



## EFFICIENT USE OF RESOURCES

### Commercial developments and the commercial component of mixed-use developments

This commitment table is to be completed for all development applications for commercial or mixed use developments that have a non-residential gross floor area less than 5000m<sup>2</sup>.

Applicants must indicate in the compliance column whether the proposed development complies with the provision or, in cases where information is not available at development application stage to demonstrate compliance, that the applicant is committed to achieving compliance with the provision.

Non-compliance, an unwillingness to commit to compliance, or the reason/s why a provision is not applicable to the proposed development should be explained in the comment column.

Where a provision only provides guidance the applicant should indicate in the comment column whether the provision was considered in the design of the development and how the development has benefited from the guidance.

This commitment table may form part of the consent documentation, or form the basis of conditions of consent, should the development application be approved.

#### PRIVACY STATEMENT

North Sydney Council is collecting your personal information for the purposes of processing an application or submission. The supply of personal information is entirely voluntary. If you elect not to provide or do not wish to provide your personal information, Council may not be able to process your application or act on or acknowledge your submission. North Sydney Council shall be regarded as the agency that holds your personal information and access to your personal information by interested parties, may be released in line with Council policies. North Sydney Council may publish any personal information included in a submission on a proposal or proposed development. You have a right to access your personal information held by Council. You also have a right to have your personal information corrected or amended by Council. Applications by members of the public to view Council's records which are not in the public arena are subject to the provisions of Privacy and Personal Information Protection Act 1998, Government Information (Public Access) Act 2009 and North Sydney Council's Privacy Management Plan.

Compliance key:   ✓ = compliant or committed to compliance  
                           X = not compliant or not committed to compliance (comment required)  
                           N/A = not applicable (comment required)

<b>PART A: INFORMATION AVAILABLE AT DEVELOPMENT APPLICATION STAGE</b>			
<b>Objectives</b>	<b>Provision</b>	<b>Compliance</b>	<b>Comment</b>
<b>Energy efficiency</b>			
1. To ensure that developments minimise their use of non-renewable energy resources.  2. To ensure that buildings are designed such that the air conditioning plant meets performance requirements, while minimising energy usage.	The development has been designed so that it will not reduce the energy efficiency of buildings in the vicinity.		
	Mechanical space heating and cooling systems have been designed to target only those spaces which require heating and cooling, not the whole building.		
	Car parking areas have been designed so that electric vehicle charging points can be installed at a later time.		
<b>Passive solar design</b>			
1. To ensure that the site layout and building orientation allows for maximum solar access and are adapted to local climatic conditions and prevailing site characteristics.	Site layout and building orientation are adapted to local climatic conditions and prevailing site characteristics, such as existing overshadowing, planting and slope.		
	The long axis or length of the building is oriented to the northerly aspect.		
	East and west facing glazing is minimised and fully shaded at noon at the summer solstice.		
	Natural light access has been optimised through limiting the internal depth of the building to reduce the amount of energy used to run artificial lighting.		
	The landscaping plan submitted with the development application shows how the landscaping contributes to energy efficiency by providing substantial shade in summer, especially to west-facing windows and open car park areas, and admitting winter sunlight to outdoor and indoor working areas.		
	North facing pergolas are proposed to shade walls and windows (deciduous vines will be trained over the pergola to provide effective cooling in warm weather).		

PART A: INFORMATION AVAILABLE AT DEVELOPMENT APPLICATION STAGE			
Objectives	Provision	Compliance	Comment
	The fixed louvers of the north facing pergolas are spaced and oriented so that a line between the top of one blade and the bottom of the next makes an angle of 70°.		
	Louvres are angled to correspond to the lowest altitude angle the sun reaches at noon in winter (31° in Sydney).		
	South facing glazing has been kept to a minimum to reduce winter heat losses.		
	The building has been designed to include a north facing roof where a solar hot water system or collector can be installed.		
<b>Thermal mass and insulation</b>			
1. To achieve more even, year-round average temperature, making the building more comfortable for occupants and resulting in less demand for artificial heating or cooling.	Flooring is designed to absorb heat from the winter sun to maximise natural heating.		
	To maximise natural cooling, thermal mass is protected from summer sun with shading and insulation. The design allows for cool night breezes and air currents to pass over the thermal mass, drawing out all the stored energy.		
	Masonry walls and insulated walls and ceilings have been incorporated to contribute to the effectiveness of thermal mass.		
	The roof, walls and floor, incorporate thermal insulation.		
	Awnings, shutters or double-glazing are proposed to be incorporated to minimise heat loss/gain.		
<b>Water conservation</b>			
1. To minimise the use of potable water.  2. To encourage the reuse of grey water, rainwater and stormwater.	The development is designed so that stormwater runoff will be collected and reused for subsurface irrigation.		
	The development is designed to incorporate a water efficient irrigation system.		
	A reporting system is proposed for the development to inform/educate occupants about the buildings water consumption.		
<b>Waste management and minimisation</b>			
	The building has been designed to encourage waste minimisation (e.g. source separation, reuse and recycling).		

PART A: INFORMATION AVAILABLE AT DEVELOPMENT APPLICATION STAGE			
Objectives	Provision	Compliance	Comment
1. To minimise material usage and waste during building, construction and demolition. 2. To minimise the level of waste during operation reduce new building material usage and minimise volume of demolition materials.	The garbage room has been designed to provide adequate recycling systems.		
	The proposed development incorporates materials with long lives and low maintenance needs.		
	Contractors and sub-contractors employed to undertake proposed construction works and waste removal will be educated about the waste objectives of the development.		
	The storage of any hazardous waste materials will be adequately secured.		
<b>Stormwater management</b>			
1. To mimic pre-development or natural drainage systems through the incorporation of WSUD on-site. 2. To protect watersheds by minimising stormwater discharge and maximising stormwater quality. 3. To minimise off-site localised flooding or stormwater inundation.	The development has been designed to ensure that, as a minimum, post-development stormwater discharge rates will be less than pre-development stormwater discharge rates.		
	The development has been designed to ensure that, as a minimum, post-development stormwater quality will be improved from pre-development levels.		
	On-site stormwater detention, including the use of grass swales and detention basins, has been incorporated to minimise and filter stormwater runoff.		
	Impervious surfaces have been minimised.		
<b>Building materials</b>			
1. To encourage the use of materials which have a low environmental impact during their life cycle. 2. To encourage the use of toxin free material to minimise the health impact of materials used indoors. 3. To maximise the energy efficiency of buildings.	Products with the least life cycle impact have been favoured.		
	The development has been designed to ensure the following types of building materials will be used: (a) materials which are sourced from renewable and abundant resources; (b) materials which are durable; (c) locally manufactured materials and produced; (d) materials with a low embodied energy content; (e) salvaged and/or recycled materials; (f) timber used be obtained from certified sustainable sources; (g) materials with a high recycled content (>50%); (h) low volatile organic compound (VOC) emitting materials;		

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Objectives	Provision	Compliance	Comment
	<ul style="list-style-type: none"> <li>(i) mechanical fixings instead of adhesives and glues, wherever possible;</li> <li>(j) when using Medium Density Fibreboard, ensure that it has a low formaldehyde content;</li> <li>(k) materials which are non-toxic including toxin-free floor finishes.</li> </ul>		
	<p>The development has been designed to ensure the following materials will be avoided:</p> <ul style="list-style-type: none"> <li>(a) copper, chrome, cadmium, lead, mercury, cyanide, and formaldehyde;</li> <li>(b) materials, sealants and adhesives containing PVC;</li> <li>(c) wood treated with CCA;</li> <li>(d) solvents.</li> </ul>		
	<p>The development has been designed to incorporate physical termite barriers (made of granite or stainless steel) instead of chemicals.</p>		
	<p>The development has been designed to incorporate lighter coloured materials and finishes on the main external parts of the building.</p>		
<b>Adaptive reuse of buildings</b>			
1. To encourage the adaption and reuse of buildings.	<p>The development has been designed so that existing buildings are reused in preference to demolition.</p>		
	<p>Buildings have been designed to encourage adaptable office floorspace to accommodate changing occupier requirements.</p>		
<b>Green roofs</b>			
<ul style="list-style-type: none"> <li>1. To provide accessible roof space providing increased amenity for the occupants and visitors of the building.</li> <li>2. To improve the aesthetics and amenity of the urban environment (this particularly relates to the appearance of the roof when viewed from surrounding buildings).</li> </ul>	<p>As the proposed development involves the creation of new roof space, a roof plan has been submitted that demonstrates how the new available roof space contributes to the achievement of at least three of the above objectives.</p> <p>The roof plan illustrates those parts of the available roof space to be used as a green roof immediately after construction of the proposed works. Applicants are encouraged to install green roofs immediately after construction.</p> <p>Applicants are advised to consult the North Sydney Council Green Roof and Wall Resource Manual for technical guidance on the design, construction and maintenance of green roofs.</p>		

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Objectives	Provision	Compliance	Comment
<p>3. To provide space to accommodate renewable energy production.</p> <p>4. To improve stormwater management by controlling both the quality and flow of stormwater.</p> <p>5. To increase biodiversity by the use of plant material, and in particular to promote food production where appropriate.</p> <p>6. To protect the building structure by increasing its thermal protection which will also help to reduce internal heating and cooling requirements</p>			
PART B: INFORMATION AVAILABLE AT CONSTRUCTION CERTIFICATE STAGE			
Objectives	Provision	Compliance	Comment
<b>Energy efficiency</b>			
<p>1. To ensure that developments minimise their use of non-renewable energy resources.</p> <p>2. To ensure that buildings are designed such that the air conditioning plant meets performance requirements, while minimising energy usage.</p>	<p>As the development is a multi-floor or multi-tenant or strata-subdivided development, electricity sub-metering will be provided for lighting, air-conditioning and power within each floor and/ or tenancy and/or strata unit. Locations are identified on the development plans. Electricity sub-metering will also be provided for significant end uses that will consume more than 10,000 kWh/a.</p>		
	<p>Appliances and equipment that generate waste heat (such as copiers) will be located in areas separated from the spaces requiring cooling.</p>		
<p>3. To encourage the use of energy efficient lighting.</p>	<p>As the building contains greater than 2000m<sup>2</sup> of non-residential gross floor area it will be capable of achieving a minimum 4.5 star rating under DECCW's NABERS Energy. In this regard, the following information will be lodged with the relevant</p>		

PART A: INFORMATION AVAILABLE AT DEVELOPMENT APPLICATION STAGE			
Objectives	Provision	Compliance	Comment
	<p>certifying authority (Council or an accredited certifier) prior to the issue of a Construction Certificate:</p> <p>(a) Evidence that a Commitment Agreement has been entered into with DECCW, to deliver this star rating for the base building (i.e. services traditionally supplied as 'common' to tenants, such as air conditioning, lifts and common area lighting) or for the whole building where the applicant is to occupy the entire building.</p> <p>(b) An independent energy assessment report that follows the guidelines in DECCW's NABERS Energy and Water for Offices Rules for collecting and using data. This document can be obtained from <a href="http://www.nabers.com.au">www.nabers.com.au</a>;</p> <p>(c) A computer building simulation in accordance with DECCW's NABERS Energy Guide to Building Energy Estimation. This document can be obtained from <a href="http://www.nabers.com.au">www.nabers.com.au</a>. The computer building simulation will demonstrate to the satisfaction of Council, or the private certifier if Council is not the certifying authority, that the building can reasonably be expected to achieve the proposed rating under realistic operating conditions.</p>		
<b>Passive solar design</b>			
1. To ensure that the site layout and building orientation allows for maximum solar access and are adapted to local climatic conditions and prevailing site characteristics.	Shading devices will be provided on north facing walls to completely shade glazing from October to late February. To calculate the extent of shading device, draw a section and extend a line from the base of the window at 70°. The outer edge of the eaves must reach this line.		
<b>Water conservation</b>			
1. To minimise the use of potable water.	Endemic plants (as listed on Council's website) and xeriscape principles will be used in landscaping.		
<b>Waste management and minimisation</b>			
1. To minimise material usage and waste during building, construction and demolition. 2. To minimise the level of waste during operation	A Waste Management Plan for the demolition, construction and operation of the building is, or will be, provided in accordance with Part B: Section 19 - <i>Waste Management</i> of DCP 2013.		

PART A: INFORMATION AVAILABLE AT DEVELOPMENT APPLICATION STAGE			
Objectives	Provision	Compliance	Comment
reduce new building material usage and minimise volume of demolition materials.			
<b>Stormwater management</b>			
1. To mimic pre-development or natural drainage systems through the incorporation of WSUD on-site. 2. To protect watersheds by minimising stormwater discharge and maximising stormwater quality. 3. To minimise off-site localised flooding or stormwater inundation.	An Erosion and Sediment Control Plan for the construction of the building is, or will be, provided in accordance with Part B: Section 17 - <i>Erosion and Sediment Control</i> of DCP 2013.		
	A Stormwater Management Plan for the operation of the building is, or will be, provided demonstrating compliance with Section 18 – <i>Stormwater Management</i> of DCP 2013.		
	The Stormwater Management Plan demonstrates how run-off from the site will be minimised and the quality of water leaving the site will be improved.		
	Paved areas will be at least 50% pervious.		
	As the building is a commercial, industrial or mixed-use development with a gross floor area greater than 2000m <sup>2</sup> , a Water Sensitive Urban Design report from a suitably qualified consultant demonstrating that WSUD has been incorporated to the maximum extent practicable and that stormwater discharge will be reduced to the maximum extent practicable will be provided. This is in addition to a Stormwater Management Plan.		
	As the development has a gross floor area greater than 2000m <sup>2</sup> a stormwater quality assessment will be undertaken by a suitably qualified consultant which demonstrates that the development will achieve the post-development pollutant load standards indicated below: (a) Litter and vegetation larger than 5mm: 90% reduction on the Baseline Annual Pollutant Load; (b) Total Suspended Solids: 85% reduction on the Baseline Annual Pollutant Load; (c) Total Phosphorous: 65% reduction on the Baseline Annual Pollutant Load; (d) Total Nitrogen: 45% reduction on the Baseline Annual Pollutant Load.		
PART C: INFORMATION AVAILABLE AT OCCUPATION CERTIFICATE STAGE			
Objectives	Provision	Compliance	Comment



PART A: INFORMATION AVAILABLE AT DEVELOPMENT APPLICATION STAGE			
Objectives	Provision	Compliance	Comment
<b>Energy efficiency</b>			
<p>1. To ensure that developments minimise their use of non-renewable energy resources.</p> <p>2. To ensure that buildings are designed such that the air conditioning plant meets performance requirements, while minimising energy usage.</p> <p>3. To encourage the use of energy efficient lighting.</p>	<p>Where the proposed development involves the installation of:</p> <p>(a) hot water systems;</p> <p>(b) clothes drier;</p> <p>(c) dishwasher;</p> <p>(d) fixed air conditioning systems (including reverse cycle systems); or</p> <p>(e) fixed heating systems;</p> <p>they will have a minimum energy star rating of 4.5 stars.</p>		
	Lighting for streets, parks and any other public domain spaces provided as part of a development will be energy efficient LED lighting.		
	Hot water systems will be insulated.		
	Solar hot water systems will be provided.		
	On-site renewable energy sources will supplement energy needs during daily peak energy use.		
	Timers and movement sensors will be used to minimise energy consumption, particularly for lighting and mechanical ventilation in public areas.		
	Energy efficient lighting and technology will be used to reduce energy consumption.		
	Solar powered lighting will be used for external areas.		
	Lighting systems will be designed to target only those spaces which require lighting at any particular 'off-peak' time, not the whole building.		
<b>Thermal mass and insulation</b>			
<p>1. To achieve more even, year-round average temperature, making the building more comfortable for occupants and resulting in less demand for artificial heating or cooling.</p>	<p>Ceiling/roof insulation must be rated R3.0 or equivalent and wall insulation must have an R1.5 or equivalent rating. Insulation of cavity brick walls is not required. These ratings are based on AS 2627: Part 1-1993.</p>		

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Objectives	Provision	Compliance	Comment
<b>Water conservation</b>			
<p>1. To minimise the use of potable water.</p> <p>2. To encourage the reuse of grey water, rainwater and stormwater.</p>	<p>Where the proposed development involves the installation of new:</p> <ul style="list-style-type: none"> <li>(a) shower roses;</li> <li>(b) taps for use over a basin, ablution trough, kitchen sink or laundry tub;</li> <li>(c) flow restrictors;</li> <li>(d) toilets;</li> <li>(e) white goods, such as clothes washers or dishwashers;</li> </ul> <p>they will have the highest Water Efficiency Labelling Scheme (WELS) star rating available at the time of development.</p>		
	<p>Recycled water (served by dual reticulation) will be utilised for permitted non-potable uses such as toilet flushing, laundry, irrigation, car washing, firefighting, industrial processes and cooling towers.</p>		
	<p>Rainwater will be harvested and used for garden irrigation and toilet flushing.</p>		
	<p>Separate meters will be installed for the make-up lines to cooling towers, swimming pools, on the water supply to outdoor irrigation, and other significant end uses.</p>		
	<p>Cooling towers will:</p> <ul style="list-style-type: none"> <li>(a) employ alternative water sources; or</li> <li>(b) include a water meter connected to a building energy and water metering system to monitor water usage; and</li> <li>(c) be connected to a recirculating cooling water loop; and</li> <li>(d) not incorporate a single pass cooling system; and</li> <li>(e) be connected to a conductivity meter to ensure optimum circulation before discharge.</li> </ul>		
	<p>A pool cover will be installed for any external swimming pool.</p>		
	<p>Rainwater tanks or other alternative water sources including recycled water systems will be installed to minimise the use of potable water and maximise the use of alternative water sources.</p>		
	<p>Rainwater tanks will be plumed to appropriate end uses, including toilet flushing, water features, car washing and garden irrigation.</p>		

PART A: INFORMATION AVAILABLE AT DEVELOPMENT APPLICATION STAGE			
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	Separate meters will be installed on separate units of occupancy in non-residential BCA class 5, 6 and 7 buildings.		
	Waterless urinals will be used.		
	Sensor operated taps, or automatic shutoff taps, will be installed especially in public areas.		
<b>Stormwater management</b>			
<ol style="list-style-type: none"> <li>1. To mimic pre-development or natural drainage systems through the incorporation of WSUD on-site.</li> <li>2. To protect watersheds by minimising stormwater discharge and maximising stormwater quality.</li> <li>3. To minimise off-site localised flooding or stormwater inundation.</li> </ol>	<p>Rainwater tanks will be installed for all developments, including major alterations and additions and mixed-use developments. Rainwater tanks will be plumbed to appropriate end uses, including toilet flushing, water features, car washing and garden irrigation, to ensure sufficient use of tank water so that capacity exists to accommodate rainwater from storm events.</p>		