

# Morrisons Forest Road Safety and Traffic Impact Assessment.

Prior to harvesting commencing at Morrisons Forest in Aotea, Manulife Forest Management (MFM) Engineering and Distribution teams engaged with Waka Kotahi and the Otorohanga District Council (ODC) to identify road safety improvements that could be made to facilitate safer trucking between State Highway 31 and Morrisons Forest in Aotea.

## State Highway 31 Aotea Road Intersection

The intersection of SH31 and Aotea Road was identified as an area of concern for all road users. Particularly for traffic exiting Aotea Road onto SH31.

A traffic safety site assessment was carried out by MFM and WSP engineers. A safety improvement plan was submitted to Waka Kotahi which was subsequently approved (see attached TMP & Consent to work). The following improvements to the intersection were agreed to and have been completed.

- Curved mirror installed to assist sight distances for trucks and the public exiting onto SHW 31 from Aotea road.
- 60km/hr speed restriction (sign posted) on SH31 approaches to the intersection.
- Trucks Crossing warning signs to be installed.
- Vegetation clearance to improve sight distance.

ODC were also included in this process and ODC approval was granted through Works Access Permit E839591.

## Aotea Road and Morrison Road

MFM engineering manager Hamish Owen, MFM forest engineer Yingjie (Eric) Ye, MFM Distribution Supervisor Nathaniel Higgins and ODC roading engineer Lew Pulman drove the proposed trucking route from Aotea to SH31 together and the following improvements were agreed:

- Widen and strengthen road shoulders to give loaded trucks room on identified tight corners. This involves removing grass and unsuitable material and rebuilding with gap65 metal. This will improve sight distance and allow more space for trucks to turn smoothly. Attached Map shows these corners.
- Marking the centre lines around corners.
- 60 km speed limit signs for our trucks along Morrison/Aotea Rd to ensure safe travel speed for trucks. This will be monitored/enforced with a GPS geofence in our distribution management system.
- 30km speed limit signs for our trucks when they come around the corner and into Aotea township. This will also be monitored/enforced with a GPS geofence in our distribution management system.
- We will shift the forest entrance gate further into the trees to allow trucks pull off further away from road to reduce noise for residents.

In addition to this, Nathaniel Higgins completed a ride along on the local school bus to understand the safety challenges from their point of view. As a result, signs saying School Bus Turns will be installed 200m either side of the Morrisons/Aotea Road intersection.

## Additional Road Safety Measures

In addition to the improvements outlined above further proposed measures include:

- Limiting operations to a maximum of 20 trucks per day. Generally, it will be around 12.
- No work on weekends or public holidays.
- No work over the Christmas/ New Year break, specifically December 20 – January 7<sup>th</sup>.

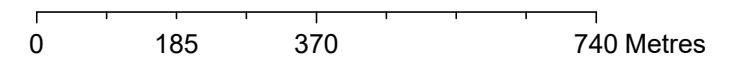


# Aotea / Morrison Rd



April 29, 2022

1:10,000



Eagle Technology, Land Information New Zealand, GEBCO,  
Community maps contributors



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 24 Anzac Parade  
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 Hamilton 3240  
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**CONSENT TO WORK ON STATE HIGHWAY**

CAR Application No.	E839591
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Start Date:	1 May 2022
End Date:	30/09/2022

**1. The Parties**

- (a) The New Zealand TRANSPORT AGENCY being a body corporate in accordance with the Land Transport Management Amend Act 2008
- (b) Combined Road & Traffic Services..... being the person wishing to carry out the work described in the Schedule hereto ('the Applicant')

**2. Attachments**

Attachment 1 being the General Conditions applying to Work on State Highways  
 Attachment 2 being plan(s) Harvest Plan Aerial.pdf.....approved for construction


**3. Background**

- (c) The Applicant wishes to carry out the work described in the Schedule hereto which involves or affects the State highway ('the Work')
- (d) The consent of NZTA is required in accordance with its governing legislation and NZTA agrees to provide such consent at the agreed location and on the attached conditions.

**4. Terms of Agreement**

- (e) In consideration of the NZTA consenting to the work, the Applicant hereby agrees to:
  - i. indemnify the NZTA against all claims, losses, damages and costs incurred by the NZTA in relation to the work, and.
  - ii. compensate the NZTA for damage to any State highway or structure on the State highway (including but not limited bridges and safety barriers) incurred in relation to the work.
  - iii. abide by all the conditions and specifications stated under this consent and understands that any contravention of the consent may result in the NZTA refusing further access to the State highway.

Signed for and on behalf of: Combined Road & Traffic Services..... (the Applicant)

by 

Signed for and on behalf of New Zealand Transport Agency

by 

Acting Pursuant to Delegated Authority

**APPROVED**  
 CAR E839591  
 Laura Rodriguez Garcia  
 STMS Number 119024  
 NZTA, Waikato West  
  
 14 March 2022

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## SCHEDULE OF WORKS

### 1. DESCRIPTION OF WORK

To install permanent temporary signage at the intersection of SH31 and Aotea Rd

### 2. LOCATION

State Highway: 031 Route Position: From: 031-0047-B/6.450 to 031-0047/7.100

Address: 5343 State Highway 31 Kawhia

### 3. TIMING

Start Date: 1 May 2022 End Date: 30 September 2022 Expected Duration: 4 Months

### 4. APPLICANT

Name of Applicant: Combined Road & Traffic Services

Address: 20 Katoro Drive, Te Ngae, Rotorua

Contact Phone number: 0274777020

### 5. CONTRACTOR(S)

1) Name: Combined Road & Traffic Services

Address: 20 Katoro Drive, Te Ngae, Rotorua

Site Representative Name: Steve Wilks

Contact Phone numbers: Day 0274777020 Night \_\_\_\_\_

Responsible for: Signage supply and installation

2) Name: Evolution Road Services

Address: 13 Innovation Way, Horotiu 3288

Site Representative Name: TBC - Evolution Road Services

Contact Phone numbers: Day 0800 630 7200 Night 0800 630 7200

Responsible for: Traffic Management

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STMS Number 119024  
NZTA - Waikato West  
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### TRAFFIC MANAGEMENT PLAN (TMP) – FULL FORM

Use this form for complex activities. Refer to the NZ Transport Agency's Traffic control devices manual, part 8 Code of practice for temporary traffic management (CoPTTM), section E, appendix A for a guide on how to complete each field.

Organisations /TMP reference	TMP reference:	Contractor (Working space): Combined Road & Traffic Services	Principal (Client): Hancock Forestry		
		Contractor (TTM): Combined Road & Traffic Services	RCA: Waka Kotahi NZTA (SH 31) Otorohanga District Council (Aotea Rd)		
Location details and road characteristics	Road names and suburb		RPs (from and to)	Road level	Permanent speed
	SH 31 Aotea Rd Kawhia District		031-0047-B/6.450 to 7.100 Intersection of SH 31 & Aotea Rd RP 031-0047-B/ 6.781	SH31 - L1 1 LV	100 km/h
Traffic details (main route)	AADT (info from Mobile Road)  SH 31 = 508 (est) VPD 11.652% - Heavy Aotea Rd = 280 (est) VPD 5% Heavy		Peak flows  No peak hour flows (Rural Area)		

#### Description of work activity

Install trucks crossing & 50km/h temporary speed limit signs onto timber posts for semi-permanent advance warning of logging trucks entering & exiting Aotea Rd. Install Hit Sticks from 50k TSL to Intersection on LH side of road and install a visibility mirror onto timber post at headway of intersection.

#### Planned work programme

Start date	1 <sup>st</sup> May 2022	Time	24 Hours	End date	30/09/2022	Time	24 Hours
Consider significant stages, for example:	<ul style="list-style-type: none"> <li>road closures</li> <li>detours</li> <li>no activity periods.</li> </ul> Signs out 24 hours Logging truck movements 24 hours						
Alternative dates if activity delayed	No alternative dates are required						

#### Road aspects affected (delete either Yes or No to show which aspects are affected)

Pedestrians affected?	No	Property access affected?	No	Traffic lanes affected?	Yes
Cyclists affected?	No	Restricted parking affected?	No	Delays or queuing likely?	No

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**Proposed traffic management methods**

<p><b>Installation</b> <i>(includes parking of plant and materials storage)</i></p>	<p>After the TMP &amp; site safety briefing the STMS will direct &amp; manage the installation of the TTM equipment.</p> <p>The installation of temporary traffic management measures shall be undertaken using a mobile operation as per diagram 01 with vehicle mounted advance warning sign and flashing beacon/s.</p> <p>All signs are erected either in front of the work vehicle with 10m roll ahead, alongside the work vehicle on the non-traffic side or at the rear of the work vehicle with a shadow vehicle in place. The first sign erected is the advance warning sign. Remaining signs are installed by travelling around the road network in a clockwise direction taking in each side road as they are passed until the last thank you sign is installed.</p> <p>On completion of TTM set out, the STMS shall undertake a site inspection to check that the site is safe, legal and conforms to the TMP.</p>
<p><b>Attended (day)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Attended (night)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Unattended (day)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Unattended (night)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Detour route</b></p>	<p>No detour required</p>
	<p>Does detour route go into another RCA's roading network? Not required  <i>If Yes, has confirmation of acceptance been requested from that RCA? Not required</i>  <b>Note:</b> Confirmation of acceptance from affected RCA must be submitted prior to occupying the site.</p>
<p><b>Removal</b></p>	<p>Once the works are completed the STMS will check that the worksite is left in a safe condition, and it is safe to remove the TTM equipment.</p> <p>The removal of temporary traffic management measures shall be undertaken using a mobile operation as per diagram 01 attached with vehicle mounted advance warning sign/s and flashing beacon/s.</p> <p>All signs are removed either in front of the work vehicle with 10m roll ahead, alongside the work vehicle on the non-traffic side or at the rear of the work vehicle with a shadow vehicle in place. The first sign removed is a thank you sign. Remaining signs are removed by travelling around the road network in a clockwise direction taking in each side road as they are passed until the last advance warning sign is removed.</p> <p>Once the site is cleared of all TTM equipment the STMS will carry out a drive through to ensure the site is left in a safe condition and no TTM equipment remains</p>

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**Proposed TSLs** (see TSL decision matrix for guidance)

	<b>TSL details as required</b> Approval of Temporary Speed Limits (TSL) are in terms of Section 6 of Land Transport Rule: Setting of Speed Limits 2017, Rule 54001/2017 (List speed, length and location)	<b>Times</b> (From and to)	<b>Dates</b> (Start and finish)	<b>Diagram ref. no.s</b> (Layout drawings or traffic management diagrams)
<b>Attended day/night</b>	A temporary maximum speed limit of 50km/h is hereby fixed for motor vehicles travelling over the length of approx 400m situated between RP 031-0047-B/6.600 – 031-0047-B/7.000 and approx 130m situated between RP 0.000 – 0.130 on Aotea Rd Kawhia District	24 hours	1 <sup>st</sup> May 2022 – 30/09/2022	02
<b>Unattended day/night</b>	A temporary maximum speed limit of 50km/h is hereby fixed for motor vehicles travelling over the length of approx 400m situated between RP 031-0047-B/6.600 – 031-0047-B/7.000 and approx 130m situated between RP 0.000 – 0.130 on Aotea Rd Kawhia District	24 hours	1 <sup>st</sup> May 2022 – 30/09/2022	02
<b>TSL duration</b>	Will the TSL be required for longer than 12 months? <i>If yes, attach the completed checklist from section I-18: Guidance on TMP Monitoring Processes for TSLs to this TMP.</i>			No

**Positive traffic management measures**

Signs are attached to timber posts to act as permanent warning type signage on all entries and exits to intersection. All vehicles to obey normal road rules when entering & exiting intersection. Remove TTM equipment immediately after works are complete. Hit Sticks will be installed in shoulders on LH side from 50km/h TSL signs to intersection. **Timber post to be painted white and 100mm\*100mm**

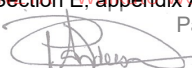
**Contingency plans**

<b>Generic contingencies for:</b>	<b>Major Incident</b>	<b>Actions</b>
<ul style="list-style-type: none"> <li>major incidents</li> <li>incidents</li> <li>pre planned detours.</li> </ul> <p><i>Remove any options which do not apply to your job</i></p>	<p>A major incident is described as:</p> <ul style="list-style-type: none"> <li>Fatality or notifiable injury - real or potential</li> <li>Significant property damage, or</li> <li>Emergency services (police, fire, etc) require access or control of the site.</li> </ul>	<p>The STMS must immediately conduct the following:</p> <ul style="list-style-type: none"> <li>stop all activity and traffic movement</li> <li>secure the site to prevent (further) injury or damage</li> <li>contact the appropriate emergency authorities</li> <li>render first aid if competent and able to do so</li> <li>notify the RCA representative and / or the engineer</li> <li>under the guidance of the officer in charge of the site, reduce effects of TTM on the road or remove the activity if safe to do so</li> <li>re-establish TTM and traffic movements when advised by emergency authorities that it is safe to do so</li> <li>Comply with any obligation to notify WorkSafe.</li> </ul>

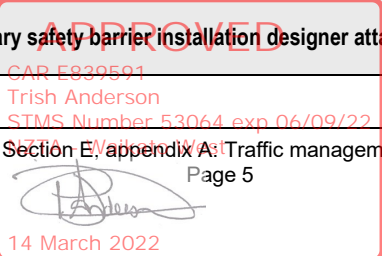
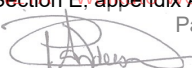
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	<p><b>Incident</b></p> <p>An incident is described as:</p> <ul style="list-style-type: none"> <li>excessive delays - real or potential</li> <li>minor or non-inquiry accident that has the potential to affect traffic flow</li> <li>structural failure of the road.</li> </ul>	<p><b>Actions</b></p> <p>The STMS must immediately conduct the following:</p> <ul style="list-style-type: none"> <li>stop all activity and traffic movement if required</li> <li>secure the site to prevent the prospect of injury or further damage</li> <li>notify the RCA representative and / or the engineer</li> <li>STMS to implement a plan to safely remove TTM and to establish normal traffic flow if safe to do so</li> <li>re-establish TTM and traffic movements when it is safe to do so and when traffic volumes have reduced.</li> </ul>
	<p><b>Detour</b></p> <p>If because of the on-site activity it will not be possible to remove or reduce the effects of TTM once it is established a detour route must be designed. This is likely for:</p> <ul style="list-style-type: none"> <li>excessive delays when using an alternating flow design for TTM</li> <li>redirecting one direction of flow and / or</li> <li>total road closure and redirection of traffic until such time that traffic volumes reduce and tailbacks have been cleared.</li> </ul> <p>The risks in the type of work being undertaken, the risks inherent in the detour, the probable duration of closure and availability and suitability of detour routes need to be considered.</p> <p>The detour and route must be designed including:</p> <ul style="list-style-type: none"> <li>pre-approval from the RCA's whose roads will be used or affected by the detour route</li> <li>ensure that TTM equipment for the detour - signs etc are on site and pre-installed.</li> </ul>	<p><b>Actions</b></p> <p>When it is necessary to implement the pre-planned detour the STMS must immediately undertake the following:</p> <ul style="list-style-type: none"> <li>Notify the RCA and / or the engineer when the detour is to be established</li> <li>Drive through the detour in both directions to check that it is stable and safe</li> <li>Remove the detour as soon as it practicable and safe to do so and the traffic volumes have reduced and tailbacks have cleared</li> <li>Notify the RCA and / or the engineer when the detour has been disestablished and normal traffic flows have resumed.</li> </ul>
	<p><b>Note also the requirements for no interference at an accident scene:</b></p> <p>In the event of an accident involving serious harm the STMS must ensure that nothing, including TTM equipment, is removed or disturbed and any wreckage article or thing must not be disturbed or interfered with, except to:</p> <ul style="list-style-type: none"> <li>save a life of, prevent harm to or relieve the suffering of any person, or</li> <li>make the site safe or to minimise the risk of a further accident; or</li> <li>maintain the access of the general public to an essential service or utility, or</li> <li>prevent serious damage to or serious loss of property, or</li> <li>follow the direction of a constable acting in his or her duties or act with the permission of an inspector.</li> </ul>	
<p><b>Other contingencies to be identified by the applicant</b> <i>(i.e. steel plates to quickly cover excavations)</i></p>	<p>No other contingencies are required.</p>	

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Authorisations				
Parking restriction(s) alteration authority	Will controlled street parking be affected?	No	Has approval been granted?	Not required
Authorisation to work at permanent traffic signal sites	Will portable traffic signals be used or permanent traffic signals be changed?	No	Has approval been granted?	Not required
Road closure authorisation(s)	Will full carriageway closure continue for more than 5 minutes (or other RCA stipulated time)?	No	Has approval been granted?	Not required
Bus stop relocation(s) – closure(s)	Will bus stop(s) be obstructed by the activity?	No	Has approval been granted?	Not required
Authorisation to use portable traffic signals	Make, model and description/number	Not required		
	NZTA compliant?	Not required		
EED				
Is an EED applicable?	Not required	EED attached?	Not required	
Delay calculations/trial plan to determine potential extent of delays				
No delays are expected as all traffic lanes remain open.				
Public notification plan				
Not required				
Public notification plan attached?	Not required			
On-site monitoring plan				
Attended (day and/or night)	Immediately after setup by STMS then from time to time by Hancock Forest managers.			
Unattended (day and/or night)	From time to time by Hancock Forest managers.			
	If signs are damaged/missing Hancock Forest Managers are to advise CRT immediately to get them fixed asap			
Method for recording daily site TTM activity (eg CoPTTM on-site record)				
All minor alterations, requests and monitoring notes of TTM activity will be recorded onto the onsite record.				
Site safety measures				
All TTM staff will be equipped with appropriate safety equipment. Toolbox meeting held at start of works to brief all on site of site hazards & TMP requirements.				
Temporary safety barrier system	Will a temporary safety barrier system be used at this worksite?	No	If yes, has the temporary safety barrier system been designed by an installation designer and independently reviewed as being fit for purpose?	Not required
	Statement from temporary safety barrier installation designer attached			Not required


  
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**Other information**

As the signs are installed onto timber posts, the responsibilities of the STMS, section A4.3.2 of COPTTM will not apply in this situation. ie; no daily visits, no TC / STMS on site and STMS not expected to be within 30 mins of site on call. These signs are installed to act as permanent warning type signage to warn road users that there is trucks crossing access ahead. Hancock Forestry managers will monitor TTM equipment and report back to WSP as and when required.


**Site specific layout diagrams**

Number	Title
01	Mobile Operation Site Setup Removal
02	Truck Crossing with 50km/h TSL

**Contact details**

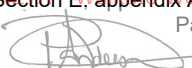
	Name	24/7 contact number	CoPTTM ID	Qualification	Expiry date
<b>Principal</b>	Hancock Forestry (Hamish Owen)	027 477 0565	Not required	Not required	Not required
<b>TMC (Waka Kotahi)</b>	West Waikato NOC (Trish Andersen)	027 645 4855	53064	L2/3 STMS NP	06/09/22
<b>TMC (Local Roads)</b>	Otorohanga District Council (Marion Fleming)	027 920 3299	362	L2/3 STMS NP	28/05/22
<b>Engineers' representative</b>	Hancock Forestry (Hamish Owen)	027 477 0565	Not required	Not required	Not required
<b>Contractor</b>	Combined Road & Traffic Services (Steve Wilks)	027 477 7020	Not required	Not required	Not required
<b>STMS</b>	Combined Road & Traffic Services (Simon Duffy)	021 196 7520	18707	L2/3 STMS NP	04/12/22
<b>TC</b>	Not required	Not required	Not required	Not required	Not required
<b>Others as required</b>	WSP (James Darge)	027 282 4938	Not required	Not required	Not required

**TMP preparation**

Preparation	Name (STMS qualified)	Date	Signature	ID no.	Qualification	Expiry date
	Ron Whiting	04/03/2022		338	TTM Planner	09/09/9999

<b>This TMP meets CoPTTM requirements</b>	<b>APPROVED</b>	<b>Number of diagrams attached</b>	02
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<b>TMP returned for correction</b> <i>(if required)</i>						
	<i>Name</i>	<i>Date</i>	<i>Signature</i>	<i>ID no.</i>	<i>Qualification</i>	<i>Expiry date</i>

**Engineer/TMC to complete following section when approval or acceptance required**

<b>Temporary safety barrier system</b>	The attached temporary road safety barrier design has been independently reviewed as being fit for purpose	Yes No Not required
<b>TMP Approved</b>		
	<i>Name</i>	<i>Date</i>
	<i>Signature</i>	<i>ID no.</i>
	<i>Qualification</i>	<i>Expiry date</i>
<b>Acceptance by TMC</b> <i>(only required if TMP approved by engineer)</i>		
	<i>Name</i>	<i>Date</i>
	<i>Signature</i>	<i>ID no.</i>
	<i>Qualification</i>	<i>Expiry date</i>

**Qualifier for engineer or TMC approval**

Approval of this TMP authorises the use of any regulatory signs included in the TMP or attached traffic management diagrams.

This TMP is approved on the following basis:

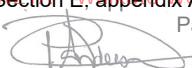
1. To the best of the approving engineer's/TMC's judgment this TMP conforms to the requirements of CoPTTM.
2. This plan is approved on the basis that the activity, the location and the road environment have been correctly represented by the applicant. Any inaccuracy in the portrayal of this information is the responsibility of the applicant.
3. The TMP provides so far as is reasonably practicable, a safe and fit for purpose TTM system.
4. The STMS for the activity is reminded that it is the STMS's duty to postpone, cancel or modify operations due to the adverse traffic, weather or other conditions that affect the safety of this site.

**Notification to TMC prior to occupying worksite/Notification completed**

<b>Type of notification to TMC required</b>	Site is active with signs displayed 24 hours per day. TMC to be notified when signs are erected and when signs are removed by emailing notification via the Daily Activity Report Spreadsheet.	<b>Notification completed</b>	Date <input style="width: 100%;" type="text"/> Time <input style="width: 100%;" type="text"/>
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14 March 2022



TMP or generic plan reference

<b>ON-SITE RECORD</b> On-site record must be retained with TMP for 12 months.	Today's date	
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<b>Location details</b>	Road names(s):	House number/RPs:	Suburb:
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**Working space**

<b>Person responsible for working space</b>		
	Name	Signature

Where the STMS/TC is responsible for both the working space and TTM they sign above and in the appropriate TTM box below

**TTM**

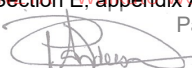
<b>STMS in charge of TTM</b>					
	Name	TTM ID Number	Warrant expiry date	Signature	Time
<b>Worksite handover accepted by replacement STMS</b>					
	Name	ID Number	Warrant expiry date	Signature	Time
	Tick to confirm handover briefing completed				

**Delegation**

<b>Worksite control accepted by TC/STMS-NP</b>					
	Name	ID Number	Warrant expiry date	Signature	Time
	Tick to confirm briefing completed				

**Temporary speed limit**

Street/road name (RPs or street numbers):	TSL action	Date:	Time:	TSL speed:	Length of TSL (m):
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				

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 14 March 2022

TMP or generic plan reference	
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**Worksite monitoring**

TTM to be monitored and 2 hourly inspections documented below.

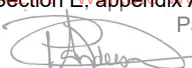
Items to be inspected	TTM set-up	2 hourly check	2 hourly check	2 hourly check	2 hourly check	2 hourly check	TTM removal
High-visibility garment worn by all?							
Signs positioned as per TMP?							
Conflicting signs covered?							
Correct delineation as per TMP?							
Lane widths appropriate?							
Appropriate positive TTM used?							
Footpath standards met?							
Cycle lane standards met?							
Traffic flows OK?							
Adequate property access?							
Barrier deflection area is clear?							
<i>Add others as required</i>							
<b>Time inspection completed:</b>							
<b>Signature:</b>							

**Comments:**

Time	Adjustment made and reason for change

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CAR E839591  
Trish Anderson  
STMS Number 53064 exp 06/09/22  
S27A - Worksite Ws




14 March 2022

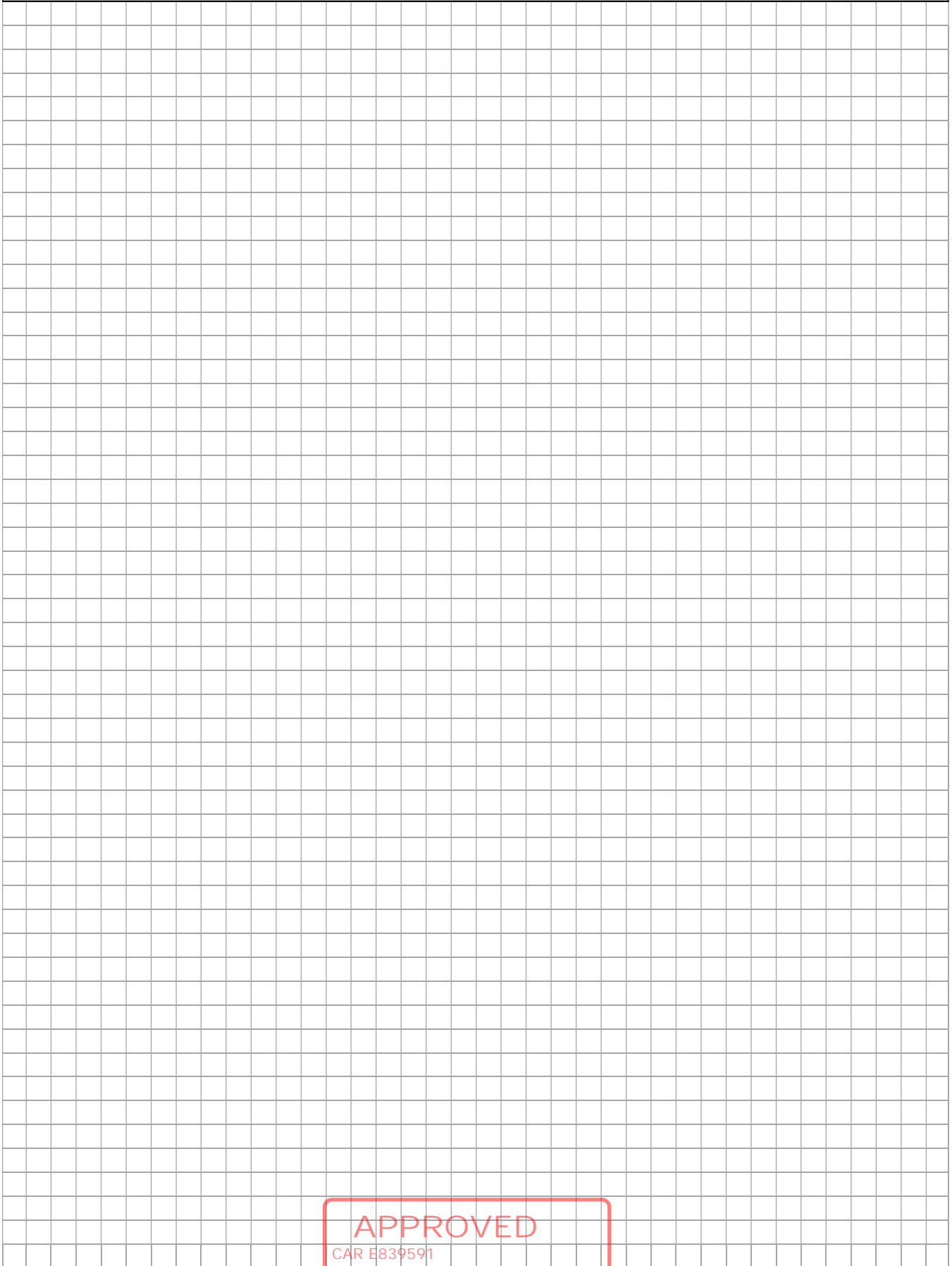
<b>Reporting company reference:</b>	<b>CoPTTM.incident reference:</b>
Reference added by reporting company	Reference added by the CoPTTM.Incident database administrator

### REPORT ON INCIDENT AT ROADWORKS SITE

Send to: [CoPTTM.Incident@nzta.govt.nz](mailto:CoPTTM.Incident@nzta.govt.nz) and the RCA in charge of the network (including NZTA for state highways)

Date of incident		Time of incident				
Reported by		Company				
STMS name		STMS No.				
Contractor /TTM Company		Contact number				
Road location (include direction and lane)						
Description of work being undertaken						
Incident type	Near miss	Vehicle entered TTM	Vehicle entered working space	TMA hit	Other	
Operation type	Static	Mobile	Semi-static	Shoulder	Unattended	
Phase of operation	Install		Static, mobile, semi-static		Removal	
Damage to	Vehicles		Plant	TTM equipment		
Injuries	Number of people in each injury category	Enter the number of people in each injury category		Minor	Notifiable	Fatal
		Road workers				
		Road users				
Crash code	From Appendix 1 attached		Road user vehicle	Vehicle type	Reg. number	
If TMA hit, which TMA		Which lane				
Police attended	(Officer name/number)		Further information	For a more detailed internal report (contact)		
Description of events	<div style="border: 2px solid red; padding: 5px; text-align: center;"> <p><b>APPROVED</b></p> <p>CAR E839591 Trish Anderson STMS Number 53064 exp 06/09/22 NZTA - Waikato West</p>   <p>14 March 2022</p> </div>					

**Crash diagram (or scan and attach) - photos can also be attached**



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14 March 2022



# Appendix 1: Vehicle movement coding sheet

	TYPE	A	B	C	D	E	F	G	O
A	OVERTAKING AND LANE CHANGE	PULLING OUT OR CHANGING LANE TO RIGHT	HEAD ON	CUTTING IN OR CHANGING LANE TO LEFT	LOST CONTROL (OVERTAKING VEHICLE)	SIDE ROAD	LOST CONTROL (OVERTAKEN VEHICLE)	WEAVING IN HEAVY TRAFFIC	OTHER
B	HEAD ON	ON STRAIGHT	CUTTING CORNER	SWINGING WIDE	BOTH OR UNKNOWN	LOST CONTROL ON STRAIGHT	LOST CONTROL ON CURVE		OTHER
C	LOST CONTROL OR OFF ROAD (STRAIGHT ROADS)	OUT OF CONTROL ON ROADWAY	OFF ROADWAY TO LEFT	OFF ROADWAY TO RIGHT					OTHER
D	CORNERING	LOST CONTROL TURNING RIGHT	LOST CONTROL TURNING LEFT	MISSED INTERSECTION OR END OF ROAD					OTHER
E	COLLISION WITH OBSTRUCTION	PARKED VEHICLE	CRASH OR BROKEN DOWN	NON VEHICULAR OBSTRUCTIONS (INCLUDING ANIMALS)	WORKMANS VEHICLE	OPENING DOOR			OTHER
F	REAR END	SLOWER VEHICLE	CROSS TRAFFIC	PEDESTRIAN	QUEUE	SIGNALS	OTHER		OTHER
G	TURNING VERSUS SAME DIRECTION	REAR OF LEFT TURNING VEHICLE	LEFT TURN SIDE SIDE SWIPE	STOPPED OR TURNING FROM LEFT SIDE	NEAR CENTRE LINE	OVERTAKING VEHICLE	TWO TURNING		OTHER
H	CROSSING (NO TURNS)	RIGHT ANGLE (70° TO 110°)							OTHER
J	CROSSING (VEHICLE TURNING)	RIGHT TURN RIGHT SIDE	OPPOSING RIGHT TURNS	TWO TURNING					OTHER
K	MERGING	LEFT TURN IN	RIGHT TURN IN	TWO TURNING					OTHER
L	RIGHT TURN AGAINST	STOPPED WAITING TO TURN	MAKING TURN						OTHER
M	MANOEUVRING	PARKING OR LEAVING	"U" TURN	"U" TURN	DRIVEWAY MANOEUVRE	ENTERING OR LEAVING FROM OPPOSITE SIDE	ENTERING OR LEAVING FROM SAME SIDE	REVERSING ALONG ROAD	OTHER
N	PEDESTRIANS CROSSING ROAD	LEFT SIDE	RIGHT SIDE	LEFT TURN LEFT SIDE	RIGHT TURN RIGHT SIDE	LEFT TURN RIGHT SIDE	RIGHT TURN LEFT SIDE	MANOEUVRING VEHICLE	OTHER
P	PEDESTRIANS OTHER	WALKING WITH TRAFFIC	WALKING FACING TRAFFIC	WALKING ON FOOTPATH	CHILD PLAYING (INCLUDING TRICYCLE)	ATTENDING TO VEHICLE	ENTERING OR LEAVING VEHICLE		OTHER
Q	MISCELLANEOUS	FELL WHILE BOARDING OR ALIGHTING	FELL FROM MOVING VEHICLE	TRAIN	PARKED VEHICLE RAN AWAY	EQUESTRIAN	FELL INSIDE VEHICLE	TRAILER OR LOAD	OTHER

\* = Movement applies for left and right hand bends, curves or turns

New Zealand Government

Trish Anderson  
STMS Number 53064 exp 06/09/22  
NZTA - Waikato West

14 March 2022

## C2.5 Combined level LV and level 1 worksite layout distances

Permanent speed limit or RCA - designated operating speed (km/h)		≤50	60	70	80	90	100		
<b>Traffic signs</b>									
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		
<b>Safety zones</b>									
D	Longitudinal (m) +	10 or 5*	15	30	45	55	60		
E	Lateral (m) +	1	1	1	1	1	1		
	Lateral behind barrier installation	As specified by the Installation Designer							
<b>Tapers</b>									
G	Taper length (m) #	30	50	70	80	90	100		
G	LV roads taper length (m) #	25	30	35	40	45	50		
K	Distance between tapers (m)	40	50	70	80	90	100		
<b>Delineation devices</b>									
Cone spacing in taper (m)		2.5	2.5	5	5	5	5		
Cone spacing: Working space (m)##		5	5	10	10	10	10		
* Larger minimum distances apply on all state highways and also on all multi-lane roads. The smaller minimum distances may be applied on other roads to accommodate road environment constraints.									
+ On LV roads the longitudinal and lateral safety zones may be reduced, or eliminated, in order to retain a single lane width. Positive traffic management and an appropriate TSL must be used.									
# <ol style="list-style-type: none"> <li>1. On non-state highways with speeds 50km/h or less, a <b>10m taper</b> (with cones at 1m centres) may be used when there are road environment constraints (eg intersections and commercial accesses).</li> <li>2. On all roads where the shoulder width is less than 2.5m and the activity does not affect the live lane, a <b>10m shoulder taper</b> is permitted (with atleast 5 cones at no greater than 2.5m centres).</li> <li>3. A <b>taper of 30m</b> (with cones at 2.5m centres) <b>must</b> be used where manual traffic control (stop/go), portable traffic signals or priority give way are employed.</li> </ol>									
## LV roads: double the cone spacing alongside working space (eg 5 = 10, 10 = 20).									
<b>Lane widths</b> (based on permanent speed or TSL if applied)									
Speed (km/h)		30	40	50	60	70	80	90	100
F	Lane Width (m)	2.75	2.75	3.0	3.0	3.25	3.25	3.5	3.5

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

### LV/low risk roads (less than 250vpd – less than 20 vehicles per hour)

When on the shoulder:

- \* If CSD **not** available: Advance warning sign and base to be installed with sign visibility distance and warning distance in place
- \* If CSD available: Advance warning sign may be attached to the rear of a work vehicle which has an amber flashing beacon(s) and is visible to approaching road users from the rear.

When the activity encroaches onto a live lane consider alternating flow controls

If the above requirements cannot be achieved, the operation must be modified to comply with the appropriate level LV or level 1 requirements.

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CAR E839591  
Trish Anderson  
STMS Number 53064 exp 06/09/22  
NZTA - Waikato West



14 March 2022

## Diagram 01 Mobile Operation Site Setup / Removal

### Order of worksite establishment

On bi directional carriageways, signs should be erected by travelling around the road network in a clockwise direction taking in each side road as they are passed. In this way all turns in and out will be to the left which is easier and safer:

#### STEP 1:

Drive through the entire site checking for any unforeseen hazards or any other work sites that may interfere with ours.

#### STEP 2:

After the TMP & site safety briefing the STMS will direct and manage the installation of the TTM. TTM equipment will be installed as per the installation process in the TMP. Signs will be setup on the left hand side of or in front of vehicle 0.5m clear of the travelled path wherever possible. The first sign erected will be the advance warning sign. Remaining signs & TTM equipment are placed as required until the sign network is complete.

#### STEP 3:

Carryout a drive through check of the worksite in all directions including side roads. This check must confirm that the worksite is:

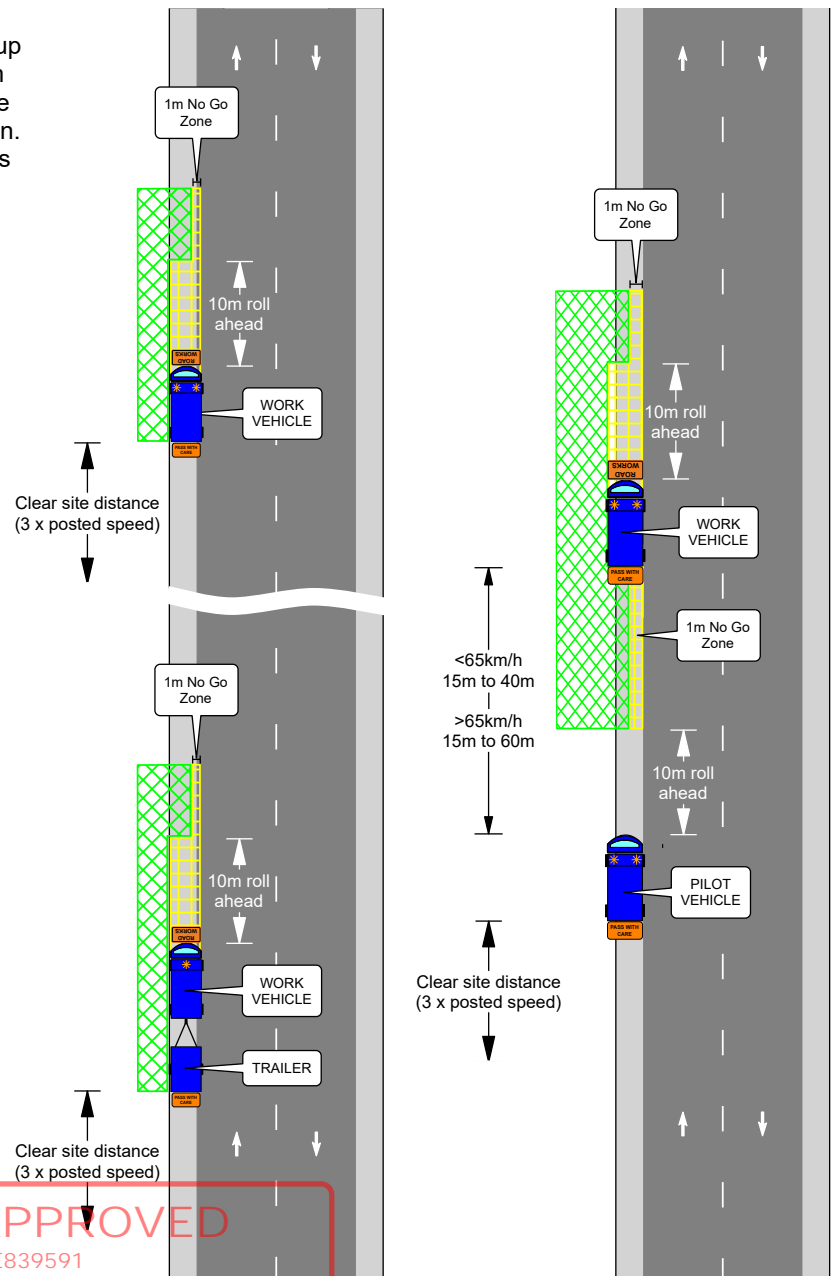
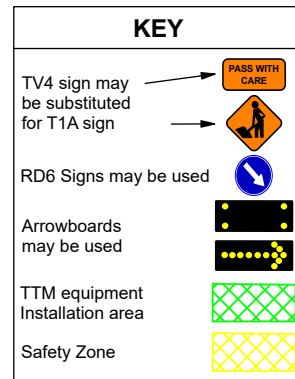
- Safe
- to the minimum standard shown in the TMP and that
- the restriction to traffic flow is reasonable
- the signs and delineation devices give clear messages to road users, and the signs and delineation devices are securely erected and will remain in their correct position under the expected traffic volumes and weather conditions.

#### STEP 4:

Carryout a toolbox meeting and explain identified hazards for the worksite, TMP requirements for worksite including TTM staff duties, safety zone requirements and limits.


#### STEP 5:

The removal of TTM measures must be as per removal process in TMP. The last sign to be removed must be the advance warning sign. Once the site is cleared of all TTM equipment the STMS will carry out a drive through to ensure the site is left in a safe condition and no hazards or TTM equipment remain



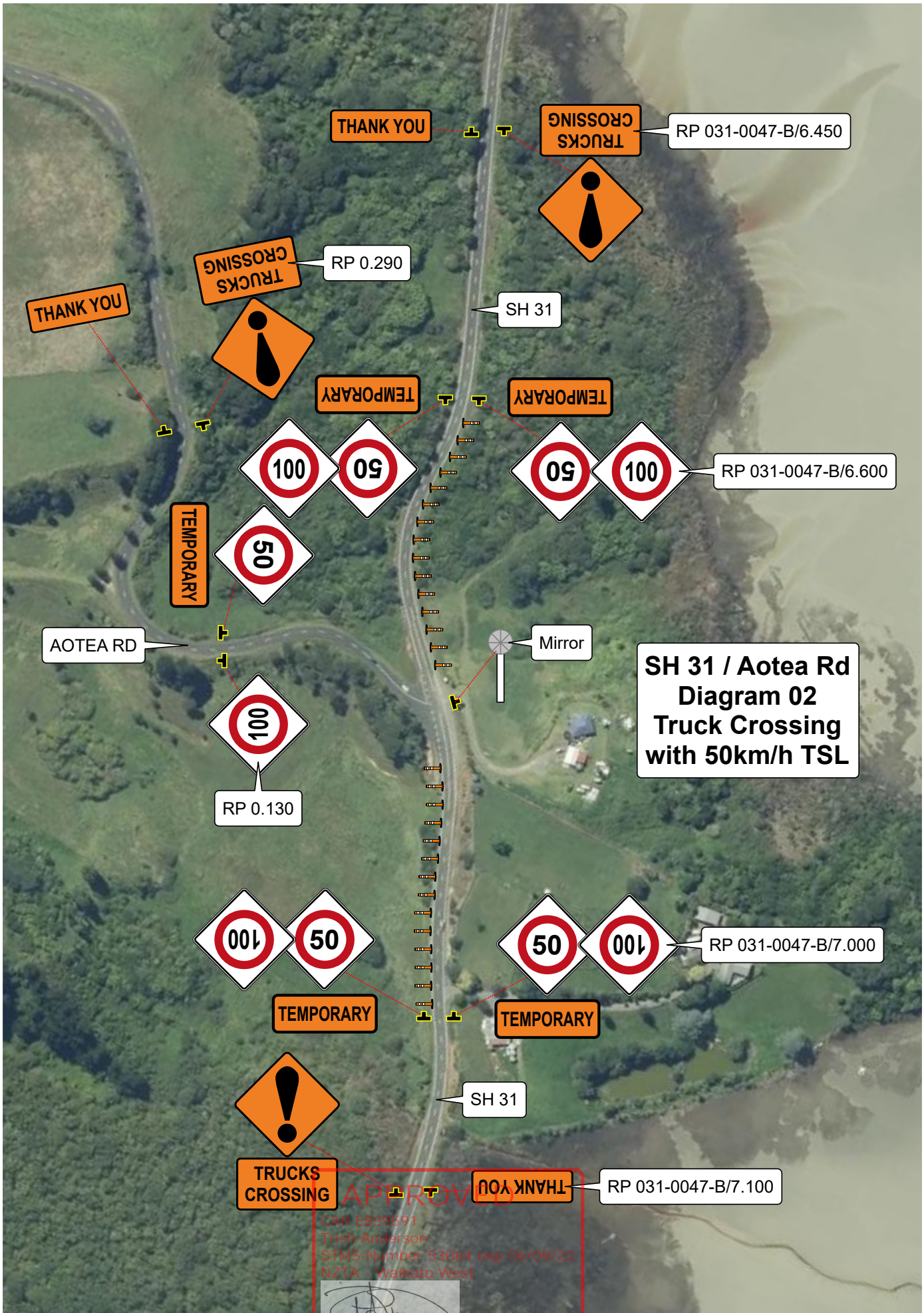
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 Trish Anderson  
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 NZTA - Waikato West



14 March 2022





**SH 31 / Aotea Rd  
Diagram 02  
Truck Crossing  
with 50km/h TSL**

APPROVED

ICAN E339591  
Trish Anderson  
STMS Number 53064 exp 06/09/22  
NZTA - Waikato West

*[Signature]*

14 March 2022



## Works Access Permit

Registration Number: **E839591**

Utility Reference: **N/A**



**OTOROHANGA**  
DISTRICT COUNCIL

### 1. Details of Proposed Work

Activity: Billboard/Sign Maintenance

Address: 5343 State Highway 31 Kawhia Road, Kawhia, Kawhia, 3889

Location in road: Berm

WAP valid period: 01 May 2022 to 30 April 2023

### 2. The Parties

Otorohanga District Council being a body corporate in accordance with the Local Government Act 2002 ('the Corridor Manager;')

TAUMATA PLANTATIONS LIMITED being an approved Utility Operator in accordance with submitting a request for access in accordance with that act;

COMBINED ROAD & TRAFFIC SERVICES LIMITED being the agent of the Utility Operator submitting this request on behalf of the Utility Operator and in accordance with the Utility Operator's statutory rights ('the Applicant').

### 3. Attachments

Attachment 1 being the Schedule of Reasonable Conditions.

Attachment 2 being plan TMP showing the agreed service location.

### 4. Background

(a) The Utility Operator wishes to carry out the works stated on CAR Number E839591 and thereafter maintain the utility services established in the corridor;

(b) The Corridor Manager is required to provide a written consent in accordance with its governing legislation and to provide a schedule of reasonable conditions, if required, by the utility legislation under which the request for access has been made; and

(c) In accordance with the Code: Utilities' Access to the Transport Corridors and on behalf of the Corridor Manager, I give my written consent for access to the corridor at the agreed location and attach my schedule of reasonable conditions:

(d) In the case of State highways this Works Access Permit serves as the approvals required under sections 51 and 78 of the Government Roading Powers Act.

**Signed** *Marion Fleming*

**Date** 22/02/2022

Marion Fleming acting pursuant to delegated authority.

FOR Corridor Manager APPROVAL USE ONLY

Time Spent Processing:

Approved Contractor

Route Plan Submitted

TMP Submitted

Stockpiling Arrangements

**APPROVED**

CAR E839591  
Marion Fleming  
STMS Number 362  
Otorohanga District Council

*Marion Fleming*

22 February 2022

# CONDITIONS

## General Conditions

1. The Utility Operator must:

(a) carry out all Work in Transport Corridors in accordance with the Code and KiwiRail's Specifications for Working in Railway Corridors;

(b) undertake all Works in compliance with the Acts of Parliament and mandated codes of practice that relate to their industry and the type of Work described within the plans and methodology submitted;

(c) install assets more or less in the location shown on the attached plans, and agree the exact location and position with the Road Corridor Manager before Work commences;

(d) locate any Utility Structures in the Road Corridor in the agreed position shown on the drawings and clear of the Carriageway, Road Corridor furniture and kerbs, drains, manholes, etc. Utility Structures agreed to be within the trafficable part of the Road are to be flush with the surface and designed to withstand full heavy Traffic loading (NZTA's HN-HO-72 Traffic Loading);

(e) provide a full description of the construction methodology, reinstatement, resurfacing and compaction and agree this with the Road Corridor Manager prior to Work commencing;

(f) make the Works available at all times for inspection by any person representing the Road Corridor Manager;

(g) if requested, pay the reasonable costs of the Road Corridor Manager in connection with the processing of this notice and for the monitoring and auditing of the Works; (See NZ Transport Agency Cost Structure under Clause 23)

(h) keep a full copy of the Works Access Permit/ Permit to Enter and Reasonable Conditions on the Work Site at all times during the Works;

(i) undertake remedial action on non-conforming Work within the timeframe set by the Road Corridor Manager, where reasonable and practicable;

(j) gain all the necessary consents, approvals and permits from the relevant statutory and regulatory authorities at its own cost;

(k) keep plans of the installed Work and make them available to the Railway Corridor Manager (in all cases) and Road Corridor Manager (on request);

(l) compensate the Road Corridor Manager for any damage or costs incurred to the Road Corridor due to the Work or for costs resulting from the removal of abandoned installations, Utility Structures, components and equipment that belong to the Utility Operator;

(m) repair all Road Corridor assets damaged as a result of the Works, should the Road Corridor Manager determine these are necessary prior to the end of the Warranty period;

(n) restore to their original condition any surface or Utility Structure that was damaged or removed as a result of the Works;

(o) control the surface water channels so as to cause minimal interference to existing flows;

(p) fully restore the surface water channels at the completion of the Works;

(q) notify the Road Corridor Manager of any maintenance Work it proposes to undertake within the two-year Warranty period;

**CAR Number:** E839591

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STMS Number 362  
Otorohanga District Council  
*Marion Fleming*  
Page 1 Of 3  
22 February 2022

(r) have in place an approved TMP for Roads and Motorways at least two days prior to Work commencing on the Work Site;

(s) provide the Road Corridor Manager with two Working Days' notice before commencement of Work on the Work Site;

(t) ensure that the Work is carried out under the control of a warranted supervisor as required by the Code of Practice for Temporary Traffic Management and ensure that there are sufficient people on site specifically to control the flow of Traffic through the site in accordance with the TMP;

(u) comply with instructions from an officer of the NZ Police Traffic Safety Branch or a duly authorised agent of the Road Corridor Manager in respect of Traffic management and safety;

(v) complete Works in the Road Corridor in one continuous operation (suspension of Works over five continuous days requires the prior written permission of the Road Corridor Manager);

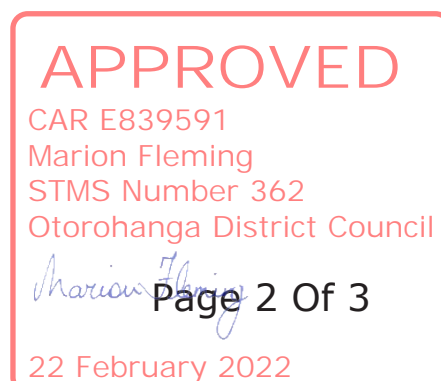
(w) protect and maintain all Road Corridor signs, markers, signals, barriers and associated marking and replace them to the appropriate industry standard where they have been damaged by the Works;

(x) complete and submit a Works Completion Notice form when the Works are complete; and

(y) stop Work as necessary to meet the requirements of section 42 of the Heritage New Zealand Pouhere Taonga Act 2014.

2. Work must not take place on or near a State highway during and one day either side of a public holiday or public holiday weekend.
3. Where otherwise required due to Traffic volumes or specific residential or Central Business District requirements, the hours of Work must be as specified in the Local Conditions and Special Conditions.
4. The Warranty period starts from the date the Road Corridor Manager has given signed acceptance that the Work is complete or otherwise as provided in Section 4.7.1.7 of the Code.
5. Unless the Works stated in the WAP have started on the Work Site, the agreement relating to the Works will only remain valid for six months from the date of approval on the Works Access Permit.
6. The Road Corridor Manager must manage all applications relating to Road Corridor access in accordance with the timeframes and processes in the Code.
7. The Corridor Manager may:
  - (a) assess the suitability of any action proposed by the Utility Operator during the Warranty period and impose Reasonable Conditions that will maintain the integrity of the Road assets;
  - (b) arrange for remedial Work to be done and recover the costs incurred from the Utility Operator, if the Utility Operator fails to take action within the agreed timeframe; and
  - (c) instruct the Utility Operator to stop Work and leave the Work Site (having made the site safe) if the Works are not complying with the relevant Reasonable Conditions including any plans, relevant conditions or specifications contained in the Code, or permission requirements.

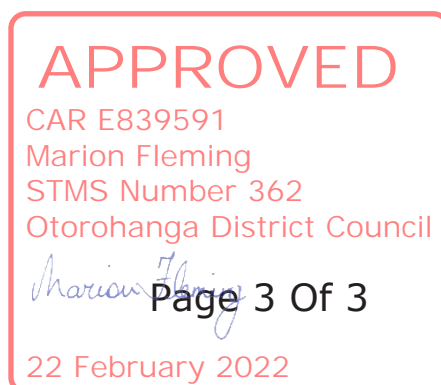
**CAR Number:** E839591



8. In granting this WAP, no vested right is created.
9. This WAP is not transferable without the written permission of the Road Corridor Manager.

**Local Conditions**

**CAR Number:** E839591






## TRAFFIC MANAGEMENT PLAN (TMP) – FULL FORM

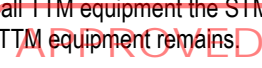
Use this form for complex activities. Refer to the NZ Transport Agency's Traffic control devices manual, part 8 Code of practice for temporary traffic management (CoPTTM), section E, appendix A for a guide on how to complete each field.

Organisations /TMP reference	TMP reference:	Contractor (Working space): Combined Road & Traffic Services	Principal (Client): Hancock Forestry				
		Contractor (TTM): Combined Road & Traffic Services	RCA: Waka Kotahi NZTA (SH 31) Otorohanga District Council (Aotea Rd)				
Location details and road characteristics	Road names and suburb		RPs (from and to)	Road level	Permanent speed		
	SH 31 Aotea Rd Kawhia District		Intersection of SH 31 & Aotea Rd RP 031-0047-B/ 6.781	1 LV	100 km/h		
Traffic details (main route)	AADT (info from Mobile Road)  SH 31 = 508 (est) VPD 11.652% - Heavy Aotea Rd = 280 (est) VPD 5% Heavy		Peak flows  No peak hour flows (Rural Area)				
Description of work activity							
Install trucks crossing & 50km/h temporary speed limit signs onto timber posts for semi-permanent advance warning of logging trucks entering & exiting Aotea Rd. Install a visibility mirror onto timber post at headway of intersection.							
Planned work programme							
Start date	1 <sup>st</sup> May 2022	Time	24 Hours	End date	30 <sup>th</sup> April 2023	Time	24 Hours
Consider significant stages, for example:	<ul style="list-style-type: none"> <li>road closures</li> <li>detours</li> <li>no activity periods.</li> </ul> Signs out 24 hours Logging truck movements 24 hours						
Alternative dates if activity delayed	No alternative dates are required						
Road aspects affected (delete either Yes or No to show which aspects are affected)							
Pedestrians affected?	No	Property access affected?	No	Traffic lanes affected?	Yes		
Cyclists affected?	No	Restricted parking affected?	No	Delays or queuing likely?	No		

  
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 STMS Number 362  
 Otorohanga District Council  
 Page 1  
 22 February 2022

**Proposed traffic management methods**

<p><b>Installation</b> (includes parking of plant and materials storage)</p>	<p>After the TMP &amp; site safety briefing the STMS will direct &amp; manage the installation of the TTM equipment.</p> <p>The installation of temporary traffic management measures shall be undertaken using a mobile operation as per diagram 01 with vehicle mounted advance warning sign and flashing beacon/s.</p> <p>All signs are erected either in front of the work vehicle with 10m roll ahead, alongside the work vehicle on the non-traffic side or at the rear of the work vehicle with a shadow vehicle in place. The first sign erected is the advance warning sign. Remaining signs are installed by travelling around the road network in a clockwise direction taking in each side road as they are passed until the last thank you sign is installed.</p> <p>On completion of TTM set out, the STMS shall undertake a site inspection to check that the site is safe, legal and conforms to the TMP.</p>
<p><b>Attended (day)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Attended (night)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Unattended (day)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Unattended (night)</b></p>	<p>Static site with trucks crossing &amp; 50km/h temporary speed limit signs permanently attached to timber posts to act as permanent warning of site access as per diagram 02.</p>
<p><b>Detour route</b></p>	<p>No detour required</p>
	<p>Does detour route go into another RCA's roading network? Not required          If Yes, has confirmation of acceptance been requested from that RCA? Not required  <b>Note:</b> Confirmation of acceptance from affected RCA must be submitted prior to occupying the site.</p>
<p><b>Removal</b></p>	<p>Once the works are completed the STMS will check that the worksite is left in a safe condition, and it is safe to remove the TTM equipment.</p> <p>The removal of temporary traffic management measures shall be undertaken using a mobile operation as per diagram 01 attached with vehicle mounted advance warning sign/s and flashing beacon/s.</p> <p>All signs are removed either in front of the work vehicle with 10m roll ahead, alongside the work vehicle on the non-traffic side or at the rear of the work vehicle with a shadow vehicle in place. The first sign removed is a thank you sign. Remaining signs are removed by travelling around the road network in a clockwise direction taking in each side road as they are passed until the last advance warning sign is removed.</p> <p>Once the site is cleared of all TTM equipment the STMS will carry out a drive through to ensure the site is left in a safe condition and no TTM equipment remains.</p>

  
 CAR E839591  
 Marion Fleming  
 STMS Number 362  
 22 February 2022

**Proposed TSLs** (see TSL decision matrix for guidance)

	<b>TSL details as required</b> Approval of Temporary Speed Limits (TSL) are in terms of Section 6 of Land Transport Rule: Setting of Speed Limits 2017, Rule 54001/2017 (List speed, length and location)	<b>Times</b> (From and to)	<b>Dates</b> (Start and finish)	<b>Diagram ref. no.s</b> (Layout drawings or traffic management diagrams)
<b>Attended day/night</b>	A temporary maximum speed limit of 50km/h is hereby fixed for motor vehicles travelling over the length of approx 400m situated between RP 031-0047-B/6.600 – 031-0047-B/7.000 and approx 130m situated between RP 0.000 – 0.130 on Aotea Rd Kawhia District	24 hours	1 <sup>st</sup> May 2022 – 30 <sup>th</sup> April 2023	02
<b>Unattended day/night</b>	A temporary maximum speed limit of 50km/h is hereby fixed for motor vehicles travelling over the length of approx 400m situated between RP 031-0047-B/6.600 – 031-0047-B/7.000 and approx 130m situated between RP 0.000 – 0.130 on Aotea Rd Kawhia District	24 hours	1 <sup>st</sup> May 2022 – 30 <sup>th</sup> April 2023	02
<b>TSL duration</b>	Will the TSL be required for longer than 12 months? <i>If yes, attach the completed checklist from section I-18: Guidance on TMP Monitoring Processes for TSLs to this TMP.</i>			No

**Positive traffic management measures**

Signs are attached to timber posts to act as permanent warning type signage on all entries and exits to intersection. All vehicles to obey normal road rules when entering & exiting intersection. Remove TTM equipment immediately after works are complete.

**Contingency plans**

<b>Generic contingencies for:</b>	<b>Major Incident</b>	<b>Actions</b>
<ul style="list-style-type: none"> <li>major incidents</li> <li>incidents</li> <li>pre planned detours.</li> </ul> <p><i>Remove any options which do not apply to your job</i></p>	<p>A major incident is described as:</p> <ul style="list-style-type: none"> <li>Fatality or notifiable injury - real or potential</li> <li>Significant property damage, or</li> <li>Emergency services (police, fire, etc) require access or control of the site.</li> </ul>	<p>The STMS must immediately conduct the following:</p> <ul style="list-style-type: none"> <li>stop all activity and traffic movement</li> <li>secure the site to prevent (further) injury or damage</li> <li>contact the appropriate emergency authorities</li> <li>render first aid if competent and able to do so</li> <li>notify the RCA representative and / or the engineer</li> <li>under the guidance of the officer in charge of the site, reduce effects of TTM on the road or remove the activity if safe to do so</li> <li>re-establish TTM and traffic movements when advised by emergency authorities that it is safe to do so</li> <li>Comply with any obligation to notify WorkSafe.</li> </ul>

**APPROVED**

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Marion Fleming  
STMS Number 362

Of Chapman Drive, Tauranga

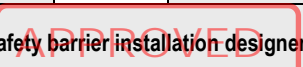
*Marion Fleming*  
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	<p><b>Incident</b></p> <p>An incident is described as:</p> <ul style="list-style-type: none"> <li>excessive delays - real or potential</li> <li>minor or non-inquiry accident that has the potential to affect traffic flow</li> <li>structural failure of the road.</li> </ul>	<p><b>Actions</b></p> <p>The STMS must immediately conduct the following:</p> <ul style="list-style-type: none"> <li>stop all activity and traffic movement if required</li> <li>secure the site to prevent the prospect of injury or further damage</li> <li>notify the RCA representative and / or the engineer</li> <li>STMS to implement a plan to safely remove TTM and to establish normal traffic flow if safe to do so</li> <li>re-establish TTM and traffic movements when it is safe to do so and when traffic volumes have reduced.</li> </ul>
	<p><b>Detour</b></p> <p>If because of the on-site activity it will not be possible to remove or reduce the effects of TTM once it is established a detour route must be designed. This is likely for:</p> <ul style="list-style-type: none"> <li>excessive delays when using an alternating flow design for TTM</li> <li>redirecting one direction of flow and / or</li> <li>total road closure and redirection of traffic until such time that traffic volumes reduce and tailbacks have been cleared.</li> </ul> <p>The risks in the type of work being undertaken, the risks inherent in the detour, the probable duration of closure and availability and suitability of detour routes need to be considered.</p> <p>The detour and route must be designed including:</p> <ul style="list-style-type: none"> <li>pre-approval from the RCA's whose roads will be used or affected by the detour route</li> <li>ensure that TTM equipment for the detour - signs etc are on site and pre-installed.</li> </ul>	<p><b>Actions</b></p> <p>When it is necessary to implement the pre-planned detour the STMS must immediately undertake the following:</p> <ul style="list-style-type: none"> <li>Notify the RCA and / or the engineer when the detour is to be established</li> <li>Drive through the detour in both directions to check that it is stable and safe</li> <li>Remove the detour as soon as it practicable and safe to do so and the traffic volumes have reduced and tailbacks have cleared</li> <li>Notify the RCA and / or the engineer when the detour has been disestablished and normal traffic flows have resumed.</li> </ul>
	<p><b>Note also the requirements for no interference at an accident scene:</b></p> <p>In the event of an accident involving serious harm the STMS must ensure that nothing, including TTM equipment, is removed or disturbed and any wreckage article or thing must not be disturbed or interfered with, except to:</p> <ul style="list-style-type: none"> <li>save a life of, prevent harm to or relieve the suffering of any person, or</li> <li>make the site safe or to minimise the risk of a further accident; or</li> <li>maintain the access of the general public to an essential service or utility, or</li> <li>prevent serious damage to or serious loss of property, or</li> <li>follow the direction of a constable acting in his or her duties or act with the permission of an inspector.</li> </ul>	
<p><b>Other contingencies to be identified by the applicant</b> <i>(i.e. steel plates to quickly cover excavations)</i></p>	<p>No other contingencies are required.</p>	

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Authorisations				
Parking restriction(s) alteration authority	Will controlled street parking be affected?	No	Has approval been granted?	Not required
Authorisation to work at permanent traffic signal sites	Will portable traffic signals be used or permanent traffic signals be changed?	No	Has approval been granted?	Not required
Road closure authorisation(s)	Will full carriageway closure continue for more than 5 minutes (or other RCA stipulated time)?	No	Has approval been granted?	Not required
Bus stop relocation(s) – closure(s)	Will bus stop(s) be obstructed by the activity?	No	Has approval been granted?	Not required
Authorisation to use portable traffic signals	Make, model and description/number	Not required		
	NZTA compliant?	Not required		
EED				
Is an EED applicable?	Not required	EED attached?	Not required	
Delay calculations/trial plan to determine potential extent of delays				
No delays are expected as all traffic lanes remain open.				
Public notification plan				
Not required				
Public notification plan attached?	Not required			
On-site monitoring plan				
Attended (day and/or night)	Immediately after setup by STMS then from time to time by Hancock Forest managers.			
Unattended (day and/or night)	From time to time by Hancock Forest managers.			
Method for recording daily site TTM activity (eg CoPTTM on-site record)				
All minor alterations, requests and monitoring notes of TTM activity will be recorded onto the onsite record.				
Site safety measures				
All TTM staff will be equipped with appropriate safety equipment. Toolbox meeting held at start of works to brief all on site of site hazards & TMP requirements.				
Temporary safety barrier system	Will a temporary safety barrier system be used at this worksite?	No	If yes, has the temporary safety barrier system been designed by an installation designer and independently reviewed as being fit for purpose?	Not required
	Statement from temporary safety barrier installation designer attached			Not required

  
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**Other information**

As the signs are installed onto timber posts, the responsibilities of the STMS, section A4.3.2 of COPTTM will not apply in this situation. ie; no daily visits, no TC / STMS on site and STMS not expected to be within 30 mins of site on call. These signs are installed to act as permanent warning type signage to warn road users that there is trucks crossing access ahead. Hancock Forestry managers will monitor TTM equipment and report back to WSP as and when required.


**Site specific layout diagrams**

Number	Title
01	Mobile Operation Site Setup Removal
02	Truck Crossing with 50km/h TSL

**Contact details**

	Name	24/7 contact number	CoPTTM ID	Qualification	Expiry date
<b>Principal</b>	Hancock Forestry (Hamish Owen)	027 477 0565	Not required	Not required	Not required
<b>TMC (Waka Kotahi)</b>	West Waikato NOC (Trish Andersen)	027 645 4855	53064	L2/3 STMS NP	06/09/22
<b>TMC (Local Roads)</b>	Otorohanga District Council (Marion Fleming)	027 920 3299	362	L2/3 STMS NP	28/05/22
<b>Engineers' representative</b>	Hancock Forestry (Hamish Owen)	027 477 0565	Not required	Not required	Not required
<b>Contractor</b>	Combined Road & Traffic Services (Steve Wilks)	027 477 7020	Not required	Not required	Not required
<b>STMS</b>	Combined Road & Traffic Services (Simon Duffy)	021 196 7520	18707	L2/3 STMS NP	04/12/22
<b>TC</b>	Not required	Not required	Not required	Not required	Not required
<b>Others as required</b>	WSP (James Darge)	027 282 4938	Not required	Not required	Not required

**TMP preparation**

<b>Preparation</b>	Ron Whiting	16/02/2022		338	TTM Planner	09/09/9999
	Name (STMS qualified)	Date	Signature	ID no.	Qualification	Expiry date

<b>This TMP meets CoPTTM requirements</b>	<b>Number of diagrams attached</b>	02
---	------------------------------------	----

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Of changes (DIA) to forms

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<b>TMP returned for correction</b> <i>(if required)</i>						
	<i>Name</i>	<i>Date</i>	<i>Signature</i>	<i>ID no.</i>	<i>Qualification</i>	<i>Expiry date</i>

**Engineer/TMC to complete following section when approval or acceptance required**

<b>Temporary safety barrier system</b>	The attached temporary road safety barrier design has been independently reviewed as being fit for purpose	Yes No Not required
<b>TMP Approved</b>		
	<i>Name</i>	<i>Date</i>
	<i>Signature</i>	<i>ID no.</i>
	<i>Qualification</i>	<i>Expiry date</i>
<b>Acceptance by TMC</b> <i>(only required if TMP approved by engineer)</i>		
	<i>Name</i>	<i>Date</i>
	<i>Signature</i>	<i>ID no.</i>
	<i>Qualification</i>	<i>Expiry date</i>

**Qualifier for engineer or TMC approval**

Approval of this TMP authorises the use of any regulatory signs included in the TMP or attached traffic management diagrams.

This TMP is approved on the following basis:

1. To the best of the approving engineer's/TMC's judgment this TMP conforms to the requirements of CoPTTM.
2. This plan is approved on the basis that the activity, the location and the road environment have been correctly represented by the applicant. Any inaccuracy in the portrayal of this information is the responsibility of the applicant.
3. The TMP provides so far as is reasonably practicable, a safe and fit for purpose TTM system.
4. The STMS for the activity is reminded that it is the STMS's duty to postpone, cancel or modify operations due to the adverse traffic, weather or other conditions that affect the safety of this site.

**Notification to TMC prior to occupying worksite/Notification completed**

<b>Type of notification to TMC required</b>	Site is active with signs displayed 24 hours per day. TMC to be notified when signs are erected and when signs are removed by emailing notification via the Daily Activity Report Spreadsheet.	<b>Notification completed</b>	Date <input style="width: 100%;" type="text"/> Time <input style="width: 100%;" type="text"/>
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TMP or generic plan reference	
-------------------------------	--

<b>ON-SITE RECORD</b> On-site record must be retained with TMP for 12 months.	Today's date
--	--------------

<b>Location details</b>	Road names(s):	House number/RPs:	Suburb:
-------------------------	----------------	-------------------	---------

**Working space**

<b>Person responsible for working space</b>		
	Name	Signature

Where the STMS/TC is responsible for both the working space and TTM they sign above and in the appropriate TTM box below

**TTM**

<b>STMS in charge of TTM</b>					
	Name	TTM ID Number	Warrant expiry date	Signature	Time
<b>Worksite handover accepted by replacement STMS</b>					
	Name	ID Number	Warrant expiry date	Signature	Time
	Tick to confirm handover briefing completed				

**Delegation**

<b>Worksite control accepted by TC/STMS-NP</b>					
	Name	ID Number	Warrant expiry date	Signature	Time
	Tick to confirm briefing completed				

**Temporary speed limit**

Street/road name (RPs or street numbers):	TSL action	Date:	Time:	TSL speed:	Length of TSL (m):
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				
From: _____ To: _____	TSL installed				
	TSL remains in place				
	TSL removed				

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### Worksite monitoring

TTM to be monitored and 2 hourly inspections documented below.

Items to be inspected	TTM set-up	2 hourly check	2 hourly check	2 hourly check	2 hourly check	2 hourly check	TTM removal
High-visibility garment worn by all?							
Signs positioned as per TMP?							
Conflicting signs covered?							
Correct delineation as per TMP?							
Lane widths appropriate?							
Appropriate positive TTM used?							
Footpath standards met?							
Cycle lane standards met?							
Traffic flows OK?							
Adequate property access?							
Barrier deflection area is clear?							
<i>Add others as required</i>							
<b>Time inspection completed:</b>							
<b>Signature:</b>							
<b>Comments:</b>							
<b>Time</b>	<b>Adjustment made and reason for change</b>						

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<b>Reporting company reference:</b>	<b>CoPTTM.incident reference:</b>
Reference added by reporting company	Reference added by the CoPTTM.Incident database administrator

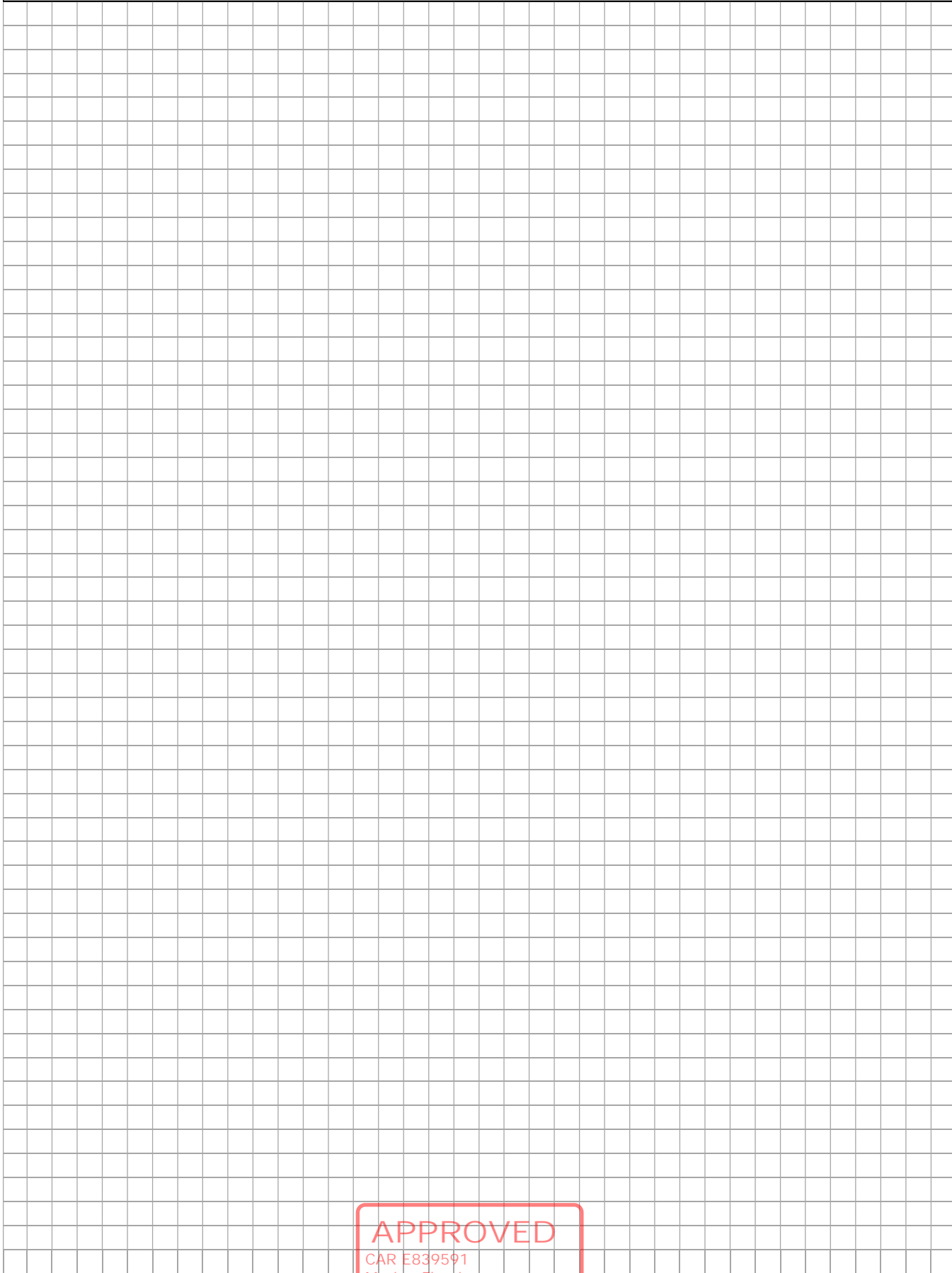
### REPORT ON INCIDENT AT ROADWORKS SITE

Send to: [CoPTTM.Incident@nzta.govt.nz](mailto:CoPTTM.Incident@nzta.govt.nz) and the RCA in charge of the network (including NZTA for state highways)

Date of incident		Time of incident				
Reported by		Company				
STMS name		STMS No.				
Contractor /TTM Company		Contact number				
Road location (include direction and lane)						
Description of work being undertaken						
Incident type	Near miss	Vehicle entered TTM	Vehicle entered working space	TMA hit	Other	
Operation type	Static	Mobile	Semi-static	Shoulder	Unattended	
Phase of operation	Install		Static, mobile, semi-static		Removal	
Damage to	Vehicles		Plant	TTM equipment		
Injuries	Number of people in each injury category	Enter the number of people in each injury category		Minor	Notifiable	Fatal
		Road workers				
		Road users				
Crash code	From Appendix 1 attached		Road user vehicle	Vehicle type	Reg. number	
If TMA hit, which TMA		Which lane				
Police attended	(Officer name/number)		Further information	For a more detailed internal report (contact)		
Description of events	<div style="border: 2px solid red; padding: 5px; text-align: center;"> <p><b>APPROVED</b></p> <p>CAR E839591 Marion Fleming STMS Number 362 Otorohanga District Council</p> <p><i>Marion Fleming</i></p> <p>22 February 2022</p> </div>					



**Crash diagram (or scan and attach) - photos can also be attached**



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# Appendix 1: Vehicle movement coding sheet

	TYPE	A	B	C	D	E	F	G	O
A	OVERTAKING AND LANE CHANGE	PULLING OUT OR CHANGING LANE TO RIGHT	HEAD ON	CUTTING IN OR CHANGING LANE TO LEFT	LOST CONTROL (OVERTAKING VEHICLE)	SIDE ROAD	LOST CONTROL (OVERTAKEN VEHICLE)	WEAIVING IN HEAVY TRAFFIC	OTHER
B	HEAD ON	ON STRAIGHT	CUTTING CORNER	SWINGING WIDE	BOTH OR UNKNOWN	LOST CONTROL ON STRAIGHT	LOST CONTROL ON CURVE		OTHER
C	LOST CONTROL OR OFF ROAD (STRAIGHT ROADS)	OUT OF CONTROL ON ROADWAY	OFF ROADWAY TO LEFT	OFF ROADWAY TO RIGHT					OTHER
D	CORNERING	LOST CONTROL TURNING RIGHT	LOST CONTROL TURNING LEFT	MISSED INTERSECTION OR END OF ROAD					OTHER
E	COLLISION WITH OBSTRUCTION	PARKED VEHICLE	CRASH OR BROKEN DOWN	NON VEHICULAR OBSTRUCTIONS (INCLUDING ANIMALS)	WORKMANS VEHICLE	OPENING DOOR			OTHER
F	REAR END	SLOWER VEHICLE	CROSS TRAFFIC	PEDESTRIAN	QUEUE	SIGNALS	OTHER		OTHER
G	TURNING VERSUS SAME DIRECTION	REAR OF LEFT TURNING VEHICLE	LEFT TURN SIDE SIDE SWIPE	STOPPED OR TURNING FROM LEFT SIDE	NEAR CENTRE LINE	OVERTAKING VEHICLE	TWO TURNING		OTHER
H	CROSSING (NO TURNS)	RIGHT ANGLE (70° TO 110°)							OTHER
J	CROSSING (VEHICLE TURNING)	RIGHT TURN RIGHT SIDE	OPPOSING RIGHT TURNS	TWO TURNING					OTHER
K	MERGING	LEFT TURN IN	RIGHT TURN IN	TWO TURNING					OTHER
L	RIGHT TURN AGAINST	STOPPED WAITING TO TURN	MAKING TURN						OTHER
M	MANOEUVRING	PARKING OR LEAVING	"U" TURN	"U" TURN	DRIVEWAY MANOEUVRE	ENTERING OR LEAVING FROM OPPOSITE SIDE	ENTERING OR LEAVING FROM SAME SIDE	REVERSING ALONG ROAD	OTHER
N	PEDESTRIANS CROSSING ROAD	LEFT SIDE	RIGHT SIDE	LEFT TURN LEFT SIDE	RIGHT TURN RIGHT SIDE	LEFT TURN RIGHT SIDE	RIGHT TURN LEFT SIDE	MANOEUVRING VEHICLE	OTHER
P	PEDESTRIANS OTHER	WALKING WITH TRAFFIC	WALKING FACING TRAFFIC	WALKING ON FOOTPATH	CHILD PLAYING (INCLUDING TRICYCLE)	ATTENDING TO VEHICLE	ENTERING OR LEAVING VEHICLE		OTHER
Q	MISCELLANEOUS	FELL WHILE BOARDING OR ALIGHTING	FELL FROM MOVING VEHICLE	TRAIN	PARKED VEHICLE (CAN AWAY)	EQUESTRIAN	FELL INSIDE VEHICLE	TRAILER OR LOAD	OTHER

\* = Movement applies for left and right hand bends, curves or turns

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## C2.5 Combined level LV and level 1 worksite layout distances

Permanent speed limit or RCA - designated operating speed (km/h)		≤50	60	70	80	90	100	
<b>Traffic signs</b>								
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	
<b>Safety zones</b>								
D	Longitudinal (m) +	10 or 5*	15	30	45	55	60	
E	Lateral (m) +	1	1	1	1	1	1	
	Lateral behind barrier installation	As specified by the Installation Designer						
<b>Tapers</b>								
G	Taper length (m) #	30	50	70	80	90	100	
G	LV roads taper length (m) #	25	30	35	40	45	50	
K	Distance between tapers (m)	40	50	70	80	90	100	
<b>Delineation devices</b>								
Cone spacing in taper (m)		2.5	2.5	5	5	5	5	
Cone spacing: Working space (m)##		5	5	10	10	10	10	
<p>* Larger minimum distances apply on all state highways and also on all multi-lane roads. The smaller minimum distances may be applied on other roads to accommodate road environment constraints.</p> <p>+ On LV roads the longitudinal and lateral safety zones may be reduced, or eliminated, in order to retain a single lane width. Positive traffic management and an appropriate TSL must be used.</p> <p>#</p> <ol style="list-style-type: none"> <li>1. On non-state highways with speeds 50km/h or less, a <b>10m taper</b> (with cones at 1m centres) may be used when there are road environment constraints (eg intersections and commercial accesses).</li> <li>2. On all roads where the shoulder width is less than 2.5m and the activity does not affect the live lane, a <b>10m shoulder taper</b> is permitted (with atleast 5 cones at no greater than 2.5m centres).</li> <li>3. A <b>taper of 30m</b> (with cones at 2.5m centres) <b>must</b> be used where manual traffic control (stop/go), portable traffic signals or priority give way are employed.</li> </ol> <p>## LV roads: double the cone spacing alongside working space (eg 5 = 10, 10 = 20).</p>								
<b>Lane widths</b> (based on permanent speed or TSL if applied)								
Speed (km/h)	30	40	50	60	70	80	90	100
F Lane Width (m)	2.75	2.75	3.0	3.0	3.25	3.25	3.5	3.5

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

### LV/low risk roads (less than 250vpd – less than 20 vehicles per hour)

When on the shoulder:

- \* If CSD **not** available: Advance warning sign and base to be installed with sign visibility distance and warning distance in place
- \* If CSD available: Advance warning sign may be attached to the rear of a work vehicle which has an amber flashing beacon(s) and is visible to approaching road users from the rear.

When the activity encroaches onto a live lane consider alternating flow controls

If the above requirements cannot be achieved, the operation must be modified to comply with the appropriate level LV or level 1 requirements.

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## Diagram 01 Mobile Operation Site Setup / Removal

### Order of worksite establishment

On bi directional carriageways, signs should be erected by travelling around the road network in a clockwise direction taking in each side road as they are passed. In this way all turns in and out will be to the left which is easier and safer:

#### STEP 1:

Drive through the entire site checking for any unforeseen hazards or any other work sites that may interfere with ours.

#### STEP 2:

After the TMP & site safety briefing the STMS will direct and manage the installation of the TTM. TTM equipment will be installed as per the installation process in the TMP. Signs will be setup on the left hand side of or in front of vehicle 0.5m clear of the travelled path wherever possible. The first sign erected will be the advance warning sign. Remaining signs & TTM equipment are placed as required until the sign network is complete.

#### STEP 3:

Carryout a drive through check of the worksite in all directions including side roads. This check must confirm that the worksite is:

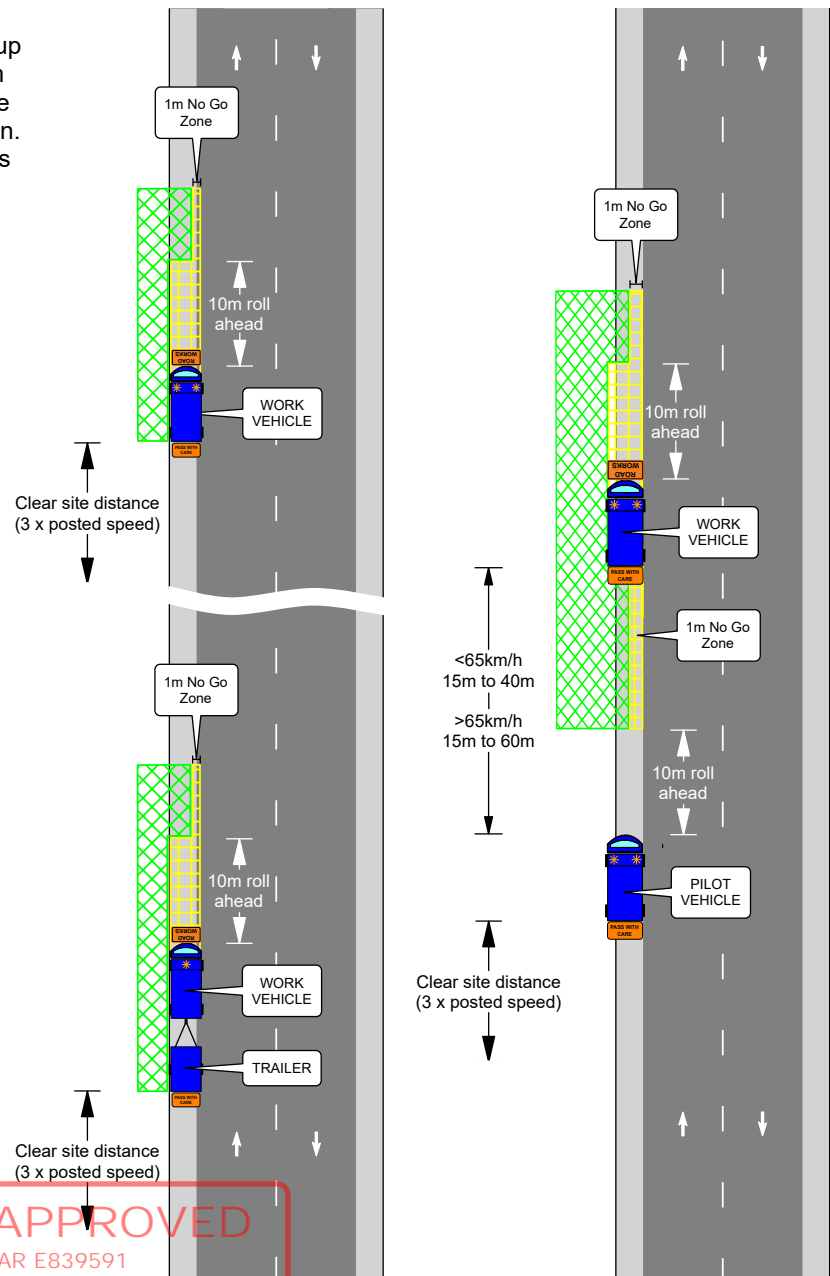
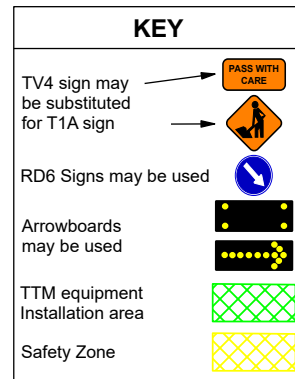
- Safe
- to the minimum standard shown in the TMP and that
- the restriction to traffic flow is reasonable
- the signs and delineation devices give clear messages to road users, and the signs and delineation devices are securely erected and will remain in their correct position under the expected traffic volumes and weather conditions.

#### STEP 4:

Carryout a toolbox meeting and explain identified hazards for the worksite, TMP requirements for worksite including TTM staff duties, safety zone requirements and limits.

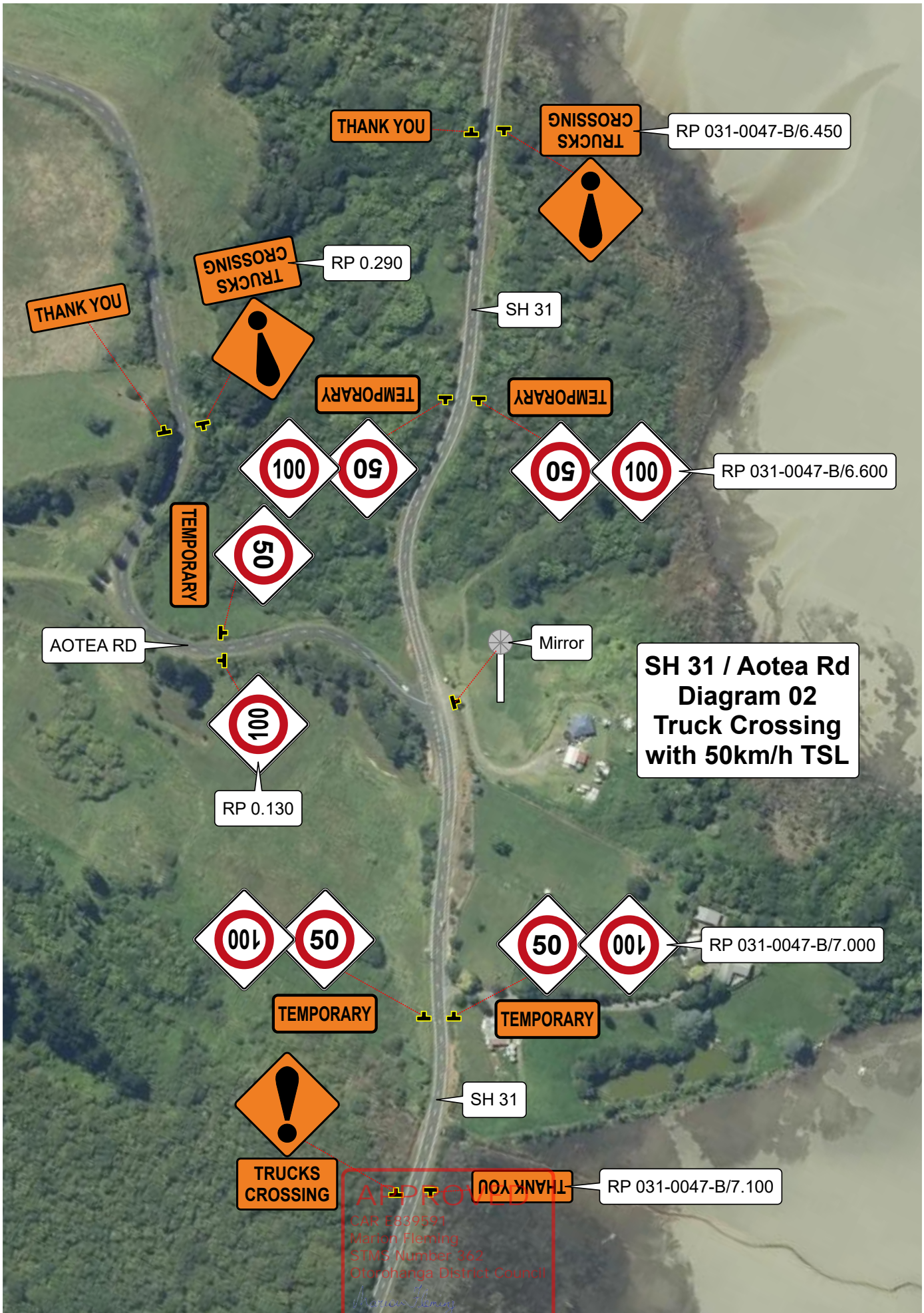
#### STEP 5:

The removal of TTM measures must be as per removal process in TMP. The last sign to be removed must be the advance warning sign. Once the site is cleared of all TTM equipment the STMS will carry out a drive through to ensure the site is left in a safe condition and no hazards or TTM equipment remain



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**SH 31 / Aotea Rd  
Diagram 02  
Truck Crossing  
with 50km/h TSL**

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