



Metro Inner Development Assessment Panel Agenda

Meeting Date and Time: Wednesday, 28 August 2024; 9:30am
Meeting Number: MIDAP/30
Meeting Venue: 140 William Street, Perth

A live stream will be available at the time of the meeting, via the following link:
[MIDAP/30 - 14 August 2024 - City of Stirling](#)

PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement
2. Apologies
3. Members on Leave of Absence
4. Noting of Minutes

PART B – CITY OF STIRLING

1. Declarations of Due Consideration
2. Disclosure of Interests
3. Form 1 DAP Applications
 - 3.1 Lot 56 (No.93) Odin Road, Innaloo - Proposed twelve (12) multiple dwellings – DAP/24/02667
4. Form 2 DAP Applications
5. Section 31 SAT Reconsiderations

PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals
2. General Business
3. Meeting Closure

Please note, presentations for each item will be invited prior to the items noted on the agenda and the presentation details will be contained within the related information documentation



ATTENDANCE

DAP Members

Francesca Lefante (Presiding Member)

Ian Birch (Deputy Presiding Member)

Peter Lee (Specialist Member)

Cr Teresa Olow (Local Government DAP Member, City of Stirling)

Cr Rob Paparde (Local Government DAP Member, City of Stirling)

Minute Secretary

Kristen Parker (DAP Secretariat)

Officers in Attendance

Ashlee Kelly (DAP Secretariat)



PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

This meeting is being recorded and livestreamed on the DAP website in accordance with regulation 40(2A) of the *Planning and Development (Development Assessment Panels) Regulations 2011*. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Cr Suzanne Migdale (Local Government DAP Member, City of Stirling)
Cr Michael Dudek (Local Government DAP Member, City of Stirling)

3. Members on Leave of Absence

Nil.

4. Noting of Minutes

Signed minutes of previous meetings are available on the [DAP website](#).



PART B – CITY OF STIRLING

1. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

2. Disclosure of Interests

Nil.

3. Form 1 DAP Applications

3.1 Lot 56 (No.93) Odin Road, Innaloo - Proposed twelve (12) multiple dwellings – DAP/24/02667

4. Form 2 DAP Applications

Nil.

5. Section 31 SAT Reconsiderations

Nil.

LOT 56 (HOUSE NUMBER 93) ODIN ROAD, INNALOO – PROPOSED MULTIPLE DWELLING DEVELOPMENT – TWELVE MULTIPLE DWELLINGS

Form 1 – Responsible Authority Report (Regulation 12)

DAP Name:	Metro Inner DAP
Local Government Area:	City of Stirling
Applicant:	Germano Designs Pty Ltd
Owner:	Pezming Pty Ltd
Value of Development:	\$3.5 million ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)
Responsible Authority:	City of Stirling
Authorising Officer:	Amanda Sheers, Director Planning and Development
LG Reference:	DA24/0275
DAP File No:	DAP/24/02667
Application Received Date:	19 March 2024
Report Due Date:	16 August 2024
Application Statutory Process Timeframe:	90 Days, with an additional 70 days agreed between the Applicant and City of Stirling
Attachment(s):	1. Development Application Plans (received 14 August 2024) 2. Aerial Location Plan 3. Metropolitan Region Scheme Zoning Map 4. City of Stirling Local Planning Scheme No.3 Zoning Map 5. Applicant's Original Planning Report received on 19 March 2024 6. City of Stirling Planning Assessment 7. Applicant's Final Submission: a. Applicant's Response to Request for Information received 19 July 2024 b. Transport Impact Statement prepared by KCTT received 19 March 2024 c. Amended Waste Management Plan prepared by CF Town Planning & Development received 19 July 2024 d. Transport Noise Assessment prepared by Herring Storer Acoustics received 19 March 2024

	8. City of Stirling Design Review Panel (DRP) Report dated 12 October 2023	
	9. Referral Response from Water Corporation received on 23 April 2024	
	10. Applicant's Response to Public Consultation received on 3 July 2024	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	☒ Yes ☐ N/A	Complete Responsible Authority Recommendation section
	☐ No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

That the Metro-Inner DAP resolves to:

Approve DAP Application reference DAP/24/02667 and accompanying plans as listed in Condition 3 in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of the City of Stirling Local Planning Scheme No. 3, for the proposed 12 Multiple Dwellings at Lot 56, House Number 93 Odin Road, Innaloo, subject to the following conditions:

Conditions

1. Pursuant to Clause 26 of the Metropolitan Region Scheme, this approval is deemed to be an approval under Clause 24(1) of the Metropolitan Region Scheme.
2. This decision constitutes planning approval only and is valid for a period of four (4) years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
3. The development is to comply in all respects with the attached approved plans, as dated, marked and stamped, together with any requirements and annotations detailed thereon. The plans approved as part of this application form part of the development approval issued are listed below unless otherwise approved:

DRAWING TITLE	Date	Drawn By
Site Survey	13/08/2024	Germano Designs
Site Plan	13/08/2024	Germano Designs
Landscaping Plan	13/08/2024	Germano Designs
Ground Floor Plan	13/08/2024	Germano Designs
First Floor Plan	13/08/2024	Germano Designs
Second Floor Plan	13/08/2024	Germano Designs
Third Floor Plan	13/08/2024	Germano Designs
External Elevations 01	13/08/2024	Germano Designs

External Elevations 02	13/08/2024	Germano Designs
External Elevations 03	13/08/2024	Germano Designs
External Elevations 04	13/08/2024	Germano Designs
Contextual Plan	13/08/2024	Germano Designs
Section Details	13/08/2024	Germano Designs
Breeze Path Plan	13/08/2024	Germano Designs
Neighbours Streetscape	13/08/2024	Germano Designs
Solar Diagram	13/08/2024	Germano Designs
Solar Diagram	13/08/2024	Germano Designs

Landscaping

4. Prior to occupation of the development, a minimum of nine Medium Trees must be planted on-site and maintained thereafter, to the satisfaction of the City of Stirling. All Medium Trees are to be centrally located within the deep soil area free, of buildings, impervious surfaces and other fixed structure, and be open to the air.
5. Prior to occupation of the development, all landscaped areas are to be planted, reticulated and mulched in accordance with the approved landscaping plan prepared by Germano Design received on 19 July 2024 and thereafter maintained to the satisfaction of the City of Stirling.
6. All existing street trees located on the verge shall be retained and protected in accordance with Australian Standards AS4970:2009, to the satisfaction of the City of Stirling.

Parking and Access

7. Prior to the occupation of the development, all redundant crossovers shall be removed, and the kerbing and road reserve reinstated at the landowner's expense in accordance with the City of Stirling Local Planning Policy 6.7 – Parking and Access, to the satisfaction of the City of Stirling.
8. Prior to the occupation of the development, the crossover shall be designed and constructed in accordance with the City of Stirling Local Planning Policy 6.7 – Parking and Access, to the satisfaction of the City of Stirling. Crossovers are to be installed prior to occupation of the development.
9. Prior to the occupation of the development, pedestrian pathways providing wheelchair accessibility to all entries to buildings to public footpath and car parking areas are to comply with Australian Standards AS/NZS1428.1-2009 (Design for access and mobility – General requirements for access – New building work), to the satisfaction of the City of Stirling.
10. The visitor parking bays shall be permanently marked, maintained and legally accessible at all times for use exclusively by visitors to the property, be clearly visible or suitably sign posted from the street or communal driveway and be located, together with the reversing area, in front of any security gates or barrier for the development unless otherwise approved by the City of Stirling, to the satisfaction of the City.

11. Prior to lodgement of the Building Permit, details of the intended operation of the vehicle gate and visitor intercom system shall be submitted to the City of Stirling.
12. Prior to the occupation of the development, the number and allocation of car parking bays provided on-site is to be as follows:
 - a. 11 Residential Bays;
 - b. One turning Bay; and
 - c. One Visitor Bay.
13. Prior to the occupation of the development, a minimum of seven bicycle parking bays shall be provided on site. The design and construction of the bicycle bays shall be in accordance with Australian Standards AS 2890.3:2015 Parking Facilities Part 3: Bicycle Parking, to the satisfaction of the City of Stirling.
14. Prior to occupation of the development, all signage and markings for visitor car parking bays and bicycle parking bays shall be installed on site and visible from the street, to the satisfaction of the City of Stirling.
15. Prior to occupation of the development, a verge treatment application is required to be submitted and approved by the City of Stirling as annotated on the approved plans.
16. Prior to the occupation of the development, the proposed car parking bay provided within the verge is to be constructed in accordance with the approved verge treatment application to the satisfaction of the City of Stirling and is to be maintained by the landowners for the life of the development.

General

17. A Site Management Plan shall be submitted to and approved by the City of Stirling prior to the commencement of any works. The Site Management Plan shall include specific details on the management of aspects including, but is not limited to, dust, noise, vibration, waste management, storage of materials, traffic, parking and street tree protection areas and site safety/security. The Site Management Plan is to be complied with for the duration of the construction of the development, to the satisfaction of the City of Stirling.
18. The development is to comply with the Waste Management Plan prepared by CF Town Planning & Development received 19 July 2024, unless otherwise approved by the City of Stirling.
19. Stormwater from all roofed and paved areas shall be collected and contained on site. Stormwater must not affect or be allowed to flow onto or into any other property or road reserve.
20. All air-conditioning units, ducts and other services shall be screened from view and are to be located away from the primary street to the satisfaction of the City of Stirling.
21. All external fixtures, building services and utilities of the development are to be integrated into the building, landscape and/or fencing such that they are accessible for servicing requirements but not visually obtrusive areas, to the satisfaction of the City of Stirling.

22. No goods or materials are to be stored, either temporarily or permanently, in the parking or landscape areas or within access driveways. All goods and materials are to be stored within the buildings or storage yards, where provided.
23. External lighting shall be positioned so as not to adversely affect the amenity of the locality in accordance with Australian Standard AS/NZS 4282:2019, to the satisfaction of the City of Stirling.
24. The development is to be connected to the sewer.
25. All multiple dwellings shall be provided with a mechanical dryer prior to the occupation of the development.
26. Prior to the occupation of the development, an Acoustic Assessment Report detailing mechanical plant and equipment is required to demonstrate compliance with the prescribed noise levels, to the satisfaction of the City of Stirling.

Colours and Materials

27. The colours, materials and finishes of the development shall be in accordance with the details and annotations as indicated on the approved plans which forms part of this approval, to the satisfaction of the City of Stirling.

Development Contributions

28. Prior to occupation of the development, a public art proposal for the subject development to the value of 1.0% of the construction value in accordance with City of Stirling Local Planning Policy 6.12 - Public Art on Private Land must be submitted to, and approved by, the City of Stirling.
29. Prior to occupation of the development, the approved public art proposal shall be completed and installed by the developer and maintained thereafter by the owners of the development, in accordance with City of Stirling Local Planning Policy 6.12 - Public Art on Private Land, to the satisfaction of the City of Stirling.

Advice Notes

1. If an Applicant is aggrieved by this determination, there is a right of appeal under Part 14 of the Planning and Development Act 2005. An appeal must be lodged within 28 days of the determination with the State Administrative Tribunal.
2. This is a Development Approval under the City of Stirling Local Planning Scheme No.3 and related policies. It is not a Building Permit or an approval to commence or carry out development under any other law. It is the responsibility of the Applicant to obtain any other necessary approvals, consents and licences required under any other law, and to commence and carry out development in accordance with all relevant laws.
3. This approval is not an authority to ignore any constraint to development of the land, which may exist through statute, regulation, contract or on title, such as an easement or restrictive covenant. It is the responsibility of the Applicant to investigate any such constraints before commencing development. This approval will not necessarily have regard to any such constraint to development, regardless of whether or not it has been drawn to the decision makers attention.

4. The Applicant is responsible for ensuring that all lot boundaries as shown on the approved plans are correct.
5. Noisy Construction Work outside the period 7.00am to 7.00pm Monday to Saturday and at any time on Sundays and Public Holidays is not permitted unless a Noise Management Plan for the construction site has been approved in writing by the City of Stirling.
6. In reference to Medium Trees, a Medium Tree is defined in Stirling City Centre Innaloo Precinct Detailed Area Plan as: a tree which requires planting in at least a 45-litre container or greater size.
7. The proposed crossover configuration is subject to the approval of the City's Verge Control Business Team. A "Crossover Installation Application" is required to be submitted and approved prior to the commencement of the crossover installation.
8. Any outside lighting should meet Australia Standards AS 4282-2019 for the control of obstructive effects of outdoor lighting and must not spill into any neighbouring residential premises. Prior to the issue of the Building Permit a report is to be prepared by a suitably qualified consultant and submitted to the City of Stirling. It should demonstrate that all lighting associated with the development shall comply with AS 4282-2019.
9. All noise generated by plant and equipment including air conditioners shall comply with the Environmental (Noise) Regulations 1997.
10. In relation to the Public Art condition requirement, please refer to the City of Stirling Developer's Guide to Public Art, the City of Stirling Public Art Masterplan and City of Stirling Local Planning Policy 6.12 - Public Art on Private Land.

Based upon the estimated cost of development identified on the development application forms, the 1.0% public art contribution will equate to \$35,000.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme (MRS)
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	City of Stirling Local Planning Scheme No.3 (LPS3)
Local Planning Scheme - Zone/Reserve	Development Zone
Structure Plan/Local Development Plan	Draft Stirling City Centre Structure Plan Stirling City Innaloo Precinct Detailed Area Plan – Sub Precinct Area 2
Structure Plan/Local Development Plan - Use Designation	Suburban Residential
Use Class and permissibility:	Multiple Dwelling – 'P' use

	'P' means that the use is permitted by the Scheme providing the use complies with the relevant development standards and the requirements of the Scheme.
Lot Size:	749m ²
Existing Land Use:	Vacant
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☐ N/A ☒ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	No
Swan River Trust Area	No

Proposal:

The key components of the proposed development are summarised as follows:

- A four storey development comprising 12 Multiple Dwellings with five one-bedroom dwellings, five two-bedroom dwellings and two three-bedroom dwellings.
- A total of 13 car parking bays at ground level with 11 residential bays and two visitor bays, one on-site and one within the verge which fronts the site.
- A communal open space area located on Level 3 of the development with other landscaped areas provided on the ground level.
- Landscaping including the provision of nine Medium Trees providing deep soil planting across 83.5m² (11%) of the site area.

Proposed Land Use	Multiple Dwelling
Proposed No. Storeys	Four storeys
Proposed No. Dwellings	12 Multiple Dwellings

Background

The subject site is 749m² in area and has a 24.14 metre frontage to Odin Road. The site is currently vacant, it was previously occupied by a single dwelling.

The site directly abuts Odin Road, identified as 'District Distributor B' by the City's Functional Road Hierarchy. The area has a residential character, with mainly single and two storey dwellings. There are multiple dwelling developments in excess of three storeys in building height nearby, which reflects the changing planning context of the area. The Stirling Train Station is located approximately 700m away to the east, whilst Westfield Innaloo, a strategic activity centre, is located 900m to the south.

The proposed development was reviewed by the City's Design Review Panel (DRP) on two occasions. The DRP report prepared in relation to the design of the proposed development is contained in Attachment 8.

Legislation and Policy:

The following legislation is applicable to the proposed development:

Legislation

- *Planning and Development Act 2005*
- *Planning and Development (Development Assessment Panels) Regulations 2011*
- *Planning and Development (Local Planning Schemes) Regulations 2015*
- *Metropolitan Region Scheme (MRS)*
- *City of Stirling Local Planning Scheme No. 3 (LPS3)*

State Planning Policies

- State Planning Policy 5.4 – Road and Rail Noise (SPP5.4)
- State Planning Policy 7.0 – Design of the Built Environment (SPP7.0)
- State Planning Policy 7.3 – Residential Design Codes Volume 2 – Apartments (SPP7.3)

Structure Plans and Activity Centre Plans

- Draft Stirling City Centre Structure Plan

The subject lot is zoned 'Development' under LPS3. This zone intends to provide for coordinated development by applying a comprehensive structure plan to guide subdivision and development. Clause 6.11.4 requires that:

For the purpose of promoting the highest standard of development within the Stirling City Centre Special Control Area, the Council shall adopt an appropriate Structure Plan for the Stirling City Centre Special Control Area in accordance with Part 6A of the Scheme,

The draft Stirling City Centre Structure Plan (the draft Structure Plan) was adopted by Council on 9 December 2014. The Structure Plan was submitted to the WAPC for endorsement; however this has not occurred and therefore remains in draft form.

Local Development Plans

- Stirling City Centre Innaloo Precinct Local Development Plan (LDP) formerly referred to as Detailed Area Plan

Local Planning Policies

- Local Planning Policy 5.8 - Stirling City Centre Parking (LPP5.8)
- Local Planning Policy 6.6 - Landscaping (LPP6.6)
- Local Planning Policy 6.7 - Parking and Access (LPP6.7)
- Local Planning Policy 6.11 - Trees and Development (LPP6.11)
- Local Planning Policy 6.12 - Public Art on Private Land (LPP6.12)
- Local Planning Policy 6.18 - Public Consultation (LPP6.18)

The site is zoned 'Urban' under the MRS (Attachment 3) and is zoned 'Development' under the LPS3 (Attachment 4).

Under the provisions of the LPS3, the Innaloo Precinct, which the subject site is located, is one of several precincts within the City that is defined as a Special Control Area (refer to LPS3 Part 6.11). Further, the draft Structure Plan provides additional commentary regarding the City's aspirations for development within the precinct (refer Part 5.4 Innaloo Precinct of the Draft Structure Plan), with the Innaloo LDP providing more detailed recommendations regarding development within the Innaloo Precinct.

The Stirling City Centre Special Control Area outlines the intended characteristics for the Innaloo Precinct as;

- a) Predominantly residential development of a medium to high density that takes advantage of the excellent amenity offered by the existing La Grange Dongara Reserve.*
- b) Excellent accessibility to the city core, retail and associated activities via high quality, pedestrian friendly streets designed to discourage through traffic.*

The Innaloo LDP character statement for Sub Precinct Area 2 is as follows:

Residential buildings (3 – 5 storeys) in a landscaped setting with setbacks to all boundaries to create space for tree planting between buildings.

Consultation:

Public Consultation

The proposed development was advertised in accordance with the 'Complex Application' requirements of LPP 6.18 and Clause 64(3) and (6)(a) of *the Planning and Development (Local Planning Schemes) Regulations 2015*. Owners and occupiers within a 200m radius of the subject site were notified of the proposal. Letters were posted to landowners and occupiers, a notice was placed on the City of Stirling's website, an advertising sign was placed at the street frontage and relevant Ward Councillors were notified.

The consultation period commenced on 13 May 2024 and concluded on 18 June 2024. During the consultation period 61 submissions were received, comprising 57 objections, three submissions of support and one 'Other' submission. The submissions received during the consultation period and their relative locations are tabled below.

Submissions Received	Within 200m Radius	Greater than 200m Radius	Number of Submissions
SUPPORT	0%	3 (5%)	3 (5%)
OBJECT	28 (46%)	29 (47%)	57 (93%)
OTHER (Comment)	1 (2%)	0%	1 (2%)

All matters raised in the submissions received during the advertising period have been summarised in the table below. Also provided is the number of submissions in which a particular matter was raised, and the City's response to the matter.

Number of Submissions to Raise Matter	Summary of Matters Raised	Officer Response
37	The additional traffic and congestion created by the development will be dangerous.	The Applicant submitted a Transport Impact Statement (TIS) in support of the proposal (Attachment 7b). The Applicant's TIS concludes that the traffic generated by the proposed development is relatively minor and does not have an adverse impact on the local road network. The City has reviewed and supports the TIS.
30	Concerns relating to overlooking and privacy implications from the proposed development.	The proposed development has been designed to minimise overlooking of adjacent properties, using setbacks, screening devices and by setting in the viewing position from the perimeter of the building which restricts the cone of vision looking downwards into sensitive areas of adjoining properties. Visual privacy is discussed later in this report.
24	The proposed parking is inadequate and will exacerbate existing on-street parking issues in the area.	Following advertising amended plans were provided detailing a revised parking configuration which is supported. The application proposes 11 resident bays, one visitor bay onsite and an additional one visitor bay within the verge. The application proposes a shortfall of one visitor car parking bay. Further commentary is provided later in this report.
23	Concerns relating to the proposed number of car parking bays provided by the development.	Following advertising amended plans were provided detailing a revised parking configuration which is supported. The application proposes 11 resident bays, one visitor bay

Number of Submissions to Raise Matter	Summary of Matters Raised	Officer Response
		onsite and an additional one visitor bay within the verge. The proposed car parking is discussed in this report.
22	The proposed housing density is inconsistent with the low density area.	The proposed development density is consistent with the prevailing planning policy framework.
20	The proposed building height is out of place and inconsistent with the character of the area.	Following advertising amended plans were provided reducing each storey height by approximately 0.25m, and the overall building height by 1.03m from 14.74m to 13.71m. As per the building height provisions of the LDP, buildings within Sub Precinct Area 2 are permitted heights between three to five storeys, with a height of four storeys proposed on the subject site. Building height is discussed in this report.
16	Concerns that the density of the development will encourage anti-social behaviour.	This is not a valid planning consideration.
12	Concerns the proposed development will adversely affect their property value.	Property value is not a valid planning consideration.
11	Approval of this development may set a precedence.	The development as proposed is aligned with the prevailing planning policy framework.
9	The population of Innaloo is already excessive.	The proposed development will provide 12 residential units on a lot that was previously developed for a single dwelling. This intensification is aligned with the prevailing planning policy framework.
9	Concerns relating to overshadowing to the adjoining properties from the proposed development.	Overshadowing is discussed further in this report. However, the City's assessment concludes the resultant overshadowing does not have an adverse effect to adjoining properties or the public realm.

Number of Submissions to Raise Matter	Summary of Matters Raised	Officer Response
8	Concerns relating to noise pollution from multiple dwellings.	The development is required to comply with the requirements of the <i>Environmental Protection (Noise) Regulations 1997</i> .
8	The proposal represents an overdevelopment of the site resulting in more people and more cars.	There is no prescribed maximum density applicable to the subject site. The City's assessment concludes the development generally satisfies the relevant primary building controls and is consistent with the built form envisaged for the area. The Applicant submitted a TIS in support of the proposal. The TIS concludes the development will increase vehicle trips by a maximum of 71 vehicular trips per day with a maximum of nine vehicular trips during peak hour. The Applicant's TIS has been reviewed by the City and the traffic generated by the proposed development is relatively minor and does not have an adverse impact on the local road network.
8	Concerns relating to general safety of the surrounding road network.	The Applicant's TIS has been reviewed by the City and the traffic generated by the proposed development is relatively minor and does not have an adverse impact on the local road network.
4	The development will result in a loss of vegetation.	The site is currently vacant and does not include any vegetation on-site. The proposal retains the existing street trees and proposes to provide landscaping including the planting of nine Medium Trees.
3	The development will contribute to urban heat island.	The development requires 10% deep soil area which equates to 74.9m ² . The proposal includes 83.5m ² (11%) deep soil area,

Number of Submissions to Raise Matter	Summary of Matters Raised	Officer Response
		the retention of two street trees and the planting of an additional nine Medium Trees on site with well situated landscaping areas.
3	Concerns that construction will cause damage to nearby properties. A dilapidation survey should be undertaken at the developers cost.	Dilapidation surveys are not a requirement of the (<i>Building Act 2011</i>). Therefore, the City cannot require that the builder provide these for the surrounding properties. Should the Building Permit application indicate that there is an adverse effect or encroachment, then the City will request BA20's to be provided in accordance with the (<i>Building Act 2011</i>).
2	Objections to the building bulk being non-compliant.	An assessment against the relevant planning framework including building bulk is discussed further in this report.
2	Development will contribute to supply within a housing crisis.	Noted.
1	Surrounding infrastructure such as Scarborough and shopping centres are over used and full.	Comment noted. The application site is well located on previously developed land close to good road and transport links, activity centres and aligns with the framework in relation to the future intensity.
1	Dissatisfaction with the City of Stirling	This is not a valid consideration for this Development Application.
1	This development will result in better amenities in Innaloo.	Noted.

The City forwarded all submissions received during public consultation to the Applicant for a response. The Applicant's response to submissions is contained within Attachment 10.

Consultation with Government/Service Agencies and Internal Referrals

The application has been referred to the relevant Government/Service Agencies (Water Corporation) and internally within the City with no objection in principle. Any comments or recommendations of relevance have been incorporated into the recommended conditions of approval. The referral response from the Water Corporation is contained in Attachment 9.

Planning Assessment:

The following matters have been identified as the relevant key considerations:

1. Proposed Land Use
2. Primary Building Controls
3. Stirling City Centre Innaloo Precinct Detailed Area Plan
 - 3.1 – Building Height
 - 3.2 – Lot Boundary Setbacks
4. Parking and Traffic
5. Local Planning Policy 6.12 Public Art on Private Land
6. City of Stirling Design Review Panel

Attachment 6 – City of Stirling Planning Assessment includes an assessment of the proposal against the relevant planning framework including where discretion is sought.

1. Proposed Land Use

The table below summarises the zoning permissibility of the proposed land uses as set out in Table 6.11.9 Stirling City Centre Land Use Permissibility Table of LPS3:

USE		LPS 3 ZONING PERMISSIBILITY
Multiple Dwelling	P	'P' means that the use is permitted by the Scheme providing the use complies with the relevant development standards and the requirements of the Scheme.

The subject site is zoned Development in LPS3, with a zoning of 'Suburban Residential' for all floors as per Table 6.11.10 (b) of LPS3 and the LDP.

Table 6.11.10 (b) – Innaloo Precinct:								
	INNALOO PRECINCT							
	Sub-Precincts (as per Local Development Plan)							
Land Use Category	Building Storey	1	2	3	4	5	6	7
MIXED USE	Ground	NS	NS	S	NS	NS	NS	NS
	Upper	NS	NS	NS	S	S	NS	NS
BUSINESS	Ground	NS	NS	NS	S	S	S	S
	Upper	NS	NS	NS	S	NS	NS	NS
RESTRICTED BUSINESS	Ground	NS	NS	NS	NS	NS	NS	NS
	Upper	NS	NS	NS	NS	NS	NS	NS
CITY RESIDENTIAL	Ground	NS	NS	S	NS	NS	NS	NS
	Upper	NS	NS	S	S	S	NS	NS
SUBURBAN RESIDENTIAL	Ground	S	S	NS	NS	NS	NS	NS
	Upper	S	S	NS	NS	NS	S	S
CIVIC	Ground	NS	NS	NS	NS	NS	NS	NS
	Upper	NS	NS	NS	NS	NS	NS	NS

Note: Refer to the Innaloo Precinct Local Development Plan for the location of permitted land use categories

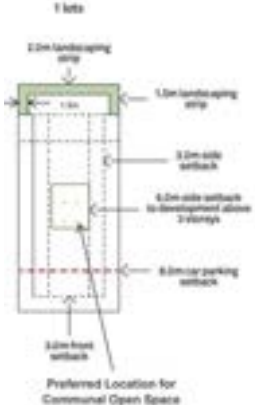
Figure 1: Annotated Precinct Land Use Table showing zoning of site

Multiple Dwelling is listed as a 'P' use in accordance with Table 6.11.9 Stirling City Centre Land Use Permissibility Table of LPS3, which means the use is permitted by the Scheme providing it complies with the relevant development standards and the requirements of the scheme.

The City's assessment concludes the proposed development satisfies all relevant provisions of the City's planning framework and is supported.

2. Primary Building Controls

The following table identifies the key elements of the planning framework applicable to the development:

Element	Provision	Proposed
Building Height	- Maximum of 4 Storeys. - Maximum wall height of 12.0m. - Maximum roof height of 15.0m (ridge roof style)	4 Storeys. - Maximum wall height of 13.1m – Discretion Sought. - Maximum roof height of 13.7m.
Street Setbacks	3.0m front setback.	Minimum front setback of 3.0m.
Side and Rear Setbacks	6.0m rear setback. - A 33-degree rear setback building envelope applies above the 2nd storey (refer to LDP Figure 13B). 4.0m to a habitable window or balcony above ground level. - Side and Rear setbacks as per Sub Precinct Areas (in section 3).  Figure 2: Innaloo Sub Precinct Area 2 typical site plans	<u>Rear</u> 6.0m setback to the rear lot boundary. - Levels 2 and 3: the building projects outside the 33-degree building envelope – Discretion Sought. <u>South</u> - Proposed setback on Ground Floor to Level 2 of 2.5m to 3.6m – Discretion Sought. - Proposed building setback on Level 3 of 2.5m to 6.0m – Discretion Sought. <u>North</u> - Proposed setback on Ground Floor to Level 2 of 2.5m to 4.0m – Discretion Sought. - Proposed setback on Level 3 of 4.0m to 6.0m – Discretion Sought.
Car Parking	11 resident bays and three visitor bays.	11 resident bays with one visitor bay on-site and one within the verge – Discretion Sought.
Landscaping	A minimum of 74.9 m² (10%) of the site is required to be landscaped with a requirement of six Medium Trees.	A deep soil area of 83.5m² (11%) of the site area is proposed with nine Medium Trees to be planted.

The City's assessment of the development against the relevant planning framework, where discretion is sought, is contained below and included in Attachment 6 which concludes that the development satisfies all relevant objectives.

3. Stirling City Centre Innaloo Precinct Local Development Plan (LDP)

The LDP is applicable to all subdivision and development applications within the Innaloo Precinct area. The proposed development has been assessed against the provisions of the LDP and is contained in Attachment 6, with discretion sought against the following provisions.

- 2.1.3.1. Wall Height;
- 2.1.4.2. Side / Rear Setbacks;
- 2.1.5.1. Open Rooftop Terraces;
- 2.1.5.2. Outdoor Living Areas;
- 2.1.5.3. Communal Open Space;
- 2.1.7.1. Facades and Walls;
- 2.2.3.4 Landscaping; and
- 2.2.4.1 Onsite Car Parking Provision.

The key matters relating to height and setbacks are considered below with an assessment provided against the applicable objectives and overall objectives of the LDP below. All other deviations from the provisions of the LDP have been considered against the specific objectives and are supported as per Attachment 6.

3.1. Building Height

The development proposes a maximum wall height of 13.1m in lieu of 12m. An assessment has been undertaken against the Objective of Clause 2.1.3.1 Wall Height of the LDP which is as follows:

To limit the impact of overshadowing on adjoining neighbours and to ensure a low to mid rise scale of buildings.

The LDP building height provisions for Sub Precinct Area 2 allows buildings to be three to five storeys in height. Specifically, the LDP permits four storeys for the development site with a wall height of 12m and a roof height of 15m. Whilst the development proposes a wall height of 13.1m in lieu of 12.0m, the development has been designed to satisfy the permitted roof height of 15m with a height of 13.7m proposed. Figure 3 includes a visual representation of the proposed development with respect to the permitted wall and roof heights of the LDP.



Figure 3: Extract from Architectural Plans with City's mark ups showing proposed building in relation to permitted wall and roof height (shown in red)

As demonstrated in Figure 3, the building height controls of the LDP refer to a traditional pitched roof design and does not consider specific building heights applicable to a concealed roof design or other alternative roof forms. In relation to overshadowing, the LDP does not impose a permitted percentage of overshadowing, instead the acceptable level of overshadowing is informed by the primary built form controls. In support of the proposal, the Applicant has submitted overshadowing diagrams which provide a comparison of the overshadowing generated by the proposed development against a permitted building envelope to consider the impact of the development to adjoining properties. The overshadowing diagram in Figure 5 demonstrates the proposed overshadowing at 12:00pm on 21 June (i.e. Winter Solstice).

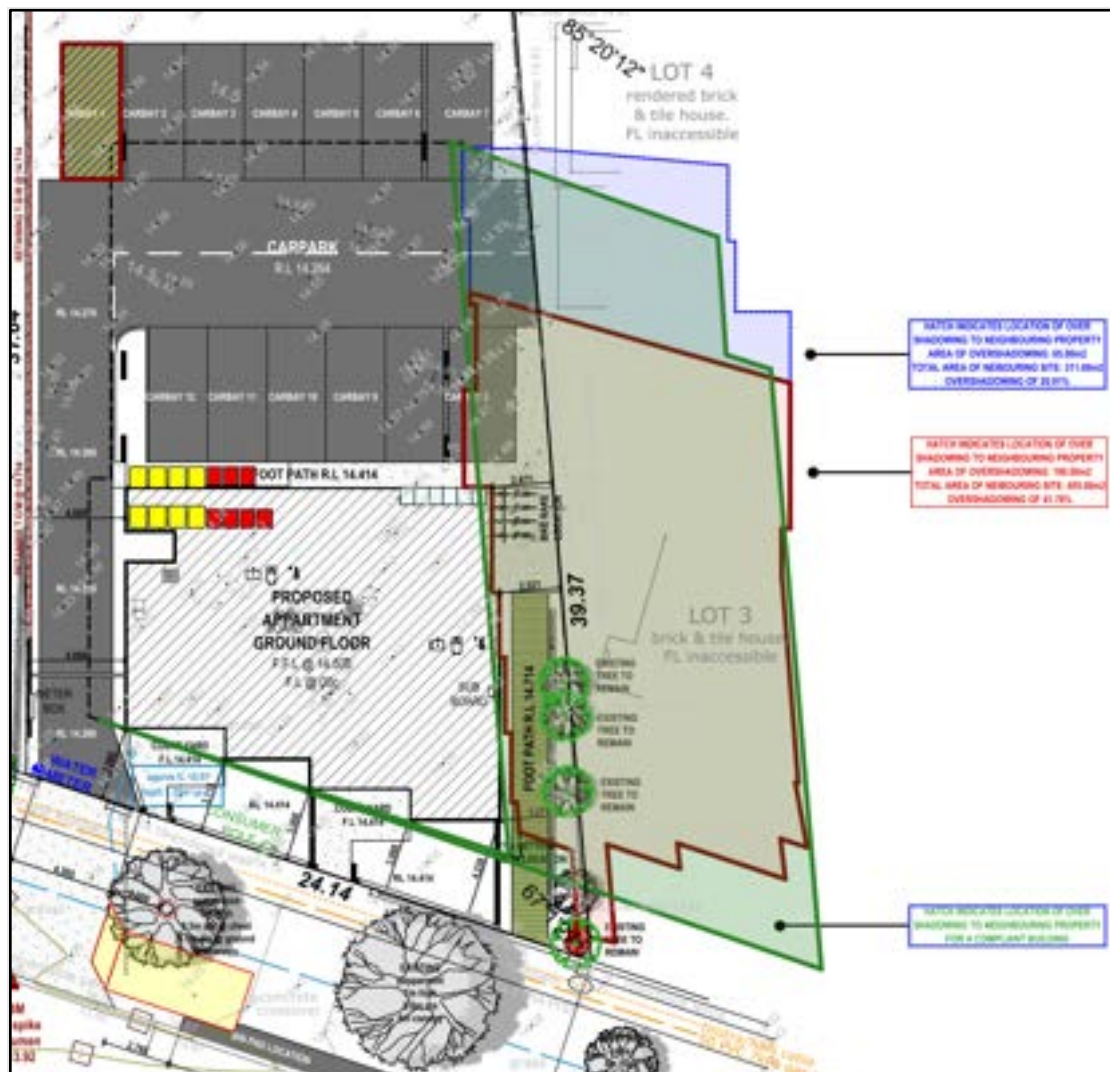


Figure 4: Applicant's submitted overshadowing diagram showing overshadowing during Winter Solstice. With green demonstrating overshadowing for a permitted building, red demonstrating overshadowing to Lot 3 and Blue demonstrating overshadowing to Lot 4.

The below table provides an analysis of the overshadowing of the proposed development against a compliant building envelope in relation to the affected properties at Lots 3 and 4, House Numbers 2 and 2A Sykes Avenue, Innaloo at 12 noon during the Winter Solstice.

Property	Permitted Building Envelope Shadow	Proposed Development Overshadow	Variation
Lot 3 (House Number 2) Sykes Avenue	223m ² (49%)	190m ² (41.7%)	-33m ² (-7.3%)
Lot 4 (House Number 2A) Sykes Avenue	43.2m ² (14%)	65m ² (20.9%)	+21.8m ² (+6.9%)
Overall Overshadowing	266.2m ²	255m ²	-11.2m ²

Overall the proposed development results in reduced overshadowing to the affected properties at Lots 3 and 4, House Number 2 and 2A Sykes Avenue compared to a permitted building envelope. The assessment above demonstrates the resultant overshadowing is comparable to that of a permitted building. It is noted that the proposed development does result in additional overshadowing of 21.8m² to Lot 4, House Number 2A Sykes Avenue compared to a permitted building. An analysis of the impact of the additional overshadowing is provided in Figure 5 which demonstrates the shadow cast by the development at hourly intervals between 9am to 3pm on 21 June (i.e. Winter Solstice).

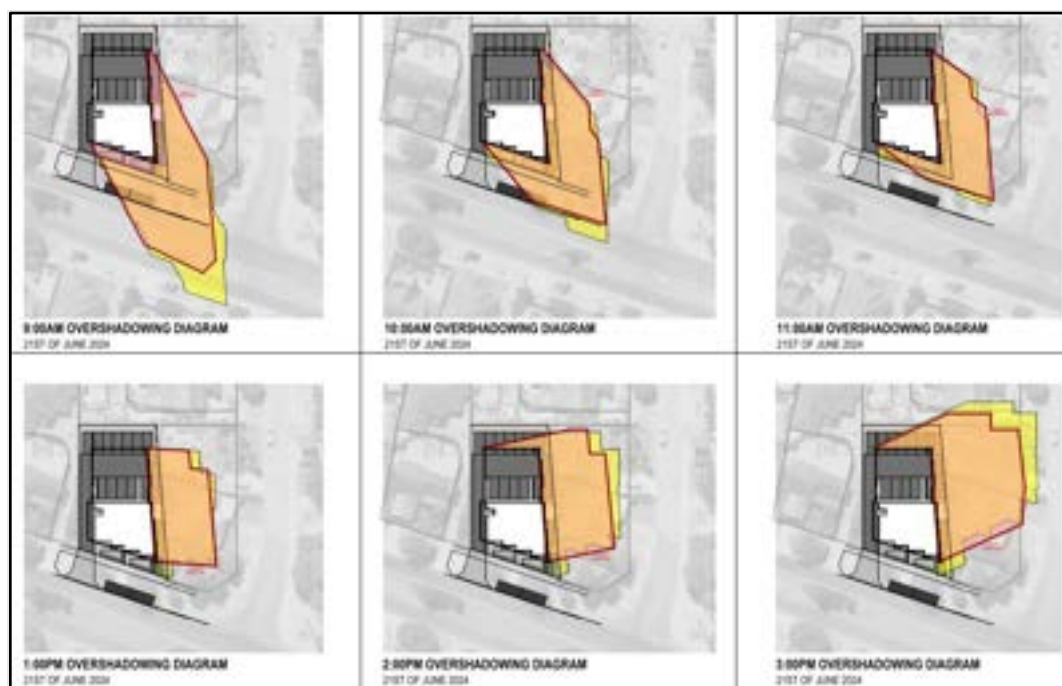


Figure 5: Applicant's submitted overshadowing diagram showing overshadowing during Winter Solstice with hourly intervals. With red demonstrating overshadowing for a permitted building, and yellow demonstrating overshadowing from the proposed development.

The proposed development does result in overshadowing to outdoor living areas, major openings to habitable rooms and solar panels of the adjoining properties. However, Figure 5 demonstrates the resultant overshadowing in terms of the extent and duration of overshadowing is consistent with the permitted built form outcomes of the LDP. In relation to Lot 4, House Number 2A Sykes Avenue, whilst the proposed development does result in an additional 21.8m² (+6.9%) of overshadowing compared to a permitted building envelope, this equates to 65m² (20.9%) of the site in lieu of

43.2m² (14%). The site is located within the Innaloo Sub-Precinct Area 2 which envisages buildings between three to five storeys in height. As such, the proposed development does not have any adverse impact to adjoining properties in relation to overshadowing within the context of the built form and the future context for low to mid rise scale of buildings.

3.2. Lot Boundary Setbacks

The development proposes side and rear setback variations to Clause 2.1.4.2. Side and Rear Setbacks of the LDP. An assessment has been undertaken against the following objective:

To provide sufficient space for trees and landscaped areas and protect amenity of neighbouring properties by minimising visual intrusion and overshadowing.

Southern Boundary

The development proposes the following setbacks to the southern lot boundary:

- Ground Floor – Second Floor setback between 2.46 to 3.6m in lieu of 3.0m.
- Third Floor setback between 2.5m to 6.01m in lieu of 6.0m.

As previously discussed, the design of the proposed development is consistent with the overshadowing to the southern adjoining properties in contrast to a permitted building envelope. Whilst the proposed development does include setback variations to the southern lot boundary, these are generally minor in nature and relate to the irregular lot shape of the subject site. With respect to the Third Floor, the proposed development does include a portion of building setback at 2.5m, however this relates to the stairwell with the remainder of the building setback between 4.2m to 6m as demonstrated in Figure 6.



Figure 6: Extract from the Architectural third floor plan detailing extent of reduced setback to the southern lot boundary

The development incorporates minor projections and a variety of colours, materials and openings to provide interest to the built form. The development is of high quality and does not result in adverse impacts in terms of building bulk.

The openings facing the southern boundary of the development are minor openings (i.e. obscure windows to habitable rooms or non-habitable rooms) or setback a minimum 4m from the lot boundary in accordance with the LDP provisions ensuring adverse visual privacy implications are avoided.

The development provides sufficient space for trees and landscaping on-site consistent with the LDP. The proposed landscaping plan identifies the pedestrian access along the southern lot boundary which will incorporate a variety of landscaping opportunities including small trees and low vegetation to be planted.

On the basis of the above, the development addresses the specific objectives of the LDP and is supported by the City on that basis.

Northern Boundary

The development proposes the following setbacks to the northern lot boundary:

- Ground Floor – Second Floor setback between 2.46 to 4m in lieu of 3.0m
- Level 3 setback between 4.0m to 6.0m in lieu of 6.0m

The reduced setbacks to the northern lot boundary assist in minimising the resultant overshadowing to the adjoining southern properties. The variations are generally minor and relate to minor projections of the building which provides visual interest to the building façade as demonstrated in Figure 6. Additionally, the subject site abuts the driveway of the adjoining northern property which provides for greater separation between buildings.

All major openings to habitable rooms and balconies are setback 4m as per the LDP and therefore the development does not result in any adverse overlooking to the northern properties.

The proposed development will include low vegetation and a number of small and medium trees planted along the northern boundary at ground level. A deep soil area of 83.5m² (11%) of the site area is proposed.

Based on the above, the development addresses the specific objectives of the LDP and is supported by the City.

Rear Setback

The development proposes the following setbacks to the rear boundary (eastern lot boundary):

- Levels 2 and 3 the building projects outside the 33-degree building envelope permitted under the LDP.



Figure 7: Extract from Architectural Plans with City's mark ups detailing the extent of building projection outside the 33-degree building envelope permitted under the LDP

The reduced setbacks to the rear boundary are generally minor in nature and allow for the development to have useable spaces including communal open space located on Level 3. The development utilises articulation and stepping back of levels including building on the Level 3 setback 11.5m from the rear boundary to reduce the building bulk. As previously discussed, the design of the proposed development minimises overshadowing to the southern adjoining properties in contrast to a permitted building envelope.

All major openings to habitable rooms are setback the minimum 4m as per the LDP and therefore the development does not result in any adverse overlooking to the rear properties.

The proposed development incorporates a 2m landscaping strip to the rear boundary, the landscaping strip includes the required five Medium trees at ground level to reduce the building bulk and an additional two Medium trees and associated landscaping planted within the communal space located on Level 3.

Based on the above, the development addresses the specific objectives of the LDP and is supported.

4. Parking and Access

The proposed development has been assessed against Clause 2.2.4 Access and Parking Provisions of the LDP, Local Planning Policy 5.8 – Stirling City Centre Parking and Element 3.9 – Car and Bicycle Parking of SPP 7.3.

Parking

The table below provides a summary of the City's car parking assessment against Table 3.a of SPP 7.3, noting that SPP 7.3 is a wholly performance based document.

SPP7.3 – Car Parking			
Parking Type	Acceptable Outcomes Rate	Proposed Dwellings	Bays Required / Permitted
1 Bedroom Dwellings	Minimum 0.75 bays per dwelling	5	Minimum 4 resident bays ^{Note 1}
2+ Bedroom Dwellings	Minimum 1 bay per dwelling	7	Minimum 7 resident bays
Visitors	Minimum 1 bay per four dwellings up to 12 dwellings and one 1 bay per eight dwellings for the 13 th dwelling and above	12	Minimum 3 visitor bays ^{Note 1}
Acceptable Outcomes Total Required (Minimum):			11 resident bays and 3 visitor bays

SPP7.3 – Car Parking			
Parking Type	Acceptable Outcomes Rate	Proposed Dwellings	Bays Required / Permitted
Total Provided:			11 resident bays with one visitor bay on-site and one visitor bay in the verge
Acceptable Outcomes Total Required Surplus / Shortfall:			1 visitor bay shortfall
Note: 1: The number of car bays is rounded up to the nearest whole number as per Note 1 of Table 3.9, of SPP 7.3			

The LDP promotes off-site car parking bays, however due to the existing street trees located in the verge and given the functional road hierarchy in this instance, the ability to provide two off-site car parking bays could not be accommodated. The development proposes to facilitate one visitor car parking bay within the verge through the use a verge treatment application, the City has recommended a condition regarding the construction of the one visitor bay prior to occupation of the development.

The development proposes 12 multiple dwellings with 11 resident car bays on-site complying with the required 11 resident car bay set out within the Acceptable Outcomes Element 3.9 – Car and Bicycle Parking of SPP 7.3.

The development is to satisfy the following Element Objectives of Element 3.9 – Car and Bicycle Parking of SPP 7.3 with consideration provided below in relation to the shortfall of one visitor bays.

- 3.9.1 - Parking and facilities are provided for cyclists and other modes of transport.
- 3.9.2 - Car parking provision is appropriate to the location, with reduced provision possible in areas that are highly walkable and/or have good public transport or cycle networks and/or are close to employment centres.
- 3.9.3 - Car parking is designed to be safe and accessible.
- 3.9.4 - The design and location of car parking minimises negative visual and environmental impacts on amenity and the streetscape.

The proposal is considered to satisfy the Element Objectives of 3.9 – Car and Bicycle Parking of SPP 7.3 for the following reasons:

- The 'Location A' Acceptable Outcomes parking ratios are appropriate for this development due to the site's proximity to high frequency rail and bus services and being located within an 800m walkable catchment of Stirling Train Station. The provision of parking is appropriate for this site which is within an activity centre and in proximity to high frequency public transport.
- The subject site is located within a 75m walk of a bus stop on a high frequency public transport on Odin Road. There are bicycle racks provided onsite, providing another form of alternative transport for residents and visitors.
- The development provides car parking for residents and visitors with the submitted TIS demonstrating the proposed parking is sufficient to accommodate the peak traffic movements and is appropriate for the

development. The submitted TIS has been reviewed and is supported by the City.

- The development site is in close proximity to public transport. The proposed verge parking bay is appropriate in this instance and allows for the retention of two existing established street trees to be retained.
- There is verge parking available on Sykes Avenue and Geneff Street in the event all visitor car parking is occupied. The design of the bin hardstand area and verge parking bay have been reviewed to ensure there is no conflict on collection day.

On the basis of the above, the development addresses the Element Objectives of Element 3.9 – Car and Bicycle Parking of SPP 7.3 and is supported by the City on that basis.

Traffic Volumes

In support of the proposed development, the Applicant submitted a TIS prepared by KCTT. The Applicant's TIS predicts the development will generate approximately 71 vehicle trips per day including nine trips during the morning peak hour and nine during the afternoon peak hour. The road network has the capacity to accommodate the additional traffic generated by this development.

5. Local Planning Policy 6.12 Public Art on Private Land (LPP 6.12)

LPP 6.12 guides the provision of Public Art as a means of complementing the impacts of urban intensification by improving the appearance and amenity of places.

LPP 6.12 applies to all development with a cost of \$2 million and above with a minimum 1% contribution cost of development provided as public art. The cost of the development is \$3.5 million which will result in a requirement of \$35,000 public art contribution.

The applicant has accounted for the requirements of Public Art via the inclusion of a Public Art work to the inward facing eastern boundary wall. The detail of this work will be provided post approval, hence a condition of planning approval is recommended by the City.

6. City of Stirling Design Review Panel (DRP)

The role of the City's DRP is to provide design advice and is supplementary to City's planning assessment. The proposed development was reviewed by the City's DRP on two occasions, being 22 June 2023 and on 12 October 2023. The DRP Reports are contained in Attachment 8.

The amended plans received on 19 July 2024 address the majority of the items raised by the DRP, in response to the relevant planning framework. As such, further consideration of the proposed development by the DRP was not required.

Conclusion:

The proposed development is consistent with the planning framework and the desired character of the area, which envisages residential buildings between three to five storeys in height.

The application seeks approval for a four storey Multiple Dwelling development comprising 12 Multiple Dwellings consisting of five one-bedroom dwellings, five two bedroom dwellings and two three bedroom dwellings. The development is designed, landscaped and sited to ensure any undue adverse amenity impacts are minimised with consideration of existing and future residential amenity.

The proposed development provides for high quality landscaping on-site which is co-located with the communal open space for residents on Level 3. The proposed development includes the provision of nine Medium Trees and the retention of two existing street trees. The proposed development provides for sufficient resident and visitor car parking in response to the site's location.

Accordingly, the application is recommended for approval subject to conditions and advice notes of planning approval as outlined.

NUCHANGE

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Apartment Complex

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REF	DRAWING TITLE
WD001	Cover Sheet
WD002	3D Perspectives
WD003	3D Perspectives
WD004	Site Survey
WD005	Site Plan
WD006	Landscaping Plan
WD007	Ground Floor Plan
WD008	First Floor Plan
WD009	Second Floor Plan
WD010	Third Floor Plan
WD011	External Elevations 01
WD012	External Elevations 02
WD013	External Elevations 03
WD014	External Elevations 04
WD015	Contextual Plan
WD016	3D Perspectives
WD017	3D Perspective
WD018	3D Perspective
WD019	Section Details
WD020	Breeze Path Plan
WD021	Neighbours Streetscape
WD022	Solar Diagram
WD023	Solar Diagram

Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: Cover Sheet	THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT		Version	Discription	Date						
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				2.00	Issued for DA application	15.02.24						
				2.01	Amended DA Plans	13.08.24						
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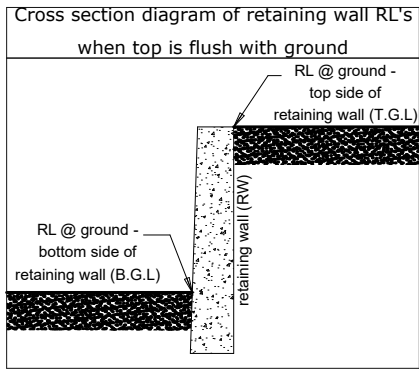


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Photo taken at (A) facing South East

Photo taken at (B) facing South East

Photo taken at (C) facing North East



LEGEND	
	TBM - RL 13.92m AHD
	Top Of Bank
	Edge of Patio/Structure
	Gutter Line
	Underground Power Cable
	Gas Main
	Sewer Main
	Underground Telstra/NBN
	Cable
	Water Meter
	Sewer Connection
	Power Dome
	Power Pole
	Telstra Pit
	Tree

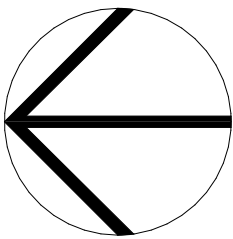
TBM deck spike in bitumen equals RL 13.92 AHD
Based on SSM - SCA15
RL 17.752 AHD
(Landgate Geodetic Section)
Contractor to check datum
before adopting levels

Survey Date: 23 March 2023			Scale 1:200@A3	
Client: Aaron Doyle				
Rev	Date	Description	Surv	Drawn
0	28/03/2023	Feature Survey Drafted	TF	TF

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FEATURE AND CONTOUR SURVEY
OF LOT 56 ON PLAN 7290
93 Odin Road, Innaloo
C/T Vol: 1227 Fol: 983
our ref. 23-9977

Feature Survey by
THE LAND DIVISION
PLANNING | SURVEYING | DESIGN
PO Box 2444,
Malaga, WA 6090
phone: 08 9209 3232
www.landdivision.com.au



SITE SURVEY

SCALE 1:200

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NUCHANGE
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Apartment Complex
Project Address
#93 Odin Road, Innaloo

Drawing Title:
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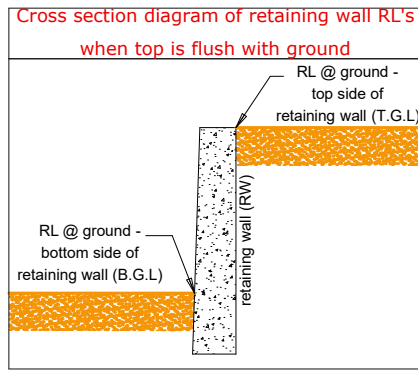
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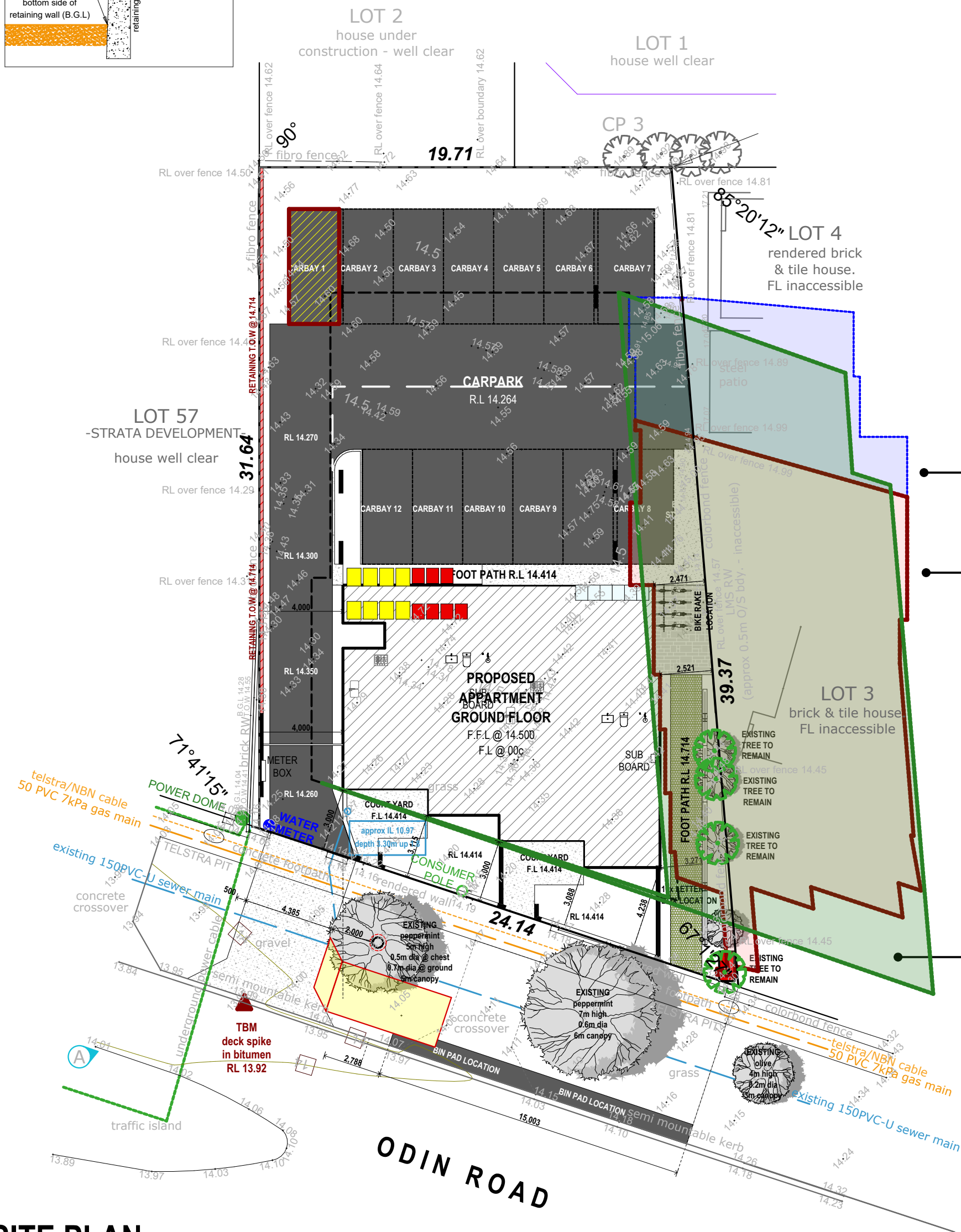
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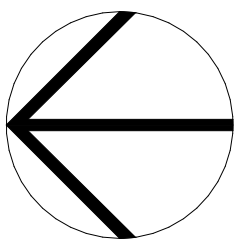
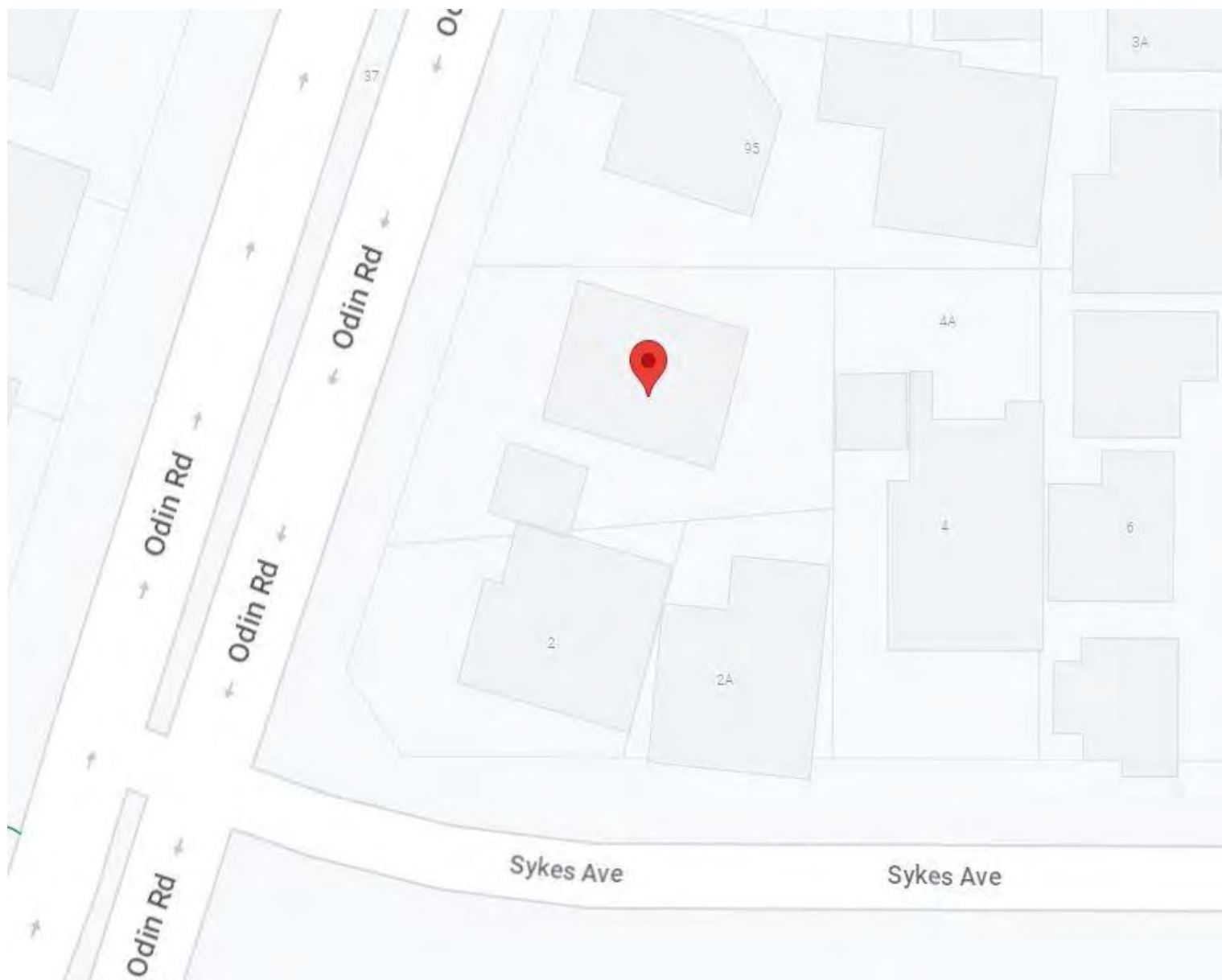
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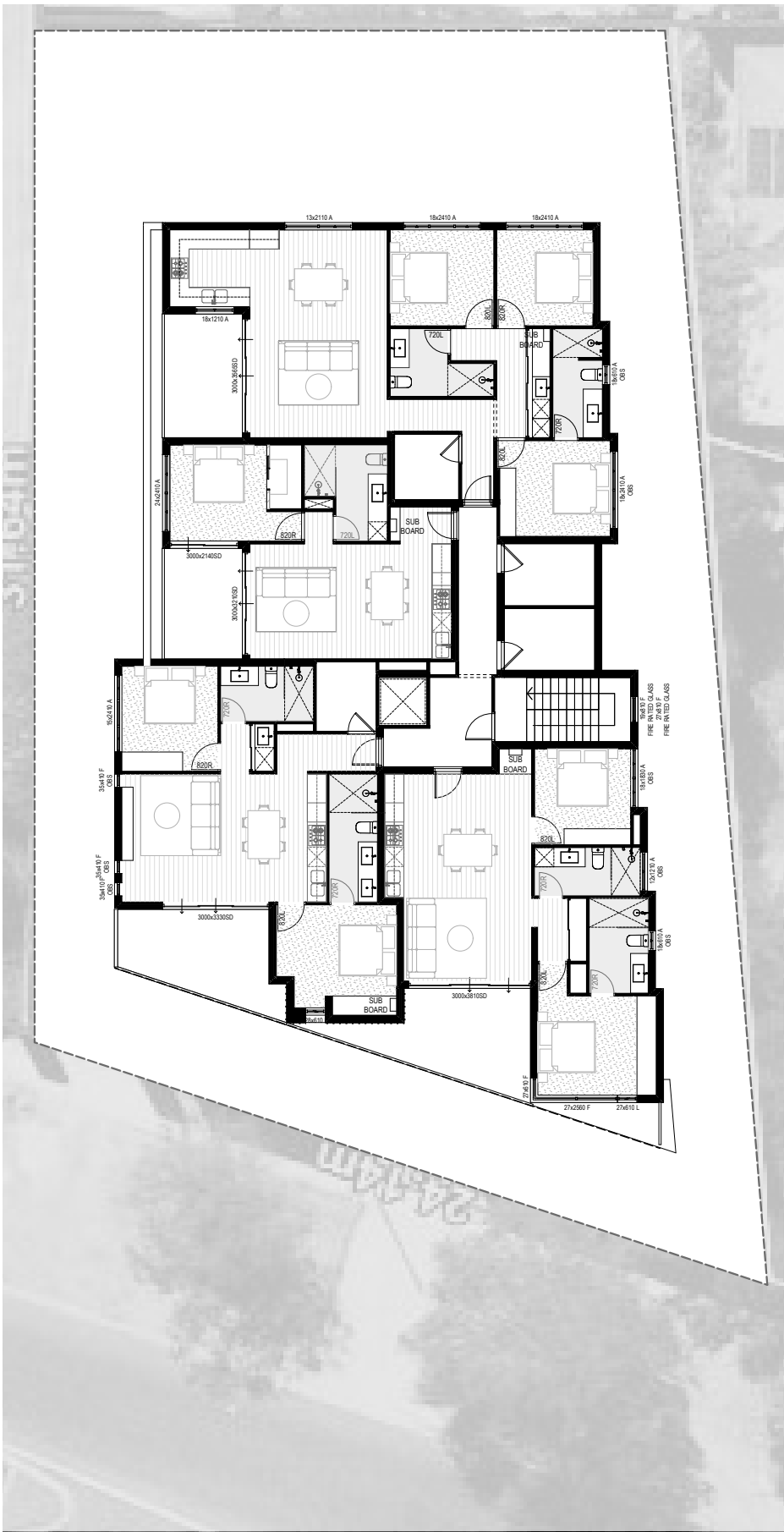
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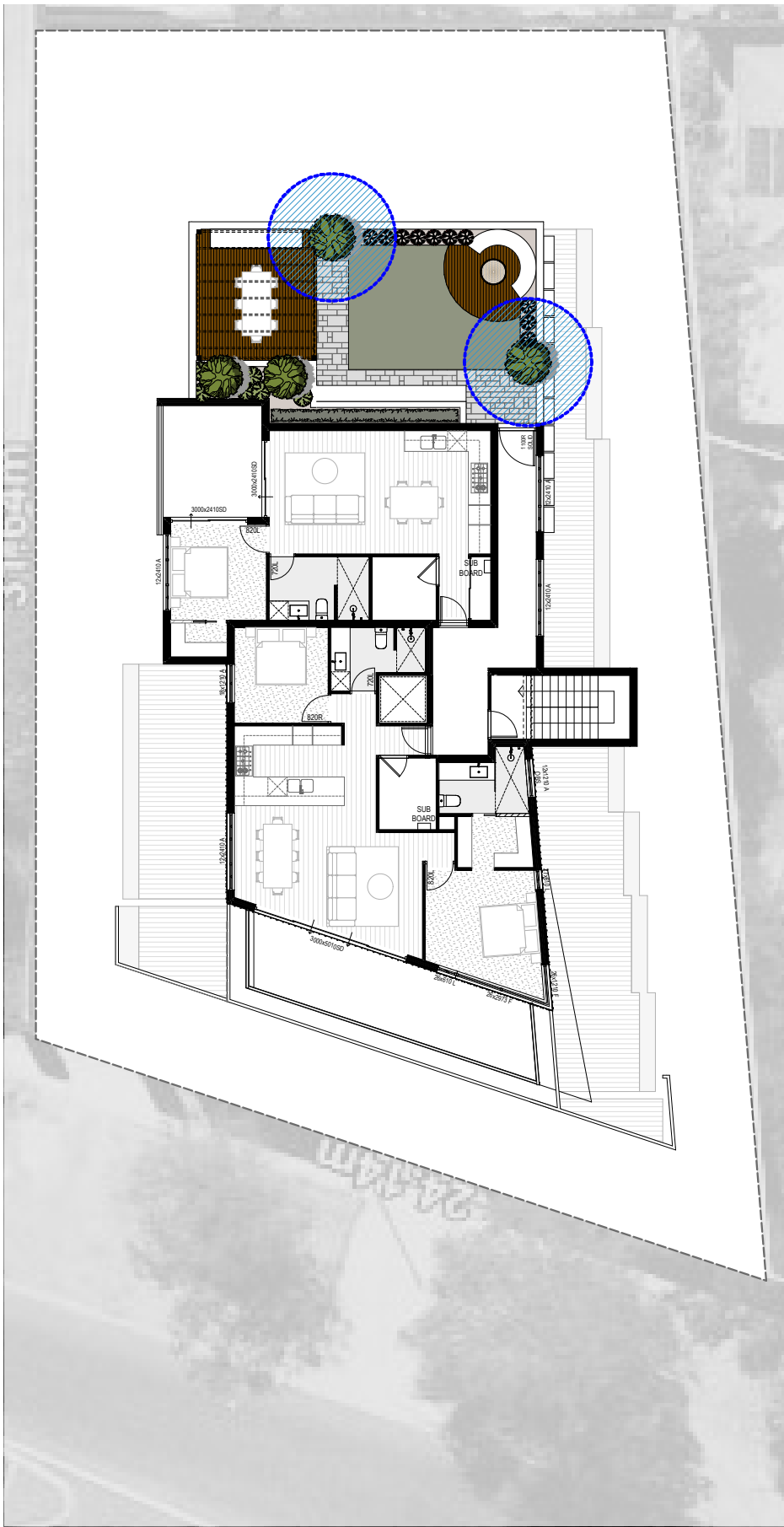
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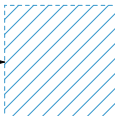
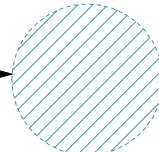
Ground floor



Levels 1 & 2

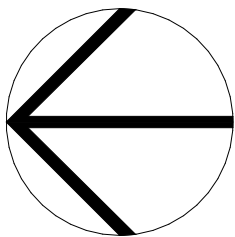


Levels 3

Ground Cover				
	Paving			
	Grass			
	Mulch (depth to be minimum 300mm as per city reqs)			
	Permeable Paving			
	Driveway External lighting			
Plant Schedule		Quant	Pot Size	Height
	Coastal Banjine Pimelea Ferruginea	50	140m	0.3-1.5m
	Dianella revoluta Little Rev	50	140m	30-40cm
	Pyrus Calleryana Bradford	9	140m	30-40cm
	Frangipani	6	35lt	1-15m
	grey box hedge	100	400m	nil
	Felix Vine	20	400m	nil
	Smooth Agave	50	35lt	1-15m
Note:				
Landscaping to all planted areas including grass area				
All landscaping to be provided with automated reticulation				
Standard tree in 9m ² growth zone				
Standard tree in 2m ² radius growth zone				
Landscaping Deep Soil Total Area				
Landscaping Provided		275.00m2		

LANDSCAPING PLAN

SCALE 1:200



Client
NUCHANGE
Project Name
Apartment Complex
Project Address
#93 Odin Road, Innaloo

Drawing Title:
Landscaping Plan
Scale:
NOTED ON PLAN
Project No:
23014
Sheet Size:
A2
Drawing No.:
WD006 of 22

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1.00	Concept Layout Plan	21.04.23
2.00	Issued for DA application	15.02.24
2.01	Amended DA Plans	13.08.24

Unit: 3/1 Mulgul Road, Malaga W.A 6090

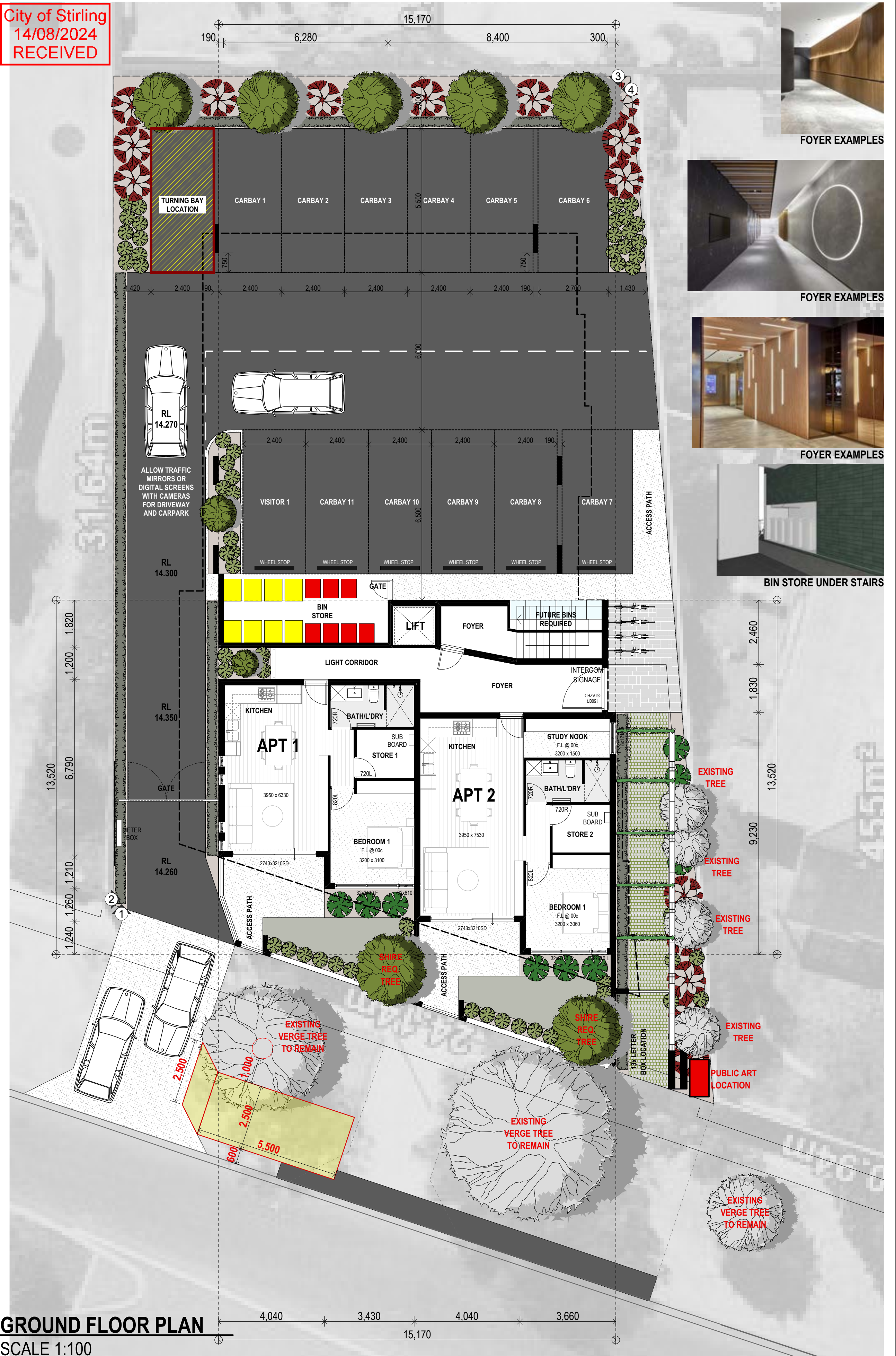
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Building Areas	
1. APARTMENT AREA	
APT 01	56.71
APT 02	66.06
HALLWAY COMMON AREA	51.61
	174.38 m²
2. APARTMENT AREA	
APT 03	93.59
APT 04	88.53
APT 05	60.72
APT 06	111.59
HALLWAY COMMON AREA	40.57
	395.00 m²
3. APARTMENT AREA	
APT 07	93.60
APT 08	88.42
APT 09	60.20
APT 10	111.87
HALLWAY COMMON AREA	41.22
	395.31 m²
4. APARTMENT AREA	
APT 11	118.99
APT 12	70.68
COMM GARDENS	72.85
HALLWAY COMMON AREA	33.05
	295.57 m²
	1,260.26 m²

City of Stirling
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FOYER EXAMPLES



FOYER EXAMPLES



FOYER EXAMPLES



BIN STORE UNDER STAIRS

Client
NUCHANGE

Project Name
Apartment Complex

Project Address
#93 Odin Road, Innaloo

Drawing Title:
Ground Floor Plan

Scale: NOTED ON PLAN
Sheet Size: A2

Project No: 23014
Drawing No.: WD007 of 22

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WITNESS:

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2.00	Issued for DA application	15.02.24
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Building Areas	
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APT 02	66.06
HALLWAY COMMON AREA	51.61
	174.38 m²
2. APARTMENT AREA	
APT 03	93.59
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APT 05	60.72
APT 06	111.59
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APT 10	111.87
HALLWAY COMMON AREA	41.22
	395.31 m²
4. APARTMENT AREA	
APT 11	118.99
APT 12	70.68
COMM GARDENS	72.85
HALLWAY COMMON AREA	33.05
	295.57 m²
	1,260.26 m²

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FIRST FLOOR PLAN
SCALE 1:100

Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: First Floor Plan		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT		Version Discription Date	GERMANO DESIGNS				
			DATED:/...../.....		1.00 Concept Layout Plan 21.04.23					
					2.00 Issued for DA application 15.02.24					
					2.01 Amended DA Plans 13.08.24					
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Scale: NOTED ON PLAN		Sheet Size: A2	OWNER:		OWNER:		BUILDER:		WITNESS:	
Project No: 23014	Drawing No.: WD008 of 22									
						Unit: 3/1 Mulgul Road, Malaga W.A 6090		©COPYRIGHT		
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Building Areas	
1. APARTMENT AREA	
APT 01	56.71
APT 02	66.06
HALLWAY COMMON AREA	51.61
	174.38 m²
2. APARTMENT AREA	
APT 03	93.59
APT 04	88.53
APT 05	60.72
APT 06	111.59
HALLWAY COMMON AREA	40.57
	395.00 m²
3. APARTMENT AREA	
APT 07	93.60
APT 08	88.42
APT 09	60.20
APT 10	111.87
HALLWAY COMMON AREA	41.22
	395.31 m²
4. APARTMENT AREA	
APT 11	118.99
APT 12	70.68
COMM GARDENS	72.85
HALLWAY COMMON AREA	33.05
	295.57 m²
	1,260.26 m²

City of Stirling
14/08/2024
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SECOND FLOOR PLAN

SCALE 1:100

Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: Second Floor Plan		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT		Version	Discription	Date	GERMANO DESIGNS						
			DATED:/...../.....		1.00	Concept Layout Plan	21.04.23							
					2.00	Issued for DA application	15.02.24							
	2.01	Amended DA Plans			13.08.24									
	OWNER:													
			OWNER:											
	Project No: 23014				Drawing No.: WD009 of 22		OWNER:		BUILDER:		WITNESS:		Unit: 3/1 Mulgul Road, Malaga W.A 6090	

Building Areas	
1. APARTMENT AREA	
APT 01	56.71
APT 02	66.06
HALLWAY COMMON AREA	51.61
	174.38 m²
2. APARTMENT AREA	
APT 03	93.59
APT 04	88.53
APT 05	60.72
APT 06	111.59
HALLWAY COMMON AREA	40.57
	395.00 m²
3. APARTMENT AREA	
APT 07	93.60
APT 08	88.42
APT 09	60.20
APT 10	111.87
HALLWAY COMMON AREA	41.22
	395.31 m²
4. APARTMENT AREA	
APT 11	118.99
APT 12	70.68
COMM GARDENS	72.85
HALLWAY COMMON AREA	33.05
	295.57 m²
	1,260.26 m²

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THIRD FLOOR PLAN
SCALE 1:100

Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: Third Floor Plan		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT			Version Discription Date		GERMANO DESIGNS	
			DATED:/...../.....			1.00	Concept Layout Plan		
	OWNER:			2.00	Issued for DA application	15.02.24			
				2.01	Amended DA Plans	13.08.24			
	Scale: NOTED ON PLAN Sheet Size: A2		OWNER:						
	Project No: 23014 Drawing No.: WD010 of 22		BUILDER:						
	WITNESS:								
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Western Elevation - E1 (Front Elevation)
Scale 1:100

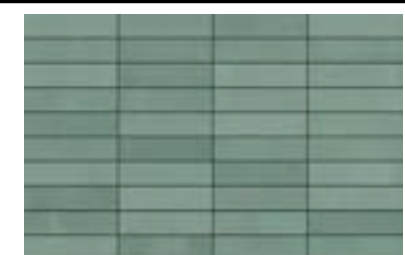
EXTERNAL FINISHES



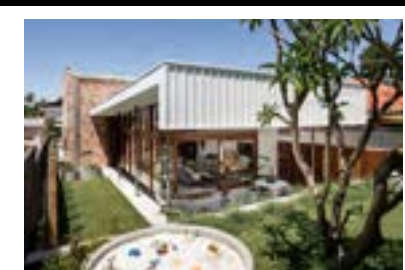
GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



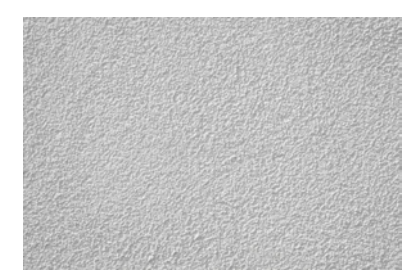
FEATURE TILING
Green tile layed stacker bond



WINDOW FRAMES -
Timber.Timber look window frames



BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH



EXTERNAL PLASTER - White
textured walls

		Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: External Elevation		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT			Version Description Date		GERMANO DESIGNS	
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			Project No: 23014		Drawing No.: WD011 of 22		OWNER:				
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Northern Elevation - E2 (Left Elevation)
Scale 1:100

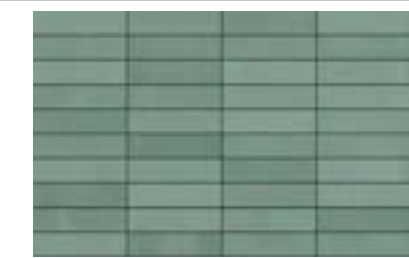
EXTERNAL FINISHES



GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



FEATURE TILING TO
BED 1 LEVEL 2,3 -
Green tile layed stacker bond



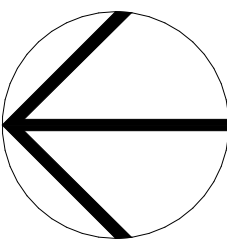
WINDOW FRAMES -
Timber. Timber look window frames



BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH



EXTERNAL PLASTER - White
textured walls



Client

NUCHANGE

Project Name

Apartment Complex

Project Address

#93 Odin Road, Innaloo

Drawing Title:

External Elevation

Scale:

NOTED ON PLAN

Sheet Size:

A2

Project No:

23014

Drawing No.:

WD012 of 22

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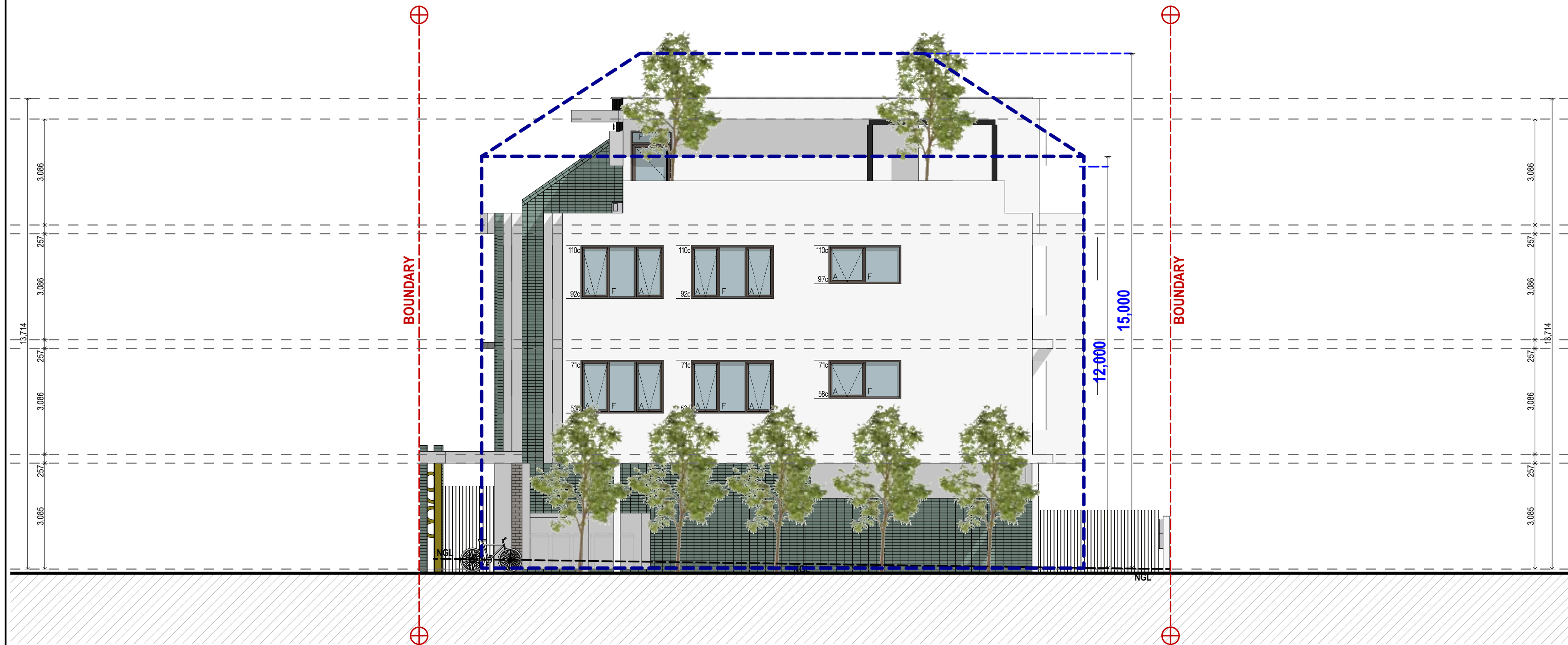
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Eastern Elevation - E3 (Rear Elevation)
Scale 1:100

EXTERNAL FINISHES



GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



FEATURE TILING
Green tile layed stacker bond



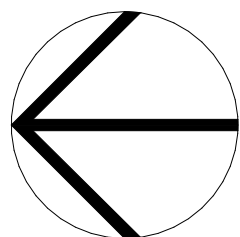
WINDOW FRAMES -
Timber.Timber look window frames



BALUSTRADE & FEATURE ENTRY BEAMS - COPPER FINISH



EXTERNAL PLASTER - White textured walls



Client

NUCHANGE

Project Name

Apartment Complex

Project Address

#93 Odin Road, Innaloo

Drawing Title:

External Elevation

Scale:
NOTED ON PLAN

Project No:

23014

Sheet Size:

Drawing No.:

WD013 of 22

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[illegible]

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Unit: 3/1 Mulgul Road, Malaga W.A 6090

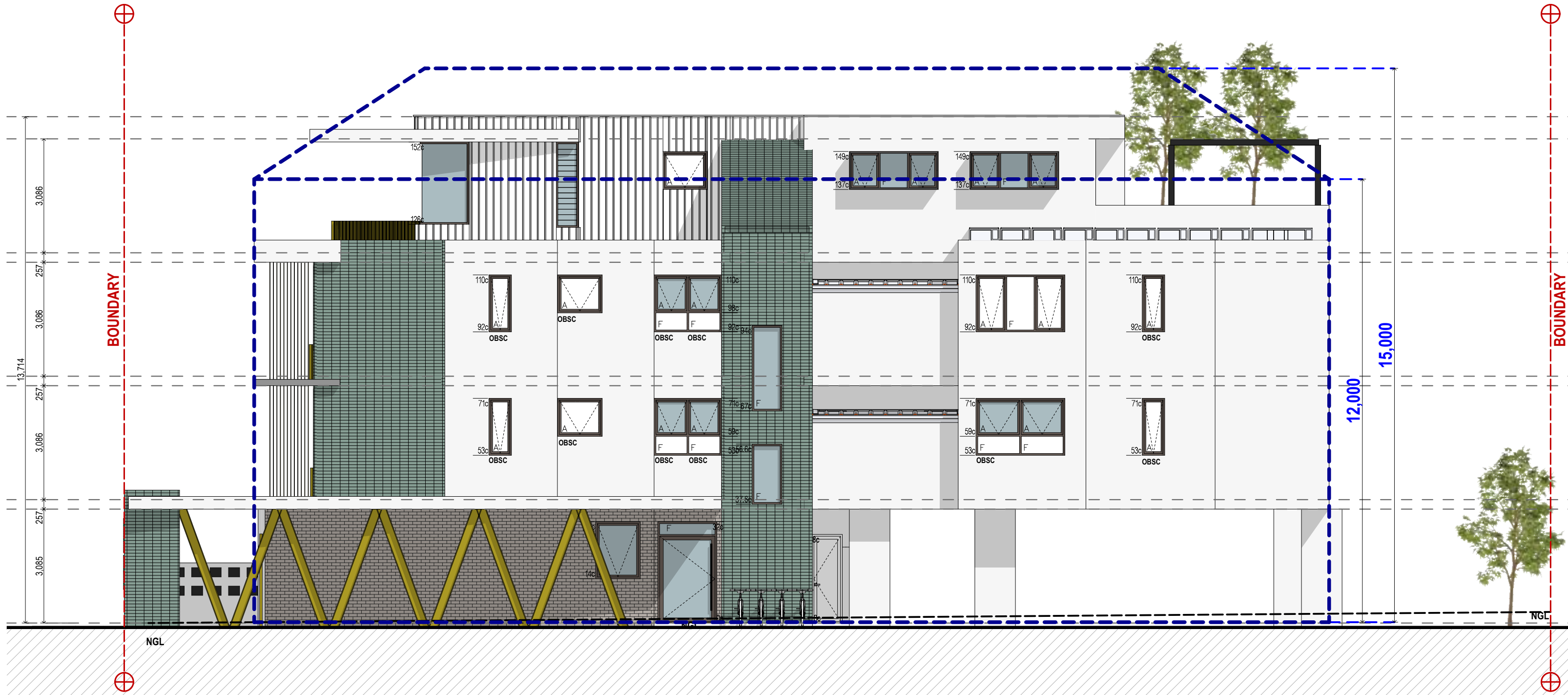
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South Elevation - E4 (Right Elevation)
Scale 1:100

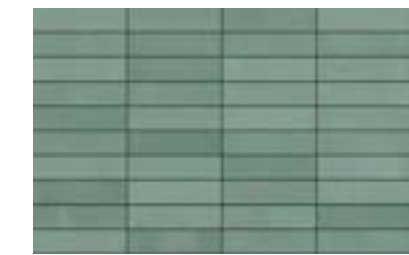
EXTERNAL FINISHES



GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



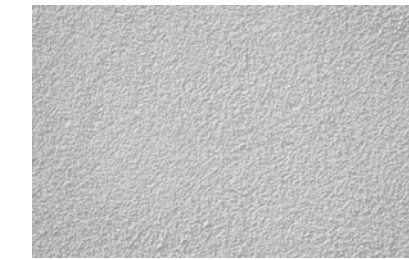
FEATURE TILING
Green tile layed stacker bond



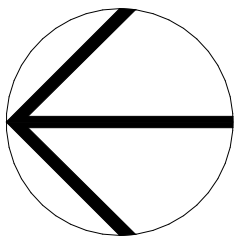
WINDOW FRAMES -
Timber.Timber look window frames



BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH



EXTERNAL PLASTER - White
textured walls



Client

NUCHANGE

Project Name

Apartment Complex

Project Address

#93 Odin Road, Innaloo

Drawing Title:

External Elevation

Scale:

NOTED ON PLAN

Sheet Size:

A2

Project No:

23014

Drawing No.:

WD014 of 22

THIS IS ONE OF THE DRAWINGS
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DATED:/...../.....

OWNER:

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Version	Discription	Date
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2.00	Issued for DA application	15.02.24
2.01	Amended DA Plans	13.08.24

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Unit: 3/1 Mulgul Road, Malaga W.A 6090

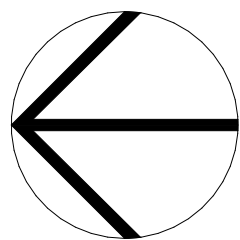
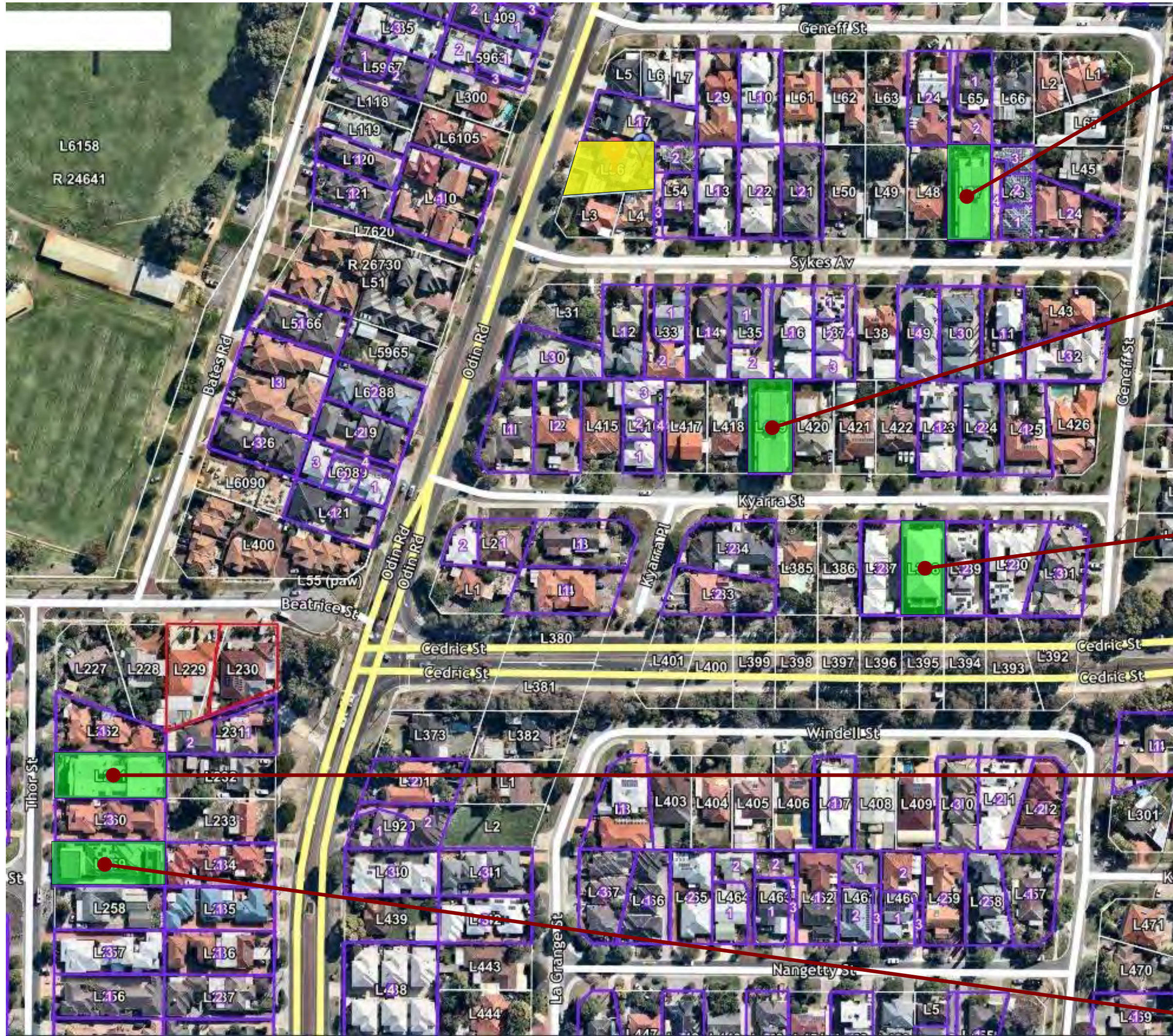
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NUCHANGE

Project Name

Apartment Complex

Project Address

#93 Odin Road, Innaloo

Drawing Title:

Contextual Plan

Scale:

NOTED ON PLAN

Project No:

23014

Sheet Size:

A2

Drawing No.:

WD015 of 22

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Version	Description	Date
1.00	Concept Layout Plan	21.04.23
2.00	Issued for DA application	15.02.24
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Address: #93 Odin Road, Innaloo
Apartment Complex



		Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: 3D Perspecti		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT			Version	Discription	Date	GERMANO DESIGNS		
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			OWNER:			2.00	Issued for DA application	15.02.24					
						2.01	Amended DA Plans	13.08.24					
			Scale: NOTED ON PLAN		Sheet Size: A2		OWNER:			Unit: 3/1 Mulgul Road, Malaga W.A 6090 (08) 9248 8392 www.germanodesigns.com.au ©COPYRIGHT This plan shall remain the sole property of GERMANO DESIGNS and must not be given, lent, resold or otherwise disposed of copied without permission in writing of the company.			
			Project No: 23014		Drawing No.: WD016 of 22		OWNER:						
							BUILDER:						
							WITNESS:						



		Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: 3D Perspecti		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT			<table><tr><th>Version</th><th>Discription</th><th>Date</th></tr><tr><td>1.00</td><td>Concept Layout Plan</td><td>21.04.23</td></tr><tr><td>2.00</td><td>Issued for DA application</td><td>15.02.24</td></tr><tr><td>2.01</td><td>Amended DA Plans</td><td>13.08.24</td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>		Version	Discription	Date	1.00	Concept Layout Plan	21.04.23	2.00	Issued for DA application	15.02.24	2.01	Amended DA Plans	13.08.24															
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OWNER:																																				
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BUILDER:																																				
WITNESS:																																				
Scale: NOTED ON PLAN		Sheet Size: A2																																		
Project No: 23014		Drawing No.: WD017 of 22																																		

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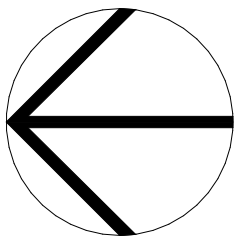
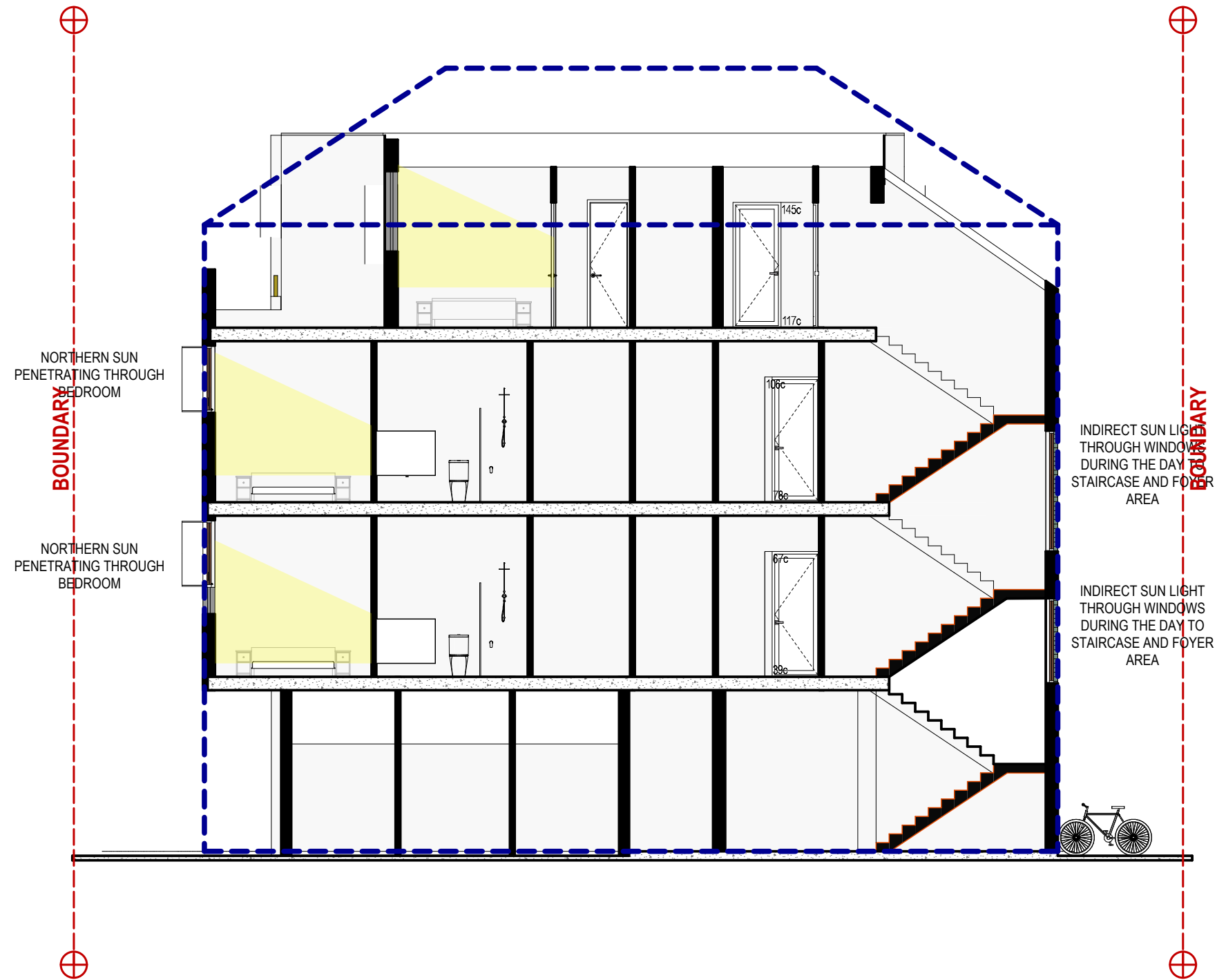
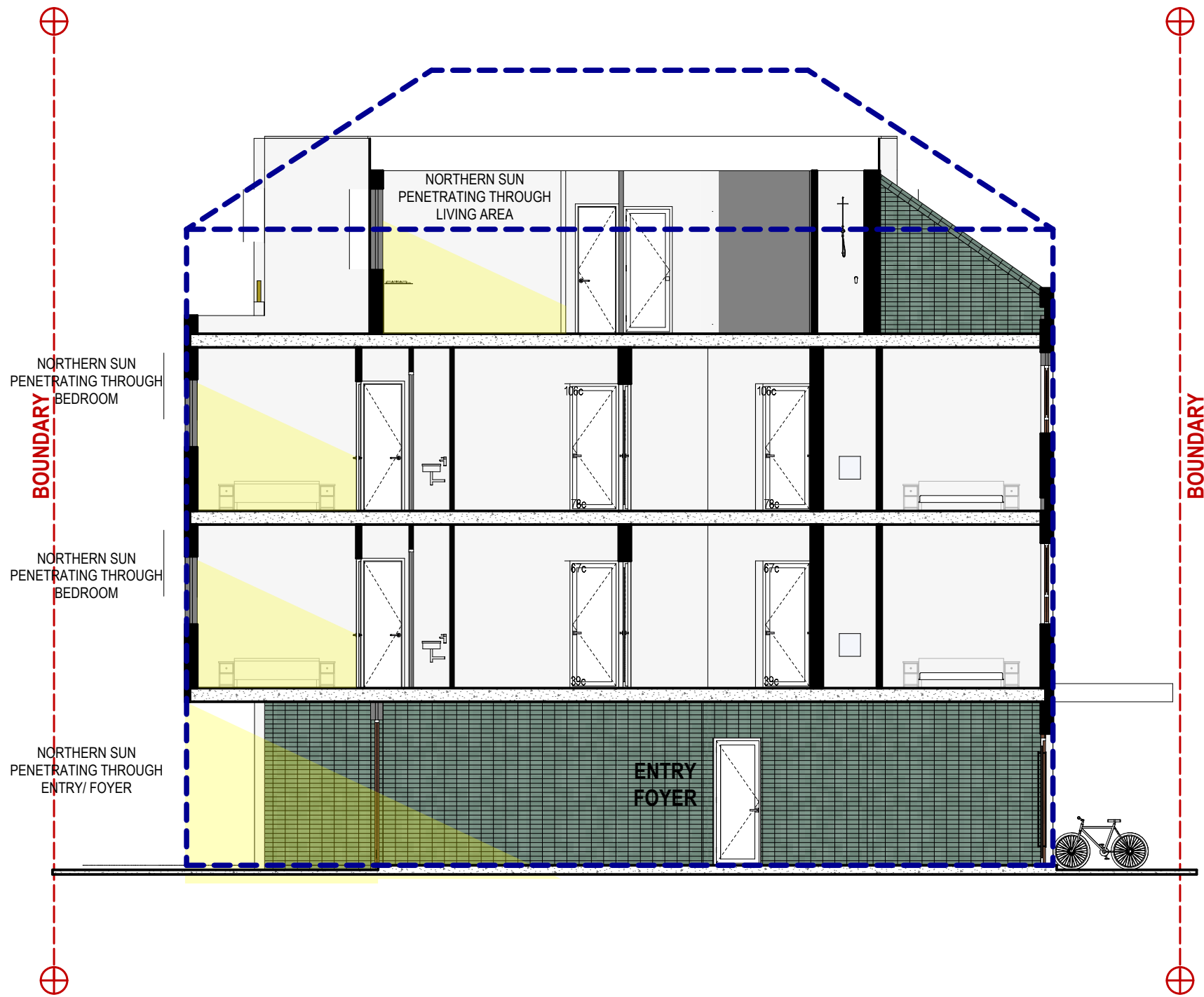
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Address: #93 Odin Road, Innaloo
Apartment Complex



		Client NUCHANGE Project Name Apartment Complex Project Address #93 Odin Road, Innaloo	Drawing Title: 3D Perspecti		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT			Version	Discription	Date	GERMANO DESIGNS		
					DATED:/...../.....			1.00	Concept Layout Plan	21.04.23			
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Scale: NOTED ON PLAN		Sheet Size: A2	OWNER:							Unit: 3/1 Mulgul Road, Malaga W.A 6090		©COPYRIGHT This plan shall remain the sole property of GERMANO DESIGNS and must not be given, lent, resold or otherwise disposed or copied without permission in writing of the company.	
Project No: 23014	Drawing No.: WD018 of 22	BUILDER:											
		WITNESS:											
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Client

NUCHANGE

Project Name

Apartment Complex

Project Address

#93 Odin Road, Innaloo

Drawing Title:

Section

Scale:
NOTED ON PLAN

Sheet Size: A2

Project No:

23014

Drawing No.:

WD019 of 22

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OWNER:

OWNER:

BUILDER:

WITNESS:

Version	Description	Date
1.00	Concept Layout Plan	21.04.23
2.00	Issued for DA application	15.02.24
2.01	Amended DA Plans	13.08.24

GERMANO
DESIGNS

Unit: 3/1 Mulgul Road, Malaga W.A 6090

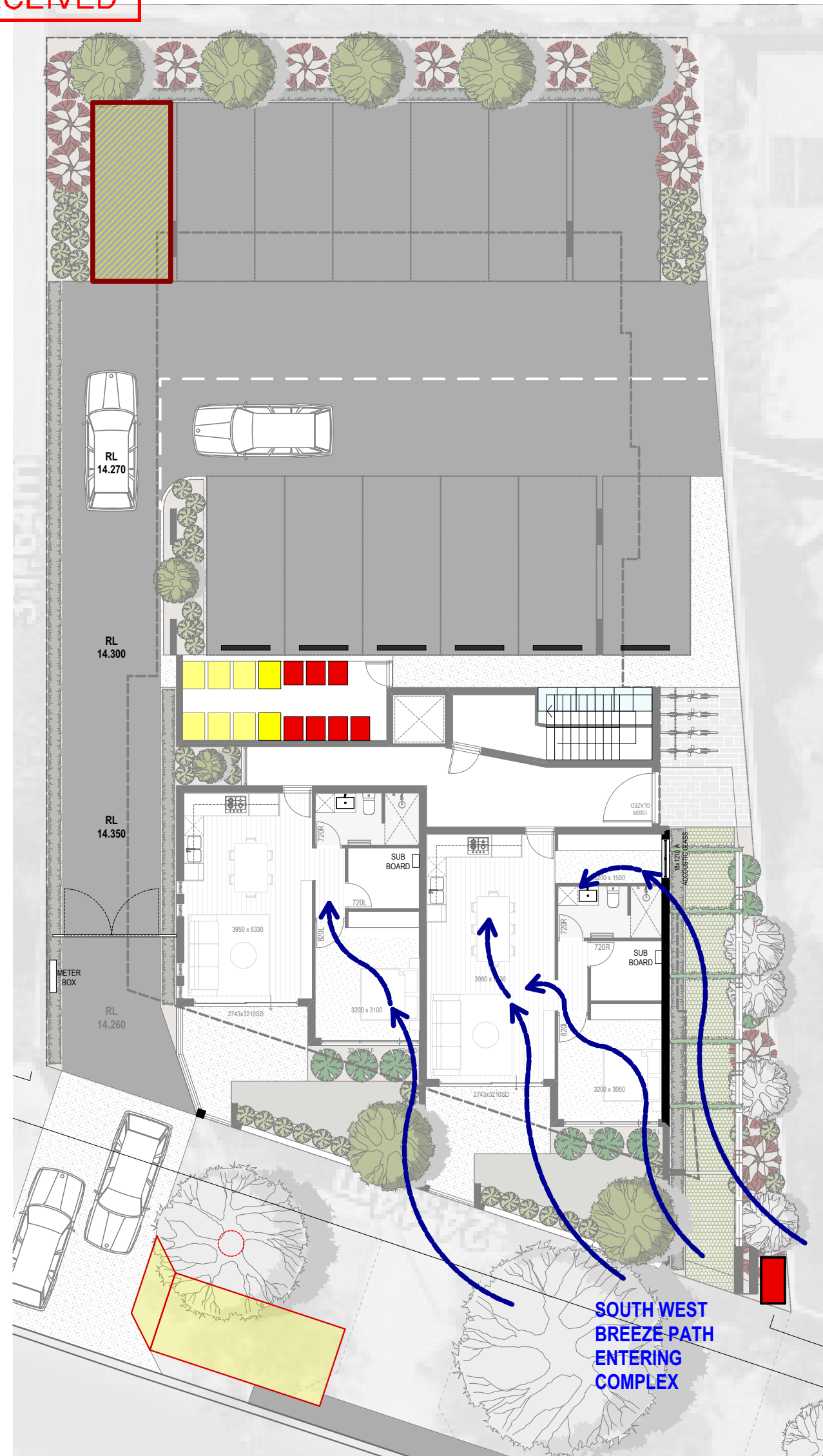
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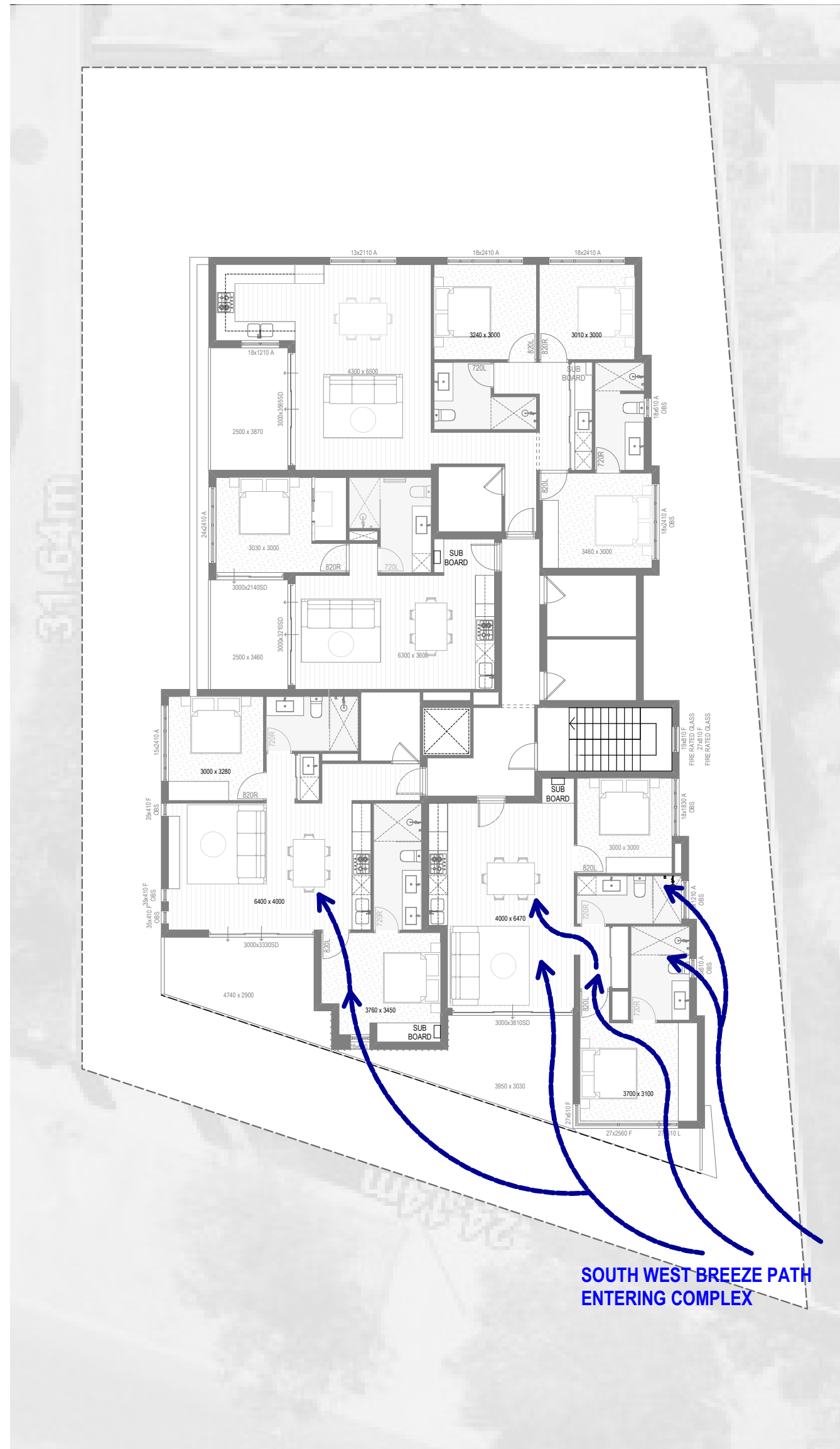
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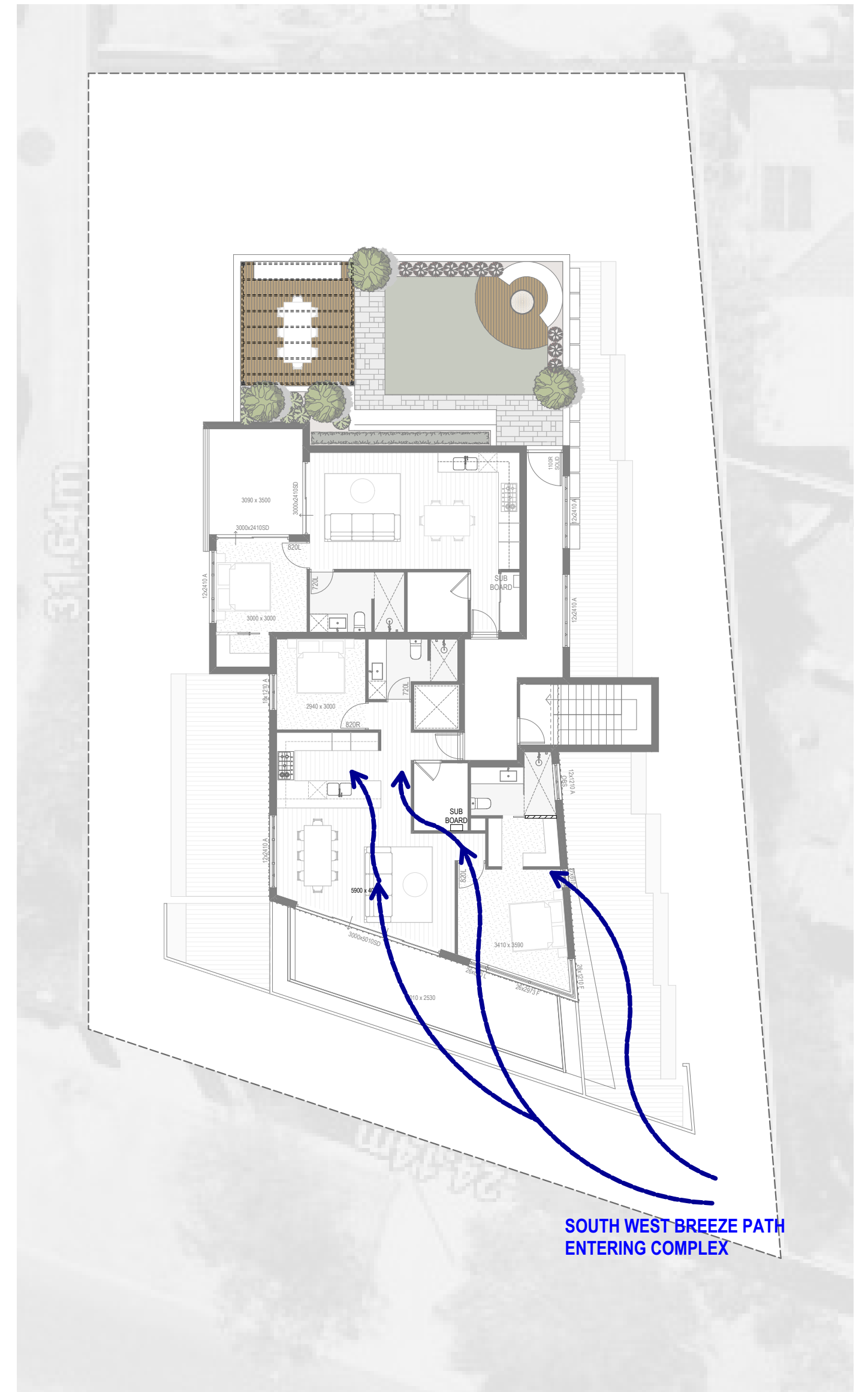
City of Stirling
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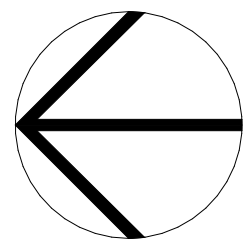
GROUND FLOOR BREEZE PATH PLAN
SCALE 1:150



FIRST & SECOND FLOOR BREEZE PATH PLAN
SCALE 1:150



THIRD FLOOR BREEZE PATH PLAN
SCALE 1:150



Client
NUCHANGE
Project Name
Apartment Complex
Project Address
#93 Odin Road, Innaloo

Drawing Title:
Breeze Path Plan
Scale:
NOTED ON PLAN
Sheet Size:
A2
Project No:
23014
Drawing No.:
WD020 of 22

THIS IS ONE OF THE DRAWINGS
REFERRED TO IN THE CONTRACT
DATED:/...../.....
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OWNER:
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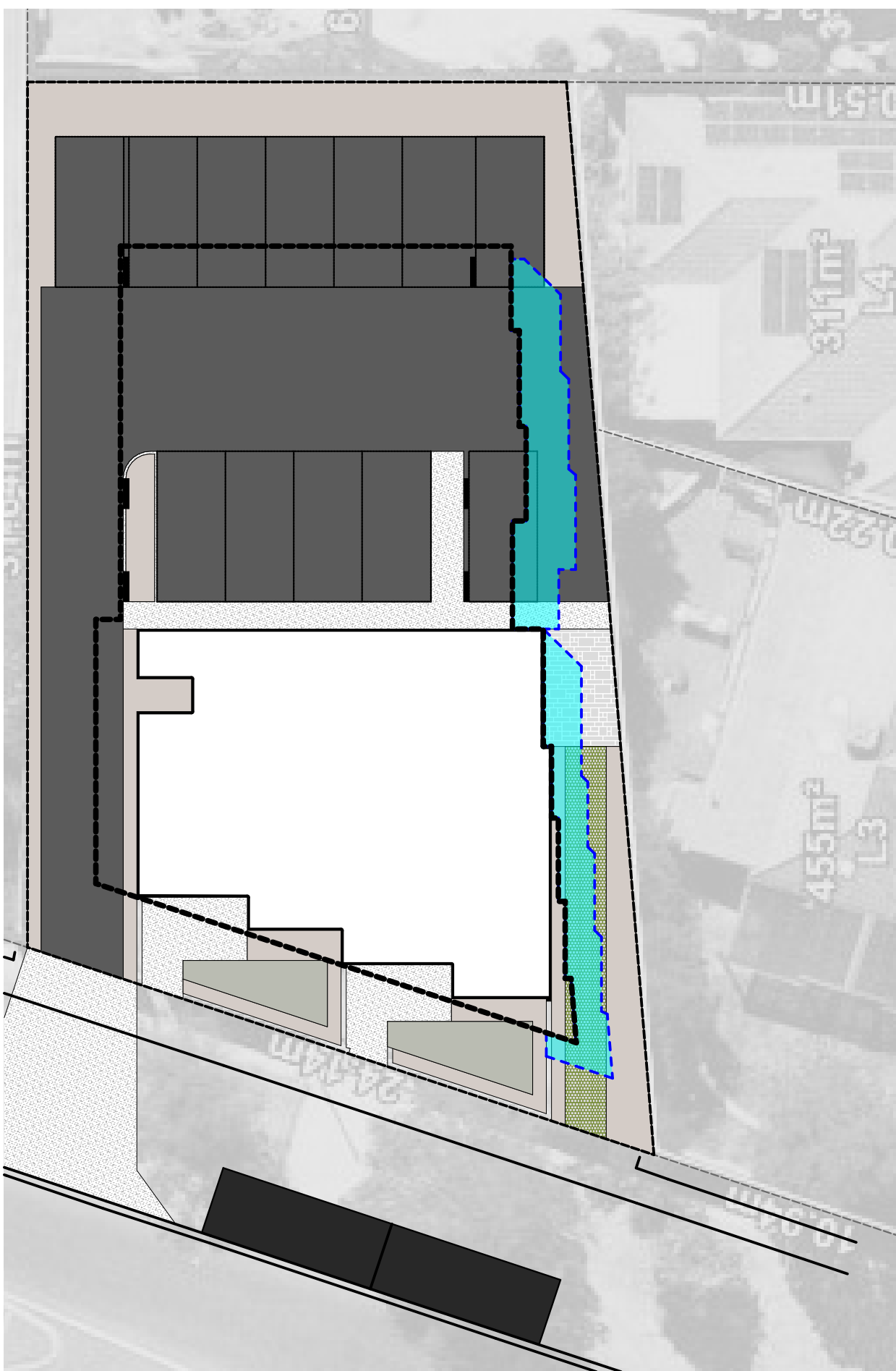
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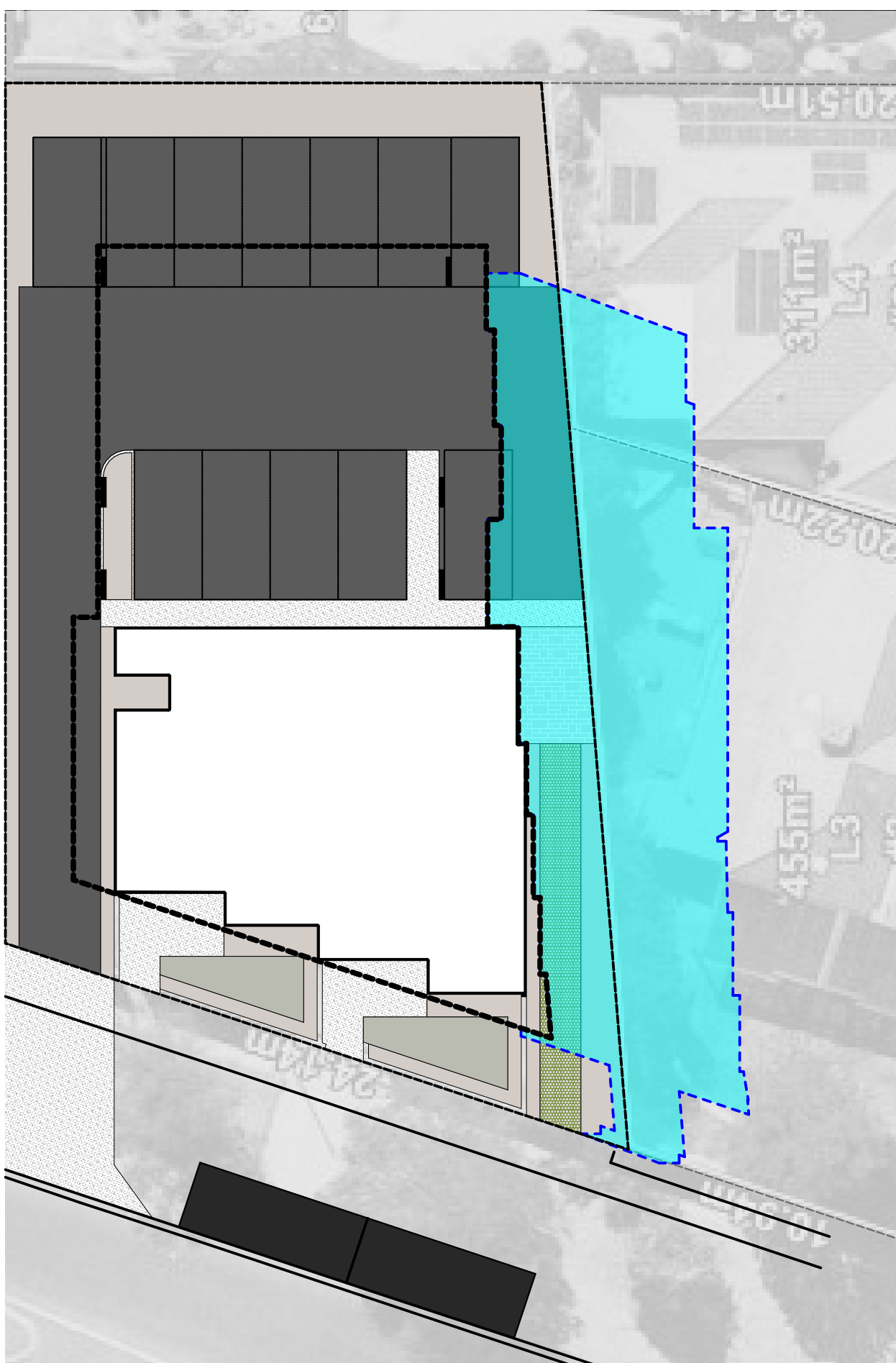
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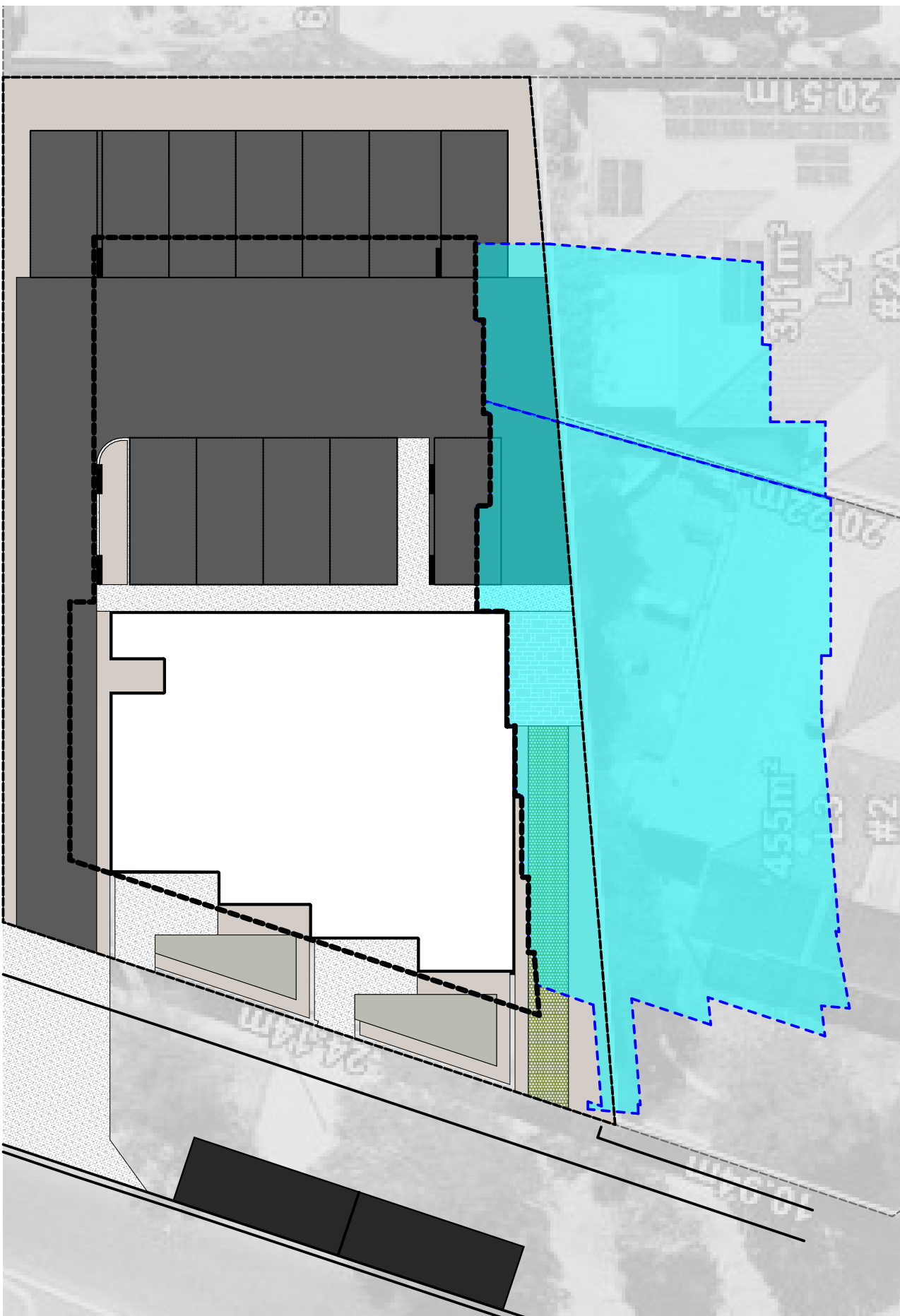
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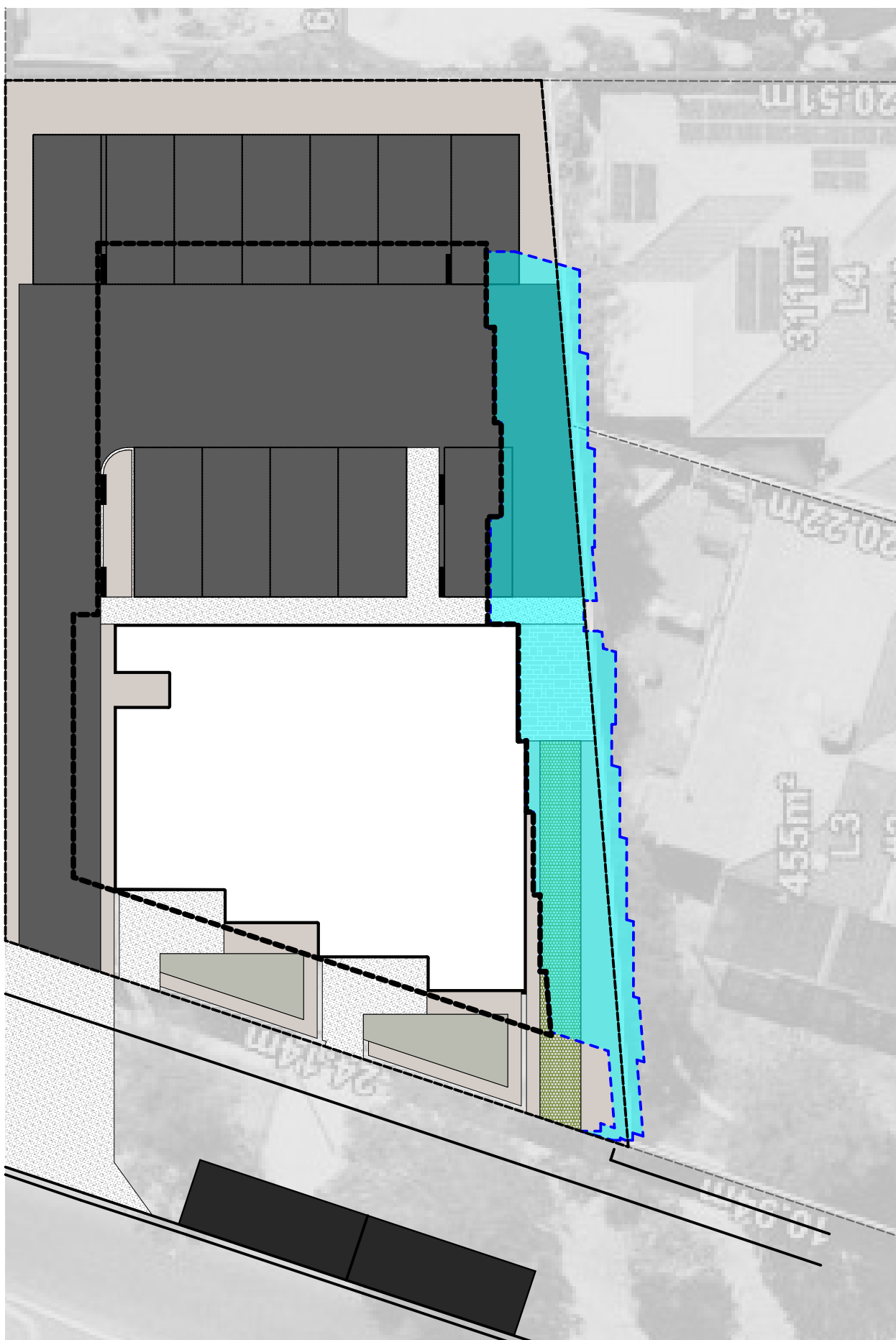
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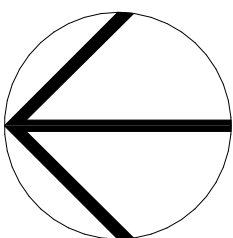
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SOLAR DIAGRAM - WINTER SOLAR PATH



SOLAR DIAGRAM - SPRING SOLAR PATH



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Project Name
Apartment Complex
Project Address
#93 Odin Road, Innaloo

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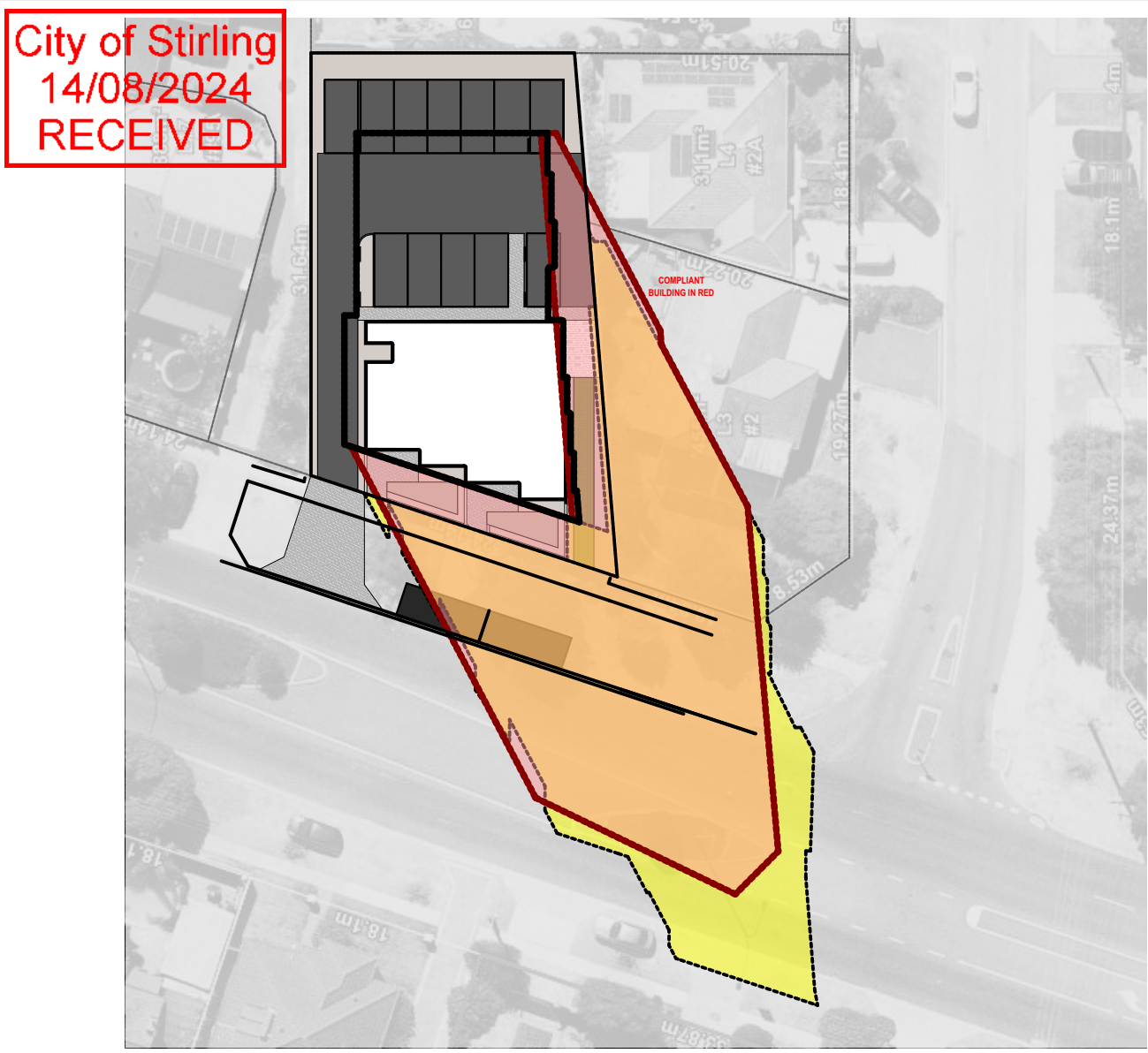
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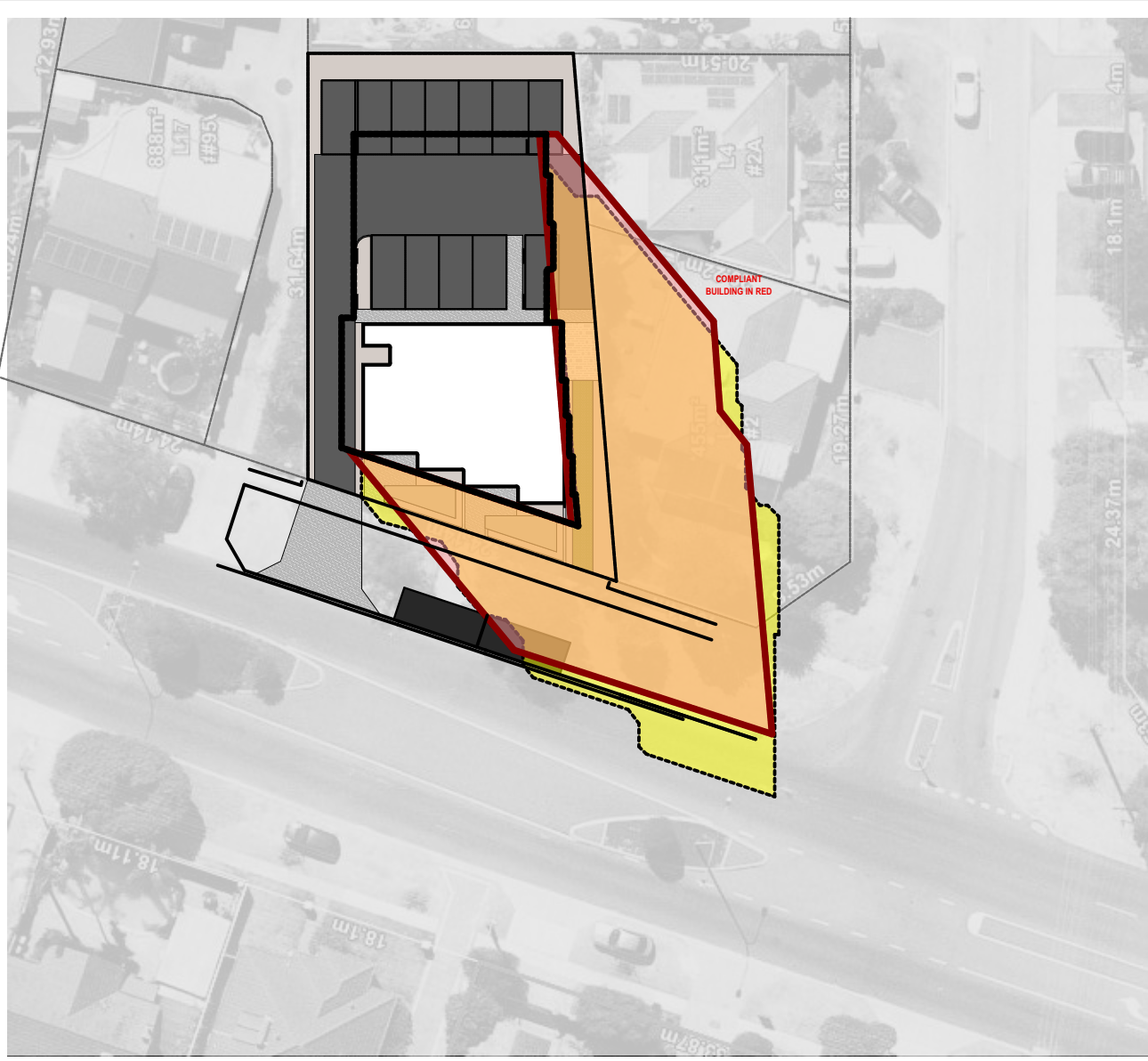
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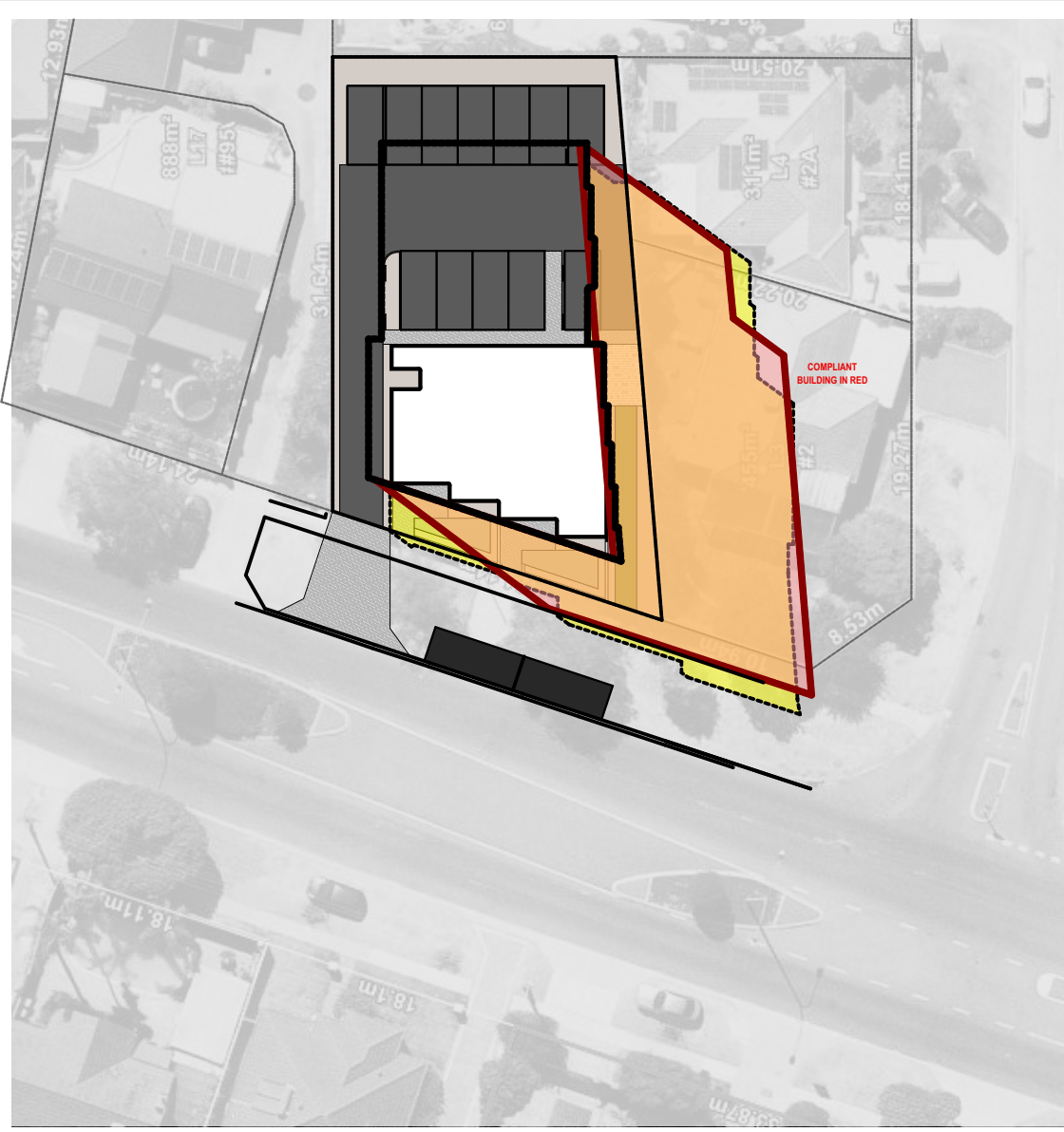
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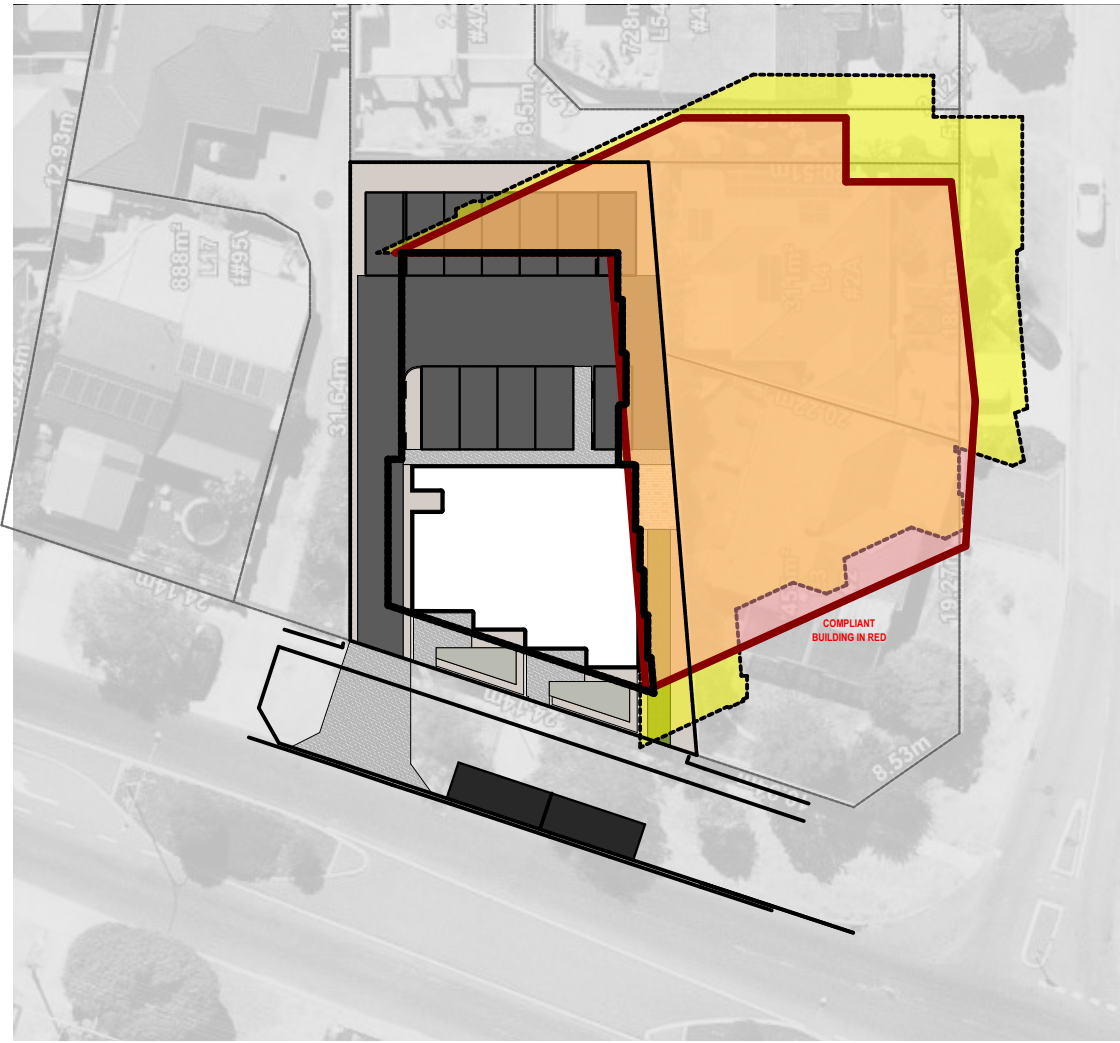
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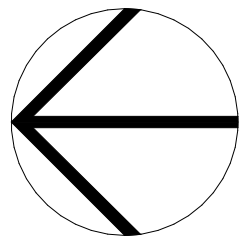
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21ST OF JUNE 2024



Client

NUCHANGE

Project Name

Apartment Complex

Project Address

#93 Odin Road, Innaloo

Drawing Title:

Solar Diagram

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Project No:

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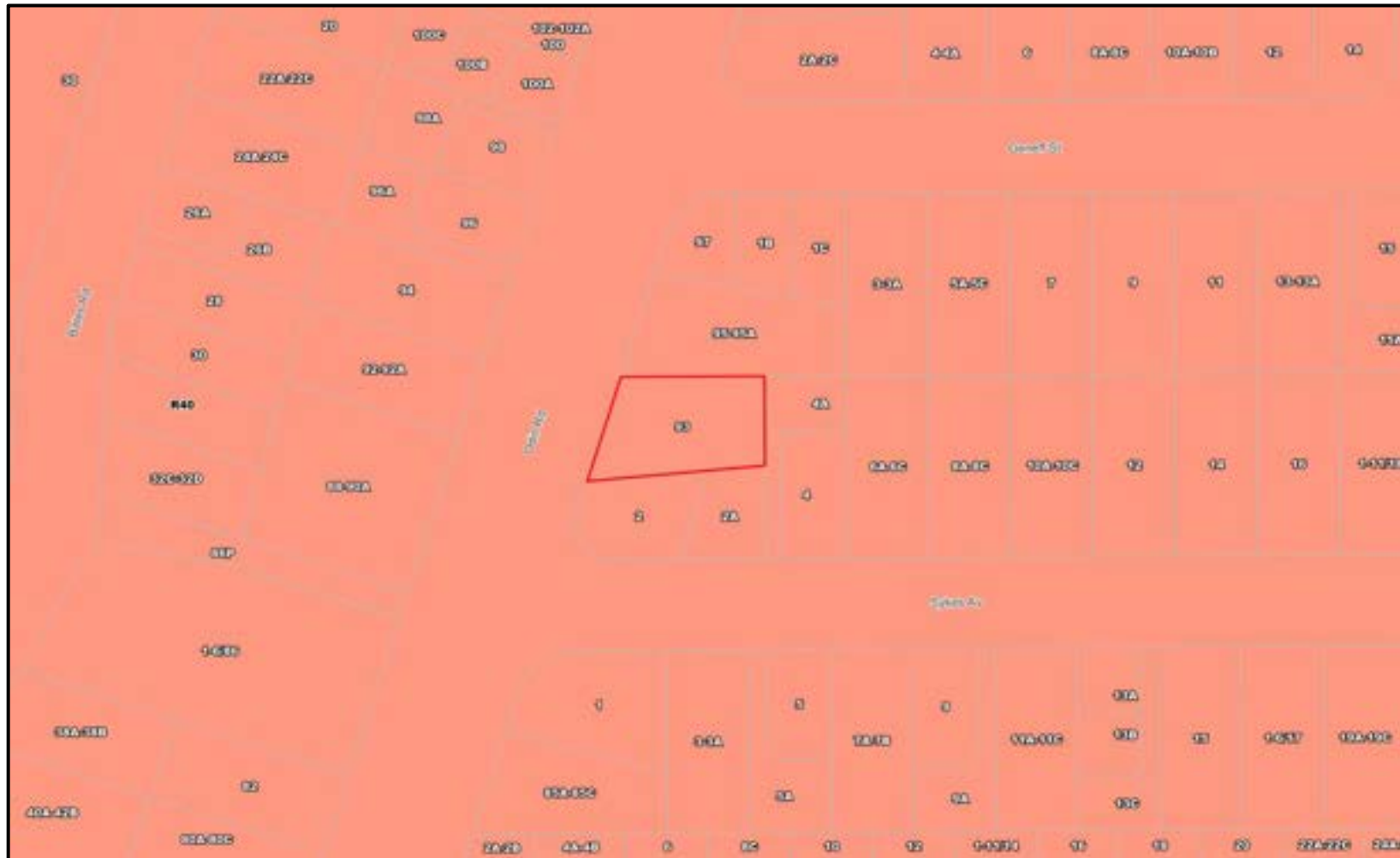
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Attachment 2 – Aerial Location Plan



Attachment 3 – Metropolitan Region Scheme Zoning Map



Attachment 4 – City of Stirling Local Planning Scheme No.3 Zoning Map



DEVELOPMENT APPLICATION



LOT 56 (NO.93) ODIN ROAD, INNALOO

PROPOSED TWELVE (12) MULTIPLE DWELLINGS
CITY OF STIRLING

City of Stirling
28 Feb 2024
RECEIVED

CF Town Planning & Development

Prepared for

Germano Designs & the landowners for the construction of a new multiple dwelling development on Lot 56 (No.93) Odin Road, Innaloo.

Prepared by

CF Town Planning & Development
Planning & Development Consultants

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Carlo Famiano
Director

CF Town Planning & Development

Name	Position	Document Revision	Date
Mr Carlo Famiano	Town Planner	Planning Report	20 February 2024

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- Appendix 1: Certificates of Title
- Appendix 2: Site Development Plans

1.0 INTRODUCTION

CF Town Planning & Development acts on behalf of Germano Designs and the landowners as their consultant town planners and hereby prepare the following report in support of an Application for Development Approval for the construction of twelve (12) new multiple dwellings on Lot 56 (No.93) Odin Road, Innaloo to provide much needed housing diversity and numbers within the Stirling City Centre ('Activity Centre') and in close proximity to the Stirling Train Station.

This report provides details regarding the following:

- Site details;
- Proposed development;
- Planning considerations; and
- Provision of justification in support of the proposed development, addressing the relevant planning framework.

In light of the above, we respectfully request the City of Stirling and the Metro Inner-North Joint Development Assessment Panel's (JDAP) favorable consideration and conditional approval of the application at their earliest possible convenience.

Should you have any queries or require any additional information regarding any of the matters raised above please do not hesitate to contact Mr Carlo Famiano on 0407384140 or carlof@people.net.au.

1.1 List of Consultant Reports/Consultants

The following consultant reports have been prepared in support of this development application:

- i) Traffic Impact Statement from KCTT;
- ii) Acoustic report from Herring Storer Acoustics; and
- iii) Waste management plan (WMP) from CF Town Planning & Development.

CF Town Planning & Development
Planning & Development Consultants

2.0 BACKGROUND & PURPOSE

The subject land is located within the northern part of the Stirling City Centre ('Activity Centre'), which is currently undergoing a transitional period from the older single dwelling type developments to more intense multiple dwelling and grouped dwelling developments. The focus of the Activity Centre is to optimize usage of the public transport network within the area and to provide a vibrant Centre that will provide a place for the local community to live and work.

Given the land's location within the Innaloo locality, it enjoys access to a wide range of services and nodes, including the following:

- i) Various public open space reserves;
- ii) Access to a regional road network, including a regional cycle network (along the Mitchell Freeway);
- iii) City of Stirling Civic Precinct and Civic Gardens;
- iv) Osborne Park Hospital;
- v) Various high frequency bus routes (various bus routes & the Stirling Train Station);
- vi) In close proximity to the Osborne Park Employment node;
- vii) Access to the Karrinyup Activity Centre; and
- viii) Various schools.

Given the above, this application seeks development approval for the construction of twelve (12) new multiple dwellings on the subject land to provide much needed residential dwellings and the provision of housing choice within the Stirling Activity Centre in close proximity to a variety of amenities, infrastructure and public transport. In addition, the development will assist the City of Stirling with meeting its required targets for infill development set by the State Government and foster the future growth and sustainability of the Stirling Activity Centre.

3.0 LOCATION

The subject land is located within the northern part of the 'Stirling City Centre' ('Activity Centre'), approximately 700 metres north-west of the Stirling City Centre Core area and approximately 710 metres north-west of the Stirling Train Station. Furthermore the subject land is also located approximately 490 metres west of the Mitchell Freeway road reserve (see Figure 1 – Location Plan).

It should be noted that the Stirling Train Station provides a direct high frequency public transport link to the Perth Central Business District (CBD) and the Joondalup City Centre

The 'Stirling City Centre' (also known as an Activity Centre) is well serviced and contains a variety of shopping/retail uses, entertainment venues, civic uses, public open space, medical facilities, recreational facilities, various commercial uses and employment opportunities. In addition, the Osborne Park industrial area (employment node) provide access to a wide range of employment opportunities. As such, the proposed multiple dwelling development on the subject land will foster the future growth of the Stirling City Centre (i.e. rejuvenating the area and will assist with creating an active vibrant street), will assist with providing much needed housing in a well-established/serviced area and will provide housing choice.

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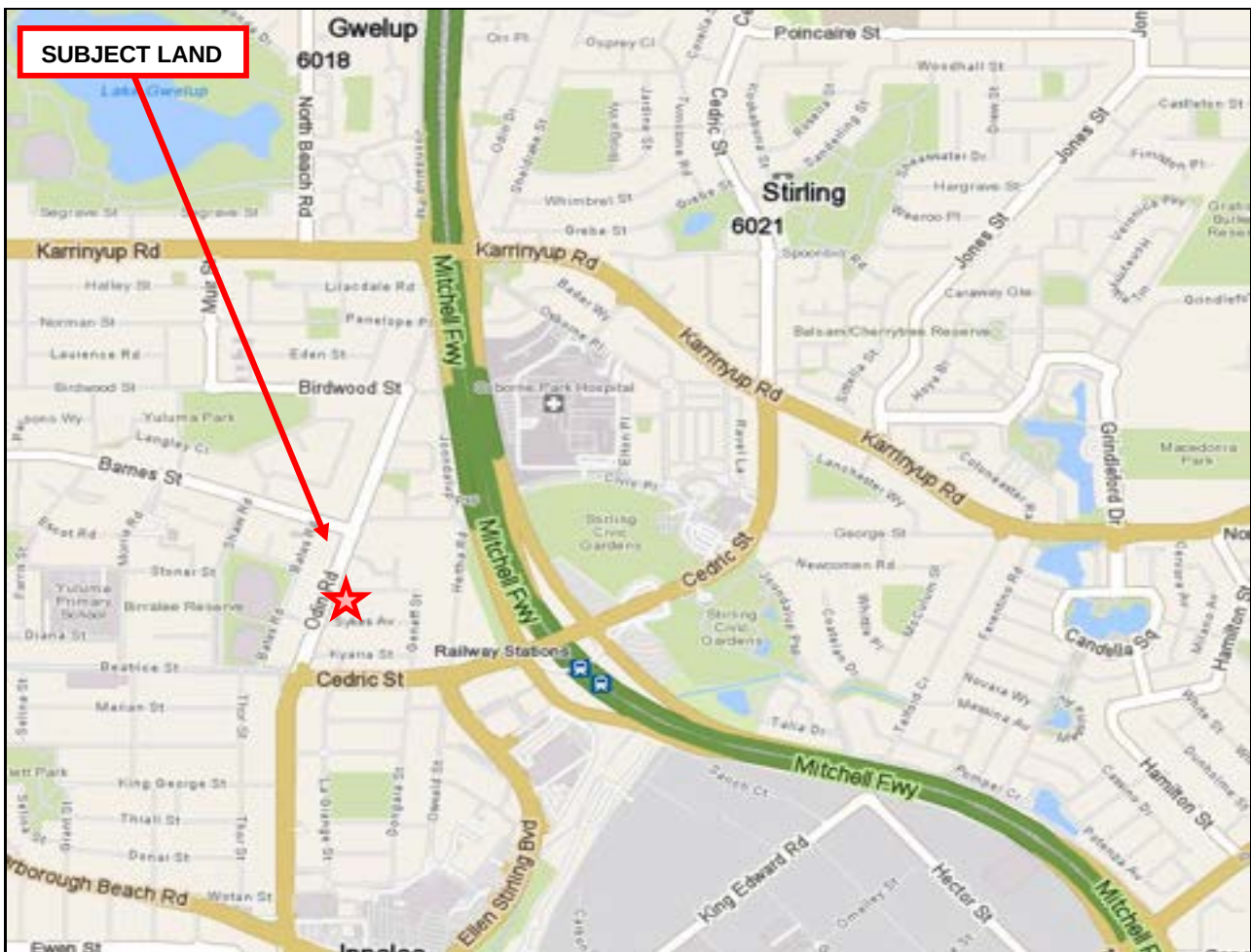


Figure 1 – Location Plan

4.0 PHYSICAL CHARACTERISTICS

4.1 Property Details

The subject land is irregular in shape, comprises an area of 749m² and has frontage to Odin Road along the land's western lot boundary. Lot 56 contains a fall natural ground levels (NGL) from 14.8 metres along the land's rear boundary to 14.06 metres along land's front boundary which equates to a fall in NGL down/across the site of 740mm (see site development plans).

Lot 56 is currently developed and used for 'Single House' purposes and contains a number of physical improvements including a single detached dwelling, patio structures, outbuildings, a sealed driveway and boundary fencing (see Figure 2 – Aerial Site Plan & Figure 3). It is viewed that the existing development on the land is run-down and does not provide any positive contributions to the streetscape and represents the underutilisation of land within the Stirling City Centre. As such, this application proposes that all physical improvements on the subject land will be removed to accommodate the new development.

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It is significant to note that the existing dwelling and associated structures on the subject land are not identified on the City of Stirling's Municipal Heritage Inventory (MHI) and can therefore be removed subject to the issuance of a demolition permit by the City.



Figure 2 - Aerial Site Plan (Nearmap). The subject land contains various structures, which will be removed as part of this application.



Figure 3 -The existing development on the subject land.

The subject land does not contain any significant vegetation that is worthy of retention. Notwithstanding this, the verge area abutting the subject land comprises two (2) street trees, which are being retained as part of this application to enhance the street/development and retain the existing canopy coverage.

4.2 Character of Locality

A review of the existing and future character of the immediate locality has concluded that there is no defined or heritage character worthy of retention. This section of Innaloo was historically developed in the late 1960's, with development progressing through the 1970's. At the time, the housing stock included predominantly single dwellings of single storey built form (predominantly pitched roof structures), with a small number of two storey dwellings scattered throughout the area.

As the land is located within the Stirling City Centre, the locality is currently undergoing a significant change in character and built form that reflects the expected higher density type developments that is anticipated within such key Activity Centres throughout the Perth Metropolitan Area.

When reviewing the Stirling City Centre, the current residential built form ranges from the older single storey dwellings to new three and four storey multiple dwelling developments. An investigation of the immediate locality and a review of recent development activities has identified that a substantial amount of re-development has and will continue to take place within the Stirling City Centre. Such developments include substantial grouped dwelling developments, various multiple dwelling developments and mixed use type developments.

Figures 4 & 5 illustrates a number of recent developments within the residential areas of the Stirling City Centre (some are located along Odin Road – Figure 4). These examples clearly demonstrate the changing nature of the area. New developments in the area include multiple dwellings and large grouped dwelling developments. It is anticipated that this pattern of redevelopment will continue within this part of the Stirling locality, with greater intensification occurring close to the core area of the City Centre and in close proximity to the public transport network. In addition, Figure 6 illustrates the extent of commercial developments that are emerging within the Stirling City Centre area.



Figure 4 – Some examples of existing two-storey grouped dwellings and multiple dwelling developments along Odin Road.

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Figure 5 – Examples of multiple dwelling developments within the residential area of the Stirling City Centre.



Figure 6 – Examples of commercial developments emerging within the Stirling City Centre Area.

It is considered reasonable to conclude that the character of the locality and the local streetscapes are not uniform, is varied in terms of the current built form, does not reflect any specific character or form and is currently in a transitional period of re-development in accordance with the current density coding of the area or the anticipated dwelling yield set by the City and prescribed with the planning framework.

In light of the above, it is contended that the proposed construction of new multiple dwelling development on the subject land is unlikely to have a negative impact on the existing character and amenity of the local streetscape or within this section of Stirling City Centre and that the proposed development reflects the intended character and built form anticipated within the area. As such, it is contended that the proposed development will provide a positive contribution to the immediate locality, whilst providing a diversity of housing types within close proximity to various services and infrastructure.

4.3 Essential Services

The subject land is served by an extensive range of essential service infrastructure including power, water, reticulated sewerage, stormwater drainage, gas and telecommunications (see Figure 7).



Figure 7 – The existing services in and around the subject land. Services include water, sewerage, electricity and telecommunications (MNG Mapping).

The subject land is also served by an efficient local and district road network with convenient access to Karrinyup Road, Cedric Street and the Mitchell Freeway. Public transport is available along various nearby roads including Cedric Street and Odin Road, with access to the Stirling Train Station (see Figure 8 – Public Transport Network). The subject land is also well served by a pedestrian path network. It is contended that the subject land's good access to public transport and a pedestrian path network will provide an alternative form of transport for the future occupants and visitors of the development.

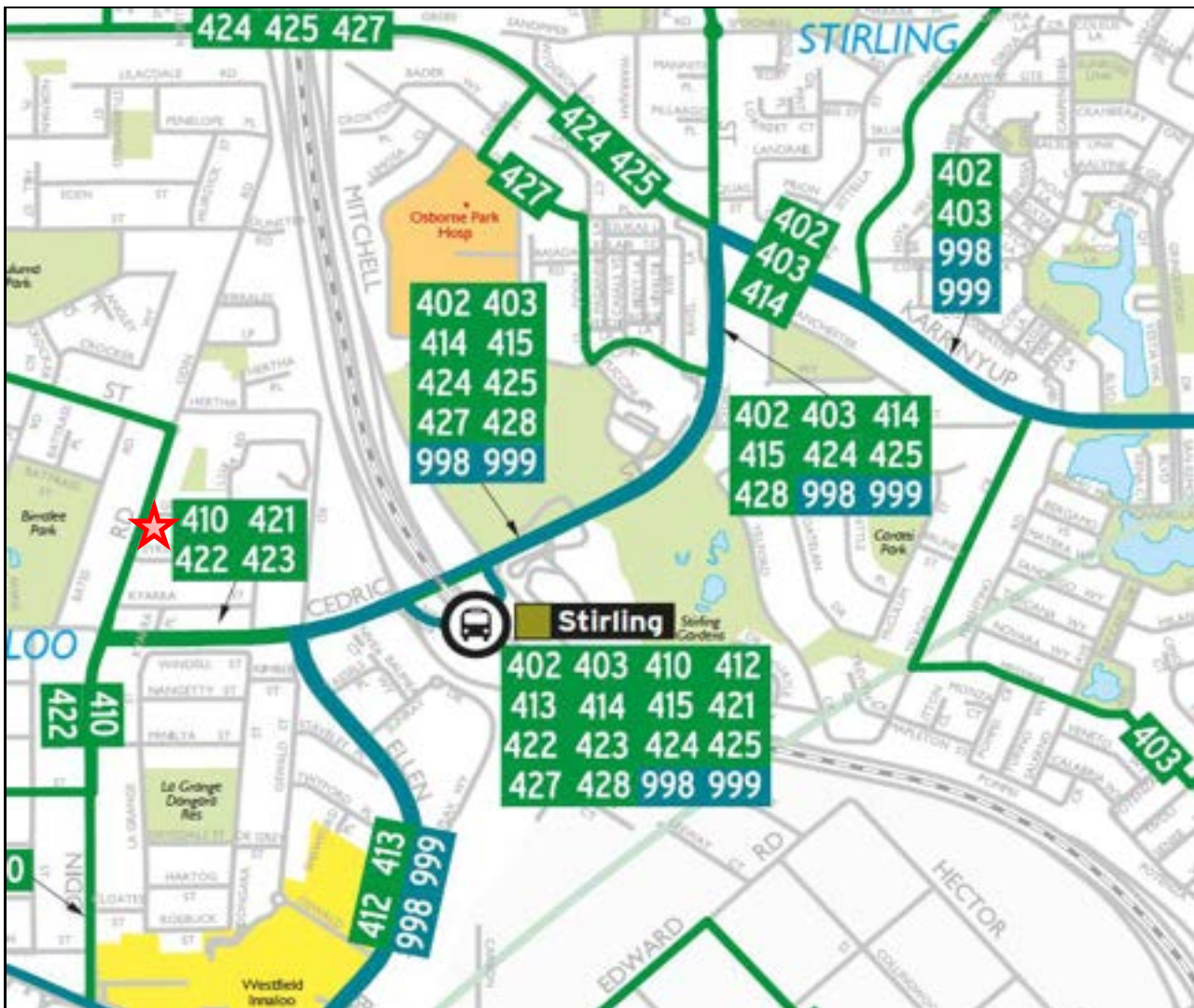


Figure 8 – Public Transport Network

5.0 DEVELOPMENT PROPOSAL

This application proposes to construct a four (4) storey building comprising twelve (12) multiple dwellings to provide much needed affordable housing within the Innaloo locality. The key details of the proposed development on the subject land includes the following:

- i) The configuration of the dwellings including the following:
 - Five (5) single bedroom/single bathroom dwellings;
 - Five (5) two bedroom/two bathroom dwellings; and
 - Two (2) three bedroom/two bathroom dwellings.
- ii) In addition to the above, the developments offers different dwelling sizes and configurations, ranging from 56.71m² to 120.97m² to meet the needs of varying demographics;
- iii) Two (2) dwellings on the ground floor have been designed to a silver standard and will comprise direct pedestrian access to the street;

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- iv) Construction of twelve (12) on-site car parking bays for resident parking only. This car parking area will be screened from the street;
- v) Construction of two (2) on-street car parking bays within the Odin Road verge area to provide visitor parking for the development. These bays will be constructed at the developer's cost to the satisfaction of the City in accordance with the LDP;
- vi) Construction of one (two-way) crossover along the land's Odin Road frontage;
- vii) Each dwelling will be provided with a storeroom to allow for bulk storage of domestic items;
- viii) Installation of four (4) on-site bicycle parking bays to service the development;
- ix) Installation of instantaneous constant flow hot water units to service the multiple dwellings in lieu electric storage system to provide an energy innovative solution in accordance with Design Element 4.15 ('Energy efficiency') of the R-Codes. In addition, the roof has been designed to allow for future installation of solar panels;
- x) Construction of bin storage area being enclosed and located abutting the car parking area to the rear of the building;
- xi) The construction of street fencing and security gates to the car parking area to provide a secure environment for the future occupants of the development;
- xii) Retention of the two (2) street trees within the verge area abutting the subject land;
- xiii) Provision of a communal open space area with an 73m² and located on the third floor (roof deck area) to provide for a good outlook and access to northern winter sun; and
- xiv) Installation of landscaping throughout the development, including the planting of new mature trees and associated deep soil zones. A landscaping plan has been prepared in support of the application.

The external facades of the proposed new development will be constructed using high quality finishes that will complement and enhance the local streetscape, with all on-site residents car parking being screened from the public realm. The street frontage of the development will include balconies (outdoor living areas) and numerous major openings to habitable rooms along the street facades to assist with providing an active frontage and improve passive surveillance of the public realm (see Figure 9).

It is significant to note that on-site car parking provided in support of the development has been calculated in accordance with 'Location A' provisions of the Residential Design Codes Volume 2 (R-Codes) due to access to high frequency public transport route and the land's proximity to the Stirling Train Station (see Figure 8 – Public Transport Network).

Copies of the proposed site development plans and building elevation drawings are provided herewith for review and consideration (see Appendix 2 – Site Development Plans).



Figure 9 – The proposed facades of the development, along with the entry and communal area.

6.0 STATUTORY CONSIDERATIONS

6.1 Metropolitan Region Scheme

The subject land is currently classified 'Urban' zone under the Metropolitan Region Scheme (MRS) (see Figure 10 – MRS Map).



Figure 10 – MRS Map

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It should be noted that the zones and reservations prescribed by the MRS are broad categories only that are intentionally not precisely defined or limited in order to enable a flexible approach to town planning. The following definition is provided as a guide to its stated purpose/s in the MRS:

“Urban Zone - Areas in which a range of activities are undertaken, including residential, commercial recreational and light industry.”

The proposed development (i.e. multiple dwellings) is considered to be consistent with the defined intent of the land's current 'Urban' zoning classification under the MRS, as the development will allow for increased housing and housing diversity within a well serviced area. Given this, the proposed development may therefore be approved.

6.2 City of Stirling Local Planning Scheme No.3

Lot 56 is classified 'Development' zone under the City of Stirling's current operative Local Planning Scheme No.3 (LPS No.3). Furthermore, the subject land is located within 'Stirling City Centre Special Control Area' (SCA), with the land being located within the 'Innaloo Precinct' (see Figure 11 – Scheme Map & Figure 12 – Stirling City Centre).

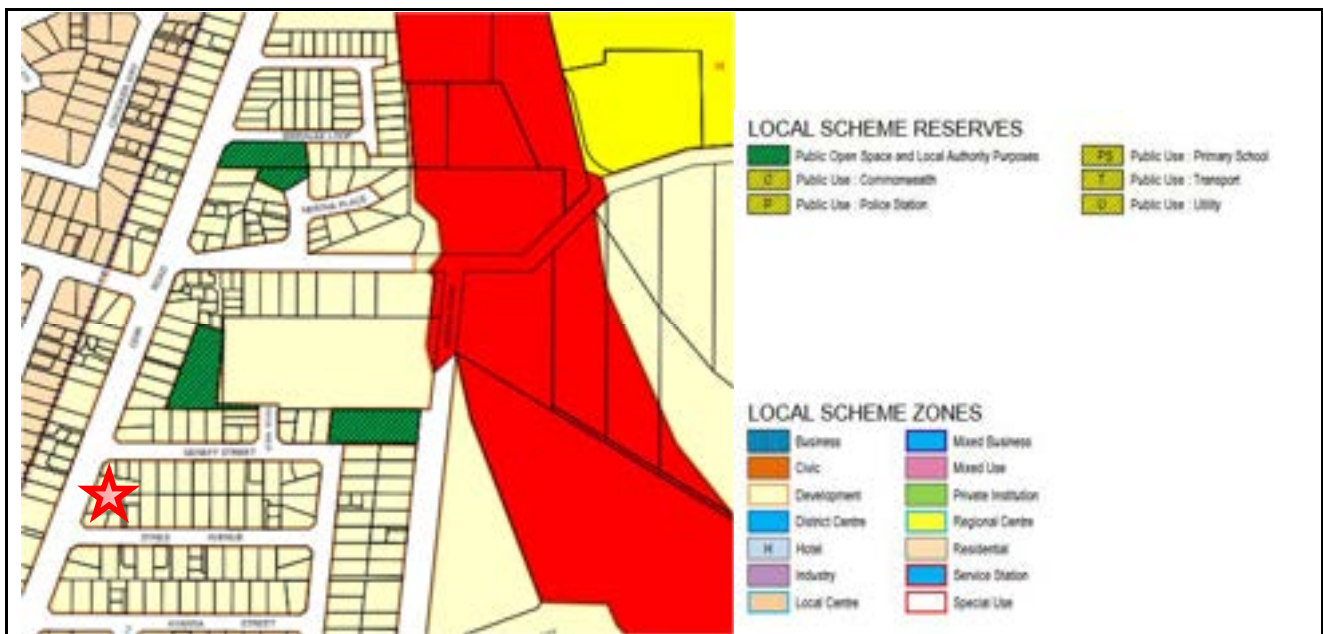


Figure 11 – Zoning Map (LPS No.17)

The 'Stirling City Structure Plan' was endorsed in 2014 to guide the future development of the Stirling City Centre. The Structure Plan identifies the subject land as being located within the 'Residential Sector'.

Clause 6.11.3 of LPS No.3 states that all development within the 'Stirling City Centre SCA' shall comply with any Structure Plan, Detailed Area Plan (Local Development Plan), Local Planning Policy and Development Contribution Plan adopted for the area. Under the terms of Table 1 ('Zoning Table') of LPS No.3, any development and use of land within the 'Development' zone is to be undertaken in accordance with the approved Structure Plan or Detailed Area Plan adopted under 6A of the LPS No.3.

In light of the above, the land is part of the 'Innaloo Precinct Local Development Plan' (LDP), which identifies the subject land as 'Urban Residential'. Under the terms of Table 2.3 ('Land Use Table') of the Structure Plan, the use of land within the 'Residential Sector' for 'Multiple Dwelling' purposes is identified as a permitted ("P") use.

In addition to the above, the "Innaloo Local Development Plan" identifies that Odin Road is a 'District Distributor B Road' (see Figure 12 – Stirling City Centre).

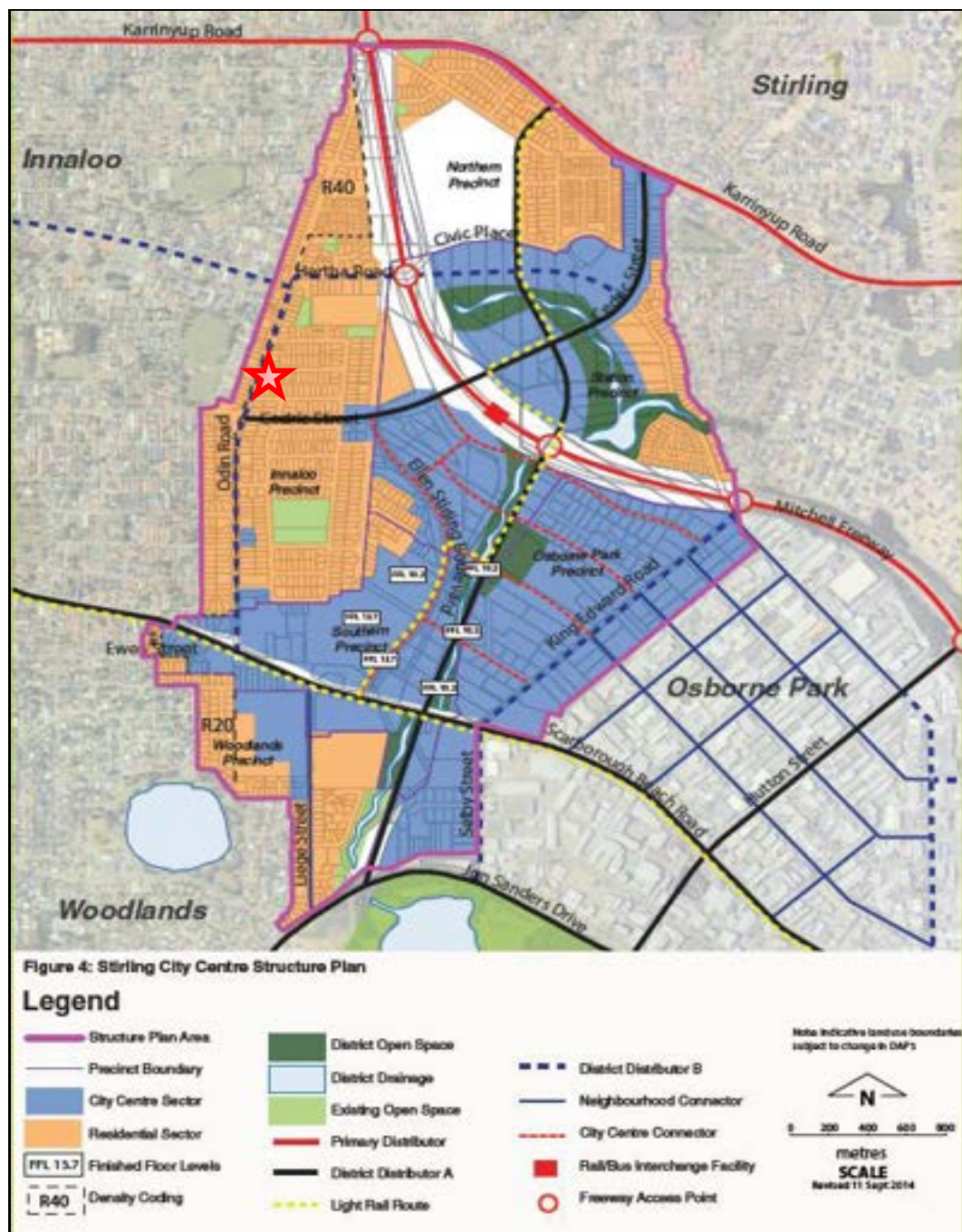


Figure 12 – The Stirling City Centre Structure Plan

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6.3 City of Stirling 'Innaloo Precinct Detailed Area Plan'

Lot 56 are located within the 'Innaloo Precinct' and is part of the 'Innaloo Precinct Local Development Plan' (LDP) that prescribes the relevant development standards to be applied within the precinct. Where the LDP does not provide a development standard, the provisions of the Residential Design Codes – Volume 2, any provisions prescribed within the City's LPS No.3 and any relevant local planning policies will apply.

Clause 1.1 of the LDP provides the following objectives for the Innaloo Precinct:

- *Facilitate more intensive redevelopment of residential areas whilst maintaining areas of private and communal open space.*
- *To require non-residential uses on the ground floor in mixed use areas to activate the street.*
- *To ensure there is a "stepping down" of heights from non-residential areas to the residential areas*

It is contended that the future development of the subject land for multiple dwelling purposes is consistent with the 'objectives' of the LDP. In addition, the LDP identifies that the subject land is located within Innaloo Sub-Precinct 2 entitled 'Standard Lots', with the character statement for the Sub-Precinct being as follows:

"Residential buildings (3 – 5 storeys) in a landscaped setting with setbacks to all boundaries to create space for tree planting between buildings."

It is contended that the proposed future development of the land for 'multiple dwelling' purposes is consistent with 'character statement' for the Sub-Precinct in that it results in the construction of a four (4) storey residential building and provides sufficient landscaping within the setback areas.

According to Clause 2.1.2.5 of the LDP, the minimum number of dwellings required to be constructed on the subject land is three (3) dwellings. As such the proposal to construct twelve (12) multiple dwellings on Lot 56 accords with the minimum dwelling yield requirements prescribed within the LDP for the subject land.

Figure 12 of the LDP identifies that lots with frontage to Odin Road (in particular Lot 56) shall comprise a maximum building height of four (4) storeys. The minimum building height for the subject land is two (2) storeys. The new development on the land accords with the LDP in terms of building height, as a four (4) storeys are being proposed.

It is significant to note that Clause 3.2.3 of the LDP entitled 'Special Provisions' states that each new development shall construct new visitor bays in the verge at the developer's cost where possible. The proposed development on Lot 56 has allocated the construction of visitor parking bays within the Odin Road verges area abutting the subject land.

Clause 1.6 of the LDP states that unless otherwise provided for in the LDP, the Residential Design Codes do not apply.

6.4 City of Stirling Local Planning Policy No.6.12 - 'Public Art on Private Land'

The City of Stirling's Local Planning policy No.6.12 entitled 'Public Art on Private Land' seeks to improve the appearance and amenity of places and improve the vibrancy and character of an area. The proposed development intends to local/place the artwork along the land's Odin Road frontage, abutting the main entrance way where there is potential for a feature sculpture, Arbor or light art installation (see Figure 13).

Details of the artwork will be provided once a development approval has been issued. As such, it is requested that an appropriately worded condition be imposed on any development approval granted that the details, approval and installation of the public artwork be obtained prior to the completion/occupancy of the development.



Figure 13 – Location of public artwork (marked in red)

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6.5 Directions 2031 and Beyond

'*Directions 2031 and Beyond*' is the Western Australian Planning Commission's (WAPC) strategic framework for guiding development of the Perth Metropolitan Region to a sustainable future. At the centre of '*Directions 2031*' is an enhanced emphasis on growth management in a bid to accommodate future anticipated population growth within Perth, obtain better use of existing infrastructure and provide for a sustainable city including improved housing affordability. This philosophy is also being depicted in the Commission's recent document entitled '*Perth and Peel 3.5 million*'.

The future development of the subject land to accommodate multiple dwellings will facilitate the provision of additional housing within an established and key Activity Centre within the Perth Metropolitan Region, that contains a wide range of existing infrastructure, including public transport, commercial use, public open space reserves and a comprehensive pedestrian/cycle network. Overall, the development will provide for additional housing, housing diversity and promote the consolidation of urban growth within an existing urban area in a manner consistent with the strategic framework outlined in '*Directions 2031 and Beyond*'.

As such it is contended that the proposed development on the subject land is consistent with the aims and objectives of '*Directions 2031 and Beyond*' and will make a beneficial contribution to the future development and sustainable growth of the Perth Metropolitan Region in general.

6.6 Perth & Peel @ 3.5 Million

'*Perth & Peel @ 3.5 Million*' is the State Government's high-level vision for the growth of the Perth and Peel region to accommodate the future anticipated population growth, which is predicated to be 2.9 million people before 2031 and 3.5 million people before 2050.

In order to accommodate the aforementioned population growth, the document aims at the creation of a more consolidated urban form that includes 53% of future development within the greenfield area and 47% of future development in the current urban area (i.e. infill development). The proposed development will allow for the provision of increased housing availability within the Stirling City Centre. As such, the development will assist with the City of Stirling meeting the targets set by the State Government for the delivery of additional housing within the existing urban area and within a key Activity Centre.

In light of the above, the proposed multiple dwelling development on the subject land accords with the aims of '*Perth & Peel @ 3.5 Million*'.

6.7 State Planning Policy No.7.0 - 'Design of Built Form Environment'

State Planning Policy No.7.0 entitled 'Design of Built Environment' (SPP No.7.0) addresses the design quality of the built environment across all planning and development types in order to deliver broad economic, environmental, affordable and cultural benefit. The aim is to provide for improved development outcomes throughout the State and is a key consideration when assessing developments.

The following table provides responses to the 'design principles' outlined with the Western Australian Planning Commission's State Planning Policy No.7.0 for consideration:

Table 1 – Design Principles

DESIGN PRINCIPLE	RESPONSE
<u>Context and character</u> <i>"Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place."</i>	- A review of the immediate locality has identified that there is no distinct character or heritage value within the area. The current residential built form varies from the older single dwellings which reflects the historical low density development of the area, to large grouped and multiple dwelling developments emerging in the recent years. - This part of the Innaloo locality (in particular within the Stirling City Centre area) is currently undergoing a significant change in character and built form that reflects the implementation of varying medium to high densities allocated within the Activity Centre with a vision for the area to ultimately comprise a more intensified form of development that will foster the growth of the City Centre and improve utilization of the existing public transport network. - A further review of the area also identifies large commercial developments along arterials roads such as Cedric Street, Karrinyup Road and Odin Road (see Figure 14). - It is noted that recently a number of three (3) and four (4) storey multiple dwellings have been proposed within the Innaloo Precinct, which reflects the anticipated built form within the area to assist with the growth of the Activity Centre and reflect the current planning framework (see Figure 15). - This part of the Activity Centre contains an eclectic mix of dwelling types and built form that has evolved as a result of the ongoing development of the area to accord with the new planning framework.  Figure 14 – Existing commercial development along Cedric Street

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Figure 15 – The emerging residential built form within the Stirling City Centre.

- The new development on the subject land will provide distinguishable architectural features and high level of passive surveillance of the public realm. The articulated front façade of the development is distinctive and will provide a sense of place for the future occupants of the development.
- It is concluded that the proposed development reflects upon the anticipated development within a key Activity Centre encouraged by the City's planning framework. This includes the vision that the streetscape character will contain developments with heights of four (4) storeys along this part of the Odin Road. As such, the proposed built form on the new development on the subject land reflects the current planning framework and is mindful of the anticipated built form for the locality.
- Figure 16 below illustrates the proposed development set within the anticipated built form along this part of Odin Road prescribed within the LDP. As such, the proposed development is consistent with the objectives/vision of the LDP.



Figure 16- The proposed development in context with the articulated built form along this part of Odin Road.

Landscape quality

“Good design recognises that together landscape and buildings operate as an integrated and

- A review of the subject land has revealed that there is no significant vegetation on the land. As such, there is no opportunity to retain existing vegetation and that this development will be an improvement on the current situation on the land, including increasing the canopy coverage over the land.

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<i>sustainable system, within a broader ecological context."</i>	• The application proposes to retain the two (2) street trees located within the verge areas abutting the subject land to preserve the streetscape and existing tree canopy coverage. • The proposed development of the land will include the provision of landscaping throughout the site and the planting of additional mature trees to enhance the development, add additional canopy coverage and provide protection during the hot summer months. • The landscaping to be provided within primary street setback area will assist with softening the appearance of the development when viewed from the street and assist with on-site drainage. • A variety of vegetation will be proposed throughout the site, ranging from shrubs to larger trees and sufficient space is allowed for the proposed trees to grow to a sufficient size to provide canopy cover of the site for the benefit to the local community. Furthermore, all plant species and sizes will be provided in consultation with the City of Stirling to ensure a good outcome.
<u>Built Form and scale</u> <i>"Good design provides development with massing and height that is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area."</i>	• The proposed development features good massing as the façade is broken up by multiple elements and articulation, including the use of varying materials (i.e. render, glass, landscaping planters and feature panelling) and the inclusion of open balconies along the street façades. Given these key elements, it is contended that the future development on the land will contribute to the desired built form character of the streetscape and the Activity Centre in general. • In addition to the above point, the development will locate the outdoor living areas for a number of multiple dwellings to comprise an outlook over the adjoining street. This will provide some activation of the development along the street. The inclusion of major openings to habitable rooms along the frontage of the building will further assist with improved passive surveillance of the street, along with promoting community interaction. • The proposed development will comprise setbacks that are consistent with the 'Innaloo Precinct LDP', with varying setbacks to provide for good articulation, introduce an element of visual interest when viewed from the adjoining properties and to limit building bulk and scale. In addition, the lot boundary setbacks allow for adequate separation for any future developments on the adjoining lots. • The proposed development will be of four (4) storey in nature to reflect the planning framework and will be consistent with the expected building height within an Activity Centre (in particular the requirement for additional building height along this part of Odin Road). • The bulk and scale of the development reflects similar built form expected within a City Centre. In addition, the proposed built form is consistent with the emerging bulk and scale of recent multiple dwelling development throughout the Stirling City Centre. • The development will include the concealment of the resident car parking area behind the front setback area and screened from view from the public realm.
<u>Functionality and build quality</u> <i>"Good design meets the needs of users efficiently and effectively,</i>	• The design of each dwelling within the development is considered to be functional, with the internal living area for each dwelling being designed to be

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<i>balancing functional requirements to deliver optimum benefit and performing well over the full life-cycle."</i>	utilised in conjunction with the external living areas to create large entertainment areas. • The development will include the use of robust materials and construction methods that will comprise a long life cycle. Furthermore, the proposed development will be constructed to comply with the National Construction Codes and appropriately engineered. • The development has been designed to allow for access to natural light and cross ventilation (air flow through the dwelling). • The good access to natural light and ventilation for each dwelling will allow for reduced usage of artificial lighting and ventilation of the dwellings and reduce long term running cost of the dwellings (reduce electrical use). • The development will comprise a clearly definable entry point at ground level and a sense of place for the future occupants and visitors to the development. • The bin storage area is enclosed and located so that is will not be visible from the public realm and will not impact the amenity of any dwellings in terms of appearance and/or odours. • Each dwelling has been provided with sufficient storage, on-site car parking and an outdoor living area of sufficient dimension and width to meet the needs of the future occupants. This will provide for usable internal and external areas.
<u>Sustainability</u> <i>"Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes."</i>	• The proposed development has been designed to access natural light where possible (given the orientation of the lot), It is contended that the design of the proposed development will assist with reduced running costs of each dwelling • The use of landscaping along will assist with providing adequate shading during the hot summer months. • The design of the development has allowed for the car parking area to be under the building and therefore providing protection of the hardstand area from the sun (reduce heat generated by the hardstand). • Adequate landscaping will be provided to accord with water-sensitive design, provide natural shading during the summer months and provide adequate greenery to benefit the development. • The location of various outdoor living areas within the street frontages will provide for improved connectivity between the public and private realms that will assist with social interaction. • The proposed development will assist with the provision of a diversity of housing stock within the Innaloo locality, in close proximity to a key transport node and an Activity Centre. The close proximity to a high frequency public transport node will assist with reducing motor vehicle dependency and assist with reducing pollution generated by car usage. In addition, the proposed development will assist with the provision of additional housing within the Activity Centre which is consistent with the State Government's aim to increase the use of the existing infrastructure and creating vibrant community hubs. • The development will include the future installation of solar panels & the installation of instantaneous hot water systems to service the multiple dwellings. • In addition to the above, each dwelling within the development will include the installation of waterwise fittings to reduce water consumption. • The development will include bicycle parking bays to encourage bike usage and limit motor vehicle usage.

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<u>Amenity</u> <i>“Good design optimises internal and external amenity for occupants, visitors and neighbours, contributing to living and working environments that are comfortable and productive.”</i>	• Each dwelling features a living area which can be used in conjunction with the external living area. This creates a usable internal and external area that is functional and will accommodate the needs of the future occupants of the development, which provides sufficient area to entertain visitors to each dwelling. • The outdoor living areas are considered to be well designed, with a majority of the dwellings containing an outlook over the street to provide a view, promote passive surveillance of the street and allows for effective connectivity with the public realm. This includes providing passive surveillance over Odin Road. • Adequate boundary setbacks and limited parapet walls have been provided for adequate separation between the building on the subject land and the adjoining properties, therefore limiting any potential impacts associated with bulk, scale, visual privacy, noise etc. • The development provides a large rooftop communal space that will allow for entertainment with visitors and promote social interaction with residents within the development. • A majority of the shadow cast by the proposed development will extend over the road reserve and will therefore not impact the existing residential developments on the adjoining • Given that the subject land is located within an Activity Centre, there are opportunities for the future residents of the development to live and work locally, therefore reducing travel time and improving the living quality for the occupants. • Adequate storage and bicycle parking is also provided for each dwelling (i.e. within the storerooms), along with a bin storage area located in a position to minimise any impact on the future occupants of the development and allow for easy access. • The development has been designed to allow for easy access for both the occupants and visitors to the development.
<u>Legibility</u> <i>“Good design results in buildings and places that are legible, with clear connections and memorable elements to help people find their way around.”</i>	• The proposed multiple dwelling development is legible in that it provides a distinctive façade and conceals the on-site resident car parking area from the public realm (located to the rear of the development). • All dwellings will comprise a covered entry point (via an enclosed foyer) that will provide protection from the elements. • One (1) crossover/driveway is proposed for the development to provide a clear vehicle entry point for both occupants and visitors.
<u>Safety</u> <i>“Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.”</i>	• The development proposal provides multiple major openings for various dwellings facing the street to avoid enticing criminal activity and intrusion. The development will have sufficient surveillance over both the public and private realms. • The resident car parking area and associated facilitated such as the stores and bin storage are appropriately located within the development to avoid enticing criminal activity and intrusion. • Gates will be installed to provide improve security for vehicles.

	• The inclusion of major openings and balconies overlooking Odin Road will provide a sense of security for local residents. • The development will include visually permeable front fencing for the outdoor living areas associated with the ground floor dwellings to allow for improved passive surveillance, provide an active frontage and to encourage social interaction. • The development will include security cameras and intercom systems to provide a safe environment for both the occupants and visitors to the development. • The vehicle access point comprises adequate visual sightlines to provide a safe pedestrian environment and adequate two-way vehicle movements to allow for safe access and egress for the vehicles associated with the development. • The development has been designed to allow for all vehicles to enter the street in a forward gear. The vehicle access point comprises adequate visual sightlines to provide a safe pedestrian environment.
<u>Community</u> <i>“Good design responds to local community needs as well as the wider social context, providing buildings and spaces that support a diverse range of people and facilitate social interaction.”</i>	• The proposed development provides a number of outdoor living areas and main habitable areas which address the street. This allows for good passive surveillance of the public realm and along for an active frontage. • The smaller dwelling size (as opposed to a single detached dwelling) will provide an opportunity for aged residents within the locality to downsize and remain within the suburb with easy access to public open space and the various nodes/services offered by the Activity Centre. The proposed dwelling types also cater for a variety of demographics such as first homebuyers, singles and couples without children. • The development provides affordable housing to the community, whilst increasing the housing density within the Stirling City Centre. In addition, the development will provide small housing typology to accommodate occupants working within the Activity Centre. • The communal open space provided for the development will promote social interaction with the future occupants of the development. • The proposed development has easy access to large public open space reserves, including the Stirling Civic Gardens. This provides a recreational space for the future occupants of the development. • The proposed development accords with the State Government's directive to increase residential densities within a key Activity Centres and in close proximity to public transport network to provide affordable housing within these important nodes. • The increase of densities and the provision of additional housing within close proximity to public transport will assist with reducing motor vehicle usage and reduce the extent of the Perth Metropolitan area expanding into the rural and bushland areas along the City's urban fringe. This will assist with providing a positive outcome for the environment and the community in general. • In addition to the above point, the increase in densities and housing within the existing urban fabric will limit the extension of the Perth urban area outwards (i.e. reduce the impacts of 'Urban Sprawl', which results in high costs to the community in terms of infrastructure costs).

Aesthetics

“Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.”

- Aesthetics of the proposed street facing facades is highly demonstrated by the use of a variety of materials and renders, inclusion of balconies/terrace and major openings of varying sizes.
- The proposed façade provides visual interest and an active frontage that provides a connection between the public and private realms within the residential complex. This includes providing an articulated front facade.
- The design of the proposed development incorporates sufficient and safe pedestrian movements, whilst allowing for ease of access to various on-site facilities such as bin storage areas, storerooms and car parking.
- The building height for the development is consistent with the expected built form within an Activity Centre and will not result in the development being over bearing along the street. In addition the proposed development the subject land is consistent in terms of bulk, scale and height to the recently completed developments scattered throughout the Stirling City Centre.
- The proposed development allows for good massing and bulk and the street, which is expected within the City Centre environment.
- The proposed development has been designed to include active spaces (i.e. balconies, outdoor living area) and landscaping, which will provide an attractive and articulated front façades. The impressive façade designs will appeal to all passers-by and engage interest from the public realm.

6.8 Bushfire Prone Areas

The subject land has not been identified by the Department of Fire & Emergency Services (DFES) as being located within a designated 'bushfire prone area' (see Figure 17).



Figure 17 – DFES Bushfire Mapping

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6.9 State Planning Policy No.5.4 – ‘Road & Rail Noise’

The subject land is located within close proximity to the Cedric Street, which have been identified as a regional road (see Figure 18 - PlanWA). As such, this development application requires the preparation of an acoustic report to enable the City to undertake an assessment against *State Planning Policy No. 5.4 Road and Rail Noise*.



Figure 18 – Road Noise (PlanWA)

An acoustic report has been prepared in support of this application by Herring Storer Acoustics to address State Planning Policy No.5.4 in terms of noise. The report provides the following conclusions:

- *In accordance with the WAPC Planning Policy 5.4, an assessment of the noise that would be received within the development of 93 Odin Road, Innaloo from vehicles travelling on Odin Road has been undertaken.*
- *In accordance with the Policy, the following would be the acoustic criteria applicable to this project:*

External

Day 55 dB(A) LAeq

Night 50 dB(A) LAeq

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Internal

Sleeping Areas 35 dB(A) LAeq(night)

Living Areas 40 dB(A) LAeq(day)

- *The results of the acoustic assessment indicate that noise received at the development from future traffic, do not exceed external noise level criteria. Therefore, standard construction would meet the requirements of State Planning Policy 5.4, and Notifications on the Title would not be required.*

In light of the above, it is concluded that the design and location of the proposed development on the land is suitable and can be managed in terms of noise generation.

6.10 Contaminated Site Investigation

A search of the site under the contaminated sites register has revealed that the land does not have any contamination (see Figure 19). In addition, the subject land is not impacted by floods plains, Bush Forever site and/or acid sulphate soils.



Figure 19 – The subject land is not identified as a contaminated site (MNG Mapping)

6.11 Vehicular Access & Traffic Movements

A Traffic Impact Statement has been prepared by 'KCTT' in support of this application (see copy attached herewith). The Traffic Impact Statement (TIS) comprises the following conclusions in terms of the proposed development on the subject land:

- i) Additional traffic attracted to the subject site is expected to increase by a maximum of 71 vehicular trips per day and 9 vehicular trips in the peak hour.
- ii) Odin Road is classified as Distributor B as per MRWA classification with the desirable volume above 6,000 vehicles per day. Currently there are around 21,500 vehicles per day on weekdays. Traffic generated by the proposed development is in line with the 0.37% of the existing traffic volume on Odin Road. Other surrounding roads would absorb significantly less traffic than Odin Road, moreover, the traffic would be dispersed so that the impact can be considered negligible.
- iii) In summary KCTT believe that the proposed development will not have a negative impact on the surrounding road network.

In light of the above, it is concluded that the design and location of the proposed development on the land is suitable in terms of traffic movement and generation.

7.0 DEVELOPMENT STANDARDS

The proposed development has been designed to include landscaping throughout the site, allow for good articulation of the building facades and provide for a plot ratio area less than the maximum area allowed. In addition, the development has been designed to screen the car parking from the street and provide activation of the street through the inclusion of major openings, outdoor living area and balconies along the street frontages of the building.

As previously mentioned within this report, Clause 1.6 of the LDP states that unless otherwise provided for in the LDP, the Residential Design Codes do not apply. As such, the development standards prescribed within the LDP apply to this development. The design of the proposed development on Lot 56 has been formulated with due regard for the relevant 'deemed to comply requirements' of the City of Stirling's current operative Local Planning Scheme No.3 (LPS No.3) including any relevant Local Planning Policies and the Innaloo Local Development Area Plan and any relevant Local Planning Policies:

Appendix 2 of this report provides an assessment of the proposed development against the development provisions prescribed within the LDP. The table within Appendix 2 also provides justification for those that are seeking a variation to the 'deemed to comply requirements' of the relevant planning provision.

8.0 DESIGN REVIEW PANEL (DRP)

The application has been referred to the Design Review Panel (DRP) at the City of Stirling on 20 June 2023 and again on 12 October 2023 for consideration and comment. It is noted that the proposed use and development on the land is generally supported by the Panel, with a number of recommendations and comments being made to improve the functionality and appearance of the development.

Following a review of the comments, the plans prepared in support of the development were amended and has resulted in vast improvements to the design layout of the development. The key changes undertaken include the following:

- i) A contextual plan has been included within the plan series to illustrate the current and future development within the area. It should be noted that the proposed development is reflective of

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the planning framework and the anticipated development within the area in terms of bulk, scale and density;

- ii) The number of multiple dwellings within the development was reduced from thirteen (13) to twelve (12) to allow for improved dwelling layout. As such, the design layout of each dwelling was amended;
- iii) In light of the above changes, the design layout of the roof top communal open space area has been redesigned to be more integrated and open (i.e. more usable);
- iv) The west facing planter structures on the balconies have been removed to address the Panel's concerns regarding access and maintenance;
- v) The entry point of the development along the land's Odin Road frontage has been redesigned to be more open and provide for more landscaping. The entry point is also well defined to allow easy access and recognition by pedestrians;
- vi) A number of the lot boundary setbacks have been adjusted. It should be noted that the lot boundary setbacks reflect the minor variations allowed by the 'Innaloo Precinct Local Development Plan';
- vii) A window has been added to the study area of Apartment 2, as requested by the DRP;
- viii) Air conditioning condensers have been illustrated on the plans and located on the roof space to avoid any impacts on the streetscape;
- ix) Direct pedestrian access has been provided for the ground floor dwellings to the street, allow for improved connectivity and street interface;
- x) The extent of highlight windows for the development has been reduced to allow for improved access to natural light and ventilation;
- xi) The configuration of the bedrooms have been changed to comply with the minimum dimension requirements as requested by the DRP;
- xii) The bin storage area has been amended and relocated to accommodate improved access and bin numbers;
- xiii) The foyer and storeroom configuration of the development has been amended to improve access and interface;
- xiv) The plans have been amended to illustrate breeze paths and access to natural light; and
- xv) The crossover has been amended to allow for a passing point within the verge area.

9.0 SUMMARY OF JUSTIFICATIONS

Having regard for all of the above, it is contended the proposed new multiple dwelling development on Lot 56 (No.93) Odin Road, Innaloo is suitable and capable of being approved for the following reasons:

- It is consistent with the general objectives of the land's current 'Urban' zoning classification under the Metropolitan Region Scheme.
- The development of multiple dwellings on the land is permitted under the local authority planning framework.
- The proposed development on the subject land will complement other similar land use activities that will be developed within this part of the Stirling City Centre, with convenient access to public transport, local centres, a regional road network and recreational facilities.
- The proposed development will assist with the provision of housing variety within the Stirling City Centre within close proximity to various nodes and infrastructure (such as public transport).
- The proposed development has been designed to have due regard for the development standards prescribed within the relevant planning framework, including the Innaloo Precinct Local Development Plan.
- The proposed development will improve the streetscape and levels of passive surveillance along Odin Road.
- The development has been designed to incorporate design features, an active frontage and improved passive surveillance of the adjoining street (i.e. it will oversee the public realm).
- The proposed development will provide opportunity for the development of an attractive and safe residential environment comprising affordable, modern and high quality housing within a well-established urban area.
- The proposed development is unlikely to compromise the existing character, amenity or compatibility of land usage in the immediate locality and is consistent with the future anticipated development for the area.
- The proposed development is consistent with the objectives of the City of Stirling's 'Stirling City Structure Plan'.
- The proposal development for the land of 'multiple dwelling' purposes is consistent with the aims and objectives of 'Directions 2031' and 'Perth & Peel @ 3.5 Million' and will make a beneficial contribution to the future development and sustainable growth of the Perth Metropolitan Region generally.
- The proposal will assist with the City of Stirling meeting the target set by the State Government for the delivery of additional housing within the existing metropolitan area and will assist with fostering the sustainable growth of the Stirling City Centre.
- The proposed development will add to the diversity of housing stock and provide a variety of choice for future potential residents in the Innaloo locality (within the Stirling City Centre) and will help to accommodate the increased demand for housing within a well-developed residential area.

10.0 CONCLUSION

This Stirling City Centre area is currently experiencing a transitional phase, wherein the older low density housing stock is being replaced by new higher density developments that reflects the City of Stirling's vision for area and accords with the strategic planning framework adopted by the State Government to achieve infill development within the existing metropolitan area and in close proximity to key nodes.

The proposed development has been designed to reflect the scale, built form and character expected within a key Activity Centre. Furthermore, the proposed development provides for a change to the housing typology within the Innaloo Precinct to provide for a diversity of housing.

The proposed construction of twelve (12) new multiple dwellings on Lot 56 (No.93) Odin Road, Innaloo is consistent with the current planning framework in place for the Stirling City Centre (in particular within the Innaloo Precinct) and will assist with providing affordable and additional housing within a locality that is well serviced with various infrastructure and within a key activity node (including access to a train station). According, we seek the City of Stirling and JDAP's approval of the proposed development on the subject land at its earliest convenience.



20 February 2024
CF Town Planning & Development
Planning & Development Consultants

City of Stirling
28 Feb 2024
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APPENDIX 2 – – LOCAL DEVELOPMENT PLAN ASSESSMENT

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Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
2.0 General Provisions		
2.1.2.3 Dwelling Mix - All developments and subdivisions comprising of ten or more dwellings shall provide a minimum of 10% single bedroom dwellings as part of the development; and.	- The proposed development has been designed to provide dwellings with some varying size and configuration to cater for various needs and demographics. - The development will comprise 41.66% single bedroom dwellings in lieu of 10%. This allows for the creation of affordable housing within an area that is well serviced and comprises good access to a wide range of services and infrastructure. As such, the development will provide for a higher population and different occupants types (i.e. singles and/or couples without children) to locate within the area. - All dwellings have been designed to potentially meet the Silver Level requirements. Complies	
2.1.2.4 Multiple Dwelling Size - Minimum multiple dwelling size of 40m ² plot ratio area, excluding outdoor living areas and external storage and car parking areas.	- All dwellings within the development comprise a minimum plot ratio area of greater than 40m². - Each dwelling provides for sufficient internal and external living spaces Complies	
2.1.2.5 Minimum number of Dwellings - Minimum 3 dwellings to be provided in accordance with Figures 3 and 4.	The proposed development includes twelve (12) multiple dwellings in lieu of a minimum of three (3) dwellings required by the LDP. Complies	
2.1.3 Building Heights		
2.1.3.1 Wall Height As per Sub Precinct Area 2 (See below); - Minimum two storey.	The proposed development comprises a maximum of four (4) storeys, which is allowable(the maximum wall height being 15.4 metres in lieu of 15 metres). The additional height will be addressed below).	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
- Maximum four (4) storeys - Top of external wall (concealed roof) 1.0m above wall height limit outlined in sub precinct areas (not to exceed 15 of any frontage); and - Floor to ceiling heights on upper floors are to be as per sub precinct provision.	• Clause 2.1.3.3 allows for a projection of 1 metre for 15% of the frontage. • In light of the above, the proposed building meets the 'deemed to comply requirements' of the LDP for Sub-Precinct B. • Ceiling heights are greater than 3 metres as indicated on Figure 13A. Complies	
2.1.3.2 Roof Height - As per Sub Precinct Area (refer Section 3)	• The proposed development contains a concealed roof structure and complies with the provision prescribed in Section 3. • The proposed development is four (4) storeys and fits within the maximum allowable building height from NGL. Complies	
2.1.3.2 Minor Projections Above Wall Height - Maximum 1.0m projection for 15% on any frontage.	• The proposal complies with the allowable projection, with a maximum height of 400mm in lieu of an allowable projection height of 1 metre. As such, the proposed projection penetrating above the prescribed building height limits is allowable. Complies	
2.1.4 Setbacks		
2.1.4.1 Street Setbacks - As per Sub Precinct Area (see below).	• The proposed development proposes a minimum front setback of 3 metres in accordance with the LDP for Sub-Section B. • The development has been provided with balconies along the front facade to allow to good activation of the street. • Complies	
2.1.4.2 Side / Rear Setbacks - 4.0m to a major openings to a habitable room	• The proposed development provides a 6 metre setback from the rear boundary in accordance with the Figure 13	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
with a major opening or balcony above ground level; and - Side and rear setbacks as per Sub Precinct Area (refer Section 3).	of the LDP and is therefore compliant. • The application proposes that the following aspects of the proposed development on the subject land do not meet the 'deemed to comply requirements' of Clause 2.1.4.2 of the LDP: i) Ground floor – Minimum setback of 2.3 metres from the southern side boundary in lieu of 3 metres; ii) First, second & third floors – Minimum setback of 2.5 metres from the northern side boundary in lieu of 3 metres; iii) First, second & third floors – Setback less than 4 metres (i.e. 2.5 metres) from the northern side boundary for bed 2 (Units 3 & 7) iv) First, second & third floors – Minimum setback of 2.461 metres in from the southern side boundary in lieu of 3 metres; v) First, second & third floors – Setback less than 4 metres (i.e. 2.5 metres & 2.497 metres) from the southern side boundary for bed 2 (Units 4 & 8 and bed 1 (Units 6 & 10); vi) Fourth floor - Minimum setback of 4.0 metres from the northern side boundary in lieu of 6 metres; and vii) Fourth floor – Minimum setback of 2.5 metres from the southern side boundary in lieu of 6 metres. • The following justification is provided in support of the above variation to the lot boundary requirements: 1. Clause 1.4 of the LDP allows for a 20% variation to the lot boundary setback requirements. Given this, the variations outlined in point ii above satisfies the allowable variations that can be granted by the LDP. 2. The proposed setback variations for the new development on the subject land from the southern side boundary can be attributed to the irregular shape of the subject land (i.e. angled boundary). Whilst	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	points of the building are non-compliant, there a parts that provide a larger compliant setback. 3. The building comprises varying setbacks from the side boundary to provide articulation when viewed from the adjoining properties, which is considered to be a better planning outcome than a façade comprising a flat 3 metre setback or a parapet wall along the boundary. Furthermore, the setback variations being sought will not result in the proposed development having an adverse impact on the local streetscape in terms of bulk and scale. 4. The setback to the bedroom windows can be attributed to the City's DRP requiring that no highlight windows be provided to enable an outlook from the bedrooms. If a highlight window were to be provided (i.e. ignore the recommendations of the DRP), the setback for various walls may fall within the 20% allowance provided by Clause 1.4 of the LDP or comprise a far lesser variation. 5. The proposed development has avoided the use of parapet walls to limit the overall impact on the adjoining properties in terms of bulk and scale. 6. The development provides a compliant rear setback to allow for a sense of separation, natural light to penetrate into the adjoining lots and allow for landscaping. 7. Sufficient space is provided to allow for the planting of trees and landscaping along the lot boundaries to provide a buffer with the adjoining lots. 8. Sufficient separation is provided between the existing buildings on the adjoining lots and the proposed new building on the subject land. 9. The proposed development makes effective use of all available space and provides for the creation of adequate internal and external living areas for each dwelling which will benefit all future occupants.	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	10. The proposed development will provide an attractive and safe residential environment comprising modern, affordable, high quality housing within a well-established urban area within close proximity to public transport route (i.e. Stirling train station) and within the Stirling City Centre ('Activity Centre'). 11. The subject land is ideally located within the 'Stirling City Centre' and the proposed development will assist with providing increased population within the City Centre. The strict compliance with the development provisions of the City's LDP may result in the loss of dwelling yield within the City Centre and therefore be contrary to the objectives of the 'Stirling City Centre Structure Plan' and '<i>Directions 2031</i>'. 12. Given that the property is located within the 'Stirling City Centre' and given the development potential within the centre, it is contended that overtime all adjoining properties will be developed in a similar manner and may include such minor setback variations. 13. The proposed development is located within a high density area, which allows for a greater extent of shadow to be cast over the adjoining properties (i.e. up to 50% of the adjoining lots). The shadow cast over the adjoining lots are less than the allowable amount and therefore can be considered acceptable. 14. Those portions of the proposed development comprising a reduced setback from the northern side boundary will abut a common property driveway associated with the grouped dwelling development on adjoining Lot 57 (No.95) Odin Road. Given this, the proposed development will not have an adverse impact on any sensitive habitable spaces on the adjoining northern property. In addition, any overlooking of Lot 57 is over a driveway. This provides for an element of passive surveillance over the driveway to benefit the occupants of the adjoining	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	northern property by providing a sense of security. 15. Those portions of the proposed development comprising a reduced setback from the southern side boundaries abut extensive rear yard area and patio structure of the existing dwellings on adjoining Lots 3 & 4 (No.2 & 2A) Sykes Avenue. As such, it is contended that the proposed setback variations for the development will not have an adverse impact on the adjoining properties and will not restrict any future redevelopment of these properties. In terms of overlooking, the bedrooms are low usage rooms and will not adversely impact the amenity of the existing dwelling on the adjoining southern lots. Having regard for all of the above it is contended that the portion of the new multiple dwelling development on Lot 56 proposing a reduced setback from the side boundaries will not have an adverse impact on the local streetscape or the adjoining properties, will not undermine the objectives of the City's Innaloo LDP and may therefore be approved by the City. Variation required	
2.1.4.3 Setbacks Between Buildings on the Same Lot (Storeys and below) - Minimum 8.0m distance between habitable buildings (multiple dwellings only).	The proposed development does provide separation between any buildings, with the proposed building within the development being one (1) large module. Complies	
2.1.4.4 Minor Projections into Setback Area - Maximum projection of 0.75m for chimneys, unenclosed balconies, eaves over-hang and other architectural features.	The development does include minor projections relating to architectural features into the setback areas (i.e. awning/eaves and projecting wall), which are compliant and permitted by the LDP. Complies	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
2.1.5 Open Space		
2.1.5.1 Open Rooftop Terraces - Rooftops may be used as an open terrace; - Rooftops shall not include habitable rooms; - All rooftop terraced areas shall be setback a minimum of 3.0m from the building edge; - Pergola rafters may extend to the edge of the terrace; and - Maximum 10% of rooftop terrace may be covered by impermeable roof.	- The proposed development includes a rooftop communal open space area to provide a usable spaces and to encourage social interactions. - There are not habitable rooms provided as part of the rooftop area, only unenclosed open space. - The rooftop area comprises a setback greater than the minimum required setback of 3 metres. - The rooftop are including a pergola to improve the amenity of the area. - The rooftop area is not covered with an impermeable roof structure and therefore complies Complies	
2.1.5.2 Outdoor Living Areas Each dwelling shall be provided with either: - One balcony with minimum dimension of 2.4m and minimum area of 10m ² ; or - One courtyard accessed directly from a habitable room with minimum dimension of 4m and minimum area of 20m ² .	- All upper level dwellings within the development are provided with an outdoor living area in accordance with Clause 2.1.5.2 of the LDP in terms of balcony dimension and area are adequate for a usable space. The development will comprise varying sized outdoor living areas for dwellings. - The ground floor dwellings comprise a larger outdoor living area (i.e. minimum dimension of 4 metres and an area of approximately 20m²). These outdoor living areas are located along the street frontage of the development and will assist with providing activation of the street. Complies	
2.1.5.3 Communal Open Space - Residential Developments incorporating between six and twelve units (inclusive) shall provide a minimum of 40m ² of communal open space with a minimum dimension of 4.0m; or - Residential Developments incorporating between	- The communal space is approximately 73m², which is 33m² larger than the minimum area required under Clause 2.1.5.3 of the LDP. This will assist with a larger landscaped area and a more active space for the residents of the development. - The minimum dimension of the communal area complies.	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
thirteen and twenty units (inclusive) shall provide a minimum of 80m² of communal open space with a minimum dimension of 5.0m; or - Residential Developments incorporating more than twenty units or all non-residential development shall provide communal open space of no less than 10% of the lot area with a minimum dimension of 8.0m; - A minimum of 50% of the communal open space shall be designed as landscaped areas inclusive of soft landscaping and shall include shade trees; - A maximum 10% of total communal open space area to be covered with an impermeable roof cover; and - Communal facilities such as BBQ's, seating, shade structures, tables etc. shall be provided.	• The communal open space area is larger than required and provides sufficient space to accommodate deep soil zones and the growth of a mature tree. The area contains greater than 50% landscaping and include shade trees. • The communal area is uncovered, with a pergola structure provided over a portion of the area that will comprise a table. • A BBQ, table, seating and a fire pit will be provided within the communal space. • The communal open space will accommodate the future occupants of the development and provide an area for social interaction. Complies	
2.1.7 Building Exterior		
2.1.7.1 Facades and Walls - No wall (other than side boundary walls with nil setback) to be longer than 80m in length without indentation; and - Minimum indentation to be at least 1.0m deep and 2.0m wide.	• The front & rear façades of the development comprise varying setbacks, with no portion comprising a continuous wall length of 10 metres. • The facades to the side elevations of the development comprise a length of 10 metres, followed by an offset in the building line to break the bulk of the building. Complies	
2.1.7.2 Balconies - Balcony balustrades shall be 75% visually permeable	• All balconies comprise clear glass and therefore visually permeable. Complies	
2.1.7.3 External Fixtures - All service meters and related infrastructure are to be screened as viewed from the street; and	• The utilities will be screened from the street by either locating the infrastructure behind the front setback area or screened by landscaping and fencing. • All infrastructure for each dwelling (i.e. hot water	

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- All external fixtures such as television and radio antennae, satellite dishes, plumbing vents and pipes, air conditioners and hot water systems are to be screened as viewed from the street and adjoining properties.	systems) will be located to not be visible from the public realm. No services will be located within the private outdoor living areas of any dwelling to avoid any impact on the private spaces. • Piping and ducting will be integrated into the development (i.e. painted, screened or harmonising with the development facades). Complies	
2.1.7.4 Essential Facilities Provisions - Every dwelling shall be provided with an enclosed storage area of at least 4.0m², minimum 1.5m dimension, which may be accessed from outside the dwelling; - Every dwelling shall be provided with a clothes-drying area (communal or private) that is not visible from the street. Alternatively, every dwelling shall be provided with a clothes dryer; and - In accordance with the City's Bin Storage Policy.	• Each dwelling will be provided with a storeroom. • All storerooms will be accessible externally from the dwelling. • Each dwelling will be provided with dryers within the laundry of the dwelling to avoid drying lines being visible from the public and private realms. • A communal bin store is provided abutting the driveway/car parking area of the development, with the bin store being screened from the street/public realm. • The storerooms for Units 6, 7, 8, 10, 11 & 12 will comprise a minimum internal dimension of 1.2 metres in lieu of 1.5 metres and an area less than 4m². The following justification is provided in support of the Variatio: 1. Sufficient area is provided within each storeroom to accommodate the needs of the future occupiers. 2. Other than those storeroom identified above, the other dwellings comply with the minimum area and dimensions required by the LDP. 3. The storerooms comprise easy access for the occupants of the dwellings. 4. The storerooms are not visible from the street. Having regard for all of the above it is contended that the storerooms provided for each dwelling is sufficient to meets the needs of the future occupants, will not impact the adjoining property/streetscape, will not undermine the objectives of the City's Innaloo LDP and may therefore be approved by the City.	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	Variation Required	
2.2 Streetscape Relationship		
2.2.2.2 Residential Entry Points - Entry points to be no more than 1.2m above the ground level.	- Entry points for the development is less than 1.2 metres above the ground level. The entry point has been designed to comprise a level that is consistent with the street. - The ground floor units will include a separate entry point/gate from the street. Complies	
2.2.2.3 Surveillance of Streets, Public Open Space & Public Access Ways - The building shall have courtyards and balconies facing all streets; and - The building shall provide a minimum of one major opening from a habitable room for every dwelling that orients to the street, public open space and public access way on the ground floor.	- The development will include a total of two (2) courtyards at ground level orientated towards the street and five (5) balconies on the upper floors orientated towards the Street. - Each dwelling along the frontage of the development will have more than one (1) major opening orientated towards the street. - Sufficient openings are orientated towards the entry point and communal space of the development. - The subject land does not abut a public open space reserve. Complies	
2.2.2.4 Major Openings to Habitable Rooms - One major opening (exceeding 1m ²) shall be provided to each habitable room.	Each habitable room comprises a window greater than 1m². It is noted that a number of habitable rooms have more than one window. Complies	
2.2.2.5 Weather Protection - Awnings shall have a minimum depth of 2.5m; - Awnings shall have a maximum vertical clearance from the pavement level of 3.5m (4.0m for entry points); - Awnings shall be constructed using materials that are opaque and non-reflective; and	The proposed development is not a 'Main Street' typology and does not propose any awnings at ground level over any adjoining pedestrian paths or verge area. N/A	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
- New awnings shall match with existing awnings (where present).		
2.2.2.6 Street Walls and Fences - Front walls and fences within primary street and secondary street setback area are visually permeable above 1.2m to a maximum height of 1.8m.	The front fence is visually permeable, with piers not exceeding 1.8 metres. The solid portions between the piers comprise a height of 750mm. Complies	
2.2.3 Site Works		
2.2.3.1 Site Works - A maximum of 0.5m of fill above the natural ground level is permitted; and - Excavation within all boundaries shall have no limit.	Site works for the development are within 500mm from NGL as per the R-Codes. Complies	
2.2.3.2 Retaining Walls - For residential development as per the Residential Design Codes. See R-Codes assessment below.	- Site works are within 500mm from NGL as per the R-Codes. - In light of the above, a nil setback for retaining walls is allowed in accordance with the R-Codes. Complies	
2.2.3.3 Levels - The ground floor level of buildings shall match footpath level for all non-residential and mixed-use development; and - Basement parking structures between a street frontage and the main front elevation are no more than 1.2m above natural ground level for residential developments.	- The development does not comprise a non-residential use. - The development does not propose basement parking. Complies	
2.2.3.4 Landscaping - A Landscaping Plan shall be submitted for all developments with 5 or more dwellings in accordance with the City's Landscaping Policy; - Landscaping shall include the landscape strips illustrated in Section 3 of this Detailed Area Plan; and	- Landscaping plan has been prepared in support of the application by a landscape architect. - Landscaping strips are proposed along the lot boundaries in accordance with Section 3 of the LDP. - The planting of trees and associated deep soil zones are in accordance with the City of Stirling's Local Planning policy No.6.11.	

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LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
- Landscaping strips shall include trees (min 45 litres) and minimum 5m spacing.	The outdoor living area for each ground floor unit will comprise a tree as per the Clause 2.2.4.4 of the LDP (refer to landscaping plan). Complies	
2.2.3.5 Lighting, Safety and Security - Shall be in accordance with the City's Mixed Use and Commercial Centre Zone Guidelines.	The development is not mixed use. N/A	
2.4 Access and Parking		
2.2.4.1 On-Site Car Parking Provisions - Parking shall be provided in accordance with the Parking Policy applicable to this Local Development Plan and;	- The land enjoys a Location A classification with good access to high frequency public transport. - The number of car parking bays provided for the residents comply with Table 3.9 pf the R-Codes (i.e. a total of 12 bays for Location A). - As the development comprises less than 20 dwellings, motorcycle parking is not required. - Clause 3.2.3 of the LDP entitled 'Special Provisions' states that each new development shall construct new visitor bays in the verge at the developer's cost where possible. The proposed development on Lot 56 has allocated the construction of visitor parking bays within the Odin Road verger area abutting the subject land. - The development comprises two (2) visitors bays in lieu of three (3). Justification is provided below: - It should be noted that the subject land is located in close proximity to a high frequency bus/train routes. - The proposed development meets the 'deemed to comply requirements' in regard to resident parking. - The proposed dwellings within the development are relatively small compared to the existing single dwelling type development within the immediate locality. Given this, it is anticipated that the dwellings will not generate the need for greater on-site parking that reflects a single dwelling, as the dwellings are	

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	unlikely to accommodate large families that would typically generate greater traffic movements and parking demand. 4. There are sufficient public transports services within close proximity to the subject land, including a high frequency bus/train routes. Access to the public transport network provides occupants and visitors to the proposed development with an alternative mode of transportation. 5. The subject land is well connected with pedestrian foot paths that provide safe access to and from the site for pedestrians and cyclists. In light of the above, the proposed reduced visitor parking bay number has merit and can be supported. Variation required	
2.2.4.3 Design and Location of Car Parking Bays - Car parking bays located within a building shall be located in accordance with Figures 5, 6, 7, 8 and 9.	• The car parking area is located to the rear of the site and screened from the street. • The car parking area has been designed to have due regard for the required landscaping strips/setbacks in accordance with Sub-Section B of the LDP. • No basement car parking area is proposed as part of this development. Complies	
2.2.4.5 Vehicle Access - Driveways serving up to 15 dwellings shall be 3.0m wide; - Driveways servicing mixed use developments and developments of more than 15 dwellings shall be 6.0m wide; and - Convex mirrors and/or pedestrian warning devices shall be provided where driver line of sight is obscured by buildings or landscaping.	• The development comprises one (1) access point along the land's Odin Road frontage. • As the development comprises less than fifteen (15) dwellings, a single width driveway is permitted. • The crossover width does not exceed 6 metres, which conforms with the City's Crossover Specifications. In addition, crossover will not impact the streetscape and is less than 20% of the lot frontage. • The crossover width is less than 6 metres and complies with the LDP and the City's specifications.	

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	Complies	
2.2.4.6 Crossovers - No more than one crossover is permitted for any one site; - Existing redundant crossovers will be required to be removed at the expense of the developer and the verge reinstated; and - Maximum crossover width 6.0m.	- The development comprises one (1) access point from Odin Road. - The crossover width does not exceed 6 metres, which conforms with the City's Crossover Specifications. - The crossover width is less than 6 metres and complies with the LDP and the City's specifications. Complies	
3.2 Sub-Precinct 2		
Minimum Ground Floor Ceiling Height – 3.0m	Ground floor 3.342 metres. Complies	
Setbacks as per Figures 13 and 14.	Building footprint and modules has due regard for the details illustrated in Figures 13 & 14 of the LDP. Justification for the variations to the lot boundary setbacks has been addressed under Clause 2.1.4.2 (Side / Rear Setbacks) above. Complies	
Building heights – 4 storeys as per Figure 12, 13 & 14.	Proposed development is four (4) storeys and complies with the building height requirements. Complies	

Attachment 6 – City of Stirling Officers Assessment

Areas of Discretion Sought

The following table outlines where discretion is sought against the applicable planning framework. This is to be read in conjunction with the Responsible Authority Report.

Innaloo Precinct LDP Specific Provisions		
Provision		Officer Comment
Setbacks		
Front	As per Figure 13, 14 and Clause 2.1.4.	Odin Road Proposed 3m
Rear and Side		Southern Boundary Ground Floor Apartment 2 Study Nook – 2.5m to 3.5m lieu of 3m – Discretion Sought. Level 1 Apartment 4 – 2.741m to 2.8m in lieu of 3m – Discretion Sought. Apartment 6 – 2.461m to 2.8m in lieu of 3m – Discretion Sought. Level 2 Apartment 8 – 2.471m to 2.8m in lieu of 3m – Discretion Sought. Apartment 10 – 2.461m to 2.778m in lieu of 3m – Discretion Sought. Level 3 Stairwell – 2.5m to 2.671m in lieu of 6m Primary Garden Area – 4.263m to 5.4m in lieu 6m – Discretion Sought. Northern Boundary Level 1 Apartment 3 – 2.5m in lieu of 3m – Discretion Sought Level 2 Apartment 7 – 2.5m in lieu of 3m – Discretion Sought Level 3 Apartment 12 to Primary Garden Area – 4m to 4.8m in lieu of 6m – Discretion Sought Objective Assessment provided within the Responsible Authority Report
Building Height - Lot Area of 749m²		
Wall Height	Max 12.0m wall height	Proposed top of wall 13.1m - Discretion sought. Objective Assessment provided within the Responsible Authority Report
Innaloo Precinct LDP General Provisions		
Provision		
Outdoor Living Areas		

Innaloo Precinct LDP Specific Provisions	
One balcony with minimum dimension of 2.4m and minimum area of 10.0sqm;	- Unit 5 proposed balcony of 8.65m² in lieu of 10.00 m² – Discretion Sought - Unit 6 proposed balcony of 9.67m² in lieu of 10.00 m² – Discretion Sought - Unit 9 proposed balcony of 8.65m² in lieu of 10.00 m² – Discretion Sought - Unit 10 proposed balcony of 9.67m² in lieu of 10.00 m² – Discretion Sought. 2.1.5.2. Outdoor Living Areas Objective To ensure that every dwelling has sufficient outdoor space to cater for the needs of residents. Comments The proposed development has been designed to incorporate an adequate and useable balcony with direct access to the major habitable room (lounge room). The proposed development has been provided with a generous sized communal space provided on Level 3, the communal facilities includes outdoor settings, furniture and BBQs which are capable of use throughout the year.
One courtyard accessed directly from a habitable room with minimum dimension of 4.0m and minimum area of 20.0sqm	- Unit 1 proposed courtyard with a minimum dimension of 3.3m in lieu of 4.0m – Discretion Sought. - Unit 2 proposed courtyard with a minimum dimension of 3.3m in lieu of 4.0m – Discretion Sought. 2.1.5.2. Outdoor Living Areas Objective To ensure that every dwelling has sufficient outdoor space to cater for the needs of residents. Comments The proposed courtyards are a generous size designed to cater for private outdoor living area whilst allowing for functional outdoor living The proposed development has been provided with a generous sized communal space provided on Level 3. The communal facilities includes outdoor settings, furniture and BBQs and are capable of use throughout the year.
Communal Open Space	
Developments incorporating between six and twelve units (inclusive) shall provide a minimum of 40m ² of communal open space with a minimum dimension of 4m, accessible from a major	No proposed major opening to the communal open space located on Level 3 – Discretion Sought. 2.1.5.3. Communal Open Space Objective To encourage social interaction between residents and workers in a development, passive surveillance and provide spaces for rest and recreation.

Innaloo Precinct LDP Specific Provisions	
openings to a habitable room;	Comment The proposed development has been provided with a generous sized communal space area provided on Level 3. The communal facilities are open to all residents and includes outdoor settings, furniture and BBQs which are capable of use throughout the year.
Major Openings to habitable rooms	
One major opening (min 1m ²) shall be provided to each habitable room.	• Unit 3 - Bedroom 2 – Discretion Sought • Unit 4 – Bedroom 2 – Discretion Sought • Unit 6 – Lounge Room – Discretion Sought • Unit 6 – Bedroom 1 – Discretion Sought • Unit 7 – Bedroom 2 – Discretion Sought • Unit 8 – Bedroom 2 – Discretion Sought • Unit 10 – Lounge Room – Discretion Sought • Unit 10 – Bedroom 1 – Discretion Sought • Unit 12 – Bedroom 1 – Discretion Sought 2.2.2.4 Major openings to habitable rooms Objective To ensure that there is sufficient outlook from all habitable rooms. Comment All habitable rooms are afforded either a major opening or non major opening. Highlight windows or screening has been provided to some habitable rooms to prevent overlooking, which allows sufficient access to natural light, ventilation and outlook from all habitable rooms. The proposed development provides courtyards and balconies facing all streets and public open spaces. Ensuring every dwelling has sufficient access to natural light, ventilation and outlook from the dwelling.
Facades and Walls	
No wall longer than 8m without indentation 1m deep and 2m wide	Northern Boundary Ground Floor Apartment 1 – Proposed wall length of 11m without indentation – Discretion Sought Southern Boundary Ground Floor Apartment 2 – Foyer – Proposed wall length of 15m with minor indentation – Discretion Sought Level 1

Innaloo Precinct LDP Specific Provisions	
	Level 1 Full length – Proposed wall length greater than 8m without indentation – Discretion Sought. Level 2 Level 2 Full length – Proposed wall length greater than 8m without indentation – Discretion Sought Level 3 Level 3 Full length – Proposed wall length greater than 8m without indentation – Discretion Sought Eastern Boundary Ground Floor Ground floor – foyer – Proposed wall length greater than 8m without indentation – Discretion Sought Level 1 Apartment 6 – Proposed wall length greater than 8m without indentation – Discretion Sought Level 2 Apartment 10 – Proposed wall length greater than 8m without indentation – Discretion Sought Level 3 Primary Garden Area – Proposed wall length greater than 8m without indentation – Discretion Sought. 2.1.7.1. Facades and Walls Objective To ensure that building facades are architecturally interesting. Comment The proposed development has been designed with a number of articulations and design elements including windows, awnings, textures and colours to break up the overall built form and building bulk and create an architecturally interesting building.
Landscaping	
Landscaping shall include the landscape strips illustrated in Section 3 of this Detailed Area Plan	Side landscaping buffer of 1.43m in lieu of 2m – Discretion Sought. 2.2.3.4 Landscaping Objective To improve the visual appeal of development, screen service areas and provide shade and green relief in built up areas Comment

Innaloo Precinct LDP Specific Provisions

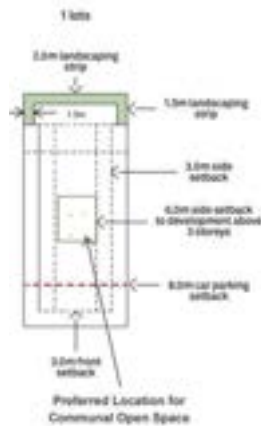


Figure 3 Innaloo Sub Precinct Area 2 typical site plans

The development requires 10% deep soil area which equates to 74.9m². The proposal includes 83.5m² (11%) deep soil area, the retention of two street trees and the planting of an additional nine Medium Trees on site.

The proposed landscaping includes a mix of natural lawn, mulched and other landscaped areas, which softens the appearance of the development. The landscaping area proposed to the rear boundary of the development also provides a buffer to the adjacent western property.

An assessment of the development against the overall Objectives of the LDP is provided in the table below.

Innaloo Precinct LDP Clause 1.1 Objectives	
Objective	Officer Comment
<i>Facilitate more intensive redevelopment of residential areas whilst maintaining areas of private and communal open space.</i>	The proposed development provides for 12 Multiple Dwellings within an activity centre and in proximity to public transport. The location of car parking within the side setback area does not impact the provision of landscaping on-site with the development providing 83.5m² (11.1%) of landscaping and nine Medium Trees. The proposed development provides well-designed areas of private and communal open space, providing residents with opportunities to recreate and socialise beyond their private living areas. The communal open space area on the fourth floor includes landscaping and tree plantings. The dwellings are each provided with private open space in the form of courtyards or balconies, along with the communal amenities and terrace provided on Level 3, the communal facilities includes outdoor settings, furniture and BBQs which are capable of use throughout the year.
<i>To require non-residential uses on the ground floor in mixed use areas to activate the street.</i>	The subject site is zoned Suburban Residential. As such, this objective is not relevant to the proposal.
<i>To ensure there is a “stepping down” of heights from non-residential areas to the residential areas.</i>	The subject site is zoned Suburban Residential. As such, this objective is not relevant to the proposal.

Noise and Acoustics

The subject site is located in proximity to Cedric Street and Odin Road which is identified as a 'Other Significant Freight/Traffic Route' in accordance with State Planning Policy 5.4 Road and Rail Noise (SPP 5.4). As such, the requirements of SPP 5.4 apply to the proposed residential use which is classified as a 'Noise Sensitive Land Use'.

The Applicant submitted a Transportation Noise Assessment prepared by Herring Storer Acoustics in support of the proposed development. The Transportation Noise Assessment identifies noise received at the development does not exceed external noise level criteria. As such, no specific design or building requirements apply.

Draft Local Planning Scheme No. 4 (LPS4)

On 15 August 2023, Council resolved (Council Resolution Number 0823/034) to prepare Local Planning Scheme No.4 (LPS4). City officers have prepared draft LPS4 with a report prepared for consideration by Council at its Ordinary Meeting on 5 December 2023. The purpose of this report was to obtain resolution of Council to support the commencement of advertising of draft LPS4 and to obtain advice from the Western Australian Planning Commission on any modifications to LPS4 prior to the commencement of advertising. At its Ordinary Meeting held on 5 December 2023, Council resolved to proceed to advertise draft LPS4 and the draft Scheme Map, subject to consent from the WAPC.

In relation to draft LPS4, a decision-maker can give due regard to a seriously entertained planning proposal when determining an application, in accordance with Schedule 2 Clause 67(2)(b) of the *Planning and Development (Local Planning Schemes) Regulations 2015*. The final form of draft LPS4 is not imminent nor certain at this time, noting the draft scheme has not been advertised, and accordingly no weight should be given to the proposed development controls when determining this application. Accordingly, the City has not assessed the development against draft LPS4.

Notwithstanding the above, the City has provided a brief summary of the key modifications proposed to the subject site and surrounding area as per draft LPS4 for contextual purposes. The development site will have a Residential zoning with a residential density coding of R80 as per the draft LPS4 with the surrounding properties to the north and south zoned Residential with a residential density coding of R60 and R80 predominately. Properties to the west are proposed as Residential with a residential density coding of R40 per the draft LPS4.

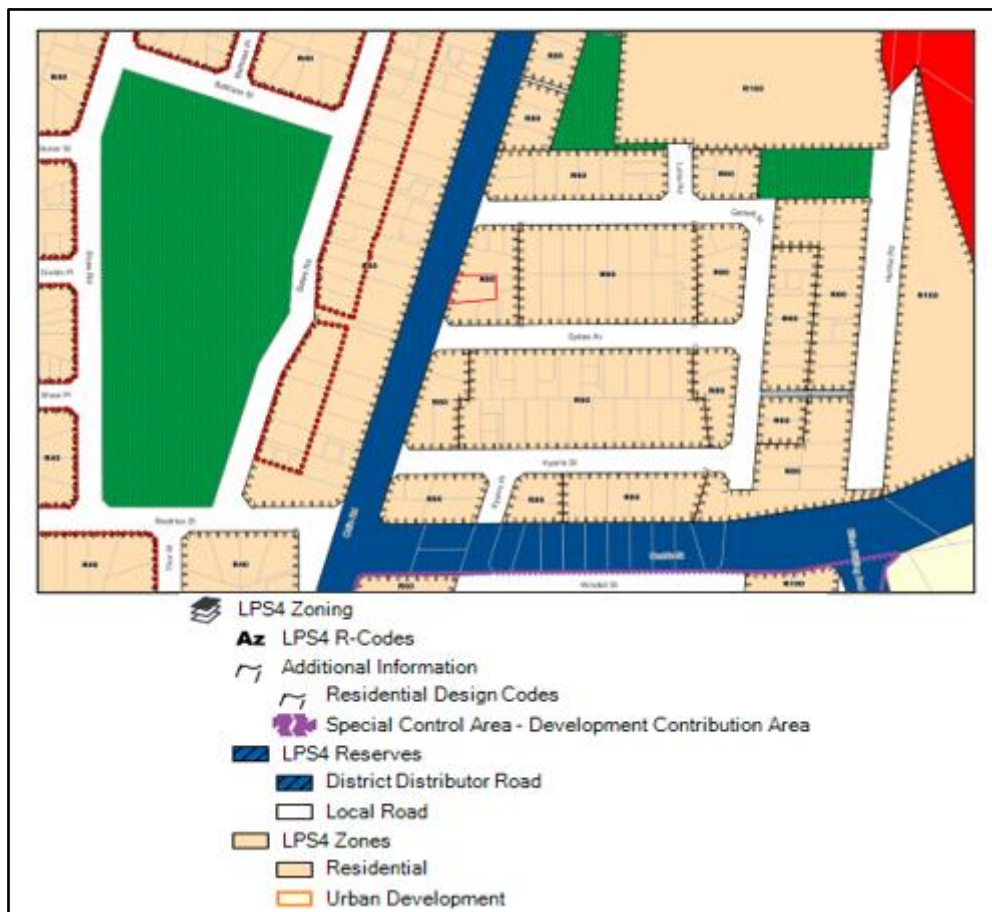


Figure 1 Annotated draft LPS4 Zoning showing development site

State Planning Policy 7.0 – Design of the Built Environment (SPP7.0)

SPP 7.0 applies to all development in Western Australia. The purpose of SPP 7.0 is to inform and guide landowners, proponents, designers, reviewers and decision-makers to achieve good design outcomes in the built environment.

The City's summary of the proposed development against SPP7.0 is as follow:

SPP7.0 Design of the Built Environment	
Design Principle	Officer Comment
1.Context and Character <i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>	The development is consistent with the desired character of the area which envisages residential buildings between three to five storeys in height. The development is consistent with the envisaged character of the area and has been appropriately designed to minimise any adverse impacts to the adjoining properties, which are primarily single storey residential dwellings, through the articulation of the building and proposed setbacks. The colour and material palette of the development is sympathetic to the existing built form and materiality within the locality and future development context. As noted above future context is further discussed in the draft LPS4 section of this attachment
2.Landscape Quality <i>Good design recognises that together landscape and buildings operate as an</i>	The development requires 10% deep soil area which equates to 74.9m². The proposal includes 83.5m² (11%) deep soil area, the retention of two street trees and the planting of an additional nine Medium Trees on site. The

SPP7.0 Design of the Built Environment

Design Principle	Officer Comment
<i>integrated and sustainable system, within a broader ecological context.</i>	proposed landscaping provides an attractive setting for the building.
3. Built form and scale <i>Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.</i>	The built form and scale of the proposed development is consistent with the character statement for the Sub Precinct Area 2 of the LDP which envisages residential buildings between three to five storeys, with a specific height of four storeys identified for the subject site. The proposed development is consistent with the built form controls of the LDP and is appropriate in its setting.
4. Functionality and build quality <i>Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life cycle.</i>	The main pedestrian entrance to the building is located on Odin Road, with a footpath and entranceway providing a legible entrance to the streetscape. The car parking area provides protection from the elements with entrance into the general foyer area. The internal design of the proposed development satisfies the needs of occupants. The development provides a communal open space area located on Level 3 and residential amenities with sufficient private open space and dwelling sizes as specified in the LDP.
5. Sustainability <i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i>	The proposal incorporates passive sustainability measures into the design with north facing openings to the majority of dwellings with northern access also provided to residential amenities and the communal open space area. The proposed development includes the installation of solar panels on the roof to assist in reducing energy consumption. The proposal provides infill development located within an Activity Centre promoting short walkable trips in the immediate vicinity, and is located within 800m walkable catchment of a train station promoting the use of public transport.
6. Amenity <i>Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.</i>	The development provides a good level of amenity to residents, there are no design issues that would substantially affect the liveability of the new dwellings. As discussed earlier in the report, the building height, bulk and scale of the development will not have an adverse impact on the adjoining properties with these matters appropriately addressed by the design of the development.
7. Legibility <i>Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.</i>	The development has a legible layout, with evident pathways and entrances into the development and passages within the development. A clearly defined entry is accessible from Odin Road, with a pedestrian access provided from the entrance of the site and from the car parking area to facilitate safe pedestrian movement to and from the proposed development.

SPP7.0 Design of the Built Environment

Design Principle	Officer Comment
8. Safety <i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i>	The development incorporates passive surveillance measures and minimises safety risks from vehicle movements. Vehicle circulation areas have been designed to allow vehicles to enter the street in forward gear with unobstructed sightlines provided to minimise potential conflict to pedestrians, cyclists and vehicles. There are no safety design issues present within the development.
9. Community <i>Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.</i>	The development provides opportunities for interaction between residents, within the communal open space area and residential amenities on Level 3. The development is for 12 Multiple Dwellings with five one-bedroom dwellings, five two-bedroom dwellings and two three-bedroom dwellings, providing a dwelling mix for a diverse range of people.
10. Aesthetics <i>Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.</i>	The proposed development includes several large openings on each elevation so as to break up building bulk, and uses alternating materials and colours to provide interest. These elements articulate the building and reduces the overall bulk. The design of the building has been refined and improved in response to the Design Review Panel's comments within the context of the relevant planning framework.

Planning and Development (Local Planning Schemes) Regulations 2015

The proposed development is required to be considered against the relevant matters listed under Clause 67 (2) of the Deemed Provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

Commentary on the relevant considerations is provided below:

Deemed Provisions Clause 67 – Consideration of application by local government	
Provision	Officer Comment
(a) <i>the aims and provisions of this Scheme (including any planning codes that are read, with or without modifications, into this Scheme) any other local planning scheme operating within the Scheme area;</i>	The proposed Multiple Dwelling development is consistent with the Suburban Residential zoning of the site as per LDP. The built form of the proposed development is generally consistent with the primary controls as set out by the LDP.
(b) <i>the requirements of orderly and proper planning including scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving;</i>	The development has been assessed in accordance with the draft Stirling City Centre Structure Plan and the Stirling City Centre – Innaloo LDP, in addition to all other applicable local and state planning policies. The proposed built form is generally consistent with proposed street character of the locality. The development has been appropriately designed to

Deemed Provisions Clause 67 – Consideration of application by local government	
Provision	Officer Comment
	ameliorate impacts to the adjacent properties and streetscape. Although the City has prepared Draft LPS4, the final form of LPS4 is not imminent nor certain at this time, noting the draft Scheme has not been advertised. Accordingly, no weight should be given to Draft LPS4 when determining this application. The development is consistent with LPS3 and other planning documents, and therefore is consistent with the requirements of orderly and proper planning.
<i>(c) any approved State planning policy;</i>	The City's assessment of the development application has considered the relevant State Planning Policies. The proposal satisfies the objectives and requirements of those policies.
<i>(fa) any local planning strategy for this Scheme endorsed by the Commission;</i>	The proposal is consistent with the Local Planning Strategy approved by the Western Australian Planning Commission in 2019.
<i>(g) any local planning policy for the Scheme area;</i>	The City's assessment of the development application has considered the relevant local planning policies. As assessed earlier in this report the proposal satisfies the objectives and provisions of those policies.
<i>(h) any structure plan or local development plan that relates to the development;</i>	The City's assessment of the development application has considered the relevant draft Stirling City Centre Structure Plan and LDP. The proposal satisfies the objectives and requirements of the Structure Plan and LDP.
<i>(m) the compatibility of the development with its setting, including –</i> <i>(i) the compatibility of the development with the desired future character of its setting; and</i> <i>(ii) the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development.</i>	The proposed development is consistent with the envisaged built form and future character of the area as per the LDP. The development does not result in any adverse impacts to adjoining properties within the context of the applicable built form provisions.
<i>(n) the amenity of the locality including the following –</i> <i>(i) environmental impacts of the development;</i> <i>(ii) the character of the locality;</i> <i>(iii) social impacts of the development;</i>	The development requires 10% deep soil area which equates to 74.9m². The proposal includes 83.5m² (11%) deep soil area, the retention of two street trees and the planting of an additional nine Medium Trees on site. The proposed development is consistent with the desired character of the area which envisages residential buildings between three to five storeys, and four storeys for the subject site. The development provides for activation and passive surveillance of the public realm. The proposed residential amenities and communal open space will result in social interaction and opportunities.

Deemed Provisions Clause 67 – Consideration of application by local government	
Provision	Officer Comment
(p) <i>whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved;</i>	The development requires 10% deep soil area which equates to 74.9m². The proposal includes 83.5m² (11%) deep soil area, the retention of two street trees and the planting of an additional nine Medium Trees on site. There is no existing vegetation on-site. The City's assessment of the development application has considered the relevant Stirling City Centre Local Development Plan – Stirling City Centre and Local Planning Policies 6.11 – Trees and Development. The proposal satisfies the objectives of the LDP and LPP 6.11.
(s) <i>the adequacy of –</i> (i) <i>the proposed means of access to and egress from the site; and</i> (ii) <i>arrangements for the loading, unloading, manoeuvring and parking of vehicles;</i>	The development provides a legible driveway and crossover provided from the primary street. The TIS has been reviewed and is supported by the City. The development proposes 11 car parking bays for residents and one onsite visitor parking bay and one located within the verge. The provision of car and bicycle parking spaces has been assessed against the relevant Element Objectives of SPP7.3 and the development achieves compliance with these Element Objectives.
(t) <i>the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety;</i>	The City's assessment of the Applicant's submitted TIS considers that the amount of traffic generated from this proposal can be accommodated within the capacity of the road networks and is supported.
(u) <i>the availability and adequacy for the development of the following –</i> (i) <i>public transport services;</i> (ii) <i>public utility services;</i> (iii) <i>storage, management and collection of waste;</i> (iv) <i>access for pedestrians and cyclists (including end of trip</i> (v) <i>access by older people and people with disability;</i>	The subject site located within 70m of a high frequency public transport route on Odin Road and within 700m of Cedric Street Train Station Utility services are available to the development. A Waste Management Plan has been provided and meets the City's requirements. The development provides pedestrian access from the entrance of the site and from the car parking area to facilitate access for pedestrians and cyclists. The development provides bicycle parking bays in accordance with SPP 7.3. The development provides 'at grade' car parking and universal access design features throughout the site.
(y) <i>any submissions received on the application;</i>	The application has been formally advertised in accordance requirements of LPP 6.18 and Clause 64(3) and (6)(a) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> with submissions received. These submissions have been considered as part of the City's assessment.
(za) <i>the comments or submissions received from any authority consulted under clause 66;</i>	Consultation to the relevant authorities has been undertaken as detailed in this report.

DEVELOPMENT APPLICATION



LOT 56 (NO.93) ODIN ROAD, INNALOO

PROPOSED TWELVE (12) MULTIPLE DWELLINGS
CITY OF STIRLING

Prepared for

Germano Designs & the landowners for the construction of a new multiple dwelling development on Lot 56 (No.93) Odin Road, Innaloo.

Prepared by

CF Town Planning & Development
Planning & Development Consultants

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Director

CF Town Planning & Development

Name	Position	Document Revision	Date
Mr Carlo Famiano	Town Planner	Planning Report	20 February 2024
Mr Carlo Famiano	Town Planner	Planning Report	19 July 20124

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1.0 INTRODUCTION

CF Town Planning & Development acts on behalf of Germano Designs and the landowners as their consultant town planners and hereby prepare the following report in support of an Application for Development Approval for the construction of twelve (12) new multiple dwellings on Lot 56 (No.93) Odin Road, Innaloo to provide much needed housing diversity and numbers within the Stirling City Centre ('Activity Centre') and in close proximity to the Stirling Train Station.

This report provides details regarding the following:

- Site details;
- Proposed development;
- Planning considerations; and
- Provision of justification in support of the proposed development, addressing the relevant planning framework.

In light of the above, we respectfully request the City of Stirling and the Metro Inner-North Joint Development Assessment Panel's (JDAP) favorable consideration and conditional approval of the application at their earliest possible convenience.

Should you have any queries or require any additional information regarding any of the matters raised above please do not hesitate to contact Mr Carlo Famiano on 0407384140 or carlof@people.net.au.

1.1 List of Consultant Reports/Consultants

The following consultant reports have been prepared in support of this development application:

- i) Traffic Impact Statement from KCTT;
- ii) Acoustic report from Herring Storer Acoustics; and
- iii) Waste management plan (WMP) from CF Town Planning & Development.

CF Town Planning & Development
Planning & Development Consultants

2.0 BACKGROUND & PURPOSE

The subject land is located within the northern part of the Stirling City Centre ('Activity Centre'), which is currently undergoing a transitional period from the older single dwelling type developments to more intense multiple dwelling and grouped dwelling developments. The focus of the Activity Centre is to optimize usage of the public transport network within the area and to provide a vibrant Centre that will provide a place for the local community to live and work.

Given the land's location within the Innaloo locality, it enjoys access to a wide range of services and nodes, including the following:

- i) Various public open space reserves;
- ii) Access to a regional road network, including a regional cycle network (along the Mitchell Freeway);
- iii) City of Stirling Civic Precinct and Civic Gardens;
- iv) Osborne Park Hospital;
- v) Various high frequency bus routes (various bus routes & the Stirling Train Station);
- vi) In close proximity to the Osborne Park Employment node;
- vii) Access to the Karrinyup Activity Centre; and
- viii) Various schools.

Given the above, this application seeks development approval for the construction of twelve (12) new multiple dwellings on the subject land to provide much needed residential dwellings and the provision of housing choice within the Stirling Activity Centre in close proximity to a variety of amenities, infrastructure and public transport. In addition, the development will assist the City of Stirling with meeting its required targets for infill development set by the State Government and foster the future growth and sustainability of the Stirling Activity Centre.

3.0 LOCATION

The subject land is located within the northern part of the 'Stirling City Centre' ('Activity Centre'), approximately 700 metres north-west of the Stirling City Centre Core area and approximately 710 metres north-west of the Stirling Train Station. Furthermore the subject land is also located approximately 490 metres west of the Mitchell Freeway road reserve (see Figure 1 – Location Plan).

It should be noted that the Stirling Train Station provides a direct high frequency public transport link to the Perth Central Business District (CBD) and the Joondalup City Centre

The 'Stirling City Centre' (also known as an Activity Centre) is well serviced and contains a variety of shopping/retail uses, entertainment venues, civic uses, public open space, medical facilities, recreational facilities, various commercial uses and employment opportunities. In addition, the Osborne Park industrial area (employment node) provide access to a wide range of employment opportunities. As such, the proposed multiple dwelling development on the subject land will foster the future growth of the Stirling City Centre (i.e. rejuvenating the area and will assist with creating an active vibrant street), will assist with providing much needed housing in a well-established/serviced area and will provide housing choice.

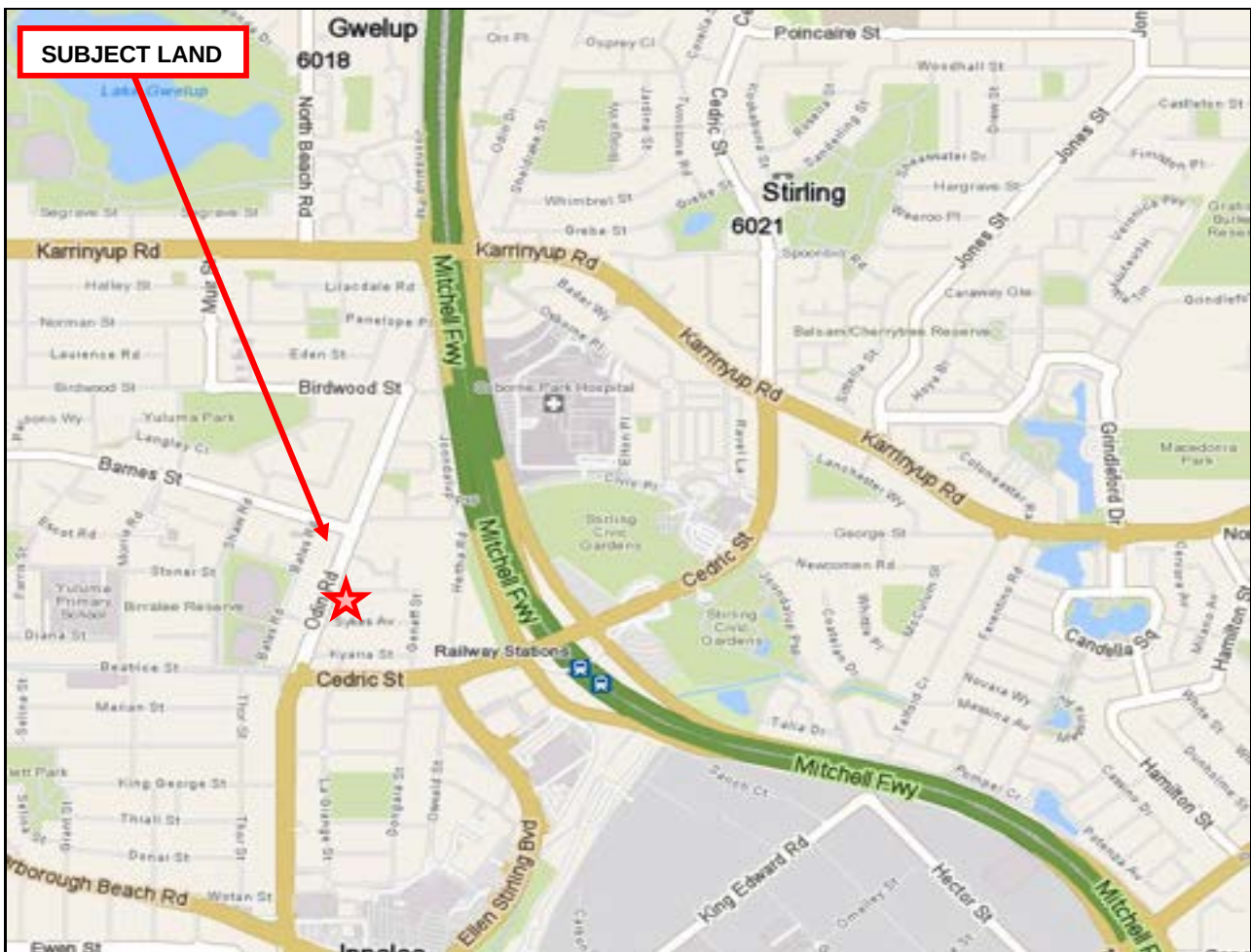


Figure 1 – Location Plan

4.0 PHYSICAL CHARACTERISTICS

4.1 Property Details

The subject land is irregular in shape, comprises an area of 749m² and has frontage to Odin Road along the land's western lot boundary. Lot 56 contains a fall natural ground levels (NGL) from 14.8 metres along the land's rear boundary to 14.06 metres along land's front boundary which equates to a fall in NGL down/across the site of 740mm (see site development plans).

Lot 56 is currently developed and used for 'Single House' purposes and contains a number of physical improvements including a single detached dwelling, patio structures, outbuildings, a sealed driveway and boundary fencing (see Figure 2 – Aerial Site Plan & Figure 3). It is viewed that the existing development on the land is run-down and does not provide any positive contributions to the streetscape and represents the underutilisation of land within the Stirling City Centre. As such, this application proposes that all physical improvements on the subject land will be removed to accommodate the new development.

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It is significant to note that the existing dwelling and associated structures on the subject land are not identified on the City of Stirling's Municipal Heritage Inventory (MHI) and can therefore be removed subject to the issuance of a demolition permit by the City.



Figure 2 - Aerial Site Plan (Nearmap). The subject land contains various structures, which will be removed as part of this application.



Figure 3 -The existing development on the subject land.

The subject land does not contain any significant vegetation that is worthy of retention. Notwithstanding this, the verge area abutting the subject land comprises two (2) street trees, which are being retained as part of this application to enhance the street/development and retain the existing canopy coverage.

4.2 Character of Locality

A review of the existing and future character of the immediate locality has concluded that there is no defined or heritage character worthy of retention. This section of Innaloo was historically developed in the late 1960's, with development progressing through the 1970's. At the time, the housing stock included predominantly single dwellings of single storey built form (predominantly pitched roof structures), with a small number of two storey dwellings scattered throughout the area.

As the land is located within the Stirling City Centre, the locality is currently undergoing a significant change in character and built form that reflects the expected higher density type developments that is anticipated within such key Activity Centres throughout the Perth Metropolitan Area.

When reviewing the Stirling City Centre, the current residential built form ranges from the older single storey dwellings to new three and four storey multiple dwelling developments. An investigation of the immediate locality and a review of recent development activities has identified that a substantial amount of re-development has and will continue to take place within the Stirling City Centre. Such developments include substantial grouped dwelling developments, various multiple dwelling developments and mixed use type developments.

Figures 4 & 5 illustrates a number of recent developments within the residential areas of the Stirling City Centre (some are located along Odin Road – Figure 4). These examples clearly demonstrate the changing nature of the area. New developments in the area include multiple dwellings and large grouped dwelling developments. It is anticipated that this pattern of redevelopment will continue within this part of the Stirling locality, with greater intensification occurring close to the core area of the City Centre and in close proximity to the public transport network. In addition, Figure 6 illustrates the extent of commercial developments that are emerging within the Stirling City Centre area.



Figure 4 – Some examples of existing two-storey grouped dwellings and multiple dwelling developments along Odin Road.



Figure 5 – Examples of multiple dwelling developments within the residential area of the Stirling City Centre.



Figure 6 – Examples of commercial developments emerging within the Stirling City Centre Area.

It is considered reasonable to conclude that the character of the locality and the local streetscapes are not uniform, is varied in terms of the current built form, does not reflect any specific character or form and is currently in a transitional period of re-development in accordance with the current density coding of the area or the anticipated dwelling yield set by the City and prescribed with the planning framework.

In light of the above, it is contended that the proposed construction of new multiple dwelling development on the subject land is unlikely to have a negative impact on the existing character and amenity of the local streetscape or within this section of Stirling City Centre and that the proposed development reflects the intended character and built form anticipated within the area. As such, it is contended that the proposed development will provide a positive contribution to the immediate locality, whilst providing a diversity of housing types within close proximity to various services and infrastructure.

4.3 Essential Services

The subject land is served by an extensive range of essential service infrastructure including power, water, reticulated sewerage, stormwater drainage, gas and telecommunications (see Figure 7).



Figure 7 – The existing services in and around the subject land. Services include water, sewerage, electricity and telecommunications (MNG Mapping).

The subject land is also served by an efficient local and district road network with convenient access to Karrinyup Road, Cedric Street and the Mitchell Freeway. Public transport is available along various nearby roads including Cedric Street and Odin Road, with access to the Stirling Train Station (see Figure 8 – Public Transport Network). The subject land is also well served by a pedestrian path network. It is contended that the subject land's good access to public transport and a pedestrian path network will provide an alternative form of transport for the future occupants and visitors of the development.

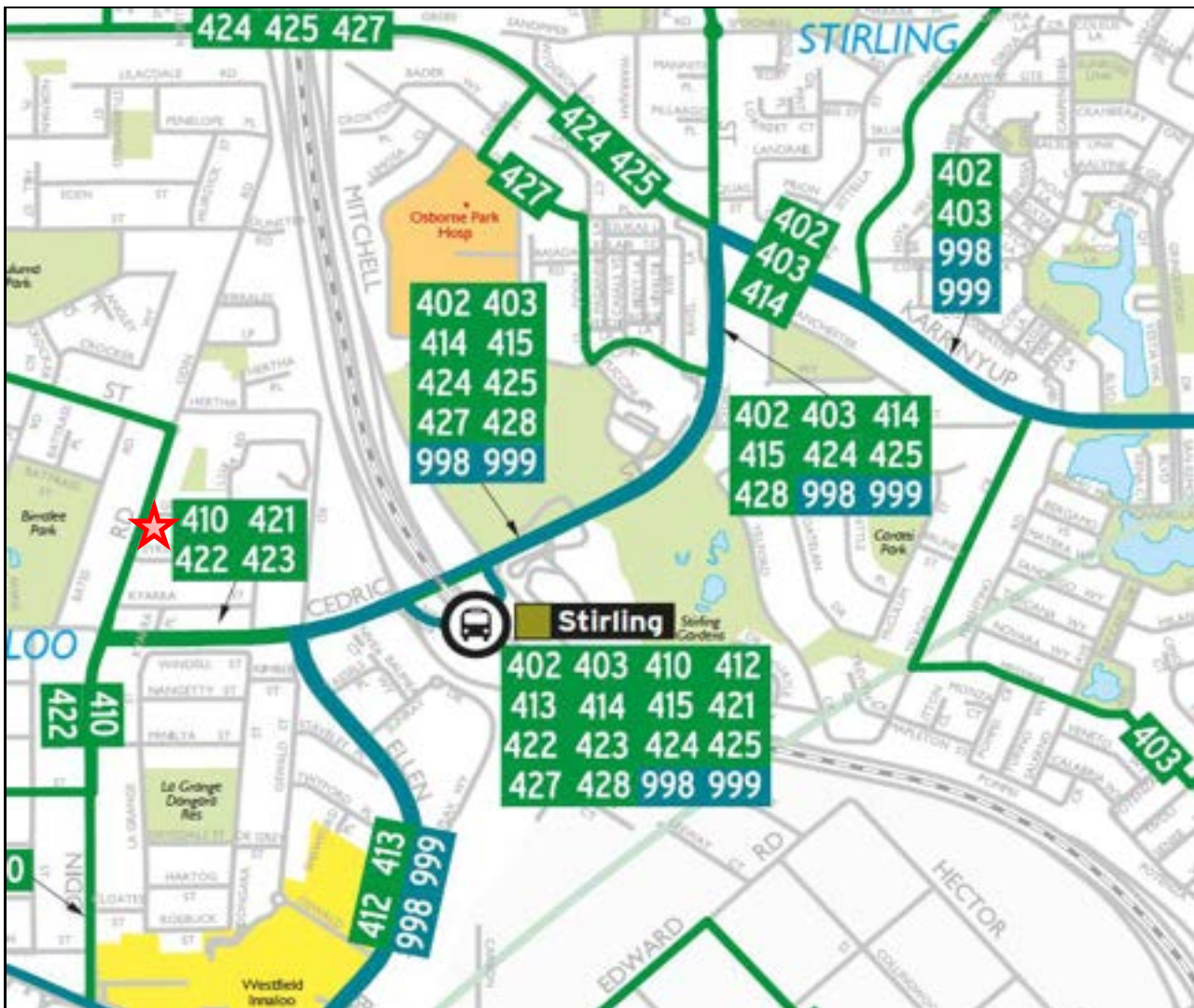


Figure 8 – Public Transport Network

5.0 DEVELOPMENT PROPOSAL

This application proposes to construct a four (4) storey building comprising twelve (12) multiple dwellings to provide much needed affordable housing within the Innaloo locality. The key details of the proposed development on the subject land includes the following:

- i) The configuration of the dwellings including the following:
 - Five (5) single bedroom/single bathroom dwellings;
 - Five (5) two bedroom/two bathroom dwellings; and
 - Two (2) three bedroom/two bathroom dwellings.
- ii) In addition to the above, the developments offers different dwelling sizes and configurations, ranging from 56.71m² to 120.97m² to meet the needs of varying demographics;
- iii) Two (2) dwellings on the ground floor have been designed to a silver standard and will comprise direct pedestrian access to the street;

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- iv) Construction of twelve (12) on-site car parking bays for resident parking only. This car parking area will be screened from the street;
- v) Construction of two (2) on-street car parking bays within the Odin Road verge area to provide visitor parking for the development. These bays will be constructed at the developer's cost to the satisfaction of the City in accordance with the LDP;
- vi) Construction of one (two-way) crossover along the land's Odin Road frontage;
- vii) Each dwelling will be provided with a storeroom to allow for bulk storage of domestic items;
- viii) Installation of four (4) on-site bicycle parking bays to service the development;
- ix) Installation of instantaneous constant flow hot water units to service the multiple dwellings in lieu electric storage system to provide an energy innovative solution in accordance with Design Element 4.15 ('Energy efficiency') of the R-Codes. In addition, the roof has been designed to allow for future installation of solar panels;
- x) Construction of bin storage area being enclosed and located abutting the car parking area to the rear of the building;
- xi) The construction of street fencing and security gates to the car parking area to provide a secure environment for the future occupants of the development;
- xii) Retention of the two (2) street trees within the verge area abutting the subject land;
- xiii) Provision of a communal open space area with an 73m² and located on the third floor (roof deck area) to provide for a good outlook and access to northern winter sun; and
- xiv) Installation of landscaping throughout the development, including the planting of new mature trees and associated deep soil zones. A landscaping plan has been prepared in support of the application.

The external facades of the proposed new development will be constructed using high quality finishes that will complement and enhance the local streetscape, with all on-site residents car parking being screened from the public realm. The street frontage of the development will include balconies (outdoor living areas) and numerous major openings to habitable rooms along the street facades to assist with providing an active frontage and improve passive surveillance of the public realm (see Figure 9).

It is significant to note that on-site car parking provided in support of the development has been calculated in accordance with 'Location A' provisions of the Residential Design Codes Volume 2 (R-Codes) due to access to high frequency public transport route and the land's proximity to the Stirling Train Station (see Figure 8 – Public Transport Network).

Copies of the proposed site development plans and building elevation drawings are provided herewith for review and consideration (see Appendix 2 – Site Development Plans).



Figure 9 – The proposed facades of the development, along with the entry and communal area.

6.0 STATUTORY CONSIDERATIONS

6.1 Metropolitan Region Scheme

The subject land is currently classified 'Urban' zone under the Metropolitan Region Scheme (MRS) (see Figure 10 – MRS Map).



Figure 10 – MRS Map

It should be noted that the zones and reservations prescribed by the MRS are broad categories only that are intentionally not precisely defined or limited in order to enable a flexible approach to town planning. The following definition is provided as a guide to its stated purpose/s in the MRS:

“Urban Zone - Areas in which a range of activities are undertaken, including residential, commercial recreational and light industry.”

The proposed development (i.e. multiple dwellings) is considered to be consistent with the defined intent of the land's current 'Urban' zoning classification under the MRS, as the development will allow for increased housing and housing diversity within a well serviced area. Given this, the proposed development may therefore be approved.

6.2 City of Stirling Local Planning Scheme No.3

Lot 56 is classified 'Development' zone under the City of Stirling's current operative Local Planning Scheme No.3 (LPS No.3). Furthermore, the subject land is located within 'Stirling City Centre Special Control Area' (SCA), with the land being located within the 'Innaloo Precinct' (see Figure 11 – Scheme Map & Figure 12 – Stirling City Centre).

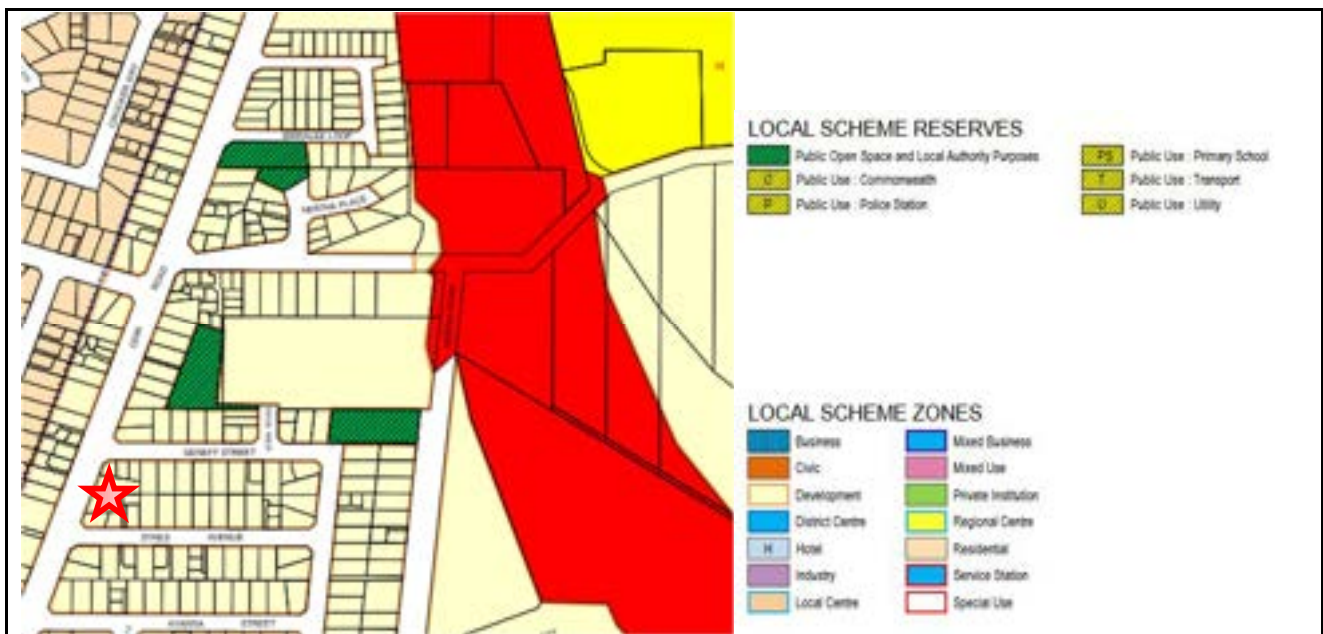


Figure 11 – Zoning Map (LPS No.17)

The 'Stirling City Structure Plan' was endorsed in 2014 to guide the future development of the Stirling City Centre. The Structure Plan identifies the subject land as being located within the 'Residential Sector'.

Clause 6.11.3 of LPS No.3 states that all development within the 'Stirling City Centre SCA' shall comply with any Structure Plan, Detailed Area Plan (Local Development Plan), Local Planning Policy and Development Contribution Plan adopted for the area. Under the terms of Table 1 ('Zoning Table') of LPS No.3, any development and use of land within the 'Development' zone is to be undertaken in accordance with the approved Structure Plan or Detailed Area Plan adopted under 6A of the LPS No.3.

In light of the above, the land is part of the 'Innaloo Precinct Local Development Plan' (LDP), which identifies the subject land as 'Urban Residential'. Under the terms of Table 2.3 ('Land Use Table') of the Structure Plan, the use of land within the 'Residential Sector' for 'Multiple Dwelling' purposes is identified as a permitted ("P") use.

In addition to the above, the "Innaloo Local Development Plan" identifies that Odin Road is a 'District Distributor B Road' (see Figure 12 – Stirling City Centre).

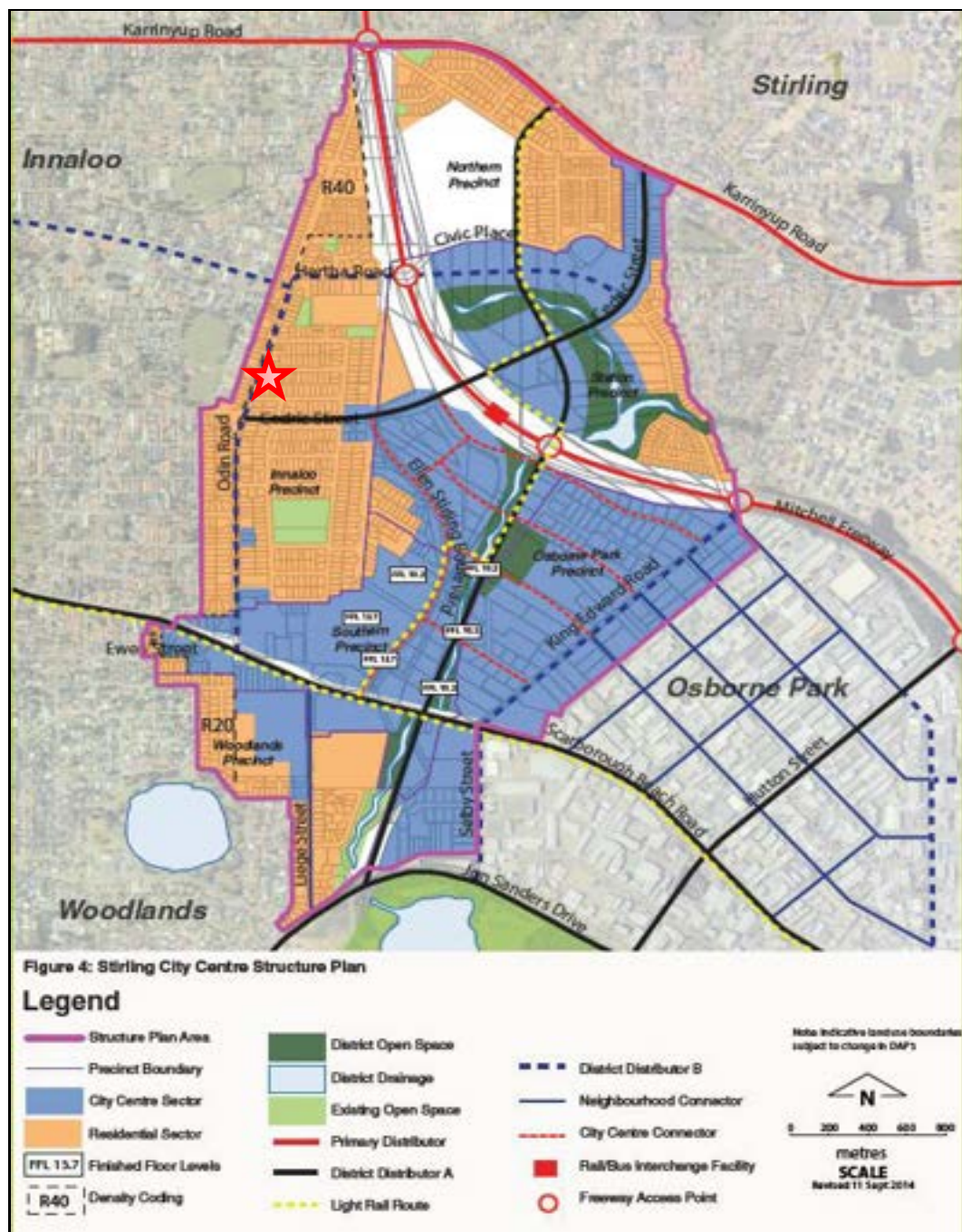


Figure 12 – The Stirling City Centre Structure Plan

6.3 City of Stirling 'Innaloo Precinct Detailed Area Plan'

Lot 56 are located within the 'Innaloo Precinct' and is part of the 'Innaloo Precinct Local Development Plan' (LDP) that prescribes the relevant development standards to be applied within the precinct. Where the LDP does not provide a development standard, the provisions of the Residential Design Codes – Volume 2, any provisions prescribed within the City's LPS No.3 and any relevant local planning policies will apply.

Clause 1.1 of the LDP provides the following objectives for the Innaloo Precinct:

- *Facilitate more intensive redevelopment of residential areas whilst maintaining areas of private and communal open space.*
- *To require non-residential uses on the ground floor in mixed use areas to activate the street.*
- *To ensure there is a "stepping down" of heights from non-residential areas to the residential areas*

It is contended that the future development of the subject land for multiple dwelling purposes is consistent with the 'objectives' of the LDP. In addition, the LDP identifies that the subject land is located within Innaloo Sub-Precinct 2 entitled 'Standard Lots', with the character statement for the Sub-Precinct being as follows:

"Residential buildings (3 – 5 storeys) in a landscaped setting with setbacks to all boundaries to create space for tree planting between buildings."

It is contended that the proposed future development of the land for 'multiple dwelling' purposes is consistent with 'character statement' for the Sub-Precinct in that it results in the construction of a four (4) storey residential building and provides sufficient landscaping within the setback areas.

According to Clause 2.1.2.5 of the LDP, the minimum number of dwellings required to be constructed on the subject land is three (3) dwellings. As such the proposal to construct twelve (12) multiple dwellings on Lot 56 accords with the minimum dwelling yield requirements prescribed within the LDP for the subject land.

Figure 12 of the LDP identifies that lots with frontage to Odin Road (in particular Lot 56) shall comprise a maximum building height of four (4) storeys. The minimum building height for the subject land is two (2) storeys. The new development on the land accords with the LDP in terms of building height, as a four (4) storeys are being proposed.

It is significant to note that Clause 3.2.3 of the LDP entitled 'Special Provisions' states that each new development shall construct new visitor bays in the verge at the developer's cost where possible. The proposed development on Lot 56 has allocated the construction of visitor parking bays within the Odin Road verges area abutting the subject land.

Clause 1.6 of the LDP states that unless otherwise provided for in the LDP, the Residential Design Codes do not apply.

6.4 City of Stirling Local Planning Policy No.6.12 - 'Public Art on Private Land'

The City of Stirling's Local Planning policy No.6.12 entitled 'Public Art on Private Land' seeks to improve the appearance and amenity of places and improve the vibrancy and character of an area. The proposed development intends to local/place the artwork along the land's Odin Road frontage, abutting the main entrance way where there is potential for a feature sculpture, Arbor or light art installation (see Figure 13).

Details of the artwork will be provided once a development approval has been issued. As such, it is requested that an appropriately worded condition be imposed on any development approval granted that the details, approval and installation of the public artwork be obtained prior to the completion/occupancy of the development.



Figure 13 – Location of public artwork (marked in red)

6.5 Directions 2031 and Beyond

'*Directions 2031 and Beyond*' is the Western Australian Planning Commission's (WAPC) strategic framework for guiding development of the Perth Metropolitan Region to a sustainable future. At the centre of '*Directions 2031*' is an enhanced emphasis on growth management in a bid to accommodate future anticipated population growth within Perth, obtain better use of existing infrastructure and provide for a sustainable city including improved housing affordability. This philosophy is also being depicted in the Commission's recent document entitled '*Perth and Peel 3.5 million*'.

The future development of the subject land to accommodate multiple dwellings will facilitate the provision of additional housing within an established and key Activity Centre within the Perth Metropolitan Region, that contains a wide range of existing infrastructure, including public transport, commercial use, public open space reserves and a comprehensive pedestrian/cycle network. Overall, the development will provide for additional housing, housing diversity and promote the consolidation of urban growth within an existing urban area in a manner consistent with the strategic framework outlined in '*Directions 2031 and Beyond*'.

As such it is contended that the proposed development on the subject land is consistent with the aims and objectives of '*Directions 2031 and Beyond*' and will make a beneficial contribution to the future development and sustainable growth of the Perth Metropolitan Region in general.

6.6 Perth & Peel @ 3.5 Million

'*Perth & Peel @ 3.5 Million*' is the State Government's high-level vision for the growth of the Perth and Peel region to accommodate the future anticipated population growth, which is predicated to be 2.9 million people before 2031 and 3.5 million people before 2050.

In order to accommodate the aforementioned population growth, the document aims at the creation of a more consolidated urban form that includes 53% of future development within the greenfield area and 47% of future development in the current urban area (i.e. infill development). The proposed development will allow for the provision of increased housing availability within the Stirling City Centre. As such, the development will assist with the City of Stirling meeting the targets set by the State Government for the delivery of additional housing within the existing urban area and within a key Activity Centre.

In light of the above, the proposed multiple dwelling development on the subject land accords with the aims of '*Perth & Peel @ 3.5 Million*'.

6.7 State Planning Policy No.7.0 - 'Design of Built Form Environment'

State Planning Policy No.7.0 entitled 'Design of Built Environment' (SPP No.7.0) addresses the design quality of the built environment across all planning and development types in order to deliver broad economic, environmental, affordable and cultural benefit. The aim is to provide for improved development outcomes throughout the State and is a key consideration when assessing developments.

The following table provides responses to the 'design principles' outlined with the Western Australian Planning Commission's State Planning Policy No.7.0 for consideration:

Table 1 – Design Principles

DESIGN PRINCIPLE	RESPONSE
<u>Context and character</u> <i>"Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place."</i>	- A review of the immediate locality has identified that there is no distinct character or heritage value within the area. The current residential built form varies from the older single dwellings which reflects the historical low density development of the area, to large grouped and multiple dwelling developments emerging in the recent years. - This part of the Innaloo locality (in particular within the Stirling City Centre area) is currently undergoing a significant change in character and built form that reflects the implementation of varying medium to high densities allocated within the Activity Centre with a vision for the area to ultimately comprise a more intensified form of development that will foster the growth of the City Centre and improve utilization of the existing public transport network. - A further review of the area also identifies large commercial developments along arterials roads such as Cedric Street, Karrinyup Road and Odin Road (see Figure 14). - It is noted that recently a number of three (3) and four (4) storey multiple dwellings have been proposed within the Innaloo Precinct, which reflects the anticipated built form within the area to assist with the growth of the Activity Centre and reflect the current planning framework (see Figure 15). - This part of the Activity Centre contains an eclectic mix of dwelling types and built form that has evolved as a result of the ongoing development of the area to accord with the new planning framework.  Figure 14 – Existing commercial development along Cedric Street



Figure 15 – The emerging residential built form within the Stirling City Centre.

- The new development on the subject land will provide distinguishable architectural features and high level of passive surveillance of the public realm. The articulated front façade of the development is distinctive and will provide a sense of place for the future occupants of the development.
- It is concluded that the proposed development reflects upon the anticipated development within a key Activity Centre encouraged by the City's planning framework. This includes the vision that the streetscape character will contain developments with heights of four (4) storeys along this part of the Odin Road. As such, the proposed built form on the new development on the subject land reflects the current planning framework and is mindful of the anticipated built form for the locality.
- Figure 16 below illustrates the proposed development set within the anticipated built form along this part of Odin Road prescribed within the LDP. As such, the proposed development is consistent with the objectives/vision of the LDP.



Figure 16- The proposed development in context with the articulated built form along this part of Odin Road.

Landscape quality

“Good design recognises that together landscape and buildings operate as an integrated and

- A review of the subject land has revealed that there is no significant vegetation on the land. As such, there is no opportunity to retain existing vegetation and that this development will be an improvement on the current situation on the land, including increasing the canopy coverage over the land.

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<i>sustainable system, within a broader ecological context."</i>	• The application proposes to retain the two (2) street trees located within the verge areas abutting the subject land to preserve the streetscape and existing tree canopy coverage. • The proposed development of the land will include the provision of landscaping throughout the site and the planting of additional mature trees to enhance the development, add additional canopy coverage and provide protection during the hot summer months. • The landscaping to be provided within primary street setback area will assist with softening the appearance of the development when viewed from the street and assist with on-site drainage. • A variety of vegetation will be proposed throughout the site, ranging from shrubs to larger trees and sufficient space is allowed for the proposed trees to grow to a sufficient size to provide canopy cover of the site for the benefit to the local community. Furthermore, all plant species and sizes will be provided in consultation with the City of Stirling to ensure a good outcome.
<u>Built Form and scale</u> <i>"Good design provides development with massing and height that is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area."</i>	• The proposed development features good massing as the façade is broken up by multiple elements and articulation, including the use of varying materials (i.e. render, glass, landscaping planters and feature panelling) and the inclusion of open balconies along the street façades. Given these key elements, it is contended that the future development on the land will contribute to the desired built form character of the streetscape and the Activity Centre in general. • In addition to the above point, the development will locate the outdoor living areas for a number of multiple dwellings to comprise an outlook over the adjoining street. This will provide some activation of the development along the street. The inclusion of major openings to habitable rooms along the frontage of the building will further assist with improved passive surveillance of the street, along with promoting community interaction. • The proposed development will comprise setbacks that are consistent with the 'Innaloo Precinct LDP', with varying setbacks to provide for good articulation, introduce an element of visual interest when viewed from the adjoining properties and to limit building bulk and scale. In addition, the lot boundary setbacks allow for adequate separation for any future developments on the adjoining lots. • The proposed development will be of four (4) storey in nature to reflect the planning framework and will be consistent with the expected building height within an Activity Centre (in particular the requirement for additional building height along this part of Odin Road). • The bulk and scale of the development reflects similar built form expected within a City Centre. In addition, the proposed built form is consistent with the emerging bulk and scale of recent multiple dwelling development throughout the Stirling City Centre. • The development will include the concealment of the resident car parking area behind the front setback area and screened from view from the public realm.
<u>Functionality and build quality</u> <i>"Good design meets the needs of users efficiently and effectively,</i>	• The design of each dwelling within the development is considered to be functional, with the internal living area for each dwelling being designed to be

<i>balancing functional requirements to deliver optimum benefit and performing well over the full life-cycle."</i>	utilised in conjunction with the external living areas to create large entertainment areas. • The development will include the use of robust materials and construction methods that will comprise a long life cycle. Furthermore, the proposed development will be constructed to comply with the National Construction Codes and appropriately engineered. • The development has been designed to allow for access to natural light and cross ventilation (air flow through the dwelling). • The good access to natural light and ventilation for each dwelling will allow for reduced usage of artificial lighting and ventilation of the dwellings and reduce long term running cost of the dwellings (reduce electrical use). • The development will comprise a clearly definable entry point at ground level and a sense of place for the future occupants and visitors to the development. • The bin storage area is enclosed and located so that is will not be visible from the public realm and will not impact the amenity of any dwellings in terms of appearance and/or odours. • Each dwelling has been provided with sufficient storage, on-site car parking and an outdoor living area of sufficient dimension and width to meet the needs of the future occupants. This will provide for usable internal and external areas.
<u>Sustainability</u> <i>"Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes."</i>	• The proposed development has been designed to access natural light where possible (given the orientation of the lot), It is contended that the design of the proposed development will assist with reduced running costs of each dwelling • The use of landscaping along will assist with providing adequate shading during the hot summer months. • The design of the development has allowed for the car parking area to be under the building and therefore providing protection of the hardstand area from the sun (reduce heat generated by the hardstand). • Adequate landscaping will be provided to accord with water-sensitive design, provide natural shading during the summer months and provide adequate greenery to benefit the development. • The location of various outdoor living areas within the street frontages will provide for improved connectivity between the public and private realms that will assist with social interaction. • The proposed development will assist with the provision of a diversity of housing stock within the Innaloo locality, in close proximity to a key transport node and an Activity Centre. The close proximity to a high frequency public transport node will assist with reducing motor vehicle dependency and assist with reducing pollution generated by car usage. In addition, the proposed development will assist with the provision of additional housing within the Activity Centre which is consistent with the State Government's aim to increase the use of the existing infrastructure and creating vibrant community hubs. • The development will include the future installation of solar panels & the installation of instantaneous hot water systems to service the multiple dwellings. • In addition to the above, each dwelling within the development will include the installation of waterwise fittings to reduce water consumption. • The development will include bicycle parking bays to encourage bike usage and limit motor vehicle usage.

<u>Amenity</u> <i>“Good design optimises internal and external amenity for occupants, visitors and neighbours, contributing to living and working environments that are comfortable and productive.”</i>	• Each dwelling features a living area which can be used in conjunction with the external living area. This creates a usable internal and external area that is functional and will accommodate the needs of the future occupants of the development, which provides sufficient area to entertain visitors to each dwelling. • The outdoor living areas are considered to be well designed, with a majority of the dwellings containing an outlook over the street to provide a view, promote passive surveillance of the street and allows for effective connectivity with the public realm. This includes providing passive surveillance over Odin Road. • Adequate boundary setbacks and limited parapet walls have been provided for adequate separation between the building on the subject land and the adjoining properties, therefore limiting any potential impacts associated with bulk, scale, visual privacy, noise etc. • The development provides a large rooftop communal space that will allow for entertainment with visitors and promote social interaction with residents within the development. • A majority of the shadow cast by the proposed development will extend over the road reserve and will therefore not impact the existing residential developments on the adjoining • Given that the subject land is located within an Activity Centre, there are opportunities for the future residents of the development to live and work locally, therefore reducing travel time and improving the living quality for the occupants. • Adequate storage and bicycle parking is also provided for each dwelling (i.e. within the storerooms), along with a bin storage area located in a position to minimise any impact on the future occupants of the development and allow for easy access. • The development has been designed to allow for easy access for both the occupants and visitors to the development.
<u>Legibility</u> <i>“Good design results in buildings and places that are legible, with clear connections and memorable elements to help people find their way around.”</i>	• The proposed multiple dwelling development is legible in that it provides a distinctive façade and conceals the on-site resident car parking area from the public realm (located to the rear of the development). • All dwellings will comprise a covered entry point (via an enclosed foyer) that will provide protection from the elements. • One (1) crossover/driveway is proposed for the development to provide a clear vehicle entry point for both occupants and visitors.
<u>Safety</u> <i>“Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.”</i>	• The development proposal provides multiple major openings for various dwellings facing the street to avoid enticing criminal activity and intrusion. The development will have sufficient surveillance over both the public and private realms. • The resident car parking area and associated facilitated such as the stores and bin storage are appropriately located within the development to avoid enticing criminal activity and intrusion. • Gates will be installed to provide improve security for vehicles.

	• The inclusion of major openings and balconies overlooking Odin Road will provide a sense of security for local residents. • The development will include visually permeable front fencing for the outdoor living areas associated with the ground floor dwellings to allow for improved passive surveillance, provide an active frontage and to encourage social interaction. • The development will include security cameras and intercom systems to provide a safe environment for both the occupants and visitors to the development. • The vehicle access point comprises adequate visual sightlines to provide a safe pedestrian environment and adequate two-way vehicle movements to allow for safe access and egress for the vehicles associated with the development. • The development has been designed to allow for all vehicles to enter the street in a forward gear. The vehicle access point comprises adequate visual sightlines to provide a safe pedestrian environment.
<u>Community</u> <i>“Good design responds to local community needs as well as the wider social context, providing buildings and spaces that support a diverse range of people and facilitate social interaction.”</i>	• The proposed development provides a number of outdoor living areas and main habitable areas which address the street. This allows for good passive surveillance of the public realm and along for an active frontage. • The smaller dwelling size (as opposed to a single detached dwelling) will provide an opportunity for aged residents within the locality to downsize and remain within the suburb with easy access to public open space and the various nodes/services offered by the Activity Centre. The proposed dwelling types also cater for a variety of demographics such as first homebuyers, singles and couples without children. • The development provides affordable housing to the community, whilst increasing the housing density within the Stirling City Centre. In addition, the development will provide small housing typology to accommodate occupants working within the Activity Centre. • The communal open space provided for the development will promote social interaction with the future occupants of the development. • The proposed development has easy access to large public open space reserves, including the Stirling Civic Gardens. This provides a recreational space for the future occupants of the development. • The proposed development accords with the State Government's directive to increase residential densities within a key Activity Centres and in close proximity to public transport network to provide affordable housing within these important nodes. • The increase of densities and the provision of additional housing within close proximity to public transport will assist with reducing motor vehicle usage and reduce the extent of the Perth Metropolitan area expanding into the rural and bushland areas along the City's urban fringe. This will assist with providing a positive outcome for the environment and the community in general. • In addition to the above point, the increase in densities and housing within the existing urban fabric will limit the extension of the Perth urban area outwards (i.e. reduce the impacts of 'Urban Sprawl', which results in high costs to the community in terms of infrastructure costs).

Aesthetics

“Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.”

- Aesthetics of the proposed street facing facades is highly demonstrated by the use of a variety of materials and renders, inclusion of balconies/terrace and major openings of varying sizes.
- The proposed façade provides visual interest and an active frontage that provides a connection between the public and private realms within the residential complex. This includes providing an articulated front facade.
- The design of the proposed development incorporates sufficient and safe pedestrian movements, whilst allowing for ease of access to various on-site facilities such as bin storage areas, storerooms and car parking.
- The building height for the development is consistent with the expected built form within an Activity Centre and will not result in the development being over bearing along the street. In addition the proposed development the subject land is consistent in terms of bulk, scale and height to the recently completed developments scattered throughout the Stirling City Centre.
- The proposed development allows for good massing and bulk and the street, which is expected within the City Centre environment.
- The proposed development has been designed to include active spaces (i.e. balconies, outdoor living area) and landscaping, which will provide an attractive and articulated front façades. The impressive façade designs will appeal to all passers-by and engage interest from the public realm.

6.8 Bushfire Prone Areas

The subject land has not been identified by the Department of Fire & Emergency Services (DFES) as being located within a designated 'bushfire prone area' (see Figure 17).



Figure 17 – DFES Bushfire Mapping

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6.9 State Planning Policy No.5.4 – ‘Road & Rail Noise’

The subject land is located within close proximity to the Cedric Street, which have been identified as a regional road (see Figure 18 - PlanWA). As such, this development application requires the preparation of an acoustic report to enable the City to undertake an assessment against *State Planning Policy No. 5.4 Road and Rail Noise*.



Figure 18 – Road Noise (PlanWA)

An acoustic report has been prepared in support of this application by Herring Storer Acoustics to address State Planning Policy No.5.4 in terms of noise. The report provides the following conclusions:

- *In accordance with the WAPC Planning Policy 5.4, an assessment of the noise that would be received within the development of 93 Odin Road, Innaloo from vehicles travelling on Odin Road has been undertaken.*
- *In accordance with the Policy, the following would be the acoustic criteria applicable to this project:*

External

Day 55 dB(A) LAeq

Night 50 dB(A) LAeq

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Internal

Sleeping Areas 35 dB(A) LAeq(night)

Living Areas 40 dB(A) LAeq(day)

- *The results of the acoustic assessment indicate that noise received at the development from future traffic, do not exceed external noise level criteria. Therefore, standard construction would meet the requirements of State Planning Policy 5.4, and Notifications on the Title would not be required.*

In light of the above, it is concluded that the design and location of the proposed development on the land is suitable and can be managed in terms of noise generation.

6.10 Contaminated Site Investigation

A search of the site under the contaminated sites register has revealed that the land does not have any contamination (see Figure 19). In addition, the subject land is not impacted by floods plains, Bush Forever site and/or acid sulphate soils.



Figure 19 – The subject land is not identified as a contaminated site (MNG Mapping)

6.11 Vehicular Access & Traffic Movements

A Traffic Impact Statement has been prepared by 'KCTT' in support of this application (see copy attached herewith). The Traffic Impact Statement (TIS) comprises the following conclusions in terms of the proposed development on the subject land:

- i) *Additional traffic attracted to the subject site is expected to increase by a maximum of 71 vehicular trips per day and 9 vehicular trips in the peak hour.*
- ii) *Odin Road is classified as Distributor B as per MRWA classification with the desirable volume above 6,000 vehicles per day. Currently there are around 21,500 vehicles per day on weekdays. Traffic generated by the proposed development is in line with the 0.37% of the existing traffic volume on Odin Road. Other surrounding roads would absorb significantly less traffic than Odin Road, moreover, the traffic would be dispersed so that the impact can be considered negligible.*
- iii) *In summary KCTT believe that the proposed development will not have a negative impact on the surrounding road network.*

In light of the above, it is concluded that the design and location of the proposed development on the land is suitable in terms of traffic movement and generation.

7.0 DEVELOPMENT STANDARDS

The proposed development has been designed to include landscaping throughout the site, allow for good articulation of the building facades and provide for a plot ratio area less than the maximum area allowed. In addition, the development has been designed to screen the car parking from the street and provide activation of the street through the inclusion of major openings, outdoor living area and balconies along the street frontages of the building.

As previously mentioned within this report, Clause 1.6 of the LDP states that unless otherwise provided for in the LDP, the Residential Design Codes do not apply. As such, the development standards prescribed within the LDP apply to this development. The design of the proposed development on Lot 56 has been formulated with due regard for the relevant 'deemed to comply requirements' of the City of Stirling's current operative Local Planning Scheme No.3 (LPS No.3) including any relevant Local Planning Policies and the Innaloo Local Development Area Plan and any relevant Local Planning Policies:

Appendix 2 of this report provides an assessment of the proposed development against the development provisions prescribed within the LDP. The table within Appendix 2 also provides justification for those that are seeking a variation to the 'deemed to comply requirements' of the relevant planning provision.

8.0 DESIGN REVIEW PANEL (DRP)

The application has been referred to the Design Review Panel (DRP) at the City of Stirling on 20 June 2023 and again on 12 October 2023 for consideration and comment. It is noted that the proposed use and development on the land is generally supported by the Panel, with a number of recommendations and comments being made to improve the functionality and appearance of the development.

Following a review of the comments, the plans prepared in support of the development were amended and has resulted in vast improvements to the design layout of the development. The key changes undertaken include the following:

- i) A contextual plan has been included within the plan series to illustrate the current and future development within the area. It should be noted that the proposed development is reflective of

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the planning framework and the anticipated development within the area in terms of bulk, scale and density;

- ii) The number of multiple dwellings within the development was reduced from thirteen (13) to twelve (12) to allow for improved dwelling layout. As such, the design layout of each dwelling was amended;
- iii) In light of the above changes, the design layout of the roof top communal open space area has been redesigned to be more integrated and open (i.e. more usable);
- iv) The west facing planter structures on the balconies have been removed to address the Panel's concerns regarding access and maintenance;
- v) The entry point of the development along the land's Odin Road frontage has been redesigned to be more open and provide for more landscaping. The entry point is also well defined to allow easy access and recognition by pedestrians;
- vi) A number of the lot boundary setbacks have been adjusted. It should be noted that the lot boundary setbacks reflect the minor variations allowed by the 'Innaloo Precinct Local Development Plan';
- vii) A window has been added to the study area of Apartment 2, as requested by the DRP;
- viii) Air conditioning condensers have been illustrated on the plans and located on the roof space to avoid any impacts on the streetscape;
- ix) Direct pedestrian access has been provided for the ground floor dwellings to the street, allow for improved connectivity and street interface;
- x) The extent of highlight windows for the development has been reduced to allow for improved access to natural light and ventilation;
- xi) The configuration of the bedrooms have been changed to comply with the minimum dimension requirements as requested by the DRP;
- xii) The bin storage area has been amended and relocated to accommodate improved access and bin numbers;
- xiii) The foyer and storeroom configuration of the development has been amended to improve access and interface;
- xiv) The plans have been amended to illustrate breeze paths and access to natural light; and
- xv) The crossover has been amended to allow for a passing point within the verge area.

9.0 SUMMARY OF JUSTIFICATIONS

Having regard for all of the above, it is contended the proposed new multiple dwelling development on Lot 56 (No.93) Odin Road, Innaloo is suitable and capable of being approved for the following reasons:

- It is consistent with the general objectives of the land's current 'Urban' zoning classification under the Metropolitan Region Scheme.
- The development of multiple dwellings on the land is permitted under the local authority planning framework.
- The proposed development on the subject land will complement other similar land use activities that will be developed within this part of the Stirling City Centre, with convenient access to public transport, local centres, a regional road network and recreational facilities.
- The proposed development will assist with the provision of housing variety within the Stirling City Centre within close proximity to various nodes and infrastructure (such as public transport).
- The proposed development has been designed to have due regard for the development standards prescribed within the relevant planning framework, including the Innaloo Precinct Local Development Plan.
- The proposed development will improve the streetscape and levels of passive surveillance along Odin Road.
- The development has been designed to incorporate design features, an active frontage and improved passive surveillance of the adjoining street (i.e. it will oversee the public realm).
- The proposed development will provide opportunity for the development of an attractive and safe residential environment comprising affordable, modern and high quality housing within a well-established urban area.
- The proposed development is unlikely to compromise the existing character, amenity or compatibility of land usage in the immediate locality and is consistent with the future anticipated development for the area.
- The proposed development is consistent with the objectives of the City of Stirling's 'Stirling City Structure Plan'.
- The proposal development for the land of 'multiple dwelling' purposes is consistent with the aims and objectives of 'Directions 2031' and 'Perth & Peel @ 3.5 Million' and will make a beneficial contribution to the future development and sustainable growth of the Perth Metropolitan Region generally.
- The proposal will assist with the City of Stirling meeting the target set by the State Government for the delivery of additional housing within the existing metropolitan area and will assist with fostering the sustainable growth of the Stirling City Centre.
- The proposed development will add to the diversity of housing stock and provide a variety of choice for future potential residents in the Innaloo locality (within the Stirling City Centre) and will help to accommodate the increased demand for housing within a well-developed residential area.

10.0 CONCLUSION

This Stirling City Centre area is currently experiencing a transitional phase, wherein the older low density housing stock is being replaced by new higher density developments that reflects the City of Stirling's vision for area and accords with the strategic planning framework adopted by the State Government to achieve infill development within the existing metropolitan area and in close proximity to key nodes.

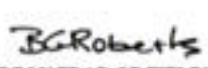
The proposed development has been designed to reflect the scale, built form and character expected within a key Activity Centre. Furthermore, the proposed development provides for a change to the housing typology within the Innaloo Precinct to provide for a diversity of housing.

The proposed construction of twelve (12) new multiple dwellings on Lot 56 (No.93) Odin Road, Innaloo is consistent with the current planning framework in place for the Stirling City Centre (in particular within the Innaloo Precinct) and will assist with providing affordable and additional housing within a locality that is well serviced with various infrastructure and within a key activity node (including access to a train station). According, we seek the City of Stirling and JDAP's approval of the proposed development on the subject land at its earliest convenience.



19 July 2024
CF Town Planning & Development
 Planning & Development Consultants

APPENDIX 1 – CERTIFICATE OF TITLE

 WESTERN AUSTRALIA	<table border="1" style="margin: auto;"> <tr> <td colspan="2">REFERENCE NUMBER</td> </tr> <tr> <td colspan="2">56/P7290</td> </tr> <tr> <td style="text-align: center;">DUPLICATE NUMBER</td> <td style="text-align: center;">DATE OF DUPLICATE ISSUE</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">23/6/2014</td> </tr> </table>	REFERENCE NUMBER		56/P7290		DUPLICATE NUMBER	DATE OF DUPLICATE ISSUE	1	23/6/2014
REFERENCE NUMBER									
56/P7290									
DUPLICATE NUMBER	DATE OF DUPLICATE ISSUE								
1	23/6/2014								
RECORD OF CERTIFICATE OF TITLE UNDER THE TRANSFER OF LAND ACT 1893									
The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.									
 REGISTRAR OF TITLES									
LAND DESCRIPTION: LOT 56 ON PLAN 7290									
REGISTERED PROPRIETOR: (FIRST SCHEDULE) PEZMING PTY LTD OF 147 DIXON ROAD ROCKINGHAM WA 6168 (T P433191) REGISTERED 27/1/2023									
LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS: (SECOND SCHEDULE)									
Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. * Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title. Lot as described in the land description may be a lot or location.									
-----END OF CERTIFICATE OF TITLE-----									
STATEMENTS: The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.									
SKETCH OF LAND:	1227-983 (56 P7290)								
PREVIOUS TITLE:	1221-545								
PROPERTY STREET ADDRESS:	93 ODEN RD, DONALOO.								
LOCAL GOVERNMENT AUTHORITY:	CITY OF STIRLING								
NOTE 1:	DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING MIS08084								
LANDGATE COPY OF ORIGINAL NOT TO SCALE 21/03/2023 11:58 AM Request number: 64862275									
 www.landgate.wa.gov.au									

APPENDIX 2 – – LOCAL DEVELOPMENT PLAN ASSESSMENT

Planning & Development Consultants

Address: 3/1 Mulgul Road, Malaga WA 6090

Tel: 9249 2158 Mb: 0407384140 Email: carlo@cftp.com.au

CVF Nominees Pty Ltd ABN: 86 110 067 395

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
2.0 General Provisions		
2.1.2.3 Dwelling Mix - All developments and subdivisions comprising of ten or more dwellings shall provide a minimum of 10% single bedroom dwellings as part of the development; and.	- The proposed development has been designed to provide dwellings with some varying size and configuration to cater for various needs and demographics. - The development will comprise 41.66% single bedroom dwellings in lieu of 10%. This allows for the creation of affordable housing within an area that is well serviced and comprises good access to a wide range of services and infrastructure. As such, the development will provide for a higher population and different occupants types (i.e. singles and/or couples without children) to locate within the area. - All dwellings have been designed to potentially meet the Silver Level requirements. Complies	
2.1.2.4 Multiple Dwelling Size - Minimum multiple dwelling size of 40m ² plot ratio area, excluding outdoor living areas and external storage and car parking areas.	- All dwellings within the development comprise a minimum plot ratio area of greater than 40m². - Each dwelling provides for sufficient internal and external living spaces Complies	
2.1.2.5 Minimum number of Dwellings - Minimum 3 dwellings to be provided in accordance with Figures 3 and 4.	The proposed development includes twelve (12) multiple dwellings in lieu of a minimum of three (3) dwellings required by the LDP. Complies	
2.1.3 Building Heights		
2.1.3.1 Wall Height As per Sub Precinct Area 2 (See below); - Minimum two storey.	The proposed development comprises a maximum of four (4) storeys, which is allowable (the maximum wall height being 15.4 metres in lieu of 15 metres). The additional height will be addressed below).	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
- Maximum four (4) storeys - Top of external wall (concealed roof) 1.0m above wall height limit outlined in sub precinct areas (not to exceed 15 of any frontage); and - Floor to ceiling heights on upper floors are to be as per sub precinct provision.	• Clause 2.1.3.3 allows for a projection of 1 metre for 15% of the frontage. • In light of the above, the proposed building meets the 'deemed to comply requirements' of the LDP for Sub-Precinct B. • Ceiling heights are greater than 3 metres as indicated on Figure 13A. Complies	
2.1.3.2 Roof Height - As per Sub Precinct Area (refer Section 3)	• The proposed development contains a concealed roof structure and complies with the provision prescribed in Section 3. • The proposed development is four (4) storeys and fits within the maximum allowable building height from NGL. Complies	
2.1.3.2 Minor Projections Above Wall Height - Maximum 1.0m projection for 15% on any frontage.	• The proposal complies with the allowable projection, with a maximum height of 400mm in lieu of an allowable projection height of 1 metre. As such, the proposed projection penetrating above the prescribed building height limits is allowable. Complies	
2.1.4 Setbacks		
2.1.4.1 Street Setbacks - As per Sub Precinct Area (see below).	• The proposed development proposes a minimum front setback of 3 metres in accordance with the LDP for Sub-Section B. • The development has been provided with balconies along the front facade to allow to good activation of the street. • Complies	
2.1.4.2 Side / Rear Setbacks - 4.0m to a major openings to a habitable room	• The proposed development provides a 6 metre setback from the rear boundary in accordance with the Figure 13	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
with a major opening or balcony above ground level; and - Side and rear setbacks as per Sub Precinct Area (refer Section 3).	of the LDP and is therefore compliant. • The application proposes that the following aspects of the proposed development on the subject land do not meet the 'deemed to comply requirements' of Clause 2.1.4.2 of the LDP: i) Ground floor – Minimum setback of 2.3 metres from the southern side boundary in lieu of 3 metres; ii) First, second & third floors – Minimum setback of 2.5 metres from the northern side boundary in lieu of 3 metres; iii) First, second & third floors – Setback less than 4 metres (i.e. 2.5 metres) from the northern side boundary for bed 2 (Units 3 & 7) iv) First, second & third floors – Minimum setback of 2.461 metres in from the southern side boundary in lieu of 3 metres; v) First, second & third floors – Setback less than 4 metres (i.e. 2.5 metres & 2.497 metres) from the southern side boundary for bed 2 (Units 4 & 8 and bed 1 (Units 6 & 10); vi) Fourth floor - Minimum setback of 4.0 metres from the northern side boundary in lieu of 6 metres; and vii) Fourth floor – Minimum setback of 2.5 metres from the southern side boundary in lieu of 6 metres. • The following justification is provided in support of the above variation to the lot boundary requirements: 1. Clause 1.4 of the LDP allows for a 20% variation to the lot boundary setback requirements. Given this, the variations outlined in point ii above satisfies the allowable variations that can be granted by the LDP. 2. The proposed setback variations for the new development on the subject land from the southern side boundary can be attributed to the irregular shape of the subject land (i.e. angled boundary). Whilst	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	points of the building are non-compliant, there a parts that provide a larger compliant setback. 3. The building comprises varying setbacks from the side boundary to provide articulation when viewed from the adjoining properties, which is considered to be a better planning outcome than a façade comprising a flat 3 metre setback or a parapet wall along the boundary. Furthermore, the setback variations being sought will not result in the proposed development having an adverse impact on the local streetscape in terms of bulk and scale. 4. The setback to the bedroom windows can be attributed to the City's DRP requiring that no highlight windows be provided to enable an outlook from the bedrooms. If a highlight window were to be provided (i.e. ignore the recommendations of the DRP), the setback for various walls may fall within the 20% allowance provided by Clause 1.4 of the LDP or comprise a far lesser variation. 5. The proposed development has avoided the use of parapet walls to limit the overall impact on the adjoining properties in terms of bulk and scale. 6. The development provides a compliant rear setback to allow for a sense of separation, natural light to penetrate into the adjoining lots and allow for landscaping. 7. Sufficient space is provided to allow for the planting of trees and landscaping along the lot boundaries to provide a buffer with the adjoining lots. 8. Sufficient separation is provided between the existing buildings on the adjoining lots and the proposed new building on the subject land. 9. The proposed development makes effective use of all available space and provides for the creation of adequate internal and external living areas for each dwelling which will benefit all future occupants.	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	10. The proposed development will provide an attractive and safe residential environment comprising modern, affordable, high quality housing within a well-established urban area within close proximity to public transport route (i.e. Stirling train station) and within the Stirling City Centre ('Activity Centre'). 11. The subject land is ideally located within the 'Stirling City Centre' and the proposed development will assist with providing increased population within the City Centre. The strict compliance with the development provisions of the City's LDP may result in the loss of dwelling yield within the City Centre and therefore be contrary to the objectives of the 'Stirling City Centre Structure Plan' and '<i>Directions 2031</i>'. 12. Given that the property is located within the 'Stirling City Centre' and given the development potential within the centre, it is contended that overtime all adjoining properties will be developed in a similar manner and may include such minor setback variations. 13. The proposed development is located within a high density area, which allows for a greater extent of shadow to be cast over the adjoining properties (i.e. up to 50% of the adjoining lots). The shadow cast over the adjoining lots are less than the allowable amount and therefore can be considered acceptable. 14. Those portions of the proposed development comprising a reduced setback from the northern side boundary will abut a common property driveway associated with the grouped dwelling development on adjoining Lot 57 (No.95) Odin Road. Given this, the proposed development will not have an adverse impact on any sensitive habitable spaces on the adjoining northern property. In addition, any overlooking of Lot 57 is over a driveway. This provides for an element of passive surveillance over the driveway to benefit the occupants of the adjoining	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	northern property by providing a sense of security. 15. Those portions of the proposed development comprising a reduced setback from the southern side boundaries abut extensive rear yard area and patio structure of the existing dwellings on adjoining Lots 3 & 4 (No.2 & 2A) Sykes Avenue. As such, it is contended that the proposed setback variations for the development will not have an adverse impact on the adjoining properties and will not restrict any future redevelopment of these properties. In terms of overlooking, the bedrooms are low usage rooms and will not adversely impact the amenity of the existing dwelling on the adjoining southern lots. Having regard for all of the above it is contended that the portion of the new multiple dwelling development on Lot 56 proposing a reduced setback from the side boundaries will not have an adverse impact on the local streetscape or the adjoining properties, will not undermine the objectives of the City's Innaloo LDP and may therefore be approved by the City. Variation required	
2.1.4.3 Setbacks Between Buildings on the Same Lot (Storeys and below) - Minimum 8.0m distance between habitable buildings (multiple dwellings only).	The proposed development does provide separation between any buildings, with the proposed building within the development being one (1) large module. Complies	
2.1.4.4 Minor Projections into Setback Area - Maximum projection of 0.75m for chimneys, unenclosed balconies, eaves over-hang and other architectural features.	The development does include minor projections relating to architectural features into the setback areas (i.e. awning/eaves and projecting wall), which are compliant and permitted by the LDP. Complies	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
2.1.5 Open Space		
2.1.5.1 Open Rooftop Terraces - Rooftops may be used as an open terrace; - Rooftops shall not include habitable rooms; - All rooftop terraced areas shall be setback a minimum of 3.0m from the building edge; - Pergola rafters may extend to the edge of the terrace; and - Maximum 10% of rooftop terrace may be covered by impermeable roof.	• The proposed development includes a rooftop communal open space area to provide a usable spaces and to encourage social interactions. • There are not habitable rooms provided as part of the rooftop area, only unenclosed open space. • The rooftop area comprises a setback greater than the minimum required setback of 3 metres. • The rooftop are including a pergola to improve the amenity of the area. • The rooftop area is not covered with an impermeable roof structure and therefore complies Complies	
2.1.5.2 Outdoor Living Areas Each dwelling shall be provided with either: - One balcony with minimum dimension of 2.4m and minimum area of 10m²; or - One courtyard accessed directly from a habitable room with minimum dimension of 4m and minimum area of 20m².	• All upper level dwellings within the development are provided with an outdoor living area in accordance with Clause 2.1.5.2 of the LDP in terms of balcony dimension and area are adequate for a usable space. The development will comprise varying sized outdoor living areas for dwellings. • The ground floor dwellings comprise a larger outdoor living area (i.e. minimum dimension of 4 metres and an area of approximately 20m²). These outdoor living areas are located along the street frontage of the development and will assist with providing activation of the street. Complies	
2.1.5.3 Communal Open Space - Residential Developments incorporating between six and twelve units (inclusive) shall provide a minimum of 40m² of communal open space with a minimum dimension of 4.0m; or - Residential Developments incorporating between	• The communal space is approximately 73m², which is 33m² larger than the minimum area required under Clause 2.1.5.3 of the LDP. This will assist with a larger landscaped area and a more active space for the residents of the development. • The minimum dimension of the communal area complies.	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
thirteen and twenty units (inclusive) shall provide a minimum of 80m² of communal open space with a minimum dimension of 5.0m; or - Residential Developments incorporating more than twenty units or all non-residential development shall provide communal open space of no less than 10% of the lot area with a minimum dimension of 8.0m; - A minimum of 50% of the communal open space shall be designed as landscaped areas inclusive of soft landscaping and shall include shade trees; - A maximum 10% of total communal open space area to be covered with an impermeable roof cover; and - Communal facilities such as BBQ's, seating, shade structures, tables etc. shall be provided.	• The communal open space area is larger than required and provides sufficient space to accommodate deep soil zones and the growth of a mature tree. The area contains greater than 50% landscaping and include shade trees. • The communal area is uncovered, with a pergola structure provided over a portion of the area that will comprise a table. • A BBQ, table, seating and a fire pit will be provided within the communal space. • The communal open space will accommodate the future occupants of the development and provide an area for social interaction. Complies	
2.1.7 Building Exterior		
2.1.7.1 Facades and Walls - No wall (other than side boundary walls with nil setback) to be longer than 80m in length without indentation; and - Minimum indentation to be at least 1.0m deep and 2.0m wide.	• The front & rear façades of the development comprise varying setbacks, with no portion comprising a continuous wall length of 10 metres. • The facades to the side elevations of the development comprise a length of 10 metres, followed by an offset in the building line to break the bulk of the building. Complies	
2.1.7.2 Balconies - Balcony balustrades shall be 75% visually permeable	• All balconies comprise clear glass and therefore visually permeable. Complies	
2.1.7.3 External Fixtures - All service meters and related infrastructure are to be screened as viewed from the street; and	• The utilities will be screened from the street by either locating the infrastructure behind the front setback area or screened by landscaping and fencing. • All infrastructure for each dwelling (i.e. hot water	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
- All external fixtures such as television and radio antennae, satellite dishes, plumbing vents and pipes, air conditioners and hot water systems are to be screened as viewed from the street and adjoining properties.	systems) will be located to not be visible from the public realm. No services will be located within the private outdoor living areas of any dwelling to avoid any impact on the private spaces. • Piping and ducting will be integrated into the development (i.e. painted, screened or harmonising with the development facades). Complies	
2.1.7.4 Essential Facilities Provisions - Every dwelling shall be provided with an enclosed storage area of at least 4.0m², minimum 1.5m dimension, which may be accessed from outside the dwelling; - Every dwelling shall be provided with a clothes-drying area (communal or private) that is not visible from the street. Alternatively, every dwelling shall be provided with a clothes dryer; and - In accordance with the City's Bin Storage Policy.	• Each dwelling will be provided with a storeroom. • All storerooms will be accessible externally from the dwelling. • Each dwelling will be provided with dryers within the laundry of the dwelling to avoid drying lines being visible from the public and private realms. • A communal bin store is provided abutting the driveway/car parking area of the development, with the bin store being screened from the street/public realm. Complies	
2.2 Streetscape Relationship		
2.2.2.2 Residential Entry Points - Entry points to be no more than 1.2m above the ground level.	• Entry points for the development is less than 1.2 metres above the ground level. The entry point has been designed to comprise a level that is consistent with the street. • The ground floor units will include a separate entry point/gate from the street. Complies	
2.2.2.3 Surveillance of Streets, Public Open Space & Public Access Ways - The building shall have courtyards and balconies facing all streets; and - The building shall provide a minimum of one major opening from a habitable room for every dwelling that orients to the street, public open	• The development will include a total of two (2) courtyards at ground level orientated towards the street and five (5) balconies on the upper floors orientated towards the Street. • Each dwelling along the frontage of the development will have more than one (1) major opening orientated towards the street.	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
space and public access way on the ground floor.	- Sufficient openings are orientated towards the entry point and communal space of the development. - The subject land does not abut a public open space reserve. Complies	
2.2.2.4 Major Openings to Habitable Rooms - One major opening (exceeding 1m ²) shall be provided to each habitable room.	Each habitable room comprises a window greater than 1m². It is noted that a number of habitable rooms have more than one window. Complies	
2.2.2.5 Weather Protection - Awnings shall have a minimum depth of 2.5m; - Awnings shall have a maximum vertical clearance from the pavement level of 3.5m (4.0m for entry points); - Awnings shall be constructed using materials that are opaque and non-reflective; and - New awnings shall match with existing awnings (where present).	The proposed development is not a 'Main Street' typology and does not propose any awnings at ground level over any adjoining pedestrian paths or verge area. N/A	
2.2.2.6 Street Walls and Fences - Front walls and fences within primary street and secondary street setback area are visually permeable above 1.2m to a maximum height of 1.8m.	The front fence is visually permeable, with piers not exceeding 1.8 metres. The solid portions between the piers comprise a height of 750mm. Complies	
2.2.3 Site Works		
2.2.3.1 Site Works - A maximum of 0.5m of fill above the natural ground level is permitted; and - Excavation within all boundaries shall have no limit.	Site works for the development are within 500mm from NGL as per the R-Codes. Complies	
2.2.3.2 Retaining Walls - For residential development as per the Residential Design Codes. See R-Codes assessment below.	- Site works are within 500mm from NGL as per the R-Codes. - In light of the above, a nil setback for retaining walls is allowed in accordance with the R-Codes.	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	Complies	
2.2.3.3 Levels - The ground floor level of buildings shall match footpath level for all non-residential and mixed-use development; and - Basement parking structures between a street frontage and the main front elevation are no more than 1.2m above natural ground level for residential developments.	• The development does not comprise a non-residential use. • The development does not propose basement parking. Complies	
2.2.3.4 Landscaping - A Landscaping Plan shall be submitted for all developments with 5 or more dwellings in accordance with the City's Landscaping Policy; - Landscaping shall include the landscape strips illustrated in Section 3 of this Detailed Area Plan; and - Landscaping strips shall include trees (min 45 litres) and minimum 5m spacing.	• Landscaping plan has been prepared in support of the application by a landscape architect. • Landscaping strips are proposed along the lot boundaries in accordance with Section 3 of the LDP. • The planting of trees and associated deep soil zones are in accordance with the City of Stirling's Local Planning policy No.6.11. • The outdoor living area for each ground floor unit will comprise a tree as per the Clause 2.2.4.4 of the LDP (refer to landscaping plan). Complies	
2.2.3.5 Lighting, Safety and Security - Shall be in accordance with the City's Mixed Use and Commercial Centre Zone Guidelines.	• The development is not mixed use. N/A	
2.4 Access and Parking		
2.2.4.1 On-Site Car Parking Provisions - Parking shall be provided in accordance with the Parking Policy applicable to this Local Development Plan and;	• The land enjoys a Location A classification with good access to high frequency public transport. • The number of car parking bays provided for the residents comply with Table 3.9 of the R-Codes (i.e. a total of 12 bays for Location A). • As the development comprises less than 20 dwellings, motorcycle parking is not required.	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	• Clause 3.2.3 of the LDP entitled 'Special Provisions' states that each new development shall construct new visitor bays in the verge at the developer's cost where possible. The proposed development on Lot 56 has allocated the provision of an informal visitor parking bay within the Odin Road verge area abutting the subject land. • The development comprises one (1) visitors bays in lieu of three (3). Justification is provided below: 1. It should be noted that the subject land is located in close proximity to a high frequency bus/train routes. 2. An informal bay is being provided within the verge area abutting the subject land. This was discussed and supported by the City's Planning Department. 3. The proposed development meets the 'deemed to comply requirements' in regard to resident parking. 4. The proposed dwellings within the development are relatively small compared to the existing single dwelling type development within the immediate locality. Given this, it is anticipated that the dwellings will not generate the need for greater on-site parking that reflects a single dwelling, as the dwellings are unlikely to accommodate large families that would typically generate greater traffic movements and parking demand. 5. There are sufficient public transports services within close proximity to the subject land, including a high frequency bus/train routes. Access to the public transport network provides occupants and visitors to the proposed development with an alternative mode of transportation. 6. The subject land is well connected with pedestrian foot paths that provide safe access to and from the site for pedestrians and cyclists. In light of the above, the proposed reduced visitor parking	

Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
	bay number has merit and can be supported. Variation required	
2.2.4.3 Design and Location of Car Parking Bays - Car parking bays located within a building shall be located in accordance with Figures 5, 6, 7, 8 and 9.	- The car parking area is located to the rear of the site and screened from the street. - The car parking area has been designed to have due regard for the required landscaping strips/setbacks in accordance with Sub-Section B of the LDP. - No basement car parking area is proposed as part of this development. Complies	
2.2.4.5 Vehicle Access - Driveways serving up to 15 dwellings shall be 3.0m wide; - Driveways servicing mixed use developments and developments of more than 15 dwellings shall be 6.0m wide; and - Convex mirrors and/or pedestrian warning devices shall be provided where driver line of sight is obscured by buildings or landscaping.	- The development comprises one (1) access point along the land's Odin Road frontage. - As the development comprises less than fifteen (15) dwellings, a single width driveway is permitted. - The crossover width does not exceed 6 metres, which conforms with the City's Crossover Specifications. In addition, crossover will not impact the streetscape and is less than 20% of the lot frontage. - The crossover width is less than 6 metres and complies with the LDP and the City's specifications. Complies	
2.2.4.6 Crossovers - No more than one crossover is permitted for any one site; - Existing redundant crossovers will be required to be removed at the expense of the developer and the verge reinstated; and - Maximum crossover width 6.0m.	- The development comprises one (1) access point from Odin Road. - The crossover width does not exceed 6 metres, which conforms with the City's Crossover Specifications. - The crossover width is less than 6 metres and complies with the LDP and the City's specifications. Complies	

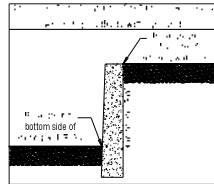
Assessment Against Local Development Plan (Innaloo Precinct)
Twelve (12) Multiple Dwellings
Lot 56 (No.93) Odin Road, Innaloo

LOCAL DEVELOPMENT PLAN REQUIREMENT	APPLICANT COMMENT	ASSESSOR COMMENT
3.2 Sub-Precinct 2		
Minimum Ground Floor Ceiling Height – 3.0m	Ground floor 3.342 metres. Complies	
Setbacks as per Figures 13 and 14.	Building footprint and modules has due regard for the details illustrated in Figures 13 & 14 of the LDP. Justification for the variations to the lot boundary setbacks has been addressed under Clause 2.1.4.2 (Side / Rear Setbacks) above. Complies	
Building heights – 4 storeys as per Figure 12, 13 & 14.	Proposed development is four (4) storeys and complies with the building height requirements. Complies	

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APPENDIX 3 – – DEVELOPMENT PLANS

Photo taken at © facing North East



LEGEND	
	Top of the mountain
	Topographic contour
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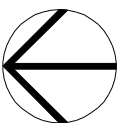
TBM deck spike in bitumen
equals RL 13.92 AHD
Based on SSM - SCA15
RL 17.752 AHD
(Landgate Geodetic Section)
Contractor to check datum
before adopting levels

Rev	Date	Description	Surv	Drawn
0	2010.01.01	Initial Survey	TF	TF

FEATURE AND CONTOUR SURVEY
OF LOT 56 ON PLAN 7290
93 Odin Road, Innaloo
C/T Vol: 1227 Fol: 983
our ref. 23-9977

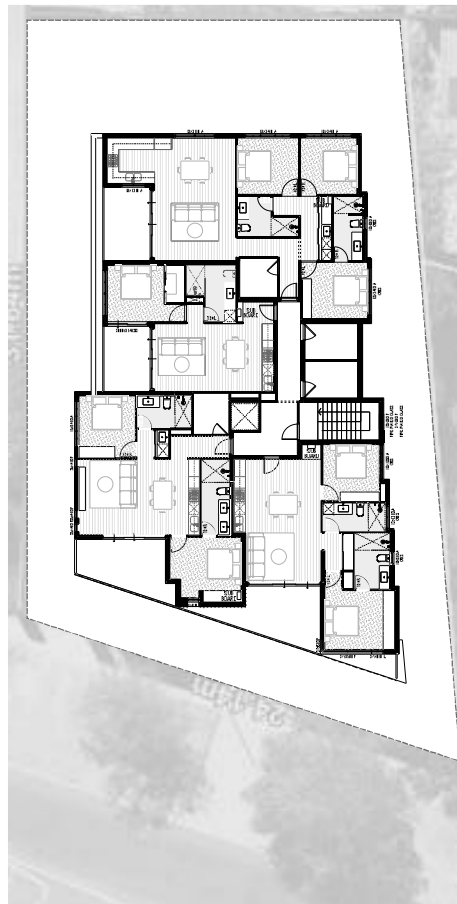
Feature Survey by
THE LAND DIVISION
PLANNING | SURVEYS | DESIGN
PO Box 2444,
Malaga, WA 6090
phone: 08 9209 3232
www.landdivision.com.au

PEPIS RECOMMENDED



SITE SURVEY
SCALE 1:200

Client NUI THANH Project Name Apartment Complex Project Address #10000 Road, Malaga	Drawing Title: Site Survey		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT DATED:/...../..... OWNER: OWNER: BUILDER: WITNESS	Version 1.00 2.00	Description Initial design Final design	Date 21.04.23 18.02.24		
	Scale: 1:100	Sheet Size: A2		Unit 3/1 Muigut Road, Malaga WA 6000	©COPYRIGHT GERMANO DESIGNS ALL RIGHTS RESERVED NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM GERMANO DESIGNS			
	Project No. 23014	Drawing No. WD004 of 22		(08) 9246 6392 www.germanodesigns.com.au				

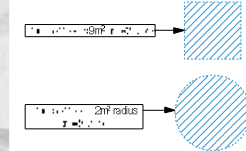


Ground Cover

Plant	Quant	Pot Size	Height
 Blackberry 100 400m nil	50	140m	1-15m
 Blackberry 50 140m 30-40cm	9	140m	1-15m
 Blackberry 6 35l 1-15m	100	400m	nil
 Blackberry 20 400m nil	50	35l	1-15m

Note:

- Laid escaping to all planted areas including grass area
- All landscaping to be provided with geotextile fabric filter

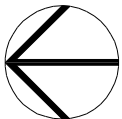


Landscaping Deep Soil Total Area

Landscape Proving	275.00m2
-------------------	----------

LANDSCAPING PLAN

SCALE 1:200



Client	NUO HANG
Project Name	Apartment Complex
Project Address	400 North Road, Singapore

Drawing Title: Landscaping Plan	
---	--

Scale: 1:1000	Sheet Size: A2
Project No: 23014	Drawn No: WD006 of 22

THIS IS ONE OF THE DRAWINGS
REFERRED TO IN THE COMPLAINT

DATED:/...../.....

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OWNER _____

BUILDER: _____

WITNESS: _____

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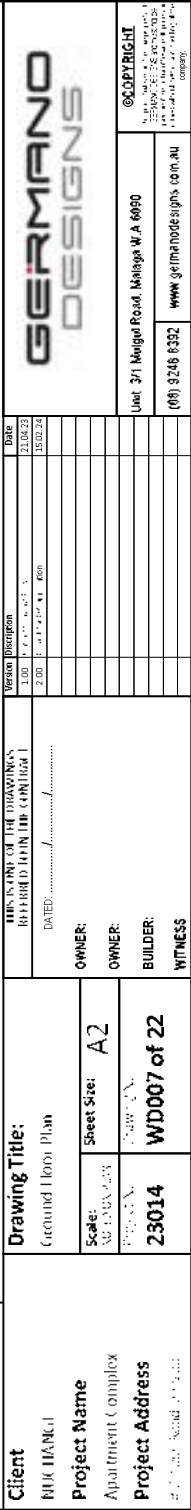
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Building Areas	
APT01	58.78
APT02	58.83
APT03	58.88
APT04	58.93
APT05	58.98
APT06	59.03
APT07	59.08
APT08	59.13
APT09	59.18
APT10	59.23
APT11	59.28
APT12	59.33
APT13	59.38
APT14	59.43
APT15	59.48
APT16	59.53
APT17	59.58
APT18	59.63
APT19	59.68
APT20	59.73
APT21	59.78
APT22	59.83
APT23	59.88
APT24	59.93
APT25	59.98
APT26	60.03
APT27	60.08
APT28	60.13
APT29	60.18
APT30	60.23
APT31	60.28
APT32	60.33
APT33	60.38
APT34	60.43
APT35	60.48
APT36	60.53
APT37	60.58
APT38	60.63
APT39	60.68
APT40	60.73
APT41	60.78
APT42	60.83
APT43	60.88
APT44	60.93
APT45	60.98
APT46	61.03
APT47	61.08
APT48	61.13
APT49	61.18
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APT51	61.28
APT52	61.33
APT53	61.38
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APT55	61.48
APT56	61.53
APT57	61.58
APT58	61.63
APT59	61.68
APT60	61.73
APT61	61.78
APT62	61.83
APT63	61.88
APT64	61.93
APT65	61.98
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APT75	62.48
APT76	62.53
APT77	62.58
APT78	62.63
APT79	62.68
APT80	62.73
APT81	62.78
APT82	62.83
APT83	62.88
APT84	62.93
APT85	62.98
APT86	63.03
APT87	63.08
APT88	63.13
APT89	63.18
APT90	63.23
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APT92	63.33
APT93	63.38
APT94	63.43
APT95	63.48
APT96	63.53
APT97	63.58
APT98	63.63
APT99	63.68
APT100	63.73



FIRST FLOOR PLAN

SCALE 1:100

Client	Drawing Title: First Floor Plan		
Project Name	Scale: AS SHOWN	Sheet Size: A2	
Project Address	Project No. 23014	WD008 of 22	

**MINISTERS OF THE DIABETES
RESEARCH FUND INC. (CONTINUED)**

DATED:/...../.....

OWNER:

OWNER:

BUILDER:

WITNESS

[illegible]

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Building Assets		Assets	
APT01	56.71	56.71	56.71
APT02	60.06	60.06	60.06
APT03	51.63	51.63	51.63
APT04	51.63	51.63	51.63
APT05	95.59	95.59	95.59
APT06	88.53	88.53	88.53
APT07	60.72	60.72	60.72
APT08	40.67	40.67	40.67
APT09	40.67	40.67	40.67
APT10	111.97	111.97	111.97
APT11	115.39	115.39	115.39
APT12	70.08	70.08	70.08
APT13	72.36	72.36	72.36
APT14	33.16	33.16	33.16
APT15	33.16	33.16	33.16



SECOND FLOOR PLAN

SCALE 1:100

Client RHC HANGL	Drawing Title: Second Floor Plan
Project Name Apartment Complex	Scale: 1/8" = 1'-0"
Project Address 1234 Main Street, Suite 100	Sheet Size: A2
	Project No.: 23014
	WD009 of 22

THIS IS ONE OF THE DIAGRAMS REFERRED TO IN THE CONTRACT

DATED:/...../.....

OWNER:

OWNER:

BUILDER:

WITNESS:

Version	Identifier	Date
1.00	$\{x, x^2, \dots, x_n, x_n^2, \dots\}$	21.04.28
2.00	$\{x^2, x^3, 2x^2, x^4, \dots\}$	16.02.24

Unit 3/1 Maitland Road, Maitland W.A 6009
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Building Name	Year	Area (sq. ft.)	Value
APT01	1971	5671	5671
APT02	1972	6806	6806
APT03	1973	5161	5161
APT04	1974	5659	5659
APT05	1975	6072	6072
APT06	1976	4057	4057
APT07	1977	5300	5300
APT08	1978	6020	6020
APT09	1979	11537	11537
APT10	1980	4122	4122
APT11	1981	11836	11836
APT12	1982	7238	7238
APT13	1983	5506	5506



THIRD FLOOR PLAN

SCALE 1:100

Client	RHC HANGL		
Drawing Title:	Third Floor Plan		
Project Name	Apartment Complex	Scale:	A2
Project Address	23014	Sheet Size:	WD010 of 22

**THIS IS ONE OF THE DIAGRAMS
REFERRED TO IN THE CONTRACT**

DATE:/...../.....

OWNER:

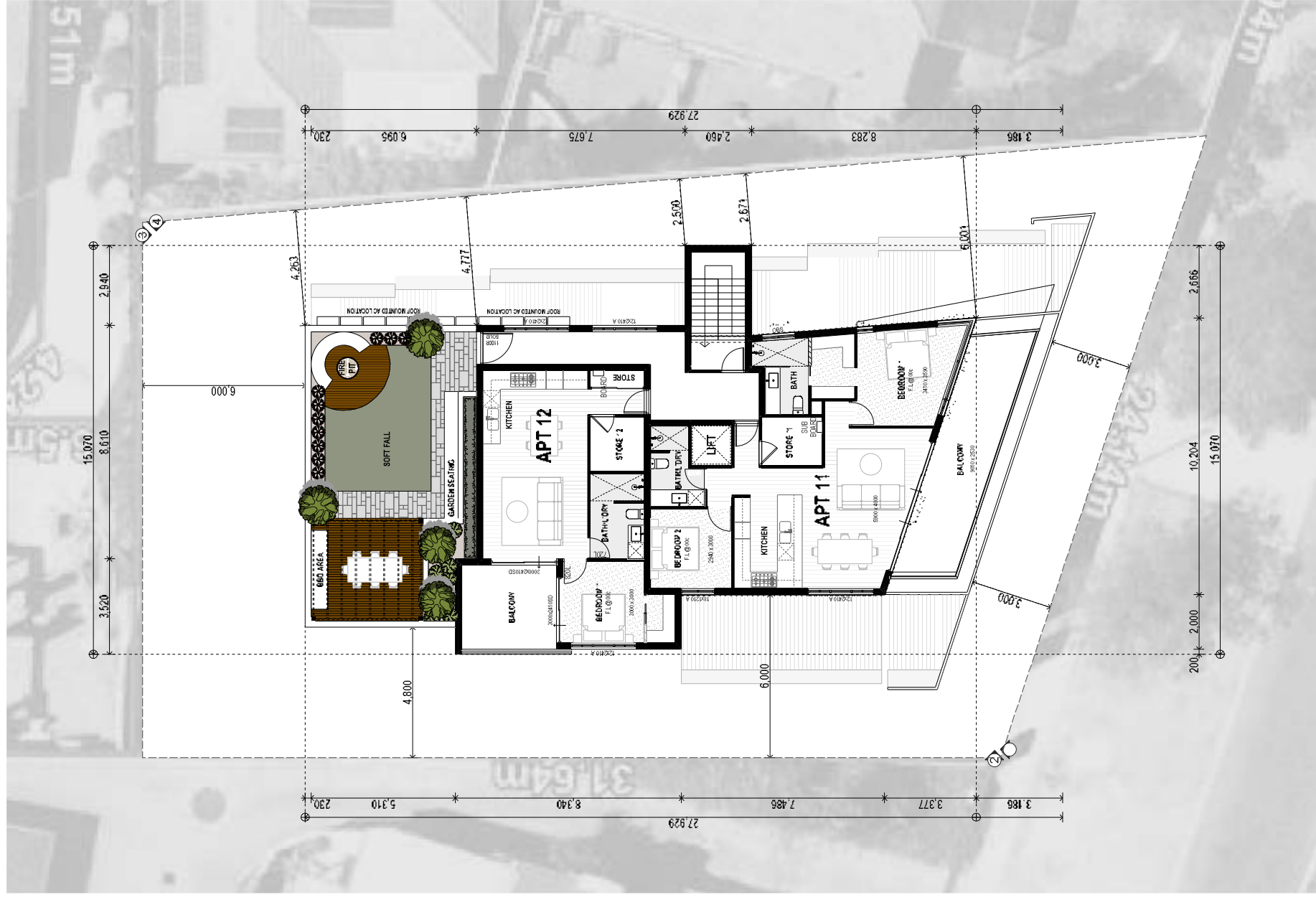
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BUILDER:

WITNESS

[illegible]

Unit 371 Muigui Road, Malaga W.A 6090	www.gemalnodesigns.com.au
(08) 9246 6392	



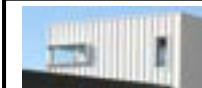


Western Elevation - E1 (Front Elevation)
Scale 1:100

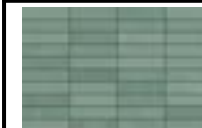
EXTERNAL FINISHES



GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



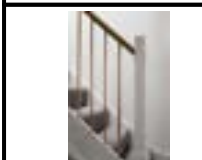
FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



FEATURE TILING
Green tile laid stacker bond



WINDOW FRAMES -
Timber Timber look window frames



BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH



EXTERNAL PLASTER - White
textured walls

Client
NUR HANGI
Project Name
Apartment Complex
Project Address
110/112 Main Road, Malaga

Drawing Title:
External Elevations 01

Scale:
1:100
Sheet Size:
A2
Project No:
23014
Drawing No:
WD011 of 22

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WITNESS:

Version	Description	Date
1.00	Initial Design	21.04.23
2.00	Final Design	15.02.24

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Northern Elevation - E2 (Left Elevation)
Scale 1:100

EXTERNAL FINISHES



GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



FEATURE TILING TO
BED 1 LEVEL 2,3 -
Green tile laid in stacker bond



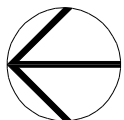
WINDOW FRAMES -
Timber Timber look window frames



BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH



EXTERNAL PLASTER - White
textured walls



Client
NUO HANG
Project Name
Apartment Complex
Project Address
1101 North Road, Malaga

Drawing Title:
External Elevations 02

Scale:
Sheet Size: A2
Project No:
23014
Drawing No:
WD012 of 22

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Version	Description	Date
1.00	Initial Design	21/04/23
2.00	Final Design	15/02/24

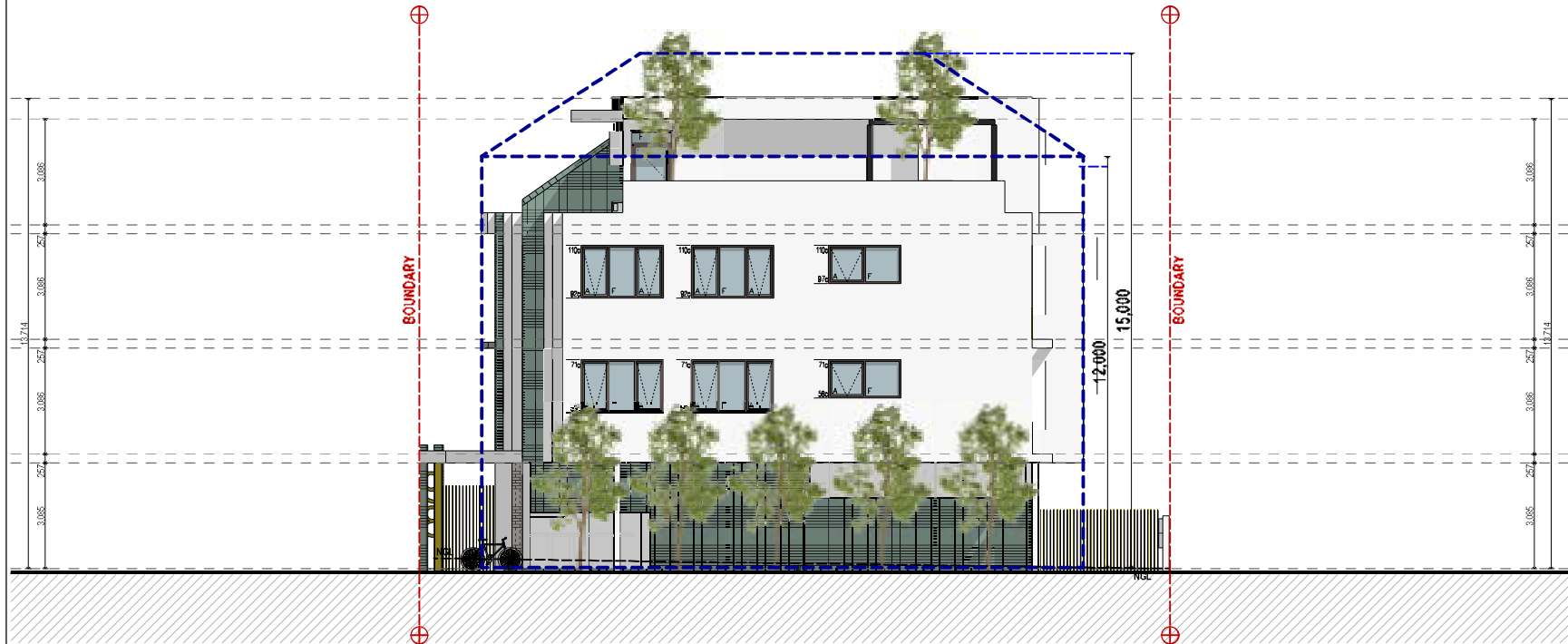
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Eastern Elevation - E3 (Rear Elevation)
Scale 1:100

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GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



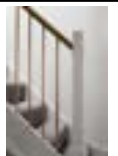
FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



FEATURE TILING
Green tile laid stacker bond



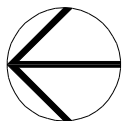
WINDOW FRAMES -
Timber Timber look window frames



BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH



EXTERNAL PLASTER - White
textured walls



Client
NUC HANGI
Project Name
Apartment Complex
Project Address
110/112 North Road, Malaga

Drawing Title:
External Elevations 03

Scale:
As Shown
Sheet Size: A2
Project No: 23014
Drawing No: WD013 of 22

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2.00	Final Design	15.02.24

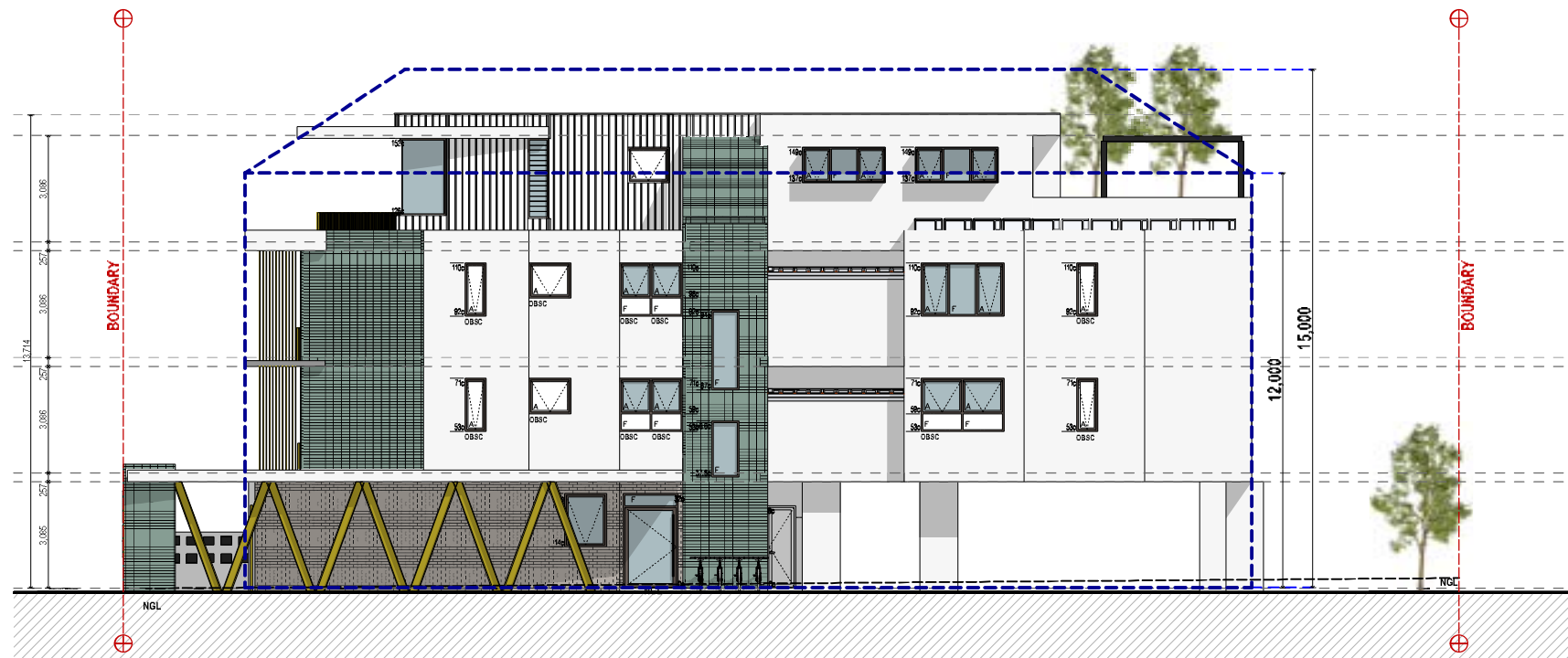
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South Elevation - E4 (Right Elevation)
Scale 1:100

EXTERNAL FINISHES



GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



**FEATURE CLADDING
TO LEVEL 2,3,4.**
Color bond lindeck
wall cladding in white



FEATURE TILING
Green tile laid stacker bond



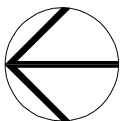
WINDOW FRAMES
Timber Timber look window frames



**BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH**



EXTERNAL PLASTER - White textured walls



Client	NUO HANG
Project Name	Apartment Complex
Project Address	400 North Road, Singapore

Drawing Title:	External Elevations 04
-----------------------	------------------------

Scale: 1/4" = 1'-0"	Sheet Size: A2
Project No: 23014	Drawn No: WD014 of 22

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TRANSPORT IMPACT STATEMENT

Lot 56 (No 93) Odin Road,
Innaloo

January 2024

Rev A



PART OF  **Premise**

HISTORY AND STATUS OF THE DOCUMENT

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
Rev A	17.01.2024	M Kleyweg	M Kleyweg	18.01.2024	Issued for Review

DISTRIBUTION OF COPIES

Revision	Date of issue	Quantity	Issued to
Rev A	18.01.2024	1 (PDF)	Joe Germano (Gemanano Design)

Document Printed	18/01/2024 8:46 AM	
File Name	C:\Users\jelena\Box\KCTT Projects\KC00000 Current Projects\KC01760.000 93 Odin Road, Innaloo TIS\Outgoing\Report\KC01760.000 93 Odin Road, Innaloo TIS.docx	
Author of the Rev A Draft	Jelena Simic	
Author of the Current Revision	Jelena Simic	
Project Team	/	
Project Director / Project Manager	Marina Kleyweg	
Name of Project	KC01760.000 Lot 56 (No 93) Odin Road, Innaloo	
Name of the Document	KC01760.000 Lot 56 (No 93) Odin Road, Innaloo	- Transport Impact Statement
Document Version	KC01760.000_R01_ Rev A	

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Appendices

Appendix 1 - The layout of the proposed development

Appendix 2 - Transport Planning and Traffic Plans

Appendix 3 - Vehicle Turning Circle Plans

Appendix 4 - Traffic Management Plan

1. Executive Summary

Site Context

- The subject site is currently occupied by a single residential dwelling with direct access to Odin Road. The proposed land use is a multiple-dwelling residential building consisting of 12 units. Proposed development plans are enclosed in Appendix 1.

Relationship with Policies

- According to the State Planning Policy 7.3, the proposed development requires the provision of 14 car parking bays. Proposed plans indicate 12 car parking bays on site, approachable via a controlled internal lane and 2 on streetcar bays directly in front of the subject lot.
- Proposed development plans indicate a total of 4 bicycle racks on the ground floor level, which is below the nominated requirement for 8 bike bays.
- Building Code of Australia ACROD Provision – Given there are no accessible units proposed within the development, there is no requirement for provision of ACROD parking.
- KCTT reviewed the proposed street parking bays and concluded that both parking bays must be lengthened to comply with the Australian Standard AS 2890.5—1993 facilitating more comfortable and quicker parking.
- All proposed column's locations need to be positioned at appropriate locations in accordance with the AS2890.01 requirement.

Technical Findings

- The proposed parking requires some minor amendments to comply to AS2890.01. Please refer to Section 2.7.
- As the proposed fence is visually permeable, a clear pedestrian sightline is provided for egressing vehicles to the left. Existing tree and vegetation on the adjoining lot to the right obstructs the pedestrian sightline in this direction.
- Considering the specifics of the access/egress point, KCTT has recommended a convex mirror is installed to ensure that the departing vehicles can have clear sightline to the gate and crossover.
- It is expected that the delivery and service vehicles (such as waste removal vehicles) servicing the residential development will not require designated parking space, given that they can operate safely within the road reserve.

Conclusion

- Additional traffic attracted to the subject site is expected to increase by a maximum of 71 vehicular trips per day and 9 vehicular trips in the peak hour.
- Odin Road is classified as Distributor B as per MRWA classification with the desirable volume above 6,000 vehicles per day. Currently there are around 21,500 vehicles per day on weekdays. Traffic generated by the proposed development is in line with the 0.37% of the existing traffic volume on Odin Road. Other surrounding roads would absorb significantly less traffic than Odin Road, moreover, the traffic would be dispersed so that the impact can be considered negligible.
- In summary KCTT believe that the proposed development will not have a negative impact on the surrounding road network.

2. Transport Impact Statement

2.1 Proposal

Germano Designs engaged KCTT to prepare a Transport Impact Statement (TIS) for the proposed Apartment Complex on Lot 56 (No 93) Odin Road, Innaloo.

This report will primarily address the level of traffic impact of the proposed development and the requirements for integration of the proposed development with the surroundings, namely the existing and planned immediate road network.

2.2 Location

Lot Number	56
Street Number	93
Road Name	Odin Road
Suburb	Innaloo
Description of Site	The subject site is currently occupied by a single residential dwelling. The proposed land use is a multiple dwellings residential building comprising 12 units. The proposed development interfaces Odin Road to the west and proposes 1 vehicular access/egress point. Proposed development plans are enclosed in Appendix 1.

2.3 Technical Literature Used

Local Government Authority	City of Stirling
Type of Development	Multiple Dwelling
Are the R-Codes referenced?	YES
If <u>YES</u> , nominate which:	State Planning Policy 7.3 Residential Design Codes Volume 2 – Apartments <i>Gazetted on 24 May 2019</i>
Is the NSW RTA Guide to Traffic Generating Developments Version 2.2 October 2002 (referenced to determine trip generation / attraction rates for various land uses) referenced?	YES
Are there applicable LGA schemes for this type of development?	YES
If <u>YES</u> , Nominate:	
Name and Number of Scheme	Local Planning Scheme No. 3 (Updated 9 August 2023)
Are Austroads documents referenced?	YES

2.4 Land Uses

Are there any existing Land Uses

YES

If YES, Nominate:

Single residential dwelling with ancillary facilities

Proposed Land Uses

How many types of land uses are proposed?

One - Residential Building

Nominate land use type and yield

12 residential apartments:
 - 1 Bedroom – 8 apartments
 - 2+ Bedrooms – 4 apartments

Are the proposed land uses complementary to the surrounding land-uses? YES

2.5 Local Road Network Information

How many roads front the subject site?

One (1)

Name of Roads Fronting Subject Site / Road Classification and Description:

Road Name	Odin Road
Number of Lanes	two way, one lane per direction, divided
Road Reservation Width	approximately 30m
Road Pavement Width	App.6.5m per direction, app.5.0m painted median
Classification	Distributor B
Speed Limit	60kph
Bus Route	YES
If YES Nominate Bus Routes	421, 423
On-street parking	YES

2.6 Traffic Volumes

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)				Heavy Vehicle %	Date of Traffic Count	Multiplied with a 3% growth rate to the year 2024
			AM Peak Time	AM Peak - Peak VPH	PM Peak Time	PM Peak - Peak VPH			
Odin Road	North of Scarborough Beach Road (SLK 0.28)	18,379	07:45 – 1,619		16:45 – 1,467		6.9%	2018/19	21,306
Barnes Street	East of Huntriss Road (SLK 0.80)	11,049	07:45 – 801		16:15 – 969		6.7%	2021/22	11,721

Note - These traffic volumes have been derived through Main Roads Western Australia.

2.7 Vehicular Crash Information

Is Crash Data Available on Main Roads WA website? YES

If YES, nominate important survey locations:

Location 1 Odin Road (SLK 1.00-1.11)
Location 2 Intersection of Odin Road & Geneff Street
Location 3 Intersection of Odin Road & Sykes Avenue

Period of crash data collection 01/01/2018 - 31/12/2022

The following tables show crash rates and crash densities in the Perth Metropolitan area on local roads and state roads for the period from 2017 to 2022, as obtained from Main Roads WA on the 31st May 2022 by email request:

Crash Density and Crash Rate on Metropolitan State Roads Network only					
	All Crashes		Serious Injury Crashes (Fatal+Hospital)		
	Average Annual Crash Density (All Crashes/KM)	Average Annual Crash Rate (All Crashes/MVKT)	Average Annual Crash Density (Ser. Inj. Crashes/KM)	Average Annual Crash Rate (Ser. Inj. Crashes/MVKT)	
Metro State Roads - Midblock	20.12	0.37	0.89	0.02	
Metro State Roads - All	46.28	0.85	1.80	0.03	

Note: Based on 5-years data for the period 2017 to 2021.

Definitions of acronyms and terms used in this analysis:

- PDO Crash - a crash that results in property damage only (major or minor) and does not require hospitalisation or medical treatment, as listed in Main Roads WA's Crash Analysis Reporting System (CARS).
- KSI Crashes - Killed and serious injury crash
- MVKT - Million Vehicle Kilometers Traveled.

Road Name	SLK	Road Hierarchy	Speed Limit	Crash Statistics			
				No of KSI Crashes	No of Medical Attention Crashes	No of PDO Major Crashes	No of PDO Minor Crashes
Odin Road	1.00 - 1.11	Distributor B	60kph	0	0	1	0

MR Type	Involving Overtaking	Involving Parking	Involving Animal	Involving Pedestrian	Entering / Leaving Driveway	Other / Unknown
Count	0	0	0	0	0	1

No of MVKT Travelled at Location	App. 21,500 VPD * 365 * 5 years * 0.11 km = 4.31 MVKT
KSI Crash Rate	0 KSI crashes/MVKT
All Crash Rate	1 crash / 4.31 MVKT = 0.23 crashes/MVKT
Comparison with Crash Density and Crash Rate Statistics	All crashes rate of 0.23 is lower than the network average of 0.37 Crashes per MVKT for Metropolitan State Roads Network

Intersection Name		Road Hierarchy		Speed Limit	Crash Statistics			
					No of KSI Crashes	No of Medical Attention Crashes	No of PDO Major Crashes	No of PDO Minor Crashes
Odin Road & Geneff Street		Distributor B / Access Road		60kph / 50kph or State Limit	0	1	0	0
MR Type	Involving Overtaking	Involving Parking	Involving Animal	Involving Pedestrian	Entering / Leaving Driveway		Other / Unknown	
Count	0	0	0	0	0		1	
No of MVKT Travelled at Location				App. 22,500VPD * 365 * 5 years * 0.3 km = 12.32 MVKT				
KSI Crash Rate				0 KSI crashes/MVKT				
All Crash Rate				1 crash / 12.32 MVKT = 0.08 crashes/MVKT				
Comparison with Crash Density and Crash Rate Statistics				All crashes rate of 0.08 is significantly lower than the network average of 0.85 Crashes per MVKT for Metropolitan State Roads Network.				
Odin Road & Sykes Avenue		Distributor B / Access Road		60kph / 50kph or State Limit	0	0	1	1
MR Type	Involving Overtaking	Involving Parking	Involving Animal	Involving Pedestrian	Entering / Leaving Driveway		Other / Unknown	
Count	0	0	0	0	0		2	
No of MVKT Travelled at Location				App. 22,500VPD * 365 * 5 years * 0.3 km = 12.32 MVKT				
KSI Crash Rate				0 KSI crashes/MVKT				
All Crash Rate				1 crash / 12.32 MVKT = 0.08 crashes/MVKT				
Comparison with Crash Density and Crash Rate Statistics				All crashes rate of 0.08 is significantly lower than the network average of 0.85 Crashes per MVKT for Metropolitan State Roads Network.				

In order to identify black spots as locations noted for a high incidence of crashes involving death and injury, it is important to conduct the crash criteria analysis as shown in the table below. If the below crash criteria are met, there is a way to measure the cost-effectiveness of the proposed treatment. It is called BCR and it ensures that the black spot exhibits a significant number of crashes that are correctable by infrastructure treatment.

Table 3.1: Crash criteria for the State Black Spot Program

Crash Criteria	Highway and Main Roads		Local Roads	
	Metro	Rural	Metro	Rural
Intersection or Mid-block or Short road section (<3km)	10 crashes over 5 years	3 crashes over 5 years	5 crashes over 5 years	3 crashes over 5 years
Road length (>3km)	Average of 3 crashes per km over 5 years	Average of 1 crash per km over 5 years	Average of 2 crashes per km over 5 years	Average of 1 crash per km over 5 years
Benefit-cost ratio (BCR) (Main Roads/ WALGA 2004)	1			

Based on the above, analysed locations is not classified as a black spot location.

2.8 Vehicular Parking

Local Government

City of Stirling

Local Government Document Utilised

Policy 5.8 - Stirling City Centre Parking

State Planning Policy 7.3 Residential Design Codes
 Volume 2 – Apartments Gazetted on 24 May 2019

Description of Parking Requirements in accordance with Scheme:

Stirling City Centre Parking: *Parking for residential development shall be in accordance with the Residential Design Codes, unless these standards are varied in an adopted Local Development Plan;*

Given that the proposed residential development is within 800m walkable catchment from the Joondalup Line at the Stirling Station Platform 2 stop, the car parking requirements for Locations type A apply. This is per State Planning Policy 7.3 where the following table is taken from.

State Planning Policy 7.3 Residential Design Codes Volume 2: - Table 3.9 Parking ratio

Parking types		Location A	Location B
Car parking ¹	1-bedroom dwellings	0.75 bay per dwelling	1 bay per dwelling
	2+ bedroom dwellings	1 bay per dwelling	1.25 bays per dwelling
	Visitor	1 bay per four dwellings up to 12 dwellings	
		1 bay per eight dwellings for the 13th dwelling and above	
Bicycle parking ¹	Resident	0.5 space per dwelling	
	Visitor	1 space per 10 dwellings	
Motorcycle/ Scooter parking ²	Developments exceeding 20 dwellings provide 1 motorcycle/scooter space for every 10 car bays		

Note¹ Calculations of parking ratios shall be rounded up to the next whole number.

Note² For each five motorcycle/scooter parking bays provided in accordance with Table 3.9, car parking bays may be reduced by one bay.

Definitions:

- Location A: within 800m walkable catchment of a train station and/or 250m of a transit stop (bus or light rail) of a high-frequency route and/or within the defined boundaries of an activity centre.
- Location B: not within Location A

Calculation of Parking

Land Use	Requirements	Yield	Total Parking
Apartment Complex	0.75 bay per 1-bedroom dwellings	4 dwellings	3
	1 bay per 2+ bedroom dwellings	8 dwellings	8
	1 visitor bay per 4 dwellings up to 12 dwellings + 1 bay per 8 dwellings for the 13th dwelling and above	12 dwellings	3
	Total Car Parking Requirement		14
Total Volume of Parking Provided by Proponent			14

Justification

According to the State Planning Policy 7.3, the proposed development requires the provision of 14 car parking bays. Proposed plans indicate 12 car parking bays on site, approachable via a controlled internal lane and 2 on streetcar bays directly in front of the subject lot. Parking provision on site includes 11 standard car bays and 1 bay (No 12) marked as a reverse-only bay. However, as access is controlled via a gate, reverse bay is not required and could be used as a standard bay. Conversely, Bays No 7 and 8 need to be marked as small bays as the B99 vehicle manoeuvre is omitted via the proposed bin store and landscape.

2.9 Compliance with AS2890 Parking facilities

Which Austroads documents are referenced?	- Australian/New Zealand Standard, Parking facilities, Part 1: Off-street car parking - AS 2890.01 - Australian/New Zealand Standard, Parking facilities, Part 6: Off-street parking for people with disabilities – AS2890.06
Number of Parking Bays on-site	12 bays
Proposed development User Class	1A - Residential, domestic and employee parking
Driveway category and dimensions	- Category 1 access driveway 3.15m driveway width 7.8m driveway length

2.9.1 Compliance Overview

	FULL COMPLIANCE	PARTIAL DEPARTURE	FULL DEPARTURE	NOT APPLICABLE
Element	Compliance		Comment	
Car Bay Class 1A	FULL COMPLIANCE			
Car Bay Class 1	NOT APPLICABLE			
Car Bay Class 2	NOT APPLICABLE			
Car Bay Class 3	NOT APPLICABLE			
Car Bay Class 3A	NOT APPLICABLE			
Car Bay Class 4 (ACROD)	NOT APPLICABLE			
Aisle width	FULL COMPLIANCE			
Blind Aisle Extension	FULL COMPLIANCE			
Single-sided aisle width	NOT APPLICABLE			
Reversing bay	FULL COMPLIANCE		Reversing bay is provided; however, as the access is controlled via a gate, it is not required and could be used as a standard bay.	
Driveway grade	NOT APPLICABLE			
Parking grade	NOT APPLICABLE			
Ramp grade	NOT APPLICABLE			
Column location	FULL DEPARTURE		Although they do not obstruct manoeuvres, the columns are not positioned in accordance with the AS2890.01 requirement.	
Vertical Clearance	FULL COMPLIANCE			
Location of driveway	FULL COMPLIANCE			
Sight distance requirements at access driveways	FULL COMPLIANCE			
Minimum sight lines for pedestrian safety	PARTIAL DEPARTURE		A clear pedestrian sightline is provided for egressing vehicles to the left, as the proposed fence is transparent. Existing tree and vegetation on the adjoining lot to the right omits the pedestrian sightline in this direction.	

2.9.2 Compliance to AS2890.01 requirements

Parking Bay Type	AS2890.1:2004 Off-street car parking					
	AS2890.6 Off-street parking for people with disabilities					
	Parking Bay Length		Parking Bay Width		Aisle Width	
	Required	Proposed	Required	Proposed	Required	Proposed
All bays at 90° (User Class 1A)	5.4m	5.5m	2.4m	2.5m	5.8m	6.0m

Name other requirements in the AS2890.1:2004 document.

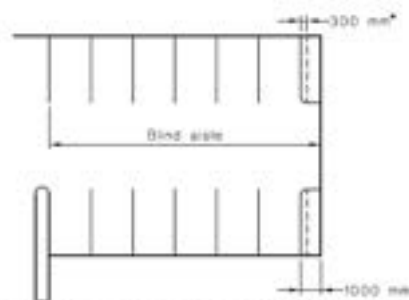
“Blind aisles

At blind aisles, the aisle shall be extended a minimum of 1 m beyond the last parking space, as shown in Figure 2.3, and the last parking space widened by at least 300 mm if it is bounded by a wall or fence.

In car parks open to the public, the maximum length of a blind aisle shall be equal to the width of six 90 degree spaces plus 1 m, unless provision is made for cars to turn around at the end and drive out forwards.

Single-sided aisles

Where there is angle parking on one side of an aisle only and the other side is confined by a wall or other high vertical obstruction closer than 300 mm to the nominal edge of the aisle, to provide maneuvering clearance, the aisle width shall be increased by 300 mm, measured to the vertical obstruction.”



*Additional widening required if there is a wall or fence at the side of the last space, see Clause 2.4.1(b)(i)

DIMENSIONS IN MILLIMETRES

FIGURE 2.3 BLIND AISLE EXTENSION

Blind aisle

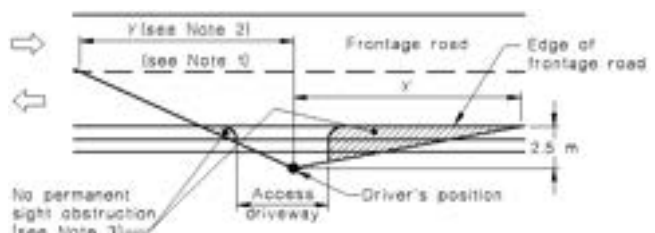
1m blind aisle provided.

Single sided aisles

Proposed parking bay No 7 needs to be widened and/or kerb and landscape is to be kept low to allow vehicle overhang during maneuvers. Furthermore, the proposed bin store obstructs the B99 maneuver, so it needs to be redesigned and/or relocated. Alternatively, bay No 8 could be marked as a small bay.

“Entering sight distance

Unsignalized access driveways shall be located so that the intersection sight distance along the frontage road available to drivers leaving the car park or domestic driveway is at least that shown in Figure 3.2.”

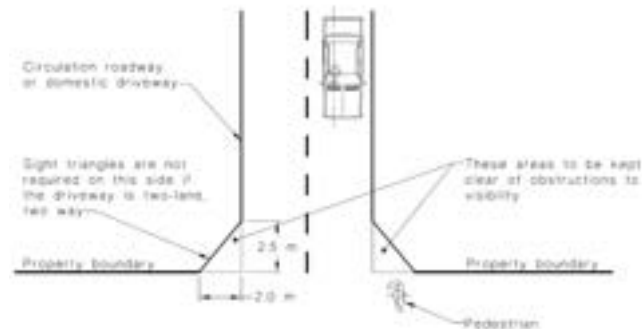


Frontage road speed (Note 4) km/h	Distance (Y) along frontage road m		
	Access driveways other than domestic (Note 5)		Domestic property access (Note 6)
	Desirable 5 s gap	Minimum SSD	
40	55	35	30
50	69	45	40
60	83	65	55

Sight distance requirements at access driveways

55m sight distance achievable as required.

“Sight distance to pedestrians
 Clear sight lines as shown in Figure 3.3 shall be provided at the property line to ensure adequate visibility between vehicles leaving the car park or domestic driveway and pedestrians on the frontage road footpath.”

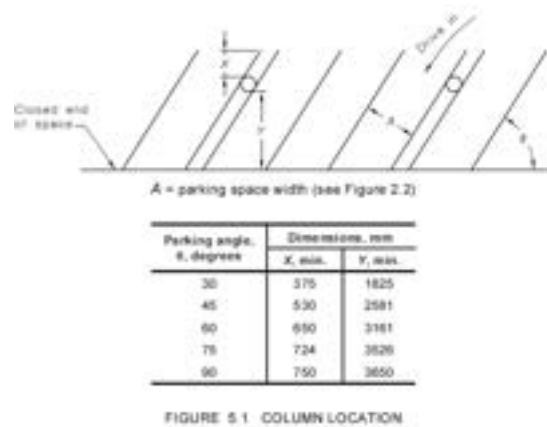


Minimum sight lines for pedestrian safety

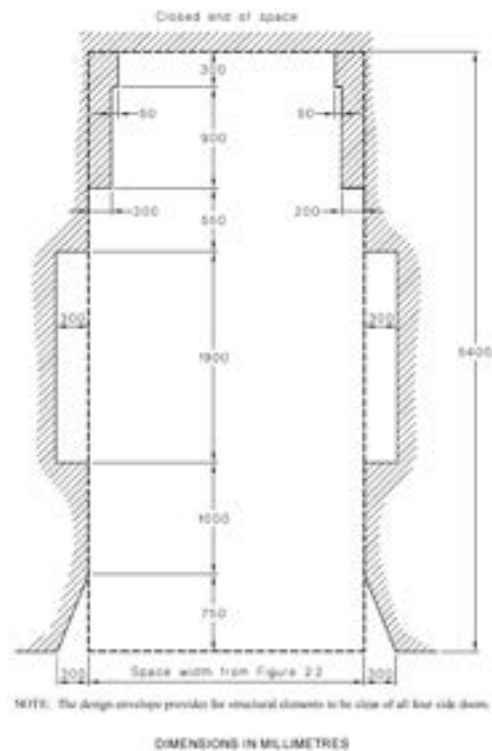
Clear pedestrian sightline is provided for egressing vehicles to the left, as the proposed fence is visually permeable. Existing tree and vegetation on the adjoining lot to the right obstructs the pedestrian sightline in this direction. Please refer to the screenshot below



“Column Location and Spacing
 The dimensions for locating columns in a short span structure shall be as given in Figure 5.1. The design envelope around a parked vehicle which is to be kept clear of columns, walls or other obstructions, is shown in Figure 5.2. If this requirement is met, the dimensions in Figure 5.1 will also be achieved.
 NOTE: Columns should not be located at the edge of a parking aisle. The difficulty of manoeuvring into a parking space is increased by such a location. It is also desirable to avoid locating a column directly opposite a car door.”



Column position

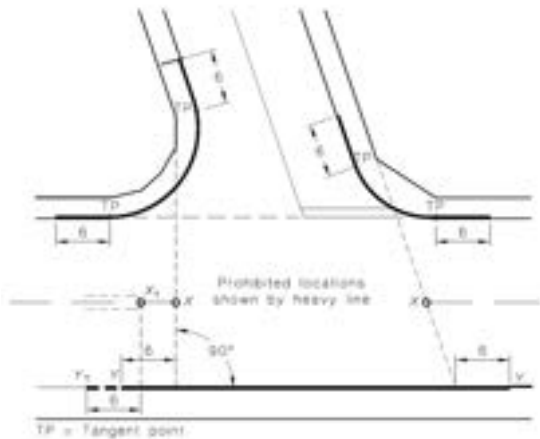


All proposed column locations need to be positioned at appropriate locations in accordance with the AS2890.01 requirement.

“ Width requirements at low volume (Category 1) access driveways and connecting roadways:
 Where the circulation roadway leading from a Category 1 access driveway is 30 m or longer, or sight distance from one end to the other is restricted, and the frontage road is an arterial or sub-arterial road, both the access driveway and the circulation roadway for at least the first 6 m from the property boundary shall be a minimum of 5.5 m wide. In other cases subject to consideration of traffic volumes on a case-by-case basis, lesser widths, down to a minimum of 3.0 m at a domestic property, may be provided. As a guide, 30 or more movements in a peak hour (in and out combined) would usually require provision for two vehicles to pass on the driveway, i.e. a minimum width of 5.5 m. On long driveways, passing opportunities should be provided at least every 30 m. Reversing movements to public roads shall be prohibited wherever possible.”

Access driveway width	Driveway and access lane into the proposed rear parking area have a combined length of 27m and therefore, the provision of passing opportunities is not required per AS2890.01. Moreover, the peak traffic generation is anticipated to be up to 10 movements per hour, thereby negating the requirement for dual-vehicle passage on the driveway. Notably, the driveway has been appropriately widened to facilitate the provision of a waiting bay.
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“ Access driveway location
 Driveway Categories 1 and 2 At unsignalized intersections of sub-arterial, collector or local streets with each other or with an arterial road, access driveways in Categories 1 and 2 (see Table 3.1) shall not be located in the sections of kerb shown by heavy lines in Figure 3.1. This requirement shall not apply to accesses to domestic driveways in the kerb section opposite the entering road at any intersection including signalized intersections. Furthermore, it shall not apply to any access driveway serving a property which would otherwise be denied access due to the physical impossibility of meeting the requirement.”



Access driveway location	The subject crossover is located more than 6m from the nearest intersection in both directions, so its location is adequate.
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2.10 **Compliance with AS 2890.5—1993 for on-street parking bays**

Number of Parking Bays on-site	2 on-street bays on St Andrews Drive
Are regulatory documents referenced?	YES
If <u>YES</u> , Nominate:	AS 2890.5—1993, Parking facilities, Part 5: On–street parking

AS 2890.5—1993 requirement		Proposed
Parking Bay Width	For cars and light commercial vehicles, normal conditions - 2.3m	2.5m
Parking Bay Length	Length of end space which is obstructed at one end by a kerb or barrier— 6.3 m or length Z of adjacent space, whichever is the greater	6.0m

Name the other requirements in the AS2890.1:2004 document.

'Roadway width limitations for parallel parking

Width limitations which should be observed when determining the type of parking appropriate in a particular case, are as follows:

(a) Parallel parking Under low speed urban conditions, i.e. traffic speeds past the site generally not exceeding 60 km/h, the width from kerb to left-hand edge of the nearest moving traffic lane that should be provided is the parking space width from Table 2.1, plus 0.5 m clearance. This clearance should be increased by 1.0 m for each 10 km/h by which traffic speeds exceed 60 km/h, up to a maximum of 3.0 m."

Odin Road has a speed limit of 60kph and adequate carriageway width; there are no limitations for introducing parallel parking.

Does the parking area meet the requirements set in AS 2890.5—1993?

KCTT reviewed the proposed street parking bays and concluded that both car parking bays need to be extended to comply with the Australian Standard AS 2890.5—1993, facilitating more comfortable and quicker manoeuvring.

2.11 Vehicle Swept Paths

Have Vehicle Swept Paths been checked for Parking? YES

If YES, provide description of performance:

The proposed parking area has been checked with a standard B99 Passenger Vehicle 5.2m and B85 Passenger Vehicle (4.91m).

The designated vehicle can easily navigate through the entire parking area, with a few important points to consider:

- Parking bays 7 and 8 may be marked as small bays, as only B85 vehicles can navigate these bays. B99 vehicle manoeuvre requires the redesign of the landscape and Bin store area adjoining these bays.
- Bay 12 is marked as reverse only; however, given that the access is controlled via a gate, it could be used as a standard car parking bay.

Please refer to the swept path analysis plans provided in Appendix 2.

2.12 Traffic Management Plan

Having in mind the specifics of the access/egress point, KCTT have recommended that a convex mirror is installed in the parking area so that departing vehicles can clearly see the entry point before leaving. While this is not a mandatory requirement under AS 2890, KCTT believe this will ensure smooth traffic flow and enhances security.

The proposed development will have automatic remote-controlled gates, which will only open if residents are arriving or departing the development. Crossover is of sufficient width to accommodate waiting vehicle. Visitors' parking bays are proposed in the verge.

2.13 Bicycle Parking

Local Government
Reference Document Utilised

City of Stirling
Policy 5.8 - Stirling City Centre Parking
State Planning Policy 7.3 Residential Design Codes Volume 2 –
Apartments Gazetted on 24 May 2019

Description of Parking Requirements in accordance with Scheme:

For residential use the State Planning Policy 7.3 and Policy 5.8 applies:

- Resident - 0.5 space per dwelling (storage Unit)
- Visitor - 1 space per 10 dwellings

All parking requirements for residential development are to be calculated by rounding up to the nearest whole number.

Parking Requirement in accordance with regulatory documents

Parking Requirement in accordance with regulatory documents			
Land Use	Requirements	Yield	Total Parking
Residential Units	Resident - 0.5 space per dwelling (storage Unit)	12 apartments	6
	Visitor - 1 space per 10 dwellings		1.2
Total Volume of Bicycle Parking Required			8
Total Volume of Bicycle Parking Provided by Proponent			4

Justification

The proposed development plans show 4 bicycle racks on the ground floor, falling short of the stipulated requirement for 8 bike bays. However, in accordance with the Policy 5.8 requirement, residents could place bicycles within their designated storage units. Consequently, only the provision of 2 bike bays for visitors is obligatory. KCTT believe additional provisions will help promote alternative means of transport.

2.14 ACROD Parking

Class of Building
Reference Document Utilised

Class 2
Building Code of Australia 2019

Does this building class require specific provision of ACROD Parking?

Given there are no accessible units proposed within the development, there is no requirement for the provision of ACROD parking.

2.15 Delivery and Service Vehicles

Guideline Document used as reference
Requirements

NSW RTA Guide to Traffic Generating Developments

Residential flat buildings (50% of spaces adequate for trucks): < 200 flats or home units = 1 space per 50 flats or home units;

Justification

It is expected that the delivery and service vehicles (such as waste removal vehicles) servicing the residential development will not require designated parking space, given that they can operate safely within the road reserve.

The proposed development (with the City of Stirling's approval) will be included in the City of Stirling's standard waste collection practice. Bins are planned to be collected from the verge and waste vehicle will not enter the parking area.

2.16 Calculation of Development Generated / Attracted Trips

What are the likely hours of operation?	For residential land uses, the hours of operation are not applicable.
What are the likely peak hours of operation?	AM 07:00 to 08:00 PM 17:00 to 18:00
Do the development generated peaks coincide with existing road network peaks?	YES
If YES, Which:	Partially both peak times

Guideline Document Used	WAPC Transport Assessment Guidelines for Developments
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Rates from above document:	Residential - 0.8 vehicle trips per dwelling for the AM and PM peak hours. A 25% IN / 75% OUT split has been adopted for the AM peak and a 67% IN / 33% OUT split for the PM peak hour.
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Guideline Document Used	NSW RTA Guide to Traffic Generating Developments
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Rates from above document:	Residential - The NSW RTA Guide to Traffic Generating Developments suggests developments of this type in Sydney tend to generate between 4 and 5 vehicular trips per dwelling for medium to high density developments. In Perth, the Department of Planning and Infrastructure conducted a series of studies in the late 1990's / early 2000's which showed that higher density dwellings tended to average closer to 5.5 vehicle trips per day. These studies assumed that anywhere between 50% and 70% of commuters were travelling to the work by car as a driver. KCTT propose to use a more conservative average of 9 vehicular trips per day per existing residence and 6.7 vehicular trips per day for proposed residential apartments.
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Does the site have existing trip generation / attraction? YES as shown below

Land Use Type	Rate above	Yield	Daily Traffic Generation	Peak Hour Traffic Generation	
				AM	PM
Existing					
Residential dwelling	9 vehicular trips per dwelling per day; 0.8 vehicular trips per dwelling per hour	1	9	1	1
Proposed					
Residential Apartments	6.7 vehicular trips per dwelling per day; 0.8 vehicular trips per dwelling per hour	12 apartments	80	10	10
Total traffic from the proposed development (A)			80	10	10
Total Existing Traffic from the subject site (A ⁰)			9	1	1
Total Additional traffic from the proposed development (A-A ⁰)			71	9	9

What is the total impact of the new proposed development?

The proposed development will generate an additional 71VPD and 9VPH in the surrounding network. According to the WAPC Guidelines, the proposed development will have a low to moderate impact on the surrounding network.

According to WAPC guidelines, all developments generating 10-100 VPH can be deemed to have a **low** impact on the network.

KCTT believes the surrounding road network can accommodate additional traffic from the proposed development.

2.17 Traffic Flow Distribution

How many routes are available for access / egress to the site?

2 main routes as listed below

Route 1 / Movement 1

Provide details for Route No 1

To/from north via Odin Road

Percentage of Vehicular Movements via Route No 1

35%

Route 2 / Movement 2

Provide details for Route No 2

To/from south via Odin Road

Percentage of Vehicular Movements via Route No 2

65%

Due to the current limitations of the central median on Odin Road, unimpeded vehicular access to the subject site is not permitted. The crossover will effectively function as Left In Left Out (LILO). Vehicles are required to follow the designated route depicted on the map shown on Plans S06 and S07 in Appendix 2.

2.18 Vehicle Crossover Requirements

Are vehicle crossovers required onto existing road networks?

YES

How many existing crossovers?

1 crossover on Odin Road – to be removed

How many proposed crossovers?

1 proposed crossover on Odin Road

If there are greater numbers of new crossovers, than existing, provide justification:

-

How close are proposed crossovers to existing intersections?

App 20m from the intersection with May Avenue.

Does this meet existing standards?

YES

Justification

According to AS/NZS 2890.1:2004 Parking facilities Part 1: Off-street car parking, the user class of the access point is: User Class 1A - Residential, domestic and employee. This crossover serves less than 25 parking bays from a local road, making it a "Category 1 driveway"

Therefore, the following requirements from AS/NZS 2890.1:2004 Parking facilities Part 1: Off-street car parking apply:

“(a) **Driveway Categories 1 and 2:** At unsignalized intersections of sub-arterial, collector or local streets with each other or with an arterial road, access driveways in Categories 1 and 2 (see Table 3.1) shall not be located in the sections of kerb shown by heavy lines in Figure 3.1.

This requirement shall not apply to accesses to domestic driveways in the kerb section opposite the entering road at any intersection including signalized intersections.

Furthermore, it shall not apply to any access driveway serving a property which would otherwise be denied access due to the physical impossibility of meeting the requirement.

“(a) **Driveway Categories 1 and 2:** At unsignalized intersections of sub-arterial, collector or local streets with each other or with an arterial road, access driveways in Categories 1 and 2 (see Table 3.1) shall not be located in the sections of kerb shown by heavy lines in Figure 3.1. **This requirement shall not apply to accesses to domestic driveways in the kerb section opposite the entering road at any intersection including signalized intersections.**

Furthermore, it shall not apply to any access driveway serving a property which would otherwise be denied access due to the physical impossibility of meeting the requirement.”

As shown on the layout for the proposed development in Appendix 1, the proposed crossover is not located in any of the areas shown by heavy lines and therefore complies with the AS/NZS 2890.1:2004 requirements

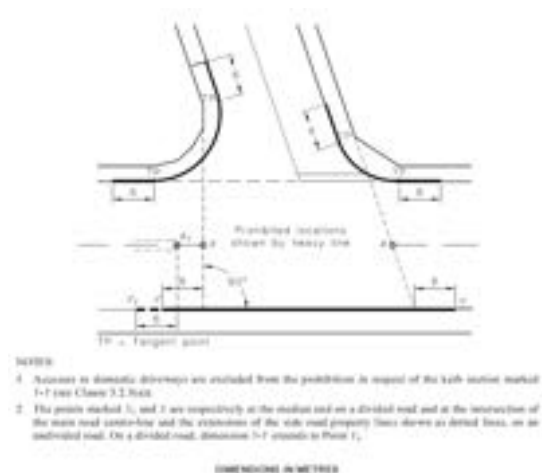


FIGURE 3.1 PROHIBITED LOCATIONS OF ACCESS DRIVEWAYS

2.19 Public Transport Accessibility

How many bus routes are within 400 metres of the subject site? Several as below
 How many rail routes are within 800 metres of the subject site? One (1)

Bus Route	Description	Peak Frequency	Off-Peak Frequency
410	Stirling Station - Scarborough Beach Bus Station	10 minutes	60 minutes
421	Stirling Station - Scarborough Beach Bus Station via Sackville Terrace	10 minutes	60 minutes
422	Stirling Station - Scarborough Beach Bus Station via Karrinyup Bus Station	20 minutes	60 minutes
423	Stirling Station - Warwick Station via Karrinyup Bus Station & Hillarys Boat Harbour	10 minutes	60 minutes

Rail Route	Description	Peak Frequency	Off-Peak Frequency
Joondalup Line	Elizabeth Quay – Butler	5 minutes	30 minutes

Walk Score Rating for Accessibility to Public Transport

65 | Good Transit. Many nearby public transportation options.

2.20 Pedestrian Infrastructure

Describe existing local pedestrian infrastructure within a 400m radius of the site:

Classification	Road Name
"Other Shared Path (Shared by Pedestrians and Cyclists)"	Ellen Stirling Boulevard; Cedric Street

Does the site have existing pedestrian facilities YES

Does the site propose to improve pedestrian facilities? YES

If YES, describe the measures proposed.

Proposed pedestrian access.

What is the Walk Score Rating?

64 | Somewhat Walkable. Some errands can be accomplished on foot.

2.21 Cyclist Infrastructure

Are there any PBN Routes within an 800m radius of the subject site? YES

If YES, describe:

Classification	Road Name
"Principal Shared Path"	Along Mitchell Freeway north of Hertha Road
"Other Shared Path (Shared by Pedestrians and Cyclists)"	Ellen Stirling Boulevard; Cedric Street
"Good Road Riding Environment"	Odin Road
"Perth Bicycle Network - Continuous Signed Routes"	Barnes Street, Hertha Road, Thor Street, Shaw Street
"Bicycle Lanes or Sealed Shoulder Either Side"	Barnes Streer

Are there any PBN Routes within a 400m radius of the subject site? YES

If YES, describe:

Classification	Road Name
"Other Shared Path (Shared by Pedestrians and Cyclists)"	Ellen Stirling Boulevard; Cedric Street
"Good Road Riding Environment"	Odin Road
"Perth Bicycle Network - Continuous Signed Routes"	Barnes Street, Hertha Road, Thor Street, Shaw Street

Does the site have existing cyclist facilities? NO

Does the site propose to improve cyclist facilities? YES

If YES, describe the measures proposed.

Bike rack provision.

2.22 Site-Specific Issues and Proposed Remedial Measures

How many site-specific issues need to be discussed?

Site-Specific Issue No 1	Vehicular approach to the subject site and proposed rear parking area
Remedial Measure / Response	Due to the current limitations of the central median on Odin Road, the proposed crossover has a LIFO restriction. The driveway is 3m wide, enabling access to the rear parking area (one way at a time). The proposed crossover is appropriately widened to facilitate the provision of a waiting bay. Given the low traffic volumes expectation (10 VPH) and homogenous land use (i.e., vehicles are likely to all leave or enter the development in peak hours with minimum opposing manoeuvres), KCTT believes that no delays or queuing can be expected on Odin Road.
Site-Specific Issue No 2	Design of the proposed on-street parking bays
Remedial Measure / Response	KCTT reviewed the proposed street parking bays and concluded that both parking bays must be lengthened to comply with the Australian Standard AS 2890.5—1993 facilitating more comfortable and quicker parking.

Appendix 1

The Layout of the Proposed Development



REF	DRAWING TITLE
WD001	Cover Sheet
WD002	3D Perspectives
WD003	3D Perspectives
WD004	Site Survey
WD005	Site Plan
WD006	Landscaping Plan
WD007	Ground Floor Plan
WD008	First Floor Plan
WD009	Second Floor Plan
WD010	Third Floor Plan
WD011	External Elevations
WD012	External Elevations
WD013	Contextual Plan
WD014	3D Perspectives
WD015	3D Perspective
WD016	3D Perspective
WD017	Section Details
WD018	Breeze Path Plan
WD019	Neighbours Streetscape

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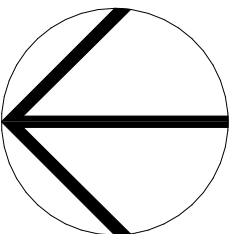
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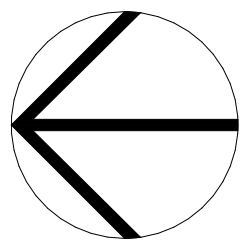
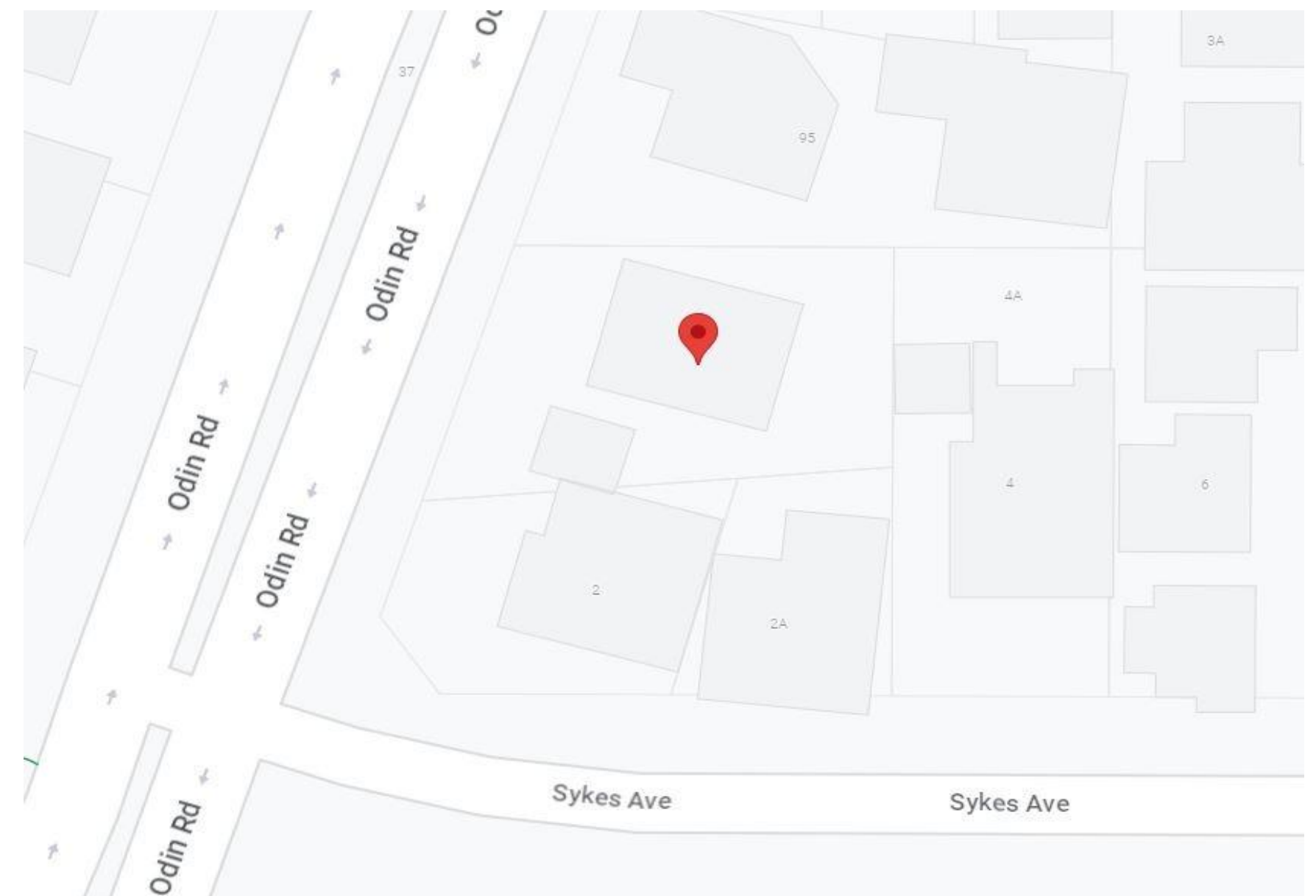
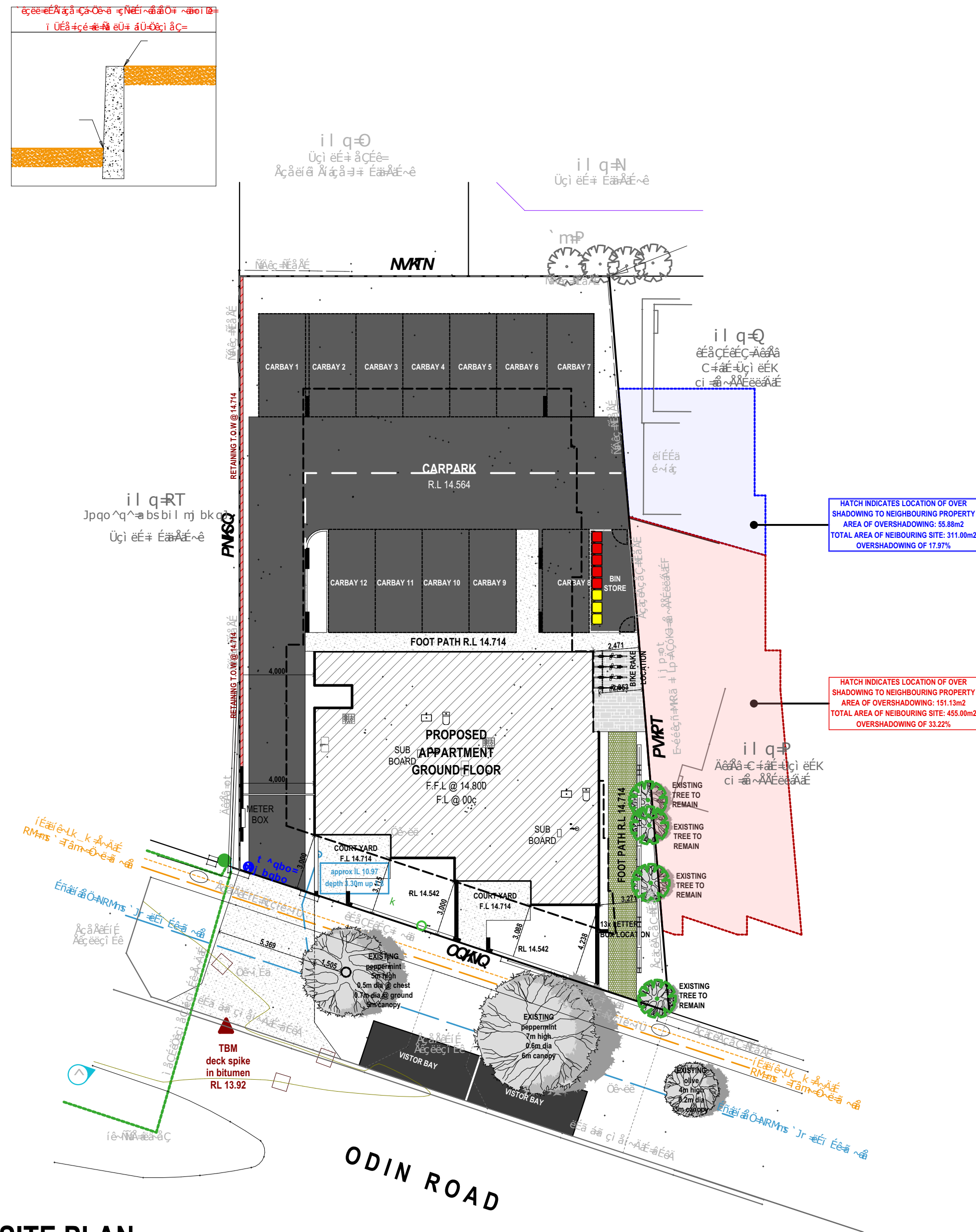


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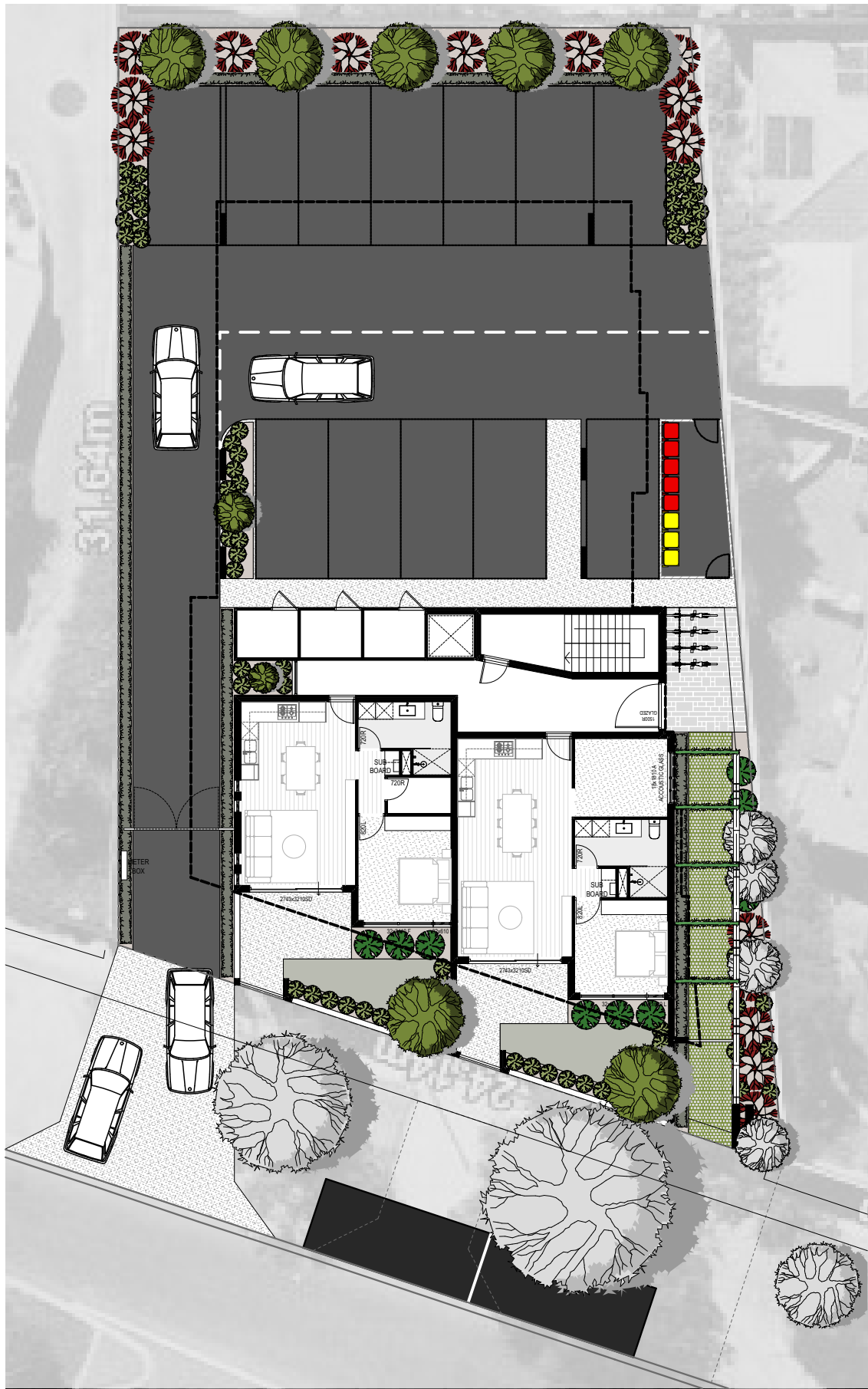
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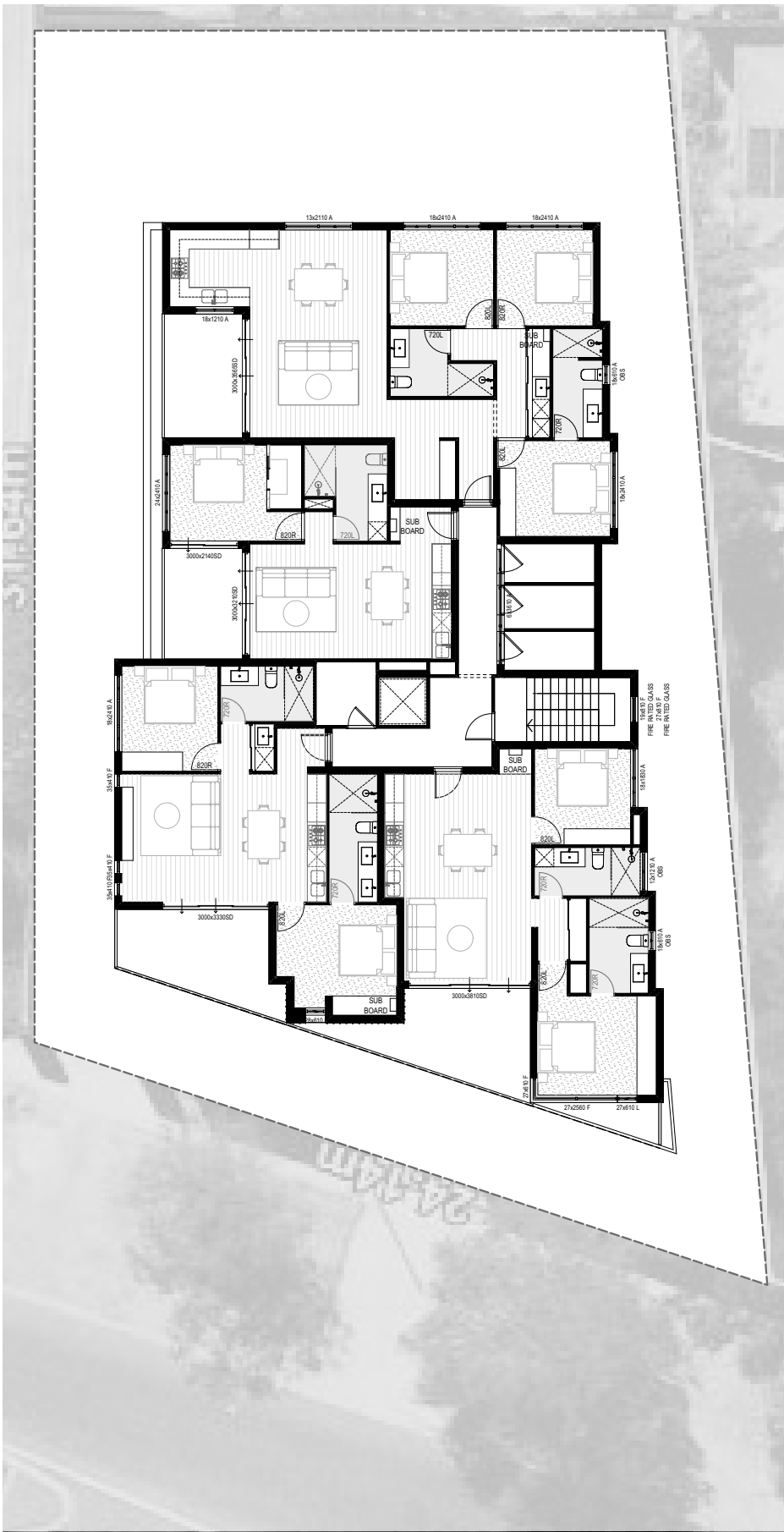
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Ground floor



Levels 1 & 2

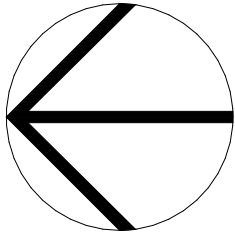


Levels 3

LANDSCAPING LEGEND		
COASTAL BANJINE PIMELEA FERRUGINEA		
FICUS BENJAMINA		
HYMENOSPORUM NATIVE FRANGIPANI		
PYRUS CALLERYANA BRADFORD		
AFRICAN BOX HEDGE		
SMOOTH AGAVE		
FELIX VINE		
PERMEABLE PAVING		
TOTAL DEEP SOIL LANDSCAPING WITH IN THE FRONT SETBACK:		275.00m2

LANDSCAPING PLAN

SCALE 1:200



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DATED:/...../.....	
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Building Areas	
1. APARTMENT AREA	
APT 01	56.71
APT 02	66.06
GF COMMON AREA	51.61
	174.38 m²
2. APARTMENT AREA	
APT 03	91.67
APT 04	88.53
APT 05	60.72
APT 06	111.59
FF COMMON AREA	41.57
	394.08 m²
3. APARTMENT AREA	
APT 07	91.68
APT 08	88.42
APT 09	64.00
APT 10	108.06
SF COMMON AREA	42.91
	395.07 m²
4. APARTMENT AREA	
APT 11	120.97
APT 12	69.02
COMM GARDENS	72.85
TF COMMON AREA	32.90
	295.74 m²
	1,259.27 m²



FOYER EXAMPLES



FOYER EXAMPLES



FOYER EXAMPLES

GROUND FLOOR PLAN
SCALE 1:100

DATE: 13/03/2024

DATED: 13/03/2024

OWNER: 13/03/2024

OWNER: 13/03/2024

BUILDER: 13/03/2024

WITNESS: 13/03/2024

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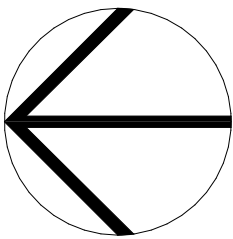
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	395.07 m²
4. APARTMENT AREA	
APT 11	120.97
APT 12	69.02
COMM GARDENS	72.85
TF COMMON AREA	32.90
	295.74 m²
	1,259.27 m²



FIRST FLOOR PLAN
SCALE 1:100



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DATED:/...../.....

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OWNER:

BUILDER:

WITNESS:

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Unit: 3/1 Mulgul Road, Malaga W.A 6090

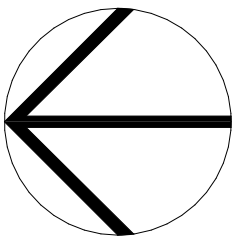
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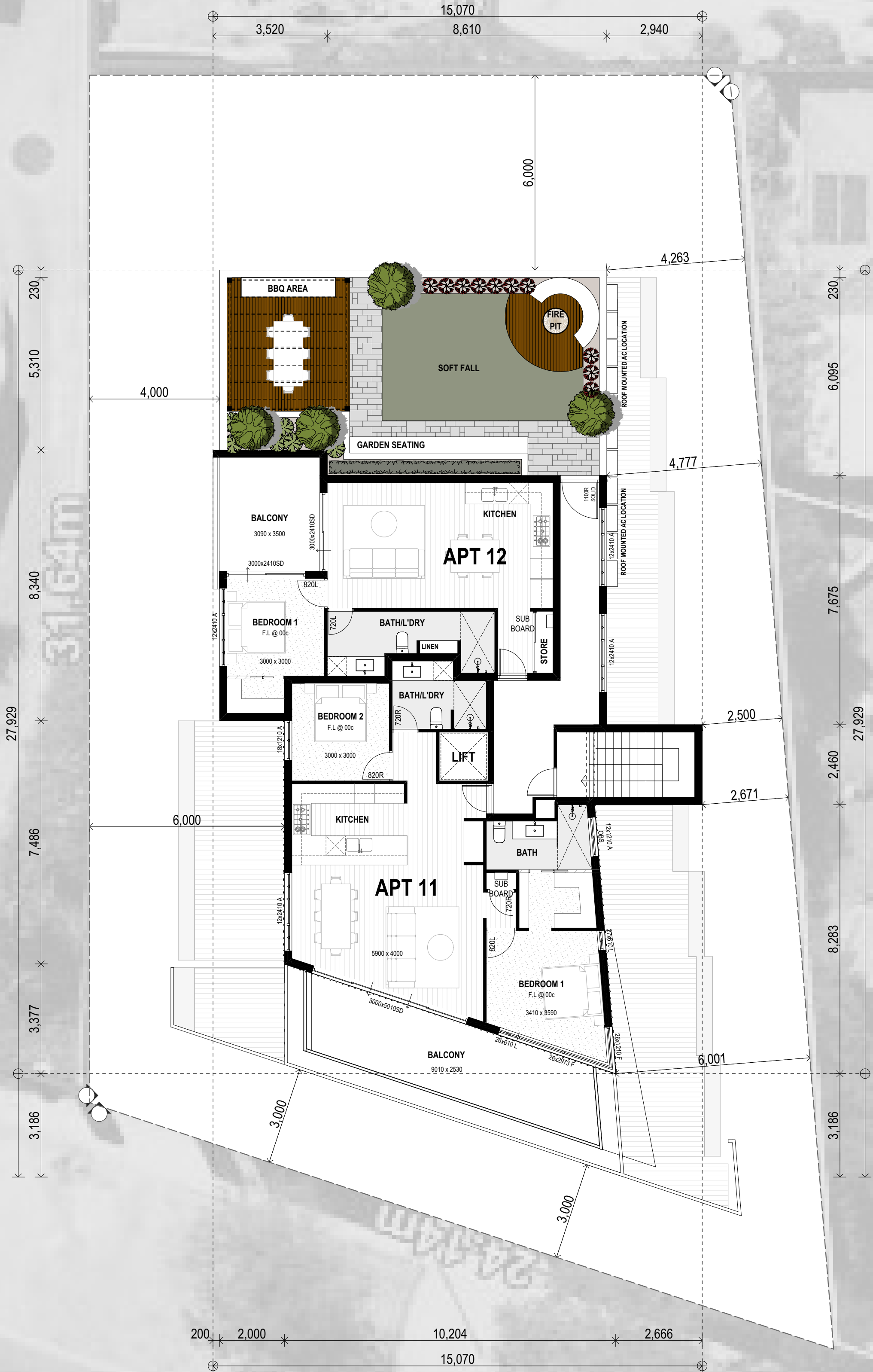
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APT 03	91.67
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APT 09	64.00
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APT 12	69.02
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TF COMMON AREA	32.90
	295.74 m²
	1,259.27 m²



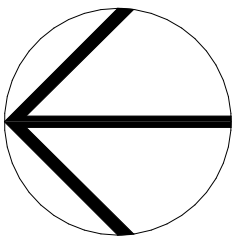
SECOND FLOOR PLAN
SCALE 1:100

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APT 06	111.59
FF COMMON AREA	41.57
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APT 10	108.06
SF COMMON AREA	42.91
	395.07 m²
4. APARTMENT AREA	
APT 11	120.97
APT 12	69.02
COMM GARDENS	72.85
TF COMMON AREA	32.90
	295.74 m²
	1,259.27 m²



THIRD FLOOR PLAN
SCALE 1:100



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Eastern Elevation - E3 (Rear Elevation)

Scale 1:100



STORE ROOM WINDOW DETAIL

South Elevation - E4 (Right Elevation)

Scale 1:100

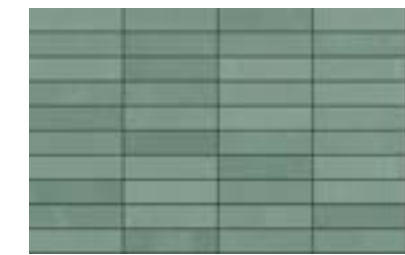
EXTERNAL FINISHES



GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand



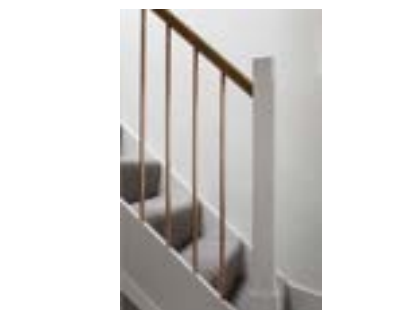
FEATURE CLADDING
TO LEVEL 2,3,4 -
Color bond trimdeck
wall cladding in white



FEATURE TILING TO
BED 1 LEVEL 2,3 -
Green tile layed stacker bond



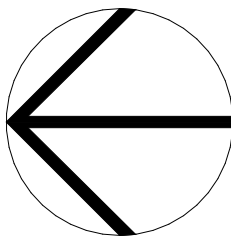
WINDOW FRAMES -
Timber.Timber look window frames



BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH



EXTERNAL PLASTER - White
textured walls



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ON 10/03/2024

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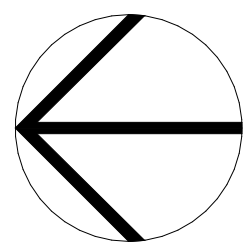
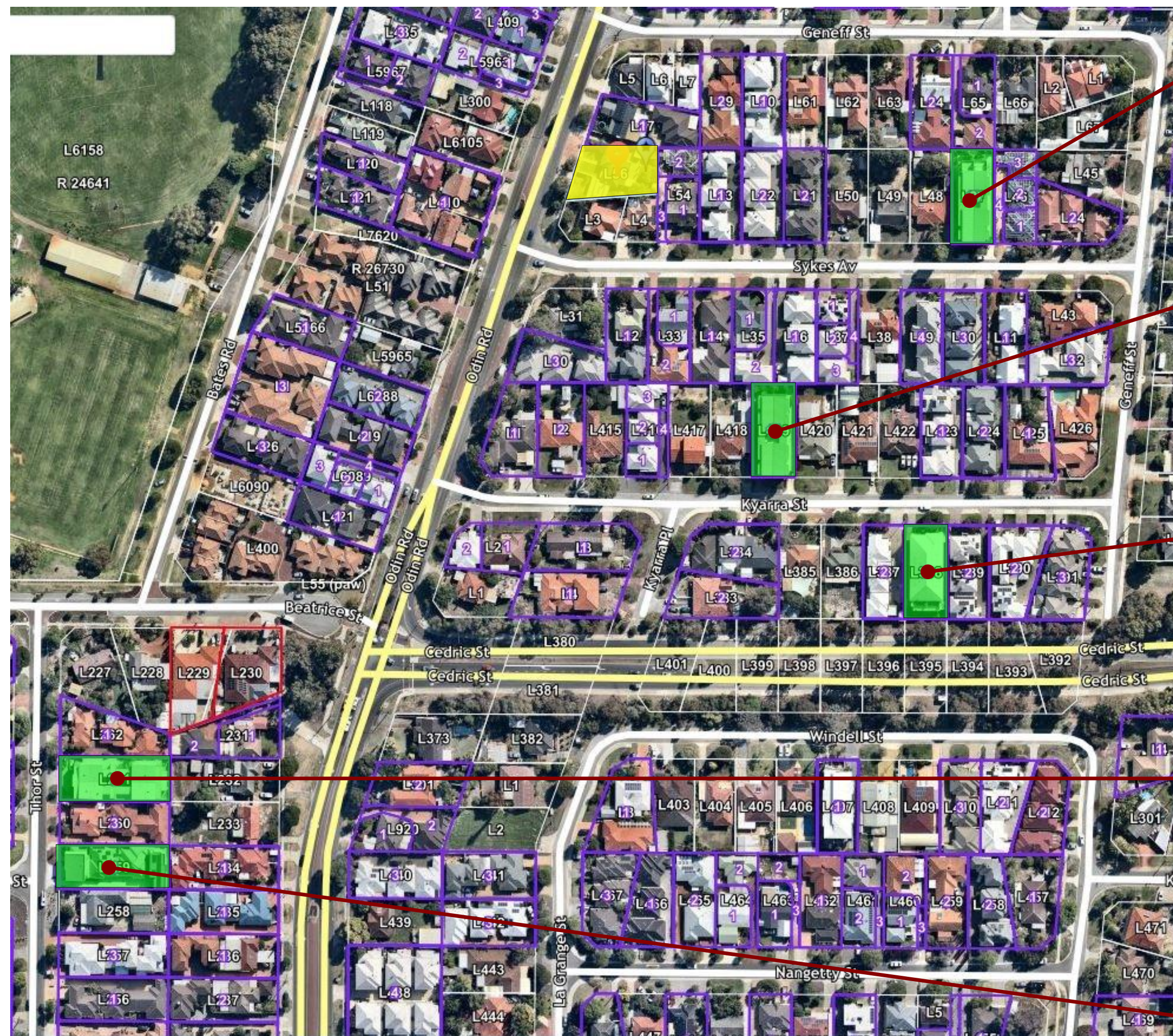
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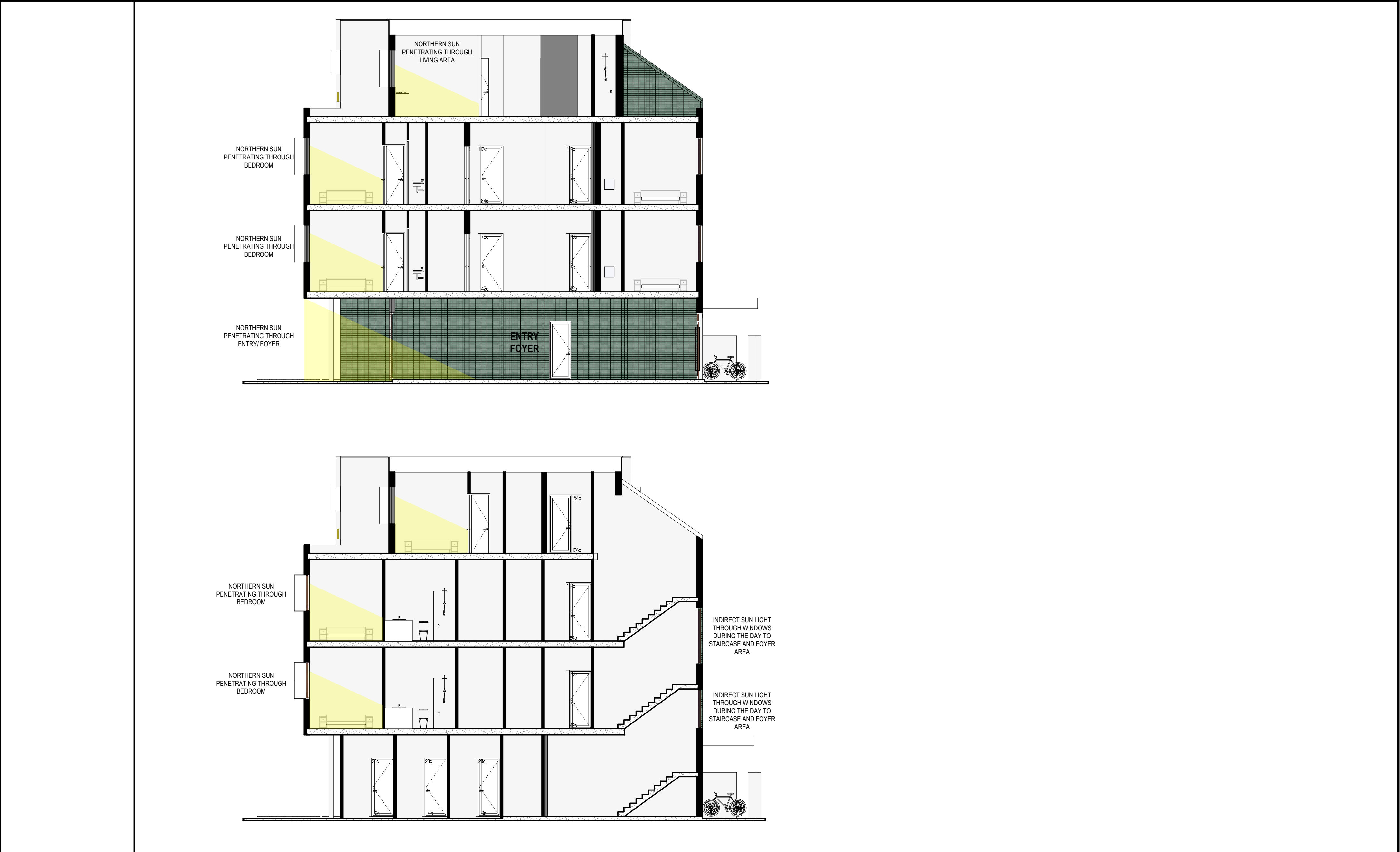


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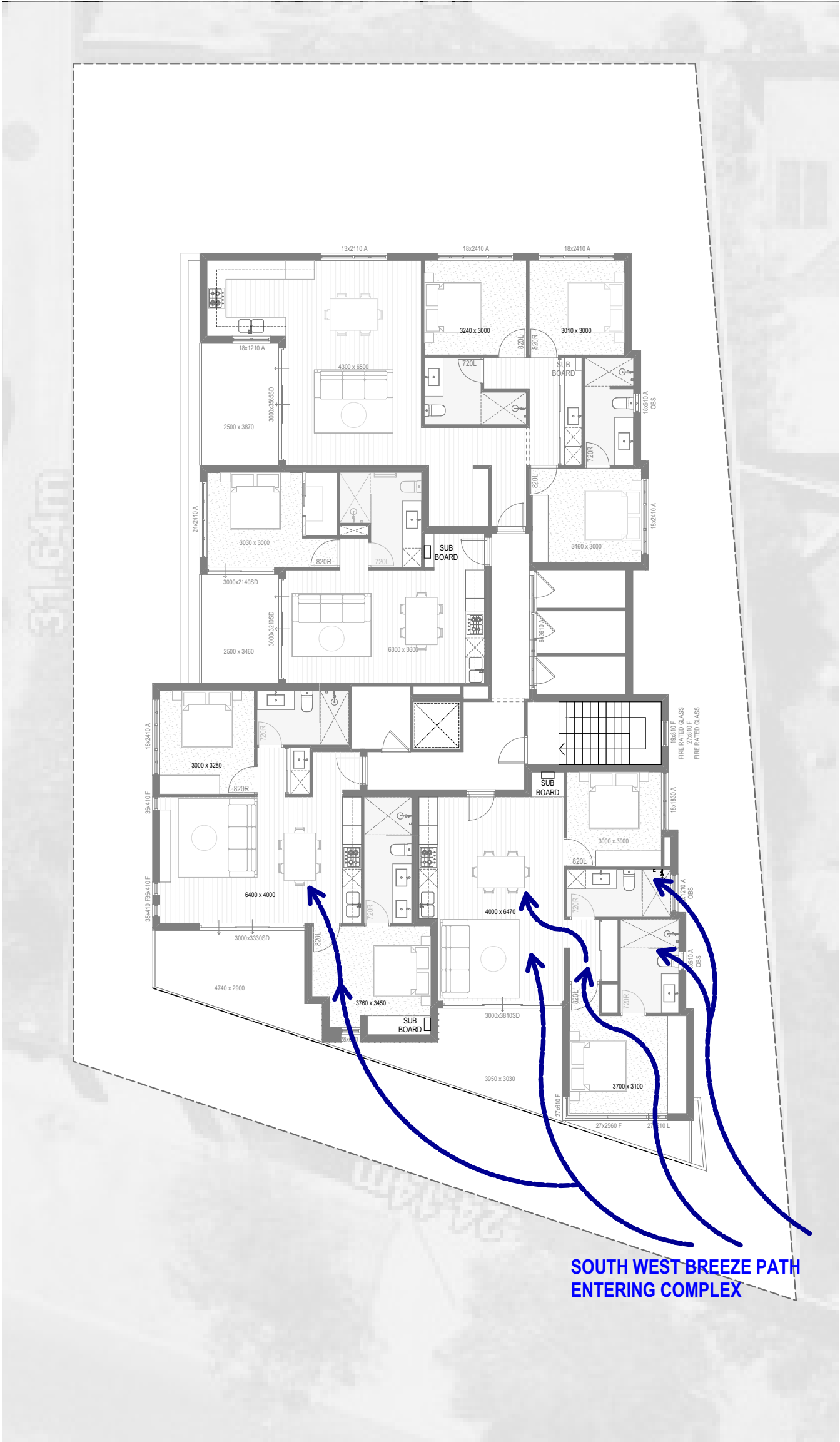
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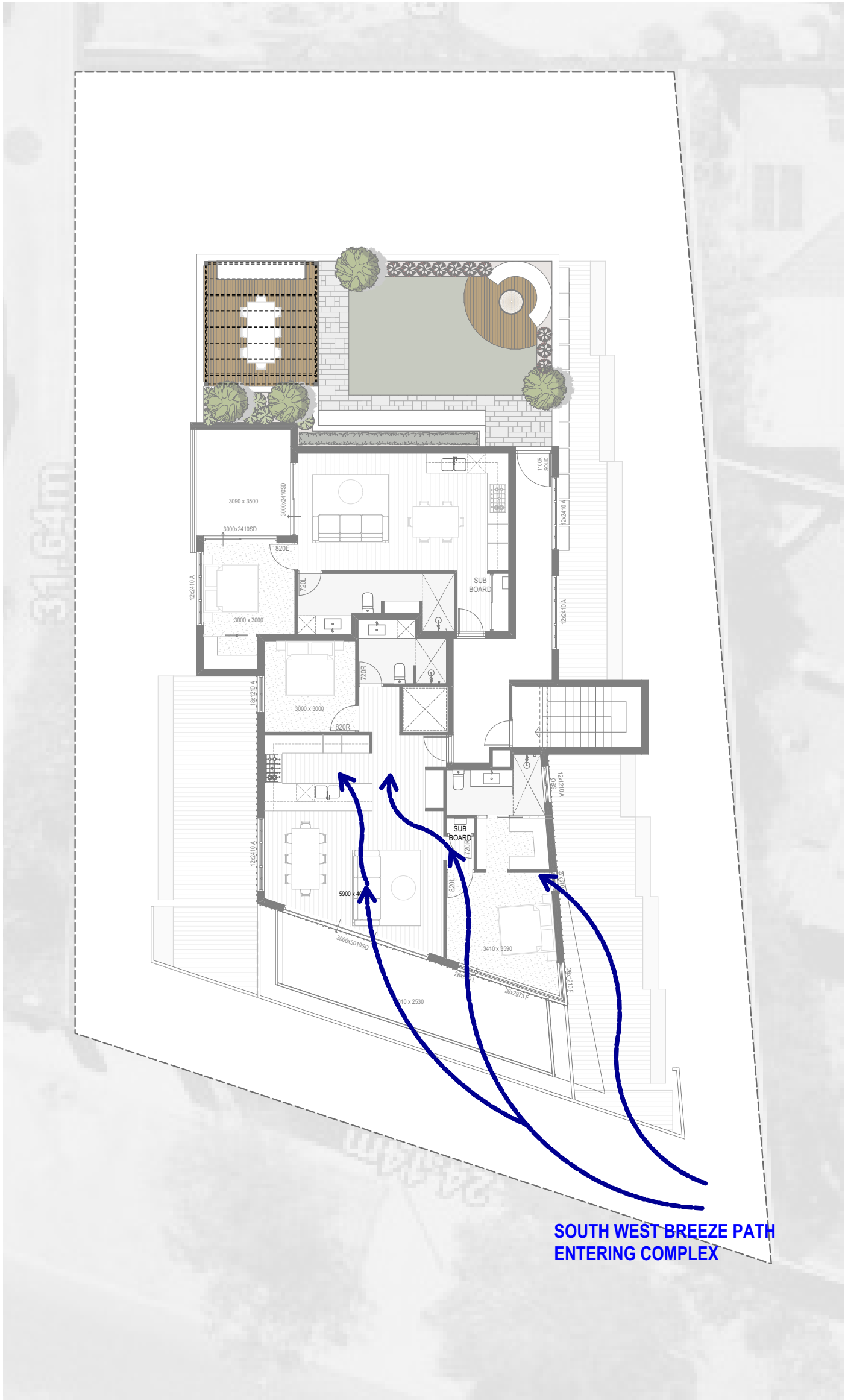
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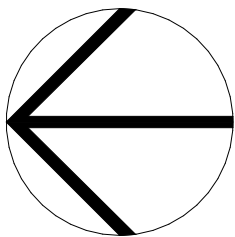
GROUND FLOOR BREEZE PATH PLAN
SCALE 1:150



FIRST & SECOND FLOOR BREEZE PATH PLAN
SCALE 1:150



THIRD FLOOR BREEZE PATH PLAN
SCALE 1:150



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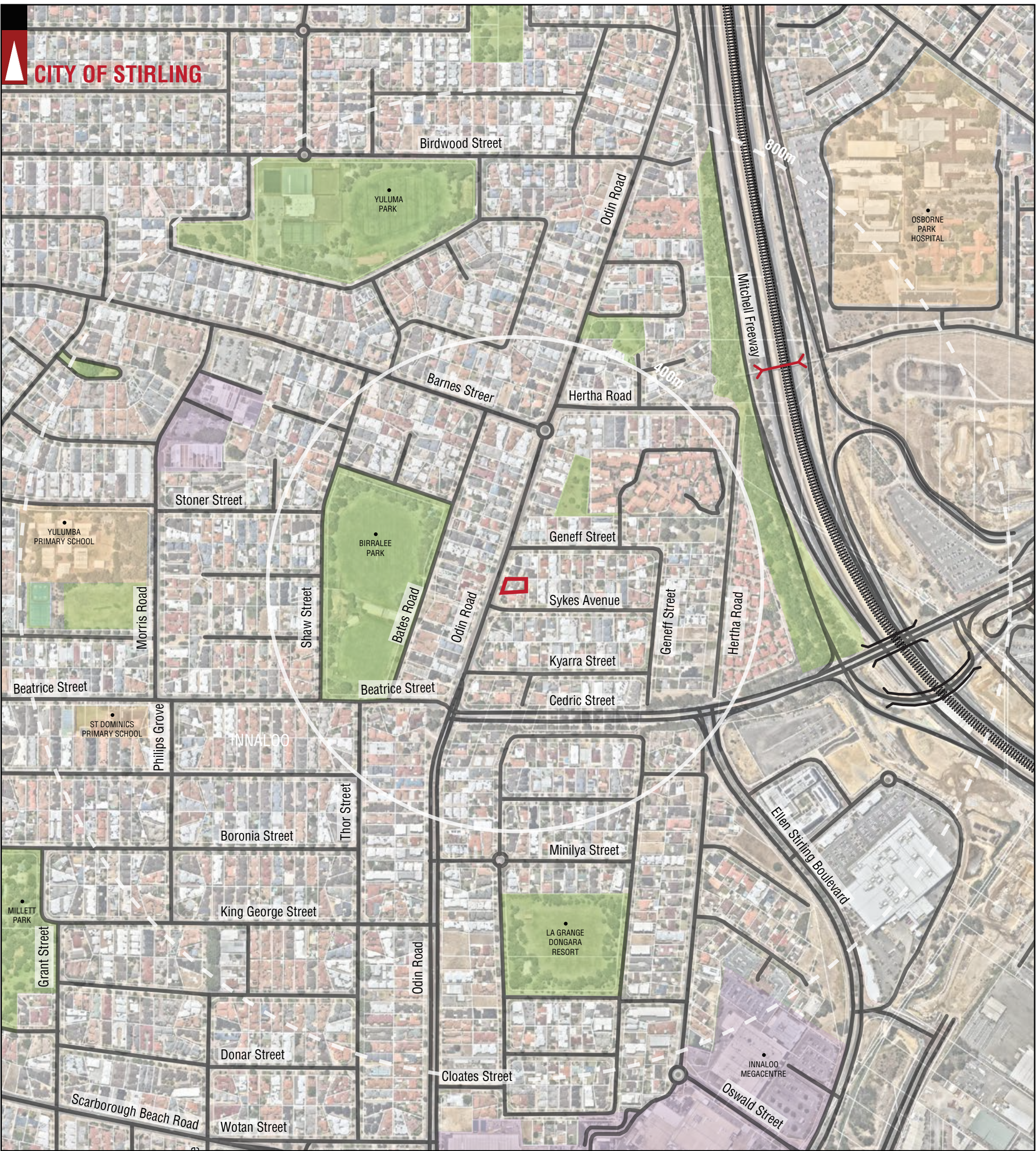
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Appendix 2

Transport Planning and Traffic Plans



PARKS AND RECREATION

WATERWAYS

PUBLIC PURPOSE

SHOPPING AREA

ROAD

Hay Street

STREET NAME

RAILWAY

ROAD BRIDGE

LOCATION BOUNDARY

DISTANCE FROM LOCATION

CITY OF STIRLING

LOCAL GOVERNMENT NAME

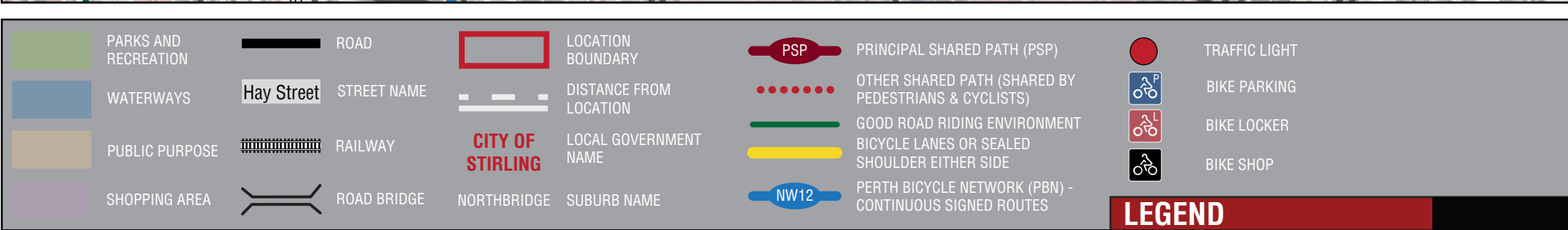
NORTHBRIDGE

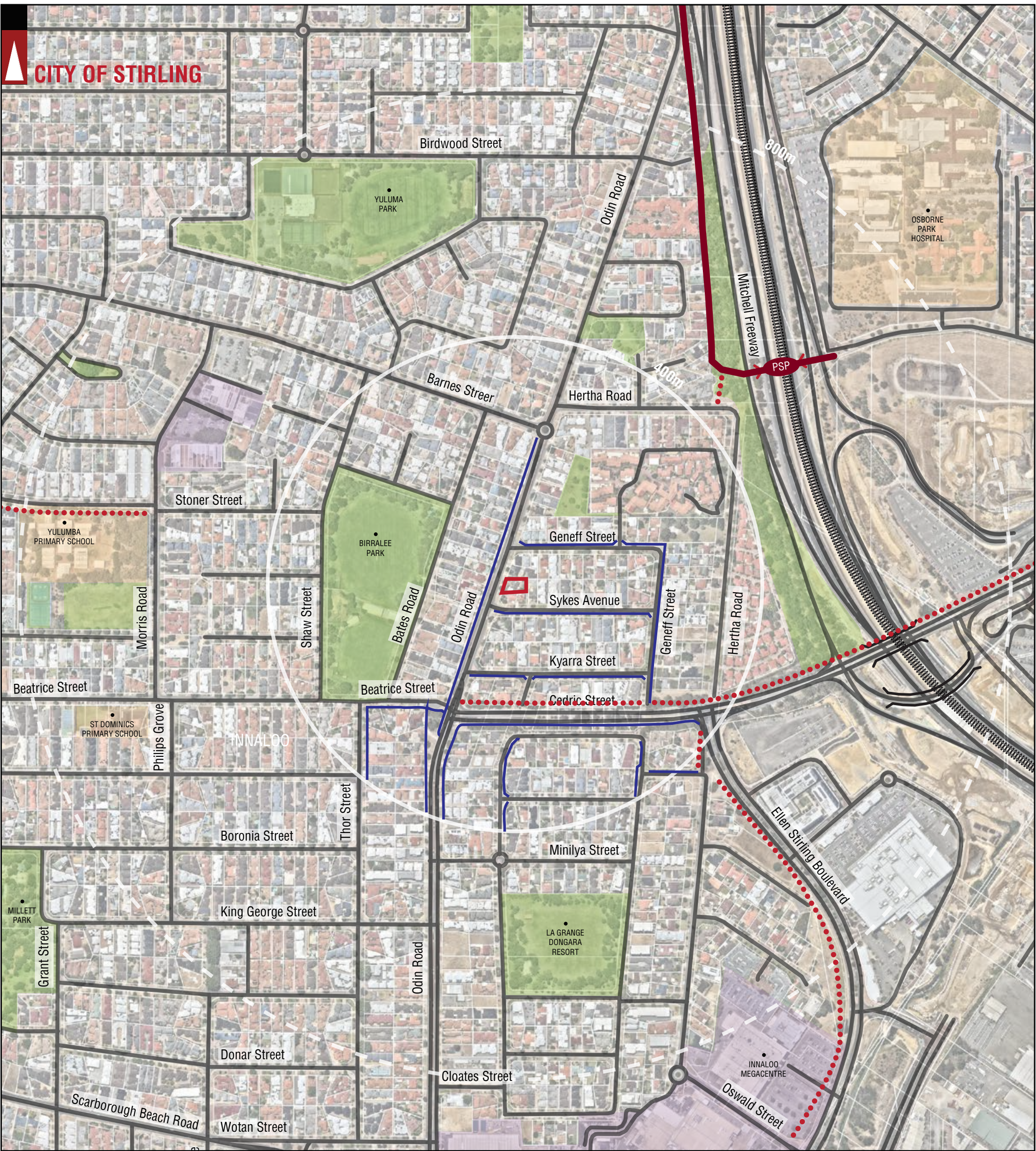
SUBURB NAME

LEGEND

			PROJECT:	LOT 56 (NO 93) ODIN ROAD, INNALOO	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd) PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au kctt PART OF Premise
			TITLE:	LOCALITY PLAN - 800M RADIUS		
A	12-01-2024	ISSUED FOR REVIEW	DRAWING NUMBER:	KC01760.000_ S01	J.S.	
No	DATE	AMENDMENT				







PARKS AND RECREATION

WATERWAYS

PUBLIC PURPOSE

SHOPPING AREA

ROAD

Hay Street

STREET NAME

RAILWAY

ROAD BRIDGE

LOCATION
BOUNDARY

DISTANCE FROM
LOCATION

CITY OF
STIRLING

LOCAL GOVERNMENT
NAME

NORTHBRIDGE

SUBURB NAME

PSP

PRINCIPAL SHARED PATH (PSP)

HIGH QUALITY SHARED PATH

OTHER SHARED PATH (SHARED BY
PEDESTRIANS & CYCLISTS)

PEDESTRIAN PATH WITHIN 400M
RADIUS OF THE SUBJECT
LOCATION

LEGEND

			PROJECT: LOT 56 (NO 93) ODIN ROAD, INNALOO	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd) PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au  PART OF  Premise
			TITLE: PEDESTRIAN PATHS PLAN - 800M RADIUS	J.S.	
			DRAWING NUMBER: KC01760.000_ S04		
A	12-01-2024	ISSUED FOR REVIEW			
No	DATE	AMENDMENT			





PARKS AND RECREATION

WATERWAYS

PUBLIC PURPOSE

SHOPPING AREA

ROAD

Hay Street

STREET NAME

DISTANCE FROM LOCATION

RAILWAY

ROAD BRIDGE

LOCATION BOUNDARY

DISTANCE FROM LOCATION

CITY OF STIRLING

LOCAL GOVERNMENT NAME

NORTHBRIDGE

SUBURB NAME

LEGEND

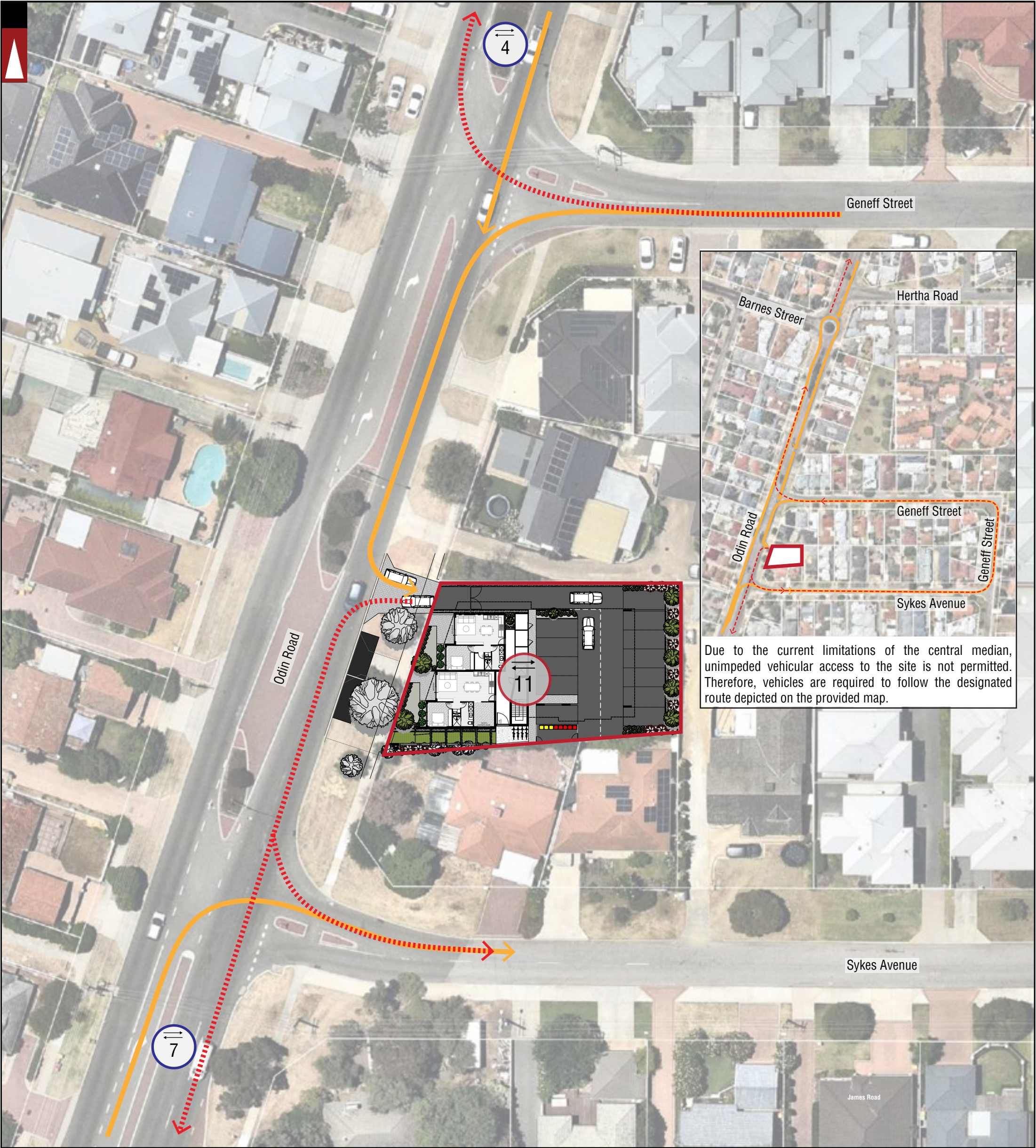
			PROJECT: LOT 56 (NO 93) ODIN ROAD, INNALOO	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd) PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au	 PART OF  Premise
			TITLE: EXISTING TRAFFIC COUNTS - 800M RADIUS			
A	12-01-2024	ISSUED FOR REVIEW	DRAWING NUMBER: KC01760.000_ S05			
No	DATE	AMENDMENT				

kctt

PART OF

Premise





LOCATION
BOUNDARY



Total Expected Traffic Generation from the
proposed development



Traffic Flow IN Direction



Traffic Flow OUT Direction

Lewis Road

ROAD NAME



Total Expected Traffic Generation from Subject Site
on the specific section of road - IN and OUT
direction

NOTE: THE PLAN IS COURTESY OF GERMANO DESIGN

LEGEND

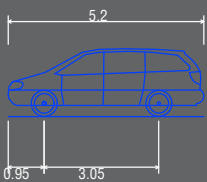
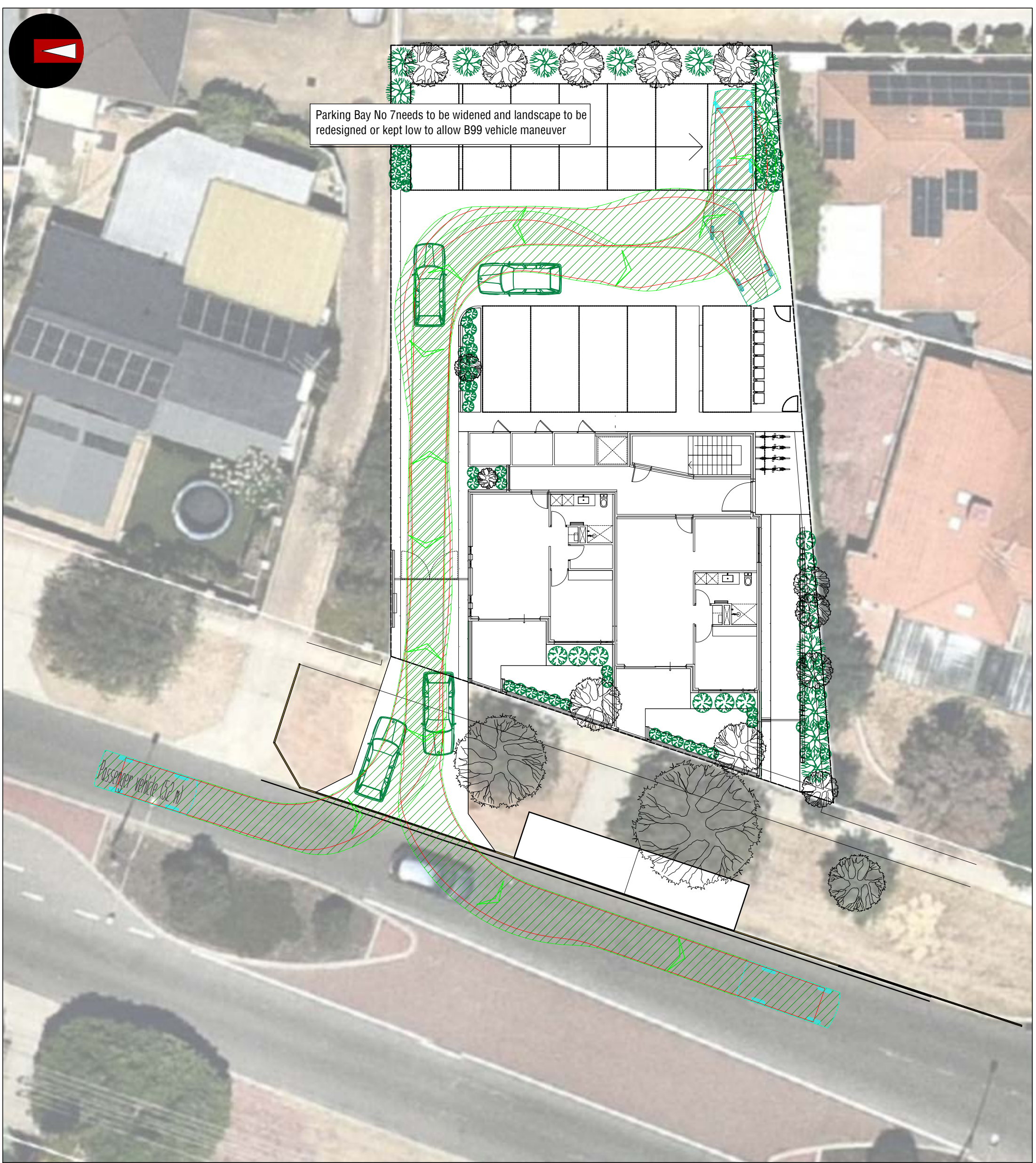
			PROJECT: LOT 56 (NO 93) ODIN ROAD, INNALOO	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd) PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au  PART OF  Premise
			TITLE: TRAFFIC FLOW DIAGRAM - PEAK HOUR	J.S.	
A	12-01-2024	ISSUED FOR REVIEW	DRAWING NUMBER: KC01760.000_ S07		
No	DATE	AMENDMENT			



City of Stirling
28 Feb 2024
RECEIVED

Appendix 3

Vehicle Turning Circle Plan

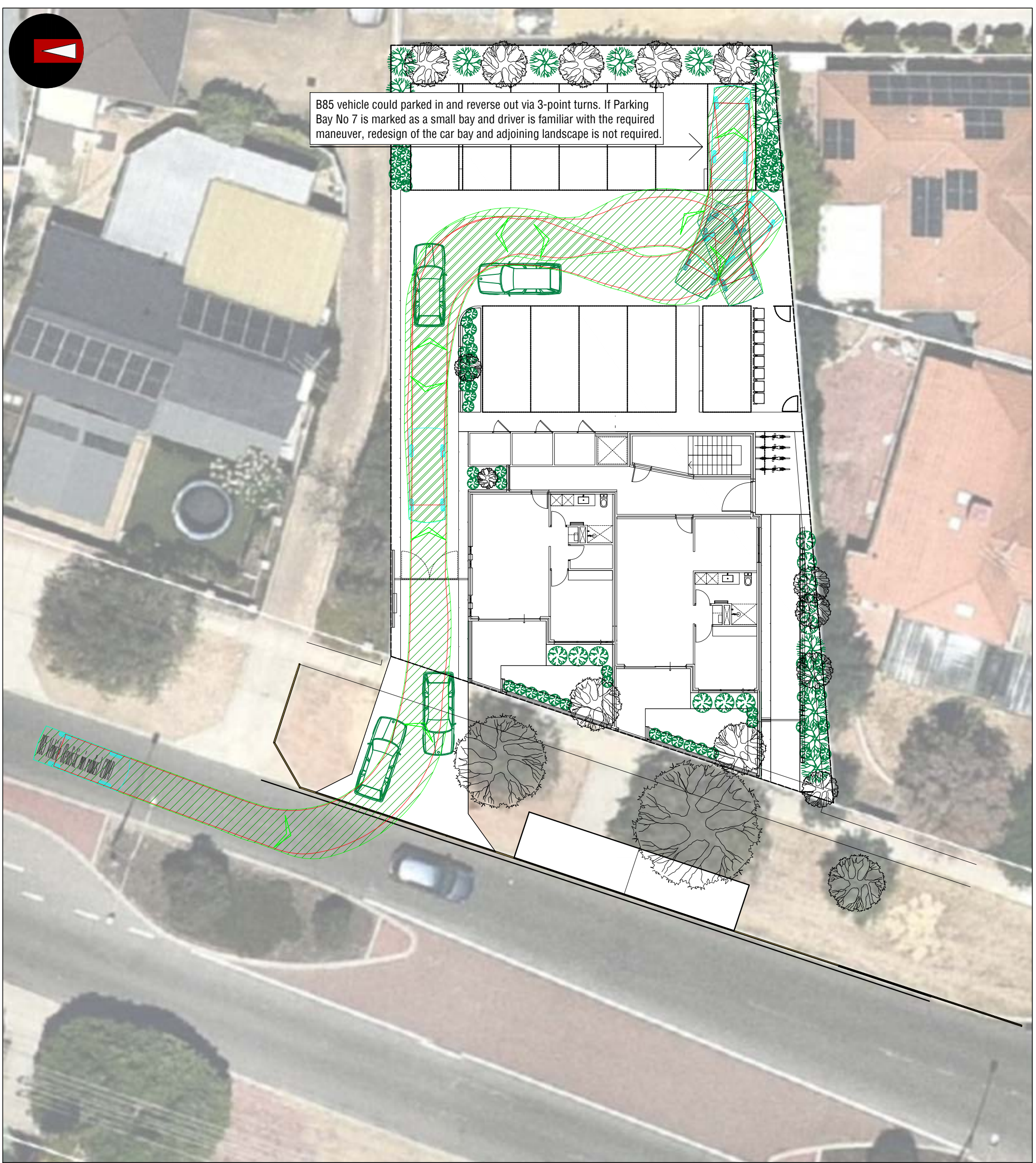


Passenger vehicle (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au	
			TITLE: Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)			
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NO	DATE	AMENDMENT				



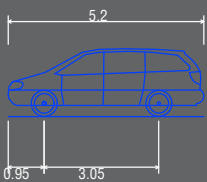
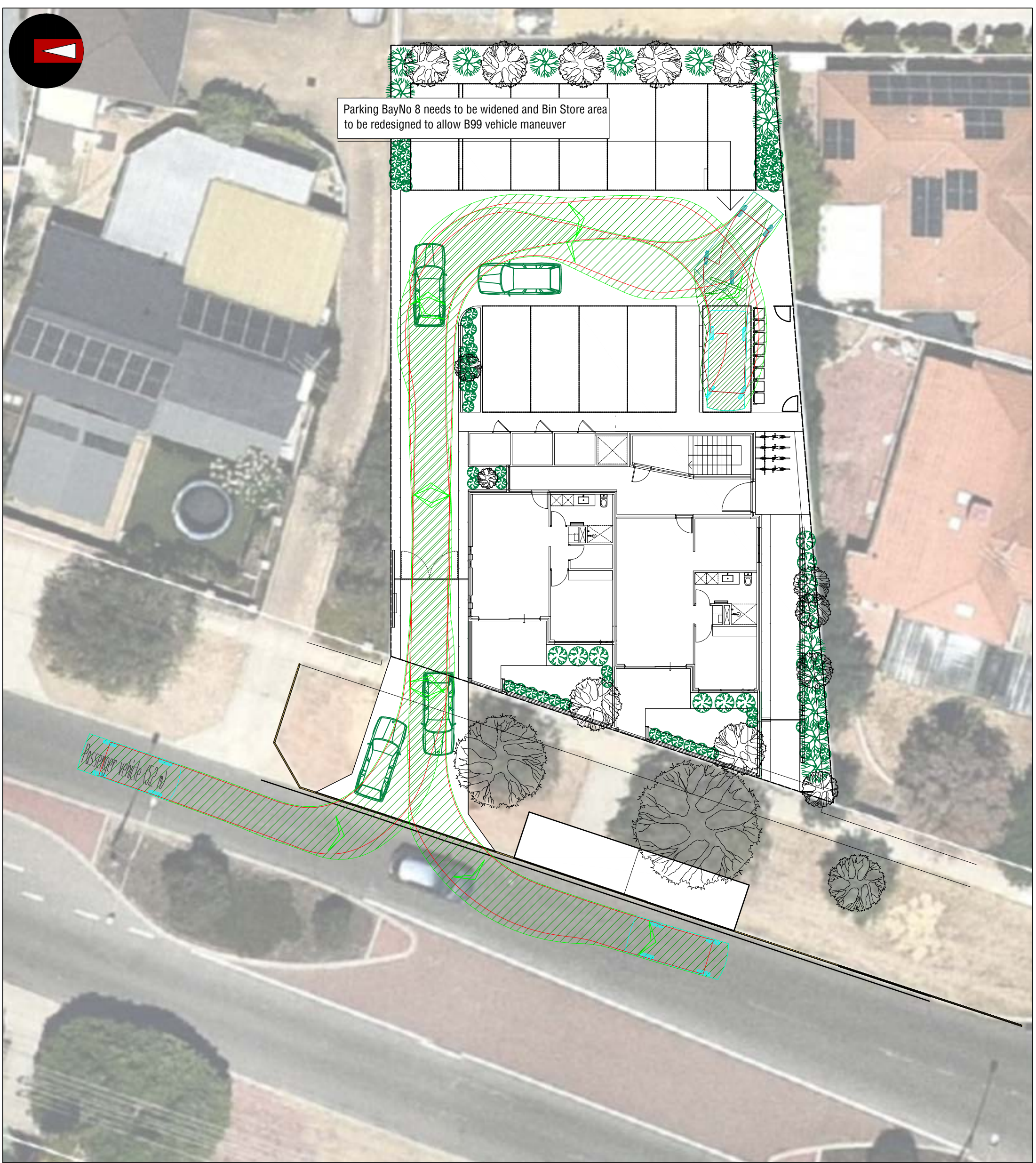
B85 Vehicle (Realistic min radius) (2004)

- Overall Length 4.910m
- Overall Width 1.870m
- Overall Body Height 1.421m
- Min Body Ground Clearance 0.159m
- Track Width 1.770m
- Lock-to-lock time 4.00s
- Curb to Curb Turning Radius 5.750m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chassis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chassis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au PART OF
			TITLE: Vehicle Turning Circle Plan - B85 Passenger Vehicle (4.91m)		
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NO	DATE	AMENDMENT			

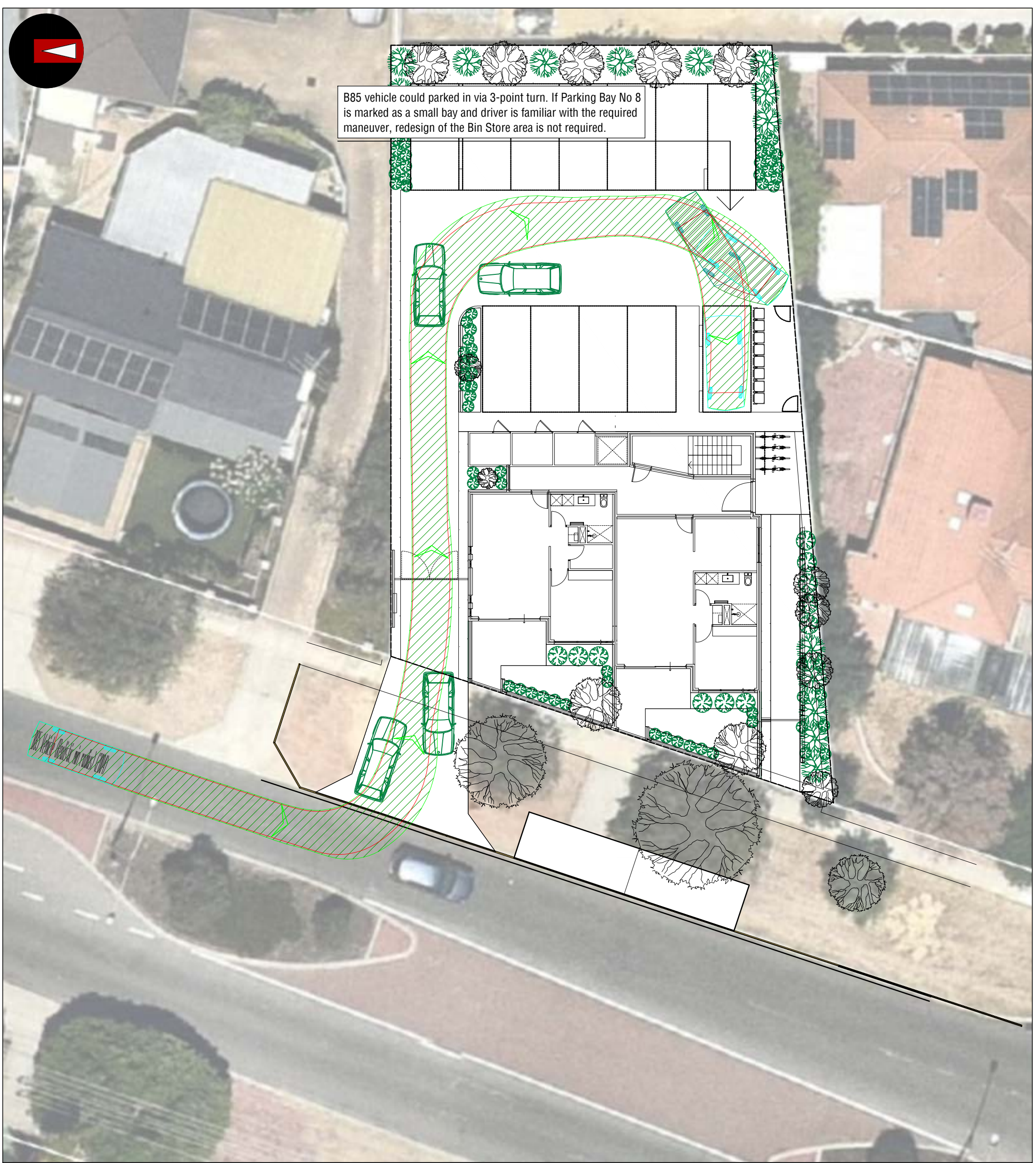


Passenger vehicle (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

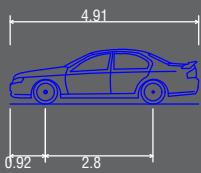
- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chassis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chassis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au PART OF 
			TITLE: Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)		
			DRAWING NUMBER: KC01760.000_S21		
A	10-01-2024	ISSUED FOR REVIEW			
NO	DATE	AMENDMENT			



B85 vehicle could parked in via 3-point turn. If Parking Bay No 8 is marked as a small bay and driver is familiar with the required maneuver, redesign of the Bin Store area is not required.

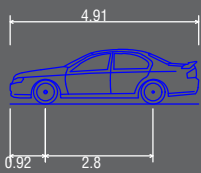
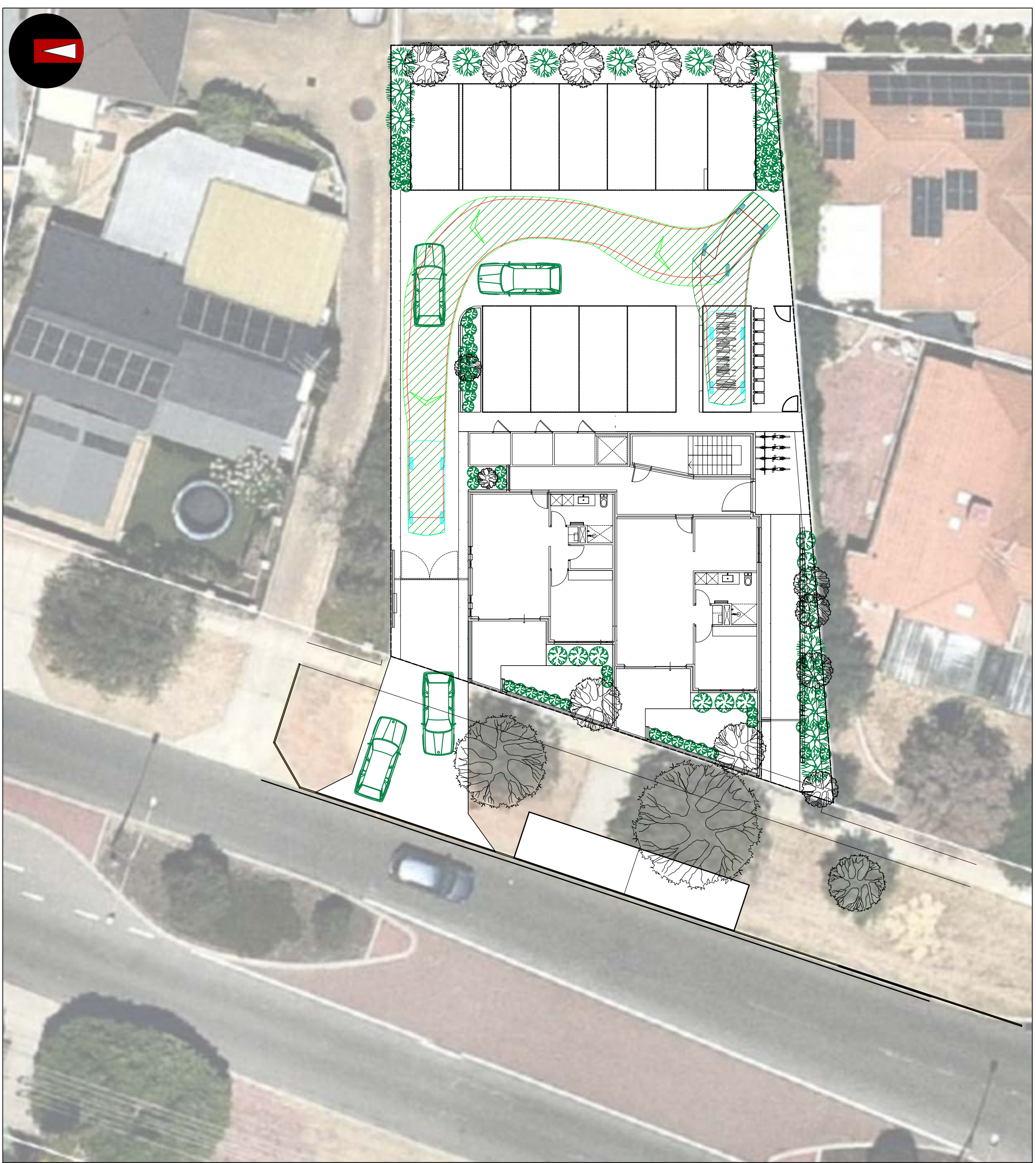


B85 Vehicle (Realistic min radius) (2004)
Overall Length 4.910m
Overall Width 1.870m
Overall Body Height 1.421m
Min Body Ground Clearance 0.159m
Track Width 1.770m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 5.750m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au kctt PART OF Premice
			TITLE: Vehicle Turning Circle Plan - B85 Passenger Vehicle (4.91m)		
A	10-01-2024	ISSUED FOR REVIEW	DRAWING NUMBER: KC01760.000_S21A	J.S.	
NO	DATE	AMENDMENT			

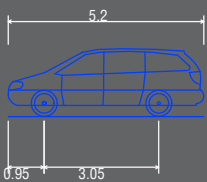


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- Lot boundary
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LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au	
			TITLE: Vehicle Turning Circle Plan - B85 Passenger Vehicle (4.91m)			
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NO	DATE	AMENDMENT				

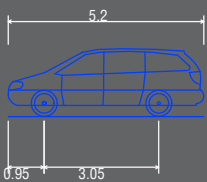
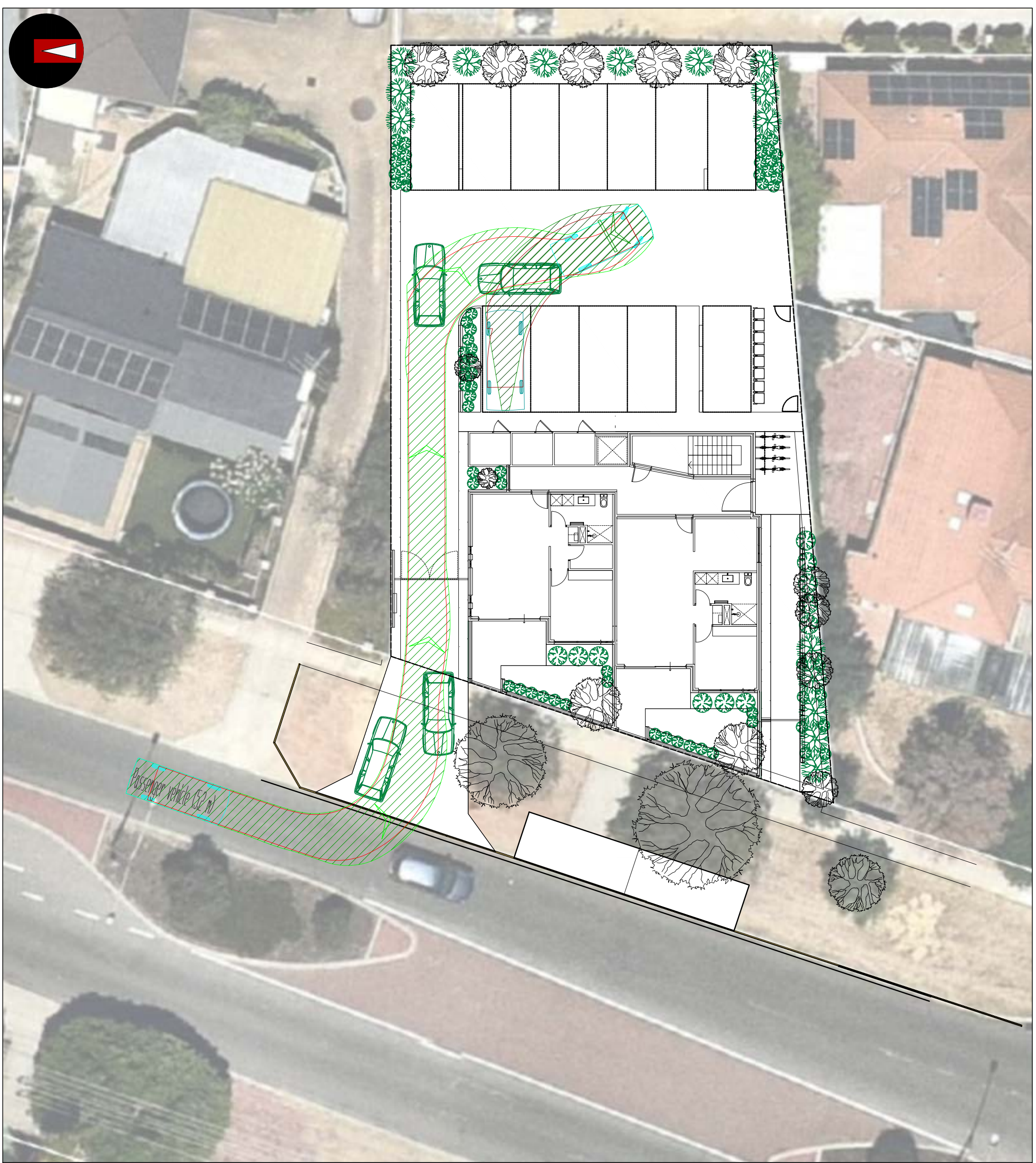


Passenger vehicle (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au PART OF 
			TITLE: Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)		
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A	10-01-2024	ISSUED FOR REVIEW			
NO	DATE	AMENDMENT			

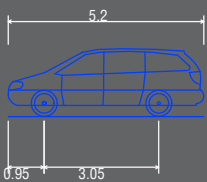
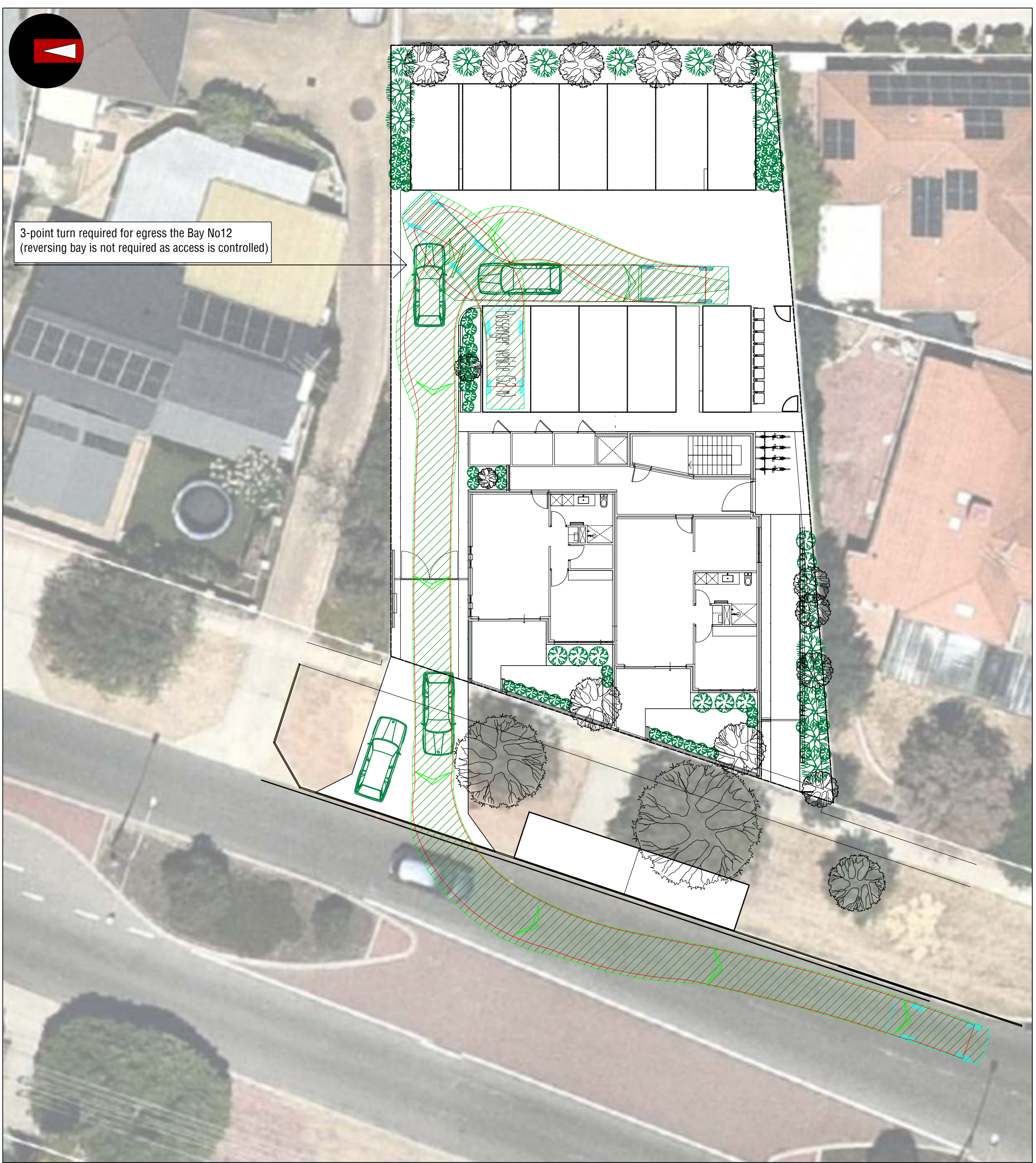


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Track Width 1.840m
Lock to Lock Time 4.00s
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- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chassis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chassis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au	
			TITLE: Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)			
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A	10-01-2024	ISSUED FOR REVIEW				
NO	DATE	AMENDMENT				

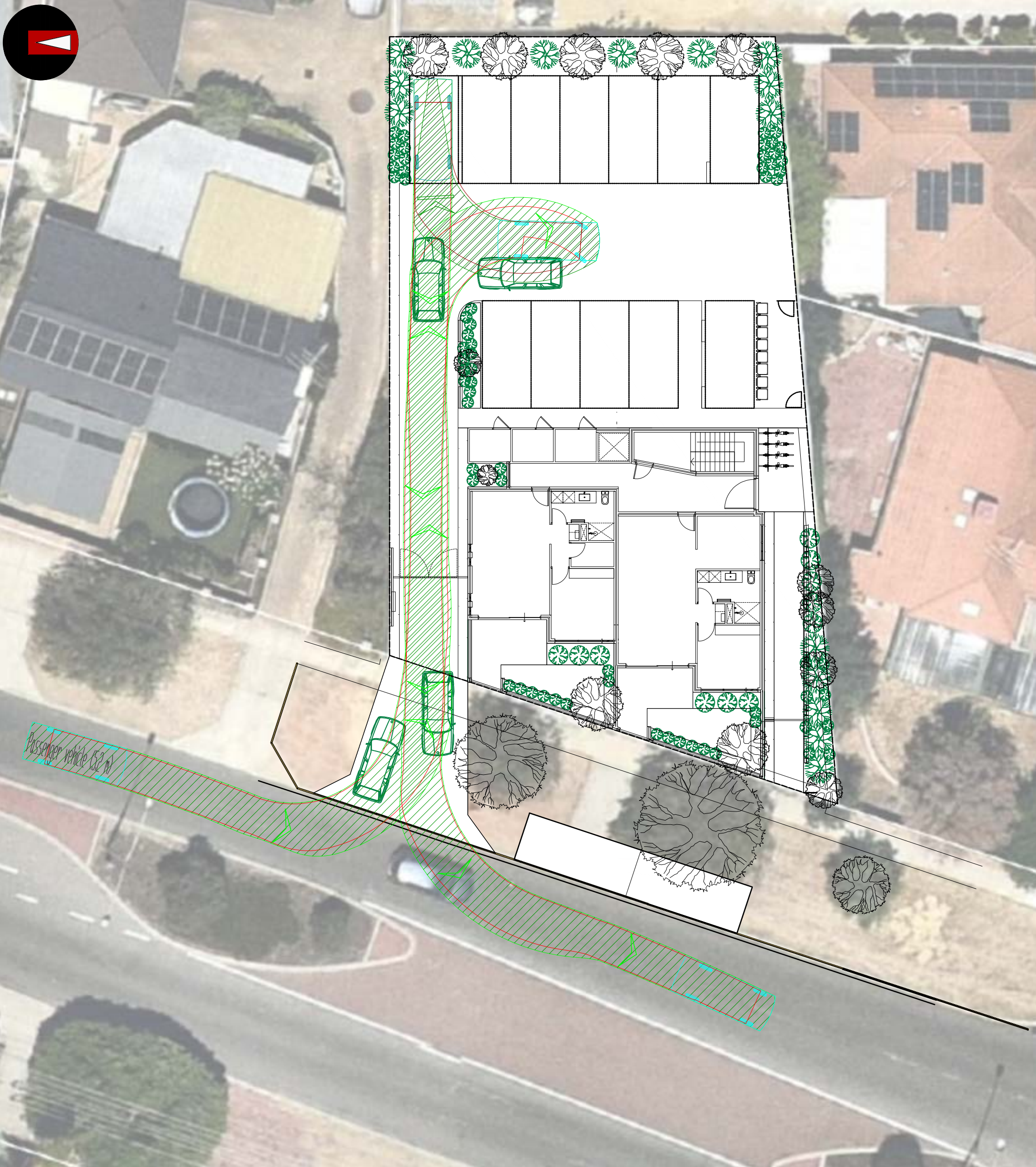


Passenger vehicle (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chassis Envelope (Forward Vehicle Motion)
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- Vehicle Chassis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au	
			TITLE: Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)			
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A	10-01-2024	ISSUED FOR REVIEW				
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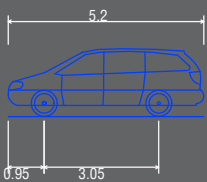
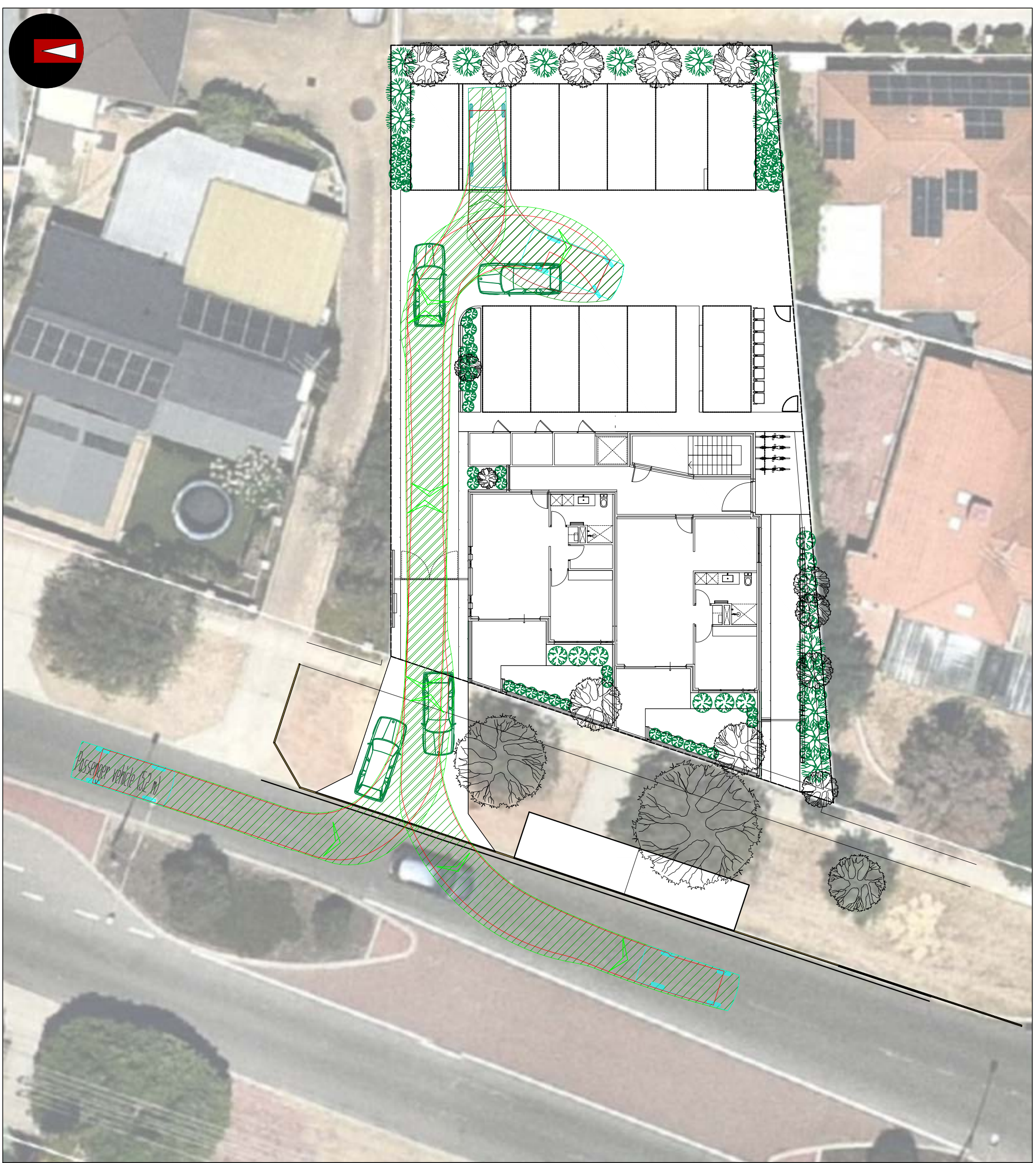


	Passenger vehicle (5.2 m)			Lot boundary
	Overall Length	5.200m		
	Overall Width	1.940m		Wheel Path (Forward Vehicle Motion)
	Overall Body Height	1.804m		
	Min Body Ground Clearance	0.295m		Vehicle Chassis Envelope (Forward Vehicle Motion)
	Track Width	1.840m		Wheel Path (Reverse Vehicle Motion)
	Lock to Lock Time	4.00s		
	Kerb to Kerb Turning Radius	6.300m		Vehicle Chassis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922) PH: 08 9441 2700 WEB: www.kctt.com.au 
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NO	DATE	AMENDMENT			



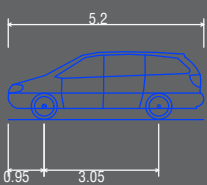
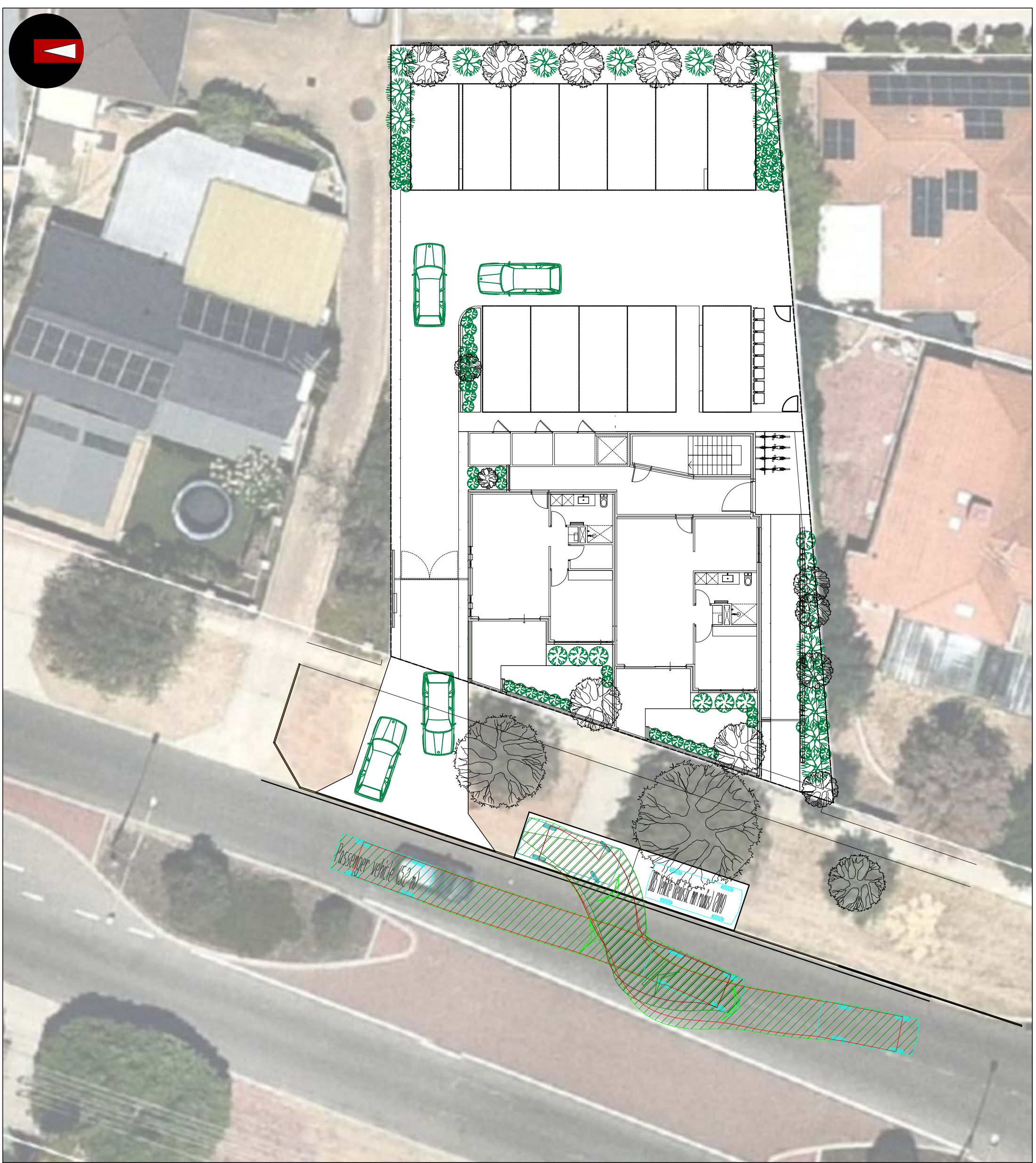


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Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au  PART OF 
			TITLE: Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)	J.S.	
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NO	DATE	AMENDMENT			

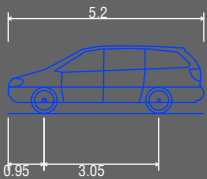
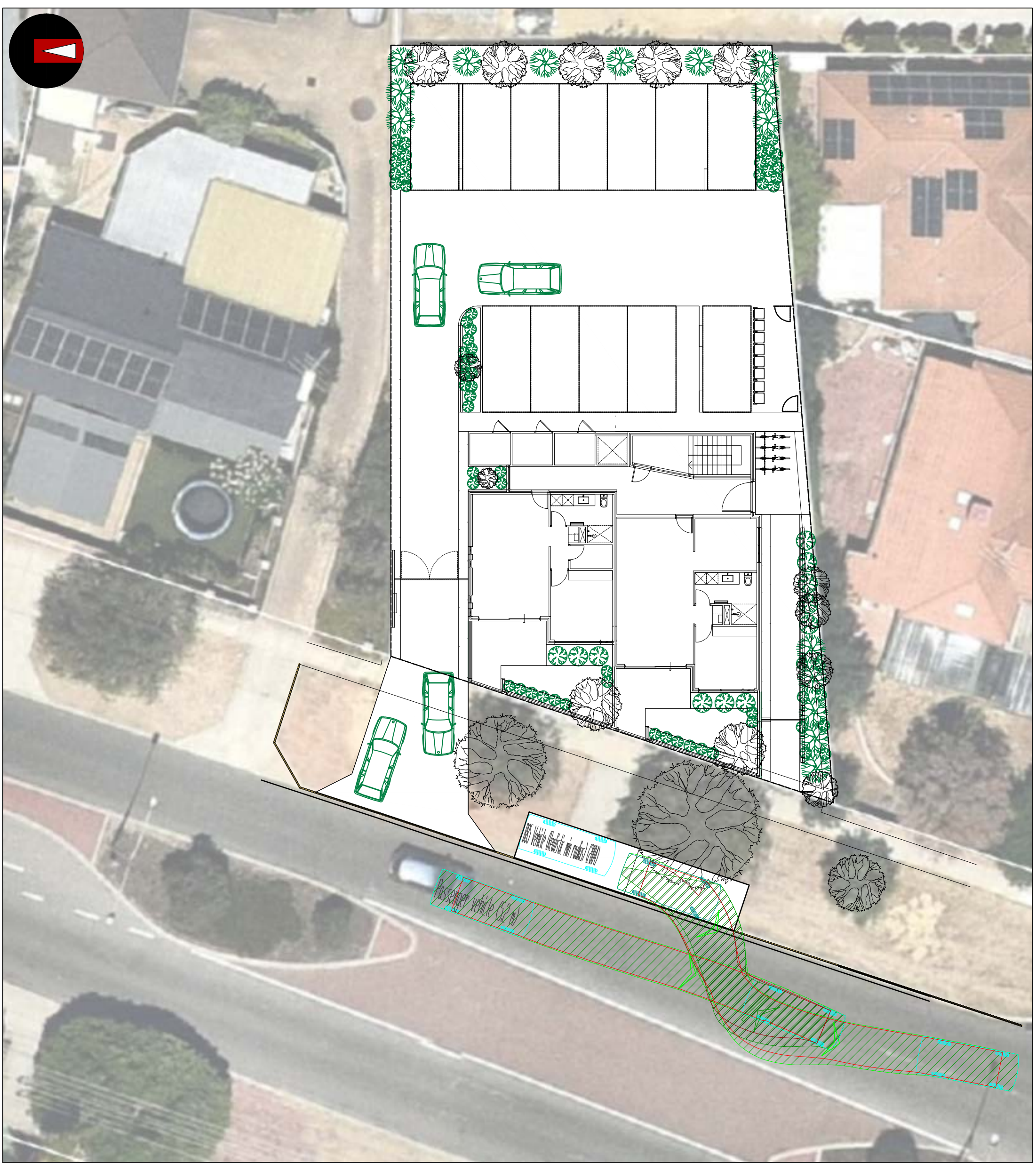


Passenger vehicle (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chassis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chassis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au kctt PART OF Premise
			TITLE: Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)		
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NO	DATE	AMENDMENT			



Passenger vehicle (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

- Lot boundary
- Wheel Path (Forward Vehicle Motion)
- Vehicle Chasis Envelope (Forward Vehicle Motion)
- Wheel Path (Reverse Vehicle Motion)
- Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au	
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NO	DATE	AMENDMENT				

Appendix 4

Traffic Management Plan





Position of the BI-directional Mirror

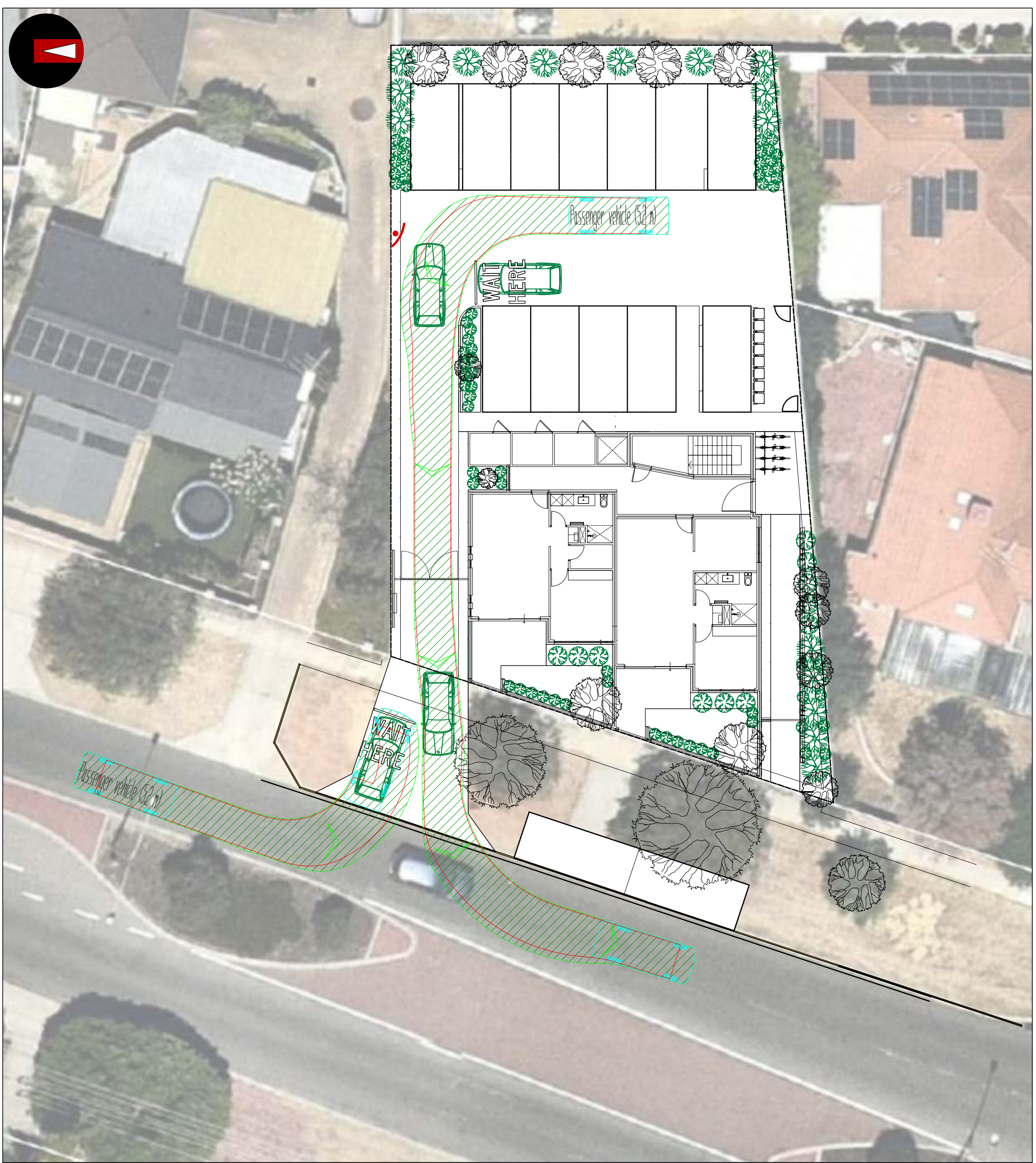


Wait here - horizontal linemarking

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY:	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au  PART OF 
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NO	DATE	AMENDMENT			



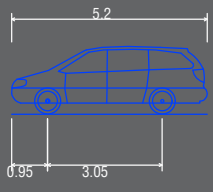




Position of the BI-directional Mirror



Wait here - horizontal linemarking



5.2
1.940
1.804
0.295
1.840
4.00s
6.300m

Passenger vehicle (5.2 m)

Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m

Lot boundary

Wheel Path (Forward Vehicle Motion)

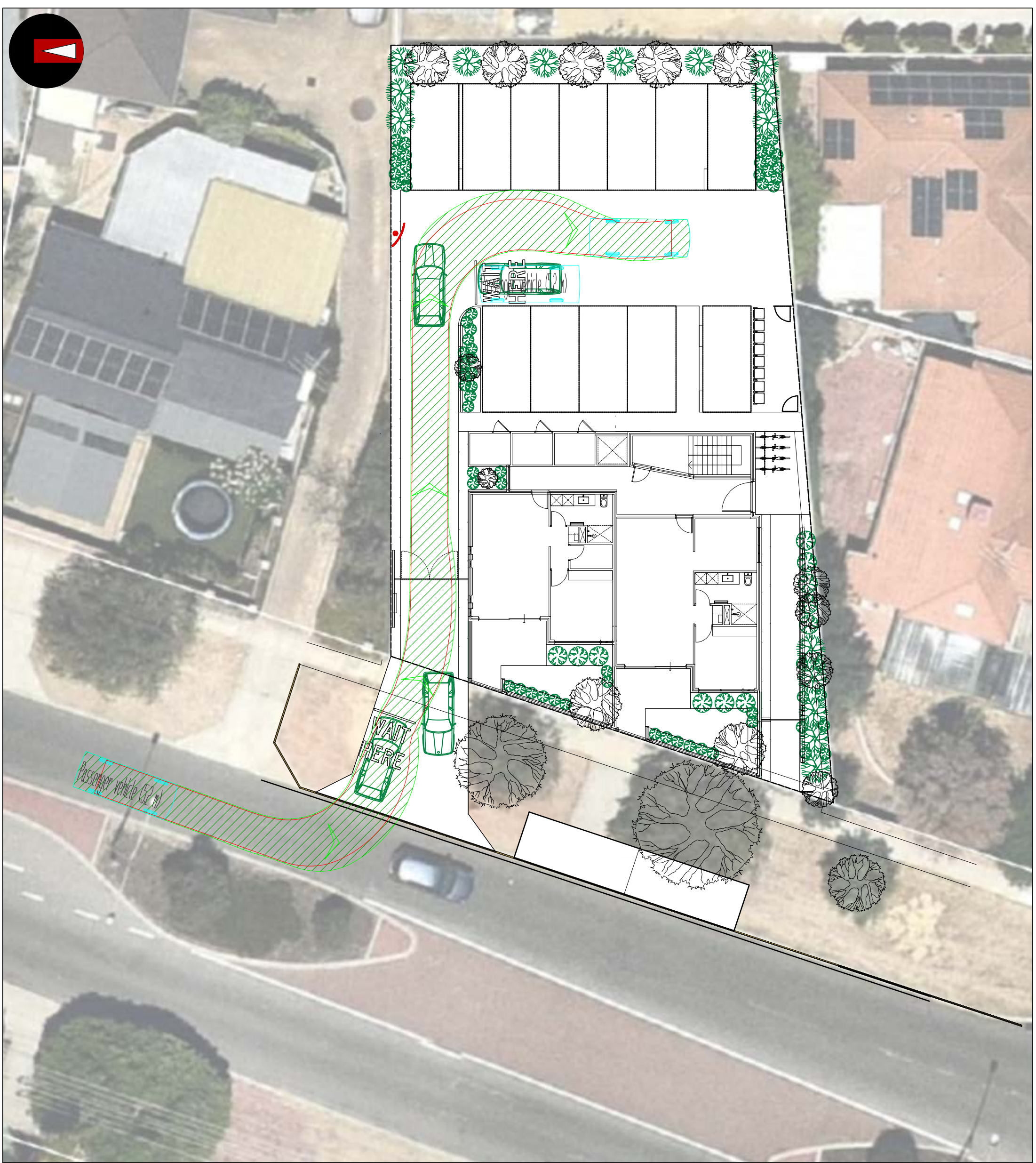
Vehicle Chasis Envelope (Forward Vehicle Motion)

Wheel Path (Reverse Vehicle Motion)

Vehicle Chasis Envelope (Reverse Vehicle Motion)

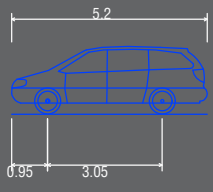
LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au PART OF 
			TITLE: Traffic Management Plan		
			DRAWING NUMBER: KC01760.000_S41a		
A	18-01-2024	ISSUED FOR REVIEW			
NO	DATE	AMENDMENT			





Position of the BI-directional Mirror



Passenger vehicle (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.804m
Min Body Ground Clearance 0.295m
Track Width 1.840m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 6.300m



Lot boundary



Wheel Path (Forward Vehicle Motion)



Vehicle Chassis Envelope (Forward Vehicle Motion)



Wheel Path (Reverse Vehicle Motion)



Vehicle Chassis Envelope (Reverse Vehicle Motion)

LEGEND

			PROJECT: Lot 56 (No 93) Odin Road, Innaloo	DRAWN BY: J.S.	Civil & Traffic Engineering Consultants KCTT (Trading as KC Traffic and Transport Pty Ltd PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au  PART OF 
			TITLE: Traffic Management Plan		
			DRAWING NUMBER: KC01760.000_S41b		
A	18-01-2024	ISSUED FOR REVIEW			
NO	DATE	AMENDMENT			

WASTE MANAGEMENT PLAN



LOT 56 (NO.93) ODIN ROAD, INNALOO

**PROPOSED TWELVE (12) MULTIPLE DWELLINGS
CITY OF STIRLING**

This Waste Management Plan has been prepared by CF Town Planning & Development on behalf of Germano Designs for the construction of twelve (12) new multiple dwellings on Lot 56 (No.93) Odin Road, Innaloo.



Carlo Famiano
Director
CF Town Planning & Development

carlo@cftp.com.au
 3/1 Mulgul Road
 Malaga WA 6090

Name	Position	Document Revision	Date
Mr Carlo Famiano	Town Planner	Waste Management Plan	16 February 2024
Mr Carlo Famiano	Town Planner	Waste Management Plan	19 July 2024

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Planning & Development Consultants

Address: 3/1 Mulgul Road, Malaga WA 6090

Tel: 9249 2158 Mb: 0407384140 Email: carlo@cftp.com.au

CVF Nominees Pty Ltd ABN: 86 110 067 395

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List of Appendices

Appendix 1: Bin Store Location

Appendix 2 - Site Development Plans

1.0 BACKGROUND & DESCRIPTION

CF Town Planning & Development have been commissioned by Germano Designs to prepare a Waste Management Plan (WMP) in support of the development application being considered by the City of Stirling for the construction of twelve (12) new multiple dwellings on Lot 56 (No.93) Odin Road, Innaloo ('Subject Land').

According to the City of Stirling's current operative Local Planning Scheme No.3 (LPS No.3), the Subject Land is classified 'Development' zone and is located within 'Stirling City Centre Special Control Area' (SCA), with the land being located within the 'Innaloo Precinct'.

In light of the above, the land is part of the 'Innaloo Precinct Local Development Plan' (LDP), which identifies the Subject Land as 'Urban Residential'. Under the terms of Table 2.3 ('Land Use Table') of the Structure Plan, the use of land within the 'Residential Sector' for 'Multiple Dwelling' purposes is identified as a permitted ("P") use.

As previously mentioned, the development application for Subject Land proposes the construction of twelve (12) new multiple dwellings, with the following configuration:

- i) Five (5) single bedroom/single bathroom dwellings;
- ii) Five (5) two bedroom/two bathroom dwellings; and
- iii) Two (2) three bedroom/two bathroom dwellings.

A copy of the site development plans are provided in Appendix 2 (Site Development Plans).

2.0 PURPOSE OF WASTE MANAGEMENT PLAN

This Waste Management Plan has been prepared and submitted with the City of Stirling in support of the development application lodged with the City for the construction of twelve (12) new multiple dwellings on the Subject Land.

The aim of this Plan is to:

1. Identify the indicative volume of waste.
2. Ensure adequate facilities are provided to serve the future occupants of the proposed multiple dwelling development on the Subject Land.
3. Demonstrate the proposed design meets industry best practice.
4. Provide for an adequate on-street bin pick-up location (i.e. verge pick-up).
5. Identify methods available for the future occupants of the development to minimize waste generation and reduce potential landfill.

3.0 KEY REFERENCE MATERIAL

- *WALGA Multiple Dwelling Waste Management Plan Guidelines;*
- *Sustainability Victoria (Victorian State Government);*

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- New South Wales (NSW) Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities; and
- Discussions with the City of Stirling Waste Management Division.

4.0 ESTIMATED VOLUMES & BIN TYPE

4.1 Waste Generation Volume

The proposed multiple dwelling development on the Subject Land consists of the following dwelling configuration:

- Five (5) single bedroom/single bathroom dwellings;
- Five (5) two bedroom/two bathroom dwellings; and
- Two (2) three bedroom/two bathroom dwellings.

The *WALGA Multiple Dwelling Waste Management Plan Guidelines* indicates that on average, each multiple dwelling (i.e. 'apartment') will generate the following waste (Table 1):

Table 1 – WALGA Waste Guidelines

Waste Stream	Dwelling Size	Waste Generation
General Waste	1 bedroom	80L/week
	2 bedroom	160L/week
	3 bedroom	240L/week
Recycle Waste	1 bedroom	40L/fortnight
	2 bedroom	80L/fortnight
	3 bedroom	240L/fortnight

Reference: Table 2 of the WALGA Multiple Dwelling Waste Management Plan Guidelines

As previously outlined, the development will include a mixture of single bedroom, two bedroom and three bedroom multiple dwellings.

Following discussions with the City of Stirling's Waste Management Department (Mr Ashley Renshaw – Team Leader), the following waste generation ratios have been applied by the City of Stirling and have been applied as part of this Waste Management Plan:

Table 2 – City of Stirling Waste Generation Rates

Waste Stream	Dwelling Size	Waste Generation
General Waste	All dwellings	140L/week
Recycle Waste	All dwellings	240L/fortnight
Green Waste	All dwellings	240L/fortnight

Note: Green waste is not standard and is only an option for developments.

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The following equation has been used to calculate the anticipated weekly/fortnightly general waste and recycling generation:

- Waste & recycle generation calculations

$$\text{Total amount of Waste Type} = \text{Dwelling Number/Type} \times \text{Waste Rate (weekly or fortnightly)}$$

The following waste generation calculations (i.e. Table 3) is provided in support of the development for the purpose of establishing the number of bins required, based on the dwelling type within the development:

Table 3 – Weekly Waste Generation

Dwelling Type	Dwellings	General Waste	Recycle Waste
Multiple Dwelling	12 dwellings	1,680 litres/per week	2,880 litres/per fortnight
	Total Waste	1,680 litres (weekly)	2,880 litres (fortnightly)

4.2 Bin Type

The City of Stirling have advised that all domestic waste collection will be undertaken by the City, with collection being preferably along the verge area.

In addition to the above point, the City of Stirling have advised that the following bin type can be used to service the development and is offered as part of the City's waste collection service for multiple dwellings:

- General Waste (red lid bins) - 240 litre
- Recycle Waste (yellow lid bins) - 360 litre
- Green Waste (green lid bins) 240 litre

Figure 1 below illustrates the dimensions and details of both the 240 litre and 360 litre bins that will be adopted as part of this development.

As outlined previously, the green waste collection is not a standard service and is only an option for the occupants of the development. In addition, the City of Stirling have advised that a FOGO ('Food Organics, Garden Organics') service will be introduced in the future. As such, provision should be made within the development to accommodate six (6) 240 litre bins.

In light of the above and through discussions with the City of Stirling, the following bin requirements are to be applied to the proposed development on the land:

- General waste bins- 7 x 240L
- Recycle waste bins- 8 x 360L

The proposed development on the Subject Land does not propose green waste bins at this stage, but provisions have been made to accommodate the future service.

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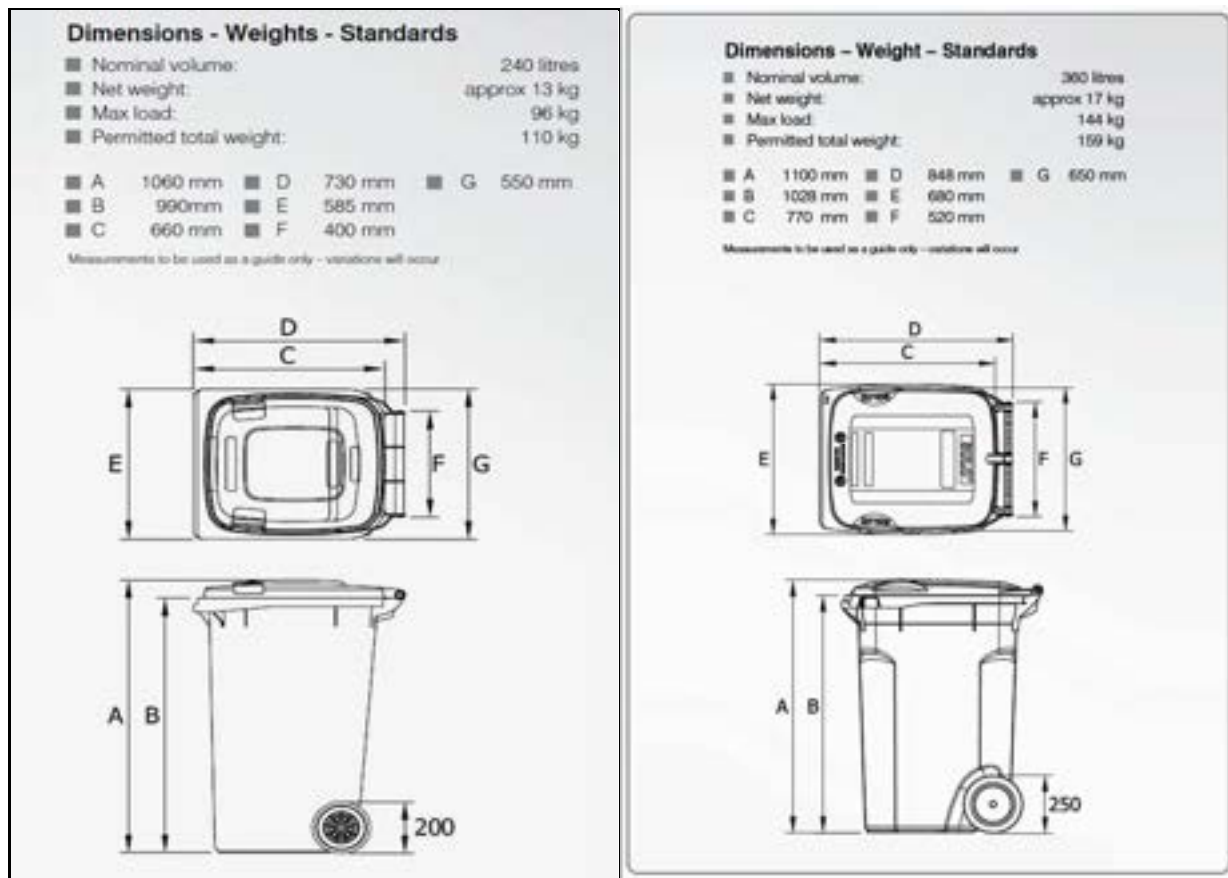


Figure 1 – Bin types & dimensions

The following equation has been used to calculate the number of bins required to service the development and the capacity of the bins for each waste stream:

- Total bins required for general/recycle waste

$$\text{Total number of bins required} = \text{Total waste generation} / \text{bin size (i.e. 240L or 360L)}$$

The following calculation (i.e. Table 4) is provided in support of the waste generation and the number of bins required and the bin capacity to service the proposed multiple dwelling development on the land:

Table 4 – Bin Capacity

WASTE TYPE	BIN SIZE	NUMBER OF BINS	PROPOSED BIN CAPACITY	ACTUAL WASTE GENERATION
General Waste	240L	7	1,680L per week	1,680L per week
Recycle Waste	360L	8	2,880L per fortnight	2,880L per fortnight

In light of the above bin capacity calculations, it is contended that the provision of the bin numbers listed in Table 4 is sufficient to accommodate the needs of the future occupants of the development on the Subject Land. This includes setting aside adequate space/provisions for the future FOGO service.

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In addition to the bin provision for the development, there is sufficient space within the verge area abutting the Subject Land to accommodate a skip bin. The area will be used to accommodate a skip bin to service the development and the storage of white goods, mattresses and any annual bulk green waste collection. It is noted that the verge area does comprise a footpath and that adequate space is available to ensure that the pedestrian path will not be obstructed or not impact the pedestrian thoroughfare (see Figure 3 & Appendix 1).

All bins will comprise appropriate colour coding (i.e. red & yellow, with green in the future) and signage to clearly indicate the types of waste to be placed in the relevant bins. This will assist with ensuring that cross contamination of waste is avoided by the future occupants of the development. This will also allow for the reduction of landfill and potentially increase recycling.

5.0 COLLECTION FREQUENCY & PROVIDER

The City of Stirling is the rubbish collection service provider, with the following collection services being provided to residential within the new development on the Subject Land:

- Weekly general waste mobile bin collection (every Monday).
- Fortnightly recycle mobile bin collection (every second Monday).
- Fortnightly green waste mobile bin collection (every second Monday alternative to the recycle waste collection).
- One (1) skip bin (bulk bin) per year for bulk rubbish/junk collection.
- Annual collection of tree prunings.
- White goods pick-up.

In addition to the above services, the City provides collection points for the general public (i.e. library/civic centres) for mobile phone, globes & battery collection.

The City of Stirling have advised that all waste collection should be undertaken from the verge area abutting the Subject Land (not on-site pick-up) and will be collected using a standard truck that forms part of the City of Stirling's conventional waste service (see Figure 2).

The collection service will be undertaken on a weekly basis for general waste and fortnightly for recycling waste and green waste. It is recognized that the bins will need to be transferred to the street verge for collection and returned once serviced.

Adequate space has been provided along the Odin Road verge area to accommodate the rubbish bins (see Figure 3). It should be noted that a total of fifteen (15) bins will be situated along the verge area at any one given time.

Vehicle specifications	
Overall length	8.0m
Overall width	2.5m
Height (travel)	3.4m
Height (in operation)	3.4m
Weight (vehicle only)	13.0t
Weight (payload)	9.5t
Turning circle	25.0m



Figure 2 – Rubbish truck & specifications to be adopted for the development.



Figure 3 – Aerial Site Plan. Location of the bin store on the Subject Land.

6.0 LOCATION, SIZE & FEATURES OF BIN STORAGE AREA

6.1 Bin Store Area & layout

As previously mentioned, the proposed multiple dwelling development on the Subject Land will include a total of seven (7) 240 litre mobile garbage bins and eight (8) 360 litre mobile garbage bins. In addition, provisions have been made to accommodate six (6) 240 litre FOGO bins.

The following table provides a breakdown of the required area for the bin storage area to accommodate the required bins (the required areas have been adopted using the New South Wales

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Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities):

Table 6 – Bin Storage Area

BIN SIZE	BIN AREA ALLOWANCE	QUANTITY	MANOEURING SPACE ALLOWANCE	AREA REQUIRED
240L MGB (General Waste)	0.43m ²	7 bins	X 2 (shared access)	6.02m ²
360L MGB (Recycle Waste)	0.55m ²	8 bins	X 2 (shared access)	8.8m ²
240L MGB (Greens/FOGO) (Future)	0.43m ²	6 bins	X 2 (shared access)	5.16m ²
			Total Area Required	19.98m²
			Total Area provided	20.0m²

As outlined above, the bin storage area proposed for the development is adequate to accommodate the needs of the development. Furthermore, the bin store area proposed for the development will comprise gates to allow for easy access and storage of the bins. The store has been designed to provide easy removal of the bins for servicing and cleaning (see Appendix 1 – Bin Store Location).

6.2 Bin Store Location & Features

Bin storage area will be located within the property boundaries, abutting the on-site car parking area and to the rear of the ground floor of the building (including Under the common stairs. The bin store will be enclosed and not visible from the street and/or the adjoining properties. The bins will be moved from the bin store to the verge area for collection and returned once serviced (see Appendix 1 – Bin Store Location).

The location of the bin store will be abutting the car parking area and well setback from the lot boundaries. It should be noted that the bin store on the Subject Land will be enclosed and is well clear of any major openings for the existing dwelling on the adjoining properties. Given these facts, the bin store will not have an adverse impacts on the occupants of the existing dwellings on the adjoining properties (see Figure 3). Furthermore, the bin storage area will also be located away from the any major openings for the dwellings within the new development on the Subject Land.

The proposed location of the bin storage area will:

- i) Minimise odour levels impacting on the occupants of the development;
- ii) The bin store is located away from any habitable rooms of the existing dwellings on the adjoining properties;
- iii) Provide easy access to all future occupants of the development; and
- iv) Allow for easy transfer of the bins between the storage area and the verge.

Key design points of the common bin storage area are as follows:

- The bin storage area will comprise a tap and connection to sewer for wash-down purposes.
- The bin storage area will comprise a 100mm concrete floor.
- The bin store area will be screened and gated to hide its view from the street, common property area and provide security.
- A galvanized pipe will be installed along the walls to prevent the bins from hitting and damaging the walls of the bin store.
- The bin storage area will be secure and screened from the future occupants of the development. The screen will include a masonry wall and landscaping along the frontage of the bin store to provide additional screening from being viewed from the public realm.
- The bin store will be enclosed.
- Allow for easy transfer of the bins to the verge area for collection (see Appendix 1 – Bin Store location).

7.0 NOISE, ODOUR & MINIMIZING LANDFILL

It is anticipated that the location of the bin storage area for new multiple dwelling development on the Subject Land will provide easy access by the occupants of each individual dwelling and minimize disruption to neighbors and residents.

Noise

The bin storage area will be screened and located within the Subject Land, away from any dwellings and will be enclosed. The adjoining southern property comprises extensive rear yard area and vegetation adjacent to the bin store on the Subject Land. Furthermore, the bin storage area will comprise a masonry wall around the perimeter of the compound to reduce any impact on the surrounding properties/dwellings.

It is expected that the bin storage area will generate minimal vertical and horizontal noise transfer during use. As such, it is contended that the noise generated from the bin storage area will not result in any undue noise that would not be consistent with that generated by the adjoining properties.

In light of the above, it is contended that there will be no notable impacts on the residential dwellings on the adjoining properties from the development on the Subject Land in terms of waste management.

Odour

Strategies to minimize odour are:

- Locating the common bin storage area along the side of the development, the facility being enclosed.
- The bin storage area will not abut any habitable space for the existing dwellings on the adjoining properties.
- Construction of a masonry wall around the perimeter of the bin storage area.
- Screening the bin storage area.
- Allowing for natural ventilation of the bin storage area.

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- Regular washing of the bins and storage area.

Minimising landfill

Given that the City of Stirling provide three (3) separate bins (i.e. general waste, recycling & greens), it allows occupants of the development to sort rubbish accordingly. The provision of recycling bins will enable occupants of the development to place the following items for recycle collection:

- Glass bottles and jars (excluding broken glass, plates, pottery etc.).
- All plastic bottles.
- Newspapers and glossy magazines, paper, envelopes
- Cardboard boxes, cereal boxes, pizza boxes, egg cartons etc.
- Cans - steel and aluminum, including aerosols cans.
- Milk and juice cartons.

Furthermore, the City of Stirling provides annual bulk waste (i.e. skip bin), greens pickup and white goods pickup to reduce the amount of waste being placed within the general waste bin.

In light of the above services, it is contended that adequate measures are available for the future occupants of the development to minimize disposal of rubbish within the general waste bin resulting in long term reduction of landfill.



In light of the above services, it is contended that adequate measures are available for the future occupants of the development to minimize disposal of rubbish within the general waste bin resulting in long term reduction of landfill.

Vermin

The bin lids will remain closed at all times to reduce access by vermin. The use of bait stations could be implemented/considered by the occupier of each dwelling in instances of vermin appearing.

8.0 SCREENING OF BIN STORAGE AREAS

The bin storage area will be a purpose built compound specifically designed, located and screened from the public realm (i.e. screened from any adjoining roads). The bin storage area will be located within the rear car parking area of the development and will not be visible from the street and/or any adjoining properties.

9.0 IMPACT ON ADJOINING/ADJACENT PROPERTIES

The proposed multiple dwelling development on the Subject Land and associated bin store has been designed to be relatively small and comprises a masonry wall where it abuts the adjoining property. Furthermore, the bin store area will abut non-habitable spaces/windows of the existing dwellings on the adjoining properties. Given this separation, it is concluded that an adequate buffer is provided between the bin store and the livable spaces on the adjoining properties.

It is contended that the bin storage area is consistent with a bin storage area akin to a conventional residential development (i.e. grouped dwelling development). Notwithstanding this fact, it is significant to note that the bin store for the proposed development on the Subject Land is well located and will be constructed to minimize any adverse impacts on the adjoining properties.

In light of the above, it is contended that any potential impacts on the adjoining properties from the proposed bin storage area on the Subject Land is expected to be minimal and would be consistent with the waste disposal activities of a typical grouped and/or multiple dwelling development within the immediate locality.

10.0 STRATA MANAGEMENT COMPANY REQUIREMENTS

The appointed Strata Management Company contracted to manage the multiple dwellings on the Subject Land will be responsible to:

- i) Appoint a site manager (i.e. a resident) to be responsible for coordinating the occupants of the complex to arrange cleaning of the bins and bin storage areas every two (2) to three (3) weeks;
- ii) The site manager will be responsible to transferring the bins from the bin store area to the verge area the night prior to pick up (before 7pm) and returning the bins to the store area on the evening of collection day (before 6pm);
- iii) Ensure litter is cleaned up through regular landscape maintenance;
- iv) Deal promptly with any issues or complaints relating to hygiene, noise, odour or other inconvenience; and
- v) Arrange for a private contractor to collect and disposal of green waste (i.e. small garden prunings etc.) as part of maintaining the landscaping areas for the development (i.e. private gardener).

The abovementioned procedure will also be implemented if a sole landowner has control of the development (i.e. appoint a tenant to undertake the aforementioned tasks).

The future prospective purchases/occupants of the complex will be provided with a copy of the approved Waste Management Plan on occupancy of a dwelling. The Waste Management Plan will also be incorporated or referred to in any Strata Management Plan or Strata By-Laws or any rental agreements prepared for the development.

11.0 CONSTRUCTION WASTE

During construction, a waste compound will be provided on-site to store any waste produced during the construction process and will be serviced regularly (when required) by a private contractor. The contractor will provide off-site sorting of the waste to ensure that waste is recycled where possible to minimize landfill waste.

Sub-contractors will be responsible for pre-sorting of waste products into appropriate areas within the waste compound as much as possible to reduce overall construction costs. The site manager will monitor the disposal of waste and sorting of recycle material.

No waste compounds or rubbish will be placed or stored on the street verge area or footpaths surrounding the project boundaries. All pedestrian and vehicle access areas will remain clear from construction debris at all times.

More details regarding on-site management during the construction phase of the development will be provided as part of a Construction Management Plan to be prepared by the builder prior to the commencement of construction.

12.0 CONCLUSION

The proposed multiple dwelling development on the land is small in nature, does not generate high quantities of waste and is consistent with other similar multiple dwelling developments approved by the City of Stirling within the Innaloo locality. As demonstrated within this Waste Management Plan, the proposed multiple dwelling development on Subject Land provides sufficient bin storage and adequate bins to service the needs of the occupants for each individual dwelling for all waste streams provided by the City of Stirling, with this project reflecting the recommendation provided by the City's Waste Management team.

Furthermore, the servicing of the bins by the City of Stirling along the street verge can adequately be achieved without having an adverse impact on the local residents and the local street network.

19 July 2024

CF Town Planning & Development
Planning & Development Consultants

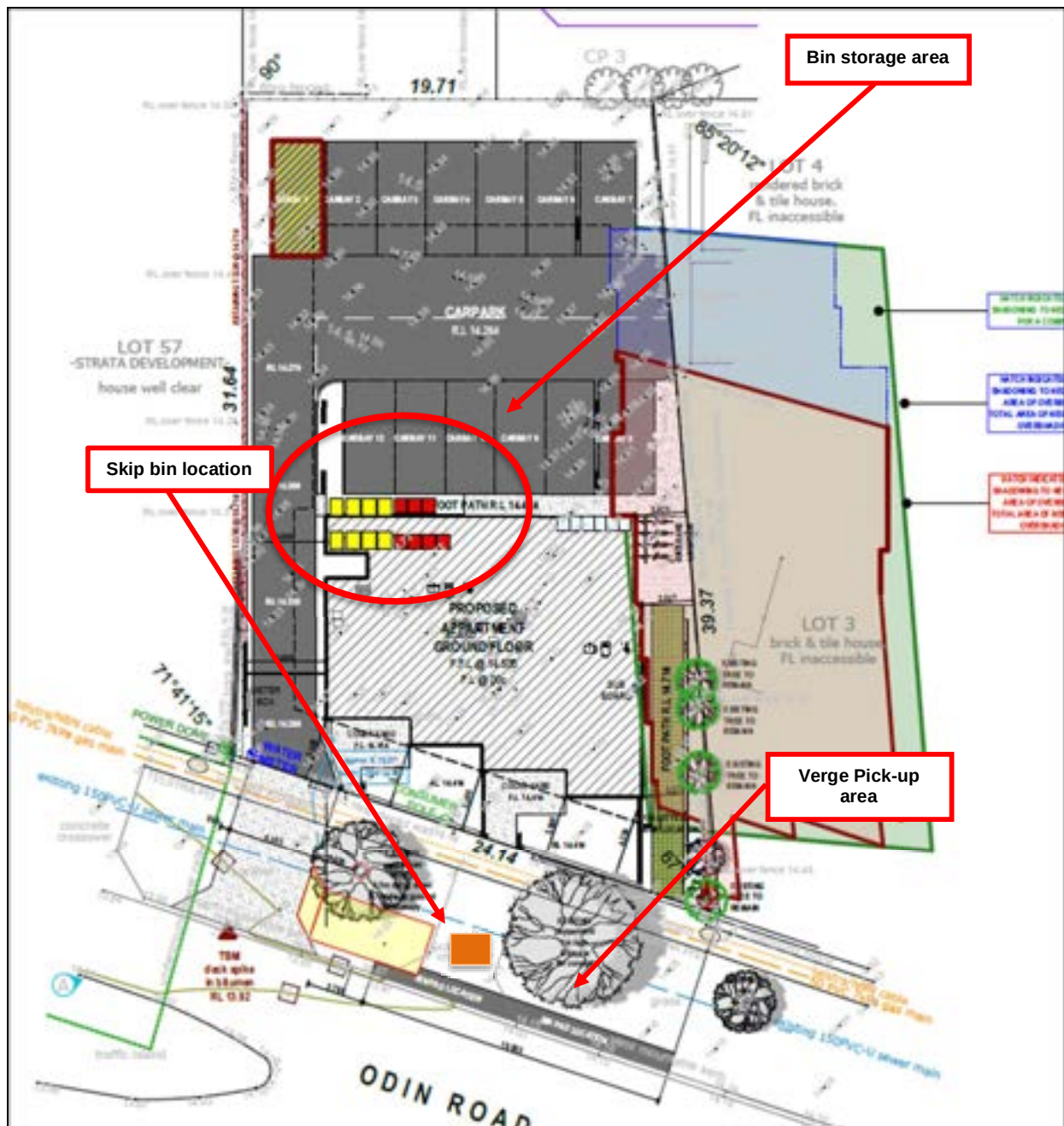
APPENDIX 1 – BIN STORE LOCATION

Planning & Development Consultants

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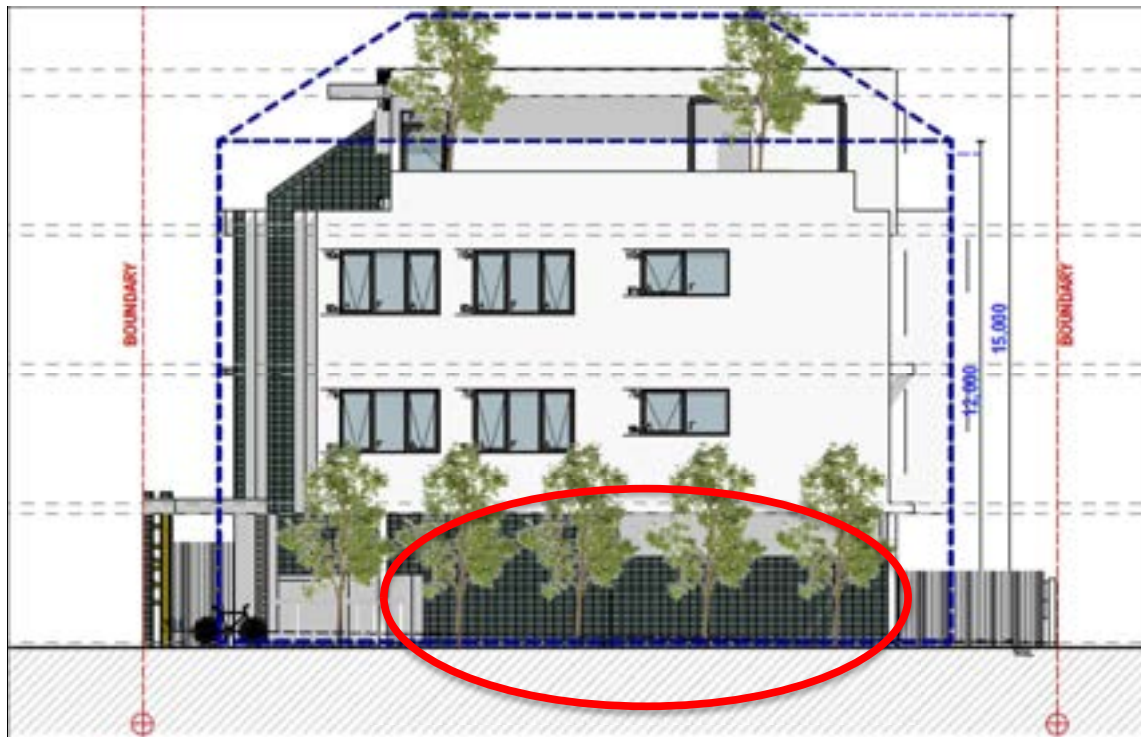
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Above - Site Plan



Bin Storage Area



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APPENDIX 2 – SITE DEVELOPMENT PLANS

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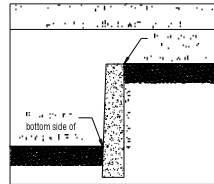
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Photo taken at (A) facing South East

Photo taken at (B) facing South East

Photo taken at (C) facing North East



LEGEND	
	Boundary
	Easement
	Right of Way
	Road
	Fencing
	Structure
	Tree
	Cable
	Power Line
	Water Meter
	TBM
	FBM

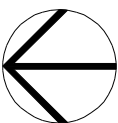
FBM deck spike in bitumen equals RL 13.92 AHD
Based on GSN - SCA15
RL 17.752 AHD
(Landgate Geodetic Section)
Contractor to check datum before adopting levels

Rev	Date	Description	Surv	Drawn
0	21.04.23	Initial Survey	TF	TF
1	16.02.24	Revised Survey	TF	TF

FEATURE AND CONTOUR SURVEY
OF LOT 56 ON PLAN 7290
93 Odin Road, Innaloo
C/T Vol: 1227 Fol: 983
our ref. 23-9977

Feature Survey by
THE LAND DIVISION
PLANNING & SURVEYING
PO Box 2444,
Malaga, WA 6090
phone: 08 9209 3232
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SITE SURVEY

SCALE 1:200

Client
NUO HANG
Project Name
Apartment Complex
Project Address
93 Odin Road, Innaloo

Drawing Title:
Site Survey

Scale:
1:200
Sheet Size:
A2
Project No:
23014
Drawing No:
WD004 of 22

THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT
DATED: 21.04.23
OWNER:
OWNER:
BUILDER:
WITNESS:

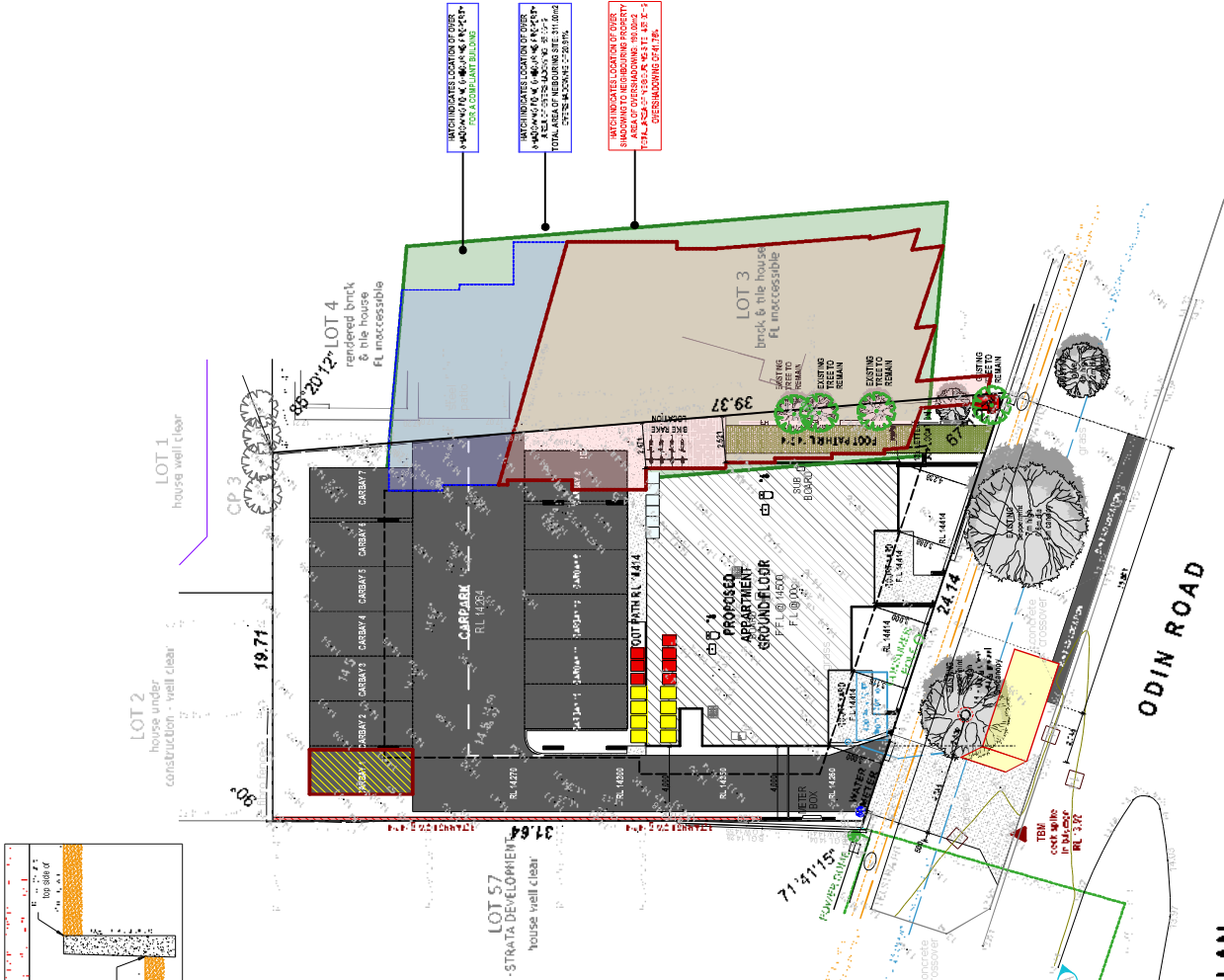
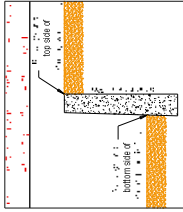
Version	Description	Date
1.00	Initial Survey	21.04.23
2.00	Revised Survey	16.02.24

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SITE PLAN
SCALE 1:200



Client		Drawing Title:	
NIA HANCI		Site Plan	
Project Name		Scale:	
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Project Address		Sheet Size:	
100/100/100/100		A2	
		WD005 of 22	

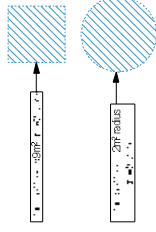
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[illegible]

Note:

- For exposure to all parties areas including cross area
- All landscaping to be provided with adequate irrigation



Landscaping Deep Soil Total Area

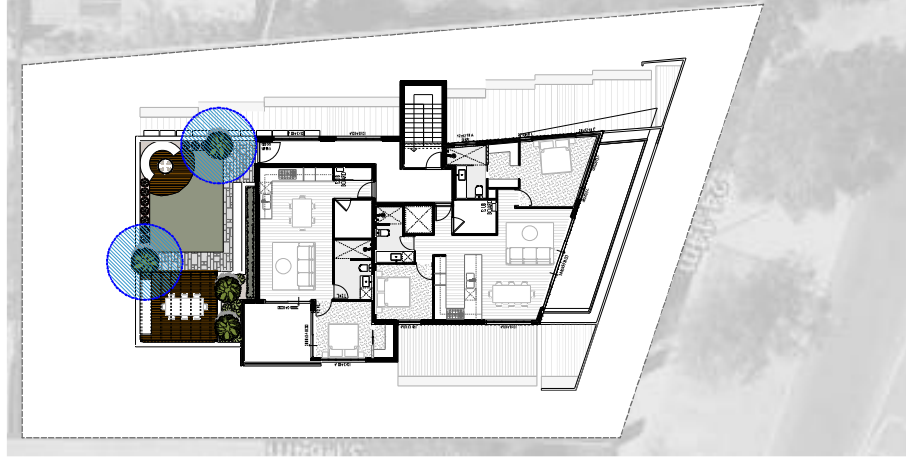
Landscape Proven: 275.00m2



Ground floor



Levels 1 & 2



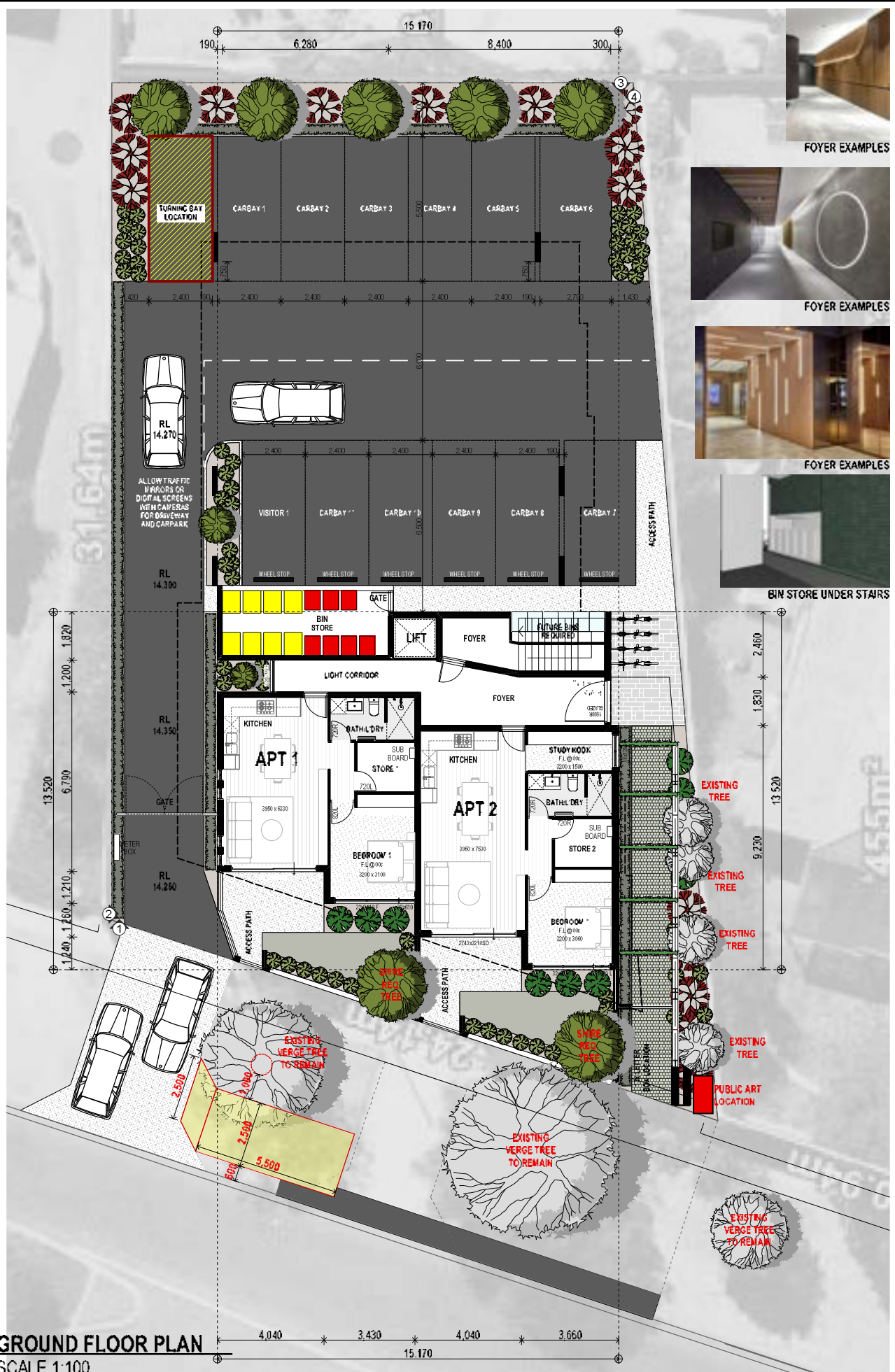
Levels 3

LANDSCAPING PLAN

SCALE 1:200

[illegible]

Building Areas	
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APT 03	51.61
APT 04	93.59
APT 05	88.53
APT 06	60.72
APT 07	111.59
APT 08	40.57
APT 09	93.60
APT 10	88.42
APT 11	60.30
APT 12	111.87
APT 13	41.22
APT 14	118.39
APT 15	70.68
APT 16	72.85
APT 17	33.05



FOYER EXAMPLES

FOYER EXAMPLES

FOYER EXAMPLES

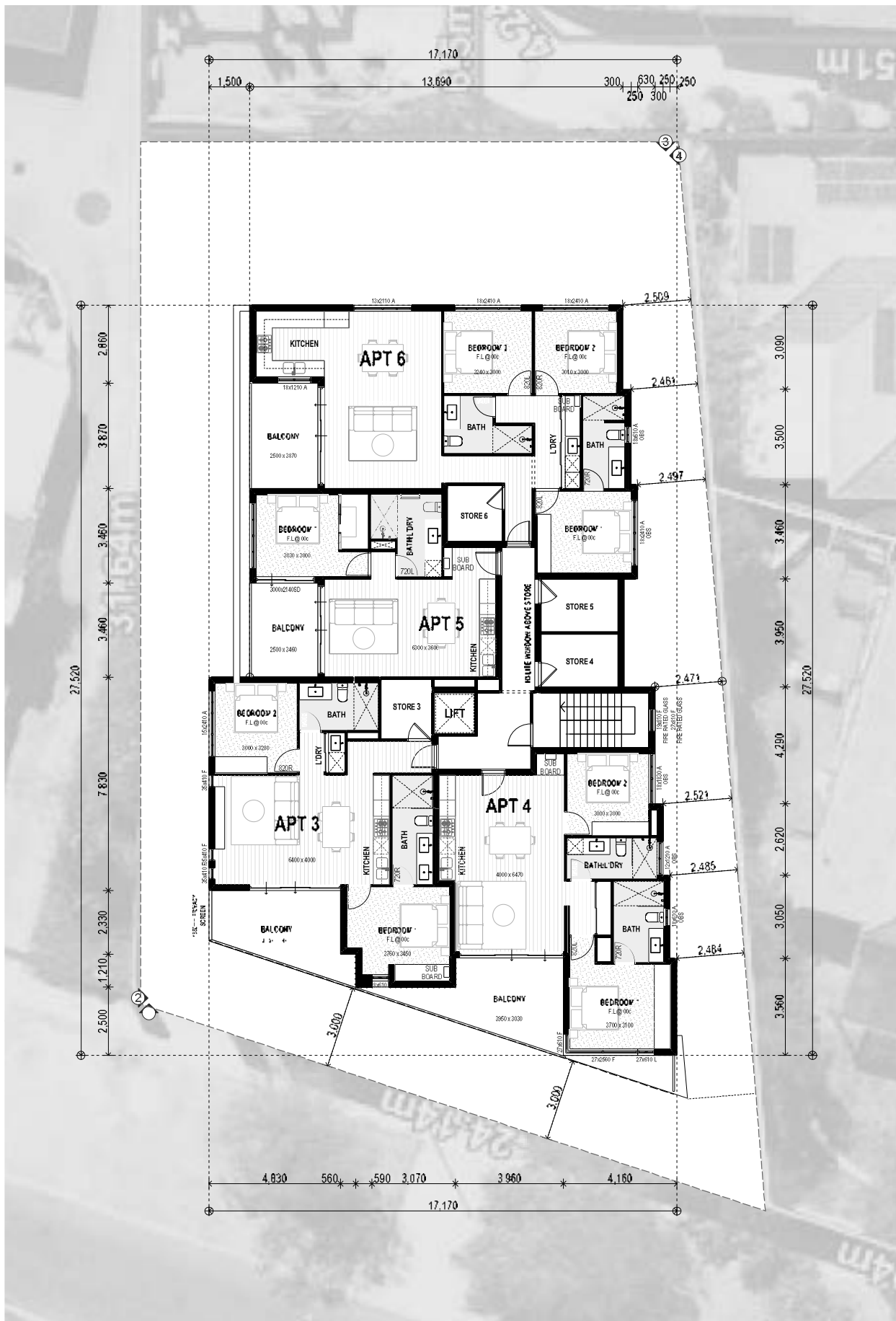
BIN STORE UNDER STAIRS

Client NUC HANGI Project Name Apartment Complex Project Address 31/64m	Drawing Title: Ground Floor Plan		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT DATED:		Version: 1.00 Description: Date: 21.04.23
	Scale: 1:100 Project No: 23014	Sheet Size: A2 Drawing No: WD007 of 22	OWNER: OWNER: BUILDER: WITNESS	Version: 2.00 Description: Date: 15.02.24	Unit: 3/1 Nuiqui Road, Malaga W.A 6090 (08) 9248 6392 www.germanodesigns.com.au

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APT 04	93.59
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APT 10	88.42
APT 11	60.20
APT 12	111.87
APT 13	41.22
APT 14	118.39
APT 15	70.68
APT 16	72.95
APT 17	33.05



FIRST FLOOR PLAN
SCALE 1:100

Client NUC HANGI Project Name Apartment Complex Project Address #11, Jalan ...	Drawing Title: First Floor Plan		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT DATED:/...../.....		Version 1.00 2.00	Description 	Date 21.04.23 16.02.24	GERMANO DESIGNS		
	Scale: AS SHOWN	Sheet Size: A2	OWNER:	OWNER:						
	Project No: 23014	Drawing No: WD008 of 22	BUILDER:	WITNESS						

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APT 04	93.59
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APT 09	93.60
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APT 11	60.20
APT 12	111.87
APT 13	41.22
APT 14	118.39
APT 15	70.88
APT 16	72.85
APT 17	33.15



SECOND FLOOR PLAN
SCALE 1:100

Client
NUC HANGI

Project Name
Apartment Complex

Project Address
#11, Jalan ...

Drawing Title:
Second Floor Plan

Scale:
AS SHOWN

Sheet Size:
A2

Project No.:
23014

Drawing No.:
WD009 of 22

THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT		Version	Description	Date
DATED:	OWNER:	1.00	ISSUED FOR PERMIT	21.04.23
		2.00	ISSUED FOR CONSTRUCTION	16.02.24
BUILDER:	WITNESS			

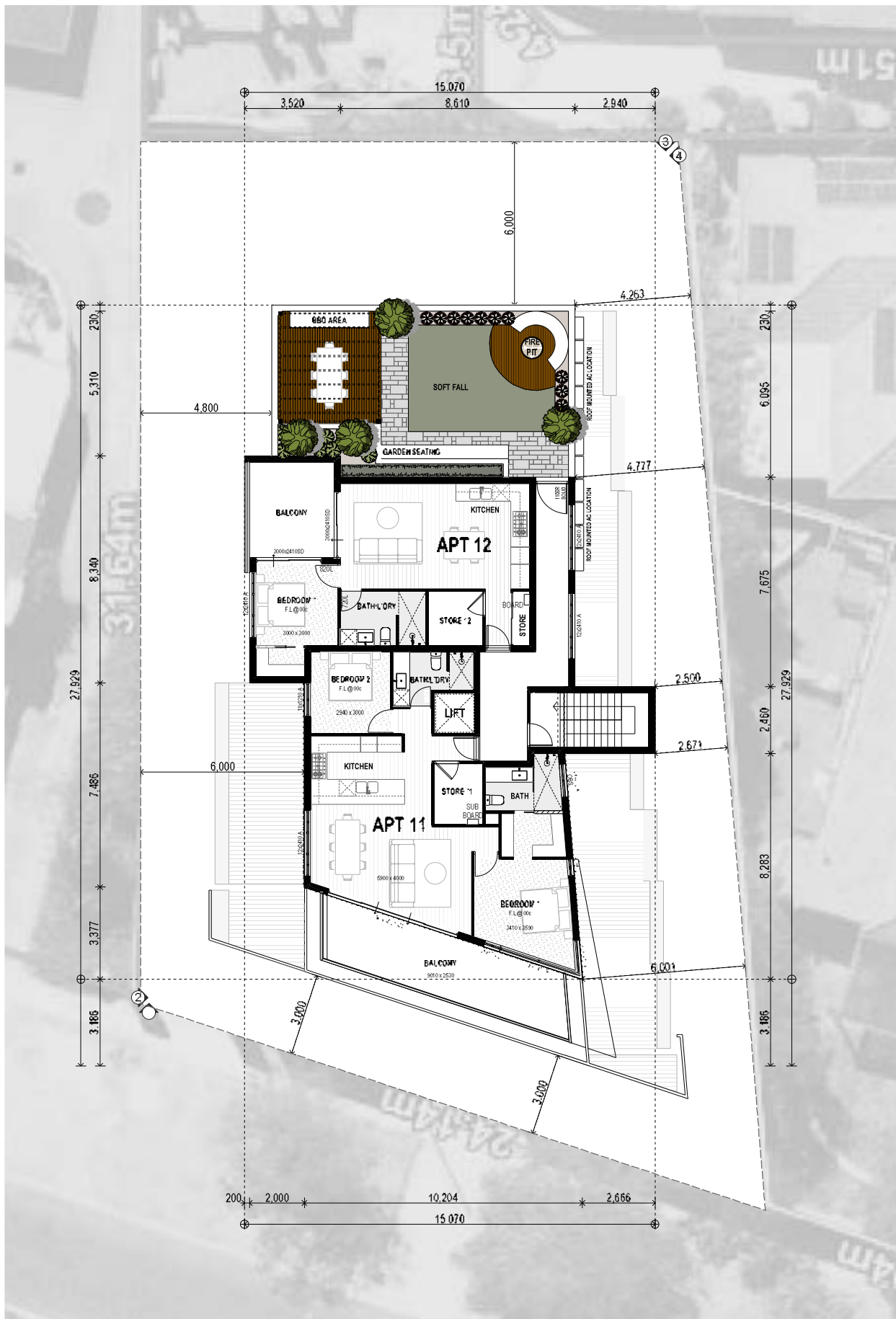
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Building Areas	
APT01	56.71
APT02	66.06
APT03	51.61
APT04	93.59
APT05	88.53
APT06	60.72
APT07	111.59
APT08	40.57
APT09	93.60
APT10	88.42
APT11	60.20
APT12	111.37
APT13	41.22
APT14	118.39
APT15	70.88
APT16	72.35
APT17	33.05



THIRD FLOOR PLAN
SCALE 1:100

Client
NUC HANGI

Project Name
Apartment Complex

Project Address
371 Muir Road, Malaga

Drawing Title:
Third Floor Plan

Scale:
AS SHOWN

Sheet Size:
A2

Project No:
23014

Drawing No:
WD010 of 22

THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT

DATED:/...../.....

OWNER:

OWNER:

BUILDER:

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Version	Description	Date
1.00	Initial Design	21.04.23
2.00	Final Design	16.02.24

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EXTERNAL FINISHES

GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand

FEATURE CLADDING
TO LEVEL 2.3.4 -
Color bond limedock
wall cladding in white

FEATURE TILING
Green tile laid stacked bond

WINDOW FRAMES -
Timber Timber look window frames

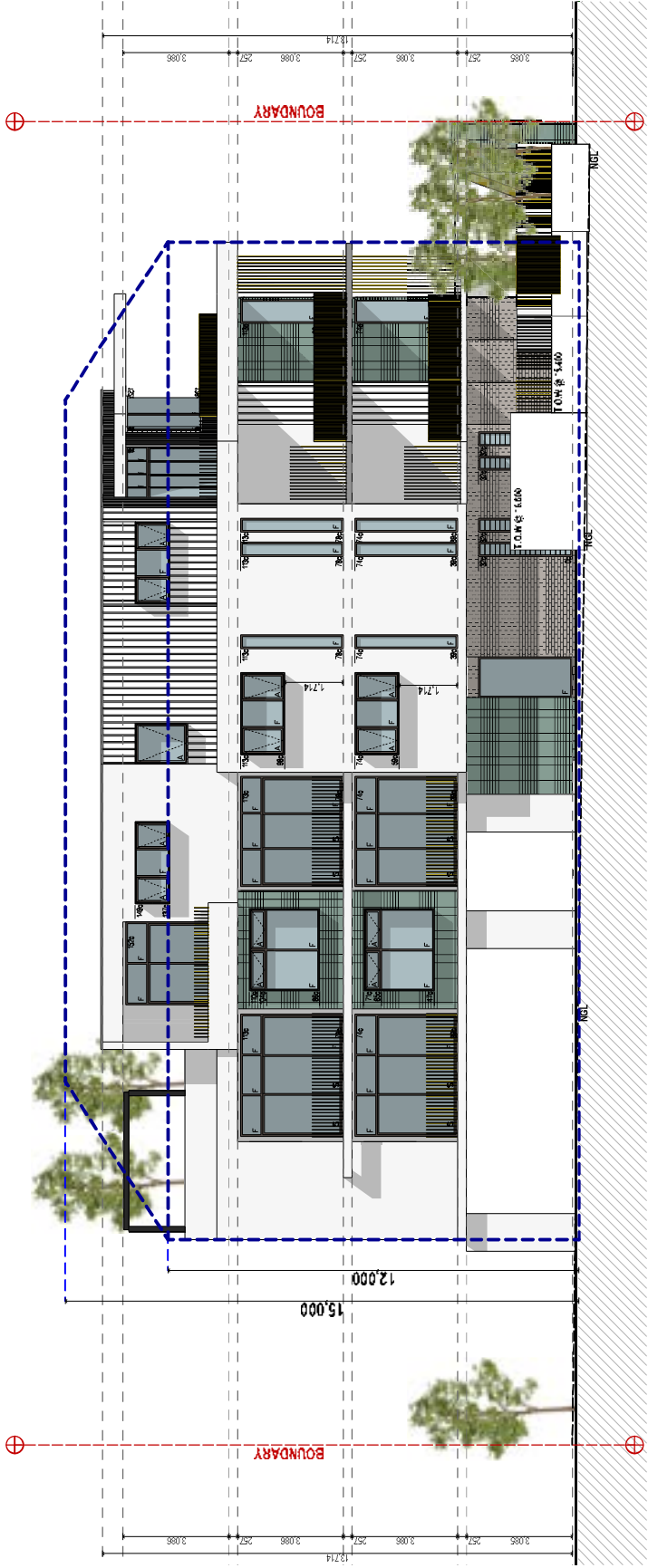
BALUSTRADE & FEATURE ENTRY
BEAMS - COPPER FINISH

EXTERNAL PLASTER - White
textured walls



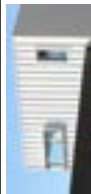
Western Elevation - E1 (Front Elevation)
Scale 1:100

Client NIA HANCI Project Name Apartment Complex Project Address Unit 2/1 Mergel Road, Malaga W A 6000	Drawing Title: External Elevations 01 Scale: 23014 Sheet Size: A2 Version: 23014 WD011 of 22	THIS IS ONE OF THE DRAWINGS ATTACHED TO THIS DRAWING		Version Description	Date
		OWNER:		1.00	21.03.23
		OWNER:		2.00	15.02.24
		OWNER:			
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		OWNER:			
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BUILDER:		UNLESS ONE OF THE DRAWINGS ATTACHED TO THIS DRAWING		Unit: 2/1 Mergel Road, Malaga W A 6000	
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EXTERNAL FINISHES	 GROUND FLOOR FEATURE FACE BRICK • Pure Earth Lc Grand	 FEATURE CLADDING TO LEVEL 2,3,4 • Color bond firmdock Green tile layer stacker bond	 WINDOW FRAMES • Timber timber look window frames	 BALUSTRADE & FEATURE ENTRY BEAMS • COPPER FINISH	 EXTERNAL PLASTER • White textured walls
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Client NIK HANG Project Name Apartment Complex Project Address 100-100, Road 111111	Drawing Title: External Elevations 02		Scale: 1:100	Sheet Size: A2	Version 1.00 2.00 3.00	Date 21.04.23 15.02.24	
	THIS IS ONE OF THE DRAWINGS BELONGING TO THE PROJECT						
DATE: / /					OWNER:		
OWNER:					OWNER:		
BUILDER:					BUILDER:		
WITNESS:					WITNESS:		
Unit 271 Malag Road, Malaga W A 6000					© COPYRIGHT 2023 BY GERMANS DESIGNS ALL RIGHTS RESERVED (08) 9249 8392 www.germansdesigns.com.au company		

EXTERNAL FINISHES													
GROUND FLOOR FEATURE FACE BRICK - Pure Earth Le Grand		FEATURE CLADDING TO LEVEL 2,3,4 - Color bond limedock wall cladding in white		FEATURE TILING Green tile laid stagger bond		WINDOW FRAMES - Timber Timber look window frames		BALUSTRADE & FEATURE ENTRY BEAMS - COPPER FINISH		EXTERNAL PLASTER - White textured walls			

Client		Project Name		Drawing Title:		Revision		Date		GERMANS DESIGNS	
NUK HANCI		Apartment Complex		External Elevations 03		1.00		21.03.23		Unit: 371 Mairal Road, Malaga W A 6000 (08) 9248 8392 www.germansdesigns.com.au	
Project Address		Scale:		Sheet Size:		2.00		15.02.24			
371 Mairal Road, Malaga		23014		A2							
		23014		WD013 of 22							
										OWNER:	
										OWNER:	
										BUILDER:	
										WITNESS:	

EXTERNAL FINISHES



**GROUND FLOOR FEATURE
FACE BRICK - Pure Earth Le Grand**



**FEATURE CLADDING
TO LEVEL 2,3,4.**
Color bond trimdeck
wall cladding in white



FEATURE TUNG



WINDOW FRAMES. Timber Timber look window frames



**BALUSTRADE & FEATURE ENTRY
BEAMS • COPPER FINISH**



EXTERNAL PLASTER - White textured walls



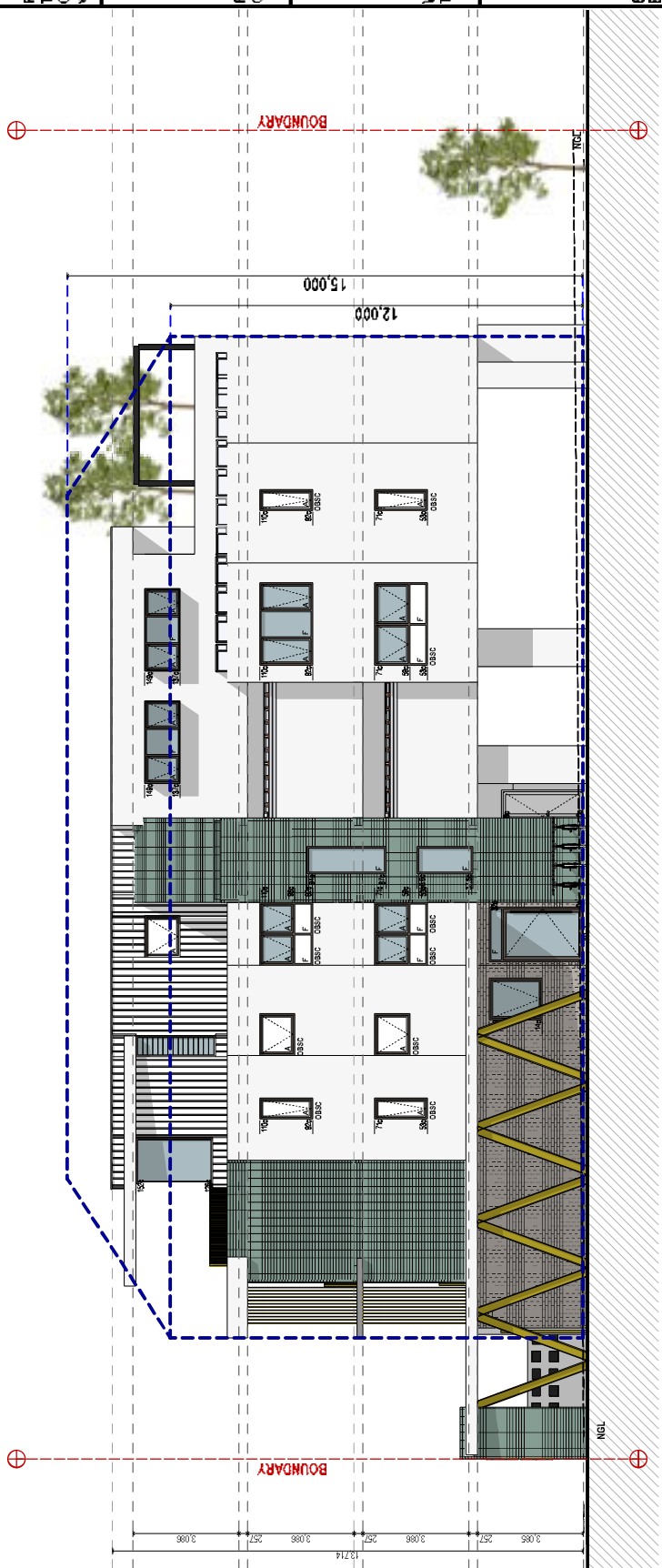
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2638 8P26 (80)

com party.



South Elevation - E4 (Right Elevation)

Scale 1-100

RECEIPT OF THE DEPOSITOR'S PROPERTY IN THE CREDIT		Verbal Description	Date
	DATED..... I	1.00 -	21.04.23
OWNER:		2.00 -	15.02.24
OWNER:			
BUILDER:			
WITNESS:			

Client NIRU HANCO	Drawing Title: External Elevations 04	
Project Name Apartment Complex	Scale: 1:100	Sheet Size: A2
Project Address 123 Main Street, City	Project No: 23014	Revision: WD014 of 22

--



Attachment 7. Applicant's Final
Submission:
d. Transport Noise Assessment
prepared by Herring Storer
Acoustics received 19 March 2024

JOE GERMANO

**RESIDENTIAL DEVELOPMENT
93 ODIN ROAD
INNALOO**

SPP 5.4 NOISE MANAGEMENT PLAN

FEBRUARY 2024

OUR REFERENCE: 32221-1-24026

DOCUMENT CONTROL PAGE

SPP 5.4 NOISE MANAGEMENT PLAN
93 ODIN ROAD
INNALOO

Job No: 24026

Document Reference: 32221-1-242026

FOR

93 ODIN ROAD, INNALOO

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4.	NOISE MODELLING	4
5.	TRAFFIC NOISE ASSESSMENT	5
6.	CONCLUSION	5

APPENDICES

A	Site Layout – Plans
B	Main Roads Traffic Flow Data

1. INTRODUCTION

Herring Storer Acoustics were commissioned by Germano Designs to carry out an acoustic study with regards to traffic related noise for the proposed residential development of 93 Odin Road, Innaloo.

The purpose of the study was to:

- Assess the noise that would be received within the development area from vehicles travelling on Odin Road for future traffic volumes.
- Compare the results with accepted criteria and if exceedances exist, develop the framework for the management of noise.

A plan is attached in Appendix A.

2. ACOUSTIC CRITERIA

2.1 NOISE

The Western Australian Planning Commission (WAPC) released on 6th September 2019 State Planning Policy 5.4 “Road and Rail Noise”. The requirements of State Planning Policy 5.4 are outlined below.

POLICY APPLICATION (Section 4)

When and where it applies (Section 4.1)

SPP 5.4 applies to the preparation and assessment of planning instruments, including region and local planning schemes; planning strategies, structure plans; subdivision and development proposals in Western Australia, where there is proposed:

- a) noise-sensitive land-use within the policy’s trigger distance of a transport corridor as specified in **Table 1**;*
- b) New or major upgrades of roads as specified in **Table 1** and maps (**Schedule 1, 2 and 3**); or*
- c) New railways or major upgrades of railways as specified in maps (**Schedule 1, 2 and 3**); or any other works that increase capacity for rail vehicle storage or movement and will result in an increased level of noise.*

Policy trigger distances (Section 4.1.2)

Table 1 identifies the State’s transport corridors and the trigger distances to which the policy applies.

*The designation of land within the trigger distances outlined in **Table 1** should not be interpreted to imply that land is affected by noise and/or that areas outside the trigger distances are un-affected by noise.*

*Where any part of the lot is within the specified trigger distance, an assessment against the policy is required to determine the likely level of transport noise and management/mitigation required. An initial screening assessment (**guidelines: Table 2: noise exposure forecast**) will determine if the lot is affected and to what extent.”*

TABLE 1: TRANSPORT CORRIDOR CLASSIFICATION AND TRIGGER DISTANCES

Transport corridor classification	Trigger distance	Distance measured from
Roads		
Strategic freight and major traffic routes <i>Roads as defined by Perth and Peel Planning Frameworks and/or roads with either 500 or more Class 7 to 12 Austroads vehicles per day, and/or 50,000 per day traffic volume</i>	300 metres	Road carriageway edge
Other significant freight/traffic routes <i>These are generally any State administered road and/or local government road identified as being a future State administered road (red road) and other roads that meet the criteria of either >=23,000 daily traffic count (averaged equivalent to 25,000 vehicles passenger car units under region schemes)</i>	200 metres	Road carriageway edge
Passenger railways		
	100 metres	Centreline of the closest track
Freight railways		
	200 metres	Centreline of the closest track

Proponents are advised to consult with the decision making authority as site specific conditions (significant differences in ground levels, extreme noise levels) may influence the noise mitigation measures required, that may extend beyond the trigger distance.

POLICY MEASURES (Section 6)

The policy applies a performance-based approach to the management and mitigation of transport noise. The policy measures and resultant noise mitigation will be influenced by the function of the transport corridor and the type and intensity of the land-use proposed. Where there is risk of future land-use conflict in close proximity to strategic freight routes, a precautionary approach should be applied. Planning should also consider other broader planning policies. This is to ensure a balanced approach takes into consideration reasonable and practical considerations.

Noise Targets (Section 6.1)

Table 2 sets out noise targets that are to be achieved by proposals under which the policy applies. Where exceeded, an assessment is required to determine the likely level of transport noise and management/mitigation required.

In the application of the noise targets the objective is to achieve:

- indoor noise levels as specified in **Table 2** in noise sensitive areas (for example, bedrooms and living rooms of houses, and school classrooms); and
- a reasonable degree of acoustic amenity for outdoor living areas on each residential lot. For non-residential noise-sensitive developments, for example schools and child care centres the design of outdoor areas should take into consideration the noise target.

It is recognised that in some instances, it may not be reasonable and/or practicable to meet the outdoor noise targets. Where transport noise is above the noise targets, measures are expected to be implemented that balance reasonable and practicable considerations with the need to achieve acceptable noise protection outcomes.

TABLE 2: NOISE TARGETS

Proposals	New/Upgrade	Noise Targets		
		Outdoor		Indoor
		Day ($L_{Aeq}(\text{Day})$ dB) (6 am-10 pm)	Night ($L_{Aeq}(\text{Night})$ dB) (10 pm-6 am)	(L_{Aeq} dB)
Noise-sensitive land-use and/or development	New noise sensitive land use and/or development within the trigger distance of an existing/proposed transport corridor	55	50	L_{Aeq} (Day) 40(Living and work areas) L_{Aeq} (Night) 35 (bedrooms)
Roads	New	55	50	N/A
	Upgrade	60	55	N/A
Railways	New	55	50	N/A
	Upgrade	60	55	N/A

Notes:

- The noise target is to be measured at one metre from the most exposed, habitable façade of the proposed building, which has the greatest exposure to the noise-source. A habitable room has the same meaning as defined in State Planning Policy 3.1 Residential Design Codes.
- For all noise-sensitive land-use and/or development, indoor noise targets for other room usages may be reasonably drawn from Table 1 of Australian Standard/New Zealand Standard AS/NZS 2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors (as amended) for each relevant time period.
- The 5dB difference in the criteria between new and upgrade infrastructure proposals acknowledges the challenges in achieving noise level reduction where existing infrastructure is surrounded by existing noise-sensitive development.
- Outdoor targets are to be met at all outdoor areas as far as is reasonable and practical to do so using the various noise mitigation measures outlined in the guidelines. For example, it is likely unreasonable for a transport infrastructure provider to achieve the outdoor targets at more than 1 or 2 floors of an adjacent development with direct line of sight to the traffic.

Noise Exposure Forecast (Section 6.2)

When it is determined that SPP 5.4 applies to a planning proposal as outlined in Section 4, proponents and/or decision makers are required to undertake a preliminary assessment using **Table 2**: noise exposure forecast in the guidelines. This will provide an estimate of the potential noise impacts on noise-sensitive land-use and/or development within the trigger distance of a specified transport corridor. The outcomes of the initial assessment will determine whether:

- no further measures is required;
- noise-sensitive land-use and/or development is acceptable subject to deemed-to-comply mitigation measures; or
- noise-sensitive land-use and/or development is not recommended. Any noise-sensitive land-use and/or development is subject to mitigation measures outlined in a noise management plan.”

3. NOISE LEVEL MEASUREMENT

A noise measurement was conducted at 8:30 AM, 5 February 2024 for a period of approximately 15 minutes to determine the L_{A10} noise level traffic. This time period has been identified as peak traffic period for the road to ensure of a conservative measurement. Traffic volume details for this road section are included in Appendix B.

Utilising this measurement, reference to the DEFRA publication (*Method for Converting the UK Road Traffic Noise $L_{A10,18h}$ to the EU Noise Indices for Road Noise Mapping, ref: st/05/91/AGG04442*) has been sought and the difference between the $L_{A10,18hr}$ and the $L_{Aeq,8hr}$ and the $L_{Aeq,16hr}$ has been calculated. The location of the measurements is shown in Appendix A.

Noise measurements were conducted with a Larson Davis 831 Sound Level Meter. The Sound Level Meter was calibrated prior to and after use with a Bruel and Kjaer 4230 Calibrator. All equipment used is currently NATA laboratory calibrated. Calibration certificates are available on request.

TABLE 3.1: SUMMARY OF MEASURED NOISE LEVELS

Measurement Location	Measured/Calculated Noise Level, dB(A)		
	L_{A10}	$L_{Aeq, day}$ (6am to 10pm)	$L_{Aeq, night}$ (10pm to 6am)
93 Odin Road, Innaloo	50.4	48.7	41.6

4. NOISE MODELLING

To determine the noise levels from traffic from Odin Road, acoustic modelling was carried out using SoundPlan, using the Calculation of Road Traffic Noise (CoRTN)¹ algorithms.

The input data for the model included:

- Topographical data, with the ground level within the development based on natural ground levels as per Google Earth.
- Development Application Plans (Shown in Appendix A).
- Road Traffic data as per Table 4.1.
- Adjustments as listed in Table 4.2.

TABLE 4.1 - NOISE MODELLING INPUT DATA

Parameter	Odin Road (Current) 2019	Odin Road (Future) 2044*
Traffic Volumes	18,380 vpd	30,750 vpd
Percentage traffic 0600 – 2400 hours (Assumed)	94%	94%
Heavy Vehicles (%) (Assumed)	6.9%	6.9%
Speed (km/hr)	60km/hr	60km/hr
Road Surface	Chip Seal	Dense Grade Asphalt

*Extrapolated from data supplied by MRWA, attached in Appendix B

¹ Calculation of Road Traffic Noise UK Department of Transport 1987

TABLE 4.2 – ADJUSTMENTS FOR NOISE MODELLING

Description	Value
Façade Reflection Adjustment	+2.5 dB
Conversion from L_{A10} (18 hour) to L_{Aeq} (16 hour) (Day)	-1.7 dB*

* Based on measured results listed in Table 4.1.

Based on the measured noise levels, the difference between the $L_{Aeq,(16hr)}$ and $L_{Aeq,(8hr)}$ is -7.1 dB, hence, the day period is the critical period for compliance. Hence, achieving compliance with the day period criteria would also result in compliance with the night period criteria.

5. TRAFFIC NOISE ASSESSMENT

Using the data contained in Tables 4.1 and 4.2, noise modelling was conducted and the highest noise level at the development has been calculated to be 50.1 dB(A). As a result, no Quiet House Design is required for this development, and no notifications on titles are required.

It is noted that all requirements pertain to only acoustic advice in regard to *State Planning Policy 5.4* and may be superseded by other requirements (BAL, Thermal, etc).

6. CONCLUSION

In accordance with the WAPC Planning Policy 5.4, an assessment of the noise that would be received within the development of 93 Odin Road, Innaloo from vehicles travelling on Odin Road has been undertaken.

In accordance with the Policy, the following would be the acoustic criteria applicable to this project:

External

Day	55 dB(A) L_{Aeq}
Night	50 dB(A) L_{Aeq}

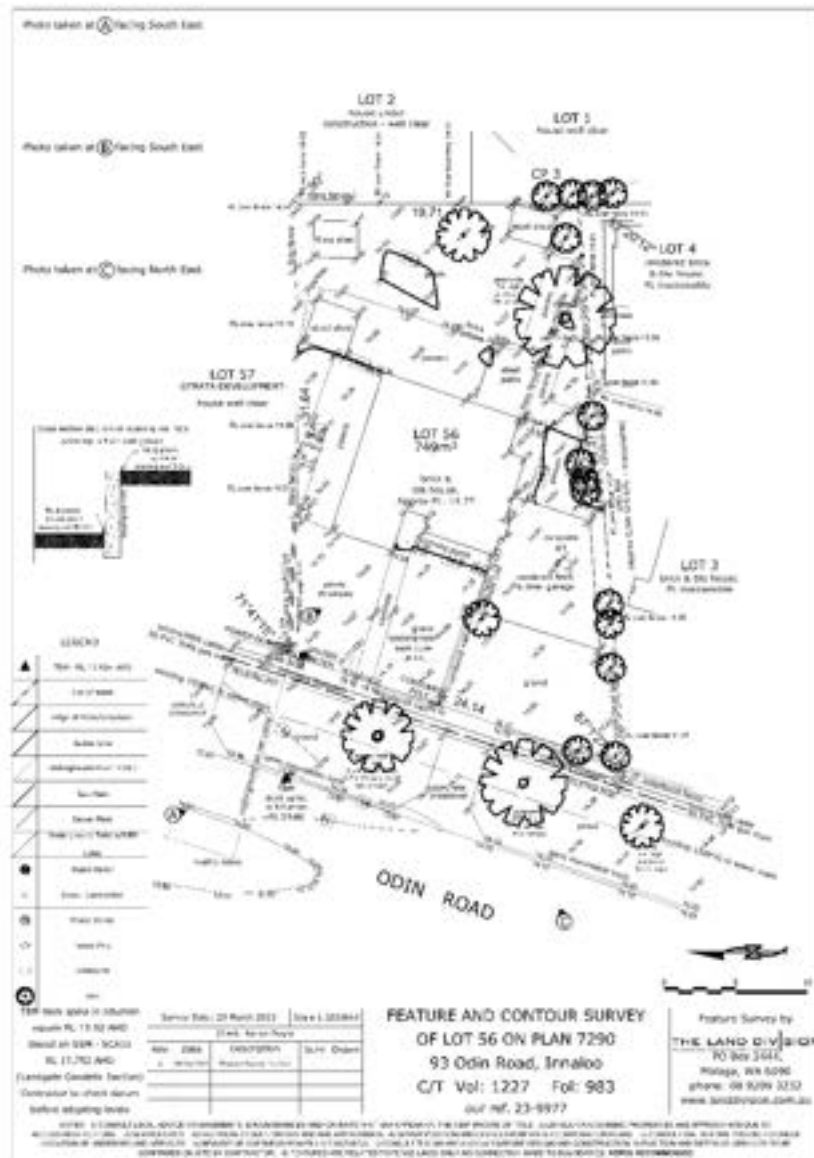
Internal

Sleeping Areas	35 dB(A) $L_{Aeq(night)}$
Living Areas	40 dB(A) $L_{Aeq(day)}$

The results of the acoustic assessment indicate that noise received at the development from future traffic, do not exceed external noise level criteria. Therefore, standard construction would meet the requirements of *State Planning Policy 5.4*, and Notifications on the Title would not be required.

APPENDIX A

Plans



SITE SURVEY
SCALE 1:200

Client M/CHANGE Project Name Apartment Complex Project Address 93 Odín Road, Innaloo	Drawing Title: Site Survey Sheet No: A2 Project No: 23014 WD004 of 19	THIS DRAWING IS THE PROPERTY OF GERMANDO DESIGNS AND IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF GERMANDO DESIGNS. OWNER: DATE: SCALE: REVISIONS:	GERMANDO DESIGNS 100/104 4300 www.germandodesigns.com.au GERMANDO DESIGNS 100/104 4300 www.germandodesigns.com.au
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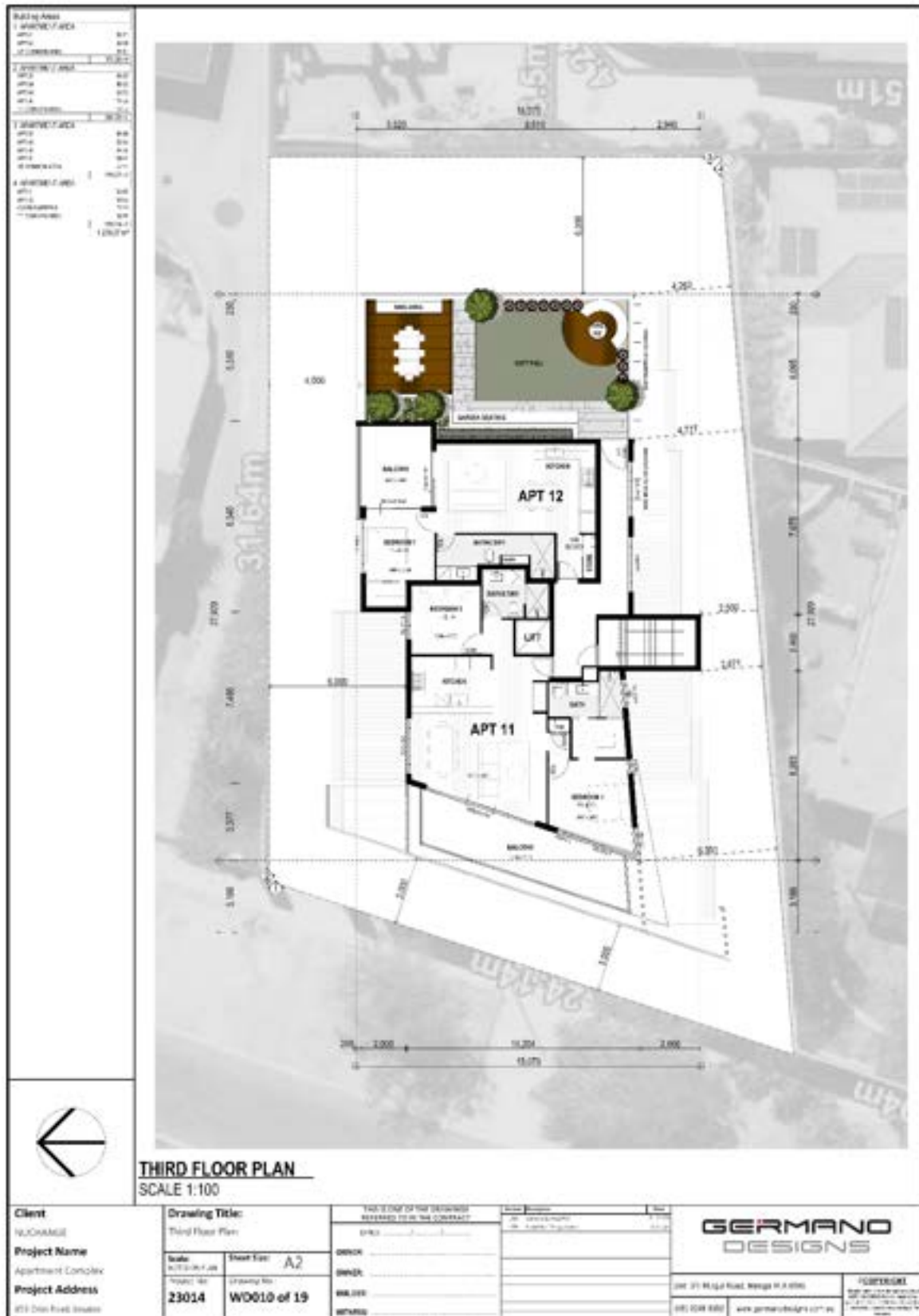




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SECOND FLOOR PLAN
SCALE 1:100

Client WJCMG LLC Project Name Apartment Complex Project Address 255 Dean Road, Boulder	Drawing Title: Second Floor Plan Scale: 1/8" = 1'-0" (1/4" = 1'-0") Sheet Size: A2 Drawing No.: 23014 WO#009 of 19	THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT DATE: _____ DESIGNER: _____ DRAWN: _____ CHECKED: _____ APPROVED: _____	GERMANO DESIGNS 255 DEAN ROAD, BOULDER, CO 80501 303.440.8800 www.germanodesigns.com
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APPENDIX B

MRWA TRAFFIC FLOW DATA

Hourly Volume

Odin Rd (1250104)

2018/19
Monday to Friday

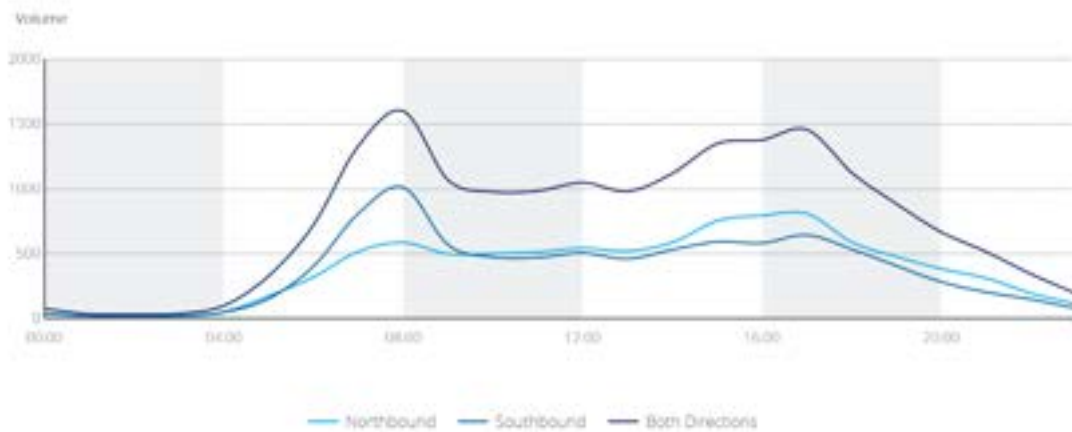
North of Scarborough Beach Rd (SLK 0.28)

	All Vehicles			Heavy Vehicles				
	NB	SB	Both	NB	SB	Both	%	
00:00	40	27	77	2	2	4	5.2	
01:00	18	17	35	1	0	1	2.9	
02:00	10	17	33	0	0	0	0.0	
03:00	21	18	39	2	0	2	5.1	
04:00	57	24	101	8	8	12	11.8	
05:00	176	153	331	31	7	38	11.5	
06:00	322	405	727	18	31	89	12.2	
07:00	520	813	1333	58	39	97	7.3	
08:00	586	1013	1599	48	44	92	5.8	
09:00	500	565	1068	50	34	84	7.9	
10:00	535	476	979	55	30	85	8.7	
11:00	514	472	986	57	27	84	8.5	
12:00	546	507	1051	62	33	95	9.0	
13:00	522	481	983	56	23	89	9.1	
14:00	588	513	1121	62	21	83	7.4	
15:00	756	594	1348	75	23	98	7.3	
16:00	755	583	1338	58	22	80	5.8	
17:00	811	675	1456	60	21	81	5.6	
18:00	560	536	1126	41	15	56	5.0	
19:00	478	467	885	22	9	31	3.5	
20:00	384	293	667	19	7	26	3.9	
21:00	317	204	516	11	9	20	3.9	
22:00	195	149	344	6	1	7	2.0	
23:00	114	82	194	5	2	7	3.6	
TOTAL	9357	9022	18379	864	397	1261	6.9	



Peak Statistics

AM	TIME	07:05	07:15	07:45	07:15	07:15	07:15
	VOL	569	1126	1519	63	45	98
PM	TIME	16:30	17:00	16:45	14:45	12:15	14:45
	VOL	632	675	1467	78	33	103



GERMANO DESIGN

93 ODIN ROAD
INNALOO

PRELIMINARY PART F5 NCC ASSESSMENT

FEBRUARY 2024

OUR REFERENCE: 32220-1-24026

DOCUMENT CONTROL PAGE

PRELIMINARY PART F5 NCC ASSESSMENT
INNALOO

Job No: 24206

Document Reference: 32220-1-24026

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APPENDICIES

A	Marked Up Plans
B	Extract of Part F5 of BCA

1.0 INTRODUCTION

Herring Storer Acoustics was commissioned to conduct an assessment of the proposed development, located at 93 Odin Road, Innaloo

Part F5 of the NCC details the requirements for sound transmission and insulation of residential type buildings.

2.0 NCC PROVISIONS

For Class 2 or 3 buildings, the appropriate sections of Part F5 relating to the acoustic criteria are attached in Appendix B for information. The following summarises the acoustic criteria:

2.1 WALLS

Wet to wet	$R_W + C_{tr}$ not less than 50
Living to living	$R_W + C_{tr}$ not less than 50
Wet to living	$R_W + C_{tr}$ not less than 50 plus discontinuous
Kitchens to living	$R_W + C_{tr}$ not less than 50 plus discontinuous

Note: Where kitchens are part of an open living area, kitchens are considered to be part of the living area and in these cases discontinuous construction is required. This also includes cases where kitchens are back-to-back, however, discontinuous construction is only required on one side.

2.2 FLOORS

Floors	$R_W + C_{tr}$ not less than 50
Impact Isolation	$L_{n,w}$ not more than 55 is recommended

Note: The impact isolation criteria under the BCA is an $L_{n,w}$ of not more than 62. However, we recommend a design criteria of an $L_{n,w}$ of not more than 55 be adopted for a development of this type.

2.3 SERVICE RISERS

to Habitable Rooms	$R_W + C_{tr}$ not less than 40
to Non-Habitable Rooms	$R_W + C_{tr}$ not less than 25

2.4 HYDRAULICS

The above requirements also apply to storm water down pipes.

2.5 DOORS

Door (Connecting)	R_W not less than 30.
-------------------	-------------------------

3.0 WALL CONSTRUCTIONS

From information provided, we understand that the walls are as outlined below. It is noted that all walls are normally full height (i.e. extend to the slab or roof above).

3.1 PARTY WALLS

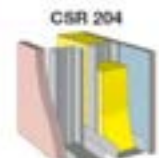
Walls separating sole occupancy units are understood to be proposed to be constructed of lightweight stud wall construction.

A mark up of the current drawings is attached in Appendix A, with the “blue” and “red” walls both requiring to provide an airborne sound isolation rating of at least an $R_w + C_{tr}$ not less than 50 dB.

The “red” walls are required to provide a discontinuous construction, the “blue” walls do not.

Based on previous projects, the following construction is proposed:

- A double steel stud construction with 2 layers of 13mm fire rated plasterboard on one side of the wall and 1 layer of 13mm fire rated plasterboard and 1 layer of 6mm CeminSeal Wallboard on the other side. 50mm thick, 11kg/m³ glasswool insulation is to be located in the cavity. The recommended wall system is akin CSR 204, an extract from the CSR catalogue is provided below.

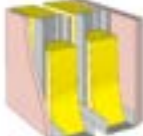
			WALL THICKNESS mm	100	200	250	300
~ /90/90 30/30/30		Scr One	(a) Nil	50/44	51/45	52/46	53/47
		2 x 13mm GyPROCK PYROCEK plasterboard.	(b) 50 GW Partition 11kg	50/50	50/51	60/52	61/53
E102017		Scr Two (Air Cavity)	(c) 75 GW Partition 11kg	60/52	60/52	61/53	62/54
		1 x 13mm GyPROCK PYROCEK plasterboard. 1 x 6mm CemerSeal™ Wallboard.	(d) TS83/ASB3 Polyester	57/51	58/52	59/53	60/54
			(e) 60 Soundscreen™ 1.6	50/50	60/51	61/52	62/53
			WALL THICKNESS mm	100	245	295	345

The above wall construction is considered sufficient to satisfy the BCA requirements for both “blue” and “red” walls, as the construction both meets the airborne sound isolation requirements and provides a discontinuous construction.

It is understood that a higher level of amenity between apartments may be desired to be achieved for this development. The Association of Australasian Acoustical Consultants have produced a star rating guide for apartments and townhouses, where various acoustic elements of an apartment development are rated in accordance with a star rating system, 1 – 6 stars.

Satisfying the BCA requirements, as listed above, corresponds with a 4 star rating for walls separating sole occupancy units. Should a “5 star” rating be desired to be attained, the airborne sound isolation requirements rise from an $R_w + C_{tr}$ rating of not less than 50 dB to an $R_w + C_{tr}$ rating of not less than 55 dB. Noting that this would be considered a **“Potential Acoustic Improvement”, and the cost implications would be needed to be considered.**

To achieve a 5-star rated separation between apartments, wall system CSR217 is suggested to be utilised, with the extract from the CSR catalogue.

FRL Report/Option	SYSTEM N°	WALL LININGS	CAVITY WIDTH mm				
			140	200	250	300	
			CAVITY INFILL (Refer to Section A)	R _w / R _w +C _w			
~ /90/90 30/30/30 FAP2357		Sor One 2 x 13mm GYPROCK PYROCHEK plasterboard. Sor Two 1 x 13mm GYPROCK PYROCHEK plasterboard.	(a) Nil	48/42	49/43	50/44	51/45
			(b) 2 x 50 GW Partition 11kg	60/52	60/52	61/53	62/54
			(c) 2 x 75 GW Partition 11kg	61/53	62/54	63/55	63/55
			(d) 2 x TSB3/ASB3 Polyester	59/53	60/54	60/54	61/55
			(e) 2 x 60 Soundscreen™ 1.6	61/52	62/53	62/53	63/54
			WALL THICKNESS mm		187	239	289
	CSR 218						

It is noted that the impact upon the overall wall thickness increases from 193mm to 289mm.

3.2 LIFT SHAFTS

Lift shafts walls are required to provide an R_w rating of not less than 50 dB and provide a discontinuous construction.

Whilst the construction of these shafts is not confirmed at this stage, it is considered highly likely that the shafts are likely to consist of concrete, and have been assumed to be a minimum of 150mm thick.

The assumed concrete construction provides sufficient airborne sound isolation to meet the requirements of the BCA, however, does not provide a discontinuous construction, which is required in some locations (walls marked in “magenta” on the attached plans).

To provide a discontinuous construction, a stud, offset from concrete shaft by a minimum of 20mm, lined with 13mm thick plasterboard should be included. Insulation is recommended to be included between the studs. 50mm thick, 11kg/m³ glasswool insulation is considered sufficient.

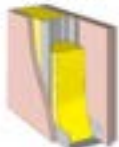
3.3 LOBBY, STAIRWELL AND STORE WALLS

Walls separating sole occupancy units from stairwells, lobbies/corridors and stores are marked in “green” on the attached plans.

These wall types are required to provide an R_w rating of at least 50 dB.

It is understood that a lightweight stud wall construction is proposed for these wall types.

It is suggested that a single stud construction, of at least 64mm depth, be utilised, sheathed with 2 layers of 13mm thick fire-rated plasterboard on one side of the stud and 1 layer of 13mm thick fire-rated plasterboard on the other side. The cavity is to include 75mm thick 14kg/m³ insulation. The recommended wall system is akin CSR 040, an extract from the CSR catalogue is provided below.

FRL Report/Option	SYSTEM N°	WALL LININGS	CAVITY WIDTH mm				WALL THICKNESS mm	
			CAVITY INFILL (Refer to Section A)	R _w / R _w +C _w				
- /90/90 and 30/30/30 FAP2357	 CSR 040	Sor One • 1 x 13mm GYPROCK PYROCHEK Plasterboard. Sor Two • 2 x 13mm GYPROCK PYROCHEK Plasterboard.	(a) Nil	40/33	42/35	43/36	44/37	47/41
			(b) 50 GW Partition 11kg	45/36	47/38	48/39	49/40	51/43
			(c) 75 GW Partition 14kg	—	50/41	50/41	51/42	53/45
			(d) TSB3/ASB3 Polyester	45/38	46/39	47/40	48/41	50/44
			(e) 60 Soundscreen™ 1.6	—	48/38	49/39	50/40	52/43
			WALL THICKNESS mm			90	103	115

The above wall type satisfies the NCC requirements for these wall types.

An acoustic improvement to the construction of the walls separating sole occupancy units from stairwells would include the introduction of a discontinuous construction to the wall type. It is noted that this would be considered a **“Potential Acoustic Improvement”, and the cost implications would be needed to be considered.**

3.4 PLANT ROOM WALLS

Walls separating sole occupancy units from plant rooms are marked in “magenta” in the attached marked up plans. These wall types are required to provide an airborne sound isolation of at least R_w of 50 dB and provide a discontinuous construction.

It is understood that a lightweight stud wall construction is proposed for these wall types.

It is suggested that a similar construction to the party walls is utilised for these walls. Given the lower airborne sound isolation requirements – relative to party walls – insulation can be omitted for these wall types, however, given the significant improvement attained by the inclusion of insulation it is recommended that insulation is utilised.

3.5 RISER SHAFTS

The riser shaft constructions are likely proposed to be constructed of plasterboard.

The following generic information is provided, based on typical construction methods.

Where shafts are separated from wet areas, we believe that the shafts are proposed to be constructed of one layer of 13mm fire-rated plasterboard, internally lined with 50mm thick 11kg/m^3 insulation (i.e. between the studs) - the construction is sufficient.

Where the riser shaft abuts habitable areas (including kitchens), to comply, the pipework located within the riser (assuming PVC piping) is to be wrapped with 25mm foam backed 5kg/m^2 loaded vinyl.

If quiet type pipe is used (e.g. Gerberit, Silenta or Raupiano Pipe), the wrapping detailed to habitable areas is not required.

Note: Access panels are not permitted in risers abutting habitable areas (including kitchens).

To provide a higher level of amenity for the finished product, it is suggested that quiet type pipe is used throughout the development, however, treated as PVC pipework in terms of what level of acoustic treatment is required – e.g. Within risers abutting habitable areas, wrapping the quiet type of pipe with 25mm foam back 5kg/m^2 loaded vinyl. Noting that this would be considered a **“Potential Acoustic Improvement”, and the cost implications would be needed to be considered.**

4.0 PROPOSED FLOOR CONSTRUCTION

Based on preliminary information, we believe that the floor construction would be a minimum of 200mm thick concrete, which complies with the airborne requirements of the NCC. This is sufficient for all vertical separation areas (i.e. apartment to apartment and apartment to commercial areas).

The NCC also calls for impact isolation and as previously discussed, it is recommended the $L_{n,w}$ of 55 be adopted. This can be achieved by either using:

- Carpet with underlay; or
- Install impact isolation layer under hard flooring.

Tiled / hard finished areas require additional treatment to meet the impact isolation requirement. This can be achieved with the use of impact isolation matting between the floor and tile / floorboard. There are several products available on the market. Evidence of acceptability should be provided, with testing in accordance with ISO 717.2.

The proposed construction is understood to consist of suspended ceiling.

Areas with a suspended ceiling below are likely to require a 5mm thick mat for hard floor finished areas.

It is noted that typically balconies do not require impact isolation treatment where they are not located above internal areas of apartments below. In this instance, the following balcony areas are located at least partially above internal areas below, and therefore, the entirety of these balcony areas require impact isolation treatment.

- Apartment 11 and Apartment 12.
- Third Floor Communal Area

It is noted that should a higher level of amenity be desired for footfall noise within the development, it is suggested that the design criteria to be achieved for the floors be reduced further from the recommended level of $L_{n,w}$ 55 dB to an $L_{n,w}$ of 50 dB – for apartments. Care should be taken in the adoption of this lower criteria as it may result in some hard floor finishes not being able to be installed (i.e. tiles), without further mitigation to ceilings, as the impact isolation criteria is not practicable to achieve. To assist in providing a higher level of impact isolation (i.e. lower $L_{n,w}$ rating), the inclusion of a resilient hung ceiling and acoustic insulation to the ceiling space below will improve upon the performance achieved by the isolation matting under the flooring. It is noted that this would be considered a **“Potential Acoustic Improvement”, and the cost implications would be needed to be considered.**

It is noted that the impact isolation criteria are not required to be met for apartments located above car parks, development facilities or commercial tenancies.

Note: To achieve compliance, it is important that the flooring does not breach the acoustic underlay and should not be installed up to and in contact with the walls and is to be installed as per the manufacture’s recommendations / details.

4.1 TYPICAL FLOORING CONSTRUCTS

The following summarises the typical flooring constructs that would be considered to be required for the project. It is noted that the following is a general guide only, with the final selection dependent on the exact floor finish selection.

At the stage of final selection of matting/flooring finish, it is recommended that either data from the intended product manufacturer is attained confirming the level of isolation expected to be achieved, or testing be carried out on samples during construction to confirm the effectiveness.

It is noted that carpet has been removed from the summary as, with underlay, carpet will typically provide an $L_{n,w}$ rating in the order of 20 – 35 dB, hence, complying with all potential criteria for impact isolation. This is also applicable to carpet in corridors.

To meet $L_{n,w}$ 55 dB

Timber flooring

Typically, timber flooring will require in the order of 3mm thick matting to meet this criteria, on the basis of a suspended ceiling below the flooring.

Tiles

Typically, tiles will require 5mm thick matting to meet this criteria, on the basis of a suspending ceiling below the flooring.

Balcony Tiles

Where balconies are located above apartment internal areas, it is understood that there is likely to be little to no ceiling space, hence these areas are considered to not have a ceiling below for the purposes of this assessment. Hence, a matting product in the order of 10mm thick is considered likely to be required for these areas.

To meet $L_{n,w}$ 50 dB (Potential Acoustic Improvement)

Timber flooring

Typically, timber flooring will require in the order of 5-8 mm thick matting to meet this criteria, on the basis of a suspended resilient ceiling below the flooring with insulation within the ceiling space.

Tiles

Typically, tiles will require 10mm thick matting to meet this criteria, on the basis of a suspending resilient ceiling below the flooring with insulation within the ceiling space.

Balcony Tiles

Where balconies are located above apartment internal areas, it is understood that there is likely to be little to no ceiling space, hence these areas are considered to not have a ceiling below for the purposes of this assessment. To meet a criteria of $L_{n,w}$ of 50 dB in these areas it is suggested that an impact isolation product similar to Regupol E48 or Regupol BA (It is noted that these products are heavy duty, under screed, matting products typically used for high traffic areas, however in this instance, it is considered that it may be the most efficient method to achieve the low rating with minimal spatial impact).

4.2 FLOORING POTENTIAL ACOUSTIC IMPROVEMENT CRITERIA

Based on the above constructions, should an improved acoustic amenity criteria be pursued, it is suggested that the most practical option – in terms of buildability and finished amenity within the apartments – is a criteria of $L_{n,w}$ 50 dB for living areas and $L_{n,w}$ 55 dB for tiled areas (wet areas). The balcony areas are suggested to be impractical to attempt much better than an $L_{n,w}$ of 55 dB, hence, these areas may be an exception to the rule for living areas.

It is noted that the above levels are recommended design levels. The actual level achieved may differ slightly from the above once installed (i.e. a measured level on site of $L_{nT,w}$ 57 – 58 dB would be considered sufficient to satisfy a design criteria of $L_{n,w}$ 55 dB).

The $L_{n,w}$ design criteria of not more than 55 dB (for all areas) remains as the recommended criteria to meet the NCC/BCA requirements intent and to meet industry standard levels.

5.0 PROPOSED SOIL & WASTE PIPES CONSTRUCTION

No details regarding the proposed treatment of the pipes have been provided for apartment services at this preliminary stage, hence, the following is provided as a guide for acceptable constructions.

As previously suggested for riser shaft constructions, if a higher level of amenity for the finished product is desired to be achieved, the following advice could be utilised replacing PVC piping with “quiet type” pipe – i.e. utilise “quiet type” pipe throughout the development but acoustically treat the pipe as if it is PVC pipework.

5.1 PIPEWORK ABOVE HABITABLE ROOMS

Quiet Type Pipe

No Penetrations in Ceiling

If the pipes used are “quiet type” pipe (e.g. Silenta or Raupiano Plus Pipe) and there are no penetrations in the ceilings/bulkheads for exhaust fans, down lights etc. and 50mm thick insulation is laid over the ceiling then only single wrapping of pipes using a minimum 12mm foam backed 4kg/m² loaded vinyl wrap is required.

Penetrations in Ceiling

If the ceiling contains penetrations, but with 50mm thick insulation laid over the ceiling, then pipes require to be wrapped with a minimum 25mm foam backed 5kg/m² loaded vinyl.

PVC Pipe

No Penetrations in Ceiling

If the pipes used are PVC and there are no penetrations in the ceilings/bulkheads for exhaust fans, down lights etc. and 50mm thick insulation is laid over the ceiling then wrapping of pipes using minimum 12mm foam backed 4kg/m² loaded vinyl wrap and an additional layer of 25mm foam backed 5kg/m² loaded vinyl is required.

Penetrations in Ceiling

If the ceiling contains penetrations, but with 50mm thick insulation laid over the ceiling, then pipes require to be wrapped with a minimum of two layers of 25mm foam backed 5kg/m² loaded vinyl.

5.2 PIPEWORK ABOVE WET AREAS

Quiet Type Pipe

No Penetrations In Ceiling

If the pipes used are quiet type pipe (e.g. Silenta or Raupiano Plus Pipe) and there are no penetrations in the bulkheads for exhaust fans, down lights etc. and 50mm thick insulation is laid over the ceiling then no further treatment is required.

Penetrations in Ceiling

If the ceiling contains penetrations and with 50mm thick insulation, pipes require minimum 12mm foam backed 4kg/m² loaded vinyl wrap.

6.0 POTENTIAL ACOUSTIC IMPROVEMENTS SUMMARY

The following summarises the areas that have been suggested to be improved to provide a higher level of amenity than what is provided by meeting BCA requirements alone. These suggestions are made based on typical areas where we have been asked to undertake “troubleshooting” for other developments – regardless of compliance with BCA criteria. These would be considered a **“Potential Acoustic Improvement”, and the cost implications would be needed to be considered.**

Discontinuous Walls

Provision of discontinuous construction to stairwell walls to reduce the level of structure borne noise that may be transmitted through the use of the stairs. It is noted similar could apply to party walls separating habitable areas where a TV is likely to be mounted to a wall.

Soil and Waste Pipes

Utilising “quiet type” piping throughout the development yet treating the pipework as if it was PVC pipework in accordance with the BCA. The result would be in excess of the BCA and assist in the reduction of any hydraulic noise that may present in apartments.

Floor Impact Isolation

It is highly recommended to adopt a criteria of $L_{n,w}$ 55 dB for all flooring throughout the development to provide a sufficient level of amenity with the development. It is noted that this level of impact isolation is recommended for all developments. Should a higher level of amenity be attempted to be achieved, a level of 50 dB could be adopted. Care should be taken in setting a criteria this low as, whilst the resultant level of impact isolation would provide a higher level of amenity, the practicality of such a criteria may result in not being able to use some hard floor finishes, such as tiles. It is likely that only timber or vinyl plank flooring would be able to be utilised – other than carpet.

If the lowering of the impact isolation criteria is pursued, it is recommended to apply the lower criteria to living areas, including kitchens (i.e. not to bathrooms/other wet areas).

“Five Star” Party walls

For a higher level of separation between apartments, the use of the AAAC star rating system could be utilised. BCA requirements aligns with a “4 star” level of separation. Should a “5 star” separation be desired, wall constructs have been recommended in the relevant section above. It is noted that the wall thickness is estimated to increase by approximately 100mm.

APPENDIX A

MARKED UP PLANS

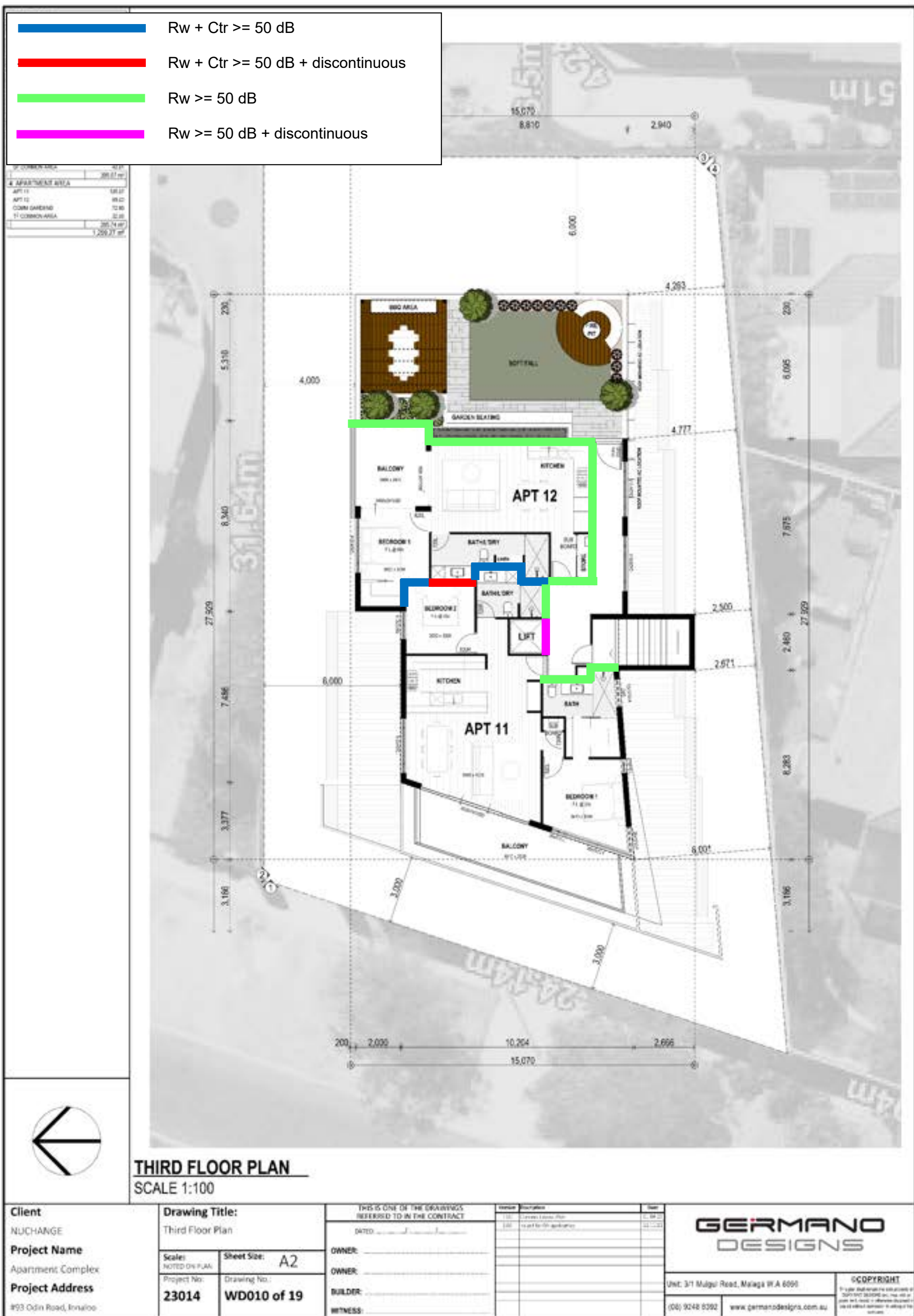
	Rw + Ctr >= 50 dB
	Rw + Ctr >= 50 dB + discontinuous
	Rw >= 50 dB
	Rw >= 50 dB + discontinuous

SP COMMON AREA	42.00
APARTMENT AREA	285.21 m ²
APT 11	58.00
APT 10	88.00
COMMON GARDENS	72.00
SP COMMON AREA	32.00
	285.21 m ²



SECOND FLOOR PLAN
SCALE 1:100

Client NUCHANGE Project Name Apartment Complex Project Address #93 Odlin Road, Innaloo	Drawing Title: Second Floor Plan		THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT DATED: _____		Version 1.000 - Complete Floor Plan 1.001 - Issued for SH application	Date 12/09/23 22/11/23	GERMANO DESIGNS Unit: 3/1 Mulgoi Road, Malaga WA 6000 (08) 9248 8392 www.germanodesigns.com.au		COPYRIGHT All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without prior written permission from the publisher.
	Scale: NOTED ON PLAN Project No: 23014	Sheet Size: A2 Drawing No.: WD009 of 19	OWNER: OWNER: BUILDER: WITNESS:						



APPENDIX B

EXTRACT OF PART F5 OF BCA

WALLS

"F5.5 Sound Insulation Rating of Walls

- (a) A wall in a Class 2 or 3 building must-*
 - (i) have an $R_w + C_{tr}$ (airborne) not less than 50, if it separates sole-occupancy units; and*
 - (ii) have an R_w (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and*
 - (iii) comply with F5.3(b) if it separates:*
 - (A) a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or*
 - (B) a sole-occupancy unit from a plant room or lift shaft.*
- (b) A door may be incorporated in a wall in a Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30.*
- (c) A wall in a Class 9c aged care building must have an R_w not less than 45 if it separates-*
 - (i) sole-occupancy units; or*
 - (ii) a sole-occupancy unit from a kitchen, bathroom, sanitary compartment (not being an associated ensuite), laundry, plant room or utilities room.*
- (d) In addition to (c), a wall separating a sole-occupancy unit in a Class 9c aged care building from a kitchen or laundry must comply with F5.3(b).*
- (e) Where a wall required to have sound, insulation has a floor above, the wall must continue to-*
 - (i) the underside of the floor above; or*
 - (ii) a ceiling that provides the sound insulation required for the wall.*
- (f) Where a wall required to have sound, insulation has a roof above, the wall must continue to-*
 - (i) the underside of the roof above; or*
 - (ii) a ceiling that provides the sound insulation required for the wall."*

Where F.3(b) states:

- “(b) A wall in a building required to have an impact sound insulation must-*
- (i) for a Class 2 or 3 building be of discontinuous construction.*
 - (c) For the purposes of this part, discontinuous construction means a wall having a minimum 20mm cavity between 2 separate leaves: and*
 - (i) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and*
 - (ii) for other than masonry, there is no mechanical linkage between leaves except at the periphery.”*

FLOORS

“F5.4 Sound Insulation Rating of Floors

- (a) A floor in a Class 2 or 3 building must have an $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w}$ (impact) not more than 62 if it separates-*
- (i) sole-occupancy units; or*
 - (ii) a sole-occupancy unit from a plant room lift shaft, stairway, public corridor, public lobby or the like or part of a different classification.”*

As recommended by the Association of Australian Acoustical Consultants, the design objective of an $L_{n,w}$ of 55 is recommended to be utilised for impact isolation between floors of apartments.

SOIL & WASTE PIPES

“F5.6 Sound Insulation Rating of Services

- (a) If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an $R_w + C_{tr}$ (airborne) not less than-*
- (i) 40 if the adjacent room is a habitable room (other than a kitchen); or*
 - (ii) 25 if the adjacent room is a kitchen or non-habitable room.*
- (b) If a storm water pipe passes through a sole-occupancy unit it must be separated in accordance with (a)(i) and (ii).*

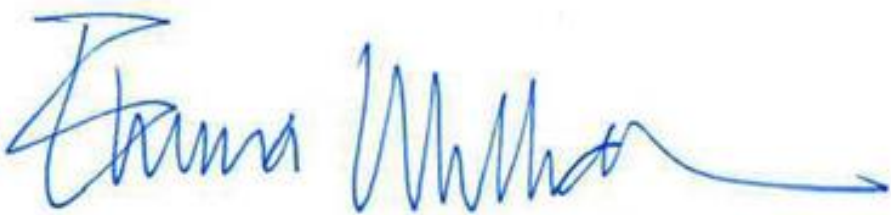
DOCUMENT END

Design Review Report – Item 1

Local government:	City of Stirling	
Item no.:	Item 1 – PDA23/0087 – 93 Odin Road, Innaloo – Pre Development Application – 12 Multiple Dwellings	
Chairperson:	Emma Williamson	
Panel members:	Philip Gresley Lisa Shine David Karotkin	
Local government officers:	James Fletcher Cameron Howell Simone Palmer	Acting Coordinator Planning Senior Planning Officer DRP Support Officer
Observers	Kelly Douglas	Client Liaison Officer
Date:	12 October 2023	Time: 2pm
Venue:	City of Stirling – Challenger Room	

Proponent/s		
	Mr Carlo Famiano	CF Town Planning & Development (Applicant)
	Mr Joe Germano	Germano Designs
	Owners	Pezming Pty Ltd
Observer/s	Claudia Datilo	Germano Designs

Briefings		
Development assessment overview	Cameron Howell	Senior Planning Officer
Technical issues	Cameron Howell	Senior Planning Officer
Design Review		
Proposed development	Item 1 – PDA23/0087 – 93 Odin Road, Innaloo – Pre Development Application – 12 Multiple Dwellings	
Property address	93 Odin Road, Innaloo	
Background		
Proposal		
Applicant or applicant's representative address to the design review panel	Carlo Famiano	CF Town Planning & Development
Key issues / recommendations	The Panel thanked the applicant for their presentation in addition to the collaborative conversation during the DRP session. Whilst the yield of the development has been reduced by one apartment since the previous DRP the overall bulk and scale of the project has not been impacted and this remains a significant concern for the Panel	

	members. It is considered to have a negative impact on resident amenity (as seen through the over reliance on high light windows) as well as neighbouring properties (through the impacts to privacy and overlooking, as well as future development outcomes for these sites.) Sustainability forms an important part of every development and must be addressed alongside and integrated with both the building and landscape approach to the site. Refer to attached Design Quality Evaluation Report.
Chairperson signature	

Design quality evaluation
Item 1 – PDA23/0087 – 93 Odin Road, Innaloo – Pre Development Application – 12 Multiple Dwellings
DRP Meeting – Thursday 12 October 2023

	<i>Design Principle satisfied</i>
	<i>Design Principle pending further attention</i>
	<i>Design Principle not satisfied</i>
Principle 1 Context and character	<i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>
	1a. The Panel support the aesthetic response of the development to the context, however remains concerned in relation to the impact of the reduced setbacks on neighbours and the negative impact this may have on the future development of neighbouring sites. 1b. The Panel reiterated the need for drawings that describe the proposal in both the current and future context to better understand the impacts. 1c. The Panel support the inclusion of pathways allowing direct access to the ground floor apartments from the street.
Principle 2 Landscape quality	<i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i>
	2a. The Panel reiterated the importance of the early engagement of a landscape architect, noting that they may assist in the development of an integrated site plan. The landscape should not exist solely in space left over after the building has been designed and should work hand in hand with the building design and site planning. 2b. Further information was requested by the Panel in relation to landscaping. Clarification of deep soil calculations and species of plants used throughout the proposal should form a part of this. 2c. The Panel expressed support for the retention of existing trees. 2d. There was concern expressed by the Panel around the viability and maintenance of the west-facing garden beds and how access will be gained to maintain these. Clarification is sought from the applicant. 2e. It was also mentioned by the Panel some garden beds could pose a safety issue, allowing access from one unit to another via the landscape garden beds. 2f. Comment was made by the Panel there is an opportunity to apply further thought to the upper-level communal area. The Applicant was encouraged to think about the amenity of the space with consideration given to how it will be used by the residents. It is currently small, does not include shade and no indication of furniture has been given. These elements will impact the usability of the space and have impacts on the acoustic amenity and privacy of unit 12. 2g. It was suggested by the Panel the width of the pedestrian accessway to the street could be rationalized to allow more space for planting, with a particular focus on areas of deep soil that will allow for meaningful tree canopy.
Principle 3 Built form and scale	<i>Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.</i>
	3a. The Applicant was urged to think about the impacts of the setbacks. A series of sections is required to illustrate the impact the proposed building will have on neighbouring properties. Consideration must be given to overshadowing, overlooking and future development of neighbouring sites. 3b. The Panel acknowledged the reconfiguration of the balconies is a positive improvement to the design with each balcony having some access to northern light and views. 3c. The Panel does not support the reliance on high-level windows on the southern side of the development.

	3d. The Panel was supportive of the separation of vehicle and pedestrian access. 3e. Comment was made by the Panel the storerooms on the upper level are negatively impacting the amenity of the corridors and consideration should be given to relocating these. The suggestion was made that several of the apartments could be more efficiently planned and this may assist in this regard. 3f. The Panel note the reduction in yield by one apartment alongside the small reduction in overall square meters of the overall building (of approximately 20m) as a result of ensuring room sizes are consistent with the expectations of the R-Codes. The reduction in the number of apartments has had little impact on the bulk and scale of the building. 3g. Comment was made the closed fire stairs have negatively impacted the design and the Applicant was encouraged to think of ways to open up and improve this through an alternative solution.
Principle 4 Functionality and build quality	<i>Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.</i>
	4a. The Panel expressed concern in relation to the functionality of some of the apartment layouts. The Applicant is encouraged to apply further thought to apartment three and seven and test the space represented on the plans between the dining table and the oven. Additionally, consideration should be given to the ability for large items of furniture such as beds to be moved into apartments through narrow corridors and around corners. 4b. It was mentioned by the Panel apartment four has good storage space and it may be beneficial to consider ways to achieve this in other apartments. 4c. Comment was made by the Panel apartment five has a large kitchen for a one bedroom apartment. Refinement of this apartment may free up space that could positively impact the overall building bulk, improve amenity of the corridors and enhance the functionality of the apartment. 4d. It was noted by the Panel there is no BIR shown on the plans for apartment six which may have been overlooked. 4e. The Panel expressed concern in relation to the usability of the open space linked to apartment twelve, noting the narrowness of the area and the proximity to the communal outdoor space.
Principle 5 Sustainability	<i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i>
	5a. The Panel stated sustainability needs to be addressed and encouraged the Applicant to engage a sustainability expert early in the process and make a commitment to sustainability that is embedded in the design response. 5b. Further information in relation to sustainability is required and the Applicant was urged to give consideration to the large number of ways the design can positively respond to sustainability above and beyond passive measures achieved through site planning and design. These could include onsite water management, increasing tree canopy and the use of recycled and sustainable materials. 5c. The Panel commented that diagrams describing the impacts of shading devices, solar access and natural ventilation should be included in the presentation. The Panel noted the importance of light and ventilation to corridors in a manner that is easily manageable by residents.
Principle 6 Amenity	<i>Good design optimises internal and external amenity for occupants, visitors and neighbours providing environments that are comfortable, productive and healthy.</i>
	6a. The Panel noted there is an improvement in relation to the amenity of the balconies and stated their north orientation is a positive. 6b. The Panel do not support the office without a window as this outcome will not permit natural ventilation or light penetration into the room.

	6c. The Panel do not support the reliance on high light windows to habitable rooms on the southern side of the development. The Panel note that the size of the windows has been increased but this does not adequately address the expectations of the R-Codes. 6d. Comment was made by the Panel the fully enclosed stairs have a negative impact on the design, first at the ground floor and then on the amenity of the landings on each floor. 6e. The Panel note that clarity in relation to the location of air conditioning condensers has not been provided in the drawings.
Principle 7 Legibility	<i>Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.</i>
	7a. The Panel note the improvements to the design in relation to legibility and generally support this principle. 7b. The Panel commented the removal of a car bay to allow for pedestrian access has resulted in a more legible carpark. 7c. A suggestion was made by the Panel there is an opportunity to incorporate a wider pedestrian entry at the front of the building by reorientating the letterbox. This will assist with increasing visibility and legibility of the pedestrian entry. 7d. The Applicant was also encouraged to consider ways in which landscaping could be used to further increase the identity of the development and its interface with the neighbourhood. 7e. The Panel commented that the creation of a small recess to the ground floor apartment entries would enhance the identity of these units.
Principle 8 Safety	<i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i>
	8a. The Panel maintain concern in relation to the management of traffic as a result of the single lane access. It was suggested it may be beneficial to increase the width of the crossover and include a pullover bay to prevent vehicles reversing out onto the street. The Panel recommend discussion with the relevant City officer to ensure this is adequately addressed. A traffic management plan may be required. 8b. The Panel commented that the inclusion of the security gate at the street interface is positive in terms of safety.
Principle 9 Community	<i>Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.</i>
	9a. The Applicant was urged to demonstrate the manner in which the silver livable standard has been achieved on a minimum of two apartments. 9b. Comment was made by the Panel there is opportunity to communicate more clearly what is being offered to the community at a neighborhood level. Development of the streetscape landscape will be important in this regard. 9c. The Panel encouraged the Applicant to think about the usability of the communal area on the upper floor, ensuring a high level of amenity is being offered to the community of residents.
Principle 10 Aesthetics	<i>Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.</i>
	10a. The Panel stated they are comfortable with the aesthetics of the project and support the materials and colour palette. 10b. The Panel note that while the aesthetics of the building are supported it may be necessary to adjust the composition in response to the bulk and scale of the project and the refinement of the plan.

Design Review progress**Item 1 – PDA23/0087 – 93 Odin Road, Innaloo - – Pre Development Application – 13 Multiple Dwellings
DRP Meeting – Thursday 12 October 2023 and 22 June 2023**

	<i>Design Principle satisfied</i>			
	<i>Design Principle pending further attention</i>			
	<i>Design Principle not satisfied</i>			
		<i>DR1 22/6/2023</i>	<i>DR2 12/10/2023</i>	<i>DR3</i>
Principle 1 - Context and character				
Principle 2 - Landscape quality				
Principle 3 - Built form and scale				
Principle 4 - Functionality and build quality				
Principle 5 - Sustainability				
Principle 6 - Amenity				
Principle 7 - Legibility				
Principle 8 - Safety				
Principle 9 - Community				
Principle 10 - Aesthetics				

Recommendations Summary
Item 3 – PDA23/0047 – 93 Odin Road, Innaloo

DR1 – DRP Recommendations DRP Meeting – 22/6/2023	DR2 – Applicant Response DRP Meeting – 22/6/2023	DR2 DRP Recommendations DRP Meeting – 12/10/2023	DR2 – Applicant Response DRP Meeting – 12/10/2023
1a. It was suggested by the Panel that the applicant looks at contemporary apartment designs that have been approved locally to ensure the product is competitive in its context. 1b. The Panel support the Applicants' aesthetic response to context and encourages the further development of the proposal to consider the opportunity of increased streetscape interface, and the compromises that are impacting the overall outcome as a result of reduced setbacks and the intensity of the development.	Not provided.	1a. The Panel support the aesthetic response of the development to the context, however remains concerned in relation to the impact of the reduced setbacks on neighbours and the negative impact this may have on the future development of neighbouring sites. 1b. The Panel reiterated the need for drawings that describe the proposal in both the current and future context to better understand the impacts.	
2b. The Applicant was strongly encouraged to engage the services of a landscape architect at an early stage. 2c. Comment was made by the Panel additional landscaping and deep soil needs to be integrated into the proposal to ensure a successful outcome and meet or exceed the minimums stated in the R Codes. 2d. It was stated by the Panel the visualisations showed a large number of trees on the site. The visualisations need to reflect the context more accurately. 2e. Comment was made by the Panel there is an opportunity to retain some of the existing trees on the site. This is encouraged.	Not provided.	2a. The Panel reiterated the importance of the early engagement of a landscape architect, noting that they may assist in the development of an integrated site plan. The landscape should not exist solely in space left over after the building has been designed and should work hand in hand with the building design and site planning. 2f. Comment was made by the Panel there is an opportunity to apply further thought to the upper-level communal area. The Applicant was encouraged to think about the amenity of the space with consideration given to how it will be used by the residents. It is currently small, does not include shade and no indication of furniture has been given. These elements will impact the usability of the space and have impacts on	

		the acoustic amenity and privacy of unit 12. 2g. It was suggested by the Panel the width of the pedestrian accessway to the street could be rationalized to allow more space for planting, with a particular focus on areas of deep soil that will allow for meaningful tree canopy.	
3a. It was stated by the Panel there could be an opportunity for apartments to connect directly from the street for the two apartments on the ground floor. This would assist with improving the street front interface. 3d. There is an opportunity to create a more modern design, for example an entry nook could be introduced for apartments.	Not provided.	3a. The Applicant was urged to think about the impacts of the setbacks. A series of sections is required to illustrate the impact the proposed building will have on neighbouring properties. Consideration must be given to overshadowing, overlooking and future development of neighbouring sites. 3e. Comment was made by the Panel the storerooms on the upper level are negatively impacting the amenity of the corridors and consideration should be given to relocating these. The suggestion was made that several of the apartments could be more efficiently planned and this may assist in this regard. 3g. Comment was made the closed fire stairs have negatively impacted the design and the Applicant was encouraged to think of ways to open up and improve this through an alternative solution.	
4a. Comment was made by the Panel the minimum room dimensions need to be adhered to. The current proposal is not supported by the Panel on this basis. 4e. Comment was made the storeroom near the ground floor stairs, within the lobby space, feels awkward and requires further interrogation in relation to its location.	Not provided.	4a. The Panel expressed concern in relation to the functionality of some of the apartment layouts. The Applicant is encouraged to apply further thought to apartment three and seven and test the space represented on the plans between the dining table and the oven. Additionally, consideration should be given to the ability for large items of furniture such as beds to	

		be moved into apartments through narrow corridors and around corners. 4b. It was mentioned by the Panel apartment four has good storage space and it may be beneficial to consider ways to achieve this in other apartments. 4c. Comment was made by the Panel apartment five has a large kitchen for a one bedroom apartment. Refinement of this apartment may free up space that could positively impact the overall building bulk, improve amenity of the corridors and enhance the functionality of the apartment.	
5a. The Panel stated sustainability needs to be addressed and encouraged the Applicant to engage a sustainability expert and make a commitment to sustainability and embed this within the design response. 5c. The Applicant was urged to demonstrate how they are dealing with natural ventilation and natural light entering the corridors and lobby space.	Not provided.	5a. The Panel stated sustainability needs to be addressed and encouraged the Applicant to engage a sustainability expert early in the process and make a commitment to sustainability that is embedded in the design response. 5b. Further information in relation to sustainability is required and the Applicant was urged to give consideration to the large number of ways the design can positively respond to sustainability above and beyond passive measures achieved through site planning and design. These could include onsite water management, increasing tree canopy and the use of recycled and sustainable materials. 5c The Panel commented that diagrams describing the impacts of shading devices, solar access and natural ventilation should be included in the presentation. The Panel noted the importance of light and ventilation to corridors in a manner that is easily manageable	

		by residents.	
6a. The Panel advised air conditioning condensers are not supported on balconies without a sophisticated design approach, and excluding this area from the overall calculation of balcony area. Further information is required to confirm the approach being undertaken by the applicant. 6c. Comment was made by the Panel that appropriate waste management will have a significant impact on amenity. A waste management strategy was encouraged. 6d. It was suggested the living room of the ground floor apartment could be more appropriately orientated toward the south to enable passive surveillance of the walkway and reduce the acoustic and privacy impacts of bedrooms facing onto the walkway.	Not provided.		
7b. The Applicant was encouraged to ensure the entry is safe and legible noting that the angled crossover may be impacting of the legibility of this entry and the design should respond accordingly.	Not provided.	7c. A suggestion was made by the Panel there is an opportunity to incorporate a wider pedestrian entry at the front of the building by reorientating the letterbox. This will assist with increasing visibility and legibility of the pedestrian entry. 7d. The Applicant was also encouraged to consider ways in which landscaping could be used to further increase the identity of the development and its interface with the neighbourhood. 7e. The Panel commented that the creation of a small recess to the ground floor apartment entries would enhance the identity of these units.	

8a. The Panel recommended a traffic analysis be provided at the next DRP meeting. 8b. Comment was made the narrow crossover is positive and there is a need to clarify the approach being taken to ensure cars are able to leave the site in forward gear.	Not provided.	8a. The Panel maintain concern in relation to the management of traffic as a result of the single lane access. It was suggested it may be beneficial to increase the width of the crossover and include a pullover bay to prevent vehicles reversing out onto the street. The Panel recommend discussion with the relevant City officer to ensure this is adequately addressed. A traffic management plan may be required.	
9a. The Applicant was urged to demonstrate the manner in which the silver livable standard has been achieved on a minimum of two apartments. 9b. The Panel encouraged the Applicant to think more about the broader community and ways in which the ground floor apartments might relate to the neighborhood through direct access from the street.	Not provided.	9a. The Applicant was urged to demonstrate the manner in which the silver livable standard has been achieved on a minimum of two apartments. 9b. Comment was made by the Panel there is opportunity to communicate more clearly what is being offered to the community at a neighborhood level. Development of the streetscape landscape will be important in this regard. 9c. The Panel encouraged the Applicant to think about the usability of the communal area on the upper floor, ensuring a high level of amenity is being offered to the community of residents.	
		10b. The Panel note that while the aesthetics of the building are supported it may be necessary to adjust the composition in response to the bulk and scale of the project and the refinement of the plan.	



Your Ref: DA24/0275
Our Ref: DAP409240
Enquiries: Matt Calabro
Direct Tel: 9420 2099

Attachment 9. Referral Response
from Water Corporation received on
23 April 2024

23 April 2024

Chief Executive Officer
City Of Stirling
25 Cedric St
STIRLING WA 6021

Attention of: Shaun Wheatland

**Re: DEVELOPMENT APPLICATION: Development Assessment Panel – Twelve
Multiple Dwellings - 93 Odin Road, Innaloo**

Thank you for your letter dated 18th April 2024. We offer the following comments regarding this proposal.

Reticulated water and sewerage are currently available to the subject land. This proposal will require approval by our Building Services section prior to commencement of works. Infrastructure contributions and fees may be required to be paid prior to approval being issued.

For further information about building applications, the developer should follow this link: <https://www.watercorporation.com.au/home/builders-and-developers/building/lodging-a-building-application>

The developer is expected to provide all water and sewerage reticulation if required. A contribution for Water, Sewerage and Drainage headworks may also be required. In addition, the developer may be required to fund new works or the upgrading of existing works and protection of all works. Water Corporation may also require land being provided for works.

The information provided above is subject to review and may change. If the proposal has not proceeded within the next 6 months, please contact us to confirm that this information is still valid.

Should you have any queries or require further clarification on any of the above issues, please do not hesitate to contact me at matt.calabro@watercorporation.com.au

Regards,

A handwritten signature in black ink, appearing to read "Matt Calabro", written over a horizontal line.

Matt Calabro
(Insert Responsible Officer's Title – e.g Senior Planner)
Development Services

Schedule of submissions – No.93 Odin Road, Innaloo

Number of Submissions to Raise Matter	Summary of Matters Raised	Applicants Response
37	The additional traffic and traffic congestion will be dangerous.	The traffic impact statement (TIS) prepared by a qualified traffic engineer in support of this application has reviewed traffic movements within the area. The TIS confirms that the local road network is capable of accommodating the proposed traffic movements from the development and that traffic movements can be undertaken in a safe manner.
30	Concerns relating to overlooking and privacy implications.	Amended plans have been prepared addressing a number of non-compliant visual privacy issues. This include the use of highlight windows, screening of balconies and obscure glazing.
24	The proposed parking is inadequate and will exacerbate existing on-street parking issues in the area.	- Amended plans have been prepared amending the allocation of parking on-site in accordance with the instructions provided by the City of Stirling. - It is noted that the area contains good access public transport and a pedestrian path network. This provides an alternative means of transportation to the future occupants/visitors for the development. Furthermore, the subject land forms part of the Stirling City Centre area. Developments within city centre areas tend to encourage less parking/car usage and greater use of public transportation.
23	Concerns relating to proposed number of car parking bays.	- Amended plans have been prepared amending the allocation of parking on-site in accordance with the instructions provided by the City of Stirling. - It is noted that the area contains good access public transport and a pedestrian path network. This provides an alternative means of transportation to the future occupants/visitors for the development. Furthermore, the subject land forms part of the Stirling City Centre area. Developments within city centre areas tend to encourage less parking and greater use of public transportation.
22	The proposed housing density is inconsistent with the low density area.	- The objector is unaware that the area is not a low density area and that the planning framework proposes medium to high density development within this part of the Stirling City Centre. - The subject land is located with the Stirling City Centre, which is anticipated and encouraged to contain more intense developments compared with the older low density single dwelling development.
20	The proposed building height is out of place and inconsistent with the character of the area.	- Amended plans have been prepared since the closure of the advertising period reducing the height of the building by some 1.4 metres. - It should be noted that the Innaloo Detailed Area Plan prepared for this part of the Stirling City Centre area outlines that the lots with frontage to Odin Road may have a maximum height of four (4) storeys. The proposed development on the subject land reflects the planning framework and is consistent with the vision set for this part of

Schedule of submissions – No.93 Odin Road, Innaloo

		the Stirling City Centre area. As such, the proposed development reflects the anticipated built form for the area. Whilst it is noted that the development may be out of character now, it should be recognised that re-development within this part of the Stirling City Centre area is in its early stages and that developments will progress in the future that will reflect the planning framework set for the area.
16	Concerns that the density of living will encourage anti-social behaviour.	The claim that increase densities will result in anti-social behaviour is unfounded and could be deemed discriminatory. As such, the comment should be dismissed.
12	Concerns it will adversely affect their property value.	- The claim that the proposed development will adversely impact property values is unsubstantiated. In fact, higher density development and greater development potential of land will actually increase property values. - Notwithstanding the above, the matter regarding property value and economic factors are not relevant planning matters and should not be considered as part of this application.
11	Approval of this development may set a precedence.	The comment does not take into consideration the current planning framework and the vision for the Stirling City Centre, which is anticipated and encouraged to contain more intense developments and greater dwelling yield. This reflects the strategic direction adopted by both the local and State Government's. In addition, the proposed development reflects the current planning framework and therefore does not set a precedent.
9	Population of Innaloo is already excessive.	- A large area of the Innaloo locality is located within the Stirling City Centre, which is anticipated to comprise large more intense development to accommodate an increase in population. It is viewed that the Innaloo and Stirling City Centre area currently has insufficient population to reflect a city centre environment. - On a strategic viewpoint, The Stirling City Centre is well serviced by various infrastructure and requires a higher population to be functional and viable in the future.
9	Concerns relating to overshadowing.	- Amended plans have been prepared reducing the overall height of the development and reduce the shadow cast over the adjoining property. In addition, the plans illustrate the shadow cast by a compliant development compared to that being proposed as part of this application. The conclusion is that this application proposes less shadow being cast compared to a compliant building. - Additional information has been provided on the plans to illustrate the extent of overshadowing throughout the year and the extent of shadowing being cast over the existing development on the adjoining southern property. The extent of shadow is predominantly striking the roof structure of the existing dwellings on the adjoining property. In addition, the shadow calculations in the R-Codes are two dimensional where it strikes walls, the shadow does not physically extend further on the land (i.e. the real extent of overshadowing is less). It is viewed that the extent of overshadowing of the adjoining southern property from the proposed development

Schedule of submissions – No.93 Odin Road, Innaloo

		will not adversely impact the existing development on the adjoining property and would satisfy the 'design principles criteria' of the R-Codes.
8	Concerns relating to noise pollution from multiple dwellings.	The proposed development is residential in nature and will generate a level of noise that would be typical for a residential development/use. It is viewed that traffic noise generated by the nearby regional road network would generate a higher level of noise than the proposed development.
8	Overdevelopment of the site resulting in more people and more cars.	- The subject land is located with the Stirling City Centre, which is anticipated and encouraged to contain more intense developments compared with the older low density single dwelling development. - It should be noted that the Innaloo Detailed Area Plan prepared for this part of the Stirling City Centre area set a minimum density/lot yield for the subject land. This application reflects the minimum density/lot yield prescribed within the planning framework.'
8	Concerns relating to general safety of surrounding network.	The development proposes a high degree of connectivity between the public and private realms, along with improved passive surveillance of the street. These elements will actually improve safety within the area.
4	The development will result in a loss of vegetation.	The proposed development will include the installation of new landscaping throughout the subject land and the planting of new trees. This will be a far better outcome than the current levels of landscaping on the subject land, which is little.
3	The development will contribute to urban heating.	- The proposed development comprises little hardstand area exposed to the sun. In fact, the current development on the land comprises a large extent of hardstand area and would generate a greater level of heat. - The proposed development will include the installation of new landscaping throughout the subject land and the planting of new trees which will assist with reducing heat generation.
3	Concerns that construction will cause damage to nearby properties. A dilapidation survey should be undertaken at the developers cost.	Comment noted, but any matters regarding construction and damage of adjoining properties is not a planning matter and would need to be resolved by the builder at the time of construction.
2	Objections to the building bulk being non-compliant.	- The subject land is located with the Stirling City Centre, which is anticipated and encouraged to contain more intense developments compared with the older low density single dwelling development. - The proposed development reflects the anticipated built form set by the Innaloo Detailed Area Plan prepared for this part of the Stirling City Centre area. As such, the proposed development is consistent with the anticipated built form. - It should be noted that the plans have been amended since the closure of the public advertising period illustrating a reduction to the building height and increased lot boundary setbacks (i.e. the overall bulk and scale has been reduced).

Schedule of submissions – No.93 Odin Road, Innaloo

2	Development of the site will contribute to a housing supply crisis.	- The comment is confusing. - The proposed development will deliver more housing to the community to assist with resolving the current housing shortage.
1	Surrounding infrastructure such as Scarborough and shopping centres are over used and full.	- The Stirling City Centre is anticipated to comprise large more intense development to accommodate an increase in population and activity (i.e. employment, entertainment etc). - On a strategic viewpoint, The Stirling City Centre is well serviced by various infrastructure and requires a higher population to be functional and viable in the future. It is viewed that the area is actually underutilised and can accommodate greater levels of development to create a vibrant and functioning city centre area.
1	Sick and tired of City of Stirling.	Comment should be dismissed.
1	This development will result in better amenities in Innaloo.	Comment noted.



PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals

The DAP notes the status of the following State Administrative Tribunal Applications and Supreme Court Appeals:

Current SAT Applications				
File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/22/02317 DR81/2023	City of Vincent	41-43 and 45 Angove Street, North Perth	Proposed Service Station	31/05/2023
DAP/23/02480 DR184/2023	City of Vincent	Lot 3 (37-43) Stuart Street, Perth	Proposed Unlisted Use (Community Purpose) & Alterations & Additions	12/12/2
DAP/22/02259 DR166/2023	City of Subiaco	No. 424-428 (Lot 2) & No. 440 (Lots 4, 5 & 6) Hay Street, Subiaco	Demolition Of Existing Commercial Buildings and Construction Of Single And Two Storey Commercial Building	11/01/2024

2. General Business

3. Meeting Closure

In accordance with Section 7.3 of the DAP Standing Orders 2024 a DAP member must not publicly comment on any action or determination of a DAP.