



Transport Impact Statement

Project:	Proposed Funeral Parlour and Office 326 Hale Road, Wattle Grove
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1 Introduction

1.1 Proponent

Shawmac has been engaged by Edge Planning & Property to prepare a Transport Impact Statement (TIS) for a proposed funeral parlour and office in Wattle Grove.

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
- Provision for service vehicles
- Daily traffic volumes and vehicle types
- Traffic management on frontage streets
- Public transport access
- Pedestrian access
- Cycle access
- Site specific and safety issues

1.2 Site Location

The site address is Lot 192, 326 Hale Road in Wattle Grove. The local authority is the City of Kalamunda.

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

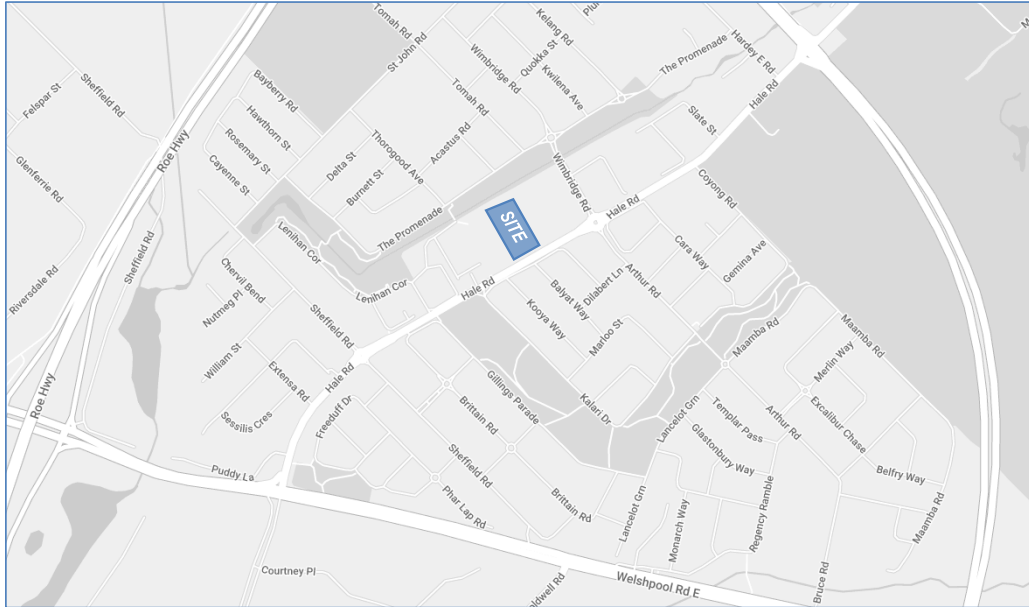


Figure 1: Site Location



Figure 2: Aerial View (January 2024)



2 Proposed Development

2.1 Land Use

The proposed development is a funeral parlour which consists of a proposed building and associated car parking. The building will include offices which will be used as headquarters for the operator. The development will accommodate up to 2 funeral services and 1 viewing per day.

The rear of the building will allow hearses and other funeral vehicles to drive into the building.

The proposed site plan is shown in **Figure 3**.

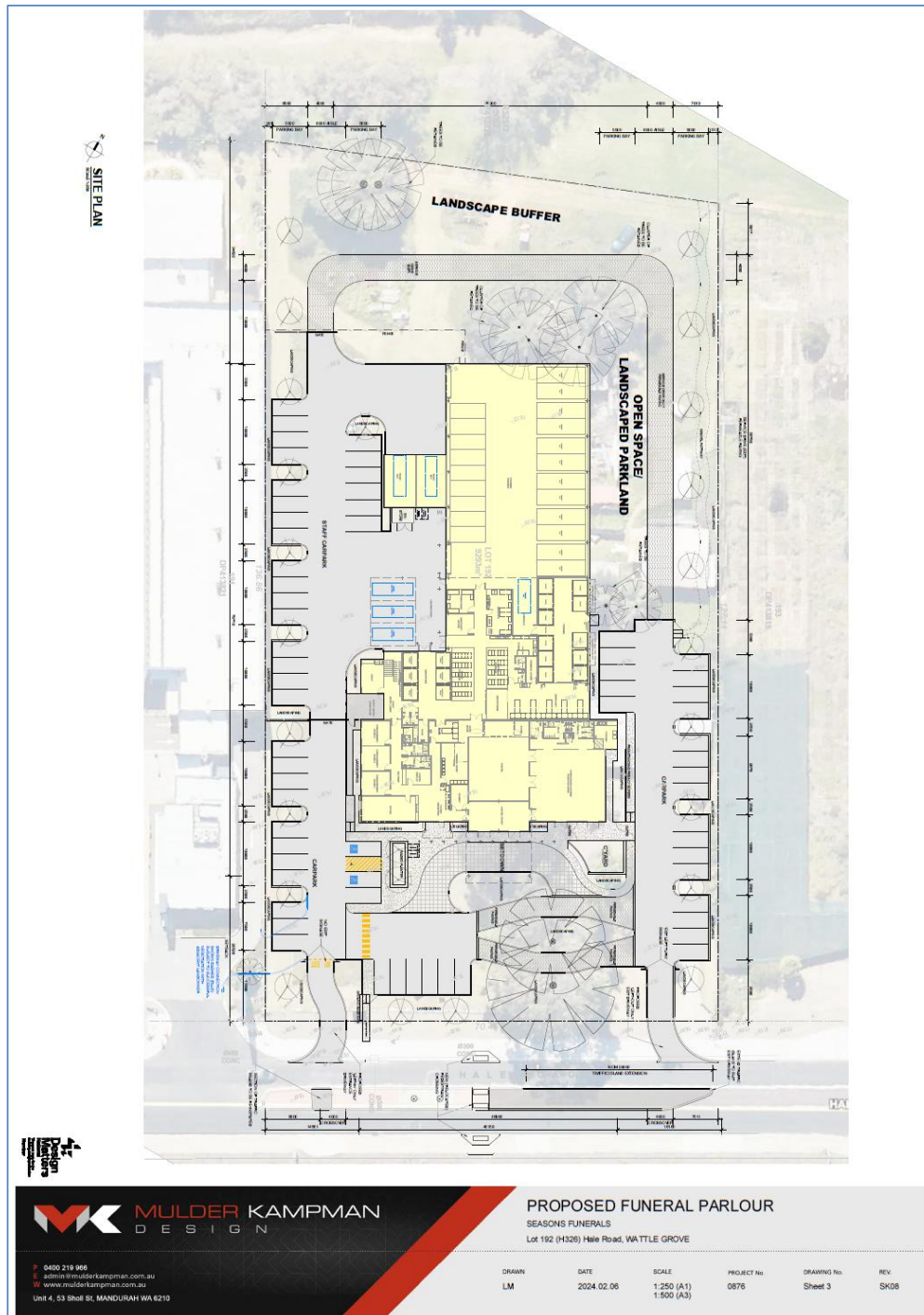


Figure 3: Site Plan



3 Traffic Management on Frontage Streets

3.1 Road Network 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**.

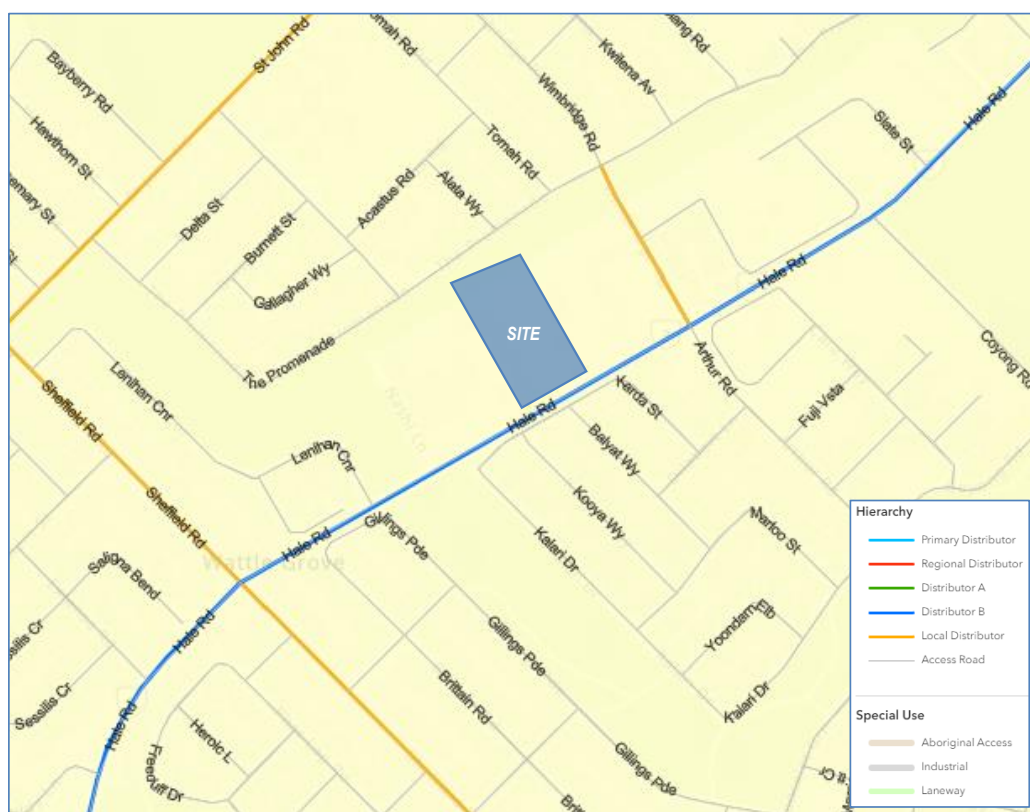


Figure 4: Existing Road Network Hierarchy



3.2 Speed Limits

The speed limit along the existing local road network according to the Main Roads WA *Road Information Mapping System* is shown in **Figure 5**.

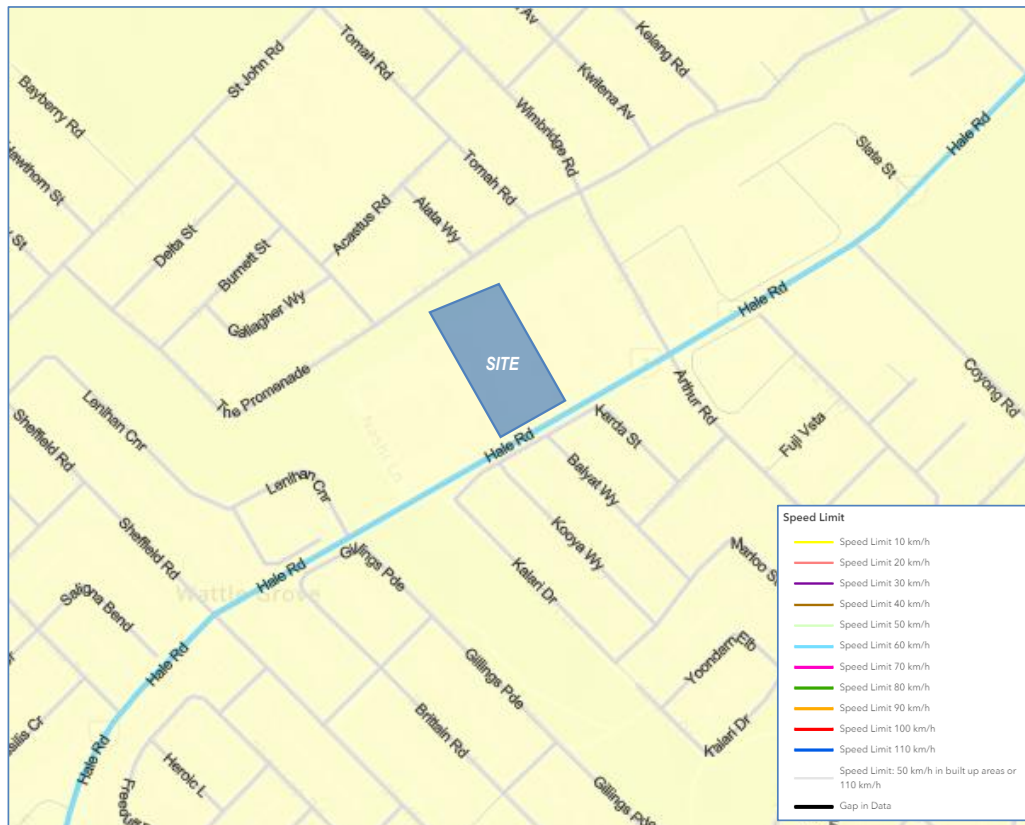


Figure 5: Speed Limits



4 Vehicle Access and Parking

4.1 Access

Vehicle access is proposed via an entry-only and an exit-only crossover on Hale Road as shown in **Figure 6**. Based on discussion with the City, it is proposed to restrict both crossovers to left-turn movements by extending the existing raised median.

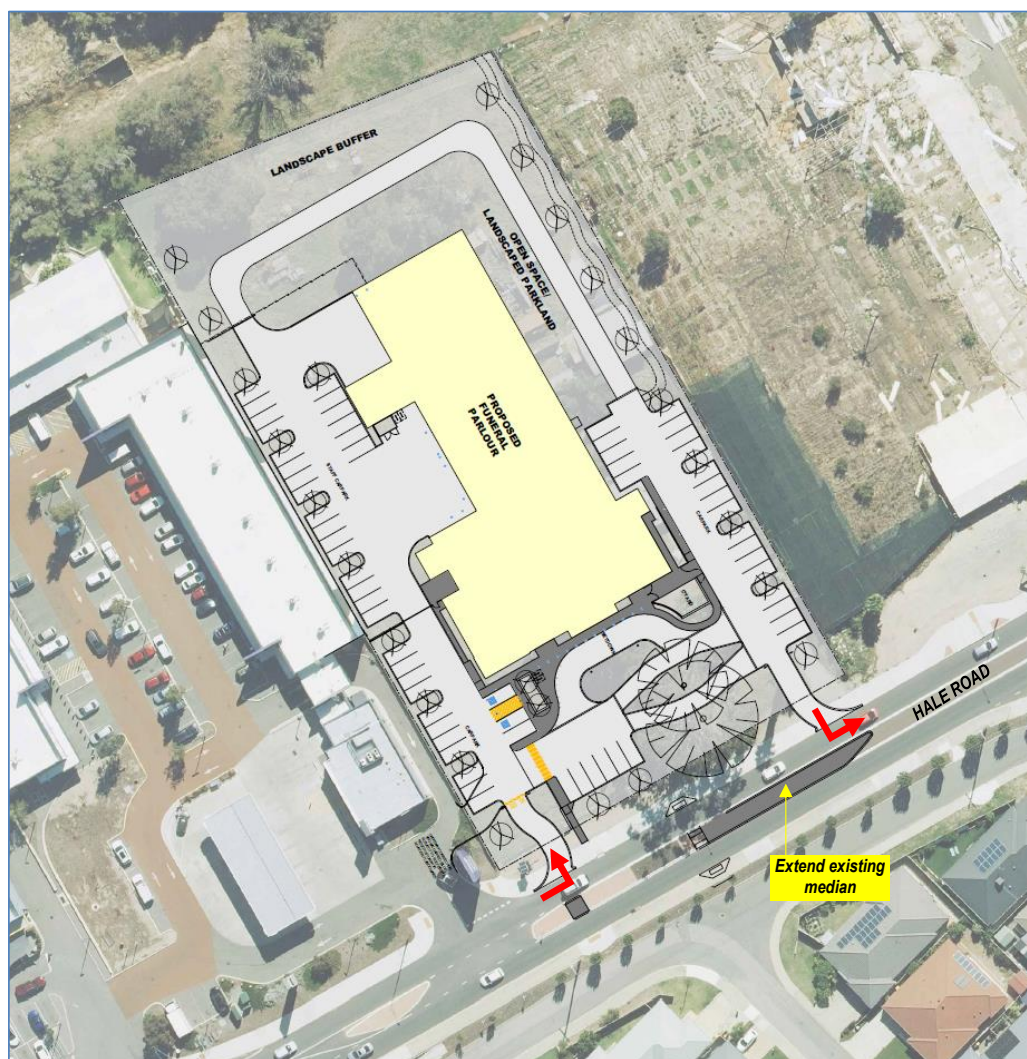


Figure 6: Vehicle Access Arrangement



According to the City of Kalamunda's *Crossover Guideline*, commercial crossovers are to be between 5m and 11m wide at the property boundary and at least 1.5m from any side boundary. A secondary crossover is permitted when all of the following conditions are met:

- The lot boundary facing the road is over 20m wide.
- All crossovers are located a minimum of 6m from the tangent point of intersections.
- There is no impact to trees and naturally occurring vegetation.

The proposed crossovers are 4m wide at the property boundary and satisfy the other conditions noted above. The crossover arrangement is therefore considered to be adequate.

During early consultation with the City, the City's officers advised that there is also a prospective application to develop the neighbouring lots to the east and it was recommended to liaise with the neighbouring applicant to discuss whether a shared access arrangement would be feasible.

It is understood that the neighbouring development is a proposed medical centre and child care centre on the southern portion of the site along Hale Road and residential lots on the remainder of the site. It was decided that shared or connected accesses would not be desirable based on the following:

- The two neighbouring developments are unlikely to generate cross-trade and would therefore not benefit from connected car parking areas.
- The proposed funeral parlour has relatively unique access requirements as it requires a direct route for hearses to travel from the road to the undercover parking area and the hearse loading bays.
- During funeral services, there is usually a cortege with a hearse, limousine and family vehicles following. A shared crossover would likely cause disruption between the two uses.
- The adjacent development proposes a vehicle access on Hale Road adjacent to the site boundary which will accommodate service vehicle movements to and from the rear service lane. Connecting the funeral parlour car park into this proposed access would create a four-way intersecting close to the Hale Road entry which would create a safety issue.

The development plans indicate a potential driveway connection to the neighbouring site to the west which is subject to discussion with the neighbouring landowner.



4.2 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 is shown in **Figure 7**.

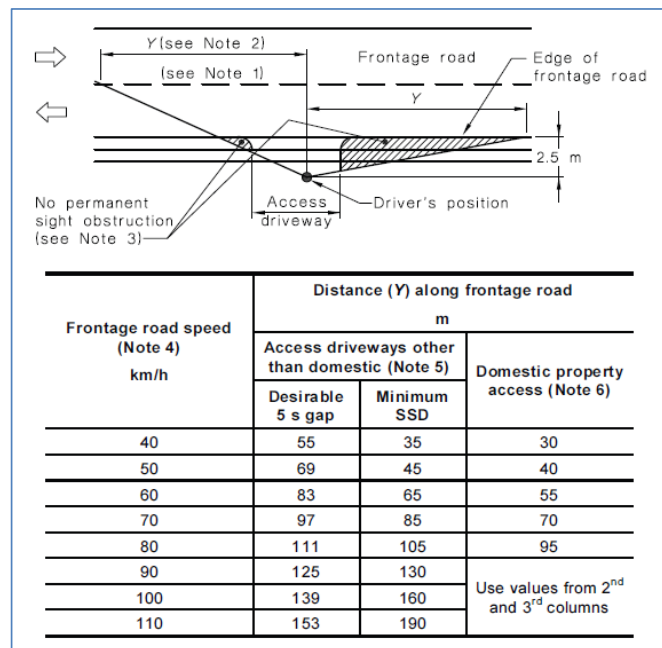


Figure 7: AS2890.1 Sight Distance Requirements

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

As shown in **Figure 8**, the minimum required sight distance is achieved as required from the vehicle exit point.

As the exit will be restricted to left turns only, sight distance is only required towards the west.

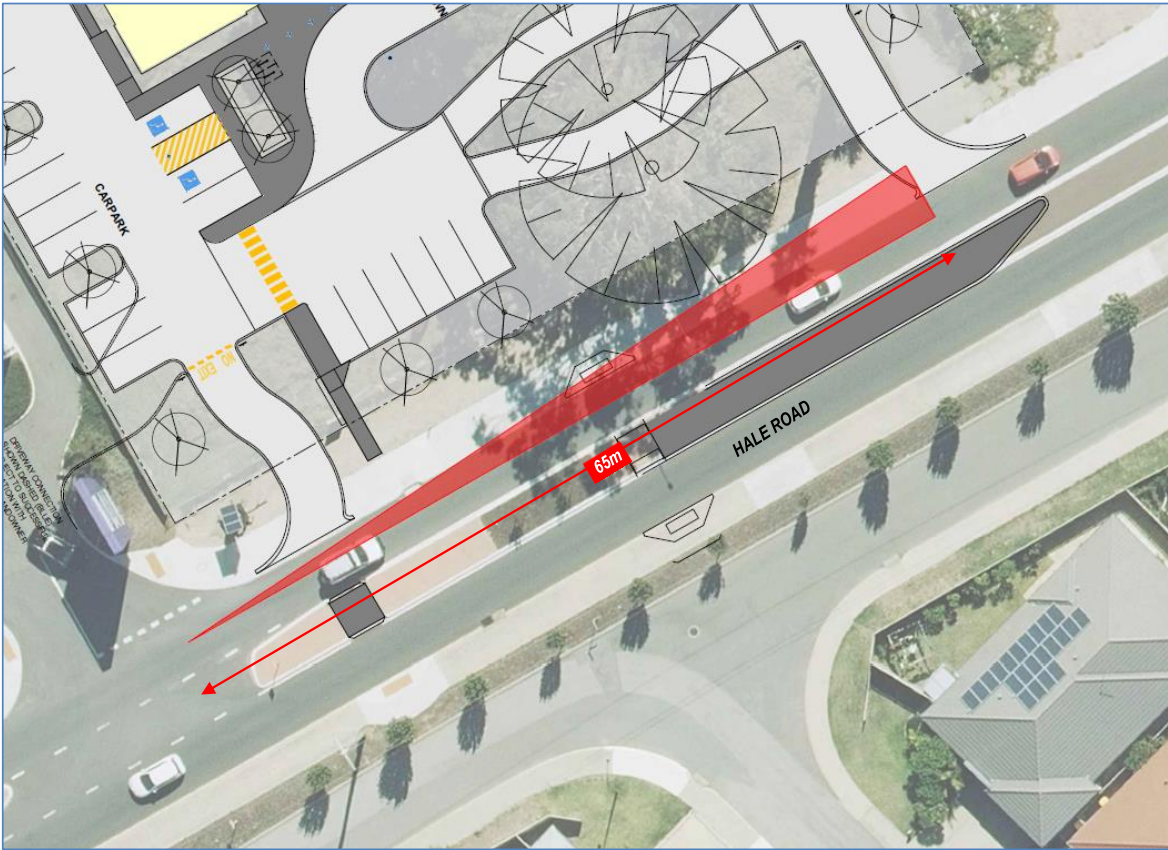


Figure 8: Sight Distance Check – Hale Road



4.3 Car Parking

According to the City of Kalamunda Local Planning Scheme No 3 (LPS3), the car parking requirement for a funeral parlour is 1 bay for every staff member plus 2 visitor bays.

The client has advised that there would be 20 permanent staff on-site plus 30 casual staff arriving and leaving at different times. It is therefore assumed that the maximum number of employees at any one time is in the order of 35 staff. Based on 35 staff, the minimum parking requirement would be 37 bays.

The current site plans indicate a provision of approximately 69 car bays.

Additionally, there are 15 hearse bays, 2 wash bays and a set down area adjacent to the foyer. There are no specific requirements for the number of hearse bays and these have been proposed by the client based on the expected operational requirements.

The proposed parking provision exceeds the calculated requirements and is therefore considered to be adequate.

4.4 Bicycle Parking

The City's LPS3 does not appear to specify requirements for bicycle parking.

The demand for bicycle parking is expected to be low and likely limited to staff only. Four bicycle racks (8 spaces) are currently proposed, including two within the secured car park and two near the public entrance to the building.

The provision of bicycle parking is considered to be sufficient.



4.5 Parking Design

The parking layout will need to comply with the requirements of Australian Standard AS2890.1. The user class will depend on the purpose of the bay as detailed in **Figure 9**.

9

AS/NZS 2890.1:2004

TABLE 1.1
CLASSIFICATION OF OFF-STREET CAR PARKING FACILITIES

User class	Required door opening	Required aisle width	Examples of uses (Note 1)
1	Front door, first stop	Minimum for single manoeuvre entry and exit	Employee and commuter parking (generally, all-day parking)
1A	Front door, first stop	Three-point turn entry and exit into 90° parking spaces only, otherwise as for User Class 1	Residential, domestic and employee parking
2	Full opening, all doors	Minimum for single manoeuvre entry and exit	Long-term city and town centre parking, sports facilities, entertainment centres, hotels, motels, airport visitors (generally medium-term parking)
3	Full opening, all doors	Minimum for single manoeuvre entry and exit	Short-term city and town centre parking, parking stations, hospital and medical centres
3A	Full opening, all doors	Additional allowance above minimum single manoeuvre width to facilitate entry and exit	Short term, high turnover parking at shopping centres
4	Size requirements are specified in AS/NZS 2890.6 (Note 2)		Parking for people with disabilities

Figure 9: Classification of Parking Facilities

Staff parking (long-term parking) would be classified as User Class 1. Visitor parking (medium-term parking) would most likely be classified as User Class 2.

An assessment of the AS2890.1 parking requirements is detailed in **Table 1**.

Table 1: AS2890.1 Car Parking Compliance

Dimension	Requirement	Provided
90 degree parking – Class 1 – Long Term Parking (Staff)		
Car Bay Width	2.4m	2.5m
Car Bay Length	5.4m	5.5m
Parking Aisle Width	5.8m	6.0m
90 degree parking – Class 2 – Medium Term Parking (Visitors)		
Car Bay Width	2.6m	2.6m
Car Bay Length	5.4m	5.5m
Parking Aisle Width	5.8m	6.0m

As shown, the dimensions of the parking bays are compliant with AS2890.1.



4.6 Provision for Service Vehicles

It is understood that waste will be collected on site from the bin store located within the staff car park. A vehicle swept path analysis has been undertaken to ensure the access and site layout allows sufficient room for waste vehicle manoeuvring. The analysis has been undertaken in AutoTurn software using a typical 9.0m waste truck template which is assumed to be longer than the vehicles that will be used.

The results of the analysis are attached as **Appendix A** and these demonstrate that there is adequate room for a 9.0m waste truck to enter via the western crossover, access the bin store area and then exit via the same crossover.

A swept path analysis has also been undertaken to check manoeuvring for hearses through the loading bays and into the hearse parking bays within the building. This analysis has been undertaken using a modified Australian Standard B99 template to match the hearses used which are 6.85m long converted Holden Commodore VF vehicles. The results of the analysis are also attached as **Appendix A** and these demonstrate that there is also adequate room for hearse manoeuvring.



5 Traffic Generation

There are no standard traffic generation rates for a funeral parlour and so the peak hour traffic generation has been estimated based on the proposed operating details. The busiest period of traffic generation is likely to be before and after a service when visitors are either arriving or departing.

Based on a capacity of 100 seats in the chapel and assuming an average car occupancy of 2 persons per car, the peak traffic generation is estimated to be 50 vehicle movements during any hour. Staff movements are unlikely to coincide with the service arrival and departure periods and sufficient time will be allowed in between services on the same day to ensure departures and arrivals do not overlap.

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 50 vehicles per hour is at the middle of this range and so the development traffic is considered to have a moderate impact and can be accommodated within the existing capacity of the road network.

It is also noted that the peak development traffic is unlikely to coincide with the road network peaks and so the impact will be reduced.



6 Pedestrian and Cyclist Access

There are footpaths along both sides of Hale Road. All existing roads in the surrounding area have at least one footpath except for very minor access roads and laneways where pedestrian movements are unlikely to occur.

The existing path network is considered to be adequate for the movement of pedestrians and cyclists to and from the development.

It is proposed to relocate the existing pedestrian crossing (median break, pram ramps and tactile ground surface indicators) which will be closed to accommodate the proposed western crossover as shown in **Figure 10**.

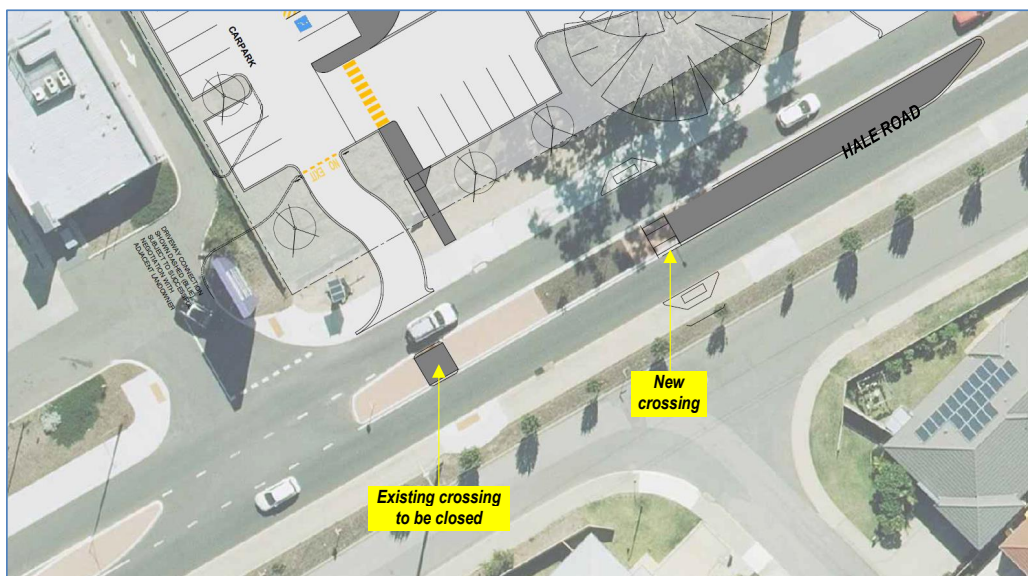


Figure 10: Relocation of Proposed Pedestrian Crossing

It is also proposed to construct a gravel pathway to connect to the public open space north of the site. It is expected that the City will continue the path along the creek.



7 Public Transport Access

The following public transport services currently operate within 1km walking distance of the site:

- Transperth Bus Route 280 which operates between High Wycombe Station and Carousel Shopping Centre via Wattle Grove and Cannington Station. The closest stops are on Hale Road immediate adjacent to the site.
- Transperth Bus Route 281 which operates between Forrestfield and Lesmurdie via Wattle Grove. The closest stops are on Wimbridge Road, approximately 300m walking distance from the site.

The existing public transport services are considered to be adequate to meet the likely demand.



8 Site Specific Issues and Safety Issues

8.1 Crash History

The crash history of the adjacent road network was obtained from Main Roads WA's *Reporting Centre*. A summary of the recorded incidents over the five-year period ending December 2022 is shown in **Figure 11**. The search included Hale Road between Lenihan Corner and Arthur Road / Wimbridge Road.

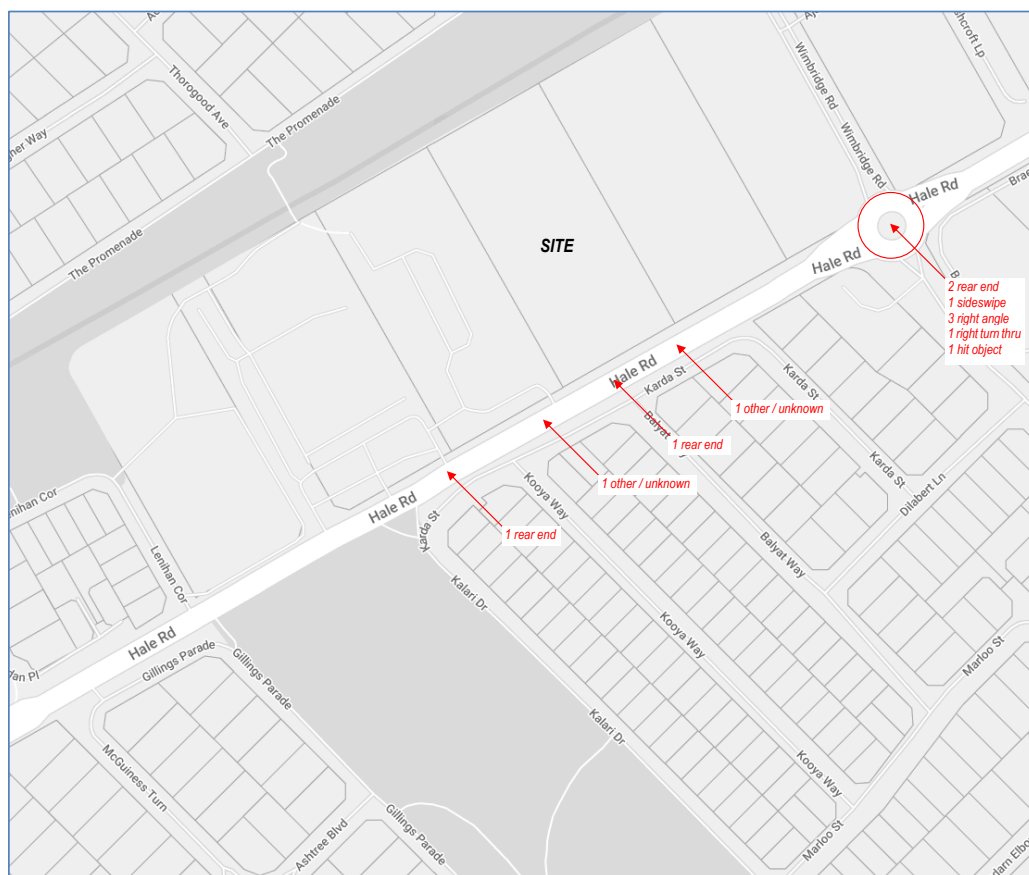


Figure 11: Crash History – January 2018 to December 2022

The number, type and location of the crashes do not appear to indicate a major safety issue on the road network. It is noted that the frontage section of Hale Road was upgraded in 2021 from a single carriageway to a dual carriageway which will have improved safety along this road.

There is also no indication that the proposed development will increase the risk of crashes to an unacceptable level.



9 Conclusion

This Transport Impact Statement for the proposed funeral parlour at 326 Hale Road in Wattle Grove concludes the following:

- The proposed development is predicted to generate approximately 50 vehicle movements during any peak hour. This volume of traffic is low to moderate and can be accommodated within the existing capacity of the road network with no modifications required.
- The proposed crossovers comply with the City's crossover specifications.
- From discussions with the applicant for the neighbouring development, it was decided that shared or connected accesses would not be desirable as the neighbouring developments are unlikely to generate cross-trade, the funeral parlour requires a direct route for hearses to travel from the road and a connected access would result in a four-way intersecting close to the Hale Road entry which would create a safety issue.
- The minimum sight distance requirement of AS2890.1 is achieved from the proposed exit crossover.
- The provision of car parking satisfies the minimum requirements of the City's Local Planning Scheme. There are no specific requirements for the number of hearse bays and these have been proposed by the client based on the expected operational requirements.
- The demand for bicycle parking is expected to be low and limited to staff only. Four bicycle racks (8 spaces) are currently proposed, including two within the secured car park and two near the public entrance to the building. The provision of bicycle parking is considered to be sufficient.
- The parking layout complies with the AS2890.1.
- A swept path analysis demonstrates that the vehicle access and site layout will allow sufficient room for hearses and also for a 9.0m waste vehicle to enter the site via the western crossover, access the bin store and then leave via the same crossover.
- The existing path network is considered to be adequate for the movement of pedestrians and cyclists to and from the development.
- The demand for public transport is likely to be relatively low based on the proposed uses and so the existing public transport services are considered to be adequate to meet the likely demand.
- The crash history of the adjacent road network did not indicate any safety issue on the adjacent road network and there is no indication that the development would increase the risk of crashes unacceptably.



Appendix A – Swept Path Analysis

