

Queensland Development Code

MP 4.1 – Sustainable Buildings

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1 Purpose

To ensure:

- (a) *class 1 buildings* and *class 2 buildings* are energy and water efficient;
- (b) the *electricity* supplied to each *meterable premises* is able to be measured appropriately; and
- (c) *end-of-trip facilities* are provided in *major developments* located in *designated local government areas*.

2 Commencement

- (1) This version of *MP 4.1 – Sustainable Buildings* (Version 1.13), a mandatory part of the *Queensland Development Code*, was published on 17 September 2020 and commences on 1 March 2021.
- (2) Version 1.13 replaces Version 1.12 of *MP 4.1 – Sustainable buildings*, which was published on 15 January 2013.

3 Application

- (1) This part applies to the lawful carrying out of *building work* as indicated by ticks (✓) in the relevant columns in table 1, subject to subsection (2).
- (2) This part and the *relevant Building Code of Australia (BCA) provisions* do not apply to the lawful carrying out of *building work* to a *class 1 building* where:
 - (a) any of the following applies:
 - (i) a *building certifier* has, by written notice given to the owner, certified that the *building* has been affected by a flood or storm surge; or
 - (ii) the *building* is located in a *natural hazard management area (flood)*; or
 - (iii) a local government has, by written notice given to the owner or notice published on the local government’s website, declared that the *building* is likely to be affected by a future flood or storm surge; and
 - (b) a *building certifier* certifies the work is, or directly relates to, raising the *building*.

Note: reference should also be made to sections 36, 37, 61 and 81 of the *Building Act 1975*, which may affect the application of MP 4.1.

Table 1 – Application of MP 4.1

Applications	Performance requirements											
	1	2	3	4	5	6	7	8	9	10	11	12
Construction of <i>new class 1 buildings</i> .	✓		✓		✓	✓	✓	✓				
<i>Renovation of a class 1 building</i> .	✓		✓		✓							
Construction of <i>new class 2 buildings</i> .		✓		✓		✓	✓	✓	✓	✓	✓	
<i>Renovation of a sole-occupancy unit in a class 2 building</i> .		✓		✓								
Construction of a <i>new class 5 building</i> .									✓	✓	✓	
Construction of a <i>new major development</i> or a <i>major addition to a major development</i> located in a <i>designated local government area</i> .												✓

4 Variation of BCA

For a *class 1 building* or a *class 10 building or structure*, the following provisions of the *BCA* do not apply to a hot water system in Queensland:

- (a) Performance requirement P2.6.2, and
- (b) Deemed-to-satisfy clause 3.12.5.6.

5 Referral agency—*building work for end-of-trip facilities*

Under the *Planning Regulation 2017*, schedule 9, table 10, item 1, the local government is the referral (concurrence) agency for a building development application, if:

- (a) the application is for *building work* that is:
 - (i) assessable development under schedule 9, section 1; and
 - (ii) for development that performance criteria P12 (*End-of-trip facilities*) of this part of the QDC applies to; and
- (b) the application does not comply with performance criteria P12.

6 Compliance with the QDC

Under section 14 of the *Building Act 1975*, compliance with this part can be achieved only by:

- (a) complying with the relevant *acceptable solution* for the *performance criterion*; or
- (b) formulating an *alternative solution* that complies with the *performance criteria* or is shown to be at least equal to the relevant criteria; or
- (c) a combination of paragraphs (a) and (b).

7 Associated requirements

- *Body Corporate and Community Management Act 1997*
- *Building Act 1975*
- Building Code of Australia (*BCA*)
- *Building Regulation 2006*
- *Electricity Act 1994*
- *Electricity Regulation 2006*
- *Electrical Safety Act 2002*
- *Electrical Safety Regulation 2013*
- *Plumbing and Drainage Act 2018*
- Plumbing Code of Australia
- Queensland Plumbing and Wastewater Code
- *Plumbing and Drainage Regulation 2019*
- *Planning Act 2016*
- *Planning Regulation 2017*
- *Water Efficiency Labelling and Standards (Queensland) Act 2005*
- *Water Supply (Safety and Reliability) Act 2008*

8 Referenced standards

Standard number	Date	Title
AS 62053.21	2005	Electricity metering equipment (AC) – Particular requirements Part 21: Static meters for active energy (classes 1 and 2)
AS 1284.1	2004	Electricity metering Part 1: General purpose induction watt hour meters
AS 2890.3	1993	Parking facilities Part 3: Bicycle parking facilities (including modifications as specified in schedule 2)

9 Meaning of heating load limit

- (1) If a *class 1 building* is located in *NatHERS climate zone 7, 9, 10, 19 or 50*, a *heating load* upper limit (**heating load limit**) applies for the building, which is the MJ/m².annum mentioned in schedule 5, table A, column 3 that corresponds with:
- the *NatHERS climate zone* where the building is located; and
 - the floor type of the building; and
 - the *software rating* for the building.
- (2) If a *class 2 building* is located in *NatHERS climate zone 7, 9, 10, 19 or 50*, a *heating load* upper limit (**heating load limit**) applies for each *sole-occupancy unit* in the building, which is the MJ/m².annum mentioned in schedule 5, table B, column 3 that corresponds with:
- the *NatHERS climate zone* where the building is located; and
 - the floor type of the unit; and
 - the *software rating* for the unit.

10 Meaning of cooling load limit

- (1) If a *class 1 building* is located in *NatHERS climate zone 7, 9, 10, 19 or 50*, a *cooling load* upper limit (**cooling load limit**) applies for the building, which is the MJ/m².annum mentioned in schedule 5, table A, column 4 that corresponds with:
- the *NatHERS climate zone* where the building is located; and
 - the floor type of the building; and
 - the *software rating* for the building.
- (2) If a *class 2 building* is located in *NatHERS climate zone 7, 9, 10, 19 or 50*, a *cooling load* upper limit (**cooling load limit**) applies for each *sole-occupancy unit* in the building, which is the MJ/m².annum mentioned in schedule 5, table B, column 4 that corresponds with:
- the *NatHERS climate zone* where the building is located; and
 - the floor type of the unit; and
 - the *software rating* for the unit.

11 Definitions

Note: italicised words in the text of the part are defined below.

Acceptable solution means a relevant building solution which is deemed to satisfy the relevant *performance criterion* for the purposes of section 14(4)(a)(ii) of the *Building Act 1975*.

Alterations has the meaning given in the *Building Act 1975*.

BCA has the meaning given in the *Building Act 1975* unless a particular edition of the Building Code of Australia published by the Australian Building Codes Board, including any amendments published by the board for that year, is specified (for example *BCA 2019*).

BCA climate zone has the meaning given in the *BCA*.

Bicycle means a two-wheeled vehicle designed to be propelled by human power and with overall dimensions within those specified by AS 2890.3:1993.

Bicycle parking and storage facility means an area or structure used for parking, storage or securing of *bicycles*, which provides a level of security for the *bicycle* in accordance with the security classifications provided in AS 2890.3:1993 (including modifications as specified in schedule 2).

Building has the meaning given in the *Building Act 1975*, schedule 2.

Building certifier has the meaning given in the *Building Act 1975*, schedule 2.

Building work has the meaning given in the *Building Act 1975*, schedule 2.

Change room means a room where an *occupant* is able to change clothes in privacy, either individually or on a gender basis and that contains washbasins, mirrors, *showers* and *sanitary compartments*.

Class, for a *building* or *structure*, means its classification under the *BCA*.

Commercial office building means a *class 5 building* as classified under the *BCA*.

Common area means an area of *common property*.

Common property means the lot allocated to the body corporate for the *community titles scheme*.

Community titles scheme has the meaning given in section 10 of the *Body Corporate and Community Management Act 1997*.

Cooling load limit see section 10.

Customer has the meaning given in the *Electricity Act 1994*.

Designated local government area means:

- (a) the area of the local governments identified in schedule 1; or
- (b) for local governments not identified in schedule 1:

- (i) the area identified in a local government planning scheme as a *designated local government area* for the purpose of this part of the QDC; or
- (ii) the area identified by a local government resolution as a *designated local government area* for the purpose of this code where notice of the resolution is published:
 - (A) in a newspaper that is circulating generally in the local government area; and
 - (B) on the local government's website.

Domestic services has the meaning given in the *BCA*.

Electricity includes electric current, electrical energy and the like, and any related physical qualities.

Electricity meter means a device that measures and records the production or consumption of *electricity*.

Electricity sub-meter means a device that measures and records the production or consumption of *electricity* that either:

- (a) is a minimum accuracy *class 1 building* under AS 62053.21:2005; or
- (b) complies with AS 1284.1:2004.

Employee has the meaning given in the *Industrial Relations Act 2016*.

End-of-trip facility means a facility within a *building* or on-site that is required to be constructed in compliance with P12(1).

Energy efficient lighting is lighting with a minimum output of 27 lumens per Watt and excludes a heat lamp used in a bathroom for the purposes of radiating heat.

Entrance means a main path into a *building* that is not for emergency use.

Floor area has the same meaning as given in the *BCA*.

Full-time equivalents for *workforce numbers* include full-time aggregates of part-time and casual *employee* hours.

Heating and cooling load limits, for a *class 1 building* or *class 2 building*, means:

- (a) the *heating load limit* for the building; and
- (b) the *cooling load limit* for the building.

Heating load/cooling load means the amount of heat energy calculated by *NatHERS accredited software* that would need to be added to/removed from a space to maintain the temperature in an acceptable range.

Heating load limit see section 9.

Hospital means a *class 9a building* as classified under the *BCA*.

Locker means a compartment for storage that can be securely locked.

Major addition means any addition to an existing *major development* that results in additional *floor area* of at least 1000m².

Major development means a:

- (a) *commercial office building* with a *floor area* greater than 2000m²; or
- (b) *shopping centre* with a *floor area* greater than 2000m²; or
- (c) *tertiary education facility* with a *floor area* greater than 2000m²; or
- (d) *hospital* with a *floor area* greater than 2000m²; or
- (e) development specified in a local government planning scheme as a major development for the purposes of this part of the QDC.

Note: Local governments may specify additional development to be *major development*.

Meter label means a label of white heat-resistant material with black lettering fixed by means of screws, rivets or glue that clearly identifies each *meterable premises*.

Meterable premises means:

- (a) the *sole-occupancy unit* of a *class 2 building* or *class 5 building* that is or will be connected to a supply of *electricity*, except where a *sole-occupancy unit* in a *class 2 building* or *class 5 building* has, or will have, an *electricity meter* as a *customer of a retail entity or special approval holder*; or
- (b) each *storey* of a *class 5 building* that is or will be connected to a supply of *electricity* where more than one *sole-occupancy unit* for that *storey* has not been identified at the time of the *building's* development approval for *building work*, except where a *storey* of a *class 5 building* has or will have an *electricity meter* as a *customer of a retail entity or special approval holder*.

MJ/m².annum means megajoule per square metre per annum.

NatHERS means Nationwide House Energy Rating Scheme.

NatHERS accredited software means software accredited under *NatHERS*.

NatHERS climate zone, for a *class 1 building* or *class 2 building*, means the climate zone for the building, represented by a number, that corresponds to the geographical area in which the building is located, under *NatHERS*.

Natural hazard management area (flood) means an area designated as a natural hazard management area (flood) by a local government under the *Building Regulation 2006*, section 13.

New means new *building work* and does not include *renovations* to an existing *building*.

Occupants means the number of persons accommodated in the *building*, as calculated in accordance with *BCA Volume One Table D1.13 (Area per person)* and for the purposes of calculating *occupants* in schedule 3, '*hospital*' means 'patient care areas', '*shopping centre*' means 'shop', '*tertiary education facility*' means 'school' and '*commercial office building*' means 'office'.

Outdoor living area means a space in a *building* that:

- (a) is directly accessible from, and attached to, a living area of the *building* such as a lounge, kitchen, dining and family rooms; and
- (b) has a minimum *floor area* of 12.0m² and a minimum dimension in all directions of 2.5 metres; and
- (c) is fully covered by an impervious roof; and

(d) has:

- (i) for a *class 1 building* – two or more sides open or capable of being readily opened, not including the connection between the internal living area and the *outdoor living area*; or
- (ii) for a *sole-occupancy unit* in a *class 2 building* – at least one side open or capable of being readily opened, not including the connection between the internal living area and the *outdoor living area*.

Performance requirement has the meaning given in the *Building Act 1975*.

Queensland Development Code (QDC) has the meaning given in the *Building Act 1975*, schedule 2.

Relevant BCA provisions means section 3.12 in Volume Two of the *BCA*.

Renovation means any *alterations* or addition to an existing *class 1 building* or the *sole-occupancy unit* of a *class 2 building* requiring building development approval.

Retail entity has the meaning given in the *Electricity Act 1994*.

Sanitary compartment has the meaning given in the *BCA*.

Shopping centre means premises comprising two or more individual tenancies that is comprised primarily of shops and which function as an integrated complex.

Shower means a separate and lockable compartment equipped with a showerhead.

Special approval holder has the meaning given in the *Electricity Act 1994*.

Software rating means a star energy rating (out of 10 stars), calculated using *NatHERS accredited software*.

Sole-occupancy unit has the meaning given in the *BCA*.

Standard means the edition of Australian Standard AS 62053.21, AS 1284.1 and AS 2890.3 referenced by this part.

Structure has the meaning given in the *Building Act 1975*, schedule 2.

Storey has the meaning given in the *BCA*.

Tertiary education facility means a *class 9b building* that is in a university, college or similar establishment and does not include a primary or secondary school.

Total R-Value has the meaning given in the *BCA*.

Unisex design is suitable for any gender.

Water service is defined by the *Water Supply (Safety and Reliability) Act 2008*.

Water service provider for premises, means the entity registered under the *Water Supply (Safety and Reliability) Act 2008*, chapter 2, part 3, as the *water service provider* for retail *water services* for the premises.

Workforce numbers means the number of day-time *employees* that are *full-time equivalents*.

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Energy Efficiency – *class 1 buildings*

- P1** The thermal performance of a *class 1 building* and an enclosed *class 10a building* attached to a *class 1 building* must comply with performance requirement P2.6.1 of the *BCA 2010* (Volume 2).
- A1**
- (1) A *class 1 building*, including an enclosed *class 10a building* attached to a *class 1 building*, complies with subsection (2), (3), (4), (5), (6) or (7).
 - (2) The building complies with this subsection if the building complies with parts 3.12.1, 3.12.2, 3.12.3, and 3.12.4 of the *BCA 2010* (Volume 2) except, for buildings in climate zones 1 and 2, disregard 3.12.1.5(a)(i) and (iii).
 - (3) The building complies with this subsection if the building complies with verification using a reference building in accordance with V2.6.2.2 of the *BCA 2019* (Volume 2).
 - (4) The building complies with this subsection if:
 - (a) the building achieves a *software rating* of at least 6 stars without relying on a nominal credit; and
 - (b) if the building is located in *NatHERS climate zone 7, 9, 10, 19 or 50*—the building does not exceed the separate *heating and cooling load limits* for the building set out in schedule 5.
 - (5) The building complies with this subsection if the building:
 - (a) is in *BCA climate zone 1, 2 or 5*; and
 - (b) meets the following requirements:
 - (i) the building achieves a *software rating* of at least 4.5 stars plus a nominal credit obtained under subsection (8) to achieve a total of 6 stars; and
 - (ii) if the building is located in *NatHERS climate zone 7, 9, 10, 19 or 50*—the building does not exceed the separate *heating and cooling load limits* for the building set out in schedule 5.
 - (6) The building complies with this subsection if the building:
 - (a) is in *BCA climate zone 3*; and

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- (b) meets the following requirements:
 - (i) the building achieves a *software rating* of at least 5 stars plus a nominal credit obtained under subsection (8) to achieve a total of 6 stars; and
 - (ii) if the building is located in *NatHERS climate zone 7, 9, 10, 19 or 50*—the building does not exceed the separate *heating and cooling load limits* for the building set out in schedule 5.
- (7) The building complies with this subsection if:
 - (a) the building complies with parts 3.12.1, 3.12.2, 3.12.3, and 3.12.4 of the *BCA 2009 (Volume 2)*; and
 - (b) a nominal credit of up to 1 star is obtained under subsection (8).
- (8) For the purposes of subsection (5)(b)(i), (6)(b)(i) or (7)(b), the following nominal credits apply:
 - (a) 0.5 star where a *building* includes an *outdoor living area*, the roof covering of which achieves a *Total R-Value* of at least 1.5 for downward heat flow;
 - (b) 1 star where a *building* includes an *outdoor living area* the roof covering of which achieves a *Total R-Value* of at least 1.5 for downward heat flow and the *outdoor living area* includes a permanently installed ceiling fan with a speed controller and a blade rotation diameter of at least 900 mm;
 - (c) 1 star where a *building* has a solar photovoltaic system of at least 1 kilowatt in capacity (maximum power output) is installed.

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Energy Efficiency – class 2 buildings

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| P2 | The thermal performance of <i>sole-occupancy units</i> in <i>class 2 buildings</i> complies with <i>performance requirement JP1</i> of the <i>BCA 2009</i> (Volume 1). | A2 | <p>(1) The thermal performance of each <i>sole-occupancy unit</i> in a <i>class 2 building</i> complies with <i>JV1</i> of the <i>BCA 2009</i> (Volume 1), except that:</p> <ul style="list-style-type: none"> (a) for <i>JV1(a)(i)</i>, each <i>sole-occupancy unit</i>: <ul style="list-style-type: none"> (i) achieves a <i>software rating</i> of at least 4 stars; and (ii) if the building is located in <i>NatHERS climate zone 7, 9, 10, 19 or 50</i>—the unit does not exceed the separate <i>heating and cooling load limits</i> for the unit set out in schedule 5; and (b) for <i>JV1(a)(ii)</i>, the average <i>software rating</i> of all <i>sole-occupancy units</i> in the <i>building</i> is at least 5 stars; and (c) the deemed to satisfy provisions of <i>Section J</i> of the <i>BCA 2009</i> (Volume 1) have no effect for <i>sole-occupancy units</i>. <p>(2) For the purposes of calculating the average <i>software rating</i> under subsection (1)(b) for all <i>sole-occupancy units</i> of a <i>class 2 building</i> in <i>BCA climate zone 1 or 2</i>, the following credits apply towards the <i>software rating</i> for each <i>sole-occupancy unit</i>:</p> <ul style="list-style-type: none"> (a) 0.5 star where a <i>sole-occupancy unit</i> includes an <i>outdoor living area</i>, the roof covering of which achieves a <i>Total R-Value</i> of 1.5 for downward heat flow; or (b) 1 star where a <i>sole-occupancy unit</i> includes an <i>outdoor living area</i> that has at least 1 permanently fixed ceiling fan with a speed controller and a blade rotation diameter of at least 900mm and the roof covering achieves a <i>Total R-Value</i> of 1.5 for downward heat flow. <p>(3) To achieve a credit under subsection (2)(b), an <i>air-conditioner</i> that services any room directly adjacent to an <i>outdoor living area</i> must automatically shut down when an external door that provides access to the <i>outdoor living area</i> is open for more than 1 minute.</p> |
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Energy Efficient *Domestic Services*

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| P3 | For a <i>class 1 building</i> and an enclosed <i>class 10a building</i> attached to a <i>class 1 building</i> , artificial lighting complies with <i>performance requirement</i> P2.6.2(a) of <i>BCA 2010 (Volume 2)</i> | A3 | A <i>class 1 building</i> , including a verandah, balcony or an enclosed <i>class 10a building</i> attached to a <i>class 1 building</i> , has: <ul style="list-style-type: none"> (a) artificial lighting that complies with Part 3.12.5.5 of <i>BCA 2010 (Volume 2)</i>; or (b) <i>energy efficient lighting</i> for a minimum of 80 per cent of total fixed artificial lighting. |
| P4 | Fixed artificial lighting in a <i>sole-occupancy unit</i> of a <i>class 2 building</i> must be energy efficient. | A4 | Each <i>sole-occupancy unit</i> of a <i>class 2 building</i> , including a verandah, balcony or an enclosed <i>class 10a building</i> attached to a <i>class 2 building</i> , has <i>energy efficient lighting</i> for a minimum of 80 per cent of total fixed artificial lighting. |
| P5 | For a <i>class 1 building</i> or <i>class 10 building</i> , hot water is supplied by a hot water system. | A5 | A water heater in a hot water supply system can be an electrical resistance heater or any other type of heater. |

Water Conservation

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| P6 | In a <i>class 1</i> or <i>class 2 building</i> , in an area serviced by a <i>water service provider</i> , shower roses must facilitate the efficient use of water. | A6 | In a <i>class 1</i> or <i>class 2 building</i> , in an area serviced by a <i>water service provider</i> , all shower roses have a minimum 3-star Water Efficiency Labelling and Standards (WELS) rating. |
| <small>Note: Water Efficiency Labelling and Standards (WELS) – references the Australian Government’s labelling and standards scheme for water efficient products.</small> | | | |
| P7 | In a <i>class 1</i> or <i>class 2 building</i> , in an area serviced by a <i>water service provider</i> , toilet cisterns and bowls must facilitate the efficient use of water. | A7 | In a <i>class 1</i> or <i>class 2 building</i> , in an area serviced by a <i>water service provider</i> , all toilet cisterns: <ul style="list-style-type: none"> (a) have a dual flush function and have a minimum 4-star WELS rating; and (b) are compatible with the size of the toilet bowl to allow for proper functioning of the toilet. |
| P8 | In a <i>class 1</i> or <i>class 2 building</i> , in an area serviced by a <i>water service provider</i> , tap ware must facilitate the efficient use of water. | A8 | In a <i>class 1</i> or <i>class 2 building</i> , in an area serviced by a <i>water service provider</i> , tap ware with a minimum 3-star WELS rating serves: <ul style="list-style-type: none"> (a) laundry tubs; and (b) kitchen sinks; and (c) basins. |

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Electricity Sub-metering

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| P9 | The <i>electricity</i> supplied to each <i>meterable premises</i> is able to be measured. | A9 | Each <i>meterable premises</i> has an <i>electricity sub-meter</i> installed which measures only the <i>electricity</i> supplied to that <i>meterable premises</i> . |
| P10 | An <i>electricity meter</i> must be located so it is easy and safe to read and maintain at any reasonable time. | A10 | The <i>electricity sub-meter</i> is: <ul style="list-style-type: none"> (a) installed in a <i>common area</i>; and (b) free of hindrance or obstruction to a person authorised to read and/or maintain the <i>electricity sub-meter</i>. |
| P11 | The <i>electricity meter</i> for each <i>meterable premises</i> must be labelled to indicate which <i>meterable premises</i> it is associated with. | A11 | A <i>meter label</i> identifying which <i>meterable premises</i> it is associated with is affixed or located adjacent to the <i>electricity sub-meter</i> for each <i>meterable premises</i> . |

End-of-Trip Facilities

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| P12 | <p>(1) <i>End-of-trip facilities</i> are provided for <i>employees</i> or <i>occupants</i>, in a <i>building</i> or on-site within a reasonable walking distance, and include:</p> <ul style="list-style-type: none"> (a) adequate <i>bicycle parking and storage facilities</i>; and (b) adequate provision for securing belongings; and (c) <i>change rooms</i> that include adequate <i>showers, sanitary compartments, wash basins</i> and mirrors. <p>(2) Despite (1), there is no requirement to provide <i>end-of-trip facilities</i> if it would be unreasonable to provide these facilities having regard to:</p> <ul style="list-style-type: none"> (a) the projected population growth and forward planning for road upgrading and development of cycle paths; or (b) whether it would be practical to commute to and from the <i>building</i> on a <i>bicycle</i>, having regard to the likely commute | A12 | <p>(1) <i>Bicycle parking and storage facilities</i> are:</p> <ul style="list-style-type: none"> (a) easily accessible and provided in a <i>building</i>, or on-site within 100 metres of an <i>entrance</i> to a <i>building</i>, in accordance with: <ul style="list-style-type: none"> (i) five percent (5%) of the number of <i>employees</i>, based on <i>workforce numbers</i>; (ii) the <i>occupant ratios</i> in schedule 3 (rounded up to the nearest whole number); and (b) designed and constructed in compliance with AS 2890.3:1993 (including modifications as specified in schedule 2). <p>(2) <i>Lockers</i> are:</p> <ul style="list-style-type: none"> (a) provided in a <i>building</i>, or on-site within 100 metres of an <i>entrance</i> to a <i>building</i>, on a 1.6:1 ratio for every <i>bicycle parking space</i>; and (b) co-located or located within 50 metres of <i>change rooms</i> required by A12(3) of this part; and (c) provided with minimum dimensions of 900mm (height) x 300mm (width) x 450mm (depth). |
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- distances and nature of the terrain; or
- (c) the condition of the road and the nature and amount of traffic potentially affecting the safety of commuters.

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- (3) *Change rooms*:
- (a) are provided in a *building*, or on-site within 100 metres of an *entrance* to a *building* and comply with schedule 4, table A, column B; and
- (i) are fitted with a lockable door or otherwise screened from public view; and
- (ii) are located within 100 metres of *bicycle parking and storage facilities* required by A12(1) of this part if the *bicycle parking and storage facilities* and *change rooms* are not located in a *building*.
- (4) *Change rooms* provide:
- (a) *showers* that:
- (i) are located within *change rooms* and meet schedule 4, table A, column C; and
- (ii) have a minimum 3-star WELS rating *shower head*; and
- (iii) dispense both hot and cold water; and
- (b) *sanitary compartments* that:
- (i) are located within *change rooms*, and meet schedule 4, table A, Column D; and
- (ii) are constructed in compliance with F2.3(e) and F2.5 of *BCA* (Volume 1); and
- (c) wash basins that are located within *change rooms* and meet schedule 4, table A, Column E; and
- (d) a mirror located above wash basins; and
- (e) a hook and bench seating located within each *shower* compartment; and
- (f) a socket-outlet located adjacent to each wash basin.
- (5) Where *change room* requirements are predominantly located in a carpark or on a basement floor that is not regularly used by *occupants* or *employees*, they may not be counted towards the requirements of the *BCA*, Volume 1 Part F2.

**PERFORMANCE
REQUIREMENTS**

ACCEPTABLE SOLUTIONS

- (6) Despite (1), (2), (3) and (4), a local government planning scheme may require additional *bicycle parking and storage facilities, locker facilities, change rooms, showers, sanitary compartments, wash basins and mirrors.*

Notes:

1. For A12(1)(a) – the *occupant* ratios may be used where *employees* based on *workforce numbers* cannot be determined accurately.
2. For A12(6) – it is recommended that in all cases confirmation be obtained from the relevant local government as to whether it has any *end-of-trip facility* requirements for a *building* in its planning scheme.

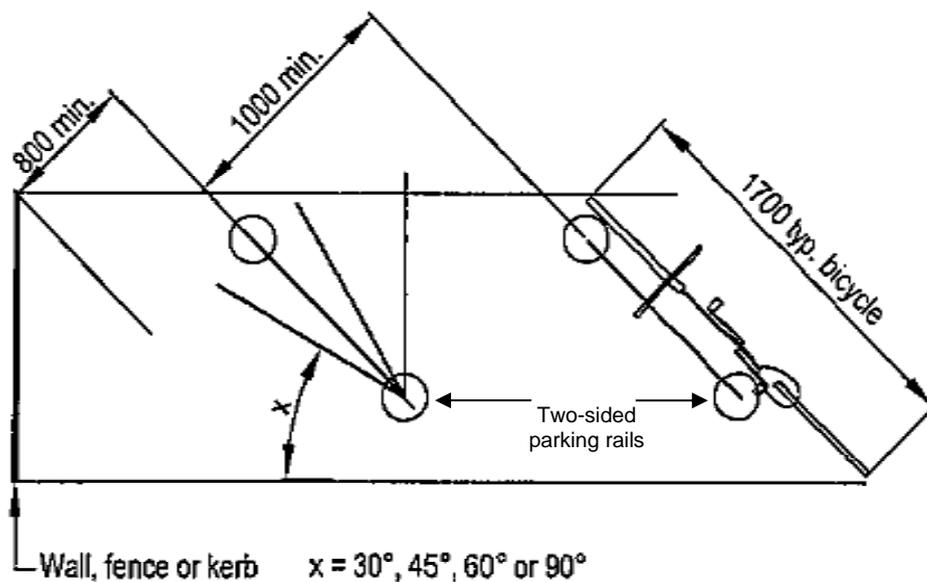
Schedule 1

<i>Designated Local Governments</i>
Brisbane City Council
Bundaberg Regional Council
Cairns Regional Council
Central Highlands Regional Council
Fraser Coast Regional Council
Gladstone Regional Council
Gold Coast City Council
Gympie Regional Council
Ipswich City Council
Livingstone Shire Council
Logan City Council
Mackay Regional Council
Moreton Bay Regional Council
Mount Isa City Council
Noosa Shire Council
Redland City Council
Rockhampton Regional Council
Southern Downs Regional Council
Sunshine Coast Regional Council
Toowoomba Regional Council
Townsville City Council
Western Downs Regional Council

Schedule 2

AS 2890.3:1993	
Standard clauses affected	Standard modifications
2.2.4	In addition to 2.2.4: Vertical storage can also comprise alternative <i>bicycle</i> storage area requirements that are available within the marketplace (e.g. wall mounted rails and racks, pods).
2.2.6	In addition to 2.2.6: Open plan storage layouts can also comprise alternative <i>bicycle</i> storage area requirements that are available within the marketplace (e.g. double parker/double storey parking systems, pods).
Figure 2.1	Figure 1 also applies in addition to Figure 2.1.

Figure 1



Schedule 3

(A) Building Type	(B) <i>Bicycle Spaces</i>	(C) Security Classification (refer AS 2890.3:1993, Table 3.1)
<i>Commercial office building</i>	1 per 30 occupants	2
<i>Shopping centre</i>	1 per 500 occupants	2
<i>Tertiary education facility</i>	1 per 375 occupants	2
<i>Hospital</i>	1 per 100 occupants	2

Schedule 4

Table A

(A) Change room requirements based on <i>bicycle</i> parking spaces	User Group	(B) Change room provisions	(C) Number of <i>showers</i> required	(D) Number of <i>sanitary compartments</i> required	(E) Number of wash basins required
1–5	Female and Male	1 <i>change room</i> of <i>unisex design</i>	1	1 closet pan	1
6–19	Female	1	1	1 closet pan	1
	Male	1	1	1 closet pan	1
20 or more	Female	1	2, plus 1 additional <i>shower</i> for every 20 <i>bicycle</i> parking spaces provided thereafter*.	2 closet pans, plus 1 additional <i>sanitary compartment</i> for every 60 <i>bicycle</i> parking spaces provided thereafter*.	1, plus 1 additional wash basin for every 60 <i>bicycle</i> parking spaces provided thereafter*.
	Male	1	2, plus 1 additional <i>shower</i> for every 20 <i>bicycle</i> parking spaces provided thereafter*.	1 urinal and 1 closet pan, plus 1 additional <i>sanitary compartment</i> at the rate of 1 closet pan or 1 urinal for every 60 <i>bicycle</i> parking spaces provided thereafter*.	1, plus 1 additional wash basin for every 60 <i>bicycle</i> parking spaces provided thereafter*.

* Refer **Table B** for example of workings.

Table B

	User Group	20–39 <i>bicycle</i> parking spaces	40–59 <i>bicycle</i> parking spaces	60–79 <i>bicycle</i> parking spaces	80–99 <i>bicycle</i> parking spaces	100–119 <i>bicycle</i> parking spaces
Number of <i>showers</i> required	Female	2	3	4	5	6
	Male	2	3	4	5	6
Number of <i>sanitary compartments</i> required	Female	2	2	2	3	3
	Male	2	2	2	3	3
Number of wash basins required	Female	1	1	1	2	2
	Male	1	1	1	2	2

Schedule 5

Table A – Separate heating and cooling load limits for a class 1 building (house) in particular locations in Queensland*

Column 1 <i>NatHERS climate zone</i>	Column 2 Floor type	Column 3 <i>Heating load limit (MJ/m².annum)</i>				Column 4 <i>Cooling load limit (MJ/m².annum)</i>			
		6 stars	5.5 stars	5 stars	4.5 stars	6 stars	5.5 stars	5 stars	4.5 stars
		7	Timber	18	25	24	59	86	93
7	Concrete	13	15	23	45	85	97	106	N/A
9	Timber	34	42	47	53	47	52	62	64
9	Concrete	33	43	45	63	52	61	67	75
10	Timber	28	36	40	52	31	32	37	41
10	Concrete	24	31	38	42	31	36	42	47
19	Timber	55	61	79	N/A	64	78	84	N/A
19	Concrete	52	55	76	N/A	66	71	88	N/A
50	Timber	58	69	78	81	44	57	64	70
50	Concrete	57	66	75	82	44	44	59	43

* Separate heating and cooling load limits only apply to a class 1 building if it is located in a NatHERS climate zone mentioned above.

Note: Climate zone 7 includes Rockhampton and particular surrounding areas; Climate zone 9 includes Amberley and particular surrounding areas; Climate zone 10 includes Brisbane and particular surrounding areas; Climate zone 19 includes Charleville and particular surrounding areas; and Climate zone 50 includes Oakey and particular surrounding areas.

Table B – Separate heating and cooling load limits for a sole-occupancy unit in a class 2 building in particular locations in Queensland*

Column 1 <i>NatHERS climate zone</i>	Column 2 Floor type	Column 3 <i>Heating load limit (MJ/m².annum)</i>					Column 4 <i>Cooling load limit (MJ/m².annum)</i>				
		6 stars	5.5 stars	5 stars	4.5 stars	4 stars	6 stars	5.5 stars	5 stars	4.5 stars	4 stars
		7	Concrete	17	37	59	71	82	87	96	108
9	Concrete	48	51	62	65	72	44	61	71	83	96
10	Concrete	25	35	40	45	55	32	43	48	52	60
19	Concrete	61	67	84	89	99	59	82	95	101	103
50	Concrete	57	66	76	86	96	47	50	71	74	86

* Separate heating and cooling load limits only apply to a sole-occupancy unit in a class 2 building if the building is located in a NatHERS climate zone mentioned above.

Note: **Climate zone 7** includes Rockhampton and particular surrounding areas; **Climate zone 9** includes Amberley and particular surrounding areas; **Climate zone 10** includes Brisbane and particular surrounding areas; **Climate zone 19** includes Charleville and particular surrounding areas; and **Climate zone 50** includes Oakey and particular surrounding areas.

MP 4.1 Version history

Version	Commencement date	Publication date
1.12	1 February 2013	15 January 2013
1.11	1 November 2012	10 September 2012
1.10	6 August 2012	10 July 2012
1.9	8 July 2011	27 June 2011
1.8	26 November 2010	12 November 2010
1.7	1 September 2010	30 July 2010
1.6	1 May 2010	13 April 2010
1.5	1 March 2010	4 February 2010
1.4	1 January 2010	27 November 2009
1.3	26 June 2009	24 June 2009
1.2	1 March 2009	3 February 2009
1.1	1 January 2008	16 November 2007
1.0	1 March 2006	1 March 2006