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472-486 PACIFIC HIGHWAY ST LEONARDS

ACCESS REVIEW

Morris-Goding Accessibility Consulting

AMENDED DA FINAL v3

10 August 2015

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

The Access Review Report is a key element in design development of 472 & 486 Pacific Highway, St Leonards and an appropriate response to the AS1428 series, Building Code of Australia (BCA), DDA Access to Premises Standards (including DDA Access Code 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, toilets, adaptable units and parking 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 and adaptable units, can be readily achieved.

The recommendations in this report are to be developed in the ongoing design development and should be confirmed prior to construction certificate stage.

2. INTRODUCTION

2.1. General

Mirvac has engaged Morris-Goding Accessibility Consulting to provide a design review of the proposed residential development 472 & 486 Pacific Highway, St Leonards.

From the information provided, the development accommodates a total 535 residential units split between two towers. There is a supermarket and retail tenancies on the level 1. There is childcare on level 2 and commercial offices on levels 2, 3 and 4. There are 7 levels of basement car parking below.

The requirements of the investigation are to:

- Review supplied drawings of the proposed 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 Federal Disability Discrimination Act (DDA), DDA Access to Premises Standards (including DDA Access Code), Building Code of Australia (BCA) and AS 1428 series.

2.2. Objectives

The report considers user groups such as residents and residential 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. Limitations

This report is limited to the accessibility provisions of the buildings in general. It does not provide comment on detailed design issues, such as: internals of accessible, fit-out, lift specification, slip resistant floor finishes, door schedules, hardware and controls, glazing, luminance contrast, stair nosing, TGSI's, handrail design, signage, hearing augmentation etc. that will be included in construction documentation.

2.4. Statutory Requirements

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

- AS 1428.1:2009 (General Requirements for Access-New Building Work)
- AS 4299:1995 (Adaptable Housing Code)
- AS 1735.12:1999 (Lifts, Escalators, & Moving Walks)
- AS 2890.6:2009 (Off Street Parking for People with Disabilities)
- BCA – Building Code of Australia 2015

- DDA Access to Premises Standards 2010
- Lane Cove Council DCP Part F 2011

3. INGRESS & EGRESS

3.1. General

The development is bounded by Pacific Highway to the north-east, Friedlander Place to the north-west and Nicholson Street to the south-west.

There is a forecourt area in the centre of the development that is accessed from the intersection of Friedlander Place and Pacific Highway. This forecourt is open and provides access to the residential entrances of Tower 1 and Tower 2.

3.2. Ground Floor Tenancies

There is a supermarket and a number of retail tenancies on ground floor of various size and use. The retail tenancies have 1 level that are accessible to and within. There appears to be accessible paths of travel that can be achieved to and through the entry door of all ground floor retail/commercial tenancies compliant with AS1428.1 and the DDA Premises Standards.

3.3. Retail Arcade Entry

There is a retail arcade entry to Tower 1 from the Pacific Highway pedestrian footpath at the eastern corner of the site. From the pedestrian footpath there is a ramp leading to entrance forecourt area. There are suitable 3000mm paths of travel from this public entry through the lift lobbies of Tower 1 and to the forecourt area.

Recommendation:

(i) Ensure ramps are maximum 1 in 14 gradient, have handrails on both sides compliant with AS1428.1.

3.4. Level 1 Forecourt Area

The forecourt area is located between Tower 1 and Tower 2.

There are accessible paths of travel to the forecourt area from Friedlander Place and subsequently from Pacific Highway and Nicholson Street. The forecourt area allows accessible paths of travel into the residential entrances of Tower 1 and Tower 2.

3.5. Tower 1 Residential Entry

The residential entry foyer of Tower 1 is accessed from the forecourt area.

The main entry consists of automatic sliding doors with suitable clear width compliant with AS1428.1. From the main entry doors, there is a generous width accessible path of travel leading to the residential passenger lifts.

The entry lobby has appropriate clear width allowing a wheelchair user to make 180° turns or pass another wheelchair user travelling in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

3.6. Tower 2 Residential Entry

The main entry consists of automatic sliding doors with suitable clear width compliant with AS1428.1. From the main entry doors, there is a generous width accessible path of travel leading to the residential passenger lifts.

The entry lobby has appropriate clear width allowing a wheelchair user to make 180° turns or pass another wheelchair user travelling in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

3.7. Tower 1 Commercial Lobby Entrance

There is a direct accessible path of travel into the level 1 commercial entry lobby from Pacific Highway.

The main entry consists of automatic sliding doors with suitable clear width compliant with AS1428.1. From the main entry doors, there is a generous width accessible path of travel leading to the commercial passenger lifts.

The entry lobby has appropriate clear width allowing a wheelchair user to make 180° turns or pass another wheelchair user travelling in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

There is direct access from level 1 lift lobby to the commercial levels 2, 3 and 4.

3.8. Tower 2 Childcare Entrance

There is a direct accessible path of travel into the level 1 childcare entry lobby from the forecourt area.

The entry lobby has appropriate clear width allowing a wheelchair user to make 180° turns or pass another wheelchair user travelling in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

There is direct access from level 1 lift lobby to the level 2 childcare.

3.9. Emergency Egress

There is a total of 8 fire stairs in the development. There are 2 fire stairs providing egress from the residential levels of Tower 1 to the ground floor. There are 2 fire stairs providing egress from the residential levels of Tower 2 to the ground floor. There are 3 fire stairs providing egress from the basement car parking levels to the ground level.

The ground floor entry foyers of both residential buildings are regarded as the most appropriate means of accessible points egress in the event of an emergency situation.

Recommendation:

(i) Consider emergency services have strategies in place for the egress of people with sensory disabilities (advisory).

4. PATHS OF TRAVEL

4.1. Residential Paths of Travel

There is a continuous accessible path of travel from the main residential entrances to the ground floor lift lobbies.

The 3 passenger lifts in in each tower provide a continuous accessible path of travel from the ground floor entry foyers to the basement car park levels and the upper residential levels.

All residential passenger lifts are identical and have internal lift car dimensions of complaint with the BCA and DDA Premises Standards Table 3.6(b). The residential lift lobbies have appropriate clear depth. This provides sufficient circulation area to allow wheelchair users to access the passenger lift, make 180° turns and pass other wheelchair users in an equitable and dignified manner, compliant with DDA Premises Standards.

All residential corridors have sufficient minimum 1540mm clear width to allow wheelchair users to perform a 180° at corridor ends, compliant with AS1428.1 and the DDA Premises Standards.

There are accessible paths of travel to the level 14 common use deck via the 3 residential passenger lifts of Tower 1. There are accessible paths of travel to the swimming pool, gymnasium, sauna, amenities and outdoor area of level 14.

Recommendation:

(i) Ensure common area floor surfaces are suitably slip resistant and traversable by a wheelchair or walking frame, compliant with AS 1428.1:2009.

4.2. Commercial Paths of Travel

There are continuous accessible path of travel to the Tower 1 commercial levels 2, 3 and 4 from the level 1 lobby. Every commercial level has accessible paths of travel to and within with suitable circulation areas to allow a wheelchair user to make 180° turns or pass another wheelchair user travelling in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

There are 2 commercial passenger lifts that have internal lift car dimensions complaint with the BCA and DDA Premises Standards Table 3.6(b). The lift lobbies have appropriate clear depth and has sufficient circulation area to allow wheelchair users to access the passenger lift, make 180° turns and pass other wheelchair users in an equitable and dignified manner, compliant with DDA Premises Standards.

4.3. Childcare Paths of Travel

There are continuous accessible path of travel to the Tower 2 childcare level 2 from lift lobby on level 1. The childcare level has accessible paths of travel to and within with suitable circulation areas to allow a wheelchair user to make 180° turns or pass another wheelchair user travelling in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

There are 2 designated passenger lifts that have internal lift car dimensions complaint with the BCA and DDA Premises Standards Table 3.6(b). The lift lobbies have appropriate clear depth and has sufficient circulation area to allow wheelchair users to

access the passenger lift, make 180° turns and pass other wheelchair users in an equitable and dignified manner, compliant with DDA Premises Standards.

5. ACCOMMODATION

5.1. Residential Units

In general, there is a continuous accessible path of travel from the building entrances to the entry door of each sole occupancy unit in the building, compliant with DDA Premises Standards.

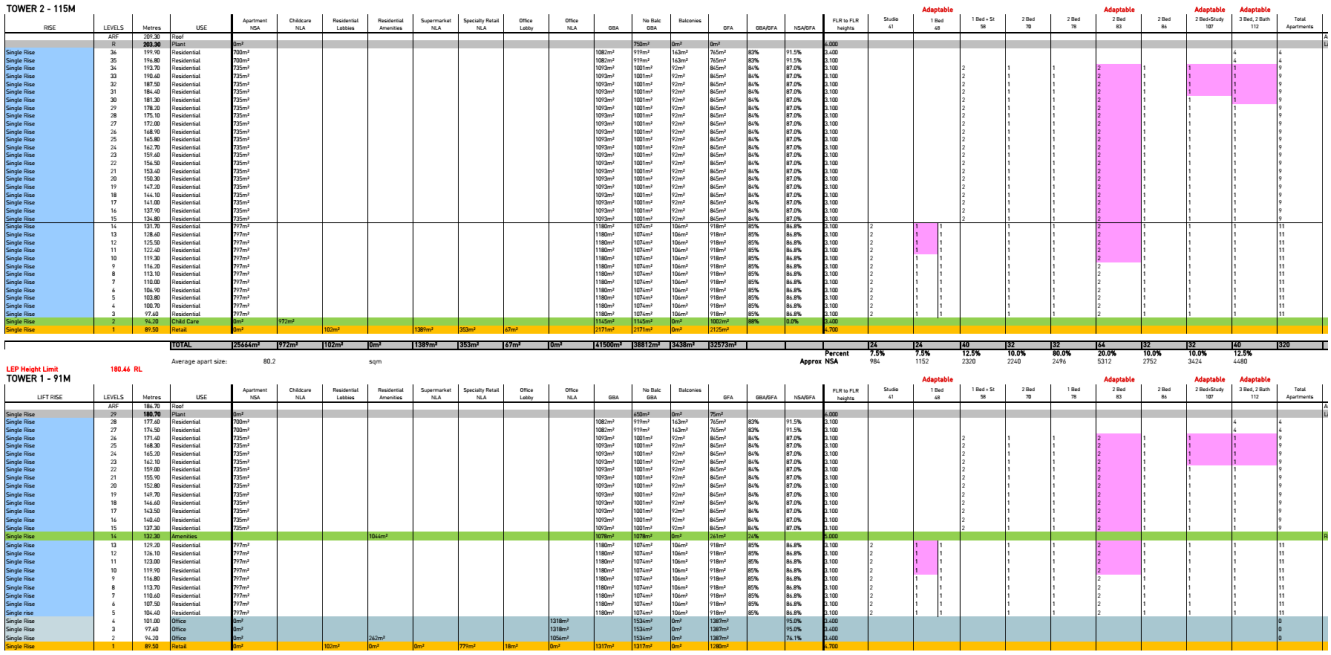
There is a total of 535 residential units within the development. The development contains of a range of studio, 1 bed, 2 bed and 3 bedroom residential units.

Tower 1 has low rise floors from levels 5 - 13 and high rise floors from levels 15-26. Levels 27 & 28 are penthouse levels.

Tower 2 has low rise floors from levels 3 - 14 and high rise floors from levels 15 - 34. Levels 35 & 36 are penthouse levels.

The development falls under Lane Cove Council. According to Council DCP, a minimum of 20% of total units is required to be designed according to AS1428.1 and AS4299.

From the information provided, there are a total of 108 adaptable units provided which satisfies the requirements of Lane Cove Council DCP. The adaptable units are show a mix of 1 bedroom, 2 bedroom and 3 bedroom apartments providing a range of units in accordance with Lane Cove Council DCP. This is shown in the schedule below (adaptable units coloured in pink).



The following section outlines the requirements for adaptable unit design.

5.2. Adaptable Unit Design

The intent of adaptable housing is to provide a range of housing choices within the community promoting equitable access to residential accommodation. Adaptable housing is designed so that it can be adapted to meet the changing needs of residents at minimal personal and economic costs.

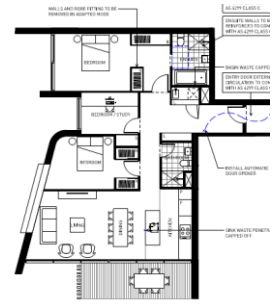
There are 3 types of adaptable unit proposed. The types are 1 bedroom, 2 bedroom and 3 bedroom units. At this stage of the development ensure the recommendations in the following sections are implemented in the design layout of each adaptable unit at pre-adaptation stage. These recommendations will ensure the correct circulation areas and ease of modification in the future in accordance with AS4299 Class C and AS1428.1:2009 requirements.

Recommendation:

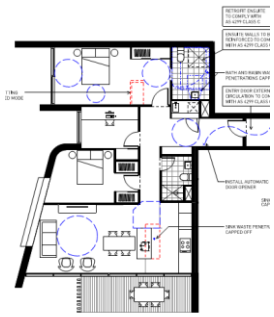
(i) Provide slip-resistant floor surface within all adaptable unit bathrooms, kitchens and laundries as required in AS4299 clause 4.5.4.

5.3. Typical Adaptable Unit Type 2B

The following assessment has been made from the typical unit layout drawing provided.



1 Pre-Adapted Mode 2B
1:100



2 Adapted Mode 2B
1:100

The unit entry door has suitable clear width and provision for suitable circulation areas compliant with AS4299 and AS1428.1.

The accessible bedroom has sufficient internal dimensions allowing for sufficient circulation spaces at the sides and base of the bed compliant with AS4299.

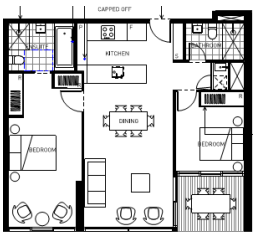
The living/dining room can achieve appropriate 2250mm diameter turning area, compliant with AS4299.

The bathroom has sufficient internal dimensions to achieve the required circulation spaces required around the toilet pan, washbasin and shower recess. The shower and pan remains in place from the outset. The tub can be removed and basin is repositioned to a capped waste point. This is allowable under AS4299.

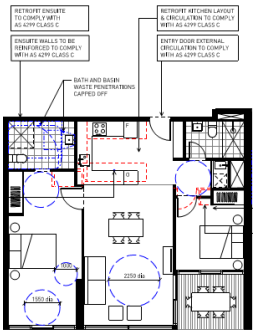
There is suitable 1540mm unobstructed circulation areas in front of the laundry area to allow wheelchair users to perform a 180° turn, compliant with AS4299. The kitchen island bench can be repositioned to allow 1540mm to allow suitable circulation area. There is suitable bench space to comply with AS4299.

5.4. Typical Adaptable Unit Type 2B

The following assessment has been made from the typical unit layout drawing provided.



3 Pre-Adapted Mode 2B
1:100



4 Adapted Mode 2B
1:100

The unit entry door has suitable clear width and can achieve latch side clearance.

The accessible bedroom has sufficient internal dimensions allowing for sufficient circulation spaces at the sides and base of the bed compliant with AS4299.

The bedroom door currently has appropriate door circulation.

The living/dining room can achieve appropriate 2250mm diameter turning area, compliant with AS4299.

The bathroom has sufficient internal dimensions to achieve the required circulation spaces required around the toilet pan, washbasin and shower recess.

The shower and pan remains in place from the outset. The tub can be removed and basin is repositioned to a capped waste point. This is allowable under AS4299.

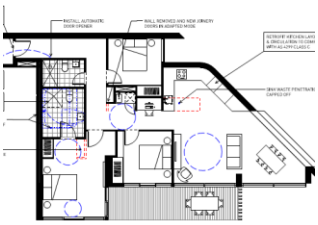
There is suitable 1540mm unobstructed circulation areas in front of the laundry area to allow wheelchair users to perform a 180° turn, compliant with AS4299. The kitchen has appropriate circulation area under AS4299.

There is suitable bench space to comply with AS4299.

5.5. Typical Adaptable Unit Type 3B

The following assessment has been made from the typical unit layout drawing provided.

5 Pre-Adapted Mode 3B
1:100



6 Adapted Mode 3B
1:100

The unit entry door has suitable clear width and lacks provision for suitable circulation areas compliant with AS4299 and AS1428.1.

As a performance solution, the client has confirmed that a power assisted door actuator will be purchased at pre-adaptation and stored within the adaptable unit from the outset. A rough in conduit will be provided for operable buttons. This satisfies the requirements of access to the entry door as required by AS4299.

The accessible bedroom has sufficient internal dimensions allowing for sufficient circulation spaces at the sides and base of the bed compliant with AS4299. The bedroom door currently has appropriate door circulation.

The living/dining room can achieve appropriate 2250mm diameter turning area, compliant with AS4299.

The bathroom has sufficient internal dimensions to achieve the required circulation spaces required around the toilet pan, washbasin and shower recess.

The tub can be removed, the shower is repositioned using the bath waste and pan is repositioned to a capped waste point. This satisfies the intent of AS4299.

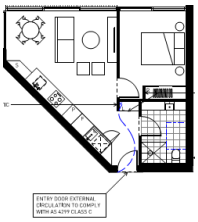
There is suitable 1540mm unobstructed circulation areas in front of the laundry area to allow wheelchair users to perform a 180° turn, compliant with AS4299.

The kitchen island bench can be repositioned to allow 1540mm to allow suitable circulation area. There is suitable bench space to comply with AS4299.

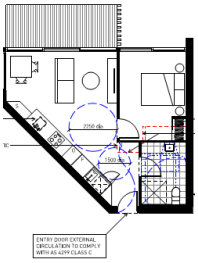
5.6. Typical Adaptable Unit Type 1B

The unit entry door has suitable clear width and lacks provision for suitable circulation areas compliant with AS4299 and AS1428.1.

As a performance solution, the client has confirmed that a power assisted door actuator will be purchased at pre-adaptation and stored within the adaptable unit from the outset. A rough in conduit will be provided for operable buttons. This satisfies the requirements of access to the entry door as required by AS4299.



Pre-Adapted Mode 1B
1:100



Adapted Mode 1B

The accessible bedroom has sufficient internal dimensions allowing for sufficient circulation spaces at the sides and base of the bed compliant with AS4299. The bedroom door currently has appropriate door circulation.

The living/dining room can achieve appropriate 2250mm diameter turning area, compliant with AS4299.

The bathroom has sufficient internal dimensions to achieve the required circulation spaces required around the toilet pan, washbasin and shower recess. The shower and pan and basin remains in place from the outset. This is compliant with AS4299.

There is suitable 1540mm unobstructed circulation areas in front of the laundry area to allow wheelchair users to perform a 180° turn, compliant with AS4299. The kitchen has appropriate circulation area under AS4299. There is suitable bench space to comply with AS4299.

5.7. Visitable Units

A least 80% of the residential units are required to be visitable under Lane Cove Council DCP Part F. The drawings nominate a visitable design for all units in the development. The design is not strictly in line with the requirements of AS4299, however achieves visitability for ambulant users.

Under AS4299, a clear area of 1250mm x 900mm is required in front of the toilet pan. However it is deduced that a person in an A80 wheelchair cannot utilize a 1250mm x 900mm area to be able to transfer from wheelchair to pan, based on the criteria within

AS1428.1. It is concluded that a visitable pan area must be provided for persons with ambulant disability.

The design shows that the visitable toilets have pans with 900mm x 900mm clear area in front of the pan. This unobstructed circulation area in front of the toilet pan is suitable for people with ambulant disability in accordance with AS1428.1-2009.

Based on this premise, the 900mm x 900mm area has been applied to all units. Of the 535 units, there are 335 units that have a visitable pan. This represents 62% of all units that are visitable.

As an enhanced provision, the client has decided to provide common use accessible toilets on level 1 of Tower 1 and Tower 2. It is noted that this accessible toilet provision is not required under BCA and DDA Premises Standards but has been provided for the use of visitors in wheelchairs.

There is a continuous accessible path of travel from all lift lobbies to the common use accessible toilet facilities.

Recommendation:

(i) Provide an additional 93 visitable units, in particular the visitable bathroom should not have the door swinging into 900mm x 900mm clear area in front of the pan. This can be achieved during design development stage.

6. COMMON USE FACILITIES

6.1. Level 1 Sanitary Facilities

There are public toilets located on the ground floor of Tower 1 near the retail arcade. There is an accessible toilet adjacent the male and female toilets. The accessible toilet has internal dimensions that will allow pan and basin circulation areas in accordance with AS1428.1. The female toilets has an ambulant cubicle as required under DDA Premises Standards.

There are accessible toilets within the entry lobbies of Tower 1 and Tower 2. The accessible toilets have internal dimensions that will allow pan and basin circulation areas in accordance with AS1428.1.

Recommendations:

(i) Accessible toilet fixtures and ambulant cubicles to comply with AS1428.1

(ii) Provide a male ambulant cubicle

(iii) Male and female toilet airlocks to be enlarged to comply with AS1428.1.

6.2. Commercial Sanitary Facilities

There are male female and adjacent accessible toilets on commercial levels 2 - 4 of Tower 1. The accessible toilets have internal dimensions that will allow pan and basin circulation areas in accordance with AS1428.1.

There are male female and adjacent accessible toilet on childcare level 2 of Tower 2. The accessible toilet has internal dimensions that will allow pan and basin circulation areas in accordance with AS1428.1.

Recommendations:

(i) Accessible toilet fixtures and ambulant cubicles to comply with AS1428.1

(ii) Provide an ambulant cubicle within all banks of male and female toilets

(iii) Male and female toilet airlocks to be enlarged to comply with AS1428.1.

6.3. Tower 1 Level 14 Amenities

The drawings show a pool within the gymnasium with a perimeter of 35m. Under DDA Premises Standards Table D3.1, access will be required to and within this pool.

There are male and female change rooms with an accessible toilet within each. This arrangement will need to be modified.

Recommendations:

(i) Provide a unisex accessible toilet/shower in accordance with AS1428.1.

(ii) Provide access to and within the pool in accordance with Table D3.1 of the DDA Premises Standards.

6.4. Garbage Areas

All residential floors have garbage rooms

Recommendation:

(i) Ensure garbage rooms comply with AS1428.1. This includes appropriate door circulation compliant with AS1428.1.

6.5. Mailbox Areas

Currently the drawings show that residential mail rooms are located on level 1 of Tower 1 and level 1 of Tower 2.

Recommendation:

(i) Entry door to mailroom requires 850mm clear width with 530mm latch side clearance.

6.6. Residential Storage

Resident storage facilities are provided within the basement levels of the development.

In general there is an accessible path of travel from the passenger lifts to the resident's storages in the basement levels.

Ensure sufficient wheelchair circulation areas are provided between the storage units.

Recommendation:

(i) Ensure the residential storages allocated to adaptable units are in locations that have an accessible path of travel from the passenger lift.

7. CAR PARKING

7.1. General

There is commercial, child care, retail, resident and visitor parking located on basement levels B1 through to B6. Passenger lift access has been provided to all basement levels.

7.2. Accessible Car Parking - Residential

There is a total of 107 car parking bays allocated for the adaptable units. This sufficiently caters for the adaptable units provided in the design compliant with AS4299-1995 and Lane Cove DCP.

The adaptable unit car bays have 2.4 metre width and 2.4 metre wide shared zones in accordance with AS2890.6.

Recommendations:

(i) Ensure the location of the adaptable unit car bays are directly adjacent the relevant lift core leading to the adaptable unit.

(ii) Ensure all adaptable unit car bays have a minimum 2.5m vertical height clearance. The approach to all adaptable unit car bays shall have a vertical clearance of not less than 2.2m.

7.3. Accessible Car Parking – Commercial & Retail

Accessible car bays have been provided in quantities based on their use.

There are 43 car spaces allocated for commercial use that includes 4 accessible car bays

There are 13 car spaces allocated for childcare that includes 1 accessible car bay.

There are 96 car spaces allocated for retail that includes 2 accessible car bays.

The provision of accessible car bays based on the total car bays provided for each use complies with the requirements for accessible parking in DDA Premises Standards Table D3.5.

The accessible car parking bays are 2500mm wide x 5400mm long with adjacent 2500mm wide x 5400mm long shared zones compliant with AS2890.6.

Recommendation:

(i) Ensure all accessible car bays and adjacent shared zones have a minimum 2.5m vertical height clearance. The approach to all accessible car bays shall have a vertical clearance of not less than 2.2m.

8. MISCELLANEOUS

8.1. Lighting

Recommendation:

(i) In general the maintenance illumination levels should be 150 lux for paths of travel, corridors and stairs. Ensure all lighting levels comply with AS1680

8.2. Signage

Recommendation:

(i) Signage to comply with BCA part D3.6.