

# Traffic Control Devices Manual

## Part 8

# Code of practice for temporary traffic management (CoPTTM)

manual number: SP/M/010

## Section G

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## **More information**

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## LEVEL 2 DIAGRAMS LIST

### STATIC OPERATIONS

No.	LEVEL 2 ROADS	
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G1.27	Two-lane closure	Right and centre lanes
G1.28	Two-lane closure	Two-lane temporary diversion

## LEVEL 2 DIAGRAMS LIST

### MOBILE OPERATIONS

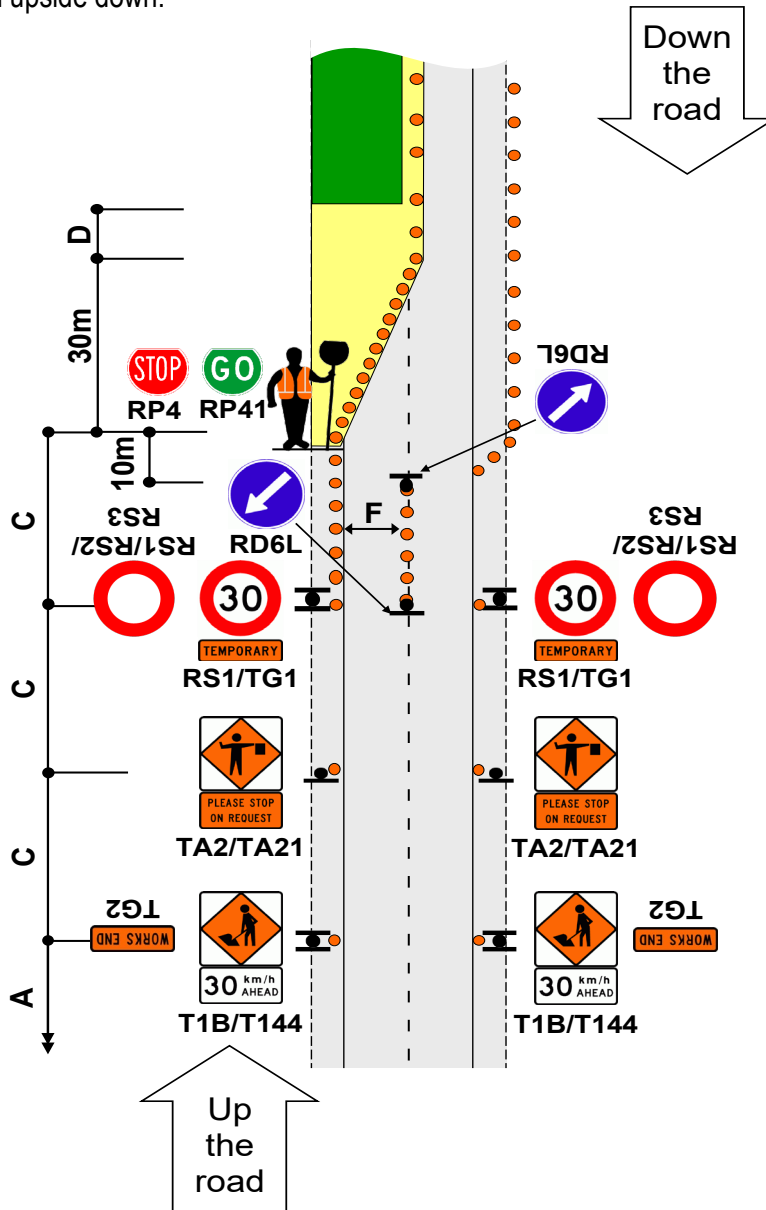
No.	LEVEL 2 ROADS	
<b>TWO-WAY TWO-LANE ROAD</b>		
G2.1	Work vehicle is more than five (5) metres from the edgeline	Any speed
G2.2	Work vehicle is between two (2) and five (5) metres of the edgeline	
G2.3	Work vehicle is between two (2) and five (5) metres of the edgeline	Permanent speed greater than 65km/h
G2.4	Work vehicle is between zero (0) and two (2) metres of the edgeline	Permanent speed under 65km/h
G2.5	Work vehicle is between zero (0) and two (2) metres of the edgeline	Permanent speed greater than 65km/h
G2.6	Work vehicle on live lane	Permanent speed less than 65km/h
G2.7	Work vehicle on live lane	Permanent speed greater than 65km/h
G2.8	Personnel on the live lane	
<b>ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD</b>		
G2.9	Work vehicle is between zero (0) and two (2) metres from the edgeline	Permanent speed less than 65km/h
G2.10	Work vehicle is between zero (0) and two (2) metres from the edgeline	Permanent speed greater than 65km/h
G2.11	Work vehicle is on the live lane	Permanent speed less than 65km/h
G2.12	Work vehicle is on the live lane	Permanent speed greater than 65km/h
G2.13	Part or all of lane occupied – Semi-static closure (work for up to 1 hour)	Permanent speed less than 65km/h
G2.14	Part or all of lane occupied – Semi-static closure (work for up to 1 hour)	Permanent speed greater than 65km/h
G2.15	Inspection activities and non-invasive works	On shoulder and on the live lane

## READING A TRAFFIC MANAGEMENT DIAGRAM (TMD)


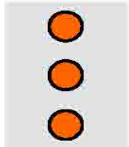

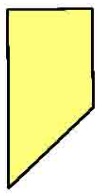
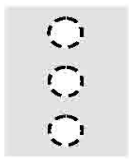

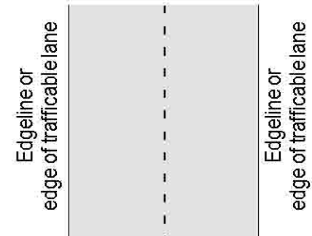
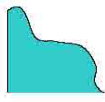
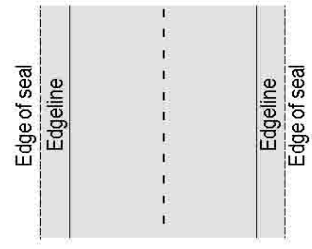



Usually contractors place the signs on left-hand side of the road first with the TMD the right way up. When signs are placed for the right-hand side of the road the contractor tips the TMD upside down and reads which signs have to be placed for that side of the road.

To make this process easier:

- Signs going up the page are shown closest to the road
- Signs going down the page are shown further away from the road
- Sign icons and sign numbers for layout down the road (from top to bottom of the TMD) are turned upside down.



## LEGEND FOR DIAGRAMS

<p><b>Working space</b></p> 	<p><b>Mandatory:</b></p> <ul style="list-style-type: none"> <li>• Cones</li> <li>• Signs</li> </ul>  
<p><b>Safety zones</b></p> 	<p><b>Optional:</b></p> <ul style="list-style-type: none"> <li>• Cones</li> <li>• Signs</li> </ul>  
<p><b>Edgeline or edge of trafficable lane (indicated by solid black line)</b></p> 	<p><b>Hazard area</b></p> 
<p><b>Edge of Seal (indicated by dotted line next to solid black line)</b></p> 	<p><b>Manhole</b></p> 
	<p><b>Barrier, safety fence or cone bars</b></p> 
	<p><b>Ramp</b></p> 

## LEVEL 2 LAYOUT DISTANCES TABLE

Permanent/TSL (km/h)		≤50	60	70	80	90	100 /110		
<b>Traffic signs</b>									
A	Sign visibility distance (m)	60/50 <sup>+</sup>	70/60 <sup>+</sup>	80	100	120	120		
B	Warning distance (m)	100/75 <sup>+</sup>	120/90 <sup>+</sup>	140	160	200	200		
C	Sign spacing (m)	50/35 <sup>+</sup>	60/45 <sup>+</sup>	70	80	100	100		
<b>Safety zones</b>									
D	Longitudinal (m)*	15	20	30	45	60	60		
E	Lateral (m)								
	1. Behind cones	1	1	1	1	1	1		
	2. Behind barrier installations	As specified by the Installation Designer							
<b>Tapers</b>									
H	Initial taper length per lane (m)**	90/50 <sup>+</sup>	100/60 <sup>+</sup>	120	150	180	180		
I	Subsequent taper length per lane (m)	50	60	70	80	100	100		
K	Minimum distance between tapers (m)	50	60	70	80	100	100		
<b>Delineation device</b>									
Spacing (centres)	All tapers (m)	2.5	2.5	2.5	2.5	2.5	2.5		
	Cones parallel to the lane - eg between tapers and alongside working space (m)	5	5	10	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					
<p>* A longitudinal safety zone is not required when a barrier completely protects the approach end of the worksite.</p> <p>** Taper length is based on a single lane shift of 3.5m.</p> <p>+ 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.</p>									
<b>Lane widths</b> (based on permanent speed or TSL if applied)									
Speed (km/h)		30	40	50	60	70	80	90	100/110
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 sign distances and spacings, the initial taper(s) and any longitudinal safety zone associated with that taper must be based on the permanent speed limit. The layout distances of the remainder of the worksite, including any subsequent tapers, may be based on the TSL, provided the TSL is applied prior to the first taper.

**FOOTPATH**

Footpath diverted onto berm behind working space

First preference

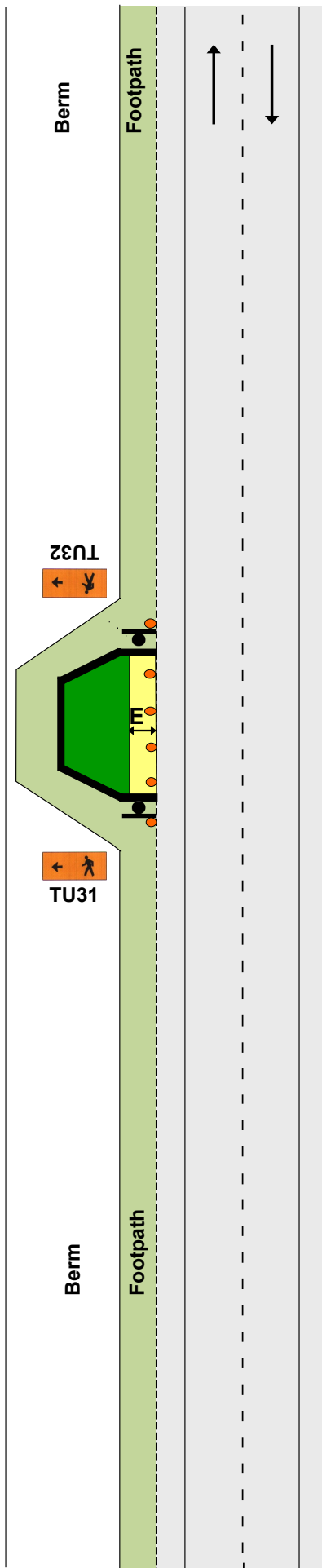
**G1.1**  
**Level 2**

**Notes**

1. Minimum pedestrian footpath widths:
  - Residential/Rural/ 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



This drawing must not be used as a TMP diagram





**FOOTPATH**

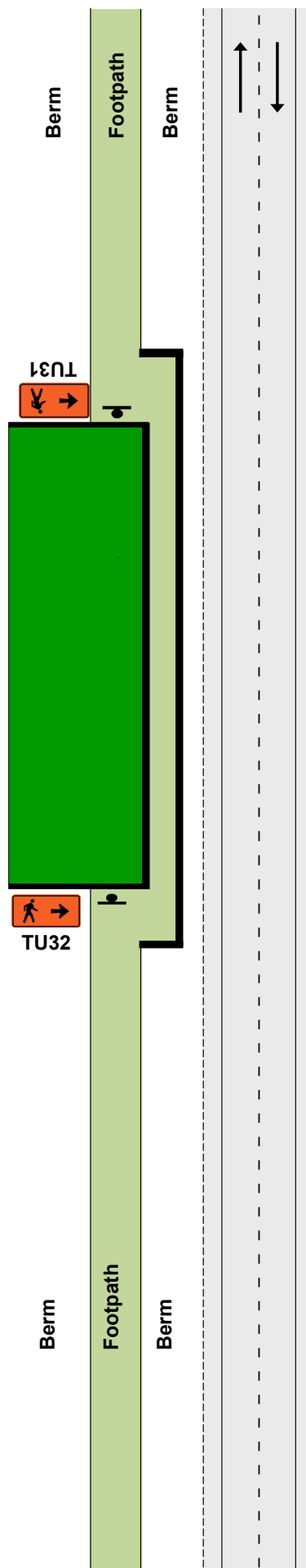
**Footpath diverted onto berm between working space and carriageway  
Second preference**

**G1.2**

**Level 2**

**Notes**

1. Minimum pedestrian footpath widths:
  - Residential/Rural/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



This drawing must not be used as a TMP diagram

**FOOTPATH**

**Footpath diverted onto carriageway**

**Third preference**

**G1.3**

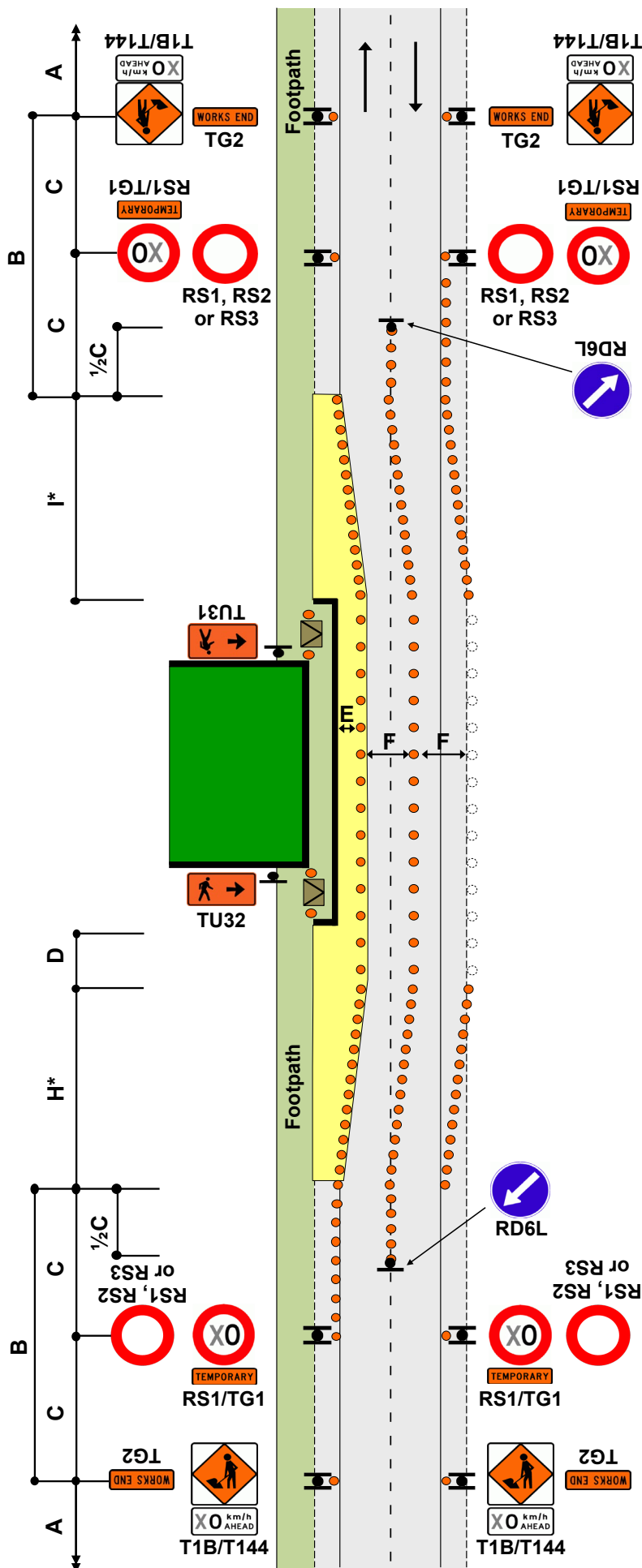
**Level 2**

**Notes**

1. Minimum pedestrian footpath widths:
  - Residential/Rural/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. 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
4. Use temporary barrier or safety fence to delineate the traffic side of the temporary footpath. For temporary barrier requirements refer to C18. For safety fence requirements refer to C13.2.6
5. There must be a lateral safety zone between the traffic side of the temporary footpath and the live lane:
  - 0.5m for temporary barrier
  - 1m for safety fence or cone bars
6. Use kerb ramps to assist mobility vehicles, pushchairs, etc.
7. At night, corners of safety fence may be illuminated with flashing amber warning lights
8. This TMD must be used in conjunction with appropriate TTM for any work carried out on the shoulder or in the live lane



This drawing must not be used as a TMP diagram



SHOULDER AND ROADSIDE ACTIVITIES

Work on berm and/or footpath

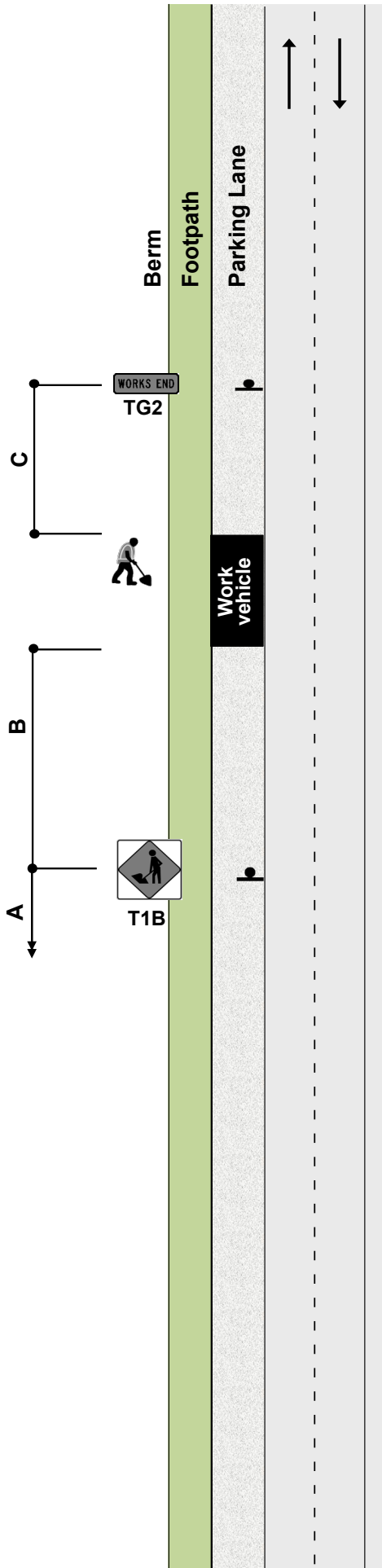
Permanent speed less than 65km/h

G1.4

Level 2

Notes

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



This drawing must not be used as a TMP diagram



**CYCLE LANE**  
**Traffic crossing road centre**  
**Diverted cycle lane - coned lane control**

**G1.6**  
**Level 2**

**Notes**

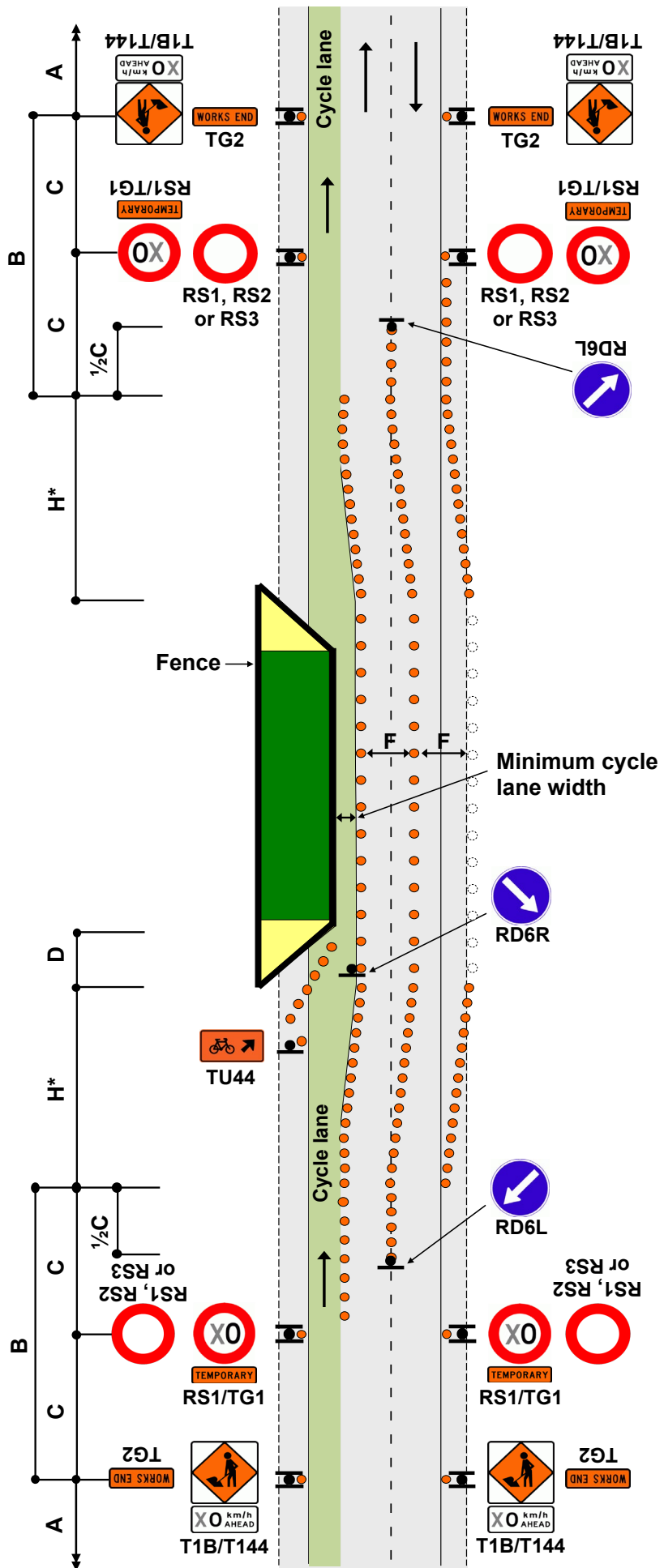
1. Minimum cycle lane width must be:
  - 1m - 50km/h or less
  - 1.5m - 60km/h or more
2. A minimum cycle lane width of 1.5m is required if the temporary cycle lane is uphill
3. Cones are required on edge of temporary lane opposite closure if road is not well defined
4. \*Calculation of taper length for lateral shift of less than 3.5m is:  

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

W = Width of lateral shift  
 H = Taper length in metres from the level 2 layout distance table
5. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



**CYCLE LANE**  
**Traffic not crossing road centre**  
**Cycle lane closed**

**G1.6a**  
**Level 2**

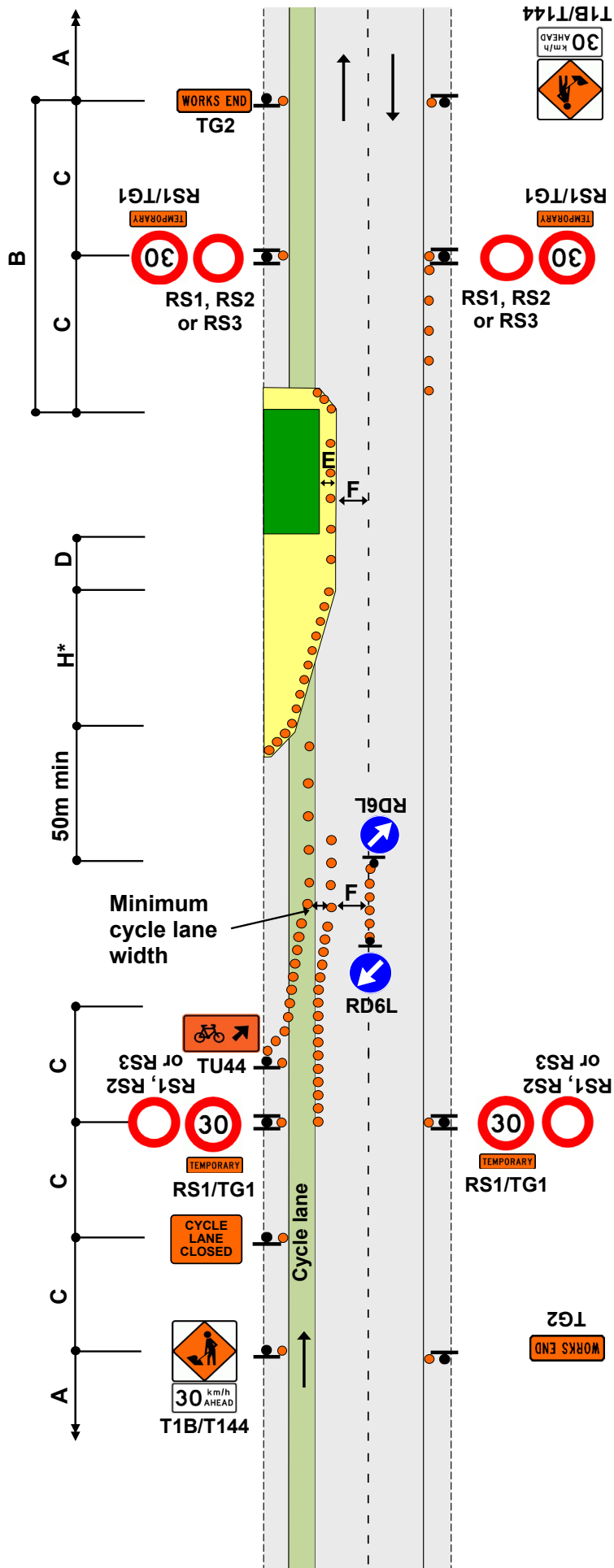
**Notes**

1. Only use this TMD if there is insufficient width to fit a replacement cycle lane
2. Minimum cycle lane width must be:
  - 1m - 50km/h or less
  - 1.5m - 60km/h or more
3. A minimum cycle lane width of 1.5m is required if the temporary cycle lane is uphill
4. Merge of cycle lane with live lane must be delineated
5. \*Calculation of taper length for lateral shift of less than 3.5m is:  

$$\frac{W \times H}{3.5}$$
 W = Width of lateral shift  
 H = Taper length in metres from the level 2 layout distance table



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**  
**Traffic crossing road centre**  
**Two-lane diversion**

**G1.7**  
**Level 2**

**Notes**

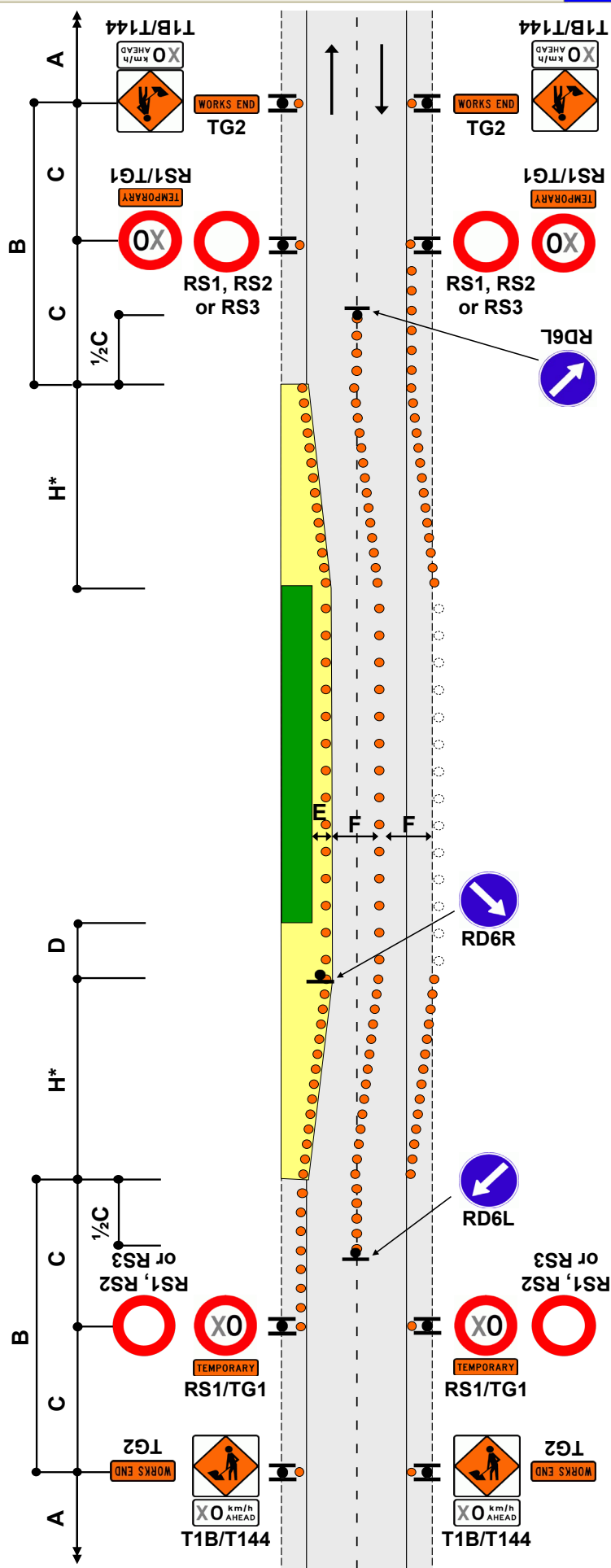
1. Cones are required on edge of temporary lane opposite closure if road edge is not well defined
2. \*Return taper at end of closure may be reduced using the calculation of taper length for lateral shift of less than 3.5m:  

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

W = Width of lateral shift  
 H = Taper length in metres from the level 2 layout distance table
3. Use PN11 No Stopping signs, if necessary
4. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



TWO-WAY TWO-LANE ROAD

Single-lane alternating flow

Manual traffic control (STOP/GO or STOP/SLOW)

G1.8

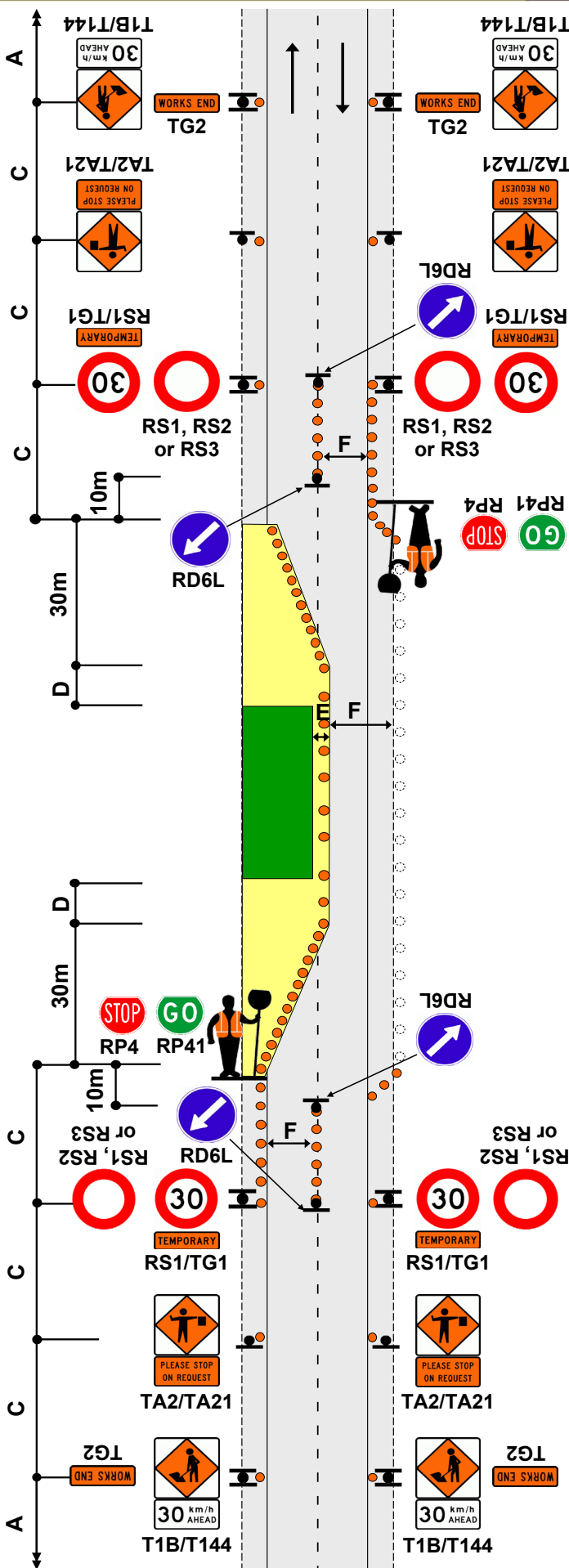
Level 2

Notes

1. Extend or place extra advance warning signs towards on-coming traffic beyond the end of any expected traffic queues
2. A 30m return taper at the end of the closure is mandatory
3. Cones are required on edge of temporary lane opposite closure if road edge is not well defined
4. Use PN11 no stopping signs, if necessary
5. MTC with RP4/RP41 STOP/GO or RP4/RP42 STOP/SLOW paddle on road shoulder located between 1st and 2nd cone in the cone threshold closest to the working space
6. Minimum 5 cones in cone threshold at:
  - 2.5m centres - less than 65km/h
  - 5m centres - more than 65km/h
7. Refer to C10.2.3 for further information



This drawing must not be used as a TMP diagram





**TWO-WAY TWO-LANE ROAD**  
**All traffic stopped temporarily**  
**Manual traffic control (STOP/GO or STOP/SLOW)**

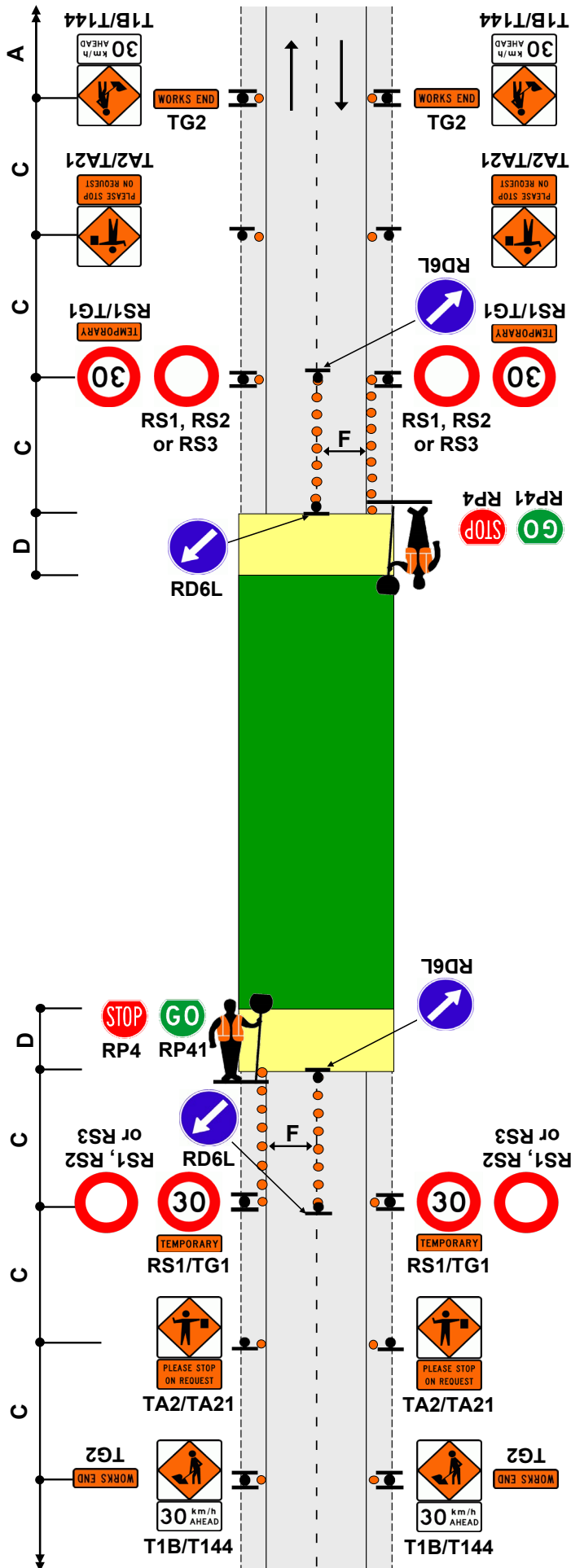
**G1.9**  
**Level 2**

**Notes**

1. Closure period not to exceed the limit set or approved by the RCA
2. Extend or place extra advance warning signs towards on-coming traffic beyond any expected traffic queues
3. MTC with RP4/RP41 STOP/GO or RP4/RP42 STOP/SLOW paddle on road shoulder located between 1st and 2nd cone in the cone threshold closest to the working space
4. Minimum 5 cones in cone threshold at:
  - 2.5m centres - less than 65km/h
  - 5m centres - more than 65km/h
5. MTCs must show same message to oncoming traffic (eg STOP/STOP or GO/GO)
6. Refer to C10.2.3 for further information
7. Work vehicle movement must cease whenever road users are moving through the site unless there is full delineation separating the closure and the traffic



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**  
**Single-lane alternating flow**  
**Portable traffic signals**

**G1.10**  
**Level 2**

**Notes**

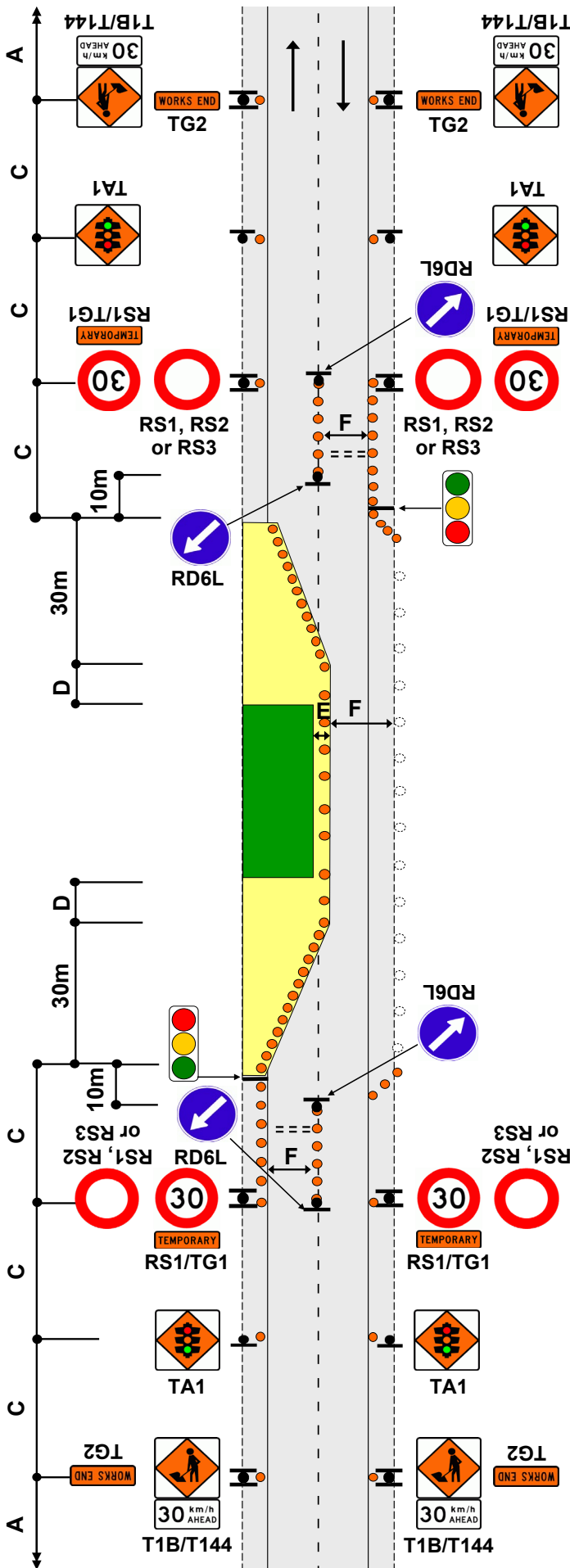
1. Provide details of make and model of portable traffic signals in the TMP
2. Install temporary limit lines (must be able to be removed upon completion) or use RP61/RP62 signs



3. Approved temporary speed humps may also be used
4. A 30m return taper at the end of the closure is mandatory
5. Cones are required on edge of temporary lane opposite closure if road is not well defined
6. The STMS should monitor queues during the worksite operation and extend or place extra advance warning signs towards on-coming traffic beyond the end of any expected traffic queues
7. Use PN11 No Stopping signs, if necessary
8. Minimum 5 cones in cone threshold at:
  - 2.5m centres - less than 65km/h
  - 5m centres - more than 65km/h



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**  
**Work in centre of road**

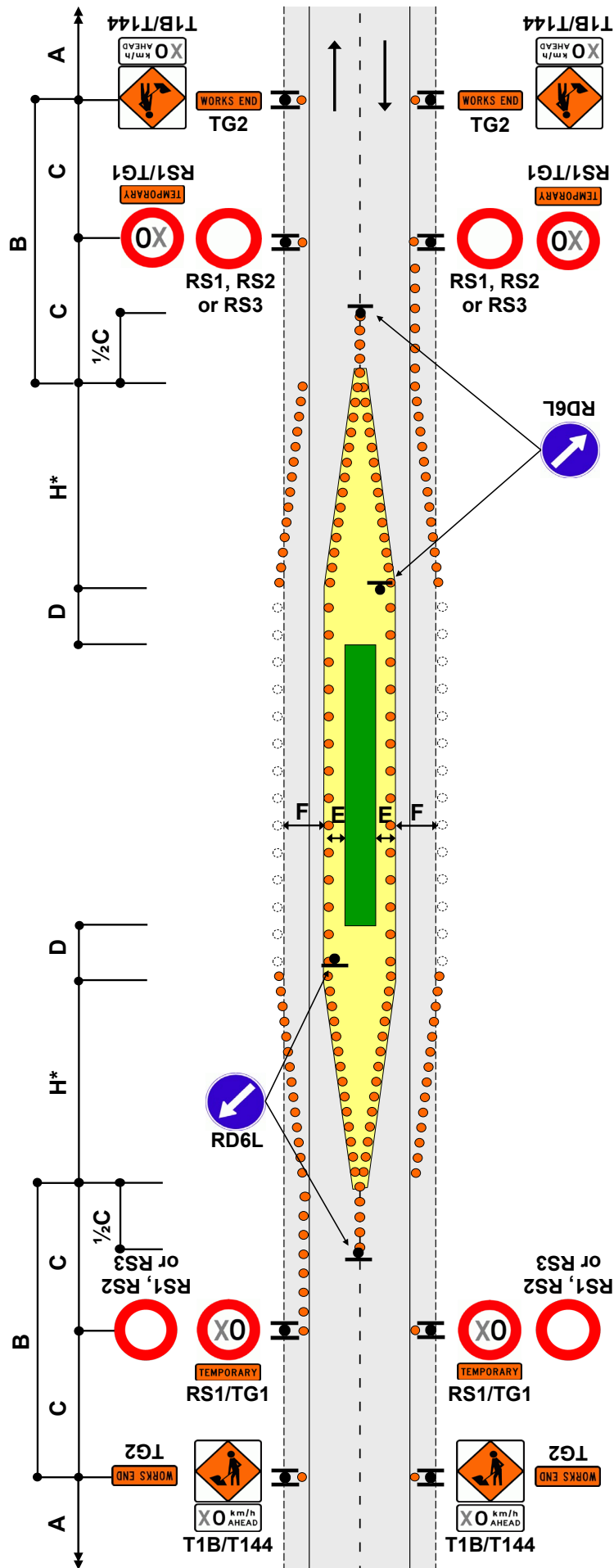
**G1.11**  
**Level 2**

**Notes**

1. Cones are required on edge of temporary lane opposite closure if road is not well defined
2. \*Calculation of taper length for lateral shift of less than 3.5m is:  

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

W = Width of lateral shift  
 H = Taper length in metres from the level 2 layout distance table
3. Use PN11 No Stopping signs, if necessary
4. Use TSLs if required by TSL decision matrix



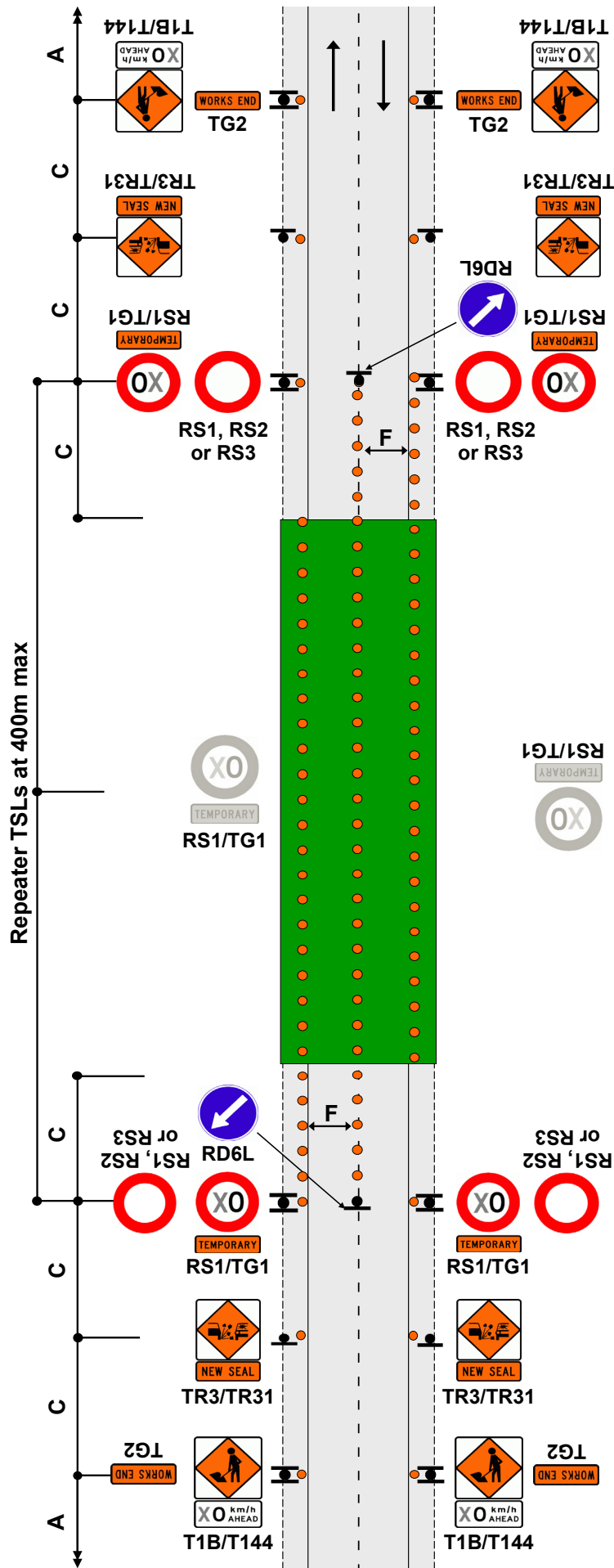
This drawing must not be used as a TMP diagram

**TWO-WAY TWO-LANE ROAD**  
**New-chip seal or road construction**  
**Attended worksite**

**G1.12**  
**Level 2**

**Notes**

1. This diagram is used to enhance the finished product by moving the cone lines at regular intervals across the road to ensure it is evenly trafficked
2. Refer to diagram G1.15 for unattended worksites
3. This diagram is a form of positive traffic management
4. Use TSLs if required by TSL decision matrix
5. TSLs to be repeated at 400m maximum centres



This drawing must not be used as a TMP diagram

**TWO-WAY TWO-LANE ROAD**

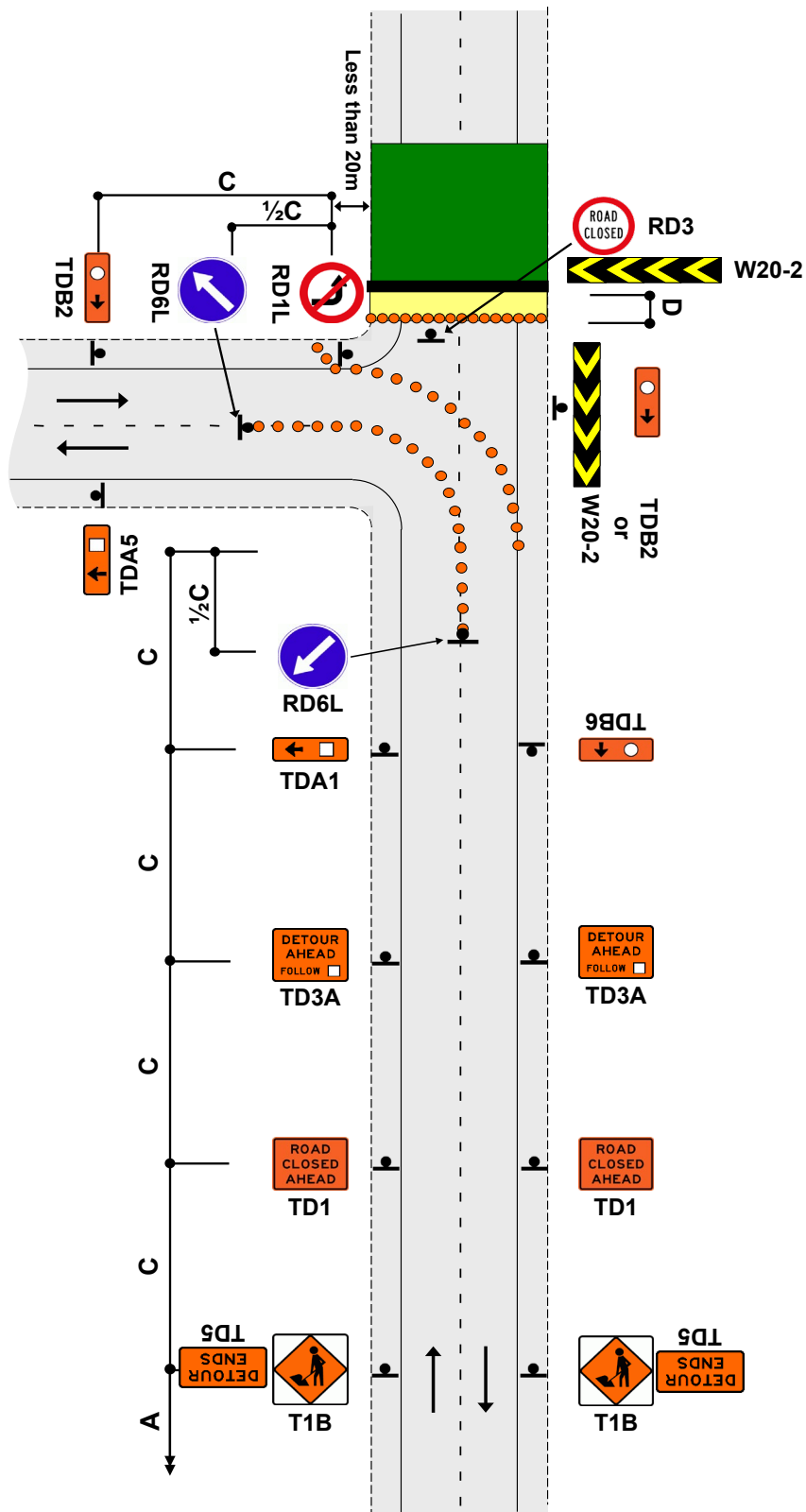
**Road closure - detour route**

**Example**

**G1.13**  
**Level 2**

**Notes**

1. Block access to road with barricade
2. If a long term site, use chevron sight board to direct traffic
3. On multilane roads the detour directional arrows (eg TDA1) signs will need to be gated
4. Cover any conflicting control signage at intersections
5. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram

TWO-WAY TWO-LANE ROAD

Other hazard

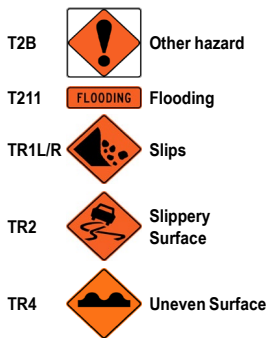
Shallow flooding, slip, slippery surface

G1.14

Level 2

Notes

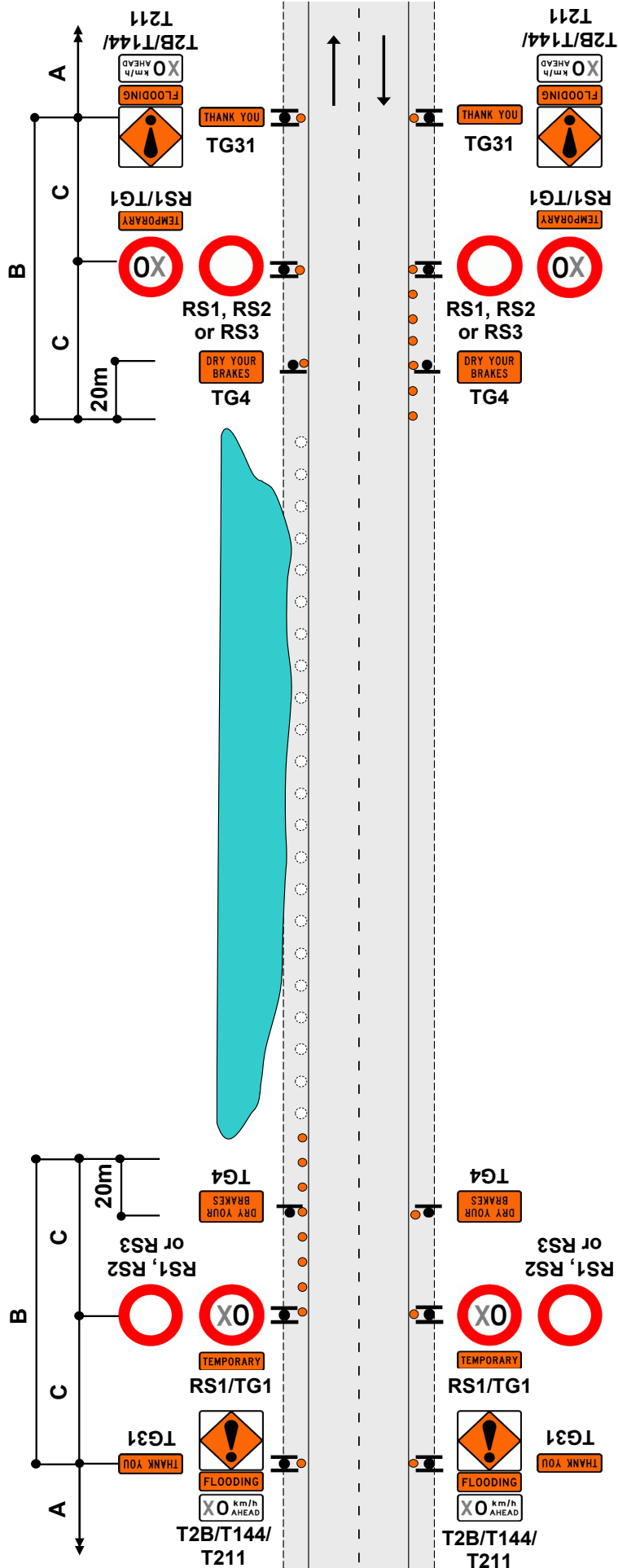
1. Shallow flooding that can be safely traversed by vehicles
2. This diagram is for initial response only. Appropriate long term TTM must be installed as soon as practical
3. The advance warning sign may be any one of the following:



4. If necessary, erect TG4 DRY YOUR BRAKES sign
5. Delineate hazard if hazard extends onto lane
6. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram

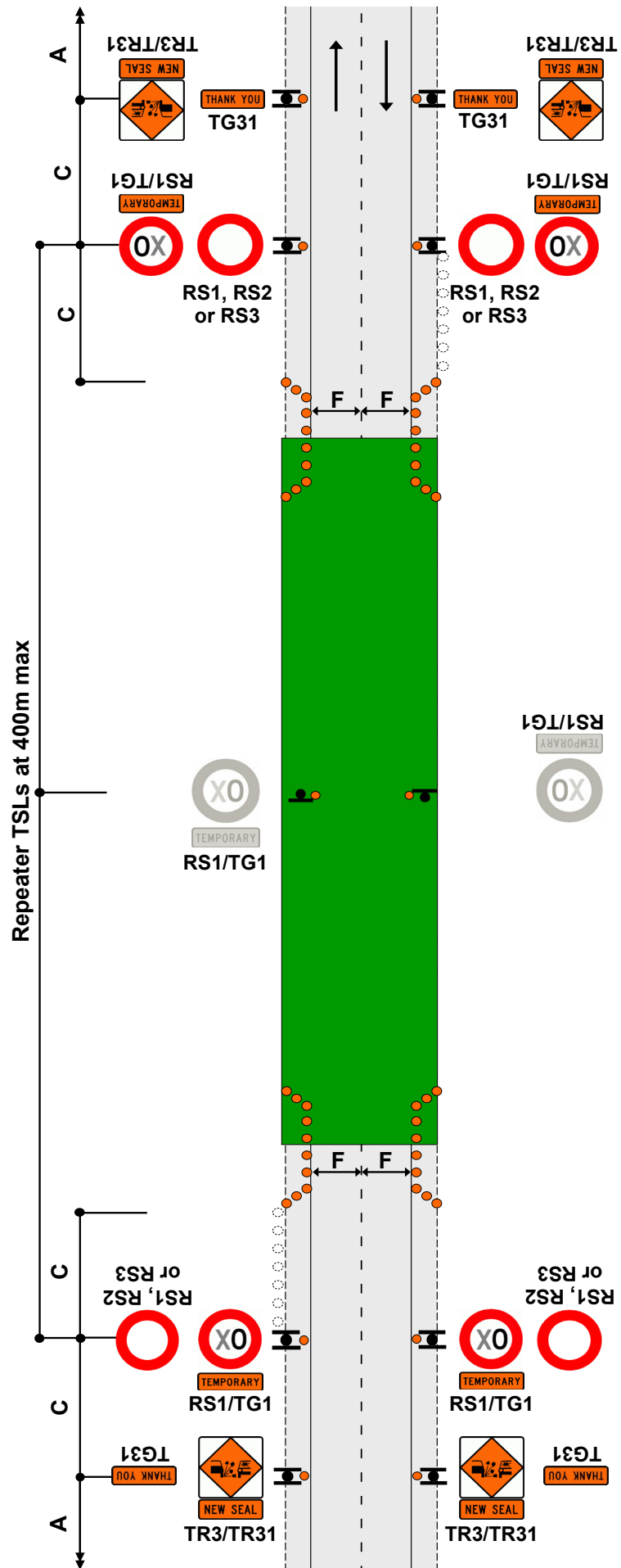


**TWO-WAY TWO-LANE ROAD**  
**New seal - unattended and/or unswept worksite**

**G1.15**  
**Level 2**

**Notes**

1. Use cones to form a threshold treatment at the start of the new seal. Minimum of 10 cones at 5m centres
2. Worksites may need additional positive traffic management to ensure all road users travel at the TSL
3. Use TSLs if required by TSL decision matrix
4. TSLs to be repeated at 400m maximum centres



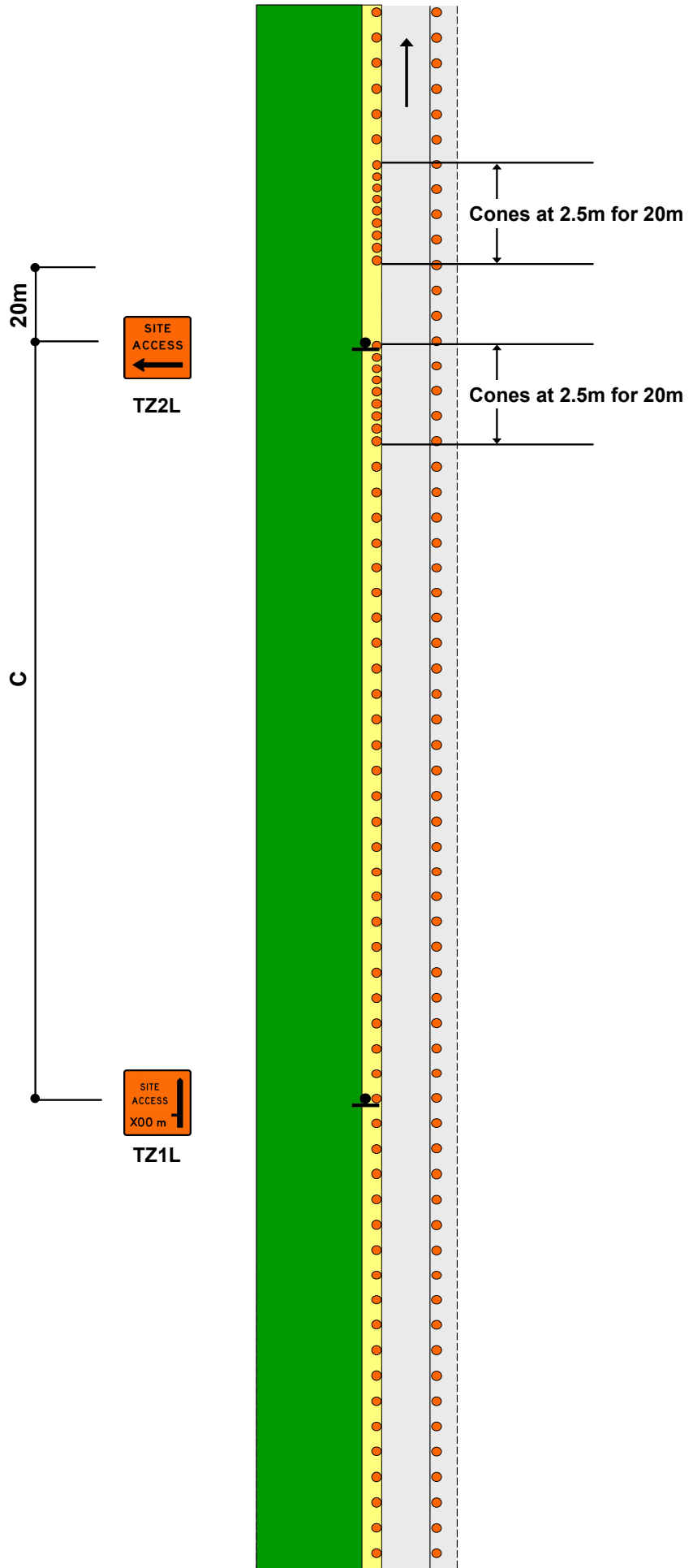
This drawing must not be used as a TMP diagram

**SITE ACCESS**  
Forms part of a larger worksite

**G1.16**  
**Level 2**

**Notes**

1. It is intended that this diagram forms part of a larger worksite
2. Cones immediately before and after the site access to be spaced at 2.5m centres for 20m at over 65km/h and 10m under 65km/h



This drawing must not be used as a TMP diagram



ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD

Left-lane closure

G1.17

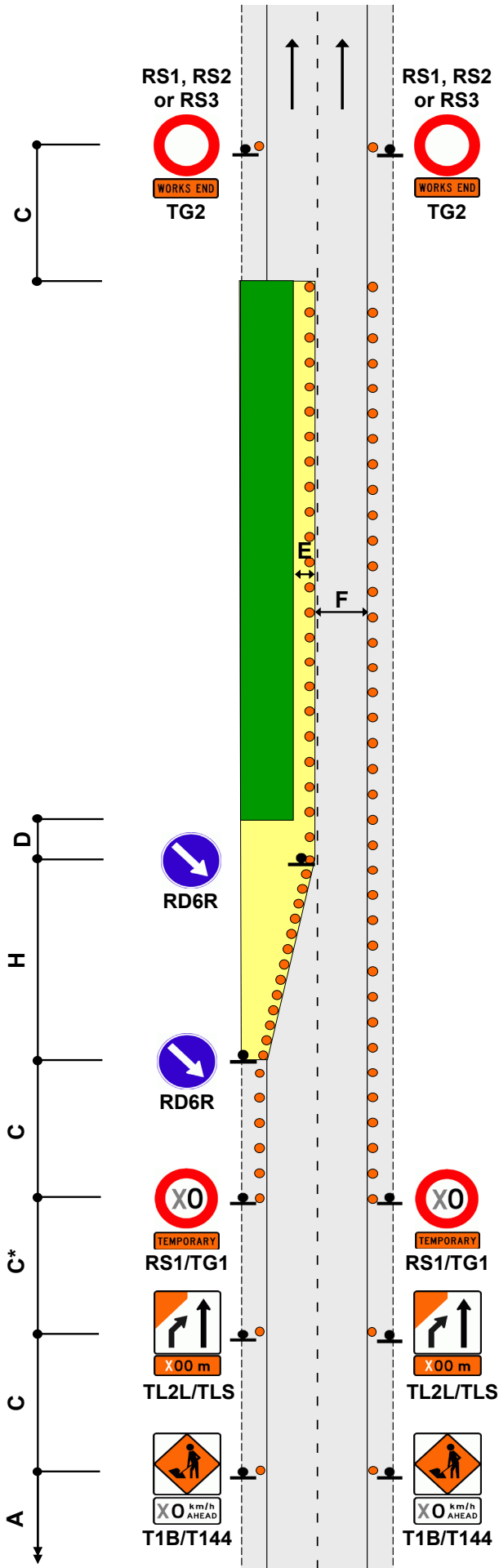
Level 2

Notes

1. C\* - the TL2L/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
3. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD

Right-lane closure

G1.18

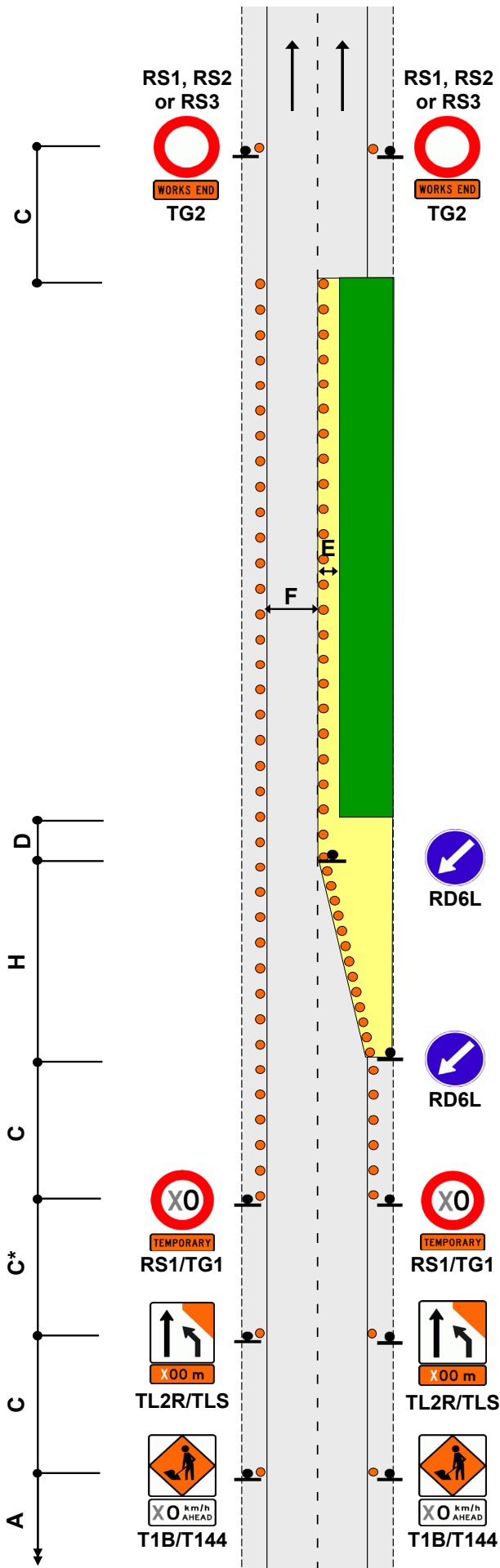
Level 2

Notes

1. C\* - the TL2R/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
3. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD

Right-lane closure

One-lane temporary diversion

G1.19

Level 2

Notes

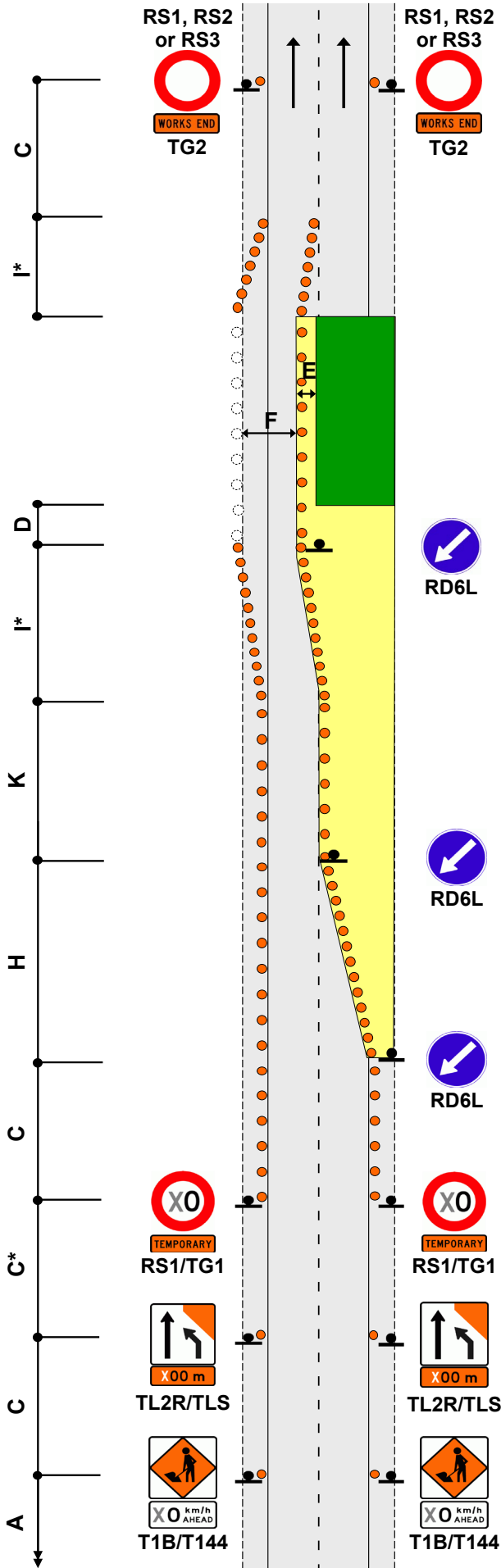
1. The longitudinal safety zone is based on the temporary speed limit
2. C\* - the TL2R/TLS signs are to be either 100m or 200m in advance of the start of the taper
3. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
4. \*Calculation of taper length for lateral shift of less than 3.5m is:  

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

W = Width of lateral shift  
 I = Taper length in metres from the level 2 layout distance table
5. Cones are required on edge of temporary lane opposite closure if road edge is not well defined
6. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD

One-lane closure

Two-lane temporary diversion

G1.20

Level 2

Notes

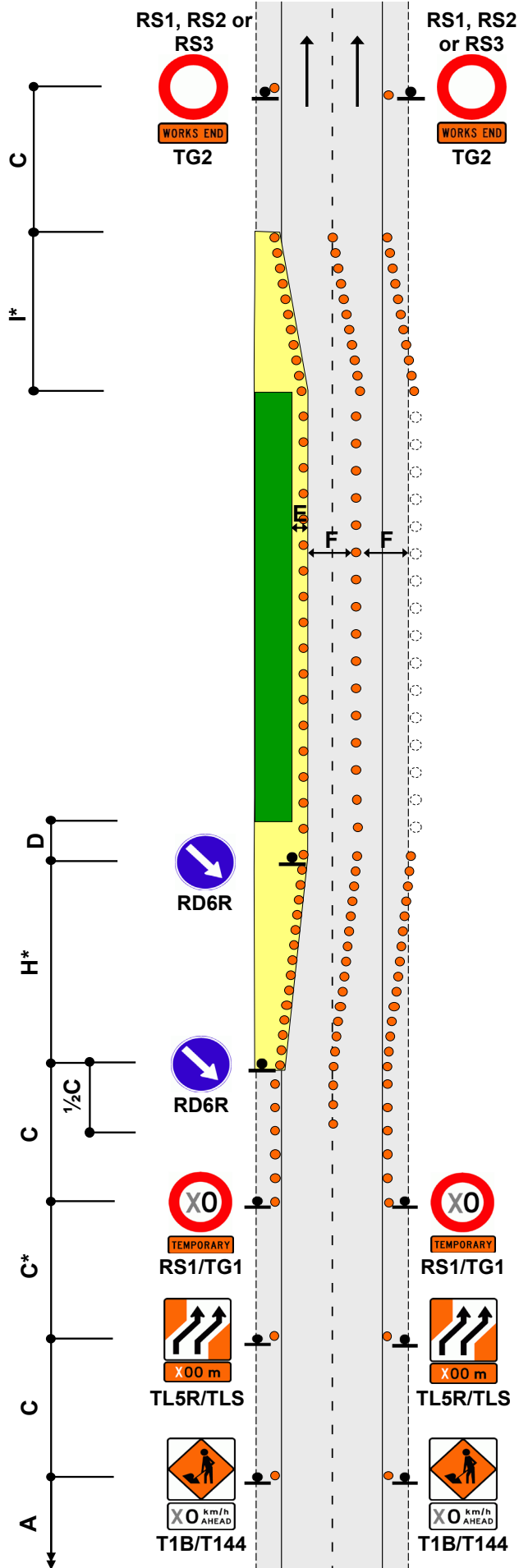
- 1.C\* - the TL5R/TLS signs are to be either 100m or 200m in advance of the start of the taper
- 2.Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
- 3.\*Calculation of taper length for lateral shift of less than 3.5m is:  

$$\frac{W \times (H \text{ or } l)}{3.5}$$

W = Width of lateral shift  
 H or l = Taper length in metres from the level 2 layout distance table
- 4.Cones are required on edge of temporary lane opposite closure if road edge is not well defined
- 5.Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



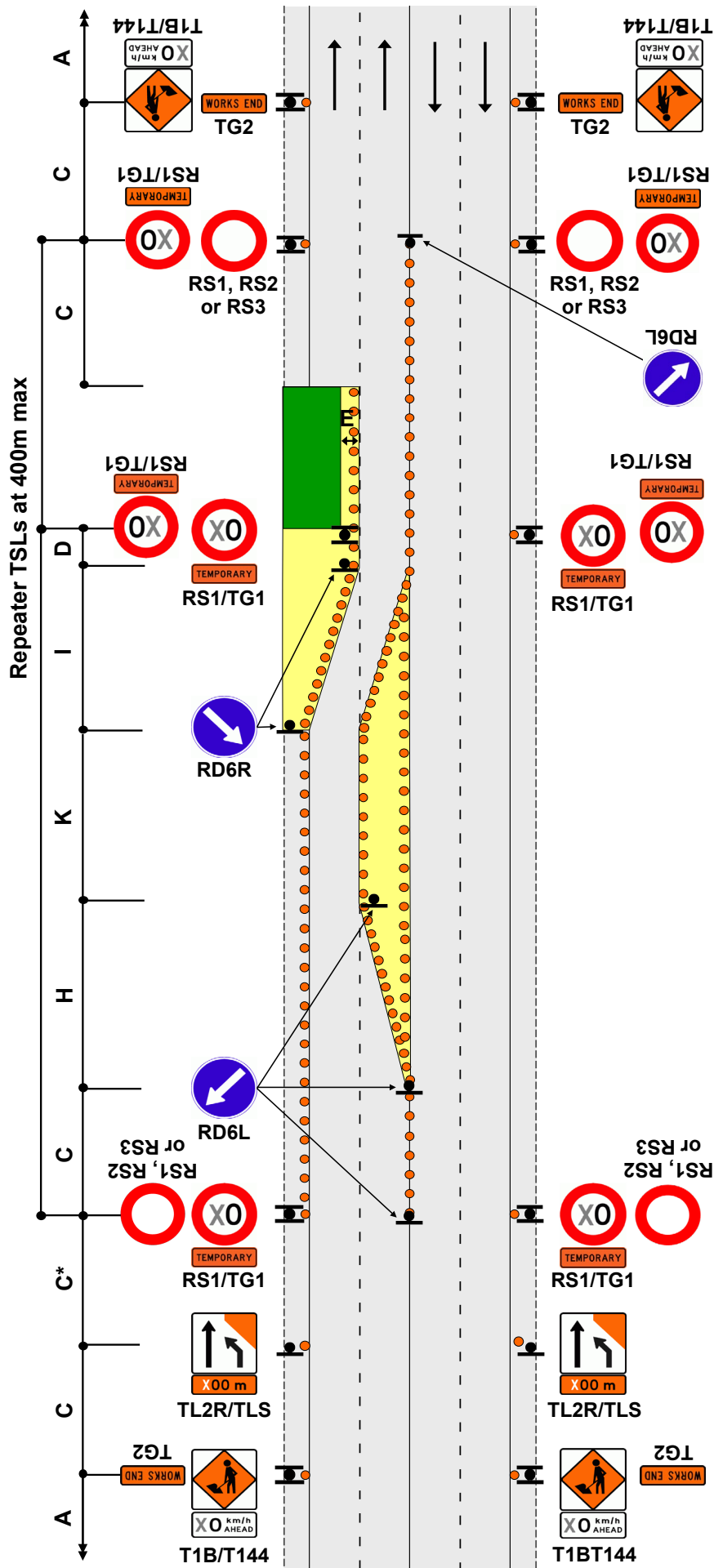
TWO-WAY FOUR-LANE ROAD

Left-lane closure  
With chicane

G1.21  
Level 2

Notes

- 1.C\* - the TL2R/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
3. Use TSLs if required by TSL decision matrix
4. TSLs to be repeated at 400m maximum centres



This drawing must not be used as a TMP diagram

**TWO-WAY FOUR-LANE ROAD**

Two-lane closure  
One-lane contraflow

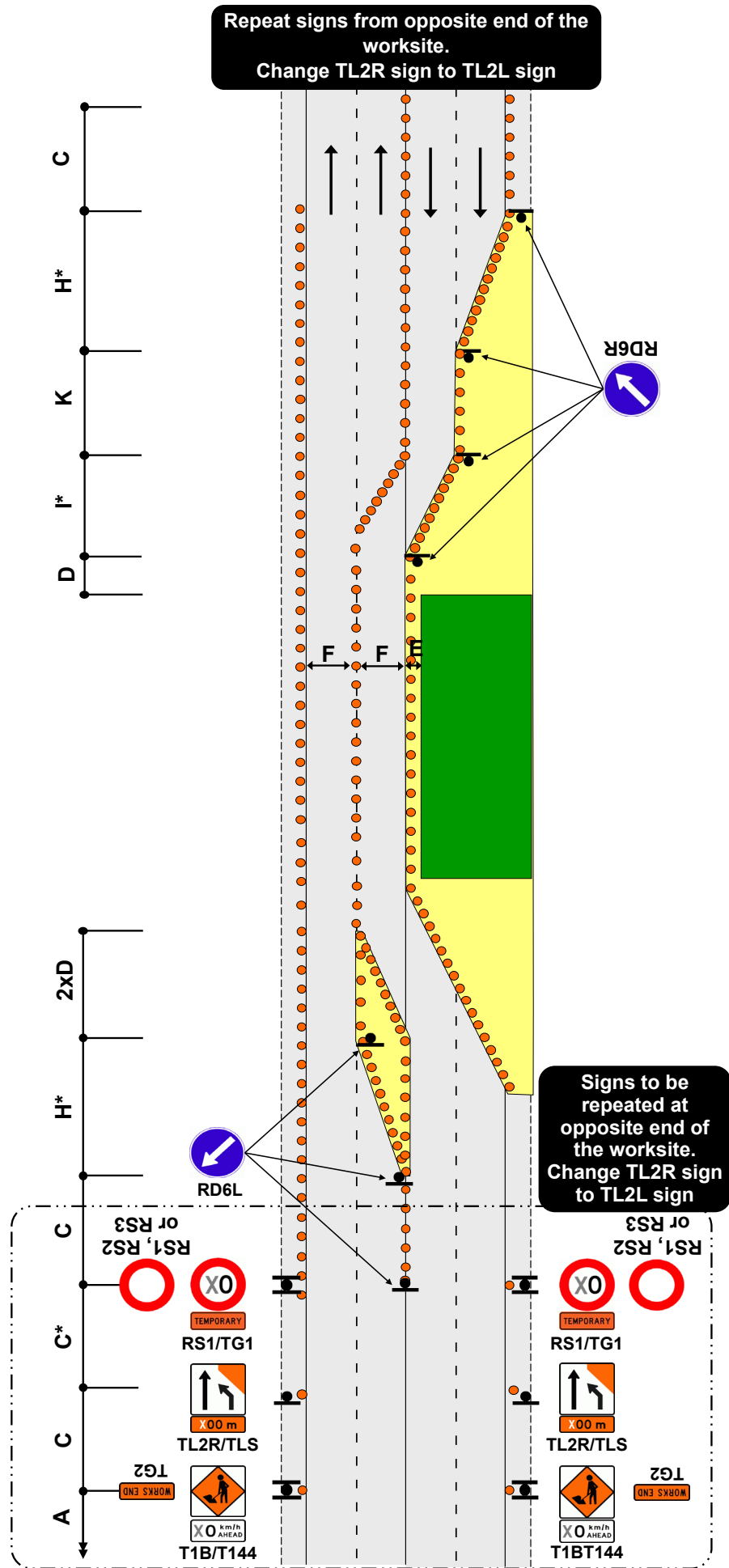
**G1.22**  
**Level 2**

**Notes**

1. Refer to C8.2.17 if the closure is within a passing lane
2. C\* - the TL2R/TLS signs are to be either 100m or 200m in advance of the start of the taper
3. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
4. \*Calculation of taper length for lateral shift of less than 3.5m is:  
 $\frac{W \times (H \text{ or } I)}{3.5}$   
W = Width of lateral shift  
H or I = Taper length in metres from the level 2 layout distance table
5. Use TSLs if required by TSL decision matrix
6. TSLs to be repeated at 400m maximum centres



This drawing must not be used as a TMP diagram

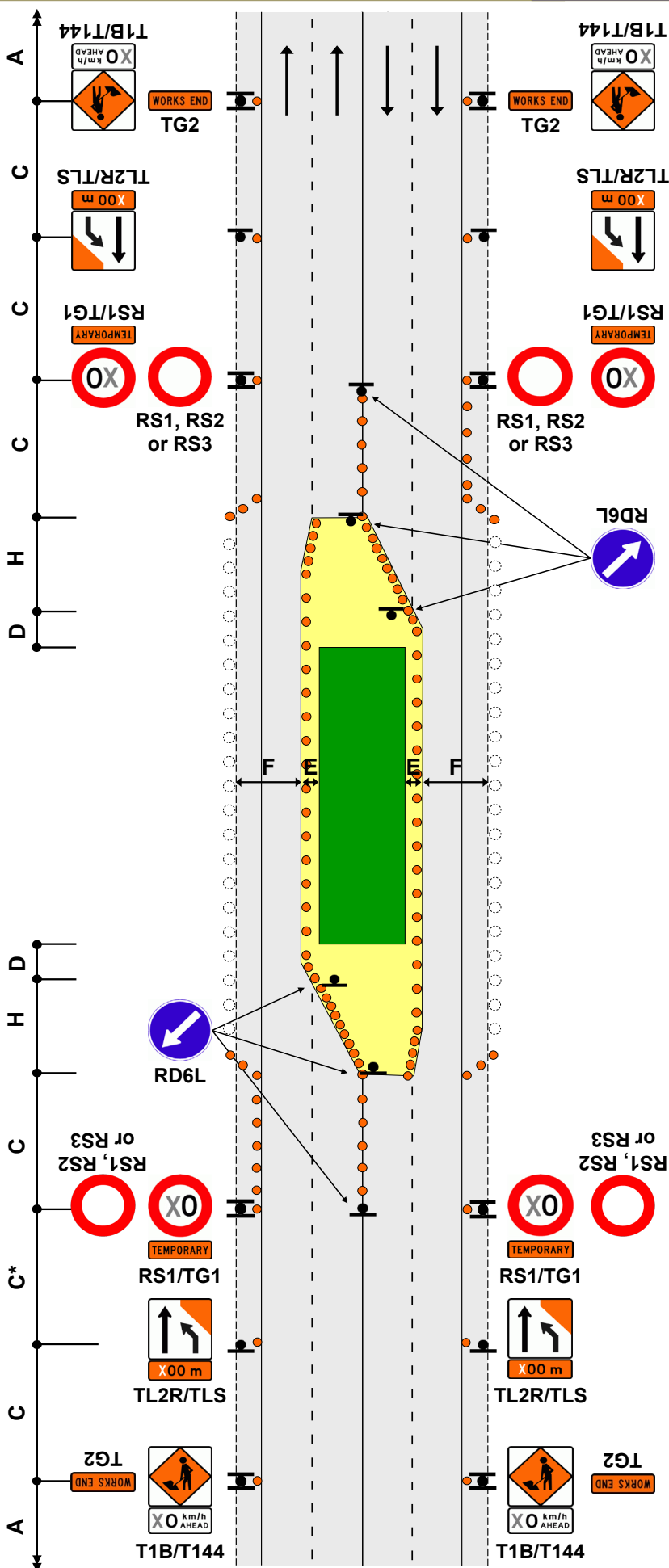


**TWO-WAY FOUR-LANE ROAD**  
Centre-lane closures

**G1.23**  
Level 2

**Notes**

1. C\* - the TL3L/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
3. Cones are required on edge of temporary lane opposite closure if road is not well defined
4. Use PN11 no stopping signs, if necessary
5. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram

ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD

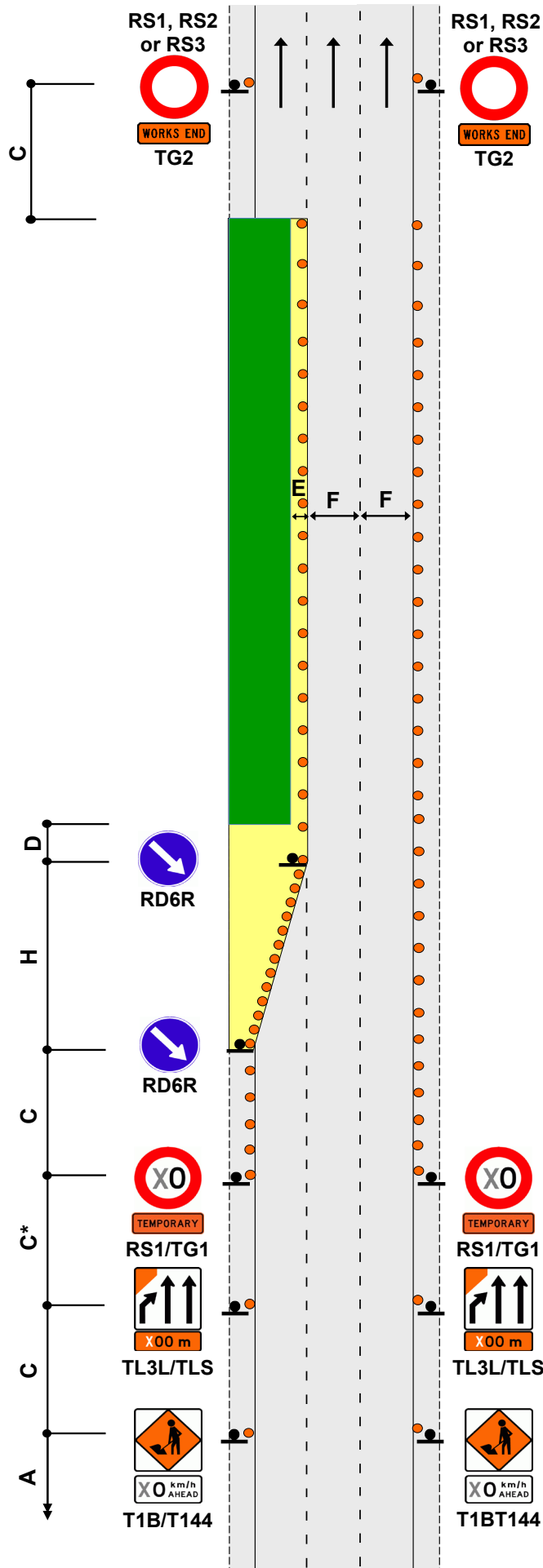
One-lane closure

Left lane

**G1.24**  
**Level 2**

Notes

1. C\* - the TL3L/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
3. Full end taper may be added if required
4. Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD

**G1.25**  
Level 2

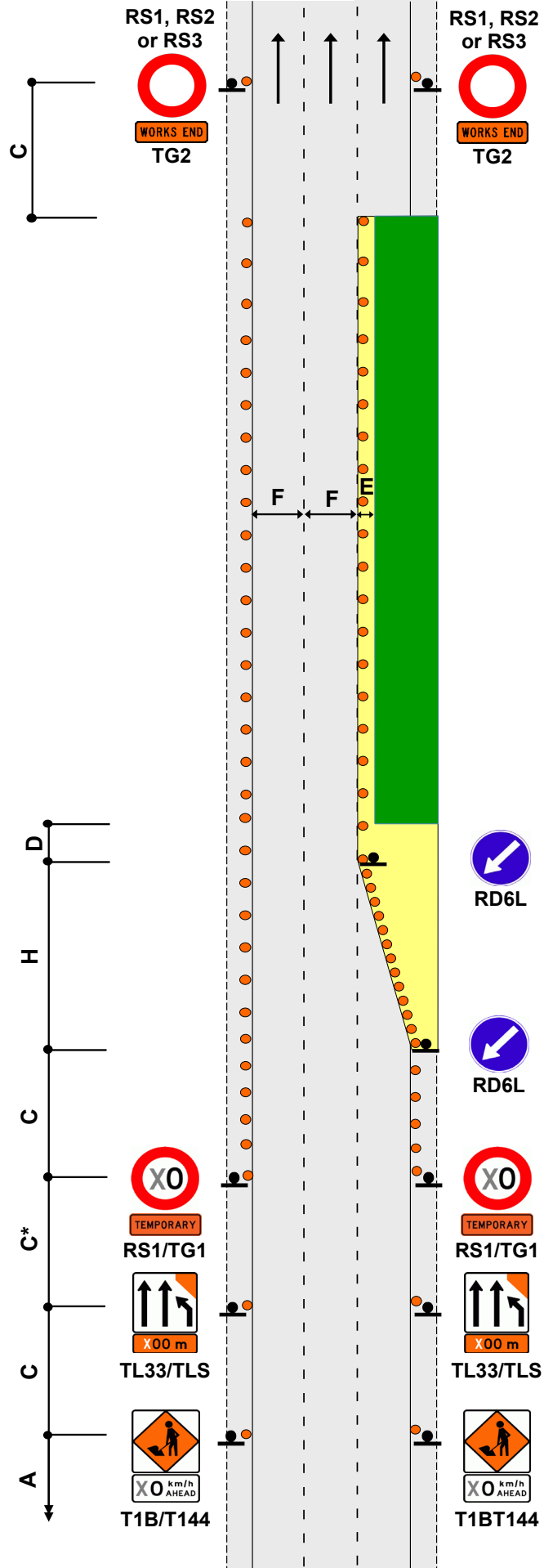
One-lane closure  
Right lane

Notes

- 1.C\* - the TL33/TLS signs are to be either 100m or 200m in advance of the start of the taper
- 2.Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
- 3.Full end taper may be added if required
- 4.Use TSLs if required by TSL decision matrix



This drawing must not be used as a TMP diagram



ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD

Two-lane closure  
Left and centre lanes

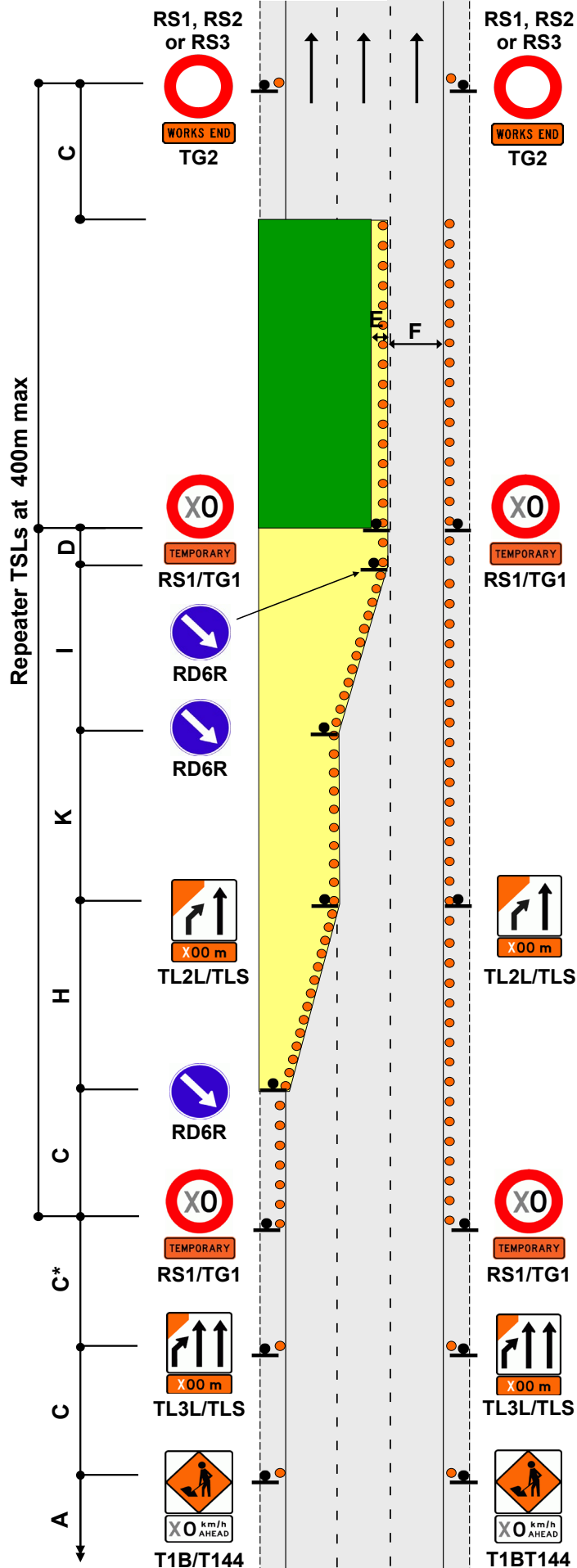
**G1.26**  
Level 2

Notes

1. C\* - the TL3L/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Distance K must be extended to match the distance shown on any supplementary plate used with the TL2L sign
3. Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
4. Full end taper may be added if required
5. Use TSLs if required by TSL decision matrix
6. TSLs to be repeated at 400m maximum centres



This drawing must not be used as a TMP diagram



ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD

Two-lane closure  
Right and centre lanes

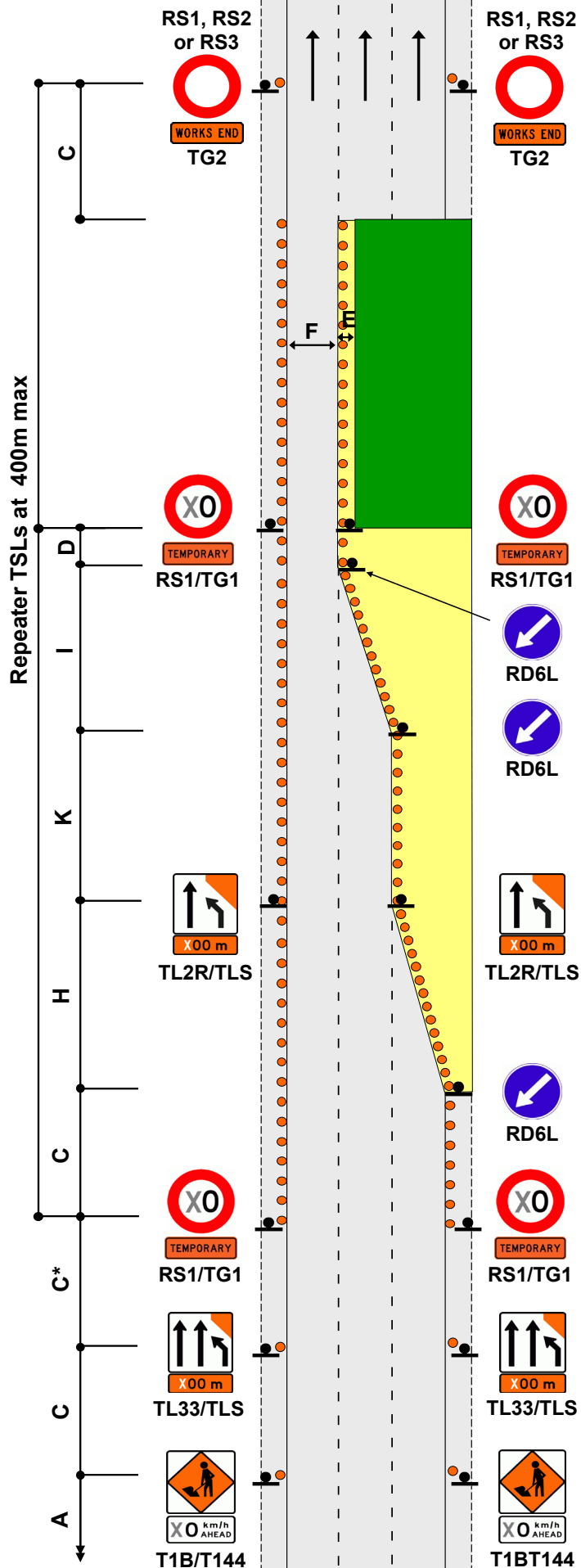
**G1.27**  
**Level 2**

Notes

- 1.C\* - the TL33/TLS signs are to be either 100m or 200m in advance of the start of the taper
- 2.Distance K must be extended to match the distance shown on any supplementary plate used with the TL2L sign
- 3.Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
- 4.Full end taper may be added if required
- 5.Use TSLs if required by TSL decision matrix
- 6.TSLs to be repeated at 400m maximum centres



This drawing must not be used as a TMP diagram



ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD

Two-lane closure

Two-lane temporary diversion

G1.28

Level 2

Notes

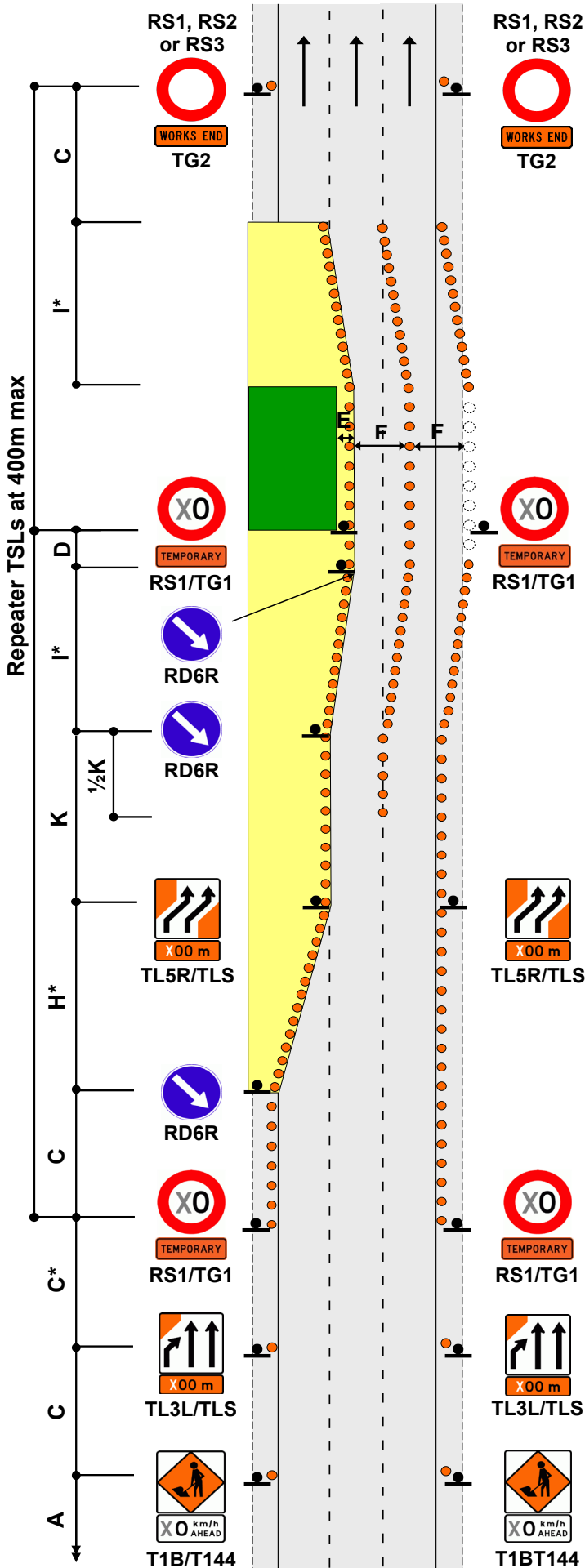
- 1.C\* - the TL3L/TLS signs are to be either 100m or 200m in advance of the start of the taper
- 2.Distance K must be extended to match the distance shown on any supplementary plate used with the TL2L sign
- 3.Cones are required from TSL to taper (or hazard area where no taper is installed) unless the edgeline is well defined
- 4.\*Calculation of taper length for lateral shift of less than 3.5m is:  

$$\frac{W \times (H \text{ or } I)}{3.5}$$

W = Width of lateral shift  
 H or I = Taper length in metres from the level 2 layout distance table
- 5.Cones are required on edge of temporary lane opposite closure if road edge is not well defined
- 6.Use TSLs if required by TSL decision matrix
- 7.TSLs to be repeated at 400m maximum centres



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**

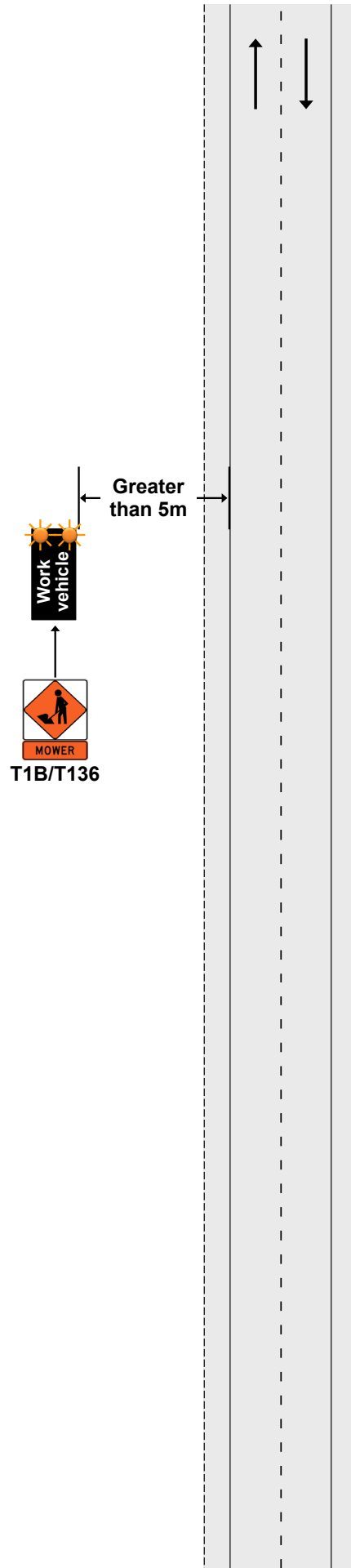
Work vehicle is more than five (5) metres from the edgeline

Any speed

**G2.1**  
**Level 2**

**Notes**

- 1. This layout will also apply to a multiple laned two-way road without a permanent median barrier



This drawing must not be used as a TMP diagram

**TWO-WAY TWO-LANE ROAD**

Work vehicle is between two (2) and five (5) metres of the edgeline

**G2.2**  
**Level 2**

**Notes**

1. This layout may also be used on multiple laned roads
2. Rear visibility is more than clear sight distance or rear visibility is less than clear sight distance with the permanent speed of less than 65km/h
3. The T1B sign and supplementary plates must be repeated throughout the length of the worksite at intervals no greater than 4km
4. The static signs may be replaced by an AWWMS if used as a tail pilot

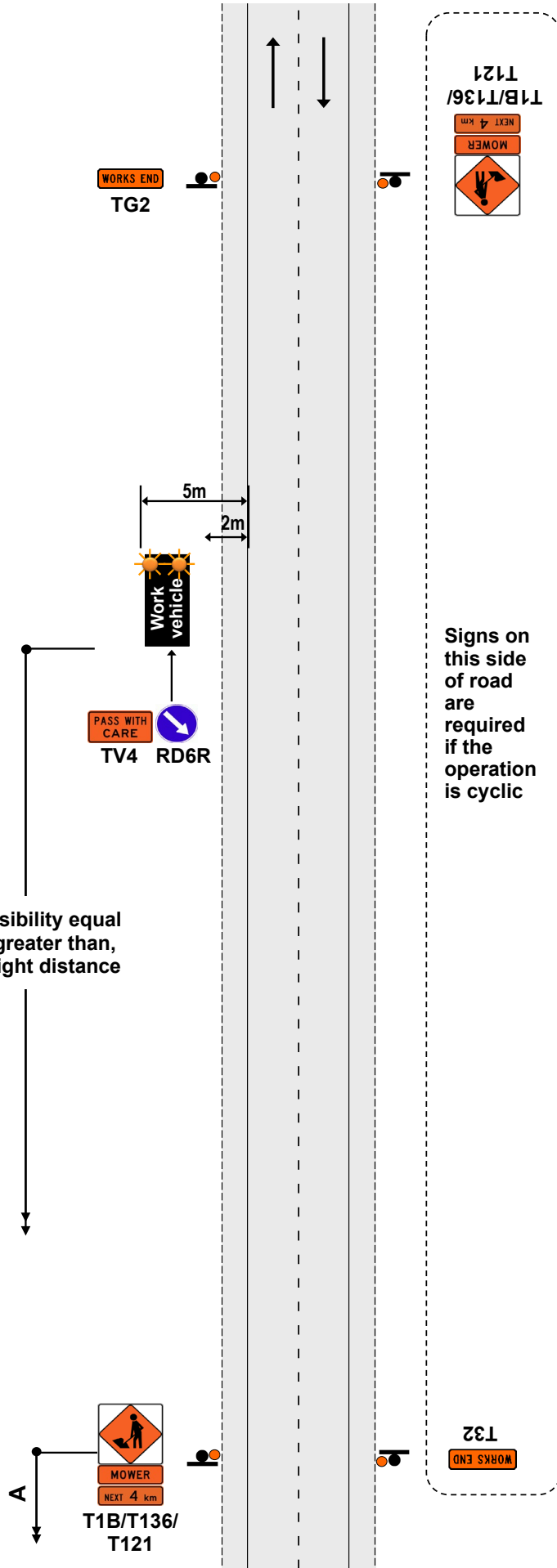
**For non-state highways**

5. The static signs may be replaced by a tail pilot vehicle with T1B and RD6R/L signs

Rear visibility equal to, or greater than, clear sight distance



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**

Work vehicle is between two (2) and five (5) metres of the edgeline

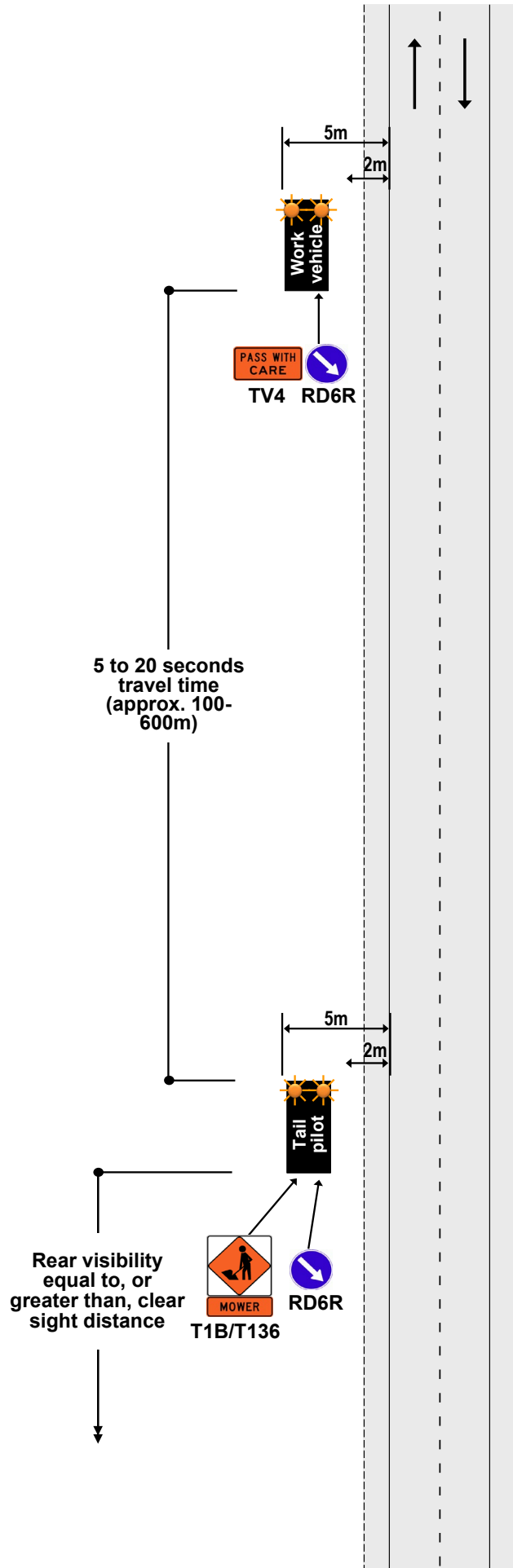
Permanent speed greater than 65km/h

**G2.3**

**Level 2**

**Notes**

1. This layout will also apply to a multiple laned two-way road without a permanent median barrier



This drawing must not be used as a TMP diagram

**TWO-WAY TWO-LANE ROAD**

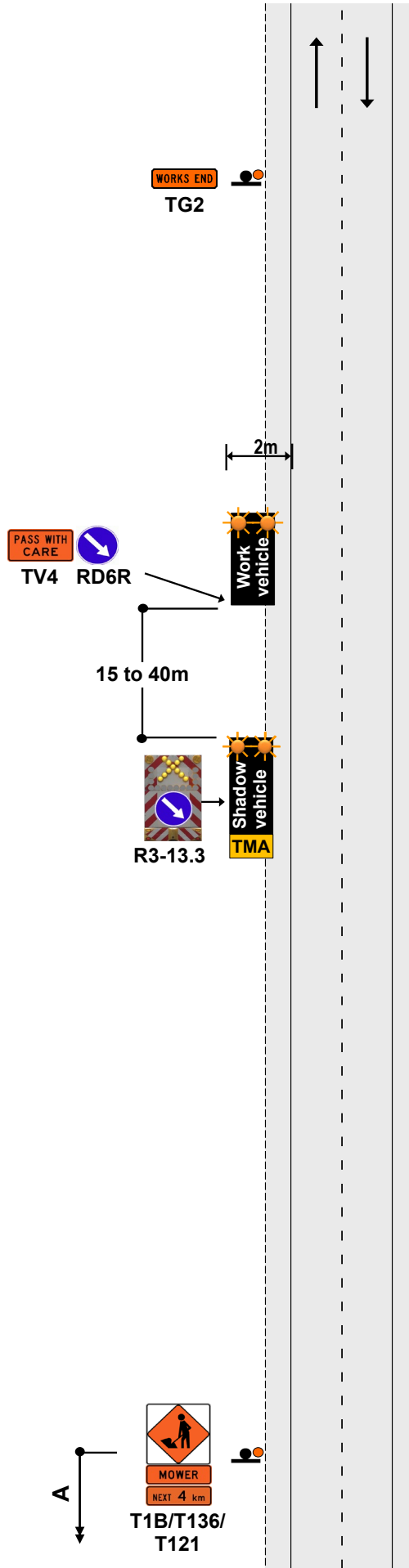
Work vehicle is between zero (0) and two (2) metres of the edgeline

Permanent speed less than 65km/h

**G2.4**  
**Level 2**

**Notes**

1. This layout may also be used on multiple laned roads
2. The T1B sign and supplementary plates must be repeated throughout the length of the worksite at intervals no greater than 4km
3. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
4. The static signs may be replaced by an AWWMS if used as a tail pilot
5. If using static advance warning signs and the operation is on the lane, then static advance warning signs must also be placed on any intersecting roads/ramps
- For non-state highways**
6. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
7. The static signs may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**

Work vehicle is between zero (0) and two (2) metres from the edgeline  
 Permanent speed greater than 65km/h

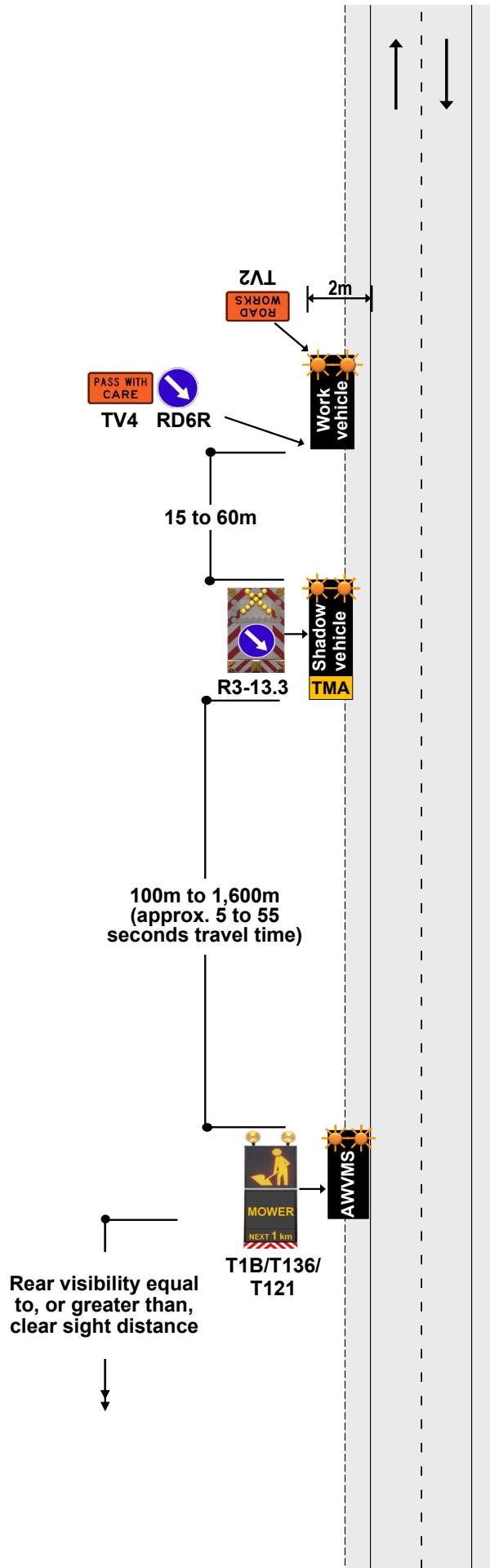
**G2.5**  
**Level 2**

**Notes**

1. This layout may also be used on multiple laned roads
2. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
3. Where the work is on a two-lane two-way road the leading work vehicle must be fitted with a front-mounted TV2 ROAD WORKS sign unless a lead pilot is required

**For non-state highways**

4. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
5. The AWVMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram

**TWO-WAY TWO-LANE ROAD**  
**Work vehicle on live lane**  
**Permanent speed less than 65km/h**

**G2.6**  
**Level 2**

**Notes**

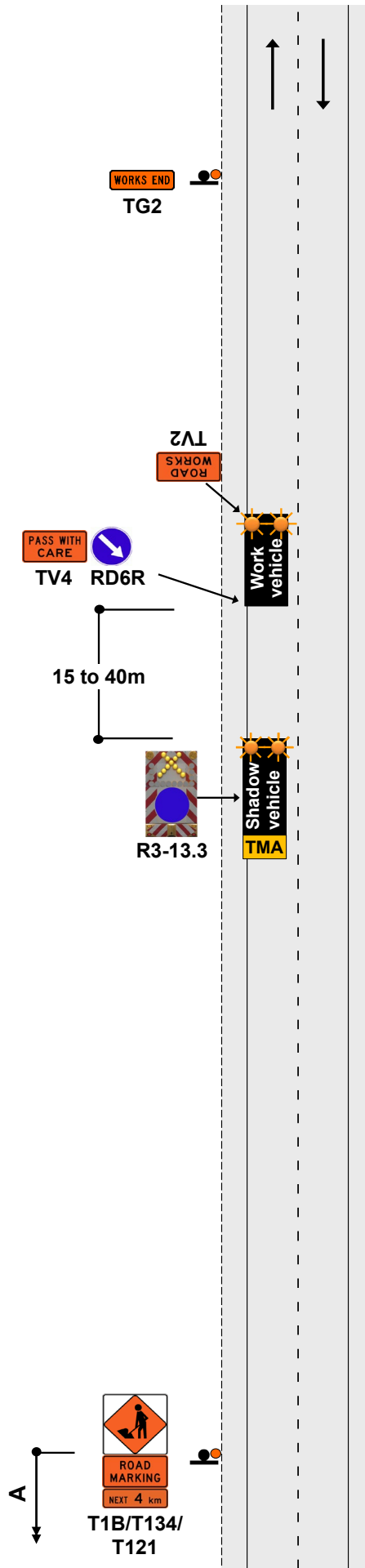
1. This layout may also be used on multiple laned roads
2. The T1B sign and supplementary plates must be repeated throughout the length of the worksite at intervals no greater than 4km
3. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
4. The static sign may be replaced by an AWWMS if used as a tail pilot
5. If using static advance warning signs and the operation is on the lane, then static advance warning signs must also be placed on any intersecting roads/ramps

**For non-state highways**

6. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
7. The static sign may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**

**Work vehicle on live lane**

Permanent speed greater than 65km/h

**G2.7**

**Level 2**

**Notes**

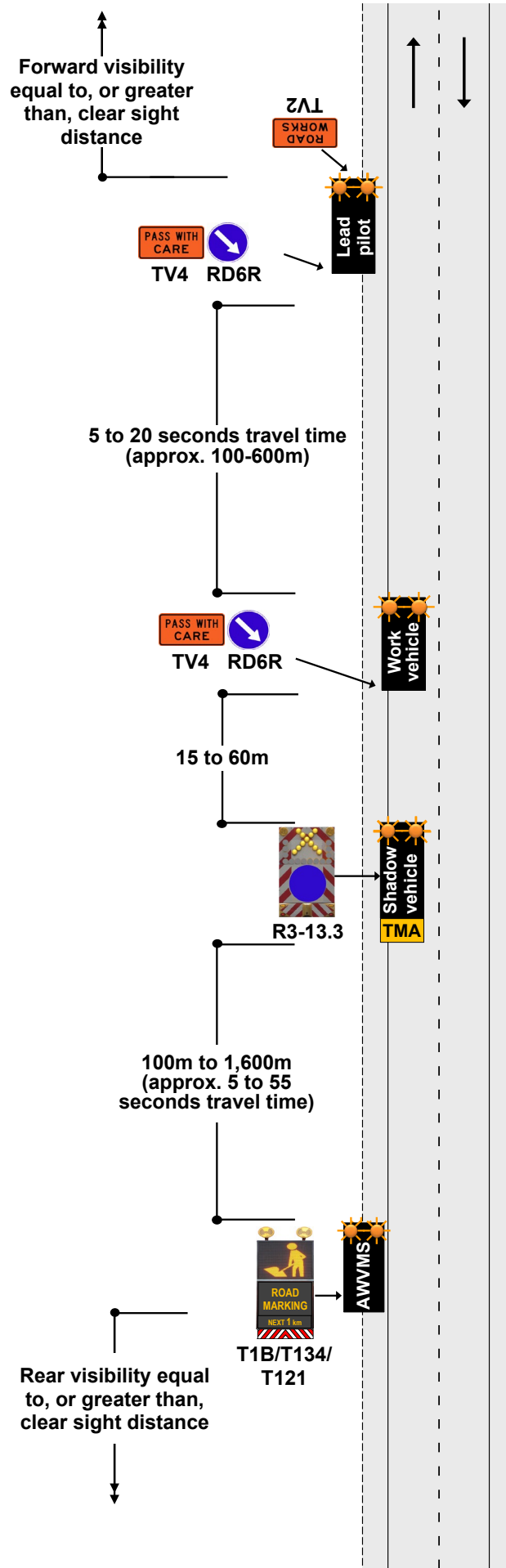
1. A lead pilot vehicle must be used on undivided two-way roads with permanent speed limits greater than 65km/h when:
  - visibility to the work vehicle is less than CSD continuously for more than 1km, or
  - the operation crosses the centre line
2. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R

**For non-state highways**

3. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
4. The AWMMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram



**TWO-WAY TWO-LANE ROAD**  
**Personnel on the live lane**

**G2.8**  
**Level 2**

**Notes**

1. A lead pilot vehicle must be used on undivided two-way roads with permanent speed limits greater than 65km/h when:
  - visibility to the work vehicle is less than CSD continuously for more than 1km, or
  - the operation crosses the centre line

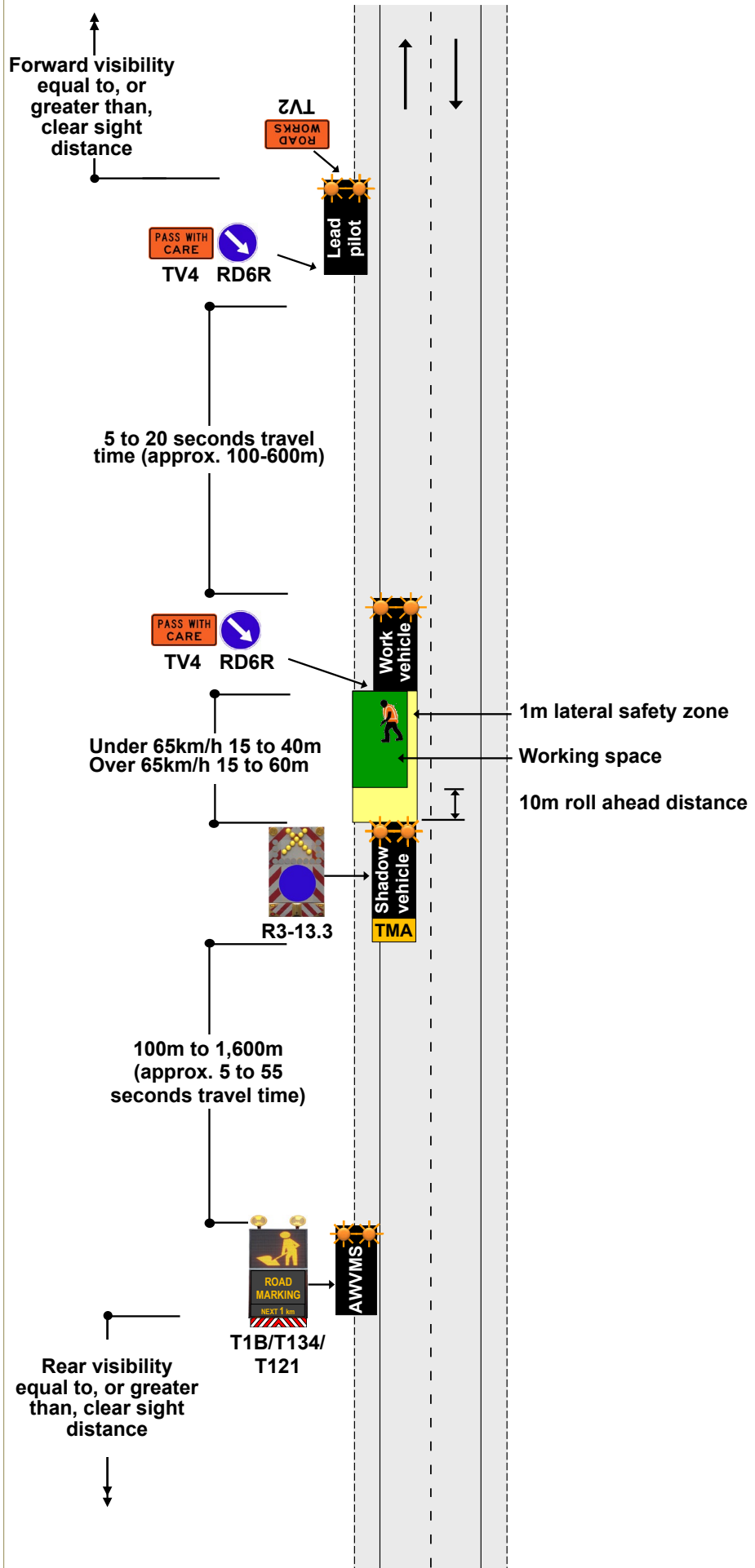
2. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R

**For non-state highways**

3. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
4. The AWVMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram



**ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD**

Work vehicle is between zero (0) and two (2) metres from the edgeline

Permanent speed less than 65km/h

**G2.9**

**Level 2**

**Notes**

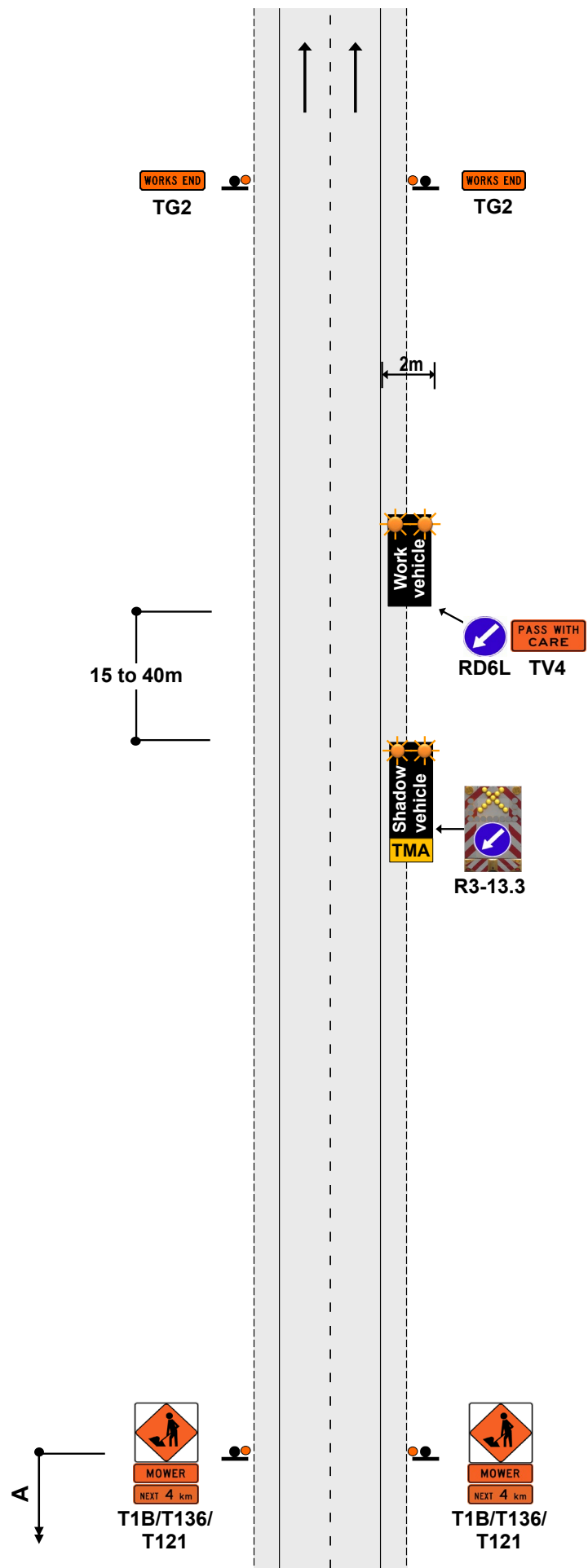
1. The T1B sign and supplementary plates must be repeated throughout the length of the worksite at intervals no greater than 4km
2. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
3. The static sign may be replaced by an AWWMS if used as a tail pilot
4. If using static advance warning signs and the operation is on the lane, then static advance warning signs must also be placed on any intersecting roads/ramps

**For non-state highways**

5. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
6. The static signs may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram



**ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD**

Work vehicle is between zero (0) and two (2) metres from the edgeline

Permanent speed greater than 65km/h

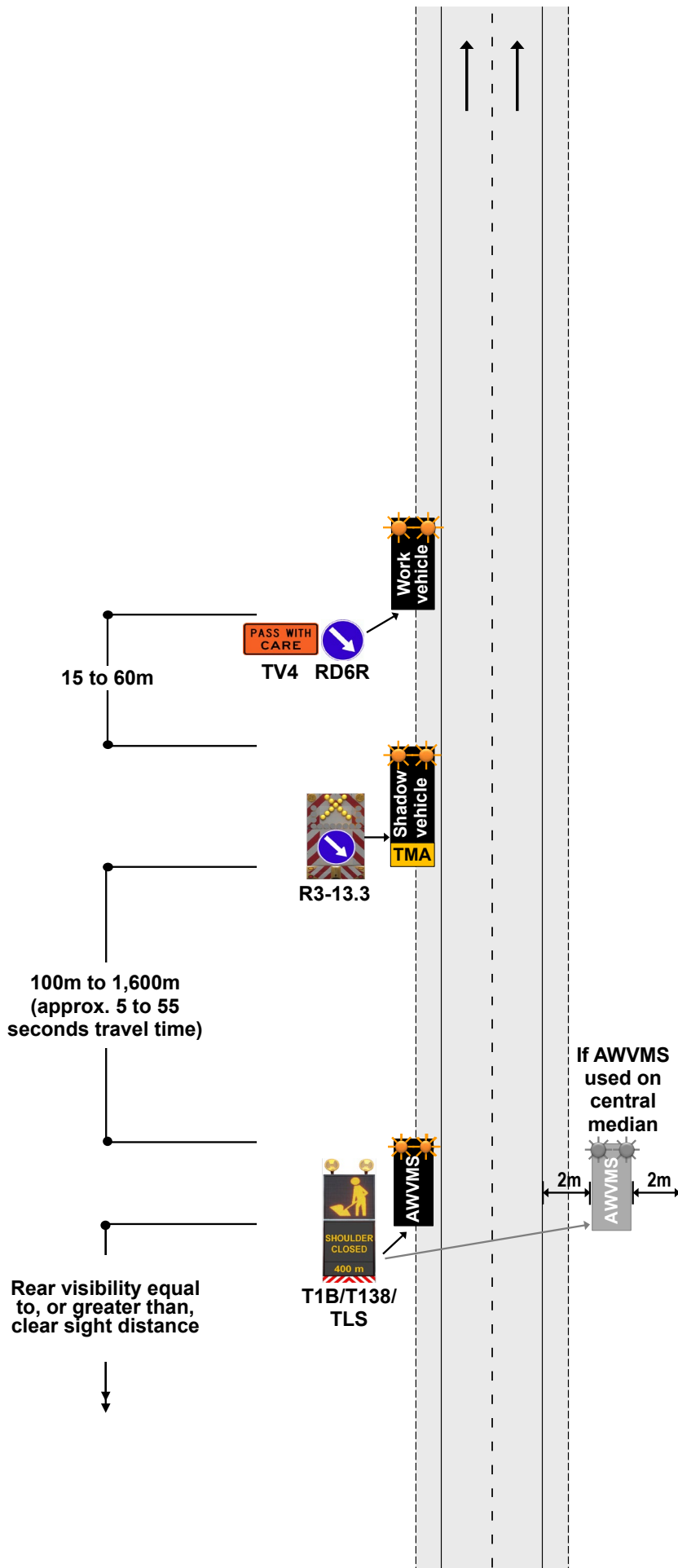
**G2.10**  
**Level 2**

**Notes**

1. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
2. If used on a central median, the AWWMS is to be positioned at least 2m clear of the edgeline of both carriageways
3. With a right hand closure where there is no available shoulder on the right hand median, the AWWMS can be positioned on the left hand side clear of the edgeline showing a right hand lane drop

**For non-state highways**

4. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
5. The AWWMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram

ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD

Work vehicle is on the live lane  
Permanent speed less than 65km/h

**G2.11**  
**Level 2**

Notes

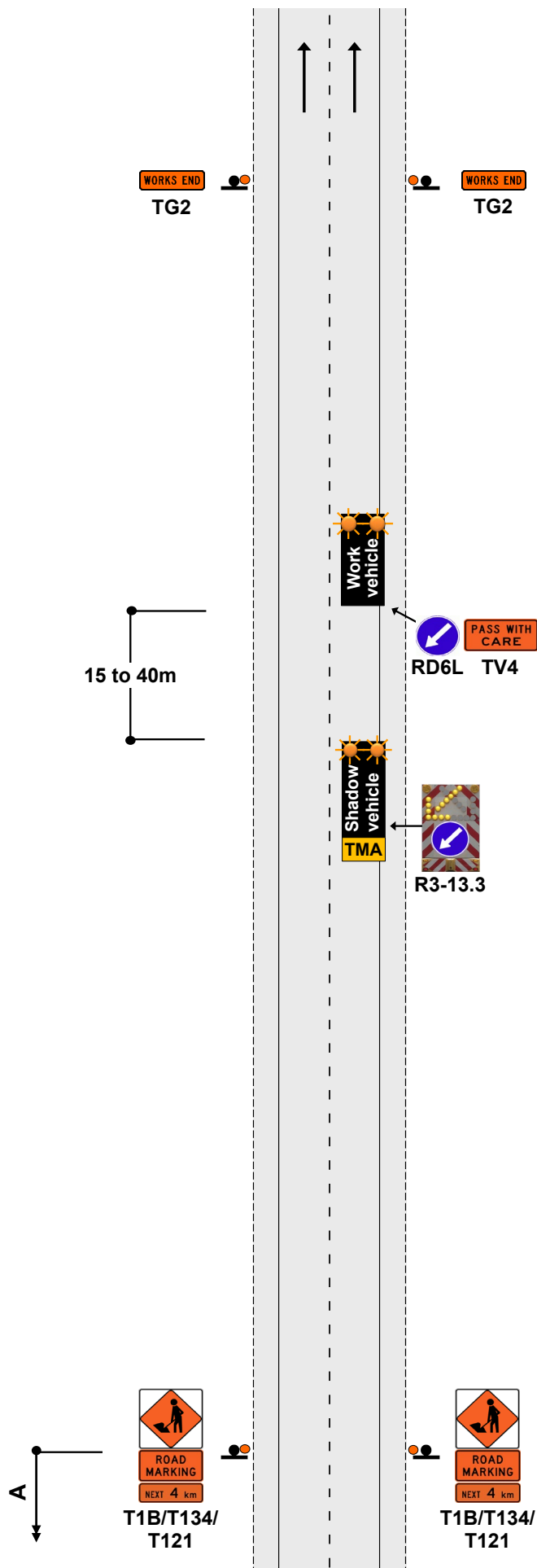
1. The T1B sign and supplementary plates must be repeated throughout the length of the worksite at intervals no greater than 4km
2. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
3. The static signs may be replaced by an AWWMS if used as a tail pilot
4. If using static advance warning signs and the operation is on the lane, then static advance warning signs must also be placed on any intersecting roads/ramps

**For non-state highways**

5. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
6. The static signs may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram



**ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD**

Work vehicle is on the live lane

Permanent speed greater than 65km/h

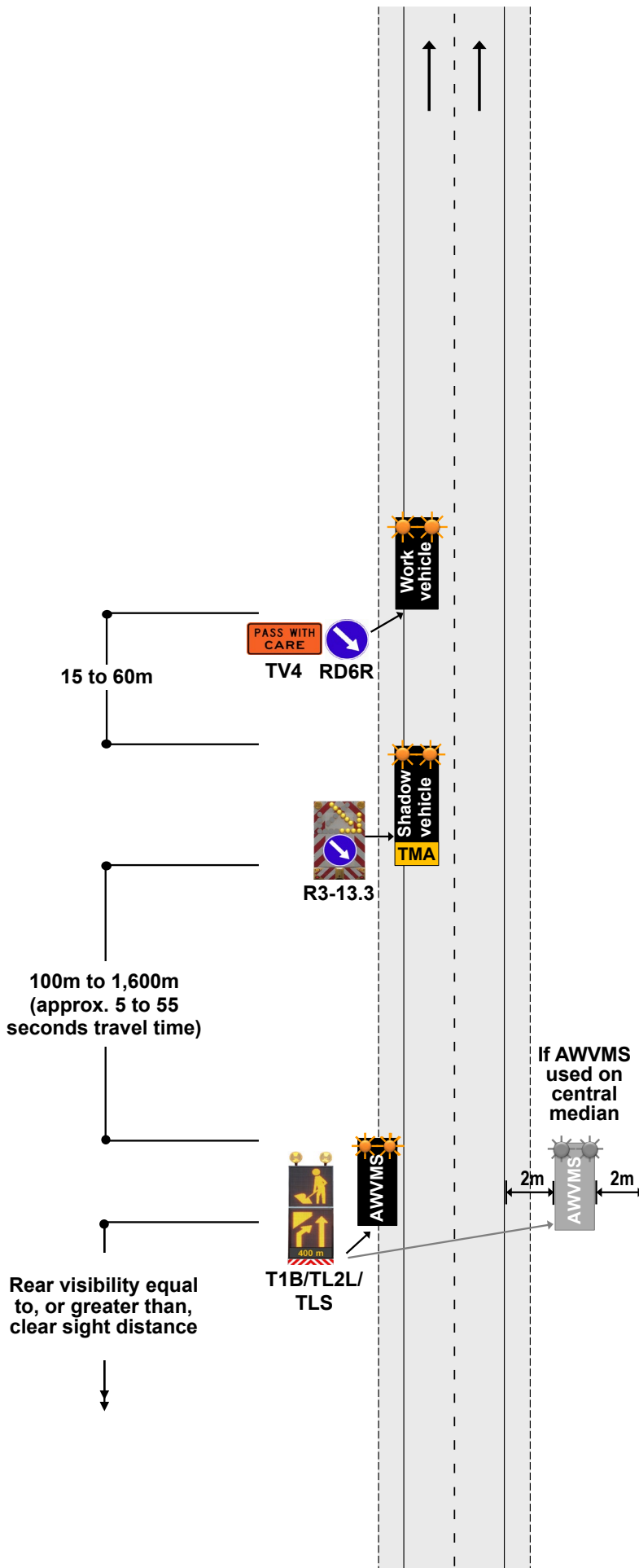
**G2.12**  
**Level 2**

**Notes**

1. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
2. If used on a central median, the AWMMS is to be positioned at least 2m clear of the edgeline of both carriageways
3. With a right hand closure where there is no available shoulder on the right hand median, the AWMMS can be positioned on the left hand side clear of the edgeline showing a right hand lane drop

**For non-state highways**

4. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
5. The AWMMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



This drawing must not be used as a TMP diagram



**ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD**  
**Part or all of lane occupied – Semi-static closure (work for up to 1 hour)**  
**Permanent speed less than 65km/h**

**G2.13**  
**Level 2**

**Notes**

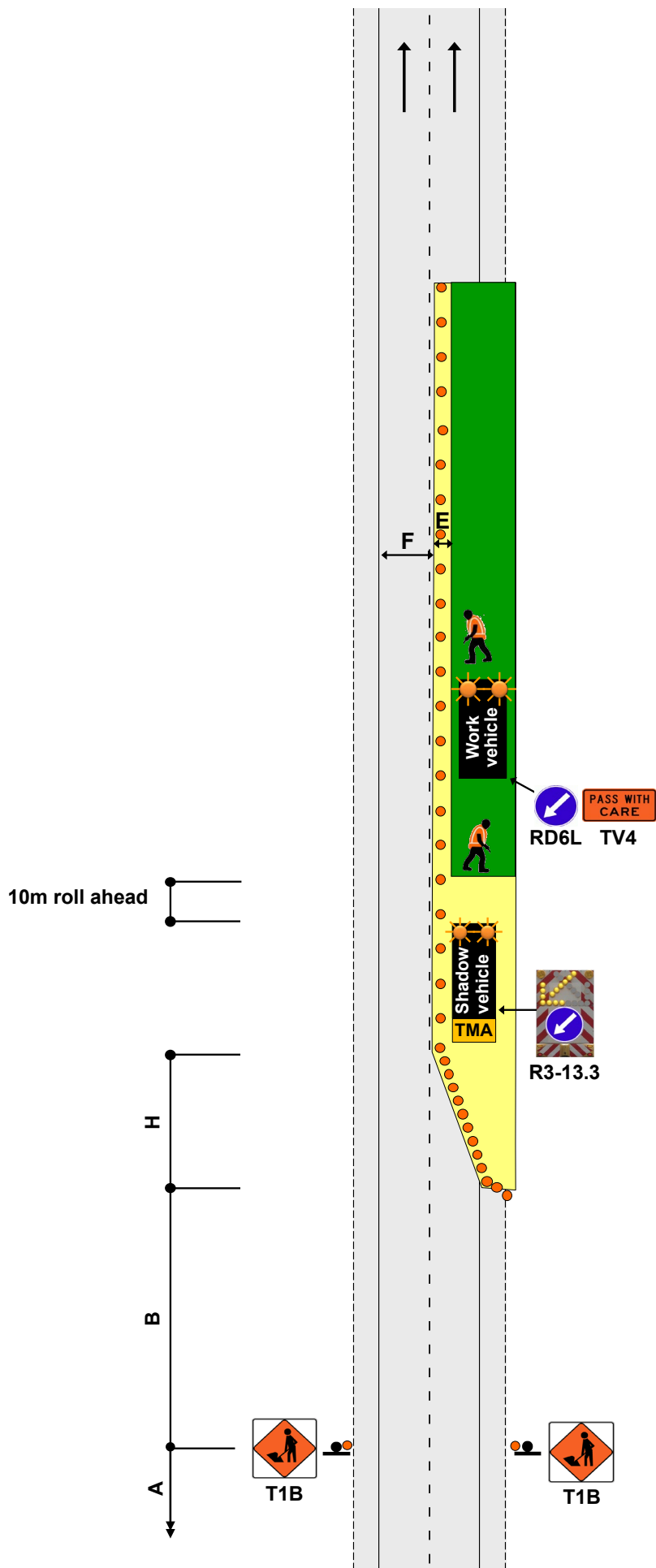
1. This layout applies when the work activity can be completed within one hour (excluding TTM set up and TTM removal from the worksite)
2. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
3. The static signs may be replaced by an AWMMS. Use TMD G2.14 in this case
4. If using static advance warning signs and the operation is on the lane, then static advance warning signs must also be placed on any intersecting roads/ramps

**For non-state highways**

5. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
6. The static sign on the right-hand side of the road may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6L sign



This drawing must not be used as a TMP diagram



**ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD**  
**Part or all of lane occupied – Semi-static closure (work for up to 1 hour)**  
**Permanent speed greater than 65km/h**

**G2.14**  
**Level 2**

**Notes**

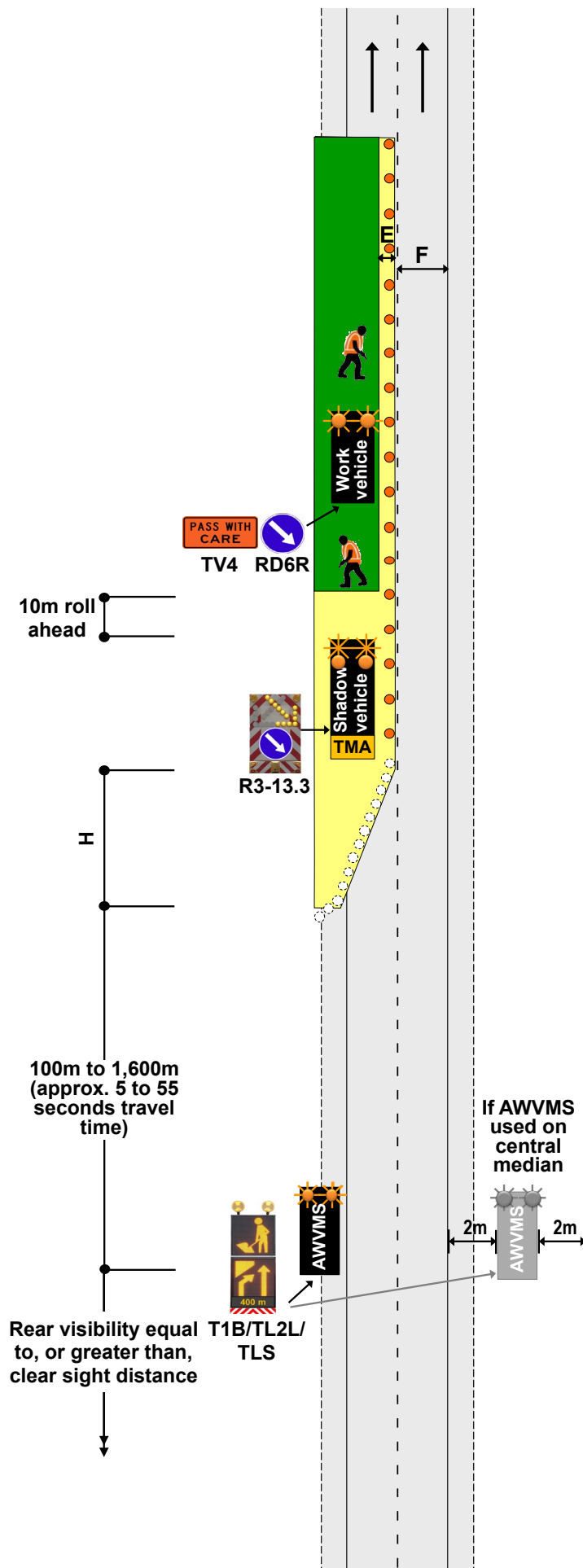
1. This layout applies when the work activity can be completed within one hour (excluding TTM set up and TTM removal from the worksite)
2. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
3. The AWWMS can be located either side of the road depending on availability of space to park the AWWMS
4. If used on a central median, the AWWMS is to be positioned at least 2m clear of the edgeline of both carriageways
5. With a right hand closure where there is no available shoulder on the right hand median, the AWWMS can be positioned on the left hand side clear of the edgeline showing a right hand lane drop
6. Where an AWWMS is used, a cone taper (H) is optional

**For non-state highways**

7. With the relevant RCA's permission, the TMA shadow vehicle may have a horizontal arrowboard and a TV4 PASS WITH CARE sign instead of the LAS
8. The AWWMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6L sign



This drawing must not be used as a TMP diagram



**INSPECTION ACTIVITIES AND NON-INVASIVE WORKS**

**On shoulder and on the live lane**

**G2.15**

**Level 2**

**Notes**

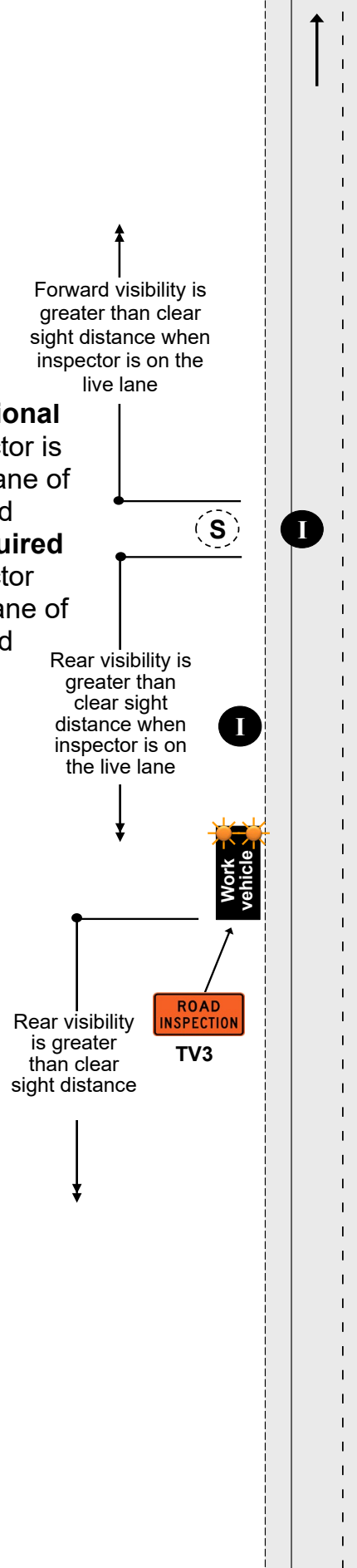
1. Inspectors must move from live lanes to avoid traffic. They must not expect traffic to drive slowly or drive around them
2. The inspector cannot be on a live lane for more than 5 minutes
3. There must be CSD to the inspector when on the live lane. If this cannot be achieved, a spotter must be placed in a position where CSD can be attained and verbal instructions be given to the inspector. If this is not possible, a static or mobile operation is required.
4. A spotter is not required for inspection activities out of the live lane
5. If the Inspector is on the live lane of a road with a permanent speed greater than 65km/h the onsite control must be by a L2/3 STMS or an STMS-NP
6. If the Inspector is on the live lane of a road with a permanent speed less than 65km/h the onsite control must be by a L2/3 STMS, or an STMS-NP or a TC Inspector
7. For inspection activities that are carried out by a TC Inspector or an STMS-NP the L2/3 STMS must be immediately contactable but does not have to be within 30 minutes travel time of the worksite
8. An unaccompanied inspector may walk across a level 2 road
9. A vehicle is not required on a level 2 road with a permanent speed of less than 65km/h if the inspector remains on a footpath
10. On roads with a permanent speed of less than 65km/h an amber flashing beacon is not required on the vehicle if the inspector or non-invasive works is on an unsealed shoulder (or further away from the carriageway - including a footpath)



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**Spotter optional**  
when inspector is **off** the live lane of a level 2 road

**Spotter required**  
when inspector **on** the live lane of a level 2 road







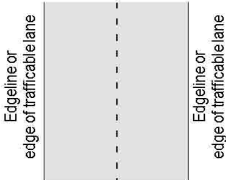


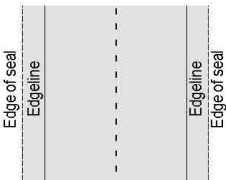


**Note:**

This page is to be used as the layout distances table for the level 2 static and mobile diagrams.

Print this page on A3 paper and fold it to fit an A4 page.

Unfold this page when you want to view the layout distances table and a diagram at the same time.

**LEGEND FOR DIAGRAMS**

<p><b>Working space</b></p> 	<p><b>Mandatory:</b></p> <ul style="list-style-type: none"> <li>• Cones</li> <li>• Signs</li> </ul> 
<p><b>Safety zones</b></p> 	<p><b>Optional:</b></p> <ul style="list-style-type: none"> <li>• Cones</li> <li>• Signs</li> </ul> 
<p><b>Edgeline or edge of trafficable lane (indicated by solid black line)</b></p> 	<p><b>Hazard area</b></p> 
	<p><b>Manhole</b></p> 
<p><b>Edge of Seal (indicated by dotted line next to solid black line)</b></p> 	<p><b>Barrier, safety fence or cone bars</b></p> 
	<p><b>Ramp</b></p> 

**LEVEL 2 LAYOUT DISTANCES TABLE**

Permanent/TSL (km/h)		≤50	60	70	80	90	100 /110		
<b>Traffic signs</b>									
A	Sign visibility distance (m)	60/50 <sup>+</sup>	70/60 <sup>+</sup>	80	100	120	120		
B	Warning distance (m)	100/75 <sup>+</sup>	120/90 <sup>+</sup>	140	160	200	200		
C	Sign spacing (m)	50/35 <sup>+</sup>	60/45 <sup>+</sup>	70	80	100	100		
<b>Safety zones</b>									
D	Longitudinal (m)*	15	20	30	45	60	60		
E	Lateral (m)								
	1. Behind cones	1	1	1	1	1	1		
	2. Behind barrier installations	As specified by the Installation Designer							
<b>Tapers</b>									
H	Initial taper length per lane (m)**	90/50 <sup>+</sup>	100/60 <sup>+</sup>	120	150	180	180		
I	Subsequent taper length per lane (m)	50	60	70	80	100	100		
K	Minimum distance between tapers (m)	50	60	70	80	100	100		
<b>Delineation device</b>									
Spacing (centres)	All tapers (m)	2.5	2.5	2.5	2.5	2.5	2.5		
	Cones parallel to the lane - eg between tapers and alongside working space (m)	5	5	10	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.								
<b>Lane widths (based on permanent speed or TSL if applied)</b>									
Speed (km/h)		30	40	50	60	70	80	90	100/110
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 sign distances and spacings, the initial taper(s) and any longitudinal safety zone associated with that taper must be based on the permanent speed limit. The layout distances of the remainder of the worksite, including any subsequent tapers, may be based on the TSL, provided the TSL is applied prior to the first taper.