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DISABILITY ACCESS REPORT

Eleebana Shores
Proposed Seniors Living Retirement Village Development
40 + 48 Burton Road
MOUNT HUTTON NSW

For:
CLIENT

Our ref:
Hallidays Shores Retirement Village Pty Ltd
c/- Coastplan Consulting



1. Introduction

This Access Report considers Eleebana Shores, a proposed seniors living retirement village development located at 40 + 48 Burton Road Mount Hutton, against the requirements of the Building Code of Australia (BCA) and The Disability Discrimination Act 1992 (DDA), with regard to access for persons with a disability.

There is a mix of accommodation styles within the proposed development all of which are self-contained. Sixty-one dwellings are provided in eight configurations plus forty apartment. At the rear of the site, a Rec Centre is provided which forms the community facilities for the development. A series of pathways and raised boardwalks provides access throughout the site, linking all facilities.

Documentation prepared by EJE Architecture has been reviewed as follows:

- 9861 A101 A Proposed Site Plan
- 9861 A500 A Dwelling Type A "Arcadia"
- 9861 A501 A Dwelling Type B "Balcolyn"
- 9861 A502 A Dwelling Type C "Balmoral"
- 9861 A503 A Dwelling Type D "Jewells"
- 9861 A504 A Dwelling Type E "Marmong"
- 9861 A506 A Dwelling Type F "Myuna"
- 9861 A507 A Dwelling Type G1 "Valentine"
- 9861 A508 A Dwelling Type G2 "Valentine"

- 9861 A600 A Dwelling Type H "Burwood" – Typical Apartment Block Ground Floor
- 9861 A601 A Dwelling Type H "Burwood" – Typical Apartment Block First Floor
- 9861 A602 A Dwelling Type H "Burwood" – Typical Apartment Block Basement Floor
- 9861 A604 A Dwelling Type H "Burwood" – Typical Apartment Block Elevations

- 9861 A700 A Rec Centre Ground Floor Plan
- 9861 A701 A Rec Centre Elevations
- 9861 A702 A Rec Centre Section

It is estimated that one in five people in Australia have a long-term disability (Australian Bureau of Statistics – 2003). This includes physical disability, intellectual disability, and sensory impairments such as vision and hearing. It does not include those with a short-term (temporary) disability or the continuing aging population.

Lindsay Perry Access + Architecture have adopted a best practice, performance based approach to access. Assessment is based on project specifics and takes into account various factors such as site topography, heritage and existing site conditions.



2. Legislation

The requirements of BCA 2013 have been adopted in the preparation of this access report. There is a State Environmental Planning Policy applicable to this development which is also discussed throughout the report.

Access assessment has been made against Access Legislation including:

- The Commonwealth Disability Discrimination Act 1992 (DDA)
- Disability Standards for Access to Premises (Buildings)
- Access Code for Buildings 2011
- The Building Code of Australia 2013 (BCA) Section D3 – Access for People with Disabilities
- Australian Standards AS1428.1(2009) Amendment 1, AS1428.2(1992), AS1428.4(2009) – Design for Access and Mobility
- Australian Standard AS2890.6 (2009) – Parking Facilities – Off street carparking For People With Disabilities.
- Australian Standard AS4299 – Adaptable Housing
- Australian Standard AS1735.12 – Lifts, escalators and moving walks: Lifts for persons with a disability
- State Environmental Planning Policy – Housing for Seniors and Persons with a Disability 2004 (SEPP), Current Amendment – 6 March 2009.

The accessibility of the proposed development has been considered in regard to the relevant access legislation. A summary of the requirements of relevant legislation follows.

- The **DDA** requires independent, equitable, dignified access to all parts of the building for all building users regardless of disability. The DDA makes it unlawful to discriminate against a person on the grounds of disability. The DDA is a complaint based law and is administered by the Human Rights and Equal Opportunities Commission.

The **DDA Premises Standards** include an **Access Code** written in the same style as the Building Code of Australia. That is, the Access Code has a number of Performance Requirements that are expressed in broad terms and references to a number of technical Deemed-to-Satisfy Provisions. The Deemed-to-Satisfy provisions refer in many cases to technical details in Australian Standards such as AS1428.1, which is the primary Australian Standard relating to building access for people with a disability.

- **BCA 2013** for **Class 2** buildings (apartments), requires that common areas of the building be accessible from at least one floor of sole occupancy units and to the entrance doorway of each sole occupancy located at that level. It also requires access to and within not less than each type of room or space for use in the common areas of the development.

The commercial areas are considered Class 5 under the BCA. Access for people with disabilities to and within areas usually used by the occupants.

- The **BCA 2013** for **Class 9b** buildings (rec centre) requires access for people with disabilities to and within all areas usually used by the occupants.
- The **BCA 2013** for **Class 4** buildings (manager's residence) has no specific requirements for access for persons with a disability.



- **SEPP Housing for Seniors and People with a Disability** encourages the provision of housing for seniors and persons with a disability. It accommodates the requirements of AS1428, AS4299 and AS2890.1.
- **AS1428 – Design for Access and Mobility** requires the inclusion of a continuous accessible path of travel from the street footpaths and carparking areas to the entry and facilities within the building. It also includes requirements for doorways, stairs, toilets, etc.

Part 1 (2009) of this standard contains access requirements that are mandatory for the provision of access for persons with a disability and is referred by the BCA. Amendment 1 of this document was released in 2010.

Part 2 (1992) provides enhanced and best practice requirements. While AS1428.2 is not mandatory, the inclusion of its requirements such as accessible reception counters reduce the risk of a complaint made under the DDA. AS1428.2 is referenced by the Human Rights and Equal Opportunities Commission Advisory Notes for Access to Premises that accompanies the DDA.

Part 3 (1992) – Requirements for Children and Adolescents with Physical Disabilities is applicable to purpose built developments and therefore has not been considered within this development.

Requirements for tactile indicators are included in Part 4 (2009) of this standard.

Part 5 (2010) provides requirements for Communication for people who are deaf or hearing impaired.

- **AS4299 – Adaptable Housing** provides housing for different community groups with different needs. It involves a move away from special accommodation for persons with a disability, avoiding social dislocation.
- **AS2890.6** applies to the carparking areas generally.
- **AS1735.12** contains requirements for passenger lifts for persons with a disability.



3. Access and Approach

The approach to the building needs to be considered when considering access for persons with a disability. The BCA has three requirements for the approach to the building for persons with a disability. SEPP also has requirements with regard to the approach to the development.

For BCA compliance, an accessible path of travel is required to the building entrance from the allotment boundary at the main points of pedestrian entry, from accessible carparking areas and from any adjacent and associated accessible building.

3.1 Approach from Street Boundary at Driveway

The BCA requires that a continuous accessible path of travel be provided from the allotment boundary at the main points of pedestrian entry to the main entrance.

The pedestrian areas on the site have been developed to provide an accessible link to the site entrance along Burton Road, achieving compliance with the BCA for the approach from the allotment boundary.

3.2 Approach from Accessible Carparking

Accessible visitor carparking is equitably distributed throughout the site. The pedestrian network offers an accessible link to all dwellings and facilities on the site, achieving compliance with the BCA for approach from accessible carparking areas.

3.3 Approach between Buildings

A series of pathways and raised boardwalks have been provided to link all buildings on the site. Accessible ramps and walkways have been implemented in the design of the pedestrian areas to ensure accessible links to all facilities, achieving compliance with the BCA for approach between buildings.

3.4 Pathways Generally

A series of pathways and raised boardwalks have been provided throughout the site to facilitate an accessible link between buildings on the site.

For compliance with AS1428.1, the following access requirements apply and should be implemented during preparation of the construction certificate documentation. We confirm that the pedestrian areas appear to be conducive to the provision of access for persons with a disability.

- a. The minimum unobstructed width of all pathways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1240mm is preferred for compliance with AS1428.2.
Site plan indicates adequate width for all pathways.
- b. All pathways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, or 5mm for bevelling edges).
- c. The maximum allowable crossfall of pathways is to be 1:40.
- d. The ground abutting the sides of the pathways should follow the grade of the pathway and extend horizontally for 600mm. We note that this is not required where there is a kerb or handrail provided to the side of the pathway.



- e. Pathways to have passing bays complying with AS1428.1 at maximum 20m intervals where a direct line of site is not available. They are required within 2m of the end of the pathway where it is not possible to continue travelling along the pathway.

A passing space shall have a minimum width of 1800 for a minimum length of 2000mm. Refer to AS1428.1, Clause 6.4.

We note that pathways intersect with driveways to dwellings which provide adequate spaces for passing bays.

3.5 Visitor Carparking

Visitor carparking is provided centrally within the development. An accessible space is provided at each bank of visitor parking, including the Rec Centre for BCA compliance.

Access requirements for the accessible carparking are as follows and should be addressed during preparation of the construction certificate documentation.

- a. Accessible carparking to be a minimum of 2400mm wide with a shared area to one side of the space 2400mm wide. Circulation space can be shared between adjacent accessible carparks. For a single space, a total width of 4800mm is required.
General configuration of the spaces meets this requirement.
- b. Provide a bollard to the shared circulation space as illustrated in AS2890.6, Figure 2.2.
- c. The maximum allowable crossfall of accessible carparking area to be, 1:33 (for outdoor spaces). This crossfall applies both parallel and perpendicular to the angle of parking.
- d. For covered carparking, the clear height of the accessible carparking space to be 2500mm as illustrated in AS2890.6, Figure 2.7.
- e. Designated accessible carparking is to be identified using the International Symbol for Access (ISA) –ground and vertical signage is required. Signage is to comply with AS1428.1.

3.6 Kerb Ramps

If / where kerb ramps are provided to pedestrian areas within the accessible path of travel, the configuration of kerb ramps is to be in accordance with AS1428.

The following access requirements apply to kerb ramps and should be addressed during preparation of the construction certificate documentation.

- a. Kerb ramps to comply with AS1428(2009) Amendment 1, Clause 10.7
- b. Maximum gradient of the kerb ramps to be 1:8 and maximum length to be 1520mm (providing a maximum height of 190mm).
- c. Kerb ramps to have a non-slip surface as required by AS1428.
- d. A tooled joint should be provided between parts of the kerb ramp to assist persons with a vision impairment with orientation.



3.7 Accessible Ramp

We have been advised that accessible ramps will be provided throughout the site, particularly for access to the raised boardwalk areas. An accessible ramp also provides the accessible path of travel to the Rec Centre. The following access requirements for accessible ramps should be addressed during preparation of the construction certificate documentation to ensure compliance.

- a. Ramps to comply with AS1428.1, Clause 10.3. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm and maximum length between landings to be 9m (for 1:14 gradient).
- b. Accessible ramps to have a maximum rise of 3.6m (BCA Clause 3.11).
- c. Ramps are required to be set back a minimum 900mm from the property boundary (AS1428.1, Clause 10.3 (f)). This allows tactile indicators and handrail extensions to occur within the boundary and not protrude into the footpath area.
- d. Provide handrails, with extensions, to both sides of the ramp to comply with AS1428.1, Clause 12. Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails are required on both sides of the ramp to cater for left and right handed disabilities.
- e. Where ramp is not enclosed, provide kerb rails in accordance with AS1428.1. The height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.
- f. Provide tactile indicators at the top and bottom of the ramps to comply with BCA Clause D3.8 and AS1428.4. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the ramps to be 600-800mm deep across the width of the ramp and set back 300mm from the edge of the ramp (refer AS1428.4, Figure A1).

Tactile indicators will be required at the mid landing where the stair intersects as the handrail is not continuous at this point. Where handrail is continuous along both sides of the landing, tactile indicators are not required.

3.8 Stairs

Where stairs are provided within pedestrian areas such as the entrance of the Rec Centre, AS1428.1 has access requirements for all public access stairs which is applicable. Access requirements for stairs are as follows and should be implemented during preparation of the construction certificate documentation to ensure compliance.

- a. Stairs to comply with AS1428.1(2009), Clause 11.2.
- b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open riser.



- c. Provide handrails, with extensions, to both sides of the stair (AS1428.1 (2009), Clause 11.2). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis.

Handrails are required on both sides of the stair to cater for left and right handed disabilities. A central handrail is also an acceptable solution where adequate width is available.

- d. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.
- e. Stair nosings shall not project beyond the face of the riser.
- f. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D3.8 and AS1428.4.

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair.

3.9 Walkways

Where walkways are implemented as a part of the accessible path of travel throughout the site, for compliance with AS1428.1 the following access requirements apply to the pedestrian areas and should be implemented in the preparation of the construction certificate documentation.

- a. The minimum unobstructed width of all pathways and walkways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.
- b. All pathways and walkways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, 5mm for bevelled edges - refer to Figure 6 of AS1428.1).
- c. The maximum allowable crossfall of pathways and walkways is to be 1:40.
- d. Surface of the accessible path of travel to be slip-resistant.
- e. The ground abutting the sides of the pathways and walkways should follow the grade of the pathway and extend horizontally for 600mm. This is not required where there is a kerb or handrail provided to the side of the pathway (refer to AS1428.1 Clause 10.2).
- f. Maximum allowable gradient of the walkway is 1:20 and maximum length between landings to be 15m (for 1:20 gradient). Landings to be a minimum 1200mm in length (where there is no change in direction). For changes in direction of 180°, landings to be 1540mm in length - refer to AS1428.1(2009), Clause 10.8.



3.10 Pedestrian Crossings

Marked pedestrian crossings are indicated throughout the site.

We have been advised that they are level with the roadways – and pathways – which are essentially a shared pedestrian / vehicular zone. Pedestrian crossing areas will not be marked as such but rather have a change in paving to indicate an appropriate place to cross.

In this type of development where vehicular traffic is minimal and essentially residents only, we consider this approach to be valid. The crossing areas are not obscured from motorists' vision and being a shared zone, drivers would be on high alert for pedestrians.

Given this, we do not see a requirement for tactile indicators given the residential nature of the development.



4. SEPP – Siting Requirements

The proposed development has been designed to reflect the requirements of the SEPP and the Australian Standards nominated in this document including AS1428 and AS4299. This development contains self contained dwellings. Therefore, the requirements of SEPP Clause 26: Location and Access to Facilities, Clause 38: Accessibility are relevant.

4.1 SEPP Clause 26

Location & Access to Facilities

A SEPP development must offer access to services such as shops, banks, retail services, commercial services, recreational facilities, community facilities and doctors. These facilities are to be located within 400m of the site via a pathway that provides an accessible path of travel.

For development outside the Sydney Statistical Division, these services can be located at a distance greater than 400m from the site if there is a transport service available. The transport service is required to take residents to a place that is located at a distance of not more than 400m from the relevant facilities or services and is to be available to and from the proposed development during daylight hours at least once each day from Monday to Friday.

Newcastle Buses route 310 runs along Burton Road. Buses run regularly throughout the day (approximately hourly). This bus route provides access between Belmont and Newcastle via Charlestown Square. Each of these areas provides the facilities mentioned above. This information has been sourced from the Newcastle Buses Website.

Bus stops are available along Burton Road in close proximity to the site. Additionally, a bus shelter is proposed at the entrance to the site.

The proposed development meets the requirements of this clause being located within 400m of a transport service.



Location of the Site

The above aerial photograph shows the location of the site along Burton Road and its proximity to Bus Stops. (Google Earth 29 November 2013).



4.2 SEPP Clause 38 – Accessibility

A SEPP development should have obvious and safe pedestrian links from the site that provide access to public transport services or local facilities. A development should provide attractive, yet safe, environments for pedestrian and motorists with convenient access and parking for residents and visitors.

The proposed development meets the requirements of this Clause being located within 400m of a public transport service.

It offers a safe environment for pedestrians via the accessible pathway network on the site.

Carparking is provided for residents attached to the dwellings with visitor carparking equitably distributed throughout the site.



5. SEPP – Schedule 3 Standards Concerning Accessibility & Usability for Self Contained Dwellings

The dwellings within the proposed development have been considered against SEPP-Housing for Seniors and People with Disabilities (SEPP) and the Australian Standards nominated in this document including AS1428 and AS4299.

Part 1: Self contained dwellings - standards concerning access and usability (Clauses 1 – 21) is applicable in this instance.

A "self contained dwelling" is defined as a dwelling or part of a building (other than a hostel), whether attached to another dwelling or not, housing seniors or people with a disability, where private facilities for significant cooking, sleeping and washing are included in the dwelling or part of the building, but where clothes washing facilities or other facilities for use in connection with the dwelling or part of the building may be provided on a shared basis.

There are 8 dwelling types on the site plus the apartments. They are provided as two bedroom dwellings, some of which are provided with a study. All dwellings have associated carparking.

5.1 SEPP Schedule 3, Clause 2 – Siting Standards

This Clause contains 3 parts regarding siting standards as follows.

- (1) wheelchair access
- (2) applies to sites where the whole site does not have a gradient of less than 1:10.
- (3) common areas

Of these parts, Clause (1) and (3) are applicable to this development.

Siting standards for this development are as follows:

(1) Wheelchair Access

Where the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous path of travel within the meaning of AS1428 to an adjoining public road.

All of the dwellings on the site are accessible to persons with a disability given the overall gradients shown on the site plan. Each dwelling has direct access to the driveway area. An accessible path of travel by way of the pedestrian network – a series of pathways and raised boardwalks – is provided for access to the street footpath along Burton Road.



5.2 SEPP Clause 3 – Security

Pathway lighting is to be designed and located to avoid glare for pedestrians and adjacent dwellings. Lighting to be minimum 20 lux at ground level.

The requirement for pathway lighting should be implemented during preparation of the construction certificate documentation.

5.3 SEPP Clause 4 – Letterboxes

Letterboxes are required to be lockable, in a central location and be accessible to persons using a wheelchair via an accessible path of travel.

Letterboxes are provided at the entrance to the site.

An accessible path of travel is provided from the letterboxes to the entrance of the dwellings via the pathway / boardwalk network discussed in Section 3 of this report.

Letterboxes should be provided within the accessible height range of 900-1100mm above ground level to assist persons using a wheelchair / scooter.

5.4 SEPP Clause 5 – Private Car Accommodation

The SEPP states that:

If car parking (not being for employees) is provided,

Carparking spaces must comply with the requirements for parking for persons with a disability set out in AS2890.

and

5% of the total number of car parking spaces must be designed to enable the width of the spaces to be increased to 3.8m,

and

Any garage must have a power operated door.

We note that the requirement for 5% of spaces to be increased to 3.8m has been superseded by the release of AS2890.6 in 2009.

For the **Dwelling Types A, B, C, D and G**, double garages are provided which achieve compliance with both the SEPP and AS2890.6.

For dwelling types **E and F**, single garages are provided with a width of 3.0 and 3.2 respectively. The width of these garages does not meet the requirements of AS2890.1(1993) which requires 3.8m minimum for an enclosed garage.

Further, they do not meet the requirements of AS2890.6(2009) which requires 4.8m width for a single garage. In this regard, we advise that the requirement for a 4.8m wide garage is considered extreme in a residential context. This standard was developed to reflect a standard carparking layout within a commercial context where the accessible spaces fit easily into a standard carparking module. Therefore, we consider that the requirements of AS4299 – Adaptable Housing adequate within the



residential context . This standard requires a minimum width of 3.8m to carparking spaces, in keeping with the requirements of the SEPP.

In this instance, where garages do not meet the minimum width requirements, a carparking space with a minimum width of 3.8m has been provided within the driveway area of Dwelling Type E and F for compliance with the SEPP. This is considered a reasonable solution as this precedent has been set by surrounding development of a similar nature.

For Dwelling **Type H** (apartments) carparking arrangement meets the requirements of AS2890.6 and therefore is compliant.

We consider that the requirements of the SEPP have been met with regard to private car accommodation.

5.5 SEPP Clause 6 – Accessible Entry

Every entrance to each residence, whether it be the front entry or not, must comply with Clauses 4.3.1 and 4.3.2 of AS4299. Clauses 4.3.1 and 4.3.2 of AS4299 require the entry door to comply with AS1428.2 – the minimum clear opening width of the doorway is to be 850mm and allow for wheelchair maneuverability (provide minimum 1550mm long area in front of the doorway).

Door hardware is to comply with AS1428. In this regard, entry door hardware is to be in the accessible height range of 900-1100mm above finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

Dwelling Types A, B, C, D, E, F, G and H are provided with an accessible entrance within the meaning of the SEPP.

Door leaf sizes of 920mm should be used which will achieve clear width of 850mm

The requirement for door hardware should be implemented during construction.

5.6 SEPP Clause 7 – Interior

Widths of internal corridors and circulation at internal doorways must comply with AS1428.1.

In this regard, we note that the doorway to the main bathroom in **Dwelling Types D, B, G1 and G2** have inadequate latch side circulation areas for compliance. However, as the ensuites within each of these dwellings offers the accessible bathroom area, we consider these doorways to be outside of the accessible path of travel and therefore not subject to circulation requirements.

5.7 SEPP Clause 8 – Main Bedroom

At least one bedroom is required to have adequate space for a wardrobe and a queen size bed with minimum 1200mm wide circulation at the foot of the bed, 1000mm between the bed and wall / wardrobe or any other obstruction. There are also requirements for locations of GPOs and telephone outlets and illumination levels.

The main bedroom within each dwelling type offers adequate circulation area.

Additional requirements listed above to be implemented during construction.



5.8 SEPP Clause 9 – Bathroom

At least one bathroom must be located on the entry level and have an area that complies with AS1428, slip resistant floor, shower minimum 1100x1160mm with future provision for accessible features, washbasin capable of adaption to comply with AS4299 and a wall cabinet with illumination levels as described.

The main bathroom within **Dwelling Types A, B, C, E, F and H** provide an area that offers compliance with AS1428.

The ensuites in **Dwelling Types D, B, G1 and G2** provide an area that offers compliance with AS1428.

Therefore, each dwelling is provided with an area compliant with AS1428.

We note that the SEPP allows for future adaption of bathroom areas that reflect the individual needs of the residents.

5.9 SEPP Clause 10 – Toilet

A self contained residence is required to have a toilet on the ground (or main) floor that complies with the requirements for sanitary facilities of AS4299. That is, a visitable toilet.

The toilet within the accessible bathroom / ensuite of each dwelling type meets the requirements of AS4299.

5.10 SEPP Clause 11 – Surface Finishes

Balconies and external paved areas must have slip resistant surfaces

The requirement for surface finishes should be implemented during preparation of the construction certificate documentation.

5.11 SEPP Clause 12 – Door Hardware

Door handles and hardware for all doors must be provided in accordance with AS4299.

Door hardware is to be operable with one hand and in the height range of 900-1100mm above the floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

The requirement for door hardware should be implemented during preparation of the construction certificate documentation.

5.12 SEPP Clause 13 – Ancillary Items

Switches such as light switches must be located within the accessible height range of 900-1100mm above the floor level as required by AS4299.

The requirement for ancillary items should be implemented during preparation of the construction certificate documentation.



5.13 SEPP Clause 15 – Living and Dining Room

Living areas within each residence are required to have circulation areas in accordance with AS4299, Clause 4.7. In this regard, an area with 2250mm diameter is required, clear of furniture.

A telephone outlet adjacent to a general power outlet and illumination level of 300 lux is also a requirement for living areas.

The open plan arrangement of living / dining areas within each of the dwelling types provides sufficient area to satisfy SEPP requirements for circulation spaces within living and dining rooms.

The requirement for telephone outlet, general purpose outlet and lux levels should be implemented during construction.

5.14 SEPP Clause 16 – Kitchen

A kitchen in a self contained dwelling must have:

Circulation space in accordance with AS4299, Clause 4.5.2

A width at door approaches complying with Clause 7 of this schedule

Fittings and fittings in accordance with the relevant sub clauses of AS4299, Clause 4.5.

Kitchens within each dwelling have adequate width to accommodate 1550 mm clear between surfaces.

Additional requirements for kitchens as listed above, should be implemented during construction.

5.15 SEPP Clause 17 – Access to kitchen, main bedroom, bathroom and toilet

In multi-storey residences, the kitchen, main bedroom, bathroom and toilet must be located on the entry level.

Each dwelling type achieves compliance with this clause. All dwellings are over a single level.

5.16 SEPP Clause 18 – Lifts in multi-storey developments

In a multi storey building containing self-contained dwellings, lift access must be provided to dwellings above the ground level by way of a lift complying with Clause E3.6 of the BCA.

Lifts within the Apartment Blocks are capable of offering compliance – refer to Section 6 for details



5.17 SEPP Clause 19 – Laundry

A self contained dwelling must have a laundry that has:

A width at door approaches that complies with Clause 7 of this schedule.

Provision for the installation of an automatic washing machine and a clothes dryer.

A clear space in front of appliances of at least 1300mm

Slip resistant floor

An accessible path of travel to any clothes line.

Laundries for all dwelling types provided with adequate circulation.

Requirements such as floor finish and access to clothes lines to be implemented during construction.

5.18 SEPP Clause 20 – Storage

A self contained dwelling must be provided with a linen cupboard in accordance with AS4299, Clause 4,1,1,5. It should be at least 600mm wide that have adjustable shelving.

Linen cupboards are provided in each of the dwelling types that meet the size requirements listed above.

The requirement for adjustable shelving is to be implemented during construction.

5.19 SEPP Clause 21 – Garbage

A garbage storage area must be provided in an accessible location.

For **Dwelling Types A, B, C, D, E, F and G**, garbage bin storage is indicated within courtyard areas, which is an accessible location, and a kerbside collection service is assumed.

For **Dwelling Type H** (apartments) the bin store is provided in the basement adjacent to the lift. It is in an accessible location.

Therefore, the garbage collection services on the site meet the requirements of the SEPP.



6. Vertical Circulation – Apartments

A lift and stairs provide the main access between levels of the apartment buildings. One lift and two sets of stairs are provided.

6.1 Lifts

A lift is provided for access between levels. The size of the lifts appear to satisfy the requirements of AS1735.12. The following access requirements apply to the lifts.

The following requirements are for disabled access only and do not include requirements for stretchers.

- a. Lift is to comply with AS1735.12 and be fully automatic as required by the BCA, Clause E3.6.
- b. Minimum internal dimensions of the lift car to be 1400mm wide x 1600mm deep BCA 2012, Clause E3.6
- c. Clear opening of the lift door to be minimum 900mm.
- d. Provide a handrail complying with the provisions for a mandatory handrail in AS1735.12.
- e. All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.
- f. Auditory / voice cues are to be provided within the lift car to assist persons with a vision impairment.
- g. Series of door opening devices that will detect a 75mm diameter rod across the door opening between 50 mm and 1550mm above the floor level.
- h. Emergency hands-free communication, including a button that alerts a call centre of a problem, a light to signal that the call has been received by the call centre and a light indicating assistance is being dispatched.

6.2 Stairs

Stairs are provided in two locations within the breezeway in addition to the lift to facilitate access between levels of the apartment buildings. AS1428.1 has access requirements for all public access stairs.

As the apartment buildings are of a residential nature, we consider that the requirements of AS1428.1 for stairs should be implemented with the exception of the requirement for tactile indicators.

Tactile indicators are not recommended for aged care buildings. This is due to issues surrounding the way in which elderly persons shuffle their feet and also the higher incidence of the use of mobility aids such as walking frames. As this development is for seniors living and of a residential nature, we recommend that tactile indicators not be installed within strictly residential areas such as the apartment blocks.

Therefore, access requirements for stairs within the apartment blocks are as follows and should be implemented during preparation of the construction certificate documentation to ensure compliance.



- a. Stair construction to comply with AS1428.1, Clause 11.1.
- b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open risers.
- c. Where the stair intersects with an internal corridor, the stair shall be set back in accordance with AS2418.1 Figure 26C/D to allow adequate space for handrail extensions and tactile indicators.
- d. Provide handrails, with extensions, to both sides of the stair (AS1428.1, Clause 11.2). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails should be continuous around the landings where possible.

Handrails are required on both sides of the stair to cater for left and right handed disabilities. A central handrail is also an acceptable solution where adequate width is available.

- e. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.
- f. Stair nosings shall not project beyond the face of the riser.

6.3 Fire Egress for Persons with a Disability

The Access Code for Buildings states that in the event of an emergency, provision must be made for people with vision impairment to locate the exit path (Clause H2.14).

We also recommend that as a part of the emergency evacuation plan for the building, egress for persons requiring assistance be addressed. The provision of places of comparative safety within fire isolated passages would be advantageous to persons with a disability. This consists of a waiting area large enough to accommodate a wheelchair where persons can wait for assistance from emergency services. The waiting area should be identified with appropriate signage that incorporates the International Symbol for Access.



7. Rec Centre

A Recreation Centre is provided at the rear of the site and constitutes the community facilities for the development. It includes lounge areas, meeting rooms, consulting rooms and a pool.

Issues concerning the approach to the building such as pathways, ramp, stairs and carparking have been addressed in Section 3 of this report.

An accessible path of travel has been provided to the entrance of the building from the residential and carparking areas.

A manager's residence is provided at the upper level of the building. This area is not subject to access issues being a Class 4 part of the building.

7.1 Entrance

Double swinging doors provide entrance to the Rec Centre. Access requirements for entrance doors are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

- a. Entrance to comply with AS1428.1(2009), Clause 13 as part of the accessible path of travel.
- b. Door are to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel. This clearance is required for at least one door to allow for single door operation.
- c. Door threshold to be level to provide seamless entry as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces.
- d. Door to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5)
- e. For glass doors, provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid. AS1428.1, Clause 6.6.

7.2 Reception Counter

A reception counter is provided within the entry foyer to the Rec Centre.

Access requirements for service counters are contained in AS1428.2. AS1428.2 provides enhanced requirements for accessibility **but is not mandatory**. Compliance with this clause will offer protection from a complaint made under the DDA but is not required by the BCA.

Access requirements for the accessible reception counter, if provided, are as follows.

- a. Accessible counters to comply with AS1428.2, Clause 24.1. Height of the counter is to be between 750mm(± 20) and 850mm (± 20) above the finished floor level and have foot and knee clearance under the counter as outlines in Figure 25. The minimum width of the accessible counter and clearance below is 900mm.



7.3 Hearing Augmentation at Service Counters

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems at service counters **where the user is screened from the service provider**. We note that this may not be relevant to this project.

Requirements for hearing augmentation are now contained in AS1428.5: Communication for People who are deaf or Hearing impaired. This standard will not be referenced by BCA 2011. However, we recommend that the requirements of AS1428.5 be adopted in the provision of hearing augmentation.

- a. Hearing augmentation at service counters to comply with AS1428.5, Clause 3.4 which recommend that provision of an assisted listening system (ALS). Specifications for the ALS are provided in AS1428.5, Clause 4.3.
- b. The hearing augmentation system is to be identified using the International Symbol for Deafness – refer to AS1428.5, Clause 5.1 – and displayed at the reception counters.

7.4 Hearing Augmentation

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems within auditoriums, meeting rooms and the like **where an inbuilt amplification system, other than the one used for emergency warning is installed**. An induction loop to at least 80% of the floor area is required.

Requirements for hearing augmentation are now contained in AS1428.5: Communication for People who are deaf or Hearing impaired. This standard will not be referenced by BCA 2012. However, we recommend that the requirements of AS1428.5 be adopted in the provision of hearing augmentation within the building.

7.5 Doorways Generally

AS1428 has requirements for doorways within the accessible path of travel. Access requirements for doorways within the accessible path of travel are as follows.

- a. Doorways within the accessible path of travel to have a minimum clear opening width of 850mm (AS1428.1(2009), Clause 13.2). We recommend the use of a 920 leaf door as a minimum to achieve adequate clear width.
- b. All doorways within the accessible path of travel to have complying circulation areas as illustrated in AS1428.1(2009), Figure 31. Circulation areas to have a maximum crossfall of 1:40.
Doorways are provided with adequate circulation areas to achieve compliance.
- c. For doorways to outdoor areas, a level threshold is required to facilitate an accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces.
- d. Doorways to have minimum 30% luminance contrast as described in AS1428.1(2009), Clause 13.1.
- e. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5)



7.6 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for bevelled edges) as part of the accessible path of travel. Refer to AS1428.1(2009), Clause 7.2 for further details. This should be implemented during construction to ensure compliance.

7.7 Carpet

AS1428.1 has access requirements for carpet. Where **new** carpet is used as the floor surface, pile height should not exceed 4mm. Exposed edges will be fastened to the floor surface. Carpet trims shall have a vertical face not more than 3mm high.

7.8 Controls

New controls such as light switches, GPOs, alarm keypads, card swipes, intercoms, etc are to be located within the accessible height range of 900-1100mm above the floor level to comply with AS1428.1(2009), Clause 14. This should be implemented during construction to ensure compliance.

7.9 Unisex Accessible Toilets

The BCA requires the provision of a unisex accessible toilet at each level. Where more than one bank of toilets is provided at any level, at least 50% of those banks will have an accessible toilet facility.

A unisex accessible toilet facility is provided adjacent to male and female toilets.

An accessible change room including toilet and shower is provided within the pool area.

Access requirements for the accessible toilet facilities are as follows and should be implemented during preparation of the construction certificate documentation. For compliance with AS1428.1(2009), the minimum room dimensions of the accessible toilet are to be 1900x2300mm plus additional area for the handbasin. These are **CLEAR** dimensions. Provision for wall linings needs to be considered.

- a. Accessible toilet facilities to be unisex facilities for compliance with the BCA.
- b. Unisex accessible facilities to comply with AS1428.1(2009), Clause 15 including set-out of fittings and fixtures, circulation areas and doorways.

Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.

A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).

For the basin, a minimum dimension of 425mm is required from the centreline of the basin to the side wall and height of basin to be between 800 and 830mm.

Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.

- c. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.



- d. Toilet seat shall be of the full round type, be securely fixed in position when in use and have fixings that create lateral stability. They should be load rated to 150kg, have a minimum 30% luminance contrast to the background colour (eg pan, wall or floor) and remain in the upright position when fully raised.
- e. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.
- f. Accessible toilet to be identified using the International Symbol for Access. Pictograms / lettering to have a minimum 30% luminance contrast to the background colour. Signage is to comply with AS1428.1, Clause 8 and include information in tactile and Braille formats (as required by the BCA).
- g. Doorways to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility – for details refer to AS1428.1, Figure 31.
- h. Door hardware to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.
- i. Controls such as light switches within the accessible toilet facilities to be in the accessible height range of 900-1100mm above the finished floor level to comply with AS1428.1(2009), Clause 14. Controls should be located not less than 500mm to a corner.

7.10 Unisex Accessible Shower Facility

The BCA requires the provision of a unisex accessible shower where one or more showers are provided (1 accessible shower for every 10 or part thereof). An accessible shower is provided within the change room facility in the pool area.

Accessible showers are to comply with AS 1428.1, Clause 15.5 and include accessible features such as grabrails, adjustable height shower rose and fixtures within an accessible height range.

The minimum dimension of an accessible shower to be 1160 x 1000mm. A folding seat, at a height of 470mm is to be provided. All taps to be located within the height range of 900-1100mm above the finished floor level.

Circulation space in front of the shower is to be provided as illustrated in AS1428.1, Figure 47.

7.11 Cubicles for People with an Ambulant Disability (PAD)

At each bank of toilets where there is one or more toilets in addition to an unisex accessible sanitary compartment at the bank of toilets, a sanitary compartment suitable for a person with an ambulant disability (PAD) in accordance with AS1428.1 must be provided for use by males and females

PAD cubicles are indicated in male and female toilet areas offering BCA compliance.

Options for the configuration of the PAD cubicles are illustrated in AS1428.1, Figure 53.



The following should be implemented during preparation of the construction certificate documentation to ensure compliance.

- a. Provide a PAD cubicle within each bank of male and female toilets in compliance with AS1428.1, Clause 16.
- b. Minimum width of PAD cubicles to be 900-920mm.
- c. Provide grabrails to PAD cubicles to comply with AS1428.1, Clause 17 and Figure 53A.
- d. Doors to have a minimum opening width of 700mm and comply with AS1428.1, Figure 53B.

7.12 Access to Swimming Pool

The BCA requires access for persons with a disability to swimming pools with a total perimeter greater than 40m that are associated with as Class 1b, 2, 3, 5, 6, 7, 8, or 9 building that this required to be accessible (Table D3.1).

For pools required to be accessible by this clause, not less than one accessible entry / exit must be provided by means of a fixed or moveable ramp and an aquatic wheelchair; or a zero depth entry at a maximum gradient of 1:14; or a platform swimming pool lift; or a swing style swimming pool lift.

For pools with a perimeter greater than 70m, the use of a swing stile swimming pool lift is not permitted.

The pool within the Rec Centre has a perimeter of 34.2m. Therefore, by definition, no accessible entrance to the pool is required.

However, given the nature of the development a ramp has been provided for access to the pool. This should have a maximum gradient of 1:14 as per BCA requirements.



8. Summary

Drawings for Eleebana Shores, a proposed seniors living retirement village development located at 40 + 48 Burton Road Mount Hutton, have been reviewed against the requirements of the Building Code of Australia 2013 and The Disability Discrimination Act 1992 with regard to access for persons with a disability. The requirements of the Disability Standards for Access to Premises (Buildings), the Access Code for Buildings and SEPP Housing for Seniors and People with Disabilities have also been addressed.

We consider that the drawings presented for assessment generally comply with The Building Code of Australia 2013 and the intent of the Disability Discrimination Act 1992, subject to the recommendations made in this report being implemented during the construction process.

The following table summarises compliance issues.

Item No.	Description	Compliant		Comments
		Yes	No	
3.1	Street Boundary to Entrance	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.2	Carparking to Entrance	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.3	Link between Buildings	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.4	Pathways	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.5	Accessible Carparking	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.6	Kerb Ramps	•		Where provided, should meet recommendations made within this report.
3.7	Accessible Ramps	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.8	Stairs	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.9	Walkways	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
3.10	Pedestrian Crossings	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
4.1	SEPP Clause 26	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
4.2	SEPP Clause 38	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.1	Siting Standards	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.2	Security	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.3	Letterboxes	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.4	Private Car Accommodation	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.5	Accessible Entrance	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.



Item No.	Description	Compliant		Comments
		Yes	No	
5.6.	Interior	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.7	Main Bedroom	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.8	Bathroom	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.9	Toilet	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.10	Surface Finishes	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.11	Door Hardware	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.12	Ancillary Items	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.13	Living / Dining	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.14	Kitchen	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.15	Kitchen / Main Bedroom/ Bathroom...	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.16	Lifts	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.17	Laundry	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.18	Storage	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
5.19	Garbage	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
6.1	Lift	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
6.2	Stairs	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
6.3	Fire Egress	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.1	Entrance	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.2	Reception Counter	•		Not a mandatory requirement – best practice only.
7.3	Hearing Augmentation Reception Counter	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.4	Hearing Augmentation Generally	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.5	Doorways	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.6	Floor Finishes	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.7	Carpet	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.8	Controls	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.9	Accessible Toilets	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.



Item No.	Description	Compliant		Comments
		Yes	No	
7.10	Accessible Shower	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.11	PAD Cubicles	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.
7.12	Swimming Pool	•		Subject to recommendations being addressed during preparation of the construction certificate documentation.

Construction is to be in accordance with the recommendations made in this access report to ensure compliance. Where construction differs from the drawings, further assessment will be required to ascertain compliance.

This report is limited to items within drawings listed in this report only. Future alterations and additions to the building will render the recommendations in this report null and void as we cannot guarantee continued compliance where changes to the building fabric are made. A high level of maintenance is recommended to ensure continued compliance with access legislation.

All dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural. This needs to be considered in the preparation of the construction certificate documentation to account for wall linings and the like.

Best practice options, as noted in the report, are not mandatory but will minimise the risk of a complaint made under the DDA.

The recommendations throughout this report reflect the professional opinion and interpretation of Lindsay Perry. This may differ from that of other consultants. We aim to provide practical, performance based advice based on project specifics that will maximize access for persons with a disability to the built environment.

Lindsay Perry is a qualified Access Advisor, being an accredited member of The Association of Consultants in Access, Australia – membership number 136. Lindsay Perry carries public liability insurance, professional indemnity insurance and income protection.

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