Lockyer Valley Regional Council
26 Railway Street, PO Box 82, Gatton Qld 4343
All official correspondence to be addressed to the CEO
Telephone 1300 005 872 | Facsimile (07) 5462 3269
Email mailbox@lvrc.qld.gov.au | www.lockyervalley.qld.gov.au

Our Ref:	5007706
Related Document:	LIC2025/0087
Enquiries:	Chamila Sirimanna
Contact:	5466 3501

4 April 2025

Energex Limited
26 Reddacliffe Street
NEWSTEAD QLD 4006

qld.planning@altusgroup.com.au

Dear Sir/Madam

ACKNOWLEDGMENT OF PROPOSED GENERIC WORKS TRAFFIC GUIDANCE SCHEME SUITE – 2025/26 ENERGEX ANNUAL BLANKET PERMIT

We refer to your submission received by Lockyer Valley Regional Council (Council) on 1 April 2025 for works at various locations within the Lockyer Valley Region and wish to advise that Council does not object to the supplied Traffic Guidance Scheme Suite. Implementation is subject to the following conditions:

- Energex must provide Council with a current copy of their public liability insurance, as the one provided expires on the 30 April 2025. And does not cover them for the 2025/26 financial year.
- Council must be notified when a full road closure is required and be provided a site generic traffic guidance scheme/traffic management plan before the works can proceed.

The Applicant shall indemnify and keep indemnified the Council, their servants and agents against all actions, proceedings, claims, demands, costs, losses, damages, liabilities and expenses which may be brought against the Council, their servants and agents may incur, sustain, expend or be put to from incidents arising out of and occurring during that period of time of this actual activity by the Applicant whether in respect of any loss of life or injury to any person or loss or damage to any property and whether such loss of life or of injury to any person or loss or damage to any property be occasioned by the negligence, wilful act or default of the Lockyer Valley Regional Council, their servants and agents or otherwise howsoever and the applicant shall hereby release and discharge the Council, their servants and agents from all such actions, proceedings, claims, demands, costs, losses, damages, liabilities or expenses which but for the provisions hereof, might be brought against or made upon the Council, their servants and agents.

1. This Letter of Acknowledgement is applicable to the document/s listed in Table 1.

Document Title	Traffic Control Company	TMD Name	TMD Number	Date
Altus Group Generic TGS Suite	Altus Traffic	Simon Amdal	OP632	03/01/2025

Table 1 - Documents subject to this Acknowledgement Letter

2. All references to the Manual of Uniform of Traffic Control Devices ("MUTCD") Part 3 *Works on Roads and the* Queensland Guide to Temporary Traffic Management (QGTTM) herein shall be the version current at the time of implementation. The applicant must ensure that traffic management is provided in accordance with the MUTCD Part 3 and the Queensland Guide to Temporary Traffic Management (QGTTM) at all times where works are to occur on road.

3. Prior to the implementation of the Traffic Guidance Scheme ("TGS") referenced in Table 1, the Competent person with a current and valid Traffic Management Design ("TMD") competency must perform a site inspection to verify the assumed site conditions for each associated work area. Where the site conditions require the revision of the traffic management proposed, the Competent person must amend the TGS in accordance with Queensland Guide to Temporary Traffic Management (QGTTM) and the MUTCD Part 3. The revised TGS and any supporting documentation must be certified by a Competent person and submitted to Council.

4. The date and time of the proposed works must be in accordance with your request. Any deviation from this requires written notification to, and approval from, Council.

5. This acknowledgement letter shall not be interpreted as approvals by other entities (i.e. Queensland Police Service, Department of Transport and Main Roads) or any other government department or service authority. Likewise, State Government or other approval shall not be interpreted as Council's approval.

6. All works shall be carried out in accordance with relevant State Government standards including the Work Health & Safety Act 2011, MUTCD (Queensland), Part 3 and Transport Operations (Road Use Management) Act 1995 and Regulations and the Queensland Guide to Temporary Traffic Management (QGTTM).

7. The Queensland Police, Fire and Emergency and Ambulance Services shall be advised prior to commencement of works.

8. All police directions shall be obeyed. The applicant must submit any QPS permits to Council.

9. A copy of your daily diary, must be retained on site for the duration of the works, and must contain the following documents:

    - Installation and removal (see Section 2.5 of the MUTCD Part 3) and Queensland Guide to Temporary Traffic Management (QGTTM); and

- Operation (see Section 2.6 of the MUTCD Part 3) and the Queensland Guide to Temporary Traffic Management (QGTTM).

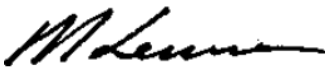
10. If works continue overnight, the appropriate long-term signage layout must be used.

11. The applicant is advised that a number of roads within the Lockyer Valley Region are State-Controlled Roads. Approval from Queensland Department of Transport and Main Roads is required if working on these roads.

This Acknowledgment Letter is valid for the 2025/26 financial year and expires midnight 30 June 2026. Council will require a new application to be submitted for the following year before the expiry date.

Should you require any further information in regard to the above please contact Council's Asset Engineer, Chamila Sirimanna on 07 5466 3501 or Customer Service Centre on 1300 005 872.

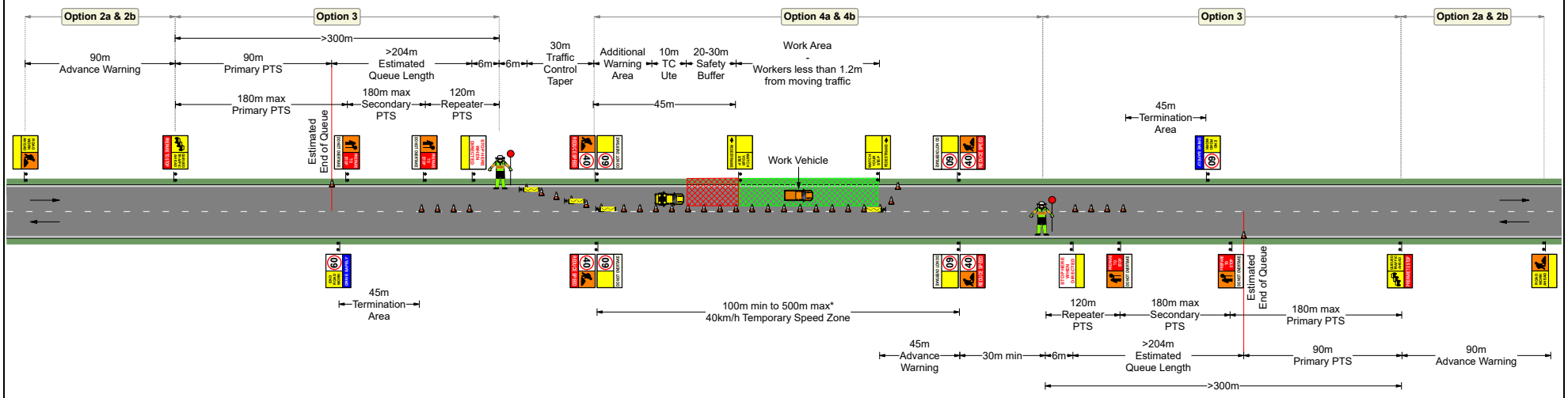
Yours faithfully



Matt Lennon
MANAGER INFRASTRUCTURE DESIGN AND ASSET MANAGEMENT
INFRASTRUCTURE

Enc: Traffic Guidance Scheme (TGS) Generic Suite

SHORT TERM - STATIC LANE CLOSURE WITH STOP SLOW (> 300m): TWO-WAY ROAD - 60KM/H



* 1000m Max. with TMD Risk Assessment

All Contradictive Signs Shall be covered

ADDITIONAL PTS BASED ON QUEUE LENGTH REQUIRED:

Additional PTS shall be implemented at 180m max spacing for the following estimated queue lengths.

204m to 280m - additional 1 PTS

280m to 460m - additional 2 PTS

460m to 640m - additional 3 PTS

Scope Of Works

SHORT TERM
GENERIC LANE CLOSURE WITH STOP SLOW ON TWO-WAY ROADS - 60 KM/H

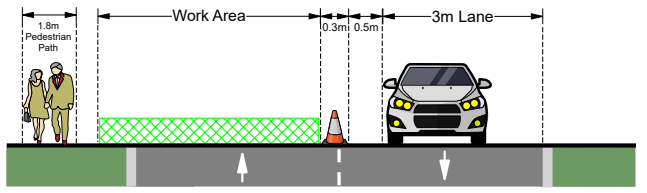
CONTROL METHOD
LANE CLOSURE WITH STOP SLOW

Signage may be duplicated on one side of the road or remove if unsafe to install on opposite side of the roadway

Installation and Removal of Traffic Control Devices
All Multi-lane road environments & Two-way roads(80km/h & Above)
Shadow Vehicles SHALL be used for worker protection on these roads

TGS SPECIFIC NOTES:
- Impact on cyclists, motorcyclists and Public Transport should be considered.
- Property Access
  Maintain property access during work implementation.
- Requirement for TMR permit for any work on state controlled roads.
- Site specific factors such as proximity of hospitals, schools, events and rubbish collection should be considered when confirming the TGS is site suitable.
- Sight distances should be considered when confirming the TGS is site suitable.

Work Site Cross Section



CLIENT CONTACT:

ROAD NAME :
WORKSITE ROAD AUTHORITY :
BETWEEN ROADS :
ESTIMATED JOB DATE :
ESTIMATED JOB TIME :
GARBAGE COLLECTION DAY :

INITIAL DESIGN	DATE	DRAFTEE IDENTIFIER	DRAFTEE PEER REVIEW
SA	14/06/2024	IV	

ISSUE	DESG	DATE	AMMENDMENT DESCRIPTION
A			
B			
C			

DRAWING NUMBER:
2024-ALT-GENERICS-207

GENERAL DISCLAIMER:
- THE TGS/TMP HAS BEEN PREPARED IN ACCORDANCE WITH THE INFORMATION SUPPLIED BY ALL STAKEHOLDERS.
- TECHNICAL DUE CARE HAS BEEN APPLIED IN THE COLLATION OF THE RELEVANT INFORMATION ON WHICH THIS TGS/TMP IS BASED.
- TRAFFIC AND SITE CONDITIONS AT THE TIME OF THE WORKS MAY VARY FROM THOSE ESTABLISHED AT THE POINT OF DESIGN.
- . IS RESPONSIBLE FOR UNDERTAKING AN EVALUATION OF THE SITE AND TRAFFIC CONDITIONS AGAINST THE 'ON SITE APPLICATION CONSTRAINTS' OUTLINED WITHIN THE TGS/TMP.
- WHERE CONDITIONS VARY FROM THOSE DOCUMENTED, ADDITIONAL INPUT FROM A TM DESIGN PROFESSIONAL SHALL BE SOUGHT PRIOR TO IMPLEMENTATION.
- DAILY RECORD KEEPING SHALL BE PERFORMED, INCLUDING RELEVANT SITE INSPECTIONS, DURING WORKS.
- THIS TGS/TMP SHALL REMAIN VALID FOR 12 MONTHS FROM DESIGN DATE OR WHERE STATE SPECIFIC GOVERNANCE IS CHANGED. AT THIS POINT THE TGS/TMP WILL NEED TO BEE REVIEWED ON CURRENCY OF COMPLIANCE.

SET UP/DISMANTLE REQUIREMENTS:
MIN 2 X TRAFFIC CONTROLLERS, MIN 1 X SIGNAGE VEHICLES, 0 X VMS, 0 X TMA, 0 X DDV, 0 X QPS

WORKSITE REQUIREMENTS:
MIN 2 X TRAFFIC CONTROLLERS, MIN 1 X SIGNAGE VEHICLES, 0 X VMS, 0 X TMA, 0 X DROP DECK, 0 X QPS

DEVICE REQUIREMENTS:
MIN 39 X TOTAL HATS, MIN 18 X TOTAL SIGNS, 0 X PTSS, MIN 4 X THM'S, MIN 2 X STOP BATS, MIN 2 X RADIOS

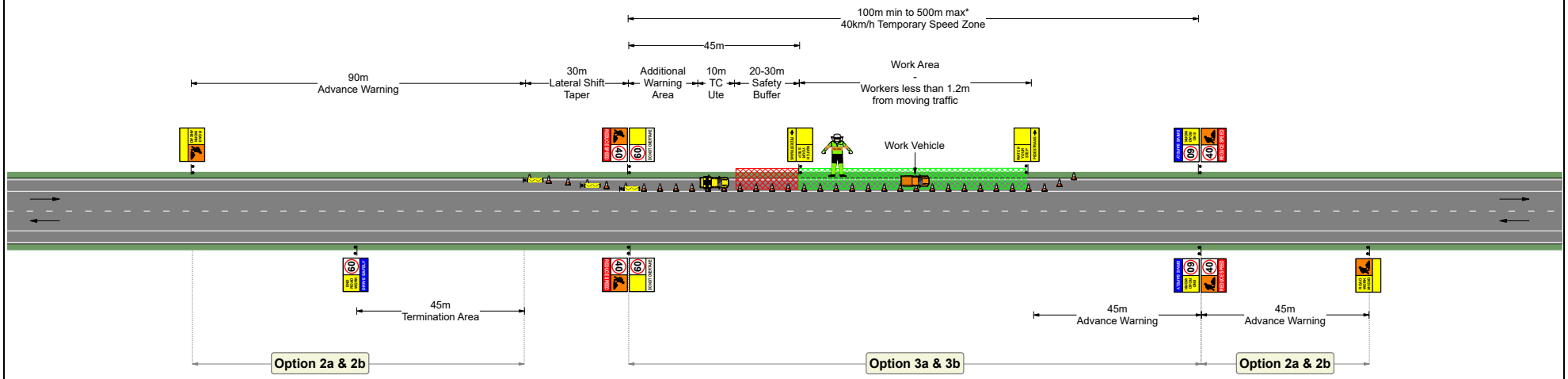
APPROVED FOR IMPLEMENTATION

NOT TO SCALE - PRINT A3

DESIGNED: SIMON AMDAL OP632
DESIGNED REVIEW: CHRIS DAHL OP948
APROVAL DATE: 03/01/2025
ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400
SHEET NO: 1 OF 1

ALTUS GROUP
Call Altus Group
Toll Free (Australia)
1300TRAFFIC (872 334)
ABN 84 102 768 061

SHORT TERM - STATIC SHOULDER CLOSURE - TWO-WAY ROADS - 60KMH



* 1000m Max. with TMD Risk Assessment

TGS SPECIFIC NOTES:
- Impact on cyclists, motorcyclists and Public Transport should be considered.

- Property Access
  Maintain property access during work implementation.

- Requirement for TMR permit for any work on state controlled roads.

- Site specific factors such as proximity of hospitals, schools, events and rubbish collection should be considered when confirming the TGS is site suitable.

- Sight distances should be considered when confirming the TGS is site suitable.

All Contradictive Signs
Shall be covered

Scope Of Works

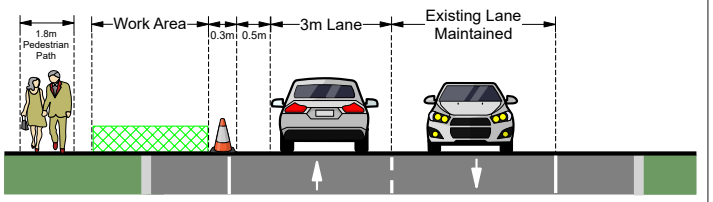
SHORT TERM
GENERIC SHOULDER CLOSURE ON TWO-WAY ROADS - 60 KM/H

CONTROL METHOD
SHOULDER CLOSURE

Signage may be duplicated on one side of the road or remove if unsafe to install on opposite side of the roadway

Installation and Removal of Traffic Control Devices
All Multi-lane road environments & Two-way roads(80km/h & Above)
Shadow Vehicles SHALL be used for worker protection on these roads

Work Site Cross Section



CLIENT CONTACT: . . .	**ROAD NAME :** .			
	WORKSITE ROAD AUTHORITY : .			
	BETWEEN ROADS : .			
	ESTIMATED JOB DATE : .			
	ESTIMATED JOB TIME : .			
	GARBAGE COLLECTION DAY : .			
	INITIAL DESIGN	**DATE**	**DRAFTEE IDENTIFIER**	**DRAFTEE PEER REVIEW**
	SA	14/06/2024	JP	.
	ISSUE / **DESG**	**DATE**	**AMMENDMENT DESCRIPTION**	
	A .	.	.	
	B .	.	.	
	C .	.	.	

DRAWING NUMBER:
2024-ALT-GENERICS-103

GENERAL DISCLAIMER:
- THE TGS/TMP HAS BEEN PREPARED IN ACCORDANCE WITH THE INFORMATION SUPPLIED BY ALL STAKEHOLDERS.
- TECHNICAL DUE CARE HAS BEEN APPLIED IN THE COLLATION OF THE RELEVANT INFORMATION ON WHICH THIS TGS/TMP IS BASED.
- TRAFFIC AND SITE CONDITIONS AT THE TIME OF THE WORKS MAY VARY FROM THOSE ESTABLISHED AT THE POINT OF DESIGN.
- . IS RESPONSIBLE FOR UNDERTAKING AN EVALUATION OF THE SITE AND TRAFFIC CONDITIONS AGAINST THE 'ON SITE APPLICATION CONSTRAINTS' OUTLINED WITHIN THE TGS/TMP.
- WHERE CONDITIONS VARY FROM THOSE DOCUMENTED, ADDITIONAL INPUT FROM A TM DESIGN PROFESSIONAL SHALL BE SOUGHT PRIOR TO IMPLEMENTATION.
- DAILY RECORD KEEPING SHALL BE PERFORMED, INCLUDING RELEVANT SITE INSPECTIONS, DURING WORKS.
- THIS TGS/TMP SHALL REMAIN VALID FOR 12 MONTHS FROM DESIGN DATE OR WHERE STATE SPECIFIC GOVERNANCE IS CHANGED. AT THIS POINT THE TGS/TMP WILL NEED TO BEE REVIEWED ON CURRENCY OF COMPLIANCE.

SET UP/DISMANTLE REQUIREMENTS:

MIN 1 X TRAFFIC CONTROLLERS	0 X VMS	0 X DDV
MIN 1 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

WORKSITE REQUIREMENTS:

MIN 1 X TRAFFIC CONTROLLERS	0 X VMS	0 X DROP DECK
MIN 1 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

DEVICE REQUIREMENTS:

MIN 29 X TOTAL HATS	0 X PTSS	0 X STOP BATS
MIN 9 X TOTAL SIGNS	MIN 3 X THM'S	0 X RADIOS

APPROVED FOR IMPLEMENTATION

NOT TO SCALE - PRINT A3

DESIGNED: SIMON AMDAL OP632

DESIGNED REVIEW: CHRIS DAHL OP948

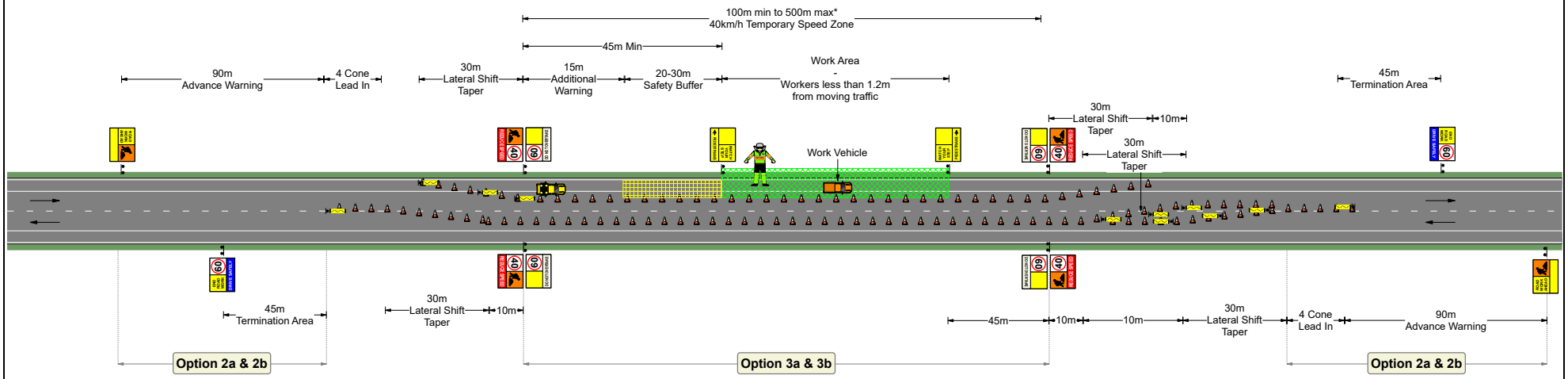
APROVAL DATE: 02/01/2025

ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400

SHEET NO: 1 OF 1

ALTUS GROUP
Call Altus Group
Toll Free (Australia)
1300TRAFFIC (872 334)
ABN 84 102 768 061
SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL

SHORT TERM - STATIC LATERAL SHIFT CLOSURE - TWO-WAY ROADS - 60KMH



* 1000m Max. with TMD Risk Assessment

TGS SPECIFIC NOTES:
- Impact on cyclists, motorcyclists and Public Transport should be considered.

- Property Access
  Maintain property access during work implementation.

- Requirement for TMR permit for any work on state controlled roads.

- Site specific factors such as proximity of hospitals, schools, events and rubbish collection should be considered when confirming the TGS is site suitable.

- Sight distances should be considered when confirming the TGS is site suitable.

All Contradictive Signs Shall be covered

Scope Of Works

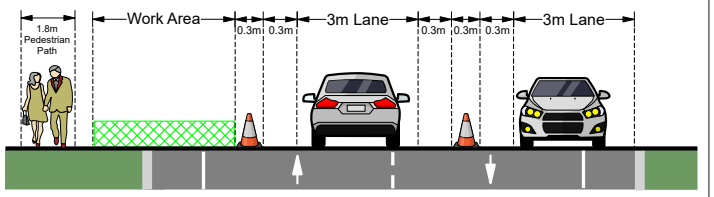
SHORT TERM
GENERIC LATERAL SHIFT CLOSURE ON TWO-WAY ROADS - 60 KM/H

CONTROL METHOD
LATERAL SHIFT CLOSURE

Signage may be duplicated on one side of the road or remove if unsafe to install on opposite side of the roadway

Installation and Removal of Traffic Control Devices
All Multi-lane road environments & Two-way roads(80km/h & Above)
Shadow Vehicles SHALL be used for worker protection on these roads

Work Site Cross Section



CLIENT CONTACT:
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ROAD NAME : .
WORKSITE ROAD AUTHORITY : .
BETWEEN ROADS : .
ESTIMATED JOB DATE : .
ESTIMATED JOB TIME : .
GARBAGE COLLECTION DAY : .

INITIAL DESIGN	DATE	DRAFTEE IDENTIFIER	DRAFTEE PEER REVIEW
SA	14/06/2024	LM	.

ISSUE	DESG	DATE	AMMENDMENT DESCRIPTION
A	.	.	.
B	.	.	.
C	.	.	.

DRAWING NUMBER:
24-QLD-GEN440

GENERAL DISCLAIMER:
- THE TGS/TMP HAS BEEN PREPARED IN ACCORDANCE WITH THE INFORMATION SUPPLIED BY ALL STAKEHOLDERS.
- TECHNICAL DUE CARE HAS BEEN APPLIED IN THE COLLATION OF THE RELEVANT INFORMATION ON WHICH THIS TGS/TMP IS BASED.
- TRAFFIC AND SITE CONDITIONS AT THE TIME OF THE WORKS MAY VARY FROM THOSE ESTABLISHED AT THE POINT OF DESIGN.
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- WHERE CONDITIONS VARY FROM THOSE DOCUMENTED, ADDITIONAL INPUT FROM A TM DESIGN PROFESSIONAL SHALL BE SOUGHT PRIOR TO IMPLEMENTATION.
- DAILY RECORD KEEPING SHALL BE PERFORMED, INCLUDING RELEVANT SITE INSPECTIONS, DURING WORKS.
- THIS TGS/TMP SHALL REMAIN VALID FOR 12 MONTHS FROM DESIGN DATE OR WHERE STATE SPECIFIC GOVERNANCE IS CHANGED. AT THIS POINT THE TGS/TMP WILL NEED TO BEE REVIEWED ON CURRENCY OF COMPLIANCE.

SET UP/DISMANTLE REQUIREMENTS:
MIN 2 X TRAFFIC CONTROLLERS 0 X VMS 0 X DDV
MIN 2 X SIGNAGE VEHICLES 0 X TMA 0 X QPS

WORKSITE REQUIREMENTS:
MIN 2 X TRAFFIC CONTROLLERS 0 X VMS 0 X DROP DECK
MIN 2 X SIGNAGE VEHICLES 0 X TMA 0 X QPS

DEVICE REQUIREMENTS:
MIN 81 X TOTAL HATS 0 X PTSS 0 X STOP BATS
MIN 10 X TOTAL SIGNS MIN 7 X THM'S 0 X RADIOS

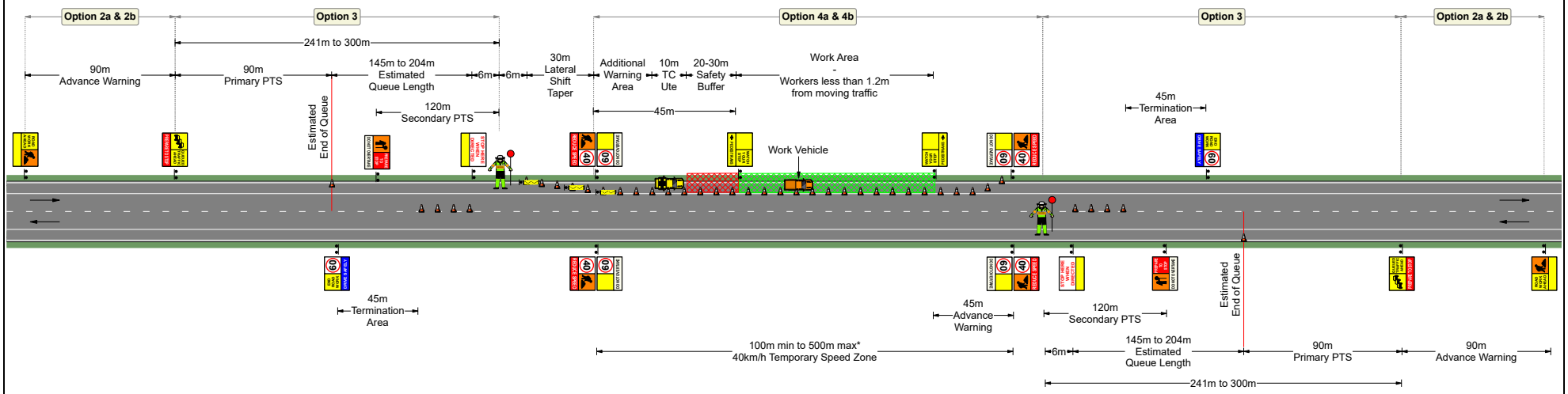
APPROVED FOR IMPLEMENTATION

DESIGNED: SIMON AMDAL OP632
DESIGNED REVIEW: CHRIS DAHL OP948
APROVAL DATE: 07/01/2025
ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400
SHEET NO: 1 OF 1

NOT TO SCALE - PRINT A3

ALTUS GROUP
Call Altus Traffic
Toll Free (Australia)
1300 TRAFFIC (872 334)
ABN 84 102 768 061

SHORT TERM - STATIC SHOULDER CLOSURE WITH HOLD AND RELEASE (241m to 300m): TWO-WAY ROAD - 60KM/H



* 1000m Max. with TMD Risk Assessment

TGS SPECIFIC NOTES:
- Impact on cyclists, motorcyclists and Public Transport should be considered.

- Property Access
  Maintain property access during work implementation.

- Requirement for TMR permit for any work on state controlled roads.

- Site specific factors such as proximity of hospitals, schools, events and rubbish collection should be considered when confirming the TGS is site suitable.

- Sight distances should be considered when confirming the TGS is site suitable.

All Contradictive Signs Shall be covered

Scope Of Works

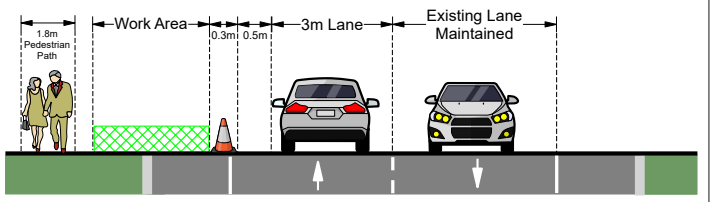
SHORT TERM
GENERIC SHOULDER CLOSURE WITH HOLD AND RELEASE
ON TWO-WAY ROADS - 60 KM/H

CONTROL METHOD
SHOULDER CLOSURE WITH HOLD AND RELEASE

Signage may be duplicated on one side of the road or remove if unsafe to install on opposite side of the roadway

Installation and Removal of Traffic Control Devices
All Multi-lane road environments & Two-way roads(80km/h & Above)
Shadow Vehicles SHALL be used for worker protection on these roads

Work Site Cross Section



CLIENT CONTACT:
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ROAD NAME : .
WORKSITE ROAD AUTHORITY : .
BETWEEN ROADS : .
ESTIMATED JOB DATE : .
ESTIMATED JOB TIME : .
GARBAGE COLLECTION DAY : .

INITIAL DESIGN	DATE	DRAFTEE IDENTIFIER	DRAFTEE PEER REVIEW
SA	14/06/2024	IV	.

ISSUE	DESG	DATE	AMMENDMENT DESCRIPTION
A	.	.	.
B	.	.	.
C	.	.	.

DRAWING NUMBER:
2024-ALT-GENERICS-223

GENERAL DISCLAIMER:
- THE TGS/TMP HAS BEEN PREPARED IN ACCORDANCE WITH THE INFORMATION SUPPLIED BY ALL STAKEHOLDERS.
- TECHNICAL DUE CARE HAS BEEN APPLIED IN THE COLLATION OF THE RELEVANT INFORMATION ON WHICH THIS TGS/TMP IS BASED.
- TRAFFIC AND SITE CONDITIONS AT THE TIME OF THE WORKS MAY VARY FROM THOSE ESTABLISHED AT THE POINT OF DESIGN.
- . IS RESPONSIBLE FOR UNDERTAKING AN EVALUATION OF THE SITE AND TRAFFIC CONDITIONS AGAINST THE 'ON SITE APPLICATION CONSTRAINTS' OUTLINED WITHIN THE TGS/TMP.
- WHERE CONDITIONS VARY FROM THOSE DOCUMENTED, ADDITIONAL INPUT FROM A TM DESIGN PROFESSIONAL SHALL BE SOUGHT PRIOR TO IMPLEMENTATION.
- DAILY RECORD KEEPING SHALL BE PERFORMED, INCLUDING RELEVANT SITE INSPECTIONS, DURING WORKS.
- THIS TGS/TMP SHALL REMAIN VALID FOR 12 MONTHS FROM DESIGN DATE OR WHERE STATE SPECIFIC GOVERNANCE IS CHANGED. AT THIS POINT THE TGS/TMP WILL NEED TO BEE REVIEWED ON CURRENCY OF COMPLIANCE.

SET UP/DISMANTLE REQUIREMENTS:
MIN 2 X TRAFFIC CONTROLLERS 0 X VMS 0 X DDV
MIN 1 X SIGNAGE VEHICLES 0 X TMA 0 X QPS

WORKSITE REQUIREMENTS:
MIN 2 X TRAFFIC CONTROLLERS 0 X VMS 0 X DROP DECK
MIN 1 X SIGNAGE VEHICLES 0 X TMA 0 X QPS

DEVICE REQUIREMENTS:
MIN 39 X TOTAL HATS 0 X PTSS MIN 2 X STOP BATS
MIN 16 X TOTAL SIGNS MIN 3 X THM'S MIN 2 X RADIOS

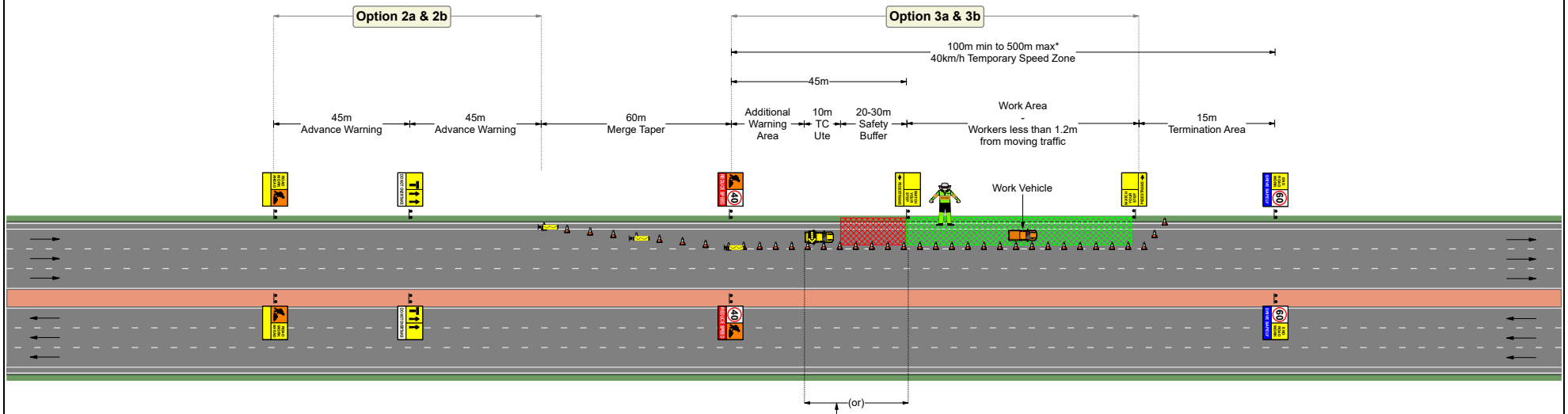
APPROVED FOR IMPLEMENTATION

DESIGNED: SIMON AMDAL OP632
DESIGNED REVIEW: CHRIS DAHL OP948
APROVAL DATE: 03/01/2025
ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400
SHEET NO: 1 OF 1

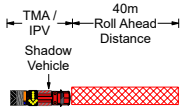
NOT TO SCALE - PRINT A3

ALTUS GROUP
Call Altus Group
Toll Free (Australia)
1300TRAFFIC (872 334)
ABN 84 102 768 061
SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL

SHORT TERM - STATIC LEFT LANE CLOSURE - MULTILANE DIVIDED ROADS - 60KMH



OPTIONAL:
TMA (Refer to AGTTM Part 3 Clause 5.8.1)



* 1000m Max. with TMD Risk Assessment

TGS SPECIFIC NOTES:
- Impact on cyclists, motorcyclists and Public Transport should be considered.
- Property Access
  Maintain property access during work implementation.
- Requirement for TMR permit for any work on state controlled roads.
- Site specific factors such as proximity of hospitals, schools, events and rubbish collection should be considered when confirming the TGS is site suitable.
- Sight distances should be considered when confirming the TGS is site suitable.

All Contradictive Signs
Shall be covered

Scope Of Works

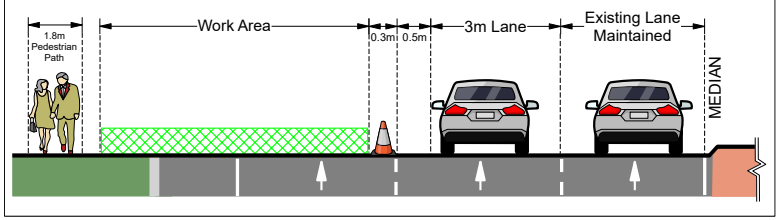
SHORT TERM
GENERIC LEFT LANE CLOSURE ON MULTILANE DIVIDED ROADS - 60 KM/H

CONTROL METHOD
LEFT LANE CLOSURE

Signage may be duplicated on one side of the road or remove if unsafe to install on opposite side of the roadway

Installation and Removal of Traffic Control Devices
All Multi-lane road environments & Two-way roads(80km/h & Above)
Shadow Vehicles SHALL be used for worker protection on these roads

Work Site Cross Section



CLIENT CONTACT: . . .	**ROAD NAME :** .			
	WORKSITE ROAD AUTHORITY : .			
	BETWEEN ROADS : .			
	ESTIMATED JOB DATE : .			
	ESTIMATED JOB TIME : .			
	GARBAGE COLLECTION DAY : .			

INITIAL DESIGN	DATE	DRAFTEE IDENTIFIER	DRAFTEE PEER REVIEW
SA	14/06/2024	HP	.

ISSUE	DESG	DATE	AMMENDMENT DESCRIPTION
A	.	.	.
B	.	.	.
C	.	.	.

DRAWING NUMBER:
2024-ALT-GENERICS-135

GENERAL DISCLAIMER:
- THE TGS/TMP HAS BEEN PREPARED IN ACCORDANCE WITH THE INFORMATION SUPPLIED BY ALL STAKEHOLDERS.
- TECHNICAL DUE CARE HAS BEEN APPLIED IN THE COLLATION OF THE RELEVANT INFORMATION ON WHICH THIS TGS/TMP IS BASED.
- TRAFFIC AND SITE CONDITIONS AT THE TIME OF THE WORKS MAY VARY FROM THOSE ESTABLISHED AT THE POINT OF DESIGN.
- . IS RESPONSIBLE FOR UNDERTAKING AN EVALUATION OF THE SITE AND TRAFFIC CONDITIONS AGAINST THE 'ON SITE APPLICATION CONSTRAINTS' OUTLINED WITHIN THE TGS/TMP.
- WHERE CONDITIONS VARY FROM THOSE DOCUMENTED, ADDITIONAL INPUT FROM A TM DESIGN PROFESSIONAL SHALL BE SOUGHT PRIOR TO IMPLEMENTATION.
- DAILY RECORD KEEPING SHALL BE PERFORMED, INCLUDING RELEVANT SITE INSPECTIONS, DURING WORKS.
- THIS TGS/TMP SHALL REMAIN VALID FOR 12 MONTHS FROM DESIGN DATE OR WHERE STATE SPECIFIC GOVERNANCE IS CHANGED. AT THIS POINT THE TGS/TMP WILL NEED TO BEE REVIEWED ON CURRENCY OF COMPLIANCE.

SET UP/DISMANTLE REQUIREMENTS:

MIN 1 X TRAFFIC CONTROLLERS	0 X VMS	0 X DDV
MIN 1 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

WORKSITE REQUIREMENTS:

MIN 1 X TRAFFIC CONTROLLERS	0 X VMS	0 X DROP DECK
MIN 1 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

DEVICE REQUIREMENTS:

MIN 34 X TOTAL HATS	0 X PTSS	0 X STOP BATS
MIN 10 X TOTAL SIGNS	MIN 3 X THM'S	0 X RADIOS

APPROVED FOR IMPLEMENTATION

NOT TO SCALE - PRINT A3

DESIGNED: SIMON AMDAL OP632
DESIGNED REVIEW: CHRIS DAHL OP948
APROVAL DATE: 27/12/2024
ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400
SHEET NO: 1 OF 1

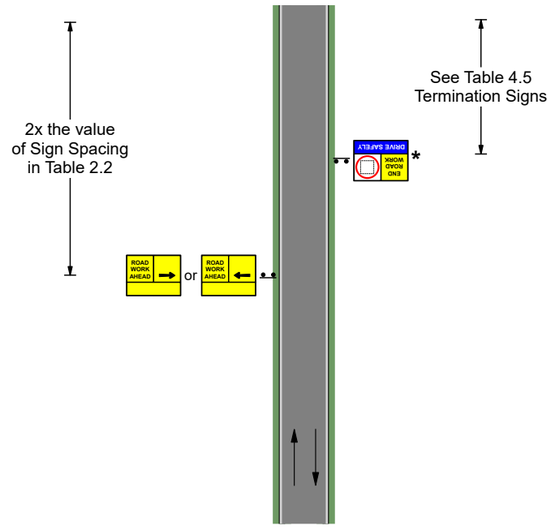
ALTUS GROUP
Call Altus Group
Toll Free (Australia)
1300TRAFFIC (872 334)
ABN 84 102 768 061

SHORT TERM - SIDE ROAD OPTIONS - ALL SPEED ZONES

Option 1

Tick Box ☐

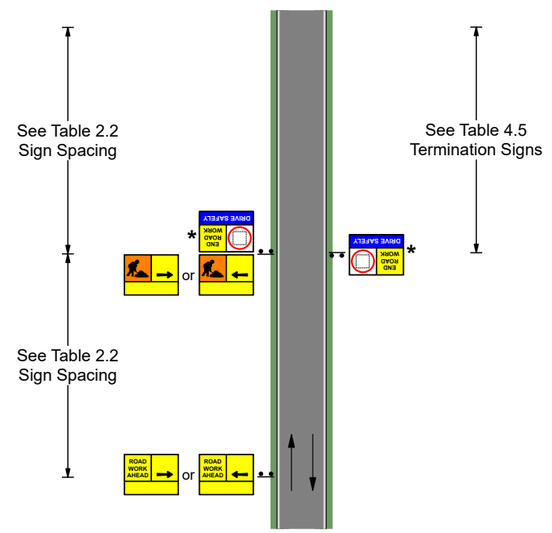
Area Between Road Work Ahead and Worker Symbolic Signs



Option 2a

Tick Box ☐

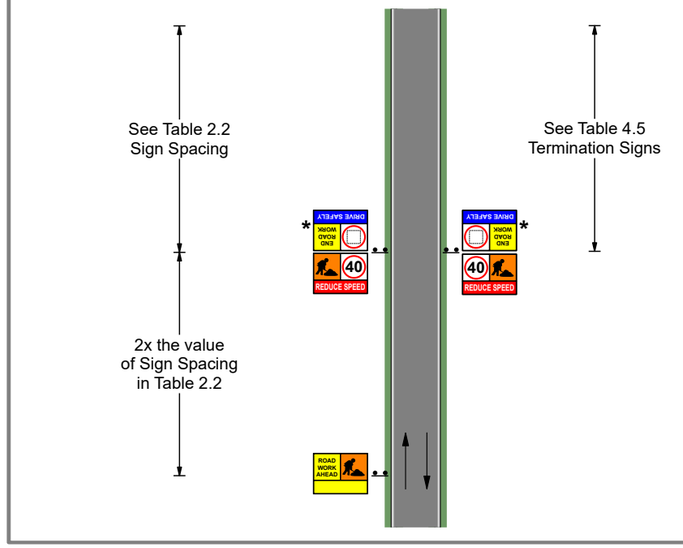
Area Between Worker Symbolic Sign and Taper (60k and lower)



Option 3a

Tick Box ☐

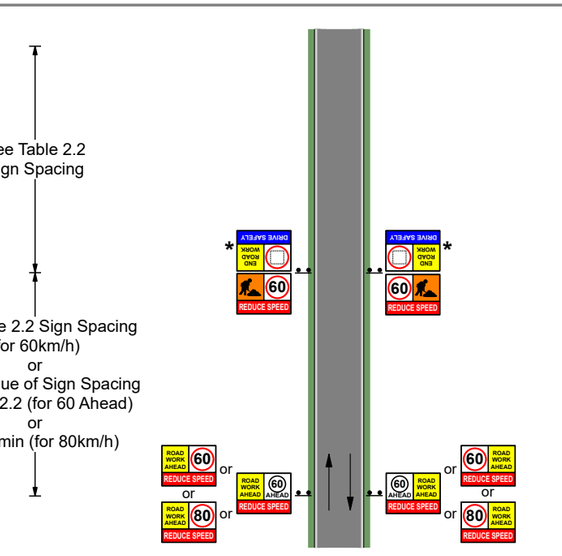
To be installed when inside the Work Area (Low Speed Roads)



Option 2b

Tick Box ☐

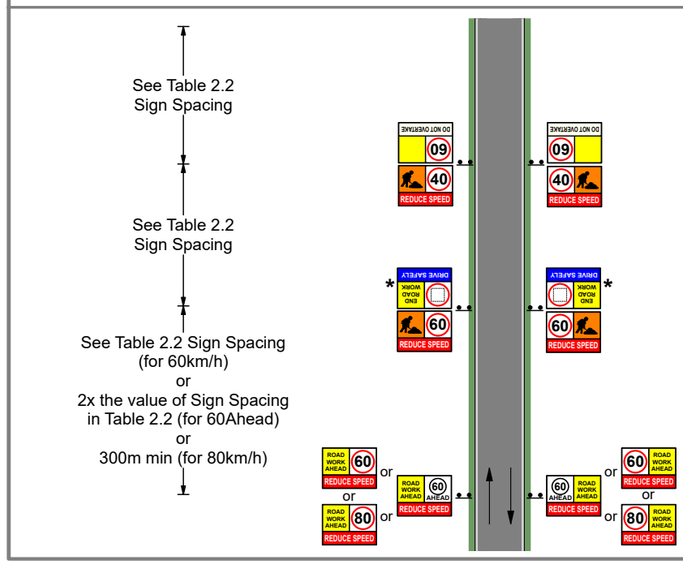
Area Between Worker Symbolic Sign and Taper (70k & Above)



Option 3b

Tick Box ☐

To be installed when inside the Work Area (High Speed Roads)



***The Speed Limit must be reinstated**

Notes on the use of RWA/ Speed Restriction and Speed Ahead Signs:

Use in 80 to 100kph roads

Use in 70kph roads only and replace Workman Symbolic/ 60 sign

Use in 110kph roads Only

Signage may be duplicated on one side of the road or remove if unsafe to install on opposite side of the roadway

Installation and Removal of Traffic Control Devices
All Multi-lane road environments & Two-way roads(80km/h & Above)
Shadow Vehicles SHALL be used for worker protection on these roads

CLIENT CONTACT: . . .	**ROAD NAME :** .			
	WORKSITE ROAD AUTHORITY : .			
	BETWEEN ROADS : .			
	ESTIMATED JOB DATE : .			
	ESTIMATED JOB TIME : .			
	GARBAGE COLLECTION DAY : .			
	INITIAL DESIGN	**DATE**	**DRAFTEE IDENTIFIER**	**DRAFTEE PEER REVIEW**
	SA	14/06/2024	HP	.
	ISSUE	**DESG**	**DATE**	**AMMENDMENT DESCRIPTION**
	A	.	.	.
	B	.	.	.
	C	.	.	.

DRAWING NUMBER:
2024-ALT-GENERICS-435

GENERAL DISCLAIMER:

- THE TGS/TMP HAS BEEN PREPARED IN ACCORDANCE WITH THE INFORMATION SUPPLIED BY ALL STAKEHOLDERS.
- TECHNICAL DUE CARE HAS BEEN APPLIED IN THE COLLATION OF THE RELEVANT INFORMATION ON WHICH THIS TGS/TMP IS BASED.
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SET UP/DISMANTLE REQUIREMENTS:

0 X TRAFFIC CONTROLLERS	0 X VMS	0 X DDV
0 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

WORKSITE REQUIREMENTS:

0 X TRAFFIC CONTROLLERS	0 X VMS	0 X DROP DECK
0 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

DEVICE REQUIREMENTS:

0 X TOTAL HATS	0 X PTSS	0 X STOP BATS
0 X TOTAL SIGNS	0 X THM'S	0 X RADIOS

APPROVED FOR IMPLEMENTATION

NOT TO SCALE - PRINT A3

DESIGNED: SIMON AMDAL OP632

DESIGNED REVIEW: SIMON AMDAL OP632

APROVAL DATE: 28/06/2024

ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400

SHEET NO: 1 OF 1

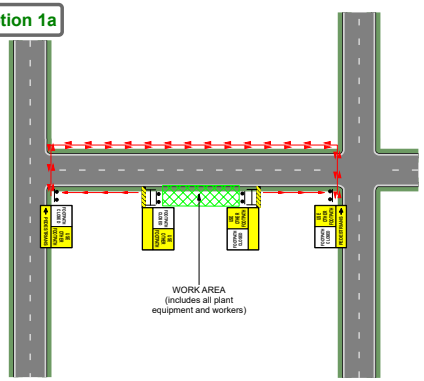
ALTUS GROUP
Call Altus Group
Toll Free (Australia)
1300TRAFFIC (872 334)
ABN 84 102 768 061

SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL

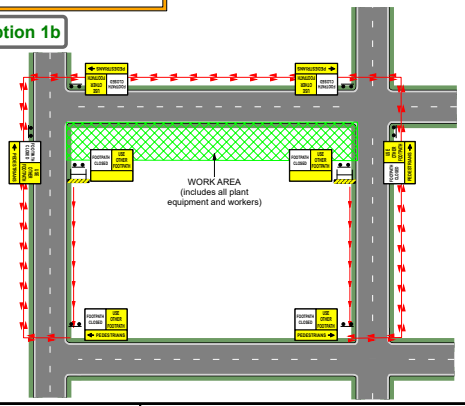
SHORT TERM - FOOTPATH CLOSURE WITH PEDESTRIAN MANAGEMENT: ALL SPEEDZONES

Footpath completely blocked with detour around the site

Option 1a

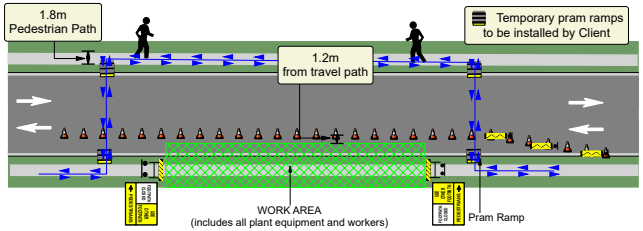


Option 1b



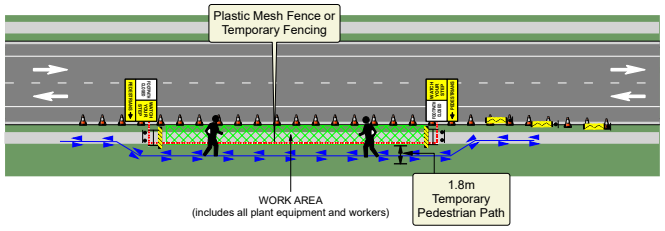
Footpath fully blocked - detour pedestrians on as short a route as possible around the worksite if a safe path cannot be maintained

Option 2



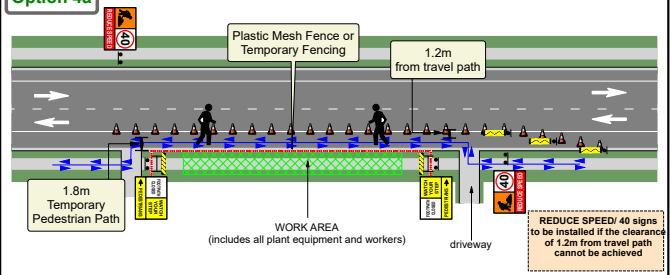
Footpath partially blocked with pedestrians still allowed past the site

Option 3



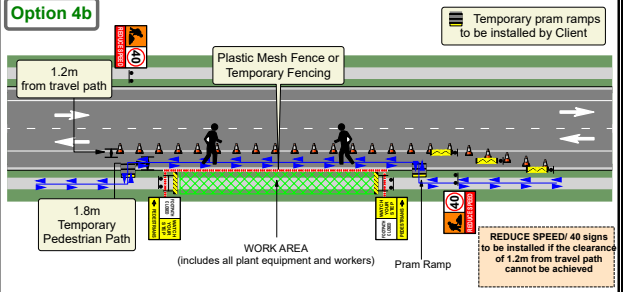
Footpath fully blocked but safe passage for pedestrians on the roadway past the site

Option 4a



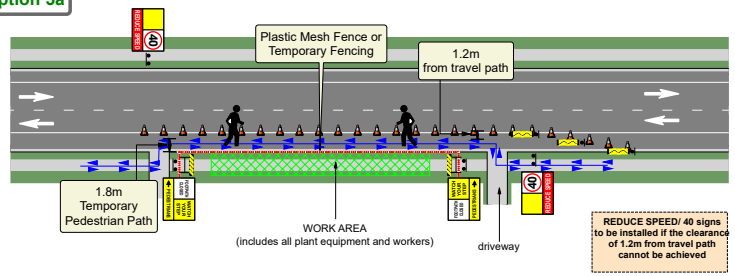
Footpath fully blocked but safe passage for pedestrians on the roadway past the site

Option 4b



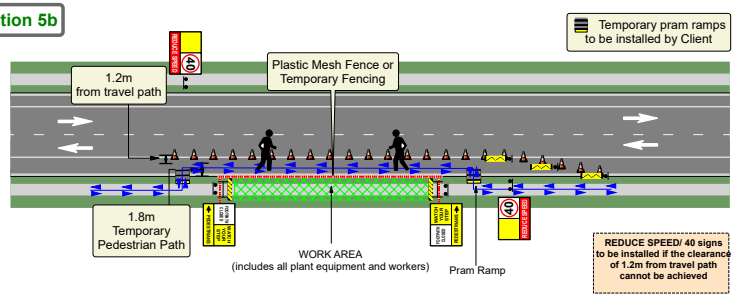
Footpath fully blocked but safe passage for pedestrians on the roadway past the site - After Hours

Option 5a



Footpath fully blocked but safe passage for pedestrians on the roadway past the site - After Hours

Option 5b



CLIENT CONTACT:

ROAD NAME : .

WORKSITE ROAD AUTHORITY : .

BETWEEN ROADS : .

ESTIMATED JOB DATE : .

ESTIMATED JOB TIME : .

GARBAGE COLLECTION DAY : .

INITIAL DESIGN	DATE	DRAFTEE IDENTIFIER	DRAFTEE PEER REVIEW
SA	14/06/2024	JP	.

ISSUE	DESG	DATE	AMMENDMENT DESCRIPTION
A	.	.	.
B	.	.	.
C	.	.	.

DRAWING NUMBER:

2024-ALT-GENERICS-099

GENERAL DISCLAIMER:

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SET UP/DISMANTLE REQUIREMENTS:

MIN 1 X TRAFFIC CONTROLLERS	0 X VMS	0 X DDV
MIN 1 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

WORKSITE REQUIREMENTS:

MIN 1 X TRAFFIC CONTROLLERS	0 X VMS	0 X DROP DECK
MIN 1 X SIGNAGE VEHICLES	0 X TMA	0 X QPS

DEVICE REQUIREMENTS:

-- X TOTAL HATS	0 X PTSS	0 X STOP BATS
-- X TOTAL SIGNS	MIN 3 X THM'S	-- X RADIOS

APPROVED FOR IMPLEMENTATION

NOT TO SCALE - PRINT A3

DESIGNED: SIMON AMDAL OP632

DESIGNED REVIEW: CHRIS DAHL OP948

APROVAL DATE: 07/01/2025

ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400

SHEET NO: 1 OF 1

ALTUS GROUP
Call Altus Group
Toll Free (Australia)
1300TRAFFIC (872 334)
ABN 84 102 768 061

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TGS - 2024-ALT-GENERICS-100 - STATIC CLOSURES GENERIC SUITE GENERAL NOTES - 1

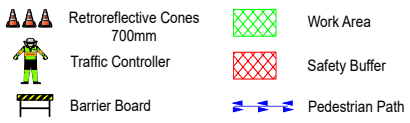
This TGS must be fully implemented prior to works commencing.
TGS Installation
General
TTM measures shall be installed, maintained and removed in a planned and safe manner. Prior to commencing, the TMI shall check and review the approved TMP / TGS, the worksite and the proposed activity to ensure they are complementary and are appropriate. This section provides best principles and practices guidance.
The TMI shall check the road environment, especially the “on the day” traffic flows, to ensure that it is at an appropriate level for the TTM intended. A 5-minute count of traffic should provide an appropriate estimate of volumes to reference against values recorded in the TMP or the TGS.
If the worksite and the approved TMP are not complementary, before occupying the worksite the TMI shall determine whether they can:
• make compliant adjustments (e.g. lengthen taper within tolerances) to the TGS
• contact the TMD to approve relevant modifications (e.g. additional signs or distances outside of tolerances) to the TGS
• contact the relevant Road Infrastructure Manager traffic control facility to initiate actions identified on the
TGS to be taken (e.g. change in the VMS, Variable Speed Limit Signs or Lane Usage Signage).
Where the TMP and TGS cannot be suitably adjusted or modified, the TMI should advise the Principal Contractor that they are not appropriate, and the works should be postponed.
All adjustments and authorised modifications are to be recorded on the TMP and TGS or on-site record.
Typical Installation Principles
Installation is typically carried out applying one of the processes in accordance with QGTTM Part 5 as “short term – low impact works” to protect the TTM staff. The examples in this section are based on limiting high risk manoeuvrers during installation including U-Turns and loops exposing workers to live traffic without protection.
Fundamental principles that should be complied with to ensure safety during this work activity are that:
• travel should only be in a forward direction on any road
• the TTM vehicle may be used as added protection considering the:
– availability of safe park up area(s) near the signage placement location
– line of sight to approaching vehicles
– visibility of the worker and TTM vehicle to approaching vehicles
– location of signage/devices on vehicle which need to be accessed
– worker access to vehicle (e.g. not through crush zones)
– available space on road shoulder or median
– geometry/terrain of shoulder or median
– distance between vehicle and travel path / shoulder drop off
– TMI proximity to ‘expected travel path while traversing between vehicle and signage location
– likely area in which the vehicle may move if impacted
– availability of ‘gaps in traffic’ or lookout
• turn around procedures shall be conducted in a safe and legal manner
• TMI shall face the traffic when placing devices
• all workers shall know their escape route at all times
• the vehicle mounted warning device shall be operating and the hazard/arrow board used as required
• all workers shall wear correct PPE
• a look out person/spotter shall be used for all activities where required in accordance with QGTTM Part 5
• full co-ordination of any ITS infrastructure which may assist the TGS installation
• the locations and types of devices are recorded in the diary
• the TGS is implemented as approved and a copy is available on site.
If it is considered too dangerous due to speed or volume to install the TGS using the protections defined in QGTTM Part 5, then consideration needs to be given to adopting a mobile convoy (refer QGTTM Part 4) or other controls e.g. manual traffic control to hold traffic during installation under its own TGS (refer QGTTM Part 3). A different installation sequence may need to be adopted to address any site-specific circumstances and can be approved by TMD or other authorised person.

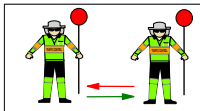
TGS Installation
Installation Process
The general procedure for setting up a site is to:
1. locate the work area using GPS, landmarks, side streets, chainage
2. install devices as outlined in the TGS for side streets first
3. install devices as outlined in the TGS for the non-working lane (un-affected direction)
4. install devices as outlined in the TGS for the working lane (affected direction) to complete installation.
All sign spacings and taper lengths will be noted on the TGS and should be in accordance with QGTTM Part 3.
Placement of Signs and Devices
The scenarios in this Section are designed to encourage workers to review the safest installation process.
Many factors can influence the appropriate sequence for installation including but not limited to road geometry, hills, crests, curves, surface condition, lane widths, shoulder width, traffic volumes, peak traffic flows, road user travel speed, road user make up (e.g. % of heavy vehicles or cyclists), lighting and time of day, and weather.
Positioning of Signs and Devices
Signs and devices are to be positioned and erected so that:
a. they are properly displayed and securely mounted.
b. they are within the line of sight of the intended road user.
c. they cannot be obscured from view (e.g. by vegetation or parked cars).
d. they do not obscure other devices from the line of sight of the intended road user
e. they do not become a possible hazard to workers, pedestrians, cyclists or vehicles
f. they do not deflect traffic or vulnerable road users into an undesirable path
g. they do not restrict sight distance for drivers entering from side roads, streets or private driveways
h. they are not installed using supports that could be a hazard if struck by a vehicle.
It is important that pavement markings and raised pavement markers are considered in conjunction with the placement of other delineation devices, temporary barriers and channelising barricades, to ensure road users are safely directed through the site without conflicting messages. Delineating devices (e.g. Retroreflective Traffic cones 700mm, bollards, post mounted delineators) should be placed as per the location on the TGS as designed by the TMD, or if not noted should generally be placed as follows:
a. Edge of traffic lane to line of traffic cones, bollards or longitudinal channelising devices:
i. 0.5m offset for posted speed limit during roadworks up to and including 60 km/h
ii. 1.0m offset for posted speed limit during roadworks over 60 km/h
b. Edge of traffic lane to road work delineators or temporary hazard markers – 1.0 m
c. Edge of traffic lane to road safety barrier system:
i. 0.3m for a posted speed limit during roadworks up to and including 40 km/h
ii. 0.5m for a posted speed limit during roadworks 50 km/h to 60km/h
iii. 1.0m for a posted speed limit during roadworks 70 km/h to 80km/h
iv. 2.0m for a posted speed limit during roadworks greater than 80 km/h
Typical Locations for Signs
Short term - Signs mounted on portable supports used for short-term operation should generally be located as follows:
(i) In open road areas
On the road shoulder a minimum of 1m clear of the travelled path if practical.
(ii) In built-up areas
Behind the kerb if visible to oncoming traffic and not obstructing pedestrians or cyclists, otherwise on the pavement as near as practicable to the kerb without the sign becoming obscured and without obstructing moving traffic or cyclists.
All signs on portable supports shall be a minimum height of 200mm above the level of the nearest lane of traffic and shall be level.
Tolerances
Adjustments to a TTM installation are the relocation of signs and devices within approved tolerances. Any changes that exceed tolerances are classed as a modification and shall be endorsed and authorised by a TMD. If signs and devices are required to be moved due to obstructions, and relocation exceeds tolerances, the TMI shall contact the TMD for instruction on alternate installation methods or options.
Local constraints may not allow signs and devices to be placed exactly in accordance with the relevant TGS.
Judgement will therefore be necessary to place signs and devices as close as possible to the locations / spacings indicated. Should variations to the recommended spacing be required then it is generally preferable to increase the spacing within tolerances.
a. Tolerances for placement of signs are:
i. up to 10% less than the distances given
ii. up to 25% more than the distances given
b. Tolerances for placement of delineation is:
i. no minimum and up to 10% more the distances given
c. Tolerances for taper lengths are:
i. up to 10% less than the distances given
ii. up to 25% more than the distances given

Tolerances in distances - (All values are in meters)		
Measurement	-10%	+25%
15	13	18
20	18	25
30	27	37
45	41	56
60	54	75
90	81	112

Any sign or device location adjustments are to be marked and initialed on the TGS held on site, with the name of the person making the adjustments clearly shown.
Orientation of Signs and Devices
Signs are to face towards approaching traffic approximately at right angles to the line of sight from the driver to the sign.

WORK SITE LEGEND





FATIGUE MANAGEMENT
Active Traffic Controllers
2-4 Requires 1 Additional TC
5-8 Requires 2 Additional TC's
9-12 Requires 3 Additional TC'S

CLIENT CONTACT:
.
.
.

ROAD NAME : .
WORKSITE ROAD AUTHORITY : .
BETWEEN ROADS : .
ESTIMATED JOB DATE : .
ESTIMATED JOB TIME : .
GARBAGE COLLECTION DAY : .

INITIAL DESIGN		DATE	DRAFTEE IDENTIFIER	DRAFTEE PEER REVIEW
SA		14/06/2024	JP	.
ISSUE	DESG	DATE	AMMENDMENT DESCRIPTION	
A	.	.	.	
B	.	.	.	
C	.	.	.	

DRAWING NUMBER:
2024-ALT-GENERICS-100-NOTES_1

GENERAL DISCLAIMER:
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SET UP/DISMANTLE REQUIREMENTS:
0 X TRAFFIC CONTROLLERS | 0 X VMS | 0 X DDV
0 X SIGNAGE VEHICLES | 0 X TMA | 0 X QPS

WORKSITE REQUIREMENTS:
0 X TRAFFIC CONTROLLERS | 0 X VMS | 0 X DROP DECK
0 X SIGNAGE VEHICLES | 0 X TMA | 0 X QPS

DEVICE REQUIREMENTS:
0 X TOTAL HATS | 0 X PTSS | 0 X STOP BATS
0 X TOTAL SIGNS | 0 X THM'S | 0 X RADIOS

APPROVED FOR IMPLEMENTATION

NOT TO SCALE - PRINT A3

DESIGNED: SIMON AMDAL OP632
DESIGNED REVIEW: CHRIS DAHL OP948
APROVAL DATE: 07/01/2025
ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400
SHEET NO: 1 OF 3

ALTUS GROUP
Call Altus Group
Toll Free (Australia)
1300TRAFFIC (872 334)
ABN 84 102 768 061
SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL SCI QUAL INTERNATIONAL

TGS - 2024-ALT-GENERICS-100 - STATIC CLOSURES GENERIC SUITE GENERAL NOTES - 2

Traffic controllers
Worksites are hazardous areas so use manual traffic control only where PTCDs are insufficient to provide the safety, capacity and efficiency required for effective traffic control. When traffic controllers are used, traffic controllers cannot direct a road user to contradict upcoming intersection signals. Traffic controllers are to coordinate activities with operating signals. If traffic controllers are operating within close proximity to a signalised intersection and the lights are flashing yellow or are off, a traffic controller shall only control one lane and the approach to this intersection shall be reduced to one lane of traffic. Where works cause delays to traffic flow or a side road intersects the worksite, do not use an automated PTCD, a traffic controller is required. The following requirements and recommendations apply when using traffic controllers:
• Only competent persons with appropriate certification shall be appointed as a traffic controller (see QGTTM Part 7).
• Speed shall be 60 km/h maximum. Provide a temporary speed limit of 60 km/h or less on the approach to a traffic controller if the speed is higher (see Section 5.5.1).
• An escape route shall be identified for each traffic controller from their traffic control position.
• Traffic controllers shall be positioned a clear sight distance from approaching road users (see QGTTM Part 3 Section 2.5.4) with no obstruction and where they are not obstructing visibility to traffic control devices (i.e.signs). No obstruction should be located in the area between the traffic controller and the end of the line of four cones.
• Ensure that a work vehicle is not parked in a way that impacts the visibility of the traffic controller or, limits the traffic controller's escape route or, is parked between the traffic controller and the taper.
• Ensure that traffic controllers are visible at all times of the day, particularly at dawn, dusk, against low morning or evening sun, when in the shade on a sunny day or working in dusty conditions.
• Ensure that traffic controllers are well illuminated at night. Where required, provide additional lighting.
• Relieve traffic controllers from traffic controller duties at least every 2 hours for at least 15 minutes.
• If cone tapers are used, position the traffic controller 6 m in front of the taper on the left-hand shoulder or edge of the road and facing approaching traffic.
• Place four traffic cones spaced 4 m apart, on the center-line 6 m in front of the traffic controller position.
• If there is a queue, traffic controllers can move to the driver's side when safe to do so to remain visible to all road users.
• Under no circumstances are traffic controllers to stand or operate unprotected in a lane carrying traffic.
• Traffic controllers are to only communicate with a road user once the vehicle has stopped and is safe to do so.
• Ensure a single traffic controller never controls more than one lane of traffic or more than one approach.
A single traffic controller can operate two PTSS at one time in special circumstances.
• Provide a traffic controller at intersections to guide road users entering from a side road.
• Some intersections require three or more traffic controllers. Where multiple traffic controllers are used they are required to:
– ensure that road users are not seeing conflicting message from other traffic controllers at different locations of the worksite
– be in continuous radio contact with each other when they are not visible to each other.
For detailed guidance on traffic controllers see QGTTM Part 7.

Table 4.4(a) – Maximum spacing for repeater PREPARE TO STOP signs

Speed (km/h)*	Distance (m)
≤55	60
≥56	180

* The 'Speed' value to be used for the maximum spacing for repeater PREPARE TO STOP signs is the actual posted speed (temporary or permanent) which applies (this will generally be 60 km/h but may be less) where the repeater spacing is required. If the speed limit changes within a repeater spacing, use the spacing for the lower speed limit.

Note: The 200 m zone in Figure 2.2 does not apply.

Table 4.4(b) – Minimum distance from ROADWORK AHEAD or variable message sign to primary PREPARE TO STOP sign

Speed (km/h)^	Distance (m)
≤55	30
≥56–65	90
≥66–75	140
≥76–85	240
≥86	Four times the speed (km/h)

^The 'Speed' value to be used for the minimum distance from the ROADWORK AHEAD or variable message sign to the primary PREPARE TO STOP sign is the actual permanent posted speed of the road prior to any reduction for the roadworks.

Figure 2.2(a) – Sign or hazard within 200 m of a speed zone change

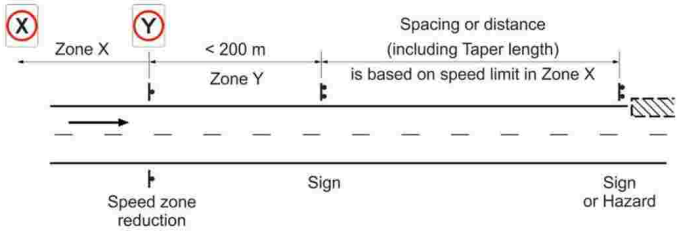

Figure 2.2(b) – Sign or hazard greater than or equal to 200 m from a speed zone change

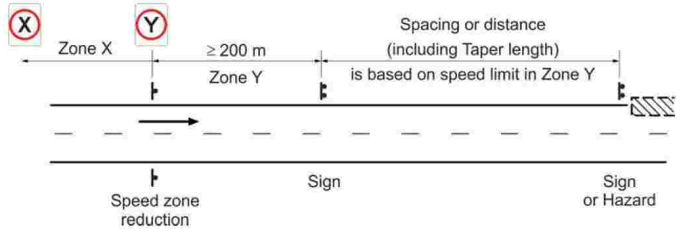

Table 6.1 shows clearance between an excavation, or any ground level hazard associated with the excavation, and the nearest traffic lane, relative to speed and traffic volume. The delineation method is also shown as one of three options. These are as follows:

- Option 1. Use traffic cones or bollards spaced as shown in Section 5.4.1.
- Option 2. Use traffic cones or bollards spaced at 4 m maximum.
- Option 3. Use a road safety barrier system (see Section 5.3.1).

Table 6.1: Delineation adjacent to excavations

Speed (km/h)	Traffic volume (vpd)*	Clearance to excavation (m)	Protection required		
			Depth of excavation (mm)		
			50 to 250	251 to 500	>500
≤ 65	Any	< 2.5	Option 1	Option 2	Option 3
		2.5 - 5	Option 1	Option 1	Option 2
		> 5	Option 1	Option 1	Option 1
≥ 70	≤ 1500	≤ 5	Option 1	Option 2	Option 3
		> 5	Option 1	Option 1	Option 1
	> 1500	≤ 6	Option 1	Option 2	Option 3
		> 6	Option 1	Option 1	Option 1

** For multilane roads use volume in one direction. For two-lane, two-way roads use the sum of both directions. Any variations to the recommendations in this table need to be supported by a risk assessment.*

*** For Options 1 and 2, cones or bollards are to be placed at the top of the excavation.*

Table 2.2: Sign spacing

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

Table 2.3: Prepare to Stop/Traffic Controller (symbolic) sign position from end of traffic queue

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

** Choose speed as per Figure 2.6. For example, if signs are positioned in the green zone, use distance which corresponds to a speed of 110 km/h in Table 2.3. If signs are positioned in the yellow zone, use distance which corresponds to a speed 80 km/h, 60 km/h for the blue zone and so on.*

CLIENT CONTACT:

ROAD NAME :
WORKSITE ROAD AUTHORITY :
BETWEEN ROADS :
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ESTIMATED JOB TIME :
GARBAGE COLLECTION DAY :

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ISSUE	DESG	DATE	AMMENDMENT DESCRIPTION
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C			

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SET UP/DISMANTLE REQUIREMENTS:
0 X TRAFFIC CONTROLLERS | 0 X VMS | 0 X DDV
0 X SIGNAGE VEHICLES | 0 X TMA | 0 X QPS

WORKSITE REQUIREMENTS:
0 X TRAFFIC CONTROLLERS | 0 X VMS | 0 X DROP DECK
0 X SIGNAGE VEHICLES | 0 X TMA | 0 X QPS

DEVICE REQUIREMENTS:
0 X TOTAL HATS | 0 X PTSS | 0 X STOP BATS
0 X TOTAL SIGNS | 0 X THM'S | 0 X RADIOS

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DESIGNED: SIMON AMDAL OP632
DESIGNED REVIEW: CHRIS DAHL OP948
APROVAL DATE: 07/01/2025
ALTUS NOMINATED CONTACT: 24HR CONTACT - (07) 3292 4400
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TGS - 2024-ALT-GENERICS-100 - STATIC CLOSURES GENERIC SUITE GENERAL ESTIMATED QUEUE LENGTHS - ADDITIONAL SIGNAGE

Queueing is expected for 'through' methods at stop locations where PTCDs or traffic controllers are positioned, sometimes resulting in collision. Collision can occur when the stationary queue extends past the PREPARE TO STOP sign location, most commonly when speed is greater than 70 km/h or the sight distance of approaching traffic to the end of the queue is:

- less than two times the speed limit in open road areas
- less than 1.5 times the speed limit in built-up areas.

To estimate queue length:

- Count the number of average and oversized vehicles that pass the PTCD/traffic controller position for five (5) minutes.
- Consider whether the majority of vehicles have been average or oversized (i.e. trucks). This will influence the 'multiplier' column used in Table 4.3.
- Multiply the number of vehicles counted by the number in the chosen 'multiplier' column

(Ma for mostly average sized vehicles, or Mo for mostly oversized vehicles) using the maximum stop time required at the specific worksite.

- If you are unsure of the maximum required stop time or whether to use the 'average' or 'oversized' multiplier, seek assistance from a competent person or road authority.
- Use the formula below to calculate the estimated queue length:

(number of average vehicles × Ma) + (number of oversized vehicles × Mo) = queue length

Example

2 Min Hold	(5	x	2.4)	+	(1	x	8)	=	20m
5 Min Hold	(5	X	6.0)	+	(1	x	20)	=	50m

If more accurate data is available (e.g. traffic counts), this should be used instead of counting vehicles for five (5) minutes.

If further information or clarification is required consult a TMD

Table 4.3: Estimated queue length

Maximum stopping time (minutes)	Multiplier	
	Ma (multiplier for average vehicles)	Mo (multiplier for oversized vehicles
2	2.4	8
5	6	20
10	12	40
15	18	60
30*	36	120

*A 30 minute stop time is unusual but has been included for some circumstances

Figure 4.3 illustrates an example of sign positioning for queues as per the steps above for a speed of 60 km/h where the PREPARE TO STOP sign is less than or equal to 240 m away from the PTCD/traffic controller. This diagram is not an example of how to install all traffic control devices and is not to be used as a TGS diagram.

Figure 4.3: Avoiding end of queue collisions (≤ 240 m)

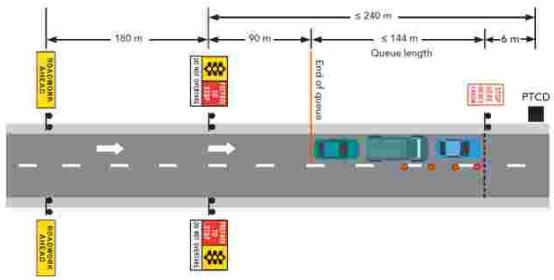


Figure 4.4 illustrates an example of sign positioning for queues as per steps above for a speed of 60 km/h where the primary PREPARE TO STOP sign is more than 240 m, but less than or equal to 300 m away from the PTCD/traffic controller. This diagram is not an example of how to install all traffic control devices and is not to be used as a TGS diagram.

Figure 4.4: Avoiding end of queue collisions (241 m to 300 m)

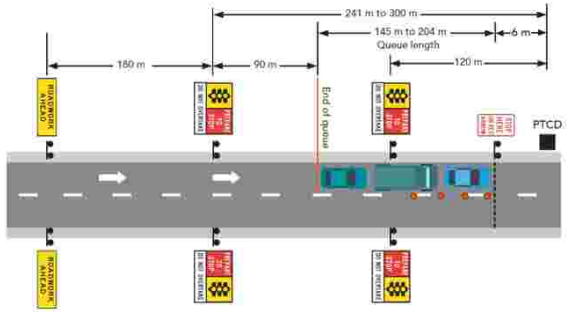
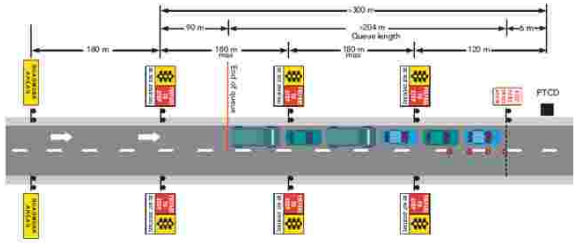


Figure 4.5 illustrates an example of sign positioning for queues as per steps above for a speed of 60 km/h where the primary PREPARE TO STOP sign is more 300 m away from the PTCD/traffic controller. This diagram is not an example of how to install all traffic control devices and is not to be used as a TGS diagram

Figure 4.5: Avoiding end of queue collisions (> 300 m)



Where these conditions are met and the additional or repeater PREPARE TO STOP signage is required, a Queued Traffic Ahead multi-message sign assembly may be used as the primary PREPARE TO STOP sign

Where this assembly is used, the preferred method of display is to locate the QUEUED TRAFFIC AHEAD text panel (TM1-46A) closest to traffic.

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