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### Unlisted Product Call

*What are the products you use?*

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## June 2006 Bi-Monthly Electronic Update

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

- [Architect](#)  
[Engineers](#)  
[Builders](#) - Use of Remedial Ties to Rejuvenate Tired Brickwork  
- Design of Mortarless Reinforced Concrete Block Wall Systems  
- Selecting the Correct Wall Ties for Brick Veneer and Cavity Masonry
- **Changes to Australian Standards**  
In this edition, we bring you a complete list of all new, superseded and amended standards featured in the Bi-Monthly Updates to date. Go to, [Changes to Australian Standards](#)
- **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**.
- **ELECTRONIC BLUEPRINT Section Update (See Attachments)**  
In this issue:  
A complete and EDITABLE UPDATE of ELECTRONIC BLUEPRINT **Section 12 - Masonry**, with all relevant modifications to specifications, supplied as a Microsoft Word document for direct addition to your existing specifications and files.  
SEE ATTACHEMENTS to this email in your INBOX.
- **Industry Alert** – C&M Product Profile – AB Vertical. [View details](#).

Thank you for all the input and feedback received to date. Your questions, comments and requests help us to make the Electronic Blueprint a more thorough resource and specification tool for you. We welcome all emails and calls. Keep the comments coming!

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Specification Manager

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## Architects

### Use of Remedial Ties to Rejuvenate Tired Brickwork

There are many situations where a new (or existing) leaf of masonry must be tied to an existing masonry leaf. Stainless steel remedial ties, screwed into both leaves from one side, can be used to secure the loose leaf and to extend the life of the building. Consider the following cases.



Photo source: Helifix

- An apartment building incorporating load-bearing cavity brickwork, constructed many years ago, became due for a face-lift. Site investigations indicated that the existing galvanised cavity ties had deteriorated to such an extent that they no longer reliably secured the external leaf. Stainless steel remedial ties were screwed into both leaves from the outside of the building, from a scaffold which was then used for application of the external render.
- During the refurbishment of a major hotel, it became necessary to increase the fire resistance of existing masonry separating walls. The most practical solution was to construct a second leaf of masonry and to secure it to the existing leaf using screwed stainless steel remedial ties.

For details of these and other projects, email us at [info@electronicblueprint.com.au](mailto:info@electronicblueprint.com.au)

The appropriate specification clause for remedial ties is set out below:

#### **REMEDIAL PINNING AND TYING MASONRY WALLS**

##### **Materials**

*Remedial ties shall be a single piece of 8 mm diameter (or 10 mm for cavities over 120 mm), Grade 316 austenitic stainless steel comprising a helical profile, forming multiple drips to act as a water barrier. Both ends of the tie shall be formed into a point to allow the tie to be driven into the brickwork using a Power Driver attachment fitted to a rotary hammer drill.*

##### **Construction**

*Minimum embedment of ties shall be in accordance with the manufacturers recommendations as set out above. For cavity walls consisting of two leaves of 110 mm standard brick separated by a 50 mm cavity, the tie shall be 230 mm long and embedded 70 mm.*

- *A pilot hole (depending on brick hardness) shall be drilled to the required depth (tie length + 10mm) using a long series masonry drill bit fitted to a percussion action power drill.*
- *Using the Power Driver attachment fitted to a lightweight rotary hammer drill, the tie shall be driven in to the pilot hole approximately 10mm beyond the surface of the near skin.*
- *After installation of the tie is complete the hole shall be made good either by using a mixture of sand, cement and oxide colouring to match the original surrounding brick surfaces or alternatively with a silicone sealant applied to the hole and coated with brick dust or drillings.*

A wide range of remedial building products, including remedial ties, is available from Helifix Australia. Please refer to the Electronic Blueprint Product Directory and to the suppliers' web site for more technical and purchasing information.

<http://www.electronicblueprint.com.au/suppliers/helifix.html>

<http://www.helifix.com.au/>

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

## Engineers

### Design of Mortarless Reinforced Concrete Block Wall Systems

Reinforced masonry systems behave in a manner similar to reinforced concrete. Concrete grout contains and protects the reinforcement, and transfers stresses between the steel reinforcement (often in bending tension) and the extreme fibres of masonry unit and mortar (often in bending compression).

Mortarless Reinforced Concrete Block Wall Systems are finding increased use. Specially developed concrete blocks are constructed without mortar, are reinforced and then grouted. The construction cost savings of such systems can be significant. The bending, compression and racking strengths of such systems are usually based on the interpretation of test results, which are available from manufacturers. The appropriate generic specification clause for concrete blocks for reinforced mortarless masonry applications is set out below:

#### **Concrete Blocks for Reinforced Mortarless Masonry Applications**

*Unless specified otherwise, concrete masonry units for construction in mortarless applications shall comply with AS/NZS 4455 and the following requirements:*

- *Dimensional category DW4*
- *Salt attack resistance grade shall be:*
  - *General Purpose except as listed below for Exposure Grade*
  - *Exposure Grade where the masonry is:*
    - *subject to saline wetting and drying; or*
    - *in aggressive soils; or*
    - *in a severe marine environment; or*
    - *subject to saline or contaminated water, including tidal splash zones; or*
    - *in especially aggressive environments. e.g. subject to attack by corrosive liquids or gasses, or within 1 km of industry in which chemical pollutants are produced.*
- *Minimum characteristic compressive strength shall be as nominated by the engineer and not less than ## MPa.*

*The required strength depends on the the particular application and the particular mortarless masonry system. Refer to the manufacurer's design literature for guidance.*
- *Dimensions and core configuration shall be such that:*
  - *Units may be fully grouted and reinforced, both vertically and horizontally;*
  - *Grout may flow easily around and enclose the reinforcement in all cores; and*
  - *Cover is consistent with the requirements of AS 3700 for durability, strength and fire resistance as appropriate.*
- *Mean Coefficient of Residual Drying Contraction shall be not more than 0.6 mm/m.*
- *If intended for face applications and exposed to the weather:*
  - *Permeability shall be not more than 2 mm/minute*
  - *Efflorescence Potential shall be Nil or Slight*
  - *Colour and texture shall be within an agreed range.*

Mortarless masonry systems is available from the major masonry unit manufacturers, including Hanson Building Products and C&M Brick. Please refer to the Electronic Blueprint Product Directory and to the suppliers' web site for more technical and purchasing information.

<http://www.electronicblueprint.com.au/suppliers/hanson.html>

<http://www.hanson.biz/>

<http://www.electronicblueprint.com.au/suppliers/cmBrick.html>

<http://www.cmbrick.com.au/>

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

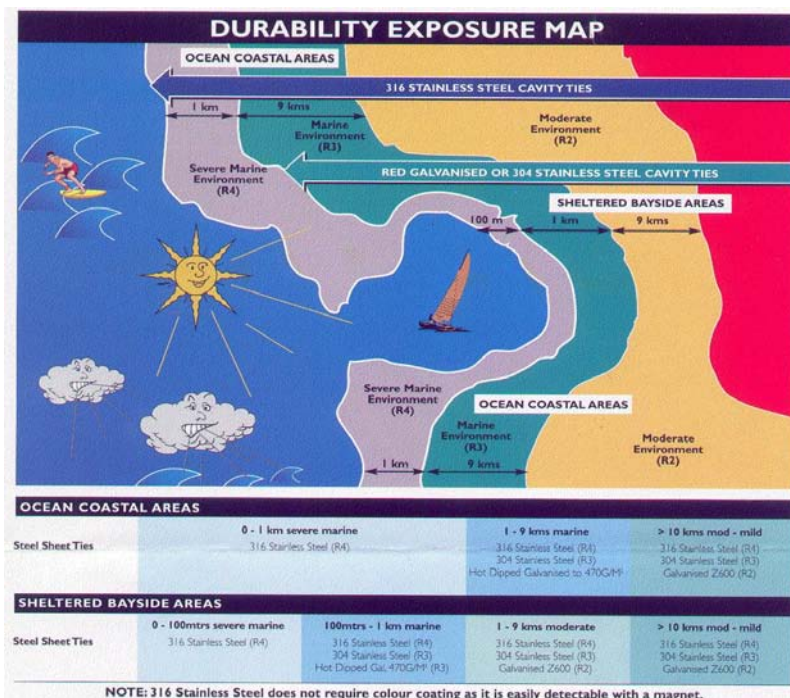
## Builders Selecting the Correct Wall Ties for Brick Veneer and Cavity Masonry

There is a lot of confusion on building sites regarding the selection and installation of appropriate masonry ties. The external leaves of masonry walls permit water to pass through into the cavity. If ties have mortar dags on them or if they are sloping towards the inner leaf, they could be a source of moisture crossing the cavity.

AS 3700 sets out the selection requirements for both structural performance (strength and stiffness) and corrosion resistance.

AS/NZS 2669.1 sets out the testing requirements strength and stiffness, and sets out the deemed-to-satisfy means of achieving the required corrosion resistance. Most commonly available galvanised and stainless steel ties are:

- Rated as Light, Medium or Heavy duty, and
- Rated R2, R3 or R4 for the various corrosion requirements (on a scale from R0 to R5)



Source: Abey Australia Pty Ltd

The appropriate generic specification clause for Masonry Wall Ties is set out below:

### Wall Ties

Wall ties shall comply with AS/NZS 2669.1 and the following schedule.

For the applications listed below, ties shall be galvanised steel or polymer designated R2 or greater.

- Elements in a mild environment
- Elements in an interior environments above a damp-proof course and enclosed within a building except during construction
- Elements above the damp-proof course in non-marine exterior environments,
- Elements above the damp-proof course in other exterior environments, with a waterproof coating, properly flashed junctions with other building elements and a top covering (roof or coping) protecting masonry
- Elements below a damp-proof course or in contact with ground, that are protected from water ingress by an impermeable membrane.

**In this application, the BCA Vol 2 Clause Table 3.3.3.1 permits the use of ties manufactured from Z600 galvanised sheet steel, or sheet steel ties galvanised after manufacture with 300g/m<sup>2</sup> of zinc on each side.**

For the applications listed below, ties shall be stainless steel or polymer ties designated R3 or greater.

- Elements in interior environments that are subject to non-saline wetting and drying
- Elements below the damp-proof course in contact with non-aggressive soils
- Elements in marine environments
- Elements in fresh water.

**In a marine environment (1 km or more but less than 10 km from breaking surf ; or 100 m or more but less than 1 km from salt water not breaking surf) the BCA Vol 2 Clause Table 3.3.3.1 permits the use of sheet steel ties galvanised after manufacture with 470g/m<sup>2</sup> of zinc on each side, or galvanised wire ties with 470g/m<sup>2</sup> of zinc coating. The other applications are not specifically mentioned in the BCA Volume 2.**

For the applications listed below, ties shall be stainless steel or polymer ties designated R4 or greater.

- Elements in interior environments subject to saline wetting and drying
- Elements below a damp-proof course or in contact with ground in aggressive soils
- Elements in severe marine environments.

In a severe marine environment (less than 1 km from breaking surf ; or less than 100 m from salt water not breaking surf) the BCA Vol 2 Clause Table 3.3.3.1 permits the use of ties manufactured from 316 or 316L stainless steel, or ties manufactured from engineered polymer. The other applications are not specifically mentioned in the BCA Volume 2.

For the applications listed below, ties shall be stainless steel or polymer ties designated R5.

- Elements in saline or contaminated water including tidal splash zones
- Elements within 1 km of an industry producing chemical pollutants.

Within heavy industrial areas the BCA Vol 2 Clause Table 3.3.3.1 permits the use of ties manufactured from 316 or 316L stainless steel, or ties manufactured from engineered polymer. The other application is not specifically mentioned in the BCA Volume 2.

Wall ties shall comply with the following schedule from AS 3700 based on the classifications set out in AS 2699.1.

Masonry Wall Ties								
	Wall height	Type A Cavity Ties Vertical spacing 600 mm max			Type A Veneer Ties Vertical spacing 600 mm max			
		Any height			2400 mm	3000 mm		
		Horizontal spacing, mm			Horizontal spacing, mm			
Wind	Earthquake	300	450	600	450	600	450	600
N1	H1	L <sup>1</sup>	L <sup>1</sup>	M <sup>2</sup>	L <sup>2</sup>	L <sup>2</sup>	L <sup>2</sup>	L <sup>2</sup>
N2	H1, H2, H3	L <sup>1</sup>	M <sup>1</sup>	M <sup>2</sup>	L <sup>2</sup>	L <sup>2</sup>	L <sup>2</sup>	M <sup>3</sup>
N3	H1, H2, H3	M <sup>3</sup>	M <sup>3</sup>	H <sup>3</sup>	L <sup>1</sup>	M <sup>2</sup>	M <sup>2</sup>	M <sup>2</sup>
C1	H1, H2, H3	M	M	H	M	M	M	M
N4	H1, H2, H3	M	H	H	M	M	M	H
C2	H1, H2, H3	M	H	H	M	H	H	H
N5, C3	H1, H2, H3	H	H	H	H	H	H	H
N6, C4	H1, H2, H3	H	H	H	H	H	H	H

Notes:

1. Not permitted under BCA Vol 2 Clause 3.3.3.2 and Figure 3.3.3.1. Although permitted by AS 3700 Section 12, the use of these ties may not be appropriate.
2. Permitted under BCA Vol 2 Clause 3.3.3.2 and Figure 3.3.3.1.
3. Heavier duty than required by BCA Vol 2 Clause 3.3.3.2 and Figure 3.3.3.1.
4. Ties that are not marked 1, 2 or 3 are beyond the scope of BCA Vol 2 Clause 3.3.3.2 and Figure 3.3.3.1.

Extendible masonry ties for control joints and articulation joints shall restrain the wall against out-of-plane movement, but permit in-plane movement such as expansion and contraction. Extendible masonry ties shall be capable of correct operation, even when misaligned by up to 10 mm over the length of the tie.

A wide range of wall ties for brick veneer and cavity masonry is available from Abey Australia Pty Ltd Please refer to the Electronic Blueprint Product Directory and to the supplier's web site for more technical and purchasing information.

<http://www.electronicblueprint.com.au/suppliers/abey.html>

<http://www.abey.com.au/>

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).

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## Changes to Australian Standards

In this edition, we bring you a complete list of all new, superseded and amended standards featured in the Bi-Monthly Updates to date.

<b>New Standard</b>	<b>Superseded Standard</b>
AS 1357.1 – 2004/Amdt 1 – 2005 Valves primarily for use in heated water systems – Protection valves	Draft Standard DR 04565
AS 1357.2 –2005 Valves primarily for use in heated water systems – Control valves	Draft Standard DR 05265 CP
AS 1684.2-2006 Residential timber framed construction – Non-cyclonic areas	
AS 1905.1 – 2005 Components for the protection of openings in fire resistant walls – Fire resistant doorsets	
AS 1905.2 – 2005 Components for the protection of openings in fire resistant walls – Fire resistant roller shutters	
AS 2150-2005 Hot mix asphalt – A guide to good practice	AS 2357-1980 Mineral fillers for asphalt
AS 2293.1-2005 Emergency escape lighting and exit signs for buildings – System design, installation and operation	AS 2293.1-1998 Emergency escape lighting and exit signs for buildings – System design, installation and operation
AS 2293.3-2005 Emergency escape lighting and exit signs for buildings – Emergency escape luminaries and exit signs	AS 2293.3-1995 Emergency escape lighting and exit signs for buildings – Emergency escape luminaries and exit signs
AS 2796.2 – 2006 Timber – Hardwood – Sawn and milled products – Grade description	AS 2796.2 - 1999
AS 3730.1 Latex – Interior – Flat	
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 3730.2 Latex – Interior – Semi-gloss	
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 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 3818.7 – 2006 Timber – Heavy structural products – Visually graded – Large cross-section sawn hardwood engineering timbers	
As 4046.8 Adhesive mechanical fasteners – Flexible pointing	
AS 4055-2006 Wind loads for housing	
AS 4072.1 – 2005 Components for the protection of openings in fire resistant separating elements – Service penetrations and control joints	
AS 4552 – 2005 Gas fired water heaters for hot water supply and/or central heating	AS 4552 - 2000

AS 4786.2 – 2005 Timber flooring – Sanding and finishing	
AS/NZS 1680.1 – 2006 Interior and workplace lighting – General principles and recommendations	
AS/NZS 1748 – 2006 Timber – Mechanically stress-graded for structural purposes	AS/NZS 1748 – 1997
AS/NZS 4357.0:2005 Structural laminated veneer lumber - Specifications	AS/NZS 4357:1995 Structural laminated veneer lumber - Specifications
AS/NZS 4600-2005 Cold-formed steel structures	
AS/NZS 4999: 2006 PVC-U maintenance shafts	AS/NZS 4999: 2003
ATS 5200.006 – 2005 Technical Specification for plumbing and drainage products – Reflux valves – Sewerage	ATS 5200.006 - 2004
ATS 5200.012 – 2005 Technical specification for plumbing and drainage products – In-line valves for use in plumbing water supply systems – Miscellaneous types metallic and non-metallic	
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
ATS 5200.050 – 2005 Technical Specification for plumbing and drainage products – Prefabricated bathroom modules	
ATS 5200.051 – 2005 Technical Specification for plumbing and drainage products –Bidet douche seats	
ATS 5200.052 – 2005 Technical specification for plumbing and drainage products – Metallic-bodied inlet pressure control valves greater than DN 50	
ATS 5200.420 – 2005 Technical Specification for plumbing and drainage products – Tap-priming valves	
ATS 5200.460 – 2005 Technical Specification for plumbing and drainage products – Grey water diversion device (GWDD)	ATS 5200.460 - 2004
ATS 5200.471 – 2005 Technical specification for plumbing and drainage products – Stainless steel tubes and mechanical compression fittings for pressure applications – Alternative systems	
HB 124 – 2005 Design and Construction of Concrete Masonry Buildings	HB 124 – 2000 HB 237 – 2000
HB 230-2006 Rainwater Tank Design and Installation Handbook	

<b>Amended Standards</b>
AS 1720.2-2006 Timber structures – Timber properties
AS 4072.1 – 2005 Components for the protection of openings in fire-resistant separating elements – Service penetrations and control joints
AS/NZS 1859.1 Reconstituted wood-based panels – Specification - Particleboard
AS/NZS 1859.2: 2004 Reconstituted wood-based panels – Specifications – Dry-processed fibreboard
AS/NZS 1860.1 Particleboard flooring – Specifications
AS/NZS 2269: 2004 Plywood - Structural
AS/NZS 2271: 2004 Plywood and blockboard for exterior use
AS/NZS 3500.5:2000 National Plumbing and Drainage – Domestic installation

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).

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**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	D	E
2	\$100	\$150	\$200
4	\$150	\$200	\$300
6	\$200	\$300	\$400

CPD Points Gained – Based on Builders CPD

	B	D	E
2	5 points	6 points	8 points
4	9 points	12 points	16 points
6	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).

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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

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### Modules Available – April 2006

OFT Approval Code	Section	Type Code	Module Content
	0 – General Design Considerations	D2	Quality Assurance for Local Government
		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	Site Inspection General
	2 – Earthworks & Drainage	B2	Earthworks & Drainage General
	3 – Concrete	B2	Concrete General
		E2	Design & Specification of Slabs & Toppings
		E4	Concrete Advanced
Rpa5zy99	4 – Retaining Walls	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	Drainage & Plumbing General
	6 – Windows, Doors & Glazing	B2	Windows, Doors & Glazing General
	7 – Structural Steel Work	B2	Structural Steel Work General
	8 – Wall, Roof & Floor Framing	B2	Wall, Roof & Floor Framing General
	9 – Carpentry & Joinery	B2	Carpentry & Joinery General
	10 – Roof Cladding	B2	Roof Cladding General
	11 – Roof Plumbing	B2	Roof Plumbing General
Rpa5zy99	12 - Masonry	B4	Anchorage
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Rpa5zy99		D4	Residential Masonry Details
Rpa5zy99		D4	Salt Damp in Concrete & Masonry
Rpa5zy99		D4	Sustainability of Clay Brickwork
Rpa5zy99		D4	Thermal Performance of Masonry
Rpa5zy99		D4	Weep holes & Flashings
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Rpa5zy99		E4	Residential Masonry Control of Cracking
Rpa5zy99		E4	Masonry Design for AS 1170.4 <i>Earthquake Loadings</i>
Rpa5zy99		E4	Residential Masonry Specifications
Rpa5zy99		E4	Compressive Strength & Vertical Load
Rpa5zy99		E4	Fire Performance of Masonry

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	27 - Paving	<b>B2</b>	Paving 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
Rpa5wh73	(Package)	<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>	Metalwork & Balustrades General

(Print PAGE 11 to access this order form)

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

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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 <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) <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 <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
Allvent Ventilation Products 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 <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 <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 <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 <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
Connolly Key Joint <a href="http://www.connollykeyjoint.com">www.connollykeyjoint.com</a>	Preformed concrete control joints and ancillary products	Section 3
C&M Brick <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 <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 <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 <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
Fibercon <a href="http://www.fibercon.com.au">www.fibercon.com.au</a>	Steel fibre reinforcement used for enhancing toughness and impact resistance of concrete	Sections 3, 27
Helifix (Australia) Pty Ltd <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 Ingal Building Systems <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 <a href="http://www.stramit.com.au">www.stramit.com.au</a>	Cold-rolled galvanised steel products complying with AS 4600 Permanent formwork of cold-rolled steel complying with AS 1538 and AS 1397 Sheet steel metal roof and wall cladding complying with AS 1397 Metal rainwater goods complying with AS 2179.1	Sections 3, 7, 8, 10, 11
Ensyntex Australasia Pty Ltd <a href="http://www.exterra.com">www.exterra.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 <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 <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 Energy Efficient Masonry Housing Systems	Sections 4,12
Lafarge Plasterboard Pty Ltd <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 <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 <a href="http://www.mbansw.asn.au">www.mbansw.asn.au</a>	Construction area safety signage.	Section 1
Nofire Technologies Australia <a href="http://www.nofire.net.au">www.nofire.net.au</a> <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 <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 Saftey Solutions <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 <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
Tankmasta <a href="http://www.tankmasta.com.au">www.tankmasta.com.au</a>	Underground rainwater tanks and fittings for the purpose of domestic, commercial, or industrial rainwater harvesting	Section 5
Tripstop Pty Ltd <a href="http://www.tripstop.net">www.tripstop.net</a>	Concrete construction joints for misalignment and trip hazard control	Section 27
VELUX Australia Pty Ltd <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

## ELECTRONIC BLUEPRINT Section Up-date

This edition: **Section 12 – Masonry**

Attached as an EDITABLE Word file alongside this PDF.



Leaders in Masonry  
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## PRODUCT PROFILE

### AB VERTICAL

*Available in Bondi Blend, Oatmeal, Sunstone, Steel, Charcoal & Biscuit Blend*



#### SPECIFICATIONS

Qty per M <sup>2</sup>	11.5
Qty per Pallet	40
Qty per Tonne	32
Unit Weight	31 kg

**AB Vertical** is a dry stacked split face retaining wall system that comes complete with matching cornerstones and capping units.

**AB Vertical** can be used to construct straight, convex and concave walls up to a maximum gravity wall height of 1000mm high without geogrid and engineered walls up to 12m high. Refer to the AB Installation Guide for further information.

April 2006

View other C&M Product Profiles at <http://www.electronicblueprint.com.au/suppliers/cmBrick.html>