

WORKS ON ROADS

TRAFFIC MANAGEMENT PLAN

WORK TYPE**Road Number, Road Name, Suburb, SLK****TRAFFIC MANAGEMENT COMPANY**

Contract

Date (May 2025 edition)

I XXXXX (AWTM Cert No.XXXX) declare that I have designed this Traffic Management Plan following a site inspection on XX/XX/XX. The Traffic Management Plan prepared, **subject to the variations approved**, is in accordance with the Main Roads Code of Practice, AGTTM and AS 1742.3

Signature:

Date: **XX/XX/XX**

	Name / Company	Accreditation Details	Date	Signed
TMP designed by	XXXXXX	AWTM XXX	XX/XX/XX	
TMP Reviewed by	XXXXX	XX	XX/XX/XX	
RTM reviewed and Endorsed by	XXXXXX	RTM XXXX	XX/XX/XX	
Compliance Audit to be undertaken by:	XXXXXX	RTM XXXX	XX/XX/XX	
Road Authority Review by				
Road Authority Authorisation	Road authority authorisation of the implementation of traffic signs and devices is given for Traffic Management Plan No. XXX-XXXXX (Note: this can be provided by the road authority via email referencing the TMP and Rev No.) Signed Authorised Officer Date (Print Name) Position			

TMP No	Rev. No.	Date
XXX-XXXXX	X	XX/XX/XX

DISCLAIMER

<This template indicates what must be used for the basis of a TMP. All section headings must remain however the amount and type of details provided is project specific and therefore may be refined where applicable. Where sections do not apply to the project the heading must remain and as noted as not-applicable. See Template Key on next page>

Revision Register

Revision Number	Revision Date	Comments	Section / Page No.	Revised By
XX	Xx/xx/xx	xx	xx	xx

TMP Template Key:

XXXX	Wording in green to be removed
XXXX	Wording in yellow should be amended as required
XXXX	All other wording can be amended if required, all headings to remain.

Delete above key.

Template update register (remove)

Date	Amendment
May 2025	<p>8.6 – Removed email contacts from Emergency Contacts Table</p>
March 2025	<p>2.1 – Site Visit Photo added</p> <p>4.1.4 – removed 'Stop / Slow Control bats permitted based on risk assessment'</p> <p>4.6.2 – removed 'Notice to motorists in the weekend Western Australian placed two in advance, one in advance and at the commencement of works.'</p> <p>4.6.2 – added 'Significant projects may require radio advertising and or other advertising through social media channels etc.'</p> <p>6.2.2.5 – update reference to WHS regulations</p> <p>9.1 – added reference to Video Recording for Main Roads projects</p>
August 2024	<p>General – must replaced Shall</p> <p>6.2.2 – responsibility table modified</p> <p>6.2.2.2 – added Site Supervisor to work with TM Supervisor on TGS selection</p> <p>6.2.2.3 – new role added for TM Supervisor</p> <p>6.2.2.4 – renamed TM Workers</p>

	<p>8.6 – Main roads contact phone 138 138</p> <p>9.1.4 – added minimum frequency of checks</p> <p>10.2 – terminology amended for 'adjust' and 'modify'</p>
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1. INTRODUCTION

1.1 Purpose and Scope

This Traffic Management Plan (TMP) outlines the traffic control and traffic management procedures to be implemented by **the Project Manager** to manage potential hazards associated with the traffic environment during the project.

The project involves...

1.2 Objective and Strategies

The objectives of the Traffic Management Plan is to ensure:

- The safety of the road workers.
- All road users, including vulnerable road users, are safely guided around, through or past the work site.
- The performance of the road network is not unduly impacted and the disruption and inconvenience to all road users are minimised for the duration of the works.
- Impacts on users of the road reserve and adjacent properties and facilities are minimised.

In an effort to meet these objectives the Traffic Management Plan will incorporate the following strategies:

<Amend if required based on the project>

- Providing a sufficient number of traffic lanes to accommodate vehicle volumes.
- Ensuring delays are minimised.
- Ensuring all road users are managed including motorists, pedestrians, cyclists, people with disabilities and people using public transport.
- Ensuring work activities are carried out sequentially to minimise adverse impacts.
- Provision will be made for works personnel to enter the work area in a safe manner in accordance with safety procedures.
- All entry and exit movements to and from traffic streams must be in accordance with the requirements of safe working practices.

2. PROJECT OVERVIEW

2.1 Location

Insert Sketch

Figure 1 Site Location Sketch

Insert Site Visit Photo

Figure 2 Site Visit Photo (N/A for Generic TMPs)

2.2 Project Details, Site Assessment and Site Constraint /Impacts

ITEM	DESCRIPTION
Project	
Location	<Provide SLK if known>
Road Classification, Existing Speed Limit	
Road Authority	
Local Government	
Principal	
Prime Contractor	
Sub-Contractor	
Scope of Works	
Staging of Work / Temporary Traffic Management	
Project Date	
Hours / Days of Work	
Duration of Work	

ITEM	DESCRIPTION
Other Constraints	
Concurrent/adjacent Works or Projects	

2.3 Existing Traffic and Road Environment

ITEM	DESCRIPTION
Traffic Volume and Composition	
Existing road configuration	
Existing pedestrian / cyclist facilities	

2.4 Overview of Proposed TTM

ITEM	DESCRIPTION
Temporary Traffic Management Descriptions	<Include whether the TMP involves complex or non-complex traffic arrangements as per section 4.2.3 of CoP>
Speed zone dates and times	
Lane Closures dates and times	
Road Closures dates and times	
Signal modifications description	
Proposed lane widths	
Road Safety Barrier	

2.5 Project Representatives

POSITION	NAME	CONTACT DETAILS
Road Authority Representative		Include email and contact number
Local Government		
Project Manager / Prime Contractor		
Site Supervisor/Manager		
TMP Design		
TMP Implementation		

<Insert contractor> have engaged <insert design company> to prepare this Traffic Management Plan and associated controls for the works.

The TMP will be implemented by <insert TTM company responsible for TMP implementation provide registration number for state controlled roads>

3. RISK MANAGEMENT

The following details the preliminary assessment of site hazards likely to be encountered, the level of risk associated with each and the control proposed. Note that the risk level is the level of assessed risk without the controls in place. The controls listed have been determined as being appropriate in reducing the risk to a level that is acceptable.

The hierarchy of control has been utilised to ensure that the highest practicable level of protection and safety is selected:

- Elimination
- Substitution
- Isolation
- Engineering
- Administration
- Personal Protection Equipment

In evaluating the options, a key consideration is whether the option takes traffic around, through or past the worksite.

3.1 Risk Classification Tables

QUALITATIVE MEASURES OF CONSEQUENCE OR IMPACT

Level	Consequence	Description
1	Insignificant	Mid-block hourly traffic flow per lane is equal to or less than the allowable lane capacity detailed in AGTTM. No impact to the performance of the network. Affected intersection leg operates at a Level of Service (LoS) of A or B. No property damage.
2	Minor	Mid-block hourly traffic flow per lane is greater than the allowable road capacity and less than 110% of the allowable road capacity as detailed in AGTTM. Minor impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of C. Minor property damage.
3	Moderate	Midblock hourly traffic flow per lane is equal to and greater than 110% and less than 135% of allowable road capacity as detailed in AGTTM. Moderate impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of D. Moderate property damage.
4	Major	Midblock hourly traffic flow per lane is equal to and greater than 135% and less than 170% of allowable road capacity as detailed in AGTTM. Major impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of E. Major property damage.
5	Catastrophic	Midblock hourly traffic flow per lane is equal to and greater than 170% of allowable road capacity as detailed in AGTTM. Unacceptable impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of F. Total property damage.

WHS QUALITATIVE MEASURES OF CONSEQUENCE OR IMPACT

Level	Consequence	Description
1	Insignificant	No treatment required
2	Minor	First aid treatment required.
3	Moderate	Medical treatment required or Lost Time Injury
4	Major	Single fatality or major injuries or severe permanent disablement
5	Catastrophic	Multiple fatalities.

QUALITATIVE MEASURES OF LIKELIHOOD

Level	Likelihood	Description
A	Almost certain	The event or hazard: is expected to occur in most circumstances, will probably occur with a frequency in excess of 10 times per year.
B	Likely	The event or hazard: Will probably occur in most circumstances, will probably occur with a frequency of between 1 and 10 times per year.
C	Possible	The event or hazard: might occur at some time, will probably occur with a frequency of 0.1 to 1 times per year (i.e. once in 1 to 10 years).
D	Unlikely	The event or hazard: could occur at some time, will probably occur with a frequency of 0.02 to 0.1 times per year (i.e. once in 10 to 50 years).
E	Rare	The event or hazard: may occur only in exceptional circumstances, will probably occur with a frequency of less than 0.02 times per year (i.e. less than once in 50 years).

IMPORTANT NOTE: The likelihood of an event or hazard occurring must first be assessed over the duration of the activity (i.e. “period of exposure”). For risk assessment purposes the assessed likelihood must then be proportioned for a “period of exposure” of one year.

Example: An activity has a duration of 6 weeks (i.e. “period of exposure” = 6 weeks). The event or hazard being considered is assessed as likely to occur once every 20 times the activity occurs (i.e. likelihood or frequency = 1 event/20 times activity occurs = 0.05 times per

activity). Assessed annual likelihood or frequency = 0.05 times per activity x 52 weeks/6 weeks = 0.4 times per year. Assessed likelihood = Possible.

QUALITATIVE RISK ANALYSIS MATRIX – RISK RATING

Likelihood	CONSEQUENCE				
	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Almost certain (A)	Low 5	High 10	High 15	Very High 20	Very High 25
Likely (B)	Low 4	Medium 8	High 12	Very High 16	Very High 20
Possible (C)	Low 3	Low 6	Medium 9	High 12	High 15
Unlikely (D)	Low 2	Low 4	Low 6	Medium 8	High 10
Rare (E)	Low 1	Low 2	Low 3	Low 4	Medium 7

MANAGEMENT APPROACH FOR RESIDUAL RISK RATING

Residual Risk Rating	Required Treatment
Very High	Unacceptable risk. HOLD POINT . Work cannot proceed until risk has been reduced.
High	High priority, WHS MR and Roadworks Traffic Manager (RTM) must review the risk assessment and approve the treatment and endorse the TGS prior to its implementation.
Medium	Medium Risk, standard traffic control and work practices subject to review by accredited AWTM personnel prior to implementation.
Low	Managed in accordance with the approved management procedures and traffic control practices.

3.2 Risk Register

Generic Risks

Item	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP/TGS Reference (add where the treatment is located within the TMP and/or TGS)
			L	C	RR		L	C	RR	
1										
2										
3										
4										
5										
6										
7										

Site Specific Risks (may be removed for Generic TMPs)

Item	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP/TGS Reference
			L	C	RR		L	C	RR	
1										
2										

OFFICIAL

Item	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP/TGS Reference
			L	C	RR		L	C	RR	
3										
4										
5										
6										
7										

4. TRAFFIC MANAGEMENT PLANNING AND ASSESSMENT

4.1 Traffic Assessment and Analysis

4.1.1 Traffic and Speed Data

A summary of recent traffic data is provided below:

Location	Vehicles per day (% heavy vehicles)	Date	Source
[ROAD NAME] (Site Number)	[NUMBER] (%)	[DATE]	[Traffic Map]

A summary of recent speed data is provided below:

Location	Posted Speed (km/h)	85 th Percentile Speed (km/h)	Date	Source
[ROAD NAME] (Site Number)	[NUMBER]	[NUMBER]	[DATE]	[Traffic Map]

4.1.2 Traffic Flow Analysis

<Should include an analysis and commentary of the following:>

- Traffic volume and composition against minimum lane requirements (may include traffic modelling data)
- Traffic management selected - lane closures, road closures, speed reductions, detours, single lane reversible flow, side tracks etc.
- Dates, times and locations of proposed traffic management.
- Additional methods in place to minimise impacts to road users
- Assessment of Maximum length of operation under shuttle flow, if applicable>

4.1.3 Temporary Speed Zones

<Amend as required>

A worksite speed limit of X km/h at [insert location] due to [insert justification for speed reduction, e.g. workers within 1.2 m of traffic] from [insert times and dates of speed reduction].

A worksite speed limit of X km/h at [insert location] due to [insert justification for speed reduction] from [insert times and dates of speed reduction].

After work hours the posted speed will be reinstated, the road will be left clean and free of debris and safe for road users.

4.1.4 Existing Traffic signals

<Provide analysis and commentary of any required lane closures and/or signal modifications required at permanent traffic signals>

4.1.5 Impact to adjoining network

<Provide analysis and commentary of expected impact on the adjoining road network. Include any consultation with other road agencies>

4.1.6 End of Queue Treatment

<If using traffic control provide analysis and commentary of predicted queue lengths and treatments>

4.1.7 Portable Traffic Control Devices (PTCDs)

<PTCD's must be used on all roads controlled by Main Roads WA and high-volume high speed LGA roads (refer to Code of Practice for details including exceptions). Works at other locations should still consider the use of PTCDs and they may still be required based on a risk assessment.

Provide details on the type of PTCD that will be used and how it will be used. Ensure a risk assessment is conducted prior to considering the use of PTCD. This should examine the type of PTCD, how it will operate, duration of operation, what would happen in the event of failure assessing available sight distances, traffic volumes and traffic speeds. Mitigating factors must include regular inspections and having traffic controllers with stop-slow bats available. When operating PTCDs traffic controllers must be positioned in a safe but prominent location to ensure drivers are aware that compliance with the PTCD is being observed.

<If PTCDs are used after hours, information should also be provided on how they will be monitored and what will occur if the device fails>

4.1.8 Speed Management

<For TTM 'past' the worksite on static worksites, provide details on how traffic speed will be managed, the following should be considered where appropriate (refer to AGTTM and CoP for more details):

- Roadworks Pilot Vehicles
- Narrow Traffic Lanes, Chicanes, close spacing of delineation devices
- Rumble strips, temporary speed humps
- Speed feedback signs, Variable Message Signs (VMS), electronic/variable speed limit signs
- Police enforcement>

4.1.9 Excavations or Above Ground Hazards

<Where there will be excavations or above ground hazards provide details on how this will be managed to minimise the risk to road users. Refer to section 6.8 of AGTTM Part 3.>

4.2 Road Users

Vulnerable road users include pedestrians (including pedestrians with disabilities) cyclists and motorcyclists. Vulnerable road users must be considered for all works on roads, refer to Traffic Management for Works of Roads Code of Practice and AGTTM for more information

4.2.1 Pedestrians

<If pedestrians will be impacted provide details on how pedestrians, including pedestrians with disabilities, will be safely managed>

4.2.2 Cyclists

<If cyclists will be impact provide details on how cyclists will be safely managed. Note when restricting road widths where there are on road cyclists there is a requirement for 1 m clearance for passing a vehicle at 60 km/h or less and 1.5 m above 60 km/h.>

4.2.3 Public Transport

< If public transport facilities will be impacted provide details on how this will be managed, include any consultation and/or approval from PTA>

4.2.4 Heavy and Oversized Vehicles

<If heavy and/or oversized vehicles will be impacted provide details on they will be catered for (consider lane widths and swept paths)>

4.2.5 Existing Parking Facilities

<If parking facilities are within the work site provide details on how this will be managed>

4.2.6 Access to Adjoining Properties / Business

<If properties or business will be impacted provide details on how this will be managed>

4.2.7 Rail Crossings

<If rail crossings will be impacted provide details on how this will be managed>

4.2.8 School Crossings

<If school crossings will be impacted provide details on how this will be managed>

4.2.9 Special Events and Other Works

<If there are any special events or concurrent works provide details on how this will be managed>

4.2.10 Emergency Vehicle Access

<For works involving traffic controllers or road closures provide details on allowing emergency vehicle access through or past the worksite>

4.3 Night Work Provisions

<Provide details on any night time provisions if applicable, e.g. placement of lighting towers and risks associated with raising them such as over-head power lines>

4.4 Road Safety Barriers

<Provide details on road safety barriers if applicable>

4.5 Shadow Vehicles

<If applicable provide details on how shadow vehicles, such as TMAs, will be used to protect workers on foot, refer CoP and AGTTM. Not follow me vehicle, see 4.1.8 >

4.6 Consultation and Communication / Notification

4.6.1 Other Agencies

<Detail consultation/communication with relevant agencies as required, e.g. PTA, emergency services, LGAs, MRWA Heavy Vehicle Services, etc>

4.6.2 Public

<Amend as required>

The public must be notified of the works and traffic management arrangements which will effect journey times via:

- Letter drop to all residents and businesses within the traffic control zone one week ahead of the scheduled works; and,
- VMS boards during the works.
- Significant projects may require radio advertising and or other advertising through social media channels etc.

5. SITE ASSESSMENT

5.1 Provision to Address Environmental Conditions

5.1.1 Adverse Weather

<Modify this section if adverse weather is expected to impact on the project>

Weather is not expected to adversely impact on the effectiveness of the traffic control detailed on the attached TGS's. Notwithstanding this, should adverse weather conditions be encountered during the works, the following contingency plans should be activated. Note: any adjustments to the plan must be risk assessed and approved by someone holding a WTM or AWTM accreditation. Major changes will require road authority approval.

5.1.1.1 Rain

In the event of rain, an on-site assessment must be made and sign spacing and tapers may be extended by 25% to account for increased stopping distances. Slippery (T3-3) signs may be placed as required and all changes must be recorded in the daily diary.

If rain occurs, Traffic Management Personnel must inspect the site and where signage and / or devices are not clearly visible, signage may need to be adjusted to improve visibility or if necessary provide additional signage and delineation. Where stopping distances are adversely affected by wet surfaces, spacing between signs may need to be adjusted to provide increased reaction time for drivers. In cases where it is determined that the rain is so heavy that the risk is considered unacceptable, all work must cease until rain has cleared. All changes must be noted in the daily diary.

5.1.1.2 Floods

<If works will not have traffic controllers on site the below will need to be amended>

Should works be affected by flooding to the extent that the worksite becomes impassable or risk is considered unacceptable, all work must cease immediately and Traffic Controllers (and other personnel if necessary) must be deployed immediately to close the site and direct traffic around the flooded area (under the direction of the project manager or traffic manager). Emergency services and the Road Authority must be notified immediately and Traffic Controllers must remain onsite until emergency services and the Road Authority personnel arrive and take control of the site.

5.1.1.3 Other adverse weather (strong winds, thunder storms, etc.)

<Include any details required for any other expected adverse weather>

5.1.2 Sun Glare

Where sun glare is identified as adversely affecting a driver's ability to sight signage and / or traffic control devices, sign locations may need to be adjusted and additional delineation and/or traffic control devices provided to address the risk from glare. Additionally, in the event that traffic control is adversely affected by glare at sunset and sunrise, traffic controllers may need to assist in maintaining low traffic speeds.

All changes are to be noted in the daily diary.

5.1.3 Fog, Dust and Smoke

<If works will not have Traffic controllers on site or the project won't be effected by fog, dust or smoke the below should be amended>

Where fog, dust or smoke is identified as adversely affecting a driver's ability to sight signage and / or traffic control devices, sign locations may need to be adjusted and additional delineation and/or traffic control devices provided to address the risk. All changes are to be noted in the daily diary.

Should works be affected by fog, dust or smoke to the extent that risk is considered unacceptable, all work must cease immediately and Traffic Controllers (and other personnel if necessary) must be deployed immediately to close the site.

5.1.4 Road Geometry, Terrain, Vegetation and Structures

<Provide details about any road environment factors that may impact on the temporary traffic management, e.g. horizontal and/or vertical approach geometry, sight distances, existing barriers, fencing, overhanging vegetation, kerbing, objects in the clear zone, batter slopes, etc>

<When there are existing obstructions (e.g. barriers), escape routes (or lack thereof) for traffic management workers must be considered. This must be considered when determining signs and device locations and where required a lookout person must utilised.>

5.2 Existing Traffic and Advertising Signs

<Provide details on any conflicting existing signs if applicable>

6. SAFETY PLAN

6.1 Work Health and Safety

All persons and organisations undertaking these works or using the roadwork site have a duty of care under statute and common law to themselves, workers and all site users, lawfully using the site, to take all reasonable measures to prevent accident or injury.

This TMP forms part of the overall project Safety Management Plan, and provides details on how all road users considered likely to pass through, past, or around the worksite will be safely and efficiently managed for the full duration of the site occupancy and works.

6.2 Roles and Responsibilities

6.2.1 Responsibilities

<Amend as required>

The Project Manager has the ultimate responsibility to ensure the TMP is implemented for the prevention of injury and property damage to employees, contractors, sub-contractors, road users and all members of the public.

The Project manager will ensure all site personnel are fully aware of their responsibilities, and that Traffic Controllers are appropriately trained and accredited and that sufficient controllers are available to ensure appropriate breaks are taken.

All personnel engaged in the field activities will follow the correct work practices as required by the CoP, AGTTM and AS1742.3.

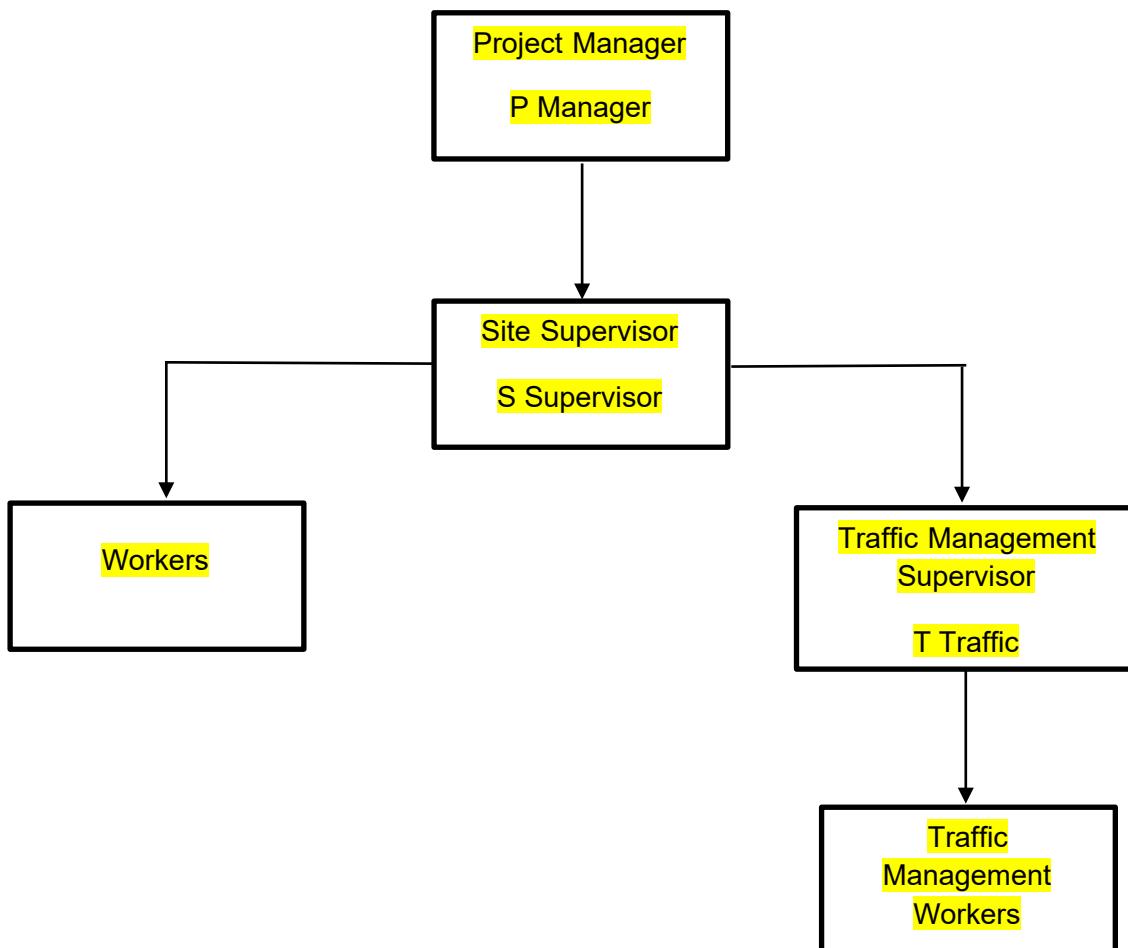
All personnel will not commence or continue work until all signs, devices and barricades are in place and operational in accordance with the requirements of the TMP.

All personnel responsible for temporary traffic management must ensure that the number, type and location of signs, devices and barricades are to a standard not less than Appendix F of this plan, CoP, AGTTM and AS1742.3 (except where specifically detailed in this TMP with reasons for the variations). Should a situation arise that is not covered by this TMP, CoP, AGTTM or AS1742.3, the Road Authority Representative must be notified.

6.2.2 Roles

< Amend as required >

The following diagram outlines the responsibility hierarchy of this worksite.



6.2.2.1 Project Manager

The project manager must:

- Ensure all traffic control measures of this TMP are placed and maintained in accordance with this plan and the relevant Acts, Codes, Standards and Guidelines
- Ensure suitable communication and consultation with the affected stakeholders is maintained at all times
- Ensure inspections of the temporary traffic management are undertaken in accordance with the TMP, and results recorded. Any variations must be detailed together with reasons
- Review feedback from field inspections, worksite personnel and members of the public, and take action to amend the traffic control measures as appropriate following approval from the Road Authority's Representative
- Arrange and/or undertake any necessary audits and incident investigations

6.2.2.2 Site Supervisor

The site supervisor is responsible for overseeing the day-to-day activities, and is therefore responsible for the practical application of the TMP, and must:

- Instruct workers on the relevant safety standards, including the correct wearing of high visibility safety vests
- Ensure traffic control measures are implemented and maintained in accordance with the TMP
- Work with the Traffic Management Supervisor to ensure the correct TGS is selected for the work activity
- Undertake and submit the required inspection and evaluation reports to management
- Render assistance to road users and stakeholders when incidences arising out of the works affect the network performance or the safety of road users and workers
- Take appropriate action to correct unsafe conditions, including any necessary modifications to the TMP.

6.2.2.3 Traffic Management Supervisor

The Traffic Management Supervisor is responsible for the practical application of the Traffic Management devices and workers in accordance with the appropriate Traffic Guidance Schemes, AGTTM, Main Roads Code of Practice and AS 1742.3.

- <Works on Main Roads controlled roads> Traffic management sites involving 'complex traffic arrangements' on Main Roads controlled roads, must have at least one person with either Worksite Traffic Management or Advanced Worksite Traffic Management accreditation on-site at all times when road workers are present.

- <Works not on Main Roads controlled or not involving 'complex traffic arrangements'> At least one person accredited in Advanced Worksite Traffic Management must be available to attend the site at short notice at all times to manage variations, contingencies and emergencies, and to take overall responsibility for traffic management. <depending on the work type and remoteness of the location provide a general estimate of the AWTM availability. AWTMs should be contactable by phone as a minimum>

The Traffic Management Supervisor is responsible for the following:

- Work with the Site Supervisor to ensure the correct TGS is selected for the work activity
- Prior to any implementation activities on site the Traffic Management Supervisor must execute all actions outlined in the Austroads Guide to Temporary Traffic Management Part 6, Field Staff – Implementation and Operations.
- Ensuring the Traffic Management devices are set out in accordance with the Traffic Guidance Schemes, AGTTM and Main Roads Code of Practice.
- Ensure that the quality and quantity of Traffic Management devices matches the relevant Traffic Guidance Scheme, Main Roads Code of Practice and AS 1742.3.
- Have all relevant qualifications, including Worksite Traffic Management for complex Traffic Management arrangements on State Roads.
- Must be on site to manage adjustments, modifications, contingencies and emergencies and take overall responsibility for the implemented Traffic Management setups.
- Where changes are required to complex Traffic Management arrangements, the Traffic Management Supervisor must risk assess those changes and record variations in the Daily Diary. Where an RTM is not consulted, all changes must be within the original scope and objectives of the proposed Traffic Guidance Schemes. All other changes must be endorsed by the RTM and must be authorised by the Road Infrastructure Manager.
- Ensure there is a copy of the approved Traffic Management Plan, including all associated Traffic Guidance Schemes is available on site at all times.

6.2.2.4 Traffic Management Workers

- At least one person on site must be accredited in Basic Worksite Traffic Management, and must have the responsibility of ensuring the traffic management devices are set out in accordance with the TMP.

6.2.2.5 Traffic Controllers

(If the works will not require traffic control or traffic controllers this section can be noted as not applicable).

Traffic Controllers must be used to control road users to avoid conflict with plant, workers, traffic and pedestrians, and to stop and direct traffic in emergency situations.

Traffic Controllers must:

- Operate in accordance with AGTTM Part 7: Traffic Controllers
- Be accredited in Basic Worksite Traffic Management
- Hold a current Traffic Controller's accreditation
- Be relieved from their duty after not more than 2 hours for a period of rest or "other duties" of at least 15 minutes as required by AGTTM Part 7.

6.2.2.6 Workers and Subcontractors

Workers and Subcontractors must

- Correctly wear high visibility vests, in addition to other protective equipment required (e.g. footwear, eye protection, helmet sun protection etc.), at all times whilst on the worksite
- Comply with the requirements of the TMP and ensure no activity is undertaken that will endanger the safety of other workers or the general public
- Enter and leave the site by approved routes and in accordance with safe work practices

6.3 Personal Protective Equipment (PPE)

All personnel entering the work site must correctly wear high visibility vests to AS/NZS 4602, in addition to other protective equipment required on a site-by-site basis (e.g. protective footwear, eye protection, helmet, sun protection, respiratory devices etc.) at all times whilst on the worksite.

6.4 Plant and Equipment

All plant and equipment at the workplace must meet statutory requirements and have the required registration, licences or certification where required. All mobile equipment must be fitted with suitable reversing alarms. All mobile plant and vehicles must be fitted with a pair of rotating flashing yellow lamps in accordance with AS1742.3 clause 4.14.1. All workers will be made aware of the safe work practice at the time of the site induction.

6.5 Trip Hazards

The worksite and its immediate surroundings must be suitably protected and free of hazards, which could result in tripping by cyclists or pedestrians. Hazards, which cannot be removed, must be suitably protected to prevent injury to road users, including those with sight

impairment. Where level differences are significant, suitable barriers, which preclude pedestrian access must be used.

Where works extend beyond daylight hours and adjacent lighting is insufficient to illuminate hazards to cyclists or pedestrians, appropriate temporary lighting must be installed.

The worksite must be kept tidy to reduce the risk to workers.

7. IMPLEMENTATION

7.1 Traffic Guidance Schemes

The Traffic Guidance Scheme (TGS) outlined in Appendix F and listed below have been provided for the following stages to demonstrate the type of controls that will be implemented throughout the term of the contract. All sign and device requirements are shown on each TGS. Should the use of additional (not shown on the TGS or listing of devices) or reduced number of devices be required due to unforeseen needs, they must be recorded within the Daily Diary as a variation to the TMP, following prior approval.

Construction Stages	Traffic Management Stages	TGS Number and version	Details <Include work description, temporary traffic management arrangements, times of day in place, and any other required information>
Stage 1	1.1		
	1.2		
	1.3		
Stage 2	2.1		
	2.2		
	2.3		

7.2 Sequence and Staging

<Details should be provided for how each TGSs will be implemented and removed safely. Including detail on how the Traffic management implementer(s) will be kept safe during the installation and removal of Traffic control devices, by means of shadow vehicle and/or lookout person.>

The sequence of temporary traffic management installation, work activities and temporary traffic management removal are shown in the table below.

Step	Details

7.3 Traffic Control Devices

7.3.1 Sign Requirements

All signs used must conform to the designs and dimensions as shown in Australian Standard AS 1742.3, AGTTM and the CoP.

Prior to installation, all signs and devices must be checked by the Site Supervisor or a suitably qualified person to ensure that they are in good condition and meet the following requirements:-

- Mechanical condition - Items that are bent, broken or have surface damage must not be used.
- Cleanliness - Items should be free from accumulated dirt, road grime or other contamination.
- Colour of fluorescent signs - Fluorescent signs whose colour has faded to a point where they have lost their daylight impact must be replaced.
- Retroreflectivity. - Signs used for night-time or in low light conditions whose retroreflectivity is degraded either from long use or surface damage and does not meet the requirements of AS 1906 must be replaced.
- Battery operated devices - must be checked for lamp operation and battery condition.

Where signs do not conform either to the requirements of AS 1742.3 or would fail to pass any of the above checks, they must be replaced on notice.

Signs and devices must be positioned and erected in accordance with the locations and spacing's shown on the drawings. All signs must be positioned and erected such that:

- They are properly displayed and securely mounted;

- They are within the driver's line of sight;
- They cannot be obscured from view;
- They do not obscure other devices from the driver's line of sight;
- They do not become a possible hazard to workers or vehicles; and
- They do not deflect traffic into an undesirable path.

Signs and devices that are erected before they are required must be covered by a suitable opaque material. The cover must be removed immediately prior to the commencement of work.

Where there is a potential for conflict of information between existing signage and temporary signage erected for the purpose of traffic control, the existing signs must be covered. The material covering the sign must ensure that the sign cannot be seen under all conditions i.e. day, night and wet weather. Care will be taken to ensure existing signs are not damaged by the covering material or by adhesive tape.

7.3.1.1 Securing Signs and Devices

<Consideration of appropriate signs and device mountings for the expected weather conditions, traffic type and traffic speed. Refer to Code of Practice for options to be considered to mitigate the risk of signs falling over and/or not being properly displayed>

7.3.2 Tolerances on positioning of signs and devices

Where a specific distance for the longitudinal positioning of signs or devices with respect to other items or features is stated, for the spacing of delineating devices or for the length of tapers or markings, the following tolerances may be applied: -

(a) Positioning of signs, length of tapers or markings:

- (i) Minimum, 10% less than the distances or lengths given.
- (ii) Maximum, 25% more than the distances or lengths given.

(b) Spacing of delineating devices:

- (i) Maximum, 10% more than the spacing shown.
- (ii) No minimum.

These tolerances must not apply where a distance, length or spacing is already stated as a maximum, a minimum or a range.

7.3.3 Flashing Arrow Signs

<Where illuminated flashing arrow signs are required, include details arrow sign requirements – see AS1742.3 and Code of Practice>

7.3.4 Delineation and Edge Clearance

<Where required provide details on delineating devices e.g. cones, bollards, line marking, roadworks pilot (follow me) vehicle, etc. refer AS1742.3, CoP and AGTTM. Delineation devices generally require edge clearance ensure this is accounted for in your design. >

7.4 Site Access for Work Vehicles

(Amend as required)

Construction and/or traffic management vehicles entering and exiting the traffic stream must be mindful of the conditions that may affect the safety of these movements.

Access points must be noted on the TGS and traffic controllers, work personnel and suppliers notified. Traffic Controllers may assist work vehicles enter and exit the work area.

All entry and exit movements will be in accordance with the Road Traffic Code and must be undertaken in the following manner:

Vehicles must:

- Decelerate slowly and signal their intention by indicator to leave the traffic stream;
- Activate the vehicle's rotating yellow lamp, where fitted, once a speed of 20 km/h. has been reached and at least 50m prior to the exit location.
- Switch on the vehicle hazard lights once the vehicle is stationary.
- Where risks associated with unassisted exit or entry to or from the traffic stream are high, Traffic Controllers should be used to assist entry and exit movements.

Vehicles fitted with rotating amber lamps must have the vehicle's rotating lamp activated prior to entering the traffic stream and must undertake the following.

- Switch off the vehicle hazard lights;
- Indicate intention to enter the traffic stream using direction indicators;
- Ensure there is a suitable gap from oncoming traffic to allow for a safe entry manoeuvre; and,
- Turn off the rotating yellow lamp(s) once a speed of 40 km/h is reached.

Entry and exit manoeuvres must be avoided in close proximity to intersections. Work personnel must not cross traffic streams on foot unless absolutely necessary.

Construction or traffic management vehicles must only be parked where indicated on the Traffic Guidance Scheme. Vehicles must not obstruct paths and be parked an adequate distance from intersections or driveways to ensure clear sight lines remain for all road users.

7.5 Communicating TMP Requirements

<Include any required details on pre-starts, inductions, administrative procedures, Traffic Controller radio communication, etc. >

8. EMERGENCY ARRANGEMENTS AND CONTINGENCIES

8.1 Traffic Incident Procedures

In the event of an incident or accident, whether or not involving traffic or road users, all work must cease and traffic must be stopped as necessary to avoid further deterioration of the situation. First Aid must be administered as necessary, and medical assistance must be called for if required.

Road plant within the work area that may impact on any services requiring access to a crash site will be cleared from the area quickly as necessary.

8.1.1 Serious Injury or Fatality

In the case of serious injury or fatality occurring within the traffic management site all work must cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. **Traffic Controllers (and other personnel if necessary) must be deployed immediately to ensure no traffic or other road users approach the area.**

An Ambulance and Police must be called on telephone number 000 where life threatening injuries are apparent.

All road workers and traffic management personnel must preserve the scene leaving everything in situ, until direction is given by Police or WorkSafe.

A site specific detour route and/or road closure point will be determined, signed and controlled by traffic management personnel and advised to Police, who will take charge of the site upon arrival. Detour routes will be determined so as to cater for all types of vehicles required to use them. An example of how to manage an emergency can be found in Section 5 of AGTTM Part 10.

All site personnel must be briefed on control procedures covering incidents and crashes that result in serious injury or fatalities.

<Details should be provided regarding possible detours than can put in place in case of a serious injury or fatality>

If it is determined that a road closure point is required on X Street, to preserve the site, detour routes will be put in place to the West at L Road and to the East at Q Street. The exit to X Street from L Road will also need to be closed. This will be signed and controlled by traffic management personnel with road closure, detour signs and / or other devices outlined in Section 5 of AGTTM Part 10. This detour will be advised to Police, who will take charge of the site upon arrival. The RAV mapping system indicates Q Street and L Road can be accessed via P Road and all will cater for all heavy vehicle types that access X Street.

8.1.2 Minor Incident or Vehicle Break Down within Site

Broken down vehicles and vehicles involved in minor non-injury crashes must be temporarily moved to the verge as soon as possible after details of the crash locations have been gathered and noted. Where necessary to maintain traffic flow, vehicles must be temporarily moved into the closed section of the work area behind the cones, providing there is no risk to vehicles and their occupants or workers. Suitable recovery systems must be used to facilitate prompt removal of broken down or crashed vehicles. Assistance must be rendered to ensure the impact of the incident on the network is minimised.

Any traffic crash resulting in non-life threatening injury must be reported to the WA Police Service on 131 444.

Details of all incidents and accidents must be reported to the Site Supervisor and Project Manager using the incident report form at Appendix "C" (or similar).

8.2 Emergency Services

<This is required only projects that will have an adverse impact on traffic>

Emergency services must be notified of the proposed works nature, location, date and times as well as contact details for the site supervisor.

On-site traffic controllers will be equipped with mobile communications to advise and/or liaise with emergency services to ensure a prompt response should the need arise.

8.3 Dangerous Goods

Should any incident arise involving vehicles transporting dangerous goods, all work must cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) must be deployed immediately to ensure no traffic or other road users approach the area.

Emergency services must be notified of the proposed works nature, location, date and times as well as contact details for the site supervisor. All site personnel must be briefed on evacuation and control procedures.

8.4 Damage to Services

In the event that gas services are damaged, all work must cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) must be deployed immediately to ensure no traffic or other road users approach the area. The Police Service and relevant supply authority must be called immediately. Damage to any other services must be treated in a similar manner except machinery may remain operational and access may be maintained where it is safe to do so.

All site personnel must be briefed on evacuation and control procedures.

8.5 Failure of Services

8.5.1 Failure of Traffic Signals

< Amend as required >

In the event that traffic signal infrastructure near the worksite is damaged or fails to operate correctly, all work must cease immediately and Main Roads WA Road Network Operation Centre (RNOC) must be notified immediately (phone 138 111).

8.5.2 Failure of Street Lighting

<Amend as required>

In the event that street lighting is damaged and fails to operate or operates incorrectly, Traffic Controllers (and other personnel if necessary with appropriate temporary lighting) must be deployed immediately if the lighting failure adversely affects road user safety to control traffic movements as required. Western Power must be notified immediately.

8.5.3 Failure of Power

In the event that power infrastructure is damaged and poses a risk through live current, Traffic Controllers (and other personnel if necessary) must be deployed immediately to secure the site and prevent entry to the area affected by live power. Western Power must be notified immediately (phone 13 13 51).

8.6 Emergency Contacts

In the event of an emergency see below relevant authorities that may be contacted and advised depending on the nature or type of emergency.

Emergency Service	Phone (Emergency)
WA Police Service	000
St. John Ambulance	000
DFES	000
Power	13 13 51
Gas	13 13 52
Main Roads	138 138
MRWA RNOC	138 111

9. MONITORING AND MEASUREMENT

9.1 Daily Inspections

<This section may need amending depending on the project eg: Video recording requirements for Main Road works etc>

Prior to works commencing the Site Supervisor must communicate the Traffic Management Plan to all key stakeholders and affected parties.

On completion of setting out the traffic control measures, the site is to be monitored for a suitable period of time. If traffic speeds on the approaches to the work site are assessed as being above the temporary posted speed zone for the work site, the Site Supervisor is to initiate action to modify the approach signage and tapers in accordance with the requirements of AGTTM/CoP. All such actions are to be recorded in the Daily Diary. Should road users be observed to continue to travel in excess of the posted speed limit, the police may be requested to attend the site to enforce the temporary posted speed limit.

The Advanced Worksite Traffic Management accredited supervisory person at the worksite may conditionally approve changes made to a complex traffic management plan subject to review and endorsement of the change by an RTM as soon as practicably possible.

The Traffic Management Contractor must ensure that all temporary signs, devices and controls are maintained at all times. To achieve this, procedures in line with the requirements outlined in AGTTM Part 6 will be instituted. The monitoring program must incorporate inspections:

- Before the start of work activities on site,
- During the hours of work,
- Closing down at the end of the shift period, and
- After hours.

A daily record of the inspections must be kept indicating

- When traffic controls were erected,
- When changes to controls occurred and why the changes were undertaken,
- Any significant incidents or observations associated with the traffic controls and their impacts on road users or adjacent properties.

The Traffic Management Contractor must ensure that personnel are assigned to monitor the traffic control scheme. Inspections must at least satisfy the following requirements.

9.1.1 Before works start

- Confirm TMP and TGS are suitable for the day's activities;
- Inspect all signs and devices to ensure they are undamaged, clean and comply with the requirements depicted on the TGS;

- All lamps should be checked and cleaned as necessary;
- After any adjustments have been made to the signs and devices, conduct a drive through inspection to confirm effectiveness.

9.1.2 During work hours

- Designate and ensure that appropriate work personnel drive through the site periodically to inspect all signs and devices and ensure they are undamaged and comply with the requirements depicted on the Traffic Guidance Schemes;.
- Attend to minor problems as they occur;
- Conduct on the spot maintenance/repairs as required;
- When traffic controllers are on the job, ensure they remain in place at all times. Relieve controllers as necessary to ensure attentiveness is retained;
- During breaks or changes in work activities remove or cover any signs that do not apply (e.g. PREPARE TO STOP, Workers symbolic);
- Re-position signs and devices as required by work processes throughout the day and keep records of any changes.

9.1.3 Closing down each day

- Conduct a pre-close down inspection, allowing time for any appropriate maintenance works;
- Remove any unnecessary signage (e.g. Prepare to Stop, Symbolic Workers);
- Replace any unnecessary signage with appropriate delineation;
- Install barriers and lights where required;
- Drive through site and confirm all signs and devices are operating correctly with no misleading visual cues;
- Record details of inspection and any changes made to layout.

9.1.4 After hours

- Appoint personnel to conduct after dark checks. Replace any signs / devices not working, missing or damaged and record in diary.
- Appoint personnel to conduct checks on non-work days (e.g. weekends). Replace any signs / devices not working, missing or damaged and record in diary.
- Minimum frequency of checks will be X

The frequency of inspections needs to align with the amount of traffic management on site, weather conditions, vehicle types and volumes, road user behaviour and site specific risks.

9.2 TMP Audits and Inspections

<Amend as required>

One compliance audit (using the ‘Compliance Audit Checklist for Traffic Management for Works on Roads’ – found on the MRWA website) must be conducted following setting up of the traffic management and prior to commencement of the works.

Audit findings, recommendations and actions taken must be documented and copies forwarded to the Project Manager and the Road Authority’s Representative

9.3 Records

A daily diary recording all inspections including variations to the approved TMP must be kept using the Daily Diary.

The Traffic Supervisor is to record all inspections made on a daily basis and at those times prescribed by the Traffic Management Implementation Standards. Upon completion of each day the Traffic Supervisor must provide copies of the daily diary record to the Project Manager.

The Traffic Supervisor is to record all variations made to the approved Traffic Management Plan on a daily basis and indicate clearly the nature of the variations and the reason for the variations. Upon completion of each day the Traffic Supervisor must provide copies of the variation record to the Project Manager.

9.4 Public Feedback

<Provide details on the procedure for dealing with public feedback/complaints>

10. MANAGEMENT REVIEW AND APPROVALS

10.1 TMP Review and Improvement

A review of the effectiveness of the TMP will be undertaken by the Project Manager and Traffic Management Contractor as part of the close-out procedure

10.2 Variations

Where the TMP needs amending, e.g. due to a change in the scope of works or safety concerns, a modified TMP will be submitted for approval to the Road Authority.

Minor on-site adjustments or modifications, if required, must generally only be made following approval and recorded in the daily diary. In emergency situations, on-site adjustments or modifications must be made and recorded in the daily diary, and the Project Manager notified as soon as practicable.

<Detail any variations to the CoP, AGTTM and/or AS1742.3>

There are no departures from the requirements of the Traffic Management for Works on Roads Code of Practice in this Traffic Management Plan.

10.3 Approvals, Authorisations and Permits

<Amend as required>

Before works commence it is necessary to seek approval from the following:

- Main Roads WA (Road Planned Interventions, HVS, etc);
- Local Government Authority
- Utility Service Providers (e.g. Western Power, Water Corp, etc.)
- Public Transport Authority (where impacting bus routes, level crossing)
- Other Rail Infrastructure Manager (e.g. Arc Infrastructure)

APPENDIX A – NOTIFICATION OF ROADWORKS

APPENDIX B – VARIATION TO STANDARDS

APPENDIX C – RECORD FORMS

Daily Diary

Incident Report Form

APPENDIX D – TRAFFIC ANALYSIS AND VOLUME COUNTS

APPENDIX E – ROADWAY ACCESS AUTHORISATION PERMIT

APPENDIX F – TRAFFIC GUIDANCE SCHEMES

<Add additional appendices as required e.g. barrier design, stakeholder approvals, etc.>