NATSPEC National BIM Guide

NATSPEC is pleased to announce that the NATSPEC National BIM Guide has been released and is freely available from www.natspec.com.au. This project has been the result of industry-wide collaboration.

The objective of the NATSPEC National BIM Guide, used in conjunction with a Project BIM Brief, is to clarify what is meant when BIM is required on a project. Too often a Client has talked about wanting BIM on a project without the ability to clarify their effort. The Guide can also be used as a planning tool by consultants to clarify the services they propose to provide when preparing bids for projects.

Whilst the Guide is expected to remain constant for a number of years, the supplementary documents including the NATSPEC BIM Reference Schedule and NATSPEC BIM Object/Element Matrix can be updated, as required, to reflect the developing BIM industry and international developments and systems. All input is appreciated and can be forwarded to bim@natspec.com.au.

NATSPEC expects to release the NATIONAL BIM Management Plan in the coming months.

NATSPEC believes that digital information, including 3D Modelling and Building Information Modelling will provide improved methods of design, construction and communication. Further, NATSPEC supports open global systems. This will result in improved efficiency and quality. Reference documents on BIM are available at www.natspec.com.au.

No subscription fee increase for 2 years if you complete the 3-question customer survey at www.natspec.com.au

Closes 20 November, 2011

SpecNotes Spring 2011
AS/NZS 1170 Structural design actions. Part 0:2002 General principles.
This amendment applies to clauses 1.1, 1.2, 1.3, 1.5, 2.3, 4.3.1, 4.2.2, 5.2, 6.2.2 and 6.2.5, Table 4.1 and Appendices C and D.
Referenced worksections: 0171 General requirements; 0301 Filing.
This standard supersedes the 2004 edition. It sets out the requirements for the welding of steel structures made up of combinations of steel plate, sheet or sections, including hollow sections and built-up sections, or castings and forgings. It is limited to the welding of steel parent material with a specified minimum yield strength not exceeding 500 MPa. It does not apply to oxyacetylene, friction, thermostat or resistance welding processes or to the welding of pressure vessels or pressure piping.
Referenced worksections: 0071 Water supply - reticulation and pump stations (Design); 0183 Metals and prefinishes; 0341 Structural steel; 1192 Signposting; 1341 Water supply - reticulation and pump stations (Construction); 1361 Sewerage systems - reticulation and pump stations (Construction).
Part 5:2011 Welding of steel structures subject to high levels of fatigue loading. ($77.78)
This standard supersedes the 2004 edition. It proposes requirements for the welding of steel structures made up of combinations of steel plate, sheet or sections, including hollow sections and built-up sections, or castings and forgings, by the MMAW, SAW, GMAW, GTAW or TIG, FCAW, ESW and EGW processes. The standard is limited to the welding of steel parent material with a specified minimum yield strength not exceeding 500 MPa.
Referenced worksection: 0341 Structural steel.
This standard has been superseded by AS/NZS 2041.1:2011 and AS/NZS 2041.2:2011.
Referenced worksections: 0821 Stormwater – buildings; 1352 Pipe drainage.
AS/NZS 2041 Buried corrugated metal structures.
This standard supersedes AS 2703.2:1989, AS/NZS 2041:1998 and AS 1762-1984. It sets out requirements for the design of buried corrugated metal structures circular or other shape, installed under a flexible pavement. It includes information on durability and testing to establish design properties.
Referenced worksections: 0061 Bridges and related structures; 0821 Stormwater – buildings; 1351 Stormwater drainage (Construction); 1352 Pipe drainage.
AS 4556-2011 Indirect gas-fired ducted air-heaters. ($197.73)
This standard supersedes the 2000 edition. It specifies requirements for indirect gas-fired ducted air heaters with natural draught or fan-assisted combustion systems intended for use with NG, town gas, LP gas and tempered liquefied petroleum gas (TLP) with gas consumptions not exceeding 500 MJ/h.
Referenced worksection: 0824 Fuel gas.
This standard supersedes clauses 1.1, 1.2, 1.3, 2.1.3, 2.1.6A (new), 2.8 (new), and Appendices B and C.
Referenced worksections: 0811 Sanitary fixtures; 0812 Tapware.
SAA HB 71-2011 Reinforced concrete design in accordance with AS 3600-2009. ($173.13)
This handbook supersedes the 2002 edition. It provides design aids in the form of graphs, charts and tables to assist in the design of concrete structures in accordance with AS 3600-2009. The aids provide solutions to the equations in the Standard when the appropriate variables are entered. The aids are each accompanied by a brief explanation of the structural principles involved and, where appropriate, the derivation of the form in which the aid is presented. Published in conjunction with the Cement and Concrete Association of Australia.
Referenced worksection: 0313 Concrete post-tensioned; 0314 Concrete in situ.
SAA HB 223-2003 Guide to the selection of road surfacing. ($55.00)
This handbook has been withdrawn. Referenced worksection: 0273 Sprayed bituminous surfacing.
OTHER STANDARDS
AS 2304-2001 Water storage tanks for fire protection systems. ($173.13)
This new standard details the requirements for the design, installation, materials and commissioning of tanks for the storage of water for fire fighting and fire control purposes.
AS/NZS ISO 9004:2011 Managing for the sustained success of an organization – A quality management approach. ($197.05)
This standard supersedes the 2011 edition. It provides guidance to support the achievement of sustained success for any organization in a complex, demanding and ever-changing environment by a quality management approach. Maintains consistency with AS/NZS ISO 9001 but both standards could be used independently.
SAA HB 239-2011 Guidance on the repair and overhaul of electrical equipment for explosive atmospheres. ($173.13)
This new handbook provides guidance for the repair and overhaul of explosion-protected electrical equipment used in hazardous areas (defined in AS/NZS 60079.0).

OCTOBER 2011 UPDATE
The October 2011 Update includes 4 new generic worksections, 8 new branded worksections and the reissue of 15 AUS-SPEC worksections. This Update also incorporates changes in standards from March to August 2011. Refer to the NATSPEC or AUS-SPEC Update Summary provided with your package for more information as well as changes to other worksections. Remember that the pdf file of your package is fully searchable and any change to Template text is highlighted for easy identification. View the pdf of your package to see the highlighted changes.

New generic worksections
• 0125 Standard contract checklists
• 0126 Period supply and service checklist
• 0703 Mechanical design and construct (Design)

New TECHguide
• TG104 Guidelines for Principals - sample contracts

New TECHreport
• Specifying design and construct Mechanical services

New branded worksections
• 0310 ARS LOGIC/WALL in concrete combined
• 0438 KNAUF aggregate board cement cladding
• 0471 KINGSSPAN insulation and sarking membranes
• 0511 KEYSTONE ACOUSTICS in lining
• 0522 KNAUF in partitions - framed and fixed
• 0531 KNAUF in suspended ceilings
• 0541 ASP FLOORS in access floors
• 0561 OALSOURCE resilient finished

Renamed and reissued TECHguides
• TG101 Guidelines for compiling documentation for contracts (formerly TG101 Guidelines to preparing technical specifications for contracts)
• TG102 Guidelines for Principals - standard contracts (formerly TG102 Guidelines for principals - supply projects)
• TG103 Guidelines for Principals - period supply and service contracts (formerly TG103 Guidelines for principals - period supply and service)

Reissued worksections
• 0160 Quality
• 0182 Fire-stopping
• 0271 Pavement base and subbase
• 0383 Sheet flooring and decking
• 0655 Timber flooring
• 0791 Mechanical commissioning
• 0901 Electrical systems
• 0911 Cable support and duct systems
• 0951 Lighting
• 0971 Emergency evacuation lighting

Significantly revised worksections
• 0183 Metals and prefinishes
• 0184 Termite management
• 0256 Landscape - establishment
• 0451 Windows and glazed doors
• 0552 Metalwork - fabricated
• 0732 Air filters
• 0733 Air coils

Renamed and reclassified worksections
Some of the worksections have been renamed and/or reclassified to more closely align the worksection title with the contents and assist the specification compilation process.
• 0010 Quality requirements for design (formerly 0160 Quality (Design) (AUS-SPEC))
• 0120 Pre-tendering contract preparation (AUS-SPEC) (formerly 0130 Contract preparation model (AUS-SPEC))
• 0122 Information for tenderers (AUS-SPEC) (formerly 0120 Information for tenderers (AUS-SPEC))
• 0123 Conditions of tendering (AUS-SPEC) (formerly 0122 Conditions of tendering (AUS-SPEC))
• 0124 Tender submission documents (AUS-SPEC) (formerly 0123 Tender submission documents (AUS-SPEC))
• 0134 General requirements (Supply) (AUS-SPEC) (formerly 0176 Technical specification for supply (AUS-SPEC))
• 0135 General requirements (Services) (AUS-SPEC) (formerly 0177 Technical specification for service (AUS-SPEC))
• 0136 General requirements (Construction) (AUS-SPEC) (formerly 0179 General requirements (Construction) (AUS-SPEC))
• 0160 Quality (formerly 0162 Quality)
• 0162 Quality (Supply) (AUS-SPEC) (formerly 0160 Quality)
• 0162 Supply quality plan (AUS-SPEC)
• 0163 Quality (Delivery) (AUS-SPEC) (formerly 0163 Contractors Quality plan (AUS-SPEC))
• 0383 Sheet flooring and decking (formerly 0383 Decking and platform floors)
• 0562 Metalwork - fabricated (formerly 0562 Fabricated metalwork)
• 1163 Rigid road safety barrier systems (formerly 1163 Rigid concrete and road safety barrier systems (Public Domain))
• 1194 Non-rigid road safety barrier systems (formerly 1194 Non-rigid road safety barrier systems (Public Domain))
• 1588 Window cleaning (formerly 1588 Windows cleaning)

Deleted worksections
• 0452 Window hardware (now incorporated into 0451 Windows and glazed doors)
• 0554 Stairs, ladders and walkways (see article on Stairs, ladders and walkways)

Deleted BASIC worksections
• 0721b Packaged air conditioning
• 0731b The Full Package
• 0741b Ductwork
• 0744b Ductwork insulation
• 0771b Automatic controls
• 0781b Mechanical electrical
• 0791b Mechanical commissioning
• 0792b Mechanical maintenance
• 0943b Switchboard components
• 0971b Emergency evacuation lighting

AUS-SPEC UPDATE

Contracts worksections reviewed
The AUS-SPEC October 2011 Update has focused on the review of the General TECHguides and worksections of the Contracts package. These TECHguides and worksections cover tendering, contract preliminaries, quality checklists and quality requirements for the supply of projects and services. The Contracts package is for Contract, Supply, Asset and Works Managers, and Purchasing and Legal Officers.

New TECHguide
• TG104 Guidelines for Principals - sample contracts: This new TECHguide includes three sample contract documents to demonstrate contract documentation for different types of projects using the AUS-SPEC Local Government specification system.

Contracts worksections reissued for the October 2011 Update include:
• 0120 Pre-tendering contract preparation (AUS-SPEC)
• 0122 Information for tenderers (AUS-SPEC)
• 0123 Conditions of tendering (AUS-SPEC)
• 0124 Tender submission documents (AUS-SPEC)
• 0134 General requirements (Supply) (AUS-SPEC)
• 0135 General requirements (Services) (AUS-SPEC)
• 0136 General requirements (Construction) (AUS-SPEC)
• 0147 Conditions of contract (AUS-SPEC)
• 0161 Quality (Construction) (AUS-SPEC)
• 0162 Quality (Supply) (AUS-SPEC)
• 0163 Quality (Product delivery) (AUS-SPEC)

Contracts worksections significantly revised for the October 2011 Update include:
• 0010 Quality requirements for design

This Update, AUS-SPEC has also reissued the remaining worksections of the 00 PLANNING AND DESIGN workgroup:
• 0011 Development and subdivision of land
• 0012 Waterfront development
• 0021 Site regrading
• 0061 Bridges and related structures

Subscribers should find this Update useful for preparation of contract documentation including requests for tender. We appreciate any feedback on AUS-SPEC via email to aus-spec@natspec.com.au.

AUS-SPEC NEWS

AUS-SPEC Asset Management Benchmark Survey 2011

We thank all the Councils who participated in the AUS-SPEC Asset Management Benchmark Survey 2011. The survey was sent out to the CEOs/General Managers of all the Councils in Australia. It was moved to one of three new worksections significantly revised for the October 2011 Update

WHAT'S IN 0171 GENERAL REQUIREMENTS?

The NATSPEC specification system includes worksections for all elements of the building project. The Preliminaries and General requirements worksections are overarching worksections that provide information relevant to all other worksections. The aim of having one General requirements worksection is to reduce duplication and conflict in the project specification and to facilitate coordination. The purpose of the April 11 Update review of the 0171 General requirements worksection was to simplify the worksection and to reduce the content so that only requirements relevant to the whole project (including the building services) were included.

The requirements relevant to building services were reviewed on the following basis:

➢ Was it a general requirement?
➢ Was it relevant to more than one service?

Where this was not the case, the requirement was moved to one of three new worksections – 0701 Mechanical systems, 0801 Hydraulic systems, and 0901 Electrical systems. Both 0701 Mechanical systems and 0901 Electrical systems have been refined with the October Update.

Since the April Update, we have had some feedback on the content of the revised General requirements worksection. This highlighted further service requirements that subscribers felt should be moved from this worksection. NATSPEC welcomes any feedback to mail@natspec.com.au.

MECHANICAL DESIGN AND CONSTRUCT

With the October 2011 Update, NATSPEC introduces the following changes to simplify the writing of design and construct specifications for mechanical services:

➢ A new TECHreport, Specifying design and construct Mechanical services: This TECHreport discusses design and construct in general, and outlines a number of approaches to using NATSPEC for specifying design and construct mechanical services. These approaches include design and construct for part of a mechanical project, for the whole of the mechanical services and using NATSPEC as the basis for a design brief for consultants.

➢ A new worksection, 0703 Mechanical design and construct (Design): This new worksection is applicable to the design aspects of a design and construct project. It does not include technical design parameters as these are included in the respective worksections.

➢ New DESIGN clauses in existing worksections: All existing mechanical worksections have been expanded to include DESIGN clauses in Optional text. These include design parameters relevant to the particular worksection and the standards used as the basis for design. In the case of mechanical systems as a whole, the Mechanical systems worksection has been expanded to provide system-wide design parameters.

This integrated approach to the incorporation of design and construct within the existing NATSPEC structure is intended to be as simple as possible whilst still providing a high degree of flexibility for tailoring a project specific design and construct specification.

STAIRS, LADDERS AND WALKWAYS

The 0554 Stairs, ladders and walkways worksection has been deleted from the October Update and the text distributed to the following worksections:

• 0552 Metalwork - fabricated: Metal stairs, balustrades and handrails.
• 0551 Joinery: Timber stairs and balustrades.
• 0612 Cementitious toppings: Granolithic toppings for stairs.
• 0651 Resilient finishes: Resilient finishes for stairs.
• 0652 Carpets: Carpet for stairs.

This change recognises that stairs of differing materials are assembled by different specialist fabricators.
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The Building Code of Australia, Section J Part 2, sets out requirements for minimum energy efficiency provisions in multi-residential and commercial buildings. As government focus shifts to energy efficiency, these provisions are becoming more and more demanding.

The inclusion of a thermal break ensures ThermalHEART™ systems typically meet or exceed the U-Values and SHGCs set out in Section J. In general, this means you can use large expanses of glazing – even in extreme climate zones – and still achieve a pass.
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Damtec® Australasia are specialists in supplying the construction industry, via prominent Builders and Architects throughout Australia with quality and internationally recognised acoustic underlay’s that contain no CFC’s, Mercury or other hazardous substances.

All treatments can be customised to comply with any acoustic objectives. DAMTEC® acoustic underlay's vary in thickness from ONLY 2mm, up to 8mm and can be used under any floor finish, ranging from all types of timber and tiled floors through to vinyl and carpeted floors.

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- German engineered and manufactured products, using high quality raw material and state-of-the-art machinery compliant to ISO 9001 : 2008.
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- Minimum effect on floor heights and threshold points, yet providing maximum acoustic performance.
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