architectus™

Proposed Mixed Use Development

Corner of Wentworth Ave and South Steyne, Manly

May 2011 | Royal Far West

SEPP 65 Assessment

Architectus Group Pty Ltd
ABN 90 131 245 684
Level 3 341 George Street
Sydney NSW 2000
Australia
T 61 2 8252 8400
F 61 2 8252 8600
sydney@architectus.com.au
www.architectus.com.au

Contents

Tables

1 Introduction

This SEPP 65 assessment report seeks to clarify and communicate the principles that have been considered during the design of the proposed mixed use development for Royal Far West at the corner of Wentworth Avenue and South Steyne, Manly.

It is important to note that the current design is at Concept Plan stage only and therefore detailed architectural design decisions have yet to be made.

This report is to be read in conjunction with the architectural concept plan drawing package and the relevant planning and consultant reports.

Where detailed design decisions have yet to be made, a commitment to a proposed strategy for compliance to SEPP 65 and RFDC principles has been stated.

2 SEPP 65 Assessment

2.1 SEPP 65 Design Quality of Residential Flat Development

This policy applies to the proposed development as it is defined under the SEPP as a 'residential flat building', in that it meets the criteria of being 'three or more storeys, and consisting of four or more self-contained dwellings'. The table provided below gives a summary of the proposal's consistency with the design quality principles of SEPP 65.

Table 1 SEPP 65 compliance

SEPP 65 Design Principle	Consistency	Comments
Principle 1: Context Good design responds & contributes to its context. Context can be defined as the key natural & built features of an area. Responding to context involves identifying the desirable elements of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality & identity of the area.	yes	The proposed residential development responds to both the existing natural environment by ensuring all residential apartments enjoy ocean views. Existing heritage items on the site have been maintained to ensure that their relevance to the existing local context is not eroded.
Principle 2: Scale Good design provides an appropriate scale in terms of the bulk & height that suits the scale of the street & surrounding buildings. Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk & height needs to achieve the scale identified for the desired future character of the area.	yes	The proposed development responds to the existing bulk and scale of surrounding buildings. The residential portion of the building forms a 'street wall' along South Steyne and the corner at Wentworth Ave. which is in keeping with the opposite corner to the north. The residential building along South Steyne consists of a clearly identifiable top, middle and base, which further ensures that the apparent scale of the building is reduced and addresses the human scale along south Steyne.
Principle 3: Built form Good design achieves an appropriate built form for a site & the building's purpose, in terms of building alignments, proportions, building type & the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes & parks, including their views & vistas, & provides internal amenity & outlook.	yes	The built form of the proposed development has been generated by careful allocation of the various building uses. The residential 'podium' forms a street wall along South Steyne and includes the corner at Wentworth Ave. Where interfaces with existing heritage items occur, building alignments have been located to ensure appropriate cartilage zones are created.
Principle 4: Density Good design has a density appropriate for the site & its context, in terms of floor space yields (or number of units or residents). Appropriate densities are sustainable & consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities & environmental quality.	yes	The proposed development is located is located within an existing dense urban setting and adjoining land use consists of a mixture of residential, retail, commercial and tourist facilities. The distribution of density within the site has been allocated to ensure that the residential component enjoys a high level of amenity and affords maximum outlook to the ocean to the east.
Principle 5: Resource, energy & water efficiency Good design makes efficient use of natural resources, energy & water throughout its life cycle, including construction. Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate & sustainable materials, adaptability & reuse of buildings, layouts, & built form, passive solar design principals, efficient appliances & mechanical services, soil zones for vegetation and reuse of water.	yes	The existing buildings on the proposed site have reached the end of their life cycle and are no longer appropriate for use by the RFW organization. Proposed landscaping will be introduced within a residential courtyard. This area will contain provision for deep soil planting and will be irrigated by a rainwater collection system. Grey water irrigation may also be adopted where appropriate

Principle 6: Landscape Good design recognises that together landscape and building operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain. Landscape design builds on the existing site's natural and cultural features by co-ordinating water and soil management, solar access, micro-climate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character. Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide practical establishment and long term management.	yes	The interface between the existing heritage items and the proposed new buildings has been enhanced by the careful allocation of landscaping elements. These will form a 'cartilage' the heritage items and clearly delineate the public and private zones. The residential courtyard will enjoy a combination of soft and hard landscaping and will establish a quiet oasis from the busy urban setting of the exiting neighbourhood.
Principle 7: Amenity Good design provides amenity through the physical, spatial and environmental quality of a development. Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility.	yes	The residential component of the project has been carefully oriented to achieve maximum solar access during the winter months. Up to 90% of apartments enjoy natural cross ventilation. Larger apartment sizes will ensure adaptability and accessibility. Primary balconies will consist of a minimum 2m depth and 10m2 area. The majority of residential apartments will afford ocean views and cross ventilation
Principle 8: Safety and security Good design optimises safety and security, both internal to the development and for the public domain. This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and a clear definition between public and private spaces.	yes	Careful consideration has been given to the elements within the project that influence safety and security of its residents, passers by and visitors. Clear identity of building entries, activation of the ground plane by retail uses, and night time lighting all enhance the security of residents and passers by The residential courtyard is overlooked by secondary balconies within the residential units which will contribute the safety of users.
Principle 9: Social dimensions and housing affordability Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities. New developments should optimise the provisions of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community. New developments should address housing affordability by optimising the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs.	yes	The RFW portion of the project will consist of clinical suites which will serve the needs of the local community and further abroad. Within the residential component, It is anticipated that a range of apartment sizes and configurations will be made available. It is important to note however that the subject site occupies hi value real estate therefore it is envisaged that the residential portion of the site will consist primarily of larger apartment types.
Principle 10: Aesthetics Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to the desirable elements of the existing streetscape, or, in precincts undergoing transition, contribute to the desire future character of the area.	yes	The Proposed design is at concept plan stage therefore detailed selections of finishes and materials have not been undertaken. However, in terms of composition of primary building elements, careful consideration has been given to ensure that the future development is in keeping aesthetically with the desired future character of the area. In particular the development will be in the 'coastal style' as defined in the RFDC Pattern Book.

2.2 NSW Residential Flat Design Code 2002

The NSW Residential Flat Design Code 2002 published by the Department of Planning NSW is part of the package of measures under SEPP 65 which the State Government is using to improve the design quality of residential flat development in NSW.

It is noted that the NSW RFDC 2002 provides design principles and 'rules of thumb' standards; so, a degree of judgement is needed to interpret the NSW RFDC 2002 them as they apply to a wide range of multi-unit development throughout NSW regardless of local area character.

Table 2 Residential Flat Design Code 2002 Compliance

Residential Flat Design Code 2002	Consistency	Comment
Local context		
Primary Development Controls		
Building depth Control over building depth is important as the depth of a building will have a significant impact on residential amenity for the building occupants. In general, narrow cross section buildings have the potential for dual aspect apartments with natural ventilation and optimal daylight access to internal spaces. In general, apartment building depth of 10-18 metres is appropriate. Developments that propose wider than 18 metres must demonstrate how satisfactory daylighting and ventilation are to be achieved.	yes	The residential portion of the development consists of a multi core building with a depth of10-12m .This allows for ample natural light penetration and cross ventilation to occur.
Building separation For buildings over three storeys it is recommended that building separation increase in proportion to building height to ensure appropriate urban form, adequate amenity and privacy for building occupants. Suggested dimensions within a development, internal courtyards and between adjoining site are: • Up to four storeys/12 metres – 12m between habitable rooms/balconies – 9m between habitable/balconies and non-habitable rooms – 6m between non-habitable rooms • Five to eight storeys/25 metres – 18m between habitable rooms/balconies – 13m between habitable rooms/balconies and non-habitable rooms – 9m between non-habitable rooms • Nine storeys and above/over 25m – 24m between habitable rooms/balconies – 18m between habitable rooms/balconies and non-habitable rooms – 12m between non-habitable rooms • Allow zero building separation in appropriate contexts, such as in urban areas between street wall building types (party walls). • Where a building step back creates a terrace, the building separation distance for the floor below applies. • Protect the privacy of neighbours who share a building entry and whose apartments face each other by designing internal courtyards with greater building separation.	yes	The residential building contains an internal landscaped courtyard at level 1 which also acts as a buffer to the 9 storey hotel / clinical use building to the west. The separation distance between the residential building and the hotel/clinical building ranges from 12 – 16M The lower 2 levels of the hotel building also contain additional clinical spaces which will be managed by RFW. These lower floors will orient toward the new children's playground to the west and Wentworth street to the north, eliminating the need for windows looking in to the residential courtyard. Further visual privacy will be provided via the implementation of screening devices Care has been taken to ensure that there are no primary living spaces fronting the courtyard.

Residential Flat Design Code 2002	Consistency	Comment
• Developments that propose less than the recommended distances must demonstrate that daylight access, urban form and visual and acoustic privacy has been satisfactorily achieved.		
Site Design		
Site analysis		
Development proposals need to illustrate design decisions, which are based on careful analysis of the site conditions and their relationship to the surrounding context. By describing the physical elements of the locality and the conditions impacting on the site, opportunities and constraints for future residential flat development can be understood and addressed in the design. A written statement explaining how the design of the proposed development has responded to the site analysis must accompany the development application.	yes	The proposed development utilizes and maximizes the full potential of the site whilst ensuring that it is in keeping with the current and desired future character of the area. Careful analysis of the site has resulted in key design principles being employed: • Maintain the existing significance of Drummond House as both an urban and social landmark. • An understanding the solar movements across the site and the predominant wind patterns, has resulted in a plan diagram that affords maximum solar access and cross ventilation opportunities to the future occupants of the proposed residential building. • An understanding of the scale of the local context has informed the allocation and distribution of height across the site. The taller elements have been set back from the public streets to minimize their impact upon the public realm
Site Configuration		
Deep soil zones Optimise the provision of consolidated deep soil zones within a site. Optimise the extent of deep soil zones beyond the site boundaries by locating them contiguous with the deep soil zones of adjacent properties. Promote landscape health by supporting for a rich variety of vegetation type and size. Increase the permeability of paved areas by limiting the area of paving and/or using pervious paving materials. A minimum of 25% of the open space area of a site should be a deep soil zone; more is desirable. Exceptions may be made in urban areas where sites are built out and there is no capacity for water infiltration. In these instances, stormwater treatment measures must be integrated with the design of the residential flat building.	yes	The residential portion of the development will contain a landscaped courtyard designed to integrate a deep soil planting zone. This will allow for larger trees which will improve the amenity and privacy between buildings. Further deep soil zones are located adjacent to Drummond house and serves both as a curtilage to the heritage item and a visual buffer from the main vehicular entry point. The proposed children's playground to the rear of Drummond house will also contain zones for deep soil opportunities
Fences and walls Respond to the identified architectural character for the street and/or the area. Clearly delineate the private and public domain without compromising safety and security. Contribute to the amenity, beauty and useability of private and communal open spaces. Retain and enhance the amenity of the public domain. Select durable materials, which are easily cleaned and graffiti resistant.	yes	The residential component of the project is located above ground floor retail areas therefore there is minimal interface between a residential unit and the public realm. The level 1 apartments which have a secondary balcony or 3rd bedroom facing into the courtyard will utilize fences for privacy from the courtyard users.
Landscape design Improve the amenity of open space with landscape design which provides appropriate shade from trees or structures, accessible routes through the space, screening, allows for locating artworks. Contribute to streetscape character and the amenity of the public domain. Improve the energy efficiency and solar efficiency of dwellings	yes	The residential courtyard will utilize both soft and hard landscaping elements to ensure good amenity to the users. Rainwater collection from the new building will allow for adequate irrigation of the proposed soft landscaped areas. Also contributing to the projects energy minimizing credentials

Residential Flat Design Code 2002	Consistency	Comment
and the microclimate of private open spaces. Design landscape that contributes to the site's particular and positive characteristics. Contribute to water and stormwater efficiency by integrating landscape design with water and stormwater management. Provide sufficient depth of soil above paving slabs to enable growth of mature trees. Minimise maintenance by using robust landscape elements.		
Open space Provide communal open space that is appropriate and relevant to the context and the building's setting. Where communal open space is provided, facilitate its use for the desired range of activities. Provide private open space for each apartment capable of enhancing residential amenity. Locate open space to increase the potential for residential amenity. Provide environmental benefits including habitat for native fauna, native vegetation and mature trees, a pleasant microclimate, rainwater percolation and outdoor drying area. The area of communal open space required should generally be at least between 25 and 30% of the site area. Larger sites and brownfield sites may have potential for more than 30%. Where developments are unable to achieve the recommended communal open space, such as those in dense urban areas, they must demonstrate that residential amenity is provided in the form of increased private open space and/or in a contribution to public open space. The minimum recommended area of private open space for each apartment at ground level or similar space on a structure, such as on a podium or carpark, is 25m², the minimum preferred dimension in one direction is 4.0m.	yes	Whilst the proposed development is located in a dense urban area, provision has been made to include a landscaped residential courtyard This courtyard can be accessed by all residents at level 1 lobbies and provides a mixture of loft and hard landscaping elements
Orientation Plan the site to optimise solar access by positioning and orienting buildings to maximise north facing walls, providing adequate building separation within the development and to adjacent buildings. Select building types or layouts which respond to the streetscape while optimising solar access. Optimise solar access to living spaces and associated private open spaces by orienting them to the north. Detail building elements to modify environmental conditions, as required, to maximise sun access in winter and sun shading in summer.	yes	The location of the residential component of the development has been selected for its ability to enjoy maximum solar access to the apartments. All primary living spaces and balconies will enjoy good solar access and optimum views towards the ocean Adjustable screens and shading devices will ensure that thermal heat gain is minimized
Planting on structures Design for optimum conditions for plant growth by providing soil depth, soil volume and soil area appropriate to the size of the plants to be established etc. Design planters to support the appropriate soil depth and plant selection. Increase minimum soil depths in accordance with the mix of plants in a planter. In terms of soil provision there is no minimum standard that can be applied to all situations as the requirements vary with the size of plants and trees at maturity. The recommended minimum soil depth standards range from 100-300mm for turf to 1.3 metre large trees.	yes	Provision has been made in the residential courtyard to allow for deep soil planting on structure. The resultant large scale landscape elements will enhance the amenity to the residents and provide additional visual privacy between the hotel and residential buildings
Stormwater management Reduce the volume impact of stormwater on infrastructure by retaining it on site.	yes	Stormwater will be retained on site for the purpose of irrigating the proposed soft landscape elements within the residential courtyard, buffer zones adjacent to the heritage elements and the children's play area.

Residential Flat Design Code 2002	Consistency	Comment
Optimise deep soil zones. All development must address the potential for deep soil zones. On dense urban sites where there is no potential for deep soil zones to contribute to stormwater management, seek alternative solutions. Protect stormwater quality by providing for sediment filters and traps etc. Reduce the need for expensive sediment trapping techniques by controlling erosion. Consider using grey water for site irrigation.		Grey water irrigation my also be implemented where appropriate
Site amenity		
Safety Reinforce the development boundary to strengthen the distinction between public and private space. This can be actual or symbolic. Optimise the visibility, functionality and safety of building entrances. Improve the opportunities for casual surveillance by orienting living areas with views over public or communal open spaces, where possible. Minimise opportunities for concealment. Control access to the development.	yes	The proposed development reinforces the distinction between public and private spaces. The residential building entries are clearly identified and illuminated at night. The ground floor retail also promotes safety to both residents and public by providing well lit and activated edge conditions Access to the residential component of the development is limited to a secure vehicular entry point and secure ground floor lobbies
Visual privacy Locate and orient new development to maximise visual privacy between buildings on site and adjacent buildings. Design building layouts to minimise direct overlooking of rooms and private open spaces adjacent to apartments. Use detailed site and building design elements to increase privacy without compromising access to light and air.	yes	Visual privacy has been achieved in the residential courtyard by the inclusion of various design approaches which include: • Fixed screens on the hotel building • Tall landscaped elements • No primary living spaces fronting the courtyard etc
Site access		
Building entry Improve the presentation of the development to the street (i.e. designing the entry as a clearly identifiable element of the building in the street, ground floor apartment entries-where it is desirable to activate the street edge or reinforce a rhythm of entries along a street). Provide as direct a physical and visual connection as possible between the street and the entry. Achieve clear lines of transition between the public street, the shared private, circulation spaces and the apartment unit. Ensure equal access for all. Provide safe and secure access. Generally provide separate entries from the street for pedestrians and cars and different uses. Design entries and associated circulation space of an adequate size to allow movement of furniture between public and private spaces. Provide and design mailboxes to be convenient for residents and not to clutter the appearance of the development from the street.	yes	The residential building entry points are located along South Steyne and are well delineated from the adjacent retail activity Vehicular entry for the entire development is located on Wentworth Ave, and is clearly separated from the pedestrian entry points. Mailboxes are located within the individual building lobbies of each residential core and will be designed so as not to clutter the appearance of the development from the street
Parking Determine the appropriate car parking space requirements in relation to proximity to public transport, shopping and recreational facilities, density etc. Limit the number of visitor parking spaces, particularly in small developments. Give preference to underground parking, whenever possible.	yes	2 levels of underground parking are provided. This ensures that the local council parking provisions can be easily met. (refer to traffic report) In addition, bicycle parking will be provided within easy distance from residential cores.

Residential Flat Design Code 2002	Consistency	Comment
Where above ground enclosed parking cannot be avoided, ensure the design of the development mitigates any negative impact on streetscape and amenity. Provide bicycle parking, which is easily accessible from ground level and from apartments.		
Pedestrian access Utilise the site and its planning to optimise accessibility to the development. Promote equity by ensuring the main building entrance is accessible for all from the street and from car parking areas. Design ground floor apartments to be accessible from the street, where applicable, and to their associated private open space. Maximise the number of accessible, visitable and adaptable apartments in a building. Australian Standards are only a minimum. Separate and clearly distinguish between pedestrian access ways and vehicle access ways. Follow the accessibility standard set out in Australian Standard AS 1428 (Parts 1 and 2), as a minimum. Provide barrier free access to at least 20% dwellings in the development.	yes	It is proposed to provide a minimum 20% of barrier free apartments to the residential development. All apartments are provided with lifted access from both the parking areas and ground level entries. There are no ground floor apartments within this development. Clear delineation has been made between pedestrian access points and vehicular access points.
Building Design		
Building configuration		
Apartment layout Determine appropriate apartment sizes in relation to geographic location and market demands, the spatial configuration of an apartment, not just its plan, and its affordability. Ensure apartment layouts are resilient over time. Design apartment layouts, which respond to the natural and built environments and optimise site opportunities by providing private open space, orienting main living spaces toward the primary outlook, etc. Avoid locating the kitchen as part of the main circulation space of an apartment, such as a hallway or entry space. Ensure apartment layouts and dimensions facilitate furniture removal and placement. Comparative unit sizes: internal area (external area): • Studio 38.5m^2 (6m²) • 1br cross-through 50m² (8m²) • 1br loft 62m² (9.4m²) • 1br single-aspect 63.4m² (10m²) • 2b corner 80m² (11m²) • 2br cross-through 89m2 (21m²) • 2br cross-over 90m² (16m²) • 2br corner with study 121m² (33m²) • 3br 124m² (24m²) The back of a kitchen should be no more than 8.0m from a window. Buildings not meeting the minimum standards listed above, must demonstrate how satisfactory day lighting and natural ventilation can be achieved, particularly in relation to habitable rooms. Minimum apartment sizes that do not exclude affordable housing are: • 1 bedroom apartment 50m^2 • 2 bedroom apartment 70m^2 • 3 bedroom apartment 95m^2	yes	Current market demands and the high value position of the proposed development has resulted in an approach leaning towards larger apartment typologies. Apartment layouts will be been designed and allocated to: • Maximize ocean views • Provide flexibility • Enjoy good cross ventilation • Enjoy good solar penetration Most kitchen will be located at the rear of the apartments, however, given the shallow depth of the plan, these kitchens also enjoy adjacent access to secondary balconies and operable external windows facing the residential courtyard The size of the proposed apartments will likely be in the range of: • 1 bed 50-65m2 • 2 bed 90-100 m2 • 3 bed 100-125m2

Residential Flat Design Code 2002	Consistency	Comment
Apartment mix Provide a variety of apartment types. Refine the appropriate apartment mix for a location by: • Considering population trends. • Noting the apartment's location in relation to public transport, public facilities, etc. • Locate a mix of apartments on the ground level. • Optimise the number of accessible and adaptable apartments. Investigate the possibility of flexible apartment configurations.	yes	The proposed development will contain a mix of 1, 2 and 3 bedroom units, with the majority of units being the larger 2 bed and 3 bed types. There are no apartments proposed at ground level, however all apartments have lifted access from ground level entries and basement parking areas
Balconies Provide at least 1 primary balcony. Primary balconies should be located adjacent to the main living areas, sufficiently large and well proportioned to be functional and promote indoor/outdoor living. Design and detail balconies in response to the local climate and context. Design balustrades to allow views and casual surveillance of the street while providing for safety and visual privacy. Coordinate and integrate building services, such as drainage pipes, with overall facade and balcony design. Consider supplying a tap and gas point on primary balconies. Provide primary balconies for all apartments with a min. depth of 2.0m.	yes	All residential apartments enjoy primary balconies that will be a minimum of 2 meters in depth and no less that 10m2 in area. In its current configuration, all the balconies receive substantial solar access and ocean views
Ceiling Heights Design better quality spaces in apartments by using ceilings to define a spatial hierarchy between areas of an apartment using double height spaces, raked ceilings, changes in ceiling heights and/or the location of bulkheads, maximise heights in habitable rooms by stacking wet areas from floor to floor, promote the use of ceiling fans. Facilitate better access to natural light by using ceiling heights which promote the use of taller windows, highlight windows and fan lights and light shelves. Recommended minimum floor to ceiling heights: • 2.7m for all habitable rooms on all floors; and • 2.4m is the preferred minimum for all non-habitable rooms; However, 2.25m is permitted.	yes	A minimum of 2.7m ceiling height is proposed for all residential apartments, with lower 2.4 ceilings occurring only in non habitable rooms. Glazing to living areas will be full height to maximise light penetration into the apartment
Flexibility Provide apartment layouts, which accommodate the changing use of rooms. Utilise structural systems, which support a degree of future change in building use or configuration. Promote accessibility and adaptability by ensuring the number of accessible and visitable apartments is optimised and adequate pedestrian mobility and access is provided.	yes	The internal apartment layouts of the individual units are open in nature and allow for various uses to occur in different locations. Internal apartment walls (not including party walls) will be of a lightweight construction. This will facilitate any future re configuration of the apartment layouts. All residential apartments will have lifted access from the main entries at street level and the basement parking areas.
Internal Circulation Increase amenity and safety in circulation spaces by providing generous corridor widths and ceiling heights, appropriate levels of lighting, including the use of natural daylight, minimising corridor lengths, providing adequate ventilation. Support better apartment building layouts by designing buildings with multiple cores which increase the number of	yes	The residential building within the proposed development consists of multiple cores and entries, reducing the number of apartments per lift/stair and allowing for a more articulated facade All the lobbies off the residential cores also enjoy both natural ventilation and daylight via the inclusion of operable glazed windows.

Residential Flat Design Code 2002	Consistency	Comment
entries along a street and the number of vertical circulation points, give more articulation to the facade, limiting the number of units off a circulation core on a single level. Articulate longer corridors. Minimise maintenance and maintain durability by using robust materials in common circulation areas. In general, where units are arranged off a double-loaded corridor, the number of units accessible from a single core/corridor should be limited to 8. Exceptions may be allowed.		
Mixed use Choose a mix that complements and reinforces the character, economics and function of the local area. Chose a compatible mix of uses, for example, food retail, small-scale commercial and residential is a better mix than car repair and residential. Consider building depth and form a relation to each use's requirements for servicing and amenity. The compatibility of various uses can be addressed by utilising flexible building layouts, which promotes variable tenancies or uses, optimal floor to ceiling heights, optimal building depths, extra care where larger footprint commercial spaces (cinemas, supermarkets, department stores) are integrated with residential uses. Design legible circulation, which ensure the safety of users by isolating commercial service requirements such as loading docks, from residential servicing areas and primary outlook, locating clearly demarcated commercial and residential vertical access points, providing security entries to all private areas including car parks and internal courtyards and providing safe pedestrian routes through the site where required. Ensure the building positively contributes to the public domain and streetscape by fronting onto major streets with active uses and avoiding the use of blank walls at ground level. Address acoustic requirements for each use by separating residential uses from ground floor leisure or retail use by utilising an intermediate quiet-use barrier, such as offices and design for acoustic privacy from the beginning of the project to ensure that future services do not cause acoustic problems later. Recognising the ownership/lease patterns and separating requirements for BCA considerations.	yes	The proposed development is of a mixed use nature combining retail and residential hotel and clinical uses. The primary residential entry points share an interface with the ground floor retail. And contribute to the overall activation of the ground plane. The internal residential courtyard forms a barrier between the residential apartment building and the hotel building to its west. Apartment design, screening and window locations will minimize the impacts upon privacy. The circulation pathways between the various uses is clear and legible. Residential entry lobbies are well defined and the retail edge condition along the street is in keeping with the local character. Methods for addressing acoustic privacy between the retail and residential components will be implemented as per BCA standards.
Storage Locate storage conveniently for apartments. Options include providing at least 50% of the required storage within each apartment, dedicated storage rooms on each floor, providing dedicated and/or leasable secure storage in internal or basement carparks. Where basement storage is provided ensure that it does not compromise natural ventilation in car parks or create potential conflicts with fire regulations, exclude it from FSR calculations. Provide accessible storage facilities at the following rates: • Studio apartments 6m³ • 1 bedroom apartments 6m³ • 2 bedroom apartments 8m³ • 3 plus bedroom apartments 10m³.	yes	The proposed apartment sizes will be larger than average and ample area for storage requirements will be available both within the apartment and also the basement In addition to storage within the apartments, provision has been made in the sizing of the basement to allow for extra storage for residential occupants

Residential Flat Design Code 2002	Consistency	Comment
Building amenity		
Acoustic privacy Utilise the site and building layout to maximise the potential for acoustic privacy by providing adequate building separation within the development and from neighbouring buildings. Arrange apartments within a development to minimise noise transition between flats. Design the internal apartment layout to separate noisier spaces from quieter. Resolve conflicts between noise, outlook and views by using double glazing, operable screened balconies, and continuous walls to ground level courtyards where they do not conflict with streetscape. Reduce noise transmission from common corridors or outside the building by providing seals at entry doors.	yes	Acoustic privacy for the residential component of the development will be ensured by various methods which include: • Centralizing living zones that minimize noise transfer to adjoining apartments • Operable screens to balconies • Quality door seals at entries • Acoustically rated party walls and internal walls as per BCA standards
Daylight access Plan the site so that new residential flat development is oriented to optimise northern aspect. Ensure direct daylight access to communal open space between March and September and provide appropriate shading in summer. Optimise the number of apartments receiving daylight access to habitable rooms and principal windows. Design for shading and glare control, particularly in summer using shading devices, colonnades, balconies, pergolas, external louvres and planting, optimising the number of north-facing living spaces, providing external horizontal shading to north-facing windows, providing vertical shading to east or west windows, using high performance glass but minimising external glare, use a glass reflectance below 20%. Prohibit the use of lightwells as the primary source of daylight in habitable rooms. Living rooms and private open spaces for at least 70% of apartments in a development should receive a minimum of 3 hours direct sunlight between 9.00am and 3.00pm in mid winter. In dense urban areas a minimum of 2 hours may be acceptable. Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10% of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed.	yes	The residential component of the development has been carefully designed to ensure that a minimum of 3 hours solar access to primary habitable spaces is achieved in at least 70% of the proposed apartments. External shading devices will be utilized to reduce glare and radiant heat build up during the summer months. There are no light wells within the development There are no single aspect apartments with a southerly aspect within the development It is envisaged that the existing neighbour to the southwest of the proposed development will achieve a minimum of 2 hours solar access to their living spaces during the winter months (refer to shadow diagrams)
Natural ventilation Plan the site to promote and guide natural breezes. Utilise the building layout and section to increase the potential for natural ventilation. Design solutions include facilitating cross ventilation etc. Design the internal apartment layout to promote natural ventilation. Select doors and operable windows to maximise natural ventilation opportunities established by the apartment layout. Coordinate design for natural ventilation with passive solar design techniques. Explore innovative technologies to naturally ventilate internal building areas or rooms - such as bathrooms, laundries and underground car parks. Building depths, which support natural ventilation typically range from 10 to 18m. 60% of residential units should be naturally cross ventilated.	yes	All residential apartments will be naturally ventilated. This is made possible by the utilization of multiple building cores and the relatively shallow building depth. All kitchens will be adjacent to an operable window to ensure natural ventilation at these areas. Passive ventilation systems may be utilized above apartment entries where corridors do not permit full cross ventilation.

Residential Flat Design Code 2002	Consistency	Comment
25% of kitchens within a development should have access to natural ventilation. Developments, which seek to vary from the minimum standards, must demonstrate how natural ventilation can be satisfactorily achieved, particularly in relation to habitable rooms.		
Building form		
Awnings and signage Awnings: Encourage pedestrian activity on streets by providing awnings to retail strips, where appropriate, which give continuous cover in areas which have a desired pattern of continuous awnings, complement the height, depth and form of the desired character or existing patterns of awnings and providing all weather protection. Awnings should contribute to the legibility of the residential flat development and the amenity of the public domain by being located over building entries. Enhance the safety for pedestrians by providing under awning lighting. Signage: Signage should be integrated with the design of the development by responding to scale, proportions and architectural detailing. Signage should provide clear and legible way-finding for residents and visitors.	yes	Awnings will be provided at the retail level in keeping with the existing character of the area These will enhance the safety of pedestrians by providing under awning lighting at night and also mitigate any adverse wind acceleration affects.
Facades Consider the relationship between the whole building form and the facade and/or building elements. The number and distribution of elements across a facade determine simplicity or complexity. Columns, beams, floor slabs, balconies, window openings and fenestrations, doors, balustrades, roof forms and parapets are elements, which can be revealed or concealed and organised into simple or complex patterns. Compose facades with an appropriate scale, rhythm and proportion, which respond to the building's use and the desired contextual character. Design facades to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls, depending on the facade orientation. Express important corners by giving visual prominence to parts of the facade, for example, a change in building articulation, material or colour, roof expression or increased height. Coordinate and integrate building services, such as drainage pipes, with overall facade and balcony design. Coordinate security grills/screens, ventilation louvres and car park entry doors with the overall facade design.	yes	The façade design of the proposed building will vary between the different building uses. The residential portion will be in keeping with the coastal style as defined in the RFD pattern book. External screens and louvers will reflect their orientation with a combination of both horizontal and vertical expressions. Careful consideration will be made to ensure service elements are not visible from the street The overall strategy for the facade of the residential building is to ensure a clear delineation of top, middle and base and a clear expression of the corner element at Wentworth St and South Steyne. Protruding balcony elements, solid and void walls and sun shading devices all contribute to the 'breaking down' of the apparent bulk and scale of the building.
Roof design Relate roof design to the desired built form. Some design solutions include: Articulating the roof, using a similar roof pitch or material to adjacent buildings, using special roof features, which relate to the desired character of an area, to express important corners etc. Design the roof to relate to the size and scale of the building, the building elevations and three-dimensional building form. Design roofs to respond to the orientation of the site, for	yes	The roof design of the residential building has been designed to lighten the impact of the street wall upon south Steyne. The upper level has been set back by 2 meters to further allow expression of the roof plane. This is in keeping with the desire to maintain a clearly legible top, middle and base architectural form from the street Generous roof overhangs further reduce the perceived bulk and scale of the building and also provide additional

Residential Flat Design Code 2002	Consistency	Comment
example, by using eaves and skillion roofs to respond to sun access. Minimise the visual intrusiveness of service elements by integrating them into the design of the roof. Support the use of roofs for quality open space in denser urban areas.		shading to the northern and eastern glazing.
Building performance		
Energy efficiency Incorporate passive solar design techniques to optimise heat storage in winter and heat transfer in summer. Improve the control of mechanical space heating and cooling. Provide or plan for future installation of photovoltaic panels. Improve the efficiency of hot water systems. Reduce reliance on artificial lighting. Maximise the efficiency of household appliances.	yes	Passive solar design principles have been considered in the design and location of the residential component of the development Good solar access, appropriate thermal mass and a high degree of cross ventilation will help to reduce energy consumption required for heating and cooling
Maintenance Design windows to enable cleaning from inside the building, where possible. Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems. Incorporate and integrate building maintenance systems into the design of the building form, roof and facade. Select durable materials, which are easily cleaned and are graffiti resistant. Select appropriate landscape elements and vegetation and provide appropriate irrigation systems. For developments with communal open space, provide a garden maintenance and storage area, which is efficient and convenient to use and is connected to water and drainage.	yes	The proposed design will be robust in nature and relatively low maintenance. Manually operated blinds and screens will be implemented in lieu of mechanical systems The landscaped residential courtyard will incorporate a maintenance and storage area
Waste management Incorporate existing built elements into new work and recycle and reuse demolished materials, where possible. Specify building materials that can be reused and recycled at the end of their life. Integrate waste management processes into all stages, of the project, including the design stage. Support waste management during the design stage. Prepare a waste management plan. Locate storage areas for rubbish bins away from the front of the development where they have a significant negative impact on the streetscape, on the visual presentation of the building entry and on the amenity of residents, building users and pedestrians. Provide every dwelling with a waste cupboard or temporary storage area of sufficient size to hold a single day's waste and to enable source separation. Incorporate on-site composting, where possible, in self contained composting units on balconies or as part of the shared site facilities.	yes	Garbage chutes will transport residential waste to collection points within the basement. Clear span waste collection areas are located adjacent to the hotel building dock area and easily accessible to either council or private contractor garbage trucks
Water conservation Use AAA rated appliances to minimise water use. Collect, store and use rainwater on site. Incorporate local indigenous native vegetation in landscape design. Consider grey water recycling.	yes	Water efficient appliances will be specified through ought and rain water harvesting principles will be employed. Where appropriate, a grey water system may also be included

3 Conclusion

The proposed development is currently at Concept Plan stage therefore some detailed design decisions have yet to be made. As a result, some of the comments above represent a commitment to include the relevant principles of SEPP 65 and the RFDC within the next phase of the design.

Many of the principles that relate to the 'big picture' controls have been able to be incorporated into this preliminary concept design.