

Compliance Table

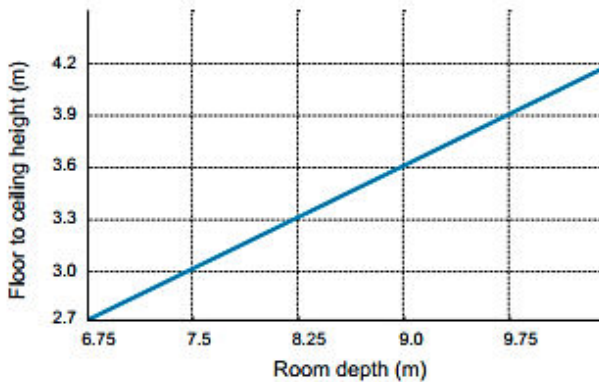
Draft Apartment Design Guide

Current RFDC Rules-of-Thumb	Draft Apartment Design Guide	Comment / Complies													
Orientation															
No control	When an adjoining property does not currently receive 3 hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%.	Complies. The proposal does not substantially increase the amount of overshadowing when compared to the approved development.													
Communal and Public Open Space															
The area of communal open space required should generally be at least between 25 and 30 percent of the site area. Where developments are unable to achieve the recommended communal open space, such as those in dense urban areas, they must demonstrate that residential amenity is provided in the form of increased private open space and / or in a contribution to public open space	Communal open space has a minimum area equal to 25% of the site area. Where developments are unable to achieve the recommended 25% communal open space, they should: - Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room. - Provide increased private open space or balconies. - Demonstrate good proximity to public open space and / or provide contributions to public open space.	Complies The proposal is located in a dense inner city environment. Appropriately, it provides a significant public plaza and archaeological viewing area. In terms of communal facilities, indoor and outdoor facilities are provided on level 1, including a lap pool, active recreation area, gym and sauna. A communal recreation area is also provided on level 19.													
	Solar access is provided to 50% of the principal useable portion of the communal open space for a minimum of 2 hours between 9am and 3pm in mid-winter.	Complies Both the communal open space areas on level 1 and level 19 have been designed to receive the appropriate solar access.													
Deep Soil Zones															
A minimum of 25% of the open space area of a site should be a deep soil zone; more is desirable. Exceptions may be made in urban areas where sites are built out and there is no capacity for water infiltration.	Deep soil zones are to generally be provided in line with the following requirements:	The proposed development is located in an inner-city environment. It is also located above a significant archaeological site, with a large public plaza at ground level. Due to these factors, providing the nominated area of deep soil coverage is not considered necessary.													
	<table border="1"> <thead> <tr> <th>Site Area</th><th>Deep Soil Zone (% of site area)</th><th>Minimum Dimensions</th></tr> </thead> <tbody> <tr> <td>Less than 650m²</td><td>7% consolidated</td><td></td></tr> <tr> <td>650m²-1,500m²</td><td>10%</td><td>3m</td></tr> <tr> <td>Greater than 1,500m²</td><td>15%</td><td>6m</td></tr> <tr> <td>Greater than 1,500m² and significant tree cover</td><td>20%</td><td>6m</td></tr> </tbody> </table> Reductions to deep soil zone requirements should demonstrate that the development provides planting on structure and addresses stormwater management in accordance with section 4F planting on structures and 4U water management and conservation. Some circumstances where alternative solutions may be acceptable include: - Lack of space for deep soil at ground level due to the building typology and its relationship to the site. For example a tower within a central business district or shop top housing in a centre. - The ground floor is predominantly non-residential, site coverage is 100% and the site is located within a centre. It is demonstrated that deep soil coverage is maximised and / or alternative planting on the structure is provided.		Site Area	Deep Soil Zone (% of site area)	Minimum Dimensions	Less than 650m ²	7% consolidated		650m ² -1,500m ²	10%	3m	Greater than 1,500m ²	15%	6m	Greater than 1,500m ² and significant tree cover
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	Pedestrian pathways and paving which is specifically designed for tree root growth occupies a maximum of 10% of the deep soil zone. Services are limited to a maximum 300mm diameter consolidated services trench.	Not applicable.
Visual Privacy		
Up to 4 storeys (12m): 12m between habitable rooms/balconies; 9m between habitable & non-habitable rooms; and 6m between non-habitable rooms. 5 to 8 storeys (up to 25m) 18 m between habitable rooms/balconies 13 m between habitable rooms/balconies & non-habitable rooms 9 m between non-habitable rooms 9 storeys and above (over 25m) 24m between habitable rooms/balconies 18m between habitable/balconies & non-habitable rooms; 12m between non-habitable rooms	Separation distances from buildings to the side and rear boundaries are as follows. Up to 12m / 4 storeys: 6m from habitable rooms and balconies. 3m from non-habitable rooms. Up to 25m (5-8 storeys) 9m from habitable rooms and balconies. 4.5m from non-habitable rooms. Over 25m (9+ storeys) 12m from habitable rooms and balconies. 6m from non-habitable rooms. Separation distances required between buildings on the same site are double those above. For the purposes of the above separation distances, the following is noted: - Retail, office spaces and commercial balconies are separated by habitable distances. - Services and plant areas are separated by non-habitable distances. Apartment buildings should have an additional 3m separation when adjacent to a zone permitting lower density residential development. For small infill sites where it is demonstrated that privacy separation distances cannot be achieved, minimum separation distances for rooms such as secondary bedrooms and studies are: 4.5m for up to 12m (4 storeys) 7m for up to 25m (5-8 storeys) 9m for over 25m (9 storeys +) The above dimensions should be used as a guide when sizing light wells.	No change from approved development.

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Bicycle and car parking																
No control	Car Parking rates close to public transport: <table><thead><tr><th colspan="2">Metropolitan Sydney</th></tr><tr><th>Location</th><th>Minimum Requirement</th></tr></thead><tbody><tr><td>Sites within 400m of a railway station or light rail stop in nominated inner and middle ring metropolitan Sydney areas</td><td>No specific requirement</td></tr><tr><td>Sites within 400m of a railway station or light rail stop in the remainder of metropolitan Sydney areas</td><td>The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less</td></tr><tr><td>Sites within 400 – 800 metres of a railway station or light rail stop</td><td>The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less</td></tr></tbody></table> <table><thead><tr><th colspan="2">Nominated Regional Centres</th></tr></thead><tbody><tr><td>Land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre.</td><td>The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less.</td></tr></tbody></table> The numbers of visitor spaces are limited, particularly in basements, to 1 space per every 10 apartments.	Metropolitan Sydney		Location	Minimum Requirement	Sites within 400m of a railway station or light rail stop in nominated inner and middle ring metropolitan Sydney areas	No specific requirement	Sites within 400m of a railway station or light rail stop in the remainder of metropolitan Sydney areas	The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less	Sites within 400 – 800 metres of a railway station or light rail stop	The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less	Nominated Regional Centres		Land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre.	The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less.	Complies
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Universal design																
No control	Development is to achieve a benchmark of 20% of total apartments incorporating the silver level universal design features as follows: Safe and continuous levelled path to entrances Accessible entry door with a minimum 820mm clear opening width and a step-free threshold Level landing area of 1200mm x 1200m at the entrance door Internal doors with a minimum 820mm clear opening width and a step-free transition between surfaces Internal corridors with a minimum of 1000mm clear width Step free shower recess Bathroom wall is reinforced for grab rails around the toilet, shower and basin A toilet is provided on the ground or entry level in multi-level apartments that provides: • minimum clear width of 900mm between walls • minimum clear circulation space forward of the toilet pan of 1200mm (excluding the door swing) Other desirable features include: Continuous travel paths that connect public and private areas Avoiding trip hazards and floor level changes Continuous handrails on stairs Additional circulation space in kitchens and laundries Providing a bathroom, bedroom, kitchen, laundry and living space on the entry level of multi-level apartments Light switches, door handles and power points at reachable heights Easy to operate tap sets	The proposed development provides 8.9% adaptable apartments within the meaning of AS4299, which is in line with the previously-approved proportion of accessible apartments. The proposed development incorporates a number of accessibility measures. This is discussed further in the Access Review Report included with the MOD4 application.														

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Solar Access		
Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10 percent of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed (see Orientation and Energy Efficiency).	Single aspect, single storey apartments have a northerly or easterly aspect.	No change from approved development.
Living rooms and private open spaces for at least 70 percent of apartments in a development should receive a minimum of three hours direct sunlight between 9 am and 3 pm in mid-winter. In dense urban areas a minimum of two hours may be acceptable.	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid-winter. Apartments that receive direct sunlight in accordance with the acceptable solution above need to demonstrate that a person is able to sit in the sun in a habitable room or on a balcony of an apartment in mid winter between 9am and 3pm.	Complies
	A maximum of 15% of apartments in a building have no direct sunlight between 9am and 3pm in mid-winter.	Complies
	There may be some circumstances or locations where an alternative solution is proposed because 3 hours of direct sunlight in mid winter is not achievable. It needs to be demonstrated that the number of apartments receiving direct sunlight has been maximised. Design drawings need to demonstrate how site constraints and orientation preclude the achievement of acceptable solutions in this section and how the development meets the performance criteria. Circumstances where this may apply include: • where apartments face greater than 20 degrees east or west of north • in major centres or areas characterised by high density development • where greater residential amenity can be achieved along a busy road or rail line by orienting living rooms away from the noise source • on south facing slopes • where significant views are oriented away from the desired aspect for direct sunlight In these circumstances the development should receive a minimum of 2 hours of direct sunlight to 70% of living rooms and balconies at mid winter. Where buildings face within 20 degrees east or west of south, apartments should maximise dual aspect or have narrow depth for single aspect apartments.	N/A
Common circulation and spaces		
In general where units are arranged off a double-loaded corridor, the number of units accessible from a single core corridor should be limited to eight	The maximum number of apartments off a circulation core on a single level is eight	A minor variation is proposed in Section D – 9 apartments are located along this corridor from levels 1-16. This is considered to be acceptable.

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Apartment Layout		
If Council chooses to standardise apartment sizes, a range of sizes that do not exclude affordable housing should be used. As a guide, the Affordable Housing Service suggest the following minimum apartment sizes which can contribute to housing affordability: (apartment size is only one factor influencing affordability) 1 Bedroom apartment 50m² 2 Bedroom apartment 70m² 3 Bedroom apartment 95m²	Minimum Apartment Sizes: Apartment type Minimum size - Studio - 35m² 1 bedroom - 50m² 2 bedroom - 70m² 3 bedroom - 95m²	568 out of 588 comply (96.6%)
No control.	Acceptable Room Depth:  Figure 4N.3 Graph showing acceptable ceiling height to room depth ratio	No change from approved development.
	A window should be visible from any point in a habitable room.	No change from approved development.
- The back of a kitchen should be no more than 8m from a window. - Single-aspect apartments should be limited in depth to 8m from a window	For open plan layouts, combining the living room, dining room and kitchen, the back of the kitchen is a maximum of 8 metres from a window	No change from approved development.
No control.	Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space)	No change from approved development.
No control.	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	No change from approved development.
No control.	Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments 4m for 2 and 3 bedroom apartments	No change from approved development.
The width of cross-over or cross-through apartments over 15m deep should be 4 metres or greater to avoid deep narrow apartment layouts.	No control.	No change from approved development.

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Ceiling Heights														
- In Mixed Use buildings: 3.3m minimum for ground floor retail or commercial and for first floor retail, residential or commercial. - Minimum 2.7m for all habitable rooms.	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: <table><tr><th colspan="2">Minimum Ceiling Height - For apartments and mixed use buildings</th></tr><tr><td>Habitable Rooms</td><td>2.7m</td></tr><tr><td>Non-habitable Rooms</td><td>2.4m</td></tr><tr><td>For 2 storey apartments</td><td>2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr><tr><td>Attic spaces</td><td>1.5m at edge of room with a 30 degree minimum ceiling slope</td></tr><tr><td>If located in mixed use areas</td><td>3.3m for ground floor to promote future flexibility of use.</td></tr></table>	Minimum Ceiling Height - For apartments and mixed use buildings		Habitable Rooms	2.7m	Non-habitable Rooms	2.4m	For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area	Attic spaces	1.5m at edge of room with a 30 degree minimum ceiling slope	If located in mixed use areas	3.3m for ground floor to promote future flexibility of use.	No change from approved development.
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Private Open Space and Balconies														
Provide ground floor apartments with access to private open space, preferably as a terrace or garden.	Primary private open space at ground level of similar space on a structure has a minimum area of 16m2 and a minimum dimension in one direction of 3m.	No ground floor apartments proposed.												
Min 2m dimension required for balconies.	Primary balconies are provided for all apartments with the following minimum area and depth according to apartment size. - For 1 bedroom apartments, a minimum area of 8m² and a minimum depth of 2m. - For 2 bedroom apartments, a minimum area of 10m² and a minimum depth of 2.5m. - For 3+ bedroom apartments, a minimum area of 12m² and a minimum depth of 2.5m. Alternative solutions such as juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate where balcony use is limited by: - Consistently high wind speeds at 9 storeys and above. - Close proximity to road, rail or other noise sources. - Exposure to significant levels of aircraft noise. An increase in communal open space should be provided where size of balconies are reduced.	No change from approved development.												
Ventilation														
Sixty percent (60%) of residential units should be naturally cross-ventilated.	For buildings 9 storeys and over an appropriately qualified wind consultant has confirmed that 60% of apartments achieve cross ventilation.	63% of apartments are naturally cross-ventilated. A Natural Ventilation Study was included with the MOD 4 application.												
Building depths, which support natural ventilation typically range from 10 to 18m.	Overall building depth does not exceed 12-18 metres.	No change from approved development.												
Twenty five percent (25%) of kitchens within a development should have access to natural ventilation.	No control.	Proposal does not comply – however, this is considered acceptable based on the fact that the development incorporates a range of other ESD initiatives.												
No control.	In dual aspect apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side).	No change from approved development.												

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Storage		
In addition to kitchen cupboards and bedroom wardrobes, provide associated storage facilities at the following rates: ▪ Studio apartments 6m³ ▪ One bedroom apartments 6m³ ▪ Two bedroom apartments 8m³ ▪ Three plus bedroom apartments 10m³ At least 50% of this should be located within the apartment.	No change	Complies