



BILLBERGIA

**STAGES 2A & 3A
WALKER STREET RHODES**

ACCESS REVIEW

Morris-Goding Accessibility Consulting

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1. EXECUTIVE SUMMARY

The Access Review Report is a key element in design development of the Billbergia Stages 2A & 3A residential development located at Walker Street, Rhodes NSW and an appropriate response to the AS1428 series, Building Code of Australia (BCA), and ultimately the Commonwealth Disability Discrimination Act (DDA).

Morris-Goding Accessibility Consulting has prepared the Access Report to provide advice and strategies to maximise reasonable provisions of access for people with disabilities.

The development has been reviewed to ensure that ingress and egress, paths of travel, circulation areas, toilet facilities and residential accommodation comply with relevant statutory guidelines.

In general, the development has accessible paths of travel that are continuous throughout. In line with the reports recommendations, the proposed development has demonstrated an appropriate degree of accessibility. The Development Application drawings indicate that compliance with statutory requirements, pertaining to site access, common area access, accessible parking, accessible sanitary facilities and adaptable accommodation, can be readily achieved.

It is advised that the provisions of the Disability Access to Premises Standard 2010 (DDA Access Code) are due to be inserted into the BCA from 1 May 2011. The provisions of the DDA Access Code will from that date onwards thereby become mandatory for new building work. If it is anticipated that the construction certificate for this project is to be granted on or after 1 May 2011, the immediate adoption of the recommendations within this report that have been made in accordance with the DDA Access Code is advised.

The main recommendations that have arisen from the access review include:

- (i) Ensure an accessible path of travel to the podium level and main entry doors of buildings A – E from surrounding footpaths compliant with AS1428.1.
- (ii) Ensure a continuous accessible path of travel at podium level between buildings A, B, C and D compliant with AS1428.1 to enable equitable access to common use residential facilities and public space from various building levels.
- (iii) Ensure an accessible path of travel from the accessible visitor car spaces to the building D lift facilities on basement level 2, compliant with AS1428.1.
- (iv) Ensure all main entry and common use doors provide at least one active leaf 850mm clear width and appropriate latch side circulation space compliant with AS1428.1-2009

2. INTRODUCTION

2.1. General

Billbergia has engaged Morris-Goding Accessibility Consulting, to provide a design review of the proposed Stages 2A & 3A residential development, located at located Walker Street, Rhodes NSW.

From the information provided, the development is comprised of 5 buildings (A-E) plus a common amenities building at podium level and a public plaza thoroughfare. Buildings A & D extend over 24 levels; buildings B & E extend over 5 levels; building C extends over 19 levels. There are 2 levels of basement parking provided underneath the development and additional car parking at podium level in building B.

There are a total of 736 residential units and 5 retail tenancies proposed within the development.

The requirements of the investigation are to:

- Review supplied drawings of the development,
- Provide a report that will analyse the provisions of disability design of the development and,
- Recommend solutions that will ensure the design complies with the Disability Discrimination Act (DDA), Building Code of Australia (BCA) and AS 1428 series.

2.2. Objectives

The report considers user groups such as residents and visitors. The Report attempts to deliver equality, independence and functionality to people with disabilities inclusive of:

- ✘ People with sensory impairment (hearing and vision)
- ✘ People with mobility impairments (ambulant and wheelchair)
- ✘ People with dexterity impairments

The Report seeks to provide compliance with the DDA. In doing so, the Report attempts to eliminate, as far as possible, discrimination against persons on the ground of disability.

2.3. Statutory Requirements

The following standards are to be used to implement the Report:

- AS 1428.1 & AS 1428.2
- AS4299 (Adaptable Housing)
- AS 1735.12 - (Lifts, Escalators, & Moving Walks)
- BCA - Building Code of Australia
- Disability Access to Premises Standard 2010 (DDA Access Code)
- DDA - Disability Discrimination Act
- City of Canada Bay DCP
- Rhodes Peninsula DCP 2000

3. INGRESS & EGRESS

3.1. Public Plaza/Podium Entry

The proposed plaza thoroughfare (FRL12.50) located between buildings D & E, provides pedestrian access to the public and retail areas of the development from the Walker Street footpath and Shoreline Park South from Shoreline Avenue.

The access pathways will allow a person using a wheelchair adequate circulation area to turn 180° in an equitable and dignified manner, compliant with the DDA Access Code. They will also allow 2 wheelchair users the ability to pass each other when travelling in opposite directions.

There are 2 stairs from the plaza and 1 stair from Walker Street which provide entry access up to podium level (SRL 16.00). This level incorporates public space, a resident common space building and retail tenancies. A passenger lift adjacent to stair (near Building D) provides an accessible entry and path of travel from the plaza to podium level for people using wheelchairs in accordance with AS1428.1.

The architect has advised that alternate access pathways (1: 20 gradient) will be provided to the podium level from Walker Street to ensure equitable access for people using wheelchairs.

Recommendation:

- (i) Ensure an accessible path of travel from the Walker Street pedestrian footpath, to the public areas on podium level compliant with AS1428.1.

3.2. Building A - Main Residential Entrances

Entry into the residential lift lobby is at podium level (FFL16000). Access is via main entry stairs from the Walker Street pedestrian foot path and alternate entry stairs (within 50 metres) from Timbrol Avenue. The architect has advised that access pathways (1:20 gradient) will be provided to main entry doors, to ensure equitable access for people using wheelchairs as required by AS1428.1 and AS4299.

The main entry has 2 sets of double doors which appear to have a combined clear width of 1800mm with appropriate doorway circulation to meet AS1428.2 and AS4299 requirements. The internal set of entry doors open directly to the lift lobby.

The alternate entry has a single door which appears to provide 850mm clear width, compliant with AS1428.2. An internal corridor connects to a doorway leading to lift lobby. Given the limited space and height variation from street level to this Timbrol Avenue entry it is assumed that this alternate entry will be accessible to ambulant users only.

The circulation areas in front of the passenger lifts are appropriate for a person using a wheelchair.

Recommendations:

- (i) Ensure an accessible path of travel to main entry doors from the Walker Street pedestrian footpath compliant with AS1428.1.
- (ii) Ensure main entry doors provide at least one active leaf 850mm clear width compliant with AS1428.2.

3.3. Building B - Main Residential Entrance

Entry into the residential lift lobby is at podium level (FRL16200). Access is via entry stairs from the Timbrol Avenue pedestrian footpath. The architect has advised that alternate access pathways (1:20 gradient) will be provided to main entry doors, to ensure equitable access for people using wheelchairs.

The main entry and lift lobby double doors appear to have a combined clearance of 1800mm with appropriate doorway circulation to meet requirements of AS1428.2 and AS4299.

There appears to be an accessible path of travel from the entry doors to the subsequent lift lobby. The circulation areas in front of the passenger lift are appropriate for a person using a wheelchair.

Recommendations:

- (i) Ensure an accessible path of travel to main entry doors from the Timbrol Avenue pedestrian footpath, compliant with AS1428.1.
- (ii) Ensure main entry doors provide at least one active leaf 850mm clear width compliant with AS1428.2.

3.4. Building C - Main Residential Entrance

Entry into the residential lift lobby is at basement 2 level (FFL10500). It has been advised that an accessible path of travel (1:20 gradient) will be provided from the Shoreline Avenue pedestrian foot path to the main entry doors.

There are 2 consecutive sets of double doors leading to entry and lift lobby. All doors appear to have combined clearance of 1800mm and appropriate doorway circulation area compliant with AS1428.2 and AS4299.

The circulation areas in front of the passenger lift are appropriate for a person using a wheelchair.

Recommendations:

- (i) Ensure an accessible path of travel to main entry doors from the Shoreline Avenue pedestrian footpath, compliant with AS1428.1.
- (ii) Ensure main entry doors provide at least one active leaf 850mm clear width compliant with AS1428.2.

3.5. Building D - Main Residential Entrance

Entry into the residential lift lobby is at basement 1 level (FFL12600). There appears to be an accessible path of travel via plaza from pedestrian footpaths at corner of Gauthorpe & Walker Street to the main entry doors.

There are consecutive sets of double doors leading to entry and lift lobby. The double doors appear to have combined clearance of 1600 mm. As they are equal width doors, review is required to ensure at least one active leaf door provides 850mm clear width, compliant with AS1428.2.

The circulation areas in front of the passenger lift are appropriate for a person using a wheelchair.

Recommendations:

- (i) Ensure the accessible path of travel to main entry doors is compliant with AS1428.1.
- (ii) Ensure main entry doors provide at least one active leaf 850mm clear width compliant with AS1428.2 and AS4299.

3.6. Building E - Main Residential Entrance

Entry into the residential lift lobby is at basement 1 level (FFL12600). Access to the main entry is via stairs from Gauthorpe Street for ambulant users. There appears to be an accessible path of travel (within 50metres) to the main entry doors for people using wheelchairs from the Gauthorpe and Walker Street pedestrian footpaths via the public plaza.

There are consecutive sets of double doors leading to entry and lift lobby. The double doors appear to have combined clearance of 1600 mm. As they are equal width doors, review is required to ensure at least one active leaf door provides 850mm clear width, compliant with AS1428.2.

The circulation areas in front of the passenger lift are appropriate for a person using a wheelchair.

Recommendations:

- (i) Ensure the accessible path of travel to main entry doors is compliant with AS1428.1.
- (ii) Ensure main entry doors provide at least one active leaf 850mm clear width compliant with AS1428.2 and AS4299.

3.7. Emergency Egress

There is one emergency fire stair in building C and two emergency fire stairs in buildings A, B, D, E which lead from the upper levels down to street level. Others lead up from the basement levels 1 & 2 car parking.

All fire stairs appear to have doors which have 850mm clear width (920mm door leaves), compliant with AS1428.2. There are lifts within each building that can provide egress from all floors to an outside area at podium or at street level.

Recommendations:

- (i) Consideration should be given to provide safety refuges in fire stair landings on each floor (best practice).
- (ii) Consideration should be given for at least 1 passenger lift to be operational in the event of an emergency (best practice).

4. PATHS OF TRAVEL

4.1. Paths of Travel

The main paths of travel to and within the public plaza (from Gauthorpe and Walker Street) and podium level at base of residential development appear to be continuous with appropriate clear widths and circulation areas, compliant with AS1428.1 and AS4299.

It has been advised that access pathways (1:20 gradient) will be provided to the main residential entries of all buildings from their respective street frontages to ensure equitable access for people using wheelchairs in accordance with AS1428.1 and AS4299.

From the main entry doors of the residential foyers/lift lobbies in buildings A-E and basement car parks, a continuous accessible path of travel has been provided to all upper level apartments in accordance with AS1428.1 and AS4299, via the passenger lifts in each building. This exceeds the requirements of SEPP 65.

From the drawings provided, the residential foyers and lift lobby areas provide at least 1800mm clear width which is sufficient circulation space for 2 people using wheelchairs to pass each other when travelling in opposite directions compliant with AS1428.2.

The internal corridors on all residential levels appear to have approx. 1550mm width. This is sufficient circulation space for an ambulant person to pass a person using a wheelchair and enables appropriate wheelchair manoeuvrability compliant with AS1428.2. Corridors on all floors are accessible throughout in compliance with AS1428.1 and AS4299.

Recommendations:

- (i) Provide a continuous access link between the various building site levels by ensuring an accessible path of travel at podium level between buildings A, B, C and D, compliant with AS1428.1.
- (ii) If any landscaped areas provide stair access then equivalent pathway/ramp access as described in AS1428.1 must be provided to ensure compliance with DDA Access Code and AS4299.

4.2. Stairs

There are numerous stairways throughout development which provide external access for ambulant users between the public plaza thoroughfare, surrounding pedestrian footpaths, podium level and main entrances to Buildings A, B & E.

Recommendations:

- (i) Ensure all public stairs have handrails installed on both sides, compliant with AS1428.1.
- (ii) Consider providing appropriate set-backs at base and top of stairs to ensure that required handrail extensions and TGSI placement does not impede on traverse paths of travel, in accordance with DDA Access Code.

4.3. Doors

Most common internal doors appear to have clear widths of 850mm and suitable clearance and circulation areas in accordance with AS1428.2 and Canada Bay DCP.

Exceptions were noted in the following areas which require review to comply with AS1428.2:

- Building C – basement 2 level – double doors from car park to lift lobby, less than 850mm active leaf (currently 1600mm combined width).
- Building C – podium level - double doors from podium to lift lobby, less than 850mm active leaf (currently 1600mm combined width).
- Building D – basement 1 level - double doors from car park to lift lobby, less than 850mm active leaf (currently 1600mm combined width).
- Building D – basement 2 level – single door from visitor car park to lift lobby, no latch door circulation space provided.

Recommendation:

- (i) Ensure all common-use doorways provide at least 1 active leaf door 850mm clear width and appropriate 510mm latch side circulation space compliant with AS1428.1-2009

4.4. Lifts

There is an external passenger lift (two sided car) adjacent to plaza thoroughfare stair which provides an accessible path of travel from the basement 1 to podium level for people using wheelchairs in accordance with AS1428.1.

There are passenger lifts provided within all 5 buildings with suitable wheelchair access to all residential floors. Buildings A, C, D provide 3 passenger lifts and buildings B, E provide 1 passenger lift.

The lifts provide an appropriate continuous accessible path of travel to and from the 2 basement level car parks to all residential apartments on the upper levels.

All passenger lift facilities appear to have internal dimensions of 1400mm W x 2000mm L which is appropriate in accordance with AS1735.12, AS1428.2 and Canada Bay DCP.

Recommendation:

- (i) Lift car components (grabrail, control buttons, lighting) to comply with AS1735.12.

4.5. Common Amenities

There are garbage chute rooms in residential buildings A-E located near the passenger lifts on each level. The rooms appear to have an 800mm clear width entry door which is less than 850mm required by AS1428.2. There is adequate external latch side door clearance and circulation space to enable a frontal approach for a person using a wheelchair.

There are designated common rooms shown in buildings A & D (podium level) and building C (basement level 1). The doorways to these areas and along the path of travel leading to them do not provide adequate circulation space, compliant with AS1428.1. There are stairs in corridors leading to common room in Building C, which provides an access barrier to a person using a wheelchair. This requires review for compliance with AS1428.1 and DDA Access Code.

The mail boxes have not been nominated on plan at this stage.

Recommendations:

- (i) Consideration to provide 850mm clear width door to garbage chute room, compliant with AS1428.2 and DDA Access Code.
- (ii) Ensure an accessible path of travel to all common rooms, compliant with AS1428.1.
- (iii) Ensure doorways on the path of travel from lift lobby to all common rooms provide 850mm clear width and 510mm latch side door circulation space compliant with AS1428.2 and AS4299.
- (iv) Ensure mail boxes are connected to an accessible path of travel, compliant with AS1428.1. Provide a clear circulation area of 1550mm, suitable for use by people using wheelchairs.

4.6. Residential Gymnasium Building

There is a common facilities building for residents located at podium level which includes a pool, gymnasium, deck and change facilities.

There appears to be an accessible path of travel for residents from Buildings A, B and C from their respective lift lobbies via the podium area. For residents from Buildings D, E there appears to be an accessible path of travel from their respective lift lobbies via the public plaza thoroughfare and external lift facility to podium.

The building main entry has double doors with a combined clear width of 2000mm and appropriate door circulation space compliant with AS1428.2 and AS4299.

There are 2 external entry doors to gym and pool. They appear to provide 850mm clear width and appropriate circulation spaces compliant with AS1428.2 and AS4299.

The internal doors from entry lobby to pool and gym appear to provide 850mm clear width however there is currently no latch side circulation space and review is required for compliance with AS1428.2.

There are male and female change facilities within the building. It has been advised that at least one accessible change facility is provided adjacent to these facilities to ensure equitable access for people with disabilities.

Recommendations:

- (i) Ensure accessible change facility provides compliance with AS1428.2 and DDA Access Code.
- (ii) Provide 510mm latch side circulation space to doors from entry lobby to pool and gym, compliant with AS1428.2 and DDA Access Code.
- (iii) Consideration to provide a pool hoist to enable equitable access for people using wheelchairs to the common use pool in line with DDA Access Code.
- (iv) Consideration to provide 1 toilet cubicle within male and female toilets for people with ambulant disabilities in accordance with DDA Access Code.

4.7. Retail Entrances

There are 4 retail tenancies located on basement 1 level, with an accessible path of travel via from the public plaza thoroughfare. An additional retail tenancy is located at podium level with access via the lift facility from the public plaza.

Entry to the basement 1 tenancies is via double doors which appear to have combined clearance of 1600mm. As they are equal width doors, review is required to ensure at least one active leaf door provides 850mm clear width, compliant with AS1428.2 and Canada Bay DCP.

There are rear doors from each of the tenancies which lead to an amenities corridor (1200mm) with access to storage areas and staff toilet facilities. There are male, female and accessible toilet facilities provided in this area.

The accessible toilet/shower facility appears to have internal dimensions of 2300mm W x 3600mm L which will satisfy AS1428.2 and DDA Access Code.

The door to accessible change facility provides 850mm clear width and appropriate circulation space, compliant with AS1428.2.

Recommendations:

- (i) Consideration to provide 1 toilet cubicle within male and female toilets for people with ambulant disabilities in accordance with DDA Access Code.
- (ii) Ensure main entry doors provide at least one active leaf 850mm clear width compliant with AS1428.1-2009 and Canada Bay DCP.

4.8. External Domain

Recommendation:

- (i) Provide kerb ramps and TGSIs where the vehicular access to the underground parking facility crosses the pedestrian footpath.

5. ACCOMMODATION

5.1. Adaptable Unit Provisions

Based on the drawings provided, the development provides a total of 736 apartments, including a range of 1, 2 and 3 beds spread over various levels of the 5 residential buildings. Of the total provision there are 111 proposed adaptable units which satisfies the 15% adaptable unit requirement of the Canada Bay DCP Section 3.2.5 Table 1.

From the information provided, the adaptable units propose 6 different layout types (3 x 1 bed and 3 x 2 bed) and will be distributed between buildings A, C and D as follows:

Building A	Building A	Building C	Building C	Building D	Building D
Apartment Type 2-A	Apartment Type 7-A	Apartment Type 1-A	Apartment Type 4-A	Apartment Type 7-A	Apartment Type 12-A
A.1.02	A.6.06	C.1.03	C.1.01	D.1.07	D.1.01
A.1.10	A.6.07	C.1.06	C.1.08	D.2.07	D.2.01
A.2.02	A.7.05	C.2.03	C.2.01	D.3.07	D.3.01
A.2.11	A.7.06	C.2.06	C.2.08	D.4.07	D.4.01
A.3.02	A.08.05	C.3.03	C.3.01	D.5.07	D.5.01
A.3.11	A.08.06	C.3.06	C.3.08	D.6.07	D.5.12
A.4.02	A.09.05	C.4.03	C.4.01	D.7.03	D.6.01
A.4.11	A.09.06	C.4.06	C.4.08	D.8.03	D.6.12
A.5.02	A.10.05		C.5.01		D.7.01
A.5.11	A.10.06		C.5.08		D.7.08
A.6.02	A.11.05		C.6.01		D.8.01
A.6.11	A.11.06		C.6.08		D.8.08
A.7.02	A.12.05		C.7.01		D.9.01
A.7.09	A.12.06		C.7.08		D.9.08
A.8.02	A.13.05		C.8.01		D.10.01
A.8.09	A.13.06		C.8.08		D.10.08
A.9.02	A.14.05		C.9.01		D.11.01
A.9.09	A.14.06		C.9.08		D.11.08
A.10.10	A.15.05		C.10.01		D.12.01
A.10.09	A.15.06		C.10.08		D.12.08
A.11.02	A.16.05		C.11.01		D.13.01
A.11.09	A.16.06		C.11.08		D.13.08
A.12.02	A.17.05		C.12.01		D.14.01
A.12.09	A.17.06		C.12.08		D.14.08
A.13.09	A.18.05		C.13.01		D.15.01
A.14.09	A.18.06		C.13.08		D.15.08
A.15.09			C.14.01		D.16.01
			C.14.08		D.16.08
			C.15.01		D.17.01
			C.15.08		D.17.08
					D.18.01
					D.18.08

This distribution of adaptable units is appropriate under SEPP 65.

5.2. Building A – (Apartment Type 2-A, 1 Bedroom Adaptable Unit)

The entry door has 850mm clear width and 510mm latch side clearance on the internal side of the door, compliant with AS1428.2 and AS4299.

Bedroom and bathroom doors have a clear width of 820mm, compliant with AS4299. There is potential to increase doorway circulation areas compliant with AS1428.1

The bedroom has internal dimensions of 3000mm x 3700mm (outside wardrobe space) with at least 1000mm on each side of the bed and the potential to provide increased circulation area (1540mm x 2070mm) at side of the bed, compliant with AS1428.2.

The bathroom appears to have internal dimensions of 2300mm x 2250mm. The bathroom (shower, toilet, wash basin) has potential circulation area requirements in accordance with AS1428.1. Further review of proposed shower/bath screening is required to ensure the 'visitability' of toilet is in compliance with AS4299.

The L-shaped kitchen layout provides appropriate 1550mm clearance between base cabinets, compliant with AS4299. There is an appropriate 800mm workbench adjacent to the cook top and sink in compliance with AS4299. There is a set-down space provided (500mm) adjacent to wall mounted oven which will satisfy AS4299.

The laundry has 1550mm diameter circulation area in front of laundry appliances compliant with AS4299.

5.3. Building A – (Apartment Type 7-A, 2 Bedroom Adaptable Unit)

The layout has appropriate entrance circulation areas in accordance with AS4299. The entry door has appropriate width and latch side clearances under AS4299.

The internal corridors have suitable width under AS1428.1. The internal doors have appropriate width and have latch side clearances as dictated under AS4299.

The living areas have suitable circulation areas under AS4299.

The L-shaped kitchen layout provides appropriate 1550mm clearance between base cabinets, compliant with AS4299. There are appropriate workbench adjacent to the cook top, oven and sink in compliance with AS4299.

The bathroom en-suite has appropriate internal dimensions that will satisfy circulation areas of pan, basin and shower under AS1428.1.

The main bedroom has appropriate circulation areas under AS4299. The laundry area has suitable circulation area in front of the laundry appliances.

5.4. Building C – (Apartment Type 1-A, 2 Bedroom Adaptable Unit)

The layout has appropriate entrance circulation areas in accordance with AS4299. The entry door has appropriate width and can achieve latch side clearances under AS4299.

The internal corridors have suitable width under AS1428.1. The internal doors have appropriate width. The bedroom door can achieve latch side clearances as dictated under AS4299.

The living areas have suitable circulation areas under AS4299.

The U-shaped kitchen layout provides appropriate 1550mm clearance between base cabinets, compliant with AS4299. There are appropriate workbench adjacent to the cook top, oven and sink in compliance with AS4299.

The bathroom en-suite has appropriate internal dimensions that will satisfy circulation areas of pan, basin and shower under AS1428.1.

The main bedroom has appropriate circulation areas under AS4299. The laundry area has suitable circulation area in front of the laundry appliances.

5.5. Building C – (Apartment Type 4-A, 1 Bedroom Adaptable Unit)

The layout has appropriate entrance circulation areas in accordance with AS4299. The entry door has appropriate width and latch side clearances under AS4299.

The internal corridors have suitable width under AS1428.1. The internal doors have appropriate width and have latch side clearances as dictated under AS4299.

The living areas have suitable circulation areas under AS4299.

The L-shaped kitchen layout provides appropriate 1550mm clearance between base cabinets, compliant with AS4299. There are appropriate workbench adjacent to the cook top, oven and sink in compliance with AS4299.

The bathroom en-suite has appropriate internal dimensions that will satisfy circulation areas of pan, basin and shower under AS1428.1.

The main bedroom has appropriate circulation areas under AS4299. The laundry area has suitable circulation area in front of the laundry appliances.

5.6. Building D – (Apartment Type 7-A, 2 Bedroom Adaptable Unit)

The layout has appropriate entrance circulation areas in accordance with AS4299. The entry door has appropriate width and can achieve latch side clearances under AS4299. The main entry door needs to be modified (re-handed), which can be achieved.

The internal corridors have suitable width under AS1428.1. The internal doors have appropriate width. The bedroom door can achieve latch side clearances as dictated under AS4299. The provision of the bathroom door can be achieved under AS4299

The living areas have suitable circulation areas under AS4299.

The kitchen island can be easily moved to achieve 1550mm clear width. There are appropriate workbench adjacent to the cook top, oven and sink in compliance with AS4299.

The bathroom en-suite has appropriate internal dimensions that will satisfy circulation areas of pan, basin and shower under AS1428.1.

The main bedroom has appropriate circulation areas under AS4299. The laundry area has suitable circulation area in front of the laundry appliances.

5.7. Building D – (Apartment Type 12-A, 1 Bedroom Adaptable Unit)

The layout has appropriate entrance circulation areas in accordance with AS4299. The entry door has appropriate width and latch side clearances that can be achieved under AS4299.

The internal corridors have suitable width under AS1428.1. The internal doors have appropriate width and can achieve latch side clearances as dictated under AS4299.

The living areas have suitable circulation areas under AS4299.

The L-shaped kitchen layout provides appropriate 1550mm clearance between base cabinets, compliant with AS4299. There are appropriate workbenches adjacent to the cook top, oven and sink in compliance with AS4299.

The bathroom en-suite has appropriate internal dimensions that will satisfy circulation areas of pan, basin and shower under AS1428.1.

The main bedroom has appropriate circulation areas under AS4299. The laundry area has suitable circulation area in front of the laundry appliances.

6. TRANSPORT LINKAGES

6.1. Rhodes Railway Station

The proposed development is located within direct and convenient access (approx. 200 metres) to Rhodes Railway Station via Walker Street. This area of the existing pedestrian footpath generally provides an appropriate pathway suitable for people using wheelchairs with 1:20 approx. gradient compliant with AS1428.1 and AS4299.

The CityRail Guide (June 2010) to accessible train services identifies Rhodes railway station as wheelchair accessible providing "...a step-free path, suitable for independent access by a person using a manual wheelchair from the station entrance to all platforms and essential station facilities."

It states that the station does not provide staffed access for all train services however it does provide a passenger lift facility, portable boarding ramp, tactile tiles, audio announcements, accessible toilet facility, accessible telephone, ticket office hearing loop and bus connection to enhance access for people with disabilities to this key public transport facility.

6.2. Car Parking

There are 2 levels of basement car parking provided underneath the development with additional car parking provided at podium level in building B. A total of 773 car spaces are provided which includes residential and visitor car parking.

The residential car parking provisions include: basement level 1 with 312 car spaces, including 33 adaptable car spaces; basement level 2 provides 391 car spaces, including 33 adaptable car spaces. The podium car park near building B provides 33 spaces, including 4 adaptable car spaces.

At least 1 car space (at least 2400mm x 5500mm) is provided for each of the 736 units within the development. Of the car spaces provided for the 111 adaptable units at least 70 of these have increased dimensions (3800mm x 5500mm min. dimensions). This represents approx. 9.5% adaptable car spaces of the total car parking within the site.

While this is less than the 15% adaptable car spaces required by City of Canada Bay DCP Section 3.2.5, which requires all adaptable units to be provided with an accessible parking space (3800mm wide), consideration is sought due to the close proximity to Rhodes Railway station which provides a convenient and direct alternative means of travel for people, including people with disabilities, without car availability. This is also in line with the Rhodes Peninsula DCP Section 4.1.3 and Section 5.6.3 strategies which seek to promote public transport use and decrease car dependency by minimising car parking requirements. This precedent to minimize the amount of adaptable unit car bays when there is a nearby railway station to a residential development is also supported by Willoughby Council (refer Willoughby Council WDCP part C.4).

The visitor car parking provisions are located on basement level 2 with 37 car spaces including 2 accessible car spaces (V-A1 & V-A2) with dimensions (3600mm x 6000mm) compliant with Canada Bay DCP Section 6.4.8. The visitor car parking is conveniently located to the general public, with no security gate access in accordance with Canada Bay Section 6.4.8.

It is assumed that pedestrian access from the visitor car spaces to the public plaza and main entrances to the residential buildings will be via the building D lift facilities. Review is required of the doorway to corridor leading to building D lift lobby area to ensure equitable access for people using wheelchairs

Recommendations:

- (i) Ensure an accessible path of travel compliant with AS1428.1 from visitor parking to building D lift lobby on basement level 2 (See Section 4.3 door recommendations).
- (ii) Ensure adaptable/accessible car spaces are located adjacent to passenger lifts.
- (iii) Ensure a height clearance of 2.5 metres above adaptable/accessible car spaces.
- (iv) The approach to each adaptable/accessible car space should not have vertical clearance of less than 2300mm.