

ROAD PROJECTS

PERMIT TO WORK WITHIN THE NT GOVERNMENT ROAD RESERVE

This document provides details for obtaining a permit to work on NT Government controlled roads and road related areas, including; procedures, the application forms, the conditions of approval and the technical requirements.

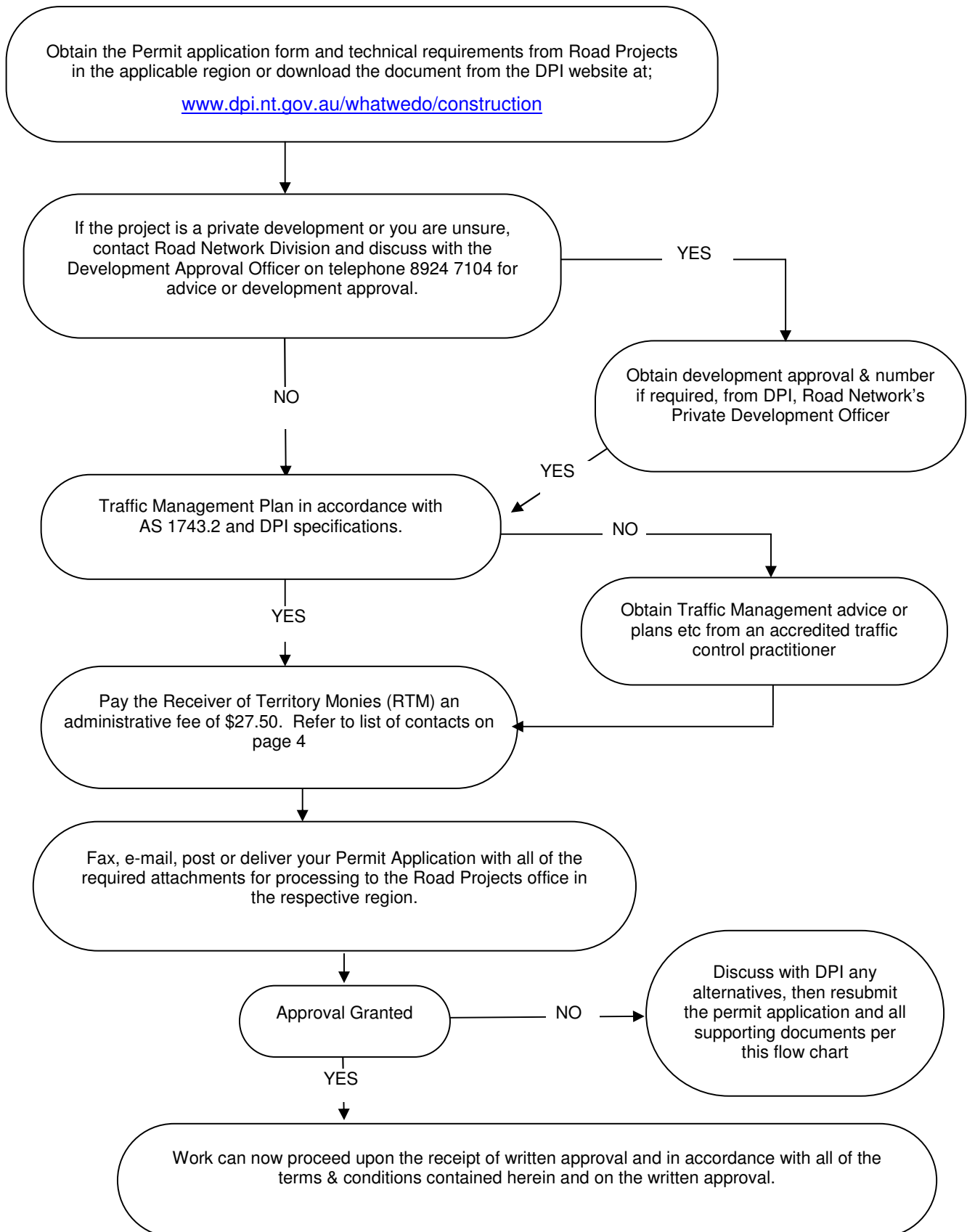
CONTENTS

Application Procedure Diagram	2
Application for Permit Form	3
List of Contacts	4
1 Conditions of Approval	5
2 Preliminary Clauses	7
3 Provision for Traffic	8
4 Earthworks	19
5 Thrust Boring	22
6 Landscape	23
Application Forms for	
Temporary Speed Limits Authorisation	25
Portable Traffic Signals Authorisation	26



PERMIT TO WORK WITHIN THE NT GOVERNMENT ROAD RESERVE

APPLICATION PROCEDURE



Department of Planning and Infrastructure - Road Projects
APPLICATION FOR PERMIT TO WORK WITHIN THE NT GOVERNMENT ROAD RESERVE

PROPOSED WORK DETAILS					
Applicant's Name					
Business/Company Name					
ABN / CAN					
Road Name/s					
Location of works					
Description of works					
Treatment area Photo's / CD / DVD attached or emailed to Road Projects;					Yes / No
Dates of Proposed Works		From	/	/20	
		To	/	/20	
DEVELOPMENT APPROVAL					
Development Approval Details			REQUIRED	Yes / No	
Approval No.			REQUIRED	Yes / No	
Approved By.					
WORK ZONE TRAFFIC MANAGEMENT PLAN					
Traffic Management Plan (TMP) in accordance with the current AS1742.3. All TMPs & Traffic Control Diagrams (TCDs) must be designed by a Northern Territory accredited Traffic Management Plan Designer.					
TMP Designed By:			Accreditation No.		
Site Traffic Controller Name/s:			Accreditation No/s		
INDEMNITY					
Public Liability Insurance minimum \$10 million					
Policy No.					
Policy holder					
Insurer		Expiry Date		/ /20	
Copy Attached		Yes	If No, permit will not be approved		
APPLICANT'S DECLARATION					
<ul style="list-style-type: none"> I/We understand that the permit is granted under the terms and conditions set out on the attached Conditions and Specifications and have read and understand those conditions and agree to comply with them accordingly. I/We enclose herewith an RTM receipt for the administrative charge of \$27.50 (non-refundable). 					
Applicant's Name		Phone No			
Signature		Fax No			
Date		E-mail			
RTM Receipt No:		Date:		/ /20	
DPI Office Use Only - if any of the below have the no circled, permit approval will not be granted					
TMP sufficient for use & attached.	RTM Receipt attached	Insurance details attached & compliant	Conditions of Approval signed, dated & attached.	Development approval confirmed with R/N or Database	WZTM Accreditation numbers supplied & registered at MVR
Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Permit No	Approved	Not Approved	Processed By:		/ /20
			Delegated Officer:		/ /20
The DPI Contact Officer for this Project;					
Name:		Ph:	Fax:		

Information collected on this permit application form may be made available under the *Information Act*.

PERMIT TO WORK WITHIN THE NT GOVERNMENT ROAD RESERVE

LIST OF DPI CONTACTS

DARWIN

Level 2 Highway House, Palmerston NT, 0830

Telephone: 8999 4402

Facsimile: 8999 4682

Email: roadsdarwin.dpi@nt.gov.au

KATHERINE

Katherine Government Centre, First Street, Katherine NT, 0850

Telephone: 8973 8660

Facsimile: 8973 8434

Email: roadskatherine.dpi@nt.gov.au

TENNANT CREEK

Leichhardt Street, Tennant Creek, NT 0860

Telephone: 8962 4511

Facsimile: 8962 4388

Email: roadstennantcreek.dpi@nt.gov.au

ALICE SPRINGS

Level 2, Greatorex Building, Parsons Street, Alice Springs, NT 0870

Telephone: 8951 5355

Facsimile: 8951 5566

Email: roadsalicesprings.dpi@nt.gov.au

NHULUNBUY

John Flynn Drive, Nhulunbuy, NT, 0880

Telephone: 8987 0197

Facsimile: 8987 0177

Email: roadsnhulunbuy.dpi@nt.gov.au

RTM Offices; Contact DCIS on 8999 3636 for the location of RTM Offices.

Abbreviations

WZTM: Work Zone Traffic Management

TMP: Traffic Management Plan

TCD: Traffic Control Diagram

Roadworks Master Specification; can be accessed from the internet at:

www.dpi.nt.gov.au/whatwedo/techspecs/roads/specifications.html

1. CONDITIONS OF APPROVAL

1.1 GENERALLY

A permit to Work Within the NT Government Road Reserve will be issued under the condition that the Applicant understands and agrees to comply with the following conditions, technical specifications and referenced documents.

1.2 DOCUMENTS ON SITE

Keep a copy of the approved permit, Conditions of Approval, Technical Specification and Traffic Management Plans on site at all times.

1.3 AUTHORITY

The approval of a Permit to Work Within the NT Government Road Reserve is provided in Accordance with Section 7 of the Control of Roads Act.

1.4 PUBLIC INFORMATION

Information collected on the permit application form will be used for the purposes stated. In collecting this information the Department will adhere to the DPI Privacy Statement and with the relevant provisions of the Information Act. The Privacy Statement can be found at www.ipe.nt.gov.au

1.5 PUBLIC LIABILITY INSURANCE

Hold a current public liability insurance policy to a value of not less than \$10,000,000 and provide a certificate of currency with the application form for the permit.

Indemnify the NT Government and its agents and staff from any liability claims resulting from any incidents or actions resulting as part of the permitted works or associated works or any interventions necessitated by DPI.

1.6 RECORD OF SITE

Supply images, preferably digital, of the site prior to the commencement of works as requested by DPI. Provide a video on a CD, DVD, or digital photographs or alternatively email to the appropriate email address listed on page 4 of this document.

1.7 RESPONSIBILITY

Accept full responsibility for the works, including determining the locations of existing services and take steps to protect all services and other infrastructure.

The NT Government hereby accepts no responsibility or liability for any omissions or non conformances with any relevant Australian or other standards associated with the works and submitted documents supporting the permit, including, but not limited to all Traffic Management Plans (TMPs) and Traffic Control Diagrams (TCDs).

1.8 SAFETY

Observe all necessary safety precautions and requirements relating to traffic management, NT WorkSafe, Australian Standards and the technical requirements of this specification.

Provide additional safety lights, barricades and signs in accordance with any specific requirements imposed by DPI that may be in addition to the preceding conditions and Australian Standards.

1.9 REINSTATEMENT

Reinstate all areas within the NT Government road reserve, affected by the work, to their original condition to the satisfaction of the Superintendent and at no cost to DPI.

Backfill and reinstate excavations in accordance with the EARTHWORKS section.

Rehabilitate all pavements in accordance with the PAVEMENTS AND SHOULDERS section of the DPI Roadworks master specification. Reinstate all landscaping and the like in accordance with the LANDSCAPING section of the DPI Roadworks master specification.

Where the reinstatement works are not completed satisfactorily, the Superintendent will notify the Permit Holder in writing of the defects. Rectify the defects immediately or within the specified time frames, without cost to DPI, otherwise a third party may be engaged by DPI to complete the reinstatement works to a satisfactory standard at the Permit Holder's expense, including all costs incurred by DPI.

1.10 DAMAGE TO SERVICES OR INFRASTRUCTURE

Contact the Superintendent, other authorities such as Power and Water and Dial before You Dig (DBYD) to ascertain the locations of all underground services and infrastructure.

Where any damage is caused to any existing services, utilities or infrastructure through work being carried out in relation to this permit, report this damage immediately to the Superintendent and any other relevant Authorities and comply with any instructions issued by those authorities.

Where damage is caused to infrastructure or services, including concealed services that have been identified by the Superintendent, other authorities or DBYD, the Permit Holder will be liable for the cost of any necessary repairs.

1.11 NON-COMPLIANCE

If the Permit Holder fails to comply with any of the requirements of this permit, then DPI reserves the right to suspend all or any site works, within the NT Government Road Reserve, deemed to be non compliant with this permit or posing a hazard to any person or asset without being subject to any costs.

DPI reserves the right to rectify any hazards caused by the works if the Permit Holder fails to do so by the nominated date and time, as directed by the Superintendent and DPI will recover all costs from the Permit Holder, which are associated with the rectification work.

1.12 DECLARATION

Signing this document certifies that the applicant has read and understands all of the requirements and conditions contained herein and hereby undertakes to carry out all works in compliance with the requirements of this Specification and the terms and conditions of approval of this permit.

Approval of a permit does not constitute approval of any TMPs or TCDs. The applicant hereby accepts full responsibility and liability for any omissions or any non conformances with the relevant Australian Standards for the proposed works.

Signed:		Date:	
Printed Name:		Position:	
Company Name		Return Fax or email details:	
Witnessed by		Date	
Witness Name:		Witness Position:	

2. PRELIMINARY CLAUSES

2.1 GENERALLY

Ensure that the following requirements and conditions are addressed and noted as applicable to the proposed works.

2.2 DEFINITIONS

Work within the road reserve: is defined as any planned works or operations within the NT Government road reserve.

Long term: applies when traffic guidance is required to operate for more than one shift (standard work day), irrespective of whether it is day or night,

Short term: applies when work is started and completed in one shift and the road is returned to normal conditions by the end of that shift.

Superintendent: means the person currently retained or acting in the position of Regional Manager for the appropriate region.

2.3 SUBMIT APPLICATION

Submit the Application for a Permit to Work in the Road Reserve accompanied by a Traffic Management Plan and associated documents not less than 2 working days prior to proposed works commencing. Failure to do so may result in delays for DPI to process the application.

2.4 NOTICES AND DIRECTIONS

Convey all directions, notices, or correspondence etc. to or from the Superintendent through the nominated DPI Contact Officer in the first instance. The Contact Officer will be named on the permit.

2.5 AMENDMENTS

Site conditions may alter during the period of works which may require amendments to the Traffic Management Plan (TMP) and the Traffic Control Diagrams (TCDs). Such factors influencing amendments could be; weather conditions, traffic density, presence of children or pedestrians, over dimensional vehicle movements, conflicting works by others, vehicle incidents etc.

Resubmit all TMPs & TCDs and any other amendments to DPI before implementing them on site, or as soon as practicable after implementation on site, if a hazard exists warranting immediate implementation.

2.6 EXTENSION OF TIME

Should an extension of time be required on a permit, notify DPI within 2 days prior to the expiry date of the original permit. Failure to obtain an extension in this time will render the permit null and void and a new permit will be required to be obtained, and all steps to obtain a permit shall be undertaken accordingly.

2.7 APPLICANT'S RESPONSIBILITY

Although TMPs and TCDs are appraised by DPI Officers for appropriateness, the applicant remains responsible for actual compliance with AS1742.3 and all other relevant standards. The Northern Territory Government, its agents and staff accept no responsibility for liabilities resulting from TMP's or TCD's appraised for appropriateness by DPI., which may be later found to be non conforming with any relevant standard.

2.8 COSTS AND FEES

Pay all costs and fees associated with other permits, clearances, repairs and reinstatement works due to the implementation of the requirements of this permit.

3. PROVISION FOR TRAFFIC

3.1 GENERAL

Minimise obstruction and inconvenience to the public.

Ensure public safety is accommodated at all work sites.

Assume responsibility for the safe conduct of traffic through, past or around the works, 24 hours a day, from possession of the site to completion of all works, defects liability period (if any) and handover.

3.2 STANDARDS

Conform to the following Standards and Publications unless specified otherwise:

AS/NZS 1906.1	Retroreflective materials
AS 1742.3	Manual of uniform traffic control devices - Traffic control devices for works on roads.
AS/NZS 3845	Road safety barrier systems
AS 4191	Portable traffic signals
AS/NZS 4360	Risk management
NTCD	A Policy for the Control of Traffic at Road Works.
NTTM	Materials Testing Manual.
AUSTROADS	Guide to the Geometric Design of Rural Roads.
AUSTROADS	Bridge Design Code.
NT WorkSafe	All Relevant Bulletins

3.3 WORKZONE TRAFFIC MANAGEMENT

3.3.1 Traffic Management Personnel

Only persons qualified in nationally accredited units of competency in Workzone Traffic Management can be utilised for traffic management at worksites. The three levels of accreditation are:

- Traffic Controller
- Workzone Traffic Supervisor
- Traffic Management Plan Designer

The Superintendent may grant approval for the use of a “Trainee Traffic Controller” within the work site. Such approval will only be considered after submission of a written request. A Trainee Traffic Controller can not commence work until such approval has been granted and received in writing.

3.3.2 Trainee Traffic Controller

A Trainee Traffic Controller must meet all of the following criteria:

- be an employee of the Traffic Control Provider,
- hold an Australian motor vehicle driver’s licence,
- be registered with a Northern Territory Registered Training Organisation (RTO) to undertake the BCC03 Civil Construction Industry Training Package unit of competency BCCCM2013C – ‘Control Traffic with a STOP/SLOW Bat’ (or the replacement unit of competency if and when applicable),
- only work under the direct supervision of a Workzone Traffic Supervisor,
- have commenced training to become a qualified Traffic Controller and complete all assessments of competency within eight weeks of registration.

The direct supervision of a Trainee Traffic Controller is defined as the constant personal oversight of the work by a Workzone Traffic Supervisor.

3.3.3 Traffic Controller

The following pre requisites must be met to enable Northern Territory accreditation as a Traffic Controller:

- hold an Australian motor vehicle driver’s licence, and either,

- successful completion of the BCC03 Civil Construction Industry Training Package unit of competency BCCCM2013C – ‘Control Traffic with a STOP/SLOW Bat’ (or the replacement unit of competency if and when applicable) training course through a Northern Territory Registered Training Organisation (RTO), or
- successful completion of the BCC03 Civil Construction Industry Training Package unit of competency BCCCM2013C – ‘Control Traffic with a STOP/SLOW Bat’ (or the replacement unit of competency if and when applicable) training course through a Registered Training Organisation from another State or Territory and successfully completed a refresher course through a Northern Territory Registered Training Organisation in the above unit of competency.

3.3.4 Workzone Traffic Supervisor

The following pre requisites must be met to enable Northern Territory accreditation as a Workzone Traffic Supervisor:

- hold an Australian motor vehicle driver’s licence, and either:
- successful completion of the BCC03 Civil Construction Industry Training Package unit of competency BCCCM3003C – ‘Implement Traffic Management Plan’ (or the replacement unit of competency if and when applicable) training course through a Northern Territory Registered Training Organisation, or
- successful completion of the BCC03 Civil Construction Industry Training Package unit of competency BCCCM3003C – ‘Implement Traffic Management Plan’ (or the replacement unit of competency if and when applicable) training course through a Registered Training Organisation from another State or Territory AND successfully completed a refresher course through a Northern Territory Registered Training Organisation in the above unit of competency.

3.3.5 Traffic Management Plan Designer

The following pre requisites must be met to enable Northern Territory accreditation as a Traffic Management Plan Designer:

- hold a current Australian motor vehicle driver’s licence, and either:
- successful completion of a ‘Advanced Worksite Traffic Management (National Code 51289)’ training course through a Northern Territory Registered Training Organisation, or
- successful completion of RII06 Civil Construction Training Package unit of competency RIICC503A – ‘Prepare Workzone Traffic Management Plans’ (or the replacement unit of competency if and when applicable) training course through a Northern Territory Registered Training Organisation, or
- successful completion of either of the above training courses through a Registered Training Organisation from another State or Territory and successful completion of a refresher course through a Northern Territory Registered Training Organisation in the above unit of competencies.

3.3.6 NT Accreditation in Workzone Traffic Management

Northern Territory accreditation is provided by the following process:

- completion of training course (or courses) as outlined above,
- obtain Workzone Traffic Management ID Card from Northern Territory Motor Vehicle Registry.

3.4 TRAFFIC MANAGEMENT PLAN

3.4.1 Submission of Traffic Control Diagrams

Provide specific or generic Traffic Control Diagrams (TCD) per activity as required and/or as specified.

Where a traffic management situation is not covered by a generic TCD, submit the specific TCD to the Superintendent at least 2 working days prior to undertaking the required works.

For Urgent Works, advise of the generic TCD or submit the specific TCD within 2 working days.

The Traffic Management Plan (TMP) is required to be designed by a Northern Territory accredited Traffic Management Plan Designer. Include the details of the TMP Designer's name, accreditation number and date of expiry of accreditation on the TMP.

Design the TMP in conformance with the requirements of AS 1742 – 'Manual of uniform traffic control devices Part 3: Traffic control devices for works on roads'. Produce the plan by electronic means and submit electronically to the Superintendent.

Include sufficient details on the TMP to explain the potential hazards, the assessed risks and the proposed treatments for the proposed work activities and work site which may include some or all of the following:

3.4.2 Project Information

- Purpose and Scope
- Project Location
- Site Constraints/Impacts
- Traffic Management Objectives and Strategies
- Principal for the Works; Principal Contractor/Design Consultant including contact details
- Responsibilities including role responsibility and authority of key personnel, management hierarchy including site representatives and contact details of the responsible personnel
- Prior approvals (if any) granted by the Road Authority with relevant reference number

3.4.3 Works on Roads

- Project scope inclusive of works to be undertaken, staging of works, duration of works (work hours)
- Existing Traffic and Speed environment
- Roles and Responsibilities
- Traffic Management Responsibility Hierarchy
- Project Representatives
- Traffic Management Administration

3.4.4 Statutory Requirements

- Occupational Health and Safety
- Provide details on the TMP of responsibilities and authorities of all key personnel on the project including project manager, line managers (site engineers, supervisors etc), contractors and workers, safety personnel and traffic management personnel
- Requirements of personal protective equipment, plant and equipment
- Procedures for incidents or accidents

3.4.5 Monitoring and Measurement

- Site Inspections and Record Keeping
- TMP Auditing
- Public Feedback
- References

3.4.6 Management Review

- TMP Review and Improvement
- Variations to Standards and Plans
- Attention to hazards for non-motorised road users

3.4.7 Planning

- Risk Identification and Assessment – Critical element to identify and assess foreseeable potential hazards associated with the work activities and work site
- Legal and Other Requirements – Confirmation of use of up-to-date information and legislation
- Traffic Assessment (Vehicular Traffic)
 - Volume and Composition
 - Existing and Proposed Speed Zones
 - Intersection Capacity
 - Existing Parking Facilities
 - High Wide Loads
 - Public Transport
 - Special Events and Other Works

- Non-motorised Road Users
 - Cyclists and Pedestrians
 - People with Disabilities
 - School Crossings
- Site Assessment
 - Access to Adjoining Properties
 - Environmental Conditions
 - Impact on Adjoining Road Network
- Works Programming
 - Work Sequence
 - Night Works
 - Emergency Planning
- Consultation and Communication
 - Approvals – Road, Utility and Service Authorities
 - Public Notification
 - Notification to Other Agencies

3.4.8 Implementation

- Hazard Identification, Risk Assessment and Control
- Traffic Control Diagrams
- Traffic Control Devices
 - Signs
 - Pavement Markings
 - Variable Message Signs
 - Delineation
 - Temporary Speed Zones
 - Emergency Arrangements
 - Site Access
 - Communicating TMP Requirements

3.5 AUDITS OF WORK SITE TRAFFIC MANAGEMENT

Appropriately qualified and experienced Auditing Officers from DPI Road Projects may perform random audits of traffic management at work sites as part of their daily routine duties. The Auditing Officer will hold current NT accreditation as a Traffic Management Plan Designer.

Audits undertaken will include verification of:

- The Traffic Management Plan (TMP) held on site,
- The Traffic Control Diagram(s) (TCD) held on site,
- Traffic control devices established in accordance with the Traffic Control Diagram,
- The correctness and currency of accreditation of all personnel associated with traffic management at the work site.

Where the Auditing Officer deems modifications to Traffic Management are required for reasons of public safety or safety on the work site, an Instruction to Contractor (ITC) will be issued requesting immediate correction. If modifications are deemed necessary but not urgent, corrections are to be made at the earliest practicable opportunity.

3.5.1 Non Compliance

Where personnel associated with traffic management at work sites are found not to have current accreditation to an appropriate level in Workzone Traffic Management, the Superintendent may direct the Contractor to cease work, make the site safe, and withdraw plant, equipment and personnel from the road reserve.

3.6 WORK IN BUILT UP AREAS

3.6.1 Working Times

Program work, provide and install traffic management devices/controllers, equipment, materials etc accordingly so that traffic flows are not impeded during the following hours, from Monday to Friday, excluding Public Holidays:

0700 hours	to 0900 hours.
1530 hours	to 1730 hours.

Remove or cover signs or devices as appropriate to stop confusion during these hours. Further restrictions may apply should the DPI deem it appropriate to do so. Concessions to work within these hours may be approved by the Superintendent, should the need arise and the officer deems it necessary.

Do not operate construction vehicles used in conjunction with the proposed works, either SV plated or vehicles in excess of 19 metres on public roads during peak traffic times (see above, working times) or in any way impede peak traffic flow during these times. Vehicles in excess of 19 metres in length are only permitted to travel on roads designated for road trains unless an appropriate permit from the Motor Vehicle Registry has been obtained in advance of using such routes.

3.6.2 Traffic Lanes

Maintain at least 2 lanes (one in each direction) open to traffic at all times unless permitted otherwise on duplicated roads and maintain at least one lane open on two lane roads with appropriate traffic control in place accordingly. Obtain the written permission of the Superintendent if it is necessary to fully close a road.

Program works so that the closure of turning lanes is minimised.

Obtain prior written approval from the relevant Local Government or Council if traffic is to be detoured onto their road network or the proposed works affects their network/assets accordingly.

Provide a copy of all relevant approvals with your application for a permit to work within the road reserve.

3.7 WARNING DEVICES

Take care when placing warning signs, work signs, traffic management devices, or plant and equipment within the road reserve to ensure that these do not interfere with or restrict sight lines, particularly at intersections and ensure that the devices are not obscured by trees or other objects.

Ensure that road work signs reflect the current conditions of the site. Remove or cover signs such as T1-5 (worker symbolic), temporary speed reductions and the like, when not appropriate, such as when no persons are on site. Refer to AS/NZS 1742 for guidance on the appropriate use of these signs.

3.7.1 Works in Progress Signs

For proposed works which are expected to be in progress for greater than 14 days, display signs, sized 1200 x 900mm with 100mm high black Helvetica medium lettering on a white background displaying the following details:

- The nature of the works.
- The start and end date of the works.
- The Contractor’s business name.
- The Contractor’s business phone number.
- The Contractor’s after hours phone number.
- The name of the Traffic Management Plan supervisor.

Display these signs prominently at the extremities of all works in progress and in addition to the work signs requirement. The signs remain the property of the Permit Holder.

3.8 NT SPECIFIC DIRECTIONS FOR ROAD WORK SIGNS

3.8.1 Sign erection

Refer to the DEFINITIONS clause in the PRELIMINARIES section.

Long term rural areas:	Place all signs a minimum 1m lateral clearance from the travelled path and a minimum of 1.5m from the lower edge of the sign to the ground.
Long term urban areas:	Place all signs a minimum of 2.2m from the lower edge of the sign to the ground in locations where they could be obscured by parked vehicles,

	vegetation or trees or may interfere with pedestrian routes. On traffic islands or medians the heights for signs shall conform to the “short term all areas” where it is deemed appropriate, only if they are not obscured by parked vehicles and if they do not interfere with pedestrian routes.
Short term all areas:	Display all signs prominently and place a minimum of 200mm from the lower edge of the sign to the ground, except regulatory signs such as speed, no parking signs etc, which shall be mounted a minimum of 1.5m from the lower edge of the sign to the ground. Place all signs a minimum of 2.2m from the lower edge of the sign to the ground where they could be obscured by parked vehicles, vegetation or trees or may interfere with pedestrian routes.

Mount signs on Oz Spike posts or similar, or set in concrete in accordance with the requirement for permanent speed sign installations.

Ensure that signs are clean, free of damage and comprise of a minimum of Class 1 retroreflective material in accordance with AS/NZS1906.1.

Duplicate all temporary work signs (place on both sides of roads within the work site) on all multilane work sites, irrespective of the duration of the works, unless there is insufficient room available to do so, such as the median width being not sufficient to accommodate the signs. Where necessary, seek direction from the Superintendent where this condition cannot be complied with.

3.8.2 Advance warning signs

In urban areas T1-1 (road work ahead) signs and T2-16/17 (end road work) signs at short term work sites are not mandatory, however, they may be used if deemed appropriate. Use these signs at all long term or rural work sites.

Only use T1-25 (road work on side road) signs on major or arterial roads or highways where works are being conducted on a lower hierarchy road ie. roads with lower volume or speeds that intersect with such a major or arterial road or highway. Do not use these signs on lower hierarchy roads that intersect with a major or arterial road or highway.

3.8.3 Star pickets & fence droppers

Do not use star pickets for support of road work signs, bunting, flagging, fencing, etc within 9 metres of the trafficked path. Issues of sign, bunting, flagging, fencing, etc. stability can be addressed by prudent use of properly manufactured sign legs, sand bags, Oz spike posts and or fence droppers.

Do not use star pickets or any other non frangible items such as steel drums, for delineation or any other purposes within 9 metres of the edge of the trafficked lanes. Bollards, cones and flagging are appropriate alternatives.

Fence droppers may be used as sign supports or legs and bunting or flagging supports on the condition that that the droppers are securely embedded into the ground and the sign, bunting or flagging is sufficiently secured to the droppers. Maintain the prudent use of end caps to ensure the minimisation of any hazards to workers and the public and the specified sign heights can be maintained.

Star pickets may be used for fencing support within the work site, provided appropriate action is taken to reduce any associated hazard for workers within the site and they are not within 9 metres of the travelled path of motorists.

3.8.4 Non standard signs

Obtain specific approval from the Superintendent before using signs not included in AS 1742.3.

3.8.5 Variable message signs (VMS)

Provide electronic variable message boards in the following situations a minimum of 2 days before any changes occur, where changed conditions and or delays are to be experienced by the general public, particularly peak hour traffic;

- At all approaches to intersections
- At approaches to detours and / or
- At approaches to major works alterations

Erect variable message signs on all approaches 7 days before “turn on” of new traffic signals.

Assume full responsibility for the safe location of the variable message signs.

Use electronic variable message signs capable of displaying a minimum text size as specified in AS1742.3 and containing at least 3 lines with a minimum of 8 characters per line.

The Superintendent may provide details of the messages to be displayed and the locations of the variable message signs.

Do not, under any circumstances, use variable message signs for private advertising, within the NT Government road reserve or visible from the NT Government road reserve without the written approval of the Superintendent.

3.8.6 Work Zone Speed Limits

Where work zone speed limits are being proposed to be changed, the proposed temporary speed limits shall be approved by the Superintendent.

Erect speed limit signs in accordance with clause SIGN ERECTION.

Submit temporary speed limit authorisation applications to alter speed limits to the Superintendent, 2 working days prior to the implementation of temporary speed limits, for approval under the Control of Roads Act.

Place repeater speed limit signs along the road, which has a temporary speed limit imposed, after all intersections with other roads within the speed limited area.

Design the Traffic Management Plans so that speed limits lower than the following absolute minimums are not required;

Urban or built up areas.	40 km/h
Bridge works, when restricting traffic to one lane and only in conjunction with a stop-traffic situation. A safety barrier complying with the relevant Test Level in accordance with AS/NZS 3845 shall also be used.	40 km/h
All other rural works.	60 km/h

3.8.7 Road Safety Barriers

Design, install and maintain all road safety barriers used within the NT Government’s road reserve in accordance with AS/NZS 1742 part 3, AS/NZS 3845 and any other relevant and current Australian Standard associated with the works being proposed.

Failure to meet the requirements of the relevant and current standards may result in the project being suspended by DPI or other relevant authorities, such as NT WorkSafe, without cost to that authority until the project meets the required safety standards.

3.9 EXCAVATIONS, STOCKPILES AND GRADIENTS WITHIN WORK ZONES AND CLEAR ZONES

3.9.1 NT WorkSafe Guideline in Relation to Excavations;

Provide shoring to all trenching or excavations which are deeper than 1.5 metres and where a person is required to enter unless an engineer certifies that shoring is not required. Provide a copy of the Engineer’s certification on request.

3.9.2 DPI requirements for excavations, stockpiles or other gradients

This clause refers to the DPI requirements for excavations, stockpiles or other gradients greater than 150mm in addition to Appendix E of AS/NZS 1742.3.

Implement the minimum protection requirements in accordance with AS/NZS1742.3 during each work day, however, if any excavations, stockpiles or other steps in gradient greater than 150mm are to be left in place longer than one work shift or are left unattended for any period of time, during any day, overnight or weekend and adequate clearance in accordance with AS/NZS 1742.3 is not available, protect them by prudent use of approved road safety barriers, backfilling, covering and or removing from site accordingly.

3.10 TEMPORARY PAVEMENT MARKING

Where new pavement surfacing or existing pavement resurfacing is being undertaken, install temporary raised reflective pavement markers at the end of each day and prior to the loss of daylight at 24 metres maximum spacing.

If so instructed by the Superintendent, temporary line marking at the end of each day may also be required until completion of the works when the permanent line marking is reinstated.

Only use temporary raised reflective pavement markers that comply with AS 1742.3, Section 3.9 and Appendix C.

3.11 TRAFFIC CONTROL

Modify the Traffic Management Plan during the works to suit site conditions if required or requested by the nominated DPI Contact Officer. The Superintendent must appraise all changes to the TMPs and TCDs prior to implementation of any changes, unless there is an urgent need for amendments to mitigate any foreseen or unforeseen hazards. In such a case, the changes may be implemented and the Superintendent advised of the changes as soon as practicable thereafter.

If an incident occurs within, adjacent to, on approach to or departure from the work site, make a photographic record of the traffic control devices, site conditions, placement of plant and equipment etc, as soon as practical after the event. Advise the Superintendent of the incident as soon as possible.

Only permit single lane operation of two way traffic when traffic is directed by accredited WZTM controllers and signs or portable traffic signals etc. are employed, dependant on the site conditions and obtaining the appropriate approvals.

Organise Police control as required, or as requested by the Northern Territory Police should the need arise.

3.12 ACCESS TO ADJACENT PROPERTIES AND SIDE ROADS

Maintain access to adjacent properties and side roads at all times to a level appropriate for the type and frequency of traffic.

Provide and erect proposed and approved signs detailing alternative access, only after approval from the Superintendent is obtained.

Ensure adequate access is maintained for pedestrians and cyclists as required, including delineated access if existing paths are being closed as part of the works.

3.13 TEMPORARY BRIDGING

Design and construct any temporary bridging in accordance with the "AUSTROADS" Bridge Design Code. Obtain written approval from the Superintendent prior to commencement of any such works.

Provide and erect signage, fencing, road safety barriers and or guard railing etc to prevent accidental access to the feature being bridged.

3.14 CONTRACTOR'S PLANT AND EQUIPMENT

Provide public traffic right of way at all times unless traffic control is in use.

Keep parking and materials storage clear of trafficked areas and clear zones in accordance with the AUSTROADS "Urban Design Guide".

Do not leave equipment or tools unattended as a hazard to the public.

Floodlight the road and area within 50 m of the site when working at night, to a ground level luminance of 10 lux minimum.

3.14.1 Rotating Beacons on Plant

Provide beacons or other vehicle mounted warning devices on the highest point of the cabin roof or superstructure of all plant and equipment and in accordance with clause 3.12 of AS/NZS 1742.3 where these are being used within the road reserve. Fit beacons with a minimum of 75 watt globes or equivalent strobe lights.

Ensure that the light is operational whenever the plant or equipment is working on or within 9 metres the roadway.

Ensure that the light is visible from all approaches and not obscured by exhaust stacks, back hoe arms etc, or are covered in dust.

Protect the lights from damage by scrub etc.

3.15 ROAD WORK ZONE LENGTH

Comply with the requirements of AS 1742.3.

3.16 TRAFFIC SIGNAL AND COUNT STATIONS

3.16.1 Traffic Signals

Prior to commencement of the works and for the duration of the works clear the work and co-ordinate with the DPI Traffic Section for the appropriate region.

This includes all works within the trafficked lanes;

- 150 metres prior to the stop line
- 50 metres past the stop line
- that affects the normal daily traffic flow at the intersection or for road reserve or median excavations greater than 150mm
- within the area defined by the traffic signal poles and associated pits
- between the traffic signal poles and associated traffic signal control cabinet

3.16.2 Traffic Count Stations

Count Stations have in-pavement detection systems installed and cutting off or closing traffic lanes can have an impact on their operation.

Prior to the commencement of work within the trafficked lanes within 50 metres of traffic signals or within 20 metres of a count station controller, clear the work and co-ordinate for the duration of the works with the DPI Traffic Section for the appropriate region.

A map of count station locations is available from DPI Road Network, contact: 8924 7481

3.17 PORTABLE TRAFFIC SIGNALS

Use portable traffic signals complying with the requirements of AS 1742.3 and AS 4191. Complete the portable traffic signal authorisation form (available from DPI Traffic section) to seek formal approval from the Superintendent to use the proposed portable traffic signals and the proposed time settings.

Portable traffic signals are for short-term traffic control applications only. Where traffic signal control is being proposed for periods greater than 2 months in a single location, consider the installation of temporary traffic signals.

For the area under the control of portable traffic signals, limit the lengths to no more than 1150 metres. Use the time settings in the TIME SETTINGS clause as a guide for red time clearance and maximum green times. Frequently observe the prevailing traffic conditions and vehicle speeds and amend the times for the site as appropriate. Submit the changes to the Superintendent as soon as practicable thereafter.

3.17.1 Temporary Speed Limits

Impose a controlled area speed limit not exceeding 80 km/h if the portable traffic signals would otherwise be in a higher speed limit zone. Work zone speed limits require approval from the Superintendent prior to implementation.

3.17.2 Sight Distance

Maintain a sight distance on the approach to portable traffic signals of not less than 150 metres. If this can not be achieved, use appropriate advance warning signage to advise road users in advance of the sight line obstruction of the impending traffic signals ahead.

In cases where queuing traffic is extending past the advance warning signage, install further advance warning signs and speed zone signs further in advance, to prevent collisions at the end of the que awaiting a green light. Avoid excessive traffic queuing by use of and adjustment of, appropriate time settings on the portable traffic signals whenever possible.

3.17.3 Time Settings

Table – General Time Settings

Mode	All red	Minimum Green	Maximum Green	Yellow
Manual	M	F	M	S
Fixed time	S	F	S	S
Vehicle Actuated	S	F	S	S

F Fixed at 15 seconds
M Set the manual control switch each cycle
S Needs to be selected and preset by operator for each site

Table – Yellow Time

Approach Speed	Yellow Time
Below 70 km/h	4 seconds
Above 70 km/h	5 seconds

Table - Red and Green Times

All Red Period (Seconds)	Max Green Period (Seconds)	Distance Between Stop Lines at traffic Signals (m) – Clearance speed 20 km/h	Distance Between Stop Lines at traffic Signals (m) – Clearance speed 40 km/h
2	30	0-30	0-50
5	35	34-45	50-90
10	35	45-75	90-150
15	40	75-105	150-210
20	40	105-135	210-270
25	45	135-165	270-330
30	45	165-195	330-390
40	50	195-250	390-500
50	50	250-310	500-620
60	60	310-365	620-730
70	70	365-415	730-830
80	80	415-465	830-930
90	90	465-525	930-1050
100	100	525-575	1050-1150

3.18 RESTORATION

Upon completion of works:

- Remove all temporary warning signage and other traffic control devices.
- Remove all temporary works and reinstate the areas to their original state.
- Reinstate permanent traffic control devices temporarily removed during the works.

4. EARTHWORKS

4.1 EXCAVATION

4.1.1 Sealed Roads

Open excavation within sealed pavements is not permitted.

Install pipes, conduits, etc, by thrust or tunnel boring under the road.

For thrust or tunnel boring under sealed pavements conform to THRUST BORING section.

Do not excavate thrust boring pits closer than 3 metres to the edge of the sealed road without prior written approval from the DPI Regional Manager, Road Projects.

Maintain a minimum depth of thrust boring of not less than 1m below the existing road surface unless approved otherwise.

4.1.2 Unsealed Roads

Open excavation within unsealed roads is permitted where approval to do so has been obtained in writing from the DPI Regional Manager, Road Projects.

4.1.3 Excavations

Do not excavate within 1 metre of any road element, eg. kerb and gutter, drainage structure, etc., without the prior approval of the DPI Regional Manager, Road Projects.

Reinstate any landscaping or other structure damaged or disturbed as a result of the works. Undertake remedial works as directed by the DPI Regional Manager.

Pay all fees associated with the location of all utilities in the vicinity of the excavation, prior to commencement of the works.

Pay all costs associated with the repairing of utilities damaged by the excavation works.

Fence the excavation as per the requirements of the Work Health Act, AS1742.3 and all other conditions herein.

Provide adequate shoring, conforming to the requirements of the Work Health Act, to prevent the collapse of trenches, particularly where the trench walls are saturated or unstable. Refer to the clause, EXCAVATIONS, STOCKPILES AND GRADIENTS WITHIN WORK ZONES AND CLEAR ZONES in the PROVISION FOR TRAFFIC Section.

Benching of trench walls is not permitted.

Where an excavation is to remain open overnight, fix yellow flashing lanterns to the site perimeter fencing in accordance with all relevant Acts of legislation and the relevant Australian Standards

Provide all warning signs, lights fencing, barriers etc in accordance with all relevant Acts of legislation and the relevant Australian Standards.

Shore all trenching or excavations which are deeper than 1.5 metres and where a person is required to enter them, unless an engineer certifies that shoring is not required. Provide a copy of the engineer's certification on request.

Where any trenching or excavation works which require shoring are being proposed, notify NT WorkSafe a minimum of 7 days prior to these works commencing. Refer to NT WorkSafe Bulletin WH 03.01.04.

4.2 BACKFILLING

4.2.1 Select Fill

Use select fill as backfill, comprised of gravel, decomposed rock or broken rock, free from organic matter and lumps of clay.

Conform to the following:

GRADING

AS SIEVE (mm)	% PASSING (DRY WEIGHT)
75.00	100
9.50	30 - 100
2.36	15 - 65
0.075	5 - 25

PROPERTIES

CBR, 4 day soaked at 95% MMDD at 2.5 mm penetration: 30 minimum.

Plasticity Index: 2 - 15% maximum.

Linear Shrinkage: 2 - 6%.

Place backfill by the compacted layer method:

Place each layer not in excess of 200mm compacted thickness.

Mechanically compact all backfill to a level indicative of the existing pavement compaction.

Provide test results to confirm compaction has been achieved.

4.2.2 Stabilised Backfill

GRAVELS; Stabilise the backfill where excavation has occurred in a stabilised pavement or as directed by DPI.

Replace backfill with a similar material to that excavated, stabilised with 2% cement, by mass in pavements and backfill around all circular concrete culverts or conduits with clean fill sand conforming to the properties of the table – MATERIAL SIZE and stabilised with 6% cement by mass. Compact in accordance with the BASE COURSE clause.

SANDS; Clean granular material free from sticks, stones and other deleterious material with a Plasticity Index less than 6, conforming to the table MATERIAL SIZE. Flow and vibrate stabilised sand back fill in situ using the same methods for vibrating concrete to improve density and to remove air voids. Refer to the DPI Roadworks Master Specification for further vibration methodology.

Table - Material Size

AS SIEVE (mm)	PERCENTAGE PASSING BY DRY MASS
19.0	100
2.36	50 – 100
0.60	20 – 90
0.30	10 – 60
0.15	0 – 25
0.075	0 – 10

4.2.3 Base Course

Use base course material for the top 200mm of the unsealed pavements.

Use base course comprising of naturally occurring gravels in rural or remote locations and fine crushed rock comprising durable particles of a tightly binding nature in the greater Darwin urban area. Ensure that these materials are free from organic matter and other deleterious material.

Use base course materials complying with DPI Roadworks Master Specification for the particular application. The DPI roadworks Master Specification can be accessed from the internet at <http://www.ipe.nt.gov.au/whatwedo/techspecs/roads/specifications.html>

Mechanically compact the base course to produce a hard, impervious, homogenous and durable surface, level with the existing pavement level and with a consistent cross fall at adjacent pavements.

Where the pavement is stabilised, stabilise the top 200mm with cement, at a rate by mass, determined by DPI Regional Manager.

4.2.4 Excavated Material

Excavated material may be used to backfill areas outside the pavement area.

Bring up the backfill in layers not exceeding 200mm compacted thickness.

Remove any excess excavated material from the site and dispose of in authorised areas only. Do not dump in bushland adjacent to the road.

Pay all fees and costs associated with the disposal of excess excavated material.

4.2.5 Finished Surface Levels

Finish the surface levels to reflect the existing surface levels prior to excavation and conform to the following tolerances;

Straight Edge Deviation: maximum 5 mm in 3 metres and a finished level tolerance of -0mm to +5mm.

.

5. THRUST BORING

5.1 GENERAL

This section specifies the installation of piping beneath trafficked surfaces, buildings or other nominated areas by thrust or tunnel boring, without trenching, disruption to traffic or subsidence.

5.2 STANDARDS

Conform to the following Standard unless specified otherwise:

AS 1579 Arc Welded Steel Pipes and Fittings for Water and Waste Water.

5.3 PROPOSED METHOD – HOLD POINT

Hold Point – Submit details of the proposed method of thrust or tunnel boring not less than 2 days prior to commencement of construction using that method. Include details of proposed filling of cavities. No disruption or excavation of the surface is to take place over the length nominated.

5.3.1 Thrust or Tunnel Boring

Keep dimensions of jacking pits to the minimum necessary.

Use pipe jacking equipment inspected and approved by NT WorkSafe.

HARD COMPETENT MATERIAL: Material with sufficient strength to be self supporting without the use of a pipe casing, and must be accepted as hard competent material by DPI.

5.3.2 Thrust Boring With Pipe Casing

Use pipe casing for thrust boring greater than 200mm in diameter and in material other than hard competent material.

Use a welded mild steel pipe casing manufactured in accordance with AS 1579 and of sufficient strength to withstand the forces generated irrespective of the nature of subsurface material encountered.

Ensure the inside diameter of the casing is 50mm greater than the maximum outside diameter of the pipe joints, skids, cradle runners or other protrusions related to pipe insertion.

5.3.3 Thrust Boring Without Pipe Casing

Thrust boring less than 200mm in diameter and in hard competent material.

Thrust bore the hole cleanly without projections to a diameter at least 50mm greater than the maximum outside diameter of the pipe joints, skids or other protrusions related to pipe insertion.

Use plastic skids extending the whole length of the pipe apart from joints to ensure the pipe is at least 10 mm clear of the hole perimeter. Insert the pipe so that the joints are neither stressed nor pulled apart.

5.3.4 Filling of Cavities

Carry out grouting of the pipe or casing cavity with pumped cementitious grout (Class N10) containing an appropriate plasticising agent. Pipe to be full of water under a pressure equal to normal expected operating pressure.

6. LANDSCAPE

6.1 STANDARDS

Conform to the following Standards unless specified otherwise:

- AS/NZS 3500.1.2 National plumbing and drainage code- Water supply.
AS 4419 Soils for landscaping and garden use.

6.2 PROTECTION OF EXISTING VEGETATION

Ensure all trees, shrubs, and other vegetation to be retained within the limits of work are not damaged.

Protect vegetation prior to commencing construction work in the vicinity of that vegetation.

Do not place or dump any chemical type materials including oil, paint, bituminous products, fuels, and cement/concrete near the vegetation. Prevent windblown chemical type materials, such as cement, from affecting vegetation.

Do not stockpile bulk materials - such as spoil from excavation, boulders, cleared vegetation etc. under or near vegetation. Ensure such spoil is never placed against tree trunks.

Do not remove topsoil from within the dripline (i.e. canopy area) of vegetation unless essential to the works. For any excavation within the dripline keep open as short a period as possible, and use excavation methods that preserve the root system intact and undamaged.

Cut roots only where it is absolutely necessary. When cutting roots, use a means which does not disturb the remaining root system.

Backfill excavation around tree roots with material of at least comparable quality to that excavated. Consolidate backfill and do not backfill around trunks above the original level. Thoroughly water backfilling.

Avoid damage to overhead limbs by machinery. Only remove the minimum amount required if limbs must be removed to allow machinery to work.

Where branches are to be removed, cut them back to the branch collar, leaving neat cuts.

6.3 REMOVAL OF TREES AND OTHER VEGETATION

Obtain DPI approval before the removal of any tree, tree limb, shrub or other vegetation.

Replace any tree, shrub or other vegetation, that has been removed, with new vegetation of the same species to the satisfaction of DPI.

Remove from site any tree, shrub, or other vegetation removed or destroyed as a result of the works, and dispose of at a recognised council rubbish dump.

6.4 DAMAGE TO TREES, SHRUBS AND OTHER VEGETATION

Replace any tree, shrub or other vegetation, that has been damaged as a result of the work deemed by DPI to require replacement, with new vegetation of the same species to the satisfaction of DPI.

Replant with trees of 100 litre bag size, and of the same species as that removed, to the satisfaction of DPI. Failing availability of the same species at 100 litre bag size, DPI will advise of an alternative species.

6.5 TRENCHING IN GRASSED AREAS

For backfilling of trenches in grassed areas, place topsoil for the last 100mm of backfill, compact slightly so as to minimise subsidence.

Comply with AS 4419 for topsoil and seed using a mix of:

- Paspallum Notatum Argentine @ 20g/sq.m
- Pensicolla @ 9g/sq.m, and
- Cycodon Conductylon @ 1g/sq.m.

6.6 DAMAGE TO IRRIGATION SYSTEMS

Engage a Certified Irrigation Designer with competency in Landscape/Turf Commercial requirements, as recognised by the Irrigation Association of Australia, to carry out repairs to irrigation systems damaged as a result of the work.

Conform to AS/NZS 3500.1 when carrying out repairs.

Flush the irrigation systems after each repair.

Pressure test all repairs upstream of solenoid valves.

Carry out a final inspection using an approved irrigation installer and in the presence of the DPI contact officer prior to the placement of backfill.

After repairs to damaged wiring and conduit caused as a result of the works, test the entire electrical control system to ensure no adjacent faults, to the satisfaction of the approved Irrigation Installer and DPI.



Department of Planning and Infrastructure – Road Projects

TEMPORARY SPEED LIMIT AUTHORISATION

LOCATION			
FROM CH:		TO CH:	
LOCATION DESCRIPTION			
TYPE OF WORK			
DURATION			
DATE FROM:	/	/20	DATE TO: / /20
Including / Excluding Weekends (circle one)			
TIME (EACH DAY)	Start Shift:	Hrs	Finish Shift: Hrs
	Start Shift:	Hrs	Finish Shift: Hrs
	Start Shift:	Hrs	Finish Shift: Hrs
ASSOCIATED PROJECT No/Name:			
EXISTING SPEED LIMIT/s	KM/H	KM/H	KM/H
REQUESTED SPEED LIMIT/s	KM/H	KM/H	KM/H
REQUESTING PERSON			
REQUESTING ORGANISATION			
DPI AUTHORISATION (Print Name, Sign & Date)			
Name:	Signature:	Date: / /20	
Comments:			
Road Projects Approving Officer to forward this document (if approved) to: NT Police, Berrimah Communications – Fax: 8922 3412 (or Local Police Station in Regional or Remote Locations)			

