

ParkTransit

TRAFFIC IMPACT ASSESSMENT – SENIORS HOUSING 17-21 Wardell Road, Alstonville 29th August 2023

ParkTransit Pty Ltd Marrickville NSW 2525 ABN: 16 627 168 290



Traffic Impact Assessment Report for Seniors Housing 17-21 Wardell Road, Alstonville For: DTA Architects Date: 29th August 2023

Version No.	Author	Reviewed by:	Date:
1	A.M.	G Caldwell	23.06.2023
2	A.M.	Client	29.08.2023
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Abbreviations

Proposal:	Construction of a Seniors Housing Development
TfNSW:	Transport for New South Wales
DCP:	Ballina Shire Council Development Control Plan- 2012
SEPP (Housing):	State Environmental Planning Policy (Housing) 2021
RMS Guide:	RMS Guide to Traffic Generating Development 2002
AS2890.1:	Australian Standard for Off-Street Parking Facilities AS2890.1-2004
AS2890.6:	Australian Standard for Off-Street Parking for people with Disabilities AS2890.6



1. Introduction

ParkTransit have been engaged by DTA Architects to assist with the Part 5 Activity Application process for the construction of a Seniors Housing development located at 17-21 Wardell Road, Alstonville, within the Ballina Shire Council LGA.

The proposed development will accommodate a total of 13 residential units with associated parking provided within the at-grade level car park within the site boundary.



Figure 1-Site Location (Source Whereis Maps)

The purpose of this report is to present the traffic and parking assessment associated with the proposal, and to determine the implications of the projected change in traffic activity on the surrounding road network. The report is structured as follows:

Section 2:	Site Description
Section 3:	Overview of Existing Traffic Conditions
Section 4:	Description of the Proposed Development
Section 5:	Traffic Impact Assessment
Section 6:	Parking Provision
Section 7:	Access Arrangements
Section 8:	Conclusions and Recommendations
Section 9:	Attachments
Section 9:	Attachments



The following documents were referenced for the preparation of this report:

- Ballina Shire Council Development Control Plan (DCP 2012);
- Transport for New South Wales Guide to Traffic Generating Development;
- NSW State Environmental Planning Policy (Housing) 2021;
- Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1-2004); and
- Australian Standard for Parking Facilities Part 6: Off-Street Parking for People with Disabilities (AS2890.6-2009).



2. Site Description

The site is located at 17-21 Wardell Road, Alstonville in a predominantly residential area and forms part of the Ballina Shire Council LGA. The site is located on the western side of Wardell Road and occupies an area of 2086.6m².

The site occupies Lot 6, 7 & 8 of DP35468 and has a sole frontage located along Wardell Road. The site is bordered by residential development on all sides except to the east which is bordered by Wardell Road. The subject site is located across the Plaza Alstonville (one of the prominent shopping centre servicing the town).

The site is occupied by three (3) single storey dwelling houses. Each of the dwelling houses is serviced by a dedicated driveway resulting in a total of three driveways servicing the subject site.



Figure 2-The Site (Source NSW Imagery-Six Maps)

A site visit was undertaken to observe the operation of the existing road network and the site photographs are presented below:





Photo taken on Wardell Road frontage looking to the right (Robertson Street)



Photo taken on Wardell Road towards the Driveway Servicing 17 Wardell Road



The following map shows the hierarchy of the surrounding road network as classified by Transport for NSW (TfNSW).

Figure 3-Surrounding Road Network (Source Transport for NSW Website)



3. Overview of the Existing Traffic Conditions

3.1. Description of Road Environment

Ballina Road is classified as a Local Road, and it follows a North-South alignment. The carriageway on Ballina Road is undivided and comprises one traffic lane in each direction with on-street parking permitted. A paved footpath is available on both sides of the carriageway and Ballina Road has a posted speed limit of 60kph. A number of residential properties have their frontages located along the Ballina Road and these properties are accessible via the driveways located along the Ballina Road. Within the suburb of Alstonville, a number of buses operate along the Ballina Road.

Wardell Road is classified as a Local Road and connects with Daley Street. Wardell Road follows a North-South alignment, and the carriageway is undivided and comprises one traffic lane in each direction with onstreet parking permitted. Informal footpath is available on both sides of the carriageway and Wardell Road has a posted speed limit of 50kph. All vehicular access to the site is available via the driveways located on Wardell Road frontage.

Robertson Street is classified as a Local Road and follows an East-West alignment. The carriageway on Robertson Street is undivided and comprises one traffic lane in each direction with on-street parking permitted. The intersection of Wardell Road with Robertson Street operates as a priority-controlled intersection with motorists on Wardell Road having priority over vehicles on Robertson Street.

3.2. Public Transport

The site is serviced by bus services operated by Ballina Buslines. The nearest bus stop is located on Main Street – located approximately 300m northeast of the subject site.

Route No 661 is a regular bus service operating daily between Lismore to Ballina. It operates from 07:00am to 7:00pam (mid night), with a frequency of one service every hour.

Route No 662 operates from Monday to Friday between Lismore to Lennox Head. It is a limited bus service operating two services per day.





Figure 4- Route Map –Bus Route 661 & 662 (Source NSW Transport Info Website)

3.3. Existing Traffic Generation of the Site

The subject site is located within a predominantly residential area and is currently occupied by three single storey residential buildings. The traffic activity associated with the existing development was determined with reference to the RMS Guide to Traffic Generating Development (The Guide). In relation to the existing uses, the Guide classifies the existing residential use as a "Dwelling House" and recommends the following trip generation rates:

Weekday peak hour vehicle trips = 0.85 per dwelling

Application of the above trip generation rate to the three (3) existing dwelling houses results in the 2.55 (say 3) vehicle trip per hour during peak period.

3.4. Crash Data

The NSW Centre for Road Safety collects crash and casualty data on a periodic basis which is publicly available. A review of the latest crash data from 2017-2021 indicates, a limited number of crashes, predominantly non-casualty in nature, were recorded in the surround road network - indicates the local road is operating relatively safely. The Figure below provides the crash location and severity of these crashes recorded in the area.





Figure 5- Crash data (Source NSW Centre for Road Safety)



4. Description of the Proposed Development

The development proposal involves the construction of a double storey Seniors Housing that will accommodate a total of 13 residential units comprising the following:

- 7 *x* one-bedroom units; and
- 6 *x* two-bedroom units.

As part of the proposal, an on-site parking provision of 10 car spaces, including three (3) disabled car spaces will be located within the at-grade level car park. All vehicular access will be provided via combined entry and exit driveway located on the Wardell Road frontages. The proposed Seniors Housing development is being constructed by a social housing provider.

Architectural plans associated with the proposal have been prepared by DTA Architects, and the plans indicating the car park are presented as **Attachment A**.



Figure 6– Proposed Ground Floor Plan (Source DTA Architects)



5. Traffic Impact Assessment

5.1. Trip Generation

The traffic activity associated with the proposal has been calculated with reference to the 'RMS Guide to Traffic Generation Developments'. The proposal involves the construction of a double storey Seniors Housing that will accommodate a total of 13 residential units.

In relation to the residential component, the RMS has recently published a Technical Direction for traffic, safety and transport practitioners. This document serves to update the existing Section 3 of the RMS Guide which was originally published in October 2002. The TDT classifies Seniors Housing as Housing for aged and disabled persons and specifies the following traffic generation rates:

Daily vehicle trips = 2.1 per dwelling Peak hour vehicle trips = 0.4 per dwelling

Application of the above trip generation rates to the proposed development results in approximately 5.2 (say 6) vehicle trips, during both morning and evening peak hour.

5.2. Impact Assessment

The development is proposed on a site that currently has a peak hour traffic generation of 3.0 vehicle trips (please refer to Section 3.4 of this report for further details).

The projected traffic activity associated with the proposal indicates the site is likely to generate a peak hour traffic flow of 6 vehicle trips- representing a trip every ten minutes or so. A comparison of the existing traffic activity with the projected traffic activity indicates that the new development will result in a negligible increase in traffic activity within the surrounding road network.

The minimal increase in traffic activity is likely to be less than the typical daily variation, which is usually 10% of the peak hourly flow. Additionally, the minimal increased traffic activity will not impact existing, and post development intersection modelling. Therefore, no formal Sidra intersection analysis has been undertaken as part of this project.

In conclusion, the proposal is likely to generate a maximum of 6.0 vehicle trips an hour - which represents an increase of 3.0 vehicle trip an hour. This increase is highly unlikely to have any detrimental impact on the operation of the surrounding road network.



6. Parking Provision

6.1. Planning Requirements

Typically, the on-site parking provision is calculated with the reference to the Council's planning controls (i.e., Development Control Plan and Local Environmental Plan). However, in this instance the proposed development represents a Seniors Housing project and therefore, the on-site parking requirements are determined with reference to the NSW State Environmental Planning Policy (SEPP) (SEPP Housing 2021).

In relation to Self-contained dwellings, Clause 108(j) of the SEPP (Housing 2021) specifies the following parking provision rates (for sites developed by a social housing provider):

Table 1 – SEPP Recommended On-Site Parking Provision

Description	Car Park Provision
Dwellings	1 car space for each 5 dwelling

The proposed development will accommodate 13 units comprising of the following:

- 7 *x* one-bedroom units; and
- 6 *x* two-bedroom units.

Application of the above on-site parking provision rate to the proposed development would results in three (3) car spaces.

6.2. Proposed Parking Provision

The proposed on-site provision of 10 car spaces, including three (3) disabled spaces is compliant with the requirement recommended within the SEPP (housing 2021). Therefore, the proposed on-site parking provision is considered suitable to service the proposed development and is unlikely to result in increased on-street parking.



7. Access Arrangements

The proposed car parking arrangement has been assessed according to the requirements listed in AS2890.1 (2004). Table 1.1 of AS2890.1 provides a classification of the off-street parking facilities based on various land uses, which is essential in determining the associated parking space dimensions. The development is proposed to be occupied by residential use. Therefore, the proposed parking provision has been assessed against the 'Type 1A' user class with a 90-degree parking space configuration (which is associated with Residential and Employee Parking). In relation to the Type 1A user class, Figure 2.2 of the AS2890.1 specifies the following parking dimensions:

- Space width 2.4 metres
- Space length 5.4 metres
- Aisle width 5.8 metres

The proposed car park accommodates a total of 10 parking spaces, including three (3) disabled spaces are located with the at-grade car park. The space dimensions were measured at a minimum of 2.4 metres wide and 5.4 metres long, with an associated aisle width exceeding 5.8 metres, thereby meeting the minimum requirements stipulated by AS2890.1.

In relation to the disabled car spaces, the Australian Standard for Off-street Parking for People with Disabilities – AS2890.6 -2009. The standard recommends disabled bays should be accompanied by a shared zone (same dimensions of a standard space). The dimensions of a standard space are the following:

- Space width 2.4 metres
- Space length 5.4 metres

The disabled space dimensions were measured at a minimum of 2.4 metres wide and 5.4 metres long, with an associated shared zone of 2.4 metres wide and 5.4 metres, thereby meeting the minimum requirements stipulated by AS2890.6-2009.

In this regard, the proposed car parking arrangement has been designed in accordance with the Australian Standard.

7.1. Driveway Arrangement

As part of the proposal, all vehicular access to the site will be provided via the driveway located along the Wardell Road frontage: Table 3.1 & Table 3.2 of AS2890.1 specifies the width of the access driveway, which is directly proportional to the on-site parking provision and also the type of frontage road.

Taking into account that the proposed driveway is located on Wardell Road (which is classified as a Local Road) and the car park has a capacity of 10 parking spaces, Table 3.1 classifies the proposed driveway as 'Category 1'. Table 3.2 subsequently recommends the driveway width should be within a range of 3.0-5.5 metres, as a combined entry and exit. The width of the proposed driveway is in excess of 3.0 metres and is therefore considered compliant with the Standard.

In order to access the driveway configuration, ParkTransit have undertaken Swept Path Analysis utilising the AutoTrack simulation software. The Swept Path Analysis was undertaken utilising the recommended vehicle type and is presented as **Attachment B**.



The swept path assessment concluded the driveway arrangement is suitable to service the Seniors Housing facility.

7.2. Vehicle Access

The proposal involves provision of a new combined entry/exit driveway to service the development. The width of the proposed driveway was measured to be 3.2 metres wide which is suitable to accommodate one-way flow.

During the morning peak hour, the proposal is likely to generate a total of 6 vehicle movements (for details please refer to Section 5.1 of this report) and would involve most of the commuting drivers exiting the site. Typically, during the morning peak period it is standard engineering practice to assume 80% of the total traffic generated from the residential development will exit the site and the remaining 20% arrives at the site. Application of the above to the projected traffic activity associated with the subject development will result in 5 vehicles exiting the site and 1 vehicle entering the site and vice versa during the evening peak period.

In this regard, the driveway generally operates as a one-way driveway and therefore in accordance with the Australian Standard (Section 3.2 of AS2890.1), a recommended minimum width of 3.0 metres is required to accommodate one-way driveway. The proposal includes the provision of a passing bay at the site entry and exit to the car park - thus minimising the need for motorists to reverse on to Wardell Road.

In this regard, the proposed access way configuration is considered adequate to service the proposed Seniors Housing development.

7.3. Sight Distance

Section 3.2 of AS2890.1 specifies the recommended sight distance associated with the driveway. The sight distance requirement is prescribed in accordance with the posted speed limit along the frontage road.

The proposed residential development will be accessible via the driveway located along the Wardell Road frontage which have a posted speed limit of 50kph.

Section 3.2 of the Standard specifies a desirable visibility distance of 69 metres, and a minimum distance of 45 metres for streets having a posted speed limit of 50kph. The proposed driveway is located on a straight section of local road with unobstructed visibility. In this regard, the driveway arrangement is considered safe and appropriate to service the proposed senior development.

7.4. Driveway Location

Figure 3.1 of the Standard shown below, specifies the prohibited location for introduction of a Category 1 driveway.





A review of the proposed driveways indicate it is located well outside the prohibition zone and therefore, the proposal is considered compliant with the Standard.

7.5. Servicing

As part of the proposal, all deliveries (including furniture removalist) will utilize the existing on-street parking provision available along the site frontage. This procedure is considered typical for a development of this size. The subject site is located within a predominantly residential area and opposite the local centre where on-street parking is permitted along site frontage on Wardell Road. Therefore, the occasional delivery vehicle utilising on-street parking to service the development, is highly unlikely to result in any detrimental impact on the overall on-street parking provision.



8. Conclusions and Recommendations

- The provision of 10 car parking spaces, including three (3) disabled spaces, for the proposed senior residential development is considered sufficient to handle the project parking demand.
- Based on the information provided, the proposal does not generate any increase in safety risk to pedestrians or drivers as a result of the access and parking configuration;
- The proposed development will not negatively impact the current traffic conditions; and
- An assessment of the car park layout, including the proposed parking spaces and associated aisle width, indicate the car park layout is compliant with the relevant applicable Standards (AS2890.1-2004 & AS2890.6-2009).

9. Attachments

Attachment A - Architectural Plan indicating Access and Car Park Arrangement

Attachment B- Swept Path Assessment Demonstrating a Standard B85th Vehicle Type Accessing the Car Park

DA ISSUE ONLY SENIORS HOUSING DEVELOPMENT Lots 6, 7 & 8 in DP 35468 17-21 Wardell Rd Alstonville NSW 2477



DRAWING SCHEDULE:

ARCHITECTURAL	Туре	Sh	eet No.	Rev
COVER PAGE		А	01 of 17	А
BLOCK ANALYSIS PLAN		А	02 of 17	А
SITE ANALYSIS PLAN		А	03 of 17	А
DEMOLITION PLAN		А	04 of 17	А
DEVELOPMENT DATA		А	05 of 17	А
SITE & GROUND FLOOR PLAN		А	06 of 17	А
FIRST FLOOR PLAN		А	07 of 17	А
ROOF PLAN		А	08 of 17	А
ELEVATIONS		А	09 of 17	А
ELEVATIONS		А	10 of 17	А
SECTIONS		A	11 of 17	A
SHADOW DIAGRAM - JUNE 21 9am		А	12 of 17	А
SHADOW DIAGRAM - JUNE 21 12noon		А	13 of 17	А
SHADOW DIAGRAM - JUNE 21 3pm		А	14 of 17	А
SHADOW ELEVATIONS		А	15 of 17	А
VIEW FROM SUN DIAGRAMS		А	16 of 17	А
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SITE DRAINAGE PLAN		5W	2 of 5	
OSD SECTION AND STORMWATER DETAILS		SW	2 of 5	P1
STORMWATER DETAILS		sw	4 of 5	Р1
SEDIMENT CONTROL PLAN		sw	5 of 5	Р1
CUT AND FILL PLAN		C	-	-
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LEGEND & NOTES		Η	1 of 4	В
SITE / GROUND FLOOR PLAN		Н	2 of 4	В
FIRST FLOOR PLAN		Н	3 of 4	В
ROOF PLAN		Н	4 of 4	В
LANDSCAPE	Тур	be	Sheet No.	Rev





LANDSCAPE PLAN

DETAIL SURVEY

DETAIL SURVEY

DETAIL SURVEY

SURVEY

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S 1 of 3

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S 3 of 3

Type Sheet No. Rev

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DTA Architects PHONE No 1800 738 718

PROJECT MANAGER

Land & Housing Corporation NORTHERN NSW REGION

DATE: 21/09/2023 DESIGN: DA PROJECT No: BGZDW

NOMINATED ARCHITECTS: **Daniel Donai** NSW ARB No.9068

0 5 10 20 40MM SCALE FOR PRINTING

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EXISTING 1 STOREY MULTI UNIT DEVELOPMENT. -



EXISTING 1 STOREY MULTI UNIT DEVELOPMENT. -



EXISTING 2 STOREY BUILDING.





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Land & Housing Corporation NORTHERN NSW REGION

SENIORS HOUSING DEVELOPMENT

at Lots 6, 7 & 8 in DP 35468 17-21 Wardell Rd Alstonville NSW 2





PROPOSED DEVELOPMENT OWNED BY DEPARTMENT OF HOUSING



- EXISTING 1 STOREY MULTI UNIT DEVELOPMENT.

- TYPICAL LOT DEVELOPMENT

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NOMINATED ARCHITECTS: Daniel Donai NSW ARB No.9068 Member Australian Institute of Architects

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Land & Housing Corporation

PROJECT SENIORS HOUSING DEVELOPM

at Lots 6, 7 & 8 in DP 35468 17-21 Wardell Rd Alstonville NSV



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SITE ANALYSIS PLAN 1:200

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Land & Housing Corporation NORTHERN NSW REGION

PROJECT SENIORS HOUSING DEVELOPM

at Lots 6, 7 & 8 in DP 35468 17-21 Wardell Rd Alstonville NSV



LEGEND - DEMOLITION ---- EXTENT OF SITE BOUNDARY



XN

EXISTING TREES TO REMAIN. REFER ALSO TO

EXISTING TREES TO BE REMOVED. REFER ALSO TO LANDSCAPE DRAWING.

+ & EXISTING LEVELS

PERFORM ALL THE DEMOLITION AS SHOWN ON THE DRAWING AND/OR AS NECESSARY REQUIRED CARRYING OUT THE WORKS UNDER THE CONTRACT.

NB: CARE MUST BE TAKEN WHILE CARRING OUT THE WORKS. PROTECT EXISTING PROPERTY FROM DAMAGE BY APPROPRIATE MEANS INCLUDING SHORING, STRUTTING, PROTECTIVE SCREENS, SHEETING AND THE LIKE.

REPAIR & REINSTATE ANY SUCH DAMAGE TO MATCH EXISTING. EXISTING SERVICES: DEAL AS APPROPRIATE WITH EXISTING SERVICES INCLUDED IN OR ENCOUNTERED DURING THE COURSE OF THE DEMOLITIONS.

BEFORE DEMOLISHING AND REMOVING PARTS OF BUILDING HAVING ELECTRICAL WIRING, GAS, SEWER AND WATER PIPES, CONDUIT OR SIMILAR ITEMS EMBEDDED IN THEM, NOTIFY THE PROJECT MANAGER/ SUPERINTENDENT, AUTHORITIES HAVING JURISDICTION, AND MAKE SURE THAT THESE ITEMS ARE OUT OF SERVICE SO THAT THEY CAN BE REMOVED WITHOUT DANGER.



DEMOLITION PLAN 1:200

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Site Area			2086.66 m	1 ²				
Number of existing lots	3							
Number of dwellings		13 units -	6 x 2bed + 7 x 1	bed (46:54 ra	tio)			
Dwellings	Number	Туре	No. of Bedrooms	Area (m2)	POS (m2)			
	1	Ground	1 (SEPP Sch. 4)	59.24	100.45			
	2	Ground	1 (SEPP Sch. 4)	58.96	99.26			
	3	Ground	2 (SEPP Sch. 4)	78.91	61.19			
	4	First	1	59.23	10.32			
	5	First	1	58.69	10.24			
	6	First	2	79.33	12.03			
	7	Ground	2 (SEPP Sch. 4)	78.91	57.48			
	8	Ground	2 (SEPP Sch. 4)	75.13	51.92			
	9	First	2	80.25	12.03			
	10	First	2	75.25	12.03			
	11	Ground	1 (SEPP Sch. 4)	56.86	67.63			
	12	Ground	1 (SEPP Sch. 4)	56.82	28.50			
	13	Ground	1 (SEPP Sch. 4)	56.90	29.33			
	Cor	ntrol	Requirement		Provided			
Proposed FSR	HOUSING SE	PP	0.5:1		999.74m²			
	BALLINA LEP		n/	0.48:1				
Building Height	BALLINA LEP		8.5	m	8.5m			
	HOUSING SE	рр Г	9.5					
		Front	Primary - 6m Secondary - 4m		Primary - 6.0m			
Setbacks	BALLINA DCP	Side	45° plane from the boundary at 1.8m high 45° plane from the boundary at 1.8m high		3.2m (U11) 4m (U1&2)			
		Rear			3.8m			
		Art. Zone	4.5m (structu art zo	4.5m (structures <25% of art zone)				
Car parking	LAHC		0.5/1bed (7 x 0.5) + (6	,1/2bed 5 x 1) = 9.5	10			
	HOUSING SE	PP	3 (1/5 dv	vellings)				
Landscaping	HOUSING SE	PP	35m ² / unit (455m ²)		Complies (599m ²)			
Doop Soil		חח	$15\% \text{ of site} = 313\text{m}^2$		326.8m²			
Deep Soli	HOUSING SEI	PP	to rear = 2	180.4m²				
			70% of dwellin	gs to receive	Living - 85%			
Solar Orientation	HOUSING SE	PP	2 hours of	(11 units)				
			between 9ai	POS - 100%				
			mia w	(13 units)				

STORAGE									
		Kito	hen		Linen	Broom	Bedr	oom	
Dwelling Number	Pantry (600mm wide)	Drawer (min. 450mm wide)	Fridge Space (800mm - 1 bed) 900mm - 2 bed)	D/W provision (600mm wide)	min. 600x450 mm wide	min. 600x450 mm wide	Bed 1 (1.8m x 0.6m)	Bed 1 (1.5m x 0.6m)	
1	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
2	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
3	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
4	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
5	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
6	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
7	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
8	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
9	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
10	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
11	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
12	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
13	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	

	BASIX REQUIREMENTS								
	All Dwellings: - Shower to have a min rating of 4 stars (>4.5 but <=6.0 L/min) - Toilet flushing system to have a min rating of 4 stars - Taps for kitchens and bathrooms to have a min rating of 5 stars - Hot water units to be electric heat pump to ground floor units and solar electric boosted to first floor units. - Provide electric cooktop and electric oven to all units			Common Areas: - Rainwater tank to be a min of 4,000 Litres and be of a central rain water tank, collecting a min of 400sqm of roof area. Landscape connection to all ground floor units and common landscape area. Toilet connection to all units. - Solar panels to be provided with a min electrical output of 15 peak kW					
				DE DATE: 21/09/2023	VELOPME SCALE: As shown @ A1			N 3	
				STAGE:	DRAWN: SD				
7	FILE: CAD File: S:\Data3\2022\2022.033.LAHC.SL.17-21 Wardell Rd Alstonville\3.Design\3.2 DA \2022.033.LAHC.Wardell Rd, Alstonville.DA01.pln	PLOTTED: 21/0 12:5	9/2023 52 PM	түре:	SHEET: 5 0	f 17	REV:		

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	ARCHITECT	HYDRAU
	DTAArchitects Pty Ltd	Abel & E
	PH (02) 9601 1011	PH (02) 9
	PROJECT MANAGER	ELECTRI
	LAND & HOUSING CORPORATION	Greenvi
	PH 1800 738 718	PH (02) 8
	STRUCTURAL / CIVIL	LANDSC
	MSL Consulting Engineers Pty Ltd	Ray Fug
JUNS UN SITE.	PH (02) 4226 5247	PH 0412 3



	ARCHITECT	HYDRAULIC	BUSINESS PARTNER:		PROJECT:
	DTAArchitects Pty Ltd	Abel & Brown Pty Ltd		1	
	PH (02) 9601 1011	PH (02) 9709 5705			SENIORS HOUSING DEVEL
	PROJECT MANAGER	ELECTRICAL / BASIX CONSULTANT			- 1
	LAND & HOUSING CORPORATION	Greenview Consulting Pty Ltd			at
	PH 1800 738 718	PH (02) 8544 1683			Lots 6, 7 & 8 in DP 35468
	STRUCTURAL / CIVIL	LANDSCAPE CONSULTANT		Land & Housing Corporation	17-21 Wardell Rd Alstonville
SIONS ON SITE	MSL Consulting Engineers Pty Ltd	Ray Fuggle & Associated Pty Ltd	GOVERNMENT		

ENGINEERS DETAILS

LEGEND ARMCO BARRIER

ABH ANG

ANG-1

ARMCO BARRIER WITH HANDRAIL CONTINUOUS 100 x 100 x 6 GALVANISED STEEL

CONTINUOUS 100 x 100 x 6 GALVANISED STEEL PROTECTIVE ANGLE FIXED TO FLOOR EXACT

POSITION TO BE DETERMINED ON SITE

STEEL PROTECTIVE BOLLARDS REFER TO DETAILS VANITY BASIN

WALL HUNG BASIN - DISABLE COMPLIANT

PROTECTIVE ANGLE TO WALL LINE, REFER TO DETAILS

2 Sheet 1

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WALL HUNG BASIN BATTERY CHARGE BACK FLASHING BROOM FINISHED CONCRETE BFC CARPET AS SPECIFIED CEILING ACCESS PANEL COLORBOND FENCE CH CR CLOTHES HOOK CEMENT RENDERED FINISH CLEANERS SHELF CERAMIC TILES Ιст C/W DB DP DPS DT COMPLETE WITH ELECTRICAL DISTRIBUTION BOARD DOWNPIPE - COLORBOND. DOWNPIPE & SPREADER - COLORBOND. DOOR THRESHOLD REFER TO DETAIL DISHWASHER AS SPEC. DW EAC EDB EXPOSED AGGREGATE CONCRETE ELECT. DISTRIBUTION BOARD, REFER TO ELECT. DOCUMENTS EXHAUST FAN EG EW EAVES GUTTER EYE WASH FRIDGE AS SPEC. FG FIXED GLASS FIRE HOSE REEL REFER TO HYDRAULUC ENGINEERS DETAILS FHR FIP FIR INDICATOR PANEL (LOCATED MAIN ENTRY) RECESSED FLOOR MAT FM FW FW GD GPO-S GPO-D GPB GR HD HTH HWU HYD GRATED DRAIN SINGLE GENERAL PURPOSE OUTLET DOUBLE GENERAL PURPOSE OUTLET GOAL POST BOLLARDS GRAB RAIL HAND DRYER HEATED THRESHOLD HOT WATER UNIT HYDRANT REFER TO HYDRAULUC ENGINEERS DETAILS LAMINATED BENCH TOP & CUPBOARDS LC LK LOCKERS M1 MIRROR ELECTRICAL MAIN SWITCH BOARD MICROWAVE OVEN AS SPEC. MSB MW MF1 MF2 MF3 NS-CT OF PB PTD RH RM SCR SC METAL FENCE MF1-1200mm IN HEIGHT. METAL FENCE MF2-1500mm IN HEIGHT METAL FENCE MF3-1800mm IN HEIGHT NON-SLIP CERAMIC TILE OVERFLOW PLASTERBOARD LINING PAPER TOWEL DISPENSER RANGE HOOD RECESSED ENTRY MAT SHOWER CURTAIN RAIL COLUMN TO STRUCTURAL ENGINEERS DETAILS SOAP DISPENSER WALL SHELF SEWER STACK REFER TO HYDRAULIC SK ENGINEERS DETAILS SK-1 SK-2 SMP STF TGSI TG STAINLESS STEEL SINK CLEANER SINK BOX GUTTER SUMP & OVERFLOW STEEL TROWEL FINISHED CONCRETE TACTILE INDICATOR TRENCH / GRATED DRAIN TH TIM TP THRESHOLD RAMP TIMBER FLOORING TOILET PARTITIONS TPH TRS TS-1 TS-2 TS-3 TS-4 TOILET PAPER HOLDER TRANSLUCENT ROOF SHEETING TAP SET - WASHROOMS

TAP SET - DISABLE COMPLIANT

477	FILE: CAD File: S:\Data3\2022\2022.033.LAHC.SL.17-21 Wardell Rd Alstonville\3.Design\3.2 DA \2022.033.LAHC.Wardell Rd, Alstonville.DA01.pln	PLOTTED: 21/09/20 12:52 PI)23 M	түре:	SHEET: 7 0	f 17	REV:	
		_		C	SD			
1				DATE: 21/09/2023	SCALE: As shown @ A1	PROJ: BGZDW	^{ЈОВ:} 2022.033	
Ŧ								
	1:100		XP	EPOXY F	LOORING			
	FIRST FLOOR PLAN		WG WT WU-1 WS	WHEEL G WASH TR WALL HU WHEEL S	GUIDE COUGH NG URINAL			
			WC-1 WC-2 WC-3	TOILET P TOILET P TOILET P	AN / SUITE AN / SUIT DISABI AN / SUITE AMBL	LE COMPLIANT JLANT		
			VTY WB	VANITY U WORK BE	O HYDRAULIC DO INIT ENCH	OCUMENTS		
			V VP	VINYL VENT PIP				
			TS-3 TS -4 US	TAP SET TAP SET MOP & BI	- KITCHEN - CLEANERS ROOM SHELF			

