



BCA Green Mark for Residential Buildings Criteria

GM RB: 2016

For Pilot

Prerequisite Requirements

Climatic Responsive Design

1. To enhance biodiversity through the integration of lush greenery provision, preservation of existing trees and sustainable landscape management. In addition, to reduce storm surges and improve quality of water entering the public drains through introduction of waterscape within the development. Projects are given two options to comply with:

Option 1: Minimum Green Plot Ratio (GnPR)

- Gold^{PLUS}: ≥ 3.5
- Platinum: ≥ 4.0

OR

Option 2: Minimum points scored under Part 1.02b) Integrated Landscape and Waterscape

- Gold^{PLUS}: 2.0 points
- Platinum: 2.5 points

2. The residential envelope thermal transmittance value (RETV) of the building, as determined in accordance with the formula set out in the "Code on Envelope Thermal Performance for Buildings" issued by the Commissioner of Building Control, shall not exceed the following:

Green Mark Gold – RETV of 25 W/m^2 or lower
Green Mark Gold^{PLUS} – RETV of 22 W/m^2 or lower
Green Mark Platinum – RETV of 20 W/m^2 or lower

The RETV of west, south-west and north-west facades of each buildings within the development should not exceed maximum RETV of 25 W/m^2 .

For north, south, east, north-east and south-east facades, if the façade of a particular facing takes up more than 10% of the total façade area of the building, the RETV of that particular facade should not exceed maximum RETV of 25 W/m^2 .

3. To be eligible for Green Mark Platinum rating, it is a requirement to use ventilation simulation modeling and analysis to identify the most effective building design and layout. The simulation results and the recommendations derived are to be implemented to ensure good natural ventilation.

- A minimum 70% of the selected typical dwelling units should have a weighted average wind velocity of 0.60 m/s ;

OR

- A minimum 70% of selected typical dwelling units with "moderate" natural ventilation (with minimum weighted average wind velocity of 0.2 m/s) and comply with the thermal comfort criteria;

Other than dwelling units, common areas like staircases and lobbies (excluding those that are located in basement areas) should also be designed to be naturally ventilated (i.e. to provide open-able windows or other openings with aggregate area of not less than 5% of the space required to be ventilated).

Building Energy Performance

4. To adopt energy efficient vertical transportation systems to reduce their energy consumption.

All lifts shall use Variable Voltage Variable Frequency (VVVF) drives and have sleep mode features except for building typologies where such technology is not available.

5. Prescribed system efficiency of air-conditioning system for all dwelling units to be as follows:

Air-conditioners with at least the following ticks under the Singapore Energy Labelling Scheme or equivalent COP (Coefficient of Performance).

Green Mark Gold – at least 3 ticks

Green Mark Gold^{PLUS} – at least 5 ticks

Green Mark Platinum – at least 5 ticks

6. To evaluate building footprint's potential in harnessing solar energy, so as to raise awareness of viable solar opportunities within the development and encourage building developers to adopt photovoltaics.

Minimum scores under 2.03a Renewable Energy Feasibility Study
(for buildings with footprint area¹ ≥ 1,000 m²)

Green Mark Gold: 0.5 points

Green Mark Gold^{PLUS}: 0.5 points

Green Mark Platinum: 0.5 points

Resource Stewardship

7. Minimum scores under 3.02a Sustainable Construction

Green Mark Gold ≥ 0.5 points

Green Mark Gold^{PLUS} ≥ 2 points

Green Mark Platinum ≥ 3.5 points

8. Minimum scores under 3.02b Embodied Energy

Green Mark Gold^{PLUS} ≥ 1 point

Green Mark Platinum ≥ 1 point

9. Minimum score under 3.02c Sustainable Products

Green Mark Gold ≥ 2 points

Green Mark Gold^{PLUS} ≥ 3 points

Green Mark Platinum ≥ 4 points

¹ A building's footprint refers to the area on a project site used by the building structure, defined by the perimeter of the building plan. Open carpark spaces, landscape, underground construction and non-building facilities (such as covered walkways) are not included in the building footprint.

Smart and Healthy Building

10. To limit the use of high volatile organic compound (VOC)-emitting building and furnishing materials to improve indoor air quality for the health and well-being of occupants.

Low VOC paints certified by an approved local certification body shall be used for at least 90% of the total painted internal wall areas.

Elective Requirements

Part 1 - Climatic Responsive Design	Green Mark Points
1.01 Leadership	
<p><u>1.01a Climatic & Contextually Responsive Brief</u></p> <p>Conceptualization of clear environmental sustainability targets and design approaches early at the onset of the project. The brief should include;</p> <ul style="list-style-type: none"> (a) Preliminary definition of the client's sustainable aspirations for the project and identification of its green potential benchmarked against similar projects. (b) Setting of agreed achievable sustainability targets for the project. In addition to the project's targeted Green Mark rating, such targets should involve specific sustainable outcomes and indicators. 	<p>1 point</p>
<p><u>1.01b Integrative Design Process</u></p> <p>Develop collaborative framework for the project team during the briefing, concept design and technical design phase to address the various needs of all stakeholders to achieve the common targets results in a more balanced and optimized design outcome.</p>	<p>2 points</p>
<p><u>1.01c Environmental Credentials of Project Team</u></p> <p>This pertains to the appointment of environmental specialists at building design, construction and operation stages.</p> <p>Green Individuals:</p> <ul style="list-style-type: none"> • Certified Green Mark Manager (GMM) or Green Mark Facilities Manager (GMFM) and Green Mark Professional (GMP) or Green Mark Facilities Professional (GMFP). <p>Green and Gracious Builder: The main builder is a BCA certified Green and Gracious Builder.</p> <p>Green Companies:</p> <ul style="list-style-type: none"> • at least 3 of the following companies are ISO 14001 certified: Architect, M&E Engineer, C&S Engineer, Developer and Main Contractor. • SGBC Green Services Certified firm. 	<p>0.25 point for GMM or GMFM 0.5 point for GMP or GMFP (Up to 0.5 point)</p> <p>0.25 point for Certified and Merit; or 0.5 point for Excellent and Star rating</p> <p>0.5 point</p> <p>0.5 point (Up to 1.5 points for green companies)</p> <p>(Cap at 2 points)</p>

<p><u>1.01d Integrative Building Information Modelling</u></p> <p>(a) Use of BIM between various parties (Architect, the MEP Engineers and the Structural Engineer) in the construction value chain for clash detection purposes.</p> <p>(b) Use of BIM for environmental analysis and building performance simulation.</p>	<p>1 point</p> <p>1 point</p>
<p><u>1.01e User Engagement</u></p> <p>This refers to the provision of relevant information and guidance to building occupants as to how they can contribute positively to the reduction of the building's environmental impact.</p> <p>(a) Building User Guide with Green Fit-out Guidelines</p>	<p>1 point</p>
<p>1.02 Urban Harmony – Part A</p>	<p>Cap at 5 points</p>
<p><u>1-02a Sustainable Urbanism</u></p> <p>Minimise environmental impact to the surroundings through site analysis.</p> <p><u>(i) Environmental Analysis</u></p> <p>A framework to guide project teams in identifying & implementing measures to mitigate any adverse impacts, protect valuable site ecology and/ or to improve the site to its original condition. Points can be scored for conducting either of the following prior to site activities' commencement:-</p> <ul style="list-style-type: none"> • Comprehensive Environmental Impact Assessment (EIA); or • Environmental Study <p><u>(ii) Response to Site Context</u></p> <p>To demonstrate how the site topography, microclimate, access and connectivity has informed the development of building design.</p> <ul style="list-style-type: none"> • identification on plan and photographic evidence of the key microclimatic conditions of the site and how it is considered in the design • macro level simulations on the site context 	<p>2 point</p> <p>1 point</p> <p>(Up to 2 points)</p> <p>1 point</p> <p>3 points</p> <p>(Up to 3 points)</p>

<p><u>(iii) Urban Heat Island (UHI)</u></p> <p>Strategies to mitigate UHI effect through material selection of hardscape, softscape and building surfaces.</p> <ul style="list-style-type: none"> • for demonstrating mitigation measures for $\geq 50\%$ of site coverage • for demonstrating mitigation measures for $\geq 80\%$ of site coverage <p><u>(iv) Environmentally-Friendly Urban Transport</u></p> <p>To reduce the emissions from vehicular transport through promotion of electric vehicles and bicycle lots.</p> <ul style="list-style-type: none"> • Provision of electrical vehicle charging and parking infrastructure (minimum 1 for every 100 carpark lots, cap at 5) • Provision of <u>sheltered</u> bicycle lots, in-line with LTA's quantity requirement 	<p>0.5 point</p> <p>1 point</p> <p>(Up to 1 point)</p> <p>0.5 point</p> <p>1 point</p> <p>(Up to 1 point)</p>												
<p>1.02 Urban Harmony – Part B</p>	<p>Cap at 5 points</p>												
<p><u>1-02b Integrated Landscape and Waterscape</u></p> <p><u>(i) Green Plot Ratio (GnPR)</u></p> <p>Greenery provision to enhance biodiversity and provide visual relief to residents.</p> <p><u>(ii) Tree Conservation</u></p> <p>Encourage preservation of existing trees on-site to prevent disturbance to established habitats</p> <ul style="list-style-type: none"> • preservation of existing trees • 1:1 replacement of felled trees 	<table border="1" data-bbox="935 1234 1398 1472"> <thead> <tr> <th>GnPR Value</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>2.5 to < 3.0</td> <td>1.0</td> </tr> <tr> <td>3.0 to < 3.5</td> <td>1.5</td> </tr> <tr> <td>3.5 to < 4.0</td> <td>2.0</td> </tr> <tr> <td>4.0 to < 4.5</td> <td>2.5</td> </tr> <tr> <td>≥ 4.5</td> <td>3.0</td> </tr> </tbody> </table> <p>(Up to 3 points)</p> <p>0.5 point</p> <p>0.5 point</p> <p>(Up to 1 point)</p>	GnPR Value	Points	2.5 to < 3.0	1.0	3.0 to < 3.5	1.5	3.5 to < 4.0	2.0	4.0 to < 4.5	2.5	≥ 4.5	3.0
GnPR Value	Points												
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<p><u>(iii) Sustainable Landscape Management</u></p> <p>Enhance biodiversity through sustainable landscape management.</p> <ul style="list-style-type: none"> • projects certified under NParks Landscape Excellence Assessment Framework (LEAF) certification • Adoption of native plant species for $\geq 50\%$ of greenery • Provision of landscape management plan <p><u>(iv) Sustainable Storm Water Management</u></p> <p>To reduce storm surges and improve quality of water entering the public drains through infiltration or design features.</p> <ul style="list-style-type: none"> • projects certified under PUB Active, Beautiful and Clean Waters (ABC Waters) certification OR • Treatment of storm water run-off through the provision of infiltration or design features before discharge to the public drains <ul style="list-style-type: none"> • treatment of $\geq 10\%$ of runoff from total site area • treatment of $\geq 35\%$ of runoff from total site area <p><i>Prerequisite Requirement :</i> <i>Projects with minimum Green Plot Ratio of the following</i></p> <p><i>Green Mark Gold^{PLUS} – 3.5 or more</i> <i>Green Mark Platinum – 4 or more</i></p> <p><i>OR</i></p> <p><i>Project score minimum the following points under 1.02b Integrated Landscape and Waterscape</i></p> <p><i>Green Mark Gold^{PLUS} – 2 or more</i> <i>Green Mark Platinum – 2.5 or more</i></p>	<p>1 point</p> <p>0.5 point</p> <p>0.5 point</p> <p>(Up to 1 point)</p> <p>1 point</p> <p>0.5 point</p> <p>1 point</p> <p>(Up to 1 point)</p>
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<p>1.03 Tropicality</p>									
<p><u>1-03a Tropical Façade Performance</u></p> <p>Enhance the overall thermal performance of building envelope to minimise heat gain thus reducing the overall cooling load when required.</p> <p><u>Baseline</u> : Maximum Permissible RETV = 25 W/m²</p> <p><i><u>Prerequisite Requirement</u> :</i> <i>The RETV of west, south-west and north-west facades of each buildings within the development should not exceed maximum RETV of 25W/m².</i></p> <p><i>For north, south, east, north-east and south-east facades, if the façade of a particular facing takes up more than 10% of the total façade area of the building, the RETV of that particular facade should not exceed maximum RETV of 25W/m².</i></p> <p><i>Green Mark Gold – RETV of 25 W/m² or less</i> <i>Green Mark Gold^{PLUS} – RETV of 22 W/m² or less</i> <i>Green Mark Platinum – RETV of 20 W/m² or less</i></p>	<p>1 points for every reduction of 1 W/m² in RETV from the baseline</p> <p>Points awarded = 25- (RETV) where RETV ≤ 25 W/m²</p> <p>(Up to 5 points)</p>								
<p><u>1-03b Internal Organisation</u></p> <p>Design for natural ventilation in following common areas :</p> <p>(a) Lift lobbies and corridors</p> <p>(b) Staircases</p>	<p>Extent of Coverage : 80% of applicable areas</p> <p>1 point</p> <p>1 point</p>								
<p><u>1-03c Ventilation Performance</u></p> <p>(i) Enhance dwelling unit indoor comfort through the provision of good natural ventilation design.</p> <p><u>Option 1 – Ventilation Simulation Modeling</u></p> <p>Use of ventilation simulation modeling and analysis or wind tunnel testing to identify the most effective building design and layout to achieve good natural ventilation for all unit types.</p>	<table border="1" data-bbox="862 1539 1377 1829"> <thead> <tr> <th>% of units with good natural ventilation</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>≥70</td> <td>3</td> </tr> <tr> <td>≥50 and <70</td> <td>2</td> </tr> <tr> <td>≥30 and <50</td> <td>1</td> </tr> </tbody> </table>	% of units with good natural ventilation	Points	≥70	3	≥50 and <70	2	≥30 and <50	1
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OR

Option 2 – Thermal Comfort Modelling (Fan+ Option)

Thermal comfort modelling shall be performed based on the following PMV equation and comply with the stated PMV range

$$PMV = -11.7853 + 0.4232T - 0.57889V$$

PMV Range	PPD
$-0.5 < PMV < +0.5^*$	$< 10^*$

where PMV is Predicted Mean Vote
PPD is Predicted Percentage Dissatisfied
T is indoor air temperature (°C). Baseline of T is 29.5°C
V is indoor wind speed (m/s)

Prerequisite Requirement :

Green Mark Platinum – Minimum 70% of selected typical Dwelling units with good natural ventilation. Common areas are to be designed as naturally ventilated spaces.

OR

Green Mark Platinum – Minimum 70% of selected typical Dwelling units with “moderate” natural ventilation (with minimum weighted average wind velocity of 0.2m/s) and comply with the thermal comfort criteria set out above. Common areas are to be designed as naturally ventilated spaces.

1 point

(ii) Effective building layout design and unit design reduce the needs of using air-conditioning.

Design for air flow within dwelling units

- Building layout design: Proper design of building layout that utilizes prevailing wind conditions to achieve adequate cross ventilation.
- Dwelling unit design: Good ventilation in indoor units through sufficient openings.

0.5 point for every 10% of units with window openings facing north and south directions

0.5 point for every 10% of living rooms and bedrooms designed with true cross ventilation

(up to 7 points)

Part 2 – Building Energy Performance	Green Mark Points
2.01 Energy Efficiency	
<p><u>2.01a Air Conditioning System Efficiency</u></p> <p>Use energy efficient air-conditioners that are certified under the Singapore Energy Labelling Scheme or equivalent COP (Coefficient of Performance).</p> <p>The project team shall demonstrate through ventilation simulation modelling and analysis e.g computer fluid computation (CFD) to ensure that hot air can be effectively discharged and the declared efficiency of the air-conditioning system can be achieved. Details for the housing of the condenser units such as clearance spaces and screens shall be considered.</p> <p>Note:</p> <p>For developments where air-conditioners are not provided, points will be scored and prorated under 1.03c (ii) Ventilation Performance</p> <p><i>Pre-requisite requirement:</i> Air-conditioners with at least the following ticks under the Singapore Energy Labelling Scheme or equivalent COP (Coefficient of Performance).</p> <p><i>Green Mark Gold – at least 3 ticks</i></p> <p><i>Green Mark Gold^{PLUS} – at least 5 ticks</i></p> <p><i>Green Mark Platinum –at least 5 ticks</i></p>	<p>Air-conditioners labelled with Four ticks – 3 Five ticks – 5</p> <p>Extent of coverage: At least 80% of air-conditioners used in all dwelling units</p> <p>1 point for using CFD to ensure effectiveness Or 0.5 point for condenser units' (CU) screen \geq 70% free area and located free of obstruction. CU discharge shall be \geq 5 metres from obstruction or structures, including aircon ledges.</p> <p>(Up to 6 points)</p>
<p><u>2.01b Lighting Efficiency</u></p> <p>Encourage the use of energy efficient lighting in common areas to minimise energy consumption from lighting usage while maintaining proper lighting level.</p> <p><u>Baseline</u> = Maximum lighting power budget stated in SS530</p>	<p>0.1 point for every percentage improvement in the lighting power budget</p> <p>Points scored = 0.1 x (% improvement)</p> <p>(Up to 4 points)</p>

<p><u>2.02b Car Park Energy</u> Encourage the use of energy efficient design and control of ventilation systems in car parks</p> <p>a) Car parks are designed with natural ventilation</p> <p>b) Mechanical ventilated car parks with CO sensors installed to regulate the ventilation required.</p> <p>Note: Where there is a combination of different ventilation mode adopted for car park design, the points obtained will be prorated accordingly</p>	<p>Naturally ventilated car parks -2 points</p> <p>Mode of mechanical ventilation provided Fume extract-1.5 points Mechanical ventilated with or without supply- 1 point</p> <p>(Up to 2 points)</p>
2.02 Energy Effectiveness	
<p><u>2.02a Energy Efficient Practices, Design and Features</u></p> <p>Encourage the use of energy efficient features which are innovative and have positive environmental impact.</p> <p>Use of the following energy efficient features such as:</p> <ul style="list-style-type: none"> (i) Gas water heater or energy efficient heat pump water heater (ii) Heat recovery system (iii) Regenerative lift (iv) Energy labelled appliances such as 4 ticks refrigerator ,5 ticks clothes dryer and 5 ticks TV (v) Calculation of Energy Efficiency Index (EEI) (vi) Others 	<p>Extent of coverage: 80% of the applicable equipment type or product</p> <p>1 point for high impact item $\geq 80\%$ 0.5 point for low impact item $\geq 50\%$</p> <p>(Up to 5 points)</p>
2.03 Renewable Energy	
<p><u>2.03a Renewable Energy Feasibility Study</u></p> <p>To conduct a feasibility study on harnessing solar energy, covering the intent, scope and assessment of the proposed project, the technical and financial aspects and also include roof spatial optimisation.</p>	<p>0.5 points</p>

<p><u>2.03b Solar Ready Roof</u></p> <p>Solar ready roof includes the structural readiness, roof layout and electrical readiness provision as follows:</p> <ul style="list-style-type: none"> • Structural readiness: Roof to be designed to accommodate an optimised easy structural installation of solar panels on rooftop spaces • Electrical readiness: Provisions to be put in place to accommodate an optimised easy electrical installation of solar panels on rooftop spaces • Spatial readiness: Roof to be designed to optimise the available non-shaded rooftop area for photovoltaic adoption of roof spatial optimization. <p><i>Prerequisite Requirement :</i> <i>Minimum scores under 2.03a Renewable Energy Feasibility Study</i> <i>(for buildings with footprint area² ≥ 1,000 m²)</i></p> <p><i>Green Mark Gold: 0.5 points</i> <i>Green Mark Gold^{PLUS}: 0.5 points</i> <i>Green Mark Platinum: 0.5 points</i></p>	<p>0.5 points each (Cap at 1.5 points)</p>
<p><u>2.03c Replacement Energy</u></p> <p>To encourage annual replacement of electricity (based on building electricity consumption) by renewable energy.</p>	<p>1 points for every 1% replacement of electricity replacement (exclude household's usage) by renewable energy (Up to 6 points)</p>

² A building's footprint refers to the area on a project site used by the building structure, defined by the perimeter of the building plan. Open carpark spaces, landscape, underground construction and non-building facilities (such as covered walkways) are not included in the building footprint.

Part 3 – Resource Stewardship	Green Mark Points																													
3.01 Water																														
<p>3.01a Water Efficiency Measures Reduce potable water consumption through the use of water efficient products and systems.</p> <p>(i) Common areas - Provision of water fittings with prescribed ratings certified under the Water Efficiency Labelling Scheme (WELS).</p> <table border="1" data-bbox="152 527 721 968"> <thead> <tr> <th>Type of Water Fittings</th> <th>Prescribed Minimum WELS ratings</th> </tr> </thead> <tbody> <tr> <td>(i) Basin taps & mixers</td> <td>✓✓</td> </tr> <tr> <td>(ii) Sink taps</td> <td>✓✓</td> </tr> <tr> <td>(iii) Shower taps, mixers or showerheads</td> <td>✓✓</td> </tr> <tr> <td>(iv) Dual Flush Low Capacity Flushing Cisterns for WCs</td> <td>✓✓</td> </tr> </tbody> </table> <p>(ii) Dwelling units – Provision of products that are certified under WELS</p> <ul style="list-style-type: none"> Basin taps and mixers Sink taps and mixers Shower taps and mixers or Showerheads Dual Flush flushing cisterns Clothes washing machines <p>(ii) Provision of water efficient automated irrigation system and/or drought tolerant plants.</p> <ul style="list-style-type: none"> Automated irrigation system Drought tolerant plant 	Type of Water Fittings	Prescribed Minimum WELS ratings	(i) Basin taps & mixers	✓✓	(ii) Sink taps	✓✓	(iii) Shower taps, mixers or showerheads	✓✓	(iv) Dual Flush Low Capacity Flushing Cisterns for WCs	✓✓	<p>1 point</p> <table border="1" data-bbox="781 1001 1385 1602"> <thead> <tr> <th>Product Type</th> <th>Rating based on Water Efficiency Labelling Scheme (WELS)</th> <th>Weightage</th> </tr> </thead> <tbody> <tr> <td>Water Fittings</td> <td></td> <td></td> </tr> <tr> <td>• Basin Taps & Mixers</td> <td rowspan="2">✓✓</td> <td rowspan="2">5</td> </tr> <tr> <td>• Sink Taps & Mixers</td> </tr> <tr> <td>• Shower Taps & Mixers or Shower Heads</td> <td rowspan="2">✓✓✓</td> <td rowspan="2">6</td> </tr> <tr> <td>• Dual-flush Flushing Cistern</td> </tr> <tr> <td rowspan="2">Clothes Washing Machine</td> <td>✓✓✓</td> <td>5</td> </tr> <tr> <td>✓✓✓✓</td> <td>6</td> </tr> </tbody> </table> <p>Points scored based on the number, water efficiency rating of the products used</p> <p>(Up to 6 points)</p> <p>0.5 point for every 25% of landscape area served 0.5 point for every 20% of landscape area (Up to 2 points)</p>	Product Type	Rating based on Water Efficiency Labelling Scheme (WELS)	Weightage	Water Fittings			• Basin Taps & Mixers	✓✓	5	• Sink Taps & Mixers	• Shower Taps & Mixers or Shower Heads	✓✓✓	6	• Dual-flush Flushing Cistern	Clothes Washing Machine	✓✓✓	5	✓✓✓✓	6
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<p>3.01b Water Usage Monitoring</p> <p>Facilitate continual monitoring of water use within the development through the provision of water meters for major water uses.</p> <p>(i) Local meters (ii) Smart meters with remote monitoring</p>	<p>0.5 point 1 point (Up to 1 point)</p>					
<p>3.01c Alternative Water Sources</p> <p>Encourage the use of alternative water sources to reduce potable water consumption for general applications such as landscape irrigation, toilet flushing, general area washing & water features.</p> <p>(i) NEWater supply (ii) Rainwater harvested (iii) On-site recycled water</p>	<p>1 point 1 point 1 point</p>					
<p>3.02 Materials</p>						
<p>3.02a Sustainable Construction</p> <p>(i) Conservation and Resource Recovery</p> <p>To reward conservation of existing building structures and recovery of demolished building materials for reuse or recycling.</p> <p>Where existing building structures on site are demolished, 1 point can be awarded for enhanced demolition protocol, where a recovery rate of >35% crushed concrete waste from the demolished building is sent to approved recyclers with proper facilities.</p>	<p>1 point</p>					
<p>(ii) Resource Optimisation</p> <p><u>Part 1. Concrete Usage Index (CUI)</u></p> <p>To optimise concrete use through the calculation of the project's Concrete Usage Index (CUI) and encourage adoption of sustainable building systems.</p>	<p>Assessment</p> <table border="1" data-bbox="776 1444 1360 1667"> <thead> <tr> <th>Criteria</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>CUI</td> <td rowspan="2">Up to 4 points</td> </tr> <tr> <td>Adoption of Sustainable Building Systems</td> </tr> </tbody> </table> <p><u>CUI:</u></p> <p>Points shall be scored for CUI are based on the following table:</p>	Criteria	Points	CUI	Up to 4 points	Adoption of Sustainable Building Systems
Criteria	Points					
CUI	Up to 4 points					
Adoption of Sustainable Building Systems						

Table 3.02a-1 CUI scoring Matrix:

Project's CUI	Points
≤ 0.60	0.5
≤ 0.50	1
≤ 0.45	1.5
≤ 0.40	2
≤ 0.35	2.5

Adoption of sustainable building systems

Examples of sustainable building systems:

- Pre-stressed Concrete Elements
- Hollow Core or Voided Concrete Elements
- Light Weight Concrete Elements
- *High Strength Concrete Elements
- Structural Steel Elements
- Composite Structural Elements
- Engineered Timber Elements
- Prefabricated Prefinished Volumetric Construction (PPVC)
- Precast Concrete Elements
- Leave-in Formwork
- Others (to be accepted by BCA on a case-by-case basis)

*Refers to concrete grade >60MPa

Adoption of sustainable building systems

Points shall be scored for the adoption of sustainable building systems (refer to Table below) based upon the extent of their use as a percentage of the constructed floor area (CFA).

Extent of use	Points
Total coverage area ≤ 25% of CFA	0.5
Total coverage area ≤ 50% of CFA	1
Total coverage area ≤ 75% of CFA	1.5

(Up to 4 points)

Part 2. Low-Carbon Concrete

To replace the use of concrete within a project with green cements and recycled aggregates

Applicable for superstructure works only

Assessment

Use of RCA and WCS

Up to 1 point can be scored based on the content of recycled/ engineered aggregates in concrete.

However, the use of RCA and WCS in structural applications the mix shall be limited to 10% replacement by mass unless relevant approval is gained by the relevant authorities.

	Recycled Concrete Aggregate (RCA)	Washed Copper Slag (WCS)	Points (or points tier)
Minimum Requirement (Tonnage)	≥ 1.5% X GFA	≥ 0.75% X GFA	-
%Replacement by mass of fine/coarse aggregate	≥ 5%		0.5
	≥ 10%		1

Clinker Content:

Up to 2 points can be scored based on the use of concrete containing clinker ≤400 kg/m³ for grades up to C50/60, according to the performance requirements in the specifications. Tiered points will also be awarded for using concrete certified by SGBC based on the extent of environmental friendliness.

*Concrete Categories	Points (or points tier)
Uncertified concrete with clinker content ≤400 kg/m ³	0.5
SGBC-certified 1-Tick concrete	1.0
SGBC-certified 2-Tick concrete	1.5
SGBC-certified 3-Tick concrete	2.0

**Note: All SGBC-certified concrete are deemed to have fulfilled the requirement of clinker content <400kg/m³*

(Up to 3 points)

(Total of up to 8 points for Part 3.02a)

Prerequisite Requirement for Part 3.02a:

Green Mark Gold ≥0.5 points,
Green Mark Gold^{PLUS} ≥ 2 points and
Green Mark Platinum ≥ 3.5 points

3.02b Embodied Energy

This involves the computation of the carbon footprint of the development and the building life cycle analysis to better quantify the environmental impact of a building and raise awareness among key decision makers.

Use of BCA Online Embodied Carbon Calculator to compute carbon emission of various building materials (as shown in table below)

Up to 2 points can be scored for computing the carbon footprint of the development:

<p><u>Prerequisite Requirement for Part 3.02b:</u> Green Mark Gold^{PLUS} ≥ 1 points; Green Mark Platinum ≥ 1 point</p>	<table border="1"> <thead> <tr> <th>Description</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>Declaration of Concrete, Glass and Steel</td> <td>1</td> </tr> <tr> <td>Declaration of additional materials</td> <td>0.25 point per material (cap at 1 point)</td> </tr> </tbody> </table> <p align="center">(Total of up to 2 points for Part 3.02b)</p>	Description	Points	Declaration of Concrete, Glass and Steel	1	Declaration of additional materials	0.25 point per material (cap at 1 point)																																								
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<p>3.02c Sustainable Products</p> <p>(i) Functional Systems</p> <p>The use of material and products in a building has a direct impact on the quality of the environment.</p> <p>Reduced use of products should be encouraged to reduce waste and embodied carbon in buildings.</p> <p>Where building uses only necessary and required products; such products should be those certified by the approved local certification bodies to help designers and consumers make informed choice in selecting products that are manufactured responsibly and has low or no emission that is detrimental to the wellbeing of the users and occupants.</p> <p>Products used in building are categorized into 6 functional systems and a singular products category and points are scored by categories.</p>	<p><u>Whole building (include residential units)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Functional System Category</th> <th>Base Group (To score this group prior to score for Finishes Group)</th> <th>Finishes Group</th> </tr> <tr> <td>Coverage >60%</td> <td>Coverage >60%</td> </tr> </thead> <tbody> <tr> <td>Internal Wall</td> <td>1</td> <td>2</td> </tr> <tr> <td>Internal Floor</td> <td>1</td> <td>2</td> </tr> <tr> <td>External Wall</td> <td>1</td> <td>2</td> </tr> <tr> <td>Roof</td> <td>0.5</td> <td>0.5</td> </tr> <tr> <td>Doors</td> <td>1</td> <td>0.5</td> </tr> <tr> <td>Ceiling</td> <td>0.5</td> <td>0.5</td> </tr> </tbody> </table> <p><u>Common area only (exclude residential units)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Functional System Category</th> <th>Base Group (To score this group prior to score for Finishes Group)</th> <th>Finishes Group</th> </tr> <tr> <td>Coverage >80%</td> <td>Coverage >80%</td> </tr> </thead> <tbody> <tr> <td>Internal Wall</td> <td>0.5</td> <td>1</td> </tr> <tr> <td>Internal Floor</td> <td>0.5</td> <td>1</td> </tr> <tr> <td>External Wall</td> <td>1</td> <td>2</td> </tr> <tr> <td>Roof</td> <td>0.5</td> <td>0.5</td> </tr> <tr> <td>Doors</td> <td>0.5</td> <td>0.25</td> </tr> <tr> <td>Ceiling</td> <td>0.25</td> <td>0.25</td> </tr> </tbody> </table>	Functional System Category	Base Group (To score this group prior to score for Finishes Group)	Finishes Group	Coverage >60%	Coverage >60%	Internal Wall	1	2	Internal Floor	1	2	External Wall	1	2	Roof	0.5	0.5	Doors	1	0.5	Ceiling	0.5	0.5	Functional System Category	Base Group (To score this group prior to score for Finishes Group)	Finishes Group	Coverage >80%	Coverage >80%	Internal Wall	0.5	1	Internal Floor	0.5	1	External Wall	1	2	Roof	0.5	0.5	Doors	0.5	0.25	Ceiling	0.25	0.25
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<p>(ii) Singular Sustainable Products outside of Functional Systems</p> <p>To encourage the use of sustainable products that do not fall into the functional systems such as</p> <ul style="list-style-type: none"> • Hardscape - Includes items such as composite timber decking, outdoor play equipment, pre-cast kerbs and drains, wheel stoppers in car parks, Drainage cells etc. • Building services - Mechanical, electrical and plumbing equipment or products such as chillers, circuit boards, transformers, water pipes <p><i>Prerequisite Requirement for 3.02c</i> <i>Green Mark Gold ≥ 2 points,</i> <i>Green Mark Gold^{PLUS} ≥ 3 points and</i> <i>Green Mark Platinum ≥ 4 points</i></p>	<table border="1"> <thead> <tr> <th data-bbox="773 136 1084 210">Singular products category</th> <th data-bbox="1097 136 1351 210">Coverage >80%</th> </tr> </thead> <tbody> <tr> <td data-bbox="773 218 1084 310">Hardscape & Softscape & Building Equipment & Fixtures etc</td> <td data-bbox="1097 218 1351 310">0.25 point for each type of products (Up to 2 points)</td> </tr> </tbody> </table>	Singular products category	Coverage >80%	Hardscape & Softscape & Building Equipment & Fixtures etc	0.25 point for each type of products (Up to 2 points)	<p>0.25 point for each product used for ≥ 90% of the applicable use (Up to 2 points)</p> <p>(Total of up to 8 points for Part 3.02c)</p>
Singular products category	Coverage >80%					
Hardscape & Softscape & Building Equipment & Fixtures etc	0.25 point for each type of products (Up to 2 points)					
<p>3.03 Waste</p>						
<p>3.03a Environmental Construction Management Programme</p> <p>Encourage holistic environmental management plan to monitor, benchmark and continually improve the environmental performance of construction process and waste minimisation.</p>	<p>1 point</p>					
<p>3.03b Operational Waste Management</p> <p>Encourage the provision of dedicated storage facilities for recycling purposes so as to minimise waste disposal to landfill.</p> <p>(i) Provision of recycling facilities at each block of development for collection and storage of different recyclable waste such as paper, glass, metal and plastic in co-mingled or sorted form.</p> <p>(ii) Provision of separate centralised chute for recyclables on every floor of each block and recycling facilities for collection and storage of different recyclable waste at common areas.</p> <p>(iii) Provision of facilities for the storage and composting of horticultural waste at common areas.</p>	<p>1 point</p> <p>2 points (Up to 2 points for (i) and (ii))</p> <p>1 point</p>					

Part 4 – Smart and Healthy Building	Green Mark Points
4.01 Indoor Air Quality	
<p><u>4.01a Occupant Comfort</u></p> <p>For design taking into account of non-prevailing wind and without the use of air-conditioner:</p> <p>To encourage provision of assisted mechanism to achieve thermal comfort for occupant residential spaces</p>	<p>For living room only - 1 point For all living room, bedrooms – 2 points</p> <p>(Up to 2 points)</p>
<p><u>4.01b Contaminants</u></p> <p>(i) More Stringent VOC Limits for Interior Fittings and Finishes</p> <p>Minimise airborne contaminants, mainly from inside sources to promote a healthy indoor environment. To encourage use of low VOC emitting interior finishes that are certified by approved local certification bodies</p> <ul style="list-style-type: none"> • Adhesives & sealants (including tile grouting) • Floor coverings such as carpets, laminates and vinyl flooring (excluding tiles) • Ceiling coverings such as ceiling boards, • Wall coverings (excluding tiles) • Varnish, stains, lacquers or other trims (including doors and furniture) <p>(ii) Waste Disposal</p> <p>Minimise airborne contaminants from waste by locating refuse chutes or waste disposal area at open ventilated areas such as service balconies or common corridors.</p> <p>(iii) Indoor Air Quality in Wet Areas</p> <p>Provision of adequate natural ventilation and daylighting in wet areas such as kitchens, bathrooms and toilets. Fumes from stove(s) should be adequately ventilated to exterior, instead of spreading to other occupied spaces</p>	<p>Points scored based on extent of coverage and the % of applicable areas with such provision:</p> <p>1 point for one main category of finishes (excluding tiles) for $\geq 90\%$ of applicable areas 3 points for all finishes for $\geq 90\%$ of applicable areas</p> <p>(Up to 3 points)</p> <p>1 point</p> <p>Points scored based on the % of applicable areas with such provision</p> <p>1 point for 50% to 90% of applicable areas 2 points for $\geq 90\%$ of applicable areas</p> <p>(Up to 2 points)</p>

4.02 Spatial Quality	
4.02a Lighting	
<p><u>(i) Daylight in residential units</u></p> <p>To encourage effective daylighting and potential for visual discomfort mitigation strategies in residential units; in bedrooms, living room, family room and study room.</p> <p>Two methods are available for evaluating and reporting of daylight provision</p> <p>(i) Simplified Daylit Area Matrix</p> <p>(ii) Full simulation – refer to Simulation guideline</p>	<p><u>For Exemplary Daylit Dwelling Design</u></p> <p>Each Residential units to meet DA_{200lux, 50%} minimum in 75% (exclude area with glare) of applicable area to qualify in the count of number of residential units are daylit.</p> $\frac{\text{Total Residential Units meet the daylight requirement}}{\text{Total Number of Units}} \times 100\% \times 3 \text{ points}$ <p><u>For acceptable Daylit Dwelling Design</u></p> <p>Each Residential units to meet DA_{200lux, 50%} minimum in 60% (exclude area with glare) of applicable area to qualify in the count of number of residential units are daylit.</p> $\frac{\text{Total Residential Units meet the daylight requirement}}{\text{Total Number of Units}} \times 100\% \times 2 \text{ points}$ <p>(Up to 3 points)</p>
<p><u>(ii) Potential Glare and daylight control measures</u></p> <p>Simple strategies to allow building occupants to adjust their environment to reduce discomfort glare during certain times of the day, whilst allowing effective daylight to enter functional areas</p>	<p>Provision of any of the following strategies for at least 90% of residential units with glare:</p> <ul style="list-style-type: none"> • Blinds and Screens • Light shelf • Glazing treatments (Variable opacity glazing, bi-level glazing) <p>Note: for projects using simulation method; the strategies used for glare mitigation must be shown in simulation that it is effective in mitigation.</p> <p>0.5 point</p>
<p><u>(iii) Daylighting in common areas</u></p> <p>To encourage effective daylighting</p> <p>(i) Staircases</p> <p>(ii) Corridors & Lift Lobbies</p> <p>(iii) Car parks</p>	<p>The provision of daylit soaces will be prorated to the extend of coverage (by number)</p> <p>0.5 point each (prorated by numbers)</p> <p>(Up to 1.5 points)</p>

<p>4.02b Acoustics</p>	
<p><u>(i) Acoustics Planning</u></p> <p>Architectural design to avoid windows of living rooms and bedrooms to be in immediate proximity/facing to noise sources within site boundary and 100 metres away from site boundary perimeter.</p> <p>Noise sources include:</p> <ol style="list-style-type: none"> 1) Category 1 and category 2 road 2) MRT tracks and stations 	<p>1 point</p>
<p><u>(ii) Acoustics Design</u></p> <p>Acoustic design report meeting relevant authority's requirement with an aggregate area of not less than 20% of the room/space to be ventilated. Credit is given for implementation of recommendations stated in the report to meet acoustic requirement.</p>	<p>1 point</p>
<p>4.02c Wellbeing</p>	
<p><u>(i) Biophilic Design</u></p> <p>Including elements of nature in comfortable spaces to nurture the human-nature relationship is important for the health and happiness of the building users.</p> <ol style="list-style-type: none"> i) Provision of at least 3 elements of nature in common areas: <ol style="list-style-type: none"> a) Daylighting and natural ventilation b) Water features c) Extensive greenery d) Fauna, beyond insect species e) Natural landscape and ecosystems ii) Provision of at least 3 elements of indirect experience of nature in building design: <ol style="list-style-type: none"> a) Images of nature b) Use of natural materials like wood and stone c) Use of natural colours d) Adoption of naturalistic shapes and forms (including plants and animals) e) Demonstrate the passage of time and age 	<p>Adoption of Biophilic and Wellbeing Design</p> <p>0.5 point</p> <p>0.5 point</p>

<p>f) Use of natural geometrics including "Golden Ratio" and "Fibonacci Sequence"</p> <p>g) Adoption of biomimicry (such as big tree structure in Garden by the Bay)</p> <p>iii) Provision of at least 3 features to facilitate experience of space and place: (0.5 point)</p> <p>a) Design incorporating at least 2 distinct areas of prospect and refuge such as balconies, designated lookout areas along corridors</p> <p>b) Design incorporating organised complexity such as complicated patterned façade design</p> <p>c) Design incorporating integration of parts to wholes</p> <p>d) Provision of at least 3 different transitional environment between spaces such as sheltered walkway to carpark, porches that link indoor to outdoor areas.</p> <p>e) Facilitate wayfinding in terms of locality and map provision in the whole development</p> <p>f) Designate as least 2 cultural defined locations</p> <p>iv) Provision of at least 3 of the following space in common areas for lifestyle wellbeing: (0.5 point)</p> <p>a) Designated gardening/farming areas</p> <p>b) Playground</p> <p>c) Fitness corner</p> <p>d) Dedicated running tracks with marked distance information</p> <p>e) Designated areas for wellness activities with peaceful ambience</p>	<p>0.5 point</p> <p>0.5 point</p> <p>(Up to 1 point)</p> <p><i>Additional 1 point can be scored under Advanced Green Effort – 5.04 Social Benefits</i></p>
<p><u>(ii) Universal Design Mark</u></p> <p>Adopt a user-centric philosophy in design, operations and maintenance.</p>	<p>UD Mark Certified or Gold Award 0.5 point</p> <p>UD Mark Gold^{Plus} or Platinum Award 1 point</p>

4.03 Smart Building Operations	
<p><u>4.03a Energy Monitoring</u></p> <p>To encourage tracking a building and residents' energy use with data presented in a relevant manner to engage occupants to be involved in managing energy consumption, through open standards to future-proof the building's network and facilitate exchange of data with other systems.</p> <ul style="list-style-type: none"> • Provision of a power meter with dashboard in the form of digital displays in common areas, or web-based and mobile applications. 0.5 point • Provision of a power meter with dashboard made available to residents / occupants, showing the energy consumption in their respective dwellings. 0.5 point • Using BACnet, Modbus or any other non-proprietary protocol as the network backbone for the building management system (BMS), with the system being able to provide scheduled export of a set of any chosen data points to commonly used file formats. 1 point 	
<p><u>4.03b Demand Control</u></p> <p>To encourage adoption of automated controllers in managing energy consumption in the common areas of residential developments.</p> <ul style="list-style-type: none"> • Provision of timer sensors / controls for lighting and ventilation systems in community spaces such as link buildings, community halls, etc. 0.5 point • Provision of Bi-level motion sensors for artificial lighting systems in >80% of the common areas. 0.5 point • Provision of car park guidance system in multi-storey car parks. 0.5 point • Provision of smart irrigation systems to reduce use of water in the event of wet weather. 0.5 point 	
<p><u>4.03c Integration Analytics</u></p> <p>To encourage innovative and integrative use of sensor and motion data for optimizing or attaining persistence of high performance and energy efficiency of the residential development.</p>	

<ul style="list-style-type: none"> • Provision of website and/or accessible monthly readout per residential block / unit to engage residents. • Provision of energy portal and/or dashboard for residential development management team. 	<p>1 point</p> <p>1 point</p>
<p><u>4.03d System Handover / Documentation</u></p> <p>To encourage systems verification and to ensure operational continuity from construction to building maintenance and operation.</p> <ul style="list-style-type: none"> • Proper system verification and handover of higher-order functional and system level performance of buildings control systems, mechanical systems and electrical systems. The project shall demonstrate a commitment to comply with verification requirements and show evidence of relevant schedules and documentation per residential block. • Proper system verification and handover of applicable mechanical and electrical systems. The project shall demonstrate a commitment to comply with verification requirements and show evidence of relevant schedules and documentation per residential unit. 	<p>1 point</p> <p>1 point</p>

Part 5 – Advanced Green Efforts	Green Mark Points
5.01 Enhanced Performance	Cap at 15 points
<p><u>5.01a Passive Design Strategies</u></p> <p>To encourage design that optimized prevailing wind conditions and facilitates air flow such as</p> <ul style="list-style-type: none"> • For development with multiple blocks, stagger blocks such that blocks behind are able to receive wind penetrating through the gaps between the blocks in the front row or arrange building according to ascending height with lower height in front and towards the direction of prevailing wind • Provision of either void decks at the ground floor or void spaces in between buildings to encourage air flow through and around buildings • Carry out macro ventilation simulation to check block layout to ensure passive design been considered from the early design stage 	<p>Extent of Coverage : 80% of applicable areas</p> <p>1 point for each strategy (Up to 3 points)</p>
<p><u>5.01b Wind Driven Rain Simulation</u></p> <p>To encourage design that use wind driven rain simulation modelling to identify the most effective building design and layout that minimize the impact of wind-driven rain into naturally ventilated common areas such as lift lobbies and corridors, drop-off area and communal space such as sky garden.</p>	<p>For naturally-ventilated common areas such as lift lobbies and corridors</p> <p>2 points - No noticeable penetration of WDR 1 point – some but acceptable degree of penetration of WDR</p> <p>For drop-off area and communal space such as sky garden</p> <p>1 point - No noticeable penetration of WDR 0.5 point – some but acceptable degree of penetration of WDR</p>
<p><u>5.01c Energy Efficient Features</u></p> <p>To encourage the use of energy efficient features which are innovative and have positive environmental impact in terms of energy saving.</p> <ul style="list-style-type: none"> • Use of thermal insulation or cool paints on the east and west facing external walls • Provision of vertical greenery system on building facades abutting the living, dining and bedrooms of dwelling units 	<p>1 point for window to wall ratio (WWR) of less than 0.5 0.5 point for WWR that is between 0.5 to 0.8</p> <p>2 points for more than 50% of building facades 1 point for at least 25% of building facades</p>

<p><u>5.01d Additional Replacement Energy</u></p> <p>To encourage additional replacement of electricity (based on building electricity consumption) by renewable energy.</p>	<p>1 point for every additional 10% replacement of electricity (exclude household's usage) by renewable energy (up to 10 points)</p>							
<p><u>5.01e Water Usage Portal and Dashboard</u></p> <p>Provision of water usage portal and dashboard for monitoring and trending of water consumption and usage pattern.</p> <ul style="list-style-type: none"> • Common facilities • Individual households. 	<p>1 point 2 points</p>							
<p><u>5.01f Smart BIM</u></p> <p>To encourage the use of Smart BIM:</p> <ul style="list-style-type: none"> • 4D(Time) BIM • 5D(Cost) BIM • 6D(Facilities Management) BIM <p>To use BCA supported BIM based Concrete Usage Index (CUI) calculator to calculate CUI.</p>	<p>1 point each</p> <p>1 point (Up to 3 points)</p>							
<p><u>5.01g Sustainable Products</u></p> <p>To encourage the use of products with a very good rating (2 ticks) or above under the Singapore Green Building Product (SGBP) certification scheme.</p>	<table border="1"> <thead> <tr> <th></th> <th>Tick Rating</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Additional Green Effort (by products)</td> <td>2 ticks- 0.25</td> </tr> <tr> <td>3 ticks- 0.5</td> </tr> <tr> <td>4 ticks- 1</td> </tr> <tr> <td>(Functional system and Singular combined Cap at 2)</td> </tr> </tbody> </table>		Tick Rating	Additional Green Effort (by products)	2 ticks- 0.25	3 ticks- 0.5	4 ticks- 1	(Functional system and Singular combined Cap at 2)
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	(Functional system and Singular combined Cap at 2)							
<p><u>5.01h Embodied Energy</u></p> <p>To encourage additional effort in the computation of the carbon footprint of the development and the building life cycle analysis to better quantify the environmental impact of a building and raise awareness among key decision makers, such as:</p> <ul style="list-style-type: none"> • Provide own material emission factors through BCA's online embodied carbon calculator • Computing the carbon footprint of the entire development and develop detailed carbon footprint report based on ALL the materials used within the project. (2 points) 	<p>0.25 point per material (Up to 1 point)</p> <p>2 points (Up to 2 points)</p>							

<p><u>5.01i Clean Outdoor Air</u></p> <p>Provision of a space/room in the unit with minimum outdoor air in occupant space when windows are closed, particularly in when there is poor outdoor air quality condition</p>	<p>Provision of clean outdoor air [0.3 l/s per m² floor area for that space/room] 2 points</p> <p>Provision of portable air cleaner for every unit 0.5 point</p> <p>(up to 2 points)</p>
<p><u>5.01j Smart Building Operations</u></p> <p>To encourage innovative smart building operations.</p> <ul style="list-style-type: none"> • Car park data collection system with open-protocol support for lighting / space control • Integration of systems for energy savings, etc • Mobile application for monitoring / controlling of electrical / water consumption 	<p>1 point</p> <p>0.5 point</p> <p>0.5 point</p>
<p>5.02 Demonstrating Cost Effective Design</p>	
<p><u>5.02a Cost neutral design</u></p> <p>To encourage projects that can demonstrate that they have achieved high levels of environmental performance without an increased capital expenditure.</p> <p>The project is designed with zero green premium when compared to conventional building design that meet the code and regulatory requirements.</p>	<p>2 points</p>

5.03 Complementary Certifications	
<p><u>5.03a Complementary certifications</u></p> <p>To encourage the use of an approved local or international rating tool that rates sustainability beyond the built environment.</p>	<p>1 point</p>
5.04 Social Benefits	
<p><u>5.04a Social benefits</u></p> <p>To encourage projects that demonstrate their social benefits or how social sustainability has been incorporated into the project. This can (but not limited to) include efforts that demonstrate enhanced considerations to wellbeing, community integration efforts and clean energy purchase through leasing contracts.</p>	<p>0.5 point each</p> <p>(Up to 2 points)</p>