

Part 8 of the Traffic Control Devices Manual (TCD Manual)

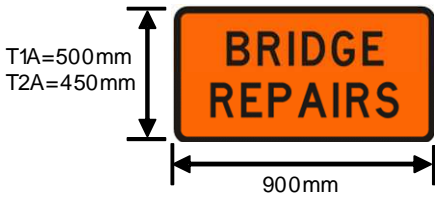
Code of Practice for Temporary Traffic Management (CoPTTM)

(CoPTTM) - (SP/M/010)

Fourth Edition – Update Note July 2013

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Date of Issue:	1 July 2013

Circulation	Regional Operations Managers, holders of the Code of Practice for Temporary Traffic Management and NZTA website. Please forward to your consultants and contractors
Objective	To update the May 2013 version of the Fourth Edition of the CoPTTM.
Effective Date	1 July 2013
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 have been included in this update. The July 2013 version of CoPTTM is available online.
Reminder for all holders	It is important to keep holders of our documents up to date. Holders can update by copying the relevant sections from the NZTA website: www.nzta.govt.nz/copttm
Additional Copies	These may be downloaded from NZTA's website, free of charge or purchased direct from our distributor either via the website, or directly to NZ Print, PO Box 2491, Wellington, 6140

Changes of note from May 2013 to July 2013		
Reference in 4 th Edition	Change	Implementation / implications
B1.3.1.1 Warning signs	<p>The minimum size for a supplementary plate with a double line is:</p> <ul style="list-style-type: none"> 900mm x 500mm for any T1A supplementary plate 900mm x 450mm for any T2A supplementary plate 	Clarification to align sign sizes to TCD rule
B1.4.2 Direction and protection	<p>RS1/TG1</p> <p>TEMPORARY supplementary plate – minimum 900mm x 300mm (TCD rule allows a minimum of 800mm x 250mm. This size is not recommended as it will not fit stands)</p>	Clarification to align sign sizes to TCD rule
B2.2 Colour	<p>All delineation devices (eg cones, tubular delineators and barrels) must be fluorescent orange with:</p> <ul style="list-style-type: none"> chromaticity coordinates in accordance with table 2.5 of AS/NZS 1906.1:2007, and minimum luminance factors in accordance with table 2.2 2.8 of AS/NZS 1906.1:2007. 	Changes to align with amendments made to the AS/NZ Standards
B2.3.3 Retro-reflectivity	<p>Delineation devices must have white retro-reflective bands that:</p> <ul style="list-style-type: none"> meet the requirements for class 1 material high intensity sheeting in table 2.4 2.2 of AS/NZS 1906.1:2007, and conform to the number, width and height requirements below. 	Changes to align with amendments made to the AS/NZ Standards
B3.6 Optional illuminated attachments	<p>In specific circumstances within a worksite it may be appropriate to enhance personal night-time/low light retro-reflective garment conspicuity with the addition of a self illuminating system that will attach to an approved high visibility garment that already complies with one of the options specified in subsection B3.4 Garment design</p> <p>Such circumstances would normally be limited to specific locations within a worksite where moving vehicles and or equipment do not have or may not be operating an appropriate head light system that is necessary to provide retro-reflective light back to the driver of such vehicles or equipment. In areas where headlights are active the retro-reflective performance provides worker conspicuity and this will typically overpower an illuminated attachment.</p> <p>The wearer of any such approved system must be aware that its performance is limited and will only be visible to a vehicle or equipment operator when positioned within the driver's line of sight. The wearer must be instructed to be vigilant whenever working or moving behind operating vehicles that may be reversing and equipment that may swing through an operational</p>	Amendment to allow new technology to be used

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	<p>circle.</p> <p>Equally the wearer of an approved illuminated attachment must be responsible for ensuring it is fully charged and suitable for use at the time it is being used and that site management or the STMS is aware of its use on site.</p> <p>Any such system must be approved by the NZ Transport Agency, Traffic and Safety, prior to being marketed for use in TTM sites within the roading network.</p> <p>To be approved, a system must be adjudged suitable for purpose and comply with the following specifications:</p> <ul style="list-style-type: none"> • the illuminating system must be removable from the garment during daylight hours or when not in use • no part of the system may cover any part of the garment's compliant retro-reflective configuration • the illuminated area must be in the vertical plane and limited to the length of the vertical retro-reflective strips without crossing the retro-reflective hoop at the waist • the colour when illuminated must be white or a close blue/white proximity. No other bold colours are permitted • the illumination must be non flashing. If a flashing capability is possible it must not be activated on any TTM worksite • to ensure compatibility with the retro-reflective strips the illuminated area must be not less than 10mm or more than 15mm in width • during the hours of daylight no part of the illuminating attachment may cover any portion of the compliant area of day time high visibility material • if the illuminating component of the system requires a permanently fixed attachment this must be transparent and not impair the compliant daytime background high visibility compliant area of the garment. Garments are only to be fitted with the attachment system where there is a high probability of regular use of the system. The permanently attached component must be no more than 10mm wider than the illuminating component • the system design should ensure that, when attached, potential for the system to catch on machinery or structures is limited and or in case of the system being caught that it will release and not endanger the wearer • any system approved must comply with subsection B3.2 Logos • when tested the surface luminance must be no less than 15cd/m² or greater than 25cd/m² measured at 90 degrees to the illuminated surface • the battery system must be specifically matched to the system's requirements, be robust, light weight and weather proof and held firmly into a compliant pocket of the garment • the tested system must demonstrate that the battery has the ability to maintain a level of performance suitable for purpose for a minimum of eight hours and preferably include a warning 	

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	<p>indicator for low battery status</p> <ul style="list-style-type: none"> any garment fitted with a permanent attachment component for an illumination system must include this in the garments care instructions on the label. <p>Should a visiting site safety engineer sight an illumination system currently in use to be exhibiting a performance deemed not suitable for the situation at hand such engineer may require the system to be withdrawn from use and retested to determine that performance qualifies to this specification.</p>	
B7.1.3 Colour	<p>Barricades must be:</p> <ul style="list-style-type: none"> a fluorescent orange colour that conforms to the chromaticity co-ordinates in table 2.1 of AS/NZS 1906.4:2010 2.5 AS/NZS 1906.1:2007, and conform to the minimum luminance factors specified with table 2.2 of AS/NZS 1906.4:2010 2.8 of AS/NZS 1906.1:2007. <p>Barricade sight boards must have alternating 100–150mm-wide white and fluorescent orange stripes that slope at 45 degrees to the vertical, with the lowest point of the stripes towards the live lane. The stripes must be at least class 1 retro-reflective material that conforms to table 2.2 AS/NZS 1906.1:2007 and must be applied to the full length of the sight board.</p>	Changes to align with amendments made to the AS/NZ Standards
B14.1 Flashing beacons		
B14.1.1 General	<p>Flashing or revolving amber beacons refer to roof mounted devices which consist of a light, encapsulated in a casing and may either flash (strobe) or appear to flash when circled by a rotating reflector. The beacon(s) are to be mounted on a vehicle in such positions as to give a 360° uninterrupted view in the horizontal plane.</p> <p>Note: Vehicle hazard warning lights are not beacons.</p> <p>Land transport Rule: Vehicle lighting 2004</p> <p>All flashing beacons used in New Zealand must comply with section 11 of the Land transport Rule: Vehicle lighting 2004.</p> <p>ECE Regulation 65</p> <p>The flash conditions, the amber colour coordinates and the light output of the beacon must comply with the criteria specified below which was identified from within ECE Regulation 65. Compliance with these conditions must be contingent on certification obtained from an IANZ accredited laboratory.</p> <p>Note: The light output conditions permit beacons with a single light output level as well as those having dual (night/day) light output levels.</p>	Adoption of standards and alignment with Land transport Rules to allow new technology to be used
B14.1.2	Flash Rate	

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Specification				Colour amber	
				Rotating or flashing sources	
	Frequency f(Hz)	max		4	
		min		2	
	“ON” time (sec)	max		0.4f	
	“OFF” time (sec)	min		0.1	
	Light Output: (Table values are in candelas)				
					Colour - amber
	Minimum value of the effective luminous intensity within the specified vertical angles and a horizontal angle of 360° around the reference axis.	0°	By day	230	
			By night	100	
		± 4°	By day	-	
			By night	-	
		± 8°	By day	170	
			By night	70	
	Maximum value of the effective luminous intensity	Inside	By day	1,700	
		± 2°			
			By night	700	
		Inside	By day	1,500	
		± 8°			
			By night	600	
	Outside the above areas	By day	1,000		
		By night	300		
Chromaticity					
The trichromatic coordinates of light emitted through the filters used for special amber warning lamps shall lie within the following					

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	<p>x and y boundaries of the CIE 1931 chromaticity diagram [reference CIE 15 – Colorimetry:2004]:</p> <table border="1"> <tr> <td>Limit towards green:</td> <td>$y \leq x - 0.120$</td> </tr> <tr> <td>Limit towards red:</td> <td>$y \geq 0.390$</td> </tr> <tr> <td>Limit towards white:</td> <td>$y \geq 0.790 - 0.670x$</td> </tr> </table>	Limit towards green:	$y \leq x - 0.120$	Limit towards red:	$y \geq 0.390$	Limit towards white:	$y \geq 0.790 - 0.670x$	
Limit towards green:	$y \leq x - 0.120$							
Limit towards red:	$y \geq 0.390$							
Limit towards white:	$y \geq 0.790 - 0.670x$							
D1.9.2.2 Operational principles	<p>For mobile operations (excluding semi static operations), the AWWMS must:</p> <ul style="list-style-type: none"> • never be left unattended • be operated from within the driver compartment of the supporting vehicle. 	Relaxation to allow the use of new technology to accommodate Coroners Court decision						
D6.1.2 Worksite layout	<p>The visibility, vehicle spacing and signing requirements for a semi-static closure on the carriageway of a road are exactly the same as those for an equivalent mobile closure in the same situation.</p> <p>In addition, the following requirements also apply to all semi-static closures:</p> <ul style="list-style-type: none"> • Advanced warning signs must be placed in advance of the closure. • Cones must be placed between the shadow vehicle and the work vehicle(s). • A cone taper must be installed in advance of the working space or, the shadow vehicle when one is necessary, however if an AWWMS is used the cone taper is not required. • Cone spacings must conform to the requirements given in the appropriate layout distance table in section C2 Worksite layout. 	Relaxation to allow the use of new technology to accommodate Coroners Court decision						
D6.1.3.4 AWVMS	<p>Where an AWWMS is used as the advance warning and direction and protection sign for the semi-static closure, the following applies:</p> <ul style="list-style-type: none"> • If there are three or less traffic lanes in the same direction, there is no need for a static sign(s) to be erected on the shoulder, opposite the AWWMS on the other side of the road. • If there are four or more traffic lanes in the same direction, a static sign(s) must be erected on the shoulder, opposite the AWWMS on the other side of the road, or the operation must revert to a static closure. • There is no requirement to place a cone taper to the rear of the shadow vehicle. 	Relaxation to allow the use of new technology to accommodate Coroners Court decision						
TMD G2.14	<p>Added the following text</p> <p>Where an AWWMS is used, the cone taper (H) is not required</p> <p>Amended diagram to show grey cones in the taper</p>	Relaxation to allow the use of new technology to accommodate Coroners Court decision						

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TMD H3.1	<p>Added the following text</p> <p>Where an AWWMS is used, the cone taper (H) is not required</p> <p>Amended diagram to show grey cones in the taper</p>	Relaxation to allow the use of new technology to accommodate Coroners Court decision
TMD H3.2	<p>Added the following text</p> <p>Where an AWWMS is used, cone tapers (H and I) and cones from the first shadow vehicle to taper (I) are not required</p> <p>Amended diagram to show grey cones in the tapers (H and I) and grey cones from the first shadow vehicle to the start of taper (I)</p>	Relaxation to allow the use of new technology to accommodate Coroners Court decision