[Development Name]

[Site Address]

**Sustainable Design Assessment (SDA)**

by [Applicant / ESD Consultant]

for The City of Ballarat

[Date]

[Version]

Table of Contents

[Site Description 3](#_Toc1906865853)

[Proposed Development 4](#_Toc1409743240)

[City of Ballarat Requirements 4](#_Toc1013821116)

[ESD Policy 4](#_Toc1464512300)

[ESD Assessment Tools 4](#_Toc1822087127)

[Built Environment Sustainability Scorecard (BESS) 5](#_Toc1358227812)

[STORM 5](#_Toc1916643903)

[Green Star 5](#_Toc743780945)

[MUSIC 5](#_Toc1473655755)

[NatHERS 5](#_Toc919720982)

[NABERS 6](#_Toc742704932)

[Environmentally Sustainable Design Principles 6](#_Toc1206213284)

[Indoor Environment Quality (IEQ) 6](#_Toc43106020)

[Energy Efficiency 7](#_Toc1145576659)

[Water Efficiency 8](#_Toc1101101092)

[Stormwater 10](#_Toc1296188888)

[Building Materials 12](#_Toc1671002821)

[Transport 13](#_Toc1852294245)

[Waste Management 14](#_Toc176946967)

[Urban Ecology 15](#_Toc546059810)

[Innovation 16](#_Toc1425018)

[Construction and Building Management 17](#_Toc1723874110)

[Implementation 19](#_Toc438111460)

[ESD Initiatives to be marked on Architectural plans 19](#_Toc36256103)

[Supporting Documents 20](#_Toc711636115)

*Delete this page prior to submission – for guidance only*

About this document

*This document provides applicants seeking a planning permit with a Sustainable Design Assessment (SDA) Report Template that will help them address the ESD requirements within the City of Ballarat. The City of Ballarat is participating in the* [*Sustainable Design Assessment in the Planning Process (SDAPP)*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-Introduction-to-SDAPP-v7-June-2022.pdf) *program and as such all Applicants for qualifying developments should submit an SDA Report that responds to each of the following 10 Key Sustainability Criteria:*

|  |  |
| --- | --- |
| [*Indoor Environment Quality*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-01-Indoor-Environment-Quality-v8-June-2022.pdf)[*Energy Efficiency*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-02-Energy-Efficiency-v8-June-2022.pdf)[*Water Efficiency*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-03-Water-Efficiency-v10-June-2022.pdf)[*Stormwater Management*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-04-Stormwater-Management-v9-June-2022.pdf)[*Building Materials*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-05-Building-Materials-v9-June-2022.pdf) | [*Transport*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-06-Transport-v7-June-2022.pdf)[*Waste Management*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-07-Waste-Management-v6-June-2022.pdf)[*Urban Ecology*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-08-Urban-Ecology-v8-June-2022.pdf)[*Innovation*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-09-Innovation-v5-June-2022.pdf)[*Construction and Building Management*](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-10-Construction-Building-Management-v6-June-2022.pdf) |

How to use this document

*This document is not designed to set a minimum standard or to provide a definitive list of environmentally sustainable design (ESD) initiatives to be included in a development. ESD should be integrated into the design of a new building from the earliest stage. The best ESD response will depend on many site-specific factors.*

 *The red text is intended as a guide only and should be deleted prior to submission.*

*The green text highlights sections of the template where the applicant should provide a response.*

 *The blue underlined text is linked to Fact sheets or websites for guidance*

|  |
| --- |
| * ESD initiative options listed in this document are prompts for discussion. Non-relevant elements should be deleted from the statement.
* Every proposed ESD initiative included in the BESS assessment that requires a building and or works design feature (e.g. water tanks, solar PV, etc.) must be shown on the plans and / or described in a schedule to be endorsed with the planning permit. This includes any ESD related building and or works under the building code to the extent that such features can reasonably be detailed at the planning stage.
* Applicants are encouraged to exceed the benchmark targets contained in BESS as discussed on the BESS website.
* The statement must reference each claim for a score and include sufficient detail to explain and substantiate each and every initiative claimed.
* The Sustainable Design Assessment (SDA) and all associated plans and schedules must be consistent with one another.
 |

# Site Description

*Describe the site and surrounds, including address, location to main roads, transport and open space / parks. The existing conditions such as any buildings, trees, waterbodies, heritage and cultural significance on the site. As well as a description of neighbouring buildings or infrastructure that may impact on or may be impacted by the development.*

*Include relevant maps, site photos / screen grabs at various scales.*

# Proposed Development

*Explain what is proposed for the site, including:*

* *Development type, use and extent*
* *Number of levels (including basement & roof if applicable)*
* *Number of dwellings & buildings*
* *Total site area (m2)*
* *Gross Floor Area/s*
* *% of hard surfaces, vegetated landscaping and permeability*

# City of Ballarat Requirements

## ESD Policy

Ballarat City Council has adopted an [Environmentally Sustainable Development (ESD) policy](https://www.ballarat.vic.gov.au/sites/default/files/2023-10/Environmentally%20Sustainable%20Design%20%28ESD%29%20Policy.pdf). This policy seeks to respond to the provisions of [Clause 15.01-2S (Building Design) of the Ballarat Planning Scheme](https://planning-schemes.app.planning.vic.gov.au/Ballarat/ordinance/15.01) and sets out when particular measures will be required.

Purpose:

*To provide the City of Ballarat with a policy to attain best practice in Environmentally Sustainable Development (ESD) from design stage through to construction and operation. The ESD policy will facilitate development that minimises environmental impacts and encourages environmentally sustainable development.*

*The policy applies to all residential and non-residential development planning permit applications, excluding subdivisions, in accordance with the following thresholds:*

* ***Residential – 2 or more dwellings***
* ***A building used for accommodation other than a dwelling with a gross floor area of 100m2 or more***
* ***Non-Residential buildings with a gross floor area of 300m2 or more***
* ***An extension to a non-residential building adding 300-1500m2 of additional Gross floor area***
* ***Mixed-use developments***

\*For further detail refer to the table in the [Environmentally Sustainable Development (ESD) policy](https://www.ballarat.vic.gov.au/sites/default/files/2023-10/Environmentally%20Sustainable%20Design%20%28ESD%29%20Policy.pdf).

# ESD Assessment Tools

To determine which tools are required for this application refer to the [ESD Policy](https://www.ballarat.vic.gov.au/sites/default/files/2023-10/Environmentally%20Sustainable%20Design%20%28ESD%29%20Policy.pdf) thresholds as above (in the link) which sets these out according to development type and size.

The preferred tool is the free to use Built Environment Sustainability Scorecard (**BESS**), requiring a minimum overall pass score of 50% and provision of the full Published Report included within this SDA.

As well, in accordance with the STORM (Stormwater Treatment Objective – Relative Measure) calculator tool Assessment by Melbourne Water to assess Water Sensitive Urban Design measures within the property, a score of 100% (minimum requirement) equates to best practice water quality objectives.

*Specify here which tools are being used*

*and delete the ones below if not applicable to this application*

## Built Environment Sustainability Scorecard (BESS)

The development has been assessed using the BESS assessment tool ([www.bess.net.au](http://www.bess.net.au)).

This tool assesses the overall environmental sustainability performance of new buildings or alterations, and to demonstrate how new development can meet sustainability requirements as part of a planning permit application. A minimum overall score of 50%, including mandatory minimum scores of 50% in the Energy, Water & IEQ categories and 100% for Stormwater Management are required.

*Enter the BESS Score achieved and provide a summary of the results.*

For the full Published BESS Report please see [Enter Here – APPEDNIX X]

## STORM

The STORM calculator which addresses stormwater quality considerations has been used for the development to ensure that stormwater management best practice and local planning policy requirements have been achieved. The STORM assessment and WSUD layout plan is included in [Enter Here – APPEDNIX X]

## Green Star

The Green Star Buildings tool can be used for larger developments, a minimum 4-Star Green Star rating is required and to claim Certification the project must be registered with the [Green Building Council Australia (GBCA)](https://new.gbca.org.au/green-star/certification-process/). [Enter Here – APPEDNIX X]

## MUSIC

[MUSIC](https://ewater.org.au/products/music/) (Model for Urban Stormwater Improvement Conceptualisation) tool can be used for larger developments to assess Water Sensitive Urban Design (WSUD). [Enter Here – APPEDNIX X]

## NatHERS

The Nationwide House Energy Rating Scheme ([NatHERS](https://www.nathers.gov.au/)) provides an estimate of the energy rating to heat and cool a dwelling. A Preliminary Report is required for residential developments (unless using the BESS Energy default) and included in [Enter Here – APPEDNIX X]

## NABERS

The National Australian Built Environment Rating Scheme ([NABERS](https://www.nabers.gov.au/)) is applied to non-residential or mixed-use developments. Ratings measure operational impacts of Energy, Water, Waste and Indoor Environment Quality and obtained after occupation stage of a building.

# Environmentally Sustainable Design Principles

*Outline and summarise any general design principles that are applicable to the improved performance of the development. Address the key 10 ESD categories detailed below.*

*\*Ensure all ESD initiatives claimed are consistent across all documentation and are marked on the application plans.*

## Indoor Environment Quality (IEQ)

*Respond to the areas highlighted in green text with all relevant commitments.*

Objectives:

* To achieve a healthy indoor environment quality for the wellbeing of building occupants.

Design initiatives:

* Maximise daylight access

*Provide a description for all habitable rooms which exceed the minimum 10% ratio for windows to floor area and 3% ratio for roof lights to floor area of NCC requirements but not exceeding 20% ratio to ensure energy efficiency requirements are achieved.*

Design for sufficient natural light penetration, especially to habitable spaces. This includes the optimal orientation for equitable daylight access throughout a development.

Provide Daylight modelling calculations in plan (simulations preferred over hand calculations).

* Maximise natural ventilation

*Provide description for all habitable rooms in excess of the minimum 5% ratio for windows and roof lights to floor area of NCC requirements.*
Design for maximum natural cross-ventilation, provide breeze paths on plans.

Consider wet areas (bathrooms, WC & laundries) to be naturally ventilated (where possible).

Ensure covered / basement carparks are ventilated with CO2 monitors.

* External shading
*Provide description, including whether fixed or adjustable, and show on plans all shading devices*

Ensure sufficient shading is applied to all North, East & West facing glazing, including top floors.

* External views

*Provide a description on how the design provides for external views whilst still addressing overlooking issues.*

* Reduction in volatile organic compounds

*Include description of intention to provide fit out with elements of low-no Volatile Organic Compounds (VOC’s) including joinery, paint, carpet etc.*

Conscious choices of low-no toxicity materials & finishes throughout

* Noise attenuation

Consider noise transfer [between party walls], utilise adequate insulation, glazing & thermal mass.

## Energy Efficiency

*Respond to the areas highlighted in green text with all relevant commitments*

Objectives:

* To improve the efficient use of energy;
* To reduce total operating greenhouse gas emissions;
* To reduce energy peak demand.

Design initiatives:

* Energy rating of building envelope performance in excess of minimum NCC requirements

*Provide preliminary energy ratings NatHERS for residential and NABERS Energy for non-residential, or provide information on how energy efficiency requirements will be achieved* Please use the most recent and applicable [NCC version](https://ncc.abcb.gov.au/)

* All-electric developments expected (no gas connections)

*Any gas connections require justification and negotiation with the Council ESD Officer*

* Renewable energy generation and storage

*Provide description of photovoltaic (PV) solar power, solar hot water, wind turbines, geo-thermal*  *etc. and show location and size on relevant floor/roof/site plan drawings*

Provision of Solar (PV & Hot water) is highly recommended (where possible)

* External shading devices to north, east and west facing glazing

*Provide description and show if fixed or operable shading devices on relevant elevation/section drawings*

* Heating system types and associated energy-efficiency rating/benchmark

*At least one star within the best available* [*www.energyrating.gov.au*](http://www.energyrating.gov.au)

Heating load limit for Ballarat is 169MJ/m2.annum (for Residential)

* Cooling system types and associated energy-efficiency rating/benchmark

*At least one star within the best available* [*www.energyrating.gov.au*](http://www.energyrating.gov.au)

Cooling load limit for Ballarat is 21MJ/m2. annum (for Residential) and 23MJ/m2 (Apartments)

* Hot water system type and associated energy-efficiency rating/benchmark

*At least one star within the best available* [*www.energyrating.gov.au*](http://www.energyrating.gov.au)

* Location of fixed clothes drying lines/ racks

*Provide description internal/external and size available, show on relevant floor plans*

* Lighting strategy

*Provide description and list the main habitable areas considering LED lighting indicating how min. standards are being exceeded (e.g., residential living areas 5W/m2)*

Water Efficiency

*Respond to the areas highlighted in green text with all relevant commitments*

Objectives:

* To ensure the efficient use of water;
* To reduce total operating potable water use; and
* To encourage the appropriate use of alternative water sources.

Design initiatives:

* + Water-efficiency rating of new showerheads

*Provide description, minimum 4 Star WELS rating than 4.5L/min. but not more than 6.0L/min.*

* + Water-efficiency rating of new tapware

*Provide description, minimum 5 Star WELS more than 4.5L/min. but not more than 6.0L/min.*

* + Water efficiency rating of new toilet cisterns

*Provide description, minimum 4 Star WELS rating more than 4.0L but not more than 3.5L average flush volume*

* + Size, capacity and location of Rainwater tanks

*Provide description including size, capacity, location, catchment areas and where the water is expected to be used, show on relevant* *floor/roof/site plan drawings*

Recommend connecting rainwater tanks to toilets, garden irrigation and laundry (where possible)

* + Provisions for water efficient landscaping

*Provide description and show on relevant floor/site &/or landscape plan (if applicable)*

* + Size and general location of greywater treatment/storage systems

*Provide description, suggested EPA only approved systems and show on relevant plans*

Where applicable reduce potable water consumption in buildings air-conditioning and fire testing systems by using recycled water

## Stormwater

*Respond to the areas highlighted in green text with all relevant commitments*

Objectives:

* To reduce the impact of stormwater run-off;
* To improve the water quality of stormwater run-off;
* To achieve best practice stormwater quality outcomes; and
* To incorporate the use of water sensitive urban design, including stormwater re-use.

Design initiatives:

* Minimise watercourse pollution and maximise stormwater capture and on-site rainwater re-use
* Provide STORM Report (www.storm.melbournewater.com.au/)

A minimum score of 100% must be achieved, include the report with this assessment

* Provide a total site layout plan

Refer to: [Stormwater Checklist Buildings and Works](https://www.water.vic.gov.au/__data/assets/pdf_file/0028/673264/Stormwater-checklist-buildings-and-works.pdf)

*Provide a description & show on relevant floor/site plans the area breakdown in m² of all impervious surfaces and related treatments, as well as all pervious surfaces (on-site filtration)*

We recommend maximising site permeability above the minimum 20%

*Show location of rainwater tanks, roof catchments areas (in m2), connections (to tank, toilets, laundry & irrigation) and Legal Point of Discharge (LPOD) - refer below and include as a WSUD plan on the architecture drawings &/or in this SDA.*



Example – Site Layout plan: Source: [CoPP Compliance Guidelines (WSUD)](https://www.portphillip.vic.gov.au/media/mxmfgs1s/sustainable-design-compliance-guidelines-stormewater-management-2.pdf)

## Building Materials

*Respond to the areas highlighted in green text with all relevant commitments*

Objectives:

* To minimise environmental impacts by encouraging the use of materials with a favourable lifecycle assessment.
* To ensure durability and long-term reusability of building materials.

Design initiatives:

* Use materials with low embodied energy

The energy used to mine, process, manufacture and transport a product is the embodied energy. Reusing or retaining existing materials such as from demolition like bricks, and choosing construction materials such as timber rather than steel, aluminum and concrete will lower embodied energy.

* Use materials with recycled content

*Provide detail and evidence of any materials or components that have recycled content.*  Consider utilising products such as recyled timber for flooring, concrete with % of fly ash or recycled aggregate.

* Consider the future recyclability of materials

*Provide detail and evidence of any materials or components that have recyclable content.*

As well as recycled, some materials can be recyclable meaning they can be broken down and re –produced into another material for re-use extending the lifecycle and therefore the embodied energy.

* Low-no toxicity finishes and furnishings

*Provide within the SDA and in the Material Schedule on plans, details and specification of each*  *selected product, their credentials including relevant certification, VOC levels, recycled content*  *and any Life Cycle Assessment (LCA) that has been undertaken.*

\*We encourage the uptake of local products and materials that are utilizing recycled components, are Sustainably and ethically sourced, use Smart technology or from B Corp (or the like) certified companies.

\*Refer to [GECA](https://geca.eco/product-finder/) (Good Environmental Choice Australia), [GBCA Responsible Products](https://new.gbca.org.au/green-star/the-responsible-products-program/), and [Global GreenTag](https://www.globalgreentag.com/products.html) for approved materials and products.

## Transport

*Respond to the areas highlighted in green text with all relevant commitments.*

Objectives:

* To ensure that the built environment is designed to promote the use of walking, cycling and public transport, in that order;
* To minimise car dependency;
* To promote the use of low emissions vehicle technologies and supporting infrastructure.

Design initiatives:

* Provide convenient and secure bike storage facilities for building users and guests

*Provide the total number of bike storage facilities and ratio to the total number of building users and guests and show on relevant floor/site plans*

* Provide end of trip change facilities for bike users

*Provide a description of how the design provides end of trip (EOT) change facilities (showers, change rooms & lockers) for bike users and ratio to the total number of on-site bicycle storage spaces*

* Access to public transport

*Provide a description of the sites proximity and access to public transport and show on relevant site &/or Green Travel Plan (GTP)*

* Reduction in extent of onsite car parking

*Provide a description of any parking dispensation being sought and provide details for consideration and include in a Green Travel Plan (GTP)*

* Provision of Electric Vehicle (EV) charging point / infrastructure

*Provide a description and show location on plans of any proposed EV infrastructure, whether connected or ready for future use, include the level (1, 2 or 3) of the charger to be installed, refer to:* [CASBE-06-1-Electric-Vehicles-v5-June-2022.pdf](https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-06-1-Electric-Vehicles-v5-June-2022.pdf) and[EV-ready buildings (energy.vic.gov.au)](https://www.energy.vic.gov.au/renewable-energy/zero-emission-vehicles/ev-ready-buildings)

* Access to car share services

*Provide a description of any on or off-site car share service and show on relevant site plans*

## Waste Management

*Respond to the areas highlighted in green text withal relevant commitments.*

Objectives:

* To ensure waste avoidance, reuse and recycling during the design, construction, and operation stages of development.
* To ensure sufficient space is allocated for future change in waste management needs, including (where possible) composting and green waste facilities.

Design initiatives:

* Demolition and Construction Waste Management Plan

*Provide description of how demolition and construction waste will be managed through the construction process including material sorting, disposal and targeted recycling rates*

Recommendation for around 80% of demolition waste be recycled and at least 30% re-used on site (where applicable). \*A Disclosure Statement is required from waste contractors and processing facilities for proof of recycling / diversion from landfill.

* Operation Waste Management Plan (WMP)

*Provide description of how operational waste will be managed through the occupied life of the building*

* Allocated space(s) for general waste, recycling and green waste

*Provide a description of any parking dispensation being sought and provide details for consideration e.g. green travel plan*

Consider provision of space and collection for glass, FOGO, e-waste &/or hard rubbish (where applicable) in addition to general, recycling and green waste bins

## Urban Ecology

*Respond to the areas highlighted in green text with all relevant commitments.*

Objectives:

* To protect and enhance biodiversity;
* To provide natural habitats and minimise the urban heat island effect;
* To encourage the retention of significant trees;
* To encourage the planting of indigenous vegetation; and
* To encourage the provision of space for productive gardens, particularly in larger residential developments.

Design initiatives:

* Landscaped areas to be designated

*Provide a description of all new, existing retained and existing removed landscaped areas and indicate how the design has enhanced the sites biodiversity, show on relevant site/floor and landscape plans.*

* Maintaining, enhancing and encouraging new biodiversity and native vegetation of a site

*Provide a description of how the design has retained native vegetation and allowed for drought tolerant native vegetation, shown on relevant site/floor and landscape plans, and that encourages connection to neighbouring vegetation, promotes mid-storey and ground cover and provides habitat (i.e. hollows).*

* Green Roofs, Walls and Facades

*Where there is limited or no landscaped space, provide a green roof, wall or façade to improve cooling, shading, softening and encourage biodiversity and health benefits to occupants and surrounding amenity*. Refer to <https://casbe.wpenginepowered.com/wp-content/uploads/2022/06/CASBE-08-1-Green-RoofWallFacade-v5-June-2022.pdf>

## Innovation

*Respond to the areas highlighted in green text withal relevant commitments.*

Objectives:

* To encourage innovative technology, design and processes in all development, so as to positively influence the sustainability of buildings.

Design initiatives:

* Significant enhancement of best practice ESD standards

*Provide a description of how design exceeds best practice standards in one or more of the other categories*

* Introduction to new technology implemented to enhance ESD outcomes

*Provide a description of how the design implements unique/new methods and strategies to enhance design outcomes.*

* Passive design

*Provide a description of how the design implements passive design strategies that maximise natural resources and minimise greenhouse gas emissions aiming to be carbon neutral*

* Responding to local climate conditions

*Provide a description of how the design responds to local climate conditions which enhance ESD outcomes*

We encourage the uptake of local products and materials that are utilizing recycled components, Smart technology or from B Corp (or the like) certified companies.

## Construction and Building Management

*Respond to the areas highlighted in green text with all relevant commitments*

Objectives:

* To encourage a holistic and integrated design and construction process and ongoing high performance buildings.

Design initiatives:

* Pre-Application meeting

*Has a pre-application meeting with the Applicant, Council and ESD officer been carried out.*

This is highly recommended and at the earliest stage.

* Environmental credentials of project team

*Where known provide any environmental credentials of the project team (i.e. Contractor has valid ISO14001 environmental management accreditation, Green Star Accredited Professional (GSAP))*

* Non-Residential – preliminary thermal performance or façade modelling
* Tuning of building systems

*Provide a description of how the designs building systems are managed to ensure optimal efficiency*

* Building User’s Guide (BUG) that explains a building’s ESD principles

*Include a description of intent to provide building occupants with a user’s guide that explains ESD initiatives of the building and circulate at occupancy stage*

This is highly recommended for medium-large residential and commercial developments to facilitate ongoing operational management, as well as compliance of implementation.

* Operation Environmental Management Plan (EMPs)

*Provide a description of any Environmental Management Plans that intend to be implemented during operation phase*

For developments with dual occupants – have individual and separate utility metering been provided?

# Implementation

Implementation of the ESD initiatives outlined in this report require the following processes:

* Full integration with architectural plans and specifications
* Full integration with building services design drawings and specifications
* Endorsement of the ESD Report / SDA with town planning drawings
* ESD initiatives to be included on plans and specifications for building approval
* Provision of Supporting Documents (refer next page, and include as Appendices with this Report)

## ESD Initiatives to be marked on Architectural plans

*Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes (double glazed, openable), sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans.*

*The site’s permeability should be clearly noted, and relevant calculations included. It is also recommended to indicate water catchment areas on roof or site plans to confirm water re-use calculations.*

|  |  |
| --- | --- |
|  |  |

## Supporting Documents

*provide the relevant document / report in Appendices that apply to this development application and remove those not applicable*

Assessment Tools:

* Built Environment Sustainability Scorecard (BESS) assessment – [www.bess.net.au](http://www.bess.net.au)
* Green Star – [www.gbca.org.au](http://www.gbca.org.au)
* Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Energy Efficiency:

* Nationwide House Energy Rating Scheme (NatHERS) assessment - [www.nathers.gov.au](http://www.nathers.gov.au)
* National Construction Code (NCC) Volume 2 Part 3.12 assessment - [www.abcb.gov.au](http://www.abcb.gov.au)
* National Construction Code (NCC) Volume 1 Preliminary Section J Report - [www.abcb.gov.au](http://www.abcb.gov.au)
* National Construction Code (NCC) Volume 1 or 2 Glazing Calculator Assessment - [www.abcb.gov.au](http://www.abcb.gov.au)
* National Construction Code (NCC) Volume 1 or 2 Lighting Calculator Assessment - [www.abcb.gov.au](http://www.abcb.gov.au)
* National Australian Built Environment Rating Scheme ([NABERS](https://www.nabers.gov.au/))

Water Efficiency:

* Tankulator Assessment – [www.tankulator.ata.org.au](http://www.tankulator.ata.org.au)

Stormwater:

* Storm Calculator Report – [www.storm.melbournewater.com.au](http://www.storm.melbournewater.com.au)
* Model for Urban Stormwater Improvement Conceptualisation (MUSIC) Report – [www.ewater.org.au](http://www.ewater.org.au)

Indoor Environment Quality:

* Daylight Modelling (simulations preferred over hand calculations)

Urban Ecology

* Landscape Plan

Transport:

* Walk score Assessment – [www.walkscore.com](http://www.walkscore.com)
* Green Travel Plan

Building Management:

* Building Users Guide (BUG)