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Sustainable Transport. Safe Solutions

1 Santorini Promenade, Alkimos

Proposed Place of Worship

TRANSPORT IMPACT STATEMENT



Prepared for:
Courageous Church

October 2023

1 Santorini Promenade, Alkimos

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1 Introduction

This Transport Impact Statement has been prepared by **Urbii** on behalf of **Courageous Church** with regards to the proposed place of worship, located at 1 Santorini Promenade, Alkimos.

The subject site is situated at the south-west corner of Santorini Promenade and Benenden Avenue, as shown in Figure 1. The site is surrounded by a mix of residential, community parks, and school uses. Alkimos School of Early Learning is located to the north-west of the site and Alkimos Primary School is located to the east of the site.

A change of use is proposed from 'Retail' to 'Place of Worship' occupying three tenancies within the existing building. The Place of Worship will hold services primarily during Sundays, with a maximum attendance of 250 people. There will also be small group prayer sessions during the week on Wednesdays or Fridays.

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

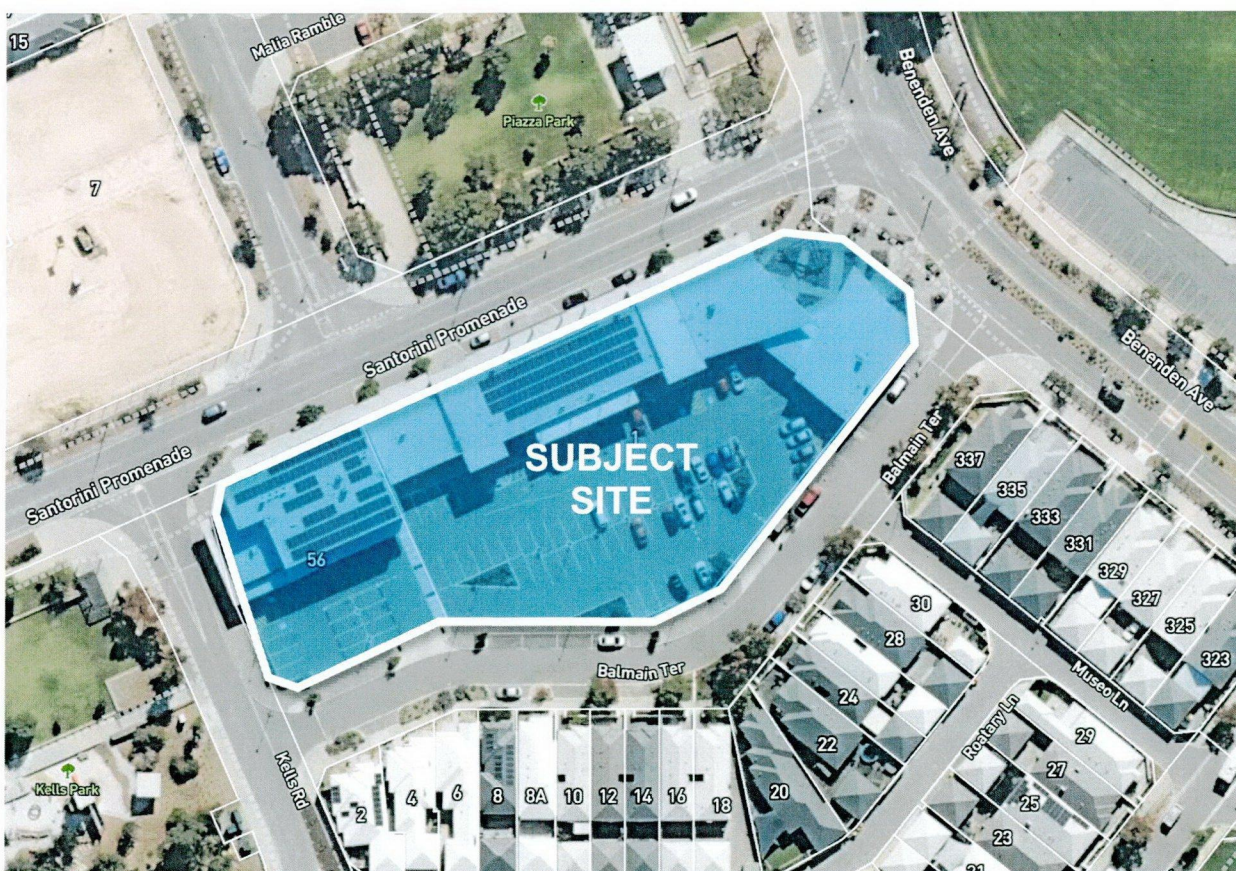


Figure 1: Subject site

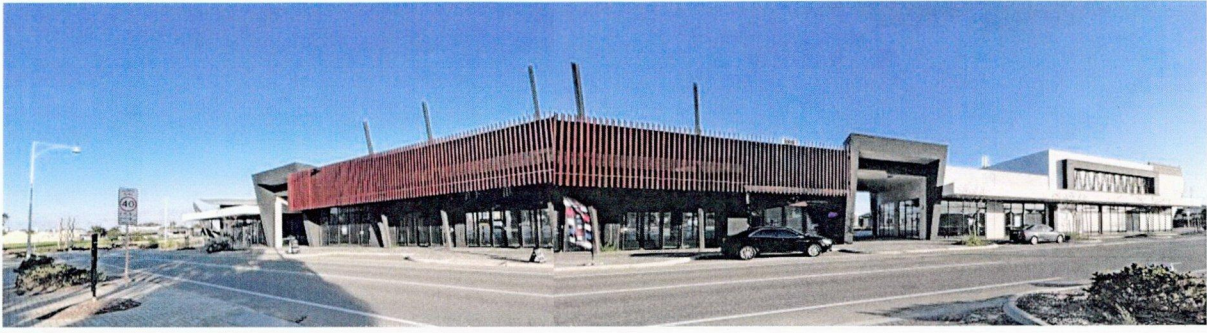


Figure 2: Existing site use

2 Proposed change of use

The subject site presently accommodates a mixed-use development with 9 tenancies accommodated across 5 buildings.

During a recent site visit, Urbii observed that the following tenancies are presently occupied:

- Tenancy 1 presently accommodates a Tax Accounting office.
- Tenancy 5 presently accommodates a hairdresser.
- Tenancy 9 presently accommodates a café.

The following tenancies are presently vacant:

- Tenancy 2: Medical (232m²).
- Tenancy 3: Office (328m²).
- Tenancy 4: Retail (147m²).
- Tenancies 6-8: Proposed change of use to Place of Worship (250 people).

The site presently accommodates two crossovers on Balmain Terrace. There is a shared site car park providing 86 car bays (including four ACROD bays). There is an existing loading bay in the car park which can facilitate onsite waste collection.

Seven bicycle parking spaces are provided within the site. People walking and cycling will access the development from the external path network abutting the site.

The existing site plans are included for reference in Appendix A. The internal fit-out of the proposed place of worship is included in Appendix B.



3 Vehicle access and parking

3.1 Vehicle access

Existing vehicular access to the site is via two crossovers on Balmain Terrace (Figure 3). No changes are proposed to the existing vehicle access system.

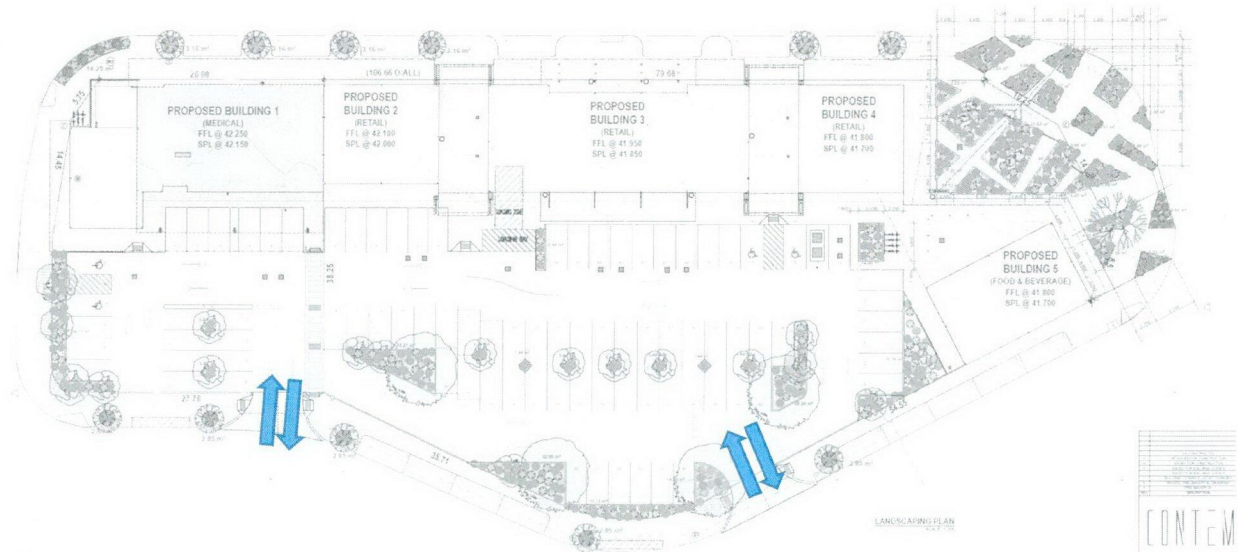


Figure 3: Existing vehicle access

3.2 Parking requirements

The City of Wanneroo District Planning Scheme No.2 sets out car parking requirements for developments within the city. A Place of Worship requires one parking place for every four people accommodated.

The proposed Place of Worship will be attended by a maximum of 250 people on Sundays with the main service scheduled between 10am and 2pm and small group gatherings every Wednesday or Friday scheduled between 6pm and 8pm.

The planning scheme requires **63** car parking bays to be provided for 250 patrons.

3.3 Existing parking inventory and utilisation survey

3.3.1 Study area

The primary parking study area was divided into four zones, marked P1, P2, S1 and S2 in Figure 4. Zones S1 and S2 include on-street parking abutting the site development and Zones P1 & P2 include onsite car parking.

A total of 111 parking spaces are provided within the core study area (Zones P1, P2, S1 and S2). The inventory of parking recorded within each zone is detailed in Table 1.

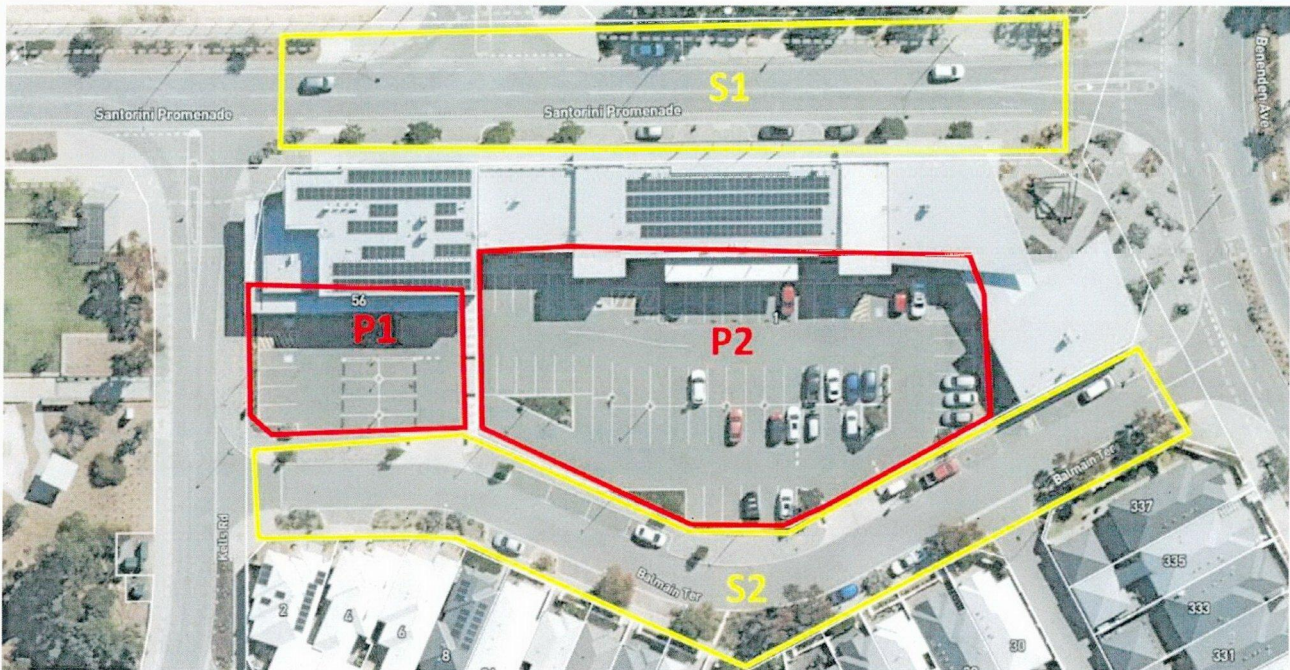


Figure 4: Parking study area and survey zones

Table 1: Surveyed parking inventory

Existing parking inventory	
Zone	Number of bays
P1	19 (including 2 ACROD bays)
P2	67 (including 2 ACROD bays)
S1	10
S2	15
Total	111

3.3.2 Surveyed existing parking demand

A parking utilisation survey was undertaken on the Place of Worship operating days and times to establish the existing parking demand at the site and number of vacant bays. The survey was undertaken on two days over a one-week period as following:

- Sunday 17 September 2023 between 10:00 and 14:00.
- Friday 22 September 2023 between 18:00 and 20:00.

Parking utilisation was recorded in 30-minute intervals for each of the survey Zones (P1, P2, S1 and S2). As detailed in Table 2 & Table 3, the peak parking demand on Sunday was 28 bays at 10:30am.

As detailed in Table 4 & Table 5, the peak parking demand recorded on Friday was 9 bays at 18:00.

Peak utilisation of around 25% was recorded on Sunday and 8% on Friday, with approximately 83 and 102 vacant bays available respectively.

Table 2: Sunday average parking demand profile

Time	Existing Parking Demand				
	P1	P2	S1	S2	Total
10:00	0	16	7	4	27
10:30	0	17	7	4	28
11:00	0	12	6	3	21
11:30	0	10	5	4	19
12:00	1	14	4	5	24
12:30	1	13	3	5	22
13:00	1	14	5	4	24
13:30	1	8	5	6	20
14:00	0	7	3	5	15

Table 3: Sunday average percentage occupancy

Time	Existing Parking Demand				
	P1	P2	S1	S2	Total
10:00	0	14%	6%	4%	24%
10:30	0	15%	6%	4%	25%
11:00	0	11%	5%	3%	19%
11:30	0	9%	5%	4%	17%
12:00	1%	13%	4%	5%	22%
12:30	1%	12%	3%	5%	20%
13:00	1%	13%	5%	4%	22%
13:30	1%	7%	5%	5%	18%
14:00	0	6%	3%	5%	14%

Table 4: Friday average parking demand profile

Time	Existing Parking Demand				
	P1	P2	S1	S2	Total
18:00	0	3	2	4	9
18:30	0	3	1	4	8
19:00	0	2	0	4	6
19:30	0	1	0	4	5
20:00	0	1	0	4	5

Table 5: Friday average percentage occupancy

Time	Existing Parking Demand				
	P1	P2	S1	S2	Total
18:00	0	3%	2%	4%	9%
18:30	0	3%	1%	4%	8%
19:00	0	2%	0	4%	6%
19:30	0	1%	0	4%	5%
20:00	0	1%	0	4%	5%

3.4 Parking demand from vacant tenancies

Urbii has undertaken an independent parking demand modelling exercise, to estimate the combined parking demand for the site, which includes surveyed parking demand for presently occupied tenancies, parking demand generated by vacant tenancies and the number of people for the Place of Worship.

This exercise was undertaken to assess if total parking onsite will be sufficient once all vacant tenancies are occupied.

Reference was made to the Institute of Transport Engineers (ITE) *Parking Generation Manual* for peak parking demand rates for the vacant Tenancies 2, 3 & 4, which are approved for medical, office and retail respectively. The relevant parking generation rates are detailed in Table 6.

Table 6: ITE parking generation rates

Land use	Reference	Peak Parking Demand Rate	Measurement
Office	ITE Office	1	per 30 m2 NLA
Medical/Dental Office	ITE - Medical-dental (720)	2.86	per 100 sqm GFA
Retail	ITE Supermarket (850)	3.29	per 100 sqm GFA



The parking generation of the vacant tenancies is estimated as following:

- Tenancy 2: Medical – 7 bays.
- Tenancy 3: Office – 11 bays.
- Tenancy 4: Retail – 5 bays.
- Tenancies 6-8: Proposed change of use to Place of Worship (63 bays).

For future purposes and conservative analysis, it was assumed that the Medical and Retail tenancies are open on Sunday during the same hours as the Place of Worship service. However, the Office is assumed to be closed.

It was assumed that all three tenancies are closed on Friday during the hours of the proposed small group gatherings, which will be from 6pm to 8pm.

Table 7 provides the total estimated peak parking demand for the site.

Table 7: Estimated total peak parking requirement for the site (Sundays)

Surveyed peak parking demand	Place of Worship parking requirement	Calculated Medical and Retail parking requirement combined	Total bay requirement
28	63	12	103

A combined peak parking demand of 103 bays is estimated for the existing occupied tenancies, the vacant Medical and Retail tenancies, and the Place of Worship at the time of Sunday service, when the Place of Worship expects the greatest number of patrons.

3.5 Parking impact assessment

Based on the parking surveys and supplementary analysis, the onsite and on-street parking is expected to be sufficient to accommodate the shared requirements of all tenancies within the subject site, including the proposed Place of Worship.

4 Provision for service vehicles

There is an existing loading zone and a loading bay within the car park. Bins will be wheeled out to the loading bay for waste collection on designated days.



5 Hours of operation

The Place of Worship will be open on Sundays from 10:00am to 2:00pm and either Wednesdays or Fridays from 6:00pm to 8:00pm. The main services will be held on Sundays 10am-12pm.

6 Daily traffic volumes and vehicle types

6.1 Traffic generation

The traffic volume that will be generated by the proposed Place of Worship has been estimated using trip generation rates derived with reference to the following sources:

- ITE Trip Generation Manual 10th Edition.

The best fitting trip rates were identified as being for the 'church' use (ITE Land Use 560). The trip generation rates adopted are detailed in Table 8.

Table 8: Adopted trip rates for traffic generation

Land use	Source	Daily rate	AM rate	AM-in	AM-out
Church	ITE Land Use 560	29.74	10.75	48%	52%

Note: Trip generation rates apply per 100m² of GFA

The building floor area is estimated to be around 420m² GFA. The estimated traffic generation for the proposed Place of Worship is detailed in Table 9.

The proposed Place of Worship is estimated to generate 125 vehicles per day (vpd), with 45 vehicles per hour (vph) generated during the AM peak hour on the weekend.

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

Table 9: Development traffic generation – Sunday peak hour

Land use	Quantity	Daily Trips	AM Trips	AM Peak Trips	
				IN	OUT
Place of Worship	420m ²	125	45	22	23



6.2 Impact on surrounding roads

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

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

The proposed development will not increase traffic flows on any roads adjacent to the site by the quoted WAPC threshold of +100vph to warrant further analysis. Therefore, the impact on the surrounding road network is moderate (Figure 5).

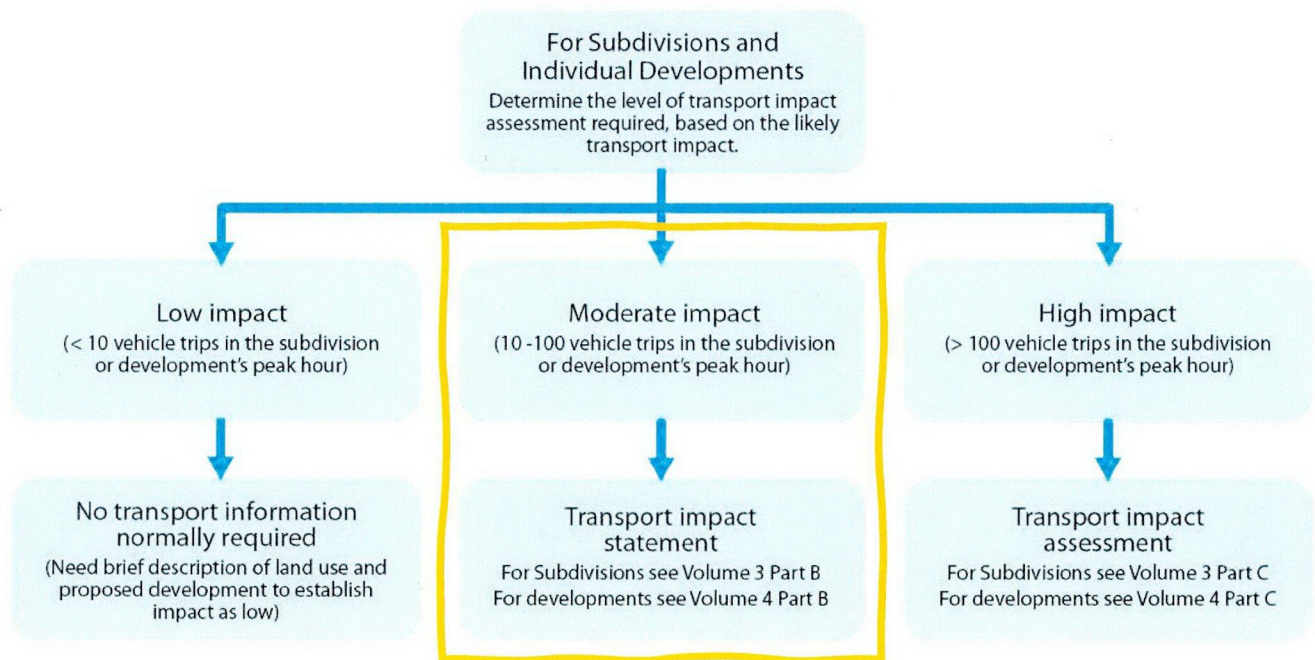


Figure 5: Level of traffic impact for subdivisions and individual developments

7 Traffic management on the frontage roads

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

7.1.1 Santorini Promenade

Santorini Promenade near the subject site is an approximately 9m wide, two-lane undivided road. Cycling lanes, on-street parking bays, and footpaths are provided on both sides of the road. A walking crossing is provided on Santorini Promenade, adjacent to Benenden Avenue, which includes kerb ramps and an island refuge.

Santorini Promenade near the subject site forms T-intersections with Kells Road to the west of the site, Piazza Link to the north of the site, and Benenden Avenue to the east of the site.

Santorini Promenade is classified as an *Access Road* in the Main Roads WA road hierarchy (Figure 6) and operates under a built-up area speed limit of 50km/h (Figure 7). Access roads are the responsibility of Local Government and are typically for the provision of vehicle access to abutting properties (Figure 8).

Traffic count data obtained from the City of Wanneroo indicates that Santorini Promenade carried under 4,100 vehicles per day in 2022, with 85th percentile speeds of 45.7km/h and 7.4% heavy vehicles.

7.1.2 Benenden Avenue

Benenden Avenue near the subject site is an approximately 12m wide, two-lane divided road. Bicycle lanes and footpaths are provided on both sides of the road. A walk crossing is provided on Benenden Avenue, which includes kerb ramps and an island refuge.

Benenden Avenue is classified as a *Distributor B* road in the Main Roads WA road hierarchy (Figure 6) and operates under a built-up area speed limit of 50km/h with School Zone Speed Limit of 40km/h applicable 7:30am to 9:00am and 2:30pm to 4:00pm on school days (Figure 7). Distributor B roads are the responsibility of Local Government and are typically for reduced capacity but high traffic volumes travelling between industrial, commercial, and residential areas. (Figure 8).

Traffic count data obtained from the City of Wanneroo indicates that southbound Benenden Avenue carried under 1,100 vehicles per day in 2022, with 85th percentile speeds of 48.4km/h and 14.7% heavy vehicles.



7.1.3 Balmain Terrace

Balmain Terrace near the subject site is an approximately 6m wide, two-lane undivided road. Footpaths and on-street parking bays are provided on both sides of the road. A walk crossing with kerb ramps is provided at the western end and the eastern end of Balmain Terrace.

Balmain Terrace forms T-intersections with Kells Road to the west of the site and Benenden Avenue to the east of the site.

Balmain Terrace is classified as an *Access Road* in the Main Roads WA road hierarchy (Figure 6) and operates under a built-up area speed limit of 50km/h (Figure 7). Access roads are the responsibility of Local Government and are typically for the provision of vehicle access to abutting properties (Figure 8).

The City of Wanneroo advised that no traffic data was available for Balmain terrace at the time of preparation of this report.

7.1.4 Kells Road

Kells Road near the subject site is an approximately 6m wide, two-lane undivided road. Footpaths are provided on both sides of the road. A walk crossing is provided on Kells Road, which includes kerb ramps and an island refuge.

Kells Road near the subject site forms a T-intersection with Santorini Promenade.

Kells Road is classified as an *Access Road* in the Main Roads WA road hierarchy (Figure 6) and operates under a built-up area speed limit of 50km/h (Figure 7). Access roads are the responsibility of Local Government and are typically for the provision of vehicle access to abutting properties (Figure 8).

The City of Wanneroo advised that no traffic data was available for Kells Road at the time of preparation of this report.

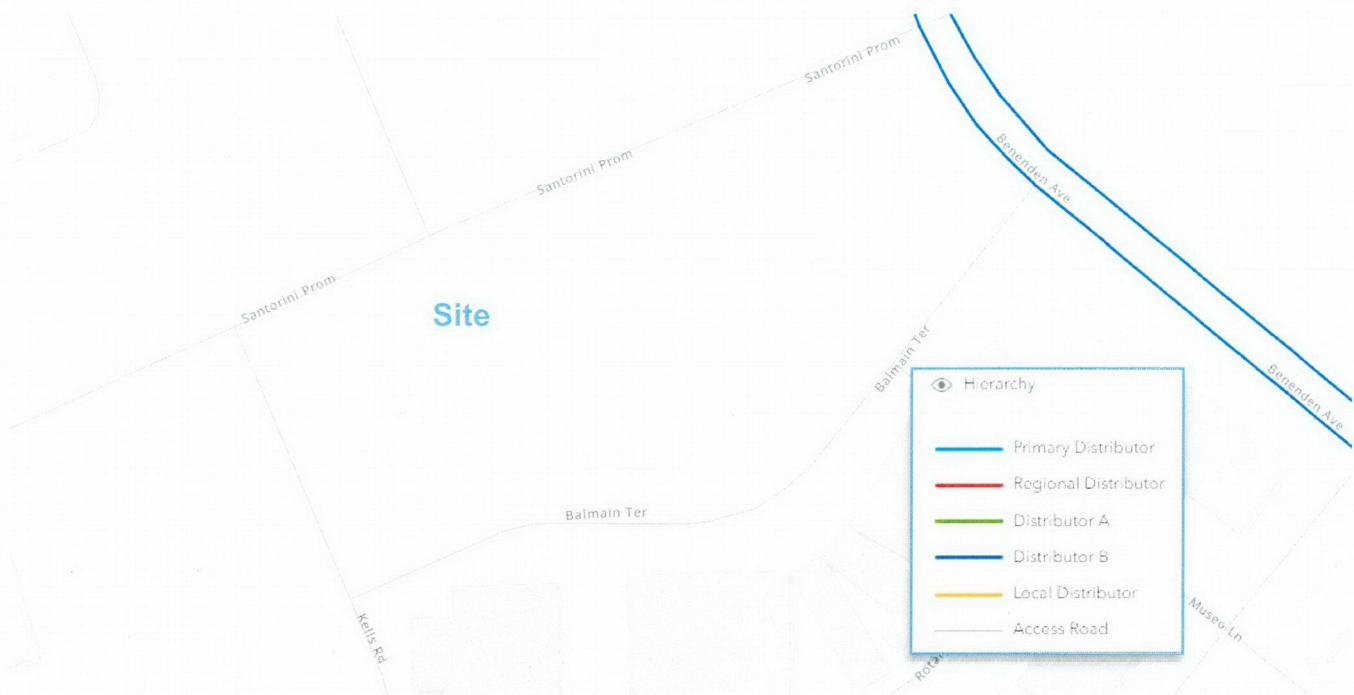


Figure 6: Main Roads WA road hierarchy plan

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

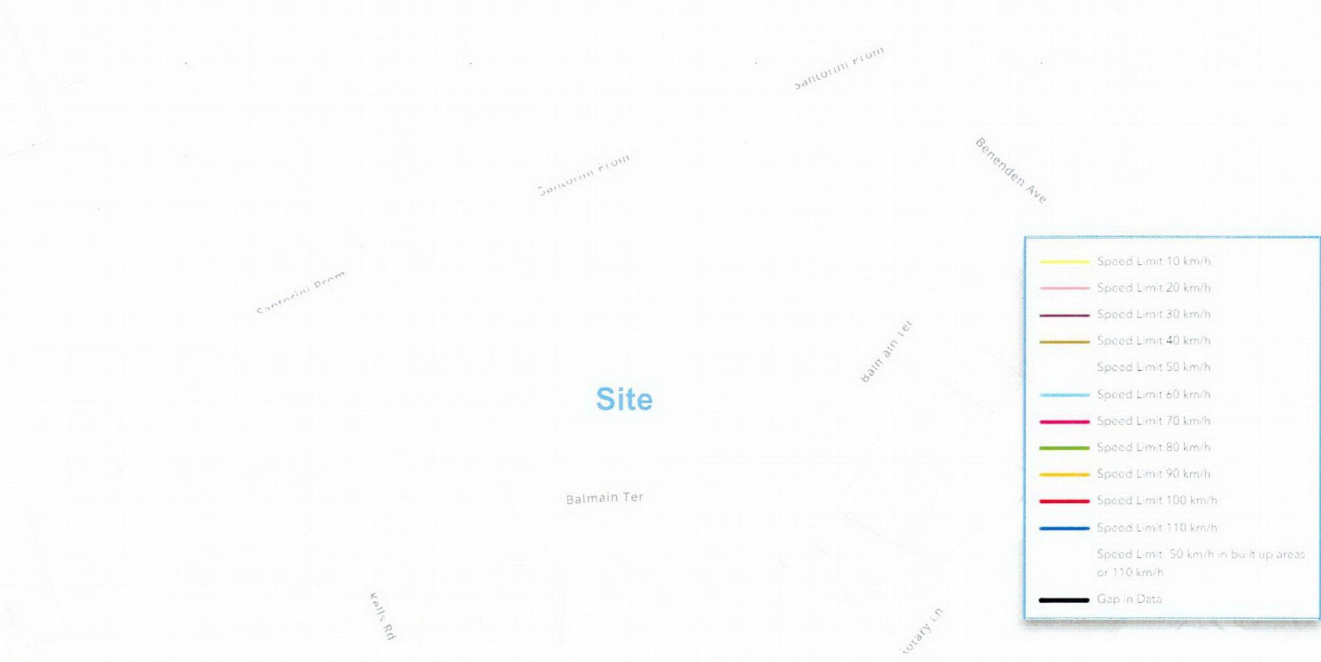


Figure 7: Main Roads WA road speed zoning plan

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

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

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

Figure 8: Road types and criteria for Western Australia

Source: Main Roads Western Australia D10#10992

8 Public transport access

Information was collected from Transperth, PTA and site visits to assess the existing public transport access to and from the site.

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

- Bus Route 483: Clarkson Stn - Alkimos via Merriwa & Butler Stn (Figure 10).
- Bus Route 484: Clarkson Stn - Alkimos via Ridgewood & Butler Stn (Figure 10).

Public transport services provide a viable alternative mode of transport for visitors of the proposed development. The closest bus stops are located within 125m walking distance to the west on Santorini Promenade (Figure 9).

Bus services provide excellent coverage and connectivity to the rail network.

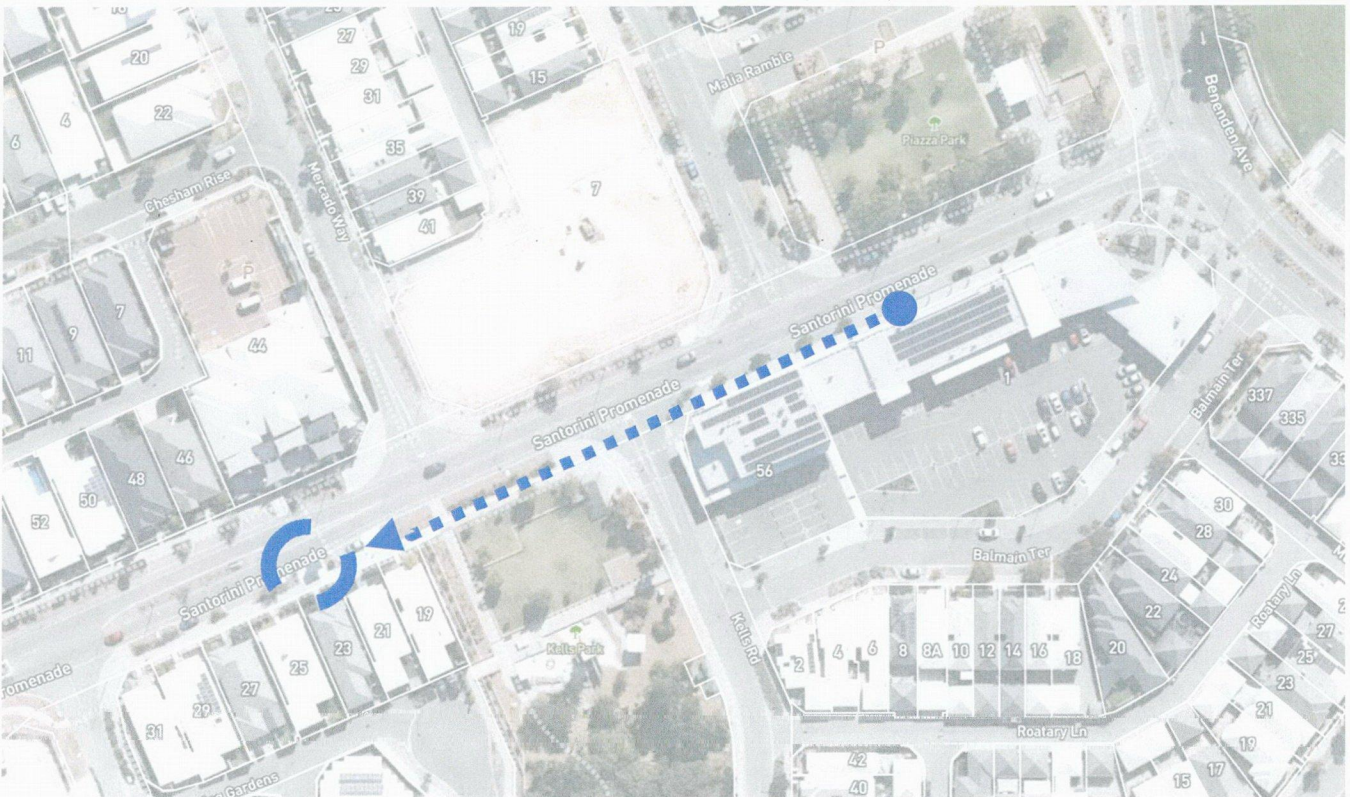


Figure 9: Closest bus stops serving the proposed development

9 Pedestrian access

Information from online mapping services, Main Roads WA, Local Government, and site visits was collected to assess the pedestrian access for the proposed development.

9.1.1 Pedestrian facilities and level of service

Footpaths are provided on both sides of Santorini Promenade, Benenden Avenue, Balmain Terrace, and Kells Road. Pedestrian crossing facilities including kerb ramps and refuge islands are provided on surrounding roads, which promote improved access for bicycles, wheelchairs, and prams.

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provide warrants for installing pedestrian priority crossing facilities. This is based on the volume of traffic as the key factor determining if pedestrians can safely cross a road. The guidelines recommend pedestrian priority crossing facilities be considered once the peak hour traffic exceeds the volumes detailed in Table 10.

The traffic volumes in this table are based on a maximum delay of 45 seconds for pedestrians, equivalent to Level of Service E. The pedestrian crossing facilities on adjacent roads near the site are sufficient and within the traffic volume thresholds.

Table 10: Traffic volume thresholds for pedestrian crossings

Road cross-section	Maximum traffic volumes providing safe pedestrian gap
2-lane undivided	1,100 vehicles per hour
2-lane divided (with refuge)	2,800 vehicles per hour
4-lane undivided*	700 vehicles per hour
4-lane divided (with refuge)*	1,600 vehicles per hour

10 Bicycle access

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

10.1 Bicycle network

The Department of Transport Perth Bicycle Network Map (see Figure 11) shows the existing cycling connectivity to the subject site. Santorini Promenade and Benenden Avenue provide on-street cycling lanes on both sides of the road near the subject site. Shared paths are provided on Santorini Promenade and Kells Road, which connect to the broader cycling network.



Figure 11: Perth bicycle network plan

10.2 Bicycle parking and end of trip facilities

Parking bays for four bicycles are provided in the car park and for three bicycles at the north-west corner of the site. This promotes sustainable transport options for visitors to the development.

10.3 Sustainable transport catchment

As detailed in Figure 12, the subject site is well placed for visitors to travel by sustainable modes of transport. A large catchment of people exists within a comfortable 8km or 20-25min cycling or micromobility journey to the site, including a spread of suburbs in the City of Wanneroo.

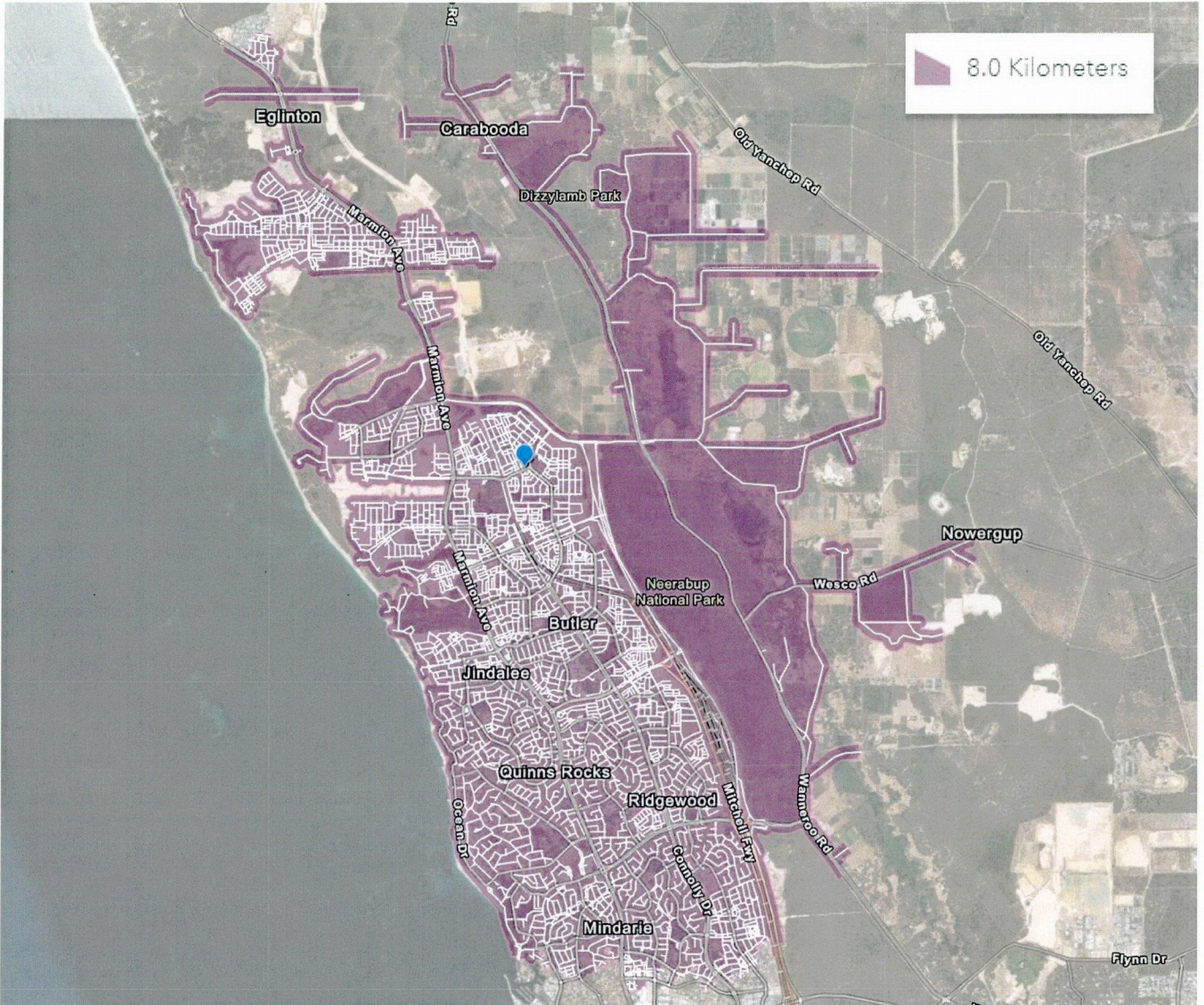


Figure 12: Cycling and micro-mobility catchment

11 Site specific issues

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

12 Safety issues

The five-year crash history in the vicinity of the site was obtained from Main Roads WA. As detailed in Figure 13, 3 crashes were recorded in the immediate locality in the last five years and all 3 crashes were classified as PDO Major. The detailed crash history is presented in Table 11.

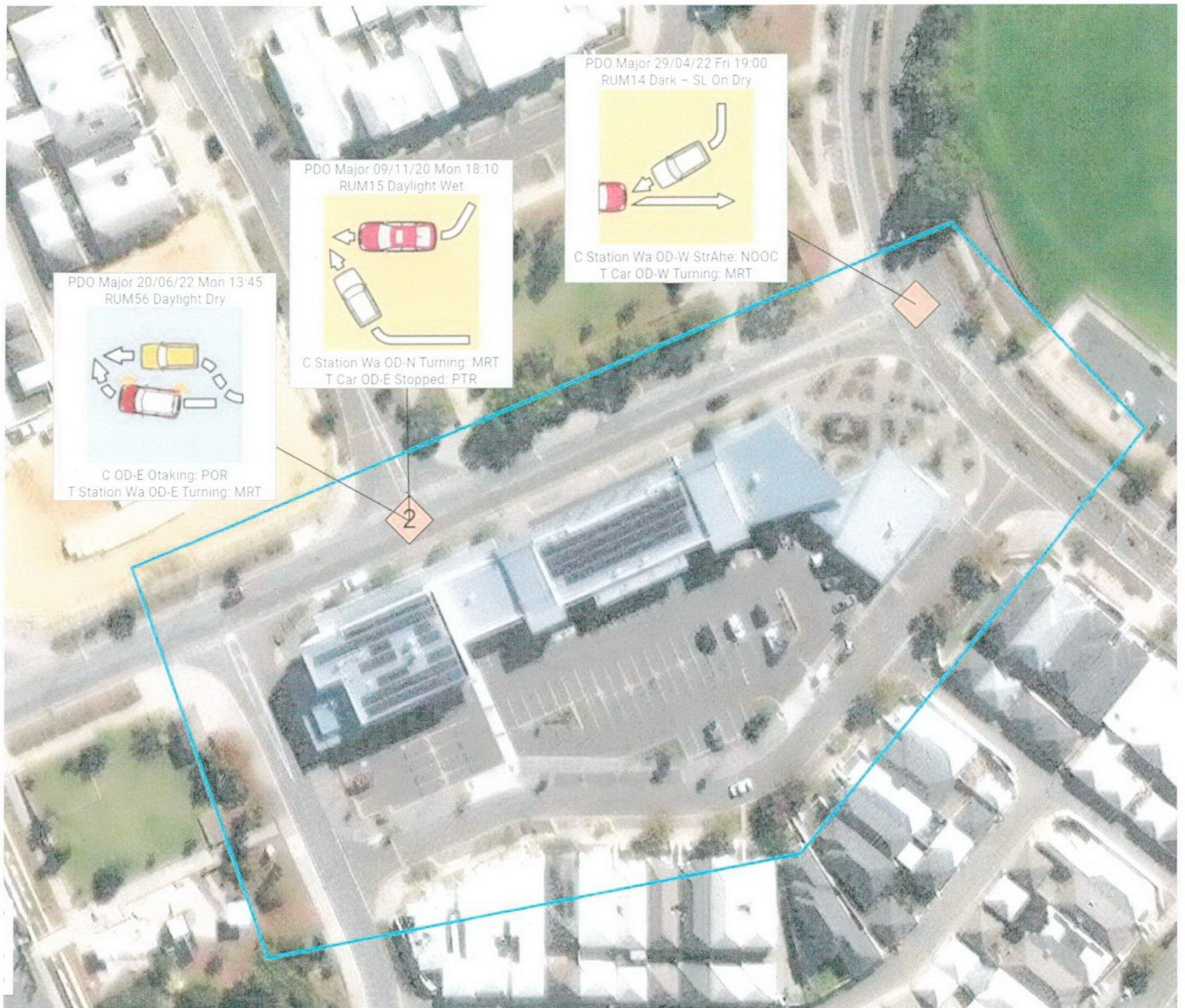


Figure 13: 5-year crash map in the locality (2017-2021)

Source: MRWA crash mapping tool

Table 11: 5-year crash history in the locality (2017-2021)

Severity	No.	%	Light	No.	%
Fatal	0	0	Dark - Street Lights Not Provided	0	0
Hospital	0	0	Dark - Street Lights Off	0	0
Medical	0	0	Dark - Street Lights On	1	33.33
PDO Major	3	100.00	Dawn Or Dusk	0	0
PDO Minor	0	0	Daylight	2	66.67
			Not Known	0	0
Year	No.	%	Conditions	No.	%
2020	1	33.33	Dry	2	66.67
2022	2	66.67	Not Known	0	0
			Wet	1	33.33
Nature	No.	%	Alignment	No.	%
Head On	0	0	Curve	2	66.67
Hit Animal	0	0	Not Known	0	0
Hit Object	0	0	Straight	1	33.33
Hit Pedestrian	0	0			
Non Collision	0	0	Total	3	
Not Known	0	0			
Rear End	0	0			
Right Angle	2	66.67			
Right Turn Thru	0	0			
Sideswipe Opposite Dirn	0	0			
Sideswipe Same Dirn	1	33.33			

13 Conclusion

This Transport Impact Statement has been prepared by Urbii on behalf of Courageous Church with regards to the proposed place of worship, located at 1 Santorini Promenade, Alkimos.

The subject site is situated at the south-west corner of Santorini Promenade and Benenden Avenue. The site is surrounded by a mix of residential, community parks, and school uses.

A change of use is proposed from 'Retail' to 'Place of Worship' occupying three tenancies within the existing building. The Place of Worship will hold services on Sundays, with a maximum attendance of 250 people. There will also be small group prayer sessions during the week on Wednesdays or Fridays.

The site features good connectivity with the existing road, cycling and walking network. There is good public transport coverage through nearby bus services.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is moderate (less than 100vph on any lane) and as such would have moderate impact on the surrounding road network.

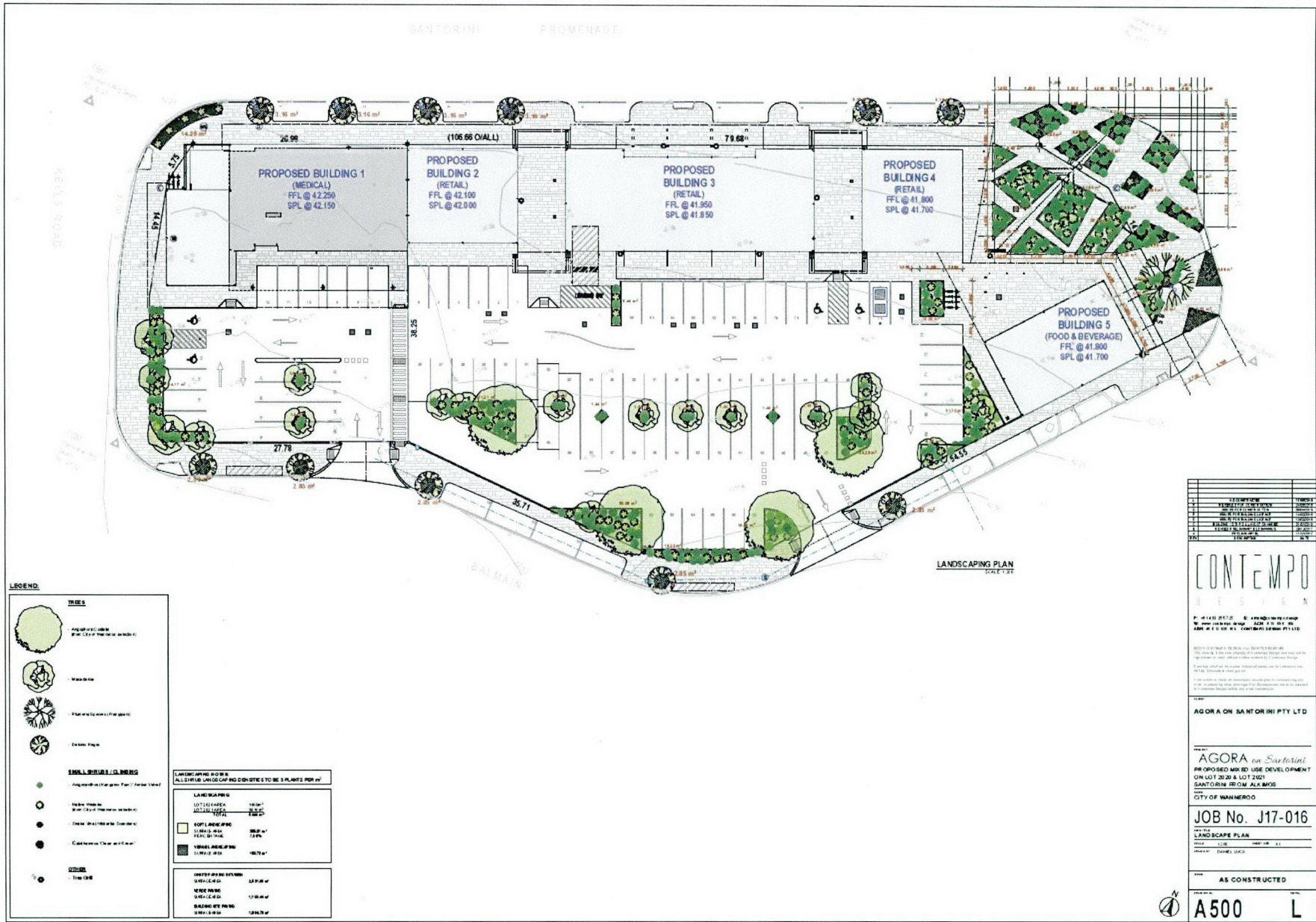
Car parking analysis indicates that there is capacity to accommodate up to 250 visitors on site, with 63 car parking bays required under the applicable planning scheme.

It is concluded that the findings of this Transport Impact Statement are supportive of the proposed development.



Appendices

Appendix A: Approved site plans



LEGEND:

TREES

- Proposed tree (circle) @ the CE of the tree or its trunk
- Proposed tree (circle) @ the CE of the tree or its trunk
- Proposed tree (circle) @ the CE of the tree or its trunk
- Proposed tree (circle) @ the CE of the tree or its trunk
- Proposed tree (circle) @ the CE of the tree or its trunk

SHRUBS / CLIMBERS

- Proposed shrub (circle) @ the CE of the shrub or climber
- Proposed shrub (circle) @ the CE of the shrub or climber
- Proposed shrub (circle) @ the CE of the shrub or climber
- Proposed shrub (circle) @ the CE of the shrub or climber

OTHER

- Tree curb

LANDSCAPING NOTES
ALL SITE LANDSCAPING CONSTATES TO BE 3 PLANTS PER M²

LANDSCAPING	AREA (M ²)
LOT COVERED	18.00
ASPHALT DRIVE	28.25
TOTAL	46.25
SOFT LANDSCAPING	38.00
LANDSCAPING	15.00
VEGETATION	23.00
TOTAL	38.00

OTHER PAVING TYPES	AREA (M ²)
PERVIOUS	13.00
NEW PAVING	13.00
EXISTING PAVING	13.00
TOTAL	39.00

NO.	DESCRIPTION	DATE
1	ISSUED FOR TENDERS	15/08/2022
2	REVISED FOR TENDERS	15/08/2022
3	REVISED FOR TENDERS	15/08/2022
4	REVISED FOR TENDERS	15/08/2022
5	REVISED FOR TENDERS	15/08/2022
6	REVISED FOR TENDERS	15/08/2022
7	REVISED FOR TENDERS	15/08/2022
8	REVISED FOR TENDERS	15/08/2022
9	REVISED FOR TENDERS	15/08/2022
10	REVISED FOR TENDERS	15/08/2022

CONTEMPO DESIGN

P: 4143 0513 E: 4143@contempo.com.au
 10/100 WANNEROO ROAD, SUITE 4/10, WANNEROO, WA 6008
 10/100 WANNEROO ROAD, SUITE 4/10, WANNEROO, WA 6008

AGORA ON SANTORINI PTY LTD

AGORA on Santorini
 PROPOSED MIXED USE DEVELOPMENT
 ON LOT 2028 & LOT 2027
 SANTORINI SECTOR ALAMOS
 CITY OF WANNEROO

JOB No. J17-016

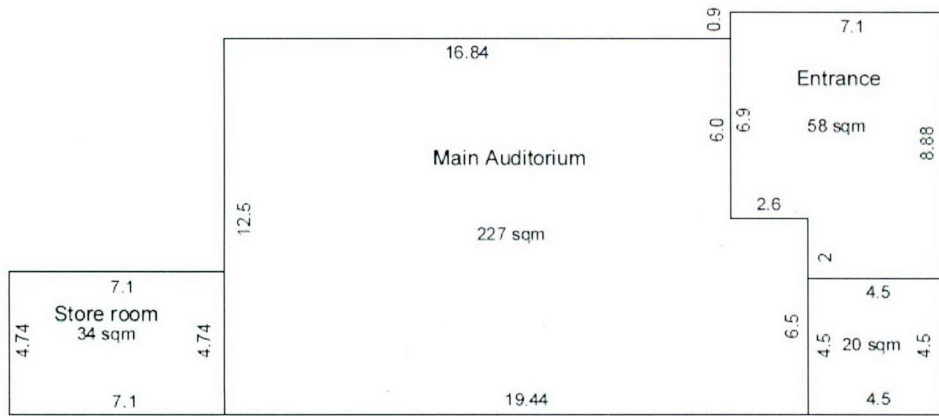
LANDSCAPE PLAN

DATE: 15/08/2022
 DRAWN BY: DANIEL LUKA

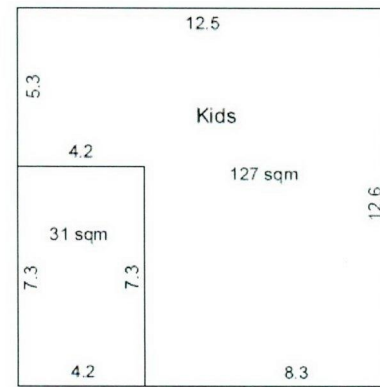
AS CONSTRUCTED

A500 L





Car Park



Scale 1: 200