



transport planning  
traffic engineering  
modelling

# Proposed Apartment Development

Lot 1362 Maritime Drive, Jindalee  
Transport Impact Statement

PREPARED FOR:  
Linic Group Pty Ltd

September 2022

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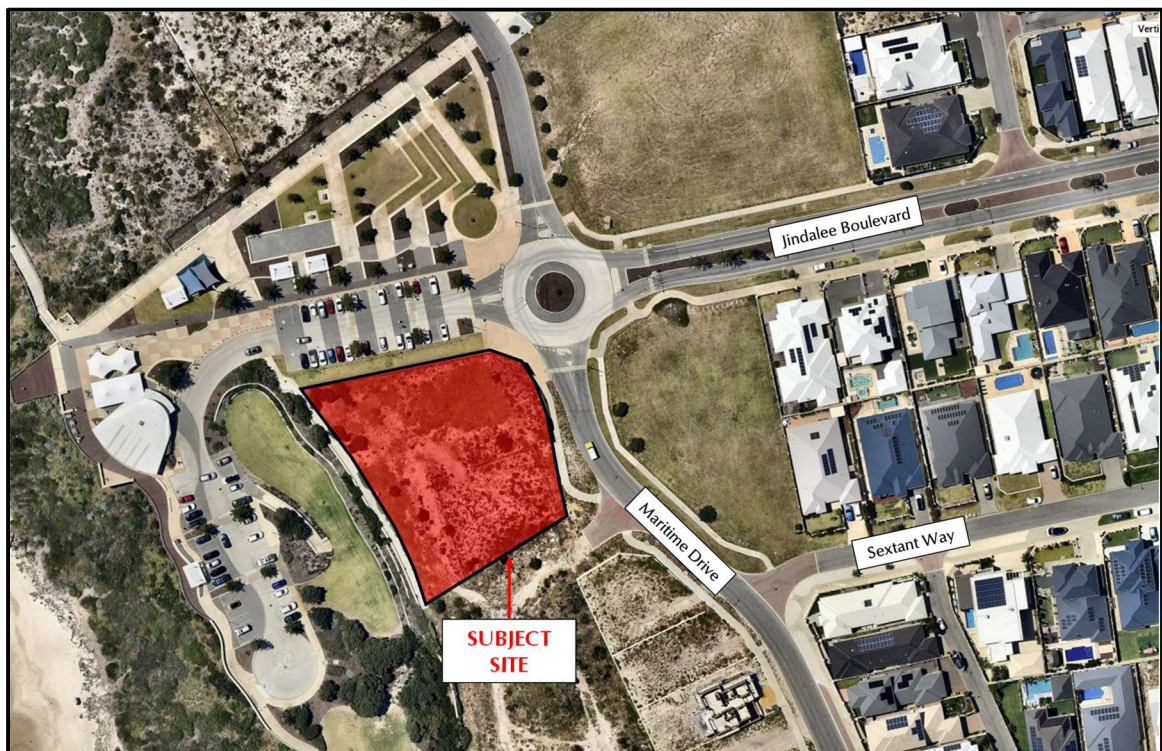


# 1 Introduction

This Transport Impact Statement has been prepared by Transcore on behalf of Linic Group with regard to the proposed apartment development to be located at Lot 1362 Maritime Drive, Jindalee in the City of Wanneroo.

The subject site is currently vacant and is situated at the southwestern corner of the roundabout intersection of Maritime Drive and Jindalee Boulevard as shown in **Figure 1**. The western leg of the roundabout provides direct access to the public car parking facility in the immediate vicinity of the subject site.

Pedestrian access to the subject site is available via the existing footpath networks along Maritime Drive and the western side of the subject site.



**Figure 1: Location of the subject site**

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) states: “A Transport Impact Statement is required for those developments that would be likely to generate moderate volumes of traffic and therefore would have a moderate overall impact on the surrounding land uses and transport networks”.

Section 6.0 of Transcore’s report provides details of the estimated trip generation for the proposed development. Accordingly, as the total peak hour vehicular trips are estimated to be less than 100 trips, a Transport Impact Statement is deemed appropriate for this development.

Key issues that will be addressed in this report include traffic generation of the proposed development, access and egress movement patterns and parking supply.

## 2 Development Proposal

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The Development Application (DA) is for a proposed apartment development at the subject site. The proposed development comprises a total of 47 apartments (a mix of single-bedroom, 2-bedroom and 3-bedroom apartments) with associated parking facilities at the undercroft level.

The access and egress arrangement of the proposed development is facilitated via two proposed driveway crossovers: one on Maritime Drive and one on the future access road to the southern side of the subject site.

The proposed crossover on the future access road leads directly to the undercroft car parking area via a two-way ramp system with separate entry and exit ramps and an intercom at the island at the entrance. The separate entry and exit ramps will avoid potential conflict between inbound and outbound vehicle movements.

According to the development plans in [Appendix A](#), the proposed development provides a total of 76 car parking bays and 14 motorcycle bays at the undercroft level. In addition, 6 visitor parking bays including an ACROD bay are proposed on the ground floor level adjacent to the main entrance of the development and are accessible via the proposed crossover on Maritime Drive.

A bin storage area is located on the southern side of the undercroft car parking area. Rubbish bins will be wheeled out from the bin store to the verge for collection on a designated collection day.

Pedestrian access to the development is available via the external footpath network along Maritime Drive and the western side of the subject site. Pedestrians can directly access the lobby (for access to lifts and stairs) on the ground floor via the existing external path network on Maritime Drive.

The proposed development plan is provided in [Appendix A](#).

### 3 Vehicle Access and Parking

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The access and egress arrangement of the proposed development is facilitated via two proposed driveway crossovers; one on Maritime Drive and one on the future access road on the southern side of the subject site.

The proposed crossover on the future access road leads directly to the undercroft car parking area via a two-way ramp system with separate entry and exit ramps and an intercom at the island at the entrance. The separate entry and exit ramps will avoid potential conflict between inbound and outbound vehicle movements.

According to the development plans in **Appendix A**, the proposed development provides a total of 76 car parking bays and 14 motorcycle bays at the undercroft level.

In addition, 6 visitor parking bays including an ACROD bay are proposed on the ground floor level adjacent to the main entrance of the development and are accessible via the proposed crossover on Maritime Drive.

## 4 Provision for Service Vehicles

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A bin storage area is proposed at the southern side of the car parking area at the undercroft level. It is anticipated that rubbish bins will be wheeled out from the bin store to the verge for collection on a designated collection day.



# 5 Daily Traffic Volumes and Vehicle Types

## 5.1 Trip Generation

The traffic volumes likely to be generated by the proposed development have been estimated based on the residential trip rate indicated in the *WAPC Transport Impact Assessment Guidelines (August 2016)* document. The traffic generation rates use for the proposed development are as follows:

- ✚ Daily vehicle trips: 8.0 per dwelling;
- ✚ Weekday average morning peak hour vehicular trips: 0.8 per dwelling; and,
- ✚ Weekday average evening peak hour vehicular trips: 0.8 per dwelling.

The proposed development provides a total of 47 apartments. Accordingly, it is estimated that the traffic generations for the proposed development are:

- ✚ Weekday daily:  $8.0 \times 47 = 376$ vpd;
- ✚ Weekday AM:  $0.8 \times 47 = 37$ vph; and,
- ✚ Weekday PM:  $0.8 \times 47 = 37$ vph.

Accordingly, it is estimated that the proposed development would generate a total of **376** daily vehicle trips with **37** vehicle trips during each of the AM and PM peak hour periods. These trips include both inbound and outbound vehicle movements.

The traffic generation and peak hour split are detailed in **Table 2** based on the following directional split assumptions for peak hour periods (from the WAPC Guidelines):

- ✚ The morning (AM) peak split is estimated at 25%/ 75% for inbound/ outbound trips associated with residential; and,
- ✚ The afternoon (PM) peak split is estimated at 75%/ 25% for inbound/ outbound trips associated with residential.

**Table 1. Estimated peak hour trips for the proposed development**

Land Use	AM Peak			PM Peak		
	Traffic Split	In	Out	Traffic Split	In	Out
Apartment	25% in	9		75% in	28	
	75% out		28	25% out		9
Total		37			37	

## 5.2 Traffic Flow

With respect to the location of the development, permeability and layout of the surrounding road network, the assumed distribution for traffic flows generated by the proposed development is as follows:

- 60% to/from Jindalee Blvd east;
- 20% to/from Maritime Drive north; and,
- 20% to/from Maritime Drive south.

The directional morning, afternoon and total daily trip distribution of the development generated traffic is illustrated in **Figure 2**.



**Figure 2: Estimated traffic movements for the proposed development – morning, afternoon peak hours and total daily trips**

## 5.3 Impact on Surrounding Roads

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

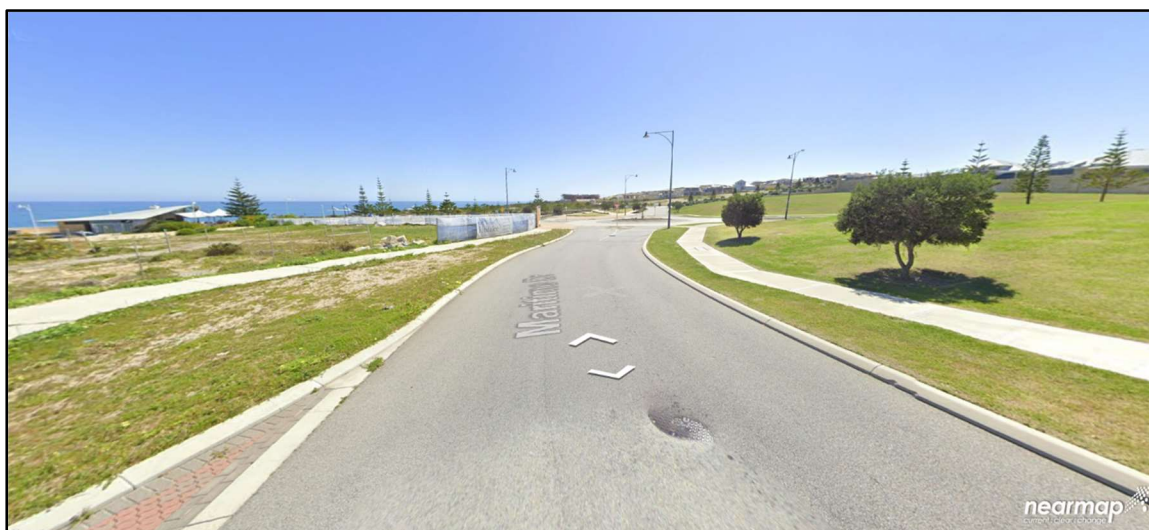
“As a general guide, an increase in traffic of less than 10 percent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 percent may. All sections of road with an increase greater than 10 percent of capacity should therefore be included 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.”

It is clear that the traffic increase from the proposed development would be significantly less than the critical threshold of 100vph per lane. As detailed in **Section 5.1**, the proposed development will not increase traffic on any lanes on the surrounding road network by more than 100vph, therefore the impact of the development traffic on the surrounding road network will not be significant and does not require further assessment.

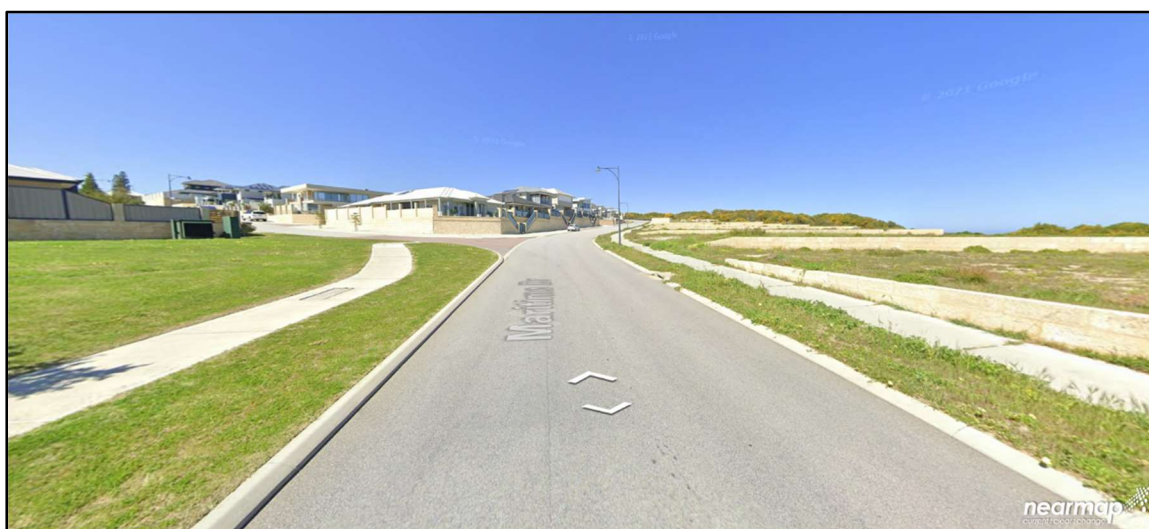
## 6 Traffic Management on Frontage Streets

**Maritime Drive**, east of the subject site, is a single carriageway, two-lane undivided road featuring pedestrian paths on both sides of the road as shown in **Figure 3** and **Figure 4**.

Maritime Drive is classified as an Access Road in the Main Roads WA Functional Road Hierarchy and operates under the default built-up area speed limit of 50km/h.



**Figure 3: Northbound view along Maritime Drive**



**Figure 4: Southbound view along Maritime Drive**

**Jindalee Boulevard** in the vicinity of the subject site is constructed as a boulevard-style two-lane divided road with a landscaped median as shown in **Figure 5** and **Figure 6**. On street cycle lanes and pedestrian paths are provided on either side of this road.

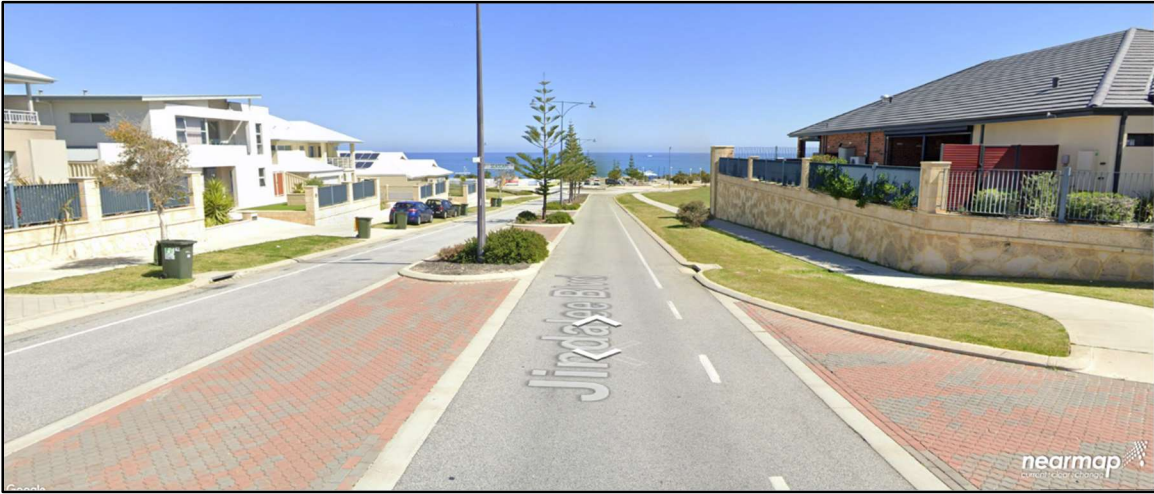
Jindalee Boulevard is classified as a Local Distributor Road in the Main Roads WA Functional Road Hierarchy and operates under the default built-up area speed limit of 50km/h.

Pedestrian crossing facilities are currently in place at the roundabout intersection of Jindalee Boulevard and Maritime Drive.

The western leg of the roundabout intersection of Jindalee Boulevard/Maritime Drive leads directly to the public car parking area in the vicinity of the subject site.



**Figure 5: Eastbound view along Jindalee Boulevard**



**Figure 6: Westbound view along Jindalee Boulevard**

# 7 Public Transport Access

Figure 7 shows the existing public transport services in the vicinity of the subject site.

The closest bus stop is located on Jindalee Boulevard approximately 420m from the subject site. Transperth bus route 476 operates along a short section of Jindalee Boulevard and gets diverted to/from Santa Barbara Parade to the south and Barquentine Avenue to the north. Bus route 476 runs between Clarkson Station and Butler Station via Marmion Avenue.



Figure 7: Public transport services (Transperth Map)

## 8 Pedestrian Access

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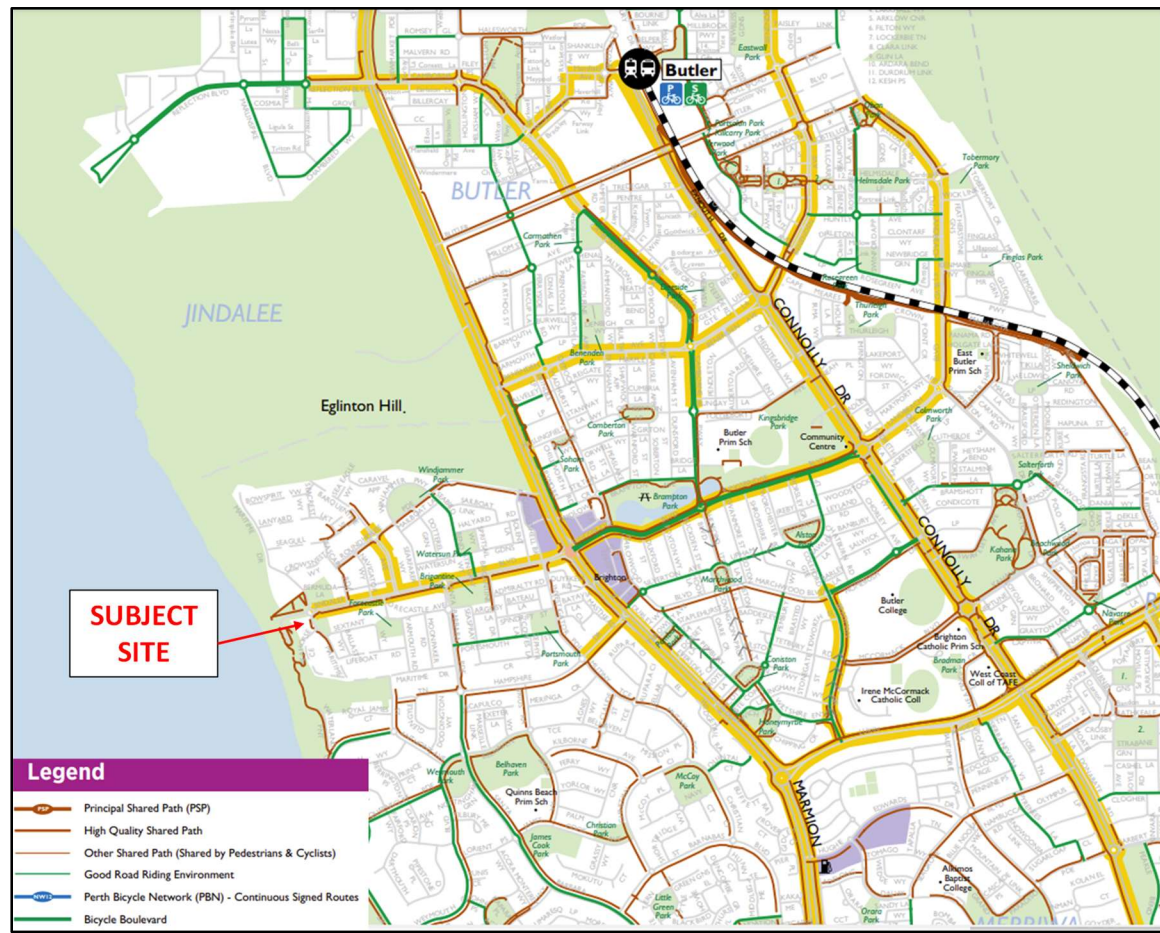
Pedestrian access to the subject site is available via the existing external concrete footpath along Maritime Drive and along the western side of the subject site.

Pedestrian crossing facilities with refuge islands and drop kerbs are provided at the roundabout intersection of Jindalee Boulevard/Maritime Drive.

# 9 Cyclist Access

The Perth Bicycle Network Map in **Figure 8** shows the cyclist connectivity in the vicinity of the subject site.

Shared paths are provided along both sides of Maritime Drive adjacent to the subject site and provide connectivity to the other shared path that runs along Jindalee Boulevard.



**Figure 8: Extract from Perth Bicycle Network (Department of Transport)**



## 10 Site Specific Issues

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It is acknowledged that there will be no visitor bays proposed on the site. However, due to the close proximity of a public parking facility within the immediate vicinity of the subject, visitors can easily park at the public parking facility adjacent to the subject site during their visit.

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

# 11 Safety Issues

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No safety issues were identified within the scope of this assessment.

## 12 Conclusions

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This Transport Impact Statement relates to the proposed apartment development to be located at Lot 1362 Maritime Drive, Jindalee in the City of Wanneroo.

The development comprises 47 apartments (a mix of single-bedroom, 2-bedroom and 3-bedroom apartments) with associated parking facilities at the undercroft level.

The access and egress arrangement of the proposed development is facilitated via two proposed driveway crossovers; one on Maritime Drive and one on the future access road on the southern side of the subject site.

The proposed crossover on the future access road leads directly to the undercroft car parking area via a two-way ramp system with separate entry and exit ramps and an intercom at the island at the entrance. The proposed crossover on Maritime Drive provides access to the visitor parking adjacent to the main entrance of the development at the ground -floor level.

A total of 76 car parking bays and 14 motorcycle bays are provided on-site for the use of residents. In addition, 6 visitor parking bays including an ACROD bay are proposed on the ground floor level.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is estimated to be 376 daily trips with 37 vehicular trips during each of the AM and PM peak hour periods (both inbound and outbound).

The traffic analysis undertaken in this report demonstrates that the estimated development-generated traffic will have minimal impact on the surrounding road network.

The subject site features good accessibility by the existing road network and pedestrian/cyclist paths.

In conclusion, the findings of this Transport Impact Statement are supportive of the proposed apartment development.

# Appendix A

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## PROPOSED DEVELOPMENT PLANS

TOTAL : 47 APARTMENTS

DAYLIGHT AND VENTILATION  
 41/47 - 87% APARTMENTS RECEIVE MORE THAN 2hr OF SUNLIGHT  
 47/47 - 100% APARTMENTS ARE CAPABLE OF BEING CROSS VENTILATED

PLOT RATIO = 1.26  
 FLOOR AREA = 3877m<sup>2</sup>  
 SITE AREA = 3080m<sup>2</sup>

10x  
 SHORT STAY  
 ACCOMMODATION  
**A**



BED x 1  
 BATH x 1

3 x  
 APARTMENT TYPE  
**B**



BED x 1  
 STUDY x 1  
 BATH x 1

21 x  
 APARTMENT TYPE  
**C**



BED x 2  
 BATH x 2

3 x  
 APARTMENT TYPE  
**D**



BED x 2  
 BATH x 2

3 x  
 APARTMENT TYPE  
**E**



BED x 3  
 BATH x 2

1 x  
 APARTMENT TYPE  
**F**



BED x 3  
 BATH x 2

3 x  
 APARTMENT TYPE  
**G**

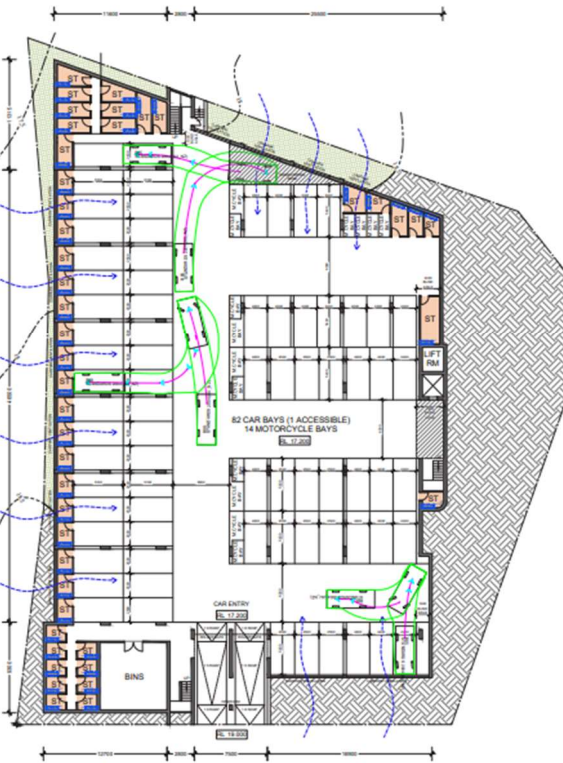


BED x 2  
 STUDY x 1  
 BATH x 2

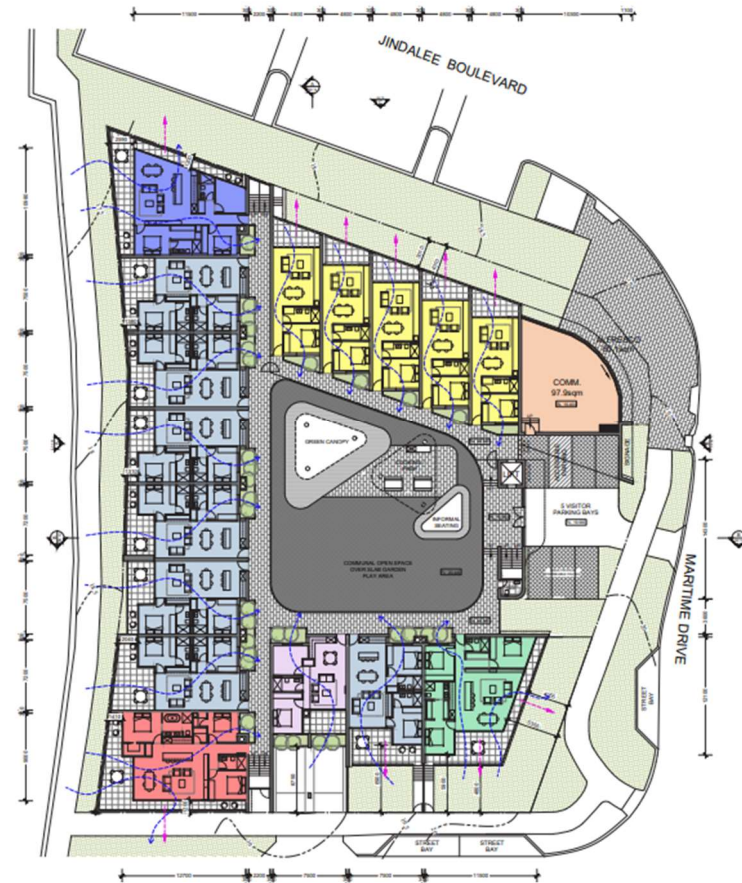
3 x  
 APARTMENT TYPE  
**H**



BED x 3  
 BATH x 2



UNDERCROFT FLOOR PLAN  
 SCALE 1:200 @ A1



GROUND FLOOR PLAN  
 SCALE 1:200 @ A1

- LEGENDS
- PATH OF CROSS VENTILATION
  - STREET ENGAGEMENT
  - HIGH WALL MOUNTED BICYCLE RACK

SCALE  
 1:200 @ A1

PROJECT TITLE  
**SAUNTON JINDALEE**  
 LOT 1362 MARITIME DRIVE, JINDALEE  
 02/09/2022

PROJECT # 2066  
**PROEKT**  
 ARCHITECTURE  
 SK04

TOTAL : 47 APARTMENTS

**DAYLIGHT AND VENTILATION**

41/47 - 87% APARTMENTS RECEIVE MORE THAN 2H OF SUNLIGHT  
 47/47 - 100% APARTMENTS ARE CAPABLE OF BEING CROSS VENTILATED

**PLOT RATIO = 1.26**

FLOOR AREA = 3877m<sup>2</sup>  
 SITE AREA = 3080m<sup>2</sup>

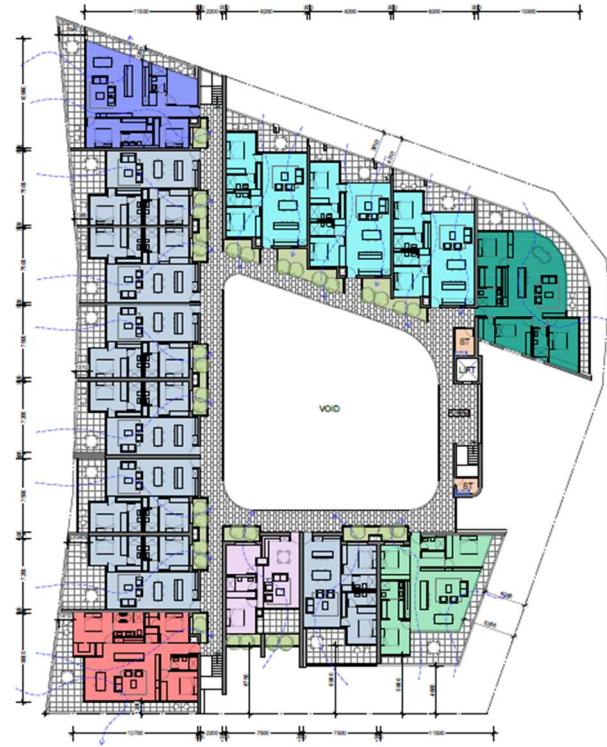
**TOTAL PARKING BAYS**

CAR BAYS = 82 ACCESSIBLE BAYS = 1 MOTORCYCLE BAYS = 14

- 10x SHORT STAY ACCOMMODATION **A**
  - BED x 1
  - BATH x 1
- 3x APARTMENT TYPE **B**
  - BED x 1
  - STUDY x 1
  - BATH x 1
- 21x APARTMENT TYPE **C**
  - BED x 2
  - BATH x 2
- 3x APARTMENT TYPE **D**
  - BED x 2
  - BATH x 2
- 3x APARTMENT TYPE **E**
  - BED x 3
  - BATH x 2
- 1x APARTMENT TYPE **F**
  - BED x 3
  - BATH x 2
- 3x APARTMENT TYPE **G**
  - BED x 2
  - STUDY x 1
  - BATH x 2
- 3x APARTMENT TYPE **H**
  - BED x 3
  - BATH x 2



FIRST FLOOR PLAN  
 SCALE 1:300 @ A1



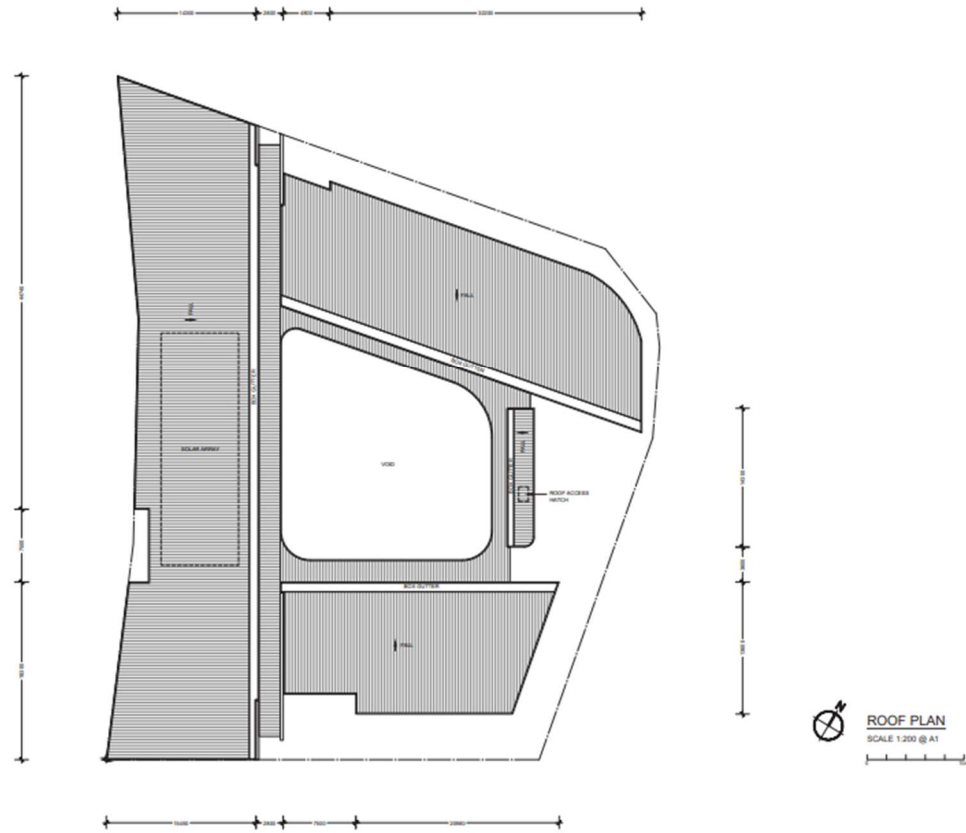
SECOND FLOOR PLAN  
 SCALE 1:300 @ A1

- LEGENDS**
- PATH OF CROSS VENTILATION
  - STREET ENGAGEMENT
  - HIGH WALL MOUNTED BICYCLE RACK

16/14/18  
 SALTON JINDALEE

PROJECT TITLE  
**JINDALEE DEVELOPMENT**  
 LOT 1362 MARITIME DRIVE, JINDALEE  
 02/09/2022

**PROEKT** ARCHITECTURE  
 PROJECT # 2086  
 DRAWING # SK05



SCALE  
1:200 @ A1

PROJECT FILE  
**SAUNTON JINDALEE**  
LOT 1362 MARITIME DRIVE, JINDALEE  
03/09/2022

PROJECT #  
2066  
DRAWING #  
**PROEKT ARCHITECTURE SK06**

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