Roads", such as those on Port Authority land, within public car parks and Airport Authority land etc., the road shall be defined as the portion of land set aside for the use of road users, including pedestrians and cyclists.

## A6 TRAFFIC MANAGEMENT PLANS

## A6.1 General

A Traffic Management Plan (TMP) is a document describing the nature and extent of temporary traffic management at a work site and how road users (including pedestrians and cyclists) will be managed by the use of temporary traffic management measures. TMPs detail the measures to ensure safety for all people involved in the activity.

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. TMPs are also needed for activities outside the road reserve, which will affect the normal operating conditions of the road. Note that TMPs may be required for various phases of an activity depending on the size, duration and location of the work site(s).

## A6.2 Application Procedure to Work on the Road

1	The Contractor applies to the RCA or their representative for consent to carry out the activity within the road reserve
2	The RCA or their representative gives or denies consent for the activity
3	The Contractor prepares a TMP in accordance with this Code of Practice
4	The Contractor submits the TMP to the RCA or Engineer with delegated authority within the timeframe specified
5	The Contractor applies for a TSL by submitting an application for TSL with the TMP
6	The RCA or Engineer with delegated authority acknowledges the receipt of the TMP, to the Contractor, within 24 hours of receiving the TMP
7	The RCA or Engineer, who must be independent of the preparation of the plan, checks the TMP in terms of all of the requirements of this Code of Practice. The RCA or Engineer then returns the TMP to the Contractor/Applicant, within the timeframe specified, with notification of whether the TMP is approved or requires amendment. If an amendment is required the Contractor/Applicant must resubmit the TMP. <i>Approval must be obtained prior to commencing the activity</i>
8	The Contractor/Applicant notifies the TMC at least two working days in advance of the works being undertaken.
9	The TMC notifies the Contractor/Applicant as to whether they can proceed with the activity at the requested time



## EXPLANATORY NOTE - Example of Typical Engineering Exception Decision (Refer Section A6.4.)

*Name of RCA – Network Description such as* Northern Canterbury State Highways Network

## Temporary Traffic Management Engineering Exception Decision No x

*This* Engineering Exception Decision (EED) relates Temporary Traffic Management (TTM) activities that are undertaken by State Highway Network Maintenance Contractors in the *Northern Canterbury* area. The EED is required where the TTM is at variance with the minimum requirements shown in the Transit New Zealand Code of Practice for Temporary Traffic Management (COP for TTM). The amendments required by EED No x are as follows:

## 1. Snow Clearing Operations (Refer the COP for TTM - C3.4)

## • The Problem

The following activities involve the treatment of changes to the road surface condition during winter that could affect the skid resistance of the road surface and hence require rapid intervention to treat the surface condition to restore skid resistance. For snow clearing operations on a section of road that is, open to traffic, and would require the use of a Forward Pilot vehicle for normal road conditions, to employ this vehicle could be a danger to the operator due to adverse surface conditions, i.e. snow and lack of surface grip prior to treatment. The requirement for a forward pilot vehicle is waived. The number of road users on the road at times when this type of operation is being undertaken has been shown to be very low and because of the inclement weather and road conditions, the operating speeds are slower that normal.

• The EED

For snow clearing operations on a section of road that is, open to traffic, and would require the use of a Forward Pilot vehicle for normal road conditions, the requirement for a forward pilot vehicle is waived due to the danger to the operator of such a vehicle being exposed to untreated sections of the road.

## **Engineering Exception Decision No x** – Agreed By

Signed for and behalf of (Insert Contractors Name)

By \_

(Insert Contractors Name)

(Insert Name)

Date

This EED must be attached to and form part of any Traffic Management Plans for this type of activity and will expire on (Insert date 12 months on).

<u>Engineering Exception Decision No x</u> – Approved By
Signed for and behalf of
RCA

By \_\_\_\_\_ (Designation) Acting pursuant to delegated authority

Date



## A6.3 Traffic Management Plan Principles

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

- The TMP shall be consistent with this Code of Practice
- Traffic management measures shall treat the hazard(s) created by the activity in the following order of priority:
  - elimination
  - isolation
  - minimisation

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

- The TMP shall be designed and prepared by an STMS trained and qualified to the level of TTM required by the RCA for the activity.
- The activity and associated TTM shall 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 shall be separated from road users wherever possible.
- The temporary traffic management measures proposed shall not be over restrictive nor use an excessive number of signs.
- TSLs shall 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 Section C4: Temporary Speed Limits.
- Some on site activities will require multiple TMPs (or variations) to cope with the various work phases, including unattended sites.

## A6.4 Engineering Exception Decisions (EEDs)

Variations to the requirements of the Code of Practice may be considered if the road environment constraints make the design and installation of temporary traffic management impractical and/or unreasonable.

Any variation to the Code of Practice shall be in terms of a written "Engineering Exception Decision" (EED) statement. The EED statement shall describe:

- the road environment constraints;
- why complying traffic management should not be installed;
- measures to ensure that safety is not compromised by the proposed variation to the TTM as stated in the EED.

The EED shall be approved and signed by both the RCA (or their delegated agent) and the Contractor and shall be attached to and form part of the TMP for the activity.

The EED must be consistent and must be applied to all work on that road.

The EED must be applied across boundaries where applicable.



## EXPLANATORY NOTE - Application of an EED to a Road Section (Refer Section A6.4)

On certain sections of a road due to constraints of the road environment it may be necessary to develop an EED that:

- Applies to the total road section or a length of a road;
- Applies to a range of specific activities on that road section;
- Will be in place on that road section for a set time period (usually restricted to a maximum of 12 months).



## A6.5 Contents of Traffic Management Plans

The requirements indicated in this Code are a minimum. Adaptations for other layouts are to be based on the nearest appropriate standard configuration. Elements from two or more layouts may be required to produce the required design. The layout drawing must be to a standard to enable the STMS to install the equipment correctly, be fit for purpose, to provide protection for the activity and shall allow for any site constraints. The layout examples shown in this document should be used as a guide only and where conflict appears to occur between the example and the text or tables then the text or tables take precedence.

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

- Activities near intersections and where there are many turning and manoeuvring movements;
- Where there is pedestrian and cyclist;
- On or Off-Ramps;
- Activities adjacent to rail crossings (Toll NZ Consolidated Limited (ex TranzRail), Track and Structures office to be consulted).

The Site Specific requirements for TMPs, a blank TMP form and the "Schedule of Specific Job Requirements for Traffic Management and Safety" form are contained in Appendix A.

#### A6.6 Generic Traffic Management Plans

Activities that are repetitive may have generic TMPs developed to cover typical situations for different locations. Such activities include, but are not limited to, utility services, maintenance contractors and mobile operation activities. It should be noted that a generic TMP may not be appropriate for every situation and it is the responsibility of the Contractor, RCA and the Engineer to check for this.

Generic TMPs must only be issued for a time period, as specified by the RCA, before which they must be renewed. The maximum time period a generic TMP may be granted for is 12 months.

The RCA must be notified of the location, date and time of the works to be undertaken and any temporary traffic management measures that may be different to the generic plan due to site-specific conditions.



## EXPLANATORY NOTE – Other Personnel (Refer Section A6.8)

It is recognised that a wide variety of people may be given authority to carry out activities on the road. In all cases the RCA (or their delegate) or the Engineer are the only people permitted to approve a submitted TMP.

## A6.7 Recommended Response Times

The TMP should be submitted in time to allow for any changes required by the RCA or Engineer to ensure the TMP meets the requirements of this Code of Practice.

Table A6.1 shows the time frames for the submission, review, and approval of TMPs for short-term, mobile and long-term activities.

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	Level 2 and 3	5	3
Long Term Operations	Level 2 and 3	10	5

## Table A6.1: Submission and Acceptance Times of Traffic Management Plans

\* 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.

## A6.8 Formal Approval

On completion of any required consultation, and resolution of any difficulties, the RCA or Engineer with delegated authority shall formally approve the TMP. The individuals responsible for this shall be independent of the preparation of the TMP, have received the training from a Transit New Zealand certified training course for this purpose, and be delegated the authority by the RCA as suitable to approve such plans on their behalf.

A copy of the signed and approved TMP shall be returned to the Contractor, together with the approved application for a TSL where applicable.

## A6.9 Availability of Traffic Management Plans

A copy of the signed and approved TMP must be available on site at all times when the site is occupied, and be available for inspection by the RCA, Engineer, Police or OSH.



## A6.10 Emergency Situations Not At A Planned Work Site

Temporary traffic management used in unforeseen emergency situations should comply with the practices in this Code of Practice as far as practicable.

Emergencies are often dealt with initially by the police and/or other emergency services. If assistance is requested temporary traffic management measures may be installed without a prior approval from the RCA.

Police may direct a contractor to alter or remove temporary speed limits. 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.