



Transport Impact Statement

Project:	Proposed Residential Development 256 – 258 Charles Street, North Perth
Client:	DevelopWise
Author:	L. De Leon / P. Nguyen
Date:	29 th August 2025
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1. Introduction

1.1. Proponent

Shawmac Pty Ltd has been engaged by DevelopWise to prepare a Transport Impact Statement (TIS) for a proposed residential development in North Perth.

This TIS has been prepared in accordance with the Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines Volume 4 – Individual Developments*. The assessment considers the following key matters:

- Details of the proposed development.
- Vehicle access and parking including sight distance assessment in accordance with relevant guidelines.
- Provision for service vehicles.
- Hours of operation.
- Daily traffic volumes and vehicle types.
- Traffic management on frontage streets.
- Public transport access.
- Pedestrian access.
- Cycle access and end of trip facilities.
- Site specific and safety issues.

1.2. Site Location

The site address is 256 – 258 Charles Street in North Perth. The local authority is the City of Vincent.

The general site location is shown in **Figure 1**. An aerial view of the existing site is shown in **Figure 2**.

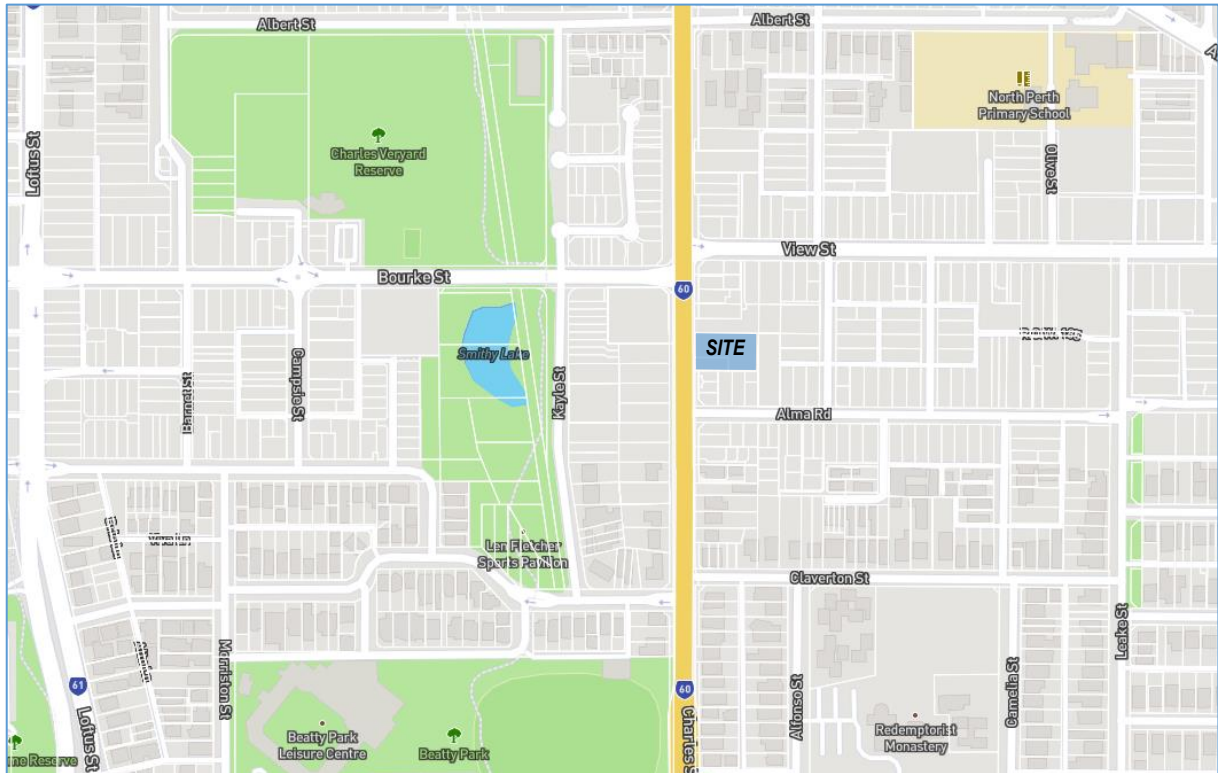


Figure 1: Site Location

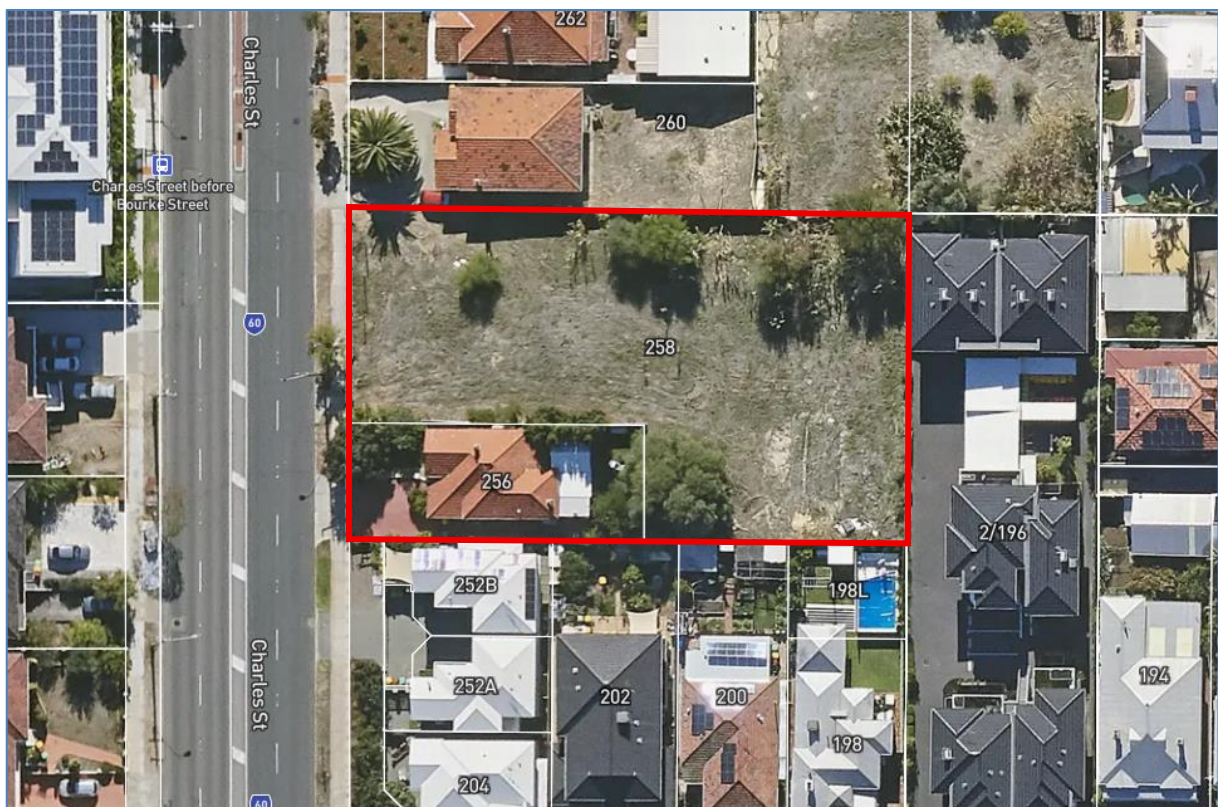


Figure 2: Aerial View (May 2025)



2. Proposed Development

2.1. Land Use

The proposal is a residential development comprising 29 apartment units and other supporting facilities.

The ground floor plan is shown in **Figure 3**.

YIELD TABLE

1. PLOT RATIO:

LOT 800 & 801 TOTAL AREA	2037 SQM
PLOT RATIO (R100)	MAX. 1.3
ALLOWED PLOT RATIO AREA	MAX. 2648.10 SQM
GROUND FLOOR PLOT RATIO AREA	0 SQM
LEVEL 1 PLOT RATIO AREA	832.44 SQM
LEVEL 2 FLOOR PLOT RATIO AREA	898.72 SQM
LEVEL 3 FLOOR PLOT RATIO AREA	898.72 SQM
TOTAL AREA	2629.88 SQM
TOTAL PLOT RATIO	1.29

2. BUILDING FLOOR AREA:

GROUND FLOOR - including carpark, lift lobby, stairwells, material store, bin store, elec/comm room, fire pump & tank	1500.75 SQM
LEVEL 1 - including lift lobby, stairwells, corridor, stores, alfresco & balconies	1250.45 SQM
LEVEL 1 - including communal open space, terraces & fire escape path	266.02 SQM
LEVEL 2 - including lift lobby, stairwells, corridor, stores & balconies	1246.75 SQM
LEVEL 3 - including lift lobby, stairwells, corridor, stores & balconies	1246.75 SQM
TOTAL AREA	5510.72 SQM

3. APARTMENT TYPE:

1 BED, BATH	15 UNITS (52%)
2 BEDS, 2 BATHS	12 UNITS (41%)
3 BEDS, 2 BATHS	2 UNITS (7%)

4. RESIDENT CAR BAYS:

ACCORDING TO R-CODES VOL. 2, FOR A SITE WITHIN 250M OF A HIGH-FREQUENCY RAIL ROUTE OR MULTIPLE TRANSIT ROUTE, ONE BEDROOM - 0.75 CARBAY PER DWELLING & TWO OR MORE BEDROOMS 1 CARBAY PER DWELLING.	
MINIMUM REQUIRED RESIDENT CAR BAY	26 BAYS
PROPOSED DEVELOPMENT PROVIDED	35 BAYS

5. VISITOR CAR BAYS:

ACCORDING TO R-CODES VOL. 2, FOR A SITE WITHIN 250M OF A HIGH-FREQUENCY RAIL ROUTE OR MULTIPLE TRANSIT ROUTE, ONE BEDROOM - 1 CARBAY PER FOUR DWELLINGS UP TO 12 DWELLINGS & 1 CARBAY PER EIGHT DWELLINGS FOR 13TH DWELLING AND ABOVE.	
MINIMUM REQUIRED VISITOR CAR BAY	6 BAYS
PROPOSED DEVELOPMENT PROVIDED	5 BAYS

6. BIKE PARKING:

ACCORDING TO R-CODES VOL. 2, FOR A SITE WITHIN 250M OF A HIGH-FREQUENCY RAIL ROUTE OR MULTIPLE TRANSIT ROUTE, 0.5 SPACE PER DWELLING FOR RESIDENTS & 1 SPACE PER TEN DWELLINGS FOR VISITORS.	
MINIMUM REQUIRED BIKE SPACE (15 SPACES FOR RESIDENTS & 3 SPACES FOR VISITORS)	18 SPACES
PROPOSED DEVELOPMENT PROVIDED	18 SPACES

7. MOTORCYCLE/SCOOTER PARKING:

ACCORDING TO R-CODES VOL. 2, FOR A SITE WITHIN 250M OF A HIGH-FREQUENCY RAIL ROUTE OR MULTIPLE TRANSIT ROUTE, DEVELOPMENTS EXCEEDING 20 DWELLINGS PROVIDE 1 MOTORCYCLE/SCOOTER SPACE FOR EVERY 10 CARBAYS.	
MINIMUM REQUIRED MOTORCYCLE/SCOOTER SPACE	4 SPACES
PROPOSED DEVELOPMENT PROVIDED	4 SPACES

8. COMMUNAL OPEN SPACE, DEEP SOIL AREA & TREE CANOPY:

ACCORDING TO CITY OF VINCENT BUILT FORM POLICY NO. 7.1.1, SECTION 4. TRANSIT CORRIDORS CLAUSE 4.3.	
MINIMUM REQUIRED DEEP SOIL AREA (12% OF SITE AREA)	244.44 SQM
PROPOSED DEVELOPMENT PROVIDED DEEP SOIL AREA	437.65 SQM (21%)

UPDATED ON 30/07/25

SCALE 1 : 200 @ A3 size
SCALE 2 : 100 @ A1 size

GROUND FLOOR PLAN

PROPOSED 4 STOREY MULTI-RESIDENTIAL DEVELOPMENT

ON LOT 800 & 801 (HN 256 & 258), CHARLES STREET, NORTH PERTH, WA 6006

DATE: 05 SEPT 2025 DRAWN: CP SCALE: 1:100 @ A1 PROJECT NO: 24024 DRAWING NO: P101F

CLIENT: DEVELOPWISE ARCHITECT: ABEL LING ARCHITECT

700 KISHORN ROAD, MOUNT PLEASANT WESTERN AUSTRALIA 6153 1148 MODILLION AVENUE, RIVERTON WESTERN AUSTRALIA 6148

TEL: 08 9480 1382 MOB: 0423 676 608

WEB: www.abelingarchitect.com EMAIL: abel@abelingarchitect.com

CONTRACTOR JOINT AT MAX. 2000mm CENTRES TO BUILDERS DETAIL & CITY'S CROSSOVER SPECIFICATION.

EXIST. CONCRETE PATH TO BE MODIFIED & REINFORCED TO SUIT PROPOSED NEW CROSSOVER.

PROPOSED NEW CROSSOVER TO CITY OF VINCENT SPECIFICATIONS

EXIST. CONCRETE CROSSOVER TO BE REMOVED. REINSTATE KERB TO MATCH ADJACENT EXISTING KERBS

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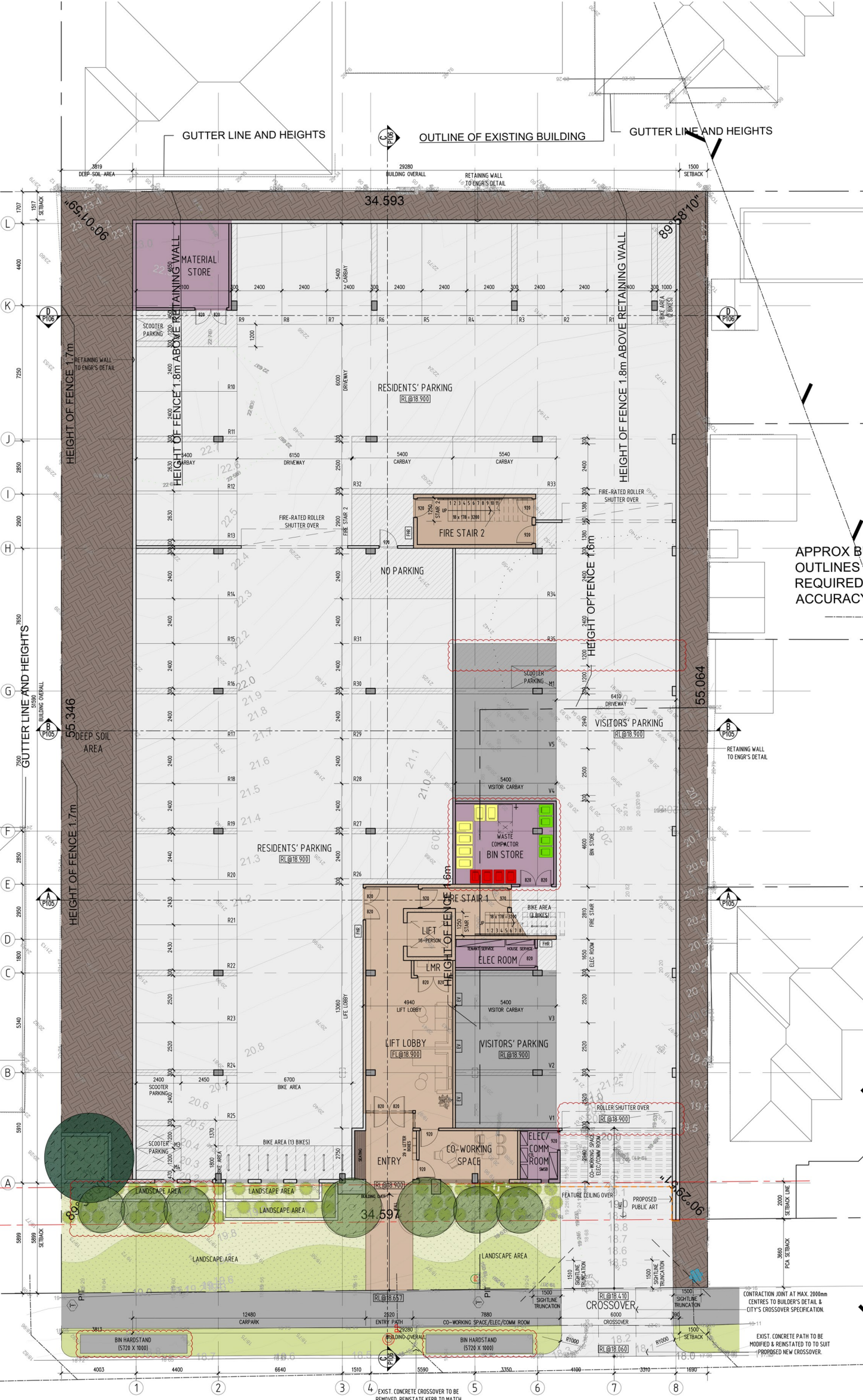


Figure 3: Ground Floor Plan

3. Traffic Management on Frontage Streets

3.1. Existing Road Layout and Hierarchy

The layout and hierarchy of the existing local road network according to the Main Roads WA *Road Information Mapping System* is shown in **Figure 4**.

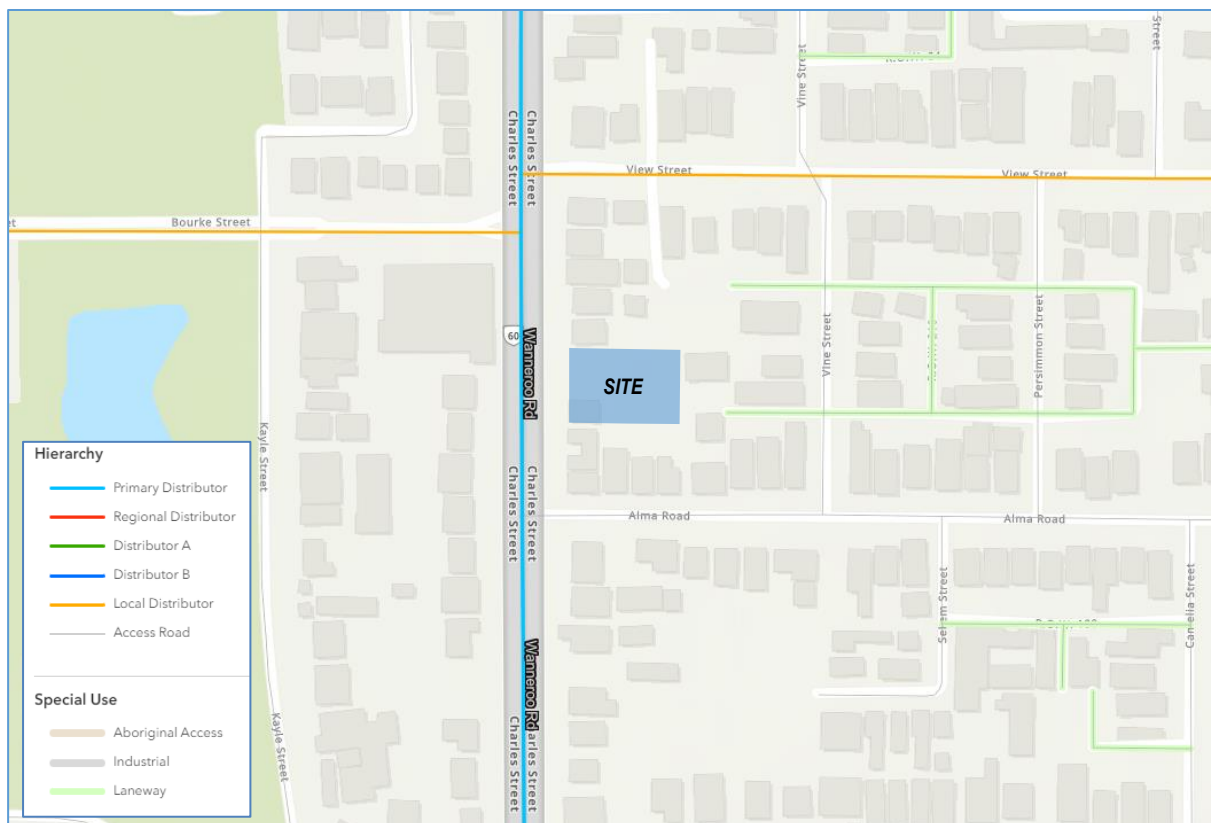


Figure 4: Existing Road Network Hierarchy

As shown, Charles Street (Wanneroo Road) is a state controlled road which is under the control of Main Roads WA.

3.2. Speed Limits

The existing speed limits are shown in **Figure 5**.

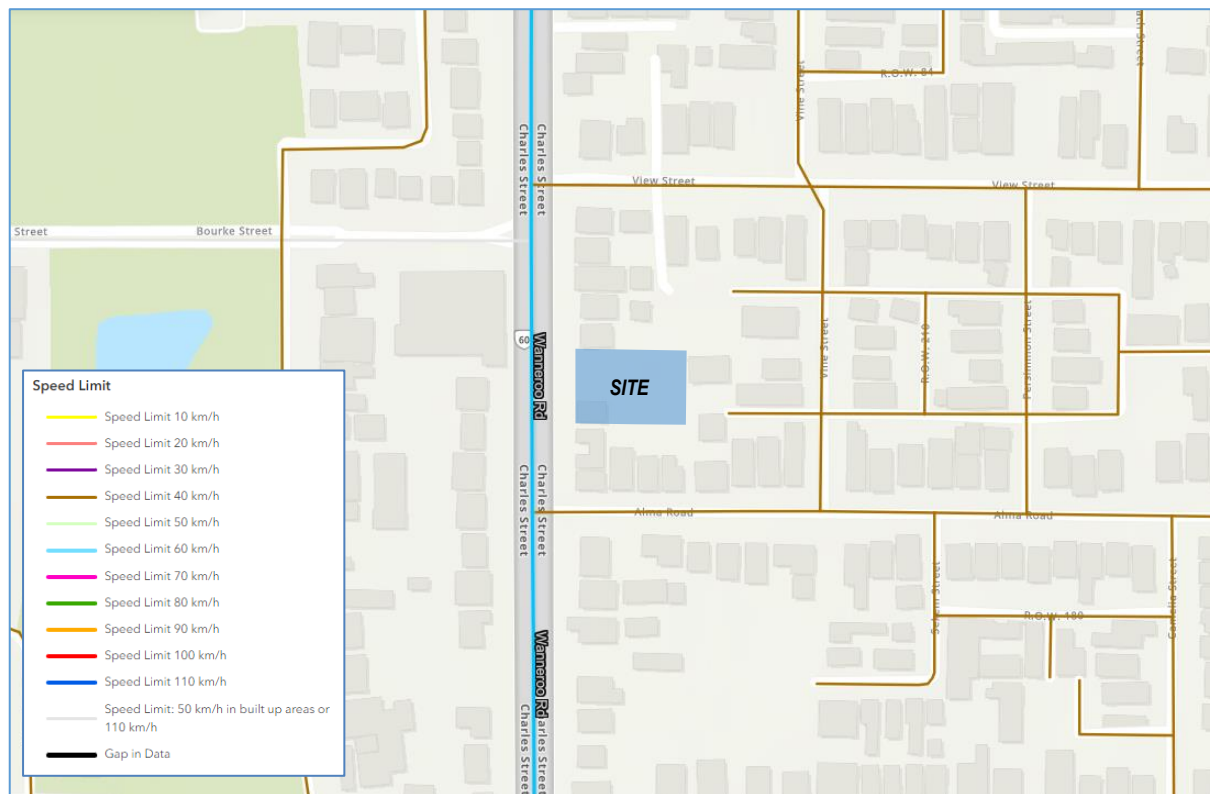


Figure 5: Existing Speed Limits

4. Vehicle Access and Parking

4.1. Vehicle Access

Vehicle access to the development is proposed via a new 6.0m wide crossover and driveway on Charles Street as shown in **Figure 6**.



Figure 6: Vehicle Access Arrangement

The City's Specification for Crossovers requires that the width of a crossover is to be between 3.0m to 7.3m wide. The proposed 6.0m wide crossover on Charles Street complies with the City's requirements.

4.2. Vehicle Sight Distance

Sight distance requirements from vehicle exit points are defined in Figure 3.2 of Australian Standard AS2890.1-2004 *Parking facilities Part 1: Off street car parking* (AS2890.1) which are based on the Austroads Stopping Sight Distance shown in **Figure 7**.

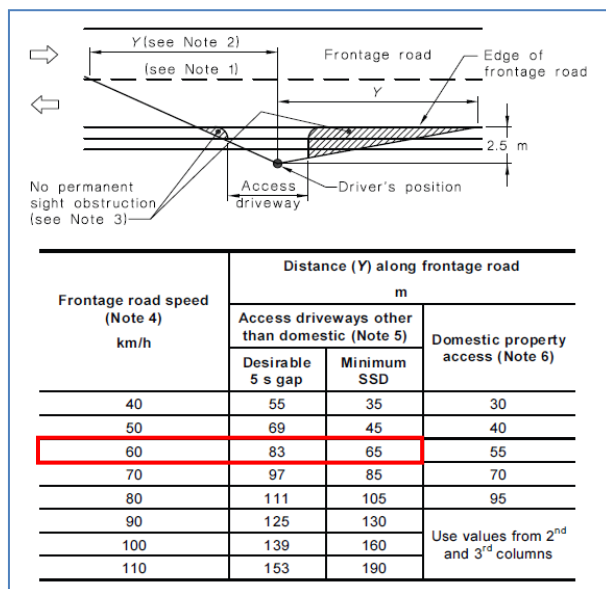


Figure 7: AS2890.1 Sight Distance Requirements

Based on the 60km/h speed limit along Charles Street, the minimum required sight distance is 65m.

As shown in **Figure 8**, the minimum required sight distance is achieved in both directions.



Figure 8: Sight Distance Check – Charles Street

4.3. Parking Supply

The minimum parking requirements for residential development are outlined in the Residential Design Codes. The City's Local Planning Scheme has given the site a residential density between R60 – 100. The Residential Design Codes Volume 2 (RDC2) will be applicable.

As the site is located within distances to high frequency public transport, the Location A requirements of the RDC2 have been applied.

The parking calculation is summarised in **Table 1**.

Table 1: RDC2 Car Parking Calculation (Multiple Dwellings – Location A)

Land Use	Unit	Minimum Requirement	Quantum	Required Bays
Residential – Multiple Dwellings	1 bedroom dwelling	0.75 bay per dwelling	15	12
	2+ bedroom dwelling	1 bay per dwelling	14	14
	Visitor	1 bay per four dwellings up to 12 dwellings	29	3
		1 bay per eight dwellings for the 13 th dwelling and above		3
	Motorcycle / Scooter	1 motorcycle / scooter bay for every 10 car bays for developments exceeding 20 dwellings	35	4

As above, the development requires a minimum of 26 resident bays, 6 visitor bays and 4 motorcycle bays.

It is proposed to provide 35 resident bays, 5 visitor bays and 4 motorcycle/scooter bays.

The parking provision satisfies the residential parking requirements with the exception for a shortfall of 1 visitor bay.

Design guidance from RDC2 supports reduced visitor parking requirements as described below:

- DG 3.9.3 – Visitor parking may be reduced where there is adequate on-street parking or public parking in the near vicinity of the development.

For this development, a shortfall of 1 visitor bay is considered to be justifiable for the following reasons:

- Existing street parking available along Alma Road and View Street with a 5 hour parking limit between 8am to 6pm Monday to Friday.
- High frequency public transport is available within walking distance of the development located on Charles Street.

4.4. Parking Layout

The layout and dimensions of the car park have been assessed for compliance with AS2890.1 as detailed in **Table 2**. As the majority of bays are for resident use, the User Class 1A requirements have been applied which is the standard for long-term parking and User Class 2 for visitor parking.

Table 2: AS2890.1 Car Parking Compliance

Dimension	Requirement	Provided
90 degree parking – Class 1 or 1A – Residential, domestic parking		
Car Bay Width	2.4m	2.4m
Car Bay Length (Standard Bay)	5.4m	5.4m
Parking Aisle Width	5.8m	6.0 – 6.15m
Blind Aisle Extension	1.0m	1.37m
90 degree parking – Class 2 – Visitor Parking		
Car Bay Width	2.5m	2.5m
Car Bay Length (Standard Bay)	5.4m	5.4m
Parking Aisle Width	5.8m	6.4m
Blind Aisle Extension	1.0m	1.5m

As shown, the proposed parking layout complies with the minimum AS2890.1 requirements.

4.5. Provision for Service Vehicles

In respect to waste collection, it is proposed to be collected via kerb side collection.

It is understood that Charles Street is a State Controlled Road under the control of Main Roads WA. The proposed development has been raised with Main Road WA the intention to have kerbside waste collected by the City's collection vehicles.

The following points support kerbside collection for this development:

- Charles Street immediately in front of the development has two lanes in each directions. This allows traffic to safely overtake a stationary waste collection vehicle without significant disruption to traffic flow.
- Properties along this part of Charles Street have been serviced by kerbside collection under the same road and traffic conditions.
- There are many driveways with direct vehicle access as well as bus stops within the traffic lane and so the frequent stopping of vehicles in the kerbside lane is not out of character for the area.
- The street section near the site is straight, which maximises visibility for both waste trucks and regular traffic.
- The number of bins presented at any one time will be minimised by using a waste compactor and by

requesting weekly general waste collection. Weekly general waste collections are at the discretion of council but have been approved for similar developments in the area. As per the Waste Management Plan, the maximum number of bins to be collected on any given day is 10 bins (FOGO and recycling) which would occur once per fortnight.

- The estimated collection times for bins are approximately 11 seconds per bin to empty and move. On this basis the maximum dwell time would be 1.8minutes for 10 bins. If preferred, the bins could be split across two bin pads to shorten the maximum dwell time to less than 1 minute.



5. Traffic Volumes

5.1. Traffic Generation

The volume of traffic generated by the proposed development has been estimated using trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation* as detailed in **Table 3**.

The peak hour trip rates are based on the peak hour of the adjacent road network typically occurring between 7 to 9am and between 4 to 6pm.

Table 3: Proposed Development Vehicle Trip Generation

Land Use	Units	Quantity	Generation Rate		Number of Trips	
			AM Peak	PM Peak	AM Peak	PM Peak
Mid-Rise Multifamily Housing	Dwellings	29	0.37	0.39	11	12

As shown, the proposed development is predicted to generate approximately 11 vehicle trips during the morning peak hour and 12 during the afternoon peak hour.

According to the WAPC TIA guidelines, an increase of between 10 to 100 peak hour vehicles is considered to have a low to moderate impact and is generally deemed acceptable without requiring detailed capacity analysis.

The estimated 11 to 12 vehicles per hour is at the lower end of this range and so the development traffic is considered to have a low impact and can be accommodated within the existing capacity of the road network.

6. Pedestrian and Cyclist Access

6.1. Accessibility

All surrounding roads within the immediate area have at least one pedestrian footpath. There are crossing points with median breaks and pram ramps at key intersections.

The external path network is well established and considered to be adequate for pedestrians and cyclists to safely travel between the site and surrounding areas.

6.2. Bicycle Parking

The bicycle parking requirements are also outlined in RDC2. The bicycle parking requirements are calculated in **Table 4**.

Table 4: Bicycle Parking Requirements

Land Use	Unit	Requirement	Quantum	Required Spaces
Residential	dwellings	0.5 spaces per dwelling	29	15 resident spaces
Residential Visitor	dwellings	1 spaces per 10 dwelling	29	3 visitor spaces

As above, the development requires a total of 15 resident bicycle spaces and 3 visitor bicycle spaces. The current plans indicate a total provision of 18 bicycle spaces which complies with the RDC2 minimum requirements.

7. Public Transport Access

The available public transport within walking distance of the site is shown below:

- Transperth bus route 384/386 which services between Perth and Nollamara via Wanneroo Road.
- Transperth bus route 388 which services between Perth and Warwick Station via Wanneroo Road and Beach Road.
- Transperth bus route 389 which services between Perth and Wanneroo via Wanneroo Road.
- Transperth bus route 970 which services between Perth and Landsdale via Flinders Street, Mirrabooka bus station and Mirrabooka Avenue.
- Transperth bus route 990 which services between Perth and Scarborough Beach Bus Station via Glendalough.

Routes 970 and 990 are high frequency bus routes with service running at least every 15 minutes from 7am to 7pm on weekdays, from 8am to 7pm on Saturday and from 9am to 7pm on Sundays.

The existing available public transport services are considered to be adequate to meet the demand for these services.

8. Site Specific Issues and Safety Issues

8.1. Crash History

The crash history of the adjacent road network was obtained from the MRWA Reporting Centre. The search included the length of Brookton Highway between Mount Street and Old Coach Place. A summary of the recorded incidents over the five-year period from January 2020 to December 2024 is shown in **Figure 9**.

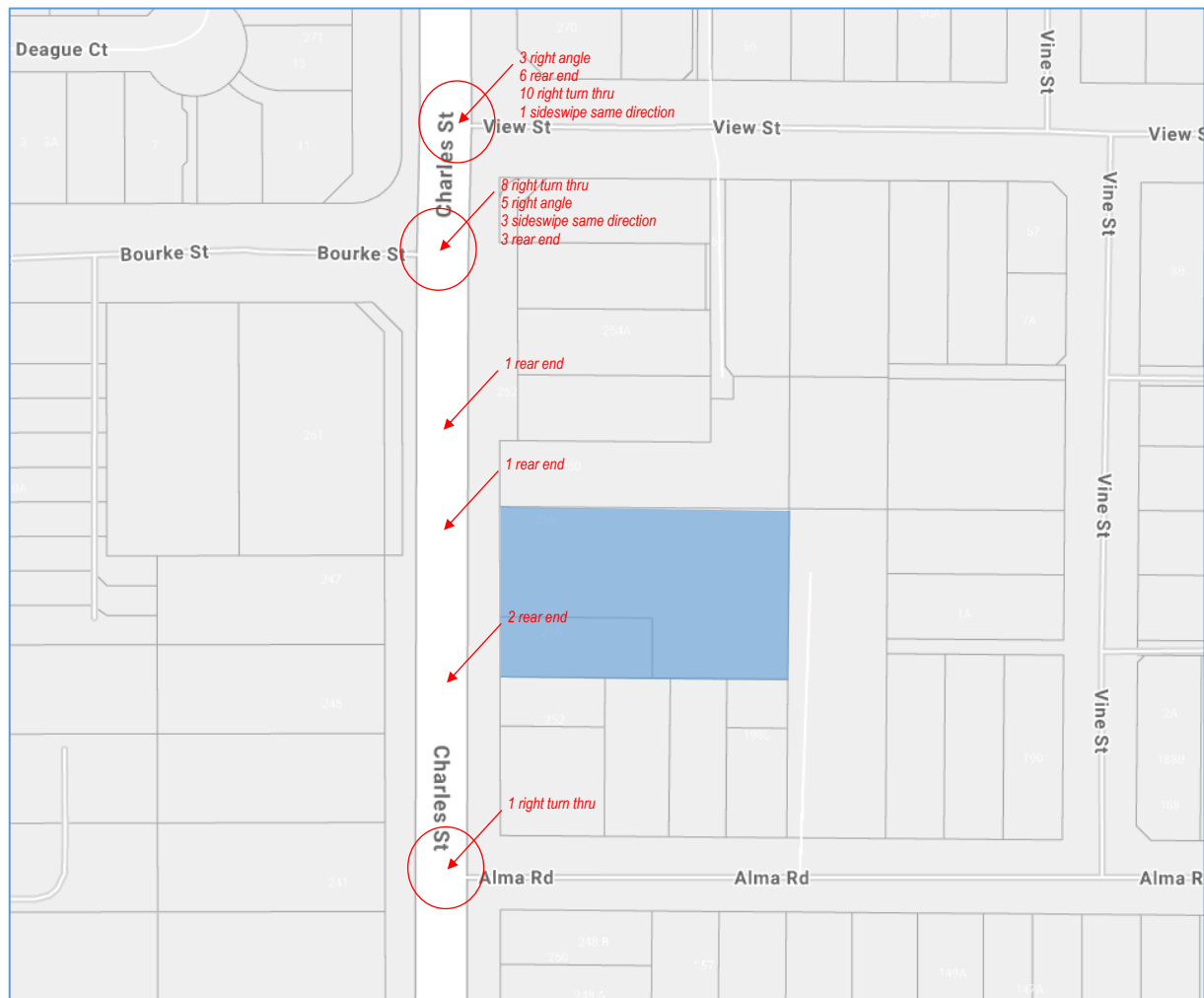


Figure 9: Crash History January 2020 to December 2024

The crash history is relatively typical for a state controlled road and does not appear to indicate a major safety issue with the road network. The proposed development will generate a low number of additional traffic and there is no indication that the development itself will increase the risk of crashes unacceptably.

9. Conclusion

This Transport Impact Statement for the proposed residential development at 256 – 258 Charles Street in North Perth concluded the following:

- Vehicle access to the development is proposed via a new 6.0m wide crossover and driveway on Charles Street. The City's Specification for Crossovers requires that the width of a crossover is to be between 3.0m to 7.3m wide. The proposed 6.0m wide crossover on Charles Street complies with the City's requirements.
- The minimum required sight distance is achieved in both directions.
- The development requires a minimum of 26 resident bays, 6 visitor bays and 4 motorcycle bays.
- It is proposed to provide 35 resident bays, 5 visitor bays and 4 motorcycle/scooter bays. The parking provision satisfies the residential parking requirements with the exception for a shortfall of 1 visitor bay.
 - Design guidance from RDC2 supports reduced visitor parking requirements as described below:
 - DG 3.9.3 – Visitor parking may be reduced where there is adequate on-street parking or public parking in the near vicinity of the development.
- For this development, a shortfall of 1 visitor bay is considered to be justifiable for the following reasons:
 - Existing street parking available along Alma Road and View Street with a 5 hour parking limit between 8am to 6pm Monday to Friday.
 - High frequency public transport is available within walking distance of the development located on Charles Street.
- The proposed parking layout complies with the minimum AS2890.1 requirements.
- In respect to waste collection, it is proposed to be collected via kerb side collection.
- It is understood that Charles Street is a State Controlled Road under the control of Main Roads WA. The proposed development has been raised with Main Road WA the intention to have kerbside waste collected by the City's collection vehicles.
- The following points support kerbside collection for this development:
 - Charles Street immediately in front of the development has two lanes in each direction. This allows traffic to safely overtake a stationary waste collection vehicle without significant disruption to traffic flow.
 - Properties along this part of Charles Street have been serviced by kerbside collection under the same road and traffic conditions.
 - There are many driveways with direct vehicle access as well as bus stops within the traffic lane and so the frequent stopping of vehicles in the kerbside lane is not out of character for the area.
 - The street section near the site is straight, which maximises visibility for both waste trucks and

regular traffic.

- The number of bins presented at any one time will be minimised by using a waste compactor and by requesting weekly general waste collection. Weekly general waste collections are at the discretion of council but have been approved for similar developments in the area. As per the Waste Management Plan, the maximum number of bins to be collected on any given day is 10 bins (FOGO and recycling) which would occur once per fortnight.
- The estimated collection times for bins are approximately 11 seconds per bin to empty and move. On this basis the maximum dwell time would be 1.8minutes for 10 bins. If preferred, the bins could be split across two bin pads to shorten the maximum dwell time to less than 1 minute.
- The proposed development is predicted to generate approximately 11 vehicle trips during the morning peak hour and 12 during the afternoon peak hour.
- According to the WAPC TIA guidelines, an increase of between 10 to 100 peak hour vehicles is considered to have a low to moderate impact and is generally deemed acceptable without requiring detailed capacity analysis. The estimated 11 to 12 vehicles per hour is at the lower end of this range and so the development traffic is considered to have a low impact and can be accommodated within the existing capacity of the road network.
- All surrounding roads within the immediate area have at least one pedestrian footpath. There are crossing points with median breaks and pram ramps at key intersections. The external path network is well established and considered to be adequate for pedestrians and cyclists to safely travel between the site and surrounding areas.
- The development requires a total of 15 resident bicycle spaces and 3 visitor bicycle spaces. The current plans indicate a total provision of 18 bicycle spaces which complies with the RDC2 minimum requirements.
- The existing available public transport services are considered to be adequate to meet the demand for these services.

The crash history is relatively typical for a state controlled road and does not appear to indicate a major safety issue with the road network. The proposed development will generate a low number of additional traffic and there is no indication that the development itself will increase the risk of crashes unacceptably.