



APPENDIX C SEPP65 & RFDC COMPLIANCE CHECKLIST

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28 January 2011

Michael Woodland
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SEPP65 Design Verification Statement
Project Application MP 10_0030
Stage 1 Mixed Use Development - Discovery Point, 1 Princes Highway Wolli Creek

Dear Sir

Pursuant to Clause 50 (1A) of the Environmental Planning and Assessment Regulation 2000, effective from July 26 2003;

I hereby declare that I am a qualified designer, which means a person registered as an architect in accordance with the Architects Act 1921 as defined by Clause 3 of the Environmental Planning and Assessment Regulation 2000.

I affirm that the design achieves or is capable of achieving the design quality principles as set out in Part 2 of the State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development.

Yours faithfully
Bates Smart Pty Ltd

Guy Lake
Director
Registered Architect No. 7119

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RFDC Ref.	Item description	Rule of Thumb	Better Design Practice	Notes	Proposal Complies
SITE CONFIGURATION					
s2 p44	Deep soil zones				
	A minimum of 25 percent of the open space area of a site should be a deep soil zone; more is desirable.	•		Proposal consistent with Concept Plan Application	N/A
s2 p45	Fences & walls				
s2 p46	Landscape design				
s2 p48	Open space				
	Communal open space. Area provided at least 25-30% site area.	•		Proposal consistent with Concept Plan Application	N/A
	Where recommended area is unachievable, demonstrate that residential amenity is provided in the form of increased private open space &/or contribution to public open space.	•		Proposal consistent with Concept Plan Application	N/A
	Min. area for private open space at ground or structure is 25m². Min dim in one direction 4m.	•			N/A
s2 p50	Orientation				
s2 p52	Planting on structures				
	Min. soil depth for planting	•		1.2m depth in streets, 0.9m depth on podium, 300-600mm depth on roof	✓
s2 p54	Storm water management				
SITE AMENITY					
s2 p56	Safety / Security				
	separate residential parking from other building use and control access from public and common areas		•	Separate entrances	✓
	Provide direct access from car parks to apartment lobbies for residents		•		✓
	Provide separate access for residents in mixed-use buildings		•	Separate lobbies and lifts	✓
	provide audio or video intercom for visitor entry		•	Assumed	✓
	provide key card access for residents		•	Assumed	✓
s2 p58	Visual privacy				
SITE ACCESS					
s2 p60	Building entry				
	Provide as direct a physical and visual connection as possible between street and entry		•	Temporary entrance to Building 1B from Neighbourhood Park - visible from Brodie Spark Drive and Magdalene Terrace	✓
s2 p62	Parking				
	Provide bicycle parking which is easily accessible from ground level and from apartments.		•	Resident's cycle parking in basement racks and visitor parking adjacent station entrance	✓
s2 p64	Pedestrian access				
	Follow accessibility standard AS 1428 (Pt 1 & 2) as a minimum.	•			✓
	Provide barrier free access to at least 20 percent of dwellings in the development.	•		Step free access to majority of apartments	✓

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s2 p65	Vehicle Access				
	Generally limit the width of driveways to a max of 6m.	•		Driveway widths recommended by traffic engineer on the basis of traffic flows. All driveways on Spark Lane	✓
	Locate vehicle entries away from main pedestrian entries and on secondary frontages.	•		Crossovers are located in areas with low pedestrian activity	✓
BUILDING CONFIGURATION					
s3 p67	Apartment layout				
	determine appropriate apartment sizes in relation to:				
	Geographic location and market demands.		•	Proposal consistent with Concept Plan Application	✓
	The spatial configuration of an apartment, not just plan e.g. maisonette apartments are often small in sqm but have double-height living spaces.		•	Proposal consistent with Concept Plan Application	✓
	Affordability; a range of apartment sizes provides more choice for more people.		•	Proposal consistent with Concept Plan Application	✓
	Ensure apartment layouts are resilient over time. Design issues to address may include:				
	Accommodating a variety of furniture arrangements.		•	Majority of rooms are rectangular	✓
	Providing for a range of activities and privacy levels between different spaces within the apartment.		•		✓
	Utilising flexible room sizes and proportions or open plans.		•	Open plan living/kitchen/diners	✓
	Ensuring circulation by stairs, corridors and through rooms is planned as efficiently as possible thereby increasing the amount of floor space in rooms.		•		✓
	Design apartment layouts, which respond to the natural and built environments and optimise site opportunities by:				
	Providing private open space in the form of a balcony, a terrace, a courtyard or a garden for every apartment.		•		✓
	Orientating main living spaces toward the primary outlook and aspect and away from neighbouring noise sources or windows.		•		✓
	Locating main living spaces adjacent to main private open space.		•		✓
	Locating habitable rooms, and where possible kitchens and bathrooms, on the external face of the buildings thereby maximises the number of rooms with windows.		•		✓
	Maximising opportunities to facilitate natural ventilation and to capitalise on natural daylight.		•	60% of apartments with opportunity for natural cross ventilation	✓
	Avoid locating kitchen as part of main circulation spaces, such as a hallway or entry space.		•		✓
	In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates: studio apartments 6m³ ; one-bedroom apartments 6m³ ; two-bedroom apartments 8m³ ; three plus bedroom apartments 10m³	•		Half of storage volume located in basements	✓
	Ensure apartment layouts and dimensions facilitate furniture removal and placement.		•	Minimum 1100mm wide entrances	✓
	Single aspect apartments should be limited in depth to 8m from a window	•			✓

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	The back of kitchen should be no more than 8m from a window	•			✓
	The width of cross-over or cross-through apartments over 15m deep should by 4 m or greater to avoid deep narrow apartment layouts	•			N/A
	Buildings not meeting minimum standards listed above must demonstrate how satisfactory daylight and ventilation can be achieved.	•			N/A
	As a guide, the Affordable Housing Service suggest the following minimum apartment sizes: 1-bedroom apartment 50m²; 2-bedroom apartment 70m²; 3-bedroom apartment 95m²	•		Minimum 3-bed sized 100m²	✓
s3 p70	Apartment mix				
	Provide a variety of apartment types.		•		✓
	Refine the appropriate apartment mix for a location by:				
	Considering population trends in the future as well as present market demands.		•	Consistent with Concept Plan Application	✓
	Noting the apartment's location in relation to public transport, public facilities, employment areas, schools and universities and retail centres.		•	Consistent with Concept Plan Application	✓
	Locate mix of one and three bedroom apartments on the ground level where accessibility is more easily achieved for disabled, elderly people or families with children.		•	No apartments at ground level	N/A
	Optimise the number of accessible and adaptable apartments to cater for a wider range of occupants. Australian Standards are only a minimum.		•	Consistent with Concept Plan Application	✓
	Investigate the possibility of flexible apartment configurations, which support change in the future.		•	Concrete frame with lightweight infill allows mix to change in future	✓
s3 p71	Balconies				
	Where other private open space is not provided, provide at least one primary balcony.		•		✓
	Primary balconies should be:				
	Located adjacent to the main living areas to extend the dwelling living space.		•		✓
	Sufficiently large and well proportioned to be functional and promote outdoor/indoor living. A dining table and two chairs (small apartment) and four chairs (larger apartment) should fit on the majority of balconies of any development.		•	All balconies minimum depth of 2m	✓
	Consider secondary balconies, including Juliet balconies or operable walls with balustrades, for additional amenity and choice:				
	in larger apartments		•		✓
	adjacent to bathrooms		•		X
	For clothes drying; site balconies off laundries or bathrooms; they should be screened from public view.		•		X
	Design and detail balconies in response to the local climate and context thereby increasing the usefulness of balconies. This may be achieved by:				
	Locating balconies facing predominantly north, east or west.		•		✓

RFDC Ref.	Item description	Rule of Thumb	Better Design Practice	Notes	Proposal Complies
	Utilising sun screens, pergolas, shutters and operable walls to control sunlight and wind.		•	Screens and pergolas provided	✓
	Provide balconies with operable screens, Juliet balconies or operable walls/sliding doors with a balustrade in special locations where noise or high winds prohibit other solutions.		•		N/A
	Choose cantilevered balconies, partially cantilevered balconies and/or recessed balconies in response to daylight, wind, acoustic privacy and visual privacy.		•	Recessed balconies generally	✓
	Ensuring balconies are not so deep that they prevent sunlight entering the apartment below.		•		✓
	Design balustrades to allow views and casual surveillance of the street while providing for safety and visual privacy.		•	Metal framed balustrades rprovide views from apartment, but provide privacy by inhibiting oblique views	✓
	Coordinate and integrate building services, such as drainage pipes, with overall façade and balcony design.		•	Assumed	✓
	Consider supplying a tap and gas point on primary balconies		•	For 3 bedroom penthouses	✓
	Provide primary balconies for all apartments with a minimum depth of 2m.	•			✓
	Require scale plans of balcony with furniture layout to confirm adequate, useable space when an alternate balcony depth is proposed.	•			N/A
s3 p73	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.		•	Habitable rooms 2.7m high, service areas 2.4m high	✓
	Enable better proportioned rooms.		•	All rooms rectangular	✓
	Maximise heights in habitable rooms by stacking wet areas from floor to floor. This ensures that services and their bulkheads are located above a bathroom or store rather than habitable spaces.		•		✓
	Promote use of ceiling fans for cooling and heat distribution.		•	Apartments to be air conditioned	X
	Facilitate better access to natural light by using ceiling heights which:				
	Promote use of taller windows, highlight windows and fan lights.		•	2.4m high windows	✓
	Enable the effectiveness of light shelves in enhancing daylight distribution into deep interiors.		•		X
	Design ceiling heights which promote building flexibility over time for a range of other uses, including retail or commercial, where appropriate.		•		X
	Coordinate internal ceiling heights and slab levels with external height requirements and key datum lines.		•	Assumed	✓
	Count double height spaces with mezzanines as two storeys.		•		N/A
	Cross check ceiling heights with building height controls to ensure compatibility of dimensions, especially where multiple uses are proposed.		•		✓
	Recommended minimum FFL - FCL heights:				

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	Mixed-use 3.3m ground & first floor to promote future use flexibility.	•		3.5m ground floor and 2.7m first floor	X
	Residential building in mixed-use area 3.3m ground and first floor to promote future use flexibility.	•		3.5m ground floor and 2.7m first floor	X
	In residential flats or other residential floor of mixed use buildings:				
	2.7m habitable rooms, 2.4 non-habitable preferred, 2.25m permitted.	•			✓
	Two storey units 2.4m min. for second storey if 50% or more of the apartment has 2.7m min. heights.	•			N/A
	Two storey units with two storey void space, 2.4m min. ceiling heights	•			N/A
	Attic spaces 1.5m min wall height at edge of room with 30degree min. ceiling slope.	•			N/A
	Developments which seek to vary the recommended ceiling heights must demonstrate that apartments will receive satisfactory daylight.	•			N/A
s3 p75	Flexibility				
	Provide robust building configurations, which utilise multiple entries and circulation cores, especially in larger buildings over 15m long.		•	Tower has single entry and circulation core	X
	Thin building cross sections, which are suitable for residential or commercial uses.		•		X
	A mix of apartment types.		•		✓
	higher ceilings in particular on ground floor and first floor		•		✓
	Separate entries for ground floor level and upper levels.		•		✓
	Sliding and/or movable wall systems.		•	Operable wall in community room	X
	Provide apartment layouts, which accommodate the changing use of rooms. Design solutions may include:				
	Windows in all habitable rooms and the maximum number of non-habitable rooms.		•		✓
	Adequate room sizes and open-plan apartments, which provide a variety of furniture layout opportunities.		•		✓
	Dual master-bedroom apartments, which can support two independent adults living together or a live/work situation.		•	Several 2-bedroom apartments design specifically for sharers	✓
	Utilise structural systems, which support a degree of furniture change in building use or configuration. Design solutions may include:				
	A structural grid, which accommodates car parking dimensions, retail commercial and residential uses vertically throughout the building.		•		✓
	The alignment of structural walls, columns and services cores between floor levels.		•		✓
	The minimisation of internal structural walls.		•		✓
	Higher floor to floor dimensions on the ground floor and possibly the first floor.		•		✓
	Promote accessibility by ensuring:				

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	The number of accessible and visitable apartments is optimised.		•		✓
	Adequate pedestrian mobility and access is provided.		•		✓
s3 p77	Ground floor apartments				
	Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site.	•		No ground floor apartments	N/A
	Provide ground floor apartments with access to private open space, preferably as a terrace or garden.	•		No ground floor apartments	N/A
s3 p79	Internal circulation				
	Increase amenity and safety in circulation spaces by:				
	Providing generous corridor widths and ceiling heights, particularly in lobbies, outside lifts and apartment entry doors.		•	3m naturally lit lift lobby, corridor 1.6m width typically	✓
	Providing appropriate levels of lighting, including the use of natural daylight, where possible.		•	Daylight provided to common corridors	✓
	Minimising corridor lengths to give short, clear sight lines.		•		✓
	Avoiding tight corners.		•		✓
	Providing legible signage noting apartment numbers, common areas and general directional finding.		•	Assumed	N/A
	Providing adequate ventilation.		•		✓
	Support better apartment building layouts by designing buildings with multiple cores which: Increase the number of entries along a street; Increase the number of vertical circulation points; Give more articulation to the façade; Limiting the number of units off a circulation core on a single level.		•	Single core per building	X
	Articulate longer corridors. Design solutions may include: Utilising a series of foyer areas; Providing windows along or at the end of a corridor.		•		✓
	Minimise maintenance and maintain durability by using robust materials in common circulation areas.		•	Assumed	N/A
	In general where units are located off a double loaded corridor the number of units accessible from a single core should be limited to 8. Exceptions may be allowed: For adaptive reuse of buildings; Where developments can demonstrate the achievement of the desired streetscape character and entry response; Where developments can demonstrate a high level of amenity for common lobbies, corridors and units, (cross over, dual aspect apartments).	•		Consistent with Concept Plan	N/A
s3 p80	Mixed Use				
	Choose a mix of uses that complement and reinforce the character, economics and function of the local area.		•	Consistent with Concept Plan	N/A
	Choose compatible mix of uses.		•	Consistent with Concept Plan	N/A
	Consider building depth and form in relation to each use's requirements for servicing and amenity. The compatibility of various uses can be addressed by utilising:		•	Consistent with Concept Plan	N/A
	Flexible building layouts, which promote variable tenancies or uses.		•		X

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	Optimal floor to ceiling heights.		•		✓
	Optimal building depths, such as 10-18m for residential and smaller commercial uses.		•	Consistent with Concept Plan	N/A
	Extra care where larger footprint commercial spaces are integrated with residential uses.		•		N/A
	Design legible circulation systems, which ensure the safety of users by:				
	Isolating commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook.		•		✓
	Locating clearly demarcated residential entries directly from the public street.		•	Temporary Building 1B entry not directly accessed from public street, but visible from street	✓
	Clearly distinguishing commercial and residential entries and vertical access points. The coming and going of strangers can lead to security issues, especially for the residential component.		•		✓
	Providing secure entry to all entrances into private areas including car parks and internal courtyards.		•		✓
	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.		•	Retail on all major streets	✓
	Avoiding the use of blank walls at the ground level.		•		✓
	Address acoustic requirements for each use by:				
	Separate residential uses, where possible, from ground floor leisure or retail uses by utilising an intermediate quiet-use barrier, such as offices.		•	Retail adjacent residential entrances	X
	Design for acoustic privacy from the beginning of the project to ensure that future services, such as air conditioning, do not cause acoustic problems later.		•	Assumed	✓
	Recognising the ownership/lease patterns and separating requirements for purposes of BCA for considerations.		•		✓
s3 p82	Storage				
	Locate storage conveniently for apartments. Options include providing:				
	At least 50% of required storage within each apartment and accessible from either the hall or living area. Storage is best provided as cupboards accessible from entries and hallways and/or from under internal stairs.		•		X
	Dedicated storage rooms on each floor which can be leased by residents as required.		•		X
	Dedicated and / or leasible storage in internal or basement car parks. Leasing storage provides choice and minimises the impact of storage on housing affordability.		•	Dedicated basement storage provided	✓
	Provide storage, which is suitable for the needs of residents in the local area and able to accommodate larger items such as sporting equipment (skiing, golf, surfing etc.) and bicycles.		•	Provided in basement	✓

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	Ensure that storage separated from apartments is secure for individual use.		•		✓
	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		•		✓
	Consider providing additional storage in smaller apartments in the form of built-in cupboards to promote a more efficient use of small spaces		•		✓
	In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates: Studio apartments 6m³; 1-bedroom apartment 6m³; 2-bedroom apartment 8m³; 3-bedroom apartment 10m³.	•		Half provided in basement	✓
BUILDING AMENITY					
s3 p83	Acoustic Privacy				
s3 p84	Daylight Access				
	Living rooms and private open spaces for at least 70% of apartments in a development should receive a min. 3 hours direct sunlight between 9am and 3pm in mid winter. In dense urban areas min. 2 hours may be acceptable	•			✓
	Limit the number of single-aspect apartments with a southerly aspect to a maximum of 10% of total units.	•		Only 2 apartments in Building 1B	✓
s3 p86	Natural Ventilation				
	Building depths which support natural ventilation typically range from 10-18m.	•		Consistent with Concept Plan	N/A
	60% of residential units should be naturally cross ventilated.	•			✓
	25% of kitchens should have access to natural ventilation.	•		17 apartments have a window in the kitchen while a further 23 apartments are naturally ventilated where the air flow path is via the kitchen.	X
BUILDING FORM					
s3 p88	Awnings and Signage		•		
s3 p89	Facades		•		
s3 p91	Roof Design		•		
BUILDING PERFORMANCE					
s3 p93	Energy Efficiency		•		
	Incorporate passive solar design techniques to optimise heat storage in winter and heat transfer in summer by:				
	Maximising thermal mass in floor & walls in northern rooms.		•	Good thermal mass in floors including balconies.	✓
	hard floor finishes instead of carpet		•		X
	Limiting number of single aspect apartments with southerly aspect to max 10%.		•	2 apartments in Building 1B	✓
	Insulating roof/ceiling to R2.0, external walls to R1.0 and floor including separation from basement parking to R1.0.		•	Detail TBC	✓
	Improve control of mechanical space heating & cooling by:				

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	Designing apartments so that entries open into lobbies or vestibules and are isolated from living areas by doorways.		•	Majority of apartments open into lobby space	✓
	Provide or plan for future installation of photovoltaic panels.		•	Space available on roof of plant	✓
	Improve efficiency of hot water systems		•		✓
	reduce reliance on artificial lighting		•		✓
	Maximise the efficiency of household appliances		•		✓
s3 p95	Maintenance		•		
s3 p96	Waste Management				
	Provide every dwelling with a waste cupboard or temporary storage area of sufficient size to hold a single days waste and enable source separation.		•		✓
	incorporate on-site composting, where possible in self contained units on balconies as part of the shared site facilities		•	Possible as part of community facilities	✓
	Supply waste management plan with DA	•		Provided	✓
s3 p97	Water Conservation		•		
N/A	Accessible Parking				
	Car parking space or garage min. area 6.0m x 3.8m			Complies with Australian Standard	✓
	Roof to car parking space				✓
	Internal clearance of garage or carport 2.5 min.				✓