



Submission to

**DEPARTMENT OF PLANNING AND ENVIRONMENT**

**IMPROVING APARTMENT DESIGN AND AFFORDABILITY  
- STATE ENVIRONMENTAL PLANNING POLICY NO. 65**

31 October 2014

**GMU**

URBAN DESIGN / ARCHITECTURE / LANDSCAPE ARCHITECTURE



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# CONTENTS

OVERVIEW	5
INTRODUCTION	6
PART 1 - IDENTIFYING THE CONTEXT	8
PART 2 - DEVELOPING THE CONTROLS	12
PART 3 - SITING THE DEVELOPMENT	19
PART 4 - DESIGNING THE BUILDING - CONFIGURATION	26
PART 4 - DESIGNING THE BUILDING - AMENITY	30
PART 5 - DESIGN REVIEW PANELS	36
APPENDIX 4 – APARTMENT BUILDING TYPES	37
ADDITIONAL GENERAL COMMENTS	39
CONCLUSION	39

## GMU PROFILE

GM Urban Design & Architecture (GMU) is a well regarded, highly skilled and experienced practice specialising in the creation of great cities, towns, neighbourhoods and localities. We are a collaborative design practice with a team comprising of urban designers, architects and town planners.

Our design approach always responds to our understanding of the unique elements of a site, centre or locality within the broader and local urban and natural context. Our work is thoughtful with each solution unique. The projects we have undertaken range from individual architecture projects, urban design studies and reports, major strategic and development control plans as well as master plans and the creation and planning of city centres and new towns.



# OVERVIEW

## - STATE ENVIRONMENTAL PLANNING POLICY NO. 65

GMU would like to provide an overview and response to the recently exhibited draft Apartment Design Guide (ADG) and the amended SEPP 65 prepared by the Department of Planning and Environment. These documents were put on a public exhibition between 27 September 2014 and 31 October 2014.

GMU supports the State Government's initiative to update the planning policy and the Residential Flat Design Code (RFDC). The RFDC was gazetted in 2002. During the twelve years of interacting with this design tool, GMU has been aware of some misleading guidelines and rules that might need clarification and stronger definition to truly influence the design and construction industry and encourage better quality of the residential design in NSW. As experts in the residential design sector and many years of experience in reviewing projects based on the RFDC, we feel obliged to provide our opinion regarding the new instrument as well as contribute useful advice to possible solutions to the outstanding issues.

The new Apartment Design Guide includes many elements that will improve the application of better design guidelines. Clarifications of the separation relationship between a residential development and a commercial building and the requirement of more detailed analysis diagrams included into the preparation of a desired future character informing the proposed outcome for the site are some of the most crucial improvements noted and fully supported by GMU.

However our review shows that there are still some essential issues with the interpretation of the guidelines that the draft ADG fails to address. We believe that some of the proposed solutions could be interpreted incorrectly and lead to an undesired outcome. Therefore we would like to offer the Department a detailed review of the draft Apartment Design Guide and SEPP 65 amendment and encourage to consider the amendments needed to improve the application of the policy in the future NSW developments.

The following is a summary of the main changes that refer to each Section of the ADG and a detailed description of issues found during the review. The issues described are based on GMU's many years of experience in assessing projects for various Councils and close involvement in Land and Environment Court matters representing various Councils or applicants. GMU is familiar with any potential areas that require clarification and improvement in the draft ADG to ensure that this policy can become a well received and useful tool for Councils, applicants and consultants assisting in development proceedings.

# INTRODUCTION

## Use of the document:

The proposed structure of the ADG is not clear. It is assumed that some parts of the document are going to be used as a tool for Councils or consultants to develop the statutory controls (Part 1 and 2) and that other parts include specific performance criteria that need to be met in detail by the designers and will be used for design parameters as well as the assessment of each project (Part 3 and 4). In our opinion Part 1 and 2 would also be a guide and should be addressed towards developers, industry experts, urban designers, architects and Councils too. Part 1 and 2, however, are not included in the Matrix on page 15. The specific role of each part of the guide needs to be explained in the front part of the document.

The document use is also not entirely clear - as it is intended to be used by a wide audience including developers, Council staff, architects and built environment professionals and also members of the community. We recommend that the intended use of the document is made clearer.

The document also includes Part 5 which refers to the Design Review Panels. This section has a completely different use and would not be needed if this document is to be a tool to measure the quality of a proposal. It is felt that this section (Part 5) should be a separate document referring to the SEPP65.

## Word choice and definitions:

The guide is described as being a tool for all parties interested in a residential development including Council staff, professional consultants, developers as well as general communities. However we have found that some definitions and word choices are so called industry 'jargon' that could not be understood by wider audience, such as 'Robustness' which should be added to the glossary.

If robustness is used as the dictionary term, it means 'masked by richness and fullness'. But in urban design terminology, established, for example in the Oxford Brookes University's book by Ian Bentley, the robustness means the ability of places to be used for many different purposes and offering users more choices than a single fixed use.

We recommend that all urban design terminology is reviewed to ensure it is accessible to the audience it is intended for.

## Use of Diagrams:

A number of the diagrams are not clear. The key point of the diagram is often not included as an acceptable solution. It is important to include diagrams that provide clear information to the developers and community to avoid differences in interpretations as the diagrams shown in the guide will be used in L&E Court and Councils as the exceptional examples.

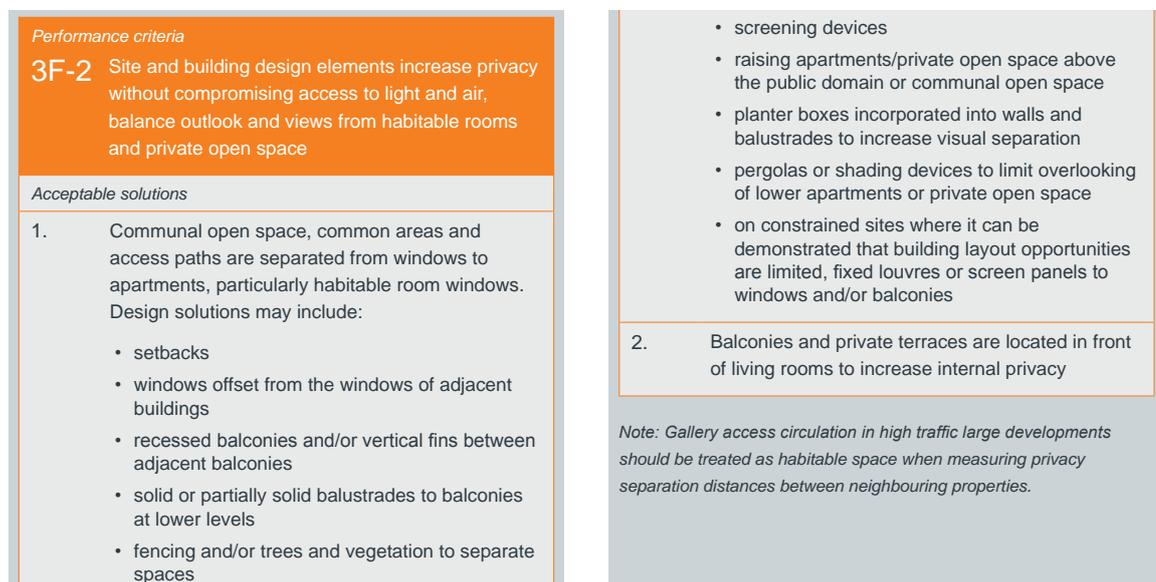


Figure 1 : Draft Apartment Design Guide - Performance criteria 3F-2

## **Performance criteria instead of rules of thumb:**

It is important to specify if a residential development needs to meet all of the Acceptable solutions included in Part 3 and 4 under each of the Performance criteria or if not, which ones are strictly required and which are not. An example is shown on the facing page.

This extract shows that a development can provide a setback, but it can also provide screening devices. Does it mean that the setback is no longer required if the screens are installed? This could lead a poor design outcome across the NSW as the setback is just given as an option rather than a requirement. However if the control was that the setback to the public footpath or communal open space was required up to min of Xm in front of a window. If this setback is limited due to constraints of a site an alternative solution can be proposed and reviewed under a merit of a particular design, such as a smaller setback plus the screens etc. Otherwise this performance criteria allows each development to have screen on each window that faces public domain. It also encourages elevating ground level above the eye level. Both of these would be detrimental to the design and activation of residential developments.

This is just one of the examples that include misleading criteria. Perhaps some acceptable solutions need to be more specific or moved to alternative solutions.

An alternative way to approach this would be to include 'Required Solutions' and 'Desirable Solutions'. It would be clearer to those using the documents which principles are required within the proposal.

## **New Design Quality Principles (SEPP65)**

The new principles are an improvement to the previous design principles, as they avoid some of the previous overlap that occurred.

*Principle 1* should include more defined attitude of a proposed development to a desired future character, which should be prepared by local Councils. More information on that is also required in the next chapter of the ADG.

*Principle 3* includes a statement that 'appropriate densities can be sustained by existing or proposed infrastructure, public transport...'. This can lead to some Councils unduly restrict densities on traffic generation levels ignoring good outcomes in terms of built forms.

*Principle 5* requires some additional mention of providing a landscape improvement in a post industrial area undergoing transition, as the proposed principle refers mainly to fitting and enhancing the existing context but not establishing a new, improved landscape on a site.

The change of names such as Architectural expression instead of Aesthetics is also supported as its meaning is more accessible and understood by wider community and not only the industry specialists.

It is also noted and endorsed that the Design Principles are provided in the front part of the new guide rather than as an attachment at the back of the document as in the RFDC.

## **Matrix showing relationship of SEPP65 and the ADG Part 3 and 4**

In our opinion, the proposed table as currently presented is not very helpful, as it is hard to read and understand. We would suggest listing the topics relating to the Apartment Design Guide which should be discussed under each principle in a simple dot point form. This would allow clearer reporting on schemes performance against the SEPP principles.

Part 1 and 2 include discussions around the principles of the contextual design, whereas Part 3 and 4 include specific definitions and controls. However Part 1 and 2 are not included in the matrix. It is unclear how Part 1 and 2 relates to the Principles and it will lead to the majority of the industry not referring to the principles described in Part 1 and 2 but only the raw information in Part 3 and 4, which itself is not always specific enough. It is important to include some mention of the discussions in Part 1 and 2 when discussing the Site analysis, Orientation, Public Domain, Open Space, Roof design, Separations and setbacks to different elements of building etc in Parts 3 and 4.

# PART I - IDENTIFYING THE CONTEXT

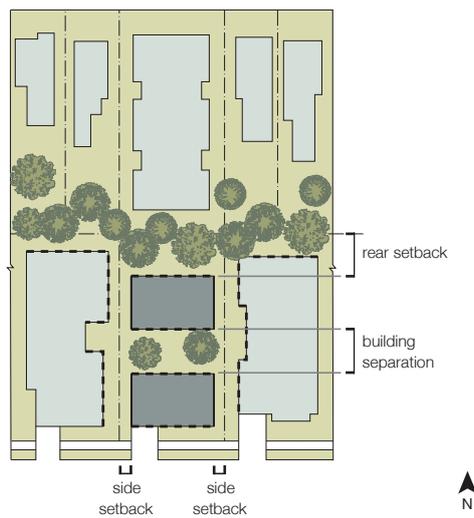
## IA Apartment building types

### Narrow Infill

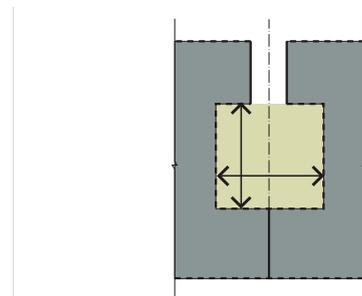
The diagram on Page 18 under Narrow infill apartment presents a built form typology that will lead to numerous privacy and outlook issues. This model was previously discouraged in the RFDC. An improved response would be to adopt a form that includes two buildings that don't overlook the adjoining properties and their communal open spaces/private open spaces (as shown in Figure 2, 4 and 5 below).

If this typology is still to be included, then an alternative solution which should be proposed in the guide is to encourage Councils to include a minimum lot width for this type of development so that issues related to privacy, open space and separation can be achieved. The lot width would need to take into account the maximum depth of a building and a 50% of a separation distance for habitable rooms depending on the height of a building.

Diagram 3 is taken from the current RFDC and this diagram should be retained in the new ADG. Diagram 4 is the solution to deal with the proposed approach illustrated in the diagram on page 18 of the ADG. However this causes issues of visual privacy



01.75. On narrow infill sites, changing building types and the orientation of habitable rooms optimises limited building separations and side setbacks.



01.77. Where limited setbacks and deep buildings are unavoidable, 'step in' the plan to create useful internal courtyards and to optimise building separations.

Figure 2

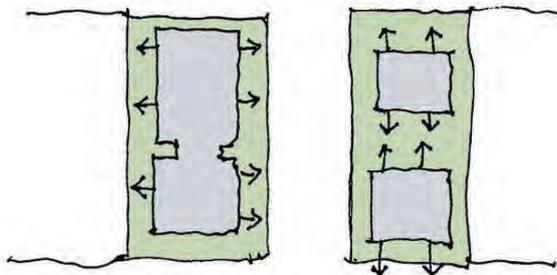


Figure 4

Figure 3

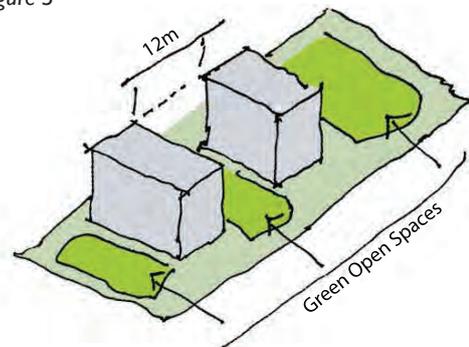


Figure 5

### Row apartments

The diagram on Page 19 under Row apartments has the potential to be misleading to the generally encouraged practice of providing built form transition to lower scale buildings. If this building is in a transition area this needs to be clearly shown in a diagram with at least a diagrammatic outline of a potential new envelope on both – the elevation diagram and the axonometric view.

Other diagrams or scenarios that should be included under this paragraph would include a row apartment typology adjacent to a low scale zone. In this case the diagram should include a stepping form along the side boundary as represented in Figure 6 below.

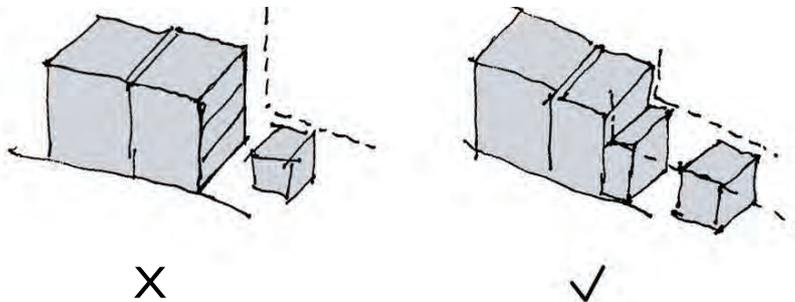


Figure 6

### Perimeter Block

Diagram under Perimeter Block (Page 20) shows a expansive wall along the corner with little roof profile articulation. Better diagram would include a built form as shown in Figure 7 below. The requirement of built form vertical articulation should be strengthened in the discussion under this subchapter.

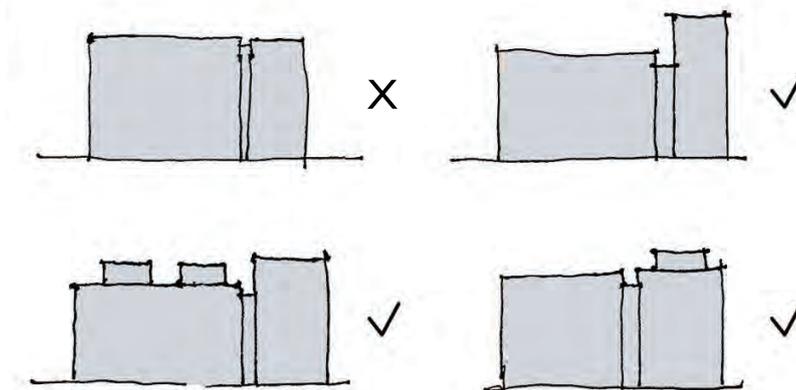


Figure 7

### Tower Apartments

The tower apartment section requires a discussion about the tower height proportion/relation to the podium height. For example a tower of 16 storeys would not be well proportioned if it was positioned on an 8 storey podium, but would be more appropriate if the height of the podium was 6 storeys vs 10 storey tower. It is also important to take into account the width of the tower versus its height. Again, a tower of 8 storeys equalling to approximately 24m height would not be well proportioned to a width of 24m (equal to the height), but a narrower (at least by 2/3) or wider tower would become more appropriate. This is represented in Figure 8 below.

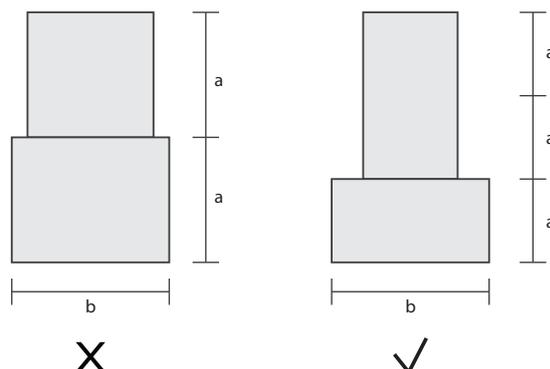


Figure 8

## Hybrid developments

The elevation and axonometric diagram on page 21 and the discussion around it also does not promote the principle that a large development although developed at the same time should appear as separate buildings which came together over time.

The diagram also shows a very poor treatment to the side boundary with a very dense interrelationship between buildings. The step in the building also does not refer to the height of the adjoining building which is a poor outcome for the streetscape form. Figure 9 illustrates the approach to a hybrid development.

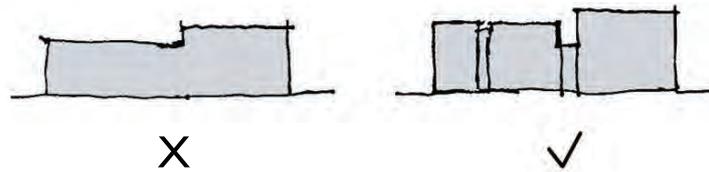


Figure 9

## IB Local character and context

### Desired future character

It is encouraged to include an explanation and more specific guidance to the preparation of the desired future character of an area. This is vaguely mentioned on page 18 and 22. However it is unclear who is actually responsible for the preparation of the desired future character and how detailed it should be. This results in some Councils being over specific in their desired future character description and discouraging innovative design. It can also lead to some Councils not providing any specific guidance and therefore being forced to approve undesired built form for an area (often through a court proceeding) due to lack of appropriate tool to measure the appropriateness of a proposal.

### Common settings

The text discusses different settings for residential flat buildings (page 22-23) determined based on their location in different types of centres. Would it be possible to link these centres to the centres and corridors described in the NSW's Government's Metropolitan Strategy? These corridors are equally divided into local and strategic centres and in our opinion a residential character in a Major Centre has different peculiarity to a Village centre. An extract from the Metropolitan Strategy is included below:

**background**  
CENTRES AND CORRIDORS

NSW GOVERNMENT'S  
metropolitan STRATEGY

TABLE 8 CENTRE TYPES AND ELEMENTS

CENTRE TYPE	RADIUS	SUMMARY
<b>STRATEGIC CENTRES</b>		
GLOBAL SYDNEY	2 km	The main focus for national and international business, professional services, specialised health and education precincts, specialised shops and tourism, it is also a recreation and entertainment destination for the Sydney region and has national and international significance.
REGIONAL CITY	2 km	Providing a full range of business, government, retail, cultural, entertainment and recreational activities, they are a focal point where large, growing regions can access good jobs, shopping, health, education, recreation and other services and not have to travel more than one hour per day.
SPECIALISED CENTRE	approx 1 km	Areas containing major airports, ports, hospitals, universities, research and business activities. These perform a vital economic and employment role which generate metropolitan-wide benefits.
MAJOR CENTRE	1 km	Major shopping and business centre serving immediate subregional residential population usually with a full scale shopping mall, council offices, taller office and residential buildings, central community facilities and a minimum of 8,000 jobs.
<b>LOCAL CENTRES</b>		
TOWN CENTRE	800 m	Town Centres have one or two supermarkets, community facilities, medical centre, schools, etc. Contain between 4,500 and 9,500 dwellings. Usually a residential origin than employment destination.
STAND ALONE SHOPPING CENTRE	N/A	Internalised, privately owned centres located away from other commercial areas, containing many of the attributes of a Town Centre but without housing or public open space—may have potential to become a traditional town centre in the long-term.
VILLAGE	600 m	A strip of shops and surrounding residential area within a 5 to 10 minute walk contains a small supermarket, hairdresser, take-away food shops. Contain between 2,100 and 5,500 dwellings.
SMALL VILLAGE	400 m	A small strip of shops and adjacent residential area within a 5 to 10 minute walk. Contain between 800 and 2,700 dwellings.
NEIGHBOURHOOD CENTRE	150 m	One or a small cluster of shops and services. Contain between 150 and 900 dwellings.
RURAL TOWN, VILLAGE OR NEIGHBOURHOOD CENTRE	as above	Located in rural zones outside metropolitan urban areas with similar roles to towns, villages and neighbourhoods but rural in character with a wider driving catchment.

Figure 10 NSW Government's Metropolitan Strategy - Centre hierarchy

### **The range of scales**

The description under the No. 3 Streetscape scale (page 24) is not very specific. This scale analysis should focus on defining the relationship between the proposal and public domain, public open space, civic courts, pocket parks etc.

### **IC Precincts and individual sites**

It is not supported to encourage Councils to include the criteria associated with the amenity of individual apartments within the precinct plan as suggested in the last paragraph on page 27.

The opportunities mentioned in page 27 do not mention the possibility of increasing pedestrian connectivity or providing scale transition and separation to side boundaries or street frontages.

Precincts as shown on Figure IC.2 should also take into account view impacts from surrounding localities and public open spaces. Visibility from low laying topography should be part of the site analysis (visual assessments) to determine appropriate mitigation measures i.e. siting of buildings, lower densities for high visible areas, contributions to skyline profiles, use of vegetation and landscape design.

# PART 2 - DEVELOPING THE CONTROLS

## 2A Primary controls

The statement that 'the scale of development relates to the future desired character' in the first paragraph should be amended to include relation to 'the existing context and/or future desired character'.

The diagrams accompanying the text on page 30 also require some amendments. The specific mark ups are provided below in Figure 11.



Figure 2A.1 Key considerations when testing development controls and establishing a three-dimensional building envelope

Under 'Setting and Testing the Controls', there is no mention given to neighbouring outlook and the potential view loss. It is one of the Land & Environment Court's key principles. It is suggested that diagram 6 on page 30 be followed by another diagram showing how a skillful design can retain some of the views and part of the outlook to the neighbouring properties. The suggestion of this interpreted in a simple diagram is provided below in Figure 12.

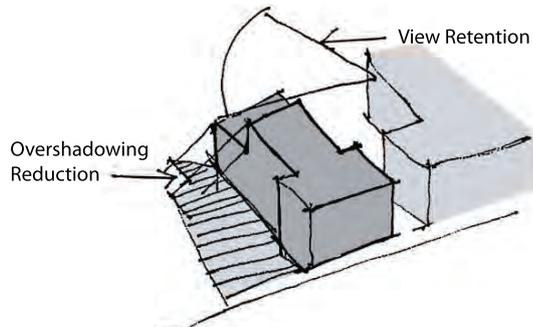


Figure 12

## 2B Building envelopes

The emphasis in this section should be changed from building envelopes being bigger than the final built form to the final built form being smaller than the building envelope. It is also questionable if 25-30% is the correct percentage for the envelope. Based on our experience the built form can usually be provided in 20-25% of an envelope volume. This is important to ensure that the density controls established by Councils and State Government (LEP FSR) are calculated and determined correctly.

The diagrams on that page 31 are also not fully supported and require some amendments as per suggestions in the mark up below in Figure 13 below.

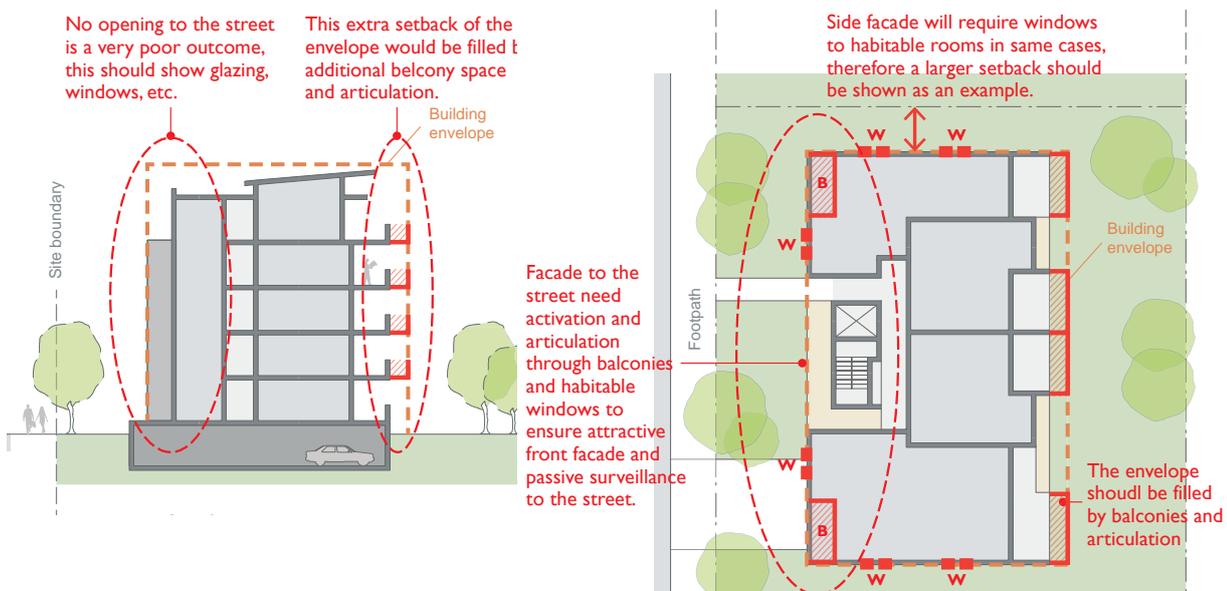


Figure 2B.2 Building envelopes define the 'container' within which a building is designed. They are a useful tool to gain an understanding of the future urban form and scale of an area, however they do not represent buildings and are typically 25-30% larger than the final built form

Figure 13

## 2C Building height

This section requires stronger emphasis on the need to transition down or to provide built form transition to lower scale zoning and heritage items, or conservation areas as per heritage advice. However this also depends on the locality of the proposal as it is different if a low scale built form is located in a new high density zone or if a heritage building is located in a major centre, in which case the transition should occur through the podium and streetscape treatments as well as curtilage and setbacks.

Figure 2C.1 has an error as it refers to floor to ceiling heights, which should be changed to floor to floor heights, as ceilings in many commercial spaces are the same as residential but the structure and installations such as air conditioning requires the height of the next level to be more than in residential uses.

In addition, the height line shown in Figure 2C.2 refers to the LEP height stepping down to reflect height transition to lower levels. In our experience this would not be included as part of the overall LEP height plane but with street wall height control or/and secondary setback controls, which are usually included within the DCP. This should be noted in this section as the current diagram would encourage a different height control strategy for the LEP and would mislead the Councils.

It is also encouraged to increase floor to floor height for the ground level, which is not interpreted in the diagram, which shows all levels with the same floor to floor height.

The photo on page 33 – Figure 2C.3 shows a poor outcome in terms of the streetscape relationship. The blank wall of more than 1.2m should not be encouraged. The actual criteria in the later part of the Guide includes a maximum height of the elevated basement of 1m above the street level. This photo shows approximately 2-2.5m high blank wall which is very poor outcome. It is recommended to delete this photo and replace it with a more appropriate example.

The diagrams should specify if the ground floor is commercial or residential.

## 2D FSR

There should be more emphasis on the fact that site constraints include environmental impacts such as overshadowing to neighbouring development and the public domain.

Considerations in setting FSR controls - Point 2 (page 35) provides a very high percentage for efficiency 70-75% and does not separate this from the commercial components of mixed use or shop-top housing which is generally lower - 85% - 90%.

In Point 7 a connection should be made to earnable FSR and the provision of community benefit not to incentives as this word can imply incentives to developers not necessarily to consent authorities to agree on more development potential.

## 2E Building depth

The new building depth requirement results in the inclusion of balconies within the maximum building depth. This can lead to most developments including balconies fully inset into the plan, which results in no articulation provided by balconies and a minimised depth of the balconies. It is encouraged to return to the previous control for building depth as from glass to glass or to note in this section that balconies are included in the envelope and they need to provide a minimum depth as described in later section of the guide.

It is unclear which maximum depth of a building is required as the text sometimes refers to 10-14m depth and 18m. This needs to be clarified.

Figure 2E.2 show balconies overlooking side boundary which leads to borrowing amenity from the site next door and amenity issues. If this is provided the side setback needs to be specified as larger to ensure required separation.

Item 6 under Building Depth considerations (Page 37) suggests greater ceiling heights for wider buildings, however it is important to note that the light access depends on the height of the window lintel. Therefore in our opinion, the depth of a building can increase with a higher ceiling only if the window extent is also included.

## 2F Building Separation

The first sentence refers to the separations as being between envelopes, however as explained in the earlier chapters of Part 2, the envelopes can be larger than the built form and the separation distances should be measured between built forms and not envelopes.

Diagram on page 38 Figure 2F.2 does not distinguish between walls with windows and blank walls, so as to incorporate privacy impacts or principles to separation. This is critical as it will reinforce the issue that privacy must be maintained when providing alternatives to separation distances.

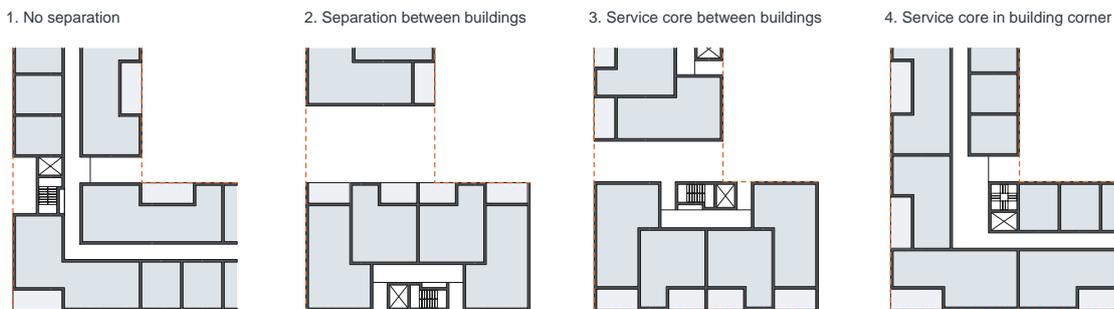


Figure 2F.2 Alternatives to respond to built form corners, location of access cores, building separation and apartment configuration

The purpose of this is not clear. Please include location of street and rear and side setbacks as well as location of windows and relationship to adjoining properties.

Figure 14

It is also important to include the location of the street on the diagrams. The diagram which indicates no separation shows rooms or units facing side boundaries, which doesn't work and suggests that it is acceptable to put windows directly on the boundary overlooking neighbouring sites. In general it is not clear what these diagrams deliver in its current form.

A review of the RFDC (and replacement with an improved version –ADG) should be the golden opportunity to revise and finally get rid of diagram Figure 2F.4 (page 39) which shows a 'wedding cake' outcome with regards to the application of the separation distances. The previous diagram (shown in Figure 15) that showed the dimensions being applied to the totality of the elevation according to the height is for greater outcome and it should be included in this modification to the policy. The diagram should be amended as follows:

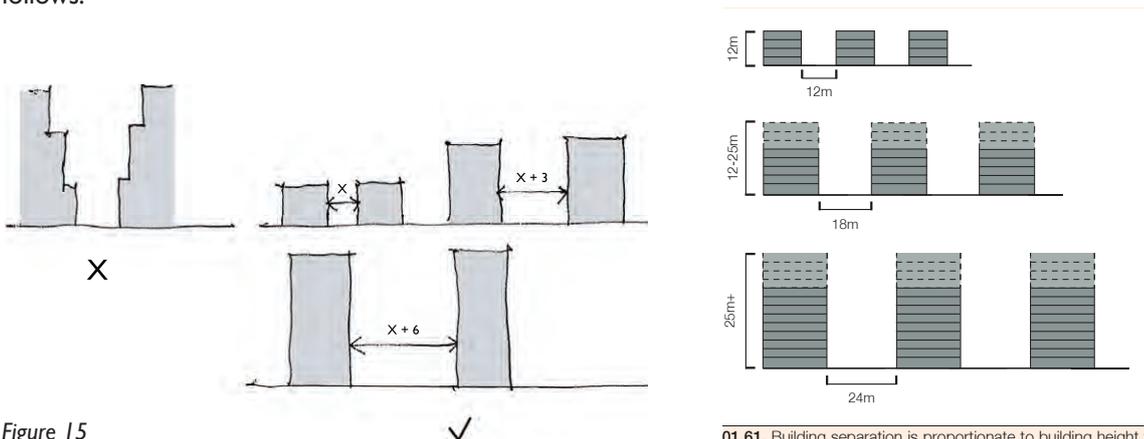


Figure 15

01.61. Building separation is proportionate to building height to facilitate better urban form and improved residential amenity.

This section also requires a final clarification on whether the separation distance applies to buildings sharing a side boundary or within the same site and not across streets facing each other. What happens across lanes that are narrower in width and the distance may not be met when taking into account the half-way point at the centre of the right of way?

It is also unclear what the required distance is if an existing building on an adjoining site did not provide the commonly used 50% of the separation distance. Is the property required to increase the setback due to that, or are other measures, such as 'ear windows' or screening allowed?

The separation between blank walls is also not discussed in this section. Does a side blank wall allow the buildings to lesser the separation distance? Would it be also possible to include a mention here that if the required setback results in a blank wall visible from public domain, an appropriate treatment and articulation is required?

## 2G Street setbacks

Figure 2G.2 on page 40 should be replaced as it shows a residential flat building with an elevated parking structure (vents are visible among vegetation) which is higher than 1.2m and deactivates the public domain. Figure 2C.3 also contains a precedent with the same poor outcome. The previously common 'Rule of Thumb' of 1.2m of maximum height of an elevated parking structure has been amended to only 1m, but the images don't follow the set principle. Including pictures such as these in the Apartment Design Guide would result in some assuming increasing the level of inactive walls along the street is justifiable and even encouraged.

Figure 2G.4 - includes the diagram 1. Predominant setback, which should be amended to include a step in building footprint to align with the setback of the adjoining building as indicated in Figure 16 below:

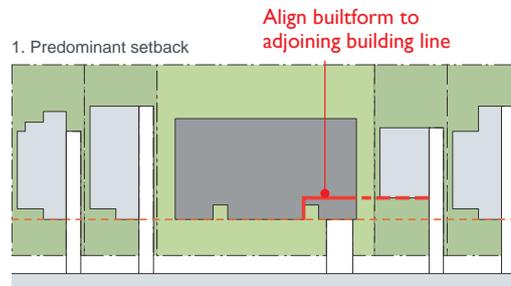


Figure 2G.4 Street setbacks should be consistent with existing setback patterns in the street or setbacks that achieve the desired future character of the area

Figure 16

## 2H Side and rear setbacks

The second last dot point under the objectives needs to be revised as proposed below:

- Achieve setbacks that maximise deep soil areas and support mature vegetation consolidated across sites ... respecting traditional/established patterns of vegetation and habitat to the rear of sites

The diagram on page 42 Figure 2H.2 suggests that the side boundary is occupied by an exposed access ramp. This is an outcome that compromises outlook and visual amenity. It generates acoustic and pollution impacts. The access ramp needs to be shown either with a setback to the building or accessing under the building footprint.

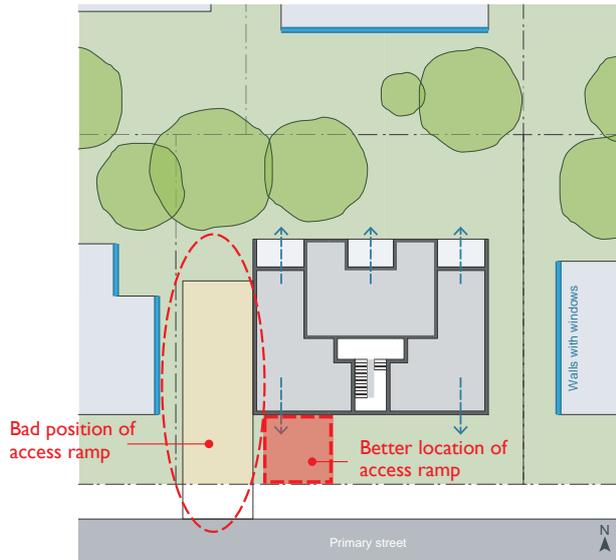


Figure 2H.2 On infill sites, following the existing open space patterns, limiting side setbacks and locating habitable rooms to face the street and rear boundary optimises amenity and privacy for all

Figure 17

The driveway location on Figure 2H.3 is acceptable. More consideration should be given for setting side and setback controls including a discussion on the undesirability of drive ways along the side setbacks. These should be encapsulated within the building envelope and away from side boundaries.

The diagram on page 43 – Figure 2H.3 poorly describes the best outcome. It indicates the outlook from balconies to the rear and the central paved area (same colour as driveway) with the walls to the street shown as blank and unarticulated. Certainly this is an oversight as this will not be a good outcome. The row of units facing the internal space also look out to a blank wall on the building to the north active walls are shown in this diagram as being thicker with blue lines. This is not the case for the critical walls facing the primary street and the southern wall of the northern building facing the central open space. We suggest the amendment to this diagram as shown in the diagram below (Figure 18).

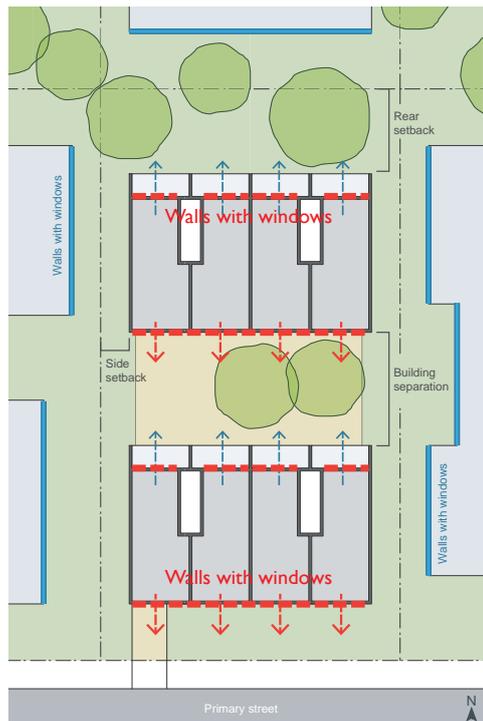


Figure 2H.3 On narrow infill sites, select a building type that orientates habitable rooms to the street and rear, minimising required side setbacks

Figure 18

Figure 2H.4 indicates that a courtyard development is encouraged. This figure is similar to the existing RFDC figure 01.77. Both of these diagrams are possibly misleading and give the wrong impression that a light well for constrained sites is appropriate. It is therefore important to include specific dimensions or explanation regarding the minimum width and depth of a lightwell to avoid misinterpretations.

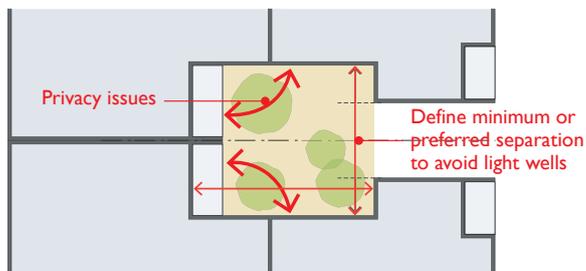
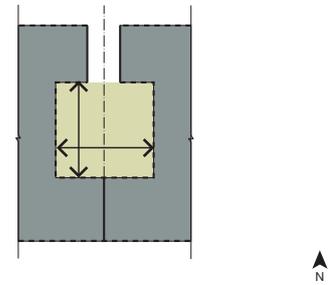


Figure 2H.4 Where limited setbacks and deep buildings are unavoidable, 'step in' the plan layout to create internal courtyards for improved privacy and daylight access



01.77. Where limited setbacks and deep buildings are unavoidable, 'step in' the plan to create useful internal courtyards and to optimise building separations.

Figure 19

# PART 3 - SITING THE DEVELOPMENT

## 3A Site Analysis

The purpose of this chapter is to explain the importance of the detailed site analysis in order to determine the best built form outcome for the site. The explanation of each level of analysis is well discussed in the document, however there is no clear explanation on how this information would inform the outcome for the site. The document jumps straight to the next section – Building Orientation.

The Performance criteria for the site analysis refers directly to the checklist included as attachment I, which is a list of analysis elements. This does not give the real measure of how the analysis is interpreted. In our experience we have found that some elements of analysis can have more of an impact than others. Such as for a sloping land, the terrain analysis is more important to be developed and highlighted in a diagram than for an infill on a flat inner city street. Requiring each development to include all elements is a great opportunity to really being able to assess the site faster and understand its critical constraints, however in its current form each analysis diagram is left for open interpretation.

Along with identifying the site conditions and constraints, the analysis that normally informs the design, in the form of identifying the opportunities for the site, such as activate a park edge or street, mark a corner, provide scale transition and relationship to adjoining properties, as well as including existing windows to habitable rooms on the adjoining buildings' would help to understand and/or to guide the proposed design.

Therefore the Performance criteria should also include reference to Constraints and Opportunities analysis, which are usually provided within urban design reports accompanying a DA.

Some diagrams in this section are also not clear and need further development or amendment. The mark up of specific issues is provided below (Figure 20 and on the next page in Figure 21).

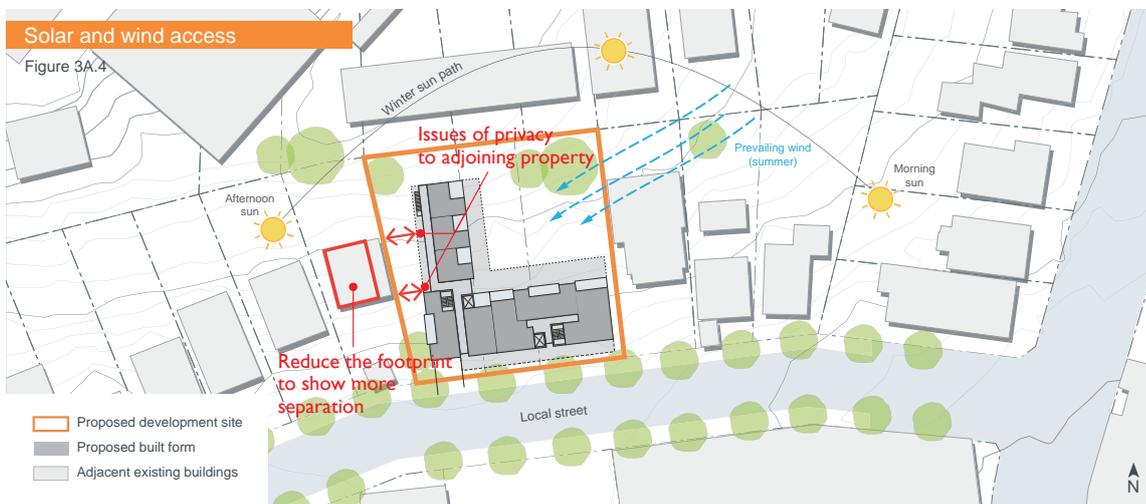


Figure 20

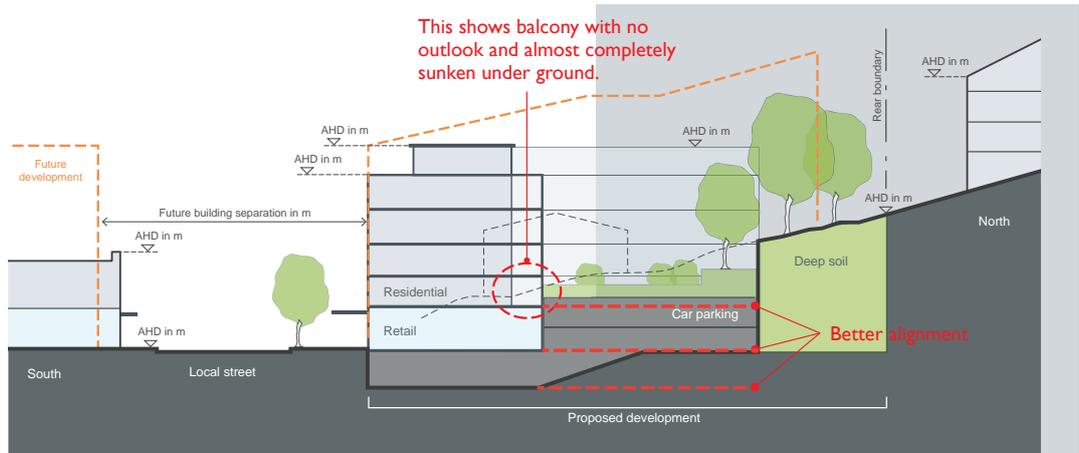


Figure 3A.5 Cross section

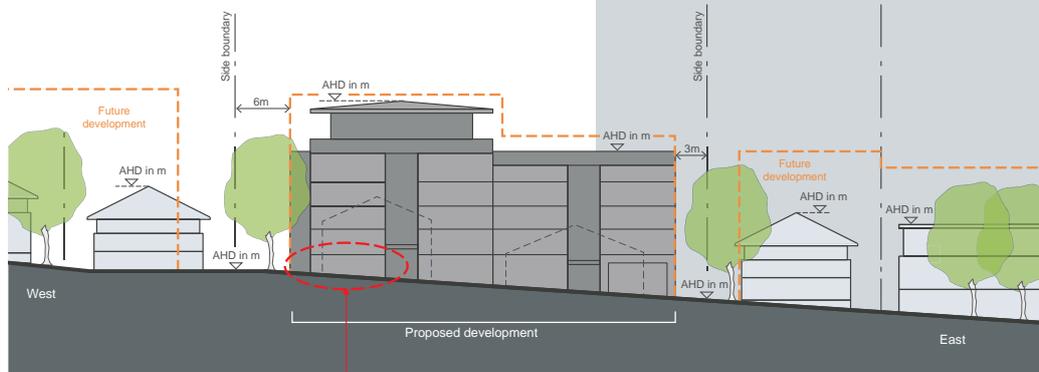


Figure 3A.6 Streetscape elevation

Figure 21

### 3B Orientation

Figure 3B.2 – show some issues regarding units under ground, which shouldn't be advocated in this document. The mark up is provided below (Figure 22):

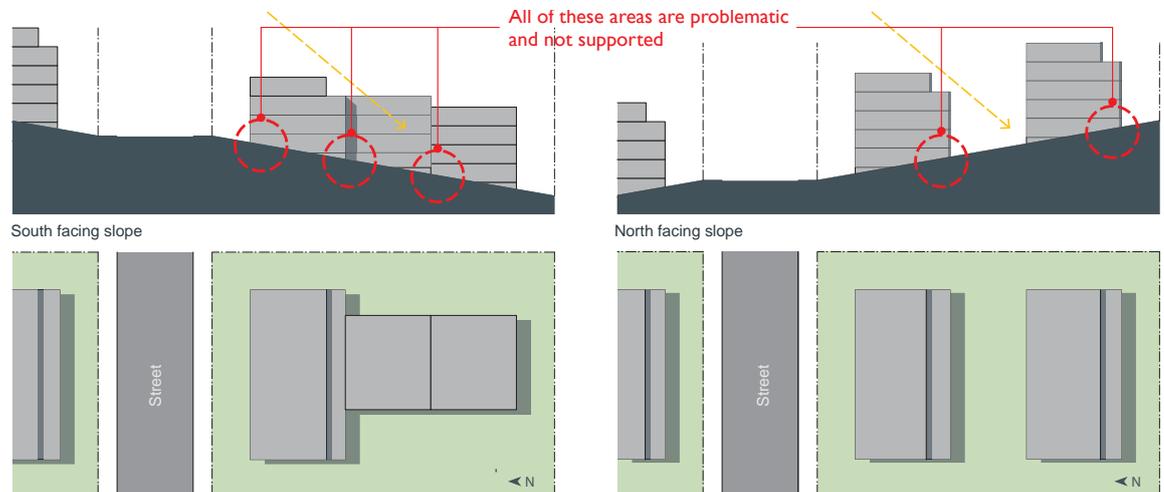


Figure 3B.2 Building orientation and height influences solar access to apartments and common open spaces. On south facing slopes, orient the rear wing of the building(s) east to west to maximise solar access, on north facing slopes, step building(s) with the slope.

Figure 22

Figure 3B.3 – the winter diagram shows that the open space will be overshadowed and potentially doesn't comply with the requirement.

Performance criteria should also include some of the numerical requirements which are mentioned as acceptable solutions. In our opinion these need to be put as the Performance criteria and not just the acceptable solutions:

- Ensure a minimum of 3 hours of solar access is retained for the living rooms, balconies and private and communal open spaces of adjoining property
- If 3 hours of solar access to neighbouring property cannot be retained, solar access to the adjoining properties is not reduced by more than 20%
- A minimum of 4 hours of solar access for solar collectors on neighbouring buildings

### 3C Public Domain Interface

Performance criteria 3C-2 should be stronger to emphasise the significance of impacts on streetscape - fences and walls should define the streetscape. Fences and walls should be continuous and add to the streetscape character.

The third diagram in Figure 3C.1 seems to contradict with the first diagram in the same figure. The third diagram in this figure is not supported as this would result in including a 1.8m high fences along the street and windows with permanently closed blinds, which provides a poor outcome, no passive surveillance to the street and also no activation against the principle. The third diagram should be removed or shown as a bad example, explaining that if the terrace is on the same level as street a larger setback needs to be provided as illustrated in the second diagram. The minimum setback for this scenario should be 4m to the footpath which could allow for approximately 1.5m of planting in a planter and another 2.5m of the private open space, which is more likely to be used if provided with landscape outlook and the setback. However it should be noted that approach shown in the first and especially the last diagram is the most successful and provides best use of the private open space as well as passive surveillance to the street.

All of the photographs following these diagrams which are meant to provide good examples of the use of fences and balconies in relation to public domain, are in fact examples of bad outcomes.

These photographs should be replaced showing more examples such as the second and the last diagram from figure 3C.1.

The bad examples included in the ADG which need reconsideration are all photos showing a treatment that results in no use of courtyards/private open spaces for anything other than for storage due to direct overlooking from the street. These are:



*These examples of the fence, ground floor and street relationship result in using private open space/courtyards only for storage due to overlooking and it will also result in no passive surveillance.*

There is also no mention on public domain interface for shop top housing, which would include:

- Awnings;
- Steps;
- Ramps;
- Traditional or modern shop front pattern;
- Signage;
- The percentage of an activated surface of a shop top frontage;
- Use of grills and ventilation vent facing the pedestrian footpath;
- Location of ground floor level not to be underground but preferably up to 1m above street level.

Some amendments to the Acceptable solutions under Performance criteria 3C-1 are also required as follows:

- 3C-1(4) No solid fences or walls so there shouldn't be a maximum height. Solid, visually impermeable materials should be limited to say 20% of the total area of the fence.
- 3C-1(5) Length of solid walls should be limited to about 10m and should be articulated by the use of different materials.

### **3D Communal and Public Open Space**

The performance criteria should include the following:

Point 3D-1 needs to be stronger stating that Communal Open Space is integrated with the overall building design or master planning of the site. The front or side setback area should not be counted as communal open space. Communal open space needs to also comply with CPTED principles. It cannot be the left-over space and needs to be framed by buildings and landscape. The communal open space contributes to the outlook and amenity of the units. Communal open space cannot interfere with privacy of the residential units. The Guide needs to include minimum dimensions for communal open space and provide different typologies of communal open space.

Under 3D-1(1), the Quantity of communal open space has been reduced from 25% to 30% in RFDC to minimum 25%. In RFDC, larger sites are to have more than 30%, but this is also reduced to 25% minimum.

Under 3D-1(3), the solution states that the communal open space needs to be consolidated with the deep soil area, however this contradicts solution 6, which allows for communal open space of roof top terraces, which in many inner city locations is a much better outcome.

Under 3D-1 (4) and Solar access – 50% of the principle useable portion of the communal open space with a minimum 2 hour solar access between 9am to 3pm. What does 'useable portion' mean?

### **3E Deep Soil Zones**

Definition of deep soil zone should be reiterated in this section of the Guide to clarify deep soil zone should be 6m deep minimum.

Figure 3E.3 should be removed as it shows units located below ground level.

There should be a mention about an acceptable solution that includes deep soil area punching through basement slab left for trees and landscape above the parking structure.

### **3F Visual Privacy**

The height of buildings needs to be specified in all figures showing the separation distances (Figure 3F.1, 3F.6 and 3F.10) if the visual privacy and the separation depend on the height.

Figure 3F.2 and Figure 3F.5 include 45 degree angle cones of view, which are not included in definitions or in discussion in this chapter. It needs explanation to be interpreted correctly.

Figure 3F.2 also shows balconies overlooking side boundary which is not the best outcome and it shouldn't be encouraged in the design guide.

Figure 3F.3 refers to different separation depending on balcony location, but it is not clearly indicated which part of building includes balconies. This requires a legend.

Figure 3F.4 should be deleted. As explained under Part 2F – Building separation, the outcome that this diagram provides can be referred to as a 'wedding cake' outcome. This built form shouldn't be encouraged in the design guide as it doesn't result in an elegant well-proportioned form. Any more than one step in the built form i.e. podium, should not be accepted.

Regarding Figure 3F.5 it is important to also include a scenario where the lower scale building i.e. a single dwelling has a reduced setback 900mm or 1m. Is the new proposal also supposed to provide only 9m even if it doesn't equal to 12m distance?

It is also important to explain in the Apartment Design Guide which is more relevant when determining the separation – the existing built form e.g. single dwelling with lesser setback or the desired future character i.e. potential upzone to a neighbouring property. This could help in determination of accurate separation and street alignments.

The comments regarding Performance criteria 3F-1 are as follows:

3F-1 (6) Does 'small infill sites' refer to 'narrow infill sites' discussed in Part 1? The solution needs to specify that separation distance for primary rooms in 'small infill sites' need to comply with the generic controls. The reduced controls are only for secondary bedrooms. Also in our opinion the apartment design guide should discourage the construction of light wells and if they are unavoidable a standard separation should be provided not the reduced one. Light well result in a very poor outcome. The solution or criteria should include a mention about high windows and screens to reduce separation distances should not be encouraged.

The solution such the 'ear windows' should be also included as one of potential solutions for redirecting the view. An ear window solution is presented below in Figure 23:

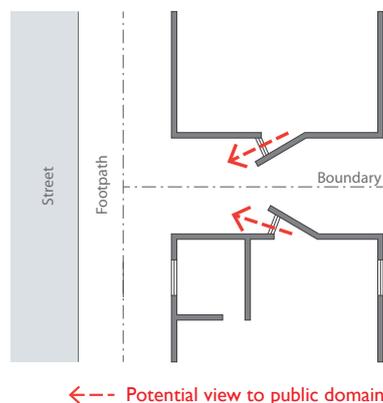
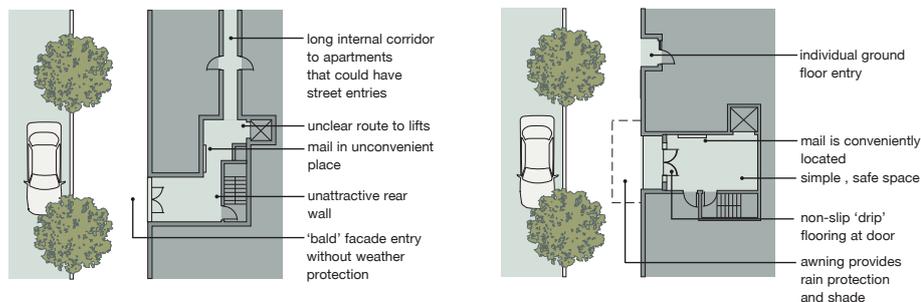


Figure 23 - Ear Window

Regarding Performance criteria 3F-2 (2) – Can this also include a determination which control takes precedent – solar access or the privacy, as the balconies in front of living rooms often result in reduced solar access to the internal areas?

### 3G Pedestrian Access and Entries

The design of lobby (bad and good example) included in the RFDC is a useful tool to explain the principles of the good design of an entry. It is recommended to introduce these diagrams back into the guide:



02.47. This diagram illustrates a contrast between undesirable practice (top) and better practice (bottom) for entry and lobby design.

Figure 24 - Bad and good example of entry and lobby design

Comments regarding the Performance criteria are as follows:

- The criteria should include a requirements to provide the entry to the building always from the primary street and not to the side of a building.
- The pedestrian and vehicular entries should be separated by a minimum of 6m or otherwise demonstrated sufficient safety for pedestrians on narrower sites.
- Stronger emphasis should be given to an equitable access.

It is also important to include guidelines on how the entries to the residential part of shop top housing should be treated.

The photograph in Figure 3G.4 should be removed as it shows bad example of the ground floor level treatment.

### 3H Vehicle Access

Photograph in Figure 3H.2 is a poor example of a driveway treatment. This should be removed as it shows vast extent of a blank wall with no landscaping.

Figure 3H.5 is also a poor example of the relationship between a driveway and a pedestrian entry as it has no separation other than a wall.

The performance criteria and the acceptable solutions should be improved by adding:

3H-1 (9) – To emphasise that shorter driveways are preferred this clause should be changed to read: Visual impact of long driveways where unavoidable ...

There should be also requirements to provide:

- Landscape strip of minimum of 0.5-1m along a boundary when driveways are adjacent to a boundary;
- Encourage driveways to be incorporated into building and not open alongside boundary;

3H-2 (4) A pedestrian entry should include a requirement for a physical separation of a specific dimension (3-6m?) from vehicular access.

### 3J Bicycle and Car Parking

The comments regarding performance criteria in this chapter are as follows:

3J-1- No parking for sites within 400m of a railway station can be easily abused by the industry. Whilst car ownership is discouraged in development that are closer to railway stations, the development needs to demonstrate that alternatives are provided, including:

- Availability of car sharing scheme or spaces for shared cars
- Secured bicycle parking for individual units

3J-5(4) This clause should say 'where possible' as in some cases this is not possible to be provided especially for more than 2 car park levels.

It should also mention that ventilation grills should not be directed to the main pedestrian route.

3J-6 (2) – The criteria should emphasise the need to limit number of floors of parking above ground with screens, as it takes away surveillance to the public domain from above residential apartments.

The images presented on page 72 (Figure 3J.6-3J.7) show very poor outcome. Figure 3J.6 is meant to show how natural ventilation can be integrated into the landscape design, however the picture shows direct view from the internal courtyard to the ventilation shafts with a fence that highlights that. In our opinion this would be a bad example of how the ventilation is integrated with landscape and the communal open space.

Figure 3J.7 also shows a poor outcome. The pictures showing screening to carparking above ground should include examples of public art screens with high quality designs that enhance the context materiality and alignments. Green walls as screening should be also encouraged. Figure 25 below illustrates good examples of screening.

This section should also provide guidelines on how to design an access from car park to the residential floors, such as a proper lobby and lifts coming down from upper residential levels. Also the issue of accessing the units that are on the same level as parking, which should also include a lobby and a separate corridor/access area with daylight access separate from the car park. This is to make sure that entries to the apartments are not provided directly from the car park.

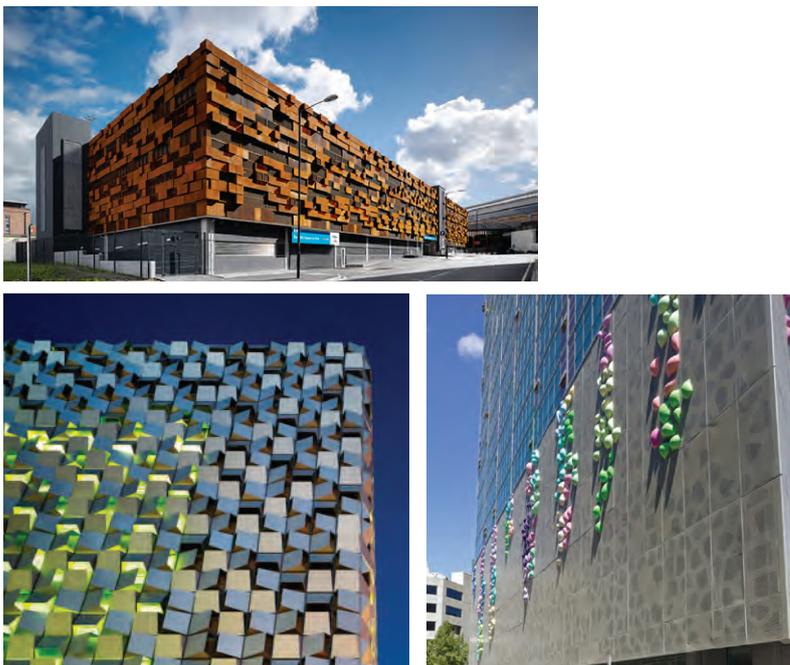


Figure 25 - Better examples of screening with use of artistic impressions

# PART 4 - DESIGNING THE BUILDING - CONFIGURATION

## 4A Apartment Mix

Comments regarding Performance criteria for this chapter are as follows:

Point 4A-1.1 (I) should be expanded and include a mention that “a greater percentage of smaller units closer to public transport are encouraged” with specific distance (600-800m?)

4A-1.2 should be also expanded or removed as it repeats the wording of the performance criteria.

It is unclear how Figure 4A.5 demonstrates a flexible apartment configuration. The caption to this figure doesn't match the picture.

## 4B Ground floor apartments

Figure 4B.3 shows bedroom window which is too close to the footpath. This should include larger setback or elevated ground level.

4B.5 Not a good example. Poor interface with a high fence. Better to show an example with an elevated ground floor and screening achieved through plantings.

Figures should be switched. Place Figures 4B.4 and 4B.5 on first page and the SOHO photos and plans/sections (alternative solutions) on the second page.

## 4C Facades

This chapter should include more guidance on the design of side and rear facades such as “Public art or treatments to exterior blank walls” to discourage blank facades.

Generally the ADG provides less examples of acceptable solutions when compared to the original RFDC. This included:

- Compose facades with an appropriate scale, rhythm and proportion, which respond to the building's use and the desired contextual character. Design solutions may include but are not limited to:
  - defining a base, middle and top related to the overall proportion of the building
  - expressing key datum lines in the context using cornices, a change in materials or building set back
  - expressing the internal layout of the building, for example, vertical bays or its structure, such as party wall-divisions
  - expressing the variation in floor to floor height, particularly at the lower levels
  - articulating building entries with awnings, porticos, recesses, blade walls and projecting bays
  - selecting balcony types which respond to the street context, building orientation and residential amenity:
    - cantilevered, partially recessed, wholly recessed, or Juliet balconies will all create different facade profiles
- detailing balustrades to reflect the type and location of the balcony and its relationship to the facade detail and materials
- using a variety of window types to create a rhythm or express the building uses, for example, a living room versus a bathroom
- incorporating architectural features which give human scale to the design of the building at street level. These can include entrance porches, awnings, colonnades, pergolas and fences
- using recessed balconies and deep windows to create articulation and define shadows thereby adding visual depth to the facade.

Figure 26 - Better design practice of side and rear facades from RFDC

Figure 4C.1 shows an example of a side façade and shows a large part of the façade as a blank wall. This should be replaced a well-designed front façade as the first picture illustrating design excellence of facades. The roof on building in Figure 4C.1 makes an impression of an add-on plant room when seen from this angle and it wouldn't be a useful tool for determining design excellence.

Figure 4C.4 terracotta tiling is very 1990-2000's and an expensive material. A more modern and cost effective material might be a better example.

Figure 4C.5 shows a façade of a very particular design. An example showing a more typical residential apartment building would be more appropriate and more useful as a guide.

## 4D Roof design

Below are comments regarding the Acceptable solutions and Performance criteria:

4D-1.1 Roof design should relate not only to the street but also to the surrounding context. This point needs to be clearer as to how the roof form relates to the street?

Criteria and solutions under 4D-2 should include the relationship of the uses and structures on the roof top terrace and the height limit. Can a structure of a lift providing access to the roof terrace breach the height control if it is not perceived from the street?

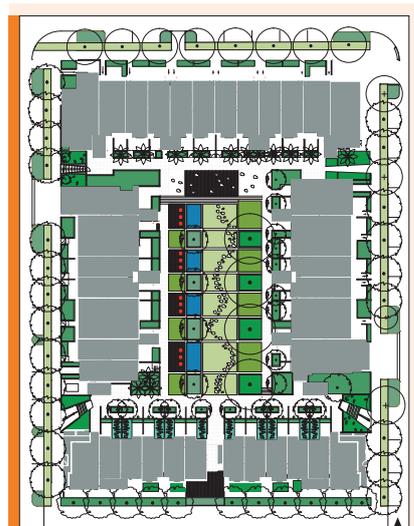
The expression “roof lifts to the north” in 4D-3.1 could be reworded and expanded to provide clearer definition.

In general photos of the roof forms variety could be improved. Especially Figure 4D.1 and 4D.4 provide not the best design outcome and could be replaced with better examples, which are less dominant and more integrated with building and/or context.

## 4E Landscape Design

This section of the ADG has been reduced when comparing to the original document (RFDC). The performance criteria and the acceptable solutions are not very specific. It would be more appropriate to strengthen some parts of the solutions, e.g. 4E-1 (1) – it should say that landscape design should (not may) take into account or include the listed elements such as bio-filtration, trees, vegetable gardens and others. There should be a dedicated solution/criteria that discusses the landscape in rear and side setbacks. The rear and side setback provides a green separation between buildings and improves the amenity of residents and should enhance the traditional character of a street.

The diagram in Figure 4E.5 shows no side setbacks. This is only one scenario of development that relates directly to a high density area. The original RFDC included a diagram that showed a more holistic approach to a block of residential development (Figure 02.16) in which the landscape design incorporates different features in the communal garden as well as along the street.



02.16. A geometric composition of plantings, water features and paved areas create a central focus and outlook for the development.

Figure 27 - Landscape Design from RFDC

The specified minimum deep soil area for tree planting for different sizes of land is an improvement, however it would be beneficial if there was also a description on how these requirements refer to the density of the area.

## **4F Planting on structures**

The acceptable solution under 4F-I doesn't include any mention about planting on car parks for internal courtyards examples. There is also no mention of planting on podiums to provide opportunities for desirable communal open space.

There is also a solution that includes deep soil zones for larger trees 'punching' through the basement levels or other structures. A combination of lower planting, which is easier to achieve and maintain on structures, creates a much better outcome in terms of landscape character.

## **4G Universal design**

The universal design criteria includes a requirement for 20% of a development to achieve silver level universal design features. Is this requirement on top of the usual requirement for adaptable units, which is 10%? This may stifle a development potential and could be hard to achieve.

How does a silver level universal design relate to the parking space sizes?

This requirement would work well for more suburban areas, however in a higher density locations affordable units.

## **4H Adaptive Reuse**

How does adaptively reused apartments relate to other sections of the ADG? Does number of single aspect apartment, solar access to living rooms, sizes of balconies and height of ceiling still apply?

It would be useful if a plan layout of an adaptively reused building example was provided. Especially for adapting a commercial building (including hotels and serviced apartments) into a residential building.

## **4J Mixed use**

This chapter should include more information on how to integrate commercial and retail uses with residential uses. Servicing and car parking for commercial and retail floors and pedestrian access are particularly important to discuss in this chapter.

Solution under 4J-I (2) should also include a mention on design of activated laneways and midblock links. No discussion of servicing access for retail/shops.

In Figure 4J.3 parts of the key are missing. Include arrows indicating service access commercial/retail entry and residential entry.

Figure 4J.5 is a poor image choice: the façade is very flat with no awning and a shopping trolley in the foreground. A more activated ground level with outdoor dining, cafes etc would be more desired for this chapter.

## **4K Awnings and Signage**

More good examples of location of signage in relation to awnings is required.

The solution under 4K-I (4) needs rewording to be clearer as follows: "The design and location of awnings responds to the location of residential windows, balconies and the location of street tree planting, power poles and street infrastructure."

The solution under 4K-2 (3) also needs rewording to: 'Signage is limited to the edge of or below awnings and a single façade sign on the primary street frontage.' Current solutions could be interpreted as signage

on top of the awning, which is not a good outcome and should be avoided.

The general text could also include a discussion on benefits for Councils to provide signage controls for specific areas of a neighbourhood that relate directly to the character of the context. This may include developing a theme and a consistent style for signage in certain areas.

# PART 4 - DESIGNING THE BUILDING - AMENITY

## 4L Solar and Daylight Access

Performance criteria 4L -1 and 4L-2 are both essentially saying the same thing and could be combined into one section. They are both discussing how to maximise the number of apartments receiving sunlight to habitable and a reasonable direct sunlight provided to habitable rooms and balconies.

The acceptable solution under 4L-1 (1) includes a statement: 'The design maximises north aspect.' In our opinion this statement is very vague. An approach to get a more rigorous outcome would be to state that the masterplanned urban structure should respond to the orientation to maximise north aspect.

There should be greater commentary, performance criteria etc on the built form of a masterplan responding to the solar orientation.

After this the point regarding unit types should be incorporated. See Point 4L-2.2 below.

The statement under 4L-1.3 regarding minimising the number of single aspect units facing east or west also provides a very vague guidance. The previous policy included a requirement for maximum of 10% of single aspect units. This requirement should be retained.

Solution under 4L-2 (1) indicates that the requirement of siting in the sun relates to the living room OR balcony only. Which is more important? How should we determine if the solar access to the living room is sufficient? Perhaps there should be an indication in the guide that requires the sun access to be provided to the floor (minimum of 1sqm) of the room to create a more specific indication?

Regarding the discussion about types of units under 4L-2 (2) should be related to the overall site masterplan orientation.

### Alternative Solutions

Alternative solutions are suggested where 3 hours of direct sunlight in mid-winter is not achievable. The circumstances listed where these can be applied allow for the possibility of non-compliance. For example: 'Where apartments face greater than 20 degrees east or west of north.'

There is a point about the demonstration of 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. This is really a key point which should form part of the acceptable solutions.

This may be a result of a poor master planning and incorrect orientation. The proposal should demonstrate that the orientation of the layout has been explored to maximise northerly orientation in the analysis drawings.

The alternative solution allows for less than 3 hours of solar access in major centres or high density development. This needs to be more defined in terms of how far away from the centre (close to a station or bus interchange?) and what indicates a high density development areas? There are many examples of abusing/overusing this requirement in the current RFDC for areas that are not strictly in the centre and could be referred to a medium scale.

## 4M Common Circulation

The diagrams included within this section are not clear. Figures 4M.3 - 4M.6 do not clearly explain the points. The red and green arrows are not clear.

Figure 4M.5 illustrates the concept of external gallery access. This can be useful to maximise northern aspect for apartments, or if there is a buffer to noise source. However, key habitable rooms such as living space, dining rooms, bedrooms, and studies are not be located on the gallery side due to natural ventilation, acoustic privacy and visual privacy issues. The only windows which can be located along this side should be high level windows to allow for privacy – which is suited to service areas such as bathrooms/laundries/storage.

Large number of units shown in the examples (Figures 4M.3-4M.6) are single aspect. This document should encourage the design that involves dual aspect and corner units. An example of providing two cores for a single building and therefore providing more opportunities for dual aspect units is provided below (Figure 28):

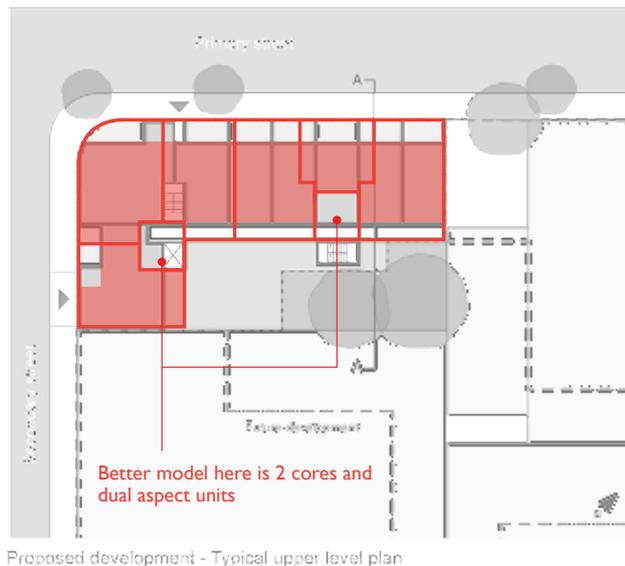


Figure 28 - Better example of providing two cores and more opportunities for dual aspect units for a single building

4M-1 (1) – The statement: 'The number of vertical circulation points and number of entries are maximised.' is a very vague statement. It is important to specify the maximum number of units allowed to be accessed from one core.

The solution regarding circulation width and ceiling heights included in 4M-1 (3) should be strengthened to include minimum numerical requirements.

## 4N Apartment Layout

The section on Apartment layouts does not provide sufficient input on overall best practice of layouts nor explain why the indicative layouts have been chosen. There is not enough guidance or emphasis on the zoning of layouts – for example, living/dining areas separated from bedroom areas, or location of servicing areas such as bathroom/laundry/kitchen. Simple diagrams could illustrate this.

Even though Storage is dealt with as a separate section (in order to cover external storage), Section 4N should make reference to storage provision and the location of this. Storage within the apartment has the potential to act as a buffer between zones – for example, noisier areas than quieter. Clever storage proposal should demonstrate that the orientation of the layout has been explored to maximise northerly orientation in the analysis drawings.

Further emphasis should be placed on furniture arrangements which are appropriate for the size of the apartment. The ADG should be setting minimum furniture requirements for different apartment sizes. This could follow the principles of the UK Publication produced by the National Housing Federation - Standards and quality in development (NHF 1998). It sets stringent guidelines with regards to layouts being able to accommodate the minimum amount of furniture appropriate to size with movement and relevant circulation zones.

For example:

- One Bedroom – sofa, occasional chair for double bed, table for two, etc
- Two Bedroom – sofa, occasional chair, coffee table, dining for 4 people, double (queen bed) to main bedroom with bedside tables, two twin beds to second bedroom.

For performance criteria 4N-1 and the acceptable solution 1 (4N-1 (1)) – it is noted that studio apartment sizes have been reduced in area, which for smaller units is large reduction which would have an impact on the area.

Solution 2 should include a statement that:

*'Principal windows deeply inset from the main building line are not to be incorporated.'*

This is to avoid the 'snorkel window' effect. It would be also useful to include a simple diagram explaining this issue and providing guidance on how to avoid it.

Solution 2 needs more defined requirement to include all sizes of units i.e.:

*'Kitchens are not to be located as part of the main circulation space.'*

The solution under 4N-2 (2) should include a small rewording such as:

*'For open plan layouts, combining the living room, dining room and kitchen, the back of the rear kitchen bench is a maximum of 8 metres from a window.'*

It should be also added that where a kitchen is located on an external wall, a window should be provided – either at the end of the bench tops or over the sink.

Additionally this chapter should include a requirement/guideline that all living areas, kitchen and dining areas should be located separately from bedroom areas. Laundry areas should be located away from bedrooms.

The comments regarding the Indicative apartment layouts are as follows:

- Studio – minimum balcony depth ideally 2.5 metres (page 102);
- 2 bedroom mid-floor cross over (page 104) – should have a bathroom the lower level with the bathroom;
- 2 bedroom mid-floor plate dual aspect (bottom middle on page 104) is in fact a 3 bedroom unit;
- No arrangements are shown which incorporate studies and how they are integrated.

The analysis of the unit layout shows that a 2 or 3 bedroom apartments are much better designed when they are provided as dual aspect or cross over units. The examples of apartment layouts only shows one

apartment with more than 1 bedroom which is single aspect shown on page 104 – top middle. This unit is characterised by a wide frontage and narrow depth. It would be useful to include a discussion on that or a requirement that:

*'Units with more than 2 bedrooms are to be provided as dual aspect or a cross over units, unless a wider frontage of more than 10m is provided.'*

This requirement would also address the 'snorkel bedroom' effect which occurs when a second or a third bedroom is accommodated within an apartment with a narrow frontage.

Solution described under 4N-3 (5) should provide more description and guidance on the sizes of the rooms/living spaces on top of the numerical requirements. For example a 2 bedroom (4 person) apartment should include a sofa, occasional chairs for visitor, dining for 4 people etc. It would be best if this was provided in a simple diagram form.

There is no explanation or description of the dual-key arrangement which has been identified as a possible solution for apartment layouts.

The safety within an apartment discussed in 4N-4 shouldn't be limited to children and young people. Wouldn't this be covered in BCA already?

## **4O CEILING HEIGHTS**

A number of the points referred to within the diagrams are then not identified as a point under the acceptable solutions.

There is a reference to the ground and first floor levels of mixed use apartment buildings being able to have increased ceiling heights. The recent market shows that it is not viable to have a mixed use on the first floor as there is not enough demand. Therefore this requirement shouldn't be enforced.

Sufficient tolerance should be provided in the floor to floor height to accommodate structure, floor finishes, plasterboard ceilings with recessed downlights and services.

Figure 4O.1 and 4O.2 are not clear, and the particular points are not included or referenced within the acceptable solutions.

## **4P PRIVATE OPEN SPACE AND BALCONIES**

The requirements for balcony dimensions under 4P-2 (2) should be minimum 2m for Studio and 1 bedroom units and a minimum of 2.5m for 2 bedroom and above. Proportion and shape of primary balconies should be described in more detail.

The document lacks information and specific dimensions for wintergardens. It would be also more useful if ADG provides specific information on what part of wintergarden (if any) should be counted as part of the floor area (GFA)?

Issues made under the diagrams are not included within the acceptable solutions – for example screening of part of the balcony for drying.

If a balcony is located adjacent to both a living area and a bedroom, the proportions should allow for different zones on the balcony to allow privacy to bedroom – outdoor dining directly adjacent to the living room and other ancillary outdoor furniture or outdoor plants outside the bedroom.

Under 4P-4 (2) - Changes in ground levels or landscaping are minimised. Does this not contradict the objectives of ground level apartments and relationship to street where the change of level is encouraged?

Figure 4P.7 is not a good solution – should be combined with landscape planters to provide a better outcome. Figure 4P.9 is a really good solution.

## 4Q NATURAL VENTILATION

Figure 4Q.1 is not clear as to what the control actually is.

Second solution under 4Q-1 (2) should read:

*'Rooms have appropriate depths to allow for minimum requirements in relation to natural ventilation as specified in Section 4N.'*

However this needs to be more specific to the criteria and solution number.

Solution 3 – 4Q-1 (3) should read as:

*'The area of unobstructed window openings are equal to at least 5% of the floor area served.'*

It is questionable if 5% is a sufficient requirement?

The first solution under 4Q-2 (1) reads: Apartment depths are limited to maximise ventilation and airflow. See Figure 4Q.1.

This is not clear in relation to the depths outlined in figure 4N.3 and it is not clear what the control actually is.

The solution 3 - 4Q-2 (3) regarding the size of lightwells should incorporate actual dimensions rather than ratio. It is also not supported to provide lightwell as a primary outlook for habitable rooms especially for taller buildings.

## 4R STORAGE

Minimum kitchen storage requirements are not included to ensure kitchen size/storage is adequate for the apartment size.

Figure 4R.2 indicates that storage on private balconies is acceptable. This shouldn't be encouraged and this image should be removed from this document.

## 4S ACOUSTIC PRIVACY

Solution 2 under 4S-1 (2) should be more specific and define what is considered 'noise source'.

The ADG should be more specific in stating what the noisy and quiet areas are and should also refer to solution 3 under 4S-1.

There should be a clearer identification of the noisy spaces and quiet spaces in a unit under solution 1 – 4S-1 (1).

The last point under 4S-2 (1) should read as follows:

*'Wardrobes and general apartment storage can act as a sound buffer.'*

## 4T NOISE AND POLLUTION

The issue of wintergardens is identified through diagrams and images, though the principles are not integrated within the acceptable solutions. These should also form a key part of private open space section (4P).

There is no mention about the location of driveways and vehicular access/servicing areas in relation to residential dwellings. This is one of the main issues that occur when designing a residential apartment building with units overlooking ramps and servicing areas.

## 4U ENERGY EFFICIENCY

This section is an additional guidance to provide solutions for BASIX requirements and it provides most important elements such as solar and ventilation elements.

Figure 4U.4 shows how to divide different thermal zones in a unit layout, however this is not reflected in the performance criteria and acceptable solutions.

Also this figure is missing a key.

## 4V WATER MANAGEMENT AND CONSERVATION

This section should be called Water sensitive urban design. It would also be useful to include Water sensitive urban design (WSUD) in the definition at the end of the document.

The guidelines for the design of a WSUD development and how to master plan it are limited. This should be expanded to really achieve the best outcome as WSUD was discussed as one of the most important benchmarks in the introduction of the document (page 8).

## 4W WASTE MANAGEMENT

This section could be much more specific with regards to numeric requirements of the size of garbage rooms and number of garbage collection points in a larger development. Would 1 larger garbage collection point be sufficient in a development block that includes more than 2 buildings? What are the maximum distances between the garbage room and a collection point?

Could there be more detailed guidelines on the location of the temporary collection of garbage too? A requirement to include screening to temporary collection points should be also included.

This section should also include specific guidelines or examples on how to screen outdoor garbage bins including planting, green walls, building a shade etc.

What are the specific sizes for temporary storage of bulky items and is it required for all developments or does it depend on the size of the residential development i.e. number of units?

Should there be an inclusion for a requirement to provide a designated recycling garbage area in every development. We are aware that not every Council has capacity to collect both regularly however the recycling of paper, glass, plastic and metal separate from biological waste should be the minimum requirement and more specific recycling should be encouraged in the new Apartment Design Guide.

## 4X BUILDING MAINTENANCE

This section has been improved when comparing to the previous section in RFDC. It can be further improved by a better choice of images that detail some of the solutions such as:

- How to detail horizontal edges to avoid staining?
- How to enable cleaning windows?
- Does Figure 4X.4 includes windows that can be removed or reoriented to allow cleaning?

Most of the solutions described in 4X-1, 4X-2 and 4X-3 should be accompanied with a diagram to truly guide the design.

The images provided in this chapter show poor ground floor solution – Figure 4X.1 and 4X.2. These should be replaced otherwise it will be used as a justification for bad design.

## PART 5 - DESIGN REVIEW PANELS

This section is clearly dedicated for Council staff and future or current panellists. It is questionable if this section should be part of the Apartment Design Guide or whether this could be a separate document also attached to SEPP65.

Some comments regarding this section are as follows:

- Page 135 last sentence should read: 'Remuneration should be fair and equitable taking into consideration the time taken to review application, site visits and to participate in panel processes.'
- Page 137 second dot point should read: 'the agenda and application information for each meeting should be...'
- The agenda template should include space for Pre-DA applications, Previously reviewed applications and New DA.
- The Design Quality Test is very long and winded. It will influence the time required to fill in the form if all parts of the guide need to be covered. Perhaps the form could be stream lined to reflect only the issues?

## APPENDIX 4 – APARTMENT BUILDING TYPES

### Example 01 - Row apartments

The example layout shows cores to the street. There should be an explanation added to this part where it states that cores should be located towards the lesser outlook or if both sides have good outlook then to the south.

Proposed development - Section A on page 155 should show separation between a balcony and public domain as discussed under Part 3C Public domain interface.

### Example 02 – Narrow infill apartment

The text in second paragraph should say:

‘One of side setbacks of the front building is able to be reduced to 3 metres as the side wall has no windows or only high level windows (for wet areas) to the neighbour.’

The overall form for this type of development is not supported. As explained in Part 1A this type of development should provide two separate buildings as shown in Figure 4 on page 8, with a central communal open space and limited overlooking to the side boundary.

Therefore Proposed development - Typical upper level plan on page 157 shouldn't be included but replaced with a different solution shown in diagram 8.

Section A on the same page shows an incorrect relationship of the groundfloor unit to the street. It should be elevated slightly. The setback of 7 storeys also seems too big for this kind of development and it depends on Council.

Separation of 4m shown in Street elevation also seems inconsistent with the separation distances required earlier in the document.

### Example 03 – Shop top apartments

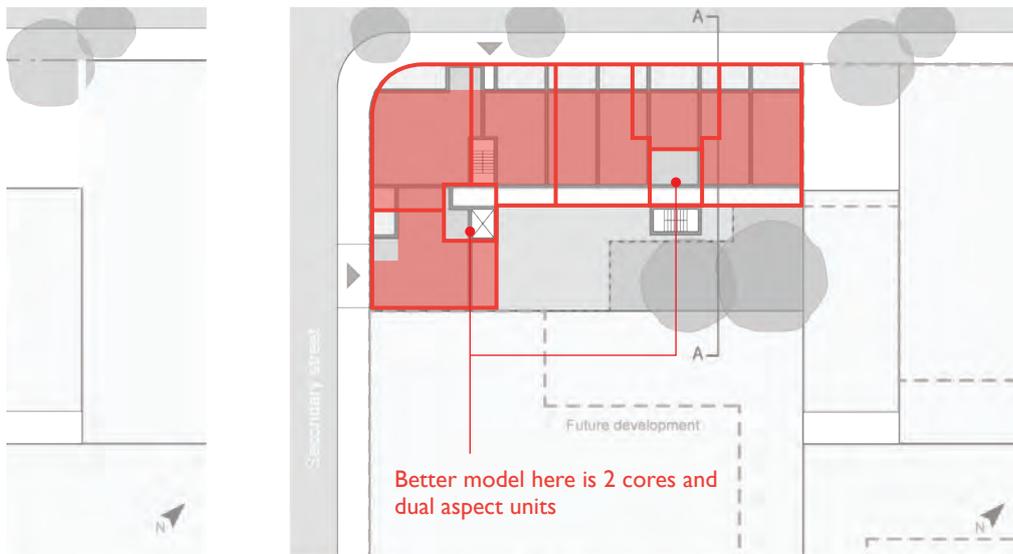
The example shows shops under the front part of the building and only residential use to the rear part of the site. However, this term has been recently challenged by the L&EC and as a result to that shop top housing needs to have retail uses on the full extent of the ground floor with residential uses truly above retail or business premises (refer to L&E C decision on *Hrsto v Canterbury City Council (No.2)* (2014) NSWLEC 121).

Based on that, this section of the ADG needs to be revised and changed accordingly. Notwithstanding that, the example does not provide any identification of the location of the communal open space. Would it be correct encourage roof top terraces or COS on podiums for this typology?

The proposed development – Typical upper level plan shows vehicular access located along the side setback and this shouldn't be shown as a good example. Also the key is missing identification of the yellow colour.

### Example 06 - Perimeter block apartments

This example is wrong. The Apartment Design Guide should discourage designing open walkways to habitable rooms. This should be treated similarly to single aspect units. The example should be replaced with a development with multiple cores and a maximised number of dual aspect and corner units. The example of that is provided on the next page in Figure 29:



Proposed development - Typical upper level plan

Figure 29 - Better example of providing two cores and more opportunities for dual aspect units for a single building

The retail level shown on Section A in page 165 shows a step to retail, which is also not a good design and should be corrected to be at the same level as the footpath.

The diagram on the bottom left on page 164 (shown below) can be dangerous and should be strictly limited to high density areas in the strict centres.

The courtyard shown in this diagram is very narrow and could assume lightwell solution. Perhaps it would be better to show a real example in a photograph or larger separations could be provided as this is supposed to be the best example for the industry.

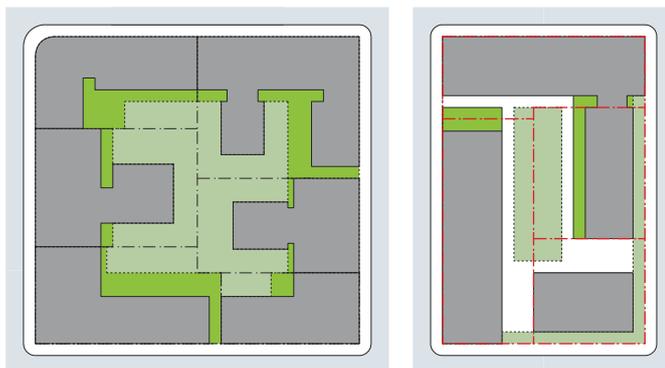


Figure 30 - Poor courtyard solution

# ADDITIONAL GENERAL COMMENTS

- The document lacks information on what defined design excellence and what is just a good/correct design.
- Approach to take acceptable and alternative solutions could have greater strength if noted as Required (or Mandatory) and Desirable or Preferred and Alternative.
- The approach with acceptable and adaptable solutions is not clear and is going to result in ambiguity of interpretation. Do we need to apply all of the Acceptable solutions for each criteria or just some and how many?
- Important information and requirements are often included as a diagram or photograph caption, but not provided as part of the solutions. It is important to include all important requirements within the tables with solutions and criteria, as this sections will be the most relevant and could potentially become the control. Other discussion on each subject will be often omitted.
- The document overall presentation is well provided. The differentiation of different chapters with colours helps in identifying the locations of required guidelines. The font of the text became larger than in the RFDC which is useful.
- Many diagrams are lacking elements of the key/legend. The diagrams are also inconsistent with the actual requirements that are enforced in the document such as showing apartments underground in some diagrams or no activation to the street etc. These incidents have been captured in the detailed description under individual chapter above.
- There are some sporadic grammar and spelling mistakes such as double preposition used on third line of top paragraph under 2H Side and rear setback (page 42).
- Chapter numbering in Part 4 is not correct. Number 4I is missing.
- There is a missing page number under 4M. It will be hard to refer to specific criteria and solutions with no page number in the document.

## CONCLUSION

GMU appreciates the opportunity to be able to comment on the draft document for the SEPP 65 -Apartment Design Guide.

GMU recommends that the comments made in this document be taken on board in order to improve the clarity and the success of the document. The key for this document is to encourage better design quality (Design Excellence). We believe that some elements of the draft document still include misleading information, have incorrect guidelines or provide opportunity for misinterpretation. These need to be addressed in pursuance of the guide being fully understood and applied correctly.

GMU also recommends a peer review of the final document at the next stage, once comments from submissions have been made and prior to final adoption. The peer review should involve 2-3 independent and well established in the NSW industry professional consultants (or consultancies) who are experts in urban design, architecture and/or landscape architecture. That will ensure the success of the final Apartment Design Guide.

# GMU

URBAN DESIGN / ARCHITECTURE / LANDSCAPE ARCHITECTURE

Project SUBMISSION IN RESPONSE TO  
THE DRAFT APARTMENT DESIGN GUIDE  
Prepared for DEPARTMENT OF PLANNING  
Date 31 October 2014