



The Anglican School Commission Incorporated
Lot 507 (#50) Salerno Drive, Mindarie
District Planning Scheme No.2 Amendment

July 2025

Project Code: 09265

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I Introduction

I.1 Background

Tomahawk Property, on behalf of The Anglican School Commission Incorporated, has commissioned PJA Australia Pty Ltd to prepare this Transport Impact Assessment (TIA) in relation to the proposed development site located on Lot 507 (#50) Salerno Drive in Mindarie, Western Australia. The site sits under the jurisdiction of City of Wanneroo.

Specifically, this TIA has been prepared to accompany a proposed amendment to the current City of Wanneroo's District Planning Scheme No.2 (DPS2). The DPS2 amendment proposes a portion of the land be rezoned from its current designation as 'Private Community Purposes' which could be yet another school in the area, to instead be rezoned 'Residential'.

This assessment has been prepared in accordance with the Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines Volume 2 – Planning Schemes, Structure Plans & Activity Centre Plans (2016)*, which is the most appropriate level of TIA for a proposed DPS2 Amendment.

Under the WAPC Guidelines for TIAs, a DPS2 Amendment requires a 'broad brush' assessment of the impacts of the development. Accordingly, this scheme amendment report sets out recommendations suitable for the current rezoning planning process and subject to the DPS2 amendment being ultimately supported by WAPC.

The scope of this 'broad-brush' TIA has been developed in consultation with City of Wanneroo and the agreements on content and scope of assessments have been fully adhered to within this report.

The potential yield of the development site (the Site) in terms of developable land use, is expected to be:

- Residential Lots = 55 residential lots
- Community School = 5,001m² (area not included in this application, see below).

The location of the Site in relation to the immediate surrounding road network is shown on **Figure 1-1**. It should be noted that this proposed DPS2 Amendment is looking to rezone the land area designated for residential lots only while the land area that is already designated for Community School will remain unchanged as 'Private Community Purposes' and therefore as agreed with the City of Wanneroo, does not need to form a part of this TIA.

It is also noted that typically any residential development less than 100 dwellings would only require a Traffic Impact Statement (TIS) due to its anticipated 'moderate impact' as defined within the



WAPC Guidelines. This scheme amendment proposal is well below 100 dwellings (~55 dwellings) and therefore would traditionally require a TIS as it will not have a ‘high’ impact, but for the purposes of this document, we have called the report a TIA as is noted for district level scheme amendments.

Figure 1-1: Site Location



Base map source: Nearmap

1.2 Summary of TIA

In accordance with the WAPC Guidelines, this report sets out the details of the proposed DPS2 scheme amendment, the key transport issues and impacts related to the development of the Site from a residential traffic generation perspective including the current level of accessibility by road, public transport, cycle and on foot.

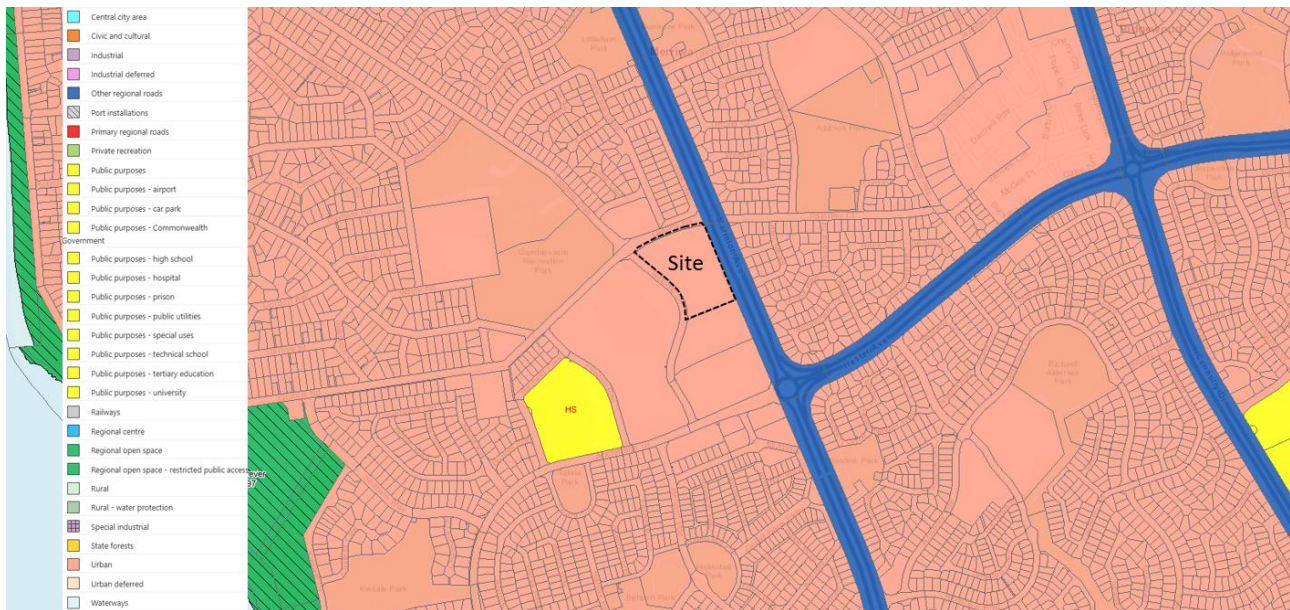
This TIA identifies where the level of accessibility and infrastructure is acceptable and where it is found to be deficient, sets recommendations to improve these areas to a suitable level where required and appropriate for this future development.

1.3 Regional and Local Policy Context

Metropolitan Region Scheme (MRS)

The Site area is currently zoned 'Urban' under the MRS and is located immediately west of Marmion Avenue, a 'Other regional roads', surrounded by land currently zoned as 'Urban'. The *Mindarie Senior College* to the west of the Site is zoned as 'Public purposes – high school'.

Figure 1-2: MRS Zone



Source: Department of Planning, Lands and Heritage PlanWA Map Viewer

City of Wanneroo District Planning Scheme No.2

Under the provisions of the DPS2 the site area is currently zoned as 'Private Community Purposes'. To the south of Site, there is the existing *Quinns Baptist College* and *Peter Moyes Anglican Community School*, both which are zoned as 'Private Community Purposes'. The parcel of land adjacent to the *Peter Moyes Anglican Community School* is zoned as 'Public Purposes (High School)' and is in use as *Mindarie Senior College*.

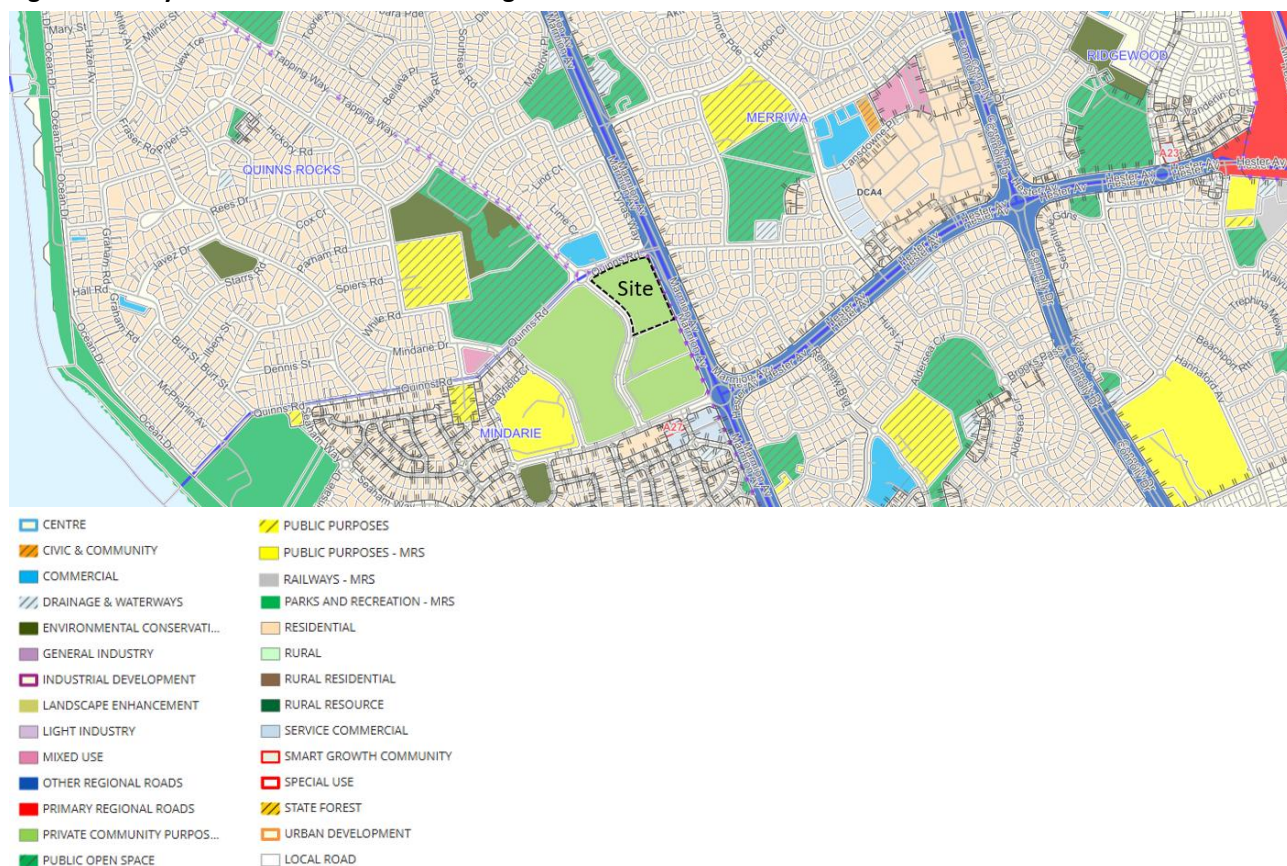
The parcel of land to the north of *Mindarie Senior College* is zoned as 'Mixed Use' and is used for *Quinns Medical Health Hub*.

The parcel of land to the north of the Site is zoned as 'Commercial' and is used for *Quinns Village Shopping Centre*.

The majority of the land surrounding the Site is predominantly zoned as 'Residential'. **Figure 1-3** illustrates the DPS2 area zoning.



Figure 1-3: City of Wanneroo District Planning Scheme No.2



Source: City of Wanneroo



2 Existing Situation

2.1 Existing Site Context and Land Uses

The Site is located at the southwest corner of the intersection of Marmion Avenue / Quinns Road within City of Wanneroo jurisdiction. The Site is currently vacant and approximately 3.25ha in area. It is adjacent to *Quinns Baptist College*, *Peter Moyes Anglican Community School* and *Quinns Village Shopping Centre*. Other than that, the Site is predominantly surrounded by residential area.

While the Site could be developed as a school, the rezoning proposal to residential would in fact decrease the peak hour and daily number of vehicular trips that would be generated on the road network. As such the rezoning to residential, a less intense traffic generating land use, is seen as a positive outcome for the area.

2.2 Existing Road Network

A TIA for Scheme Amendment or Structure Plan usually require assessing the existing road network within a minimum of 2.0 kilometres from the site boundaries. However, given the small scale of the Site and the very low yield, the impact of the proposed DPS2 amendment is minimal in the context of other uses in the surrounds. As such, the extent of the assessment for the road network adjacent to the Site are:

- Marmion Avenue
- Quinns Road
- Salerno Drive.

The characteristics of the adjacent road network fronting the Site is summarised in **Table 2-1**. The road hierarchy, speed classification and Restricted Access Vehicles (RAV) Network mappings for the adjacent road network are shown in **Figure 2-1**, **Figure 2-2** and **Figure 2-3**.



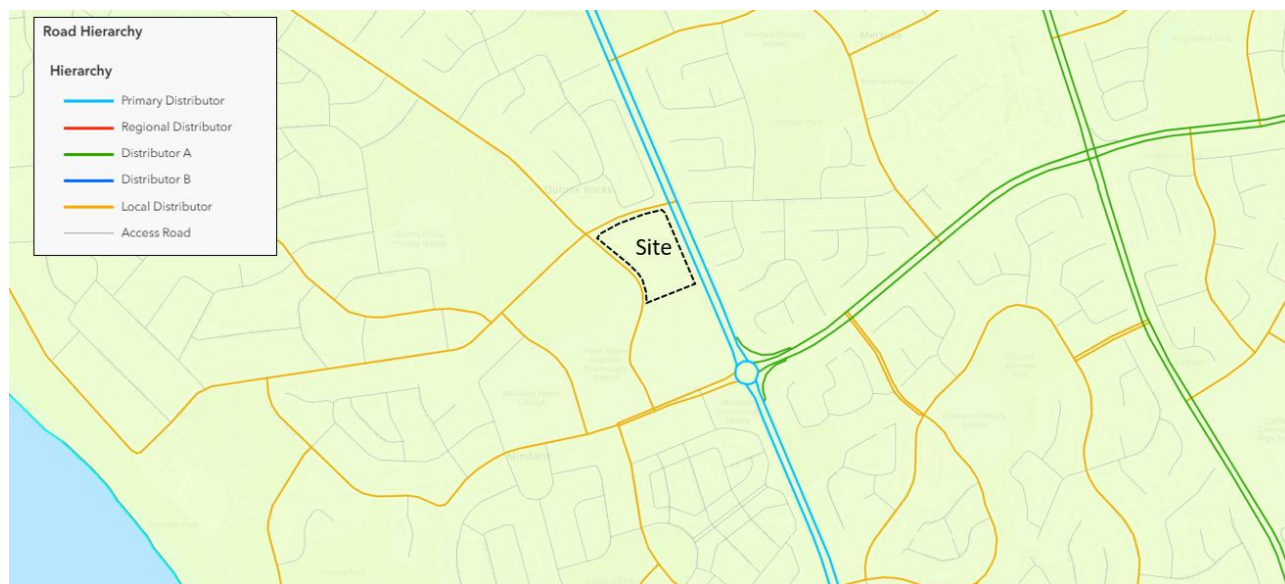
Table 2-1: Existing Road Network Characteristics

Road	Marmion Avenue	Quinns Road	Salerno Drive
Jurisdiction	Main Roads WA	City of Wanneroo	City of Wanneroo
Road Hierarchy	Primary Distributor	Local Distributor	Local Distributor
Carriageway	Four-lane Two-Way median divided dual carriageway	Median divided carriageway	Undivided single carriageway, median divided around the bend
Pavement Width	7m wide on each direction	Eastbound 6.6m wide two-lane carriageway Westbound 4.3m wide single lane carriageway	7.4m wide carriageway
Pathway	West 2.5m concrete shared path East 2m red asphalt cycle lane	North 2.5m concrete shared path South 1.5m pedestrian path	2m concrete shared path on both sides
Cycle Facilities	1.5m wide on-street bike lanes on both directions	2.5m concrete shared path	2m concrete shared path on both sides
Parking Facilities	None	None	Embayed parking on both sides
Posted Speed Limit	70 km/h	Default 50 km/h for built up areas, subject to 40 km/h school zone	Default 50 km/h for built up areas, subject to 40 km/h school zone
RAV Network	NA	NA	NA
Existing Traffic Volumes	41,350 vehicles per day ¹	12,000 vehicles per day ¹	3,578 vehicles per day ²

[1] Estimated based on intersection of Marmion Avenue / Quinns Road SCATS data (19/06/23 – 23/06/23)

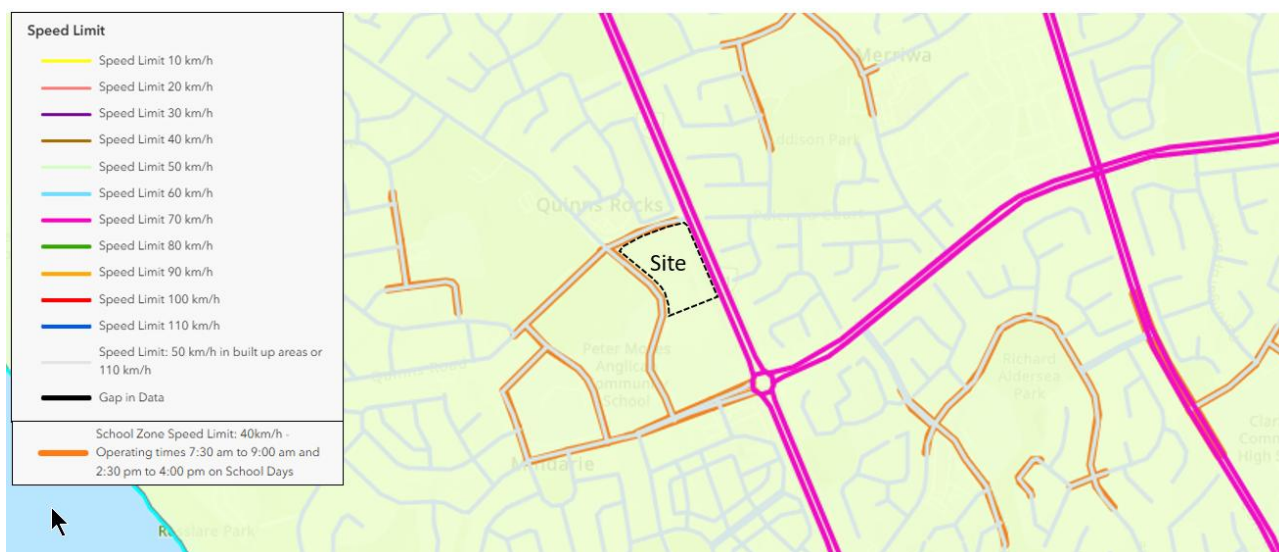
[2] Based on traffic count provided by City of Wanneroo (19/05/23 – 29/05/23)

Figure 2-1: Main Roads WA Road Hierarchy



Source: Main Roads WA Road Information Mapping System

Figure 2-2: Main Roads WA Speed Classifications



Source: Main Roads WA Road Information Mapping System

Figure 2-3: Existing RAV Network



Source: Main Roads WA RAV Network Mapping System



2.3 Existing Key Intersections

The following key intersections, providing access to the wider road network, adjacent to the Site are as follows:

- Marmion Avenue / Quinns Road
- Quinns Road / Salerno Drive / Tapping Way.

Figure 2-4: Existing Key Intersections into Site



Base map source: Nearmap

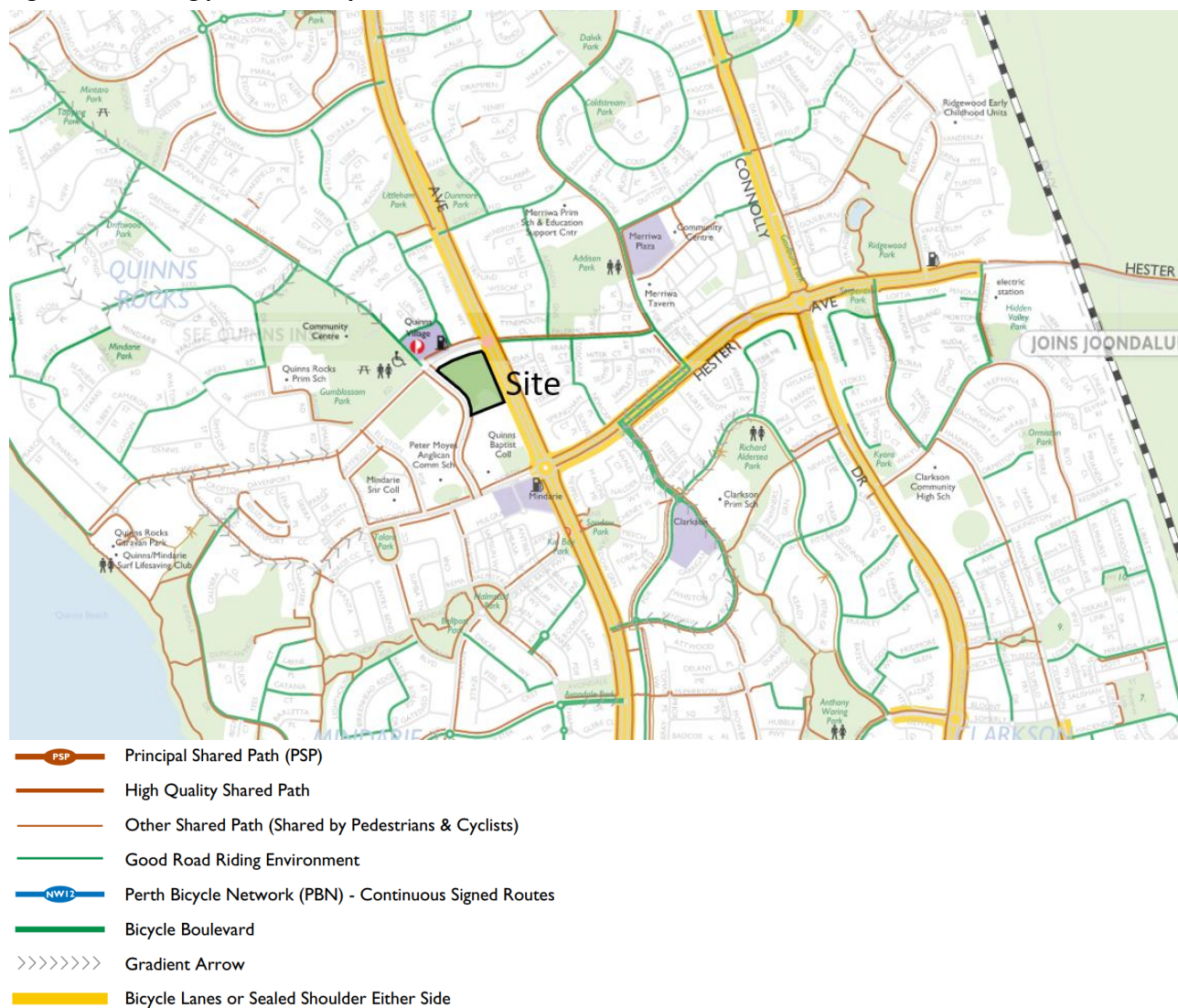
2.4 Existing Pedestrian / Cycle Networks

Existing pedestrian / cycle networks are illustrated in **Figure 2-5**. In the vicinity of the Site, there is at least one shared path on one side of the key surrounding roads of Marmion Avenue, Quinns Road and Salerno Drive. There are also on-street bike lanes along Marmion Avenue in both directions of travel which take cyclists through the Quinns Road signalised intersection.

The Palermo Court cul-de-sac to the east of the intersection of Marmion Avenue / Quinns Road also has a 2m wide concrete shared path on one side of the road that forms part of the Perth (Joondalup and Stirling) Bike Map. This connects with the concrete shared path along Baltimore Parade then further onto Hester Avenue which then finally connects to the Kwinana Freeway Principal Shared Path (PSP).

The Kwinana Freeway PSP runs north-south on the western side of the Freeway and is accessible via Hester Avenue. The PSP provides convenient and easy cycling access to Clarkson Train Station to the south, Romeo Road to the north, and destinations further afield.

Figure 2-5: Existing pedestrian / cycle networks



Source: Department of Transport

2.5 Existing Public Transport

Bus Service 480

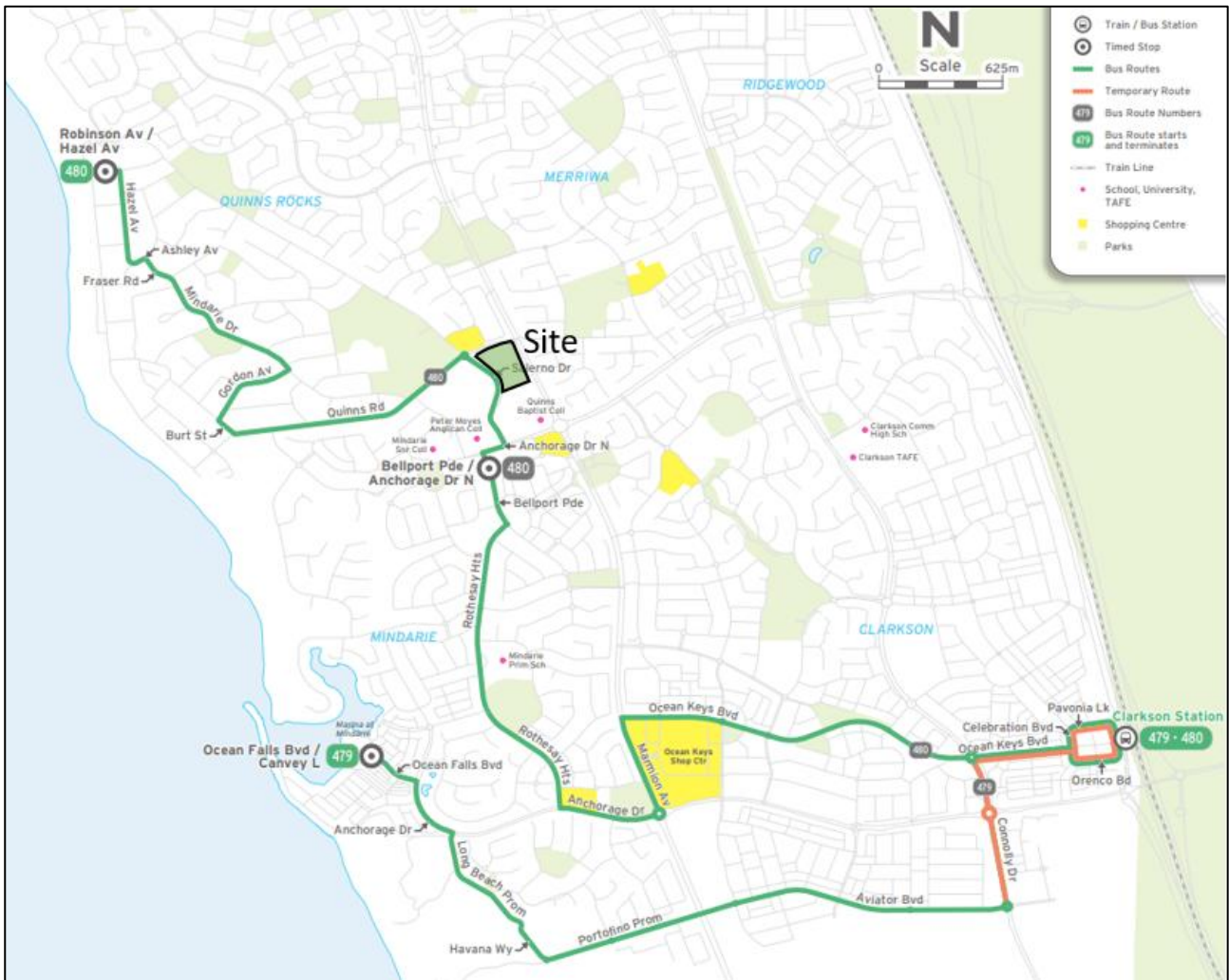
The existing bus route within close vicinity of the Site includes the 480, which operates on Quinns Road and Salerno Drive and provides a link between Quinns Rocks and Clarkson Station, including *Quinns Village Shopping Centre* and *Ocean Keys Shopping Centre* in the south. Bus stops in each direction on Salerno Drive are located approximately 240m walking distance south of the proposed



southern intersection into the Site. This is highly conducive to walking and an approximate five-minute walk from every lot within the Site.

The frequency of service 480 is 20-30 minute intervals during peak periods and then hourly during off peak periods. The existing bus route map is shown in **Figure 2-7**.

Figure 2-6: Bus Service 480 Route Map



Source: Public Transport Authority

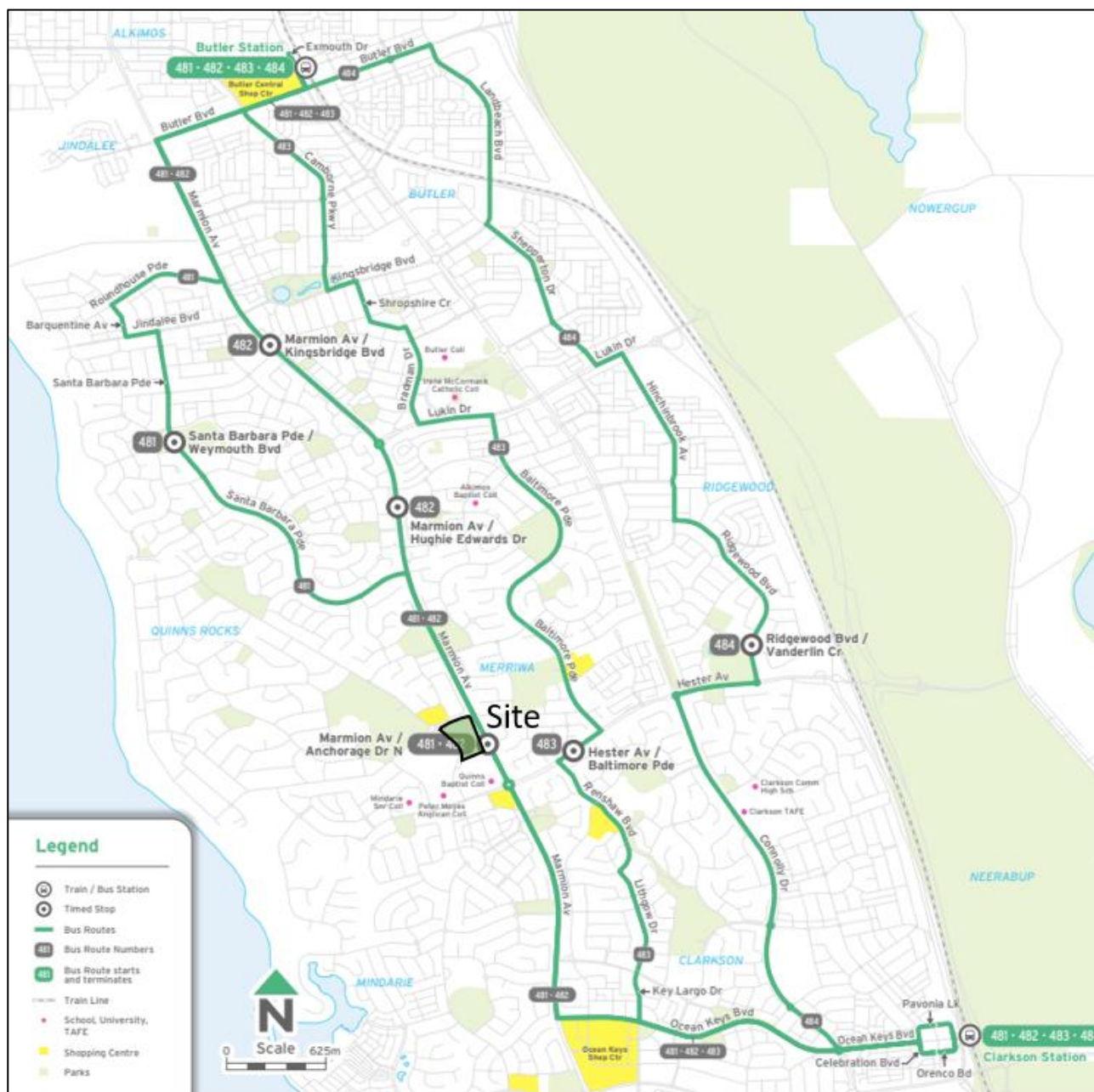
Bus Service 481 & 482

The existing bus routes 481 and 482 operates on Marmion Avenue and provides a link between Butler Station and Clarkson Station, including *Quinns Beach Primary School*, *Butler District Centre* and *Butler Shopping Centre* in the north, and *Ocean Keys Shopping Centre* in the south. Bus stops in each direction on Marmion Avenue are located to the south of Quinns Road, adjacent to the Site. The bus stops are approximately 600m walking distance from the centre of the Sited via Salerno

Drive and Quinns Road, a distance which is an approximate nine minute walk by 75% of the site, with the majority of the site located within a 10 minute walk of this service.

The frequency of service 481 and 482 during the week (Mon to Fri) is at an excellent 10-15 minute interval in the peak periods and then hourly during off-peak periods. The existing bus route map is shown in **Figure 2-7**.

Figure 2-7: Bus Service 481& 482 Route Map



Source: Public Transport Authority

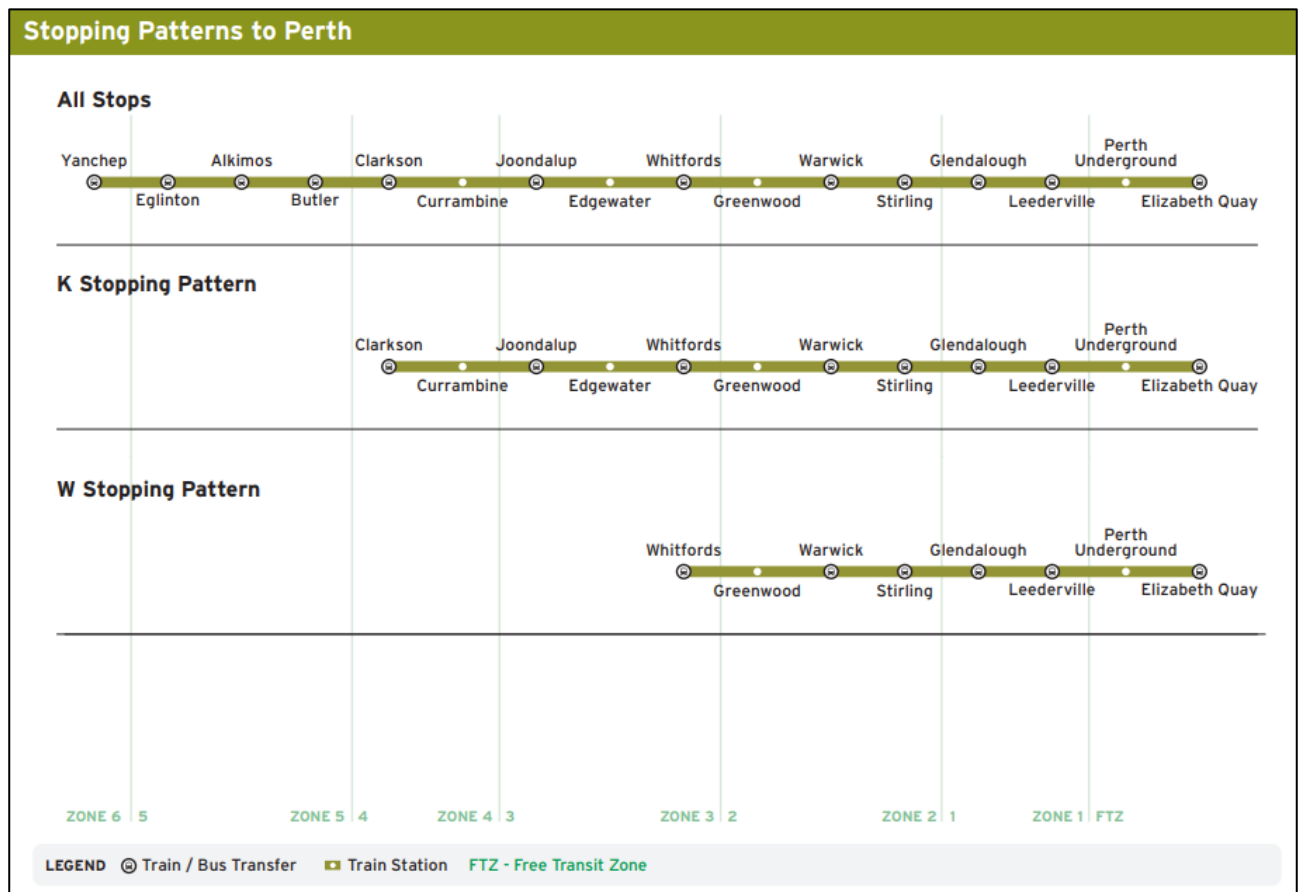


Rail Services

Clarkson Station and Butler Station are accessible via bus services 481 and 482 and provides access to the Yanchep Line and additional bus services 471, 474, 479, 480, 483, 484, 485, 486, 487 and 488.

During the week, the Yanchep line carries passenger rail services between Perth city and stations in between, stopping at Clarkson and Butler Station at intervals of approximately 10 minutes during the peak periods and every 15 to 30 minutes during the remainder of the day.

Figure 2-8: Stopping Pattern on the Yanchep to Perth



Source: Public Transport Authority

2.6 Crash Assessment

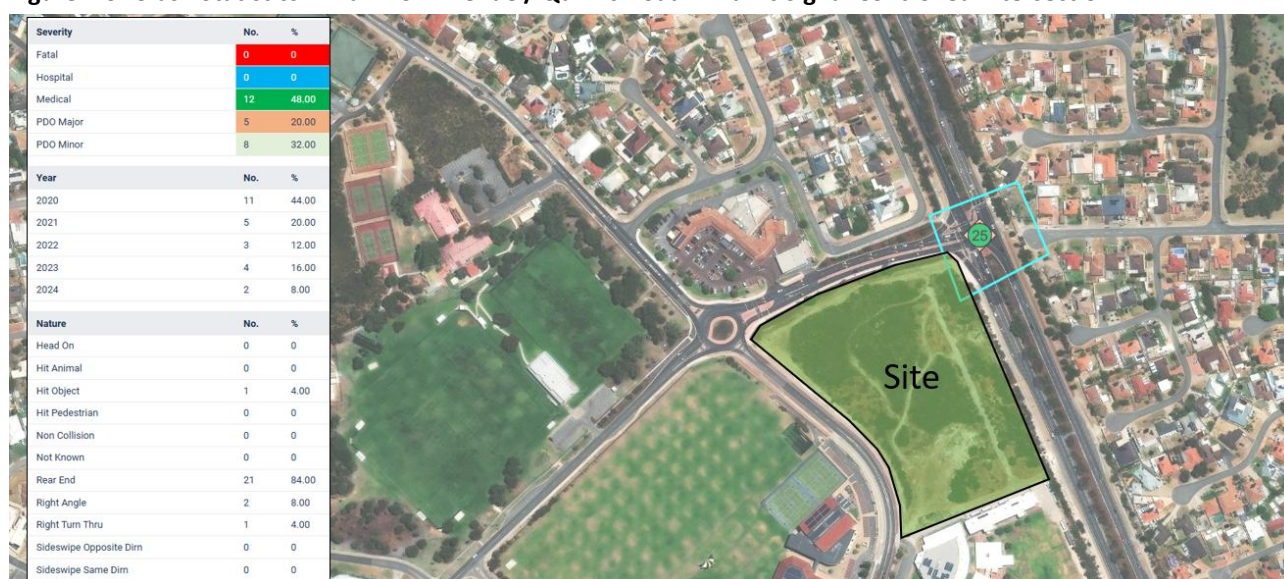
A search of the Main Roads WA Reporting Centre for crash data surrounding the site was undertaken. This search covered all recorded traffic accidents for the most recently available five-year reporting period between 1 January 2020 and 31 December 2024.

Marmion Avenue / Quinns Road

A total of 25 reported crashes have occurred at the intersection of Marmion Avenue / Quinns Road in the past five-year period as shown in **Figure 2-9**. Of the 25 crashes, 3 involved a 'right-turn factor' ('right-turn angle' and 'right-turn thru'), 21 involved 'Rear End' type crash and 1 involved a hitting object. 10 crashes resulted in medical treatment being required, including 5 which required hospital treatment.

Most of these 'Rear End' crashes were due to vehicles not stopping on time at the traffic signals while the crashes involved 'right-turn factor' are due to vehicles violating red light.

Figure 2-9: Crash Statistics – Marmion Avenue / Quinns Road – Traffic Signal Controlled Intersection



Source: Main Roads Crash Map

Quinns Road / Salerno Drive / Tapping Way

A total of 7 recorded crashes have occurred at the intersection of Quinns Road / Salerno Drive / Tapping Way in the past five-year period as shown in **Figure 2-10**. Of the 7 crashes, 4 involved a 'right-turn factor' and 3 involved 'Rear End' type crash. 3 crashes resulted in medical treatment being required, including 1 which required hospital treatment.



Figure 2-10: Crash Statistics – Quinns Road / Salerno Drive / Tapping Way – Roundabout



Source: Main Roads Crash Map

Quinns Road

A total of 4 recorded crashes have occurred along Quinns Road, between Marmion Avenue and Salerno Drive in the past five-year period as shown in **Figure 2-11**. All of these crashes involved 'right-turn factor' while 2 crashes resulted in medical treatment being required.

All of these crashes occurred at Quinns Village Shopping Centre driveway due to vehicles failing to give way to through traffic on Quinns Road.

Figure 2-11: Crash Statistics - Quinns Road, between Marmion Avenue and Salerno Drive



Source: Main Roads Crash Map

Salerno Drive

Interestingly, only a total of 2 recorded crashes have occurred along Salerno Drive, between Quinns Road and Anchorage Drive North in the past five-year period as shown in **Figure 2-12**. All of these crashes involved side-swipe from the same direction that resulted in properties damage only.

These crashes occurred along the section of Salerno Drive with embayed parking as vehicles exited parking and were overtaken.

Figure 2-12: Crash Statistics – Salerno Drive, between Quinns Road and Anchorage Drive North



Source: Main Roads Crash Map



On the basis of the above property damage only crash records on Salerno Drive, the scheme amendment proposal would actually remove some of the on-street car parking.



3 Proposed Amendment

3.1 Private Community Purposes to Residential Rezoning

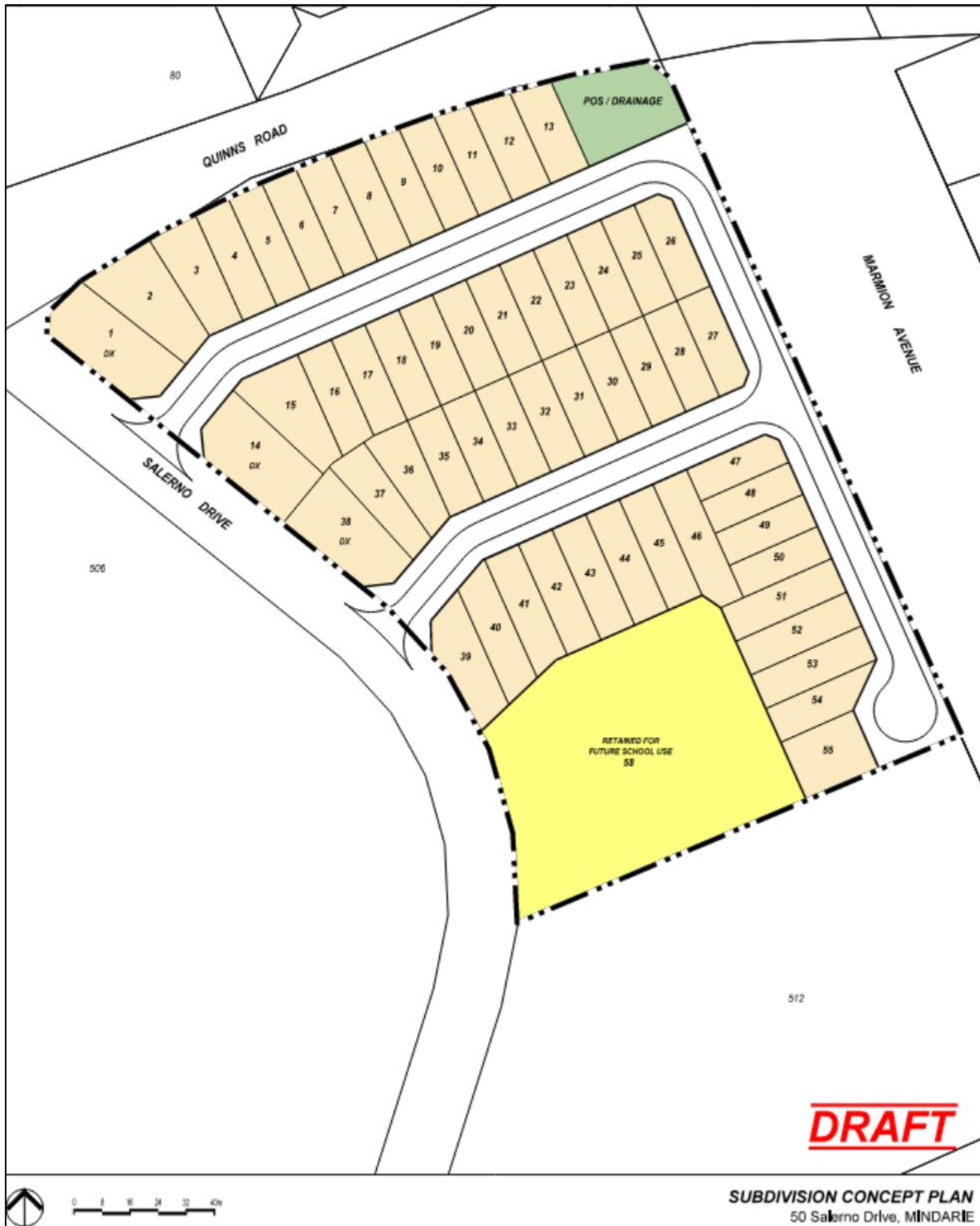
The Site area is currently zoned 'Urban' under the MRS. Under the provisions of the City of Wanneroo DPS2, the site area is currently zoned as 'Private Community Purposes'.

The DPS2 amendment proposes most of the Site to be rezoned from its current designation as 'Private Community Purposes' to 'Residential' for green titled residential subdivision, in line with a R40 residential density.

The subdivision concept plan as shown in Figure 3-1 (full plan attached in Appendix A) currently proposes 55 residential lots and the remaining ~5,000m² of the land to remain as 'Private Community Purposes'.



Figure 3-1: Proposed DPS2 Amendment and Residential Subdivision



Source: Tomahawk Property, July 2025

3.2 Internal Road Network

The proposed DPS2 amendment (for residential subdivision) will continue to be developed in line with guidance in *Liveable Neighbourhoods Guidelines 2009 (LN09)* with reviews of sustainable transport modes (public transport, walking and cycling) and high-quality cycling facilities, footpaths, street trees etc to facilitate and encourage non-car modes as practically possible.

The proposed internal road network for the Site will form two intersections along Salerno Drive to the south of the intersection of Quinns Road / Salerno Drive / Tapping Way roundabout. The proposed internal road network is proposed to be all Access Street D type streets, with road reserve widths of 15m and 13m respectively, as shown in **Figure 3-2**.

Figure 3-2: Concept Road Hierarchy and Road Reserve



Source: Tomahawk Property, July 2025

3.3 Road Cross Sections

As shown in **Figure 3-2**, there will only be Local Access Streets across the Site, originating from the proposed access intersections along Salerno Drive. These will feature road reserves of between 13m to 15m wide where volumes are up to 1,000 vehicles per day with at least one 1.5m footpath on one side of the roads as per *City of Wanneroo's Pathways Policy 2024* and *LN09*.



A summary of the proposed streets is set out in **Table 3-1**Table 3-1.

Table 3-1: Proposed Streets

Road	Road Reserve	Location Description	Liveable Streets Road Type
Local Access Streets	13m Road Reserve	Most streets providing access to properties	Based on Access Street D
	15m Road Reserve	Most streets providing access to properties with no through road	(likely 5.5m - 6m wide pavement, 4.5m wide verges on both sides, 1.8m minimum footpath on at least one side)

The street types have been reviewed based on the LN09. This specifies the following for Access Streets and Laneways:

Table 3-2: Liveable Neighbourhoods, Element 2 - Road Specifications

Street Type	Max Design Speed / Target Operating Speed (km/hr)	Indicative Volume (vehicles per day)	Indicative Street Reserve Width (m)	Indicative Road Pavement Width (m)
Small Town Centre Street or Access Street D – Narrow, Yield or Give Way Street	50 / 30	<1000	10 to 14.2	5.5 to 6

The Access Street D roads (Narrow Yield or Give Way Streets) will have a 5.5m to 6.0m wide carriageway, as well as at least one footpath of at least 1.8m width.

3.4 Intersection Controls

Due to the low volume and low speed residential nature of the internal roads within the Site, the internal roads are proposed to be two-lane two-way single carriageway. The internal roads are expected to only have to accommodate vehicle volumes of up to 500 vehicles per day.

All intersections within the Site are intended to be constructed as priority-controlled T-intersections, where three street approaches meet. All intersections will require signage (Give Way or Stop) on the approaches to the intersection.

3.5 Pedestrian and Cyclist Access

Pedestrian and cyclist access has not yet been fully defined on the internal concept plan, however it should be provided generally in accordance with the requirements of the guidance for LN09 as discussed in **Section 3.3**. The internal road network should have at least one 1.8m wide footpath



on one side of the street that connects to already excellent existing pedestrian and cyclist network along Salerno Drive and the wider network.

3.6 Pedestrian Crossing Thresholds

As the internal road network within the Site are to have relatively low volumes of traffic, with a maximum of up to 50 two-way vehicle trips within the AM or PM peak hour, it is considered that none of the proposed roads within the site would be particularly difficult for pedestrians and cyclists to cross.

This is in line with Table 3 of the *WA Transport Impact Assessment Guidelines Volume 2*, which has been reproduced below. This states that for a two-lane undivided road, which is what is proposed for the internal road network, the ability of most pedestrians to cross would only be affected if there are more than 1,100 vehicles per hour. As such, the proposed internal road network will provide an acceptable environment for pedestrians to cross an undivided road.

Table 3-3: Traffic Volumes Affecting Pedestrian Crossing Amenity

Road cross-section	Traffic volume affecting ability of pedestrians to cross (vehicles per hour – two-way)
2 lane undivided	1,100 vph
2 lane divided (or with pedestrian refuse islands)	2,800 vph
4 lane undivided (without pedestrian refuge islands)	700 vph
4 lane divided (or with pedestrian refuge islands)	1,600 vph

3.7 Safe Walk/Cycle to School Assessment

As discussed previously, the Site is bounded to the south by *Peter Moyes Anglican Community School* and *Quinns Baptist College*. The *Quinns Rocks Primary School* is approximately 820m walk distance to the east of the Site.

The entrances to the *Peter Moyes Anglican Community School* and *Quinns Baptist College* are accessible off Salerno Drive. The internal road network proposes at least one 1.8m wide footpath on one side of the roads and these footpaths will connect to the existing concrete shared paths along both sides of Salerno Drive which provide convenient walk / cycle path to these schools.

As shown in **Figure 2-5**, there are shared paths along Mindarie Drive, Ainger Road, White Road and Rees Drive that provide walk / cycle paths to *Quinns Rocks Primary School*.



4 Changes to External Transport Network

Given the excellent pedestrian / cycle network which already exists and the number/frequency of bus routes around the Site, the proposed DPS2 amendment does not need to propose any changes to the road / pedestrian / cycle networks and public transport services. The key road infrastructure to be constructed to support the DPS2 amendment would be the two intersections along Salerno Drive to access the Site.

4.1 Salerno Drive Intersection Control

The proposed internal road network will form two intersections along Salerno Drive. The northern intersection is proposed to be a full movement intersection while the southern intersection is proposed to be a Left-In/Left Out intersection due to the existing raised median at the proposed location of the intersection.

Northern Intersection

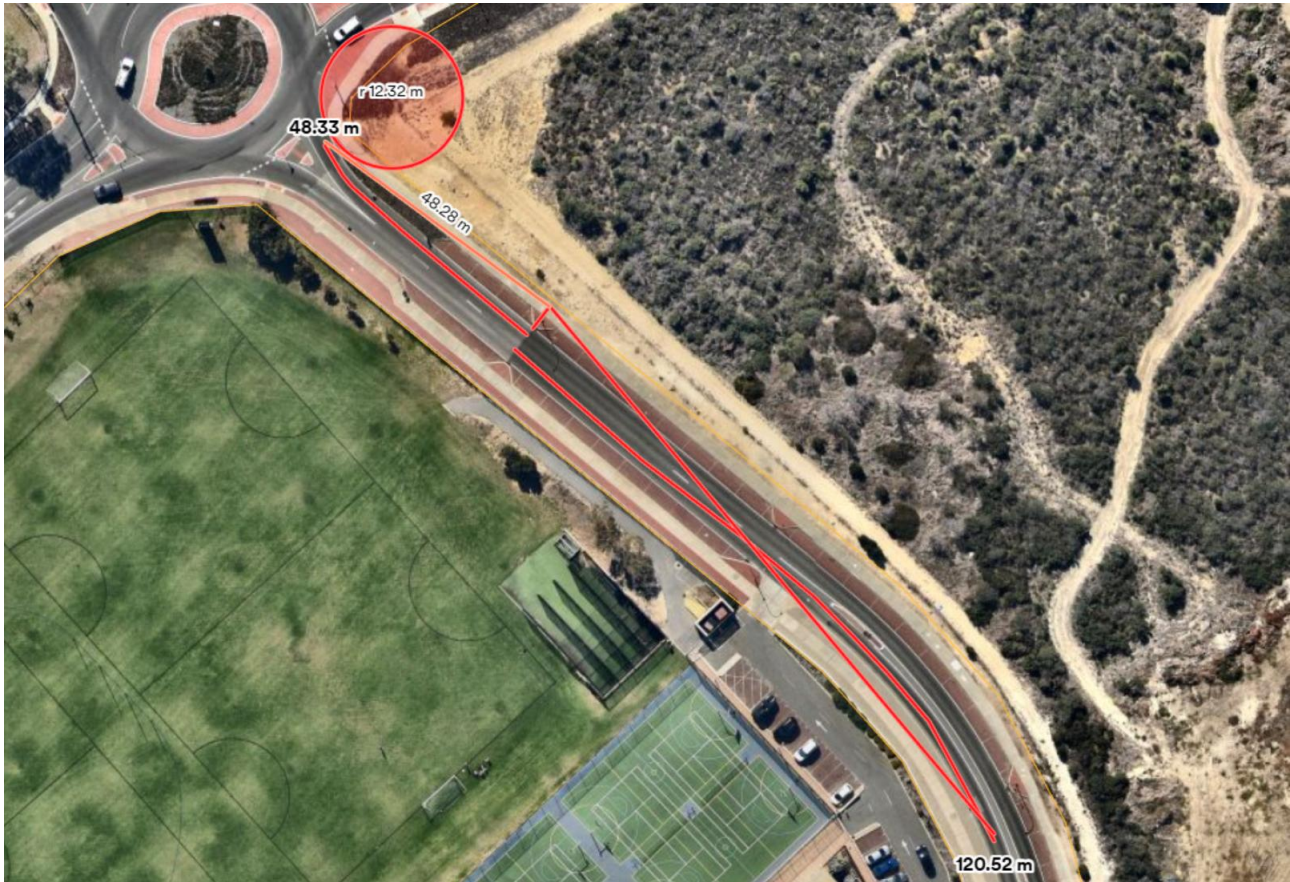
Preliminary desktop review of the northern intersection in 2D is shown in **Figure 4-1**. This has indicated that for an exiting vehicle from the minor street, there is likely to be approximately 120m Stopping Intersection Sight Distance (SISD) looking to the left (south) and 48m SISD looking to the right (north).

The northern intersection is located at section of Salerno Drive that has an uphill grade of approximately 8% from the roundabout at Quinns Road to the south. While Salerno Drive has a default speed limit of 50 km/h for built up area, the vehicle operating speed for the west approach from the roundabout at Quinns Road is expected to be much lower than 50 km/h due to the roundabout. As shown in **Figure 4-1**, the roundabout has a 12m curve radius. Referring to *Austroads Guide to Road Design Part 3: Geometric Design 2016*, this road design is conducive to a vehicle speed travelling at approximately 22 km/h.

Based on the above and with reference to *Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersection 2023*, the required and available SISD for the proposed northern intersection complies and is summarised in **Table 4-1**.



Figure 4-1: Northern Intersection Available SISD



Base map source: Nearmap

Table 4-1: Required SISD for proposed Northern Intersection

Direction	Operating Speed	Grade	SISD Required	SISD Available	Compliance
Looking right (to roundabout)	22 km/h	+ 8%	35m	48m	Complies
Looking left (to schools)	50 km/h	- 8%	105m	120m	Complies

The table above shows that the northern intersection complies with the required SISD.

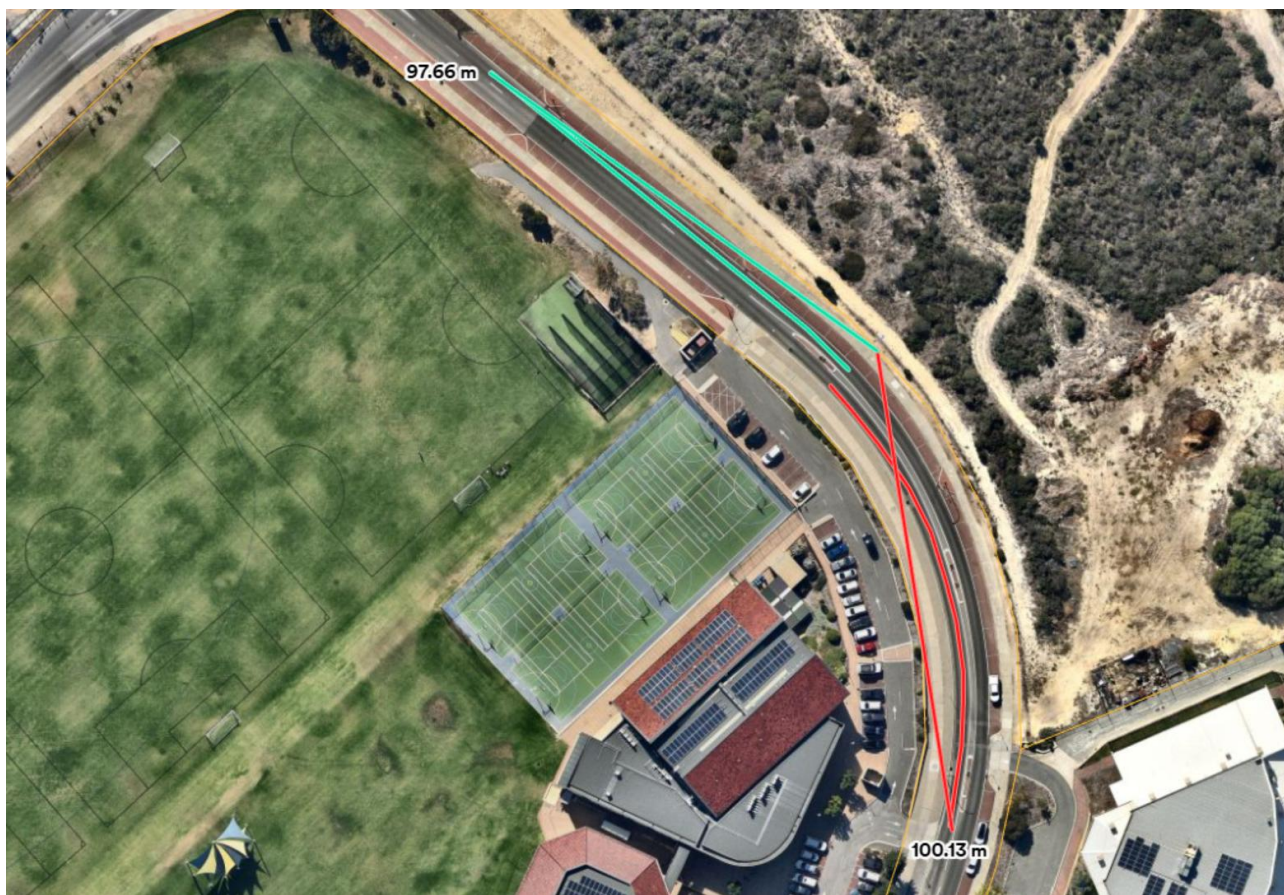
Southern Intersection

Preliminary desktop review of the southern intersection in 2D is shown in **Figure 4-2**. This has indicated that for an exiting vehicle from the minor street, there is likely to be approximately 100m SISD looking to the left (south) and 98m SISD looking to the right (north).



The southern intersection is proposed to be located at section of Salerno Drive with a raised median. It has an uphill grade of approximately 4% from the north and it is generally flat from the south. The required and available SISD for the northern intersection is summarised in **Table 4-2**.

Figure 4-2: Southern Intersection Available SISD



Base map source: Nearmap

Table 4-2: Required SISD for proposed Southern Intersection

Direction	Operating Speed	Grade	SISD Required	SISD Available	Compliance
Looking right (to roundabout)	50 km/h	+ 4%	94m	98m	Complies
Looking left (to schools)	50 km/h	- 1%	99m	100m	Complies

The table above shows that the southern intersection complies with the required SISD.

4.2 Salerno Drive Embayed Parking Bays

There are currently embayed parking bays on both sides of Salerno Drive fronting the Site. Consultation with the City for the purposes of this scheme amendment report, has noted that the



bays were likely installed by the City a long time ago (based on aerial imagery) and the City would consider removal of these bays as is required to service the intended development of the land.

As the parking bays are currently available for use with no land use development to its east, the City has noted it is currently being used by parents/carers for school pick up / set down. Based on a preliminary assessment (see **Figure 4-3**), 11 of these on-street bays on the east side of Salerno Drive, adjacent to Site will need removal to construct the two intersections that are necessary to support development of the Site. A further assessment of seven of the bays between the two new proposed intersections would require a further assessment at subdivision stages to maintain unobstructed required SISD discussed above.

It is noted that given the only two property damage only type crashes recorded on Salerno Drive in the last 5 years were associated with overtaking manoeuvres of on-street parking vehicles, a removal of some spaces currently on both sides of Salerno Drive may assist an improved crash outcome. This is to be further reviewed at subdivision stages, following the sites rezoning to Residential.

Figure 4-3: Embayed Parking Bays to be assessed for removal



Source: Tomahawk Property, June 2025

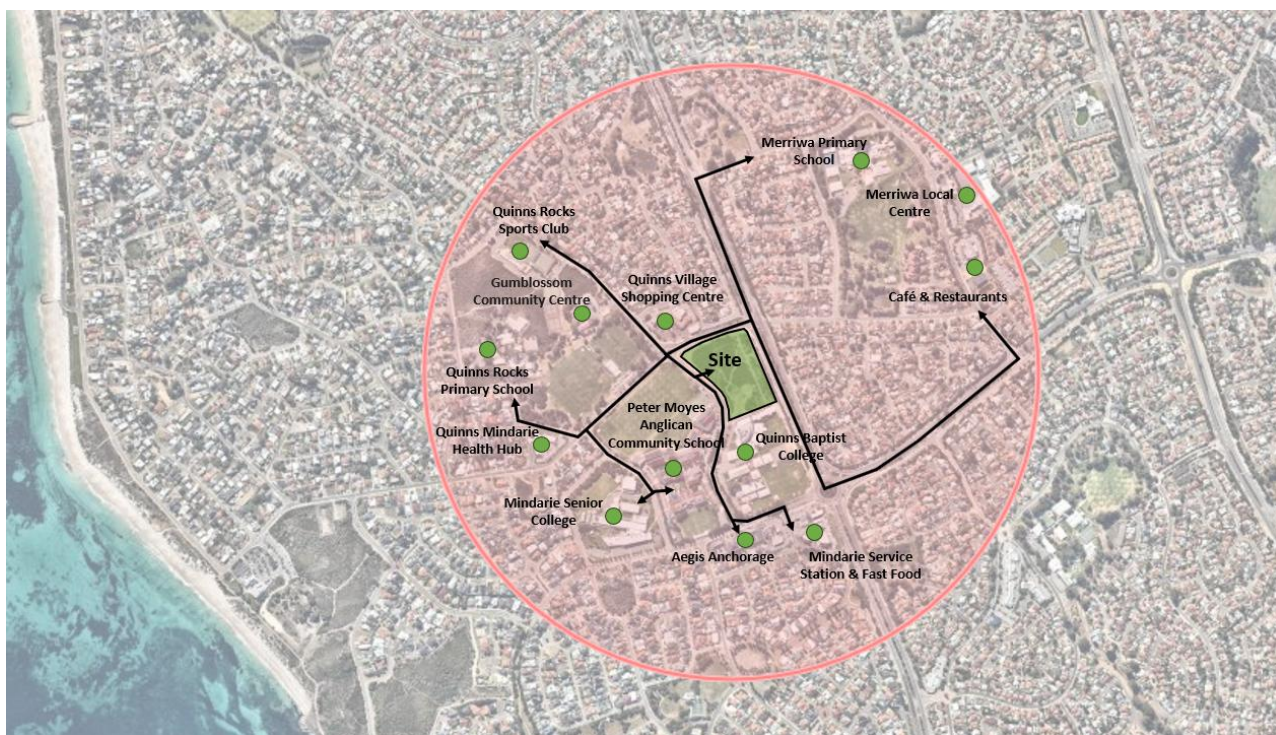


5 Integration with Surrounding Areas

5.1 Trip Attractors/Generators Within 800 Metres

The major trip attractors and generators within 800m of the Site are shown in **Figure 5-1**. These trip attractors and generators can be readily accessed via the extensive road and pedestrian / cycle networks around the Site.

Figure 5-1: Surrounding Trip Generators / Attractors



Base map source: Nearmap

5.2 Proposed Changes to Land Uses Within 800 Metres

The Site is the only large vacant lot in the surrounding area where the other lots are mostly developed. With reference to DPS2, there is currently no known proposed changes to land uses within 800m of the Site.

5.3 Adequacy / Deficiencies in External Transport Networks

The Site is well located in relation to the existing local and primary state road network which connects to the wider road network, such as Marmion Avenue and Mitchell Freeway further to the east. The road network also comprises of shared path or footpath that provide linkages to the adjacent trip generators and attractors, bus stops, and the PSP along Mitchell Freeway.



The Site also has excellent public transport within proximity. There are three bus routes, 480, 481 and 482 that service Marmion Avenue and Salerno Drive within 600m walking distance from the Site. Thus, the external road network around the Site is adequate.



6 Analysis of Internal / External Networks

6.1 Proposed Traffic Generation

The traffic generation rates in **Table 6-1**, sourced from the WAPC Guidelines, have been used to calculate an estimate of the traffic generated in the AM and PM peak periods by the proposed residential land use.

Table 6-1: WAPC Trip Generation Rates – Residential

Land Use	Units	Daily	AM In	AM Out	PM In	PM Out
Residential	Per Dwelling	8	0.2	0.6	0.5	0.3

Table 6-2 summarises the trip volumes derived from the adopted generation rates.

Table 6-2: Proposed Development Traffic Generation

Land Use	Units	Daily	AM In	AM Out	PM In	PM Out
Residential	~55 Dwelling	440 veh/day	12 veh/h	33 veh/h	38 veh/h	17 veh/h

6.2 Proposed DPS2 Amendment Traffic Impact

As shown in **Table 6-2**, the proposed DPS2 amendment is expected to generate some 440 vehicles per day (two-way) and 44 vehicles per hour (two-way) in a typical peak. **Table 6-3** shows the increase in external road network traffic due to proposed DPS2 amendment development traffic based on the traffic counts reported in **Section 2.2**. As discussed in WAPC TIA Guidelines, a development that generates less than 100 vehicles per hour is considered moderate impact. Besides that, an increase in traffic of less than 10% on existing road is not likely to have material impact.

As demonstrated in **Table 6-2**, the increase in traffic on Quinns Road and Marmion Avenue is lower than 10%, namely some 3.6% of the existing traffic. Regarding traffic to/from Salerno Drive, the northern intersection can operate as a full-movement and the southern intersection is likely to be Left-In/Left-Out (due to a solid median), meaning a portion of the Site generated trips will travel north towards Quinns Road and a portion will travel south toward Anchorage Drive North. As such, this will result to increase in traffic along Salerno Drive to be 6.0% to 6.3%. This suggests that based on WAPC Guidelines no specific intersection modelling assessment is required around the Site.

Besides that and as noted earlier, the proposed DPS2 amendment to residential will generate significantly lower trips than the approved zoning of 'Private Community Purposes' as that allows for another school use to be developed at the Site instead.

**Table 6-3: Increase in Traffic Due to Proposed DPS2 Amendment**

Road	Recorded Daily Traffic	Proposed DPS2 Amendment Traffic	Increase in Traffic %
Salerno Drive north	3,578 vehicles per day	225 vehicles per day	6.3%
Salerno Drive south	3,578 vehicles per day	215 vehicles per day	6.0%
Quinns Road	12,000 vehicles per day	440 vehicles per day	3.6%
Marmion Avenue	41,350 vehicles per day	440 vehicles per day	1.0%
Anchorage Drive North	5,445 vehicles per day	215 vehicles per day	3.9%

6.3 Existing External Traffic Issues

While the proposed DPS2 amendment is not expected to have material impact on the existing road network, it has been noted from the City that the existing wider road network does experience significant queuing during peak periods on Anchorage Drive North at the approach to Marmion Avenue. Due to the concentrated number of schools in the area, Salerno Drive fronting the existing schools, will experience some typical school related congestions for an acute short period (~15mins typically before and after school ending time) which is typical of most school streets. City of Wanneroo are aware of this and have installed a bollard median along Salerno Drive fronting the schools (much further south of the Site) to prevent any u-turning behaviour, especially during a school pick-up period. Outside of the school peak periods and on non-school days, Salerno Drive performs satisfactorily given it is carrying low volumes of daily traffic.

The City of Wanneroo advised that they had previously engaged WSP to investigate feasible road improvement options in the wider area to help improve the traffic capacity/flow of the surrounding road network, although this study was not able to be provided for this development TIA. The City advised that they had improved the intersection capacity of Anchorage Drive North / Salerno Drive by constructing a left-turn and right-turn pockets to help improve traffic flow.



7 Conclusion

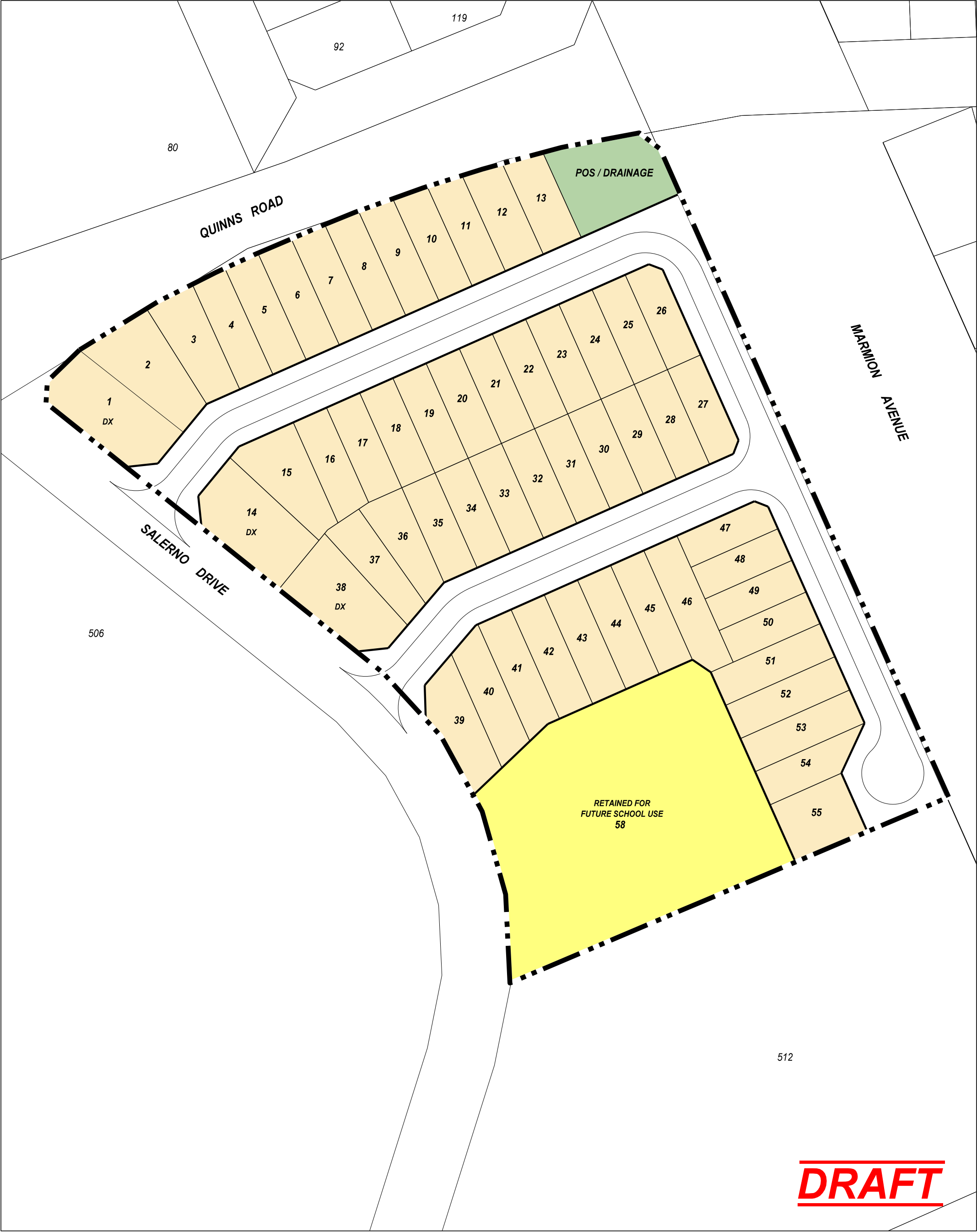
Based on the findings and discussions presented within this report, the following traffic and transport conclusions are made:

1. The Site is currently zoned as 'Urban' under Metropolitan Regional Scheme and as 'Private Community Purposes' under City of Wanneroo's District Planning Scheme No.2.
2. The proposed District Planning Scheme No.2 Amendment intends to rezone a large portion of the Site from 'Private Community Purposes' to 'Residential'.
3. While the Site could be developed as yet another school in the area, the rezoning proposal to residential in fact decreases the peak hour and daily number of vehicular trips that would be generated on the road network. As such the rezoning to residential, a less intense traffic generating land use, is seen as a positive outcome for the area.
4. The subject site is well serviced by existing bus routes on all frontage roads, which are no more than 600m from the site.
5. The subject site is adjacent to an extensive shared path network that provide linkages to bus stops, train stations and the Mitchell Freeway PSP. Protected crossings are available at Quinns Street intersection to assist cross Marmion Avenue. A continuous path is also available from Quinns Street to the north and Anchorage Drive North to the south, to access the Marmion Avenue bus stops.
6. The proposed internal road network should be designed in accordance with *Liveable Neighbourhood Guidelines 2009* and *City of Wanneroo's Pathway Policy 2024*.
7. The two proposed intersections off Salerno Drive into the Site have sufficient Safe Intersection Sight Distance along both directions of travel. The northern intersection is proposed to be a full movement priority-controlled intersection and is expected to operate satisfactorily under the traffic volumes recorded, while the southern intersection is proposed to be a Left-In/Left-Out due to the existing raised median at the location of the intersection. Both intersections will operate well under assessed volumes.
8. There is likely to be a loss of 11 on-street parking bays on the eastern side of Salerno Drive, adjacent to Site to construct the two new proposed intersections. A further assessment of seven of the bays between the two new proposed intersections would require a further assessment at subdivision stages to maintain unobstructed required SISD discussed in this report.
9. The site traffic generated by the proposed District Planning Scheme No.2 Amendment is in the order of 440 vehicles per day or 44 vehicles per hour in the AM and PM peaks. The increase in traffic on surrounding immediate road network is expected to be as low as 3.6%.

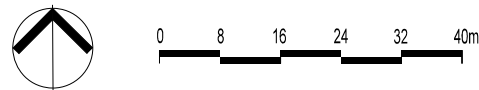
10. Therefore, the impact of the lower number of trips to be generated by the Proposed District Planning Scheme No.2 Amendment is expected to be indeed 'moderate' and will not have material impact to the road network.



Appendix A Subdivision Concept Plan



DRAFT



SUBDIVISION CONCEPT PLAN
50 Salerno Drive, MINDARIE

NOTE:
Base Data supplied by BE SURVEYS
Aerial Photography supplied by LANDGATE (capture date - Sept/2023)
Areas and dimensions shown are subject to final survey calculations and servicing requirements.

A	12/06/25	Initial Issue
Revision	Date	Item

LEGEND

- SUBJECT LOT BOUNDARY
- PROPOSED R40 LOTS
- PROPOSED POS / DRAINAGE
- RETAINED FOR FUTURE SCHOOL USE

Tomahawk Property Pty Ltd : CLIENT
A3@1:000 : SCALE
23 JUNE 2025 : DATE
50S-DC-002 : PLAN No
D : REVISION
B.C. : PLANNER
B.L. : DRAWN



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Appendix B TIA Checklist

Item	Provided	Comments/Proposals
Introduction / Background	Y	
Structure Plan Proposal		
Regional context	Y	
Proposed land uses	Y	
Table of land uses and quantities	Y	
Major attractors / generators	Y	
Specific issues	Y	
Existing Situation		
Existing land uses within structure plan	Y	
Existing land uses within 800m of structure plan area	Y	
Existing road network within structure plan area	Y	
Existing pedestrian / cycle network within structure plan area	Y	
Existing public transport services within structure plan area	Y	
Existing road network within 2 (or 5) km of structure plan area	Y	
Traffic flows on roads within structure plan area (PM and/or AM peak hours)	Y	
Existing pedestrian / cycle networks within 800m of structure plan area.	Y	
Existing public transport services within 800m of structure plan area.	Y	
Proposed Internal Transport Networks		
Changes / additions to existing road network or proposed new road network	Y	
Road reservation widths	Y	
Road cross-sections & speed limits	Y	
Intersection controls	Y	
Pedestrian / cycle networks and crossing facilities	Y	
Changes to External Transport Networks		
Road network	Y	
Intersection controls	Y	
Pedestrian/cycle networks and crossing facilities	Y	
Public transport services	Y	



Integration with surrounding area		
Trip attractors / generators within 800 metres	Y	
proposed changes to land uses within 800 metres	Y	
travel desire lines from development to these attractors/ generators	Y	
adequacy of external transport networks	Y	
deficiencies in external transport networks	Y	
remedial measures to address deficiencies	Y	
Analysis of internal transport networks		
assessment years	Y	
time periods	Y	
Structure plan generated traffic	Y	
Extraneous (through) traffic	Y	
Design traffic flows (that is, total traffic)	Y	
Road cross-sections	Y	
Intersection controls	Y	
Access strategy	Y	
Pedestrian / cycle networks	Y	
Safe routes to schools	Y	
Pedestrian permeability & efficiency	Y	
Access to public transport	Y	
Analysis of external transport networks		
Extent of analysis	Y	
Base flows for assessment year(s)	Y	
Total traffic flows	Y	
Road cross-sections	Y	
Intersection layouts and controls	Y	
Pedestrian / cycle networks	Y	
Conclusions	Y	

