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## DA ACCESSIBILITY REPORT

**PROJECT NAME**                      **ECO TOURISM DEVELOPMENT**

**PROJECT ADDRESS**                **951 BROKEN HEAD ROAD  
BROKEN HEAD NSW 2481**

**PREPARED BY:**                      FRANCIS LENNY

**PREPARED FOR:**                    LINNEAUS PROPERTY TRUST  
C/- PLANNERS NORTH

**JOB NUMBER:**                      38064

**DATE:**                                16<sup>TH</sup> FEBRUARY 2021

**REVISION:**                          5

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09.12.19	-	19	Initial issue for review	Francis Lenny	Francis Lenny	09.12.19
12.12.19	1	19	Updated issue following PCA review	Francis Lenny	Francis Lenny	12.12.19
26.03.20	2	21	Approved issue following Client review	Francis Lenny	Francis Lenny	26.03.20
05.06.20	3	22	Updated issue following update to drawing DA 03, Accessibility plan	Francis Lenny	Francis Lenny	05.06.20
29.09.20	4	22	Updated issue following update to drawing DA 03, Revision 04 Accessibility plan	Francis Lenny	Francis Lenny	29.09.20
16.02.21	5	22	Issue of updated reference detail	Francis Lenny	Francis Lenny	16.02.21

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## EXECUTIVE SUMMARY

Linnaeus Property Trust c/- Planners North have requested an Accessibility report to review the DA design documentation

We have reviewed the design and provided recommendations in the following report. Harley Graham Architects (on behalf of the client) have subsequently made changes based on the recommendations provided.

In summary, we can conclude that the current Development Approval drawings for the proposed Eco Tourism Development at 951 Broken Head Road NSW 2481 indicate compliance is capable of being achieved assessed against NCC / BCA 2016, Amendment 1 prescribed requirements & that the spirit and intent of the Disability Discrimination Act will also be met.

The following report is a review of the DA Design documentation and provides a summary of the compliance strategy of the proposed works highlighting the key principles of accessibility as well as the technical requirements for the buildings to ensure the residents and visitors will have equitable and dignified use.

### GENERAL DESCRIPTION OF PROPOSAL

Consent is sought to for a Mixed Use Development of the Linnaeus property permitting certain of the existing facilities to continue to be used for Private Education; allowing the remaining existing facilities to also be used for eco-tourism and providing further new facilities for Eco Tourism purposes.

The private education residences (#2 and 34)<sup>1</sup> and the private education accommodation (#12-16) located within the 7(f1) zone and unbuilt #18 will continue with a private education use. Approved, but not built private education accommodation (#19-23 and #28-33) will not be constructed. Approval is sought to also utilise the remaining existing built private education accommodation units (#3-11 and 17) and the existing built centre accommodation units (#24-27) for Eco Tourism purposes. Further, 22 new Cabins (Type A buildings); 4 new rainforest retreats (Type B buildings); and 1 new tree house retreat (Type C building) are proposed to be constructed and used for Eco Tourism accommodation.

In support of the Eco Tourism accommodation, consent is sought to erect 2 fire refuge buildings (CB.2 and CB.3) and construct a depot (CB.7) and parking precinct. Ancillary to the Mixed Use generally, buildings proposed include expanded poolside facilities (CB.4), a shed in the vegetable growing area (CB.5) and minor alterations to the existing centre (CB.1).

The Mixed Use population estimates for the Linnaeus Estate are set out in **Table 3.1** below. In this table, the Eco Tourism components of the proposal are shown in green shading.

**TABLE 3.1 MIXED USE POPULATION ESTIMATES**

Building Type	No. of units	PpU	Population
Private education residences	2	4.5	9
Existing Private Education Centre Accommodation units used for Eco Tourism	4	2	8
Existing Private Education Accommodation units used for Eco Tourism	10	3.5	35

<b>Building Type</b>	<b>No. of units</b>	<b>PpU</b>	<b>Population</b>
Private Education accommodation units not built	11	0	0
Private Education accommodation unit not built, but may be constructed shortly	1	3.5	3.5
Private Education accommodation units in 7(f1) zone	5	3.5	17.5
<b>Eco Tourism Cabins</b>	<b>27</b>	<b>2</b>	<b>54</b>
Unallocated capacity			25.1
<b>TOTAL</b>			<b>148.5<sup>2</sup></b>

*PpU = persons per Unit*

1

Key accessibility issues that need to be addressed and/or considered are listed below. Specific recommendations associated with these areas are located within the body of this report.

It is noted that all future references in this report to the term “BCA” relate to the applicable provisions of the Access Code of the Disability (Access to Premises – Buildings) Standards 2010 & the deemed-to-satisfy provisions of the National Construction Code / Building Code of Australia 2016 Amendment Number 1 (these provisions are mirrored – the Premises Standards are Federal Legislation, whilst the BCA is State enacted legislation)

Compliance with NCC/BCA & State Environmental Planning Policy (SEPP) are State Legislative requirements. However, in addition since the 1st May 2011, a federal piece of legislation the “Disability (Access to Premises – Buildings) Standards 2010” (DAPS), has also been in force.

### **Federal / BCA Compliance (Mandatory minimum compliance with BCA – State legislation)**

Pedestrian Access from the Property Boundary; due to the topography of the existing site, this is not feasible to be provided; further guests will need to arrive by vehicle given the remote location of this development. Proposed approach is that a Performance-Based outcome is proposed under the BCA. An Access Performance Solution report will be documented at Construction Certificate stage for the project

Class 3 parts of the building- to and within the communal use areas (compliance is capable of being achieved):

“not less than 1 of each type of room or space for use in common by the residents or guests, including a cooking facility, sauna, gymnasium, *swimming pool*, laundry, games room, eating area, or the like;”

Class 3 Cabin Design (compliance is capable of being achieved) – based on 22 Cabins being available, 4 Cabin accessible units are required

Class 3 Rainforest Retreat (compliance indicated) - based on 4 being available nil (0) are required to be accessible under Table D3.1 of the BCA

Class 3 Treehouse Retreat (compliance indicated) - based on 1 being available nil (0) are required to be accessible under Table D3.1 of the BCA

Class 5 Staff offices - (compliance is capable of being achieved)

Class 9b Existing Centre - (compliance is capable of being achieved)

Class 9b Refuge Buildings - (compliance is capable of being achieved)

Class 9b Wellness & Pool facilities - (compliance is capable of being achieved)

Class 9b Shed / Barn - (compliance is capable of being achieved)

It is understood that the Bins & Store / Depot buildings (which are proposed for access / use by staff members only) can be considered exempt from the *requirement to be Accessible* under Part D3.4 of the BCA, summarised as follows:

### **“D3.4 Exemptions**

The following areas are not *required to be accessible*:

- (a) An area where access would be inappropriate because of the particular purpose for which the area is used.
- (b) An area that would pose a health or safety risk for people with a disability.
- (c) Any path of travel providing access only to an area exempted by (a) or (b).”

**DDA Compliance (relates to Accessible Beach Cabin & Tree House Units)**  
**(Additional recommendations to minimise risk of non-compliance under DDA – Federal legislation)**

- Consider the provision of accessible joinery, including knee clearance space within the kitchen area for communal use by boarding house residents
- Consideration early in the design is required regarding the emergency evacuation strategy of guests, & visitors who cannot use stairs.
- Develop a wayfinding strategy early in the design process – this is beneficial for all users.

# 1. INTRODUCTION

Linnaeus Property Trust have engaged the services of DDA Consult as Accessibility and DDA consultants to conduct a review of the project documentation to ensure that functional and compliant accessibility has been applied to the design. As accredited members of the Access Consultants Association of Australia (ACAA), DDA Consult use expert accessibility knowledge to ensure the project complies with the spirit and intent of the Disability Discrimination Act (DDA), within the project scope.

## 1.1. Purpose of Report

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This report forms part of the DA Design review. The report is prepared in relation to the proposed Eco Tourism Development project at 951 Broken Head Road Broken Head NSW 2481.

This report provides a compliance overview of the project with respect to achieving compliance with the Building Code of Australia (BCA) and the Disability Discrimination Act (and Disability Standards) (DDA), within the project scope. Additional Detailed Design documentation and compliance assessment will be undertaken as the design develops during the Construction Certificate Stage of the project.

## 1.2. Project Description

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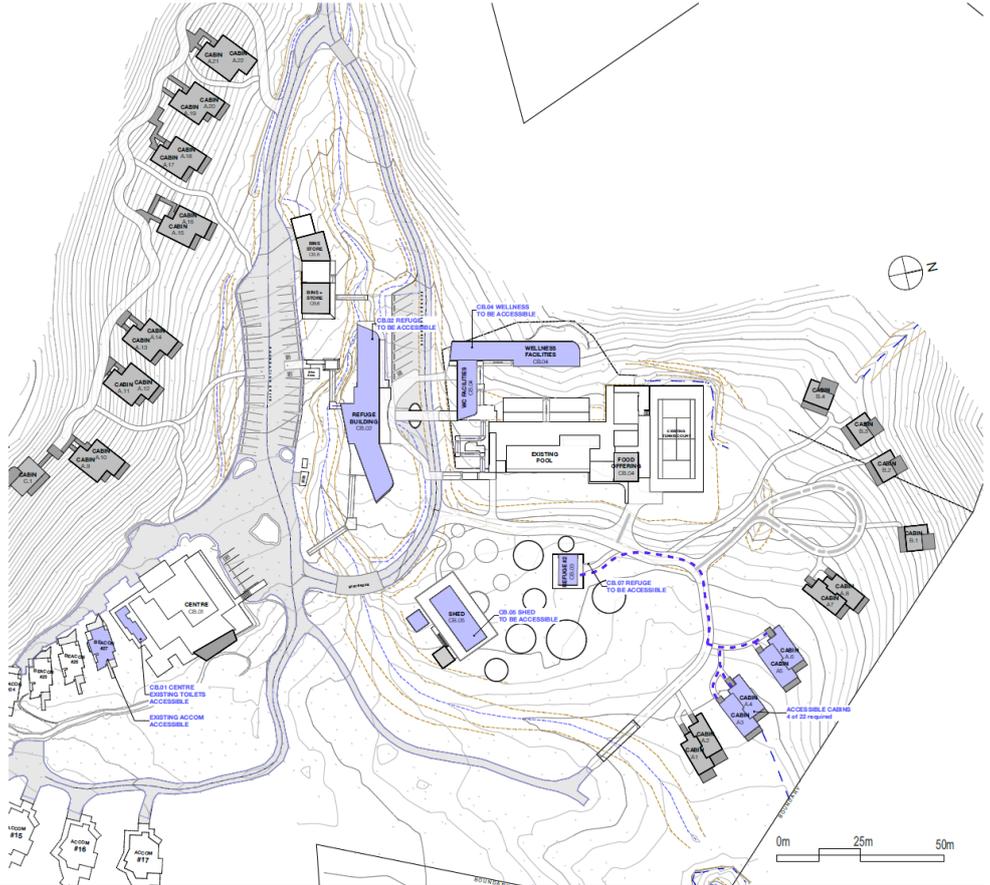
The proposed works include the re-development of the site to provide an Eco Tourism Precinct

The project proposed is to include the following elements:

- External Landscaped Areas including Car parking
- Type A, B & C Eco Accommodation units including requisite Accessible Accommodation units for Type A
- Class 5 Office Accommodation within the Refuge Building
- Class 9b facilities including the existing Centre, Refuge Buildings, Wellness & Pool facilities
- 'Service' Buildings including Bins & Store / Depot buildings

DA Buildings - Accessibility				
Category	Name	Cabin	Type	
Cabin Type A	Cabin (1-8)	01	Standard	
Cabin Type A	Cabin (1-8)	02	Standard	
Cabin Type A	Cabin (1-8)	03	Accessible	
Cabin Type A	Cabin (1-8)	04	Accessible	
Cabin Type A	Cabin (1-8)	05	Accessible	
Cabin Type A	Cabin (1-8)	06	Accessible	
Cabin Type A	Cabin (1-8)	07	Standard	
Cabin Type A	Cabin (1-8)	08	Standard	
Cabin Type A	Cabin (9-22)	09	Standard	
Cabin Type A	Cabin (9-22)	10	Standard	
Cabin Type A	Cabin (9-22)	11	Standard	
Cabin Type A	Cabin (9-22)	12	Standard	
Cabin Type A	Cabin (9-22)	13	Standard	
Cabin Type A	Cabin (9-22)	14	Standard	
Cabin Type A	Cabin (9-22)	15	Standard	
Cabin Type A	Cabin (9-22)	16	Standard	
Cabin Type A	Cabin (9-22)	17	Standard	
Cabin Type A	Cabin (9-22)	18	Standard	
Cabin Type A	Cabin (9-22)	19	Standard	
Cabin Type A	Cabin (9-22)	20	Standard	
Cabin Type A	Cabin (9-22)	21	Standard	
Cabin Type A	Cabin (9-22)	22	Standard	
Cabin Type B	Halfboard Retreat	1	Standard	
Cabin Type B	Halfboard Retreat	2	Standard	
Cabin Type B	Halfboard Retreat	3	Standard	
Cabin Type B	Halfboard Retreat	4	Standard	
Cabin Type C	Halfboard Retreat	1	Standard	
TOTAL		27		

■ Accessible Compliant Buildings  
--- Accessible Path of Travel  
**REFER TO BCA TABLE D3.1 & BCA TABLE D3.5**  
**ACCESSIBILITY ASSESSMENT**  
 Completed by Francis Lenny @ DDA Consult.  
**ACCESSIBILITY**  
 - 4 x Type A Cabins  
**PARKING**  
 - Distances to car parks to be minimum requirement for Class 3 Buildings.  
 - All Accessible Cabins to have accessible car spaces as per BCA requirements.  
 - Detail to be provided with Construction Certificate Drawings  
 - Performance solution required for Pedestrian Access



<b>HARLEY GRAHAM ARCHITECTS</b> LEVEL 1/144 JOHNSON STREET BYRON BAY   PO BOX 1285 NSW 2481 P: 02 66605620   T: 02 66605650   E: office@hagleygram.com ABN: 85 156246000 NSW 7692	• If building works to be carried out on an existing building Building Code of Australia (BCA) and to the satisfaction of the principal certifying authority. • Building Contractors are to verify all dimensions prior to commencement of construction on-site. • Figures do not constitute a guarantee or warranty.	REV	ISSUE NAME	DATE	CLIENT	Linnaeus Property Trust	ADDRESS	951 BROKEN HEAD RD	REVISION	DA	SCALE	1:1000
		01	GENE SPONSOR APPLICATION	2020	FOR NAME	HGA DB - ECO TOURISM	LOT 1 DP 1031848	DA	A3	DA 03		
		02	REVISED	2020	DRAWING	Accessibility Plan			DRAWN: R.P.	CHECKED: M.G.	DATE	17/9/20

## 2. LEGISLATIVE REQUIREMENTS

The legislative requirements for this project include both Federal and State legislation.

### Federal

The Disability Discrimination Act (DDA - 1992) is Federal Government legislation enacted in 1993 that seeks to ensure all new building infrastructure, refurbishments, services and transport projects provide functional and equitable accessibility. The DDA is complaint- based legislation, which is administered by the Australian Human Rights Commission (AHRC). For any built environment the key requirement of the DDA is to ensure functionality, equality and dignity of people with disabilities, their companions, family and carer givers.

The DDA utilises statutory instruments known as Disability Standards to provide detailed requirements. The Disability Standards relevant to this project are: Disability (Access to Premises – Buildings) Standards 2010.

These Disability Standards draw extensively on technical provisions in the AS 1428 series details technical requirements related to design for access and mobility.

### State

The Building Code of Australia has adopted key accessibility and DDA legislation into the 2011 and subsequent BCA. In particular adherence to the Access to Premises Standard (2010) (APS); AS1428.1 2009; AS1428.4.1 2009 and AS2890.6 2009 has become mandatory. This means that compliance with the relevant sections of the BCA, ensures compliance with the relevant 'Premises' component of the DDA.

However, compliance with the BCA alone does not necessarily mean compliance with the Disability Discrimination Act if the elements of equality, dignity and functionality remain compromised within an environment. The building owner/occupier should therefore ensure that their policies, practices and procedures promote equality in all employment, education and services provided, within their built environment.

## 2.1. Referenced Legislation and Standards

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The review of the project has been undertaken against the following legislation;

- Disability Discrimination Act (DDA) 1992.
- Disability (Access to Premises – Buildings) Standards 2010 (DAPS 2010).
- Building Code of Australia (BCA) and BCA referenced standards including:
  - AS1428.1 2009 Part 1: General Requirements for access – new building work.
  - AS1428.2 1992 Part 2: Enhanced and additional requirements – Buildings and facilities.
  - AS1428.4.1 2009 Part 4.1: Means to assist the orientation of people with vision impairment – TGSi.
  - AS2890.1 2004 Part 1: Off-street car parking.
  - AS2890.6 2009 Part 6: Off-street parking for people with disabilities.
  - AS1735.14 1998 Lifts, escalators and moving walks – Low-rise platforms for passengers
- Byron Shire Council DCP

## 3. DOCUMENTATION

The report has been prepared based on an initial review undertaken (30th April 2019) prior to design comments of the drawings listed in Appendix A, submitted as part of the DA Submission Consultant Drawings prepared by Harley Graham Architects as at 17<sup>th</sup> September 2020.

## 4. EXEMPTIONS AND PERFORMANCE BASED SOLUTIONS

### 4.1. Exemptions

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Based on the use of some areas within a building, it is reasonable to not provide access to some spaces where it is deemed inappropriate because of the required duties to be carried out in the space or if the area poses as a health or safety risk for people with a disability. These areas may include:

- Plant rooms, Store rooms, cleaner's rooms, and the like.
- CB.06 – Bins & Store Building
- CB.06 – Depot Building

One currently identified Performance Solution item is that it is considered a Continuous Accessible Path of Travel (accessway - pedestrian pathway) is not possible to be provided (due to the sloping nature of the site) from the main points of the pedestrian entry at the allotment boundary to & between all of the proposed buildings as referenced by Part D3.2 of the NCC / BCA

## 5. ISSUES AND RECOMMENDATIONS

The following compliance assessment is set out in tabular format. The comment/issue identifies the issues followed by recommendations and whether relevant to BCA or DDA compliance. 'BCA' compliance means meeting minimum mandatory compliance of the BCA and the Premises Standard component of the DDA. Where 'DDA' compliance is shown against a recommendation, this indicates an area of residual DDA risk, i.e. outside BCA parameters and the Access to Premises Standards. The 'DDA' recommendations relate to best practice design for accessible environments. These recommendations, in conjunction with the owner/occupier's policies, practices and procedures will maximize DDA compliance and meet the spirit and intent of the DDA.

### 5.1. General Building Access Requirements

Buildings and parts of buildings must be accessible in accordance with Table 3.1 of the BCA.

A continuous accessible path of travel is to be provided as follows:

Part of Building	Accessibility Requirements	BCA/ DDA
Class 3 Boarding House Accommodation	For this development of  22 Cabins– to and within 4 accessible cabins; and  not less than 1 of each type of room or space for use in common by the residents or guests, including a cooking facility, sauna, gymnasium, <i>swimming pool</i> , laundry, games room, eating area, or the like; and  rooms or spaces for use in common by all residents on a floor to which access by way of a ramp complying with AS 1428.1 or a passenger lift is provided.	BCA
List all common facilities and areas normally used by the occupants Common facilities required to be accessible include gym, sauna, steam room, communal kitchen, refuse rooms, refuse chutes, storage rooms, laundry, and BBQ areas	Includes access communal areas <ul style="list-style-type: none"> <li>• Refuse disposal</li> </ul> Additional items <i>may</i> be located within other buildings that form Part of this Precinct, such as: <ul style="list-style-type: none"> <li>• Communal lounges</li> <li>• Communal laundry</li> <li>• Pool facilities</li> </ul>	BCA

### 5.2. External approaches, walkways, ramps, kerbs and steps

A continuous accessible path is to be provided to the new building:

- From the main points of a pedestrian entry at the allotment boundary, and
- From another accessible building connected by a pedestrian link
- From any required accessible carparking space on the allotment

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ Ensure external paths are of adequate width to accommodate passing and turning spaces</li> </ul>	<ul style="list-style-type: none"> <li>▪ As previously referenced, not feasible to accommodate; guests will arrive by vehicle – technical non-compliance will be documented by an Access Performance Solution report at CC stage</li> </ul>	BCA

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ Where pedestrian walkways and vehicular routes are at grade, hazard warning required</li> </ul>	<ul style="list-style-type: none"> <li>▪ Position hazard TGSIs in accordance with AS1428.4.1 where the property boundary pavement intersects with the vehicle driveway – will be addressed further at CC stage</li> </ul>	BCA
<ul style="list-style-type: none"> <li>▪ Ensure obstacles abutting a path are readily identifiable and do not obstruct a user on the path</li> </ul>	<ul style="list-style-type: none"> <li>▪ Recommend bollards, bike racks, rest seating and bins possess a 30% luminance contrast to the surroundings</li> <li>▪ Ensure fixtures and furniture is recessed a minimum of 500mm from required minimum width of path</li> </ul>	DDA
<ul style="list-style-type: none"> <li>▪ The public realm offers significant opportunities to enhance the existing scheme. There will be minimum BCA requirements in terms of access paths, gradient, stairs etc., however, many aspects of good design in external spaces, fall outside these minimum requirements.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The following are some design considerations for providing equitable access to the public realm;</li> <li>▪ Surface treatments e.g.; grass, gravel, stone, pavers – be aware of abutment detail with other surfaces; both level difference and slip resistance differences.</li> <li>▪ Careful design of drainage grates, surface falls and gradients generally</li> <li>▪ Provision of rest seating opportunities along walkways, stair landings etc.</li> <li>▪ Lighting designs that minimise glare.</li> <li>▪ Luminance contrast of features such as; steps, seats, bollards, bins etc.</li> <li>▪ Consistent/compliant use of TGSIs to create a predicable environment</li> <li>▪ Landscape planting can offer tactile and olfactory clues to the environment to enhance different areas.</li> </ul>	BCA/DDA

**Key External walkway criteria:**

- Walkways to be provided with passing bays (1800 x 2000mm) every 20m.
- Walkway gradient to be 1:20 (max) with landings every 15m.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm length.
- If gradient of walkway is less than 1:33 no landings are required.
- TGSIs required to warn of hazard along pedestrian and vehicular routes on grade

**Key kerb and pedestrian crossing criteria:**

- Kerb ramp to have gradient no steeper than 1:8, length no greater than 1520mm.
- Pathways from accessible parking across roadways to have designated line marking.

**Stairs design criteria:**

- Common use stairs require AS1428 series compliant handrails, tread features and TGSIs.

**Key ramp design criteria:**

- Maximum gradient of a ramp exceeding 1900mm is 1:14. Gradient to be consistent throughout ramp.
- Ramp required to have unobstructed width of 1000mm
- Ramps to be provided with landings at bottom and top of ramp.
- Landings required every 9m where grade 1:14, Landings required every 15m where grade 1:20.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm x 2070mm length.
- Ramps require AS1428 series compliant handrails and TGSIs.
- Ramps to be set back 900mm at property boundaries or 400mm at internal corners.
- Vertical rise not to exceed 3.6m

**Kerb ramps** – max rise 190mm; max 1:8 gradient

**Threshold ramps** – max rise 35mm; 1:8 max gradient; within 20mm of door leaf

**Step ramps** – max rise 190mm; 1:10 max gradient

### 5.3. Car Parking

Comment/issue	Recommendation	BCA/ DDA
<p>In accordance with Table D3.5 of the BCA, accessible carparking is required to be provided as follows.</p> <ul style="list-style-type: none"> <li>▪ Class 3:</li> </ul> <p>To be calculated by multiplying the total number lodging house, backpackers or carparking spaces by the percentage of— accommodation, or the residential part</p> <p>(i) <i>accessible sole-occupancy units</i> to the total of a hotel or motel. number of <i>sole-occupancy units</i>; or</p> <p>(ii) <i>accessible bedrooms</i> to the total number of bedrooms; and the calculated number is to be</p>	<p>Details including proposed numbers will be finalised at CC stage;</p> <p>It is acknowledged that where accessible car spaces are provided, <i>there will be</i> an accessible path of travel available to all of the nearby accessible building entrance points</p>	BCA

Comment/issue	Recommendation	BCA/ DDA
<p>taken to the next whole figure.</p> <ul style="list-style-type: none"> <li>Class 5; 1 per 100</li> <li>Class 9b; 2 per 100</li> </ul>		
<ul style="list-style-type: none"> <li>Confirm existing conditions and vertical clearances to the carpark – compliance is capable of being achieved</li> </ul>	<ul style="list-style-type: none"> <li>In accordance with the current requirements of AS 2890.6, the vertical clearance along the vehicular path to a carpark must achieve a minimum of 2200mm and 2500mm above the PWD space and shared zone;</li> </ul>	BCA
<ul style="list-style-type: none"> <li>The approach from the accessible carparking bays to the main entrances to be accessible</li> </ul>	<ul style="list-style-type: none"> <li>It is noted as above, that this will be achieved</li> </ul>	BCA
<ul style="list-style-type: none"> <li>The line marking layout shall be in accordance with AS 2890.6-2009, Sections 2 &amp; 3</li> </ul>	<ul style="list-style-type: none"> <li>Note</li> </ul>	BCA

**Key Car parking and transport design criteria:**

- Accessible spaces are to be designed in accordance with AS2890.6-2009.
- Dimensions of angled accessible parking bays 2400 x 5400mm with adjacent 2400mm x 5400mm shared area and bollard in shared area.
- Provide direct kerb ramp access from adjacent to the accessible parking space to pathway.
- Accessible bays to be located near entrances.
- Provide a designated area for accessible drop off from private vehicles, taxis and community vehicles with kerb ramp access to the pathway.
- Height of vehicular path of travel to accessible parking space to be 2200mm and height above accessible parking space to be 2500mm – not applicable for this project

#### 5.4. Entrances

Access for persons with a disability is to be provided to and within all areas normally used by the occupants.

Access must be provided via the main principal entrance and:

- Not less than 50% of all pedestrian entrances including the principal entrance, and
- In buildings with a floor area >500m<sup>2</sup>, a non-accessible entrance must not be located more than 50nm from an accessible entrance.

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>All entry doors are to comply</li> </ul>	<ul style="list-style-type: none"> <li>All entry doors must achieve a minimum clear door opening width of 850mm (920mm door leaf size required)</li> </ul>	BCA
<ul style="list-style-type: none"> <li>All doors to have light operation forces</li> </ul>	<ul style="list-style-type: none"> <li>Ensure doors have light operational forces (less than 20 N). Consider use of bearing</li> </ul>	BCA

Comment/issue	Recommendation	BCA/ DDA
	hinges or other enhanced hardware to achieve requirement.	
<ul style="list-style-type: none"> <li>Glazing decals</li> </ul>	<ul style="list-style-type: none"> <li>All full height glazed doors must be marked with contrasting marking not less than 75mm wide for full width of doors with lowest edge at 900-1000mm.</li> </ul>	BCA
<ul style="list-style-type: none"> <li>30% minimum luminance contrast is required between 2 elements of the door face, door architrave and wall.</li> </ul>	<ul style="list-style-type: none"> <li>Provide details as design progresses</li> </ul>	BCA

**Key entrance criteria:**

- Main entry must be accessible.
- Entry requires single door leaf width clearance of 850mm (920mm door size).
- Door length Circulation space of 1450mm required either side of entry.
- All glazed doors must be marked with contrasting marking not less than 75mm wide for full width of doors with lowest edge at 900-1000mm.

## 5.5. Lifts/Escalators

An accessible path of travel is required to all areas normally used by occupants.

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>Passenger lift access appears to be proposed for Wellness Centre only</li> </ul>	<ul style="list-style-type: none"> <li>The current design indicates that compliance is capable of being achieved</li> </ul>	BCA

## 5.6. stairs

An accessible path of travel is required to all areas normally used by occupants. All stairs (excluding fire-isolated stairs) must be provided with handrails both sides, nosing strips and TGSIs.

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>All general circulation stairs are to be designed to comply with AS1428.1-2009 i.e. clear width not less than 1m, handrails both sides, TGSIs and nosings.</li> </ul>	<ul style="list-style-type: none"> <li>All new stairs and/or existing stairs along the 'affected part' are to comply with AS1428.1-2009.</li> <li>Note new circulation stairs shall achieve compliance;</li> <li>Further detail will be provided at CC stage including Stair nosing markings and TGSI's – the current design indicates that compliance is capable of being achieved</li> </ul>	BCA

**Key stair design criteria:**

- Stairs to be set back 900mm at property boundaries or sufficient space to accommodate required handrails internal corners.
- Circular or spiral stairs are generally unsafe due to their inconsistent tread width.
- *Common use stairs require AS1428 series compliant handrails, tread features and TGSi.*
- *Tactile ground surface indicators (TGSi) shall be installed for the full width of the path of travel*
- *TGSi's shall be located at both the top and bottom of the stairs*
- *Fire-isolated stairs required a single handrail compliant to Clause 12 of AS1428.1 and stair nosings to meet minimum level of compliance.*

**5.7. Internal Ramps**

An accessible path of travel is required to all areas normally used by occupants. All ramps along a continuous accessible path of travel must be provided with handrails both sides, kerb rails, landings and TGSIs as required.

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ All general circulation ramps are to be designed to comply with AS1428.1-2009 i.e. clear width not less than 1m, handrails both sides, TGSIs, compliant landing sizes and gradient</li> </ul>	<ul style="list-style-type: none"> <li>▪ All new ramps along the Continuous Accessible Path of travel are to comply with AS1428.1-2009.</li> <li>▪ Any proposed ramp handrails will include 300 mm horizontal sections at the top &amp; bottom landings– a slip – resistant surface will also be provided; these details will be included if necessary, at CC stage</li> </ul>	BCA

**Key ramp design criteria:**

- Maximum gradient of a ramp exceeding 1900mm is 1:14. Gradient to be consistent throughout ramp.
- Ramp required to have unobstructed width of 1000mm
- Ramps to be provided with landings at bottom and top of ramp.
- Landings required every 9m where grade 1:14, Landings required every 15m where grade 1:20.
- Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm x 2070mm length.
- Ramps require AS1428 series compliant handrails and TGSi.
- Ramps to be set back 900mm at property boundaries or 400mm at internal corners.

**5.8. Tactile Ground Surface Indicators (TGSIs) and hazard identification**

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ TGSIs are required to be installed in accordance with AS1428.4.1, to the top and bottom of every circulation stair and ramp</li> </ul>	<ul style="list-style-type: none"> <li>▪ Note; these will be detailed as part of the CC stage</li> </ul>	BCA

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>Any Hazards with &lt;2000mm head clearance will require to be identified</li> </ul>	<ul style="list-style-type: none"> <li>TGSI's or barrier to be installed if applicable</li> </ul>	BCA
<ul style="list-style-type: none"> <li>Any full height glazed doors, sidelights and glazing that could be mistaken for a door or opening must be marked with contrast marking</li> </ul>	<ul style="list-style-type: none"> <li>Provide contrast marking no less than 75mm wide for full width of glazing at 910-1000mm height.</li> </ul>	BCA

**Key TGSI and hazard identification criteria:**

- Standard warning TGSI size is 600-800mm for full width of path of travel
- TGSI's to be set back 300mm +/- 10mm from hazard
- TGSIs to have min 30% luminance contrast for integrated TGSI's and 45% for discrete TGSIs
- Contrast marking to achieve minimum 30% luminance contrast against floor or surfaces within 2m

## 5.9. Internal Walkways

An accessible path of travel is required to all areas normally used by occupants. Internal walkways should be designed with the following features:

- Suitable circulation spaces to enable turning into adjacent doorways and workstation areas,
- Adequate passing spaces, and
- Turning areas at corridor or room terminators

Comment/issue	Recommendation	BCA/ DDA
<p>"Common-use" paths of travel and internal corridors throughout shall be designed to comply as follows:</p> <ul style="list-style-type: none"> <li>Ensure a minimum unobstructed clear width of 1000 mm along all corridors to rooms or spaces.</li> <li>Provide turning spaces of 1500x1500 (corner may be truncated) where a user is required to make a directional turn.</li> <li>Provide turning space within 2000 mm at the ends of corridors, where it is not continuous to offer turning space: minimum width 1540 mm x 2070 mm length.</li> <li>Passing bays (1800mm wide x 2000mm length) are</li> </ul>	<ul style="list-style-type: none"> <li>Note; it is currently indicated that compliance is capable of being achieved</li> </ul>	BCA

Comment/issue	Recommendation	BCA/ DDA
required every 20m where no direct line of sight is provided		

**Key internal walkway and surface criteria:**

- Walkways to be provided with passing bays (1800 x 2000mm) every 20m where a clear line of sight is not available.
- Minimum width of internal walkways shall be 1000mm.
- Path of travel in front of doorways or those accessed from a frontal approach required to be 1450mm width (minimum).
- Path of travel in front of doorways accessed from the latch side to be 1240mm minimum width.
- Landing spaces at directional changes of: at 90° - 1500mm x 1500mm (corner can be truncated); at 180°- 1540mm x 2070mm.
- Turning space at corridor terminations to be 1540mm width x 2070mm length.

### 5.10. Internal Doorways

An accessible path of travel is required to all areas normally used by occupants. Future detailed design should provide compliant door circulation space to all doors where appropriate.

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ The unobstructed clear width of doors must achieve a minimum of 850mm (920mm leaf required).</li> </ul>	<ul style="list-style-type: none"> <li>▪ All doors along an accessible path of travel must have compliant door circulation and clear opening width of 850mm – it is understood that door circulation spaces will be continually reviewed and finalised at CC stage</li> </ul>	BCA
<ul style="list-style-type: none"> <li>▪ All doors to have light operation forces</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure doors have light operational forces (less than 20 N). Consider use of bearing hinges or other enhanced hardware to achieve requirement.</li> </ul>	BCA
<ul style="list-style-type: none"> <li>▪ To enable visitability to all Class 3 apartments it is mandated that all entry doors to bedrooms achieve the minimum clear width</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide a clear opening width of 850mm (920mm leaf doors) to the Accessible bedroom &amp; en-suite bathroom of both the Class 3 Type Accessible Units (Beach Cabins &amp; Treehouse Cabins)</li> </ul>	DDA
<ul style="list-style-type: none"> <li>▪ 30% minimum luminance contrast is required between 2 of the elements of the door face, door architrave and wall for the Accessible bedrooms &amp; bathrooms</li> </ul>	<ul style="list-style-type: none"> <li>▪ Note &amp; action as the design develops</li> </ul>	BCA

**Key internal doorway criteria:**

- All doors require 850mm clearance width (920mm doors) incl. active leaf of double doors.
- Latch side clearance of 510mm to inward opening doors; 530mm to outward opening doors.

- Circulation space of 1450mm required either side of doors that are approached from the front. Circulation space of 1240mm required in front of inward opening doors approached from latch side.
- All glazed doors must be marked with contrast marking no less than 75mm wide for full width of doors at 910-1000mm height.

### 5.11. Sanitary Facilities

Facilities to be provided in accessible parts of the building. Accessible sanitary facilities must be provided on each level where other sanitary facilities are also provided and if the storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks. The accessible facilities should be located adjacent/opposite the gender facilities.

Where one or more pans are provided, an ambulant toilet within each of the male and female facilities is to be provided.

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ Applicable to Wellness Centre only</li> </ul>	<ul style="list-style-type: none"> <li>▪ Further discussion to take place in relation to the extent of any required upgrade works in relation to the existing (retained) facilities</li> </ul>	BCA
<ul style="list-style-type: none"> <li>▪ New facilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Designs shall meet necessary BCA / AS 1428.1, Clause 15 &amp; 16 requirements – detailed plans &amp; elevations will be produced for additional assessment at CC stage.</li> </ul>	BCA
<ul style="list-style-type: none"> <li>▪ Class 3 Accessible Cabins (en-suite facilities)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Designs shall meet necessary BCA / AS 1428.1, Clause 15 &amp; 16 requirements – detailed plans &amp; elevations will be produced for additional assessment at CC stage.</li> </ul>	BCA

**Key sanitary facility criteria:**

- Minimum room dimensions with WC, basin and Shower are typically 2300mm x 2630mm depending on bathroom door location
- Provide AS1428 series compliant fixtures inclusive of shelf, clothes hooks, full length mirror

### 5.12. Accessible Sole-Occupancy Units (SOUs)

A Class 3 Building requires the provision of accessible SOUs in accordance with Table D3.1 of the BCA.

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ Based on prescribed requirements a total of 4 accessible Cabins are to be provided</li> </ul>	<ul style="list-style-type: none"> <li>▪ Design will be provided during CC Stage</li> </ul>	BCA
<p><u>Accessible bedroom- Doors</u> All doors to and within the unit must comply with the door circulation space requirements of AS1428.1-2009. Front approach doors require:</p>	<ul style="list-style-type: none"> <li>▪ The entry doors and bathroom facility door must comply.</li> </ul>	BCA

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>▪ Clear width: 850mm</li> <li>▪ Length: 1450mm</li> <li>▪ Latch: 510/530mm</li> <li>▪ Hinge: 0/110mm</li> </ul> <p>Depends on direction of approach and swing of door. Either side approach doors require, range:</p> <ul style="list-style-type: none"> <li>▪ Clear width: 850mm</li> <li>▪ Length: 1240mm or 1670mm</li> <li>▪ Latch: 900/660mm</li> <li>▪ Hinge: 660/560mm</li> </ul> <p>Refer Figures 31 &amp; 32 of AS1428.1 for further details.</p>		
<ul style="list-style-type: none"> <li>▪ All accessible bedroom door handles and related hardware for hinged doors and sliding doors shall be designed in accordance with clause 13.5 AS1428.1-2009.</li> </ul>	<ul style="list-style-type: none"> <li>▪ To ensure that the hand of a person who cannot grip, will not slip from the handle during the operation of the latch provide a 20mm return on door handles.</li> </ul>	BCA
<p><u>Accessible bedroom - Internal Circulation</u></p> <ul style="list-style-type: none"> <li>▪ A minimum clear width shall be maintained to and within the unit.</li> <li>▪ Circulation spaces around fixtures and heavy furniture shall comply with Clause 6 of AS1428.1 to enable a user to safely manoeuvre within the unit.</li> </ul>	<p>To comply</p> <ul style="list-style-type: none"> <li>▪ Required circulation space to make 90-degree turn - 1500x1500 (corner may be truncated), and</li> <li>▪ Provide a minimum of 1000mm to one side of the bed and</li> <li>▪ Provide a required circulation space for 180 degree turn of 1540x2070mm in direction of travel at the end of bed</li> </ul> <p>Refer to Figures 4 &amp; 5 of AS1428.1 for further details.</p> <p>Compliance is currently indicated</p>	BCA
<p><u>Accessible en-suite Bathroom</u> The layout, fixtures and fittings are to be designed to comply with AS1428.1 2009 Considering the proposed layout, ensure a <u>minimum</u> compartment size of:</p> <ul style="list-style-type: none"> <li>▪ Combined WC and shower facility: 2300x2630mm</li> </ul>	Ongoing reviews will take place	BCA

### 5.13. Emergency Evacuation

Comment/issue	Recommendation	BCA/ DDA
<ul style="list-style-type: none"> <li>Consider implementation of an emergency evacuation plan for people with disabilities.</li> </ul>	<ul style="list-style-type: none"> <li>The emergency evacuation strategy for the development is recommended to address the operational solution of evacuating occupants that cannot use fire stairs.</li> </ul>	DDA

**Key emergency evacuation criteria:**

- Consideration of individuals with disabilities is required as part of emergency evacuation planning. The types of accessible emergency evacuation include “protect in place” i.e. 1 hour rated rooms on non-fire effected levels; smoke isolated lift lobbies with managed lift access; horizontal evacuation movement to other building areas; or provision of fire refuges within fire stairs or identified zones.
- If areas of refuge are provided spaces of 1300mm x 800mm are required per individual. This space needs to be set back from the main egress thoroughfare.
- Fire evacuation plans are recommended to include provision of management plans to assist individuals with disabilities or access requirements. Individuals with accessible requirements should be provided with a “fire buddy” to escort them to pre-determined areas of refuge.
- Fire engineering reports should detail accessible evacuation within a sub section of the plan.
- The current best practice is detailed in the 'AS 3745 - 2010 Planning for emergencies in facilities' and should be used as a guideline to assist in the implementation of the Emergency Plan

## 6. COMPLIANCE SUMMARY

The recommendations in this report have been provided to assist in the creation of a universally accessible environment within the proposed development. It is anticipated that as additional detail is provided - particularly floor plans, dimensions and features- the accessibility of this development can be further detailed.

This proposed mixed-use development design indicates compliance with BCA prescribed requirements & that the spirit and intent of the Disability Discrimination Act will be met

If you have any further queries in relation to the reports and recommendations contained, please contact Francis Lenny on 0410 183283.

**Report Provided by:**



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*MSc Accessibility & Inclusive Design*  
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## 7. APPENDIX A – DOCUMENT LIST

Harley Graham Architects Project number 206;  
Eco Tourism Development Broken Head NSW 2481, Revision 04 – 17.09.20:

<b>DRAWING SCHEDULE</b>	
No	NAME
DA 00	Location Plan
DA 01	Precinct Plan (Existing Approvals)
DA 02	Precinct Plan A + B + (Existing + Proposed)
DA 03	Accessibility Plan
DA 04	CB.01 - Centre Additions
DA 05	CB.02 - Onsite Evacuation Building 1
DA 06	CB.02 - Onsite Evacuation Building 1
DA 07	CB.03 - Onsite Evacuation Building 2
DA 08	CB.04 - Wellness + Pool Facilities
DA 09	CB.04 - Wellness + Pool Facilities
DA 10	CB.04 - Wellness + Pool Facilities
DA 11	CB.04 - Wellness + Pool Facilities
DA 12	CB.05 - Shed/Barn
DA 13	CB.06 - Bins and Store
DA 14	CB.07 - Depot
DA 15	TYPE A - Cabins
DA 16	TYBE A - Cabins
DA 17	TYPE B - Rainforest Retreat
DA 18	TYBE C - Treehouse Retreat
DA 19	Material Schedule

## 8. FRANCIS LENNY – CERTIFICATE OF PROFESSIONAL CURRENCY

Association of Consultants in Access Australia, Inc

# ACAA Membership Certificate of Currency

## Accredited Member

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This is to certify that

## Francis Lenny

is an **Accredited Member** of the  
Association of Consultants in Access Australia, Inc.  
and their membership is current from  
**1st July 2020** until **30th June 2021**



Mr Mark Relf  
ACAA National President



Ms Anita Harrop  
ACAA Secretary

