

ACCESS REPORT

DEVELOPMENT APPLICATION

“SITE 9”

**3 OLYMPIC BOULEVARD
CNR SARAH DURACK AVENUE
SYDNEY OLYMPIC PARK**

MIXED RETAIL / COMMERCIAL / RESIDENTIAL DEVELOPMENT

Prepared By Mark Relf

31st March 2016



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Introduction

The purpose of this report is to provide an accessibility review of a Development Application for a mixed use retail/commercial and residential development on a site at 3 Olympic Boulevard corner of Sarah Durack Avenue, Sydney Olympic Park known as Site 9.

The overall development consists of;

- Ground floor retail areas;
- Commercial office areas on levels 7 and 8;
- Communal roof terrace area and communal room on level 9;
- 229 residential apartments on levels 7 to 38 including 23 adaptable apartments;
- Parking for 353 spaces (304 residential and 49 retail/commercial) on levels 2 to 6 which includes 23 accessible resident parking spaces and 5 accessible commercial/retail/visitor parking spaces.

In particular, the report considers the accessibility of common areas within the development and the provision of;

- a) Access to and within all retail/commercial and common resident use areas within the development.
- b) 100% of apartments to be visitable as required by Section 5.3.1 of the SOP Access Guidelines, which also satisfies the requirements of the SEPP 65 Apartment Design Guide for a minimum of 20% of apartments to be designed to provide *Universal Access* by complying with silver level Livable Housing Guidelines.
- c) 10% of apartments shall be Adaptable Housing within the meaning of Class B of AS4299 as required by Section 5.3.2 of the SOP Access Guidelines.

Assessment Criteria

This assessment considers the following legislation, planning instruments and standards pertaining to access for people with disabilities:

- (1) Building Code of Australia (2016)
- (2) DDA Premises Standards
- (3) SEPP 65 Apartment Design Guide – *Section 4Q Universal Access*
- (4) Australian Standard AS1428.1 (2009) – Design for Access & Mobility.
- (5) Australian Standard AS1428.4.1 (2009) – Tactile Ground Surface Indicators.
- (6) Australian Standard AS2890.6 (2009) – Off-Street Parking.
- (7) Australian Standard AS1735.12 (1999) – Lifts
- (8) Sydney Olympic Park Access Guidelines 2015 – Section 5.3; *Visitable Access & Adaptable Housing: Class B of AS4299.*
- (9) Australian Standard AS4299 – Adaptable Housing.

Development Application Plans

The plans relied upon for this accessibility assessment include:

Dwg No.	Revision	Drawing Title
02.001	A	Ground Floor Plan
02.002	A	Level 02 Floor Plan
02.003	A	Level 03 Floor Plan
02.104	A	Level 04 Floor Plan
02.105	A	Level 05 Floor Plan
02.106	A	Level 06 Floor Plan
02.107	A	Level 07 Floor Plan
02.108	A	Level 08 Floor Plan
02.109	A	Level 09 Floor Plan
02.010	A	Level 10, 12, 14 Floor Plan
02.011	A	Level 11, 13 Floor Plan
02.015	A	Level 15, 17, 19 Floor Plan
02.016	A	Level 16, 18 Floor Plan
02.020	A	Level 20, 22, 24, 26 Floor Plan
02.021	A	Level 21, 23, 25 Floor Plan
02.027	A	Level 27, 29, 31, 33, 35 Floor Plan
02.028	A	Level 28, 30, 32, 34 Floor Plan
02.036	A	Level 36, 37 Floor Plan
02.038	A	Level 38 Floor Plan
02.039	A	Roof Plan

Executive Summary

The development proposes a mixed use retail / commercial and residential development consisting of the following elements:

- The development proposes the ground floor shall incorporate retail uses and two principal entrance lobbies to access commercial areas on levels 7 and 8 and residential apartments from levels 7 to 38. The two lift lobbies and lifts will travel to all the parking on levels 2 to 6.
- The ground floor level retail shall include on-grade level entry access from the Olympic Boulevard into the premises in accordance with AS1428.1 to satisfy part D3.2 of the BCA, DDA Premises Standards and SOP Access Guidelines.
- The common lift lobbies provides two commercial lifts and four residential lifts to enable appropriate access to the parking, commercial offices and the upper levels to access the apartments and consequently to the doorway entrances of all apartments to comply with Table D3.1 of the BCA, DDA Premises Standards and SOP Access Guidelines.
- Details of walkways, doorway thresholds, lifts and stairs shall be confirmed at a later construction certificate stage in accordance with AS1428.1, AS1428.4.1 and AS1735.12.
- On-site parking for 353 vehicles including 28 accessible parking spaces in the following manner;
 - Retail on Levels 2 and 3 - 2 X 2400mm width accessible parking bays adjoining 2400mm width shared areas in accordance with AS289.6 to satisfy Part D3.5 of the BCA, DDA Premises Standards and SOP Access Guidelines.
 - Commercial on Level 3 - 2 X 2400mm width accessible parking bays adjoining 2400mm width shared areas in accordance with AS289.6 to satisfy Part D3.5 of the BCA, DDA Premises Standards and SOP Access Guidelines.
 - Visitor on Level 2 - 1 X 2400mm width accessible parking bays adjoining 2400mm width shared areas in accordance with AS289.6 to satisfy Part D3.5 of the BCA, DDA Premises Standards and SOP Access Guidelines.
 - Residential – 14 X 3800mm width spaces for the adaptable units in accordance with AS4299.
 - Residential – 9 X 2400mm width spaces adjoining a 2400mm width shared area for the adaptable units in accordance with AS289.6 and the intent of AS4299.
 - Overall it is my opinion that the 23 accessible resident spaces satisfy the SOP Access Guidelines of 1 accessible space for each adaptable apartment.
- The development proposes twenty-three (23) adaptable units with designs complying with class B of AS4299 – Adaptable Housing to satisfy SOP Access Guidelines that at least 10% of apartments to be “adaptable”.
- The development proposes that all residential apartments shall be visitable and incorporate a visitable toilet to comply with the SOP Access Guidelines which also satisfies the Apartment Design Guide which requires 20% of apartments to comply with the silver level Livable Housing Guidelines.

In summary the access and adaptability review of the development demonstrates compliance with the relevant objectives and design code requirements of BCA 2016/DDA Premises Standard pertaining to accessible retail/commercial area, common domain areas and access to apartments.

Additionally, the provision of twenty-three (23) or 10% of adaptable apartments complying with AS4299 and 100% of the apartments providing visitable access to comply with the SOP Access Guidelines and SEPP 65 ADG Universal Access requirements demonstrates the development will achieve a high quality outcome in terms of sustainability, usability and liveability for all.



Mark Relf,
Access Consultant (ACAA)

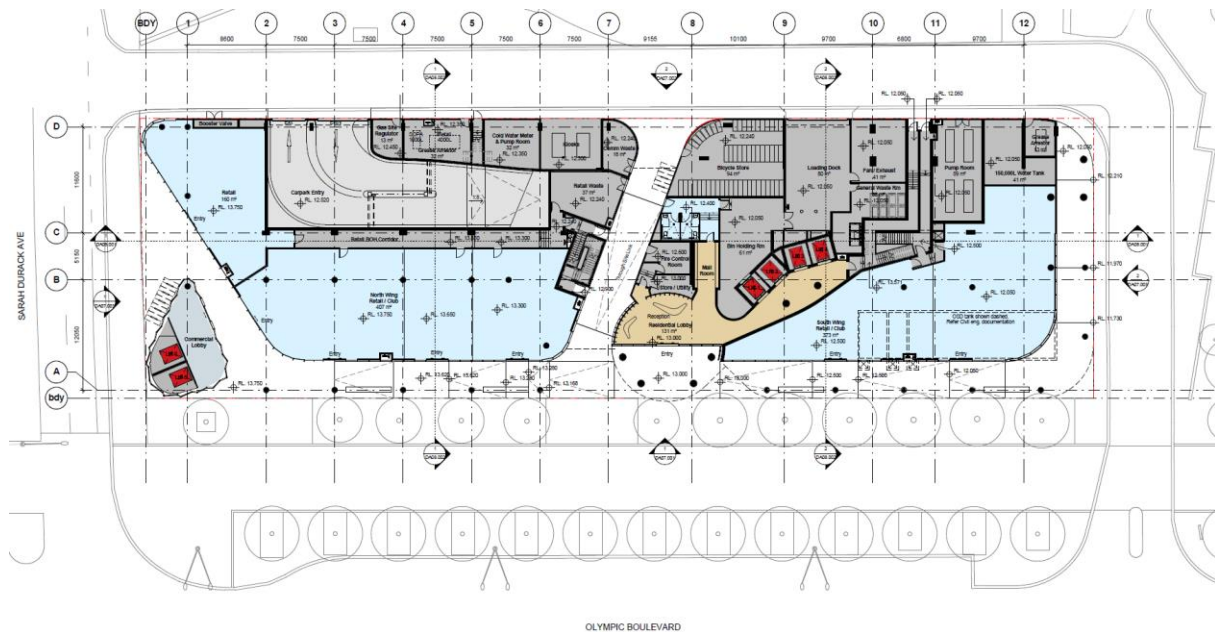
Part A – Retail / Commercial & Common Areas

Accessibility Assessment

Assessment Methodology

Part A of the review considers the accessibility requirements of the Building Code of Australia as expressed by Parts D3, E3.6 and F2.4 and Schedule 1 of the DDA Premises Standards the various referenced standards AS1428.1, AS1428.4.1, AS28960.6 and AS1735.12. With regard to the commercial/retail and common areas of the development the requirements of SOP Access Guidelines are incorporated within the review comments.

External Pathway Links and Building Entrances (Parts D3.2 & D3.3 of the BCA)



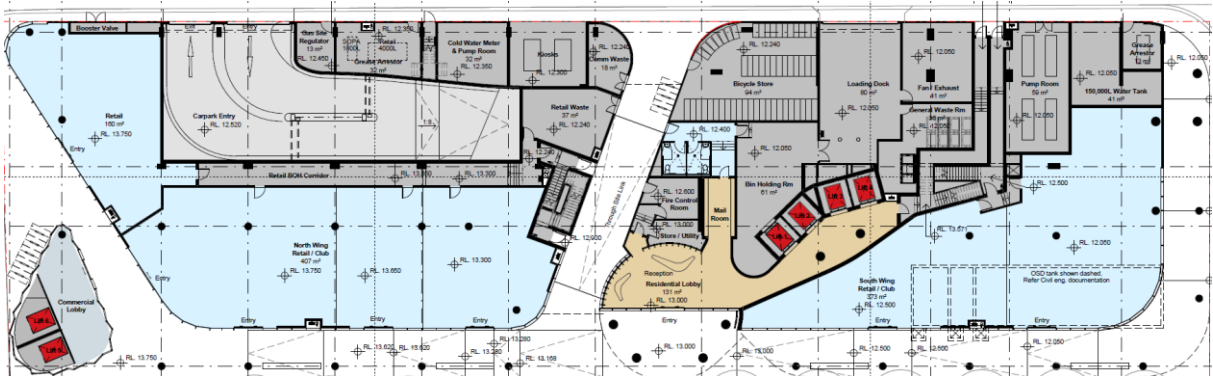
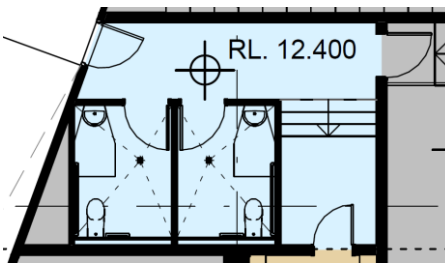
BCA / DDA Access Code Review		Complies
1. Retail Entrances – The development proposes several retail tenancies on the ground floor at varying finished floor levels which reflect the topography of the adjacent public domain footpath along the Olympic Boulevard to enable level doorway thresholds to ensure equitable access to and within all areas consistent with the DDA Premises Standards and Part D3.2 of the BCA.		YES
2. Entry Doors to the various tenancies shall be confirmed at a future design stage to provide 850mm minimum clear opening width with doorway luminance contrast and other features as specified by AS1428.1 to satisfy D3.2 and Table D3.1 of the BCA, DDA Premises Standards and the SOP Access Guidelines.		YES
3. Commercial Entry Lobby – The development proposes a level threshold entrance to the common residential lobby through an auto sliding doorway which facilitates universal access that complies with AS1428.1 to satisfy D3.2 and Table D3.1 of the BCA and the SOP Access Guidelines.		YES
4. Common Residential Entry Lobby – The development proposes a level threshold entrance to the common residential lobby @RL13.00 through an auto		YES

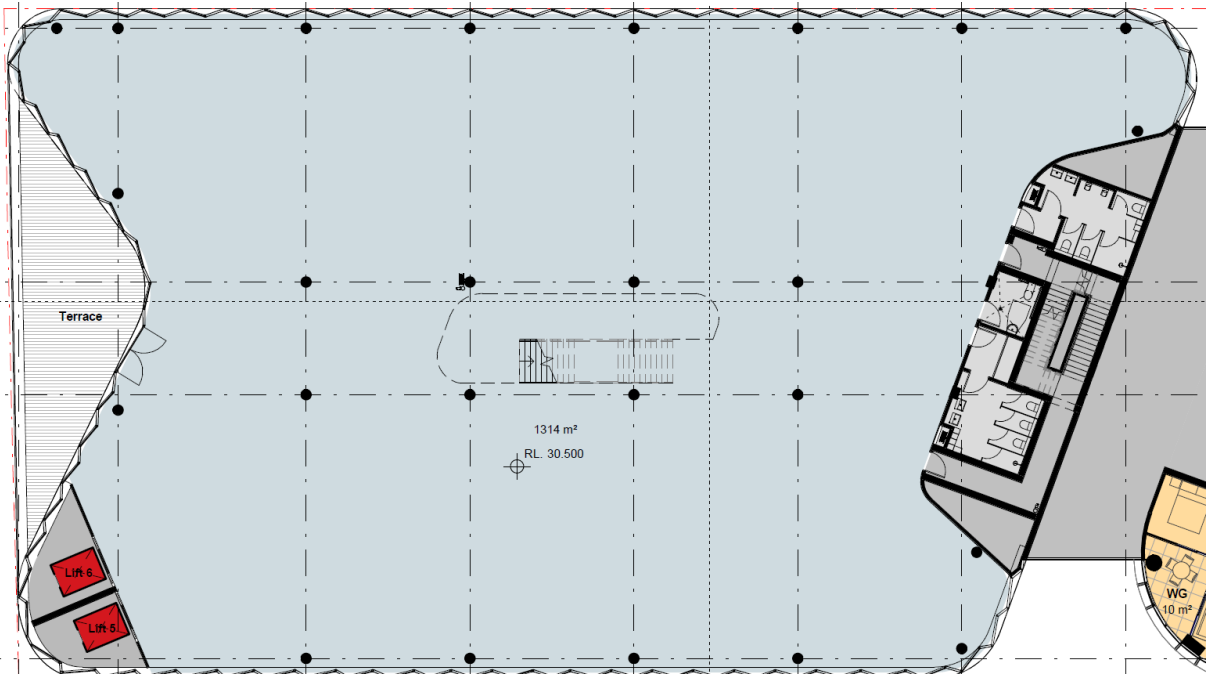
BCA / DDA Access Code Review	Complies
sliding doorway which facilitates universal access that complies with AS1428.1 to satisfy D3.2 and Table D3.1 of the BCA and the SOP Access Guidelines.	
5. Lift Access – The internal areas of the lift lobbies propose level floor areas with direct access to lift landings that provide ample circulation spaces for Turning and Passing that comply with AS1428.1 and readily satisfy Parts D3.3 and E3.5 of the BCA and DDA Premises Standards.	YES
6. The multiple lifts travel to all parking, commercial and residential levels and consequently to the doorway entrances of all apartments to comply with Table D3.1 of the BCA, the DDA Premises Standards and the SOP Access Guidelines.	YES
7. The lifts will provide a minimum of 1400 X 2000mm lift cars and will be detailed to comply with all aspects of Part E3.6 of the BCA and the DDA Premises Standards.	YES
8. Through Site Link – The development proposes a public through site link that will provide a moderate 1:20 slope from RL21.900 to RL12.400 and will facilitate access to the common accessible toilets and bike storage room and subject to a minor adjustment of the walkway to ensure a 510mm minimum offset from the common toilets access door then the through site link will fully comply with AS1428.1 and satisfy Part D3.3 of the BCA, DDA Premises Standards and the SOP Access Guidelines.	YES
9. Common Area Accessible Toilets - In addition to the provision of accessible principal building entrances the development proposes common sanitary facilities on the ground floor that can be accessed by all retail tenancies and visitors to the residential component of the development. The plans show two wheelchair accessible toilets that will comply with AS1428.1 and satisfy Parts D3.3, F2.4 of the BCA, DDA Premises Standards and the SOP Access Guidelines.	YES

Parking (Part D3.5 of the BCA)

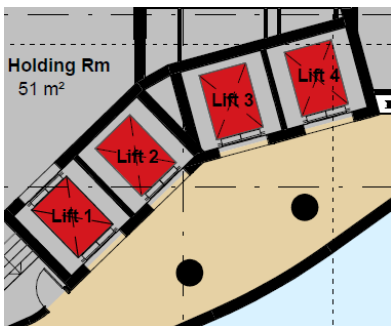
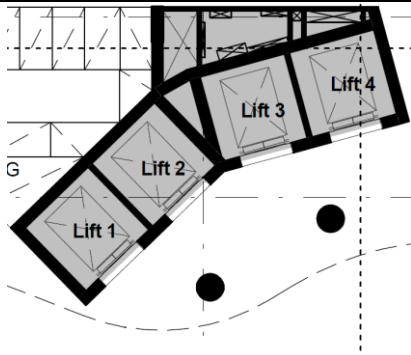
BCA / DDA Access Code Review	Complies
10. The development proposes 49 retail/commercial car spaces with at least 5 accessible parking spaces, which provide 2400mm width adjoining 2400mm width shared areas while the carpark will have 2200mm minimum entry and aisle height clearances on level areas in accordance with AS2890.6 to satisfy Part D3.5 of the BCA, the DDA Premises Standards and the SOP Access Guidelines.	YES
11. Level 2 provides (1) accessible retail space and (1) accessible visitor space with level access to the common lifts which travel to the ground floor retail and the residential apartment levels.	YES
12. Level 3 provides (1) accessible retail space and (2) accessible commercial spaces with level access to the common lifts which travel to the ground floor retail and the residential apartment levels.	YES

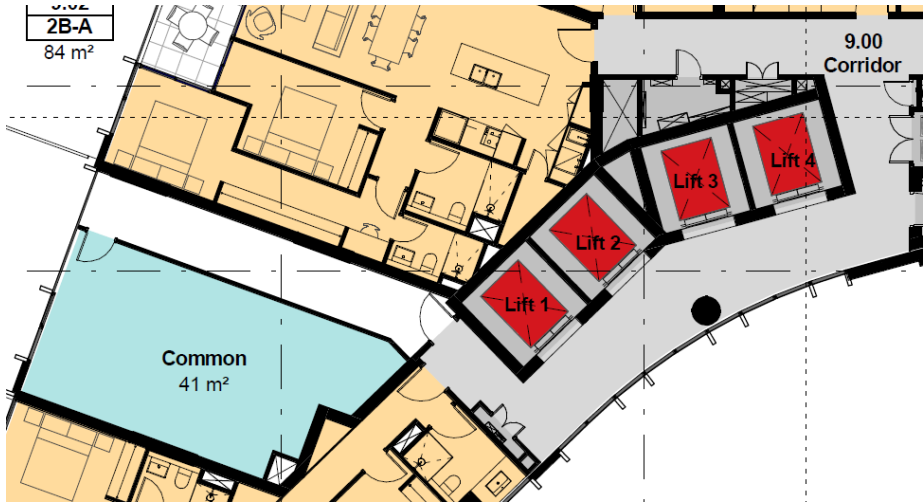
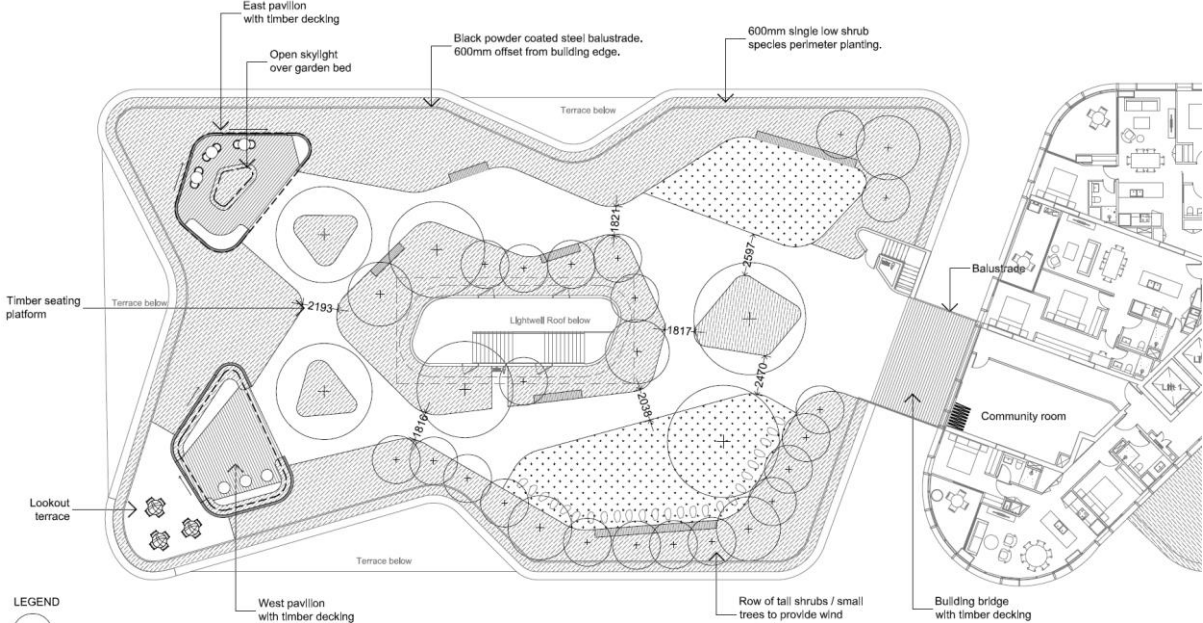
Internal Accessways (Part D3.3 of the BCA)

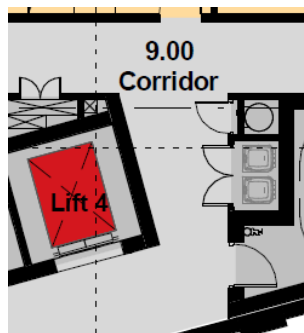
BCA / DDA Access Code Review		Complies
Retail 		
13. The ground floor retail areas provide open plan areas over multiple levels consistent with the street level entrances. 14. North Wing Retail - The internal circulation spaces within the tenancy shall be at the same level as the entry and will facilitate Turning and Passing Areas in accordance with AS1428.1 to satisfy part D3.3 of the BCA and DDA Premises Standards. 15. North Wing Retail/Club – The overall area indicates three entrances and three internal floor levels that correlate at the same levels to achieve internal circulation spaces, Turning and Passing in accordance with AS1428.1 to satisfy part D3.3 of the BCA and DDA Premises Standards. 16. South Wing Retail/Club – The overall area indicates two entrances and two internal floor levels that correlate at the same levels to achieve internal circulation spaces, Turning and Passing in accordance with AS1428.1 to satisfy part D3.3 of the BCA and DDA Premises Standards. 17. Where two or more areas are aggregated into a larger tenancy the fitout shall require the detailing or ramps or lifts to facilitate access to all areas.		YES YES YES
18. Common Area Accessible Toilets - The development proposes two wheelchair accessible common toilets on the ground floor that can be accessed by all retail tenancies and visitors to the residential component of the development, albeit the accessible pathway is external to the building. The two toilets will comply with AS1428.1 and satisfy Parts D3.3, F2.4 of the BCA, DDA Premises Standards and the SOP Access Guidelines.		YES
19. Doors & Doorway Luminance Contrast – Doors shall generally be 920mm minimum leaves to ensure 850mm minimum clearance, include lever handles at 900-1100mm height and be of a colour that provides at least 30% luminance		Yes at CC Stage

BCA / DDA Access Code Review	Complies
contrast to the adjacent walls or door frames to comply with AS1428.1 and satisfy Part D3.3 of the BCA, DDA Premises Standards and SOP Access Guidelines.	
COMMERCIAL Levels 7 & 8 	
20. Level 7 & 8 Commercial tenancies can be directly accessed from the commercial lifts while the open plan layouts across a single level will enable access to all areas in accordance with AS1428.1 and satisfy Part D3.3 of the BCA, DDA Premises Standards and SOP Access Guidelines.	YES
21. Common Sanitary Facilities – Each floor proposes sanitary facilities that illustrate a unisex wheelchair accessible toilet and male and female toilets that can include ambulant accessible cubicles to comply with AS1428.1 and satisfy Part D3.3 of the BCA, DDA Premises Standards and SOP Access Guidelines.	YES at CC stage
22. Doors and Door Hardware - The construction documentation shall confirm 920mm minimum doors (butt hinge) providing 850mm clear opening width with lever handles, 20 N maximum force to open doors, which have appropriate luminance contrast to adjoining walls and level thresholds in accordance with AS1428.1 to satisfy Part D3.3 of the BCA.	YES at CC stage
23. Stairway – In accordance with Part D3.3 of the BCA and DDA Premises Standards the internal link stairway shall be detailed with handrails on both sides with extensions at landings, close risers with no overhanging lips and 50.-70mm step nosings providing at least 30% luminance contrast to the treads and slip resistance complying with Table D2.14 of the BCA..	YES at CC stage

Accessibility of Common Domain Areas (Table D3.1, Parts D3.2 & D3.3 of the BCA)

BCA & SOP Access Guideline Review	Complies
24. In accordance with Table D3.1 of the BCA a development is required for Class 2 Areas of a development (residential flat buildings); - To provide a pedestrian entrance to be accessible to at least one (1) floor containing sole occupancy units and to the entrance doorway of each sole occupancy unit located on that level, and - To and within not less than one (1) of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like. - Where a ramp complying with AS 1428.1 or a passenger lift is installed — a) to the entrance doorway of each sole-occupancy unit; and b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.	
25. Overview of Apartment Access - As detailed below the development will provide equitable access to enter the common lobby and lifts at the ground floor to travel to all levels within the residential development and ultimately from the lifts to approach the entry doorways of all 229 apartments to satisfy Table D3.1 of the BCA and the SOP Access Guidelines.	YES
 Ground Floor Lobby	 Parking levels 1 to 6
26. Common Area Access (Ground to Level 6) – At the ground level and parking levels 2 to 6 the plans propose ample circulation spaces at lift landings which facilitate Turning and Passing Areas in accordance with AS1428.1 to satisfy Part D3.3 of the BCA and the SOP Access Guidelines.	YES
27. Common Area Access (Levels 7 to 38) – At levels 7 to 38 the plans propose ample circulation spaces at lift landings which are generally 1800-2200mm width with a 1690mm width area at a column between Lifts 2 and 3 which complies with AS1428.1 to satisfy Part D3.3 of the BCA and the SOP Access Guidelines.	YES
28. At the northern end of the lifts there corridor provides a 1200mm width pinch point while the end of the corridor has a 1600mm X 2070mm Turning Area and appropriate access to the apartment entrance doorways.	YES

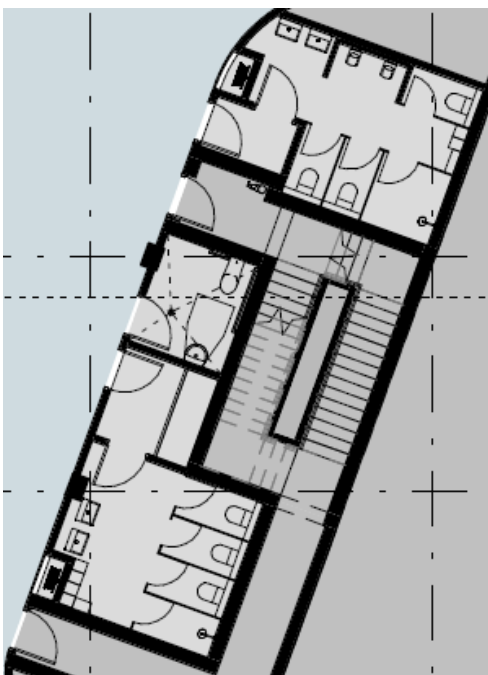
BCA & SOP Access Guideline Review	Complies
29. At the southern end of the lifts the plans propose 1600mm minimum width corridors which facilitate direct access to all apartment entrance doorways and facilitate Turning Areas in accordance with AS1428.1 while the T-junction facilitates Passing Areas to satisfy Part D3.3 of the BCA and the SOP Access Guidelines. 30. At Level 09 the plans propose the northern corridor shall continue to a Common Room and the outdoor common area roof terrace via a 1600mm minimum width corridor which facilitates level access and complying doorway circulation spaces to ensure equitable access in accordance with AS1428.1 to satisfy Part D3.3 of the BCA and the SOP Access Guidelines. 	YES YES
31. Level 9 Common Room – The level 9 Common Room design confirms doorway and internal circulation spaces to and within complying with AS1428.1 to satisfy Part D3.3 and Table D3.1 of the BCA and the SOP Access Guidelines. 	YES
32. Level 9 Common Outdoor Terrace - The level 9 plan shows an outdoor communal terrace garden area at the same level as the common lift lobby area	YES

BCA & SOP Access Guideline Review		Complies
with a doorway and bridge that enables appropriate access that complies with AS1428.1 to satisfy Part D3.3 and Table D3.1 of the BCA.		YES
33. The landscape plan below illustrates level accessways to all areas in a manner that will comply with AS1428.1 including access into the two pavilions, which will be detailed with accessible thresholds from the walkways into each pavilion, which will satisfy Part D3.3 and Table D3.1 of the BCA and the SOP Access Guidelines.		
34. Lifts -The plans indicate the Residential lift cars will be at least 2000mm X 1400mm to satisfy the E3.6 of the BCA and will be detailed to comply with AS1735.12 – <i>Lifts For People With Disabilities</i> .		YES
35. Doors - The construction documentation shall ensure that entry doorways shall incorporate level landings and thresholds while details of doors shall confirm 850mm clear opening widths with lever handles and other features to comply with AS1428.1 and satisfy Part D3.3 of the BCA and the SOP Access Guidelines.		YES at CC stage
36. Garbage Disposal – Throughout the residential apartment levels the plans propose garbage chutes directly adjoining 1600mm minimum width corridors which enables appropriate access to the bin chute hatch door in accordance with AS1428.1 to satisfy part D3.3 and Table D3.1 of the BCA the SOP Access Guidelines.		YES
37. Fire Isolated Stairways - In accordance with part D3.3(a)(ii) of the BCA the common area fire-isolated stairs will be detailed at construction certificate stage with step nosings to the requirements of AS1428.1 to satisfy Parts D3.3(a)(ii) of the BCA.		YES at CC stage
38. Part D2.17 (a)(vi) of the BCA also requires the inner handrail of fire stairs to comply with Clause 12 of AS1428.1.		
39. Table D2.14 of the BCA specifies stair nosings shall provide at least P3 or R11 slip resistance.		YES at CC stage
40. Part D3.6 of the BCA also specifies signage on Fire Exit doors shall incorporated Braille and tactile lettering.		

Lifts (Part E3.6 of the BCA)

BCA / DDA Access Code Review	Complies
41. Passenger Lifts - While the development provides lifts to comply with Table D3.1 / Part D3.3 BCA in enabling vertical access to various details of lift car controls, handrails and the like will be provided at construction documentation stage to confirm compliance with AS1735.12 to satisfy Part E3.6 of the BCA and DDA Premises Standards.	YES

Accessible Sanitary Facilities (Part F2.4 of the BCA)

BCA / DDA Access Code Review		Complies
42. The ground floor provides two wheelchair accessible toilets that are 2050 X 2700mm size, layout and entry door/corridor of the unisex wheelchair accessible facility comply with ASI428.1 and satisfy Part F2.4 of the BCA. 43. Levels 7 and 8 provide a unisex wheelchair accessible toilet of 2050mm X 2700mm and male and female toilets that can include ambulant accessible cubicles to comply with ASI428.1 and satisfy Part D3.3 of the BCA, DDA Premises Standards and SOP Access Guidelines. 44. The toilets shall be detailed at construction certificate stage to incorporate fittings and fixtures in accordance with ASI428.1 to satisfy Part F2.4 of the BCA.	 Levels 7 and 8	YES YES YES at CC stage

Identification – Braille and tactile signage (Part D3.6 of the BCA)

BCA / DDA Access Code Review		Complies
45. Details concerning the provision of raised tactile and Braille signage for the retail toilets as required by ASI428.1, Part D3.6 and Specification D3.6 of the BCA will be provided at construction certificate stage. 46. Part D3.6 of the BCA also specifies signage on Fire Exit doors shall incorporated Braille and tactile lettering.		YES at CC stage

Tactile ground surface indicators (Part D3.8 of the BCA)

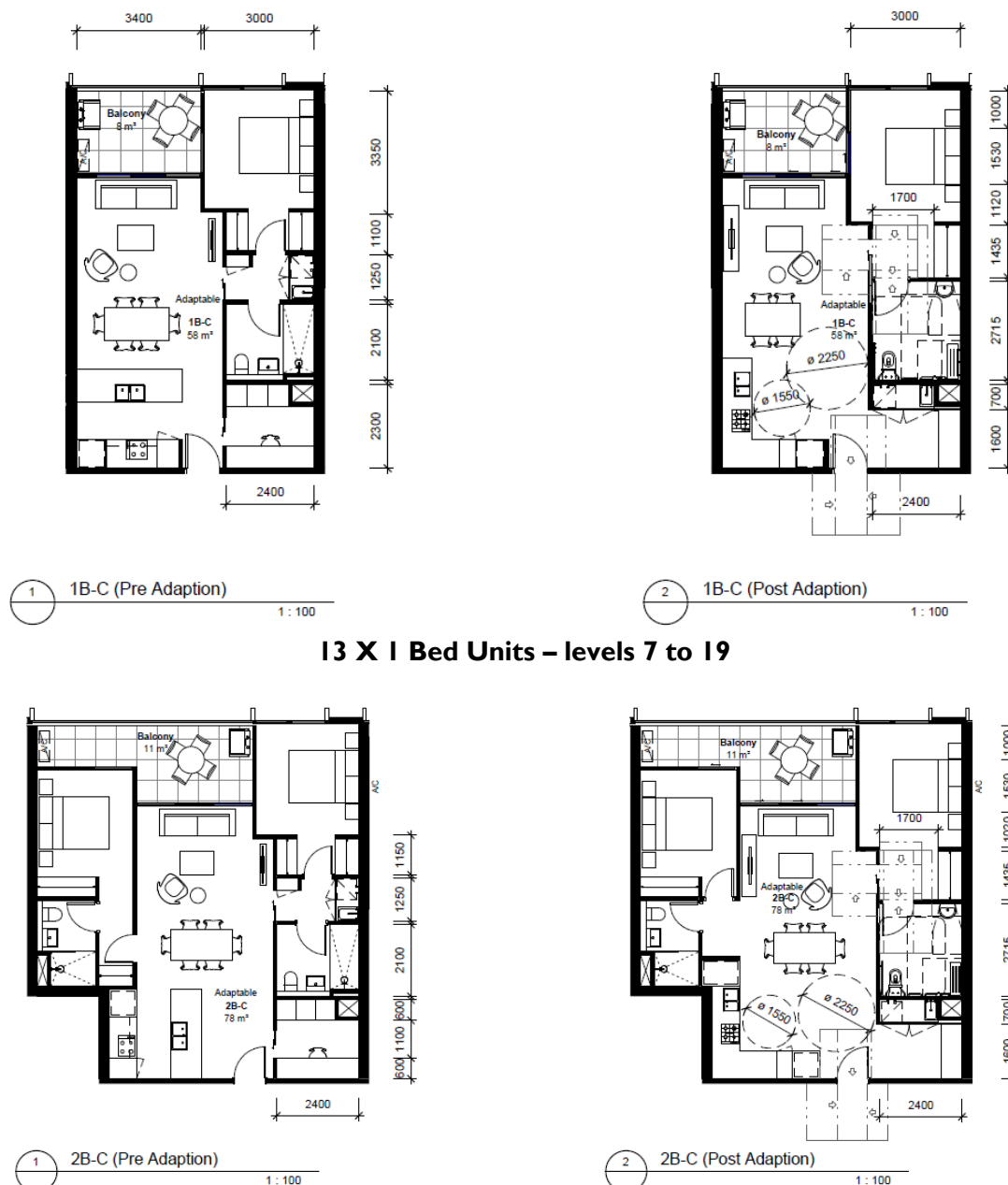
BCA / DDA Access Code Review		Complies
47. There are several ramps or stairways within the development that require tactile ground surface indicators (TGSI's) including; a) Mailroom stairway on the ground floors. b) Stairway linking the level 8 and 9 commercial areas would be subject of the fitout of interior finishes.		YES at CC stage

Part B – Adaptability Assessment

The following provides an assessment of the designated “adaptable” apartments in accordance with Class B of the Adaptable Housing Standard – AS4299 as required by Sydney Olympic Park Access Guidelines.

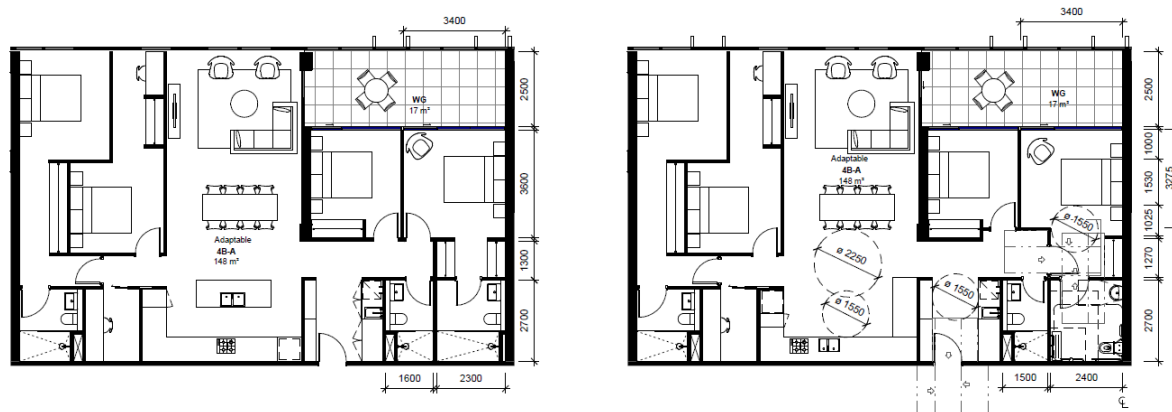
Of the two-hundred and twenty-nine (229) apartments the plans illustrate a minimum of twenty-three (23) adaptable apartments, as indicated below, to satisfy the SOP Access Guideline requirement that at least 10% of apartments be adaptable to comply with Class B of AS4299.

While many aspects of Class B relate to detailed installations of door handles, bathroom fittings, slip resistant flooring, lighting, electrical installations and the like this assessment shall consider the fundamental requirements for spatial areas and adaptability of rooms and corridor accessways. Prior to construction documentation being developed a further review of Class B fitout requirements is recommended.



13 X 1 Bed Units – levels 7 to 19

8 X 2 Bed Units – levels 7 to 14



1 4B-A (Pre Adaption)

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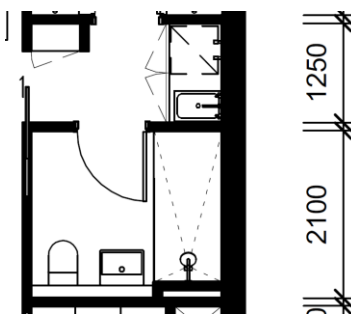
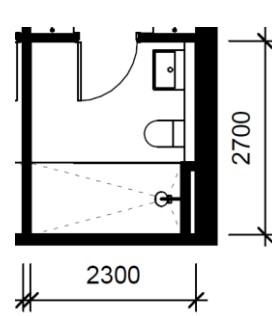
2 4B-A (Post Adaption)

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2 X 4 Bed Units – Level 36 and 37

Clause	Adaptability Assessment	Compliance
AS4299 Clause 3.7	Resident Car Parking The car park provides twenty-three (23) accessible resident parking spaces complying with AS2890.6 and AS4299 in the following manner; 14 X 3800mm width spaces for the adaptable units in accordance with AS4299. 9 X 2400mm width spaces adjoining a 2400mm width shared area for the adaptable units in accordance with AS2890.6 and the intent of AS4299. - Overall it is my opinion that the 23 accessible resident spaces satisfy the SOP Access Guidelines of 1 accessible space for each adaptable apartment.	YES
	The car park proposes 2200mm minimum entry/aisle height and 2500mm minimum height clearance over the designated accessible parking space in accordance with AS4299 and AS2890.6.	YES
	The car spaces will be graded at a 1:40 maximum slope and crossfall in accordance with AS2890.6 and are located in appropriate proximity to the lifts to facilitate direct access to the adaptable apartments.	YES
	Visitor Car Parking The car park provides one (1) accessible parking space complying with AS2890.6.	YES
AS4299 Clauses 4.3.1, 4.3.2 and 4.3.3	Accessible entries – The front entrances to the adaptable units provide at least 1540mm X 1600mm externally and internally with 530mm minimum latch side clearance, which complies with the spatial requirements of AS4299.	YES
	Interior of ground floor: general – With regard to the internal corridor and doorway approaches to a <u>main bedroom</u> , adaptable	YES

Clause	Adaptability Assessment	Compliance
AS4299 Cls 4.3.7	bathroom and storage facilities the development complies with the doorway circulation space requirements of AS1428/4299.	
AS4299 Clause 4.7	Doors and Door Hardware The plans will confirm 920mm external door widths, 870mm internal door widths and lever handles at construction drawing stage to confirm compliance.	YES
AS4299 Clause 4.7	Living and Dining rooms – The plans show combined living and dining areas on a single level with sufficient area to provide a 2250mm diameter turning area to comply with this clause.	YES
AS4299 Clause 4.5	Kitchen – The various kitchen layouts provide post adaptation options to create “L” or “U” shape kitchens that provide 1550mm adjacent to benches and appliances to comply with AS4299. With regard to the “adaptability” of the kitchen the construction drawings shall provide details of an appropriate layout of sink, fridge, wall oven, cooktop and height adjustable workbench that readily satisfies the “ease of adaptation” guidelines outlined in section 2 – Performance Objectives of AS4299. Therefore, subject to confirmation of the design of kitchen cupboards, appliances and the like at the construction documentation stage it is evident that the kitchens will comply with AS4299.	YES YES
AS4299 Clause 4.6	Main bedroom – The plans show a main bedroom for the adaptable units that can be adapted to provide; • 3000mm X 3650mm plus an ante entry/walkthrough robe area of 1435 X 1700 for the 1 bedroom design. • 3000mm X 3550mm plus an ante entry/walkthrough robe area of 1435 X 1700 for the 2 bedroom design. • 3400mm X 3550mm plus an ante entry/walkthrough robe area of 1550 X 1270 for the 4 bedroom design. The abovementioned areas can be achieved by modifying wardrobe locations which allows a circulation area of 1540mm X 2070mm clear of a queen sized bed and in front of the wardrobe while maintaining at least 1000mm clearance at the blind side and 1000mm at the foot of the bed to satisfy AS4299.	YES YES YES
AS4299 Clause 4.7	Bathroom – The plans show that the bathrooms will be at least 2700mm X 2400mm, which enables compliance with AS1428 in terms of spatial area. To facilitate adaptation to an accessible unit the toilet pan, washbasin and shower shall require some adjustment of the pre-adaptation locations to satisfy the performance requirements of AS4299.	YES

Clause	Adaptability Assessment	Compliance
AS4299 Cls 4.4.3	Visitable Toilet – The toilet within the bathroom of the 1 and 2 bedroom types will comply with the intent of AS4299 by providing with 1250mm X 900mm in front of the WC pan while retaining the toilet in a corner adjoining two walls. With the installation of a sliding door on the ante entry hallway to isolate the bathroom from the living area means the inner bathroom door can remain open to maximize the internal manoeuvring area. The 4 bedroom layout provides an ensuite with a 2300 X 2700 size that facilitates 1250mm X 900mm in front of the WC pan to satisfy AS4299.	 1250 2100 YES  2700 2300 YES
AS4299 Clause 4.8	Laundry – The laundry facilities are provided in a closet area, which can be adapted to provide 1550mm X 1550mm clear circulation space in front of the appliances to comply with AS4299.	YES
AS4299 Cls 3.5(b)	Outdoor Private Open Space – The plans show outdoor terrace area adjacent living area with sliding doors. The areas provide adequate space to perform a 180 degree wheelchair manoeuvre. While the plans do not indicate thresholds the construction drawings will confirm a 35mm maximum change in level with the capability for threshold ramps to comply with AS1428/4299.	YES

Conclusion

In summary, I conclude that designated adaptable apartments and associated common domain facilities will comply with relevant aspects of AS1428, AS4299 and consequently the requirements for access and adaptability as outlined in Section 5.3 of the SOP Access Guidelines.

PART C – Visitable Access &

SEPP 65 Apartment Design Guide Universal Access

Part C of this report provides an assessment of two key elements of the regulatory framework which have many commonalities, except for the proportion of apartments required to comply, namely;

- Visitable Access to 100% of apartments as required by the SOP Access Guidelines; and
- Universal Access to a minimum of 20% of apartments as specified the SEPP 65 Apartment Design Guide.

The fundamental requirements of “visitability” and “universal access” (as described by the ADG) require;

- a) An accessible path of travel through common areas within a building to the apartment entrance doorway that facilitates wheelchair access to enter the apartment; and
- b) Level access path to and within living areas and a 1000mm width corridor to a sanitary facility that incorporates a toilet pan that is visitable.

In addition to the general requirements for visitability as prescribed by the SOP Access Guidelines the Silver Level Livable Housing Guidelines specify a hobless 900 X 900 minimum shower must be located in a corner adjoining two walls, which is design Element 6 as listed below.

SOP Access Guidelines – Visitable Access

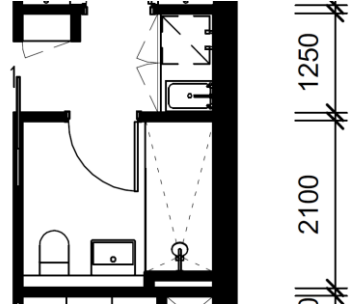
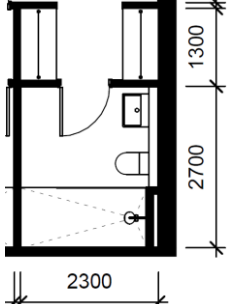
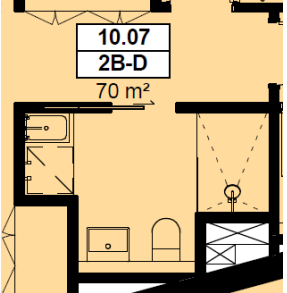
The table below provides a summary of how the 229 apartments incorporate a visitable toilet consistent with the provisions of AS4299 while Section A of this report confirms the common domain areas will comply with visibility requirements.

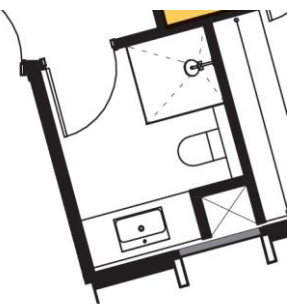
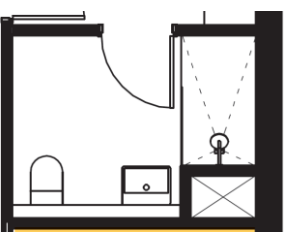
SEPP 65 Apartment Design Code – Section 4Q : Universal Access

The following assessment findings are provided to demonstrate compliance with the Silver Level requirements of the SEPP 65 Apartment Design Guide for at least 20% of the 229 apartments that being 46.

The table below also provides commentary concerning the SOP Access Guidelines which apply to 100% of the 229.

Silver Level Livable Housing	Assessment Findings
Element 1 – Common Area Access to Apartments	Section A of this report confirms that the site entrances and pathways to the principal entry lobbies will comply with AS1428.1 and enable access to lifts which travel to all floors and along 1540mm minimum width common corridors to the abovementioned apartments in accordance with AS1428.1 to satisfy Parts D3.2 and D3.3 of the BCA. As a consequence the access to apartments also satisfies the Silver Level Livable Housing Guidelines and the SOP Access Guidelines.
Element 2 – Apartment Entrances	The entrances doorways will be detailed with 920mm doors with level thresholds and 1200mm X 1200mm minimum external doorway landing areas to comply with the Silver Level Livable Housing Guidelines and the SOP Access Guidelines.

Silver Level Livable Housing	Assessment Findings	
Element 3 – Car Parking	The parking is located on lower levels with the building and does not form, part of an access path to an apartment entrance and therefore Class 2 residential flat building are exemption from this clause.	
Element 4 – Internal Doors & Corridors	The plans illustrate 1000mm minimum width corridors while the construction documentation shall confirm 870mm minimum internal doors to achieve 820mm clear opening widths to comply with the Silver Level Livable Housing Guidelines and the SOP Access Guidelines.	
Element 5 – Toilet	The bathrooms within the 74 apartments (including 21 adaptable apartments) shall provide a toilet in the corner of a room to allow for future installation of grabrails and provide at least 900mm X 1250mm clear circulation space in front of the toilet pan with an external sliding door on the ante hallway would comply with the Silver Level Livable Housing Guidelines.	 58 X 1 Bed Apartments 1BA, 1BB, 1BC & 16 X 2 Bed Apartments 2BB & 2BC
SOP Access Guidelines	The adjoining stud walls also provide the opportunity for further adaptation to enable ASI428.1 compliant doorway circulation spaces and thereby fully satisfy the SOP Access Guidelines.	
Element 5 – Toilet	There are 19 apartments (including 2 adaptable apartments) that provide a toilet pan in a room that allows at least 900mm X 1250mm clear circulation space in front of the toilet pan while a wall can be constructed to allow for future installation of grabrails and to comply with the Silver Level Livable Housing Guidelines.	 19 X 3 & 4 bedroom apts - 3BB, 4BA, 4BB, 4BC, 4BD, 4BF, 4BG
Element 5 – Toilet	There are 29 bathrooms within 2 bedroom apartments that provides the option to have a toilet in the corner of a room to allow for future installation of grabrails and provide at least 900mm X 1250mm clear circulation space in front of the toilet pan with a sliding door to comply with the Silver Level Livable Housing Guidelines.	 29 X 2 Bed Apartments 2BD & 2BG

Silver Level Livable Housing	Assessment Findings	
Element 5 – Toilet	There are 85 bathrooms within 2 bedroom apartments that provides the option to have a toilet in the corner of a room to allow for future installation of grabrails and provide at least 900mm X 1250mm clear circulation space in front of the toilet pan to comply with the Silver Level Livable Housing Guidelines.	 85 X 2 Bed Apartments 2BE, 2BF, 2BH, 2BI & 2BA similar
Element 5 – Toilet	There are 22 bathrooms within 3 and 4 bedroom apartments that provides the option to have a toilet in the corner of a room to allow for future installation of grabrails and provide at least 900mm X 1250mm clear circulation space in front of the toilet pan to comply with the Silver Level Livable Housing Guidelines.	 22 X 3 & 4 Bed Apartments 3BA, 4BE
Element 6 – Shower	The ensuites and bathrooms shall provide a shower in the corner of a room with a level entry (no hob) and a slip resistant floor surface, which will be confirmed at the construction certificate stage to comply with the Silver Level Livable Housing Guidelines.	
Element 7 – Reinforcement of bathroom walls & toilet walls	The construction certificate documentation shall confirm wall reinforcing around the toilet pan and a hobless shower in accordance within the technical specifications of the Silver Level Livable Housing Guidelines.	
Element 8 – Internal apartment stairs	This element is not applicable as all apartments are single level.	

Appendix A – Statement of Expertise



Accessibility Solutions consultancy offers a range of services to provide advice for clients to develop new and modify existing buildings, facilities and services to be accessible to people with disabilities to comply with legislation and regulations relevant to people with disabilities.

Relevant legislation and regulations that underpins advice includes the Disability Discrimination Act (DDA) Building Code of Australia, Australian Standards 1428, DDA Premises Standards, DDA Transport Standard, State Environment Planning Policy Housing for Seniors or People With a Disability (SEPP HS) / Seniors Living Policy, SEPP 65 – Apartment Design Guide and various local government DCP's.

The scope of services provided by Accessibility Solutions includes:

- Plan Appraisals and design advice
- Access Reports for development applications and construction certificates
- Expert Reports for Court evidence
- Access Auditing of existing buildings, facilities, transport conveyances and infrastructure
- Policy and document reviews and development of Disability Action Plans
- Staff training in access auditing

The services consider issues concerning people with all types of disability including; physical; vision; hearing, intellectual and other cognitive impairments that may affect access for people with a disability consistent with the Disability Discrimination Act.

As principal consultant Mark Relf has considerable experience and expertise in a wide range of access related projects and is a recognised Access Adviser approved by the NSW Ageing and Disability Department and is an accredited member of with the Association of Consultants in Access Australia for the purposes of providing advice concerning access to the built environment and services for people with disabilities.

His expertise has been gained over 20 years working in management and advocacy roles within the disability sector and since 1994 providing advice to clients on access issues. Mark also participates on various key committees concerning access for people with disabilities. His qualifications and affiliations are:

- Accredited Member of the Association of Consultants in Access Australia.
- Member, Standards Australia ME/64 Committee responsible for the AS1428 suite and AS4299 – Adaptable Housing.
- Member, NSW Heritage Office's – Fire, Access and Services Advisory Panel.

