


Works Access Permit

Worksite Details				
The Parties	RCA Auckland Transport	Client Chorus	The Applicant VISIONSTREAM PTY LIMITED	
Worksite	Name VISIONSTREAM L2 GENERIC	Client Reference VISIONSTREAM L2 GENERIC	Address 1 Barr Rd, Mahurangi West, Warkworth, 0983, NZL	
	Worksite ID AT-W36284	Worksite Revision 3.1	Worksite Status issued	
	Work Window 02 Oct 2017 03 Sep 2018	Time of Day 09:00 - 16:00	Estimated Duration 124 days	

The Parties

Auckland Transport being a body corporate in accordance with the Local Government Act 2002 ('the Corridor Manager');

Chorus being an approved Utility Operator in accordance with the submitting a request for access in accordance with that Act;

VISIONSTREAM PTY 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').

Background

- The Utility Operator wishes to carry out the works stated on CAR Number AT-W36284 and thereafter maintain the utility services established in the corridor;
- 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
- 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:

This approval constitutes Auckland Transport's requiring authority consent under section 178(2) and, where required, section 176(1)(b) of the Resource Management Act 1991.

Signed

Daniel Simons acting pursuant to delegated authority.

Contacts & Affected Parties

Type	Company	Name	Email	Mobile	Phone
Principal Client Contact	Chorus	Nick Miskelly	nick.miskelly@chorus.co.nz	0277064601	
Applicant	VISIONSTREAM PTY LIMITED	Madeleine Pain	madeleine.pain@visionstream.co.nz	093561310	093561310
Bill Payer	Chorus	Linda Fitch	linda.fitch@chorus.co.nz	0272088227	03 9667542

Worksite Work

Type	Location	Max Depth	Min Depth	Description
Open Trenching	Berm			Soft surface excavation only
Cableworks/Hauling	Footpath, Berm			Haul/splice fibre

Traffic Management Plans



TMP Number	Start Date	End Date	Number of Layouts	Layout Designer(s)
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AT-T13350	02 Oct 2017	03 Sep 2018	1	Josh Del Rosario
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Worksite Documentation

Other Info

See attached documents:

- Blank.pdf

AT 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;
- 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;
- 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 10 of the Historic Places Act 1993.
- 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.
- 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.
- 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.

Custom Conditions


- - If another contractor already has approval in the area required, you must either coordinate work sites or come back once other contractor is clear. - Weekly reporting must be provided via uploading an Excel spreadsheet in this approval and notifying RCA.

Traffic Management Plan (TMP)

Organisations	Contractor VISIONSTREAM PTY LIMITED	Principal VISIONSTREAM PTY LIMITED	RCA Auckland Transport	
TMP Details	TMP ID AT-T13350	Revision 4.1	TMP Status Accepted	
Worksite	Name VISIONSTREAM L2 GENERIC	Reference VISIONSTREAM L2 GENERIC	Address 1 Barr Rd, Mahurangi West, Warkworth, 0983, NZL	
	Worksite ID AT-W36284	Worksite Revision 3.1	Worksite Status issued	

Layouts





Layout 66982

Description	Level 2/2LS AT Generic TMPs	
Date Range	02 Oct 2017 to 03 Sep 2018	
Continuous Deployment	No	
Traffic Control In	09:00	
Site Cleared	19:00	
First Sign In		
Pickup		
Days	Sun, Mon, Tue, Wed, Thu, Fri, Sat	
Impact Category	Shoulder only	
Does this layout need to be advertised?	No	
Layout Designer	Josh Del Rosario 75016	
Lane Closures		
Signage Required		
Traffic Impacts	Pedestrians Affected Property Access Affected Parking Removed Shoulder Closure	

TMP or generic plan reference

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: VPL L2 & 2LS Generics	Contractor (Working space):  Level 5, 8 Hereford St, Freeman's Bay, Auckland PO Box 5100, Wellesley Street, Auckland 1141 Ph: 09 352 1000 Fax: 09 352 1083 Web: www.visionstream.co.nz	Principal (Client):  Level 18 Chorus House 66 Wyndham Street, Auckland PO Box 6640 Wellesley St Auckland Ph: 0800 600 100 Web: info@chorus.co.nz		
		Contractor (TTM):	RCA:  		
Suburb	Auckland (Various)				
Location details and road characteristics	Road names		House no./RPs (from and to)	Road level	Permanent speed
	Various Roads under the control of Auckland Transport		Various	2LS & L2	Various
Traffic details (main route)	AADT Various		Peak flows 07:00-09:00 & 15:00-17:00		
Description of work activity					
<p>EXCLUSIONS:</p> <ul style="list-style-type: none"> Build – UFB excluded Minor build works involving a civil component larger than 3m² or 6 linear metres of trenching excluded Not to be used for excavations in any hard surface (concrete/ seal). Only soft surface allowed. No pole replacements Any work in the carriageway excluded Not to be used for any TTM setup other than a Shoulder Closure The footpath must not be closed and there must be maintained a minimum footpath width of: <ul style="list-style-type: none"> 0.9m in residential rural areas 1.2m in suburban centres 2.0m in the CBD and commercial zones <p>** If scope of work changes to include excavation in the hard surface, work must stop and site to be made safe, then CAR must be applied**</p> <p>Minor inter-day work (usually one to two days). This will include Aerial provisioning, scoping, build, maintenance, emergency works and provisioning.</p> <p>May include small excavations in ONLY SOFT SURFACE up to 3m² or 6 linear metres of trenching. Works usually 1-2 days. A separate TMP/CAR must be applied where work needs to be done in hard surface (concrete, asphalt/tar seal).</p> <p>Scoping: Opening manholes for scoping purposes only. Short duration - approx. 10 mins</p> <p>Aerial provisioning: To maintain and provision aerial network</p> <p>Emergency: Initial response to situations where customers have lost service to the network, this could be a single customer or multiple customers through fixed line or mobile infrastructure.</p>					

Maintenance: Where a customer or multiple customers difficulty with their service but not a total loss. Includes work on poles, final reinstatement of emergency works and fault corrections (soft surface only). No pole replacements.

Minor build: works to provide service due to a provisioning request. This could be a blocked duct or a repositioning of the lateral. May also include the installation of ducts and pits up to 3m² or 6 linear metres in the soft surface.

Start date	03/03/18	Time	As below	End date	03/09/18	Time	As below
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No work to be undertaken where CYCLE LANE and BUS STOPS/LANES are affected.

N/A

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

Installation <i>(includes parking of plant and materials storage)</i>	<p>TTM to be installed via a mobile operation. Advanced warning signage to be placed first and ending with the works end signage. Delineation devices such as cones and barriers to be placed once all signage has been installed.</p> <p>Chosen Closure to be recorded along with the install times on a copy of the On-Site Record Sheet by STMS. L2/2LS Road is to be set up by L2/3P STMS.</p>
Attended (day)	<p>Level 2 and Level 2LS shoulder closures with appropriate pedestrian management.</p> <p>The footpath must NOT be closed.</p>
Attended (night)	<p>N/A</p>

TMP or generic plan reference				
Unattended (day)	If the work is not completed, all excavations to be backfilled at the end of the day and temporarily reinstated, and all equipment to be removed from site including any TTM.			
Unattended (night)	If the work is not completed, all excavations to be backfilled at the end of the day and temporarily reinstated, and all equipment to be removed from site including any TTM.			
Detour route	N/A			
	<p>Does detour route go into another RCA's roading network? N/A (delete either Yes or No)</p> <p>If Yes, has confirmation of acceptance been requested from that RCA? N/A (delete either Yes or No)</p> <p>Note: Confirmation of acceptance from affected RCA must be submitted prior to occupying the site.</p>			
Removal	<p>Removal of TTM to be in reverse of installation. Delineation devices to be removed/amended first via a mobile operation, followed by all signage if not appropriate to any unattended layouts required.</p> <p>Closure removal to be documented on On-Site Record Sheet by STMS.</p>			
Proposed TSLs (see TSL decision matrix for guidance)				
	TSL details as required Approval of Temporary Speed Limits (TSL) are in terms of Section 5 of Land Transport Rule: Setting of Speed Limits 2003, Rule 54001 (List speed, length and location)	Times (From and to)	Dates (Start and finish)	Diagram ref. no.s (Layout drawings or traffic management diagrams)
Attended day/night	N/A	N/A	N/A	N/A
Unattended day/night	N/A	N/A	N/A	N/A
TSL duration	Will the TSL be required for longer than six months? If yes, attach the completed checklist from section I-18: Guidance on TMP Monitoring Processes for TSLs to this TMP.			No
Positive traffic management measures				
<p>With the use of signs and cones we plan to Advise and Direct the public through the work site in a timely manner away from hazards ensuring the safety of public and worker.</p> <p>They may be implemented to control vehicle speeds through the worksite, assist pedestrians, or cyclist, etc... These will always be implemented in accordance with the 'Code of Practice'.</p> <p>*The below is included as a guide to the STMS, the TMP(s) should be followed at all times, unless, site safety is compromised, or if the site conditions have changed since the approval of the TMP(s)*</p> <p><u>Pedestrians.</u></p> <p>When and where appropriate, pedestrian signs will be used to show the safest path for the public to follow. At all times, TC staff is to be on "look out" pedestrian, so as to help them navigate the work area. Special attention will be made to the elderly or impaired pedestrians.</p> <p>"Linemen" supplementary signs will be used where we have people working overhead on poles.</p>				
Contingency plans				

TMP or generic plan reference

<p>Generic contingencies for:</p> <ul style="list-style-type: none"> major incidents incidents pre planned detours. <p><i>Remove any options which do not apply to your job</i></p>	<p>Major Incident</p> <p>A major incident is described as:</p> <ul style="list-style-type: none"> Fatality or notifiable injury - real or potential Significant property damage, or Emergency services (police, fire, etc) require access or control of the site. 	<p>Actions</p> <p>The STMS must immediately conduct the following:</p> <ul style="list-style-type: none"> stop all activity and traffic movement secure the site to prevent (further) injury or damage contact the appropriate emergency authorities render first aid if competent and able to do so notify the RCA representative and / or the engineer 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 re-establish TTM and traffic movements when advised by emergency authorities that it is safe to do so Comply with any obligation to notify WorkSafe.
	<p>Incident</p> <p>An incident is described as:</p> <ul style="list-style-type: none"> excessive delays - real or potential minor or non-inquiry accident that has the potential to affect traffic flow structural failure of the road. 	<p>Actions</p> <p>The STMS must immediately conduct the following:</p> <ul style="list-style-type: none"> stop all activity and traffic movement if required secure the site to prevent the prospect of injury or further damage notify the RCA representative and / or the engineer STMS to implement a plan to safely remove TTM and to establish normal traffic flow if safe to do so re-establish TTM and traffic movements when it is safe to do so and when traffic volumes have reduced.
	<p>Note also the requirements for no interference at an accident scene:</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"> save a life of, prevent harm to or relieve the suffering of any person, or make the site safe or to minimise the risk of a further accident; or maintain the access of the general public to an essential service or utility, or prevent serious damage to or serious loss of property, or follow the direction of a constable acting in his or her duties or act with the permission of an inspector. 	
<p>Other contingencies to be identified by the applicant (i.e. steel plates to quickly cover excavations)</p>	<p>In the event that any of the following circumstances occur, due to the activity on this site, the STMS will suspend works if;</p> <ul style="list-style-type: none"> Delays exceed 5 minutes. In the event of an accident. (At this time the STMS will follow the instructions provided at the time of training, and when instructed by emergency services). Weather conditions are/will adversely affect quality, or safety. To allow passage of emergency vehicles. That dust nuisance's compromise safety and/or visibility. <p>The STMS deems any working practices to be unsafe to site staff and/or road users.</p> <p>Work can recommence only after the all clear has been given by the STMS</p>	

Authorisations

TMP or generic plan reference				
Parking restriction(s) alteration authority	Will controlled street parking be affected?	No	Has approval been granted?	N/A
	As/When 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?	N/A
	N/A			
Road closure authorisation(s)	Will full carriageway closure continue for more than 5 minutes (or other RCA stipulated time)?	No	Has approval been granted?	N/A
	N/A			
Bus stop relocation(s) – closure(s)	Will bus stop(s) be obstructed by the activity?	No	Has approval been granted?	N/A
	N/A			
Authorisation to use portable traffic signals	Make, model and description/number			
	NZTA compliant?	N/A (delete either Yes or No)		
EED				
Is an EED applicable?	No (delete either Yes or No)	EED attached?	N/A	
Delay calculations/trial plan to determine potential extent of delays				
N/A				
Public notification plan				
Public notification will be provided as and when required prior to commencement of works in the area.				
Public notification plan attached?	No (delete either Yes or No)			
On-site monitoring plan				
Attended (day and/or night)	<p>STMS L2/3P must be present at an attended worksite at all times except during a drive through when the STMS may need to leave the worksite to gain access to the front of the worksite. In this case the STMS may be away from the worksite for up to 30 minutes.</p> <p>When a Shoulder closure is implemented on the L2 Road, the STMS can be in charge of up to four shoulder closed sites. The STMS must be within 30 minutes of the site, while a L2/3 NP has been briefed by the STMS and is present and takes charge of the TTM.</p>			
Unattended (day and/or night)	If the work is not completed, all excavations to be backfilled at the end of the day and temporarily reinstated, and all equipment to be removed from site including any TTM.			
Method for recording daily site TTM activity (eg CoPTTM on-site record)				
<ul style="list-style-type: none"> All recording of Staff briefing and Site Checks to be recorded as per CoPTTM on the On-Site Record Sheet & Hazard ID Sheet Forms must be filled in by the site STMS or under their instruction a STMS qualified, delegated person. Any amendments to the TMP must be noted on the TMP, on the STMS Check Sheet & on Hazard ID by the STMS. 				
Site safety measures				
<ul style="list-style-type: none"> The minimum standard of PPE equipment for all staff on site is NZTA compliant as per the NZTA PPE form; high visibility garment, long sleeves, pants, hard hat, safety shoes etc. that comply with safety policy. Times on TMP must be adhered too, if this not possible contact must be made by the STMS to the RCA prior to any works taking place, if the site is running late and will not be able to be cleared by the required time a phone call to the RCA must be made in advance of the "last sign up" time on this TMP. Temporary Warning Signage to be installed as per TMP. Delineated tapers ensuring coned safety zones & distances are as per COPTTM, if these are not possible for any reason they must be marked on the TMP by the STMS. 				
Other information				

TMP or generic plan reference	
Site specific layout diagrams	
Number	Title
ATG1-1	FOOTPATH - LEVEL 2 - FOOTPATH DIVERTED ONTO THE BERM BEHIND THE WORK SPACE
ATG1-2	FOOTPATH - LEVEL 2 - FOOTPATH DIVERTED ONTO THE BERM BETWEEN THE WORKING SPACE AND CARRIAGEWAY
ATG1-4	SHOULDER AND ROADSIDE ACTIVITIES - LEVEL 2 - WORK ON BERM AND/OR FOOTPATH
ATG1-5	SHOULDER AND ROADSIDE ACTIVITY - LEVEL 2 - WORK ON BERM OR FOOTPATH - PERMANENT SPEED LESS THAN 65KM/H

Traffic control devices manual - iPad 3rd Edition

Notification to TMC prior to occupying worksite/Notification completed

Type of notification to TMC required		Notification completed	Date <input data-bbox="1070 218 1321 224" type="text"/> Time <input data-bbox="1070 224 1321 233" type="text"/>
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TMP or generic plan reference	
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ON-SITE RECORD

On-site record must be retained with TMP for 12 months.

Today's date

Location details	Road names(s):	House number/RPs:	Suburb:
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Working space

Person responsible for working space		
	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

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

Delegation

Worksite control accepted by TC/STMS-NP					
	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				

TMP or generic plan reference

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?							
<i>Add others as required</i>							
Time inspection completed:							
Signature:							
Comments:							
Time	Adjustment made and reason for change						

C2.5 LV & Level 1 worksite layout distances

Permanent Speed Limit or RCA-designated operating speed (KM/H)		≤50	60	70	80	90	100		
Traffic Signs									
A	Sign Visibility distance (m)	50	60	70	80	90	100		
B	Warning Distance (m)	30 or 50*	80	105	120	135	150		
C	Sign Spacing (m)	15 or 25*	40	50	60	70	75		
Safety Zones									
D	Longitudinal (m)+ +(Not required on LV roads)	5 or 10*	15	30	45	55	60		
E	Lateral (m)+ +(Optional on LV roads)	1	1	1	1	1	1		
TAPER									
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		
Delineations Devices									
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 where there is more than one lane each way and on all state highways.</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 control and an appropriate TSL are to be used.</p> <p># Where there are road environment constraint (including intersections and commercial accesses) a 10m taper with cones at 1m centres may be used for speeds 50 km/h and under. This does not apply on state highways or where portable traffic light signals, manual traffic controller (Stop/Go) or priority give way are used. On all roads tapers may be reduced to 30m where portable traffic signals, manual traffic controller (Stop/Go) or priority give way are employed.</p> <p>## LV roads: double the cone spacings alongside working space (eg5 = 10, 10 = 20).</p>									
Lane Widths									
(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 tables are minimum values.

LV or low risk roads

Working on roads designated as LV/low-risk roads (less than 250vpd – less than 20 vehicles per hour), with clear sight distance to the operation and an operating speed of less than 65km/h:

- Use an appropriate advance warning sign (Static installation) and amber flashing beacon(s) on working vehicle when on the shoulder.
- Consider stop/go or give way control of traffic when activity encroaches onto lane.

If the above requirements cannot be achieved, the operation must be modified to comply with the requirements of a higher risk rating.

Level 2LS worksite layout distances

Permanent Speed Limit or RCA-designated operating speed (KM/H)		≤40	50	60	
Traffic Signs					
A	Sign Visibility distance (m)	40	50	60	
B	Warning Distance (m)	40	50	80	
C	Sign Spacing (m)	20	25	40	
Safety Zones					
D	Longitudinal (m)*	10	10	15	
E	Lateral (m)				
	1. Behind Cones	1	1	1	
	2. Behind Concrete Barrier	0.5	0.5	0.5	
	3. Behind Other Barriers	As recommended by manufactures			
TAPER					
G	Taper length (m)#	25*	30	50	
K	Distance between tapers (m)	30	40	50	
Delineations Devices					
Cone spacing in taper (m)		2.5	2.5	2.5	
Cone spacing: Working space (m)		5	5	5	
<p>* If allowed by the RCA, a 10m taper (with cones at 1m centres) may be used on roads ≤40 when there are road environment constraints (eg intersections and commercial accesses).</p> <p># On all roads where shoulder width is less than 2.5m and the activity does not affect the live lane, a 10m shoulder taper is permitted (with at least 5 cones at no greater than 2.5m centres).</p> <p>A taper of 30m (with cones at 2.5m centres) must be used where manual traffic control (stop/go), portable traffic signals or priority give way are employed.</p>					
Lane Widths					
Speed (km/h)		30	40	50	60
F	Lane width (m)	2.75	2.75	3.0	3.0

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

C2.6 Level 2 worksite layout distances

Permanent Speed Limit or RCA-designated operating speed (KM/H)		≤50	60	70	80	90 or 100			
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)								
	4. Behind Cones	1	1	1	1	1			
	5. Behind Concrete Barrier	0.5	0.5	0.5	0.5	0.5			
	6. Behind Other Barriers	As recommended by manufactures							
TAPER									
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 (m)	50	60	70	80	100			
Delineations 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 worksite access points	2.5m for 10m either side of a change in alignment			2.5m for 20m either side of a change in alignment				
* A longitudinal safety zone is not required when a barrier completely protects the approach end of the worksite.									
** 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. The longer distances must be used wherever possible. The shorter distances may only be used where there are road environment constraints.									
Lane Widths									
(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 tables are minimum values.

Approach signage, the initial taper and longitudinal safety zone must be based on the permanent speed limit. The layout of the remainder of the worksite, including any subsequent tapers, is based on the TSL.

FOOTPATH - LEVEL 2

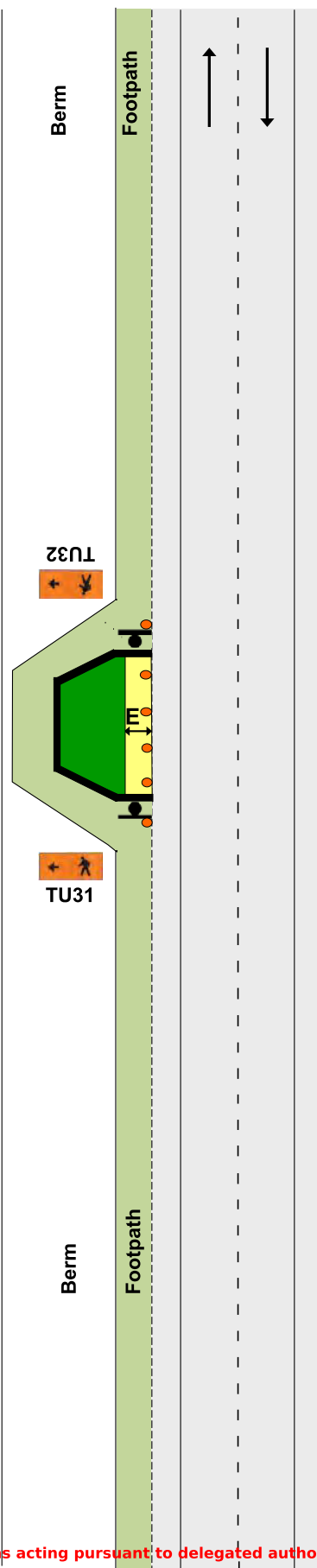
FOOTPATH DIVERTED ONTO THE BERM BEHIND THE WORK SPACE

FIRST PREFERENCE



Notes

1. Minimum pedestrian footpath widths:
 - Residential/Rural - 0.9m
 - Suburban Centre - 1.2m
 - CBD - 2m
2. Where the length of the temporary footpath exceeds 20m, these widths may have to be increased to allow footpath users to pass
3. Refer to C13.2.3 for temporary footpath surface requirements
4. Use a safety fence to enclose the working space, or at attended worksites, cones connected with cone bars can be used to enclose the working space but only for a short period of time. Refer C13.2.5 and C13.2.6
5. This TMD must be used in conjunction with appropriate TTM for any work carried out on the shoulder or in the live lane
6. This drawing must not be used as a TMP diagram



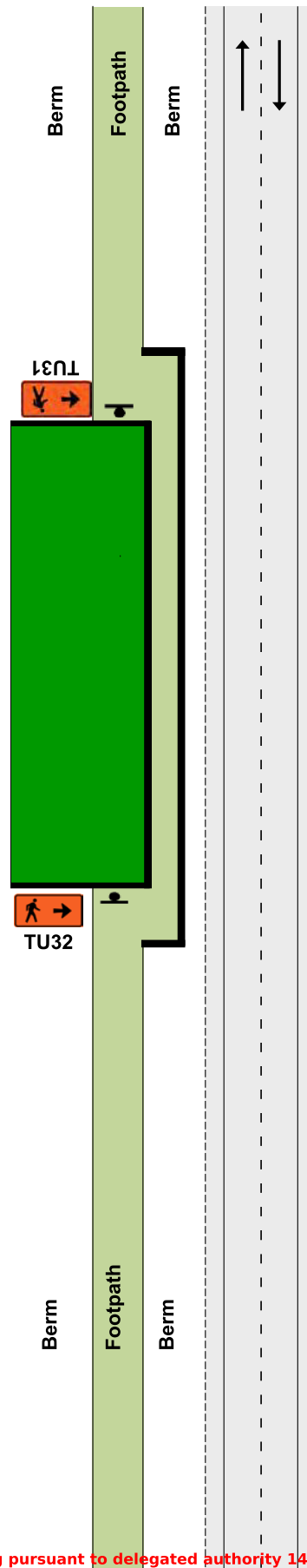
FOOTPATH - LEVEL 2

FOOTPATH DIVERTED ONTO THE BERM BETWEEN THE WORKING SPACE AND CARRIAGEWAY
SECOND PREFERENCE



Notes

1. Minimum pedestrian footpath widths:
 - Residential/Rural - 0.9m
 - Suburban Centre - 1.2m
 - CBD - 2m
2. Where the length of the temporary footpath exceeds 20m, these widths may have to be increased to allow footpath users to pass
3. Refer to C13.2.3 for temporary footpath surface requirements
4. Use a safety fence to enclose the working space. At **attended** worksites, cones connected with cone bars can be used to enclose the working space. Refer C13.2.5
5. Use barrier or safety fence to delineate the traffic side of the temporary footpath. For temporary barrier requirements. Refer to C18
6. This TMD must be used in conjunction with appropriate TTM for any work carried out on the shoulder or in the live lane
7. This drawing must not be used as a TMP diagram

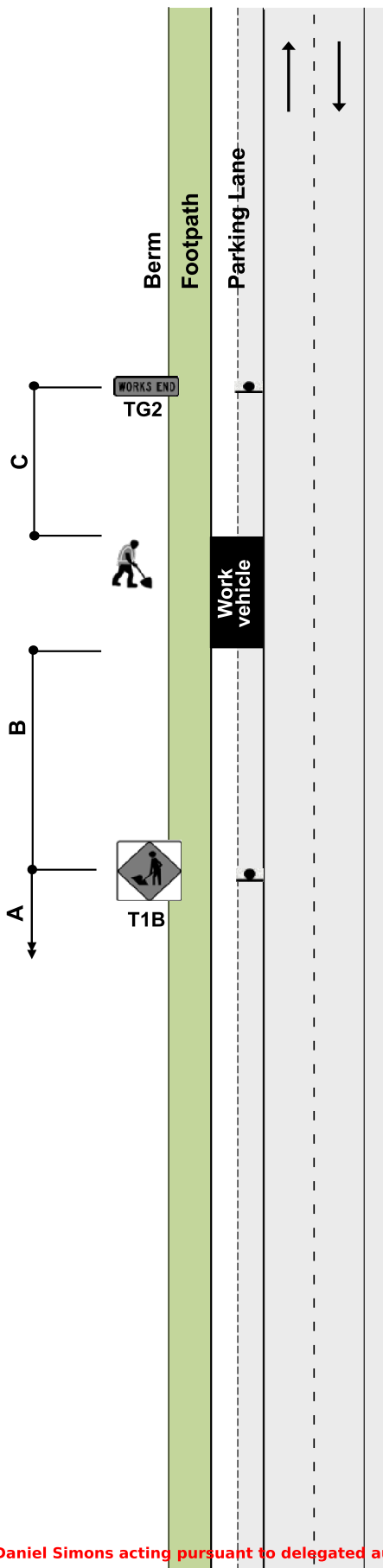


SHOULDER AND ROADSIDE ACTIVITIES - LEVEL 2

WORK ON BERM AND/OR FOOTPATH

PERMANENT SPEED LESS THAN 65KM/H

1. Where work is carried out on the berm or footpath and a work vehicle is parked in a legal parallel car park, provided the vehicle is only accessed from the off traffic side, advance warning T1B and WORKS END TG2 are optional
2. The work vehicle can have a registration classification of either Class MA, MB, MC or NA
3. Traffic management must be provided where footpath users or cyclists are affected
4. This layout may only be used during daylight hours
5. Refer to section C13 and C8 for further information
6. This drawing must not be used as a TMP diagram



SHOULDER AND ROADSIDE ACTIVITY - LEVEL 2

WORK ON BERM OR FOOTPATH

PERMANENT SPEED LESS THAN 65KM/H



Notes

1. A 10m taper is allowed where shoulder width is less than 2.5m
2. The taper is a minimum of 5 cones at 2.5m centres
3. *For shoulders exceeding 2.5m width, apply the calculation of taper length for lateral shift of less than 3.5m:

$$\frac{W \times H}{3.5}$$

W = Width of lateral shift
 H = Taper length in metres from the level 2 layout distance table
4. This drawing must not be used as a TMP diagram

