

We should encourage the development of mid-rise apartments through a complying code

Sydney is going through an apartment boom with housing approvals running at around 70% for apartments. This clearly indicates a consumer swing towards this type of living. The apartment lifestyle is about sharing amenities through shared swimming pools, shared gymnasiums and shared parks and gardens. Apartments are generally located in more urban areas, close to public transport and with coffee shops and restaurants nearby.

Sydney and most Australian cities have developed a variety of apartment types from very tall towers in city locations to 20 storey towers in town centres and mid-rise apartments as a transition to the two storey residential character that dominates most Australian cities. The Urban Taskforce has advocated strongly for taller towers at transport nodes so that good densities can support public transport. This edition of Urban Ideas is focussed on the mid-rise apartment building that will be a little further away from the railway station.

MANY COMMUNITIES PREFER MID-RISE BUILDINGS

Most Australians have grown up in low rise suburban housing and the high rise tower is an uncomfortable housing type. The mid-rise apartment building that sits below the height of the canopy of gum trees with its more horizontal form is a building type that increases density to house our growing future population but is reasonably compatible with 2 storey housing.

EUROPEAN CITIES HAVE CHAMPIONED THE MID-RISE APARTMENT

Cities like Paris and Barcelona are renowned for their consistent street edge scale of 6 to 8 storey horizontal buildings. These buildings were generally built before the lift became popular and before steel and concrete enabled taller structures to be built. Today tourists from around the world enjoy visiting these mid-rise cities. Unfortunately Sydney has missed the opportunity to develop mid-rise housing to the extent of the European cities but there are still areas where these buildings have been built and there are many other areas where new versions can be built.

MID-RISE APARTMENTS CAN REPLACE THE THREE STOREY WALK-UPS OF THE 1960s AND 1970s

In the 1960s and 1970s a large number of relatively cheap three storey walk up flats were built across Sydney that are now reaching their use-by date. With a change to the Strata Act to make it easier to close down a strata system to allow renewal now proposed by the NSW Government, there is a growing opportunity to renew vast areas of substandard walk up housing with new mid-rise quality apartments. This issue of Urban Ideas demonstrates examples of how this renewal could occur.

APARTMENTS UNDER 25 METRES

The Building Code of Australia has very different standards for buildings over 25 metres. Above this level sprinklers are required and more complex fire requirements apply. These add significantly to the costs of buildings so many developers keep their buildings below the 25 metre level which generally equates to a 6 to 8 storey height.

THE MID-RISE APARTMENT COMPLYING CODE IS NEEDED

The proposed planning reforms that the NSW Government championed had a strong focus on complying development. The proposal was that communities should be mainly involved in the early strategic planning stage that set overall character. An area could be zoned for 6 or 8 storeys residential buildings at the strategic planning stage but then individual development applications that comply with an apartment code would get quick approvals within 30 days.

DESIGN IDEAS FROM TOP ARCHITECTS

The Urban Taskforce has involved Peter Smith of Smith and Tzannes Architects to help put together a draft complying code. Peter has a lot of experience in this area and was involved in developing the government's housing code. We have also asked architect Nick Turner to look at applying our code to the renewal of older 1970 walk-up flat precincts.



The Urban Taskforce is keen to have responses to the proposals illustrated in this issue of URBAN IDEAS and we welcome comments to admin@urbantaskforce.com.au

Chris Johnson AMChief Executive Officer
Urban Taskforce Australia

WE PROPOSE 30 DAY APPROVALS SAVING 200 DAYS OVER THE PRESENT SYSTEM

Current approvals for buildings between \$5m and \$20m average 232 days

See table 3–7 of the Local Development Monitor Report 2012–13 issued March 2014, NSW Department of Planning.

Credits

Cover photograph of Garden Apartments at Victoria Park by Chris Johnson

Paris and Barcelona are exceptional mid-rise cities based on early planning codes

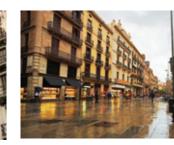












Barcelona

PARIS

Paris

Paris has a long history of rules that determine the height and general form of urban buildings. In 1607, a royal edict attempted to contain building form within a flat facade to eliminate multiple overhangs. In 1783, a royal ordinance stated that "the excessive height of buildings is prejudicial to the wholesomeness of the air in a city as large and heavily populated as Paris". If the street was 9.75m wide, the height was restricted to 17.54m. In 1859 the regulations were modified to allow heights from 11.7m to 20m depending on street width. The 1864 regulations permitted a height of 20m on streets of 20m width or more.

Haussmann's dramatic restructuring of Paris from the mid-1800s kept within the regulations on building heights with upper level setbacks. The attic in Paris

buildings became the means to increase density. The 1884 regulations specified a half circle above the 20m height with a maximum radius of 8.5m. In 1902 attics had to fit within a 45 degree inclined roof angle. The 1902 regulations defined overall spatial envelopes or gabarit- a term still used today. More freedom was given to architects within the gabarit.

Barcelona

So Paris has had a long history of codes and regulations to define building envelopes. Clearly these were developed before the lift became popular and before steel and reinforced concrete allowed much taller buildings. Paris now has a very human scale in its historic centre with predominantly 20m high street edge buildings.

BARCELONA

Barcelona's famous plan for the city was developed by Ildefons Cerda

in 1859 and it became known as the "Eixample". Cerda's grid was partly influenced by Haussmann's restructuring of Paris. Cerda set out to create housing blocks that contained a cross section of people. He outlined his urban planning concepts in his 1867 book "General Theory of Urbanization and the Application of its Principles and Doctrines to the Reform and Expansion of Barcelona".

Cerda's blocks were 113 metres square with the corners chamfered at forty five degrees to allow trams to turn the corners. His early plans limited heights to 18m and this was increased to 20m in 1891. Cerda's plan led to a very unified urban form with buildings around 20m high. Like the Paris example the lift was not popular and modern materials like steel and reinforced concrete were rarely used.

Mid-rise apartments can support a range of lifestyles

FAMILY FRIENDLY APARTMENTS

The Spectrum designed by architect Frank Stanisic is an L shaped building up to 4 floors that wraps around a shared garden area. The building has become popular with families as each unit can overlook the outdoor space. The shared space has become a place for celebrations for Christmas or special events with children dressing up and the parents bonding together.

The key ingredients for a family friendly mid-rise apartment are good surveillance of play areas from individual apartments and quality landscape design to support the play activities of young children. The photographs of Spectrum were taken by a number of parents to record the enjoyable times they shared with their children and the larger family of children and parents living in the apartment building.







Images above showing the Spectrum community

GARDEN APARTMENTS

These 5 storey apartments were designed by Chris Johnson in his NSW Government Architect role in association with architects, Turner, to take on some of the aspects of detached suburban homes. The design has a checkerboard pattern to emphasise the individual homes. The two storey design for the apartments also signalled the individual home. Each apartment was given a large outdoor area and encouraged to develop their own garden style. Some have ended up with Asian style bamboo gardens, some Australian native gardens and others have become food gardens growing vegetables.

The overall height means that street trees become a canopy providing scale and giving a forest character. The top level apartments are set back with even larger outdoor terrace areas for gardens.



Garden apartments at Victoria Park

WITHIN THE TREE TOPS

Australian eucalyptus can easily grow to 25 metres and therefore provide a shade canopy that mid-rise apartments can sit within. Photographs show tall eucalyptus softening the character of apartment buildings.

URBAN STREET EDGES

Mid-rise apartments can provide excellent street edges particularly when they have retail outlets on the ground floor.

APARTMENT LIVING FOR SENIORS

The Urban Taskforce has produced another issue of Urban Ideas on the trend for retiring baby boomers to down size from large houses to apartments in more urban areas with shared amenities. A good example illustrated here is Breakfast Point by the Rose Group where seniors can live in apartments of 5 to 6 storeys with views across parklands. At Breakfast Point there is a club house, a village green, a community hall and a bustling village centre with coffee shops and restaurants.

SHARED OUTDOOR SPACES AND AMENITIES

Mid-rise apartments are often planned around a shared garden space which often has a swimming pool, barbeque facilities, shaded areas and well maintained gardens. Many occupants find this garden area with all its amenities and its maintenance looked after preferable to the suburban back yards.

As well as the outdoor spaces, many mid-rise apartments have indoor shared amenities with gymnasiums, indoor pools and libraries and lounges. These facilities encourage residents to meet together so developing a sense of community. The photographs are of Top Ryde by Crown Group.



Apartments within the tree tops at Victoria Park



East Village showing street-edge retail



Seniors community within apartment living



Shared facilities for the community of this apartment block in Top Ryde

30 day approvals for designs that comply with the complying code for mid-rise apartments

COMPLYING CODE FOR MID-RISE APARTMENTS

Assessment: The consent authority for complying development for mid-rise apartment buildings will be the council.

Assessment Time: Development Applications that comply with this code must be assessed within 30 working days.

The Code: The framework of the code closely aligns with the 9 design quality principles in the proposed amendments to SEPP 65.

Relationship to SEPP 65: This complying code will take precedence over SEPP 65.

Qualified Designer: A design verification is required from a qualified designer (a person registered as an Architect under the NSW Architects Act 2003) that verifies that the architect directed the design of the mid-rise apartment building.

APPLICATION OF THE CODE

This code applies to residential flat buildings that meet the following criteria:

- a. The site area is greater than 800m² but less than 2000m², and a width at the street boundary greater than 20m, or
- b. Building envelopes have been approved on the site as part of a multi stage development application.
- c. The maximum building height is 25m.
- d. The codes does not apply where the site adjoins lower density residential zoned land.

1. CONTEXT & NEIGHBOURHOOD CHARACTER

1.1 Orientation

Where an adjoining property does not receive 2 hours solar access the proposed building ensure solar access is not reduced by more than 20%.

1.2 Public Domain Interface:

- a. For fences in the front setback:
 - The maximum height of a solid fence is 1.2m.
 - The maximum fence height is 1.8m.
 - Fencing above 1m is to have a minimum open area of 30%.
 - The minimum setback from the street boundary is 1.2m. The setback is to be landscaped.

1.3 Ground floor apartments

The floor level of the ground floor apartments must be no more than 1.4m above the footpath level.

1.4 Street setback

Equal to the average setback of buildings within 40m of the site.

1.5 Context

The development application is to include a site and context analysis that illustrates the constraints and opportunities of the site and a concept analysis that explains how the design responds to the site analysis.

2. BUILT FORM AND SCALE

2.1 Building height

The maximum building height is that specified in the Local Environmental Plan.

2.2 Setbacks

The minimum setback from the site and rear boundaries are provided in the following table:

HEIGHT OF BUILDING	SIDE SETBACK	REAR SETBACK
Up to 9m	3m	4.5m
9m - 12m	4.5m	6m
12m -15m	6m	6m
15 - 18m	9m	9m
18 – 25m	9m	9m

A zero setback is permitter where the adjoining building has a zero setback and there are not windows in the boundary wall of the adjoining building.

2.3 Building depth

The maximum building depth is 18m. Depth is measured from the face of the wall with balconies allowed outside the wall.

3. DENSITY

3.1 Floor space ratio

The maximum floor space ratio is that specified in the Local Environmental Plan.

4. SUSTAINABILITY

4.1 Solar access

70% of apartments must receive direct sunlight in mid-winter to the living rooms or private open spaces for at least:

- a. 3 hours where the building height is less than 12m:
- b. 2 hours where the building height is greater than 12m
- **4.2** A maximum of 15% of apartments can have no direct sunlight between 9am and 3pm in mid-winter.
- **4.3** Shading devices are to protect windows and private open space from summer sunlight.
- 4.4 Light wells are only to be a secondary light source in habitable rooms.

4.5 Natural ventilation

60% of apartments are to be naturally cross ventilated.

4.6 Waste Management

Waste and recycling storage areas are to be provided to accommodate the number of bins required by Council.

5. LANDSCAPE

5.1 Landscape design

- a. Provide either a minimum of:
 - i. One tree with a height of 12–18m per 100m² of deep soil or
 - ii. Two trees with a height of 8-12m per 80m² of deep soil
- b. The minimum soil dept on structures for planting is provided in the following table:

PLANT TYPE	SOIL VOLUME / AREA	SOIL DEPTH
Large tree	150m² (10 x 10m)	1200mm
Medium tree	35m²	1000mm
Small tree	9m²	800mm
Shrubs		500-600mm
Ground cover		300-450mm
Turf		200mm

c. An irrigation system that responds to site conditions, soil and plant species is to be installed.

5.2 Deep soil zones

The minimum area of deep soil is provided in the following table:

SITE AREA	DEEP SOIL ZONE AREA	MINIMUM DIMENSIONS
< 1500m²	10%	3m
1500-2000m	15%	6m

6. AMENITY

6.1 Visual Privacy

a. The minimum separation distances between windows with a sill height less than 1.5m above floor level and balconies are provided in the following table:

BUILDING HEIGHT		HABITABLE & NON- HABITABLE ROOMS	
Up to 12m	12m	9m	6m
12- 25m	18m	12m	9m

- b. The cone of vision is measured at the edge of the window or balcony at an angle of 45².
- c. Windows may be located less than the distances in (i) if they are:
 - · Fixed and translucent, or
 - Fitted with fixed privacy screens

6.2 Storage

a. The minimum storage volume is provided in the following table:

NO OF BEDROOMS	VOLUME	
Studio & 1 bedroom	6m²	
2 bedroom	8m²	
3 bedroom	10m²	

b. 50% of the storage must be located in the apartment and not within the bedroom.

6.3 Parking

a. Parking rates are specified in the following table:

LOCATION	REQUIREMENT
Within 400m of railway or light rail stations	Minimum = 0 2 bed = 1
Greater than 400m but less than 1.5km from railway/light rail station	Minimum: 1bed = 0.6 2 bed = 1, 3+ bed = 1.2
Greater than 1.5km from railway or light rail station	Minimum: 1 and 2 bed = 1 space 3+ bed = 2

- b. Provide one visitor space for every 10 apartments. Parking should be screened from view of street or located in basement or semi-basement.
- c. Parking should be screened from view of street or located in basement or semi-basement.
- d. On sites with a high water table, parking may be locate above ground can be contained in a podium where residential uses front the street.

6.4 Bicycle parking

Provide one space for bike storage for each 5 apartments.

6.5 Apartment sizes

The minimum apartment sizes are provided in the following table:

BEDROOMS	INTERNAL AREA	PRIVATE OPEN SPACE
Studio	35m²	0m²
1 bed	50m²	8m²
2 bed	70m²	10m²
3 bed	95m²	12m²

- a. External areas are to have a minimum dimension of 2m.
- b. Private open space at the ground level is to have a minimum area of 16m² and minimum dimension of 3m.
- c. Private open space is to be directly accessible from the living area.
- d. Minimum ceiling heights are provided in the following table:

LOCATION	REQUIREMENT
Habitable room	2.7m to 80% of floor area
Non-habitable room	2.4m
2 storey apartments	2.7m main living area, 2.4m for second floor where area is less than 50% of apartment area
Attic	1.5m at edge with 2/3 of room greater than 2.4m

7. SAFETY

7.1 Pedestrian access and entry

Building entry must be visible from the street.

8. HOUSING DIVERSITY & SOCIAL INTERACTION

8.1 Apartment Mix

The development should contain at least 10% of 1 bedroom, 2 bedroom and 3 bedroom apartments.

8.2 Universal Design

At least 20% of apartments must incorporate all silver level universal design features.

8.3 Common circulation

- a. No more than 8 apartments are to be accessed from a single circulation core.
- b. Daylight & natural ventilation is to be provided to circulation spaces.

8.4 Communal space

- a. 25% of the site area is to be provided for communal open space. This may be in the form of internal or external space.
- b. 80% of the space must be external.
- c. 50% of the space must receive 2 hours of sunlight between 9am and 3pm mid winter.
- d. Sites with an area less than 1200m² may substitute communal open space for private open space of the same area.

9. ARCHITECTURAL EXPRESSION

9.1 Design Report

The proposed development must contain a design report that describes the architectural intent and architectural express, the relationship with the context and how the concept addresses the 9 design principles in SEPP 65.

9.2 Design Review

The proposed development must be reviewed by a design review panel when the architect is not acknowledged as being experienced in the design of apartment buildings and where the consent authority has a panel. The design review must be completed prior to the lodgement of the CDC.

^{*} This code has been developed by Peter Smith of Smith and Tzannes to demonstrate how a simple complying code will look like.

Many areas of Sydney have walk up flats built in the 1960s and 1970s that could be renewed with modern designs.

During the 1960s and the 1970s a large number of walk up flats were built with relatively low amenity. These buildings are now 40 to 50 years old and many are ready for renewal. The NSW Government has already announced that the Strata Act will be reviewed to reduce the current 100% requirement for all owners to agree to terminating a strata title to 75%.

Experience has shown that often a single owner will hold out their approval unless they get an enormous pay out. The new laws, due in 2015, will make it much easier to reach agreement with all owners to enable either the sale of the whole block or the potential for

the owners to renew the building by negotiating with a developer.

For knock down and rebuild to be economically viable the density will need to be increased by 2 or 3 times. The best way to get quality renewal of these precincts will be to knock down a number of the older units and rebuild a new precinct to current design requirements set out in the Mid-Rise Apartment Code (MRAC). The 30 day approval will reduce holding costs and help with affordability.

Urban Ideas asked architects Turner to look at some of the precincts across Sydney where the walk up units most

occur to then apply the MRAC to see what sort of results were likely. Turner overlaid code compliant layouts on a number of precincts and looked in more detail at an area in Cabramatta to see just what the difference could be. The before and after images give a clear indication of how much the precincts would be improved and how amenities would be lifted. One particular gain would be to take the many narrow spaces between existing units and aggregate these into a much bigger and more useful shared garden space. Vast areas of concrete would be replaced by landscape and trees leading to a cooler and more pleasant precinct.

TYPICAL RENEWAL AREAS



Lakemba



Randwick



Eastlakes



Cabramatta

View presentation here

CASE STUDY: RENEWAL OF CABRAMATTA



Existing corner view



Proposed corner view with the new code based apartments



Existing street view



Proposed street view with the new code based apartments



 ${\it Proposed site \ massing-option \ one}$

Mirvac have built apartments across Sydney including mid-rise buildings for the Olympic Village at Homebush and at Harold Park in Glebe.

Mirvac's Olympic Village for the 2000 Olympic Games set new standards for mid-rise apartments. The architectural form was broken up and significant landscape was planted to give the village a garden city feel. Fourteen years on the trees have grown and the overall character of the precinct is of a very comfortable well-mannered atmosphere.

At Harold Park, Mirvac has kept all building within the 25m mid-rise level. To articulate the buildings some of the top two levels have been recessed and painted a darker colour. The overall precinct has large amounts of open space and an old tram sheds has been converted to community facilities.

At Rhodes, Mirvac have built a number of mid-rise apartments in a precinct that includes a Mirvac shopping centre.



Olympic Village



Harold Park Locano

www.mirvac.com

www.haroldparkbymirvac.com



Harold Park Chevalier

Rhodes Tandara



Rhodes Amarco

Meriton has built a large number of apartments across Sydney and Queensland. While many of these have been in tall towers, the company has also built many mid-rise apartments.



'Cascada' Sylvania

Meriton has built a very large number of apartments in Sydney and Queensland including some very tall towers. The company has also built a number of mid-rise apartment buildings in various locations across Sydney.

The Cascada apartments at Sylvania are on the edge of a bushland site next to the waterfront. The building is six storeys high and steps back at the upper levels. The apartments have views through the treetops over the water. The architecture emphasises strong horizontal forms with large balconies.

Meriton has also built a number of medium-rise apartments on the Gold Coast, including Regatta and Dune at Brighton on Broadwater.

On Sydney's North Shore, Elysium at Gordon is a well-modelled five to six storey horizontal apartment building.

In South Sydney, Fusion at Arncliffe has six to eight storey buildings and Eon at Zetland has five to six storey buildings. The Vantage South apartments at Rhodes are six storeys.



'Dune' at Brighton on Broadwater, Gold Coast



'Regatta' at Brighton on Broadwater, Gold Coast



'Elysium' Gordon



'Fusion' Arncliffe



'EON' Zetland



'Riviera' Chiswick



'Vantage South' Rhodes

<u>Dyldam have developed mid-rise</u> <u>apartments across Western Sydney</u>



'Entrada' on the corner of Church and Victoria Road, Parramatta



Artist's impression of the Merrylands apartments

www.dyldam.com.au



Bella Vista apartments

Dyldam have their head office in Parramatta and understand the Western Sydney market well. Their Entrada apartments sit in an urban location in Parramatta and are able to get 9 storeys into the Building Code of Australia 25 metre height control. The tallest part of the building emphasises the corner and the building form steps down away from the corner.

At Bella Vista, 4 storey apartments are under construction while at Merrylands 8 storey buildings on a podium are planned for Merrylands Road.

Holdmark have developed a range of mid-rise apartments at Shepherds Bay



Shepherds Bay



Shepherds Bay



Shepherds Bay



Shepherds Bay

Holdmark have been developing a large area of land at Shepherds Bay overlooking the upper reaches of Sydney Harbour.

The buildings are generally 6 to 8 storeys high located on a new layout of streets and public spaces. As the landscape grows up the trees will blend with the apartment buildings to give a very comfortable living environment.

www.shepherdsbay.com.au

www.holdmark.com.au



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WHY A COMPLYING CODE FOR MID-RISE APARTMENTS

The planning reforms proposed by the NSW Government went to some lengths to propose a new approach to planning approvals based on the concept of Complying Development. The aim was to much more fully involve local communities at the strategic planning stage where the basic rules are set with a focus on complying codes for certain building types. The objective was to enable faster approvals for applications that fit the complying code thus giving more certainty to both developers and community. Unfortunately the reforms did not occur but the

Urban Taskforce believes that the essence of the previous proposal could be used to encourage mid-rise apartments that fitted within the tree tops.

This edition of Urban Ideas encapsulates the idea of a simple code and presents examples of midrise apartments by a number of our members. We have also taken the idea a bit further by proposing that the code could help renew areas of Sydney that have large numbers of 1960s and 1970s walk up flats that are ripe for renewal. Our simpler planning code will facilitate a building form that most people will support in areas that are zoned for these mid-rise heights.

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