

## **GUIDE TO SPECIFICATION PRODUCTION AND SPECIFICATION WRITING**

### **PART 1 GUIDE TO SPECIFICATION PRODUCTION**

#### **GUIDELINES**

This document provides guidance and information for In-house Technical staff and Consultants in the preparation of Project Specifications, including the Commercial and Technical sections, and document assembly.

#### **TENDER DOCUMENTS ONLINE (TDO)**

Most In-house Request For Tender (RFT) and some Request For Quotation (RFQ) Specification documents are prepared using TDO, a system managed by Contract and Procurement Services (CAPS).

Consultants producing Project Specifications for the Department should contact the Project Manager, who will brief the Consultants on the Specification processes and procedures, and provide the Consultant with access to the draft Specification material.

In-house Specification writers prepare the Specification material directly from TDO, which allows the attachment of the Project Specific Requirements if they are required.

#### **MASTER SPECIFICATIONS**

The layout of the Technical Master Specifications used by the department for the production of Contract documentation aligns with the NATSPEC Specification layout.

#### **ACCESS TO MASTER SPECIFICATIONS**

General information relating to Specifications may be accessed from the Specification Services home page

<https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications>.

In-house staff may also access the Technical Master Specifications templates through TDO.

Consultants have access to Standard Specifications and other information, from the department Technical Specifications Internet site at:

<https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications>

The Building Specifications require a password for access, as they are copyright protected. To gain access and use these documents, and NATSPEC Specifications and materials; contact the Manager Specification Services.

The Specifications are continuously being updated. It is important to download the current set of documents from TDO for each project. (Don't place a copy on your computer desktop, as it may not be current at your next use).

#### **RFT DOCUMENT CHECKLIST**

The Request For Tender documentation checklist is a guide to take Project Officers and Consultants through the various steps in the preparation of the RFT document, including drawings (where applicable), to go to tender. Contact the Project Manager for a copy.

#### **CONSULTANTS DRAFT SPECIFICATION**

Consultants are required to edit the template Master Specification material. Insert optional clauses when generating the document. It is difficult to search for and insert information at a later time.

Forward the completed draft Specification material to the Departmental Project Officer.

Ensure that the Specification/s are prepared early in the documentation process to allow sufficient time to complete and check the Specification/s, and co-ordinate the contents with the drawings.

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## SPECIFICATION NUMBERS

Specification numbers are obtained from **Technical Records** on: **(08) 8924 7371** or electronically from the **Plan Room** Internet site:

<http://finke.nt.gov.au/dtw/techplans.nsf/webFrameset>.

## ARCHIVING REQUIREMENTS

Submission of As-Constructed / As-Installed drawings is a condition precedent to practical completion. They must be forwarded to Technical Records. Refer to NTG Technical Drawings Part 1 – Requirements for Technical Records Management available from the Technical Records webpage:

<https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-records>

A CADD data transmission record form (transmittal) is to accompany all documentation sent to Technical Records.

## QUALITY ASSURANCE

The Department has a current Quality Assurance (QA) Policy incorporated into its contracts.

Project Tiers:

Tier 1	Less than \$15k	Project Control not required. QA not required.
Tier 2	\$15 k but less than \$100 k	
Tier 3	\$100 k but less than \$500 k	Projects under \$150k - Project Control/QA not required unless complex.
Tier 4	\$500 k but less than \$5 M	Projects over \$150k and under \$5 million- use Project Control via TDO.
Tier 5	\$5 M and greater	Projects over \$5 million - Use the ISO 9000 series for Quality Assurance.

The Project Control section generated from TDO will reference a suite of Project Checklists available from the Specification Services website. The Checklists include a list of Tests required, and Hold Points and Witness Points that can be edited to suit the Project. These items have to be signed off by the Superintendent.

Response Schedules will automatically include the QA or Project Quality Plan Proposal. This proposal will need to be submitted as part of the “Documents to be Lodged” clause in the Conditions of Tendering.

After inserting Technical content use the TDO tools function **Hold/Witness Points** to compile a list of Hold Points and Witness Points. These points are picked up from the relevant clause or sub clause titles, which will include the words – Witness Points or Hold Points as required.

When using the Standard Specification books Hold Points and Witness Points schedules are available from the Specification Services webpage:

<https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications>

The schedules are listed in the supplementary documents section for each of the Standard Specifications.

## FINAL DRAFT

A final draft of the Specification document is required for the final documentation review. This Specification document must be approved by the Project Officer.

Use the RFT checklist to ensure that all the necessary actions have been performed.

## ISSUE OF TENDER DOCUMENTS

On the final check of all Project documentation all documents will be forwarded electronically in PDF format and some in Word and Excel format.

## PROJECT DRAWING/S

Provide PDF copies of drawings in A3 size format and provide the drawings in CAD format in AutoCAD.

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**ELECTRONIC RECORDS**

All Contract documentation must be forwarded to Technical Records electronically, in APRO by the Project Officer.

**ADDENDA**

Any addenda issued Tier 3 and above are to be processed through project admin and APRO.

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## PART 2 GUIDE TO TECHNICAL SPECIFICATION WRITING

### GUIDELINES

This Guideline provides assistance and information for Technical staff, Consultants, and Contractors in the preparation of Project Specifications and the writing of new Specification sections.

### SPECIFICATION FORMAT

TDO will automatically format the document with consecutive section, clause, sub-clause and page numbers throughout the document, including updating the table of contents.

Consultants must use the draft Master Specification sections when writing new sections for a project. New sections must be written using Departmental styles and formats. The use of word processing styles has made Specification Formatting a simple task. Refer to TDO Template, at internet site:

<https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications>

This enables new sections to be formatted more simply, to match existing Specification sections.

### INSERTING SECTIONS MANUALLY

To insert a section manually, insert a section break (**Page Layout** tab – **Breaks** – **Section Break – Next Page**) in the required position. Type in the section heading using the **Heading 1** style, clause heading using the **Heading 2** style and sub-clause heading using the **Heading 3** style. Non heading text is to be in Body text or Normal text style.

### SPECIFICATION EDITING


When preparing a RFT Specification document and calling up the Standard Specification books, Project Specific Requirements (PSRs) must be inserted into the Specification document. PSRs are used to reference specific items or materials for the works being carried out and must be edited by the Project Officer preparing the document.

When preparing a RFT Specification document from the Technical Master Specification templates, selections of specific items or materials are documented within each generated worksection. Worksections are inserted through TDO.

Edit the Technical content only. Do not alter the text of the Commercial sections.

### GUIDE NOTES

Each Master Specification template section has guide notes in hidden text to guide and prompt Specification writers for developing the Specification, and to assist with the selection of specific items. These guide notes are in *Green italics* in [square brackets], and indented to start at the centre of the page.

To view guide notes, hidden formatting and hidden text click the **Home** tab and click **Show/Hide**  button.

Guide-notes do not appear in the final Project Specifications.

### NUMBERING

The numbering is sequential in Project Specifications, following-on from the Preliminaries and Quality Assurance sections (where applicable). The numbering is automatically closed up when sections are deleted.

Clauses and sub-clauses are numbered sequentially within sections, and are automatically closed up when clauses or sub-clauses are deleted.

Master Specification sections and clauses are numbered to a maximum of 4 levels. For example 3.2.1 - where 3 is the section number, 2 is the clause number and 1 is the sub-clause number or 3.2.1.4 where 4 is the sub-sub-clause.

### IMPERATIVE MOOD STYLE

The Specification should be addressed to the Contractor in the Direct Instruction style; Imperative mood of the verb; second person, singular; subject suppressed.

The Imperative mood style is adopted as policy by all the major National and Guide Specifications including, Masterspec (USA), NBS (UK), CSC (Canada) and NATSPEC - Australia. (It is difficult for lawyers to read unintended meanings into this writing style).

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For example write “Supply and Install”, rather than “you shall Supply and Install”. The active verb is usually the first word in each sentence. The words “the Contractor shall” are usually made redundant, by putting the verb in the Imperative mood.

## **PLAIN LANGUAGE**

Everyday language is easily understood by both the Layman and the Specialist. Familiar and precise words and terms are to be used, rather than vague or abstract words and terms. Un-necessary words should be avoided. Clearly convey the meaning, and avoid using Legal or Commercial jargon.

## **TECHNICAL TERMS**

Technical terms should only be used when there is no other equivalent everyday term or phrase. Use the same Technical term or phrase as those used in Australian Standards References. Use the same term or phrase for the same item or items, in the same context, throughout the document.

## **LISTS**

Where several items need to be itemised within a single paragraph, the items should be in List or Point or Alpha format.

Specification styles contain a heading for lists. These are set back from the margin (indented) and follow a dash or a bracketed, lower case letter or a dot.

For example:

Spread Topsoil to the following typical depths:

- Planting areas: 300 mm
  - Irrigated grassed areas generally: 150 mm
- or
- (a) Planting areas: 300 mm
  - (b) Irrigated grassed areas generally: 150 mm

## **KEY WORDS**

A key word followed by a colon ( : ) readily identifies the content of a paragraph. This allows the faster scanning of the text by the reader. Key words may also be used to make reference to an Australian Standard, etc.

For example:

Cement: to AS 3972, type GP.

## **TABLES**

Keep tables in the portrait or upright format (when possible) and keep the complete table on one page. If a table overruns the page, repeat the table headings on the following page.

## **ABBREVIATIONS**

NATSPEC and Department policy is to avoid using uncommon, confusing or unusual abbreviations. Only use universally and Construction Industry accepted abbreviations.

For example: NPWC3, NATA, PVC etc.

## **REPETITION**

- Write information only once within the contract documents.
- Do not repeat or paraphrase (repeating information, written in a different style, may lead to confusion).
- Do not repeat Conditions of Contract or Preliminaries in the Technical Specification.
- Do not copy Specification Text onto the Drawings.

## **CROSS REFERENCES**

It is not necessary to continuously make cross references to items specified elsewhere in the Specification document.

Each item of the Specification text is part of the Contract in its own right.

Consistent formatting of Master Specifications allows users to become familiar with the location of commonly specified items.

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A cross reference is only necessary when calling up text from another part of the Specification, into a context where it would not otherwise apply, or where its application may be in doubt, or where co-ordination of works is important.

When using cross references do not refer to clause or section numbers. The numbering changes in the Master Specification as the Project Specification is edited. Refer to the clause or section by word reference.

For example:

“Refer to the **Excavation** clause in the EARTHWORKS section”.

Always check that where a cross reference is made the section referred to is included in the Project Specification.

## **BY OTHERS**

Use the words “by others” in a Project Specification to mean that it is not required in that contract. Do not use the words “by others” to mean “by another trade” within that contract. Project Specifications are a set of instructions to the Contractor. The Contractor will determine the tasks assigned to the trades.

## **UNLESS OTHERWISE SPECIFIED**

Do not use the phrase “unless otherwise specified” as it requires the reader to scan the whole Project Specification to check for any exceptions. Specify the general requirements and clearly identify any exceptions in the relevant section of the Specification.

## **SUPERINTENDENT**

Refer only to the Superintendent (or to the Principal in specific cases) and not to the Superintendent’s representative, the Engineer, the Architect or the Supervisor.

The Contract is administered by the Superintendent who will seek the assistance of the relevant Specialists when required.

## **OR EQUIVALENT**

Do not use the words “or equivalent” or “or equal” as this is covered in the Proprietary Items clause in the Conditions of Contract.

## **SPECIFICATION OF NUMBERS**

Use numerals instead of words, except when one number follows another. In that case use dash to separate the word from the numeral.

For example use:

- Provide 6 copies
- or
- Use five – 12 mm bolts.

If a number is written as a word do not repeat it in brackets as a numeral.

For example do not use “Provide six (6) copies”

## **STRUCTURE OF SECTIONS**

The Department’s Technical Master Specifications are structured. When writing new Specification sections write them using the same structure.

An example of the structure and format and general flow of a typical Specification section is as follows:

- Section Title
- General clauses
- References
- Materials and standards
- Inspections, approvals and tests
- Construction generally
- Unique construction
- Completion and commissioning.

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## TEXT FORMATTING

Do not insert large blocks of text into the Specification without attention to the formatting. Remember that the Specification needs to be easy to interpret and read by Consultants, Contractors, and administrative staff in the field.

Break up the text into simple and logical sentences, and group the sentences into relevant paragraphs, clauses and sub-clauses.

## STANDARDS AND DEFINITIONS

Where Specifications are published in book form (for example the Standard Specification for Small Building Works) the cited Standards are listed at the back of the book.

Task specific standards are also listed in some worksections.

General definitions are listed in General Requirements/Miscellaneous Provisions early in the technical specification.

Task specific definitions may also be listed in some worksections.

Definitions are generally listed in the first Section of a Specification published in book form.

## FURTHER INFORMATION

For further information or assistance regarding the production of Project Specifications documentation:

### CONTACT:

Specification Services  
3rd Floor, Highway House  
14 Palmerston Circuit, Palmerston  
Darwin, NT. 0830

**Email:** [specification.services@nt.gov.au](mailto:specification.services@nt.gov.au)

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