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Sustainable Transport. Safe Solutions

**Lot 128 Robertson Rd, Byford**  
Proposed Change of Use

**TRANSPORT IMPACT STATEMENT**



Prepared for:  
**Parsons Management Group**

July 2023

# Lot 128 Robertson Rd, Byford

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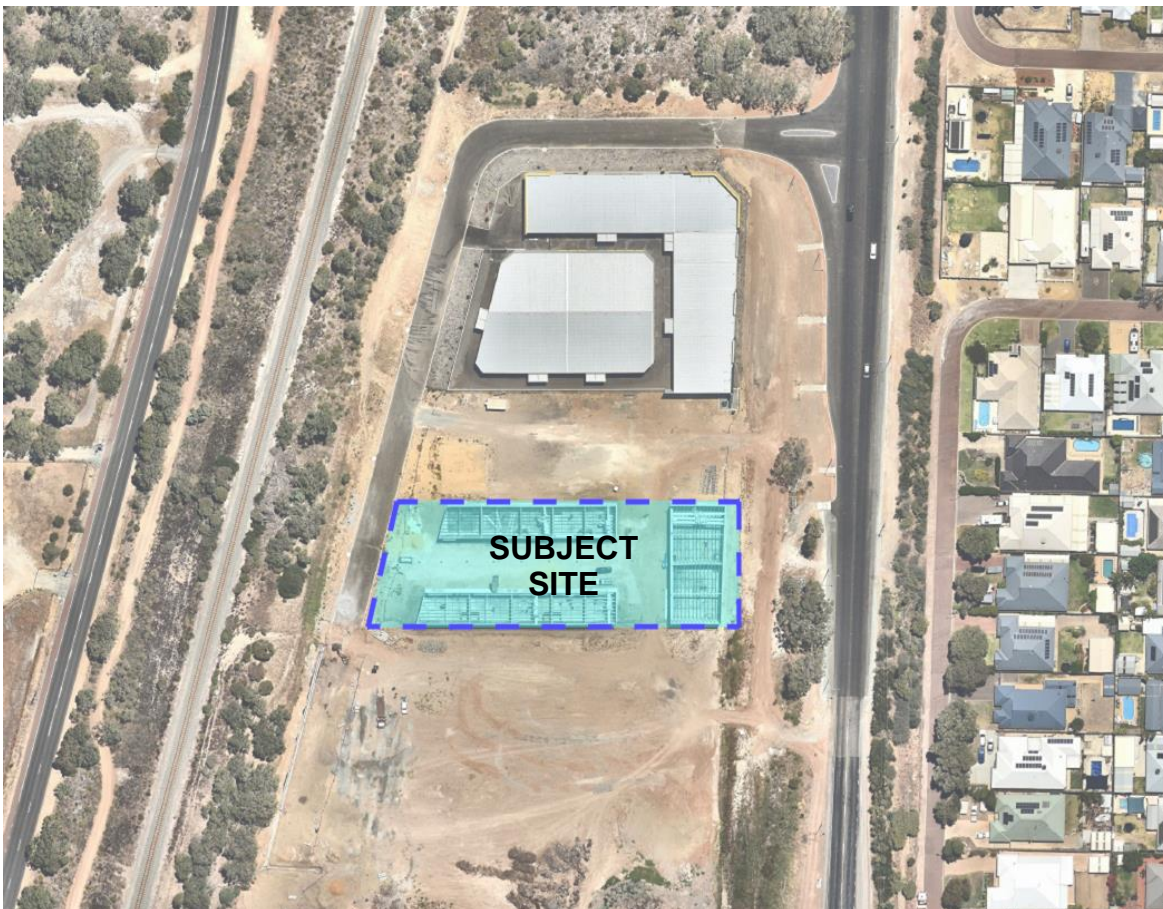
# 1 Introduction

**This Transport Impact Statement has been prepared by Urbii on behalf of Parsons Management Group with regards to the Proposed Change of Use, located at Lot 128 Robertson Rd, Byford.**

The subject site is situated between South Western Highway and Robertson Road, as shown in Figure 1. A commercial development has been approved on the site and is currently under construction. National Storage Byford is nearby to the north and existing residential dwellings are located to the east.

A change of use is proposed which will amend the designated use of approved tenancies. The main change being that the two tenancies backing onto South Western Highway will change from the approved 'Showroom' use to 'Recreation – Private'.

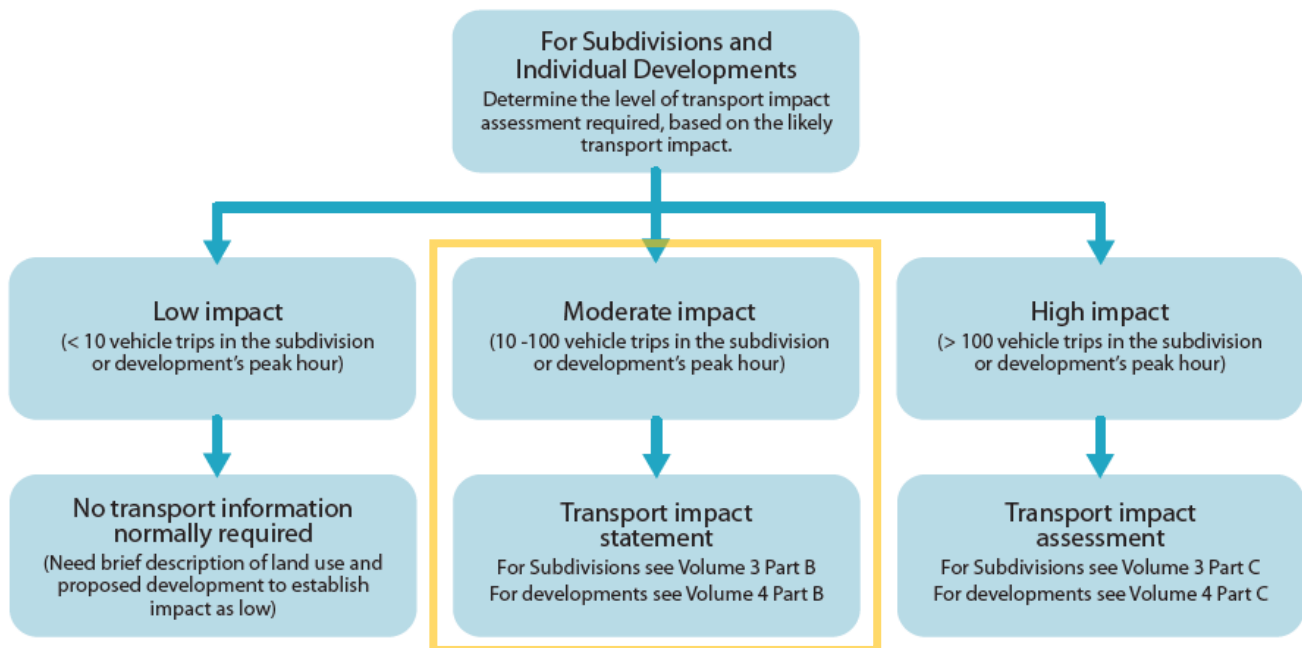
The key issues that will be addressed in this report include the proposed use traffic generation and distribution, access and egress movement patterns, car parking, and access to the site for alternative modes of transportation.



**Figure 1: Subject site**

## 2 Scope of work

The WAPC *Transport Assessment Guidelines 2016* identifies the proposed development as being “Moderate Impact” (Figure 2). Accordingly, a Transport Impact Statement (TIS) has been prepared to support a robust Development Application and to assist the LGA with demonstration of moderate traffic impact.



**Figure 2: WAPC Transport Assessment Guidelines – reporting requirements**

### 3 Proposed development

The proposed change of use for the subject site is summarised in Table 1 and comprises:

- The change of use of Units 1 and 2 from Warehouse (as originally approved) to Light Industry;
- The change of use of Unit 5 from Light Industry (as originally approved) to Warehouse;
- The change of use of Units 6 and 7 (from Showroom as originally approved to Recreation – Private);
- The amalgamation and change of use of Units 8 and 9 from Light Industry (as originally approved) to Warehouse with the unit becoming Unit 8 (on amalgamation);
- The change of use of originally approved Unit 12 from Warehouse to Light Industry (to become Unit 11 with the amalgamation of Units 8 and 9);
- Increased onsite car parking from 37 to 46 car parking spaces; and,
- 6 bicycle parking racks.

Vehicle access to the site is via one crossover on Robertson Road, as per the approved development.

The proposed development plans are included for reference in Appendix A.

**Table 1: Summary of approved and proposed uses**

Tenancy	Area m2	Approved Use	Proposed Use
<b>Unit 1</b>	114	Warehouse	Light industry
<b>Unit 2</b>	115	Warehouse	Light industry
<b>Unit 3</b>	92	Light industry	Light industry
<b>Unit 4</b>	92	Light industry	Light industry
<b>Unit 5</b>	89	Light industry	Warehouse
<b>Unit 6</b>	298	Showroom	Recreation - Private
<b>Unit 7</b>	286	Showroom	Recreation - Private
<b>Unit 8</b>	88	Light industry	Warehouse (185m2)
<b>Unit 9</b>	97	Light industry	
<b>Unit 10</b>	117	Warehouse	Warehouse
<b>Unit 11</b>	125	Warehouse	Warehouse
<b>Unit 12</b>	147	Warehouse	Light industry

The Recreation – Private use involves the relocation of an existing gym operator from the Byford Town Centre to the subject location. The business involves Group training classes and Pilates classes.

The Group classes provide training for 24 persons at a time, with Pilates classes catering to 10 persons at a time.



# 4 Vehicle access and parking

## 4.1 Vehicle access

The proposed vehicular access arrangements have been reviewed for efficient and safe traffic circulation.

Vehicle access to the site is via one crossover on Robertson Road, as shown in Figure 3. The crossover is oriented perpendicular to the road and is 8.0m in width. No change to the approved vehicle access is proposed.

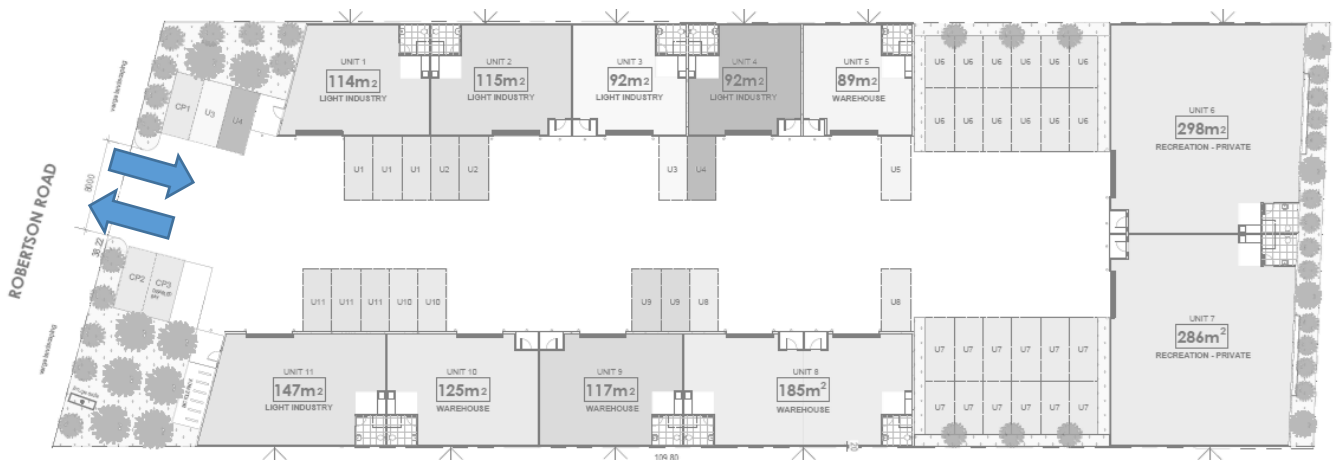


Figure 3: Proposed vehicle access



## 4.2 Parking requirements

The project town planner has provided detailed calculations of parking requirements and allocation on an individual tenancy basis. As detailed in Figure 4, there is a minor shortfall of 4 car parking bays for the proposed 'recreation private' tenancies (28 bays required and 24 bays provided).

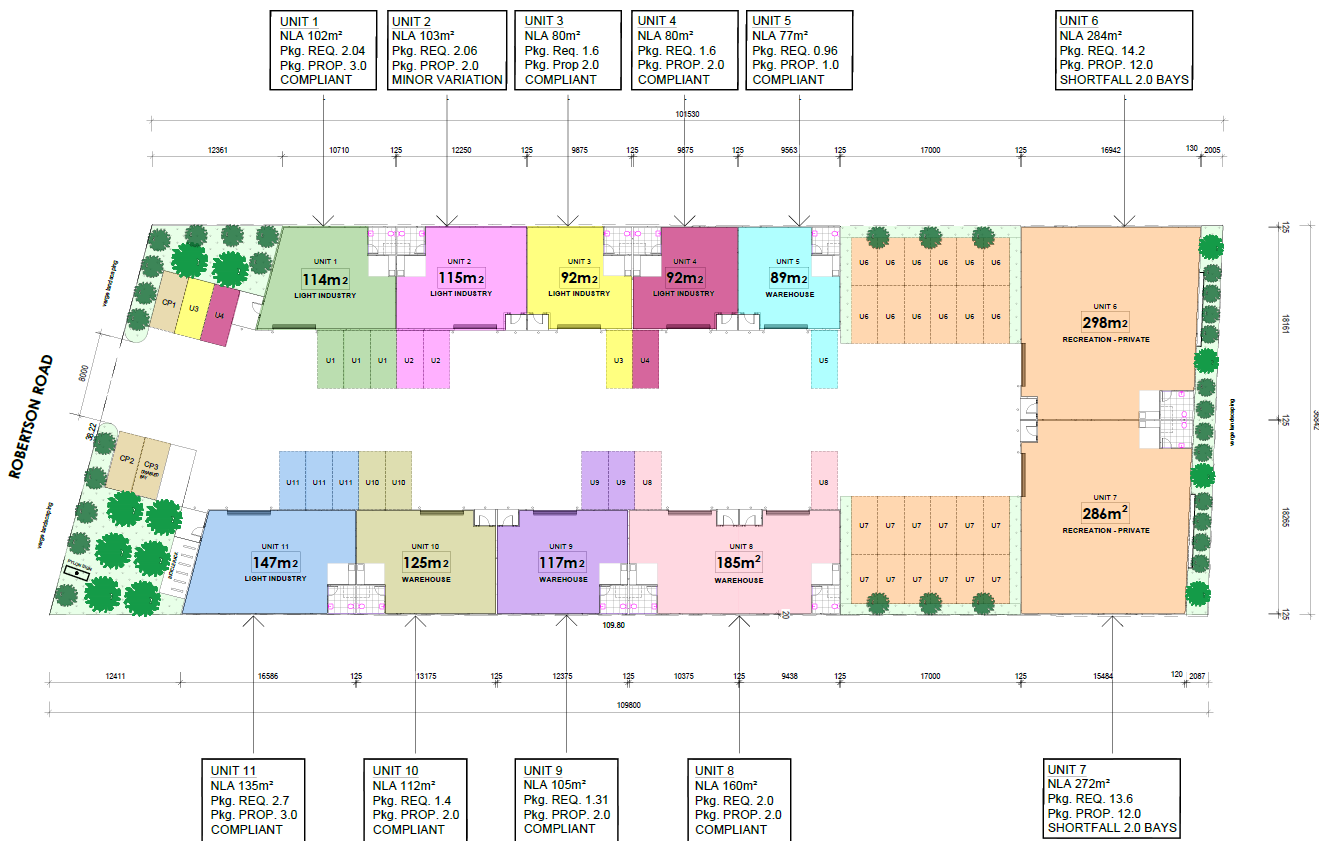


Figure 4: Town planning parking requirements

Source: MW Urban Planning and Development

The proposed car parking shortfall is within acceptable limits, in consideration of the following justification:

- There are 3 x common property car parking bays which can be accessed by the recreation tenancies (reducing the onsite shortfall to only one bay).
- The proposed use of recreation is more likely to encourage active transport options such as cycling and walking. The site is within a walkable catchment of nearby residences and enjoys a large catchment within short cycling distance. Bicycle parking is provided onsite to support active transport choices.
- The recreation tenancies will be holding group training classes with some patrons carpooling or sharing to access the site with family or friends. Additionally, some patrons are dropped off and picked-up. The maximum number of patrons is 24, so surplus car parking is expected to be available for staff.

### 4.3 Parking demand management

The proposed recreation/gym class timetable has been scheduled to remove the overlap of classes, with 10-minute intervals provided between finish and start times (Table 2). This helps reduce the impact on car parking during class transitions.

The gym operator has also restricted the largest class size to be 24 patrons, to help keep parking demand within target levels.

**Table 2: Proposed gym class timetable**

Time	Monday – Friday	Saturday	Sunday
4.50-5.40am	Group Class		
5.50-6.40am	Group Class	Group Class	
6.50-7.40am	Group Class	Group Class	Group Class
7.50-8.30am	Pilates	Pilates	Pilates
8.40-9.20am	Pilates	Pilates	
9.30-10.20am	Group Class		
10.30-11.10am	Pilates		
12.00-12.50pm	Group Class		
3.30-4.10pm	Pilates		
4.20-5.10pm	Group Class		
5.20-6.10pm	Group Class		
6.20-7.10pm	Group Class		
7.20-8.00pm	Pilates		

Source: MW Urban Planning and Development

Parking bays for the gym are provided in tandem, to maximise the number of spaces provided within the approved building footprint on site. Tandem parking is expected to function satisfactorily as the gym holds group classes, with patrons for the most part arriving and departing in platoons at the same time. If a patron needed to leave class early, the other class member will be asked to move their car.

## 4.4 Parking demand modelling

Urbii has undertaken an independent parking demand modelling exercise, to estimate the combined parking demand for the site, based on floor area. This exercise was undertaken to assess if total parking onsite will be sufficient, independent of specific tenant operations and parking allocations.

Reference was made to the Institute of Transport Engineers (ITE) *Parking Generation Manual* for peak parking demand rates for the proposed land uses. The relevant parking generation rates for the applicable uses are detailed in Table 3.

The calculated peak parking demand for the different site land uses is presented in Table 4.

**Table 3: ITE parking generation rates**

Land use	ITE Land Use	Peak Parking Demand Rate	Measurement
Recreation	Health/Fitness Club (492)	5.09	per 100 sqm GFA
Warehouse	Warehousing (150)	0.42	per 100 sqm GFA
Light Industry	General Light Industrial (110)	0.70	per 100 sqm GFA

**Table 4: Peak parking generation for proposed land uses**

Land use	ITE Land Use	Quantity	Peak Parking Demand
Recreation	Health/Fitness Club (492)	584m2	30
Warehouse	Warehousing (150)	516m2	3
Light Industry	General Light Industrial (110)	560m2	4

The ITE *Parking Generation Manual* provides the percentage distribution of parking demand for every hour of the day for different land uses. Extracts from ITE detailing the hourly parking distributions are included in Appendix B.

The total hourly parking demand for the development on weekdays is presented in Table 5. Peak parking demand is estimated to be 34 bays at 5:00pm. There are 46 car parking bays provided onsite.

The independent parking demand modelling provides confidence that the total car parking provided onsite is sufficient for the scale and type of land uses.



**Table 5: Hourly parking demand distribution (weekdays)**

Time	Recreation	Warehouse	Light Industry	Total
9:00	15	3	4	22
10:00	19	3	4	26
11:00	17	3	4	24
12:00	14	3	4	21
13:00	13	3	4	20
14:00	11	3	4	18
15:00	13	3	4	20
16:00	21	3	3	27
<b>17:00</b>	<b>29</b>	<b>3</b>	<b>2</b>	<b>34 (Peak)</b>
18:00	30	2	1	33
19:00	26	1	1	28
20:00	15	1	1	17
21:00	15	1	1	17

## 5 Provision for service vehicles

Provision for service vehicles was considered as part of the original DA approval. The proposed changes are not expected to impact on service vehicle accessibility.



## 6 Hours of operation

There is typically greater flexibility in hours of operation for warehouse and light industrial uses. It is expected that the Gymnasium will operate from 4:50am to 8:00pm on weekdays, 5:50am to 9:20am on Saturdays and 6:50am to 8:30am on Sundays.

## 7 Daily traffic volumes and vehicle types

### 7.1 Traffic generation

The traffic volume that will be generated by the approved and proposed uses has been estimated using trip generation rates derived with reference to the following source:

- Roads and Traffic Authority of New South Wales *Guide to Traffic Generating Developments (2002)*.

The trip generation rates adopted are detailed in Table 6.

**Table 6: Adopted trip rates for traffic generation**

Land use	Trip rate source	Daily rate	AM rate	PM rate	AM-in	AM-out	PM-in	PM-out
Warehouse	RTA NSW	0.04	0.005	0.005	80%	20%	20%	80%
Factory	RTA NSW	0.05	0.01	0.01	80%	20%	20%	80%
Bulky goods retail stores	RTA NSW	0.25	0.0125	0.025	50%	50%	50%	50%
Gymnasium	RTA NSW	0.45	0.09	0.09	50%	50%	50%	50%

The estimated traffic generation of the approved development is detailed in Table 7. The approved development is estimated to generate 194 vehicles per day (vpd) with 16 and 24 vehicles per hour (vph) generated during the road network AM and PM peak hours, respectively.

**Table 7: Approved use traffic generation – Weekday AM and PM peak hour**

APPROVED USE								
Land use	Quantity	Daily Trips	AM Trips	PM Trips	AM Peak Trips		PM Peak Trips	
					IN	OUT	IN	OUT
Warehouse	618	25	3	3	2	1	1	2
Factory	458	23	5	5	4	1	1	4
Bulky goods retail stores	584	146	8	16	4	4	8	8
<b>Total</b>		<b>194</b>	<b>16</b>	<b>24</b>	<b>10</b>	<b>6</b>	<b>10</b>	<b>14</b>



The estimated traffic generation of the proposed uses is detailed in Table 8. The proposed development is estimated to generate 312 vehicles per day (vpd) with 63 vehicles per hour (vph) generated during the road network AM and PM peak hours, respectively.

These trips include both inbound and outbound vehicle movements. It is anticipated that most of the vehicle types would be passenger cars and SUVs.

**Table 8: Proposed use traffic generation – Weekday AM and PM peak hour**

PROPOSED USE								
Land use	Quantity	Daily Trips	AM Trips	PM Trips	AM Peak Trips		PM Peak Trips	
					IN	OUT	IN	OUT
<b>Warehouse</b>	516	21	3	3	2	1	1	2
<b>Factory</b>	560	28	6	6	5	1	1	5
<b>Gymnasium</b>	584	263	54	54	27	27	27	27
<b>Total</b>		<b>312</b>	<b>63</b>	<b>63</b>	<b>34</b>	<b>29</b>	<b>29</b>	<b>34</b>

## 7.2 Impact on surrounding roads

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provides the following guidance on the assessment of traffic impacts:

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*“As a general guide, an increase in traffic of less than 10 percent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 percent may. All sections of road with an increase greater than 10 percent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 percent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis.”*

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The proposed change of use will increase traffic flows on adjacent roads to the site but will not warrant further analysis by the quoted WAPC threshold of +100vph. Therefore, the impact on the surrounding road network is minor.



## 8 Traffic management on the frontage roads

**Information from online mapping services, Main Roads WA, Local Government, and/or site visits was collected to assess the existing traffic management on frontage roads.**

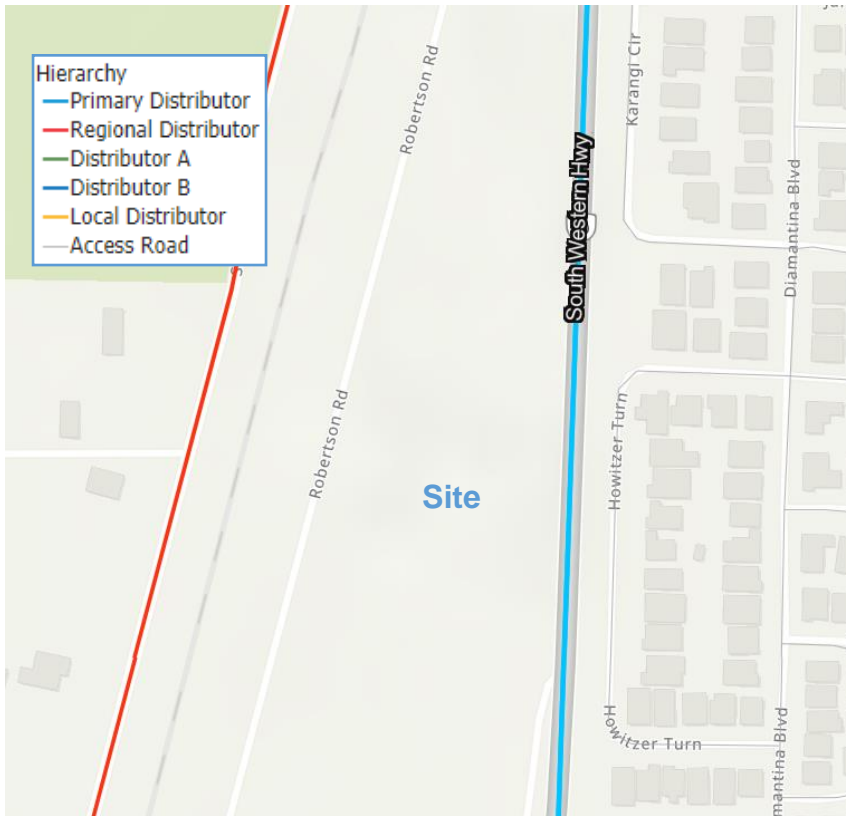
**Robertson Road** abutting the subject site is an approximately 9m wide, two-lane undivided road. Robertson Road ends in a culdesac and connects to South Western Highway via a recently constructed full movement T-intersection.

**South Western Highway** near the subject site is an approximately 7.5m wide, two-lane undivided road.

South Western Highway is classified as *Primary Distributor* road in the Main Roads WA road hierarchy (Figure 5) and operates under a speed limit of 60km/h (Figure 6). Primary Distributor roads are the responsibility of Main Roads Western Australia and are typically for the movement of inter-regional and/or cross town/city traffic (Figure 7).

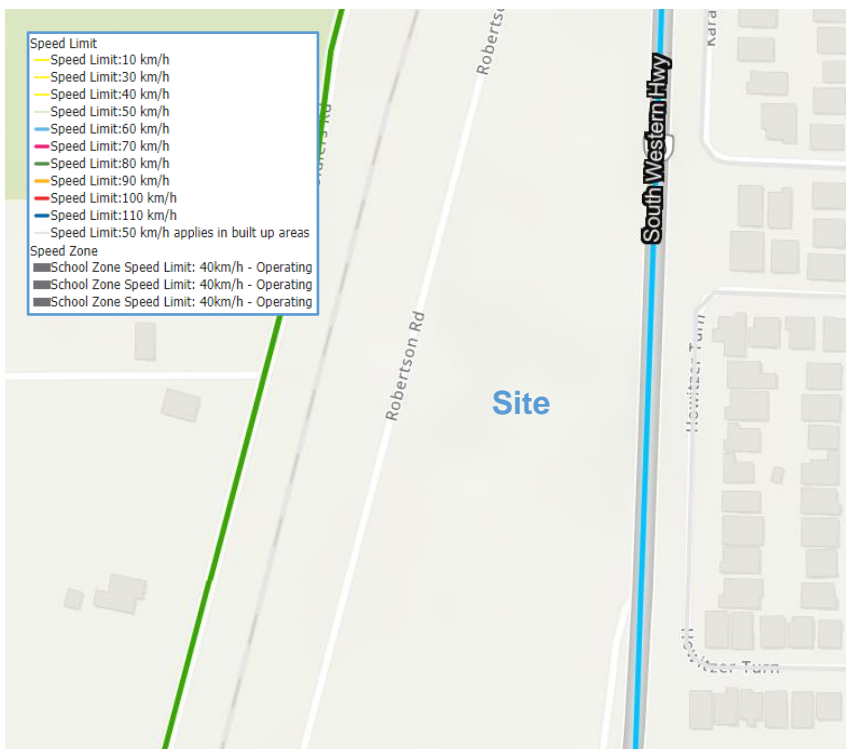
Traffic count data obtained from Main Roads WA indicates that South Western Highway carried approximately 11,450 vehicles per day in 2021, with 85<sup>th</sup> percentile speeds of 65.7km/h.





**Figure 5: Main Roads WA road hierarchy plan**

Source: Main Roads WA Road Information Mapping System (RIM)



**Figure 6: Main Roads WA road speed zoning plan**

Source: Main Roads WA Road Information Mapping System (RIM)

**ROAD HIERARCHY FOR WESTERN AUSTRALIA**  
**ROAD TYPES AND CRITERIA** (see Note 1)

CRITERIA	PRIMARY DISTRIBUTOR (PD) (see Note 2)	DISTRICT DISTRIBUTOR A (DA)	DISTRICT DISTRIBUTOR B (DB)	REGIONAL DISTRIBUTOR (RD)	LOCAL DISTRIBUTOR (LD)	ACCESS ROAD (A)
<i>Primary Criteria</i>						
1. Location (see Note 3)	All of WA incl. BUA	Only Built Up Area.	Only Built Up Area.	Only Non Built Up Area. (see Note 4)	All of WA incl. BUA	All of WA incl. BUA
2. Responsibility	Main Roads Western Australia.	Local Government.	Local Government.	Local Government.	Local Government.	Local Government.
3. Degree of Connectivity	High. Connects to other Primary and Distributor roads.	High. Connects to Primary and/or other Distributor roads.	High. Connects to Primary and/or other Distributor roads.	High. Connects to Primary and/or other Distributor roads.	Medium. Minor Network Role Connects to Distributors and Access Roads.	Low. Provides mainly for property access.
4. Predominant Purpose	Movement of inter regional and/or cross town/city traffic, e.g. freeways, highways and main roads.	High capacity traffic movements between industrial, commercial and residential areas.	Reduced capacity but high traffic volumes travelling between industrial, commercial and residential areas.	Roads linking significant destinations and designed for efficient movement of people and goods between and within regions.	Movement of traffic within local areas and connect access roads to higher order Distributors.	Provision of vehicle access to abutting properties
<i>Secondary Criteria</i>						
5. Indicative Traffic Volume (AADT)	In accordance with Classification Assessment Guidelines.	Above 8 000 vpd	Above 6 000 vpd.	Greater than 100 vpd	Built Up Area - Maximum desirable volume 6 000 vpd. Non Built Up Area – up to 100 vpd.	Built Up Area - Maximum desirable volume 3 000 vpd. Non Built Up Area – up to 75 vpd.
6. Recommended Operating Speed	60 – 110 km/h (depending on design characteristics).	60 – 80 km/h.	60 – 70 km/h.	50 – 110 km/h (depending on design characteristics).	Built Up Area 50 - 60 km/h (desired speed) Non Built Up Area 60 – 110 km/h (depending on design characteristics).	Built Up Area 50 km/h (desired speed). Non Built Up Area 50 – 110 km/h (depending on design characteristics).
7. Heavy Vehicles permitted	Yes.	Yes.	Yes.	Yes.	Yes, but preferably only to service properties.	Only to service properties.
8. Intersection treatments	Controlled with appropriate measures e.g. high speed traffic management, signing, line marking, grade separation.	Controlled with appropriate measures e.g. traffic signals.	Controlled with appropriate Local Area Traffic Management.	Controlled with measures such as signing and line marking of intersections.	Controlled with minor Local Area Traffic Management or measures such as signing.	Self controlling with minor measures.
9. Frontage Access	None on Controlled Access Roads. On other routes, preferably none, but limited access is acceptable to service individual properties.	Prefer not to have residential access. Limited commercial access, generally via service roads.	Residential and commercial access due to its historic status. Prefer to limit when and where possible.	Prefer not to have property access. Limited commercial access, generally via lesser roads.	Yes, for property and commercial access due to its historic status. Prefer to limit whenever possible. Side entry is preferred.	Yes.
10. Pedestrians	Preferably none. Crossing should be controlled where possible.	With positive measures for control and safety e.g. pedestrian signals.	With appropriate measures for control and safety e.g. median/islands refuges.	Measures for control and safety such as careful siting of school bus stops and rest areas.	Yes, with minor safety measures where necessary.	Yes.
11. Buses	Yes.	Yes.	Yes.	Yes.	Yes.	If necessary (see Note 5)
12. On-Road Parking	No (emergency parking on shoulders only).	Generally no. Clearways where necessary.	Not preferred. Clearways where necessary.	No – emergency parking on shoulders – encourage parking in off road rest areas where possible.	Built Up Area – yes, where sufficient width and sight distance allow safe passing. Non Built Up Area – no. Emergency parking on shoulders.	Yes, where sufficient width and sight distance allow safe passing.
13. Signs & Linemarking	Centrelines, speed signs, guide and service signs to highway standard.	Centrelines, speed signs, guide and service signs.	Centrelines, speed signs, guide and service signs.	Centrelines, speed signs and guide signs.	Speed and guide signs.	Urban areas – generally not applicable. Rural areas - Guide signs.
14. Rest Areas/Parking Bays	In accordance with Main Roads' Roadside Stopping Places Policy.	Not Applicable.	Not Applicable.	Parking Bays/Rest Areas. Desired at 60km spacing.	Not Applicable.	Not Applicable.

**Figure 7: Road types and criteria for Western Australia**

Source: Main Roads Western Australia D10#10992



## 9 Public transport access

**Information was collected from Transperth and the Public Transport Authority to assess the existing public transport access to and from the site.**

The subject site has access to the following bus services within walking distance:

- Bus Route 251: Armadale Stn - Byford via South Western Hwy;
- Bus Route 252: Armadale Stn - Mundijong via Byford;
- Bus Route 253: Armadale Stn - Jarrahdale via Byford & Mundijong.

Public transport services provide a potential alternative mode of transport for the site. There are bus stops provided on Clondyke Drive, less than 500m walking distance to the south of the site (Figure 8). Bus services also connect to the rail network at Armadale Train Station for longer trips.

The Byford Rail Extension and Byford Rail Station are being planned as part of Metronet. Once the rail extension is constructed, the PTA will run extra feeder buses in the locality which will connect to the train station.

The public transport network plans are shown in Figure 9.



**Figure 8: Closest bus stops serving the proposed development**

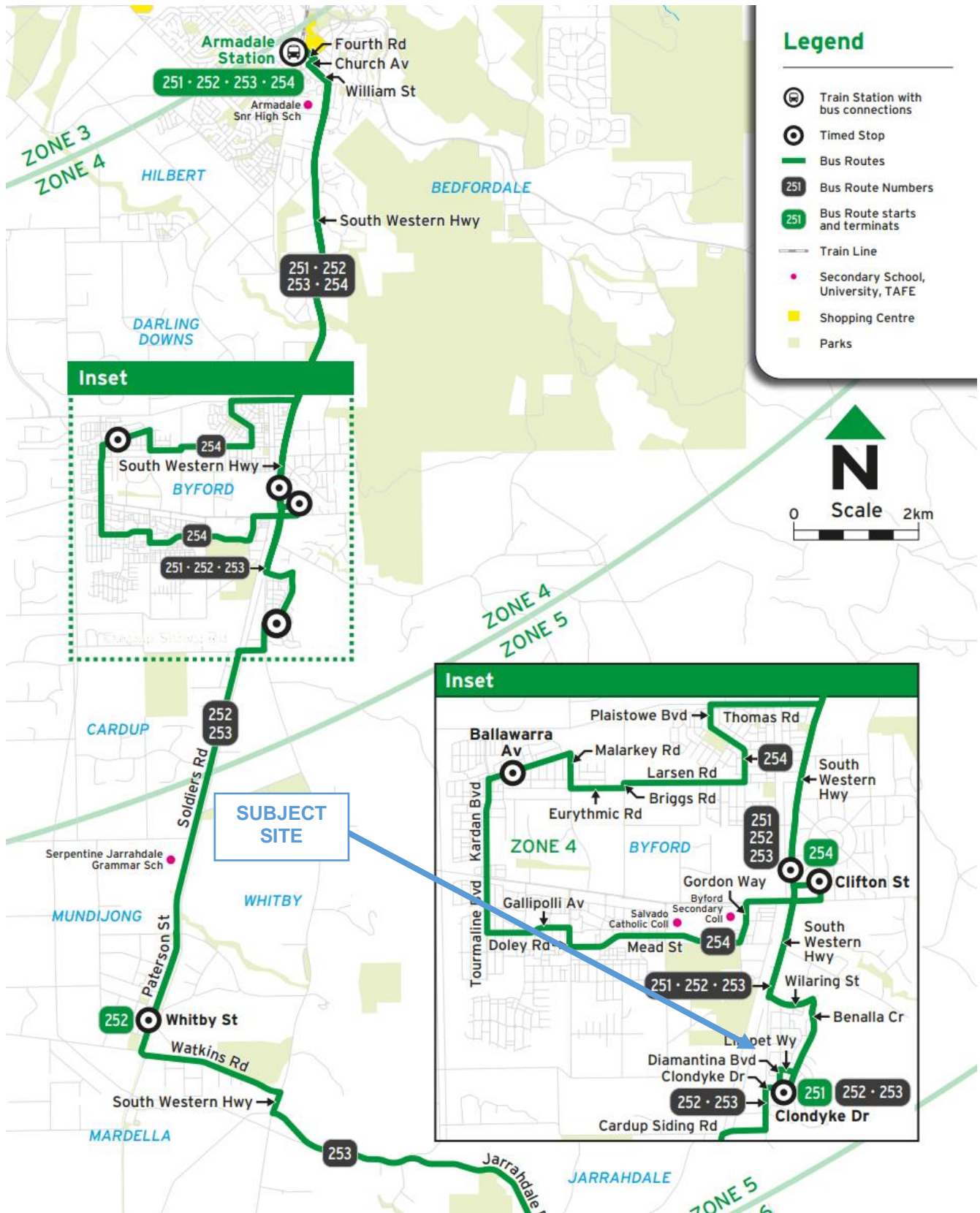


Figure 9: Transperth public transport plans

Source: Transperth

## 10 Pedestrian access

There are currently limited walking facilities in the locality. Footpaths on South Western Highway will be extended further south as the locality is further developed.



# 11 Bicycle access

Information from online mapping services, Department of Transport, Local Government, and/or site visits was collected to assess bicycle access for the proposed development.

## 11.1.1 Bicycle network

The Department of Transport Perth Bicycle Network Map (see Figure 10) shows the existing cyclist connectivity to the subject site. There is currently limited infrastructure for cycling. People may cycle on road and less confident people may legally cycle on footpaths in Western Australia. The cycling network is expected to be further developed over time as the surrounding vacant lots are developed and the Byford Rail Extension is constructed.

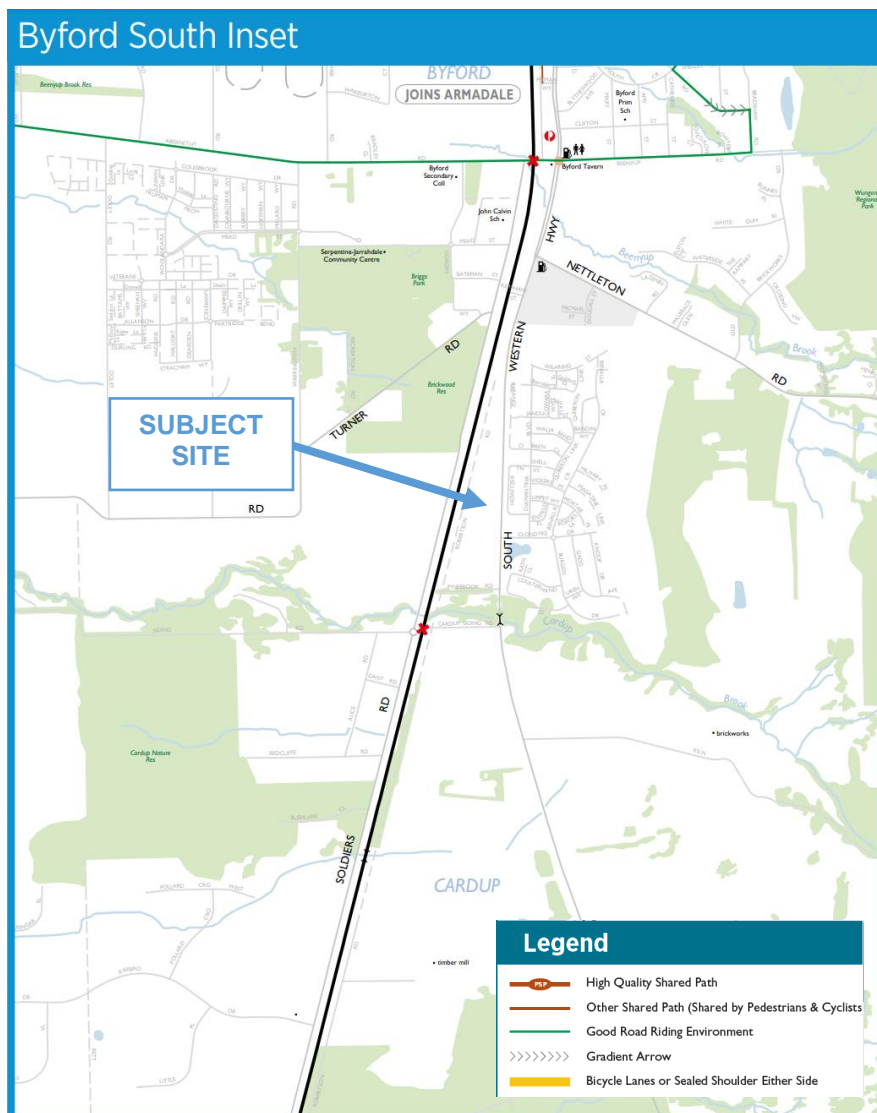


Figure 10: Perth bicycle network plan



### 11.1.2 Bicycle parking and end of trip facilities

Six bicycle parking rails are provided at the western end of the site near the crossover. This encourages and promotes sustainable transport options.

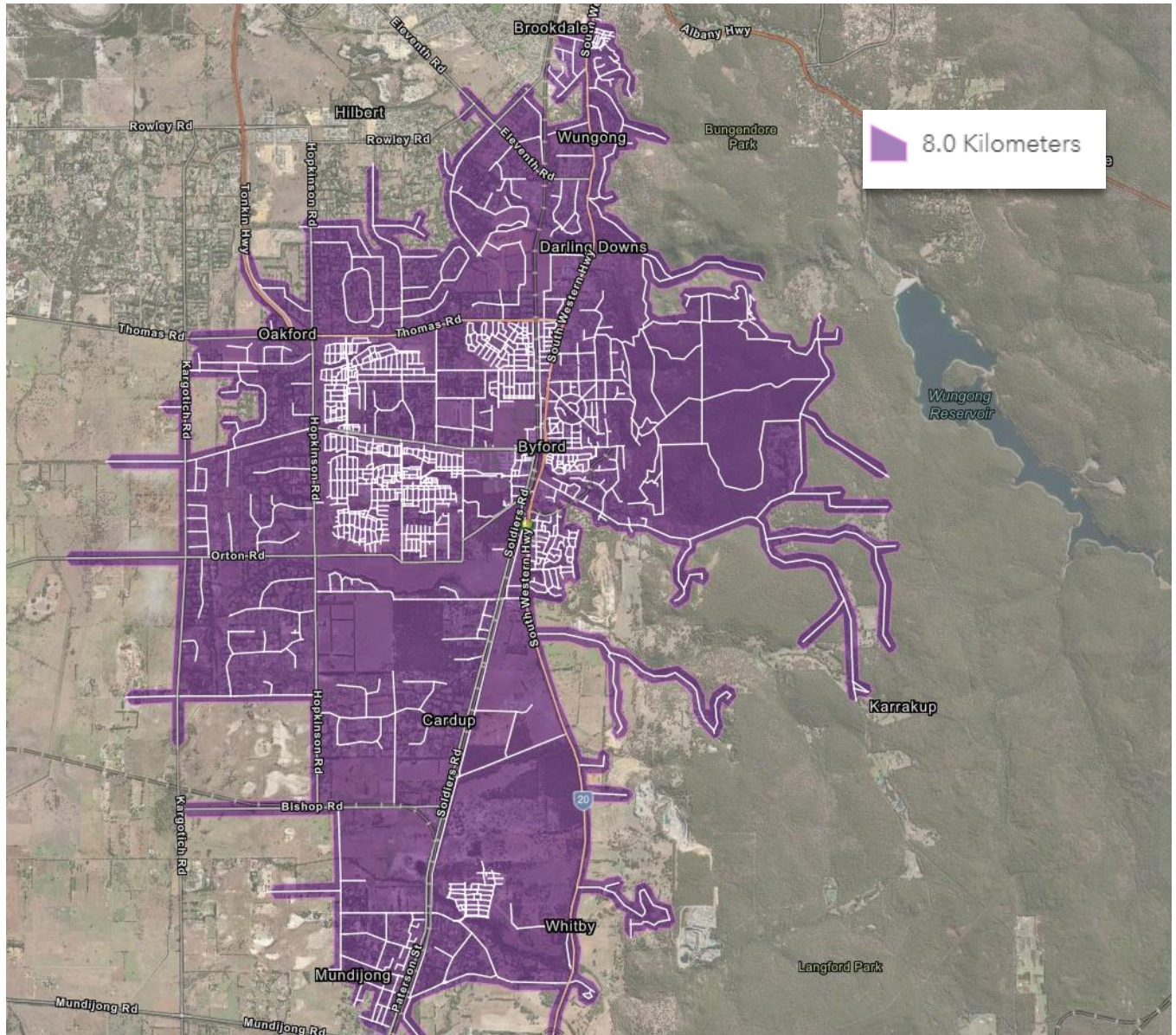
The Strava cycling heatmap tool shows that South Western Highway is a popular cycling route in the area (Figure 11).



**Figure 11: Strava cycling heatmap**

## 11.2 Sustainable transport catchment

As detailed in Figure 12, the subject site is well placed for workers and visitors to travel by sustainable modes of transport. A comfortable 8km or 20-25min cycle will provide the development with a large catchment.



**Figure 12: Cycling and micro-mobility catchment**

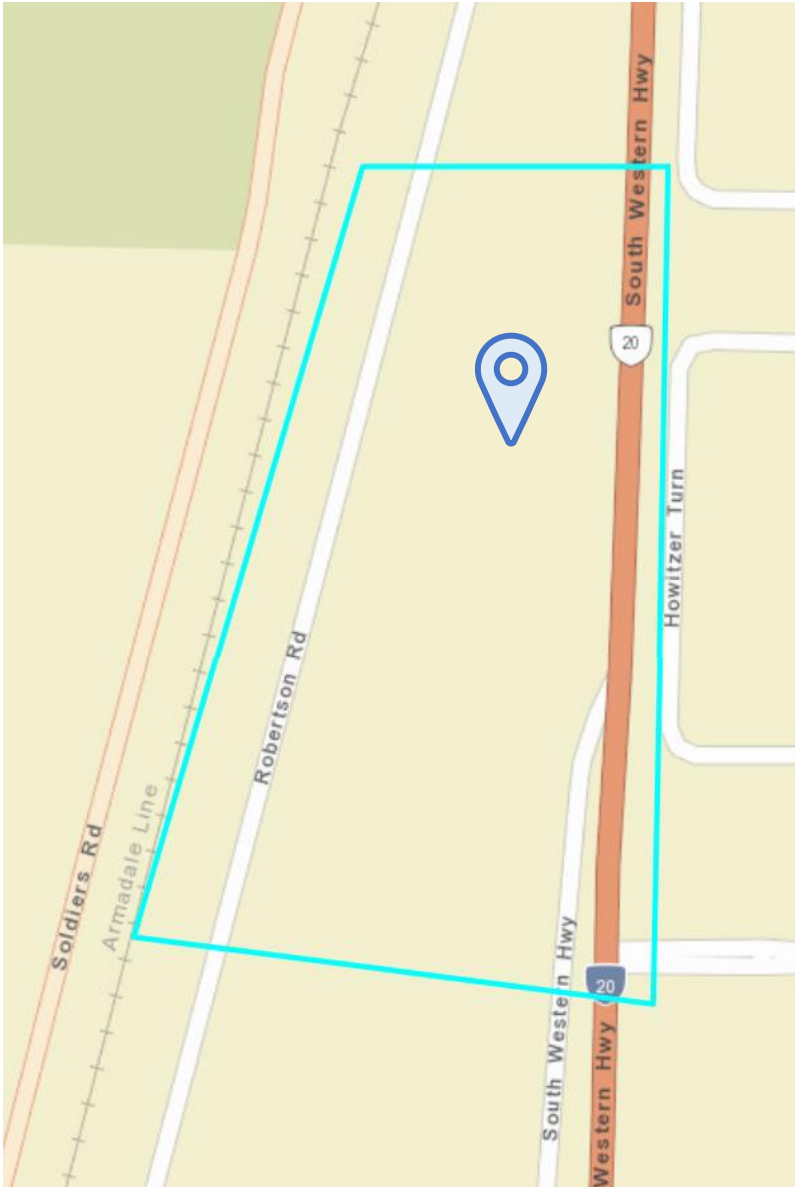
## 12 Site specific issues

No additional site-specific issues were identified within the scope of this assessment.



## 13 Safety issues

The Main Roads WA crash mapping facility was used to check the past 5 years of crash records on streets near the site. There were no crashes recorded on Robertson Road or South Western Highway in the past five years, as shown in Figure 13.



**Figure 13: 5-year crash map in the locality (2017-2021)**

Source: MRWA crash mapping tool

# 14 Conclusion

**This Transport Impact Statement has been prepared by Urbii on behalf of Parsons Management Group with regards to the Proposed Change of Use, located at Lot 128 Robertson Rd, Byford.**

The subject site is situated between South Western Highway and Robertson Road. A commercial development has been approved on the site and is currently under construction. National Storage Byford is nearby to the north and existing residential dwellings to the east.

A change of use is proposed which will amend the designated use of approved tenancies. The main change being that the two tenancies backing onto South Western Highway will change from the approved 'Showroom' use to 'Recreation – Private'.

The site features good connectivity with the existing road network. As the locality is still under development, public transport, cycling and walking accessibility is expected to improve over time.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed change of use can be accommodated on the surrounding road network. The parking provision can also accommodate the needs of the development.

It is concluded that the findings of this Transport Impact Statement are supportive of the proposed change of use application.

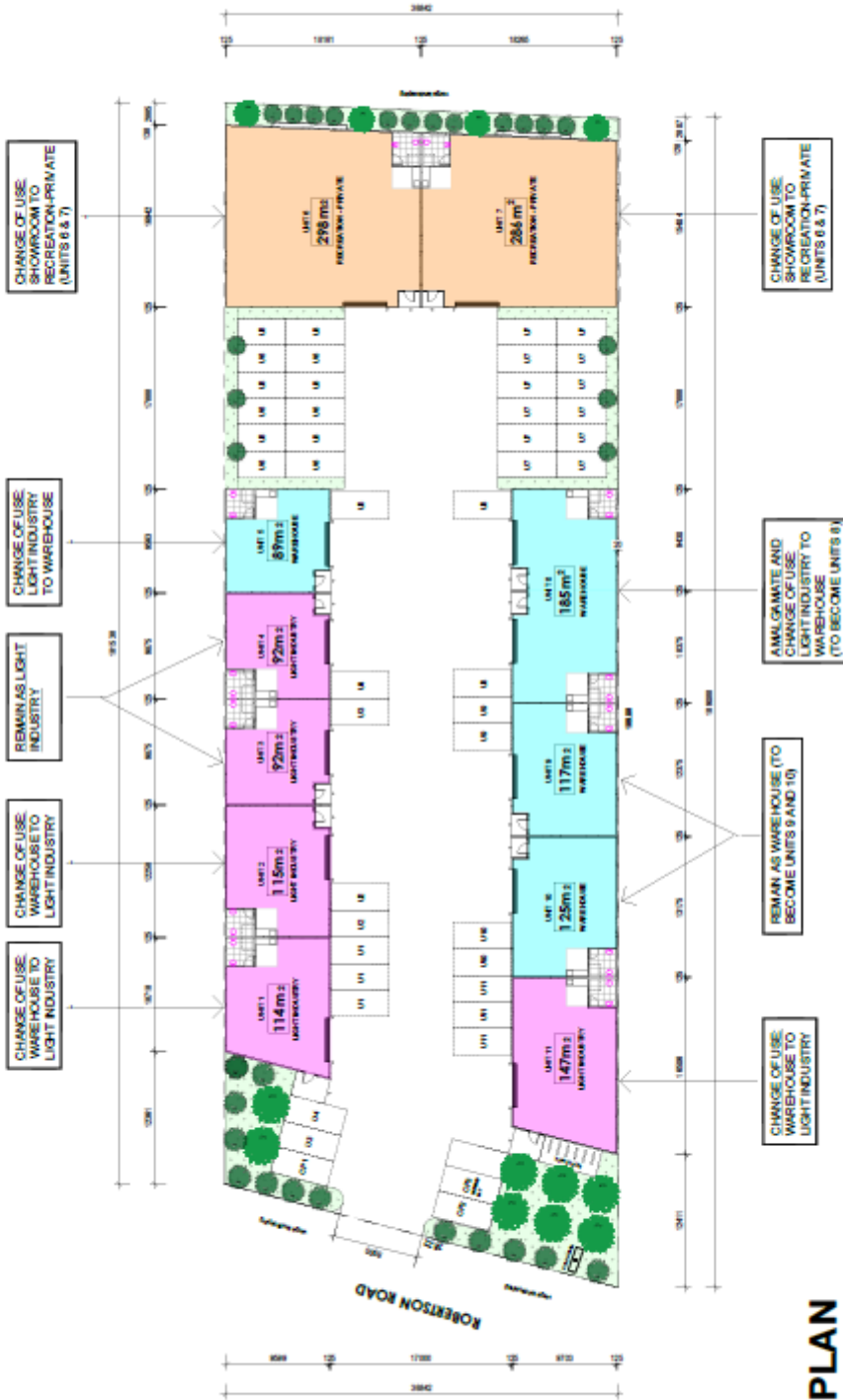


# Appendices

## Appendix A: Proposed development site plans

**LAND USES:**

- LIGHT INDUSTRY
- WAREHOUSE
- RECREATION-PRIVATE



**FLOOR PLAN**  
SCALE 1:200 @ A1

128 SOUTH WESTERN HWY. BYFORD 6122

MIXED USE COMMERCIAL DEVELOPMENT

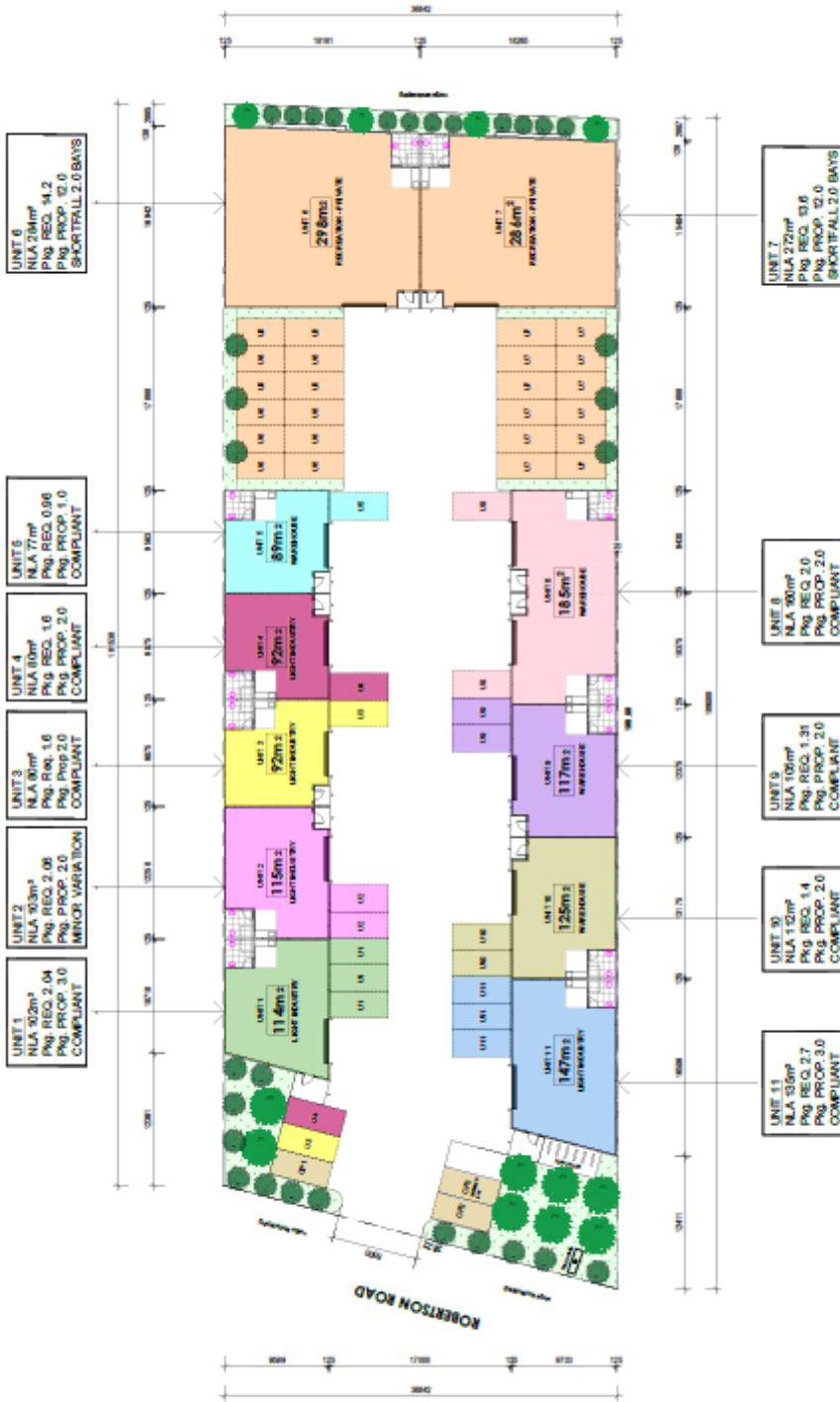
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CHECKED BY:	TONY W

**A102**





**CAR PARKING**  
SCALE 1:200 @ A1

128 SOUTH WESTERN HWY. BYFORD 6122

MIXED USE COMMERCIAL DEVELOPMENT



DATE:	22/05/2023
DRAWN BY:	MAE.E
CHECKED BY:	TONY.W

A103



## Appendix B: Temporal distribution of parking demand

Source: ITE *Parking Generation Manual*

### Land Use: 492 Health/Fitness Club

#### Description

A health/fitness club is a privately-owned facility that primarily focuses on individual fitness or training. It typically provides exercise classes, fitness equipment, a weight room, spa, locker rooms, and a small restaurant or snack bar. This land use may also include ancillary facilities, such as a swimming pool, whirlpool, sauna, limited retail, and tennis, racquetball or handball courts. These facilities are membership clubs that may allow access to the general public for a fee. Racquet/tennis club (Land Use 491), athletic club (Land Use 493), and recreational community center (Land Use 495) are related uses.

#### Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a weekday (five study sites) and a Saturday (two study sites) in a general urban/suburban setting.

Hour Beginning	Percent of Peak Parking Demand	
	Weekday	Saturday
12:00–4:00 a.m.	–	–
5:00 a.m.	–	–
6:00 a.m.	–	–
7:00 a.m.	–	–
8:00 a.m.	–	80
9:00 a.m.	–	100
10:00 a.m.	62	100
11:00 a.m.	55	97
12:00 p.m.	44	79
1:00 p.m.	41	81
2:00 p.m.	36	73
3:00 p.m.	41	71
4:00 p.m.	69	70
5:00 p.m.	96	65
6:00 p.m.	100	62
7:00 p.m.	85	–
8:00 p.m.	–	–
9:00 p.m.	–	–
10:00 p.m.	–	–
11:00 p.m.	–	–



## Land Use: 150 Warehousing

### Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas.

### Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a weekday at 11 general urban/suburban study sites.

Hour Beginning	Percent of Weekday Peak Parking Demand
12:00–4:00 a.m.	1
5:00 a.m.	3
6:00 a.m.	8
7:00 a.m.	27
8:00 a.m.	57
9:00 a.m.	79
10:00 a.m.	83
11:00 a.m.	87
12:00 p.m.	91
1:00 p.m.	91
2:00 p.m.	97
3:00 p.m.	100
4:00 p.m.	91
5:00 p.m.	74
6:00 p.m.	47
7:00 p.m.	26
8:00 p.m.	20
9:00 p.m.	17
10:00 p.m.	1
11:00 p.m.	1

### Additional Data

For eight of the study sites, data were also collected for trucks parked at the site. The average truck parking demand ratio was 0.11 trucks per 1,000 sq. ft. GFA with a range between 0.04 and 0.25 trucks per 1,000 sq. ft. GFA.

The average parking supply ratio for the study sites with parking supply information is 0.6 spaces per 1,000 square feet GFA (15 sites) and 1.1 spaces per employee (12 sites).

## Land Use: 110 General Light Industrial

### Description

A light industrial facility is a free-standing facility devoted to a single use. The facility has an emphasis on activities other than manufacturing and typically has minimal office space. Typical light industrial activities include printing, material testing, and assembly of data processing equipment. Industrial park (Land Use 130) and manufacturing (Land Use 140) are related uses.

### Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a weekday at 29 general urban/suburban study sites.

Hour Beginning	Percent of Weekday Peak Parking Demand
12:00–4:00 a.m.	0
5:00 a.m.	2
6:00 a.m.	15
7:00 a.m.	41
8:00 a.m.	83
9:00 a.m.	100
10:00 a.m.	99
11:00 a.m.	98
12:00 p.m.	94
1:00 p.m.	90
2:00 p.m.	94
3:00 p.m.	88
4:00 p.m.	68
5:00 p.m.	49
6:00 p.m.	9
7:00 p.m.	3
8:00 p.m.	3
9:00 p.m.	3
10:00 p.m.	0
11:00 p.m.	0

