

# Working on Roadways Manual

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## PREFACE

This Works on Road Manual (WORM) has been based on the Austroads Guide to Temporary Traffic Management (AGTTM) (QGTTM Amened).

It updates the specification of traffic control devices for roadworks previously given in 2003 Manual of Uniform Traffic Control Devices and departmental document Works on Roads. It deals with the principles of signing at roadworks and provides typical diagrams for placement of signs and devices for various work site configurations. It is intended as a field guide for short term low impact works and the installation, operation, and removal of Traffic Guidance Schemes.

Principal variations from the previous version are as follows:

Version	Updates
11	<p>Reviewed Temporary Traffic Management Update including Changes in the July 2024 publication cycle.</p> <ol style="list-style-type: none"> <li>1. Added section 4.3 TTM Road Categories Map for Queensland from QGTTM</li> <li>2. Section 5.1.1 updated requirements of uses from QGTTM</li> <li>3. Section 5.4 added information and criteria tables from QGTTM</li> <li>4. Section 5.6 added criteria table from QGTTM</li> <li>5. Section 6.1.1 added additional approved pedestrian signage from AS1742.3</li> <li>6. Added section 7.2 Star Pickets from QGTTM</li> <li>7. Section 9 added Table 9.8 Sight Distance to both the vehicle mounted warning device and worker from QGTTM</li> <li>8. Updated TGS selection guide</li> </ol>
10	<p>Reviewed Temporary Traffic Management Update Changes in the November 2023 publication cycle.</p> <ol style="list-style-type: none"> <li>1. Section 4 - Minor updates to wording to align to intent of Queensland Guide to Temporary Traffic Management (QGTTM) (e.g., Competent Person, Direct supervision, reference updates)</li> </ol>
9	<p>Reviewed Temporary Traffic Management Update Changes in the March 2023 publication cycle.</p> <ol style="list-style-type: none"> <li>1. 5.3 Works Outside of Traffic Lane – Conditions for omitting workers signs for situations that are frequently changing or progressively moving</li> <li>2. Change to Table 9.3 Minimum Lane Widths – For Shuttle flow operations minimum lane width changed form 3.5 m to 3.0 m</li> </ol>
8	<p>Reviewed Temporary Traffic Management Update Changes in the November 2022 publication cycle.</p>
7	<p>Updated to align to the Department of Transport and Main Roads Temporary Traffic Management Changes, July 2022 publication cycle.</p>
6	<p>Table in Section 10.1 updated. Number in Section 5.7 updated.</p>
5	<p>Format update on footer</p>
4	<p>Traffic cones and temporary bollards requirements in Section 7 – Static Work Sites</p>

<b>3</b>	<ol style="list-style-type: none"><li>1. Entire manual and its clauses have been updated to meet the new AGTTM standards released November 2020.</li><li>2. Dimension 'D' is no longer the defining distance for placement of devices and has been removed from Section 2: Definition, Abbreviations and Acronyms, and all references to Dimension 'D' have been removed from all clauses.</li><li>3. Removed Clauses 4.3 Short term low impact works – open roads and clause 4.4 Short term low impact works – Built-up areas, Replaced with 4.3 Short Term Low Impact Works. AGTTM has moved away from separating this clause into 2 sub types and now covers all roads under Part 5 of the AGTTM.</li></ol>
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## 1. PURPOSE AND SCOPE

The Working on Roadways Manual (WORM) has been developed to provide guidance on how to manage the risks of working on or near a road corridor. The clauses, tables and diagrams used in this manual are based on the new Austroads Guide to Temporary Traffic Management (AGTTM). When directed to a particular clause, table, or diagram in this WORM, please refer to the AGTTM(QGTTM) for the direct reference.

## 2. DEFINITIONS, ABBREVIATIONS AND ACRONYMS

<b>AADT</b>	Annual Average Daily Traffic
<b>AGTTM</b>	Austrroads Guide to Temporary Traffic Management: Parts 1 – 10. This document is to be read in conjunction with the QGTTM, AS1742.3 2019, and the MUTCD part 3.
<b>Barrier Line</b>	A single or double continuous line to prohibit crossing movements from one or both directions – note a single line may be crossed if entering or leaving the roadway
<b>Contraflow</b>	A temporary arrangement in which traffic travelling in both directions uses one side of the road with controls in place
<b>MUTCD</b>	Manual of Uniform Traffic Control Devices: Part 3 Traffic Control for Works on Roads. Although still a relevant document, A lot of its contents is now found in the QGTTM/AGTTM
<b>QGTTM</b>	Queensland Guide to Temporary Traffic Management converts the AGTTM to Queensland 'Best Practice' regarding Traffic Management for works on road.
<b>Short Term Works</b>	Works where personnel are in attendance and are generally limited to the duration of a single work shift or lesser period as per Part 5 of the AGTTM(QGTTM)
<b>Static Worksites</b>	Work Sites which often involve complex traffic arrangements, a TMP and/or a TGS detailing signage and devices is required
<b>Shoulder</b>	A sealed or unsealed part of the road outside the edge line, or inferred edge line, which is trafficable, adjacent to the traffic lane and flush with the surface of the pavement.
<b>High-Volume Road</b>	Roads with a posted speed limit greater than, or equal to 60 km/h and traffic volume greater than, or equal to 3,000  or Roads with any speed limit with traffic volumes greater than, or equal to 10,000 vehicles per day AADT.
<b>High-Speed Road</b>	Any road with a posted speed Limit of 80 km/h and above.
<b>Road Categories</b>	Cat 1: Most urban streets and lower volume rural roads  Cat 2: High-volume roads  Cat 3: Expressways = high-volume & high-speed roads

<b>TGS</b>	Traffic Guidance Scheme, is a detailed diagram used by Traffic Management Implementors for the placing of Signs and Devices on roadways, and managing the flow of traffic through, past, or around the work area/hazard.
<b>Verge</b>	The verge is the area of land between the shoulder and the property boundary. The purpose of the verge is to provide an area where public utilities/services such as power, gas and telecommunications can be located.
<b>VPD</b>	Vehicles per Day
<b>VPH</b>	Vehicles per Hour
<b>Worksite hazard assessment</b>	EQL's hazard identification and management process is HazChat. The process provides a tool for managing the hazards of work activities and addresses EQL compliance requirements. The relevant HazChat Form is selected as appropriate to the work task
<b>WORM</b>	Working on Roadways Manual, referred to in this document as the Manual

## 3. REFERENCES

### 3.1. Controlled Documents

R322. Road or Railway Safe Work Method Statement

Standard for Fatigue Management S009 - 692143

### 3.2. Other Sources

[Manual of Uniform Traffic Control Devices \(MUTCD\): Part 3 Traffic Control for Works on Roads](#)

[Queensland Guide to Temporary Traffic Management \(QGTMM\) \(Harmonised\)](#)

[Austroads Guide to Temporary Traffic Management \(AGTMM\)](#)

## 4. TRAFFIC MANAGEMENT OVERVIEW

### 4.1 Competent Person

A competent person shall only undertake activities relevant to their temporary traffic management role and authorised by Transport and Main Roads. Levels of competent persons for Traffic Management are:

1. Lookout person	
Activity	Additional Information
Perform lookout activity as required in Section 5.	Must have good eyesight, hearing and be competent to perform lookout activities.
2. Working in Proximity to Traffic Awareness – Part 1	
Activity	Additional Information
Install or remove signs under direct supervision and instruction by a Working in Proximity to Traffic Awareness – Part 2 Competent Person, where these devices are part of a work method practice or TGS developed in accordance with the short-term, low-impact works in QGTTM Part 5, excluding works involving: Grading, or Protection by a shadow vehicle with (or without) a truck-mounted attenuator, or The use of sections 4.1, 4.4, or 4.5	Direct supervision requires the supervising Working in Proximity to Traffic Awareness – Part 2 Competent Person to be present (in close proximity) and able to intervene if required.
Install or remove signs and other devices included on a TGS under direct supervision and instruction by a TMI Competent Person.	Direct supervision requires the supervising TMI to hold the Traffic Management Implement competency at the appropriate road category and be present (in proximity) and able to intervene if required.
Cover or uncover signs	Generally, at the end or start of a shift. Instruction must be included on the TGS that the signs can be covered or uncovered and at what times or under what conditions.
Record Keeping	Daily record of installed traffic management signs and devices in accordance with Section 4.4
Modify the TGS onsite in response to an emergency event.	In accordance with Section 8.3 Initial Response only.

### 3. Competent person – Working in Proximity to Traffic Awareness – Part 2

All of the Tasks and Activities for a Working in Proximity to Traffic Awareness Part 1 Competent Person, in addition to the following.

Activity	Additional Information
<p>Select, design and implement a work method practice (including the installation or removal of signs) in accordance with the short-term, low-impact works in QGTMM Part 5, excluding works involving:</p> <p>Grading, or</p> <p>Protection by a shadow vehicle with (or without) a truck-mounted attenuator, or</p> <p>The use of sections 4.1, 4.4, or 4.5</p>	<p>Develop a simple sketch as part of the on-site record keeping requirements for short-term low-impact works in accordance with QGTMM Part 5.</p> <p>Signs applicable for installation or removal by a Working in Proximity to Traffic Awareness – Part 2 Competent Person are only those required for compliance with the relevant sections of the short-term low-impact works in QGTMM Part 5, including:</p> <p>Workers (symbolic)</p> <p>SURVEYORS AHEAD</p> <p>LINE MARKERS AHEAD</p> <p>MOWING AHEAD or Mowing (symbolic)</p> <p>ROAD PLANT AHEAD</p> <p>NEXT x km / NEXT 500m</p>

### 4. Traffic Management Implementer (TMI)

All activities for a Working in Proximity to Traffic Awareness Part 2 Competent Person and:

Activity	Additional Information
Selection and implementation of TMP and TGS	Selection and implementation in accordance with the established protocol or procedure as documented by the TMD competent person.
Adjust or modify a TMP and TGS	Move signs within tolerances or modify a TGS in line with TMD documented provision for long traffic queues.
Monitor the performance of the TGS	Ensure all required traffic control devices remain in place.
Modify the TGS on site in response to an emergency event	In accordance with Section 8.3 Initial and Interim Response only.



## 4.2 Road Categories

Roads shall be categorised to reflect their intensity of use (traffic volume), complexity (road type) and the risk (speed and mix of traffic) to associated TTM practices. Three general road categories are defined for the purpose of default categorisation:

- **Category 1** (most urban streets and lower volume rural roads) includes single carriageway roads with a posted speed limit of:
  - Less than 60 km/h where the Annual Average Daily Traffic (AADT) is less than 10,000, or
  - 110 km/h or less where the AADT is less than 3000
  - The characteristics of these roads are generally reconised as:
    - roads (with or without a centre line), sealed and unsealed
    - two lanes two way, and sections including one-way single lane, and overtaking lanes.
- **Category 2** (high-volume roads) comprises anything not in Category 1 or 3, and include roads with:
  - Any signalised intersection
    - Multiple lanes in a single direction (excluding overtaking and turn lanes)
  - This Category of road:
    - may include major urban streets in the central business district, some arterial roads
    - generally requires larger signs
    - generally requires signs on both sides of the road
  - Stringent criteria for mobile operations apply to this Category of TTM
- **Category 3** (expressways = high-volume & high-speed roads) includes:
  - Expressways (that is freeway, motorway or tunnel-type roads) and associated on-ramps or off-ramps, or
    - Posted speed limit greater than or equal to 90 km/h, and
    - AADT greater than 20,000
  - For this Category, TMA's shall be used when setting up or removing static worksites.

## 4.3 TTM Road Categories Map for Queensland

TTM road categories for roads across Queensland have been determined and are available on Queensland Globe. This map only shows Category 2 or 3 roads, with all other roads being Category 1.

The TTM Road Categories map layer on Queensland Globe is accessible by following these steps:

- Click on 'Layers'.
- Click on 'Add Layers'.
- Scroll down to the 'Transportation' category and expand the layer list using the dropdown arrow.
- Select the 'Temporary traffic management road categories' layer by checking the tick box.

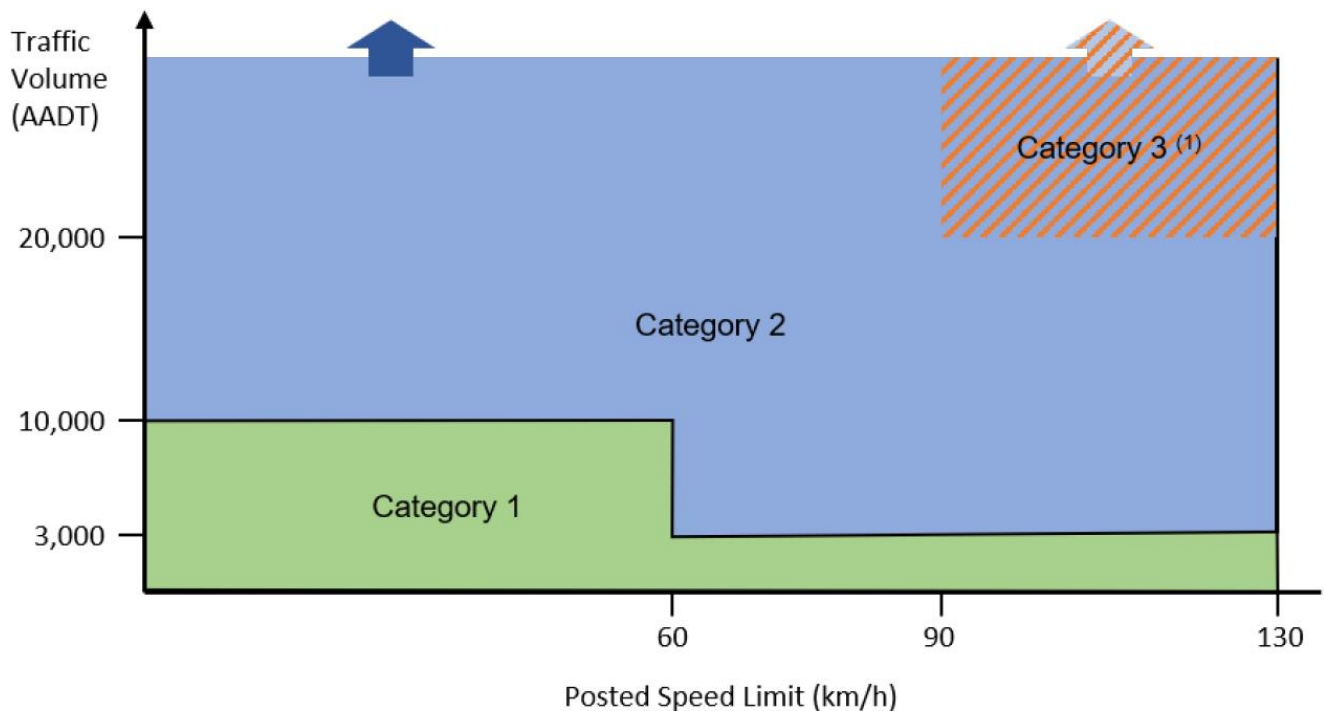
Please note that:

- A list of Local Government Authorities (LGAs) and their Queensland Globe map status is available on the QGTMM webpage. If no roads are displayed for the LGA in Queensland Globe, please check the LGA map status document and, if 'not included', contact the LGA directly, noting that only Category 2 and 3 roads are displayed on Queensland Globe. Additional road category information will be added to Queensland Globe by Transport and Main Roads for LGAs as this information becomes available.
- The road category layer is only visible at certain zoom levels, so navigate to your area of interest and zoom in to view the current TTM Road Categories.
- To enhance the visibility of the TTM category layer, deselect other road network layers and use the 'Queensland basemap grey' layer in place of the imagery layer. You can toggle them on and off as required.

If you are new to Queensland Globe, there is a range of tutorial videos available under the 'Help' section.

The TTM road categories map on the Queensland Globe will be maintained and updated by Transport and Main Roads periodically. Please email [TrafficEngineering.Support@tmr.qld.gov.au](mailto:TrafficEngineering.Support@tmr.qld.gov.au) with any requested changes.

**Figure 4.1: Road categories for TTM applications (Part 8 AGTTM – Figure 2.1)**



#### 4.4 Risk Assessment

Before conducting any works, it is mandatory that a worksite hazard assessment be undertaken to consider if the works can be performed under Short Term Low Impact Works or if a Static Setup is required.

Typical risk categories to consider:

- Road Worker Safety
- Road Users (general behaviour)
- Vulnerable road users
- Site Conditions
- Parked vehicles
- Work Vehicles
- Adverse Weather conditions
- Volume and speed
- Road geometry and width

#### 4.5 Recording and Monitoring

When Traffic Control Devices such as Signs and Cones are used on a Static Worksite, regular inspections of these traffic control devices SHALL be carried out a minimum of twice daily and recorded in a Daily Traffic Diary. These records SHALL be available for inspection during the project. These records will be held on site by The Client. Details of all changes in traffic movements shall be recorded and maintained throughout the construction period and submitted within 7 days from the date of practical completion. In the event of a traffic related incident within the site, The Client SHALL immediately notify the principal's representative, the police, and any necessary emergency services.

## 5. SHORT TERM LOW IMPACT WORKS (PART 5: AGTTM)

### 5.1. General

Short term, low impact works are carried out without the use of a fully protected static worksite; or a mobile works convoy. Cones/bollards may be used to delineate plant/equipment and 'No Go Areas' in accordance with Work Site setup procedures.

Work sites that do not meet the requirements for Short Term Low Impact Works must be set out as a static work site to protect workers from oncoming or passing traffic, and road users from hazards within the site. (See Section 7.)

Short term, low impact works comprise of the following activities:

- works that involve minimal plant, equipment and road workers
- works involving a frequently changing work area (e.g. grass cutting, shoulder grading, minor pavement maintenance and survey work)
- works that are of a short duration (less than a single shift but generally much shorter)
- works located sufficiently clear of traffic that only minimal warning is required to advise road users of the presence of workers.

Low impact works must not involve the following:

- speed limit changes, except when the work is protected by specialist vehicles
- tapers
- traffic controllers
- aftercare signs or unattended worksites
- redirecting pedestrians off their normal path of travel, including the following:
  - if the footpath is closed and pedestrians need to be redirected onto the road past the site or across the road (or elsewhere e.g. detour)
  - if pedestrians are directed off the footpath and onto another area (on the same footpath) which is still clear of the road but not the same type of surface (e.g. off a concrete path onto a grass or other type of surface next to the concrete path)

Low impact works may involve redirecting pedestrians off their normal path of travel, with consideration to the following:

- if pedestrians are not impacted (can still use the footpath) but delineation (e.g. traffic cones and fencing) is required to ensure that pedestrians stay out of harm's way
- if the pedestrians are directed off the footpath onto another area (on the same footpath) which is still clear of the road and has the same type of surface.

All road workers, materials and plant should be able to be quickly moved onto or off the roadway in a short period without the need for extensive signage, traffic control devices or traffic controllers.

Road workers and plant are generally positioned close to live traffic with minimal protection so a site-specific risk assessment must be undertaken prior to commencement of works to determine if a short term low impact worksite is suitable.

## 5.1.1. Vehicle Mounted Warning Device

In most cases a Vehicle with a Vehicle Mounted Warning Device will be required. A vehicle mounted warning device provides advance warning and information to road users regarding works being carried out and any hazard.

A vehicle mounted warning device shall consist of one of the following options:

1. a single flashing yellow lamp
  - a) for emergency or other infrequent use on a vehicle not normally used for roadworks purposes
  - b) for use on a plant item working within a work area
2. a pair of flashing yellow lamps or LED assemblies (placed as far apart as practical)
  - a) for use on work vehicles on all roads without the protection of a static work site
  - b) positioned on the vehicle so that at least one (preferably both) lamps are visible to all road users from any direction, and
  - c) additional flashing yellow lamps or LED assemblies may be required to be added on the vehicle to ensure visibility is provided to all road users in any direction.
3. an illuminated flashing arrow sign on a vehicle parked clear of traffic lanes
  - a) for any situation where option 1 or 2 is not appropriate
  - b) for any type of work
  - c) mount supplementary signs (static or variable message signs) in conjunction or elsewhere in a prominent position on the vehicle. Ensure they are capable of being removed from view (for example, covering, folding or turning off) when not needed.

The minimum required sight distance to the vehicle mounted warning devices for approaching road users is:

- Works between gaps in traffic (Clause 5.2)
  - With a lookout person - refer table 9.6
  - Without a lookout person - refer table 9.5
- Frequently changing work area (Clause 5.6)
  - 150 m if the speed is 60 km/h or less
  - 250 m if the speed is more than 60 km/h
- Road lighting works (Clause 5.5)
  - 75m – Residential streets
  - Refer to Table 9.6 – all other locations
- Works outside the travelled path/ traffic lane (Clause 5.3 and Clause 5.4),
  - refer table 9.6
- Short term Works in Traffic (Clause 5.7)
  - 150 m if the speed is 60 km/h or less
  - 250 m if the speed is more than 60 km/h

## 5.1.2. Restrictions on Use

Subject to a risk assessment not indicating otherwise, treatments for short term low impact works may be applied to works on unsealed roads.

Regardless of any risk assessment, if the speed limit, traffic volume, traffic clearance or occupation time constraints specified in table 5.1 cannot be met, treatments of a fully protected static worksite or mobile works convoy SHALL be applied.

**Table 5.1 Types of Short Term Low Impact Works**

Description	Work / Task Performed but not limited to:	Key factors for consideration		WORM Clause reference for criteria
		Additional criteria may need to be met refer to specific clause If risk cannot be tolerated, refer to Static Works		
Work between gaps in traffic	<ul style="list-style-type: none"> <li>▪ Raise lower services / conductors.</li> <li>▪ Measure conductors</li> <li>▪ Slewing of EWP</li> </ul>	1	Work vehicles and equipment are parked clear of moving traffic lanes, or parked where parking would be legal, and the safety of other road users is not compromised	5.2
		2	Look out person with site distance as per Table 9.4	
		3	Sight distance to Vehicle Mounted Warning Device as per Table 9.6	
Works outside the traffic lane – shoulders, medians, verges, and footpaths	Work / task performed but not limited to: <ul style="list-style-type: none"> <li>▪ Fitting of poles</li> <li>▪ Survey work</li> <li>▪ HV &amp; LV switching</li> <li>▪ Scoping visual inspections</li> <li>▪ Pole Replacement/installation works</li> <li>▪ Street light maintenance</li> </ul>	1	<b>Max. Duration</b> <ul style="list-style-type: none"> <li>• one working shift. (in accordance with fatigue management guidelines)</li> </ul>	5.3
		2	<b>Min. clearance from the traffic lane</b> <ul style="list-style-type: none"> <li>• Outside lane if traffic speed ≤ 60km/h, or</li> <li>• 1.2m if traffic speed &gt; 60km/h but ≤ 80/kmh, or</li> <li>• 3m if traffic speed &gt; 80km/h</li> </ul>	
		3	Sight distance to Vehicle Mounted Warning Device as per Table 9.6	
Works outside the travelled path	Work / task performed but not limited to: <ul style="list-style-type: none"> <li>▪ Fitting of poles</li> <li>▪ Survey work</li> <li>▪ HV &amp; LV switching</li> <li>▪ Scoping visual inspections</li> <li>▪ Pole Replacement/installation works</li> <li>▪ Street light maintenance</li> </ul>	1	<b>Max. Duration</b> <ul style="list-style-type: none"> <li>• 5 min if within 1.2m of traffic lane, or</li> <li>• 20 min if &gt; 1.2m from traffic lane</li> </ul>	5.4
		2	Lookout person where workers on foot within 1.2m	
		3	The work vehicle shall be located clear of traffic, or parked where parking would be legal, and the safety of other road users is not compromised and adjacent to, or on approach (within 40 m) to the worksite	
		4	Sight distance to Vehicle Mounted Warning Device as per Table 9.6	
Works in traffic (Road Lighting and signals)	Work / task performed but not limited to: <ul style="list-style-type: none"> <li>▪ HV &amp; LV switching</li> <li>▪ Scoping visual inspections</li> <li>▪ Minor works</li> <li>▪ Maintenance and installation of power poles, lights, wires etc...</li> </ul>	<b>Max. Duration</b> <ul style="list-style-type: none"> <li>• 5 min if parked within 1.2m from traffic lane, or</li> <li>• 20 min if parked 1.2 to 3.0m from traffic lane, or</li> <li>• 60 min if parked where nominally permitted</li> </ul>		5.5
		<b>Min. sight distance to vehicle mounted warning device</b> <ul style="list-style-type: none"> <li>• 75m or end of road – Residential streets, or</li> <li>• Refer to table 9.6 – all other locations</li> </ul>		
Frequently changing work areas outside the traffic lane	Work / task performed but not limited to: <ul style="list-style-type: none"> <li>▪ Fitting of poles</li> <li>▪ Survey work</li> <li>▪ HV &amp; LV switching</li> <li>▪ Scoping visual inspections</li> <li>▪ Minor works</li> </ul>	1	<b>Max. Duration</b> Traffic speeds ≤ 70km/h <ul style="list-style-type: none"> <li>• 20 min at any traffic volume, or</li> <li>• 40 min at traffic volumes ≤ 150 vph, or</li> <li>• 1 hr at traffic volumes ≤ 40 vph</li> </ul> Traffic speeds > 70km/h <ul style="list-style-type: none"> <li>• 5 min if workers on foot within 1.2m of moving traffic</li> <li>• 20 min if there are large plant items only with 1.2m</li> <li>• 20 min if outside 1.2m of moving traffic</li> </ul>	5.6
		2	The work area is outside of traffic lanes	
		3	Site distance to Vehicle Mounted Warning Devices <ul style="list-style-type: none"> <li>• 150 m if the speed is 60 km/h or less</li> <li>• 250 m if the speed is more than 60 km/h</li> </ul>	
		4	Works move frequently between successive locations	

Description	Work / Task Performed but not limited to:	Key factors for consideration		WORM Clause reference for criteria
		Additional criteria may need to be met refer to specific clause If risk cannot be tolerated, refer to Static Works		
<b>Short Term Works in Traffic</b>	Work / task performed but not limited to: <ul style="list-style-type: none"> <li>▪ Survey work</li> <li>▪ HV &amp; LV switching</li> <li>▪ Scoping visual inspections</li> <li>▪ Street light maintenance</li> </ul>	<b>1</b>	<b>Max. Duration</b> <ul style="list-style-type: none"> <li>• 5 min if within 1.2m of traffic lane, or</li> <li>• 20 min if &gt; 1.2m from traffic lane</li> </ul>	5.7
		<b>2</b>	Look out person with site distance as per Table 9.4	
		<b>3</b>	Site distance to Vehicle Mounted Warning Devices <ul style="list-style-type: none"> <li>• 150 m if the speed is 60 km/h or less</li> <li>• 250 m if the speed is more than 60 km/h</li> </ul>	
		<b>4</b>	Works do not reduce the overall lane width to the centreline to less than 3.5 m or if the volume is less than 50vpd, less than 3.3 m	
		<b>5</b>	Works do not reduce any traffic lane width adjacent to a barrier line to less than that needed to allow vehicles to proceed without crossing the line	

## 5.2. Works in Gaps in Traffic (AGTTM Part 5 – 4.2)

This clause covers works that are undertaken in short durations such that the work can be carried out within gaps in traffic, without advance warning signs or delineation. Typically, this work is carried out by a single worker with basic tools and materials accompanied by a lookout person. Examples of this type of work include (but are not limited to):

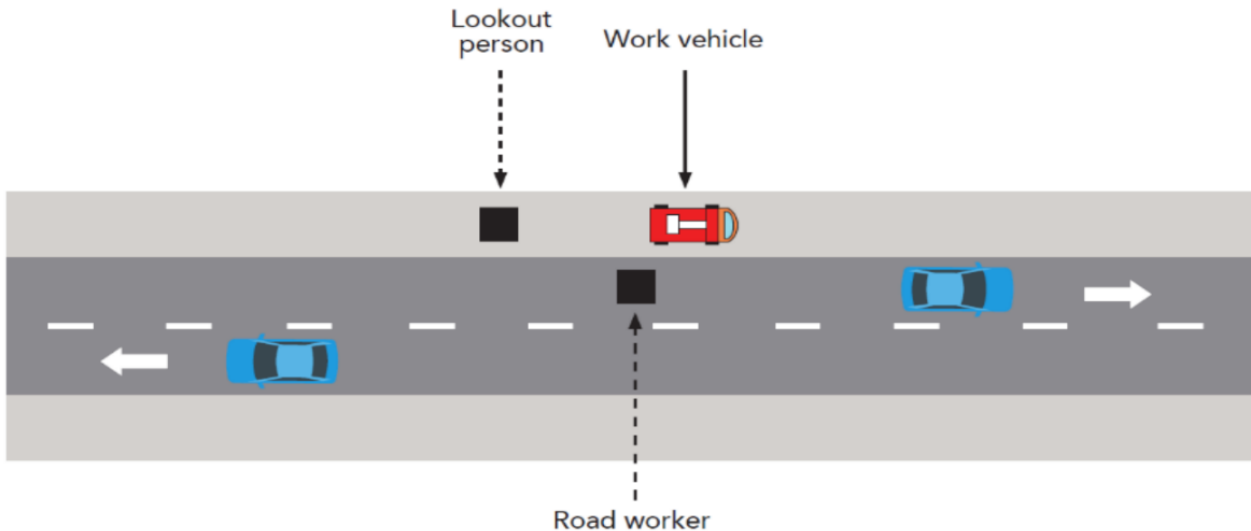
- removal of obstructions or debris
- retrieving tools/equipment from the traffic side of a work vehicle parked at the roadside
- traffic investigation
- visual inspections, photos and video carried out by workers on foot
- pavement spotting and marking for repairs
- minor pothole repairs
- survey works
- setup or removal of temporary signs / devices

Prior to undertaking these work activities, a risk assessment/Hazchat must be undertaken to ensure the works can be safely completed.

The typical Temporary Traffic Management (TTM) features of working in gaps in traffic is illustrated in Figure 5.2.1 and include:

- a lookout person.
- a works vehicle – with a vehicle mounted warning device.

**Figure 5.2.1 Works between gaps in traffic (Part 5: AGTTM, Figure 4.2)**



*Note: The works vehicles placement should consider the impact on vulnerable road users including cyclists.*

*Note: The road worker should always have a clear exit path from the road and ensure that this is not blocked by the placement of the work vehicle.*

This type of traffic management arrangement may only be used when all the criteria below have been answered “Yes”.

Criteria		Yes / No
1	The work area is within a traffic lane	
2	The works can be undertaken safely with road workers entering and exiting the road in gaps in traffic	
3	Traffic is not impeded in any way	
4	The road surface can remain trafficable without hazard to traffic	
5*	A lookout person is available to warn workers on foot to vacate the roadway before the arrival of approaching traffic. <i>If the requirements of Table 9.5 are met answer ‘Yes’</i>	
6	A vehicle mounted warning device is displayed on the work vehicle and not obscured when the vehicle can be parked adjacent to the worker location	
7	Work vehicles and equipment are parked clear of moving traffic lanes. <i>If the work vehicle and equipment in criteria 7 are parked where parking would be legal and the safety of other road users is not compromised, answer ‘yes’ to this criteria</i>	

*\*Note: The lookout person may be dispensed with if the work task takes 10 seconds or less to complete and the sight distance of approaching traffic to the vehicle mounted warning device is a minimum distance as shown in Table 9.5. The worker shall be required to be aware of the approaching vehicles within the distance if no lookout person is required.*

*Works between gaps in traffic is not recommended on multi-lane roads where traffic volumes exceed 100vph per lane, unless significant gaps are being created by upstream traffic control devices such as intersection traffic signals.*



## 5.3. Works Outside of Traffic Lane (AGTTM Part 5 – 5.1)

### Shoulders, Medians, Verges and Footpaths with Workers on Foot or Small Plant Items Only

These works may be carried out without any support vehicle on the roadway. Examples of this type of work include (but are not limited to):

- Fitting of poles
- Survey work
- HV & LV switching
- Scoping visual inspections
- Pole Replacement/installation works
- Street light maintenance

Prior to undertaking these work activities, a risk assessment must be undertaken to ensure the works can be safely completed. When undertaking any works on medians, the median must be a minimum width of 1.2 m for this clause to apply.

If all workers are exclusively behind a safety barrier, are clear of the deflection zone for the safety barrier system and not visible to traffic, temporary traffic management may not be required.

The typical TTM features of works on shoulders, medians, verges and footpaths include the following.

- advance signs
- vehicle mounted warning device on the works vehicle.

Advance warning signs MAY be displayed up to 2 km in advance of each work location or item of moving plant. The first work area SHALL be at least a distance equal to the sign spacing in Table 9.2 found in Section 9 of this manual. A maximum distance of 2 km between advance warning signs for opposing directions of travel SHALL NOT be exceeded.

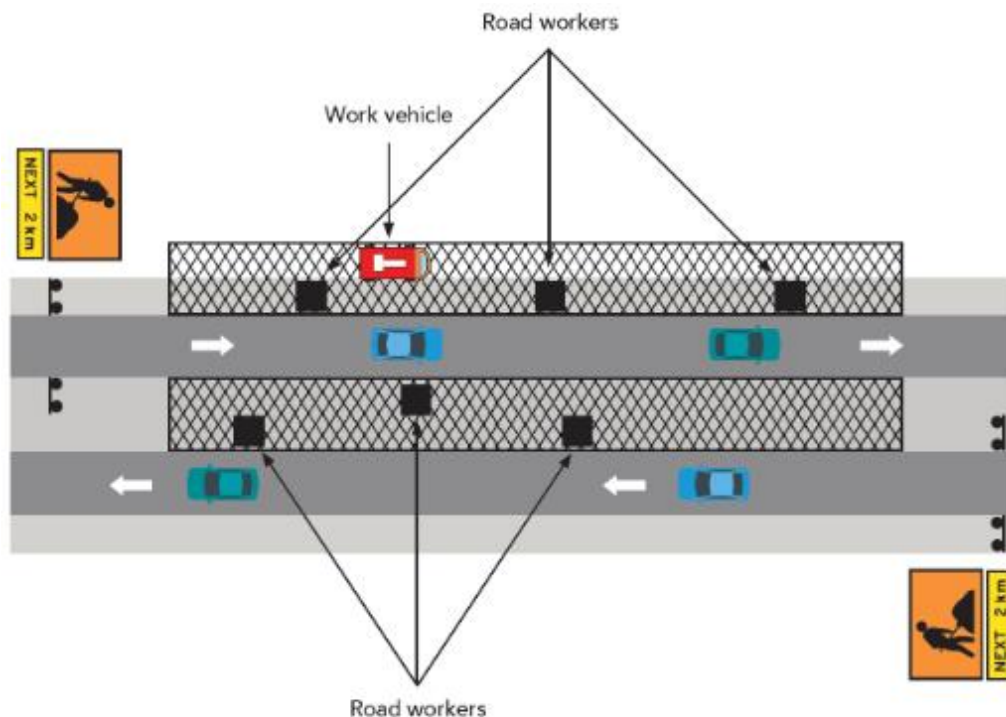
If works are frequently changing or progressively moving, at each advance warning sign location, the following signs shall be used:

- Workers (symbolic) sign
- NEXT 2km sign, NEXT 1km, NEXT 500m sign (sign as appropriate to length of work area).

The Worker (symbolic) sign may be omitted when workers on foot are either:

1. Not visible to traffic, or
2. Visible and located greater than 6 m clear of traffic, or
3. Located outside the road reserve.

**Figure 5.3.1 Works on medians, verges or footpaths with workers on foot or with small items of plant (Part 5: AGTTM, Figure 5.1)**



*Note: The works vehicle placement and location of signs and plant should consider the impact on vulnerable road users including cyclists*

## Criteria

This type of traffic management arrangement may only be used when all the criteria outlined in the below Table have been met.

Criteria		Yes/No
1	The work area is outside of traffic lanes.	
2	Clearance from the work area is one of the following: <ul style="list-style-type: none"> <li>if the speed is 60 km/h or less, the work area does not encroach into the live traffic lane</li> <li>if the speed is more than 60 km/h but equal to or less than 80 km/h, the work area is at least 1.2 m clear to the edge of the traffic lane</li> <li>if the speed is more than 80 km/h, the work area is at least 3 m clear to the edge of the traffic lane</li> </ul>	
3	A vehicle mounted warning device is displayed on the work vehicles (as per 5.1.1 of this WORM), is not obscured and meets recommended sight distance requirements for approaching vehicles as shown in Table 9.6.	

If any of the above criteria cannot be achieved, alternative treatments detailed in this Part, the treatments of a fully protected static worksite or mobile works convoy must be applied.

The recommended sight distance of approaching traffic to the vehicle mounted warning device is a minimum distance as shown in Table 9.6.

If you can not comply with the requirements in 5.3 of this manual, refer to section 5.4 of the QGTTM Part 5.

The preferred location of the work vehicle is parked adjacent to the works with the vehicle mounted warning device activated and parked clear of traffic lanes or parked where parking would be legal, and the safety or other road users is not compromised.

## 5.4. Works Outside the travelled path (QGTTM Part 5 – 5.4)

Workers may work near the road without the use of advance warning signs, provided that the criteria listed in section 5.4.2 are met.

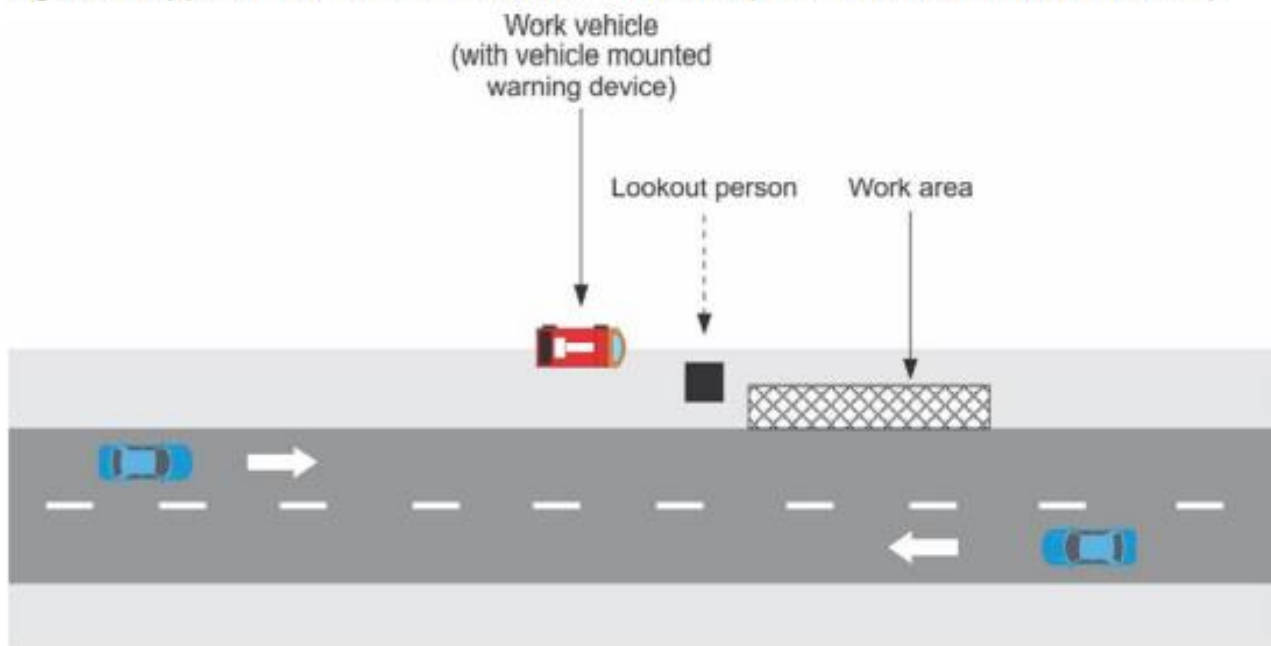
Prior to undertaking these work activities, a risk assessment shall be undertaken to ensure the works can be safely completed

The typical TTM features of short term working outside a traffic lane include:

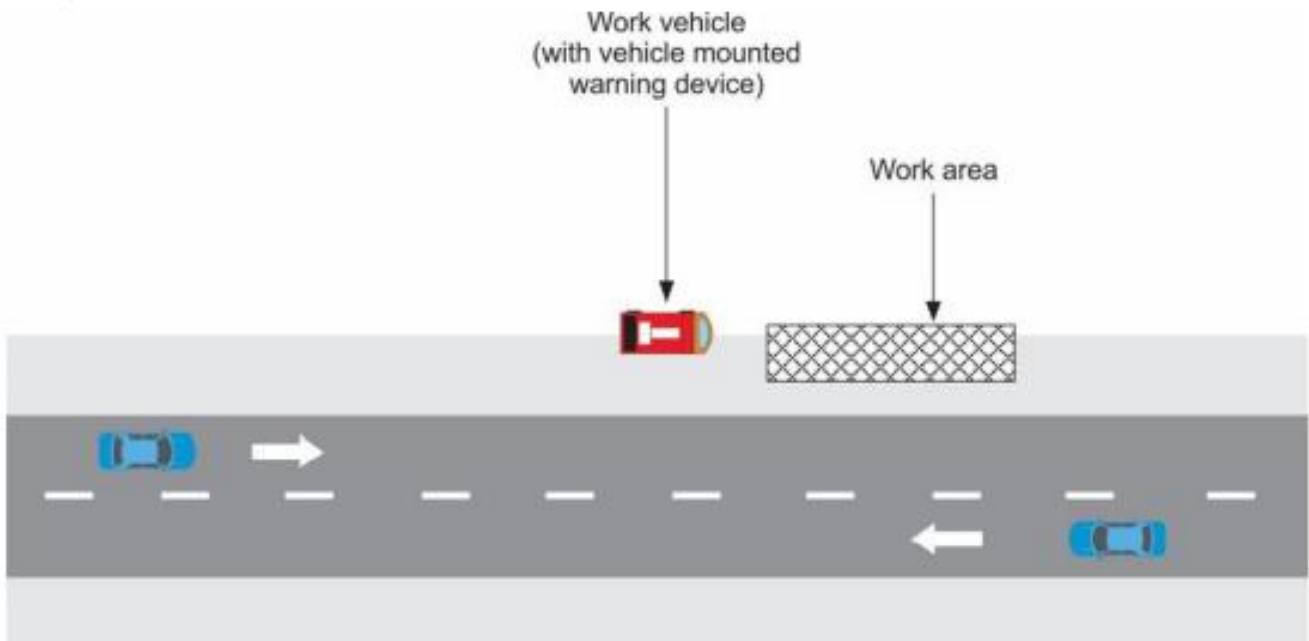
- a lookout person.
- a works vehicle – with a vehicle mounted warning device.

Figure 5.4.1(a) illustrates an example of short-term works outside a traffic lane (for works within 1.2 m of a traffic lane) and Figure 5.4.1(b) illustrates an example of short-term works outside a traffic lane (for works greater than 1.2 m from a traffic lane). The works vehicle placement should consider the impact on vulnerable road users including people riding bikes and the road worker should always have a clear exit path from the road and ensure that this is not blocked by the placement of the work vehicle or other obstacles.

**Figure 5.4.1(a) – Short-term works outside a traffic lane (works within 1.2 m of a traffic lane)**



**Figure 5.4.1(b) – Short term works outside a traffic lane (works greater than 1.2 m from a traffic lane)**



## Criteria

This type of traffic management arrangement shall only be used when all the criteria outlined in the below Table (a) and Table (b) have been met.

**Table (a) – Short term works outside a traffic lane – but within 1.2m of a traffic lane**

Criteria		Yes/No
1	The work area is outside but within 1.2m of a traffic lane	
2	Works take 5 minutes or less.	
3*	A lookout person is available to warn workers on foot to vacate the roadway before the arrival of approaching traffic and meets the sight distance requirements of Table 9.5  If there are no workers on foot answer 'yes'  <i>*If the requirements of Table 9.5 are met answer 'Yes'</i>	
4	Work vehicles and equipment are parked adjacent to the worker location and parked clear of moving traffic lanes or parked where parking would be legal and the safety of other road users is not compromised	
5	A vehicle-mounted warning device is displayed on the work vehicle and has a minimum sight distance for approaching road users.	

*\*Note: The lookout person may be dispensed with if the work task takes 10 seconds or less to complete and the sight distance of approaching traffic to both the vehicle-mounted warning device and worker is a minimum distance as shown in Table 5.8. The worker shall be required to be aware of the approaching vehicles within the distance if no lookout person is required.*

**Table (b) – Short term works outside a traffic lane – greater than 1.2m of a traffic lane**

Criteria		Yes/No
1	The work area is greater than 1.2m of a traffic lane	
2	Works take 20 minutes or less.	
3	Work vehicles and equipment are parked adjacent to the worker location and parked clear of moving traffic lanes or parked where parking would be legal and the safety of other road users is not compromised	
4	A vehicle-mounted warning device is displayed on the work vehicle and has a minimum sight distance for approaching road users.	

If any of the criteria stated previously cannot be achieved or alternative treatments detailed in this Part cannot be used, the treatments of a fully protected static worksite (see AGTTM Part 3) or mobile works convoy (see AGTTM Part 4) shall be applied.

The work vehicle shall be located clear of traffic, or parked where parking would be legal, and the safety of other road users is not compromised and adjacent to, or on approach (within 40 m), to the worksite in the primary direction of travel to the works if undertaking works in a single location. The works vehicle is the primary traffic management warning device for short-term works outside a traffic lane. If it is not possible to locate the work vehicle as described, for example due to inability to find an appropriate area to park the vehicle, then this works practice shall not be used.

The vehicle mounted warning device shall be on at all times while work is in progress.

The lookout person (for works within 1.2 m of a traffic lane) shall be positioned adjacent to the worker so that they can view approaching traffic in time to warn workers to vacate the roadway before arrival of traffic. The recommended sight distance at which the lookout person should be able to see approaching traffic are as per Table 9.4. This distance allows for the worker to respond to a warning and vacate the roadway.

At all times when conducting these activities, the lookout person (for works within 1.2 m of a traffic lane) and worker shall be within a reasonable proximity (no more than 40 m) of the vehicle with a vehicle mounted warning device, which is parked clear of traffic lanes and the safety of other road users is not compromised.

A lookout person is not required if the requirements of Table 9.5 are met.

## 5.5. Road Lighting or Signal works (QGTTM Part 5 - 6.2)

Road lighting or signal works may be undertaken by workers on foot with a vehicle equipped with a vehicle mounted warning device in accordance with clause 5.1.1 without the use of advance warning signs under the following conditions:

The works vehicle placement should consider the impact on vulnerable road users including people riding bikes and the road workers should always have a clear exit path from the road and ensure that this is not blocked by the placement of the work vehicle.

- A. where the vehicle is positioned where parking is legal and the safety of other road users is not compromised, and the vehicle does not obstruct the traffic flow:
  - i. the maximum work period at any one location shall be one hour, and
  - ii. a minimum clearance of 5.5m must be maintained above the road surface to any part of the maintenance vehicle that encroaches upon the open traffic lane, or
  
- B. where the vehicle is positioned other than outlined in Item a):
  - i. the maximum work period at any onelocation shall be:
    - a) five minutes if on the roadway or within 1.2m of moving traffic, or
    - b) 20 minutes if within 3m of moving traffic but more than 1.2m from moving traffic, and
  - ii. the following sight distance to the vehicle-mounted warning device for approaching drivers shall be:
    - a) in a residential street 75m or to the end of the street, or
    - b) in all other locations, a minimum as per Table 9.4, and
  - iii. the vehicle-mounted warning device shall not be obscured by either overhanging vegetation or a raised truck body, and
  - iv. the work shall not reduce:
    - a) the overall width to less than required for safe passage for two way traffic (or one way traffic if the volume is less than 50 vehicles per day), or
    - b) the running lane width adjacent to a barrier line to less than that needed to allow vehicles to proceed without crossing the line.
  
- C. A lookout person shall be posted to warn workers on foot of the approach of any vehicle whose size or speed may constitute a safety threat. The lookout person is not required if the works are more than 1.2m clear of moving traffic. The works vehicle placement should consider the impact on vulnerable road users including people riding bikes and the road workers should always have a clear exit path from the road and ensure that this is not blocked by the placement of the work vehicle.



## Criteria

This type of traffic management arrangement shall only be used when all the criteria outlined below have been met.

Criteria		Yes/No
1	The work area is outside of traffic lanes.	
2	Works move frequently between successive locations.	
3	<p>The maximum work period at any one location is:</p> <ul style="list-style-type: none"> <li>• For traffic speeds 70 km/h or less                             <ul style="list-style-type: none"> <li>- 20 min at any traffic volume</li> <li>- 40 min at traffic volumes of 150 vph or less</li> <li>- 1 hour at traffic volumes of 40 vph or less</li> </ul> </li> <li>• For traffic speeds greater than 70 km/h                             <ul style="list-style-type: none"> <li>- Within 1.2m of traffic</li> <li>- 5 min if there are workers on foot</li> <li>- 20 min if there are large plant items only</li> <li>- 20 min if outside 1.2m of moving traffic</li> </ul> </li> </ul>	
4	A vehicle-mounted warning device is displayed on the work vehicle and not obscured.	
5	<p>There is a minimum sight distance from approaching road users to the vehicle mounted warning device of:</p> <ul style="list-style-type: none"> <li>• 150m if speed is 60km/h or less</li> <li>• 250m if the speed is more than 60km/h</li> </ul>	



## 5.6.1. Advance warning signs

Advance warning signs shall be displayed up to 2 km in advance of each work location or item of moving plant. A maximum distance of 2 km between advance warning signs for opposing directions of travel shall not be exceeded at any time by progressively changing their location as the work location changes. At each advance warning sign location, the following signs shall be used:

- Workers (symbolic) where there are workers on foot, or ROAD PLANT AHEAD where there is moving road plant only
- NEXT 2 km sign, NEXT 1 km, NEXT 500 m sign (sign as appropriate to length of work area)

## 5.6.2. Installation (TGS Instructions)

Should a TGS be required for the setup, all signs and devices must be placed as shown on the TGS by a; or under the supervision of a TMI qualified person(s). Advance signs are to be located a distance as per Table 2.3 from the start of the worksite or hazard. Vehicles used to install signage and equipment must have a yellow flashing lamp(s) that is visible to all approaching road users.

Before any equipment or materials are brought onto the work area it is recommended that a drive through check of the worksite traffic management set up be made in all directions, including all side roads if required. This is to confirm that the work area is safe for all workers and road users, and signs and devices are placed as indicated on the TGS.

## 5.7 Short Term Works in Traffic (AGTTM Part 5 - 4.3)

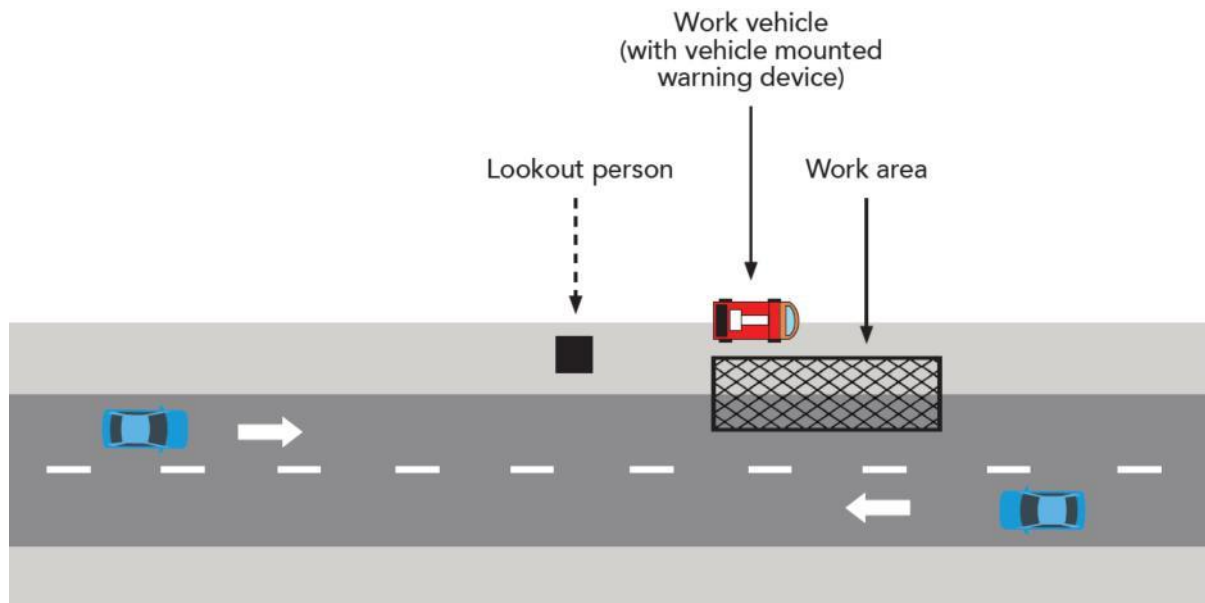
Workers may work on the road without the use of advance warning signs provided that the criteria listed in section 5.7.1 are met.

Prior to undertaking these work activities, a risk assessment shall be undertaken to ensure the works can be safely completed. Risk considerations are outlined in section 4.4.

The typical TTM features of short-term working in traffic include:

- a lookout person as per Table 9.6
- a works vehicle:
  - positioned as per Section 5.7.2, and
  - vehicle mounted warning device as per Section 5.1.1

**Figure 5.7.1 illustrates a Short-Term Work Area in Traffic**



*Note: The works vehicles placement and location of workers should consider the impact on vulnerable road users including cyclists*

## 5.7.1. Criteria

This type of traffic management arrangement shall only be used when the criteria outlined in Table 5.7.1 or Table 5.7.2 (as relevant) have been met.

**Table 5.7.1: Short term works in traffic criteria – within 1.2 m or partially within a lane**

Criteria	
1	The work area is within 1.2 m of a traffic lane or partially within a traffic lane.
2	Works take 5 minutes or less.
3	A lookout person is available to warn workers on foot to vacate the roadway before the arrival of approaching traffic which is not altering path to pass the worksite
4	A vehicle mounted warning device is displayed on the work vehicles and not obscured.
5	There is a minimum sight distance from approaching road users to the vehicle mounted warning device of: <ul style="list-style-type: none"> <li>• 150 m if the speed is 60 km/h or less</li> <li>• 250 m if the speed is more than 60 km/h.</li> </ul>
6	Works do not reduce the overall lane width to a centreline to less than 3.5 m or if the volume is less than 50 vpd, less than 3.3 m.
7	Works do not reduce any traffic lane width adjacent to a barrier line to less than that needed to allow vehicles to proceed without crossing the line.

The criteria in Table 5.7.2 apply when:

- works are in one lane of a multi-lane road but the remaining lane(s) remain open to traffic
- where the lane width is greater than 4.5m and the work area is in the lane but is more than 1.2m from the remaining traffic flow
- where the works are on a road with parked vehicles adjacent to the kerb and the worker is effectively more than 1.2m from the nearest line of moving vehicles.

**Table 5.7.2: Short term works in traffic criteria – between 1.2 m and 3 m of traffic**

Criteria	
1	The work area is between 1.2 m and 3 m of moving traffic.
2	Works take 20 minutes or less.
3	A lookout person is available to warn workers on foot to vacate the roadway before the arrival of approaching traffic.
4	A vehicle mounted warning device is displayed on the work vehicles and not obscured.
5	There is a minimum sight distance from approaching road users to the vehicle mounted warning device of: <ul style="list-style-type: none"> <li>• 150 m if the speed is 60 km/h or less</li> <li>• 250 m if the speed is more than 60 km/h.</li> </ul>

If any of the above criteria cannot be achieved, alternative treatments detailed in this Part, the treatments of a fully protected static worksite (see AGTTM Part 3) or mobile works convoy (see AGTTM Part 4) shall be applied

## 5.7.2. Installation (operation)

Equipment or materials which are brought onto the work area should be unloaded from the non-traffic side of a stationary work vehicle, or the rear of a stationary work vehicle with a lookout person or shadow vehicle in place.

The work vehicle shall be located adjacent to, or on approach (within 40m), to the worksite in the primary direction of travel to the works if undertaking works in a single location. The work vehicle is the primary traffic management warning device for short term works in traffic. If it is not possible to locate the work vehicle as described, for example due to inability to find an appropriate area to park the vehicle, then this works practice shall not be used.

The vehicle mounted warning device shall be on at all times while work is in progress.

The lookout person shall be positioned adjacent to the worker so that they can view approaching traffic in time to warn workers to vacate the roadway before arrival of traffic. The recommended sight distance at which the lookout person should be able to see approaching traffic are as per Table 9.4. This distance allows for the worker to respond to a warning and vacate the roadway.

At all times when conducting these activities, the lookout person and worker shall be within a reasonable proximity (no more than 40m) of the vehicle with a vehicle mounted warning device, which is parked clear of traffic lanes, or parked where parking would be legal, and the safety of other road users is not compromised.

## 5.8 Extended Short Term Works due to Unforeseeable circumstances.

Due to unforeseeable circumstances; there will be times when the works will take longer than the allowed time constraints outlined in table 5.1.1 above. This could be due to a number of factors like equipment malfunction or damage for example. In the event the works extend past these allowed times, a documented on site risk assessment (HazChat) SHALL be performed; if the risk has not increased or there is no additional hazards due to the prolonged works, then the works can continue past the allowed time constraints above.

These continued works are carried out under clause 6.3 – Power Supply Authorities Emergency and Unplanned Works (as per Part 10 – AGTTM(QGTTM)) and should only be used to rectify the problem which caused the works to be extended, if this can not be achieved then the site should be made safe to workers and public until a more permanent static worksite can be set up.

## 6 PEDESTRIAN MANAGEMENT

### 6.1 Pedestrian Control

Pedestrians can pass by, be escorted through or detoured around the worksite subject to appropriate controls and direction. Consideration is required for effective pedestrian management such as:

- Identifying pedestrian routes and volumes;
- Selection of an appropriate pedestrian management option based on availability of space on footpath or space on shoulder adjacent to the footpath;
- Full footpath closures on major arterial roads may require special consideration if the above cannot be achieved;
- Where applicable stop traffic flow and escort along carriageway; and
- Where pedestrians require escorting through the work site, stop work and escort them through.

#### 6.1.1 Signs for Pedestrian Control

Sign	Sign Number	Size mm
Pedestrians Watch Your Step	T8-1	900 x 600
	TM8-1C	1200 x 600
Pedestrians (arrow)	T8-2 (L or R)	1200 x 300
	TM8-2B (L or R)	1200 x 300
Use Other Footpath	T8-3	900 x 600
	TM8-3A	600 x 600
Footpath Closed	T8-4A	900 x 600
	TM8-4A	600 x 600
Look both ways – Two-way traffic	T8-5A	900 x 600
	TM8-5C	1200 x 600
	TM8-6A	600 x 600
Watch Your Step	TM8-7A	600x 600
Symbolic Pedestrians	TM8-8A	600 x 600
Footpath Closed Ahead	TM8-9A	600 x 600
Narrow Footpath Ahead	TM8-10A	600 x 600
Path Closed Ahead	TM8-11A	600 x 600
Path Closed	TM8-12A	600 x 600
Pedestrian Hazard	TM8-13A	600 x 600
	TM8-13B	1200 x 300

#### 6.1.2 Pedestrian Management Diagrams

Should the work site require pedestrian controls and direction, refer to an appropriate EQL Generic Traffic Guidance Scheme (TGS), i.e., EQL02-01 to EQL02-04.

# WORKING ON ROADWAYS MANUAL

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## 7 STATIC WORK SITES (PART 3: AGTTM)

Where the Short Term Low Impact clause(s) in section 5 are not appropriate; a Static work site will be required for additional protection. All static worksites SHALL be setup as per an approved TGS(s). Implementation of a TGS must be undertaken by a competent person who holds a current Traffic Management Implementation (TMI) qualification.

***(Ensure that the TGS Reference Number (EQLXX-XX) is recorded on Risk Assessment)***

### 7.1 Speed Reduction Requirements

Static worksite requirements differ depending on specific site conditions, including road speed, geometry and width as well as the distance of the worksite from the travel path. These distances are:

- Work sites that are 6m or greater from the travelled path, do not require speed reduction.
- Work sites greater than 3m but less than 6m from the travelled path, require a traffic speed of 80km/h.
- Work sites greater than 1.2m but less than 3m of the travelled path, require a traffic speed of 60km/h.
- Work sites less than 1.2m of the travelled path, require a traffic speed of 40km/h.

To ensure the correct Generic TGS is chosen for a particular worksite, refer to the TGS selection guide on Page 30 of this document.

Traffic only needs to be reduced to 40km/h when WORKERS ON FOOT are within 1.2m of the trafficable lane. Accessing trucks etc... does not count as work area and should be done under Part - 5.2 Work Between Gaps in Traffic.

Traffic cones and temporary bollards required for indicating the travel path:

- Traffic Cones (minimum height per application)
  - 450mm – for road applications where traffic speed does not exceed 60km/h including footpaths, shared paths, and bicycle paths
  - 700mm – for road applications where traffic speeds exceed 60km/h
  - 900mm – may be used on category 3 roads in lieu of 700mm cones.
- Temporary Bollards (minimum height per application)
  - 900mm – for all applications in lieu of traffic cones

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## 7.2 Star Pickets (QGTMM Part 3 Clause 6.12)

Star pickets have many uses at roadwork sites, including:

- as supports for temporary fencing and flagging
- as supports for delineators (reflectors), and
- as sign supports or to stabilise temporary signs.

It is important that careful consideration is given to how star pickets are used because if used incorrectly they may present a safety hazard.

The use of star pickets must be supported by a risk assessment

In addition, the use of star pickets is subject to the following:

- Star pickets must be fitted with end caps to reduce the potential of piercing injuries.
- Star pickets must be inspected regularly as per the inspection requirements for temporary traffic management devices, and if they are bent or damaged, they must be replaced or repaired immediately.
- Star pickets must be installed vertically, as installing them at an angle may result in a spearing hazard.
- Star pickets are generally black but may be any colour.
- The presence of underground services must be checked before installing star pickets.
- Star pickets must not be used to support standard signposts by placing a post over the top of an installed star picket.

## 7.3 Multi Message Signage

All mutli frames must now be completely filled, consisting of two 600x600 panels and one 1200x300 panel or: one 1200x600 panel and one 1200x300 panel. Up to ONE BLANK YELLOW RETRO-REFLECTIVE PANEL may be used. Where only one panel is needed such as a workman; a Standalone sign is the preferred method. *Examples below.*



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## 8 POWER SUPPLY AUTHORITY SPECIFIC

### 8.1 Short Term Works for Power Supply Authorities

#### 8.1.1 Raising or lowering overhead wires between poles across a road with very light traffic

- (a) A site-specific hazard assessment is required to be performed at each site and documented on the appropriate HazChat Form to determine the most appropriate traffic management process to be adopted.
- (b) In some instances where this work is being performed on roads with very light traffic or residential streets it may be performed between gaps in traffic, provided work vehicles and equipment are parked clear of moving traffic lanes and a look out person is posted to warn workers on foot of approaching traffic with sufficient notice for the workers to vacate roadway before its arrival.

If the hazard assessment deems it not safe to use the proposed adoption, then the appropriate Traffic Guidance Scheme utilising Traffic Controllers must be selected and implemented.

### 8.2 Energy Mobile Generators

Generally, mobile generators will be placed adjacent to or off the road at a worksite the day prior to scheduled work and will be included in the worksite's traffic control plan once work commences.

When the generator is not in use and parked legally, no signage is required. For all other situations where the generator is not in use, refer to the TGS selection guide for a suitable TGS.

### 8.3 Power Supply Authorities Emergency and Unplanned Works

#### 8.3.1 General (*Part 10: AGTTM*)

For workers attending emergency work sites it is recognised that it will generally not be possible to set up TTM that is fully compliant with the design guidance provided in Part 3. In these situations, there remains a requirement to ensure the safety of road workers and the public as much as is reasonably practicable.

This section specifies procedures to make an environment as safe as possible for road workers and road users prior to fully compliant TTM being installed.

In the AGTTM works conducted in an emergency are those:

*“Works resulting from an actual or imminent threat to the safety of persons or traffic or the disruption of an essential service, or which destroy or damage, or threaten to destroy or damage, any infrastructure, property or the environment arising from a situation relating to the presence of road infrastructure, utility services or public transport infrastructure within the road reserve.”*

Situations which typically require the use of these procedures include those situations involving:

- Live power or Gas leaks.
- Critical repairs to essential services.
- Substantial road damage.
- Large objects on the road.



# WORKING ON ROADWAYS MANUAL

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## 8.3.2 Initial response (*Part 10: AGTTM, Clause 5.2*)

While initial attendance at an incident site will often be by police, fire or emergency services personnel trained and equipped for incident management; there are some cases where you may be the first responder.

When first arriving to the emergency the following steps should be actioned as soon as possible:

- Assess the area for any risks/hazards you can identify.
- Delineate and isolate the hazard to minimise any risk to traffic and pedestrians.
- Once the hazard is isolated, place out any advance notification you can to help warn approaching public of the working area.
- Maintain a safe area until Interim Responders arrive.

The initial response will typically be achieved using whatever equipment / devices are available to the first responders. This treatment should be increased as quickly as possible to those recommended in section 5.3.3 as further equipment and resources are available at the site.

## 8.3.3 Interim response (*Part10: AGTTM, Clause 5.3*)

Where an electrical entity work crew, with a TMI authorisation and appropriate road signage, is to provide the initial attendance or is to take over from police or other emergency service units, the following shall apply to Category 1 and Category 2 roads:

### (a) Minor partial road closure

For closures where traffic can continue to flow in both directions (two-way road) or at least one lane in each direction is open (divided road) a vehicle that has a pair of yellow beacon lamps or an illuminated flashing arrow sign (Part 5: Clause 3.4) is required.

- Refer to TGS EQL01-01

### (b) Major partial road closure

For closures where traffic is restricted to one-way movement past the incident site, the vehicle as per (a) above and Traffic Controllers shall be provided at both ends of the site. Where the posted speed limit is more than 60 km/h, high priority shall be given to the provision of advance signs.

- i. Traffic Hazard; or Electric Wires Down; and
  - ii. once traffic control is available, Traffic Controller Ahead / PREPARE TO STOP
- Refer to TGS EQL01-02

### (c) Complete road closure

The requirements of (b) above together with barricades across the entire roadway shall be provided. As far as practicable, the positioning of the closure point in (b) and the barricade position in (c) should be at least a distance in metres equivalent to the posted speed from the incident site (eg in a 80km/h zone the distance should be 80m from the incident site), and Traffic Controller positions placed so as to be visible to approaching traffic for a distance in metres equivalent to at least twice the posted speed.

- Refer to TGE EQL01-03

On Category 3 roads it is expected that the initial response may be similar to that detailed in Section 5.2, but the higher level of resources and devices typically available would mean that for the interim and follow up response, there would generally be detailed contingency plans in place. This is due to these higher risk environments supporting the increased availability of emergency responders, the earlier visibility of any incident through constant monitoring, and pre-developed contingency plans. Reference to the RIM should be made for the appropriate emergency response for Category 3 roads.

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## **5.6.1. Follow up protection (*Part 10: AGTTM, Clause 5.4*)**

Follow-up protection shall comprise the setting up of a static work site TGS.

Follow-up protection is necessary for sites where it is clear that the closure or part closure will be required for a period longer than 4 hours, and appropriate resources shall be deployed.

Should the extent of the emergency / event require extended periods for the restoration of supply and the unavailability of traffic control resources subject to the hazard assessment process, a static work site TGS or Emergency Diagram be applied.

# WORKING ON ROADWAYS MANUAL

## 9 COMMON TABLES REFERRED TO IN THIS MANUAL

**Table 9.1 Sign Spacing** (Part 3: AGTTM, Table 2.2)

Speed (km/h)	Distance (m)
≤55	15
56 - 65	45
≥ 66	Equal to the speed (km/h)

**Table 9.2 Recommended Site Distances to a traffic control device** (Part 3: AGTTM, Table 2.3)

Speed (km/h)	Distance (m)
≤ 45	50
46 - 55	70
56 - 65	90
≥ 66	Two times the speed (km/h)

**Table 9.3 Minimum Lane Widths** (Part 3: AGTTM, Table 2.5)

Criteria	Lane Width (m)
<b>General lane widths</b>	
≤60km/h	Minimum 3.0*
70,80 or 90 km/h	Minimum 3.2*
≥100 km/h	Minimum 3.4*
Curve with radius 100-250 m	Add curve widening of 0.5 m per lane
Curve with radius <100 m	In addition to the curve widening of 0.5 m per Lane, consider the swept path of long vehicles (For example, buses, trams)
Two-way residential street	Minimum of 5.5 (sum both ways)
<b>Shuttle flow operation</b>	
Shuttle flow with active control (by traffic Controllers or PTCDs)	Minimum 3.0*
Shuttle flow, without active control on residential streets, includes no control or the use of GIVE WAY and ONE WAY signs.	Minimum 3.0* and Maximum 3.5 to ensure vehicles take turns using a single lane

\*Temporary minimum lane widths are not to be greater than existing lane widths. This minimum Temporary lane width does not apply to curves of radius 250 m or less, or locations where there are fixed vertical obstructions such as fences or safety barriers with 30cm of the edge of the lane on one or both sides. Where these conditions apply, consider widths wider than those listed previously to accommodate large vehicles. The speed to be used when considering lane width requirements is the speed limit (permanent or reduced) which is applicable to that length of road.

# WORKING ON ROADWAYS MANUAL

**Table 9.4 - Sight distance for lookout person (Part 5: AGTTM, Table 4.3)**

Speed (km/h)	Distance (m)*
≤ 45	80
46 - 55	100
56 - 65	120
66 - 75	140
76 - 85	160
86 - 95	180
96 - 105	200
≥ 106	220

*Note: \*These distances are based on a maximum distance of 3.5 m between road workers' location and their escape to a shoulder or median. For longer escape routes additional sight distance will be required and the sight distance provisions for the Lookout Protection Method, in the Guideline for Traffic Management at Works on Roads shall be applied.*

**Table 9.5 Sight distance to the vehicle mounted warning device – lookout person not required (works in travel path) (Part 5: AGTTM, Table 4.2)**

Speed (km/h)	Distance (m)
≤ 45	225
46 - 55	275
56 - 65	335
66 - 75	390
76 - 85	445
86 - 95	500
96 - 110	555
> 110	A lookout person is required

**Table 9.6 Sight distance to the vehicle mounted warning device (Part 5: AGTTM, Table 5.2)**

Speed (km/h)	Distance (m)
≤ 45	80
46 - 55	100
56 - 65	120
66 - 75	140
76 - 85	160
86 - 95	180
96 - 105	200
> 105	220

# WORKING ON ROADWAYS MANUAL

**Table 9.7 'Past' spacing of traffic cones, bollards, and post-mounted delineators (Part 3: AGGTM, Table 5.3)**

Purpose and usage	Speed (km/h)	Recommended maximum spacing (m)
<b>For traffic cones and bollards**</b>		
All purposes	≤55	4
	56 - 75	12
	≥76	18
Protecting freshly painted lines	56 - 75	24
	≥76	60
Centreline on approach to a traffic controller position	All speeds	4
Crossover for contraflow (e.g. through the median)	All speeds	2
Taper at traffic control station	All speeds	4
<b>For post-mounted delineators</b>		
All purposes	≤75	24
	≥76	60

*\*\*Consider whether cyclists are using the road shoulder or bike lane and whether an appropriate alternative facility be provided before installing traffic cones or bollards in the area. Where possible, place bollards to maintain a safe cycling facility.*

**Table 9.8 Sight distance to both the vehicle mounted warning device and worker - Short term works outside a traffic lane – but within 1.2 m of a traffic lane – lookout not required (Part 5: QGTTM, Table 5.4.5(b))**

Speed (km/h)	Distance (m)
≤ 45	140
46–55	180
56–65	210
66–75	250
76–85	280
86–95	320
96–110	350
> 110	A lookout person is required

# WORKING ON ROADWAYS MANUAL

## 10 GENERIC TGS SELECTION GUIDES

### 10.1 Main TGS Selection Tables

PLANNED WORKS							
Are the works within the Travelled Path?	YES	Can two way traffic be maintained?	YES	Are workers on foot or small items of plant within 1.2m of the travel path?	YES	40km/h	EQL08-01
						50km/h	EQL08-02
						60km/h	EQL08-03
						70km/h	EQL08-04
			None of the Above		A site specific TGS is required for works		
			NO	40km/h	EQL07-01		
					50km/h	EQL07-02	
					None of the Above		A site specific TGS is required for works
	NO	Is the work area: less than 60m traffic volume 40vph or less, with clear visibility for 150m min?	YES	40km/h	EQL09-01		
				50km/h	EQL09-02		
			None of the Above		A site specific TGS is required for works		
			NO		A site specific TGS is required for works		
	YES			EQL10-01 - refer to section 5.6 - Frequently Changing Work Area Outside of a Traffic Lane			
	NO	Are works moving frequently between successive locations?	NO	How far from the travelled path are the works?	Within 1.2m	40km/h	EQL05-01
						50km/h	EQL05-02
60km/h						EQL05-03	
70km/h						EQL05-04	
80km/h						EQL05-05	
90km/h						EQL05-06	
100km/h						EQL05-07	
110km/h						EQL05-08	
Between 1.2m & 3m					40-50km/h	EQL04-04	
					60-70km/h	EQL04-05	
					80-110km/h	EQL04-06	
Between 3m & 6m					40-50km/h	EQL04-01	
					60-80km/h	EQL04-02	
	90-110km/h	EQL04-03					
6m or greater		EQL03-01					

GENERATOR PLACEMENT				
Is the Generator parked within the shoulder or verge?	YES	40km/h	EQL06-01	
		50km/h	EQL06-02	
		60km/h	EQL06-03	
		None of the above		A site specific TGS is required for works
	NO		A site specific TGS is required for works	

INCIDENT RESPONSE		
How much of the Roadway is affected by the incident?	Part Lane	EQL01-01
	One Lane	EQL01-02
	All Lanes	EQL01-03

# WORKING ON ROADWAYS MANUAL

## 10.2 Side Road TGS Selection Table

SIDE ROADS							
Is there a speed reduction on the main selected TGS?	YES	Is the Side Road located within the closure?	YES	Is the Side Road located on the same side as the closure?	NO	40km/h	EQL11-02 Option 12
						50km/h	EQL11-02 Option 11
						60km/h	EQL11-02 Option 10
						70km/h	EQL11-02 Option 9
						Unposted (Rural)	EQL11-02 Option 8
						100km/h	EQL11-02 Option 7
						None of the above	A site specific TGS is required for works
			YES	NO	40km/h	EQL11-02 Option 6	
					50km/h	EQL11-02 Option 5	
					60km/h	EQL11-02 Option 4	
					70km/h	EQL11-02 Option 3	
					Unposted (Rural)	EQL11-02 Option 2	
					100km/h	EQL11-02 Option 1	
					None of the above	A site specific TGS is required for works	
	NO	NO	40km/h	EQL11-03 Option 18			
			50km/h	EQL11-03 Option 17			
			60km/h	EQL11-03 Option 16			
			70km/h	EQL11-03 Option 15			
			Unposted (Rural)	EQL11-03 Option 14			
			100km/h	EQL11-03 Option 13			
			None of the above	A site specific TGS is required for works			
NO	Is the works for Generator Storage TGS?	NO	40km/h	EQL11-04 Option 24			
			50km/h	EQL11-04 Option 23			
			60km/h	EQL11-04 Option 22			
			70km/h	EQL11-04 Option 21			
			Unposted (Rural)	EQL11-04 Option 20			
			100km/h	EQL11-04 Option 19			
			None of the above	A site specific TGS is required for works			
	YES	NO	40km/h	EQL11-05 Option 27			
			50km/h	EQL11-05 Option 26			
			60km/h	EQL11-05 Option 25			
			None of the above	A site specific TGS is required for works			

## 11 EQL GENERIC TRAFFIC GUIDANCE SCHEMES (TGS)

OPS-FORM-025 TRAFFIC GUIDANCE SCHEME (QLD) | BEST PRINTED IN A3 SIZE

### ENERGY QUEENSLAND

WORKING ON ROADWAYS MANUAL

**PROJECT/SITE OVERVIEW**

Project/Site Description: ENERGY QUEENSLAND - WORKING ON ROADWAYS MANUAL

Location of Works: VARIOUS LOCATIONS, VARIOUS SUBURBS IN QLD

Anticipated Commencement Date: 2024 - 2025  
 Estimated Duration of Works: 1 YEAR  
 Working Hours: AS PER PERMIT

**CLIENT DETAILS**

Client Name: ENERGY QLD  
 Client Contact Name: TBA  
 Client Contact Number: TBA  
 PO/Contract Number: TBA

Site Contact: TBA  
 Site Contact Number: TBA

**SCOPE OF WORKS**

This Traffic Management Plan has been developed to allow the client to conduct works at the above location and to display a commitment to Traffic and Pedestrian Management, Reporting, and Reviewing. These works will include, but not limited to:  
**VARIOUS WORKS - SCHEDULED MAINTENANCE WORKS, NEW WORKS, EMERGENCY WORKS**

**LOCALITY MAP**

THIS DOCUMENT HAS BEEN DEVELOPED IN ACCORDANCE WITH THE INFORMATION SUPPLIED BY OUR CLIENT: ENERGY QLD. THE SIGNING TMD IS NOT RESPONSIBLE FOR ANY OMISSIONS OR ERRORS IN THE BASE INFORMATION SUPPLIED BY THE ABOVE MENTIONED "CLIENT" WHILE DUE CARE HAS BEEN TAKEN IN THE PREPARATION OF THIS DOCUMENT, TRAFFIC AND ON SITE CONDITIONS AT THE TIME OF THE WORKS MAY VARY FROM THOSE ESTABLISHED WITHIN THIS DOCUMENT. THE PRINCIPAL CONTRACTOR IS RESPONSIBLE FOR UNDERTAKING AN EVALUATION OF THE SITE AND TRAFFIC CONDITIONS AGAINST THOSE OUTLINED WITHIN THE TMP AND IN THE TGS'S AS APPROPRIATE. WHERE CONDITIONS VARY FROM THOSE DOCUMENTED, ADDITIONAL INPUT FROM A TMD (TRAFFIC MANAGEMENT DESIGNER) SHOULD BE SOUGHT.

<p><b>EVOLUTION</b>                  Evolution Traffic Management                  Unit 1/29 Armada Place, Banyo                  Queensland 4014                  Email: QLDplans@evolutiongroup.com.au</p>	<p><small>APPROVED BY TM DESIGNER:</small>                  Anthony Abrahamson  <small>DATE: 03/03/2024</small></p> <p><small>EVOLUTION JOB NUMBER:</small>  <b>440413320</b></p> <p><small>TMR REGISTRATION NUMBER: 0323</small></p> <p><b>TITLE PAGE</b>    <small>REV</small> 03    <small>PAGE</small> 01 of 45</p>
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## IMPLEMENTATION INSTRUCTIONS

Before work commences, signs and devices at the approaches to and within the work area SHALL be implemented in accordance with the approved Traffic Guidance Schemes and the Traffic Control Companies Safe Work Method Statements, in the following sequence:

- 1) Traffic Controllers implementing signage are to ensure all signage is available for implementation prior to shift.
- 2) Signs & devices in side streets leading into the works are to be implemented first. Where required, detours are to be in place before commencing any closures.
- 3) All signage on arterial and main road alignments to be implemented with the flow of traffic.
- 4) Signs are to be implemented in all non affected lane(s) first and all conflicting signs to be covered.
- 5) Signs in the affected lane to be implemented; Taper, Speed Reduction, Safety buffer (if applicable), and Delineation to be implemented with the traffic flow. Conflicting signs to be covered in process.
- 6) Ensure signs & devices are correct before works commence.
- 7) Once works have finished, Traffic Control are to pick up delineation and taper's in reverse. Then pick up advance warning signs with the flow of traffic.

## RECORDING & MONITORING

Regular inspections of traffic control devices SHALL be carried out a minimum of twice daily and recorded in The Daily Traffic Diary. These records SHALL be available for inspection during the project. These records will be held on site by The Client. Details of all changes in traffic movements shall be recorded and maintained throughout the construction period and submitted within 7 days from the date of practical completion. In the event of a traffic related incident with in the site, The Client SHALL immediately notify the principal's representative, the police, and any necessary emergency services.

## PEDESTRIAN & CYCLIST MANAGEMENT

All pedestrian & cyclist control measures, for the duration of the construction works will be monitored as required for effectiveness & improvements. Appropriate warning signage and directional signage will be in place and monitored throughout the works as per the provided TGS's attached to this document. Where current documented control measures are ineffective, A TMD qualified person(s) should be contacted to suggest changes.

## GENERAL NOTES

- The TMD preparing this plan has ensured it complies with the Queensland MUTCD Part 3 (Nov 2020), AGTTM (Dec 2019), QGTTM (Nov 2020) & AS 1742 (Dec 2019). Any unapproved variations to the design will negate their liability. Variations and amendment to this TGS are to be recorded on this TGS with the changes noted, along with the date and time of the change and the accreditation details of the TMD making the change.
- The attached TGS's SHALL be read in conjunction with this notes page and the associated risk assessments and an on site risk assessment SHALL be performed before any implementation works takes place.
- It is the Clients responsibility to ensure they have a copy of the permits (in date) for the closure being implemented.
- This TGS SHALL only be implemented by a competent person(s) with a current Traffic Management Implementation (TMI) qualification.
- A toolbox talk is to take place before works commencing.
- Work Site Safety Traffic Management Checklist to be filled out prior to implementation, and upon completion.
- Traffic Controllers to identify and make note of escape routes prior to commencement of works.
- Hand held UHF radios are to be utilised where required to communicate between traffic control & site vehicles.
- Principal Contractor to notify local Emergency Services in advance of commencing works.
- QDTRM TMC are to be contacted 1 hour before any works commence within a QDTRM corridor - 13 19 40.
- Advance signs SHALL be mounted at a minimum height of 200mm displayed as prominently as possible by selecting the longitudinal location of the sign for best sight distance for approaching traffic. Signs continuously required for works which will be in progress for periods longer than 2 weeks should be erected in a permanent manner, e.g. on posts sunk into the ground, and duplicated on the right side of the road.
- Traffic volumes should be monitored throughout the implementation of the TGS(s). In the event queue lengths become unmanageable, works should cease if possible and traffic cleared before recommencing.

## SITE SPECIFIC TGS NOTES

Where this symbol appears, please refer back to the concating note below.

- 1) No Works are to commence on site until this Traffic Guidance Scheme is installed in full and confirmed by the Traffic Supervisor.
- 2) Where physical constraints exist on site the sign spacing is to be altered within tolerance allowance, as per AGTTM Part 6, Clause 6.8.
- 3) Signage heights and distance from traffic SHALL be followed (as per AS 1742.3) -
  - Short-term Built up areas (<1 shift)
    - 200 mm above the level of the nearest lane and the sign shall be horizontal.
    - Behind the kerb if visible to oncoming traffic and not obstructing pedestrians, otherwise on the pavement as near as practicable to the kerb without the sign becoming obscured and without obstructing moving traffic. Signs should not be located in operating bicycle lanes or in shoulders if used by cyclists.
  - Short-term Rural areas (<1 shift)
    - 200 mm above the level of the nearest lane and the sign shall be horizontal.
    - On the road shoulder a minimum of 1 m clear of the travelled path.
- 4) Installation and removal of control devices is to be carried out under "Work outside of Traffic lane" as per AGTTM Part 5, Clause 5, "Frequently changing work area outside Traffic lane" as per AGTTM Part 5, Clause 5.3 and "Frequently changing work area - In lane" as per AGTTM Part 5, Clause 4.4.
- 5) Installation Process (AGTTM Part 6, Clause 6.3)
  - The general procedure for setting up a site is to:
    - 1) locate the work area using GPS, landmarks, side streets, chainage
    - 2) install devices as outlined in the TGS for side streets first
    - 3) install devices as outlined in the TGS for the non-working lane (un-affected direction)
    - 4) install devices as outlined in the TGS for the working lane (affected direction) to complete installation.
- 6) All sign spacings and taper lengths will be noted on the TGS and should be in accordance with AGTTM Part 3.
- 7) Where indicated signs are preferred to be Multi Message signs, these SHALL be implemented as per AS 1742.3.
- 8) Retroreflective material for signs SHALL meet Class 400T as specified in AS/NZS 1906.1 (as per AS 1742.3, Clause 4.4.2).
- 9) QUEUED TRAFFIC AHEAD signage SHALL be implemented as per AGTTM Part 3, Clause 4.8 & Clause 5.10. These take into account predicted queue lengths and repeater signage. Additional information is provided in the QGTTM to allow the primary PREPARE TO STOP signage to be replaced with QUEUED TRAFFIC AHEAD.
- 10) PTSS Type-1 should be used in lieu of traffic controllers using a Stop / Slow bat on all roads with an AADT of over 500 vpd and a speed limit of 70km/h or greater (As per AGTTM Part 3, Clause 5.10.1). Traffic controllers to be positioned away from the live traffic lane with a clear, safe and defined escape route. In the event of signal failure manual control to be used, this will require another traffic controller to change signage on approach until signals are fixed or alternate signals arrive on site.
- 11) "Workman" symbolic signage SHALL be covered or removed when workers are not visible to traffic.
- 12) "Workman" & "40km/h" signage to be removed after work hours unless there is a traffic safety reason, this will be documented and signed off by a TMD.
- 13) Local Access SHALL be considered during each closure, access to local residents and businesses will be kept available throughout the all stages of works unless there is prior written approval.
- 14) Site specific risk assessment shall be performed before any implementation to ensure that works are applicable to the Traffic Guidance Scheme and selection process has been successful, if the selection process does not select the correct closure type or road conditions a TMD shall be contacted for a site specific TGS to be designed for the works.
- 15) Minimum lane width shall be 3m and when delineation is present a further 0.3m to the delineation device (as per AGTTM, Part 3, Table 2.5 & Table 5.2)
- 16) Minimum lane width shall be 3.5m and when delineation is present a further 0.3m to the delineation device (as per AGTTM, Part 3, Table 2.5 & Table 5.2)
- 17) Cone spacing shall be 4m spacing as per AGTTM, Part 3, Table 5.3
- 18) Cone spacing shall be 12m spacing as per AGTTM, Part 3, Table 5.3
- 19) Cone spacing shall be 18m spacing as per AGTTM, Part 3, Table 5.3
- 20) Traffic Controller Ahead/Prepare to Stop sign SHALL be used when a traffic controller is attending traffic. It SHALL be installed at the greater value of 20m in advance of the traffic control position. The sign SHALL NOT be displayed when the traffic controller is not in attendance controlling traffic. (QGTTM Part 3 Clause 4.8 & Part 6 Clause 7.3 d)

## LEGEND:

	ACCREDITED TRAFFIC CONTROLLER with Approved Sign (Slow Bat)		LATERAL HAZARD MARKER with TS-7 (Vertical) or TS-4 (Horizontal)		PROPOSED WORK AREA as advised by Client
	ACCREDITED TRAFFIC CONTROLLER with Approved PTSS Type-1 (Manual)		TRAFFIC CONES/BOLLARDS per MUTCD AS 1742.3		PROPOSED LANE CLOSURE per AGTTM requirement/ Client request
	APPROVED PORTABLE TRAFFIC SIGNALS PTSS Type 2 (Vehicle-actuated)		PEDESTRIAN ROUTE		EXCLUSION ZONE per AGTTM requirements
	TRAFFIC CONTROL VEHICLE with Illuminated Flashing Arrowboard		POLICE VEHICLE for Advanced Warning		EXISTING W BARRIER/ GUARDRAIL
	TRUCK MOUNTED ATTENUATOR with Illuminated Flashing Arrowboard		POLICE OFFICER for controlling signalised intersections		CONTAINMENT FENCING per AS 1742.3, Class 4 & 5 AGTTM, Part 3, Clause 5.3.2

## Ongoing Actions Responsibilities Identified via Risk Assessment

The below table details ongoing actions required for the safe operation of this TGS

Residual Risk/s	Further Actions Required	Responsible Person/s
- Possible changes throughout works to ensure minimal delays and impact on traffic.	- Traffic Controller to add details of TGS to risk assessment and document any changes required prior to work commencement.	Traffic Controller Site Supervisor
- Signage / delineation being knocked over during works.	- Signage / delineation checks throughout works to ensure signage is still in good working order while site is active.	Traffic Controller Site Supervisor
- Interaction and possible incident during works / set-up.	- Traffic Controller perform risk assessment before TGS implementation.	Traffic Controller
- Possible noncompliance from traffic.	- Traffic Controller to observe traffic behavior during works, if non compliance behaviour.	TMD Traffic Controller Site Supervisor
- Incorrect scope of works for TGS.	- Traffic Controller and Client to ensure that TGS is applicable to works and control method will suit the needs of all operational needs.	TMD Traffic Controller Site Supervisor Client
- Possible noncompliance from pedestrians.	- Monitor pedestrian detours to ensure that compliance is being demonstrated by the public.	Traffic Controller Site Supervisor
- Signage / delineation being knocked over during works.	- Checks throughout works to ensure control measures are still in good working order and have not been damaged/moved/removed.	Traffic Controller
- Excessive pedestrian traffic past, through or around the works.	- Extra caution should be taken around peak times as increase in foot traffic may change conditions.	Traffic Controller Site Supervisor
- Signage not being clearly visible to oncoming traffic.	- During checks, making sure that lighting, shade and glare conditions still allow for clear visibility.	Traffic Controller
- Traffic parking in front of signage.	- Ensuring that cars parking during site being operational does not hinder sight to signage.	Traffic Controller Site Supervisor
- Obstacles or vegetation blocking signage placement.	- Changing signage placement (confirmation from TMD if outside tolerance) if signage is not visible to oncoming traffic.	Traffic Controller
- Locals entering / exiting driveways	- Traffic Controllers to monitor and assist local access throughout works.	Traffic Controller Site Supervisor
- Local access to driveways and / or street parking.	- Workers to be aware during works not to block driveway access.	Traffic Controller Site Supervisor
- Local access during peaks times Eg. School children.	- Extra care to be taken during peak times, as there will be a increase of access requirements.	Traffic Controller Site Supervisor

		Likelihood				
		Almost certain	Likely	Possible	Unlikely	Rare
Consequence	Catastrophic	Very High	Very High	High	High	Medium
	Major	Very High	Very High	High	Medium	Low
	Moderate	High	High	Medium	Low	Low
	Minor	High	Medium	Low	Low	Low
	Insignificant	Medium	Low	Low	Low	Negligible

## CLIENT: ENERGY QLD

TGS REFERENCE:	REV.	DATE	PAGE(S) NO#	DESCRIPTION	TMD	INIT
EQL01 EQL02 EQL03 EQL04	00	09/12/2021	ENTIRE DOCUMENT	TRAFFIC MANAGEMENT PLAN DEVELOPED FOR ENERGY QLD	832	AA
EQL05 EQL06 EQL07 EQL08 EQL09 EQL10	01	17/02/2022	ENTIRE DOCUMENT	CHANGES MADE TO SELECTION GUIDE, NOTE ADDED ABOUT DUPLICATE SIGNAGE, CONTAINMENT FENCES REMOVED, GENERATOR TGS CHANGED TO COVER VERGE AS PER CLIENT REQUEST	832	AA
	02	29/03/2022	PAGES 18-20	ADDITIONAL TGS'S ADDED	1007	LPT
	03	12/09/2024	ENTIRE DOCUMENT	ANNUAL REVIEW	1007	LPT

## ENERGY QLD - WORKING ON ROADWAYS MANUAL

		TMR REGISTRATION NUMBER: 0323	
Unit 1128 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au		APPROVED BY TMD DESIGNER: Anthony Abrahamson 10/09/2024	
EVOLUTION JOB NUMBER: <b>440413320</b>		REFERENCE ID: REV PAGE <b>NOTES EQ 03 02 of 45</b>	

PLANNING & DESIGN RISK ASSESSMENT										
Road: Example Risk, Assessment		Road Speed: Existing (Existing) Road Speed	Road Category: 1 or 2		Site Risk Rating: High			Date: 28/08/2024		
Risk Source	Event	Consequence	Consequence Rating	Likelihood	Risk Rating	Mitigation/Controls Required	Residual Risk Rating	Further Actions Required	Responsible Person/s	
Inadequate advance signage and delineation	Traffic entering work area and colliding with workers or plant	Injury and possible loss of life of workers and plant can be damaged	Catastrophic	Almost certain	Very High	<ul style="list-style-type: none"> <li>- Correct signage / delineation installed as per TGS.</li> <li>- Ensure sight distance to signage and work site is applicable to the control method.</li> <li>- Delineation is placed correctly as per AGTMM, Part 3, Table 5.2 "Past edge clearance".</li> <li>- A drive through performed before commencement of works to ensure site is visible and correct.</li> </ul>	High	<ul style="list-style-type: none"> <li>- Traffic Controller to add details of TGS to risk assessment and document any changes required prior to work commencement.</li> <li>- Signage / delineation checks throughout works to ensure signage is still in good working order while site is active.</li> </ul>	TMD Site Supervisor Traffic Controller	
Inadequate advance signage and delineation	Traffic entering work area and colliding with workers or plant	Injury and possible loss of life to motorist, motorcycles or cyclists	Catastrophic	Almost certain	Very High	<ul style="list-style-type: none"> <li>- Correct signage / delineation installed as per TGS.</li> <li>- Ensure sight distance to signage and work site is applicable to the control method.</li> <li>- Delineation is placed correctly as per AGTMM, Part 3, Table 5.2 "Past edge clearance".</li> <li>- A drive through performed before commencement of works to ensure site is visible and correct.</li> </ul>	High	<ul style="list-style-type: none"> <li>- Traffic Controller to add details of TGS to risk assessment and document any changes required prior to work commencement.</li> <li>- Signage / delineation checks throughout works to ensure signage is still in good working order while site is active.</li> </ul>	TMD Site Supervisor Traffic Controller	
Poor / inappropriate signing	Failure to navigate through or past the work site	Injury to motorists, motorcyclists or cyclists	Catastrophic	Likely	Very High	<ul style="list-style-type: none"> <li>- Signage to be installed as per AS 1742.3, Clause 4.3.2, Clause 4.3.3 &amp; Clause 4.3.4.</li> <li>- Signage and delineation to be clean and in good working order.</li> <li>- Constant site / sign checks throughout works to ensure signage &amp; delineation is still present and in correct placement (from weather or vandalism).</li> </ul>	High	<ul style="list-style-type: none"> <li>- Traffic Controller perform risk assessment before TGS implementation.</li> <li>- Traffic Controller to observe traffic behavior during works, if non compliance behaviour.</li> <li>- Traffic Controller and Client to ensure that TGS is applicable to works and control method will suit the needs of all operational needs.</li> </ul>	Site Supervisor Traffic Controller	
Poor / inappropriate signing	Failure to navigate through or past the work site	Property damage and other financial losses	Catastrophic	Likely	Very High	<ul style="list-style-type: none"> <li>- Signage to be installed as per AS 1742.3, Clause 4.3.2, Clause 4.3.3 &amp; Clause 4.3.4.</li> <li>- Signage and delineation to be clean and in good working order.</li> <li>- Constant site / sign checks throughout works to ensure signage &amp; delineation is still present and in correct placement (from weather or vandalism).</li> </ul>	High	<ul style="list-style-type: none"> <li>- Traffic Controller perform risk assessment before TGS implementation.</li> <li>- Traffic Controller to observe traffic behavior during works, if non compliance behaviour.</li> <li>- Traffic Controller and Client to ensure that TGS is applicable to works and control method will suit the needs of all operational needs.</li> </ul>	Traffic Controller	
Inappropriately long diversions result in vulnerable road users entering road unsafely	Failure by pedestrians / cyclists to navigate through the work site, or poor route definition through / past the work site	Injury to pedestrians or cyclists	Major	Possible	High	<ul style="list-style-type: none"> <li>- Any diversion to be reduced down to the most practicable route. This may mean adding more Traffic Controllers onsite to assist pedestrians or even hold traffic for pedestrians to pass works.</li> <li>- Clear travel paths, sufficient signage to inform pedestrians of the detour.</li> <li>- Suitable diversion supplements (gram ramp, etc.)</li> </ul>	Medium	<ul style="list-style-type: none"> <li>- Monitor pedestrian detours to ensure that compliance is being demonstrated by the public.</li> <li>- Checks throughout works to ensure control measures are still in good working order and have not been damaged/moved/removed.</li> <li>- Extra caution should be taken around peak times as increase in foot traffic may change conditions.</li> </ul>	TMD Site Supervisor Traffic Controller	
Parked cars or vegetation restricting sight distance to signage	Traffic unable to react to advance notification signage	Motorists, Motorcycles and cyclists unaware of changed conditions and not conforming to signage	Moderate	Likely	High	<ul style="list-style-type: none"> <li>- Ensure placement of signage is clear to traffic on approach.</li> <li>- Consider sun glare, Tree shadows and possible parked cars while setting up as conditions change throughout the shift.</li> <li>- Consider closing parking bay/shoulder in front of signage to ensure vehicles do not obscure visual.</li> </ul>	Medium	<ul style="list-style-type: none"> <li>- During checks, making sure that lighting, shade and other conditions still allow for clear visibility.</li> <li>- Ensuring that cars parking during site being operational does not hinder sight to signage.</li> <li>- Changing signage placement (confirmation from TMD if outside tolerance) if signage is not visible to oncoming traffic.</li> </ul>	Traffic Controller	
Parked cars or vegetation restricting sight distance to Traffic Controller	Traffic unable to react to Traffic Controller instructions. Possible collision into other public or site.	Injury to Traffic Controller, Motorist, Motorcycle, Cyclist or workers and plant	Catastrophic	Likely	Very High	<ul style="list-style-type: none"> <li>- Any diversion to be reduced down to the most practicable route. This may mean adding more Traffic Controllers onsite to assist pedestrians or even hold traffic for pedestrians to pass works.</li> <li>- Clear travel paths, sufficient signage to inform pedestrians of the detour.</li> <li>- Suitable diversion supplements (gram ramp, etc.)</li> </ul>	High	<ul style="list-style-type: none"> <li>- During checks, making sure that lighting, shade and other conditions still allow for clear visibility.</li> <li>- Ensuring that cars parking during site being operational does not hinder sight to Traffic Controller.</li> <li>- Changing signage placement (confirmation from TMD if outside tolerance) if signage is not visible to oncoming traffic.</li> </ul>	Traffic Controller	
Motorists, motorcycle or pedestrians entering / exiting driveways	Traffic entering work area and colliding with workers or plant	Injury and possible loss of life to workers and public and plant can be damaged	Major	Likely	Very High	<ul style="list-style-type: none"> <li>- Prior notification to residents about works so they are aware of closure timing (letter drop, VMS Boards, Door knock, public advertisements).</li> <li>- Extra Traffic Controllers onsite to monitor and assist driveway traffic (entry and exits).</li> <li>- Workers advised at Toolbox to ensure all driveways are kept clear.</li> </ul>	High	<ul style="list-style-type: none"> <li>- Traffic Controllers to monitor and assist local access throughout works.</li> <li>- Workers to be aware during works not to block driveway access.</li> <li>- Extra care to be taken during peak times, as there will be a increase of a access requirements.</li> </ul>	Site Supervisor Traffic Controller	
Unable to duplicate signage on approach to the worksite	Traffic unaware of advance notification signage	Motorists, Motorcycles and cyclists unaware of changed conditions and not conforming to signage	Moderate	Likely	High	<ul style="list-style-type: none"> <li>- Use tolerances provided to allow modification within the TMI allowable changes to a TGS and place in alternate location.</li> <li>- If double signage is unpracticable then a TMD shall be contacted to assist with amendments.</li> </ul>	Low	<ul style="list-style-type: none"> <li>- Traffic Controller to document the changes made and ensure that any modifications outside TMI ability are approved by TMD</li> <li>- Monitor the changes and ensure signage is not moved or changed from weather or vandalism</li> </ul>	TMD Traffic Controller	
Flashing lights or arrow board on Ute / work vehicle failing	Traffic unaware of work vehicle or exposed workers on foot (installation of traffic arrangements)	Injury and possible loss of life of workers and plant can be damaged	Catastrophic	Likely	Very High	<ul style="list-style-type: none"> <li>- Prestart checks on all plant and lighting to check for compliance and in good working order.</li> <li>- If lights are faulty, replace plant / vehicle.</li> <li>- If lights fail during works, safely park vehicle away from the travelled paths in a safe position and wait for repairs / alternate plant or vehicle.</li> </ul>	Medium	<ul style="list-style-type: none"> <li>- Site operations are to stop if lights / beacons are required for those activities.</li> <li>- Document time and place of failure and once replacement vehicle / plant is utilised on site.</li> <li>- Regular checks on vehicle / plant during shift.</li> <li>- If required, ensure battery is charged sufficiently</li> </ul>	Site Supervisor Traffic Controller	

CLIENT: ENERGY QLD				
TGS REFERENCE:	REV.	DATE	PAGE(S) NO#	DESCRIPTION
EQL01 EQL02 EQL03 EQL04	00	09/12/2021	ENTIRE DOCUMENT	TRAFFIC MANAGEMENT PLAN DEVELOPED FOR ENERGY QLD
EQL05 EQL06 EQL07 EQL08	01	17/02/2022	ENTIRE DOCUMENT	CHANGES MADE TO SELECTION GUIDE, NOTE ADDED ABOUT DUPLICATE SIGNAGE, CONTAINMENT
EQL09 EQL10	02	29/03/2022	PAGES 18-20	FENCES REMOVED, GENERATOR TGS CHANGED TO COVER VERGE AS PER CLIENT REQUEST
	02			ADDITIONAL TGS ADDED
	03	12/09/2024	ENTIRE DOCUMENT	ANNUAL REVIEW

**ENERGY QLD - WORKING ON ROADWAYS MANUAL**

**EVOLUTION**  
Evolution Traffic Management  
Unit 1/29 Armada Place, Banyo  
Queensland 4014  
Email: QLDplans@evolutiongroup.com.au

TMR REGISTRATION NUMBER: 0323

APPROVED BY TMD SIGNER:  
Anthony Abramson  
CONTRACT NUMBER:  
EVOLUTION ASSIGNMENT:  
**440413320**

REFERENCE ID: Risk Assessment  
REV# 03  
PAGE: 03 of 45

# WORKING ON ROADWAYS MANUAL

PLANNED WORKS							
Are the works within the Travelled Path?	YES	Can two way traffic be maintained?	YES	Are workers on foot or small items of plant within 1.2m of the travel path?	YES	40km/h	EQL08-01
						50km/h	EQL08-02
						60km/h	EQL08-03
						70km/h	EQL08-04
						None of the Above	A site specific TGS is required for works
			NO	40km/h	EQL07-01		
						50km/h	EQL07-02
						None of the Above	A site specific TGS is required for works
			NO	Is the work area: less than 60m traffic volume 40vph or less, with clear visibility for 150m min?	YES	40km/h	EQL09-01
						50km/h	EQL09-02
	None of the Above	A site specific TGS is required for works					
	NO	A site specific TGS is required for works					
		EQL10-01 - refer to section 5.6 - Frequently Changing Work Area Outside of a Traffic Lane					
	NO	Are works moving frequently between successive locations?	NO	How far from the travelled path are the works?	Within 1.2m	40km/h	EQL05-01
						50km/h	EQL05-02
						60km/h	EQL05-03
						70km/h	EQL05-04
						80km/h	EQL05-05
						90km/h	EQL05-06
						100km/h	EQL05-07
110km/h						EQL05-08	
Between 1.2m & 3m					40-50km/h	EQL04-04	
					60-70km/h	EQL04-05	
					80-110km/h	EQL04-06	
Between 3m & 6m					40-50km/h	EQL04-01	
					60-80km/h	EQL04-02	
					90-110km/h	EQL04-03	
6m or greater	EQL03-01						

# WORKING ON ROADWAYS MANUAL

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GENERATOR PLACEMENT			
Is the Generator parked within the shoulder or verge?	YES	40km/h	EQL06-01
		50km/h	EQL06-02
		60km/h	EQL06-03
		None of the above	A site specific TGS is required for works
NO		A site specific TGS is required for works	

INCIDENT RESPONSE		
How much of the Roadway is affected by the incident?	Part Lane	EQL01-01
	One Lane	EQL01-02
	All Lanes	EQL01-03

## INTERIM RESPONSE AT AN INCIDENT SITE : MINOR PARTIAL CLOSURE (AGTMM, PART 10, CLAUSE 5.4 & FIGURE 5.1)

For closures where traffic can continue to flow in both directions (two-way road), or at least one lane in each direction is open (divided road), a vehicle with a vehicle-mounted warning device shall be placed to shadow the closure at one or both ends of the incident site as necessary.

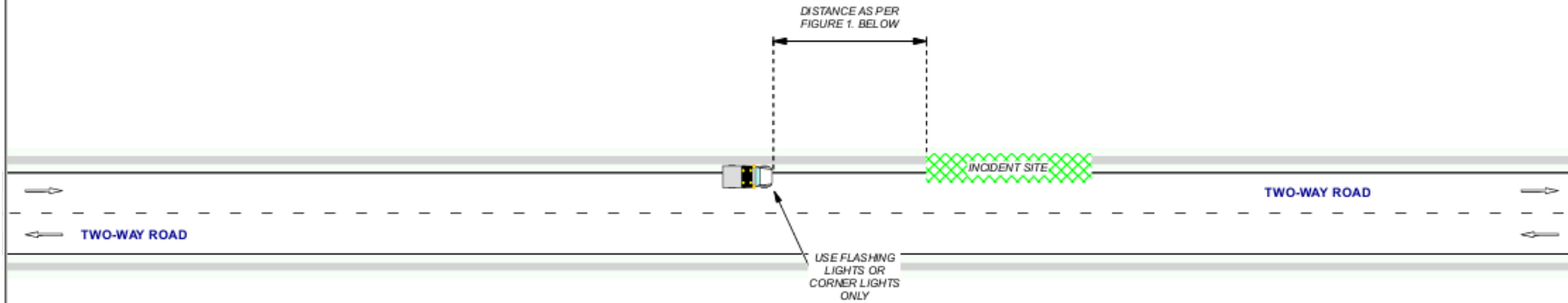


Figure 1:

Speed (km/h)	Distance (m)
40	15 (Tolerance 13.5 - 16m)
50	15 (Tolerance 13.5 - 16m)
60	45 (Tolerance 40.5 - 55m)
70	70 (Tolerance 63 - 87.5m)
80	80 (Tolerance 72 - 100m)
90	90 (Tolerance 81 - 112.5m)
100	100 (Tolerance 90 - 125m)
110	110 (Tolerance 99 - 137.5m)

<b>CLIENT:</b> ENERGY QLD		<b>EQL01-01 MINOR PARTIAL CLOSURE</b>			<b>APPROVED BY TMR DESIGNER:</b> Anthony Abrahamson GUSTAF 540 OPS 033	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> . IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. <b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b>		<b>LOCATION:</b> VARIOUS LOCATIONS	<b>TERM:</b> SHORT	<b>ROAD TYPE:</b> TWO-WAY	<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplan@evolutiongroup.com.au	
<b>DRAW NORTH ARROW</b>	<b>SUBURB:</b> VARIOUS SPEEDS	<b>1ST CROSS ST:</b> TWO-WAY ROADS	<b>POSTED SPEED:</b> VARIOUS SPEEDS	<b>OPERATION:</b> EMERGENCY RESPONSE	<b>TMR REGISTRATION NUMBER:</b> 0323	
	<b>GPS/CHAINAGE:</b> -	<b>DATE OF REVIEW:</b> 12/09/2024	<b>TRAVELLED PATH:</b> PAST	<b>AADT:</b> >1000	<b>EVOLUTION JOB NUMBER:</b> <b>440413320</b>	
					<b>REFERENCE ID:</b> EQL01-01	<b>REV:</b> 03
						<b>PAGE:</b> 06 of 45

## INTERIM RESPONSE AT AN INCIDENT SITE : MAJOR PARTIAL CLOSURE (AGTMM, PART 10, CLAUSE 5.4 & FIGURE 5.1)

For closures where traffic is restricted to one-way movement past the incident site, a vehicle with a vehicle-mounted warning device shall be placed to shadow the closure at one or both ends of the incident site as necessary, and Traffic Controllers shall be provided at both ends of the site. Where the posted speed limit is more than 60 km/h, high priority shall be given to the provision of advance signs

- i. TRAFFIC HAZARD
- ii. Traffic Controller Ahead / PREPARE TO STOP

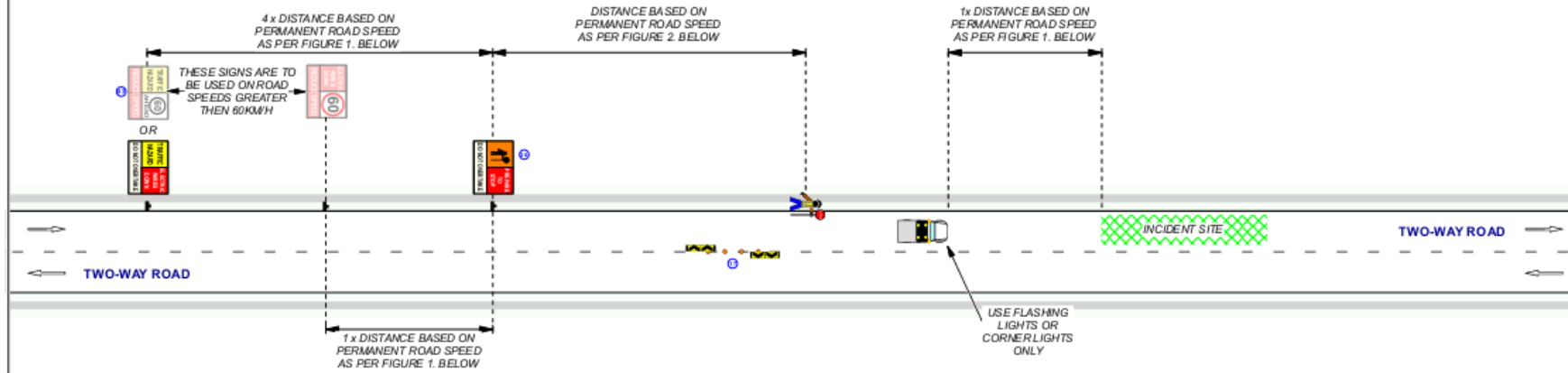


Figure 1:

Speed (km/h)	Distance (m)
40	15
50	15
60	45
70	70
80	80
90	90
100	100
110	110

Figure 2:

Speed (km/h)	Distance (m)
40	50 minimum
50	70 minimum
60	90 minimum
70	140 minimum
80	160 minimum
90	180 minimum
100	200 minimum
110	220 minimum

<b>CLIENT: ENERGY QLD</b>		<b>EQL01-02 MAJOR PARTIAL CLOSURE</b>	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**	<b>NOTES EQ</b>	LOCATION: VARIOUS LOCATIONS SUBURB: VARIOUS SPEEDS 1ST CROSS ST: TWO-WAY ROADS 2ND CROSS ST: - GPS/CHAINAGE: - DATE OF REVIEW: 12/09/2024	TERM: ROAD TYPE: TWO-WAY POSTED SPEED: VARIOUS SPEEDS OPERATION: EMERGENCY RESPONSE TRAVELLED PATH: PAST AADT: >1000
<b>DRAW NORTH</b> <b>ARROW</b>	<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au	TMR REGISTRATION NUMBER: 0321	APPROVED BY TM DESIGNER: Anthony Abrahamson 02194116010 EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: <b>EQL01-02</b> REV: 03   PAGE: 07 of 45

## INTERIM RESPONSE AT AN INCIDENT SITE : COMPLETE CLOSURE (AGTTM, PART 10, CLAUSE 5.4 & FIGURE 5.1)

A vehicle with a vehicle-mounted warning device shall be placed to shadow the closure at one or both ends of the incident site as necessary and Traffic Controllers shall be provided at both ends of the site.  
Where the posted speed limit is more than 60 km/h, high priority shall be given to the provision of advance signs  
i. TRAFFIC HAZARD  
ii. Traffic Controller Ahead / PREPARE TO STOP  
together with barricades across the entire roadway shall be provided

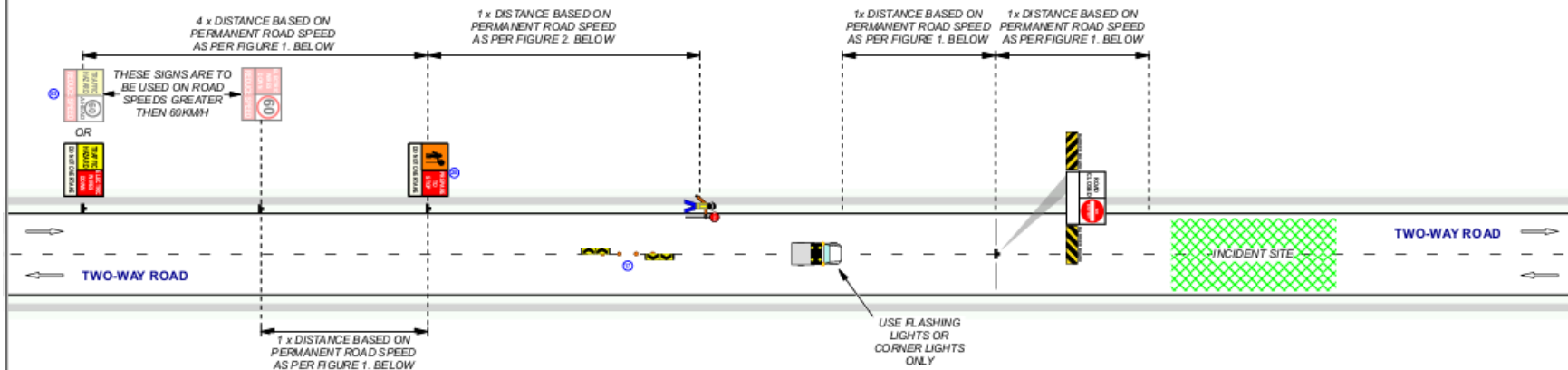


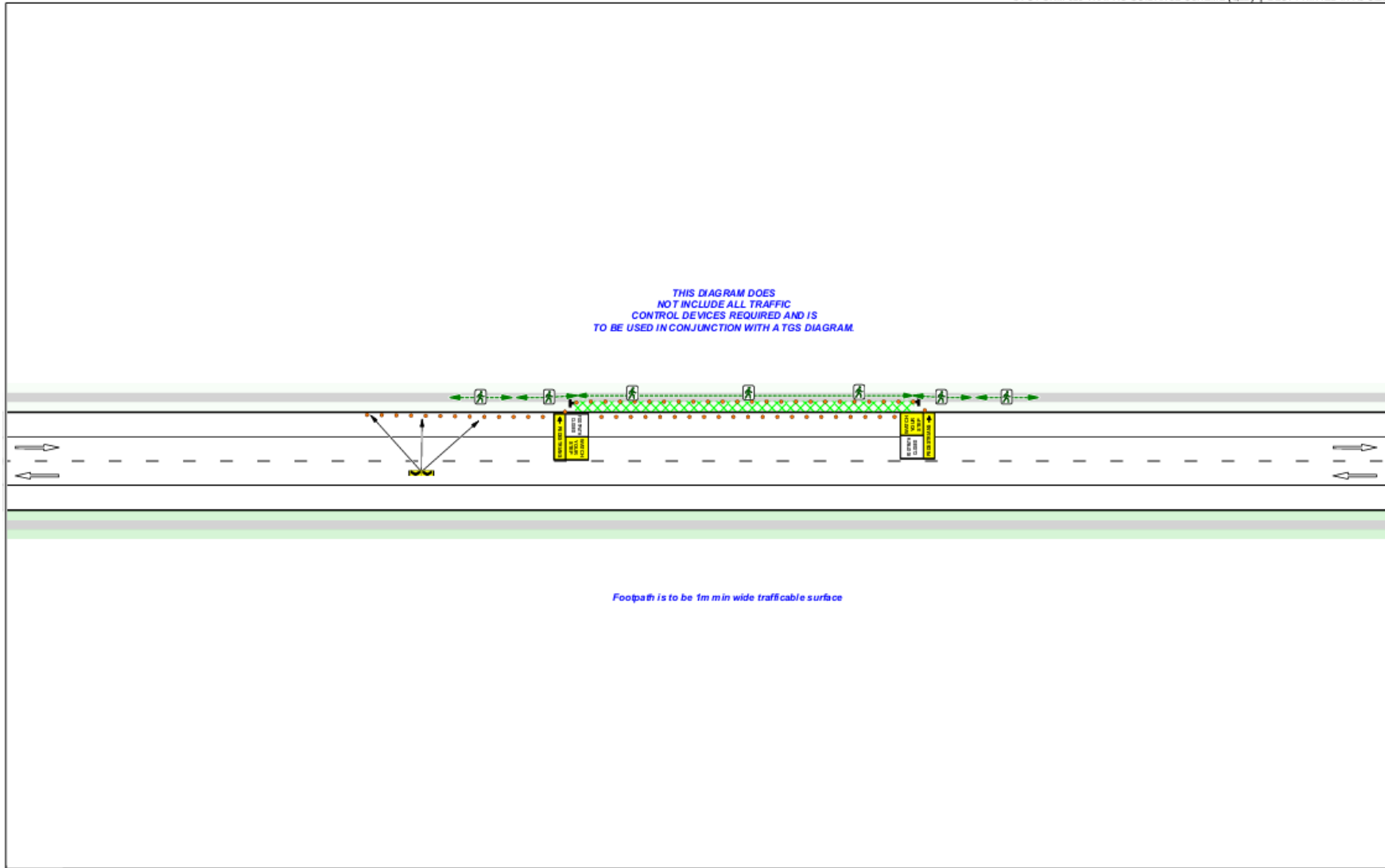
Figure 1:

Speed (km/h)	Distance (m)
40	15
50	15
60	45
70	70
80	80
90	90
100	100
110	110

Figure 2:

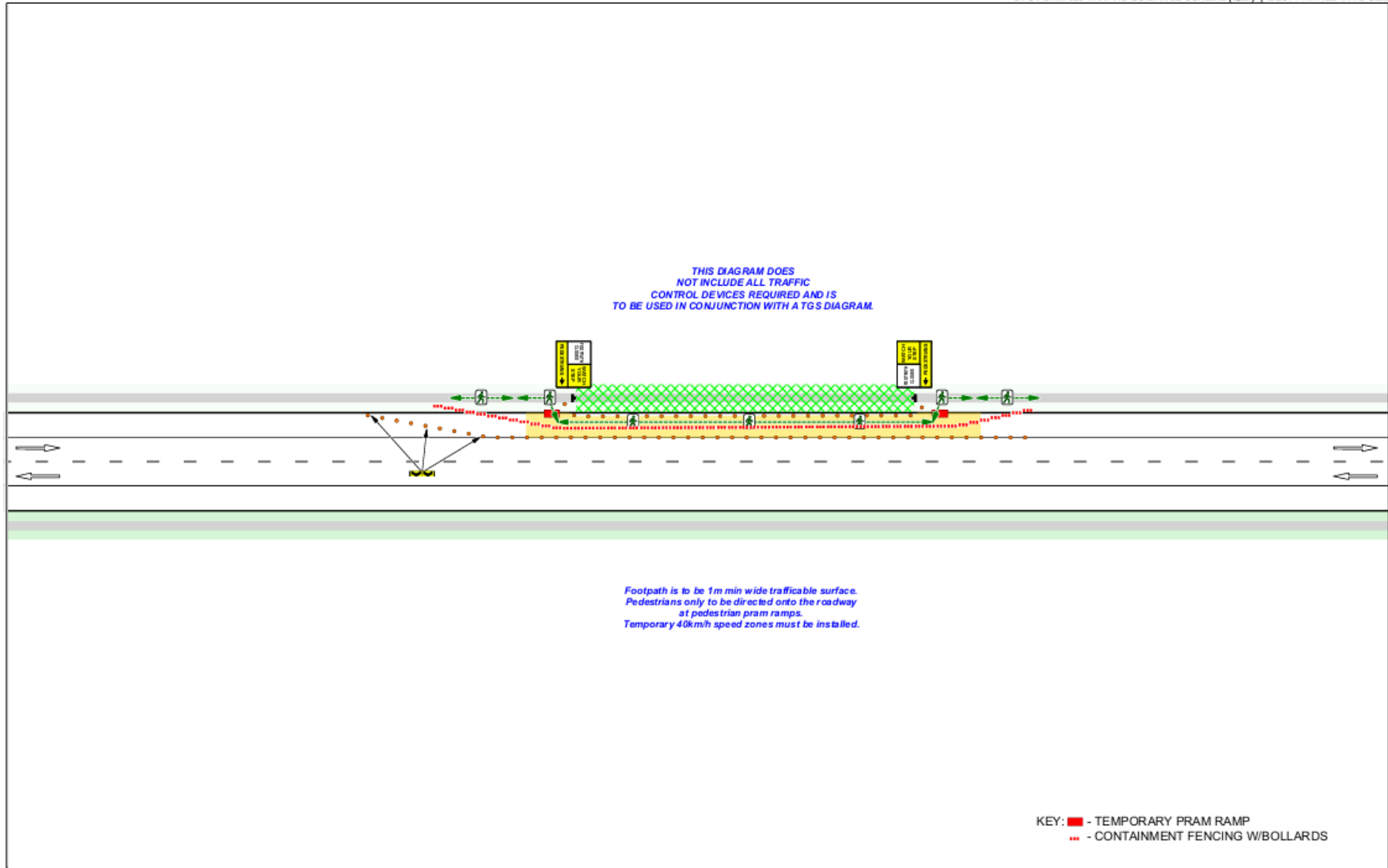
Speed (km/h)	Distance (m)
40	50 minimum
50	70 minimum
60	90 minimum
70	140 minimum
80	160 minimum
90	180 minimum
100	200 minimum
110	220 minimum

<b>CLIENT: ENERGY QLD</b>		<b>EQL01-03 COMPLETE CLOSURE</b>	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		APPROVED BY TMR DESIGNER: Anthony Abrahamson 02/06/2024	
LOCATION: VARIOUS LOCATIONS SUBURB: VARIOUS SPEEDS 1ST CROSS ST: TWO-WAY ROADS 2ND CROSS ST: - GPS/CHAINAGE: - DATE OF REVIEW: 12/09/2024	TERM: ROAD TYPE: TWO-WAY POSTED SPEED: VARIOUS SPEEDS OPERATION: EMERGENCY RESPONSE TRAVELLED PATH: PAST AADT: >1000	TMR REGISTRATION NUMBER: 0323 <b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongoop.com.au	
DRAW NORTH ARROW		EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: <b>EQL01-03</b> REV: <b>03</b> PAGE: <b>08 of 45</b>	

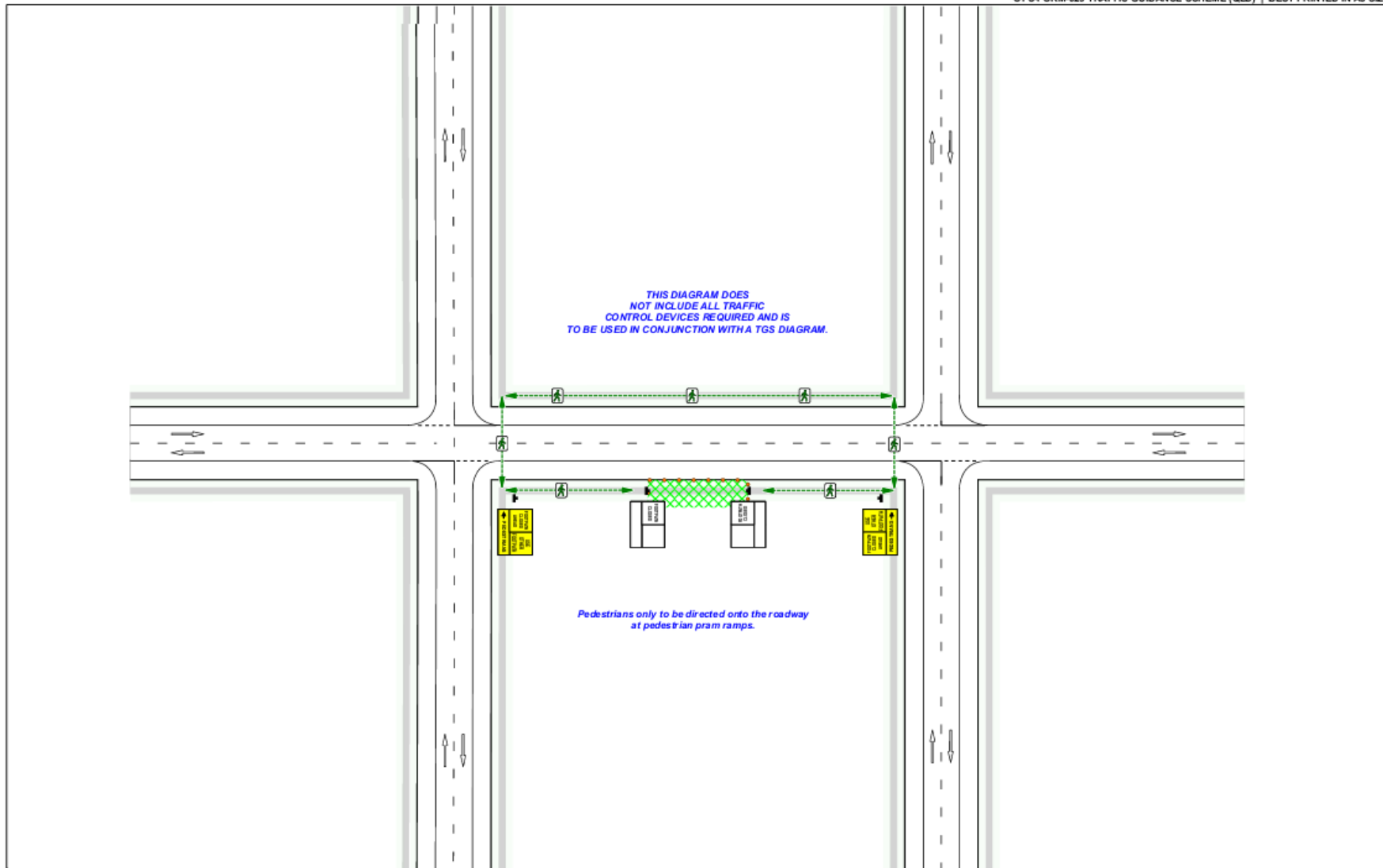


<b>CLIENT: ENERGY QLD</b>		<b>EQL02-01 PARTIAL FOOTPATH CLOSURE - PEDESTRIANS PAST SITE</b>			
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**	<b>NOTES EQ</b>	LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS PARTIAL FOOTPATH CLOSURE PEDESTRIANS PAST THE WORKSITE - 12/09/2024	TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:	SHORT TWO-WAY VARIOUS FOOTPATH CLOSURE PAST N/A
<b>DRAW NORTH ARROW</b>					APPROVED BY TMR DESIGNER: Anthony Abrahams on 12/09/2024 EVOLUTION JOB NUMBER: <span style="font-size: 12px; font-weight: bold;">440413320</span> REFERENCE ID: <span style="color: red;">EQL02-01</span>
					TMR REGISTRATION NUMBER: 0323 Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au REV: 03 PAGE: 09 of 45

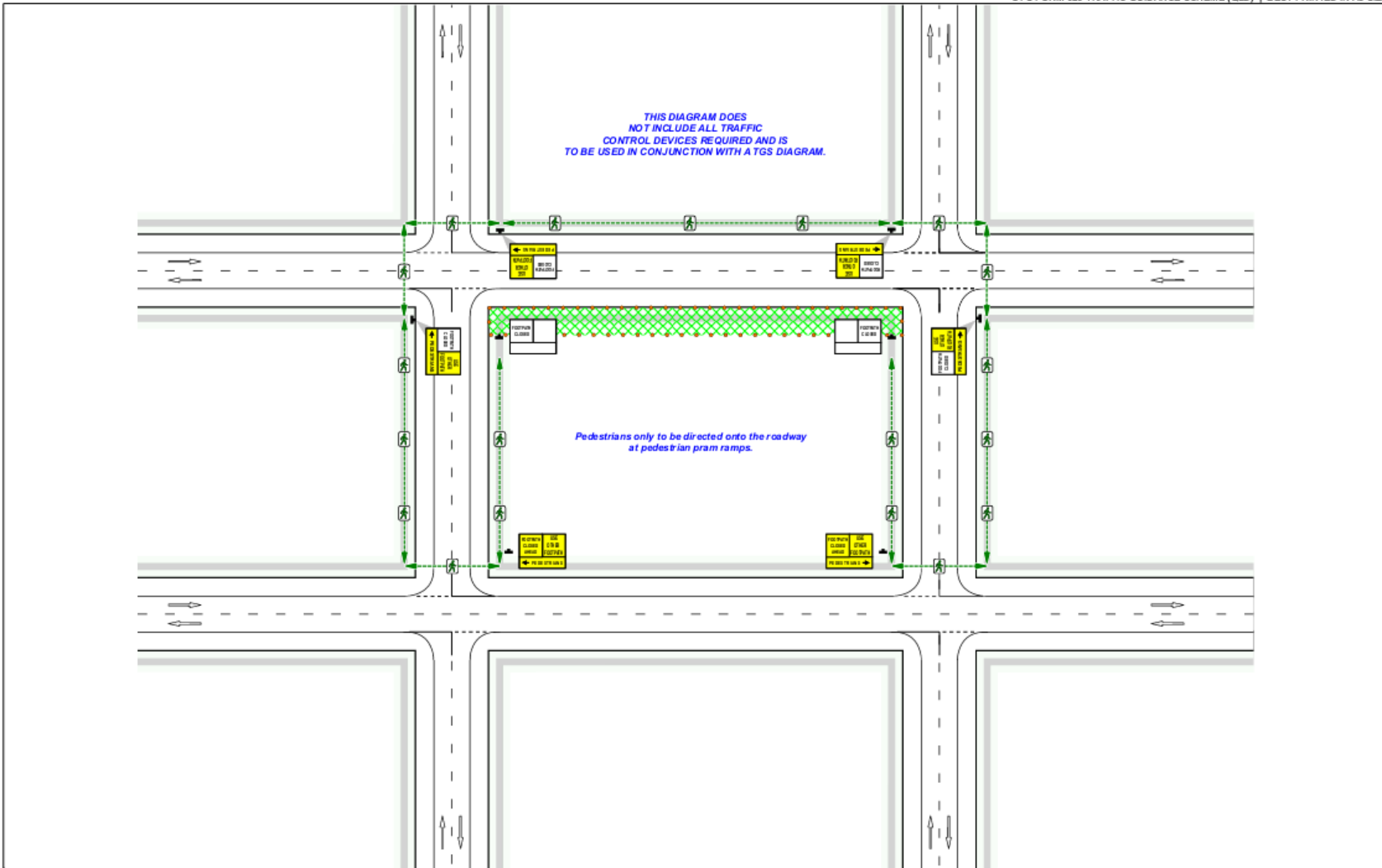




<b>CLIENT: ENERGY QLD</b>		<b>EQL02-02 FULL FOOTPATH CLOSURE - PEDESTRIANS PAST SITE</b>			
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> . IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. <b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b>		LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS FOOTPATH CLOSURE PEDESTRIANS DIVERTED ONTO ROADWAY - 12/09/2024	TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:	SHORT TWO-WAY VARIOUS FOOTPATH CLOSURE PAST N/A
DRAW NORTH ARROW		<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au TMR REGISTRATION NUMBER: 0323			APPROVED BY TM DESIGNER: Anthony Abramson (SIGNATURE) EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: <b>EQL02-02</b> REV: <b>03</b>   PAGE: <b>10 of 45</b>



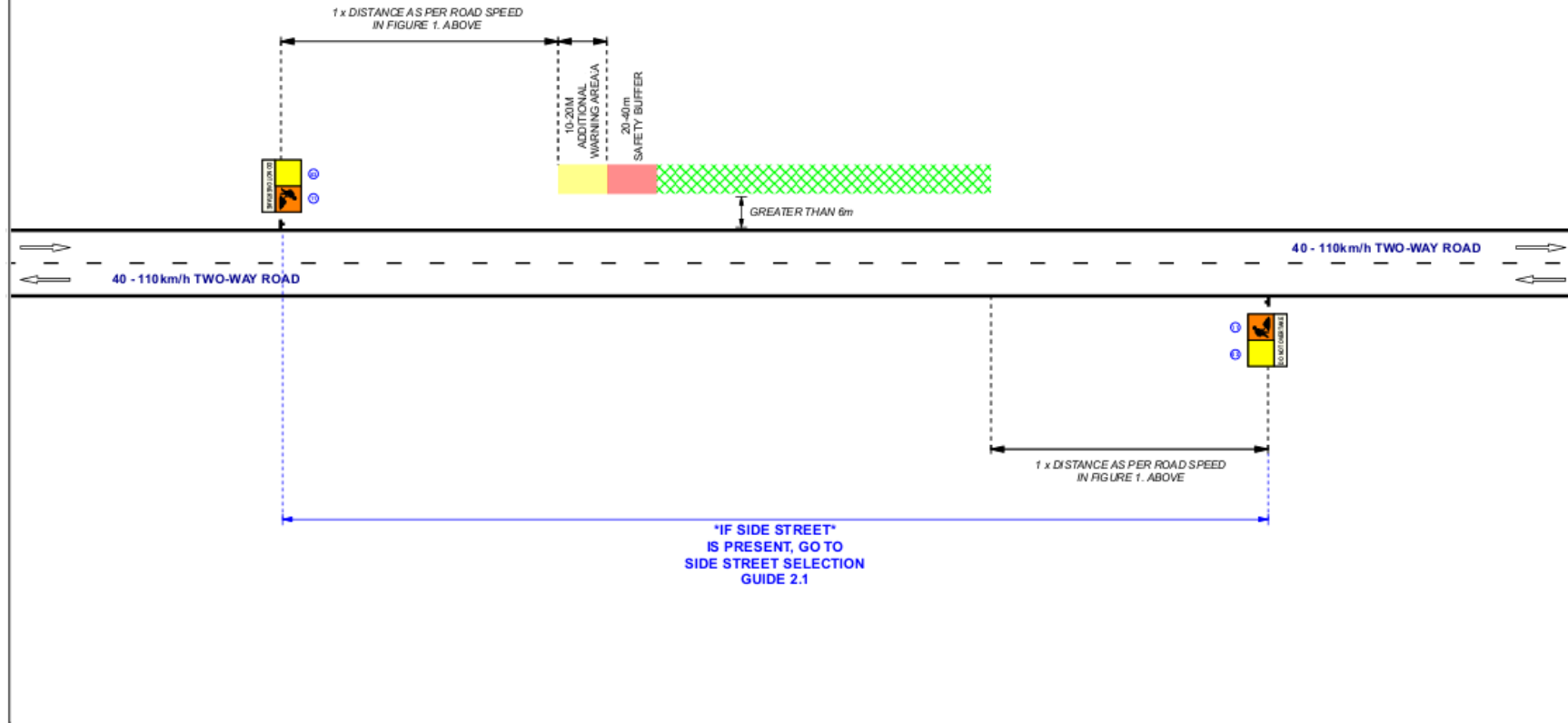
<b>CLIENT:</b> ENERGY QLD		<b>LOCATION:</b> VARIOUS LOCATIONS		<b>TERM:</b> SHORT		<b>EVOLUTION</b>		<b>APPROVED BY T/M DESIGNER:</b>	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b>		SUBURB: MID STREET		ROAD TYPE: TWO-WAY		Unit 1/29 Armada Place, Banyo		Anthony Abrahamson	
IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.		GPS/CHAINAGE: -		POSTED SPEED: VARIOUS		Queensland 4014		DATE: 12/09/2024	
**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		DATE OF REVIEW: 12/09/2024		OPERATION: FOOTPATH CLOSURE		TMR REGISTRATION NUMBER: 0323		EVOLUTION JOB NUMBER: <b>440413320</b>	
<b>DRAW NORTH</b>		AADD: N/A		TRAVELLED PATH: AROUND		E-mail: QLDplans@evolutiongroup.com.au		REFERENCE ID: <b>EQL02-03</b>	
<b>ARROW</b>								REV: <b>03</b>	
								PAGE: <b>11 of 45</b>	



<b>CLIENT:</b> ENERGY QLD		<b>LOCATION:</b> 1ST CROSS ST		<b>TERM:</b> ROAD TYPE: TWO-WAY		<b>EQL02-04 FULL FOOTPATH CLOSURE - WHOLE STREET</b>	
<b>NOTES EQ:</b> THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		<b>SUBURB:</b> 2ND CROSS ST		<b>POSTED SPEED:</b> VARIOUS		<b>APPROVED BY THE DESIGNER:</b> Anthony Abrahamson	
<b>DRAW NORTH ARROW</b>		<b>GPS/CHAINAGE:</b> -		<b>OPERATION:</b> FOOTPATH CLOSURE		<b>EVOLUTION JOB NUMBER:</b> 440413320	
<b>DATE OF REVIEW:</b> 12/09/2024		<b>VARIOUS LOCATIONS FOOTPATH CLOSURE FULL STREET PEDESTRIANS DETOURED</b>		<b>TRAVELLED PATH:</b> AROUND		<b>REFERENCE TO:</b> EQL02-04	
		<b>AADT:</b> N/A		<b>EVOLUTION:</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDp.lans@evolutiongroup.com.au		<b>REV:</b> 03	
						<b>PAGE:</b> 12 of 45	

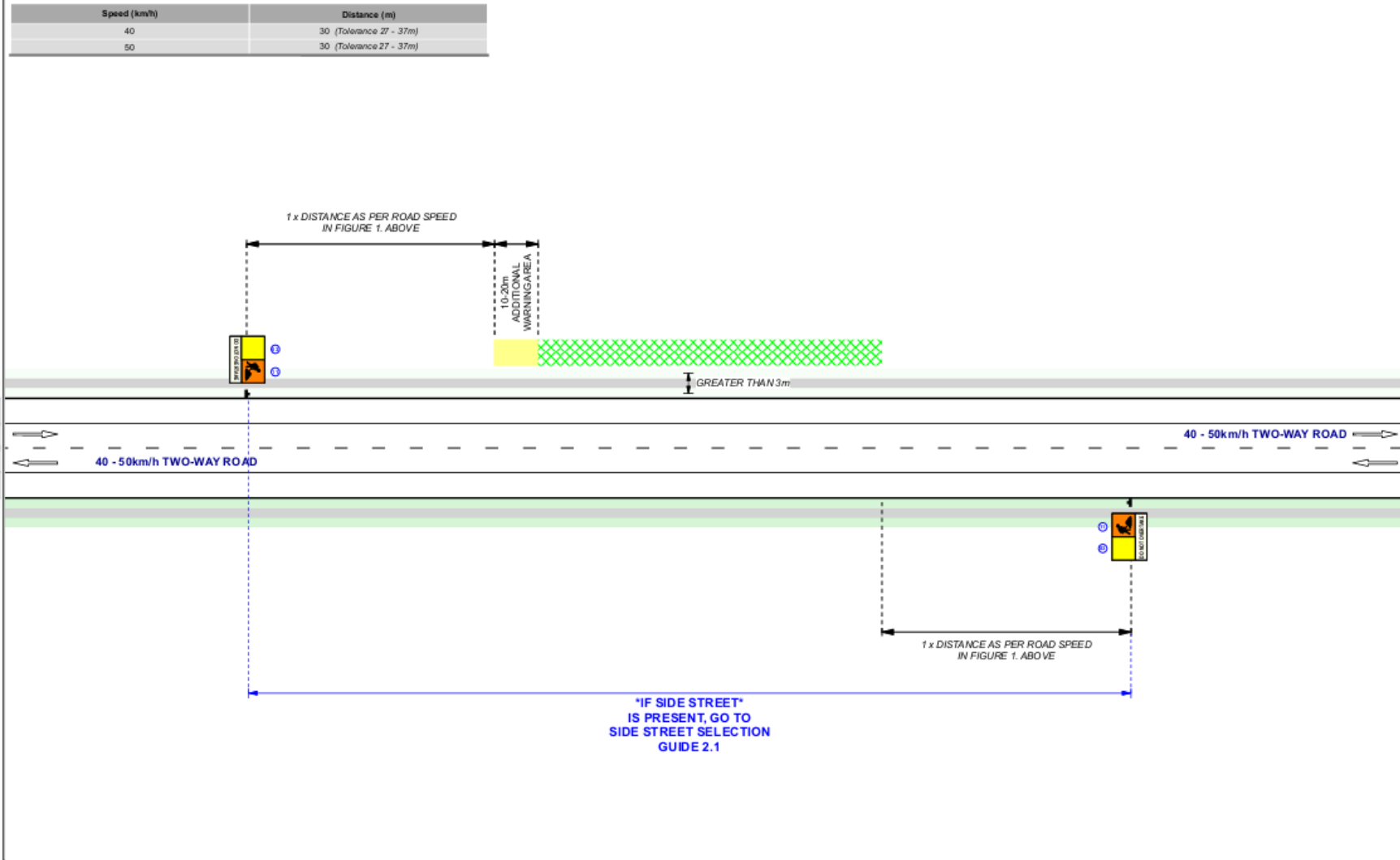
Figure 1: Sign spacing required before worksite / hazard

Speed (km/h)	Distance (m)
40	30 (Tolerance 27 - 37m)
50	30 (Tolerance 27 - 37m)
60	90 (Tolerance 81 - 112m)
70	140 (Tolerance 126 - 175m)
80	160 (Tolerance 144 - 200m)
90	180 (Tolerance 162 - 225m)
100	200 (Tolerance 180 - 250m)
110	220 (Tolerance 192 - 275m)



<b>CLIENT: ENERGY QLD</b>		<b>EQL03-01 SHOULDER CLOSURE - WORKERS 6m FROM TRAVEL PATH</b>			
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**	<b>DRAW NORTH ARROW</b>	LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS VARIOUS SPEEDS TWO-WAY ROADS - 12/09/2024	TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:	SHORT TWO-WAY 40 - 110km/h SHOULDER CLOSURE PAST >1000
		<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au		APPROVED BY THE DESIGNER: Anthony Abrahamson 503396740 (09) 4014 4014 <b>440413320</b> REFERENCE ID: <b>EQL03-01</b>   REV: <b>03</b>   PAGE: <b>13 of 45</b>	

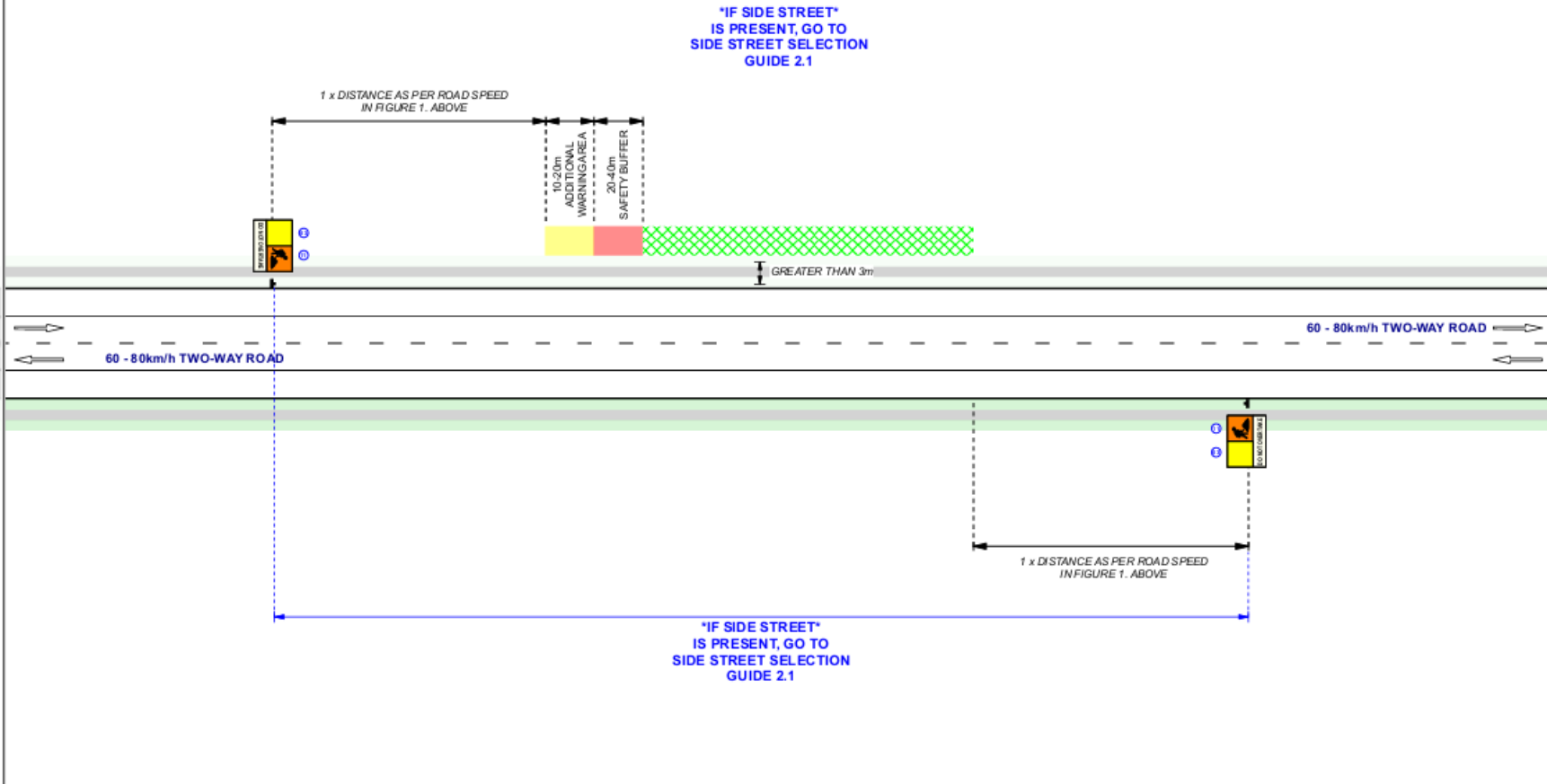
Figure 1: Sign spacing required before worksite / hazard



<b>CLIENT:</b> ENERGY QLD		<b>EQL04-01 SHOULDER CLOSURE - WORKERS 3-6m FROM TRAVEL PATH</b>		
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW.	<b>NOTES EQ</b> DRAW NORTH ARROW	LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS 40 & 50km/h TWO-WAY ROADS - 12/09/2024	TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:
	SHORT TWO-WAY 40 & 50km/h SHOULDER CLOSURE PAST >1000	Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evoluSengroup.com.au	TMR REGISTRATION NUMBER: 0323 APPROVED BY THE DESIGNER: Anthony Abrahamson (SIGNED)	EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: EQL04-01

Figure 1: Sign spacing required before worksite / hazard

Speed (km/h)	Distance (m)
60	90 (Tolerance 81 - 112m)
70	140 (Tolerance 126 - 175m)
80	160 (Tolerance 144 - 200m)



CLIENT: ENERGY QLD

EQL04-02 SHOULDER CLOSURE - WORKERS 3-6m FROM TRAVEL PATH

THIS (TGS) SHALL BE READ IN CONJUNCTION WITH **NOTES EQ**. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **\*\*THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW\*\***

**DRAW NORTH**  
**ARROW**

LOCATION: VARIOUS LOCATIONS  
SUBURB: 80 - 80km/h  
1ST CROSS ST: TWO-WAY ROADS  
2ND CROSS ST: -  
GPS/CHAINAGE: -  
DATE OF REVIEW: 12/09/2024

TERM: ROAD TYPE: SHORT  
ROAD TYPE: TWO-WAY  
POSTED SPEED: 60 - 80km/h  
OPERATION: SHOULDER CLOSURE  
TRAVELLED PATH: PAST  
AADT: >1000

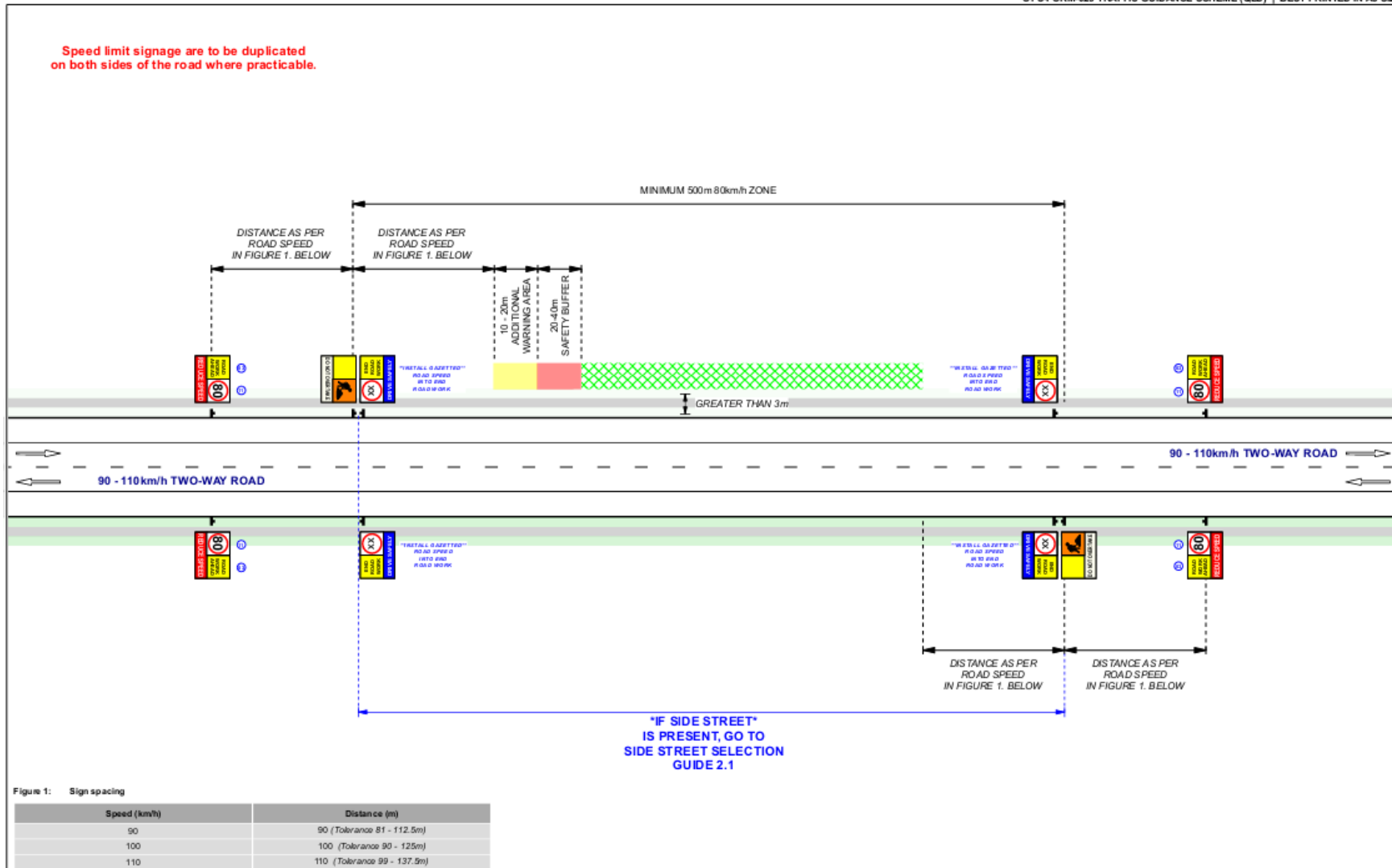
**EVOLUTION**  
Evolution Traffic Management  
Unit 1/29 Armada Place, Banyo  
Queensland 4014  
E mail: QLDplans@evolutiongroup.com.au

TMR REGISTRATION NUMBER: 0323

APPROVED BY THE DESIGNER:  
Anthony Abrahamson  
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EVOLUTION JOB NUMBER:  
**440413320**

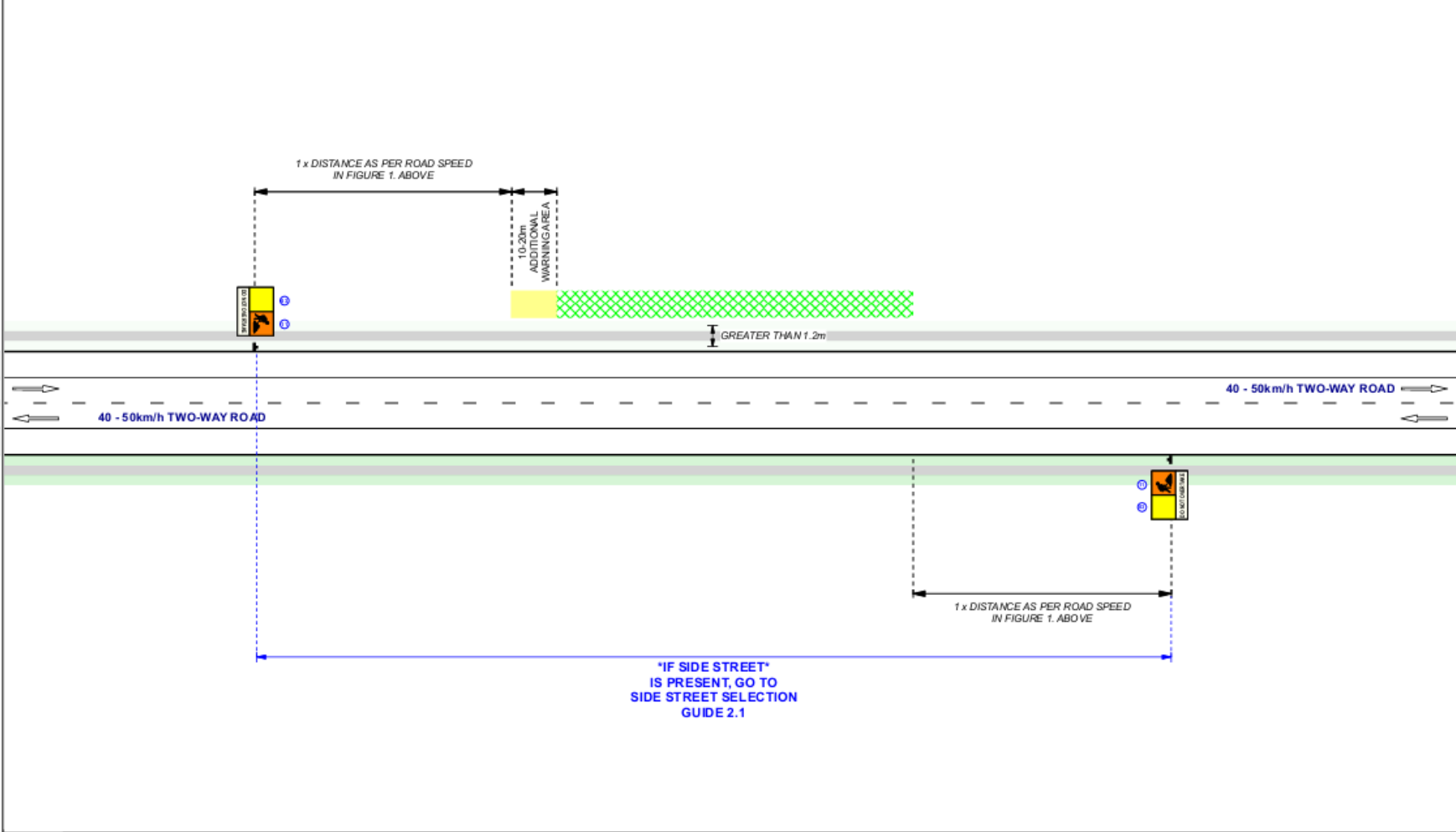
REFERENCE ID: EQL04-02  
REV: 03  
PAGE: 15 of 45



<b>CLIENT:</b> ENERGY QLD		<b>EQL04-03 SHOULDER CLOSURE - WORKERS 3-6m FROM TRAVEL PATH</b>	
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</p>		<p><b>LOCATION:</b> SUBURB: VARIOUS LOCATIONS 1ST CROSS ST: 90 - 110km/h 2ND CROSS ST: TWO-WAY ROADS GPS/CHAINAGE: - DATE OF REVIEW: 12/09/2024</p>	<p><b>TERM:</b> ROAD TYPE: SHORT TWO-WAY POSTED SPEED: 90 - 110km/h OPERATION: SHOULDER CLOSURE TRAVELLED PATH: PAST AADT: &gt;1000</p>
<p><b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au</p>		<p>APPROVED BY THE DESIGNER: Anthony Abrahamson EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: EQL04-03 REV PAGE: 03 16 of 45</p>	

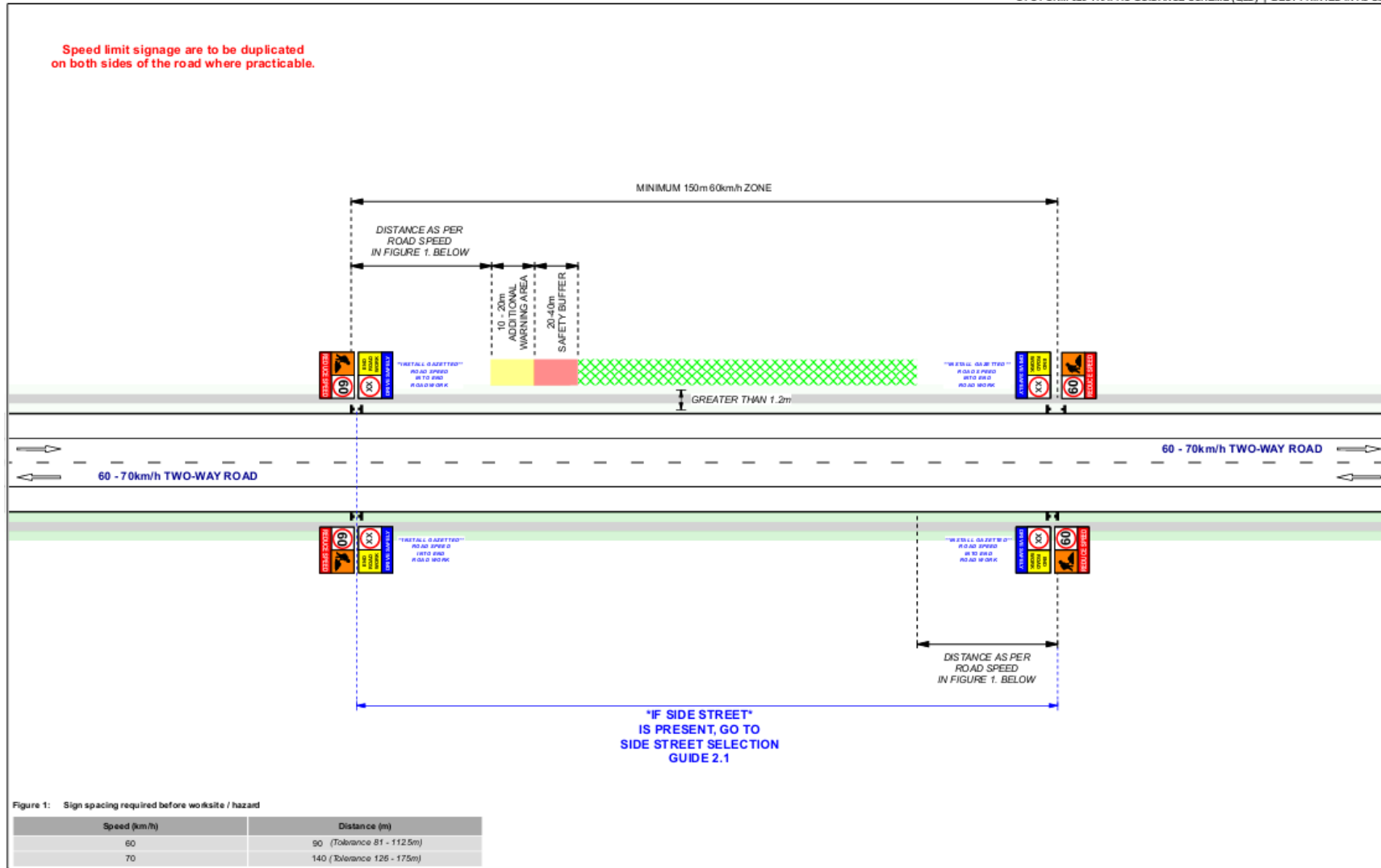
Figure 1: Sign spacing required before worksite/ hazard

Speed (km/h)	Distance (m)
40	30 (Tolerance 27 - 37m)
50	30 (Tolerance 27 - 37m)



<b>CLIENT:</b> ENERGY QLD		<b>EQL04-04 SHOULDER CLOSURE - WORKERS 1.2-3m FROM TRAVEL PATH</b>			
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> . IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON-SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. <b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b>		<b>LOCATION:</b> SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS 40 & 50km/h TWO-WAY ROADS - 12/09/2024	<b>TERM:</b> ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:	SHORT TWO-WAY 40 & 50km/h SHOULDER CLOSURE PAST >1000
<b>DRAW NORTH ARROW</b>		<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au TMR REGISTRATION NUMBER: 0323			
		APPROVED BY (NAME AND SIGNATURE) LARS FRANKFURT QUTR TMO CARD ID: 1187 EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: <b>EQL04-04</b>   REV: <b>03</b>   PAGE: <b>17 of 45</b>			





<b>CLIENT: ENERGY QLD</b>		<b>EQL04-05 SHOULDER CLOSURE - WORKERS 1.2-3m FROM TRAVEL PATH</b>			
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS 60 - 70km/h TWO-WAY ROADS - 12/09/2024	TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:	SHORT TWO-WAY SHOULDER CLOSURE 60 - 70km/h PAST >1000
<b>EVOLUTION</b> Evolution Traffic Management Unit 1/23 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au		TMR REGISTRATION NUMBER: 0323 440413320	APPROVED BY THE DESIGNER: Lara Trangmar (Signature) REFERENCE ID: EQL04-05	REV PAGE: 03 18 of 45	

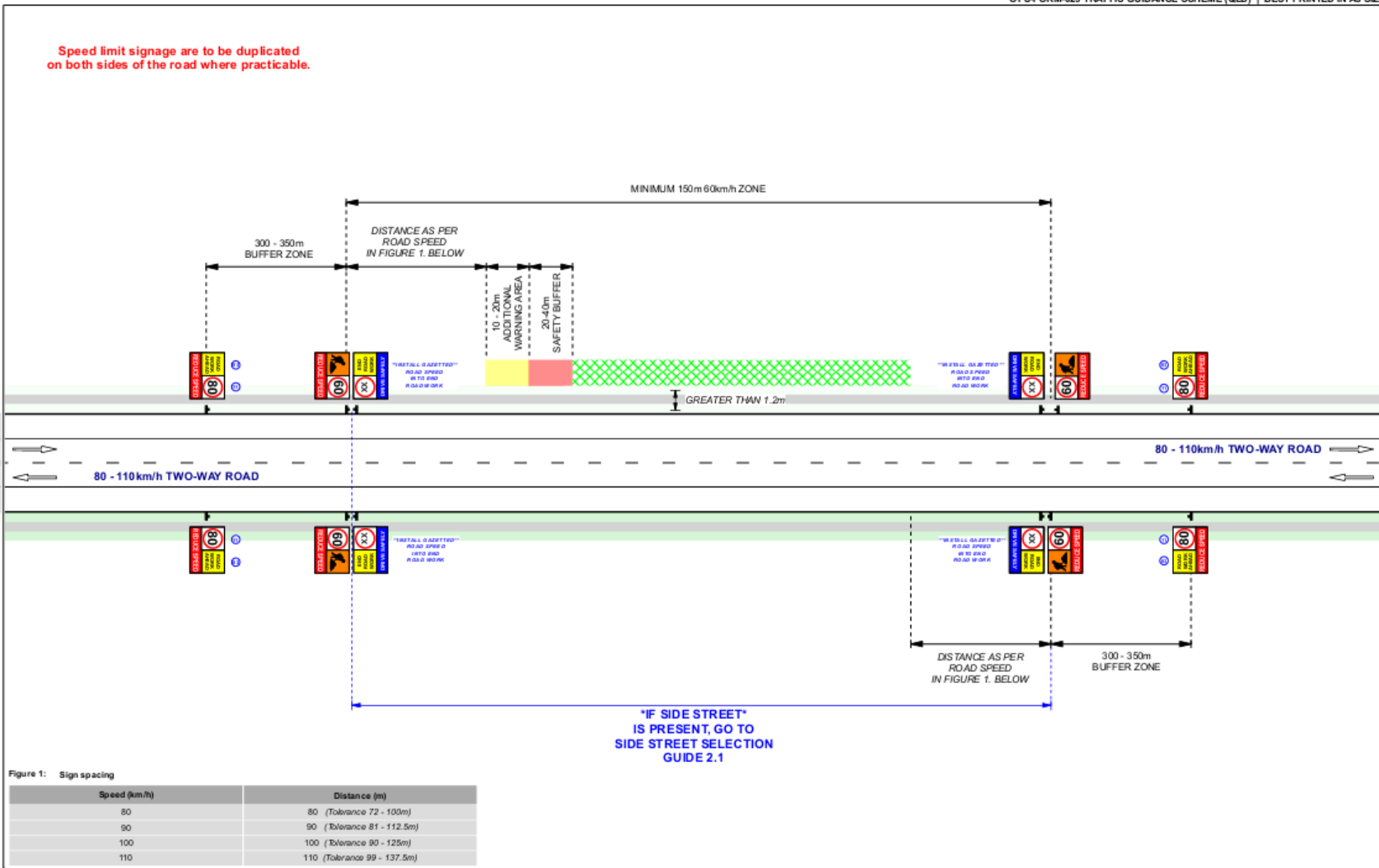
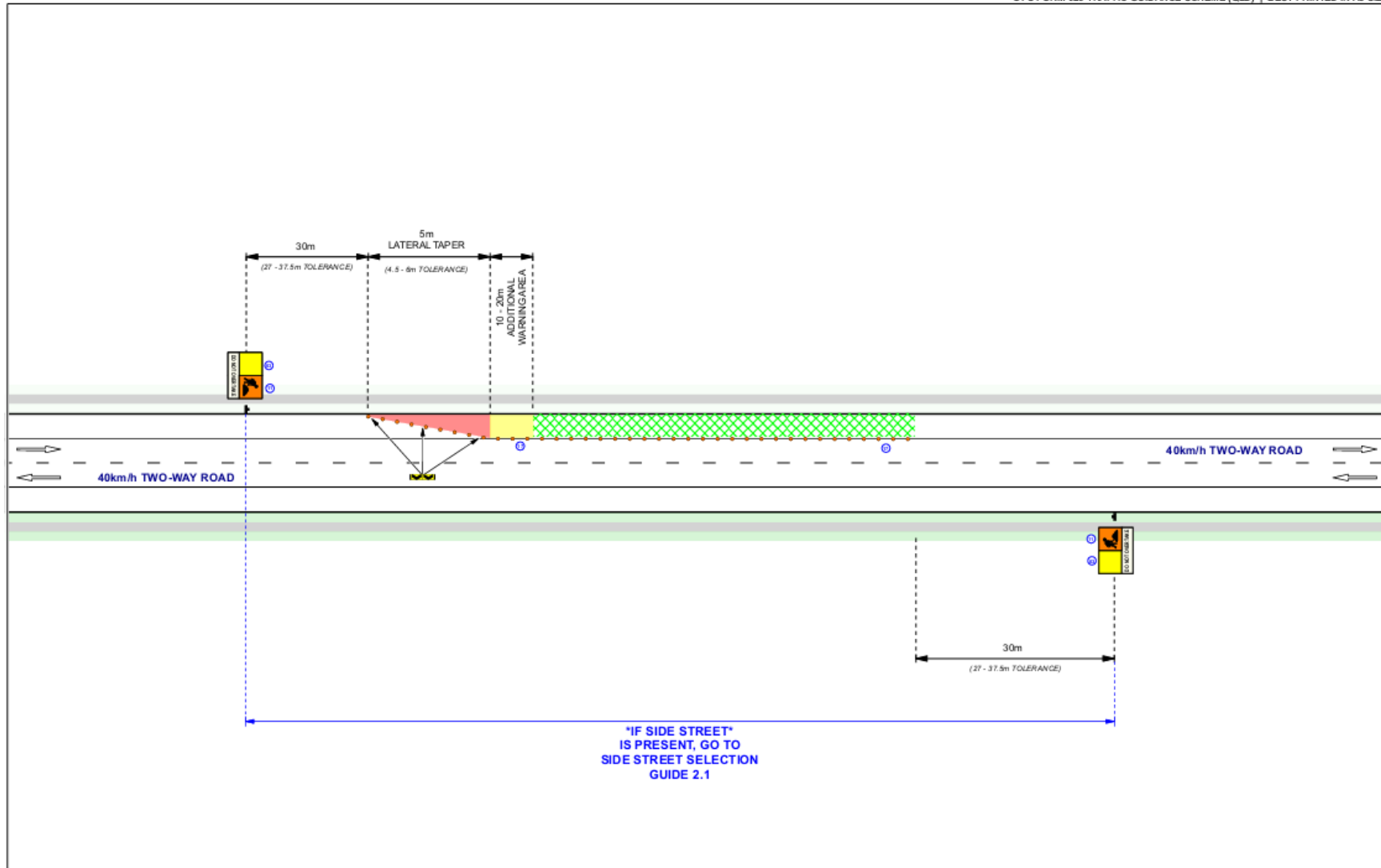


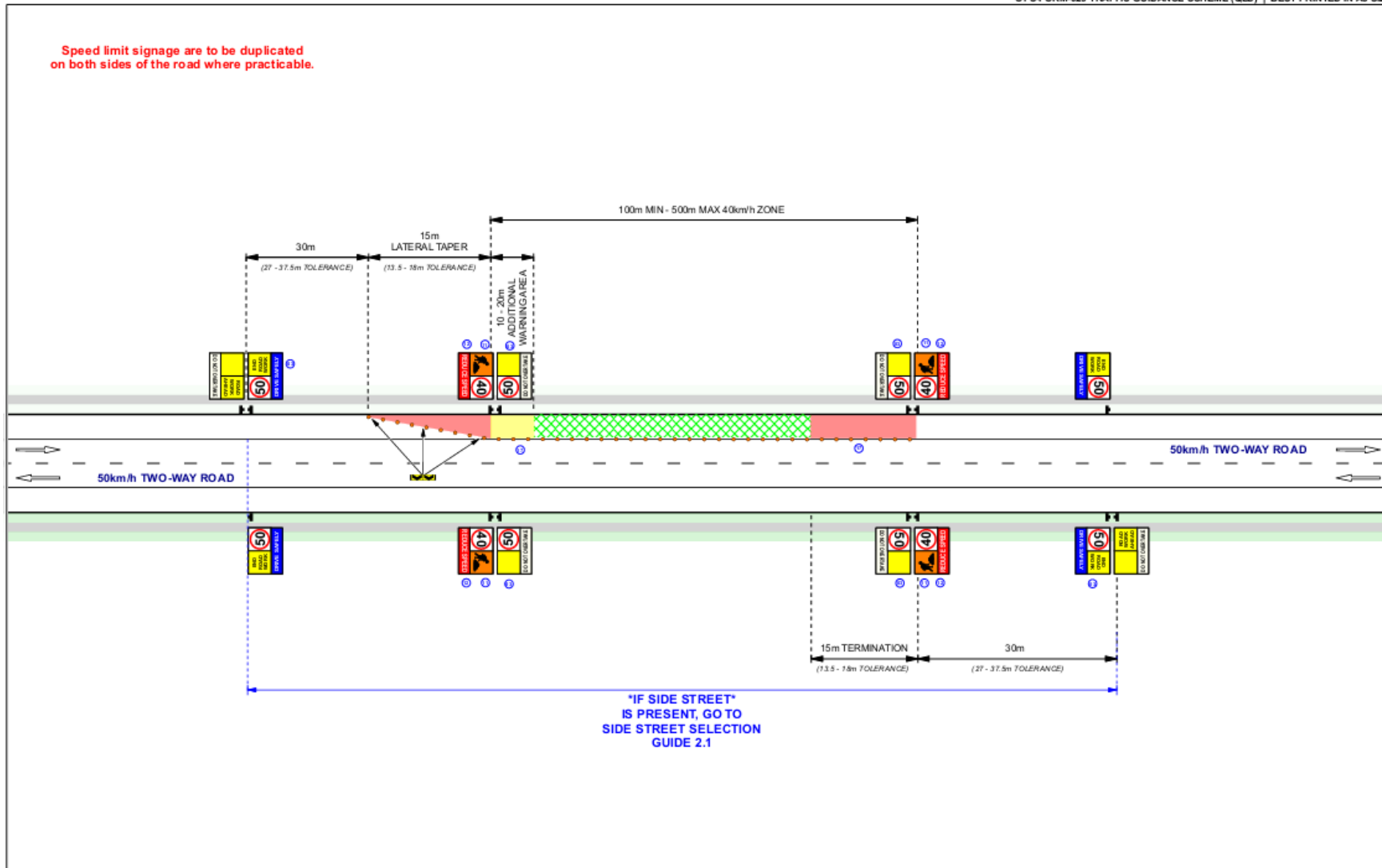
Figure 1: Sign spacing

Speed (km/h)	Distance (m)
80	80 (Tolerance 72 - 100m)
90	90 (Tolerance 81 - 112.5m)
100	100 (Tolerance 90 - 125m)
110	110 (Tolerance 99 - 137.5m)

<b>CLIENT: ENERGY QLD</b>		<b>EQL04-06 SHOULDER CLOSURE - WORKERS 1.2-3m FROM TRAVEL PATH</b>	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> . IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. <b>"THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW"</b>		LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS 80 - 110km/h TWO-WAY ROADS - 12/09/2024
TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:	SHORT TWO-WAY 80 - 110km/h SHOULDER CLOSURE PAST >1000	<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: <a href="mailto:QLPlans@evolutiongroup.com.au">QLPlans@evolutiongroup.com.au</a>	
APPROVED BY: <b>Lara Trangmar</b> QUTM TRG CARD 1807 EVOLUTIO GROUP <b>440413320</b>		TMR REGISTRATION NUMBER: 0323	REFERENCE TO: <b>EQL04-06</b> REV: <b>03</b> PAGE: <b>19 of 45</b>

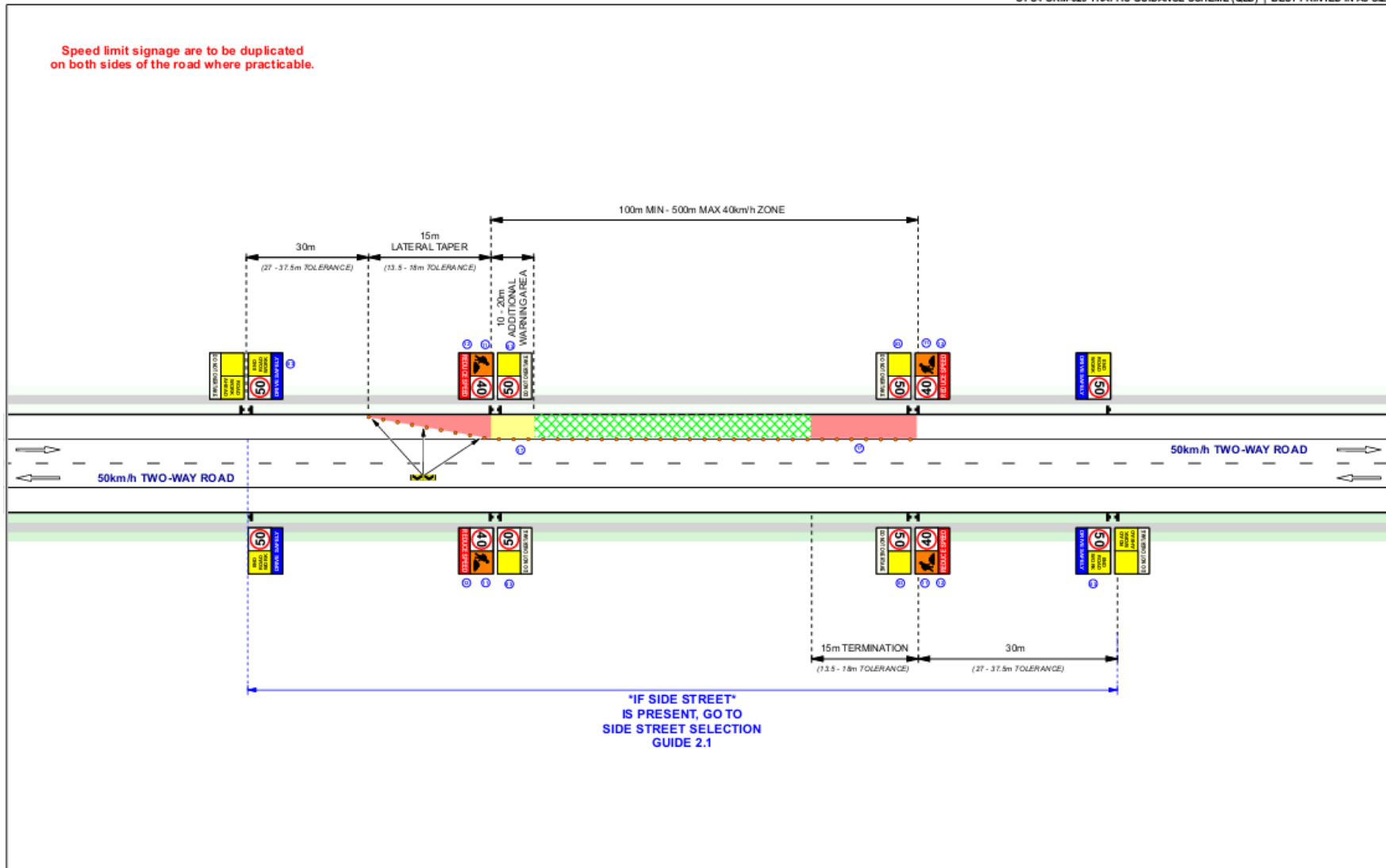


<b>CLIENT:</b> ENERGY QLD		<b>LOCATION:</b> VARIOUS LOCATIONS		<b>TERM:</b> SHORT		<b>EQLO5-01 SHOULDER CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>		
<b>NOTES EQ</b> THIS (TGS) SHALL BE READ IN CONJUNCTION WITH IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		<b>1ST CROSS ST:</b> 40 km/h	<b>2ND CROSS ST:</b> TWO-WAY ROADS	<b>ROAD TYPE:</b> TWO-WAY	<b>POSTED SPEED:</b> 40 km/h	<b>OPERATION:</b> SHOULDER CLOSURE	<b>TRAVELLED PATH:</b> PAST	<b>AADT:</b> >1000
<b>DRAW NORTH ARROW</b>	<b>DATE OF REVIEW:</b> 12/09/2024	<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au		<b>TMR REGISTRATION NUMBER:</b> 0323		<b>440413320</b>		
						<b>REFERENCE ID:</b> EQL05-01	<b>REV PAGE:</b> 03 20 of 45	

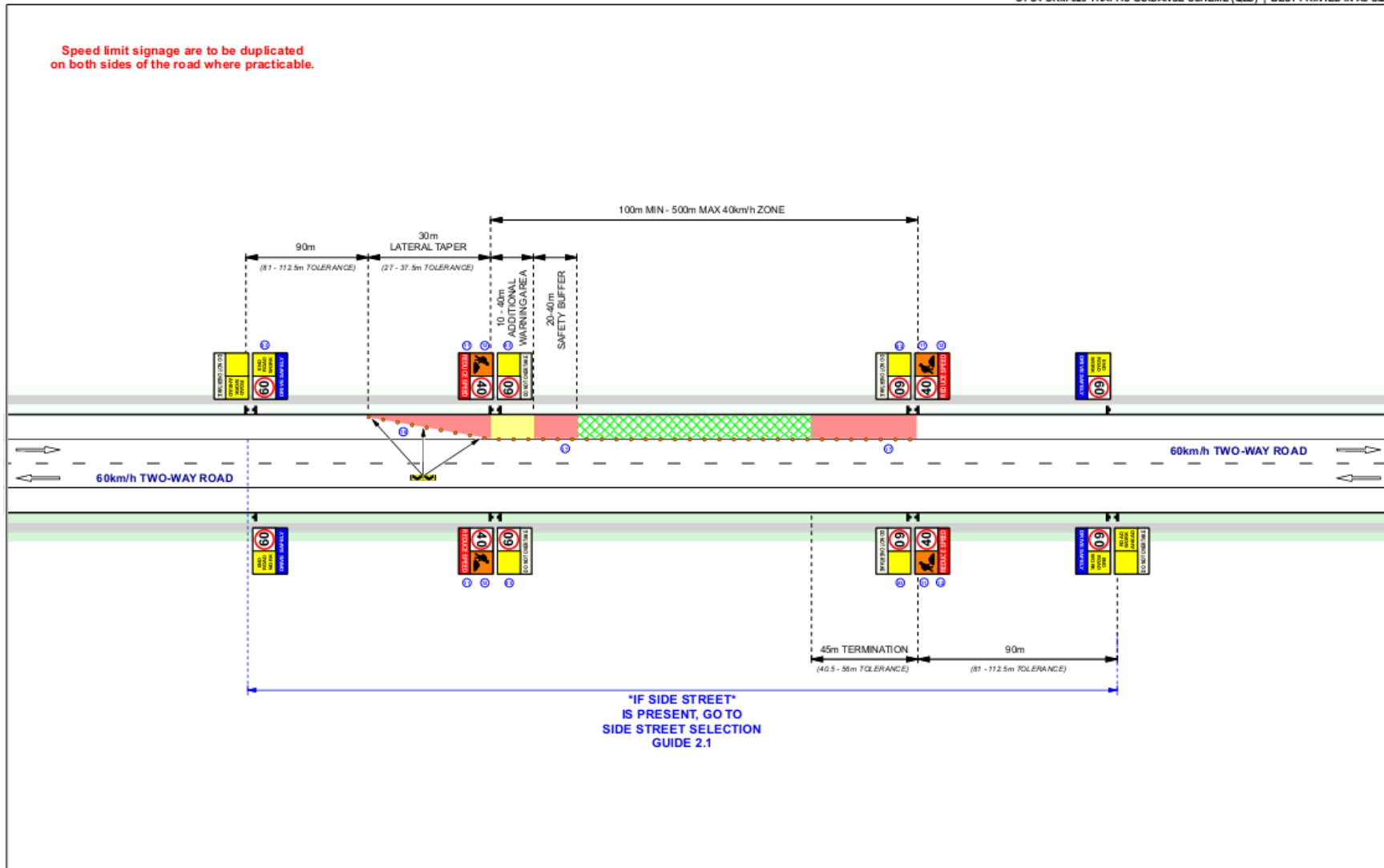


<b>CLIENT:</b> ENERGY QLD		<b>EQL05-02 SHOULDER CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>		
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**	<b>NOTES EQ</b>  DRAW NORTH ARROW	<b>LOCATION:</b> SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS 50 km/h TWO-WAY ROADS - 12/09/2024	TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:
		SHORT TWO-WAY 50 km/h SHOULDER CLOSURE PAST >1000	Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au	TMR REGISTRATION NUMBER: 0323 Approved by the Designer: Anthony Abrahamson (Date: 12/09/2024)
		REFERENCE ID: EQL05-02	REV: 03	PAGE: 21 of 45

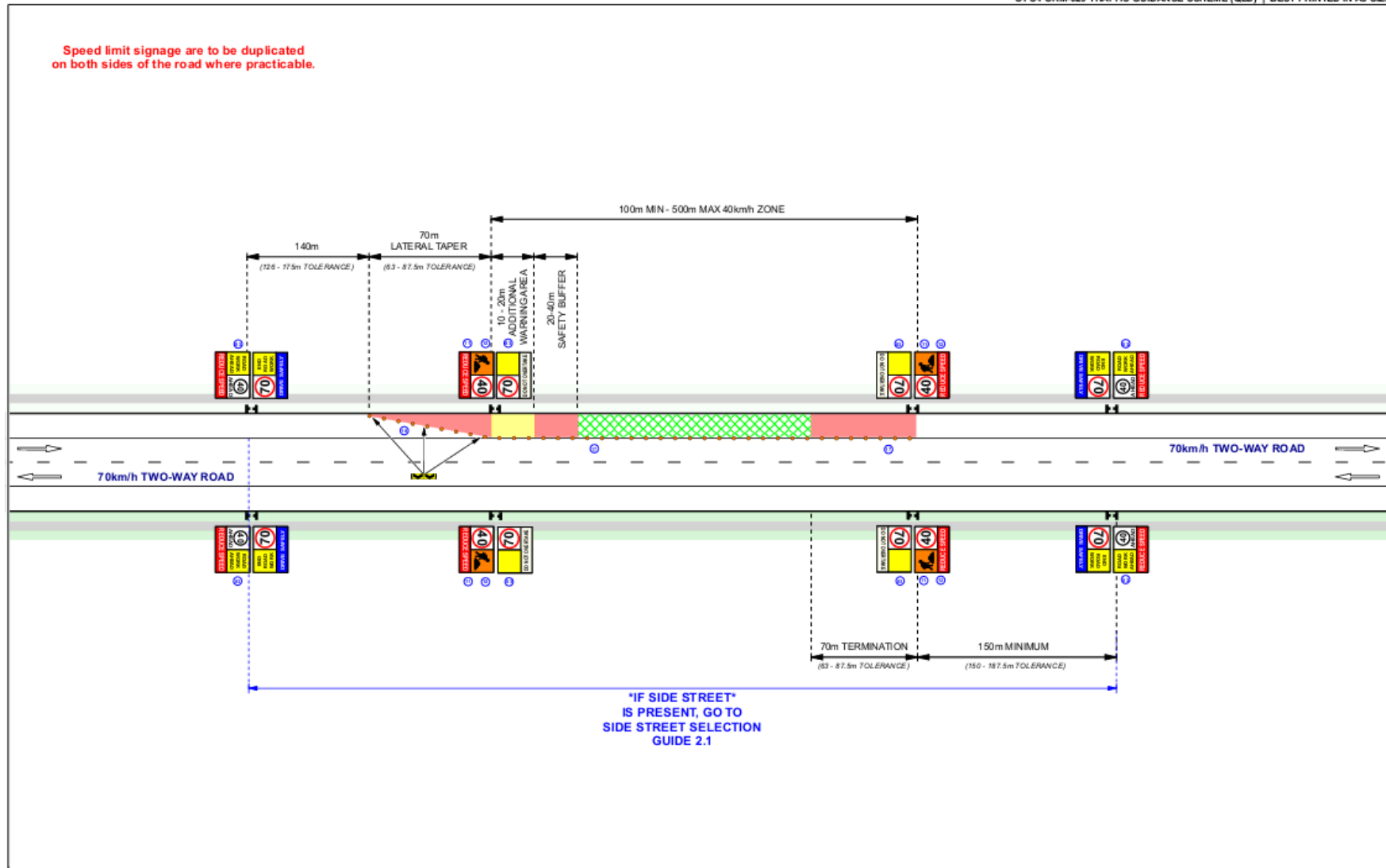
Speed limit signage are to be duplicated on both sides of the road where practicable.



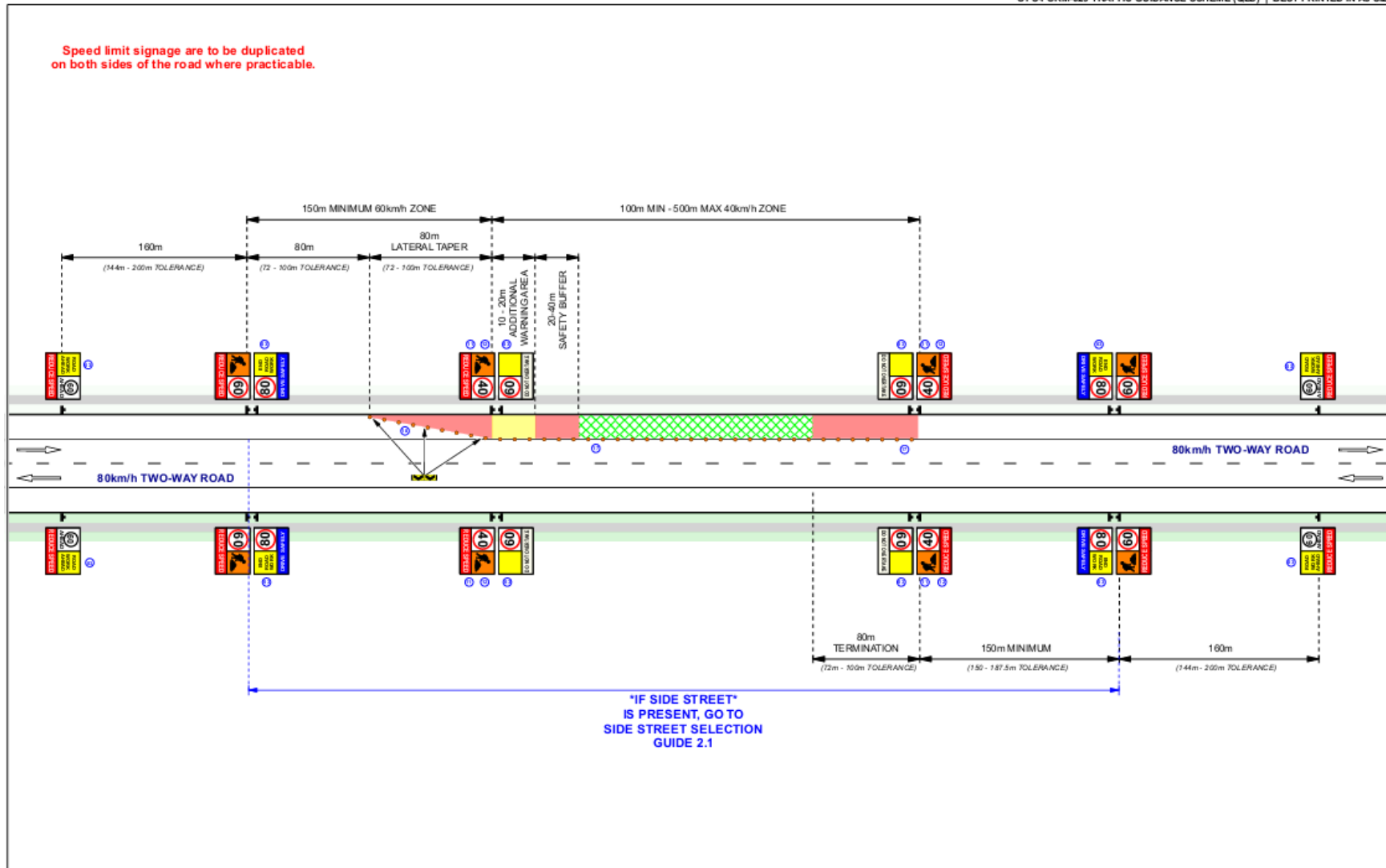
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THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:		ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:		 Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 E-mail: QLDplans@evolutiongroup.com.au TMR REGISTRATION NUMBER: 0323	
<b>DRAW NORTH</b> <b>ARROW</b>		12/09/2024		PAST >1000		APPROVED BY TM DESIGNER: Anthony Abrahamson EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: EQL05-02    REV: 03    PAGE: 21 of 45	



<b>CLIENT:</b> ENERGY QLD		<b>EQL05-03 SHOULDER CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>		
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> . IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.		<b>LOCATION:</b> SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS 60 km/h TWO-WAY ROADS - 12/09/2024	TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:
**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		DRAW NORTH ARROW	SHORT TWO-WAY SHOULDER CLOSURE PAST >1000	APPROVED BY TO DESIGNER: Anthony Abrahamson Unit 1/29 Amada Place, Banyo Queensland 4014 Email: QL.Options@evolutiongroup.com.au
		TMR REGISTRATION NUMBER: 0323		EVOLUTION FOR WORKERS: <b>440413320</b> REFERENCE ID: <b>EQL05-03</b>
				REV PAGE: 03 22 of 45

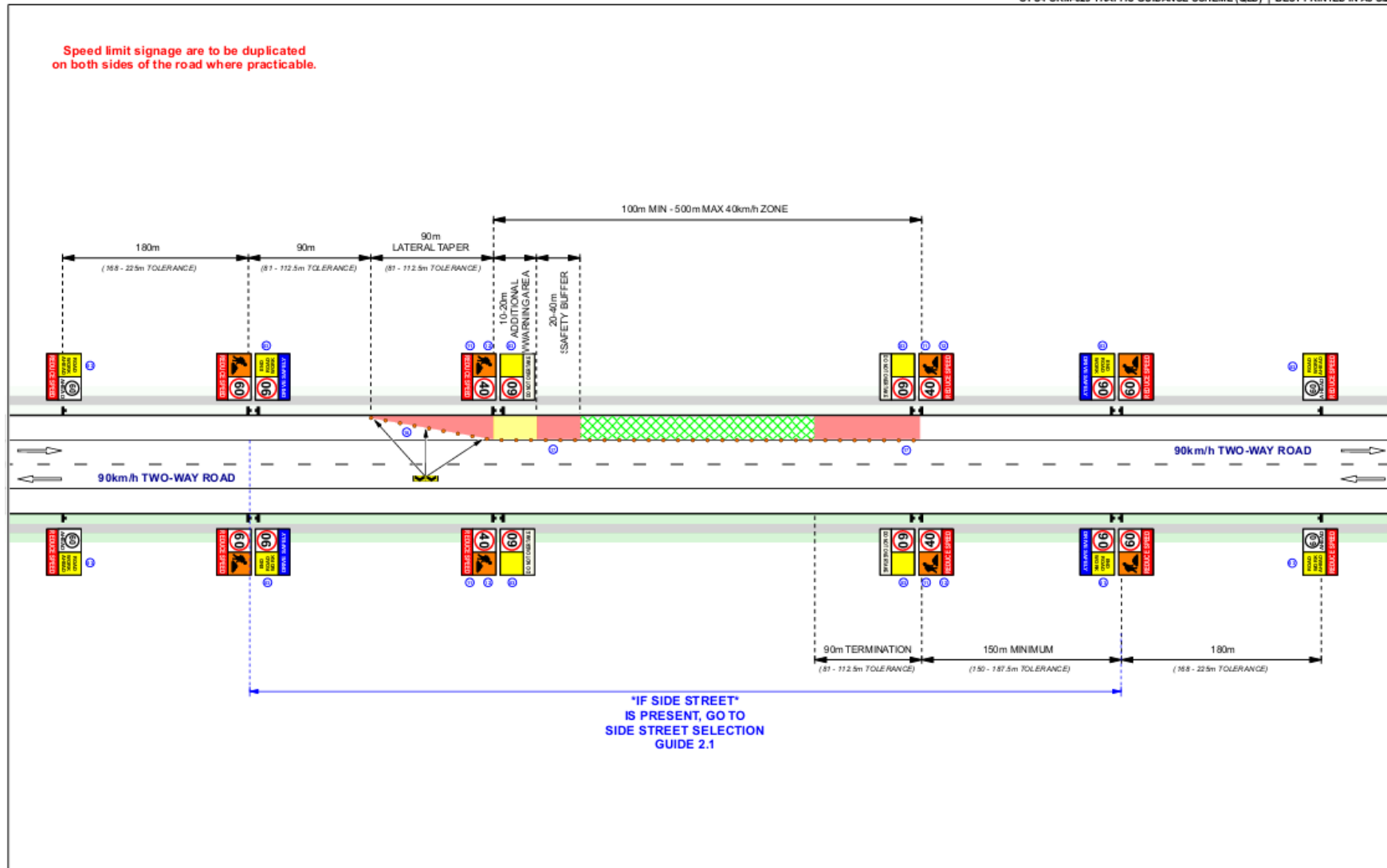


<b>CLIENT:</b> ENERGY QLD		<b>LOCATION:</b> VARIOUS LOCATIONS		<b>TERM:</b> SHORT		<b>EQL05-04 SHOULDER CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW: 12/09/2024		ROAD TYPE: TWO-WAY POSTED SPEED: 70 km/h OPERATION: SHOULDER CLOSURE TRAVELLED PATH: PAST AADT: >1000		APPROVED BY TMR DESIGNER: Anthony Abrahamson EVOLUTION JOB NUMBER: <b>440413320</b> TMR REGISTRATION NUMBER: 0323 REFERENCE ID: EQL05-04   REV: 03   PAGE: 23 of 45	

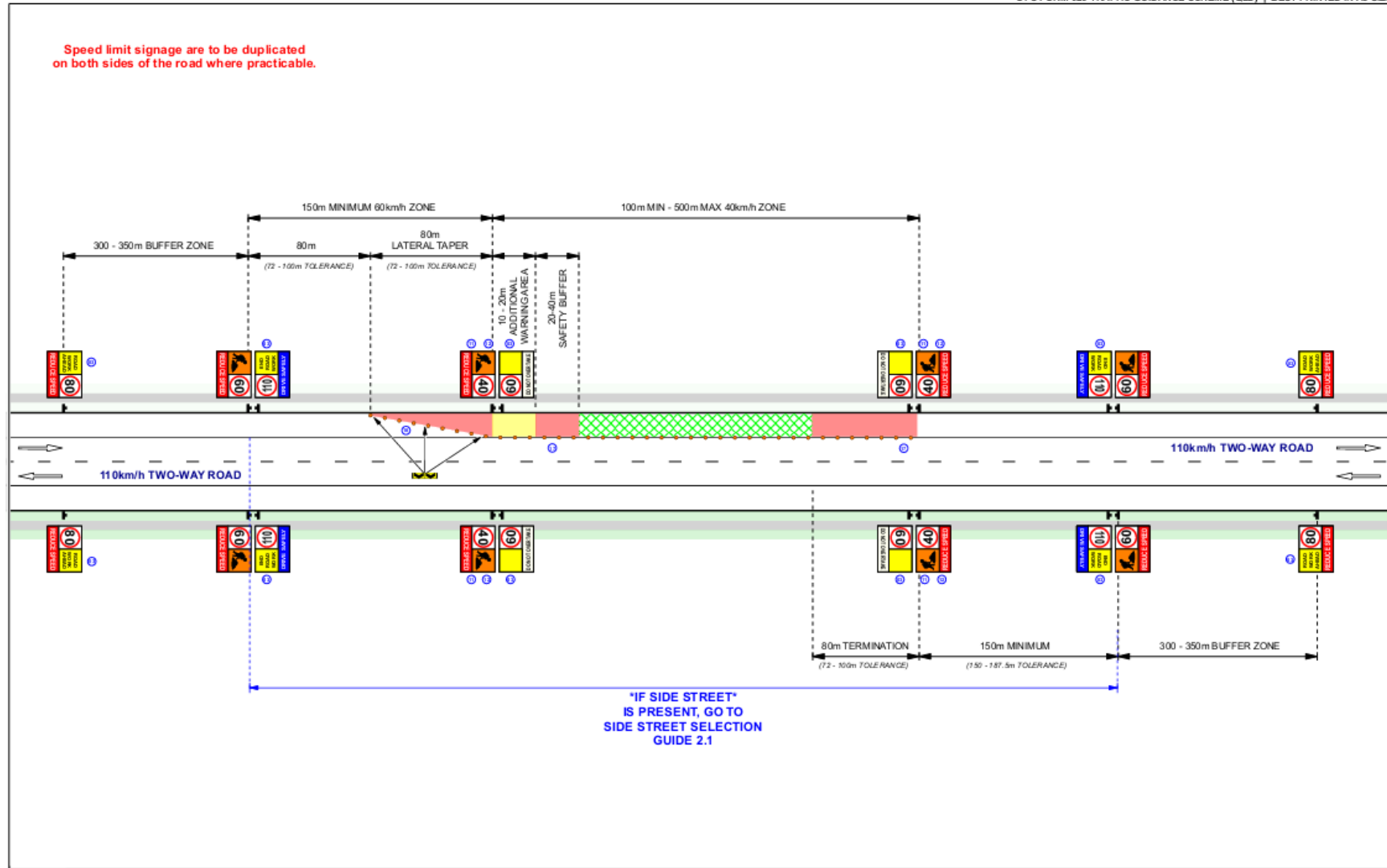


<b>CLIENT:</b> ENERGY QLD <small>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</small>		<b>LOCATION:</b> SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:		<b>VARIOUS LOCATIONS</b> 80 km/h TWO-WAY ROADS 12/09/2024		<b>TERM:</b> ROAD TYPE: POST ED SPEED: OPERATION: TRAVELLED PATH: AADT:		SHORT TWO-WAY 80 km/h SHOULDER CLOSURE PAST >1000		<b>EQL05-05 SHOULDER CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>  Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.co.au TMR REGISTRATION NUMBER: 0323		APPROVED BY THE DESIGNER: Anthony Abrahamson CONTRACTOR'S SIGNATURE:  EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: <b>EQL05-05</b> REV: <b>03</b> PAGE: <b>24 of 45</b>	
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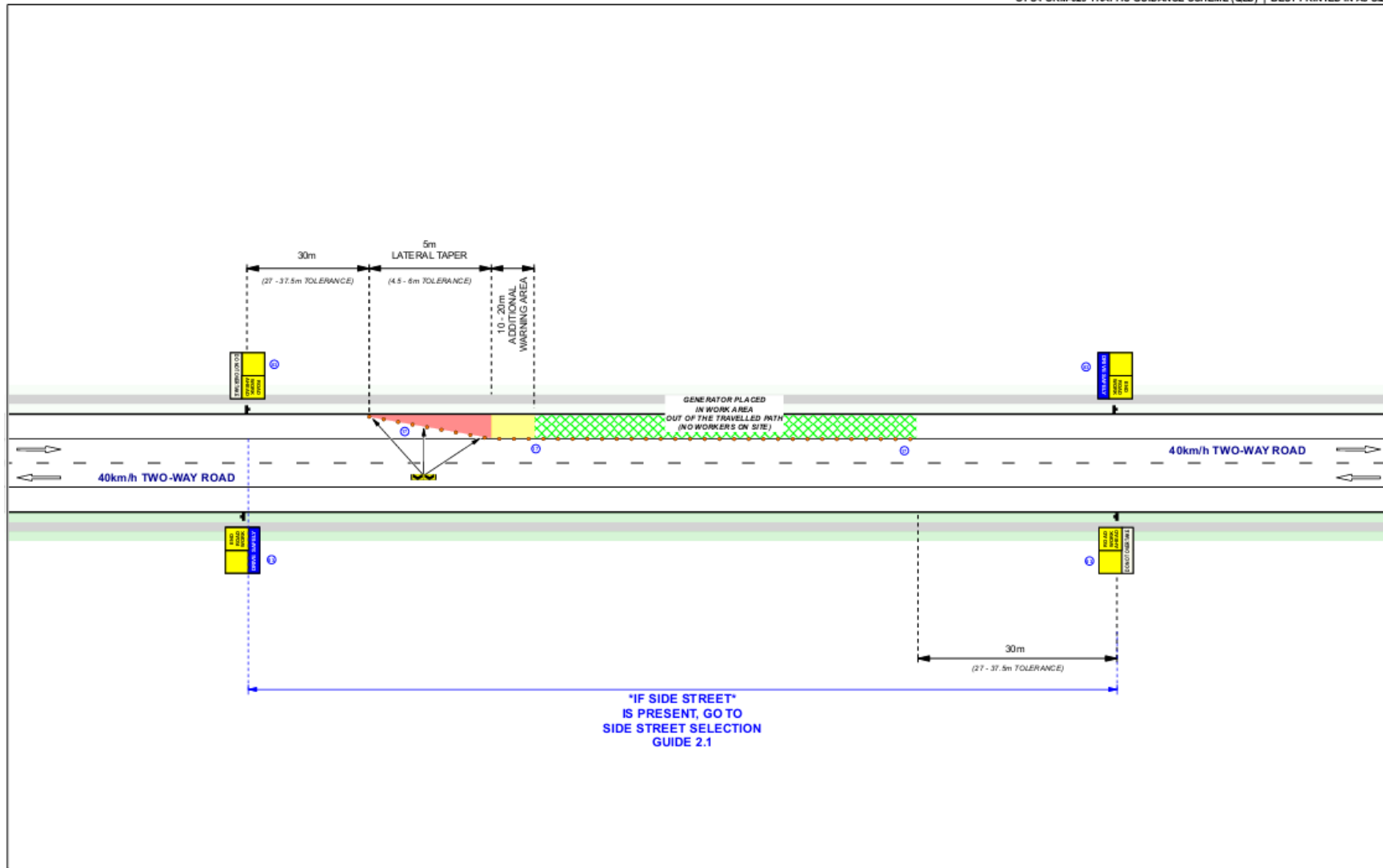




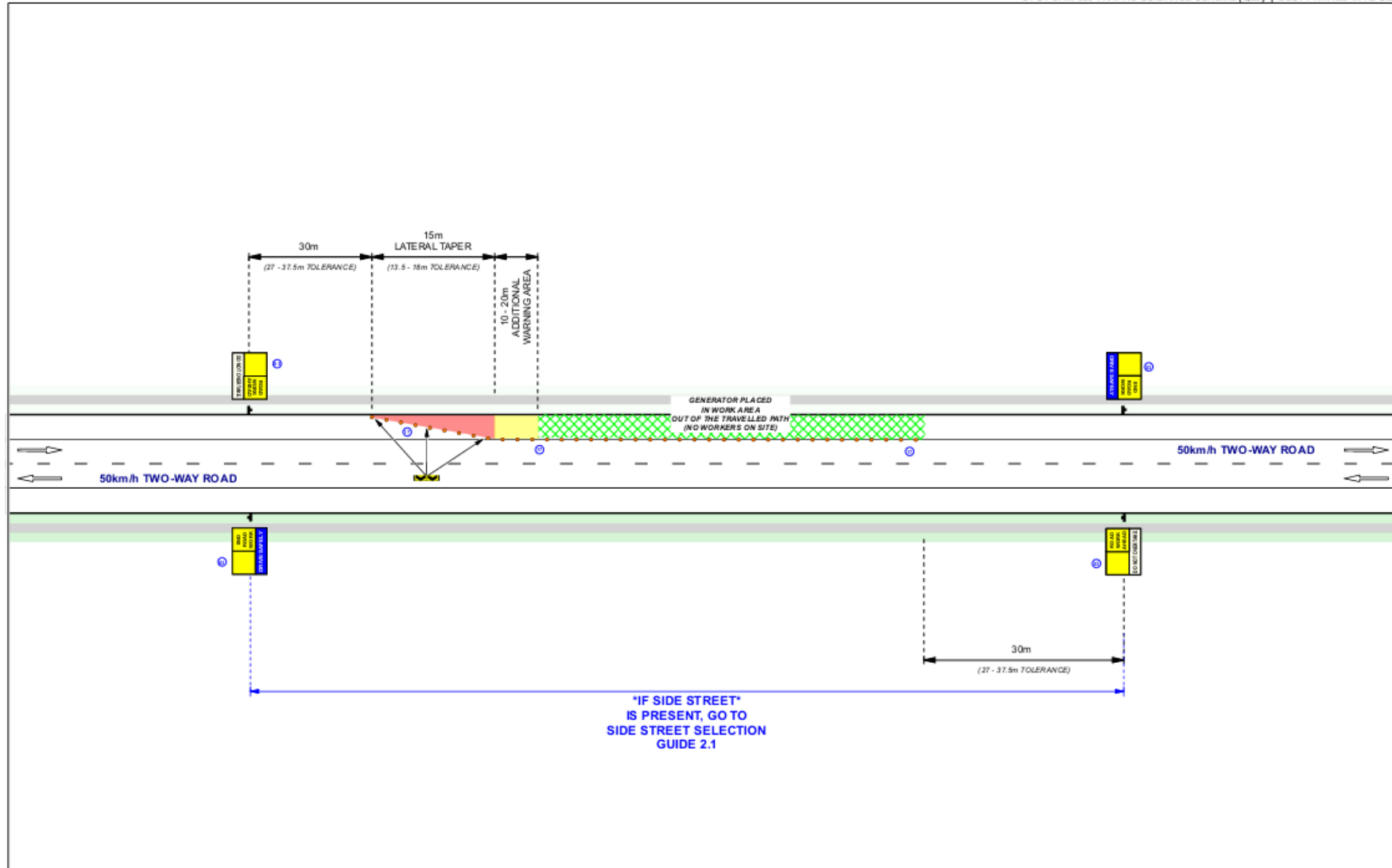
<b>CLIENT: ENERGY QLD</b>		<b>EQL05-06 SHOULDER CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>	
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b></p> <p>IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.</p> <p><b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b></p>		<p>APPROVED BY TMR DESIGNER: Anthony Abrahamson 02048474010/0432</p> <p><b>440413320</b></p> <p>EVOLUTION JOB NUMBER</p> <p>REFERENCE ID: <b>EQL05-06</b></p> <p>REV: <b>03</b></p> <p>PAGE: <b>25 of 45</b></p>	
<p><b>DRAW NORTH ARROW</b></p>	<p>LOCATION: VARIOUS LOCATIONS</p> <p>SUBURB: 1ST CROSS ST: 90 km/h</p> <p>2ND CROSS ST: TWO-WAY ROADS</p> <p>GPS/CHAINAGE: -</p> <p>DATE OF REVIEW: 12/09/2024</p>	<p>TERM: ROAD TYPE: SHORT TWO-WAY</p> <p>POSTED SPEED: 90 km/h</p> <p>OPERATION: SHOULDER CLOSURE</p> <p>TRAVELLED PATH: PAST</p> <p>AADT: &gt;1000</p>	<p><b>EVOLUTION</b></p> <p>Evolution Traffic Management</p> <p>Unit 1/29 Amada Place, Banyo</p> <p>Queensland 4014</p> <p>Email: QLDplans@evolutiongroup.com.au</p> <p>TMR REGISTRATION NUMBER: 0323</p>



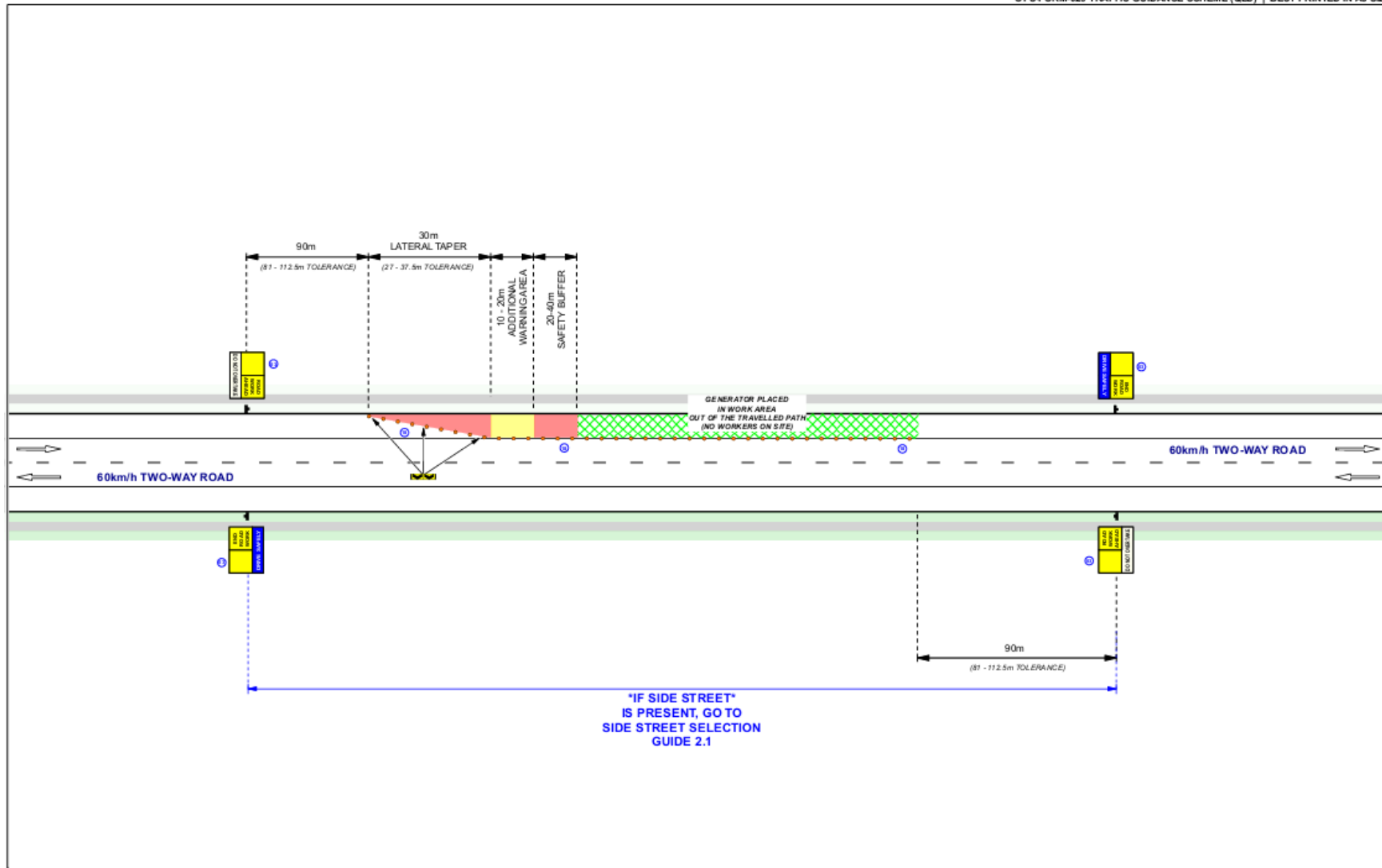
<b>CLIENT: ENERGY QLD</b> <small>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</small>		<b>LOCATION:</b> SUBURB: VARIOUS LOCATIONS 1ST CROSS ST: 110 km/h 2ND CROSS ST: TWO-WAY ROADS GPS/CHAINAGE: - DATE OF REVIEW: 12/09/2024	<b>TERM:</b> ROAD TYPE: SHORT TWO-WAY POSTED SPEED: 110 km/h OPERATION: SHOULDER CLOSURE TRAVELLED PATH: PAST AADT: >1000	<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au	APPROVED BY TR DESIGNER: Anthony Abrahamson DATE: 12/09/24 EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: EQL05-08 REV: 03 PAGE: 27 of 45
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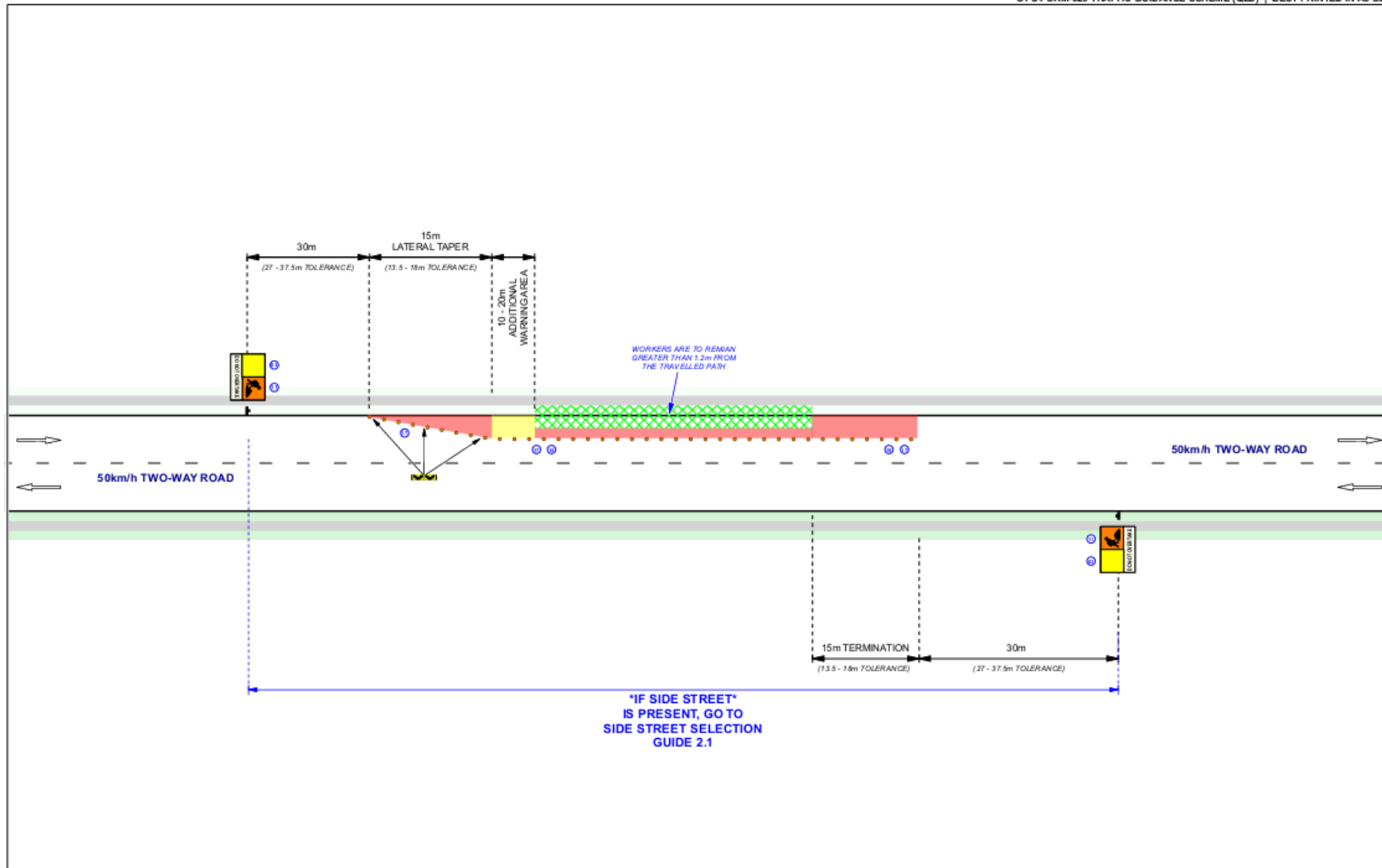
<b>CLIENT:</b> ENERGY QLD		<b>EQL06-01 SHOULDER/VERGE CLOSURE - GENERATOR PLACEMENT</b>						
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.</p> <p>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</p>	<p><b>NOTES EQ</b></p> <p><b>DRAW NORTH</b> ARROW</p>	<p>LOCATION: SUBURB:</p>	<p>VARIOUS LOCATIONS</p>	<p>TERM: ROAD TYPE:</p>	<p>SHORT TWO-WAY</p>	<p><b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Aimada Place, Banyo Queensland 4014 Email: QLDplans@evoluongroup.com.au</p>	<p>APPROVED BY THE DESIGNER: Anthony Abrahamson DATE: 16/09/2024</p>	
		<p>1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:</p>	<p>40 km/h TWO-WAY ROADS - 12/09/2024</p>	<p>OPERATION: TRAVELLED PATH: AADT:</p>	<p>40 km/h SHOULDER/VERGE PAST &gt;1000</p>		<p>TMR REGISTRATION NUMBER: 0323</p>	<p>EVOLUTION JOB NUMBER: <b>440413320</b></p>



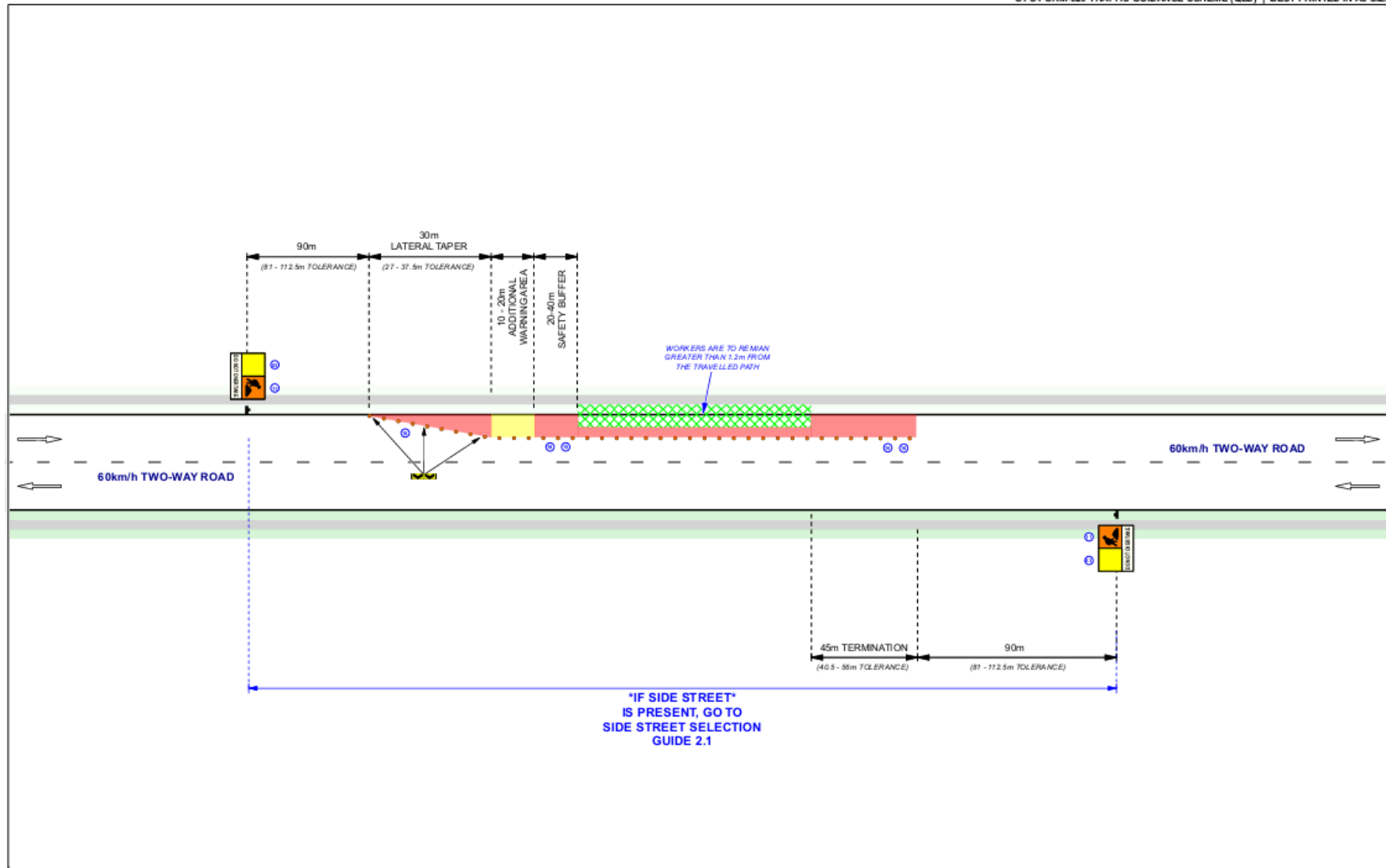
<b>CLIENT:</b> ENERGY QLD		<b>EQL06-02 SHOULDER/VERGE CLOSURE - GENERATOR PLACEMENT</b>	
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b>. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.</p> <p><b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b></p>		<p><b>LOCATION:</b> SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:</p>	<p><b>VARIOUS LOCATIONS</b> 50 km/h TWO-WAY ROADS - 12/09/2024</p>
<p><b>TERM:</b> ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:</p>	<p>TWO-WAY 50 km/h SHOULDER/VERGE PAST &gt;1000</p>	<p><b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Amada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au</p>	<p>APPROVED BY THE DESIGNER: Anthony Abrahamson EQL06-02-03</p> <p><b>440413320</b></p> <p>REFERENCE ID: <b>EQL06-02</b>   REV: <b>03</b>   PAGE: <b>29 of 45</b></p>



<b>CLIENT:</b> ENERGY QLD		<b>EQL06-03 SHOULDER/VERGE CLOSURE - GENERATOR PLACEMENT</b>		
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.</p> <p><b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b></p>	<p><b>NOTES EQ</b></p> <p><b>DRAW NORTH ARROW</b></p>	<p><b>LOCATION:</b></p> <p>SUBURB: VARIOUS LOCATIONS</p> <p>1ST CROSS ST: 60 km/h</p> <p>2ND CROSS ST: TWO-WAY ROADS</p> <p>GPS/CHAINAGE: -</p> <p>DATE OF REVIEW: 12/09/2024</p>	<p><b>TERM:</b></p> <p>ROAD TYPE: SHORT TWO-WAY</p> <p>POSTED SPEED: 60 km/h</p> <p>OPERATION: SHOULDER/VERGE</p> <p>TRAVELLED PATH: PAST</p> <p>AADT: &gt;1000</p>	<p><b>EVOLUTION</b></p> <p>Evolution Traffic Management</p> <p>Unit 1/29 Armada Place, Banyo Queensland 4014</p> <p>Email: QLDplans@evolutiongroup.com.au</p> <p>TMR REGISTRATION NUMBER: 0323</p>
		<p>APPROVED BY THE ENGINEER:</p> <p>Anthony Abrahamson</p> <p>EVOLUTION JOB NUMBER: <b>440413320</b></p> <p>REFERENCE ID: <b>EQL06-03</b></p>		<p>REV: <b>03</b></p> <p>PAGE: <b>30 of 45</b></p>

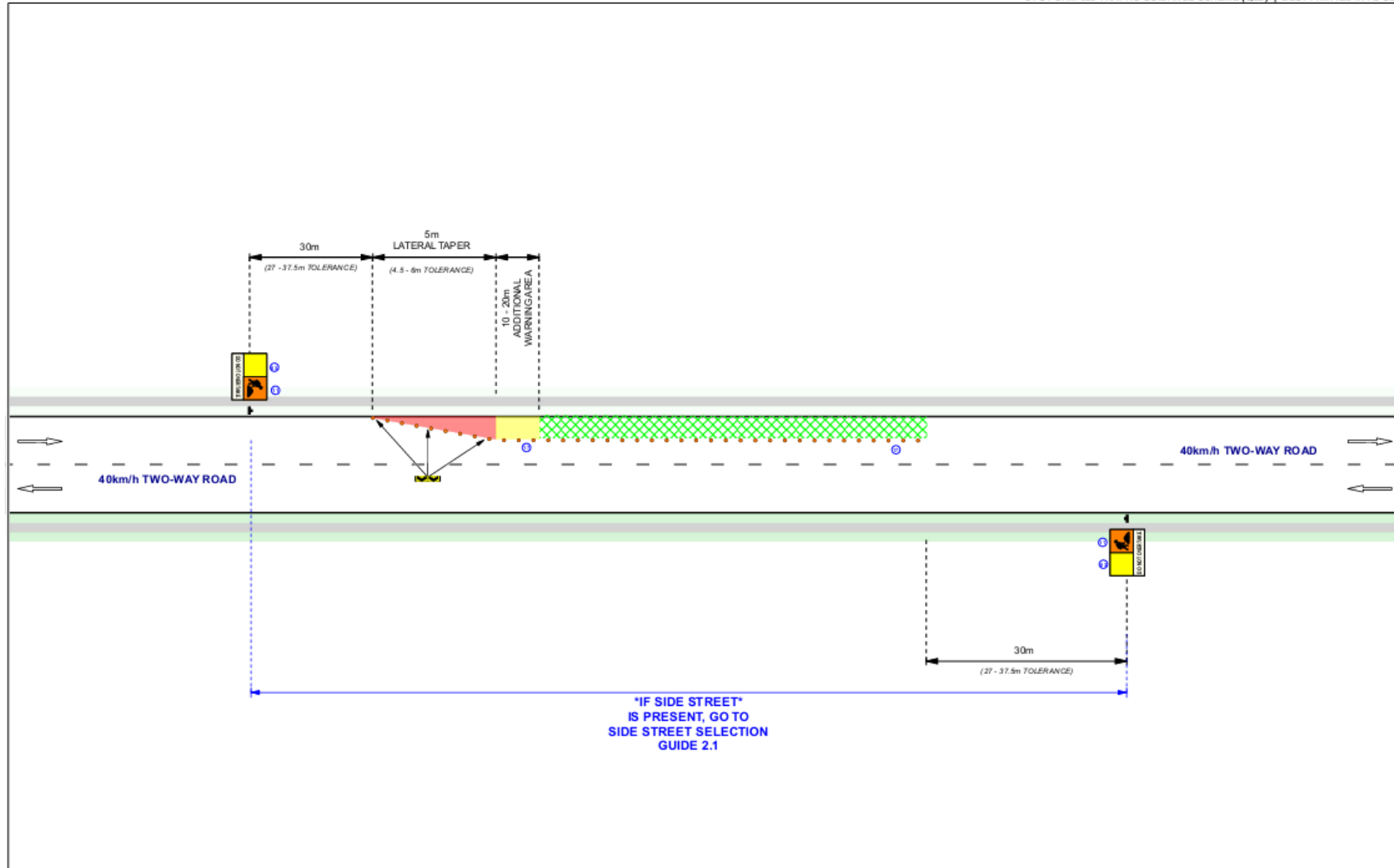


<b>CLIENT:</b> ENERGY QLD		<b>EQL07-01 PART LANE CLOSURE - WORKERS GREATER THAN 1.2m FROM TRAVEL PATH</b>			
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		<b>LOCATION:</b> SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:	VARIOUS LOCATIONS 50 km/h TWO-WAY ROADS - 12/09/2024	<b>TERM:</b> ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:	SHORT TWO-WAY 50 km/h PART-LANE CLOSURE PAST >1000
<b>DRAW NORTH ARROW</b>		APPROVED BY TMR DESIGNER: Anthony Abudubon 0438 760 096 012 <b>440413320</b> TMR REGISTRATION NUMBER: 0323 REFERENCE ID: <b>EQL07-01</b> REV: <b>03</b> PAGE: <b>31 of 45</b>			



**"IF SIDE STREET" IS PRESENT, GO TO SIDE STREET SELECTION GUIDE 2.1**

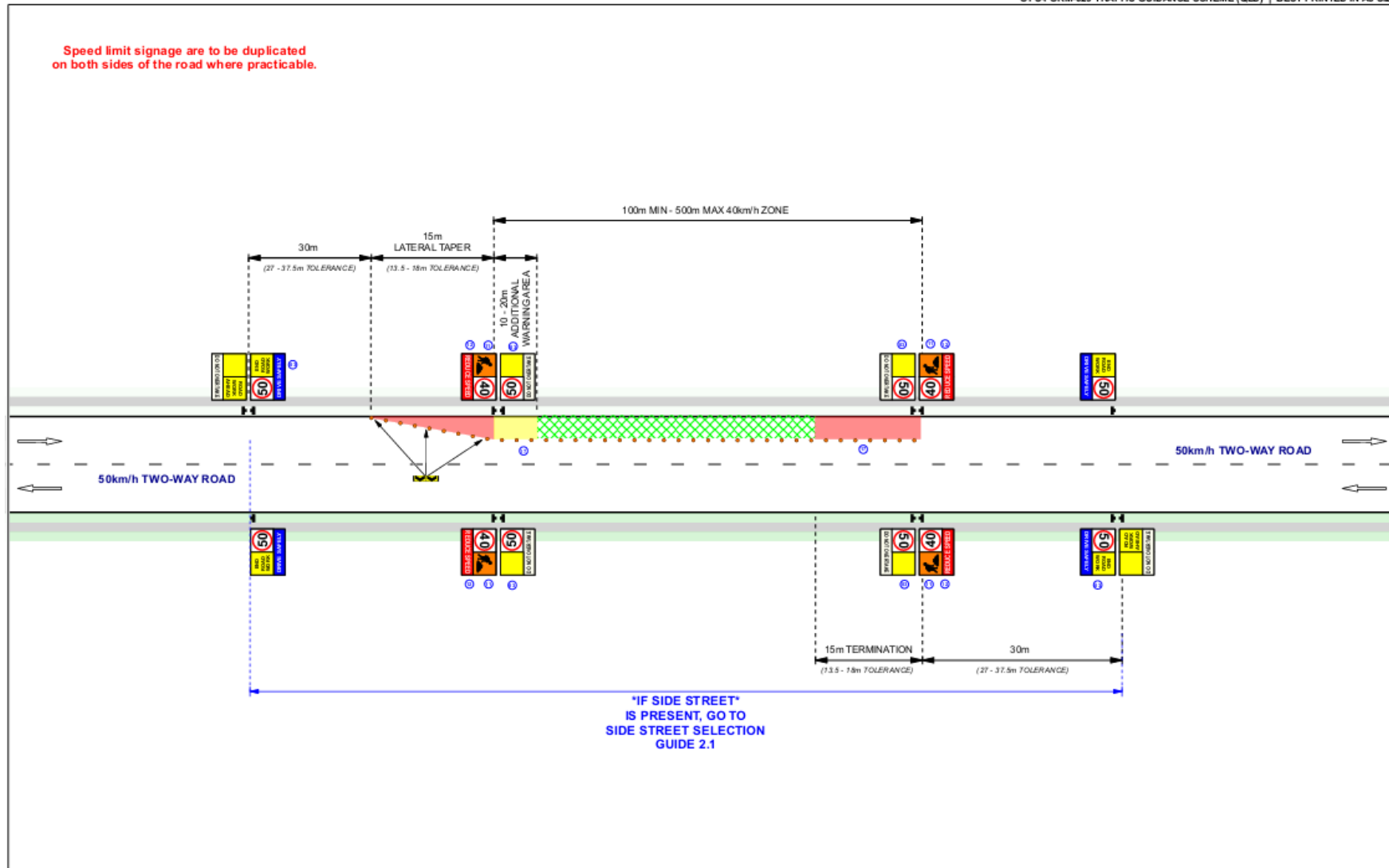
<b>CLIENT:</b> ENERGY QLD		<b>EQL07-02 PART LANE CLOSURE - WORKERS GREATER THAN 1.2m FROM TRAVEL PATH</b>		
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> . IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. <b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b>		<b>LOCATION:</b> VARIOUS LOCATIONS <b>SUBURB:</b> 60 km/h <b>1ST CROSS ST:</b> TWO-WAY ROADS <b>2ND CROSS ST:</b> - <b>GPS/CHAINAGE:</b> - <b>DATE OF REVIEW:</b> 12/09/2024	<b>TERM:</b> ROAD TYPE: TWO-WAY <b>POSTED SPEED:</b> 60 km/h <b>OPERATION:</b> PART-LANE CLOSURE <b>TRAVELLED PATH:</b> PAST <b>AADT:</b> >1000	<b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au TMR REGISTRATION NUMBER: 0323
<b>APPROVED BY TMR DESIGNER:</b> Anthony Abrattini (03) 5019 1462		<b>EVOLUTION JOB NUMBER:</b> 440413320		
<b>REFERENCE ID:</b> EQL07-02		<b>REV:</b> 03 <b>PAGE:</b> 32 of 45		



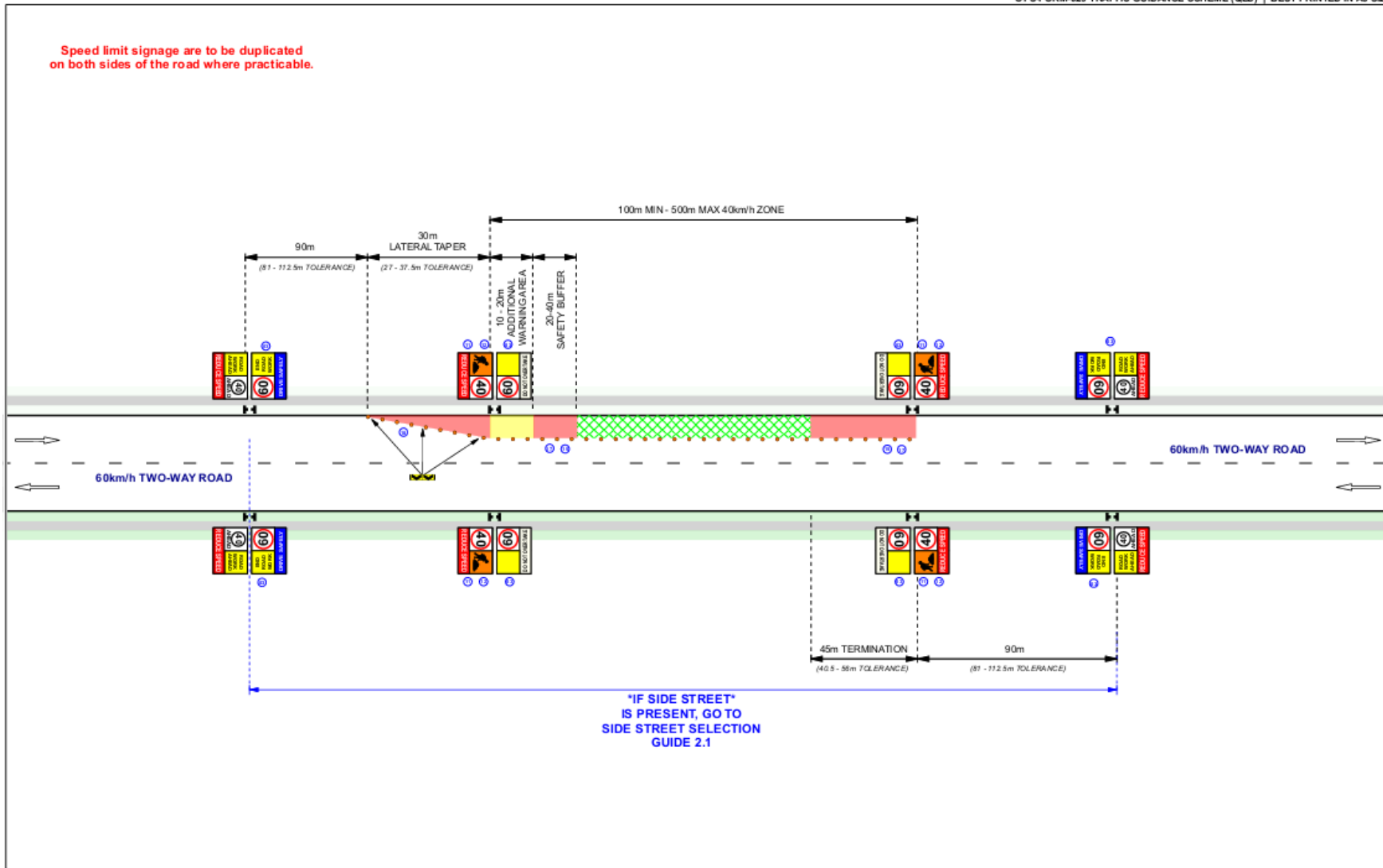
<b>CLIENT:</b> ENERGY QLD <small>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</small>		<b>LOCATION:</b> SUBURB: VARIOUS LOCATIONS 1ST CROSS ST: 40 km/h 2ND CROSS ST: TWO-WAY ROADS GPS/CHAINAGE: - DATE OF REVIEW: 12/09/2024		<b>TERM:</b> ROAD TYPE: SHORT TWO-WAY POSTED SPEED: 40 km/h OPERATION: PART-LANE CLOSURE TRAVELLED PATH: PAST AADT: >1000		<b>EQL08-01 PART LANE CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>  Evolution Traffic Management Unit 1/29 Armada Place, Barryo Queensland 4014 Email: QLDplans@evolutiongroup.com.au TMR REGISTRATION NUMBER: 0323 APPROVED BY THE DESIGNER: Anthony Abrahamson 440413320 REFERENCE ID: EQL08-01 REV: 03 PAGE: 33 of 45	
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Check this is the latest version before use.

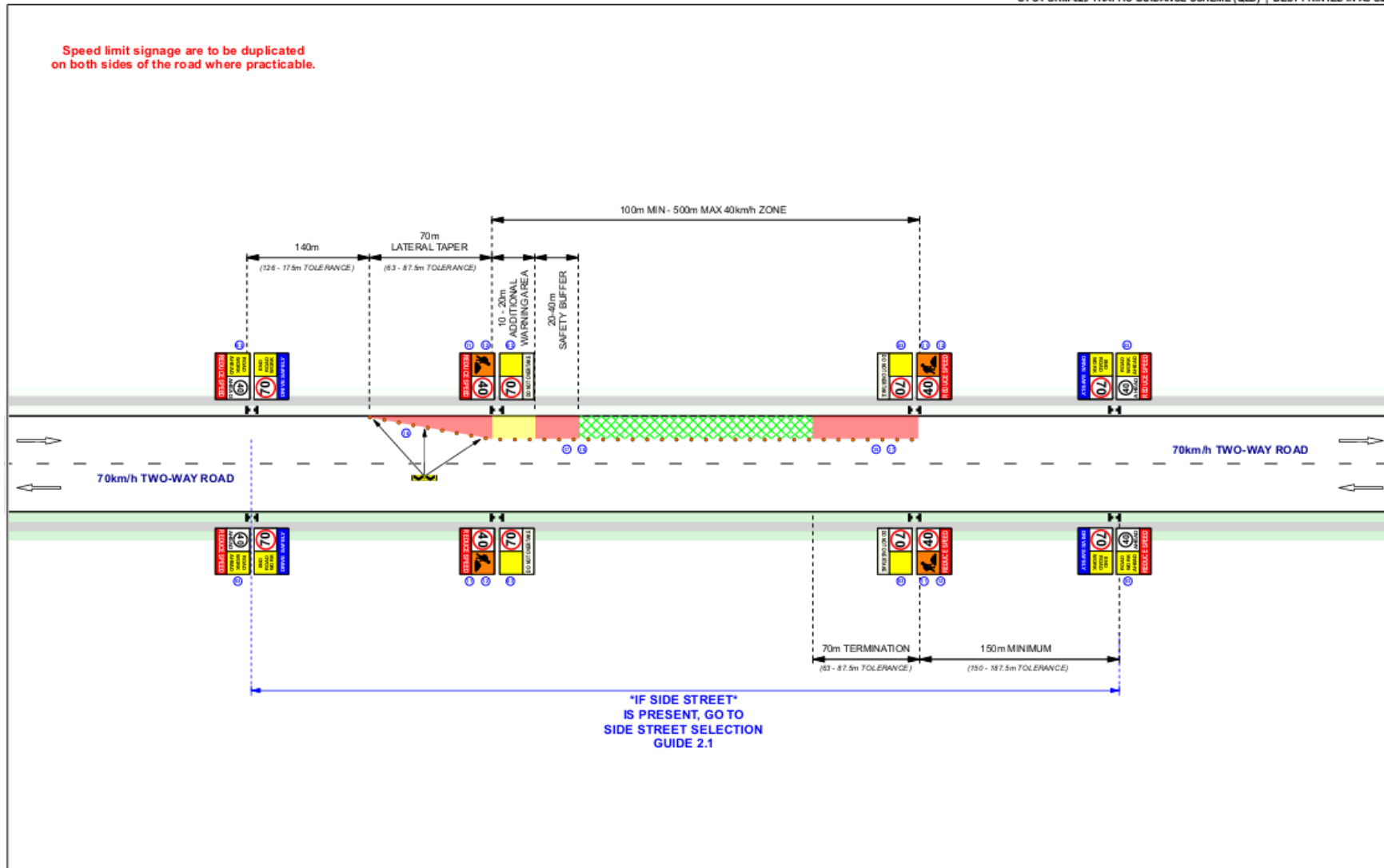




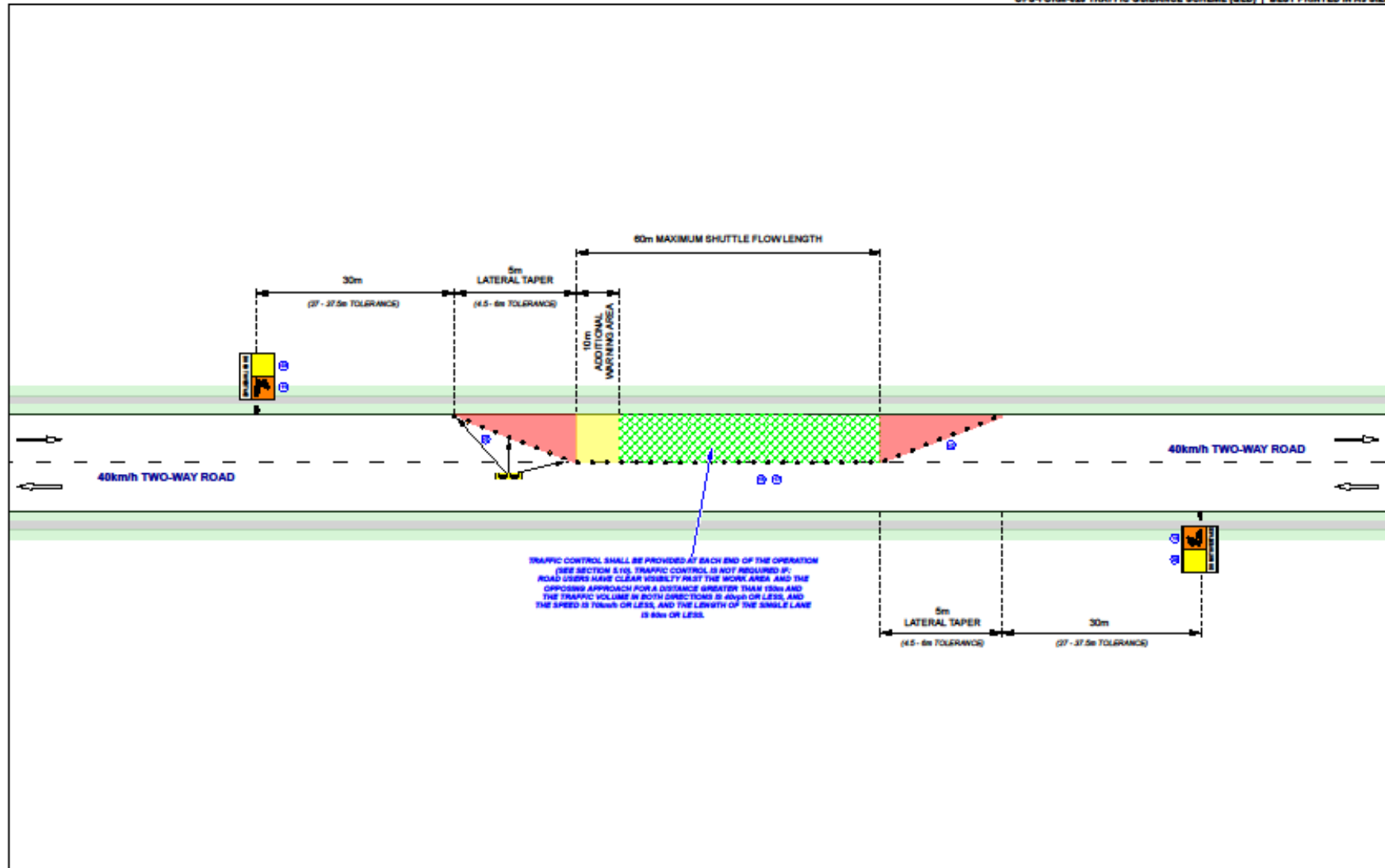
<b>CLIENT:</b> ENERGY QLD		<b>EQL08-02 PART LANE CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>	
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b></p> <p>IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.</p> <p>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</p>		<p>APPROVED BY TMR DESIGNER: Anthony Abrahamson GUSTAF TMS OPS 9.03</p> <p>EVOLUTION JOB NUMBER: <b>440413320</b></p> <p>REFERENCE ID: <b>EQL08-02</b>   REV: <b>03</b>   PAGE: <b>34 of 45</b></p>	
<b>LOCATION:</b>	VARIOUS LOCATIONS	<b>TERM:</b>	SHORT
<b>SUBURB:</b>	1ST CROSS ST:	<b>ROAD TYPE:</b>	TWO-WAY
<b>2ND CROSS ST:</b>	50 km/h	<b>POSTED SPEED:</b>	50 km/h
<b>GPS/CHAINAGE:</b>	TWO-WAY ROADS	<b>OPERATION:</b>	PART-LANE CLOSURE
<b>DATE OF REVIEW:</b>	12/09/2024	<b>TRAVELLED PATH:</b>	PAST
		<b>AADT:</b>	>1000
<b>DRAW NORTH ARROW</b>		<p><b>EVOLUTION</b></p> <p>Evolution Traffic Management</p> <p>Unit 1129 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au</p> <p>TMR REGISTRATION NUMBER: 0323</p>	



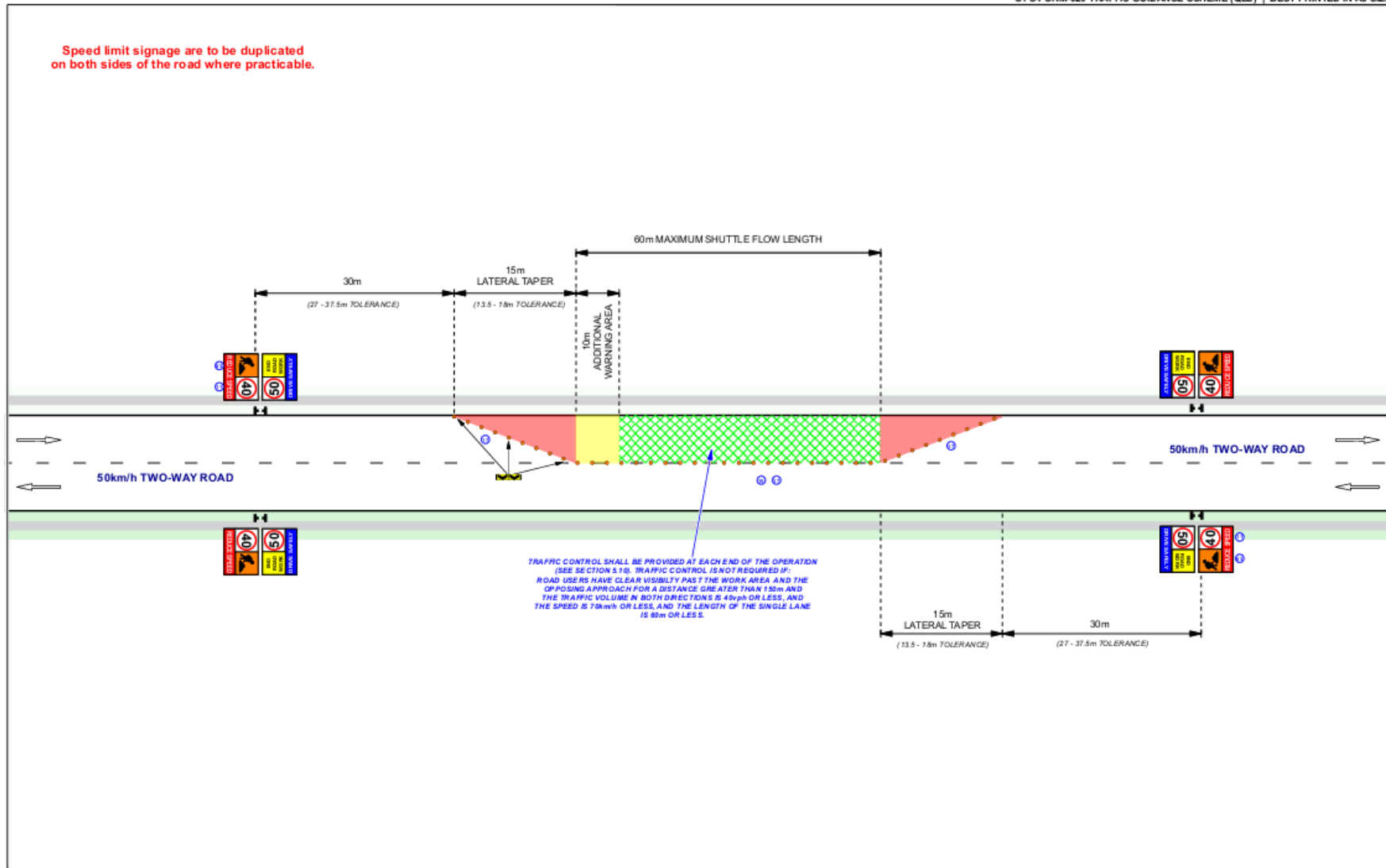
<b>CLIENT:</b> ENERGY QLD		<b>EQL08-03 PART LANE CLOSURE - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>			
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<b>DRAW NORTH ARROW</b>		<b>EVOLUTION</b> Evolution Traffic Management Unit 1/23 Armada Place, Barryo Queensland 4014 Email: QLDplans@evolutiongroup.com.au			
		APPROVED BY TMR DESIGNER: APPROVED BY AUSTROADS: EVOLUTION JOB NUMBER: <b>440413320</b>		REFERENCE ID: <b>EQL08-03</b>	
		TMR REGISTRATION NUMBER: 0323		REV: <b>03</b> PAGE: <b>35 of 45</b>	



<b>CLIENT:</b> ENERGY QLD		<b>LOCATION:</b> VARIOUS LOCATIONS		<b>TERM:</b> SHORT		<b>OPERATION:</b> SHOULDER CLOSURE		<b>EVOLUTION</b>		<b>APPROVED BY THE CLIENT:</b> Anthony Abrahamson	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. *THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		<b>SUBURB:</b> 70 km/h		<b>ROAD TYPE:</b> TWO-WAY		<b>POSTED SPEED:</b> 70 km/h		<b>Evolution Traffic Management</b>		<b>EVOLUTION JOB NUMBER:</b> 440413320	
<b>DRAW NORTH</b> ARROW		<b>GPS/CHAINAGE:</b> -		<b>OPERATION:</b> SHOULDER CLOSURE		<b>TRAVELLED PATH:</b> PAST		Unit 1/29 Amada Place, Banyo Queensland 4014 Email: QLDplans@evolutiogroup.com.au		<b>TMR REGISTRATION NUMBER:</b> 0323	
<b>DATE OF REVIEW:</b> 12/09/2024		<b>AADT:</b> >1000		<b>TRAVELLED PATH:</b> PAST		<b>AADT:</b> >1000		<b>REFERENCE ID:</b> EQL08-04		<b>REV PAGE:</b> 03 36 of 45	

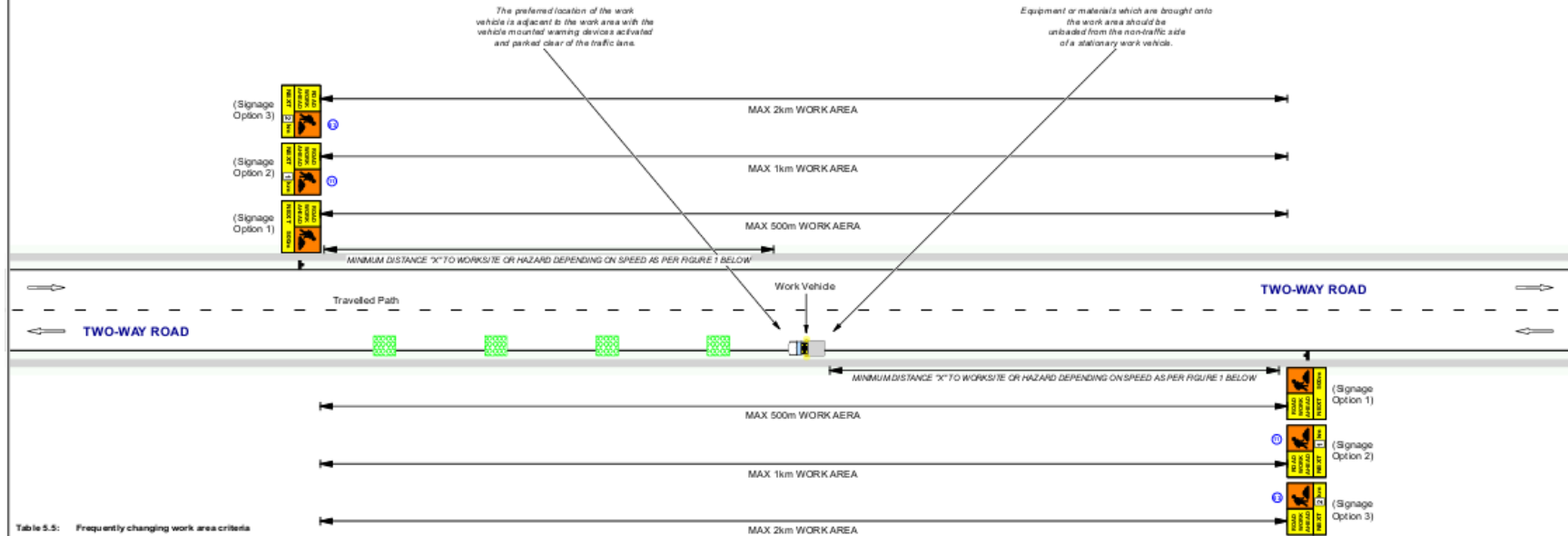


<b>CLIENT:</b> ENERGY QLD		<b>EQL09-01 SHUTTLE FLOW, NO TRAFFIC CONTROL - WORKERS WITHIN 1.2m FROM TRAVEL PATH</b>		
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b>. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.</p> <p>*THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW*</p>		<p><b>LOCATION:</b> SUBURB: 1ST CROSS ST: 2ND CROSS ST: SP/CHAINAGE: DATE OF REVIEW:</p>	<p><b>VARIOUS LOCATIONS</b> 40 km/h TWO-WAY ROADS - 12/09/2024</p>	<p><b>TERM:</b> ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:</p> <p>SHORT TWO-WAY 40 km/h SHUTTLE FLOW FAST &gt;1000</p>
<p><b>DRAWN NORTH ARROW</b></p>		<p><b>EVOLUTION</b> Evolution Traffic Management Unit 103 Arnsade Place, Banyo Queensland 4014 Email: GLDplans@evolutiongroup.com.au</p> <p>TWR REGISTRATION NUMBER: 0323</p>		
		<p>APPROVED BY: <b>EVOLUTION</b> 440413320 REFERENCE ID: <b>EQL09-01</b>   FORM PAGE: <b>03</b>   37 of 45</p>		



<b>CLIENT:</b> ENERGY QLD		<b>LOCATION:</b> VARIOUS LOCATIONS		<b>TERM:</b> SHORT		<b>EVOLUTION JOB NUMBER:</b> 440413320	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b> . IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. <b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b>		SUBURB: 1ST CROSS ST. 2ND CROSS ST. GPS/CHAINAGE: DATE OF REVIEW: 12/09/2024		ROAD TYPE: TWO-WAY POSTED SPEED: 50 km/h OPERATION: SHUTTLE FLOW TRAVELLED PATH: PAST AADT: >1000		APPROVED BY TMR DESIGNER: Anthony Abramo DATE: 12/09/2024 TMR REGISTRATION NUMBER: 0323 REFERENCE ID: EQL09-02 REV: 03 PAGE: 38 of 45	
<b>DRAW NORTH ARROW</b>							

## FREQUENTLY CHANGING WORK AREA OUTSIDE OF A TRAFFIC LANE (AGTTM, PART 5, CLAUSE 5.3)



**Table 5.5: Frequently changing work area criteria**

Criteria	Yes/No
1. The work area is outside of traffic lanes.	
2. Works move frequently between successive locations. The maximum work period at any one location is: • for traffic speeds 70 km/h or less: - 20 min at any traffic volume - 40 min at traffic volumes of 150 vph or less - 1 hour at traffic volumes of 40 vph or less • for traffic speeds greater than 70 km/h: - Within 1.2m of traffic - 5 min if there are workers on foot - 20 minutes if there are large plant items only - 20 min if outside 1.2 m of moving traffic.	
3. A vehicle mounted warning device is displayed on the work vehicle and not obscured. There is a minimum sight distance from approaching road users to the vehicle mounted warning device of: • 150 m if the speed is 60 km/h or less • 250 m if the speed is more than 60 km/h	

If any of the above criteria cannot be achieved, alternative treatments detailed in this Part, the treatments of a fully protected static worksite (see AGTTM Part 3) or mobile works convoy (see AGTTM Part 4) shall be applied.

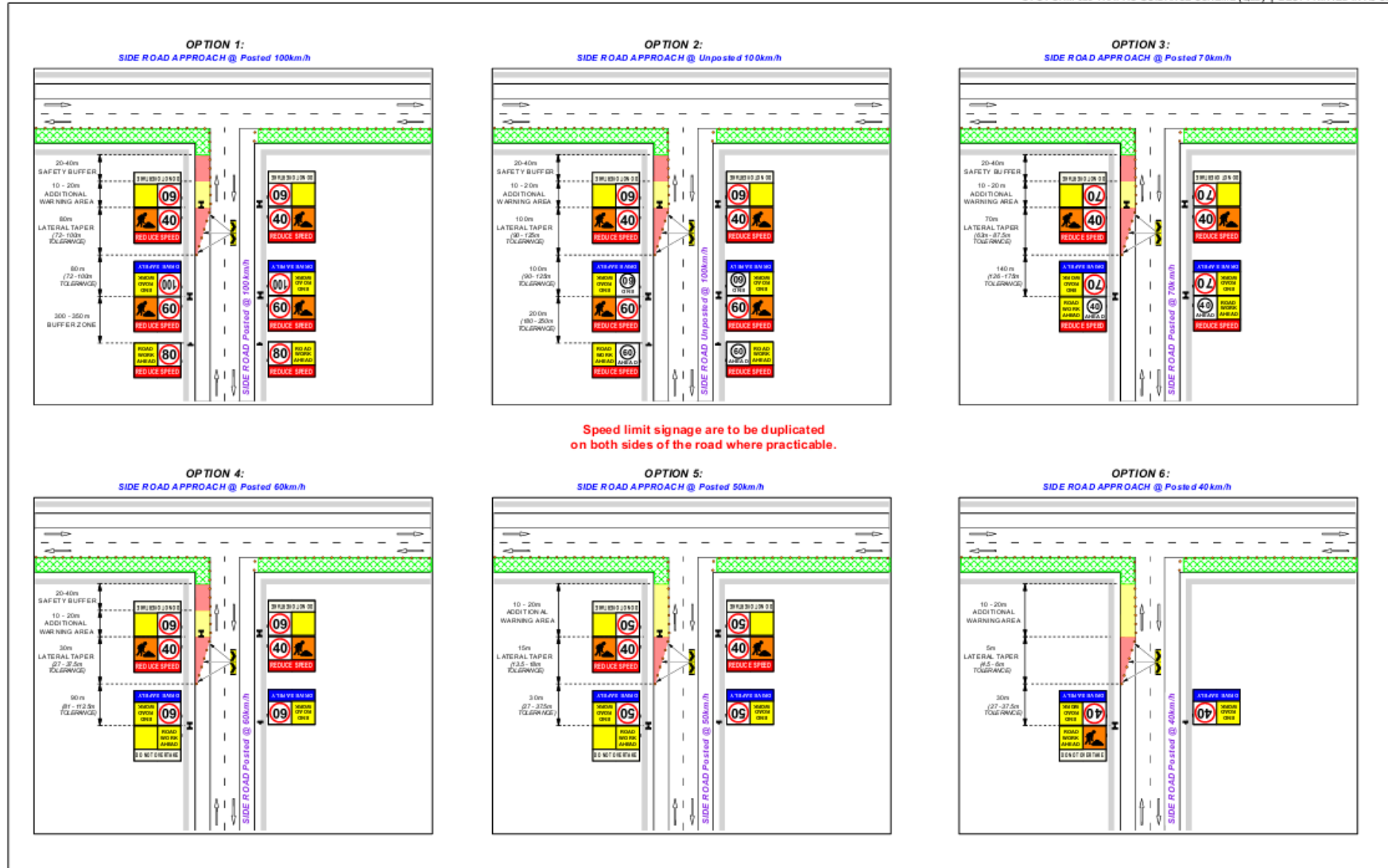
**Figure 1:**

Speed (km/h)	Distance (m)
40	15 (Tolerance 13.5 - 18m)
50	15 (Tolerance 13.5 - 18m)
60	45 (Tolerance 40.5 - 56m)
70	70 (Tolerance 63 - 87.5m)
80	80 (Tolerance 72 - 100m)
90	90 (Tolerance 81 - 112.5m)
100	100 (Tolerance 90 - 125m)
110	110 (Tolerance 99 - 137.5m)

<b>CLIENT: ENERGY QLD</b>		<b>EQL10-01 FREQUENTLY CHANGING WORK AREA - OUTSIDE A TRAFFIC LANE</b>	
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</p>		<p>LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:</p>	<p>VARIOUS LOCATIONS VARIOUS SPEEDS TWO-WAY ROADS - 12/09/2024</p>
<p>TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:</p>	<p>SHORT TWO-WAY VARIOUS SPEEDS FREQUENTLY CHANGING WORK AREA PAST &gt;1000</p>	<p><b>EVOLUTION</b> Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiontmg.com.au</p>	<p>APPROVED BY 19 DESIGNER: Anthony Abrahamson 50789 160195 82 EVOLUTION JOB NUMBER: <b>440413320</b> REFERENCE ID: <b>EQL10-01</b></p>
<p>DRAW NORTH ARROW</p>		<p>TMR REGISTRATION NUMBER: 0323 REV: 03 PAGE: 39 of 45</p>	

# WORKING ON ROADWAYS MANUAL

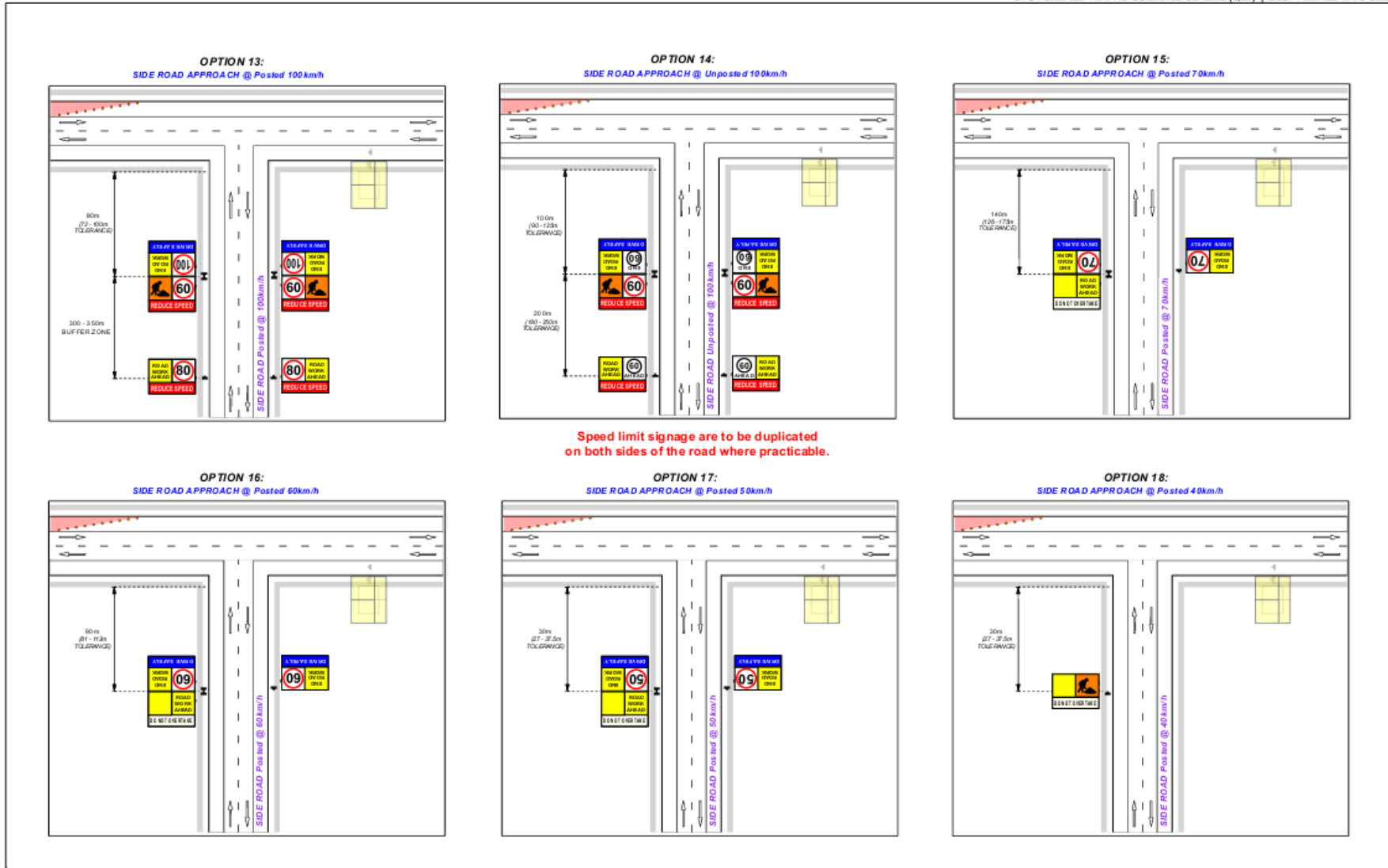
SIDE ROADS									
Is there a speed reduction on the main selected TGS?	YES	Is the Side Road located within the closure?	YES	Is the Side Road located on the same side as the closure?	NO	40km/h	EQL11-02 Option 12		
						50km/h	EQL11-02 Option 11		
						60km/h	EQL11-02 Option 10		
						70km/h	EQL11-02 Option 9		
						Unposted (Rural)	EQL11-02 Option 8		
						100km/h	EQL11-02 Option 7		
			None of the above	A site specific TGS is required for works					
			YES	YES	YES	NO	NO	40km/h	EQL11-02 Option 6
								50km/h	EQL11-02 Option 5
								60km/h	EQL11-02 Option 4
								70km/h	EQL11-02 Option 3
								Unposted (Rural)	EQL11-02 Option 2
	100km/h	EQL11-02 Option 1							
	None of the above	A site specific TGS is required for works							
	NO	NO	NO	NO	NO	40km/h	EQL11-03 Option 18		
						50km/h	EQL11-03 Option 17		
						60km/h	EQL11-03 Option 16		
						70km/h	EQL11-03 Option 15		
						Unposted (Rural)	EQL11-03 Option 14		
						100km/h	EQL11-03 Option 13		
	None of the above	A site specific TGS is required for works							
	NO	NO	Is the works for Generator Storage TGS?	NO	NO	40km/h	EQL11-04 Option 24		
						50km/h	EQL11-04 Option 23		
						60km/h	EQL11-04 Option 22		
70km/h						EQL11-04 Option 21			
Unposted (Rural)						EQL11-04 Option 20			
100km/h						EQL11-04 Option 19			
None of the above		A site specific TGS is required for works							
YES		YES	YES	YES	YES	40km/h	EQL11-05 Option 27		
						50km/h	EQL11-05 Option 26		
						60km/h	EQL11-05 Option 25		
						None of the above	A site specific TGS is required for works		



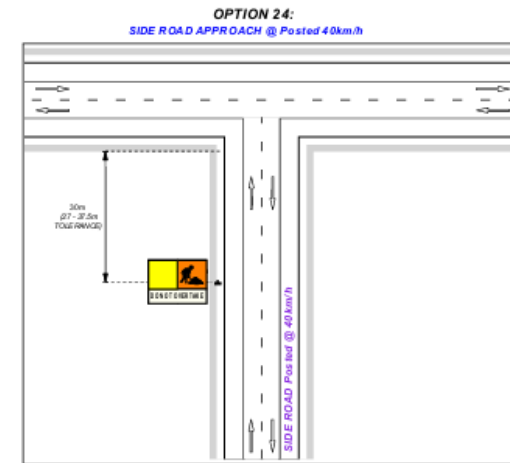
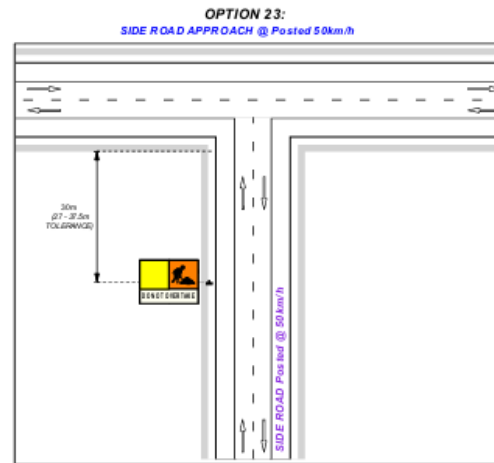
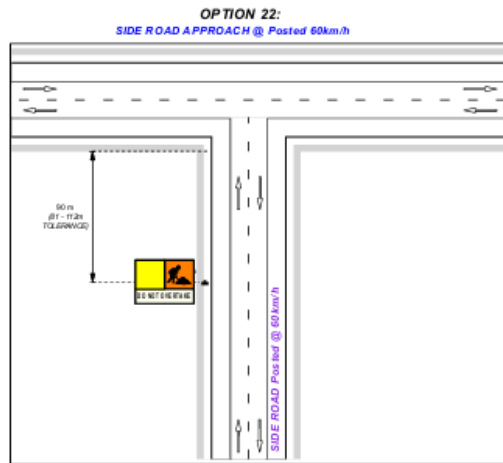
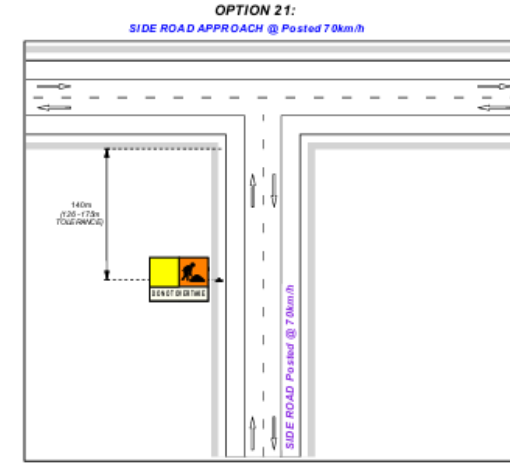
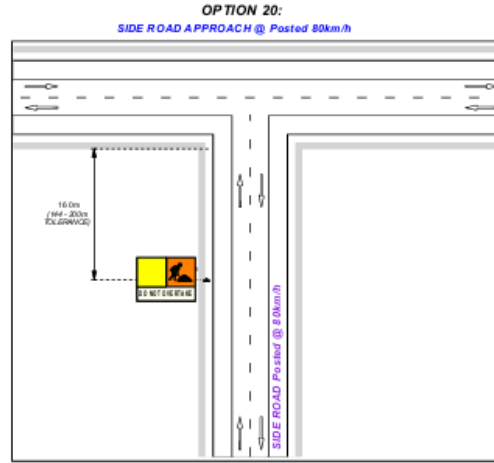
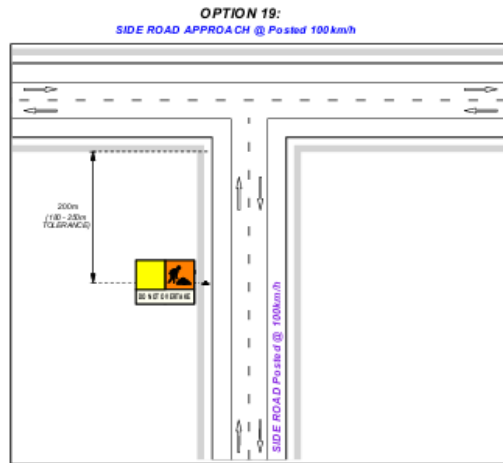
<b>CLIENT: ENERGY QLD</b>		<b>NOTES EQ</b>		<b>EQL11-01 SIDE STREET OPTIONS - WITHIN THE CLOSURE</b>	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH NOTES EQ. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.		LOCATION: SUBURB:	VARIOUS LOCATIONS	TERM: ROAD TYPE:	SHORT TWO-WAY
**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		1ST CROSS ST:	40-100 km/h	POSTED SPEED:	VARIOUS
<b>DRAW NORTH</b>		2ND CROSS ST:	TWO-WAY ROADS	OPERATION:	SIDE STREET OPTIONS
<b>ARROW</b>		GPS/CHAINAGE:	12/09/2024	TRAVELLED PATH:	PAST
		DATE OF REVIEW:		AADT:	>1000
				Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au	
				TMR REGISTRATION NUMBER: 0323 APPROVED BY THE DESIGNER: Anthony Abrahamson DESIGNER SIGNATURE: [Signature]	
				REFERENCE ID: <b>EQL11-01</b> REV: <b>03</b>	
				440413320 REV: <b>03</b> PAGE: <b>41</b> OF <b>45</b>	



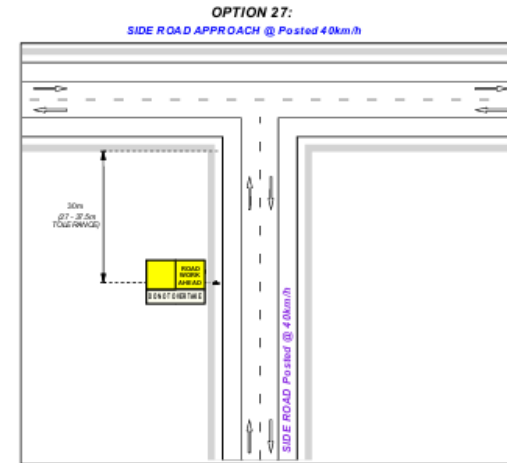
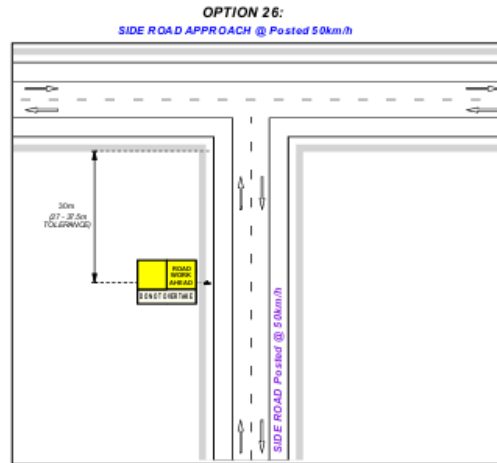
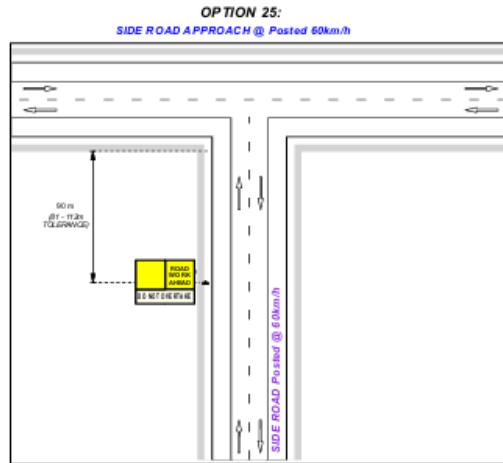




<b>CLIENT: ENERGY QLD</b>		<b>NOTES EQ</b>		<b>EQL11-03 SIDE STREET OPTIONS - BETWEEN CLOSURE &amp; SIGNAGE</b>	
THIS (TGS) SHALL BE READ IN CONJUNCTION WITH THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**		LOCATION: SUBURB: 1ST CROSS ST: 2ND CROSS ST: GPS/CHAINAGE: DATE OF REVIEW:		VARIOUS LOCATIONS 40-100 km/h TWO-WAY ROADS - 12/09/2024	
DRAW NORTH ARROW		TERM: ROAD TYPE: POSTED SPEED: OPERATION: TRAVELLED PATH: AADT:		SHORT TWO-WAY VARIOUS SIDE STREET OPTIONS PAST >10000	
Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email QLDplans@evolutiongroup.com.au		TMR REGISTRATION NUMBER: 0323		APPROVED BY TM DESIGNER: Anthony Abrahamson (SIGNATURE) EVOLUTION JOB NUMBER: 440413320	
REFERENCE ID: EQL11-03		REV: 03		PAGE: 43 of 45	



<b>CLIENT: ENERGY QLD</b>		<b>EQL11-03 SIDE STREET OPTIONS - NO SPEED REDUCTIONS</b>		
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b>. IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON-SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES. **THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</p>		<p>LOCATION: VARIOUS LOCATIONS SUBURB: 40-100 km/h 1ST CROSS ST: TWO-WAY ROADS 2ND CROSS ST: - GPS/CHAINAGE: - DATE OF REVIEW: 12/09/2024</p>	<p>TERM: ROAD TYPE: SHORT TWO-WAY POSTED SPEED: VARIOUS OPERATION: SIDE STREET OPTIONS TRAVELLED PATH: PAST AADT: &gt;1000</p>	<p>APPROVED BY TMR DESIGNER: </p> <p>EVOLUTION JOB NUMBER: <b>440413320</b></p> <p>REFERENCE ID: <b>EQL11-04</b>   REV: <b>03</b>   PAGE: <b>44 of 45</b></p>
<p><b>DRAW NORTH ARROW</b></p>		<p>Evolution Traffic Management Unit 1/29 Armada Place, Banyo Queensland 4014 Email: QLDplans@evolutiongroup.com.au</p> <p>TMR REGISTRATION NUMBER: 0323</p>		



<b>CLIENT:</b> ENERGY QLD		<b>EQL11-05 SIDE STREET OPTIONS - GENERATOR STORAGE</b>		
<p>THIS (TGS) SHALL BE READ IN CONJUNCTION WITH <b>NOTES EQ</b></p> <p>IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.</p> <p><b>**THIS PLAN IS VALID FOR 12 MONTHS FROM DATE OF REVIEW**</b></p>	<p><b>DRAW NORTH ARROW</b></p>	<p><b>LOCATION:</b> VARIOUS LOCATIONS</p>	<p><b>TERM:</b> SHORT</p>	<p><b>APPROVED BY TMR DESIGNER:</b> Authority: ABR/ART/021 ID: TMR/TAG/CPA/8/24</p>
		<p><b>SUBURB:</b> 1ST CROSS ST: 2ND CROSS ST:</p>	<p><b>ROAD TYPE:</b> TWO-WAY</p>	<p><b>POSTED SPEED:</b> VARIOUS</p>
		<p><b>GPS/CHAINAGE:</b> -</p>	<p><b>OPERATION:</b> SIDE STREET OPTIONS</p>	<p><b>REFERENCE ID:</b> EQL11-05</p>
		<p><b>DATE OF REVIEW:</b> 12/09/2024</p>	<p><b>TRAVELLED PATH:</b> PAST</p>	<p><b>REV:</b> 03</p>
			<p><b>AADT:</b> &gt;1000</p>	<p><b>PAGE:</b> 45 of 45</p>