



The **ELECTRONIC BLUEPRINT** is the principal point of reference for Architects, Engineers and Builders and the only package that fully integrates regulatory and standards requirements with comprehensive, editable specifications, CAD details and approved industry training. Click here to view [www.electronicblueprint.com.au](http://www.electronicblueprint.com.au)

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## April 2006 Bi-Monthly Electronic Update

Welcome to the April **ELECTRONIC BLUEPRINT** Bi-monthly Electronic Update.

- [Architect](#) - BCA 2006 – Energy Efficiency Measures  
[Engineers](#) - BCA 2006 – Structural Test Data for Design by “Alternative Solutions”  
[Builders](#) - BCA 2006 – How to Cope with Insufficient Detail on Drawings
- **Changes to Australian Standards**  
This is a list of current [Changes to Australian Standards](#) affecting building construction.
- **Distance Learning Packages**  
The **ELECTRONIC BLUEPRINT** [Distance Learning Packages](#) provide Architects, Engineers and Builders with the opportunity to upgrade their Continuing Professional Development and obtain the required CPD points.
- **Product Directory**  
The [Product Directory](#) enables specifiers and purchasers to quickly access a list of building products that comply with the specific requirements of the **ELECTRONIC BLUEPRINT**.
- **Forum**  
The [Forum](#) provides an opportunity for Architects, Engineers and Builders to raise questions and voice comment on technical matters. **ELECTRONIC BLUEPRINT** will forward comments to the relevant Technical Committees of Standards Australia for consideration.
- **ELECTRONIC BLUEPRINT Section Update (See Attachments)**  
In this issue:  
A complete and **EDITABLE UPDATE** of **ELECTRONIC BLUEPRINT Section 0 – Planning & Design**, with all relevant modifications to specifications, supplied as a Microsoft Word document for direct addition to your existing specifications and files.  
SEE ATTACHEMENTS on the lower left hand side of your screen.
- **Industry Alert** – Air-Cell Achieves CodeMark Certification. [View details.](#)

Remember to check out the new website at [www.electronicblueprint.com.au](http://www.electronicblueprint.com.au)

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## Architects

### BCA 2006 – Energy Efficiency Measures

On 1st May of each year the amended BCA (Building Code of Australia) becomes operational. This feature summarises the principal changes applicable to the thermal energy efficiency measures in BCA Volumes 1 and 2. For full details, architects should refer to the BCA.

| <b>BCA Volume 1 –Class 2 to 9 Buildings</b>  |  |
|--|--|
| BCA Vol 1 2006 refers to the ABCB Protocol for House Energy Rating Software, which is currently based on “first generation” simulation software. See further comments below. |  |
| <b>State</b>   | <b>Comment</b>   |
| NSW  | For Class 2, 3 & 4 buildings NSW BASIX applies in preference to the BCA Vol 1 general provisions   |
| Victoria   | Class 2 Buildings – Building must average 5 Star Rating, and each unit must achieve 3 Stars (using NatHERS or First Rate)<br>Class 4 Sole occupancy units – Building must average 4 Star Rating (using NatHERS or First Rate)<br>Specific Deemed-to-Satisfy provisions apply.  |
| ACT  | Class 2 and 4 Buildings – Must achieve 3.5 Stars in Zones 1 to 3 and 4 stars in Zones 4 to 8 (using NatHERS or First Rate)<br>Class 3, 5, 6, 8, 9a, 9b, 9c buildings – Verification by calculating the energy consumption for both the proposed services and the Deemed-to-Satisfy services, and comparing to Table JV2. |
| Western Australia  | Class 2 and 4 Buildings – Must achieve 3.5 Stars in Zones 1 to 3 and 4 stars in Zones 4 to 8 (using NatHERS or First Rate)<br>Class 3, 5, 6, 8, 9a, 9b, 9c buildings – Verification by calculating the energy consumption for both the proposed services and the Deemed-to-Satisfy services, and comparing to Table JV2. |
| South Australia  | Class 2 and 4 Buildings – Must achieve 3.5 Stars in Zones 1 to 3 and 4 stars in Zones 4 to 8 (using NatHERS or First Rate)<br>Class 3, 5, 6, 8, 9a, 9b, 9c buildings – Verification by calculating the energy consumption for both the proposed services and the Deemed-to-Satisfy services, and comparing to Table JV2. |
| Queensland   | Class 2 and 4 Buildings – Must achieve 3.5 Stars in Zones 1 to 3 and 4 stars in Zones 4 to 8 (using NatHERS or First Rate)<br>Class 3, 5, 6, 8, 9a, 9b, 9c buildings – Verification by calculating the energy consumption for both the proposed services and the Deemed-to-Satisfy services, and comparing to Table JV2. |
| Tasmania   | Class 2 and 4 Buildings – Must achieve 3.5 Stars in Zones 1 to 3 and 4 stars in Zones 4 to 8 (using NatHERS or First Rate)<br>Class 3, 5, 6, 8, 9a, 9b, 9c buildings – Verification by calculating the energy consumption for both the proposed services and the Deemed-to-Satisfy services, and comparing to Table JV2. |
| Northern Territory   | There are no energy requirements in BCA Vol 1 Energy Provisions for NT.<br>Note: The energy consumption provisions for Northern Territory still appear in Table JV2, although the NT Variation deleted the whole section.  |

## BCA Volume 2 – Housing Provisions Class 1 & 10a Buildings

BCA Vol 2 2006 refers to the ABCB Protocol for House Energy Rating Software, which is currently based on “first generation” simulation software, NatHERS, and permits the use of First Rate software. AccuRATE “second generation” simulation software has not yet been called up in the Protocol.

| State              | Comment  |
|--------------------|--|
| NSW                | NSW BASIX applies in preference to the BCA Vol 2 general provisions  |
| Victoria           | Provided additional requirements for rainwater tank and solar hot water are met, the Deemed-to-Satisfy provisions of Section 3.12 may apply. Otherwise 5 Star performance using the software protocol applies. |
| ACT                | BCA Volume 2 common provisions apply   |
| Western Australia  | BCA Volume 2 common provisions apply   |
| South Australia    | BCA Volume 2 common provisions apply   |
| Queensland         | Will retain BCA Vol 2 2005 provisions (not 2006)   |
| Tasmania           | Will retain BCA Vol 2 2005 provisions (not 2006)   |
| Northern Territory | Will retain BCA Vol 2 2005 provisions (not 2006)   |

For further information on this topic, or for relevant Continuing Professional Development Distance Learning Packages (suitable for CPD points), please contact **ELECTRONIC BLUEPRINT** by email [info@electronicblueprint.com.au](mailto:info@electronicblueprint.com.au)

## Engineers

### BCA 2006 –Structural Test Data for Design by “Alternative Solutions”

All building design must comply with the relevant State Building Regulations, which are set out in the BCA (Building Code of Australia) Volumes 1 and 2. The BCA defines the performance requirements, generally in very broad terms, and the means of compliance through:

- Deemed-to-Satisfy Provisions, which may include:
  - Acceptable Construction Manuals (e.g. nominated Australian Standards)
  - Acceptable Construction Practice (e.g. forms of construction reproduced in the BCA itself)
- Alternative Solutions (e.g. Designs based on test results and engineering principles).

Each of these paths to compliance has equal status under the BCA. The various “Deemed-to-Satisfy” options are described in the next article, “Builders BCA 2006 – How to cope with insufficient detail on drawings”. This article deals with the “Alternative Solutions” path.

In all but the rarest of cases, structural engineers will design using the Deemed-to-Satisfy Solution by:

- Determining loads using AS/NZS 1170 (Parts 0, 1, 2, 3) and AS 1170.4; and,
- Determining resistance using AS 4100, AS 3600, AS 3700, AS 1720, AS 1684, AS 2870 etc.

However, structural engineers are often asked to incorporate new products into their designs. The performance of such products is justified by test because they are outside the scope of the various Australian Standards specified by the BCA as Deemed-to-Satisfy. The requirements are set out in BCA Vol 1 Clauses A0.8, A0.9 and A0.10, and BCA Vol 2 Clauses 1.0.8, 1.0.9 and 1.0.10. When dealing with structural components, the following procedure is appropriate.

1. Determine the performance requirements using BCA Vol 1 Part B1 or BCA Vol 2 Part B.
2. Determine the loads using AS/NZS 1170 (Parts 0, 1, 2 3) and AS 1170.4.
3. Determine the relevant properties by test e.g. stability, strength, deflection etc.
4. Use AS/NZS 1170.0 :2002 Appendix B to assess the test data and obtain design values. Although this Appendix is informative, and therefore not formally part of the BCA Deemed-to-Satisfy path, it provides a reliable component of “Expert Judgement”.
5. Use the design values so derived in the context of the normal structural design standards. It should be noted that such design values include allowance for reductions normally associated with the capacity reduction factors,  $\phi$ .

The following example (drawn from James Cook University Cyclone Testing Station “An Investigation of Bond Beam Truss Hold-down Connections” Technical Report No 49 Feb 2003) demonstrates this method.

|                           |          |   |
|---------------------------|----------|---|
| Number of samples tested, | N        | = 2   |
| Failure load              | P        | = 40.1 kN, 37.2 kN  |
| Reduction factor,         | $k_1$    | = 1.38, based on AS 1170.0:2002 Table B1<br>for two samples tested and assumed<br>coefficient of variation of 10% |
| Design capacity           | $\phi P$ | = $P_{\min} / k_1$<br>= 37.2 / 1.38<br>= 27.0 kN  |

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## Builders

### BCA 2006 – How to Cope with Insufficient Detail on Drawings

How should a builder proceed when there is insufficient or inadequate detail on the contract drawings and specifications? The most obvious option is to seek the appropriate information from the designer, but the following options are also available.

#### 1. BCA Acceptable Construction Practice

This option involves reading the required detail directly from the BCA. The problem is that only a limited number of simple applications are available.

#### 2. BCA Acceptable Construction Manuals (e.g. Australian Standards and some Industry Manuals)

These provide more comprehensive designs than are normally available in the BCA, although the standards are usually complex and often may be difficult to interpret. Most Australian Standards provide design rules, for use and interpretation by designers, and these are often lacking in the construction detail necessary on site. On the other hand, Industry Manuals may provide more construction-friendly details, although only a small number of such manuals have the status of "Acceptable Construction Manuals", as defined in the BCA.

#### 3. Manufacturer's Details

Manufacturer's details, when available, provide information applicable to a limited range of particular products. Builders should ensure that the details meet the particular requirements of Australian Building Regulations and Australian Standards, particularly if the product is manufactured or developed overseas. Failure to acquire such assurance could result in installations that do not meet local requirements, and may be liable to rejection.

#### 4. Standard Details and Specifications

Industry Associations and organizations such as Electronic Blueprint provide details of specific forms of construction, often free of charge. To download free Electronic Blueprint construction specifications and details, access the website listed below.

#### 5. Common Practice

Tradesmen have a wealth of practical experience, but are often unaware of the detailed requirements of particular parts of the BCA or relevant Australian Standards. The builder must assume responsibility for the work of the trades working under their direction.

The following example demonstrates the differences between the above-mentioned options.

| <b>Steel lintel required to span 3.3 m while supporting brick veneer</b> |                               |   |
|--|-------------------------------|---|
| <b>Source of information</b>   | <b>Reference</b>              | <b>Required steel lintel size to span 3.3 m</b>                                   |
| BCA Acceptable Construction Practice                                     | BCA-2006 Vol 2<br>Fig 3.3.3.5 | 100 x 100 x 8 EA  |
| BCA Acceptable Construction Manual                                       | AS 3700<br>Table 12.8         | 90 x 90 x 8 EA  |
| Manufacturer's Details   | Proprietary lintel            | 150 x 100 x 9.5 kg/m proprietary galvanized angle lintel                          |
| Standard Details and Specifications                                      | Electronic Blueprint Spec 12  | 100 x 100 x 8 EA and 90 x 90 x 8 EA.<br>Comparison of the above-mentioned options |
| Common Practice  |                               | Varies  |

For further information on this topic, or for relevant Continuing Professional Development Distance Learning Packages (suitable for CPD points), please contact **ELECTRONIC BLUEPRINT** by email [info@electronicblueprint.com.au](mailto:info@electronicblueprint.com.au).

## Changes to Australian Standards

| New Standard  | Superseded Standard |
|---|---------------------|
| AS 2796.2 – 2006 Timber – Hardwood – Sawn and milled products – Grade description   | AS 2796.2 - 1999    |
| AS/NZS 4999: 2006 PVC-U maintenance shafts  | AS/NZS 4999: 2003   |
| AS 3818.7 – 2006 Timber – Heavy structural products – Visually graded – Large cross-section sawn hardwood engineering timbers                               |                     |
| ATS 5200.037.1 – 2006 Technical Specification for plumbing and drainage products – Flow controllers – For controlling flows in cold or heated water systems | ATS 5200.037 – 2004 |
| AS 3730.1 Latex – Interior – Flat   |                     |
| AS 3730.2 Latex – Interior – Semi-gloss   |                     |
| AS 3730.3 Latex – Interior – Low gloss  |                     |
| AS 3730.5 Solvent-borne – Interior – Semi-gloss   |                     |
| AS 3730.6 Solvent-borne – Interior/exterior – Full gloss enamel   |                     |
| AS 3730.10 Latex – Exterior - Gloss   |                     |
| AS 3730.13 Primer – Wood – Solvent-borne - Interior/exterior  |                     |
| AS 3730.15 Primer – Latex – For metallic zinc surfaces  |                     |
| AS 3730.16 Latex – Self-priming timber finish - Exterior  |                     |
| AS 3730.17 Primer – Wood – Latex - Interior/exterior  |                     |
| AS 3730.18 Undercoat/sealer – Latex - Interior/exterior   |                     |
| AS 3730.21 Primer – Solvent-borne – For ferrous metallic surfaces   |                     |
| AS 3730.22 Concrete and masonry sealer – Solvent-borne - Interior/exterior  |                     |
| AS 3730.25 Clear finish - Solvent-borne - Interior  |                     |
| AS 3730.28 Wood stain - Solvent-borne - Exterior  |                     |
| AS 3730.29 Solvent-borne – Exterior/Interior – Paving paint   |                     |
| As 4046.8 Adhesive mechanical fasteners – Flexible pointing   |                     |

| Amended Standards  |
|--|
| AS/NZS 3500.5:2000 National Plumbing and Drainage – Domestic installation  |
| AS/NZS 2269: 2004 Plywood - Structural   |
| AS/NZS 2271: 2004 Plywood and blockboard for exterior use  |
| AS 4072.1 – 2005 Components for the protection of openings in fire-resistant separating elements – Service penetrations and control joints |
| AS/NZS 1859.2: 2004 Reconstituted wood-based panels – Specifications – Dry-processed fibreboard  |
| AS 1720.2-2006 Timber structures – Timber properties   |

These changes are reflected in the updated version of the **ELECTRONIC BLUEPRINT**, which will be available at [www.electronicblueprint.com.au](http://www.electronicblueprint.com.au). For more information on changes to Australian Standards, visit SAI Global at [www.standards.com.au](http://www.standards.com.au).

## Distance Learning Packages

The **ELECTRONIC BLUEPRINT** Distance Learning Packages provide Architects, Engineers and Builders with the opportunity to upgrade their Continuing Professional Development and obtain the required CPD points.

**ELECTRONIC BLUEPRINT** Distance Learning Courses are designed with currency as our main goal. What does this mean? It means that apart from ensuring our technical content is researched and written by leaders in the field, we aim to provide information that keeps you abreast of the industry changes as they are happening. This service is followed up with a Bi-monthly Electronic update and distribution of the **ELECTRONIC BLUEPRINT** CD.

The following pages outline the current list of Distance Learning Package Modules available through the **ELECTRONIC BLUEPRINT**.

### Description of Type Codes

Module Type Codes are made up of Duration and Level of Complexity.

Modules are broken into three Levels of Complexity:

**B** signifies 'Building Modules' – Providing Details, Background, and Construction Inspections.

**D** signifies 'Design Modules' – These provide Specifications, Details and Concepts.

**E** signifies 'Engineering Modules' – These generally involve complex design calculations and engineering detailing.

Duration code is a ranking to account for the overall completion time including run time, research, assignment, tutor communication etc.

Use the following tables to work out individual module cost and CPD points gained, e.g. *Design & Construction of Earth Retaining Structures* with type code **D4** (Design / Duration Code 4) costs \$200 and gains 12 CPD points upon successful completion.

### Module Costs

|          | <b>B</b> | <b>D</b> | <b>E</b> |
|----------|----------|----------|----------|
| <b>2</b> | \$100    | \$150    | \$200    |
| <b>4</b> | \$150    | \$200    | \$300    |
| <b>6</b> | \$200    | \$300    | \$400    |

### CPD Points Gained – Based on Builders CPD

|          | <b>B</b>  | <b>D</b>  | <b>E</b>  |
|----------|-----------|-----------|-----------|
| <b>2</b> | 5 points  | 6 points  | 8 points  |
| <b>4</b> | 9 points  | 12 points | 16 points |
| <b>6</b> | 14 points | 19 points | 24 points |

## ABOUT THE MODULES AND PACKAGES

### Format

Each presentation is a Power Point presentation on CD, complete with audio facility.

Support facilities include the **ELECTRONIC BLUEPRINT** CD & web site, and email communication with your tutor.

### CPD Point Accrual

These courses have been approved by the NSW Office of Fair Trading for the accrual of CPD points. CPD points have been based on the overall completion time for the module or package. In order to receive your Certificate of Completion and CPD points, you must complete and return the "Open Book" assignment, which is set at the end of the presentation and addresses key points of learning.

Points awarded for each unit have been based on 5 points per hour for Builders (NSW).

Architects and Engineers can work out their CPD Points accrued based on

- 2 points per hour for Architects, and
- 'hour-for-hour', for Engineers.

Please note that Building (B) Modules may only be purchased alongside an A or E module

An order form is located at the end of this document however for immediate help please email [sales@electronicblueprint.com.au](mailto:sales@electronicblueprint.com.au)

### Modules Available – April 2006

| OFT Approval Code | Section                           | Type Code | Module Content   |
|-------------------|-----------------------------------|-----------|--|
|                   | 0 – General Design Considerations | D4        | Embodied Energy and Sustainability                               |
|                   |                                   | D4        | Colour, Solar Absorptance & Reflectivity                         |
| Rpa5fl97          |                                   | D4        | Issues in Sustainability – Residential Construction              |
| Rpa5zy99          |                                   | E4        | AS 1170.4 <i>Earthquake loadings</i>                             |
|                   | 1 – Site Establishment            | B2        | Inspections & Tests  |
|                   |                                   | D4        | Site Inspection General  |
|                   | 2 – Earthworks & Drainage         | B2        | Inspections & Tests  |
|                   |                                   | D4        | Earthworks & Drainage General                                    |
|                   | 3 – Concrete                      | B2        | Inspections & Tests  |
|                   |                                   | D4        | Concrete General   |
|                   |                                   | E4        | Concrete Advanced  |
|                   | 4 – Retaining Walls               | B2        | Inspections & Tests  |
| Rpa5zy99          |                                   | D4        | Introduction to Retaining Walls                                  |
| Rpa5zy99          |                                   | D4        | Design & Construction of Earth Retaining Structures              |
| Rpa5zy99          |                                   | E4        | Background & use of AS4678 <i>Earth retaining structures</i>     |
| Rpa5zy99          |                                   | E4        | Design of Segmental Concrete Gravity Retaining Walls             |
| Rpa5zy99          |                                   | E4        | Design of Segmental Concrete Reinforced Soils Retaining Walls    |
| Rpa5zy99          |                                   | E4        | Design of Reinforced Concrete Masonry Cantilever Retaining Walls |
|                   | 5 – Drainage & Plumbing           | B2        | Inspections & Tests  |
|                   |                                   | D4        | Drainage & Plumbing General                                      |
|                   | 6 – Windows, Doors & Glazing      | B2        | Inspections & Tests  |
|                   |                                   | D4        | Windows, Doors & Glazing General                                 |
|                   | 7 – Structural Steel Work         | B2        | Inspections & Tests  |
|                   |                                   | D4        | Structural Steel Work General                                    |
|                   | 8 – Wall, Roof & Floor Framing    | B2        | Inspections & Tests  |
|                   |                                   | D4        | Wall, Roof & Floor Framing General                               |
|                   | 9 – Carpentry & Joinery           | B2        | Inspections & Tests  |
|                   |                                   | D4        | Carpentry & Joinery General                                      |
|                   | 10 – Roof Cladding                | B2        | Inspections & Tests  |
|                   |                                   | D4        | Roof Cladding General  |
|                   | 11 – Roof Plumbing                | B2        | Inspections & Tests  |
|                   |                                   | D4        | Roof Plumbing General  |

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D06041301-3K February 2006 Bi-Monthly Electronic Update Approved : Rod Johnston 21/12/05

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|----------|--|-----------|--|
|          | 12 - Masonry                           | <b>B2</b> | Inspections & Tests  |
| Rpa5zy99 |  | <b>B4</b> | Anchorage  |
| Rpa5zy99 |  | <b>B4</b> | Occurrence of Efflorescence  |
| Rpa5zy99 |  | <b>D2</b> | Durability of Masonry Structures   |
| Rpa5zy99 |  | <b>D4</b> | Design Considerations  |
| Rpa5zy99 |  | <b>D4</b> | Acoustic Performance of Masonry  |
| Rpa5zy99 |  | <b>D4</b> | Residential Masonry Details  |
| Rpa5zy99 |  | <b>D4</b> | Salt Damp in Concrete & Masonry  |
| Rpa5zy99 |  | <b>D4</b> | Sustainability of Clay Brickwork   |
| Rpa5zy99 |  | <b>D4</b> | Thermal Performance of Masonry   |
| Rpa5zy99 |  | <b>D4</b> | Weep holes & Flashings   |
| Rpa5zy99 |  | <b>E4</b> | Repair of Cracked Buildings  |
| Rpa5zy99 |  | <b>E4</b> | Residential Masonry Control of Cracking                                  |
| Rpa5zy99 |  | <b>E4</b> | Masonry Design for AS 1170.4 <i>Earthquake Loadings</i>                  |
| Rpa5zy99 |  | <b>E4</b> | Residential Masonry Specifications                                       |
| Rpa5zy99 |  | <b>E4</b> | Compressive Strength & Vertical Load                                     |
| Rpa5zy99 |  | <b>E4</b> | Fire Performance of Masonry  |
| Rpa5zy99 |  | <b>E4</b> | House Design to AS 3700  |
| Rpa5zy99 |  | <b>E4</b> | Multi – Unit Design  |
| Rpa5zy99 |  | <b>E4</b> | Reinforced Concrete Masonry Houses                                       |
|          | 13 – Ceiling & Wall Lining             | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Ceiling & Wall Lining General  |
|          | 14 – Insulation                        | <b>B2</b> | Inspections & Tests  |
| Rpa5fl97 |  | <b>D4</b> | Specifications for Insulated Roof, Wall & Floor Systems                  |
| Rpa5fl97 |  | <b>D4</b> | Thermal Insulation of Buildings  |
|          | 15 – Floor & Wall Tiling               | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Tiling General   |
| Rpa5wh73 |  | <b>D4</b> | Issues in Measuring Slip Resistance                                      |
| Rpa5wh73 |  | <b>D4</b> | Measuring Slip Resistance of New Pedestrian Surfaces to AS/NZS 4586      |
| Rpa5wh73 |  | <b>D4</b> | Measuring Slip Resistance of Existing Pedestrian Surfaces to AS/NZS 4663 |
| Rpa5wh73 |  | <b>D4</b> | Slip Resistance Specifications   |
| Rpa5wh73 |  | <b>D4</b> | Maintaining Slip Resistance  |
|          | 16 – Electrical Installation           | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Electrical Installation General  |
|          | 17 – Kitchen                           | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Kitchen General  |
|          | 18 – Vehicular Doors                   | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Vehicular Doors General  |
|          | 19 - Painting                          | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Painting General   |
|          | 20 – Resilient Floor Coverings         | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Resilient Floor Coverings General  |
|          | 21 – Carpets & Soft Furnishings        | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Carpets & Soft Furnishings General                                       |
|          | 22 – Windows & Door Shutters           | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Windows & Door Shutters General  |
|          | 23 – Mechanical Ventilation & Services | <b>B2</b> | Inspections & Tests  |
|          |  | <b>D4</b> | Mechanical Ventilation & Services General                                |
|          | 24 – Cleaning                          | <b>B2</b> | Inspections & Tests  |
| Rpa5zy99 |  | <b>D4</b> | Occurrence of Efflorescence  |
| Rpa5zy99 |  |           | Prevention of Efflorescence  |

|          |                              |           |  |
|----------|------------------------------|-----------|--|
| Rpa5zy99 |                              |           | Removing Efflorescence   |
| Rpa5zy99 | 24 – Cleaning                |           | High Pressure Water Jet Cleaning   |
| Rpa5zy99 |                              |           | Cleaning Pedestrian Surfaces   |
|          | 25 - Landscaping             | <b>B2</b> | Inspections & Tests  |
|          |                              | <b>D4</b> | Landscaping General  |
|          | 26 - Fencing                 | <b>B2</b> | Inspections & Tests  |
|          |                              | <b>D4</b> | Fencing General  |
|          | 27 - Paving                  | <b>B2</b> | Inspections & Tests  |
|          |                              | <b>D4</b> | Paving General   |
|          |                              | <b>D4</b> | Issues in Measuring Slip Resistance                                      |
| Rpa5wh73 |                              | <b>D4</b> | Measuring Slip Resistance of New Pedestrian Surfaces to AS/NZS 4586      |
| Rpa5wh73 |                              | <b>D4</b> | Measuring Slip Resistance of Existing Pedestrian Surfaces to AS/NZS 4663 |
| Rpa5wh73 |                              | <b>D4</b> | Slip Resistance Specifications   |
| Rpa5wh73 |                              | <b>D4</b> | Maintaining Slip Resistance  |
| Rpa5wh73 |                              | <b>E6</b> | Design of Residential Pavements using AS 3727                            |
| Rpa5wh73 |                              |           | Specification & Details for Concrete Residential Pavements               |
| Rpa5wh73 |                              |           | Specification & Details for Asphalt Residential Pavements                |
| Rpa5wh73 |                              |           | Specification & Details for Bitumen Spray Seal Residential Pavements     |
| Rpa5wh73 |                              |           | Specification & Details for Segmental Residential Pavements              |
| Rpa5wh73 |                              |           | Design & Specification of Permeable Pavements                            |
| Rpa5wh73 |                              |           | Maintaining Residential Pavements  |
| Rpa5wh73 |                              |           | Compaction   |
|          | 28 – Metalwork & Balustrades | <b>B2</b> | Inspections & Tests  |
|          |                              | <b>D4</b> | Metalwork & Balustrades General  |

(Print PAGE 11 to access this order form)

| OFT Approval Code<br>(where appropriate) | Section | Type Code | Module Content | Cost |
|--|---------|-----------|----------------|------|
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|  |         |           | <b>Total</b>   |      |

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|-----------------|-----------------|
| Name:           | Profession:     |
| Company name:   | Licence number: |
| Postal address: |                 |
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- **My cheque/money order (made payable to Quasar Management Services) for the amount of \$ (inc. GST) is enclosed**

**Please allow 14 – 21 days delivery time for all packages**

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We supply Bi-monthly Electronic Updates of important changes relating to the industry. This is a free email service aimed at keeping industry professionals abreast of pertinent developments.

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# PRODUCT DIRECTORY

Enabling specifiers fast access a list of building products that comply with the specific requirements of the **ELECTRONIC BLUEPRINT**.

| Supplier   | Product Details   | ELECTRONIC BLUEPRINT     |
|--|---|--------------------------|
| Abey Australia Pty Ltd<br><a href="http://www.abey.com.au">www.abey.com.au</a>   | Wall ties for all environments, including stainless steel cavity ties for use in Marine (R3) and Severe Marine (R4) environments  | Section 12               |
| Action Tanks (NSW)<br><a href="http://www.actiontanks.com.au">www.actiontanks.com.au</a>   | Rotational moulded polyethylene rainwater tanks, polyethylene above ground and underground rainwater management systems; stormwater Detention-Retention   | Section 5                |
| A.G.P Group<br><a href="http://www.agpgroup.com.au">www.agpgroup.com.au</a>  | Laminated, 'switchable' privacy glass to AS 1288; Operable frameless glass louvres to AS 1288 & AS1170; Sliding, bi – fold or stackable Slimline Shutters & Operable metal louvres to AS 1664 & AS 1170; Range of custom build, automatic revolving doors to AS 4290; High security entry/exit systems.   | Section 6                |
| Air Cell<br><a href="http://www.aircell.com.au">www.aircell.com.au</a>   | Fibre-free, thermo-cellular reflective insulation blanket products, certified to AS/NZS 4859.1 and providing a protective vapour, insulation and radiant barrier  | Section 14               |
| Allvent Ventilation Products<br>Phone: 02 4966 8499  | Mechanical fans & ventilation products including axial fans (all size applications), centrifugal fans, roof-top units, ceiling header box fans, grills & components   | Section 23               |
| Ancor Loc Earth Systems<br><a href="http://www.ancorloc.com.au">www.ancorloc.com.au</a>  | Ground anchor systems to comply with AS 4678 <i>Earth retaining structures</i>  | Section 4                |
| Breezeway<br><a href="http://www.breezeway.com.au">www.breezeway.com.au</a>  | Energy and cyclone rated louvre windows made from non-corrosive materials complying with AS 2047; Skylights manufactured in accordance with AS2485 and AS1288 and energy rated according to WERS Scheme; Solid timber loft ladders with a high load capacity of 160kg; insulated and dust retardant trap doors  | Sections 6, 9            |
| Brunswick Sales<br><a href="http://www.brunswicksales.com.au">www.brunswicksales.com.au</a>  | Vertical control joint ties to AS 2699 Part 1. Available fully galvanised or grade 316 stainless steel.   | Section 12               |
| Concrete Colour Systems<br><a href="http://www.concretecoloursystems.com.au">www.concretecoloursystems.com.au</a>                  | Pigments and systems for resurfacing, colouring and stencilling existing and new concrete surfaces  | Section 3                |
| C&M Brick<br><a href="mailto:claudia.tapia@cmbrick.com.au">claudia.tapia@cmbrick.com.au</a>  | Retaining wall systems to meet the requirements of AS 4678; Water-repellent masonry blocks; Concrete block systems, including insulated blocks and acoustic block systems, to meet the BCA requirements; Segmental pavers for roadways, driveways, gardens and pool surrounds to meet AS 3727 Residential pavements   | Sections 4, 12           |
| Cold Jet<br><a href="http://www.coldjet.com">www.coldjet.com</a>   | Waterless, pressurized carbon dioxide dry ice blasting cleaning system. Non abrasive, environmentally friendly, fast, no secondary waste residue.   | Section 24               |
| Electronic Blueprint<br><a href="mailto:sales@electronicblueprint.com.au">sales@electronicblueprint.com.au</a>                     | Steel mullions for brickwork and blockwork to provide wind and earthquake resistance to the new AS/NZS 1170.2 and AS 1170.4. Resilient ties to comply with BCA Vol 1&2 for the separation of leaves of cavity walls to eliminate the transmission of impact sound   | Sections 7, 12           |
| Everbreeze Ventilation<br><a href="http://www.everbreeze.com.au">www.everbreeze.com.au</a>   | Design, supply, installation and maintenance of quality ventilation systems complying with BCA and AS 1668.2  | Sections 23, 6, 8        |
| Helifix (Australia) Pty Ltd<br><a href="http://www.helifix.com.au">www.helifix.com.au</a>  | Products to repair cracked or damaged brickwork   | Section 12               |
| Industrial Galvanizers Corporation Pty Ltd<br>Ingal Building Systems<br><a href="http://www.indgalv.com.au">www.indgalv.com.au</a> | Lightweight hot dip galvanized lintels (to AS/NSZ 4680) complying with durability ratings up to R3 of AS/NZS 2688.3; Building Code approved. Corrosion mapping system to help determine the life expectancy of hot dip galvanized steel in different exposure conditions in Australia.  | Sections 7, 12           |
| Stramit Building Products<br><a href="http://www.stramit.com.au">www.stramit.com.au</a>  | Cold-rolled galvanised steel products complying with AS 4600<br>Permanent formwork of cold-rolled steel complying with AS 1538 and AS 1397<br>Sheet steel metal roof and wall cladding complying with AS 1397<br>Metal rainwater goods complying with AS 2179.1   | Sections 3, 7, 8, 10, 11 |
| Ensystex Australasia Pty Ltd<br><a href="http://www.terra.com">www.terra.com</a>   | Non-toxic, in-ground or above-ground, termite colony elimination and protection system complying with AS3660.2  | Sections 3, 7            |
| Erosion Control Systems<br><a href="http://www.erosioncontrol.com.au">www.erosioncontrol.com.au</a>                                | Retaining wall systems up to and over 1500mm for both domestic and commercial applications in accordance with AS 4678 (Including Amendment 1)   | Section 4                |
| Hanson Building Products<br><a href="http://www.hanson.biz">www.hanson.biz</a>   | Retaining wall systems to meet the requirements of AS 4678; Water-repellent masonry blocks; Concrete block systems, including insulated blocks and acoustic block systems, to meet the BCA requirements; Segmental pavers for roadways, driveways, gardens and pool surrounds to meet AS 3727 Residential pavements<br>Energy Efficient Masonry Housing Systems | Sections 4, 12           |

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D06041301-3K February 2006 Bi-Monthly Electronic Update Approved : Rod Johnston 21/12/05

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|---|---|----------------|
| Lafarge Plasterboard Pty Ltd<br><a href="http://www.lafargeplasterboard.com.au">www.lafargeplasterboard.com.au</a>  | All boards produced by Lafarge Plasterboard are manufactured under a quality system certified as complying with ISO AS/NZS 9001:2000 by an accredited certification body.   | Section 13     |
| Magnetite – NSW<br><a href="http://www.magnetite.com.au">www.magnetite.com.au</a>   | Secondary glazing system. Magnetic seal and insulating acrylic panel capable of reducing heat gain or loss through windows by up to 80% and noise by up to 70%.   | Section 6      |
| Master Builders Association<br><a href="http://www.mbansw.asn.au">www.mbansw.asn.au</a>   | Construction area safety signage.   | Section 1      |
| Nofire Technologies Australia<br><a href="http://www.nofire.net.au">www.nofire.net.au</a><br><a href="http://www.nofiretechnologies.com">www.nofiretechnologies.com</a> | A one part non-flammable water based intumescent coating similar in appearance to ordinary latex base paint which immediately foams and swells (intumesces) upon exposure to flame or heat, providing an effective insulation and heat shield to protect the subsurface.  | Sections 7, 19 |
| Raven Product Pty Ltd<br><a href="http://www.raven.com.au">www.raven.com.au</a>   | Sealing Systems, for doors and windows, which are frequently multi-purpose, sealing against a combination of intrusions and leakages including sound (AS 1191), fire (intumescent) & smoke (to AS 1530.4 & AS/NZS 1905.1), rain, draughts, dust, embers, light insects, vermin, and energy inc. heating & air conditioning (to AS 4420.4, AS 4420.5, AS 2047, AS 1939, AS 1530.7).. | Sections 6, 18 |
| Robert Bosch (Australia) Pty. Ltd. <a href="http://www.bosch.com.au">www.bosch.com.au</a>   | Commercial and domestic continuous flow gas hot water systems-Hydropower, Pilot & Electronic ignition, available in natural gas & LPG. All gas hot water systems compliant with AS 4552.  | Section 5      |
| Specialised Safety Solutions<br><a href="http://www.specialisedsafetysolutions.com">www.specialisedsafetysolutions.com</a>  | Retractable door jamb system allowing conventional doors to be opened in opposite direction as a safety mechanism when the door is locked from the inside.  | Section 6      |
| Sunplus CPC Solar<br><a href="http://www.sunplusCPC.com.au">www.sunplusCPC.com.au</a>   | Commercial and domestic evacuated tube solar hot water system complying with AS 2712 Solar and heat pump water heaters – Design and construction.   | Section 5      |
| VELUX Australia Pty Ltd<br><a href="http://www.VELUX.com.au">www.VELUX.com.au</a>   | Integrated solar hot water design tested and approved in accordance to Australian Standard AS2712, Sun Tunnels ,operable, curb mounted, and fixed skylights to AS4285, Venetian, pleated and Electric Blockout Blinds   | Sections 5, 6  |

## Forum

The Forum provides an opportunity for Architects, Engineers and Builders to raise questions and voice comment on technical matters. **ELECTRONIC BLUEPRINT** will circulate the comments electronically, and will, where appropriate, communicate them to the relevant Technical Committees of Standards Australia for consideration. Names will not be published unless requested by the writer. Where appropriate, Editor's comments have been added.

To add your comments and questions, [click here](#).

Subject to space limitations, your comments will be published in the next Bi-monthly Up-date.

Question by Building Product Manufacturer - NSW

*NatHERS vs First Rate:*

*It is interesting to note that the First Rate program gives a ##### wall a higher energy rating (in "stars") than does the NatHERS program. The reason for this is unknown.*

Answer

*First Rate is a compilation program based on NatHERS, which is a simulation program. i.e. First Rate is derived from a large number of NatHERS runs. In theory they should be the same, but, if there is a discrepancy, NatHERS would be considered to be the more accurate.*

*AccuRATE is a second generation simulation program, which is currently under development by the CSIRO for inclusion in the BCA. AccuRATE is intended to replace the first generation version of NatHERS, but it will not be called up in the BCA until 1 May 2007.*

For further information about the information in this **Industry Alert** Contact Karim Muri from Air-Cell  
[karim.muri@air-cell.com.au](mailto:karim.muri@air-cell.com.au)



# CODEMARK



## AIR-CELL Insulation Leads the Way Yet Again

On 7 April 2006, in an industry first, AIR-CELL Insulation became the first insulation company in Australia to certify to the Building Code of Australia under the CodeMark scheme, beating the rest of the industry including the region's largest manufacturers to the mark.



### FREQUENTLY ASKED QUESTIONS

#### **What is CodeMark?**

Considered to be the building industry's highest level of product assurance, CodeMark is a certification scheme managed by the Australian Building Codes Board (ABCB).

#### **Why is CodeMark important?**

CodeMark references AIR-CELL against the entire Building Code of Australia (BCA) to make sure it complies not only with the testing standards, but also the suitability of the product and its compliance to building types and/or applications as regulated by the BCA. CodeMark is the *only* certification scheme that delivers this total compliance.

#### **What are the benefits of CodeMark?**

- Provides legislated acceptance of AIR-CELL by building certifiers and building control authorities, expediting approval processes
- Helps to manage risk and legal liability
- Increases confidence in building products and practices
- Facilitates the use of innovative new products

#### **What does that mean for me?**

It means total peace of mind. With CodeMark certification, home owners can breathe easy knowing that AIR-CELL delivers full compliance to the BCA; while builders, architects, designers, and building certifiers can breathe easy knowing that they are indemnified from legal liability in relation to product compliance to the BCA.

*It means total  
peace of mind.*

**Demand independent certification.  
Demand CodeMark.**

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