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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*Code of practice for temporary traffic management*

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## Disclaimer

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## More information

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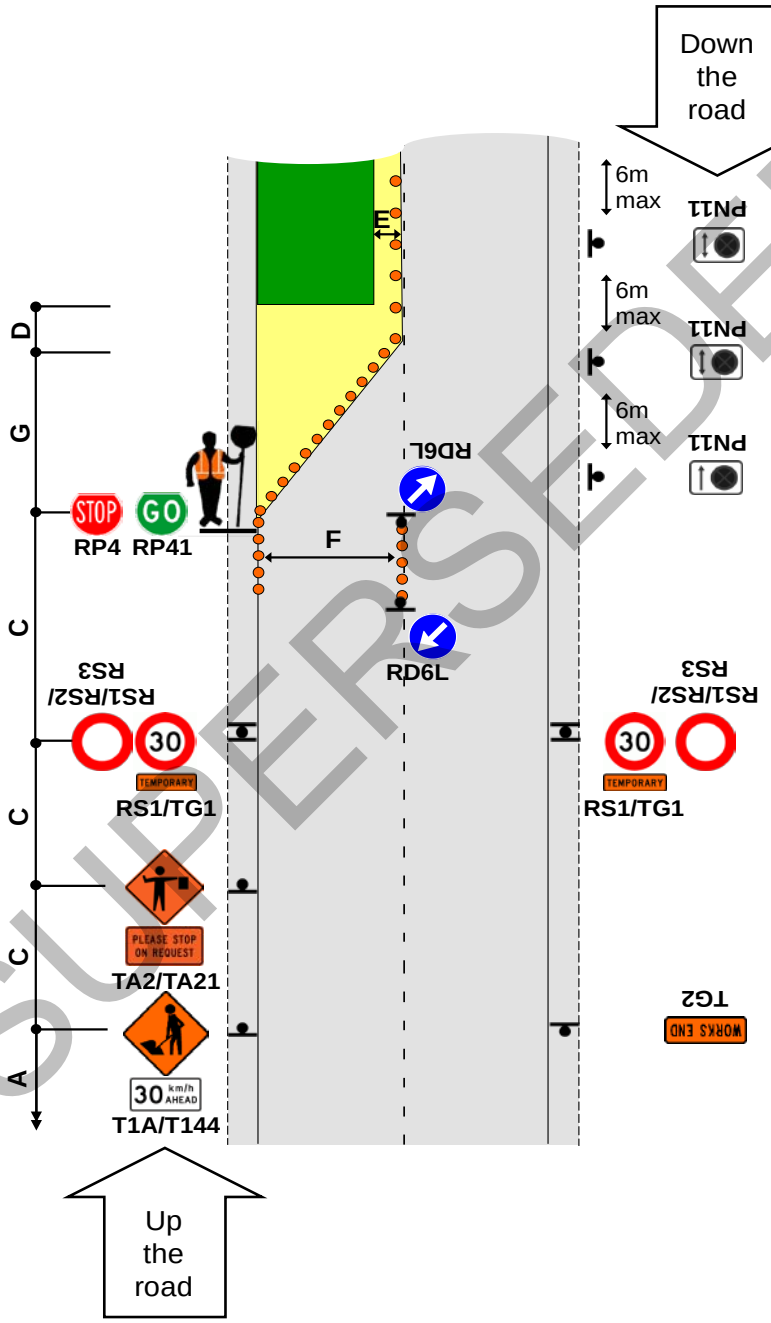
MOBILE OPERATIONS

| No. | LEVEL 2 ROADS | |
|---|---|---|
| TWO-WAY TWO-LANE ROAD | | |
| 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 | |
| ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD | | |
| 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 |

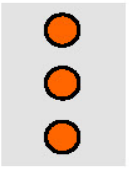
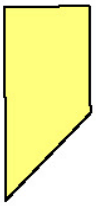
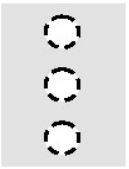
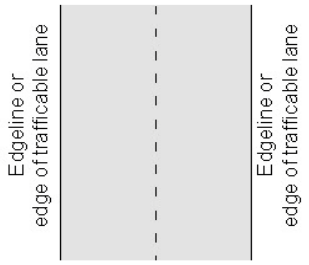
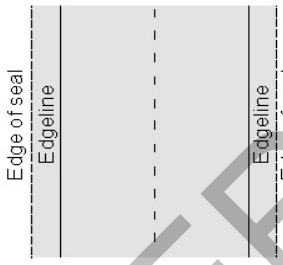
Usually contractors place the signs on left-hand side of the road first with the TMD the right way up. When signs are placed for the right-hand side of the road the contractor tips the TMD upside down and reads which signs have to be placed for that side of the road.

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



# LEGEND FOR DIAGRAMS

| | |
|---|---|
| **Working space**  | **Cones**  |
| **Safety zones**  | **Optional:**<br>• **Cones**<br>• **Signs**   |
| **Edgeline or edge of trafficable lane (indicated by solid black line)**   | **Hazard area**  <br>**Barrier, safety fence or cone bars**  |
| **Edge of Seal (indicated by dotted line next to solid black line)**   | **Ramp**  |

## LEVEL 2 LAYOUT DISTANCES TABLE

| Permanent/TSL (km/h) | | ≤50 | 60 | 70 | 80 | 90/100 |
|---|---|---|---|---|---|---|
| **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) | | | | | |
| | 1. Behind cones | 1 | 1 | 1 | 1 | 1 |
| | 2. Behind concrete barrier | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | 3. Behind other barriers | As recommended by manufacturers | | | | |
| **Tapers** | | | | | | |
| H | Initial taper length per lane** | 90/50+ | 100/60+ | 120 | 150 | 180 |
| I | Subsequent taper length per lane | 50 | 60 | 70 | 80 | 100 |
| K | Minimum distance between tapers | 50 | 60 | 70 | 80 | 100 |
| **Delineation devices** | | | | | | |
| Spacing | All tapers | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Spacing | Approaches, between tapers and around the working space | 5 | 5 | 10 | 10 | 10 |
| Spacing | 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 |

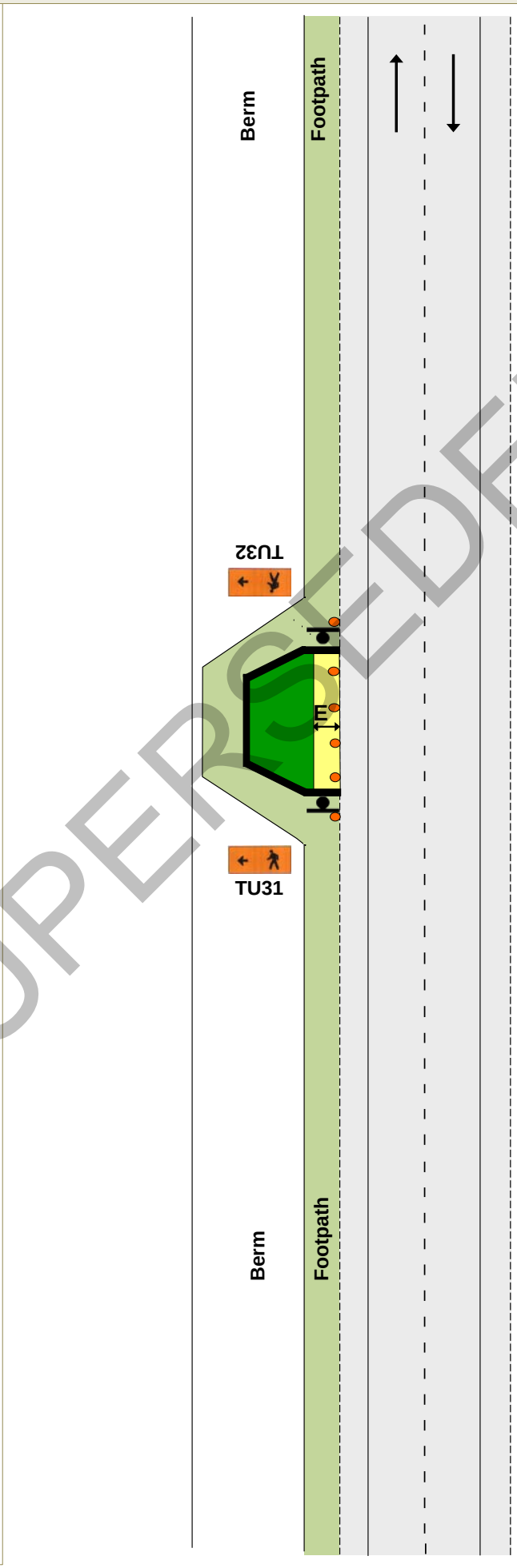
Except for delineation device spacings, which are maximum values, the distances specified in the above tables are minimum values.

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
## Footpath diverted onto berm behind working space
## First preference

**G1.1**
Level 2

Notes
1. Minimum pedestrian footpath widths:
   - Residential/Rural - 0.9m
   - Suburban Centre - 1.2m
   - CBD - 2m
2. Where the length of the working space exceeds 20m, these widths may have to be increased so footpath users do not have to wait to pass
3. Temporary footpath surfaces must be suitable for footpath users
4. Use 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 Protecting pedestrians from the working space
5. This TMD must be used in conjunction with appropriate TTM for any work carried out on the shoulder or in the live lane

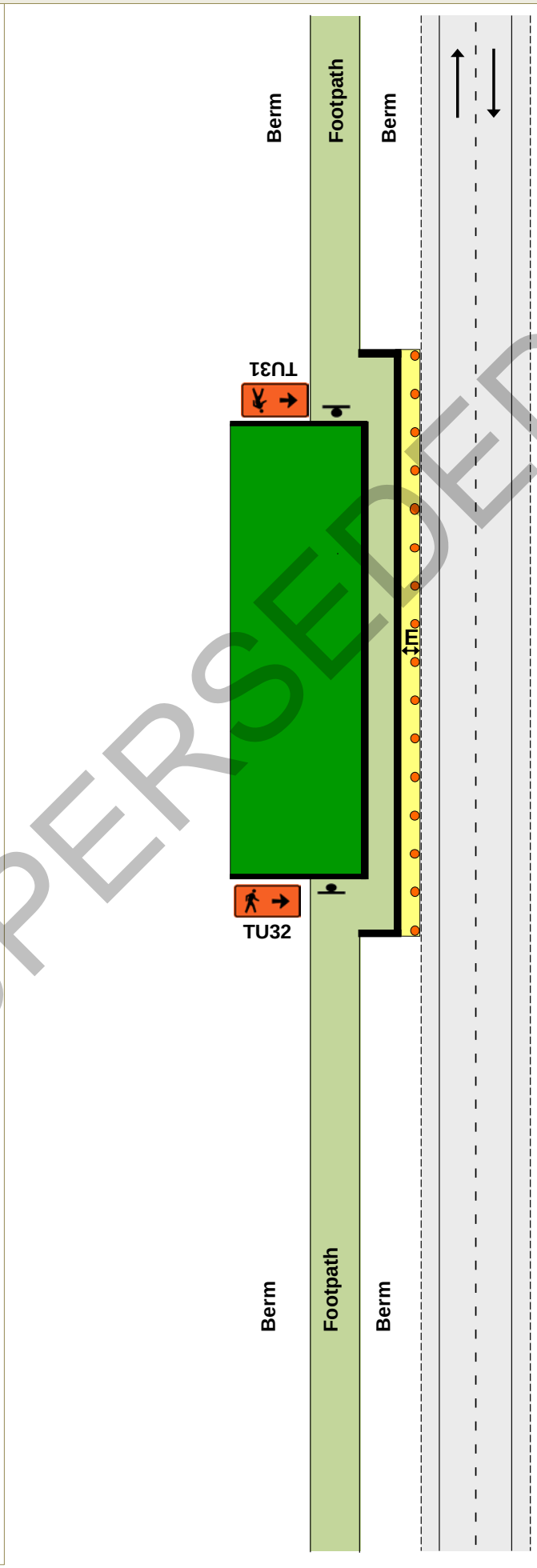


# FOOTPATH
## Footpath diverted onto berm between working space and carriageway
## Second preference

**G1.2**
Level 2

Notes

1. Minimum pedestrian footpath widths:
   - Residential/Rural - 0.9m
   - Suburban Centre - 1.2m
   - CBD - 2m
2. Where the length of the working space exceeds 20m, these widths may have to be increased so footpath users do not have to wait to pass
3. Temporary footpath surfaces must be suitable for footpath users
4. Use 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 Protecting pedestrians from the working space
5. Use barrier or safety fence to delineate the traffic side of the footpath. For barrier requirements refer to C18 Temporary road safety barrier systems. For safety fence requirements refer to C13.2.6 Footpath diverted into carriageway
6. There must be a lateral safety zone between the traffic side of the footpath and the live lane:
   - 0.5m for barrier
   - 1m for safety fence
7. This TMD must be used in conjunction with appropriate TTM for any work carried out on the shoulder or in the live lane



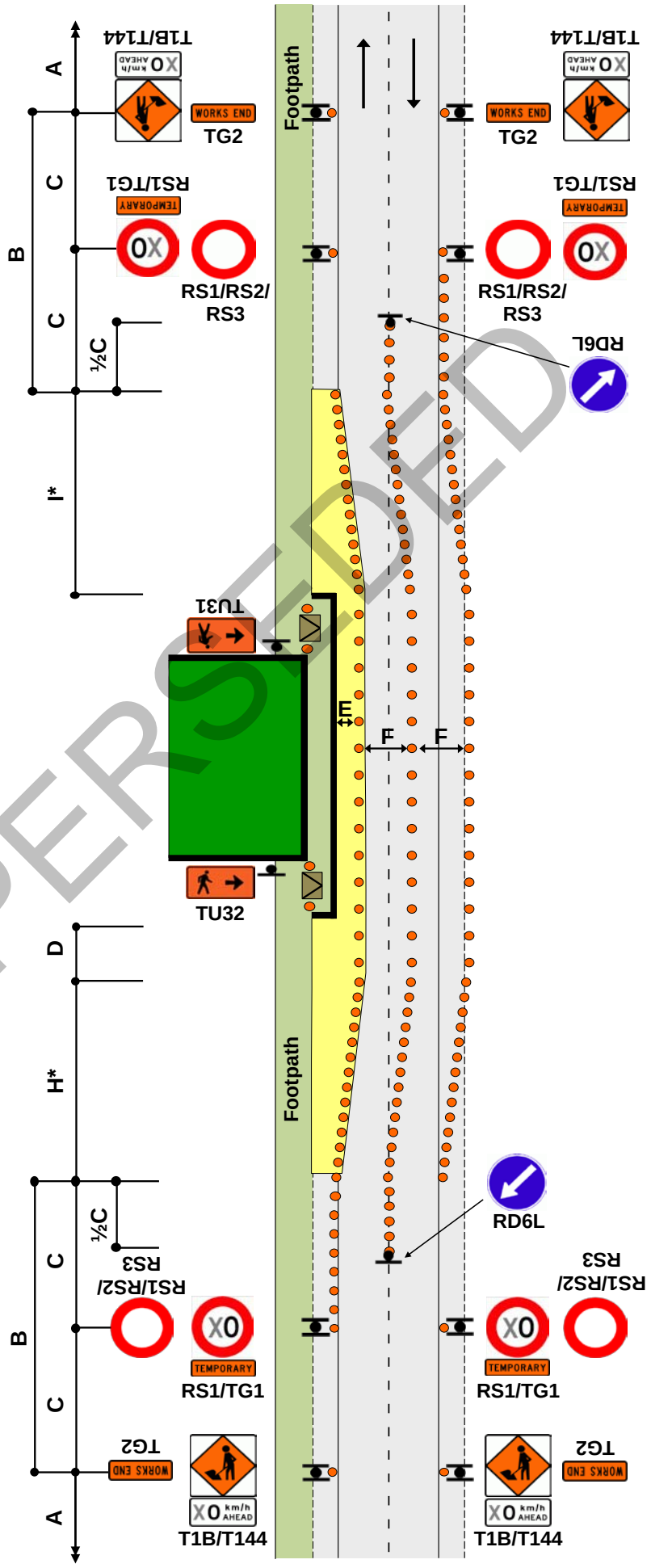
# FOOTPATH
## Footpath diverted onto carriageway
## Third preference

**G1.3**
Level 2

Notes

1. Minimum pedestrian footpath widths:
   - Residential/Rural - 0.9m
   - Suburban Centre - 1.2m
   - CBD - 2m
2. Where the length of the working space exceeds 20m, these widths may have to be increased so footpath users do not have to wait to pass
3. Use 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 Protecting pedestrians from the working space
4. Use barrier or safety fence to delineate the traffic side of the footpath. For barrier requirements refer to C18 Temporary road safety barrier systems. For safety fence requirements refer to C13.2.6 Footpath diverted into carriageway
5. There must be a lateral safety zone between the traffic side of the footpath and the live lane:
   - 0.5m for barrier
   - 1m for safety fence or cone bars
6. Use kerb ramps to assist mobility vehicles, pushchairs, etc.
7. At nighttime, 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

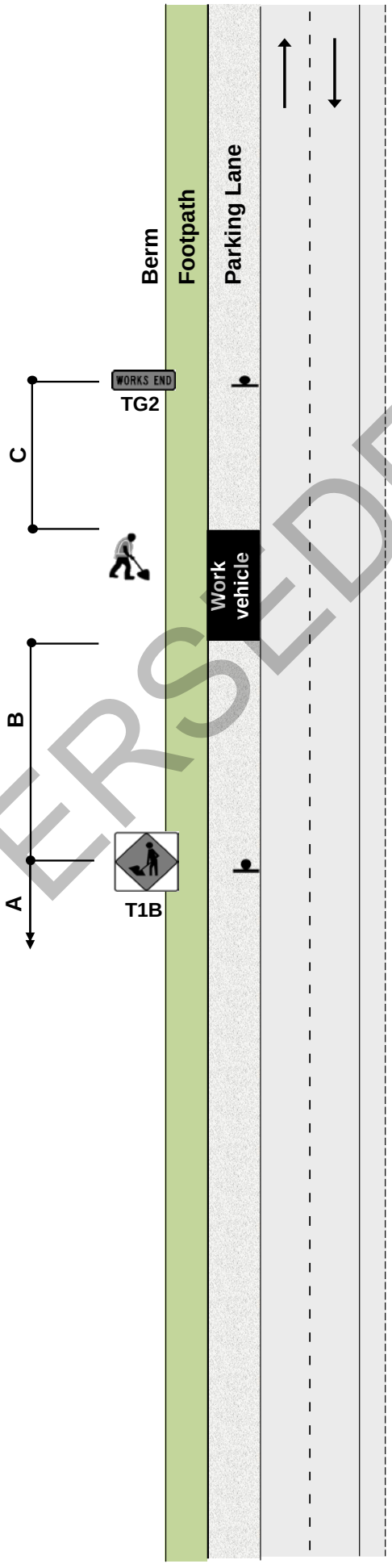


# SHOULDER AND BERM
## Work on berm and or footpath
## Permanent speed less than 65km/h

**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 Pedestrians and cyclists and C8 Shoulder and lane closures for further information



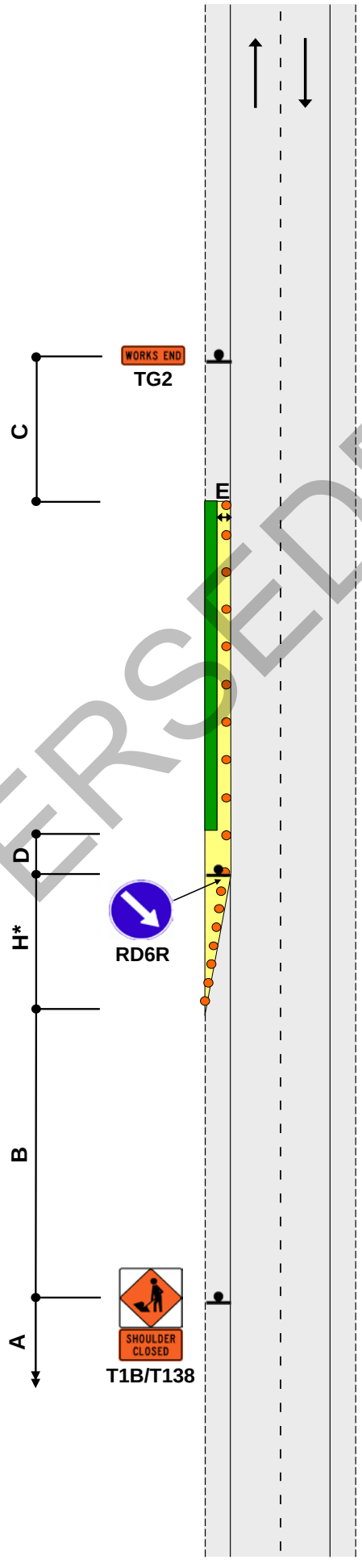
# SHOULDER AND BERM
## Shoulder closure

G1.5
Level 2

Notes
1. A 10m taper is allowed where shoulder width is less than 2.5m
2. The taper is a minimum of 4 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



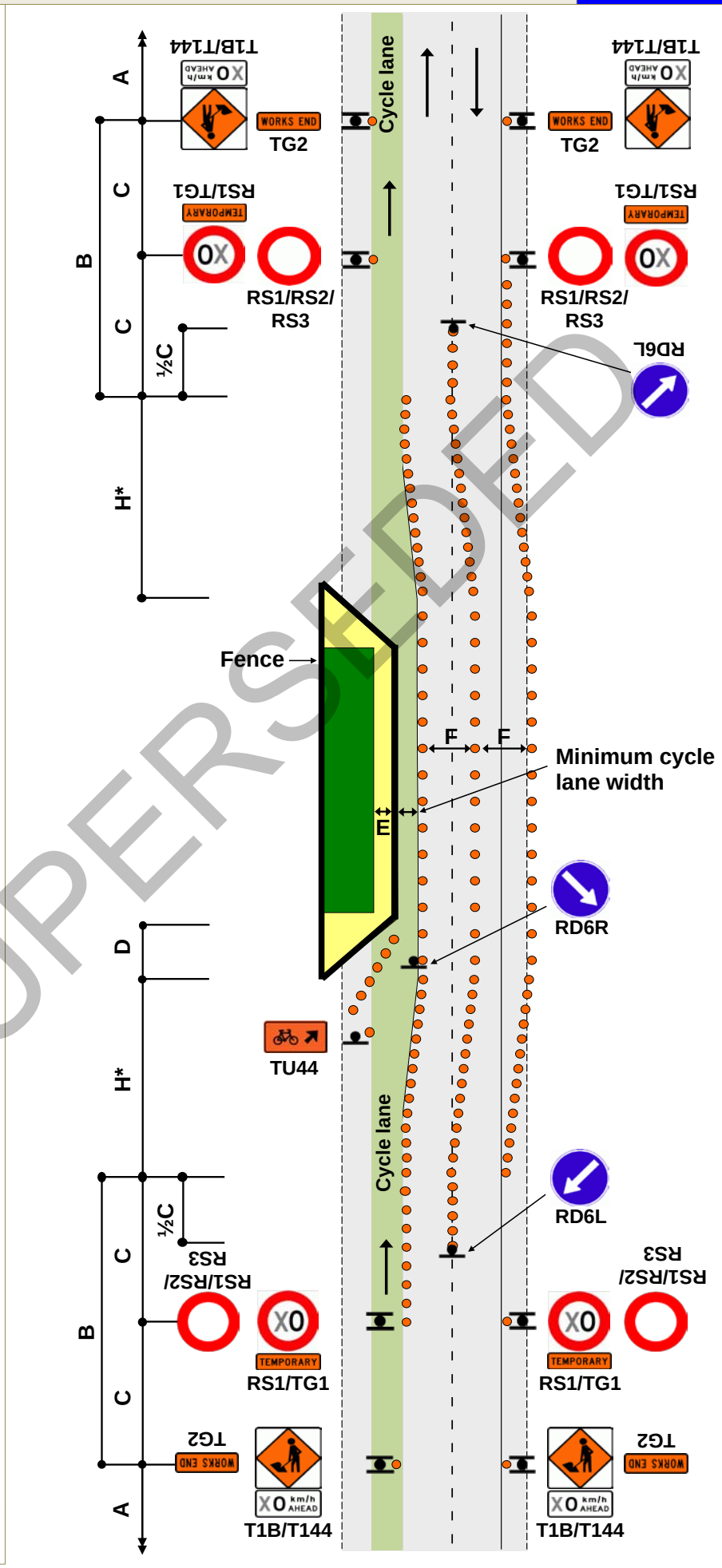
# CYCLE LANE
## Traffic crossing road centre
## Diverted cycle lane - coned lane control

**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. *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
4. Use TSLs if required by TSL decision matrix





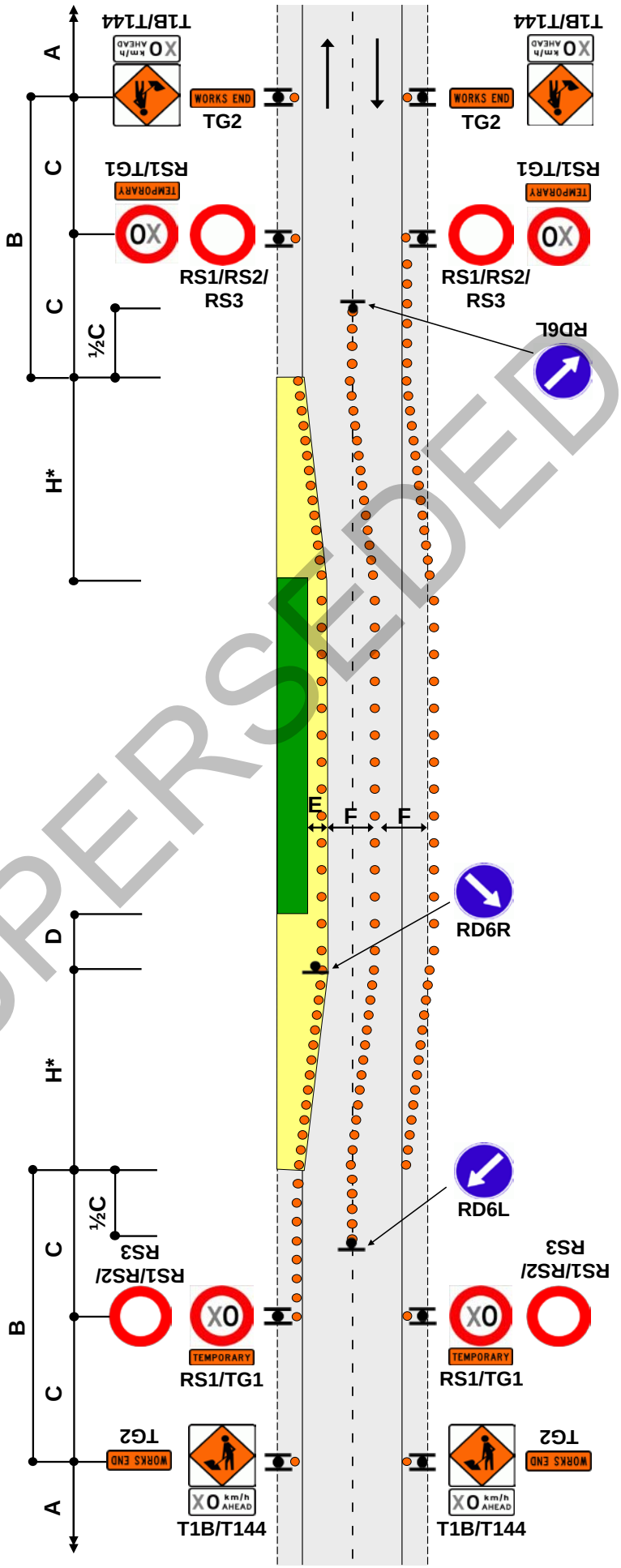

EXAMPLE ONLY

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 live 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:
   W x 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







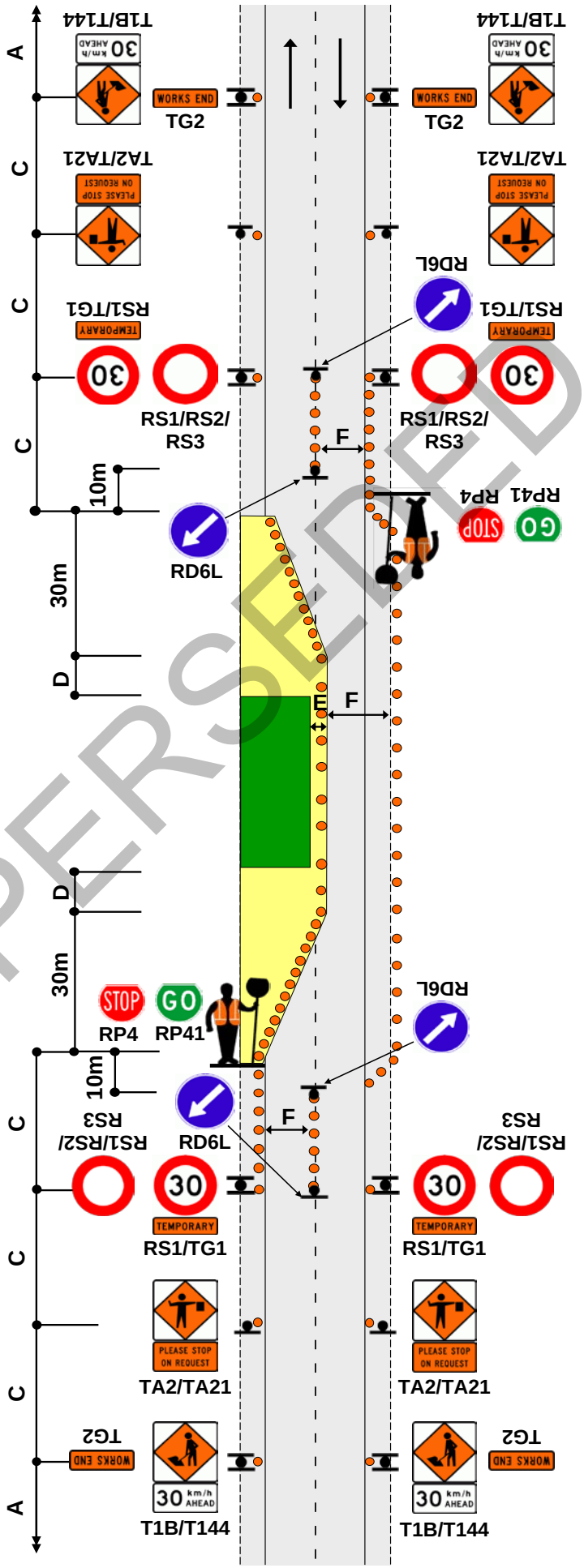

This drawing must not be used as a TMP diagram

# 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 live 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 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 MTC essentials for further information

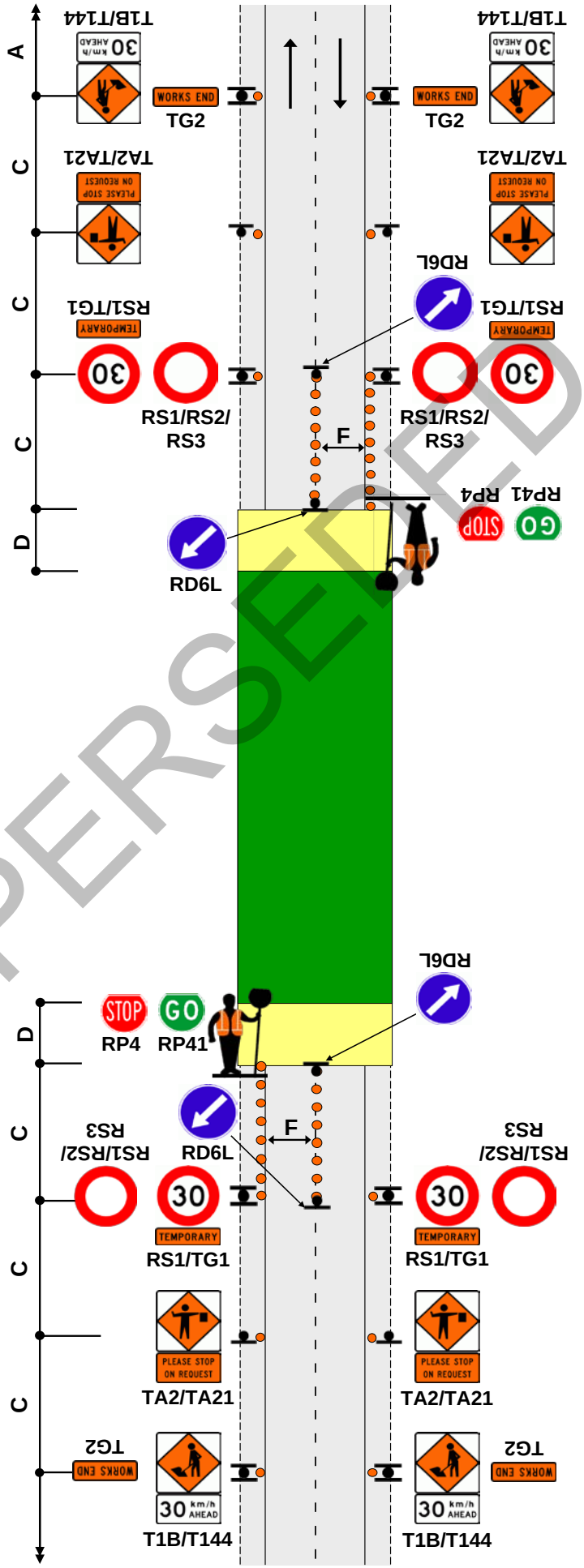


# TWO-WAY TWO-LANE ROAD
## All traffic stopped temporarily
## Manual traffic control (STOP/GO or STOP/SLOW)

**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 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 MTC essentials for further information
7. Work vehicle movement must cease whenever road users are moving through the site unless there is full delineation between the worksite and the traffic




EXAMPLE ONLY

This drawing must not be used as a TMP diagram

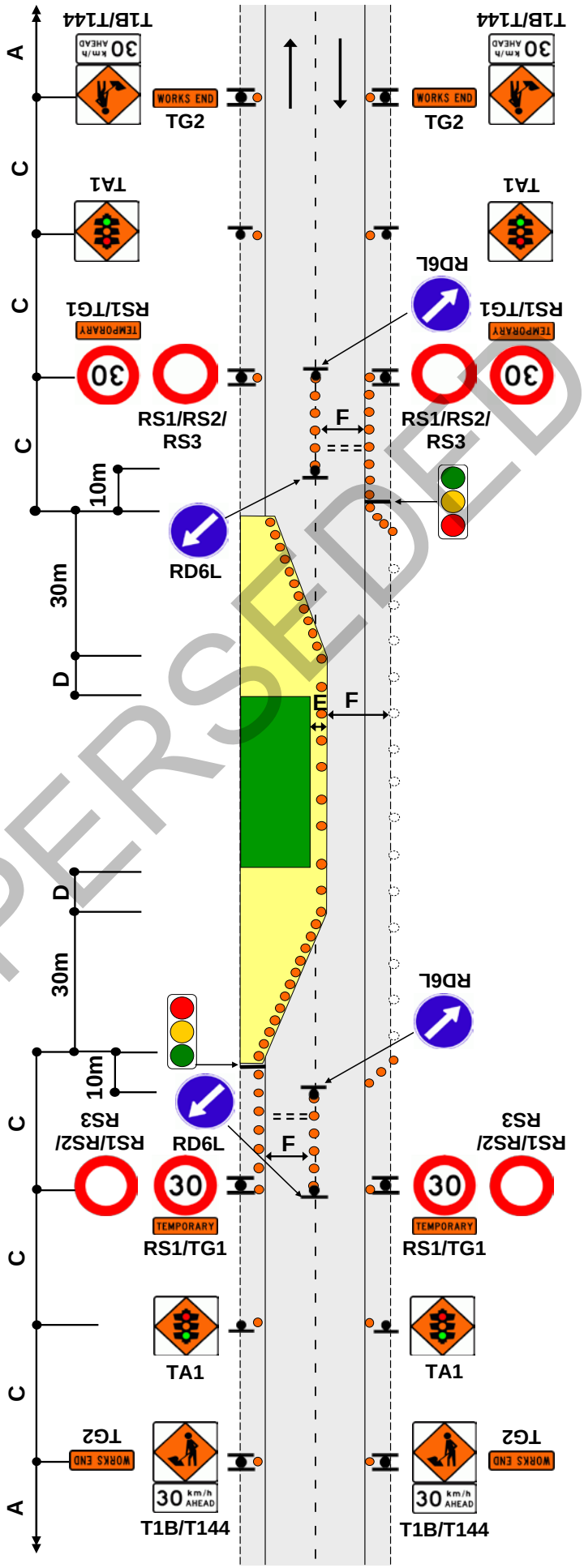
# TWO-WAY TWO-LANE ROAD
# Single-lane alternating flow
# Portable traffic signals

**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

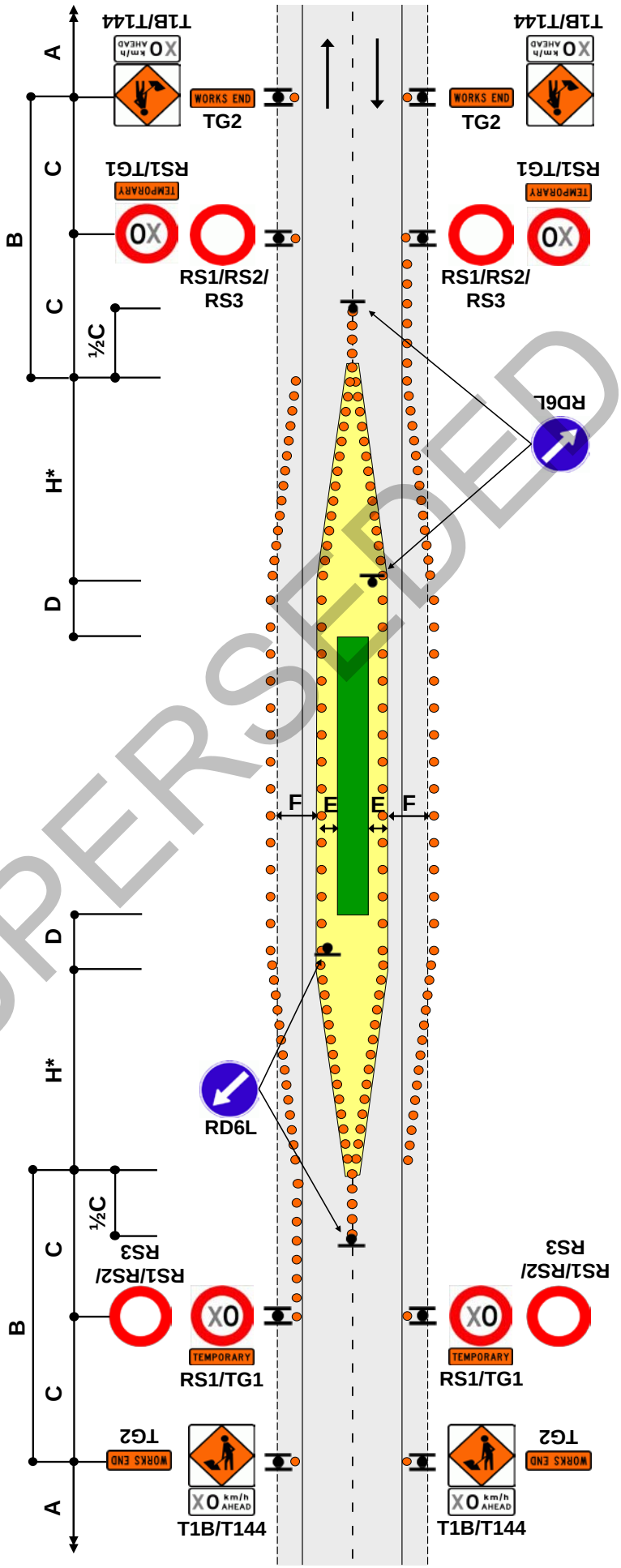

3. Approved temporary speed humps may also be used
4. A 30m return taper at the end of the closure is mandatory
5. Cones are required on edge of live lane opposite closure if road is not well defined
6. The STMS should monitor queues during the worksite operation and extend or place extra advance warning 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



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

**G1.11**
Level 2

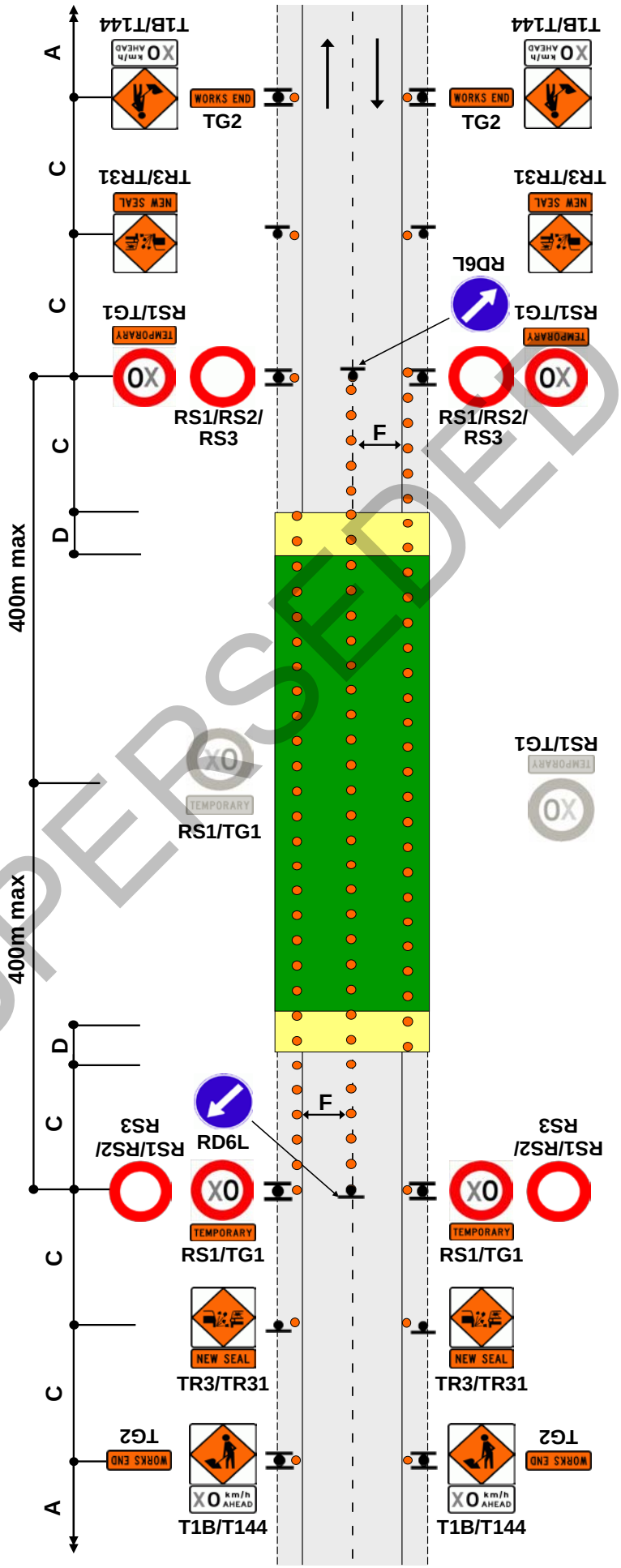
Notes
1. Cones are required on edge of live lane opposite closure if road is not well defined
2. *Calculation of taper length for lateral shift of less than 3.5m is:
   W x H
   3.5
   W = Width of lateral shift
   H = Taper length in metres from the level 2 layout distance table
3. Use PN11 No Stopping signs, if necessary
4. Use TSLs if required by TSL decision matrix



# 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. Cone movements start in the longitudinal safety zone (refer to C14.2.2 Operating mobile operations within an established static site)
3. This diagram only to be used during daylight hours with on site monitoring at all times
4. Refer to diagram G1.15 for unattended worksites
5. This diagram is a form of positive traffic management
6. Use TSLs if required by TSL decision matrix
7. TSLs to be repeated at 400m maximum centres





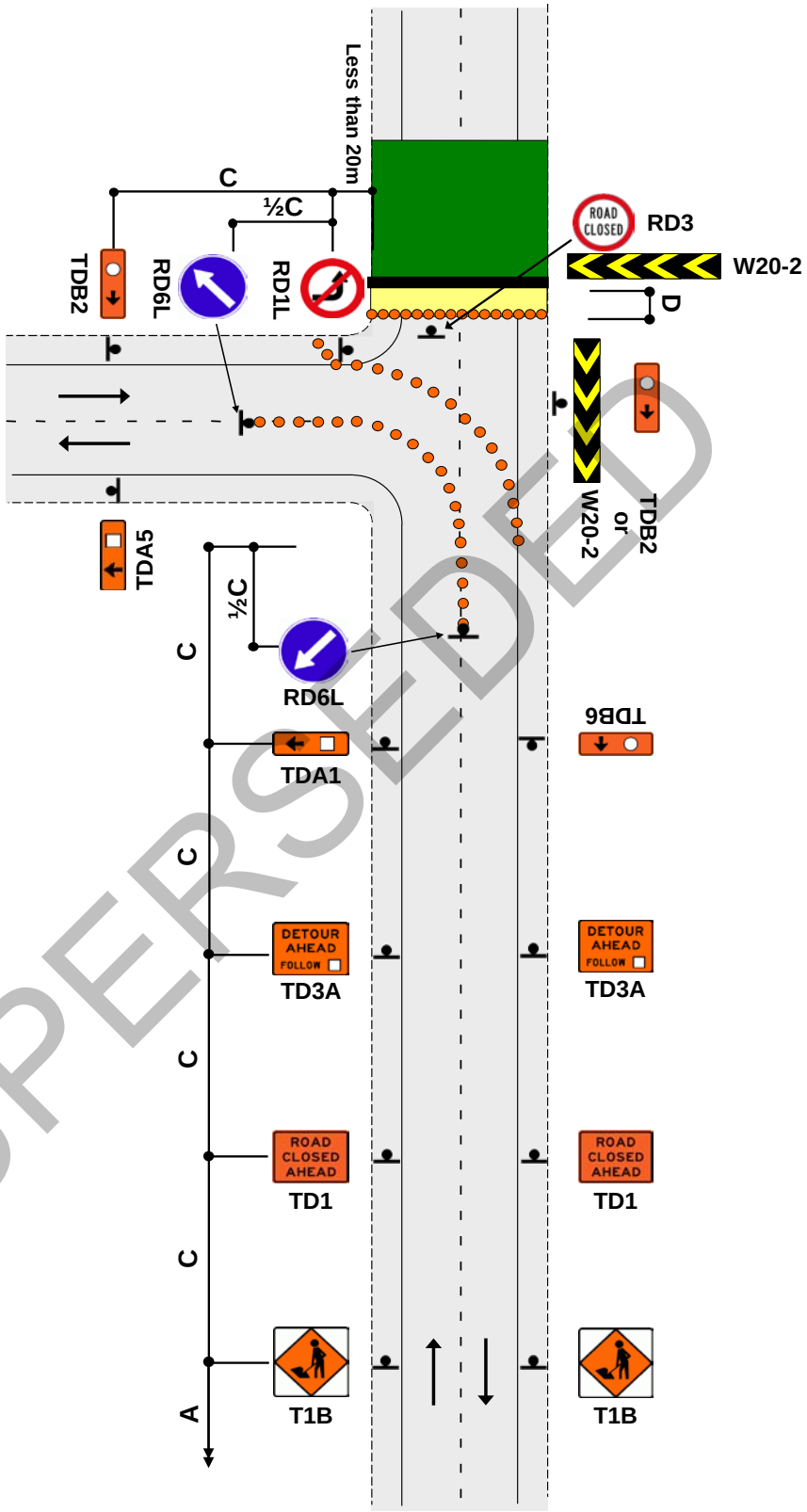

EXAMPLE ONLY

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 longer 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



# TWO-WAY TWO-LANE ROAD
## Other hazard
## Flooding, slip, slippery surface

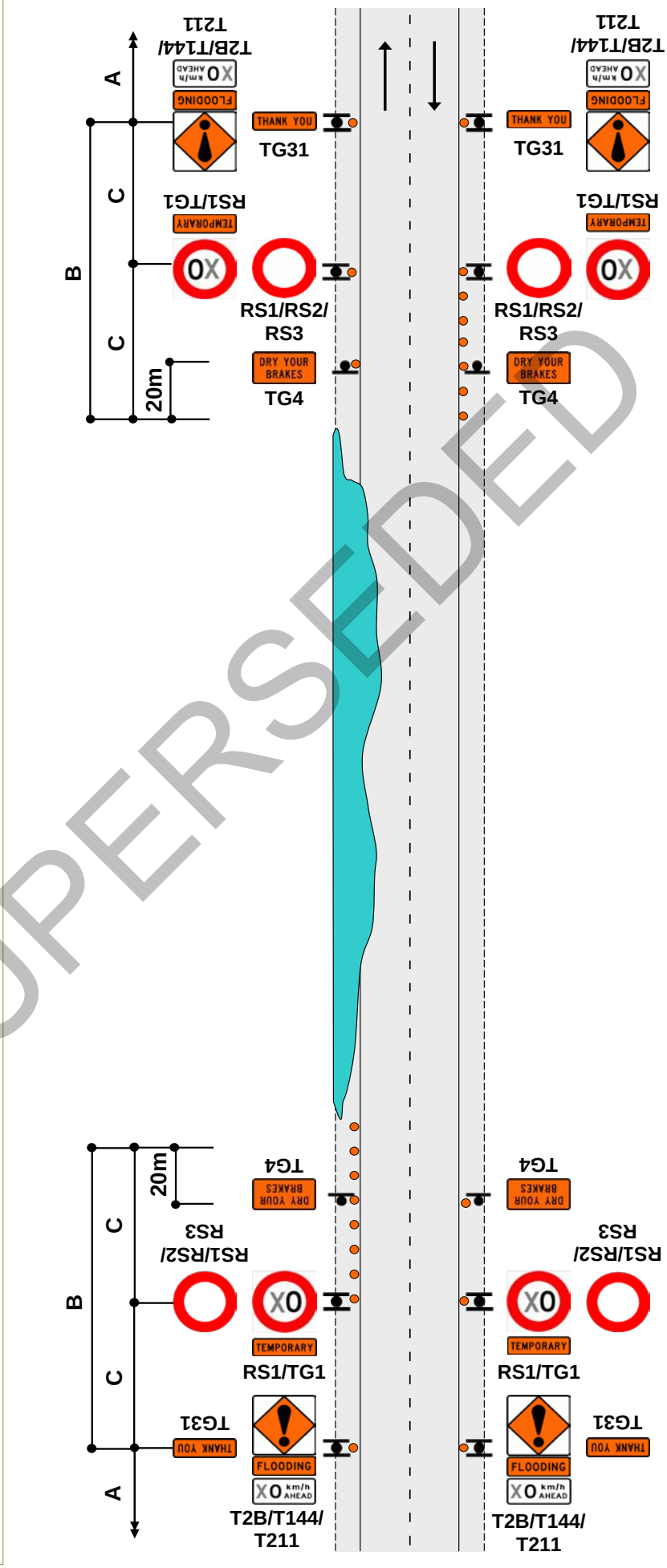
**G1.14**
Level 2

Notes

1. This layout should only be used for shallow flooding that vehicles can traverse while remaining in their correct lane(s)
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 be any one of the following:

T2B Other hazard
T211 FLOODING Flooding
TR1L/R Slips
TR2 Slippery Surface
TR4 Uneven Surface

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

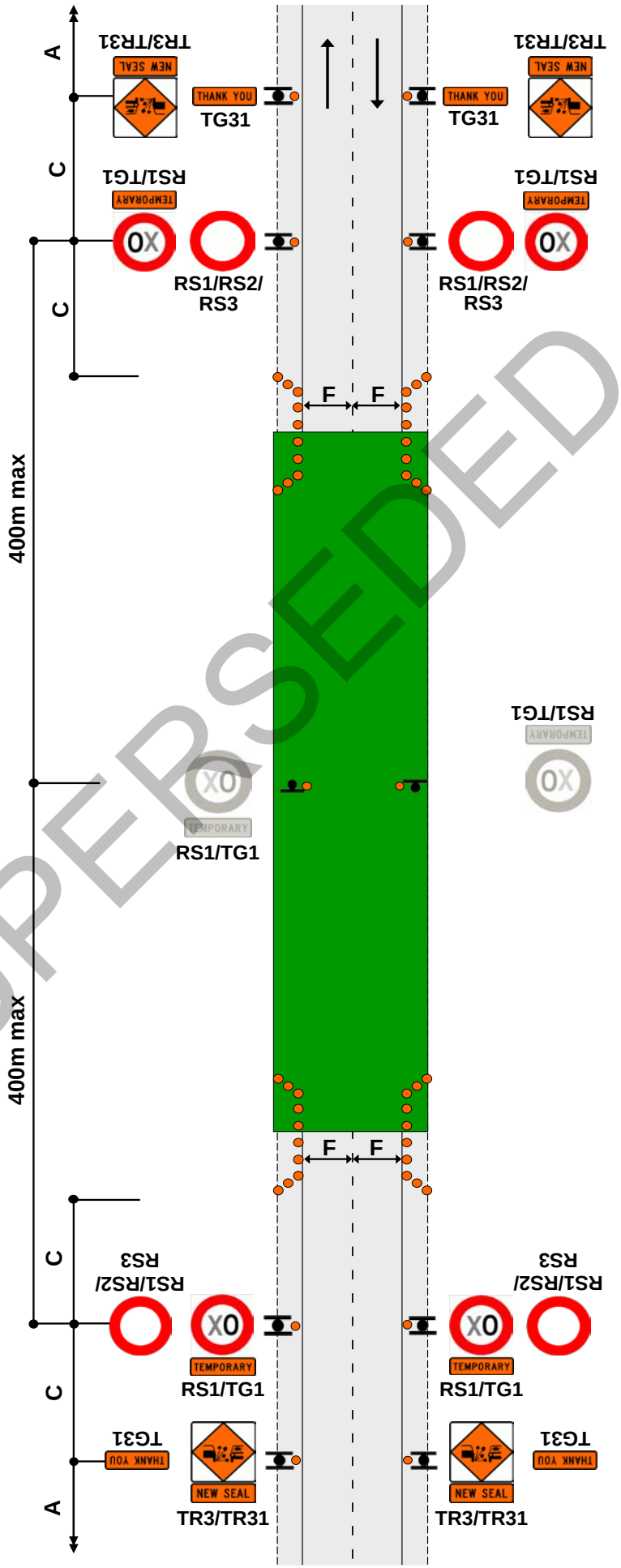


# TWO-WAY TWO-LANE ROAD
## New seal - unattended and/or unswept worksite

**G1.15**
Level 2

Notes

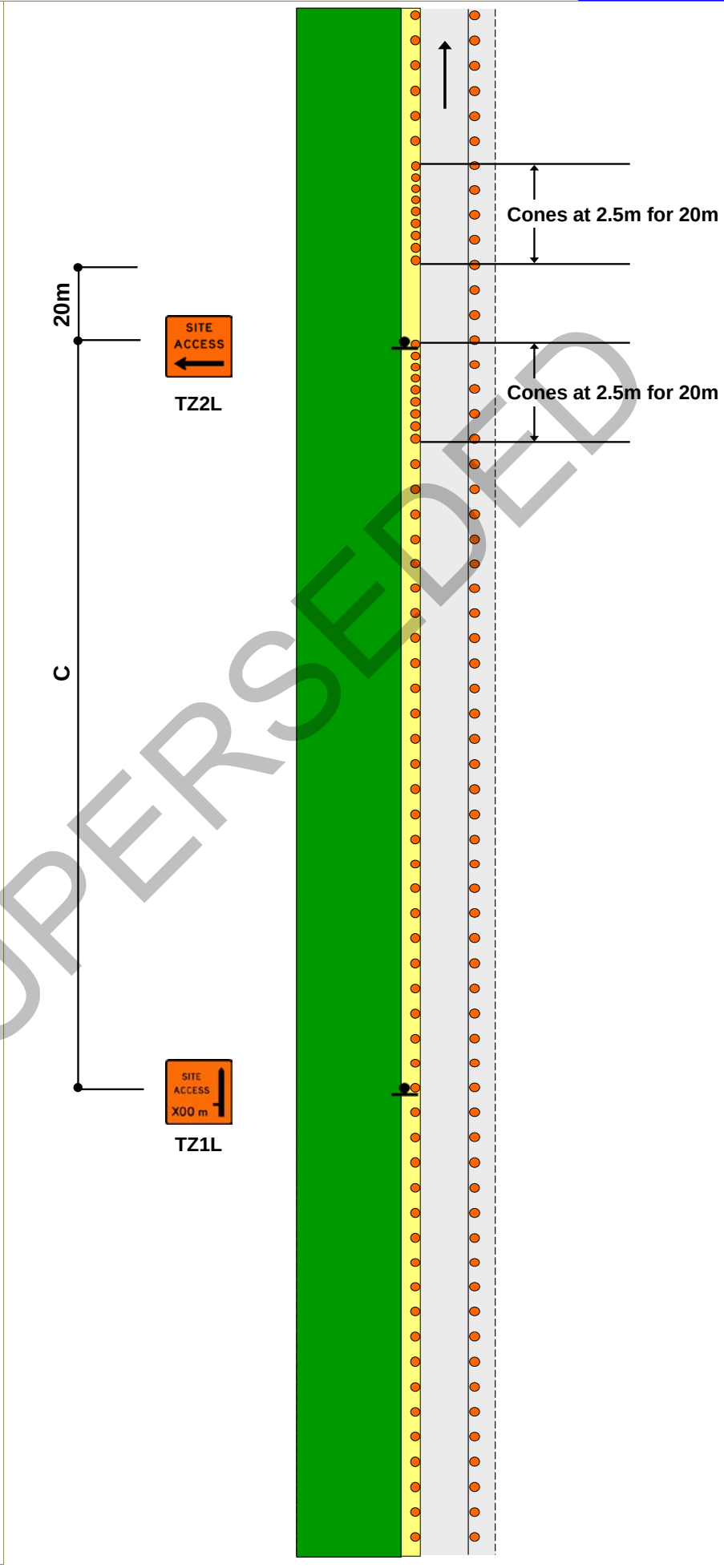
1. Use cones to form a threshold treatment at the start of the new seal. Minimum of 10 cones at 5m centres
2. Cones on the trafficked side of signs for sites to be left unattended overnight
3. Worksites may need additional positive traffic management to ensure all road users travel at the TSL
4. Use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



# SITE ACCESS
## Forms part of a larger worksite

**G1.16**
Level 2

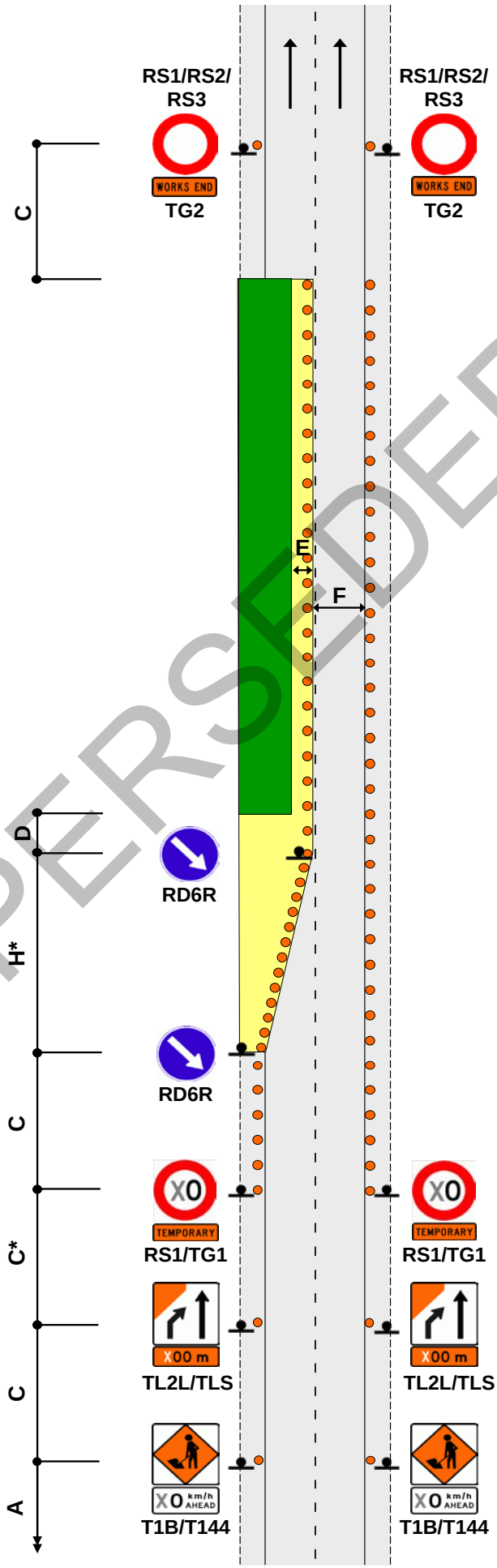
Notes
1. It is intended that this diagram forms part of a larger worksite
2. Cones immediately before and after the site access to be spaced at 2.5m centres for 20m (nine cones)



# ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD
## Left-lane closure

**G1.17**
Level 2

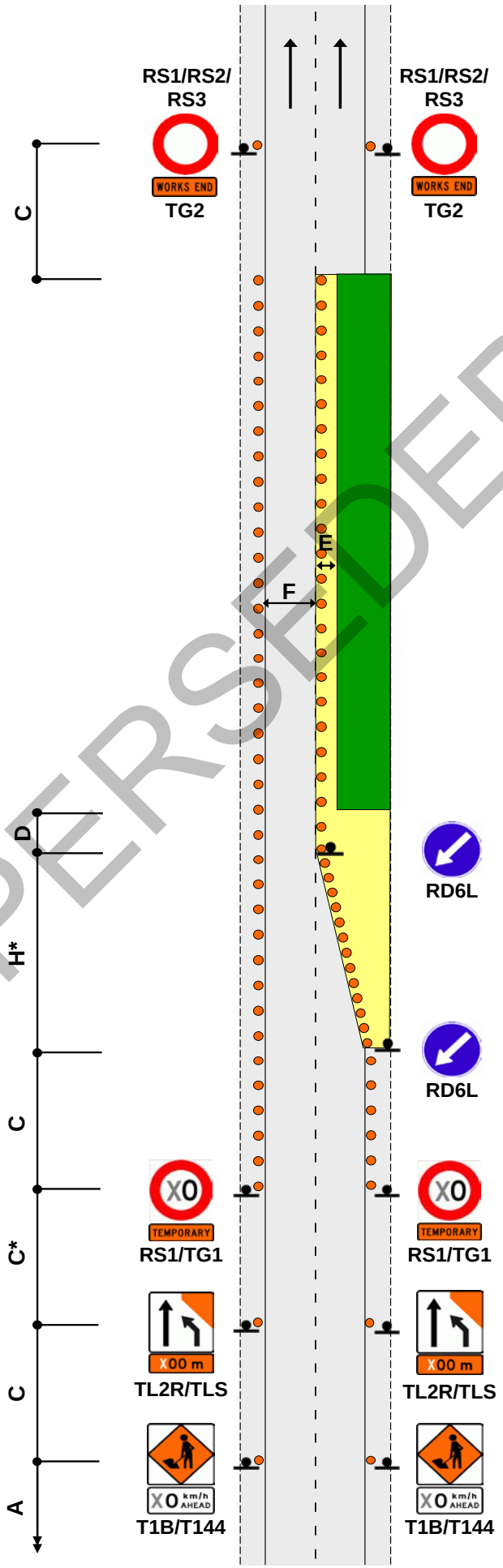
Notes
1. C* - the TL2L/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *Calculation of taper length for lateral shift of less than 3.5m is:
   $\frac{W \times H}{3.5}$
   W = Width of lateral shift
   H = Taper length in metres from the level 2 layout distance table
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Use TSLs if required by TSL decision matrix



# 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 from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *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
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Use TSLs if required by TSL decision matrix

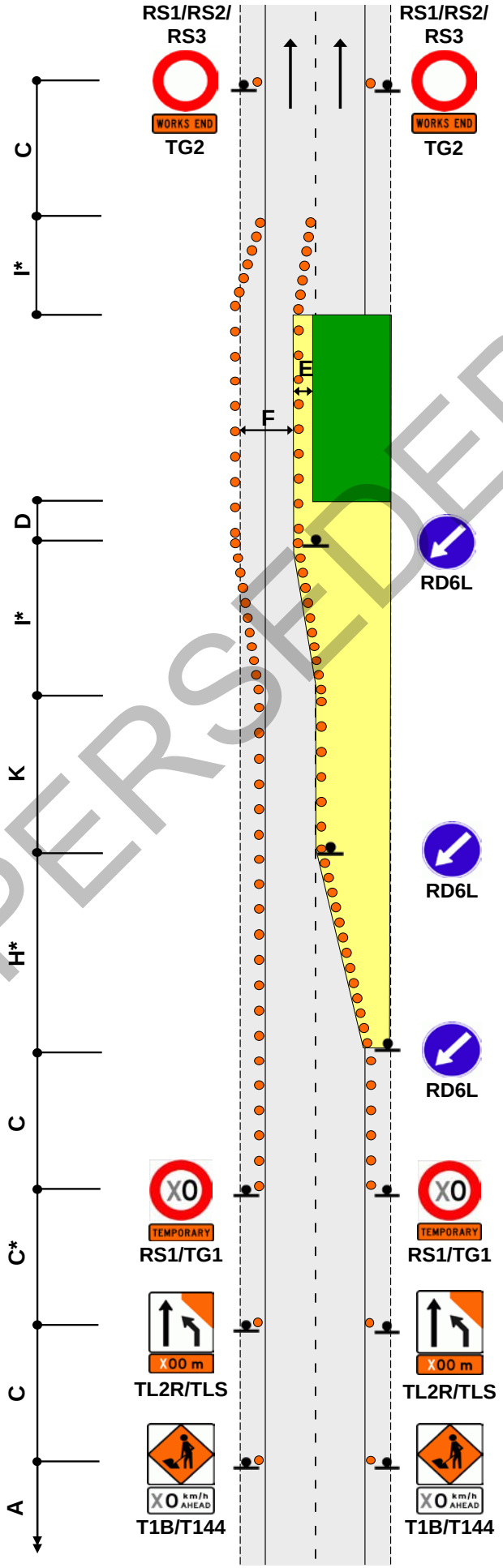


# ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD
## Right-lane closure
## One-lane temporary diversion

**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 from the start of the taper
3. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
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 live lane opposite closure if road edge is not well defined
6. Use TSLs if required by TSL decision matrix






EXAMPLE ONLY

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

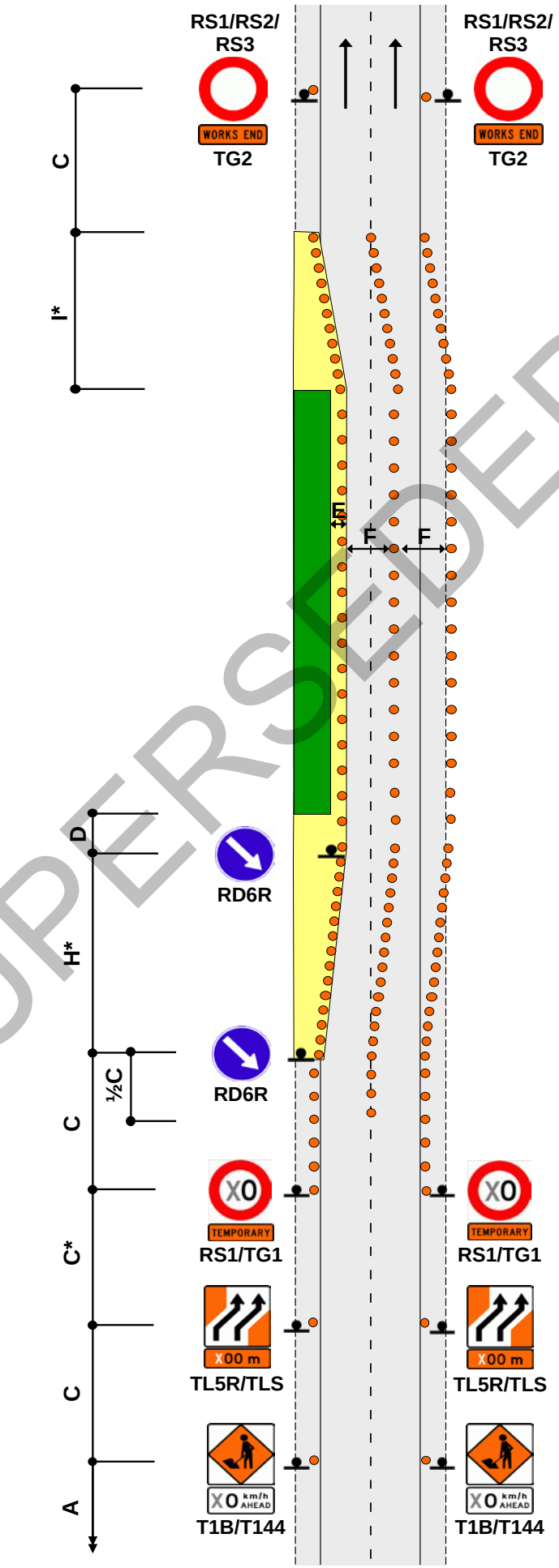
Notes

1. C* - the TL5R/TLS signs are to be either 100m or 200m in advance of the start of the taper
2. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *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
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Use TSLs if required by TSL decision matrix

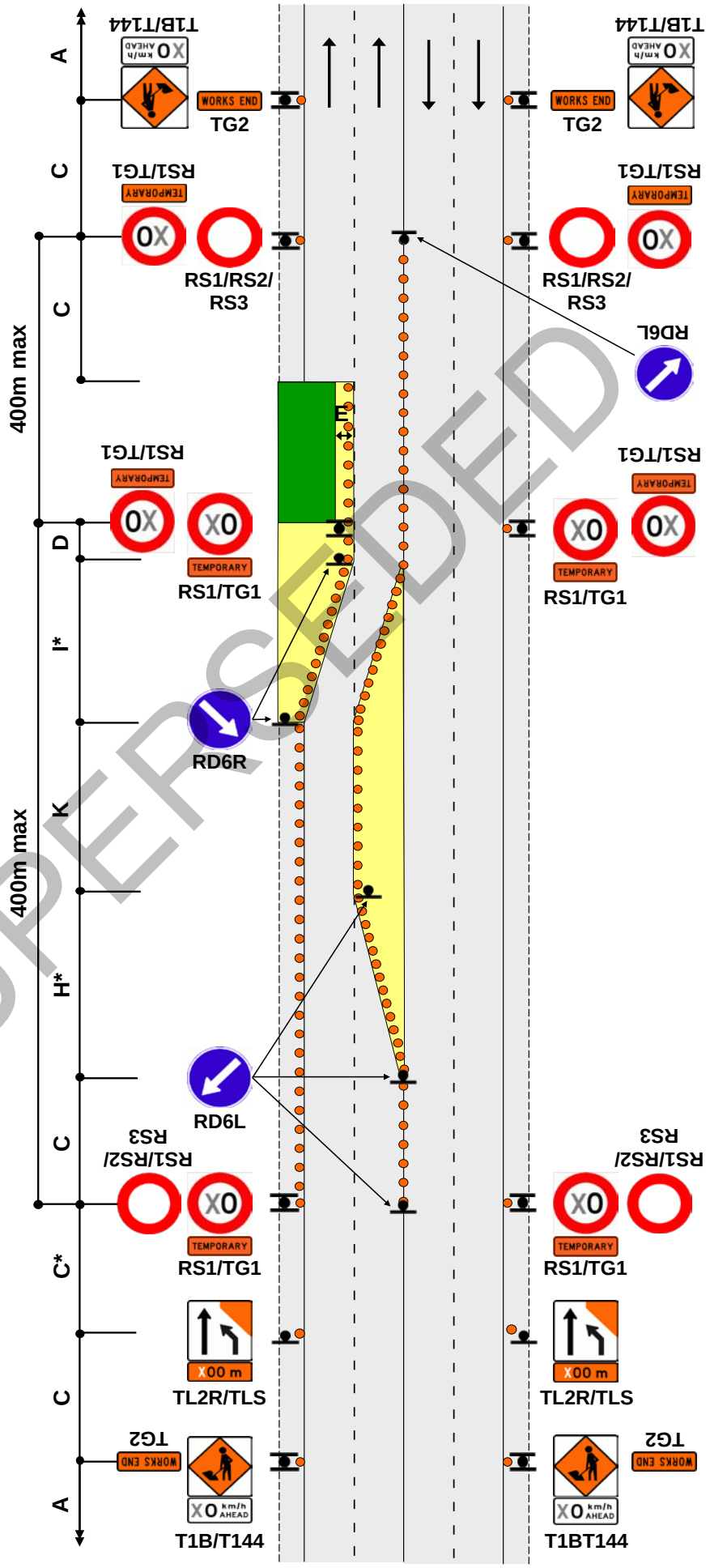


# TWO-WAY FOUR-LANE ROAD
## Left-lane closure
## With chicane

**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 from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *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
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 FOUR-LANE ROAD
## Two-lane closure
## One-lane contraflow

**G1.22**
Level 2

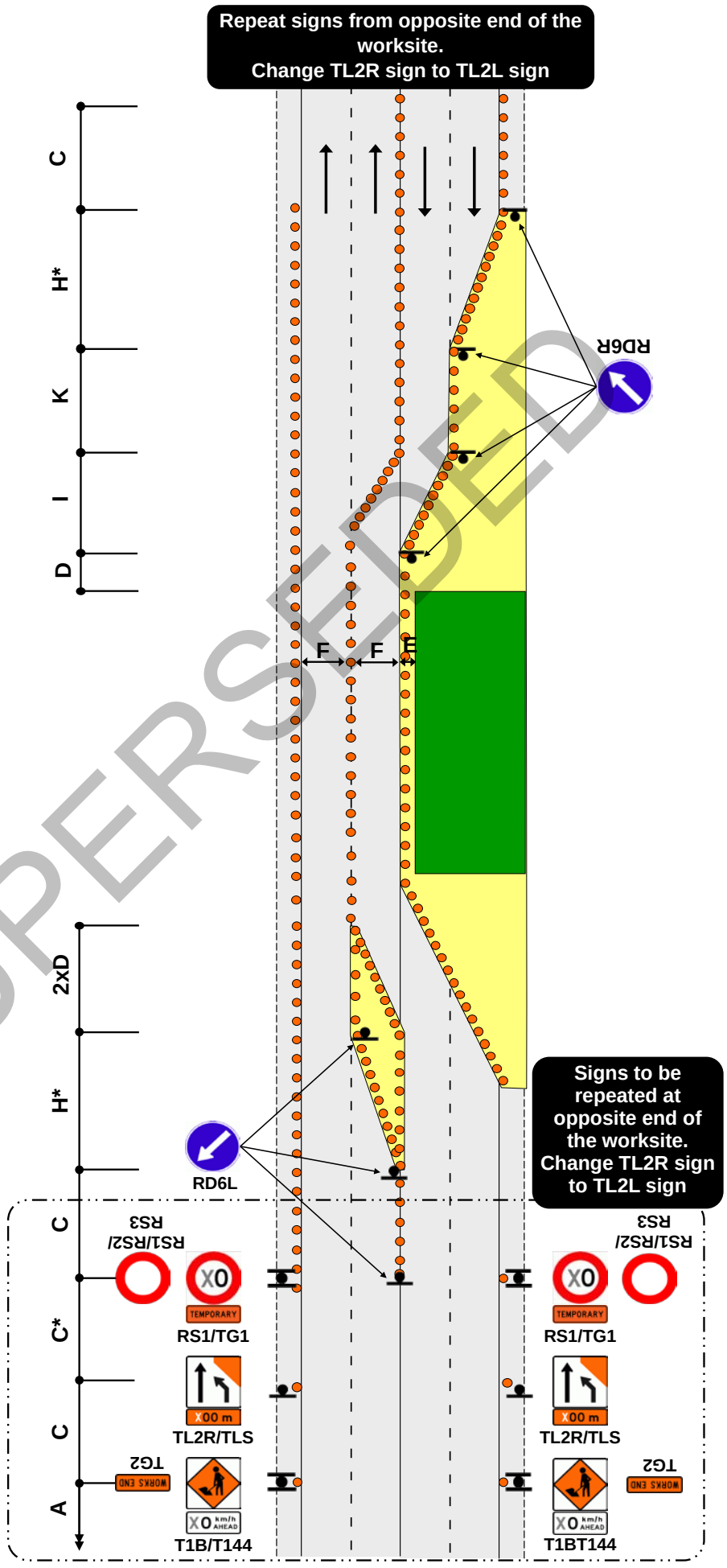
Notes

1. If the closure is on a passing lane, the start of the taper must be greater than 600m after the start of the passing lane (if this cannot be achieved then close the passing lane completely and cover all permanent passing lane signs)
2. If the end of the closure is within 600m of the end of a passing lane, continue to close the centre lane to the end of the passing lane
3. C* - the TL2R/TLS signs are to be either 100m or 200m from the start of the taper
4. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
5. *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
6. Use TSLs if required by TSL decision matrix
7. TSLs to be repeated at 400m maximum centres




EXAMPLE ONLY

This drawing must not be used as a TMP diagram

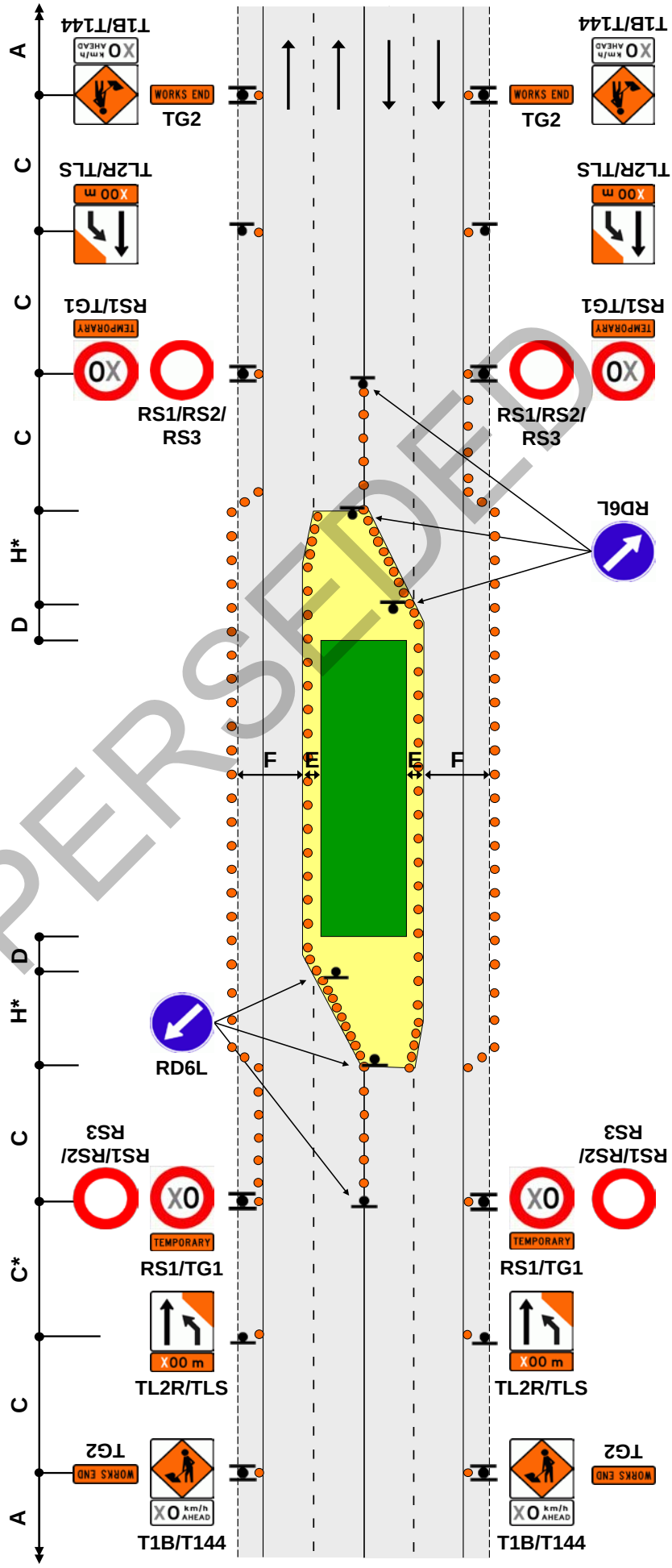
# TWO-WAY FOUR-LANE ROAD
## Centre-lane closures

**G1.23**
Level 2

Notes
1. C* - the TL3L/TLS signs are to be either 100m or 200m from the start of the taper
2. *Calculation of taper length for lateral shift of less than 3.5m is:

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

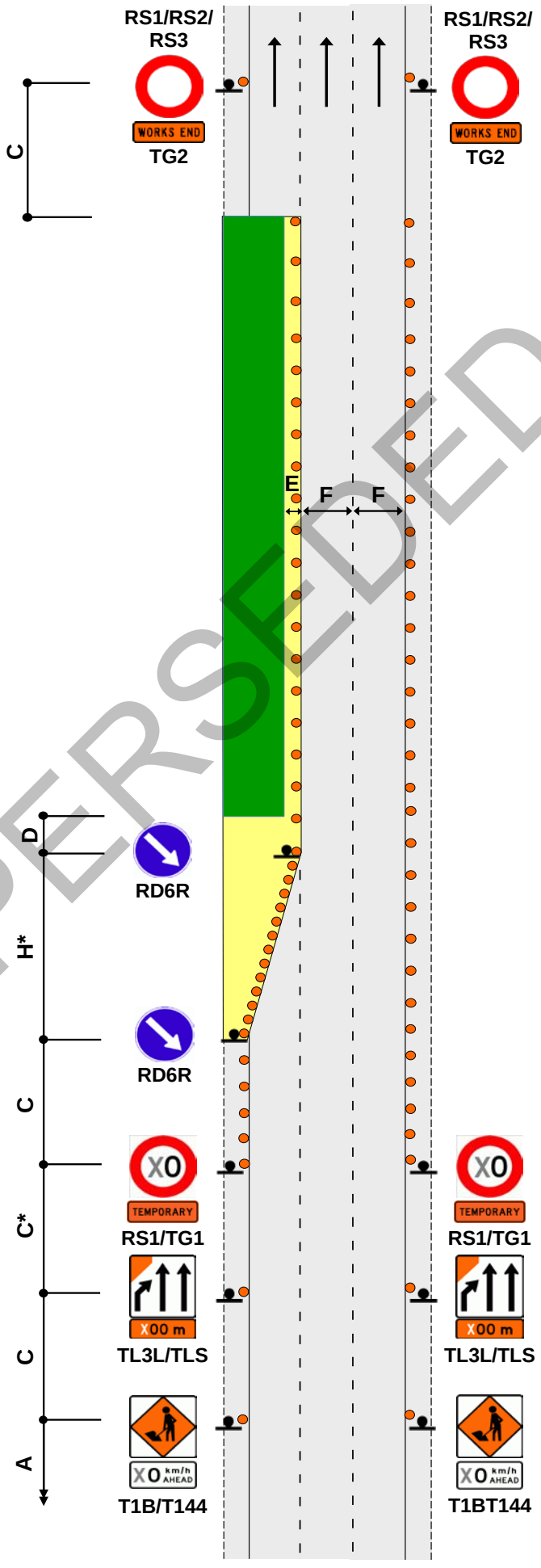
W = Width of lateral shift
H = Taper length in metres from the level 2 layout distance table
3. Cones required opposite closure if road edge not clearly defined
4. Use PN11 no stopping signs, if necessary
5. Use TSLs if required by TSL decision matrix



# ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD
## One-lane closure
## Left lane

**G1.24**
Level 2

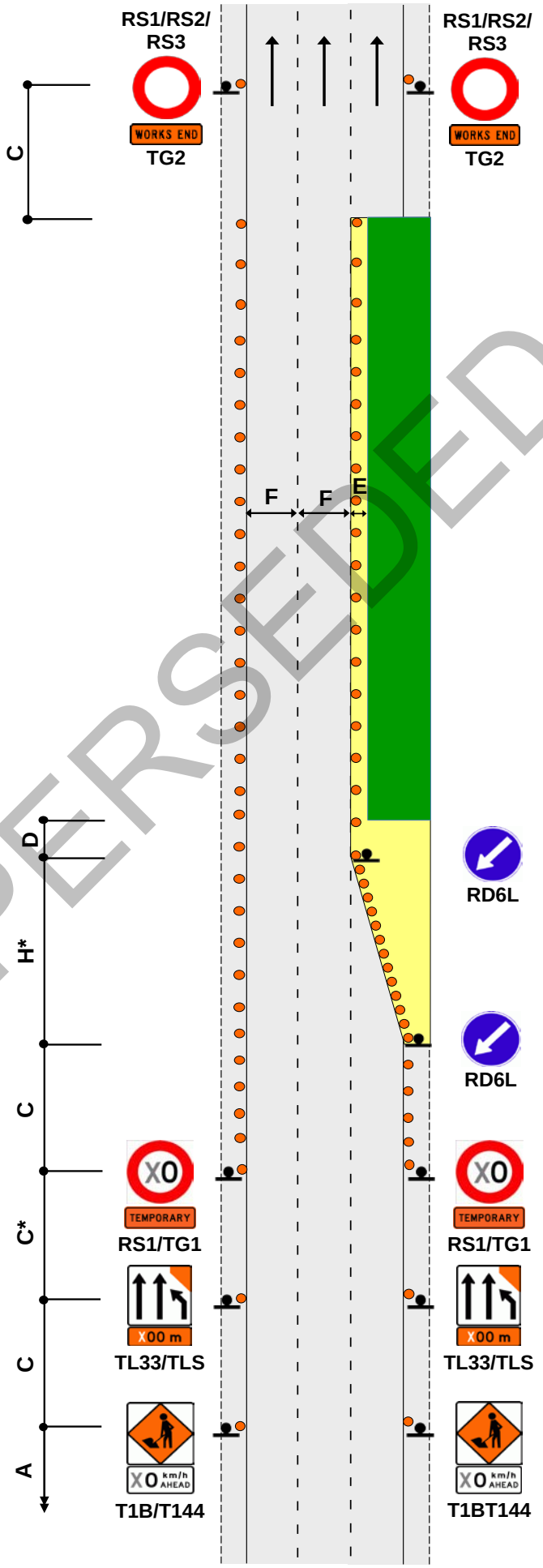
Notes
1. C* - the TL3L/TLS signs are to be either 100m or 200m from the start of the taper
2. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *Calculation of taper length for lateral shift of less than 3.5m is:
   $\frac{W \times H}{3.5}$
   W = Width of lateral shift
   H = Taper length in metres from the level 2 layout distance table
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Full end taper may be added if required
6. Use TSLs if required by TSL decision matrix



# ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD
## One-lane closure
## Right lane

**G1.25**
Level 2

Notes
1. C* - the TL33/TLS signs are to be either 100m or 200m from the start of the taper
2. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *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
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Full end taper may be added if required
6. Use TSLs if required by TSL decision matrix

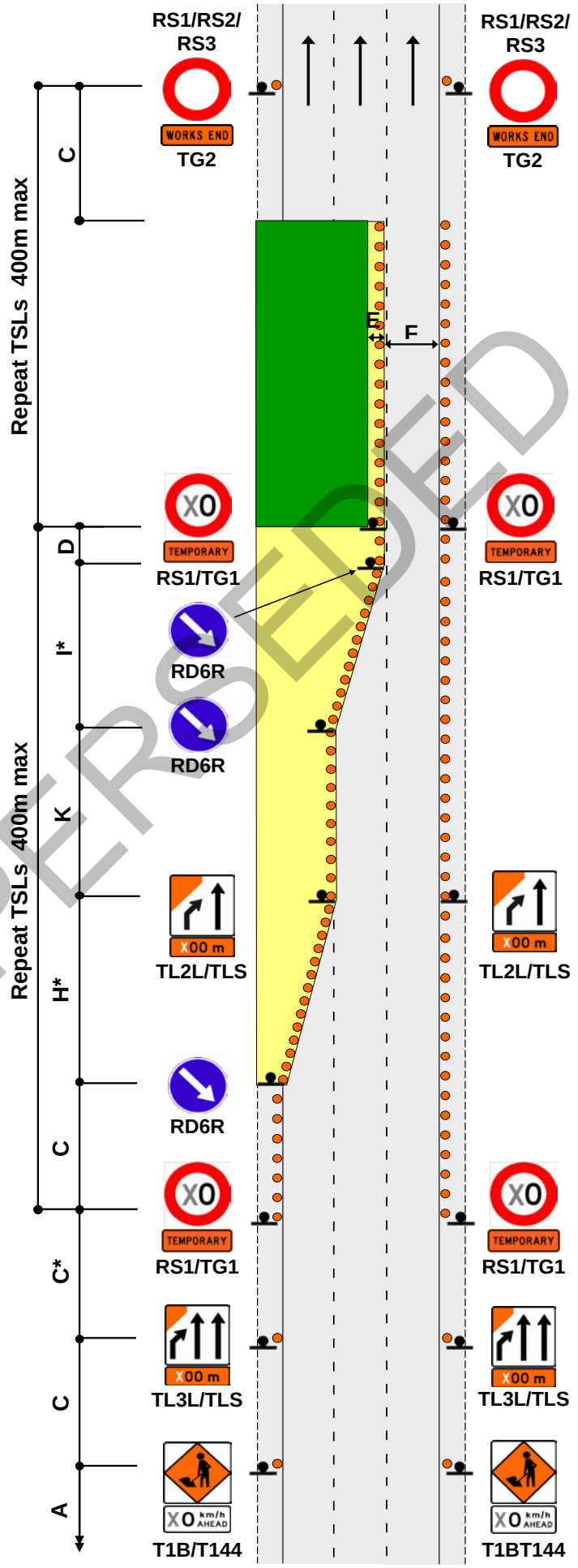


# ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD
## Two-lane closure
## Left and centre lanes

**G1.26**
Level 2

Notes

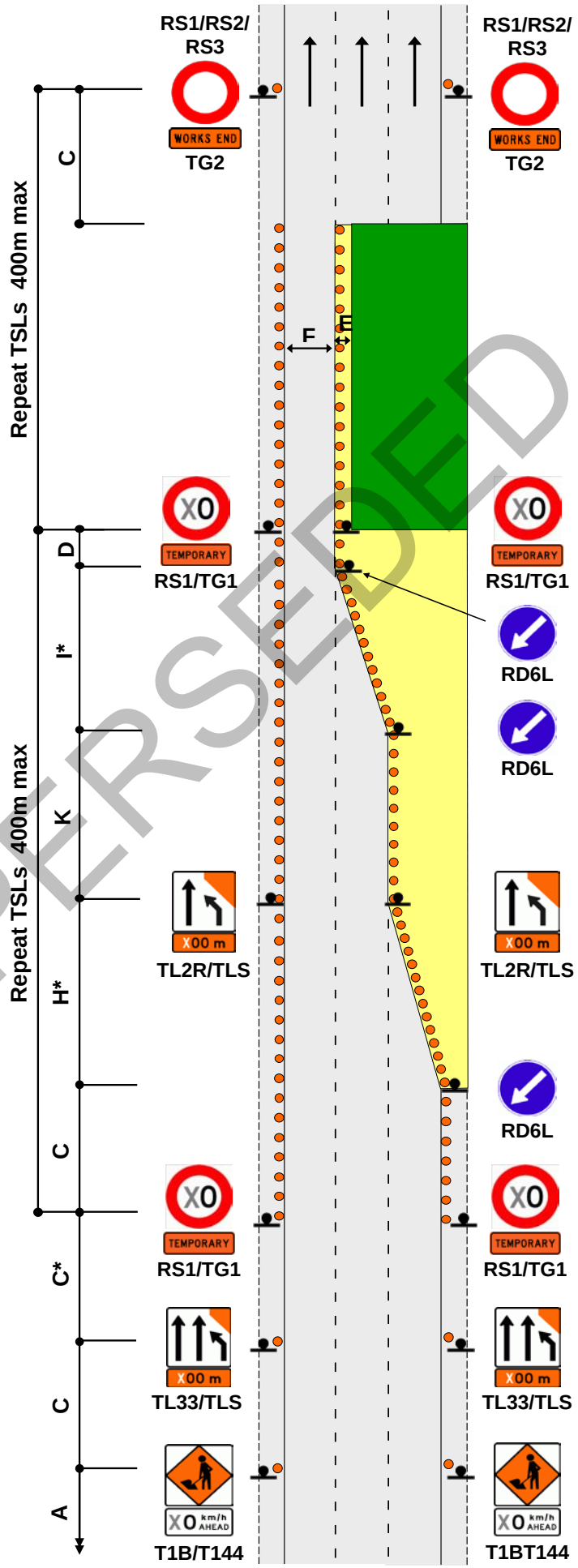
1. C* - the TL3L/TLS signs are to be either 100m or 200m from the start of the taper
2. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *Calculation of taper length for lateral shift of less than 3.5m is:
   $\frac{W \times (H \text{ or } I)}{3.5}$
   W = Width of lateral shift
   H or I = Taper length in metres from the level 2 layout distance table
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Full end taper may be added if required
6. Use TSLs if required by TSL decision matrix
7. TSLs to be repeated at 400m maximum centres



# 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 from the start of the taper
2. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *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
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Full end taper may be added if required
6. Use TSLs if required by TSL decision matrix
7. TSLs to be repeated at 400m maximum centres

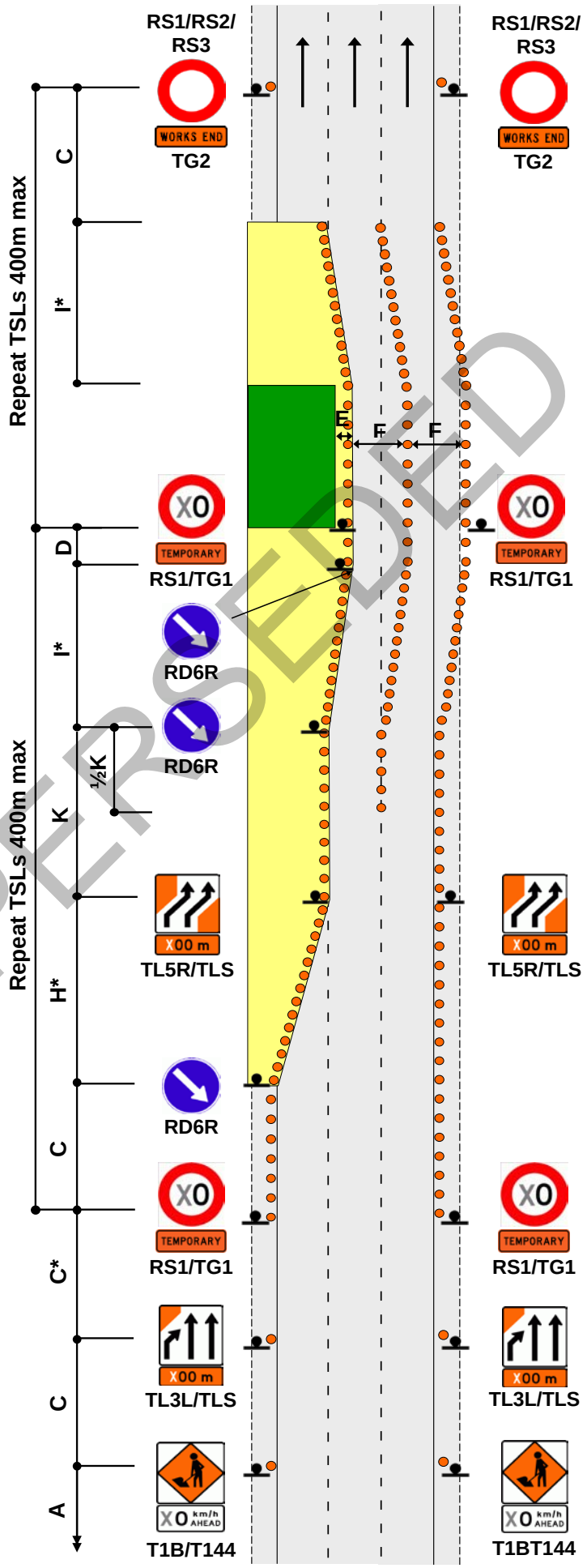


# ONE-WAY THREE-LANE DIVIDED OR THREE-LANE ROAD
## Two-lane closure
## Two-lane temporary diversion

**G1.28**
Level 2

Notes

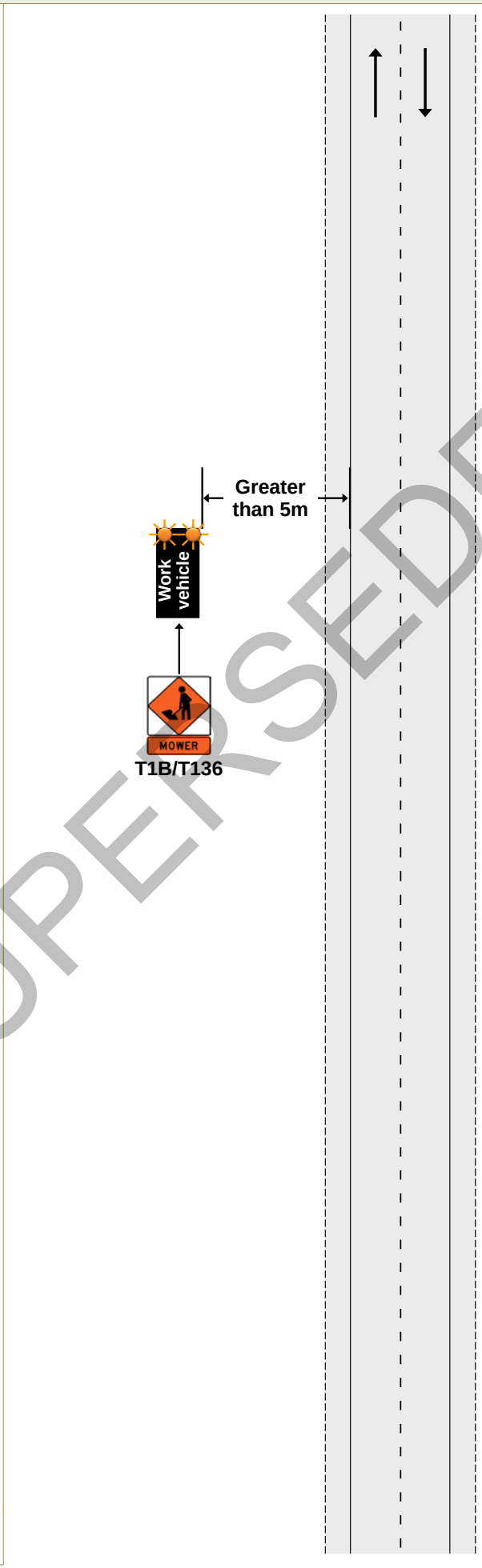
1. C* - the TL3L/TLS signs are to be either 100m or 200m from the start of the taper
2. Cones from TSL to taper are mandatory at over 65km/h (for positive traffic management)
3. *Calculation of taper length for lateral shift of less than 3.5m is:
   $\frac{W \times (H \text{ or } I)}{3.5}$
   W = Width of lateral shift
   H or I = Taper length in metres from the level 2 layout distance table
4. Cones are required on edge of live lane opposite closure if road edge is not well defined
5. Use TSLs if required by TSL decision matrix
6. TSLs to be repeated at 400m maximum centres



# 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



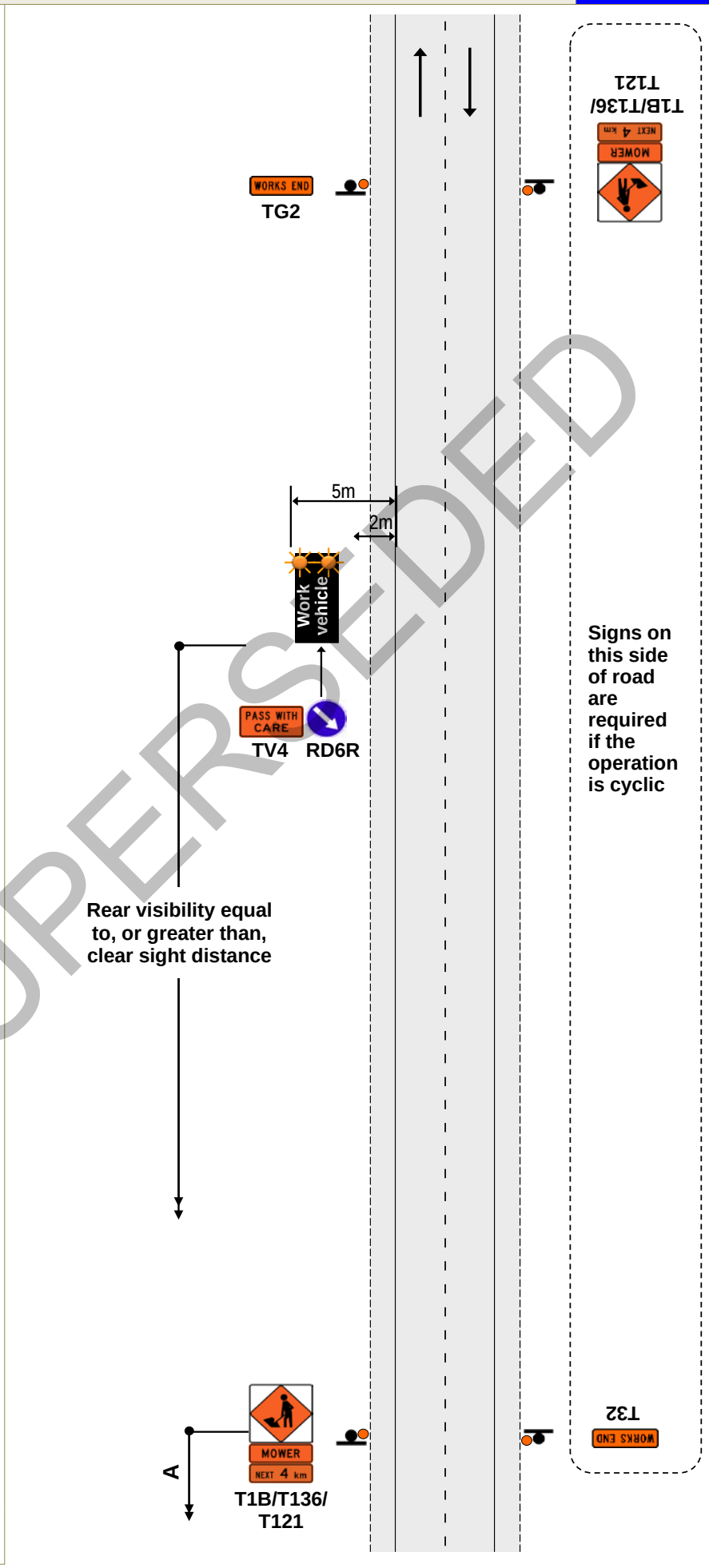
# TWO-WAY TWO-LANE ROAD
## Work vehicle is between two (2) and five (5) metres of the edgeline

**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 AWVMS 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





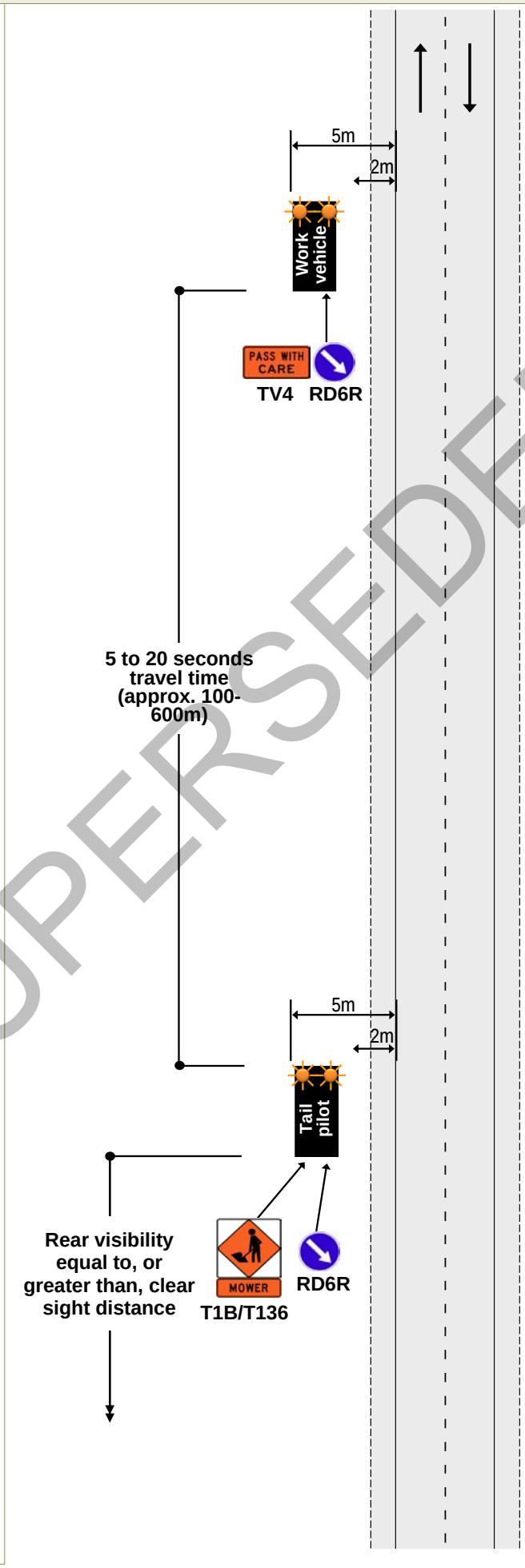

EXAMPLE ONLY

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



TWO-WAY TWO-LANE ROAD
Work vehicle is between zero (0) and two (2) metres of the edgeline
Permanent speed less than 65km/h

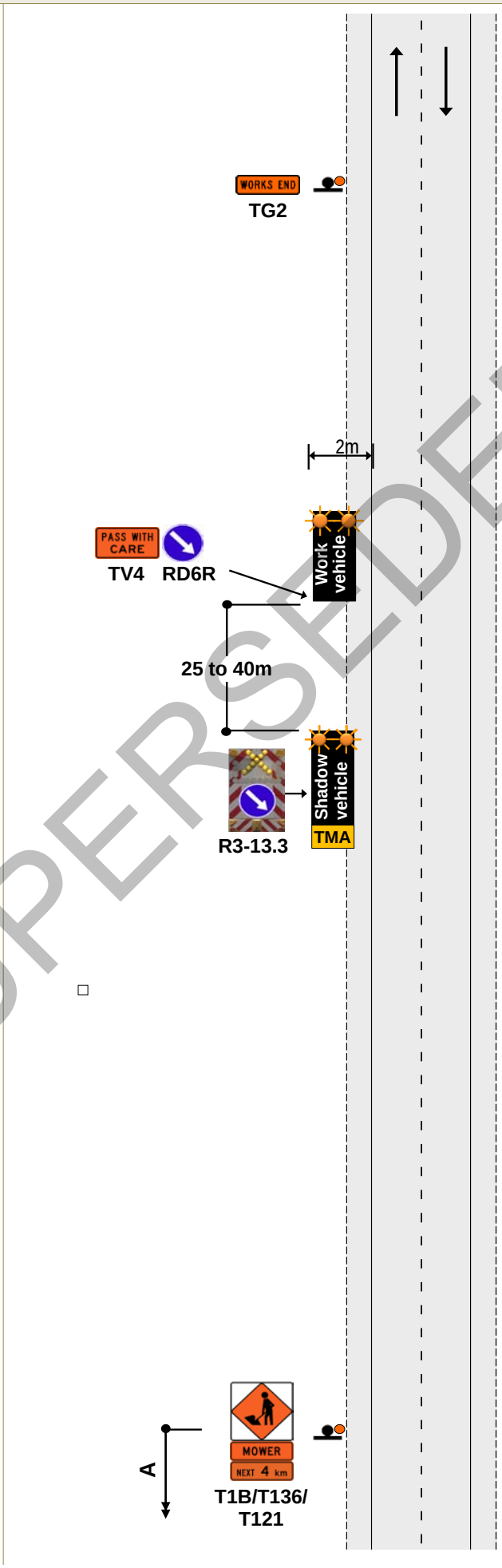
**G2.4**
Level 2

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 AWVMS if used as a tail pilot

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



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

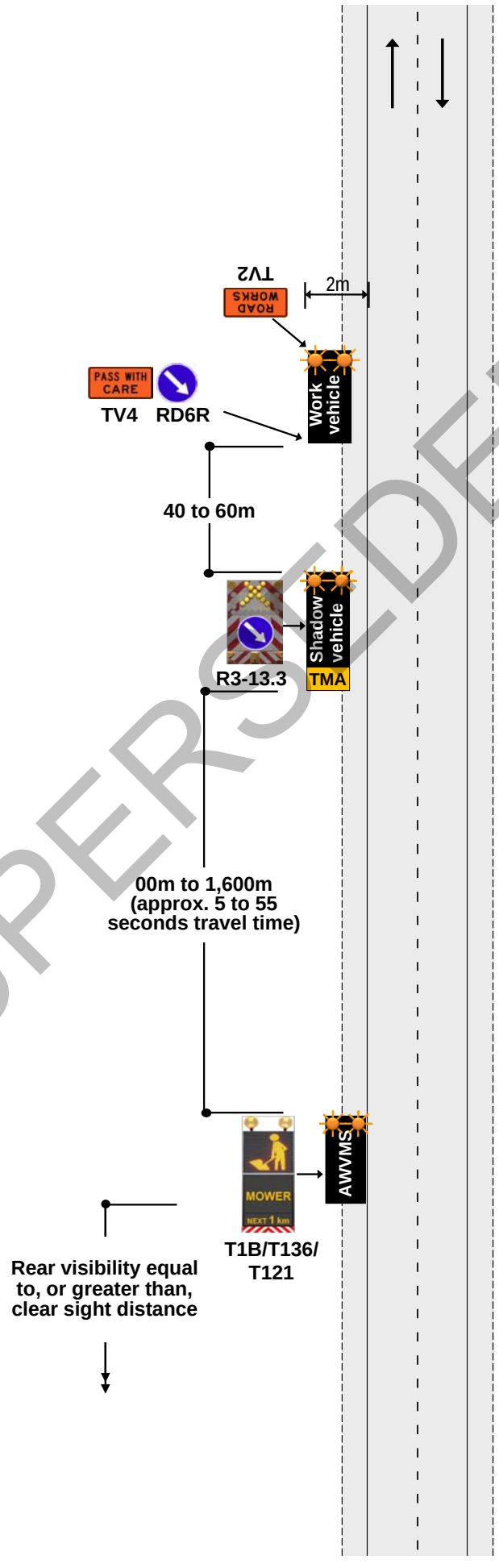
**G2.5**
Level 2

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



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

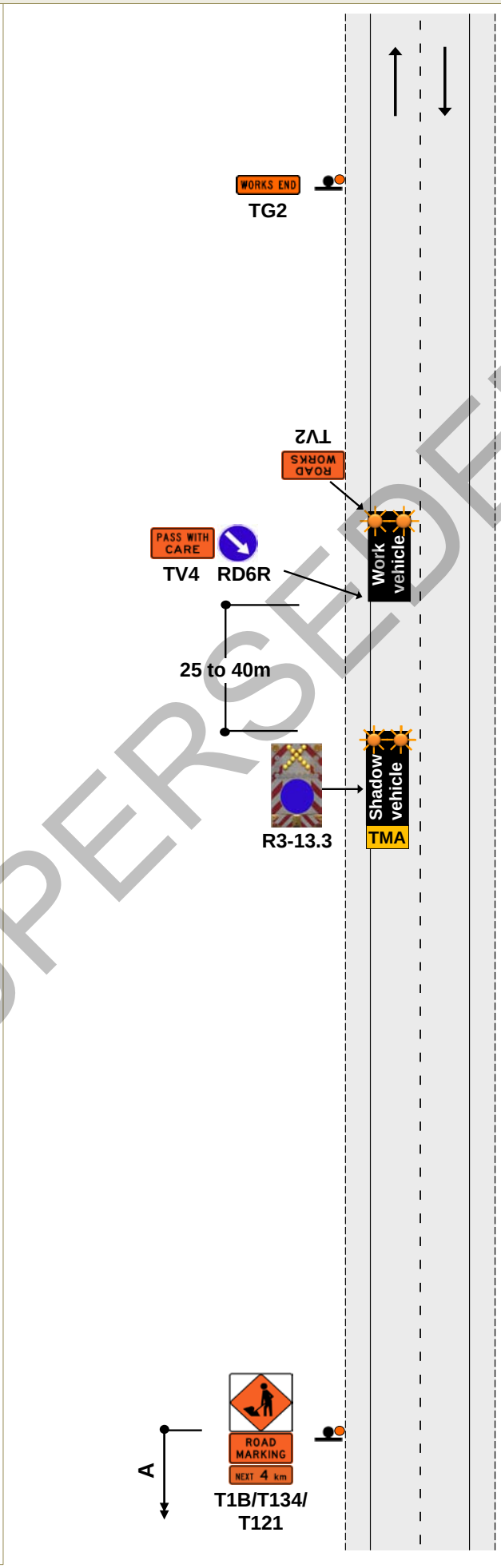
**G2.6**
Level 2

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 AWVMS if used as a tail pilot

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 may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



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

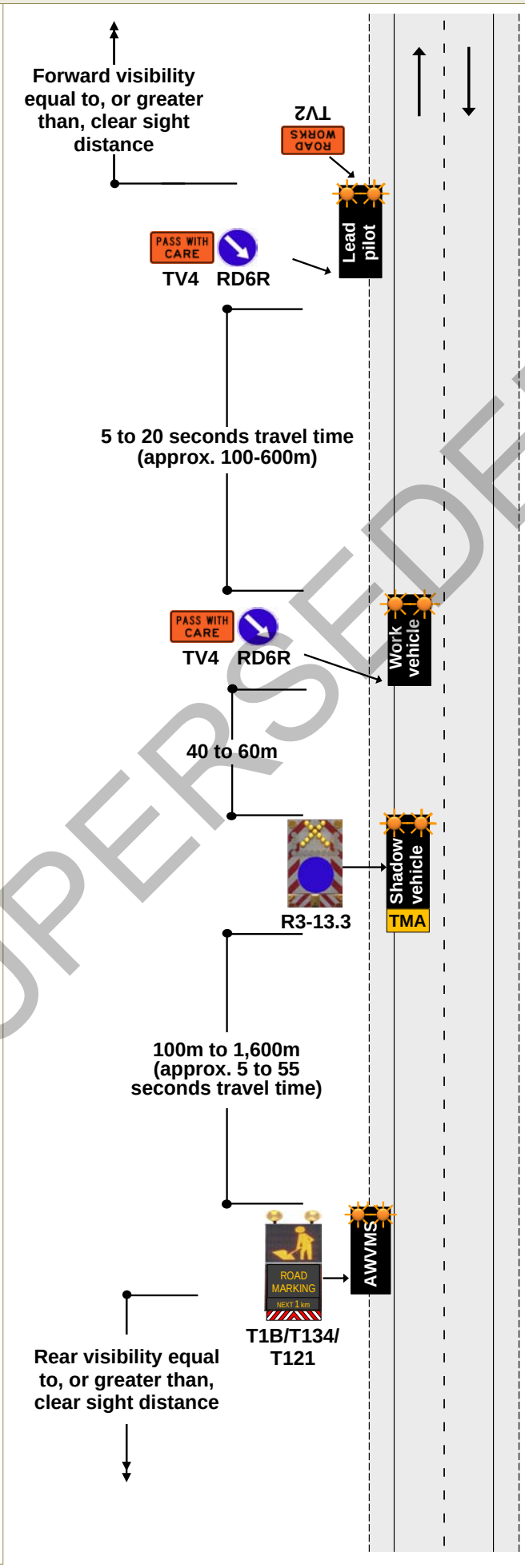
**G2.7**
Level 2

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 continuosly 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



# TWO-WAY TWO-LANE ROAD
# Personnel on the live lane 238

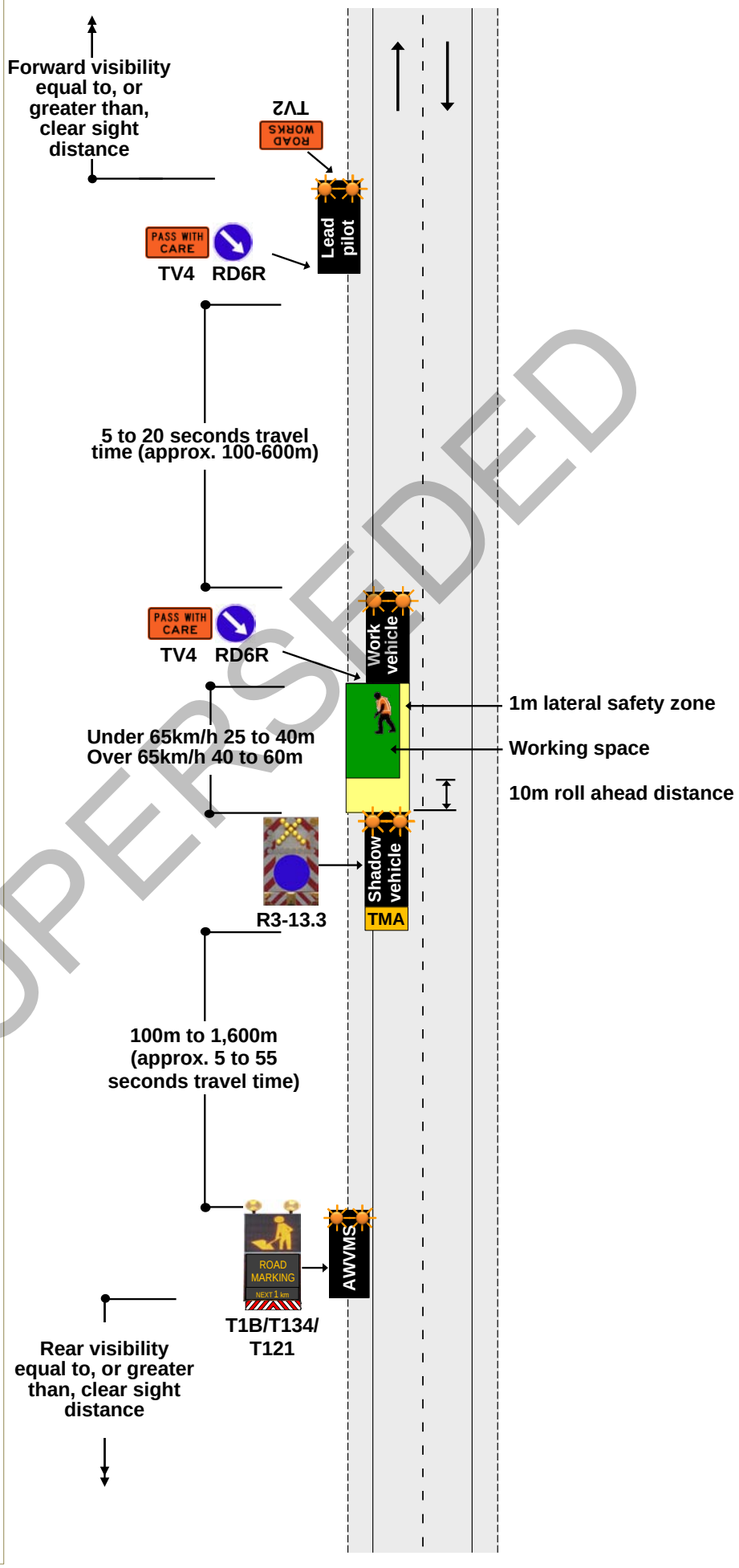
**G2.8**
Level 2

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 continuosly 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



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

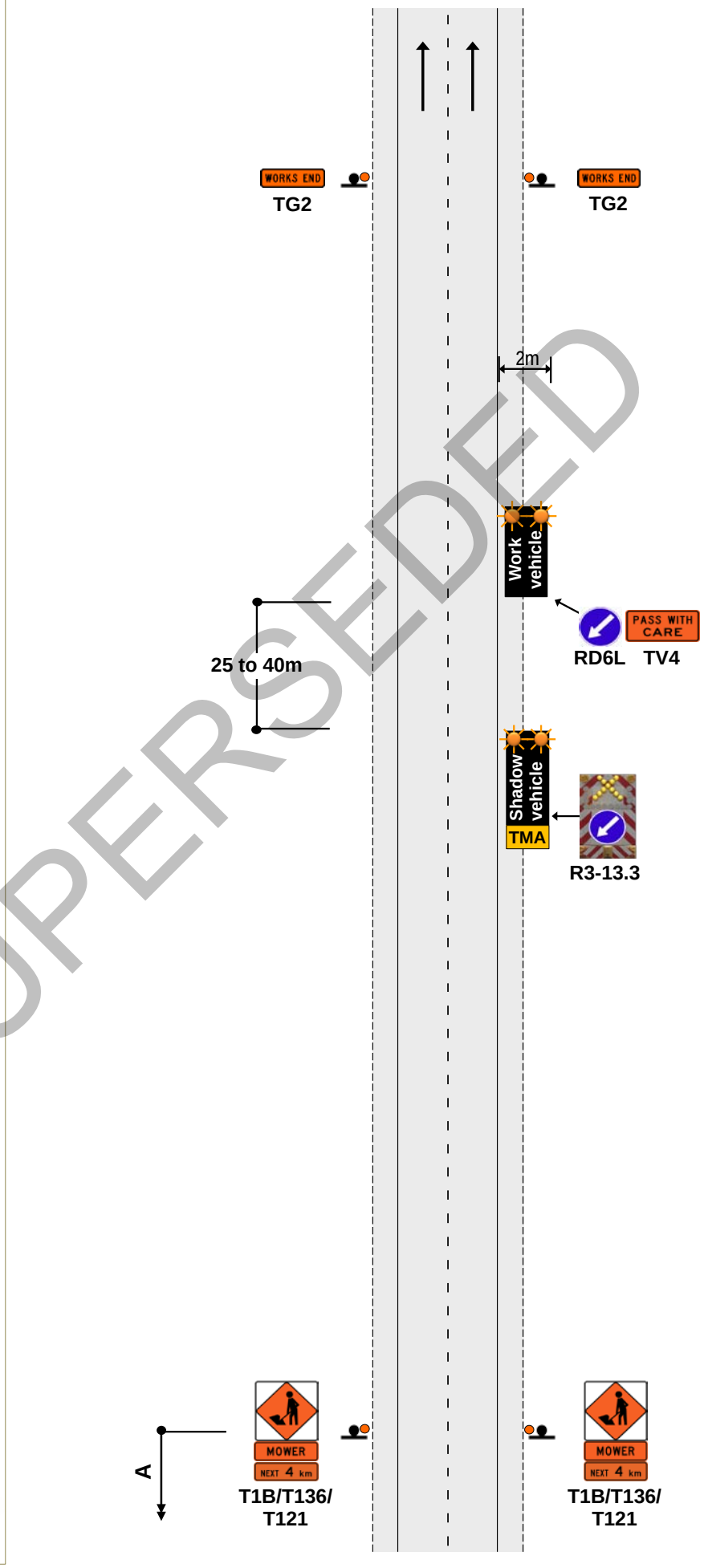
**G2.9**
Level 2

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 AWVMS if used as a tail pilot

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 static signs may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



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

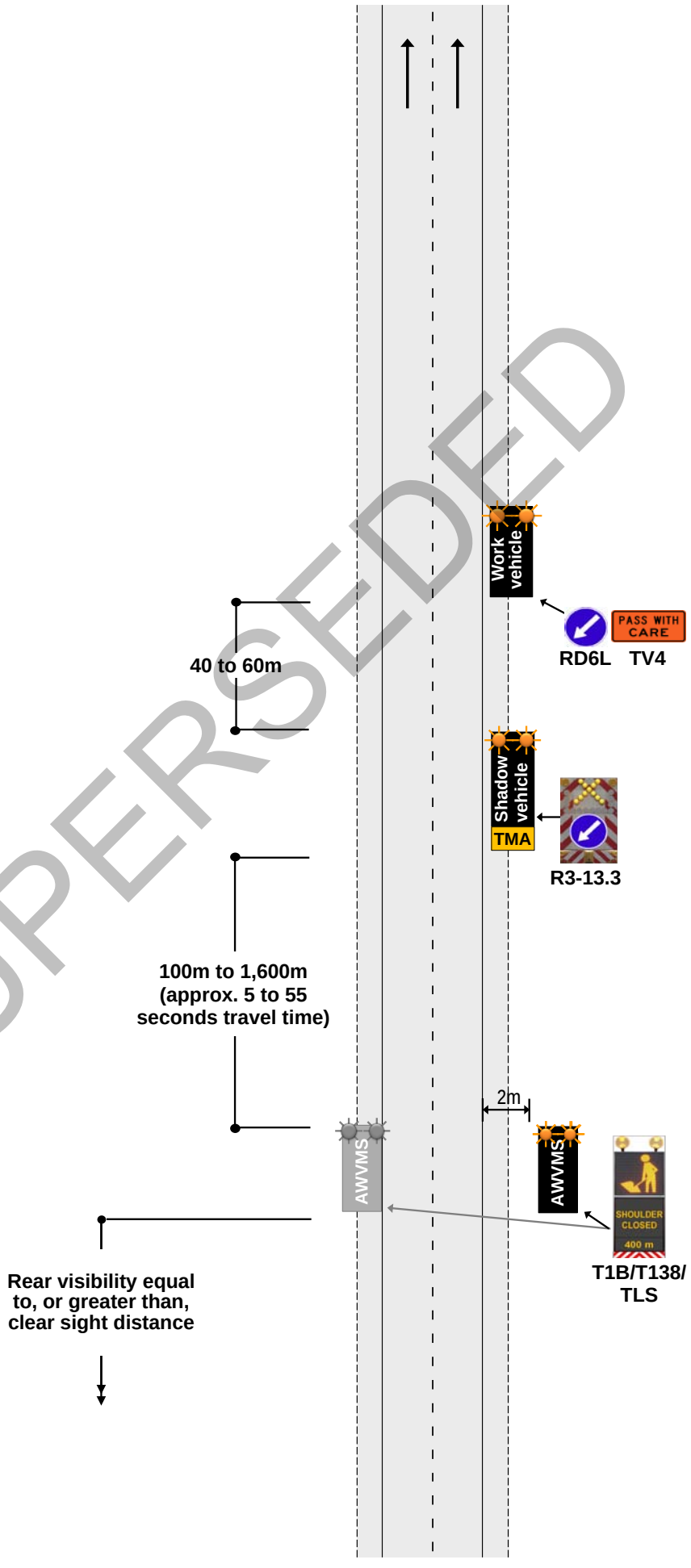
**G2.10**
Level 2

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 a hard central shoulder exists the AWVMS is to be positioned at least 2m clear of the edgeline
3. With a right hand closure where there is no available shoulder on the right hand median, the AWVMS 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 AWVMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



# ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD
Work vehicle is on the live lane
Permanent speed less than 65km/h

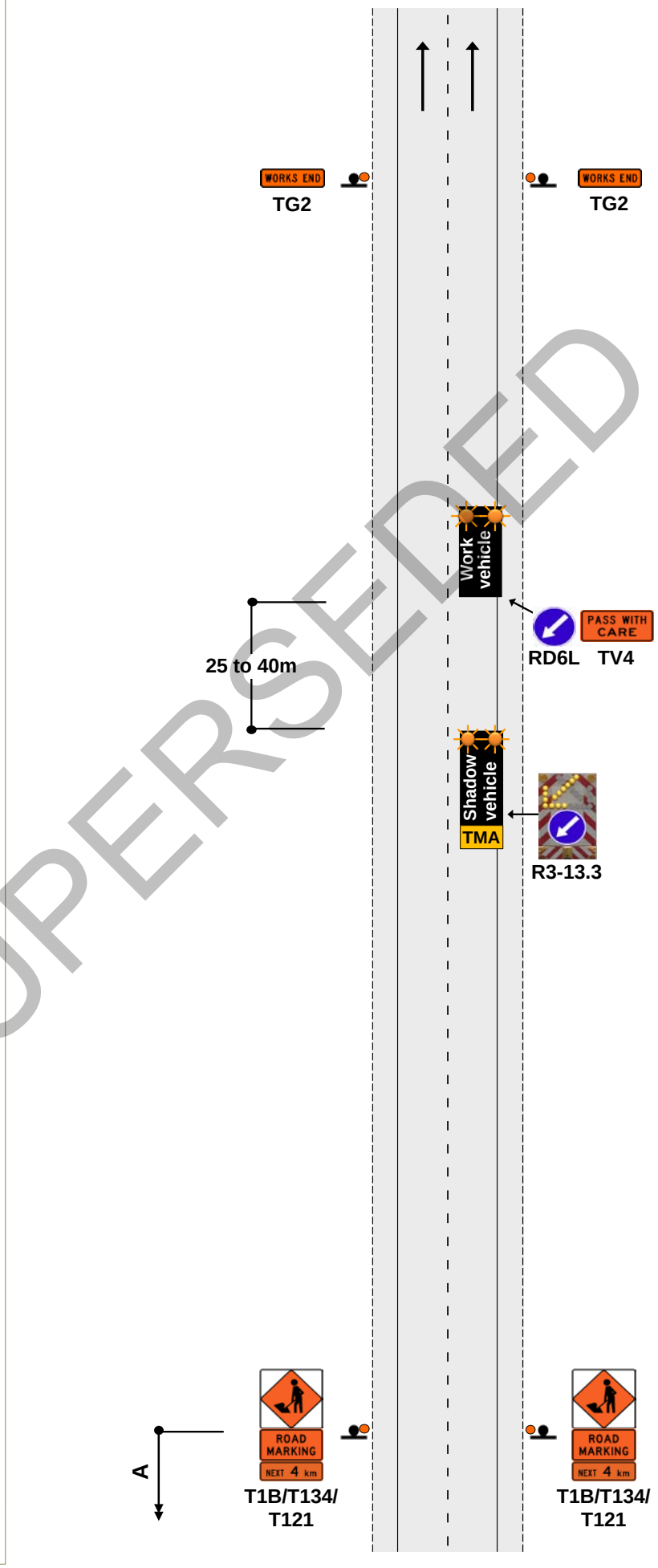
**G2.11**
Level 2

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 AWVMS if used as a tail pilot

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 static signs may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



# ONE-WAY TWO-LANE DIVIDED OR TWO-LANE ROAD
Work vehicle is on the live lane
Permanent speed greater than 65km/h

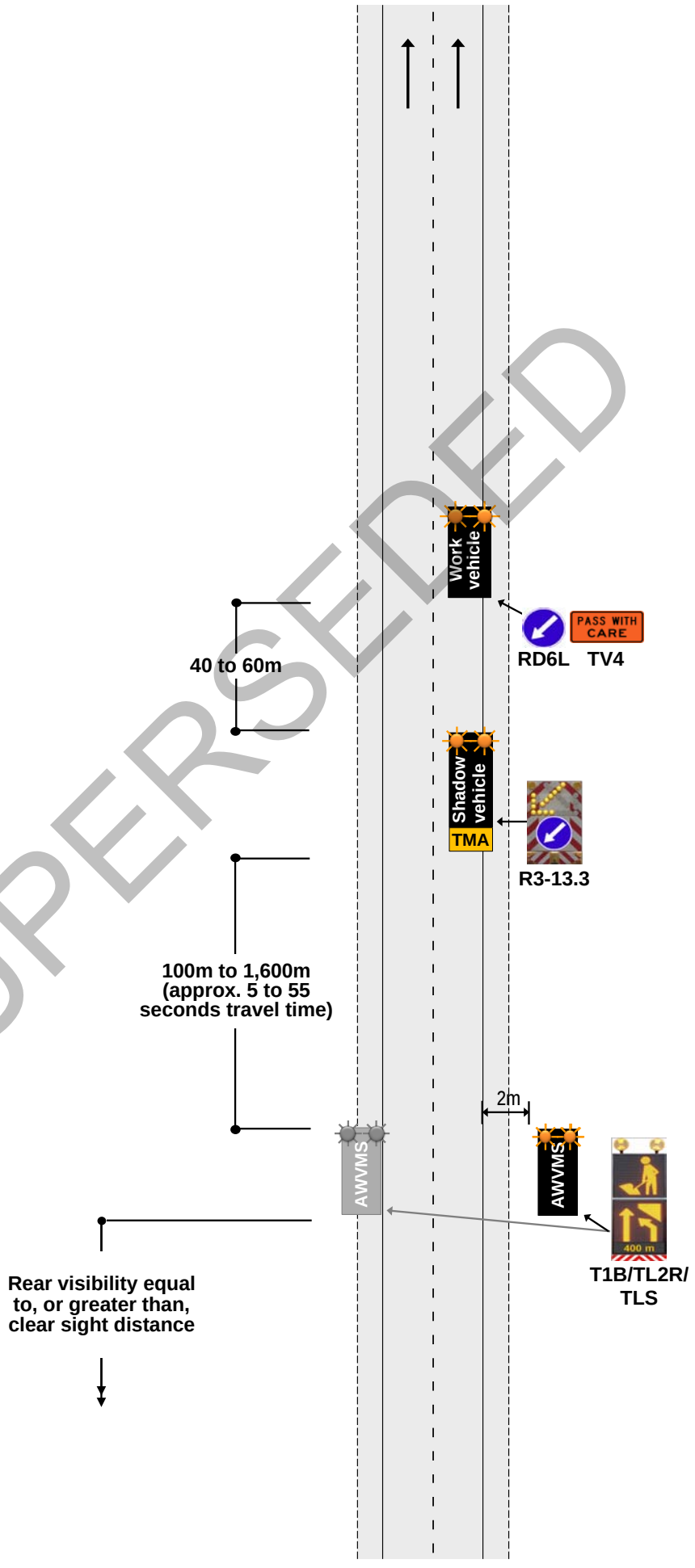
**G2.12**
Level 2

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 a hard central shoulder exists the AWVMS is to be positioned at least 2m clear of the edgeline
3. With a right hand closure where there is no available shoulder on the right hand median, the AWVMS 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 AWVMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6R/L signs



# 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

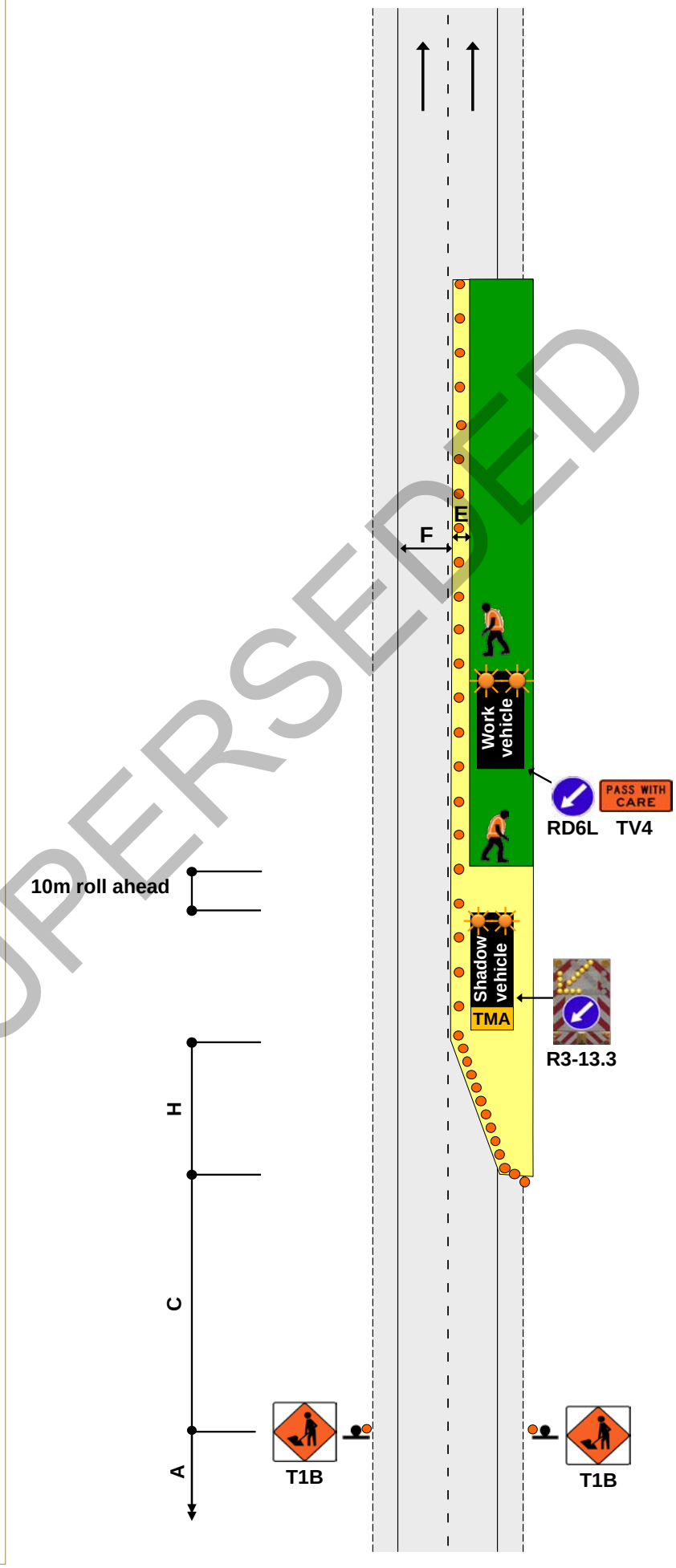
**G2.13**
Level 2

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 AWVMS

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 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



# 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

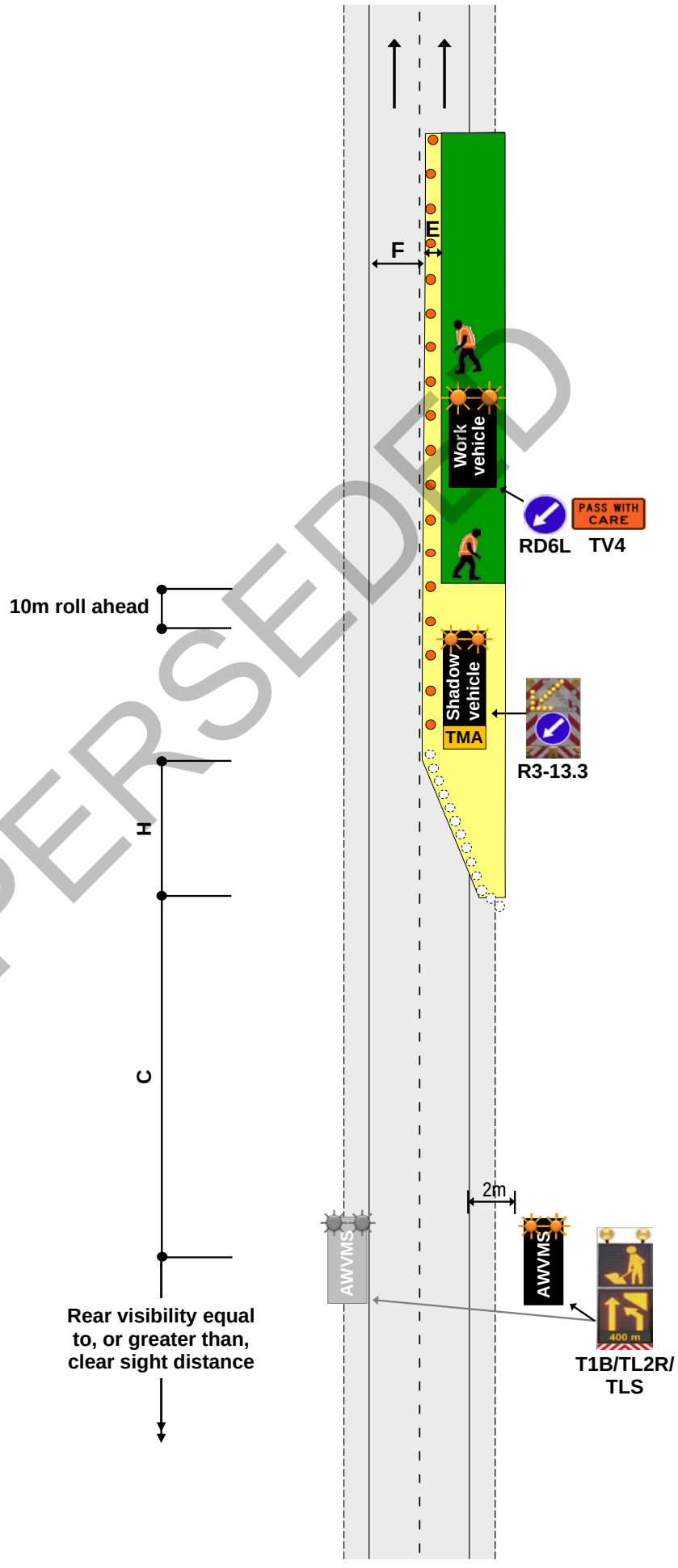
**G2.14**
**Level 2**

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 AWVMS can be located either side of the road depending on availability of space to park the AWVMS
4. If a hard central shoulder exists the AWVMS is to be positioned at least 2m clear of the edgeline
5. With a right hand closure where there is no available shoulder on the right hand median, the AWVMS can be positioned on the left hand side clear of the edgeline showing a right hand lane drop
6. Where an AWVMS is used, a cone taper (H) is not required

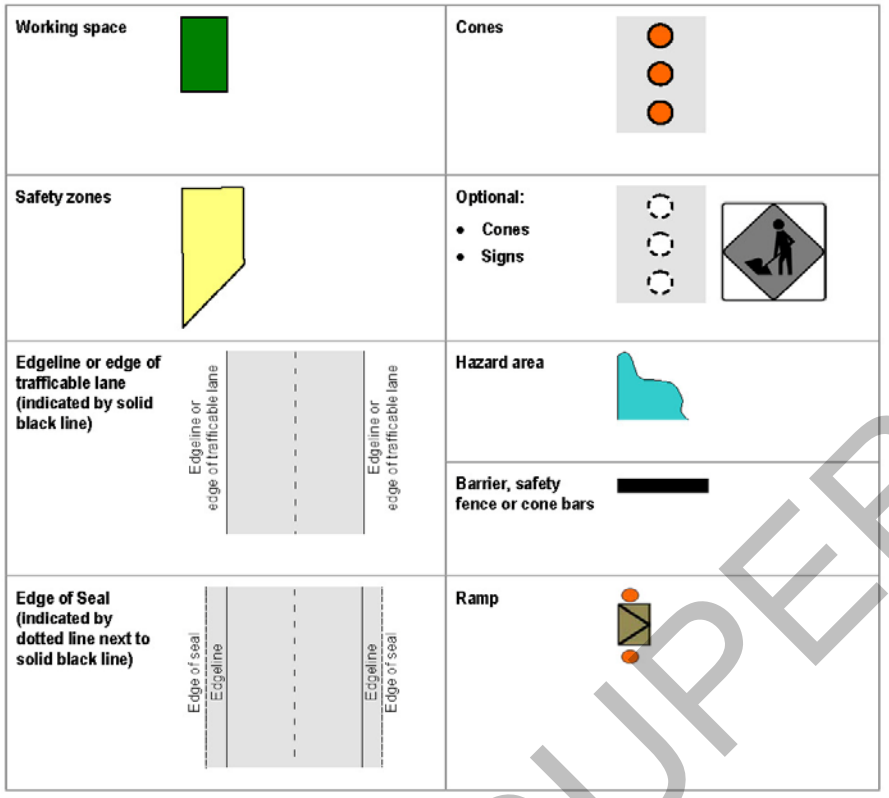
For non-state highways

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 AWVMS may be replaced by a tail pilot vehicle with a TMA, horizontal arrow board, T1B and RD6L sign



*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




LEVEL 2 LAYOUT DISTANCES TABLE

| Permanent/TSL (km/h) | | ≤50 | 60 | 70 | 80 | 90/100 |
|---|---|---|---|---|---|---|
| **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) | | | | | |
| | 1. Behind cones | 1 | 1 | 1 | 1 | 1 |
| | 2. Behind concrete barrier | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | 3. Behind other barriers | As recommended by manufacturers | | | | |
| **Tapers** | | | | | | |
| H | Initial taper length per lane** | 90/50+ | 100/60+ | 120 | 150 | 180 |
| I | Subsequent taper length per lane | 50 | 60 | 70 | 80 | 100 |
| K | Minimum distance between tapers | 50 | 60 | 70 | 80 | 100 |
| **Delineation devices** | | | | | | |
| Spacing | All tapers | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Spacing | Approaches, between tapers and around the working space | 5 | 5 | 10 | 10 | 10 |
| Spacing | 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.