



Transport Impact Statement

Project:	Proposed Place of Worship & Community Use Lot 213 Lewis Road, Wattle Grove
Client:	Fount of Life Outreach Ministries Inc. c/o Peter Hunt Architect
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1. Introduction and Background

1.1. Proponent and Proposal

Shawmac Pty Ltd has been commissioned by Peter Hunt Architect on behalf of Fount of Life Outreach Ministries Inc. (FOLOMI) to prepare a Transport Impact Statement (TIS) for a proposed place of worship and community use development in Wattle Grove in the City of Kalamunda (City).

The existing FOLOMI church community will relocate to the proposed site from the existing facility located on the corner of Hale Road and Anderson Road in Forrestfield.

1.2. Location

The site is located about 1.5km south of the Forrestfield District Centre on Lot 213 (No. 28) Lewis Road, Wattle Grove (the site) as indicated in **Figure 1**.

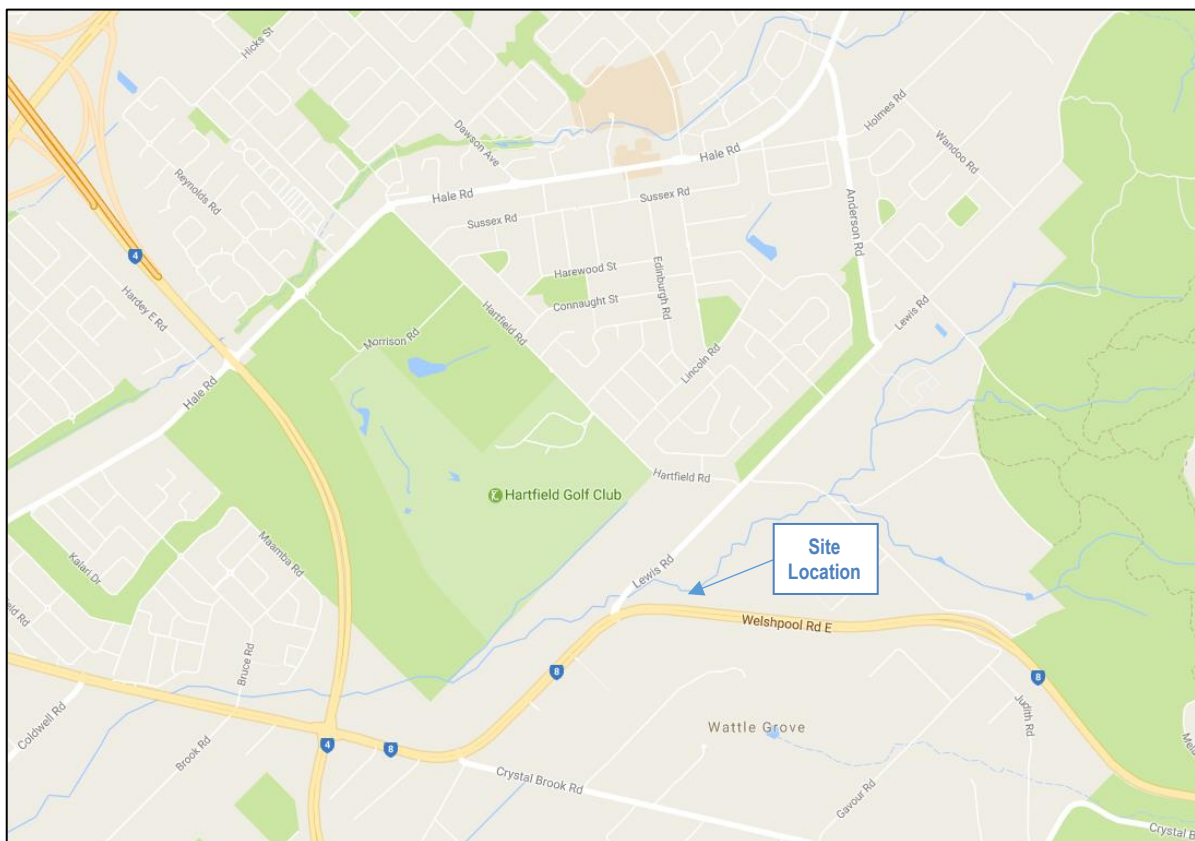


Figure 1: General Site Location

The site is on the south side of Lewis Street and north of Welshpool Road East. An aerial photo showing the existing site and adjacent road network is shown in **Figure 2**.



Figure 2: Site Location and Adjacent Road Network

1.3. Key Issues

This TIS has been prepared in accordance with the Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines* which recommends consideration of the following:

- Details of the existing site and surrounding transport network.
- Description of the proposed development.
- Estimation of traffic generated by the proposed development and by any other committed developments nearby.
- Distribution of the development traffic onto the road network and assessment of the impact on the surrounding roads, intersections and neighbouring areas.
- Road safety assessment.
- Public transport accessibility.
- Pedestrian and cyclist demand and facilities assessment.
- Parking assessment and management.
- Provision for service vehicles.

1.4. Background Information

Under the City Local Planning Scheme 3 (LPS3), the site is currently zoned *Special Rural*. In 2016, the uses *Community Purpose* and *Place of Worship* were added as 'A' type uses for the site which may be considered for approval by Council and subject to a traffic impact assessment.

2. Existing Situation

2.1. Site and Surrounding Land Uses

The site currently contains a residential dwelling and two associated outbuildings. The Yule Brook currently crosses through the site and the neighbouring properties in an east-west direction. Surrounding land use is also primarily residential development. Access to the site is currently via a single unsealed driveway from Lewis Road. The site is not accessible from Welshpool Road East.

2.2. Surrounding Road Network

Lewis Road is currently classified as a Local Distributor road and is currently constructed as a kerbed, two-lane, undivided road. It has a 70 km/h speed limit adjacent to the site which gradually reduces to 60 km/h and 50 km/h towards the east. Lewis Road is under the jurisdiction of the City.

Welshpool Road East between Tonkin Highway and Lesmurdie Road is classified as a District Distributor A road and is constructed as a kerbed, four-lane divided road with a wide median. The posted speed limit in the vicinity of the site is 80 km/h. Welshpool Road East is part of the Restricted Access Vehicle (RAV) category 4 network which allows tandem drive prime movers and semi-trailers towing dog trailers up to 27.5m long. Welshpool Road East to the east of Tonkin Highway is classified as an *Other Regional Road* under the Metropolitan Region Scheme and is under the jurisdiction of the City.

Lewis Road intersects with Welshpool Road East via a seagull type T-intersection which operates under stop sign priority control. There are auxiliary left and right turn lanes from Welshpool Road East onto Lewis Road. There is a left turn slip lane on Lewis Road and an acceleration lane on Welshpool Road East for vehicles turning right from Lewis Road onto Welshpool Road East. The layout of the intersection is shown in **Figure 3**.



Figure 3: Welshpool Road East / Lewis Road Intersection Layout

2.3. Traffic Counts

The latest traffic data for Lewis Road and Welshpool Road East were obtained from the City and Main Roads WA (MRWA) as summarised in **Figure 4** and **Figure 5**.

MRWA data only has a combined weekend traffic count instead of separate counts for Saturday and Sunday. This results in a slightly conservative assessment as traffic volumes on a Saturday are generally higher than those on Sunday. On weekends, there is typically a single peak hour usually occurring around mid-day.

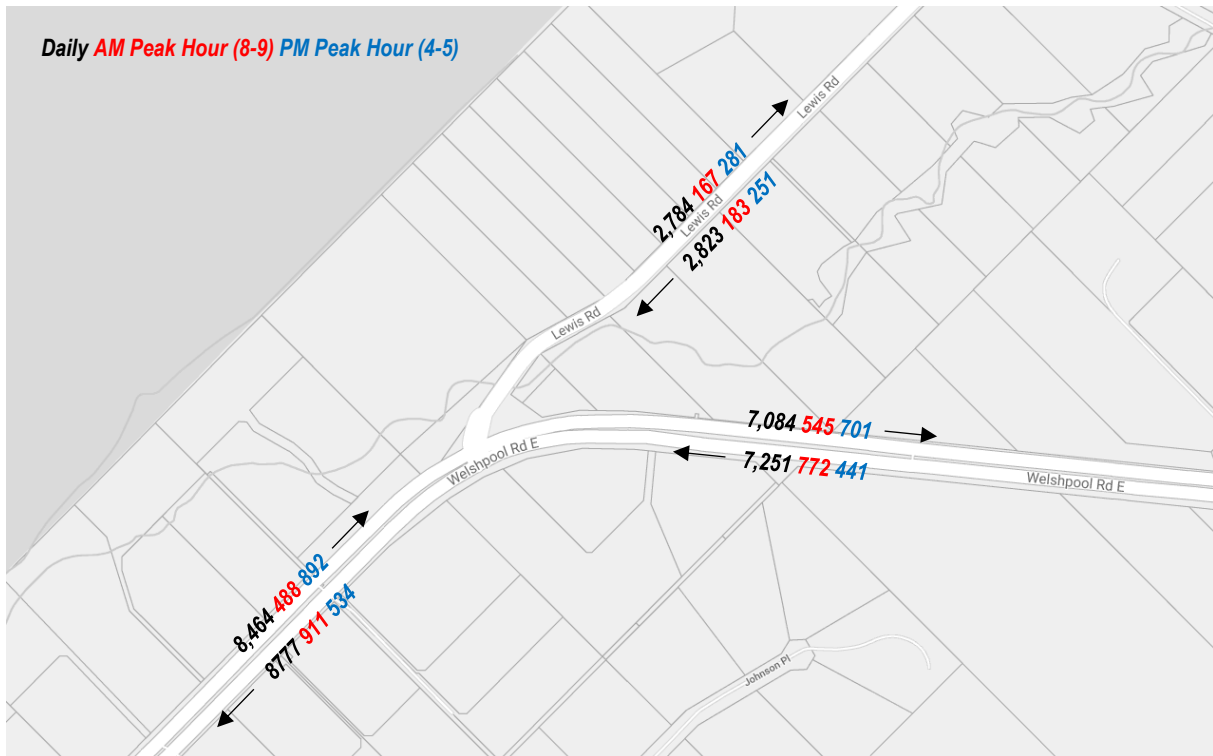


Figure 4: Existing Average Weekday Traffic Data

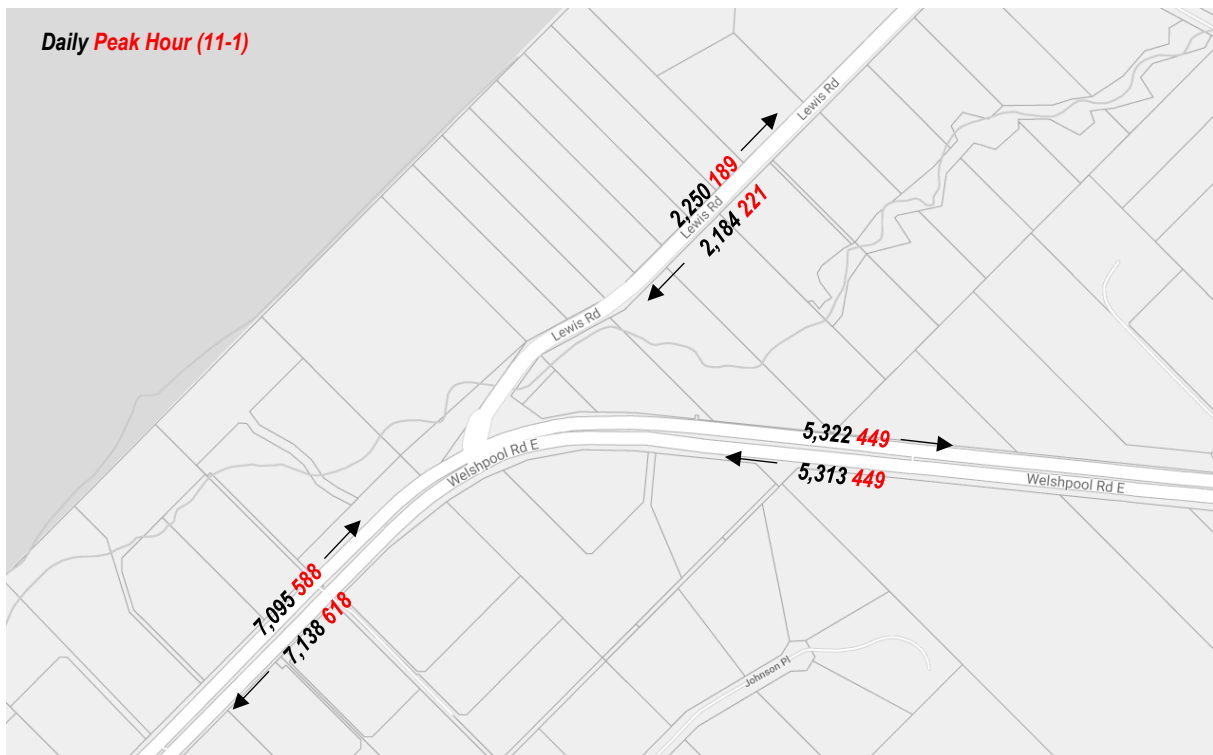


Figure 5: Existing Average Weekend Traffic Data

3. Development Proposal

3.1. Proposed Land Use

The proposed development is a place of worship and community facility. The existing house and outbuildings will be retained. The development comprises a main hall (349 sqm) and supporting facilities such as a kitchen, offices, store rooms and classrooms for children. The development plans are attached as **Appendix A**.

4. Hours of Operation

The type of activities and hours of operation proposed on the site vary throughout the week. A schedule of the likely activities and operating hours from the proponent is attached in **Appendix B**.

5. Traffic Generation and Distribution

5.1. Assessment Periods

The following periods were assessed:

- Road network peak - from 4 to 5 p.m. in the afternoon. The afternoon peak hour was chosen as the traffic volumes were typically higher than in the morning peak.
- Development peak - Sunday church arrival peak hour from 9 to 10 a.m. and the departure peak hour from 2 to 3 p.m. at the conclusion of the Sunday service.

5.2. Vehicle Trip Generation

5.2.1. Weekdays

As shown in the proposed activity schedule, the weekday activities are primarily small groups which generate relatively minimal vehicle trips. Targeted community sessions are proposed on a quarterly basis with an estimated maximum attendance of 60 people. The day, time and attendance will depend on the type of session and availability of consultants.

The vehicle trip generation of such an activity is difficult to predict due to varying nature of the sessions. It is therefore estimated that the vehicle to attendee ratio is 1 vehicle per 2 attendees. Based on this, the estimated maximum weekday trip generation is 30 vehicle trips (30 inbound vehicle movements and 30 outbound movements).

It has been assumed as a 'worst-case scenario' that a targeted community session with a maximum attendance coincides with the afternoon peak hour on the road network.

5.2.2. Weekends

The existing regular Sunday church service has an average maximum attendance of 80 people arriving in approximately 20 vehicles each Sunday as observed by the current operator of the church. The majority of attendees are families.

It has been estimated that attendance at the regular service may increase to a maximum of 200 people. The vehicular trip generation potential of the proposed place of worship has been based on the generation rate of the existing facility which indicates a trip rate of 1 vehicle trip (1 inbound movement / 1 outbound movement) per 4 attendees. Based on a maximum of 200 attendees, the site would generate a total of 50 vehicle trips (50 inbound movements before mass and 50 outbound movements after mass).

It is noted that approximately twice a year the maximum attendance may reach 250 people during special holidays such as Easter and Christmas.

5.3. Distribution

Based on the layout of the road network and the surrounding residential areas the distribution of traffic to and from the site is assumed to be as follows:

- 60% of site traffic is distributed to and from the north along Lewis Road;
- 40% of site traffic is distributed to and from the south along Lewis Road of which:
 - 30% is from the west along Welshpool Road East; and
 - 10% is from the east along Welshpool Road East.

The resulting increase in traffic on surrounding road network is illustrated in **Figure 6** and **Figure 7**.

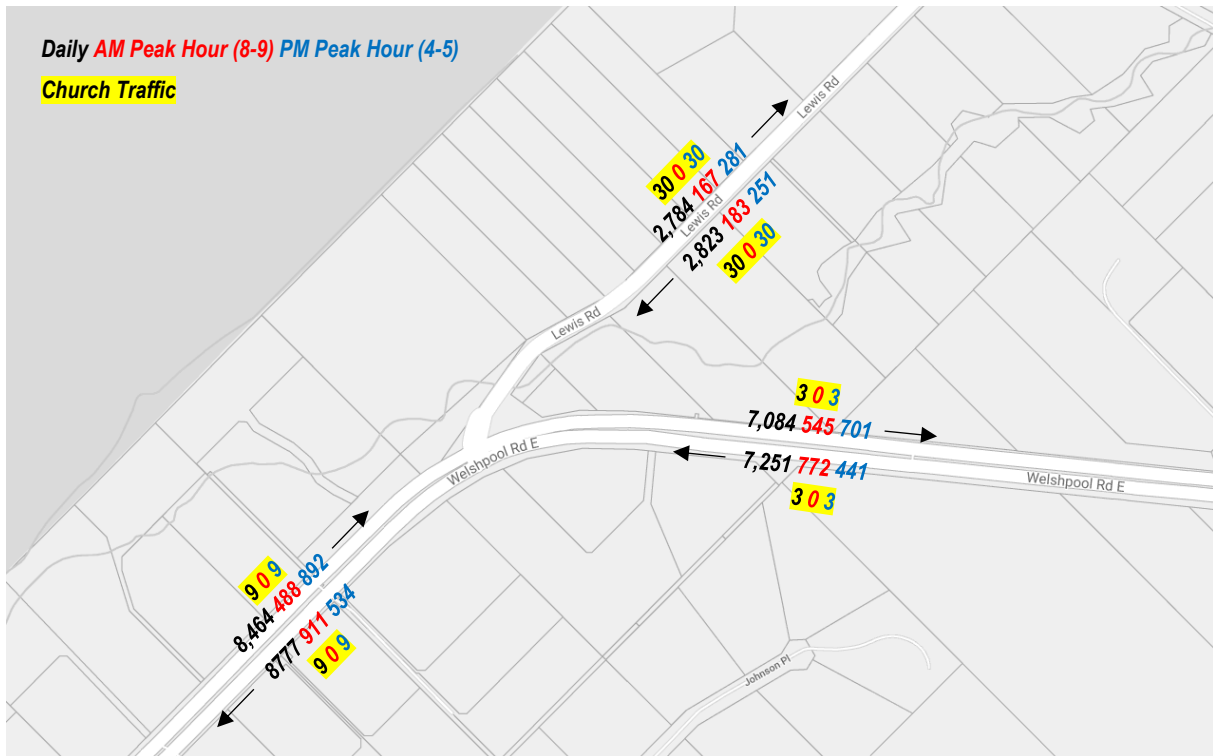


Figure 6: Distribution of Site Traffic – Weekday

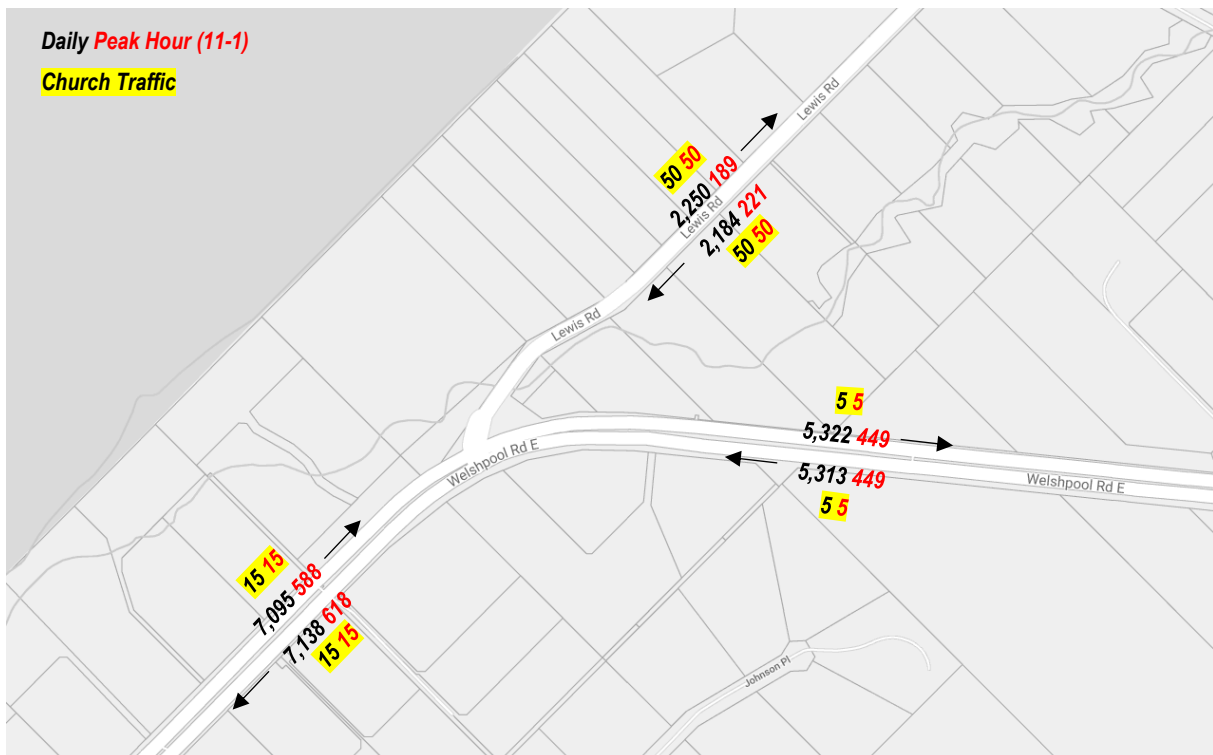


Figure 7: Distribution of Site Traffic - Weekend

As shown in **Figure 6** and **Figure 7**, the estimated increase in traffic is relatively low compared to the existing traffic flows. Austroads *Guide to Traffic Management Part 3 - Traffic Studies and Analysis* notes that the typical midblock capacity of urban roads with interrupted flow is between 900 and 1,000 passenger cars per lane per hour (pc/h/ln). The increased traffic flows are well below the capacity of the existing roads and therefore it is concluded that the vehicular traffic impact of the proposed development will be minimal.

It is also worth noting that the church service does not coincide with the peak periods on the road network.

6. Vehicle Access and Parking

6.1. Access

Vehicle access to and from the site is proposed via single new crossover from Lewis Road located central to the lot frontage.

6.2. Parking

A total of 68 parking bays are proposed on site including a paved car park with 35 spaces at the front of the site and an informal parking area with space for 33 cars at the rear of the proposed building.

The supply of parking was assessed in accordance with Table 3 of the Shire of Kalamunda *Local Planning Scheme No. 3* (LPS3) as shown in **Table 2** below. Two separate calculations are provided based on the place of worship use and the community facility use.

Table 1: Shire of Kalamunda LPS3 Parking Requirements - Place of Worship

Land Use	LPS3 Requirement	Quantum	Required bays	Provided Bays
Place of Worship	1 bay per 5m ² of NLA	349 sqm	70 bays	68 bays
Community Purpose	1 bay for every 5 persons the facility is designed to accommodate	250 persons	50 bays	68 bays

As per the above table, the proposed car parking supply for the place of worship is 2 bays short of the LPS3 requirements.

The Shire of Kalamunda policy P-DEV 41 *Framework for Assessing Requests for Variation to the Number of Car Parking Bays* provides guidance for considering requests for the reduction of the number of car bays prescribed under LPS3. The Shire may apply, at its discretion, a greater or lesser requirement for car parking bays than that stipulated as the minimum in Table 3 for any zone if:

“The circumstances of a development justify such variation and there will not be any resultant lowering of safety, convenience and amenity standards, it may permit a reduction in the number

of car parking spaces required by Table 3 of Local Planning Scheme No. 3.”

In this instance, LPS3 requirement is considered to overestimate the car parking requirement for the place of worship and the appropriate car parking supply is better determined from the likely attendance numbers and capacity provided by the church operator and from observations made during the existing Sunday church service. The majority of attendees are families and the average occupancy for vehicles travelling to and from the Sunday church service is 4 people per car.

It is noted that the parking requirement for a place of worship according to various neighbouring local government areas is also 1 space for every 4 seats or attendees including the City of Gosnells, City of Belmont, City of Swan and the City of Canning.

From this rate, the estimated car parking demand from the proposed place of worship would be 50 bays during the regular church service (200 attendees) indicating that the 68 bays proposed should be sufficient and would provide some room for the occasional services with up to 250 attendees.

7. Provision for Service Vehicles

Waste collection will occur via typical kerbside collection along Lewis Road.

8. Public Transport Access

The only public transport service in the vicinity of the site is Transperth Bus Route 282 which operates between Perth (Elizabeth Quay Bus Station) and Kalamunda Bus Station. The nearest stops are located on both sides of Welshpool Road East about 200 metres east of Lewis Road and about 550 metres walking distance from the site. There are services available approximately every hour on weekdays and every 2 hours on weekends and public holidays.

Based on the proposed land use, the public transport demand of the site is likely to be low and therefore the existing services are considered to be adequate.

9. Pedestrian and Cycle Access

There is an existing 2.5 metre wide (approx.) dual use path along the north side of Welshpool Road East between Tonkin Highway and Lewis Road which continues along the north side of Lewis Road to Hartfield Road. The existing path infrastructure is considered to be sufficient to meet any pedestrian and cyclist trips to and from the site.

10. Site Specific Issues

10.1. Crash Data

The crash history for the adjacent road network at mid-block locations and at intersections between January 2013 and December 2017 was obtained from the *MRWA Reporting Centre*.

3 incidents were recorded along Lewis Road between Welshpool Road East and Hartfield Road.

35 incidents were recorded at the Lewis Road / Welshpool Road intersection during the five year period including 9 rear end crashes, 18 right angle crashes, 4 right turn thru crashes, 2 hit objects and 2 other / unknown. The intersection was listed on the State Black Spot Program for 2015/2016 and several upgrades were implemented at the intersection in April 2016 including:

- An acceleration lane on Welshpool Road East for vehicles turning right from Lewis Road.
- Left turn arrows painted on the pavement on Lewis Road.
- A new splitter island and give way line marking to establish priority between right and left turning vehicles from Welshpool Road East onto Lewis Road.

Although the proposed uses will slightly increase the volume of traffic on the surrounding road network, the magnitude of increase in traffic is relatively low and not considered to increase the risk of crashes. Further, the majority of proposed activities on the site occur on weekends or outside of the road network peak periods when the volume of traffic is much lower.

11. Conclusion

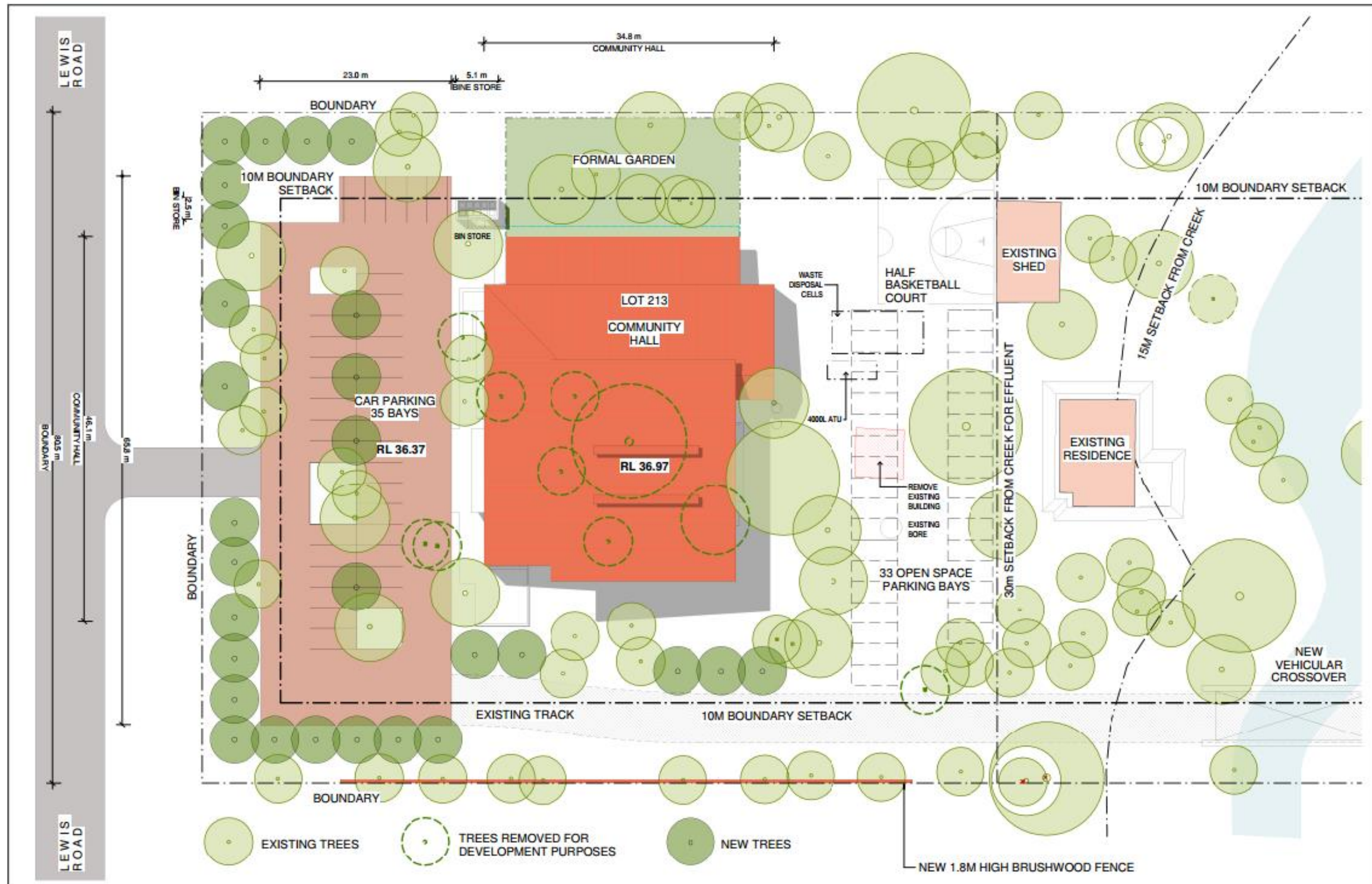
A Transport Impact Assessment of the proposed use of Lot 213 Lewis Road, Wattle Grove as a Place of Worship and Community Use site concluded the following:

- The volume of traffic generated by the proposed land use is low and the majority of activity on the site occurs outside of the peak periods on the road network. The existing road network has sufficient capacity to accommodate the traffic generated by the site.
- The proposed car parking supply was assessed in accordance with the requirements of Shire's Local Planning Scheme which indicates that overall proposed parking supply is 2 bays short of the scheme requirements. A reduction in the car parking requirement for the place of worship is being sought in accordance with the Shire's Policy P-DEV 41. It has been demonstrated that the likely parking demand will be approximately 50 bays and as such the proposed 68 bays is considered to be adequate.
- The existing public transport services are considered to be adequate.

- The existing path network is also adequate to meet the needs of any pedestrian and cyclist demand of the site.



Appendix A – Site Plan



COMMUNITY HALL DEVELOPMENT

FOUNT OF LIFE SANCTUARY INC

LOT 213, 28 LEWIS ROAD, WATTLE GROVE

SITE PLAN

DEVELOPMENT APPLICATION

peter hunt architect





Appendix B – Site Activities and Times of Operations

THE SANCTUARY ACITIVITY SCHEDULE

Week 1														
Time	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
	Activity	Total Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons
7.00am - 8.00am	Joshie's Hub	4 children 2 trainers	Joshie's Hub	4 children 2 trainers							Prayer	10 - 15		
8.00am - 9.00am														
9.00am - 10.00am														
10.00am - 11.00am											Life Study Group	10		
11.00am - 12.00pm														
12.00pm - 1.00pm	Manna Kitchen (4-5 volunteers, 3 trainers) (Future 2-3 yr Plan)												Church Service	200
1.00pm - 2.00pm														
2.00pm - 3.00pm											Youth	10 - 20	Targeted Community Education	Quarterly Small group (10-15) Big group (50-60)
3.00pm - 4.00pm														
4.00pm - 5.00pm														
5.00pm - 6.00pm	Free English Tutorial Classes	5							Music Practice	10 - 15				
6.00pm - 7.00pm	Prayer	10	Prayer	10					Men's Group	10 - 15				
7.00pm - 8.00pm														
8.00pm - 9.00pm														
9.00pm - 10.00pm														
Week 2														
Time	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
	Activity	Total Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons
7.00am - 8.00am	Joshie's Hub	4 children 2 trainers	Joshie's Hub	4 children 2 trainers							Prayer	10 - 15		
8.00am - 9.00am														
9.00am - 10.00am														
10.00am - 11.00am														
11.00am - 12.00pm														
12.00pm - 1.00pm	Manna Kitchen (4-5 volunteers, 3 trainers) (Future 2-3 yr Plan)												Church Service	200
1.00pm - 2.00pm														
2.00pm - 3.00pm											Youth	10 - 20		
3.00pm - 4.00pm														
4.00pm - 5.00pm														
5.00pm - 6.00pm	Free English Tutorial Classes	5							Music Practice	10 - 15				
6.00pm - 7.00pm	Prayer	10	Prayer	10					Women's Group	10 - 20				
7.00pm - 8.00pm														
8.00pm - 9.00pm														
9.00pm - 10.00pm														
Week 3														
Time	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
	Activity	Total Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons
7.00am - 8.00am	Joshie's Hub	4 children 2 trainers	Joshie's Hub	4 children 2 trainers							Prayer	10 - 15		
8.00am - 9.00am														
9.00am - 10.00am														
10.00am - 11.00am														
11.00am - 12.00pm														
12.00pm - 1.00pm	Manna Kitchen (4-5 volunteers, 3 trainers) (Future 2-3 yr Plan)												Church Service	200
1.00pm - 2.00pm														
2.00pm - 3.00pm											Youth	10 - 20		
3.00pm - 4.00pm														
4.00pm - 5.00pm														
5.00pm - 6.00pm	Free English Tutorial Classes	5							Music Practice	10 - 15				
6.00pm - 7.00pm	Prayer	10	Prayer	10										
7.00pm - 8.00pm														
8.00pm - 9.00pm														
9.00pm - 10.00pm														
Week 4														
Time	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
	Activity	Total Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons	Activity	Patrons
7.00am - 8.00am	Joshie's Hub	4 children 2 trainers	Joshie's Hub	4 children 2 trainers							Prayer	10 - 15		
8.00am - 9.00am														
9.00am - 10.00am														
10.00am - 11.00am														
11.00am - 12.00pm														
12.00pm - 1.00pm	Manna Kitchen (4-5 volunteers, 3 trainers) (Future 2-3 yr Plan)												Church Service	200
1.00pm - 2.00pm														
2.00pm - 3.00pm											Youth	10 - 20		
3.00pm - 4.00pm														
4.00pm - 5.00pm														
5.00pm - 6.00pm	Free English Tutorial Classes	5							Music Practice	10 - 15				
6.00pm - 7.00pm	Prayer	10	Prayer	10										
7.00pm - 8.00pm														
8.00pm - 9.00pm														
9.00pm - 10.00pm														

Notes:

Admin support 1 or 2 staff as required

Manna Kitchen Future plan - 2-3yr plan

Joshie's Hub Skills development program for children with disability.

Life counselling sessions: One on or with couples or a family can happen anytime as required during the week.

Targeted Community sessions - quarterly basis - maybe AM/PM depending on when the Consultant is available. May be a group of 5 /10 people to 60 people if it is a community education session

Days may vary i.e. Instead of Tuesday, activity may happen on a Thursday for operational reasons.