

## MAJOR BUILDING WORKS SPECIFICATION, SEPTEMBER 2017 (FORMERLY NATSPEC BASIC).

### OVERVIEW OF UPDATES

BACKGROUND; The Master Specification for Major Building Works is available to Department Project Officers through the Tender Documents Online system (TDO). This version of the specification has been modified to suit regional requirements and Department policy. It is suitable for specifying most of the Department's major or more complex building projects.

These master specifications are prepared and maintained by the Department of Infrastructure, Planning and Logistics, for use on Northern Territory Government infrastructure projects.

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### GENERAL UPDATE

NATSPEC Basic has been renamed Major Building Works Specification.

Eleven additional mechanical worksections have been added to the suite:

- Mechanical Systems
- Air coils
- Chillers – Combined
- Cooling Towers
- Ductwork Insulation
- Air Grilles
- Mechanical Pipework Insulation
- Water Treatment
- Building Management Systems
- Mechanical Commissioning
- Mechanical Maintenance.

The following worksections have been revised:

- General Requirements
- Demolition
- Groundworks
- Termite Control
- Concrete
- Structural Steel
- Light Steel Framing
- Masonry
- Woodwork
- Roofing
- Cladding
- Insulation, Sarking and Pliable Members
- Electronic Security
- Fire Detection
- General Mechanical
- Mechanical Equipment
- Ductwork
- Mechanical Pipework
- Referenced Documents.

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## GENERAL NOTES

### ENVIRONMENTAL MANAGEMENT

Environmental Management is mandatory for all construction and demolition projects for buildings and civil works. The section is automatically added to all RFTs/RFQs. It must not be deleted or amended.

### QUALITY ASSURANCE:

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

NEW TEXT: When writing new text, write it in the imperative mood to match the standard format used by the Department. Guides for Specification Writing are available on the Specification Services internet site:

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

FEEDBACK; If you have any suggestions for improvement, such as additional or modified text for the Standard Specification For Small Building Works, please contact the Manager Specification Services, Telephone 8946 5021, Fax 89237661 or e-mail to [specification.services@nt.gov.au](mailto:specification.services@nt.gov.au)

### UPDATES

# represents the level 1 heading when the document is generated by TDO		
CLAUSE	TOPIC	CHANGE
<b>1 General Requirements</b>		
#.2.2	The Conditions of Tender and Conditions of Contract	New clause
#.3	DEFINITIONS	Clause updated to include additional definitions.
#.7.1	Document formats	Clause updated. Acceptable formats made explicit.
#.7.4	Work-as-executed drawings	Clause updated. Witness Point added. Submissions made explicit.
#.7.5	Warranties	Witness Point added for the submission of warranties.
#.7.6	Authority's approvals	Witness Point added for the submission of documents.
#.7.8	Contractor's Environmental Management Plan (CEMP)	New clause.
#.7.9	Project Control Plan (PCP)	New clause.
#.7.10	Inspection Test Plans (ITPs) - Witness Point	New clause.
#.8	ENVIRONMENTAL MAINTENANCE	New clause.
#.9	TIME ALLOWED FOR ASSESMENT OF SUBMITTED DOCUMENTS	New clause.
#.10	CAMP SITE/COMPOUND/WORKSHOP - HOLD POINT	New clause.
#.11	SAFETY	New clause.

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CLAUSE	TOPIC	CHANGE
#.11.1	Work Health and Safety Management Plan - Hold Point	New clause.
#.11.2	Safety Officer - Witness Point	New clause.
#.11.3	Safety practice	New clause.
#.11.4	Safety helmets	New clause.
#.12.1	Manufacturers' and/or suppliers' recommendations	Clause updated. Delivery, storage, installation, commissioning made explicit.
#.12.2	Proprietary items/systems/assemblies	New clause.
#.12.3	Project modifications - Hold Point	New clause.
#.12.4	Adhesives, sealants and fasteners - Performance Requirements	New clause.
#.13	PROJECT NOTICE BOARDS -SUPPLY, ERRECT AND MAINTAIN PROJECT NOTICE BOARDS	New clause.
#.14	CONSTRUCTION INDUSTRY WHITE CARD	New clause.
#.15	SEALING OF REVEALS AT OPENINGS	New clause.
#.16	ASBESTOS	New clause.
<b>1 Demolition</b>		
#.2	INSPECTIONS - WITNESS POINT	Additional notice required for commencement and completion of demolition.
#.3.3	Demolished and salvaged materials	Clause updated to reference waste disposal.
<b>1 Groundworks</b>		
#.4.4	Work on trees	AS 4373 cited and the LANDSCAPE worksection referenced.
#.6.1	Specification reference	New clause.
#.8	EXCAVATION	Hold Point removed.
#.8.6	Explosives	Witness Point added for licences and certificates to be submitted.
<b>1 Concrete</b>		
#.4.4	Testing authority	Concrete supplier added as an authority.
#.4.5	Sampling	New clause, AS 1012.1 cited.
#.13.6	Curing	Cold weather curing, Hot weather curing and Water curing clause added.
#.18.1	Construction joints - Hold Point	Clause updated to include location, finish and preparation.
<b>1 Structural Steel</b>		
#.2	INSPECTION - WITNESS POINT	Additional inspections added.
#.3.2	Compliance - Witness Point	Witness Point added.
#.3.3	Inspection test plans	New clause.
#.3.4	Project control plans	New clause.
#.4	MATERIALS AND COMPONENTS	Clause updated to not use damaged steel or steel where rust is present.
#.6.4	Weld type	Clause updated to cite proposals for weld type and electrodes.

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CLAUSE	TOPIC	CHANGE
#.6.5	Certification of welders and welding supervisors - Witness Point	Witness Point added citing welder qualifications.
#.6.6	Preparation	Witness Point added.
#.7	BOLTING	New clause.
#.7.2	Bolting category	New clause.
#.7.3	Connections	New clause.
#.7.4	Anchor bolts	New clause.
#.7.5	Lock nuts	New clause.
#.7.6	Tensioning of bolting categories 8.8/TB and 8.8/TF	New clause.
#.7.7	Permanent bolting	New clause.
#.8	PROTECTIVE COATING	Clause updated to reference PAINTING worksection.
<b>1 Light Steel Framing</b>		
#.1.2	Proprietary system	Table - Light steel framing members added.
#.5	MATERIALS AND COMPONENTS	Clause updated to not use damaged steel or steel finish or where rust is present.
#.6	CONSTRUCTION GENERALY	Clause updated to cite design guides, manuals and tables.
#.7	FRAMES	Floor framing clause added. Damp proof course clause cites AS/NZS 2904. Flashings clause added.
<b>1 Masonry</b>		
#.4.4	Mortar additives - Hold Point	Clause updated.
#.4.5	Colour mortar - Hold Point	Clause updated.
#.4.6	Premixed mortar - Hold Point	Clause updated.
#.4.7	Sheet metal damp proof course - Hold Point	Clause updated.
#.4.8	Mortar damp proof course - Hold Point	Clause updated. Mortar mix table updated.
#.5.1	Cleaning - Hold Point	Clause updated, Hold Point made explicit
#.5.4	Sills and thresholds	Capstones and Weatherings clause added
#.5.9	Sealing of reveals	New clause.
#.7	DAMP PROOF COURSES (MASONARY AND FRAMED WALLS)	Materials and Components clause referenced. Materials clause cites AS 3700. Installation clause includes Junctions and Sealing at laps.
#.8	CAVITY WALLS	Cavity flashings clause updated.
#.10	MOVEMENT JOINTS	Clause updated.
<b>1 Woodwork</b>		
#.3.1	Transport and delivery	New clause.
#.3.2	Structural timber	New clause.
#.3.3	Outdoor structures	New clause.
#.5.2	Roof trusses certification - Witness Point	New clause.
#.5.3	Roof trusses moisture content - Witness Point	New clause.

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CLAUSE	TOPIC	CHANGE
#.6.4	Timber grading methods	New clause.
#.6.5	Durability	Table - Timbers - Durability Class And Hazard Class updated.
#.7.1	Structural plywood	Bond type updated.
#.9.5	Fibre cement flooring	Fixing Clause updated.
#.9.10	Decking made from other materials such as recycled plastic composite materials	New clause.
#.11.2	Strutted framing	New clause.
#.12.3	Shop drawings - Hold Point	Second Hold Point added for certification.
#.13.4	Protection from weather	New clause.
<b>1 Roofing</b>		
#.3.1	Approved fixers	New clause.
#.3.2	Sheet metal roofing - Storage and handling	New clause.
#.3.3	Protection	New clause.
#.3.4	Thermal movement	New clause.
#.3.5	Metal separation	Clause updated.
#.4	INSPECTION - WITNESS POINT	Clause updated additional inspections added.
#.6	MATERIALS AND COMPONENTS	Clause updated not to use damaged or components with rust showing.
#.6.1	Accessories for raising roof sheeting above purlins	New clause.
#.6.4	Fasteners	Clause updated to include atmospheric corrosivity categories and proprietary item.
#.6.5	Thermal break	New clause.
#.6.6	Safety mesh	New clause.
#.8.1	Pitch	New clause.
#.9.1	General	Clause updated.
#.9.2	Materials	Clause updated to cite AS/NZS 2179.1 and AS/NZS 3500.3.
#.9.3	Installation	New clause cites AS3500.3.1 and 3500.3.
#.9.10	Eaves/Gutters	Clause updated to reference NT CLIMATE ZONES TABLE.
#.10	ROOF VENTILATORS	New clause.
#.11	ROOF PLANT ACCESS	New clause.
<b>1 Cladding</b>		
#.3.1	Sheet metal cladding - Storage and handling	New clause.
#.3.2	Protection	New clause.
#.3.3	Thermal movement	New clause.
#.3.4	Metal separation	New clause
#.5	MATERIALS AND COMPONENTS	Clause updated to reference NT Deemed to Comply Manual.
#.5.1	Sheet metal	New clause.
#.5.2	Plywood	Clause upgraded to include Plywood cladding surface grades table.

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CLAUSE	TOPIC	CHANGE
#.5.4	Fibre cement	Clause updated to include compressed fibre cement cladding.
#.5.6	Fasteners	Clause updated to include atmospheric corrosivity categories and proprietary item.
#.5.7	Thermal Break	New clause.
#.6	CONSTRUCTION GENERALLY	Clause updated to reference NT Deemed to Comply Manual.
#.7.3	Eaves lining	Clause updated to reference fixing to steel.
<b>1 Insulation, Sarking and Pliable Membranes</b>		
#.2	DEFINITIONS	Minor changes.
#.3.1	Statutory requirements	New clause.
#.5.5	Safety mesh	Clause updated to reference Work Health and safety Codes of Practice.
#.6.1	General	Vapour barrier membrane more descriptive.
#.6.3	Vapour barrier systems	Clause updated for metal sheeted roof areas.
#.6.4	Installation	Clause updated.
#.7.1	Bulk insulation	Clause updated to reference spacer roof framing systems.
#.7.2	Sarking type material	Clause updated to reference Bradford Thermofoil 753.
#.7.3	Reflective foil laminate	Clause updated.
#.7.5	Wall sarking	Installation clause updated.
#.7.6	Roof sarking	Installation clause updated.
#.7.7	Roof insulation	Installation clause updated.
<b>Electronic Security</b>		Major Update.
<b>Fire Detection</b>		Major Update.
<b>General Mechanical</b>		Major Update.
<b>Mechanical Systems</b>		New Worksection.
<b>Mechanical Equipment</b>		Major Update
<b>Air Coils</b>		New Worksection.
<b>Chillers - Combined</b>		New Worksection.
<b>Cooling Towers</b>		New Worksection.
<b>Ductwork</b>		Major Update.
<b>Ductwork Insulation</b>		New Worksection.
<b>Air Grills</b>		New Worksection.
<b>Mechanical Pipework</b>		Major Update.
<b>Mechanical Pipework Insulation</b>		New Worksection
<b>Water Treatment</b>		New Worksection.
<b>Building management Systems</b>		New Worksection.
<b>Mechanical Commissioning</b>		New Worksection.
<b>Mechanical Maintenance</b>		New Worksection.

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