

Attachment C

**Sydney Development Control Plan 2012 and
Green Square Town Centre Development
Control Plan 2012 – Energy and Waste
Amendment 2018**

Sydney Development Control Plan 2012 and Green Square Town Centre Development Control Plan 2012 – Energy and Waste Amendment 2018

Amend the section below by:

- pre-exhibition new text shown as underlined and deleted as ~~striketrough~~
- post exhibition additions are shown as shaded and deleted as ~~striketrough~~.

The following changes are proposed to *Sydney Development Control Plan 2012* and *Green Square Town Centre Development Control Plan 2012*:

Sydney Development Control Plan 2012

Ecologically Sustainable Development

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3.6 Ecologically Sustainable Development

This section sets out objectives and controls to provide a framework for the application of ecologically sustainable development principles in the design, construction and operation of buildings across Sydney local government area.

Council encourages ~~all applicants to implement the principles~~ the application of ecologically sustainable development ~~principles in the proposed~~ for all development. Implementing the principles ~~of ESD~~ means that the development will be designed and constructed so that it complies with the following objectives:

- a) Greenhouse gas emissions will be reduced.
- b) The use of cogeneration and tri-generation systems will be increased.
- c) Energy that is used will be renewable and low carbon.
- d) Potable water use will be reduced.
- e) Development can adapt to climate change.
- f) Waste will be reduced.
- g) Recycling of waste and use of products from recycled sources will be increased.
- h) Indoor environmental quality will be improved.
- i) The environmental impact from building materials will be reduced through reduction, re-use and recycling of materials, resources and building components.
- j) The biodiversity will be improved.

Section J of the Building Code of Australia ~~also~~ contains mandatory requirements for the design of building envelopes and fixtures to minimise energy use.

The Commonwealth Commercial Building Disclosure Program requires energy efficiency information to be provided in most cases when commercial office space of 1,000 sqm or more is offered for sale or lease. The aim is to improve the energy efficiency of Australia's large office buildings and to ensure prospective buyers and tenants are informed. The Commercial Building Disclosure Program is an initiative of the Council of Australian Governments. It was established

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~~by the *Building Energy Efficiency Disclosure Act 2010* and is managed by the Australian Government Department of the Environment and Energy.~~

In NSW, *State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004* (BASIX SEPP) mandates provisions that aim to reduce consumption of mains-supplied potable water, reduce emissions of greenhouse gases and improve thermal comfort in all residential development. The BASIX SEPP sets the minimum standards that a development is to achieve. The BASIX SEPP also mandates that a DCP cannot include provisions which require a development to exceed its minimum standards. However, where voluntarily proposed, Council encourages development to exceed minimum BASIX scores. ~~Council does not require a development to achieve a score under any other building rating tool.~~

~~Section J of the Building Code of Australia also contains mandatory requirements for the design of building envelopes and fixtures to minimise energy use.~~

~~On 21 September 2009, Council resolved to appoint the international engineering and design firm ARUP to develop a Decentralised Energy Master Plan for renewable energy. ARUP will look at a range of renewable means of generating electricity and methods to implement it. The Plan will become the roadmap to converting 25-30 per cent of the City's electricity use from coal-generated electricity to renewable sources.~~

~~The City is also preparing a Combined Cooling, Heat and Power (Tri-generation) Master Plan (CCMP) for the LGA. The plan will detail specific information about the locations, size and scale of a network of tri-generation plants.~~

~~Ultimately the "Green Infrastructure Master Plans" will provide a framework for the City's future sustainability targets. Once the Master Plans are in place, this DCP will be amended accordingly in order to respond to the matters contained in them. Heating, ventilation and cooling systems are to be designed and constructed to enable connections to and maximise the use of local CCHP or CHP networks.~~

~~Applicants are advised that on 1 November 2010, a Mandatory Commercial Building Disclosure program commenced. This program has been prepared by the Federal Government's Department of Climate Change and Energy Efficiency and aims to ensure that credible and meaningful energy efficiency information is available to purchasers and lessees of large commercial office space. This program applies to commercial buildings with a net lettable floor area of 2,000 sqm or more and requires owners to disclose energy efficiency information to purchasers and lessees when the space is to be sold, leased or subleased. More information is available from the Australian Government Department of Climate Change and Energy Efficiency.~~

From time to time Council may provide guidelines or other relevant information that will assist applicants to implement the principles of ecologically sustainable development ESD.

In the absence of comprehensive government standards and building rating tools which can be used to assess the environmental performance of buildings, Council encourages applicants to use an environmental building rating tool, such as Green Star or any similar rating tool, to demonstrate the environmental performance of a proposed development.

Applicants should contact the operator of the rating tool, such as the Green Building Council of Australia, if they wish to obtain a certified rating. Where an applicant voluntarily proposes achieving a Green Star or other building tool rating Council will apply a condition of

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development consent that requires the development to obtain the certified rating that was nominated by the applicant.

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3.6.1 Energy efficiency in non residential development

- (1) Development is to be designed and constructed to reduce the need for active heating and cooling by incorporating passive design measures including design, location and thermal properties of glazing, natural ventilation, appropriate use of thermal mass and external shading, including vegetation.
- (2) Lighting for streets, parks and any other public domain spaces provided as part of a development should be energy efficient lighting such as LED lighting.
- (3) In multi-tenant or strata-subdivided developments, electricity sub-metering is to be provided for lighting, air-conditioning and power within each tenancy or strata unit. Locations are to be identified on the development plans.
- (4) Electricity sub-metering is to be provided for significant end uses that will consume more than 10,000 kWh/a.
- (5) Car parking areas are to be designed and constructed so that electric vehicle charging points can be installed at a later time.
- (6) Where appropriate and possible, the development of the public domain should include electric vehicle charging points or the capacity for electric vehicle charging points to be installed at a later time.
- (7) Applications for new developments containing office premises with a net lettable area of 1,000sqm or more are to be submitted with documentation confirming that the building will be capable of supporting a Base Building National Australian Built Environment Rating System (NABERS) Energy Commitment Agreement of 5.5 stars with the NSW Office of Environment and Heritage. Such an agreement is to be entered into prior to any construction certificate being issued for the approved development.
- (8) Applications for developments involving alterations, additions and refurbishments to existing office premises where the estimated cost of works is over \$5 million, and contains a net lettable area of 1,000sqm or more, are to be submitted with documentation confirming that the building will be capable of supporting a Base Building National Australian Built Environment Rating System (NABERS) Energy Commitment Agreement of 5.5 stars with the NSW Office and Environment Heritage. Such an agreement is to be entered into prior to any construction certificate being issued for the approved development. Notwithstanding, a Base Building National Australian Built Environment Rating System (NABERS) Energy Commitment Agreement of 5.5 stars is not required where the consent authority is satisfied that:
 - (a) the upgrade works would negatively impact on significant heritage fabric or the heritage significance of a listed heritage item, or
 - (b) the costs associated with the energy efficiency upgrade works are unreasonable when compared to the overall estimated cost of works for the alterations, additions and refurbishment.

- (9) Any application which may impact on significant heritage fabric or the heritage significance of a listed item is to be supported by a Heritage Impact Statement prepared by an appropriately experienced heritage consultant.
- (10) Where it is asserted that the costs are unreasonable under subclause (8)(b) the development application is to be supported by a registered Quantity Surveyor's detailed cost report itemising and verifying the cost of the required energy efficiency upgrade works.

Transport and Parking

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3.11.13 Design and location of waste collection points and loading areas

(1) Waste collection and loading is to be in accordance with the City of Sydney's *Guidelines for Waste Management in New Developments* (the Guidelines) and accommodated wholly within new development ~~to reduce noise impacts on surrounding residents, in one of the following ways~~ in order of preference:

- (a) in the building's basement; or
- (b) at grade within the building in a dedicated collection or loading bay; or
- (c) at grade and off street within a safe vehicular circulation system where in all cases vehicles will enter and exit the premises in a forward direction.

Consideration will only be given to less preferable options if the consent authority is satisfied the preferred options are unreasonable.

(2) The waste collection and loading point is to be designed to:

- (a) allow waste collection and loading operations to occur on a level surface away ~~and from~~ vehicle ramps; and
- (b) provide sufficient side and vertical clearance to allow the lifting arc for automated bin lifters to remain clear of any walls or ceilings and all ducts, pipes and other services.

(3) Vehicle access for collection and loading will provide for:

- (a) a 9.25m Council garbage truck and a small rigid delivery vehicle;
- (b) minimum vertical clearance of 4.0 metres ~~for residential development or else 3.8metres~~ clear of all ducts, pipes and other services, depending on the gradient of the access and the type of collection vehicle;
- (c) collection vehicles to be able to enter and exit the premises in a forward direction. Where a vehicle turntable is necessary to meet this requirement, it is to have a capacity of 30 tonnes;
- (d) maximum grades of 1:20 for the first 6m from the street, then a maximum of 1:8 with a transition of 1:12 for 4m at the lower end;
- (e) a minimum driveway width of 3.6m; and
- (f) a minimum turning circle radius of 10.5m.

~~(4) For multi-unit residential buildings and multi-storey commercial buildings, it is preferable for the collection and loading point to be inside the building, for example, in an underground car park, as this reduces noise impact on surrounding residents.~~

(5) Where vehicle access is via a ramp, design requirements for the gradient, surface treatment and curved sections are critical and must be analysed at an early stage in the design process.

Waste

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3.14 Waste

The City of Sydney's Guidelines for Waste Management in New Developments (the Guidelines) provide the minimum waste management requirements for all new and 'change of use' developments requiring consent and are to be used in the design, management and operation of a building's waste and recycling systems. They include design and construction specifications for waste storage areas, the typical dimensions of collection vehicles, what streams need to be recovered in the design and operation and waste generation rates to help calculate the number, size and type of bins required.

The purpose of the Guidelines is to ensure all new buildings will provide for the efficient storage, separation, collection and handling of waste to maximise resource recovery and provide safe and healthy spaces for people to live and work in.

Waste and Recycling Management Plans are to be prepared in accordance with the Guidelines and the City's Waste Management Local Approvals Policy, which outlines how waste and recycling must be managed, stored and collected in public places.

The City of Sydney's Policy for Waste Minimisation in New Developments 2005 provides indicative waste and recycling generation rates for various uses. The Policy also establishes the design and construction specifications for waste storage areas, and the typical dimensions of collection vehicles. A location for waste collection and storage should be investigated at an early stage in the design process, including the need to accommodate collection vehicles on-site.

In 2010 the City of Sydney commenced the preparation of an Alternative Waste Facility business case and an Automated Waste Collection Master Plan. New development will be required to be consistent with the direction of these documents when available.

Objectives

- (a) Reduce the amount of construction and demolition waste going to landfill.
- (b) Reduce amount of waste generated in the operation of a development from going to landfill and maximise resource recovery.
- (c) Ensure waste from within developments can be collected and disposed in a manner that is healthy, efficient, minimises disruption to amenity, and is conducive to the overall minimisation of waste generated.

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3.14.1 Waste and Recycling Management Plans

(1) A waste management plan A Waste and Recycling Management Plan is to be submitted with the Development Application and will be used to assess and monitor the waste management process within a development management of waste and recycling during construction and operational phases of the proposed development. The Waste and Recycling Management Plan is to be consistent with the City of Sydney Policy for Waste

Minimisation in New Developments 2005 City of Sydney Guidelines for Waste Management in New Developments.

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3.14.2 Construction and demolition waste

The Waste and Recycling Management Plan is to address construction and demolition waste and include:

- (a) details regarding how waste is to be minimised within a development;
- (b) estimations of quantities and types of materials to be re-used or left over for removal from the site;
- (c) details regarding the types of waste and likely quantities of waste to be produced;
- (d) a site plan showing storage areas away from public access for reusable materials and recyclables during demolition and construction and the vehicle access to these areas;
- ~~(e) details of reusing or recycling methods for waste either on-site or off-site;~~
- (f) targets for recycling and reuse;
- (g) nomination of the role/person responsible for ensuring targets are met and the person responsible for retaining waste dockets from facilities appropriately licensed to receive the development's construction and demolition waste;
- (h) confirmation that all waste going to landfill is not recyclable or hazardous; and
- (i) measures to reuse or recycle at least 80% of construction and demolition waste, either on site or diverted for reuse and recycling with receipts sufficient to demonstrate the target will be achieved.

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3.14.3 Collection and minimisation of waste during occupation

(1) The Waste and Recycling Management Plan is to address the generation of waste from the occupants of the development and include:

- a) plans and drawings of the proposed development that show:
 - i. the location and space allocated to the waste and recycling management systems; facilities
 - ii. ~~nomination of~~ the nominated waste collection point/s for the site; and
 - iii. ~~Identification of~~ Identify the path of access for users and collection vehicles.
- b) details of the on-going management of the storage and collection of waste and recycling, including responsibility for cleaning, transfer of bins between storage areas and collection points, maintenance of signage, and security of storage areas; and
- c) where appropriate to the nature of the development, a summary document for tenants and residents to inform them of waste and recycling management arrangements.

(2) Waste incineration devices are not permitted.

(3) Development is to include sufficient space in kitchens to separate food waste for collection or compostable material and other areas where waste might be generated for the separation of waste into recyclables, waste to landfill and organics for composting or worm farming.

(4) Development is to include a separate space in a room or screened area for the storage and management of bulky waste (this can include furniture, mattresses and stripout waste) and problem waste (this can include light bulbs and electronic waste) for recycling collection.

Residential Flat, **Commercial Non-Residential** and Mixed Use Developments

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4.2.6 Waste and recycling management **minimisation**

Refer to more detailed waste and recycling management controls in the City of Sydney's ~~Policy for Waste Minimisation in New Developments 2005 and A Guide to Waste Management Planning (2002)~~, Resource NSW available at: [www.resource.nsw.gov.au/Guidelines for Waste Management in New Developments](http://www.resource.nsw.gov.au/Guidelines%20for%20Waste%20Management%20in%20New%20Developments) (the Guidelines) are to be considered in conjunction with the City's *Waste Management Local Approvals Policy*, which outlines how waste and recycling must be managed, stored and collected in public places.

Development must also comply with Section 3.14.1 Waste minimisation plans and Recycling Management Plans.

Objectives

- (a) Ensure that each dwelling has adequate space to manage waste and recycling.
- (b) Ensure that buildings provide appropriate facilities to manage waste and maximise recovery of resources.
- (c) Ensure that residential amenity is not impacted by waste systems and collection.

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4.2.6.1 General

(1) Comply with the City of Sydney's ~~Policy for Waste Minimisation in New Developments 2005~~ Guidelines for Waste Management in New Developments

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4.2.6.2 Residential flat buildings and serviced apartments

(1) A space is to be provided inside each dwelling for separate storage of at least ~~one~~ two day's volume of general waste, recyclables and compostable materials.

(2) Provide a centralised waste and recycling room storage area (s) near the collection point with capacity to store all waste and recycling likely to be generated in the building in the period between normal collection times.

~~(2) For buildings more than 3 storeys, provide a waste and recycling chute on each floor such that the total travel distance from any dwelling to a waste chute does not exceed 40m.~~

~~(3) Where a waste and recycling chute system is used:~~

- ~~(a) chute openings are to open only into a waste service compartment or room for safety purposes; and~~
- ~~(b) the waste service compartment or room on each floor must also include space for containers for the intermediate storage of recyclables.~~

(3) Provide a separate space such as a room or screened area (in a designated area or room in or attached to the waste and recycling storage area) for the storage and recycling of bulky waste, textile waste and problem waste for collection.

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(4) The maximum walking distance from any entrance of a residential dwelling to the waste and recycling storage area is not to exceed 30 metres (lift travel distance not included) and should be located close to lifts and/or stairwells.

~~(5) An additional room or caged area with a minimum volume of 8m³ is to be allocated and designated with signs for the storage of discarded bulky items and recyclable electronic goods.~~

(6 5) Space for composting and worm farming is to be available for all residents in a communal facility or in small private courtyards. Composting facilities are to be sited on an unpaved area with soil depth of at least 300mm.

(6) If a chute system is used, a dual chute system (two separate chutes, one for waste and one for recycling) is to be provided for constructed for buildings with more than nine storeys.

(7) If a chute system is used in buildings with nine or less storeys, a waste chute is required plus space for recycling bins within chute rooms (at least two 240L recycling MGB per six residences serviced by that chute). A second recycling chute can be provided but is not required.

(8) A chute room is required on each habitable floor that has a chute system. The chute room is to be designed in accordance with Section B in the *Guidelines for Waste Management in New Developments*

(7 9) Minimise noise from the operation of the waste and recycling management system to residential units by:

- (a) locating chutes away from habitable rooms, and
- (b) provide acoustic insulation to the waste service facilities or residential units adjacent to or above chutes, waste storage facilities, chute discharge, waste compaction equipment and waste collection vehicle access points.

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4.2.6.3 Additional provisions for mixed use developments

(1) The waste handling, storage and collection systems for residential and ~~commercial non-residential~~ waste are to be **completely** separate and self-contained, this includes separate keys and locking systems.

(2) Provide easy access from each central waste and recycling storage area to the nominated collection point.

(3) The Waste Management and Recycling Plan is required to separately identify the collection points and management systems for both residential and ~~commercial non-residential~~ waste streams.

(4) Demonstrate that noise and odour from the ~~commercial non-residential~~ waste facility and recycling management system does not impact on residents other occupants within the development.

(5) The design and management of the waste and recycling management system is to physically and actively discourage ~~commercial non-residential~~ tenants from using residential waste and recycling systems facilities.

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4.2.6.4 Additional provisions for non-residential developments

(8 1) Provide a waste service compartment or a waste and recycling area on each floor of the building with sufficient capacity to store at least ~~one~~ two day's volume of waste and recycling.

(2) Storage facilities for separating waste, such as paper, cardboard, containers and ~~organic food waste~~ on each floor and in the centralised waste storage area, are to be included in all ~~commercial non-residential~~ developments and indicated on the plans. The storage of paper and cardboard is to be in a dry, vermin proof area.

(4 3) Kitchens, office tearooms, service and food preparation areas are to be designed with sufficient space for the interim storage of ~~recyclable, recycling, organic~~ food and ~~regular~~ general waste in separate receptacles and is to be indicated on plans.

(4) Provide a dedicated space for storing bulky waste and problem waste for recycling as appropriate but no less than:

(a) 2m² for developments under 100m²

(b) 4m² for developments between 100m² and 2,000m²

(c) An additional 4m² is required for each retail, accommodation or entertainment development over 2,000 m² and for every 20,000 m² of office space.

(3 5) Where communal composting areas are proposed, it is preferred they are managed by a gardener or caretaker and located:

(a) in an accessible and visible area to increase awareness and so that it is well maintained;

(b) away from ~~with~~ dwellings on site and on adjacent properties, so they are not affected by potential odours; and

(c) so that potential run-off is away from site drainage points.

(4 6) Waste ~~and recycling storage~~ facilities are to be easily accessible to building occupants and removal vehicles and of a sufficient size and capacity to service the building.

(5 7) Screen storage facilities from any public place or adjoining property.

~~(6) Waste contracts for all businesses are encouraged to include provisions that allow for the collection and recycling of high grade and low grade office paper, batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes, smoke detectors and other recyclable resources.~~

(7) In addition to the standard provision for wastes and recyclables, premises are to allocate sufficient space for the separate storage of:

~~(a) recyclable electronic goods waste;~~

(a) reusable items such as crates, pallets, kegs so that storage in a public place is avoided; and

(b) liquid wastes such as oils with storage areas bunded, and drained to a grease trap, in accordance with the requirements of ~~Sydney Water~~ state government authorities and agencies.

~~(9) Provide space for the separation of cardboard for recycling on each floor and in the centralised waste storage area. The storage of paper and cardboard is to be in a dry, vermin-proof area.~~

(10 ~~8~~) If more than 10m cubic metres of uncompacted waste and recycling is likely to be generated per day the central waste and recycling room is to be separate from the goods receiving dock and waste is to be collected in a compaction unit.

~~(9) For specific premise types refer to Section D in the *Guidelines for Waste Management in New Developments* for additional provisions.~~

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Ecologically Sustainable Development

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GSTC 8.2.1 Energy efficiency in non residential developments

- (1) Applications for new developments containing office premises with a net lettable area of 1,000sqm or more are to be submitted with documentation confirming that the building will be capable of supporting a Base Building National Australian Built Environment Rating System (NABERS) Energy Commitment Agreement of 5.5 stars with the NSW Office of Environment and Heritage. Such an agreement is to be entered into prior to any construction certificate being issued for the approved development.
- (2) Applications for developments involving alterations, additions and refurbishments to existing office premises where the estimated cost of works is over \$5 million, and contains a net lettable area of 1,000sqm or more, are to be submitted with documentation confirming that the building will be capable of supporting a Base Building National Australian Built Environment Rating System (NABERS) Energy Commitment Agreement of 5.5 stars with the NSW Office and Environment Heritage. Such an agreement is to be entered into prior to any construction certificate being issued for the approved development. Notwithstanding this, a Base Building National Australian Built Environment Rating System (NABERS) Energy Commitment Agreement of 5 stars may be not required by the consent authority where it is satisfied that:
 - a. the costs associated with the energy efficiency upgrade works are unreasonable when compared to the overall estimated cost of works for the alterations, additions and refurbishment.
 - b. Where it is asserted that the costs are unreasonable under subclause (2)(a) the development application is to be supported by a registered Quantity Surveyor's detailed cost report itemising and verifying the additional cost of the required energy efficiency upgrade works.