



Northern
Territory
Government

DEPARTMENT OF TRANSPORT



Development Guidelines for Northern Territory Government Controlled Roads

Department of Transport
GPO Box 2520
DARWIN NT 0801

ISSN: 2205-0760

CONTENTS

Version Control Record	2
1. Introduction.....	3
1.1. Scope & Purpose of the Guidelines	3
1.2. Application of the Guidelines.....	4
1.3. Approvals under the Guidelines	5
2. Development Process Overview	6
2.1. Proposals Requiring a Development Permit	8
2.2. Proposals Requiring Planning Scheme Amendment.....	9
3. Road Agency Approval	10
3.1. Road Agency Approval Process	11
3.2. Works in a Road Reserve	12
4. Developer Responsibilities.....	13
4.1. Project Management & Personnel.....	13
4.2. Engineering & Design Standards	14
4.2.1 General	14
4.2.2 Technical Policy.....	14
4.3. Design Documents	14
4.3.1 Specifications	15
4.3.2 Insurance.....	15
4.4. Impact on Adjacent Property or Public Infrastructure	15
5. Works Acceptance Process.....	16
5.1. Departmental Inspections.....	16
5.2. Compliance Testing	17
5.3. Certificate of Completion	17
5.4. Asset Information	17
5.5. Completed Works Inspection	18
5.6. Acceptance of the Works	18
5.7. Defects Liability Period.....	18
5.8. Defects Security – Bank Guarantee	18
5.9. Final Acceptance.....	18
Appendix A - Glossary and Definitions	19
Appendix B - Road Agency Approval Process	25
Road Agency Development Approval Process	26
Appendix C - Design Submission Certificate	27
Design Submission Certificate.....	28
Appendix D - Certificate of Completion.....	30
Certificate of Completion	31
Appendix E - Asset Information	33
Asset Information.....	34
Appendix F - Checklists.....	36
Road Agency Approval Checklist.....	37
Design Drawings Checklist.....	38
Design Report Checklist.....	39
Construction Report.....	40

VERSION CONTROL RECORD

The Development Guidelines for Northern Territory Government Controlled Roads is a *living document*. The Executive Director Transport Infrastructure Planning, Department of Transport is responsible for issuing approved amendments to the Guidelines. The latest version of the Guidelines and related policies are available on the Department's website.

<http://www.transport.nt.gov.au/ntroads/nt-roads-policies>

Version No	Amendment Action	Purpose of Amendment	Date of Issue
1.0		Initial issue of Guidelines	April 2015

For document content and enquiries contact:

Director Transport Infrastructure Management
Department of Transport

Level 1, Energy House
18 – 20 Cavenagh Street
Darwin City
GPO Box 2520
DARWIN NT 0801

Phone: (08) 8924 7539

Email: dev.TIPD@nt.gov.au

Users are advised to always utilise the current version of the Guidelines on the Department of Transport's website to ensure they have access to all amendments. No responsibility will be accepted by the Department for any delays or costs arising from the use of superseded sections of the Guidelines. Where a reference is made in the Guidelines to an Australian Standard, an Austroads publication or other relevant document, it is the responsibility of the user to ensure the most up-to-date version of any such document is used.

The content of this Guide is not of a confidential nature. Any reproduction of the contents must acknowledge the source.

Any suggestions for amendments to the Guidelines will be welcome and should be directed to the above-mentioned contact.

Approval Authority:

_____ Date ____/____/____

Executive Director Transport Infrastructure Planning



1. INTRODUCTION

The Department of Transport (the Department) is the Northern Territory Government (NTG) Road Authority and its responsibilities and activities are largely governed by the *Control of Roads Act* and *Traffic Act*. The Department is responsible for the care, control and management of the road network. For the purposes of these Guidelines, the term *road network* includes both roads and road reserves.

Under the Northern Territory Planning Scheme and *Planning Act*, the Department plays an important role, as an advisor and an approval agency, in the development assessment process for all works that impact on the Territory road network. These Development Guidelines outline the general principles, specific requirements and processes used by the Department in fulfilling this role.

The Department works cooperatively with other government agencies, service authorities and local government bodies to streamline developments, provide positive outcomes for stakeholders and avoid long-term liability for the general community. Developers are encouraged to contact other appropriate authorities to determine any specific requirements for development works.

1.1. Scope & Purpose of the Guidelines

Land use development usually requires access to an existing road network. Other infrastructure that may be affected by a development includes:

- stormwater drainage systems;
- street lighting;
- pedestrian facilities;
- boundary fencing;
- power;
- water;
- sewerage; and
- telecommunication facilities.

These Guidelines apply to any development or infrastructure that impacts on the road network or that will ultimately be transferred to the NTG.

These Guidelines also outline the Department's involvement in the assessment of land use development applications under the *Planning Act* and provide details of the Department's approval processes.

Definitions and a glossary of terms used in these Guidelines are provided as Appendix A.

1.2. Application of the Guidelines

The Development Guidelines for NTG Controlled Roads apply when a development or any aspect of a development:

- may affect the Territory road network including physical infrastructure, traffic, operation, management, capacity or safety; and/or
- may be accepted by the Department for ongoing care, control and management.

These Guidelines are to be read in conjunction with all relevant legislation and policies. If there is any conflict between the Guidelines and legislation or policies, the legislation or policy will prevail. Technical policies can be found on the Department's website. While these policies include more conventional standards for development works, the use of innovative designs and techniques to achieve sustainable development is encouraged, provided these designs and techniques do not reduce safety and operation of the road network.

A development that does not comply with technical policy requirements should be discussed with the Department as soon as possible. Consideration will be given to designs that do not comply with a technical policy where complying engineering solutions cannot be found.

The information provided in these Guidelines does not alter the responsibility of any party for their actions in a development process. In addition, these Guidelines and technical policies cannot cover all aspects of every development. The Developer, or other personnel, should contact the Department for clarification, if required.

The Department reserves the right to deviate from particular aspects of the Guidelines, or technical policies where it is warranted.

The Developer is responsible for ensuring that all representatives, consultants and contractors adhere to the provisions in these Guidelines and relevant technical policies.

1.3. Approvals under the Guidelines

The Department is responsible for the planning, development and management of the Territory road network. The Department is involved in the assessment of land development applications, and is responsible for Road Agency Approvals for all developments impacting on the Territory road network.

Freeways, national highways, roads that serve a special purpose (e.g. tourist access roads within National Parks) and all roads in unincorporated areas are under the control of the NTG. A list of Territory roads can be found on the following link.

<http://www.transport.nt.gov.au/ntroads/declared-roads>

Plans for roads, which may be managed by the NTG in the future, should be discussed with the Department in advance of any design work. The Department does not provide advice or assessment for distributor, collector or local roads within an existing local government area.

The Department's primary contact in the development assessment and Road Agency Approval process is as follows.

Director Transport Infrastructure Management

Department of Transport

GPO Box 2520

DARWIN NT 0801

The Manager, Corridor Access, can be contacted on (08) 8924 7104 or by email on dev.TIPD@nt.gov.au and is located on the 1st floor, Energy House, 18-20 Cavenagh Street Darwin.

Should the Developer choose to appoint a project manager, consultant or contractor to make the application on his/her behalf, the Developer must provide written consent that the manager, consultant or contractor has the authority to act on their behalf.



2. DEVELOPMENT PROCESS OVERVIEW

There are a number of permits and approvals that are required to support proposed developments in the NT. Key processes and permits are as follows.

- Development Permit – administered by the Department of Lands Planning and the Environment
- Services Permit – administered by service providing authorities
- Planning Scheme Amendment Application – administered by the Department of Lands Planning and the Environment
- Road Agency Approval – administered by the Department of Transport
- Permit To Work Within the NTG Road Reserve – administered by the Department of Infrastructure on behalf of the Department of Transport

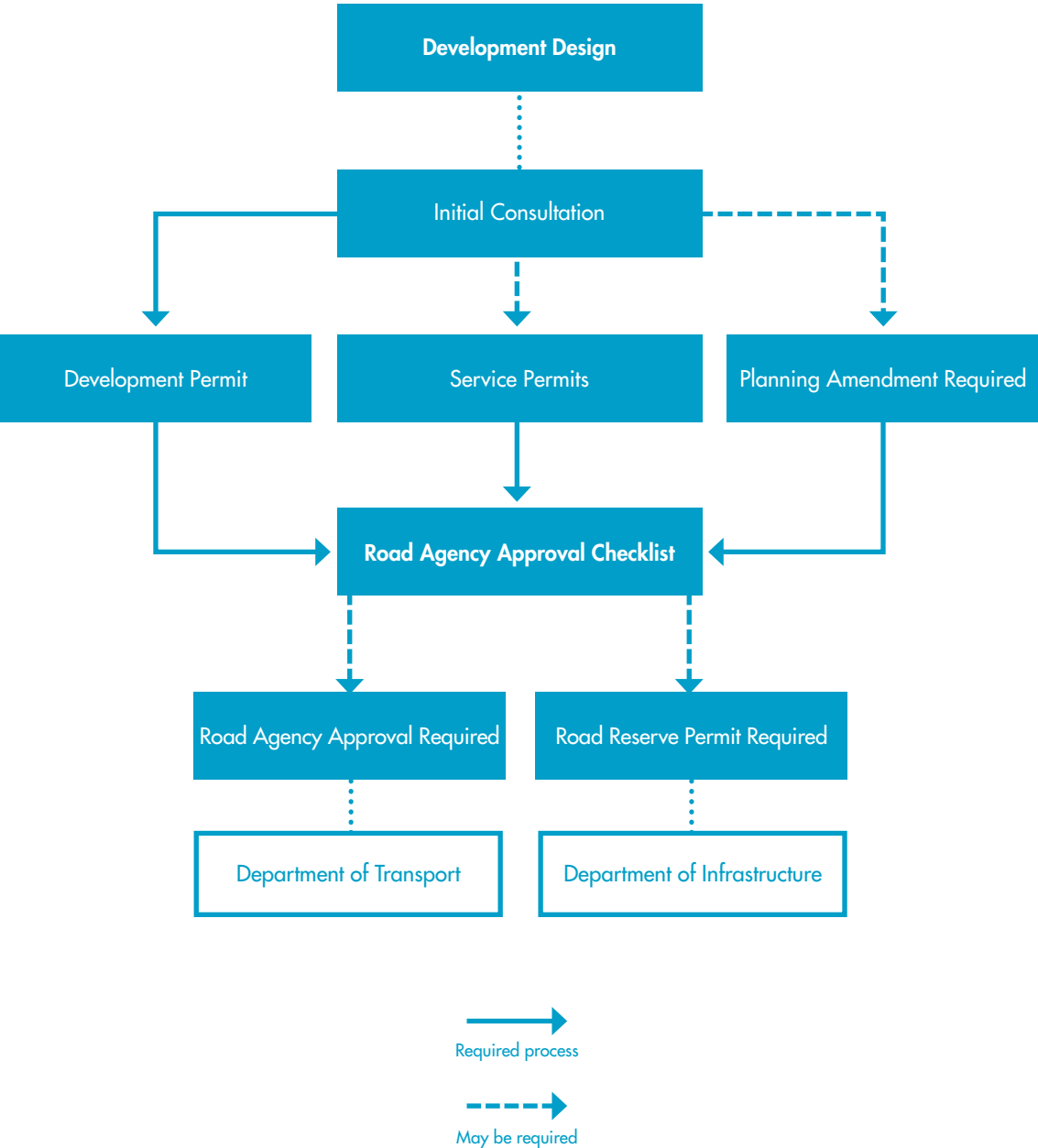
While these Guidelines focus primarily on the Road Agency Approval process, some information regarding other permit processes has been provided.

It is important to note that, if a development proposal requires a Development Permit under the *Planning Act*, the Development Application submitted to the Development Consent Authority (DCA) is referred to the Department as part of the consideration process. A Development Permit issued under the *Planning Act* is **not** a road agency approval.

An approval by a Service Authority to install a proposed service, or to connect to an existing service in a Territory road reserve, does not constitute approval by the Department for the location or construction of that facility. No work can commence before the Department has issued a Road Agency Approval.

It is strongly recommended that the Developer consult with the Department at an early stage in order to facilitate the process of submission and to determine the Department's requirements for a successful road agency approval.

Development Approval Process



2.1. Proposals Requiring a Development Permit

The Developer must provide supporting documents with a Development Application to the Department of Lands Planning and the Environment, including the following.

1. A description of the nature and scale of the development and the expected traffic impact, including construction traffic, on existing or planned Territory roads.
2. Road Standards in the vicinity of the proposed development. Territory Road Standards can be obtained from the Department.
3. Existing, adjacent and proposed vehicle and pedestrian access arrangements and associated intersection treatments.
4. Swept Path diagrams for the design vehicle. These diagrams should demonstrate that the design vehicle is able to enter and leave the development site in forward gear with no adverse impact on the safety of road network users.
5. A Traffic Impact Report detailing the development's traffic generation, trip distribution, traffic operation impact, the nature and timing of impacts, and recommended measures to accommodate the traffic impact. The impact of the development on public transport facilities, pedestrian and cycle facilities will also be assessed. Generally, a full Traffic Assessment is required for any development that will generate in excess of 100 vehicle trips in peak hour. A Traffic Statement is required for development proposals that will generate between 10 and 100 vehicle trips in peak hour (refer to Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development). All road sections and/or intersections where traffic generated by a development increases the existing traffic, existing heavy vehicle traffic or equivalent standard axles (ESAs) by 5% or more, must be assessed.
6. A Road Traffic Noise Assessment for residential or noise-sensitive developments. Refer to the Department's Policy Road Traffic Noise on Northern Territory Government Controlled Roads at <http://www.transport.nt.gov.au/ntroads/nt-roads-policies>
7. An assessment of existing drainage conditions and proposed drainage systems to mitigate any adverse impact on other land, public safety or emergency access on public roads.
8. A master plan showing the staging of the proposed development. The master plan will include a cumulative traffic assessment report for staging and construction activities and an overall drainage plan for the entire catchment.
9. Proposed landscaping and services within the Territory road network.
10. Provision of a construction traffic impact report, construction traffic management plan and/or operational traffic management plan are also required for larger developments.

Insufficient information in support of a Development Application may result in a delay of the assessment. Further detail may be requested.

2.2. Proposals Requiring Planning Scheme Amendment

Changes to types of land use, or the intensity of land use, usually require an application to amend the NT Planning Scheme. Higher intensity developments usually result in higher volumes of traffic flow and stormwater run-off which may exceed the capacity of existing infrastructure. An application for the rezoning of land to a higher intensity land use should be accompanied by the following supporting documents.

1. A Traffic Impact Assessment Report identifying the maximum traffic impact of the proposed land use and any infrastructure upgrades likely to be required. The impact on public transport facilities, pedestrian and cycle facilities must also be assessed. The Developer will be liable for the cost of any required road network infrastructure upgrade. This may be negotiated with the Department on submission of a development application.
2. An assessment of the maximum potential increased stormwater run-off, and the impact on the existing downstream stormwater drainage system. The Developer must demonstrate that the proposed zoning will not create a safety hazard by worsening flooding of existing properties or inhibiting emergency access on public roads. If the existing drainage system is not adequate to accommodate the increased flow, the Developer will upgrade the system or provide on-site retention to limit the expected run-off.



3. ROAD AGENCY APPROVAL

Any proposed development which may affect the Territory road network, including traffic, operation, management, capacity or safety, or result in the construction or installation of new infrastructure within the NTG road network, requires assessment by the Department and the granting of a Road Agency Approval.

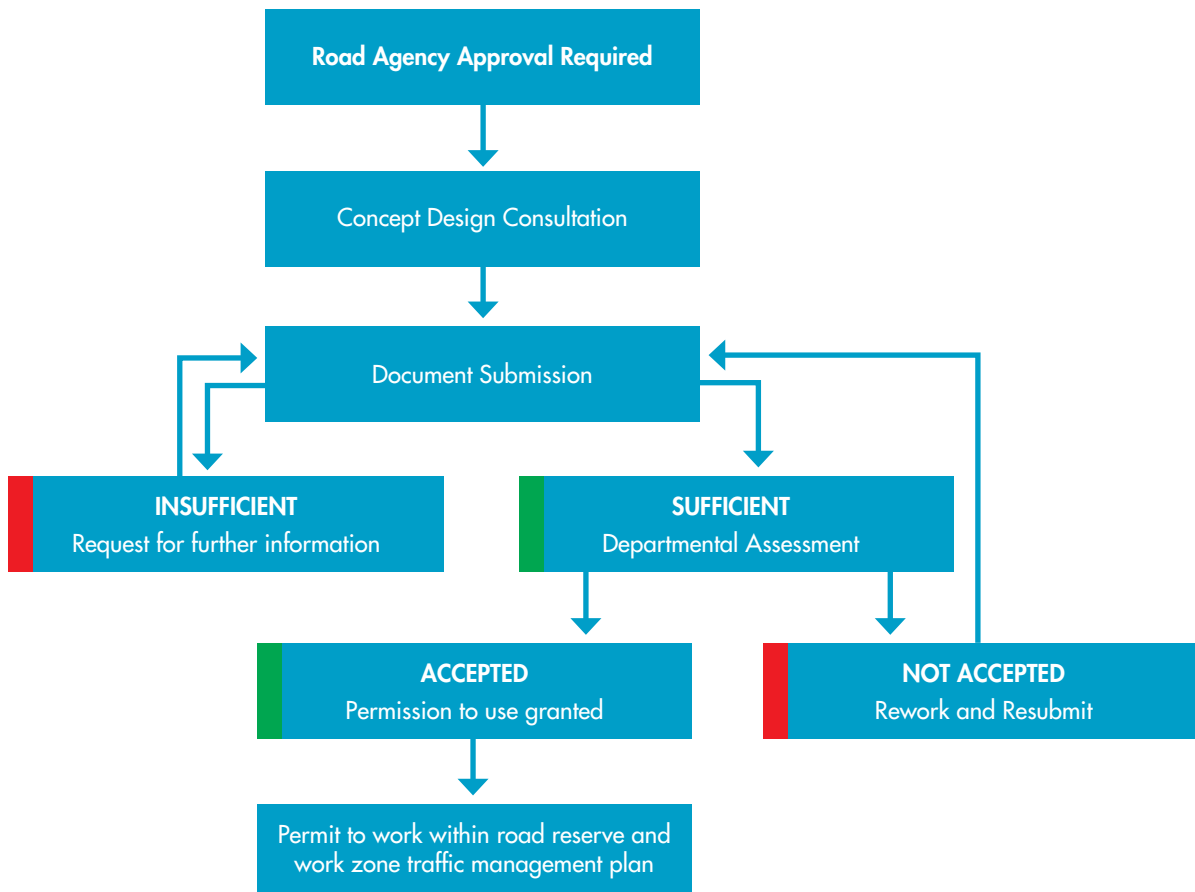
Section 13 of the Northern Territory Planning Scheme includes specific provisions that are applicable to Territory Roads.

Before formally submitting an application to the Department for Road Agency Approval, all relevant permits and approvals relating to a development must be obtained. These approvals include, but are not limited to, a Development Permit under the Planning Act, approval from Service Authorities for the provision of service connections, sacred site clearances, environmental clearances and heritage clearances.

A checklist, which can be used to determine whether a Road Agency Approval is required, is provided in Appendix F.

The process for obtaining Road Agency Approval is summarised in the diagram below and detailed in Appendix B.

3.1. Road Agency Approval Process



Following an assessment of the submitted design documents (see Appendix F), the Department will either approve the design or request amendments to the Design Drawings that are to be issued 'for construction'. The Design Drawings should include the wording as detailed in Appendix F to be signed by the Department's delegate. Alternatively, Department personnel will stamp and sign the drawings before returning it to the Developer or his/her Consultant(s) with a letter setting out any conditions of the approval.

Road Agency Approval refers to the concept of the works to be provided, not the design of the individual elements. It is important to note that approval granted is not to be misconstrued as the Department accepting responsibility for the correctness or technical adequacy of the design. This responsibility remains with the Developer and/or Design Engineering Consultant(s) and suitably qualified people.

If necessary the Department may request re-submission of the proposal. The Department will not assess incomplete submissions until all documentation is received.

3.2. Works in a Road Reserve

The Developer, nominated Consultants, Project Managers or Contractors cannot commence any works within a Territory road reserve without first obtaining a *Permit To Work Within the Northern Territory Government Road Reserve* from the Department of Infrastructure. See

<http://www.nt.gov.au/infrastructure/techspecs/documents/Permit-to-Work-within-NTG-Road-Reserve-Dec-2012.pdf>

The Developer should submit a *Permit to Work within the Road Reserve* application at least 7 days prior to works commencing. Works within Territory road reserves are to be carried out in accordance with:

- the Road Agency Approval issued by the Department;
- the Department of Infrastructure's Roadworks Master Specification
- Australian Standards;
- any requirements of the Development Permit issued under the *Planning Act* (where applicable); and
- these Guidelines.

The Developer is solely responsible for all sub-contractors, plant, machinery, visitors, and movement of traffic and pedestrians within and surrounding the worksite. This responsibility exists 24 hours per day, 7 days per week for the entire duration of works, including reinstatement works. Failure to address public safety at all times may expose the Developer and/or Contractor to potential public liability claims. It is the Developer and/or Contractor's responsibility to:

- notify affected land owners, residents and service providers of works and disruptions;
- comply with the requirements of the Work Health and Safety (National Uniform Legislation) Act 2011 and other relevant legislation and regulations at all times;
- manage the worksite to exclude trespassers, mitigate hazards, minimise risks to people entering the worksite outside of working hours;
- restrict working hours to minimise traffic disruption i.e. off-peak traffic periods;
- carry out reinstatement works on road reserves in a timely manner. In some instances, such as on busy arterial roads, this may mean permanent reinstatement at the completion of each day's work;
- provide Dilapidation Reports regarding the affected road network and relevant infrastructure prior to the commencement of works, if required; and
- provide safety and environmental condition reports, if required, where any excavations, stockpiles or other steps in gradients greater than 150 mm are to be left in the road reserve outside of work hours.

Specific additional restrictions may be imposed based on a case-by-case basis.

A condition of a *Permit to Work Within the Road Reserve* is that a Workzone Traffic Management Plan be developed in accordance with the current version of AS 1742.3 Traffic Control Devices for Works on Roads, including risk assessment and management, by a competent and accredited agent. Appropriate traffic control devices to delineate the construction works and ensure minimal disruption to the traffic flow on the affected road network must be provided in accordance with the Traffic Management Plan.



4. DEVELOPER RESPONSIBILITIES

It is the Developer and Project Manager's responsibility to ensure that all necessary approvals and clearances are obtained. Commencement of construction of a design approved by the Department within a Territory road reserve is subject to all necessary approvals and clearances by the relevant authorities. The Developer and Project Manager must provide evidence of such clearances to the Department on request.

4.1. Project Management & Personnel

The Developer is to nominate a Project Manager and advise the Department of this nomination in writing prior to submitting an application and/or design for approval. The Project Manager will be the Department's contact person for all matters relating to the development.

Where the Developer appoints separate consultants for the design and construction of the works, the Department must be advised. Unless advised otherwise Department personnel will assume that the Certifying Civil Consultant is the Developer's Project Manager.

It is the Developer's responsibility to ensure that both the design and construction supervision of the works is undertaken by a practicing and competent discipline-specific Engineer, Engineering Technologist or Engineering Associate. The Engineer, Engineering Technologist or Engineering Associate should be, or be eligible to be, chartered or satisfy Stage 2 competencies as required by Engineers Australia. See

<https://www.engineersaustralia.org.au/echartered/resources>

Proof of competency, qualifications and professional experience may be required by the Department. Engagement of a Chartered Engineer, Technologist or Associate is preferred. Designs which have not been prepared by an acceptable discipline-specific Engineering Consultant may be rejected without further consideration. Suitably qualified personnel include, but are not limited to, a Certifying Civil Consultant, Certifying Electrical Consultant, the Project Manager and/or the person supervising the construction works appointed by the Developer.

The following works may be supervised and certified by a Building Certifier or other person with appropriate qualifications and experience:

- reinforced concrete property accesses;
- rural residential property accesses; and
- low impact site drainage into standard drainage structures.

Traffic controllers working within the road reserve must be qualified in work zone traffic management in accordance with the Department of Infrastructure's requirements. See

<http://www.nt.gov.au/infrastructure/publications/documents/wztm-training-DoI.pdf>

4.2. Engineering & Design Standards

4.2.1 General

The technical guidance provided in these Guidelines represents minimum standards only and does not reflect the requirements for all situations. The Developer, Project Managers and Consultants are required to exercise all due care and diligence in the design and implementation of the works in accordance with relevant Australian Standards and Austroads Guidelines, professional design and construction best practice. Consultants must ensure the works comply with all relevant current standards. Any proposed variation from current Australian Standards, NTG standards or sound general practice must be discussed with the Department prior to commencement of design. The Department is under no obligation to approve any non-compliance.

The Developer and Consultants are liable for any design deficiencies or errors, inadequate construction works or deficiencies. The Consultant will acknowledge responsibility for the design adequacy and accuracy by certifying the design documents and signing original drawings. The original drawings will be provided to the Department as checked and certified as fit for purpose.

4.2.2 Technical Policy

These Development Guidelines must be read in conjunction with the technical policies that are applicable to a proposed development. Approval to design a development that does not adhere to the technical policy requirements should be discussed as early as possible with the Department. Consideration will be given to designs that do not comply with the technical policy where engineering solutions cannot be found otherwise.

The Department's Technical Policies can be found on the following website.

<http://www.transport.nt.gov.au/ntrroads/nt-roads-policies>

4.3. Design Documents

Prior to commencement of construction, design documents for the proposed works must be submitted to the Department for assessment and approval. The design documents must include Design Drawings and a Design Report. These documents must be signed as certified by a suitably qualified person. Design documentation that is not signed as checked and approved by a Certifying Civil Consultant, Certifying Structural Engineer or Certifying Electrical Consultant (for street lighting) will not be accepted. Checklists of documents required in the Design Drawings and Design Reports is provided in Appendix F.

4.3.1 Specifications

Technical Specifications for the works must be in accordance with the Department of Infrastructure's current version of the Roadworks Master Specification available on the following link.

<http://www.nt.gov.au/infrastructure/techspecs/roads/index.shtml>

Two guides for writing specifications are provided on the following links.

http://www.nt.gov.au/infrastructure/techspecs/documents/GuideToSpecProdn_001.pdf

<http://www.nt.gov.au/infrastructure/techspecs/documents/GuideToTechSpecWriting.pdf>

4.3.2 Insurance

The Developer must carry sufficient public risk insurance to cover the proposed development through to completion. The insurance will indemnify the NTG and will generally provide coverage of at least \$20 million. Evidence of appropriate insurance must be provided prior to commencement of any construction in Territory road reserves.

All Consultants must have professional indemnity insurance coverage of at least \$20 million. Evidence of appropriate insurance cover must be provided prior to design commencement.

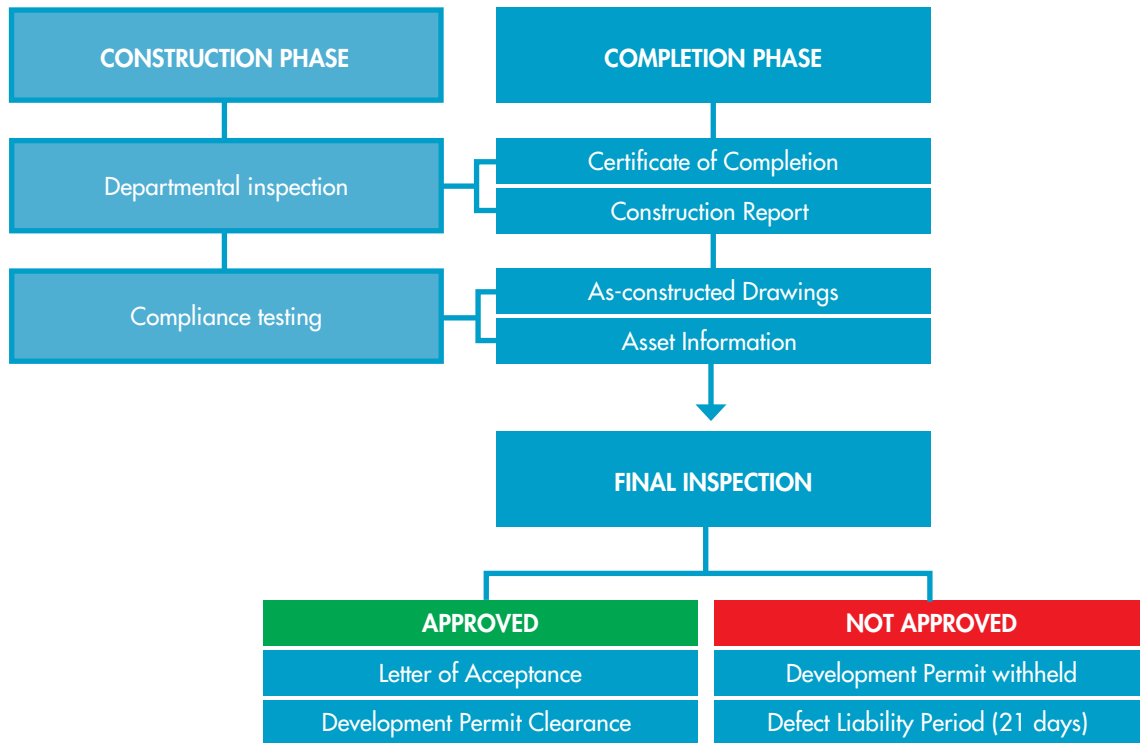
4.4. Impact on Adjacent Property or Public Infrastructure

Developers are to provide, or fund the provision of, all required works impacting on Territory road reserves as a direct consequence of their development. The Developer will be held accountable for all actions during the development process. The Developer is responsible for any damage to existing infrastructure or services, in both public and private ownership, sustained as a result of their development or subdivision.\

5. WORKS ACCEPTANCE PROCESS

An overview of the Works Acceptance Process is provided in the diagram below.

Work Acceptance Process



The works remain the sole responsibility of the Developer until certified by the Certifying Civil Consultant, and inspected and accepted by the Department. Clearance of Development Permit conditions will be withheld if there is evidence of non-compliance.

5.1. Departmental Inspections

Depending on the nature of the works, the Department may be required to conduct *hold point* inspections. A minimum of 48 hours' notice is required for all construction inspections. Inspections by the Department do not diminish the responsibility of the Project Manager to adequately supervise the works.

Inspections will be carried out when the Developer, Consultant, Contractor or Project Manager believe the works specified for the *hold point* are complete and free of defect. Subsequent inspections for unfinished or defective work will incur a call out fee that will be charged at the rate applicable for the distance travelled and time required of Departmental personnel.

In some instances, particularly for major service installations within road reserves, the Department may require a joint site inspection to be attended by the Developer, Consultant, Contractor and/or Project Manager, the Department of Infrastructure and/or the Department prior to commencement of any works to determine reinstatement requirements on completion of the works.

5.2. Compliance Testing

The Project Manager is responsible for ensuring that all quality control checks are carried out during construction. Compliance testing includes:

- earthworks (if any);
- trench backfilling of stormwater drainage structures and other service installations;
- sub-grade;
- sub-base pavement;
- base course pavement;
- asphalt/ spray seal pavement; and
- any structural components.

Testing is undertaken by companies registered with the National Association of Testing Authorities (NATA), in accordance with Northern Territory Testing Methods and Codes of Practice as documented in the Department of Infrastructure Northern Territory Materials Testing Manual. See

<http://www.nt.gov.au/infrastructure/publications/materialstesting/index.shtml>

Field density testing is conducted in accordance with AS 1289.5.8.1 *Methods of Testing Soils for Engineering Purposes – Soil Compaction and Density Tests – Determination of field density and field moisture content of a soil using nuclear surface moisture density gauge – direct transmission mode*. CBR testing conforms to the requirements of the current version of AS 1289 *Methods of Testing Soils for Engineering Purposes*.

Testing frequencies will be in accordance with the Department of Infrastructure's *Roadworks Master Specification*.

5.3. Certificate of Completion

The Developer will provide certification of the completed works (Certificate of Completion) to the Department within 28 days of total completion. *Total completion* of the work means that there are no outstanding work elements or uncorrected and/or unsatisfactory work.

The Certificate of Completion (see Appendix D) must be accompanied by a Construction Report (see Appendix F) and As-constructed Drawings reflecting any adjustments or modifications carried out during the construction phase of the development. The As-constructed Drawings are to be provided electronically in pdf and dwg format in accordance with the Technical Records Plan Room mandatory requirements. See

<http://www.nt.gov.au/infrastructure/techspecs/documents/TechRecordsDrwgArchivingReqs.pdf>

Each page of the As-constructed Drawings must be signed by the Certifier. Ideally, the Certifier should not be the site supervisor.

5.4. Asset Information

The NTG maintains an Asset Management System of all Government-owned and maintained infrastructure. All relevant information about the asset must be provided to the Department to enable it to be accepted as a government asset. Details of any changes to the asset during the Defects Liability Period are to be provided as they occur. Asset information provided to the Department must on the form provided in Appendix E.

5.5. Completed Works Inspection

The Department will endeavour to conduct an inspection of completed works within 10 business days of receipt of the Certificate of Completion. The first inspection is conducted at no cost to the Developer. In the event that the works certified are not complete, or are deemed to be unsatisfactorily constructed, the Developer will be charged a fee for additional inspections.

5.6. Acceptance of the Works

If the works are found to be acceptable on inspection the Department will assume responsibility for maintenance against normal wear and tear during the Defects Liability Period and the following will be issued.

1. A Letter of Acceptance of the works.
2. Clearance of relevant Development Permit conditions in accordance with Part 5 of the *Planning Act*.

5.7. Defects Liability Period

In the case of initial incomplete or unsatisfactory work, acceptance of the works and clearance of relevant Development Permit conditions will be withheld until works have been completed and/or rectified to the satisfaction of the Department. The Developer remains liable for all works until they are accepted by the Department.

Unless stated otherwise, the Defects Liability Period will run for a period of 24 months from the time of works acceptance. Longer Defects Liability Periods may be applied to works in specific locations or work types, e.g. over marine muds, landscaping or work undertaken under a Crown Lease Agreement.

During the Defects Liability Period, the Developer is responsible for the rectification of any identified defects, design errors and omissions, at the Developer's cost. Rectification must occur within 21 days of notification by the Department. In addition, the Developer is responsible for any liabilities, injury or damage that may result from any defects. The Defects Liability Period will be extended as required until all requirements of the Development have been completed to the Department's satisfaction.

Should the Developer fail to rectify defects identified within 21 days, the Department will undertake the necessary work and invoice the Developer. The Department can draw on the Defects Security to cover the cost of rectification if such a security is held.

5.8. Defects Security – Bank Guarantee

Depending on the risks involved with the development, the Department reserves the right to require a bank guarantee from the Developer for Defects Security. The value of the Defects Security will be assessed on a case-by-case basis and is generally a maximum of 10 percent of the estimated project cost. The Developer is liable for all defects regardless of the Defects Security held. Costs incurred by the Department to rectify defects are a debt due and payable by the Developer to the NTG.

5.9. Final Acceptance

On completion of the Defects Liability Period, and the rectification and funding of any outstanding defects, the Department will issue an End of Defects Letter to the Developer and will accept the ongoing care, control and management of the infrastructure provided.



APPENDIX A GLOSSARY AND DEFINITIONS

The following are definitions of specific wording and terms in the Guidelines.

AAPA	Aboriginal areas protection authority, responsible for the approval of all matters relating to sacred sites, which includes trees of significance
Access	Appropriate infrastructure to cater for the movement of vehicles, pedestrians and cyclists to an allotment or development site, e.G. Driveway
Acceptance of Works Letter	A letter issued by the department to the developer or project manager following receipt of a certificate of completion and inspection to verify the works have been completed as per the road agency approval
AS/NZS	Australian standard/ New Zealand standard
As-constructed Drawings	Certified (see definition of certifier) plans showing the completed works and any variation to the approved design. As-constructed drawings are to be submitted with the certificate of completion
ARI	Average recurrence interval
Building Certifier	A person registered as a building certifier under the <i>building act</i>
Business days	A day other than a saturday, sunday or public holiday in the northern territory and specifically excludes 27th, 28th, 29th, 30th and 31st december.
CAD	Computer aided drafting
CBR	California bearing ratio
Certificate of Completion	A letter submitted by the developer or project manager certifying that the works have been constructed as per the road agency approval (refer appendix c)
Certifier: Civil Works (Certifying Civil Consultant)	A consultant and/or their duly authorised representative(s) appointed by the developer to undertake design and/or construction certification associated with a development. Refer to section 4.1 For further clarification. The certifying civil consultant must be a competent civil engineer, technologist or associate who will certify that the design and construction work adhere to the australian standards, these guidelines and other relevant documentation. A person will be determined to be <i>competent</i> if they meet the requirements of <i>chartered</i> as determined by engineers australia.

<p>Certifier: Electrical Works (Certifying Electrical Consultant)</p>	<p>A consultant and/or their duly authorised representative(s) appointed by the developer to undertake electrical design and/or construction certification associated with a development. Refer to section 4.1 For further clarification. The certifying electrical consultant must be a competent electrical engineer, technologist or associate who will certify that the design and construction work adhere to the Australian standards, these guidelines and other relevant documentation. A person will be determined to be <i>competent</i> if they meet the requirements of <i>Chartered</i> as determined by Engineers Australia. For assets governed or maintained by the power and water corporation, such as street lighting, the electrical consultant must be accredited by the power and water corporation. Refer to the following web link Http://www.Powerwater.Com.Au/_data/assets/pdf_file/0017/13481/np041_guidelines_for_electrical_design_consultants_-_power_networks,_network_engineering.Pdf</p>
<p>Certifier: Structural Works (Certifying Structural Engineer)</p>	<p>A person registered as a certifying structural engineer under the <i>building act</i></p>
<p>Clearance Letter</p>	<p>A letter issued by the department following receipt of a certificate of completion advising that the relevant works required as a condition of a development permit have been completed as per the road agency approval (part 5 certification in accordance with the <i>planning act</i>)</p>
<p>Construction cost</p>	<p>The actual cost to construct the development works as reported and certified by the project manager or a quantity surveyor engaged by the developer</p>
<p>Contractor</p>	<p>The person bound to execute the relevant construction works on behalf of the developer.</p>
<p>Defect</p>	<p>An unsatisfactory or non-complying item of work noted by the certifier or duly authorised or delegated person acting on behalf of the ntg</p>
<p>Defects Liability Period</p>	<p>The period between the issuing of the acceptance of works letter and the complete handover of works. During this period the department undertake maintenance for normal wear and tear</p>
<p>Defect Security</p>	<p>Monies held in security by the department that are released at the end of the defects liability period</p>
<p>Design Documents</p>	<p>Design drawings and reports, including design assumptions, specifications, calculations, traffic impact and other documents required by the department for the approval of works impacting on the ntg road network</p>

Design Life (road pavement)	The minimum number of years a road pavement is designed to remain durable. For ntg roads, road pavements must be designed for a minimum 30 year design life
Design Submission Certificate	A certificate submitted to the department with the design documents and development permit, if applicable, for approval of the detail design (refer appendix b)
Development Application	An application submitted to the development assessment services and the consent authority for land use development in accordance with the <i>planning act</i> , and including the subdivision of land
Development Assessment	Assessment of a development application, submitted under section 46 of the <i>planning act</i> , to the development assessment services and the consent authority
Development works	The works undertaken to complete the conditions of a development permit, including the specific requirements of the relevant local authority, road authority, service authorities, etc. Development works also include works that do not require a development permit, i.E. Works associated with a permitted land use, or the installation of public utilities/services within a ntg controlled road reserve
Developer	A person or business undertaking a development (i.E. Land subdivision and/or development, providing access or service connections to land, service installations, etc.), And includes government agencies and service authorities who initiate or carry out developments. The developer may delegate works in writing to a certifying civil consultant, building certifier, project manager or other suitably qualified person. This delegation does not absolve the developer from his responsibilities
Department	The Department of Transport, unless otherwise specified
Development Assessment Services (DAS)	The division of the department responsible for development application assessment and development control within the provisions of the <i>planning act</i> . Das provides professional advice and administration support to ntg, the development consent authority, industry and the community on the use of land
Development Consent Authority	The relevant authority established under section 82 of the <i>planning act</i> . Divisions of the development consent authority determine development applications within their division area. Where no division of the development consent authority has been established in relation to an area of land, the minister is the consent authority
Development Permit	A planning instrument issued by the relevant consent authority under the <i>planning act</i> which permits the developer to proceed with the development in accordance with the conditions of the development permit

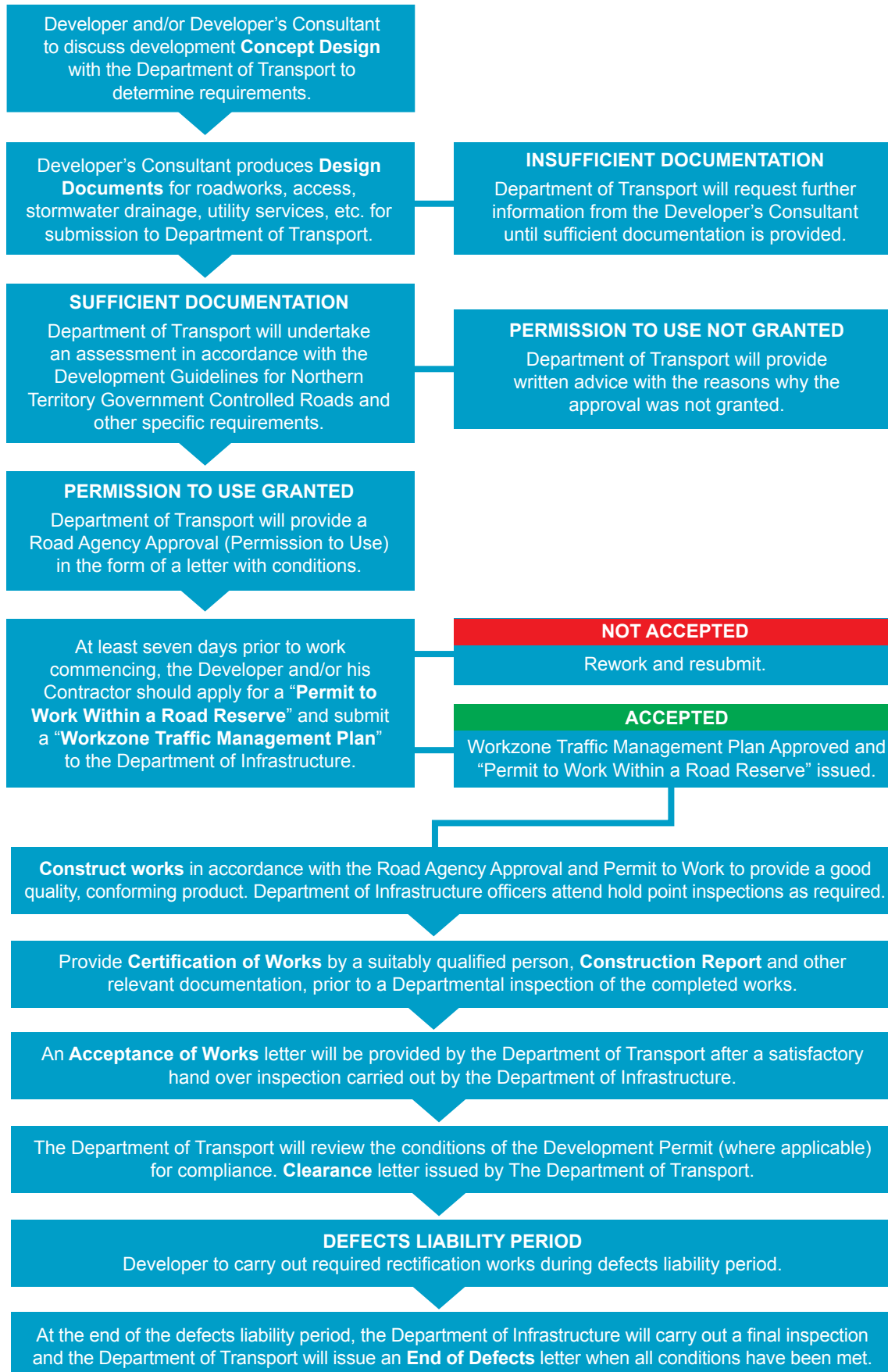
End of Defects Letter	A letter issued by the department on completion of the defects liability period and rectification of any outstanding defects, or payment of cost incurred by the department in undertaking necessary rectification works
Guidelines, the	Refers to this document
NATA	National association of testing authorities
Northern Territory Planning Scheme	A consolidated planning scheme for the northern territory established under the <i>planning act</i> .
Northern Territory Government controlled roads	The roads under the care, control and management of the department. The department manages the approval process for all works within ntg controlled road reserves. Referred to as <i>territory roads</i> . The following web link provides maps of territory roads Http://www.Transport.Nt.Gov.Au/ntrroads/declared-roads .
Permit to Work Within a Road Reserve	A permit issued by the department of infrastructure on behalf of the department, authorising conditional occupation of, and carrying out of works within a territory road reserve. The issue of a permit to work for all works associated with land use development and/or the installation of services are subject to the department's prior approval
Planning Scheme Amendment	An amendment to the northern territory planning scheme including the rezoning of land to facilitate a change in land use type or intensity
Project Manager	A person who is a legal agent of the developer for all matters pertaining to the design, construction and certification of works. Unless otherwise advised, the department will assume that the certifying civil consultant is the main point of contact for all matters pertaining to the management of works
Road Agency Approval	Approval issued by the department for all works within ntg controlled road reserves. This includes, but is not limited to, roads and accesses, stormwater drainage, fencing, landscaping and installation of utility services. Where the proposed works are part of a land use development which requires development approval under the <i>planning act</i> , the road agency approval is subject to a development permit
Road Traffic Noise Assessment	A noise assessment undertaken by a qualified specialist for residential or noise sensitive developments exposed to road traffic noise from adjacent existing or planned arterial roads, national highways or freeways, in accordance with as 3671 <i>acoustics - road traffic noise intrusion building siting and construction</i>

Service Authority	The authority responsible for the provision and maintenance of public utilities, including the power and water corporation (all electricity, water supply and sewerage reticulation) and licensed carriers under the <i>telecommunications act 1997</i> (telecommunication facilities)
Standard Drawings	Current standard drawings produced and administered by the department of infrastructure
Suitably Qualified Persons	Refer to section 4.1
Technical Specification	A document that specifies the technical details of the development works. For all works within ntg controlled road reserves, technical standards should be in accordance with the department of infrastructure's <i>roadworks master specifications</i> Http://www.Nt.Gov.Au/infrastructure/techspecs/roads/index.Shtml .
Territory Roads	The roads under the care, control and management of the department. The department manages the approval process for all works within ntg controlled road reserves also referred to as <i>ntg controlled roads</i> . See Http://www.Transport.Nt.Gov.Au/ntroads/declared-roads
Traffic Impact Report	A report that assesses the traffic impact of a proposed land use development in accordance with relevant industry guidelines. This could include a full traffic impact assessment or a traffic impact statement (see definitions below)
Traffic Impact Assessment	Required for any development proposal that will generate in excess of 100 vehicle trips in peak traffic periods (refer to austroads <i>guide to traffic management part 12: traffic impacts of development</i>)
Traffic Impact Statement	Required for development proposal that will generate between 10 and 100 vehicle trips in peak traffic periods (refer to austroads <i>guide to traffic management part 12: traffic impacts of development</i>)
Traffic Management Plan	As requested for larger developments (refer to austroads <i>guide to traffic management part 12: traffic impacts of development</i>)
Whole-of-life costs	The life cycle costs (capital and maintenance expenditure) of new infrastructure calculated by an engineer or a quantity surveyor.
Work zone Traffic Management Plan	A set out plan of a particular site showing the traffic signage and set out of a work zone in accordance with Australian standards
WSUD	Water sensitive urban design



APPENDIX B ROAD AGENCY APPROVAL PROCESS

ROAD AGENCY APPROVAL PROCESS





APPENDIX C DESIGN SUBMISSION CERTIFICATE

DESIGN SUBMISSION CERTIFICATE

Development Permit Number (if applicable)	
Property Address	
Developer	
Project Manager	
Design Engineering Consultant	
Chartered	YES <input type="checkbox"/> NO <input type="checkbox"/>
National Professional Engineers Register	YES <input type="checkbox"/> NO <input type="checkbox"/>
Certifying Engineer - Engineers Australia Member Number	

Attached is our submission for the Department of Transport's Road Agency Approval including:

Tick	Item Submitted
	Letter of Authority from the Developer
	Checked and signed drawings (refer to appendix F)
	Checked and signed Design Report (refer to appendix F)
	Traffic Impact Report if required
	Swept path diagrams for design vehicle(s)
	Master Plan for staged developments
	Copy of all specifications and calculations
	Section 40 certificate for all structural elements
	Detail Design (Stage 3) Road Safety Audit if required (refer Technical Policy documents)
	Asset design information (refer Appendix E)
	Certified estimate of construction cost

I hereby certify that the design for works for this development have been carried out in accordance with the standards and specifications of the Northern Territory Government, and relevant Austroads Guidelines and Australian Standards.

NAME: _____

SIGNED: _____ DATE: ____/____/____



APPENDIX D CERTIFICATE OF COMPLETION

CERTIFICATE OF COMPLETION

Road Agency Approval Number	
Permit to Work Number	
Property Address	
Approved Drawing Numbers	
Developer	
Construction Engineering Consultant	
Chartered	YES <input type="checkbox"/> NO <input type="checkbox"/>
National Professional Engineers Register	YES <input type="checkbox"/> NO <input type="checkbox"/>
Certifying Engineer - Engineers Australia Member Number	

Attached are the “As Constructed” drawings reflecting changes approved by the Department as
of ____ / ____ / ____ (date).

Tick	Certification of Completion Checklist
	Marked-up “As-constructed” drawings, signed by Certifier
	Construction Report (refer Section 5.4), including all conformance testing results
	Camera inspection record of underground drainage structures
	AAPA certificates for all new roads in the Territory’s name
	Pre-opening (Stage 4) Road Safety Audit if required
	Completed Asset Information form (refer Appendix E)

I hereby certify that all works associated with the above Road Agency Approval Number have been completed in accordance with the approved drawings listed above and the standards and specifications of the Northern Territory Government.

NAME: _____

SIGNED: _____ DATE: ____ / ____ / ____



APPENDIX E ASSET INFORMATION

ASSET INFORMATION

The following information is to be provided to the Department with the Design Documents.

Asset Design

Road Name(s) (if known)	
Region	Darwin / Katherine / Tennant Creek / Alice Springs / Gove
Expected date of Completion	
Length of works	
Proposed Chainages	
Road Surfacing Details	
Road Classification	
Lane Details	
NTG Drawing Numbers	

The following information is to be provided to the Department on completion of the development works.

Asset Commissioned

Road Name(s)	
Region	Darwin / Katherine / Tennant Creek / Alice Springs / Gove
Completion Date (as per Certificate of Completion)	
Approved Drawing Numbers	
Length of works	
As Constructed Chainages	
Road Surfacing Details	
Pavement Details	
Road Classification	
Lane Details	

Survey Datum

Height Datum	
Terrain Datum	

Start Centreline and/or control line

Height	
Latitude	
Longitude	

End Centreline and/or control line

Height	
Latitude	
Longitude	

Details of other assets (include details of culverts, floodways, road amenities, signage, lighting etc. and include latitudes and longitudes of each)



APPENDIX F CHECKLISTS

ROAD AGENCY APPROVAL CHECKLIST

The checklist below provides a means of determining whether the proposed development requires a Road Agency Approval.

1. The proposed development will have an impact on the existing or planned NTG road network, for example by:
 - changing the volume and/or mix of vehicle traffic or operation of the network;
 - creating a new access or modifying an existing access ;
 - discharging stormwater into a roadside drain or connecting to an existing underground drainage system within a road reserve;
 - providing landscaping in a road reserve;
 - requiring the provision of street lighting; or
 - requiring installation of a service (water, sewer, electricity, telecommunication facility or gas) within or across the road reserve.
2. The proposed development will create new road infrastructure (roads and stormwater drainage, etc.) in a locality that has no existing local government entity.
3. The proposed development will create new road infrastructure intended to be managed by the NTG.

DESIGN DRAWINGS CHECKLIST

The Design Drawings must comply with the following requirements.

- Drafting must be in accordance with the Department of Infrastructure's Technical Records Plan Room mandatory CAD requirements and standard drawings requirements. See links below.

<http://www.nt.gov.au/infrastructure/techspecs/drawings/index.shtml>

<http://www.nt.gov.au/infrastructure/techspecs/documents/TechRecordsDrwgArchivingReqs.pdf>

- Drawing numbers have been obtained from the NTG Technical Records Plan Room. See DocumentationServices.Dol@nt.gov.au
- The Drawing scale is in accordance with current Australian Standard AS1101 Technical Drafting requirements.
- The Design Drawings include a locality plan and show full and accurate details of adjacent roads, topography, cadastral boundaries, all existing and proposed services within 300 metres of the development boundaries, any existing and/or proposed property access, and distances from a suitable datum to existing adjacent property accesses.
- A Staging Plan is included where applicable.
- The Design Drawings must be issued 'for approval' or 'for construction'.
- Drawings must show full details of proposed works including:
 - layout;
 - long sections and cross sections;
 - details and general notes;
 - diameter and class of all pipes and class of drainage structures;
 - traffic control devices (including line marking and signage);
 - landscaping, sediment and erosion control and fencing plans;
 - services plan; and
 - structural drawings and certification if required.
- Drawings must be systematically labelled, numbered and submitted electronically in PDF format. Provision of one complete bound set of A3 size drawings is optional. Note all electronic drawings must be geo-referenced in decimal degrees.
- Each drawing should include the wording shown below.

Road Agency Approval no.

Department of Transport

Transport Infrastructure Planning Division

Permission to use for construction purposes within Northern Territory Government controlled road reserves. This approval does not absolve the Developer and/or Certifying Consultant from full responsibility for the correctness, accuracy and appropriateness of the design and/or associated documents.

.....
Director

...../...../.....
Date

DESIGN REPORT CHECKLIST

The Design Report must comply with the following requirements.

- Title page, index and appendices
- The Developer/owner's name, contact details and the land parcel's correct reference and address.
- An overview of the development/subdivision.
- An outline of the standards/design criteria for the design (Austroads, Australian Standards, etc.) in accordance with these Guidelines. Any variation or non-compliance needs to be detailed and relevant adopted standards explained. Where innovative designs or strategies are proposed to achieve sustainable development, an assessment of the whole-of-life costs in comparison with a more conventional solution and a benefit statement should be included.
- 'Swept path' diagrams for the design vehicle must be included
- Detail of any connections to NTG stormwater and drainage infrastructure.
- A Traffic Impact Statement/Assessment Report, including access and the impact of additional traffic flow on existing traffic conditions.
- A summary of all relevant reports, recommendations and calculations (geotechnical investigation, stormwater management, pavement design, environmental management, erosion and sediment control, etc.)
- Street lighting levels, including standards used.
- A Road Safety Audit on the design in accordance with the Department's Policy "Road Safety Audits".
- <http://www.transport.nt.gov.au/nroads/nt-roads-policies>
- For staged developments, a master plan showing the proposed lot layout, road reserve widths, intersection priorities, traffic control devices, drainage flow paths and all infrastructure proposed for the full development, and a breakdown of the staging, accumulative servicing and traffic impacts.
- Structural certification of any structural elements in the form of a Section 40 certificate.
- Asset information (refer the Asset Design section of the form at Appendix D).
- A Construction Management Plan, including construction access, proposed haulage routes, protection of existing assets, protection of public access and general traffic management plans.
- An Environmental Management Plan providing detail of environmental management considerations, including erosion and sediment control, heritage and sacred sites, Indigenous people's use of the area, proposed verge landscaping and/or reinstatement/rehabilitation works.
- A copy of the Development Permit if the development requires planning consent.
- Completed "Design Submission Certificate" (see Appendix B).

Further details may be requested prior to the issue of a Road Agency Approval.

CONSTRUCTION REPORT

The Developer must provide a consolidated Construction Report containing all construction information relevant to the development. At a minimum the report is to include the following.

1. A title page, index and appendices to present information in a clear manner.
2. A brief description of the works.
3. A brief description of the construction program, i.e. commencement date, completion date and other key milestones.
4. Copies of all relevant permits, approvals and/or clearance certificates obtained for the works. For new roads to be managed by the NTG, Aboriginal Areas Protection Authority Certificates are to be in the name of the NTG.
5. Details of all actions taken in respect of meeting conditions imposed by relevant permits (including Development Permit conditions), approvals or clearance certificates.
6. A statement of compliance to environmental protection measures.
7. Photographs of key construction phases.
8. A summary of all inspections carried out, e.g. camera inspection record of underground drainage structures.
9. A summary of compliance testing results in a table format, including any re-test work and re-test information.
10. Copies of full testing and inspection records. These should include the following.
 - For all earthworks, trench backfill construction, subgrade and pavement layers (all surfacing types), provide:
 - lot diagrams showing location of compliance testing;
 - a schedule demonstrating testing complies with frequency of testing as documented in the Department of Infrastructure's *Roadworks Master Specification*; and
 - all laboratory National Association of Testing Authorities (NATA) test result certificates.
 - For spray sealing work include spray sheets and aggregate spread rate documentation.
 - For asphalt work include mix design information.
 - For concrete work include strength and field slump testing when relevant.

