

ADVERTISED PLAN

BESS Report

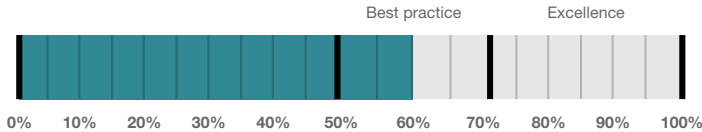
Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at 80 Martin St Brighton Victoria 3186. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Bayside City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score



60%

Project details

Address	80 Martin St Brighton Victoria 3186
Project no	D0FC9EB3-R1
BESS Version	BESS-7
<hr/>	
Site type	Non-residential development
Account	esd@acor.com.au
Application no.	
Site area	3,956.00 m ²
Building floor area	3,838.00 m ²
Date	03 May 2023
Software version	1.7.1-B.396



Performance by category ● Your development ● Maximum available

Category	Weight	Score Pass	
Management	5%	57% *	<div style="display: flex; width: 100%;"><div style="width: 57%; background-color: teal;"></div><div style="width: 43%; background-color: lightgrey;"></div></div>
Water	9%	57% ✓	<div style="display: flex; width: 100%;"><div style="width: 57%; background-color: teal;"></div><div style="width: 43%; background-color: lightgrey;"></div></div>
Energy	28%	63% ✓	<div style="display: flex; width: 100%;"><div style="width: 63%; background-color: teal;"></div><div style="width: 37%; background-color: lightgrey;"></div></div>
Stormwater	14%	100% ✓	<div style="display: flex; width: 100%;"><div style="width: 100%; background-color: teal;"></div><div style="width: 0%; background-color: lightgrey;"></div></div>
IEQ	17%	56% ✓	<div style="display: flex; width: 100%;"><div style="width: 56%; background-color: teal;"></div><div style="width: 44%; background-color: lightgrey;"></div></div>
Transport	9%	75% *	<div style="display: flex; width: 100%;"><div style="width: 75%; background-color: teal;"></div><div style="width: 25%; background-color: lightgrey;"></div></div>
Waste	6%	66% *	<div style="display: flex; width: 100%;"><div style="width: 66%; background-color: teal;"></div><div style="width: 34%; background-color: lightgrey;"></div></div>
Urban Ecology	6%	37% *	<div style="display: flex; width: 100%;"><div style="width: 37%; background-color: teal;"></div><div style="width: 63%; background-color: lightgrey;"></div></div>
Innovation	9%	0% *	<div style="display: flex; width: 100%;"><div style="width: 0%; background-color: teal;"></div><div style="width: 100%; background-color: lightgrey;"></div></div>

Buildings

Name	Height	Footprint	% of total footprint
Star Centre	3	1,290 m ²	100%

Dwellings & Non Res Spaces

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Other building				
Other building 1	1	3,838 m ²	Star Centre	100%
Total	1	3,838 m²	100%	

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Management 3.3	Common area submeters annotated	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 10	✓
Water 3.1	Water efficient garden annotated	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 16 and Landscape Plans provided by Urban Initiatives	✓
Energy 4.2	Floor plans showing location of photovoltaic panels as described.	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 14	✓
Stormwater 1.1	Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips)	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 16	✓
Transport 1.4	All nominated non-residential bicycle parking spaces	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 24	✓
Transport 1.5	All nominated non-residential visitor bicycle parking spaces	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 24	✓
Transport 1.6	Showers, change rooms and lockers as nominated	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 25	✓
Transport 2.1	Location of electric vehicle charging infrastructure	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 25	✓
Waste 2.2	Location of recycling facilities	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 26	✓
Urban Ecology 1.1	Size and location of communal spaces	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 27	✓

Credit	Requirement	Response	Status
Urban Ecology 2.1	Vegetated areas	To be printed Refer VC220395_ESD SMP_Star of the Sea-Star Centre Page 27 and Landscape Plans provided by Urban Initiatives	✓

Supporting evidence

Credit	Requirement	Response	Status
Management 2.3a	Section J glazing assessment	To be printed VC220395_ESD JV3_Star of the Sea - Star Centre_Report JV3 report	✓
Management 2.3b	Preliminary modelling report	To be printed VC220395_ESD JV3_Star of the Sea - Star Centre_Report JV3 report	✓
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	To be printed N/A n/a	✓
Energy 3.7	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.		-
Energy 4.2	Specifications of the solar photovoltaic system(s).	To be printed VC220395_ESD SMP_Star of the Sea-Star Centre Refer to the report.	✓
Stormwater 1.1	STORM report or MUSIC model	To be printed VC220395_Star of the Sea_Stormwater Management Report Refer to the report.	✓
IEQ 1.4	A short report detailing assumptions used and results achieved.	To be printed N/A N/A	✓
Waste 1.1	Report detailing how the existing building is being reused on-site		-

Credit summary

Management Overall contribution 4.5%

		57%
1.1 Pre-Application Meeting		0%
2.3 Thermal Performance Modelling - Non-Residential		100%
3.2 Metering - Non-Residential		N/A ✦ Scoped Out
		only one tenant
3.3 Metering - Common Areas		100%
4.1 Building Users Guide		100%

Water Overall contribution 9.0%

		Minimum required 50%	57%	✔ Pass
1.1 Potable water use reduction			40%	
3.1 Water Efficient Landscaping			100%	
4.1 Building Systems Water Use Reduction			100%	

Energy Overall contribution 27.5%

		Minimum required 50%	63%	✔ Pass
1.1 Thermal Performance Rating - Non-Residential			37%	
2.1 Greenhouse Gas Emissions			100%	
2.2 Peak Demand			100%	
2.3 Electricity Consumption			100%	
2.4 Gas Consumption			100%	
2.6 Electrification			0%	⊘ Disabled
Credit is available when project is declared to have no gas connection.				
3.1 Carpark Ventilation			N/A	⚡ Scoped Out
68 car space. Carbon monoxide monitoring is a requirement under the NCC code.				
3.2 Hot Water			100%	
3.7 Internal Lighting - Non-Residential			100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)			N/A	⚡ Scoped Out
No cogeneration or trigeneration system in use.				
4.2 Renewable Energy Systems - Solar			100%	
4.4 Renewable Energy Systems - Other			0%	⊘ Disabled
No other (non-solar PV) renewable energy is in use.				

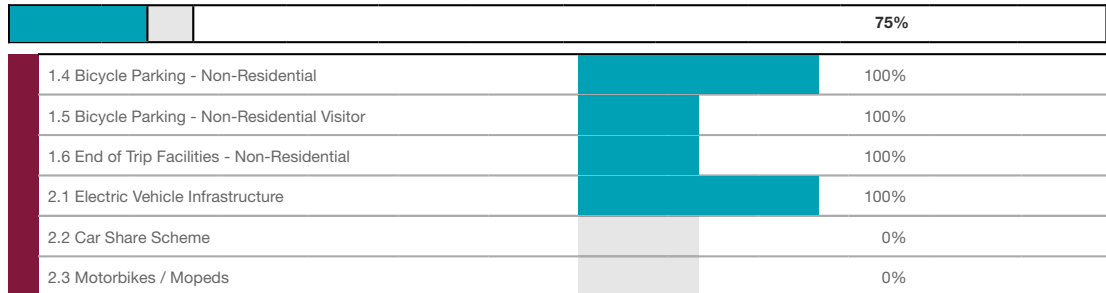
Stormwater Overall contribution 13.5%

		Minimum required 100%	100%	✔ Pass
1.1 Stormwater Treatment			100%	

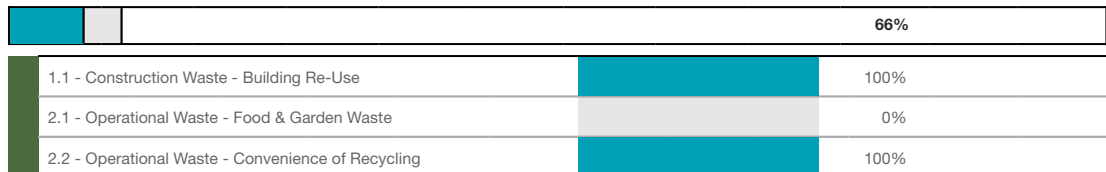
IEQ Overall contribution 16.5%

		Minimum required 50%	56%	✔ Pass
1.4 Daylight Access - Non-Residential			42%	✔ Achieved
2.3 Ventilation - Non-Residential			66%	✔ Achieved
3.4 Thermal comfort - Shading - Non-residential			68%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential			0%	
4.1 Air Quality - Non-Residential			100%	

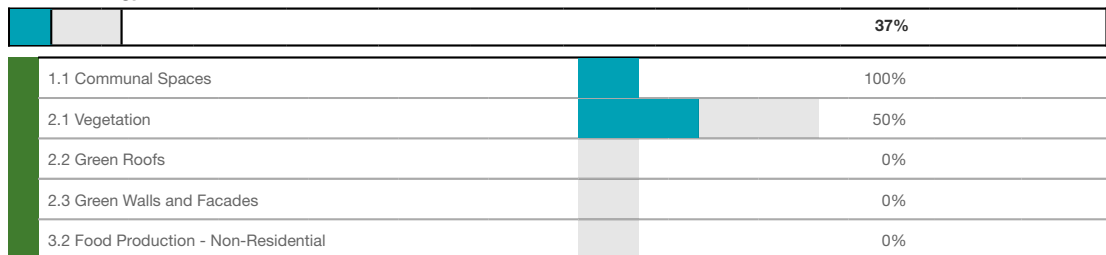
Transport Overall contribution 9.0%



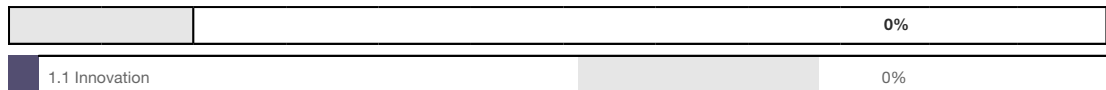
Waste Overall contribution 5.5%



Urban Ecology Overall contribution 5.5%




Innovation Overall contribution 9.0%



Credit breakdown

Management Overall contribution 3%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 42.9% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.3 Thermal Performance Modelling - Non-Residential		100%
Score Contribution	This credit contributes 28.6% towards the category score.	
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2019 Section J1.5?	
Question	Criteria Achieved ?	
Other building	Yes	
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star?	
Question	Criteria Achieved ?	
Other building	Yes	
3.2 Metering - Non-Residential		N/A  Scoped Out
This credit was scoped out	only one tenant	
3.3 Metering - Common Areas		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Have all major common area services been separately submetered?	
Question	Criteria Achieved ?	
Other building	Yes	
4.1 Building Users Guide		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Will a building users guide be produced and issued to occupants?	
Question	Criteria Achieved ?	
Project	Yes	

Water Overall contribution 5% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the built in calculation tools
Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes
Water fixtures, fittings and connections	
Building:	Star Centre
Showerhead:	4 Star WELS (>= 6.0 but <= 7.5)
Bath:	Scope out
Kitchen Taps:	>= 6 Star WELS rating
Bathroom Taps:	>= 6 Star WELS rating
Dishwashers:	Scope out
WC:	>= 4 Star WELS rating
Urinals:	Scope out
Washing Machine Water Efficiency:	Scope out
Which non-potable water source is the dwelling/space connected to?:	Tank 1
Non-potable water source connected to Toilets:	No
Non-potable water source connected to Laundry (washing machine):	No
Non-potable water source connected to Hot Water System:	No
Rainwater Tank	
What is the total roof area connected to the rainwater tank?: Tank 1	1,441 m ²
Tank Size: Tank 1	15,000 Litres
Irrigation area connected to tank: Tank 1	564 m ²
Is connected irrigation area a water efficient garden?: Tank 1	Yes
Other external water demand connected to tank?: Tank 1	-

1.1 Potable water use reduction	40%
Score Contribution	This credit contributes 71.4% towards the category score.
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.
Output	Reference
Project	7323 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	5502 kL
Output	Proposed (including rainwater and recycled water use)
Project	5255 kL
Output	% Reduction in Potable Water Consumption
Project	28 %
Output	% of connected demand met by rainwater
Project	99 %
Output	How often does the tank overflow?
Project	Very Often
Output	Opportunity for additional rainwater connection
Project	2384 kL
3.1 Water Efficient Landscaping	100%
Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Will water efficient landscaping be installed?
Question	Criteria Achieved ?
Project	Yes
4.1 Building Systems Water Use Reduction	100%
Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Where applicable, have measures been taken to reduce potable water consumption by >80% in the buildings air-conditioning chillers and when testing fire safety systems?
Question	Criteria Achieved ?
Project	Yes

Energy Overall contribution 18% Minimum required 50%

Use the BESS Deem to Satisfy (DtS) method for Energy?:	Yes
Do all exposed floors and ceilings (forming part of the envelope) demonstrate a minimum 10% improvement in required NCC2019 insulation levels (total R-value upwards and downwards)?:	Yes
Does all wall and glazing demonstrate meeting the required NCC2019 facade calculator (or better than the total allowance)?:	Yes
Are heating and cooling systems within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available?:	Yes
Are water heating systems within one star of the best available, or 85% or better than the most efficient equivalent capacity unit?:	Yes
Are you installing a cogeneration or trigeneration system?:	No
Non-Residential Building Energy Profile	
Heating, Cooling & Comfort Ventilation - Electricity Reference fabric & services:	-
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:	-
Heating, Cooling & Comfort Ventilation - Electricity Proposed fabric & services:	-
Heating - Gas - Reference fabric and services:	0.0 MJ
Heating - Gas - Proposed fabric and Reference services:	0.0 MJ
Heating - Gas - Proposed fabric and services:	0.0 MJ
Heating - Wood - reference fabric and services:	-
Heating - Wood - proposed fabric and reference services:	-
Heating - Wood - proposed fabric and services:	-
Hot Water - Electricity - Reference:	-
Hot Water - Electricity - Proposed:	-
Hot Water - Gas - Baseline:	0.0 MJ
Hot Water - Gas - Proposed:	0.0 MJ
Lighting - Reference:	-
Lighting - Proposed:	-
Peak Thermal Cooling Load - Reference:	-
Peak Thermal Cooling Load - Proposed:	-
Solar Photovoltaic system	
System Size (lesser of inverter and panel capacity): PV 1	30.0 kW peak
Orientation (which way is the system facing)?: PV 1	North
Inclination (angle from horizontal): PV 1	10.0 Angle (degrees)

1.1 Thermal Performance Rating - Non-Residential	37%
Score Contribution	This credit contributes 36.4% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J)?
2.1 Greenhouse Gas Emissions	100%
Score Contribution	This credit contributes 9.1% towards the category score.
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?
2.2 Peak Demand	100%
Score Contribution	This credit contributes 4.5% towards the category score.
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?
2.3 Electricity Consumption	100%
Score Contribution	This credit contributes 9.1% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
2.4 Gas Consumption	100%
Score Contribution	This credit contributes 9.1% towards the category score.
Criteria	What is the % reduction in annual gas consumption against the benchmark?
2.6 Electrification	0%  Disabled
This credit is disabled	Credit is available when project is declared to have no gas connection.
3.1 Carpark Ventilation	N/A  Scoped Out
This credit was scoped out	68 car space. Carbon monoxide monitoring is a requirement under the NCC code.
3.2 Hot Water	100%
Score Contribution	This credit contributes 4.5% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?
3.7 Internal Lighting - Non-Residential	100%
Score Contribution	This credit contributes 9.1% towards the category score.
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J6.2a of the NCC 2019 Vol 1?
Question	Criteria Achieved ?
Other building	Yes
4.1 Combined Heat and Power (cogeneration / trigeneration)	N/A  Scoped Out
This credit was scoped out	No cogeneration or trigeneration system in use.

4.2 Renewable Energy Systems - Solar		100%
Score Contribution	This credit contributes 4.5% towards the category score.	
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?	
Output	Solar Power - Energy Generation per year	
Other building	36,355 kWh	
Output	% of Building's Energy	
Other building	33 %	
4.4 Renewable Energy Systems - Other		0% <input type="checkbox"/> Disabled
This credit is disabled	No other (non-solar PV) renewable energy is in use.	

Stormwater Overall contribution 14% Minimum required 100%

Which stormwater modelling are you using?:		MUSIC or other modelling software
1.1 Stormwater Treatment		100%
Score Contribution	This credit contributes 100.0% towards the category score.	
Criteria	Has best practice stormwater management been demonstrated?	
Question	Flow (ML/year)	
Project	25.1 % Reduction	
Question	Total Suspended Solids (kg/year)	
Project	80.9 % Reduction	
Question	Total Phosphorus (kg/year)	
Project	77.2 % Reduction	
Question	Total Nitrogen (kg/year)	
Project	61.1 % Reduction	

IEQ Overall contribution 9% Minimum required 50%

1.4 Daylight Access - Non-Residential		42%	✓ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the nominated floor area has at least 2% daylight factor?		
Question	Percentage Achieved?		
Other building	42 %		
2.3 Ventilation - Non-Residential		66%	✓ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the regular use areas are effectively naturally ventilated?		
Question	Percentage Achieved?		
Other building	0 %		
Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?		
Question	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668:2012?		
Other building	50 %		
Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?		
Question	Value		
Other building	800 ppm		
3.4 Thermal comfort - Shading - Non-residential		68%	
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?		
Question	Percentage Achieved?		
Other building	53 %		
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
Score Contribution	This credit contributes 5.9% towards the category score.		
Criteria	What percentage of regular use areas in tenancies have ceiling fans?		
Question	Percentage Achieved?		
Other building	0 %		
4.1 Air Quality - Non-Residential		100%	
Score Contribution	This credit contributes 5.9% towards the category score.		
Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?		
Question	Criteria Achieved ?		
Other building	Yes		

Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes
Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes

Transport Overall contribution 7%

1.4 Bicycle Parking - Non-Residential		100%
Score Contribution	This credit contributes 25.0% towards the category score.	
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Other building	Yes	
Question	Bicycle Spaces Provided ?	
Other building	9	
1.5 Bicycle Parking - Non-Residential Visitor		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Other building	Yes	
Question	Bicycle Spaces Provided ?	
Other building	1	
1.6 End of Trip Facilities - Non-Residential		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Where adequate bicycle parking has been provided. Is there also: * 1 shower for the first 5 employee bicycle spaces plus 1 to each 10 employee bicycles spaces thereafter, * changing facilities adjacent to showers, and * one secure locker per employee bicycle space in the vicinity of the changing / shower facilities?	
Question	Number of showers provided ?	
Other building	1	
Question	Number of lockers provided ?	
Other building	10	
Output	Min Showers Required	
Other building	1	
Output	Min Lockers Required	
Other building	9	
2.1 Electric Vehicle Infrastructure		100%
Score Contribution	This credit contributes 25.0% towards the category score.	
Criteria	Are facilities provided for the charging of electric vehicles?	
Question	Criteria Achieved ?	
Project	Yes	

2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No
2.3 Motorbikes / Mopeds	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

Waste Overall contribution 4%

1.1 - Construction Waste - Building Re-Use	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	Yes
2.1 - Operational Waste - Food & Garden Waste	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	No
2.2 - Operational Waste - Convenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

Urban Ecology Overall contribution 2%

1.1 Communal Spaces	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Is there at least the following amount of common space measured in square meters : * 1m ² for each of the first 50 occupants * Additional 0.5m ² for each occupant between 51 and 250 * Additional 0.25m ² for each occupant above 251?
Question	Common space provided
Other building	1,701 m ²
Output	Minimum Common Space Required
Other building	120 m ²
2.1 Vegetation	50%
Score Contribution	This credit contributes 50.0% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?
Question	Percentage Achieved ?
Project	14 %
2.2 Green Roofs	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	No
2.3 Green Walls and Facades	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	No
3.2 Food Production - Non-Residential	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	What area of space per occupant is dedicated to food production?
Question	Food Production Area
Other building	-
Output	Min Food Production Area
Other building	48 m ²

Innovation Overall contribution 0%

1.1 Innovation	0%
Score Contribution	This credit contributes 100.0% towards the category score.
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?

Disclaimer

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