



SP/M/010
Code of Practice for Temporary Traffic Management (CoPTTM)
Third Edition – Update Note December 2009

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Date of Issue:	November 2010

Circulation	Regional Operations Managers, holders of the Code of Practice for Temporary Traffic Management and Transit website. Please forward to your consultants and contractors
Objective	To update the November 2004 version of the Third Edition of the Code.
Effective Date	December 2009
Status	This document is a guideline for use by the roading industry, road controlling authorities, network utility operators and event holders.
Implications	Some major changes are included in this update. These will also be included in the new edition of CoPTTM.
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Additional Copies	These may be downloaded from NZTA’s website, free of charge or purchased direct from our distributor via the website.

Yours sincerely

Dennis Davis
 Traffic and Safety Manager

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
A4.3.2	<p>Responsibilities of the STMS</p> <p><i>When the level 2/3 STMS can take another role</i></p> <p>On level 2 and level 3 roads the STMS responsibilities must be limited to TTM and activities of site safety officer. The only permitted exceptions to this rule are:</p> <ul style="list-style-type: none"> • mobile operations • short-term static closures which require no more than five people to perform the activity. <p>In the above situations the STMS may also perform a work function within the closure, providing that this does not interfere with the duties of the STMS which must always take first priority.</p> <p><i>When the level 2/3 STMS must be on site</i></p> <p>The STMS must be present at an attended worksite at all times except during a drive through when the STMS may need to leave the site to gain access to the front of the site. In this case the STMS may be away from the worksite for up to 30 minutes. Exceptions to this rule are as follows:</p> <p><i>Shoulder closures</i></p> <ul style="list-style-type: none"> • an STMS is permitted to control up to four attended shoulder closure worksites on level 2 and level 3 roads at any one time subject to the following <ul style="list-style-type: none"> - an STMS remains within 30 minutes of all worksites - a person with a minimum qualification of STMS-NP be present and take charge of each attended worksite - that STMS-NP must have been briefed by the STMS, and - the STMS must be present for the set up, alteration and removal for each of the worksites. <p><i>Capital projects</i></p> <ul style="list-style-type: none"> • An STMS is permitted to control all worksites for a capital project at any one time subject to the following: <ul style="list-style-type: none"> - the STMS remains within 30 minutes of all worksites - that a person with a minimum qualification of STMS-NP be present and take charge of each attended worksite - that STMS-NP must have been briefed by the STMS, and - the STMS must be present for the set-up, alteration and removal for each of the worksites. <p><i>Unattended worksites</i></p> <p>The STMS must limit the number of unattended worksites they are responsible for subject to their ability to satisfactorily perform all their duties to the required standards at all times.</p>	Clarification

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
A6.4	<p>Engineering Exception decisions (EEDs) 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) NZTA National Office Private Bag 6995 Wellington Phone +64 4 894 6355</p> <p>RCA staff and their representatives may forward any generic EEDs to the above address for information and/or feedback if appropriate.</p>	Clarification
B1.2.2(c)	<p>Level 2 and 3 roads <i>Warning and Regulatory Signs for Narrow Shoulders and Medians</i></p> <p>Where shoulders and medians are less than 1.2 m in width contractors may, with RCA permission, use a 900mm warning or regulatory sign including a speed limit.</p>	Relaxation
B1.4.2	<p>RG-17.1 and RG-34.1 signs Where road width restraints may cause a hazard when RG-17/34 signs are used, RG-17.1 and RG-34.1 twin disk signs may be used.</p>	Clarification
B2	<p>Semi-permanent tubular delineators (safe posts, safe hit posts) Semi-permanent tubular delineators may have a fixed or weighted base. They must:</p> <ul style="list-style-type: none"> • be at least 100 mm wide when viewed from any approach • have the standard pattern of retro-reflective tape, and • be capable of returning to their original shape after impact (unless dislodged from its base) • not use a method of fixing that will damage the pavement surfacing. 	New device
B2	<p>Cone bars These are light weight, striped orange and black plastic poles with rings at each end to connect cones together. They may be used on sites where workers are in attendance to provide a channel for pedestrians. These may be used for guidance but must not be used to replace a safety fence.</p>	New device
B10.2	<p>Vehicles The support vehicle weights for attenuator systems mounted on trucks is as follows:</p> <ul style="list-style-type: none"> • Traffix Scorpion 10,000A TL2 – 6,400kg (- 400) • Energy Absorption Alpha 70 TL2 – 6,400kg (- 400) • U-MAD 70 TL2 – 9,000kg (- 400) 	Clarification

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
B11.2	<p>Non-compliant plastic water filled fences and barriers</p> <p>Plastic water filled fences and barrier delineators that do not comply with the requirements of NZTA M/23, must not be used as barriers. However, plastic water filled fences and barriers may be used as a safety fence under the following conditions:</p> <ul style="list-style-type: none"> • The design and installation must comply with the requirements of CoPTTM • Must be separated from any live lane by a minimum of a 1.0 m lateral safety zone and a row of cones at the appropriate spacings • Must only be used in less than 65km/h speed environments. 	Clarification
C2 Site Layout	<p>For Level 2 and 3 TTM the layout of the approach signing and the initial taper must be based on the permanent speed limit.</p> <p>Any subsequent tapers and the remainder of the worksite is based on the temporary speed limit. Refer to reference parameter (I) of Tables C2.3 and C2.4, for Level 2 and Level 3 roads.</p>	Clarification
C2.4 and C2.5	<p>Layout distances for Level LV, Level 1 and Level 2 for Traffic Management</p> <p>As part of the preparation for the amalgamation of the Local Roads Supplement with CoPTTM it was agreed at the November 2008 IRG meeting to combine the Level 1, Level LV and Local Roads layout distances tables into a single table.</p> <p>For Level 2 layout distance Table there are relaxations for 50 and 60km/hr layouts</p> <p><i>See table attached for Level 1 Site layout distances (includes Local Roads and LV) and the revised Level 2 table</i></p>	Clarification

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
C4	<p>Roadworks on side road close to intersection When roadworks on a side road are close to intersection the TSL is often placed on the main road. This can cause unnecessary disruption for traffic travelling on the main road. Where there is a 90 degree turn that will slow turning vehicles to approximately 20km/h the following formulae may be used.</p> <p><i>Location of TSL on the intersection of a side road 50km/h or less</i> Provided a TSL can be placed 15 m from the intersection and 15 m from the worksite taper (total of 30 m) a TSL would not be required on the main road.</p> <p><i>Location of TSL on the intersection of a side road 60km/h</i> Provided a TSL can be placed 15 m from the intersection and 25 m from the worksite taper (total of 40 m) a TSL would not be required on the main road.</p> <p><i>Location of TSL on the intersection of a side road 70km/h or more</i> Provided a TSL can be placed 15 m from the intersection and 40 m from the worksite taper (total of 55 m) a TSL would not be required on the main road.</p>	Innovation
C5.3	<p>Placement of cones and delineation devices On approaches to worksites on all Level 2 and 3 layouts cones must be installed along the edgeline, from the Temporary Speed Limit sign to the start of the taper or hazard area where no taper is installed.</p> <p>Where the edgeline is well defined (ie by a clean kerb and channel, etc) this line of cones is not required.</p>	Clarification

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
C5	<p>Parking of vehicles, plant and materials No vehicles, plant or materials are to be left at an unattended site in any of the safety zones including the taper, nor should these items be placed on curves or any similar place where they may be struck by an out-of-control vehicle.</p> <p>Sites with permanent speed limit under 65 km/h For unattended worksites on roads with a permanent posted speed limit of less than 65 km/hr which require Level Low Volume, Level 1 or Level 2 TTM the following applies to the parking of plant:</p> <ul style="list-style-type: none"> • Where possible (reasonably practicable) all plant shall be parked at least 5 m outside the edge line and on the same side of the road as the work site. • Where this is not possible plant may be parked in what is normally a parking area subject to the following conditions:- <ul style="list-style-type: none"> ○ The plant must be registered for on road use ○ The plant must be parked on the same side of the road as the work site ○ Plant must not be parked on a central median ○ The location where the plant is to be parked must have at least Clear Sight Distance (3 x the posted speed limit in metres) visibility for approaching road users ○ A shoulder closure with advance warning signs, temporary speed limit if required by site conditions, a cone taper with an RG-34 sign at the head of the taper, cones along the site and parked plant and lateral and longitudinal safety zones must be installed around the parked plant ○ The plant should if possible be parked under street lighting ○ The parking of in such plant should be subject to the RCA approval via a signed TMP. <p>Sites with permanent speed limit over 65 km/hr</p> <ul style="list-style-type: none"> • All plant shall be parked at least 5 m outside the edge line and on the same side of the road as the work site. 	Clarification / Relaxation

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
C8.2 Lane closures	<p>Use of MTC or portable traffic signals in a lane closure</p> <p>For the purpose of construction or re-construction of an existing road surface or during final trimming, where a single lane operation is required the traffic must be separated by:</p> <ul style="list-style-type: none"> • cones or similar form of delineation, and • using manual traffic controllers, portable traffic signals or priority give-way signage (RG-19.1 and RG-20). <p>Where the traffic is not separated from the work area by delineation, for example during final trimming of the running surface prior to surfacing :</p> <ul style="list-style-type: none"> • the construction equipment must stop and work cease while traffic is moving through the site. • Each work vehicle must be fitted with a TW-34 'Pass with Care' sign, and • At all times construction equipment must travel in the same direction of normal traffic <p>Even though the machinery is stopped it may be necessary to provide a pilot vehicle to lead traffic through the site.</p>	Clarification
C10.3.4 Diagrams E2.5 and F1.4	<p>Wider cone spacings for lane delineation during sealing and resealing activities</p> <p>For chip sealing and resealing activities under MTC control with an installed 30km/h TSL the following cone spacings may be used in the lane delineation:</p> <ul style="list-style-type: none"> • 5m spacing can be increased to 10m spacing. • 10m spacing can be increased to 20m spacing. <p>Note: This above exemption applies only to full width chip sealing and resealing sites. It does not apply to chip sealing of patch repairs. It does not apply to the cone spacing in tapers.</p>	Relaxation
C13.3	<p>Temporary paths and detours</p> <p>Wherever cycle lanes are installed on an existing road they must be replaced with alternative lanes if the normal cycle lane is required for roadworks.</p> <p>Where, because of road environment constraints, there is no room for a temporary cycle lane a TSL and threshold treatment must be applied to enable the cyclists to merge into the traffic lane.</p> <p>A CYCLE LANE CLOSED (number to be allocated) sign must be used to alert cyclist to the merge ahead. A TW-2.16.1 CYCLISTS AHEAD sign followed by a 30 TSL must be used in advance of the merge to alert motorists.</p> <p>The merge must be coned. <i>See diagram attached.</i></p>	Clarification / Change

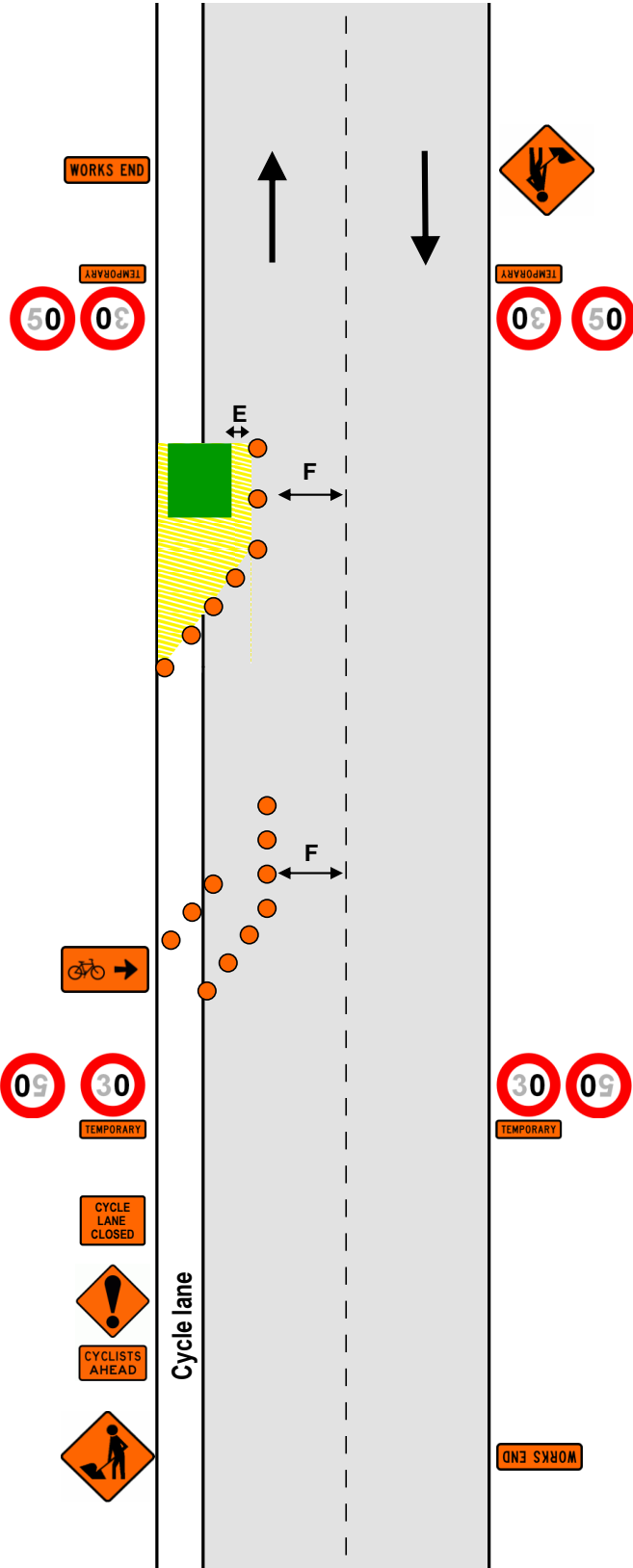
Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
D1.5(h)	<p>Vehicle mounted traffic signs</p> <p>Truck mounted attenuators fitted with the new rear display including the light arrow board, the xenon light system and the red and white rear panels are not required to have a traffic sign as detailed in D1.5</p> <p>Also refer to Update Note December 2005 Clauses D1.5, D 5.2 (4 a & b) & D5.3 (4)</p> <p>If a vehicle in a Mobile operation is fitted with an operating arrow board the requirement to have a TW-34 “Pass with Care” sign complete with RG -17/34 roundels is waived. However the supplementary plate “Pass with Care” may be used without the RG -17/34 roundels</p>	Relaxation
Section D5.3	<p>Rolling blocks</p> <p>Rolling blocks may be conducted on divided carriageways subject to the following:</p> <ul style="list-style-type: none"> • They must only be carried out In terms of an approved TMP for the activity • They must only be carried out for a maximum period of 5 minutes • The TMAs must keep rolling • All on-ramps feeding into the area of the rolling block must be controlled • They may only be implemented where delay calculations indicate that any queues forming during rolling block of 5 minutes, can be immediately dissipated once the block is withdrawn • Advance warning of queues ahead must be provided at least 5 km in advance of the rolling block - a VMS and / or AWMMS and / or ATMS may be used • Further advance warning of queues ahead must be provided 500 metres before the start of the rolling block and 500 metres after the start of the block <p>At present, there are no formal guides to direct STMSs on the best practice to conduct rolling block operations. However, within the Auckland network, rolling blocks have been applied extensively and successfully by both the Police and the traffic control contractors to clear the road ahead to assist in the transportation of heavy equipment and machinery into work sites.</p> <p>Rolling blocks have also been successfully used for works that require the full width of the carriageway momentarily.</p>	Relaxation

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
D7.2	<p>Inspections and non-invasive works</p> <p>The general principle for inspection and non-invasive work activities is that the person undertaking the inspection shall move to avoid traffic on the road, i.e. They must not expect traffic to move or slow down for the inspection activity. Only handheld lightweight equipment can be used.</p> <p>The TTM measures required for the activities involved in road inspections, investigations, measurement and/or testing etc depend on:</p> <ul style="list-style-type: none"> • The time taken for the activity, • The Clear Sight Distance (CSD) required for the permanent speed limit on the road, or the operating speed as defined by the RCA for the road, and • The traffic volume on the road at the time <p>Planned inspection and non invasive work activities: Inspector(s) are on foot and undertaking simple tasks such as observation, using a measuring wheel, surveys, traffic counts, installing traffic count equipment, road maintenance activities such as removal of litter, cleaning signs, cleaning edge markers, installing edge marker posts, temporary pothole repairs, hand clearing vegetation from culvert headwalls and inlet / outlets or taking photographs.</p> <p>More complex activities, or those which cannot immediately move off the live lane, require mobile or static TTM.</p>	Clarification
Update Note February 2006 Clause C11.1, D2.1	<p>Rotating role of vehicles on Level 2 and 3 roads</p> <p>Contractors are expected to use advance warning, shadow vehicles, and work vehicles during mobile operations on Level 2 and 3 roads.</p> <p>While maintaining the full complement of vehicles, they may rotate the roles of the vehicles providing that there are no workers on the back of the advance warning or shadow vehicles.</p>	Clarification
See update note on TMAs effective 23 December 2008 Section A1	<p>Use of the AWVMS</p> <p>The new AWVMS replaces the tail pilot vehicle resulting in one less TMA being required. The AWVMS must display fixed signs (i.e. no scrolling) and can only be carried on either a small utility vehicle or small trailer.</p> <p>It must be located on the road shoulder and out of the live lane in accordance with Section 5.</p> <p>Where and when it is safe to do so, the AWVMS may be either driven slowly along the road shoulder or bound forward to another suitable shoulder location, to maintain position with the mobile convoy ahead.</p>	Clarification

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
<p>See update note on TMAs effective 23 December 2008</p> <p>Section A5 Operational Principles</p>	<p>Operational Principles</p> <p>The AWVMS may only be used:</p> <ul style="list-style-type: none"> • within a works area, or • on the left hand roadside shoulder clear of the edgeline, or • in the centre median, where it can be established 2 metres clear of the edgeline. <p>The AWVMS system must not be attended or operated from the traffic side of the apparatus. In situations where there is ample centre median and a median barrier the operator should attend the apparatus from the side that is protected by the median barrier.</p> <p>For a static site the AWVMS may be left unattended.</p> <p>For mobile operations the AWVMS must never be left unattended.</p> <p>For both static and mobile operations, the AWVMS must be operated from within the driver compartment of the vehicle on which it is mounted or of vehicle towing the trailer on which it is mounted.</p> <p>In the event of a breakdown occurring and repairs are required from the road shoulder, they must not be undertaken from the traffic side of the AWVMS and where possible from behind a side or median barrier.</p> <p>For mobile operations there must be:</p> <ul style="list-style-type: none"> • a minimum distance of 400m from AWVMS to the shadow vehicle, and • the maximum allowable distance from AWVMS to the shadow vehicle is 1500m <p>Where side roads intersect additional advanced warning must be provided as required by CoPTTM</p> <p>Clear Sight Distance for traffic approaching the AWVMS must be maintained i.e. 3 x Posted Speed Limit</p> <p>AWVMS must not be located on sag curves. To avoid the lamps shining directly at drivers of approaching vehicles they must be located on a level surface for visibility performance and safety. The display must be positioned as specified. The height and orientation as specified is required to ensure that road users are not unduly affected by the operation of the Xenon warning lights. (see Part D Xenon specification for further information)</p> <p>If the AWVMS is used in any function other than as an advanced warning sign for temporary traffic management the xenon lights must be turned off. When used as a VMS sign only it must comply with all other relevant legislation and sections of CoPTTM.</p> <p>AWVMS models must comply with the technical information and performance characteristics detailed in this technical note and in NZTA Specification.</p>	<p>Clarification</p>

Changes of note following December 2009 IRG meeting		
Reference in Edition 3	Change	Implementation / implications
Section D5.1 and 5.2	<p>Operating Mobile Operations within an established Static site Where the mobile operation is contained, completely within an existing fixed Static Site which has, Advance Warning and Direction and Protection signs including an approved Temporary Speed Limit sign(s) installed, the requirement for a Tail Pilot vehicle for any subsequent mobile operations waved. This dispensation will apply to mobile activities such as:</p> <ul style="list-style-type: none"> • Sweeping excess chip from a chip seal / reseal site • Road marking a newly sealed road that has been swept <p>Note: - Apart from the Tail Pilot dispensation above, all other requirements for Mobile Operations with respect to Shadow and Work vehicles must still be applied. This dispensation must only be applied to sites with a minimum of clear site distance visibility to the Work vehicle at all times during the operation.</p>	Relaxation
B11.5	<p>Remove the need for Barriers to be delineated by Cones When barriers are installed complete with delineation chevrons at 10m centres and with temporary road markings in place the need to also install cones for delineation is removed.</p>	Relaxation
Section B4 Section B1.6	<p>Additional Methods of supporting temporary warning signs for road works. Subject to application via a TMP and approval by the RCA additional products median barrier brackets may be used to support TTM signs. Note if the signs are erected and they protrude into the roadway they must be removed to avoid snagging in the event of a vehicle impacting and moving along the barrier.</p>	Clarification
	<p>Review of EEDs The industry review group has completed reviewing the EEDs submitted to the 10 December 2009 meeting. The IRG decision on each EED is attached <i>See IRG decisions on EEDs submitted to 10 December 2009 meeting – confirmed at meeting 9 September 2010.</i></p>	

Example for layout of signs if cycle lane closed due to work activity



Level 1 Site layout distances (includes Local Roads and LV)

Permanent speed limit, or RCA designated Operating Speed		50 km/h	60 km/h	70 km/h	80 km/h	90 km/h	100 km/h
Traffic Signs							
A	Sign Visibility Distance (m)	50	60	70	80	90	100
B	Warning Distance (m)	50 or 30*	80	105	120	135	150
C	Sign Spacing (m)	25 or 15*	40	50	60	70	75
Safety Zones							
D	Longitudinal (m) + +(Not required on LV roads)	10 or 5*	15	30	45	55	60
E	Lateral (m) + +(Optional if on LV roads)	1	1	1	1	1	1
Lane Widths		30km/h					
F	Minimum Lane Width (m)	2.75	3.0	3.0	3.25	3.25	3.5
Tapers							
G	More than 500 vpd Taper Length (m) #	30	50	70	80	90	100
G	Less than 500 vpd Taper Length (m) #	25	30	35	40	45	50
K	Distance between Tapers (m)	40	50	70	80	90	100
Delineation Devices							
Cone Spacing in Taper (m)		2.5	2.5	5	5	5	5
Cone Spacing: Working Space (m)		5	5	5	10	10	10

*	<i>Larger minimum distances apply to all State Highways and to Local Roads where there is more than one lane each way.</i>
+	<i>On roads carrying less than 500 vehicles per day (maximum of 40 vehicles per hour) the Longitudinal and Lateral Safety Zones may be reduced or eliminated in order to retain a single lane width. Positive traffic control and an appropriate TSL are to be used.</i>
#	<i>On Local Roads tapers may be reduced to 10 metres on 50km/h roads where accesses, intersections etc need to be accommodated. This does not apply where traffic signals or MTC (Stop/Go) is used. On all roads tapers may be reduced to 30 metres where a MTC (Stop/Go) situation applies.</i>

General

Except for taper lengths and delineation device spacings, which are maximum values, the distances specified in the above table are minimum values.

Working on roads with less than 250 vpd (less than 20 vehicles per hour) and operating speed of less than 65km/h:

- Use an appropriate TW-1 type advance warning sign (static installation) and amber flashing beacon on working vehicle when working on the shoulder.
- Consider Stop/Go or “Give Way” control of traffic when activity encroaches onto live lane.
- If the above requirements cannot be achieved the operation must be modified to comply with the requirements of a higher risk rating.

Layout for Level 2 Traffic Management - Revised

Permanent speed limit, or RCA designated Operating Speed		≤50 km/h	60 km/h	70 km/h	80 km/h	100 km/h
Traffic Signs						
A	Sign Visibility Distance (m)	60/50+	70/60+	80	100	120
B	Warning Distance (m)	100/75+	120/90+	140	160	200
C	Sign Spacing (m) ❖	50/35+	60/45+	70	80	100
Safety Zones						
D	Longitudinal (m) *	15	20	30	45	60
E	Lateral (m)					
	1. Behind Cones etc	1	1	1	1	1
	2. Behind Concrete Barrier	0.5	0.5	0.5	0.5	0.5
	3. Behind Other Barriers	As recommended by manufacturers				
Lane Widths		30km/h				
F	Minimum Lane Width (m)	2.75	3.0	3.0	3.25	3.5
Tapers						
H	Initial Taper Length Per Lane**	90/50+	100/60+	120	150	180
I	Subsequent Taper Length Per Lane ***	50	60	70	80	100
K	Minimum Distance between Tapers	50	60	70	80	100
Delineation Devices						
Spacing	ALL Tapers	2.5	2.5	2.5	2.5	2.5
	Approaches, between Tapers and around the Working Space	5	5	10	10	10
	At merge and diverge points for ramps and slip lanes, intersecting road entry and exit points, and site accesses points	2.5m for 10m either side of a change in alignment		2.5m for 20m either side of a change in alignment		

❖	Where only one sign is erected in advance of the start of a cone taper the distance from the sign to the start of the taper must be 2xC
*	A longitudinal safety zone is not required when a barrier completely protects the approach end of the site
**	Taper length is based on a single lane shift of 3.5m
***	Only applicable where the taper is located a sufficient distance from a temporary speed limit for drivers to have slowed down to the temporary speed. Taper length is based on a single lane shift of 3.5m
+	The longer distance is the desirable distance, the shorter distance is the minimum distance required

Except for taper lengths and delineation device spacings, which are maximum values, the distances specified in the above table are minimum values.

IRG decisions on EEDs submitted to 10 December 2009 meeting – confirmed at meeting 9 September 2010

EED Title	Level of Road	About the EED	Decision
Wellington			
<p>EED 26 Requirement for Traffic Management for Activities More than Two Metres from the Edge Line of the Nearest Live Lane</p>	All levels of road	<p>EED only used for inspections Waive traffic management if at least 3 metres from the edgeline and a 1 metre safety zone is provided.</p>	<p>Remove this EED This situation is covered by existing inspection requirements. Refer CoPTTM Section D7.2 and update notice issued December 2005.</p>
<p>EED 27 Rolling Block</p>	Level 2 and 3 roads	<p>Rolling blocks are permitted on Level 2 and 3 roads involving the use of one attenuator and arrowboard fitted vehicle per lane, side by side, fully occupying each available lane on the carriageway.</p>	<p>This is included in update notice. Continue to use until update notice issued. Include in CoPTTM Section D and add to Glossary. Include method in appendix. See draft update note, Section D5.3 Rolling blocks</p>
<p>EED 28 Number of level 2/3 sites controlled by one STMS</p>	Level 2 and 3	<p>Allow STMS to oversee four sites including sites on live lanes (currently only four shoulder closures are allowed).</p>	<p>This should not be an EED Add to CoPTTM requirement that for every live lane closure the STMS must be on-site and a TMA must be present. The situation is to remain that the STMS can be in charge of only four shoulder closures Refer to update note December 2005 A4.3.2</p>
<p>EED 29 Use of additional single lane drop sign in a chicane</p>	Level 2 and 3	<p>A non-gazetted single land drop sign can be used prior to the second taper in a one lane closure chicane to reinforce the positive traffic management at the chicane</p>	<p>Talk to Signs Committee to get it gazetted. Once gazetted, add to CoPTTM. Stuart to publish technical note once sign is gazetted</p>

EED Title	Level of Road	About the EED	Decision
<p>EED 30 Edge line cones on level 2/3 roads</p>	<p>Level 2 and 3</p>	<p>The STMS has the option to place cones in part (no less than 50 percent of required length) on the shoulder edge line for a lane drop where it is deemed to be safe to do so and that he/she is satisfied that traffic will travel at the temporary or posted speed limit.</p>	<p>This is not an EED CoPTTM to clarify: - See update note</p> <ul style="list-style-type: none"> • Cones not needed if edge line well defined • The diagrams for multi-lane level 2 and 3 roads are to be amended to show a requirement for cones along the edgeline from the RG4 sign to the taper.
<p>EED 31 Double stacking of cones</p>	<p>Level 2 and 3</p>	<p>The requirement to use double stacked 5 kg cones will be permitted until 31st August 2010 in high wind locations.</p>	<p>This EED has expired and should no longer be used. Wind tunnel testing has proven that wide-based cones are more stable than double stacked narrow-based cones. To provide more weight it is permitted to use a rubber collar or part of an existing cone inserted inside.</p>
<p>EED 32 Establishment and removal of static site on level 2 roads</p>	<p>Level 2</p>	<p>On level 2 roads, one vehicle specifically designed to permit the safe establishment, alteration and removal of a static site and/or semi static site or to perform a mobile closure, fitted with a truck mounted attenuator and arrowboard, can operate as a work vehicle.</p>	<p>This is not an EED Alternation of safety/work vehicles is allowed by CoPTTM. This will be clarified during the review – See update note</p>
<p>EED 34 Sites where smaller signs are</p>		<p>Where required by the approved Traffic Management Plan it is not</p>	<p>This EED is no longer required</p>

EED Title	Level of Road	About the EED	Decision
necessary		possible to position Warning and/or Regulatory signs to the minimum size stipulated in CoPTTM B1.2.2, signs with lesser dimensions must be used.	Is included in the TCD rule Not in CoPTTM yet – Included in update note Issue technical note including size of supplementary plate
Auckland			
TR2-DIS-001	Level 2/3	Length of taper to be based on the Temporary Speed Limit, reference parameter (I) of Tables C2.3 and C2.4, for Level 2 and Level 3 roads.	This EED stays in effect until update note is issued Stuart to issue update note – see update note
TR2-DIS-002	Level 2/3	Implementation of rolling block type operations, as described in appendix M of this manual	Stuart to issue update note – see update note
TR2-DIS-003	Level 3	Operating straight left lane closures on level 3 roads	EED to be amended to apply to the following situations: <ul style="list-style-type: none"> • Left lane closures during the day time • Presence of on and off ramps • Presence of rotary or roundabout • Presence of auxiliary lanes • Not at locations where there are poor horizontal and vertical geometry • Applies only to defined sections
TR2-GEN-001	Level 2 and 3	Use of two truck mounted attenuator vehicles with the shadow vehicle doubling as the work vehicle for the purpose of installing, maintaining and	This EED is not required. The following two advance warning options are available for use:

EED Title	Level of Road	About the EED	Decision
		removing temporary traffic management equipment only.	<ul style="list-style-type: none"> • Tail pilot vehicle with TMA, or • AWWMS (does not have TMA).
TR2-GEN-001	Level 2 and 3	Update Note February 2006 Clause C11.1, D2.1	<p>See update note - issue update note to clarify roles of vehicles</p> <p>Contractors are expected to use advance warning, shadow, and work vehicles during mobile operations on Level 2 and 3 roads. While maintaining the full complement of vehicles, they may rotate the roles of the vehicles providing that there are no workers on the back of the advance warning or shadow vehicles.</p>
TR2-GEN-002	Level 2 and 3	Waiving the requirement to erect a TW-1 'ROAD WORKS' Temporary Warning Sign on the RHS of the carriageway when the work site is on the left lane and vice versa for semi static closures	This EED not to be used. This was the subject of the Coroner's Court decision
TR2-GEN-003		Waiving the requirement to install a cone taper in advance of the shadow vehicle when employing mobile semi static operations.	This EED not to be used. This was the subject of the Coroner's Court decision
TR2-GEN-004		Waiver on the requirement to have at least one traffic sign mounted on trucks fitted with attenuators and arrow boards while performing mobile operations on Level 2 and 3 roads	<p>EED to be used until CoPTTM amended (Section B) to allow this to occur</p> <p>See update note</p> <p>D1.5(h)</p> <p>Truck mounted attenuators fitted with the</p>

EED Title	Level of Road	About the EED	Decision
			<p>new system including the light arrow board, the xenon light system and the red rear panels are not required to have a traffic sign as detailed in D1.5</p> <p>Also refer to Update Note December 2005 Clauses D1.5, D 5.2 (4 a & b) & D5.3 (4)</p> <p>If a vehicle in a Mobile operation is fitted with an operating arrow board the requirement to have a TW-34 “Pass with Care” sign complete with RG -17/34 roundels is waived. However the supplementary plate “Pass with Care” may be used without the RG -17/34 roundels</p>
TR2-GEN-005		Waiver on the requirement to have a TW-34’ PASS WITH CARE’ sign mounted on trucks fitted with arrow boards when performing mobile operations on low volume and level 1 roads	This EED not required as covered by existing update notice above.
TR2-GEN-006		Permit the use of a single lane shift temporary sign in advance of a single lane chicane manoeuvre.	This is currently under review by the Signs Committee.
TR2-GEN-007		Use of 900mm wide temporary warning signs and 900mm diameter speed limit signs	<p>Issue update note – Covered by update note</p> <p>Add the following to CoPTTM B1.2.2(c) Level 2 and 3 roads</p> <p>Warning and Regulatory Signs for Narrow Shoulders and Medians</p> <p>Where shoulders and medians are less than</p>

EED Title	Level of Road	About the EED	Decision
			1.2 m in width Contractors may, with RCA permission, use a 900mm warning or regulatory sign including a speed limit.
TR2-GEN-008		Waive the requirement to use sign supports and stands that do not exceed 150 mm above the ground surface when the sign support and stand has been knocked or has fallen over.	Not required See Technical Note December 2009 Level 2/3 Sign Stand Bases
TR2-GEN-009		The requirement of the use of horizontal arrowboard be replaced by the use of the UK and European arrowboard standard for the purposes of research project.	Not required See technical note 23 December 2008 New requirements and recommendations for Truck Mounted Attenuator (TMA) appearance, mobile Advance Warning Variable Message Sign (AWVMS) and Light Arrow Systems
EED Warkworth 001		Allow for a Level 1 truck fitted with a CoPTTM compliant arrowboard for daytime maintenance activities for the long term temporary traffic management measures.	Site specific EED – no further action
HAMILTON			
EED 4	Level 2/3	To exclude the use of an Attenuator needed for a Level 2/3 road for the purpose of general sign and edge marker post maintenance and litter collection carried out from a distance of 0.5 m or more behind the	This activity can be completed as an inspection activity and does not need an EED Refer CoPTTM Section D7.2 and update notice issued December 2005.

EED Title	Level of Road	About the EED	Decision
		edgeline.	EED not required
EED 5	Level 2	To exclude one truck mounted attenuator needed for a Level 2 road for mobile operations like sweeping and road marking.	EED not allowed EED not required. Consider AWVMS or interim measure as per prepared update note see TR2-GEN-001
EED 6	Level 1	To setup an Area Wide Treatment site without cone delineation on the centreline along the work area.	The only way this operation can be completed is to use Stop/Go. The Land Transport Rule states that drivers must drive as far left as possible on the left-hand side of the road. The use of a pilot vehicle would not overcome this legal requirement. EED not allowed
EED 8	Level 2	To allow the use of two truck mounted attenuators to install cone tapers and longitudinal rows.	No required - see Auckland EED TR2-GEN-001
EED 10	Level 2/3	To use two 600mm x 300mm cone mounted signs at the change in alignment. Traffic approaching the change in alignment will be travelling at a reduced speed due to the temporary speed restriction and will have also have an unobstructed view of oncoming traffic. The repetition of the signs will serve as an enhancement to guide traffic through the site.	Covered by update note on sign sizes in the Traffic Control Devices manual. This is a site specific EED, no further action required. See update note
EED 11	Level 2	To exclude the advance warning and	EED not required

EED Title	Level of Road	About the EED	Decision
		<p>direction signs and reduce side friction by removing centreline cones (between opposing directions of traffic).</p>	<p>This EED relates to a site specific situation for which Transfield have proposed a solution that is essentially CoPTTM compliant. Therefore, we consider that there is no need for this EED. We consider that Transfield would be better to submit a CoPTTM compliant Generic 'Passing Lane Closure TMP' that incorporates all of the measures described in the EED.</p>
<p>Whakatane District Council EED 1 and 2</p>	<p>Level 1</p>	<p>EED 1 For spraying operations on a section of road that is, open to traffic, and would require the use of a rear pilot vehicle for normal road conditions, the requirement for a rear pilot vehicle is waived due to the low speed of the work area involved (less than 65km/h).</p> <p>EED 2 For spraying operations on a section of road that is, open to traffic, and would require the use of a rear pilot vehicle or signs labelled "B" for normal road conditions, the requirement for a rear pilot vehicle or signs labelled "B" is waived due to the low speed of the work area involved (less than 65kph).</p>	<p>Not required Covered by CoPTTM</p>

EED Title	Level of Road	About the EED	Decision
Whakatane District Council EED 1	Level 1 (low volume)	This EED request that lead pilot vehicles are not required on this network provided that work does not encroach on the centreline or opposing live lane(s).	Stuart to discuss with local authority low volume treatment for these situations (shadow vehicle not required in all situations)
Central Waikato EED 1 (Contract NZTA 2/07-005/627 Central Waikato Pavement Marking 2010/2012)	Level 1	Both pilot vehicles will be located close to the centreline. Both pilot vehicles will be located to retain the greatest forward visibility for approaching traffic (to the rear of the pilot).	Not allowed See Best Practice Road Marking Plans on NZTA website
Rotorua District Council EED 4 (OPUS)	Level 2	Where Level 2 – High volume (>10,000 vpd) road conditions exist on Rotorua District State Highways Network, they shall be classified as Enhanced Level 1	EED not required Already covered in CoPTTM
Coromandel Highway Maintenance EED TNZ2/06-005/601 – 602 Maintenance Contract 2006 - 20011	Level 1	We will work the road one side at a time always allowing a single lane free for controlled traffic to use. No working vehicles will be allowed to manoeuvre in front of or around the public traffic. All traffic will be stopped at both ends whilst bitumen is being sprayed.	Not allowed Recommend shutting the road both ends using Stop/ Go then spray and chip the road in short stretches before opening the road
Eastern BOP State Highway Network EED 1	Level 1	This EED requests that lead pilot vehicles are not required on this network provided that work does not encroach on the centre line or opposing live lane(s). The use of a	Not allowed Apply low volume treatment

EED Title	Level of Road	About the EED	Decision
		shadow vehicle for all work on the live lane is mandatory. Where work does encroach over the centre line or opposing live lane, Downer EDI Works will undertake a static closure operation rather than a mobile. The only exception to this rule will be a mobile line marking operation.	
NZTA Tauranga State Highway Network EED 1	Level 1	Lead pilot vehicles are not required on this network provided that work does not encroach on the centre line or opposing live lane(s). The use of a shadow vehicle for all work on the live lane is mandatory. Where work does encroach over the centre line or opposing live lane, Downer EDI Works will undertake a static closure operation rather than a mobile. The only exception to this rule will be a mobile line marking operation.	Not allowed Apply low volume treatment
NZTA Tauranga State Highway Network Cycle Lanes and Cycle Detours EED 2	Level 1	If replacement cycle lanes and detour options are not feasible, cyclists will be directed to use the carriageway as usual with other road users.	Yes in principle Needs to state what the road environment constraint is Need a suitable advance warning and a TSL Issue update note Where ever possible cycle lanes are to be replaced should the normal cycle lane be required for roadworks. Where there is no room for a temporary cycle

EED Title	Level of Road	About the EED	Decision
			<p>lane a TSL and threshold treatment must be applied to enable the cyclists to merge into the traffic lane.</p> <p>A cycle lane closed sign must be must be used to alert cyclist to the merge ahead.</p> <p>Stuart to ask for sign to be created</p> <p>A cyclists ahead sign XXXX followed by a 30 TSL must be used in advance of the merge to alert motorists. The merge must be coned. See diagram attached</p> <p>Include in CoPTTM</p> <p>See update note for solution</p>
<p>NZTA Tauranga State Highway Network Tail Pilot EED 3</p>	<p>Level 2</p>	<p>This EED requests that where a person using a weed eater is 1m or greater from the edge line (live lane) that a tail pilot be employed with an arrowboard (4 outside lamps flashing on and off) following 40-60m behind the worker. This vehicle will be capable of staying clear of the live lane.</p>	<p>EED not required</p> <p>Issue update note</p> <p>Amend CoPTTM see below – see update note</p> <p>D7.2 Inspections and non-invasive shoulder works.</p> <p>The temporary traffic management measures required for the activities involved in road inspections, investigations, measurement and / or testing etc depend on:</p> <ul style="list-style-type: none"> • The time taken for the activity, • The Clear Sight Distance (CSD) required for the permanent speed limit on the road, or the operating speed as defined by the RCA for the road, and

EED Title	Level of Road	About the EED	Decision
			<ul style="list-style-type: none"> • The traffic volume on the road at the time <p>Planned Inspection non invasive shoulder work activities:</p> <p>Inspector(s) are on foot and undertaking simple tasks such as observation, using a measuring wheel, surveys, traffic counts, installing traffic count equipment, removal of litter, cleaning signs, cleaning edge markers or taking photographs. Put a collage of pictures in the inspection activities section. More complex activities, or those which cannot immediately move off the live lane, require mobile or static TTM.</p>
EED 4		<p>Mobile operations on all NZTA, Tauranga State Highway Network Level 2 & 3 local roads and state highways, for the purpose of installing, maintaining and removing temporary traffic management equipment only require two TMA vehicles to form the mobile closure and that the forward vehicle may have traffic management personnel working on the deck of this vehicle.</p>	<p>Already covered in two TMA's See Auckland EED TR2-GEN-001 See update note</p>
EED 5		<p>Rolling blocks are permitted on Level 2 & Level 3 roads involving the use of one TMA vehicle (with arrow board) per lane, side by side across the entire lateral width of the</p>	<p>Already covered under Rolling Block See Wellington EED 27 - See update note</p>

EED Title	Level of Road	About the EED	Decision
		<p>carriageway positioned in such a manner that clear sight distance is always achieved by all vehicles involved in the blockade.</p>	
EED 6		<p>Use of AWWMS</p> <p>Mobile operations on the Tauranga State Highway network may utilise an Advance Warning Variable Message Sign positioned as far to the left as practical in lieu of a Tail Pilot for the following operations:</p> <ul style="list-style-type: none"> • Mobile vegetation operations • Mobile litter operations • Mobile cyclic maintenance operations • Mobile Road Marking / RRPM 	<p>Not required</p> <p>See update note on TMAs issued April 2009 Section A5 See update note for full details Operational Principles</p> <ul style="list-style-type: none"> • The AWWMS may only be used within a works area, or on the left hand roadside shoulder or the centre median, where it can be established 2 metres clear of the edgeline. <p>Note: The 2 metres clear of the edgeline applies only to the centre median.</p> <p>Amend CoPTTM to clarify 2 metres clear of live lane if used on median Include in update note</p> <ul style="list-style-type: none"> • The AWWMS may only be used within a works area, or on the left hand roadside shoulder, or • the centre median, where it can be established 2 metres clear of the edgeline.

EED Title	Level of Road	About the EED	Decision
			<p>The AWWMS may only be used within a works area, or on the left hand roadside shoulder</p> <p>It can be placed on the centre median, where it can be established 2 metres clear of the edgeline.</p>
EED 1 Spray Marks		For Mobile Operations in existing Static Closures, the requirement for an AWWMS tail pilot vehicle is waived due to the presence of existing advanced warning signs.	No required - see Auckland EED TR2-GEN-001
EED 1		<p>Inspection Activities</p> <p>The requirements for a Lookout person is waived conditional on the staff member complying with all other aspects relating to Road Inspection requirements, other than not having a Road Inspection sign mounted on the vehicle.</p>	<p>EED not required</p> <p>Covered under emergencies</p>
EED 2	Level 1	<p>Inspection Activities</p> <p>The requirements for a Lookout person is waived for RAMM rating and Seal Design activities for the following sections of the road. (Roads to be added)</p>	<p>EED not required</p> <p>Under inspections the inspector is able to cross the road</p> <p>Also if low volume then inspector does not need a spotter</p>
Christchurch			
EED 1X		Allow the tail pilot to have no TMA if	EED not required

EED Title	Level of Road	About the EED	Decision
		it can be positioned 2 m or greater clear of the edge line regardless of where the work is occurring further up the road. This is not a reduction in safety as the Tail Pilot is 100 m to 600 m behind the actual work and is there as an advanced warning.	See Hamilton EED 6 Auckland TR2-GEN-001 See update note
EED 2X		Where the first sign is positioned with visibility greater than CSD a tail pilot is not required for the site establishment. This is not a reduction in safety as once the site is established the TW-1 type sign (advanced warning sign) will be the warning for the site whilst people are working on the road.	No required - see Auckland EED TR2-GEN-001
EED 3X		To allow the first sign to be erected without the use of a Tail Pilot vehicle, as the sign has to be positioned with Sign Visibility distance anyway – meaning the sign is in a safe location.	No required - see Auckland EED TR2-GEN-001
EED 4X		To allow sites to be changed internally without the need for a tail pilot, and instead utilise the advance warning signs present, unless within the warning distance of the Advance Warning sign in which case a full mobile operation will be used.	See interim note about AWWMS Auckland TR2-GEN-001 See update note

EED Title	Level of Road	About the EED	Decision
<p>EED 2 TNZ 61890 and TNZ 62123</p>		<p>For the purpose of resurfacing involving the application of bitumen/emulsion and chip to the road surface and the associated rolling, where a single lane operation is required and, traffic may be required to negotiate past rolling equipment, the requirement for cones to separate the traffic lane from the worksite is waived.</p> <p>Traffic will be controlled by the use of lights or manual traffic controllers at each end and a pilot vehicle to lead traffic through the site.</p>	<p>Issue Update note C5.3 Placement Where cones are used to separate a sealing site from the traffic lane, double spacing of cones is allowed i.e. table C2.2 at permanent speed of 100 km/h 10 m spacing is allowed. This may be increased to 20 m. This EED is not allowed See EED 6 Hamilton See also update note</p>
<p>EED 3</p>		<p>For the purpose of the removal of loose chip and line marking (incl RRPMS) at sealing sites, where a rear pilot vehicle would normally be required, BUT the site is still covered by static signage AND the speed limit is reduced to less than 65 km/h, the requirement for a pilot vehicle (forward or rear) is waived.</p> <p>While sweeping and marking are in progress full advance warning signage for a static site is in place and the temporary posted speed limit is 30 or 50 km/h. Repeater signs are erected throughout the site in</p>	<p>As above See update note</p>

EED Title	Level of Road	About the EED	Decision
		<p>accordance with COPTTM. While a site that is swept and unmarked may be signed at 70 km/h the temporary speed limit will be reduced to 50 km/h while road marking (incl RRPMS) is in progress.</p>	
EED 4	Level 1	<p>For the purpose of construction or re-construction of an existing road surface where a single lane operation is required and, traffic may be required to negotiate past rolling or grading machinery, the requirement for cones to separate the traffic lane from the worksite is waived. Traffic will be controlled by the use of lights or manual traffic controllers at each end and a pilot vehicle to lead traffic through the site.</p>	<p>See update note Add to CoPTTM wording from the EED Issue update note Stop/Go For the purpose of construction or re-construction of an existing road surface or during final trimming, where a single lane operation is required the traffic must be separated by either:</p> <ul style="list-style-type: none"> • cones or similar form of delineation • using manual traffic controllers/portable traffic signals. <p>Where the traffic is not separated from the work area by delineation:</p> <ul style="list-style-type: none"> • the equipment must stop and work ceases while traffic is moving through the site. • Each work vehicle must have 'Pass with Care' on it, and travel in direction of traffic

EED Title	Level of Road	About the EED	Decision
			Even though the machinery is stopped it may be necessary to provide a pilot vehicle to lead traffic through the site.
Review Notice No. 1255 Traffic Management Engineering Exception Decision (EED)		Temporary filling of potholes completed as an inspection activity on Level 1 roads	EED not required Temporary pothole repairs included in update note under inspections and non- invasive works Inspector must be able to leave the road on the approach of vehicle so that it can continue uninterrupted.