
ParkTransit

TRAFFIC IMPACT ASSESSMENT - SENIORS HOUSING

2-10 Birch Street & 20 Debrincat Avenue

9th November 2023

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

Traffic Impact Assessment Report for
Seniors Housing
2-10 Birch Street & 20 Debrincat Avenue North St Marys
For: DTA Architects
Date: 9th November 2023

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Abbreviations

Proposal: Construction of a Seniors Housing Development

RMS: Road and Maritime Services

DCP: Penrith Council Development Control Plan– 2014

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 2-10 Birch Street & 20 Debrincat Avenue, North St Marys, within the Penrith Council LGA.

The proposed development will accommodate a total of 22 residential units with associated parking provided within the at-grade level car park within the site boundary.

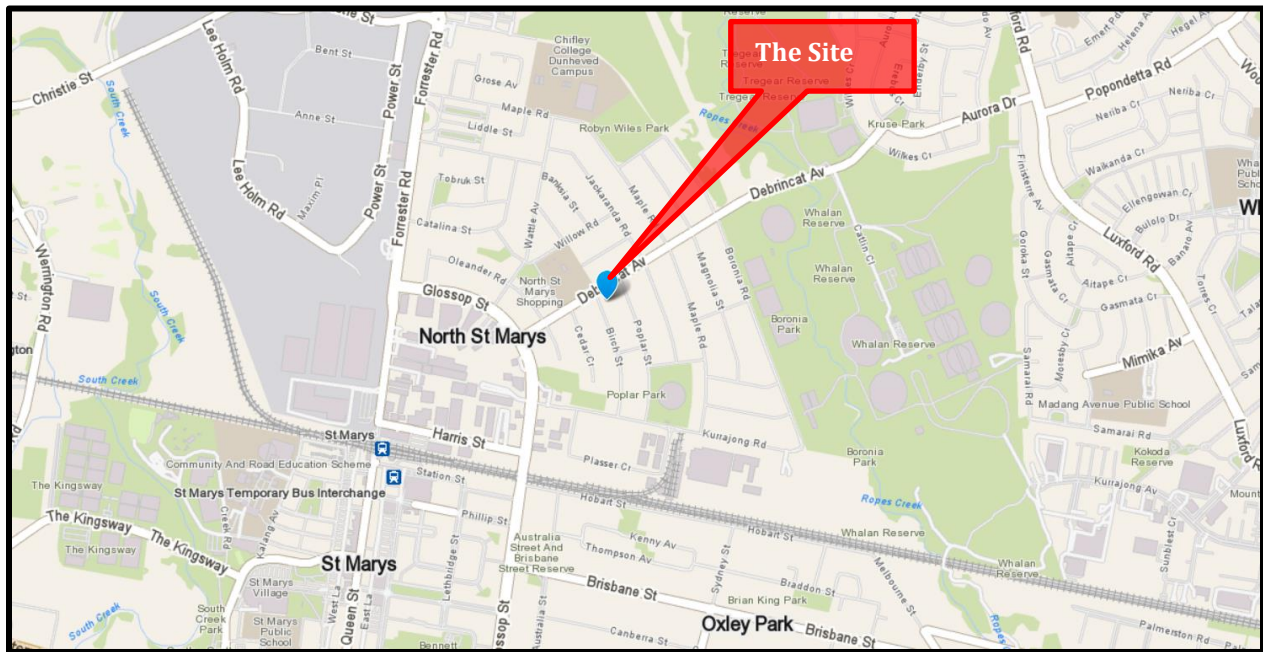


Figure 1-Site Location (Source Whereis Maps)

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

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

- Penrith Council Development Control Plan (DCP 2014);
- The Road and Maritime Services 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 2-10 Birch Street and 20 Debrincat Avenue, North St Marys in a predominantly residential area and forms part of the Penrith Council LGA. The site is located on the south-eastern corner of the intersection of Birch Street with Debrincat Avenue. It occupies an area of 3,630.9m².

The site occupies Lot 346-350 of DP31990 and Lot 305 of DP30223 and has frontages located along Debrincat Avenue and Birch Street. The site is bordered by residential development to the East and South, Debrincat Avenue to the North and Birch Street to the east. It has a frontage measuring 20m located on Debrincat Avenue and an 81m frontage on Birch Street.

The site is occupied by six single storey dwelling houses. Each of the dwelling houses is serviced by a dedicated driveway resulting in a total of six 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 looking towards the Driveways Servicing 20 Debrincat Ave



Photo taken on Birch Street looking towards the Site

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

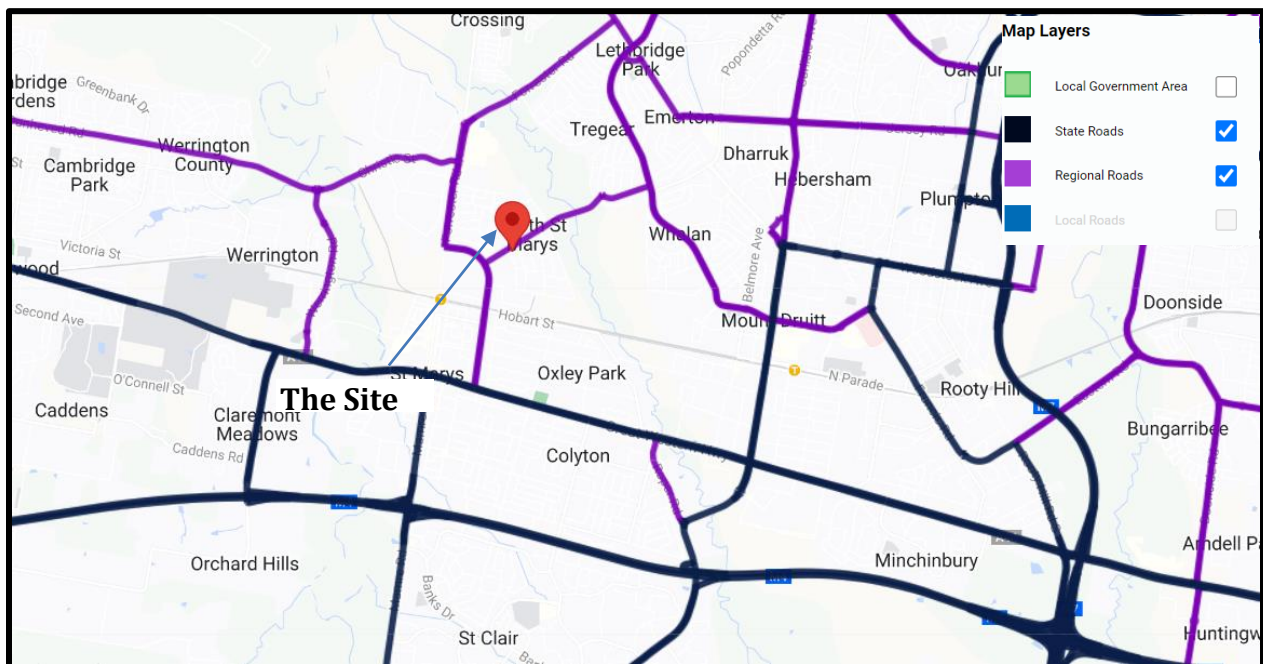


Figure 3-Surrounding Road Network (Source Transport for NSW Website)

3. Overview of the Existing Traffic Conditions

3.1. Description of Road Environment

Glossop Street is classified as a Regional Road and connects Great Western Highway with Forrester Road. It follows a North-South alignment, and the carriageway is divided and comprises two traffic lanes in each direction with no on-street parking permitted. A paved footpath is available on both sides and has a posted speed limit of 60kph. A number of properties comprising both retail and residential have their frontages

located along the Glossop Street and these properties are accessible via the driveways located along the Glossop Street.

Debrincat Avenue follows an East-West alignment and is classified as a Regional Road. The carriageway is undivided and comprises one traffic lane in each direction with on-street parking permitted. A paved footpath is available on both sides and has a posted speed limit of 60kph. A number of residential properties have their frontages located along the Debrincat Avenue and these properties are accessible via the driveways located along Debrincat Avenue. The intersection of Glossop Street with Debrincat Avenue operates as a signalised intersection and includes pedestrian crossing on all the approaches. Within the vicinity of the subject site, a number of buses operate along the Debrincat Avenue.

Birch Street is classified as a Local Road and follows a North-South alignment. The carriageway is undivided and comprises one traffic lane in each direction with on-street parking permitted. The intersection of Birch Street with Debrincat Avenue operates as a signalised intersection and includes pedestrian crossing on all the approaches.

3.2. Public Transport

The site is serviced by both trains and buses. The nearest station located within vicinity of the site is St Marys, which is situated approximately 1.8 kilometres to the southwest. St Marys Train Station is serviced by the 'T1 Western Line'. This service operates between Emu Plains and Sydney CBD via Parramatta. During the morning peak period (08:00-09:00am), the service operates with a frequency of four inbound (to City), and four outbound services (to Emu Plains).



Figure 4- Train Service Map (Source NSW Transport Info Website)

Bus services within vicinity of the development site are operated by Busways Buses and are summarised below:

Route No 758 is a regular bus service operating daily between St Marys and Mt Druitt. It operates from 04:00am to 11:00pm, with a frequency of one service every 30 minutes (during the morning and evening commuter peak period). Bus services can be accessed via the bus stop located along Debrincat Avenue west of Birch Street.

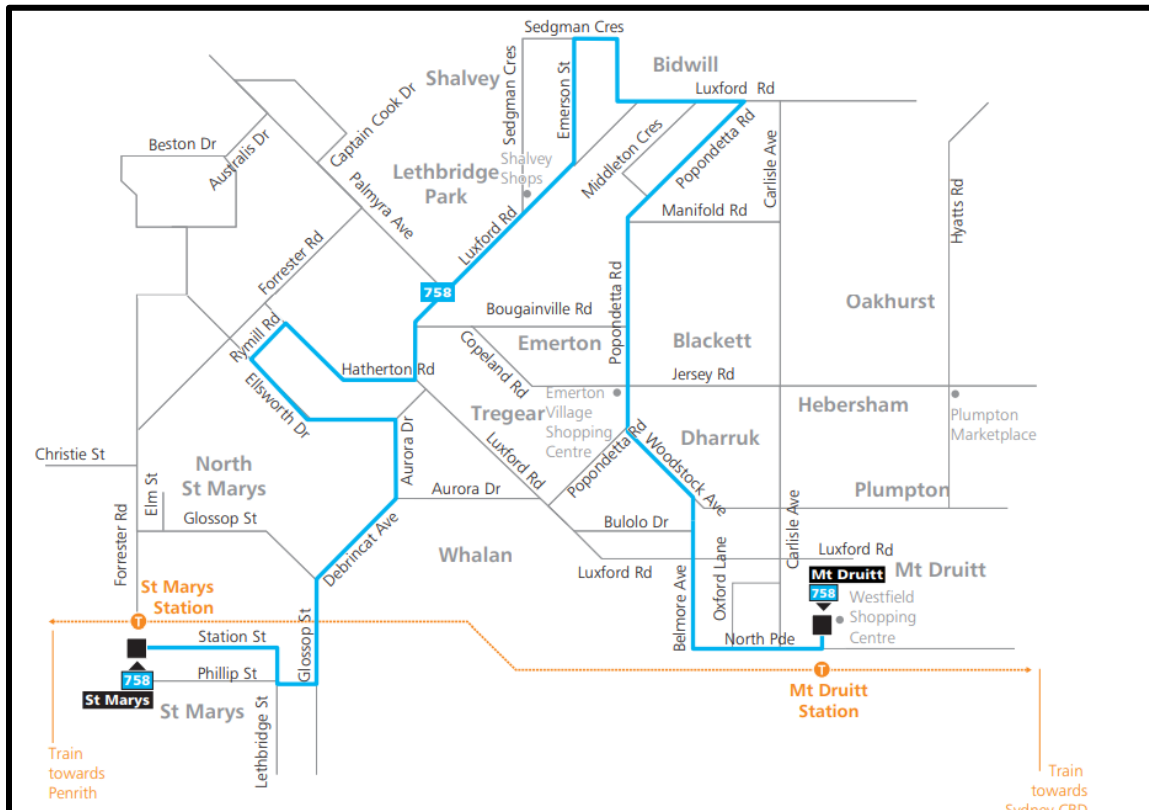


Figure 5- Route Map –Bus Route 758 (Source NSW Transport Info Website)

Route No 759 is a regular bus service operating daily between St Marys and Mt Druitt. It operates from 04:00am to 12 midnight and can be accessed via Debrincat Avenue. Access to this bus service is exclusively available on school days, and outside of this timeframe, it cannot be accessed via Debrincat Avenue. It operates with a frequency of one service every 30 minutes (during the morning and evening commuter peak period).

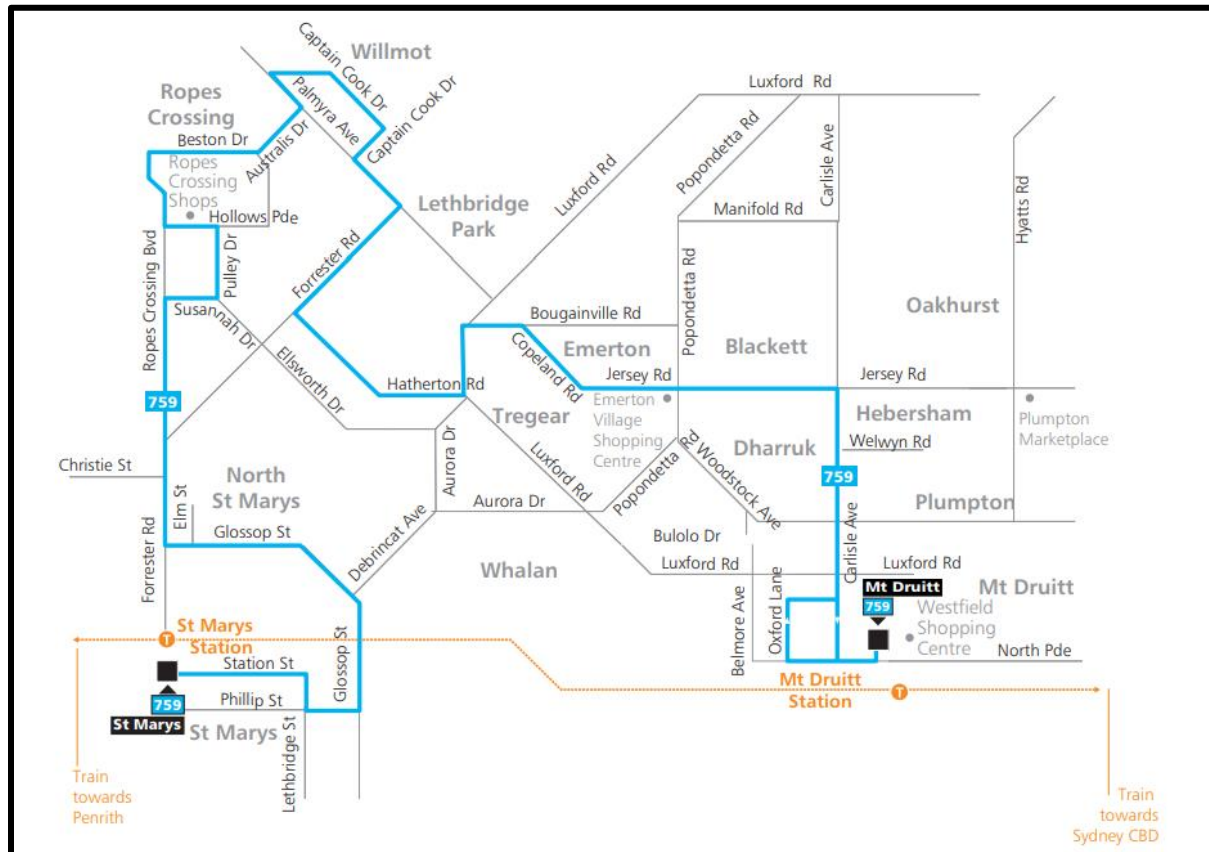


Figure 6- Route Map –Bus Route 759 (Source NSW Transport Info Website)

3.3. Pedestrian Access to the Bus Stop

Bus services are accessible via the bus stops located along Debrincat Ave (approx 40m West of the Birch Street Intersection). The location of the existing bus stops are shown in the figure below.

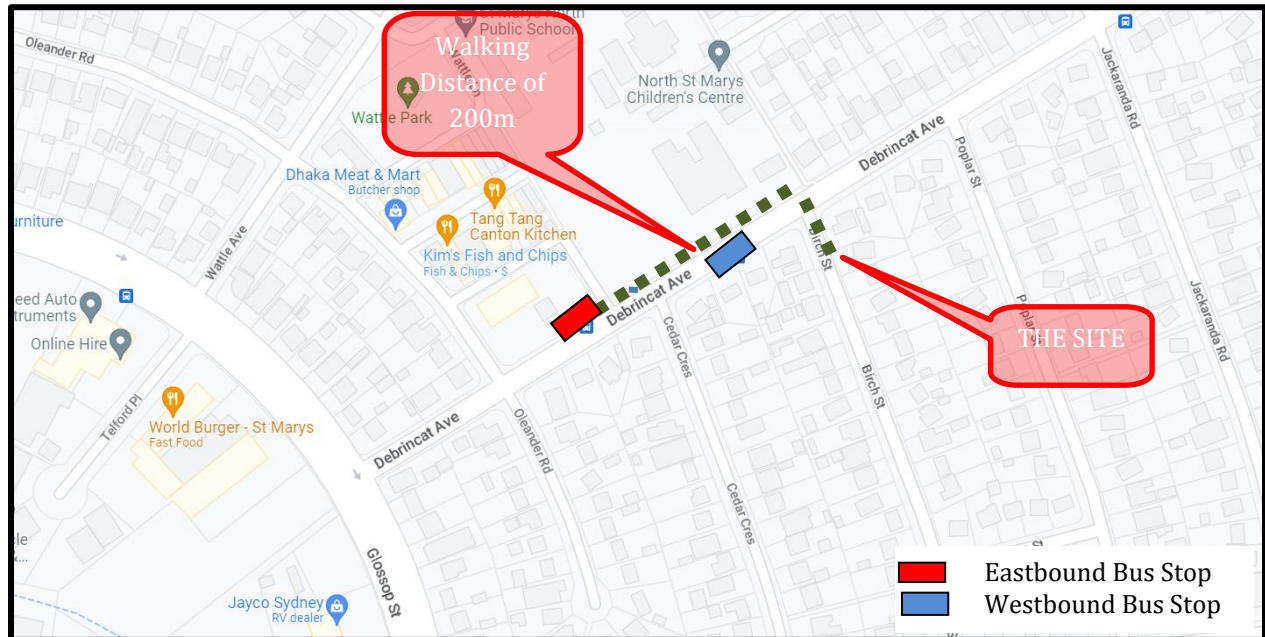


Figure 7- Bus Stop Location Plan (Source Google Maps)

In relation to accessibility to/from The Site, clause 93(4) of Part 5 of the SEPP (Housing 2021) identifies public transport as the preferred means of transport and recommends any bus stops or rail stations should be located at a maximum distance of 400m from The Site. Additionally, in relation to the topography along the access route to any public transport, the SEPP recommends the gradient along the pedestrian route (connecting the bus stop with the Seniors Housing development) should be flat or even.

The review further indicated that the pedestrian access to/from the subject site to the above bus stops, suggests these bus stops are located within the recommended 400 metre walking distance - therefore, are considered suitable to be used by the residents of the proposed Seniors Housing.

Furthermore, to establish the quality of pedestrian access to/from the site, a detailed gradient survey was undertaken and is presented as **Attachment C**. The gradient surveys identified the location which require upgrades works to be compliant with the planning requirements. Based on the information provided to us, we understand these upgrade works will be undertaken as part of the proposed development. Details on the proposed upgrade works will be provided at a later stage.

3.4. Existing Traffic Generation of the Site

The subject site is located within a predominantly residential area and is currently occupied by five 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 five (5) existing dwelling houses results in the 4.25 (say 4) vehicle trip per hour during peak period.

3.5. 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.

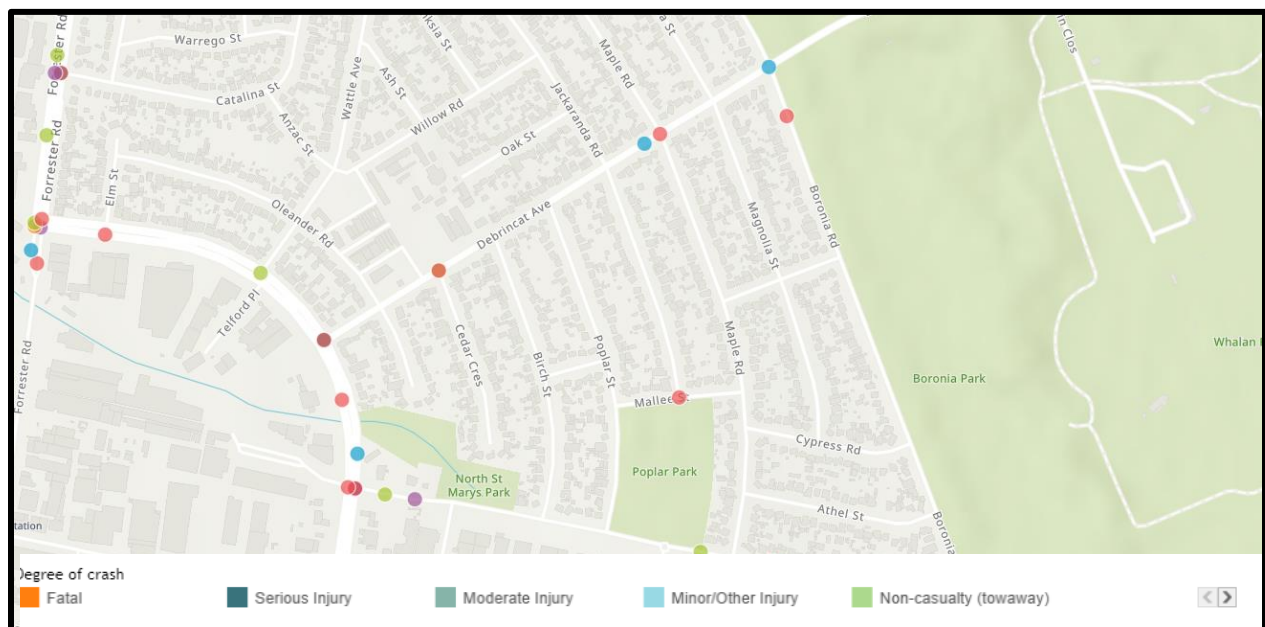


Figure 8- Crash data (Source NSW Centre for Road Safety)

4. Description of the Proposed Development

The development proposal involves the construction of a double storey Seniors Housing that will accommodate a total of 22 residential units comprising the following:

- 10 x one-bedroom units; and
- 12 x two-bedroom units.

As part of the proposal, an on-site parking provision of ten(10) car spaces, including five (5) disabled car spaces. Four of the proposed five disabled car spaces will be accessible via the combined entry and exit driveway located on the Birch Street frontage whereas, a disabled car space associated with Unit 15 will be accessible via a dedicated combined entry and exit driveway located on the Birch Street frontage. 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**.

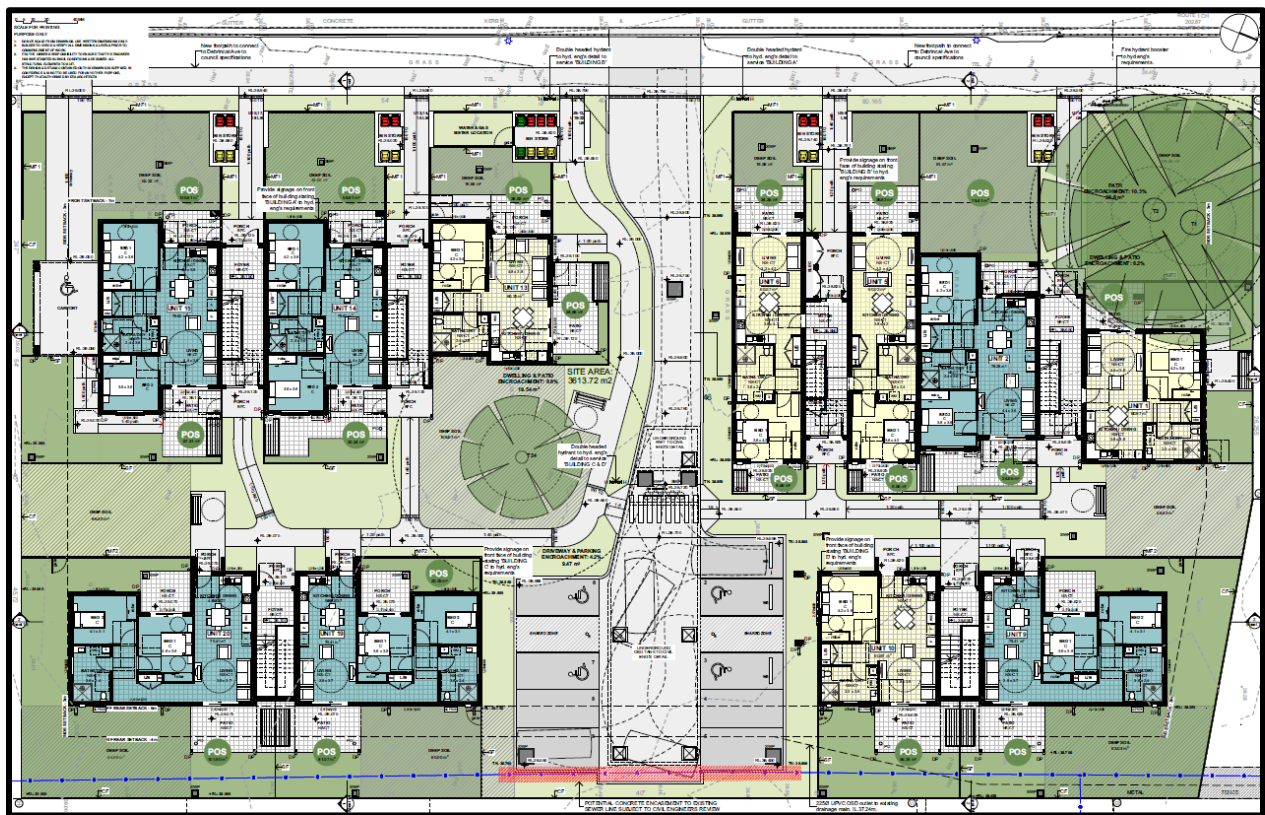


Figure 9 – Proposed Ground Floor Plan (Source DTA Architects)

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 22 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 8.8 (say 9) 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 4.0 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 9 vehicle trips- representing a trip every six and half 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 9.0 vehicle trips an hour - which represents an increase of 5.0 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 22 units comprising of the following:

- 10 x one bedroom units; and
- 12 x two bedroom units.

Application of the above on-site parking provision rate to the proposed development would results in 4.4 (say 5) car spaces.

6.2. Proposed Parking Provision

The proposed on-site provision of ten (10) car spaces, including five (5) 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 ten (10) parking spaces - four the disabled car spaces are located with the at-grade car park and the remaining one space is located southern boundary of the subject site. 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 5.4metres, thereby meeting the minimum requirements stipulated by AS2890.6-2009.

Lastly, the dedicated disabled space servicing Unit 15 was reviewed with reference to Australian Standard for Adaptable Housing AS4299-1995 .It recommends the following car space dimensions:

- Space width – 3.8 metres
- Space length – 6.0 metres

the dedicated disabled space servicing Unit 15 was measured to be 3.8m wide and 6.0m long and therefore, it is considered compliant with the AS4299-1995.

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 following two driveways located along Birch Street frontage:

- Driveway 1 - located along the southern boundary of the site servicing a dedicated car space for Unit 15; and
- Driveway 2 located along the middle of the site servicing the at-grade car park accommodating nine (9) spaces.

The figure below presents the location of the above two driveways:

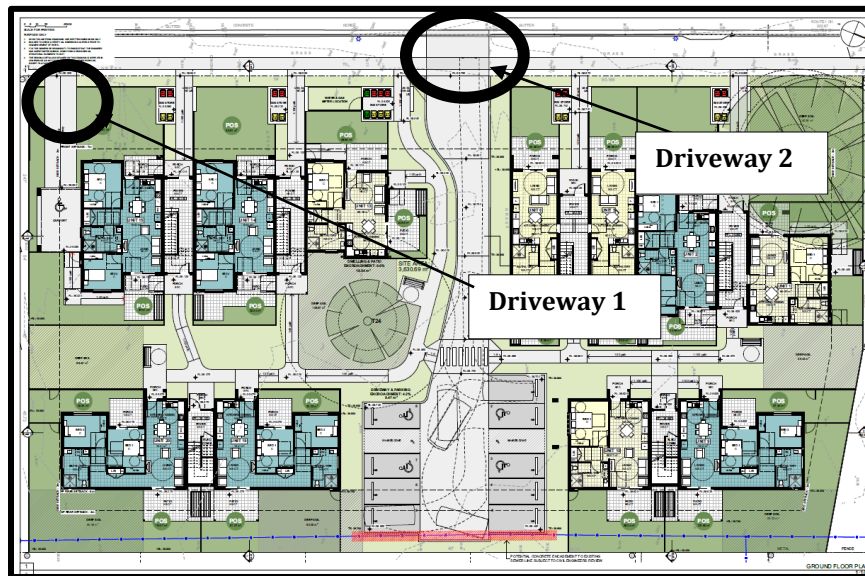


Figure 9 – Proposed Driveway location plan (Source DTA Architects)

Driveway 1 services one car space and therefore, it has been assessed as a “domestic driveway”. In relation to the width of the domestic driveway, Clause 2.6.1 of AS2890.1 recommends a minimum width of 3.0m. The proposed driveway was measured to be in excess of 3.0m and therefore considered compliant with the Standard.

Driveway 2 services the at-grade car park accommodating nine spaces. 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 the proposed driveway is located on Birch Street (which is classified as a Local Road) and the car park has a capacity of 9 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 two driveways to service the development. As discussed in Section 7.1 of this report, “Driveway 1” (for location details please refer to figure 9 of this report) services the car space associated with the accessible unit and is classified as a “domestic” driveway. The proposed driveway arrangement would warrant the resident to either enter in forward direction and reverse out of the site or reverse in and exit in forward direction. This vehicular access arrangement is typical for a residential dwelling house and therefore is considered compliant with the Standard.

The width of the proposed “Driveway 2” (for location details please refer to figure 9 of this report) 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 9 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 7.2 (say 7) vehicles exiting the site and 1.8(say 2) vehicles 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 Birch Street.

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 a driveway located along the Birch Street frontage, which has 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 Birch Street with unobstructed visibility. In this regard, the driveway arrangement is considered safe and appropriate to service the proposed residential development.

7.4. Driveway Location

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

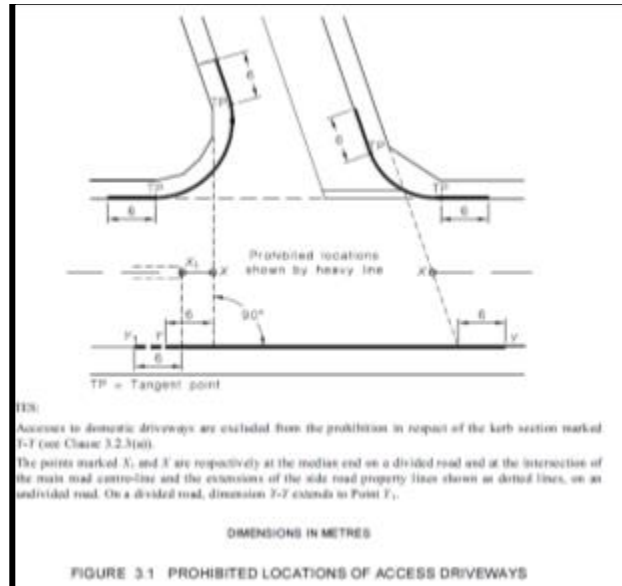


Figure 10- Prohibited Locations of Access Driveway (Source AS2890.1-2004)

A review of the proposed two driveways indicate both these driveways are 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 where on-street parking is permitted along all the local streets servicing the site. 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 ten (10) car parking 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).

9. Attachments

Attachment A - Architectural Plan indicating Access and Car Park Arrangement

Attachment B - Copy of the Survey Plans

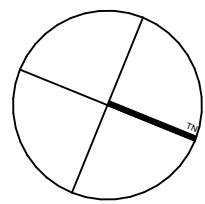
Attachment C- Swept Path Assessment Demonstrating a Standard B85th Vehicle Type Accessing the Car Park

0 5 10 20 40MM

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2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.
3. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.
4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY DTA ARCHITECTS



SITE LEGEND

- 1 BED
- 2 BED
- PRIVATE OPEN SPACE (POS)
- LANDSCAPE AREA
- DRIVEWAY, FOOT PATH & PAVED AREA
- DEEP SOIL ZONE
- CERAMIC TILE (NS-CT)
- BRICK RETAINING WALL
- EX. TREES TO BE RETAINED
- EX. TREES TO BE REMOVED
- STORMWATER PIT
- OVERHEAD POWERLINE
- UNDERGROUND SEWER

LEGEND - PLAN

- External Walls & Party Walls
Nom. 270mm thick cavity brick wall, finish as specified
- Ground Floor Internal Walls
Nom. 110mm masonry wall, c/w 13mm plasterboard / FC lining both sides, set ready for selected paint finish.
- First Floor Internal Walls
Nom. 90mm stud framed wall, c/w 13mm plasterboard / FC lining both sides, set ready for selected paint finish.
- Non-slip ceramic floor tiles. Refer to finishes schedule
- Carpet / vinyl floor finish. Refer to finishes schedule
- Proposed levels. Refer also to drainage drawing.

LEGEND

- AB ARMCO BARRIER WITH HANDRAIL
- ABH CONTINUOUS 100 x 100 x 6 GALVANISED STEEL
- ANG-1 PROTECTIVE ANGLE TO WALL LINE. REFER TO DETAILS
- B CONTINUOUS 100 x 100 x 6 GALVANISED STEEL
- B-1 POSITION TO BE DETERMINED ON SITE
- B-2 PROTECTIVE BOLLARDS REFER TO DETAILS
- B-3 STEEL PROTECTIVE BOLLARDS REFER TO DETAILS
- BC VANITY BASIN
- BC-1 WALL HUNG BASIN - DISABLE COMPLIANT
- BC-2 WALL HUNG BASIN
- BC-3 BATTERY CHARGE
- BF BACK FLASHING
- BFC BROOM FINISHED CONCRETE
- C CARPET AS SPECIFIED
- CAP CEILING ACCESS PANEL
- CH CLOTHES HOOK
- CR CEMENT RENDERED FINISH
- CS CLEANERS SHELF
- CT CERAMIC TILES
- CW COMPLETE WITH
- DB ELECTRICAL DISTRIBUTION BOARD
- DP DOWNPIPE - COLORBOND
- DPS DOWNPIPE & SPREADER - COLORBOND
- DT DOOR THRESHOLD REFER TO DETAIL
- DW DISHWASHER AS SPEC
- EAC EXPOSED AGGREGATE CONCRETE
- EDB REFER TO ELEC. DOCUMENTS
- EF EXHAUST FAN
- EG EAVES GUTTER
- EW EYE WASH
- F FRIDGE AS SPEC.
- F2 FIXED GLASS
- FHR FIRE HOSE REEL REFER TO HYDRAULIC
- FIP ENGINEERS DETAILS
- FM FIRE INDICATOR PANEL (LOCATED MAIN ENTRY)
- FW RECESSED FLOOR MAT
- FW FLOOR WASTE
- GPO-S GRATED DRAIN
- GPO-D SINGLE GENERAL PURPOSE OUTLET
- GFB DOUBLE GENERAL PURPOSE OUTLET
- GR COAL POST BOLLARDS
- GR GRAB RAIL
- HD HAND DRYER
- HTH HEATED THRESHOLD
- HWU HOT WATER UNIT
- HYD HYDRANT REFER TO HYDRAULIC
- HYD ENGINEERS DETAILS
- LC LAMINATED BENCH TOP & CUPBOARDS
- LK LOCKERS
- M1 MIRROR
- MSB ELECTRICAL MAIN SWITCH BOARD
- MW MICROWAVE OVEN AS SPEC.
- NS-CT NON-SLIP CERAMIC TILE
- OP OVERFLOW
- PB PLASTERBOARD LINING
- PTD PAPER TOWEL DISPENSER
- RH RANGE HOOD
- RM RECESSED ENTRY MAT
- SCR SHOWER CURTAIN RAIL
- SC COLUMN TO STRUCTURAL
- SD ENGINEERS DETAILS
- SH SEWER STACK REFER TO HYDRAULIC
- SK ENGINEERS DETAILS
- SK-1 STAINLESS STEEL SINK
- SK-2 CLEANER SINK
- SNP BOX GUTTER SUMP & OVERFLOW
- STF STEEL TROWEL FINISHED CONCRETE
- TGSI TACTILE INDICATOR
- TH THRESHOLD RAMP
- TM TIMBER FLOORING
- TP TOILET PARTITIONS
- TPH TOILET PAPER HOLDER
- TRS TRANSLUCENT ROOF SHEETING
- TS-1 TAP SET - WASHROOMS
- TS-2 TAP SET - DISABLE COMPLIANT
- TS-3 TAP SET - KITCHEN
- TS-4 TAP SET - CLEANERS
- US MOP & BROOM SHELF
- V VINYL
- VP VENT PIPE
- VTY REFER TO HYDRAULIC DOCUMENTS
- WB VANITY UNIT
- WB WORK BENCH
- WC-1 TOILET PAN / SUITE
- WC-2 TOILET PAN / SUITE DISABLE COMPLIANT
- WC-3 TOILET PAN / SUITE AMBULANT
- WG WHEEL GUIDE
- WT WASH TROUGH
- WU-1 WALL HUNG URINAL
- WS WHEEL STOP
- XP EPOXY FLOORING

SITE PLAN
1:200

1



Planning and
Environment

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ARCHITECT	DTA ARCHITECTS Pty Ltd PH (02) 9691 1011
PROJECT MANAGER	LAND & HOUSING CORPORATION PH (02) 9354 1880
STRUCTURAL / CIVIL	MSL CONSULTING ENGINEERS Pty Ltd PH (02) 4228 5247

HYDRAULIC	ABEL & BROWN Pty Ltd PH (02) 9709 5705
ELECTRICAL / BMS CONSULTANT	GREENVIEW CONSULTING Pty Ltd PH (02) 8544 1683
LANDSCAPE CONSULTANT	RAY FUGGLE & ASSOCIATES Pty Ltd PH (04) 224 712



Planning and
Environment
Land & Housing Corporation
GREATER WESTERN SYDNEY REGION

PROJECT:
SENIORS HOUSING DEVELOPMENT
at
Lots 346-350 in DP 31990 & Lot 305 in DP 30223
2-10 Birch Street & 20 Debrincat Ave, North St
Marys NSW 2760

TITLE:
SITE PLAN

DATE	2/11/2023	SCALE	As shown @ A1	PROJ.	BGYVZ	JOB	2022.011
STAGE	DRAWN	SD	CHECKED	DD	CERTIFIER	DD	
TYPE	SHEET						

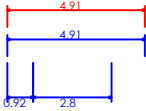
FILE: CAD File: S:\Data\3\2022\2022 011 LAHC SL
2-10 Birch St North St Marys\3.Dwg\3.2 DA
2022 011 LAHC 2-10 Birch Street North St
DA022.pn
PLOTTED: 2/11/2023
9:38 AM

STATUS: DA ISSUE			
DATE: 2/11/2023	SCALE: As shown @ A1	PROJ: BGYVZ	JOB: 2022.01
STAGE: C	DRAWN: SD	CHECKED: DD	CERTIFIER: DD
TYPE: A	SHEET: 7 of 22	REV:	C



A 7 of 22 C



DESIGN VEHICLE SPECIFICATIONS

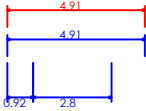


B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m


 	DRAWING TITLE- B85th VEHICLE TYPE EXITING CAR SPACE 1	PROJECT NO - PT 2BSR01	SCALE - NTS
	CLIENT- DTA ARCHITECTS	DRAWING NO - PT 2BSV02	DATE - 09/11/2023
	PROJECT ADDRESS - 2-10 BIRCH STREET, NORTH ST MARYS	NOTES -	



DESIGN VEHICLE SPECIFICATIONS



B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

 ParkTransit Parking & Traffic Design	DRAWING TITLE- B85th VEHICLE TYPE EXITING CAR SPACE 9	PROJECT NO - PT 2BSR01	SCALE - NTS
	CLIENT- DTA ARCHITECTS	DRAWING NO - PT 2BSV04	DATE - 09/11/2023
	PROJECT ADDRESS - 2-10 BIRCH STREET, NORTH ST MARYS	NOTES -	