



Metro Inner Development Assessment Panel Agenda

Meeting Date and Time: Wednesday, 17 December 2025; 9:30am
Meeting Number: MIDAP/110
Meeting Venue: 140 William Street, Perth

A live stream will be available at the time of the meeting, via the following link:
[MIDAP/110 - 17 December 2025 - City of Stirling](#)

PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement
2. Apologies
3. 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 No.42 (House Number 22) Brighton Road, Scarborough - 8 Grouped Dwellings – DAP/25/02936
 - 3.2 Lot 500 (House Number 43) Yirrigan Drive, Mirrabooka – Drive through Fast-food outlet – DAP/25/02948
4. Form 2 DAP Applications
5. Section 31 SAT Reconsiderations

PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals
2. 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



DAP Members
Clayton Higham (Presiding Member)
John Syme (Deputy Presiding Member)
Peter Lee
Cr Michael Dudek (Part B – City of Stirling)

DAP Secretariat
Kristen Gray
Ashlee Kelly



PART A – INTRODUCTION

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- 2. Apologies**
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PART B – CITY OF STIRLING

1. Declarations of Due Consideration

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3. Form 1 DAP Applications

3.1 Lot No.42 (House Number 22) Brighton Road, Scarborough - 8 Grouped Dwellings – DAP/25/02936

3.2 Lot 500 (House Number 43) Yirrigan Drive, Mirrabooka – Drive through Fast-food outlet – DAP/25/02948

4. Form 2 DAP Applications

Nil.

5. Section 31 SAT Reconsiderations

Nil.

**Part B – Item 3.1 LOT NO. 42 (HOUSE NUMBER 22), BRIGHTON ROAD,
SCARBOROUGH – EIGHT GROUPED DWELLINGS**

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Inner DAP
Local Government Area:	City of Stirling
Applicant:	Developed Property
Owner:	Brighton Road (WA) Pty Ltd
Value of Development:	\$5 million
Responsible Authority:	City of Stirling
Authorising Officer:	Amanda Sheers, Director Planning and Development
LG Reference:	DA25/0775
DAP File No:	DAP/25/02936
Application Received Date:	11 July 2025
Report Due Date:	5 December 2025
Application Statutory Process Timeframe:	90 Days, with an additional 35 days agreed between the Applicant and the City of Stirling.
Attachment(s):	1. Development Application Plans (received 3 November 2025). 2. Aerial Location Plan. 3. Metropolitan Region Scheme Zoning Map. 4. City of Stirling Local Planning Scheme No.3 Zoning Map. 5. Applicant's Planning Report received on 3 June 2025. 6. City of Stirling Planning Assessment. 7. Applicant's Final Submission: a. Revised Submission received 3 November 2025. b. Transport Impact Statement prepared by Urbii Consulting Pty Ltd received 3 November 2025. c. Lavan Legal Statement received 03 November 2025. d. Landscaping Plans prepared by Kelsie Davies Landscape Architects received 3 June 2025. e. Waste Management Plan prepared by Developed Property received on 3 November 2025.

	f. Sustainability Report prepared by Cundal Johnstons & Partners Pty Ltd received on 5 November 2025. g. Developed Property response to Request for Further Information received on 3 November 2025. 8. External Agency Referral Responses a. Main Roads Western Australia received 21 November 2025. b. Water Corporation received 11 November 2025.
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Responsible Authority Recommendation

That the Metro Inner DAP resolves to:

Approve DAP Application reference DAP/25/02936 and accompanying plans as listed in Condition 2 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 Grouped Dwelling on Lot 42, House Number 22, Brighton Road, Scarborough subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of four 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.
2. The development is to comply in all respects with the attached approved plans, as dated, marked and stamped, together with any requirements or modifications required as detailed thereon by the Metro Inner Development Assessment Panel. The plans approved as part of this application and development approval are listed below:

DRAWING TITLE	Date	Drawing Number	Drawn By
Survey	8/7/2025	01 of 14	Developed Property
Survey / Lot Configuration	24/10/2025	02 of 14	Hillam Architects
Survey/Demolition Plan	24/10/2025	03 of 14	Hillam Architects
Proposed Site Plan	24/10/2025	04 of 14	Hillam Architects
Proposed Ground Floor Plan	24/10/2025	05 of 14	Hillam Architects

Proposed First Floor Plan	24/10/2025	06 of 14	Hillam Architects
Proposed Roof Plan	24/10/2025	07 of 14	Hillam Architects
Proposed Street Elevations	24/10/2025	08 of 14	Hillam Architects
Proposed Elevations	24/10/2025	09 of 14	Hillam Architects
Proposed Sections Plan	24/10/2025	10 of 14	Hillam Architects
Material Schedule	24/10/2025	11 of 14	Hillam Architects
Material Schedule	24/10/2025	12 of 14	Hillam Architects
Landscape Concept Plan	15/04/2025	13 of 14	Plan / Kelsie Davies Landscape Architects
Landscaping Planting Palette	11/04/2025	14 of 14	Plan / Kelsie Davies Landscape Architects

3. 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

4. A development contribution payment, in accordance with the Scarborough Development Contribution Plan, is to be provided prior to issuing of building permit, to the satisfaction of the City of Stirling.

Parking and Access

5. The vehicle access way along the western boundary of the site is required to be protected through an easement(s) or other appropriate legal instrument confirming in perpetuity public access rights, generally consistent with the extent shown on annotated Attachment 9 – Easement Drawing. Details to be provided prior to the occupation of the development, to the satisfaction of the City of Stirling.
6. The designated vehicle access easement along the western boundary of the site shall remain clear and unobstructed at all times. No physical barriers, structures, or parking bays are permitted within this easement. The easement is to be maintained to facilitate public access and coordinated vehicle movement in accordance with the Scarborough Design Guidelines and the adopted Vehicle Access Plan, to the satisfaction of the City of Stirling.

7. Prior to occupation of the development, the existing light pole, within the Brighton Road reservation is to be relocated at the owner's expense to maintain consistent light spacings and lighting levels along Brighton Road. Lighting to comply with Australian Lighting Standards, to the satisfaction of the City of Stirling on the advice of Western Power.
8. The minimum number and allocation of car parking bays provided on-site is to be as follows:
 - a. 15 residential permanent car parking bays; and
 - b. 1 residential visitor car parking bays.
9. All on-site car parking bays are to be compliant with the Australian Standards Australian Standard / New Zealand Standard 2890.1 and Australian Standard / New Zealand Standard 2890.6, to the satisfaction of the City of Stirling.
10. Prior to occupation of the development, vehicular parking, manoeuvring and circulation areas indicated on the approved plan being sealed and drained to the satisfaction of the City of Stirling and the parking spaces being marked out and maintained in good repair.
11. Unless otherwise approved by the City of Stirling, no walls, fences, letterboxes or other structures above 0.75 metres in height to be constructed within the 1.5 metre width x 1.5 metre depth triangular area of where:
 - (a) Walls, letterboxes or fences adjoin vehicular access points to the site, or
 - (b) A driveway meets a public or private street, or
 - (c) Two streets intersect, or
 - (d) A driveway meets a right of way.
12. Prior to occupation of the development, all visitor bays are to be permanently marked, drained and clearly sign posted, to the satisfaction of the City of Stirling.
13. All crossovers shall be designed and installed prior to occupation of the development, to the satisfaction of the City of Stirling.
14. 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, to the satisfaction of the City of Stirling.

Waste Management

15. The development is to comply with the Waste Management Plan prepared by Developed Property received 3 November 2025 to the satisfaction of the City of Stirling.
16. The provision of a refuse storage enclosure being provided, of an adequate size to contain all bins used by the premises and be constructed with four walls, a graded and sealed floor, provided with a tap connected to an adequate supply of water and provided with a floor waste connected to the sewer.

Noise

17. Prior to the issue of a Building Permit, the applicant/owner is to provide details demonstrating that the development will be constructed in accordance with the

requirements of State Planning Policy 5.4 – Road and Rail Noise, achieved through either implementation of ‘Quiet House Package C’ or the recommendations of a suitably qualified acoustic engineer, to the satisfaction of the City of Stirling.

18. Prior to occupation of the development, a Notification, pursuant to Section 70A of the Transfer of Lands Act 1893 is to be placed on the Certificate(s) of Title of the apartment(s) on the subject lot(s) prior to operation of the development. This Notification is to be included on the diagram or plan of survey (Deposited Plan). The Notification is to state as follows:

‘This lot is in the vicinity of a transport corridor and is affected, or may in the future be affected, by road and rail transport noise. Road and rail transport noise levels may rise or fall over time depending on the type and volume of traffic.’

Lighting

19. Prior to the submission of Building Permit a Lighting Strategy, detailing lighting of the building exterior and common property access leg, is to be submitted and approved by the City of Stirling.
20. Any outside lighting shall comply with Australian Standard AS 4282-2023 - Control of the Obtrusive Effects of Outdoor Lighting (as amended) for the control of obstructive effects of outdoor lighting and must not spill into any adjacent premises. Details of any outside lighting is to be submitted at the Building Permit application stage demonstrating compliance with Australian Standard AS 4282-2023 (as amended), to the satisfaction of the City of Stirling.

Landscaping

21. Prior to the occupation of the development, all landscaped areas are to be planted, reticulated and mulched in accordance with the approved landscaping plan prepared by Kelsie Davies Landscape Architects dated 3 June 2025 and thereafter maintained to the satisfaction of the City of Stirling.
22. One new street tree shall be planted at the owner’s expense in the next available planting season following completion of the development. The cost of planting the street tree(s) is to be paid by the owner prior to the commencement of development, to the satisfaction of the City of Stirling.

Sustainability

23. Prior to the lodgement of a Building Permit, the applicant is to provide written confirmation that all recommendations referred to in the Sustainable Design Assessment Report, as prepared by Cundal Johnstons & Partners Pty Ltd, received 5 November 2025, have been incorporated into the building design to the satisfaction of the City of Stirling.

Accessibility

24. Prior to issuing of a building permit, the applicant/landowner must provide Adaptable Housing in accordance with Scarborough Redevelopment Area - Development Policy 10 Adaptable Housing, with all details submitted to the satisfaction of the City of Stirling.

General

25. A Site Management Plan shall be submitted for approval to the satisfaction of the City of Stirling prior to the submission of a Building Permit. The Site Management Plan shall include but not be limited to measures relating to vibration, dust, noise, waste management, street tree protection zones, construction parking, traffic, storage of materials and site safety and security. The Site Management Plan is to be complied with for the duration of the construction of the development.
26. All signage is to be in accordance with Development Policy 6 - Signage, unless further development approval is obtained.
27. Stormwater from all roofed and paved areas is to be collected and contained on site. There shall be no connection to the City's drainage infrastructure without the written approval of the City of Stirling.
28. 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.
29. All air conditioning units, plant and roof equipment and other external fixtures are to be screened from view from the surrounding streets and adjoining properties to the satisfaction of the City of Stirling.
30. The development is to be connected to the sewer.

Colours and Materials

31. 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.
32. The external finish of the boundary wall/s shall be to the same standard as the rest of the development, to the satisfaction of the City of Stirling.

Advice NotesGeneral

1. If an applicant is aggrieved by this determination, there is a right of review under Part 14 of the Planning and Development Act 2005. Any appeal must be lodged within 28 days of the date 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 it has been drawn to the attention of the decision maker.
4. The applicant is responsible for ensuring that all lot boundaries as shown on the approved plans are correct.
5. Construction noise is to comply with the Environmental Protection (Noise) Regulations. Noisy Construction Work outside the period 7 am to 7 pm Monday to Saturday and at any time on Sundays and Public Holidays is not permitted unless an approved Noise Management Plan has been obtained from the City of Stirling.
6. In relation to condition 26, the applicant/landowner may wish to obtain a dilapidation report prior to the commencement of construction works.

Development Contributions

7. In relation to the development contribution in accordance with the City's Local Planning Scheme No. 3, Schedule 11B Scarborough Development Contribution Plan, this cost is estimated at being \$100,867.71.

Parking and Access

8. In relation to Condition 6, the proposed visitor parking bay must be relocated outside the designated vehicle access easement. The relocation should be to a position further east to ensure the easement remains clear and unobstructed.
9. The proposed crossover configuration is subject to the approval of the City of Stirling Verge Control Business Unit. A "Crossover Installation Application" is required to be submitted and approved prior to the commencement of the crossover installation.

Landscaping

10. Prior to the planting of street trees, the landowner is to contact the City of Stirling to discuss positioning of the proposed street trees within the road reserve. The number of street trees planted within the road reserve will depend on the available space and the location of service alignments to be determined at completion of building. Following planting works, the landowner is to advise the City of Stirling so they can be added to the City of Stirling register of street trees.

Accessibility

11. In relation to Condition 25, an Accessibility Report should be provided demonstrating that a minimum 20% of the total number of dwellings conform to the Core Liveable Housing Design Elements outlined in Development Policy 10 – Adaptable Housing.

Miscellaneous

12. When planning the installation of mechanical equipment such as air conditioning units and compressors, consider the proximity to neighbouring properties to ensure compliance with the Environmental Protection (Noise) Regulations 1997. Engaging the services of a qualified noise consultant is recommended to assist with compliance and noise attenuation measures.
13. Any future subdivision of the property must be consistent with this approval and the lot sizes demonstrated in the application.
14. On advice from Main Roads WA, the upgrading/widening of West Coast Highway is not in Main Roads current 4-year forward estimated construction program and all projects not listed are subject to change without notice, and Main Roads assumes no liability for the information provided.
15. On advice from Water Corporation, it should be noted that access chamber is located inside the subject land boundary. Due consideration will be required when developing in this area.
 - An unconfined access way of at least 1.0 m wide must be maintained around the edge of sewer and drain maintenance structures at all times.
 - Headroom (clearance between finished ground level and the underside of an overhanging structure such as a roof) of at least 2.4 m must be maintained at all times.
 - Access way to the chamber required via gate or roller door. The developer is required to fund the full cost of protecting or modifying any of the existing infrastructure which may be affected by the proposed development. In accordance with Section 90 of the Water Services Act 2012 whenever development is proposed near Water Corporation assets the applicant/developer/owner needs approval prior to construction.

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
Structure Plan/Precinct Plan	No
Structure Plan/Precinct Plan - Land Use Designation	No
Use Class and permissibility:	Grouped Dwelling (Residential) – 'Preferred' use
Lot Size:	1499m ²
Existing Land Use:	Residential
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:

- The demolition of the existing Single Dwelling on-site.
- The construction of eight two-storey Grouped Dwellings with associated car parking, landscaping and amenities.
- Vehicle access for Lot 2 will be via Brighton Road, while Lots 1 and 3–8 will use a shared access arrangement along the western boundary in conjunction with the adjoining site (Lot 800 West Coast Highway)
- Provision of one residential visitor car parking bay.

Proposed Land Use	Grouped Dwellings
Proposed No. Storeys	Two Storeys
Proposed No. Dwellings	Eight

Background

The subject site located at Lot 42, House Number 22 Brighton Road, Scarborough is 1499m² in area and has a 20.12 metre frontage to Brighton Road. At present the site contains a Single Dwelling which is proposed to be demolished as part of this proposal.

The subject site is zoned 'Urban' under the Metropolitan Region Scheme (MRS) (Attachment 3). The development site is zoned 'Development' under City's Local Planning Scheme No.3 (LPS3) (Attachment 4). The site is within the Scarborough Special Control Area and is located in the Beach Road Precinct (Outer Core).

The subject site abuts Brighton Road, identified as a 'Local Distributor' as per the City's Functional Road Hierarchy. The development site is located within the area recognised as the Scarborough District Centre as per the City's Local Planning Strategy. The properties to the east and west of the site, comprise of a mix of residential and mixed-use development.

Legislation and Policy:

The following legislations and policies are applicable to the proposal.

Legislation:

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

State Planning Policy:

- State Planning Policy 5.4 - Road and Rail Noise (SPP5.4)
- State Planning Policy 7.0 - Design of the Built Environment (SPP7.0)

Planning Codes:

- Residential Design Codes Volume 1 – Part C
- City of Stirling Local Planning Scheme No.3 (LPS3)
- Draft City of Stirling Local Planning Scheme No. 4 (LPS4)

Local Planning Policies

- Local Planning Policy 6.3 – Bin Storage Areas (LPP6.3)
- Local Planning Policy 6.7 – Parking and Access (LPP6.7)
- Local Planning Policy 6.18 – Public Consultation (LPP6.18)

Scarborough Redevelopment Area

- Scarborough Special Control Area Master Plan
- Scarborough Special Control Area Design Guidelines (Scarborough DG)
- Scarborough Special Control Area Development Policies

Scarborough Special Control Area

The subject site is located within the Scarborough Special Control Area (SSCA) formally the Scarborough Redevelopment Area. The Scarborough Beach Road Special Control Area has designated design guidelines and policies to guide development within the SSCA and facilities delivery of the vision originally produced by the Scarborough Redevelopment Scheme. On 9 August 2023, the Scarborough Redevelopment Scheme, Scarborough Design Guidelines (Scarborough DGs), and development policies were transferred back to the City from DevelopmentWA. This planning framework has been adopted and normalised in the City's LPS3.

Consultation:

Public Consultation

The proposed development was advertised for a period of 14 days in accordance with the 'Standard Application' requirements of *Local Planning Policy 6.18* (LPP6.18) and *Clause 64(3) and (6)(a) of the Planning and Development (Local Planning Schemes) Regulations 2015*.

The consultation period commenced on 01 August 2025 and concluded on 15 August 2025. During the consultation period a total of four submissions were received comprising three objections, and one support with changes requested. The submissions received during the consultation period and their relative locations are tabled below.

Submissions Received	Within 100m Radius of Proposed Site	Within 200m Radius of Proposed Site	Within the City of Stirling	Outside of the City of Stirling
SUPPORT	25%	0 (0%)	1 (100%)	0 (0%)
OBJECT	75%	0 (0%)	3 (100%)	0 (0%)
CHANGES REQUESTED	25%	0 (0%)	1 (0%)	0 (0%)

OTHER (Comment)	0%	0 (0%)	0 (0%)	0 (0%)
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All matters raised in submissions received during the advertising period have been summarised with the City's response to the matter in the table below.

Public Consultation Submissions		
Number of Submissions to raise Matter	Submission Comment	Officer Comment
3	Concerns relating to shared driveway access and safety.	The provision of vehicular access is considered appropriate and is supported. Car parking and access is discussed further in this report. A condition is recommended for vehicle access way along the western boundary of the site to be widened by 3m through an easement or other legal agreement confirming in perpetuity public access rights, generally consistent with the extent shown on the Easement Drawing forming part of this approval.
2	Concerns about construction impacts on driveway and building integrity.	A condition is recommended requiring a Site Management Plan be provided addressing access, monitoring, and damage rectification responsibilities.
1	Concerns about vehicle weight and traffic management during construction.	A condition is recommended requiring a Site Management Plan be provided addressing access, monitoring, and damage rectification responsibilities.

The City forwarded the submissions received during the public consultation process to the Applicant to allow the Applicant the opportunity to respond to each submission received. The Applicant's response is contained in Attachment 8.

Consultation with Government/Service Agencies

The proposed development was referred to the following external agencies:

- Water Corporation; and
- Main Roads Western Australia (MRWA).

In principle no objections to the development proposal were received by the City, with the relevant responses incorporated into the recommended conditions of approval and advice notes, with further detail is provided below.

Main Roads WA

The application was referred to MRWA for comment in accordance with the 'Notice of Delegation – Powers of Local Governments Metropolitan Region Scheme' (DEL 2025/04) due to proximity to West Coast Highway, a Category 3 Regional Road and the signalised intersection.

MRWA requested confirmation from the adjoining landowner for consent to utilise the existing easement for access to the proposed development, and requested further consideration of waste collection arrangements, noting that the current proposal may adversely affect the performance of the signalised intersection at West Coast Highway and Brighton Road.

A review of the Certificate of Title for Lot 800 West Coast Highway indicates the following restriction on title

“a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over, along and across that those portions of the Servient Tenement.”

MRWAs referral advice dated 21 November 2025 notes; it supports the development proposal and recommends conditions to ensure the development complies with the requirements of SPP 5.4. In accordance with the Main Roads referral response, the City has recommended a condition requiring the development to comply with the requirements of SPP5.4.

Water Corporation

The proposal was referred to the Water Corporation due to the presence of a sewer line within the subject site and the initial design proposing a unit above it.

In its initial referral response dated 23 July 2025, Water Corporation raised concerns regarding construction over the asset. This was communicated to the proponent, who subsequently submitted revised plans. In its second referral response dated 11 November 2025, Water Corporation confirmed it was satisfied that appropriate measures would be implemented to protect the sewer main, including sufficient setback for Lot 8 and the use of piling.

Planning Assessment:

The following matters have been identified as key considerations in the determination of this application.

1. Proposed Land Use
2. Built Form
3. Vehicular Access
4. Parking
5. Sustainability
6. Accessibility

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

1. Proposed Land Use

Grouped Dwellings (Residential) are identified as Preferred Land Uses as defined by Table 13.1 Land Use Categories of LPS3.

Beach Road Precinct (Outer Core) - Uses		
Use		Scarborough Special Control Area
Grouped Dwelling	Preferred Land Use	Preferred Uses are land uses which are considered to contribute to the vision and intent for a location, as set out in Clause 1 - Vision and Clause 2 - Precincts. Preferred Uses are those uses within the land use category or categories which are shown as a preferred category for a particular precinct in Table 13.2 – Land Use Table.

The intent of Beach Road Precinct is to provide a flexible mixed-use environment for a diversity of commercial, tourism and medium to high density residential development. The proposal provides for a positive contribution to the to the public realm through the architectural design of the building, passive surveillance opportunities from balconies to the street and provision of landscaping.

The City's assessment concludes the proposed development satisfies the relevant provisions of the City's planning framework and is supported. The required appropriate conditions have been recommended to mitigate impacts to adjoining properties.

Accordingly, the Grouped Dwelling use is supported.

2. Built Form

The specific built form controls of the Scarborough DGs apply in addition to Local Planning Policies and Part C of the Residential Design Codes (Part C of the R-Codes). The following table identifies the key elements of the planning framework applicable to the development:

Built Form Controls		
Provision	Requirement	Proposal
Building Height	Maximum podium height – 3 storeys up to 11.5 metres.	Proposed building height of two storeys (8.6m).
Setbacks	Residential Podium Street Setback – 2m. Podium side/rear setback – Nil.	Minimum street setback: - Lot 1 - 2.3m proposed. - Lot 2 – 2.3m proposed. Side and rear setback: - Nil to 5m.
Open Space	Maximum 80% site cover	- Lot 1: 67% - Lot 2: 64% - Lot 3: 80% - Lot 4: 80% - Lot 5: 80% - Lot 6: 80%

		• Lot 7: 80% • Lot 8: 80%
Lot Size	Minimum 100sqm	• Lot 1: 154.3sqm • Lot 2: 167.5sqm • Lot 3: 142.2sqm • Lot 4: 142.2 sqm • Lot 5: 142.2sqm • Lot 6: 142.2sqm • Lot 7: 142.2sqm • Lot 8: 142.2sqm

3. Vehicle Access

The Scarborough DGs aim to facilitate safe and convenient vehicle movement by minimising direct access from West Coast Highway and Scarborough Beach Road. Instead, it requires vehicle access should be provided via secondary streets, existing laneways where possible, or new public access thoroughfares in accordance with the adopted Vehicle Access Plan.



Figure 1 - Scarborough Design Guidelines Figure 8 Access Plan (South)

The development proposes a combination of one sole vehicular access for proposed lot two and vehicular access via the existing access point of Lot 800, House Number 256 West Coast Highway. In October 2015, the Metropolitan Redevelopment Authority (MRA) conditionally approved a development application abutting the development site to the west. A condition of development approval in conjunction with Figure 1 stated:

“The 6-metre vehicle access way proposed along the eastern boundary of the site is required to be provided through the creation of a Public Access Easement in gross in accordance with clause 4.9(3) of the Scheme (the Scheme), details of which are to be provided at working drawings stage to the satisfaction of the MRA.”

An easement was registered on the titles for the following purpose:

“... a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over along and across that those portions of the Servient Tenement...”

The Vehicle Access Plan (Figure 1) proposes a 6m-wide public vehicle access corridor between sites, requiring each abutting site to provide a 3m portion.

The proposed development will provide a vehicular access easement along the western boundary ranging from 0.5m to 3m (refer to Figure 2 below). The reduced width at the front of the site accommodates vertical clearance, as the adjoining property already provides the full 6m easement in that section. Additionally, the City considers, northern portion of the vehicle access way, as depicted in Figure 1, will not be required as part of the easement. The City has formed the view that imposing this portion without certainty of implementation would be unreasonable, as it would only apply if redevelopment occurred on the affected adjoining properties. Given that most northern properties are existing and unlikely to redevelop in the foreseeable future, the requirement would create unnecessary obligations without practical benefit. Furthermore, sites abutting West Coast Highway that retain development potential will be required to contribute to the shared vehicle access way and will benefit from coordinated access, avoiding direct vehicular connections to West Coast Highway. This approach aligns with the objectives of the Scarborough DGs while maintaining flexibility for properties with limited redevelopment potential.



Figure 2 – Vehicle Accessway Easement Drawing

To ensure public access is provided, a condition of approval is recommended for the vehicle access way along the western boundary of the site. The condition requires access to be protected through an easement(s) or other legal agreement confirming in perpetuity public access rights as demonstrated in Figure 2 above. This condition

recommendation is consistent with a previous MRA approval granted for a mixed-use development comprising five, 12, and 18 storeys across Lots 42, 43, and 44 (Nos. 22, 24, and 26 Brighton Road), under reference MRA-13936 (A2611099). As part of this approval, a 6-metre-wide vehicle access way was conditioned to be protected via an easement or other legal agreement to ensure public access in perpetuity, to be executed prior to occupancy. This also included the widening of the existing vehicle access way on Lot 800 House Number 256 West Coast Highway (western lot) (refer to D.P.414028 'X2' Easement – DOC N997208) by 1,750mm.

The widening of this easement will require the relocation of existing street lighting infrastructure. A condition has been recommended to this effect.

Fencing has been proposed across the designated vehicular access way. This access way will be protected by a public easement to ensure it remains available for shared use and public connectivity in accordance with the Scarborough DGs. The installation of fencing across this area would obstruct the intended function of the access way and compromise compliance with the Scarborough DGs. To maintain unobstructed public access and facilitate coordinated vehicle movement between sites, a condition is recommended for the removal of all obstructions including fencing and the relocation of visitor parking bay area within the identified easement area.

4. Parking

The table below provides a summary of the City's car parking assessment in relation to the car parking provisions of the Scarborough DGs applicable to this proposal.

Scarborough Design Guidelines – Section 5.2 Car Parking Requirements		
Policy Rate	Proposed Dwellings	Bays Required
Permanent residential: Minimum 0.75 bays per Dwelling Maximum An average of 1.5 bays per dwelling in any one development	8	Minimum 6 resident car bays Maximum 12 car parking bays
Residential visitor: Minimum 0.25 bays per dwelling Maximum – NA	8	Minimum 2 visitor car parking bays
Total Provided onsite		15 resident car parking bays 1 visitor car parking bay
Total Required Surplus / Shortfall:		3 resident car parking bay surplus 1 visitor car parking bay shortfall

The proposal seeks parking discretion, as it provides one visitor bay in lieu of the required two and exceeds the maximum number of residential bays. The discretion sought is considered negligible as the surplus of residential bays can be utilised by visitors when required, thereby ensuring adequate parking availability for both residents and visitors. This provides flexibility and addresses potential visitor demand without compromising site functionality or amenity. The surplus parking also reduces the likelihood of parking conflicts within the development and supports practical outcomes given the site constraints, which limit the ability to provide a dedicated second visitor bay.

The site benefits from public transport access, with the nearest bus stop located approximately 50 metres from the site, providing convenient alternatives to private vehicle use. Overall, the proposed parking arrangement is considered to satisfy the intent of the Scarborough DGs by delivering sufficient parking provision in a manner that responds to site limitations while maintaining accessibility and convenience for all users.

The proposed visitor bay is located within the designated vehicle access easement. This arrangement is not supported by the City, as the easement must remain clear to maintain unobstructed public access in accordance with the Vehicle Access Plan. A condition has been recommended to ensure the vehicle access easement remains unobstructed and that the visitor parking bay is relocated outside this area.

5. Sustainability

Scarborough Redevelopment Area Development Policy 10 (Development Control Policy 10) requires Tier 3 sites to achieve a minimum 4 Star Green Star Design and As Built rating, or alternatively, provide a Sustainable Design Assessment Report (SDAR) prepared by a suitably qualified professional. The Scarborough DGs outline sustainability requirements for development sites within the Scarborough Redevelopment Area. Sites are classified into Tier 1, Tier 2, or Tier 3, which determine the minimum environmental performance standards for each category. The objectives of the policy include promoting energy efficiency, minimising greenhouse gas emissions, reducing water consumption, and incorporating environmentally sensitive design principles.

The applicant has submitted a sustainability report prepared by Cundall, which demonstrates compliance with the intent of the policy through adoption of the Green Star Homes standard. The report confirms the development will achieve a minimum 7-star NatHERS rating and outlines initiatives which collectively meet the performance outcomes sought by the policy and provide an alternative pathway to demonstrate alignment with its objectives. A condition is recommended to be imposed requiring the implementation of all sustainability measures and recommendations outlined in the submitted sustainability report to ensure compliance during construction and operation.

6. Accessibility

Scarborough Redevelopment Area Development Policy 10 Adaptable Housing (Development Control Policy 10) include provisions for Adaptable Housing to ensure dwellings are designed to accommodate people with varying mobility needs and support aging in place. The policy objectives seek to promote inclusivity by requiring features consistent with the Liveable Housing Design Guidelines (Silver Level) or equivalent. While the plans indicate standard townhouse layouts, there is no clear confirmation that

the design incorporates the adaptable features or provisions for future modification. To address this matter, a condition is recommended requiring the submission of an accessibility report to incorporate measures consistent with the Liveable Housing Design Guidelines (Silver Level) or equivalent, to the satisfaction of the City, prior to the issue of a building permit.

Conclusion:

The proposed development for eight grouped dwellings at 22 Brighton Road, Scarborough, has been assessed against the relevant provisions of the City's planning framework, including the SSCA requirements. While it is noted this proposal represents an underdevelopment of the site, the development generally satisfies the primary built form controls and provides an acceptable design outcome within the precinct. The proposal seeks several discretions under applicable development standards and policies, which have been considered on their merits.

The proposed development is of high-quality design and is appropriate within its context. Accordingly, the application is recommended for approval subject to conditions.

Attachment 1 - Development Application Plans (recieved on 03 November 2025).

SERVICE LEGEND	
SURVEY	
	DATUM
	PEG FOUND
	PEG GONE
SEWERAGE	
	SEW MANHOLE
	INSPECTION OPENING
	INSPECTION SHAFT
WATER	
	WATER METER
	HYDRANT
	FLUSH POINT
	STOP VALVE
ELECTRICAL	
	POWER DOME/PILLAR
	POWER POLE
	LAMP POST
	CONSUMER POLE
	STAY WIRE ANCHOR
STORMWATER	
	STORMWATER MANHOLE
	GRATE
	SIDE ENTRY PIT
GAS	
	GAS METER
	SERVICE VALVE
TELECOM	
	COMMUNICATION PIT
	TELSTRA MANHOLE
SEWER CONNECTION POSITION	
APPROXIMATE ONLY	
SEW INV. 18.99	
UP. 0.00	
DEPTH. 1.39	

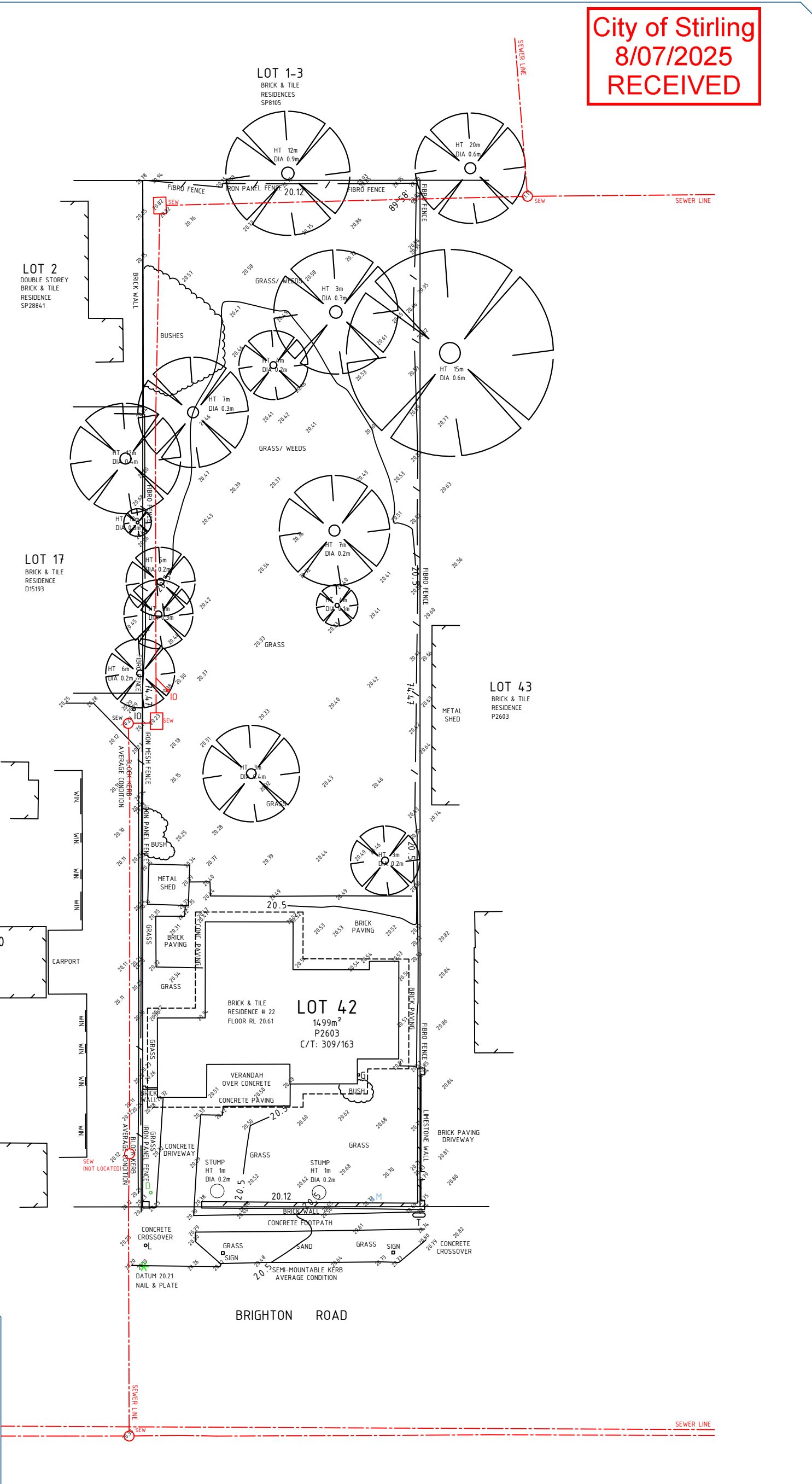
City of Stirling
8/07/2025
RECEIVED

SERVICES RECORD				
STATUS	LOCATED	AVAILABLE	NO SERVICE	UNKNOWN
WATER	✓	✓		
SEWER	✓	✓		
LEACH DRAINS	✓	✓		✓
GAS	✓	✓		
TEL/COMMS	✓	✓		
POWER U/G	✓	✓		
POWER O/H	✓	✓	✓	

SERVICES MARKED UNKNOWN,
REQUIRES ACTION FROM CLIENT

IMPORTANT PLAN NOTES

- Boundaries shown on this plan are approximate only and have not been re-established. These boundaries should be verified by a boundary re-establishment survey prior to demolition, excavation and/or construction.
- The plan shows visible services only. The location of underground services should be verified prior to demolition, excavation and/or construction. Developed takes no responsibility for the location of services shown on this plan.
- All dimensions shown are subject to final survey calculations.
- Check title for easements / covenants or any other limitations.
- Check with council for any other limitations to the land or zoning.
- Soil type has not been confirmed as part of this survey.
- The information shown on this plan is current only for the date of survey.
- Developed accepts no responsibility for any physical on site changes for the area shown on this plan after the date of survey.
- Extent and limit of survey completed as per the agreed scope between Developed and the client.
- This note, company logo and information below is an integral part of this plan and must not be removed.



PLAN OF		PROJECTION		LGA		SHEET		PLAN No.		REVISION	
CONTOUR & FEATURE SURVEY OF LOT 42 ON PLAN 2603		HORIZONTAL: LOCAL VERTICAL: AHD (BASED OF SEWER M/H X5985)		CITY OF STIRLING ZONING CHECK WITH LGA		1 of 1		PN24566 01		A	
PARCEL ADDRESS		REV.	DATE	DESCRIPTION		SURVEYOR	DRAWN	APPROVED			
22 BRIGHTON ROAD, SCARBOROUGH		A	21/01/2025	CONTOUR & FEATURE SURVEY		TS	LF	DP			
CLIENT											
PERFORMANCE PROPERTY											



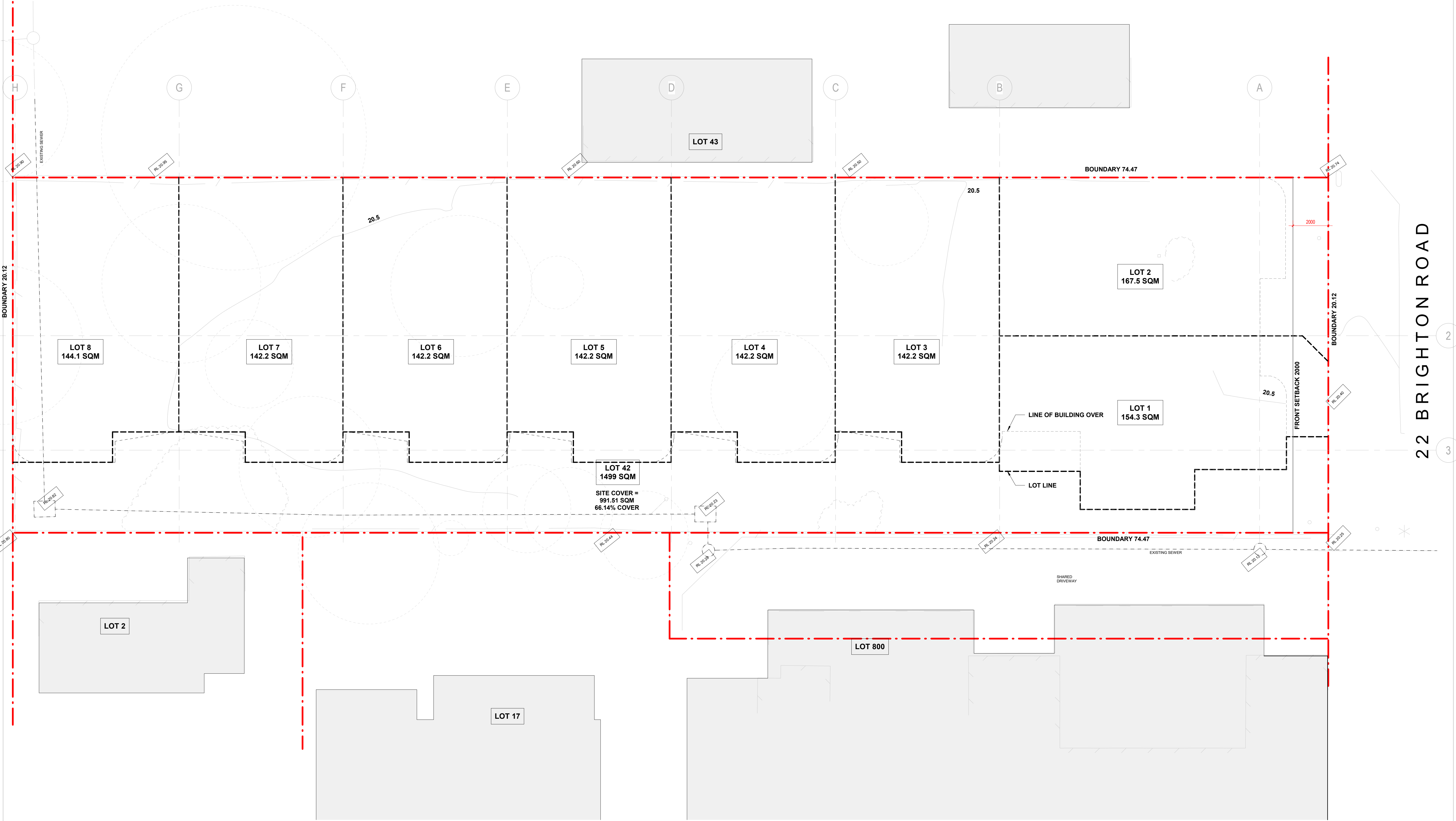
PLANNING | SPATIAL | DELIVERY

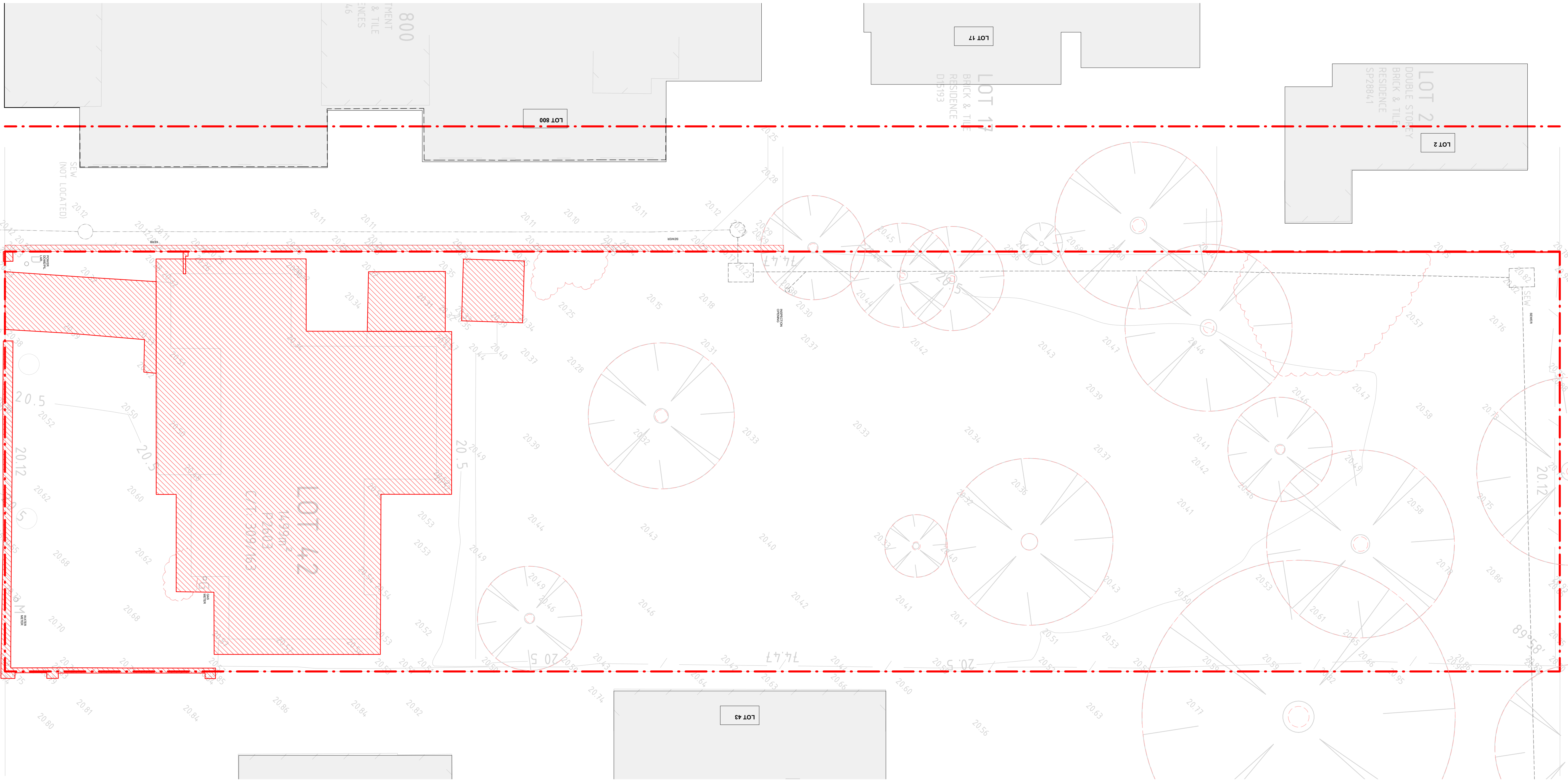
A: 1 / 294 - 296 Rokeby Road, Subiaco Western Australia 6008

P: PO Box 662, Subiaco Western Australia 6008

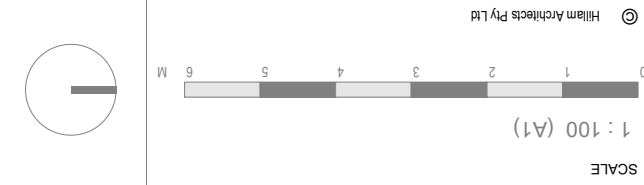
P: (08) 6119 9175 E: projects@developedproperty.com.au W: www.developedproperty.com.au

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HILLAM
ARCHITECTS

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CO. NAME	REV	DESCRIPTION	ISSUED BY	CHKD BY
24.10.2025	B	DAP RFI	AJ	TLM
12.05.2025	A	DAP SUBMISSION	LS	TLM

2505
SUBJECT NO.

WG NAME _____

DA1-02

REV
B

OVERALL LANDSCAPE AREA CALCULATIONS

SITE AREA
Total site area = 1499m²

LANDSCAPE AREAS
Total Landscape areas (all levels) = 214m² (14.2% of site)

DEEP SOIL AREAS (DSA)
Ground Floor (into natural earth)= 192m²
Total = 192m² (12.8% of site)

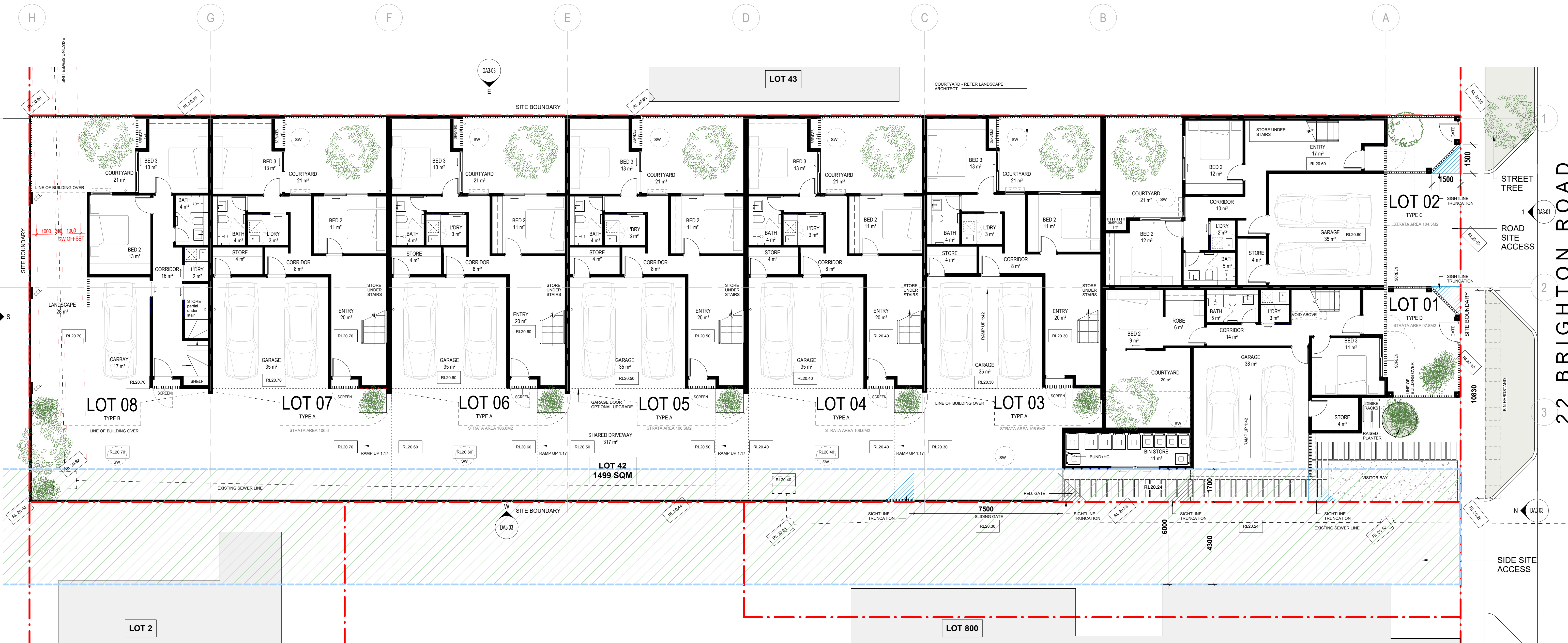
CANOPY COVER
Proposed Medium Trees (6m canopy) x 1 = 28.3m²
Proposed Small Trees (4m canopy) x 11 = 138.6m²
Total Canopy Cover = 166.9m² (11.1% of site)

LANDSCAPE CALCULATIONS - REFER LANDSCAPE REPORT FOR FULL DETAIL

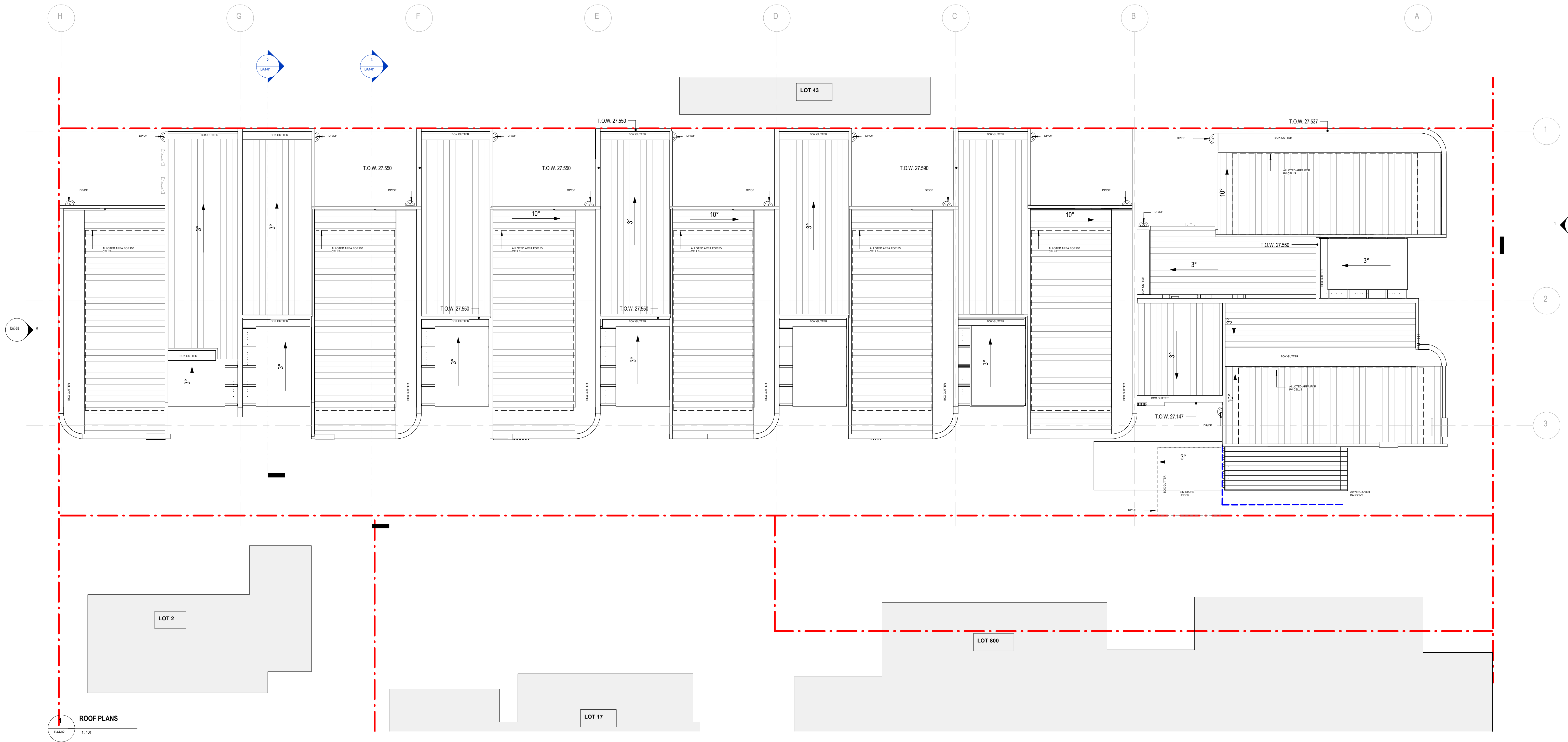
GROUP DWELLINGS CALCULATIONS

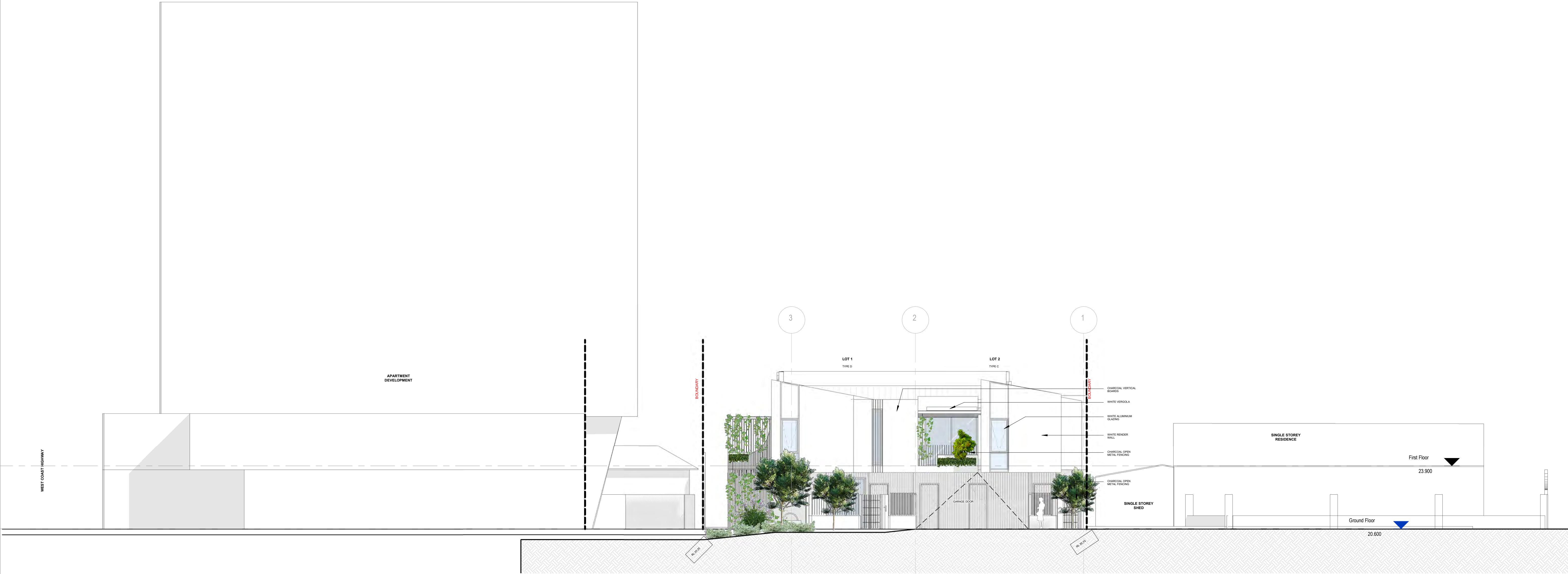
Lot/Unit	Lot Area	Landscaped Area	Front Setback %	No. of Trees
1	154m ²	32.5m ² (21%)	13.3m ² (44%)	2
2	167.5m ²	23.2m ² (16.3%)	2.4m ² (6%)	1
3	142m ²	22.7m ² (15.9%)		1
4	142m ²	22.7m ² (15.9%)		1
5	142m ²	22.7m ² (15.9%)		1
6	142m ²	22.7m ² (15.9%)		1
7	142m ²	22.7m ² (15.9%)		1
8	144m ²	22.7m ² (15.9%)		1
Common Area	324m ²	30m ² (9.2%)	16m ² (49%)	3
Total Area	1499m ²	223.9m ² (14.9%)	31.7 (32.2%)	12





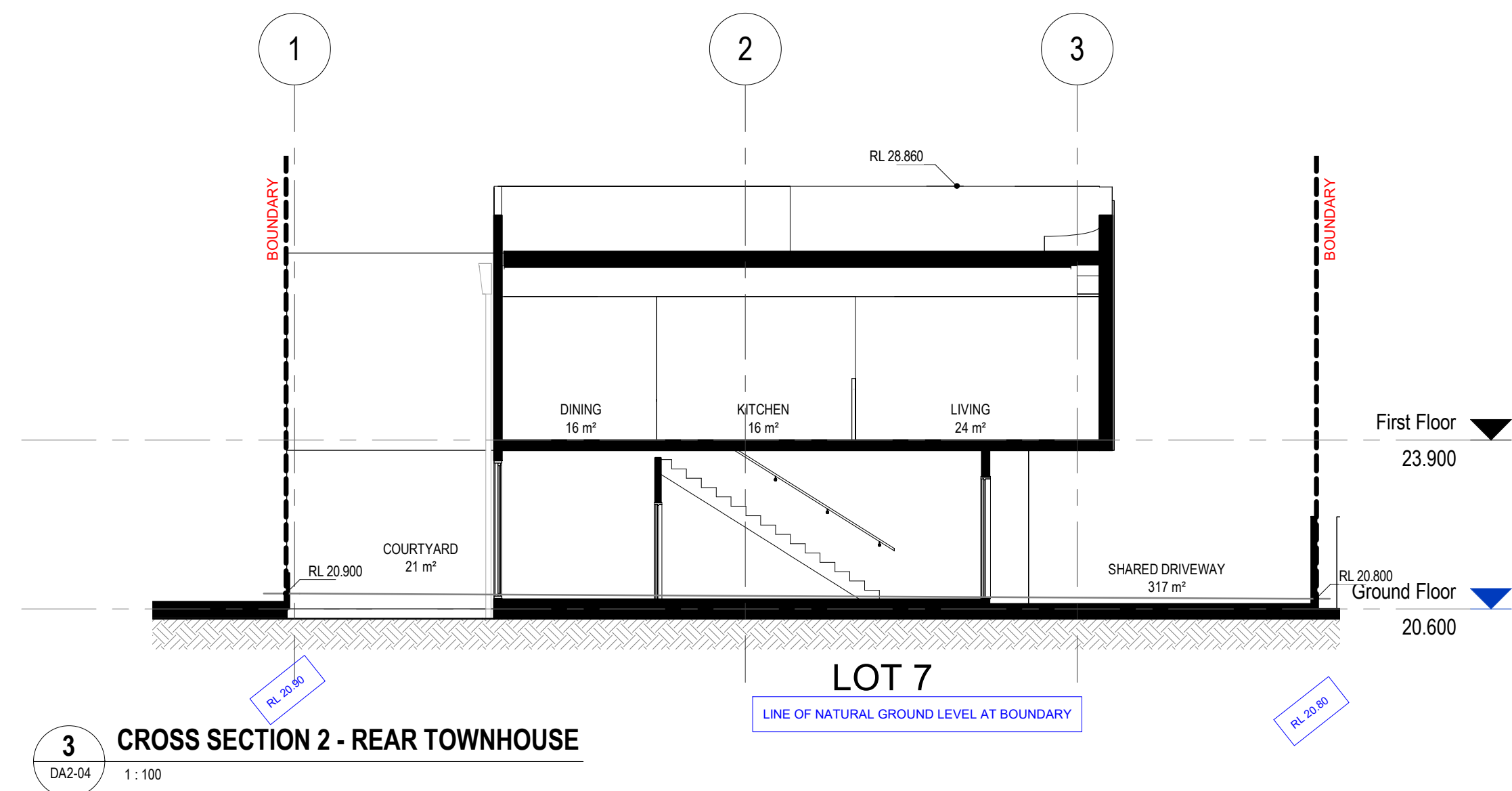
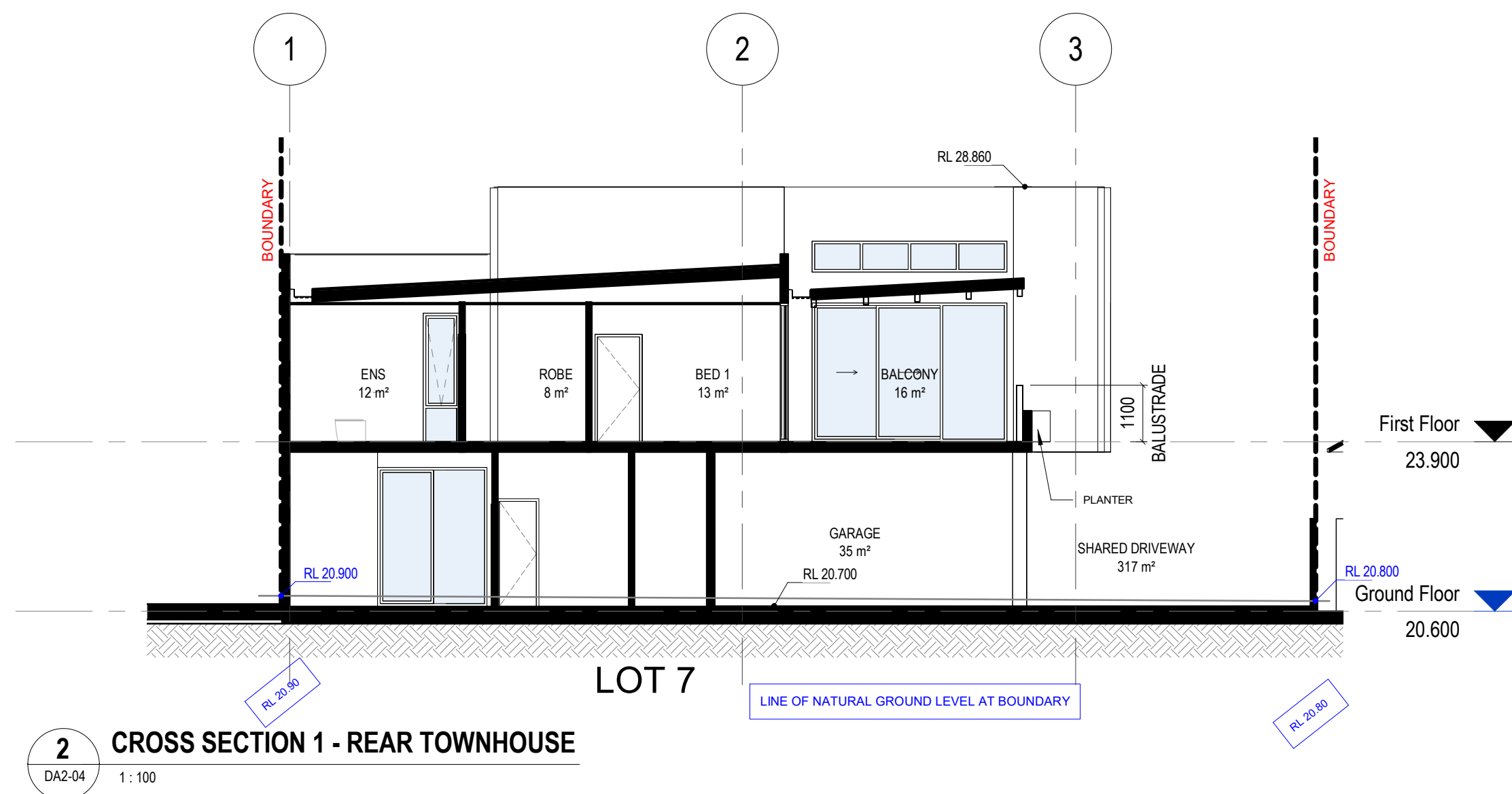
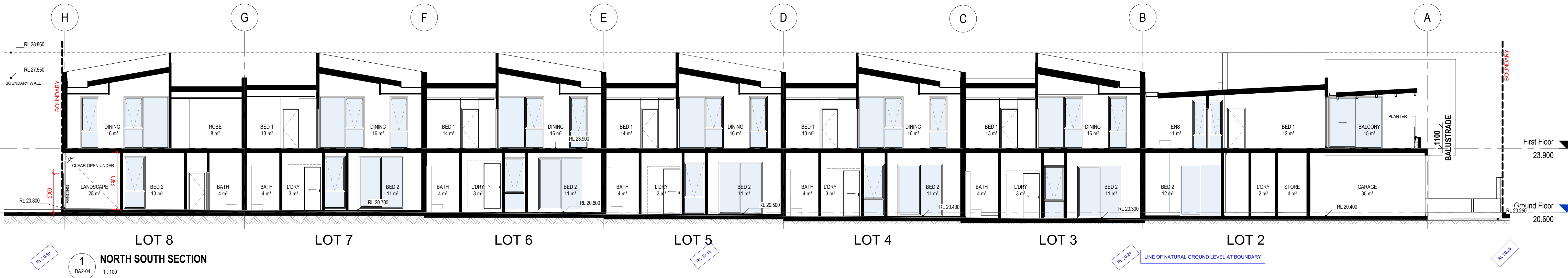
1 GROUND FLOOR PLANS
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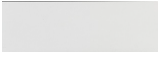
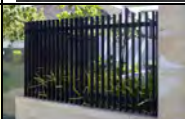
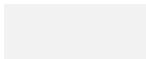
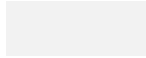
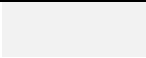


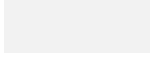
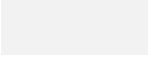
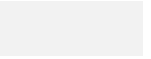


1 BRIGHTON ROAD STREET CONTEXT ELEVATION

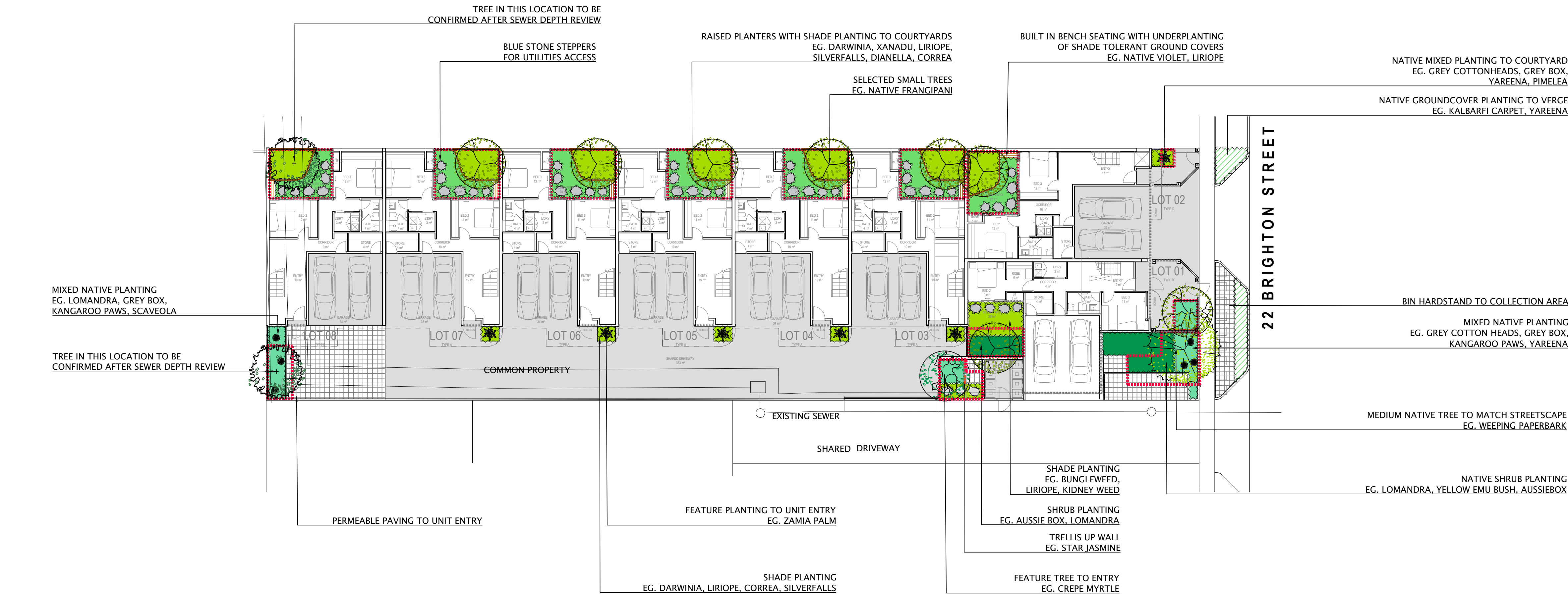
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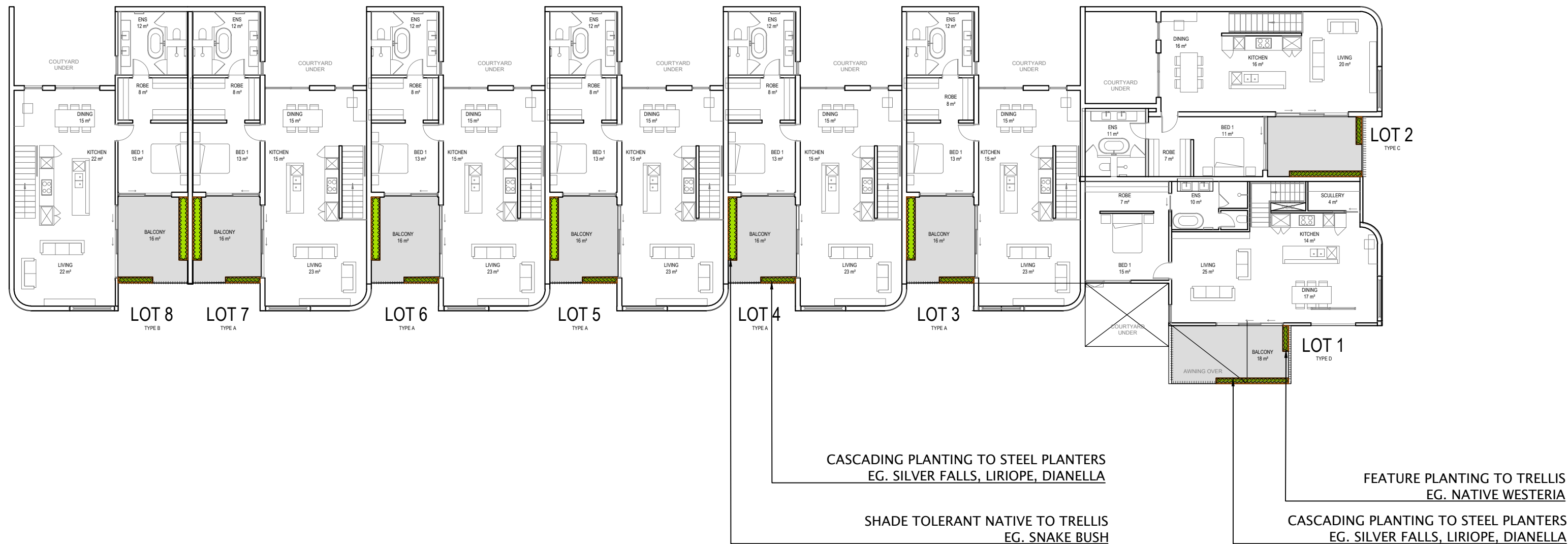
EXTERIOR SCHEDULE										SCH 01
Project name:		BRIGHTON ROAD, SCARBOROUGH								
Client:										
Project number:		2505								
Status:		DA SUBMISSION								
Issue date:		23-June-2025								
Revision:		B		revised or new items highlighted in yellow						
EXTERIOR FINISHES GENERALLY										
APPLICATION	SPEC' CODE	INSULATION / GLAZING	PRODUCT TYPE	SUPPLIER/DISTRIBUTOR	COLOUR & FINISH	REFERENCE IMAGE	NOTES	SAMPLE PROVIDED	REV No.	
GROUND FLOOR										
Window/sliding door frames (glazing)			Aluminium (Powdercoat)	Dulux Duratec Zues	Monument Matt					
Fibre Cement Cladding			Fibre Cement Panel	HARDIE	OBLIQUE 300					
			Render	Rokote	Flexi Tex Medium - Paint Lexicon Quarter					
Entry door		N/A	Pivot Entry Door	Corinthian / M&B Sales or similar	DECO Custom 2340x1020x40mm With frame					
			Painted	Dulux Duratec Zues						
			HANDLE	TBC						
Garage Door		N/A	Sectional Door	B&D Garage Doors	Batten Tilt garage doors					
Fencing walls; Building walls.		Min. R1.5 Cavity wall insulation, as per NatHERS Report.	Stone	Stone Oasis	Gray Quartz Random Natural Stone Cladding					
				Mortar	Charcoal / Dark Grey					
Balustrade		N/A	Aluminium (Powdercoat) balustrade	Star Metal	Vertical Steel Palisade					
				Dulux Duratec Zues	Monument Matt					
Letterbox		N/A	Bricked-in lockable letterbox	Milkcan or similar	Black		Unit number to be engraved into face plate.			
Render to slab edges		N/A	Cement Render	"Builders choice"	To match Lexicon Quarter					
Laneway Vehicle Gate		N/A	Aluminium electric gate - Sliding Aluminium manual gates - Hinging		SG15 or SG18 or Custom		Remainder of site fence to be termite treated hardwood timber pailings, painted white			
				Dulux Duratec Zues	Lexicon Quarter					
External soffit lining (underside of Level 1)		Min. R2.0 Rigid board insulation	Paint	Dulux Weathershield Low Sheen Paint	Lexicon Quarter					
Exterior surface		N/A	Exposed Agg	Boral	Light Grey		60mm for non trafficable and 80mm for trafficable areas.			
Exterior pavers		N/A	Permeable Pavers	AusCast	Grass/Diamond Paver		60mm for non trafficable and 80mm for trafficable areas.			
Garage internal walls					Industrial WA - Portland					
					Off white (white sand, standard grey cement)					
Vertical Landscape Trellis		N/A	Diagonal Trellis Cable System	Ronstan, AGS3C or similar	Stainless Steel		Refer to a typical detail 9 on A06-103.			

EXTERIOR FINISHES GENERALLY									
APPLICATION	SPEC' CODE	INSULATION / GLAZING	PRODUCT TYPE	SUPPLIER/DISTRIBUTOR	COLOUR & FINISH	REFERENCE IMAGE	NOTES	SAMPLE PROVIDED	REV No.
LEVEL 1 AND ABOVE									
Glazed doors and window frame		Non-thermally broken double glazing, as per NatHERS Report.	Aluminium (Powdercoat)	Dulux Duratec Zues	Monument Matt				
Render to exposed concrete slab edges		N/A	Cement Render	"Builders choice"	To match Colorbond Lexicon Quarter		Slab edges to have chamfered edges with integrated drip grooves.		
Balustrade		N/A	Aluminium (Powdercoat) balustrade	Star Metal	Vertical Steel Palisade				
				Dulux Duratec Zues	Lexicon Quarter				
External Balcony Walls		Min. R2.0 Rigid board insulation, as per NatHERS Report.	Elastometric Topcoat	Dulux Acratex	Lexicon Quarter				
Balcony Floor Tile		N/A	Porcelain Tile	myaree ceramics	Tibur Grigio Safe Module				
Roof Profile		Min. R5 Roof insulation, as per NatHERS Report.	Metal roof profile	Fielders, KingKlip 700 or similar	Colorbond, Southerly				
Exposed Rainhead		N/A	Rainhead	Dam Buster, square with hidden overflow or similar	Colorbond Monument Matt				
Exposed Downpipes		N/A	Rectangular Downpipe	"Builders choice"	Colorbond Lexicon Quarter				
Horizontal Landscape Trellis		N/A	Cable System	Ronstan, I-SYS Wire Rope System or similar	Stainless Steel				

GENERAL NOTES:
1. THIS IS A CONCEPT PLAN ONLY.
2. ALL STRUCTURES SUBJECT TO ENGINEERING
AND COUNCIL APPROVAL.
3. ALL MEASUREMENTS TO BE CHECKED PRIOR
TO CONSTRUCTION.



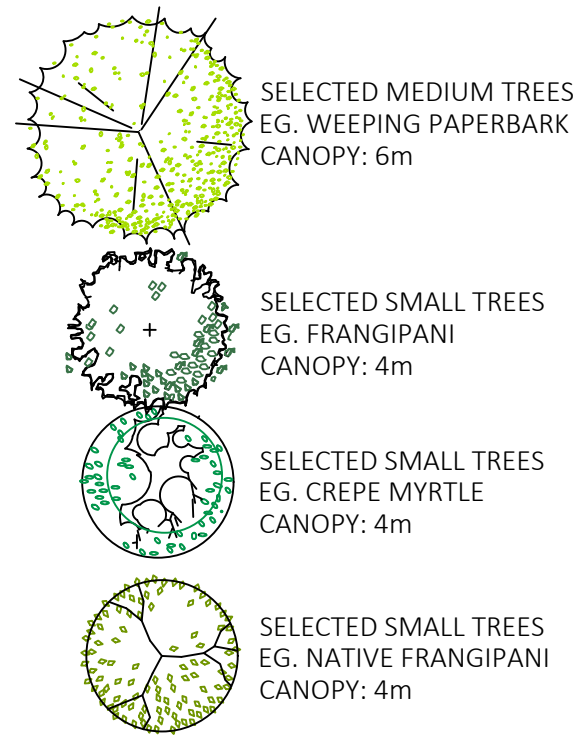
GROUND FLOOR



LEVEL ONE

OVERALL LANDSCAPE AREA CALCULATIONS				
SITE AREA				
Total site area = 1499m ²				
LANDSCAPE AREAS				
Total Landscape areas (all levels) = 214m ² (14.2% of site)				
DEEP SOIL AREAS (DSA)				
Ground Floor (into natural earth)= 192m ²				
Total = 192m ² (12.8% of site)				
CANOPY COVER				
Proposed Medium Trees (6m canopy) x 1 = 28.3m ²				
Proposed Small Trees (4m canopy) x 11 = 138.6m ²				
Total Canopy Cover = 166.9m ² (11.1% of site)				

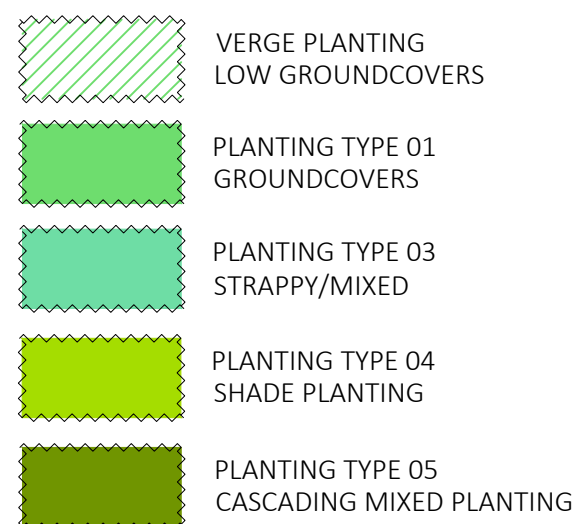
LEGEND TREES



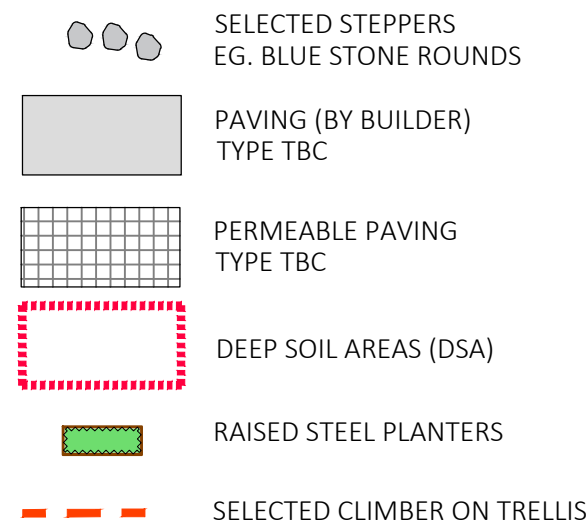
FEATURE PLANTS

SELECTED FEATURE PLANTING
EG. ZAMIA PALM & KANGAROO PAWS

PLANTING



MISC

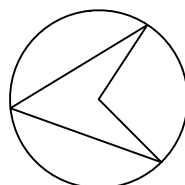


GROUP DWELLINGS CALCULATIONS

Lot/Unit	Lot Area	Landscaped Area	Front Setback %	No. of Trees
1	154m ²	32.5m ² (21%)	13.3m ² (44%)	2
2	167.5m ²	23.2m ² (16.3%)	2.4m ² (6%)	1
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Total Area	1499m ²	223.9m ² (14.9%)	31.7 (32.2%)	12

REFER TO PAGE 100 FOR PLANTING PALETTE, NOTES & IMAGES

THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS
APPROVED BY CLIENT AND REVISED '0' ISSUED FOR CONSTRUCTION



BRIGHTON ROAD GROUPED DWELLINGS LANDSCAPE CONCEPT PLAN

BRIGHTON ROAD PTY LTD
22 BRIGHTON ROAD, SCARBOROUGH

GENERAL NOTES:
1. THIS IS A CONCEPT PLAN ONLY.
2. ALL STRUCTURES SUBJECT TO ENGINEERING AND COUNCIL APPROVAL.
3. ALL MEASUREMENTS TO BE CHECKED PRIOR TO CONSTRUCTION.

TREES



SHRUBS



CLIMBERS



STRAPPY



SHADE



GROUNDCOVERS & CASCADING



REV	DATE	DWN	APP	DESCRIPTION
A		ALÄ	..	LANSÆ LANTNG ALETTE
B		ALÄ	KD	LANSÆ LANTNG ALETTE ATE
C	11.04.25	ALÄ	KD	LANSÆ ONET LAN – UPDATED

PLANTING PALETTE

Symbol	Species	Common Name	Quantities	Size
Trees:				
EUOvic	Eucalyptus viciatrix	Little Ghost Gum	As Shown	100L
HAKlau	Hakea laurina	Pin Cushion Hakea	As Shown	100L
HYMfla	Hymenosporum flavum	Native Frangipani	As Shown	100L
LAGind	Lagerstroemia indica	White Crepe Myrtle	As Shown	100L
LAGlus	Lagerstroemia tuscadora	Pink Crepe Myrtle	As Shown	100L
MELqui	Melaleuca quinquenervia	Broad-leaved Paperbark	As Shown	100L
PLUobt	Plumeria obtusa	Frangipani	As Shown	MTP
Groundcovers and Cascading:				
ACAsil	Acacia saligna prostrate	Wattle	2/m2	140mm
CAScou	Casuarina glauca 'Cousin It'	Cousin It	2/m2	140mm
CORfir	Correa 'Fire Bells'	Fire Bells	2/m2	140mm
DICsil	Dichondra 'Silver Falls'	Silver Falls	2/m2	140mm
EREblu	Eremophila 'Blue Horizon'	Blue Horizon	2/m2	140mm
HEMpun	Hemandra pungens	Snake Bush	4/m2	140mm
HIBsca	Hibbertia scandens	Snake Vine	2/m2	140mm
MYOpar	Myoporum parvifolium 'Yareena'	Yareena	2/m2	140mm
ROSOff	Rosmarinus officinalis 'Prostratus'	Creeping Rosemary	2/m2	140mm
SCAHum	Scaevola humilis 'Purple Fusion'	Fan Flower	2/m2	140mm
THYser	Thymus serpyllum	Creeping Thyme	2/m2	140mm
Strappy:				
CONcan	Conostylis candicans	Grey Cottonheads	3/m2	140mm
DIAeme	Dianella tasmanica 'Emerald Arch'	Emerald Arch	3/m2	140mm
DIAREv	Dianella revoluta	Blue flax lilly	3/m2	140mm
LOMTan	Lomandra 'Tanika'	Tanika	3/m2	200mm
Shrubs:				
CARmar	Carissa macrocarpa	Desert Star	3/m2	200mm
EREmac	Eremophila maculata	Yellow Emu Bush	2/m2	200mm
OLExai	Olearia axillaris	Coastal Daisy	3/m2	200mm
PIMfer	Pimelea ferruginea	Rice Flower	3/m2	200mm
PITmis	Pittosporum tobira 'Miss Muffet'	Miss Muffet	3/m2	200mm
RHAori	Rhapiolepis 'Oriental Pearl'	Dwarf Indian Hawthorn	2/m2	200mm
WESaus	Westringia 'Aussie Box'	Aussie Box	3/m2	200mm
WESgre	Westringia 'Grey Box'	Grey Box	3/m2	200mm
Shade Planting:				
AJUrep	Ajug reptans	Bungle weed	3/m2	140mm
CORdus	Correa 'Dusky Bells'	Dusky Bells	3/m2	140mm
DARCit	Darwinia triflora	Darwinia	3/m2	140mm
DICrep	Dicentra repens	Kidney plant	3/m2	140mm
LIRjus	Liriope 'Just Right'	Just Right	3/m2	140mm
MYOpor	Myoporum parvifolium 'Yareena'	Yareena	2/m2	140mm
OPHjap	Ophiopogon japonicus	Mondo	3/m2	200mm
PHIXan	Philodendron Xanadu	Xanadu	3/m2	200mm
SANtri	Sansevieria trifasciata laurentii	Mother-in-law's Tongue	3/m2	200mm
VIOhed	Viola hederacea	Native Violet	3/m2	200mm
Feature Plants:				
ANIfila	Anigozanthos flavidus	Kangaroo Paw	2/m2	12L
HARwhi	Hardenbergia violacea 'White Out'	White Native Wisteria	2/m2	12L
TRAjas	Trachelospermum jasminoides	Star Jasmine	2/m2	12L
ZAMfur	Zamia furfuracea	Cardboard Palm	2/m2	12L

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Attachment 2 - Aerial Location Plan



West Coast Hwy
After Brighton
Rd

West Coast Hwy
Before Brighton
Rd

West Coast Hwy

West Coast Hwy

Hastings St

Brighton Rd

Brighton Rd

Brighton Rd
After West
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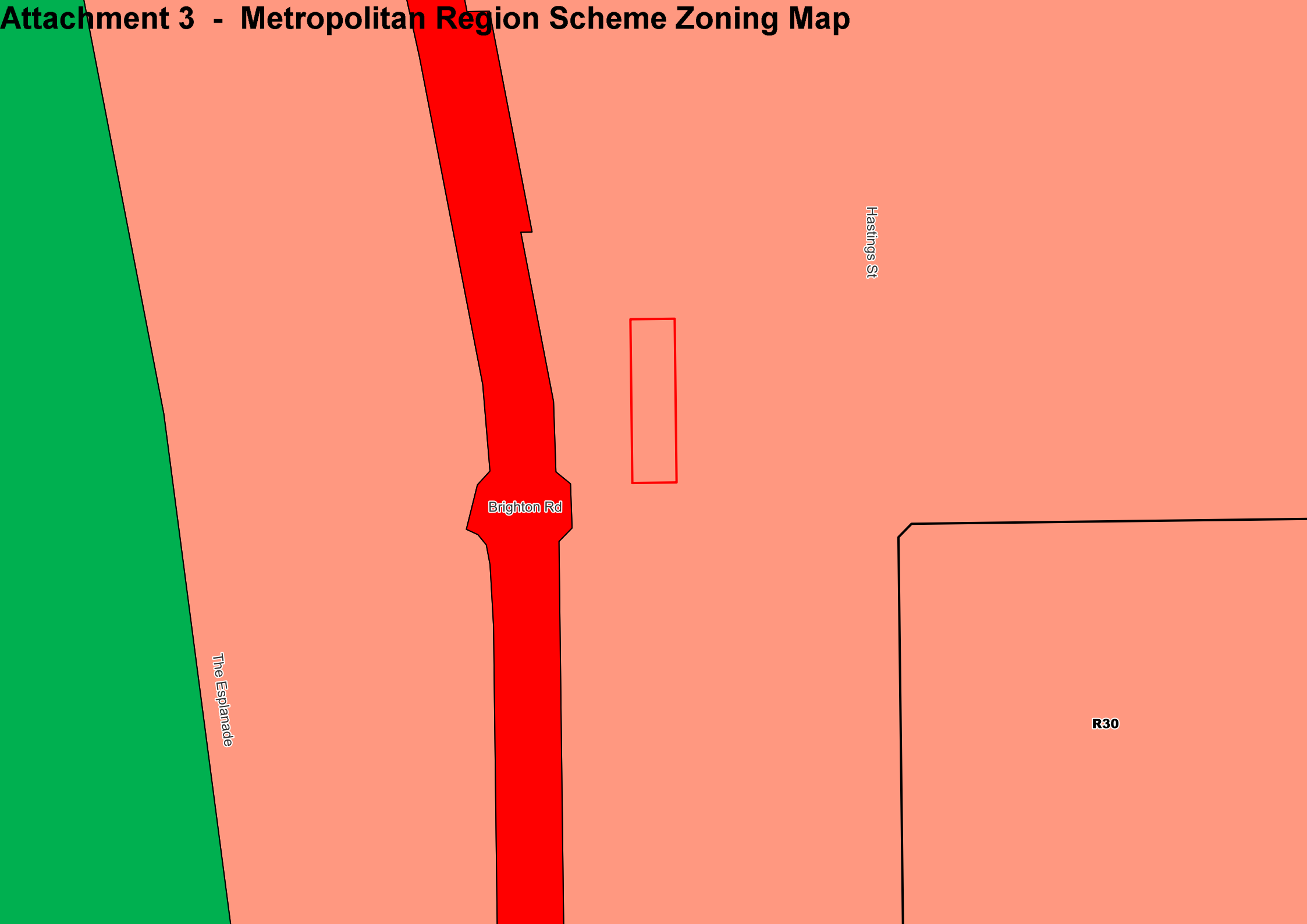
Sat Aug 30 2025

Imagery © 2025 Nearmap, HERE

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Nearmap

Attachment 3 - Metropolitan Region Scheme Zoning Map



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



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DAP APPLICATION

Eight Grouped Dwellings
22 Brighton Road, Scarborough

Planning Report
June 2025

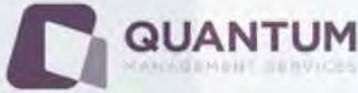


Project Team

Proponents

Brighton Road (Wa) Pty Ltd

Quantum Management Services



Architect

Hillam Architects



Town Planning / Waste Management / Spatial Statement

Developed



Traffic Consultant

Urbii Consulting



Landscape Consultant

KDLA



Sustainability Consultant

Cundall



Issue	Date	Status	Prepared By	Approved By	Circulated
V1	8 May 2025	Draft	MS	DP	Y
V2	9 May 2025	Draft	MS	DP	Y
Final	3 Jun 2025	Lodge	MS	DP	Y

Developed acknowledges Aboriginal and Torres Strait Islander people as the traditional custodians of the land on which we deliver our services. We pay our respects to elders and leaders past, present and emerging.

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- use of, or reliance upon, this report in relation to any land other than the subject site; or
- the Client's implementation, or application, of the strategies recommended in this report.

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4	Planning Assessment	12
5	Technical Considerations	15
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7	Conclusion	26

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Attachments

1	Development Plans	Hillam Architects	1 Jun 2025
2	Traffic Impact Assessment	Urbii	1 May 2025
3	Sustainability Report	Cundall	1 May 2025
4	Waste Management Plan	Developed	31 May 2025
5	Spatial Statement	Developed	31 May 2025

1.0 Introduction

This report has been prepared by Developed on behalf of the landowners and for No. 22 Brighton Road, Scarborough for a proposed residential development comprising of eight (8) two-storey grouped dwellings.

The development site is located within a Development Zone of the City of Stirling's Local Planning Scheme No. 3 area, within an emerging medium to high density infill area of the suburb of Scarborough. The development proposal is consistent with the planning ambitions for the zone as it has been designed to satisfy the Scarborough Design Guidelines - Beach Road Precinct and the intended planning outcomes of the locality.

The development has been considerably conceived by experienced architects, Hillam, to carefully address features such as the locational attributes, maximising views of the coast and the distinct Scarborough Beach district centre.

Preliminary design review has been sought through the City of Stirling's Pre-Development Application (PDA) process with correspondence between the City and the proponent (Developed) forming the basis of the proposal. It was the strong preference of Developed to engage the determining authority prior to the submission of a Development Assessment Panel (DAP) application to gauge and understand the planning complexities development area and locally driven priorities of the City of Stirling.

During the initial stages of the design review process, the PDA was lodged April 2025 with a request to attend the Design Review Panel (DRP). The submission was rejected by the City as it determined that Grouped Dwellings are exempt from requiring a DRP assessment. Every conceivable effort was made to work with the City prior to this application being lodged. Despite the early limitations, the City has been amicable in assisting the design team with respect to traffic, waste and other engineering related matters, which has been received with a great deal of positivity towards the propped development.

In the absence of early guidance, a high-level design has been prepared, as the landowner and developer intend on providing a high-level orientated residential development for the Scarborough locality. In addition, the design team comprises of expert technicians which have been engaged to provide planning, design, landscape and operational advice for transport, waste and sustainability measures.

This report intends to provide a comprehensive planning assessment against the State and Local government planning framework, and details performance against the applicable objectives and requirements. This in part will demonstrate that the proposal is of an appropriate built form, a quality design, with contextually appropriate housing typology, resulting in an overall development proposal that is appropriate for development approval.

2.0 Development Background

2.1 Site Context

The subject development site is located at No. 22 Brighton Road and has its primary frontage to Brighton Road. There is an existing easement located on the western boundary which is required for vehicle access to majority of the proposed rear orientated lots. Upon the determination of the development, the formalisation of access will be made for the use of the easement to enable access to the rear of the proposed development. A Spatial Statement has been prepared and attached as part of this report.

The site has a total land area of 1,499m², with a 20.12m frontage to Brighton Road and a 74.47m side boundary dimension. The site contains an existing single house which due to be demolished to facilitate the development.

The Brighton Road verge and footpath is sparse and does not include any notable features. There are no verge trees, minimal street signs and a single light pole. The footpath is in poor condition and will be repaired upon redevelopment of the site.

Development within the immediate locality has historically been grouped dwellings or single houses on large lots. The locality has gradually transitioned to large grouped/multiple dwellings that occupy two or more lots.

Located in proximity is Westfield Karrinyup, approximately 2.8km providing local amenity alternatives to the readily available Scarborough Beach, approximately 700m and in walking distance. Other notable destination is Trigg Beach (2.3km north), Perth CBD (10km east) and High Frequency Bus routes 410/412 (<50m walkable catchment zone).

The site falls within the Scarborough Redevelopment Area, a major urban renewal initiative led by Development WA (previously known as the Metropolitan Redevelopment Authority), aimed at creating a high-quality coastal destination with residential, commercial, retail, and recreational opportunities, along with effective transport solutions. As the site is subject to a Development Zone (requiring a structure plan), the Local Planning Framework, Scarborough Design Guidelines is applicable. The report includes an assessment in accordance with the framework in Section 4.0.

General Site Details

Owners: Brighton Road (WA) Pty Ltd

Lot Size: 1,499m²

Certificate of Title: Volume 309 Folio 163 – Lot 42 on Plan 2603

Encumbrances: Easement N997208

Development Zone – subject to the Scarborough Design Guidelines and does not have an allocated residential density. Therefore, the subject site is considered to be of an appropriate built form outcome of **Residential R60**



Site Aerial (MNG 2025)



Brighton Road Streetscape (Google 2024)

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2.2 Development Proposal

The development application proposes eight (8) grouped dwellings and common property on a built strata lot. Units 1 and 2 is proposed to derive access via Brighton Road (primary street), whereas Units 4-8 will derive access via the common property easement along the western lot boundary.

The Units will be finished in a complimentary aesthetic and will include a series of soft and deep soil landscaping within the front, rear and upper outdoor areas of the dwellings. The proposed elements of the dwelling achieve a high-quality design that is responsive to the site's context, solar access and shading needs with an emphasis on private garden space and communal areas.

Units 2-7 all have similar floor layouts, whilst Unit 1 has a unique orientation due to the garage location and communal areas. The development proposes all eight units to have two (2) stories and access to the communal area via the common access leg.

The Units include the following elements:

- Ground floor: double garage, services area, store, two bedrooms and ensuite.
- First floor: kitchen, dining, living room, balcony terrace, master bedroom and ensuite.
- Extensive landscaping, with soft and hardscape areas at the ground floor, an upper floor balconies and terraces.



Unit Layout Plan

3.0 Planning Framework

3.1 Strategic Planning Framework

Perth and Peel@3.5million is the overarching strategic planning framework for the Perth and Peel metropolitan regions. Perth and Peel@3.5million proposes five strategic themes for a liveable, prosperous, connected, sustainable and collaborative city. The framework aspires to a city that provides a network of connected activity centres which deliver employment, entertainment and high-density lifestyle choices.

The framework identifies that additional 800,000 dwellings will be required from 2011 to 2050. The proposed development seeks to consolidate density into the Hillarys area, helping the City meet its strategic dwelling targets set by the State government.

3.2 City of Stirling Local Planning Scheme No. 3

The subject site is zoned 'Urban' under the Metropolitan Region Scheme (MRS) zoned 'Development' under the City of Stirling's Local Planning Scheme No. 3 (LPS 3). The residential land use grouped dwelling in accordance with LPS 3 is neither permitted, discretionary or not-permitted, rather subject to a local structure plan due to the Development Zone.

In the context of the site and proposal, it is subject to the land use table of the Scarborough Design Guidelines. Section 3.5 below provides clarity regarding the preferred land use and residential density.



Extract of Local Planning Scheme No. 3 – Scarborough

3.3 City of Stirling Draft Local Planning Scheme No. 4

The City of Stirling is undergoing a review of their Local Planning Framework, with their Draft Local Planning Scheme No. 4 (LPS4) currently being considered for endorsement. As of May 2025, it is understood that the LPS4 has not been endorsed by the WAPC.

Notwithstanding, in anticipation for the ultimate adoption and change in desired planning preference, a brief review is provided below.

It is understood that the development site changes from its Development Zone to Mixed Use Zone due to the R-AC0 allocation. The new allocation of zoning enables a new land use of *Dwelling* (Grouped Dwelling) as a discretionary use ('D') to be applicable. In addition to the discretionary use, clause 32(6) *Additional site and development requirements* requires non-residential uses at the street frontage to include the following:

Residential uses are not permitted at ground level unless:

- i. *located behind non-residential uses at the street frontage;*
- ii. *fronting a right of way; or*
- iii. *fronting a right of way; or the use forms part of a multi-storey development and is designed for future adaptation to non-residential uses.*

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If assessed and considered in accordance with LPS4 the current proposal would seek discretion in addition to the land use as it is not the preference to accommodate a non-residential use in the first instance. Notwithstanding, Clause 34(2) states:

The local government may approve an application for development approval that does not comply with an additional site and development requirements.

Despite the provisions of LPS4, advice was sought prior to the design phase of the proposed application. The City of Stirling Pre Development Advice, provided December 2024 (PDA24/0081) was sought with specific regard to subdivision and development controls. The City advised that it may consider an application that varies the Scheme requirements, applying clause 34(2).

It is the preference to have this application determined in accordance with the current planning framework. Notwithstanding, if the application was assessed following the adoption of the Scheme, the likelihood of inclusion of a non-residential use can be considered.

3.4 MRA Scarborough Redevelopment Area Design Guidelines – Beach Road Precinct

In accordance with the City of Stirling LPS3, the development site falls within the Development Zone which is subject to a Structure Plan to enable development.

The Scarborough Redevelopment Area Design Guidelines have been prepared to guide development within the Scarborough Redevelopment Area and ensure delivery of the vision defined by the Scarborough Redevelopment Scheme. The Design Guidelines require development proposals within the Redevelopment Area to deliver high quality design outcomes for the area and contribute to the amenity of each precinct in which they sit. The precinct in which the development site falls within the area is the Beach Road Precinct.

Due to the silent nature of the City's LPS3 regarding applicable land use for the locality, an assessment in accordance with the allocated precinct guidelines the Beach Road Outer Core [F] has been undertaken to duly qualify the proposal as a suitable development.

Beach Road Outer Core [F] –

*Beach Road Outer Core provides opportunity for **medium** to high density **residential** and mixed-use development that will attract both **permanent residents** and short stay visitors, contributing to the activation and **liveability** of the Redevelopment Area.*

The preferred land use is Residential. The proposal seeks Grouped Dwellings as the preferred land use and therefore residential at both the ground and first floors of the proposed dwellings.

In addition to the preferred land use, any planning controls assessment of the Beach Road Precinct are presented below in Section 4.0.

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3.5 State Planning Policies

State Planning Policy 7.0 - Design of the Built Environment (SPP 7.0)

The development proposal has been designed by Hillam and Developed. In anticipation of a Design Review Panel, an assessment of the 10 design principles has been prepared. Please refer to Section 6.0 – Design Performance of this report for a detailed response to SPP 7.0.

State Planning Policy 7.3 – Residential Design Codes Volume 1 – Part C

An assessment in accordance with the R-Codes has been undertaken to duly qualify the proposal as a suitable development. Any departures identified have been justified and are presented below in Section 4.0.

State Planning Policy 5.4 – Road and Rail Noise (SPP 5.4)

The development proposal has been assessed by an experienced Western Australian traffic engineer. An assessment in accordance with the road and noise triggers are included in Attachment 2.



View of Unit 4 from common property access.

4.0 Planning Assessment

State Planning Policy 7.3 Volume 1 is the primary planning control document for single houses, grouped dwellings and low-density multiple dwellings in Western Australia. As outlined in State Planning Policy 7.3 R-Codes Volume 1, each design element includes a deemed-to-comply and design principles provision. Where a proposed development does not satisfy the deemed-to-comply requirement, it can be demonstrated that it satisfies the design principles of each respective element.

A design must also demonstrate that it meets the statement of intent or objectives of respective Local Planning Policies which are applicable to the proposed development. Planning applications will be assessed in context of the entire development design to ensure the objectives are achieved.

The proposal has been assessed in accordance with the Residential Design Codes (Part C) and the City of Stirling's Scarborough Design Guidelines. As the City's local policy was prepared in September 2016 and is now considered outdated as opposed to the newly adopted R-Codes Part C, due regard has been provided and assessed below as there is still merit in the planning framework.

For the purpose of this assessment, the subject site is considered to be of an appropriate built form outcome of Residential R60. This is determinant of the City's Scarborough Design Guidelines, as it is evident that the Beach Road Outer Core is orientated towards medium to higher density development. Therefore, the assessment is in accordance with the R60.

Identified design departures are indicated below. Any additional elements of the R-Codes Part C have been assessed and documented in the assessment table.

It is in our opinion that on balance, the variations can be considered minor and will satisfy their respective design principle and therefore does not require a detailed assessment and justification until requested by the City of Stirling. At such time if required, through a formal request for further information, the sought departures can be adequately justified and provided for consideration.

SCARBOROUGH DESIGN GUIDELINES – BEACH ROAD OUTER CORE [F]

7.4.2 DEVELOPMENT STANDARDS

Preferred Land Uses	✓
Setbacks	✓
Building Heights	✓
Podium Heights	✓
Minimum Lot Size	✓
Percentage Site Coverage	✓
Authority Sustainability Rating	✓

DESIGN ELEMENT	ASSESSMENT
Preferred Land Uses	Ground Floor & Upper Floor Required – Residential Provided – 8 Grouped Dwellings is proposed and meets the preferred land use for both the ground and upper floor.
Set Backs <i>The proposed 2 storey grouped dwelling is considered to not exceed the permissible 3 storey podium maximum allowance.</i> <i>Therefore, it is presumed that the required Upper Floor setbacks are not applicable.</i> <i>For the purposes of assessment, the second storey primary and side and rear setbacks have been assessed in accordance with the podium provisions.</i>	Podium (primary) Street Setback (Ground Floor) Required – 2m Proposed – - Unit 1/2 - 3.8m - Unit 3/4/5/6/7/8 – N/A (sufficiently setback)
	Podium Side/Rear Setback (Ground Floor) Required – Nil Proposed – - All Units propose nil setbacks to the eastern lot boundary. - All Units propose nil setbacks to the northern lot boundary. Noting units share an internal wall. - Unit 3/4/5/6/7/8 proposes a 6m setback from the common property - Unit 1 proposes a 0.52m (520mm) setback from the common property
	Podium (primary) Setback (Upper Floor) Required – 2m Proposed – - Unit 1/2 - 3m - Unit 3/4/5/6/7/8 – N/A
	Podium Side/Rear Setback (Upper Floor) Required – Nil

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<i>Building Heights</i>	Required – 8 Storeys (29m) Proposed – All Units propose 2 Storeys (7.85m)
<i>Podium Heights</i>	Required – 3 Storeys (11.5m) Proposed – All Units propose 3.1m wall heights.
<i>Minimum Lot Size</i>	Required – 100m ² Proposed – the lot size is considered as the entire lot.
<i>Percentage Site Coverage</i>	Required – 80% Proposed – 66.14%
<i>Authority Sustainability Rating</i>	An ESD Report has been prepared to ensure compliance with the Guidelines. Tier 3, or higher level is anticipated.

R-CODES VOL.1 PART C – DEEMED-TO-COMPLY ASSESSMENT SUMMARY

1.0 THE GARDEN	3.0 NEIGHBOURLINESS
1.1 Private open space ☒	3.1 Site cover ☒
1.2 Trees and landscaping ☒	3.2 Building height ☒
1.3 Communal open space N/A	3.3 Street setbacks ☒
1.4 Water management and conservation ☒	3.4 Lot boundary setbacks ☒
	3.5 Site works and retaining walls ☒
	3.6 Streetscape ☒
	3.7 Access ☒
2.0 THE BUILDING	3.8 Retaining existing dwellings N/A
2.1 Size and layout of dwellings ☒	3.9 Solar access for adjoining sites ☒
2.2 Solar access and natural ventilation ☒	3.10 Visual privacy ☒
2.3 Parking ☒	
2.4 Waste management ☒	
2.5 Utilities ☒	
2.6 Outbuildings N/A	
2.7 Universal design N/A	
2.8 Ancillary dwellings N/A	
2.9 Small dwellings N/A	
2.10 Housing on lots less than 100m ² N/A	

LAND – R-CODES VOL.1 PART D

1.0 LAND
1.1 Site area ☒

DESIGN ELEMENT	ASSESSMENT
1.2 Trees and Landscaping <i>Soft Landscaping</i>	Required – 15% Proposed – 18.14%
3.1 Site Cover <i>Maximum Site Cover</i>	Required – 70% Proposed – 66.14%
3.2 Building Height <i>Maximum Building Height</i>	Required – Max 3 Storeys Max wall/roof height 11m Max wall height 10m Proposed – All Units propose 2 Storeys (7.85m) max building height and 3.1m max wall heights.
3.3 Street Setbacks <i>Maximum Street Setbacks</i>	Required – 2m Proposed – Ground Floor - Unit 1/2 – 3.8m - Unit 3/4/5/6/7/8 – N/A First Floor - Unit 1/2 – 3m - Unit 3/4/5/6/7/8 – N/A
3.4 Lot Boundary Setbacks <i>Minimum Lot Boundary Setbacks</i>	Required – - Up to 3.5m (1st Storey) – 1m 3.6m-7m (2nd Storey) – 1.5m Proposed – All Units meet the deemed-to-comply setback requirements.
3.4 Lot Boundary Setbacks <i>Maximum Boundary Wall Heights</i>	Required – 7m (2 Storeys) Proposed – All proposed boundary walls 6.7m to 3 lot boundaries.

5.0 Technical Considerations

5.1 Transport and Access

A transport assessment has been undertaken by a suitably qualified consultant Urbii Consulting, to assess the traffic impact of the proposed development, as well as site access considerations,

and alternative transport options. The assessment found that the proposed development would not have a significant impact on local traffic and that there is sufficient proposed car parking within the development, as well as a very good level of alternative transport options. Please refer to **Attachment 2 - Transport Impact Statement**.

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5.2 Sustainability (ESD)

A ESD report has been prepared by a suitably qualified consultant Cundall. In accordance with the aims of the City of Stirling's Local Planning Scheme No. 3, the design principles of State Planning Policy 7.0, and City of Stirling's Local Planning Policy 6.10, sustainable design, construction, and operation are fundamental aspects of the development proposal. Please refer to **Attachment 3 – Design Performance**

5.3 Waste Management

A waste management plan has been prepared by a suitably qualified consultant Developed. In accordance with City's Local Law 2010. It is proposed that waste collection will occur via the Brighton Road verge, rather than within the constrained internal car parking area, as previously discussed with the City of Stirling technical staff (May 2025). Please refer to **Attachment 4 - Waste Management Plan**.

5.4 Spatial Statement

A spatial statement has been prepared by a suitably qualified land surveyor Developed. Please refer to **Attachment 5 – Spatial Statement**

6.0 Design Performance

6.1 SPP 7.0 – Design Principles Assessment

The development application plans and supporting documentation have been designed and prepared in accordance with the ten principles of good design as set out in State Planning Policy 7.0 Design of the Built Environment. A summary of the development application against the ten principles is provided Hillam Architects below.

1 Context and Character	The proposed design for the site in Scarborough responds to the area's coastal character by incorporating sweeping curves and natural elements, aligning with the urban renewal vision for the Scarborough Redevelopment Area while enhancing the sense of place with its curved architectural forms.
2 Landscape Quality	The landscape design, developed in collaboration with KDLA Landscape Architects, integrates with the coastal context of Scarborough Beach by using sustainable, water-wise planting, raw natural materials, and a Mediterranean-inspired aesthetic, enhancing both the built form and ecological environment while fostering a welcoming, community-oriented atmosphere.
3 Built form & scale	The proposed development of eight townhouses has been designed with careful massing and height modulation to capture ocean views where possible, minimise building bulk, and integrate with the surrounding environment while providing adequate natural light, ventilation, and privacy for residents.
4 Functionality & Build quality	The design prioritises user-friendly, high-livability features by providing each apartment with a private courtyard, ensuring cross-ventilation and solar access, while offering efficient vehicle and pedestrian access, ample parking, and easy connectivity to the surrounding area.
5 Sustainability	The design incorporates a range of sustainable features, including passive and active design elements, renewable energy systems, water-efficient fixtures, eco-friendly materials, and initiatives for waste management, urban ecology, and transportation to optimise environmental, social, and economic outcomes throughout the development's lifecycle.
6 Amenity	The design enhances internal and external amenity by offering diverse residential features such as bike parking, private courtyards, and a communal shower/surfboard washdown area, while aligning with the Scarborough Redevelopment Area's vision to create a vibrant, sustainable urban-coastal environment for residents, visitors, and the local community.

7 Legibility	The design enhances legibility through clearly defined access points, with the pedestrian entry framed by solid and batten screening, individual laneway dwelling entries marked by screened gates and landscaping, and the vehicle entrance distinguished by unique materials, paving, and planting, all supported by appropriate signage to guide users effectively.
8 Safety	The design optimises safety and security by clearly defining building entry points, orienting dwellings to face the development's edges for effective casual surveillance, and ensuring continuous passive surveillance of shared spaces, well- lit access points, and high-security measures to minimize risks and support safe behavior.
9 Community	Open garages (carport) along the laneway foster a sense of community within the development, while spacious, accessible courtyards and terraces connect ground- floor dwellings to the street; shared spaces, including a washdown area and gardens, further encourage social interaction and strengthen the community atmosphere.
10 Aesthetics	The design process has resulted in an attractive and inviting development, with a distinctive façade that balances energy and sensitivity to its surroundings, featuring curved white textured walls, dark ground plane elements, and lush landscaping, while durable materials and a limited color palette enhance the building's form through light, shadow, and depth.



Internal view of Ground Floor Bedrooms

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1 - Context and Character

Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.

The subject site is located in the City of Stirling, approximately 14 kilometers northwest of Perth's Central Area, in Scarborough with frontage to Brighton Road. Positioned on the northern side of the road between West Coast Highway and Hastings Street, the site is approximately 400 meters east of Scarborough Beach foreshore.

The site falls within the Scarborough Redevelopment Area, a major urban renewal initiative led by Development WA, aimed at creating a high-quality coastal destination with residential, commercial, retail, and recreational opportunities, along with effective transport solutions.

The proposed design draws inspiration from the existing contextual elements, such as the curved forms found in Scarborough Beach Foreshore developments and the surrounding natural features. Sweeping curves are introduced across the façade, reflecting the character of the precinct and the mature trees in the area. The townhouse design incorporates coastal curvilinear elements, with these flowing forms echoed in the hardscape and architectural surfaces, reinforcing the fluidity of the coastal environment.

2 - Landscape Quality

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.

Given the site's location within 500m of Scarborough Beach, sensitivity to the coastal attributes was essential when approaching the landscape design, developed in collaboration with KDLA Landscape Architects.

Key design elements include:

- Green entrances and edges: Creating a welcoming environment and unique experience for residents and visitors.
- Various trees and planting: Carefully selected to complement the architectural form and enhance its visual appeal.
- Ground floor landscaping: A large portion is located on the ground floor, defining the ground plane and enhancing community interaction with the public space.
- Architectural harmony: The landscape design complements the built form with warm textures and materials, using raw natural WA materials, warm tones, and varied textures to create a Mediterranean-inspired aesthetic.
- Thematic response: The landscape design reflects the surrounding natural, coastal and built environments.

Main landscape elements include:

- Robust species: A variety of tones, textures and species that suit coastal conditions.
- Street appeal: Enhanced through green soft-scaping.
- Screening: Low hedging used for privacy and aesthetic appeal.
- Permeability: Preserving sightlines for openness.
- Breaking linear forms: Softening the hard lines of the built environment.
- Street planting: Utilization of natural clumps for a more organic look.
- Water-wise design: Use of light and bright exposed natural colors to maintain sustainability and visual appeal.

3 - Built form and scale

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.

The proposal involves the development of eight (8) dwellings, each featuring two (2) bedrooms, two (2) bathrooms, and a powder room. The design ensures all dwellings have access to ocean views and breezes, in line with the applicable height standards, while maintaining the amenity of neighboring properties.

The architectural form and scale have been carefully designed to define each townhouse distinctly, presenting two separate forms when viewed from the south. This is achieved through varying setbacks, landscaping, and materials, reducing the perception of bulk and adding visual interest. The development includes two (2) dwellings at the road frontage, with five (5) dwellings along the accessway, complemented by a central open space area that allows for natural light and ventilation, particularly for the centrally located dwellings.

4 - Functionality & Build Quality

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.

The proposal has been designed to offer high livability and user-friendly features for its occupants. Each apartment includes access to a private courtyard, providing both a private outdoor space and maximizing natural light and ventilation. With the apartments arranged around this courtyard, all dwellings feature dual aspects and operable glazing, ensuring 100% of units benefit from effective natural cross-ventilation, reducing the need for mechanical cooling during warmer months. The layout also optimizes solar access, with all dwellings exceeding the required solar access standards for cooler months.

Separate vehicle and pedestrian access are provided via the western and southern boundaries, respectively. Each dwelling includes undercroft vehicle access with two parking bays, while a visitor bay and a single crossover to Brighton Street are located at the southern frontage.

5 - Sustainability

Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.

In addition to the natural ventilation and solar access benefits, the design features deep architectural reveals on all elevations to provide shading, reducing peak heat gain and cooling requirements while enhancing natural lighting quality inside the building.

Further sustainable initiatives under consideration and to be formalised at the Building Permit stage, include:

- Passive design measures: Insulation in external walls, floors, and ceilings, along with high-performance glazing.
- Active design measures: High-efficiency reverse-cycle heat pump systems, 10% reduction in lighting consumption below NCC requirements, and the use of water- efficient fixtures.
- Water-efficient plumbing: High WELS-rated fixtures and fittings will be installed.

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- Environmentally responsible materials: Preference will be given to materials with environmental certifications, low VOC, reduced PVC and formaldehyde content, and recycled or eco-preferred content, along with product stewardship.
- Waste management: Provision and implementation of a Waste Management Plan following best practices.
- Urban ecology improvements: Soft landscaping, drought-tolerant planting, and the use of aesthetically pleasing materials around the project.
- Reduction in building emissions: Environmentally friendly refrigerants, insulation, and elimination of light spill.
- Upon completion of the development, supporting documentation will be provided to the Authority demonstrating the sustainable initiatives undertaken, in line with Scarborough Development Policy 1. Additional sustainability features under consideration include:
- 100% natural cross-ventilation: All dwellings exceed the Residential Design Codes requirement of 60%.
- Bicycle parking: Residential and visitor bike parking to encourage sustainable transport methods.

6 - Amenity

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.

In addition to its walkable connection to Scarborough Beach to the west, the proposal offers a range of residential amenities, including bike parking, private courtyards, beach views, and natural ventilation throughout each apartment, as well as a communal shower/washdown area for surfboards and wetsuits located next to a landscaped courtyard. These amenities are accessed via a secluded laneway.

The vision for the Scheme Area aims to leverage Scarborough's unique identity to create a contemporary urban-coastal experience for a growing residential community, workers, and visitors, while reinforcing its role as a key tourist destination. The development aligns with this vision by providing high-quality residences that meet or exceed the prescribed standards for built form, design quality, sustainability, and amenity.

7 - Legibility

Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.

The pedestrian access point at the two (2) road fronting dwellings is located on Brighton Road, framed by a combination of solid and batten screening, complemented by landscaping for a softened appearance.

Individual entries for the five (5) laneway-fronting dwellings are marked by screened gates, with further legibility enhanced through strategic landscaping placement. The vehicle entrance is defined by paving, planting, and a blend of screening and solid elements to private garage enclosures, with materials chosen to be unique to the development for easy recognition.

Appropriate signage will be included to meet requirements, with further details to be provided at the Building Permit stage.

8 – Safety

Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.

The building entry points are clearly defined, and dwellings are oriented to face the outer edges of the development, ensuring effective casual surveillance of the public domain.

Apartment planning has been designed to enable continuous passive surveillance of the shared driveway and public footpath across all levels. The shared driveway provides clear sightlines throughout the development, minimizing opportunities for concealment. All pedestrian and vehicle access points, along with frontage edges, will be well-lit, with high-security measures throughout the development to ensure the safety and protection of residents.

9 - Community

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.

The laneway, with open garages, fosters a sense of community and social interaction within the development. It is linked to a communal area that includes a washdown space and gardens, further promoting engagement among neighbors. Internally, the shared driveway and washdown zone are designed to encourage activity and social gathering, strengthening the communal atmosphere.

The primary setbacks have been designed to create spacious landscaped courtyards and terraces with direct street access for the ground-floor dwellings. These 'front yards,' along with the articulation along Brighton Street, enhance the sense of community and connection to the public domain and streetscape.

10 - 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.

The development features a distinctive façade that is both energizing and sensitive to the surrounding built environment. With gently curved white textured walls that seamlessly blend into the horizontal floor slabs, the design complements the neighboring properties and aligns with the future growth of the precinct. Dark elements at the ground plane, along with lush landscaping, further enhance the aesthetic appeal.

The architectural materials and forms are selected for their durability and simplicity, reflecting the timeless nature of the coastal setting. A limited color palette allows light and shadow to highlight the building's form, while deep recesses and projecting planes add contrast and depth.

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6.2 Local Planning Scheme 'Deemed Provisions' Clause 67

In considering an application for development approval the decision maker is to have due regard to the matters outlined in clause 67(2) of the deemed provisions to the extent that, in the opinion of the decision maker, those matters are relevant to the development the subject of the application. These matters are outlined below alongside comments on whether the matter is relevant, and if so, how it has been addressed by the development.

Matters of Due Regard	Comment	
<i>(a) the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;</i>	Meets the Scheme Aims, as noted in section 5.0.	✓
<i>(b) the requirements of orderly and proper planning;</i>	The development proposal, including the land uses, built form, design detail, landscape, and technical considerations are consistent with the principles of orderly and proper planning.	✓
<i>(c) any approved State planning policy;</i>	The proposal is generally consistent with relevant SPPs - refer to section 3.4	✓
<i>(d) any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d);</i>	N/A.	N/A
<i>(e) any policy of the Commission;</i>	The proposal is generally consistent with relevant SPPs - refer to section 3.4	✓
<i>(f) any policy of the State;</i>	N/A	N/A
<i>(fa) any local planning strategy for this Scheme endorsed by the Commission;</i>	The proposal is generally consistent with the City's Local Planning Strategy.	✓
<i>(g) any local planning policy for the Scheme area;</i>	The proposal is generally consistent with relevant LPPs - refer to section 3.5	✓
<i>(j) in the case of land reserved under this Scheme, the objectives for the reserve and the additional and permitted uses identified in this Scheme for the reserve;</i>	N/A	N/A
<i>(k) the built heritage conservation of any place that is of cultural significance;</i>	N/A	N/A
<i>(l) the effect of the proposal on the cultural heritage significance of the area in which the development is located;</i>	N/A	N/A
<i>(m) the compatibility of the development with its setting, including — (i) the compatibility of the development with the desired future character of its setting; and (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 proposal is compatible with its contextual setting, including the proposed vision for the area under the scheme and its mixed use zoning.	✓

<i>(n) the amenity of the locality including the following — (i) environmental impacts of the development; (ii) the character of the locality; (iii) social impacts of the development;</i>	The proposal is compatible with the current and intended amenity of the locality.	√
<i>(o) the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or the water resource;</i>	N/A	N/A
<i>(p) 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 proposal includes appropriate hard and soft landscaping – refer to section 4.0 and the attached Landscape Plan.	√
<i>(q) the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk;</i>	N/A	N/A
<i>(r) the suitability of the land for the development taking into account the possible risk to human health or safety;</i>	N/A	N/A
<i>(s) the adequacy of — (i) the proposed means of access to and egress from the site; and (ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles;</i>	The proposed development proposes access, egress, loading and waste collection arrangements from the front of the site. Access from the easement of the site is the best streetscape outcome possible as it removes the requirement for vehicles to access the site from Brighton.	√
<i>(t) 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 proposed development generates an acceptable level of traffic - refer to the attached Transport Impact Assessment.	√
<i>(u) the availability and adequacy for the development of the following — (i) public transport services; (ii) public utility services; (iii) storage, management and collection of waste; (iv) access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities); (v) access by older people and people with disability;</i>	The proposed development has appropriate transport choices, access and servicing for the nature of the development - refer to the attached Transport Impact Statement and Waste Management Plan.	√
<i>(v) the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses;</i>	N/A	N/A
<i>(w) the history of the site where the development is to be located;</i>	N/A	N/A
<i>(x) the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals;</i>	The proposed development will provide much needed housing for the community in a grouped dwelling style of development.	√
<i>(y) any submissions received on the application;</i>	To be advised after local government assessment.	TBC
<i>(za) the comments or submissions received from any authority consulted under clause 66;</i>	To be advised after local government assessment.	TBC

<i>(zb) any other planning consideration the local government considers appropriate.</i>	To be advised after local government assessment.	TBC
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7.0 Conclusion

This development application seeks approval for a proposed residential development, comprising eight grouped dwellings at No. 22 Brighton Road, Scarborough.

The development application is highly consistent with the objectives and planning intent of the state and local government statutory planning framework that applies to the subject site and the proposed land use.

The proposed development has been planned and designed with close consideration for the requirements and intended outcomes of the objectives of the Development Zone and the City of Stirling's Local Planning Scheme No. 3, and in anticipation for the Draft Local Planning Scheme No. 4. The development is consistent with the sustainable urban development aims for the Scheme. The proposed residential development will provide increased land use diversity within the area.

Having regard to the detailed planning assessment and justification set out in this report, along with the high quality architectural and landscape plans, as well as the supporting technical reports provided, we respectfully request that the City of Stirling recommends to the Development Assessment Panel that the development application be approved.

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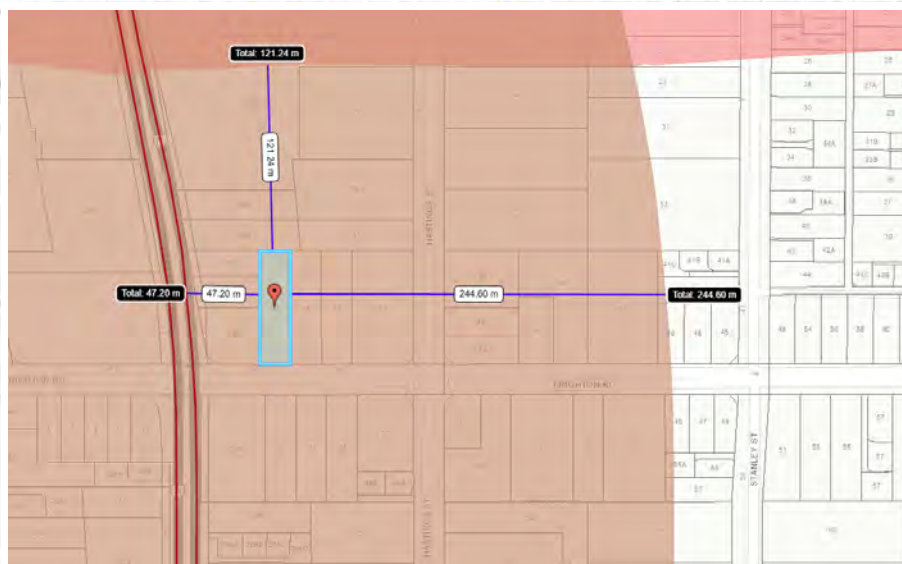


STATE PLANNING POLICY 5.4 – ROAD AND RAIL NOISE (SPP 5.4)

The subject site falls within the trigger distance of a significant freight and traffic route and requires consideration of the impacts of noise, and if necessary, mitigation measures implemented for affected development to ensure suitable amenity for occupants.

Transport Corridor Classification		Number of lanes (both directions), including bus/priority lanes and entrance/exit ramps	Forecast noise exposure category based on lot distance(m) from edge of nearest main road carriageway (not entrance/exit ramps)																											
			adjacent	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	175	200	225	250	275	300						
Strategic freight/major traffic route - 500 or more Class 7-12 Austroads vehicles per day, or - 50,000+ vehicles per day		2 to 4 lanes	72	68	66	65	63	62	61	61	60	59	59	58	57	57	56	55	54	53	52	51	50							
		5 to 6 lanes	74	70	68	66	65	64	63	62	61	60	59	59	58	58	57	56	55	54	53	52								
		7 to 8 lanes	76	72	69	68	66	65	64	63	62	62	61	60	60	59	58	57	56	55	54	53								
		9 to 10 lanes	77	73	70	69	67	66	65	65	64	63	63	62	61	61	60	59	58	57	56	55	54							
		10 or more lanes	78	74	71	70	68	67	66	66	65	64	64	63	62	62	61	60	59	58	57	56	56							
Other significant freight / traffic routes - Any actual or planned future State Administered Road - Local Government Roads Carrying 100 or more Class 7 – 12 Austroads vehicles/day - 25,000+ vehicles per days vehicles/day	Urban Region Scheme areas 60-80 km/hr	1 to 2 lanes	67	64	62	61	60	59	58	57	56	56	55	54	54	53	53	52	51	50	49	48	47							
		3 to 6 lanes	69	66	64	63	62	61	60	59	58	58	57	56	56	55	54	53	52	51	50	49								
	Urban Region Scheme areas 100+ km/hr	1 to 2 lanes	70	67	65	64	63	62	61	60	59	59	58	57	57	56	56	55	54	53	52	51	50							
		3 to 6 lanes	74	70	68	66	65	64	63	62	61	61	60	60	59	59	58	57	56	55	54	53	52							
	Rural areas 60-80 km/hr	1 to 2 lanes	62	59	57	56	55	54	53	52	51	51	50	49	49	48	48	46	45	44	43	42	41							
		3 to 4 lanes	66	63	61	60	59	58	56	56	55	54	53	53	52	52	51	50	49	48	47	46	45							
	Rural areas 100+ km/hr	1 to 2 lanes	67	64	62	61	60	59	58	57	56	55	54	53	53	52	51	50	49	48	47	46	46							
		3 to 4 lanes	69	66	64	63	62	61	60	59	58	57	56	56	55	55	54	53	52	51	50	49	48							

Forecast Excess Noise Level, dB	Exposure Category	Policy requirements for noise-sensitive land-use and/or development
0 or less	—	No further measures
1 to 3	A	Noise-sensitive land-use and/or development is acceptable, subject to:
—	^a A=	Mitigation measures in accordance with an approved noise management plan;
4 to 7	B	or quiet house package as specified
—	^a B=	
8 to 11	C	
—	^a C=	
12 to 15	D	Noise-sensitive land-use and/or development is not recommended. There is no default quiet house option due to excessive forecast noise: professional design input is required in order to achieve compliance with relevant criteria. If noise-sensitive land-use and/or development is unavoidable, an approved noise management plan is required to demonstrate compliance with the noise target (see table 1).
16 +	E	



An assessment has been undertaken to determine the exposure category for the purposes of ascertaining any policy requirements for the development. West Coast Highway is an 'other significant traffic route' with five lanes, approximately 50 metres from the edge of the road carriageway to the development site. This results in a forecast noise exposure of 65dB. Based on this outcome, noise-sensitive land-use and development is acceptable with no further measures required.

Whilst quiet house measures are planned and requested to be appropriately conditioned in approval, it is noted noise attenuation measures exist on the West Coast Highway and Brighton Road.

CONCLUSION

Should you have any queries in relation to the above information, please contact the undersigned on 08 6119 9175 or michael@developedproperty.com.au.

Yours sincerely,



Michael Stocco
Senior Urban Planner

Developed

Encl.

Amended Development Plans Package

Attachment 6 – City of Stirling Planning Assessment

1. Noise and Acoustics

The subject site is located within proximity of West Coast Highway, which is classified as a strategic freight and major traffic route. Accordingly, the provisions of State Planning Policy 5.4 – Road and Rail Noise (SPP 5.4) apply to this development.

Clause 6.5.3.1 of SPP 5.4 allows decision-makers to impose conditions on development approvals requiring the implementation of mitigation measures where forecast noise levels exceed the policy's outdoor noise targets. These measures may include construction of physical barriers, application of quiet house design requirements, or preparation of a noise management plan. In addition, notifications on title are required to inform future owners of the presence of transport noise.

Initial screening under the Noise Exposure Forecast identifies the site within Category C, where noise-sensitive development is acceptable, provided appropriate mitigation measures are implemented. To ensure compliance, a condition is recommended requiring the submission of details demonstrating adherence to SPP 5.4 at the building permit stage. This may include acoustic treatments or other measures endorsed by a suitably qualified acoustic consultant.

A further condition will require a notifications on the titles to advise of potential transport noise impacts, consistent with the requirements of SPP 5.4.

On this basis, the development can be appropriately managed to mitigate noise impacts and is considered capable of complying with the policy provisions.

2. Scarborough Design Guidelines

2.1 Section 3.5 Fencing

No taller than 1.2m above finished ground level of the adjacent footpath or road.

Proposed street wall and fence has a total 1.9m height – with the solid portion up to 0.8m and visually permeable up to 1.9m. Notwithstanding the overall height varies from the prescribed standard.

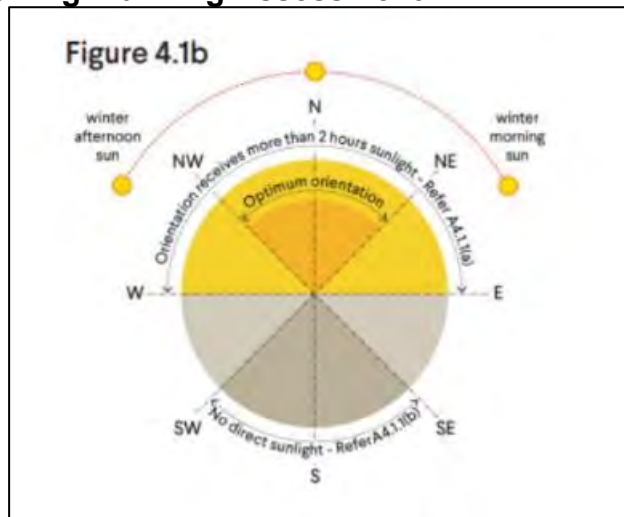
Although the proposed street wall and fence exceed the prescribed height standard of 1.2 metres under the Scarborough Design Guidelines (Scarborough DGs). The variation is considered acceptable as it aligns with the broader objectives of the Scarborough DGs. These objectives seek to maintain an open and visually permeable streetscape, enhance passive surveillance, and ensure high-quality design outcomes that contribute positively to the public realm. The proposed design achieves these outcomes by limiting the solid portion of the fence to 0.8 metres and incorporating visually permeable materials above, which preserves sightlines and avoids creating a sense of enclosure. In addition, the fence integrates high-quality finishes and articulation consistent with the Scarborough Special Control Area's (SSCA) intent to deliver safe, attractive, and engaging street environments. The variation, therefore, satisfies the performance-based approach of the Scarborough DGs and is supported on this basis.

2.2 Section 4.4 Building Layout and Orientation

1-2 storey development will provide living rooms and principal ground level open spaces with at least 2 hours sunlight between 8am and 4pm in mid-winter (21 June).

The location of the private open spaces (POS) has been considered, noting the whole site and the orientation rather than individual lot configuration. The diagram below has been used as a reference point (Figure 4.1b - SPP 7.3 R-Codes Volume 2 – Apartments, 4.1 Solar and daylight access.) and when overlaid on the plans can demonstrate if the orientation of the POS is capable of achieving two hours of direct sunlight between 9am and 3pm on 21 June.

Attachment 6 – City of Stirling Planning Assessment



The City's assessment has identified that the POS is located on ground floor and south-east facing for units 1 to 4.

Section 4.4 of the Scarborough DGs requires that for 1–2 storey development, living rooms and principal ground-level private open spaces receive at least two hours of direct sunlight between 8:00am and 4:00pm on 21 June (mid-winter). The submitted solar study (Plan 2505 – DA9-03) demonstrates that the proposed building layout and orientation allow for adequate solar access during mid-winter, with most areas achieving two hours of sunlight between 9:00am and 3:00pm. While the private open spaces for Units 1 to 4 are located on the ground floor and oriented south-east, the overall site configuration, setbacks, and spacing between dwellings have been designed to minimise overshadowing and optimise sunlight penetration. This approach aligns with the objectives of the Scarborough DGs, which seek to ensure high-quality residential amenity, promote sustainable design outcomes, and maintain a positive relationship between built form and environmental conditions. The design responds to site constraints and prevailing orientation by incorporating articulated building forms and open spaces that enhance solar access where possible. On this basis, the proposal satisfies the performance intent of Section 4.4 and is considered acceptable as it delivers adequate solar access.

2.3 Section 4.6 Openings

Where balconies are located within 6 metres of side or rear boundaries, they shall be screened to protect the privacy of occupants and the neighbouring site.

In this proposal, all balconies are oriented toward the western lot boundary, with setbacks ranging from 0.5 metres to 5.8 metres.

The City's assessment confirms that potential overlooking from Units 1 and 3–4 is directed toward the adjoining public access easement, which is intended for future vehicle access for all adjoining properties in accordance with the Vehicle Access Plan under the Scarborough DGs and therefore does not present a privacy concern. For Units 5 and 6, the potential overlooking onto the rear yard of 252 West Coast Highway is minimal, affecting less than 0.5 square metres of area. Similarly, Units 7 and 8 have an overlooking impact of less than 1 square metre, primarily toward the roof of 250 West Coast Highway. These impacts are negligible and do not adversely compromise the privacy or amenity of adjoining properties.

Further, while the current impact has been considered, the future intention of this area provides additional justification for the variation. The areas subject to potential overlooking are identified as future vehicle access corridors in the Scarborough Vehicle Access Plan, which will come into effect when 250 and 250 West Coast Highway are developed.

Attachment 6 – City of Stirling Planning Assessment

The design also maintains compliance with the broader objectives of the Scarborough DGs by minimising privacy impacts, supporting passive surveillance, and delivering high-quality built form outcomes. On this basis, the variation is considered negligible, will not adversely affect the amenity of neighbouring properties, and satisfies the performance intent of Section 4.6 of the Scarborough DGs.



Figure 2 cone of vision from unit 1, 3 and 4 onto vehicle access way.

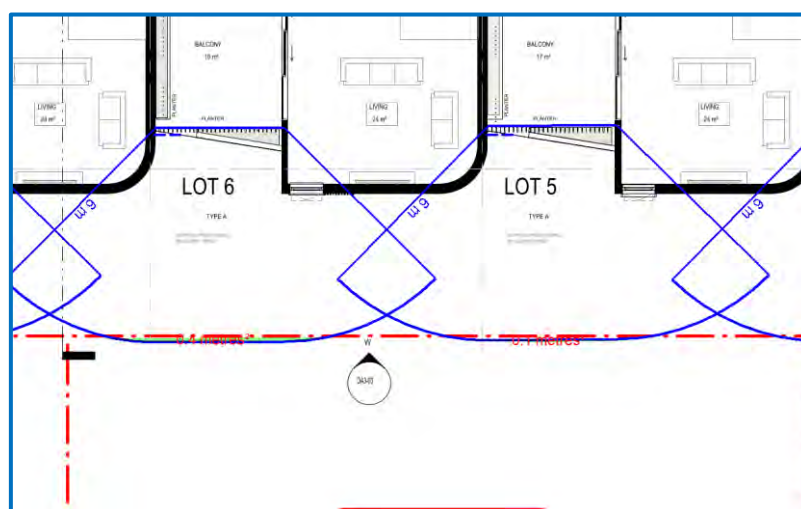


Figure 3 cone of vision from unit 5 and 6 onto 252 West Coast Highway.

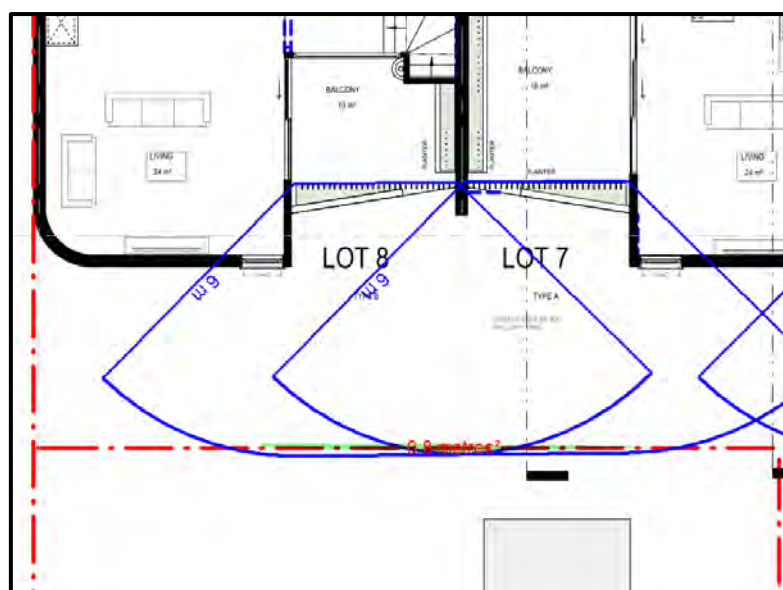


Figure 4 cone of vision from unit 7 and 8 onto 250 West Coast Highway.

Attachment 6 – City of Stirling Planning Assessment

2.4 Section - 5.1 Site Access:

The Scarborough DGs limit each site to a single crossover and require vehicular access to be taken from a right-of-way, secondary street, or shared crossover. The development proposes a crossover to service Unit 1, which technically constitutes the sole crossover for the site; however, the proposed width of 6 metres exceeds the maximum permitted width of 4 metres. This variation is considered negligible in this instance due to site constraints and the need to accommodate a clearance of between 1.75 and 3 metres for the vehicle access way.

To mitigate the impact of the increased crossover width, an additional street tree will be planted, as shown on the revised plans, ensuring the proposal maintains streetscape quality and aligns with the intent of the Scarborough DGs.

3. Scarborough Redevelopment Area Development Policy 4 Public Art

The intent of Scarborough Redevelopment Area Development Policy 4 Public Art (Development Control Policy 4) is to ensure that large-scale developments, particularly those with significant public interface or commercial activity, contribute to the cultural and visual character of the area. This development comprises eight grouped dwellings within a residential context and does not include any active street-level uses or public-facing commercial components. Its interface with the public realm is limited to a single residential frontage, and the scale is modest compared to mixed-use or high-density developments typically targeted by the policy.

Requiring a public art contribution in this case would impose an unreasonable burden without delivering meaningful public benefit, as the opportunity for artwork to engage with the community is minimal. Instead, the proposal achieves design outcomes through landscaping, articulated facades, and streetscape improvements, which collectively enhance visual amenity and align with the broader objectives of the Scarborough DGs and State Planning Policy 7.0 (SPP7.0).

On this basis, the City considers that the development's contribution to the public realm is proportionate to its scale and context, and a public art requirement is not warranted.

4. State Planning Policy 7.0 - Design of the Built Environment

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

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 responds to the existing and future development context. The development provides for a two-storey building fronting Brighton Road. The colour and material palette is appropriate in relation to the existing and future development context.
2.Landscape Quality	The development incorporates appropriate landscape design that enhances the visual and environmental quality of the site.

Attachment 6 – City of Stirling Planning Assessment

<i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i>	Each dwelling is provided with an advanced tree, complemented by additional soft landscaping within the front setback to improve streetscape character and amenity. The proposal also includes the planting of street tree, contributing to the broader urban canopy.
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 massing and scale of the development are considered conservative relative to the development potential of the site and the scale of adjoining properties. The proposal is limited to two storeys, which is significantly below the maximum podium height permitted under the Scarborough DGs and responds appropriately to the surrounding context. The overall built form is well articulated and proportioned, ensuring compatibility with both the existing and intended future character of the SSCA.
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 development provides safe and legible access for pedestrians, cyclists, and vehicles, with adequate parking facilities.
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, solar PV systems, high performance building fabric, energy efficient fixtures, and water-wise landscaping.
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 offers a level of internal and external amenity for residents, including private courtyards and balconies. The design ensures adequate natural light and ventilation, and the scale and bulk are managed to avoid adverse impacts on neighbouring properties.
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 internally and externally within the development. A clearly defined entry is accessible from Brighton Road, with a pedestrian access provided from the entrance of the site to facilitate safe pedestrian movement to and from the proposed development.
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

Attachment 6 – City of Stirling Planning Assessment

	in forward gear with unobstructed sightlines provided to minimise potential conflict to pedestrians, cyclists and vehicles. Subject to the recommended condition setting, there are no significant 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 contributes to housing diversity within Scarborough precinct, a mix of dwelling types. Passive surveillance from balconies provides opportunities for social interaction among residents.
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 design incorporates articulated facades, varied materials, and colour treatments to reduce visual bulk and enhance streetscape appeal. Large openings and alternating finishes create visual interest and a contemporary architectural expression consistent with the precinct's character.

7. 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 and Scheme and any other local planning scheme operating within the Scheme area;</i>	The proposed Residential (Grouped Dwelling development) is consistent with the objectives of the Beach Road – Outer Core Precinct and with the intent of the locality as it is a Preferred Land Use.
(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 City's assessment concludes that the development is consistent with LPS3, the Scarborough DG and the relevant State Planning Policies and Local Planning Policies. Although the City has prepared Draft LPS4 and commenced advertising, the final form of LPS4 is not imminent nor certain at this time. Accordingly, no weight should be given to Draft LPS4 when determining this application. The development is consistent with LPS3 and the relevant planning instruments and therefore is consistent with the requirements of orderly and proper planning.

Attachment 6 – City of Stirling Planning Assessment

<i>(c) any approved State planning policy;</i>	The development is consistent with SPP 7.0. This assessment is contained in this report. The development is impacted by SPP 5.4 and condition setting related to this policy been recommended.
<i>(g) any local planning policy for the Scheme area;</i>	The development is generally consistent with the requirements of the City's Local Planning Policies.
<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 massing and scale of the development are considered conservative relative to the development potential of the site and the scale of adjoining properties. The proposal is limited to two storeys, which is significantly below the maximum podium height permitted under the Scarborough DGs and responds appropriately to the surrounding context. The built form is well articulated and proportioned, ensuring compatibility with both the existing and intended future character of the SSCA. While the development is compatible with its setting, it may not fully reflect the desired future character envisaged for the area, which is proposed to be zoned to Mixed Use under draft LPS4. Residential use remains a discretionary use within this zone and is therefore permissible. In terms of the relationship with adjoining properties, the northern, north-western, and eastern lots are currently residential and of a similar scale, as they have not yet been redeveloped. However, the City notes that 24 and 26 Brighton Road are subject to a current DAP application for a mixed-use apartment building, indicating the transition toward the intended mixed-use character. Notwithstanding this, the current planning framework permits the proposed development, and until such time as LPS4 is endorsed, the existing framework remains applicable. On this basis, the proposal is considered appropriate within its current setting and consistent with the applicable statutory 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 proposed development will not have an adverse impact on the character of the locality as the built form is in keeping with emerging character of the locality whilst maintaining a more conservative approach. The proposed development is appropriate within its setting and positively contributes to the area.

Attachment 6 – City of Stirling Planning Assessment

<i>(p) 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 proposed development exceeds the required proportion of landscaping and trees on site. The City has recommended appropriate condition setting ensuring that sufficient planting and trees are provided onsite.
<i>(s) the adequacy of –</i> <i>(i) the proposed means of access to and egress from the site; and</i> <i>(ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles;</i>	Subject to the recommended conditions, the development provides safe and efficient vehicle access and egress. Access is proposed via Brighton Road, incorporating a single crossover for unit 1 and a shared vehicle access way servicing the remaining dwellings and the western adjoining property (20 Brighton Road). This arrangement aligns with the Scarborough DGs, which seek to minimise direct access from major roads and promote shared access solutions. The vehicle access way has been designed to allow vehicles to enter and exit the site in forward gear, with adequate manoeuvring space provided in accordance with Australian Standards. The proposed easement ensures future connectivity and supports the implementation of the Vehicle Access Plan (Scarborough DGs), facilitating coordinated access across adjoining sites. In relation to parking, the development provides two bays per dwelling and one visitor bay. While this represents a variation to the minimum visitor parking requirement, the additional residential bays can accommodate visitor demand when required. This approach is considered acceptable given site constraints and ensures sufficient parking provision without compromising functionality or amenity.
<i>(t) 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 development comprises eight grouped dwellings and is residential in nature; therefore, high traffic volumes are not anticipated. The Transport Impact Statement (Urbii, November 2025) estimates approximately 40 vehicle trips per day, with 4 trips per hour during peak periods, which is negligible compared to Brighton Road's existing volume of 8,450 vehicles per day. The traffic increase is well below the Western Australia Planning Commission's threshold for further analysis and will not affect traffic flow or safety. Sightline truncations and internal design measures ensure safe access and egress.

Attachment 6 – City of Stirling Planning Assessment

	The proposal is considered acceptable in relation to traffic generation and road network capacity.
(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 proposed development is accessible via a high frequency public transport bus routes on Scarborough Beach Road, with the closest bus stop located Brighton Rd After Drabble Road and is approximately 50m east of the site, which is less than a minute walk. The development provides communal bicycle parking bays, and the garages are also designed to accommodate two cars and a bike. 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. The development accommodates access and parking for bicycles as per the planning framework. 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 Clause 64(3) and (6)(a) of the Planning and Development (Local Planning Schemes) Regulations 2015 with comments 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 relevant authorities such as Water Corporation and Main Roads has been undertaken as detailed earlier in the report under 'External Referral Agencies'.

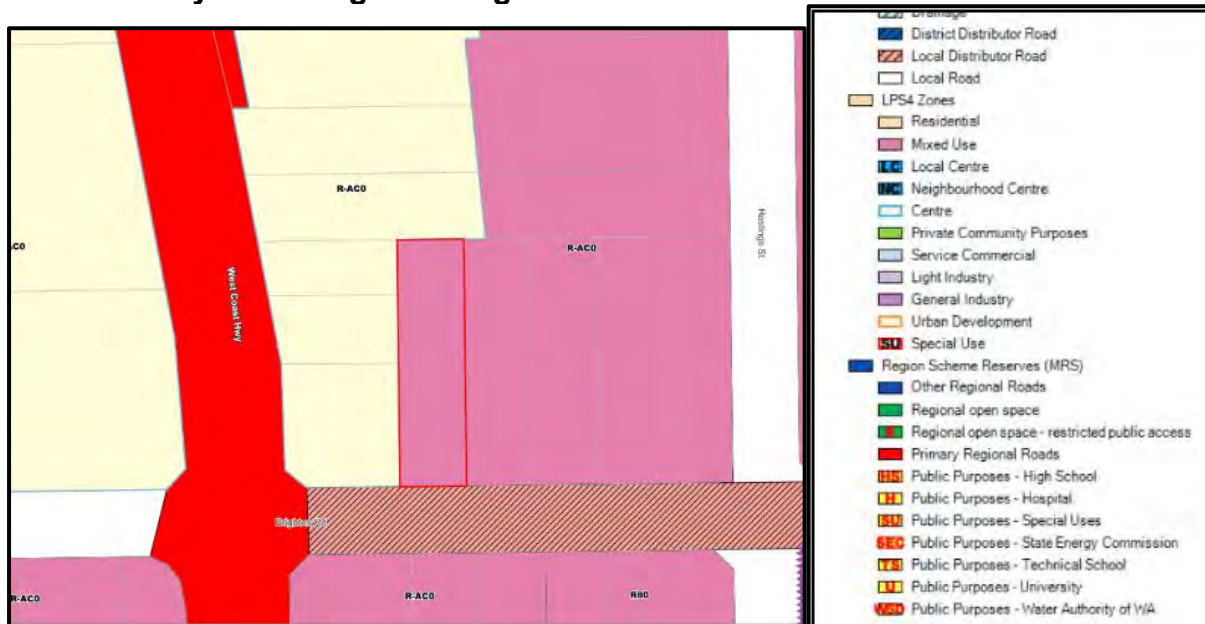
Draft Local Planning Scheme No. 4 (LPS4)

The City has prepared new Local Planning Scheme No.4 (LPS4) to replace Local Planning Scheme No.3 (LPS3). On 10 June 2025 at its Ordinary Meeting, Council considered a report on the outcomes of advertising of draft LPS4 and resolved to support it, subject to modifications. On 18 June 2025, draft LPS4 has been accepted by the Department of Planning, Lands and Heritage for final assessment and determination.

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 City acknowledges the key modifications proposed to the subject site and surrounding area under draft LPS4, noting that the development site is proposed to be zoned Mixed Use – RAC0.

Attachment 6 – City of Stirling Planning Assessment



The objective of Mixed-Use zone is:

- *To provide for a variety of active uses on street level which are compatible with residential and other non-active uses on upper levels, and do not undermine the hierarchy of designated activity centres.*
- *To allow for the development of a mix of varied but compatible land uses such as housing, offices, showrooms, eating establishments and appropriate industrial activities which do not generate nuisances detrimental to the amenity of the district or to the health, welfare and safety of its residents*

While the proposal does not introduce additional land uses beyond grouped dwellings, it is considered consistent with the objectives of the Mixed-Use zone. Grouped dwellings contribute to housing diversity and support the intent of creating a mix of compatible uses within the precinct. Residential development in this context helps establish a local population base that sustains demand for active street-level uses such as retail and hospitality, while preserving the hierarchy of designated activity centres. Incorporating a residential component also provides flexibility for future integration with other compatible land uses, ensuring alignment with the zone's objectives.

Attachment 7 - Applicant's Final Submission

DRAWING No.	REV	ISSUED	DRAWING NAME	DESCRIPTION
DA1-00	C	24.10.2025	COVER PAGE	DAP RFI
DA1-01	C	24.10.2025	LOT PLAN	DAP RFI
DA1-02	B	24.10.2025	DEMOLITION PLAN	DAP RFI
DA2-06	B	24.10.2025	SITE PLAN	DAP RFI
DA2-07	C	24.10.2025	GROUND FLOOR PLANS	DAP RFI
DA2-08	C	24.10.2025	LEVEL 1 FLOOR PLANS	DAP RFI
DA2-09	B	24.10.2025	ROOF PLAN	DAP RFI
DA3-01	B	24.10.2025	STREET ELEVATION	DAP RFI
DA3-03	C	24.10.2025	ELEVATIONS	DAP RFI
DA4-01	C	24.10.2025	SECTIONS	DAP RFI
DA8-01	B	24.10.2025	3D VIEW 1	DAP RFI
DA8-02	B	24.10.2025	3D VIEW 2	DAP RFI
DA8-03	B	24.10.2025	3D VIEW 3	DAP RFI
DA8-04	B	24.10.2025	3D VIEW 4	DAP RFI
DA8-05	B	24.10.2025	3D VIEW 5	DAP RFI
DA9-01	B	24.10.2025	VISUAL PRIVACY	DAP RFI
DA9-02	B	24.10.2025	SOLAR STUDY SUMMER	DAP RFI
DA9-03	C	24.10.2025	SOLAR STUDY WINTER	DAP RFI



2505

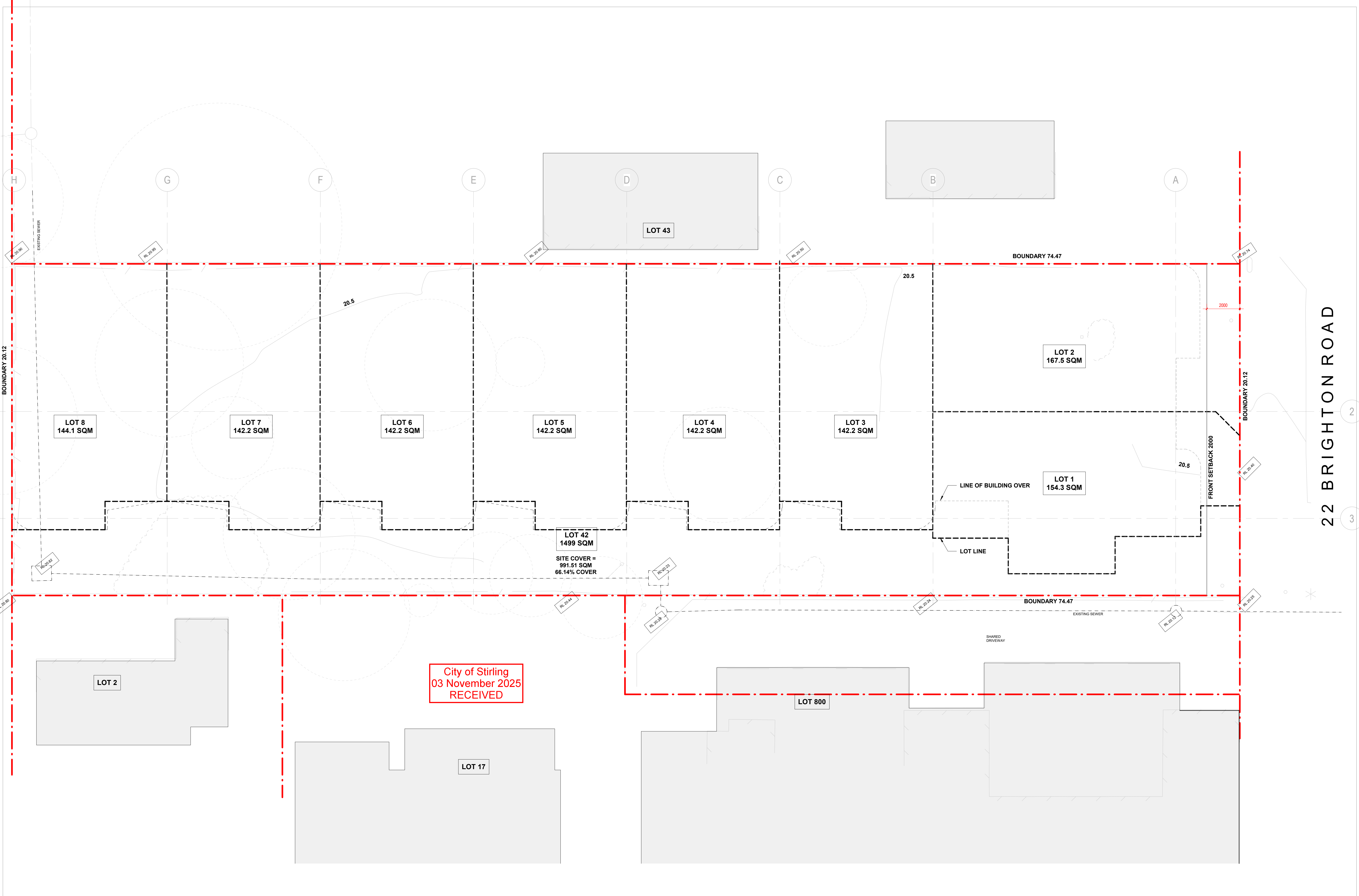
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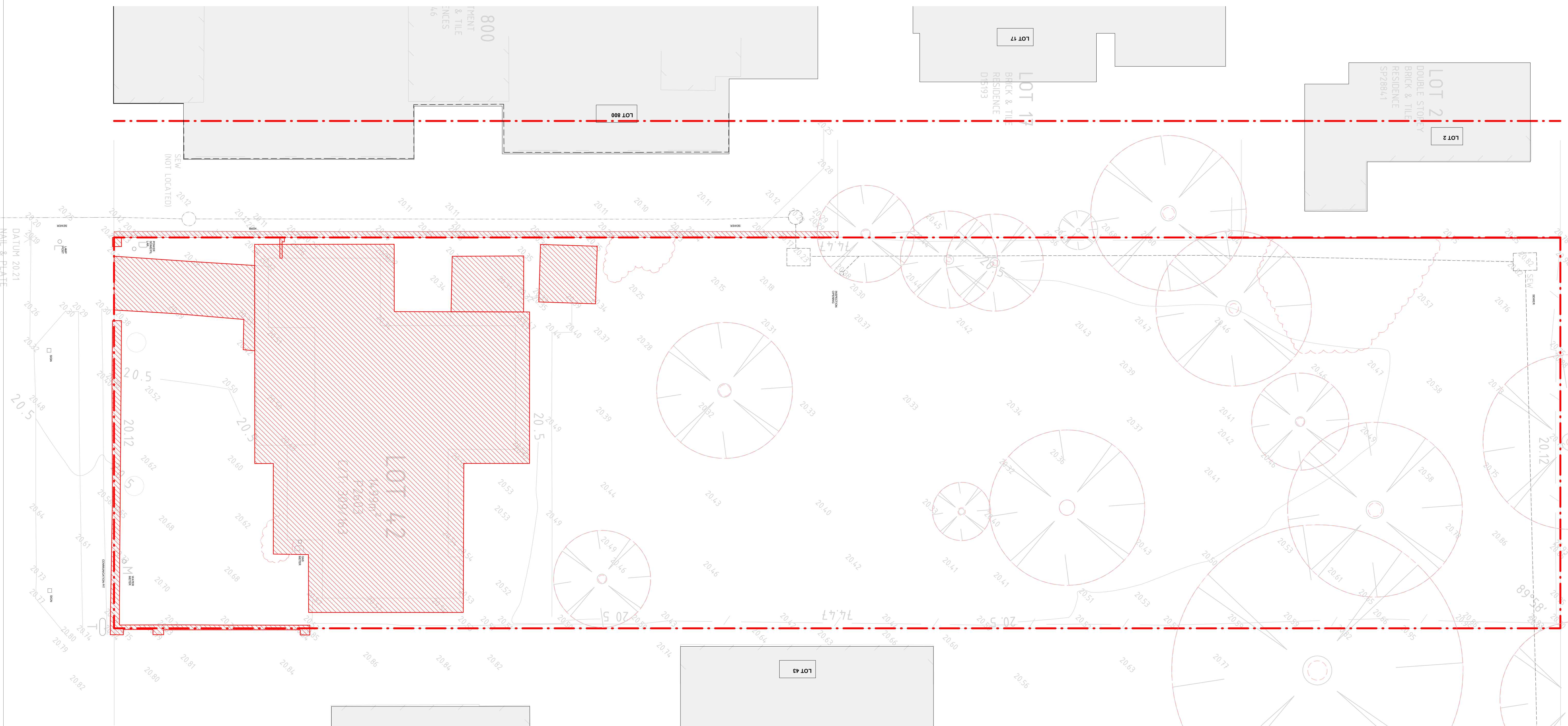
22 BRIGHTON ROAD,
SCARBOROUGH

ARCHITECTURAL DRAWINGS

DAP RFI RESPONSE

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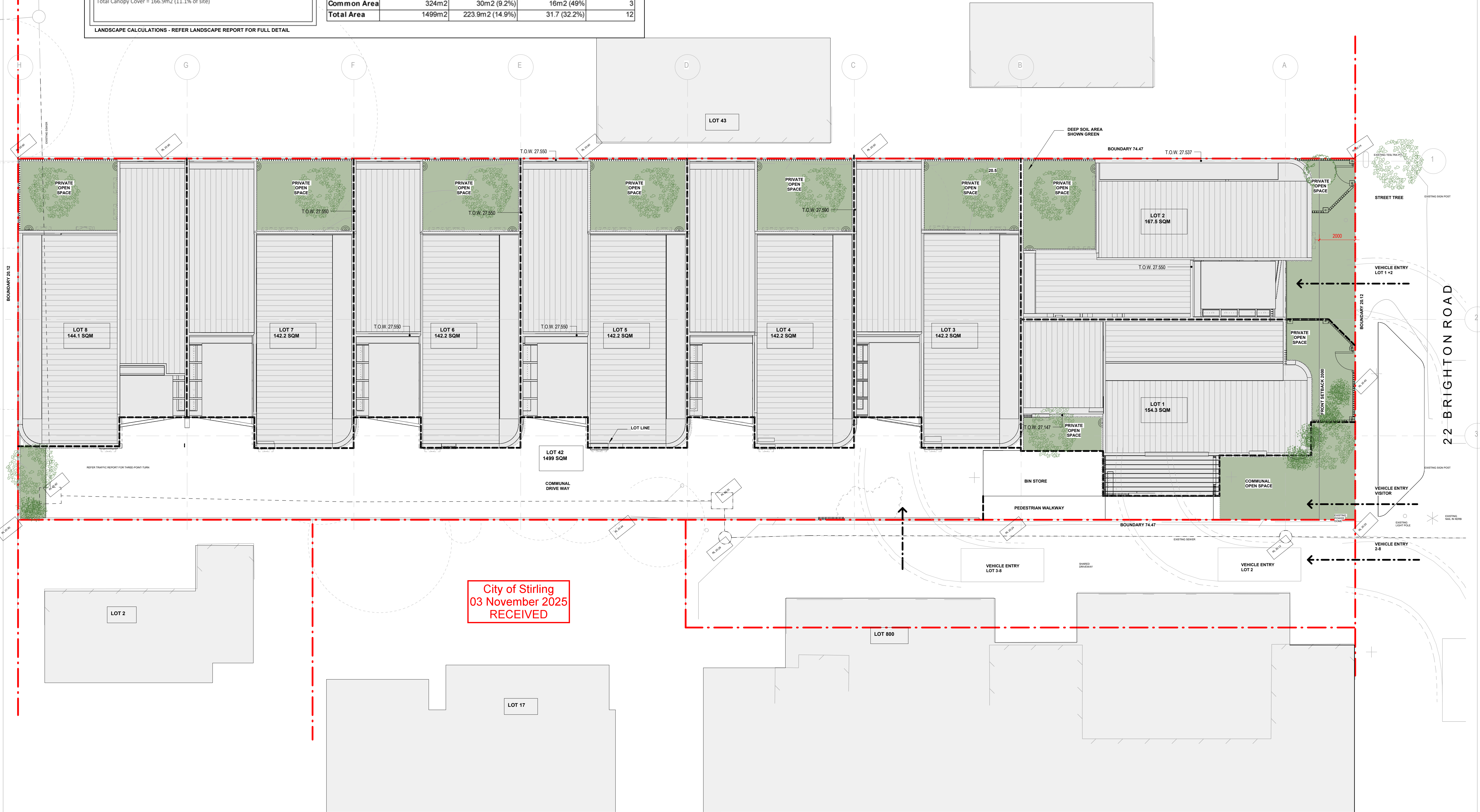
OVERALL LANDSCAPE AREA CALCULATIONS

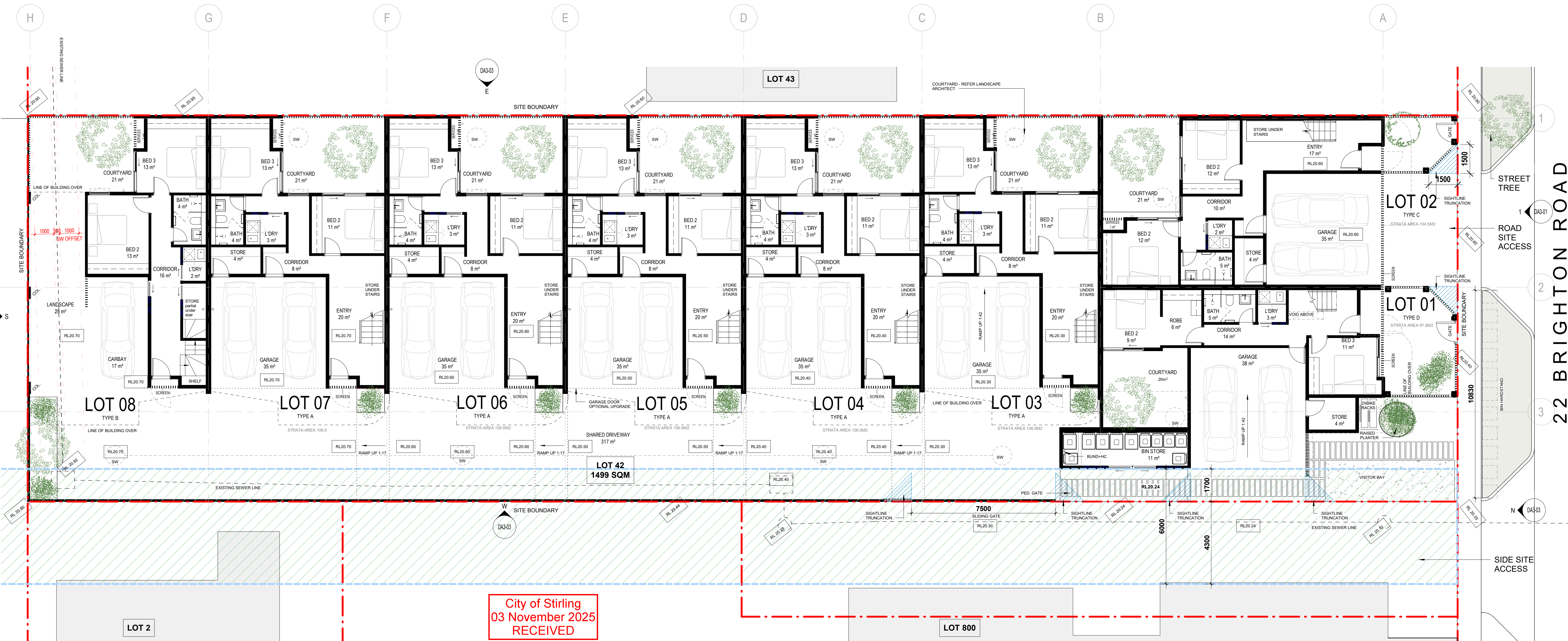
SITE AREA
Total site area = 1499m²
LANDSCAPE AREAS
Total Landscape areas (all levels) = 214m² (14.2% of site)
DEEP SOIL AREAS (DSA)
Ground Floor (into natural earth)= 192m²
Total = 192m² (12.8% of site)
CANOPY COVER
Proposed Medium Trees (6m canopy) x 1 = 28.3m²
Proposed Small Trees (4m canopy) x 11 = 138.6m²
Total Canopy Cover = 166.9m² (11.1% of site)

LANDSCAPE CALCULATIONS - REFER LANDSCAPE REPORT FOR FULL DETAIL

GROUP DWELLINGS CALCULATIONS

Lot/Unit	Lot Area	Landscaped Area	Front Setback %	No. of Trees
1	154m ²	32.5m ² (21%)	13.3m ² (44%)	2
2	167.5m ²	23.2m ² (16.3%)	2.4m ² (6%)	1
3	142m ²	22.7m ² (15.9%)		1
4	142m ²	22.7m ² (15.9%)		1
5	142m ²	22.7m ² (15.9%)		1
6	142m ²	22.7m ² (15.9%)		1
7	142m ²	22.7m ² (15.9%)		1
8	144m ²	22.7m ² (15.9%)		1
Common Area	324m ²	30m ² (9.2%)	16m ² (49%)	3
Total Area	1499m ²	223.9m ² (14.9%)	31.7 (32.2%)	12





1 GROUND FLOOR PLANS
DA3-01 1:100



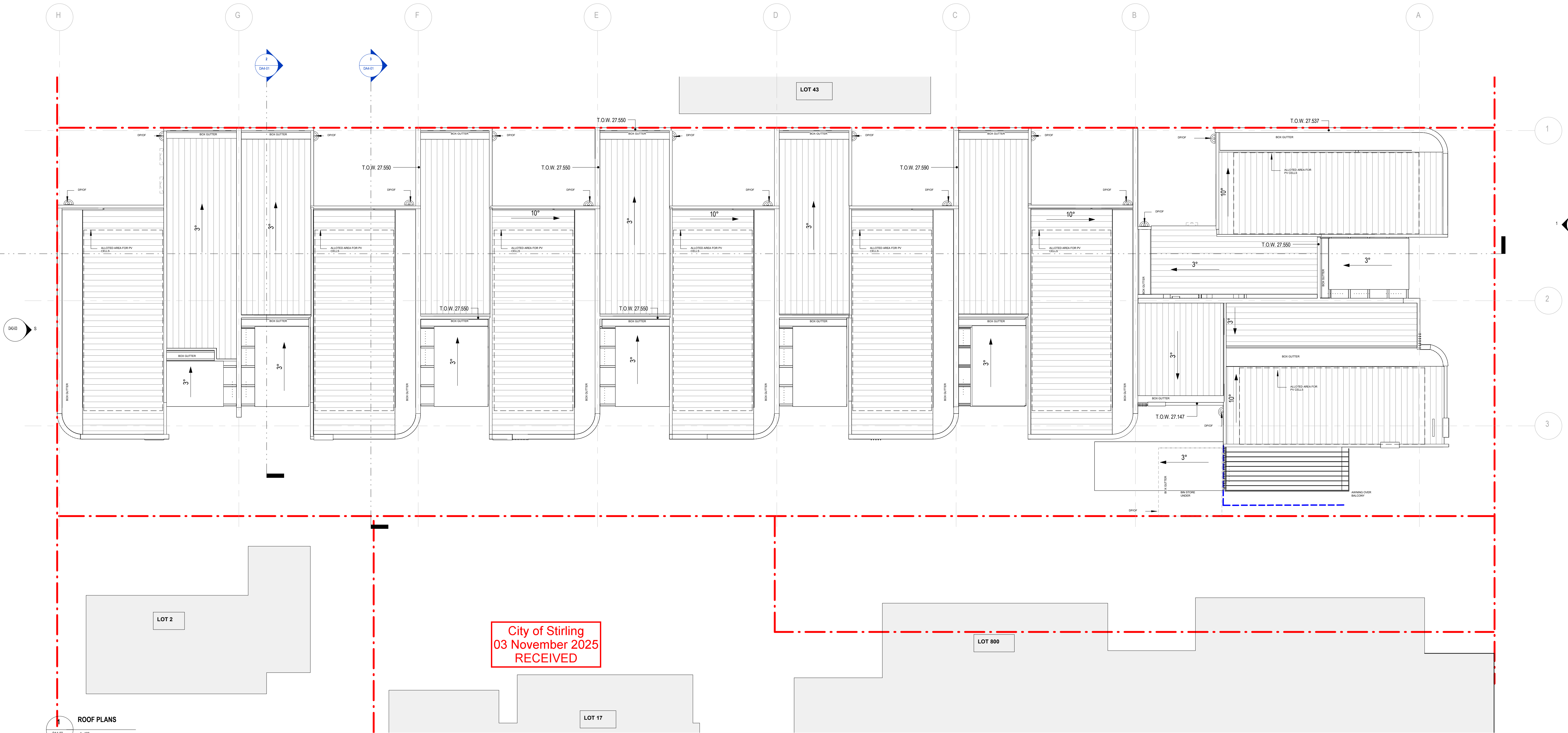
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1 LEVEL 1 FLOOR PLANS
DA3-01 1:100

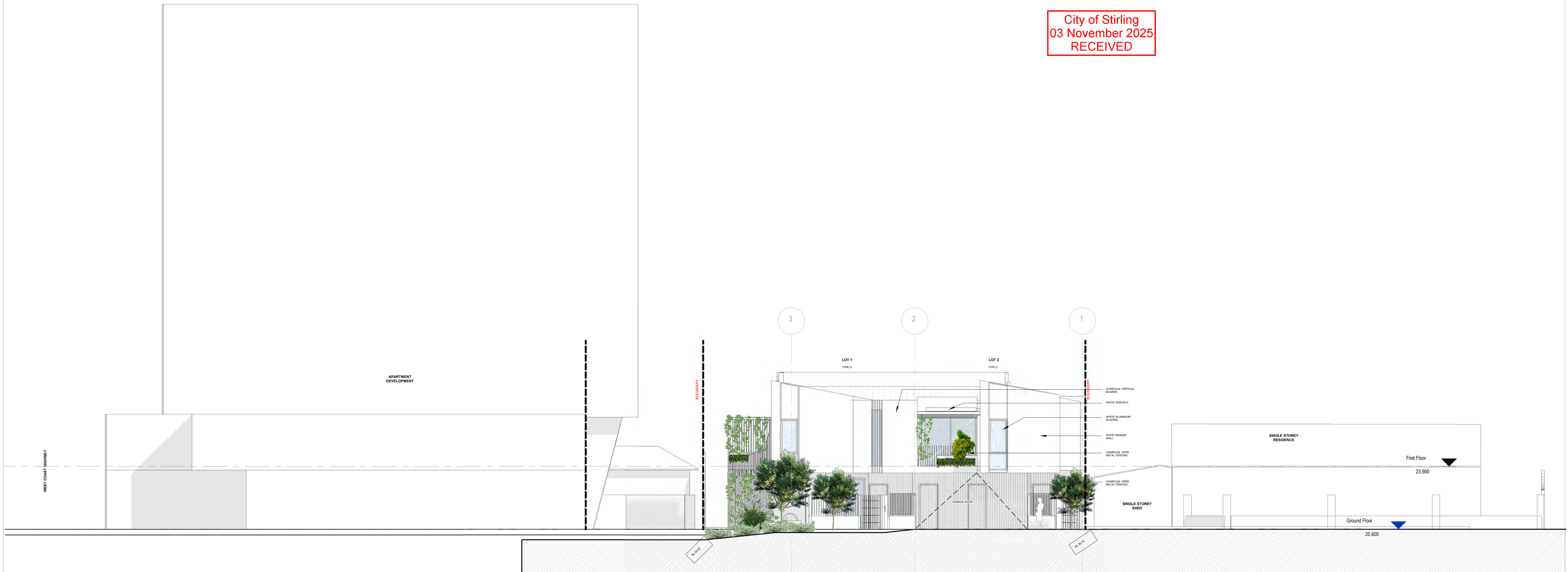


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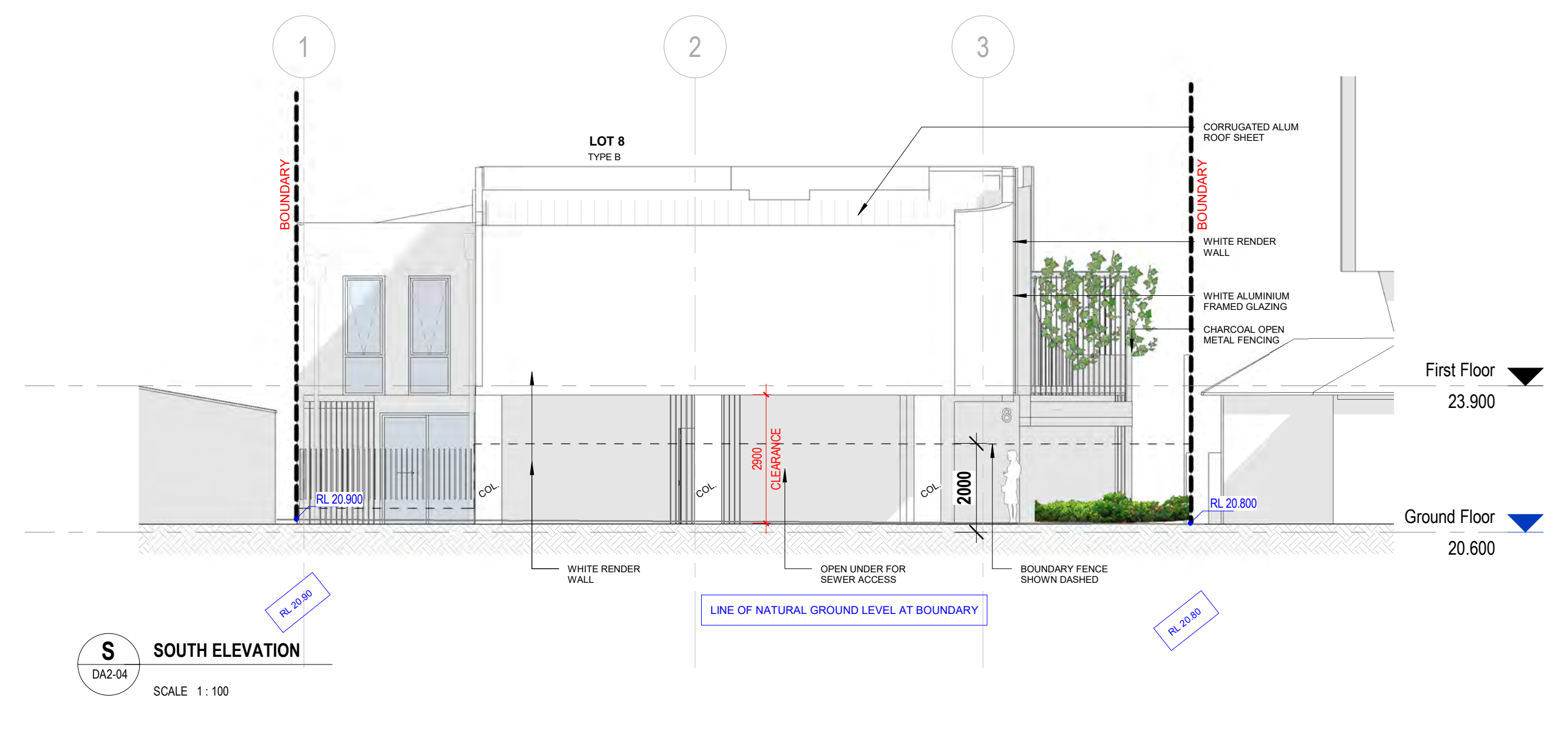
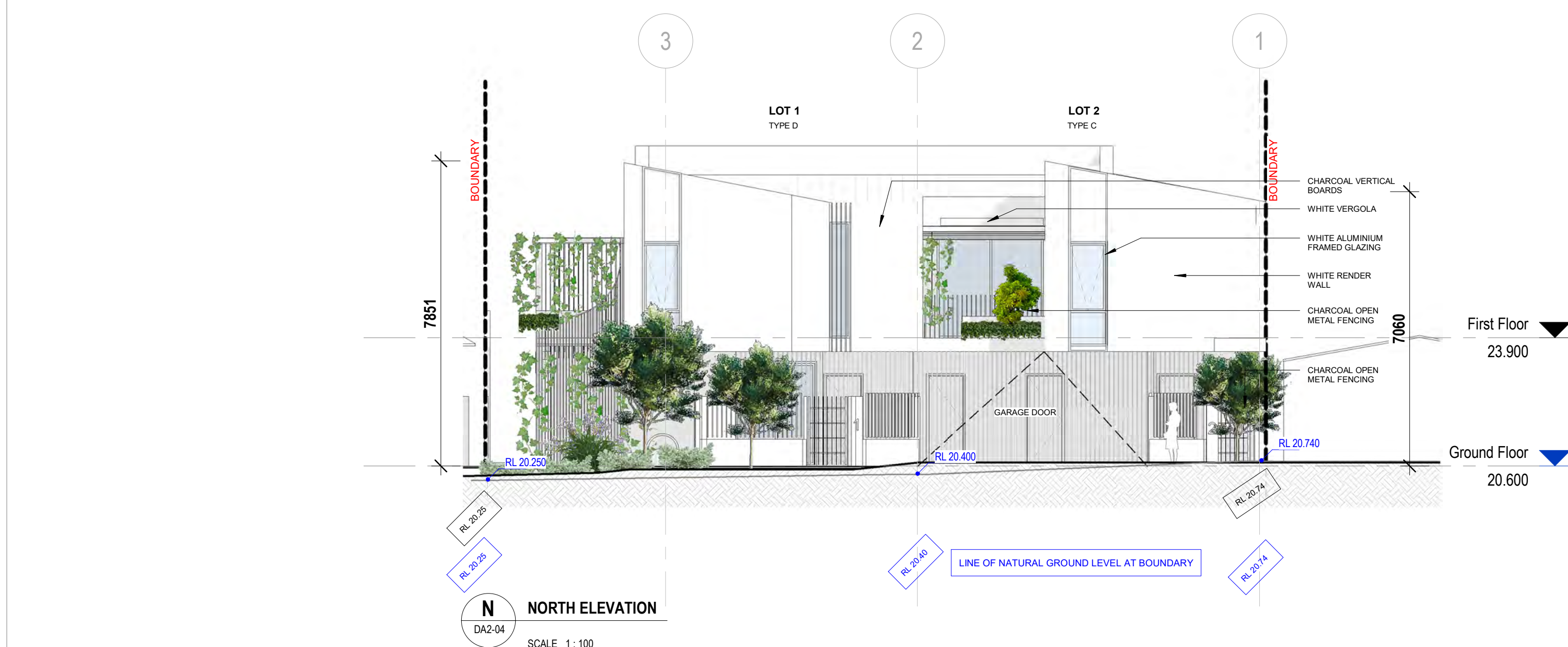
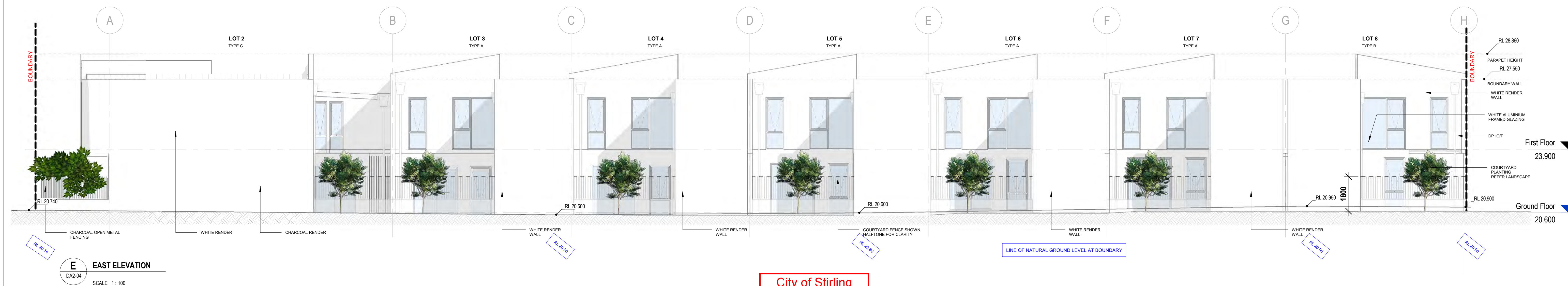
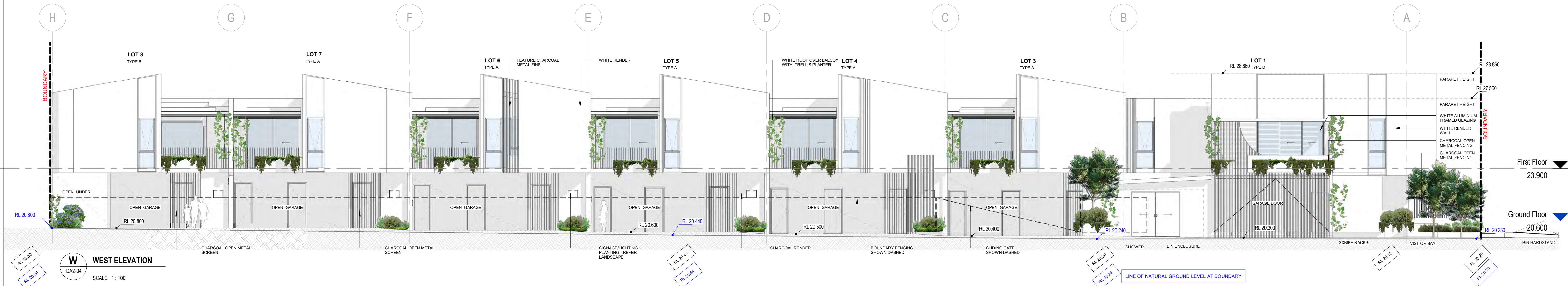
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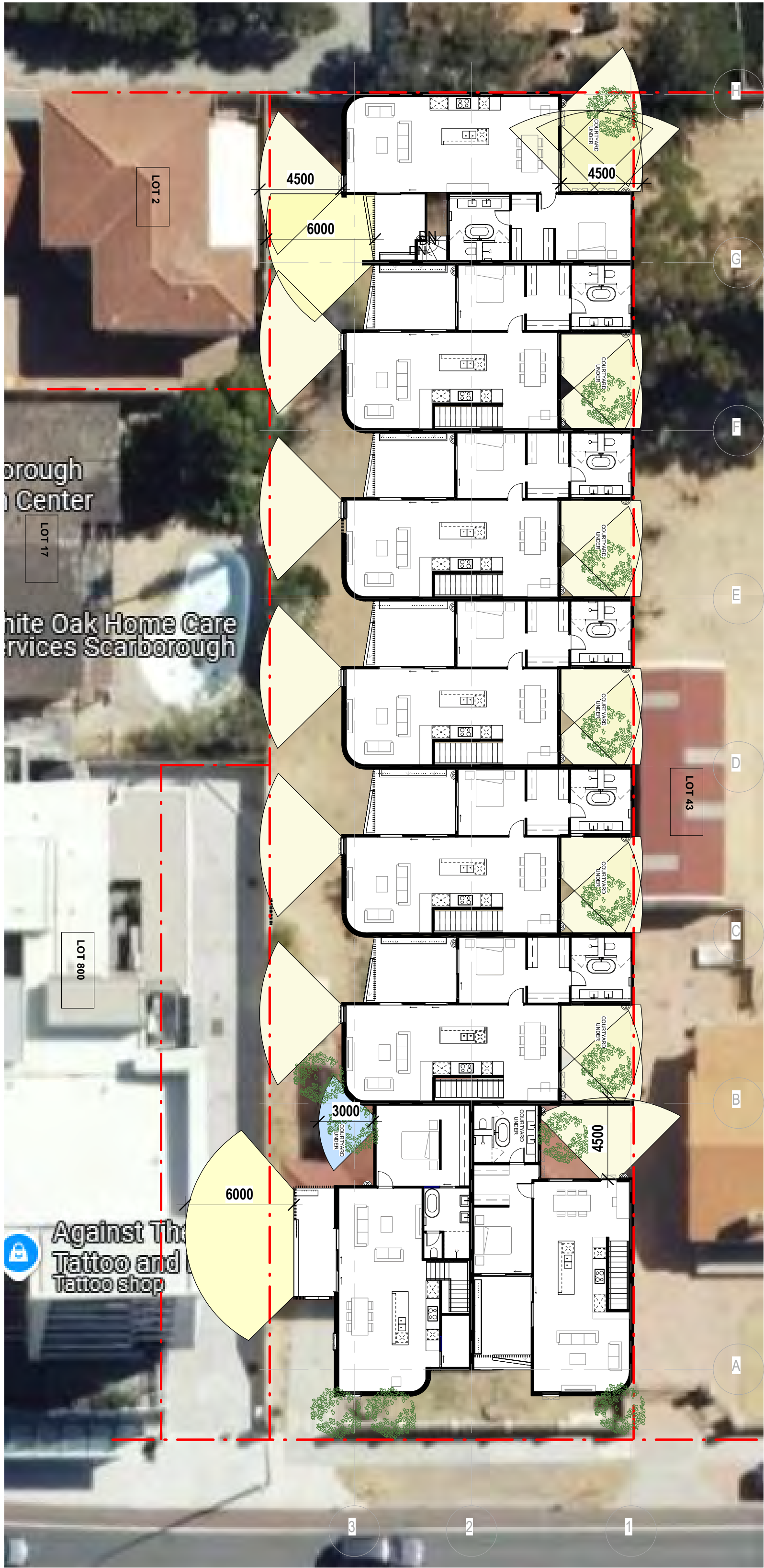
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1 BRIGHTON ROAD STREET CONTEXT ELEVATION
DA2-04 1:100



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LEVEL 1_VISUAL PRIVACY (4500)



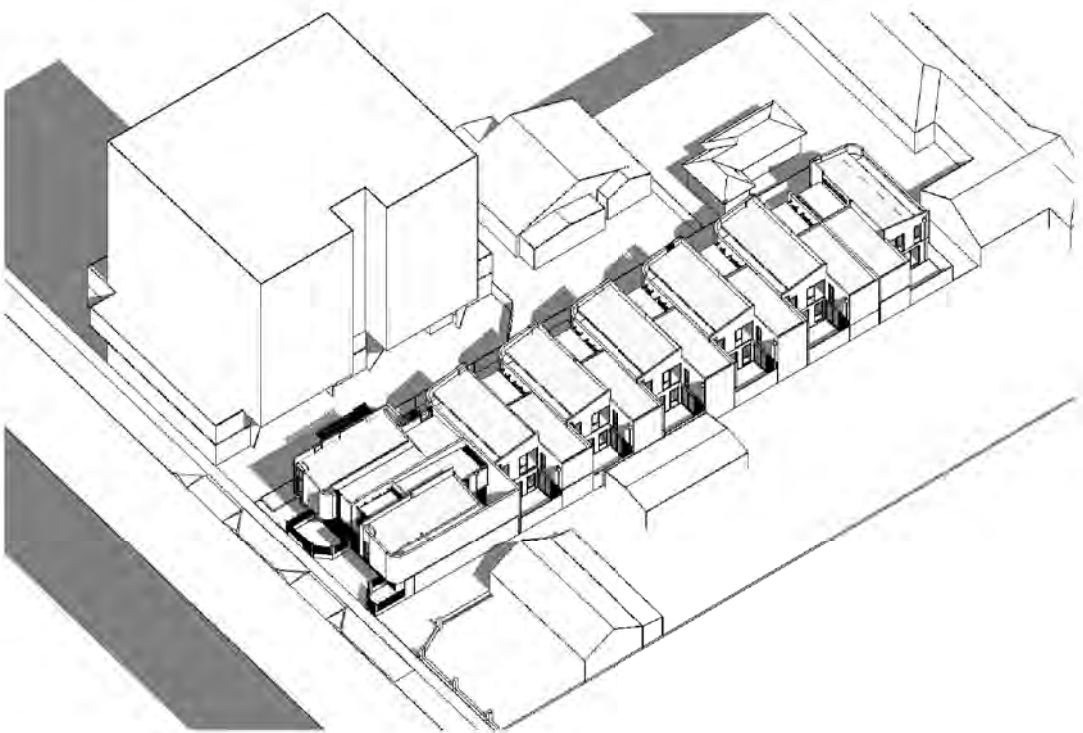
LEVEL 1_CROSS VENTILATION

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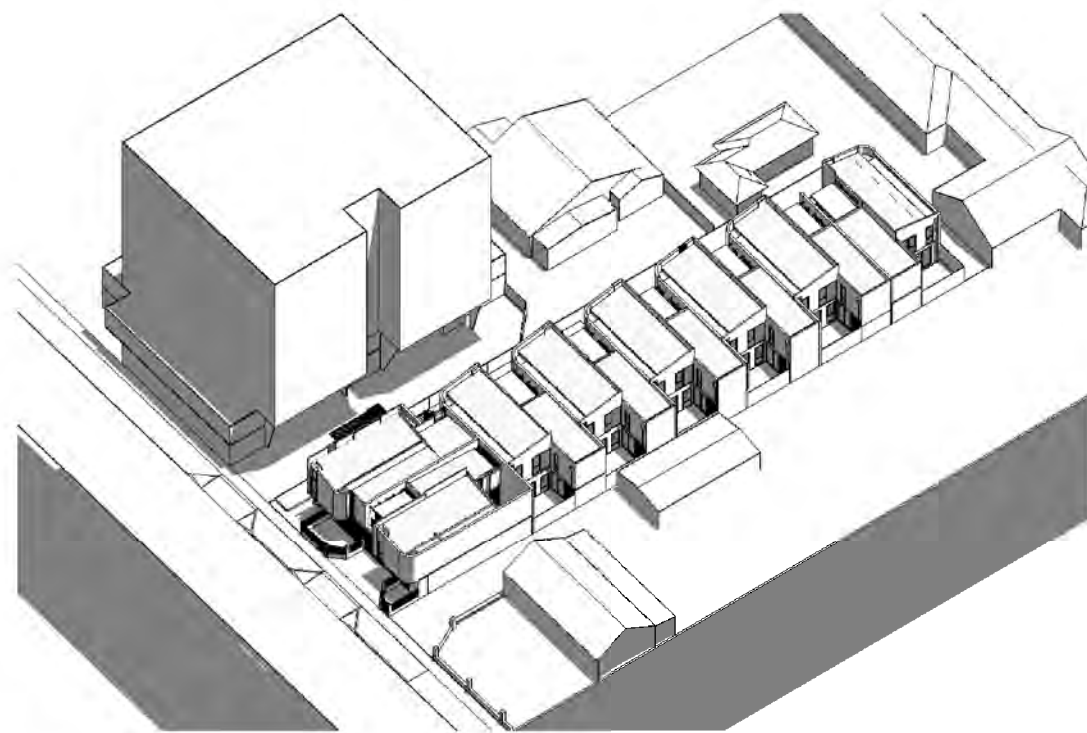
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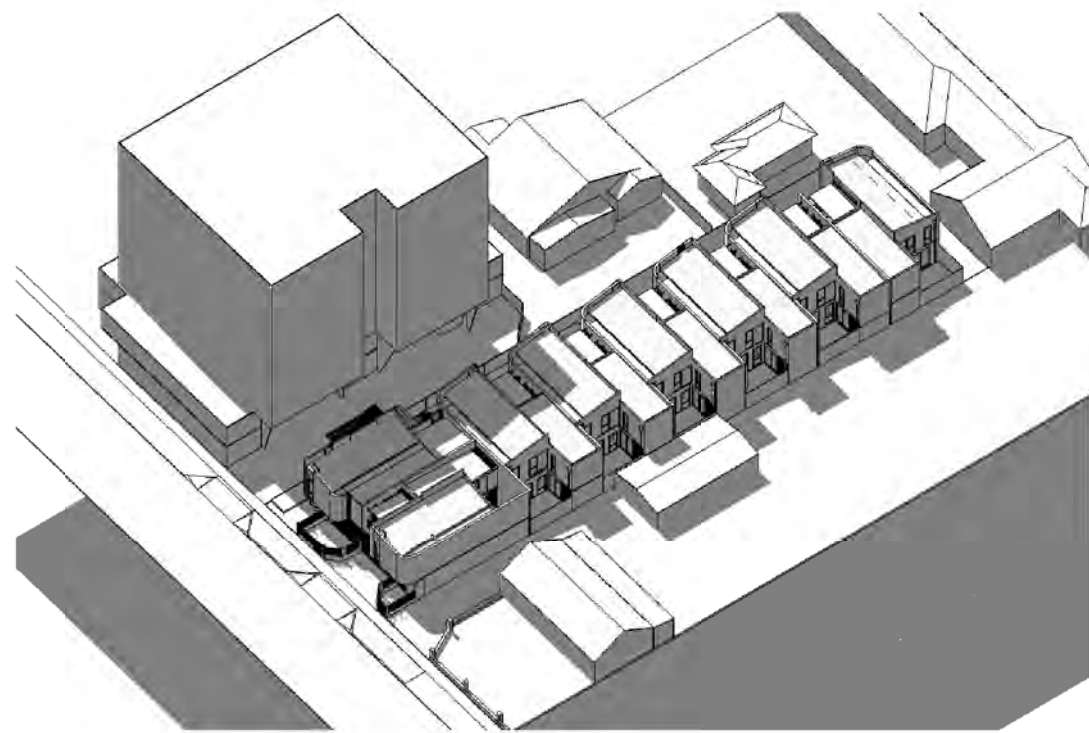
SITE PLAN_SUMMER 9AM

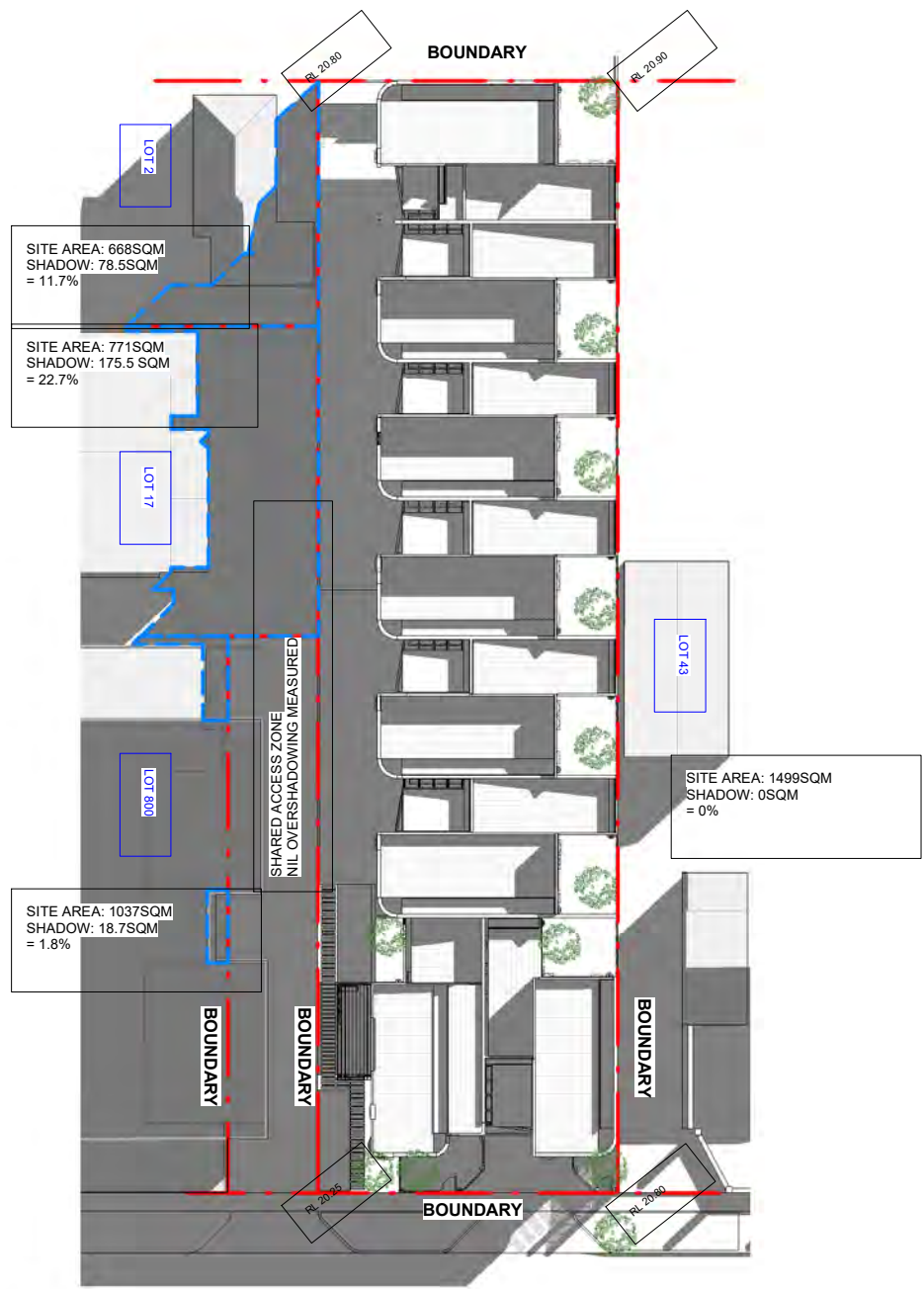


SITE PLAN_SUMMER 12NOON

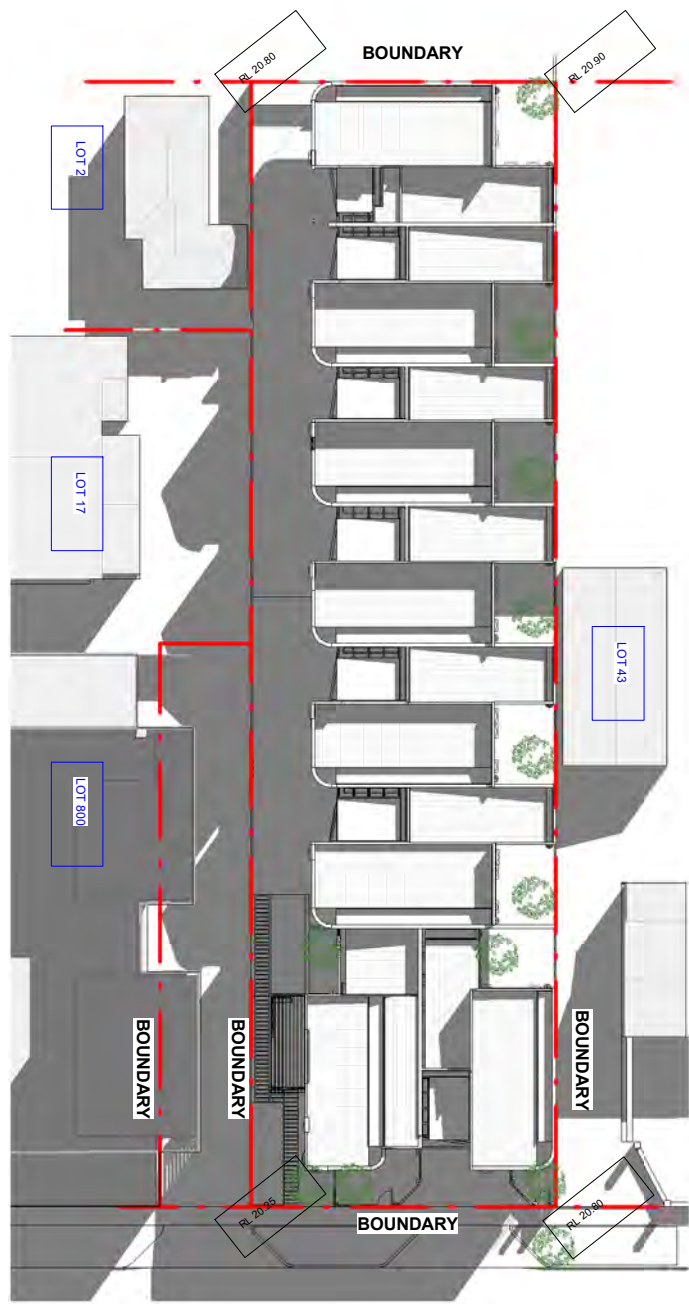


SITE PLAN_SUMMER 3PM

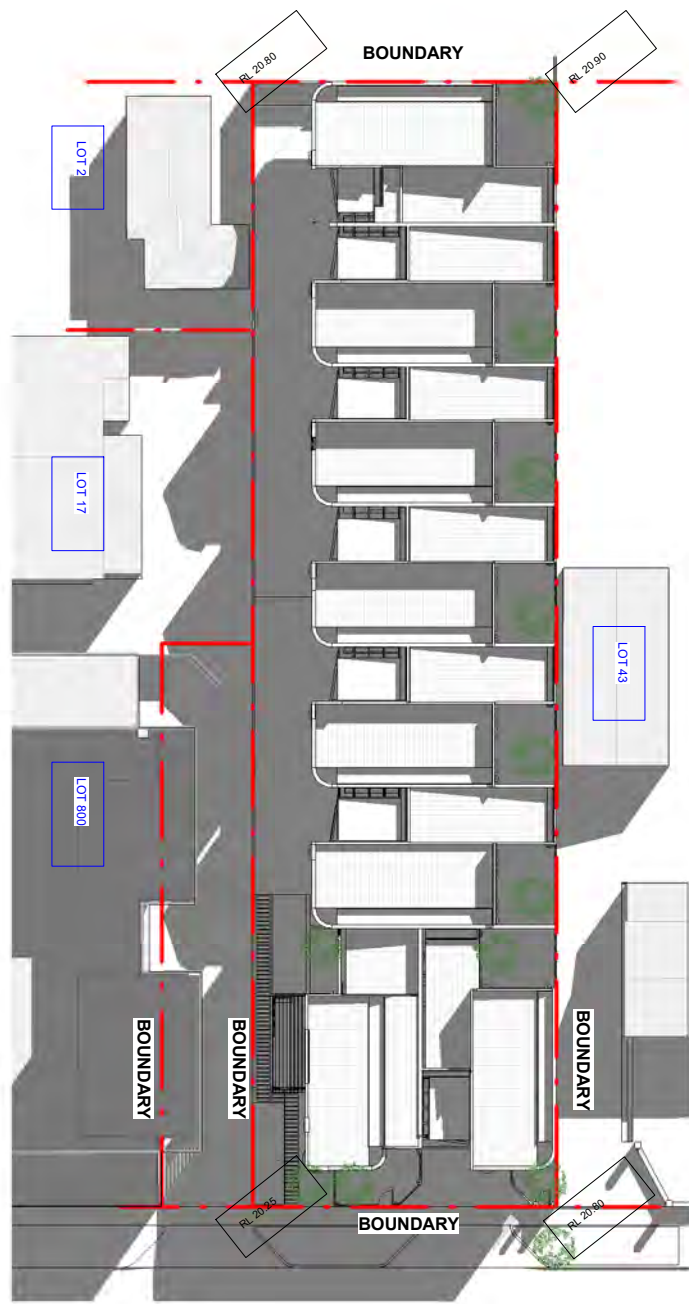




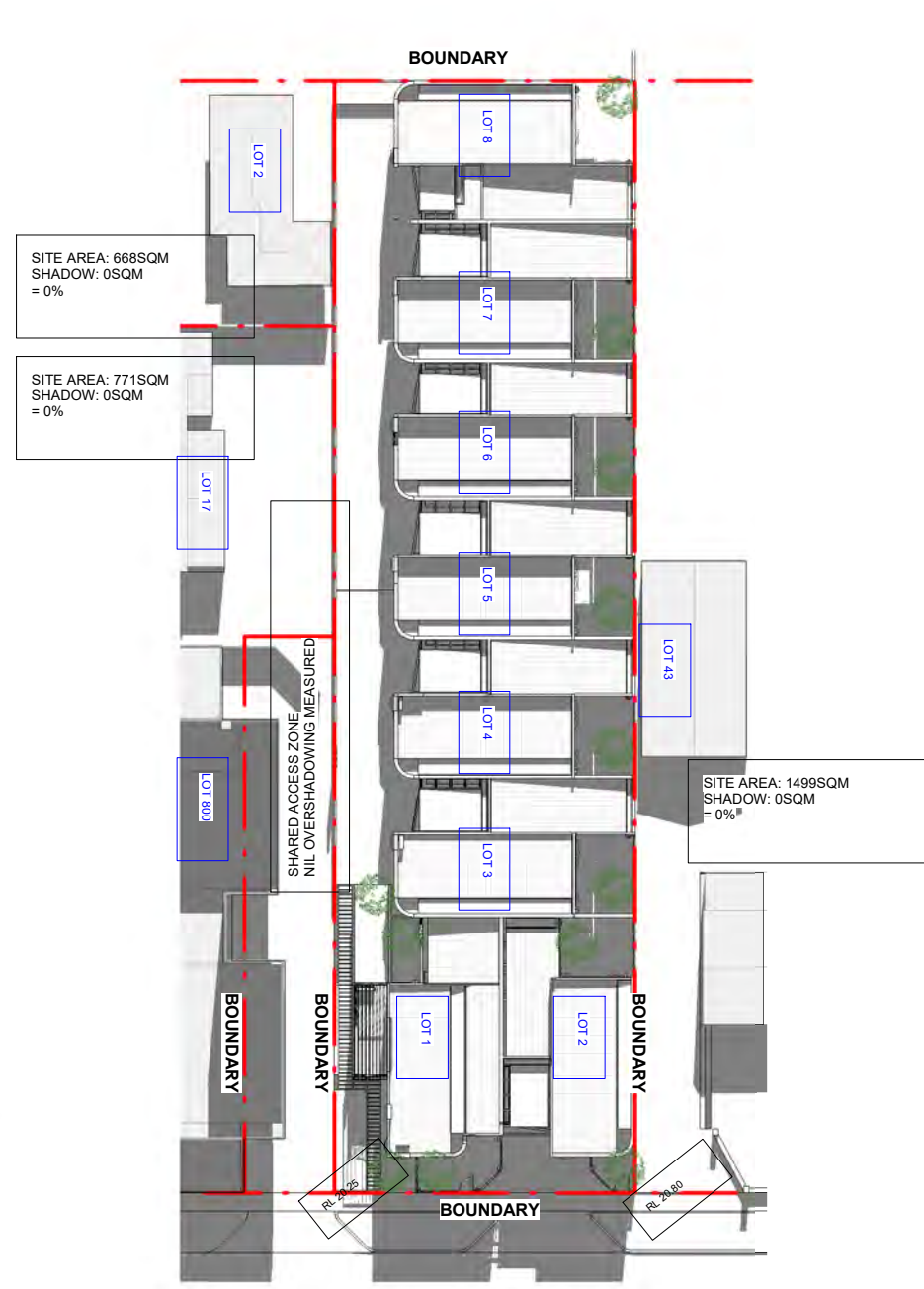
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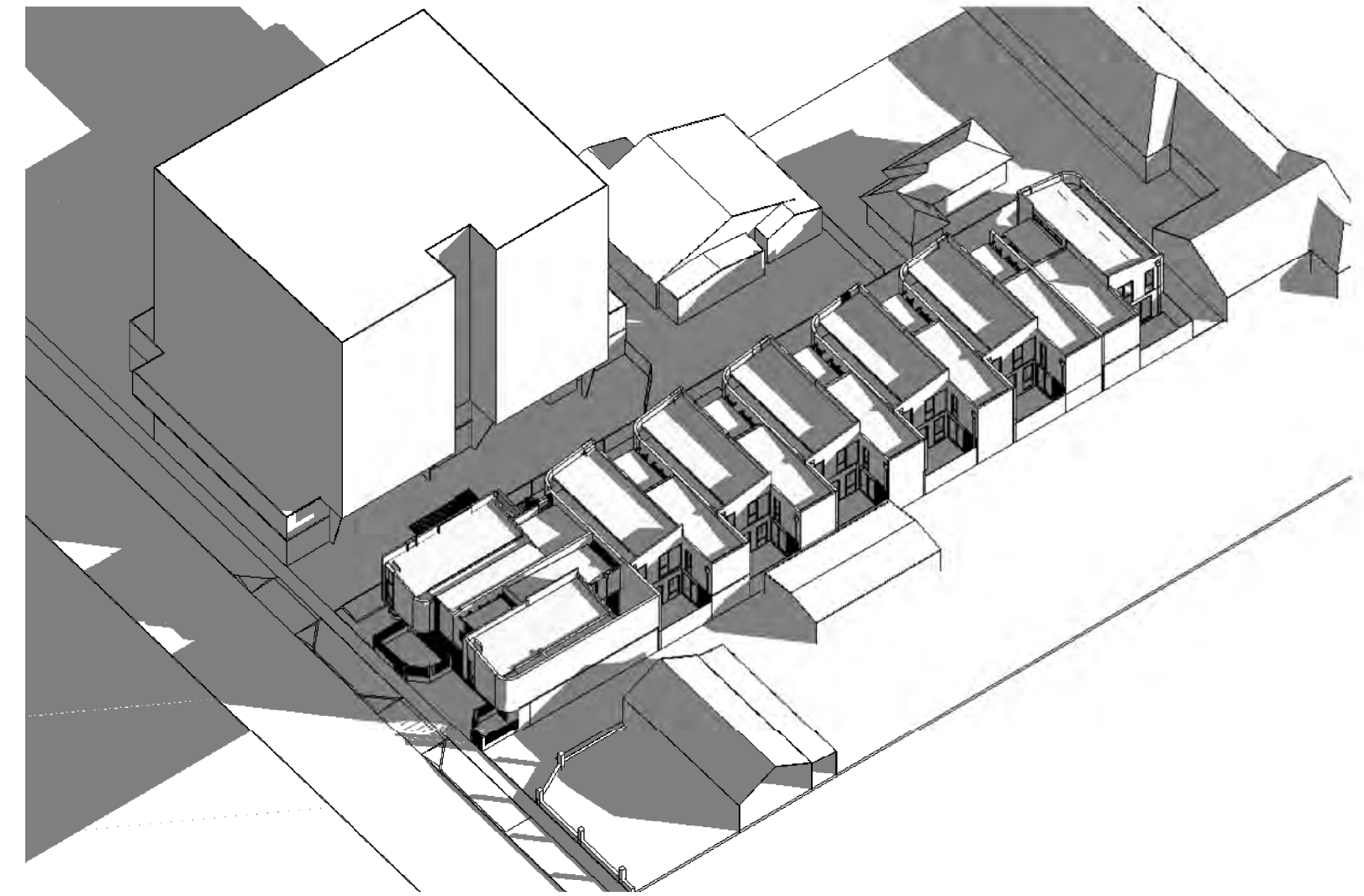
SITE PLAN_WINTER 10AM



SITE PLAN_WINTER 11AM



SITE PLAN_WINTER 12NOON



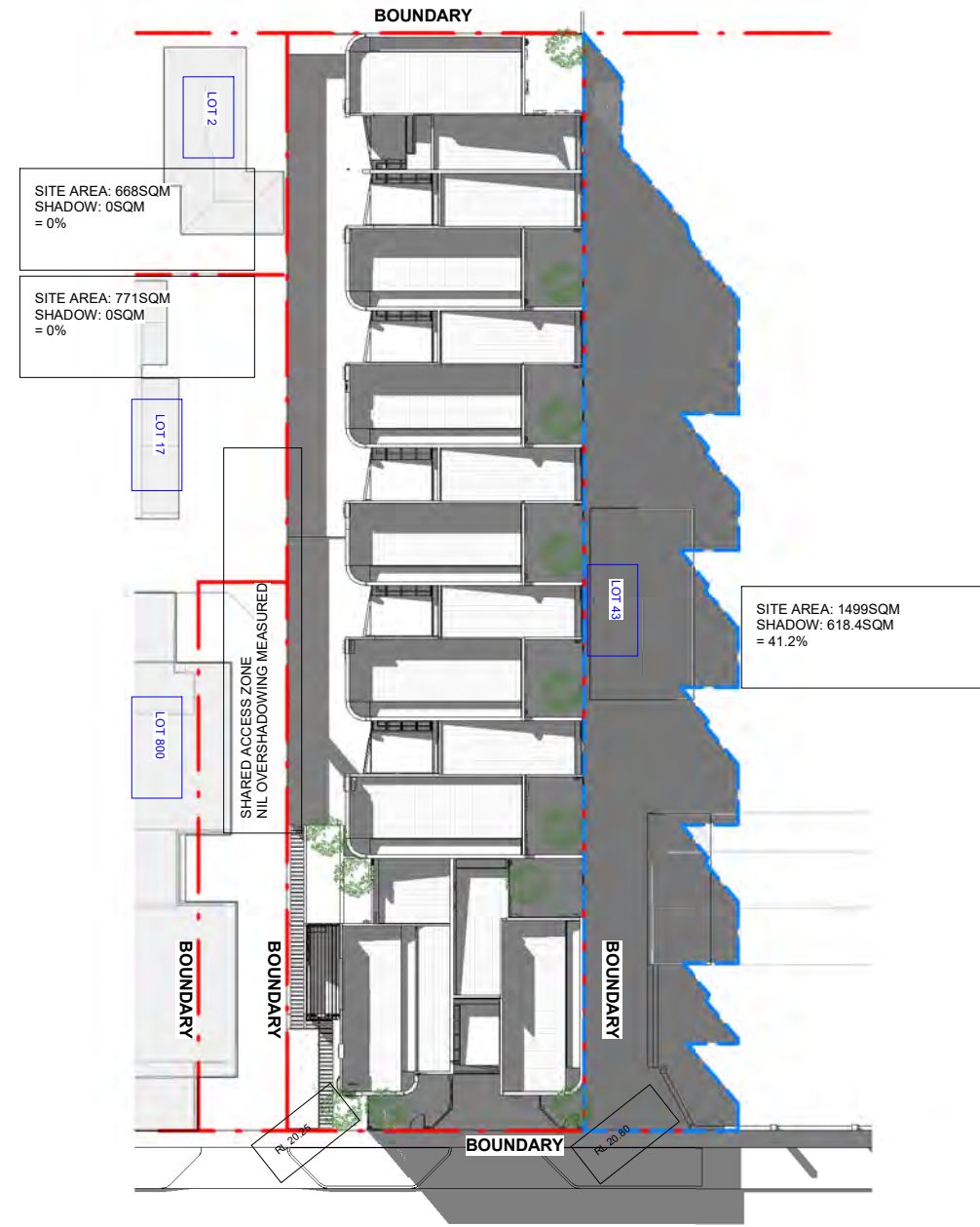
WINTER 9AM



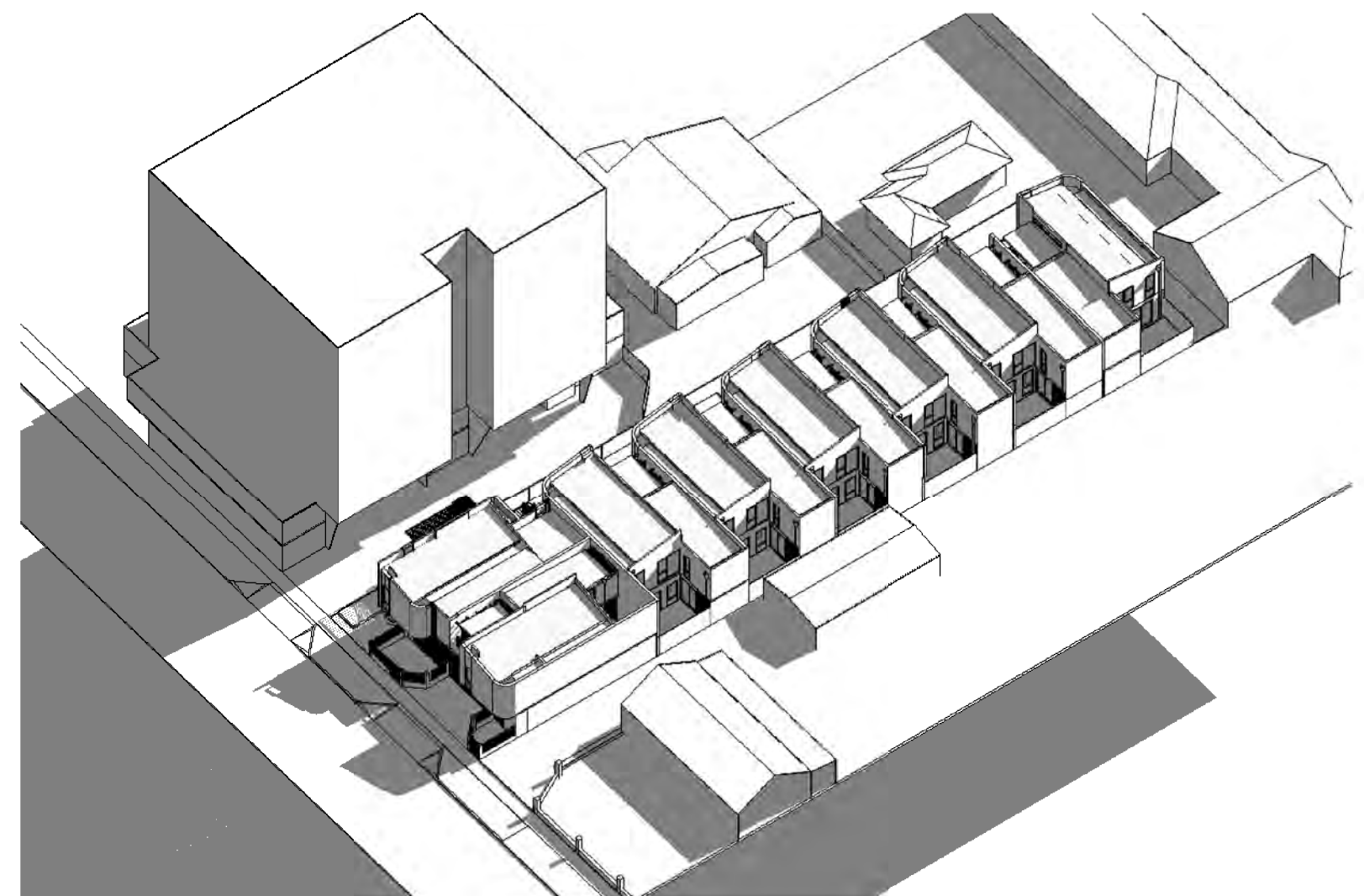
SITE PLAN_WINTER 1PM



SITE PLAN_WINTER 2PM

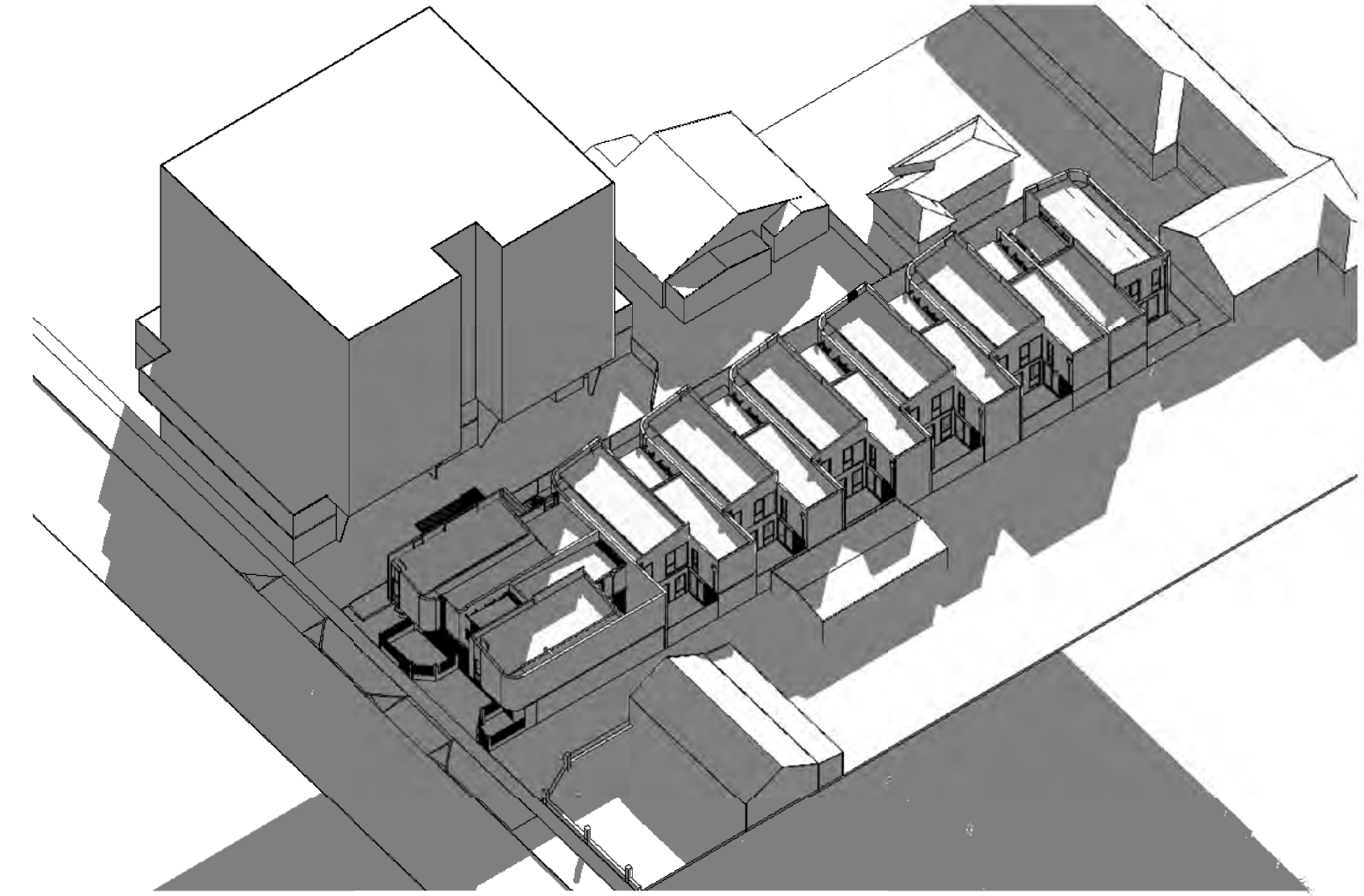


SITE PLAN_WINTER 3PM



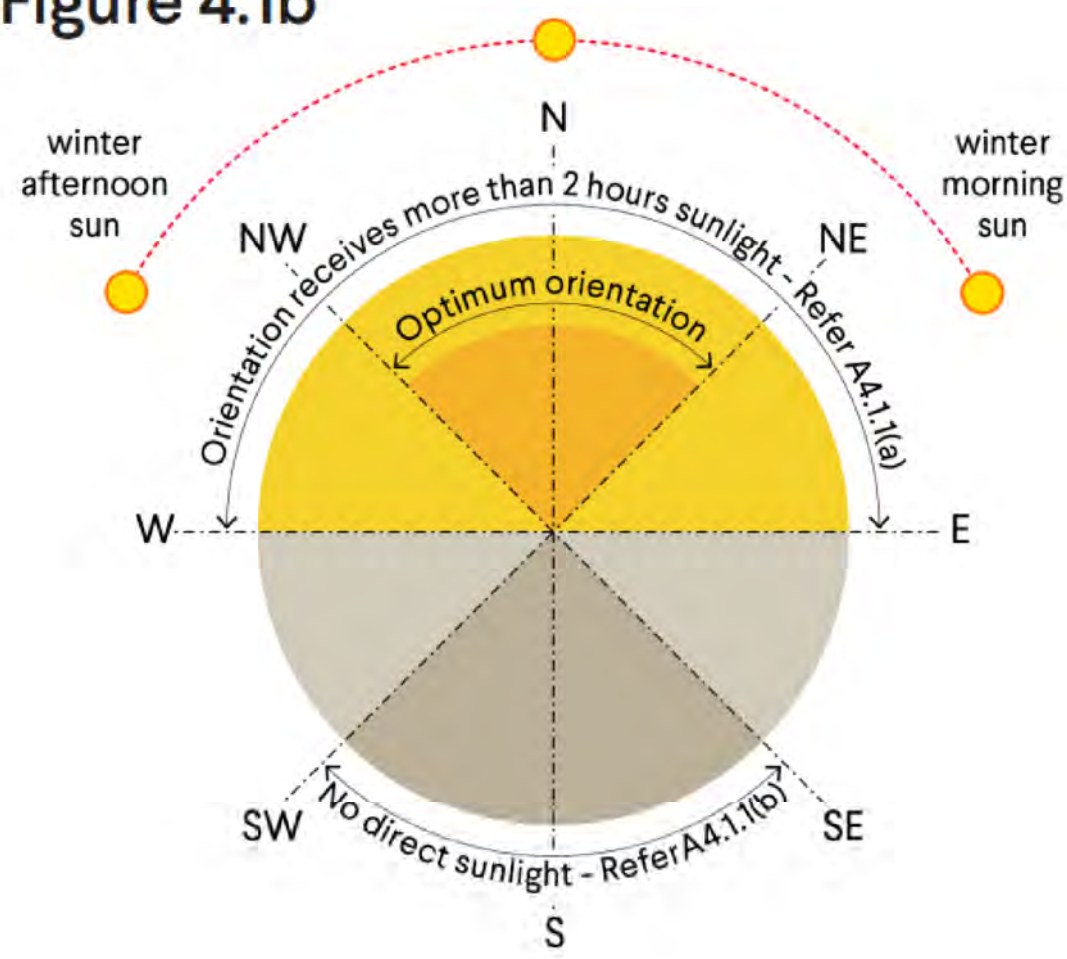
WINTER 12NOON

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WINTER 3PM

Figure 4.1b





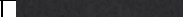
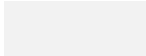
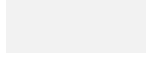
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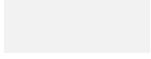
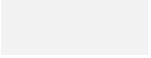
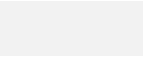
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EXTERIOR SCHEDULE										SCH 01
Project name:		BRIGHTON ROAD, SCARBOROUGH								
Client:										
Project number:		2505								
Status:		DA SUBMISSION								
Issue date:		23-June-2025								
Revision:		B		revised or new items highlighted in yellow						
EXTERIOR FINISHES GENERALLY										
APPLICATION	SPEC' CODE	INSULATION / GLAZING	PRODUCT TYPE	SUPPLIER/DISTRIBUTOR	COLOUR & FINISH	REFERENCE IMAGE	NOTES	SAMPLE PROVIDED	REV No.	
GROUND FLOOR										
Window/sliding door frames (glazing)			Aluminium (Powdercoat)	Dulux Duratec Zues	Monument Matt					
Fibre Cement Cladding			Fibre Cement Panel	HARDIE	OBLIQUE 300					
			Render	Rokote	Flexi Tex Medium - Paint Lexicon Quarter					
Entry door		N/A	Pivot Entry Door	Corinthian / M&B Sales or similar	DECO Custom 2340x1020x40mm With frame					
			Painted	Dulux Duratec Zues						
			HANDLE	TBC						
Garage Door		N/A	Sectional Door	B&D Garage Doors	Batten Tilt garage doors					
Fencing walls; Building walls.		Min. R1.5 Cavity wall insulation, as per NatHERS Report.	Stone	Stone Oasis	Gray Quartz Random Natural Stone Cladding					
				Mortar	Charcoal / Dark Grey					
Balustrade		N/A	Aluminium (Powdercoat) balustrade	Star Metal	Vertical Steel Palisade					
				Dulux Duratec Zues	Monument Matt					
Letterbox		N/A	Bricked-in lockable letterbox	Milkcan or similar	Black		Unit number to be engraved into face plate.			
Render to slab edges		N/A	Cement Render	"Builders choice"	To match Lexicon Quarter					
Laneway Vehicle Gate		N/A	Aluminium electric gate - Sliding Aluminium manual gates - Hinging		SG15 or SG18 or Custom		Remainder of site fence to be termite treated hardwood timber pailings, painted white			
				Dulux Duratec Zues	Lexicon Quarter					
External soffit lining (underside of Level 1)		Min. R2.0 Rigid board insulation	Paint	Dulux Weathershield Low Sheen Paint	Lexicon Quarter					
Exterior surface		N/A	Exposed Agg	Boral	Light Grey		60mm for non trafficable and 80mm for trafficable areas.			
Exterior pavers		N/A	Permeable Pavers	AusCast	Grass/Diamond Paver		60mm for non trafficable and 80mm for trafficable areas.			
Garage internal walls					Industrial WA - Portland					
					Off white (white sand, standard grey cement)					
Vertical Landscape Trellis		N/A	Diagonal Trellis Cable System	Ronstan, AGS3C or similar	Stainless Steel		Refer to a typical detail 9 on A06-103.			

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EXTERIOR FINISHES GENERALLY									
APPLICATION	SPEC' CODE	INSULATION / GLAZING	PRODUCT TYPE	SUPPLIER/DISTRIBUTOR	COLOUR & FINISH	REFERENCE IMAGE	NOTES	SAMPLE PROVIDED	REV No.
LEVEL 1 AND ABOVE									
Glazed doors and window frame		Non-thermally broken double glazing, as per NatHERS Report.	Aluminium (Powdercoat)	Dulux Duratec Zues	Monument Matt				
Render to exposed concrete slab edges		N/A	Cement Render	"Builders choice"	To match Colorbond Lexicon Quarter		Slab edges to have chamfered edges with integrated drip grooves.		
Balustrade		N/A	Aluminium (Powdercoat) balustrade	Star Metal	Vertical Steel Palisade				
				Dulux Duratec Zues	Lexicon Quarter				
External Balcony Walls		Min. R2.0 Rigid board insulation, as per NatHERS Report.	Elastometric Topcoat	Dulux Acratex	Lexicon Quarter				
Balcony Floor Tile		N/A	Porcelain Tile	myaree ceramics	Tibur Grigio Safe Module				
Roof Profile		Min. R5 Roof insulation, as per NatHERS Report.	Metal roof profile	Fielders, KingKlip 700 or similar	Colorbond, Southerly				
Exposed Rainhead		N/A	Rainhead	Dam Buster, square with hidden overflow or similar	Colorbond Monument Matt				
Exposed Downpipes		N/A	Rectangular Downpipe	"Builders choice"	Colorbond Lexicon Quarter				
Horizontal Landscape Trellis		N/A	Cable System	Ronstan, I-SYS Wire Rope System or similar	Stainless Steel				

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22 Brighton Road Scarborough

Sustainability Report

Developed Property

Job No: 1046146
Doc Ref: 1046146-RPT-SY-001
Revision: B
Revision Date: 05 November 2025

Project title	22 Brighton Road Scarborough	Job Number
Report title	Sustainability Report	1046146

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
—	06 May 2025	Issue for Development Application (DA)
A	07 May 2025	Issue for Development Application (DA) – minor amendment
B	05 November 2025	Issue for Development Application (DA) – aligned with MRA Scarborough Redevelopment Area – Green Building Policy

Document Validation (latest issue)

5/11/2025	5/11/2025	5/11/2025
X 	X 	X 
Principal author	Checked by	Verified by
Signed by: p.armstrong	Signed by: O.Grimaldi	Signed by: O.Grimaldi

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Executive summary

This report outlines the Ecological Sustainable Design (ESD) strategy for the proposed 22 Brighton Road development, located in Scarborough, and lies within the City of Stirling. The site is located within the Scarborough Special Control Area, as defined in Local Planning Scheme No. 3.

The project is to consist of 8 Grouped Dwellings (residential Class 1a). The site will also include landscaping and carparking provisions for each of residential dwellings.

This report outlines how the proposed development aligns with the relevant sustainability credentials in the City of Stirling. The following documents are referred to within this report:

- Metropolitan Redevelopment Authority (MRA) Scarborough Redevelopment Area – Green Building Policy
- Local Planning Scheme No. 3, specifically Schedule 13 (Scarborough Special Control Area).

Table 1 below demonstrates how the proposed development responds to the requirements and outlines which sections of this report are relevant for each requirement.

Table 1: Relevant Local Government Authority (LGA) ESD requirements for the project.

Outcome	Development must demonstrate that:	Comments
Metropolitan Redevelopment Authority (MRA) Scarborough Redevelopment Area – Green Building Policy		
✓	Green Star System New buildings on any Tier 3 site are required to be designed and constructed to achieve a 4 Star Green Star Design & 'As Built' rating or SDAR report from a Suitably Qualified Professional.	This development is being designed to an equivalent standard for Green Star Homes as this is the most applicable and relevant rating tool for townhouse developments. A Sustainable Design Assessment Report (SDAR) (this report) has been written by Cundall who are Suitably Qualified Professionals. Refer to Section 9.2 for more details.
Local Planning Scheme No.3 – Scarborough Special Control Area – Schedule 13		
Objectives under 1.3.6 Environmental Integrity		
✓	Ecological Footprint Encourage development that uses energy efficiently and minimises greenhouse gas emissions.	The development is designed to reduce operational energy consumption through good building fabric and high-performance glazing. Refer to Section 2.2 .
✓	Environmentally Sensitive Design Promote building practices that ensure resource efficiency, minimise non-renewable resource use, and reduce waste and pollution.	Refer all sections of this report.
✓	Water Sensitive Design Encourage development that reduces natural water demand and promotes water reuse and recycling.	The project will install low-flow water fittings and design for low-water consumption landscaping. Refer to Section 4.0 .
✓	Natural Environments Ensure development respects the coastal setting of Scarborough and supports environmental protection and drainage management.	Project is designed to minimise stormwater runoff, through use of on-site landscaping. Refer to Section 4.3 .

Outcome	Development must demonstrate that:	Comments
✓	Urban Heat Island Mitigation Preserve mature trees and plant new vegetation in deep soil zones to reduce heat buildup.	Light coloured roof, façade and landscaping will mitigate heat island effect. Refer to Section 7.2 .
✓	Alternative Transport Incorporate technologies and infrastructure that promote public transport, cycling, walking, and future light rail integration.	The development is well designed to support cycling and walking. Refer to Section 6.0 .
✓	Site Responsive Design Design developments that respond to site conditions and environmental factors, helping reduce urban heat island effects.	Refer all sections of this report.

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1.0 Introduction

The project is to consist of 8 Grouped Dwellings (residential Class 1a). The site will also include landscaping and carparking provisions for each of residential dwellings.

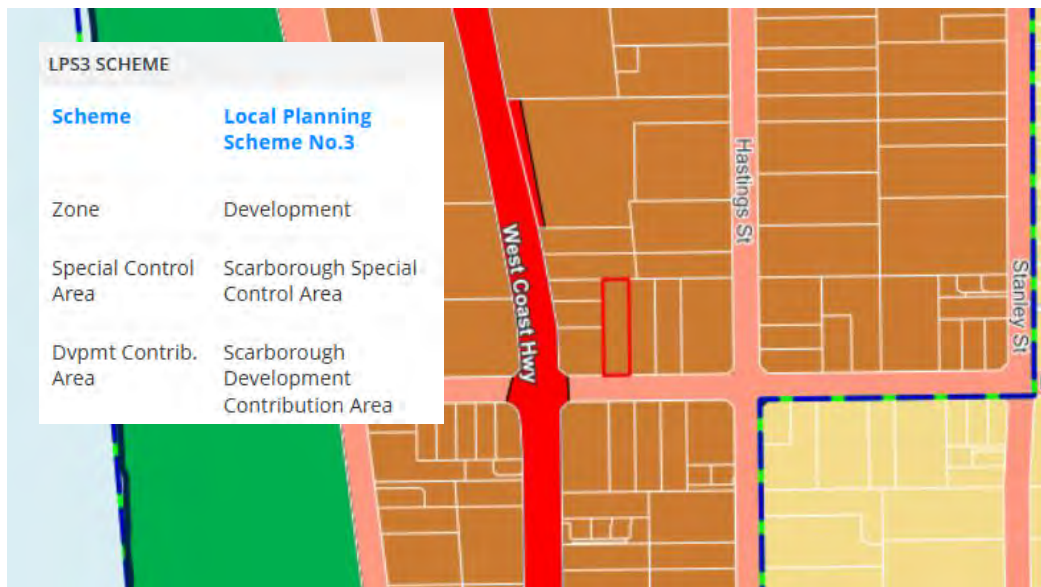


Figure 1.1 Location and classification of the proposed development.

1.1 Design Guidelines – City of Stirling

The proposed building is within the City of Stirling and therefore must conform to the following policies and guidelines. The design must also meet the MRA – Green Building Policy. Refer [Section 9.2](#) for further detail.

1.1.1 Local Planning Scheme No. 3

The Scheme sets out the Council's planning aims, zones and reserves land, regulates land use and development, outlines planning application procedures, and provides for administration, enforcement, and other statutory matters.

1.2 Sustainability targets

This report details the project's current sustainability targets and initiatives across the following categories:

- Embodied and operational carbon,
- Indoor environment quality,
- Water efficiency,
- Waste management,
- Transport,
- Urban ecology,
- Social impact.

As an overview, the development has been designed to meet the following sustainability targets:

- Solar PV panels to each dwelling,
- Low-flow fittings and fixtures, with drip irrigation to native landscaping,
- Light coloured roof and façade to minimise heat island effect,
- High quality building fabric to reduce unwanted heat gain and losses.

2.0 Embodied and operational carbon

Buildings consume considerable natural resources in their construction, operation, and demolition. This section of the report will provide details about the potential impacts caused by the building and how these impacts have been reduced when compared to typical buildings of this nature.

The proposed development will aim to reduce the total embodied carbon in the construction materials and aim to maximise the operational efficiency of the building's services.

2.1 Embodied carbon

Embodied carbon refers to the total amount of energy required to produce a product or system, and includes energy inputs for raw material extraction, processing, manufacturing, and distribution. In doing so, it considers both direct and indirect energy inputs and is often used as a holistic measure of environmental impact.

To minimise embodied carbon on the project, several initiatives are currently present or being investigated for the design, as listed below.

- The structural steel used within the building will target use of responsibly sourced steel, such as products with a ResponsibleSteel™ certification, or an Environmental Product Declaration (EPD).
- The concrete used within the development will aim to incorporate low carbon mix designs, which replace carbon intensive Portland cement with waste materials such as fly-ash or furnace slag.

2.2 Operational energy efficiency

The proposed development has considered the importance of reducing operational energy. This will be achieved through several initiatives, as detailed below.

2.2.1 High performance building fabric

All aspects of the building's thermal performance will be constructed to exceed Section J requirements in the National Construction Code (NCC) 2022.

For glazing to the façades, a high-performance glazing system will be selected to prevent excessive summer heating while allowing useful passive solar gains in winter. A low glazing U-Value would minimize the conductive loss or gain of heat between the interior and exterior of the building.

The following insulation and glazing values are currently being considered within the project design. Please note thermal performances may be refined during the project NatHERS modelling process.

Table 2: Proposed glazing and insulation performance values.

Building Component	Targeted Thermal Performance
Glazing	$U_T \leq 3.20$ and $SHGC_T: 0.35 (\pm 5\%)$
Roof / ceiling	$R_T: 5.0$
External walls	$R_T: 3.0$
Internal walls	$R_T: 1.0$
Floor	$R_T: 2.0$

2.2.2 Thermal bridging

Thermal bridging describes the transference of heat at a point through which it can bypass insulating layers of the structure. The presence of such points in a building's envelope can produce unwanted heat gains and losses.

In designing for sustainability and energy efficiency, the architectural and structural detailing on the project will consider thermal bridging solutions where viable, such as roof spacer systems.

2.2.3 Energy efficient appliances

Any appliances specified within the design of the building will meet the following Energy star requirements.

Table 3: Appliance energy star requirements.

Appliances	Targeted performance
Refrigerator	4.5 Star
Washing machine	4.5 Star
Dishwasher	4.0 Star
Dryer	6.0 Star
Cooktop	All electric
Oven	All electric

2.2.4 Lighting

Energy efficient lighting fixtures are to be targeted for the development, with low energy consuming LED lighting currently considered for the project. Lighting comfort will also be considered, with CRI, glare, flicker-free requirements considered for the project.

Motion sensors are also considered for specific areas to optimise energy efficiency where possible. This will be targeted primarily for transient spaces provided that it does not compromise safety of the building occupants.

2.2.5 Shade structures

Through a combination of eaves, screens, and awnings, the project will seek to reduce shade the façade and glazed areas from direct sunlight.

This will reduce cooling demands during the summer months and thus reduce energy consumption.



Figure 2-1 Render of proposed façade glazing, with shading eaves present.

2.2.6 On-site renewables

In addition to the above initiatives, on-site energy production will also be considered by the development. A small roof mounted photo-voltaic system is considered for installation atop each dwelling.

This would further reduce the energy demand for the project, and system size will be optimised during design.

A target of over 7.5 kw per apartment is currently considered.



Figure 2-2 PV cells shown on roof top plan.

3.0 Indoor environmental quality

The indoor environment quality (IEQ) within a building contributes significantly to user wellbeing and is therefore a critical part of any design. It comprises a range of factors, including but not limited to air quality, lighting, acoustics, and thermal comfort.

The proposed development has considered the above and adopted several strategies to enhance indoor environment quality, as outlined in this section of the report.

3.1 Thermal comfort

An indoor environment that is too hot or too cold can affect mood, performance, and productivity.

To control internal comfort and minimise excessive heat loss in winter and heat gains in summer, several strategies will be investigated for the proposed development:

- High performance glazing will be installed to improve the thermal performance of the building envelope.
- External shading and operable windows prevent excessive heat gains in summer.
- Good thermal mass is present through the heavyweight façade elements, which will improve thermal comfort.
- Building constructions will also consider impacts of airtightness, moisture management in addition to thermal comfort.

3.2 Emissions & toxicity

Volatile organic compounds (VOCs) are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors than outdoors. VOCs are emitted by a wide array of products numbering in the thousands (typically paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment such as copiers and printers).

The development will aim to specify materials with low emissions content including low-VOC and low formaldehyde content to avoid contaminating the indoor air.



Figure 3.1 VOCs that result in a poor indoor environment.

3.3 Natural and artificial lighting

The development has been designed to maximise daylight by providing glazing systems to all bedrooms and living spaces, through inclusion of balconies and courtyards.

This will ensure good access to natural daylight and shading devices are also proposed to minimise glare and enhance visual comfort.

Artificial lighting will also be considered in the design and seek to provide a soft and welcoming feeling for occupants, which will improve the overall building indoor environment quality. Targets are being considered with regard to CRI, glare, and flicker-free performances.

3.4 Cross ventilation

Natural ventilation is the movement of a sufficient volume of fresh air through a dwelling to refresh indoor air. It is best achieved by apartments that have more than one aspect with direct exposure to the prevailing winds, or with windows located in significantly different pressure regions.

The development has considered methods to maximise the number of spaces with natural ventilation. This has been achieved by including operable glazing units throughout the project to enable significant fresh air to enter.

4.0 Water Efficiency

A reduction of water usage does not only alleviate pressure from the local water supply but also means reduced costs of operation.

The following sections set out design strategies utilised for this development to reduce the building's water consumption.

4.1 Water fixtures & fittings

Occupant consumption is a major contributor to potable water usage. Low flow water fittings and fixtures will be targeted for the project, in line with best practice WELS ratings, as shown below.

Table 4: Proposed water fittings WELS rating

Fixture / Fitting Type	WELS Rating
Taps (kitchen)	4 Stars with a maximum flow rate of 7.5L/min
Taps (laundry and bathroom)	5 Stars with a maximum flow rate of 6L/min
Toilets	4 Stars dual flush with a maximum flow rate 3.5L/flush
Showers	4 Stars with a maximum flow rate of 7.5L / min
Clothes Washing Machine	4-star
Dishwasher	5-star

4.2 Water-wise landscaping

This development will be creating a water-wise landscape, with a majority of native species proposed for the plant selections. These selections are naturally hardy natives and have low water demand.

Irrigation systems for the development will target the use of drip irrigation, which is the most efficient method of irrigation.

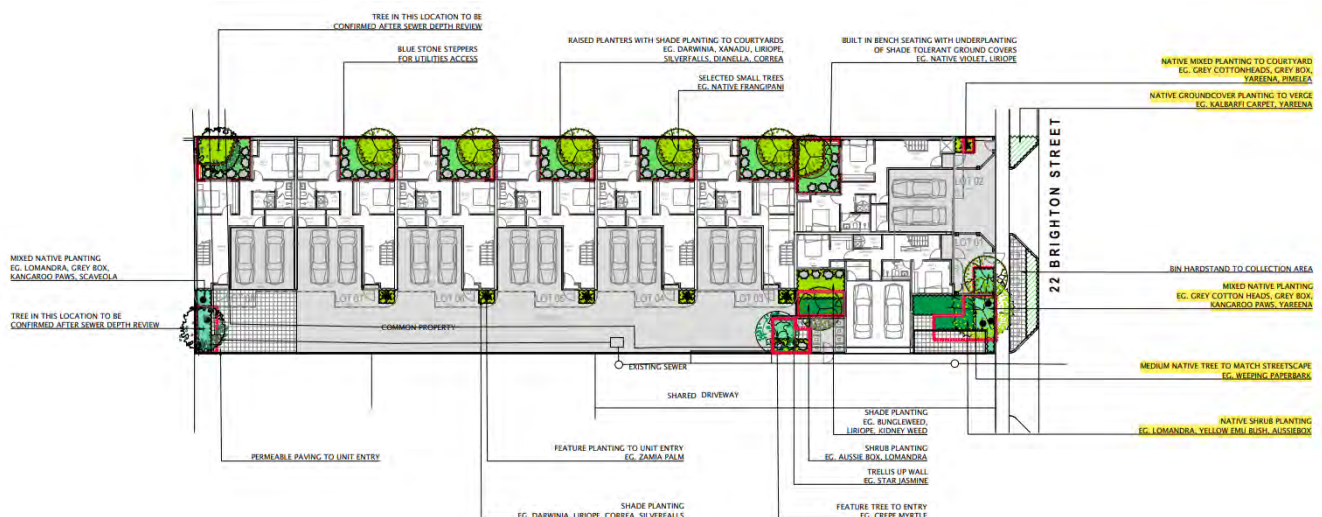


Figure 4.1 Green space and landscaped areas will be present in the project, with native species noted in the landscaping plans.

4.3 Stormwater management

Stormwater is precipitation runoff over ground-level surfaces that does not soak into the ground but has not entered a waterway such as a stream or a lake.

Best practice urban design calls for the natural infiltration of stormwater in the built environment. This helps to restore the natural water cycle, whilst reducing damage associated with excessive runoff.

The use of vegetated and porous areas is currently proposed within the development and will enable natural infiltration.



Figure 4.2 Vegetated areas and porous ground coverings are included in the development to aid in stormwater management.

5.0 Waste management

The main objectives for the waste management strategies for construction and operational waste are to ensure that waste is avoided and recycled during design, construction, and operation.

Waste within a building construction context can be avoided by encouraging the selection of lower-impact and long-term materials. Operational waste to landfill can be reduced by providing relevant and easily accessible facilities for recyclable waste and other waste that can be diverted from landfill such as organic waste, batteries or e-waste.

5.1 Construction and demolition waste

The project construction and demolition phase will aim to divert as much waste from landfill as possible. This is to be achieved through on-site separation of waste streams during construction into major groups, such as cardboard, metal, general waste, and concrete/brick rubble.

5.2 Operational waste management

A dedicated waste storage area will be provided for the separation and storage of recyclable waste during operation, allowing for the different waste streams to be separated to match the local recycling scheme.

At least three streams will be covered including landfill, recycling and organic/food waste. This aligns with the City of Stirling's household waste collection services, which collect the above streams weekly.

Information on waste services available for occupants will be provided in a welcome pack, or home user guide, upon their moving in.

Waste collection dates

Bin types	Collection date
 General bin Collected weekly.	May 6 2025
 Recycling bin Collected fortnightly.	May 13 2025
 Garden organics (GO) bin Collected fortnightly.	May 6 2025
 Green waste verge collection Collected every 9 months.	From 26 May 2025

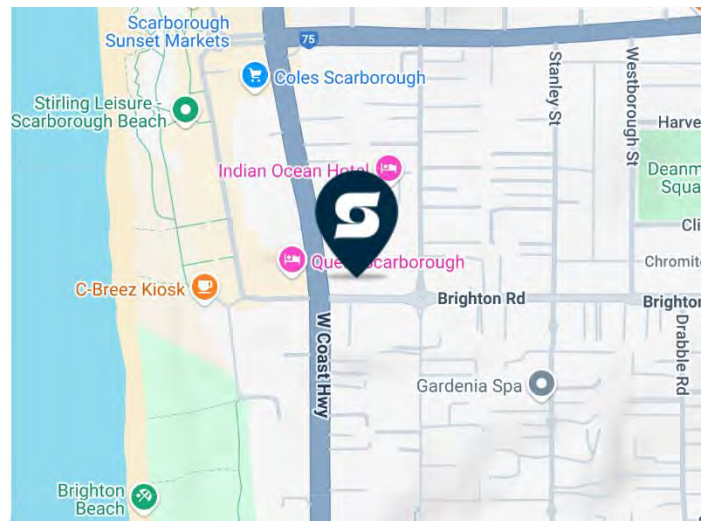


Figure 5.1 Three waste streams will be provided for within the development and are aligned with local operations.

6.0 Transport

Several sustainable transport options are supported within the development, as detailed below.

6.1 Cyclist facilities

The development will support cycle storage facilities for building occupants. Several dwellings have dedicated bicycle storage racks which are conveniently located. All dwellings have adequate space within garages and courtyards for additional bike storage.

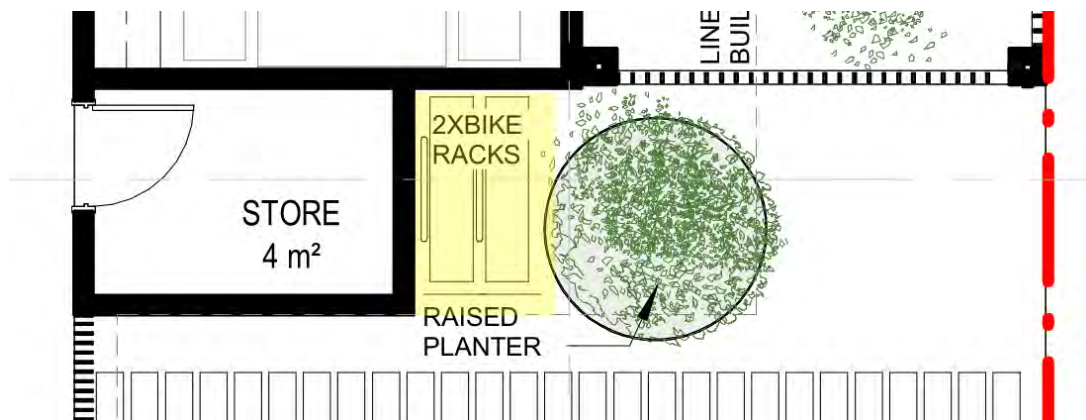


Figure 6.1 Bike racks shown on plan, with garage size also shown.

6.2 Access to amenities and public transport

The proposed development is conveniently located in central Scarborough. It has direct proximity to several cafes, markets, restaurants and convenience stores. Several natural spaces, such as Brighton Reserve and the Scarborough Beachfront, are easily accessible on foot. This proximity supports active transport and a walkable neighbourhood.

Several public bus and train routes are also available to access.

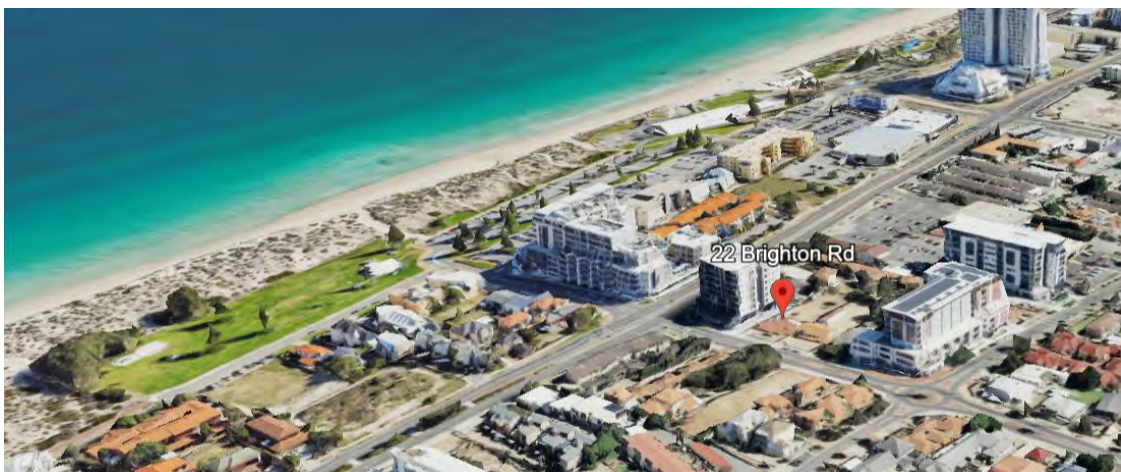


Figure 6.2 Proximity to amenities helps support low emission transport use.

6.3 Electric vehicles

The proposed development will provide provision for future electric vehicle (EV) charging and offer optional upgrades to potential buyers to facilitate EV use.

7.0 Urban ecology

The development will ensure landscaped areas are included where possible, and contribute to the local ecology, character, and amenity.

7.1 Enhancing ecological value

The project site previously featured extensive lawn/bare soil areas, with sparse trees. The aerial photo shown below illustrates the previous condition of the site.

The ecological value of the site is not expected to be negatively impacted as a result of the proposed landscape design. Before and after images are provided below as an indication of how the site's environmental values will be retained.



Figure 7.1 Aerial photograph of the project site. Source: Landgate (2025).

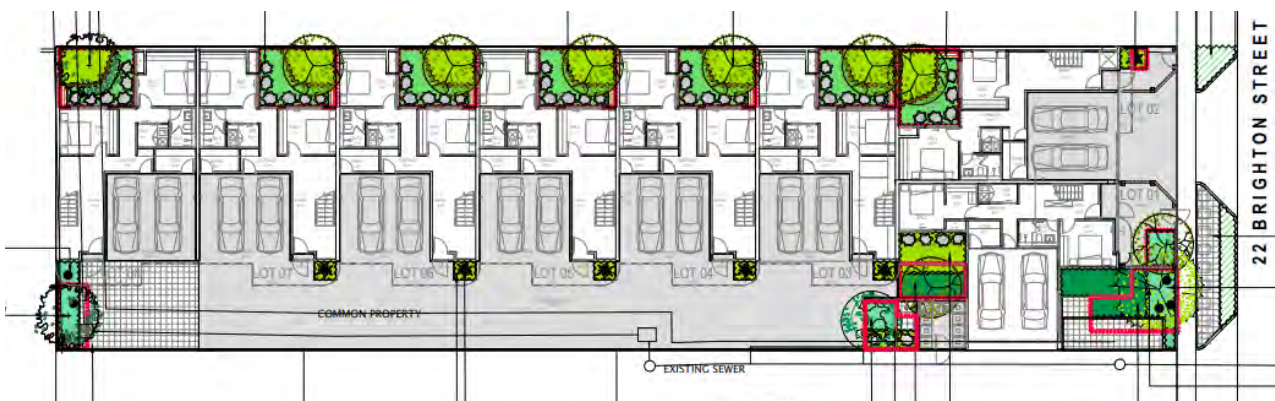


Figure 7.2 Illustration of the proposed vegetation coverage.

7.2 Minimising heat island effect

The heat island effect describes the condition where urban areas have a higher average temperature than its rural surroundings owing to the make-up of the built environment.

The project will aim to address this through the use of light-coloured façade and roof materials. The use of shaded and landscaped areas will also help reduce the heat island effect significantly.

Overall, the project will target that at least 50% of the site contains low solar absorptance materials, such as PV cells, light roofing materials, vegetation, or light coloured/shaded hardscape.

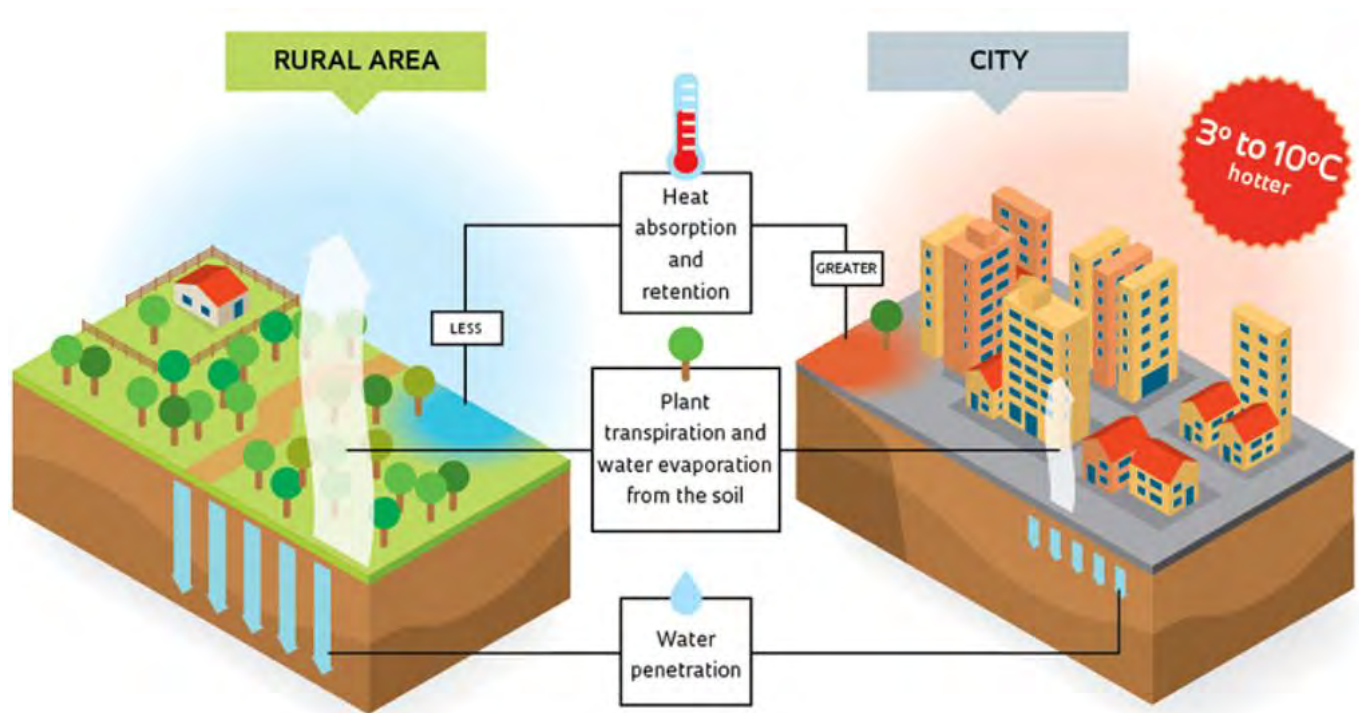


Figure 7.3 Example of how heat can build-up in urban areas.

7.3 Light Pollution

Excessive amounts of light being projected upwards is not energy efficient and has been shown to have potential negative impacts on the local wildlife.

Uplighting is featured on the project, however the amount and placement of uplighting will be managed and designed such that light spill to the night sky is minimised.

8.0 Social Impact

8.1 Social and community benefit

The proposed development will help in addressing the need for more housing, especially as it contributes to a higher density form of residential dwelling, which are increasingly in demand.

This may help provide a more affordable housing option, compared to a single detached house on a large block (previous condition), that will boost the region's population whilst limiting the need for urban sprawl.



Figure 8.1 The project will provide a denser form of residential development

9.0 Codes and Ratings

The building will be subject to voluntary and mandatory building codes and metrics to measure the performance of the rating. This section of the report outlines the main codes and ratings and identifies the project's response.

9.1 NCC 2022 Section J – residential

Residential building compliance is achieved through a thermal modelling process defined as the Nationwide House Energy Rating Scheme (NatHERS). This process requires a minimum star rating to be achieved for the building's thermal comfort, which informs the energy efficiency of the building.

The NatHERS tool considers a wide range of parameters like orientation, glazing, insulation, size of rooms and door openings, shading and awnings and ceiling fans.

Under NCC 2022, there is also Whole of Home (WoH) rating requirements for the project. Through this, additional parameters such as internal appliances, solar panels, and hot water systems are also considered.

The project requires the following performances to be reached.

Table 5: Targeted NatHERS rating.

NatHERS Rating type	NCC Requirement	Project Target
Minimum rating	7 Star	7 Star (each townhouse)

9.2 Green Star

As per the requirements of this development, the *MRA Development Policy 1 – Green Building* requires the following:

Table 6: MRA Policy requirements

	Tier 1	Tier 2	Tier 3
Rating	6 Star Green Star	5 Star Green Star	4 Star Green Star or Sustainable Design Assessment Report SDAR (equivalency)
Working Drawings	GBCA Registration and 'Design Review' certification from the GBCA.	GBCA Registration and 'Design Review' certification from the GBCA.	'Design Review' certification to be provided from the GBCA or a detailed report from a Suitably Qualified Professional
Practical Completion	'As Built' certification from the GBCA.	'As Built' certification from the GBCA.	'As Built' certification from the GBCA or a detailed report from a Suitably Qualified Professional.

The development is designated as Tier 3; therefore, the 22 Brighton Road development will provide a Sustainable Design Assessment SDAR (this report) to shown alignment with **an equivalent** of a **Green Star Homes** standard.

There are several available Green Star rating tools from the Green Building Council of Australia (GBCA), including Green Star Communities, Green Star Buildings, Green Star Interiors, Green Star Performance and Green Star Homes.

Green Star Homes has been selected for this development as it the most applicable rating tool for townhouses.

9.2.1 About Green Star Homes

Green Star Homes is a sustainability standard for assessing and rating individual houses, units and townhouses. Its purpose is to create a market and generate interest for homes that are healthy, resilient, efficient and powered by renewables.



It was developed through a comprehensive engagement process with industry and seeks to set realistic targets for projects, to help develop industry capacity to build better, more sustainable, homes and dwellings.

The Green Star Homes rating tool typically includes two rounds of review or submission. The first round is at the 'Designed' stage, which captures the project's design and targeted performance and demonstrates how this meets the tool requirements. If successful, the project can then use the Green Star Designed logo for marketing purposes.

The second submission is at the 'As Constructed' stage and requires further evidence to be submitted to demonstrate the requirements have been met on site. If successful, the home is officially certified and can be marketed as having met the Green Star Homes requirements.

Please see below link to the Green Star Homes website for more information:

<https://new.gbca.org.au/green-star/rating-system/homes/>

9.2.2 Green Star Homes alignment with MRA Policy

As per the MRA policy, the project is required to report performance across the below sustainability categories. The below table details how the Green Star Homes tool addresses each category.

Table 7: Alignment with MRA Policy

MRA Policy – 10 Key Categories	Comment	Green Star Homes
Indoor Environmental Quality (IEQ)	Green Star Homes contains criteria on the following items. - Thermal Performance - Air Quality - Moisture Management - Light Quality - Material Toxicity	✓ Included
Energy Efficiency	Green Star Homes contains criteria on the following items. - Thermal Performance - Window Systems - Air Tightness - Hot Water - Energy Efficient Appliances - Renewable Energy	✓ Included
Water Efficiency	Green Star Homes contains criteria on the following items. Water Use	✓ Included
Stormwater Management – Integrated Water Management	Green Star Homes contains criteria on the following items. - Water Use - Resilience Essentials	✓ Included
Building Materials	Green Star Homes contains criteria on the following items. - Window Systems - Moisture Management	✓ Included

MRA Policy – 10 Key Categories	Comment	Green Star Homes
	- Material Toxicity - Heat Resilience - Resilience Essentials	
Transport – Green Travel Plans	Green Star Homes contains criteria on the following items. Resilience Essentials As part of the climate resilience criteria, projects are mandated to provide a design response to enable future provision of electrical vehicle charging.	✓ Included
Waste Management	Green Star Homes contains criteria on the following items. Home User Guide As part of the Home User Guide, projects are required to include information regarding waste management options available within the local government area, and how to best use these to reduce waste.	✓ Included
Urban Ecology	Green Star Homes contains criteria on the following items. - Heat Resilience - Water Use	✓ Included
Innovation	The Green Star Homes tool is a new and innovative tool, with no Green Star Homes projects currently listed in WA (as per GBCA website).	✓ Included
Construction/Building Management	No specific requirements are listed for the construction waste or a similar metric. However, the project ESD consultant and/or project manager will monitor the implementation of key sustainability initiatives, to help encourage management of the sustainable design criteria.	-

9.2.3 Green Star Homes compliance

The below table provides a summary of the requirements within the Green Star Homes tool for each category and shows how the development is compliant.

Table 8: Green Star Homes credits.

Credit	Requirements	Project Complies?	Comments
Positive			
Thermal Performance	Each home or unit must achieve a minimum 7-star NatHERS rating	✓	No action required, as this is aligned with NCC 2022 (minimum compliance requirement).
Window System	All windows must be double glazed IGU (Insulated Glass Units), with thermally broken aluminium, timber, or UPVC frames	✓	All windows will be double glazed with UPVC frames.
Airtightness	The home must be designed, constructed, and tested to achieve air permeability performance of ≤ 7.0 ($\text{m}^3/\text{hr}\cdot\text{m}^2$ @50Pa)	✓	Each townhouse will endeavour to achieve the required air permeability.
Hot Water	The home must have either Electric Heat Pump or Solar Electric Boosted Systems for its hot water system	✓	Each townhouse will have an electric heat pump for hot water.
Energy Efficient Appliances	Appliances specified in the design must be all electric (no gas), meet stringent Energy ratings, and HVAC equipment must meet efficiency standards.	✓	Appliances will be all electric (no gas) and all HVAC and appliances to be highly efficient.

Credit	Requirements	Project Complies?	Comments
Renewable Energy	The home must produce on-site renewable energy generation in accordance with required rates (minimum 7.5 kWe peak anticipated for each townhouse).	✓	The current design includes approx. 8.8kW of solar PV per townhouse.
Home User Guide	Guidance is to be provided to new owners on the efficient operation of their home, in the form of a Home User Guide.	✓	The project will produce a Home User Guides for each townhouse listing key sustainability information.
Healthy			
Air Quality	Each home to be installed with a continuous mechanical ventilation and heat recovery (MVHR) unit. Any ductwork to be cleaned prior to occupation. Outdoor air rates to meet AS1668.2:2012. Exhausts and intakes to meet minimum separation distances. Indoor pollutants (from cooking etc) to be removed via exhaust fans or similar.	✓	The project will endeavour to meet ductwork, separation distance, outdoor air rates, and indoor pollutant requirements in accordance with the standard. Requirement for MVHR to be considered and discussed with mechanical to confirm if practical and feasible for the project.
Moisture Management	Condensation, vapour, drainage and thermal bridging to meet minimum requirements for all build-ups and constructions that form part of the home's thermal envelope.	✓	The design of project roof, wall and other construction elements to consider the requirements.
Light Quality	All lighting to be LED and meet requirements for visual comfort, including CRI, SDCM, UGR (glare), and flicker-free.	✓	Lighting selections for the project to be all LED and meet comfort requirements.
Material Toxicity	All internal finishes within the home must meet strict volatile organic compound (VOC) and formaldehyde limits.	✓	Material selections for paint, carpet, sealants, and carpets to meet VOC requirements. Cabinetry and engineered timbers to meet formaldehyde limits.
Resilient			
Water Use	Home to be fitted with high WELS rated fittings and appliances, rainwater storage, and provision for irrigation taps (connected to non-potable source). Toilets and washing machine to be connected to rainwater.	✓	Project to meet any WELS requirements for fittings and appliances. Hydraulic/civil to further advise on the suitability of rainwater tanks for inclusion on the project.
Heat Resilience	At least 50% of the site area in plan view must be comprised of low solar absorptance materials (e.g., light coloured roofing, PV panels, landscaping, shaded hardstand).	✓	Project roof to be light coloured, extensive PV panels proposed, with landscaping and shaded areas throughout.
Resilience Essentials	Project must complete a resilience checklist and respond to mandatory resilience risks, such as future extreme heat and storms, EV charging etc.	✓	Project to complete resilience checklist or similar equivalent and respond to any mandatory considerations.

In the next design phase of the project, the client and design team will seek to confirm the above requirements have been implemented into the detailed design and specifications.

10.0 References

City of Stirling (2024). Local Planning Scheme No. 3 Scheme Text.

<https://www.stirling.wa.gov.au/awcontent/Web/Documents/Developing%20Property/LPS3-Scheme-Text-Amt-113-current-version-for-Gazettal.pdf>

Metropolitan Redevelopment Authority (2016). Scarborough Redevelopment Area.

<https://www.stirling.wa.gov.au/awcontent/Web/Documents/Scarborough-Special-Control-Area-Development-Policies.pdf>

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Our ref: IAM:CHW:1188994
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28 October 2025

Brighton Road (WA) Pty Ltd
c/- Michael Stocco
Senior Planning Consultant
Developed
1/294 – 296 Rokeby Road
SUBIACO WA 6008

City of Stirling
03 November 2025
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By Email: michael@developedproperty.com.au

Dear Michael

22 Brighton Road, Scarborough – Development Application

- 1 Brighton Road (WA) Pty Ltd (**Brighton Road**) is the owner of the land at 22 Brighton Road, Scarborough (**Property**).
- 2 Developed, on behalf of Brighton Road, has lodged a development application proposing 8 grouped dwellings on the Property with the Metro Inner Development Assessment Panel (**DAP**) for approval (**Development Application**).
- 3 The Development Application is currently being assessed by the City of Stirling (**City**), being the relevant local government authority.
- 4 The western boundary of the Property adjoins a registered public access easement granted pursuant to section 195 and 196 of the *Land Administration Act 1997* (WA) (**LA Act**), being easement N997208 (**Easement**).
- 5 The Easement is positioned along the eastern boundary line of former Lot 800 on Deposited Plan 414028, now comprising Lots 1 – 54 of Strata Plan 73546 (**former Lot 800**). Relevantly, Lot 47 on Strata Plan 73546 (Lot 47) directly adjoins the Easement.

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Our Values:

Excellence
Courage
Collaboration
Fulfilment
Integrity

Lavan respectfully acknowledges the traditional owners of the land on which we live and work.

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- 6 The proposed development contemplates the use of the Easement by prospective owners of the dwellings for the purpose of pedestrian and vehicular access to and from the Property.
- 7 The City has expressed some concerns in relation to the ability for the proposed development to use the Easement.
- 8 We also understand that Main Roads has requested that Brighton Road seek permission from the owner of the strata lot directly adjoining the eastern boundary of former Lot 800 for the Easement to be used for access to the proposed development.
- 9 You have therefore requested our advice in relation to the proposed use of the Easement to address these concerns.

Purpose of the easement

- 10 In this case, it is useful to consider the purpose behind the Easement.
- 11 The Easement is made between GM Horizon Pty Ltd (as grantor) and the Metropolitan Redevelopment Authority (**MRA**) (as grantee). It is apparent that the Easement was originally created pursuant to the development approval granted by the MRA for former Lot 800 on 26 October 2015 on the corner of Brighton Road and West Coast Highway whilst GM Horizon Pty Ltd was the owner of former Lot 800.
- 12 Relevantly, condition 4 of that development approval states as follows:

The 6-metre vehicle access way proposed along the eastern boundary of the site is required to be provided through the creation of a Public Access Easement in gross in accordance with clause 4.9(3) of the Scheme (the Scheme), details of which are to be provided at working drawings stage to the satisfaction of the MRA.

- 13 That requirement for the Easement was consistent with the intent of the MRA Scarborough Design Guidelines (specifically, Chapter 6 – Site Planning) to minimise vehicle access to West Coast Highway through the provision of alternative vehicle access ways. We note that Figure 8 of the Design Guidelines identifies the vehicle access way in question.

- 14 The footprint of the Easement on the deposited plan for former Lot 800 aligns with the 6-metre access way contemplated by condition 4 of the MRA's approval for that lot.

- 15 Condition 4 cited above is indeed outlined in the recitals of the Easement and states:

The Grantor, being registered as the proprietor of an estate in fee simple in the land described in Item 1 of the Schedule hereto (Servient Tenement) subject to the encumbrances notified hereunder in Item 2 of the Scheme HEREBY TRANSFERS AND GRANTS to the Grantee a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free

right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over, along and across that those portions of the Servient Tenement as are shown delineated and marked with the letter 'X' on Deposited Plan 414028 and restricted to the height above the Australian Height Datum as is specified on Deposited Plan 414028.

16 In my view the clear planning purpose underpinning the Easement is for its use by the public at large for pedestrian and vehicular access.

17 Indeed, the provisions of the Easement require that the grantor:

- 17.1 provide the Easement to be enjoyed by the grantee without interruption or disturbance by the grantor (see clause 2(a));
- 17.2 indemnify the grantee for any claims arising by or out of the use of the Easement by any person whatsoever for any purpose, whether consistent with the Easement or not (see clause 2(c)(i));
- 17.3 not obstruct the Easement in any way (see clause 2(g)); and
- 17.4 maintain public liability insurance in respect of the Easement (see clause 3(a)).

18 Clause 4(a) of the Easement also provides an acknowledgement by the MRA (as the grantee) that the rights created by the Easement are not granted exclusively and, in that regard, are granted in common with the corresponding rights of the grantor and other persons lawfully entitled to exercise such rights.

Consent to use the easement

19 In our opinion, if the DAP grants approval for the Development Application, and the proposed development is implemented on the Property, the Easement would be used by owners of the Property in a manner that is consistent with the purpose of the Easement, that is, not on an exclusive basis and not to the detriment of the public at large.

20 In that context, there would be no reason for the Easement to be wholly or partially surrendered or otherwise modified, and there would be no cause for the MRA to enforce any of its rights under the Easement unless, of course, the owners of the Property were to use the Easement in a manner that is inconsistent with the Easement.

21 Further, it is clear that the Easement does not require consent or notice to be given by the owners of Lot 47 (being the lot directly adjoining the Easement on the eastern boundary of former Lot 800) or for any of the other owners of the units in former Lot 800 to consent to the use of the Easement in connection with the proposed development as that use is consistent with its purpose, being to provide access to or through the Easement to the MRA and the public at large.

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- 22 In this respect, neither the City nor Main Roads should adopt the position that the Development Application requires the consent of any party to the Easement. Such a position would effectively allow the owners of the units on former Lot 800 to frustrate the development assessment process and prevent the Property from being developed.
- 23 Finally, and for the avoidance of any doubt, it is also our opinion that the Easement does not require the consent of the MRA to be used in the manner contemplated by the Development Application.

Planning assessment

- 24 The Property is zoned "Development" under the *City of Stirling Local Planning Scheme No 3 (Scheme)* and is located within the Scarborough Special Control Area (SCA) in accordance with the Scheme.
- 25 Clause 6.9.3 of the Scheme requires that the subdivision and development of land within the SCA shall comply with the requirements of Schedule 13 of the Scheme.
- 26 In addition, clause 6.9.4 of the Scheme conforms that: "*All Policies and Design Guidelines adopted under the Metropolitan Redevelopment Authority Act 2011 for the Scarborough Redevelopment Area apply as if adopted under the provisions of Local Planning Scheme No.3 as Local Planning Policies and may be amended and revoked as needed under the Planning and Development (Local Planning Schemes) Regulations 2015.*" This includes the MRA Scarborough Design Guidelines (Chapter 6 – Site Planning) which contains an express intent for vehicle access ways to be required.
- 27 There is nothing in the Scheme saying that an easement or any other instrument must be considered in the determination of a development application. It is noted that clause 5.9 of the Scheme contains provisions relating to easements and other instruments where reciprocal car parking arrangements are proposed however that clause is not relevant on the facts of this matter.
- 28 The Scheme of course must be read together with Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015 (WA) (Deemed Provisions)*, pursuant to section 257B of the *Planning and Development Act 2005 (WA)*.
- 29 Clause 67(2) of the Deemed Provisions contains a list of the various relevant considerations that must be considered in assessing and determining a development application.
- 30 There is nothing in clause 67(2) of the Deemed Provisions that would specifically require a decision-maker to give regard to the use of a public access easement (or any other instrument registered on the title of land) in determining a development application.
- 31 This would essentially be because an easement by its nature is a private agreement between parties, as opposed to being a planning instrument that applies to the

public in general. In this case, that agreement exists between the owners of the units of former Lot 800, and the public at large (via the MRA).

- 32 In some cases, an easement or other instrument may be a relevant factor to consider in the determination of a development application, which could perhaps be justified pursuant to limbs (w) and (zb) in clause 67(2) of the Deemed Provisions, which respectively refer to:

(w) the history of the site where the development is to be located;

(zb) any other planning consideration the local government considers appropriate.

- 33 Even if regard is given to a right granted by an easement or other instrument in the assessment of a development application, a decision-maker will not be legally bound by the terms of the instrument, as there is nothing in the planning framework that requires that to happen.

Case law

- 34 The analysis as outlined above is consistent with case law dealing with instruments registered on the title of land in the context of a development application.

- 35 In *Kelvedon Pty Ltd v The Shire of Northam* [2011] WASC 288, the Supreme Court considered an application for judicial review where somebody had argued that the local government failed to take their easement rights into account in granting a development approval.

- 36 The Court found that the easement was in the nature of a private agreement that could be enforced as between the parties, but that was not something that bound the determination of a development application under planning laws.

- 37 The Court at paragraph [100] of its decision ruled that:

Northam was not required to take this easement into account. It does not affect the development proposal. Any rights attaching to any other easement may be

enforced directly against the grantor of whom Fermora is the successor.

Northam made no error of law.

- 38 In *Smith and City of Bayswater* [2006] WASAT 176, the State Administrative Tribunal (SAT) considered a development application relating to land that was subject to a restrictive covenant and found at paragraph [34] of its decision that:

The Tribunal notes that a restrictive covenant of this type is a matter between respective landowners and does not prevent an application for planning consent being made under TPS 24 or the respondent from determining it. A beneficiary of a covenant might, of course, pursue the matter against a person burdened by the restriction in the relevant court. The restrictive covenant did, however, colour the belief of the neighbours that this would remain a residential area, at least until the end of 2008, without any commercial activity.

39 These principles relating to restrictive covenants would apply equally to easements.

40 The SAT more recently in *Jones and City of Swan* [2022] WASAT 52 observed that, whilst it would not be bound by a restrictive covenant in determining a development application, a restrictive covenant may still be a relevant consideration.

41 At paragraph [66] of that decision, the SAT stated:

It follows that, to that extent, I disagree with the Applicant that the restrictive covenants are not relevant in the exercise of discretion. I do acknowledge that there are private remedies available for individual landowners within the Estate to seek to enforce compliance if a restrictive covenant is breached. Even so, as an environmental control applying to the Estate, I find they may be relevant considerations in the exercise of planning discretion.

42 Importantly, the finding here was not that a restrictive covenant would bind a development application, but that it may be a relevant consideration.

43 This was followed by the later decision of the SAT in the same case in *Jones and City of Swan* [2023] WASAT 22, where the SAT found at paragraph [82] that:

The notification on title requires dwellings and buildings to be located within the existing building envelope (as provided for in the original Structure Plan). Whilst the notification on title is not a planning instrument, I consider it is relevant to the exercise of my discretion because it resulted from a State planning assessment and approval process that sought to achieve the siting of development within designated building envelopes...Whilst I have placed some weight on the notification on title, I am not bound by its terms (or those of RC N407747) in the determination of these proceedings.

44 The SAT in *Du Heaume and City of South Perth* [2010] WASAT 111 refused a retrospective development application for a set of steps that had been erected within an easement area, but this was because of the potential loss of amenity to the neighbour caused by the interference to the easement area and not because the SAT considered itself to be legally bound by the easement terms.

Conclusion

45 In summary:

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45.1 the Easement expressly states that it is “a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over, along and across that those portions of the Servient Tenement”;

45.2 the Easement accordingly does not legally prevent the DAP from granting development approval in respect of the Property and does not embody

any planning purpose that would weigh against the DAP granting such approval; and

45.3 the Development Application can be lawfully approved without any requirement for the servient tenement holders to consent to the proposed development and without modification to the Easement.

46 Please contact me or Isabella Mosole if you have any questions.

Yours sincerely

A handwritten signature in black ink, appearing to be "Craig Wallace", written over the typed name.

Craig Wallace
Partner

Please notify us if this communication has been sent to you by mistake. If it has been, any privilege between solicitor and client is not waived or lost and you are not entitled to use it in any way.

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Ref: PN24566
DA25/0775
DAP/25/02936
31 October 2025

Meron Nega
Planning Department
City of Stirling
Via Meron.Nega@stirling.wa.gov.au

Dear Meron,

22 Brighton Road, Scarborough | Response to Further Information Request (FIR)

As per the City of Stirling's Further Information Request (FIR) dated 1st of September 2025 and subsequent communication following the conclusion of the community consultation period and the request for an extension of time to provide the following information, we have made amendments to the plans and provide the following additional justification in support of the application.

The following notable dates are provided for the DAP's reference.

- DAP Application Lodged via email – 27 May 2025
- DAP Application Re-lodged at the request of the City via in-person – 3 June 2025
- Prior to Acceptance Preliminary FIR issued - 11 June 2025
- City of Stirling Accepts Payment – 17 June 2025
- Developed (Proponent) issues Preliminary FIR response – 1 July 2025
- DAP Application is Accepted – 10 July 2025
- FIR issued – 1 September 2025
- Developed (Proponent) issues FIR response – 31 October 2025

The City of Stirling has committed to a six (6) week timeframe to meet the Responsible Authority Report (RAR) due date.

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In response to the last five months of subsequent progress, the following information has been prepared:

- Revised Development Plans Package
- Revised Traffic Impact Assessment
- Revised Waste Management Plan
- Revised Sustainability Report
- Spatial Statement (existing) / Legal Statement (further)
- Planning Justification and Community Consultation Response

Upon the City's receipt of the FIR Package, we request the administration provide their recommendation prior to the issuance of the Responsible Authority Report (RAR) so that as proponents, we can understand the City's position and provide any additional information based on their recommendation.

We request that during the City's ultimate review of the information package, that timeframes are considered to allow the application to be recommended for Approval.

Community Consultation Summary

The City initiated community consultation between the 1st of August and the 15th of August 2025. The City received a total of 4 submissions, 1 in support, 3 opposing the proposed development. It is noted that all four submissions were made by the entity known as 'RMS Team'. This could be considered as only one response however we have addressed the submissions separately.

The submissions received had a consistent theme, suggesting that the proposal can be supported subject to revisions, articulation of the design and adequate justification of proposed variations. Those of which have now been provided.

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The nature of the submissions as indicated by the City is as follows:

Submission	Summary of Submission	Our Response	
Submission 1-3 Objection	Concerns regarding obstruction and safety risks from shared driveway use. Concerns raised about construction access, traffic management, and liability for damage. Concerns to shared access due to driveway and external safety hazards.	Traffic Volumes and Access Arrangements Internal traffic within the proposed common accessway will be contained and is not expected to exceed the intended number of vehicles for the 8-lot development. External traffic of MRWA roads and the potential impact to abutting property and its existing traffic/congestion (no nexus or impact to the subject site) as the shared easement is for the public at large as consider through the Proponents Spatial Statement and additional legal advice. Due to the public at large access, anyone as an occupant of the internal buildings or external visitors can use the road for ingress and egress, however, the use of the access is only anticipated for guests and occupants of the adjoining properties. Any internal hazards or damages are considered as civil matters as they arise. The proposed access to the subject site via an access gate is adequately truncated and does not prevent safe vehicle movements. The internal road network and traffic volumes and safety has been thoroughly assessed and considered by the appointed Traffic Consultant – Urbii. Please refer to the revised Traffic Impact Statement.	
Submission 4 Supported	The development looks fantastic and is a good use of lot.	We support the submission position.	

Due to the traffic related concerns, the proposed internal common access leg has undergone review and now complies or is adequately justified in respect to the Residential Design Codes and the Scarborough Design Guidelines, in addition to its certification by a Traffic Engineer, Licenced Surveyor and Lawyer reviewed. Please refer to the revised Traffic Impact Assessment. Other design related matters have been dealt with through amended plans with specific respect to Visual Privacy, Landscaping and Streetscape amenity.

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FIR Response Summary

The subject site is located within the City's Scarborough Special Control Area – previously known as Scarborough Redevelopment Area. Following amendments to the *Metropolitan Redevelopment Authority Regulations 2011*, the normalisation of the Scarborough Redevelopment Area occurred, as part of the normalisation process and return of the planning authority of the Scarborough Special Control Area to the City of Stirling.

Although the framework was never intended for development of this scale and intent, the City is still applying the development standards, despite their obsolete nature. Therefore, the proposal has undergone further revisions to satisfy the matters raised through the community consultation and the City's planning assessment. In summary, the design has applied comprehensive amendments without impacting the integrity of the proposal and now applies the Guidelines to the best of its ability.

We have attempted to address all matters raised by the community and the City. Aspects which have not been changed as their alteration will significantly impact the viability of the proposal, are substantially justified below, and are considered to satisfy the design principles to achieve a good design outcome.

To assist the City with the interpretation of the plans, the following relates to the changes:

- Site plan has been modified to demonstrate the required vehicle easement as per the Scarborough Design Guidelines Vehicle Access Plan and following the agree position (compromise) from the City with respect to the northern section.
- Redesign of Lot 8 to accommodate comments by Water Corporation (WC) regarding an implied reticulated sewerage easement within the northern lot boundary.
- Negating minor overlooking issues through redesign and justification.
- External bin store updated to include 11 receptacles and 11 associated bin pad locations within kerb side collection.
- Sustainability Report has been updated to demonstrate Green Star Homes initiatives whilst having due regard for the obsolete Scarborough Design Guidelines Green Building requirements.

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Legal Statement

As part of the submission to the City of Stirling, a spatial statement was prepared by a duly qualified Licensed Surveyor. In support of our position, legal advice has been sought which further enforces why the public access easement should not burden or be considered as a planning instrument to influence development.

It is in the opinion that the clear planning purpose underpinning the Easement is for its use by the public at large for pedestrian and vehicular access [16].

It is in the opinion, if the DAP grants approval for the Development Application, and the proposed development is implemented on the Property, the Easement would be used by owners of the Property in a manner that is consistent with the purpose of the Easement, that is, not on an exclusive basis and not to the detriment of the public at large [19].

In that context, there would be no reason for the Easement to be wholly or partially surrendered or otherwise modified, and there would be no cause for the MRA to enforce any of its rights under the Easement unless, of course, the owners of the Property were to use the Easement in a manner that is inconsistent with the Easement [20].

Further, it is clear that the Easement does not require consent or notice to be given by the owners of Lot 47 (being the lot directly adjoining the Easement on the eastern boundary of former Lot 800) or for any of the other owners of the units in former Lot 800 to consent to the use of the Easement in connection with the proposed development as that use is consistent with its purpose, being to provide access to or through the Easement to the MRA and the public at large [21].

In summary the Easement expressly states that it is "a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over, along and across that those portions of the Servient Tenement".

The Easement accordingly does not legally prevent the DAP from granting development approval in respect of the Property and does not embody any planning purpose that would weigh against the DAP granting such approval.

The Development Application can be lawfully approved without any requirement for the servient tenement holders to consent to the proposed development and without modification to the Easement [45].

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FIR Response Table

City's Request	Our Response	
3. Key Planning Matters	In accordance with <i>Chapter 5, c5.6 and c6.3</i> of the Scarborough Design Guidelines, encourages coordinated vehicle access and recommend areas affected by sewer easements be reserved for access ways, parking, or open space. <i>c5.6 - Where lots are encumbered by a sewer easement, this area is not to be built upon unless a suitable design solution can be reached to the satisfaction of the Water Corporation and the Authority. This area may be used for access ways, car parking or open space requirements.</i> <i>c6.3 - 6 metre public vehicle access thoroughfares shall be provided as identified in the Vehicle Access Plan to permit shared vehicle access between sites.</i> In addition, the City's engineering services have requested 1.5m sightline truncations to be provided as part of the proposed vehicle access into the subject site where an automatic vehicle gate is proposed. The City has also sought a passing bay between proposed Units 4 -5. The following provides justification in lieu of the framework where its considered reasonable to do so.	☒
3.1. Vehicle Accessways and Building Services	In accordance with <i>c5.6</i>, the subject site is burdened by a sewer easement which is situated along a 20-metre northern lot boundary and western boundary. In addition to the site being hampered by non-developable area on proposed Lot 8 due to the easement (considered as an unconfined area of at least 1.0 metre wide must be maintained around the edge of sewer), the City has imposed a requirement for a right of way widening of 6 metres to both the north and east lot boundaries to be in accordance with <i>c6.3</i>, Vehicle Access Plan. Notwithstanding advice received in December 2024 from the City of Stirling advising that the easement and Vehicle Access Plan is not practical or appropriate, the City has since applied discretion as part of this application that the northern portion of the site does not need to provide the 6-metre widening, and only be approved to the western lot boundary. <i>The 6-metre-wide public vehicle access thoroughfare, as identified in the Vehicle Access Plan – Scarborough Design Guidelines, will only be required along the full length of the western boundary and not at the rear.</i> Therefore, the plans have been revised to illustrate the vehicle easement to the eastern lot boundary only, and Lot 8 has been redesigned in accordance with <i>c5.6</i> to not have any structures within 1m around the edge and 2m height clearance. This has been clarified by WC and is explained further below.	☒

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	In addition, the proposed access sightline truncations have been demonstrated on the revised plans and swept paths provided as part of the revised Traffic Impact Statement as to why a passing bay has not been provided.	
3.2 Waste Management	In accordance with <i>Chapter 5 c5.5 Waste Reduction and Management</i> of the Scarborough Design Guidelines and the City of Stirling's Waste Services, the proposal is required to demonstrate – <i>Each bin requires a minimum of 1m² for both storage and verge placement.</i> In response, the Waste Management Plan (WMP) has been revised to accommodate 11 bins within the external bin storage and 11 bins pad locations within the verge for anticipated kerb-side collection from Brighton Road.	☑
3.3 Car Parking	In accordance with <i>Chapter 5 c5.2 Car Parking</i> of the Scarborough Design Guidelines the proposal results in one (1) visitor bay in lieu of the required two (2). Sufficient car parking is provided to accommodate the anticipated output of the development – grouped dwellings, whilst encouraging alternative means of transport due to proximity to a neighborhood centre. Car spaces and manouvering areas designed and provided in accordance with AS2890.1 and have been reviewed by the appointed traffic engineer The visitor bays are marked and clearly indicated as dedicated for visitor use only. Located within the common property and abutting the public easement. The location is connected to the building entry via a continuous path of travel from Brighton Road.	☑

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City's Request	Our Response
4. Planning Matters	
4.1 Public Realm Interface 4.1.1 - Streetscape	In accordance with <i>Chapter 3 c3.1 Streetscape</i> the City has requested trees to be installed within the verge at the proponent's cost. Through the City, we request the provision of trees (number of trees and preferred location to be disclosed prior to Determination by the City) to be endorsed through a condition of approval. Notwithstanding, there is no further available space within the verge in addition to the tree proposed (south-east) to accommodate the successful growth of a tree. The verge space is limited and is required for waste collection above all else. ☑
4.1.2 Active Edges	In accordance with <i>Chapter 3 c3.2 Active Edges</i>, the City has requested – <i>Crossovers shall be a maximum of 4m wide. Wider crossovers may be considered where lots are over 25m wide at the street frontage and a wider crossover is necessary to achieve appropriate traffic management and safety for multiple dwelling or mixed-use developments.</i> The proposal provides a 6m public access easement which abuts Lots 1, 3-8 which supplies majority of the access to the development. The 6 metres is via an existing crossover and does not intensify the verge infrastructure. Lot 2 is serviced by a 5.9m crossover. Given the building typology does not meet the expectations of the Guidelines, as it was previously intended for multiple and mixed development, it is unreasonable to apply a limiting 4m maximum crossover width. Notwithstanding, the proposed crossover (a 1.9m difference) does not preclude the following streetscape outcomes from being achieved: ☑ • All Lots have ground floor interaction with the streetscape, including the public access easement through active ground floor uses that promote surveillance of the street and visible indoor activity. • Primary internal living spaces, verandahs and balconies located on the first floor have been orientated towards the street for Lot 1 and 2 and common property for Lots 3-8. • Openings at the ground floor are clear with protection to window awnings from the sun or for privacy, which is achieved through architectural features. • Lots abutting the public access easement have distinctive features and visible pedestrian entries. • Lighting is provided to all external areas, within both the dwellings and common areas for passive safety. • The development has aspects of Crime Prevention Through Environmental Design (CPTED) principles to ensure good surveillance of the street and public realm.

	- Upper floors all have an active interface through a balcony and openings to habitable rooms but does not create visual privacy impacts. - The proposed carports (open garages) are visible from the public access easement, pedestrian access way and Brighton Road.	
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City's Request	Our Response	
4.2 - Built Form		
4.2.1 - Building Layout and Orientation	In accordance with <i>Chapter 4 c4.4 Building Layout and Orientation</i> the City has requested adequate solar access into the proposed dwellings private open space (POS). The location of the private open spaces (POS) has been considered, noting the whole site and the orientation rather than individual lot configuration. The proposed 2 storey development should provide living rooms and ground floor open spaces with at least 2 hours sunlight between 8am and 4pm in mid-winter (21 June). The City's assessment has identified that the POS is located on ground floor and south-east facing for units 1 to 4. The solar access has been revised to reflect the expectations of POS for all proposed Lots. In addition, the development standards of the guidelines have been satisfied: - The overall development is oriented to maximise northern solar access, with all primary garden areas (PGA) having access to northern light. - Proposed habitable areas have been designed for maximum provision of solar access and aims to allow for direct access to natural light and cross ventilation. Notwithstanding all of the above, the site is limited to constant solar access due to two 10+ storey developments located east and west overshadowing the site.	☒

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City's Request	Our Response
<i>4.3 Parking and Servicing</i>	
<i>4.3.1 Site Access – Pedestrian Access</i>	In accordance with <i>Chapter 5 c5.1 Site Access – Pedestrian Access</i>, the City has requested a pedestrian access way (PAW). The plans have been revised to include a PAW which can be accessed via the Brighton Road footpath or the public access easement. The path has clear delineation by use of pavers and a change in material. The access provides a safe alternative as opposed to navigating the public access way during peak periods without clear direction. The PAW is anticipated to be used by occupants and visitors. Occupants can utilise the access during waste days which enables safe and coordinated access to Brighton Road verge.
<i>4.3.2 - Site Access – Vehicular Access</i>	In accordance with <i>Chapter 5 c5.1 Site Access – Vehicular Access</i>, the City has requested – <i>Vehicle access via the primary street is only permitted where no secondary street, laneway, or vehicular access easement is available.</i> The proposed development includes a separate crossover to service Lot 2. In accordance with the Guidelines development standards, only one vehicle access point is permitted for each lot. Lot 2 can be considered its own Lot of the eight, provided that it is the only Lot that takes access from Brighton Road. Notwithstanding, as explained above in c3.2 Active Edges, the dual access is justified and in addition, meets the expectations of c5.1. • The proposed crossovers and access have been reviewed by Main Roads WA (MRWA) with no issues being raised with the quantity and width. This is a result of the design complying with the Main Roads Driveway Policy, which requires a minimum crossover width of 4.5 metres (to a maximum of 6 metres) – Lot 2 access is 5.9m and the existing public access easement is 6.0m. • The crossover is in a suitable location. The proposed verge tree is capable of sufficient growth as the access does not adversely affect the structure root zone and expected canopy of a new tree. • Due to the nature of the public access easement, it is not unreasonable to have a secondary crossover. Given the objections received through community consultation, the reliance on the public access way warrants an alternative access point to the site. • This is further supported through the Guidelines preference for vehicle access to be shared between adjacent lots to improve efficiency of the site.

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City's Request	Our Response
<i>4.4 Scarborough Special Control Area Development Policies</i>	
4.4.1 - Development Policies 1 – Green Building	<i>Development Policy 1 – Green Building</i> The subject site has been allocated Tier 3 under Development Policy 1 – Green Building. The policy requires Green Star certification under the Green Building Council of Australia (GBCA) for new buildings within the Scarborough Redevelopment Area, with the following tier provision: <i>4 Star Green Star or equivalent via a Sustainable Design Assessment Report.</i> The policy explicitly references Green Star Design & As Built (now Green Star Buildings). However, there is also a discretionary provision allowing the City to consider alternative systems to Green Star can be demonstrated through a SDAR. The Green Star Buildings (formerly Green Star Design & As-Built) as encouraged by the City through the Guidelines is typically suited to larger developments such as mixed use, multi-residential, offices, shopping centres etc. Instead, there is an alternative rating tool called Green Star Homes, which is more applicable which is better suited to grouped dwellings. We have therefore provided a revised SDAR or Sustainability Report, prepared by Cundall which applies the current equivalent, Green Star Homes as advised by Cundall. Please refer to the Revised Sustainability Report.
4.4.2 - Development Policy 3 – Public Art	<i>Development Policy 3 – Public Art</i> It is the landowner's preference to not provide a public art installation and therefore a location report has not been prepared.
4.4.3 - Development Policy 10 – Adaptable Housing	<i>Development Policy 10 – Adaptable Housing</i> In accordance with the Residential Design Codes (R-Codes) the Guidelines framework can be considered obsolete, as the R-Codes seek updated standards through the <i>Livable Housing Design Guidelines</i> and the <i>Australian Building Codes Board Livable Housing Design Standard 2022</i> to ensure a minimum level of universal design at the development application stage, but do not guarantee universal design certification upon construction. Notwithstanding, through the City, we request the provision to be endorsed through a condition of approval, as the Guidelines allow for this outcome. <i>At the discretion of the Authority the report may be submitted as a condition of development approval during the working drawings assessment process (prior to a local government building permit).</i> Notwithstanding, the dwellings are expected to deliver a Gold Standard.

City's Request		Our Response
<i>5. External Referrals</i> The development application has been referred to the relevant Government and State agencies, including Water Corporation and Main Roads Western Australia who both accepted post lodgment meetings to discuss the nature of the application and the respective variations. In principle, both Water Corporation and Main Roads WA have provided their support subject to the proposed design solutions as part of the revised plans.		
Water Corporation (WC)	Through the City's external referral process, WC provided comment on the 23 rd of July 2025. Their primary concern was regarding proposed Lot 8 and the construction of a dwelling above of a reticulated sewer easement. Developed met with WC on the 10 th of October 2025 to agree on a pathway forward. The matter has since been resolved with the resign of Lot 8.	☑
Main Roads Western Australia (MRWA)	Through the City's external referral process, MRWA provided comment on the 22 nd of August 2025. Their primary concern was regarding waste collection. Developed met with MRWA on the 18 th of September 2025 to agree on a pathway forward. The matters have since been addressed through a revised WMP, prepared by Developed - Waste. Please refer to the Revised Waste Management Plan.	☑

Should you have any queries in relation to the above information, please contact the undersigned on 08 6119 9175 or michael@developedproperty.com.au.

Yours sincerely,



Michael Stocco
Senior Urban Planner
Developed

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Shane Wray <Shane.Wray@watercorporation.com.au>

To: Jason Lim

Cc: Alex Jones; Tiffany Molloy; Michael Stocco | Developed; Peter Pummell

Follow up, Start by Monday, 3 November 2025. Due by Monday, 3 November 2025.

This message is part of a tracked conversation. Click here to find all related messages or to open the original flagged message.

You don't often get email from shane.wray@watercorporation.com.au. [Learn why this is important](#)

Hi Jason

Thankyou for the updated drawing and it appears to capture all we discussed of during our recent meeting.

Happy for you to proceed with this approach.

Kind regards
Shane Wray
Senior Technical Advisor – Asset Protection
Maintenance and Reliability
0436 664 260



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From: Jason Lim <jasonl@engenuityengineering.com.au>

Sent: Friday, 31 October 2025 2:00 PM

To: POS_ENQUIRIES <POS_Enquiries@watercorporation.com.au>; Shane Wray <Shane.Wray@watercorporation.com.au>

Cc: Alex Jones <alex@hillam.com.au>; Tiffany Molloy <Tiffany@hillam.com.au>; michael@developedproperty.com.au; Peter Pummell <peter@engenuityengineering.com.au>

Subject: RE: 22 BRIGHTON RD SCARBOROUGH LOT 42 - RFI Request {Build Over Sewer}

Hi Shane,

Attached is the markup showing the pile option (1m offset from the sewer main) from our discussion on 10 October 2025. The ground floor building has been offset from the sewer and no longer building over it.

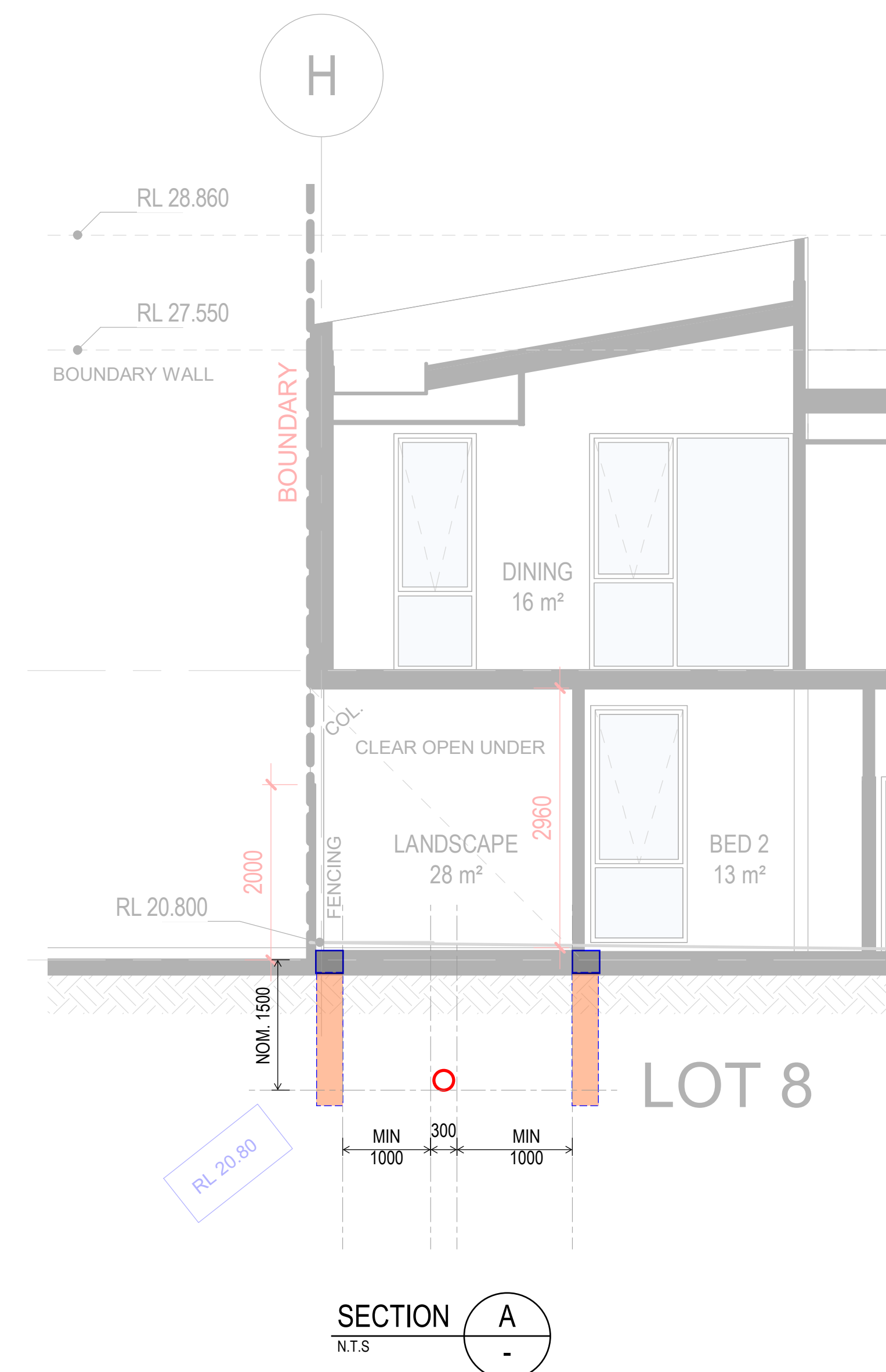
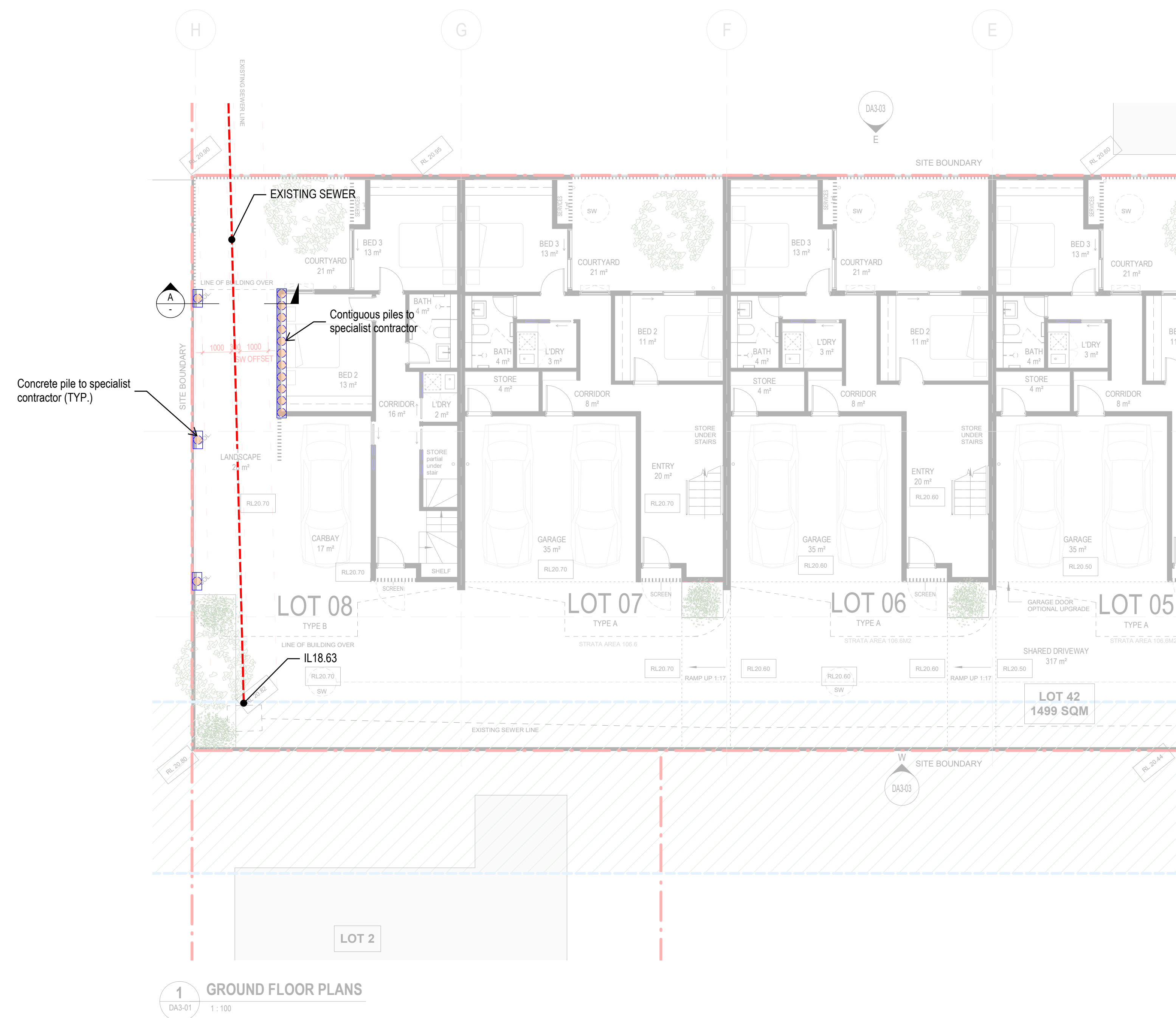
Please review and confirm if Water Corp supports this approach, or let me know if you have any comments.

Regards,



PERTH | BUNBURY
PERTH: Level 5/25 Walters Drive, Osborne Park 6017
BUNBURY: PO Box 771, Bunbury 6231
 08 6555 4955





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WASTE MANAGEMENT PLAN

FOR 8 GROUPED DWELLINGS

No. 22 Brighton Road, Scarborough

October 2025

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Contents

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Issue	Date	Statuses	Prepared By	Approved By	Circulated
Draft	22/04/2025	Draft	R.D.	R.D.	Externally
V1	09/05/2025	Final	R.D.	R.D.	Externally
V2 (Final)	23/10/2025	Updated	R.D.	R.D.	Externally

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- a third party's use of, or reliance upon, this report;
- use of, or reliance upon, this report in relation to any land other than the subject site; or
- the Client's implementation, or application, of the strategies recommended in this report.

1.0 Development Overview

1.1 Introduction

This Waste Management Plan (WMP) has been prepared by Developed Property on behalf of the landowners for No. 22 Brighton Road, Scarborough. It supports a proposed residential development comprising:

Development: 8 Three Bedroom Grouped Dwellings

Address: 22 Brighton Road, Scarborough

The WMP has been prepared in consultation with the City of Stirling's Waste team and in consideration of the provisions of the City's Waste Local Law, Local Planning Policies, the Residential Design Codes Volume 1, and the City's Waste and Recycling Guide (refer to Appendix 2). Once approved by the City, waste collection and disposal are to be undertaken in accordance with the approved Development Plans and the WMP.

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2.0 Waste Collection Process

2.1 Waste Calculation

The City of Stirling operates a three-bin residential waste collection system, with collections occurring every Tuesday. Under this system:

- General Waste (GW): Collected weekly,
- Recycling (RC): Collected fortnightly,
- Green Waste (GO): Collected on the alternate fortnight.

Typically, each dwelling is allocated a full set of individual bins. For this development, this would equate to a total of 24 bins, with up to 16 bins required to be presented for collection in any given week.

The City does not currently have a formal policy or set of guidelines for calculating waste generation. Notwithstanding this however, development proposals involving six or more dwellings are assessed by the City's Waste team on a case-by-case basis, including the suitability of bin types, sizes, and collection arrangements.

For this development, the City's Waste team has advised that increasing the size of bins can reduce the total number of bins required on-site and improve functionality for verge placement. The recommended communal bin configuration is as follows:

- 5 x 240L General Waste bins,
- 5 x 360L Recycling bins, and
- 1 x 240L Green Waste bin.

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2.2 Bins required and Bin storage

Bins will be placed on Brighton Road by a strata-appointed caretaker or manager for collection. Based on these ratios, the development is required to provide the following:

	General Waste (GW) (Red Lid)	Recycling (RC) (Yellow Lid)	Green Waste (GO) (Lime Green Lid)
No. of bins	5	5	1
Bin size	240L	360L	240L
Bin Width	0.585m*	0.68m*	0.585m*
Bin Depth	0.73m*	0.848m*	0.73m*

Table 1: Number of bins required.

* Bin dimensions are available by [Sulo's website](#) (See Appendix 1)

Bins will be stored in a communal bin storage area located behind the garage. This area will be designed to meet the City of Stirling's requirements, ensuring appropriate screening, ventilation, and accessibility.

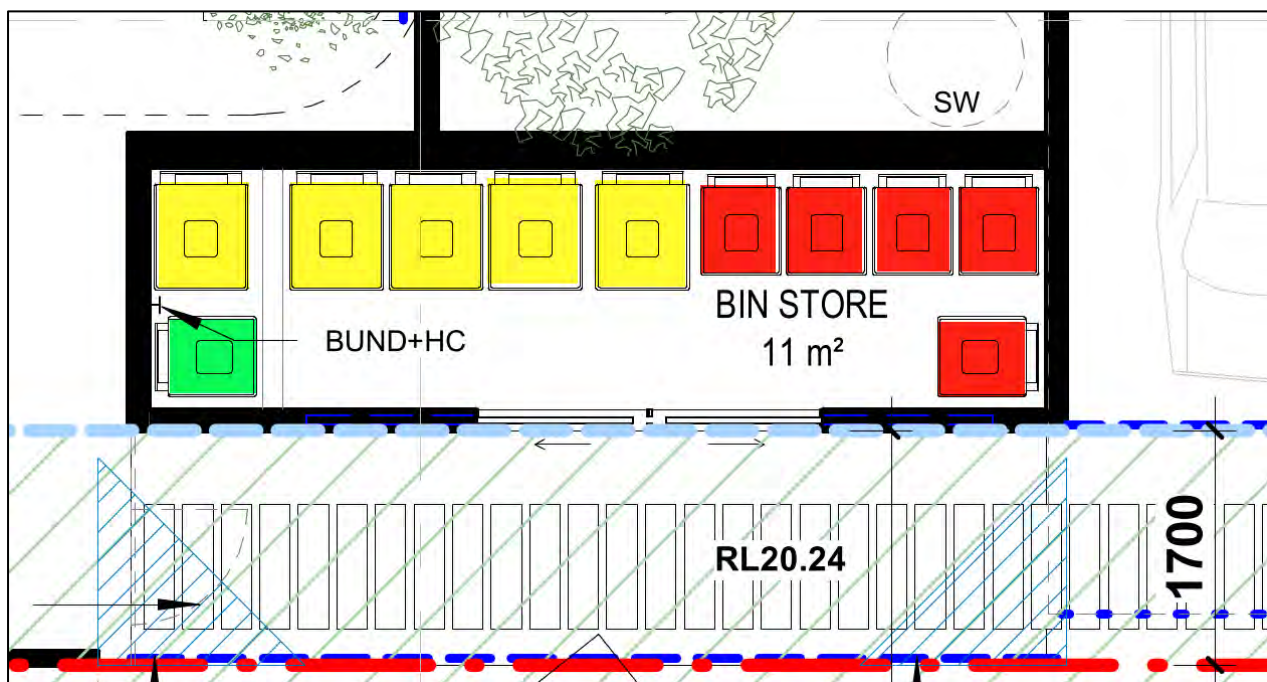


Figure 2: Extract of the Floor Plan showing the Communal Bin Store

2.3 Collection Point and Verge Space Required



Figure 3: Extract from the City's Website

As per the City's Waste Services Guidelines, a minimum of 0.5m spacing is required between each bin to ensure safe collection. The total verge space required for kerbside presentation is summarised below:

Collection Cycle (Every Tuesday)	Bins on the Verge	Total Length required
Week 1 (GW + RC)	10	10.825m
Week 2 (GW + GO)	6	6.01m

Table 2: Verge Space Required for Collection from Brighton Road

The location of the bins will be as follows:



Figure 4: Bin pad locations

3.0 Green Waste Verge Collection

The City of Stirling provides a bulk green waste verge collection service to residential properties approximately every nine months. Residents may place green waste on their verge up to nine days prior to their scheduled collection date, with collection typically completed within two weeks.

In light of the City's Waste comments, it is anticipated that the residents will primarily utilise the communal Green Waste bin for green waste disposal and therefore may have limited need to access the verge collection service.

4.0 On Demand Bulk Waste Collection

In addition to the annual tip passes provided with landowners' rates notices, the City of Stirling now offers a variety of on-demand waste collection services. Each residential property is entitled to access one service per financial year. These include:

- **Skip Bin Hire:** A 3m³ skip bin can be delivered to your property for the disposal of general household waste.
- **Mattress Collection:** Up to six items may be collected per booking (please note that one mattress and one base are counted as two items).
- **White Goods Collection:** A maximum of four items can be collected. Eligible items include fridges, freezers, ovens, cooktops, washing machines, clothes dryers, and dishwashers.
- **Electronic Waste Collection:** Up to six items may be collected, including computers, televisions, printers, and scanners.
- **Additional Skip Bins:** If the annual free skip bin service has already been utilised, residents may request up to two additional skip bins at a cost of \$85 each.

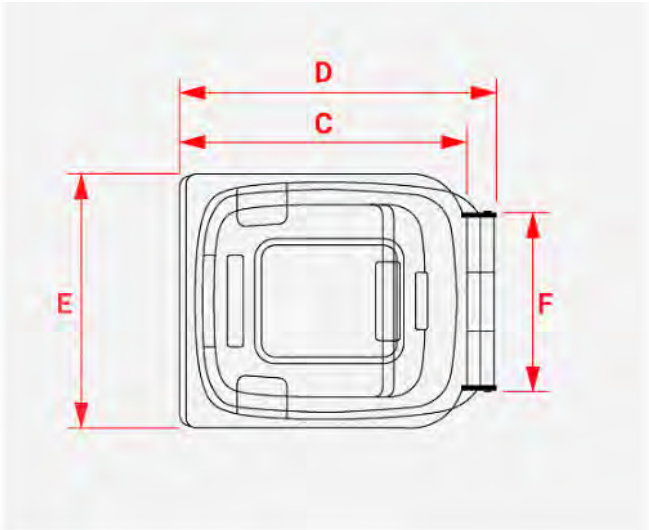
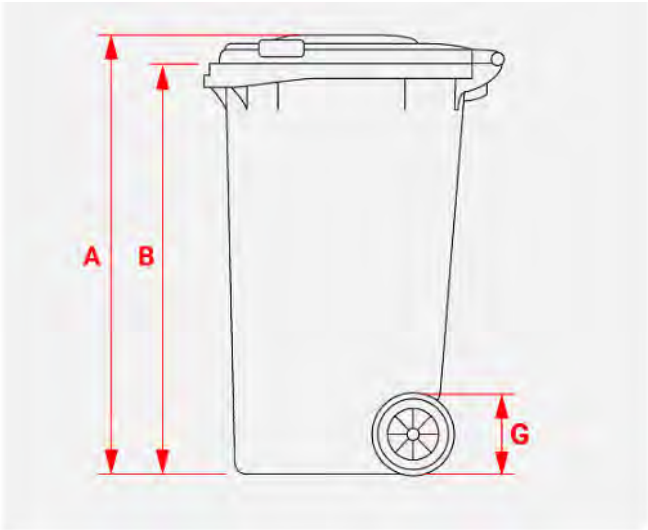
All services must be booked through the City of Stirling's online booking system ([see link here](#)).

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Appendix 1

Bins Dimensions

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Standard Size for a 140 L Bin

DIMENSIONS (MM)		
A	Total Height ~	915
B	Bin Height ~	870
C	Bin Depth ~	550
D	Total Depth ~	615
E	Width ~	535
F	Handle Width ~	395
G	Wheel Diameter ~	200

VOLUME	
Nominal Volume (L)	140
Empty Weight (kg)	10.4
Max. Filling Weight (kg)	56
Max. Total Weight (kg)	70

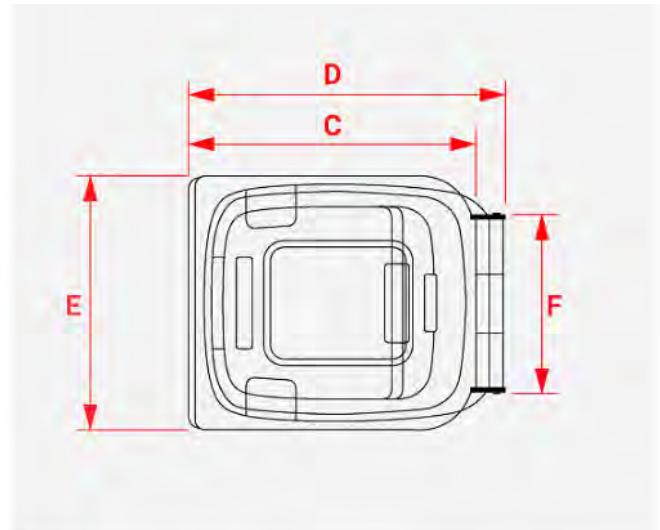
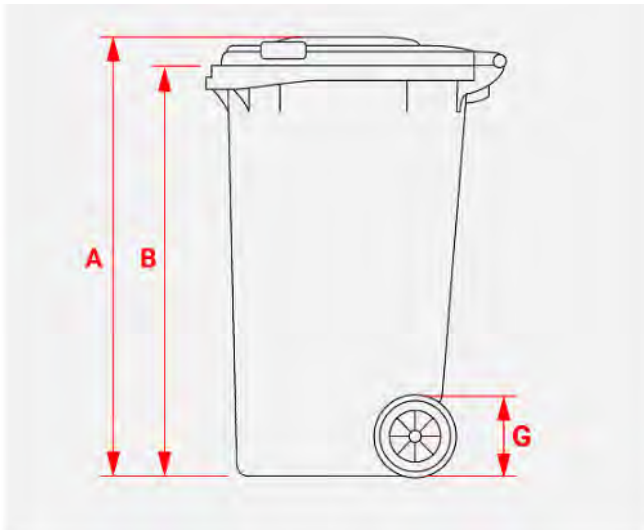
Source: <https://sulo.com.au/product/140-litre-container/>

Standard Size for a 240 L Bin

DIMENSIONS (MM)		
A	Total Height ~	1060
B	Bin Height ~	990
C	Bin Depth ~	660
D	Total Depth ~	730
E	Width ~	585
F	Handle Width ~	400
G	Wheel Diameter ~	200

VOLUME	
Nominal Volume (L)	240
Empty Weight (kg)	12.5
Max. Filling Weight (kg)	96
Max. Total Weight (kg)	110

Source: <https://sulo.com.au/product/240-litre-container/>



Standard Size for a 360 L Bin

DIMENSIONS (MM)

A	Total Height ~	1100
B	Bin Height ~	1028
C	Bin Depth ~	770
D	Total Depth ~	848
E	Width ~	680
F	Handle Width ~	520
G	Wheel Diameter ~	250

VOLUME

Nominal Volume (L)	360
Empty Weight (kg)	17
Max. Filling Weight (kg)	144
Max. Total Weight (kg)	159

Source: <https://sulo.com.au/product/360-litre-container/>

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Waste and Recycling Guide 2024/25



**Protect what we treasure with our helpful
tips on sorting your waste correctly**

 Scarborough Beach Foreshore

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Read on to discover our waste services and resources:



**Garden
organics
waste**



**Recycling
Centre
Balcatta**



**On-demand
collection
services**



Recycling



Skip bins



**Green waste
verge collection**



**General
waste**



**Hazardous
waste**

Plus so much more!



You've gotta love Stirling

Share a whole lotta love about Stirling's spectacular locations to show the world how we protect what we treasure by binning our litter correctly.

Simply tag us in a photo of your favourite location in pristine condition at **#GottaLoveStirling**, and tell us why it holds such a special place in your heart.

When is my bin day?

Our bin day search makes it easy to find your bin collection dates online.

For more information, scan the QR Code or visit www.stirling.wa.gov.au/bincollections and type in your address to search.



Waste collections occur on all public holidays except Christmas Day, New Year's Day and Good Friday. If a collection is scheduled for any of these days, it will take place on the following day.

Hazardous waste

Hazardous waste can be brought to the Recycling Centre Balcatta free of charge. Combined total of 20L or 20kg per day, commercial quantities are not accepted.

✗ Items NOT accepted include:

- ✗ Any household hazardous waste collected for a fee by commercial operators
- ✗ Explosives or ammunition (contact your local police station)
- ✗ Radioactive materials (excluding smoke alarms)
- ✗ Paint brushes (place in your red-top bin)
- ✗ Asbestos (call Mindarie Regional Council for disposal [08] 9306 6303)
- ✗ Waste from commercial or government organisations.

✓ Items accepted include:

- ✓ Electronics / mobile phones
- ✓ LPG gas cylinders (maximum of four cylinders that each hold less than 9kg of gas)
- ✓ Solvents and paints (up to 100L per day, dry / empty containers and commercial quantities also accepted)
- ✓ Flares (maximum of eight) and red fire extinguishers (maximum of four)
- ✓ Pesticides, insecticides and herbicides
- ✓ Ink and printer cartridges
- ✓ Fluorescent light globes (maximum of 10)
- ✓ Motor oil, coolants and filters (household quantities only, over 20L not accepted)
- ✓ Varnishes and stains
- ✓ Household and car batteries
- ✓ Pool and other household chemicals
- ✓ X-ray film.
- ✓ Smoke alarms





Garden organics waste

Green-top bin

Fortnightly collection

Use me for:



Lawn clippings



Leaves, flowers,
small branches
and palm tree pods



Weeds and herbs



Prunings and
any cuttings.



DO NOT use me for

× General waste,
including
food waste

× Dirt, soil and sand

× Large logs
and stumps

× Building
materials

× Food, including
fruit and vegetables

× Painted and
treated timber

× Fruit fallen from
garden trees

× Vapes

× Plant pots

× Garden hose

× Plastic bags

× Glass

× Plastic and metal

× Garden tools

× Stones and rocks.

× Household waste

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What happens next?

Your green-top bin gets collected fortnightly and the garden waste is transported to a composting facility.

At this facility, your garden organics undergo a 12-week composting process before being used in landscaping and agriculture.

Currently 98 per cent of materials placed in the green-top bins are compostable – this is referred to as our recovery rate.



Recycling

Yellow-top bin

Fortnightly collection

Use me for:



Paper (excluding shredded) and cardboard (flattened)



Aluminium and steel cans (rinsed and empty)



Plastic bottles, containers and punnets (rinsed with lids off)



Glass bottles and jars (rinsed and empty, including broken).



DO NOT use me for

- ✗ Plastic bags and light plastic film
- ✗ Nappies, wipes and sanitary products
- ✗ Batteries, globes and chemicals
- ✗ Shoes, clothes and other textiles
- ✗ Long-life milk, Tetra Paks and other silver-lined products
- ✗ Vapes
- ✗ Garden organics waste
- ✗ Electrical and electronic items
- ✗ Car parts
- ✗ Gas bottles and aerosol cans
- ✗ Food waste
- ✗ Asbestos (call Mindarie Regional Council for disposal [08] 9306 6303)
- ✗ Ropes, cables and garden hose pipes
- ✗ Window glass.

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What happens next?

Your yellow-top bin gets collected fortnightly. The contents are transported to a Material Recovery Facility (MRF) for sorting. The sorting process separates plastic, paper, aluminium, steel, cardboard and glass. Currently 78 per cent of materials placed in the yellow-top bins are recyclable – this is referred to as our recovery rate.

Scan the QR code to take a virtual tour through the MRF.



General waste

Red-top bin

Weekly collection

Use me for:



Food scraps



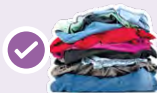
Nappies, sanitary products, wipes, kitty litter and pet waste



Meat trays and soiled packaging



Other non-recyclable products (such as straws, lids, silver-lined packaging and plastic bags)



Worn-out clothing and textiles



Old shoes.



DO NOT use me for

× Batteries (household and car)

× Electrical and electronic items

× Poisons

× Light globes

× Aerosols

× Syringes and medical waste containing blood products

× Chemicals

× Hazardous waste

× Asbestos (call Mindarie Regional Council [08] 9306 6303 for disposal)

× Paint

× Vapes

× Untreated timber.

× Soil, sand and rocks

× Gas bottles

× Building materials

× Motor oil and oil filters

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What happens next?



Your red-top bin is collected weekly and the contents are transported to the Tamala Landfill site, via the City's transfer station.

Landfill should be the last resort!

Did you know that the City provides a range of waste avoidance initiatives and events, including subsidies for cloth nappies and reusable sanitary products?

Find out more at
www.stirling.wa.gov.au/wasteinitiatives



Recycling Centre Balcatta

The City has a dedicated recycling centre at 238 Balcatta Road, Balcatta.

Opening hours:

Monday to Saturday: 7.30am – 4.00pm | Sunday: 8.00am – 4.00pm.
Closed Christmas Day, New Year's Day and Good Friday.

The following items can be dropped off at the Recycling Centre Balcatta free of charge:

- Aluminium
- Bicycles (working)
- Batteries
- Clothing, fabric and shoes
- Dry cardboard
- Household furniture in good condition (at the City's discretion)
- Electrical items
- Globes
- Landscaping items
- Polystyrene (white and clean)
- Scrap metals
- White goods (excluding fridges, freezers and air conditioners).

The following items must be taken over the weighbridge and fees apply:

- Air conditioners
- Fridges and freezers
- Tyres
- Household bulk waste
- Mattresses and bases.

Tip passes

City of Stirling ratepayers receive tip passes on their annual rates notice. Tip passes can be combined with other payment methods if the delivered weight exceeds the passes provided. Fees apply after all tip passes have been used.



Tip passes are provided on an annual basis for residential use only and are non-transferable:

- Proof of address and the tip pass are required on entry to the Recycling Centre Balcatta paid services area
- Expired tip passes will not be accepted
- Tip passes cannot be reprinted, so make sure you store them in a safe place.

Use your tip passes to dispose of the following items for free at the Recycling Centre Balcatta:

- Household bulk junk – up to one tonne, including two mattresses or bed bases and two fridge disposals (additional mattresses, bed bases, fridges and freezers will incur a fee)
- Clean green garden waste – up to one tonne
- Clean sand, bricks and concrete – up to one tonne (no timber, floor or wall tiles, super-six sheeting, asbestos or plastic buckets with dried cement).

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The Recycling Centre Balcatta does not accept asbestos materials.

For disposal options, please contact Mindarie Regional Council on (08) 9306 6303 or Red Hill waste Management Facility on (08) 9574 6235. Visit www.asbestossafety.gov.au for more information.

Do not place in a kerbside bin	Where can I take it?	Cost
Batteries (car)	Recycling Centre Balcatta	Free
Batteries (household)	Recycling Centre Balcatta / recycling stations	Free
E-waste – computer and electrical equipment	Recycling Centre Balcatta	Free
Fluorescent tubes and energy saving globes	Recycling Centre Balcatta / recycling stations	Free
Household hazardous waste – including aerosols and pesticides	Recycling Centre Balcatta	Free
Mobile phones	Recycling Centre Balcatta / recycling stations	Free
Polystyrene – bulk	Recycling Centre Balcatta	Free
Printer cartridges	Recycling Centre Balcatta / recycling stations	Free





Green waste verge collection

In addition to your green-top bin, the City offers green waste verge collections.

Green waste items must be placed on the verge by the start of the scheduled collection date. Items can be placed on the verge up to nine days before your scheduled collection date and may take up to two weeks to be collected.

It is illegal to place green waste in parks, reserves, vacant land or commercial properties.

You can find your collection dates and maps on the City's website at www.stirling.wa.gov.au/greenwaste



If you witness any illegal dumping, please report it by visiting www.stirling.wa.gov.au/illegaldumping

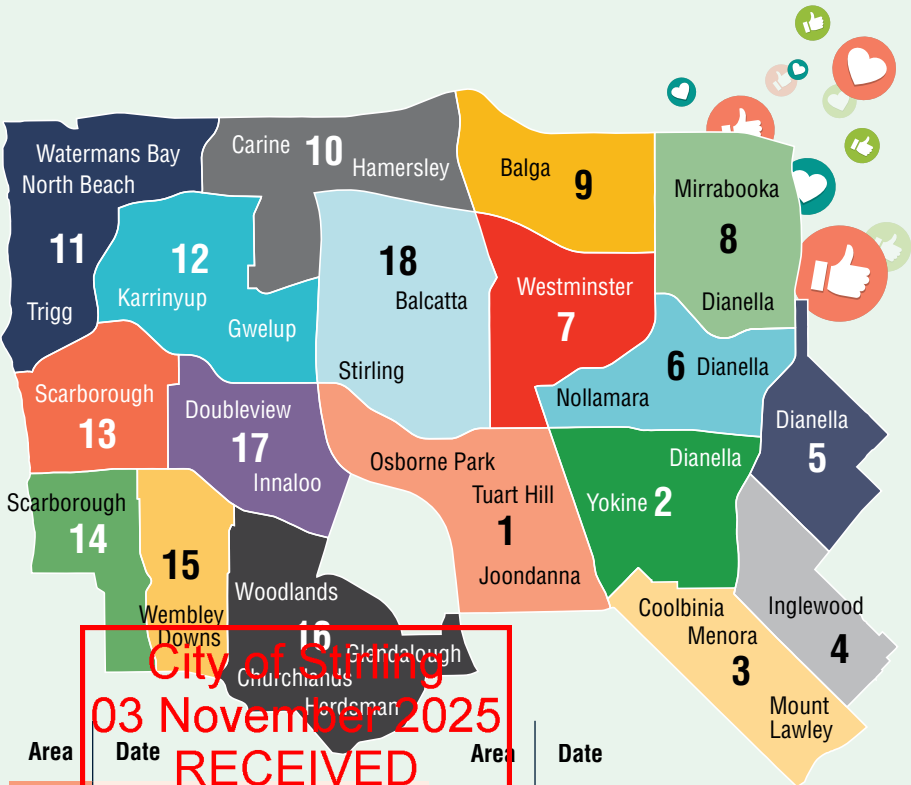
Space-restriction-related issues and concerns should be reported to the City.

To ensure green waste can be collected from your verge, please make sure that:

- ✓ Branches are no more than 1.5m long
- ✓ Branches that are more than 25cm in diameter (thickness) have been cut into lengths of no more than 30cm
- ✓ Green waste is not in cardboard boxes or hessian, polypropylene or plastic bags
- ✓ Green waste is free of contamination.

DO NOT place green waste on or near:

- ✗ Footpaths or driveways, or allow it to overhang onto roadways, obstructing views
- ✗ Artificial turf, trees, stumps or sprinklers
- ✗ Fences, walls, letterboxes or fixed objects
- ✗ Water meters, telecommunication covers, electrical green domes, manhole covers or posts.



Green waste collections will cease between 16 December 2024 and recommence on 6 January 2025.





If you're over it
we can take it



Free on-demand collection services

Properties can access each of the following services
once every financial year (1 July - 30 June):



Electronic waste

A maximum of six items can be collected, such as computers, televisions, printers and scanners.



Mattresses

A maximum of six items can be collected as part of this service (one mattress and one base equals two items).



White goods

A maximum of four items can be collected, including fridges, freezers, ovens, cooktops, washing machines, clothes dryers and dishwashers.



Free skip bin hire

A 3m³ skip bin can be delivered to your home for general household waste.

These services can be booked online via the City's
website www.stirling.wa.gov.au/ondemand



Skip bins



Use me for:

- ✓ Bulk cardboard and polystyrene
- ✓ Household and garden furniture
- ✓ Carpet / floor coverings (except tiles)
- ✓ Sporting equipment
- ✓ Household junk waste
- ✓ Timber products (up to 1.5m in length).



DO NOT use me for:

- ✗ Asbestos (call Mindarie Regional Council [08] 9306 6303)
- ✗ Building materials (concrete, cement, Gyproc and reinforcing bar)
- ✗ Car parts or batteries
- ✗ Electronic waste
- ✗ Food waste
- ✗ Gas bottles
- ✗ Garden organic waste
- ✗ Hazardous waste
- ✗ Liquids, including oil and paint
- ✗ Mattresses / bases
- ✗ Sand, bricks, pavers, tiles and rubble
- ✗ Trade and commercial waste
- ✗ Tyres
- ✗ White goods.

- Skip bins will be collected two business days after delivery
- Delivery and collection will occur on a weekday between 6.00am – 6.00pm. Skip bins are 1.8m long and 1.6m wide. Please ensure there is sufficient space on your verge before booking.



DO NOT:

- ✗ Overfill your skip bin (it will not be collected)
- ✗ Refill the skip bin when it is awaiting collection.

For enquiries relating to an existing booking for a skip bin delivery or collection, or overfull skip bins, please contact the City on (08) 9205 8555 between 8.30am – 5.00pm, Monday to Friday or visit www.stirling.wa.gov.au/ondemand

Online residential waste services

Visit the City's website to make an enquiry or lodge a report for:

- Missed services (missed bin collections)
- New bin requests

- Damaged or missing (lost) bins
- On-demand waste collection.

For more information, please visit www.stirling.wa.gov.au/waste



Have you left enough space?

To ensure our waste trucks can empty your bins, check there is enough space around them.



Do not park vehicles in front of the bins



Place bins next to kerb by 6.00am



Keep the weight of the bin under 70kg



Avoid overfilling to ensure the lid can close

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This information is available in alternative formats on request.
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Sustainable Transport. Safe Solutions

22 Brighton Rd, Scarborough

Proposed Residential Development

TRANSPORT IMPACT STATEMENT



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Prepared for:
Brighton Road (WA) Pty Ltd

November 2025

22 Brighton Rd, Scarborough

Prepared for: Brighton Road (WA) Pty Ltd
Prepared by: Paul Ghanous
Date: 2 November 2025
Project number: U25.048

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1 Introduction

This Transport Impact Statement has been prepared by Urbii on behalf of Brighton Road (WA) Pty Ltd with regards to the proposed residential development, located at 22 Brighton Rd, Scarborough.

The subject site is situated on the northern side of Brighton Road, as shown in Figure 1. The site presently accommodates a residential dwelling (Figure 2) and is surrounded by a mix of residential, commercial and retail land uses. Scarborough Beach is accessible within 300m walking distance to the west.

It is proposed to develop the site into a residential development, delivering 8 dwellings.

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

This TIS has been updated to address comments received from the City of Stirling and reflects updates to the ground floor plan prepared by Hillam Architects.

The updated TIS addresses the City's request for 1.5 m sightline truncations at vehicle access points to ensure safe visibility for vehicles entering and exiting the site and incorporates these into the amended plans.

In relation to the City's comments regarding the need for an internal passing bay, additional technical assessment has been undertaken to demonstrate that a passing bay is not required, given the low traffic volumes expected to be generated by the development and the short length of the internal accessway.

The report also includes an updated review of the visitor parking bay, supported by swept path analysis to confirm that vehicle access and egress can be safely accommodated in accordance with AS2890.1.

Overall, the updated TIS reflects the latest design information, responds to the City's engineering feedback, and confirms that the proposed access and parking arrangements are appropriate for the scale and nature of the development.

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Figure 1: Subject site

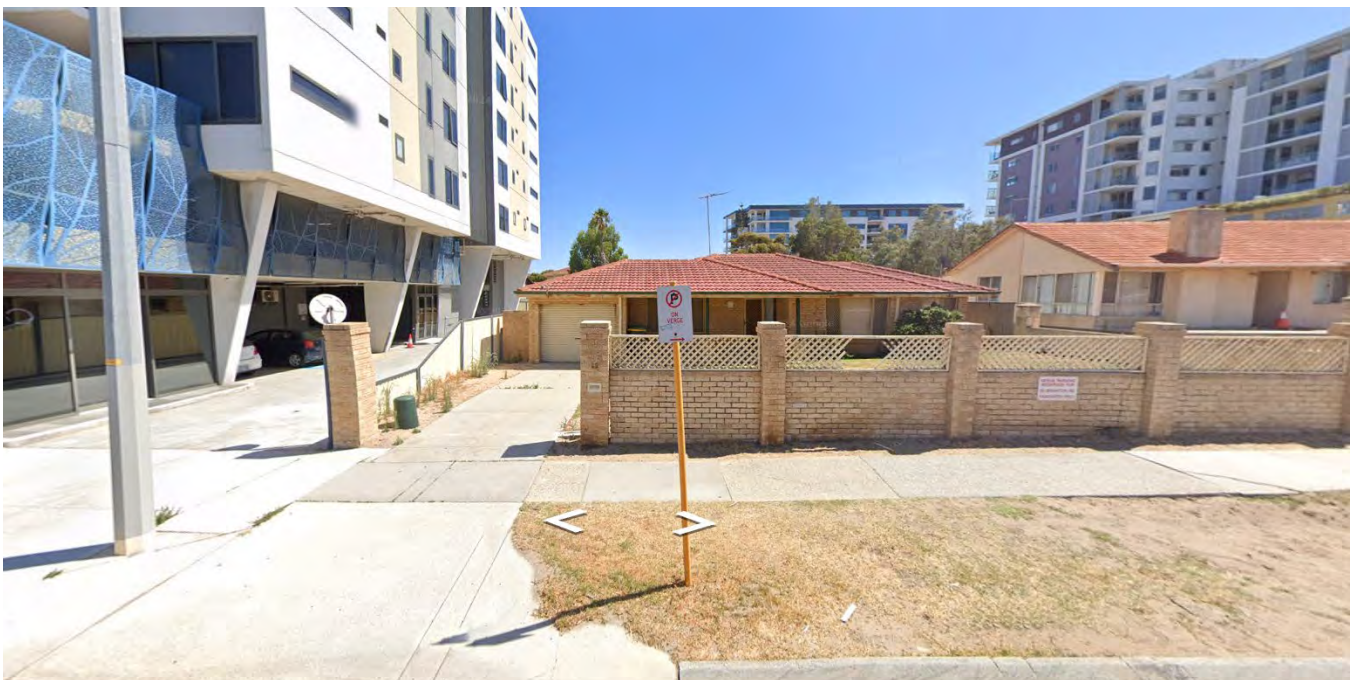


Figure 2: Existing site

Source: Google Streetview Image dated January 2024

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2 Scope of work

The WAPC *Transport Assessment Guidelines 2016* identifies the proposed development as being “low impact” (Figure 3). A Transport Impact Statement (TIS) has been prepared to support a robust Development Application and to assist the LGA with demonstration of traffic impact.

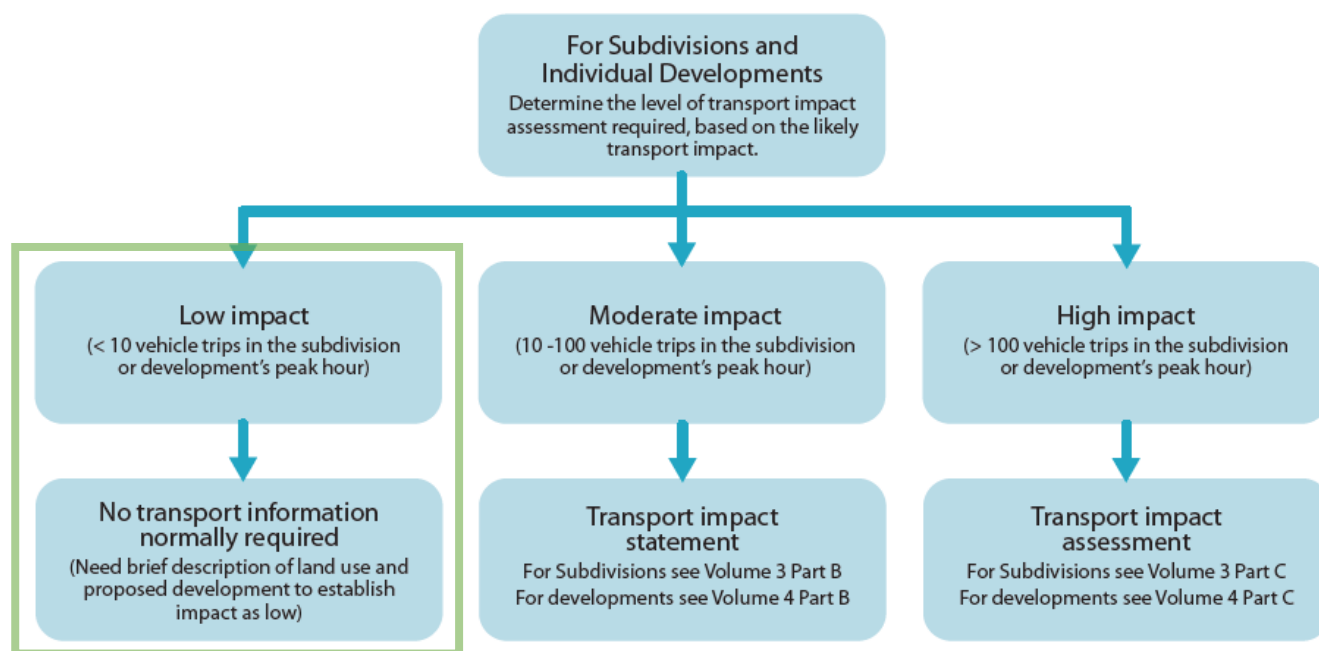


Figure 3: WAPC Transport Assessment Guidelines – reporting requirements

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3 Proposed development

The proposal for the subject site is for a grouped dwelling residential development, comprising:

- A total of 8 residential dwellings;
- 15 car parking spaces for residents;
- One visitor car parking bay;
- Two bicycle parking spaces; and,
- A centralised bin store for the development.

Vehicle access to most lots is proposed via an existing crossover through the adjoining property to the west (18 Brighton Road). Vehicle access for Lot 2 is via a separate crossover which directly connects to Brighton Road.

Town planning advice indicates that an easement is in place, which permits vehicle access to and from the site via the adjoining property.

Bins will be wheeled out from individual townhouses for kerbside waste collection from Brighton Road.

Pedestrians and cyclists will access the development from the external path network abutting the site. The proposed development has been designed to accommodate a 'shared space' for residents who choose to walk, cycle or drive.

The proposed development plans are included for reference in Appendix A.

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4 Vehicle access and parking

4.1 Vehicle access

The proposed vehicular access arrangements have been reviewed for efficient and safe traffic circulation.

As detailed in Figure 4, vehicle access to most lots is proposed via an existing crossover through the adjoining property to the west (18 Brighton Road). Vehicle access for Lot 2 is via a separate crossover which directly connects to Brighton Road.

Town planning advice indicates that an easement is in place, which permits vehicle access to and from the site via the adjoining property.

Lot 1 provides access to the parking garage directly from the easement. Lots 3-8 are accessed via a sliding gate connecting to the easement, with an internal common roadway providing access to the dwellings. **The internal common accessway is approximately 4.0m wide and the narrowest location, measured from the strata boundary of individual lots to the site boundary. However, the dwelling garage doors are set back from the strata boundary, providing a clear width of 5.6m from the building frontage to the property boundary.**

Review of aerial imagery indicates that some parking spaces may be marked within the easement area, which are associated with the existing building at 18 Brighton Road (Figure 5). The project proponents will communicate with the adjoining land owner to ensure that the easement is not obstructed with parked vehicles. 'No Standing' signs can be considered for installation within the shared easement area.

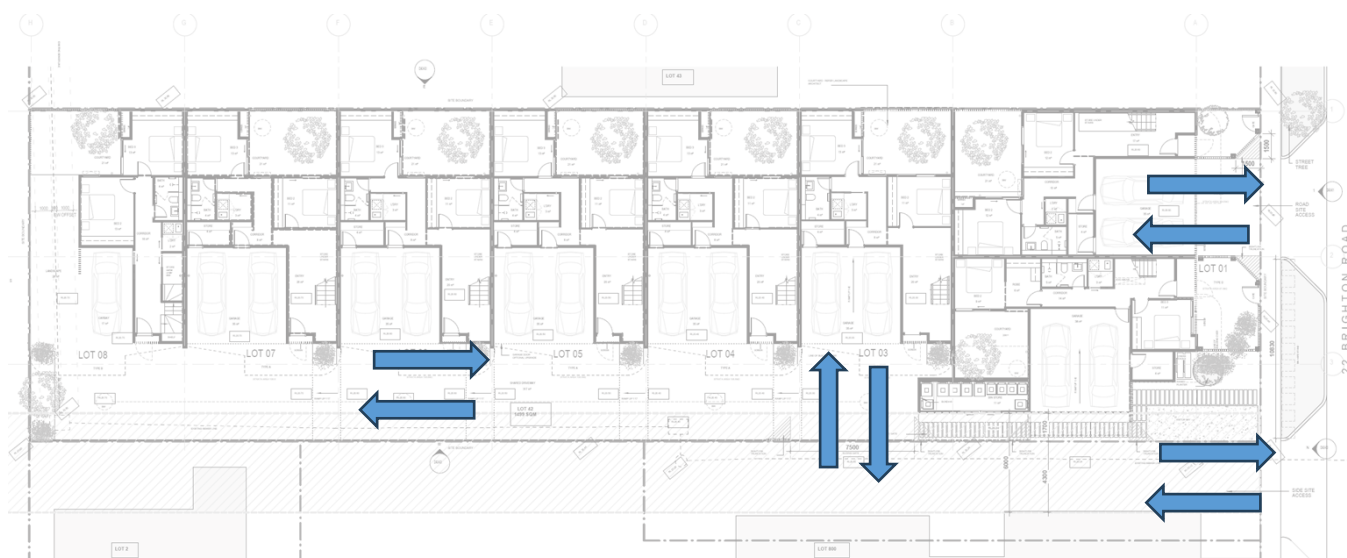


Figure 4: Proposed vehicle access

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Figure 5: Existing easement

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4.2 Movement and place analysis

The philosophy of movement and place recognises that streets perform multiple functions. Transport links not only move people from point A to B, but they can also function as key places. There is a natural tension between these two functions. As a movement corridor, every link aims to minimise travel time and keep people and goods moving. On the other hand, as a place, streets aim to increase visitor dwell time.

Not all streets can be popular destinations, just as not all streets can prioritise vehicle movement. It is important to recognise the roles of movement and place on our roads and streets. Finding an appropriate balance is key for integrated transport planning.

The movement and place framework categorises roads and streets as a function of their role in moving people and being a place (Figure 6).



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Figure 6: Movement and place – road and street categories

Source: *Movement and Place in Victoria*, Department of Transport Victoria, 2019

Based on the movement and place categories, the proposed internal access street can be defined as a Local Street. Successful Local Streets should provide quiet, safe and desirable residential access for all ages and abilities that foster community spirit and local pride. They are part of the fabric of our neighbourhoods, where we live our lives and facilitate local community access.

The Main Roads WA *Speed Zoning - Policy and Application Guidelines - May 2021* recommends a speed limit of 10km/h in confined areas where movement of pedestrians and cyclists has priority over motor vehicles. Generally, the volume of traffic is very low. This definition is appropriate for the proposed development internal street.

To support the successful function of the proposed internal street, it is therefore recommended that a 10km/h speed limit apply internally. This speed limit applies equally for all modes of transport and can be reinforced through installation of shared zone signs.

The Australian Standard AS 1742.4-2008: *Manual of uniform traffic control devices - Speed controls*, provides guidance on the use of shared zones. Signs shall be used at the start and end of shared zones as specified in Clause 3.2.6 and shown in Figure 7. A typical shared zone treatment is shown in Appendix B.

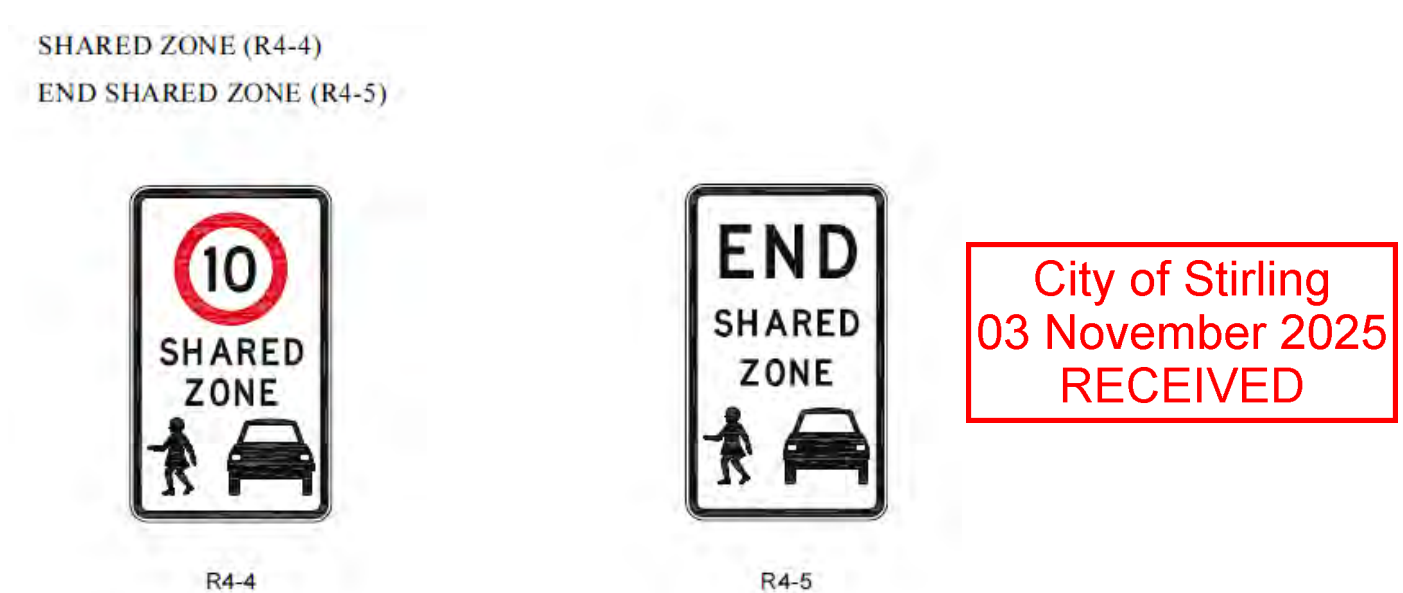


Figure 7: Signs for shared zones

The Austroads *Guide to Traffic Management Part 8: Local Area Traffic Management*, provides the following guidance on the use of shared zones:

“A shared zone is an area utilised by both pedestrians and vehicular traffic in which drivers must give way to pedestrians at all times, and where the street environment has been adapted for very low-speed vehicles. Shared zones should aim to change the image and character of a street so that drivers are made aware that they are entering a street environment with driving conditions that are quite different to other more common situations. This can be achieved by the use of different coloured and/or textured pavement surfaces, by the use of full width flush paving between property lines and through landscaping. Shared zones must be designed in such a way that the low-speed environment is reinforced through the physical layout and treatment. A speed limit of 10 km/h is considered appropriate in shared zones to compliment these speed environment changes.”

In accordance with the above guidance, the internal street will be designed as a shared zone. Shared zone signs will be installed at the vehicle access point (to be included at subsequent design stages).

4.3 Driveway width requirements

The technical standards or guidelines referenced in assessing the crossover and driveway width include:

- AS2890.1-2004 - Off-street Car Parking Facilities;
- State Planning Policy 7.3 Residential Design Codes (R-Codes) Volume 1; and,
- State Planning Policy 7.3 R-Codes Volume 2 – Apartments.

The R-Codes (Vol 1) provides the following guidance on the width and location of driveways:

C5.2 Driveways to primary or secondary street provided as follows:

- *driveways serving four dwellings or less not narrower than 3m at the street boundary;*
- *no driveway wider than 6m at the street boundary and driveways in aggregate no greater than 9m for any one property.*

C5.3 Driveways shall be:

- *no closer than 0.5m from a side lot boundary or street pole;*
- *no closer than 6m to a street corner as required under AS2890.1 Parking Facilities: Off street Parking (as amended);*
- *aligned at right angles to the street alignment;*
- *located so as to avoid street trees, or, where this is unavoidable, the street trees replaced at the applicant's expense or re-planting arrangements to be approved by the decision-maker; and*
- *adequately paved and drained.*

The R-Codes (Vol 2) provides the following guidance on the width and location of driveways:

- *O 3.8.1 Vehicle access points are designed and located to provide safe access and egress for vehicles and to avoid conflict with pedestrians, cyclists and other vehicles;*
- *O 3.8.2 Vehicle access points are designed and located to reduce visual impact on the streetscape;*
- *A 3.8.5 Driveway width is kept to a functional minimum, relative to the traffic volumes and entry/egress requirements; and,*
- *DG 3.8.1 – keeping the width to a minimum and avoiding vehicle standing areas within the street setback.*

In summary, the R-Codes generally encourage keeping the width of residential driveways to a minimum, to reduce visual impact and conflicts with pedestrians and cyclists. The absolute minimum driveway width permitted at the street boundary is 3m and the maximum is 6m.

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AS2890.1 classifies the proposed development driveway as *Category 1*. A *Category 1* access driveway can be a minimum of 3m in width and a maximum of 5.5m in width, as demonstrated in Appendix C. Furthermore, Clause 3.2.2 of AS2890.1 provides the following advice regarding the width requirements at low volume (Category 1) access driveways and connecting roadways:

“Where the circulation roadway leading from a Category 1 access driveway is 30m 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 6m from the property boundary shall be a minimum of 5.5m wide. In other cases, subject to consideration of traffic volumes on a case by case basis, lesser widths, down to a minimum of 3.0m 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 of two vehicles to pass on the driveway.... On long driveways, passing opportunities should be provided at least every 30m.”

The travel distance from Brighton Road to Lot 8 is over 70m, which suggests that some form of passing opportunity will be beneficial for two-way traffic flow. However, it is noted that the expected traffic volumes on the driveway are well below the 30 vehicles per hour (vph) threshold quoted by AS2890.1 for two-way traffic flow.

4.4 Driveway traffic analysis

The probability of two cars coinciding on the internal driveway during the AM or PM peak hour was calculated using the Austroads *Guide to Traffic Management Part 2: Traffic Theory*. A Poisson distribution was adopted for random departure / arrival times within the peak hour. The maximum outbound flow is estimated to be 2 vehicles per hour. It takes one inbound vehicle approximately 30 seconds to enter the site at a speed of 10km/h (for Lot 08).

As detailed in Figure 8, there is a **98.3%** chance that when a vehicle arrives to enter the site, there will be no opposing vehicle in the outbound direction exiting the site. Outside of peak hours, the chance of two-way traffic coinciding on the driveway is even lower.

Based on these statistics, and the guidance from the R-Codes and AS2890.1, it is expected that the proposed 4.0m wide common property accessway width can function effectively. No impact or queue back on Brighton Road is expected.

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Traffic volume2(vph)0.00056(vps)

Time period0.5(min)30(sec)

Mean number of vehicles0.01667

Probability distribution table

Probability 0 vehicles =98.3%

(x)	p(x)	P(x)
0	0.98347	0.98347
1	0.01639	0.99986
2	0.00014	1
3	7.6E-07	1
4	3.2E-09	1
5	1.1E-11	1
6	2.9E-14	1
7	7E-17	1
8	1.5E-19	1
9	2.7E-22	1
10	4.5E-25	1
11	6.8E-28	1
12	9.4E-31	1
13	1.2E-33	1
14	1.4E-36	1
15	1.6E-39	1
16	1.7E-42	1
17	1.6E-45	1
18	1.5E-48	1
19	1.3E-51	1
20	1.1E-54	1

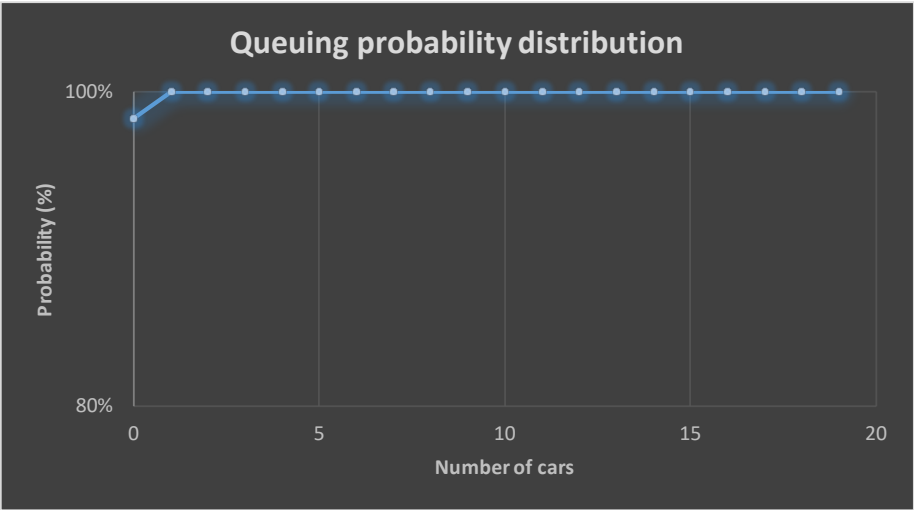


Figure 8: Driveway probability calculation

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4.5 Driveway traffic management

Technical analysis indicates that the likelihood of two vehicles meeting within the common property accessway is very low, given the small number of dwellings and the resultant low traffic volumes. Nonetheless, to ensure robust assessment, swept path analysis has been undertaken to confirm that two vehicles can safely pass each other within the site, even in the rare event of simultaneous movements.

As shown in Figure 9, the internal accessway layout allows vehicles exiting from individual garages to manoeuvre entirely within their own lot boundaries without the need to encroach into adjoining properties. An outbound vehicle can reverse and temporarily position itself in front of the respective townhouse, maintaining adequate clearance for an inbound vehicle to pass along the internal roadway. This arrangement ensures that all vehicle interactions are accommodated within the subject site, with a minimum separation of 600 mm maintained between vehicle envelopes in accordance with AS2890.1 standards.

To promote orderly and predictable driver behaviour, “**Give Way to Entry Traffic**” signage will be installed within the development, assigning priority to vehicles entering from Brighton Road. This measure will be reinforced through **strata bylaws**, ensuring consistent resident compliance and maintaining safe and efficient two-way operation along the internal driveway. The proposed management arrangement is appropriate for the low traffic generation anticipated and will ensure safe and efficient vehicle movements within the development.

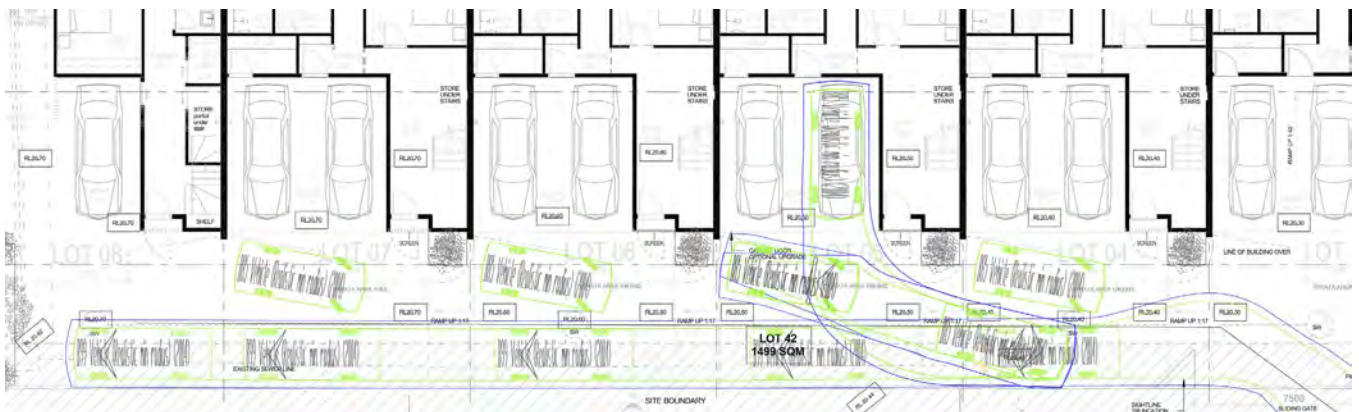


Figure 9: Two-way vehicle passing movement

4.6 Swept path analysis

Swept path analysis has been undertaken to demonstrate the satisfactory function of vehicle movements. Swept paths are included in Appendix D and were undertaken in accordance with AS2890.1. **Visitors can enter and exit the site in forward gear, by using the common accessway to turn around within the site.**

4.7 Parking requirements

Reference was made to Residential Design Codes for applicable parking requirements. Advice provided to Urbii indicates the site is in ‘Location B,’ with the applicable parking rates set out in Table 1.

Table 1: R-Codes Volume 1: Residential parking rates

Occupant car parking	Location A	Minimum parking space(s) (per dwelling)	Maximum garage and carport parking (per dwelling)
	Ancillary dwelling	0	1
	Studio and 1 bedroom dwelling	0	1
	2 bedroom dwelling	0	2
	3+ bedroom dwelling	1	2
	Location B	Minimum parking space(s) (per dwelling)	Maximum garage and carport parking (per dwelling)
	Ancillary dwelling	0	1
	Studio and 1 bedroom dwelling	1	1
	2 bedroom dwelling	1	2
3+ bedroom dwelling	1	2	
Visitor carparking	Number of dwellings	Minimum Parking	
	0-4 dwellings	No visitor car parking required	
	5-8 dwellings	1	
	9-12 dwellings	2	
	13 or more dwellings	3, plus 1 additional space per four dwellings or part thereof	
Motorcycle/scooter parking (multiple dwellings only)	0-19 dwellings	No motorcycle/scooter parking required	
	20 or more dwellings	One motorcycle/scooter space for every 10 car parking spaces	
<i>Minimum parking applies to all types of parking on site including (but not limited to) garages, carports, uncovered spaces, undercroft and basement parking. Maximum carparking applies to garages and carports. Additional parking may be provided as uncovered spaces, undercroft or basement parking.</i>			
<i>LOCATION A – includes all land located within:</i>			
<i>– 800m walkable catchment of a train station on a high-frequency rail route;</i>			
<i>– 250m walkable catchment of a transit stop:</i>			
<i>o on a high-frequency transit route; or</i>			
<i>o that has multiple transit routes, that when combined stop every 15 minutes during weekday peak periods (7am – 9am and 5pm – 7pm); or</i>			
<i>– the defined boundaries of an activity centre.</i>			
<i>LOCATION B – includes all land that is not within Location A.</i>			

The parking requirements for the development are presented in Table 2.

Table 2: Development parking requirements

Parking	Min	Max
Ancillary dwelling	0	0
Studio and 1 bedroom dwelling	0	0
2-bedroom dwelling	0	0
3+ bedroom dwelling	8	16
Total occupant car parking	8	16
Visitor car parking	1	
Total car parking	9	17

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4.8 Parking supply

The proposed development provides the following parking allocation:

- Double garage for most townhouses delivering a total of 15 resident parking spaces.
- 1 car parking bay provided onsite for visitors.

The proposed car parking supply is sufficient to meet the needs of the development and is compliant with the requirements of R-Codes.



5 Provision for service vehicles

The proposed development is residential in nature and will not generate significant delivery and other service vehicle traffic. Bins will be wheeled out from the centralised bin store for waste collection from Brighton Road.

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6 Hours of operation

For most residential developments, the peak traffic hours typically coincide with the weekday commuter AM and PM peak hours on the surrounding road network.

The weekday AM peak hour in the Perth Metropolitan Area usually occurs between 7am to 9am and the weekday PM peak hour occurs between 4pm to 6pm. The peak hours for the proposed development are anticipated to coincide at around these times.

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7 Daily traffic volumes and vehicle types

7.1 Traffic generation

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

- Roads and Traffic Authority of New South Wales *Guide to Traffic Generating Developments* (2002); and
- RTA TDT 2013/ 04a.

The trip generation rates adopted are detailed in Table 3.

Table 3: Adopted trip rates for traffic generation

Land use	Trip rate source	Daily rate	AM rate	PM rate	AM-in	AM-out	PM-in	PM-out
Residential	RTA NSW - Medium density residential building	5	0.5	0.5	25%	75%	65%	35%

The estimated traffic generation of the proposed development is detailed in Table 4. The proposed development is estimated to generate a total of 40 vehicles per day (vpd), with 4 vehicles per hour (vph) generated during the AM and PM peak hours, respectively.

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

Table 4: Traffic generation – Weekday AM and PM peak hours

Land use	Quantity	Daily Trips	AM Trips	PM Trips	AM Peak Trips		PM Peak Trips	
					IN	OUT	IN	OUT
Residential	8	40	4	4	1	3	3	1

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7.2 Impact on surrounding roads

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

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

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

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8 Traffic management on the frontage roads

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

8.1.1 Brighton Road

Brighton Road near the subject site is an approximately 11.5m wide undivided road. One traffic lane is provided in the eastbound direction, approaching the roundabout intersection with Hastings Street.

Two westbound lanes are provided approaching the signalised intersection with West Coast Highway. One through lane and one right turn pocket are provided in this direction of travel.

Paths for walking and cycling, and on-street cycling lanes are provided on both sides of the road.

Brighton Road is classified as a *Distributor B* road in the Main Roads WA road hierarchy (Figure 10) and operates under a speed limit of 50km/h (Figure 11). Distributor B roads are the responsibility of Local Government and are primarily for reduced capacity but high traffic volumes travelling between industrial, commercial and residential areas. (Figure 12).

Traffic data obtained from the City of Stirling indicates that Brighton Road (West of West Coast Highway) carries 8,450 vehicles per day.

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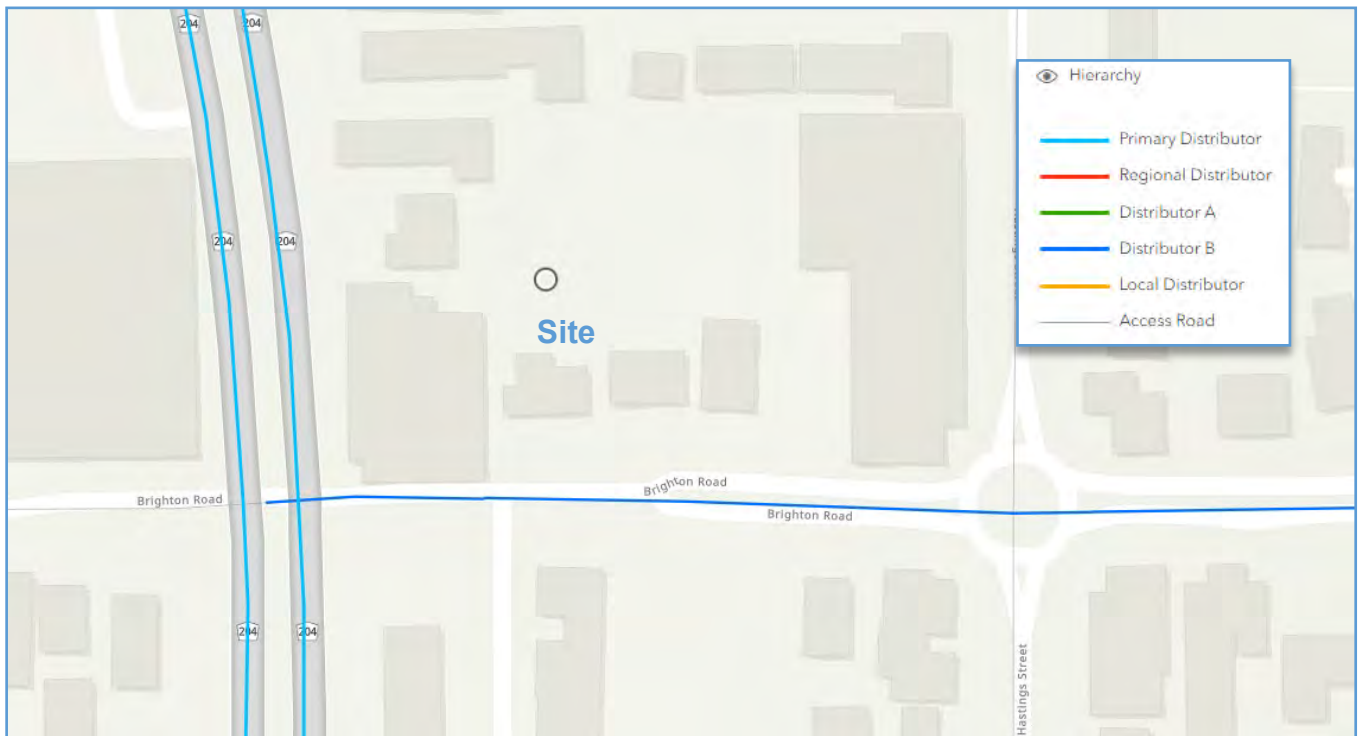


Figure 10: Main Roads WA road hierarchy plan

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

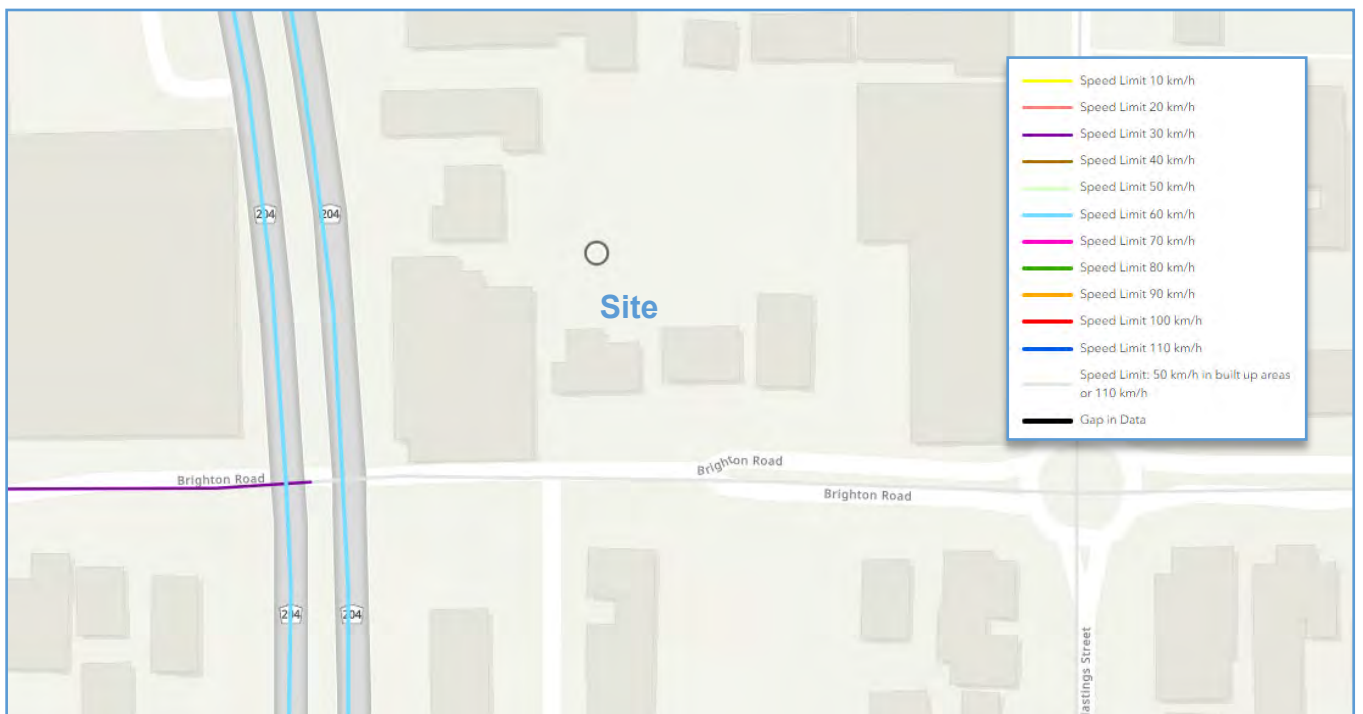


Figure 11: Main Roads WA road speed zoning plan

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

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

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

Figure 12: Road types and criteria for Western Australia

Source: Main Roads Western Australia D10#10992

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9 Public transport access

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

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

- Bus Route 410: Stirling Stn - Scarborough Beach Bus Stn via Millcrest St.
- Bus Route 412: Stirling Stn - Scarborough Beach Bus Stn via Woodlands Village Shop Ctr & Cobb St.

Public transport services provide a viable alternative mode of transport for residents and visitors of the proposed development. The closest bus stops are located within 50m walking distance to the east on Brighton Road (Figure 13).

Bus services provide excellent coverage and connectivity to the rail network. The public transport network plan is shown in Figure 14.

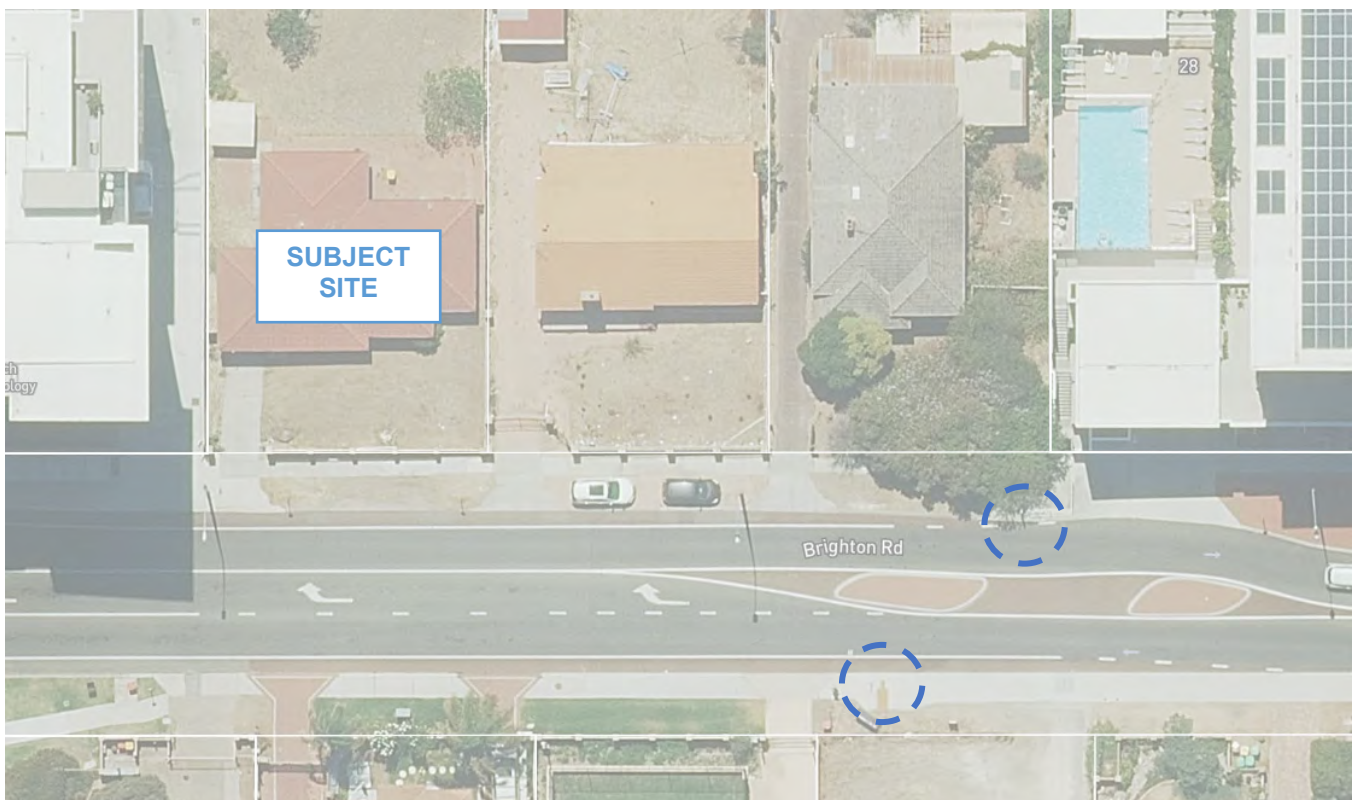


Figure 13: Closest bus stops serving the proposed development

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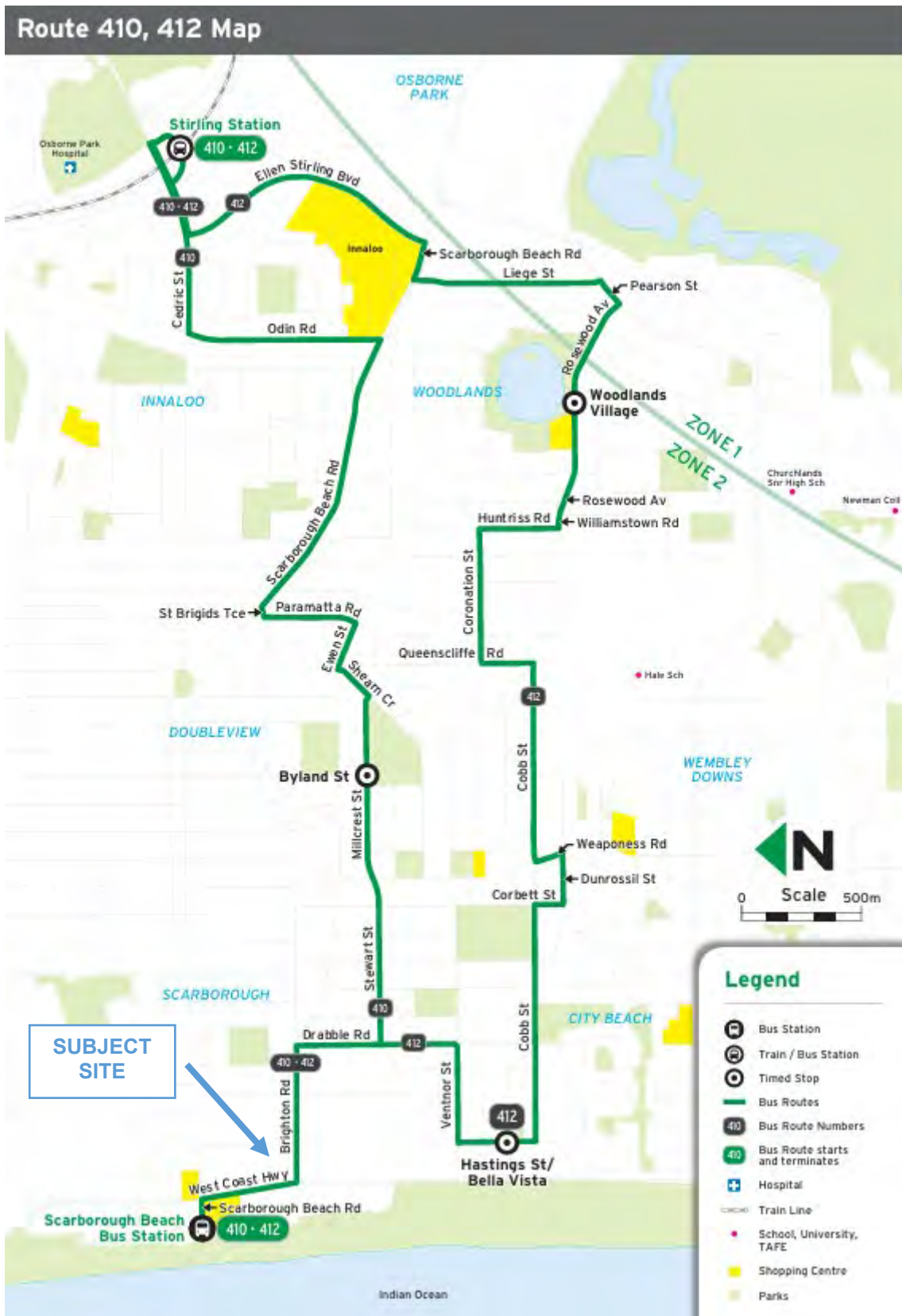


Figure 14: Transperth public transport plan

Source: Transperth

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10 Pedestrian access

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

10.1 Pedestrian facilities and level of service

Footpaths are provided on both sides of Brighton Road adjacent to the subject site. A signalised pedestrian crossing is provided at the intersection of West Coast Highway / Brighton Road, around 35m to the west of the site.

Pedestrian crossing facilities including kerb ramps and refuge islands are provided for crossing at nearby intersections, which promotes improved access for bicycles, wheelchairs, and prams.

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provide warrants

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11 Bicycle access

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

11.1 Bicycle network

The Perth and Peel Long Term Cycle Network (LTCN) designates routes by their function, rather than built form. Function considers the type of activities that take place along a route, and the level of demand (existing and potential). The built form of a route is based on the characteristics of the environment, including space availability, topography, traffic conditions (speed, volumes), and primary users. The cycling network hierarchy is described in Figure 15.

	1. PRIMARY ROUTE	2. SECONDARY ROUTE	3. LOCAL ROUTE
Function	Primary routes are high demand corridors that connect major destinations of regional importance. They form the spine of the cycle network and are often located adjacent to major roads, rail corridors, rivers and ocean foreshores. Primary routes are vital to all sorts of bike riding, including medium or long-distance commuting / utility, recreational, training and tourism trips.	Secondary routes have a moderate level of demand, providing connectivity between primary routes and major activity centres such as shopping precincts, industrial areas or major health, education, sporting and civic facilities. Secondary routes support a large proportion of commuting and utility type trips, but are used by all types of bike riders, including children and novice riders.	Local routes experience a lower level of demand than primary and secondary routes, but provide critical access to higher order routes, local amenities and recreational spaces. Predominantly located in local residential areas, local routes often support the start or end of each trip, and as such need to cater for the needs of users of all ages and abilities.
Design Philosophy	An <u>all ages and abilities</u> design philosophy is about creating places and facilities that are safe, comfortable and convenient for as many people as possible. By planning for and designing infrastructure that caters for the youngest and most vulnerable users, we create a walking and bike riding network that everyone can use. At the heart of this approach is fairness and enabling all people to use the network regardless of age, physical ability or the wheels they use.		
Form	All routes can take a number of different forms and are designed to suit the environment in which they are located. These forms include: • Bicycle only, shared and/or separated paths; • Protected bicycle lanes (uni or bi-directional, depending on the environment); and • Safe active streets Principal Shared Paths (PSPs) are often built along primary routes. A PSP is a high quality shared path built to MRWA PSP standard which generally means the path will be 4m wide, have adequate lighting and be grade separated at intersections (where possible). In some locations, quiet residential streets incorporating signage and wayfinding may be appropriate for local routes.		

Figure 15: Western Australian Cycling Network Hierarchy

The Long-Term Cycle Network plan is detailed in Figure 16. Brighton Road is designated as a ‘Local Route’ in the LTCN. The existing cycling infrastructure on Brighton Road includes on-street cycling lanes and off-street paths on both sides of the road. The cycling infrastructure is rated as ‘adequate’ in the LTCN.

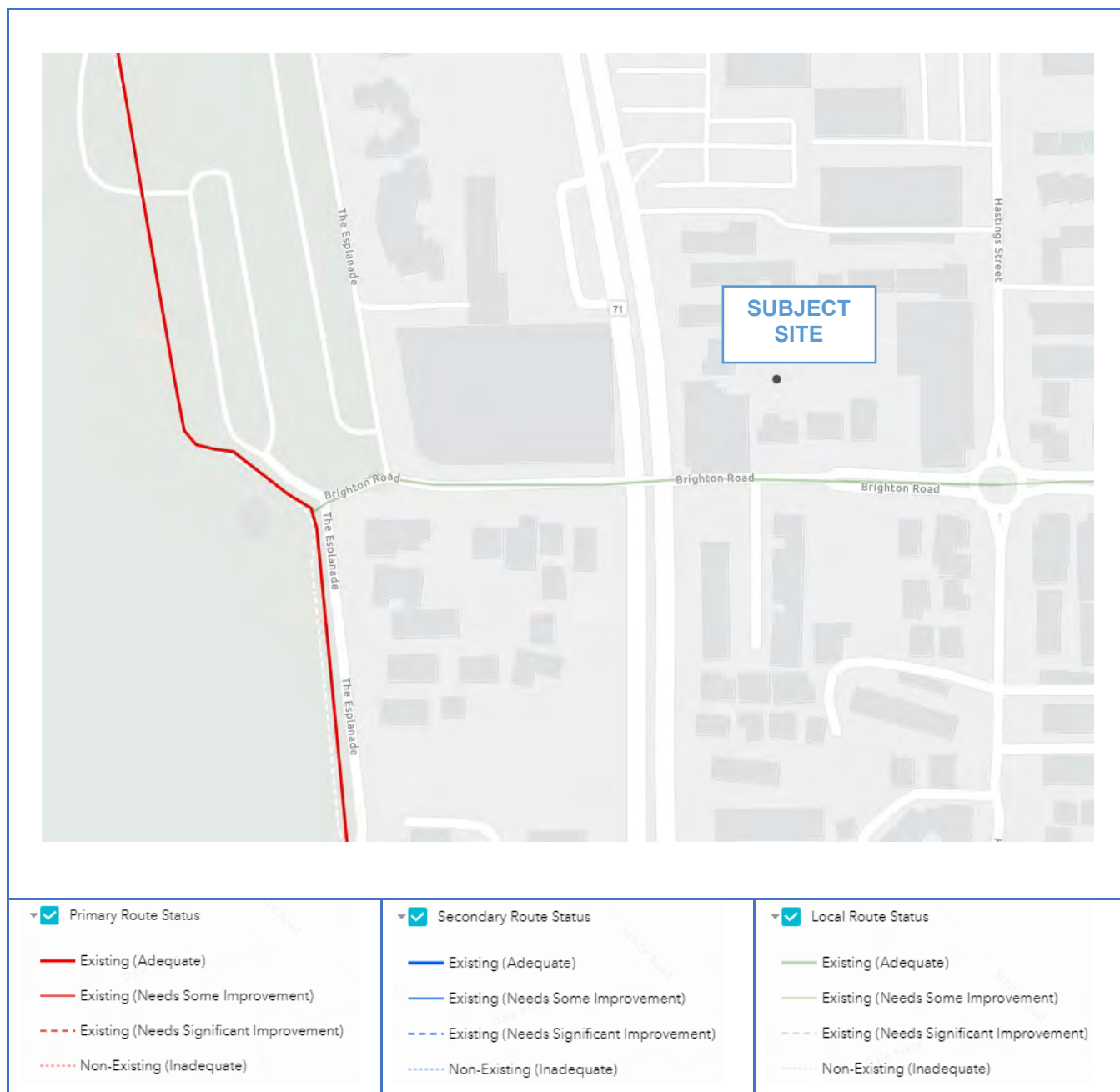


Figure 16: Perth and Peel Long Term Cycle Network plan (LTCN)

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The Strava cycling heatmap tool shows that Brighton Road and the coastal recreational shared path are relatively popular cycling routes in the area (Figure 17).

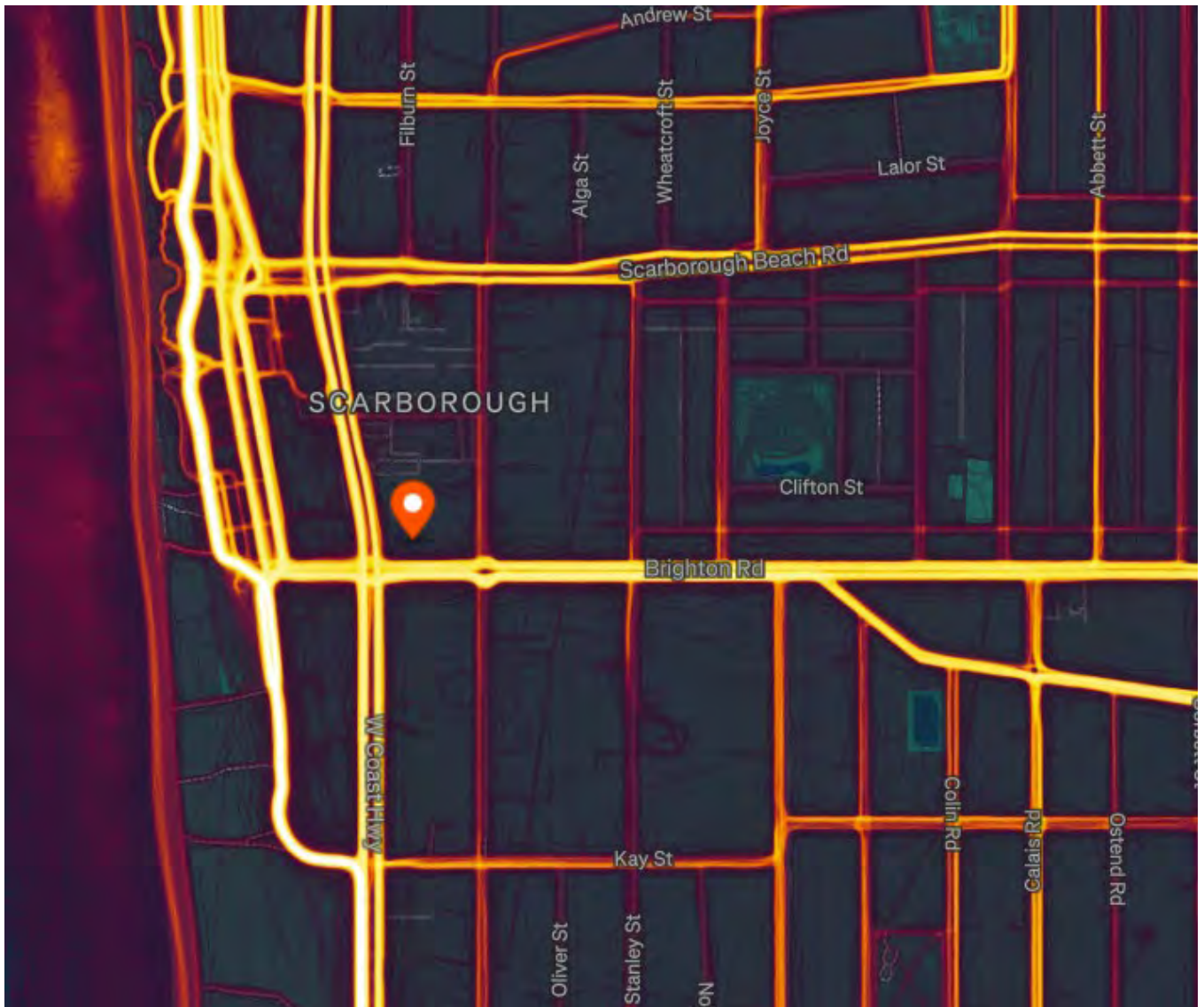


Figure 17: Strava cycling heatmap

11.2 Sustainable transport catchment

As detailed in Figure 18, the subject site is well placed for residents and visitors to travel by sustainable modes of transport. A comfortable 8km or 20-25min cycle will provide the development with a large catchment.

This range can be further increased through a combination of micro-mobility and train travel with close access to train stations.

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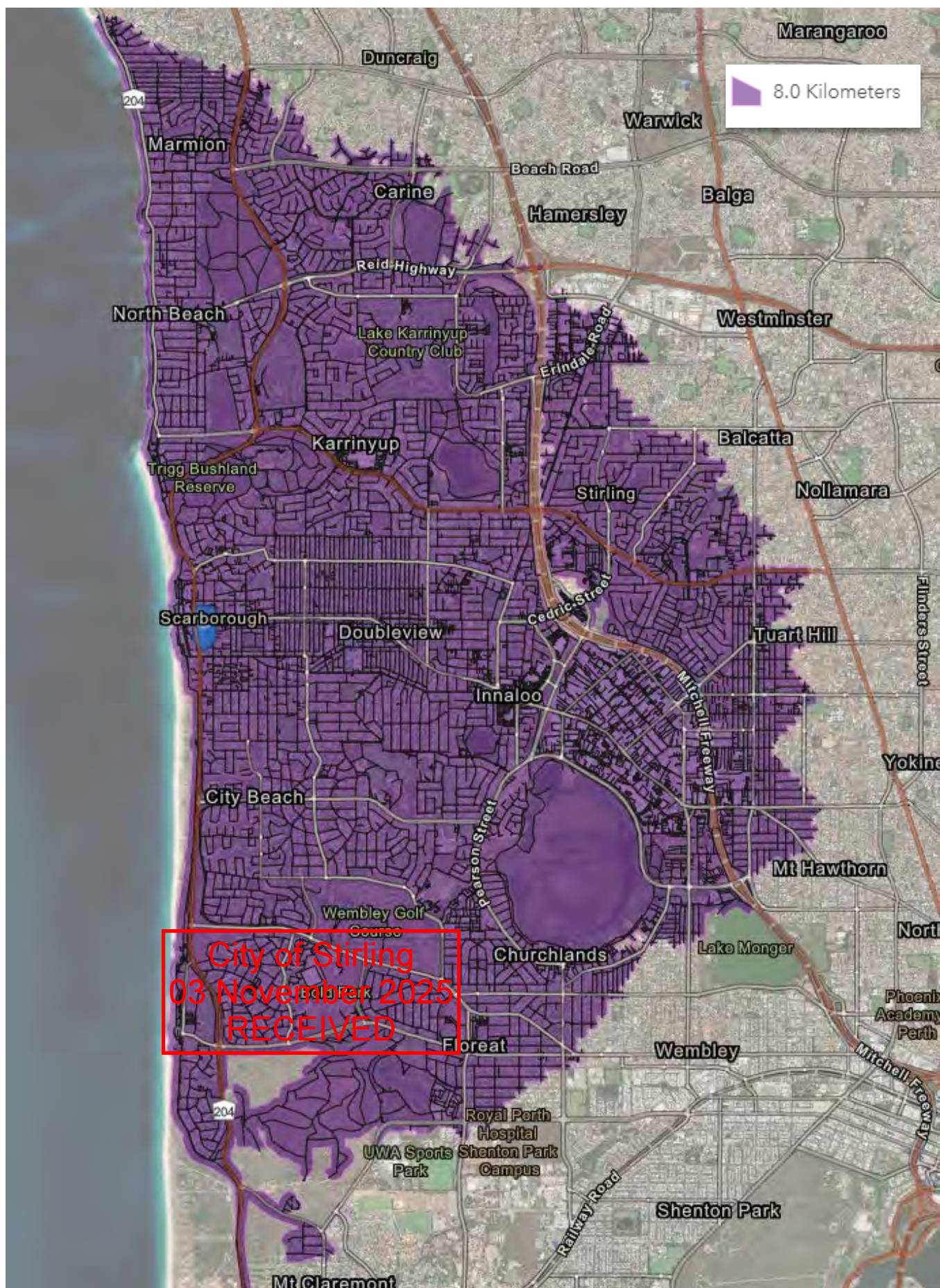


Figure 18: Cycling and micro-mobility catchment



12 Site specific issues

This updated Transport Impact Statement has been prepared to address comments received from the City of Stirling regarding vehicle access, sightlines, and internal traffic management for the proposed development at 22 Brighton Road, Scarborough. The key issues raised by the City have been reviewed in detail, and the revised TIS incorporates corresponding design updates and technical assessments.

Amendments have been made to the ground floor plan to incorporate 1.5-metre sightline truncations at vehicle access points, ensuring that adequate visibility is achieved for vehicles entering and exiting the site in accordance with R-Codes and the City's Engineering Services requirements. These sightline provisions have been clearly identified on the amended architectural drawings and integrated into the updated analysis.

In response to the City's request for an internal passing bay, a detailed traffic assessment was undertaken to determine whether such a bay is required. The analysis demonstrates that due to the low traffic generation in the peak hour, the likelihood of opposing vehicle conflicts within the internal driveway is extremely low—calculated at less than 2% using Poisson probability methods. This confirms that the 4.0-metre-wide accessway can operate effectively without the need for a dedicated passing bay.

Additional swept path analysis was carried out to validate vehicle manoeuvring performance within the site. The results confirm that vehicles can enter and exit all garages in forward gear, and that a vehicle exiting a garage can reverse and temporarily stand within its own lot to allow an inbound vehicle to pass. This arrangement enables all passing movements to occur entirely within the subject site, maintaining adequate clearance between vehicles and ensuring safe operation.

To formalise movement priorities and reinforce safe driver behaviour, "Give Way to Entry Traffic" signage will be installed within the internal driveway, assigning priority to inbound vehicles from Brighton Road. This measure will be supported by strata bylaws, ensuring consistent management of on-site vehicle movements.

Overall, the updated assessment confirms that the proposed design amendments and operational measures appropriately address the City's feedback. The internal accessway and parking layout provide for safe, efficient, and practical operation consistent with AS2890.1 and the expectations of the City of Stirling Engineering Services.

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13 Safety issues

The five-year crash history in the vicinity of the site was obtained from Main Roads WA. As detailed in Figure 19, 1 crash was recorded in the locality in the last five years. The detailed crash history is presented in Table 5.

The low traffic generation of the proposed development is unlikely to impact traffic safety in the area.



Figure 19: 5-year crash map in the locality (2020-2024)

Source: MRWA crash mapping tool

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Table 5: 5-year crash history in the locality (2020-2024)

Severity	No.	%
Fatal	0	0
Hospital	0	0
Medical	0	0
PDO Major	1	100.00
PDO Minor	0	0
Year	No.	%
2021	1	100.00
Nature	No.	%
Head On	0	0
Hit Animal	0	0
Hit Object	0	0
Hit Pedestrian	0	0
Non Collision	0	0
Not Known	0	0
Rear End	0	0
Right Angle	1	100.00
Right Turn Thru	0	0
Sideswipe Opposite Dirn	0	0
Sideswipe Same Dirn	0	0
Light	No.	%
Dark - Street Lights Not Provided	0	0
Dark - Street Lights Off	0	0
Dark - Street Lights On	0	0
Dawn Or Dusk	0	0
Daylight	1	100.00
Not Known	0	0
Conditions	No.	%
Dry	1	100.00
Not Known	0	0
Wet	0	0
Alignment	No.	%
Curve	0	0
Not Known	0	0
Straight	1	100.00
Total	1	

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14 Conclusion

This Transport Impact Statement has been prepared by Urbii on behalf of Brighton Road (WA) Pty Ltd with regards to the proposed residential development, located at 22 Brighton Rd, Scarborough.

The subject site is situated on the northern side of Brighton Road. The site presently accommodates a residential dwelling and is surrounded by a mix of residential, commercial and retail land uses.

It is proposed to develop the site into a residential development, delivering 8 dwellings.

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

The car parking supply is satisfactory and can accommodate the car parking demand of the proposed development.

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

As part of this revised assessment, the TIS has been updated to incorporate the City of Stirling's comments relating to vehicle access and internal circulation. The amended design includes 1.5-metre sightline truncations at vehicle access points to ensure compliant visibility, while further technical analysis has confirmed that an internal passing bay is not required due to the low traffic volumes generated by the development. Swept path assessments demonstrate that all vehicle movements can be safely accommodated within the site, and operational measures such as "Give Way to Entry Traffic" signage and strata by-law provisions will ensure safe and efficient two-way operation along the internal driveway. These outcomes confirm that the updated access and parking arrangements satisfy the relevant design standards and address the City's engineering feedback in full.

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

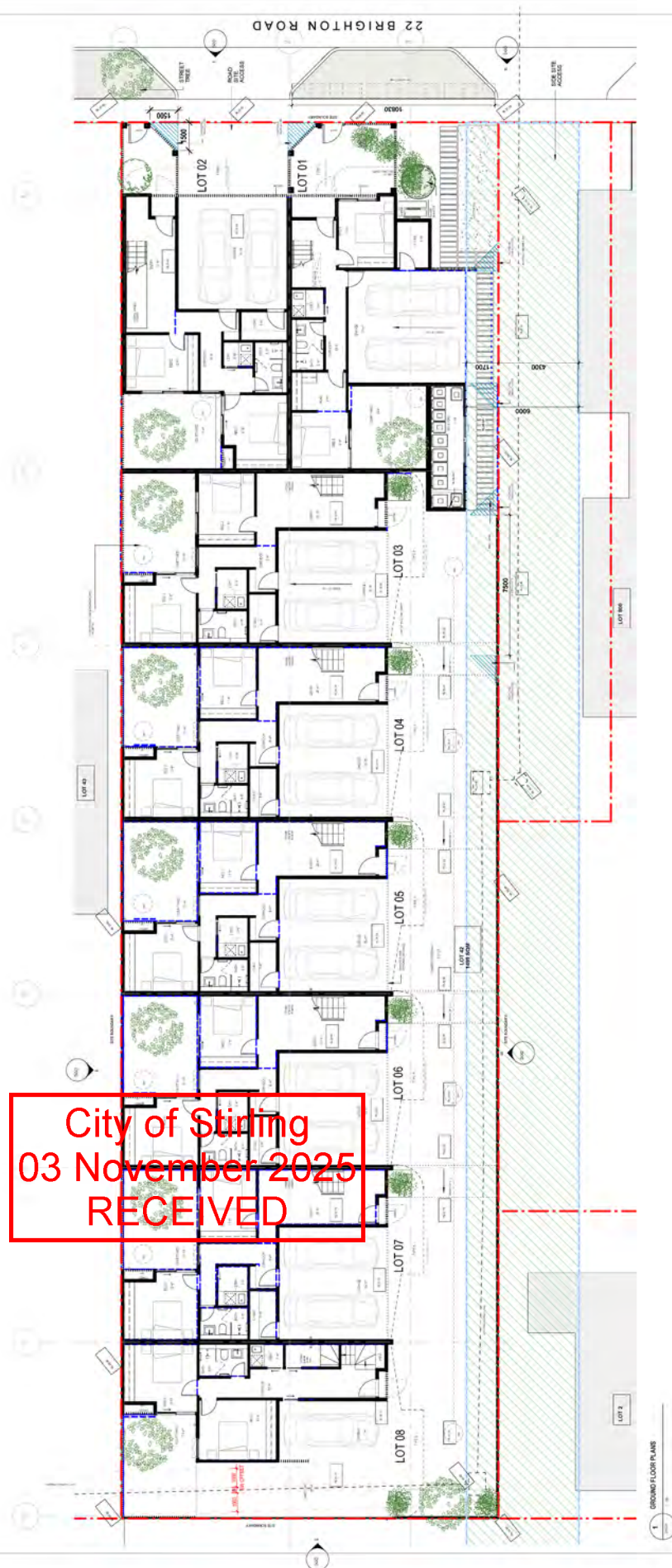
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15 Appendices

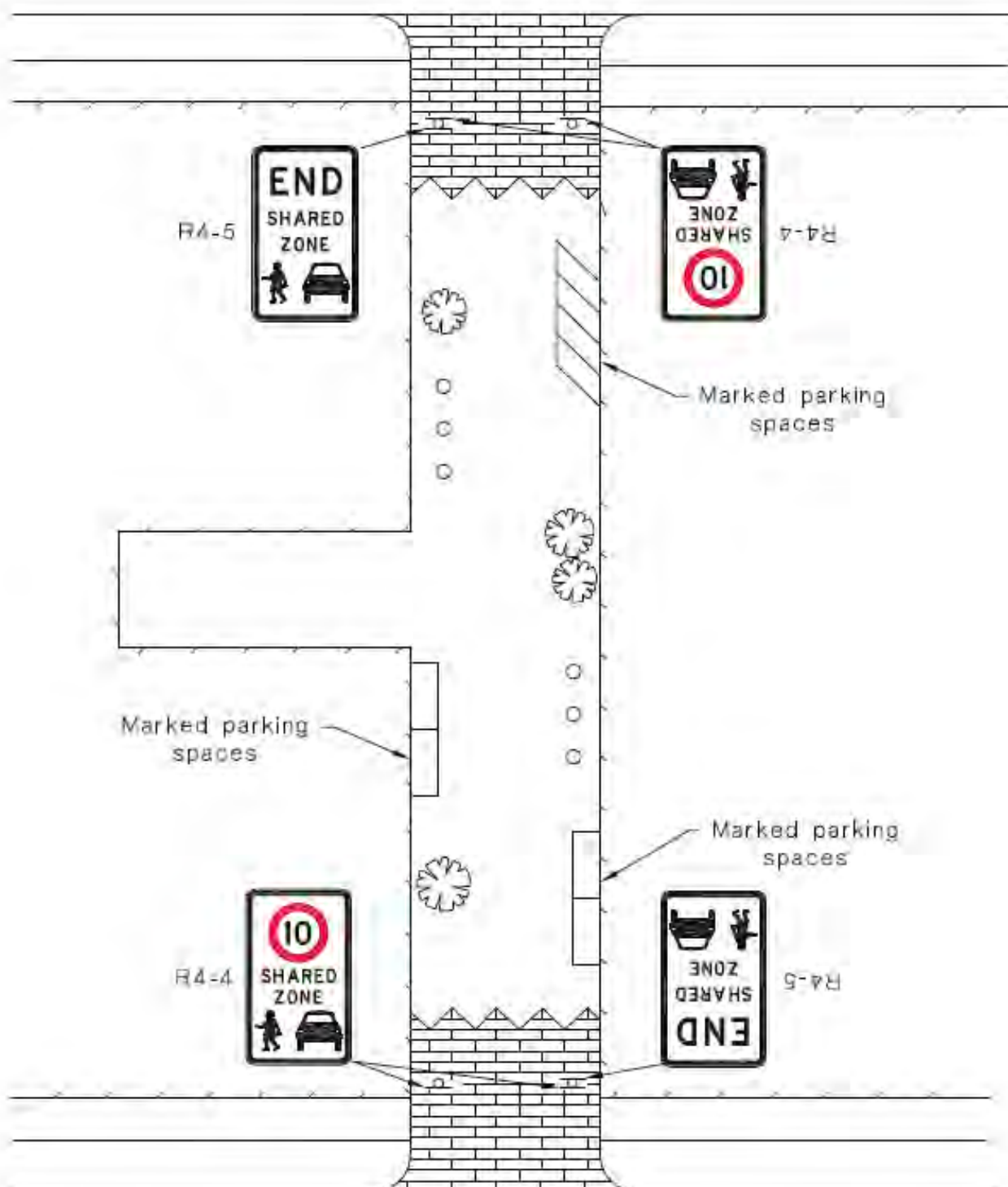
Appendix A: Proposed development plans





Appendix B: Typical shared zone treatment

Source: AS 1742.4 – 2008



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TABLE 3.1
SELECTION OF ACCESS FACILITY CATEGORY

Class of parking facility (see Table 1.1)	Frontage road type	Access facility category				
		Number of parking spaces (Note 1)				
		<25	25 to 100	101 to 300	301 to 600	>600
1.1A	Arterial	1	2	3	4	5
	Local	1	1	2	3	4
2	Arterial	2	2	3	4	5
	Local	1	2	3	4	4
3.3A	Arterial	2	3	4	4	5
	Local	1	2	3	4	4

NOTES:

- 1 When a car park has multiple access points, each access should be designed for the number of parking spaces effectively served by that access.
- 2 This Table does not imply that certain types of development are necessarily suitable for location on any particular frontage road type. In particular, access to arterial roads should be limited as far as practicable, and in some circumstances it may be preferable to allow left-turn-only movements into and out of the access driveway.

TABLE 3.2
ACCESS DRIVEWAY WIDTHS

metres			
Category	Entry width	Exit width	Separation of driveways
1	3.0 to 5.5	(Combined) (see Note)	N/A
2	6.0 to 9.0	(Combined) (see Note)	N/A
3	6.0	4.0 to 6.0	1 to 3
4	6.0 to 8.0	6.0 to 8.0	1 to 3
5	To be provided as an intersection, not an access driveway, see Clause 3.1.1.		

NOTE: Driveways are normally combined, but if separate, both entry and exit widths should be 3.0 m min.

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Appendix D: Swept path diagrams

Swept path diagrams are included in this section of the report. Different coloured lines are employed to represent the various envelopes of the vehicle swept path, as described below:

Cyan represents the wheel path of the vehicle

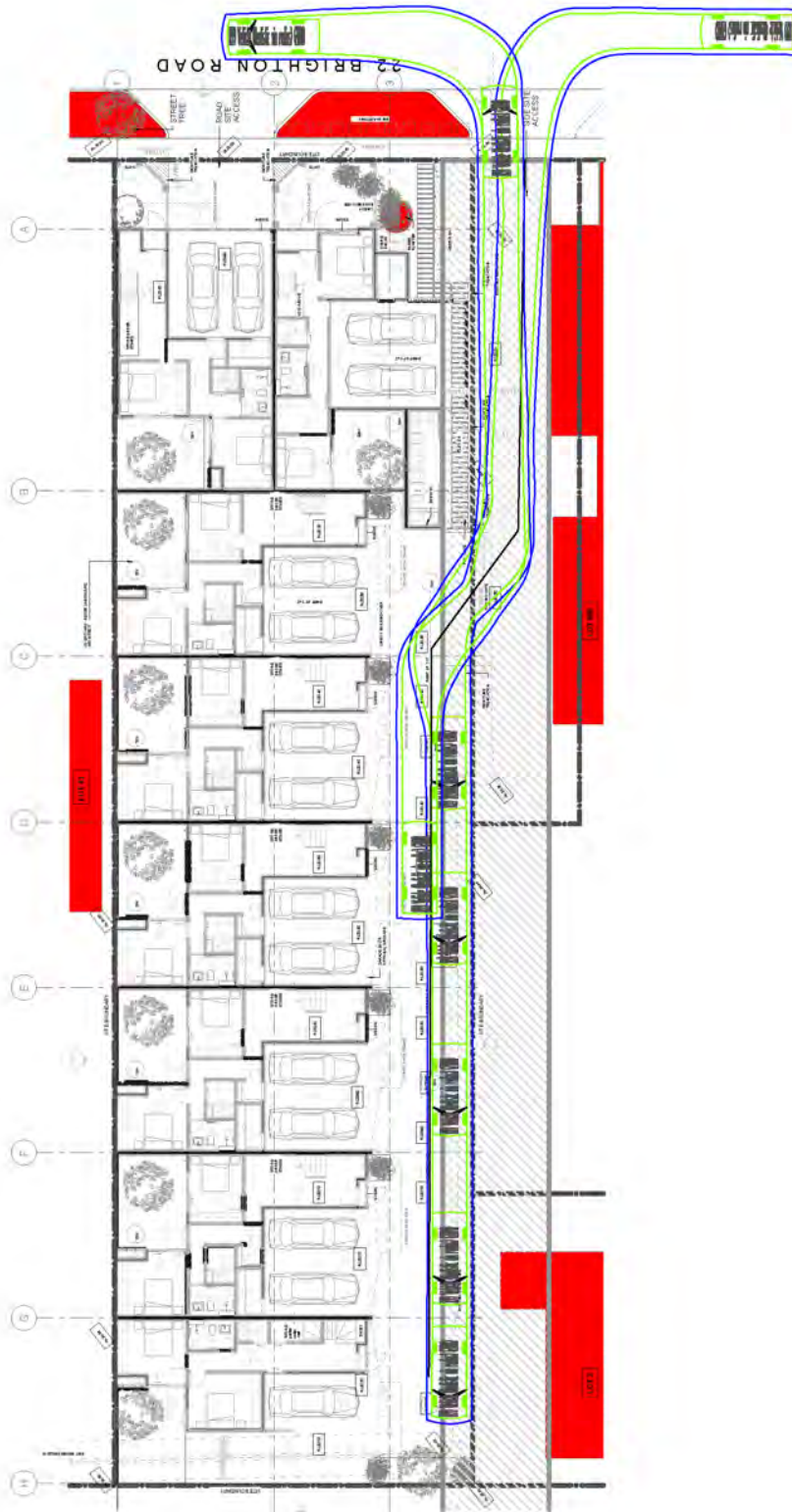
Green represents the vehicle body envelope

Blue represents a 500mm buffer line, offset from the vehicle swept path

The swept path diagrams are also provided separately in high-quality, A3 PDF format.

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Revision notes:

Rev.	Date:
1	07/05/2025

Notes:
Dark blue line represents a 300mm clearance buffer.

Drawn by:
Paul Ghosh

Project:

U25 048—22 Brighton Rd., Scarborough
Proposed Residential Development

Date: _____

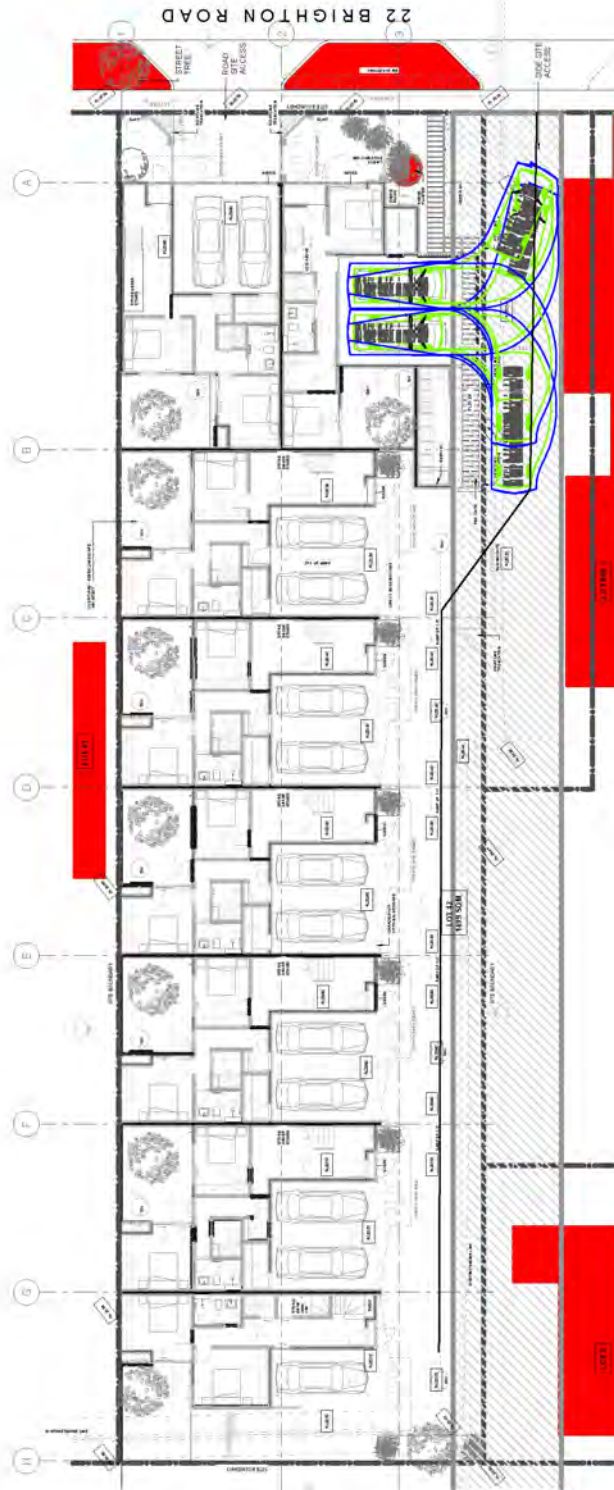
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Date:

02/11/2008
Scale 66

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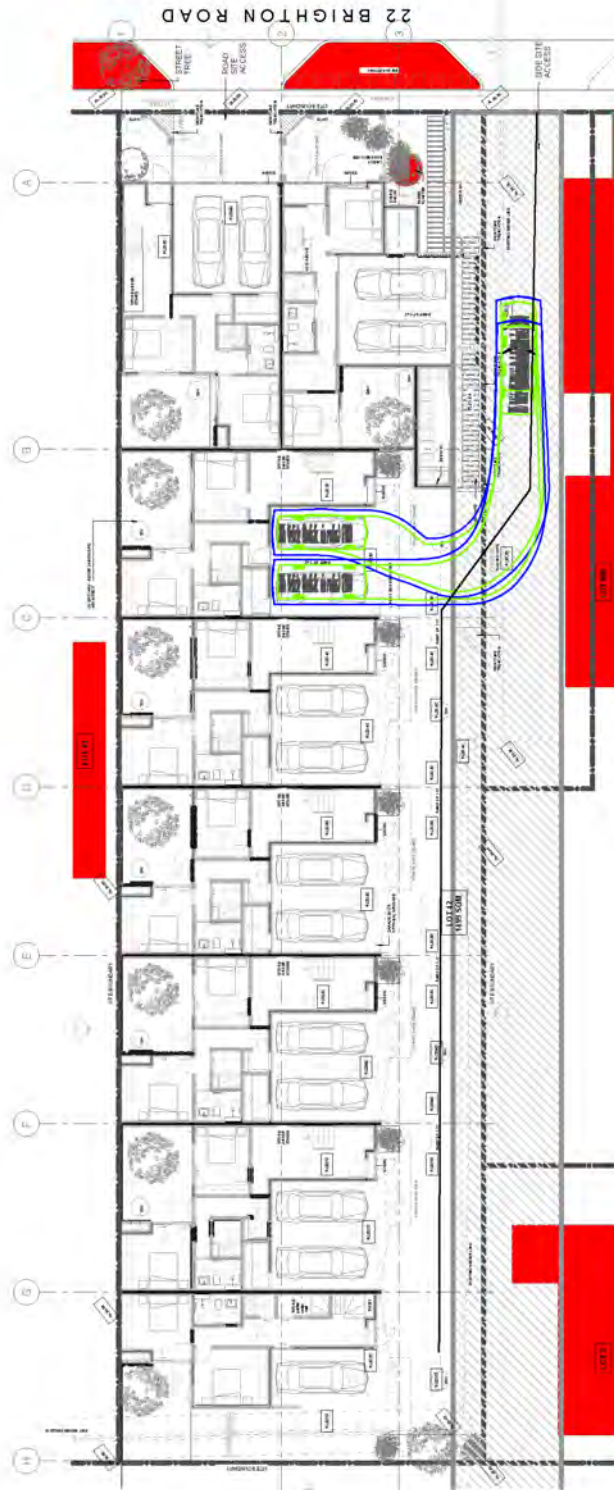


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Revision:	01/01/2025

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Drawing Title:	Site plan analysis AS2000.1 - 885 Vehicle

Drawn by:	Paul Chittenden
Client:	Brighton Road (VA) Pty Ltd

Revision notes:	
Rev:	1
Date:	07/05/2025
Note:	Dark blue line represents a 300mm clearance buffer.



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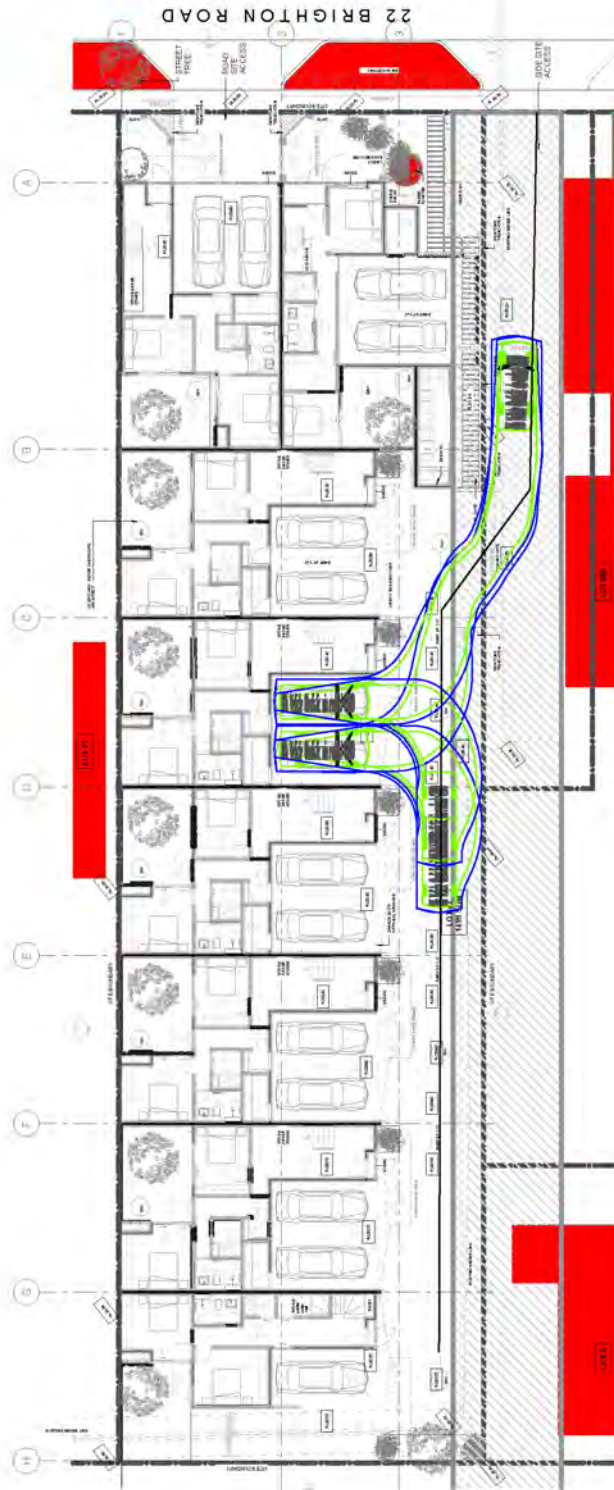
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Proposed Residential Development
Drawing Title: Street path analysis
AS2500.1 - 80% Vehicle

Drawn by: Paul O'Hara
Client: Brighton Road (VA) Pty Ltd

Revision notes:
Rev: 1 Date: 07/05/2025
Note: Dark blue line represents a 300mm clearance buffer.





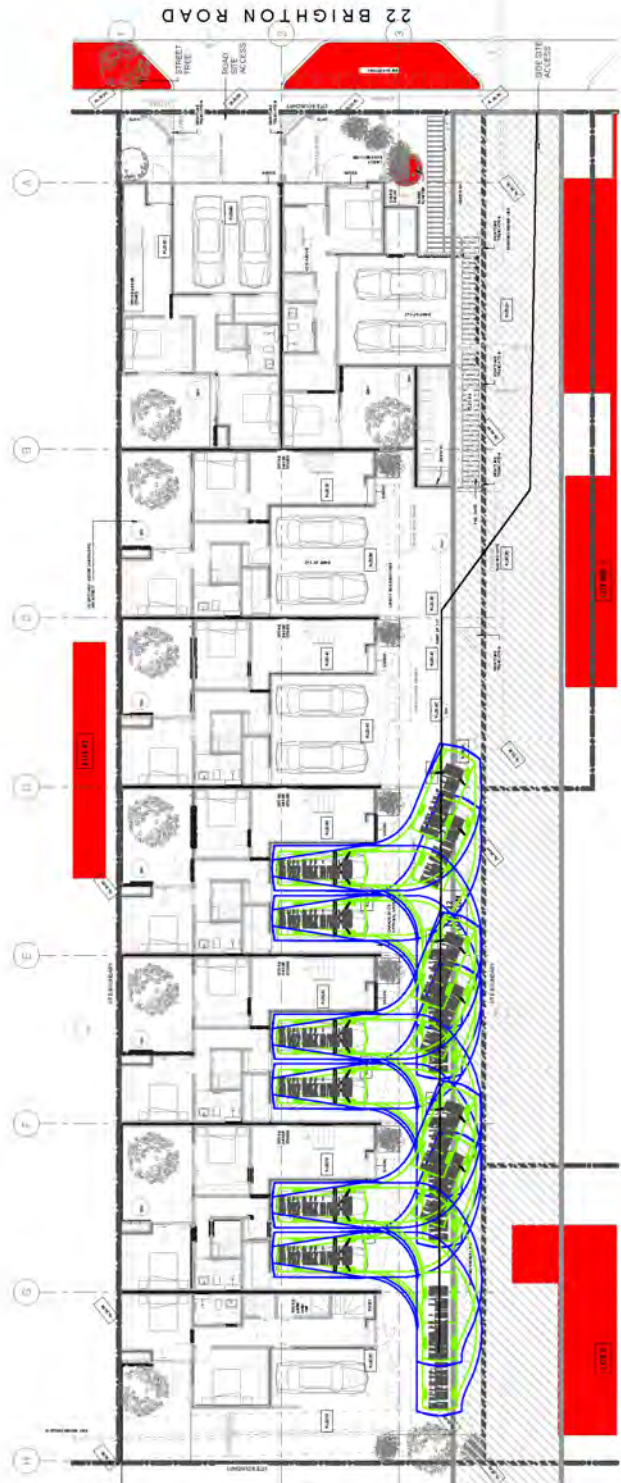
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Canada (416) 763-8888

Date: 02/11/2025
Scale: A3
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Revision: 04/04/25

Project: U25.048 - 22 Brighton Rd., Scarborough
Proposed Residential Development
Drawing Title: Street path analysis
AS2500.1 - 865 Vehicle

Drawn by: Phil Gifford
Client: Brighton Road (NVA) Pty Ltd

Revision notes:
Rev: 1 Date: 07/05/2025
Note: Dark blue line represents a 300mm clearance buffer.



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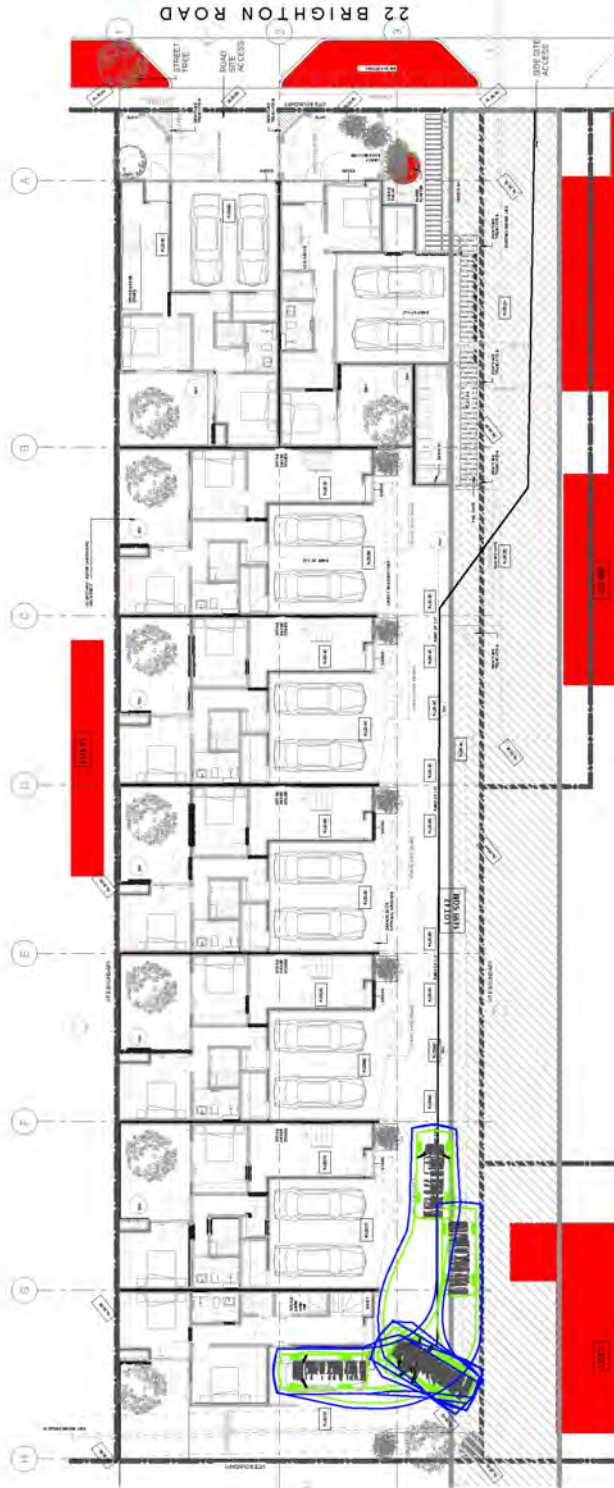
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AS2500 1 - 865 Vehicle

Drawn by: Phil Gifford
Client: Brighton Road (VA) Pty Ltd

Revision notes:	
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Note: Dark blue line represents a 300mm clearance buffer.	

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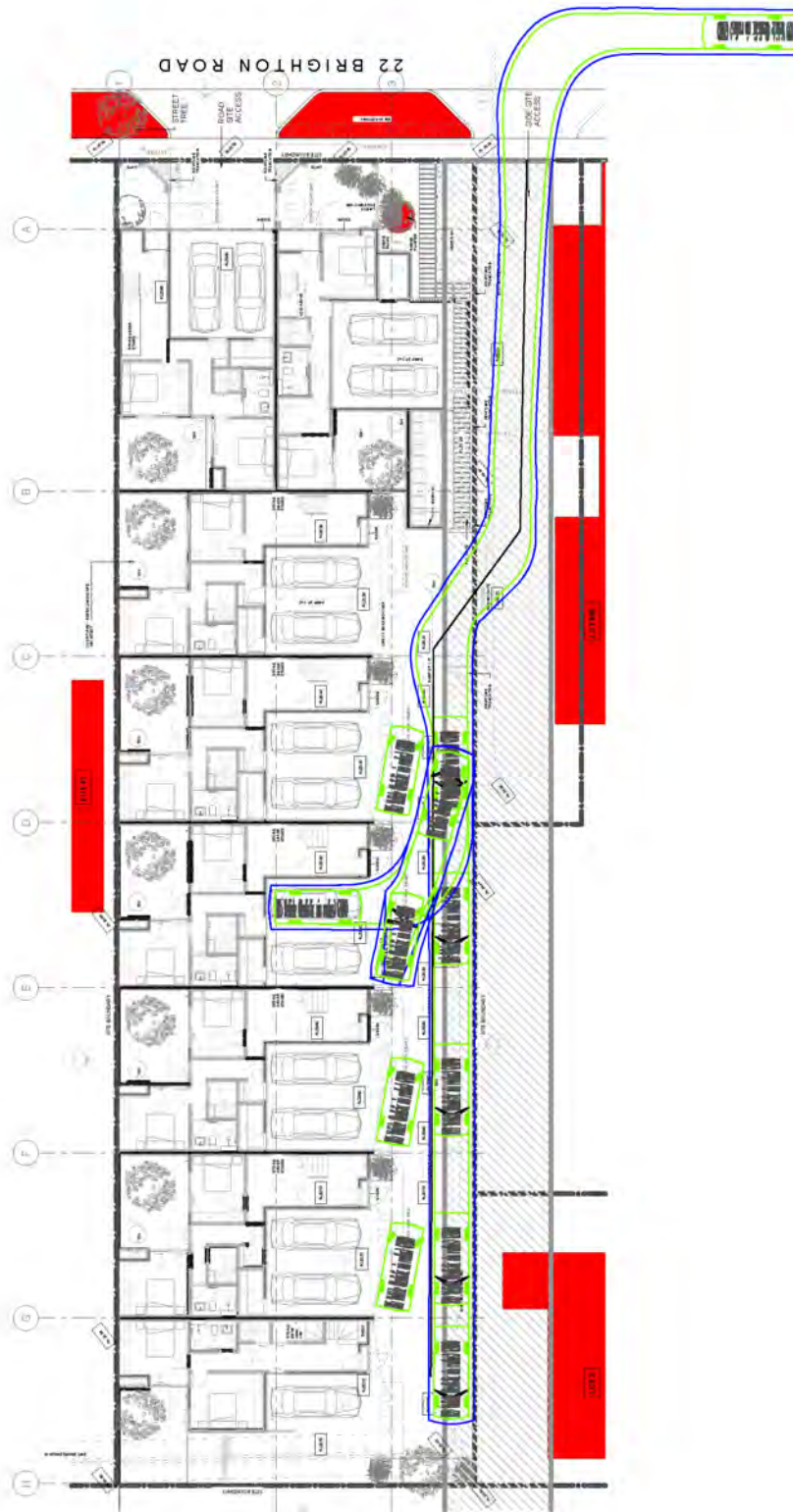
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info@urbii.com or 1-800-URBII-104

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Drawn by: Paul Chetrous	Client: Brighton Road (Wals) Pty Ltd
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Rev.	Date
1	07/05/2025
	Notes Dark blue line represents a 200mm distance buffer.



Revision notes:
Rev: 1
Date: 02/11/2025

Note:
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Client:
Brighton Road (VA) Pty Ltd

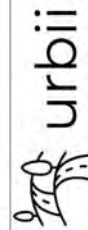
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Drawing Title:
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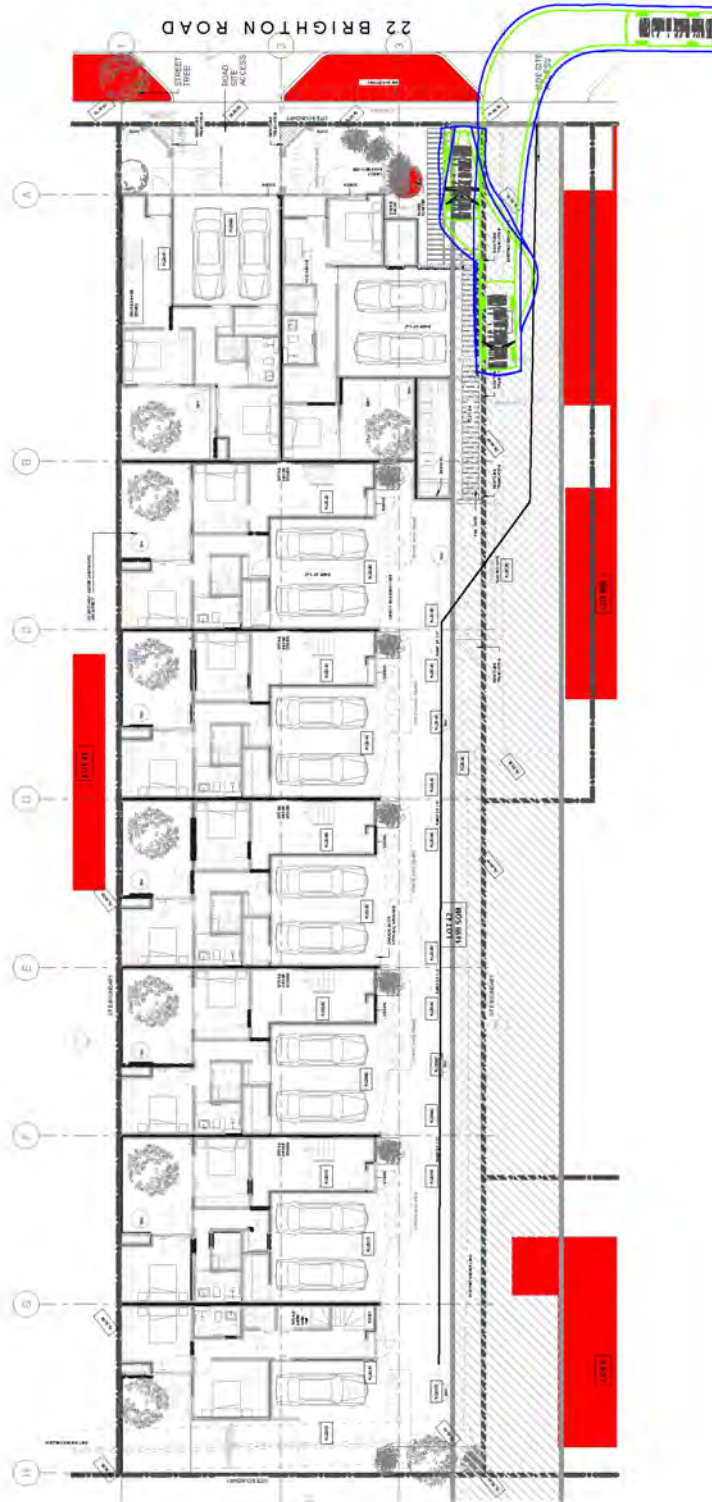
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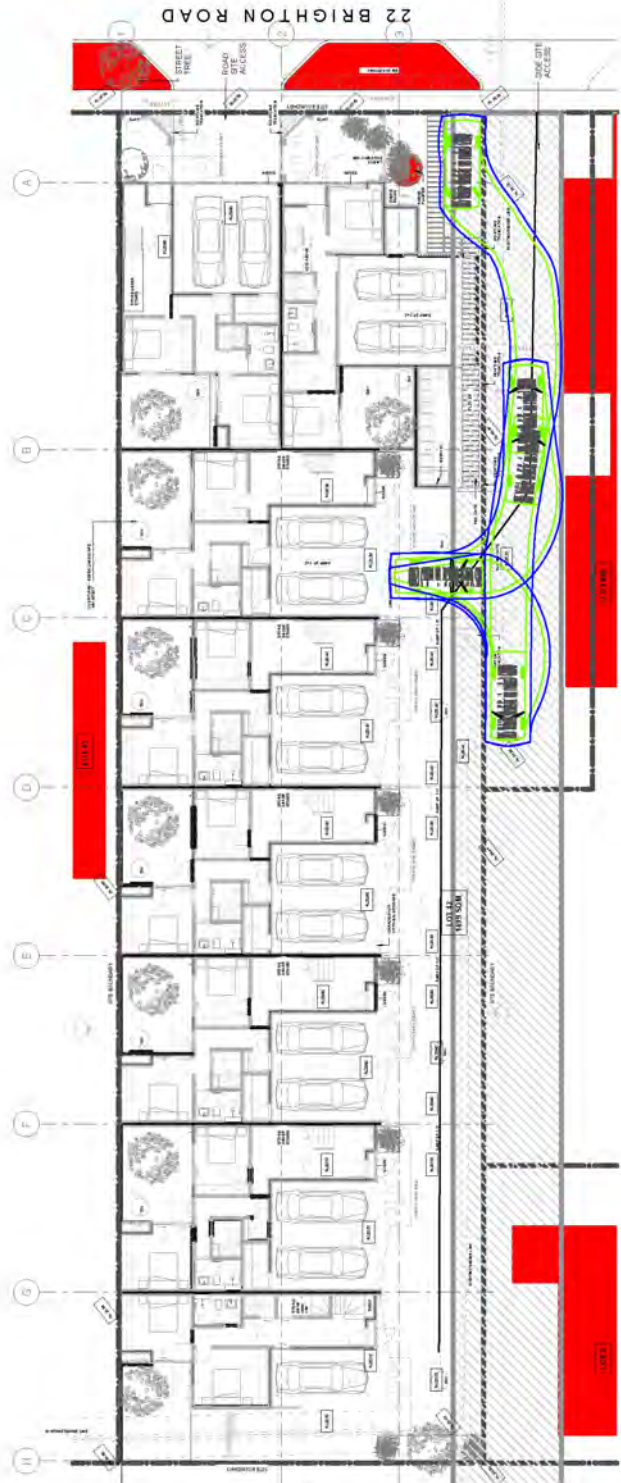
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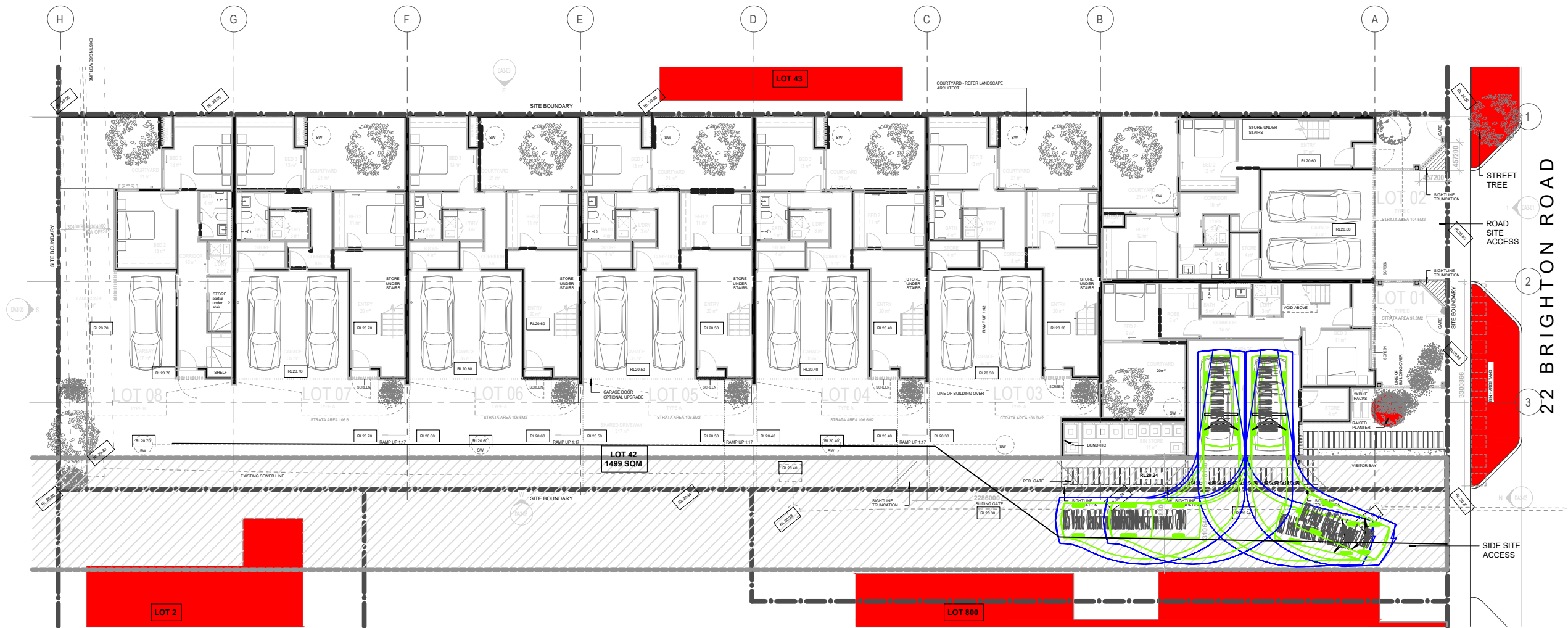
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Client: Brighton Road (VA) Pty Ltd

Revision notes:	
Rev.	Date
1	02/11/2025

Note: Dark blue line represents a 300mm clearance buffer.





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Rev:	Date:	Notes:
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Client:
Brighton Road (WA) Pty Ltd

Project:
U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
Drawing Title:
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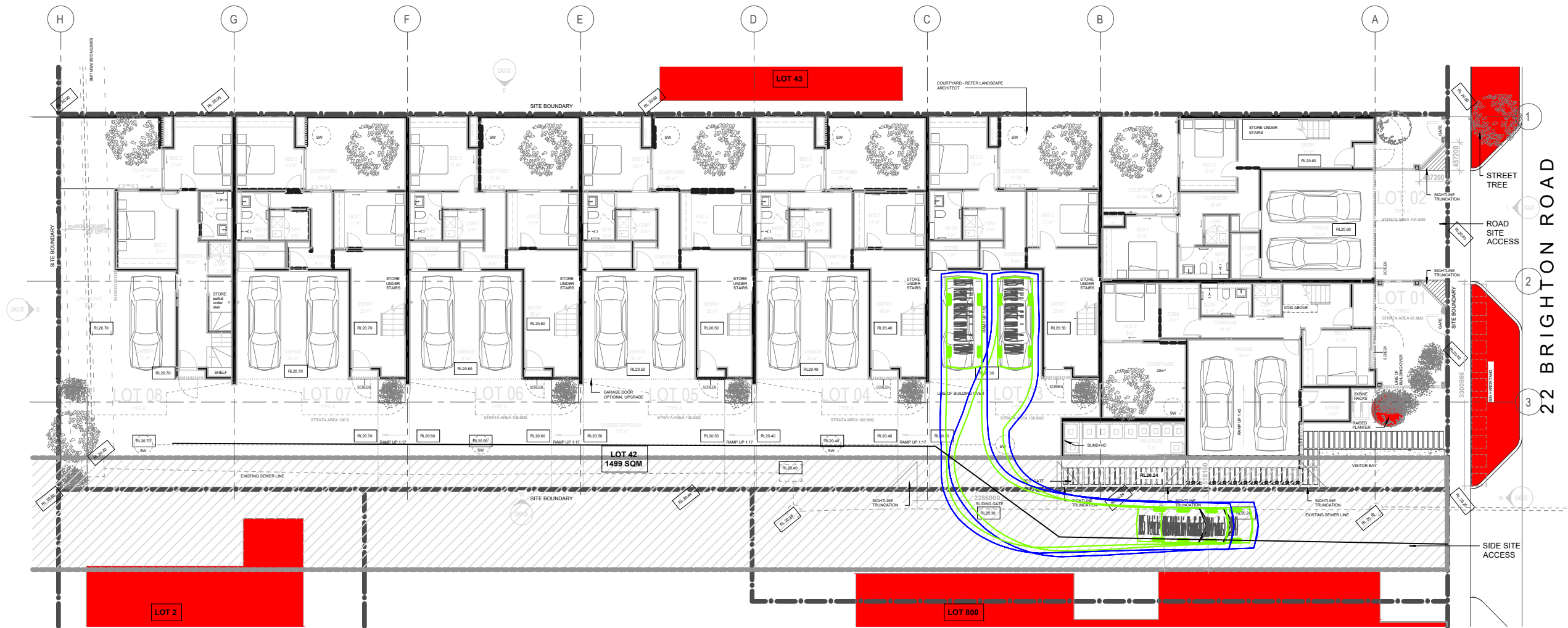
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Rev:	Date:	Notes:
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Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
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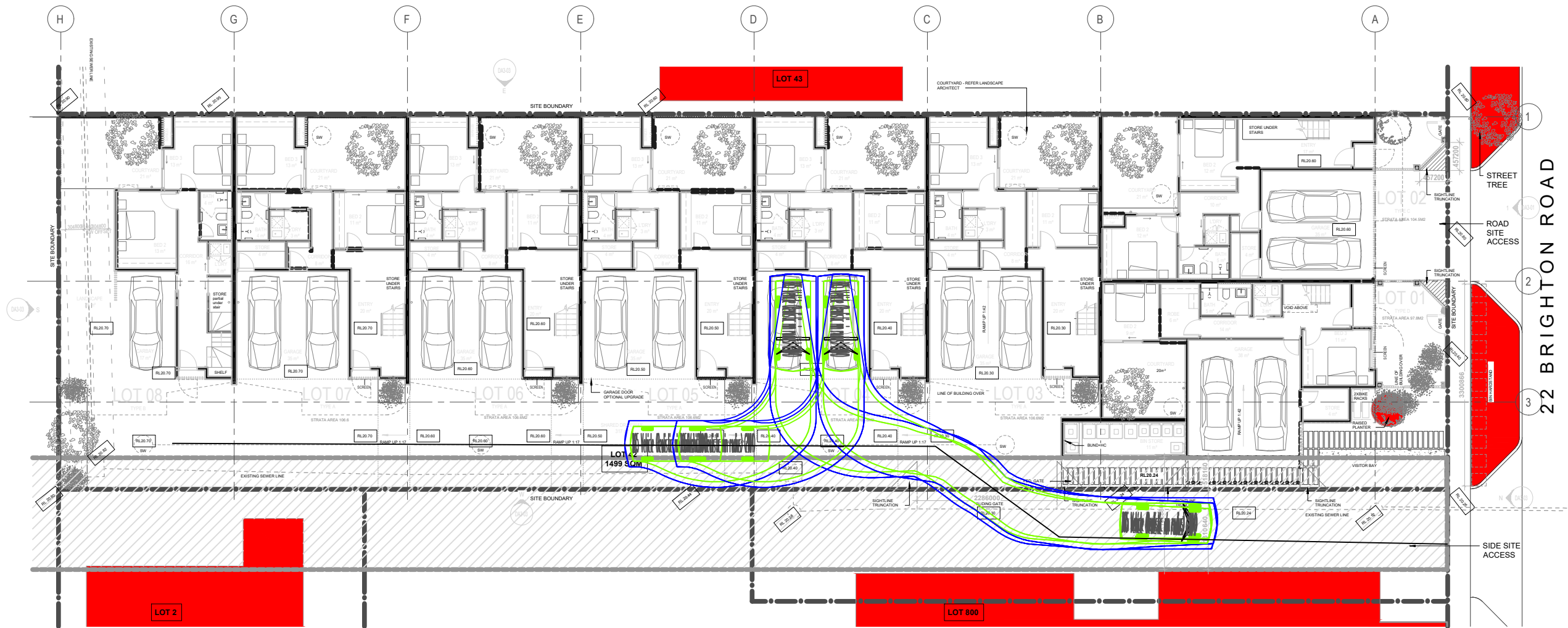
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Rev:	Date:	Notes:
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Drawn by:	Paul Ghantous
Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
Drawing Title:	Swept path analysis AS2890.1 - B85 Vehicle

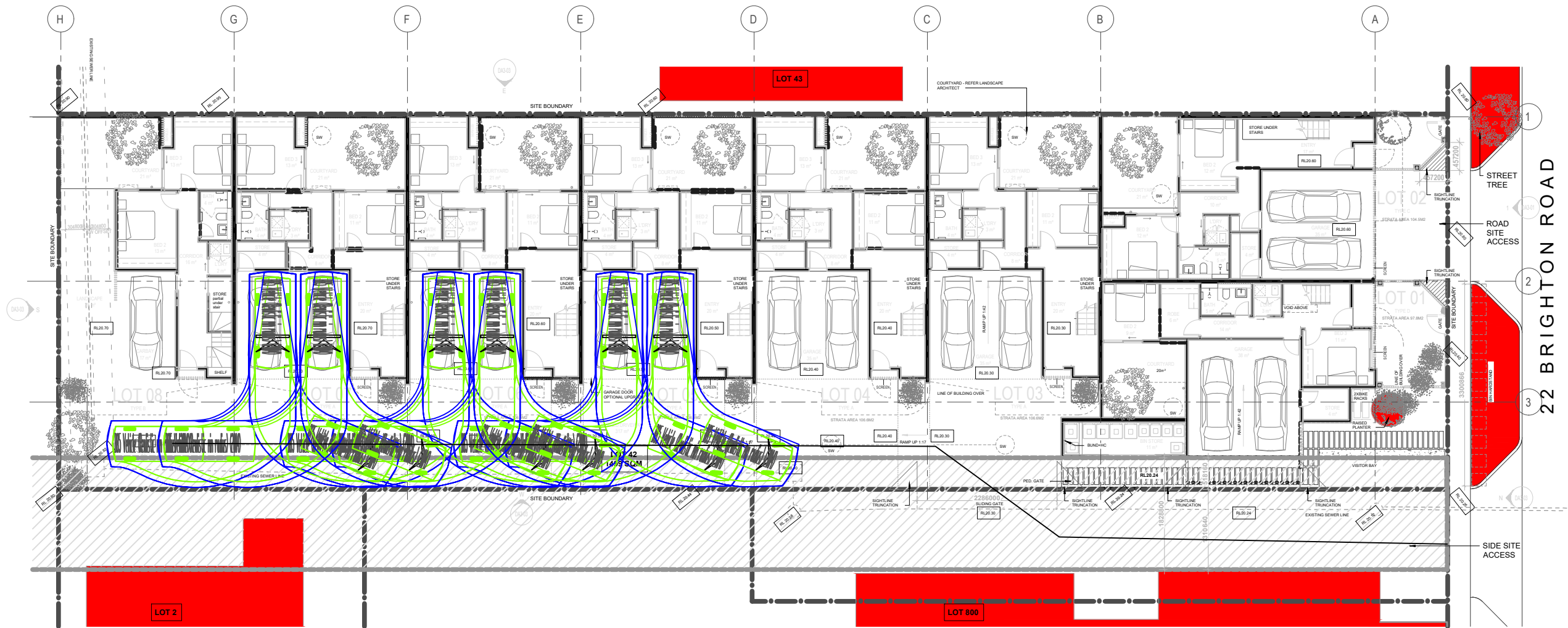
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Revision notes:		
Rev:	Date:	Notes:
1	07/05/2025	Dark blue line represents a 300mm clearance buffer.

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Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
Drawing Title:	Swept path analysis AS2890.1 - B85 Vehicle

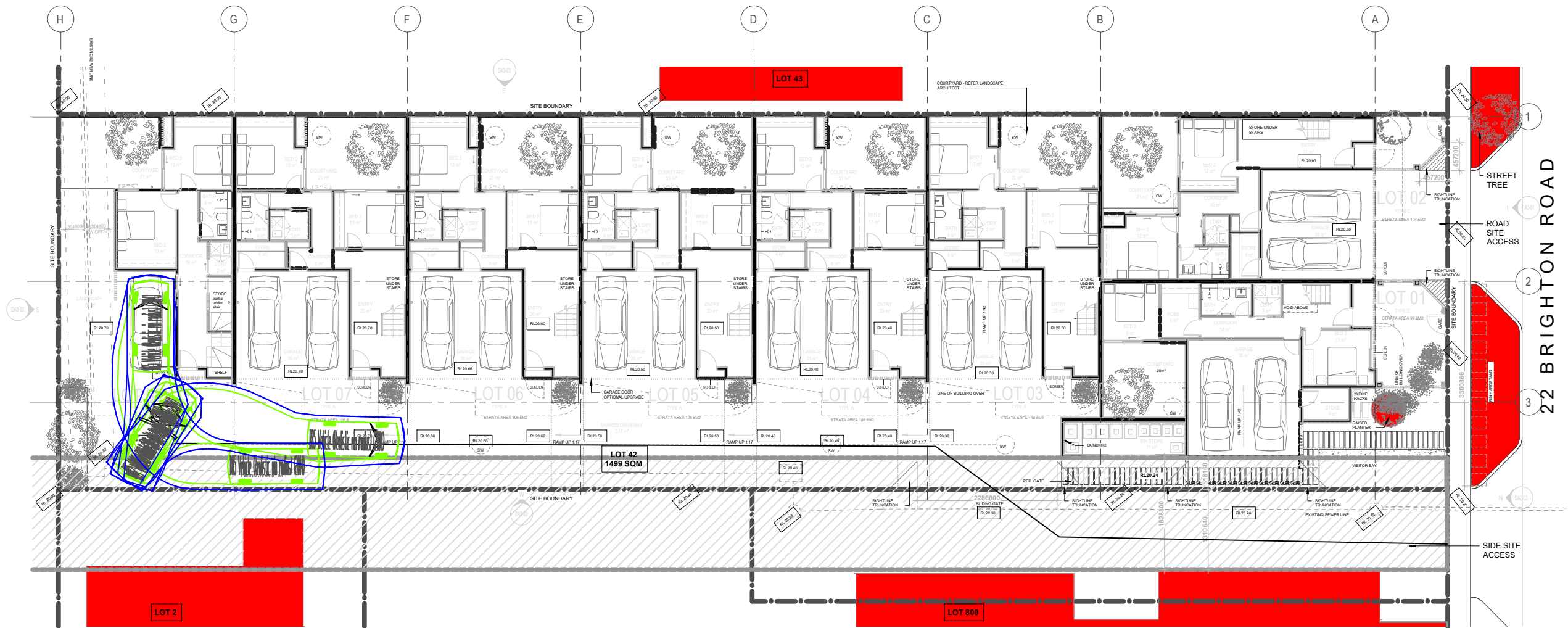
Date:	02/11/2025
Scale @ A3:	1:250
Revision:	sk05a



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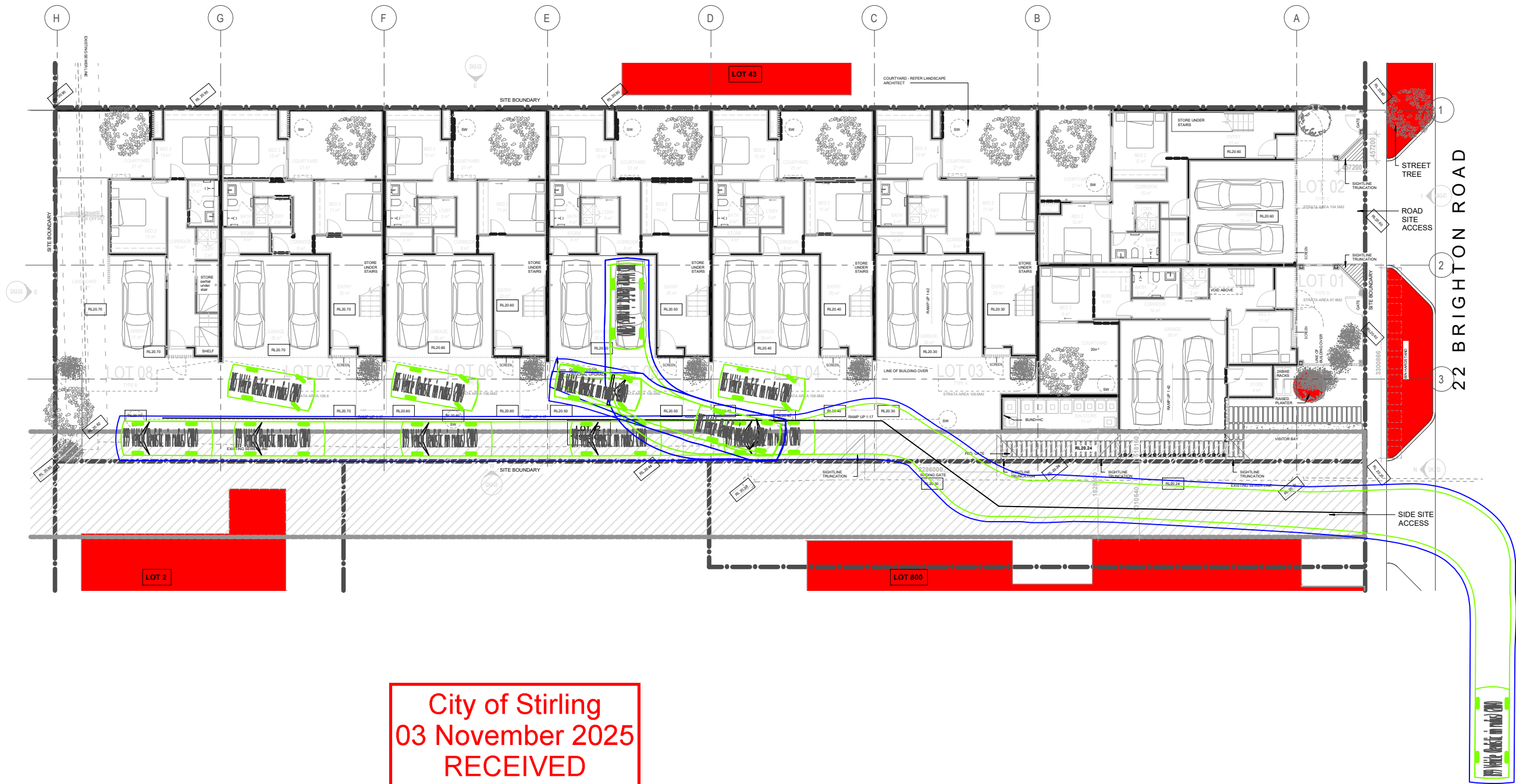
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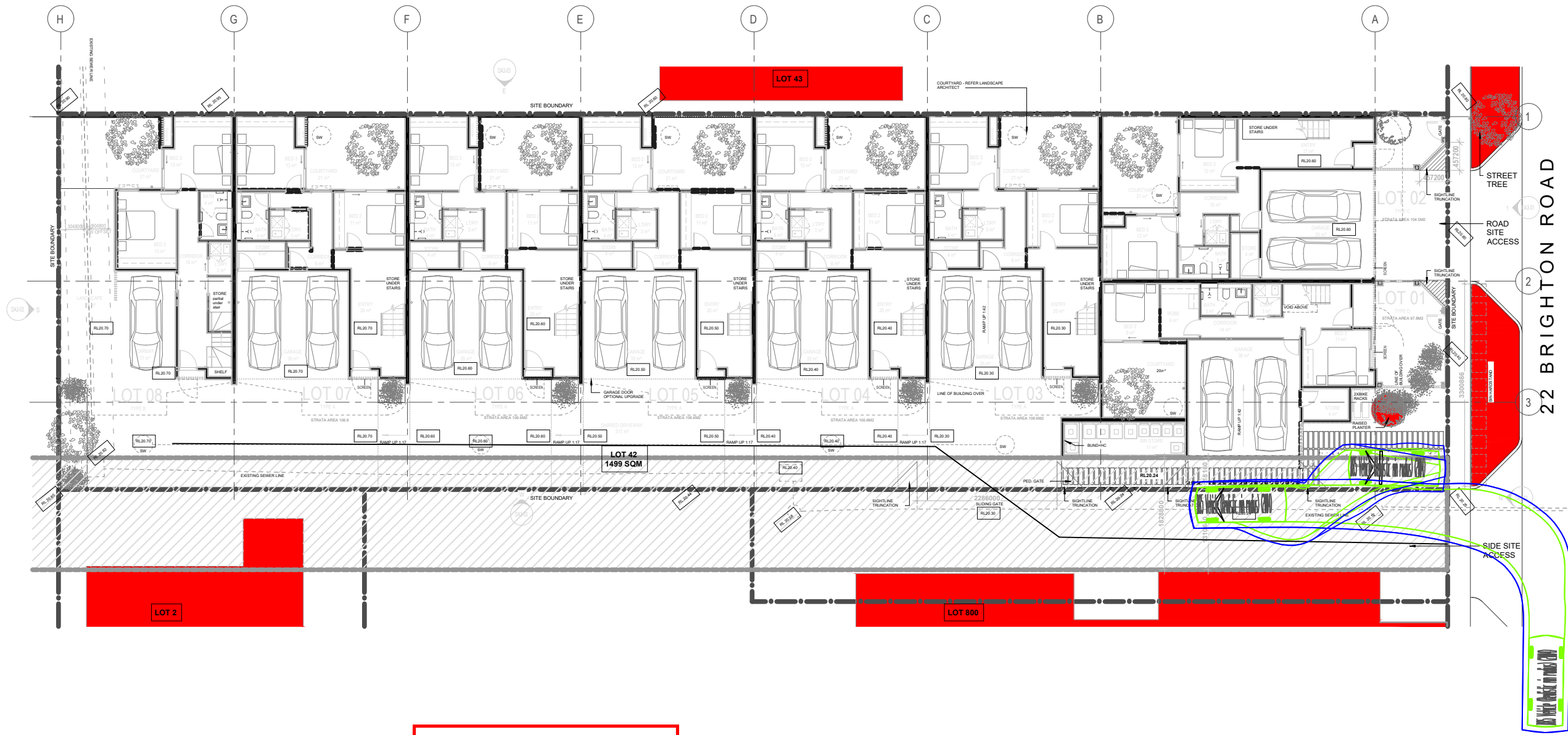
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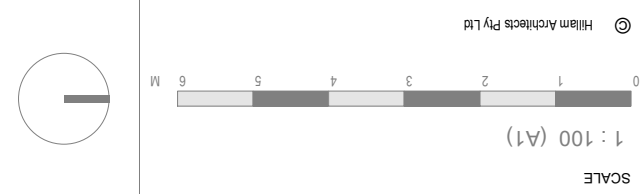
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12 05 2025	A	DAP SUBMISSION	DESCRIPTION	REV	DATE
	AJ	LS	REVISION		
	TLM	CHKD	CREATED		

PROJECT NO.

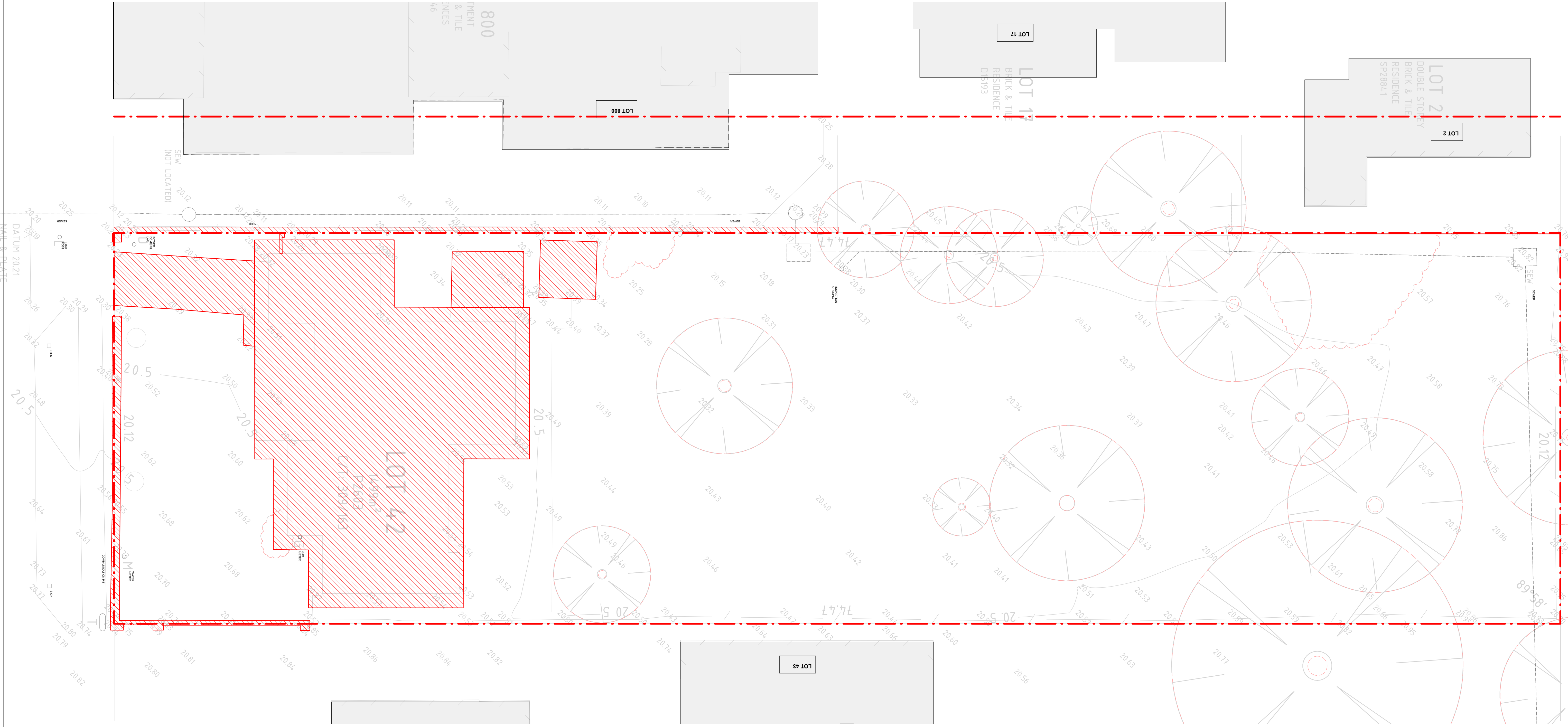
2505

DWG NAME
DEMOLITION PLAN

DWG NO.
DA1-02

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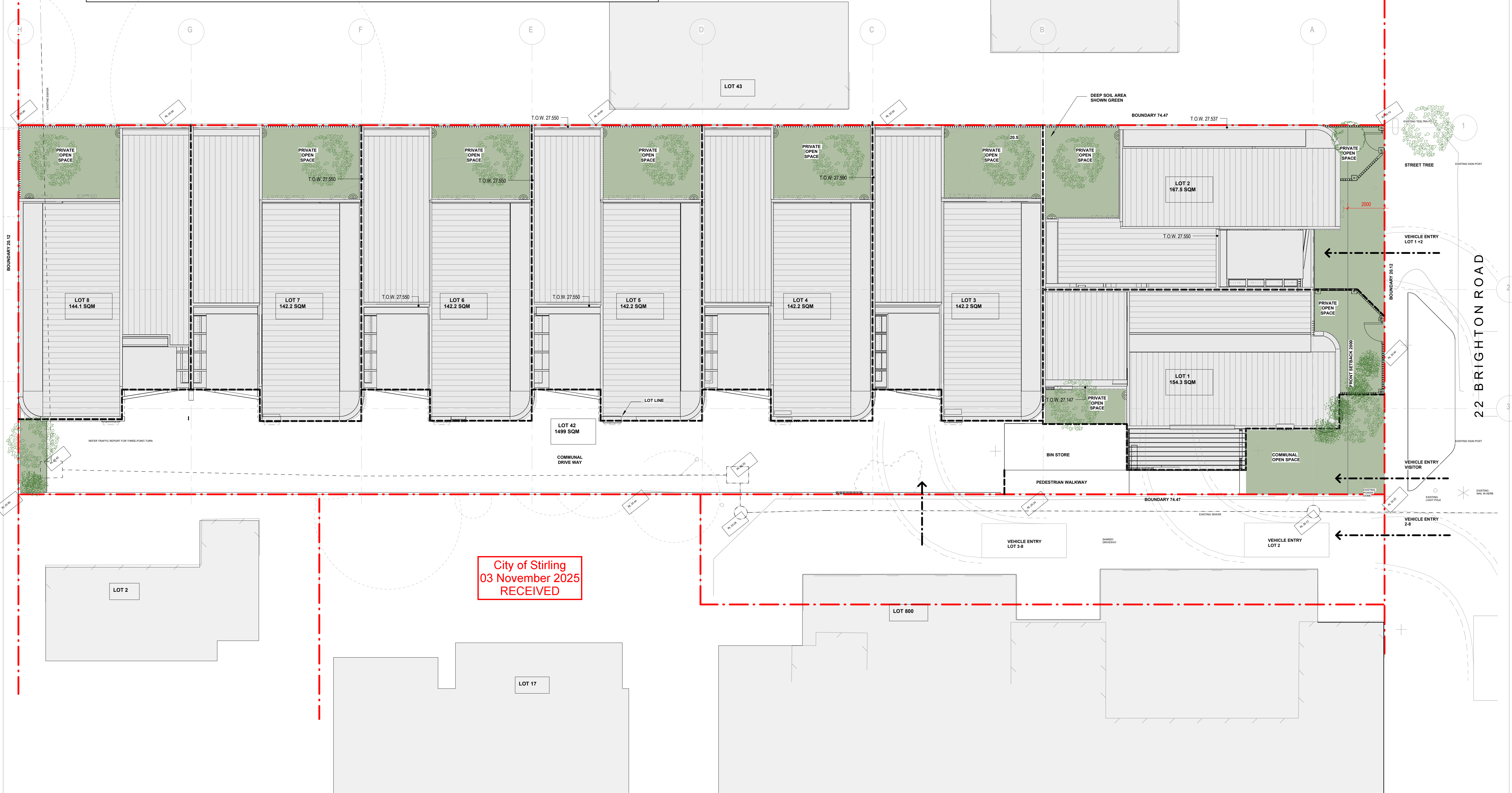
OVERALL LANDSCAPE AREA CALCULATIONS

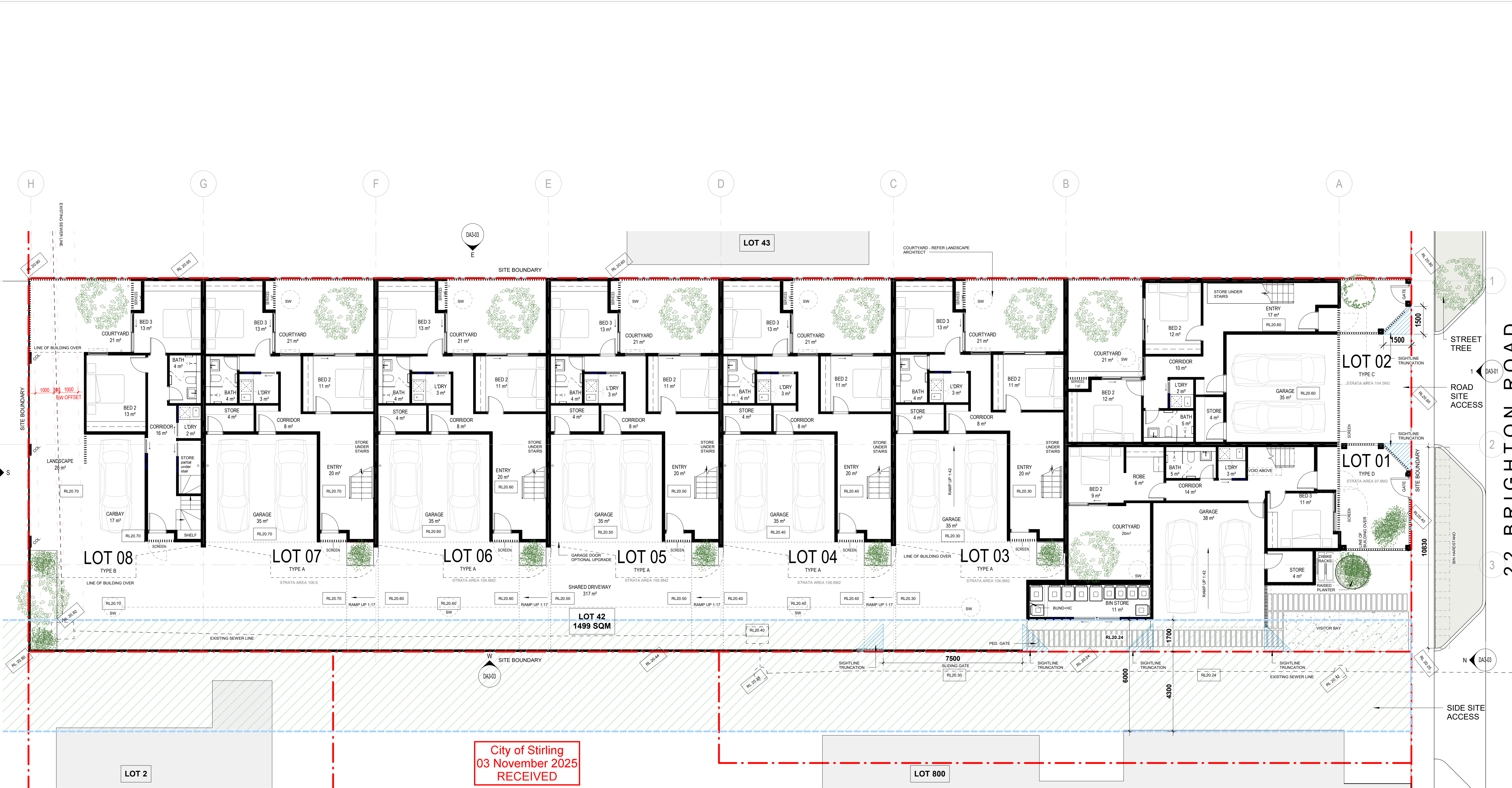
SITE AREA
Total site area = 1499m²
LANDSCAPE AREAS
Total Landscape areas (all levels) = 214m² (14.2% of site)
DEEP SOIL AREAS (DSA)
Ground Floor (into natural earth)= 192m²
Total = 192m² (12.8% of site)
CANOPY COVER
Proposed Medium Trees (6m canopy) x 1 = 28.3m²
Proposed Small Trees (4m canopy) x 11 = 138.6m²
Total Canopy Cover = 166.9m² (11.1% of site)

LANDSCAPE CALCULATIONS - REFER LANDSCAPE REPORT FOR FULL DETAIL

GROUP DWELLINGS CALCULATIONS

Lot/Unit	Lot Area	Landscaped Area	Front Setback %	No. of Trees
1	154m ²	32.5m ² (21%)	13.3m ² (44%)	2
2	167.5m ²	23.2m ² (16.3%)	2.4m ² (6%)	1
3	142m ²	22.7m ² (15.9%)		1
4	142m ²	22.7m ² (15.9%)		1
5	142m ²	22.7m ² (15.9%)		1
6	142m ²	22.7m ² (15.9%)		1
7	142m ²	22.7m ² (15.9%)		1
8	144m ²	22.7m ² (15.9%)		1
Common Area	324m ²	30m ² (9.2%)	16m ² (49%)	3
Total Area	1499m ²	223.9m ² (14.9%)	31.7 (32.2%)	12



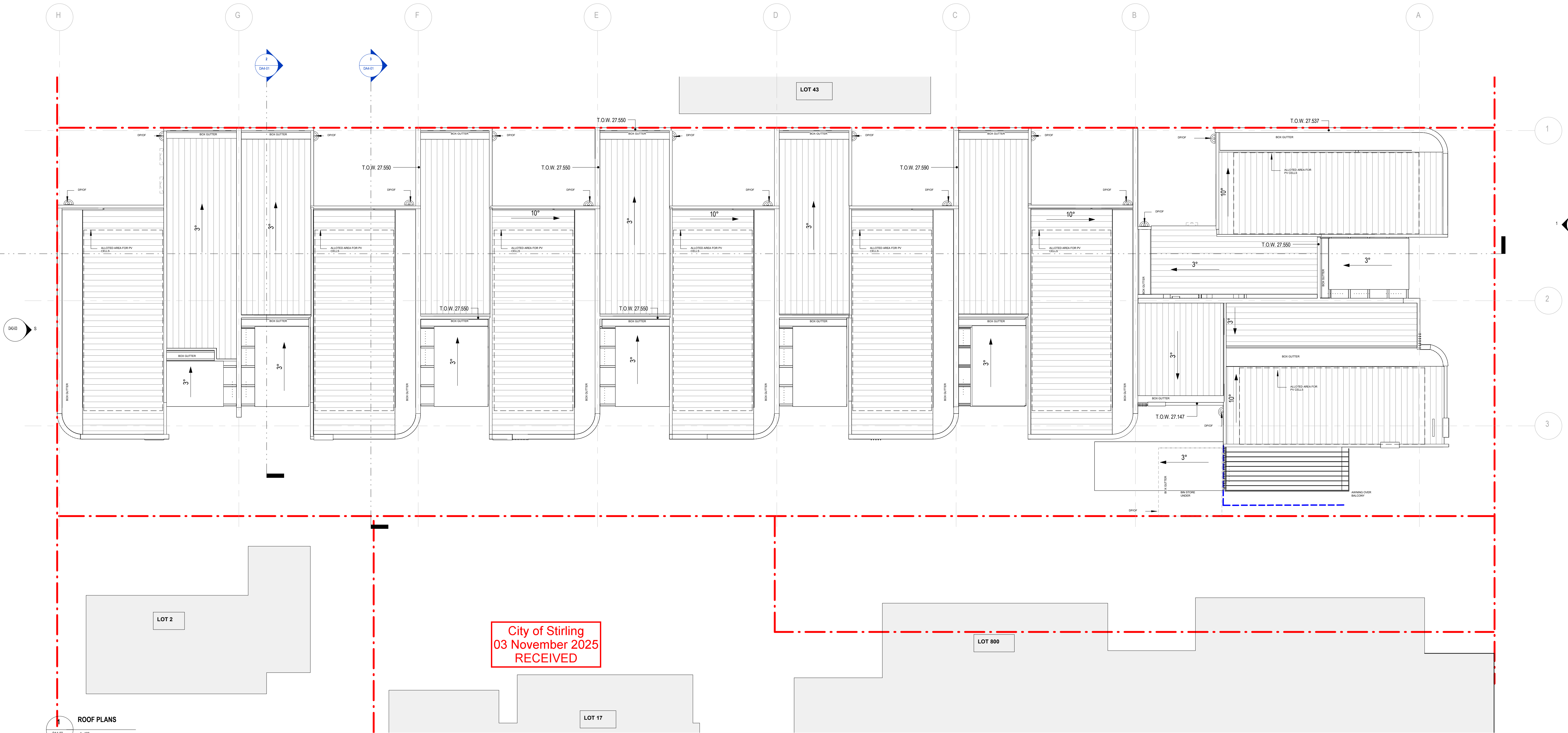


1 GROUND FLOOR PLANS
DA3-01 1:100

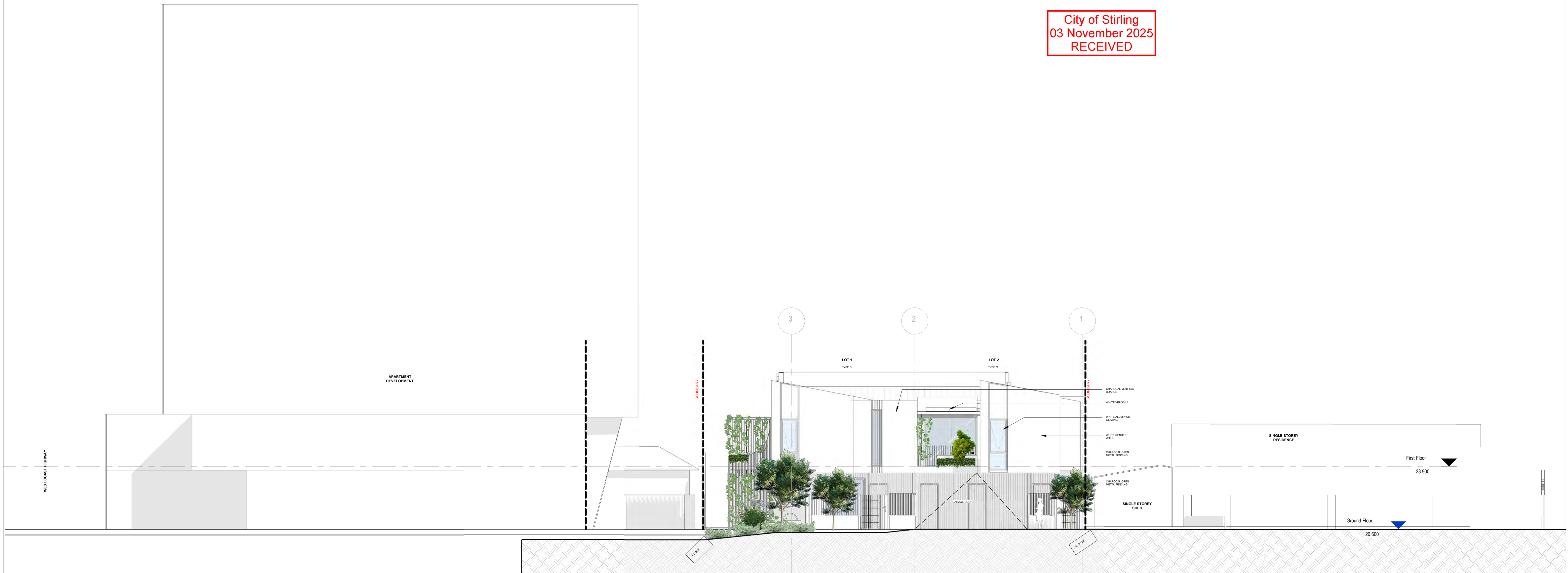


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1 LEVEL 1 FLOOR PLANS
DA3-01 1:100



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1 BRIGHTON ROAD STREET CONTEXT ELEVATION
DA2 04 1:100

2505

22 BRIGHTON ROAD, SCARBOROUGH



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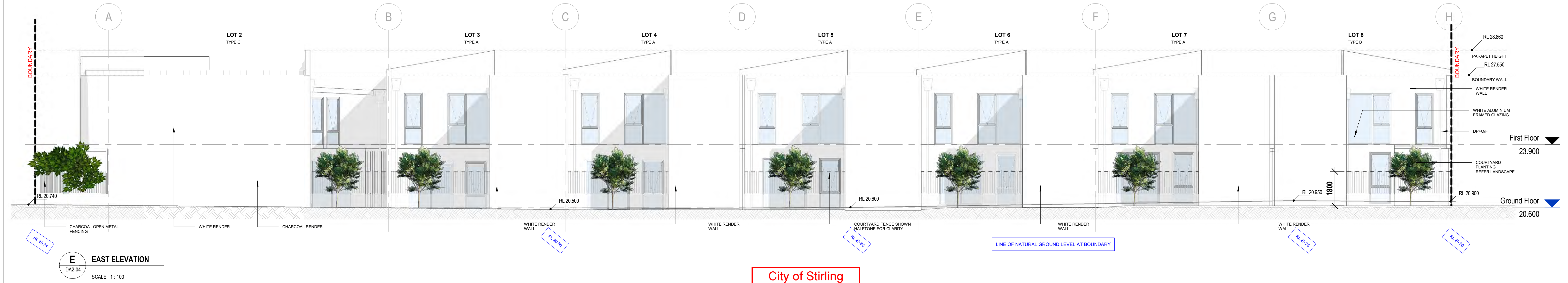
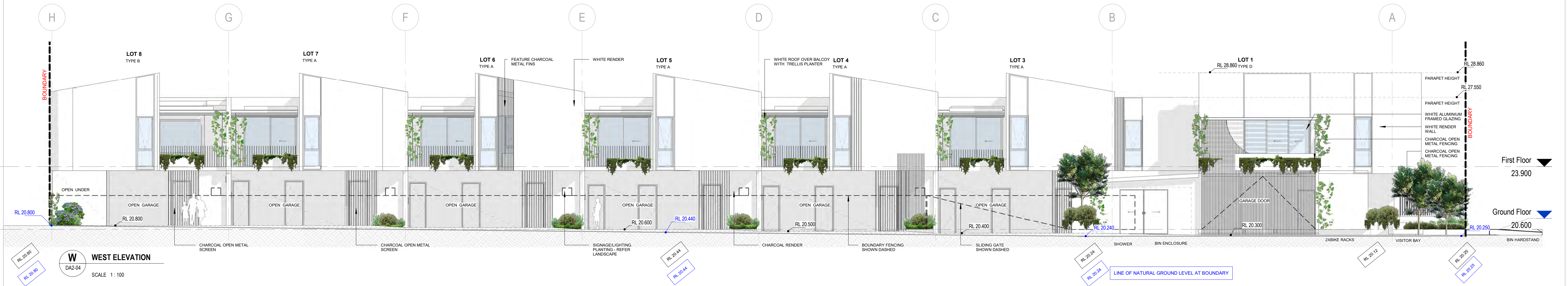
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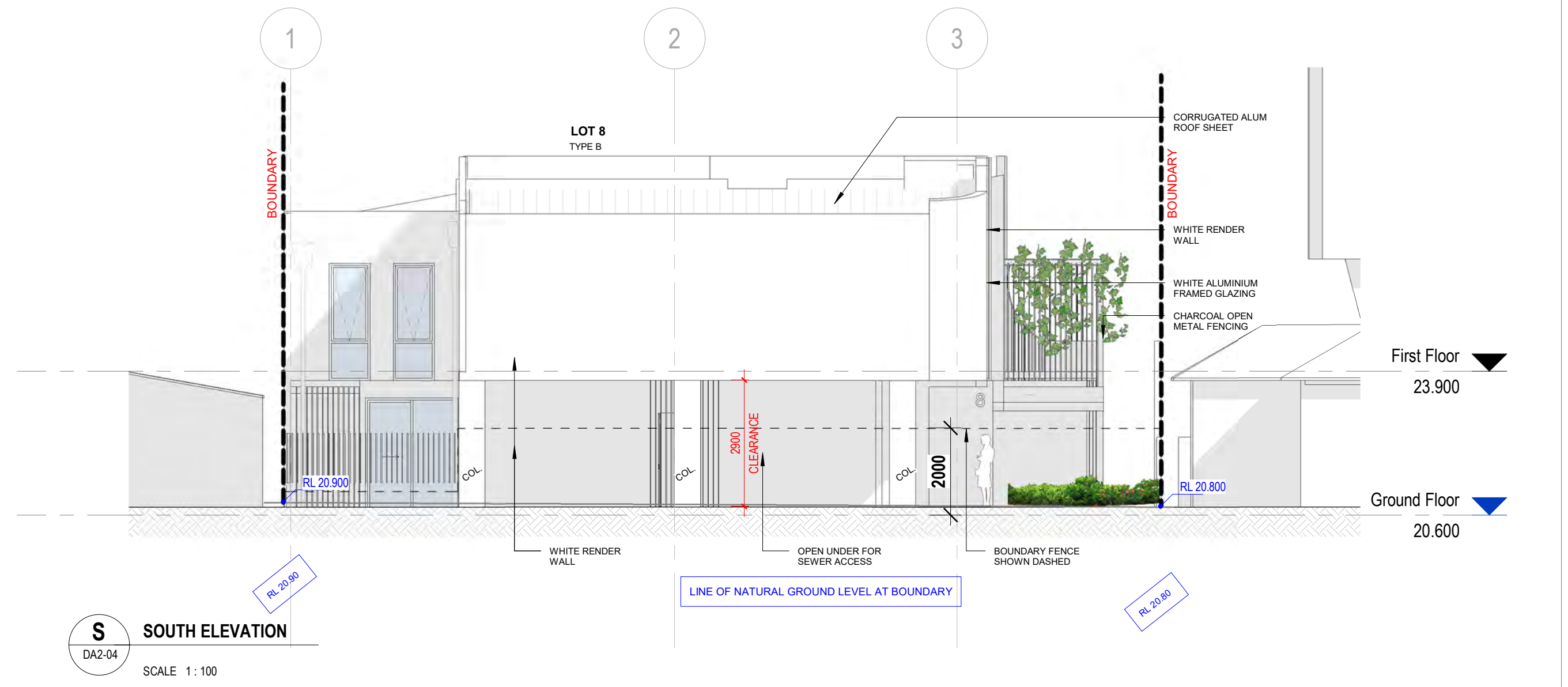
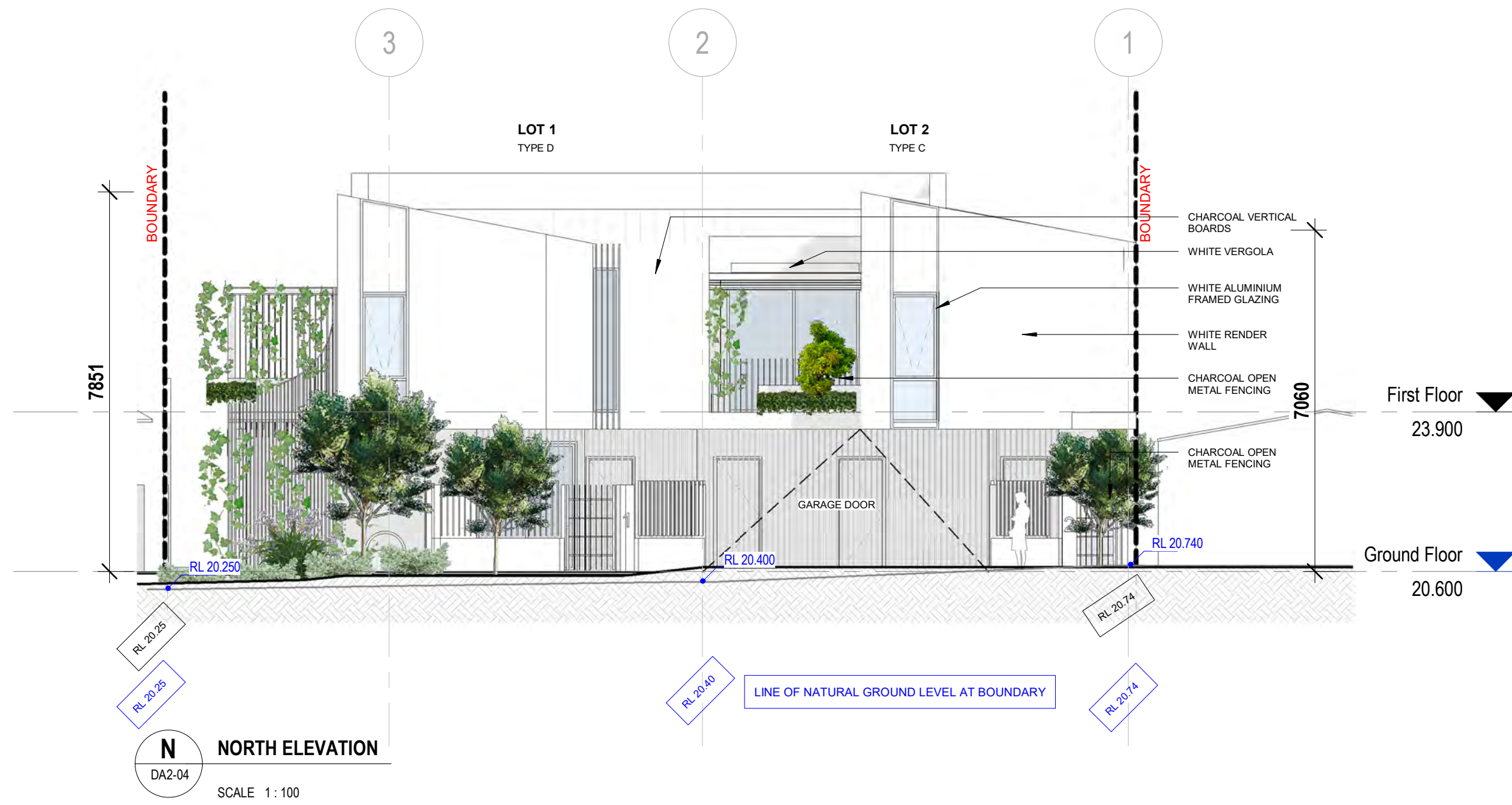
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STREET ELEVATION

DWG No.
DA3-01

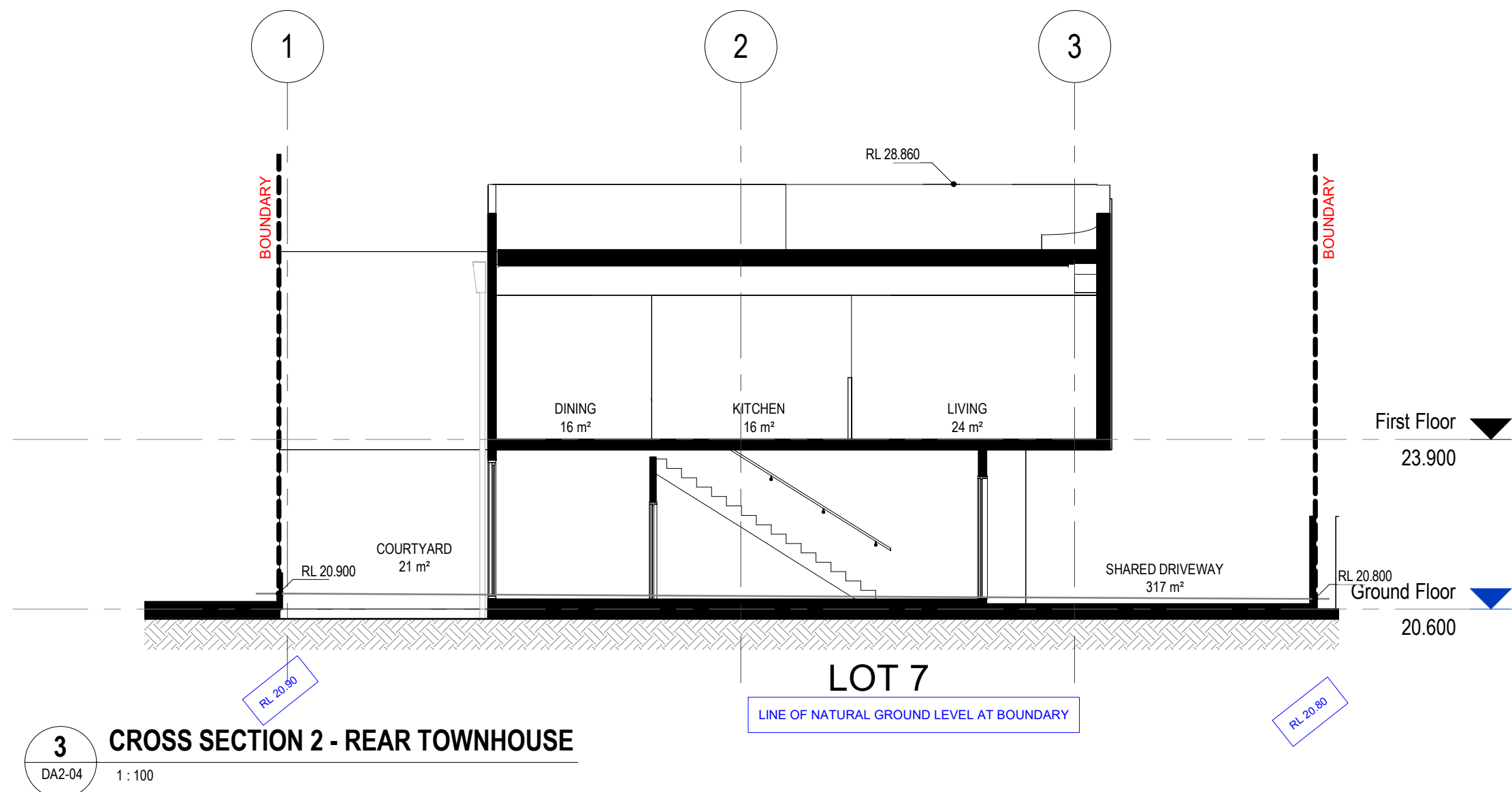
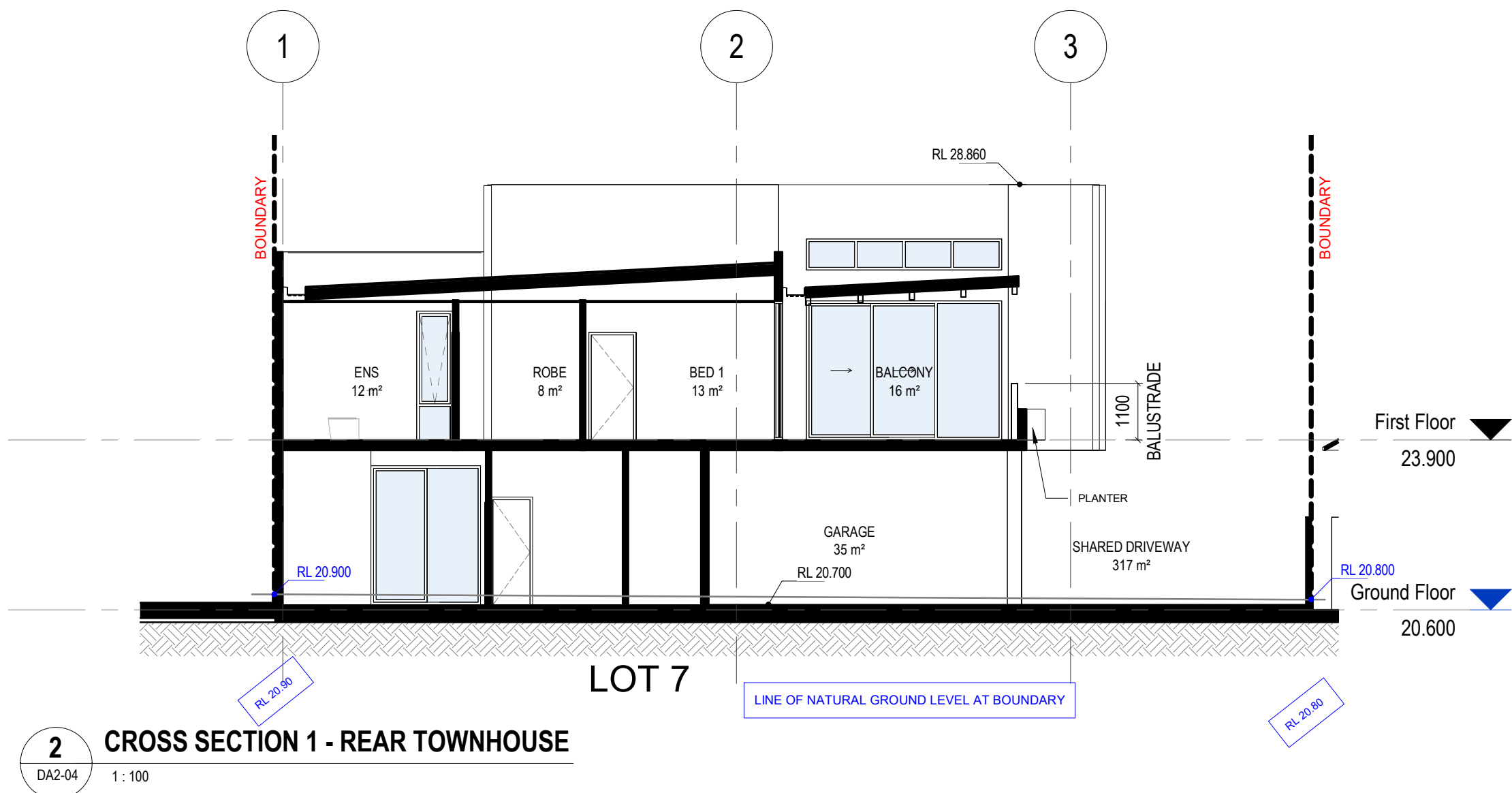
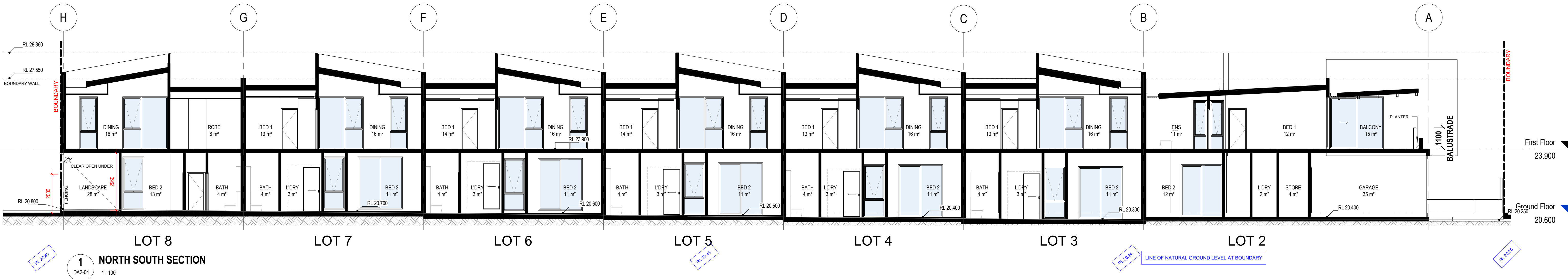
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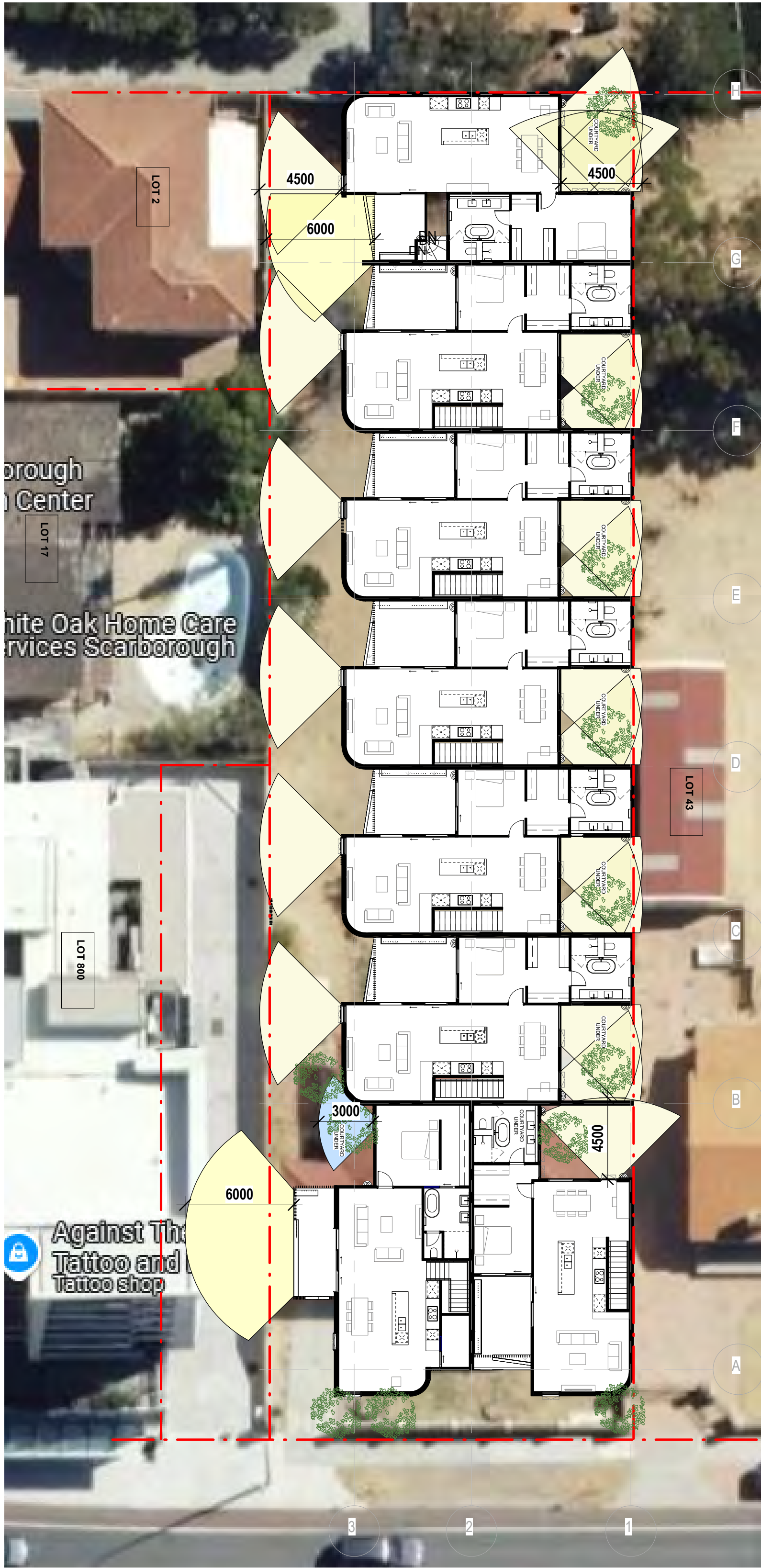


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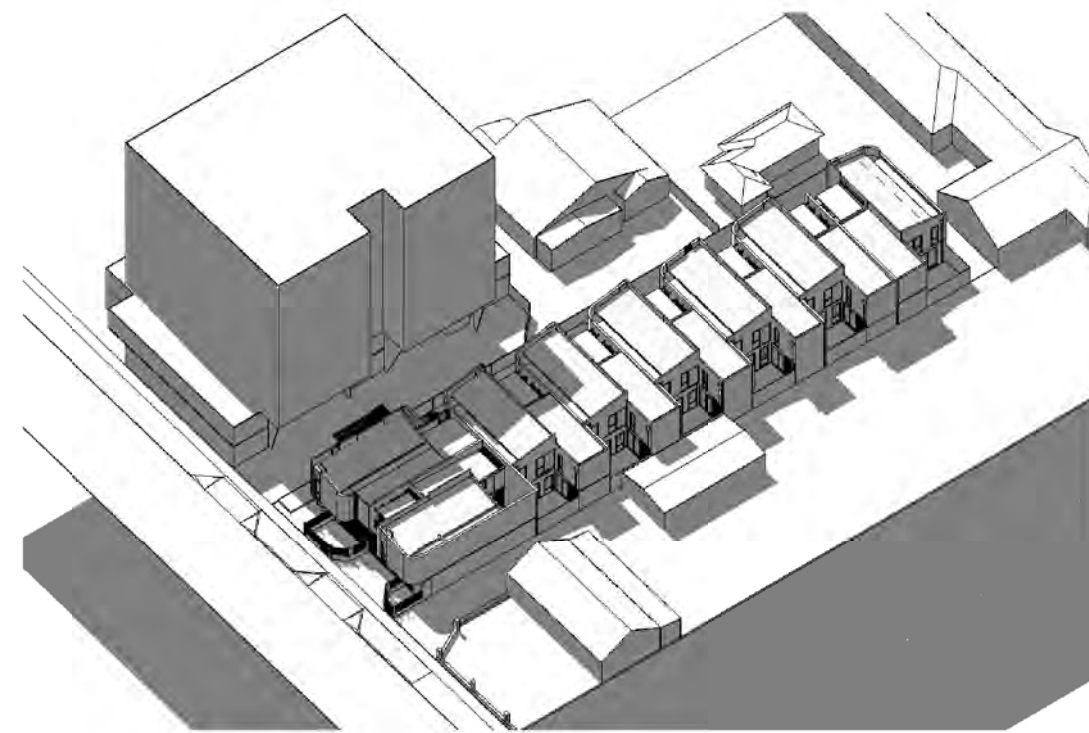
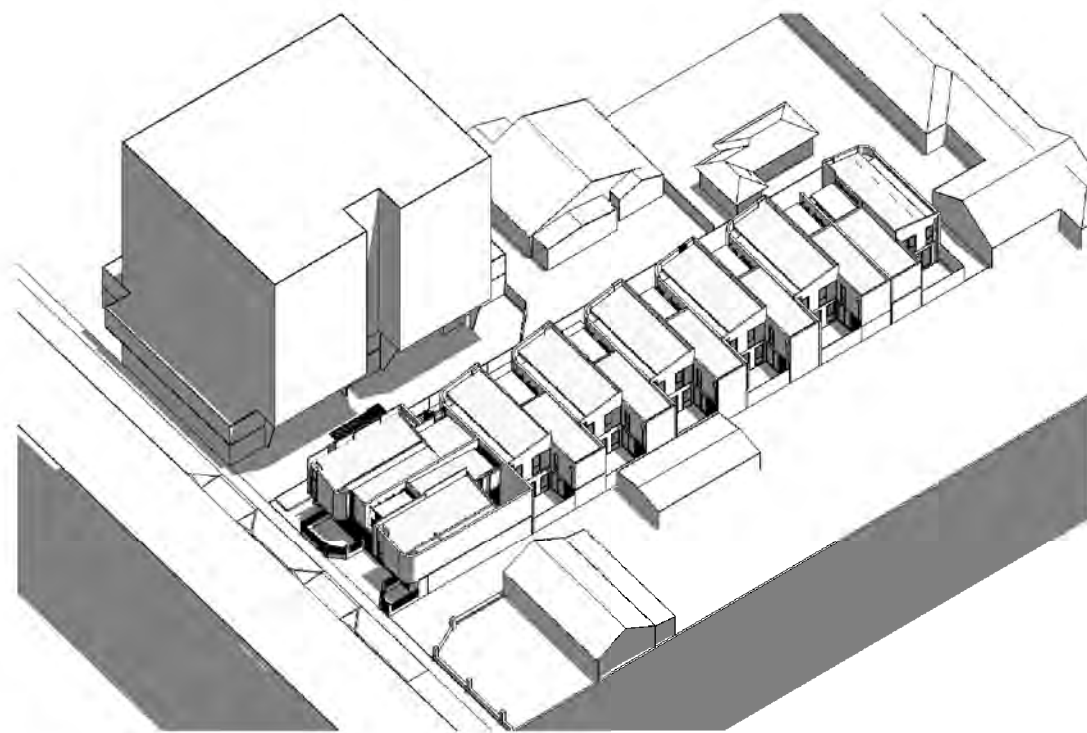
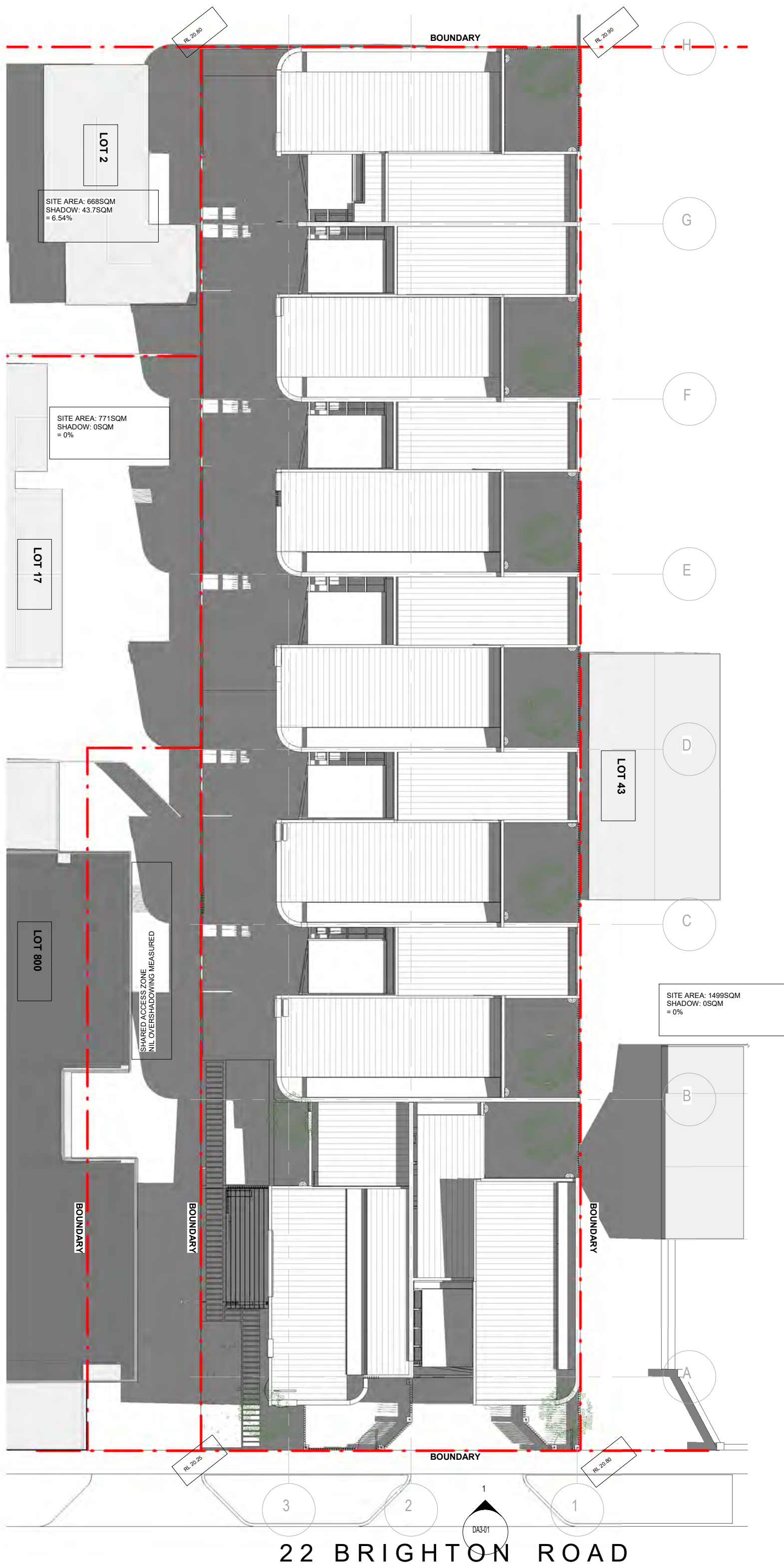
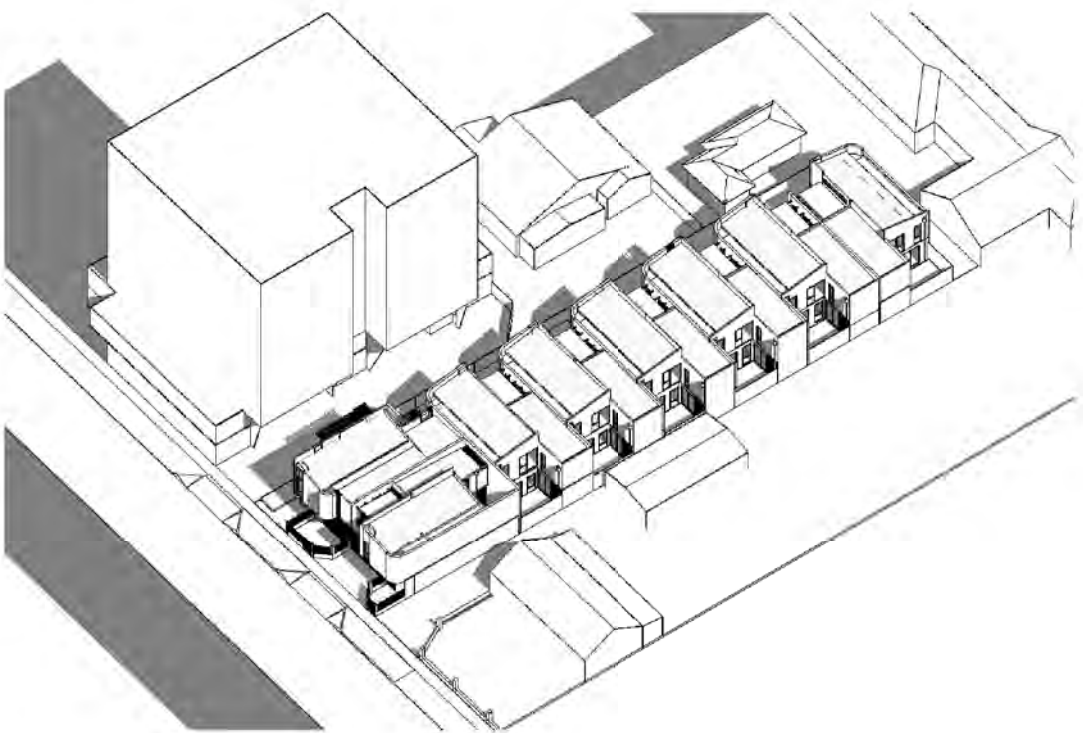
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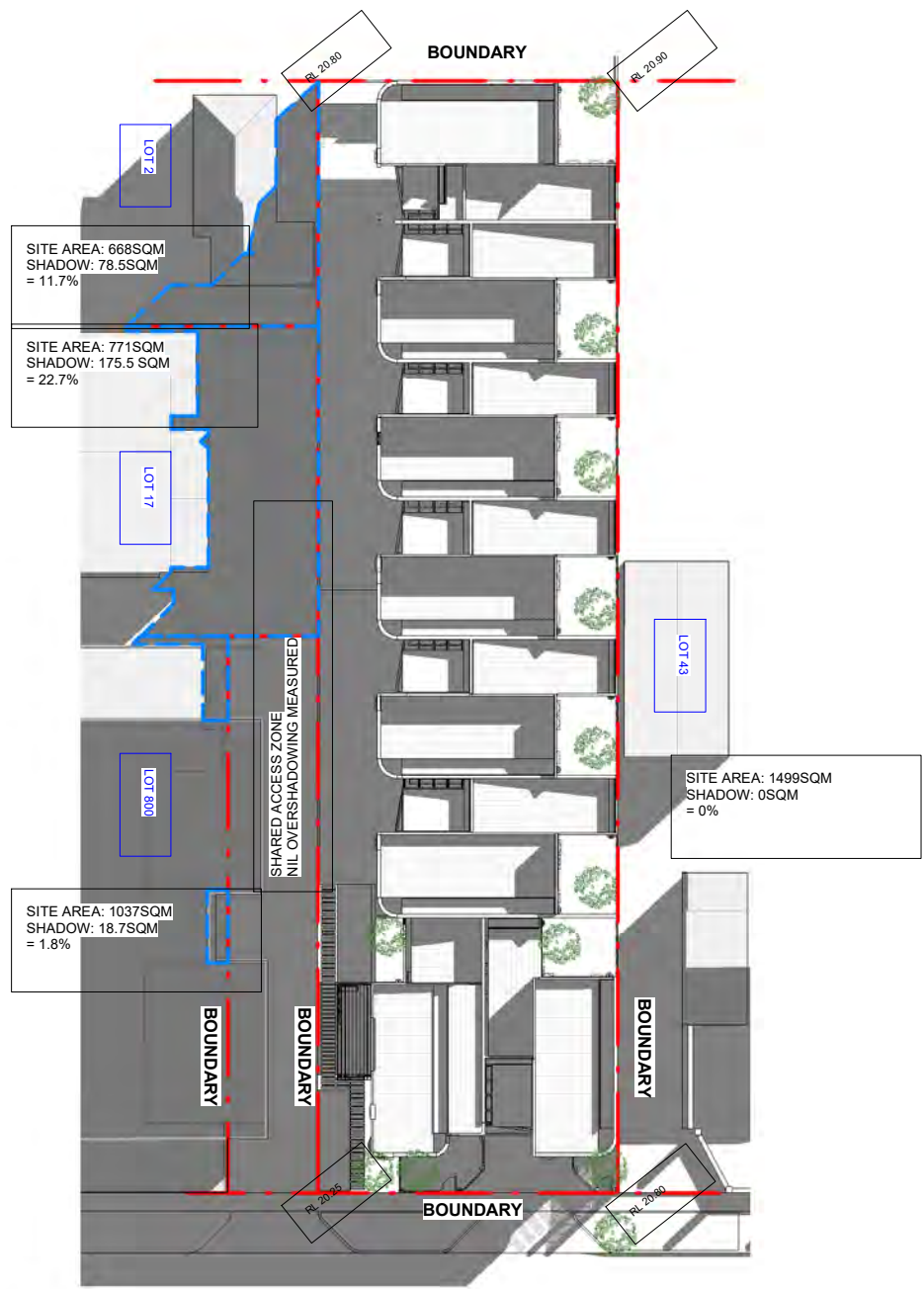


LEVEL 1_CROSS VENTILATION

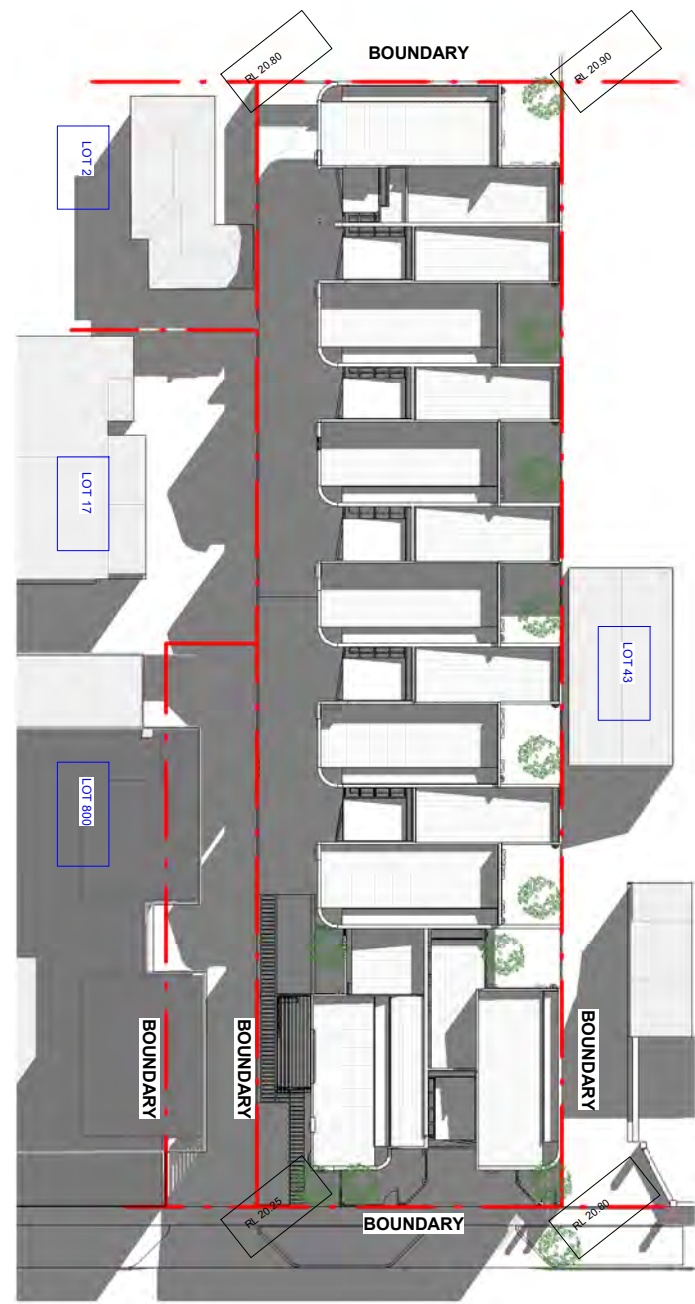
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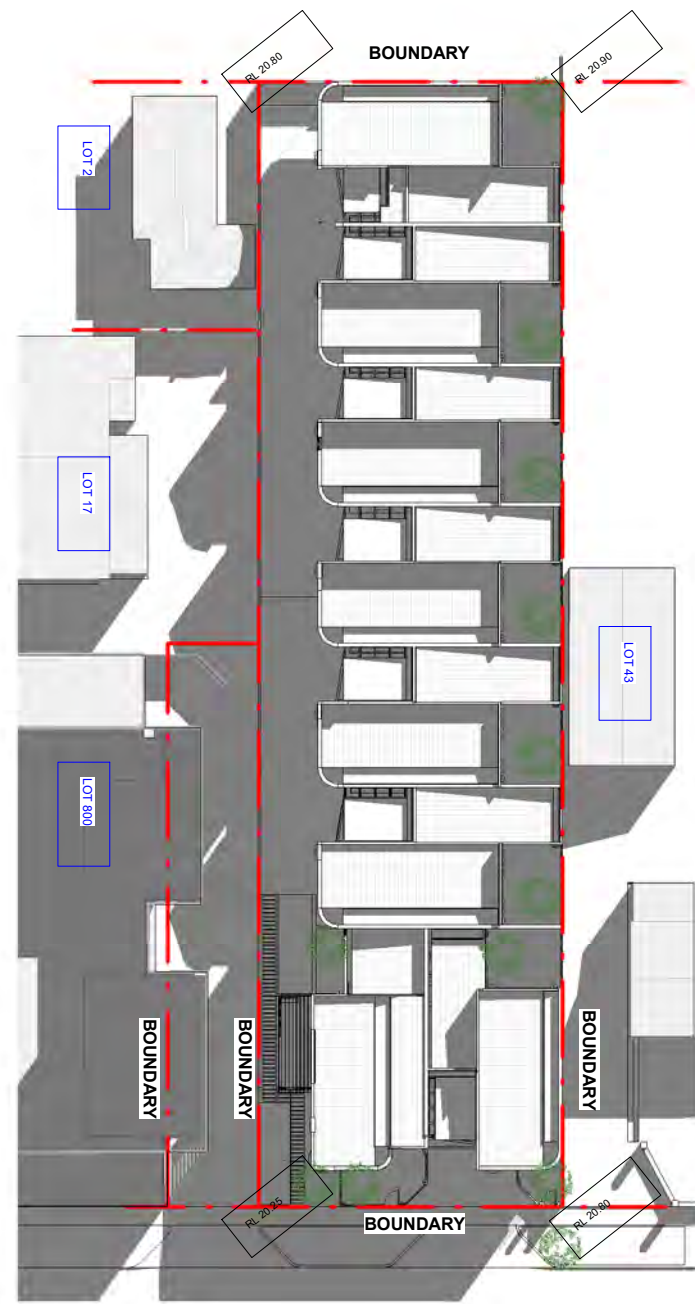




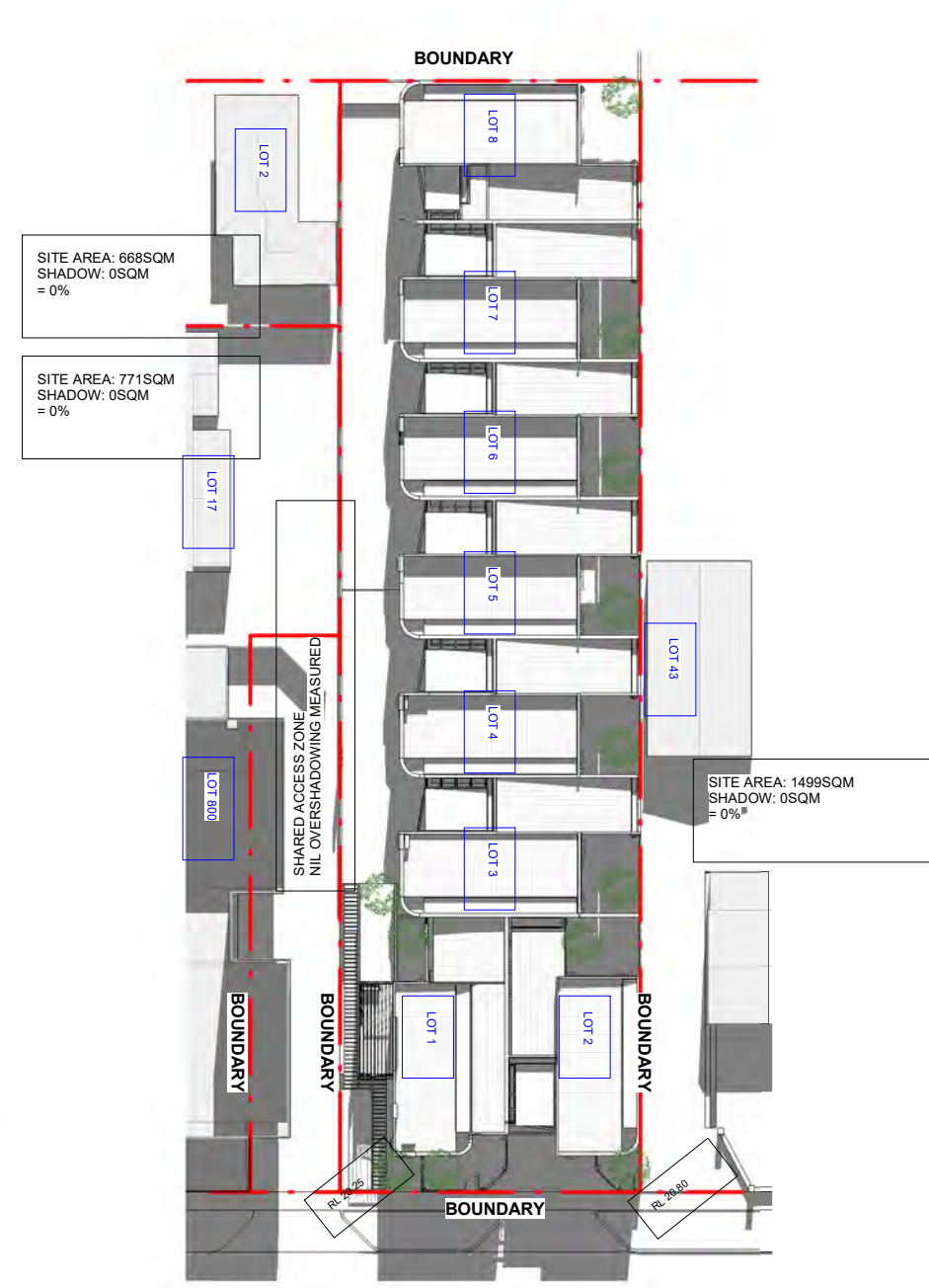
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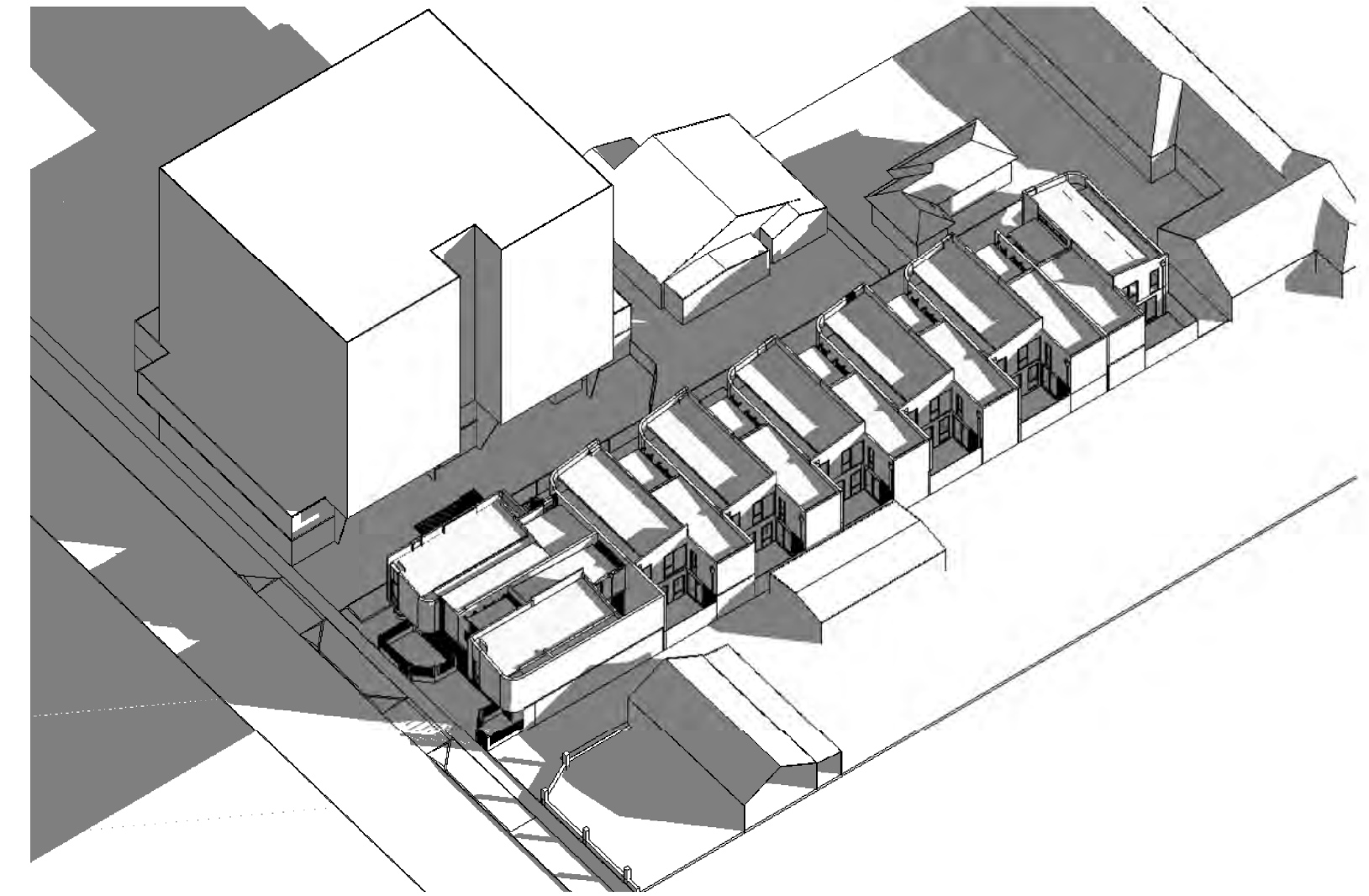
SITE PLAN_WINTER 10AM



SITE PLAN_WINTER 11AM



SITE PLAN_WINTER 12NOON



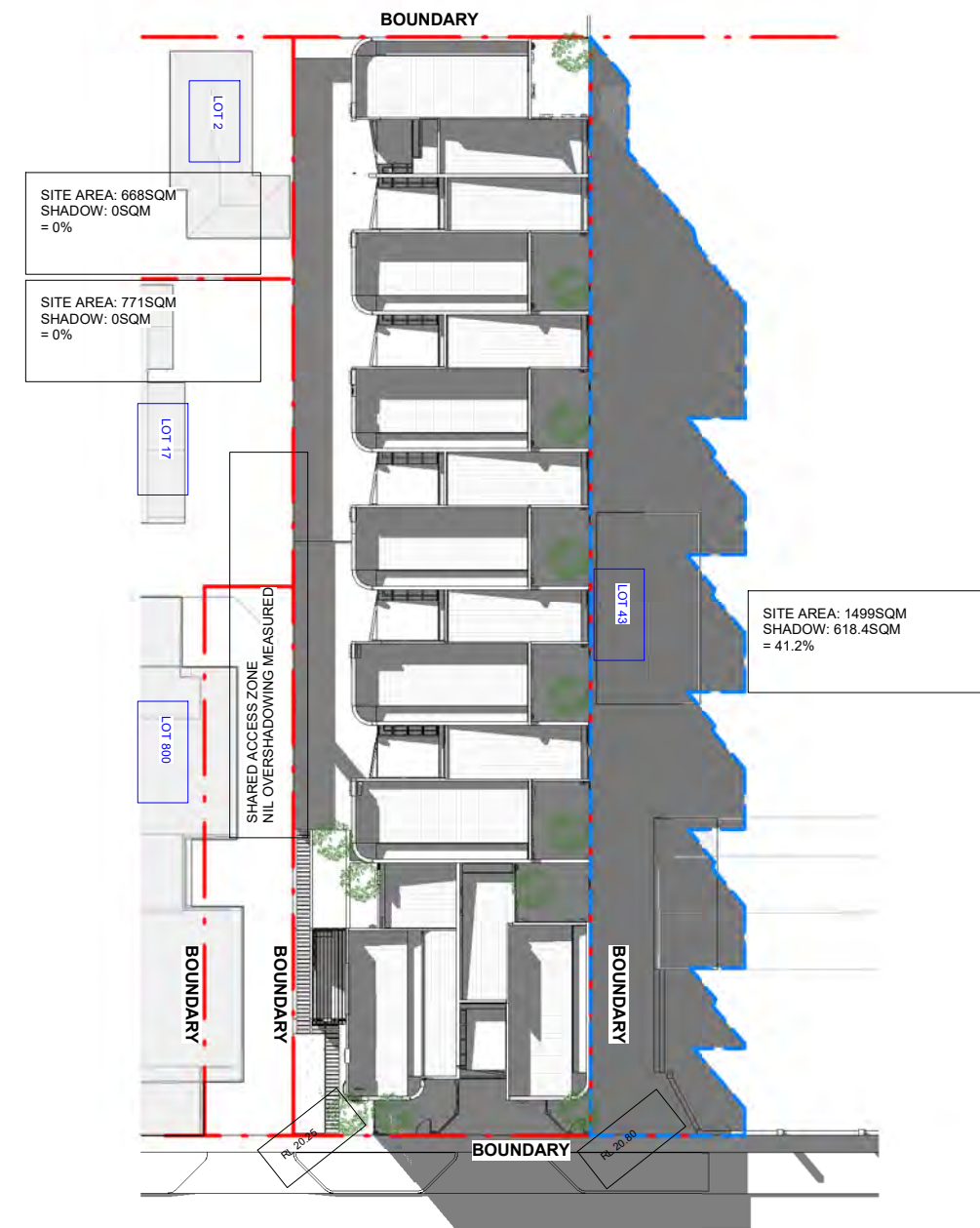
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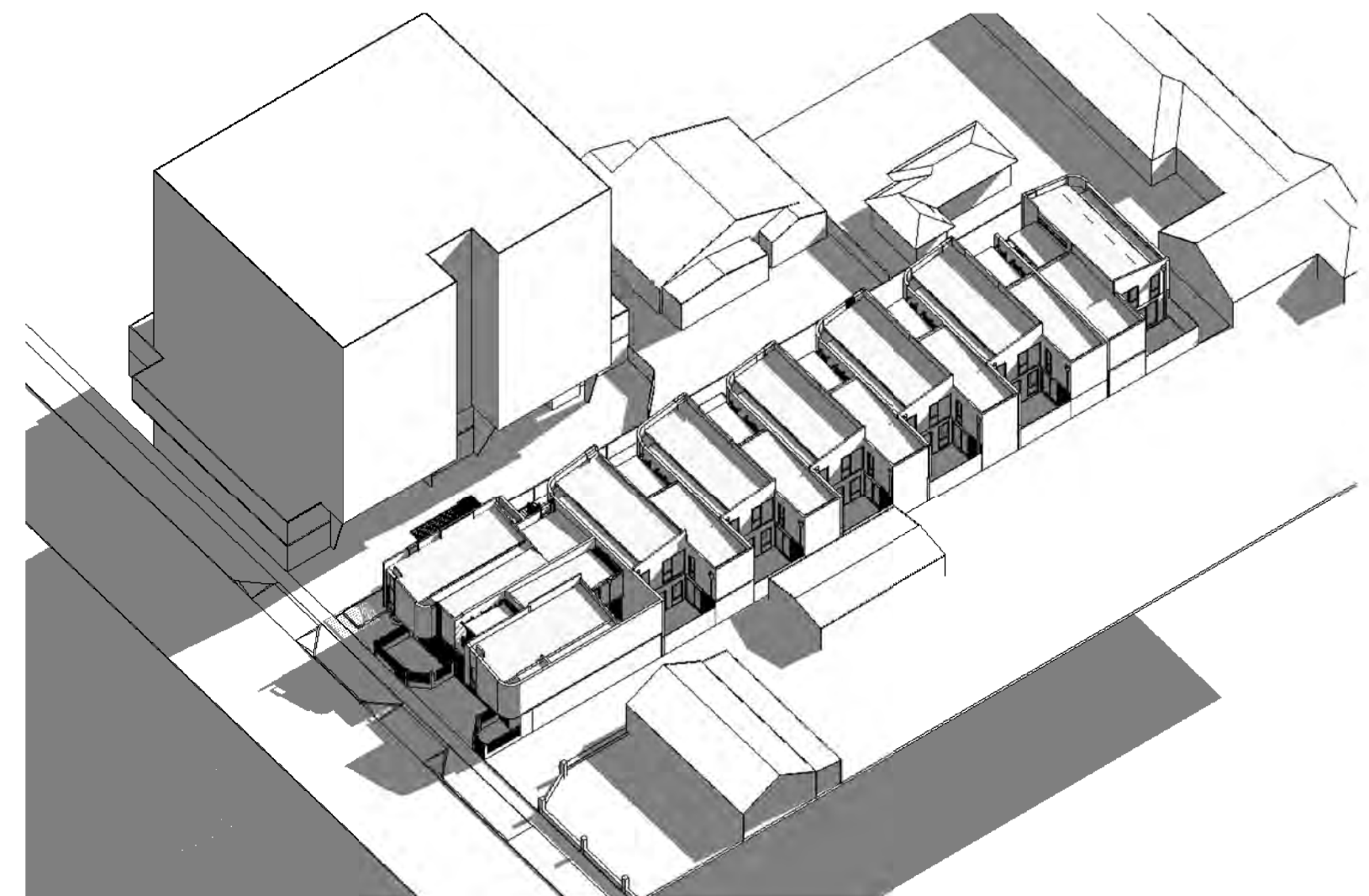
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SITE PLAN_WINTER 2PM

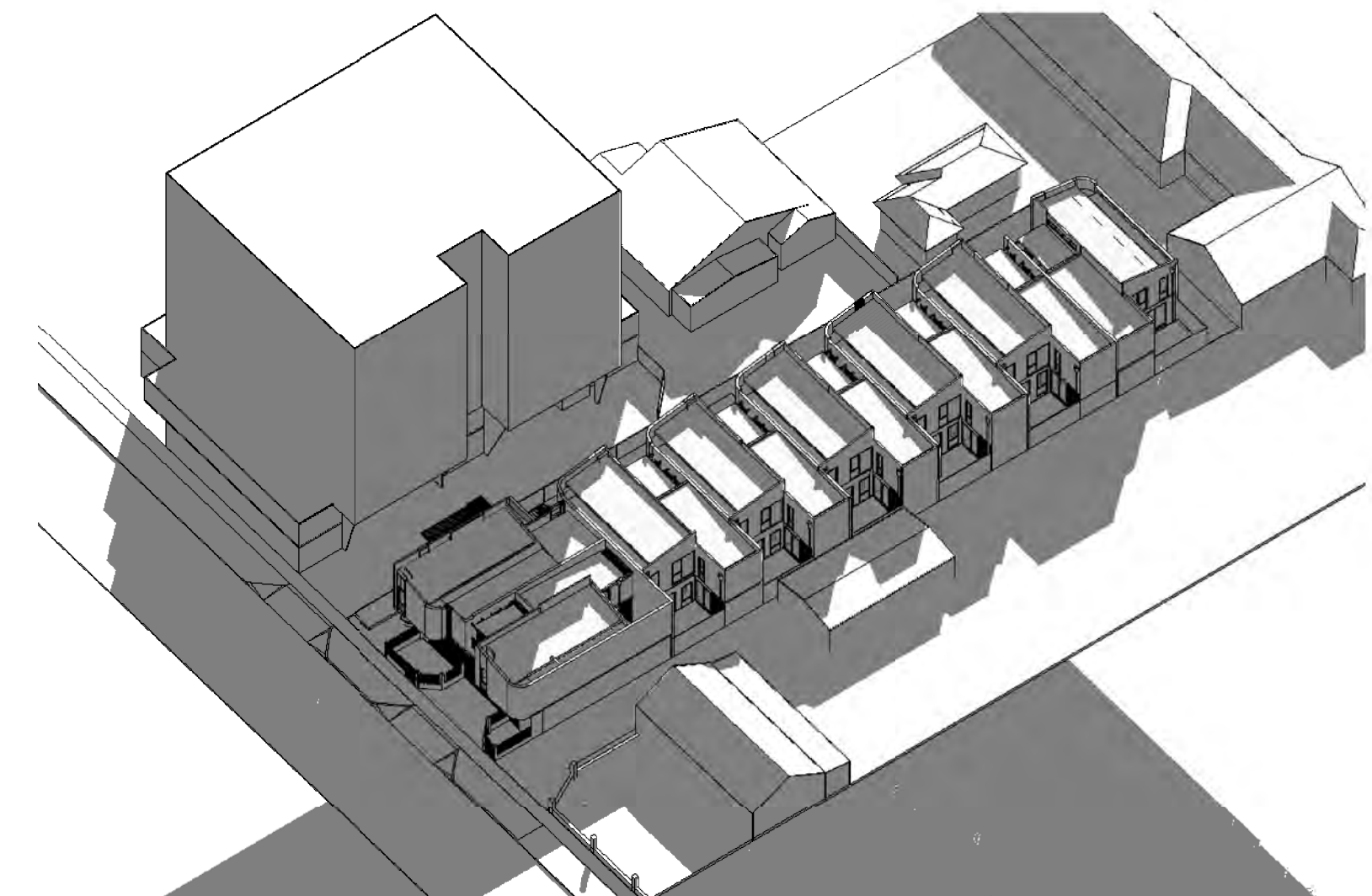


SITE PLAN_WINTER 3PM



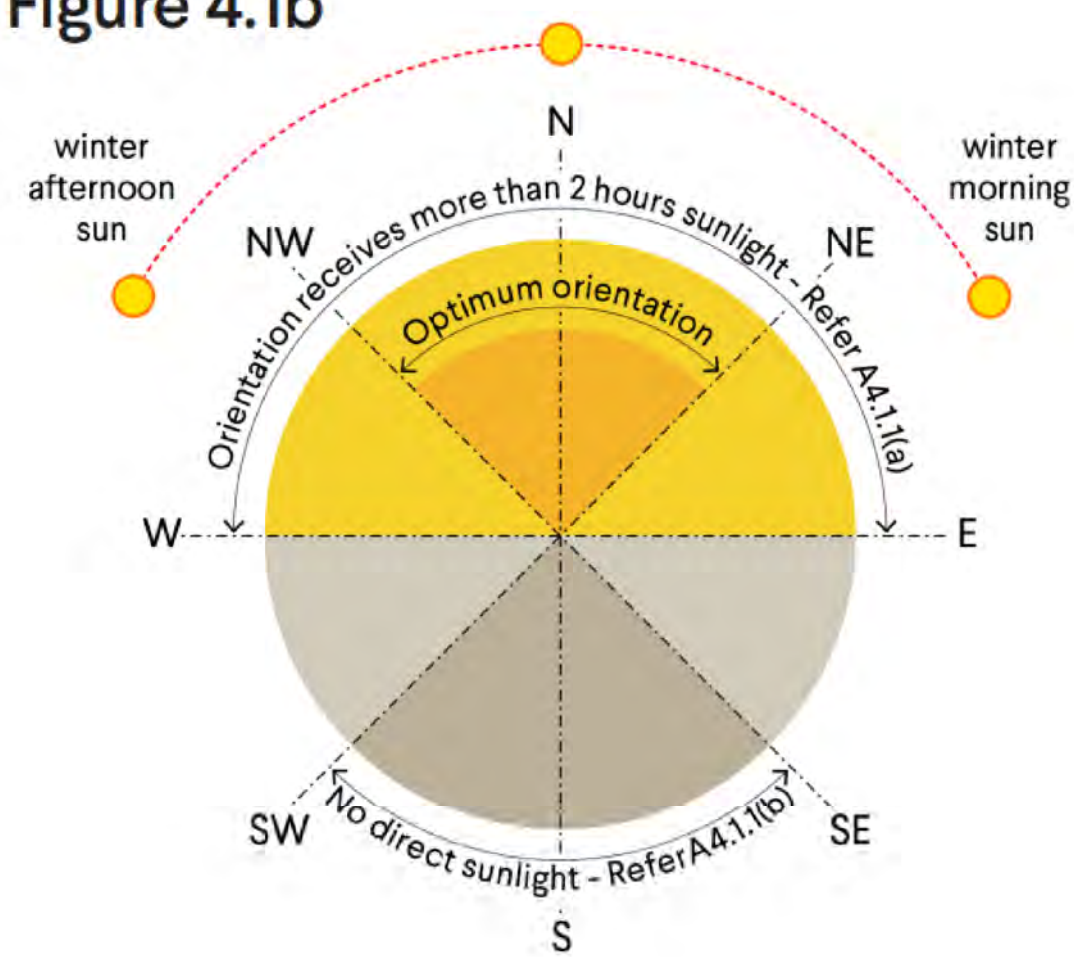
WINTER 12NOON

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WINTER 3PM

Figure 4.1b





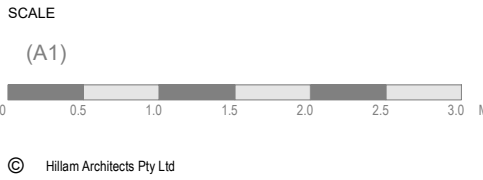
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3D VIEW 1

DWG No.
DA8-01

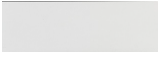
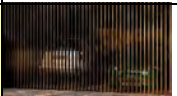
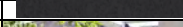
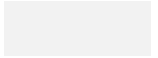
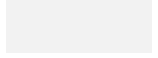
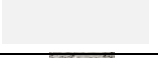
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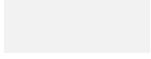
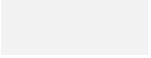
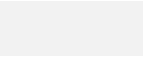
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EXTERIOR SCHEDULE										SCH 01
Project name:		BRIGHTON ROAD, SCARBOROUGH								
Client:										
Project number:		2505								
Status:		DA SUBMISSION								
Issue date:		23-June-2025								
Revision:		B		revised or new items highlighted in yellow						
EXTERIOR FINISHES GENERALLY										
APPLICATION	SPEC' CODE	INSULATION / GLAZING	PRODUCT TYPE	SUPPLIER/DISTRIBUTOR	COLOUR & FINISH	REFERENCE IMAGE	NOTES	SAMPLE PROVIDED	REV No.	
GROUND FLOOR										
Window/sliding door frames (glazing)			Aluminium (Powdercoat)	Dulux Duratec Zues	Monument Matt					
Fibre Cement Cladding			Fibre Cement Panel	HARDIE	OBLIQUE 300					
			Render	Rokote	Flexi Tex Medium - Paint Lexicon Quarter					
Entry door		N/A	Pivot Entry Door	Corinthian / M&B Sales or similar	DECO Custom 2340x1020x40mm With frame					
			Painted	Dulux Duratec Zues						
			HANDLE	TBC						
Garage Door		N/A	Sectional Door	B&D Garage Doors	Batten Tilt garage doors					
Fencing walls; Building walls.		Min. R1.5 Cavity wall insulation, as per NatHERS Report.	Stone	Stone Oasis	Gray Quartz Random Natural Stone Cladding					
				Mortar	Charcoal / Dark Grey					
Balustrade		N/A	Aluminium (Powdercoat) balustrade	Star Metal	Vertical Steel Palisade					
				Dulux Duratec Zues	Monument Matt					
Letterbox		N/A	Bricked-in lockable letterbox	Milkcan or similar	Black		Unit number to be engraved into face plate.			
Render to slab edges		N/A	Cement Render	"Builders choice"	To match Lexicon Quarter					
Laneway Vehicle Gate		N/A	Aluminium electric gate - Sliding Aluminium manual gates - Hinging		SG15 or SG18 or Custom		Remainder of site fence to be termite treated hardwood timber pailings, painted white			
				Dulux Duratec Zues	Lexicon Quarter					
External soffit lining (underside of Level 1)		Min. R2.0 Rigid board insulation	Paint	Dulux Weathershield Low Sheen Paint	Lexicon Quarter					
Exterior surface		N/A	Exposed Agg	Boral	Light Grey		60mm for non trafficable and 80mm for trafficable areas.			
Exterior pavers		N/A	Permeable Pavers	AusCast	Grass/Diamond Paver		60mm for non trafficable and 80mm for trafficable areas.			
Garage internal walls					Industrial WA - Portland					
					Off white (white sand, standard grey cement)					
Vertical Landscape Trellis		N/A	Diagonal Trellis Cable System	Ronstan, AGS3C or similar	Stainless Steel		Refer to a typical detail 9 on A06-103.			

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EXTERIOR FINISHES GENERALLY									
APPLICATION	SPEC' CODE	INSULATION / GLAZING	PRODUCT TYPE	SUPPLIER/DISTRIBUTOR	COLOUR & FINISH	REFERENCE IMAGE	NOTES	SAMPLE PROVIDED	REV No.
LEVEL 1 AND ABOVE									
Glazed doors and window frame		Non-thermally broken double glazing, as per NatHERS Report.	Aluminium (Powdercoat)	Dulux Duratec Zues	Monument Matt				
Render to exposed concrete slab edges		N/A	Cement Render	"Builders choice"	To match Colorbond Lexicon Quarter		Slab edges to have chamfered edges with integrated drip grooves.		
Balustrade		N/A	Aluminium (Powdercoat) balustrade	Star Metal	Vertical Steel Palisade				
				Dulux Duratec Zues	Lexicon Quarter				
External Balcony Walls		Min. R2.0 Rigid board insulation, as per NatHERS Report.	Elastometric Topcoat	Dulux Acratex	Lexicon Quarter				
Balcony Floor Tile		N/A	Porcelain Tile	myaree ceramics	Tibur Grigio Safe Module				
Roof Profile		Min. R5 Roof insulation, as per NatHERS Report.	Metal roof profile	Fielders, KingKlip 700 or similar	Colorbond, Southerly				
Exposed Rainhead		N/A	Rainhead	Dam Buster, square with hidden overflow or similar	Colorbond Monument Matt				
Exposed Downpipes		N/A	Rectangular Downpipe	"Builders choice"	Colorbond Lexicon Quarter				
Horizontal Landscape Trellis		N/A	Cable System	Ronstan, I-SYS Wire Rope System or similar	Stainless Steel				

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22 Brighton Rd, Scarborough

Proposed Residential Development

TRANSPORT IMPACT STATEMENT



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Prepared for:
Brighton Road (WA) Pty Ltd

November 2025

22 Brighton Rd, Scarborough

Prepared for: Brighton Road (WA) Pty Ltd
Prepared by: Paul Ghanous
Date: 2 November 2025
Project number: U25.048

Version control

Version No.	Date	Prepared by	Revision description	Issued to
U25.048.r01	07/05/25	Paul Ghanous	FINAL	Developed
U25.048.r01a	01/11/25	Paul Ghanous	REVISED FINAL	Developed

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1 Introduction

This Transport Impact Statement has been prepared by Urbii on behalf of Brighton Road (WA) Pty Ltd with regards to the proposed residential development, located at 22 Brighton Rd, Scarborough.

The subject site is situated on the northern side of Brighton Road, as shown in Figure 1. The site presently accommodates a residential dwelling (Figure 2) and is surrounded by a mix of residential, commercial and retail land uses. Scarborough Beach is accessible within 300m walking distance to the west.

It is proposed to develop the site into a residential development, delivering 8 dwellings.

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

This TIS has been updated to address comments received from the City of Stirling and reflects updates to the ground floor plan prepared by Hillam Architects.

The updated TIS addresses the City's request for 1.5 m sightline truncations at vehicle access points to ensure safe visibility for vehicles entering and exiting the site and incorporates these into the amended plans.

In relation to the City's comments regarding the need for an internal passing bay, additional technical assessment has been undertaken to demonstrate that a passing bay is not required, given the low traffic volumes expected to be generated by the development and the short length of the internal accessway.

The report also includes an updated review of the visitor parking bay, supported by swept path analysis to confirm that vehicle access and egress can be safely accommodated in accordance with AS2890.1.

Overall, the updated TIS reflects the latest design information, responds to the City's engineering feedback, and confirms that the proposed access and parking arrangements are appropriate for the scale and nature of the development.

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Figure 1: Subject site

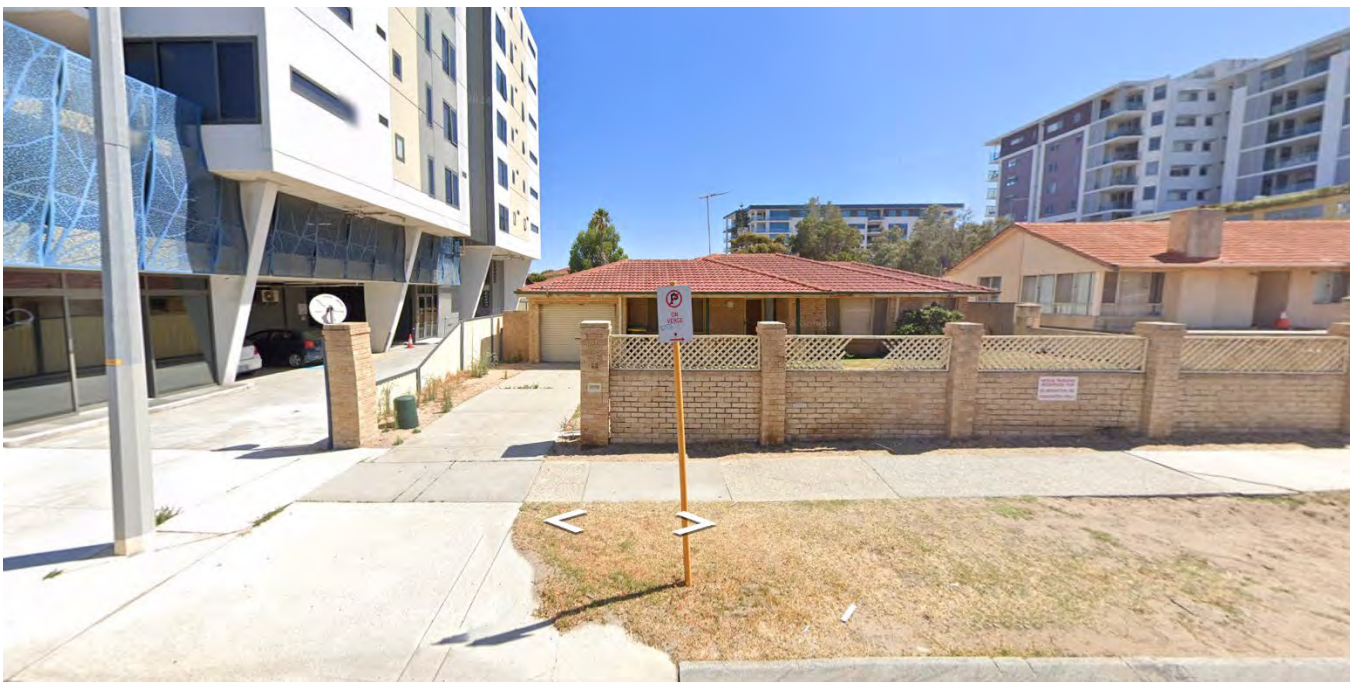


Figure 2: Existing site

Source: Google Streetview Image dated January 2024

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2 Scope of work

The WAPC *Transport Assessment Guidelines 2016* identifies the proposed development as being “low impact” (Figure 3). A Transport Impact Statement (TIS) has been prepared to support a robust Development Application and to assist the LGA with demonstration of traffic impact.

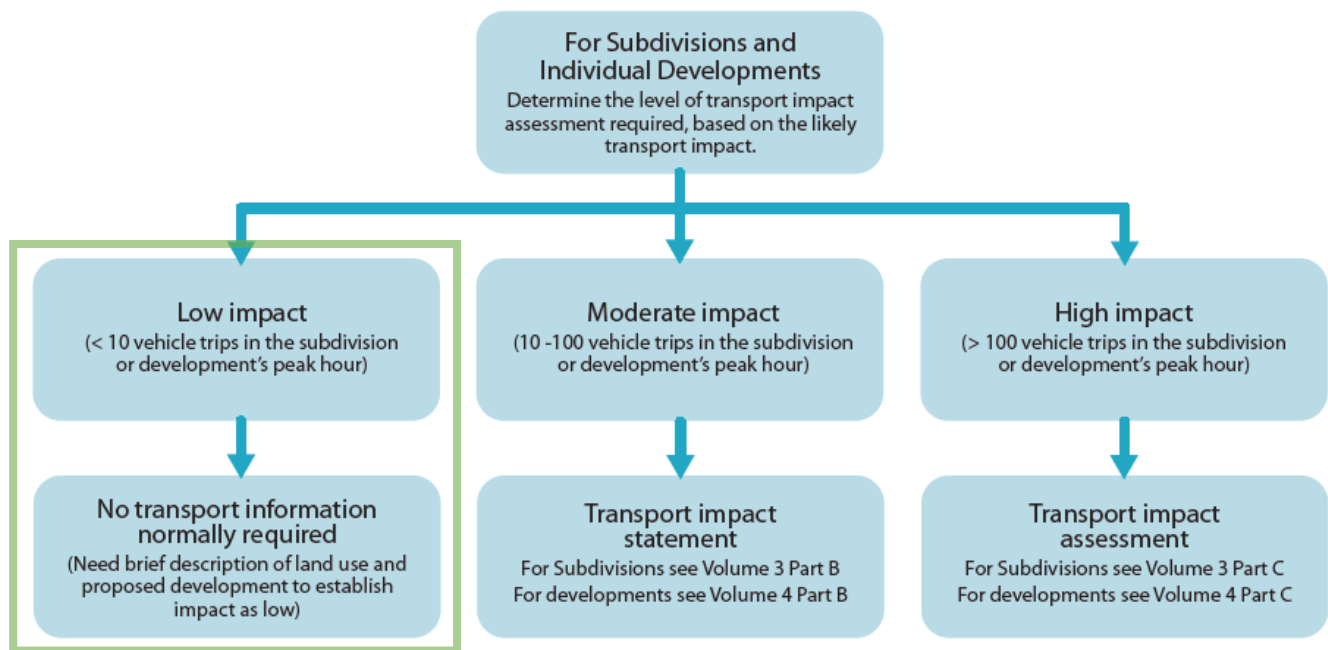


Figure 3: WAPC Transport Assessment Guidelines – reporting requirements

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3 Proposed development

The proposal for the subject site is for a grouped dwelling residential development, comprising:

- A total of 8 residential dwellings;
- 15 car parking spaces for residents;
- One visitor car parking bay;
- Two bicycle parking spaces; and,
- A centralised bin store for the development.

Vehicle access to most lots is proposed via an existing crossover through the adjoining property to the west (18 Brighton Road). Vehicle access for Lot 2 is via a separate crossover which directly connects to Brighton Road.

Town planning advice indicates that an easement is in place, which permits vehicle access to and from the site via the adjoining property.

Bins will be wheeled out from individual townhouses for kerbside waste collection from Brighton Road.

Pedestrians and cyclists will access the development from the external path network abutting the site. The proposed development has been designed to accommodate a 'shared space' for residents who choose to walk, cycle or drive.

The proposed development plans are included for reference in Appendix A.

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4 Vehicle access and parking

4.1 Vehicle access

The proposed vehicular access arrangements have been reviewed for efficient and safe traffic circulation.

As detailed in Figure 4, vehicle access to most lots is proposed via an existing crossover through the adjoining property to the west (18 Brighton Road). Vehicle access for Lot 2 is via a separate crossover which directly connects to Brighton Road.

Town planning advice indicates that an easement is in place, which permits vehicle access to and from the site via the adjoining property.

Lot 1 provides access to the parking garage directly from the easement. Lots 3-8 are accessed via a sliding gate connecting to the easement, with an internal common roadway providing access to the dwellings. **The internal common accessway is approximately 4.0m wide and the narrowest location, measured from the strata boundary of individual lots to the site boundary. However, the dwelling garage doors are set back from the strata boundary, providing a clear width of 5.6m from the building frontage to the property boundary.**

Review of aerial imagery indicates that some parking spaces may be marked within the easement area, which are associated with the existing building at 18 Brighton Road (Figure 5). The project proponents will communicate with the adjoining land owner to ensure that the easement is not obstructed with parked vehicles. 'No Standing' signs can be considered for installation within the shared easement area.

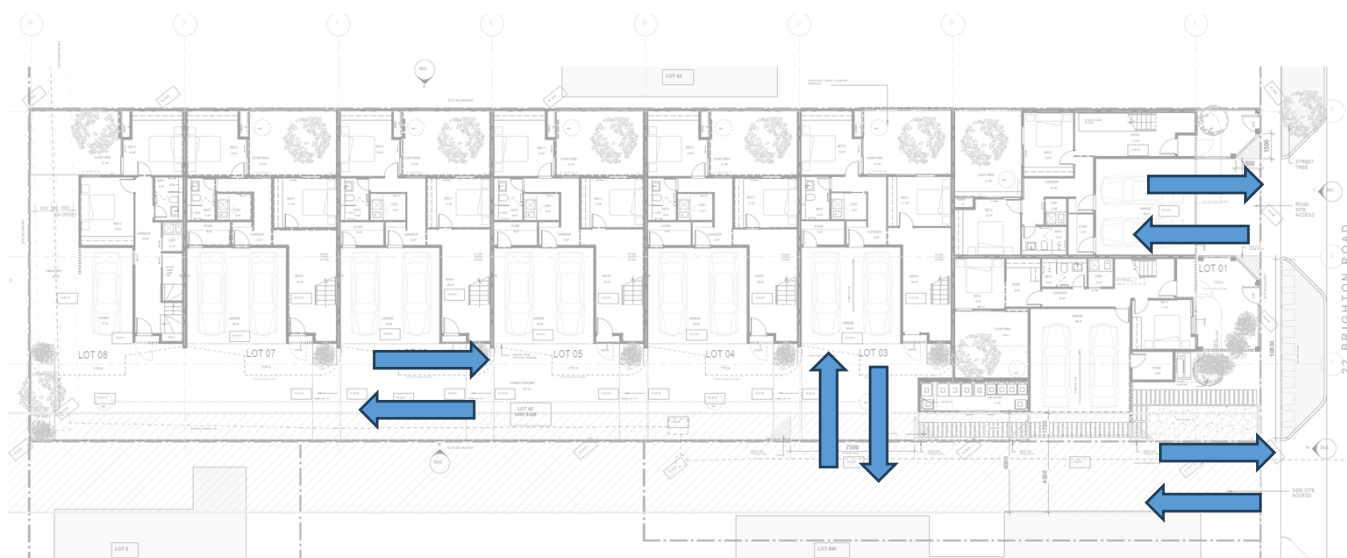


Figure 4: Proposed vehicle access

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Figure 5: Existing easement

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4.2 Movement and place analysis

The philosophy of movement and place recognises that streets perform multiple functions. Transport links not only move people from point A to B, but they can also function as key places. There is a natural tension between these two functions. As a movement corridor, every link aims to minimise travel time and keep people and goods moving. On the other hand, as a place, streets aim to increase visitor dwell time.

Not all streets can be popular destinations, just as not all streets can prioritise vehicle movement. It is important to recognise the roles of movement and place on our roads and streets. Finding an appropriate balance is key for integrated transport planning.

The movement and place framework categorises roads and streets as a function of their role in moving people and being a place (Figure 6).



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Figure 6: Movement and place – road and street categories

Source: *Movement and Place in Victoria*, Department of Transport Victoria, 2019

Based on the movement and place categories, the proposed internal access street can be defined as a Local Street. Successful Local Streets should provide quiet, safe and desirable residential access for all ages and abilities that foster community spirit and local pride. They are part of the fabric of our neighbourhoods, where we live our lives and facilitate local community access.

The *Main Roads WA Speed Zoning - Policy and Application Guidelines - May 2021* recommends a speed limit of 10km/h in confined areas where movement of pedestrians and cyclists has priority over motor vehicles. Generally, the volume of traffic is very low. This definition is appropriate for the proposed development internal street.

To support the successful function of the proposed internal street, it is therefore recommended that a 10km/h speed limit apply internally. This speed limit applies equally for all modes of transport and can be reinforced through installation of shared zone signs.

The Australian Standard AS 1742.4-2008: *Manual of uniform traffic control devices - Speed controls*, provides guidance on the use of shared zones. Signs shall be used at the start and end of shared zones as specified in Clause 3.2.6 and shown in Figure 7. A typical shared zone treatment is shown in Appendix B.

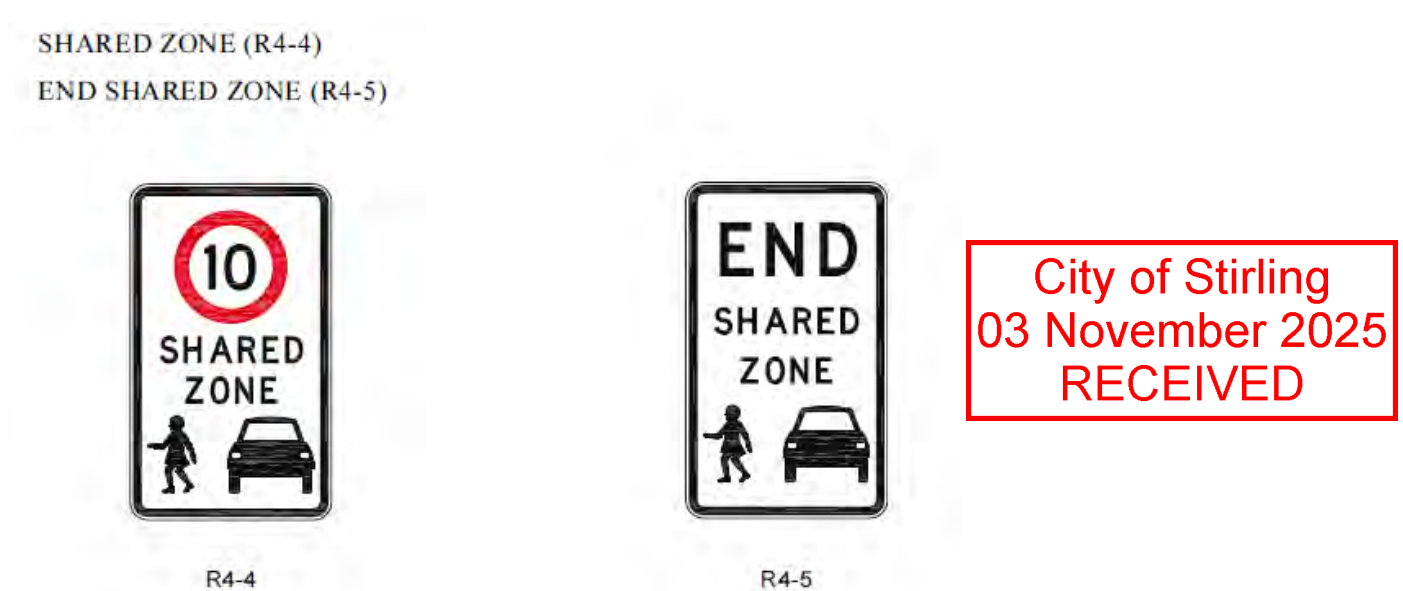


Figure 7: Signs for shared zones

The Austroads *Guide to Traffic Management Part 8: Local Area Traffic Management*, provides the following guidance on the use of shared zones:

“A shared zone is an area utilised by both pedestrians and vehicular traffic in which drivers must give way to pedestrians at all times, and where the street environment has been adapted for very low-speed vehicles. Shared zones should aim to change the image and character of a street so that drivers are made aware that they are entering a street environment with driving conditions that are quite different to other more common situations. This can be achieved by the use of different coloured and/or textured pavement surfaces, by the use of full width flush paving between property lines and through landscaping. Shared zones must be designed in such a way that the low-speed environment is reinforced through the physical layout and treatment. A speed limit of 10 km/h is considered appropriate in shared zones to compliment these speed environment changes.”

In accordance with the above guidance, the internal street will be designed as a shared zone. Shared zone signs will be installed at the vehicle access point (to be included at subsequent design stages).

4.3 Driveway width requirements

The technical standards or guidelines referenced in assessing the crossover and driveway width include:

- AS2890.1-2004 - Off-street Car Parking Facilities;
- State Planning Policy 7.3 Residential Design Codes (R-Codes) Volume 1; and,
- State Planning Policy 7.3 R-Codes Volume 2 – Apartments.

The R-Codes (Vol 1) provides the following guidance on the width and location of driveways:

C5.2 Driveways to primary or secondary street provided as follows:

- *driveways serving four dwellings or less not narrower than 3m at the street boundary;*
- *no driveway wider than 6m at the street boundary and driveways in aggregate no greater than 9m for any one property.*

C5.3 Driveways shall be:

- *no closer than 0.5m from a side lot boundary or street pole;*
- *no closer than 6m to a street corner as required under AS2890.1 Parking Facilities: Off street Parking (as amended);*
- *aligned at right angles to the street alignment;*
- *located so as to avoid street trees, or, where this is unavoidable, the street trees replaced at the applicant's expense or re-planting arrangements to be approved by the decision-maker; and*
- *adequately paved and drained.*

The R-Codes (Vol 2) provides the following guidance on the width and location of driveways:

- *O 3.8.1 Vehicle access points are designed and located to provide safe access and egress for vehicles and to avoid conflict with pedestrians, cyclists and other vehicles;*
- *O 3.8.2 Vehicle access points are designed and located to reduce visual impact on the streetscape;*
- *A 3.8.5 Driveway width is kept to a functional minimum, relative to the traffic volumes and entry/egress requirements; and,*
- *DG 3.8.1 – keeping the width to a minimum and avoiding vehicle standing areas within the street setback.*

In summary, the R-Codes generally encourage keeping the width of residential driveways to a minimum, to reduce visual impact and conflicts with pedestrians and cyclists. The absolute minimum driveway width permitted at the street boundary is 3m and the maximum is 6m.

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AS2890.1 classifies the proposed development driveway as *Category 1*. A *Category 1* access driveway can be a minimum of 3m in width and a maximum of 5.5m in width, as demonstrated in Appendix C. Furthermore, Clause 3.2.2 of AS2890.1 provides the following advice regarding the width requirements at low volume (Category 1) access driveways and connecting roadways:

“Where the circulation roadway leading from a Category 1 access driveway is 30m 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 6m from the property boundary shall be a minimum of 5.5m wide. In other cases, subject to consideration of traffic volumes on a case by case basis, lesser widths, down to a minimum of 3.0m 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 of two vehicles to pass on the driveway.... On long driveways, passing opportunities should be provided at least every 30m.”

The travel distance from Brighton Road to Lot 8 is over 70m, which suggests that some form of passing opportunity will be beneficial for two-way traffic flow. However, it is noted that the expected traffic volumes on the driveway are well below the 30 vehicles per hour (vph) threshold quoted by AS2890.1 for two-way traffic flow.

4.4 Driveway traffic analysis

The probability of two cars coinciding on the internal driveway during the AM or PM peak hour was calculated using the Austroads *Guide to Traffic Management Part 2: Traffic Theory*. A Poisson distribution was adopted for random departure / arrival times within the peak hour. The maximum outbound flow is estimated to be 2 vehicles per hour. It takes one inbound vehicle approximately 30 seconds to enter the site at a speed of 10km/h (for Lot 08).

As detailed in Figure 8, there is a **98.3%** chance that when a vehicle arrives to enter the site, there will be no opposing vehicle in the outbound direction exiting the site. Outside of peak hours, the chance of two-way traffic coinciding on the driveway is even lower.

Based on these statistics, and the guidance from the R-Codes and AS2890.1, it is expected that the proposed 4.0m wide common property accessway width can function effectively. No impact or queue back on Brighton Road is expected.

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Traffic volume2(vph)0.00056(vps)

Time period0.5(min)30(sec)

Mean number of vehicles0.01667

Probability distribution table

Probability 0 vehicles =98.3%

(x)	p(x)	P(x)
0	0.98347	0.98347
1	0.01639	0.99986
2	0.00014	1
3	7.6E-07	1
4	3.2E-09	1
5	1.1E-11	1
6	2.9E-14	1
7	7E-17	1
8	1.5E-19	1
9	2.7E-22	1
10	4.5E-25	1
11	6.8E-28	1
12	9.4E-31	1
13	1.2E-33	1
14	1.4E-36	1
15	1.6E-39	1
16	1.7E-42	1
17	1.6E-45	1
18	1.5E-48	1
19	1.3E-51	1
20	1.1E-54	1

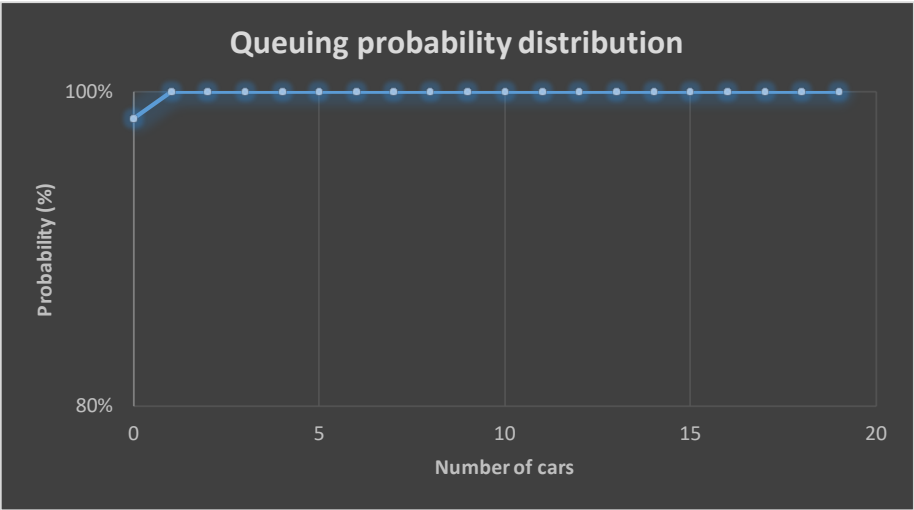


Figure 8: Driveway probability calculation

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4.5 Driveway traffic management

Technical analysis indicates that the likelihood of two vehicles meeting within the common property accessway is very low, given the small number of dwellings and the resultant low traffic volumes. Nonetheless, to ensure robust assessment, swept path analysis has been undertaken to confirm that two vehicles can safely pass each other within the site, even in the rare event of simultaneous movements.

As shown in Figure 9, the internal accessway layout allows vehicles exiting from individual garages to manoeuvre entirely within their own lot boundaries without the need to encroach into adjoining properties. An outbound vehicle can reverse and temporarily position itself in front of the respective townhouse, maintaining adequate clearance for an inbound vehicle to pass along the internal roadway. This arrangement ensures that all vehicle interactions are accommodated within the subject site, with a minimum separation of 600 mm maintained between vehicle envelopes in accordance with AS2890.1 standards.

To promote orderly and predictable driver behaviour, “**Give Way to Entry Traffic**” signage will be installed within the development, assigning priority to vehicles entering from Brighton Road. This measure will be reinforced through **strata bylaws**, ensuring consistent resident compliance and maintaining safe and efficient two-way operation along the internal driveway. The proposed management arrangement is appropriate for the low traffic generation anticipated and will ensure safe and efficient vehicle movements within the development.

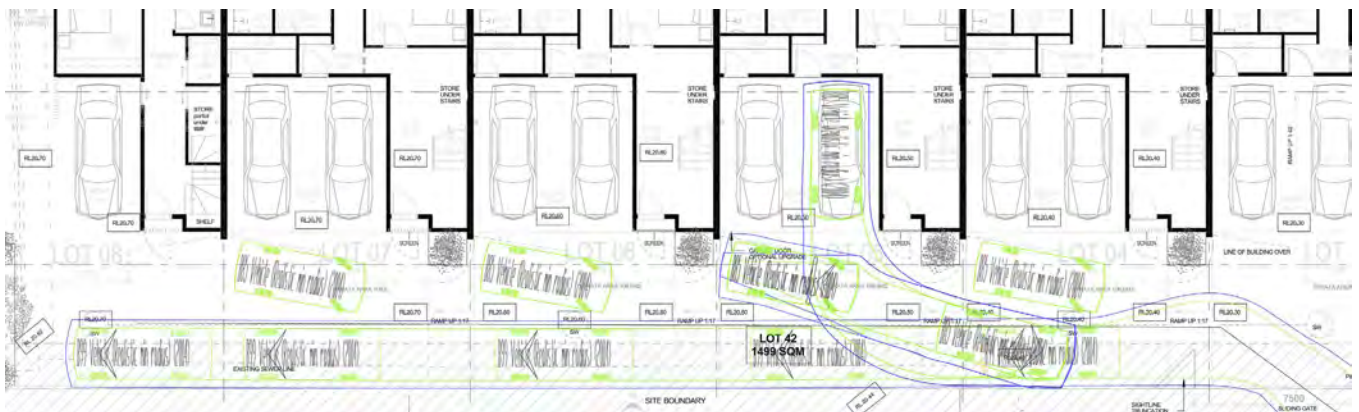


Figure 9: Two-way vehicle passing movement

4.6 Swept path analysis

Swept path analysis has been undertaken to demonstrate the satisfactory function of vehicle movements. Swept paths are included in Appendix D and were undertaken in accordance with AS2890.1. **Visitors can enter and exit the site in forward gear, by using the common accessway to turn around within the site.**

4.7 Parking requirements

Reference was made to Residential Design Codes for applicable parking requirements. Advice provided to Urbii indicates the site is in 'Location B,' with the applicable parking rates set out in Table 1.

Table 1: R-Codes Volume 1: Residential parking rates

Occupant car parking	Location A	Minimum parking space(s) (per dwelling)	Maximum garage and carport parking (per dwelling)
	Ancillary dwelling	0	1
	Studio and 1 bedroom dwelling	0	1
	2 bedroom dwelling	0	2
	3+ bedroom dwelling	1	2
	Location B	Minimum parking space(s) (per dwelling)	Maximum garage and carport parking (per dwelling)
	Ancillary dwelling	0	1
	Studio and 1 bedroom dwelling	1	1
	2 bedroom dwelling	1	2
3+ bedroom dwelling	1	2	
Visitor carparking	Number of dwellings	Minimum Parking	
	0-4 dwellings	No visitor car parking required	
	5-8 dwellings	1	
	9-12 dwellings	2	
	13 or more dwellings	3, plus 1 additional space per four dwellings or part thereof	
Motorcycle/scooter parking (multiple dwellings only)	0-19 dwellings	No motorcycle/scooter parking required	
	20 or more dwellings	One motorcycle/scooter space for every 10 car parking spaces	
<i>Minimum parking applies to all types of parking on site including (but not limited to) garages, carports, uncovered spaces, undercroft and basement parking. Maximum carparking applies to garages and carports. Additional parking may be provided as uncovered spaces, undercroft or basement parking.</i>			
<i>LOCATION A – includes all land located within:</i>			
<i>– 800m walkable catchment of a train station on a high-frequency rail route;</i>			
<i>– 250m walkable catchment of a transit stop:</i>			
<i>o on a high-frequency transit route; or</i>			
<i>o that has multiple transit routes, that when combined stop every 15 minutes during weekday peak periods (7am – 9am and 5pm – 7pm); or</i>			
<i>– the defined boundaries of an activity centre.</i>			
<i>LOCATION B – includes all land that is not within Location A.</i>			

The parking requirements for the development are presented in Table 2.

Table 2: Development parking requirements

Parking	Min	Max
Ancillary dwelling	0	0
Studio and 1 bedroom dwelling	0	0
2-bedroom dwelling	0	0
3+ bedroom dwelling	8	16
Total occupant car parking	8	16
Visitor car parking	1	
Total car parking	9	17

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4.8 Parking supply

The proposed development provides the following parking allocation:

- Double garage for most townhouses delivering a total of 15 resident parking spaces.
- 1 car parking bay provided onsite for visitors.

The proposed car parking supply is sufficient to meet the needs of the development and is compliant with the requirements of R-Codes.



5 Provision for service vehicles

The proposed development is residential in nature and will not generate significant delivery and other service vehicle traffic. Bins will be wheeled out from the centralised bin store for waste collection from Brighton Road.

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6 Hours of operation

For most residential developments, the peak traffic hours typically coincide with the weekday commuter AM and PM peak hours on the surrounding road network.

The weekday AM peak hour in the Perth Metropolitan Area usually occurs between 7am to 9am and the weekday PM peak hour occurs between 4pm to 6pm. The peak hours for the proposed development are anticipated to coincide at around these times.

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7 Daily traffic volumes and vehicle types

7.1 Traffic generation

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

- Roads and Traffic Authority of New South Wales *Guide to Traffic Generating Developments* (2002); and
- RTA TDT 2013/ 04a.

The trip generation rates adopted are detailed in Table 3.

Table 3: Adopted trip rates for traffic generation

Land use	Trip rate source	Daily rate	AM rate	PM rate	AM-in	AM-out	PM-in	PM-out
Residential	RTA NSW - Medium density residential building	5	0.5	0.5	25%	75%	65%	35%

The estimated traffic generation of the proposed development is detailed in Table 4. The proposed development is estimated to generate a total of 40 vehicles per day (vpd), with 4 vehicles per hour (vph) generated during the AM and PM peak hours, respectively.

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

Table 4: Traffic generation – Weekday AM and PM peak hours

Land use	Quantity	Daily Trips	AM Trips	PM Trips	AM Peak Trips		PM Peak Trips	
					IN	OUT	IN	OUT
Residential	8	40	4	4	1	3	3	1

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7.2 Impact on surrounding roads

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

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

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

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8 Traffic management on the frontage roads

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

8.1.1 Brighton Road

Brighton Road near the subject site is an approximately 11.5m wide undivided road. One traffic lane is provided in the eastbound direction, approaching the roundabout intersection with Hastings Street.

Two westbound lanes are provided approaching the signalised intersection with West Coast Highway. One through lane and one right turn pocket are provided in this direction of travel.

Paths for walking and cycling, and on-street cycling lanes are provided on both sides of the road.

Brighton Road is classified as a *Distributor B* road in the Main Roads WA road hierarchy (Figure 10) and operates under a speed limit of 50km/h (Figure 11). Distributor B roads are the responsibility of Local Government and are primarily for reduced capacity but high traffic volumes travelling between industrial, commercial and residential areas. (Figure 12).

Traffic data obtained from the City of Stirling indicates that Brighton Road (West of West Coast Highway) carries 8,450 vehicles per day.

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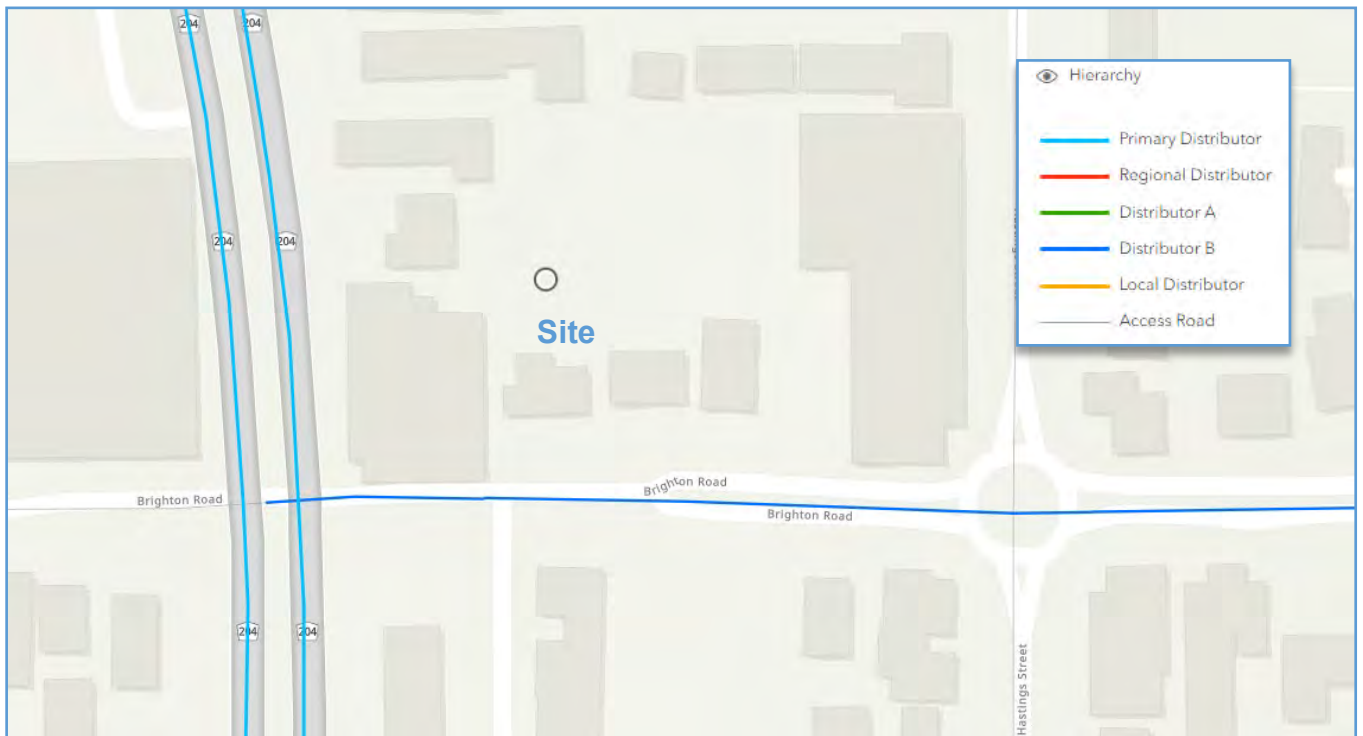


Figure 10: Main Roads WA road hierarchy plan

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

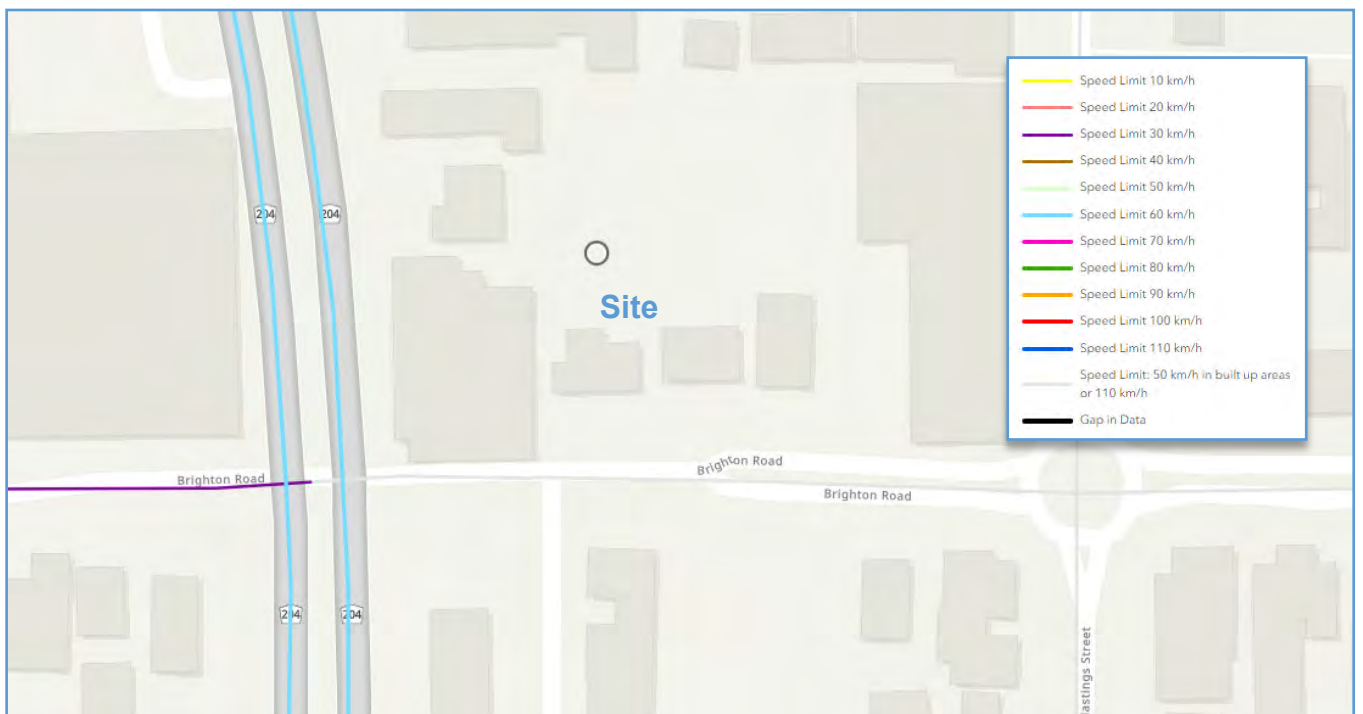


Figure 11: Main Roads WA road speed zoning plan

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

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

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

Figure 12: Road types and criteria for Western Australia

Source: Main Roads Western Australia D10#10992

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9 Public transport access

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

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

- Bus Route 410: Stirling Stn - Scarborough Beach Bus Stn via Millcrest St.
- Bus Route 412: Stirling Stn - Scarborough Beach Bus Stn via Woodlands Village Shop Ctr & Cobb St.

Public transport services provide a viable alternative mode of transport for residents and visitors of the proposed development. The closest bus stops are located within 50m walking distance to the east on Brighton Road (Figure 13).

Bus services provide excellent coverage and connectivity to the rail network. The public transport network plan is shown in Figure 14.

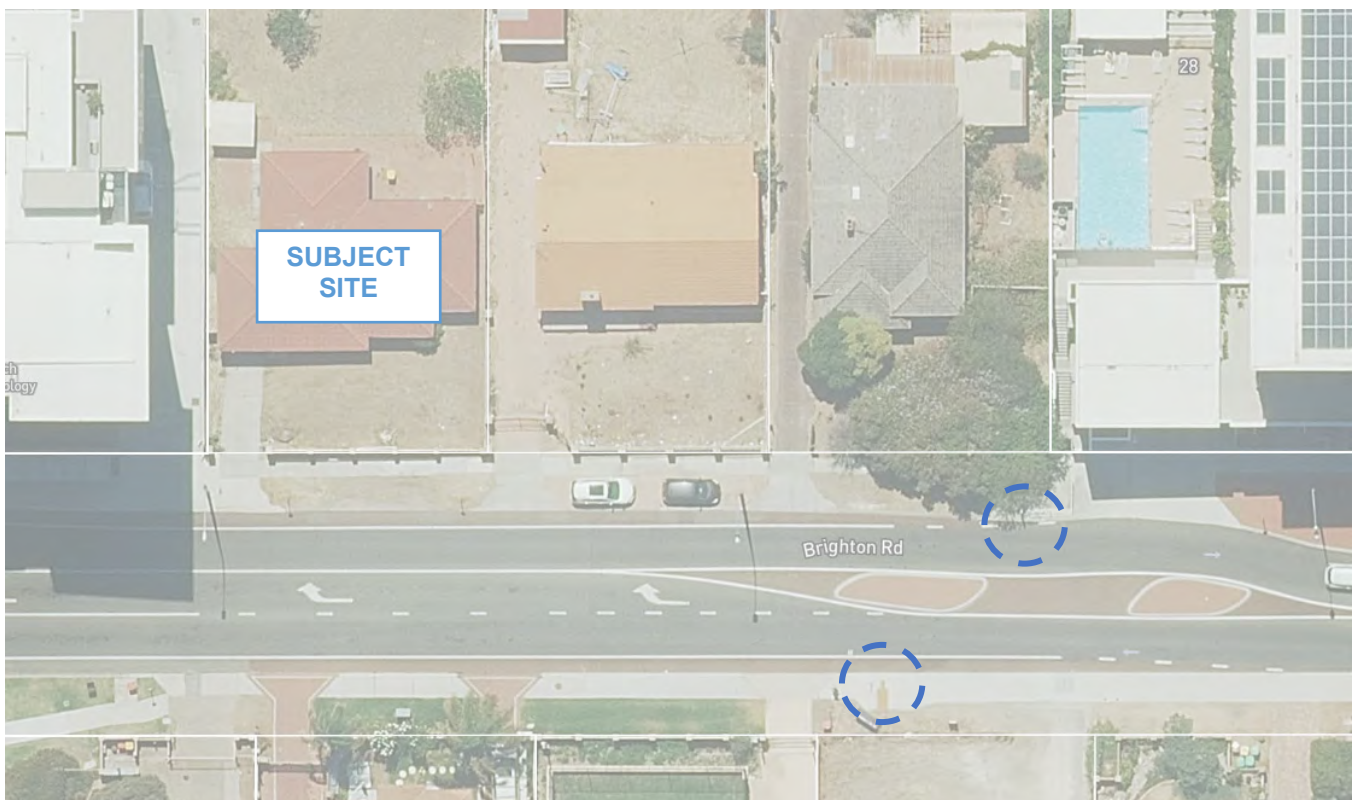


Figure 13: Closest bus stops serving the proposed development

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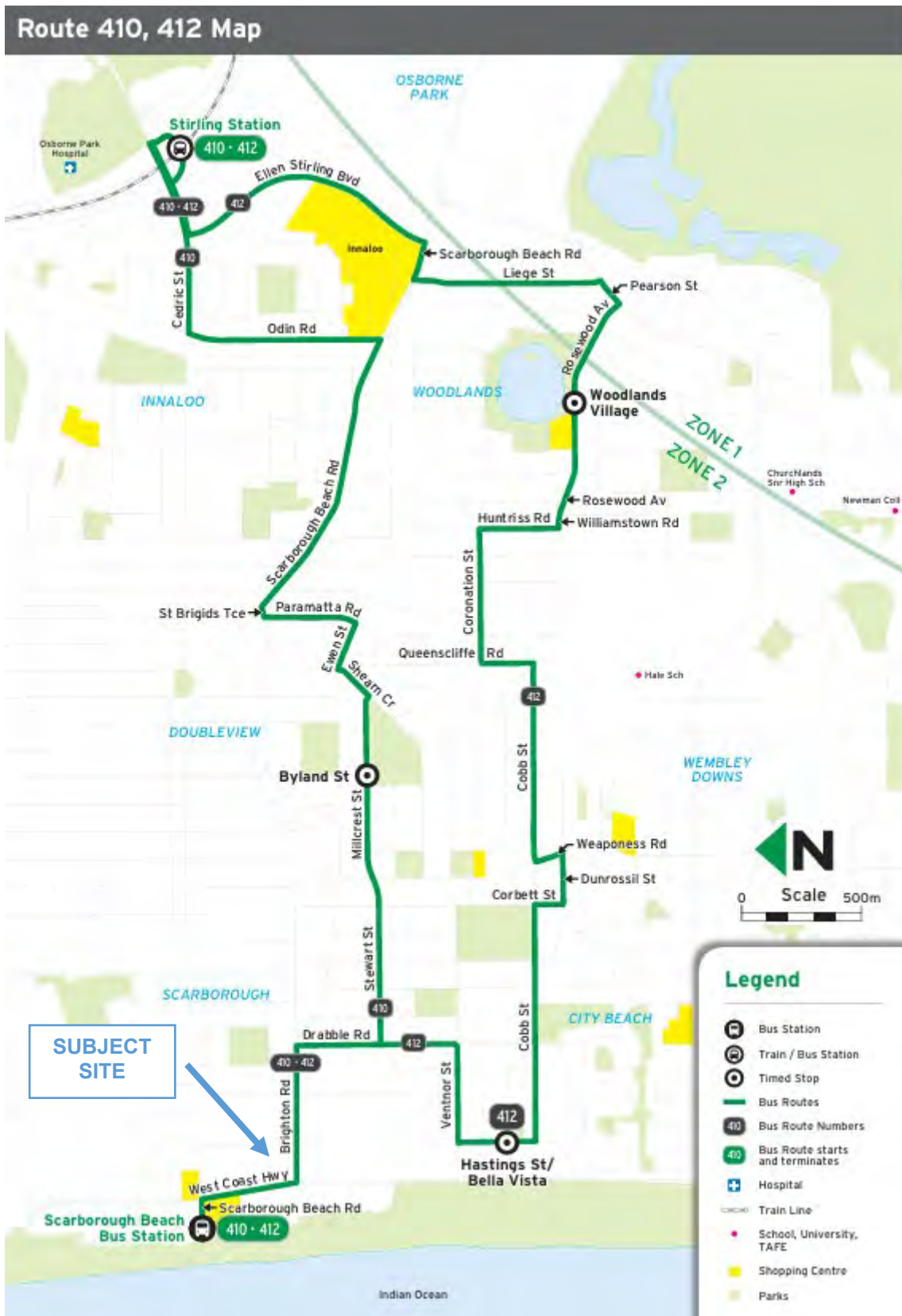


Figure 14: Transperth public transport plan

Source: Transperth

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10 Pedestrian access

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

10.1 Pedestrian facilities and level of service

Footpaths are provided on both sides of Brighton Road adjacent to the subject site. A signalised pedestrian crossing is provided at the intersection of West Coast Highway / Brighton Road, around 35m to the west of the site.

Pedestrian crossing facilities including kerb ramps and refuge islands are provided for crossing at nearby intersections, which promotes improved access for bicycles, wheelchairs, and prams.

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provide warrants

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11 Bicycle access

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

11.1 Bicycle network

The Perth and Peel Long Term Cycle Network (LTCN) designates routes by their function, rather than built form. Function considers the type of activities that take place along a route, and the level of demand (existing and potential). The built form of a route is based on the characteristics of the environment, including space availability, topography, traffic conditions (speed, volumes), and primary users. The cycling network hierarchy is described in Figure 15.

	1. PRIMARY ROUTE	2. SECONDARY ROUTE	3. LOCAL ROUTE
Function	Primary routes are high demand corridors that connect major destinations of regional importance. They form the spine of the cycle network and are often located adjacent to major roads, rail corridors, rivers and ocean foreshores. Primary routes are vital to all sorts of bike riding, including medium or long-distance commuting / utility, recreational, training and tourism trips.	Secondary routes have a moderate level of demand, providing connectivity between primary routes and major activity centres such as shopping precincts, industrial areas or major health, education, sporting and civic facilities. Secondary routes support a large proportion of commuting and utility type trips, but are used by all types of bike riders, including children and novice riders.	Local routes experience a lower level of demand than primary and secondary routes, but provide critical access to higher order routes, local amenities and recreational spaces. Predominantly located in local residential areas, local routes often support the start or end of each trip, and as such need to cater for the needs of users of all ages and abilities.
Design Philosophy	An <u>all ages and abilities</u> design philosophy is about creating places and facilities that are safe, comfortable and convenient for as many people as possible. By planning for and designing infrastructure that caters for the youngest and most vulnerable users, we create a walking and bike riding network that everyone can use. At the heart of this approach is fairness and enabling all people to use the network regardless of age, physical ability or the wheels they use.		
Form	All routes can take a number of different forms and are designed to suit the environment in which they are located. These forms include: • Bicycle only, shared and/or separated paths; • Protected bicycle lanes (uni or bi-directional, depending on the environment); and • Safe active streets Principal Shared Paths (PSPs) are often built along primary routes. A PSP is a high quality shared path built to MRWA PSP standard which generally means the path will be 4m wide, have adequate lighting and be grade separated at intersections (where possible). In some locations, quiet residential streets incorporating signage and wayfinding may be appropriate for local routes.		

Figure 15: Western Australian Cycling Network Hierarchy

The Long-Term Cycle Network plan is detailed in Figure 16. Brighton Road is designated as a ‘Local Route’ in the LTCN. The existing cycling infrastructure on Brighton Road includes on-street cycling lanes and off-street paths on both sides of the road. The cycling infrastructure is rated as ‘adequate’ in the LTCN.

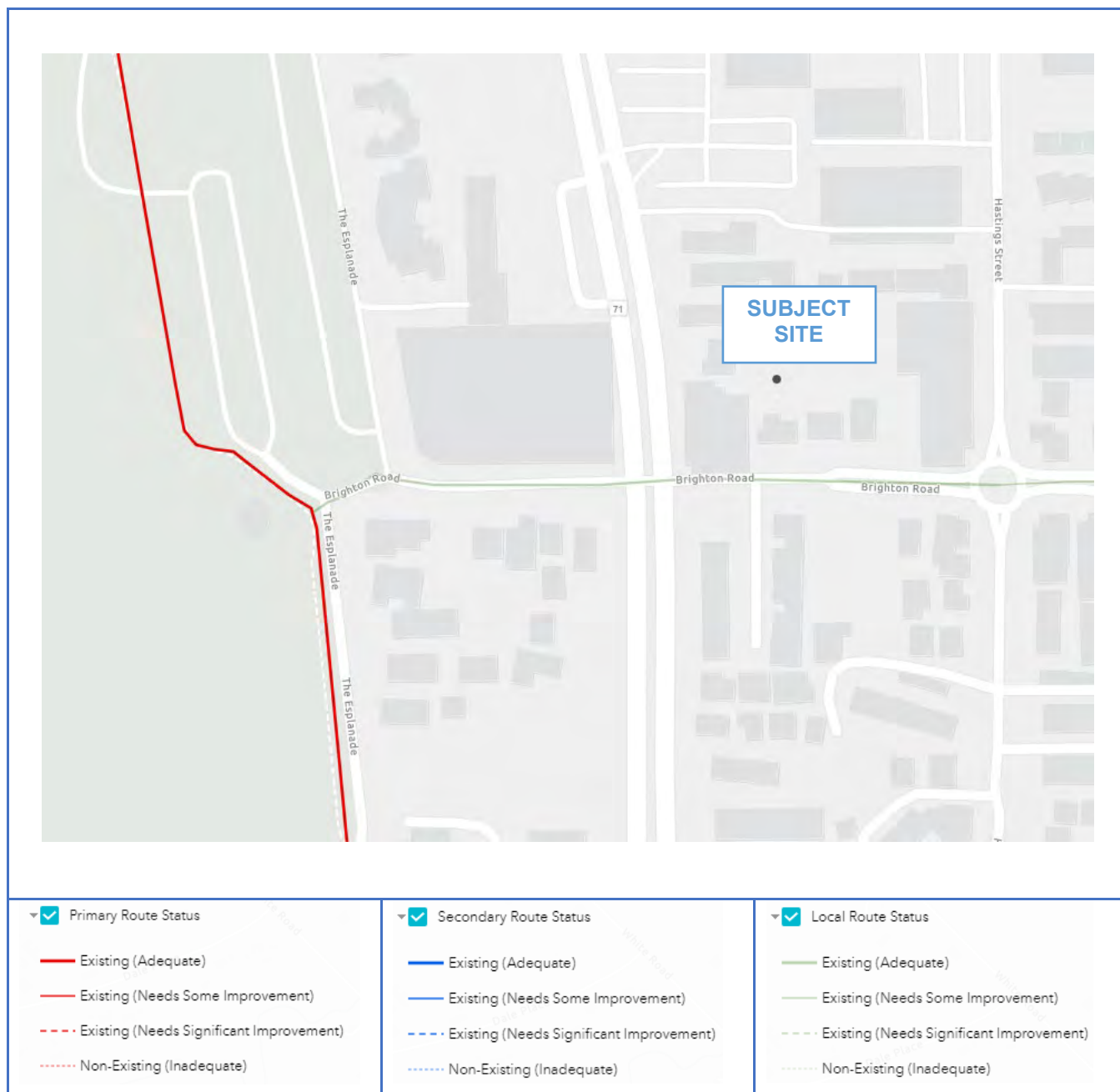


Figure 16: Perth and Peel Long Term Cycle Network plan (LTCN)

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The Strava cycling heatmap tool shows that Brighton Road and the coastal recreational shared path are relatively popular cycling routes in the area (Figure 17).

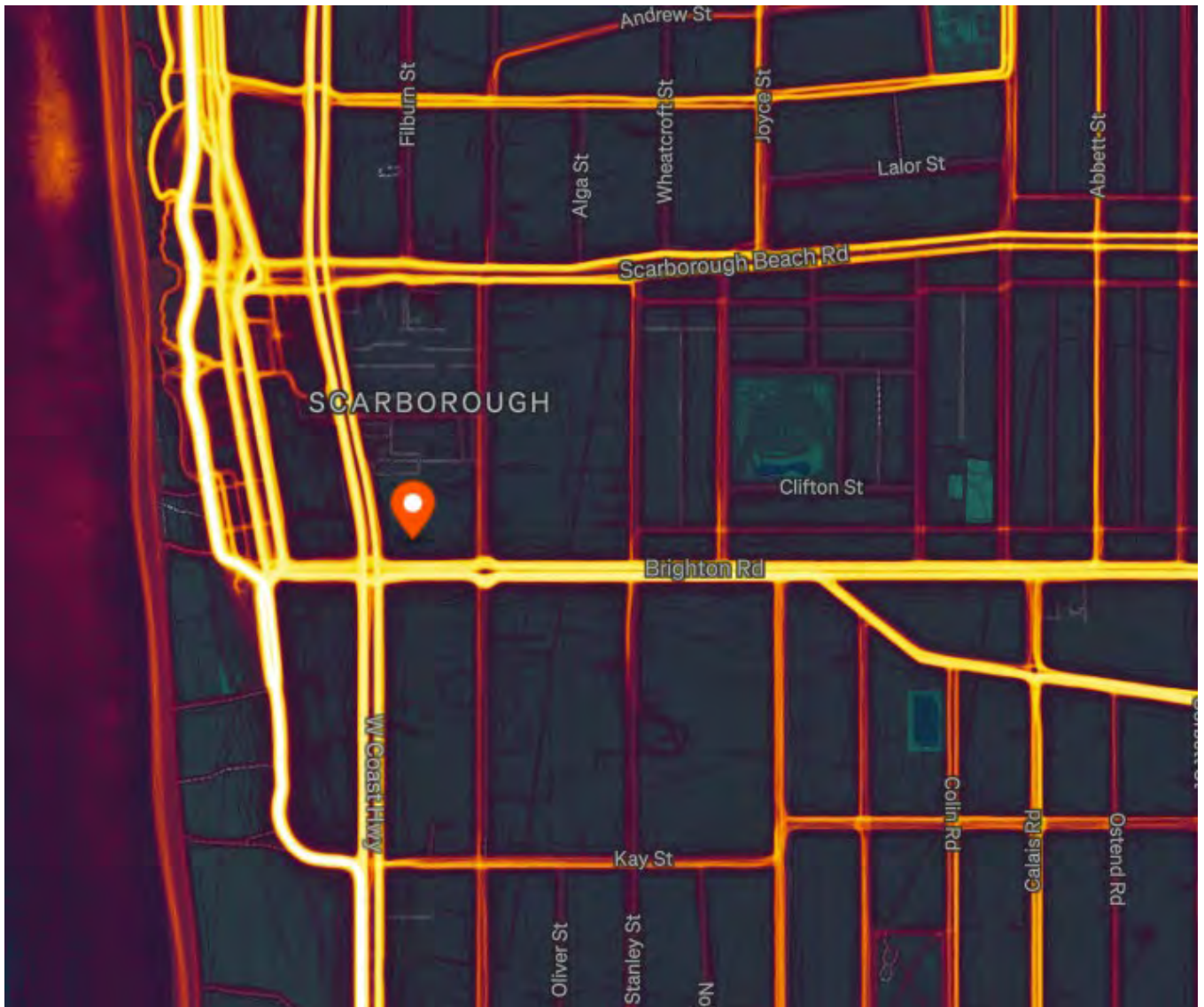


Figure 17: Strava cycling heatmap

11.2 Sustainable transport catchment

As detailed in Figure 18, the subject site is well placed for residents and visitors to travel by sustainable modes of transport. A comfortable 8km or 20-25min cycle will provide the development with a large catchment.

This range can be further increased through a combination of micro-mobility and train travel with close access to train stations.

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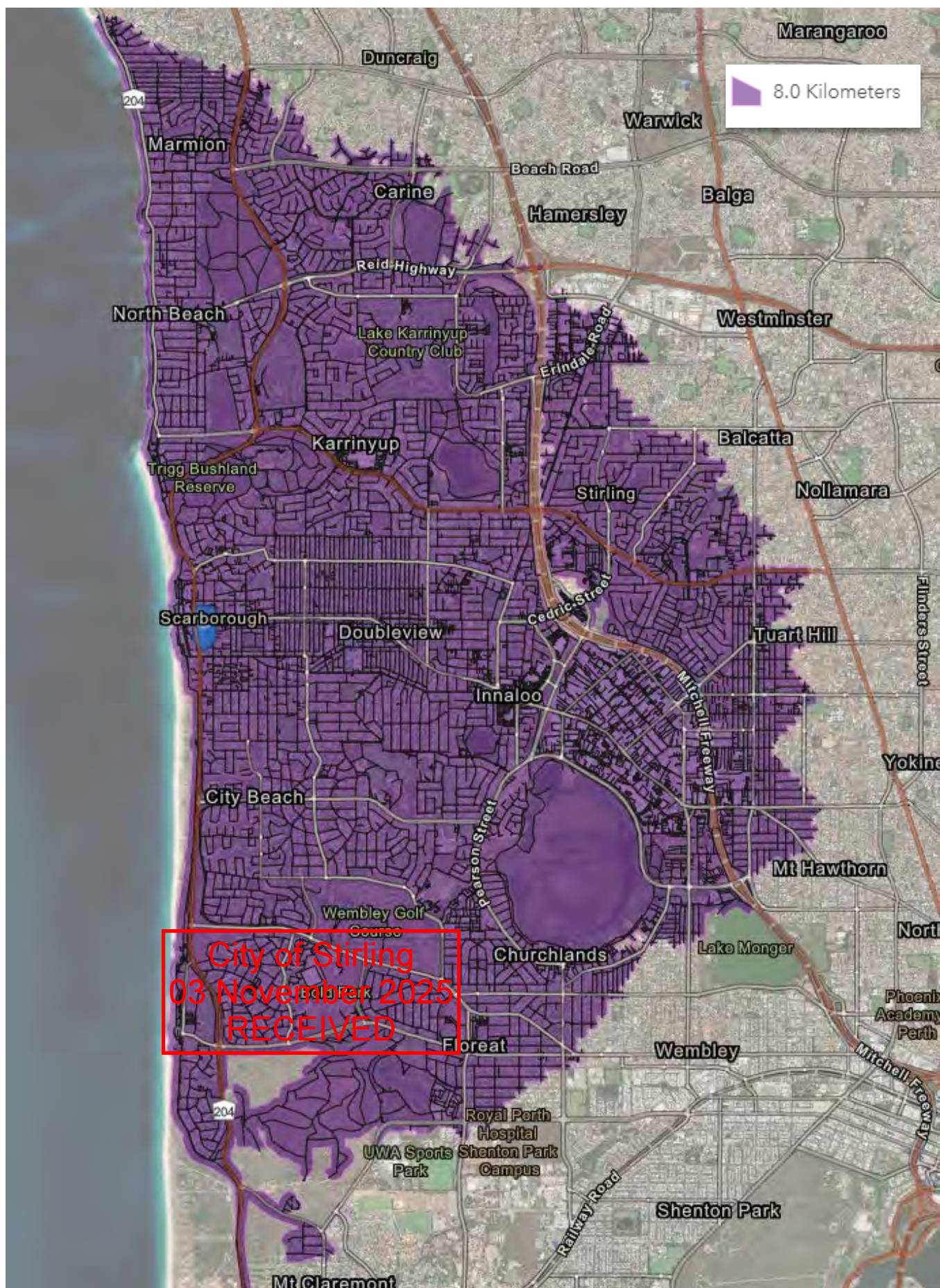


Figure 18: Cycling and micro-mobility catchment



12 Site specific issues

This updated Transport Impact Statement has been prepared to address comments received from the City of Stirling regarding vehicle access, sightlines, and internal traffic management for the proposed development at 22 Brighton Road, Scarborough. The key issues raised by the City have been reviewed in detail, and the revised TIS incorporates corresponding design updates and technical assessments.

Amendments have been made to the ground floor plan to incorporate 1.5-metre sightline truncations at vehicle access points, ensuring that adequate visibility is achieved for vehicles entering and exiting the site in accordance with R-Codes and the City's Engineering Services requirements. These sightline provisions have been clearly identified on the amended architectural drawings and integrated into the updated analysis.

In response to the City's request for an internal passing bay, a detailed traffic assessment was undertaken to determine whether such a bay is required. The analysis demonstrates that due to the low traffic generation in the peak hour, the likelihood of opposing vehicle conflicts within the internal driveway is extremely low—calculated at less than 2% using Poisson probability methods. This confirms that the 4.0-metre-wide accessway can operate effectively without the need for a dedicated passing bay.

Additional swept path analysis was carried out to validate vehicle manoeuvring performance within the site. The results confirm that vehicles can enter and exit all garages in forward gear, and that a vehicle exiting a garage can reverse and temporarily stand within its own lot to allow an inbound vehicle to pass. This arrangement enables all passing movements to occur entirely within the subject site, maintaining adequate clearance between vehicles and ensuring safe operation.

To formalise movement priorities and reinforce safe driver behaviour, "Give Way to Entry Traffic" signage will be installed within the internal driveway, assigning priority to inbound vehicles from Brighton Road. This measure will be supported by strata bylaws, ensuring consistent management of on-site vehicle movements.

Overall, the updated assessment confirms that the proposed design amendments and operational measures appropriately address the City's feedback. The internal accessway and parking layout provide for safe, efficient, and practical operation consistent with AS2890.1 and the expectations of the City of Stirling Engineering Services.

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13 Safety issues

The five-year crash history in the vicinity of the site was obtained from Main Roads WA. As detailed in Figure 19, 1 crash was recorded in the locality in the last five years. The detailed crash history is presented in Table 5.

The low traffic generation of the proposed development is unlikely to impact traffic safety in the area.



Figure 19: 5-year crash map in the locality (2020-2024)

Source: MRWA crash mapping tool

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Table 5: 5-year crash history in the locality (2020-2024)

Severity	No.	%	Light	No.	%
Fatal	0	0	Dark - Street Lights Not Provided	0	0
Hospital	0	0	Dark - Street Lights Off	0	0
Medical	0	0	Dark - Street Lights On	0	0
PDO Major	1	100.00	Dawn Or Dusk	0	0
PDO Minor	0	0	Daylight	1	100.00
			Not Known	0	0
Year	No.	%	Conditions	No.	%
2021	1	100.00	Dry	1	100.00
			Not Known	0	0
Nature	No.	%	Wet	0	0
Head On	0	0	Alignment	No.	%
Hit Animal	0	0	Curve	0	0
Hit Object	0	0	Not Known	0	0
Hit Pedestrian	0	0	Straight	1	100.00
Non Collision	0	0			
Not Known	0	0	Total		1
Rear End	0	0			
Right Angle	1	100.00			
Right Turn Thru	0	0			
Sideswipe Opposite Dirn	0	0			
Sideswipe Same Dirn	0	0			

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14 Conclusion

This Transport Impact Statement has been prepared by Urbii on behalf of Brighton Road (WA) Pty Ltd with regards to the proposed residential development, located at 22 Brighton Rd, Scarborough.

The subject site is situated on the northern side of Brighton Road. The site presently accommodates a residential dwelling and is surrounded by a mix of residential, commercial and retail land uses.

It is proposed to develop the site into a residential development, delivering 8 dwellings.

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

The car parking supply is satisfactory and can accommodate the car parking demand of the proposed development.

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

As part of this revised assessment, the TIS has been updated to incorporate the City of Stirling's comments relating to vehicle access and internal circulation. The amended design includes 1.5-metre sightline truncations at vehicle access points to ensure compliant visibility, while further technical analysis has confirmed that an internal passing bay is not required due to the low traffic volumes generated by the development. Swept path assessments demonstrate that all vehicle movements can be safely accommodated within the site, and operational measures such as "Give Way to Entry Traffic" signage and strata by-law provisions will ensure safe and efficient two-way operation along the internal driveway. These outcomes confirm that the updated access and parking arrangements satisfy the relevant design standards and address the City's engineering feedback in full.

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

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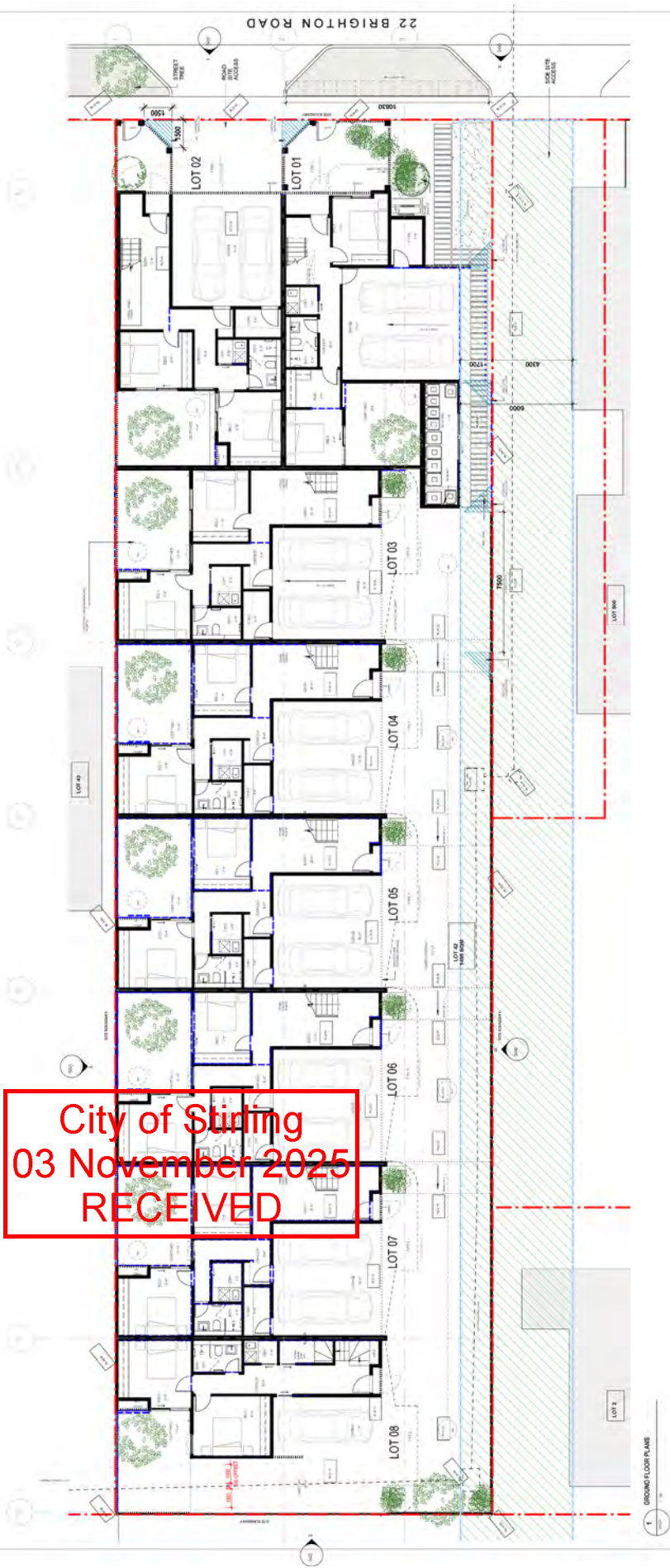


15 Appendices

Appendix A: Proposed development plans



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2505
22 BRIGHTON ROAD, STIRLING

PROJECT

HILLAM ARCHITECTS

DATE

11/10/2025

SCALE

1:100 (A1)

DATE

18/10/2025

BY

DAVID HILLAM

FOR

22 BRIGHTON ROAD, STIRLING

PROJECT

2505

GROUND FLOOR PLANS

DATE

DAVID HILLAM

BY

DAVID HILLAM

FOR

22 BRIGHTON ROAD, STIRLING

PROJECT

2505

GROUND FLOOR PLANS

DATE

DAVID HILLAM

BY

DAVID HILLAM

FOR

22 BRIGHTON ROAD, STIRLING

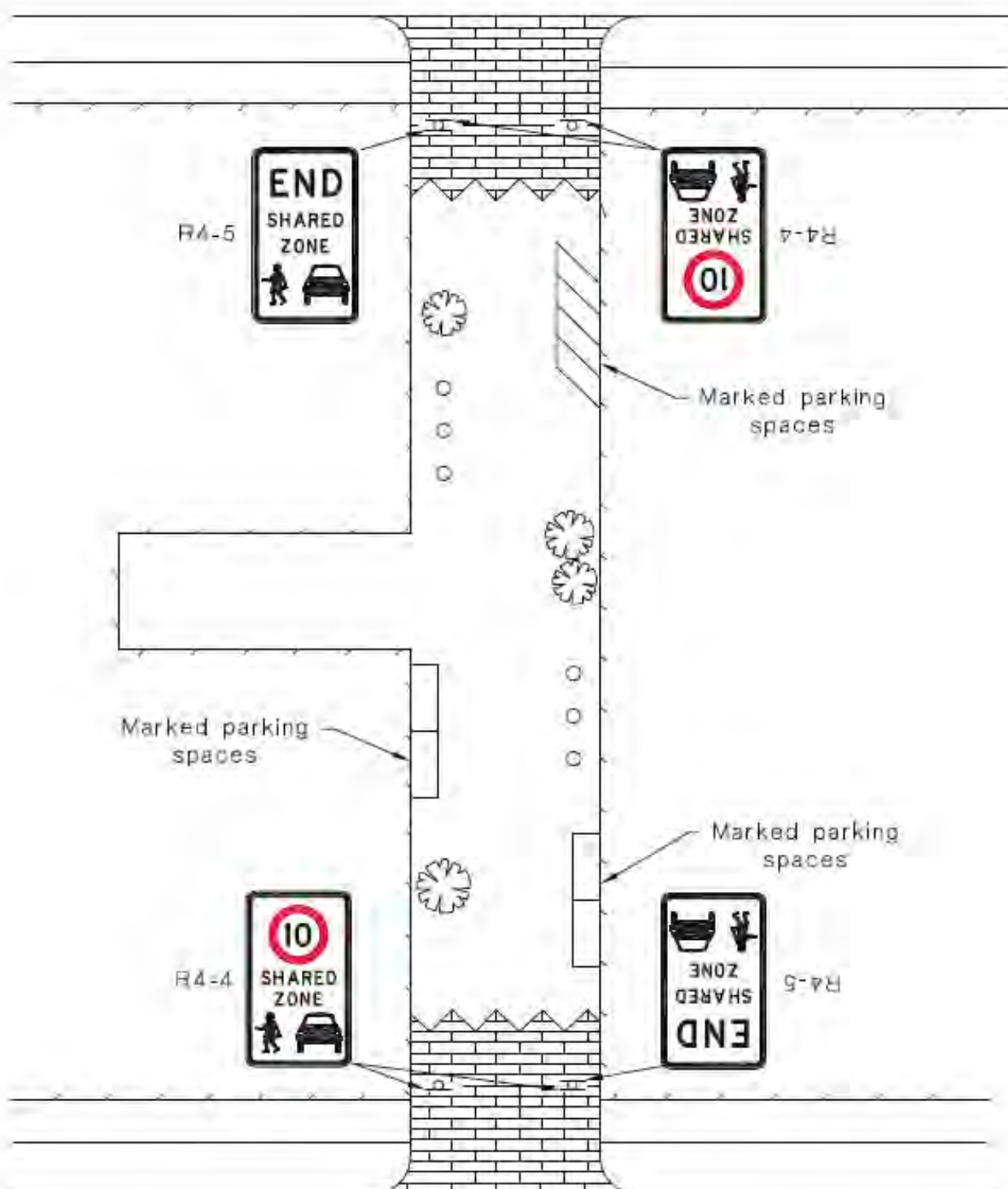
2505

22 BRIGHTON ROAD, STIRLING



Appendix B: Typical shared zone treatment

Source: AS 1742.4 – 2008



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TABLE 3.1
SELECTION OF ACCESS FACILITY CATEGORY

Class of parking facility (see Table 1.1)	Frontage road type	Access facility category				
		Number of parking spaces (Note 1)				
		<25	25 to 100	101 to 300	301 to 600	>600
1.1A	Arterial	1	2	3	4	5
	Local	1	1	2	3	4
2	Arterial	2	2	3	4	5
	Local	1	2	3	4	4
3.3A	Arterial	2	3	4	4	5
	Local	1	2	3	4	4

NOTES:

- 1 When a car park has multiple access points, each access should be designed for the number of parking spaces effectively served by that access.
- 2 This Table does not imply that certain types of development are necessarily suitable for location on any particular frontage road type. In particular, access to arterial roads should be limited as far as practicable, and in some circumstances it may be preferable to allow left-turn-only movements into and out of the access driveway.

TABLE 3.2
ACCESS DRIVEWAY WIDTHS

metres			
Category	Entry width	Exit width	Separation of driveways
1	3.0 to 5.5	(Combined) (see Note)	N/A
2	6.0 to 9.0	(Combined) (see Note)	N/A
3	6.0	4.0 to 6.0	1 to 3
4	6.0 to 8.0	6.0 to 8.0	1 to 3
5	To be provided as an intersection, not an access driveway, see Clause 3.1.1.		

NOTE: Driveways are normally combined, but if separate, both entry and exit widths should be 3.0 m min.

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Appendix D: Swept path diagrams

Swept path diagrams are included in this section of the report. Different coloured lines are employed to represent the various envelopes of the vehicle swept path, as described below:

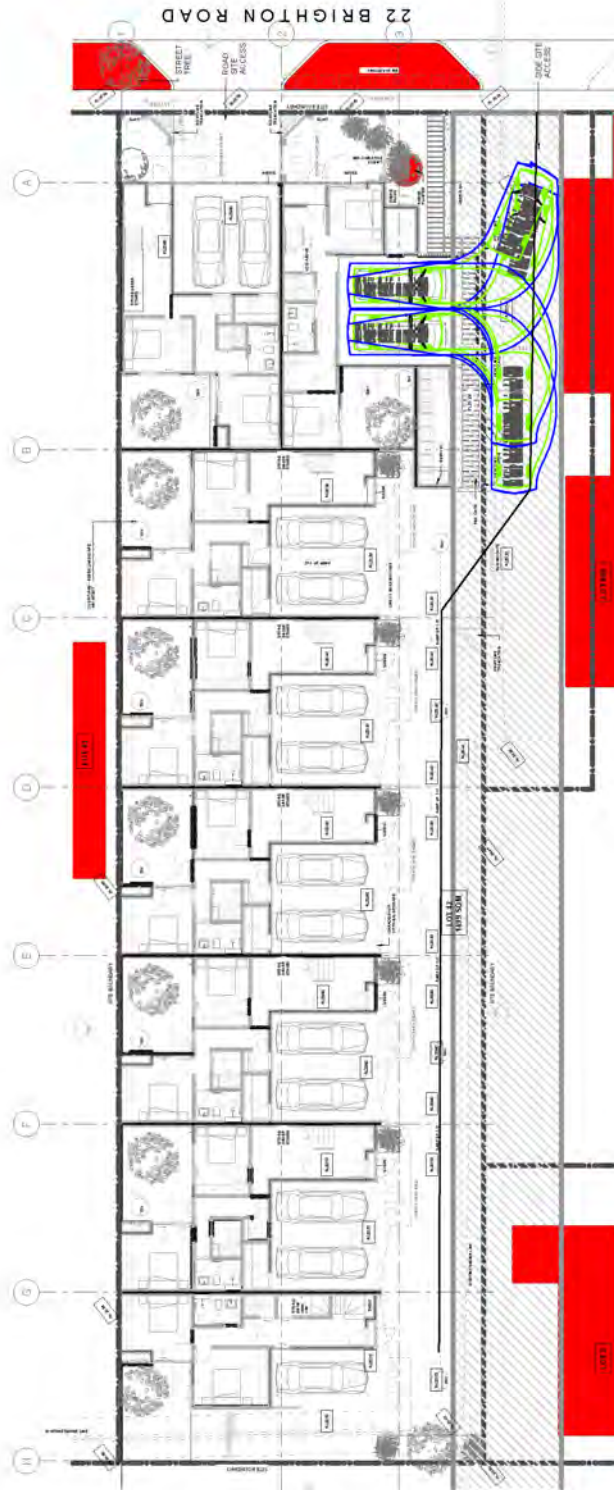
Cyan represents the wheel path of the vehicle

Green represents the vehicle body envelope

Blue represents a 500mm buffer line, offset from the vehicle swept path

The swept path diagrams are also provided separately in high-quality, A3 PDF format.

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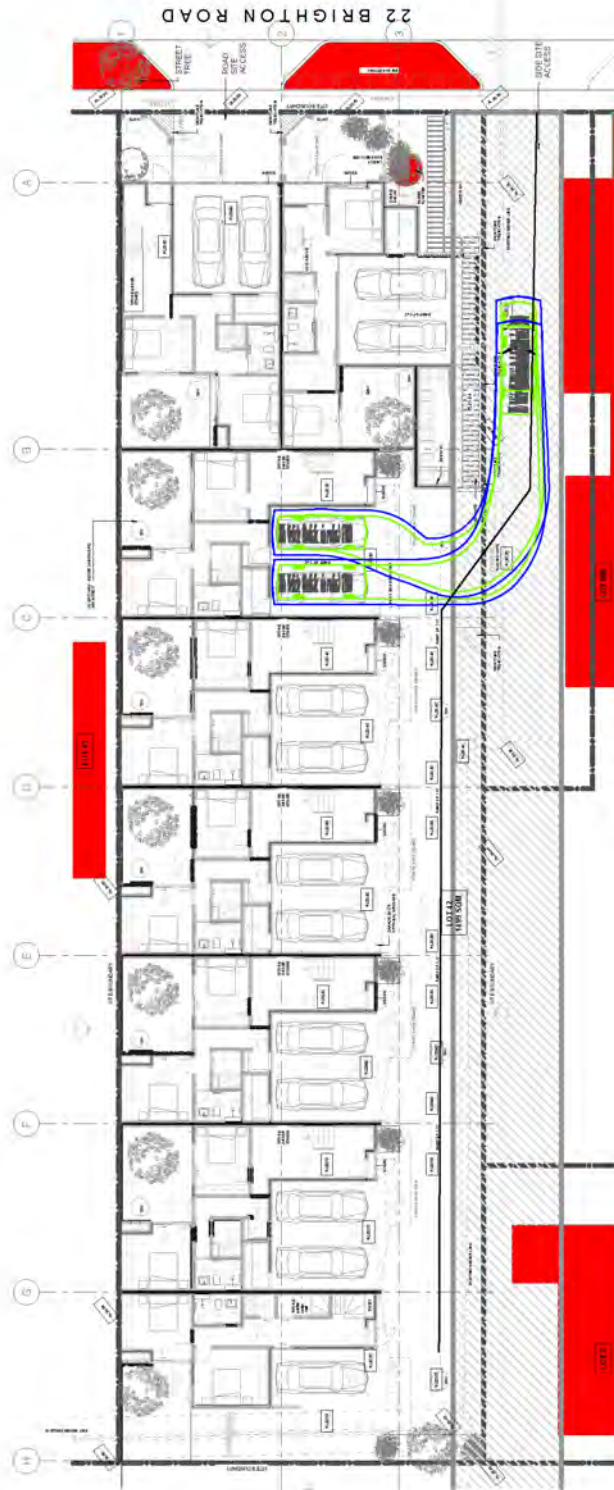
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Sustainable Transport. Safe Solutions
PO Box 4516, Stirling Park 111
011 833 0000

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Scale: A3:
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Revision: 01/01/2025

Project: U25.048 - 22 Brighton Rd, Scarborough
Proposed Residential Development
Drawing Title: Site plan analysis
AS2000.1 - 885 Vehicle

Drawn by: Phil Gifford
Client: Brighton Road (VA) Pty Ltd

Revision notes:
Rev: 1
Date: 07/05/2025
Note: Dark blue line represents a 300mm clearance buffer.



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KY16 9YU
01753 512124

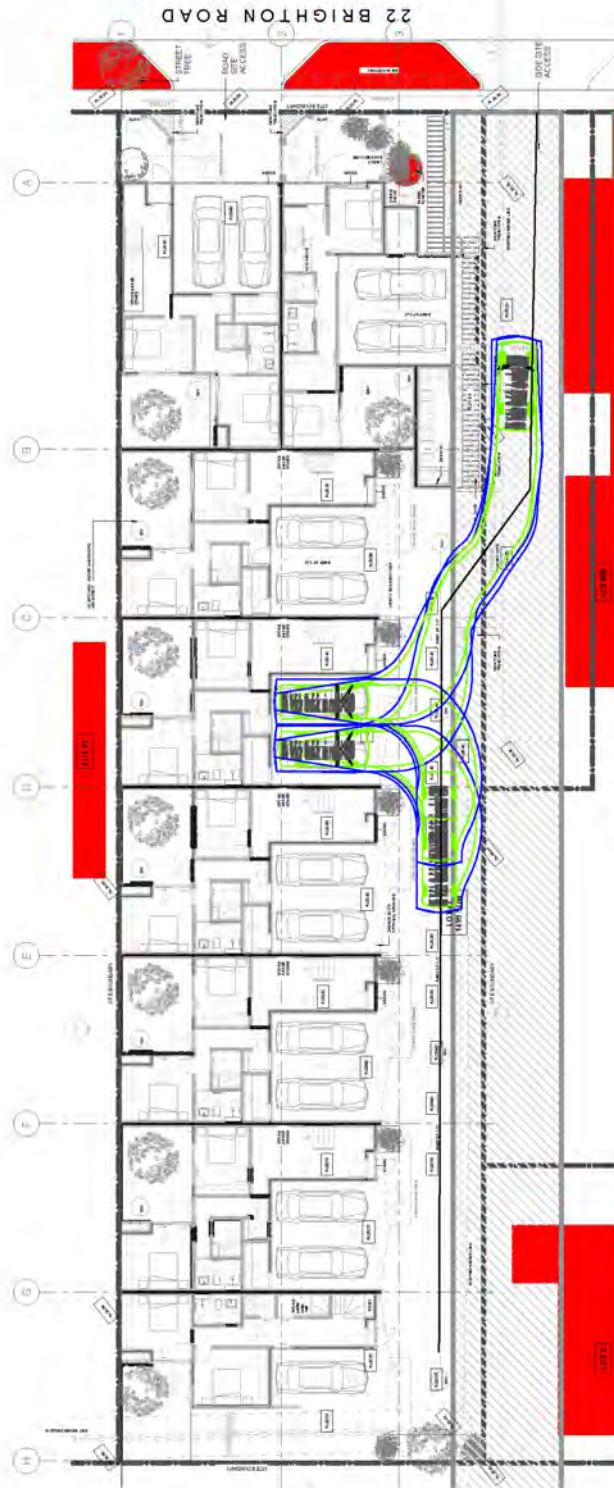
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Scale: A3
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Revision: 00/000

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Proposed Residential Development
Drawing Title: Street path analysis
AS2500.1 - 805 Vehicle

Drawn by: Paul O'Connell
Client: Brighton Road (VA) Pty Ltd

Revision notes:
Rev: 1 Date: 07/05/2025
Note: Dark blue line represents a 300mm clearance buffer.





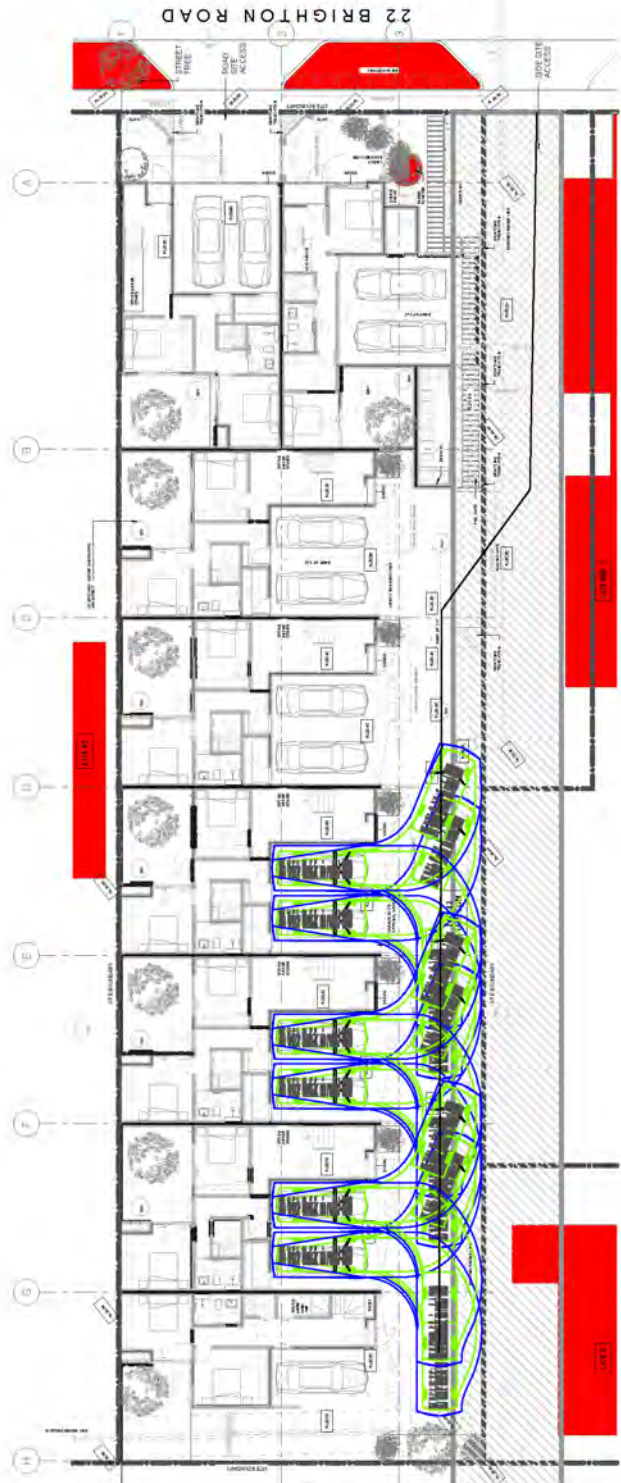
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Canada (416) 763-8888

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Scale: A3
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Revision: 04/04/25

Project: U25.048 - 22 Brighton Rd., Scarborough
Proposed Residential Development
Drawing Title: Street path analysis
AS2500.1 - 805 Vehicle

Drawn by: Phil Gifford
Client: Brighton Road (NVA) Pty Ltd

Revision notes:
Rev: 1 Date: 07/05/2025
Note: Dark blue line represents a 300mm clearance buffer.



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Revision: 1/1

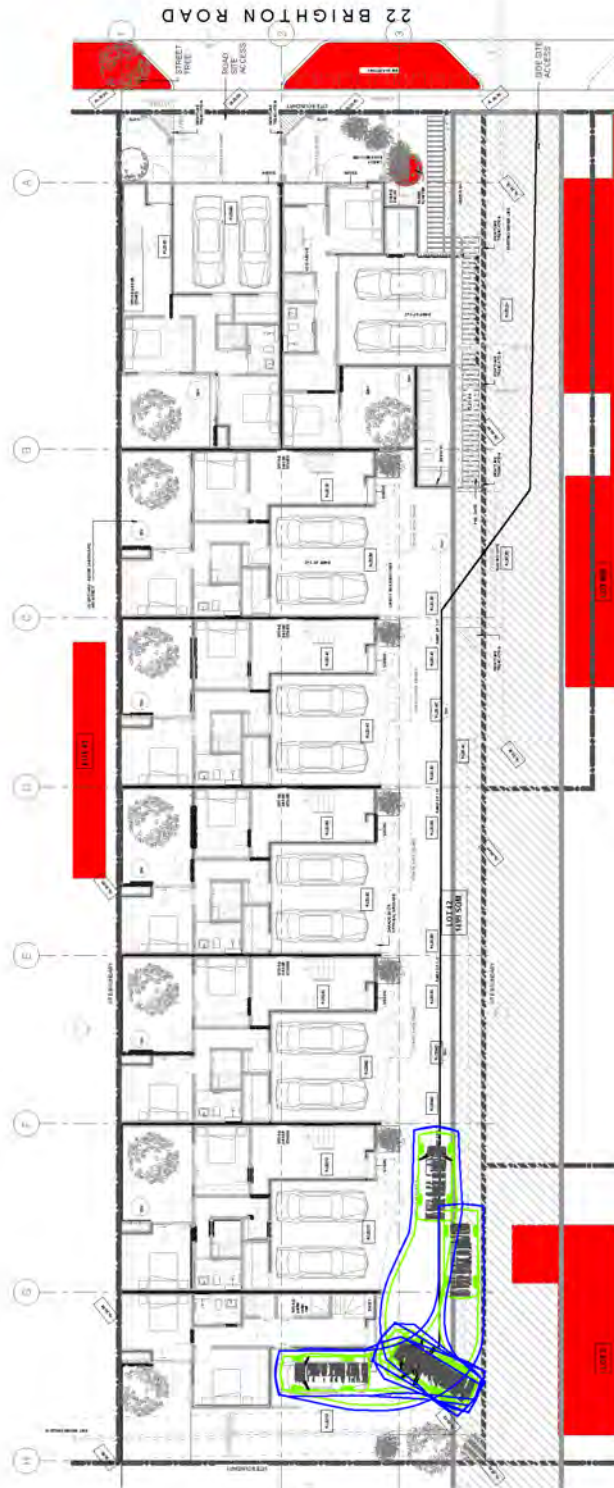
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Client: Brighton Road (VA) Pty Ltd

Revision notes:	
Rev.	Date
1	07/05/2025

Note: Dark blue line represents a 300mm clearance buffer.

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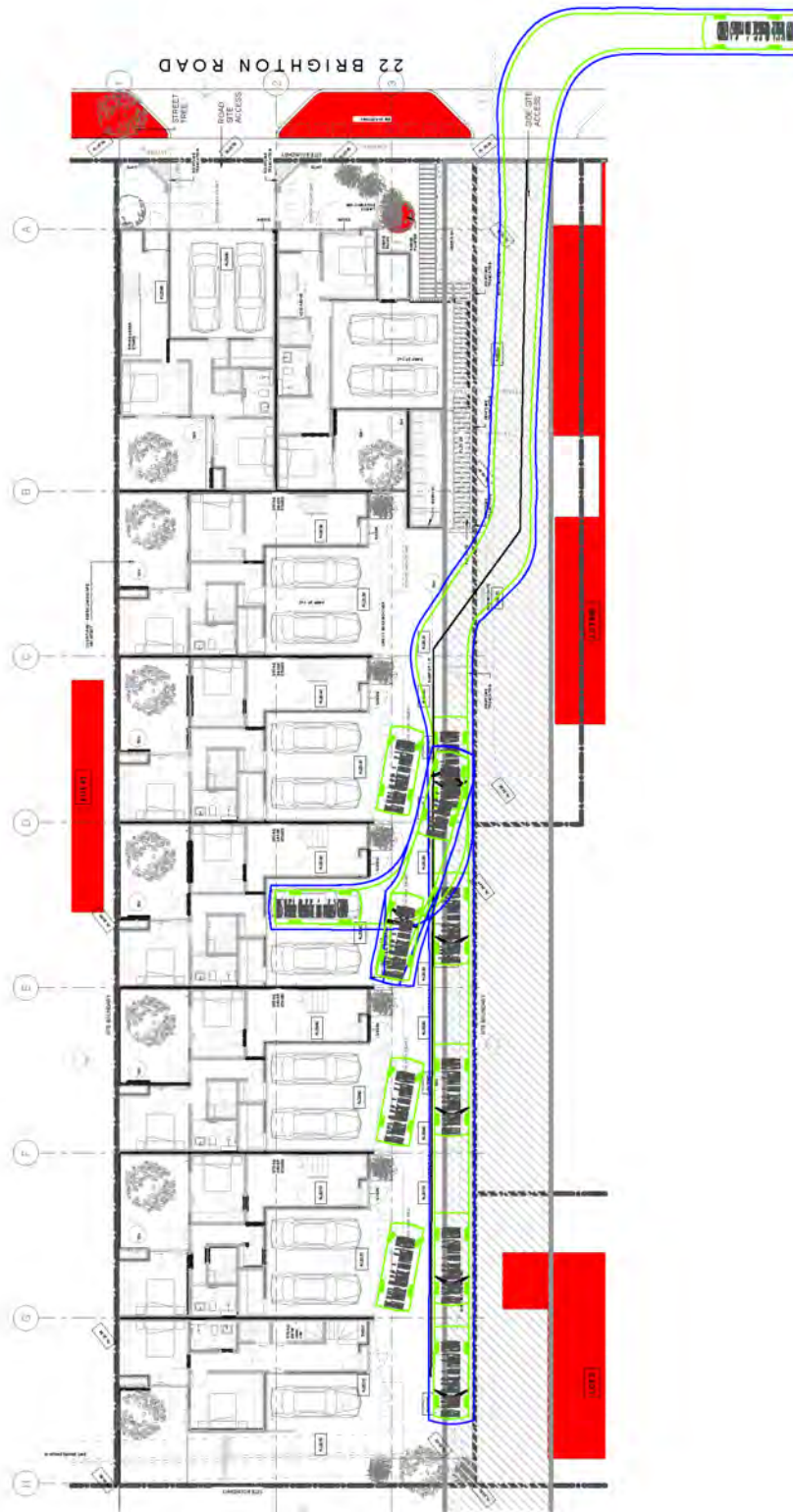
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 Australia
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Revision:	sk-006

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Drawn by: Paul Chantous	Client: Bourton Road (Wals) Pty Ltd
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Rev.	Date:	Notes
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Revision notes:	Date
Rev: 1	02/11/2025

Note: Dark blue line represents a 300mm clearance buffer.

Drawn by:
Paul Chisholm

Client:
Brighton Road (VA) Pty Ltd

Drawing Title:
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AS2880.1 - SBS Vehicle

Project:
UDS 048 - 22 Brighton Rd, Scarborough
Proposed Residential Development

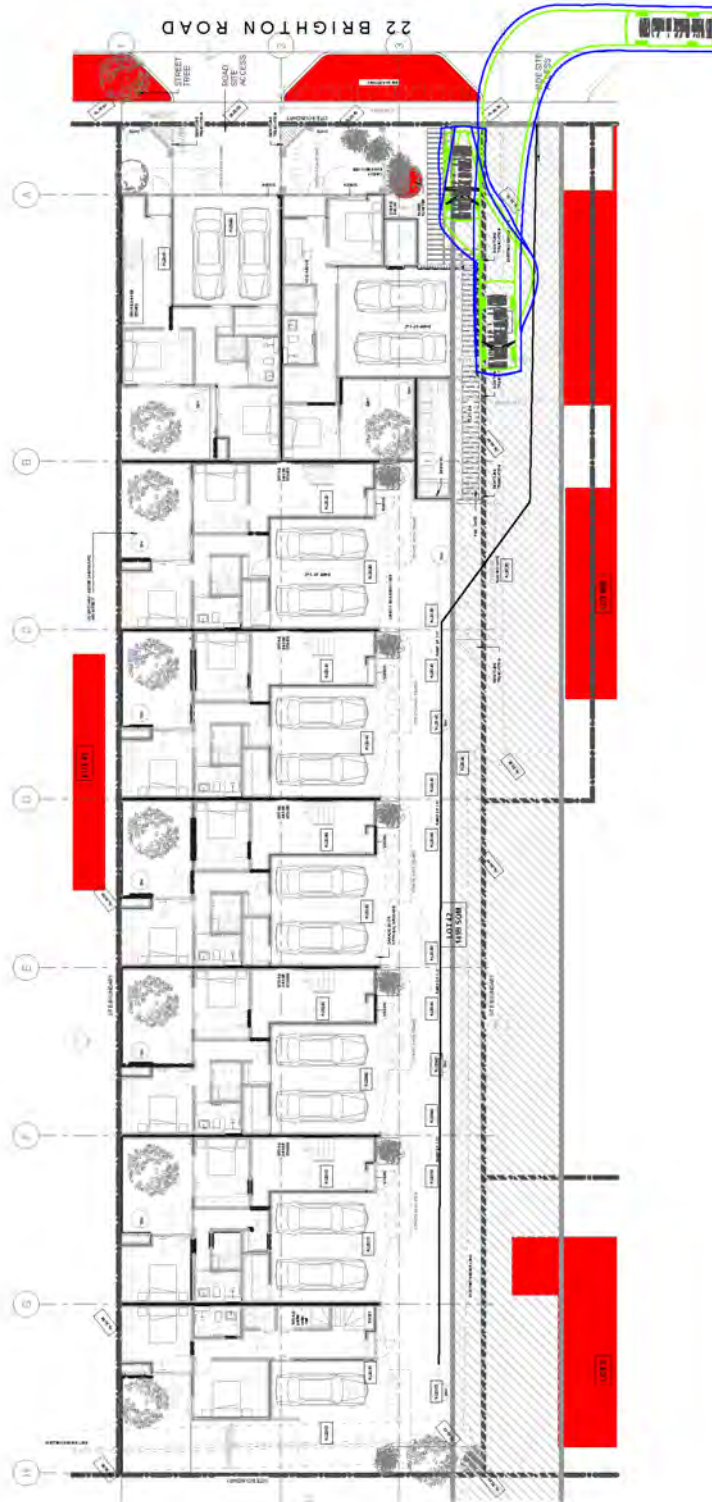
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08 9438 0000





Revision note:	Rev:	Date:
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Note: Dark blue line represents a 100mm clearance buffer.

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Paul Chantler

Client:
Brighton Road (VA) Pty Ltd

Project:

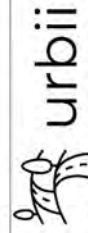
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Proposed Residential Development

Date:

02/11/2025

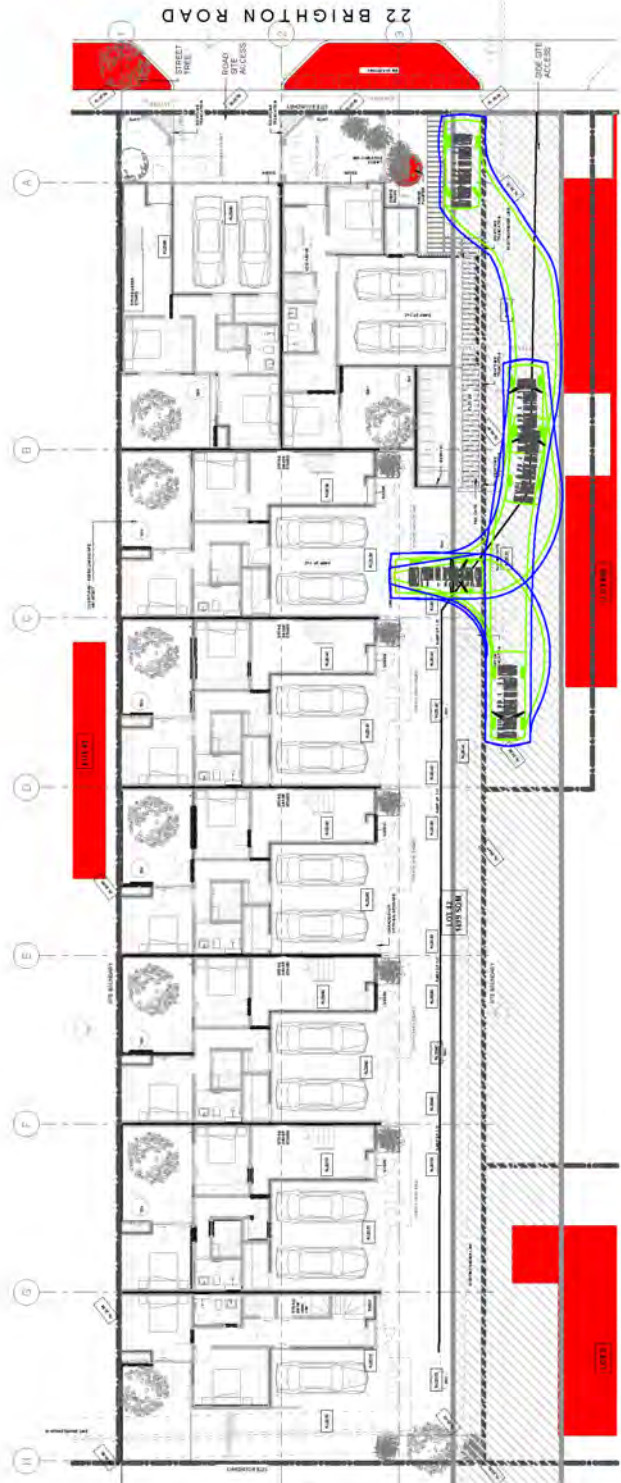
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Revision: 1/00

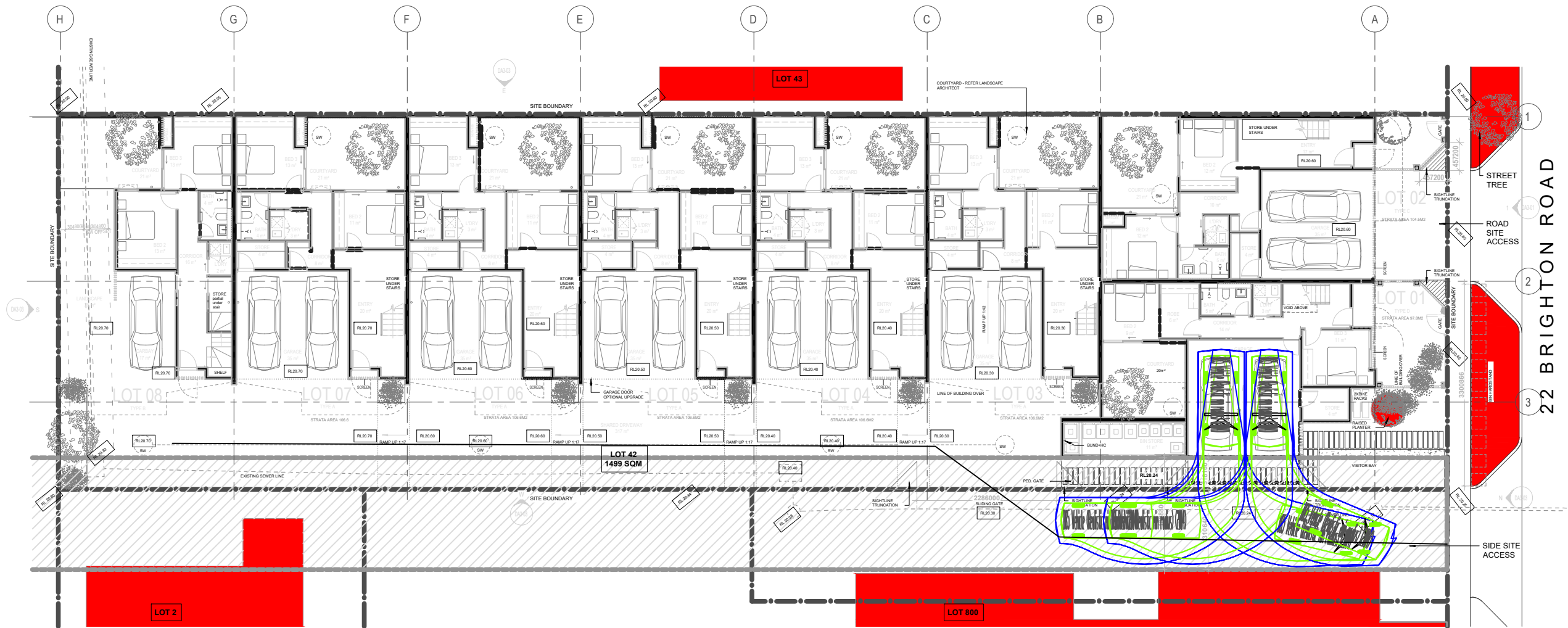
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Proposed Residential Development
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Drawn by: Phil Griffiths
Client: Brighton Road (VA) Pty Ltd

Revision notes:	
Rev.	Date
1	02/11/2025

Note: Dark blue line represents a 300mm clearance buffer.





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Revision notes:		
Rev:	Date:	Notes:
1	07/05/2025	Dark blue line represents a 300mm clearance buffer.

Drawn by:	Paul Ghantous
Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
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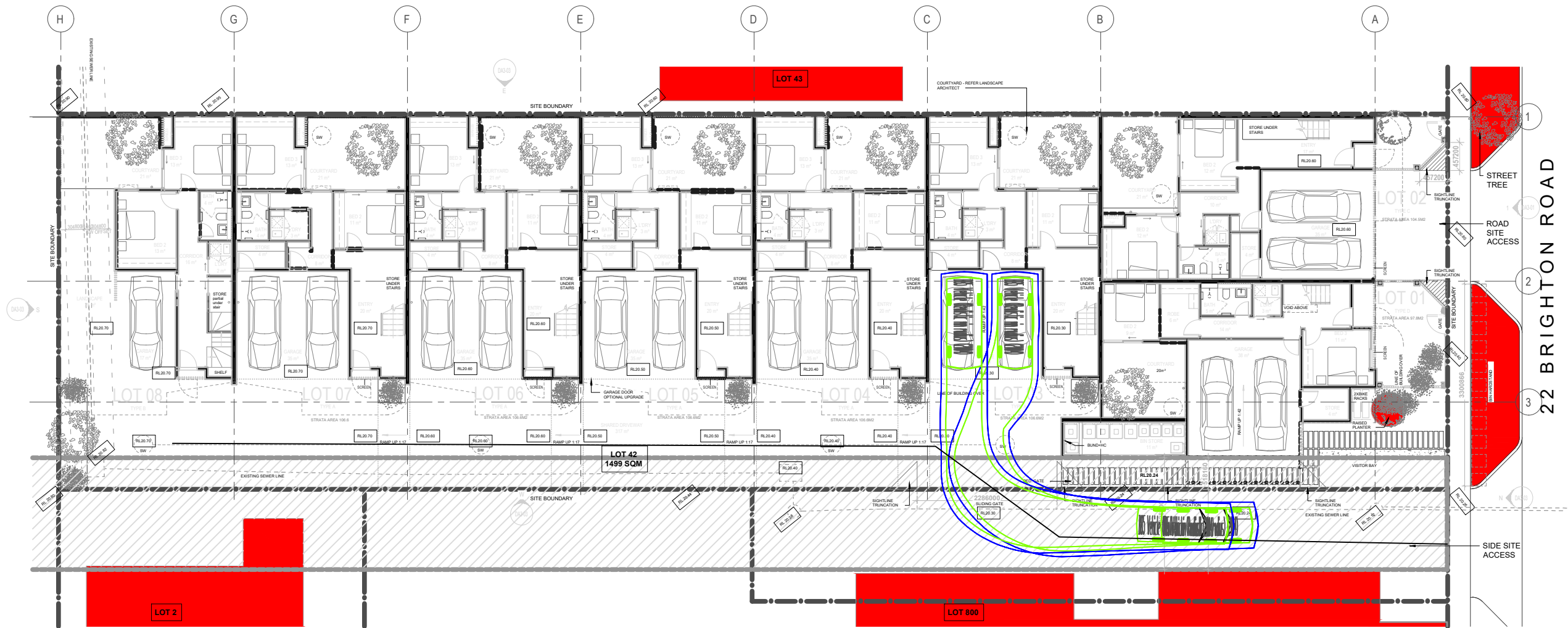
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Revision:	sk02a



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Rev:	Date:	Notes:
1	07/05/2025	Dark blue line represents a 300mm clearance buffer.

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Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
Drawing Title:	Swept path analysis AS2890.1 - B85 Vehicle

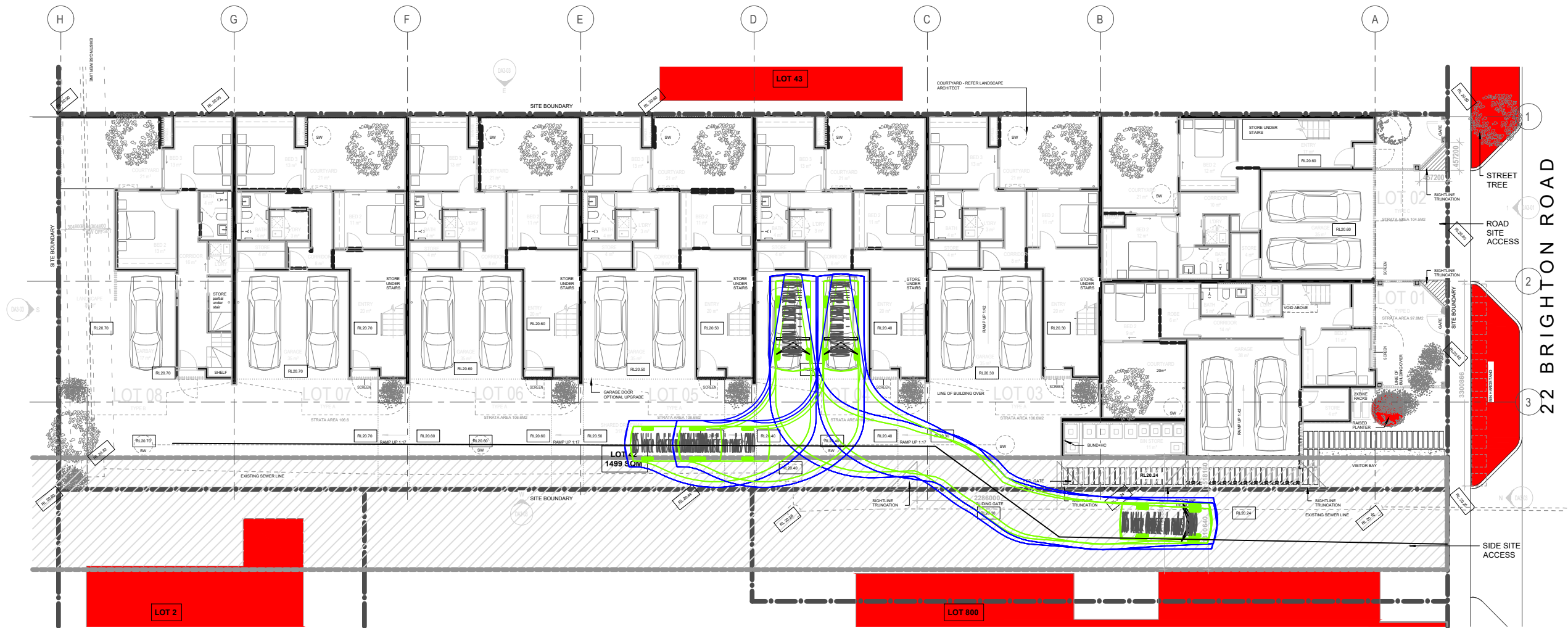
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Rev:	Date:	Notes:
1	07/05/2025	Dark blue line represents a 300mm clearance buffer.

Drawn by:	Paul Ghantous
Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
Drawing Title:	Swept path analysis AS2890.1 - B85 Vehicle

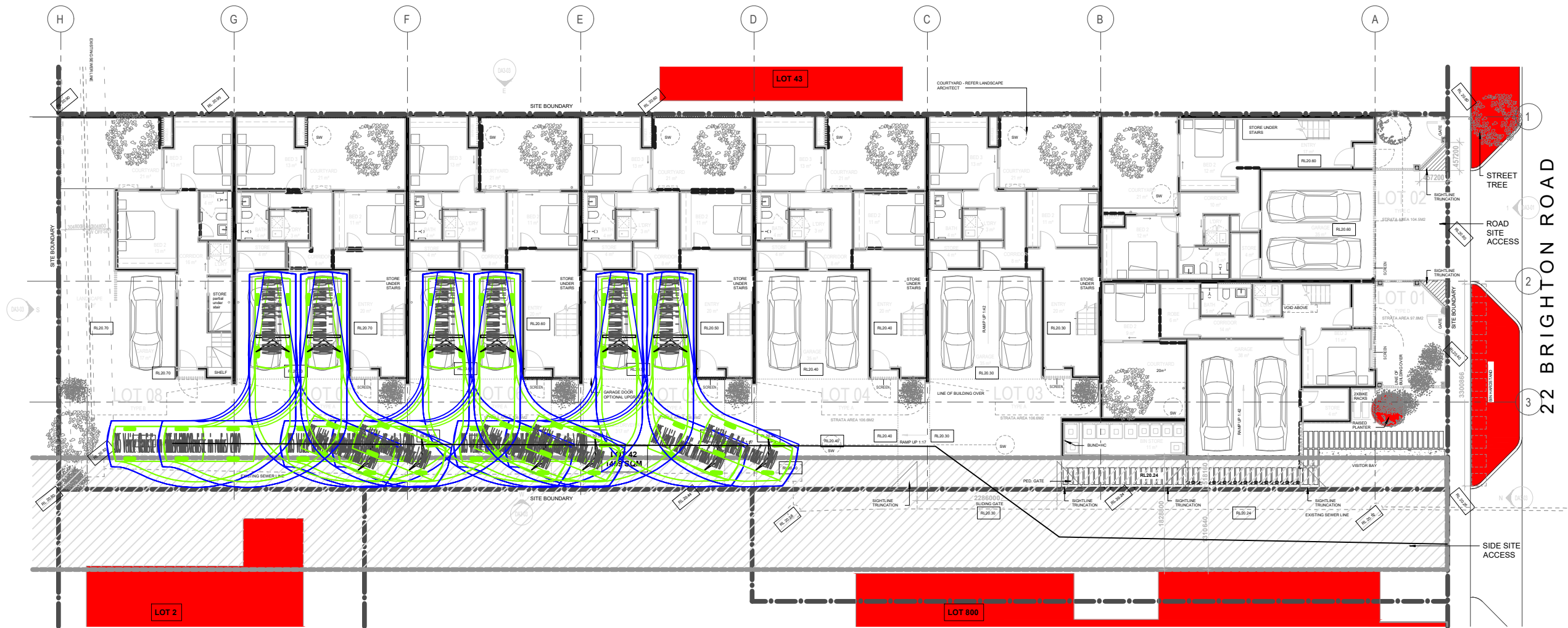
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Revision:	sk04a



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Drawn by:	Paul Ghantous
Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
Drawing Title:	Swept path analysis AS2890.1 - B85 Vehicle

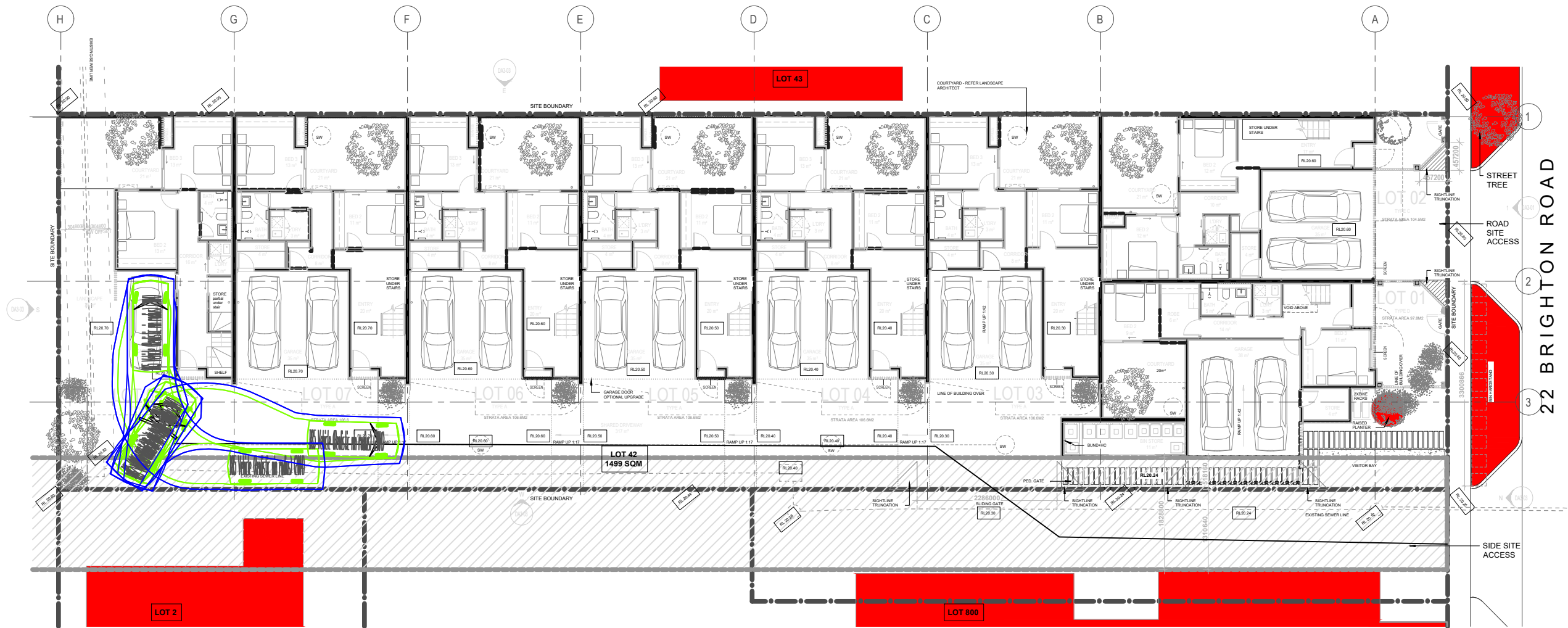
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Rev:	Date:	Notes:
1	07/05/2025	Dark blue line represents a 300mm clearance buffer.

Drawn by:	Paul Ghantous
Client:	Brighton Road (WA) Pty Ltd

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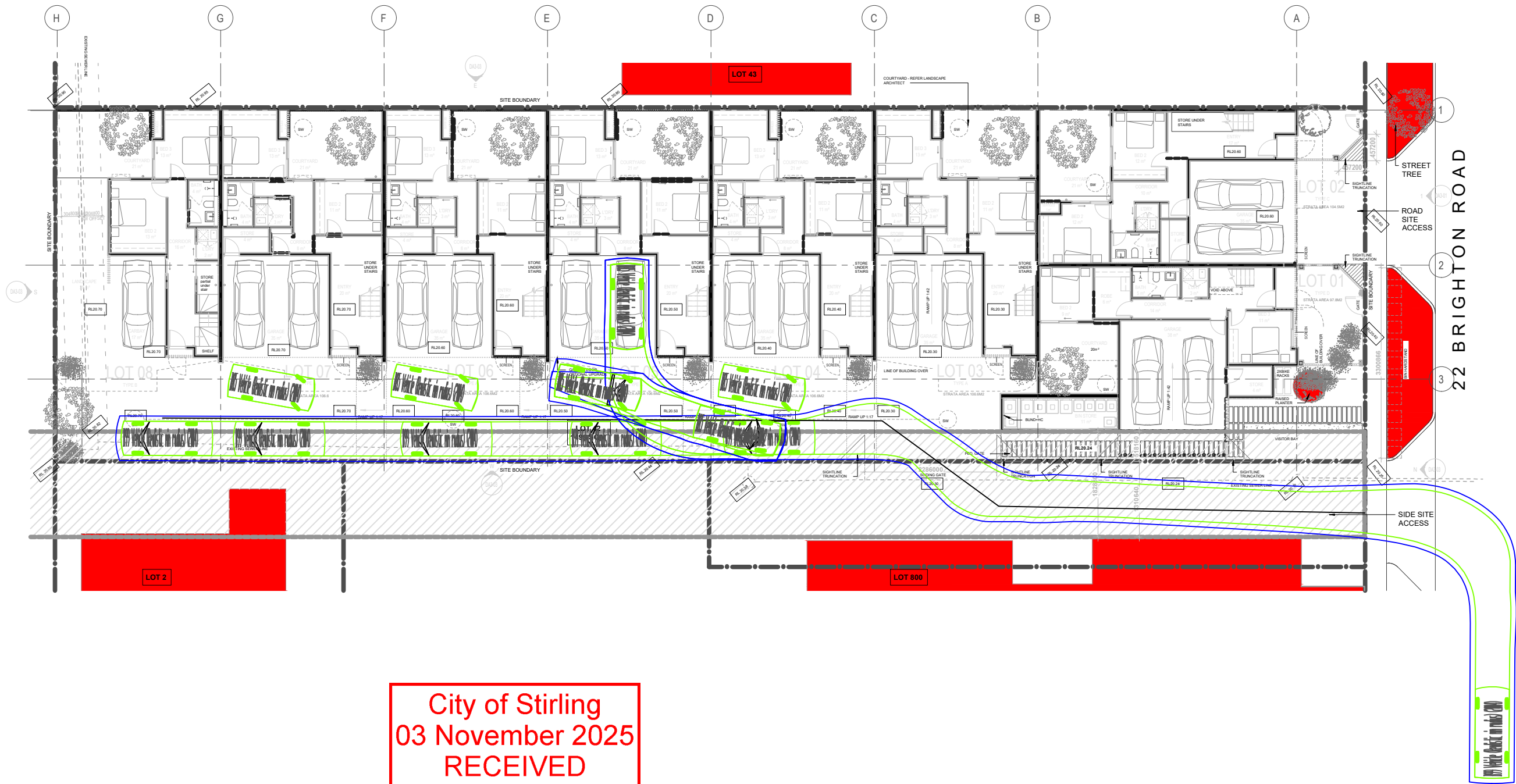
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Revision:	sk06a



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Rev:	Date:	Notes:
1	02/11/2025	Dark blue line represents a 300mm clearance buffer.

Drawn by:	Paul Ghantous
Client:	Brighton Road (WA) Pty Ltd

Project:	U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
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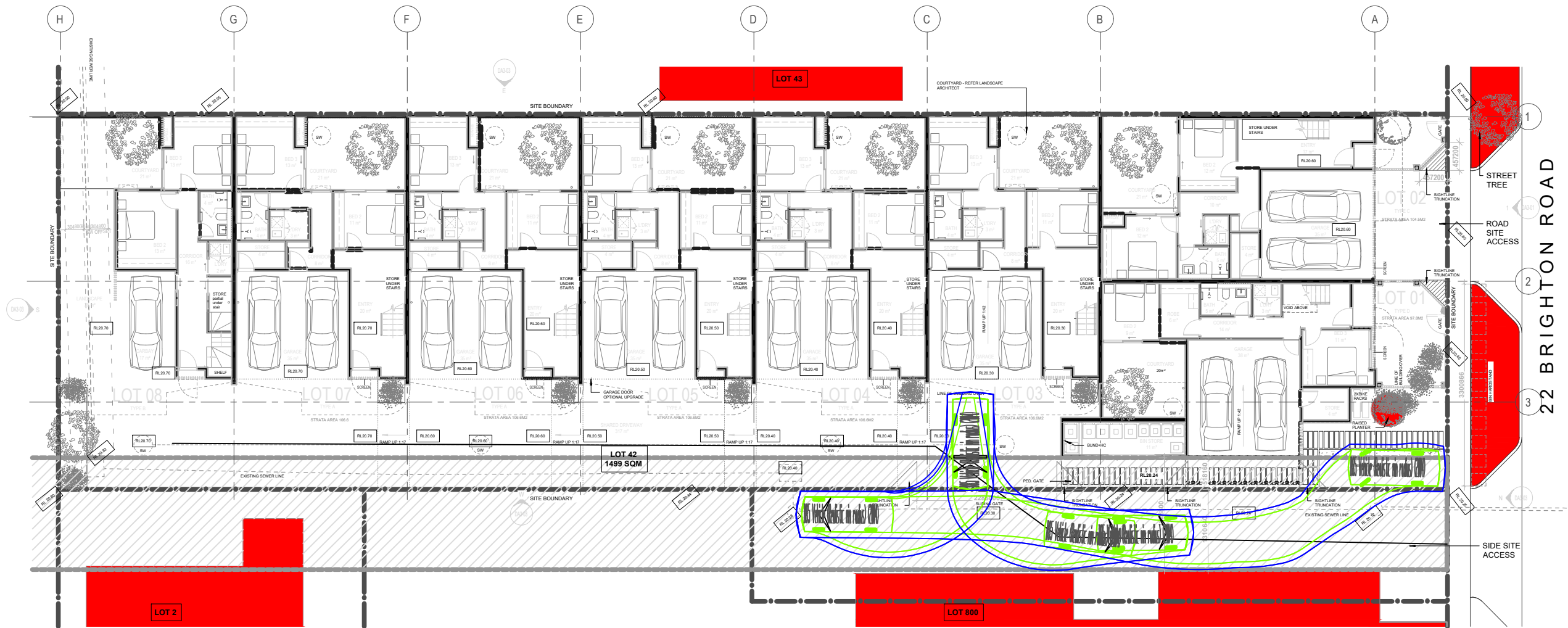
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Revision:	sk07



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Revision notes:		
Rev:	Date:	Notes:
1	02/11/2025	Dark blue line represents a 300mm clearance buffer.

Drawn by:
Paul Ghantous
Client:
Brighton Road (WA) Pty Ltd

Project:
U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development
Drawing Title:
Swept path analysis AS2890.1 - B85 Vehicle

Date:
02/11/2025
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Revision:
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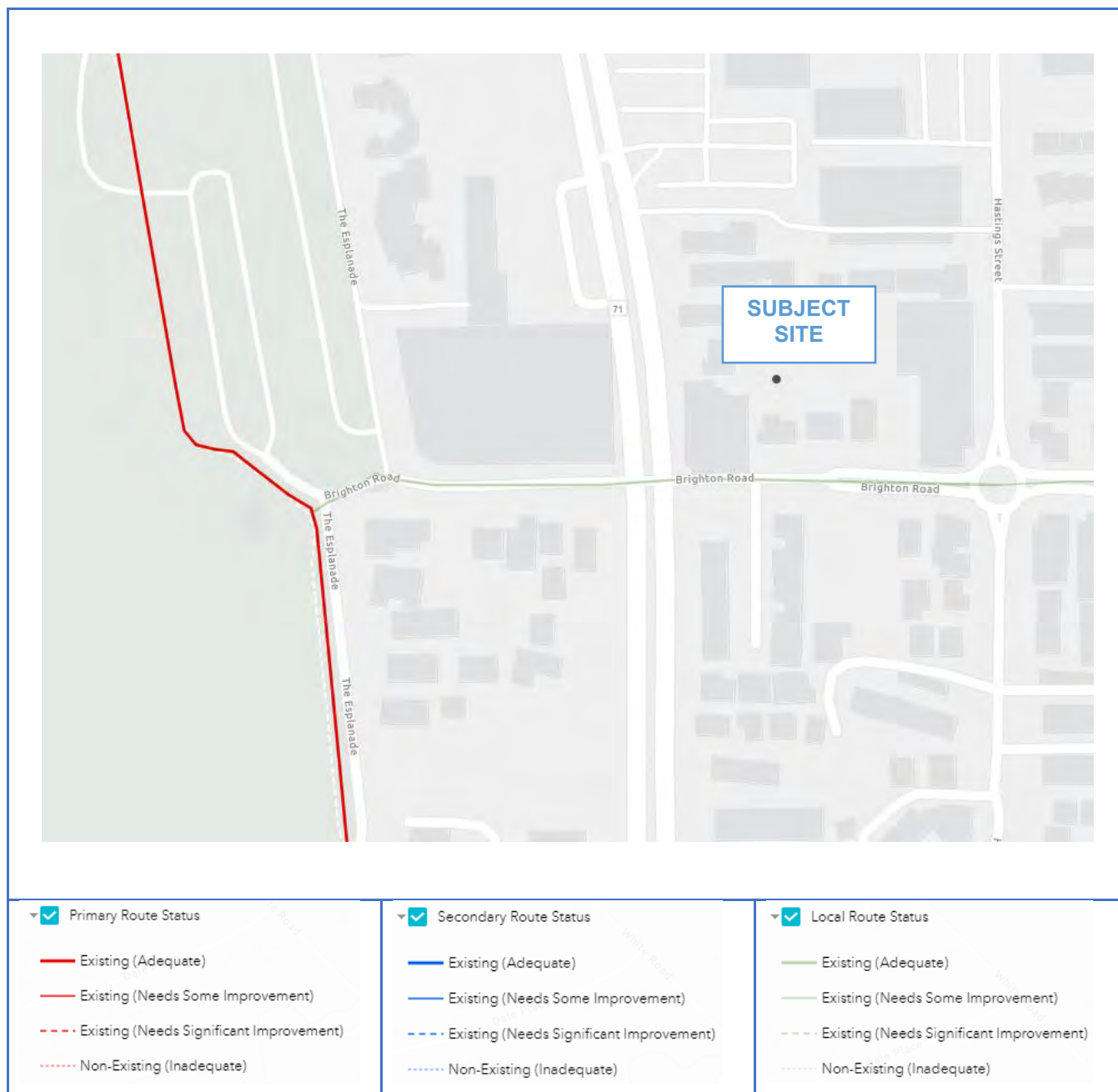


Figure 12: Perth and Peel Long Term Cycle Network plan (LTCN)

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The Strava cycling heatmap tool shows that Brighton Road and the coastal recreational shared path are relatively popular cycling routes in the area (Figure 13).

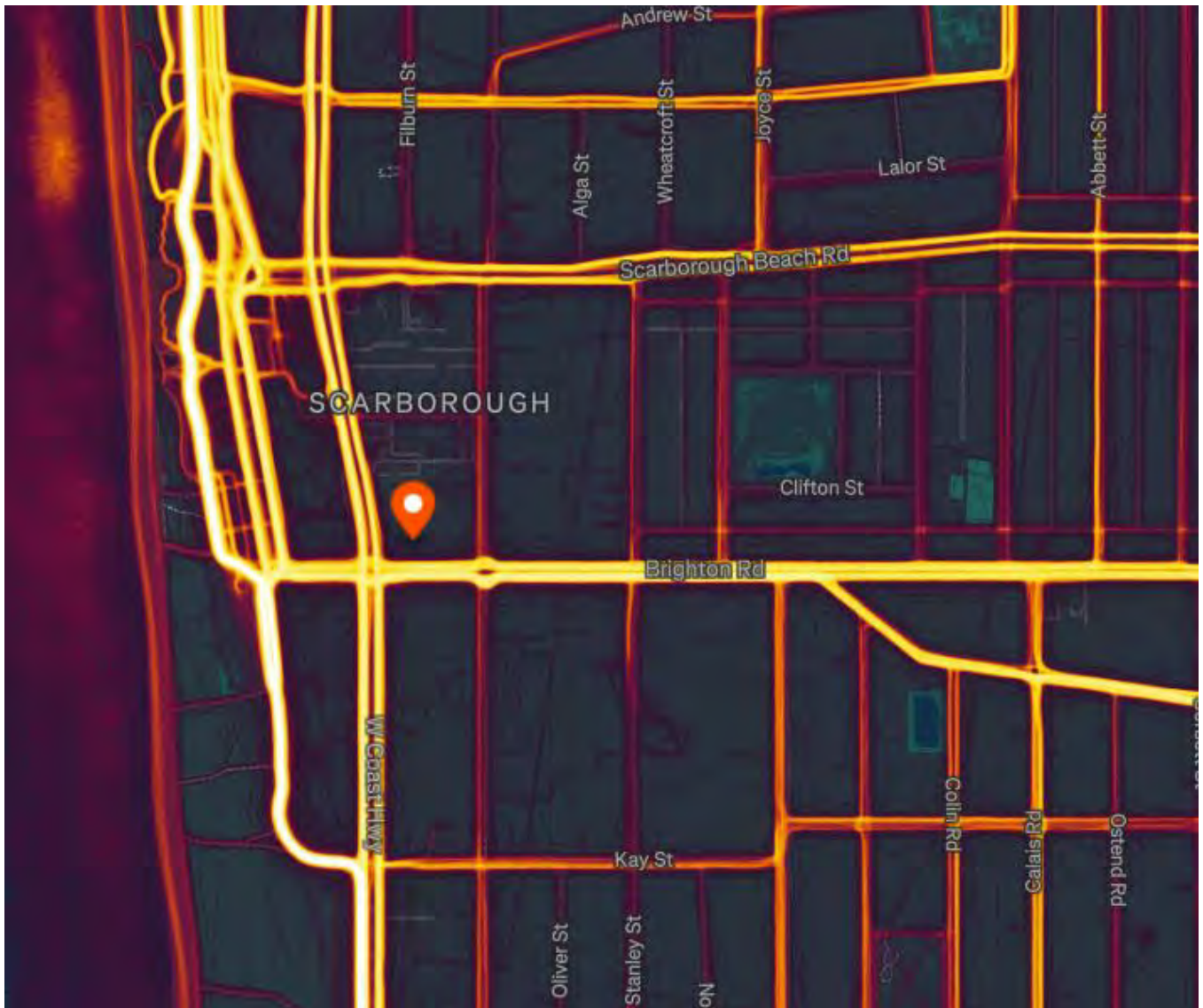


Figure 13: Strava cycling heatmap

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11.2 Sustainable transport catchment

As detailed in Figure 14, the subject site is well placed for residents and visitors to travel by sustainable modes of transport. A comfortable 8km or 20-25min cycle will provide the development with a large catchment.

This range can be further increased through a combination of micro-mobility and train travel with close access to train stations.

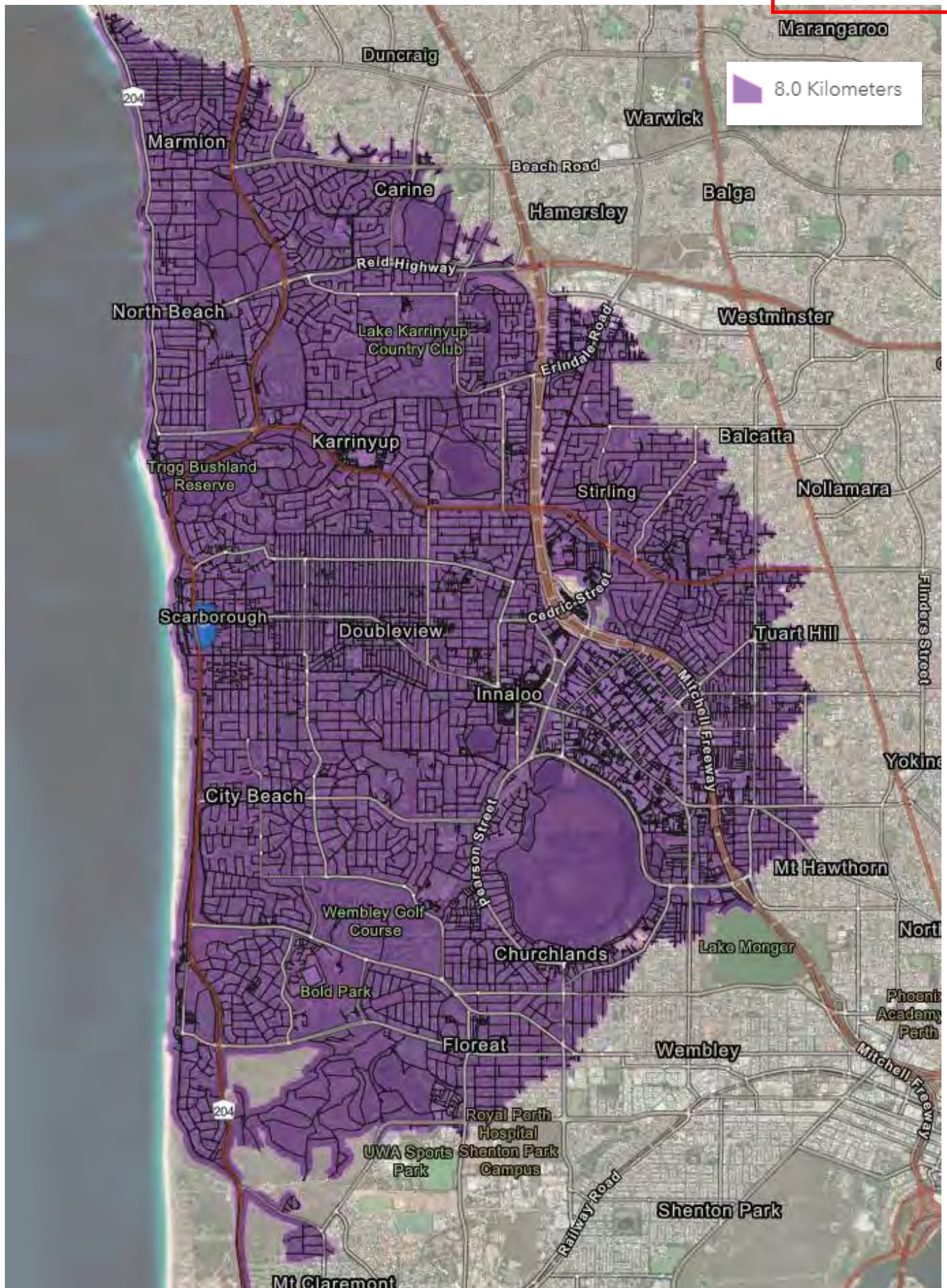


Figure 14: Cycling and micro-mobility catchment



12 Site specific issues

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

13 Safety issues

The five-year crash history in the vicinity of the site was obtained from Main Roads WA. As detailed in Figure 15, 1 crash was recorded in the locality in the last five years. The detailed crash history is presented in Table 5.

The low traffic generation of the proposed development is unlikely to impact traffic safety in the area.



Figure 15: 5-year crash map in the locality (2020-2024)

Source: MRWA crash mapping tool

Table 5: 5-year crash history in the locality (2020-2024)

Severity	No.	%
Fatal	0	0
Hospital	0	0
Medical	0	0
PDO Major	1	100.00
PDO Minor	0	0
Year	No.	%
2021	1	100.00
Nature	No.	%
Head On	0	0
Hit Animal	0	0
Hit Object	0	0
Hit Pedestrian	0	0
Non Collision	0	0
Not Known	0	0
Rear End	0	0
Right Angle	1	100.00
Right Turn Thru	0	0
Sideswipe Opposite Dirn	0	0
Sideswipe Same Dirn	0	0
Light	No.	%
Dark - Street Lights Not Provided	0	0
Dark - Street Lights Off	0	0
Dark - Street Lights On	0	0
Dawn Or Dusk	0	0
Daylight	1	100.00
Not Known	0	0
Conditions	No.	%
Dry	1	100.00
Not Known	0	0
Wet	0	0
Alignment	No.	%
Curve	0	0
Not Known	0	0
Straight	1	100.00
Total	1	

14 Conclusion

This Transport Impact Statement has been prepared by Urbii on behalf of Brighton Road (WA) Pty Ltd with regards to the proposed residential development, located at 22 Brighton Rd, Scarborough.

The subject site is situated on the northern side of Brighton Road. The site presently accommodates a residential dwelling and is surrounded by a mix of residential, commercial and retail land uses.

It is proposed to develop the site into a residential development, delivering 8 dwellings.

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

The car parking supply is satisfactory and can accommodate the car parking demand of the proposed development.

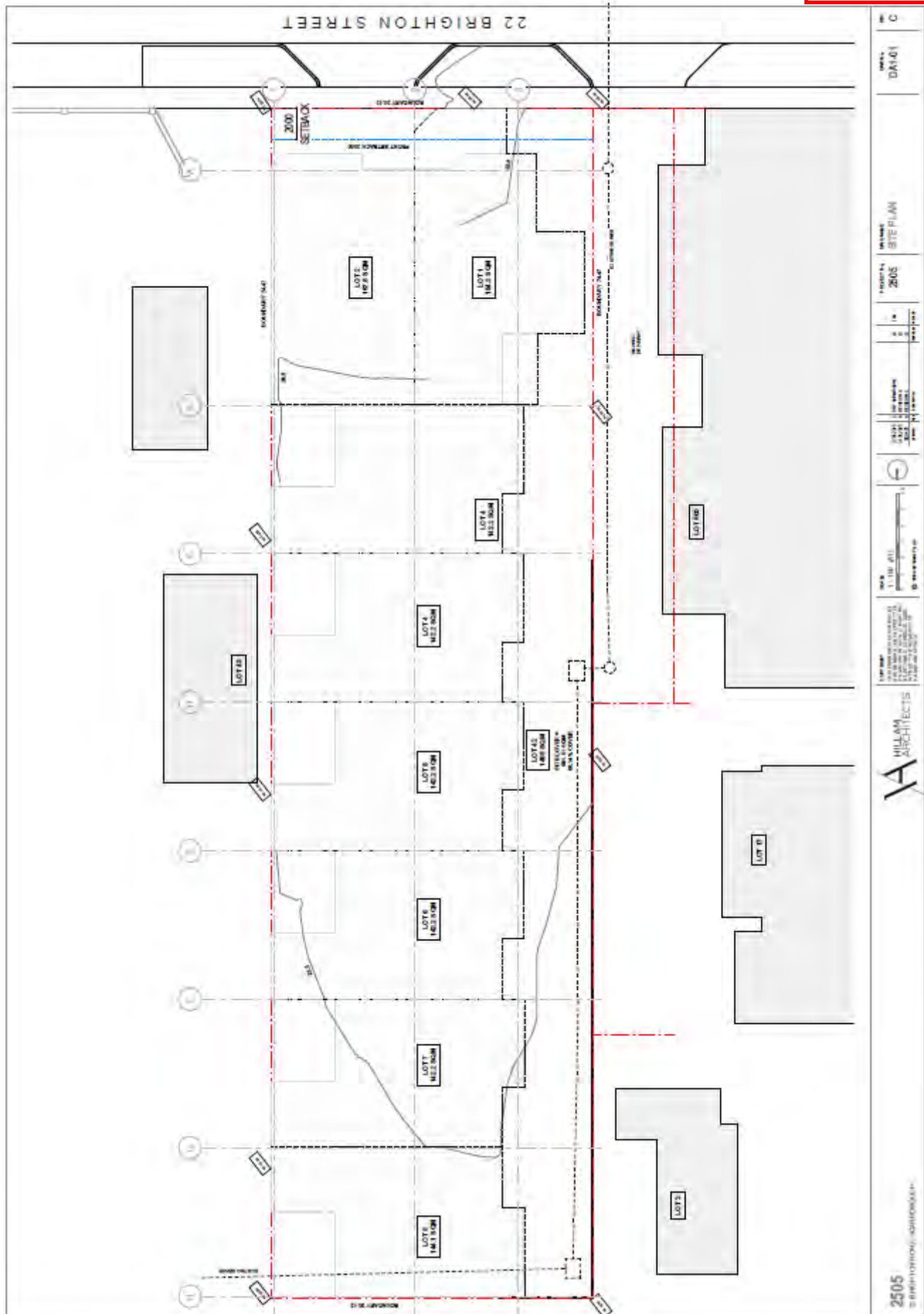
The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is moderate (less than 100vph on any lane) and as such would have moderate impact on the surrounding road network.

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



15 Appendices

Appendix A: Proposed development plans





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1 LEVEL 1 FLOOR PLANS

2505

222 BRIGHTON ROAD, SCARBOROUGH

HILLAM
ARCHITECTS

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SCALE

588

PROJECT

2

NAME _____

DING

11. Use of Multiple-Criteria Decision-Making (MCDM) in the Selection of a New Location for a New Plant

Appendix B: Swept path diagrams

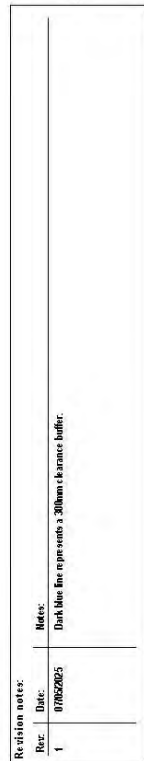
Swept path diagrams are included in this section of the report. Different coloured lines are employed to represent the various envelopes of the vehicle swept path, as described below:

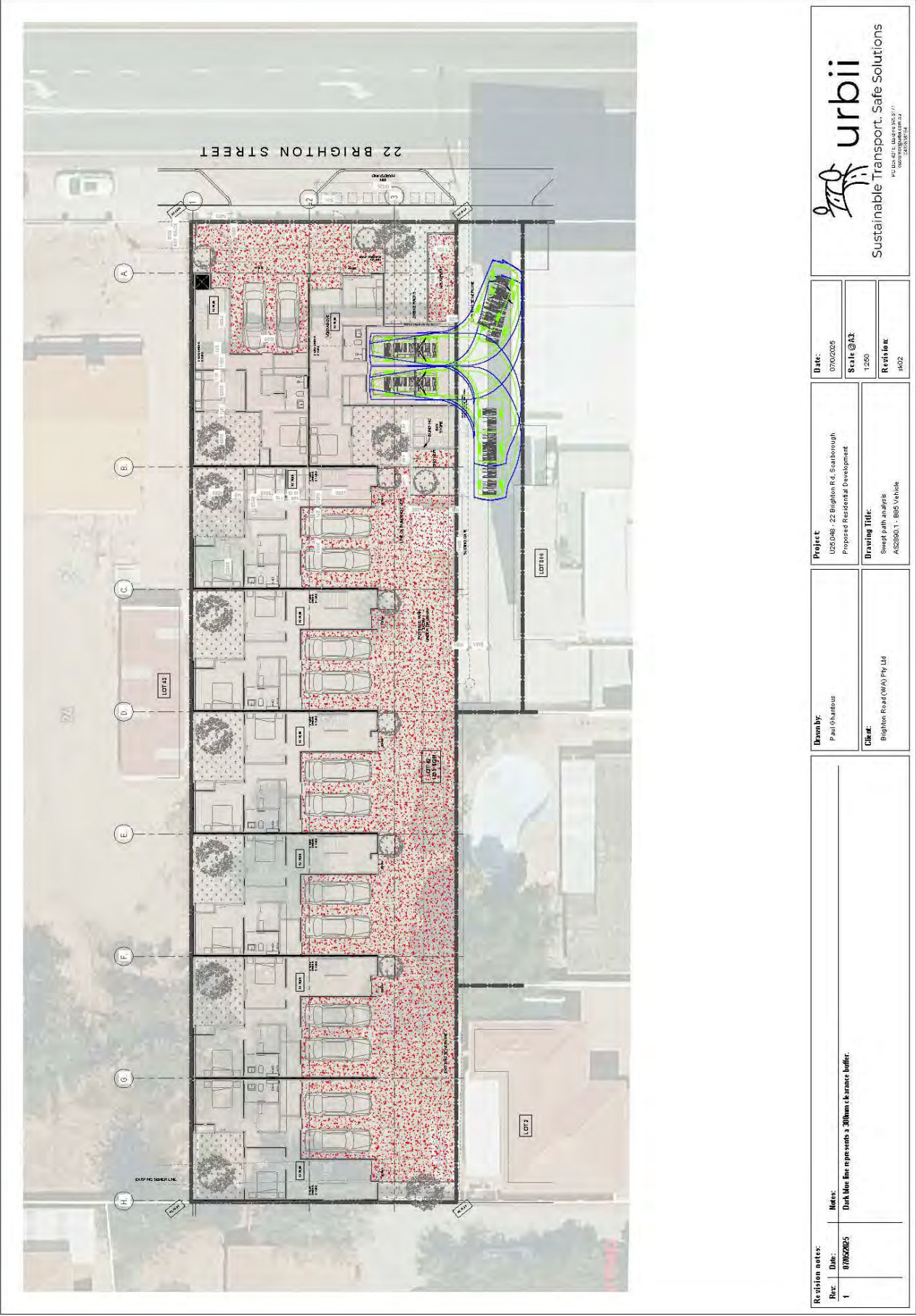
Cyan represents the wheel path of the vehicle

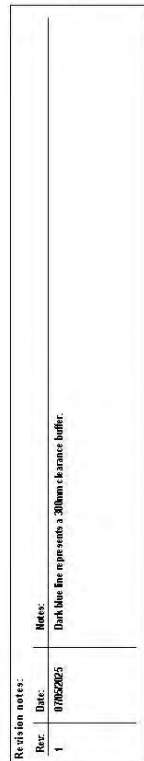
Green represents the vehicle body envelope

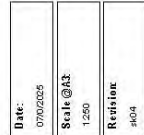
Blue represents a 500mm buffer line, offset from the vehicle swept path

The swept path diagrams are also provided separately in high-quality, A3 PDF format.









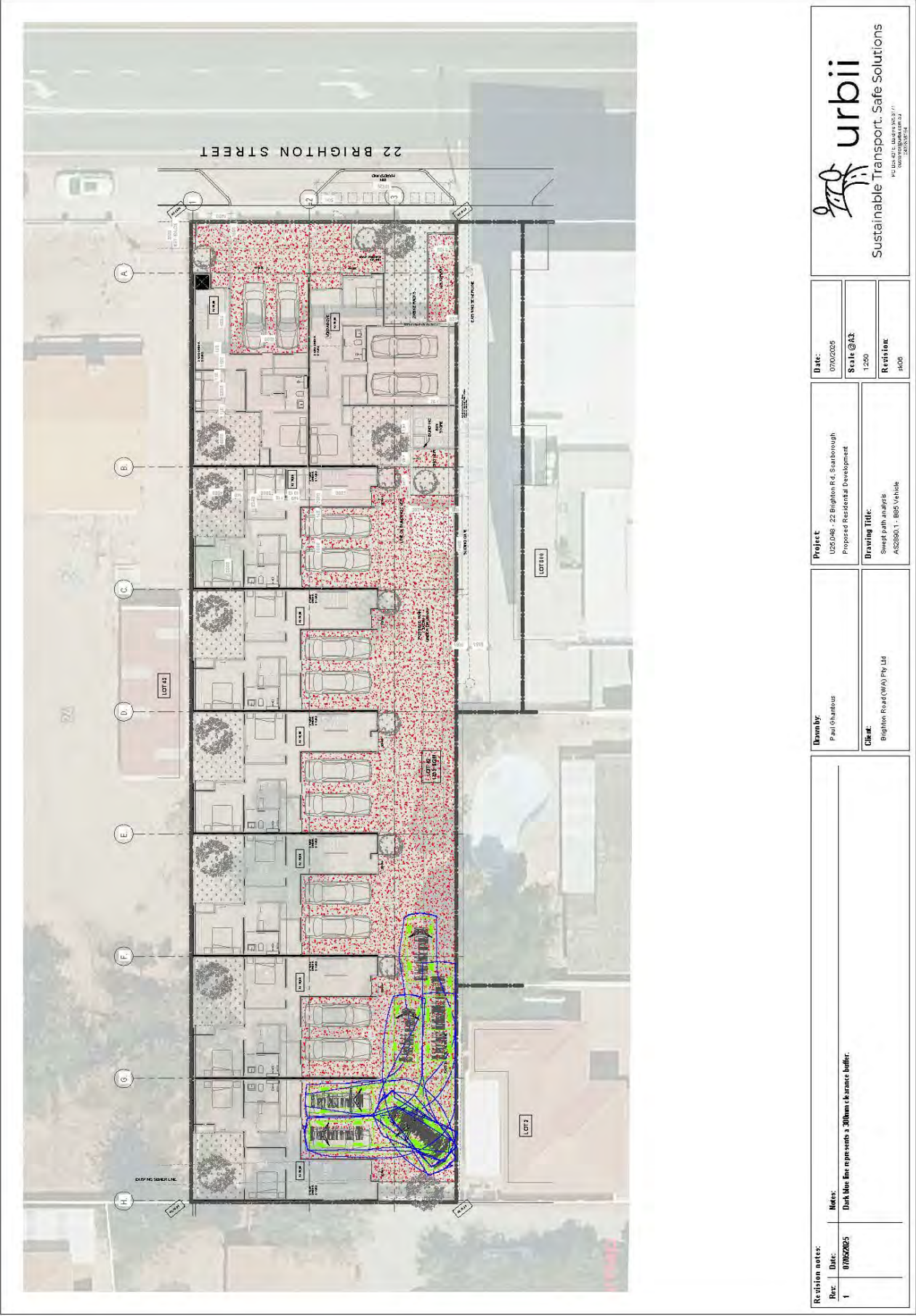
Project U25 049 - 22 Brighton Rd, Scarborough Proposed Residential Development	Drawing Title: Sweep path analysis AS2990.1 - B85 Vehicle
---	--

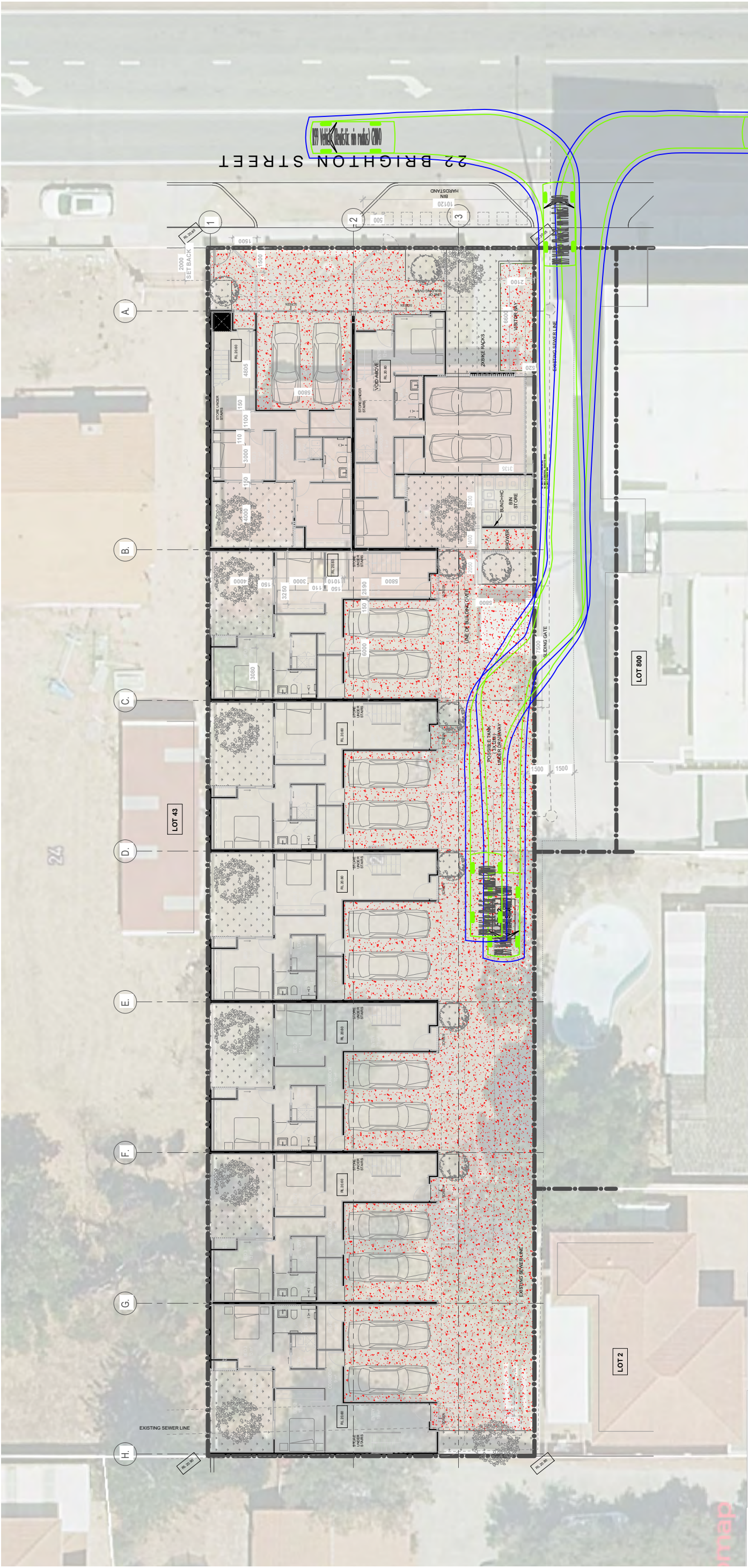
Drawn by: Paul Chardous	Client: Brighton Road (WA) Pty Ltd
--	---

Revision notes:		
Rev	Date	Notes
1	07/05/2025	Dark blue line represents a 300mm clearance buffer.



Drawn by: Paul Charlois	Client: Brighton Road (WA) Pty Ltd
--	---





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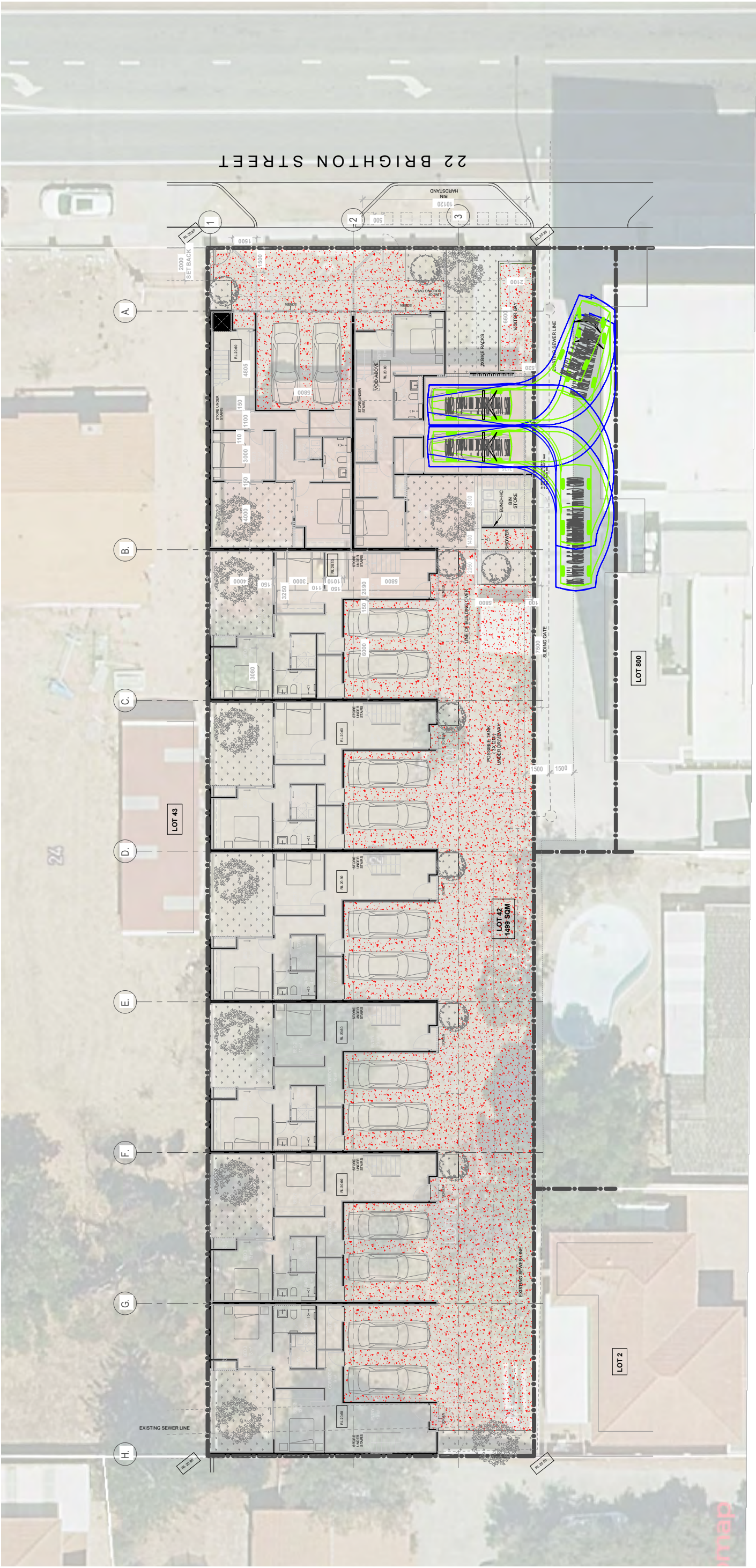
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Rev:	Date:	Rev:	Date:
1	07/05/2025		Dark blue line represents a 300mm clearance buffer.
Drawn by: Paul Ghantous		Project: U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development	
Client: Brighton Road (WA) Pty Ltd		Drawing Title: Swept path analysis AS2890.1 - B85 Vehicle	
Date: 07/0/2025		Revision: sk01	
Scale @ A3: 1:250		Date: 07/0/2025	
Revision: sk01		Scale @ A3: 1:250	
Revision: sk01		Scale @ A3: 1:250	



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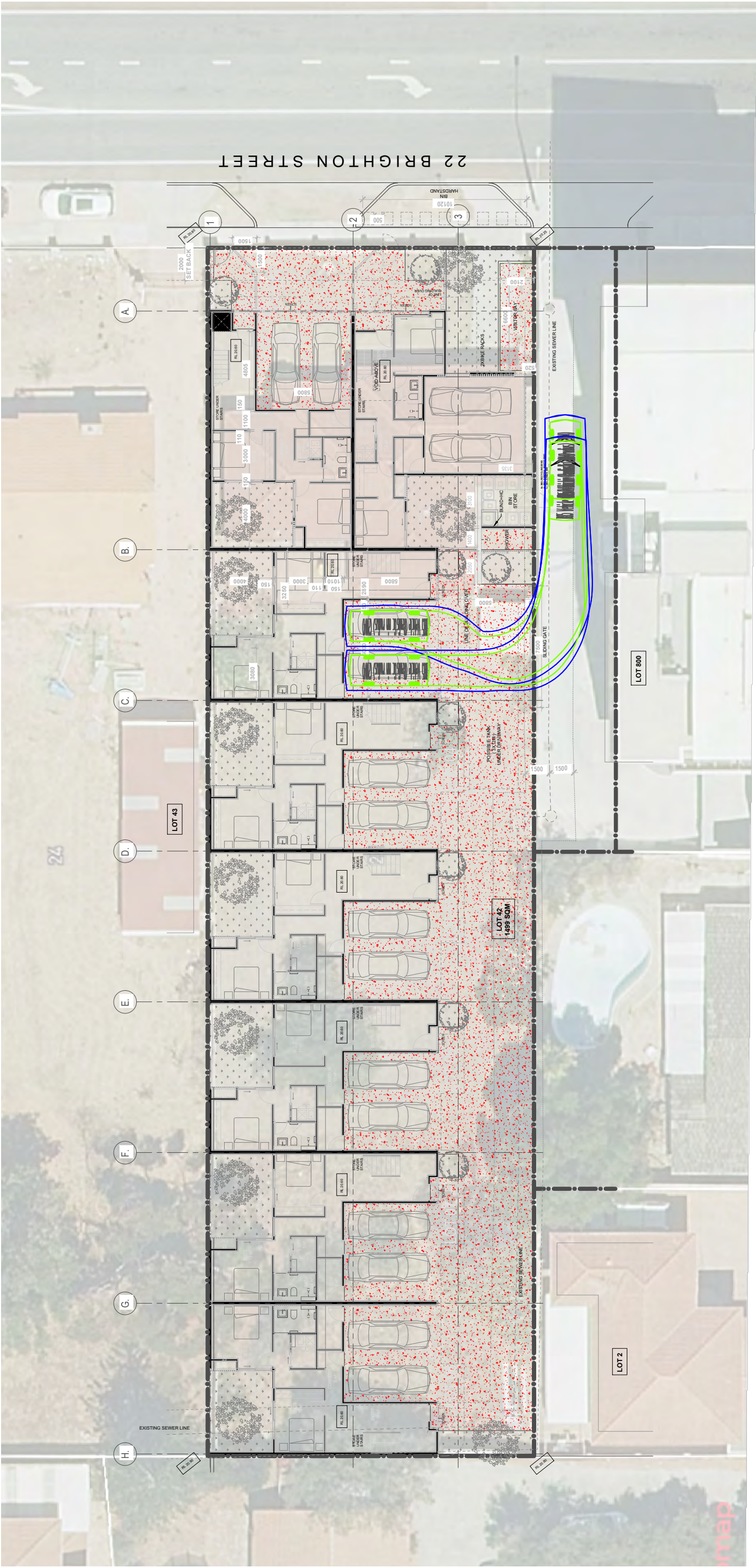
Revision notes:		Notes:	
Rev:	Date:	Rev:	Date:
1	07/05/2025		
Dark blue line represents a 300mm clearance buffer.			
Drawn by: Paul Ghantous		Project: U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development	
Client: Brighton Road (WA) Pty Ltd		Drawing Title: Swept path analysis AS2890.1 - B85 Vehicle	
Date: 07/0/2025		Date: 07/0/2025	
Scale @ A3: 1:250		Scale @ A3: 1:250	
Revision: sk02		Revision: sk02	



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Revision notes:		Notes:	
Rev:	Date:	Rev:	Date:
1	07/05/2025		07/05/2025
		Dark blue line represents a 300mm clearance buffer.	
Drawn by:		Project:	
Paul Ghantous		U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development	
Client:		Drawing Title:	
Brighton Road (WA) Pty Ltd		Swept path analysis AS2890.1 - B85 Vehicle	
Date:		Revision:	
07/0/2025		sk03	
Scale @ A3:		Revision:	
1:250		sk03	
urbi		Sustainable Transport. Safe Solutions	
PO Box 4315, Baldivis WA 6171 customer@urbii.com.au 0433856164			

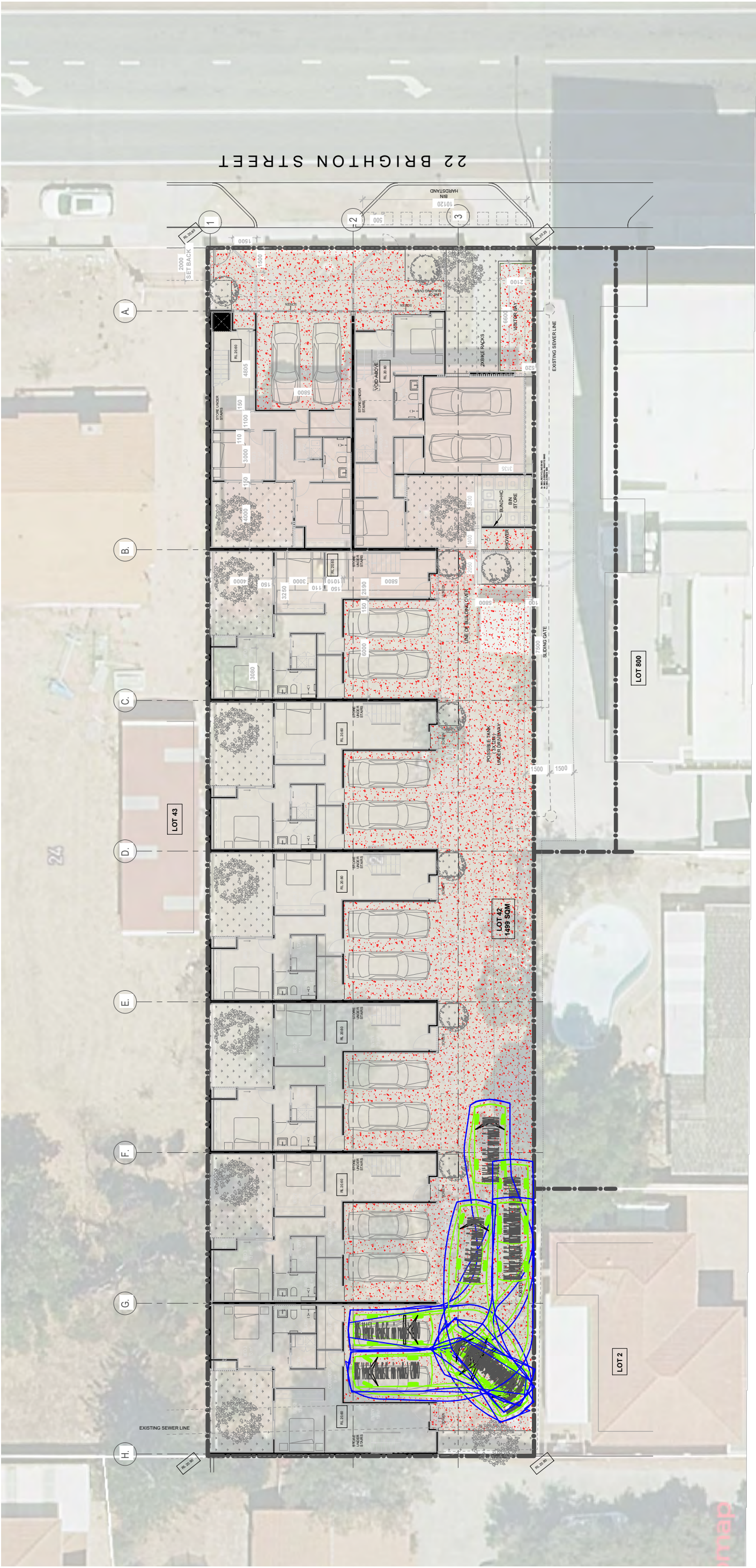
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Revision notes:		Notes:	Date:	07/05/2025	Dark blue line represents a 300mm clearance buffer.
Rev:	1				
Drawn by: Paul Ghantous		Client: Brighton Road (WA) Pty Ltd			
Project: U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development		Drawing Title: Swept path analysis AS2890.1 - B85 Vehicle			
Date: 07/0/2025		Scale @ A3: 1:250			
		Revision: sk05			



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Revision notes:		Notes:	
Rev:	Date:	Rev:	Date:
1	07/05/2025		
Dark blue line represents a 300mm clearance buffer.			
Drawn by: Paul Ghantous		Project: U25.048 - 22 Brighton Rd, Scarborough Proposed Residential Development	
Client: Brighton Road (WA) Pty Ltd		Drawing Title: Swept path analysis AS2890.1 - B85 Vehicle	
		Date: 07/0/2025	Revision: sk06
		Scale @ A3: 1:250	
		urbi Sustainable Transport. Safe Solutions PO Box 4315, Baldivis WA 6171 customer@urbii.com.au 0433856164	



Our ref: IAM:CHW:1188994
Your ref: DAP 25/02936
Contact: Isabella Mosole
Direct Line: (08) 9288 6963
Email: isabella.mosole@lavan.com.au
Partner: Craig Wallace
Direct Line: (08) 9288 6828
Email: craig.wallace@lavan.com.au

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28 October 2025

Brighton Road (WA) Pty Ltd
c/- Michael Stocco
Senior Planning Consultant
Developed
1/294 – 296 Rokeby Road
SUBIACO WA 6008

City of Stirling
03 November 2025
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By Email: michael@developedproperty.com.au

Dear Michael

22 Brighton Road, Scarborough – Development Application

- 1 Brighton Road (WA) Pty Ltd (**Brighton Road**) is the owner of the land at 22 Brighton Road, Scarborough (**Property**).
- 2 Developed, on behalf of Brighton Road, has lodged a development application proposing 8 grouped dwellings on the Property with the Metro Inner Development Assessment Panel (**DAP**) for approval (**Development Application**).
- 3 The Development Application is currently being assessed by the City of Stirling (**City**), being the relevant local government authority.
- 4 The western boundary of the Property adjoins a registered public access easement granted pursuant to section 195 and 196 of the *Land Administration Act 1997* (WA) (**LA Act**), being easement N997208 (**Easement**).
- 5 The Easement is positioned along the eastern boundary line of former Lot 800 on Deposited Plan 414028, now comprising Lots 1 – 54 of Strata Plan 73546 (**former Lot 800**). Relevantly, Lot 47 on Strata Plan 73546 (Lot 47) directly adjoins the Easement.

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First Nations
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Our Values:

Excellence
Courage
Collaboration
Fulfilment
Integrity

Lavan respectfully acknowledges the traditional owners of the land on which we live and work.

3445-3726-9822_1188994, v.2

- 6 The proposed development contemplates the use of the Easement by prospective owners of the dwellings for the purpose of pedestrian and vehicular access to and from the Property.
- 7 The City has expressed some concerns in relation to the ability for the proposed development to use the Easement.
- 8 We also understand that Main Roads has requested that Brighton Road seek permission from the owner of the strata lot directly adjoining the eastern boundary of former Lot 800 for the Easement to be used for access to the proposed development.
- 9 You have therefore requested our advice in relation to the proposed use of the Easement to address these concerns.

Purpose of the easement

- 10 In this case, it is useful to consider the purpose behind the Easement.
- 11 The Easement is made between GM Horizon Pty Ltd (as grantor) and the Metropolitan Redevelopment Authority (**MRA**) (as grantee). It is apparent that the Easement was originally created pursuant to the development approval granted by the MRA for former Lot 800 on 26 October 2015 on the corner of Brighton Road and West Coast Highway whilst GM Horizon Pty Ltd was the owner of former Lot 800.
- 12 Relevantly, condition 4 of that development approval states as follows:

The 6-metre vehicle access way proposed along the eastern boundary of the site is required to be provided through the creation of a Public Access Easement in gross in accordance with clause 4.9(3) of the Scheme (the Scheme), details of which are to be provided at working drawings stage to the satisfaction of the MRA.

- 13 That requirement for the Easement was consistent with the intent of the MRA Scarborough Design Guidelines (specifically, Chapter 6 – Site Planning) to minimise vehicle access to West Coast Highway through the provision of alternative vehicle access ways. We note that Figure 8 of the Design Guidelines identifies the vehicle access way in question.

- 14 The footprint of the Easement on the deposited plan for former Lot 800 aligns with the 6-metre access way contemplated by condition 4 of the MRA's approval for that lot.

- 15 Condition 4 cited above is indeed outlined in the recitals of the Easement and states:

The Grantor, being registered as the proprietor of an estate in fee simple in the land described in Item 1 of the Schedule hereto (Servient Tenement) subject to the encumbrances notified hereunder in Item 2 of the Scheme HEREBY TRANSFERS AND GRANTS to the Grantee a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free

right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over, along and across that those portions of the Servient Tenement as are shown delineated and marked with the letter 'X' on Deposited Plan 414028 and restricted to the height above the Australian Height Datum as is specified on Deposited Plan 414028.

16 In my view the clear planning purpose underpinning the Easement is for its use by the public at large for pedestrian and vehicular access.

17 Indeed, the provisions of the Easement require that the grantor:

- 17.1 provide the Easement to be enjoyed by the grantee without interruption or disturbance by the grantor (see clause 2(a));
- 17.2 indemnify the grantee for any claims arising by or out of the use of the Easement by any person whatsoever for any purpose, whether consistent with the Easement or not (see clause 2(c)(i));
- 17.3 not obstruct the Easement in any way (see clause 2(g)); and
- 17.4 maintain public liability insurance in respect of the Easement (see clause 3(a)).

18 Clause 4(a) of the Easement also provides an acknowledgement by the MRA (as the grantee) that the rights created by the Easement are not granted exclusively and, in that regard, are granted in common with the corresponding rights of the grantor and other persons lawfully entitled to exercise such rights.

Consent to use the easement

19 In our opinion, if the DAP grants approval for the Development Application, and the proposed development is implemented on the Property, the Easement would be used by owners of the Property in a manner that is consistent with the purpose of the Easement, that is, not on an exclusive basis and not to the detriment of the public at large.

20 In that context, there would be no reason for the Easement to be wholly or partially surrendered or otherwise modified, and there would be no cause for the MRA to enforce any of its rights under the Easement unless, of course, the owners of the Property were to use the Easement in a manner that is inconsistent with the Easement.

21 Further, it is clear that the Easement does not require consent or notice to be given by the owners of Lot 47 (being the lot directly adjoining the Easement on the eastern boundary of former Lot 800) or for any of the other owners of the units in former Lot 800 to consent to the use of the Easement in connection with the proposed development as that use is consistent with its purpose, being to provide access to or through the Easement to the MRA and the public at large.

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03 November 2025
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- 22 In this respect, neither the City nor Main Roads should adopt the position that the Development Application requires the consent of any party to the Easement. Such a position would effectively allow the owners of the units on former Lot 800 to frustrate the development assessment process and prevent the Property from being developed.
- 23 Finally, and for the avoidance of any doubt, it is also our opinion that the Easement does not require the consent of the MRA to be used in the manner contemplated by the Development Application.

Planning assessment

- 24 The Property is zoned "Development" under the *City of Stirling Local Planning Scheme No 3 (Scheme)* and is located within the Scarborough Special Control Area (SCA) in accordance with the Scheme.
- 25 Clause 6.9.3 of the Scheme requires that the subdivision and development of land within the SCA shall comply with the requirements of Schedule 13 of the Scheme.
- 26 In addition, clause 6.9.4 of the Scheme conforms that: "*All Policies and Design Guidelines adopted under the Metropolitan Redevelopment Authority Act 2011 for the Scarborough Redevelopment Area apply as if adopted under the provisions of Local Planning Scheme No.3 as Local Planning Policies and may be amended and revoked as needed under the Planning and Development (Local Planning Schemes) Regulations 2015.*" This includes the MRA Scarborough Design Guidelines (Chapter 6 – Site Planning) which contains an express intent for vehicle access ways to be required.
- 27 There is nothing in the Scheme saying that an easement or any other instrument must be considered in the determination of a development application. It is noted that clause 5.9 of the Scheme contains provisions relating to easements and other instruments where reciprocal car parking arrangements are proposed however that clause is not relevant on the facts of this matter.
- 28 The Scheme of course must be read together with Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015 (WA) (Deemed Provisions)*, pursuant to section 257B of the *Planning and Development Act 2005 (WA)*.
- 29 Clause 67(2) of the Deemed Provisions contains a list of the various relevant considerations that must be considered in assessing and determining a development application.
- 30 There is nothing in clause 67(2) of the Deemed Provisions that would specifically require a decision-maker to give regard to the use of a public access easement (or any other instrument registered on the title of land) in determining a development application.
- 31 This would essentially be because an easement by its nature is a private agreement between parties, as opposed to being a planning instrument that applies to the

public in general. In this case, that agreement exists between the owners of the units of former Lot 800, and the public at large (via the MRA).

- 32 In some cases, an easement or other instrument may be a relevant factor to consider in the determination of a development application, which could perhaps be justified pursuant to limbs (w) and (zb) in clause 67(2) of the Deemed Provisions, which respectively refer to:

(w) the history of the site where the development is to be located;

(zb) any other planning consideration the local government considers appropriate.

- 33 Even if regard is given to a right granted by an easement or other instrument in the assessment of a development application, a decision-maker will not be legally bound by the terms of the instrument, as there is nothing in the planning framework that requires that to happen.

Case law

- 34 The analysis as outlined above is consistent with case law dealing with instruments registered on the title of land in the context of a development application.

- 35 In *Kelvedon Pty Ltd v The Shire of Northam* [2011] WASC 288, the Supreme Court considered an application for judicial review where somebody had argued that the local government failed to take their easement rights into account in granting a development approval.

- 36 The Court found that the easement was in the nature of a private agreement that could be enforced as between the parties, but that was not something that bound the determination of a development application under planning laws.

- 37 The Court at paragraph [100] of its decision ruled that:

Northam was not required to take this easement into account. It does not affect the development proposal. Any rights attaching to any other easement may be

enforced directly against the grantor of whom Fermora is the successor.

Northam made no error of law.

- 38 In *Smith and City of Bayswater* [2006] WASAT 176, the State Administrative Tribunal (SAT) considered a development application relating to land that was subject to a restrictive covenant and found at paragraph [34] of its decision that:

The Tribunal notes that a restrictive covenant of this type is a matter between respective landowners and does not prevent an application for planning consent being made under TPS 24 or the respondent from determining it. A beneficiary of a covenant might, of course, pursue the matter against a person burdened by the restriction in the relevant court. The restrictive covenant did, however, colour the belief of the neighbours that this would remain a residential area, at least until the end of 2008, without any commercial activity.

39 These principles relating to restrictive covenants would apply equally to easements.

40 The SAT more recently in *Jones and City of Swan* [2022] WASAT 52 observed that, whilst it would not be bound by a restrictive covenant in determining a development application, a restrictive covenant may still be a relevant consideration.

41 At paragraph [66] of that decision, the SAT stated:

It follows that, to that extent, I disagree with the Applicant that the restrictive covenants are not relevant in the exercise of discretion. I do acknowledge that there are private remedies available for individual landowners within the Estate to seek to enforce compliance if a restrictive covenant is breached. Even so, as an environmental control applying to the Estate, I find they may be relevant considerations in the exercise of planning discretion.

42 Importantly, the finding here was not that a restrictive covenant would bind a development application, but that it may be a relevant consideration.

43 This was followed by the later decision of the SAT in the same case in *Jones and City of Swan* [2023] WASAT 22, where the SAT found at paragraph [82] that:

The notification on title requires dwellings and buildings to be located within the existing building envelope (as provided for in the original Structure Plan). Whilst the notification on title is not a planning instrument, I consider it is relevant to the exercise of my discretion because it resulted from a State planning assessment and approval process that sought to achieve the siting of development within designated building envelopes...Whilst I have placed some weight on the notification on title, I am not bound by its terms (or those of RC N407747) in the determination of these proceedings.

44 The SAT in *Du Heaume and City of South Perth* [2010] WASAT 111 refused a retrospective development application for a set of steps that had been erected within an easement area, but this was because of the potential loss of amenity to the neighbour caused by the interference to the easement area and not because the SAT considered itself to be legally bound by the easement terms.

Conclusion

45 In summary:

City of Stirling
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45.1 the Easement expressly states that it is “a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over, along and across that those portions of the Servient Tenement”;

45.2 the Easement accordingly does not legally prevent the DAP from granting development approval in respect of the Property and does not embody

any planning purpose that would weigh against the DAP granting such approval; and

45.3 the Development Application can be lawfully approved without any requirement for the servient tenement holders to consent to the proposed development and without modification to the Easement.

46 Please contact me or Isabella Mosole if you have any questions.

Yours sincerely

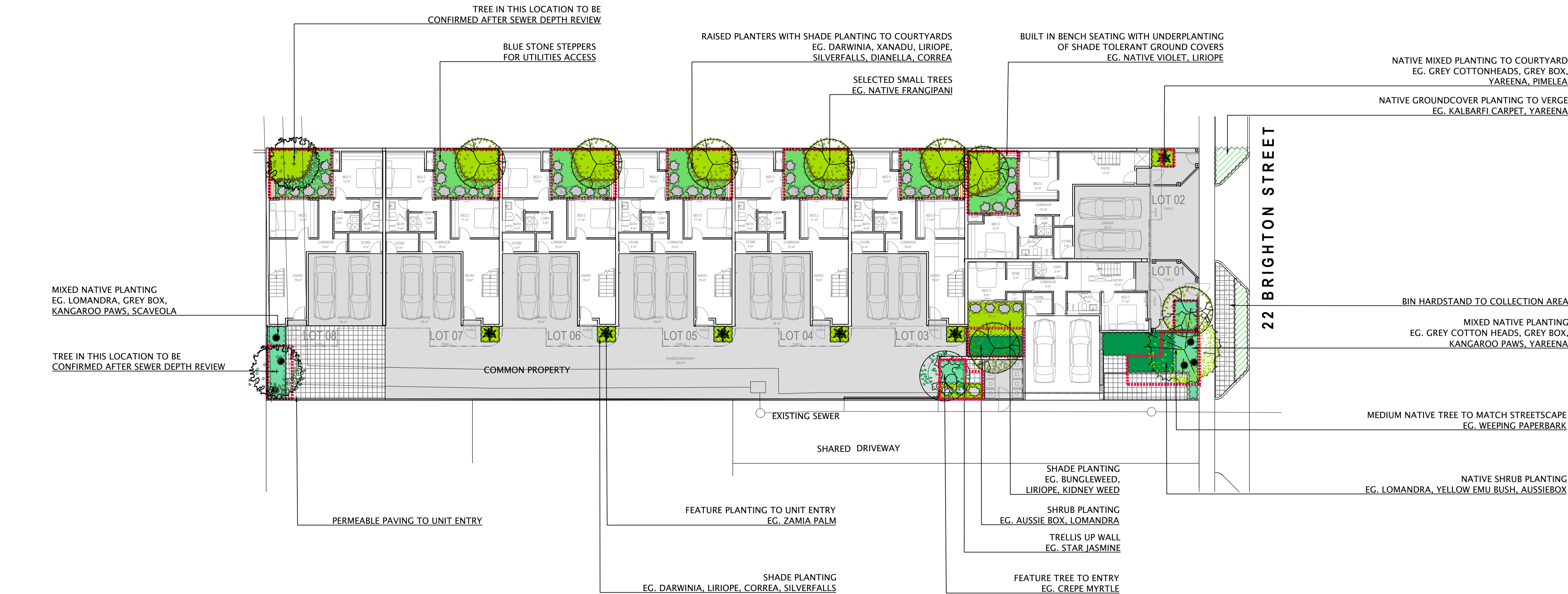
A handwritten signature in black ink, appearing to read "Craig Wallace".

Craig Wallace
Partner

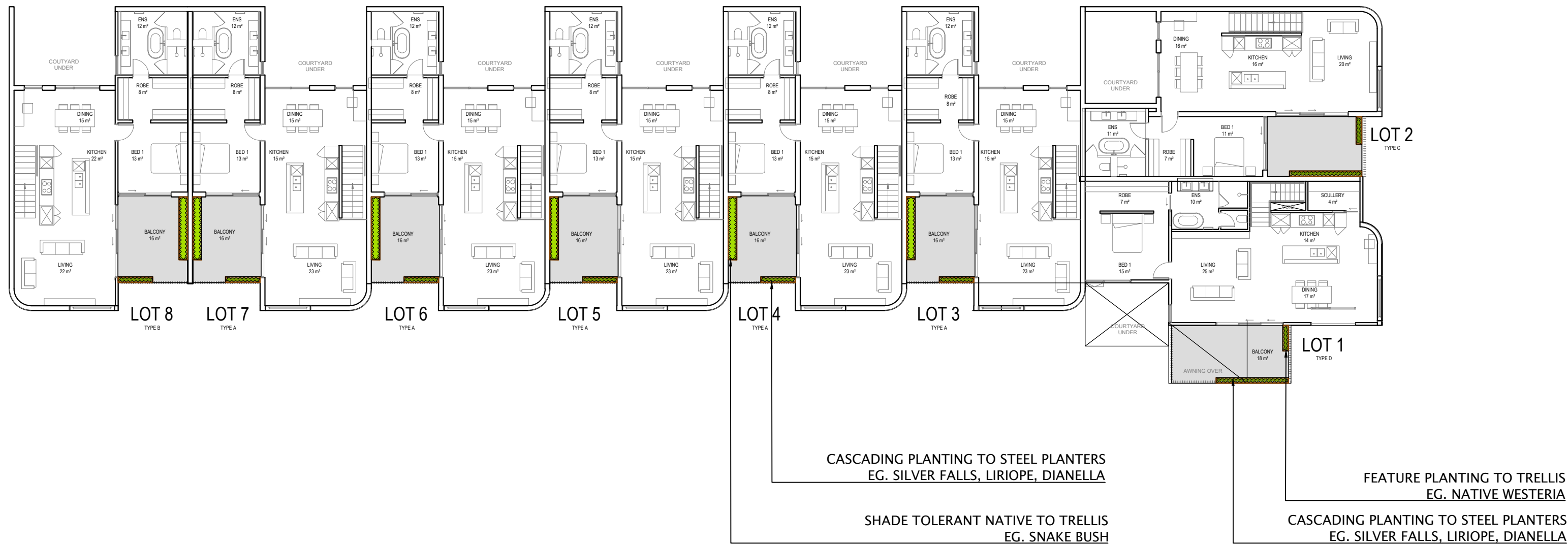
Please notify us if this communication has been sent to you by mistake. If it has been, any privilege between solicitor and client is not waived or lost and you are not entitled to use it in any way.

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3. ALL MEASUREMENTS TO BE CHECKED PRIOR
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GROUND FLOOR



LEVEL ONE

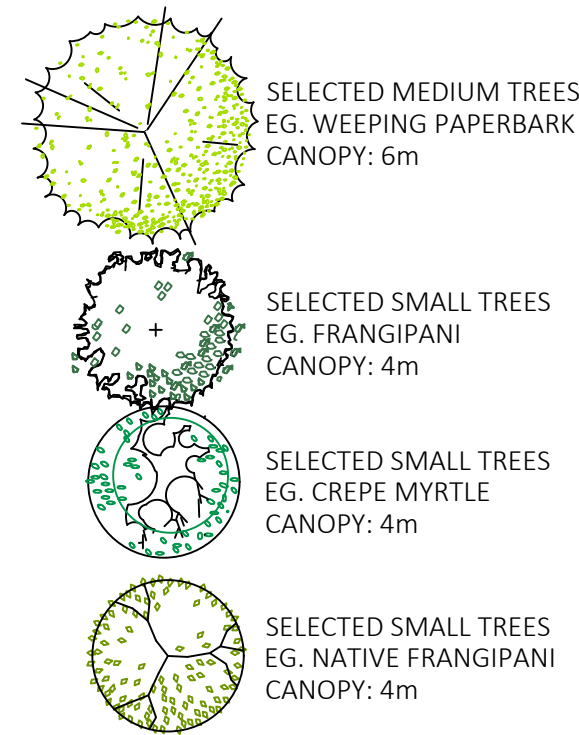
OVERALL LANDSCAPE AREA CALCULATIONS				
SITE AREA				
Total site area = 1499m ²				
LANDSCAPE AREAS				
Total Landscape areas (all levels) = 214m ² (14.2% of site)				
DEEP SOIL AREAS (DSA)				
Ground Floor (into natural earth)= 192m ²				
Total = 192m ² (12.8% of site)				
CANOPY COVER				
Proposed Medium Trees (6m canopy) x 1 = 28.3m ²				
Proposed Small Trees (4m canopy) x 11 = 138.6m ²				
Total Canopy Cover = 166.9m ² (11.1% of site)				

GROUP DWELLINGS CALCULATIONS				
Lot/Unit	Lot Area	Landscaped Area	Front Setback %	No. of Trees
1	154m ²	32.5m ² (21%)	13.3m ² (44%)	2
2	167.5m ²	23.2m ² (16.3%)	2.4m ² (6%)	1
3	142m ²	22.7m ² (15.9%)		1
4	142m ²	22.7m ² (15.9%)		1
5	142m ²	22.7m ² (15.9%)		1
6	142m ²	22.7m ² (15.9%)		1
7	142m ²	22.7m ² (15.9%)		1
8	144m ²	22.7m ² (15.9%)		1
Common Area	324m ²	30m ² (9.2%)	16m ² (49%)	3
Total Area	1499m ²	223.9m ² (14.9%)	31.7 (32.2%)	12

REFER TO PAGE 100 FOR PLANTING PALETTE, NOTES & IMAGES

THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS
APPROVED BY CLIENT AND REVISED '0' ISSUED FOR CONSTRUCTION

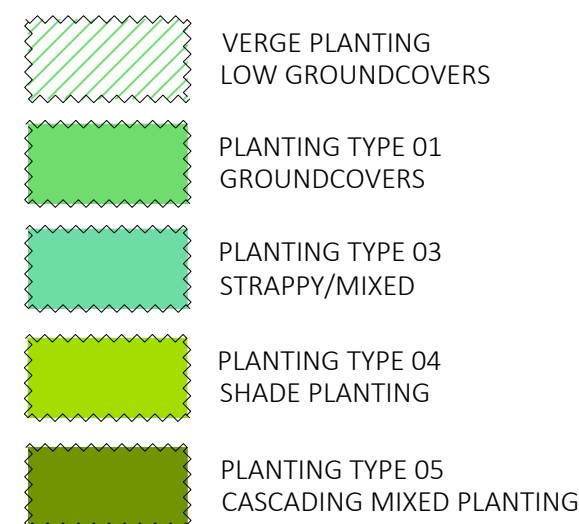
LEGEND TREES



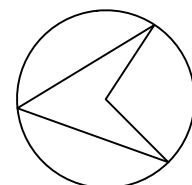
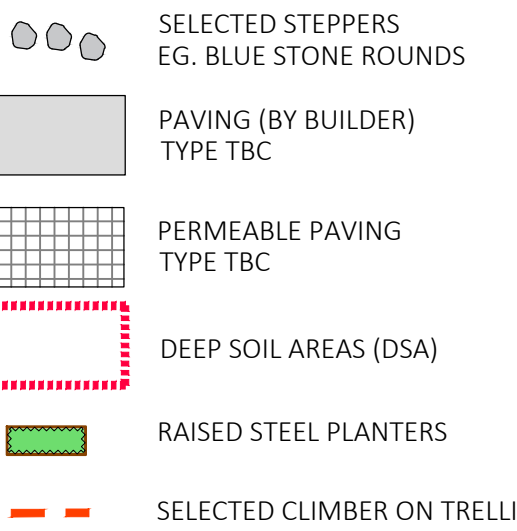
FEATURE PLANTS

SELECTED FEATURE PLANTING
EG. ZAMIA PALM & KANGAROO PAWS

PLANTING



MISC



GENERAL NOTES:
1. THIS IS A CONCEPT PLAN ONLY.
2. ALL STRUCTURES SUBJECT TO ENGINEERING AND COUNCIL APPROVAL.
3. ALL MEASUREMENTS TO BE CHECKED PRIOR TO CONSTRUCTION.

TREES



SHRUBS



CLIMBERS



STRAPPY



SHADE



GROUNDCOVERS & CASCADING



REV	DATE	DWN	APP	DESCRIPTION
A		ALÄ	..	LANSÆ LANTNG ALETTE
B		ALÄ	KD	LANSÆ LANTNG ALETTE ATE
C	11.04.25	ALÄ	KD	LANSÆ ONET LAN – UPDATED

PLANTING PALETTE

Symbol	Species	Common Name	Quantities	Size
Trees:				
EUOvic	Eucalyptus viciatrix	Little Ghost Gum	As Shown	100L
HAKlau	Hakea laurina	Pin Cushion Hakea	As Shown	100L
HYMfla	Hymenosporum flavum	Native Frangipani	As Shown	100L
LAGind	Lagerstroemia indica	White Crepe Myrtle	As Shown	100L
LAGlus	Lagerstroemia tuscadora	Pink Crepe Myrtle	As Shown	100L
MELqui	Melaleuca quinquenervia	Broad-leaved Paperbark	As Shown	100L
PLUobt	Plumeria obtusa	Frangipani	As Shown	MTP
Groundcovers and Cascading:				
ACAsil	Acacia saligna prostrate	Wattle	2/m2	140mm
CASou	Casuarina glauca 'Cousin It'	Cousin It	2/m2	140mm
CORir	Correa 'Fire Bells'	Fire Bells	2/m2	140mm
DICsil	Dichondra 'Silver Falls'	Silver Falls	2/m2	140mm
EREblu	Eremophila 'Blue Horizon'	Blue Horizon	2/m2	140mm
HEMpun	Hemandra pungens	Snake Bush	4/m2	140mm
HIBsca	Hibbertia scandens	Snake Vine	2/m2	140mm
MYOpar	Myoporum parvifolium 'Yareena'	Yareena	2/m2	140mm
ROSoif	Rosmarinus officinalis 'Prostratus'	Creeping Rosemary	2/m2	140mm
SCAHum	Scaevola humilis 'Purple Fusion'	Fan Flower	2/m2	140mm
THYser	Thymus serpyllum	Creeping Thyme	2/m2	140mm
Strappy:				
CONcan	Conostylis candicans	Grey Cottonheads	3/m2	140mm
DIAeme	Dianella tasmanica 'Emerald Arch'	Emerald Arch	3/m2	140mm
DIArev	Dianella revoluta	Blue flax lilly	3/m2	140mm
LOMTan	Lomandra 'Tanika'	Tanika	3/m2	200mm
Shrubs:				
CARmar	Carissa macrocarpa	Desert Star	3/m2	200mm
EREmac	Eremophila maculata	Yellow Emu Bush	2/m2	200mm
OLExi	Olearia axillaris	Coastal Daisy	3/m2	200mm
PIMfer	Pimelea ferruginea	Rice Flower	3/m2	200mm
PITnis	Pittosporum tobira 'Miss Muffet'	Miss Muffet	3/m2	200mm
RHAaori	Rhaplophora 'Oriental Pearl'	Dwarf Indian Hawthorn	2/m2	200mm
WESaus	Westringia 'Aussie Box'	Aussie Box	3/m2	200mm
WESgre	Westringia 'Grey Box'	Grey Box	3/m2	200mm
Shade Planting:				
AJUrep	Ajug reptans	Bungle weed	3/m2	140mm
CORdus	Correa 'Dusky Bells'	Dusky Bells	3/m2	140mm
DARCit	Darwinia triflora	Darwinia	3/m2	140mm
DICrep	Dichondra repens	Kidney plant	3/m2	140mm
LIRjus	Liriope 'Just Right'	Just Right	3/m2	140mm
MYOpor	Myoporum parvifolium 'Yareena'	Yareena	2/m2	140mm
OPHjap	Ophiopogon japonicus	Mondo	3/m2	200mm
PHIXan	Philodendron Xanadu	Xanadu	3/m2	200mm
SANtri	Sansevieria trifasciata laurentii	Mother-in-law's Tongue	3/m2	200mm
VIOhed	Viola hederacea	Native Violet	3/m2	200mm
Feature Plants:				
ANIfila	Anigozanthos flavidus	Kangaroo Paw	2/m2	12L
HARwhi	Hardenbergia violacea 'White Out'	White Native Wisteria	2/m2	12L
TRAjas	Trachelospermum jasminoides	Star Jasmine	2/m2	12L
ZAMfur	Zamia furfuracea	Cardboard Palm	2/m2	12L

NOTES
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Developed

WASTE MANAGEMENT PLAN

FOR 8 GROUPED DWELLINGS

No. 22 Brighton Road, Scarborough

October 2025

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Issue	Date	Statuses	Prepared By	Approved By	Circulated
Draft	22/04/2025	Draft	R.D.	R.D.	Externally
V1	09/05/2025	Final	R.D.	R.D.	Externally
V2 (Final)	23/10/2025	Updated	R.D.	R.D.	Externally

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- the Client's implementation, or application, of the strategies recommended in this report.

1.0 Development Overview

1.1 Introduction

This Waste Management Plan (WMP) has been prepared by Developed Property on behalf of the landowners for No. 22 Brighton Road, Scarborough. It supports a proposed residential development comprising:

Development: 8 Three Bedroom Grouped Dwellings

Address: 22 Brighton Road, Scarborough

The WMP has been prepared in consultation with the City of Stirling's Waste team and in consideration of the provisions of the City's Waste Local Law, Local Planning Policies, the Residential Design Codes Volume 1, and the City's Waste and Recycling Guide (refer to Appendix 2). Once approved by the City, waste collection and disposal are to be undertaken in accordance with the approved Development Plans and the WMP.

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2.0 Waste Collection Process

2.1 Waste Calculation

The City of Stirling operates a three-bin residential waste collection system, with collections occurring every Tuesday. Under this system:

- General Waste (GW): Collected weekly,
- Recycling (RC): Collected fortnightly,
- Green Waste (GO): Collected on the alternate fortnight.

Typically, each dwelling is allocated a full set of individual bins. For this development, this would equate to a total of 24 bins, with up to 16 bins required to be presented for collection in any given week.

The City does not currently have a formal policy or set of guidelines for calculating waste generation. Notwithstanding this however, development proposals involving six or more dwellings are assessed by the City's Waste team on a case-by-case basis, including the suitability of bin types, sizes, and collection arrangements.

For this development, the City's Waste team has advised that increasing the size of bins can reduce the total number of bins required on-site and improve functionality for verge placement. The recommended communal bin configuration is as follows:

- 5 x 240L General Waste bins,
- 5 x 360L Recycling bins, and
- 1 x 240L Green Waste bin.

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2.2 Bins required and Bin storage

Bins will be placed on Brighton Road by a strata-appointed caretaker or manager for collection. Based on these ratios, the development is required to provide the following:

	General Waste (GW) (Red Lid)	Recycling (RC) (Yellow Lid)	Green Waste (GO) (Lime Green Lid)
No. of bins	5	5	1
Bin size	240L	360L	240L
Bin Width	0.585m*	0.68m*	0.585m*
Bin Depth	0.73m*	0.848m*	0.73m*

Table 1: Number of bins required.

* Bin dimensions are available by [Sulo's website](#) (See Appendix 1)

Bins will be stored in a communal bin storage area located behind the garage. This area will be designed to meet the City of Stirling's requirements, ensuring appropriate screening, ventilation, and accessibility.

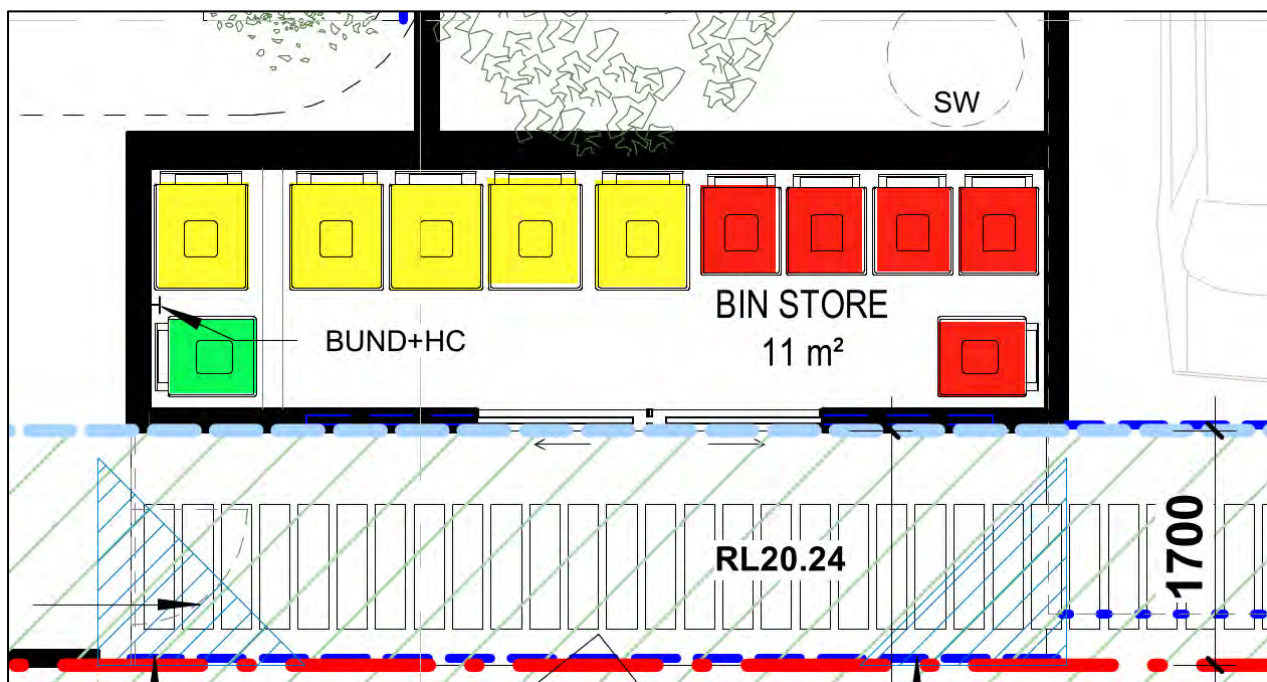


Figure 2: Extract of the Floor Plan showing the Communal Bin Store

2.3 Collection Point and Verge Space Required



Figure 3: Extract from the City's Website

As per the City's Waste Services Guidelines, a minimum of 0.5m spacing is required between each bin to ensure safe collection. The total verge space required for kerbside presentation is summarised below:

Collection Cycle (Every Tuesday)	Bins on the Verge	Total Length required
Week 1 (GW + RC)	10	10.825m
Week 2 (GW + GO)	6	6.01m

Table 2: Verge Space Required for Collection from Brighton Road

The location of the bins will be as follows:



Figure 4: Bin pad locations

3.0 Green Waste Verge Collection

The City of Stirling provides a bulk green waste verge collection service to residential properties approximately every nine months. Residents may place green waste on their verge up to nine days prior to their scheduled collection date, with collection typically completed within two weeks.

In light of the City's Waste comments, it is anticipated that the residents will primarily utilise the communal Green Waste bin for green waste disposal and therefore may have limited need to access the verge collection service.

4.0 On Demand Bulk Waste Collection

In addition to the annual tip passes provided with landowners' rates notices, the City of Stirling now offers a variety of on-demand waste collection services. Each residential property is entitled to access one service per financial year. These include:

- **Skip Bin Hire:** A 3m³ skip bin can be delivered to your property for the disposal of general household waste.
- **Mattress Collection:** Up to six items may be collected per booking (please note that one mattress and one base are counted as two items).
- **White Goods Collection:** A maximum of four items can be collected. Eligible items include fridges, freezers, ovens, cooktops, washing machines, clothes dryers, and dishwashers.
- **Electronic Waste Collection:** Up to six items may be collected, including computers, televisions, printers, and scanners.
- **Additional Skip Bins:** If the annual free skip bin service has already been utilised, residents may request up to two additional skip bins at a cost of \$85 each.

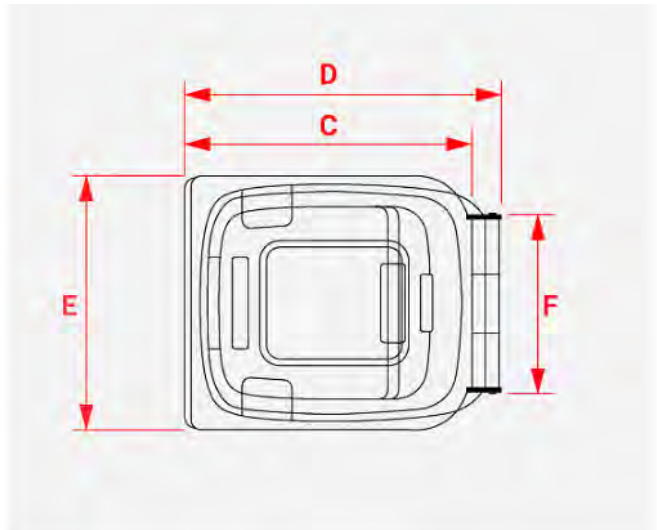
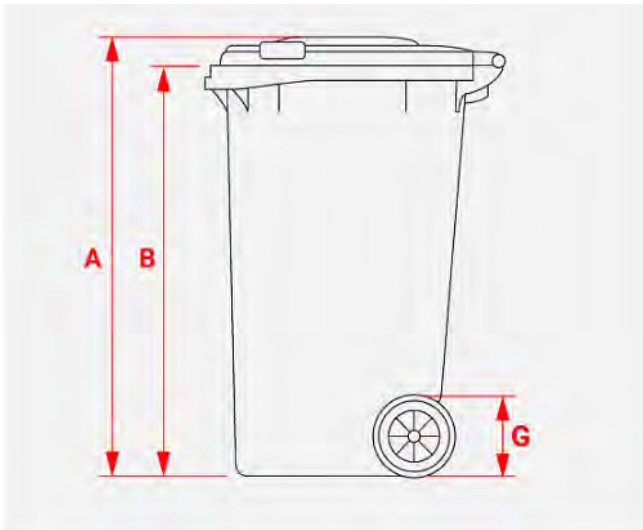
All services must be booked through the City of Stirling's online booking system ([see link here](#)).

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Appendix 1

Bins Dimensions

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Standard Size for a 140 L Bin

DIMENSIONS (MM)

A	Total Height ~	915
B	Bin Height ~	870
C	Bin Depth ~	550
D	Total Depth ~	615
E	Width ~	535
F	Handle Width ~	395
G	Wheel Diameter ~	200

VOLUME

Nominal Volume (L)	140
Empty Weight (kg)	10.4
Max. Filling Weight (kg)	56
Max. Total Weight (kg)	70

Source: <https://sulo.com.au/product/140-litre-container/>

Standard Size for a 240 L Bin

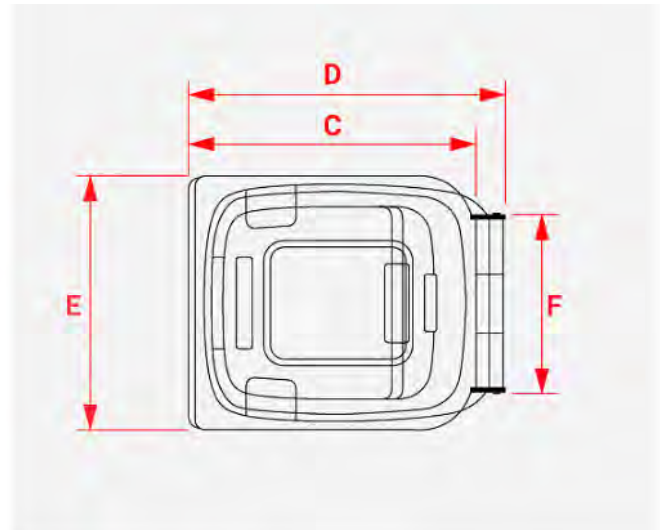
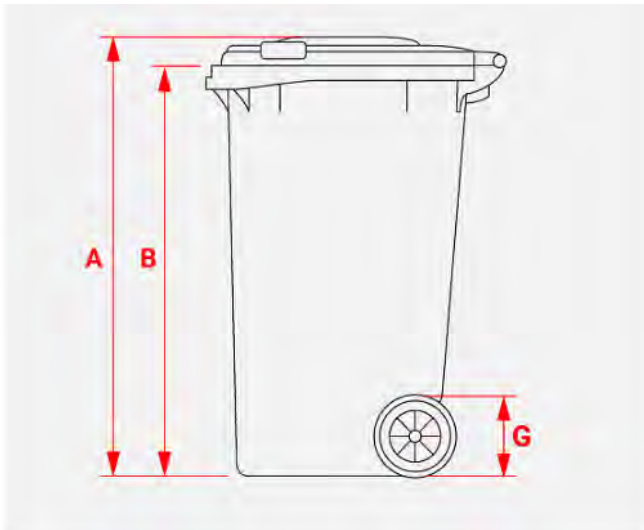
DIMENSIONS (MM)

A	Total Height ~	1060
B	Bin Height ~	990
C	Bin Depth ~	660
D	Total Depth ~	730
E	Width ~	585
F	Handle Width ~	400
G	Wheel Diameter ~	200

VOLUME

Nominal Volume (L)	240
Empty Weight (kg)	12.5
Max. Filling Weight (kg)	96
Max. Total Weight (kg)	110

Source: <https://sulo.com.au/product/240-litre-container/>



Standard Size for a 360 L Bin

DIMENSIONS (MM)

A	Total Height ~	1100
B	Bin Height ~	1028
C	Bin Depth ~	770
D	Total Depth ~	848
E	Width ~	680
F	Handle Width ~	520
G	Wheel Diameter ~	250

VOLUME

Nominal Volume (L)	360
Empty Weight (kg)	17
Max. Filling Weight (kg)	144
Max. Total Weight (kg)	159

Source: <https://sulo.com.au/product/360-litre-container/>

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Appendix 2:
City of Stirling's Waste and Recycling
Guide 2024/25

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Waste and Recycling Guide 2024/25



**Protect what we treasure with our helpful
tips on sorting your waste correctly**

 Scarborough Beach Foreshore

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Read on to discover our waste services and resources:



**Garden
organics
waste**



**Recycling
Centre
Balcatta**



**On-demand
collection
services**



Recycling



Skip bins



**Green waste
verge collection**



**General
waste**



**Hazardous
waste**

Plus so much more!



You've gotta love Stirling

Share a whole lotta love about Stirling's spectacular locations to show the world how we protect what we treasure by binning our litter correctly.

Simply tag us in a photo of your favourite location in pristine condition at **#GottaLoveStirling**, and tell us why it holds such a special place in your heart.

When is my bin day?

Our bin day search makes it easy to find your bin collection dates online.

For more information, scan the QR Code or visit www.stirling.wa.gov.au/bincollections and type in your address to search.



Waste collections occur on all public holidays except Christmas Day, New Year's Day and Good Friday. If a collection is scheduled for any of these days, it will take place on the following day.

Hazardous waste

Hazardous waste can be brought to the Recycling Centre Balcatta free of charge. Combined total of 20L or 20kg per day, commercial quantities are not accepted.

✗ Items NOT accepted include:

- ✗ Any household hazardous waste collected for a fee by commercial operators
- ✗ Explosives or ammunition (contact your local police station)
- ✗ Radioactive materials (excluding smoke alarms)
- ✗ Paint brushes (place in your red-top bin)
- ✗ Asbestos (call Mindarie Regional Council for disposal [08] 9306 6303)
- ✗ Waste from commercial or government organisations.

✓ Items accepted include:

- ✓ Electronics / mobile phones
- ✓ LPG gas cylinders (maximum of four cylinders that each hold less than 9kg of gas)
- ✓ Solvents and paints (up to 100L per day, dry / empty containers and commercial quantities also accepted)
- ✓ Flares (maximum of eight) and red fire extinguishers (maximum of four)
- ✓ Pesticides, insecticides and herbicides
- ✓ Ink and printer cartridges
- ✓ Fluorescent light globes (maximum of 10)
- ✓ Motor oil, coolants and filters (household quantities only, over 20L not accepted)
- ✓ Varnishes and stains
- ✓ Household and car batteries
- ✓ Pool and other household chemicals
- ✓ X-ray film.
- ✓ Smoke alarms





Garden organics waste

Green-top bin

Fortnightly collection

Use me for:



Lawn clippings



Leaves, flowers,
small branches
and palm tree pods



Weeds and herbs



Prunings and
any cuttings.



DO NOT use me for

× General waste,
including
food waste

× Dirt, soil and sand

× Large logs
and stumps

× Building
materials

× Food, including
fruit and vegetables

× Painted and
treated timber

× Fruit fallen from
garden trees

× Vapes

× Plant pots

× Garden hose

× Plastic bags

× Glass

× Plastic and metal

× Garden tools

× Stones and rocks.

× Household waste

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What happens next?

Your green-top bin gets collected fortnightly and the garden waste is transported to a composting facility.

At this facility, your garden organics undergo a 12-week composting process before being used in landscaping and agriculture.

Currently 98 per cent of materials placed in the green-top bins are compostable – this is referred to as our recovery rate.



Recycling

Yellow-top bin

Fortnightly collection

Use me for:



Paper (excluding shredded) and cardboard (flattened)



Aluminium and steel cans (rinsed and empty)



Plastic bottles, containers and punnets (rinsed with lids off)



Glass bottles and jars (rinsed and empty, including broken).



DO NOT use me for

✗ Plastic bags and light plastic film

✗ Nappies, wipes and sanitary products

✗ Batteries, globes and chemicals

✗ Shoes, clothes and other textiles

✗ Long-life milk, Tetra Paks and other silver-lined products

✗ Vapes

✗ Garden organics waste

✗ Electrical and electronic items

✗ Car parts

✗ Gas bottles and aerosol cans

✗ Food waste

✗ Asbestos (call Mindarie Regional Council for disposal [08] 9306 6303)

✗ Ropes, cables and garden hose pipes

✗ Window glass.

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What happens next?

Your yellow-top bin gets collected fortnightly. The contents are transported to a Material Recovery Facility (MRF) for sorting. The sorting process separates plastic, paper, aluminium, steel, cardboard and glass. Currently 78 per cent of materials placed in the yellow-top bins are recyclable – this is referred to as our recovery rate.

Scan the QR code to take a virtual tour through the MRF.



General waste

Red-top bin

Weekly collection

Use me for:



Food scraps



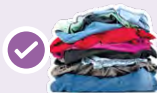
Nappies, sanitary products, wipes, kitty litter and pet waste



Meat trays and soiled packaging



Other non-recyclable products (such as straws, lids, silver-lined packaging and plastic bags)



Worn-out clothing and textiles



Old shoes.



DO NOT use me for

✗ Batteries (household and car)

✗ Electrical and electronic items

✗ Poisons

✗ Light globes

✗ Aerosols

✗ Syringes and medical waste containing blood products

✗ Chemicals

✗ Hazardous waste

✗ Asbestos (call Mindarie Regional Council [08] 9306 6303 for disposal)

✗ Paint

✗ Vapes

✗ Untreated timber.

✗ Soil, sand and rocks

✗ Gas bottles

✗ Building materials

✗ Motor oil and oil filters

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What happens next?



Your red-top bin is collected weekly and the contents are transported to the Tamala Landfill site, via the City's transfer station.

Landfill should be the last resort!

Did you know that the City provides a range of waste avoidance initiatives and events, including subsidies for cloth nappies and reusable sanitary products?

Find out more at
www.stirling.wa.gov.au/wasteinitiatives



Recycling Centre Balcatta

The City has a dedicated recycling centre at 238 Balcatta Road, Balcatta.

Opening hours:

Monday to Saturday: 7.30am – 4.00pm | Sunday: 8.00am – 4.00pm.
Closed Christmas Day, New Year's Day and Good Friday.

The following items can be dropped off at the Recycling Centre Balcatta free of charge:

- Aluminium
- Bicycles (working)
- Batteries
- Clothing, fabric and shoes
- Dry cardboard
- Household furniture in good condition (at the City's discretion)
- Electrical items
- Globes
- Landscaping items
- Polystyrene (white and clean)
- Scrap metals
- White goods (excluding fridges, freezers and air conditioners).

The following items must be taken over the weighbridge and fees apply:

- Air conditioners
- Fridges and freezers
- Tyres
- Household bulk waste
- Mattresses and bases.

Tip passes

City of Stirling ratepayers receive tip passes on their annual rates notice. Tip passes can be combined with other payment methods if the delivered weight exceeds the passes provided. Fees apply after all tip passes have been used.



Tip passes are provided on an annual basis for residential use only and are non-transferable:

- Proof of address and the tip pass are required on entry to the Recycling Centre Balcatta paid services area
- Expired tip passes will not be accepted
- Tip passes cannot be reprinted, so make sure you store them in a safe place.

Use your tip passes to dispose of the following items for free at the Recycling Centre Balcatta:

- Household bulk junk – up to one tonne, including two mattresses or bed bases and two fridge disposals (additional mattresses, bed bases, fridges and freezers will incur a fee)
- Clean green garden waste – up to one tonne
- Clean sand, bricks and concrete – up to one tonne (no timber, floor or wall tiles, super-six sheeting, asbestos or plastic buckets with dried cement).

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The Recycling Centre Balcatta does not accept asbestos materials.

For disposal options, please contact Mindarie Regional Council on (08) 9306 6303 or Red Hill waste Management Facility on (08) 9574 6235. Visit www.asbestossafety.gov.au for more information.

Do not place in a kerbside bin	Where can I take it?	Cost
Batteries (car)	Recycling Centre Balcatta	Free
Batteries (household)	Recycling Centre Balcatta / recycling stations	Free
E-waste – computer and electrical equipment	Recycling Centre Balcatta	Free
Fluorescent tubes and energy saving globes	Recycling Centre Balcatta / recycling stations	Free
Household hazardous waste – including aerosols and pesticides	Recycling Centre Balcatta	Free
Mobile phones	Recycling Centre Balcatta / recycling stations	Free
Polystyrene – bulk	Recycling Centre Balcatta	Free
Printer cartridges	Recycling Centre Balcatta / recycling stations	Free





Green waste verge collection

In addition to your green-top bin, the City offers green waste verge collections.

Green waste items must be placed on the verge by the start of the scheduled collection date. Items can be placed on the verge up to nine days before your scheduled collection date and may take up to two weeks to be collected.

It is illegal to place green waste in parks, reserves, vacant land or commercial properties.

You can find your collection dates and maps on the City's website at www.stirling.wa.gov.au/greenwaste



If you witness any illegal dumping, please report it by visiting www.stirling.wa.gov.au/illegaldumping

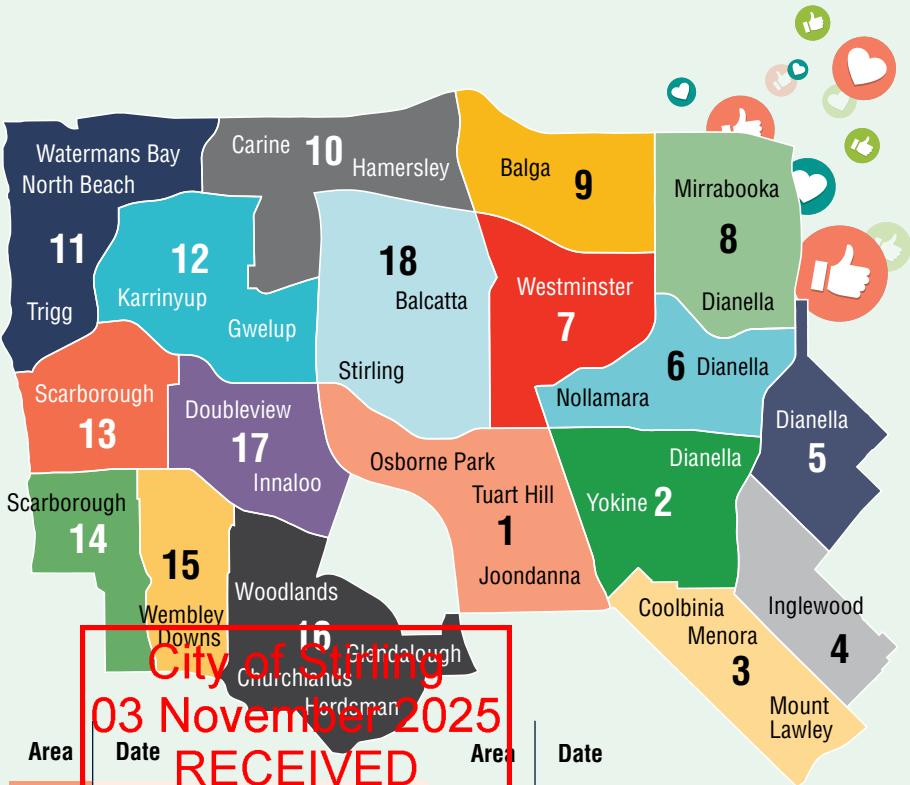
Space-restriction-related issues and concerns should be reported to the City.

To ensure green waste can be collected from your verge, please make sure that:

- ✓ Branches are no more than 1.5m long
- ✓ Branches that are more than 25cm in diameter (thickness) have been cut into lengths of no more than 30cm
- ✓ Green waste is not in cardboard boxes or hessian, polypropylene or plastic bags
- ✓ Green waste is free of contamination.

DO NOT place green waste on or near:

- ✗ Footpaths or driveways, or allow it to overhang onto roadways, obstructing views
- ✗ Artificial turf, trees, stumps or sprinklers
- ✗ Fences, walls, letterboxes or fixed objects
- ✗ Water meters, telecommunication covers, electrical green domes, manhole covers or posts.



Green waste collections will cease between 16 December 2024 and recommence on 6 January 2025.





If you're over it
we can take it



Free on-demand collection services

Properties can access each of the following services
once every financial year (1 July - 30 June):



Electronic waste

A maximum of six items can be collected, such as computers, televisions, printers and scanners.



Mattresses

A maximum of six items can be collected as part of this service (one mattress and one base equals two items).



White goods

A maximum of four items can be collected, including fridges, freezers, ovens, cooktops, washing machines, clothes dryers and dishwashers.



Free skip bin hire

A 3m³ skip bin can be delivered to your home for general household waste.

These services can be booked online via the City's
website www.stirling.wa.gov.au/ondemand



Skip bins



Use me for:

- ✓ Bulk cardboard and polystyrene
- ✓ Household and garden furniture
- ✓ Carpet / floor coverings (except tiles)
- ✓ Sporting equipment
- ✓ Household junk waste
- ✓ Timber products (up to 1.5m in length).



DO NOT use me for:

- ✗ Asbestos (call Mindarie Regional Council [08] 9306 6303)
- ✗ Building materials (concrete, cement, Gyproc and reinforcing bar)
- ✗ Car parts or batteries
- ✗ Electronic waste
- ✗ Food waste
- ✗ Gas bottles
- ✗ Garden organic waste
- ✗ Hazardous waste
- ✗ Liquids, including oil and paint
- ✗ Mattresses / bases
- ✗ Sand, bricks, pavers, tiles and rubble
- ✗ Trade and commercial waste
- ✗ Tyres
- ✗ White goods.

- Skip bins will be collected two business days after delivery
- Delivery and collection will occur on a weekday between 6.00am – 6.00pm. Skip bins are 1.8m long and 1.6m wide. Please ensure there is sufficient space on your verge before booking.



DO NOT:

- ✗ Overfill your skip bin (it will not be collected)
- ✗ Refill the skip bin when it is awaiting collection.

For enquiries relating to an existing booking for a skip bin delivery or collection, or overfull skip bins, please contact the City on (08) 9205 8555 between 8.30am – 5.00pm, Monday to Friday or visit www.stirling.wa.gov.au/ondemand

Online residential waste services

Visit the City's website to make an enquiry or lodge a report for:

- Missed services (missed bin collections)
- New bin requests

- Damaged or missing (lost) bins
- On-demand waste collection.

For more information, please visit www.stirling.wa.gov.au/waste



Have you left enough space?

To ensure our waste trucks can empty your bins, check there is enough space around them.



Do not park vehicles in front of the bins



Place bins next to kerb by 6.00am



Keep the weight of the bin under 70kg



Avoid overfilling to ensure the lid can close

City of Stirling
03 November 2025
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This information is available in alternative formats on request.
Please contact the Customer Contact Centre on (08) 9205 8555.

22 Brighton Road Scarborough

Sustainability Report

Developed Property

Job No: 1046146
Doc Ref: 1046146-RPT-SY-001
Revision: B
Revision Date: 05 November 2025

Project title	22 Brighton Road Scarborough	Job Number
Report title	Sustainability Report	1046146

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
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A	07 May 2025	Issue for Development Application (DA) – minor amendment
B	05 November 2025	Issue for Development Application (DA) – aligned with MRA Scarborough Redevelopment Area – Green Building Policy

Document Validation (latest issue)

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Executive summary

This report outlines the Ecological Sustainable Design (ESD) strategy for the proposed 22 Brighton Road development, located in Scarborough, and lies within the City of Stirling. The site is located within the Scarborough Special Control Area, as defined in Local Planning Scheme No. 3.

The project is to consist of 8 Grouped Dwellings (residential Class 1a). The site will also include landscaping and carparking provisions for each of residential dwellings.

This report outlines how the proposed development aligns with the relevant sustainability credentials in the City of Stirling. The following documents are referred to within this report:

- Metropolitan Redevelopment Authority (MRA) Scarborough Redevelopment Area – Green Building Policy
- Local Planning Scheme No. 3, specifically Schedule 13 (Scarborough Special Control Area).

Table 1 below demonstrates how the proposed development responds to the requirements and outlines which sections of this report are relevant for each requirement.

Table 1: Relevant Local Government Authority (LGA) ESD requirements for the project.

Outcome	Development must demonstrate that:	Comments
Metropolitan Redevelopment Authority (MRA) Scarborough Redevelopment Area – Green Building Policy		
✓	Green Star System New buildings on any Tier 3 site are required to be designed and constructed to achieve a 4 Star Green Star Design & 'As Built' rating or SDAR report from a Suitably Qualified Professional.	This development is being designed to an equivalent standard for Green Star Homes as this is the most applicable and relevant rating tool for townhouse developments. A Sustainable Design Assessment Report (SDAR) (this report) has been written by Cundall who are Suitably Qualified Professionals. Refer to Section 9.2 for more details.
Local Planning Scheme No.3 – Scarborough Special Control Area – Schedule 13		
Objectives under 1.3.6 Environmental Integrity		
✓	Ecological Footprint Encourage development that uses energy efficiently and minimises greenhouse gas emissions.	The development is designed to reduce operational energy consumption through good building fabric and high-performance glazing. Refer to Section 2.2 .
✓	Environmentally Sensitive Design Promote building practices that ensure resource efficiency, minimise non-renewable resource use, and reduce waste and pollution.	Refer all sections of this report.
✓	Water Sensitive Design Encourage development that reduces natural water demand and promotes water reuse and recycling.	The project will install low-flow water fittings and design for low-water consumption landscaping. Refer to Section 4.0 .
✓	Natural Environments Ensure development respects the coastal setting of Scarborough and supports environmental protection and drainage management.	Project is designed to minimise stormwater runoff, through use of on-site landscaping. Refer to Section 4.3 .

Outcome	Development must demonstrate that:	Comments
✓	Urban Heat Island Mitigation Preserve mature trees and plant new vegetation in deep soil zones to reduce heat buildup.	Light coloured roof, façade and landscaping will mitigate heat island effect. Refer to Section 7.2 .
✓	Alternative Transport Incorporate technologies and infrastructure that promote public transport, cycling, walking, and future light rail integration.	The development is well designed to support cycling and walking. Refer to Section 6.0 .
✓	Site Responsive Design Design developments that respond to site conditions and environmental factors, helping reduce urban heat island effects.	Refer all sections of this report.

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1.0 Introduction

The project is to consist of 8 Grouped Dwellings (residential Class 1a). The site will also include landscaping and carparking provisions for each of residential dwellings.

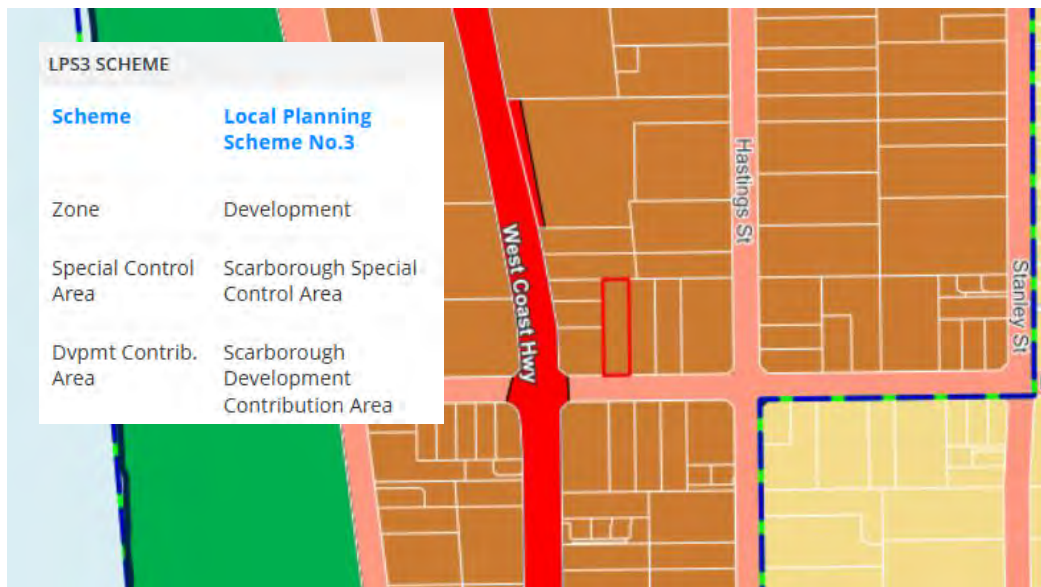


Figure 1.1 Location and classification of the proposed development.

1.1 Design Guidelines – City of Stirling

The proposed building is within the City of Stirling and therefore must conform to the following policies and guidelines. The design must also meet the MRA – Green Building Policy. Refer [Section 9.2](#) for further detail.

1.1.1 Local Planning Scheme No. 3

The Scheme sets out the Council's planning aims, zones and reserves land, regulates land use and development, outlines planning application procedures, and provides for administration, enforcement, and other statutory matters.

1.2 Sustainability targets

This report details the project's current sustainability targets and initiatives across the following categories:

- Embodied and operational carbon,
- Indoor environment quality,
- Water efficiency,
- Waste management,
- Transport,
- Urban ecology,
- Social impact.

As an overview, the development has been designed to meet the following sustainability targets:

- Solar PV panels to each dwelling,
- Low-flow fittings and fixtures, with drip irrigation to native landscaping,
- Light coloured roof and façade to minimise heat island effect,
- High quality building fabric to reduce unwanted heat gain and losses.

2.0 Embodied and operational carbon

Buildings consume considerable natural resources in their construction, operation, and demolition. This section of the report will provide details about the potential impacts caused by the building and how these impacts have been reduced when compared to typical buildings of this nature.

The proposed development will aim to reduce the total embodied carbon in the construction materials and aim to maximise the operational efficiency of the building's services.

2.1 Embodied carbon

Embodied carbon refers to the total amount of energy required to produce a product or system, and includes energy inputs for raw material extraction, processing, manufacturing, and distribution. In doing so, it considers both direct and indirect energy inputs and is often used as a holistic measure of environmental impact.

To minimise embodied carbon on the project, several initiatives are currently present or being investigated for the design, as listed below.

- The structural steel used within the building will target use of responsibly sourced steel, such as products with a ResponsibleSteel™ certification, or an Environmental Product Declaration (EPD).
- The concrete used within the development will aim to incorporate low carbon mix designs, which replace carbon intensive Portland cement with waste materials such as fly-ash or furnace slag.

2.2 Operational energy efficiency

The proposed development has considered the importance of reducing operational energy. This will be achieved through several initiatives, as detailed below.

2.2.1 High performance building fabric

All aspects of the building's thermal performance will be constructed to exceed Section J requirements in the National Construction Code (NCC) 2022.

For glazing to the façades, a high-performance glazing system will be selected to prevent excessive summer heating while allowing useful passive solar gains in winter. A low glazing U-Value would minimize the conductive loss or gain of heat between the interior and exterior of the building.

The following insulation and glazing values are currently being considered within the project design. Please note thermal performances may be refined during the project NatHERS modelling process.

Table 2: Proposed glazing and insulation performance values.

Building Component	Targeted Thermal Performance
Glazing	$U_T \leq 3.20$ and $SHGC_T: 0.35 (\pm 5\%)$
Roof / ceiling	$R_T: 5.0$
External walls	$R_T: 3.0$
Internal walls	$R_T: 1.0$
Floor	$R_T: 2.0$

2.2.2 Thermal bridging

Thermal bridging describes the transference of heat at a point through which it can bypass insulating layers of the structure. The presence of such points in a building's envelope can produce unwanted heat gains and losses.

In designing for sustainability and energy efficiency, the architectural and structural detailing on the project will consider thermal bridging solutions where viable, such as roof spacer systems.

2.2.3 Energy efficient appliances

Any appliances specified within the design of the building will meet the following Energy star requirements.

Table 3: Appliance energy star requirements.

Appliances	Targeted performance
Refrigerator	4.5 Star
Washing machine	4.5 Star
Dishwasher	4.0 Star
Dryer	6.0 Star
Cooktop	All electric
Oven	All electric

2.2.4 Lighting

Energy efficient lighting fixtures are to be targeted for the development, with low energy consuming LED lighting currently considered for the project. Lighting comfort will also be considered, with CRI, glare, flicker-free requirements considered for the project.

Motion sensors are also considered for specific areas to optimise energy efficiency where possible. This will be targeted primarily for transient spaces provided that it does not compromise safety of the building occupants.

2.2.5 Shade structures

Through a combination of eaves, screens, and awnings, the project will seek to reduce shade the façade and glazed areas from direct sunlight.

This will reduce cooling demands during the summer months and thus reduce energy consumption.



Figure 2-1 Render of proposed façade glazing, with shading eaves present.

2.2.6 On-site renewables

In addition to the above initiatives, on-site energy production will also be considered by the development. A small roof mounted photo-voltaic system is considered for installation atop each dwelling.

This would further reduce the energy demand for the project, and system size will be optimised during design.

A target of over 7.5 kw per apartment is currently considered.



Figure 2-2 PV cells shown on roof top plan.

3.0 Indoor environmental quality

The indoor environment quality (IEQ) within a building contributes significantly to user wellbeing and is therefore a critical part of any design. It comprises a range of factors, including but not limited to air quality, lighting, acoustics, and thermal comfort.

The proposed development has considered the above and adopted several strategies to enhance indoor environment quality, as outlined in this section of the report.

3.1 Thermal comfort

An indoor environment that is too hot or too cold can affect mood, performance, and productivity.

To control internal comfort and minimise excessive heat loss in winter and heat gains in summer, several strategies will be investigated for the proposed development:

- High performance glazing will be installed to improve the thermal performance of the building envelope.
- External shading and operable windows prevent excessive heat gains in summer.
- Good thermal mass is present through the heavyweight façade elements, which will improve thermal comfort.
- Building constructions will also consider impacts of airtightness, moisture management in addition to thermal comfort.

3.2 Emissions & toxicity

Volatile organic compounds (VOCs) are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors than outdoors. VOCs are emitted by a wide array of products numbering in the thousands (typically paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment such as copiers and printers).

The development will aim to specify materials with low emissions content including low-VOC and low formaldehyde content to avoid contaminating the indoor air.



Figure 3.1 VOCs that result in a poor indoor environment.

3.3 Natural and artificial lighting

The development has been designed to maximise daylight by providing glazing systems to all bedrooms and living spaces, through inclusion of balconies and courtyards.

This will ensure good access to natural daylight and shading devices are also proposed to minimise glare and enhance visual comfort.

Artificial lighting will also be considered in the design and seek to provide a soft and welcoming feeling for occupants, which will improve the overall building indoor environment quality. Targets are being considered with regard to CRI, glare, and flicker-free performances.

3.4 Cross ventilation

Natural ventilation is the movement of a sufficient volume of fresh air through a dwelling to refresh indoor air. It is best achieved by apartments that have more than one aspect with direct exposure to the prevailing winds, or with windows located in significantly different pressure regions.

The development has considered methods to maximise the number of spaces with natural ventilation. This has been achieved by including operable glazing units throughout the project to enable significant fresh air to enter.

4.0 Water Efficiency

A reduction of water usage does not only alleviate pressure from the local water supply but also means reduced costs of operation.

The following sections set out design strategies utilised for this development to reduce the building's water consumption.

4.1 Water fixtures & fittings

Occupant consumption is a major contributor to potable water usage. Low flow water fittings and fixtures will be targeted for the project, in line with best practice WELS ratings, as shown below.

Table 4: Proposed water fittings WELS rating

Fixture / Fitting Type	WELS Rating
Taps (kitchen)	4 Stars with a maximum flow rate of 7.5L/min
Taps (laundry and bathroom)	5 Stars with a maximum flow rate of 6L/min
Toilets	4 Stars dual flush with a maximum flow rate 3.5L/flush
Showers	4 Stars with a maximum flow rate of 7.5L / min
Clothes Washing Machine	4-star
Dishwasher	5-star

4.2 Water-wise landscaping

This development will be creating a water-wise landscape, with a majority of native species proposed for the plant selections. These selections are naturally hardy natives and have low water demand.

Irrigation systems for the development will target the use of drip irrigation, which is the most efficient method of irrigation.

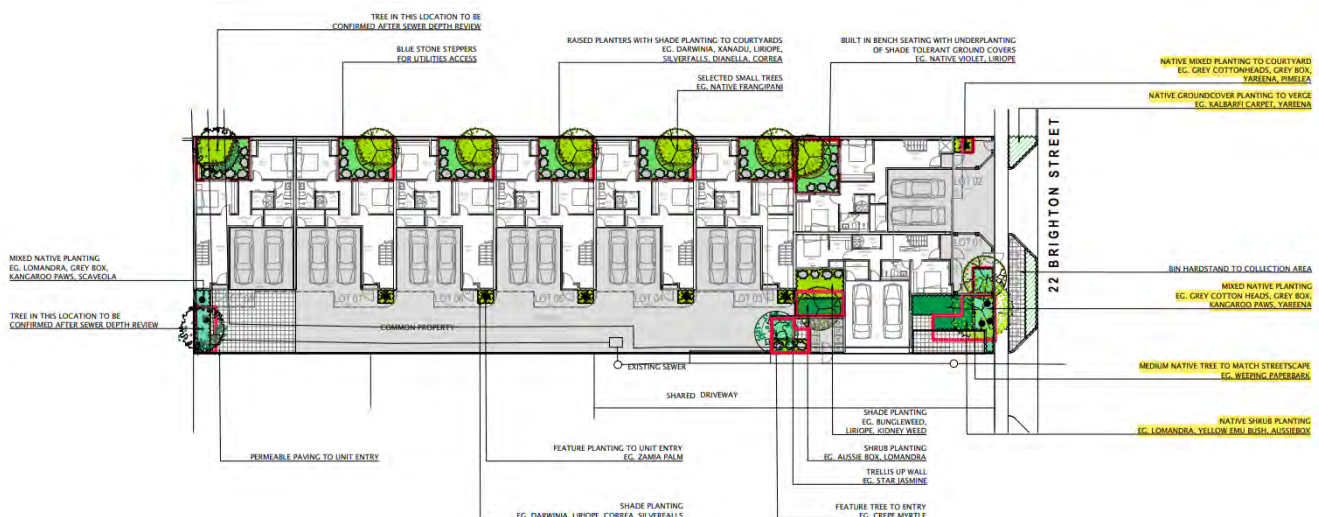


Figure 4.1 Green space and landscaped areas will be present in the project, with native species noted in the landscaping plans.

4.3 Stormwater management

Stormwater is precipitation runoff over ground-level surfaces that does not soak into the ground but has not entered a waterway such as a stream or a lake.

Best practice urban design calls for the natural infiltration of stormwater in the built environment. This helps to restore the natural water cycle, whilst reducing damage associated with excessive runoff.

The use of vegetated and porous areas is currently proposed within the development and will enable natural infiltration.



Figure 4.2 Vegetated areas and porous ground coverings are included in the development to aid in stormwater management.

5.0 Waste management

The main objectives for the waste management strategies for construction and operational waste are to ensure that waste is avoided and recycled during design, construction, and operation.

Waste within a building construction context can be avoided by encouraging the selection of lower-impact and long-term materials. Operational waste to landfill can be reduced by providing relevant and easily accessible facilities for recyclable waste and other waste that can be diverted from landfill such as organic waste, batteries or e-waste.

5.1 Construction and demolition waste

The project construction and demolition phase will aim to divert as much waste from landfill as possible. This is to be achieved through on-site separation of waste streams during construction into major groups, such as cardboard, metal, general waste, and concrete/brick rubble.

5.2 Operational waste management

A dedicated waste storage area will be provided for the separation and storage of recyclable waste during operation, allowing for the different waste streams to be separated to match the local recycling scheme.

At least three streams will be covered including landfill, recycling and organic/food waste. This aligns with the City of Stirling's household waste collection services, which collect the above streams weekly.

Information on waste services available for occupants will be provided in a welcome pack, or home user guide, upon their moving in.

Waste collection dates

Bin types	Collection date
 General bin Collected weekly.	May 6 2025
 Recycling bin Collected fortnightly.	May 13 2025
 Garden organics (GO) bin Collected fortnightly.	May 6 2025
 Green waste verge collection Collected every 9 months.	From 26 May 2025

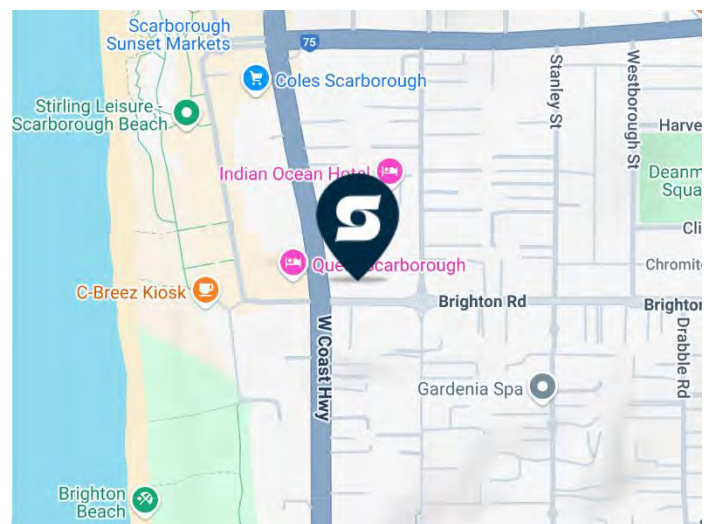


Figure 5.1 Three waste streams will be provided for within the development and are aligned with local operations.

6.0 Transport

Several sustainable transport options are supported within the development, as detailed below.

6.1 Cyclist facilities

The development will support cycle storage facilities for building occupants. Several dwellings have dedicated bicycle storage racks which are conveniently located. All dwellings have adequate space within garages and courtyards for additional bike storage.

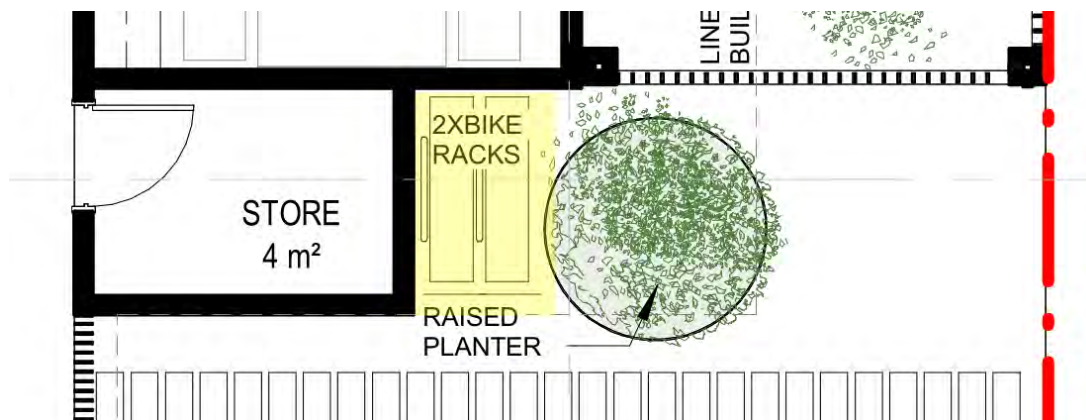


Figure 6.1 Bike racks shown on plan, with garage size also shown.

6.2 Access to amenities and public transport

The proposed development is conveniently located in central Scarborough. It has direct proximity to several cafes, markets, restaurants and convenience stores. Several natural spaces, such as Brighton Reserve and the Scarborough Beachfront, are easily accessible on foot. This proximity supports active transport and a walkable neighbourhood.

Several public bus and train routes are also available to access.

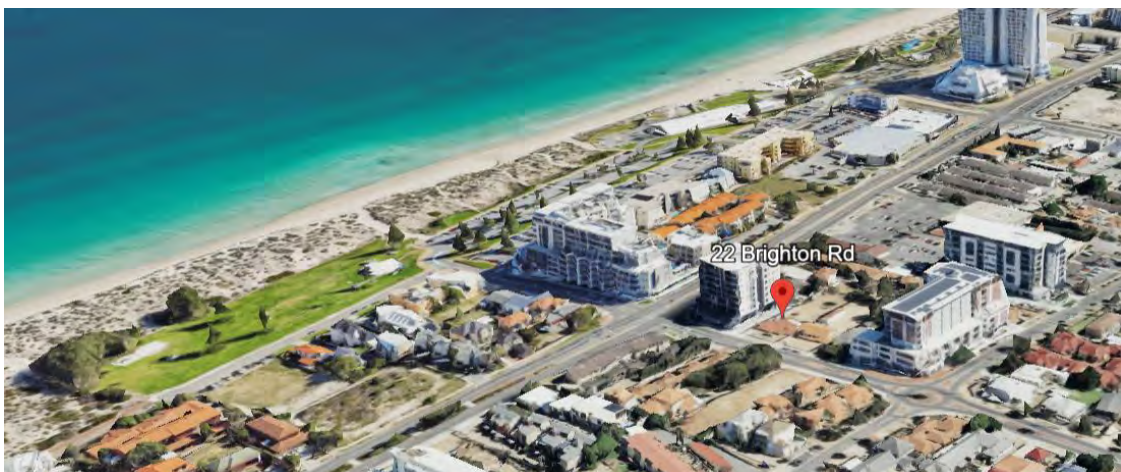


Figure 6.2 Proximity to amenities helps support low emission transport use.

6.3 Electric vehicles

The proposed development will provide provision for future electric vehicle (EV) charging and offer optional upgrades to potential buyers to facilitate EV use.

7.0 Urban ecology

The development will ensure landscaped areas are included where possible, and contribute to the local ecology, character, and amenity.

7.1 Enhancing ecological value

The project site previously featured extensive lawn/bare soil areas, with sparse trees. The aerial photo shown below illustrates the previous condition of the site.

The ecological value of the site is not expected to be negatively impacted as a result of the proposed landscape design. Before and after images are provided below as an indication of how the site's environmental values will be retained.



Figure 7.1 Aerial photograph of the project site. Source: Landgate (2025).

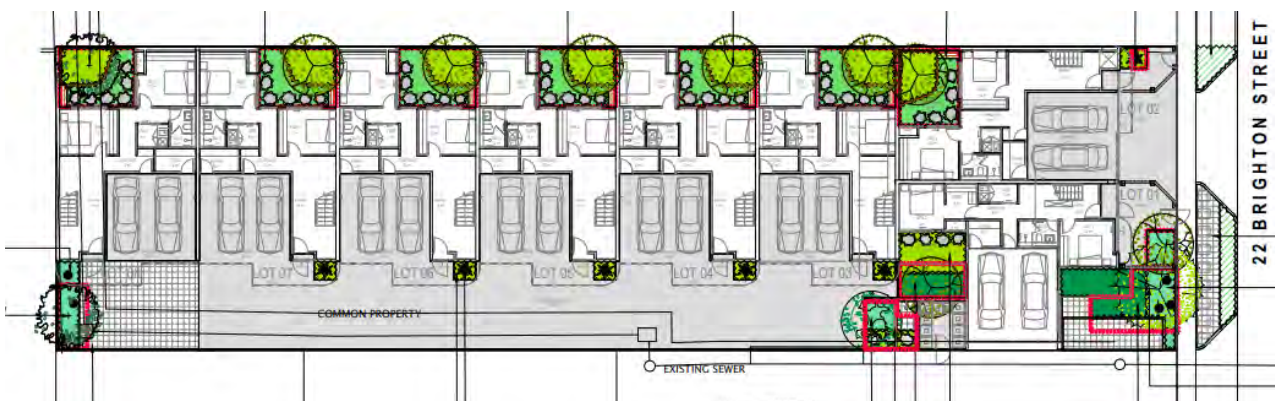


Figure 7.2 Illustration of the proposed vegetation coverage.

7.2 Minimising heat island effect

The heat island effect describes the condition where urban areas have a higher average temperature than its rural surroundings owing to the make-up of the built environment.

The project will aim to address this through the use of light-coloured façade and roof materials. The use of shaded and landscaped areas will also help reduce the heat island effect significantly.

Overall, the project will target that at least 50% of the site contains low solar absorptance materials, such as PV cells, light roofing materials, vegetation, or light coloured/shaded hardscape.

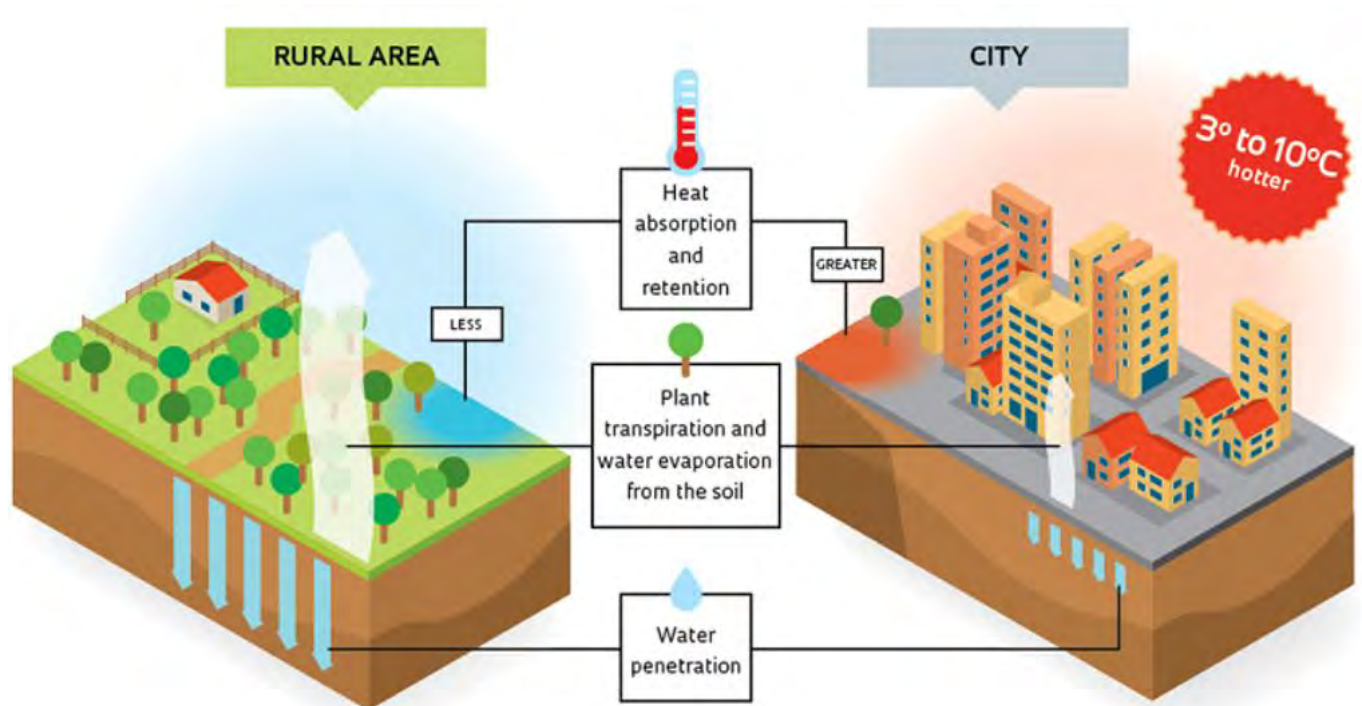


Figure 7.3 Example of how heat can build-up in urban areas.

7.3 Light Pollution

Excessive amounts of light being projected upwards is not energy efficient and has been shown to have potential negative impacts on the local wildlife.

Uplighting is featured on the project, however the amount and placement of uplighting will be managed and designed such that light spill to the night sky is minimised.

8.0 Social Impact

8.1 Social and community benefit

The proposed development will help in addressing the need for more housing, especially as it contributes to a higher density form of residential dwelling, which are increasingly in demand.

This may help provide a more affordable housing option, compared to a single detached house on a large block (previous condition), that will boost the region's population whilst limiting the need for urban sprawl.



Figure 8.1 The project will provide a denser form of residential development

9.0 Codes and Ratings

The building will be subject to voluntary and mandatory building codes and metrics to measure the performance of the rating. This section of the report outlines the main codes and ratings and identifies the project's response.

9.1 NCC 2022 Section J – residential

Residential building compliance is achieved through a thermal modelling process defined as the Nationwide House Energy Rating Scheme (NatHERS). This process requires a minimum star rating to be achieved for the building's thermal comfort, which informs the energy efficiency of the building.

The NatHERS tool considers a wide range of parameters like orientation, glazing, insulation, size of rooms and door openings, shading and awnings and ceiling fans.

Under NCC 2022, there is also Whole of Home (WoH) rating requirements for the project. Through this, additional parameters such as internal appliances, solar panels, and hot water systems are also considered.

The project requires the following performances to be reached.

Table 5: Targeted NatHERS rating.

NatHERS Rating type	NCC Requirement	Project Target
Minimum rating	7 Star	7 Star (each townhouse)

9.2 Green Star

As per the requirements of this development, the *MRA Development Policy 1 – Green Building* requires the following:

Table 6: MRA Policy requirements

	Tier 1	Tier 2	Tier 3
Rating	6 Star Green Star	5 Star Green Star	4 Star Green Star or Sustainable Design Assessment Report SDAR (equivalency)
Working Drawings	GBCA Registration and 'Design Review' certification from the GBCA.	GBCA Registration and 'Design Review' certification from the GBCA.	'Design Review' certification to be provided from the GBCA or a detailed report from a Suitably Qualified Professional
Practical Completion	'As Built' certification from the GBCA.	'As Built' certification from the GBCA.	'As Built' certification from the GBCA or a detailed report from a Suitably Qualified Professional.

The development is designated as Tier 3; therefore, the 22 Brighton Road development will provide a Sustainable Design Assessment SDAR (this report) to shown alignment with **an equivalent** of a **Green Star Homes** standard.

There are several available Green Star rating tools from the Green Building Council of Australia (GBCA), including Green Star Communities, Green Star Buildings, Green Star Interiors, Green Star Performance and Green Star Homes.

Green Star Homes has been selected for this development as it the most applicable rating tool for townhouses.

9.2.1 About Green Star Homes

Green Star Homes is a sustainability standard for assessing and rating individual houses, units and townhouses. Its purpose is to create a market and generate interest for homes that are healthy, resilient, efficient and powered by renewables.



It was developed through a comprehensive engagement process with industry and seeks to set realistic targets for projects, to help develop industry capacity to build better, more sustainable, homes and dwellings.

The Green Star Homes rating tool typically includes two rounds of review or submission. The first round is at the 'Designed' stage, which captures the project's design and targeted performance and demonstrates how this meets the tool requirements. If successful, the project can then use the Green Star Designed logo for marketing purposes.

The second submission is at the 'As Constructed' stage and requires further evidence to be submitted to demonstrate the requirements have been met on site. If successful, the home is officially certified and can be marketed as having met the Green Star Homes requirements.

Please see below link to the Green Star Homes website for more information:

<https://new.gbca.org.au/green-star/rating-system/homes/>

9.2.2 Green Star Homes alignment with MRA Policy

As per the MRA policy, the project is required to report performance across the below sustainability categories. The below table details how the Green Star Homes tool addresses each category.

Table 7: Alignment with MRA Policy

MRA Policy – 10 Key Categories	Comment	Green Star Homes
Indoor Environmental Quality (IEQ)	Green Star Homes contains criteria on the following items. - Thermal Performance - Air Quality - Moisture Management - Light Quality - Material Toxicity	✓ Included
Energy Efficiency	Green Star Homes contains criteria on the following items. - Thermal Performance - Window Systems - Air Tightness - Hot Water - Energy Efficient Appliances - Renewable Energy	✓ Included
Water Efficiency	Green Star Homes contains criteria on the following items. Water Use	✓ Included
Stormwater Management – Integrated Water Management	Green Star Homes contains criteria on the following items. - Water Use - Resilience Essentials	✓ Included
Building Materials	Green Star Homes contains criteria on the following items. - Window Systems - Moisture Management	✓ Included

MRA Policy – 10 Key Categories	Comment	Green Star Homes
	- Material Toxicity - Heat Resilience - Resilience Essentials	
Transport – Green Travel Plans	Green Star Homes contains criteria on the following items. Resilience Essentials As part of the climate resilience criteria, projects are mandated to provide a design response to enable future provision of electrical vehicle charging.	✓ Included
Waste Management	Green Star Homes contains criteria on the following items. Home User Guide As part of the Home User Guide, projects are required to include information regarding waste management options available within the local government area, and how to best use these to reduce waste.	✓ Included
Urban Ecology	Green Star Homes contains criteria on the following items. - Heat Resilience - Water Use	✓ Included
Innovation	The Green Star Homes tool is a new and innovative tool, with no Green Star Homes projects currently listed in WA (as per GBCA website).	✓ Included
Construction/Building Management	No specific requirements are listed for the construction waste or a similar metric. However, the project ESD consultant and/or project manager will monitor the implementation of key sustainability initiatives, to help encourage management of the sustainable design criteria.	-

9.2.3 Green Star Homes compliance

The below table provides a summary of the requirements within the Green Star Homes tool for each category and shows how the development is compliant.

Table 8: Green Star Homes credits.

Credit	Requirements	Project Complies?	Comments
Positive			
Thermal Performance	Each home or unit must achieve a minimum 7-star NatHERS rating	✓	No action required, as this is aligned with NCC 2022 (minimum compliance requirement).
Window System	All windows must be double glazed IGU (Insulated Glass Units), with thermally broken aluminium, timber, or UPVC frames	✓	All windows will be double glazed with UPVC frames.
Airtightness	The home must be designed, constructed, and tested to achieve air permeability performance of ≤ 7.0 ($\text{m}^3/\text{hr}\cdot\text{m}^2$ @50Pa)	✓	Each townhouse will endeavour to achieve the required air permeability.
Hot Water	The home must have either Electric Heat Pump or Solar Electric Boosted Systems for its hot water system	✓	Each townhouse will have an electric heat pump for hot water.
Energy Efficient Appliances	Appliances specified in the design must be all electric (no gas), meet stringent Energy ratings, and HVAC equipment must meet efficiency standards.	✓	Appliances will be all electric (no gas) and all HVAC and appliances to be highly efficient.

Credit	Requirements	Project Complies?	Comments
Renewable Energy	The home must produce on-site renewable energy generation in accordance with required rates (minimum 7.5 kWe peak anticipated for each townhouse).	✓	The current design includes approx. 8.8kW of solar PV per townhouse.
Home User Guide	Guidance is to be provided to new owners on the efficient operation of their home, in the form of a Home User Guide.	✓	The project will produce a Home User Guides for each townhouse listing key sustainability information.
Healthy			
Air Quality	Each home to be installed with a continuous mechanical ventilation and heat recovery (MVHR) unit. Any ductwork to be cleaned prior to occupation. Outdoor air rates to meet AS1668.2:2012. Exhausts and intakes to meet minimum separation distances. Indoor pollutants (from cooking etc) to be removed via exhaust fans or similar.	✓	The project will endeavour to meet ductwork, separation distance, outdoor air rates, and indoor pollutant requirements in accordance with the standard. Requirement for MVHR to be considered and discussed with mechanical to confirm if practical and feasible for the project.
Moisture Management	Condensation, vapour, drainage and thermal bridging to meet minimum requirements for all build-ups and constructions that form part of the home's thermal envelope.	✓	The design of project roof, wall and other construction elements to consider the requirements.
Light Quality	All lighting to be LED and meet requirements for visual comfort, including CRI, SDCM, UGR (glare), and flicker-free.	✓	Lighting selections for the project to be all LED and meet comfort requirements.
Material Toxicity	All internal finishes within the home must meet strict volatile organic compound (VOC) and formaldehyde limits.	✓	Material selections for paint, carpet, sealants, and carpets to meet VOC requirements. Cabinetry and engineered timbers to meet formaldehyde limits.
Resilient			
Water Use	Home to be fitted with high WELS rated fittings and appliances, rainwater storage, and provision for irrigation taps (connected to non-potable source). Toilets and washing machine to be connected to rainwater.	✓	Project to meet any WELS requirements for fittings and appliances. Hydraulic/civil to further advise on the suitability of rainwater tanks for inclusion on the project.
Heat Resilience	At least 50% of the site area in plan view must be comprised of low solar absorptance materials (e.g., light coloured roofing, PV panels, landscaping, shaded hardstand).	✓	Project roof to be light coloured, extensive PV panels proposed, with landscaping and shaded areas throughout.
Resilience Essentials	Project must complete a resilience checklist and respond to mandatory resilience risks, such as future extreme heat and storms, EV charging etc.	✓	Project to complete resilience checklist or similar equivalent and respond to any mandatory considerations.

In the next design phase of the project, the client and design team will seek to confirm the above requirements have been implemented into the detailed design and specifications.

10.0 References

City of Stirling (2024). Local Planning Scheme No. 3 Scheme Text.

<https://www.stirling.wa.gov.au/awcontent/Web/Documents/Developing%20Property/LPS3-Scheme-Text-Amt-113-current-version-for-Gazettal.pdf>

Metropolitan Redevelopment Authority (2016). Scarborough Redevelopment Area.

<https://www.stirling.wa.gov.au/awcontent/Web/Documents/Scarborough-Special-Control-Area-Development-Policies.pdf>

Cundall Johnston & Partners PTY

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Tel: +61 (0)8 9421 3700

Asia Australia Europe MENA UK and Ireland

www.cundall.com

Ref: PN24566
DA25/0775
DAP/25/02936
31 October 2025

Meron Nega
Planning Department
City of Stirling
Via Meron.Nega@stirling.wa.gov.au

Dear Meron,

22 Brighton Road, Scarborough | Response to Further Information Request (FIR)

As per the City of Stirling's Further Information Request (FIR) dated 1st of September 2025 and subsequent communication following the conclusion of the community consultation period and the request for an extension of time to provide the following information, we have made amendments to the plans and provide the following additional justification in support of the application.

The following notable dates are provided for the DAP's reference.

- DAP Application Lodged via email – 27 May 2025
- DAP Application Re-lodged at the request of the City via in-person – 3 June 2025
- Prior to Acceptance Preliminary FIR issued - 11 June 2025
- City of Stirling Accepts Payment – 17 June 2025
- Developed (Proponent) issues Preliminary FIR response – 1 July 2025
- DAP Application is Accepted – 10 July 2025
- FIR issued – 1 September 2025
- Developed (Proponent) issues FIR response – 31 October 2025

The City of Stirling has committed to a six (6) week timeframe to meet the Responsible Authority Report (RAR) due date.

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In response to the last five months of subsequent progress, the following information has been prepared:

- Revised Development Plans Package
- Revised Traffic Impact Assessment
- Revised Waste Management Plan
- Revised Sustainability Report
- Spatial Statement (existing) / Legal Statement (further)
- Planning Justification and Community Consultation Response

Upon the City's receipt of the FIR Package, we request the administration provide their recommendation prior to the issuance of the Responsible Authority Report (RAR) so that as proponents, we can understand the City's position and provide any additional information based on their recommendation.

We request that during the City's ultimate review of the information package, that timeframes are considered to allow the application to be recommended for Approval.

Community Consultation Summary

The City initiated community consultation between the 1st of August and the 15th of August 2025. The City received a total of 4 submissions, 1 in support, 3 opposing the proposed development. It is noted that all four submissions were made by the entity known as 'RMS Team'. This could be considered as only one response however we have addressed the submissions separately.

The submissions received had a consistent theme, suggesting that the proposal can be supported subject to revisions, articulation of the design and adequate justification of proposed variations. Those of which have now been provided.

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The nature of the submissions as indicated by the City is as follows:

Submission	Summary of Submission	Our Response	
Submission 1-3 Objection	Concerns regarding obstruction and safety risks from shared driveway use. Concerns raised about construction access, traffic management, and liability for damage. Concerns to shared access due to driveway and external safety hazards.	Traffic Volumes and Access Arrangements Internal traffic within the proposed common accessway will be contained and is not expected to exceed the intended number of vehicles for the 8-lot development. External traffic of MRWA roads and the potential impact to abutting property and its existing traffic/congestion (no nexus or impact to the subject site) as the shared easement is for the public at large as consider through the Proponents Spatial Statement and additional legal advice. Due to the public at large access, anyone as an occupant of the internal buildings or external visitors can use the road for ingress and egress, however, the use of the access is only anticipated for guests and occupants of the adjoining properties. Any internal hazards or damages are considered as civil matters as they arise. The proposed access to the subject site via an access gate is adequately truncated and does not prevent safe vehicle movements. The internal road network and traffic volumes and safety has been thoroughly assessed and considered by the appointed Traffic Consultant – Urbii. Please refer to the revised Traffic Impact Statement.	
Submission 4 Supported	The development looks fantastic and is a good use of lot.	We support the submission position.	

Due to the traffic related concerns, the proposed internal common access leg has undergone review and now complies or is adequately justified in respect to the Residential Design Codes and the Scarborough Design Guidelines, in addition to its certification by a Traffic Engineer, Licenced Surveyor and Lawyer reviewed. Please refer to the revised Traffic Impact Assessment. Other design related matters have been dealt with through amended plans with specific respect to Visual Privacy, Landscaping and Streetscape amenity.

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FIR Response Summary

The subject site is located within the City's Scarborough Special Control Area – previously known as Scarborough Redevelopment Area. Following amendments to the *Metropolitan Redevelopment Authority Regulations 2011*, the normalisation of the Scarborough Redevelopment Area occurred, as part of the normalisation process and return of the planning authority of the Scarborough Special Control Area to the City of Stirling.

Although the framework was never intended for development of this scale and intent, the City is still applying the development standards, despite their obsolete nature. Therefore, the proposal has undergone further revisions to satisfy the matters raised through the community consultation and the City's planning assessment. In summary, the design has applied comprehensive amendments without impacting the integrity of the proposal and now applies the Guidelines to the best of its ability.

We have attempted to address all matters raised by the community and the City. Aspects which have not been changed as their alteration will significantly impact the viability of the proposal, are substantially justified below, and are considered to satisfy the design principles to achieve a good design outcome.

To assist the City with the interpretation of the plans, the following relates to the changes:

- Site plan has been modified to demonstrate the required vehicle easement as per the Scarborough Design Guidelines Vehicle Access Plan and following the agree position (compromise) from the City with respect to the northern section.
- Redesign of Lot 8 to accommodate comments by Water Corporation (WC) regarding an implied reticulated sewerage easement within the northern lot boundary.
- Negating minor overlooking issues through redesign and justification.
- External bin store updated to include 11 receptacles and 11 associated bin pad locations within kerb side collection.
- Sustainability Report has been updated to demonstrate Green Star Homes initiatives whilst having due regard for the obsolete Scarborough Design Guidelines Green Building requirements.

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Legal Statement

As part of the submission to the City of Stirling, a spatial statement was prepared by a duly qualified Licensed Surveyor. In support of our position, legal advice has been sought which further enforces why the public access easement should not burden or be considered as a planning instrument to influence development.

It is in the opinion that the clear planning purpose underpinning the Easement is for its use by the public at large for pedestrian and vehicular access [16].

It is in the opinion, if the DAP grants approval for the Development Application, and the proposed development is implemented on the Property, the Easement would be used by owners of the Property in a manner that is consistent with the purpose of the Easement, that is, not on an exclusive basis and not to the detriment of the public at large [19].

In that context, there would be no reason for the Easement to be wholly or partially surrendered or otherwise modified, and there would be no cause for the MRA to enforce any of its rights under the Easement unless, of course, the owners of the Property were to use the Easement in a manner that is inconsistent with the Easement [20].

Further, it is clear that the Easement does not require consent or notice to be given by the owners of Lot 47 (being the lot directly adjoining the Easement on the eastern boundary of former Lot 800) or for any of the other owners of the units in former Lot 800 to consent to the use of the Easement in connection with the proposed development as that use is consistent with its purpose, being to provide access to or through the Easement to the MRA and the public at large [21].

In summary the Easement expressly states that it is "a public access easement for the use and benefit of the public at large under and by virtue of the provisions of sections 195 and 196 of the Land Administration Act 1997 with the full and free right, liberty, power and authority from time to time and at all times hereafter to go, pass and repass for the purpose of reserving and turning vehicles over, along and across that those portions of the Servient Tenement".

The Easement accordingly does not legally prevent the DAP from granting development approval in respect of the Property and does not embody any planning purpose that would weigh against the DAP granting such approval.

The Development Application can be lawfully approved without any requirement for the servient tenement holders to consent to the proposed development and without modification to the Easement [45].

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FIR Response Table

City's Request	Our Response	
3. Key Planning Matters	In accordance with <i>Chapter 5, c5.6 and c6.3</i> of the Scarborough Design Guidelines, encourages coordinated vehicle access and recommend areas affected by sewer easements be reserved for access ways, parking, or open space. <i>c5.6 - Where lots are encumbered by a sewer easement, this area is not to be built upon unless a suitable design solution can be reached to the satisfaction of the Water Corporation and the Authority. This area may be used for access ways, car parking or open space requirements.</i> <i>c6.3 - 6 metre public vehicle access thoroughfares shall be provided as identified in the Vehicle Access Plan to permit shared vehicle access between sites.</i> In addition, the City's engineering services have requested 1.5m sightline truncations to be provided as part of the proposed vehicle access into the subject site where an automatic vehicle gate is proposed. The City has also sought a passing bay between proposed Units 4 -5. The following provides justification in lieu of the framework where its considered reasonable to do so.	☒
3.1. Vehicle Accessways and Building Services	In accordance with <i>c5.6</i>, the subject site is burdened by a sewer easement which is situated along a 20-metre northern lot boundary and western boundary. In addition to the site being hampered by non-developable area on proposed Lot 8 due to the easement (considered as an unconfined area of at least 1.0 metre wide must be maintained around the edge of sewer), the City has imposed a requirement for a right of way widening of 6 metres to both the north and east lot boundaries to be in accordance with <i>c6.3</i>, Vehicle Access Plan. Notwithstanding advice received in December 2024 from the City of Stirling advising that the easement and Vehicle Access Plan is not practical or appropriate, the City has since applied discretion as part of this application that the northern portion of the site does not need to provide the 6-metre widening, and only be approved to the western lot boundary. <i>The 6-metre-wide public vehicle access thoroughfare, as identified in the Vehicle Access Plan – Scarborough Design Guidelines, will only be required along the full length of the western boundary and not at the rear.</i> Therefore, the plans have been revised to illustrate the vehicle easement to the eastern lot boundary only, and Lot 8 has been redesigned in accordance with <i>c5.6</i> to not have any structures within 1m around the edge and 2m height clearance. This has been clarified by WC and is explained further below.	☒

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	In addition, the proposed access sightline truncations have been demonstrated on the revised plans and swept paths provided as part of the revised Traffic Impact Statement as to why a passing bay has not been provided.	
3.2 Waste Management	In accordance with <i>Chapter 5 c5.5 Waste Reduction and Management</i> of the Scarborough Design Guidelines and the City of Stirling's Waste Services, the proposal is required to demonstrate – <i>Each bin requires a minimum of 1m² for both storage and verge placement.</i> In response, the Waste Management Plan (WMP) has been revised to accommodate 11 bins within the external bin storage and 11 bins pad locations within the verge for anticipated kerb-side collection from Brighton Road.	☑
3.3 Car Parking	In accordance with <i>Chapter 5 c5.2 Car Parking</i> of the Scarborough Design Guidelines the proposal results in one (1) visitor bay in lieu of the required two (2). Sufficient car parking is provided to accommodate the anticipated output of the development – grouped dwellings, whilst encouraging alternative means of transport due to proximity to a neighborhood centre. Car spaces and manouvering areas designed and provided in accordance with AS2890.1 and have been reviewed by the appointed traffic engineer The visitor bays are marked and clearly indicated as dedicated for visitor use only. Located within the common property and abutting the public easement. The location is connected to the building entry via a continuous path of travel from Brighton Road.	☑

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City's Request	Our Response
4. Planning Matters	
4.1 Public Realm Interface 4.1.1 - Streetscape	In accordance with <i>Chapter 3 c3.1 Streetscape</i> the City has requested trees to be installed within the verge at the proponent's cost. Through the City, we request the provision of trees (number of trees and preferred location to be disclosed prior to Determination by the City) to be endorsed through a condition of approval. Notwithstanding, there is no further available space within the verge in addition to the tree proposed (south-east) to accommodate the successful growth of a tree. The verge space is limited and is required for waste collection above all else. ☑
4.1.2 Active Edges	In accordance with <i>Chapter 3 c3.2 Active Edges</i>, the City has requested – <i>Crossovers shall be a maximum of 4m wide. Wider crossovers may be considered where lots are over 25m wide at the street frontage and a wider crossover is necessary to achieve appropriate traffic management and safety for multiple dwelling or mixed-use developments.</i> The proposal provides a 6m public access easement which abuts Lots 1, 3-8 which supplies majority of the access to the development. The 6 metres is via an existing crossover and does not intensify the verge infrastructure. Lot 2 is serviced by a 5.9m crossover. Given the building typology does not meet the expectations of the Guidelines, as it was previously intended for multiple and mixed development, it is unreasonable to apply a limiting 4m maximum crossover width. Notwithstanding, the proposed crossover (a 1.9m difference) does not preclude the following streetscape outcomes from being achieved: ☑ • All Lots have ground floor interaction with the streetscape, including the public access easement through active ground floor uses that promote surveillance of the street and visible indoor activity. • Primary internal living spaces, verandahs and balconies located on the first floor have been orientated towards the street for Lot 1 and 2 and common property for Lots 3-8. • Openings at the ground floor are clear with protection to window awnings from the sun or for privacy, which is achieved through architectural features. • Lots abutting the public access easement have distinctive features and visible pedestrian entries. • Lighting is provided to all external areas, within both the dwellings and common areas for passive safety. • The development has aspects of Crime Prevention Through Environmental Design (CPTED) principles to ensure good surveillance of the street and public realm.

	- Upper floors all have an active interface through a balcony and openings to habitable rooms but does not create visual privacy impacts. - The proposed carports (open garages) are visible from the public access easement, pedestrian access way and Brighton Road.	
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City's Request	Our Response	
4.2 - Built Form		
4.2.1 - Building Layout and Orientation	In accordance with <i>Chapter 4 c4.4 Building Layout and Orientation</i> the City has requested adequate solar access into the proposed dwellings private open space (POS). The location of the private open spaces (POS) has been considered, noting the whole site and the orientation rather than individual lot configuration. The proposed 2 storey development should provide living rooms and ground floor open spaces with at least 2 hours sunlight between 8am and 4pm in mid-winter (21 June). The City's assessment has identified that the POS is located on ground floor and south-east facing for units 1 to 4. The solar access has been revised to reflect the expectations of POS for all proposed Lots. In addition, the development standards of the guidelines have been satisfied: - The overall development is oriented to maximise northern solar access, with all primary garden areas (PGA) having access to northern light. - Proposed habitable areas have been designed for maximum provision of solar access and aims to allow for direct access to natural light and cross ventilation. Notwithstanding all of the above, the site is limited to constant solar access due to two 10+ storey developments located east and west overshadowing the site.	☒

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City's Request	Our Response
<i>4.3 Parking and Servicing</i>	
<i>4.3.1 Site Access – Pedestrian Access</i>	In accordance with <i>Chapter 5 c5.1 Site Access – Pedestrian Access</i>, the City has requested a pedestrian access way (PAW). The plans have been revised to include a PAW which can be accessed via the Brighton Road footpath or the public access easement. The path has clear delineation by use of pavers and a change in material. The access provides a safe alternative as opposed to navigating the public access way during peak periods without clear direction. The PAW is anticipated to be used by occupants and visitors. Occupants can utilise the access during waste days which enables safe and coordinated access to Brighton Road verge.
<i>4.3.2 - Site Access – Vehicular Access</i>	In accordance with <i>Chapter 5 c5.1 Site Access – Vehicular Access</i>, the City has requested – <i>Vehicle access via the primary street is only permitted where no secondary street, laneway, or vehicular access easement is available.</i> The proposed development includes a separate crossover to service Lot 2. In accordance with the Guidelines development standards, only one vehicle access point is permitted for each lot. Lot 2 can be considered its own Lot of the eight, provided that it is the only Lot that takes access from Brighton Road. Notwithstanding, as explained above in c3.2 Active Edges, the dual access is justified and in addition, meets the expectations of c5.1. • The proposed crossovers and access have been reviewed by Main Roads WA (MRWA) with no issues being raised with the quantity and width. This is a result of the design complying with the Main Roads Driveway Policy, which requires a minimum crossover width of 4.5 metres (to a maximum of 6 metres) – Lot 2 access is 5.9m and the existing public access easement is 6.0m. • The crossover is in a suitable location. The proposed verge tree is capable of sufficient growth as the access does not adversely affect the structure root zone and expected canopy of a new tree. • Due to the nature of the public access easement, it is not unreasonable to have a secondary crossover. Given the objections received through community consultation, the reliance on the public access way warrants an alternative access point to the site. • This is further supported through the Guidelines preference for vehicle access to be shared between adjacent lots to improve efficiency of the site.

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City's Request	Our Response
<i>4.4 Scarborough Special Control Area Development Policies</i>	
<i>4.4.1 - Development Policies 1 – Green Building</i>	<i>Development Policy 1 – Green Building</i> The subject site has been allocated Tier 3 under Development Policy 1 – Green Building. The policy requires Green Star certification under the Green Building Council of Australia (GBCA) for new buildings within the Scarborough Redevelopment Area, with the following tier provision: <i>4 Star Green Star or equivalent via a Sustainable Design Assessment Report.</i> The policy explicitly references Green Star Design & As Built (now Green Star Buildings). However, there is also a discretionary provision allowing the City to consider alternative systems to Green Star can be demonstrated through a SDAR. The Green Star Buildings (formerly Green Star Design & As-Built) as encouraged by the City through the Guidelines is typically suited to larger developments such as mixed use, multi-residential, offices, shopping centres etc. Instead, there is an alternative rating tool called Green Star Homes, which is more applicable which is better suited to grouped dwellings. We have therefore provided a revised SDAR or Sustainability Report, prepared by Cundall which applies the current equivalent, Green Star Homes as advised by Cundall. Please refer to the Revised Sustainability Report.
<i>4.4.2 - Development Policy 3 – Public Art</i>	<i>Development Policy 3 – Public Art</i> It is the landowner's preference to not provide a public art installation and therefore a location report has not been prepared.
<i>4.4.3 - Development Policy 10 – Adaptable Housing</i>	<i>Development Policy 10 – Adaptable Housing</i> In accordance with the Residential Design Codes (R-Codes) the Guidelines framework can be considered obsolete, as the R-Codes seek updated standards through the <i>Livable Housing Design Guidelines</i> and the <i>Australian Building Codes Board Livable Housing Design Standard 2022</i> to ensure a minimum level of universal design at the development application stage, but do not guarantee universal design certification upon construction. Notwithstanding, through the City, we request the provision to be endorsed through a condition of approval, as the Guidelines allow for this outcome. <i>At the discretion of the Authority the report may be submitted as a condition of development approval during the working drawings assessment process (prior to a local government building permit).</i> Notwithstanding, the dwellings are expected to deliver a Gold Standard.

City's Request		Our Response
5. External Referrals		
The development application has been referred to the relevant Government and State agencies, including Water Corporation and Main Roads Western Australia who both accepted post lodgment meetings to discuss the nature of the application and the respective variations. In principle, both Water Corporation and Main Roads WA have provided their support subject to the proposed design solutions as part of the revised plans.		
Water Corporation (WC)	Through the City's external referral process, WC provided comment on the 23 rd of July 2025. Their primary concern was regarding proposed Lot 8 and the construction of a dwelling above of a reticulated sewer easement. Developed met with WC on the 10 th of October 2025 to agree on a pathway forward. The matter has since been resolved with the resign of Lot 8.	☒
Main Roads Western Australia (MRWA)	Through the City's external referral process, MRWA provided comment on the 22 nd of August 2025. Their primary concern was regarding waste collection. Developed met with MRWA on the 18 th of September 2025 to agree on a pathway forward. The matters have since been addressed through a revised WMP, prepared by Developed - Waste. Please refer to the Revised Waste Management Plan.	☒

Should you have any queries in relation to the above information, please contact the undersigned on 08 6119 9175 or michael@developedproperty.com.au.

Yours sincerely,



Michael Stocco
Senior Urban Planner
Developed

City of Stirling
03 November 2025
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Shane Wray <Shane.Wray@watercorporation.com.au>

To: Jason Lim

Cc: Alex Jones; Tiffany Molloy; Michael Stocco | Developed; Peter Pummell

Follow up, Start by Monday, 3 November 2025. Due by Monday, 3 November 2025.

This message is part of a tracked conversation. Click here to find all related messages or to open the original flagged message.

You don't often get email from shane.wray@watercorporation.com.au. [Learn why this is important](#)

Hi Jason

Thankyou for the updated drawing and it appears to capture all we discussed of during our recent meeting.

Happy for you to proceed with this approach.

Kind regards
Shane Wray
Senior Technical Advisor – Asset Protection
Maintenance and Reliability
0436 664 260



City of Stirling
03 November 2025
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From: Jason Lim <jasonl@engenuityengineering.com.au>

Sent: Friday, 31 October 2025 2:00 PM

To: POS_ENQUIRIES <POS_Enquiries@watercorporation.com.au>; Shane Wray <Shane.Wray@watercorporation.com.au>

Cc: Alex Jones <alex@hillam.com.au>; Tiffany Molloy <Tiffany@hillam.com.au>; michael@developedproperty.com.au; Peter Pummell <peter@engenuityengineering.com.au>

Subject: RE: 22 BRIGHTON RD SCARBOROUGH LOT 42 - RFI Request {Build Over Sewer}

Hi Shane,

Attached is the markup showing the pile option (1m offset from the sewer main) from our discussion on 10 October 2025. The ground floor building has been offset from the sewer and no longer building over it.

Please review and confirm if Water Corp supports this approach, or let me know if you have any comments.

Regards,



PERTH | BUNBURY
PERTH: Level 5/25 Walters Drive, Osborne Park 6017
BUNBURY: PO Box 771, Bunbury 6231
 08 6555 4955





mainroads
WESTERN AUSTRALIA

Enquiries: Andrew Williams on (08) 9323 6257
Our Ref: 25/5974 (D25#1243178)
Your Ref: DA25/0775
DAP Ref: DAP/25/02936

21 November 2025

Chief Executive Officer
City of Stirling
PO Box 1533
OSBORNE PARK WA 6916

Email: planning@stirling.wa.gov.au (via email)

Dear Sir/Madam,

DEVELOPMENT ASSESSMENT PANEL – PROPOSED GROUPED DWELLINGS (X 8) – LOT 42 (NO.22) BRIGHTON ROAD, SCARBOROUGH – DA25/0775 & DAP/25/02936

In response to correspondence received on 5 November 2025, please be advised Main Roads supports the development proposal and recommends that if development approval is granted, the following conditions are imposed:

Conditions

1. This noise sensitive development adjacent to a major transport corridor must implement measures to ameliorate the impact of transport noise. The development is to comply with WAPC State Planning Policy 5.4 – *Road and Rail Noise* and implement Noise Insulation "Deemed to Comply" packages for this residential development.

Justification for Condition

To ensure the acoustic requirements are implemented in accordance with State Planning Policy 5.4 – *Road and Rail Noise*.

2. Prior to occupation of the development, certification from a qualified acoustic consultant being submitted, confirming that the Noise Insulation "Deemed to Comply" packages for this residential development have been implemented is to be provided to the satisfaction of the City of Stirling.

Justification for Condition

To ensure the acoustic requirements are implemented in accordance with State Planning Policy 5.4 – *Road and Rail Noise*.

3. A notification, pursuant to Section 70A of the *Transfer of Land Act 1893* is to be placed on the Certificate(s) of Title of the proposed development. The notification is to state:

"The lots are situated in the vicinity of a transport corridor and are currently affected, or may in the future be affected by transport noise."



mainroads
WESTERN AUSTRALIA

Justification for Condition

To ensure the acoustic requirements are implemented in accordance with State Planning Policy 5.4 – *Road and Rail Noise*.

Advice

- a) The upgrading/widening of West Coast Highway is not in Main Roads current 4-year forward estimated construction program and all projects not listed are subject to change without notice, and Main Roads assumes no liability for the information provided.

Main Roads encourages local government in liaising with applicants to promote and capitalise on our pre-lodgement consultation service, prior to lodgement of planning proposals, especially where development plans involve land adjacent to or have the potential to impact on the state road network.

Further information on the pre-lodgement consultation process can be found on Main Roads website at mainroads.wa.gov.au > Technical & Commercial > Planning & Development

Should the City disagree with the above conditions or require further information please do not hesitate to contact Andrew Williams on (08) 9323 6257 prior to the submission of the City's Responsible Authority Report.

Please ensure a copy of the JDAP's final determination is sent to planninginfo@mainroads.wa.gov.au.

Yours sincerely

A handwritten signature in cursive script that reads 'CFudge'.

Chris Fudge
A/Road Access and Planning Manager

Your Ref: DA25-0775
Our Ref: 198032649 - DAP424488
Enquiries: Kerry Moore
Direct Tel: 9420 2209
Email: building.services@watercorporation.com.au

11 November 2025

City Of Stirling
PO BOX 130
OSBORNE PARK WA 6017

Attention of: Kate Richardson

Re: 22 BRIGHTON RD SCARBOROUGH LOT 42

Thank you for your email dated 28th August 2024. We offer the following comments regarding this proposal.

Water

Reticulated water is available to the subject lot. One 20mm water service exists on the property.

Wastewater

Reticulated sewerage is available to the subject lot. A 230mm PVC sewer main running parallel along the inside of the left hand side boundary at approx. 1.0m and is approx. 2.2m deep. There is also a 230mm PVC sewer main running parallel along the inside of the rear boundary at approx. 1.8m and is approx. 2.5m deep. The minimum distance a building can be to the centre of these sewer mains is 0.6m with piling. The minimum distance from the centre of the sewer mains without piling is 1.5m (single storey) and 2.5m (double storey). Any portion of the proposed building which is within the zone of influence to sewer main may require suitable footings in accordance with our technical guidelines.. Please refer to our website: www.watercorporation.com.au/Developing-and-building/Working-near-assets.

As per discussion with our Protection of Services team we are satisfied that works will be done to protect the sewer main and enough of a setback on LOT 8 with piling has been achieved.

Protect Sewer

It should be noted that access chamber is located inside the subject land boundary. Due consideration will be required when developing in this area.

- An unconfined access way of at least 1.0 m wide must be maintained around the edge of sewer and drain maintenance structures at all times.
- Headroom (clearance between finished ground level and the underside of an overhanging structure such as a roof) of at least 2.4 m must be maintained at all times.
- Access way to the chamber required via gate or roller door.

The developer is required to fund the full cost of protecting or modifying any of the existing infrastructure which may be affected by the proposed development. In accordance with Section 90 of the Water Services Act 2012 whenever development is proposed near Water Corporation assets the applicant/developer/owner needs approval prior to construction.

Approval for works

Any works carried out in proximity to our Assets must receive prior approval by applying for an Asset Protection Risk Assessment (APRA). To assess whether the proposed development will require an APRA, details of the Prescribed Proximities are available on our website:

www.watercorporation.com.au/Developing-and-building/Working-near-assets/Approval-for-works.

Building Approval Application

The applicant is required to submit a Commercial/Multi Residential Application by using our online portal BuilderNet: login-buildernet.watercorporation.com.au.

Attachments required for approval will include:

- Final construction site & architectural floor plans
- Engineer certified piling detail plans (if required)

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. Please provide the above comments to the landowner, developer and/or their representative. Should you have any queries or require further clarification on any of the above issues, please do not hesitate to contact our Enquiries Officer.

Kind regards

K Moore

Kerry Moore

Advisor - Building Services

Development Services

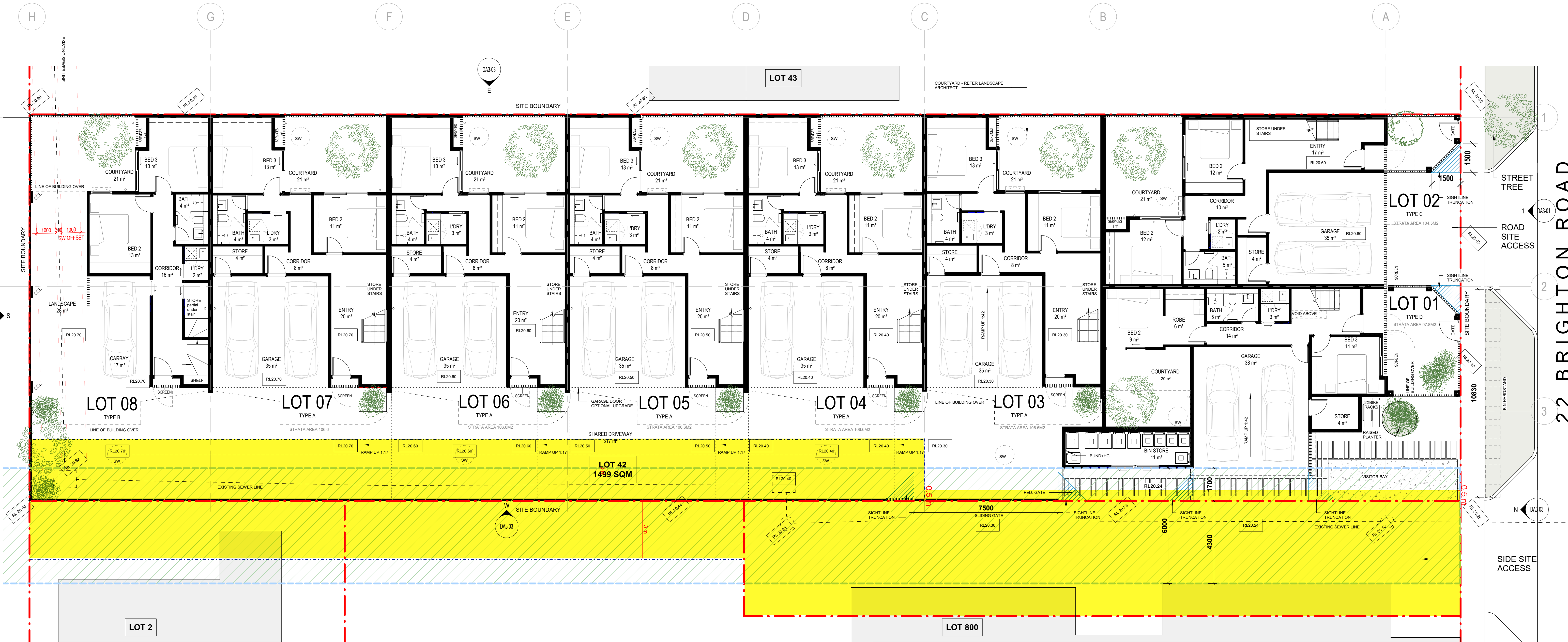
Assets Planning & Delivery Group

E building.services@watercorporation.com.au

T 13 13 95



watercorporation.com.au



1 GROUND FLOOR PLANS
DA3-01 1:100

**Part B – Item 3.2 - LOT NO. 500 (HOUSE NUMBER 43),
YIRRIGAN DRIVE, MIRRABOOKA – DRIVE THROUGH FAST-
FOOD OUTLET**

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Inner DAP
Local Government Area:	City of Stirling
Applicant:	Planning Solutions
Owner:	Fawkner Property Limited
Value of Development:	\$2.1 million
Responsible Authority:	City of Stirling
Authorising Officer:	Amanda Sheers, Director Planning and Development
LG Reference:	DA25/0950
DAP File No:	DAP/25/02948
Application Received Date:	2 July 2025
Report Due Date:	5 December 2025
Application Statutory Process Timeframe:	90 Days with an additional 42-day time extension agreed between Applicant and the City (132 days total)
Attachment(s):	1. Development Plans (dated stamped received 7 November 2025) 2. Aerial Location Plan 3. Metropolitan Region Scheme Zoning Map 4. City of Stirling Local Planning Scheme No 3 Zoning Map 5. Applicant's Planning Reports received 24 July 2025 6. City of Stirling Planning Assessment 7. Applicant's Final Submission: a. Applicant's Response to Request for Information received 24 October 2025 and 24 November 2025 b. Transport Impact Assessment prepared by Transcore received 2 July 2025 and 24 October 2025 c. Environmental Noise Assessment prepared by Lloyd George Acoustics received 2 July 2025 d. 3D Render Perspectives by the Applicant received 7 November 2025 and 24 November 2025 e. Applicant's Landscaping Plans prepared by Brendon Burke Landscape Architecture received 7 November 2025

	f. Operational Waste Management Plan prepared by Fawkner Property Ltd received 2 July 2025
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Responsible Authority Recommendation

That the Metro Inner Development Assessment Panel resolves to:

Approve DAP Application reference DAP/25/02948 and accompanying plans as listed in Condition 2 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 Drive Through Fast-Food Outlet on Lot 500, House Number 43, Yirrigan Drive, MIRRABOOKA subject to the following conditions:

Conditions

1. 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.
2. 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 by the Development Assessment Panel. The plans approved as part of this application form part of the planning approval issued (including any modifications required by conditions of approval).

PLAN TITLE	DATE	REVISION	DRAWING No.
Location Plan	7/11/2025	B	TP001
Feature Survey	7/11/2025	0	8054/40
Site Plan: Existing	7/11/2025	D	TP002
Site Plan: Proposed	7/11/2025	M	TP003
Site Plan: Pedestrian Access & Streetscape	7/11/2025	D	TP005
Site Plan: Sign Location and Schedule	7/11/2025	H	TP020
Signage Details: Pylon Sign, Building Signs	7/11/2025	D	TP021
Directional Signs, Menu Board & Speaker Post	7/11/2025	D	TP022
Signage Details: Clearance Bar, Directional Signs & Graphic	7/11/2025	D	TP023
Signage Details: Canopy & Traffic Signs	7/11/2025	H	TP101
Floor Plan: Proposed	7/11/2025	H	TP101

PLAN TITLE	DATE	REVISION	DRAWING No.
Roof Plan	7/11/2025	C	TP120
Building Elevations: Elevations: North & East	7/11/2025	E	TP200
Building Elevations: Elevations: South & West	7/11/2025	D	TP201
Landscape Plan	7/11/2025	G	LCD_601
Landscape Notes: General Notes	7/11/2025	G	LCD_002
Landscape Details	7/11/2025	G	LCD_901

3. Notwithstanding the requirements of Condition 2, amended plans shall be provided as part of the Building Permit application to the satisfaction of the City of Stirling, addressing the following:
 - a) The proposed pedestrian paths along the drive-through lane shall be connected to the existing footpaths for continuous pedestrian access.

Construction Management

4. Prior to the submission of a Building Permit application, a Construction Management Plan (CMP) shall be submitted to the City of Stirling for approval. The CMP shall include specific details on the management of aspects, including but not limited to, dust, noise, vibration, waste management, parking, traffic, street tree protection zones, storage of materials, site safety/security and any other relevant matters to the satisfaction of the City of Stirling. The CMP is to be complied with for the duration of the construction of the development, to the satisfaction of the City of Stirling.

Development Contributions

5. Prior to occupation of the development, a public art proposal for the subject development to the value of 1% of the construction value shall be submitted to, and approved by, the City of Stirling. The approved public art shall be installed on the east- and south-facing elevations of the storage wall, to the satisfaction of the City of Stirling.
6. 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, to the satisfaction of the City of Stirling.

Noise

7. Prior to submission of the Building Permit application, the landowner is to provide written confirmation that all recommendations in the Environmental Noise Assessment have been incorporated into the building design (as shown within the certified Building Permit application), to the satisfaction of the City of Stirling.
8. Prior to occupation of the development, all recommendations provided in the Environmental Noise Assessment prepared by Lloyd George Acoustics (dated 9

May 2025, Reference: 250310070-01), shall be implemented to the satisfaction of the City of Stirling.

Sustainability

9. Prior to the submission of a Building Permit application, a Sustainable Design Statement is to be submitted to the City of Stirling confirming the development meets a minimum of 4 star "best practice" under the Green Building Council of Australia rating system, or an equivalent, to the satisfaction of the City of Stirling.

Landscaping

10. Prior to occupation of the development, all trees provided in the approved detailed Landscaping Plan must be planted on site in the area indicated on the approved plan to the satisfaction of the City of Stirling and be thereafter maintained for the duration of the development. The trees must be provided with the approved deep soil area at ground level free of intrusions, to the satisfaction of the City of Stirling. The landscaping areas shall include:
 - a) A minimum mulch depth of 100mm within all deep soil areas; and
 - b) Installation of waterwise reticulation systems.
11. Prior to occupation of the development, all landscaped areas are to be planted, reticulated and mulched in accordance with the amended landscaping plan to be approved and maintained thereafter for the duration of the development, to the satisfaction of the City of Stirling.

Building Design

12. 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.

Lighting and Security

13. Lighting shall be provided to awnings, parking areas, service areas, footpaths and entry and exit points, to the satisfaction of the City of Stirling.
14. All outdoor lighting shall comply with *Australian Standard AS 4282-2023 - Control of the Obtrusive Effects of Outdoor Lighting* (AS4282) to prevent light spill into adjoining lots. Outdoor lighting details shall be submitted with the Building Permit application demonstrating compliance with AS4282.

Parking and Vehicle Access

15. Prior to occupation of the development, all driveways, parking and manoeuvring areas shall be sealed, drained and maintained to the satisfaction of the City of Stirling.
16. Prior to the occupation of the development, a minimum of 2 bicycle parking bays shall be provided on site. The design and construction of the bicycle bays shall be in accordance with *Australian Standard 2890.3:2015 - Bicycle Parking*.

17. All parking bays, manoeuvring and circulation areas shall comply with *Australian Standard 2890.1-2004 - Off-street car parking* and *Australian Standard 2890.2-2018 - Off-street commercial vehicle facilities*. One (1) ACROD-compliant car parking bay shall be provided. The design and layout of this bay must comply with Australian Standard AS 2890.6:2022 – Off-street parking for people with disabilities and Section D3.5 of Volume 1 of the Building Code of Australia, to the satisfaction of the City of Stirling.
18. The designated delivery bay shall be permanently marked, maintained and remain accessible at all times for the exclusive use of food delivery services associated with the approved development.
19. Unless otherwise approved by the City of Stirling, no walls, fences or other structures above 0.75 metres in height to be constructed within the 1.5 metre width x 1.5 metre depth area of where:
 - a. Walls, letterboxes or fences adjoin vehicular access points to the site, or
 - b. A driveway meets a public or private street, or
 - c. Two streets intersect, or
 - d. A driveway meets a right of way.

Utilities, Facilities and External Fixtures

20. All external fixtures, building services, roof equipment and utilities of the development are to be integrated into the building, landscape and/or fencing and screened to the satisfaction of the City of Stirling.

Waste Management and Stormwater

21. The development is to comply with the Waste Management Plan prepared by Fawkner Property Ltd (dated 19 May 2025, Reference: WGA250659), to the satisfaction of the City of Stirling.
22. All waste collection and delivery activities associated with the development shall be scheduled and undertaken outside of the peak traffic and operational hours, unless otherwise agreed in writing by the City of Stirling.
23. 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. There shall be no connection to the City's drainage infrastructure without written consent of the City of Stirling.

Signage

24. Signage shall not contain fluorescent, reflective or retro reflective colours or materials and shall not flash, pulsate or chase and shall not exceed 350cd/m², to the satisfaction of the City of Stirling.

Advice Notes

General

1. Where an approval has so lapsed, no development shall be carried out without the further approval of the Development Assessment Panel or City of Stirling having first been sought and obtained.
2. 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.
3. This is a development approval under the *Metropolitan Region Scheme* and the *City of Stirling Local Planning Scheme No. 3*. 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 licenses required under any other law, and to commence and carry out development in accordance with all relevant laws.
4. This approval is not an authority to ignore any constraint to development on 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 and not the Development Assessment Panel or City of Stirling 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 Development Assessment Panel or City of Stirling's attention.
5. The Applicant is responsible for ensuring that all lot boundaries as shown on the approved plans are correct.

Public Art

6. In relation to the Public Art condition, 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 on the estimated cost of development identified on the development application forms, the 1% public art contribution will equate to \$21,000.
7. Where, in the opinion of the City of Stirling, achieving compliance with the conditions of approval require significant modifications to the approved plans, a Form 2 application will be required for consideration in accordance with Clause 17 or 17A of the *Planning and Development (Development Assessment Panels) Regulations 2011*.
8. All construction works to comply with the requirements of the *Environmental Protection Act 1986* and the *Environmental Protection (Noise) Regulations 1997*. 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 an approved Noise Management Plan for the construction site has been issued.
9. The premise shall operate in compliance with the *Environmental Protection Act 1986* and *Environmental Protection (Noise) Regulations 1997*.

Waste Management

10. The bin enclosure is required to comply with the requirements of the City of Stirling's *Waste Management Local Law 2010*.

Miscellaneous

11. All food premises activities are to comply with the Food Act 2008, Australian New Zealand Food Standards Code and City of Stirling Food Business Guide Design Construction Operation.
12. A Food Business Notification form is to be submitted for the premise with supporting plans and specifications of the food handling facilities for approval at the Building Permit Application stage or prior to installation and operation.
13. Construction noise is to comply with the Environmental Protection (Noise) Regulations. Noisy Construction work outside the period 7am to 7pm Monday to Saturday and at any time on Sundays and Public Holidays is not permitted unless an approved Noise Management Plan for the Construction site has been issued by the City of Stirling.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	City of Stirling Local Planning Scheme No. 3
Local Planning Scheme - Zone/Reserve	Mixed Use
Structure Plan/Precinct Plan	Mirrabooka Town Activity Centre Plan
Structure Plan/Precinct Plan - Land Use Designation	Mixed Use
Use Class and permissibility:	Drive Through Fast Food Outlet – D
Lot Size:	136,023m ² (Lot 500 – Overall Shopping Centre Site) 1,350m ² (Development Area).
Existing Land Use:	Mixed Use
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:

- Removal of 37 existing bays within the southern portion of the Mirrabooka Square Shopping Centre (Shopping Centre) car park, where it abuts Yirrigan Drive.
- Construction of a single-storey Fast-Food Outlet with associated drive-through lane "wrapping around" the building.
- The drive-through component includes a second entry/"order" lane within the designated loading bay. However, at present, this second land is not intended to be utilised (its usage would depend on future customer demand and may be opened to improve turnover and operational efficiency of the proposal).
- The provision of 10 on-site car parking bays, comprising one (1) ACROD bay, seven (7) customer bays, one (1) waiting bay at the end of the drive-through lane and one (1) food delivery (e.g. "Uber Eats") service bay.
- Vehicle access via the Shopping Centre's existing internal access road from Yirrigan Drive.
- On-site landscaping, including deep soil areas, renewed landscape of existing garden beds and two (2) new trees abutting the eastern side of the development area (i.e. abutting the existing internal access road).

Figures 1 and 2 below provides a visual representation of the layout for the proposed development:



Figure 1 – Existing Site Layout within Mirrabooka Shopping Centre

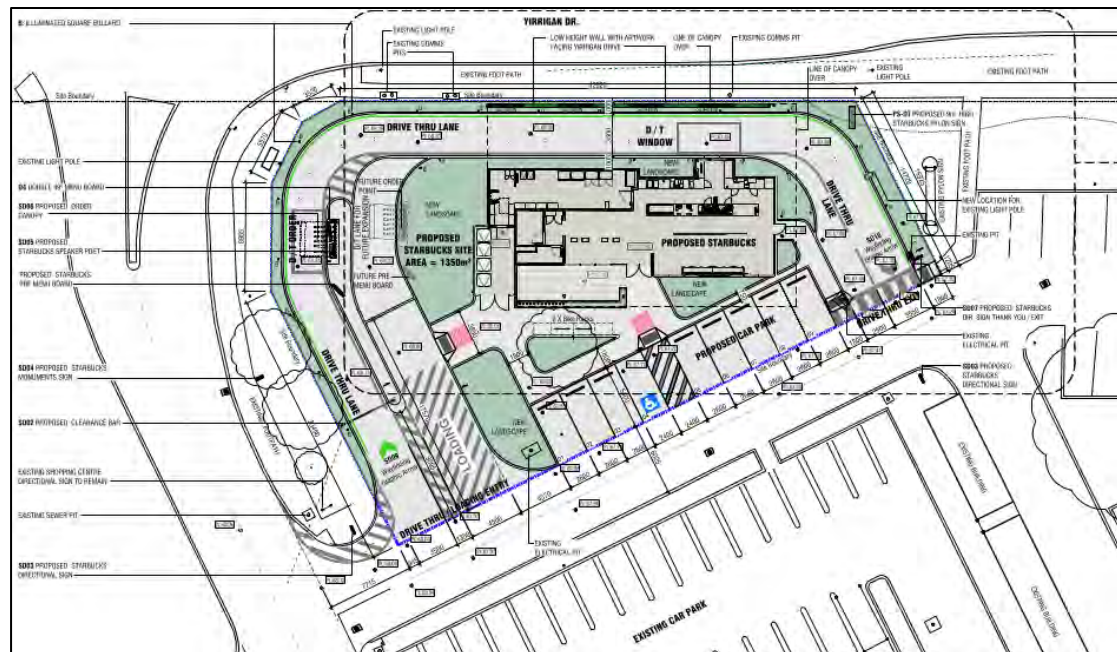


Figure 2 – Proposed Site Layout for Drive Through Fast-Food Outlet.

Background:

The site forms part of the Mirrabooka Shopping Centre precinct and is located within the core of the *Mirrabooka Town Activity Centre Plan*. The proposed development will occupy a portion of the overall Shopping Centre site currently used for car parking. There are 37 bays proposed to be removed to accommodate the proposed Drive Through Fast Food Outlet.

The surrounding locality includes a number of existing Drive Through Fast Food Outlets to the immediate east of the development area, as well as a Drive Through Fast Food Outlet located approximately 290m west of the development area.

Properties on the southern side of Yirrigan Drive comprise dwellings within the Residential Zone at an R20 density code, predominantly single-storey in scale.

Existing Development and Previous Approvals

On 20 May 2025, the Western Australian Planning Commission (**WAPC**) approved a 21-year lease over a portion of the overall Shopping Centre site (**WAPC ref. WAPC/11/0166**) under Part 10 ('Subdivision and Development Control'), Section 136 of the *Planning and Development Act 2005*, as leases exceeding 20 years require WAPC approval. The lease area measures 1,350m² and coincides with the proposed development area (which forms part of the overall Shopping Centre site). Since 1995, this area has been used for car parking.

Legislation and Policy:

The following legislation and policy are applicable to the proposed development.

Legislation

- *Planning and Development Act 2005*
- *Planning and Development (Development Assessment Panel) Regulations 2011*
- *Planning and Development (Local Planning Schemes) Regulations 2015*
- Metropolitan Region Scheme
- City of Stirling Local Planning Scheme No. 3
- City of Stirling Draft Local Planning Scheme No. 4

State Government Policies

- State Planning Policy 5.4 – Road and Rail Noise
- State Planning Policy 7.0 – Design of the Built Environment

Structure Plans/Activity Centre Plans

- Mirrabooka Town Activity Centre Plan

Local Development Plans

- Mirrabooka Town Centre Local Development Plan

Local Policies

- Local Planning Policy 5.9 – Mirrabooka Town Centre Parking
- Local Planning Policy 6.1 – Advertising Signs
- Local Planning Policy 6.3 – Bin Storage Areas
- Local Planning Policy 6.6 – Trees and Landscaping – Non-Residential
- Local Planning Policy 6.12 – Public Art on Private Land
- Local Planning Policy 6.18 – Public Consultation

Other

- Australian Standard 2890.1:2004 – Off-street car parking
- Australian Standard 2890.3:2015 – Bicycle parking facilities
- Australian Standard 2890.6:2022 – Off-street parking for people with disabilities
- Australian Standard 4282:2023 – Control of the Obtrusive Effects of Outdoor Lighting

Consultation:

Waiving Public Consultation

In accordance with the City's *Local Planning Policy 6.18 – Public Consultation (Public Consultation LPP)*, as the estimated development value is below \$2.5 million, the application is classified as a 'Standard Application'.

Notwithstanding, under Clause 4.5 ('*Waiving Public Consultation Requirements*') of the Public Consultation LPP, the proposal was not advertised due to the site's prevailing

commercial context and presence of nearby existing fast food outlets. Furthermore, the approximate 30m road reserve width was deemed to provide sufficient separation from residences on the southern side of Yirrigan Drive.

Design Review Panel

Prior to lodgement of the development application, a preliminary meeting was held between the City and the Applicant in relation to various aspects of the proposal.

Based on the proposal's scale, its location within the existing Shopping Centre commercial setting, and the various built form controls within the planning framework, a formal design review was considered unnecessary.

Referrals/consultation with Government/Service Agencies

The application was referred to the WAPC for comment as it relates to the previously approved lease area. In response, the WAPC advised;

"The Department of Planning, Lands and Heritage has no comment to provide in respect to the Form 1 application, noting the WAPC's role in the lease assessment is to do with the period of the lease exceeding 20 years (i.e. de facto subdivision). Ultimately, the proponent is responsible to ensure any development approval aligns with requirements of the lease it has entered into"

Planning Assessment:

The following matters have been identified as key considerations in the assessment of this application:

1. Proposed Land Use
2. Mirrabooka Town Centre Special Control Area (SCA)
3. Local Development Plan (LDP)
4. Landscaping and Trees
5. Access and Waste
6. Noise and Acoustics
7. Advertising Signs
8. Public Art

The City's assessment commentary on areas where key areas of discretion are sought is provided in the following assessment sections. The City's holistic assessment of the development against the relevant planning framework is contained below and included in Attachment 6.

1. Proposed Land Use

A 'Drive Through Fast Food Outlet' is a discretionary ('D') use in the 'Mixed Use' zone of the Mirrabooka Town Centre Special Control Area and is defined in LPS 3 as follows:

"... a fast-food outlet which includes the sale and serving of food or beverages direct to persons driving or seated in motor vehicles. The term may or may not include the preparation of food for sale and consumption within the building, or portion thereof"

LPS3 Clause 6.8.6 and Land Use Permissibility		
Land Use	Use Class	
Drive Through Fast Food Outlet	'D'	A discretionary use is not permitted unless the Council exercises its discretion by granting approval.

With respect to the above, an assessment of the appropriateness of the land use against the Mixed Use Zone objectives is tabled below:

Mixed Use Zone Objectives	
Objective	Officer Comment
a) <i>To provide for a wide variety of active uses on the street level that contribute to a vibrant and active street which are compatible with residential and other non active uses on upper levels.</i>	<u>Objective Satisfied</u> The indoor and outdoor alfresco dining areas and expanses of glazing to the internal car parking area will improve the vibrancy and activation of the immediate locality. The drive-through component will provide increased activity to Yirrigan Drive and the intended public art location will also be visible from Yirrigan Drive and the southern entrance to the Shopping Centre. The existing Yirrigan Drive environment is characterised by high traffic volumes and associated noise, creating a harsh streetscape. The proposal responds to these conditions by balancing activation with practical design measures. The design supports pedestrian interaction and the built form complements existing single-storey commercial uses in the area.
b) <i>To facilitate the creation of employment within the area so as to reduce the demand for travel, and enhance the level of self-sufficiency.</i>	<u>Objective Satisfied</u> As a commercial use within a designated activity centre, the proposal supports the strategic objective of increasing local job availability, contributing to the enhancement of the centre's self-sufficiency.
c) <i>To ensure a high standard of design that negates issues such as noise, smell and vibration that are related to mixed use developments.</i>	<u>Objective Satisfied</u> The development incorporates design measures that mitigate potential impacts from noise, odour, and vibration, such as shielding components of the drive-through canopy and the internal configuration.

Based on the above, the proposal is considered consistent with the objectives of the Mixed Use zone and is therefore appropriate for the site.

2. Mirrabooka Town Centre Special Control Area

The site is located within the Mirrabooka Town Centre Special Control Area (**SCA**) and is therefore subject to Clause 6.8 of LPS3. The objectives of the SCA are intended to facilitate development of a safe, vibrant, mixed-use town centre that includes a range of non-residential uses that contribute to economic development, local employment and viability of the Town Centre

Various sub-clauses of Clause 6.8 exist; however, the sole provision relevant to the Proposal is Clause 6.8.14, which pertains to car parking. In this regard, the development proposes the removal of 37 existing car bays that form part of the overall Shopping Centre and the provision of 10 bays (including 1 “waiting” bay at the end of the drive-through lane), resulting in a net reduction of 28 bays.

Under Clause 6.8.14 of LPS 3, the provision of car parking within the SCA is assessed based on the total site area within the Core Area. However, Note 2 of Table 6.8.14a specifies that parking for ancillary development to the Core Area—such as the proposed development—must be assessed proportionally to the development area, as outlined below.

LPS 3 Clause 6.8.14a and Table 6.8.14a Car Parking Assessment – Non-Residential (Core Area)			
Land Use	Rate	Proposed Site Hectare.	Bays Required Lot 500
Non-residential uses	Maximum 200 bays per site hectare	- Development's Site area: 0.13 ha)	Maximum 27 bays
	Maximum of approximately 27 bays for our development area		
	Minimum 100 bays per site hectare		Minimum 14 Parking bays
	Minimum 60% of Public Parking to be Short Stay Parking bays		Minimum 60% Public Parking bays
Total Provided:			10 parking bays
Designated as Public Parking or Short Stay Parking bays:			More than 60% of bays
Total Surplus (Maximum Requirement):			Nil, below the maximum.
Total Shortfall (Minimum Requirements):			4 parking bays
Total Bays removed from the WAPC Lease Area.			27

Notes:

* The number of car bays is rounded up to the nearest whole number as per the LPP 5.9 provisions.

The proposed development results in a shortfall of four (4) parking bays. Having regard to the objectives of LPP 5.9, the shortfall is considered acceptable for the following reasons:

- Despite the removal of 37 bays, the shopping centre retains a surplus of 368 bays.
- The development forms part of Lot 500 (Shopping Centre) and benefits from shared access and parking for the public.
- The Applicant's Transport Impact Assessment confirms that approximately 50% of customers will use the drive-through, reducing demand for on-site parking.
- Dedicated parking for food delivery services improves operational efficiency and reduces congestion.
- The site is located within the town centre, which is well serviced by public transport, further reducing reliance on private vehicles.

3. Mirrabooka Town Centre Local Development Plan

The *Mirrabooka Town Centre Local Development Plan (LDP)* is structured into two main parts;

- **Clause 3.0 – Specific Provisions**, which address façade type and street interface requirements; and
- **Clause 4.0 – General Provisions**, which outline other development controls and broader design objectives.

The following subsections and accompanying tables outline the relevant additional requirements that apply to the proposal.

Clause 3.0 Specific Façade Type Provisions

The LDP includes specific development provisions relating to the specific Façade Type abutting a site. The subject site is subject to 'Façade Type B – Yirrigan Drive' and the following design intent under the LDP:

"Facilitate a large increase in building height and scale around the perimeter of the Town Centre. Taller buildings will take advantage of passing traffic, especially if they are retail or office, and will help shield the balance of the Town Centre from noise. The at-grade ground floor level, glazing requirement, and setback provisions create a moderate level of street activation."

The table below details the City's assessment of the proposal against the relevant criteria.

LDP Clause 3.0 – Specific Façade Type Provisions Façade Type B – Development & Land Use Standards (Yirrigan Drive)		
Provision	Deemed-to-comply Requirement	Assessment Comments
Ground Floor	Finished Floor Level: At-Grade	Complies The proposed 67.80FFL of the building is level with the surrounding car parking area.
	Minimum Floor to Floor Height: 4m	Not applicable – single storey development proposed.
	Activation Non-Residential (minimum glazing): 80%	2.9m ² total glazing area facing towards Yirrigan Drive, which is 3.1% of the front Surface area Discretion required.
Setbacks	Street: Nil to 2m	0.2m to the canopy and 4.5m to the building. Discretion required.
	Side / Rear: Building Code of Australia	Complies.
Building Heights	Maximum – 8 Storeys Minimum – 2 Storeys	Single storey. Discretion required.
Preferred Land Use	Ground Floor: Office, Shop and/or Showroom	Drive Through Fast Food Outlet – not a preferred use. Discretion required.
	Levels Above: Office and/or Residential	Not applicable – single storey development.

The key matters relating to the Yirrigan Drive frontage of the development are as follows:

- **Minimum glazing (80%)** – The proposal does not achieve 80% glazing to Yirrigan Drive.
- **Street setback (0–2m)** – The building itself and the drive-through canopy are set back 4.5m and 0.2m respectively from Yirrigan Drive.
- **Building height (minimum 2 storeys)** – The development is single-storey.
- **Preferred land use** – A Drive Through Fast Food outlet is not a preferred use under the LDP.

With respect to the above, when having regard to the provisions in Clause 3 of the LDP, the development is considered acceptable on the basis of the following:

- **Optimises underutilised space** by transforming a surplus car parking area into an active commercial use, contributing to the vibrancy of the Mirrabooka Town Centre.
- **Street presence and activation:** While single-storey, the building is positioned close to Yirrigan Drive, and the drive-through component introduces

movement, balancing the harsh vehicle environment with built form street presence and activity along the frontage.

- **Public art integration:** Artwork (detailed later in this report) will be prominently located on façades visible from Yirrigan Drive, enhancing visual interest and reinforcing a sense of place.
- **Architectural articulation:** A mix of colours, materials, and textures has been incorporated to break up blank walls and provide a contemporary, high-quality finish to street-facing elevations.
- **Passive surveillance and connectivity:** Glazing and a secondary entrance on the western elevation improve visual engagement and safety, complementing pedestrian pathways that link to the broader network
- **Existing Streetscape:** The proposed land use is consistent with the existing character of this portion of Yirrigan Drive, which is predominantly occupied by drive-through fast food outlets.



Figure 3 – Initial Concept Render of Proposed Development.



Figure 4 – Revised Concept Render Following Design Amendments

- As shown in Figures 3 and 4, the landscaping buffer and the canopy provided after the request for further information softens the built form.

Accordingly, the proposal is considered to achieve an acceptable level of design quality and streetscape integration, and the discretion is supported in this context.

3.2 Clause 4.0 – General Provisions

With respect to the General Provisions of the LDP, assessment against the relevant requirements is contained within the table below. In addition to these provisions, the proposal has also been assessed against the relevant local planning policies, which are discussed in subsequent sections of this report.

LDP Clause 4.0 – General Provisions Mandatory Development Controls		
Provision	Requirement	Proposal
4.1.1 Building Heights	All building heights are to be in accordance with the specific Façade Type as detailed in Part 3. Façade Type B: Maximum Height: 8 Storeys Minimum Height: 2 Storeys	Single storey. Discretion required.
4.1.3 Roof Form	Plant and roof equipment (including service elements) shall be designed and coordinated to integrate into the overall roof design and not be visible from the street.	Roof plan provided with utilities and service elements concealed and integrated into the roof structure. A proposed condition of development approval is required to ensure the development is consistent with the requirements of the LDP. Complies.
4.2.1 Building Articulation	Buildings must adhere to the building setbacks as outlined in the specific Façade Type in Part 3. Façade Type B (from Yirrigan Drive): Maximum Setback: 2m Minimum Setback: Nil	Screening canopy proposed at 0.2m. Main building line set back 4.5m from Yirrigan Drive. Considered Complies.
	Verandas, porches, and balconies may project up to 1m into front setbacks.	Not applicable.

	Extensive expanses of blank and flat façades facing the public realm are not permitted.	Proposed extensive blank walls for the Storage room. Discretion required.
4.2.4 Design for Safety	Building entrances shall be oriented to face open and active spaces.	The entrance of the development faces an internal car parking area and the side of the building. Discretion required.
	Extensive expanses of blank walls are not permitted.	The storage room walls have limited detailing compared to other elevations; however, design elements and articulation have been incorporated to reduce visual bulk. Discretion required.
	Lighting is to be provided to all public spaces, including under awnings, parking areas, service areas, footpaths and entry and exit points.	A condition to be imposed for the provision of lighting within the public realms. Complies.
4.2.6 Sustainability	All new commercial developments shall demonstrate best practice ecologically sustainable design by achieving a minimum of 4-star "best practice" under the Green Building Council of Australia rating system.	A condition to be imposed as part of development approval for the provision of a Sustainable Design Statement in relation to the requirements of the LDP. Complies.
4.2.10 Entry Locations	Entry points shall directly face the street.	The entry points of the development face an internal car parking area and the side of the building. Discretion required.
	The height of any awning is not to be increased above the entry point to greater than 3.2 metres above footpath level.	Awning at 3.3m to 4m height above the entry level. Discretion required.

4.2.14 Activity + Uses	Land uses shall be in accordance with the Mirrabooka Local Structure Plan land use map.	Zone: Mixed Use. Proposed Use: Drive Through Fast-Food Outlet. Permissibility (Table 2): "D Use" Discretion required.
4.3.2 Pedestrian + Bicycle Access	Commercial buildings shall orientate towards the street and provide the entrance to the building directly from the street frontage.	Building oriented internally and away from the street. The proposed footpath does not connect with the existing path. Discretion required. A condition to be imposed for the connection of the existing footpath with the internal pedestrian path (Refer to Figure 5.)
	Pedestrian footpaths shall be a minimum of 2.0 metres wide.	Proposed pedestrian paths are a minimum of 1.5m wide. Discretion required.
4.3.8 Acoustics + Odour	An Acoustic Report being prepared by a qualified Acoustic Consultant for any noise generating use to demonstrate noise will comply with the acceptable levels/standards set out under associated legislation	A condition to be imposed as part of development approval for the compliance with the recommendation of the provided Environmental Noise Assessment. Complies (subject to condition imposition).

In considering the discretion sought, an assessment against the relevant Objectives of LPP6.6 is required. The City's comments against the Objectives are contained in the table below:

LDP Clause 4.0 – General Provisions Objectives	
Objective	Officer Comment
4.1.1 Building Heights:	<u>Objective Satisfied</u>

LDP Clause 4.0 – General Provisions Objectives	
Objective	Officer Comment
To increase the intensity of uses and activity within the Mirrabooka Town Centre and its public realm. To ensure that development within the Mirrabooka Town Centre responds to the desired scale and character as well as the existing and approved surrounding landscapes To develop desirable spatial relationships between buildings and the street to create safe, interesting and attractive private and public spaces	The proposed development will intensify the use of the existing parking area and activity within the Mirrabooka Town Centre through patronage to the development. The proposed single-storey development is consistent with the existing streetscape on both sides of Yirrigan Drive, which is predominantly single-storey The proposed development contributes enhancement to the streetscape by incorporating landscaping and pedestrian pathways that improve connectivity within the site. These features improve interest and accessible environment for users. The design also promotes safety through passive surveillance and clear sightlines, ensuring that public areas feel secure. The building is appropriately set back and includes human-scale elements, such as articulated façades and ground-level details, which contribute to improving the visual interest of public and private spaces.
4.2.1 Building Articulation: Achieve a high-quality standard of architectural design that responds innovatively to Mirrabooka's historical context whilst contributing to an attractive streetscape. Mitigate the impact of large buildings and long frontages through unique design responses.	<u>Objective Satisfied</u> The proposed development is of a high quality within its context with architectural features such as robust metal cladding, steel and glazing. The development approval will include a condition for the provision of public art in accordance with the objective that ensures public art has a local distinctiveness and a sense of place. The proposed development includes a canopy structure over the drive-through lane, which mitigates the dominance of blank walls and vehicle areas.
4.2.4 Design for Safety: Mirrabooka Town Centre is to be a place where residents, workers and visitors feel safe and secure at all times. Ensure passive surveillance with apartments and terraces overlooking laneways without compromising privacy.	<u>Objective Satisfied</u> The development does not compromise the safety of the Town Centre and incorporates built form elements that improve security. Glazing has been included where possible to enhance passive surveillance of public spaces.

LDP Clause 4.0 – General Provisions Objectives	
Objective	Officer Comment
Provide surveillance between individual developments and the public domain and minimise opportunities for concealment and entrapment. To ensure that developments support proper and attractive illumination of public and private spaces for security and safety.	A condition of approval requires exterior lighting in public areas, parking areas, footpaths, and all entry points. The proposed drive-through lane and window will provide additional surveillance opportunities. External lighting and illuminated signage will be conditioned to be positioned in accordance with Australian Standard 4282:2023, ensuring they do not adversely impact local amenity.
4.2.10 Entry Locations To ensure entrances are designed to enable safe and comfortable access and that front building entrances are clearly defined.	<u>Objective Satisfied</u> The development includes two well-defined entrances that offer safe and convenient access. These are clearly articulated through level pathways, door entry points, and overhead awnings, creating a welcoming and easily identifiable approach for users.
4.2.14 Activity + Uses To encourage a diverse mix of uses within the Town Centre that allow for greater flexibility in building uses. To intensify active uses within identified precincts to improve streetscape activation To better connect existing land uses to the mixed use precincts of the Town Centre Facilitate the incremental expansion of land uses consistent with that of an activity centre.	<u>Objective Satisfied</u> The proposed Drive Through Fast Food outlet introduces a mix of services, including food delivery, dine-in, alfresco dining, and drive-through options, providing flexibility for users. The development represents an improvement to an underutilised section of the shopping centre car park, which currently has surplus parking bays. The development connects with the existing shopping centre through shared vehicle and pedestrian access, supporting integration with surrounding uses.
4.3.2 Pedestrian + Bicycle Access Optimise opportunities to improve connectivity to/from the Town Centre. Convenient and safe movement for pedestrians and cyclists to destinations in the immediate environs and to external destinations.	<u>Objective Satisfied</u> The development provides pathways that connect to external footpaths on both the western and eastern sides, improving overall connectivity within the Town Centre.

Local Planning Policy 6.6 Trees and Landscaping - Non-Residential (LPP 6.6)	
Provision	Officer Comment
Waterwise designs including waterwise irrigation/reticulation systems shall be used, and this may include the use of greywater. The use of landscape design specialists with waterwise-accreditation from Watercorp for irrigation, landscaping design and installation is encouraged. Planting of native species and hydrozoning (grouping of plants with similar water requirements) are encouraged to reduce water and fertiliser use	The provided landscape plan includes the provision of planting of native species and hydrozoning. No details have been provided regarding Waterwise irrigation or reticulation systems as required under the policy. Condition recommended: A Waterwise irrigation system shall be installed in all landscaped areas, to the satisfaction of the City. Discretion required.
A minimum 100mm of mulch in soil areas. A coarse chunky mulch is preferable as a more waterwise measure.	Condition recommended: All landscaped soil areas shall be mulched to a minimum depth of 100mm, consistent with the Applicant's response to the City's request for further information. Complies Note: * <i>The provided landscape plan/notes propose a minimum of 75mm of mulch in soil areas.</i>
1 tree per 500m ² of the site area (or part thereof) unless, existing trees are being retained and credited to the development.	Site (Lease) area: 1,350m² Required trees: 2.7 (3) Proposed trees: 3 (Eucalyptus) Retained trees: 1 Tree. Complies. Notes * <i>3 Trees are located outside of the Lease area but within the Lot boundary.</i>
1 tree is to be located between every 6 uncovered car parking bays (or part thereof) and is included in the overall tree planting allocation as required under clause 4.1.b). The Deep Soil Area is required to meet the minimum size and dimensions for the relevant tree size. Tree planting in car parking areas is not required where located under a built form structure. This excludes shade	The proposal includes nine (9) uncovered parking bays. No tree is proposed between the car parking bays Discretion required.

Local Planning Policy 6.6 Trees and Landscaping - Non-Residential (LPP 6.6)	
Provision	Officer Comment
structures as these should be designed to allow for tree planting i.e. to be sectional.	

To address the discretion sought, the proposal has been assessed against the objectives of LPP 6.6. A detailed assessment demonstrating how the development meets these objectives is provided in the table below:

LPP 6.6 – Policy Objectives	
Objective	Officer Comment
a) To improve the amenity of areas by providing suitable landscaping for development sites.	<u>Objective Satisfied</u> The proposed development incorporates native shrubs, grasses, groundcovers, climbers, and trees within 273m ² (20% of the lease area) of deep soil area, meeting the requirements of LPP 6.6.
b) To protect existing trees, and ensure new trees are planted to contribute to tree canopy coverage.	In addition to enhancing existing landscaping along Yirrigan Drive, the proposal retains one existing tree and introduces three new trees, consistent with LPP 6.6 requirements.
c) To provide shade coverage to car parking areas.	The parking area adjacent to the development includes a veranda that provides shade coverage for users, and one tree is positioned at the front of the parking area to further improve shading.
d) To ensure development provides optimal growing conditions to enable existing trees, new trees and landscape planting to reach maturity.	<u>Objective Satisfied</u> Landscaping incorporates 100mm mulch and a waterwise irrigation system to be conditioned, ensuring plants can establish and reach maturity.
e) To provide a diversity of plant and tree species that are resilient to climatic, soil and site conditions.	The proposal includes a diverse range of species selected for resilience to local climate and soil conditions.
f) To encourage waterwise landscaping through appropriate species selection, reduced water demand, and improved stormwater utilisation	Native species such as Eucalyptus and Grevillea are included, which require minimal water once established.

On the basis of the above assessment, the proposed development satisfies the objectives of Local Planning Policy 6.6 (LPP 6.6) subject to imposing of a condition in the event of approval is recommended that a condition be imposed requiring:

- o Installation of a waterwise irrigation system, and
- o Application of 100mm mulch within all designated deep soil areas.

4.2. Street Trees

The existing verge abutting the development area does not contain any street trees due to its narrow width and the presence of a slip lane. Accordingly, the City considers that no new street trees are required in association with the proposal under LPS 3.

5. Access and Waste

5.1. Access

Vehicle access to the site will be provided via the shopping centre's internal road network, which connects to Yirrigan Drive, classified as a 'District Distributor A Road' under the City's Functional Road Hierarchy. A Transport Impact Assessment (TIA) prepared by Transcore (Attachment 7b) has been reviewed and accepted by the City. The proposed development will retain the existing access arrangements from Yirrigan Drive, Farrier Road, and Chesterfield Road. The TIA estimates the directional distribution of traffic generated by the development as follows:

- o Approximately 40% from Yirrigan Drive (westbound);
- o Approximately 40% from Yirrigan Drive (eastbound); and
- o Approximately 20% from Farrier Road (northbound).

Although the proposal will likely increase traffic volumes, the site layout and drive-through design improve accessibility and efficiency. The location of the menu board allows for greater stacking capacity, and provision has been made for a second drive-through lane to accommodate future demand.

As part of the request for further information, the Applicant provided details on waste collection and delivery times, confirming these will occur outside peak operating periods:

- o Waste collection twice weekly (one general, one recycling) between 7:00 am and 7:00 pm, Monday to Saturday;
- o Deliveries 4–5 times per day outside peak periods (not within 8:00–9:30 am, 12:00–1:30 pm, or 3:00–4:00 pm);
- o Milk deliveries are made at 4:00 am daily.

These arrangements allow the secondary drive-through lane to remain available during peak hours. Accordingly, the City is satisfied with the current plans and the functionality of the second drive-through and its capacity to accommodate future demands. Should the development be approved, a condition will be imposed requiring waste collection and deliveries to occur outside core trading hours.

The TIA also notes that the business model differs from typical fast-food outlets, with approximately 50% of customers expected to dine in, supported by significant indoor and alfresco seating areas.

The City is satisfied that the proposed parking areas, loading bay, and driveways comply with Australian Standard AS/NZS 2890.1 and meet the parking layout, design, and access requirements of Clauses 7 and 8 of Local Planning Policy 6.7.

5.2. Waste

The Applicant has submitted a Waste Management Plan (WMP) in support of the development, which proposes waste collection by a private contractor. A loading bay has been incorporated within the optional drive-through lane and designed to accommodate a Heavy Rigid Vehicle up to 12.5 metres in length, as demonstrated in the swept path diagram (Figure 6). Waste collection is scheduled to occur outside core trading hours to minimise potential conflicts with customer vehicles. Accordingly, it is recommended that the development be conditioned to operate in accordance with the approved WMP.

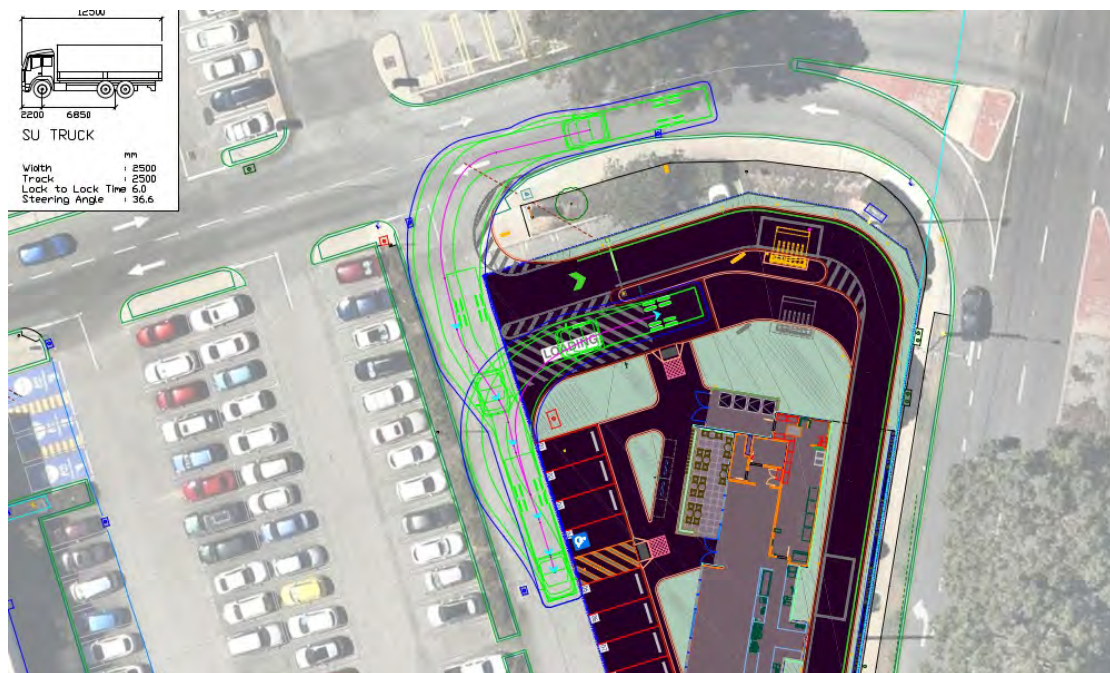


Figure 6 – Swept Path Analysis for Heavy Rigid Vehicle Access

The size of the enclosed waste storage area has been assessed against the *Local Planning Policy 6.3 – Bin Storage Areas* (LPP 6.3), with the application proposing a minimum width of 3.3m in lieu of 3.5m. In considering the discretion sought, an assessment against the relevant Objectives of LPP 6.3 is required. The City considers the proposed bin storage area satisfies the relevant objectives. A detailed evaluation demonstrating how the development meets these objectives is provided in Attachment 6.

6. Noise and Acoustics

The Applicant has submitted an Environmental Noise Assessment (Attachment 7c) prepared by Lloyd George Acoustics in accordance with the *Environmental Protection (Noise) Regulations 1997*. The assessment details the following:

- o **Compliance with Noise Regulations:** The development can meet the Environmental Protection (Noise) Regulations 1997 without additional mitigation measures.

- o **Delivery Vehicles:** Encouraged to use broadband reversing alarms instead of tonal alarms to reduce community complaints, aligning with DWER guidance.
- o **Bin Servicing:** Must occur between 7:00 am and 7:00 pm, Monday to Saturday, under Regulation 14A. If done within these hours and as quietly as practicable, normal assigned noise levels do not apply.
- o **Mechanical Plant:** Noise levels must be reviewed before the Building Permit stage by a qualified acoustical consultant (Australian Acoustics Society membership recommended).

The City supports recommendations in the Environmental Noise Assessment. These recommendations are proposed to be conditioned as part of the development approval to ensure noise impacts on adjacent residential properties along Yirrigan Drive are appropriately mitigated.

The site adjoins Yirrigan Drive, which is designated as an "Other Significant Freight/Traffic Route" under State Planning Policy 5.4 – Road and Rail Noise (SPP 5.4). Although the site is located within the buffer area of Yirrigan Drive, the proposed development is exempt from assessment against SPP 5.4 as it does not incorporate a noise-sensitive land use.

7. Advertising Signs

The proposal has been assessed against the requirements of the *Local Planning Policy 6.1 – Advertising Signs* (LPP 6.1). It includes four (4) illuminated wall signs, two (2) illuminated projecting signs, three (3) illuminated tower signs (Pylon Signs), seven (7) illuminated ground-based directional signs, and two (2) floor signs. The application has been reviewed against the relevant standards of LPP 6.1, with the table below summarising the key variations proposed:

The Tower Sign is located adjacent to the Yirrigan Drive on the eastern side of the proposed development, with the relevant provisions requiring discretion below.

LPP 6.1 – Specific Sign Type Assessment – Tower Signs	
Provision	Officer Comment
<i>Be limited to a maximum of one sign per lot.</i>	Three (3) additional Tower Sign is proposed within the existing Lot 500. Discretion Required.

The development proposed Walls Signs, located on the all façades.

LPP 6.1 – Specific Sign Type Assessment – Wall Signs	
Provision	Officer Comment
<i>Wall Signs (except within the Residential Zone and Suburban Residential Category) are:</i> <i>(i) limited to a maximum two signs per tenancy on a lot; and</i>	Proposed 4 Walls signs. Discretion Required.

In considering the discretion sought, an assessment against the relevant Objectives of LPP 6.1 is required. The City's comments against the Objectives are contained in the table below:

LPP 6.1 – Policy Objectives	
Objective	Officer Comment
a) To ensure advertising signs do not pose a safety threat and do not prevent passive surveillance;	The proposed signs are positioned outside vehicle sightlines and a standard condition will be applied to ensure lighting and illumination do not impact safety or local amenity. The signs are located on walls and areas that maintain passive surveillance, and the additional tower sign's supporting pole is 455mm wide and in a location that does not obstruct views.
b) To ensure businesses can display advertising signs without, in certain circumstances, the need to obtain development approval;	The proposal does not restrict the business's ability to advertise as intended.
c) To ensure that the display of advertising signs does not adversely impact on the amenity of surrounding land and streetscapes;	The additional tower sign is similar in height to the shopping centre's existing tower sign, maintaining visual balance and complying with the permitted dimensions for the site. One wall sign per frontage is proposed, in line with the required percentage, ensuring appropriate scale.
d) To ensure advertising signs are appropriately scaled for their setting;	The additional tower sign is similar in height to the shopping centre's existing tower sign, balancing the scales. The additional tower sign complies with the permitted height, width and depth for the subject lot's requirement as such, it is considered appropriately scaled. One wall sign has been proposed per frontage and in accordance with the required percentage, making the signs more appropriately scaled.
e) To avoid the proliferation of advertising signs on individual sites and buildings to minimise visual clutter;	The Applicant has relocated the additional tower sign further from the existing sign, reducing clustering and creating adequate separation as shown on Figures 7 and 8 below.
f) To encourage the incorporation of advertising signs into the design consideration of buildings and avoid obscuring or detracting from prominent architectural features;	The signs incorporate colours and materials that match the building's design elements.

g) To ensure advertising signs only relate to services and products available on the site; and	The signage displays the logo and branding of the proposed Drive Through Fast Food Outlet.
h) To ensure the content of advertising signs meets community expectations and is not discriminatory or offensive	The signage is considered appropriate, displaying the business brand without offensive or discriminatory content.

Based on the above assessment, the proposed development satisfies the objectives of LPP 6.1. Notwithstanding, to ensure any light spill does not create adverse impacts on residents on the southern side of Yirrigan Drive, it is recommended that a condition be imposed that outdoor lighting be installed and operating in accordance with Australian Standard 4282:2023 – Control of the Obtrusive Effects of Outdoor Lighting.



Figure 7 – Applicant's Street View Render of Proposed Development from Yirrigan Drive (Westbound)



Figure 8 – Applicant's Street View Render of Proposed Development from Yirrigan Drive (Eastbound)

8. Public Art

Local Planning Policy 6.12 - Public Art on Private Land applies to all developments with a construction cost of \$2 million and above, with a minimum 1% contribution cost of development provided as public art. The cost of the development is \$2.1 million, which will result in a \$21,000 public art contribution.

The Applicant has proposed that the public art component comprise a mural, located on a portion of the eastern elevation of the building near the drive-through entrance. Given the height and opportunity for enhancements on the walls at the south-east corner, the City considers it appropriate that the public art location be extended to encompass this corner of the building. In the event of DAP approval, a condition will be recommended to address the above.

Subject to the imposition of this condition, the proposal is acceptable in relation to public art.



Figure 9 – Walls Subject to Public Art Requirement.

9. Conclusion

The proposed development has been assessed against the City's planning framework and is considered appropriate within its context. While seeks discretion on aspects—such as building height, glazing ratios, and preferred land uses under the LDP—these components are acceptable given the site's frontage and the design measures adopted to mitigate impacts, satisfy the objectives of the framework and are considered and consistent with the intent of the planning framework.

The proposal involves converting an underutilised car park into an active commercial space, introducing landscaping and public art, and contributing to improving the overall amenity of the precinct. It supports the objectives of the Mixed-Use zone and the Mirrabooka Town Centre Special Control Area by creating local employment, enhancing economic activity, and aligning with the broader vision of the Activity Centre

Plan. The development also promotes incremental intensification without compromising traffic safety or parking adequacy.

The proposed development is of high-quality design within its context and is considered appropriate within its local setting. Accordingly, the application is recommended for approval subject to conditions.

Attachment 1 – Development Plans (dated stamped received 7 November 2025)



City of Stirling
07 Nov 2025
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AMENDED PLAN

01 LOCATION PLAN: EXISTING
Scale 1:400 @ A3

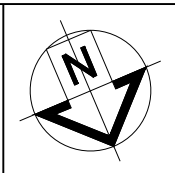
Client
FAWKNER PROPERTY LTD

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- ☐ SKETCH
- ☐ DESIGN APPROVAL
- ☒ TOWN PLANNING
- ☐ TOWN PLANNING AMENDED
- ☐ BA / CC
- ☐ CONSTRUCTION
- ☐ TENDER
- ☐ AS BUILT



REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION	EC	21.10.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTRE
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
LOCATION PLAN: EXISTING

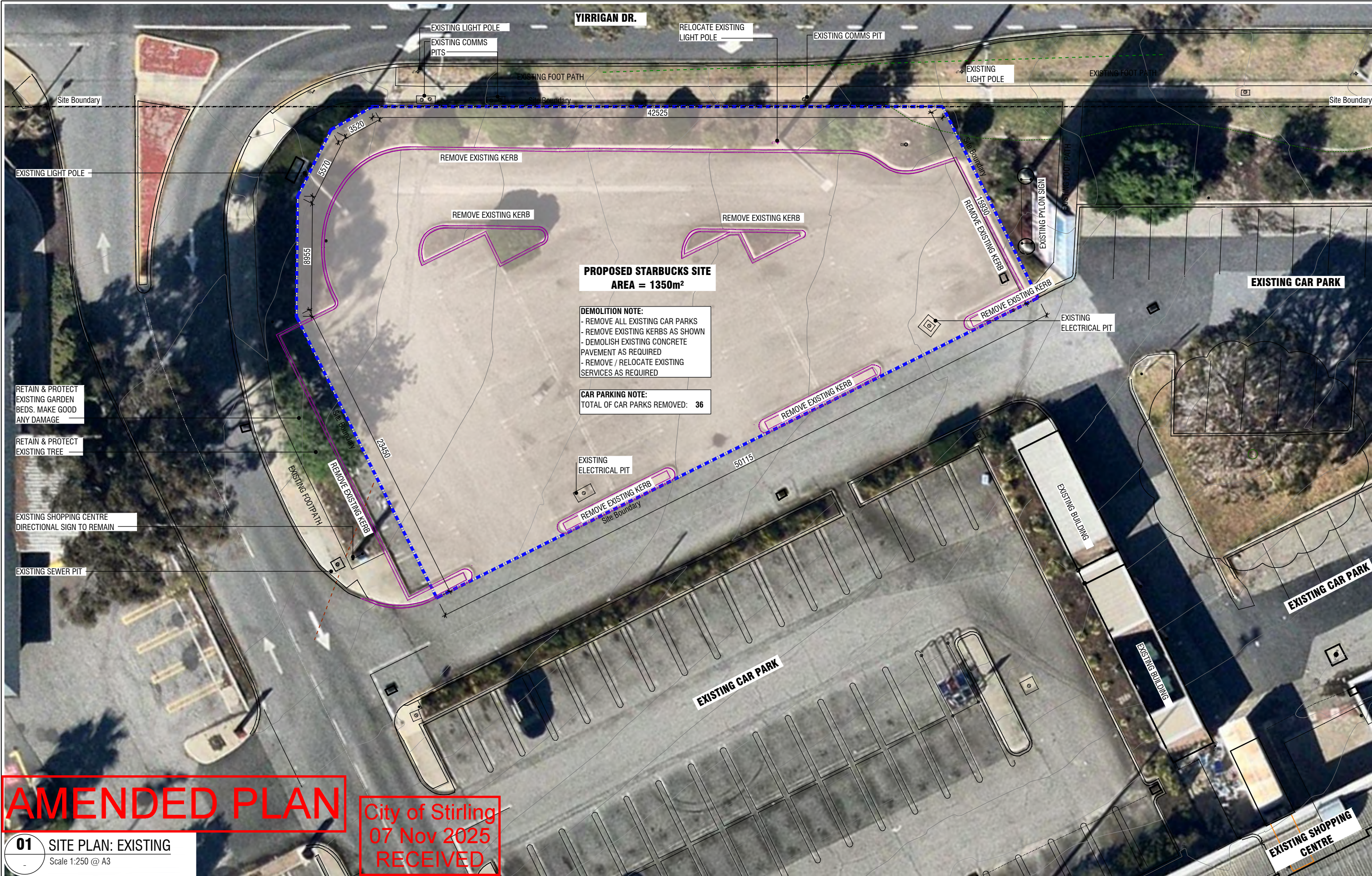
Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By	Store Number:	
LL	-	
Project No.	Drawing No.	Revision
24015	TP001	B



STN#	EAST	NORTH	HEIGHT	DESCRIPTION
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8800	54108.648	272278.429	68.553	HILTI
8801	54117.985	272350.852	68.648	RETRO
8802	54042.007	272339.569	66.569	SHN
8803	54052.671	272360.453	66.134	HILTI

REV	INITIAL	DATE	C&H VERSION	REVISION DETAILS
0	MW	22/02/2022	VERS 40	INITIAL PLAN RELEASE

PLAN 8054/40
REVISION 0



01 SITE PLAN: EXISTING
Scale 1:250 @ A3

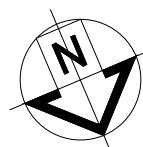
Client
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REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION	LL	23.06.25	
C	COUNCIL'S RFI RESPONSE	EC	14/07/25	SB
D	GENERAL REVISION	EC	21.10.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
SITE PLAN: EXISTING

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By	Store Number:	
LL	-	
Project No.	Drawing No.	Revision
24015	TP002	D

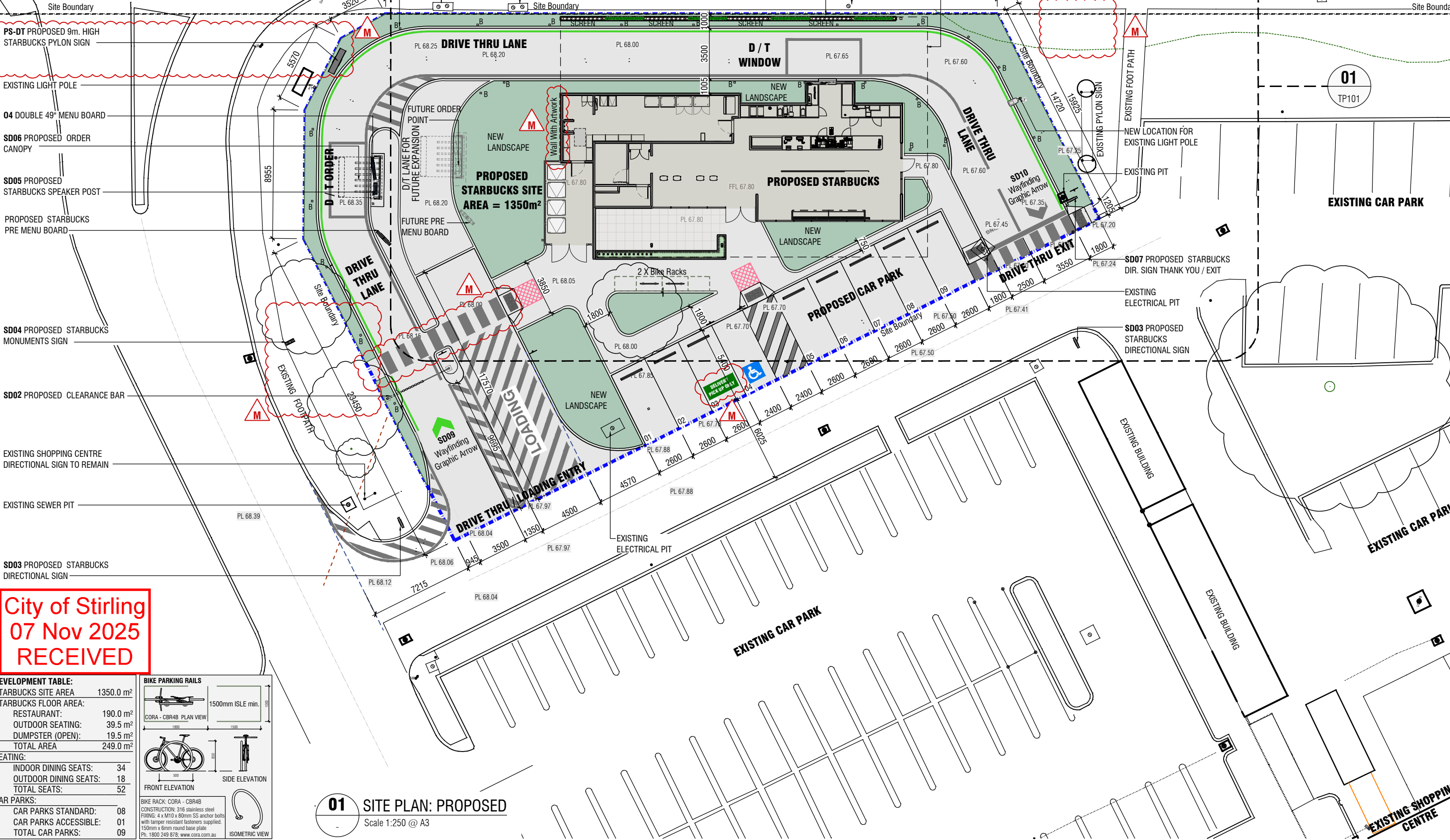
B: ILLUMINATED SQUARE BOLLARD

AMENDED PLAN

YIRRIGAN DR.

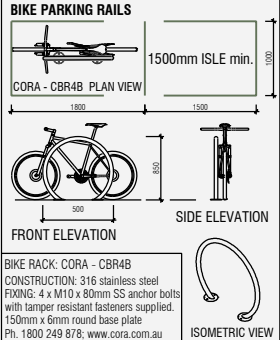
LEGENDS:

PL - PAVEMENT LEVEL
FFL - FINISH FLOOR LEVEL



City of Stirling
07 Nov 2025
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DEVELOPMENT TABLE:	
STARBUCKS SITE AREA	1350.0 m²
STARBUCKS FLOOR AREA:	
RESTAURANT:	190.0 m²
OUTDOOR SEATING:	39.5 m²
DUMPSTER (OPEN):	19.5 m²
TOTAL AREA	249.0 m²
SEATING:	
INDOOR DINING SEATS:	34
OUTDOOR DINING SEATS:	18
TOTAL SEATS:	52
CAR PARKS:	
CAR PARKS STANDARD:	08
CAR PARKS ACCESSIBLE:	01
TOTAL CAR PARKS:	09



01 SITE PLAN: PROPOSED

Scale 1:250 @ A3

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REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
H	COUNCIL'S RFI-2 RESPONSE	EC	24/07/25	SB
J	GENERAL REVISION TO CLIENT'S MARKUP	LL	17.10.25	
K	GENERAL REVISION	LL	21.10.25	
L	GENERAL REVISION	EC	23.10.25	
M	REVISIONS AS CLOUDED	LL	06.11.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTRE
43 Yirrigan Drive, Mirrabooka WA 6061

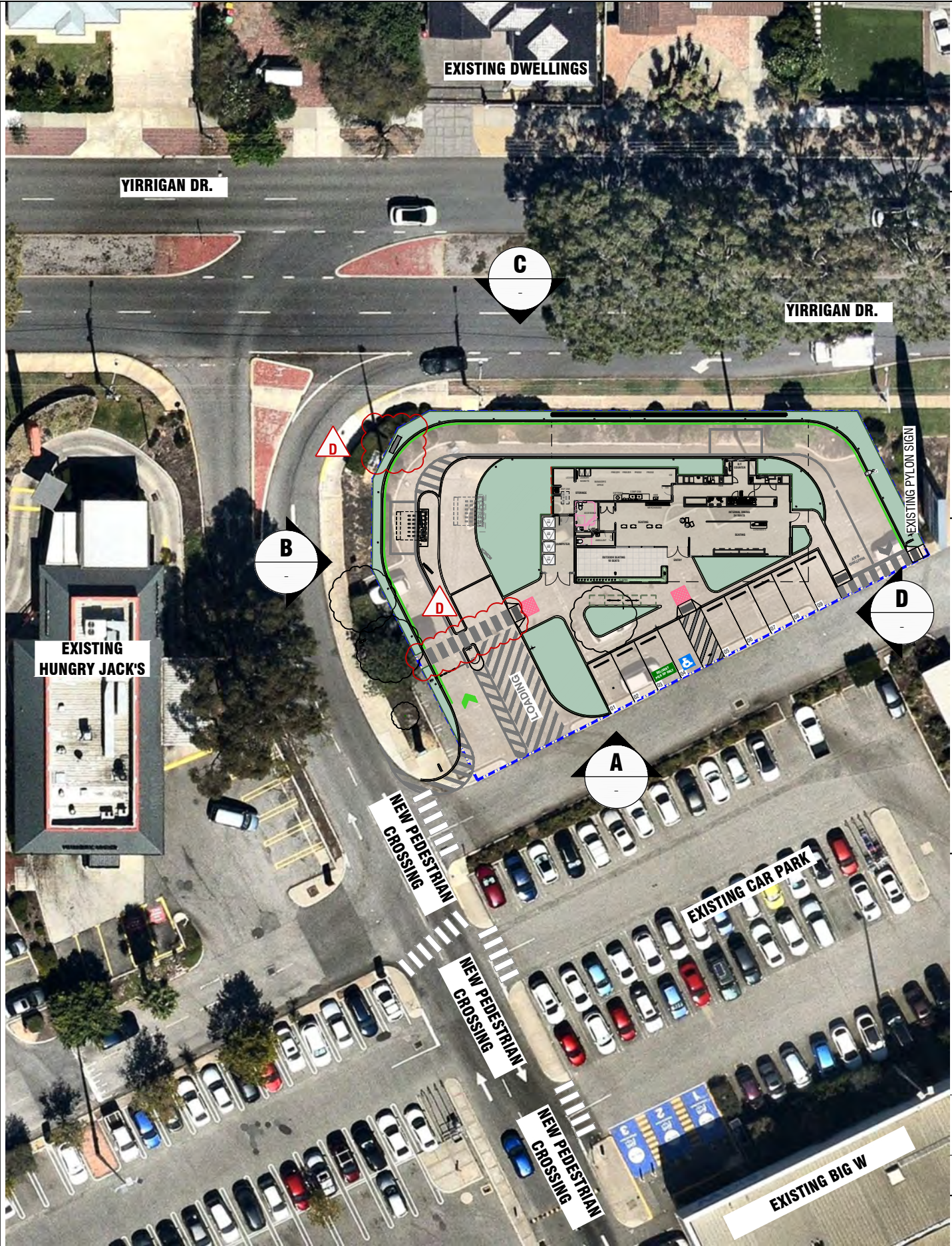
Stage
TOWN PLANNING
Drawing Title
SITE PLAN: PROPOSED

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Project No.	Drawing No.	Revision
24015	TP003	M

Client
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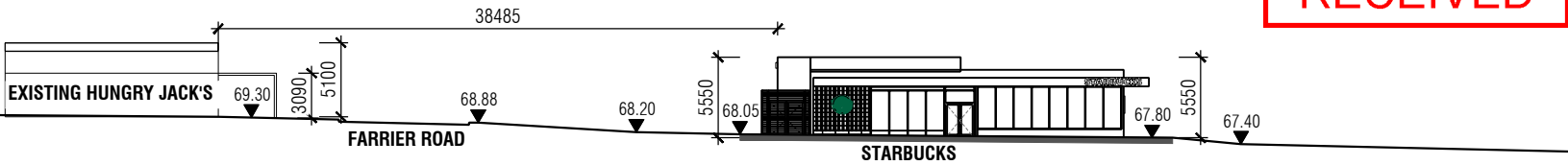
Level 8, 468 St. Kilda Road, Melbourne Vic 3004

Voda building services p.l.
ABN 3287 146 2418
Suite 3, 668 Burwood Road
Hawthorn East, Victoria. 3123.
Tel: (03) 9805 8400 Fax: (03) 9805 8455
E-mail: voda@vodabs.com.au

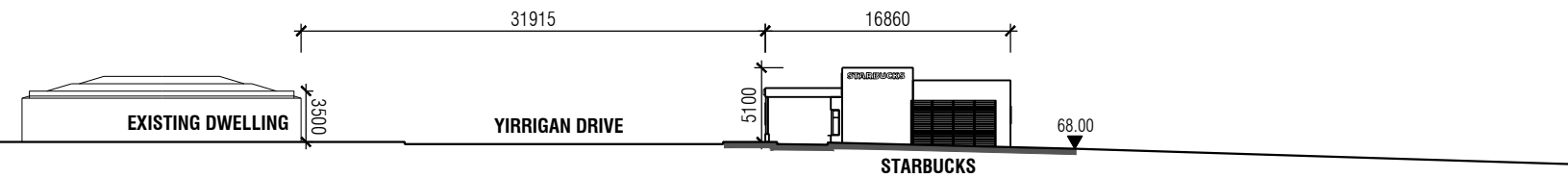


AMENDED PLAN

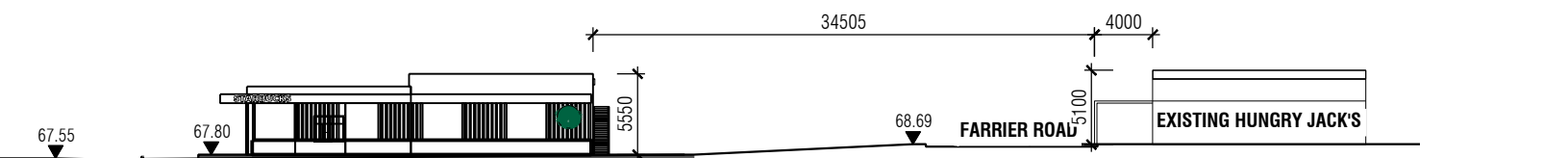
City of Stirling
07 Nov 2025
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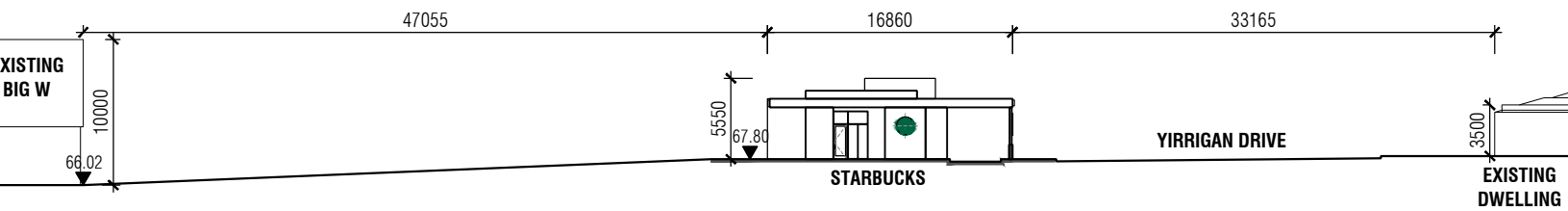
A NORTH STREETScape
Scale 1:500 @ A3



B EAST STREETScape
Scale 1:500 @ A3



C SOUTH STREETScape
Scale 1:500 @ A3



D WEST STREETScape
Scale 1:500 @ A3

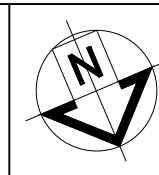
01 SITE PLAN: PEDESTRIAN ACCESS
Scale 1:500 @ A3

Client
FAWKNER PROPERTY LTD
Level 8, 468 St. Kilda Road, Melbourne Vic 3004

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ABN 3287 146 2418
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REV	AMENDMENT	BY	DATE	CHK
A	COUNCIL'S RFI RESPONSE	EC	16/07/25	SB
B	GENERAL REVISION	EC	21.10.25	
C	GENERAL REVISION	EC	23.10.25	
D	REVISIONS AS CLOUED	LL	06.11.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

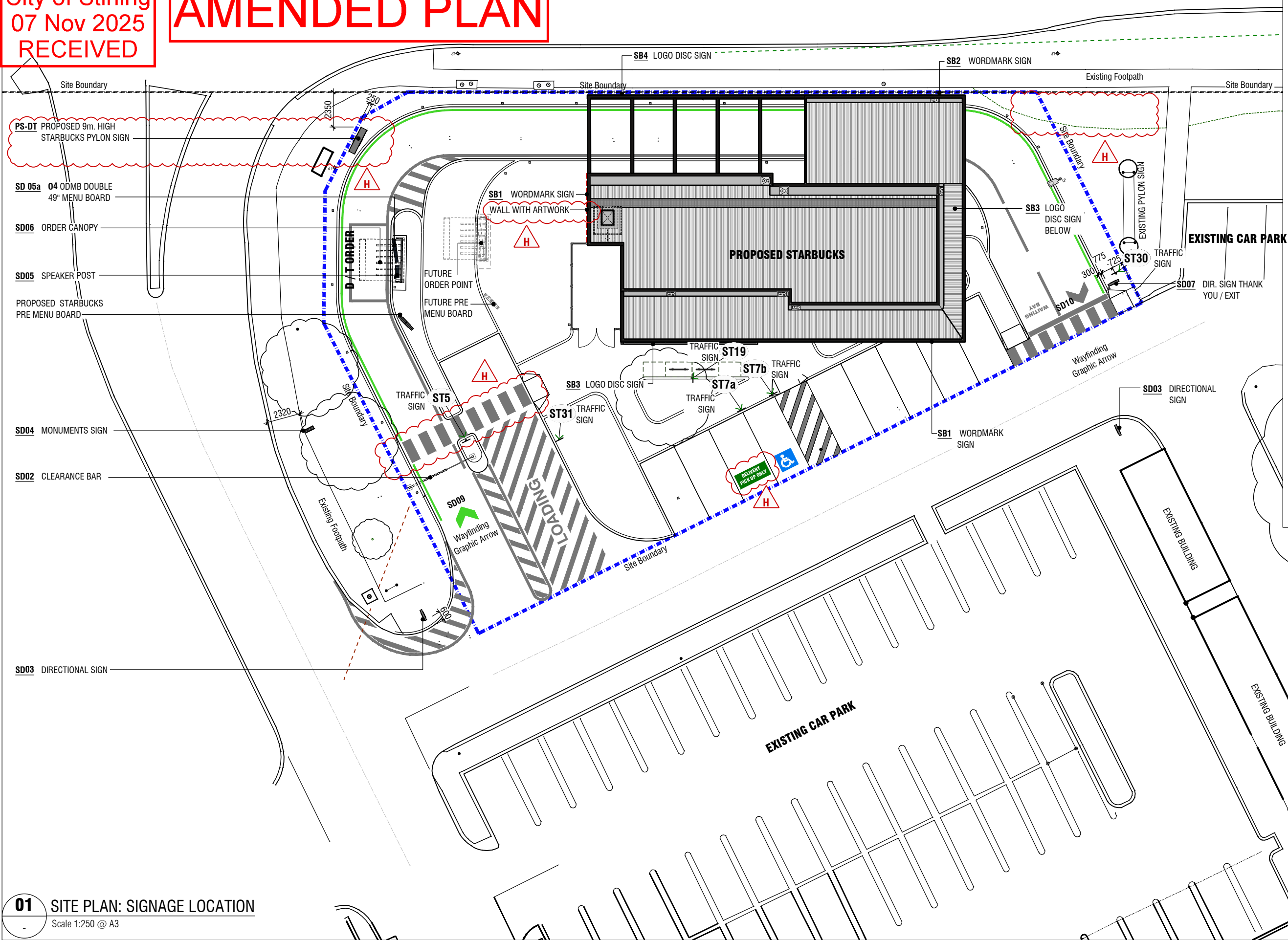
Stage
TOWN PLANNING
Drawing Title
**SITE PLAN: PROPOSED
PEDESTRIAN ACCESS &
STREETSCAPE ELEVATION**

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By	Store Number:	
LL	-	
Project No.	Drawing No.	Revision
24015	TP005	D

City of Stirling
07 Nov 2025
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AMENDED PLAN

YIRRIGAN DR.



STARBUCKS SIGNAGE SCHEDULE:			
CODE	DESCRIPTION	ILLUMINATION	Qty
PS-DT	9 METER HIGH STARBUCKS INLINE PYLON SIGN	☒	01
SB1	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 405mm HIGH	☒	02
SB2	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 355mm HIGH	☒	01
SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
SB4	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1525mm Ø	☒	01
SD02	CLEARANCE BAR	☒	01
SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
SD10	WAYFINDING GRAPHIC ARROW - EXIT COLOUR: WHITE	☒	01

01 SITE PLAN: SIGNAGE LOCATION
Scale 1:250 @ A3

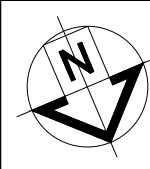
Client
FAWKNER PROPERTY LTD

Level 8, 468 St. Kilda Road, Melbourne Vic 3004

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☐ AS BUILT



REV	AMENDMENT	BY	DATE	CHK
H	REVISIONS AS CLOUDED	LL	06.11.25	
G	GENERAL REVISION	EC	23.10.25	

Project Title
STARBUCKS MIRRABOOKA SQUARE

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTRE
43 Yirrigan Drive, Mirrabooka WA 6061

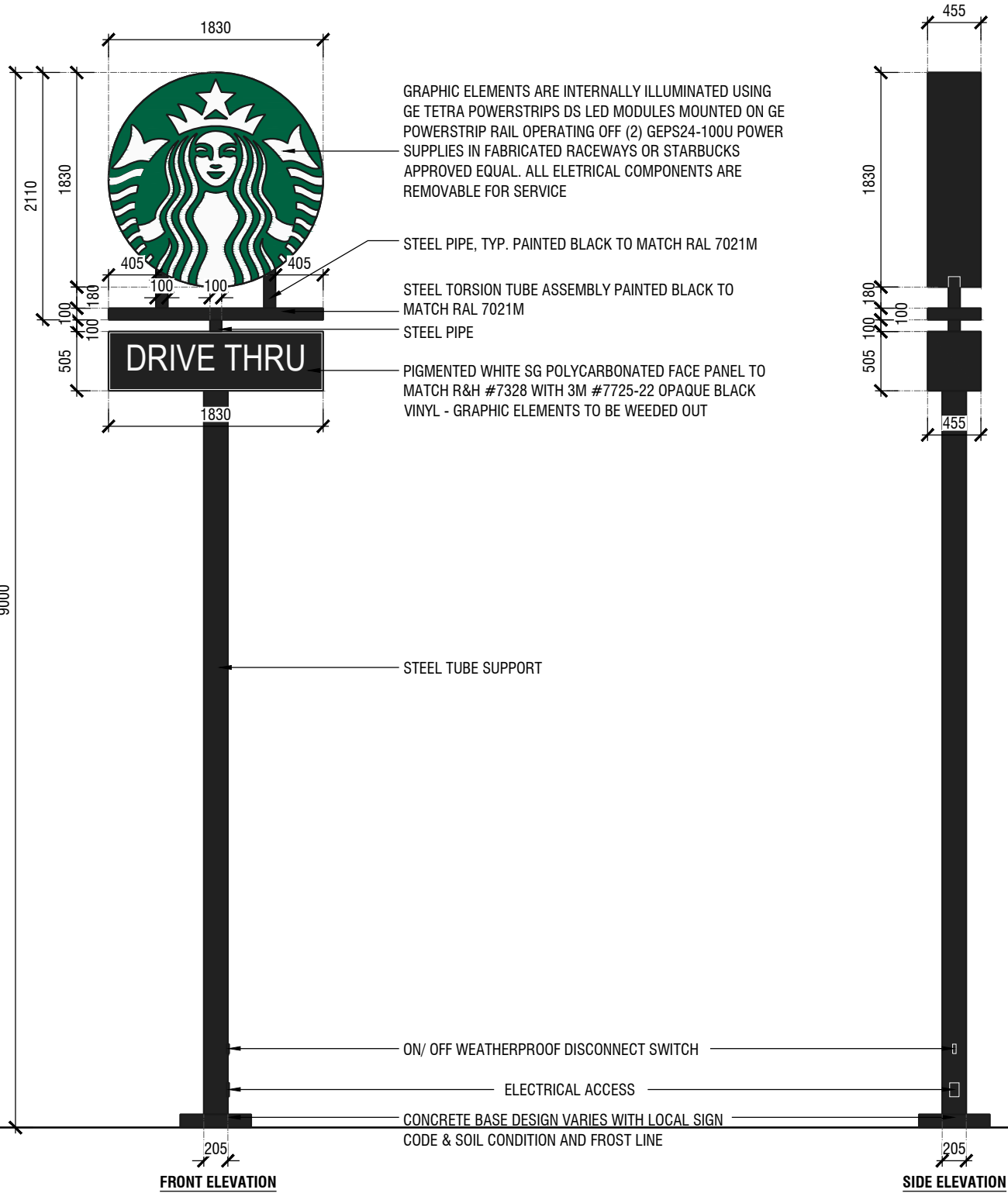
Stage
TOWN PLANNING

Drawing Title
SITE PLAN: SIGN LOCATION & SCHEDULE

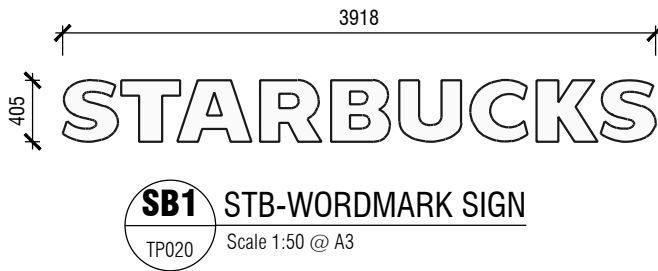
Drawing Scale As Shown	Plot Date December 2024	Option
Drawn By EC	Store Number: -	
Project No. 24015	Drawing No. TP020	Revision H

City of Stirling
07 Nov 2025
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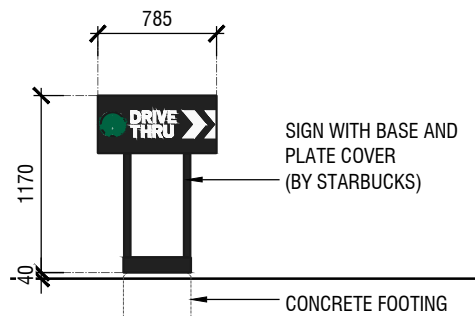
AMENDED PLAN



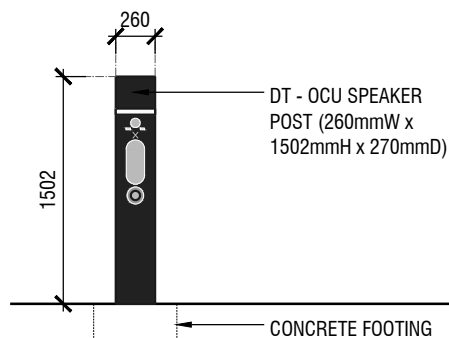
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TP020 Scale 1:50 @ A3



SB3 STB-LOGO DISC SIGN
TP020 Scale 1:50 @ A3



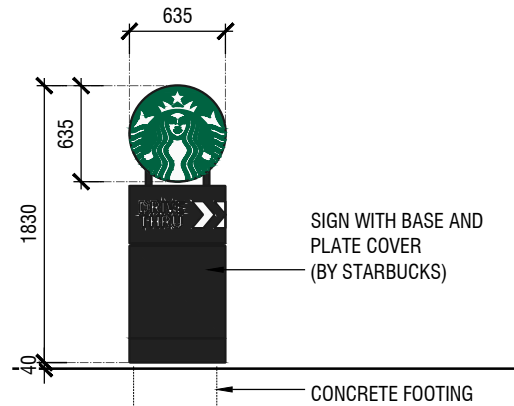
SD03 STB-DIRECTIONAL SIGN WITH LOGO
TP020 Scale 1:50 @ A3



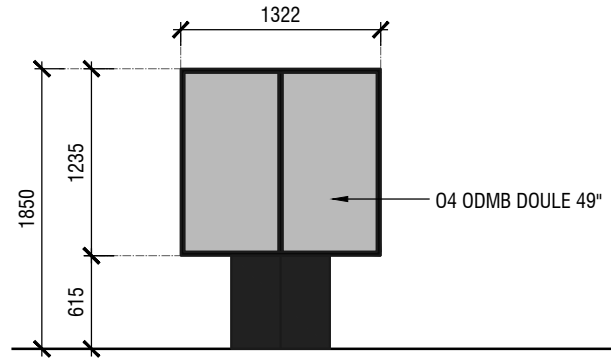
SD05 STB-DT OCU SPEAKER POST
TP020 Scale 1:50 @ A3



SB4 STB-LOGO DISC SIGN
TP020 Scale 1:50 @ A3



SD04 STB-MONUMENT SIGN
TP020 Scale 1:50 @ A3



SD05a STB-MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING
TP020 Scale 1:50 @ A3

STARBUCKS SIGNAGE SCHEDULE:			
CODE	DESCRIPTION	ILLUMINATION	Qty
PS-DT	9 METER HIGH STARBUCKS INLINE PYLON SIGN	☒	01
SB1	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 405mm HIGH	☒	02
SB2	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 355mm HIGH	☒	01
SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
SB4	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1525mm Ø	☒	01
SD02	CLEARANCE BAR	☒	01
SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
SD10	WAYFINDING GRAPHIC ARROW - EXIT COLOUR: WHITE	☒	01

Client
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- ☐ TENDER
- ☐ AS BUILT

REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION	LL	01.05.25	
C	GENERAL REVISION	EC	21.10.25	
D	HEIGHT OF PYLON SIGN REVISED	EC	23.10.25	

Project Title
STARBUCKS MIRRABOOKA SQUARE

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
SIGNAGE DETAILS: PYLON SIGN, BUILDING SIGNS, DIRECTIONAL SIGNS, MENU BOARD & SPEAKER

Drawing Scale
As Shown

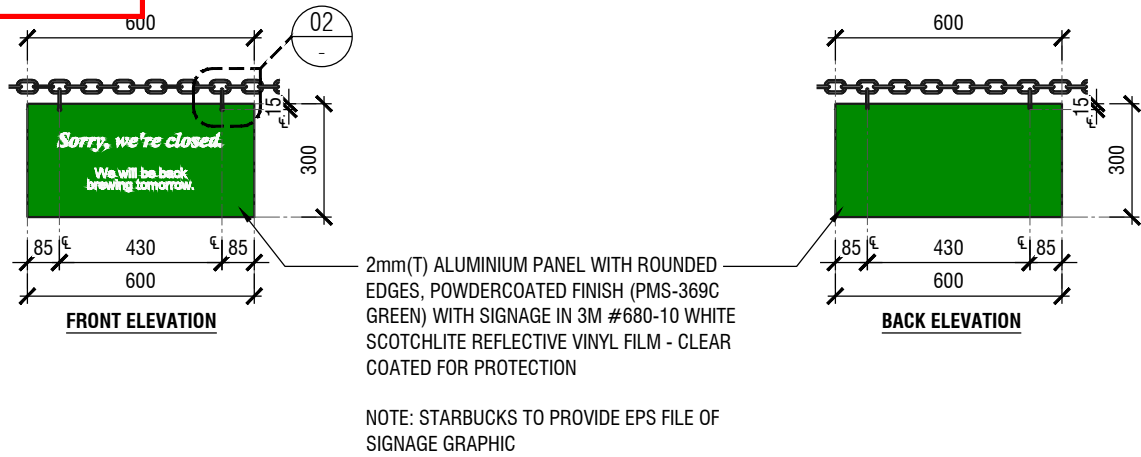
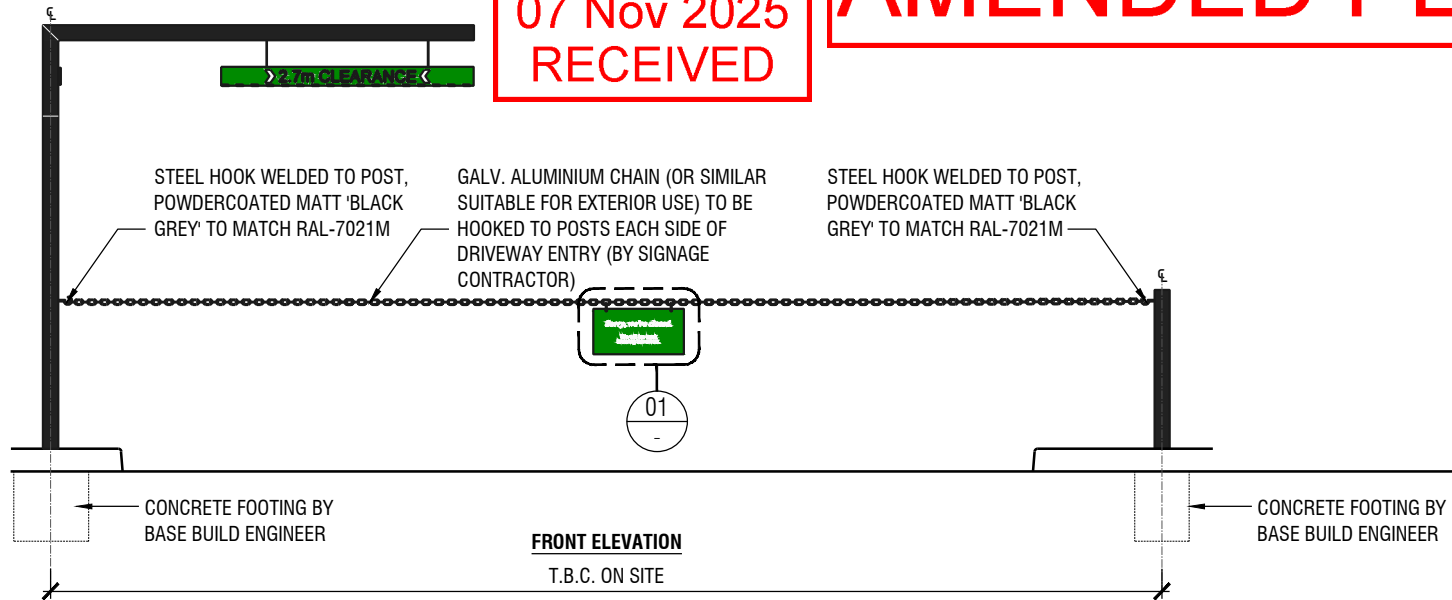
Plot Date
December 2024

Drawing No.
24015

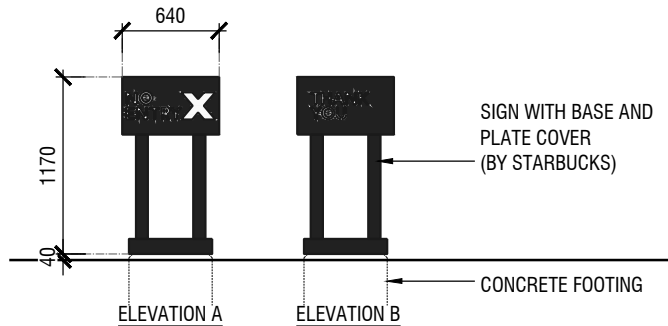
Revision
TP021 D

City of Stirling
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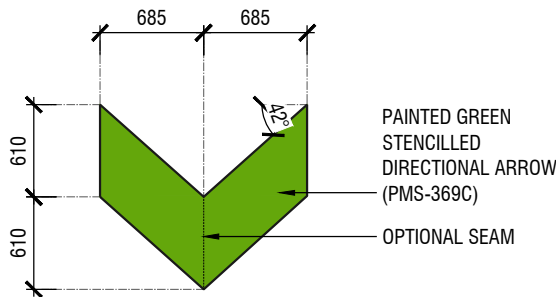
AMENDED PLAN



SD02 STBTP020CLEARANCE BAR
TP020 Scale 1:50 @ A3

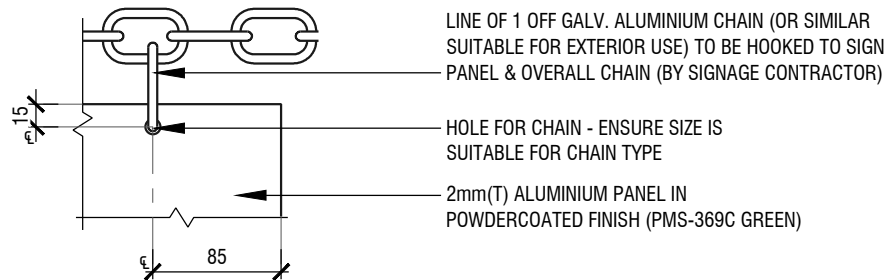


SD07 STBTP020DIRECTIONAL SIGN
TP020 Scale 1:50 @ A3

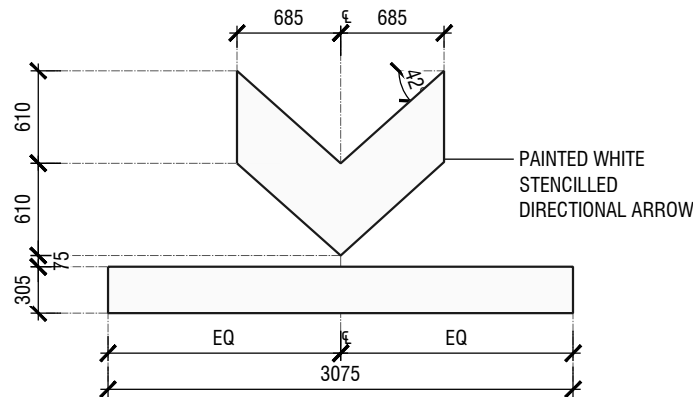


SD09 STBTP020WAYFINDING GRAPHIC ARROW TP020 SINGLE
TP020 Scale 1:50 @ A3

01 STBTP020CLEARANCE BAR CLOSURE SIGN
TP020 Scale 1:20 @ A3



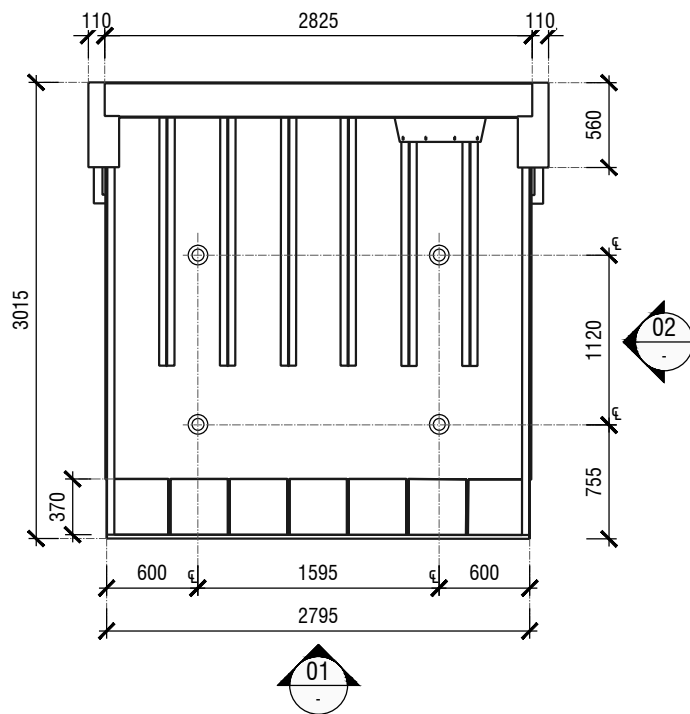
02 STBTP020CLEARANCE BAR CLOSURE SIGN TP020DETAIL
TP020 Scale 1:20 @ A3



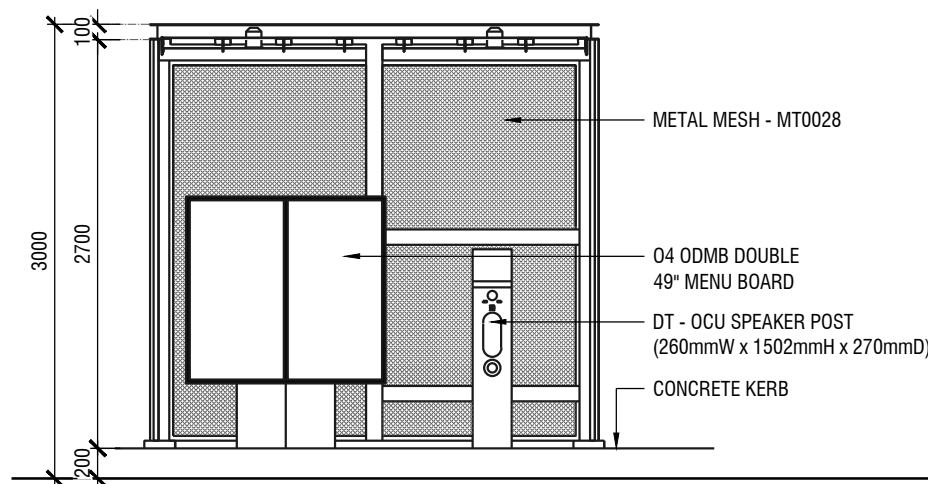
SD10 STBTP020WAYFINDING GRAPHIC ARROW TP020 EXIT
TP020 Scale 1:50 @ A3

STARBUCKS SIGNAGE SCHEDULE:			
CODE	DESCRIPTION	ILLUMINATION	Qty
PS-DT	9 METER HIGH STARBUCKS INLINE PYLON SIGN	☒	01
SB1	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 405mm HIGH	☒	02
SB2	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 355mm HIGH	☒	01
SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
SB4	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1525mm Ø	☒	01
SD02	CLEARANCE BAR	☒	01
SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
SD10	WAYFINDING GRAPHIC ARROW - EXIT COLOUR: WHITE	☒	01

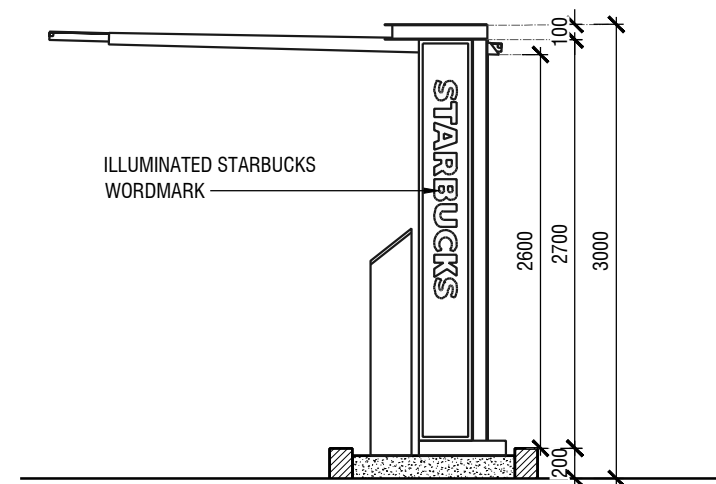
Client FAWKNER PROPERTY LTD Level 8, 468 St. Kilda Road, Melbourne Vic 3004	 building services p.l. ABN 3287 146 2418 Suite 3, 668 Burwood Road Hawthorn East, Victoria. 3123. Tel: (03) 9805 8400 Fax: (03) 9805 8455 E-mail: voda@vodabs.com.au	NOTE: Check and verify all dimensions on site before commencement of any works &/or shop drawings. Any discrepancies should be reported to the architect. This Design and Drawing is Property of Voda Building Services Pty.Ltd. and may not be copied in any way in part or whole without written consent. © Design Copyright.	☐ SKETCH ☐ DESIGN APPROVAL ☒ TOWN PLANNING ☐ TOWN PLANNING AMENDED ☐ BA / CC ☐ CONSTRUCTION ☐ TENDER ☐ AS BUILT	REV	AMENDMENT	BY	DATE	CHK	Project Title STARBUCKS MIRRABOOKA SQUARE PROPOSED STARBUCKS AT: MIRRABOOKA SHOPPING CENTER 43 Yirrigan Drive, Mirrabooka WA 6061	Stage TOWN PLANNING	Drawing Scale As Shown	Plot Date December 2024	Option
				A	TP ISSUE	LL	14.04.25	SB		Drawing Title SIGNAGE DETAILS: CLEARANCE BAR, DIRECTIONAL SIGNS, GRAPHICS	Drawn By EC	Store Number: -	Revision D
				B	GENERAL REVISION	LL	01.05.25						
				C	GENERAL REVISION	EC	21.10.25						
				D	SIGN PS-DT DETAIL UPDATED	EC	23.10.25						



SD06 STB-ORDER POINT CANOPY: REFLECTED PLAN
Scale 1:50 @ A3

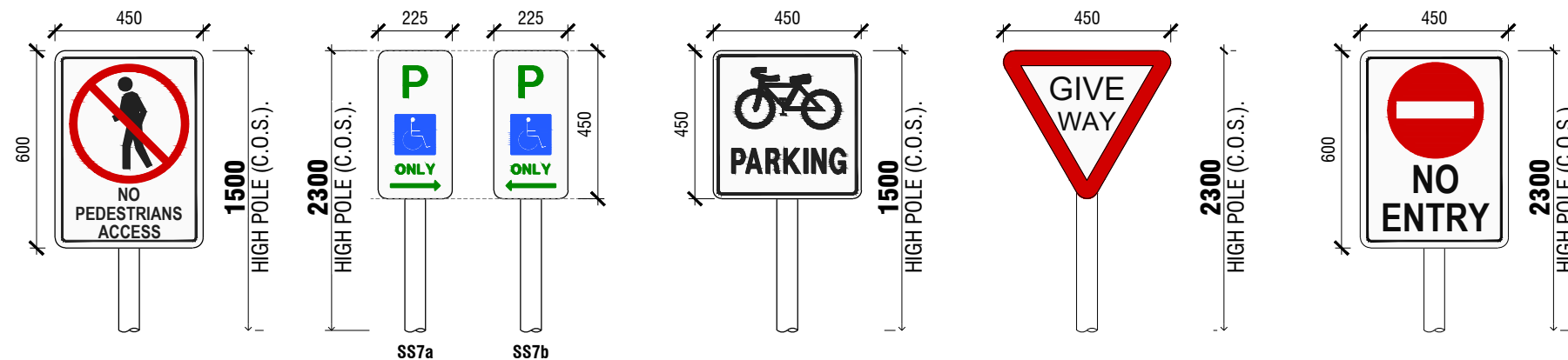


01 STB-ORDER POINT CANOPY: FRONT ELEVATION
Scale 1:50 @ A3



02 STB-ORDER POINT CANOPY: SIDE ELEVATION
Scale 1:50 @ A3

STARBUCKS SIGNAGE SCHEDULE:			
CODE	DESCRIPTION	ILLUMINATION	Qty
PS-DT	9 METER HIGH STARBUCKS INLINE PYLON SIGN	☒	01
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SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
SB4	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1525mm Ø	☒	01
SD02	CLEARANCE BAR	☒	01
SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
SD10	WAYFINDING GRAPHIC ARROW - EXIT COLOUR: WHITE	☒	01



ST5 TRAFFIC SIGN: NO PEDESTRIAN ACCESS
Scale 1:20 @ A3
QUANTITY: 01

ST7 TRAFFIC SIGN: ACCESSIBLE PARKING
Scale 1:20 @ A3
QUANTITY: 01 OF EACH SIGN

ST19 BICYCLE PARKING
Scale 1:20 @ A3
QUANTITY: 01

ST30 GIVE WAY
Scale 1:20 @ A3
QUANTITY: 01

SS31 NO ENTRY
Scale 1:20 @ A3
QUANTITY: 01

TP020 TRAFFIC SIGNS DETAILS
Scale 1:50 @ A3

NOTE: REFER TO SIGNAGE LOCATION DRAWING TP020 FOR TRAFFIC SIGNS LOCATION

AMENDED PLAN

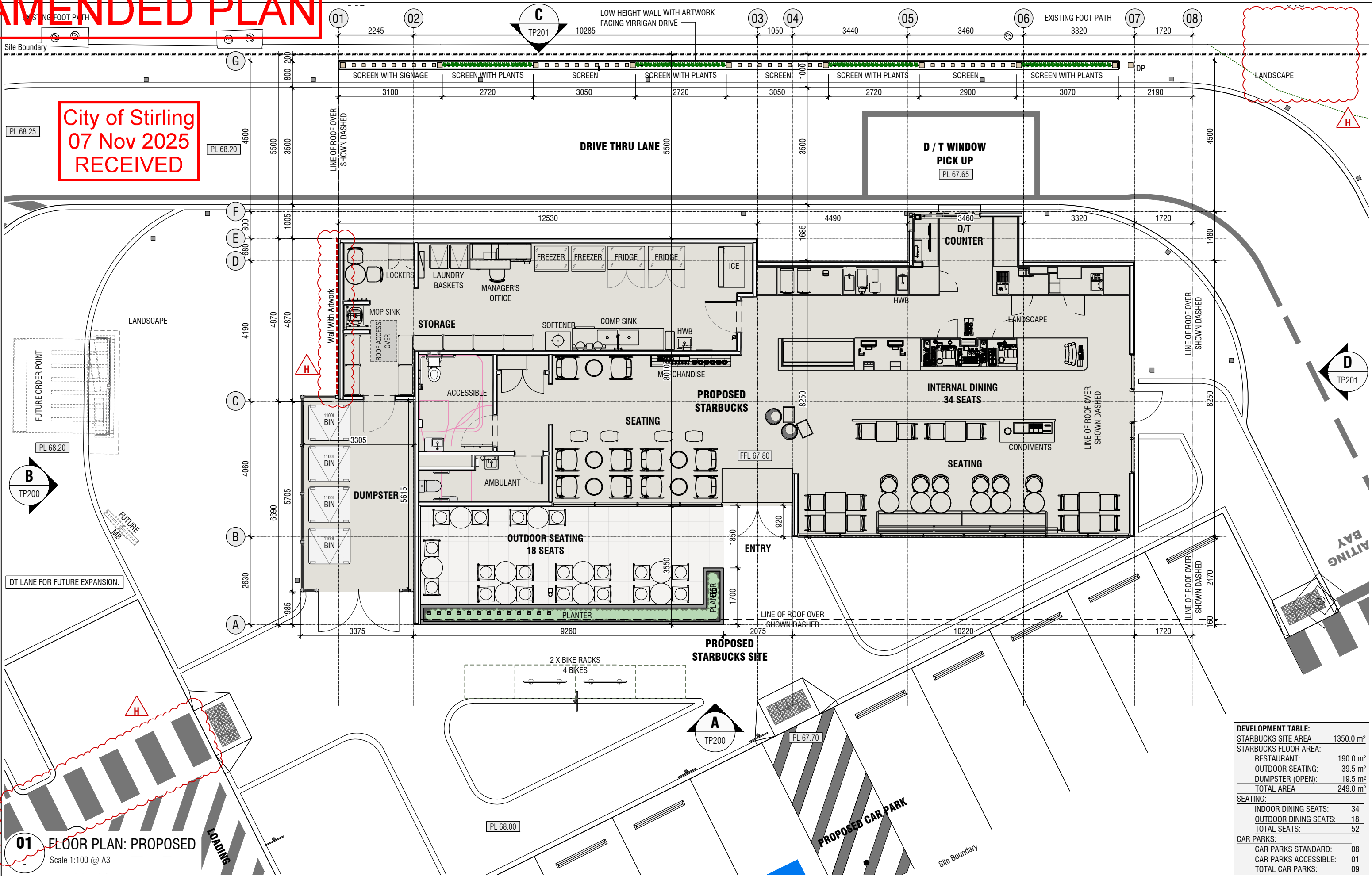
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☐ BA / CC ☐ TENDER																																																						
☐ CONSTRUCTION ☐ AS BUILT																																																						

Project Title					Stage	Drawing Scale	Plot Date	Option
STARBUCKS MIRRABOOKA SQUARE PROPOSED STARBUCKS AT: MIRRABOOKA SHOPPING CENTER 43 Yirrigan Drive, Mirrabooka WA 6061					TOWN PLANNING	As Shown	December 2024	
						Drawing Title	Drawn By	Store Number:
						SIGNAGE DETAILS: ORDER POINT CANOPY & TRAFFIC SIGNS		
					Project No.	Drawing No.	Revision	
					24015	TP023	D	

AMENDED PLAN

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07 Nov 2025
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DEVELOPMENT TABLE:	
STARBUCKS SITE AREA	1350.0 m ²
STARBUCKS FLOOR AREA:	
RESTAURANT:	190.0 m ²
OUTDOOR SEATING:	39.5 m ²
DUMPSTER (OPEN):	19.5 m ²
TOTAL AREA	249.0 m ²
SEATING:	
INDOOR DINING SEATS:	34
OUTDOOR DINING SEATS:	18
TOTAL SEATS:	52
CAR PARKS:	
CAR PARKS STANDARD:	08
CAR PARKS ACCESSIBLE:	01
TOTAL CAR PARKS:	09

Client
FAWKNER PROPERTY LTD
Level 8, 468 St. Kilda Road, Melbourne Vic 3004

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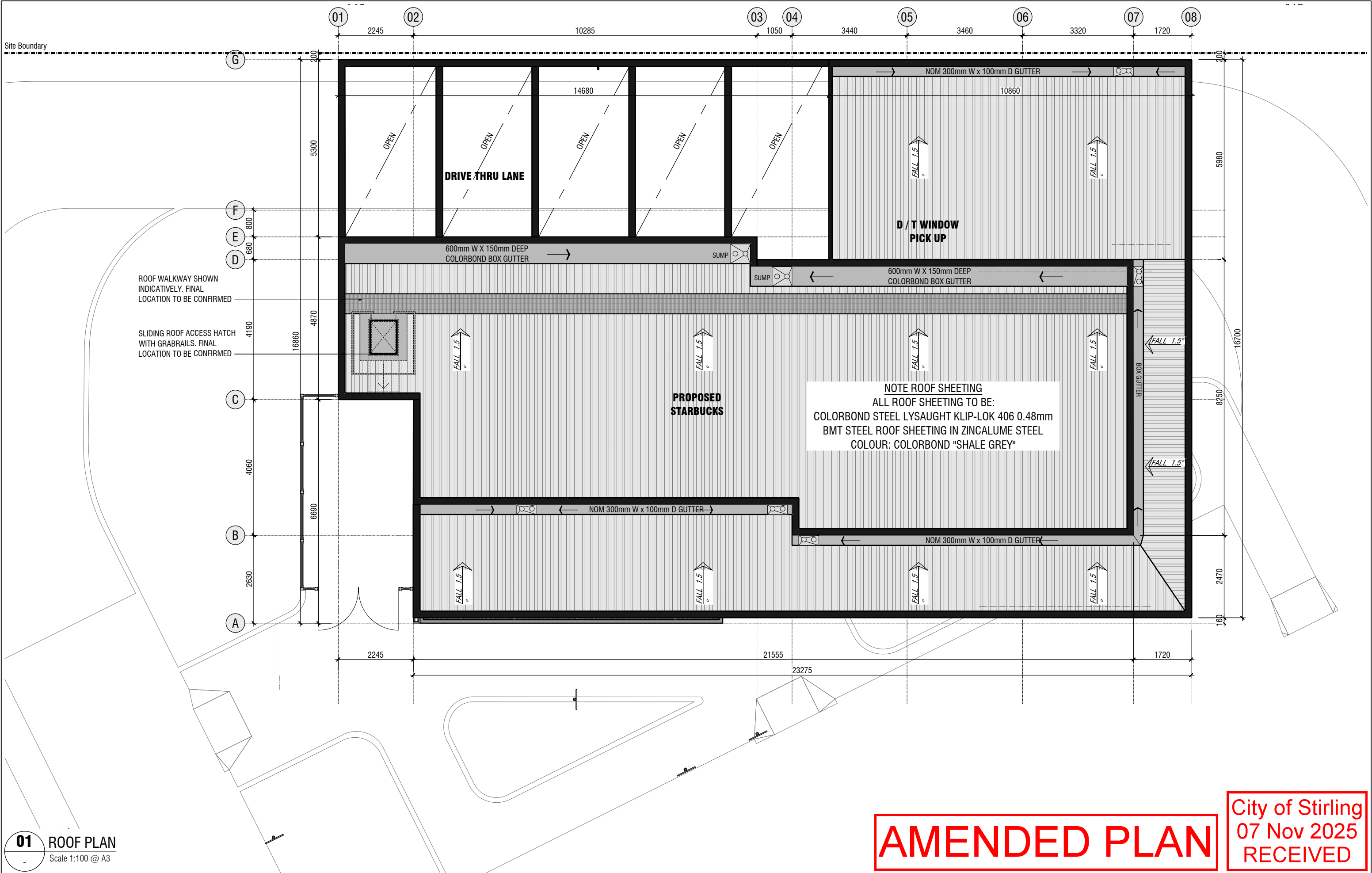


REV	AMENDMENT	BY	DATE	CHK
H	REVISIONS AS CLOUDED	LL	06.11.25	
G	HEIGHT OF PYLON SIGN UPDATED	EC	23.10.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING
Drawing Title
FLOOR PLAN: PROPOSED

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By	Store Number:	
LL	-	
Project No.	Drawing No.	Revision
24015	TP101	H



01 ROOF PLAN
Scale 1:100 @ A3

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07 Nov 2025
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Client
FAWKNER PROPERTY LTD

Level 8, 468 St. Kilda Road, Melbourne Vic 3004

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- ☐ SKETCH
- ☐ DESIGN APPROVAL
- ☒ TOWN PLANNING
- ☐ TOWN PLANNING AMENDED
- ☐ BA / CC
- ☐ CONSTRUCTION
- ☐ TENDER
- ☐ AS BUILT



REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION	LL	01.05.25	
C	GENERAL REVISION	LL	21.10.25	

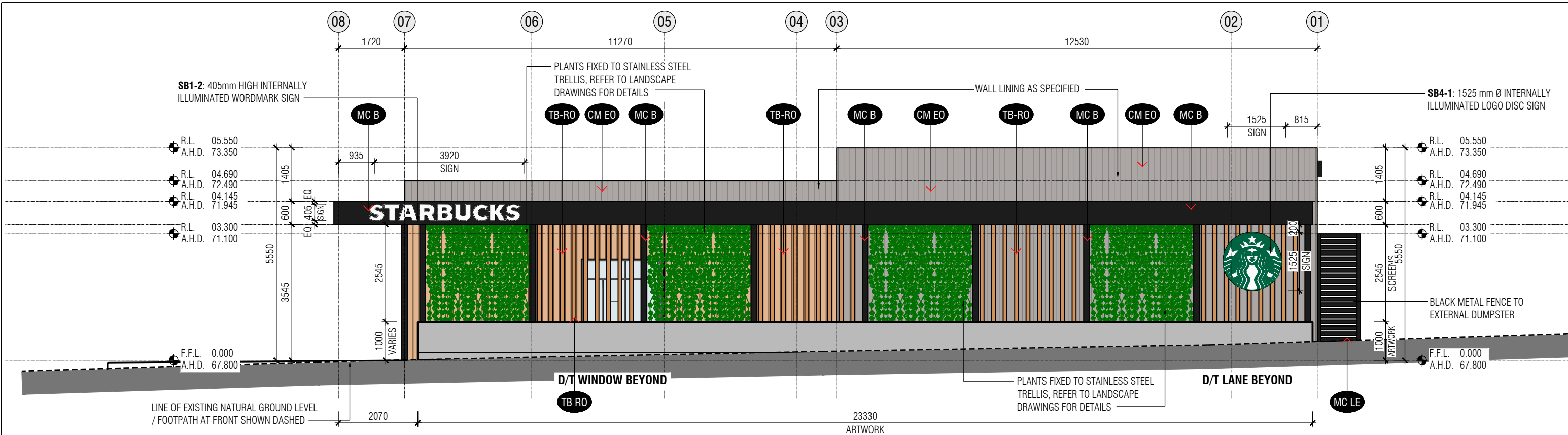
Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

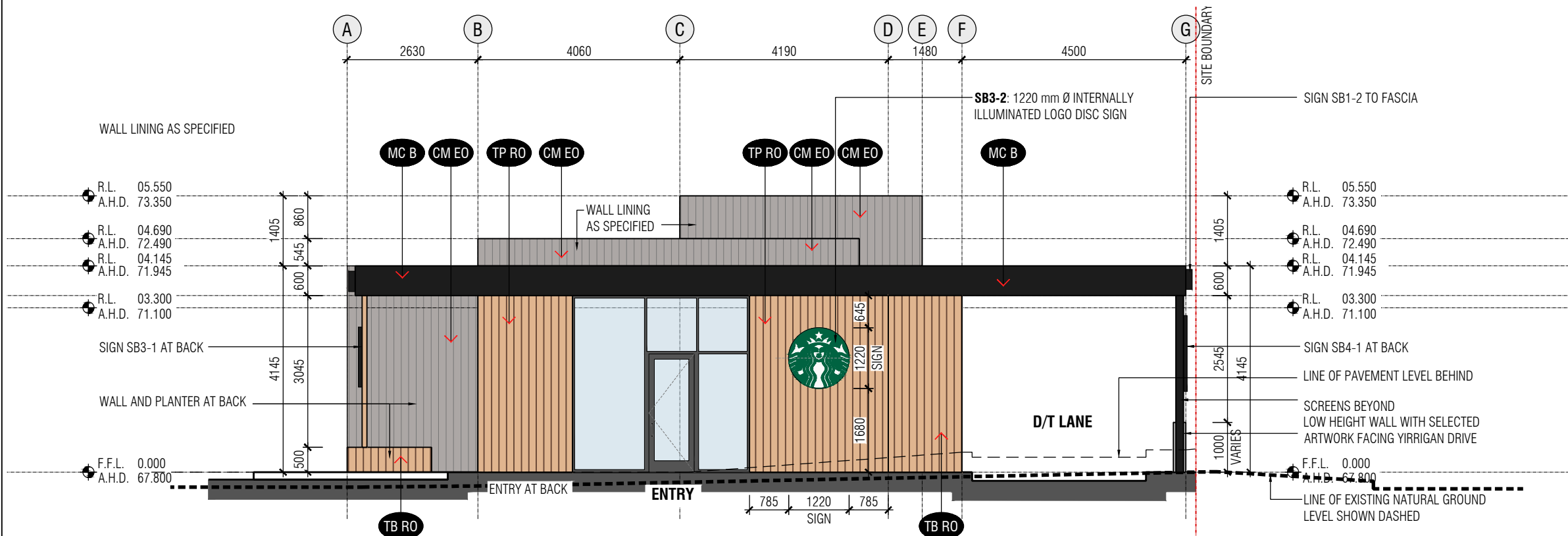
Stage
TOWN PLANNING

Drawing Title
ROOF PLAN: PROPOSED

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By LL	Store Number: -	
Project No. 24015	Drawing No. TP120	Revision C



C SOUTH ELEVATION
TP101 Scale 1:100 @ A3



D WEST ELEVATION
TP101 Scale 1:100 @ A3

EXTERNAL FINISHES SCHEDULE		
NOTE: TO BE CONFIRMED BY STARBUCKS DESIGN MANAGER		
CODE	SAMPLE	DESCRIPTION
CM-EO		VJ CLADDING WALL PANEL Brand: CEMINTEL Range: EDGE CLADDING OXFORD Colour: HAYMES CLOUDED ROCK
TP-RO		TIMBER LOOK ALUMINIUM PLANK Brand: KNOTWOOD Size: 150mm Colour: ROYAL OAK, MEDIUM TONE WD0068
TB-RO		TIMBER LOOK ALUMINIUM BATTENS Brand: KNOTWOOD Size: 100mm x 50mm Colour: ROYAL OAK, MEDIUM TONE WD0068
WT-10		EXTERIOR WALL TILE Brand: INTEGRA SURFACE Range: STONELAND WATTLE GREY Size: 300mm x 900mm HORIZONTAL STACK
MC-B		ALUMINIUM PANEL Brand: MONDOCLAD Supplier: HVG Colour: BLACK
MC-LE		METAL CLADDING Brand: COLORBOND Colour: ZEUS LUNAR ECLIPSE

AMENDED PLAN

City of Stirling
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Client FAWKNER PROPERTY LTD		Voda building services p.l. ABN 3287 146 2418 Suite 3, 668 Burwood Road Hawthorn East, Victoria. 3123. Tel: (03) 9805 8400 Fax: (03) 9805 8455 E-mail: voda@vodabs.com.au		NOTE: Check and verify all dimensions on site before commencement of any works &/or shop drawings. Any discrepancies should be reported to the architect. This Design and Drawing is Property of Voda Building Services Pty.Ltd. and may not be copied in any way in part or whole without written consent. © Design Copyright.		LEGEND ☐ SKETCH ☐ DESIGN APPROVAL ☒ TOWN PLANNING ☐ TOWN PLANNING AMENDED ☐ BA / CC ☐ CONSTRUCTION ☐ TENDER ☐ AS BUILT		REV AMENDMENT A TP ISSUE B GENERAL REVISION C COUNCIL'S RFI RESPONSE D GENERAL REVISION		BY DATE CHK LL 14.04.25 SB LL 01.05.25 EC 11/07/25 SB EC 21.10.25		Project Title STARBUCKS MIRRABOOKA SQUARE PROPOSED STARBUCKS AT: MIRRABOOKA SHOPPING CENTER 43 Yirrigan Drive, Mirrabooka WA 6061		Stage TOWN PLANNING Drawing Title BUILDING ELEVATIONS: SOUTH & WEST		Drawing Scale As Shown Plot Date December 2024 Store Number: - Project No. 24015 Drawing No. TP201 Revision D	
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STARBUCKS MIRRABOOKA

Project name

TOWN PLANNING APP. NOT FOR CONSTRUCTION

Status

43 YIRRIGAN DRIVE
MIRRABOOKA, WA 6061

Address

Fawcner Property Group Pty Ltd
LEVEL 8, 468 ST KILDA ROAD
MELBOURNE, VIC 3004

Client details

25.002

Project reference No.

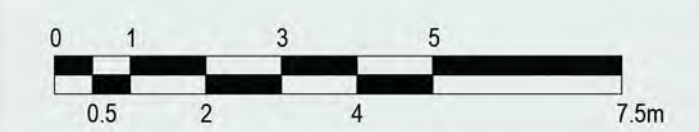
TOWN PLANNING APPLICATION	29.05.2025
TOWN PLANNING APPLICATION	30.05.2025
TOWN PLANNING APPLICATION	11.06.2025
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TOWN PLANNING APPLICATION	07.11.2025

Revision status

Revision date

WARNING:
BEWARE OF UNDERGROUND SERVICES.
THE LOCATIONS OF UNDERGROUND SERVICES
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WITH BEFORE YOU DIG AUSTRALIA (BYDA) IS
UNDERTAKEN.

CONTRACTOR TO VERIFY ALL DIMENSIONS ON
SITE COMMENCING WORK. REPORT ALL
DISCREPANCIES TO SUPERINTENDENT PRIOR TO
CONSTRUCTION. FIGURED DIMENSIONS TO BE
TAKEN IN PREFERENCE FROM SCALED
DRAWINGS.



Scale @A1: 1:100

Scale @A3: 1:200

LANDSCAPE PLAN

Drawing title

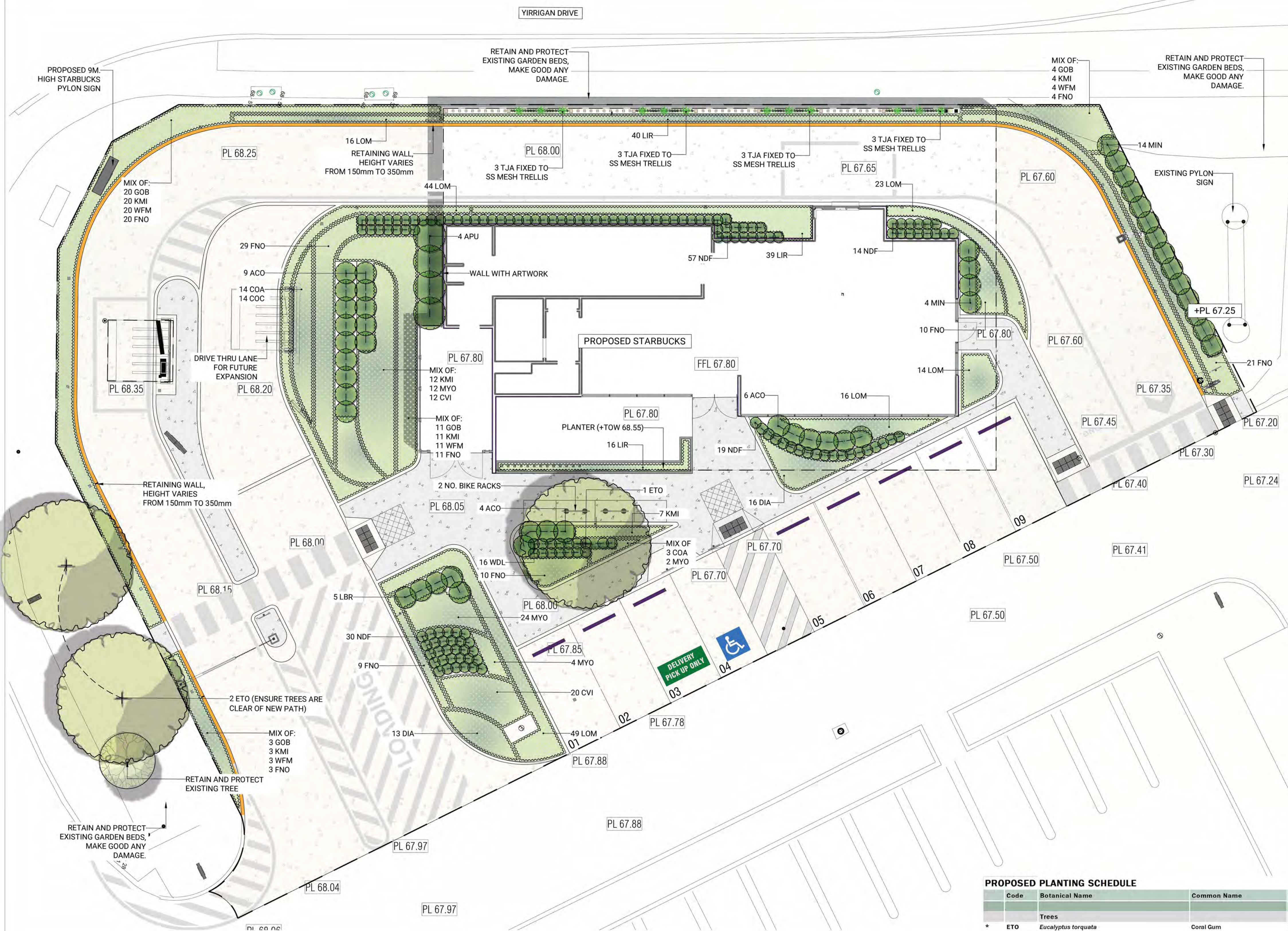
Project North

LCD_601

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Sheet No.

Revision No.



DEEP SOIL GARDEN BED PROVISION
THE TOTAL GARDEN BED (DEEP SOIL) AREA IS
273m², WHICH EQUATES TO APPROXIMATELY
20% OF THE TOTAL SITE AREA (1350m²).

PROPOSED PLANTING SCHEDULE

Code	Botanical Name	Common Name	Typical H x W (m)	Spacing	Installed Size	Caliper	Quantity
Trees							
* ETO	<i>Eucalyptus torquata</i>	Coral Gum	5.8 x 6	As shown	Refer note below**		3
Shrubs							
# LBR	<i>Leucophyta brownii</i>	Cushion Bush	1 x 1	As shown	100mm pot		5
# MIN	<i>Melaleuca incana nana</i>	Dwarf Grey Honey Myrtle	1 x 1	As shown	100mm pot		18
# WDL	<i>Westringia dampieri</i> low form	Westringia	0.5 x 0.5	As shown	100mm pot		16
# ACO	<i>Acacia cognata</i> 'Limelight'	Limelight Wattle	0.6 x 1	As shown	100mm pot		19
# NDF	<i>Nandina domestica</i> 'Flirt'	Nandina Flirt	0.6 x 0.6	As shown	100mm pot		120
& APU	<i>Acacia pulchella</i>	Prickly Moses Wattle	1.5 x 2	As shown	100mm pot		4
Grasses / tufting							
# COA	<i>Conostylis aurea</i>	Golden Conostylis	0.4 x 0.3	4 per m2	100mm pot		17
# COC	<i>Conostylis candicans</i>	Grey Cottonheads	0.3 x 0.3	4 per m2	100mm pot		14
# FNO	<i>Ficinia nodosa</i>	Knotted Clubrush	0.75 x 0.75	3 per m2	100mm pot		117
# DIA	<i>Dianella</i> 'Little Jess'	Dianella Little Jess	0.4 x 0.4	4 per m2	100mm pot		29
# LOM	<i>Lomandra</i> 'Tanika'	Mat-rush Tanika	0.6 x 0.6	4 per m2	100mm pot		162
# LIR	<i>Liriope muscari</i>	Liriope muscari	0.4 x 0.4	4 per m2	100mm pot		95
Groundcovers							
# CVI	<i>Carpobrotus virescens</i>	Coastal Pig Face	<0.5 x 1	3 per m2	100mm pot		32
# GOB	<i>Grevillea obtusifolia</i> 'Gingin gem'	Grevillea 'Gingin gem'	0.25 x 3	3 per m2	100mm pot		38
# WFM	<i>Westringia fruticosa</i> 'Mundi'	Westringia hybrid 'Mundi'	0.4 x 1.5	3 per m2	100mm pot		38
# KMI	<i>Kennedia microphylla</i>	Kennedia microphylla	<0.5 x 2	3 per m2	100mm pot		57
# MYO	<i>Myoporum parvifolium</i>	Creeping Boobialla	<0.5 x 2	3 per m2	100mm pot		42
Climbers							
TJA	<i>Trachelospermum jasminoides</i>	Chinese Star Jasmine	Climber	As shown	100mm pot		12
#Verge Treatment Guidelines - City of Stirling (August 2022)							
#Grow Local Plants - City of Stirling (2013)							
*Trees and Development (LP Scheme No.3)							
**All trees are required to be sourced in a 90 litre container or greater size and which is at least 2 metres in height and at least 2 years of age							

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LANDSCAPE NOTES

TRAFFIC MANAGEMENT NOTE:

PRIOR TO THE COMMENCEMENT OF WORKS A TRAFFIC MANAGEMENT PLAN MAY BE REQUIRED TO BE SUBMITTED TO COUNCIL IN ACCORDANCE WITH THE 'TRAFFIC MANAGEMENT ACT 2004' & SECTION 99A 'ROAD SAFETY ACT 1986'. VERIFY REQUIREMENTS WITH THE PROJECT MANAGER.

SECURING THE SITE NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARLY DEFINING THE WORKS AREA AT ALL TIMES WITH BARRIERS AND TEMPORARY FENCES TO AVOID ANY RISK TO THE PUBLIC OR WORKERS. THE CONTRACTOR SHALL PROVIDE, SET UP, OPERATE, MAINTAIN AND REMOVE ALL NECESSARY WARNING LIGHTS AND BARRIERS AND TEMPORARY DEVICES TO PROTECT THE PUBLIC, WORKMEN, PLANT AND EQUIPMENT, AND THE WORKS. ALL WARNING AND TEMPORARY DEVICES SHALL BE SET UP AND MAINTAINED IN ACCORDANCE WITH AS 1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PART 1 & 3 AND THE APPROVAL OF THE RELEVANT AUTHORITIES.

ALLOW TO TEMPORARILY FENCE THE FULL EXTENT OF THE RESERVE AS SHOWN ON THE PLANS, UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT.

THE LANDSCAPE MAINTENANCE PLAN PROVIDE BELOW IS TYPICAL AND STATES THE GENERAL EXPECTED MAINTENANCE TASKS REQUIRED TO ENSURE THE ONGOING SUCCESS OF THE LANDSCAPE OUTCOME.

1. LANDSCAPE MAINTENANCE PROGRAM

MAINTENANCE SHALL MEAN THE CARE AND MAINTENANCE OF THE LANDSCAPE WORKS BY ACCEPTED HORTICULTURAL PRACTICE AS RECTIFYING ANY DEFECTS THAT BECOME APPARENT IN THE LANDSCAPE WORKS UNDER NORMAL USE. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, WATERING, MOWING, FERTILISING, RESEEDING, RETURFING, WEEDING, PEST AND DISEASE CONTROL, STAKING AND TYING, REPLANTING, CULTIVATION, PRUNING, AERATING, RENOVATING, TOP DRESSING, MAINTAINING THE SITE IN A NEAT AND TIDY CONDITION AS FOLLOWS.

2. GENERAL

THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE WORKS FOR THE TERM OF THE MAINTENANCE (OR PLANT ESTABLISHMENT) PERIOD TO THE SATISFACTION OF THE COUNCIL. THE LANDSCAPE CONTRACTOR SHALL ATTEND TO THE SITE ON A WEEKLY BASIS. THE MAINTENANCE PERIOD SHALL COMMENCE AT PRACTICAL COMPLETION AND CONTINUE FOR A PERIOD OF FIFTY TWO (52) WEEKS.

3. WATERING

GRASS, TREES AND GARDEN AREAS SHALL BE WATERED REGULARLY SO AS TO ENSURE CONTINUOUS HEALTHY GROWTH.

4. RUBBISH REMOVAL

DURING THE TERM OF THE MAINTENANCE PERIOD THE LANDSCAPE CONTRACTOR SHALL REMOVE RUBBISH THAT MAY OCCUR AND REOCCUR THROUGHOUT THE MAINTENANCE PERIOD. THIS WORK SHALL BE CARRIED OUT REGULARLY SO THAT AT WEEKLY INTERVALS THE AREA MAY BE OBSERVED IN A COMPLETELY CLEAN AND TIDY CONDITION.

5. REPLACEMENTS

THE LANDSCAPE CONTRACTOR SHALL REPLACE ALL PLANTS THAT ARE MISSING, UNHEALTHY OR DEAD AT THE LANDSCAPE CONTRACTOR'S COST. REPLACEMENTS SHALL BE OF THE SAME SIZE, QUALITY AND SPECIES AS THE PLANT THAT HAS FAILED UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACEMENTS SHALL BE MADE ON A CONTINUING BASIS NOT EXCEEDING TWO (2) WEEKS AFTER THE PLANT HAS DIED OR IS SEEN TO BE MISSING.

6. STAKES AND TIES

THE LANDSCAPE CONTRACTOR SHALL REPLACE OR ADJUST PLANT STAKES AND TREE GUARDS AS NECESSARY OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. REMOVE STAKES AND TIES AT THE END OF THE MAINTENANCE PERIOD IF SO DIRECTED.

7. PRUNING

TREES AND SHRUBS SHALL BE PRUNED AS DIRECTED BY THE LANDSCAPE ARCHITECT. PRUNING WILL BE DIRECTED AT THE MAINTENANCE OF THE DENSE FOLIAGE OR MISCELLANEOUS PRUNING AND BENEFICIAL TO THE CONDITION OF THE PLANTS. ANY DAMAGED GROWTH SHALL BE PRUNED. ALL PRUNED MATERIAL SHALL BE REMOVED FROM THE SITE.

8. MULCHED SURFACES

ALL MULCHED SURFACES SHALL BE MAINTAINED IN A CLEAN AND TIDY CONDITION AND BE REINSTATED IF NECESSARY TO ENSURE THAT A DEPTH OF 75MM IS MAINTAINED. ENSURE MULCH IS KEPT CLEAR OF PLANT STEMS AT ALL TIMES.

9. PEST AND DISEASED CONTROL

THE LANDSCAPE CONTRACTOR SHALL SPRAY AGAINST INSECT AND FUNGUS INFESTATION WITH ALL SPRAYING TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. REPORT ALL INSTANCES OF PESTS AND DISEASES (IMMEDIATELY THAT THEY ARE DETECTED) TO THE LANDSCAPE ARCHITECT.

10. GRASS AND TURF AREAS

THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL GRASS AND TURF AREAS BY WATERING, WEEDING, DRESSING, ROLLING, MOWING, TRIMMING OR OTHER OPERATIONS AS NECESSARY. SEED AND TURF SPECIES SHALL BE THE SAME AS THE ORIGINAL SPECIFIED MIXTURE. GRASS AND TURF AREAS SHALL BE SPRAYED WITH APPROVED SELECTIVE HERBICIDE AGAINST BROAD LEAFED WEEDS AS REQUIRED BY THE LANDSCAPE ARCHITECT AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. GRASS AND TURF AREAS SHALL BE FERTILISED ONCE A YEAR IN AUTUMN WITH "DYNAMIC LIFTER" FOR LAWNS AT A RATE OF 20KG PER 100M2. FERTILISER SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. IRREGULARITIES IN THE GRASS AND TURF SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. GRASS AND TURF AREAS SHALL BE KEPT MOWN TO MAINTAIN A HEALTHY AND VIGOROUS SWARD. MOWING HEIGHT: 30-50MM.

11. WEED ERADICATION

ERADICATE WEEDS BY ENVIRONMENTALLY ACCEPTABLE METHODS USING A NON-RESIDUAL GLYPHOSATE HERBICIDE (EG. 'ROUNDUP') IN ANY OF ITS REGISTERED FORMULAE, AT THE RECOMMENDED MAXIMUM RATE. REGULARLY REMOVE BY HAND, WEED GROWTH THAT MAY OCCUR OR RECUR THROUGHOUT GRASSED, PLANTED AND MULCHED AREAS. REMOVE WEED GROWTH FROM AN AREA 750MM DIAMETER AROUND THE BASE OF TREES IN GRASSED AREAS. CONTINUE ERADICATION THROUGHOUT THE COURSE OF THE WORKS AND DURING THE MAINTENANCE PERIOD.

12. SOIL SUBSIDENCE

ANY SOIL SUBSIDENCE OR EROSION WHICH MAY OCCUR AFTER THE SOIL FILLING AND PREPARATION OPERATIONS SHALL BE MADE GOOD BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE CLIENT.

SITE LOCATION

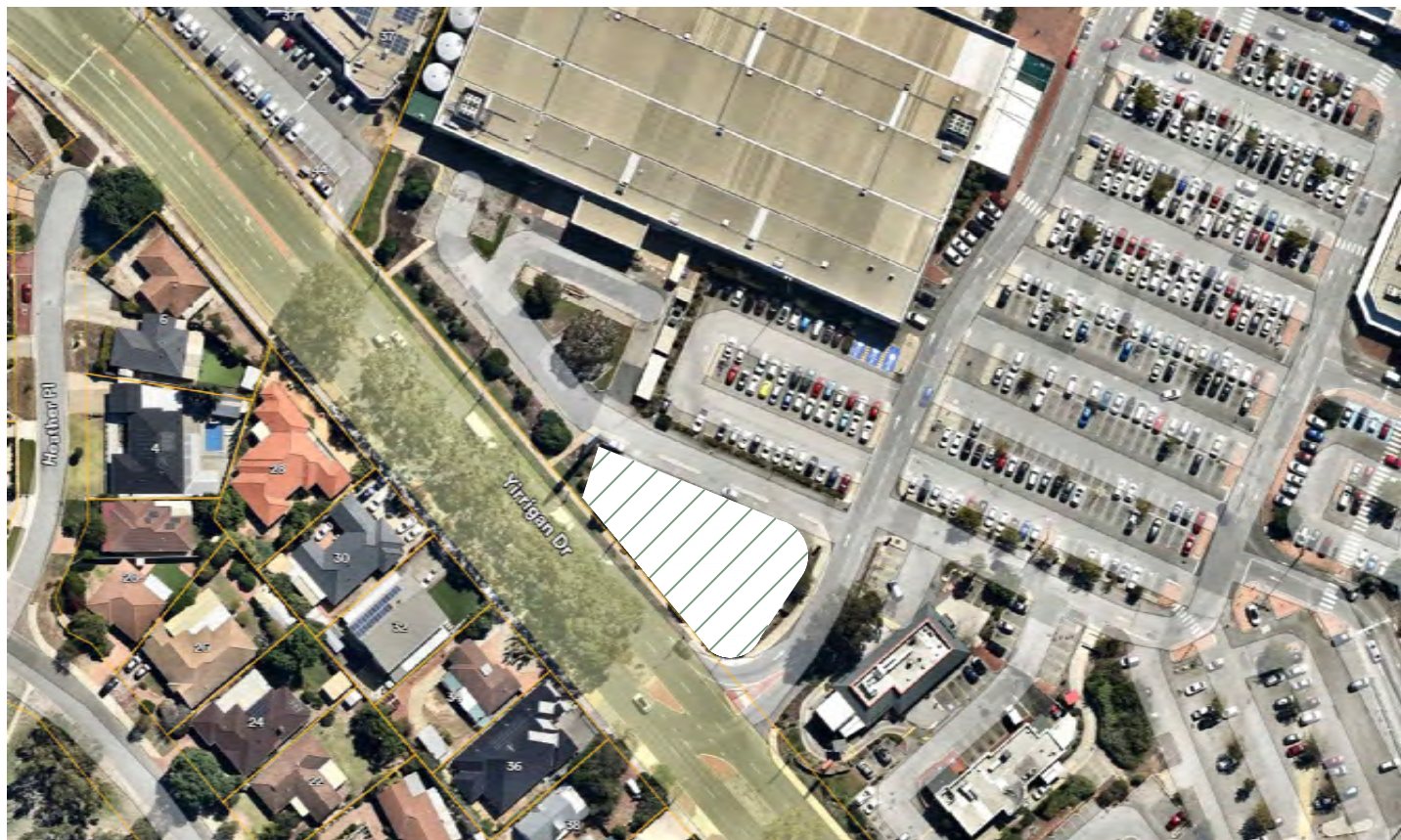


IMAGE SOURCE: NEARMAPS (SUBJECT SITE IN GREEN)

STARBUCKS MIRRABOOKA

Project name

TOWN PLANNING APP.
NOT FOR CONSTRUCTION

Status

43 YIRRIGAN DRIVE
MIRRABOOKA, WA 6061

Address

Fawkner Property Group Pty Ltd
LEVEL 8, 468 ST KILDA ROAD
MELBOURNE, VIC 3004

Client details

25.002
Project reference No.

⚠ TOWN PLANNING APPLICATION	29.05.2025
⚠ TOWN PLANNING APPLICATION	30.05.2025
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Revision status

Revision date

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Scale @A1: NA
Scale @A3: NA

GENERAL NOTES

Drawing title

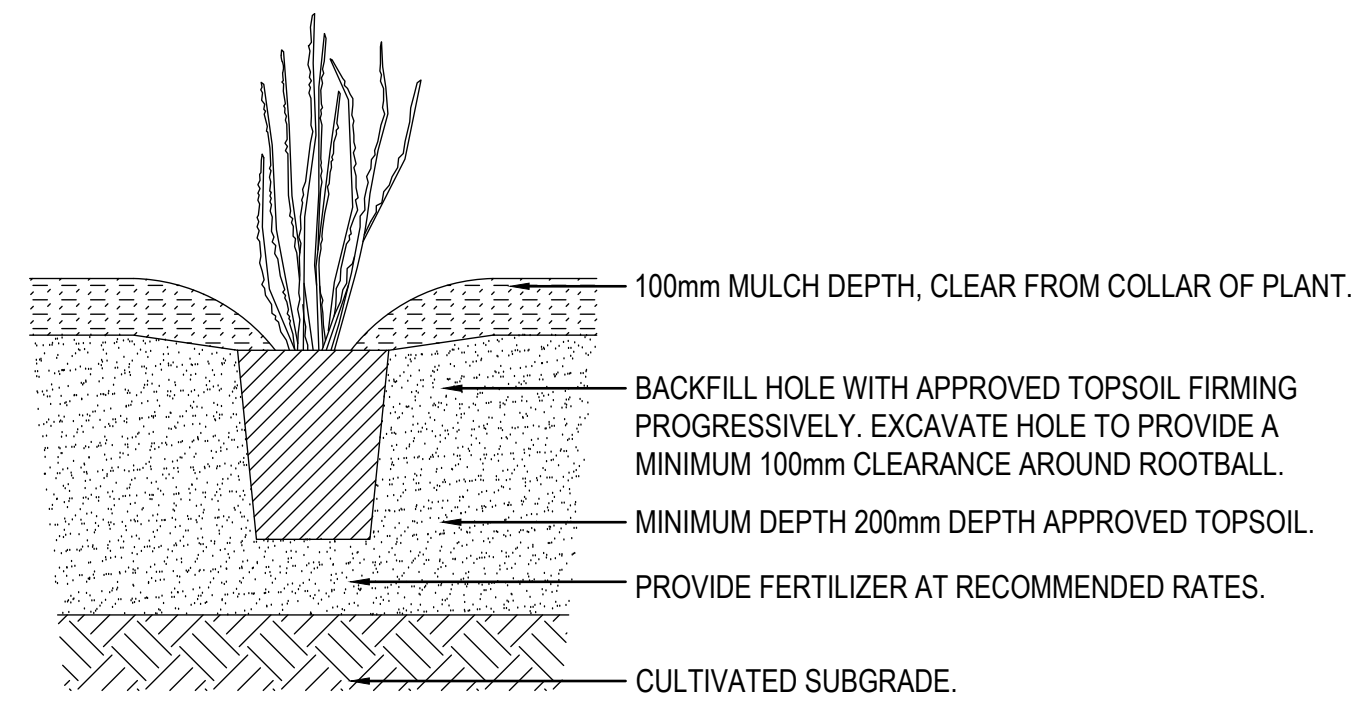
Project North

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Sheet No.

Revision No.



SCALE 1:20 @ A1



SCALE 1:10 @ A1

vision No.

Attachment 2 – Aerial Location Plan

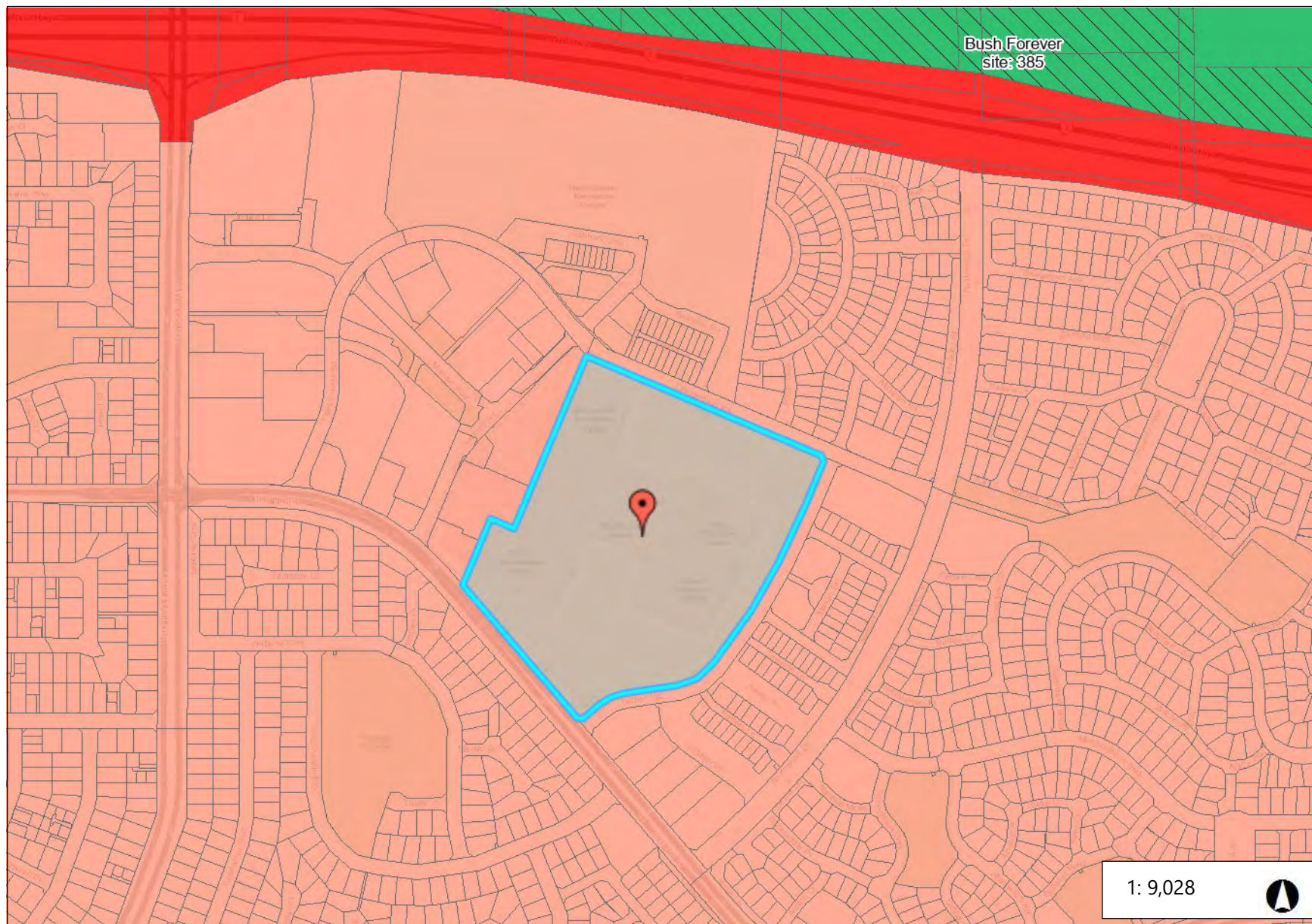


Lot 500
(Mirrabooka Shopping Centre)

Attachment 2 - Aerial Location Plan

Attachment 3 – Metropolitan Region Scheme Zoning Map

Attachment 3 - Metropolitan Region Scheme Zoning Map



Legend

-  Cadastre
-  Region Scheme Boundary
-  Region Scheme Bush Forever Areas

Region Scheme Zones and Reserves

-  Primary regional roads
-  Regional open space
-  Urban

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Notes

0.5 0 0.23 0.5 Kilometers

Date produced: 24-Nov-2025

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



Attachment 5 – Applicant's Planning Reports received 24 July 2025

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Development Application Report

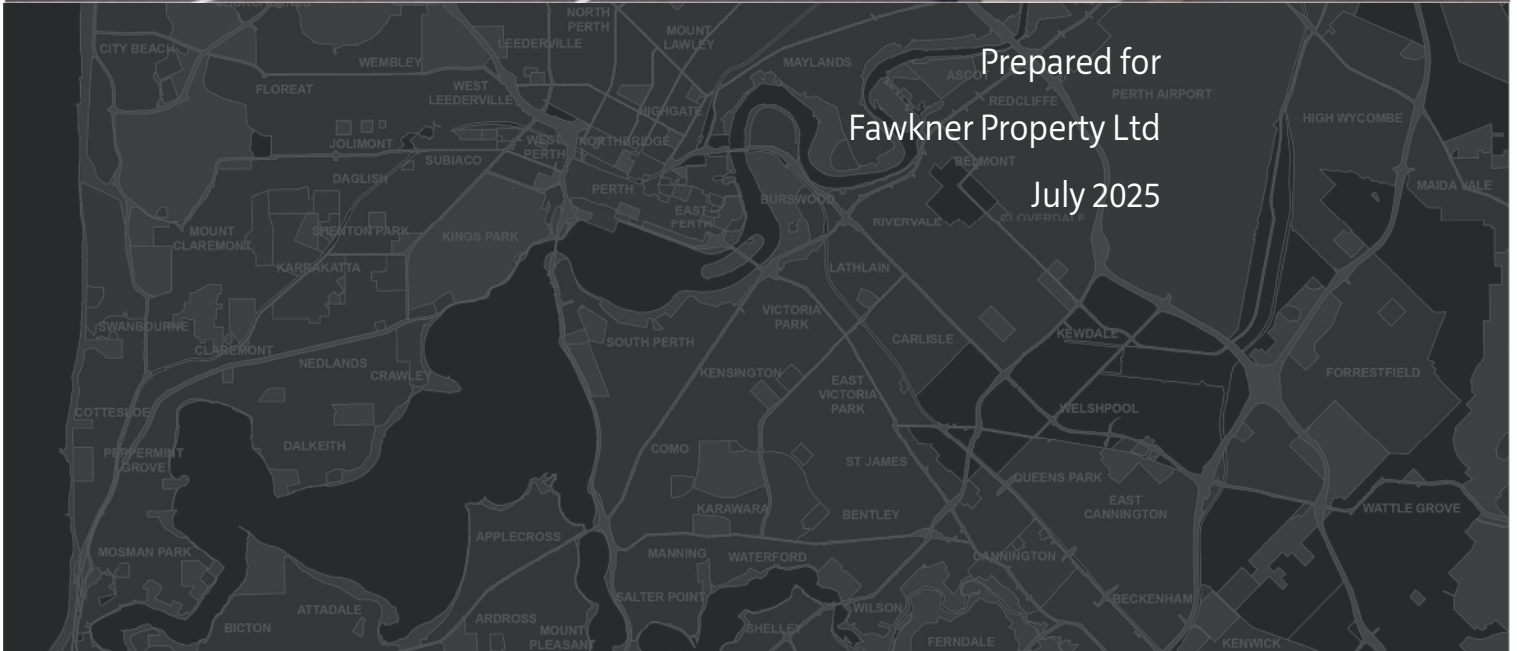
Proposed Starbucks Coffee Outlet

Lot 500 (43) Yirrigan Drive, Mirrabooka



Prepared for
Fawkner Property Ltd

July 2025



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- the Client's implementation, or application, of the strategies recommended in this report.

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Project Details

Job number	9348	
Client	Fawkner Property Ltd	
Prepared by	Planning Solutions	
Consultant Team	Town Planning Drafting and Design Traffic Engineering Acoustic Engineering Waste Management Lighting Landscape Architecture	Planning Solutions VodA Building Services Transcore Lloyd George Acoustics WGA Rubidium Light Brendon Burke Landscape Architecture

Document Control

Revision number	File name	Document date	Prepared by	Checked by
Rev 0	250623 9348 DA Report - Starbucks Mirrabooka	23 June 2025	OM	JH/MR
Rev 1	250724 9348 DA Report - Starbucks Mirrabooka	24 July 2025	JH	

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Appendix 2: Development plans
Appendix 3: Transport Impact Assessment
Appendix 4: Waste Management Plan
Appendix 5: Environmental Noise Assessment
Appendix 6: Lighting Assessment
Appendix 7: Landscaping Plan

1 PRELIMINARY

1.1 Introduction

Planning Solutions acts on behalf of Fawkner Property Ltd, the registered proprietor of the Square Mirrabooka Shopping Centre at Lot 500 (43) Yirrigan Drive, Mirrabooka (**subject site**). This application seeks approval for the use and development of a Starbucks Coffee Outlet on the subject site. The application includes associated signage, landscaping, parking and access arrangements.

The proposed development is located in the southern portion of subject site as depicted in the development plans. For the purposes of clarity and readability of this report, the location of the proposed development is referred to as the 'development area' herein.

Planning Solutions has prepared the following report in support of an application for development approval. This report will discuss various matters pertinent to the proposal, including:

- Background
- Site details.
- Proposed development.
- Statutory planning framework.

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The proposed development is located in the southern portion of subject site as depicted in the development plans. For the purposes of clarity and readability of this report, the location of the proposed development is referred to as the 'development area' herein.

The proposed development is appropriately situated within an existing activity centre in proximity to established drive through food businesses, and will complement the retail, goods and convenience offerings in the area.

Planning Solutions respectfully requests that the Development Assessment Panel (**DAP**) grant approval to the development application.

1.2 Pre-lodgement consultation

Representatives from Fawkner Property Ltd and Planning Solutions have undertaken pre-lodgement consultation with the City of Stirling (**City**) to discuss the development proposal, obtain feedback on various concept plans, and confirm matters to be addressed through the development application. The feedback provided by the City has been taken into consideration in the development plans submitted with this application, where applicable.

2 SITE DETAILS

2.1 Land description

Refer to **Table 1** below for the lot details and a description of the subject site.

Table 1 – Lot details

Lot	Diagram	Volume	Folio	Area (m ²)
500	77681	1878	744	136,015

The development is proposed in the southern portion of the subject site, fronting Yirrigan Drive. Refer to **Figure 1** below for an aerial image illustrating the location of the development area within the subject site.



Figure 1 – Aerial image of the subject site showing the development area

Refer **Appendix 1** for a copy of the Certificate of Title and Diagram.

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2.2 Location

2.2.1 Regional context

The subject site is located in the City of Stirling (**City**) in the suburb of Mirrabooka, approximately 9 km north of the Perth city centre. The subject site is within the Mirrabooka Activity Centre, which is classified as a Secondary Centre under *State Planning Policy 4.2 – Activity Centres*. The subject site is in close proximity to Reid Highway and Mirrabooka Avenue, which connect the subject site to the wider metropolitan region.

2.2.2 Local context, land use and topography

The subject site contains The Square Mirrabooka shopping centre, which is a substantial land parcel bound by Chesterfield Road to the north, Yirrigan Road to the south, Farrier Road to the east and various other commercial sites to the west. Refer to **Figure 1** above for an aerial photograph depicting the subject site, development area and surrounds.

The proposed development area is located in the south east of the subject site, with a frontage to Yirrigan Drive. The development area currently comprises a hardstand car parking area.

The development area can only be accessed by vehicles via an internal road from the north which connects to Yirrigan Drive in the east. This internal road also provides access to the Big W loading dock to the north and therefore must be kept trafficable for service vehicles accessing this dock.

3 PROPOSED DEVELOPMENT

3.1 Development Summary

This development application seeks approval for the use and development of a Starbucks fast food outlet at the subject site. The development proposes a well-designed retail building, as well as associated drive through, access, car parking, signage and landscaping.

The proposal will increase food and beverage options for patrons of the shopping centre as well as residents of the local community. The proposed indoor and alfresco seating areas offer the opportunity for patrons to dine-in in a variety of settings.

In summary, the proposed development comprises:

- A Starbucks Coffee Outlet, comprising 271m² gross floor area (GFA).
- An alfresco dining area along the northern side of the building.
- An enclosed waste and servicing area on the eastern side of the building, with an adjacent loading bay for service vehicles.
- A single lane wrap-around drive-through with ordering menus and speaker boxes located along the eastern side of the building.
- A drive-through pay/pick-up window along the southern side of the retail building.
- Various business identification signage associated with Starbucks, including a 10m pylon sign in the southwest of development area.
- 8 formal car parking bays for customers and staff, including one universal access bay.

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The Starbucks Coffee Outlet is proposed to operate 24 hours, 7 days per week. The proposed staffing numbers are estimated to be a minimum of 3 staff and maximum 6 staff at any one time. The maximum number of customers that can be seated at any one time in the coffee outlet is 68 people, as detailed in the Development Plans at **Appendix 2**.

3.2 Built form

The proposed Starbucks building has been designed in response to the site constraints and operational requirements of a drive through business. The proposal achieve a modern and attractive built form and landscape design that presents well to the street, improving the relationship between the shopping centre and Yirrigan Drive. In doing so, the proposal provides a more active use towards Yirrigan Drive, in place of the existing hardstand car park.

Yirrigan Drive is identified as having a lower priority active frontage with excessive traffic noise and large traffic volumes that does not create a desirable, pedestrian friendly environment. The proposal has also been designed in response to this through the use of various materials, tones, façade treatments and setbacks in place of substantial glazing. Coupled with a specific landscape design, this creates a visually pleasing building, and a modern take on a fast food outlet design.

The proposal has also been designed to ensure it is accessible to pedestrians from the street. The site layout links up to with the existing pedestrian footpath to the immediate west of the development area, allowing dine-in customers to access the site directly from Yirrigan Drive.

The proposed built form and layout is discussed in detail at **Section 4.4.3** of this report.

Excerpts of the proposed building elevations are shown at **Figure 2 to Figure 5** below and the Development Plans at Appendix 2.



Figure 2: Northern elevation

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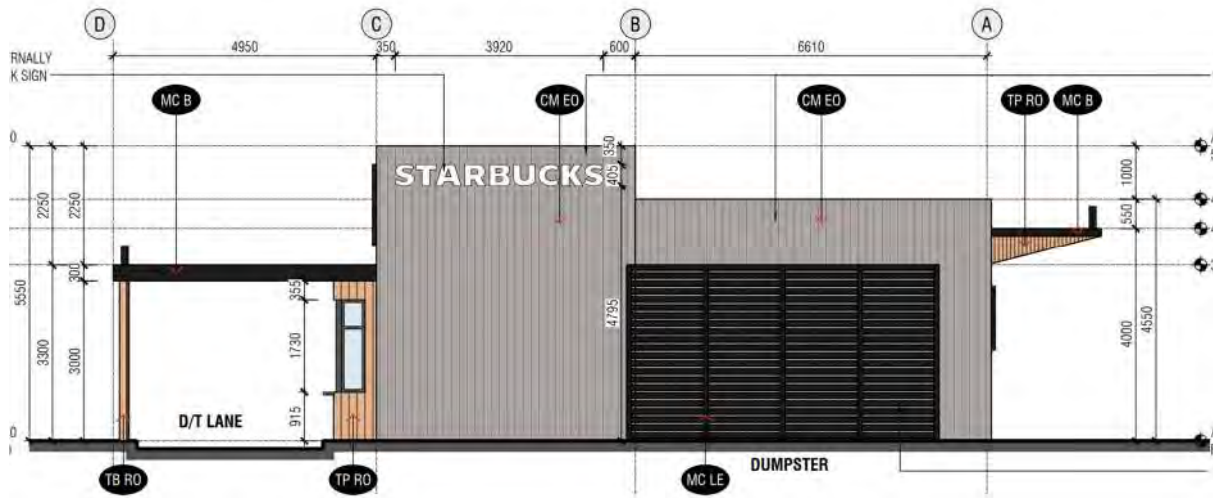


Figure 3: Eastern elevation

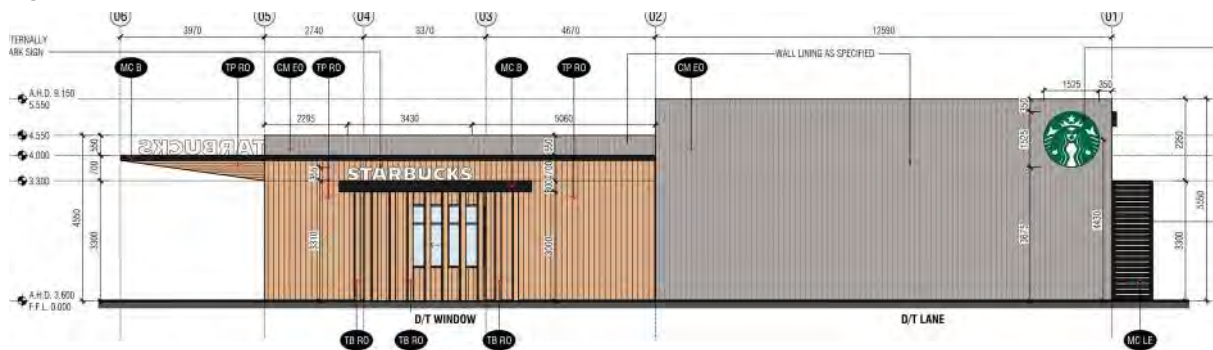


Figure 4: Southern elevation

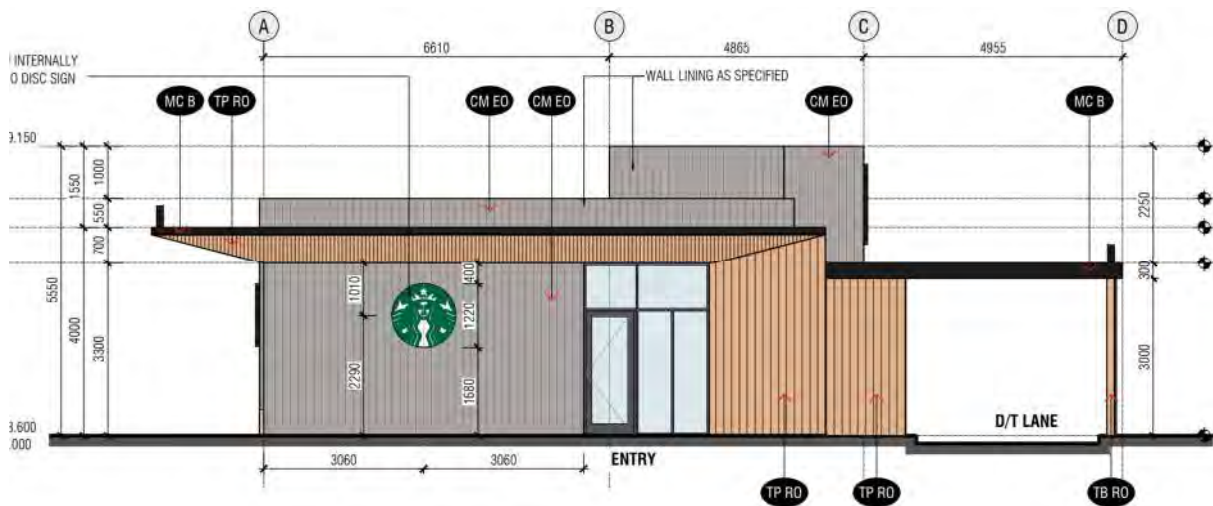


Figure 5: Western elevation

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3.3 Access, Traffic, Parking

Vehicular access to the development area will be via the existing the internal road connected to Yirrigan Drive.

The proposed drive through is an integral component to the proposed Starbucks Coffee Outlet as it conveniently serves coffee and food to customers without the need to exit their vehicle. Given the limited development area, the drive-through facility is proposed to wrap around the Starbucks building. Vehicles will travel through the drive through in a clockwise direction and enter and exit the development area using the existing internal road.

The proposed development incorporates 8 parking bays, including one accessible bay and an additional 11 bays within the drive-through lane.

The proposal is supported by a Transport Impact Assessment (TIA), which concludes that the surrounding road network has sufficient capacity to accommodate the traffic generated by the development.

Refer to **Appendix 3** for a copy of the TIA.

3.4 Landscaping

The proposed development will incorporate landscaping along the boundaries of the development site and within landscaping beds surrounding the proposed coffee outlet building. Substantial landscaping is provided, which is concentrated in areas which provide the greatest amenity benefit, being along the Yirrigan Drive frontage and adjacent to the internal road. The proposed development provides two advanced trees in the northwest corner of the development area, with an additional tree to the east of the development area being retained.

Refer **Appendix 7** for a copy of the landscaping concept plan.

3.5 Noise Management

Noise from the development will be largely associated with car idling in the proposed drive through, mechanical plant and delivery trucks. However, given the nature of the site, its location in an existing shopping centre and considerable distanced from the residential area to the south of Yirrigan Drive, no adverse impacts are anticipated.

The Environmental Noise Assessment prepared by Lloyd George Acoustics confirms the proposed development and operations will comply with the *Environmental Protection (Noise) Regulations 1997*, with no adverse noise impacts on residential area to the south and no mitigation measures required.

Refer to **Appendix 5** for the Noise Assessment.

3.6 Waste and servicing

Deliveries and waste collection will be undertaken on the eastern side of the building, within the dedicated loading area shown on the development plans. A 12.5m service vehicle will access the site. Service and waste collection vehicles will access the site outside the peak operating hours of the business, resulting in minimal conflicts between customers and service vehicles.

Refer to **Appendix 4** for a copy of the Waste Management Plan prepared in support of the proposed development.

3.7 Signage

The proposal incorporates a variety of illuminated and non-illuminated signage types as detailed on the development plans. Signage includes wordmark and logo signs, as well as one 10m pylon sign, and various directional and wayfinding signage.

All signage comprises high quality advertising sign panels that complement the architectural style and design of the building. The signage is consistent with Starbucks' corporate branding implemented across Australia.

Refer **Section 4.5.3** for the signage assessment.

3.8 Lighting

The proposed development proposes lighting that ensures adequate surveillance and safety at the site.

The Lighting Impact Assessment prepared in support of the proposed development, concludes the proposed development is compliant with the relevant Australian Standards in regard to lighting.

Refer to **Appendix 6** for a copy of the Lighting Impact Assessment prepared by Rubidium Light.

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4 STATUTORY PLANNING FRAMEWORK

4.1 Metropolitan Region Scheme

Under the provisions of the Metropolitan Region Scheme (MRS), the subject site is zoned Urban. The proposed development is consistent with the intent of the Urban zone and may be approved accordingly. The subject site is not affected by land reserved by the MRS.

4.2 City of Stirling Local Planning Scheme No. 3

The City of Stirling *Local Planning Scheme No. 3* (LPS3) applies to the subject site.

4.2.1 Zoning

The subject site is zoned Mixed Use under the provisions of LPS3. The objective of the Mixed Use zone under LPS3 is:

- a) *To provide for a wide variety of active uses on the street level that contribute to a vibrant and active street which are compatible with residential and other non-active uses on upper levels.*
- b) *To facilitate the creation of employment within the area so as to reduce the demand for travel and enhance the level of self-sufficiency.*
- c) *To ensure a high standard of design that negates issues such as noise, smell and vibration that are related to mixed use developments.*

The proposed use is consistent with the objectives of the Mixed Use zone as it will provide a use offering food and coffee in proximity to an established shopping centre. By doing so, the proposal will increase the takeaway and dine-in options for patrons of shopping centre as well as residents of the local community, whilst also providing new employment opportunities.

Further, the proposed development will incorporate a modern and attractive built form and landscape design that improves the relationship between the shopping centre and Yirrigan Drive.

Noise, waste and traffic impacts are addressed through design approaches and expert reporting, as demonstrated throughout this report.

4.2.2 Land use permissibility

The proposed use and development is classified as a 'drive through fast food outlet', which is defined under LPS3 as:

a fast food outlet which includes the sale and serving of food or beverage direct to persons driving or seated in motor vehicles. The term may or may not include the preparation of food for sale and consumption within the building, or portion thereof;

'Drive through fast food outlet' is a 'D' (Discretionary) use in the Mixed Use zone, in accordance with Table 6.8.6 of LPS3.

4.2.3 Mirrabooka Town Centre Special Control Area

Clause 6.8 of LPS3 outlines the controls and requirements for sites located in Mirrabooka Town Centre Special Control Area.

An assessment against the relevant controls is provided in the table below.

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Table 2: Mirrabooka Town Centre Special Control Area general provisions

Development standard	Comment
6.8.1 Objectives	
a) <i>To facilitate development of a safe, vibrant, mixed use town centre based on sustainable design principles, integrated with public transport;</i> b) <i>to encourage greater use of the Mirrabooka public transport facilities through increased density of both residential and non residential uses;</i> c) <i>to require the development of a diverse range of housing types;</i> d) <i>to promote the development of a variety of public open space areas;</i> e) <i>to facilitate the development of a range of non residential uses that contribute to economic development, local employment and viability of the Centre;</i> f) <i>to encourage the development of a range of community facilities;</i> g) <i>to create a permeable transport network through the provision of additional road connections;</i> h) <i>to facilitate the development of a vibrant main street; and</i> i) <i>to facilitate high quality private and public spaces and buildings that contribute towards a sense of place.</i>	The proposed development is consistent with the objectives of the Mirrabooka Town Centre Special Control Area, providing a commercial use that contributes to the economic development, local employment opportunities, and viability of the shopping centre and broader activity centre. The increased activation brought about by the proposed Starbucks café will also help to facilitate a safe, vibrant, and mixed use town centre which caters to the needs of the local community.
6.8.2 Special Control Area	
<i>The Mirrabooka Town Centre Special Control Area is the land delineated as such on the Scheme Maps.</i>	The site is located within the control area boundary.
6.8.3 Subdivision and Development	
<i>The subdivision and development of all land within the Mirrabooka Town Centre Special Control Area shall have due regard to any Activity Centre Plan, Local Development Plan and Local Planning Policy that is adopted under or for the purposes of this Scheme subject to the provisions contained within the Scheme.</i>	Subdivision is not proposed as part of this application. The proposed development has been assessed against the relevant Activity Centre Plan, Local Development Plan and Local Planning Policies as outlined throughout this report.
6.8.4 Activity Centre Plan	
<i>For the purpose of promoting the highest standard of development, an Activity Centre Plan shall be approved for the Mirrabooka Town Centre Special Control Area in accordance with Part 5 - Activity Centre Plans of the Deemed Provisions in Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015.</i>	The proposed development has been assessed against the Mirrabooka Activity Centre Plan as outlined at Section 4.3 below.
6.8.5 Local Development Plan	

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	<i>The local government may require the preparation of a Local Development Plan for all or any land in the Mirrabooka Town Centre Special Control Area in accordance with Part 6 - Local Development Plans of the Deemed Provisions in Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015.</i>	The proposed development has been assessed against the Mirrabooka Town Centre Local Development Plan as outlined at Section 4.4 below.
6.8.6	Land Use Table	
	a) <i>Notwithstanding Clause 4.3 of this Scheme, land use permissibility for land in the Mirrabooka Town Centre Special Control Area is in accordance with Table 6.8.6 below.</i> b) <i>If a person proposes to carry out on land any use that is not specifically mentioned in Table 6.8.6 and cannot reasonably be determined as falling within the type, class or genus of activity of any other use category, the Council shall consider this use in accordance with the provisions of Clause 4.4.2</i>	The proposed development is best described as a 'drive through fast food outlet', which is defined under LPS3 as: <i>a fast food outlet which includes the sale and serving of food or beverage direct to persons driving or seated in motor vehicles. The term may or may not include the preparation of food for sale and consumption within the building, or portion thereof;</i> 'Drive through fast food outlet' is a 'D' (Discretionary) use in the Mixed Use zone as per Table 6.8.6 of LPS3.
6.8.7	Residential Amenity	
	<i>Residential development within the Mirrabooka Town Centre Special Control Area shall comply with the Residential Design Codes unless a provision of the Residential Codes is varied in an approved Activity Centre Plan or Local Development Plan for that land, whereby the varied provision applicable under the Activity Centre Plan or Local Development Plan shall prevail.</i>	Not applicable. Residential development not proposed.
6.8.8	Mandatory Residential	
	<i>An application for planning approval for a new development for land that is identified as requiring Mandatory Residential in a WAPC approved Activity Centre Plan shall contain a residential component to the satisfaction of the City of Stirling in accordance with the following...</i>	The proposed development area does not fall within the Mandatory Residential Areas as shown in Figure 3 of the ACP. The proposed development is therefore not required to incorporate a residential component under the provisions of the ACP.
6.8.9	Development of Lot 9501	
	<i>The first stage of development on Lot 9501 (HN 15) Milldale Way, Mirrabooka, shall be on land that fronts Milldale Way and a minimum of 10m of frontage to Doncaster Road and Chesterfield Road, excluding the corner truncations.</i>	Not applicable. The development area is not located within Lot 9501.
6.8.10	Expansion of Shopping Centre	
	<i>The following requirements apply to Lot 500 Yirrigan Drive and Lot 507 Sudbury Road, Mirrabooka:</i>	Not applicable. The existing shopping centre at the subject site has a total Gross Lettable Area (GLA) of 43,208m ² which is proposed to be increased to 43,422m ² as a result of the proposed Starbucks development. On this basis, the resultant GLA will not exceed 47,100m ² .

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	a) For every 2,500m² of additional retail floor space above 47,100m², 500m² of street orientated floor space is to be provided first on land that fronts either Sudbury Road and the Town Square, then on land that fronts Chesterfield Road, Farrier Road or Yirrigan Drive and within a built form that has a nil setback to the street (a plaza or community space lined with awnings can be set back from the street subject to the agreement of the local government). b) For planning applications that trigger the additional retail and non-retail floorspace requirements referred to in paragraph a) above, the Council shall impose a condition on the planning approval to require that the additional floorspace be provided either prior to or in conjunction with the related expansion of the Mirrabooka Shopping Centre.													
6.8.11	Shop Use Limitations													
	A maximum floorspace area of 150m ² NLA shall apply to each shop tenancy developed on Mixed Use land located outside the 'Core Shopping Area' as identified in a WAPC approved Activity Centre Plan.	Not applicable. The proposed development is within the 'Core Shopping Area'.												
6.8.12	Public Road Connections													
	The owner of any lot affected by a 'Fixed Future Road Reserve' or 'Indicative Future Road Reserve' delineated in a WAPC approved Activity Centre Plan, shall cede the required road reserve free of cost as a condition of development or subdivision approval and construct and drain the road to the specification of the Council.	Not applicable. The proposed development is not impacted by any future or existing road reserves as indicated in Figure 6 of the ACP. Therefore, no additional requirements apply to the proposed development with regard to road network under the ACP.												
6.8.13	Public Open Space													
	For the land that contains the Public Open Space area shown in a WAPC approved Activity Centre Plan, the Council shall recommend on a subdivision or strata application to the Commission, or impose a condition on a planning approval granted for development of that land, to require that the Public Open Space area be ceded free of cost to the Crown and vested in the City of Stirling for the purpose of public recreation.	The proposed development is not impacted by any future or existing public open space as indicated in Figure 7 of the ACP. Therefore, no additional requirements apply to the proposed development regarding public open space under the ACP.												
6.8.14	Parking for New Development													
	Car parking bay ratios for non-residential development in the Mirrabooka Town Centre Special Control Area shall be provided in accordance with Table 6.8.14 a) and Figure 6.8.14. <table border="1"> <thead> <tr> <th>Max parking per net site ha</th><th>Min public parking per net ha</th><th>Min short stay parking</th></tr> </thead> <tbody> <tr> <td>200 bays / net site ha</td><td>100 bays / net site ha</td><td>60% public parking</td></tr> </tbody> </table>	Max parking per net site ha	Min public parking per net ha	Min short stay parking	200 bays / net site ha	100 bays / net site ha	60% public parking	<u>Parking supply</u> The minimum and maximum parking rates are provided below based on a site area of 13.6 ha. <table border="1"> <thead> <tr> <th></th><th>Max parking per net site ha</th><th>Min public parking per net ha</th></tr> </thead> <tbody> <tr> <td>Required</td><td>2720 bays</td><td>1,360 bays</td></tr> </tbody> </table> The shopping centre will continue to provide a surplus of parking as a result of the proposed Starbucks Coffee Outlet as outlined below:		Max parking per net site ha	Min public parking per net ha	Required	2720 bays	1,360 bays
Max parking per net site ha	Min public parking per net ha	Min short stay parking												
200 bays / net site ha	100 bays / net site ha	60% public parking												
	Max parking per net site ha	Min public parking per net ha												
Required	2720 bays	1,360 bays												

- The shopping centre has an existing parking supply of 1,793.
- The proposed development results in the loss of 37 bays and provision of 8 formal bays, resulting in a net loss of 29 bays.
- The resultant or net total parking available at the shopping centre site as a result of the development is therefore 1,764 bays which is between the minimum and maximum requirement.
- Subsequently, the shopping centre will have a surplus of 404 bays after the proposed Starbucks Coffee Outlet is constructed.

On the basis of the above, the shopping centre will continue to provide a surplus of parking, and the proposed Starbucks development will not negatively impact parking supply of the wider shopping centre site.

It is also noted that 11 bays are proposed as part of the Starbucks development within the drive through queuing lane, although these have not been included in the above calculations.

Short stay car parking

Clause 6.8.14 requires that 60% of public parking within the development area be provided as short stay parking. All car parking bays at the centre currently have a sign posted maximum of a 4 hour limit and are therefore 100% are short stay. This is also proposed for the Starbucks car bays.

4.2.4 Advertisements and Advertising Signs

Clause 5.7.2 of LPS3 requires the placement, erection or display of an advertisement or advertising sign to be in accordance with the City's *Local Planning Policy 6.1 – Advertising Signs (LPP6.1)*. An assessment is provided at **Section 4.5.3** below.

4.2.5 Trees and Development

Clause 5.13 of LPS3 provides controls relating to tree retention and planting.

The proposed development provides two advanced trees in the northeast of the development area. The existing tree to the west of the development area will be retained, and no other significant trees will be removed as part of this application.

A specific landscape design is proposed for the development area as outlined in the landscaping concept plan at **Appendix 7** prepared by Brendon Burke Landscape Architecture.

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4.3 Mirrabooka Town Activity Centre Plan

The Mirrabooka Town Activity Centre Plan (ACP) applies to the development area.

The zoning and land use permissibility of the proposed use under the ACP are consistent with the provisions of LPS3 as outlined at **Section 4.2** above.

The Mirrabooka Town Centre Special Control Area controls and requirements at Clause 6.8 of LPS3 replicate the controls in the ACP. Refer **Section 4.2.3** above for the assessment.

4.4 Mirrabooka Town Centre Local Development Plan

The Mirrabooka Town Centre Local Development Plan (LDP) applies to the development area and was prepared in accordance with Clause 6.8.5 of LPS3. An assessment against the relevant controls applicable to the site is provided in the sections below.

4.4.1 Façade Type B – Development and Land Use Standards

As shown in Figure 13 of the LDP, the development area is categorised as 'Façade Type B'.

Section 3.3 of the LDP contains development standards for this façade type and an assessment against these standards is provided in **Table 3** below.

Table 3 – Mirrabooka Town Centre LDP - Façade Type B controls

Development standard			Comment
Design Intent	This Facade Type is intended to facilitate a large increase in building height and scale around the perimeter of the core of the Town Centre. Taller buildings will take advantage of the passing traffic, especially if the are retail or office, and will help shield the balance of the Town Centre from noise. The at-grade ground floor level, glazing requirement, and setback provisions create a moderate level of street activation.		It is acknowledged that the planning framework identifies the periphery of the overall site as potentially suitable for development up to 8 storeys. As outlined in further detail below this table, it is not currently feasible for development of this scale to occur. Given this, and to ensure the proposal does not predicate future redevelopment of the site in line with the LDP, the building has been designed so that it can be repurposed to form part of a future development if this becomes feasible and realistic in the future.
Typical building types & land uses	With heights up to 8 storeys, a variety of building configurations could suit Facade Type B. Retail and office uses would be particularly suitable given their need for exposure and noise tolerance, and the relative lack of amenity for residential uses. Proximity to transit makes it a more attractive location for employers.		
Ground floor	Finished floor level	At-grade	The finished floor level of the proposed development is at-grade with the surrounding area.
	Min. floor to floor height	4m	A minimum floor to floor height of 4m is provided.
	Minimum glazing	80%	Due to the site constraints and operational requirements of the development, it is not realistic to achieve this glazing requirement. Refer Section 4.4.3 below for a more in-depth assessment of the proposal's layout and interface with the street.
Setbacks	Street setback	Nil / Max. 2m	The proposed development provides a setback of 4.2 m from the southern lot boundary to Yirrigan Drive. Refer Section 4.4.3 below for a more in-depth assessment of the proposal's layout and interface with the street.
	Side / rear setback	BCA	The proposed development area is located within the wider site and is substantially distanced from the side and rear boundaries.

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Building height	Maximum height	8 storeys	The proposed development presents as one storey with a maximum height of 5.5m. Notwithstanding, given it is a commercial building, and floor heights are larger than that of standard building, the proposal is considered to closely align and present as a 2 storey building. A slight variation to this clause is considered supportable.
	Minimum height	2 storeys	
Preferred land uses	Ground floor	Office / showroom / shop	The proposed development is for a drive through coffee outlet on the ground floor. This use is capable of approval on the subject site under LPS3. This use also closely aligns with the 'shop' land use.
	Above	Office / residential	No upper storey uses are proposed.

4.4.2 General Provisions

In addition to specific development standards for specific façade types, the LDP provides general development standards for the LDP area. An assessment against the general provisions of the LDP are provided in **Table 4** below.

Table 4 – Mirrabooka Town Centre LDP general provisions

Development standard		Comment
Built Form and Design		
4.1.2	<i>Proposals shall adhere to the 'Landmark Site Locations Plan' (Figure 31) which indicates the locations of landmark sites which require distinctive treatment.</i>	The development area is not identified as a landmark site under the LDP.
4.1.3	<i>Plant and roof equipment (including service elements) shall be designed and coordinated to integrate into the overall roof design and not be visible from the street.</i>	Proposed plant and roof equipment are integrated into the design of the proposed development and concealed from the street.
4.1.4	<i>Developments are required to demonstrate adequate separation between buildings on the same site and re to consider the following design elements:</i> • Level of solar access and access to light • Presentation to streets • Location of vehicle access • Avoidance of hidden spaces that could increase crime risk	The height and location of the proposed development will not result in any adverse impacts on surrounding buildings with regard to solar access, presentation to streets, location of vehicle access, or concealed areas.
	<i>Developments within a single site shall be separated in accordance with the building separation distances in Table 9 and Figures 32 and 33. This provision does not apply to development within a site which are (nearly) perpendicular to each other.</i>	The proposed development exceeds the 9m building separation requirements between secondary outlooks.
Streetscape		
4.2.1	<i>Verandas, porches, and balconies may project up to 1m into front setbacks.</i>	No verandas, porches or balconies are proposed.
	<i>Design of external facades shall include two or more of the following:</i> • Projections and/or recessions • Balconies, roof gardens, verandahs	

	• Tower elements on corner and landmark sites • Shade devices including awnings • Deep window reveals • Interesting roof and wall forms	The façade of the proposed development integrates a number of awnings for the drive through and pedestrian areas, ensuring weather protection and enhancing the relationship between the development and the street. The building has also been designed to reduce instances of blank façade, and incorporates a variety of materials, textures and differing setbacks. These work to create visual interest and break up the built form.
	Extensive expanses of blank and flat facades facing the public realm are not permitted.	
4.2.2	New development shall incorporate more than one façade material type (excluding glazing).	Several different materials are utilised, including timber-look aluminium planks, wall tiling, and metal cladding.
	High quality and sustainable materials shall be included to building facades that are sympathetic to existing buildings.	The proposed development integrates high-quality building materials which are designed to be low maintenance and long lasting. These design choices extend the life of the building, contributing to improved sustainability outcomes.
	Fluorescent and intense colours shall not be used.	No fluorescent or intense colours are proposed.
4.2.3	Buildings proposed as part of the first stage of any development shall address and present to the street in the form of entry points, openings, glazing, and any other appropriate design response.	There is no staged component proposed as part of this development.
	Any development proposed to be undertaken in stages shall provide an overall development concept for the site to demonstrate how the built form will relate to surrounding development and the public realm.	
	The provision of blank walls shall be avoided as part of staged developments. Measures to ensure an acceptable 'interim' appearance to any blank walls shall be demonstrated in any application for development.	
4.2.4	Developments shall clearly delineate between public and private realm.	Private and public realm are clearly delineated throughout the proposed development. However, as the proposed use is open to the public, the development has been designed to encourage interaction and improve the relationship between the site and the street.
	Building entrances shall be orientated to face open and active spaces.	Pedestrian entry points are oriented to face the shopping centre and proposed parking areas to provide a more direct access route for users of the proposed development. The café is also accessible from Yirrigan Drive via a pedestrian footpath to the immediate west of the building, allowing dine-in customers to access the site directly from the street.
	Extensive expanses of blank walls are not permitted.	The proposed development includes varied façades architectural features which are designed create visual interest. Wall surfaces have been treated with cladding materials which are varied in design, improving the visual appeal of the proposed development.
	New developments shall maximise passive surveillance by orientating habitable rooms with views over public streets and public open spaces.	The proposed development is commercial in nature. Nonetheless, the proposed development and lighting design will ensure passive surveillance occurs.
	Lighting is to be provided to all public spaces including under awnings, parking areas, service areas, footpaths and entry and exit points.	Sufficient lighting will be provided as part of the proposed development.
	Buildings shall be constructed from materials that are resistant to vandalism.	The proposed development is resistant to vandalism, using robust materials such as metal and tile.

4.2.5	<i>Pedestrian entrances shall be at finished pavement level to allow for Universal Access and any changes of level should take place within buildings.</i>	Entrances to the proposed development align with the finished pavement level of the surrounding area.
4.2.6	<i>All new commercial developments shall demonstrate best practice ecologically sustainable design by achieving a minimum of 4 star "best practice" under the Green Building Council of Australia rating system.</i>	The buildings will be designed with consideration for energy efficiency and sustainability. Sufficient and well designed landscaping is proposed.
4.2.8	<i>10% of the parcel is required to be developed as communal open space on all non-residential mixed use developments.</i> <i>A minimum of 50 per cent of communal outdoor space shall be softscape planting (i.e. turf, trees, ground covers and shrubs).</i>	The proposed development is not classified as mixed use. The proposed development is therefore not required to provide communal open space.
4.2.9	<i>Landscaping shall be in accordance with the City's Landscaping Policy.</i>	Landscaping has been provided in accordance with <i>Local Planning Policy 6.6 – Landscaping</i> , as discussed later in this submission.
4.2.10	<i>Entry points shall directly face the street.</i> <i>Signage is to be located above the entry door to clearly identify entry points.</i> <i>Indentation of any entry point, where recessed entrances are provided, may be truncated at an angle to the pedestrian route of no less than 60 degrees.</i> <i>The height of any awning is not to be increased above the entry point to greater than 3.2 metres above footpath level.</i> <i>Pedestrian and vehicle entry points are to be separate and clearly defined.</i>	The café is also accessible from Yirrigan Drive via a pedestrian footpath to the immediate west of the building, allowing dine-in customers to access the site directly from the street. Signage has not been provided above entrances. Additionally, architectural features such as a recessed entries and thoughtfully positioned planter boxes also clearly articulate entrance. The primary pedestrian entrance is recessed into the building to provide shade and weather protection for users of the proposed development. Pedestrian and vehicle entry points are separate and clearly defined, as shown on the development plans.
4.2.11	<i>Any front fence or gate addressing a street is to be 80 per cent visually permeable above 1.2 metres in order to increase casual surveillance to the street and between properties.</i>	No front fences or gates are proposed as part of this application.
4.2.12	<i>Minimum awning height: 3m Maximum awning height 4.5m % awning provided (non-residential): 100% Minimum awning depth: 2.5m</i> <i>Awnings shall include solid materials that are waterproof and provide shade. Awnings shall not include clear glass, transparent or permeable materials.</i>	The proposed awnings are 3.3m above footpath level. The proposed awning is to be constructed of solid materials and will not include glass, transparent or permeable materials.
4.2.13	<i>All signage shall be in accordance with the City's Advertising Signs Policy.</i>	The proposed signage is generally in accordance with <i>Local Planning Policy 6.1 – Advertising Signs</i> . Where a variation to this policy is proposed, consistency with the policy's objectives have been demonstrated. An assessment is provided at Section 4.5.3 below.
4.2.14	<i>Land uses shall be in accordance with the Mirrabooka Local Structure Plan land use map.</i>	The proposed land use is capable of approval under the provisions of the ACP and LPS3.

Access, Parking and Services

4.3.1	<i>Vehicle access shall be designed as an integral component of the development and be incorporated into the design of the streetscape.</i>	Vehicular access and manoeuvrability are key components of the proposal and have influenced the design and layout of the development. As outlined in the TIA at Appendix 3 the proposal is acceptable from a traffic and transport perspective.
	<i>Maximum width of any crossover is to be no greater than 6 metres.</i>	No new crossovers are proposed.
	<i>Vehicles are to be able to enter and exit a site in forward gear.</i>	The proposed development has been designed to ensure that vehicles accessing the development area can enter and leave the subject site in forward gear.
4.3.2	<i>Commercial buildings shall orientate towards the street and provide the entrance to the building directly from the street frontage.</i>	The café is accessible to pedestrians from Yirrigan Drive via a pedestrian footpath to the immediate west of the building, allowing dine-in customers to access the site directly from the street. Further detail on the orientation and layout is provided at Section 4.4.3 below.
	<i>Footpaths shall be provided to the building entry point/s from any parking area.</i>	Continuous footpaths are provided between building entry points and the proposed parking areas.
	<i>Pedestrian footpaths shall be a minimum of 2.0 metres wide.</i>	Whilst some existing footpaths within the wider site and on the City's land do not all measure 2m, any new footpaths proposed as part of the Starbucks development will be at least 2m in width.
4.3.3	<i>Loading/Unloading and delivery areas shall not be located near the main street frontage.</i>	The proposed service area is located on the eastern side of the proposed building and does not front the main street frontage (Yirrigan Drive).
	<i>Loading areas shall be designed to prevent crime and vandalism and shall be in accordance with the WAPC's Designing Out Crime Planning Guidelines.</i>	The proposed loading area is visible to the public and integrated into the design of the building. This provides the loading area with a high degree of passive surveillance, reducing the risk of crime and vandalism.
4.3.4	<i>All car parking is to comply with the Australian Standards 2890.1 in relation to turning circles and gradients within the site.</i>	Car parking has been designed in accordance with AS2890.1.
	<i>Where parking is at grade or above ground level, screening is required to reduce impact on adjoining lots and the public realm (refer to adjoining diagrams).</i>	The proposed car parking bays are provided on the northern side of the development area, away from Yirrigan Drive. These bays are located near the existing at-grade car parking for the shopping centre.
	<i>All new developments to provide sufficient car parking to meet the requirements and provisions set out in the Structure Plan and any relevant local parking planning policy.</i>	The proposed development provides sufficient car parking, through the provision of 8 formal car parking bays and capacity for 11 cars to queue within the drive through area.
4.3.5	<i>Bicycle parking is to be provided in accordance with the City's relevant Bicycle Parking Policy.</i>	Bicycle parking has been provided in accordance with <i>Local Planning Policy 6.7 – Parking and Access</i> .
4.3.7	<i>Bin storage areas are to be in accordance with the City of Stirling's Bin Storage Policy.</i>	A bin storage area has been provided generally in accordance with <i>Local Planning Policy 6.3 – Bin Storage Areas</i> . Where a variation to this policy is proposed, consistency with the policy's objectives have been demonstrated.
	<i>Developments are to provide a dedicated rubbish storage area that is directly accessible by waste removal vehicles.</i>	A dedicated rubbish storage area directly accessible by waste removal vehicles has been provided as part of the proposed development.

	<i>Any storage, rubbish collection and servicing areas are to be screened or located so as to not be visible from any street.</i>	The proposed bin storage area is provided with visual shielding and is not clearly visible from Yirrigan Drive.
	<i>Developments are to demonstrate that adequate manoeuvrability is provided within the site for service vehicles.</i>	Swept path diagrams have been provided which demonstrate that adequate manoeuvrability has been provided for 12.5m service vehicles (refer Appendix 3).
	<i>Waste Management Plans shall be provided for all new developments.</i>	A waste management plan has been prepared by WGA in support of the proposed development (refer Appendix 4).
	<i>Service areas shall not be located where active frontages are required.</i>	The frontage of the development area to Yirrigan Drive is identified in the LDP as being a 'Lower Priority Active Frontage'. Nonetheless, the proposed storage area does not front Yirrigan Drive.
4.3.8	<i>An Acoustic Report being prepared by a qualified Acoustic Consultant for any noise generating use to demonstrate noise will comply with the acceptable levels/standards set out under associated legislation.</i>	An environmental noise assessment (ENA) has been prepared in support of the proposed development. The ENA indicates that the proposed development is capable of meeting the <i>Environmental Protection (Noise) Regulations 1997</i> . Refer to Appendix 5 for a copy of the ENA.

4.4.3 Built form and layout

As indicated above, a more in-depth assessment of the proposal's layout and interface with the street is provided in the paragraphs below.

The proposal has been designed with consideration for the development area's constraints, including:

- A triangular shaped developable area.
- A development area only accessed via an internal road from the north, connecting to Yirrigan Drive to the east.
- This internal road also provides access to the Big W loading dock to the north and must be kept trafficable for service vehicles accessing this dock.
- Electrical infrastructure within the car park to the north limits changes or reconfiguration of the existing car park layout to the north of the site.

In addition to the operational requirements of the proposed Starbucks Coffee Outlet, the above site constraints have shaped the layout and design of the proposal. The proposed drive through component is an important operation requirement that has been designed in a way to minimise queueing impacts on the internal road and Yirrigan Drive. This is also important as the internal road is used by service vehicles to Big W and must always remain trafficable. If the drive through were to be sleeved and the Starbucks building proposed closer to Yirrigan Drive there would be insufficient queueing space, resulting in poor traffic outcomes.

Notwithstanding this design element, considerable effort has been made to ensure the proposal improves the relationship between the wider shopping centre site and Yirrigan Drive, noting a hardstand car park currently fronts Yirrigan Drive. To ensure this, the Starbucks building has been designed with a modern and attractive facade and landscape design and an awning proposed as part of the drive through towards Yirrigan Drive to provide a built form edge. Further, the use of variety of materials, including a mix of warm brown toned 'timber look' aluminium planks and battens, grey wall cladding and tiles, coupled with a specific landscape design creates a visually pleasing building, and a modern take on a fast food outlet design. These design elements demonstrate the intention to design a building in response to the site's location and effort to activate and improve the site.

Yirrigan Drive is identified as having a lower priority active frontage with excessive traffic noise and large traffic volumes that does not create a desirable, pedestrian friendly environment. The proposal has also been designed in response to the nature of Yirrigan Drive, being a lower priority active frontage with excessive traffic noise and large traffic volumes (refer LDP, Section 2) that does not create a desirable, pedestrian friendly environment (as outlined in the Section 2 of the LDP). Accordingly, the proposal has been designed to incorporate various materials, tones, façade treatments and setbacks in place of substantial glazing. Coupled with a specific landscape design, this creates a visually pleasing building, and a modern take on a fast food outlet design.

Regarding scale, it is acknowledged that the planning framework identifies the periphery of the wider site as potentially suitable for development up to 8 storeys. However, given this is not currently feasible, a more pragmatic approach has been followed. The building has also been designed to ensure it can be repurposed to form part of a future development if this becomes feasible and realistic in the future. This was also requested by the City following the pre-lodgement meeting.

The proposal has also been designed to ensure it is accessible to pedestrians from the street. The site layout links up to with the existing pedestrian footpath to the immediate west of the development area, allowing dine-in customers to access the site directly from Yirrigan Drive.

The figures below provide indicative renders of the proposed development.



Figure 6: Proposed northern elevation (left) and western elevation (right)



Figure 7: Proposed southern elevation (left) and north-eastern elevation (right)

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4.5 Local Planning Policies

4.5.1 LPP5.9 – Mirrabooka Town Centre Parking

Local Planning Policy 5.9 – Mirrabooka Town Centre Parking (LPP5.9) applies to the subject site. However, the car parking provisions provided in the Mirrabooka Town Activity Centre area under LPS3 prevail. An assessment against the applicable parking rates is provided at **Section 4.2.3** of this report.

LPP5.9 does however include the applicable bicycle and motorcycle parking rates for the proposed development, as outlined and assessed in **Table 5** below. This assessment demonstrates the proposal is compliant with the bicycle parking requirement.

Table 5: LPP5.9 Bicycle & Motorcycle parking assessment

	Bicycle parking - employees	Bicycle parking - customers	Motorcycle parking - employees	Motorcycle parking - customers
Required	0.25 spaces per 100m ² of GFA = 1 space	0.1 spaces per 100m ² of GFA = 1 space	0.1 spaces per 100m ² of GFA = 1 space	0.1 spaces per 100m ² of GFA = 1 space
Proposed	4 spaces (2 racks)		Nil	

Whilst **Table 5** demonstrates no formal motorcycle bays are provided, 8 formal car parking bays are proposed which can also be utilised by motorcycles. There is also a large car parking adjacent to the development area to the immediate north within the shopping centre lot, noting the shopping centre has an overall surplus of parking as outlined at **Section 4.2.3** of this report. For these reasons, the proposed shortfall of designated motorcycle parking is considered supportable.

4.5.2 LPP6.7 – Parking and Access

The City's *Local Planning Policy 6.7 – Parking and Access (LPP6.7)* applies to the subject site. However, the car parking requirements of LPP6.7 do not apply to the proposed development, as parking rates provided in the Mirrabooka Town Activity Centre area under LPS3 prevail. An assessment against the applicable parking rates is provided at **Section 4.2.3** of this report.

4.5.3 LPP6.1 – Advertising Signs

The City's *Local Planning Policy 6.1 – Advertising Signs (LPP6.1)* applies to the proposed development.

The proposed signage meets the general signage controls provided in LPP6.1.

An assessment against the tower sign requirements of LPP6.1 is provided in the table below.

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Table 6: LPP6.1 signage assessment – Tower sign controls

Specific sign type standards – Tower signs		
<i>Tower signs are:</i>		
i.	<i>Limited to a maximum of one sign per lot</i>	One 'tower sign' is proposed as part of the development in the southwest of the development area.
ii.	<i>Not permitted where a hoarding sign is located on the same lot</i>	Notated as a 'pylon' sign on the plan, this sign has a depth of 0.455m, height of 10m and width of 1.8m, which is consistent with the LPP requirement with the exception of a slight variation to the height control. The height of the proposed tower sign is considered supportable as it is compatible with the scale and amenity of the surrounding area, acknowledging that the development area is part of an established shopping centre and is surrounded by large tenancies with substantial signage, such as the Big W to the north.
iii.	<i>To have a maximum depth of 0.5m</i>	
iv.	<i>Not to exceed 9m in height and 3.5m in width [for lots with frontages greater than 75m]</i>	The sign assists with wayfinding and building identification for pedestrians and motorists in and outside of the site. The sign comprises a minimalist design and colouring, consistent with Starbucks branding. This ensures the sign will not result in any undue visual clutter. No hoarding signs are proposed as part of the proposed development.

Table 7: LPP6.1 signage assessment – Projecting sign controls

Specific sign type standards – Projecting signs		
4.3.3.2(a)	<i>Projecting signs are:</i>	
i.	<i>Limited to a maximum of one projecting sign per tenancy on a lot in addition to any projecting signs which are attached to the fascia of an awning</i>	Two projecting signs are proposed as part of the development. These relate to the 'Starbucks' wordmark signs proposed above the northern pedestrian awning and southern drive-through awning. The provision of two projecting signs allows the Starbucks Coffee Outlet to be identified from within the shopping centre site and from Yirrigan Drive, outside the site. This provides suitable wayfinding for people accessing the proposed development from the north or the south without having undue amenity impacts on the surrounding area, also noting the signage design is simple and only 0.4m in height. For these reasons, the provision of two projecting signs is considered supportable.
ii.	<i>Able to be located outside of the lot boundary provided that they are affixed to or project from an awning or the building</i>	The proposed projecting signs are located within the boundaries of the development area.
iii.	<i>Not permitted to project above the top of the wall to which they are attached.</i>	No projecting signs are proposed to project above the wall on which they are attached.
4.3.3.2(d)	<i>Projecting signs attached above or to the underside of an awning are:</i>	
i)	<i>Not to exceed 2.4m in length</i>	Northern projecting sign: 3.92m Southern projecting sign: 3.43m The scale of the proposed projecting signage is appropriate for the site, acknowledging that the development area is part of an established shopping centre and is surrounded by large tenancies with substantial signage, such as the Big W to the north. The proposed variations to this requirement are not considered to adversely impact the amenity of the area.
ii)	<i>Not to exceed 0.5m in vertical dimension</i>	Northern projecting sign: 0.55m Southern projecting sign: 0.36m

		The northern projecting sign varies the maximum height requirements slightly. This variation is considered to be minor in nature and appropriate for the scale of the surrounding area.
iii)	<i>Not to be within 3m of another such sign attached above or to the underside of the same awning</i>	The proposed projecting signs are not within 3m of another such sign.
iv)	<i>Not to extend beyond the outer frame of the awning</i>	The proposed projecting signs do not extend beyond the outer frame of the awning.

Table 8: LPP6.1 signage assessment – Wall sign controls

Specific sign type standards – Wall signs		
4.3.3.4(a)	<i>Wall signs are not to extend more than 0.3m beyond the edges of a wall</i>	The proposed wall signs will not extent more than 0.3m beyond the edges of a wall.
4.3.3.4(b)	<i>Wall signs are:</i>	
i)	<i>Limited to a maximum two signs per tenancy on a lot</i>	Five wall signs are proposed as part of this development as summarised below: - Three 'logo disc' signs, one on each elevation with the exception of the eastern elevation. - One wall sign on the drive through order point canopy. - One 'wordmark' wall sign on the eastern building elevation. A variation to the permitted signage numbers is considered acceptable, given the proposed wall signs are limited to one sign per elevation, the simple design of each sign and given the nature of the land use and location within a shopping centre site.
ii)	<i>Not to cover more than 30% of the visible area of any one façade per tenancy, excluding glazed portions and awnings</i>	The proposed signage does not exceed 30% of the visible area of any one façade.

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4.5.4 LPP6.3 – Bin Storage Areas

The City's *Local Planning Policy 6.3 – Bin Storage Areas (LPP6.3)* applies to the subject site. An assessment against the requirements of LPP6.3 is provided in **Table 9** below.

Refer to **Appendix 4** for a copy of the Waste Management Plan (WMP) prepared in support of this application.

Table 9 – LPP6.3 bin storage area assessment

Development provision	Comment
Bin storage area size	
<i>Bin storage areas in non-residential zones shall have the following minimum sizes:</i> - Size 10m² - Width 3.5m	The proposed bin area has an area of approximately 19.5m², with a width of 3.25m. Notwithstanding this, the proposed bin area is considered to be sufficient to provide for the storage of bins for the proposed development as confirmed in the WMP at Appendix 4.
Location of bin storage area	
- Shall be located behind the building setback line; and - Shall ensure that adequate space is available for the bulk refuse truck to access the bin area and manoeuvre.	The proposed bin area is provided behind the building setback line. Sufficient space has been provided for collection of waste with a 12.5 service truck, as demonstrated in the WMP (refer Appendix 4) and swept path analysis as part of the TIA (refer Appendix 3).
Design of bin storage area	
- Shall be screened from view to a minimum height of 1.8m so that it is not visible from the street; - Materials shall match with the building; - Shall be sealed and regularly cleaned and maintained; and - Stormwater and effluent drainage facilities shall be contained within this area.	The proposed bin storage area is suitably screened from the street to a height of 3.3m. The proposed bin storage area is integrated into the design of the building, with suitable materials which complement the appearance of the proposed development. The proposed bin area will be sealed and regularly cleaned and maintained in accordance with the WMP (refer Appendix 4). Starbucks will maintain, wash, sanitise/deodorise and arrange vermin prevention measures for bins and bin rooms as required and as outlined in the WMP (refer Appendix 4). Bin storage areas will be equipped with cold running water (including a hose) and a connection to the sewer (as water from this source cannot be disposed of into stormwater drains) as outlined in the WMP (refer Appendix 4).

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4.5.5 LPP6.6 – Landscaping

The City's *Local Planning Policy 6.6 – Landscaping (LPP6.6)* applies to the subject site. An assessment against the applicable requirements of LPP6.6 is provided in **Table 10** below.

Table 10 – LPP6.6 landscaping assessment

Development provision	Comment
Landscaping Areas	
- All individual planting areas, excluding those in or adjacent to public car parks, must have a minimum width in any direction of 500mm and a minimum plantable area of two square metres; and - The inclusion of verge areas (abutting the site) in the overall landscaping design is required.	The proposed development maximises the size and extent of landscaping within the development area. The dimensions of landscaping areas are considered to be sufficient for the proposed development.
Plant Numbers & Types	
All landscaped areas (beds) are required to be planted with a suitable number of plants that satisfy the objectives of this policy (plant numbers will be assessed with due regard to the eventual size of the species selected). Species should be chosen to suit the climate, environment, location and required function whilst taking into consideration surrounding landscapes. The use of native species is encouraged to reduce water and fertiliser use.	The Landscape Plan provided at Appendix 7 details the proposed plant/tree numbers and species. A variety of species have been selected by the qualified landscape architect that are compatible with the site and location.
Street Trees	
The provision of new street tree(s) are required where no street tree(s) currently exist. Species must be approved by the City.	A landscaped strip to Yirrigan Drive is proposed, along with 2 new trees, retention of an existing tree, and landscaping throughout the site.
Retention of Existing Vegetation	
Council encourages the retention of existing vegetation and will consider the exercise of discretion in its application of scheme requirements and adopted local policies where such a variation would allow for the retention of significant existing vegetation on a site. (Note: Concessions cannot apply to non-discretionary provisions such as residential density).	The proposed development retains existing vegetation where possible, including one existing tree. No concessions are sought for the retention of vegetation within the development area.
Reticulation and Mulching	
All landscaped areas shall be reticulated unless the applicant can provide satisfactory evidence that reticulation is not necessary. A minimum depth of 75mm of mulch (gravel not permitted) is to be applied to all landscaping beds.	Noted.
Parking Areas	
A minimum of 1 tree per 4 bays for residential development and 1 tree per 6 bays for non-residential development (Minimum 45 litre container for exotics and 11 litre container for natives) is required in open parking areas. Shrubs are generally not permitted as they may interfere with sight lines in and around parking areas and driveways. Acceptable examples of tree planting patterns within car parking areas are shown in the following illustrations.	As 8 formal parking bays are proposed, 2 trees are required under this provision. 2 advanced trees are proposed.
Specific Landscaping Provisions for Commercial Developments	

Minimum 10% landscaping of total site area	The proposed development provides approximately 226m ² of landscaping within the development area. This accounts for approximately 16.7% of the development area, satisfying the requirements of LPP6.6 in this regard.
Soft landscaped buffers, where setbacks are provided, to adjacent properties with a minimum width of 1.5m	Landscaped buffers have been provided along the southern, eastern and western boundaries of the development area.

4.5.6 LPP6.11 – Trees and Development

The City's *Local Planning Policy 6.12 – Trees and Development* (LPP6.11) applies to the subject site.

The development area has an area of 1,350m², requiring 3 advanced trees to be planted under the provisions LPP6.11. The proposed development will provide two advanced trees and retain one existing tree.

A landscaping concept plan has been prepared for the proposed development by Brendan Burke Landscape Architecture – see **Appendix 7**.

4.5.7 LPP6.12 – Public Art on Private Land

The City's *Local Planning Policy 6.12 – Public Art on Private Land* (LPP6.12) requires public art to be provided at the site at a minimum of 1% of the proposed cost of development.

Details surrounding the provision of public art will be finalised during the post-development approval process via a condition of consent. Any public art will be provided in accordance with LPP6.12.

4.6 State Planning Policies

4.6.1 State Planning Policy 7.0 – Design of the Built Environment

State Planning Policy No.7.0 Design of the Built Environment (SPP7.0) became operational on 24 May 2019. SPP7.0 is the lead policy that elevates the importance of design quality, and sets out the principles, processes and considerations which apply to the design of the built environment in Western Australia, across all levels of planning and development.

SPP7.0 establishes a set of ten 'Design Principles', providing a consistent framework to guide the design, review, and decision-making process for planning proposals. **Table 11** below discusses the development against the ten design principles of SPP7.0.

Table 11 – SPP7.0 Design of the Built Environment Assessment

Design Element	Design Outcome
Context and character Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.	The proposed development is designed to integrate with the urban fabric of the wider Mirrabooka Town Centre. Considerable effort has been made to ensure the proposal improves the relationship between the wider shopping centre site and Yirrigan Drive, noting a hardstand car park currently fronts the site. The proposed Starbucks building has been designed to present well to the street through a modern and attractive built form and landscape design. The proposed drive through awning provides a built form edge to Yirrigan Drive and the use of variety of materials, including a mix of warm brown toned 'timber look' aluminum planks and battens, grey wall cladding and tiles, coupled with a specific landscape design creates a visually pleasing building, and a modern take on a standard fast food outlet design. This demonstrates the intention to design a building in response to the site's location and effort to activate and improve the site.

Design Element	Design Outcome
Landscape quality Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.	The proposed landscaping provides for areas of vegetation around the site boundaries and a landscaped area within the development area, providing a softer appearance to the street and visual pleasing outlook for patrons. Two advanced trees are also proposed.
Built form and scale 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.	The development is proposed to be one storey, with a total height of 5.5 metres. This is appropriate for the scale and character of the development, as it reflects the one storey commercial development to the southeast, and the residential developments to the southwest. Whilst the Mirrabooka ACP and LDP envisions up to 8 storeys in height, development of this scale is not currently feasible. However, to ensure the proposal does not predicate future redevelopment of the site to this height, the building has been designed so that it can be repurposed to form part of a future development if this becomes feasible and realistic in the future. This was also requested by the City following the pre-lodgement meeting.
Functionality and build quality Good design meets the needs of users efficiently and effectively, balancing functional requirements to deliver optimum benefit and performing well over the full lifecycle.	In addition to the operational requirements of the coffee outlet, the site constraints (outlined at Section 4.4.3 of this report) have shaped the layout and design of the proposal. The proposed drive through component is an important operation requirement that has been designed in a way to minimise queueing impacts on the internal road and Yirrigan Drive. This is also important as this internal road is used by service vehicles to Big W and must remain trafficable at all times. If the drive through were sleeved and the Starbucks building proposed closer to Yirrigan Drive there would be insufficient queueing space, resulting in poor traffic outcomes.
Amenity Good design optimises internal and external amenity for occupants, visitors, and neighbours, contributing to living and working environments that are comfortable and productive.	The proposed layout of the subject site supports the drive-through function whilst also providing a suitable pedestrian environment. Pedestrian links to surrounding paths are provided in addition to internal seating areas and building entrances with suitable weather protection. The development includes four bicycle bays, promoting diverse access options. The use of durable materials, such as timber-look aluminium cladding and high-quality paving, ensures the development will perform well over its lifecycle, providing long-term value and amenity to users.
Sustainability Good design optimises the sustainability of the built environment, delivering positive environmental, social, and economic outcomes.	The proposed development integrates high-quality building materials which are designed to be low maintenance and long lasting. These design choices extend the life of the building, contributing to improved sustainability outcomes. The development enhances the surrounding town centre by creating additional activity, landscaped spaces, and boosting economic trade. Natural tones in the building facade align with existing and proposed vegetation.
Legibility Good design results in buildings and places that are legible, with clear connections and memorable elements to help people find their way around.	The proposed development is designed to be easily understandable for both vehicles and pedestrians. Clear signage allows passers-by on all elevations to identify and navigate the site. The layout features well-marked entrances, pedestrian pathways, and intuitive circulation routes that aid wayfinding. The building's distinctive facade provides visual cues, making it easy for visitors to orient themselves and find their way around the site.
Safety Good design optimises safety and security, minimizing the risk of personal harm and supporting safe behaviour and use.	The proposed development prioritises clear sightlines within and around the site and incorporates strategic lighting to enhance visibility and deter antisocial behaviour. Façade treatments and well-marked entrances further support safe behaviour and use.

Design Element	Design Outcome
Community 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.	The proposed development is designed to serve both the local area and the wider community. The alfresco dining area provides opportunities for community interaction, and the design of seating areas throughout the development serve as a place for people to gather and meet.
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.	The proposed development incorporates building articulation, colours, and glazing to create an inviting and visually appealing entry space. These design elements are aimed at accommodating individuals and family groups, ensuring the building is easily identifiable and welcoming. The use of natural tones and timber-look cladding enhances the aesthetic appeal and provides a modern take to a standard fast food outlet design.

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5 CONCLUSION

This application seeks approval to develop a Starbucks Coffee Outlet with associated drive-through facility, car parking, landscaping and signage on a portion of The Square Mirrabooka shopping centre site. The proposed development is appropriately situated within a site which is zoned Mixed Use within an established activity centre.

In summary, the proposal appropriately responds to all the relevant aspects of the planning framework and warrants approval for the following reasons:

- The proposed development is a 'D' (discretionary) land use on the subject site under the City's LPS3 and aligns with the relevant design requirements and objectives of the Mirrabooka Town Activity Centre Plan and Mirrabooka Town Centre Local Development Plan.
- The proposed development has been adequately assessed against the design requirements of the applicable structure plans as well as SPP7.0 and is deemed to address all development requirements.
- The design of the development is suitable for the surrounding urban context. The development is functional, visually appealing and provides landscaped areas which improves the relationship between the site and street.
- Comprehensive technical assessments confirm that the proposed development will not adversely affect the amenity of adjoining properties. Noise, waste and traffic impacts are addressed through design approaches and expert reporting.

For the reasons outlined above, it is respectfully requested that the DAP grant approval to the proposed development.

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Attachment 6 – City of Stirling Planning Assessment

Attachment 6 – City of Stirling Planning Assessment

1. 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 tabled below:

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>	Design Principle Satisfied The proposal responds appropriately to the existing and intended character of the Mirrabooka Town Activity Centre by redeveloping an underutilised car park into an active commercial use. The development aligns with the objectives of the Activity Centre Plan by introducing a land use that supports street-level activation and economic activity. Landscaping, public art and improved pedestrian connectivity contribute to a sense of place and reinforce the precinct's role as a vibrant urban centre.
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>	Design Principle Satisfied The development provides 273m² (20%) of deep soil area, supplemented by internal landscaping. Four medium trees are proposed, improving shade and visual amenity. The landscaping strategy enhances the degraded verge areas and is consistent with the <i>Local Planning Policy 6.6 – Trees and Landscaping – Non-Residential</i> (LPP6.6) objectives for waterwise planting and canopy coverage.
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>	Design Principle Satisfied The single-storey built form is consistent with the prevailing streetscape and acceptable within the context of the Mirrabooka Town Centre. While the <i>Mirrabooka Town Centre Local Development Plan (LDP)</i> anticipates greater height, the design allows for future intensification without compromising current amenity.
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>	Design Principle Satisfied The development provides safe and legible access for vehicles, pedestrians and cyclists, with parking and manoeuvring areas designed in accordance with <i>Australian Standard 2890</i> standards. The building layout is functional and adaptable for future tenancy requirements. Materials specified are durable and suitable for long-term maintenance.

SPP7.0 Design of the Built Environment	
Design Principle	Officer Comment
5. Sustainability <i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i>	Design Principle Satisfied Passive design measures have been incorporated, including north-facing openings to alfresco and dining areas. A condition will require compliance with a minimum 4-star Green Building Council of Australia rating. Landscaping includes species appropriate to local conditions, supporting waterwise principles.
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>	Design Principle Satisfied The proposal will not adversely impact adjoining properties in terms of bulk, scale or overshadowing due to the adjoining internal vehicle accessways and Yirrigan Drive. The design provides a high level of amenity for patrons and integrates with the surrounding activity centre.
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>	Design Principle Satisfied The development offers a clear and logical layout, with defined pedestrian paths and entry points. Access from Yirrigan Drive and internal car parking areas is legible and consistent with the Activity Centre Plan objectives for connectivity.
8. Safety <i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i>	Design Principle Satisfied Passive surveillance is achieved through glazing and active frontages where practicable. Vehicle circulation areas have been designed to minimise conflict and allow forward gear exit. Lighting will be conditioned to comply with <i>Australian Standard 4282:2023 - Control of the obtrusive effects of outdoor lighting</i>. Subject to the recommended condition setting, there are no significant 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>	Design Principle Satisfied The development introduces a commercial land use that supports local employment and economic activity, consistent with the vision for the Mirrabooka Town Centre Special Control Area.
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>	Design Principle Satisfied The building incorporates articulation through varied materials, colours and a feature canopy for the drive through component where it abuts Yirrigan Drive. These elements reduce perceived bulk and enhance visual interest, consistent with LDP objectives for streetscape quality.

2. Planning and Development (Local Planning Schemes) Regulations 2015

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

An assessment against the relevant considerations is provided below:

Schedule 2, Clause 67(2) – Consideration of application by local government	
Provision	Officer Comment
(a) <i>the aims and provisions of this Scheme and Scheme and any other local planning scheme operating within the Scheme area;</i>	Consideration Satisfied The proposed Drive Through Fast Food Outlet use is consistent with the Mixed-Use zoning of the site as per LPS3 and satisfies the objectives of the Scheme.
(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>	Consideration Satisfied The development has been assessed against the applicable State and local planning instruments and is considered consistent with orderly and proper planning principles.
(c) <i>any approved State planning policy;</i>	Consideration Satisfied 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.
(g) <i>any local planning policy for the Scheme area;</i>	Consideration Satisfied The application has been assessed against the applicable local planning policies. Where discretion is sought, the proposal satisfies the objectives of those policies.
(m) <i>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> (ii) <i>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>	Consideration Satisfied The development is appropriate within its context and responds to the desired future character of the Mirrabooka Town Centre. Design measures mitigate impacts relating to street activation and land use permissibility.
(n) <i>the amenity of the locality including the following –</i>	Consideration Satisfied

(i) <i>environmental impacts of the development;</i> (ii) <i>the character of the locality;</i> (iii) <i>social impacts of the development;</i>	The proposal includes 273m² (20%) of deep soil area and four medium-large trees, improving landscaping and visual amenity. The development will activate the site and provide passive surveillance without adverse social impacts.
(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>	Consideration Satisfied Subject to the recommended condition setting, the development provides for suitable vehicle access and egress The development complies with the parking requirements under the LPS3.
(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>	Consideration Satisfied The Applicant submitted a Transport Impact Statement (TIS) in support of the development, with additional traffic generated by the proposal considered minimal and able to be safely accommodated within the existing road network. The TIS has been reviewed and is supported by the City.
(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>	Consideration Satisfied The subject site is located within a walkable distance from the Mirrabooka Bus Station, providing the site with direct access to public transport services. 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 areas. The development accommodates access and parking for bicycles as per the planning framework. The development provides 'at-grade' car parking and universal access design features throughout the site.
(y) <i>any submissions received on the application;</i>	Consideration Satisfied In accordance with <i>Local Planning Policy 6.18 – Public Consultation</i> (LPP 6.18), such applications are not subject to public advertising unless specifically required by LPS3, to which the proposed use is further exempted from public consultation as it is classified as a discretionary use under LPS3.
(za) <i>the comments or submissions received from any authority consulted under clause 66;</i>	Consideration Satisfied Consultation with relevant authorities (being the Western Australian Planning Commission (WAPC) in relation to the lease) occurred, as detailed in the 'External Referral Agencies' section of the RAR

3. Mirrabooka Town Centre Special Control Area (SCA).

The City's responses to the LPS3 Mirrabooka Town Centre Special Control Area Objectives listed in Clause 6.8.1 of the LPS3 are as follows:

Mirrabooka Town Centre Special Control Area Objectives	
Objective	Officer Comment
a) <i>To facilitate development of a safe, vibrant, mixed use town centre based on sustainable design principles, integrated with public transport;</i>	Objective Satisfied The development enhances the vibrancy of the Town Centre by replacing an underutilised car park with an active commercial use that includes internal and alfresco dining. The building design incorporates glazing to support passive surveillance and pedestrian safety. The compliance with the LDP's sustainability requirements, including a minimum 4-star Green Star rating, ensures alignment with sustainable design principles. Its proximity to public transport supports integrated movement and accessibility.
b) <i>To encourage greater use of the Mirrabooka public transport facilities through increased density of both residential and non residential uses;</i>	Objective Satisfied The development introduces a new non-residential use within walking distance of the Mirrabooka Bus Station, encouraging increased patronage of public transport. It contributes to employment density in the precinct, supporting the strategic goal of a more transit-oriented and self-sufficient activity centre.
c) <i>To require the development of a diverse range of housing types;</i>	Objective Satisfied The proposal does not include residential components. However, the site layout and zoning allow for future mixed-use intensification, including potential residential development, consistent with the long-term vision of the Town Centre.
d) <i>To promote the development of a variety of public open space areas;</i>	Not Applicable No part of the subject site is identified in the <i>Mirrabooka Town Activity Centre Plan (AC Plan)</i> as a public open space reserve.
e) <i>To facilitate the development of a range of non residential uses that contribute to economic development, local employment and viability of the Centre;</i>	Objective Satisfied The drive-through fast food outlet introduces a new commercial activity that supports local employment and economic growth. It complements existing land uses and contributes to the viability and diversity of the Town Centre's commercial offerings.
f) <i>To encourage the development of a range of community facilities;</i>	Objective Satisfied While the proposal does not include a formal community facility, it provides a publicly accessible commercial venue that contributes to the social activation of the precinct. The site is not identified for community infrastructure in the AC Plan
g) <i>To create a permeable transport network through the provision of additional road connections;</i>	Objective Satisfied

Mirrabooka Town Centre Special Control Area Objectives	
Objective	Officer Comment
	The development includes pedestrian pathways across the drive-through lanes, improving internal connectivity and supporting a more walkable and permeable precinct layout.
<i>h) To facilitate the development of a vibrant main street; and</i>	Not Applicable The subject site is not adjacent to the 'main street' of the Mirrabooka Town Centre.
<i>i) To facilitate high quality private and public spaces and buildings that contribute towards a sense of place.</i>	Objective Satisfied The proposed building is designed to a high standard, with attention to materials, landscaping, and interface treatments that enhance the character of the Town Centre. Despite its orientation, the development contributes positively to the precinct's identity and sense of place.

The City's considered the proposed development to be consistent with the relevant provisions of the AC Plan, LDP and applicable State and Local Planning Policies. Accordingly, the proposal aligns with the strategic planning framework for the Mirrabooka Town Centre. The site is located outside the areas designated for Mandatory Residential under Clause 6.8.8(a) of LPS3, and is within the 'Core Shopping Area' identified in the AC PLAN, where no additional requirements apply. The development does not encroach upon any 'Indicative Future Road Reserve' as delineated in the AC Plan and therefore complies with Clause 6.8.12 of LPS3.

Mirrabooka Town Activity Centre Plan

State Planning Policy 4.2 - Activity Centres identifies Mirrabooka as a 'Secondary Centre' which encompasses approximately 83 hectares of land broadly bordered by Reid Highway to the north, Mirrabooka Avenue to the west, Yirrigan Drive to the south, and Northwood Drive to the east. A variety of commercial land uses, residential and public facilities are located within the Mirrabooka Town Activity Centre Plan, including the Shopping Centre, Mirrabooka bus station, a library, regional open space and a recreation centre.

On 19 November 2021, the AC Plan was endorsed by the WAPC. The AC Plan designates the development area as 'Mixed Use' (with the Shopping Centre itself designated as 'Regional Centre') and references the need for a local development plan to address various built form matters.

Based on the above, the proposal is consistent with the AC Plan and is therefore acceptable in this regard.

Expansion of Shopping Centre

In accordance with clause 6.8.10 of the Scheme, the following requirements apply to Lot 500 Yirrigan Drive and Lot 507 Sudbury Road, Mirrabooka:

- a) For every 2,500m² of additional retail floorspace above 47,100m²; 500m² of street oriented floor space is to be provided first on land that fronts either Sudbury Road and the Town Square, then on land that fronts Chesterfield Road, Farrier Road or Yirrigan Drive and within a built form that has a nil setback to the street (a plaza or community space lined with awnings can be set back from the street subject to the agreement of the local government).*
- b) For planning applications that trigger the additional retail and non-retail floorspace requirements referred to in paragraph a) above, the City shall impose a condition on the planning approval to require*

that the additional floorspace be provided either prior to or in conjunction with the related expansion of the Mirrabooka Shopping Centre

Although the proposed development includes 249m² of floorspace, it does not constitute an expansion of the Mirrabooka Shopping Centre under Clause 6.8.10 of LPS3. The drive-through canopy is set back 0.2m and the building itself is set back 4.5m from Yirrigan Drive, which does not meet the nil setback requirement for street-oriented retail floorspace. Furthermore, the proposed use—a standalone drive-through fast food outlet—is not integrated into the existing shopping centre footprint and does not increase the retail floorspace of the Centre. As such, the proposal does not trigger the requirement to provide additional street-oriented retail floorspace prior to or in conjunction with any expansion of the shopping centre.

4. Local Planning Policy 5.9 – Mirrabooka Town Centre Parking (LPP 5.9)

Bicycle and motorcycle parking has been assessed against the requirements of Local Planning Policy 5.9 – Mirrabooka Town Centre Parking (LPP 5.9). The proposed development provides two bicycle bays, exceeding the minimum requirement of one bay, and meets the motorcycle parking provisions. Overall, the proposal is compliant with LPP 5.9.

Rate of Bicycle Parking Provision Other Non – Residential Uses	
Provision	Officer Comment
No. Bicycle Parking Spaces For Employees/Resident - 0.25 spaces per 100m ² of GFA	<i>Proposed 249m² of GFA.</i> - <i>Required spaces: 0.62 (1 space)</i> - <i>Proposed spaces: 2 spaces.</i>
No. Bicycle Parking Spaces For Customers/Visitors - 0.1 spaces per 100m ² of GFA	<i>Proposed 249m² of GFA.</i> - <i>Required spaces: 0.24 (0 Spaces)</i> - <i>Proposed spaces: 2 Spaces</i>
Total	<i>Consideration Satisfied</i> - <i>Required spaces: 1 space.</i> - <i>Proposed spaces: 2 spaces.</i>

Rate of Motorcycle/Scooter Parking Provision Other Non – Residential Uses	
Provision	Officer Comment
No. Motorcycle Parking Spaces For Employees/Resident - 0.1 spaces per 100m ² of GFA	<i>Proposed 249m² of GFA.</i> - <i>Required spaces: 0.24 (0 Spaces)</i> - <i>Proposed spaces: 0 Spaces</i>
No. Motorcycle Parking Spaces For Customers/Visitors - 0.1 spaces per 100m ² of GFA	<i>Proposed 249m² of GFA.</i> - <i>Required spaces: 0.24 (0 Spaces)</i> - <i>Proposed spaces: 0 Spaces</i>
Total	<i>Consideration Satisfied</i> - <i>Required spaces: 0 space.</i> - <i>Proposed spaces: 0 spaces.</i>

5. Local Planning Policy 6.3 – Bin Storage Areas (LPP6.3)

The City's comments against LPP6.3's Objectives are contained in the table below, which is considered acceptable from a waste perspective:

LPP 6.3 – Policy Objectives	
Objective	Officer Comment
<i>To provide sufficient space for the storage of bulk refuse bins</i>	Objective Satisfied The proposed width of 3.3m is considered adequate to accommodate the required number of bins and allow safe manoeuvring, given the overall design and available depth of the enclosure. Additionally, the total area of 18m² exceeds the policy requirement by 8m², ensuring sufficient space.
<i>To ensure that bin areas are screened from the street and are in harmony with the materials and finishes of the building.</i>	Objective Satisfied The 3.3m-high bin enclosure is screened from Yirrigan Drive by a visually permeable aluminium fence and a section of the main building's wall. The enclosure incorporates colours that complement the building's design. This treatment, combined with its location, maintains visual harmony and reduces the streetscape impact.

6. Draft Local Planning Scheme No. 4 (LPS4)

The City has prepared *Draft Local Planning Scheme No. 4 (Draft LPS4)* to replace *Local Planning Scheme No. 3 (LPS3)*. At its 10 June 2025 Ordinary Meeting, Council considered a report on the outcomes of advertising of Draft LPS4 and resolved to support it, subject to modifications. On 18 June 2025, Draft LPS4 was accepted by the Department of Planning, Lands and Heritage for final assessment and determination.

In relation to Draft LPS4, a decision-maker shall 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 unknown at this time and accordingly, minimal weight should be given to its proposed development controls when determining this application. Notwithstanding, the site is proposed to be zoned 'Urban Development'. The proposed objectives for the 'Urban Development' zone are as follows:

- o "To provide an intention of future land use and a basis for more detailed structure planning in accordance with the provisions of this Scheme
- o To provide for a range of residential densities to encourage a variety of residential accommodation.
- o To provide for the progressive and planned development of future urban areas for residential purposes and for commercial and other uses normally associated with residential development.
- o To provide an intermediate transitional zone following the lifting of an urban deferred zoning within the Metropolitan Region Scheme"

As the proposal is consistent with the provisions of the AC Plan (which itself is valid until 19 November 2031), the proposal is also deemed to be consistent with Draft LPS4 and is therefore acceptable in this regard.



- LPS4 Zones
- Residential
- Private Community Purposes
- Urban Development

Figure 1 - Annotated draft LPS4 Zoning showing development site

**Attachment 7a – Applicant's Response to Request for Information received 24
October**

PS ref: 9348

24 October 2025

City of Stirling
25 Cedric Street
Stirling WA 6021
Via email: development@stirling.wa.gov.au

Attention: Allan Birech – A/Senior Planning Officer

Dear Allan,

**LOT 500 (43) YIRRIGAN DRIVE, MIRRABOOKA
PROPOSED STARBUCKS DRIVE THROUGH COFFEE OUTLET
RESPONSE TO REQUEST FOR FURTHER INFORMATION**

Planning Solutions acts on behalf of Fawkner Property Ltd, the registered proprietor of The Square Mirrabooka Shopping Centre at Lot 500 (43) Yirrigan Drive, Mirrabooka (**subject site**).

We refer to the Request for Further Information (**RFI**), received from the City of Stirling (**City**) on 17 September 2025, regarding the proposed Starbucks drive through coffee outlet on the subject site.

The following letter tables and responds to the various comments and requests for additional information received. The following documentation has been updated and enclosed in this RFI response package:

1. Amended development plans (**Attachment 1**).
2. Amended service vehicle swept paths (**Attachment 2**).
3. Amended landscape plan (**Attachment 3**).

RESPONSE TO REQUEST FOR FURTHER INFORMATION

Following preliminary assessment of the application, the City has issued a letter which identifies matters requiring further consideration or clarification. A response to the various matters is provided in **Table 1** below.

Table 1: RFI Responses

City Comment/Request Item	Applicant Response
2.1. Mirrabooka Town Centre Local Development Plan (LDP)	
Clause 3.0 - Specific Façade Provisions	
The City does not support the proposed design and interface to Yirrigan Drive, with the development to address the Façade Type B provisions of the LDP.	As outlined in Section 4.4.3 of the Development Application Report and through various discussions / meetings with the City's officers, the development has been designed with consideration to the site constraints and operational requirements of the business. In consideration of the design matters raised by the City, the following design changes to the built form are proposed: • A canopy structure and street facing façade has been added over the drive-through on the southern side of the site to create a built form edge to Yirrigan Drive and connect the proposed development to the public domain. The canopy measures 3.7m in height and

	23.5m in length, providing a substantial built form addition to the development. - The climbing landscaping proposed to grow over part of the canopy will increase the amount of vegetation on this elevation, further softening the interface, and creating a more attractive elevation to the street. - A public art concept is proposed and integrated into the canopy elevation. Whilst the final public art element will be confirmed during the detail design stage, the concept is integrated into the Amended Development Plan (Attachment 1). The indicative public art concept comprises a linear band of wall art / mural along the full extent of the canopy elevation – this location and design is preferred to maximise the public art exposure to Yirrigan Drive at street and pedestrian level. - The use of vertical timber-look battened elements, black/grey metal and climbing vegetation on the canopy integrates the drive through component with the building, extending the built form out to the street. This mix of materials, textures, landscaping and public art along the canopy ensures the structure does not present as a blank façade and is instead, an interesting, aesthetic and articulated part of the built form. - The proposed canopy also functions in part to screen the drive through from Yirrigan Drive, creating a more pedestrian friendly and aesthetic elevation. - Refer Attachment 1 for the Amended Development Plans and Attachment 3 for the Amended Landscape Plan.
Clause 4.1.1 – Building Heights	
The development does not provide for an active frontage to Yirrigan Drive with primarily large sections of blank wall provided. The development does not facilitate the creation of safe and interesting spaces or provide for street activation or passive surveillance opportunities to Yirrigan Drive. Should these matters be addressed, in principle, the City may be supportive of the proposed building height.	As outlined above, the inclusion of the canopy structure and street facing façade, along with public art and high quality landscaping, materially improve the presentation of the development to Yirrigan Drive. Due to the site constraints and operational requirements of the land use, as outlined above and discussed with the City, it is not possible to create an active building frontage to Yirrigan Drive. In terms of passive surveillance, the movement of cars through the drive through creates surveillance opportunities of Yirrigan Drive.
Clause 4.2.1 – Building Articulation	
Please provide amended plans that introduce articulation through elements such as openings and a mix of textures, colours, and materials to break up the blank walls.	Refer response provided to Clause 3.0 above. In addition to this response: - The western elevation has been updated to incorporate more glazing and timber look finishes, in place of the previously proposed grey wall finish. This improves articulation as well as passive surveillance to the car park and Yirrigan Drive and allow more natural light to enter into the building for customers/staff. - As outlined in the Amended Landscape Plan, additional shrub planting to the height of 1.5 metres has been included to further soften the eastern building wall adjacent to the drive through.

Clause 4.2.4 – Design for Safety	
Please provide amended plans that provide for passive surveillance and street activation. This should allow for the inclusion of glazing within dining areas and seating areas facing Yirrigan Drive.	Refer response to Clauses 4.1.1 and 4.2.1 above.
Please ensure that parking areas and pedestrian accessways are well-lit to provide adequate safety and visibility.	The Starbucks building will be well lit during trading hours. This, in combination of the existing lighting within the shopping centre car park, will provide adequate safety and visibility.
Clause 4.2.7 – Water Sensitive Urban Design	
Please provide an Ecologically Sustainable Development Report and/or statement confirming a how the development achieves a minimum of 4-star “best practice” under the Green Building Council of Australia rating system.	The Starbucks development is likely to include the following sustainability initiatives: • High efficiency HVAC system • LED signage and lighting • Heat recovery hot water system • Durable external cladding system • Recycled wheelstops • 20% landscape cover to reduce the urban heat island effect. It is requested the requirement for an Ecological Sustainable Development (ESD) statement be addressed through a condition of development approval.
Clause 4.3.1 – Vehicle Access:	
The proposed direction signage SD07 and SD03 should be reduced/relocated to prevent the sightlines from being obstructed.	SD07 has been relocated to align with the realignment of the drive through lane. Both sign locations are considered appropriate, as the car park area to the west forms part of the Big W servicing area and is not frequently used by customer vehicles.
Provide stacking capacity data, from an existing Starbucks site, within the Transport Impact Statement to justify the provided 50/50 customer split (drive through vs restaurant). OR The City will require one of the following solutions: - Relocate the current order point a minimum of 10m along the drive-through from its proposed location; or - Allow for the use of the second lane (via the loading bay) during core hours only.	The stacking capacity included in the Transport Impact Assessment (TIA) is realistic and appropriate given nature of the proposal. The nature of the Starbucks business differs from conventional fast food businesses. Starbucks is predominately a coffee business providing convenience through the drive through, but also café style amenity within the building. The positioning of the order point is strategically located to maximise vehicles stacking back from the collection window. The accessway for the second, future drive through lane will be constructed with the development – if demand necessitates, the second drive through order point can be implemented by Starbucks.
Please provide further information on the proposed loading and waste pick up times for the development, noting that loading will be required outside of core operating hours to minimise any impact on the drive-through operation.	○ Waste collection will be x2 per week (x1 general, x1 recycling) and carried out between 7am-7pm Monday-Saturday as per acoustic report and waste management plan submitted with the development application. ○ Deliveries will occur 4-5 times per day outside peak operating periods (i.e not within 8am-9:30am, 12 noon to 1:30pm and 3:00pm to 4:00pm). Milk will be delivered at 4am daily.

	○ Deliveries will take less than 24 minutes in a 4-hour period as outlined in the acoustic report submitted with the development application. ○ Deliveries will be carried out by small delivery vehicles such as vans.
4.3.2 Pedestrian + Bicycle Access	
Please provide amended plans showing clear pedestrian access and links to the surrounding areas. This could be addressed via incorporating contrasting paving materials and raised crossings.	The Development Plans have been updated to incorporate improved pedestrian connectivity and legibility within and to the site. The now consolidated car parking area in the northern portion of the site has allowed a pedestrian pathway to be provided between the last car bay and the drive through waiting bay (western side of the site). A zebra crossing over the drive through connects this pathway to the existing pedestrian path on the western side of the drive through (towards the existing shopping centre pylon sign). This redesign has also allowed for an additional car parking bay to be provided on site.
Please relocate the proposed bicycle parking area closer to the building to enhance its accessibility, convenience and surveillance.	The bicycle parking bays have been relocated closer to the building and are now adjacent to the outdoor seating area.
2.2 Local Planning Policy 6.1 – Advertising Signage	
Please provide amended plans relocating the proposed pylon signage to the eastern side of the development (to minimise proliferation and increase visibility) and reducing its height to 9 metres.	The proposed pylon sign has been reduced in height from 10m to 9m, in accordance with LPP6.1. Due to the site planning and constraints, there is no capacity to relocate the pylon to the eastern side of the development.
Please confirm whether signage is proposed to be illuminated and provide further details regarding this matter.	The signage is proposed to be internally illuminated. As demonstrated in the Lighting Report submitted with the development application, the proposed signage is compliant with the relevant Australian Standards.
2.3. Local Planning Policy 6.6 - Trees and Landscaping (Non-Residential)	
On 12 August 2025, the Council resolved to adopt a modified Local Planning Policy 6.6 Landscaping (LPP 6.6) and revoke Local Planning Policy 6.11 Trees and Development. LPP6.6 requires updated landscaping plan including: - Increased groundcover density to 3 per m²; - Mulch depth to 100mm; - Additional tree, and location of all trees centrally within deep soil areas; and - Provision of trees within the parking area, at 1 per 6 uncovered bays.	The proposed landscape design has been amended as follows in response to the City's comments: • Total landscaped area increased from 226m² (16%) to 273m² (20%). • An additional tree added (total of 3 new trees on site). The trees are proposed within the deep soil zones. • Mulch depth increased from 75mm to 100mm.
To reduce the visual dominance of the drive-through lane along Yirrigan Drive, a sufficient landscape buffer should be provided, noting there is an existing landscape buffer at present.	Refer responses provided at Clauses 3.0 and 4.2.1 above. In addition, two trees have been relocated to the shopping centre internal accessway to further soften the appearance of the drive through.
Please note that further information is required on the waterwise irrigation system proposed.	This matter can be addressed through a condition of development approval.
The proposed trees appear to impact the existing pylon sign's visibility. In addition to the removal of the three western parking bays, the City recommends the minor relocation of the drive-through lane closer to the western	The proposed trees have been relocated to a more appropriate, deep soil zones on the eastern and northern sides of the development. A landscape zone is proposed on the western side of the drive through and contains high quality shrub planting.

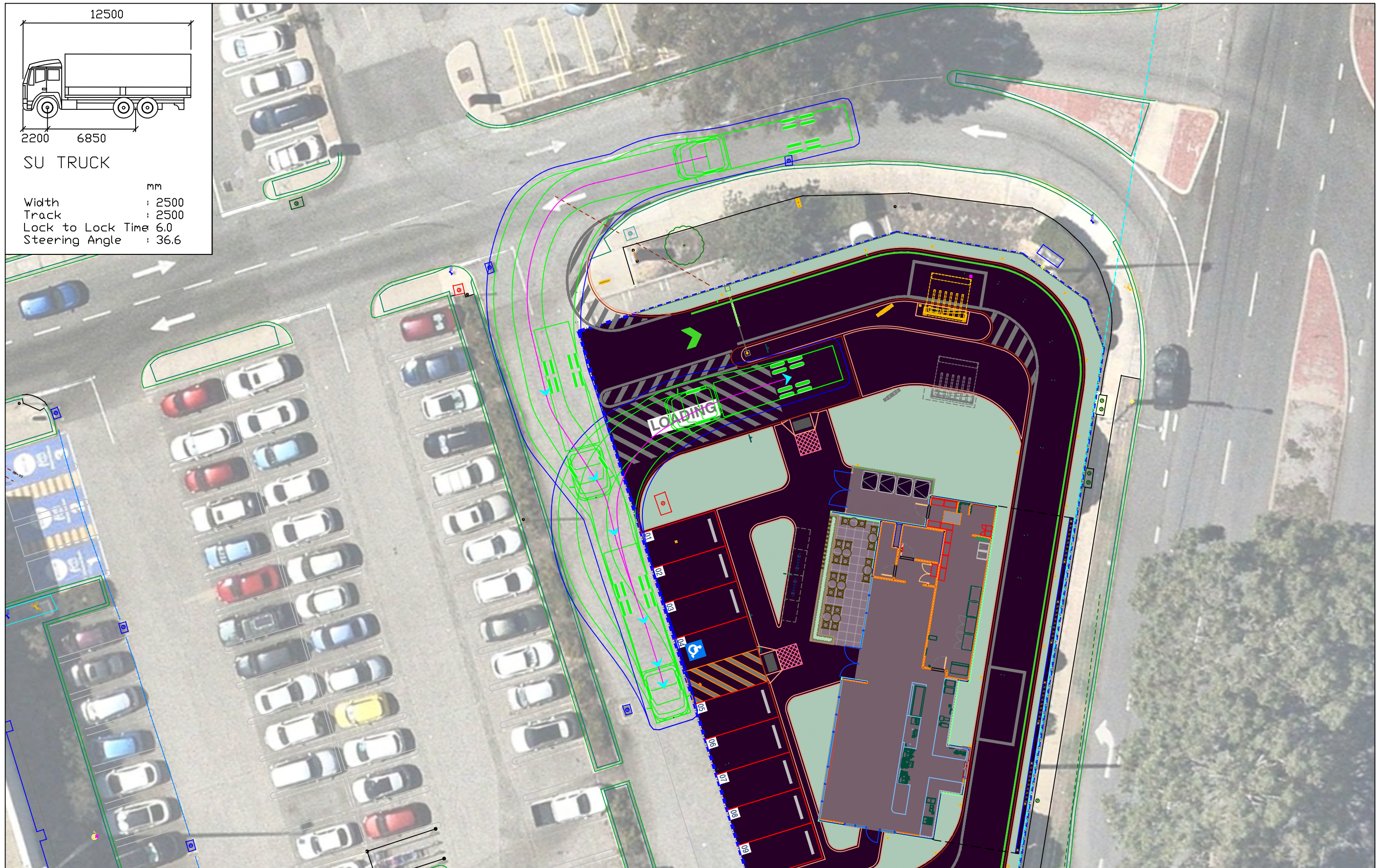
lease boundary (with approximately a metre setback for landscaping) for a consolidated landscaping area.	
2.4. Local Planning Policy 6.12 - Public Art on Private Land	
As per Local Planning Policy 6.12, the development is to provide public art as part of the development, with a cost contribution at a rate of 1% of the cost of the development. Please provide amended plans demonstrating the proposed location of on-site public art; the City recommends placement on the Yirrigan Drive frontage.	A public art concept is proposed and integrated into the canopy elevation structure. The final public art design will be confirmed during the detail design stage. The indicative public art concept comprises a linear band of wall art / mural along the full extent of the canopy elevation – this location and design is preferred to maximise the public art exposure to Yirrigan Drive at street and pedestrian level.

Should you have any queries or require further clarification in regard to the proposal, please do not hesitate to contact the writer.

Yours faithfully,

PP *Marc Re*

JACQUI HALL
SENIOR PLANNER



Proposed Starbucks - The Square, Mirrabooka

Austrroads 2023: 12.5m Service Vehicle

Loading Bay Access

LEGEND

Vehicle Body
Wheel Path
500mm Clearance



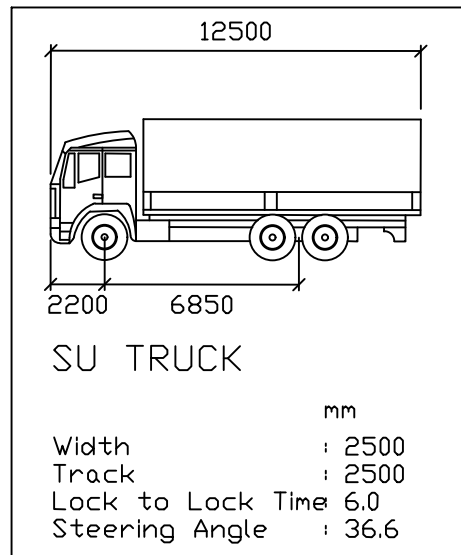
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Proposed Starbucks - The Square, Mirrabooka

Austrroads 2023: 12.5m Service Vehicle

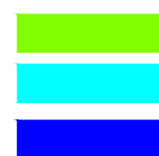
Loading Bay Egress

LEGEND

Vehicle Body

Wheel Path

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Starbucks Restaurant, Mirrabooka Square

Transport Impact Assessment

PREPARED FOR:
Fawcner Property LTD ATF
Private Property Trust No. 18

June 2025

Document history and status

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Project: Starbucks Restaurant, Mirrabooka Square

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1 Summary

This Transport Impact Assessment has been prepared by Transcore on behalf of Fawkner Property LTD ATF Private Property Trust No. 18 with respect to the proposed integration of a new Starbucks restaurant within the Mirrabooka Square Shopping Centre located in Mirrabooka, City of Stirling (hereafter the subject site).

The development proposal includes construction of a new Starbucks restaurant with associated drive-thru facility at the existing shopping centre car park area along the Yirrigan Drive frontage. Accordingly, the proposed development will form an integral part of the existing shopping centre complex with no changes to the existing centre's access system proposed.

The subject site is currently an underutilised section of the shopping centre car park.

In accordance with the WAPC document "*Transport Impact Assessment Guidelines for Developments, Volume 4 – Individual Developments (2016)*" a Transport Impact Assessment is required for developments that are likely to generate high volumes of traffic and, therefore, would have a high overall impact on the surrounding land uses and transport networks.

The aim of this Transport Impact Assessment (TIA) is to estimate the traffic which will be generated by the proposed new restaurant and establish the resultant traffic pattern on the surrounding road network. This assessment will include the capacity analysis of the adjacent retail centre accesses intersection of Yirrigan Drive including the adjacent intersection of Yirrigan Drive/Farrier Road.

For the purpose of this TIA, Transcore undertook traffic count surveys at the Yirrigan Drive/Access Road and Yirrigan Drive/Farrier Road intersections during the established typical weekday morning and afternoon and Saturday midday peak hours in May 2025.

2 Introduction

This Transport Impact Assessment has been prepared by Transcore on behalf of Fawkner Property LTD ATF Private Property Trust No. 18 with respect to the proposed construction of a new Starbucks restaurant within the Mirrabooka Square Shopping Centre in Mirrabooka, City of Stirling.

The subject pad site for the restaurant is located within the area of the existing shopping centre car park fronting Yirrigan Drive, as shown in **Figure 1**.



Figure 1: Location of the subject site

The key issues that will be addressed in this report include the traffic generation of the proposed development, capacity analysis of the existing intersection of Yirrigan Drive/Farrier Road and the shopping centre's access intersection on Yirrigan Drive immediately adjacent to the subject site.

The location of the subject site within the *Metropolitan Region Scheme* context is illustrated in **Figure 2**. Review of the *MRS* confirms that all roads fronting the shopping centre including the subject site are local roads under care and control of City of Stirling. The subject site is zoned as "Urban" in the *MRS*.

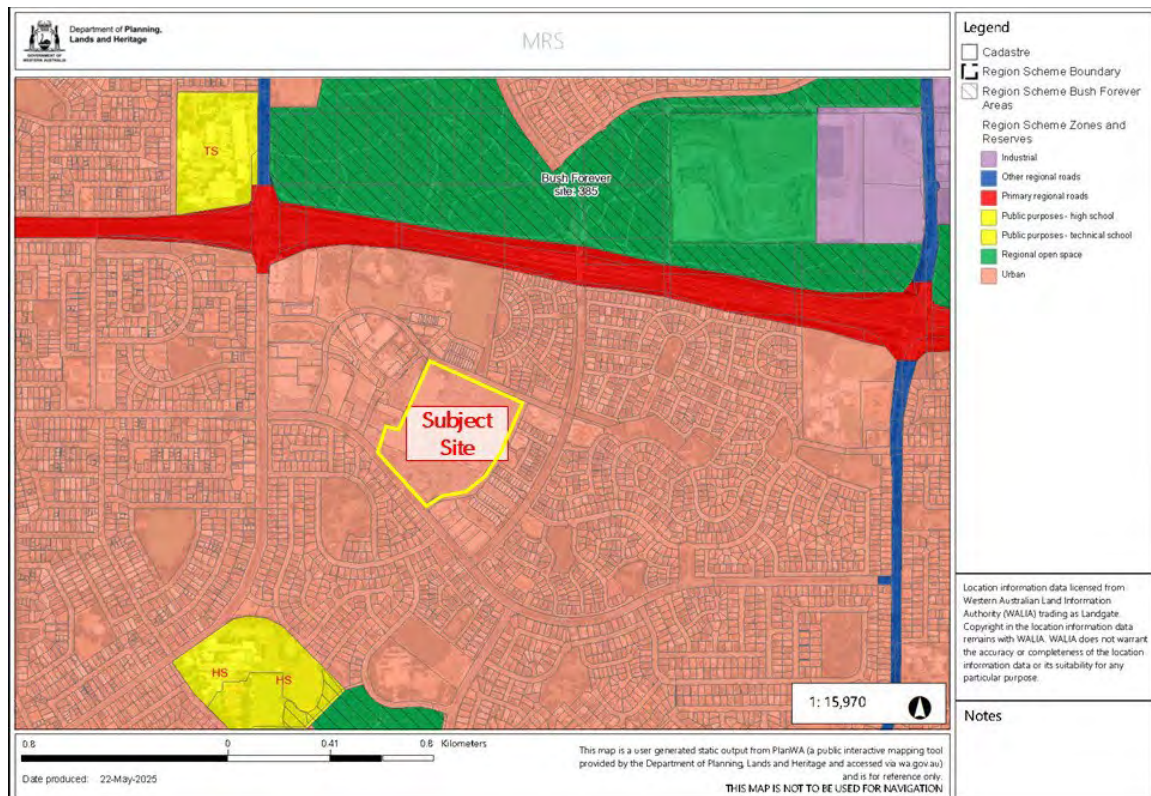


Figure 2. Site location within the Metropolitan Region Scheme

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3 Development Proposal

The development proposal contemplates construction of a new Starbucks restaurant with associated drive-through facility and car parking within the existing Mirrabooka Square Shopping Centre car park. Specifically, the development proposal includes construction of a new restaurant of approximately 270m² GFA with a single-lane drive-through facility and a total of eight parking bays (inclusive of one ACROD bay).

The introduction of the new restaurant will displace approximately 36 car bays which are currently serving the shopping centre. However, due to the relative remoteness of this section of the car park relative to the shopping mall the subject car park area is significantly underutilised.

The proposed drive-through facility can accommodate up to five vehicles between the drive-through entry and the order-taking position with additional waiting bay provided near the exit point from the facility.

Appropriate loading bay for service and waste collection vehicles is proposed adjacent to the restaurant building. It has been advised that rigid service vehicles of up to 12.5m in length would be used for deliveries. Turn path assessments has been undertaken for this size truck confirming the suitability of the internal site layout and service bay designs. Turn paths are presented in [Appendix B](#).

It is understood that the proposed development has been designed to convert the loading bay into a shared loading space/second drive-through lane should that be required at some point in the future.

No change to the existing access system serving the shopping centre is proposed as part of the development proposal. The existing access system comprising accesses on Yirrigan Drive, Sudbury Road, Chesterfield Road and Farrier Road will continue to operate in their current form.

Pedestrian access to the site is provided internally between the shopping centre car parking area and externally via pedestrian path which abuts the site along the Yirrigan Drive frontage. Refer to [Appendix A](#) for proposed site plans.

For the purpose of the traffic assessment, it is assumed that the proposed restaurant would be completed and fully operational by the end of 2027.

4 Existing Situation

The subject site (approximately 1,350m² in size) occupies space at the southern end of the shopping centre site along the Yirrigan Drive frontage. The site is also located immediately adjacent to the existing centre access intersection of Yirrigan Drive/Access Road. The site is currently an underutilised car park.

4.1 Existing Road Network

Yirrigan Drive is a dual carriageway, four-lane road with a 7.0m wide landscaped median with right-turn pockets at major intersections. It entails a shared path along the southern/western side and a footpath along the northern/eastern side of the road.

Speed-limit on Yirrigan Drive in this vicinity is 60km/h. Yirrigan Drive is classified as a *Distributor A* road in accordance with Main Roads WA *Functional Road Hierarchy*. This road is under care and control of the Local Authority.

Farrier Road, is presented as a single-carriageway, two-lane road with a footpath along the eastern side of the road.

Farrier Road operates under a default built-up area speed limit of 50km/h. This road is classified as a *Local Distributor* road in Main Roads WA *Metropolitan Functional Road Hierarchy* document. This road is under care and control of the Local Authority.

Yirrigan Drive/Farrier Road form a priority-controlled T-intersection to the south of the subject site.

Immediately adjacent to the subject site, Yirrigan Drive forms a priority-controlled left-in/left-out/right-out intersection with the shopping centre Access Road.

4.2 Existing Traffic Volume on Roads

The latest available traffic count data sourced from Main Roads WA, show the following daily volumes on:

- Yirrigan Drive (E of Alexander Drive): 9,211vpd in 2021/22 (HV 5.7%);

4.3 Heavy Vehicles

Restricted Access Vehicle (RAV) Network routes are designated for access by large heavy vehicle combinations, which is managed by Main Roads WA. All roads adjacent to the subject site, except for Reid Highway, are classified as RAV Network 1, as shown **Figure 3**.

The RAV 1 Network classification permits operation of semi-trailers of up to 19m and short B-Doubles of up to 20m on these roads, while roads classified as RAV 4 are designed to carry heavy vehicle combinations of up to 27.5m in length.

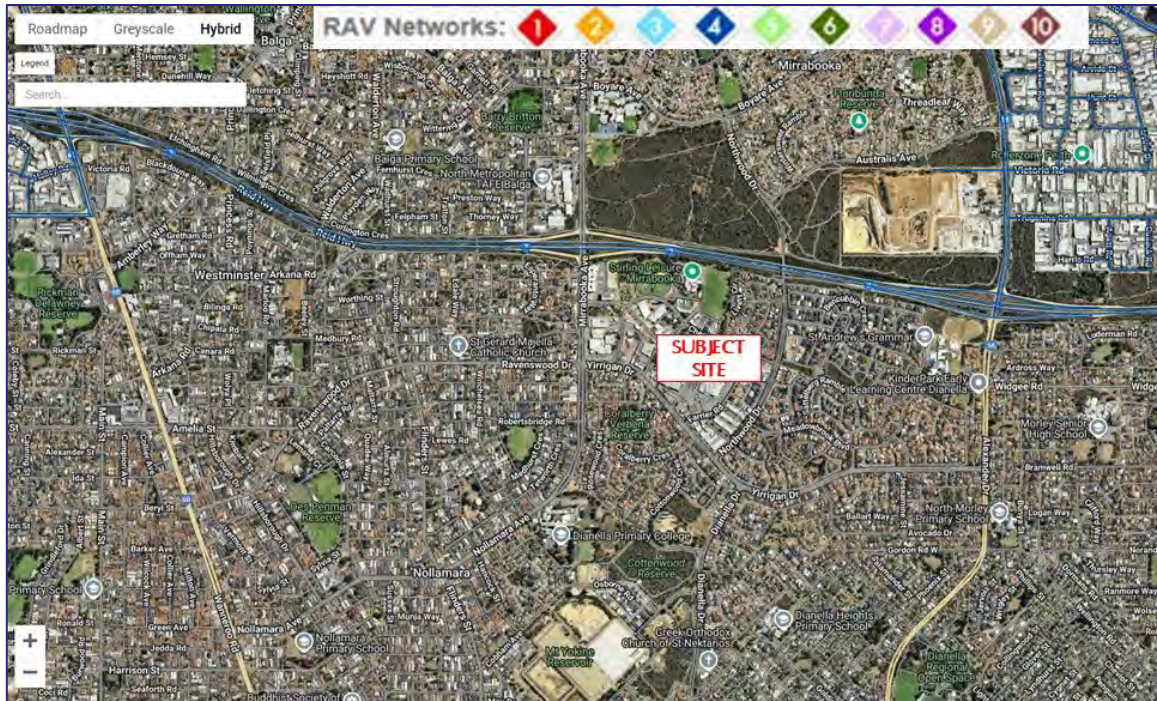


Figure 3. Existing heavy vehicle road network classification (RAV)

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4.4 Public Transport Access

A number of bus routes operate along Yirrigan Drive, Chesterfield Road and Northwood Drive providing access to a number of key local and regional localities (refer [Figure 4](#) for more details).

In addition, Mirrabooka Bus Station is located immediately adjacent to the shopping centre and within the comfortable walking distance to the subject site (about 250m walking distance). A number of bus stops are located on the roads surrounding the shopping centre all within close proximity to the site.

All relevant bus stops are directly accessible via existing formal network of paths on the local roads.

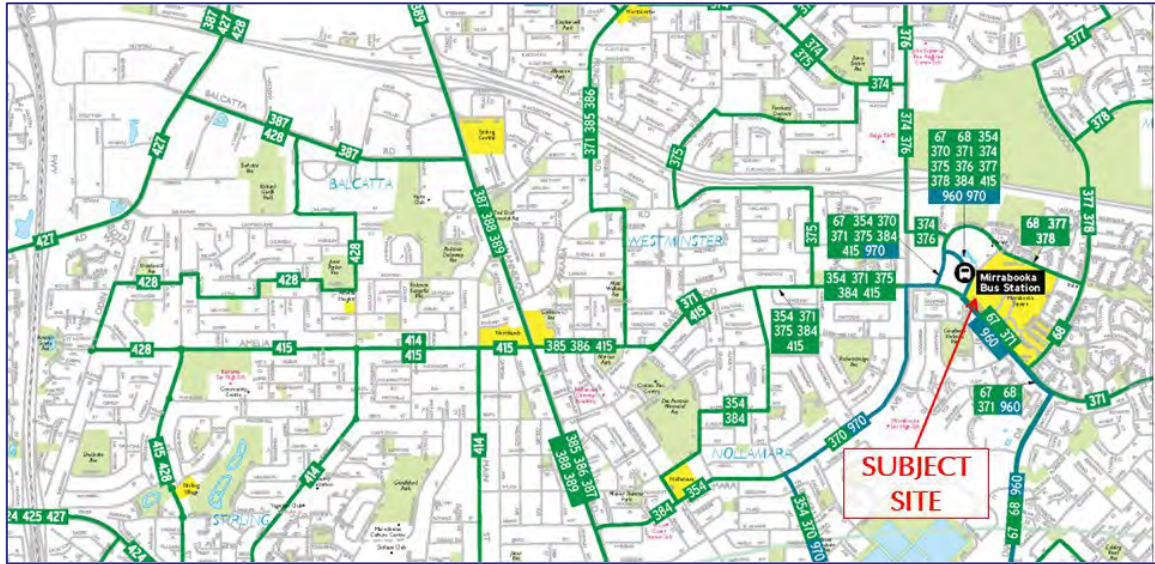


Figure 4. Existing bus services map (source: Transperth)

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4.5 Pedestrian and Cyclist Facilities

Pedestrian access to the subject site is available via the existing external footpath network on the surrounding roads. The traffic lights at the Yirrigan Drive/Sudbury Road intersection facilitates safe pedestrian movements across the fronting road adjacent to the subject site. No changes to the existing footpath network in this vicinity is proposed as part of the proposal.

The *Perth Bike Map* series published by the Department of Transport (see [Figure 5](#)) indicates good pedestrian and cyclist connectivity to the subject site. Shared paths are in place on Yirrigan Drive, Chesterfield Road, Dianella Drive and Northwood Drive while on-street cycling lanes are provided on Ravenswood Drive (west of Nollamara Avenue).

The shared paths form part of the interconnected system of paths, on-street cycling lanes and roads designated as “good road riding environment”.

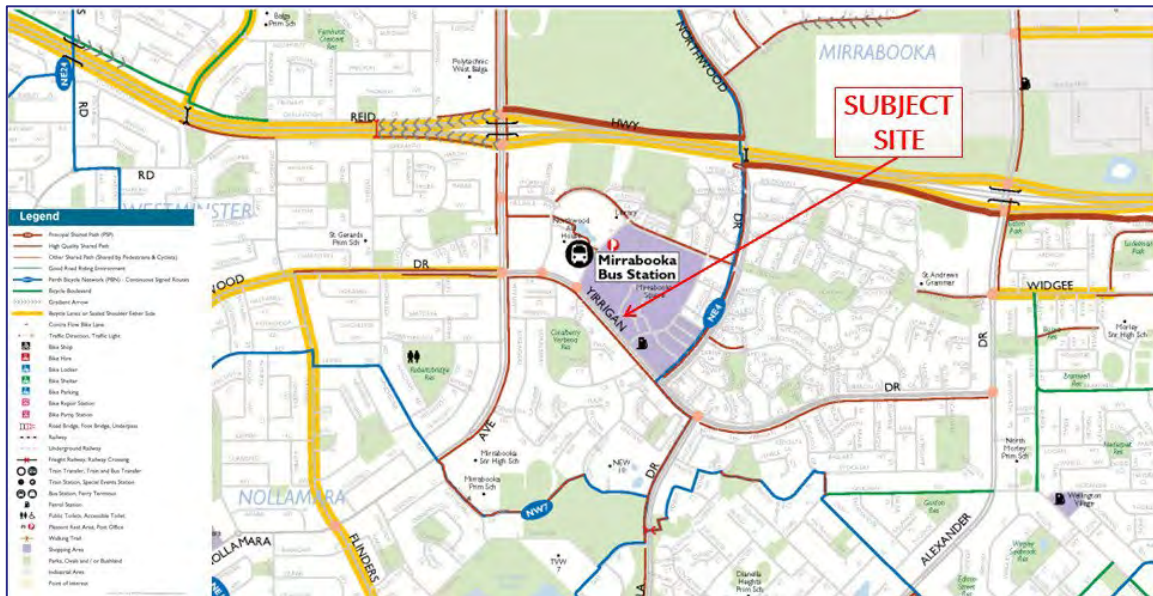


Figure 5: Perth Bike Map (source: Department of Transport)

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4.6 Crash Data

Information available on Main Roads WA website provides crash statistics for Yirrigan Drive/Farrier Road intersection including the Yirrigan Drive access intersection during the five-year period ending in December 2024.

The crash history indicates that the intersection of Yirrigan Drive/Farrier Road recorded a total of 14 road crashes with four casualties (all medical) and no fatalities in the last five-year period. More than 75% of recorded crashes were right angle type crashes. More details on the crash records are provided in [Table 1](#).

Table 1. Crash history for the Yirrigan Drive/Farrier Road intersection

Intersection				Total Crashes	Casualty
Yirrigan Drive/Farrier Road				14	4
Right Angle	Rear End	Pedestrian	Cycle	Wet	Night
11	2	0	N/A	4	1

The crash history for Yirrigan Drive/Access Road intersection indicates a total of 23 road crashes with seven casualties (six medical and one hospital) and no fatalities in the last five-year period. More than 85% of the recorded crashes were right angle type of crashes. More details on the crash records are provided in [Table 2](#).

Table 2. Crash history for the Yirrigan Drive/Access Road intersection

Intersection				Total Crashes	Casualty
Yirrigan Drive/Access Road intersection				23	7
Right Angle	Rear End	Pedestrian	Cycle	Wet	Night
20	2	0	N/A	2	2

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5 Changes to Surrounding Transport Networks

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No changes to the surrounding road network are contemplated as part of the development proposal.

6 Integration with Surrounding Area

The proposed development is of a retail/services character and as such is fully compatible with the locality.

7 Traffic Assessment

7.1 Assessment Period

The peak traffic activity periods for the proposed development have been derived directly from the typical week sales data provided by the future restaurant operator.

Based on the available traffic counts for the surrounding road network, the combination of the development-generated traffic and the road network traffic on adjacent roads is anticipated to result in the greatest demand on the road network during the weekday late afternoon peak hour between 3:00-4:00PM and on Saturdays during mid-day peak hour of 12:00noon-1:00PM. As such, trip generation is estimated, and traffic analysis is undertaken for these two distinct periods.

It is assumed that the proposed development would be fully constructed and operational by the end of 2027. As such, 2027 assessment is undertaken for the post-development scenario.

In line with the requirements of the document *“Transport Impact Assessment Guidelines for Developments, Volume 4 – Individual Developments (2016)”* additional assessment is undertaken for a 10-year post development time horizon (i.e., 2037 in this case).

There are no historical traffic counts available for Yirrigan Drive and Farrier Road to establish historical growth; however, as the immediate and wider locality is fully developed it is unlikely that typical daily traffic volumes will change significantly in the future. Accordingly, in order to ensure a conservative assessment, a nominal 0.5% p.a. annual growth rate was applied to background traffic on Yirrigan Drive and Farrier Road for post-development and 10-year horizon assessment scenarios.

7.2 Trip Generation and Distribution

The total daily, weekday PM and Saturday midday peak hour trip rates for the proposed restaurant with a drive-through were derived from customer survey data information provided by Starbucks. Conservatively, a total of two trips per customer were assumed in the trip generation calculations in this instance.

Accordingly, it is estimated that the proposed development would generate approximately **1,120** total weekday daily trips (both inbound and outbound) with approximately **64** and **102** weekday PM and Saturday midday peak hour trips (both inbound and outbound).

The directional split of inbound and outbound trips for the proposed development is assumed to be 51/49 and 50/50 during PM and Saturday peak periods, respectively.

Conservatively, no cross-trade adjustment was applied for cross trade between the proposed restaurant and the adjacent shopping centre for robustness of analysis.

Trips associated with the proposed development comprise a significant portion of passing-trade trips (and diverted trips) which are trips already present on the road network. Passing trade factor of 50% was applied in this instance, which is in line with the *ITE Trip Generation Handbook*.

With respect to the assumed distribution and assignment of the development-generated traffic, consideration was given to the location of the site (adjacent to a major district-level route), the overwhelmingly passing trade nature of the development and the current available access and egress routes to and from the site. Accordingly, the assumed directional traffic distribution is as follows:

- Approximately 40% of the traffic generated from the development would arrive from Yirrigan Drive west direction;
- Approximately 40% of the traffic generated from the development would arrive from Yirrigan Drive east direction; and,
- Approximately 20% of the traffic generated from the development would arrive from Farrier Road north direction.

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7.3 Traffic Flow

The traffic movements estimated to be generated by the proposed development have been manually assigned on the adjacent road network in line with the directional distribution assumptions outlined in the previous section.

The resulting year 2027 traffic movements generated by this development, during the typical weekday PM and Saturday midday peaks are shown in **Figure 6**.

For the purpose of this assessment, the relevant weekday PM and Saturday midday peak hour traffic movements at the intersection of Yirrigan Drive/Farrier Road and Yirrigan Drive/Access Road intersection were established using latest available SCATS data (for Yirrigan Drive/Sudbury Road traffic signals) and Transcore's surveys undertaken on 23rd and 24th May 2025.

The summary of the recorded traffic movements used as a basis for the intersection capacity analysis is illustrated in **Figure 7**.



Figure 6: Estimated development generated traffic – Weekday PM and Saturday midday peak hour traffic



Figure 7. Weekday PM and Saturday midday peak hour traffic at the Yirrigan Drive/Farrier Road and Yirrigan Drive access intersection

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7.4 Analysis of Local Intersections & Crossovers

The assessment of the Yirrigan Drive/Farrier Road and Yirrigan Drive/Access Road intersections for the weekday PM and Saturday midday peak hour traffic was undertaken for the post-development (year 2027) and 10-year post-development (year 2037) scenarios.

The capacity analysis was undertaken using the SIDRA NETWORK computer software package. SIDRA is an intersection modelling tool commonly used by traffic engineers for all types of intersections. SIDRA outputs are presented in the form of Degree of Saturation, Level of Service, Average Delay and 95% Queue. These characteristics are defined as follows:

- **Degree of Saturation** is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for infrequent traffic flow up to one for saturated flow or capacity.
- **Level of Service** is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. In general, there are 6 levels of service, designated from A to F, with Level of Service A representing the best operating condition (i.e. free flow) and Level of Service F the worst (i.e. forced or breakdown flow).
- **Average Delay** is the average of all travel time delays for vehicles through the intersection.
- **95% Queue** is the queue length below which 95% of all observed queue lengths fall.

The results of the SIDRA NETWORK analysis are summarised in [Appendix C](#) and discussed in the subsequent paragraphs.

Yirrigan Drive/Farrier Road Intersection

The SIDRA analysis indicates that this intersection currently operates with overall LoS A to C during the and PM and Saturday peak hour periods, respectively. Refer [Table 3](#) and [Table 4](#) for more details.

The addition of the development traffic, including the background traffic growth on constituent roads at 2027, will not result in changes to overall intersection LoS. The intersection at this stage operates at about 62% and 53% capacity with most pronounced queuing recorded on Farrier Road and Yirrigan Drive south approaches of up to two vehicles. Refer [Table 5](#) and [Table 6](#) for more details.

Similarly, with the allowance for development-generated and 10-year traffic growth post-development on constituent roads (year 2037), the overall LoS for the intersection remains that of LoS A to C in the PM and Saturday midday peak hours. The intersection at this stage operates at about 69% and 58% capacity with most pronounced queuing of up to two vehicles being on Farrier Road and Yirrigan Drive south approaches. Refer [Table 7](#) and [Table 8](#) for more details.

Yirrigan Drive/Access Road Intersection

The SIDRA analysis indicates that this access intersection currently operates with overall LoS A/C during both PM and Saturday peak hour periods, respectively. Refer **Table 9** and **Table 10** for more details.

The addition of the development traffic, including the background traffic growth on Yirrigan Drive at 2027, will not result in changes to overall intersection LoS during the PM peak but a change to LoS A/D in the Saturday midday peak hour period. The access intersection at this stage operates at about 75% and 89% capacity with most pronounced queuing recorded on shopping centre car park accessway approach of up to five and nine vehicles respectively. Refer **Table 11** and **Table 12** for more details.

Similarly, with the allowance for the development-generated and 10-year post development traffic growth on Yirrigan Drive (year 2037), the overall LoS for the access intersection changes to A/D and A/E in the PM and Saturday midday peak hours, respectively. The intersection at this stage operates at about 81% and 95% capacity with most pronounced queuing recorded on shopping centre car park accessway approach of up to six and eleven vehicles, respectively. Refer **Table 13** through to **Table 14** for more details.

Accordingly, both Yirrigan Drive/Farrier Road and Yirrigan Drive/Access Road intersections have the capacity to accommodate the development-generated traffic with no practical impact on the Yirrigan Drive traffic flows. More pronounced queueing is expected only within the shopping centre car park main driveway; however, this is a regular occurrence during peak Saturday retail traffic activity at present.

7.5 Impact on Surrounding Roads and Neighbouring Areas

Considering the location of the subject site, its accessibility via a major regional road, significant passing trade component the traffic impact from the proposed development in the area will be limited.

7.6 Traffic Noise and Vibration

Due to the location of the proposed development and with respect to the surrounding land uses traffic noise and vibration are relevant only to the residential areas directly fronting adjacent roads east and south of the site, which in this case is limited.

It generally requires a doubling of traffic volumes on a road to produce a perceptible 3dB(A) increase in road noise. The proposed development will not increase traffic volumes or noise on surrounding roads anywhere near this level.

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7.7 Road Safety

No particular safety-related issues have been identified for the proposal.

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7.8 Drive-Through Stacking Capacity Analysis

The Starbucks restaurant proposes a single-lane drive-through facility with one Customer Order Booth (COB).

The proposed drive-through facility includes provision for four car stacking capacity downstream of the COBs plus one at the COB for a total of five car spaces between the COB point and the entry point into the drive-through facility. In addition, one waiting bay is also located at the exit point from the drive-through for larger orders so to improve the efficiency and remove/minimise the risk of waiting/queueing within the facility itself.

For the purpose of this analysis and based on averaged out weekday transaction dataset the overall peak trade activity was recorded on Saturday morning (8:00-9:00AM) hours with a total of 79 drive-through and park'n'sit combined transactions/customers. These transactions/customers typically comprise 50/50 split between drive-through/park'n'sit customers. Hence it is estimated that a total of 39 drive-through customers is expected at the drive-through during the typical peak hour period.

The average order-taking cycle is estimated at approximately 45 seconds; however, in order to ensure a robust assessment, the average order-taking cycle is rounded up to 50 seconds in this case, translating into a service rate of 72 vehicles per hour (maximum capacity of the single COB drive through system).

A queue length analysis was undertaken to assess the provision of storage for vehicles within the drive through lanes. For this purpose, an M/M/1 queuing model was adopted for each COB. The M/M/1 is a single-server queue model that can be used to approximate simple systems.

The queuing model adopts the following assumptions:

- Vehicles arrive unevenly following Poisson's probability distribution;
- Service time is exponentially distributed;
- There is one server per queue, i.e., single queue being served by COB;
- The capacity of the queue in which arriving users wait before being served is infinite (for the purposes of identifying queue space requirements); and,
- The population of users (i.e., the pool of users) available to join the system is infinite.

The results of the peak Saturday morning hour queuing analysis are detailed in **Figure 8**. In summary, typical Saturday AM peak hour queuing analysis of the restaurant drive-through established the following for the scenario:

- The system utilisation is at 54% during the AM peak hour;
- The expected time in the queue is 59 seconds; and,
- The 95th percentile queue within the whole system is four cars.

The queue length usually adopted for robust analysis is the 95th percentile queue.

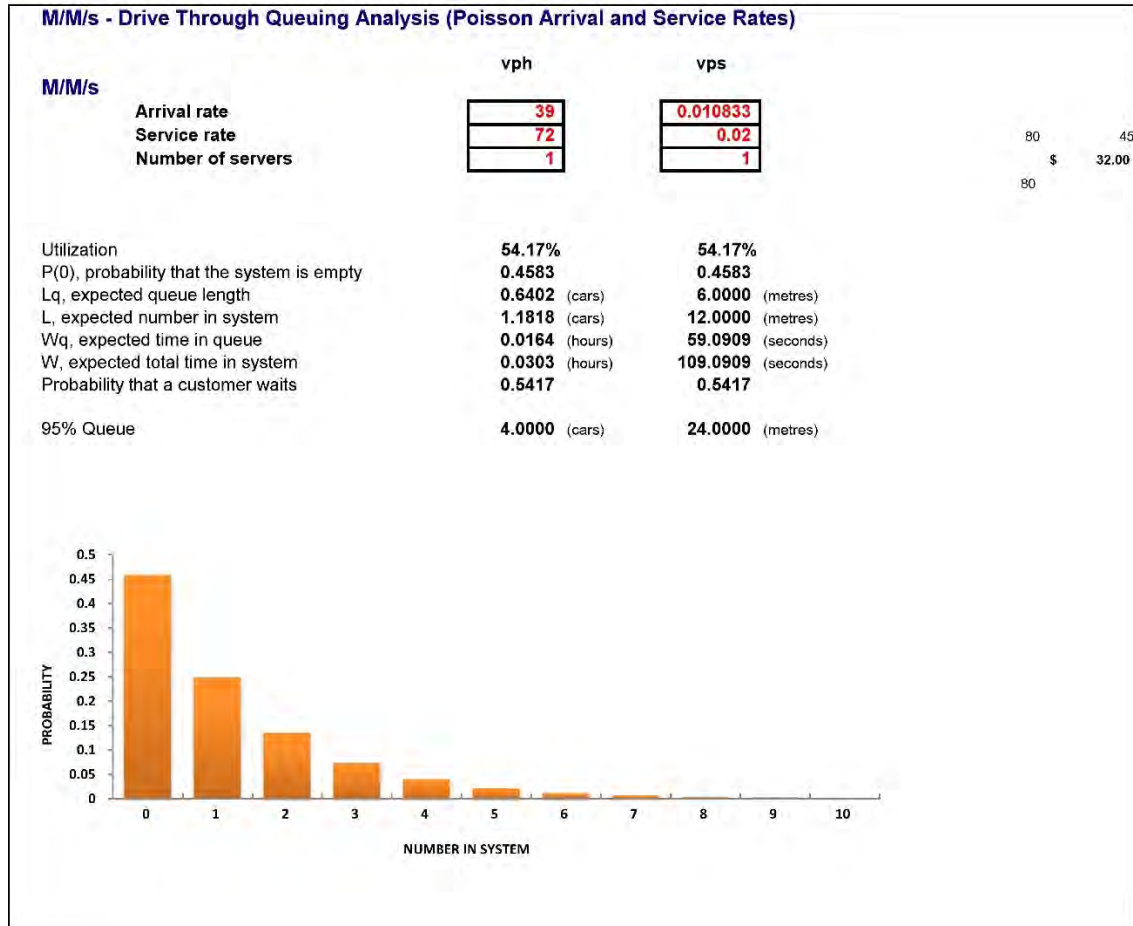


Figure 8. Peak weekday morning hour queueing hour analysis

Based on the queue estimation model, it is concluded that under typical peak hour conditions the queue backing from COB will be fully accommodated within the site with no impact on the internal shopping centre car park driveways.

8 Parking Assessment

The parking supply proposed to address the parking demand of the restaurant includes one ACROD bay located conveniently adjacent to the main entry into the restaurant. The parking provision comprises:

- Eight parking bays (including one ACROD bay) in front of the restaurant;
- A total of 10 bays within the drive-through facility (five upstream of the COB); and,
- One waiting bay at the exit point from the drive-through facility.

According to the advice provided to Transcore the proposed car parking supply is adequate and in line with the practical parking requirements for the proposed restaurant.

9 Provision for Service Vehicles

Loading bay for the delivery and waste-collection operations is provided at between the restaurant building and the drive-through lane. The site design allows for potential future conversion of the loading bay into the second drive-through lane doubling up with loading bay.

It has been advised that large size rigid vehicles of up to 12.5m in length would be used for deliveries to the restaurants and waste collection.

The trucks will enter the site via Yirrigan Drive/Access Road intersection, reverse into the loading bay and unload/load or collect the waste within the loading bay and then exit the site moving in the forward gear. Transcore has been advised that Big W currently operates the same type of service vehicles accessing/egressing the site via the same access intersection and traversing the same route on its way to the service yard.

The swept path assessments of 12.5m rigid trucks was undertaken to assess the suitability of the subject site to accommodate such vehicles, as presented in [Appendix B](#).

10 Public Transport Access

Details of the available public transport services in this locality are provided in [Section 4.4](#) of this report. The existing public transport opportunities in this locality provide excellent level of public transport coverage of the site.

11 Pedestrian and Cyclist Access

Details of the pedestrian and cyclist facilities in this locality are provided in [Section 4.5](#) of the report. The existing facilities in this location provide satisfactory level of accessibility for the proposed development.

12 Conclusions

This Transport Impact Assessment has been prepared by Transcore on behalf of Fawkner Property LTD ATF Private Property Trust No. 18 with respect to the proposed integration of a new Starbucks restaurant within the Mirrabooka Square Shopping Centre located in Mirrabooka, City of Stirling.

The development proposal contemplates construction of a new Starbucks restaurant with associated drive-thru facility at the existing shopping centre car park area along the Yirrigan Drive frontage. The footprint of the development occupies significantly underutilised part of the shopping centre car park and removes about 36 bays.

No change to the existing access system serving the shopping centre is proposed as part of the development proposal. The existing access system comprising accesses on Yirrigan Drive, Farrier Road and Chesterfield Road will continue to operate in current form.

It is estimated that the proposed development would generate approximately **1,120** total weekday daily trips (both inbound and outbound) with approximately **64** and **102** weekday PM and Saturday midday peak hour trips (both inbound and outbound).

However, only about 50% of these trips will effectively be new trips as the proposed type of land use relies on passing trade for operation.

The comprehensive traffic modelling and assessment undertaken in this report demonstrates that the surrounding road network has sufficient capacity to accommodate the development traffic.

Accordingly, the traffic-related issues should not form an impediment for the approval of the proposed redevelopment.

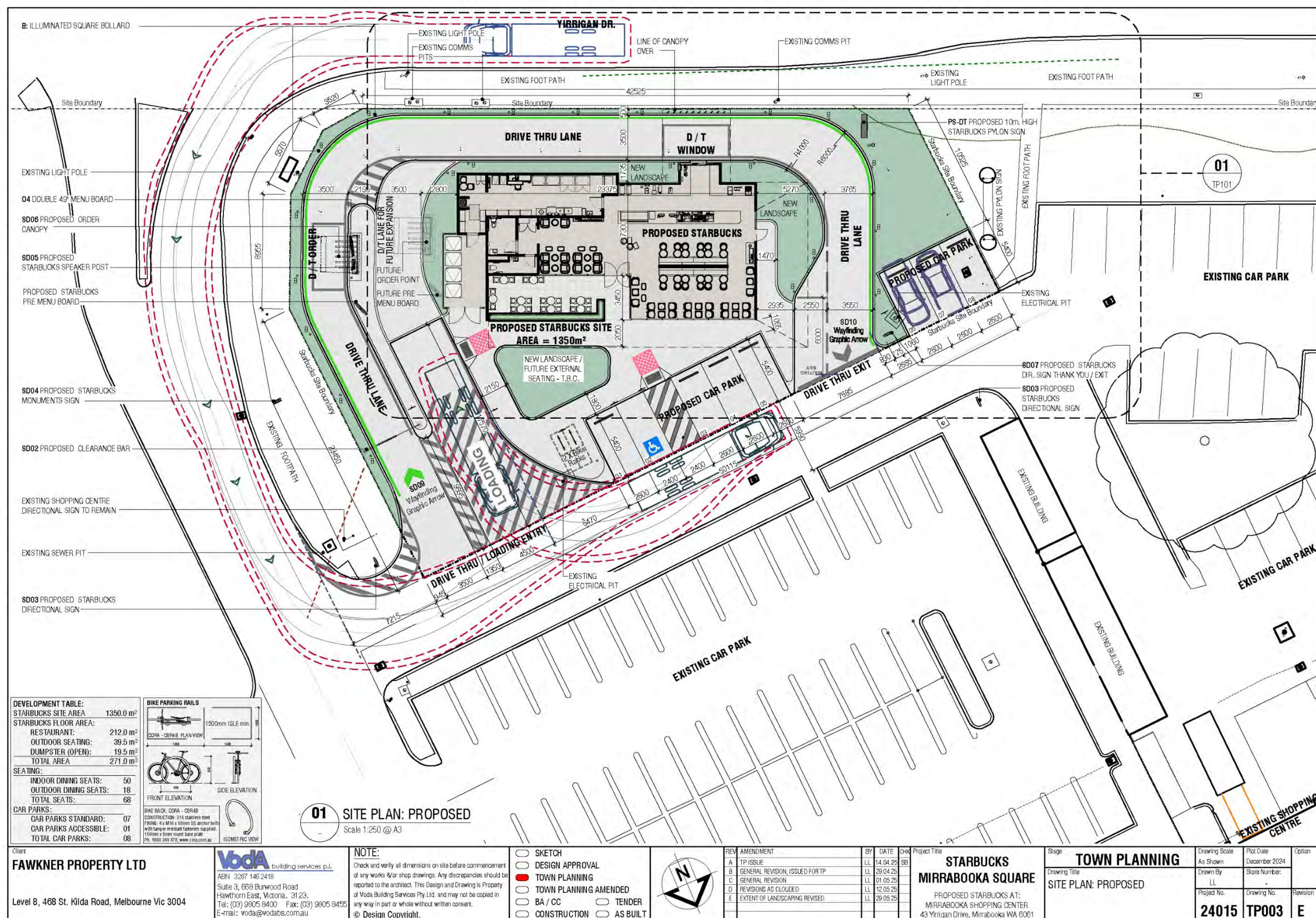
Appendix A

PROPOSED DEVELOPMENT PLAN

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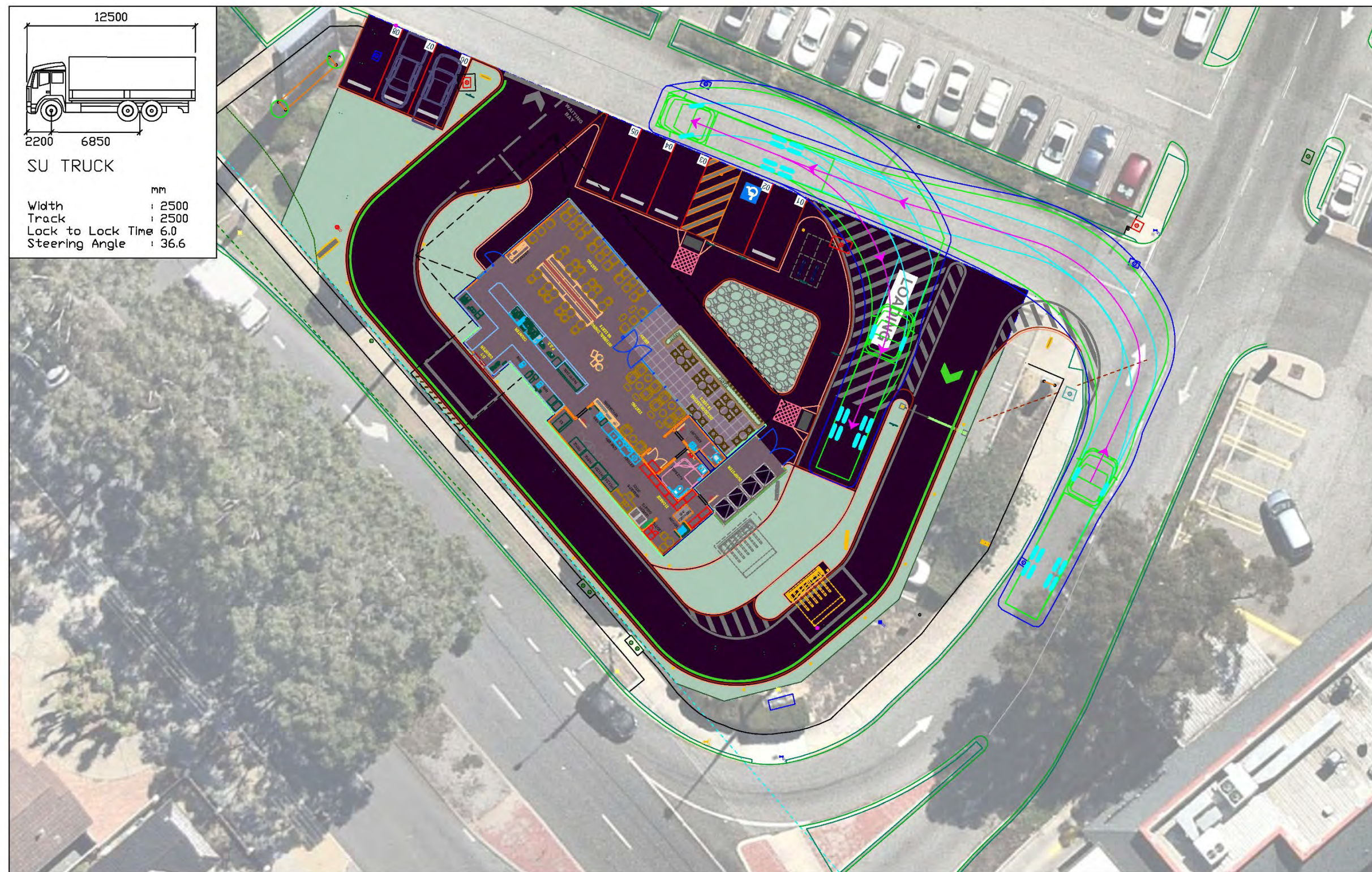
Appendix B

TURN PATH PLANS

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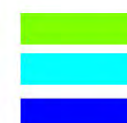


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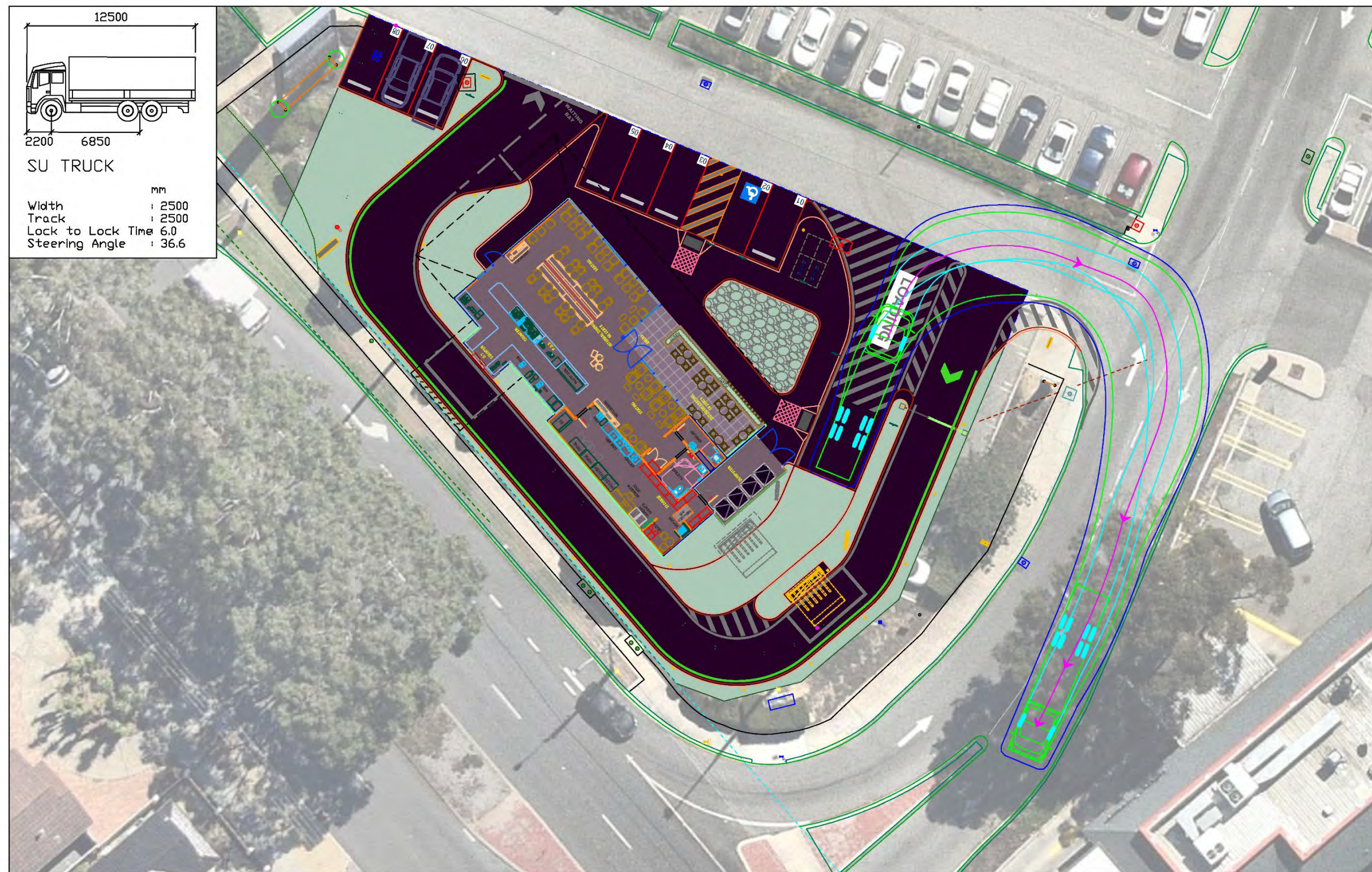
Proposed Starbucks - The Square, Mirrabooka
Austroads 2023: 12.5m Service Vehicle
Loading Bay Access

LEGEND
Vehicle Body
Wheel Path
500mm Clearance



t25.053.sk09
11/06/2025
Scale: 1:250 @ A3





Proposed Starbucks - The Square, Mirrabooka
Austroads 2023: 12.5m Service Vehicle
Loading Bay Egress

LEGEND
Vehicle Body
Wheel Path
500mm Clearance

t25.053.sk10
11/06/2025
Scale: 1:250 @ A3



Appendix C

SIDRA RESULTS

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Table 3. SIDRA Results – Yirrigan Drive/Farrier Road intersection – Weekday PM peak hour (Existing situation)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que.	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh.]	[Dist m]				
NorthEast: Farrier Road (NE)														
1	L2	183	2.3	183	2.3	0.165	7.2	LOS A	0.7	5.2	0.45	0.67	0.45	51.5
2	T1	68	2.3	68	2.3	0.270	20.9	LOS C	1.0	7.4	0.85	0.96	0.96	35.7
Approach		252	2.3	252	2.3	0.270	10.9	LOS B	1.0	7.4	0.56	0.75	0.59	48.2
NorthWest: Yirigan Drive (NW)														
3	L2	69	2.0	69	2.0	0.249	5.5	LOS A	0.0	0.0	0.00	0.09	0.00	54.8
4	T1	845	6.0	845	6.0	0.249	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.2
Approach		915	5.7	915	5.7	0.249	0.4	NA	0.0	0.0	0.00	0.05	0.00	58.9
SouthWest: Median Storage														
5	T1	332	2.0	332	2.0	0.578	8.9	LOS A	2.2	16.2	0.79	1.19	1.33	41.5
Approach		332	2.0	332	2.0	0.578	8.9	LOS A	2.2	16.2	0.79	1.19	1.33	41.5
All Vehicles		1498	4.3	1498	4.3	0.578	4.1	NA	2.2	16.2	0.27	0.42	0.39	52.2
SouthEast: Yirigan Drive (SE)														
2	T1	820	6.0	820	6.0	0.224	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	332	2.0	332	2.0	0.182	5.8	LOS A	1.1	8.5	0.00	0.63	0.00	50.5
Approach		1152	4.8	1152	4.8	0.224	1.7	NA	1.1	8.5	0.00	0.18	0.00	56.8
NorthEast: Median Storage														
1	R2	68	2.0	68	2.0	0.103	5.6	LOS A	0.3	2.4	0.56	0.79	0.56	9.0
Approach		68	2.0	68	2.0	0.103	5.6	LOS A	0.3	2.4	0.56	0.79	0.56	9.0
All Vehicles		1220	4.7	1220	4.7	0.224	1.9	NA	1.1	8.5	0.03	0.22	0.03	56.3

Table 4. SIDRA Results – Yirrigan Drive/Farrier Road intersection – Saturday Midday peak hour (Existing situation)

Vehicle Movement Performance														
Mov. ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist. m]				
NorthEast: Farmer Road (NE)														
1	L2	252	2.3	252	2.3	0.215	7.0	LOS A	0.9	7.1	0.44	0.66	0.44	51.6
2	T1	82	2.3	82	2.3	0.273	18.2	LOS C	1.0	7.8	0.82	0.95	0.93	37.7
Approach		334	2.3	334	2.3	0.273	9.8	LOS A	1.0	7.8	0.53	0.73	0.56	49.0
NorthWest: Yirigan Drive (NW)														
3	L2	89	2.0	89	2.0	0.232	5.5	LOS A	0.0	0.0	0.00	0.13	0.00	54.4
4	T1	762	6.0	762	6.0	0.232	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	59.0
Approach		852	5.6	852	5.6	0.232	0.6	NA	0.0	0.0	0.00	0.06	0.00	58.5
SouthWest: Median Storage														
5	T1	298	2.0	298	2.0	0.478	6.9	LOS A	2.2	16.2	0.73	1.00	1.08	43.5
Approach		298	2.0	298	2.0	0.478	6.9	LOS A	2.2	16.2	0.73	1.00	1.08	43.5
All Vehicles		1483	4.1	1483	4.1	0.478	3.9	NA	2.2	16.2	0.27	0.40	0.34	52.5
SouthEast: Yirigan Drive (SE)														
2	T1	651	6.0	651	6.0	0.177	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	298	2.0	298	2.0	0.164	5.8	LOS A	0.3	2.4	0.00	0.63	0.00	50.5
Approach		948	4.7	948	4.7	0.177	1.9	NA	0.3	2.4	0.00	0.20	0.00	56.6
NorthEast: Median Storage														
1	R2	82	2.0	82	2.0	0.102	4.6	LOS A	0.3	2.5	0.49	0.72	0.49	10.7
Approach		82	2.0	82	2.0	0.102	4.6	LOS A	0.3	2.5	0.49	0.72	0.49	10.7
All Vehicles		1031	4.5	1031	4.5	0.177	2.1	NA	0.3	2.5	0.04	0.24	0.04	55.9

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Table 5. SIDRA Results – Yirrigan Drive/Farrier Road intersection – Weekday PM peak hour (Post-development)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	HV %	[Total HV]	%	v/c	sec		[Veh. veh]	Dist m				km/h
NorthEast: Farrier Road (NE)														
1	L2	185	2.3	185	2.3	0.168	7.3	LOS A	0.7	5.3	0.46	0.68	0.46	48.4
2	T1	69	2.3	69	2.3	0.287	22.1	LOS C	1.1	7.9	0.86	0.97	0.99	34.9
Approach		255	2.3	255	2.3	0.287	11.3	LOS B	1.1	7.9	0.57	0.76	0.60	43.8
NorthWest: Yirrigan Drive (NW)														
3	L2	71	2.0	71	2.0	0.253	5.5	LOS A	0.0	0.0	0.00	0.09	0.00	54.8
4	T1	858	6.0	858	6.0	0.253	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	56.4
Approach		928	5.7	928	5.7	0.253	0.4	NA	0.0	0.0	0.00	0.05	0.00	55.9
SouthWest: Median Storage														
5	T1	349	2.0	349	2.0	0.621	9.8	LOS A	2.2	16.2	0.81	1.29	1.45	40.8
Approach		349	2.0	349	2.0	0.621	9.8	LOS A	2.2	16.2	0.81	1.29	1.45	40.8
All Vehicles		1533	4.3	1533	4.3	0.621	4.4	NA	2.2	16.2	0.28	0.45	0.43	45.5
SouthEast: Yirrigan Drive (SE)														
2	T1	818	6.0	818	6.0	0.223	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	349	2.0	349	2.0	0.192	5.8	LOS A	1.6	11.7	0.00	0.63	0.00	50.5
Approach		1167	4.8	1167	4.8	0.223	1.8	NA	1.6	11.7	0.00	0.19	0.00	57.1
NorthEast: Median Storage														
1	R2	69	2.0	69	2.0	0.104	5.6	LOS A	0.3	2.5	0.56	0.79	0.56	25.7
Approach		69	2.0	69	2.0	0.104	5.6	LOS A	0.3	2.5	0.56	0.79	0.56	25.7
All Vehicles		1237	4.6	1237	4.6	0.223	2.0	NA	1.6	11.7	0.03	0.22	0.03	56.3

Table 6. SIDRA Results – Yirrigan Drive/Farrier Road intersection – Saturday Midday peak hour (Post-development)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	HV %	[Total HV]	%	v/c	sec		[Veh. veh]	Dist m				km/h
NorthEast: Farrier Road (NE)														
1	L2	254	2.3	254	2.3	0.218	7.1	LOS A	1.0	7.2	0.44	0.66	0.44	51.6
2	T1	83	2.3	83	2.3	0.293	19.4	LOS C	1.1	8.4	0.83	0.97	0.97	36.7
Approach		337	2.3	337	2.3	0.293	10.1	LOS B	1.1	8.4	0.54	0.74	0.57	48.8
NorthWest: Yirrigan Drive (NW)														
3	L2	91	2.0	91	2.0	0.237	5.5	LOS A	0.0	0.0	0.00	0.12	0.00	54.4
4	T1	777	6.0	777	6.0	0.237	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.0
Approach		867	5.6	867	5.6	0.237	0.6	NA	0.0	0.0	0.00	0.06	0.00	58.5
SouthWest: Median Storage														
5	T1	323	2.0	323	2.0	0.529	7.7	LOS A	2.2	16.2	0.75	1.09	1.19	42.7
Approach		323	2.0	323	2.0	0.529	7.7	LOS A	2.2	16.2	0.75	1.09	1.19	42.7
All Vehicles		1527	4.1	1527	4.1	0.529	4.2	NA	2.2	16.2	0.28	0.43	0.38	52.1
SouthEast: Yirrigan Drive (SE)														
2	T1	643	6.0	643	6.0	0.175	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	323	2.0	323	2.0	0.178	5.8	LOS A	0.7	5.6	0.00	0.63	0.00	50.5
Approach		966	4.7	966	4.7	0.178	2.0	NA	0.7	5.6	0.00	0.21	0.00	56.4
NorthEast: Median Storage														
1	R2	83	2.0	83	2.0	0.103	4.5	LOS A	0.3	2.5	0.48	0.72	0.48	10.8
Approach		83	2.0	83	2.0	0.103	4.5	LOS A	0.3	2.5	0.48	0.72	0.48	10.8
All Vehicles		1049	4.5	1049	4.5	0.178	2.2	NA	0.7	5.6	0.04	0.25	0.04	55.7

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Table 7. SIDRA Results – Yirrigan Drive/Farrier Road intersection – Weekday PM peak hour (10-year Horizon)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver No Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total HV]	[%]				[Veh. veh]	[Dist m]				
NorthEast: Farrier Road (NE)														
1	L2	194	2.3	194	2.3	0.180	7.4	LOS A	0.7	5.6	0.47	0.69	0.47	51.5
2	T1	73	2.3	73	2.3	0.330	24.8	LOS C	1.2	9.2	0.88	0.99	1.05	33.2
Approach		266	2.3	266	2.3	0.330	12.1	LOS B	1.2	9.2	0.58	0.77	0.63	47.3
NorthWest: Yirrigan Drive (NW)														
3	L2	74	2.0	74	2.0	0.264	5.5	LOS A	0.0	0.0	0.00	0.09	0.00	54.8
4	T1	896	6.0	896	6.0	0.264	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	59.2
Approach		969	5.7	969	5.7	0.264	0.4	NA	0.0	0.0	0.00	0.05	0.00	58.8
SouthWest: Median Storage														
5	T1	366	2.0	366	2.0	0.687	11.7	LOS B	2.2	16.2	0.85	1.47	1.70	39.1
Approach		366	2.0	366	2.0	0.687	11.7	LOS B	2.2	16.2	0.85	1.47	1.70	39.1
All Vehicles		1602	4.3	1602	4.3	0.687	5.0	NA	2.2	16.2	0.29	0.49	0.49	51.2
SouthEast: Yirrigan Drive (SE)														
2	T1	860	6.0	860	6.0	0.234	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	366	2.0	366	2.0	0.201	5.8	LOS A	2.3	17.1	0.00	0.63	0.00	50.5
Approach		1226	4.8	1226	4.8	0.234	1.8	NA	2.3	17.1	0.00	0.19	0.00	56.7
NorthEast: Median Storage														
1	R2	73	2.0	73	2.0	0.115	5.9	LOS A	0.4	2.7	0.58	0.80	0.58	8.6
Approach		73	2.0	73	2.0	0.115	5.9	LOS A	0.4	2.7	0.58	0.80	0.58	8.6
All Vehicles		1299	4.6	1299	4.6	0.234	2.0	NA	2.3	17.1	0.03	0.22	0.03	56.1

Table 8. SIDRA Results – Yirrigan Drive/Farrier Road intersection – Saturday Middy peak hour (10-year Horizon)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist. m]				
NorthEast: Farrier Road (NE)														
1	L2	266	2.3	266	2.3	0.232	7.2	LOS A	1.0	7.7	0.46	0.68	0.46	48.4
2	T1	87	2.3	87	2.3	0.334	21.5	LOS C	1.3	9.7	0.85	0.99	1.04	35.3
Approach		354	2.3	354	2.3	0.334	10.7	LOS B	1.3	9.7	0.55	0.75	0.60	44.4
NorthWest: Yirrigan Drive (NW)														
3	L2	95	2.0	95	2.0	0.247	5.5	LOS A	0.0	0.0	0.00	0.12	0.00	54.4
4	T1	809	6.0	809	6.0	0.247	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	55.4
Approach		904	5.6	904	5.6	0.247	0.6	NA	0.0	0.0	0.00	0.06	0.00	55.0
SouthWest: Median Storage														
5	T1	338	2.0	338	2.0	0.581	8.8	LOS A	2.2	16.2	0.79	1.19	1.33	41.7
Approach		338	2.0	338	2.0	0.581	8.8	LOS A	2.2	16.2	0.79	1.19	1.33	41.7
All Vehicles		1596	4.1	1596	4.1	0.581	4.6	NA	2.2	16.2	0.29	0.45	0.41	45.9
SouthEast: Yirrigan Drive (SE)														
2	T1	676	6.0	676	6.0	0.184	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	338	2.0	338	2.0	0.186	5.8	LOS A	1.2	8.8	0.00	0.63	0.00	50.5
Approach		1014	4.7	1014	4.7	0.186	2.0	NA	1.2	8.8	0.00	0.21	0.00	56.8
NorthEast: Median Storage														
1	R2	87	2.0	87	2.0	0.112	4.7	LOS A	0.4	2.7	0.50	0.74	0.50	27.3
Approach		87	2.0	87	2.0	0.112	4.7	LOS A	0.4	2.7	0.50	0.74	0.50	27.3
All Vehicles		1101	4.5	1101	4.5	0.186	2.2	NA	1.2	8.8	0.04	0.25	0.04	55.8

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Table 9. SIDRA Results – Yirrigan Drive access intersection – Weekday PM peak hour (Existing situation)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total HV veh/h]	[%]				[Veh. veh]	[Dist m]				
NorthEast: SC Crossover (NE)														
1	L2	82	2.0	82	2.0	0.076	1.6	LOS A	0.3	2.2	0.45	0.34	0.45	16.9
2	T1	236	2.0	236	2.0	0.688	19.7	LOS C	4.2	31.3	0.89	1.50	1.75	6.5
Approach		318	2.0	318	2.0	0.688	15.0	LOS C	4.2	31.3	0.78	1.20	1.42	7.8
NorthWest: Yirrigan Drive (NW)														
3	L2	332	2.0	332	2.0	0.182	8.5	LOS A	0.0	0.0	0.00	0.67	0.00	50.9
4	T1	833	6.0	833	6.0	0.227	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	69.2
Approach		1164	4.9	1164	4.9	0.227	2.5	NA	0.0	0.0	0.00	0.20	0.00	62.3
All Vehicles		1482	4.2	1482	4.2	0.688	5.2	NA	4.2	31.3	0.17	0.42	0.30	52.5
SouthEast: Yirrigan Drive (SE)														
2	T1	888	6.0	888	6.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		888	6.0	888	6.0	0.242	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
NorthEast: Median Storage														
1	R2	236	2.0	236	2.0	0.264	3.2	LOS A	0.8	5.9	0.50	0.66	0.56	46.9
Approach		236	2.0	236	2.0	0.264	3.2	LOS A	0.8	5.9	0.50	0.66	0.56	46.9
All Vehicles		1124	5.2	1124	5.2	0.264	0.7	NA	0.8	5.9	0.10	0.14	0.12	57.0

Table 10. SIDRA Results – Yirrigan Drive access intersection – Saturday midday peak hour (Existing situation)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total HV veh/h]	[%]				[Veh. veh]	[Dist m]				
NorthEast: SC Crossover (NE)														
1	L2	114	2.0	114	2.0	0.100	1.4	LOS A	0.4	3.0	0.42	0.31	0.42	17.1
2	T1	288	2.0	288	2.0	0.795	23.0	LOS C	6.0	45.0	0.90	1.90	2.29	5.9
Approach		402	2.0	402	2.0	0.795	16.9	LOS C	6.0	45.0	0.77	1.45	1.76	7.3
NorthWest: Yirrigan Drive (NW)														
3	L2	418	2.0	418	2.0	0.230	8.5	LOS A	0.0	0.0	0.00	0.67	0.00	50.9
4	T1	738	6.0	738	6.0	0.201	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	69.2
Approach		1156	4.6	1156	4.6	0.230	3.1	NA	0.0	0.0	0.00	0.25	0.00	60.7
All Vehicles		1558	3.9	1558	3.9	0.795	6.7	NA	6.0	45.0	0.20	0.56	0.45	48.6
SouthEast: Yirrigan Drive (SE)														
2	T1	733	6.0	733	6.0	0.200	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		733	6.0	733	6.0	0.200	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
NorthEast: Median Storage														
1	R2	288	2.0	288	2.0	0.287	2.7	LOS A	0.9	6.6	0.43	0.61	0.49	47.5
Approach		288	2.0	288	2.0	0.287	2.7	LOS A	0.9	6.6	0.43	0.61	0.49	47.5
All Vehicles		1021	4.9	1021	4.9	0.287	0.8	NA	0.9	6.6	0.12	0.17	0.14	56.2

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Table 11. SIDRA Results – Yirrigan Drive access intersection – Weekday PM peak hour (Post-development)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total HV]	[%]	v/c	sec		[Veh. veh]	[Dist m]				km/h
NorthEast: SC Crossover (NE)														
1	L2	96	2.0	96	2.0	0.089	1.7	LOS A	0.4	2.6	0.45	0.34	0.45	26.8
2	T1	248	2.0	248	2.0	0.748	22.6	LOS C	4.9	36.6	0.90	1.68	2.01	6.0
Approach		344	2.0	344	2.0	0.748	16.8	LOS C	4.9	36.6	0.78	1.31	1.57	10.0
NorthWest: Yirrigan Drive (NW)														
3	L2	345	2.0	345	2.0	0.190	8.5	LOS A	0.0	0.0	0.00	0.67	0.00	50.9
4	T1	833	6.0	833	6.0	0.227	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	68.4
Approach		1178	4.8	1178	4.8	0.227	2.6	NA	0.0	0.0	0.00	0.21	0.00	62.4
All Vehicles		1522	4.2	1522	4.2	0.748	5.8	NA	4.9	36.6	0.18	0.46	0.36	52.1
SouthEast: Yirrigan Drive (SE)														
2	T1	887	6.0	887	6.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		887	6.0	887	6.0	0.242	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
NorthEast: Median Storage														
1	R2	248	2.0	248	2.0	0.278	3.2	LOS A	0.8	6.3	0.50	0.68	0.58	9.6
Approach		248	2.0	248	2.0	0.278	3.2	LOS A	0.8	6.3	0.50	0.68	0.58	9.6
All Vehicles		1136	5.1	1136	5.1	0.278	0.7	NA	0.8	6.3	0.11	0.15	0.13	49.0

Table 12. SIDRA Results – Alba Yirrigan Drive access intersection – Weekday PM peak hour (Post-development)

Vehicle Movement Performance														
Mov. ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total HV]	[%]	v/c	sec		[Veh. veh]	[Dist m]				km/h
NorthEast: SC Crossover (NE)														
1	L2	136	2.0	136	2.0	0.119	1.5	LOS A	0.5	3.6	0.43	0.32	0.43	17.1
2	T1	309	2.0	309	2.0	0.885	32.3	LOS D	8.5	63.8	0.92	2.51	3.14	4.6
Approach		445	2.0	445	2.0	0.885	22.9	LOS C	8.5	63.8	0.77	1.85	2.32	5.9
NorthWest: Yirrigan Drive (NW)														
3	L2	439	2.0	439	2.0	0.241	8.5	LOS A	0.0	0.0	0.00	0.67	0.00	50.9
4	T1	732	6.0	732	6.0	0.199	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	69.2
Approach		1171	4.5	1171	4.5	0.241	3.3	NA	0.0	0.0	0.00	0.26	0.00	60.5
All Vehicles		1616	3.8	1616	3.8	0.885	8.7	NA	8.5	63.8	0.21	0.70	0.64	45.2
SouthEast: Yirrigan Drive (SE)														
2	T1	726	6.0	726	6.0	0.198	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		726	6.0	726	6.0	0.198	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
NorthEast: Median Storage														
1	R2	309	2.0	309	2.0	0.307	2.7	LOS A	1.0	7.3	0.44	0.63	0.51	47.4
Approach		309	2.0	309	2.0	0.307	2.7	LOS A	1.0	7.3	0.44	0.63	0.51	47.4
All Vehicles		1036	4.8	1036	4.8	0.307	0.8	NA	1.0	7.3	0.13	0.19	0.15	56.0

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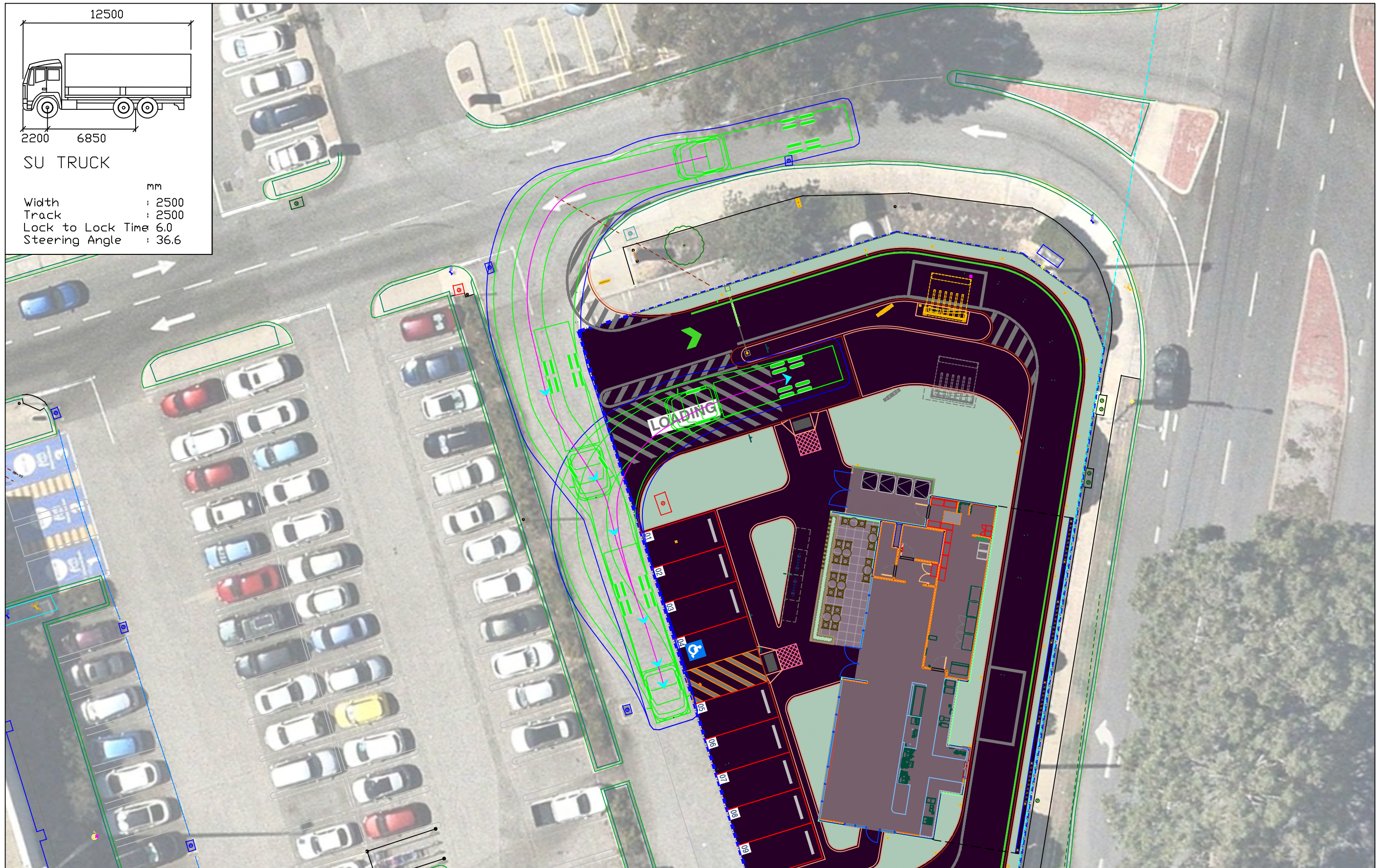
Table 13. SIDRA Results – Yirrigan Drive access intersection – Weekday PM peak hour (10-Year Horizon)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total HV veh/h]	[%]				[Veh. veh]	[Dist m]				
NorthEast: SC Crossover (NE)														
1	L2	96	2.0	96	2.0	0.091	1.8	LOS A	0.4	2.7	0.46	0.36	0.46	16.9
2	T1	248	2.0	248	2.0	0.813	28.8	LOS D	5.8	43.4	0.93	1.94	2.39	5.0
Approach		344	2.0	344	2.0	0.813	21.3	LOS C	5.8	43.4	0.80	1.50	1.85	6.3
NorthWest: Yirrigan Drive (NW)														
3	L2	345	2.0	345	2.0	0.190	8.5	LOS A	0.0	0.0	0.00	0.67	0.00	50.9
4	T1	874	6.0	874	6.0	0.238	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	69.2
Approach		1219	4.9	1219	4.9	0.238	2.5	NA	0.0	0.0	0.00	0.20	0.00	62.3
All Vehicles		1563	4.2	1563	4.2	0.813	6.6	NA	5.8	43.4	0.18	0.49	0.41	49.9
SouthEast: Yirrigan Drive (SE)														
2	T1	933	6.0	933	6.0	0.254	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		933	6.0	933	6.0	0.254	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
NorthEast: Median Storage														
1	R2	248	2.0	248	2.0	0.289	3.5	LOS A	0.9	6.6	0.53	0.71	0.62	46.6
Approach		248	2.0	248	2.0	0.289	3.5	LOS A	0.9	6.6	0.53	0.71	0.62	46.6
All Vehicles		1181	5.2	1181	5.2	0.289	0.7	NA	0.9	6.6	0.11	0.15	0.13	56.9

Table 14. SIDRA Results – Yirrigan Drive access intersection – Saturday midday peak hour (10-Year Horizon)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total HV veh/h]	[%]				[Veh. veh]	[Dist m]				
NorthEast: SC Crossover (NE)														
1	L2	136	2.0	136	2.0	0.122	1.5	LOS A	0.5	3.7	0.44	0.34	0.44	26.9
2	T1	309	2.0	309	2.0	0.951	49.0	LOS E	11.8	88.6	0.95	3.28	4.25	3.3
Approach		445	2.0	445	2.0	0.951	34.5	LOS D	11.8	88.6	0.79	2.38	3.09	6.4
NorthWest: Yirrigan Drive (NW)														
3	L2	439	2.0	439	2.0	0.241	8.5	LOS A	0.0	0.0	0.00	0.67	0.00	50.9
4	T1	768	6.0	768	6.0	0.209	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	68.5
Approach		1207	4.5	1207	4.5	0.241	3.2	NA	0.0	0.0	0.00	0.25	0.00	61.1
All Vehicles		1653	3.9	1653	3.9	0.951	11.6	NA	11.8	88.6	0.21	0.83	0.83	43.0
SouthEast: Yirrigan Drive (SE)														
2	T1	763	6.0	763	6.0	0.208	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		763	6.0	763	6.0	0.208	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
NorthEast: Median Storage														
1	R2	309	2.0	309	2.0	0.315	2.9	LOS A	1.0	7.6	0.46	0.65	0.54	10.1
Approach		309	2.0	309	2.0	0.315	2.9	LOS A	1.0	7.6	0.46	0.65	0.54	10.1
All Vehicles		1073	4.8	1073	4.8	0.315	0.8	NA	1.0	7.6	0.13	0.19	0.16	46.2

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Proposed Starbucks - The Square, Mirrabooka

Austrroads 2023: 12.5m Service Vehicle

Loading Bay Access

LEGEND

Vehicle Body
Wheel Path
500mm Clearance



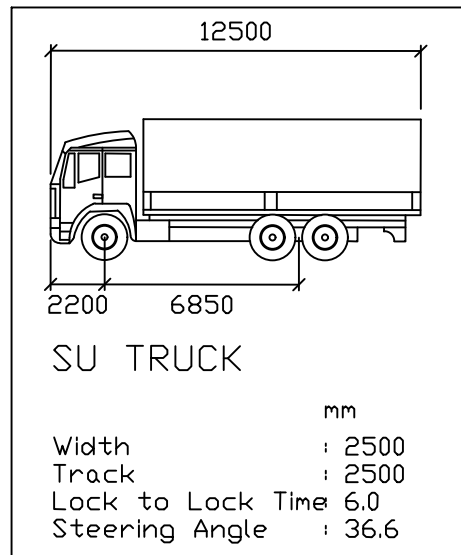
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Proposed Starbucks - The Square, Mirrabooka

Austrroads 2023: 12.5m Service Vehicle

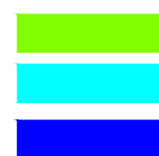
Loading Bay Egress

LEGEND

Vehicle Body

Wheel Path

500mm Clearance



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**Attachment 7c – Environmental Noise Assessment prepared by Lloyd George
Acoustics received 2 July 2025**

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Environmental Noise Assessment - Fast Food Development

**43 Yirrigan Drive, Mirrabooka –
Mirrabooka Square**

Reference: 250310070-01

Prepared for:
Fawkner Property Ltd

Reference: 250310070-01

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This report has been prepared in accordance with the scope of services described in the contract or agreement between Lloyd George Acoustics Pty Ltd and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client, and Lloyd George Acoustics Pty Ltd accepts no responsibility for its use by other parties.

Date	Rev	Description	Author	Verified
28-Apr-25	0	Draft Issued to Client	Matt Moyle	Terry George
9-May-25	-	Finalised Issue	Matt Moyle	-

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EXECUTIVE SUMMARY

Lloyd George Acoustics was engaged by Fawkner Property Ltd to undertake an environmental noise assessment for a proposed commercial development to be located at 43 Yirrigan Drive, Mirrabooka – Mirrabooka Square. This report considered noise emissions from the proposed development to surrounding properties by way of noise modelling. The proposed development is to comprise of a fast food outlet (with drive-through) operating 24-hours a day, 7-days a week. Noise impacts considered include those of mechanical plant, vehicles, drive-through speakers and deliveries.

Noise emissions are predicted by way of computer noise modelling and assessed against assigned levels prescribed in the *Environmental Protection (Noise) Regulations 1997*.

The predicted noise levels are demonstrated to be compliant without the need for mitigation measures.

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1. INTRODUCTION

Lloyd George Acoustics was engaged by Fawkner Property Ltd to undertake an environmental noise assessment of a proposed Fast Food development to be located at 43 Yirrigan Drive, Mirrabooka – Mirrabooka Square (refer *Figure 1-1*) with the site plan shown in *Figure 1-2* and Development Application (DA) plans provided in *Appendix A*.



Figure 1-1: Subject Site Location (Source: MNG Aerial Map)

The proposed fast food restaurant is proposed to operate 24-hours a day, 7-days a week. With regard to noise emissions, consideration is given to noise at neighbouring properties from mechanical plant, drive through speakers as well as vehicles and deliveries, against the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*.

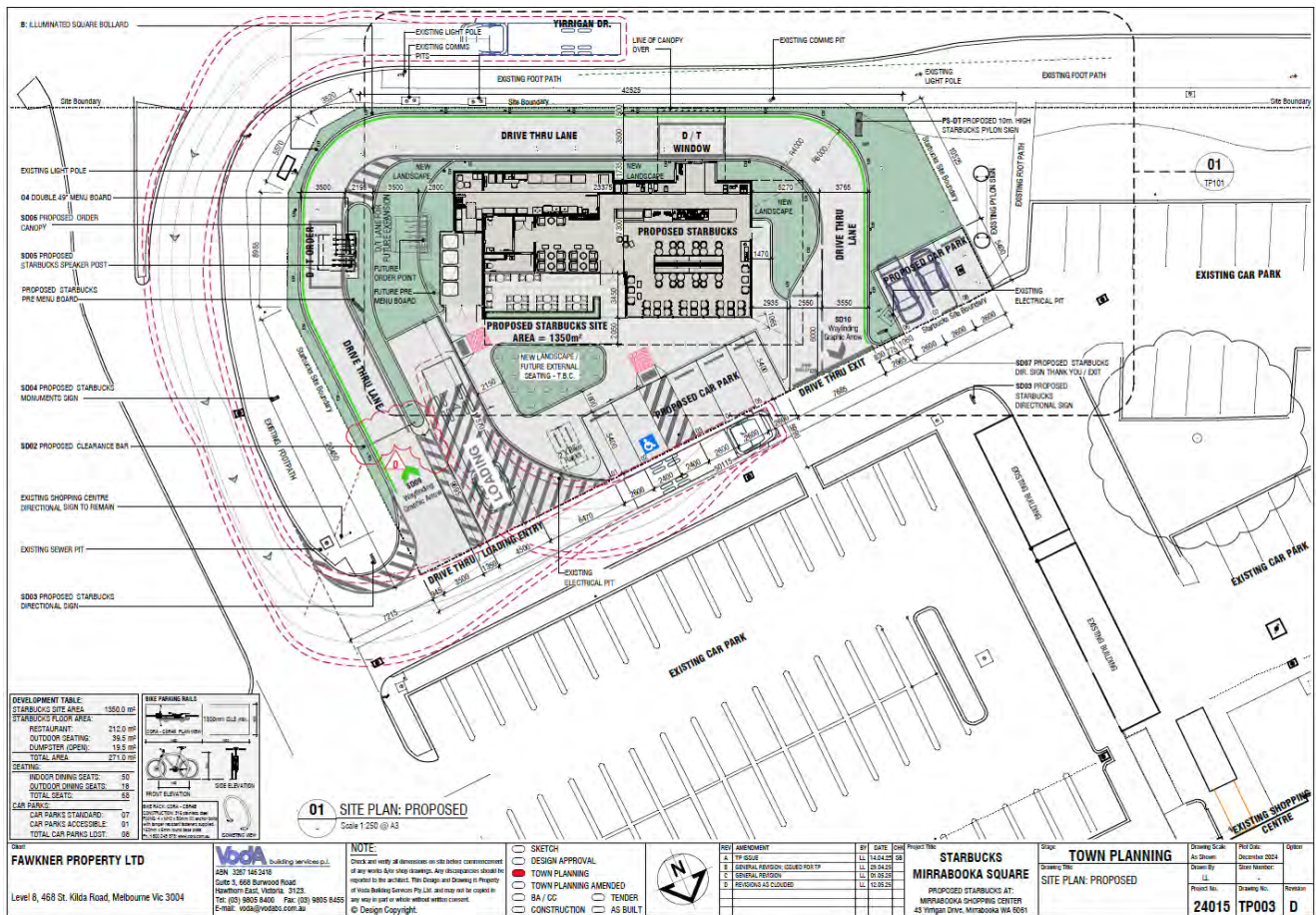


Figure 1-2: Proposed Site Plan

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Appendix C contains a description of some of the terminology used throughout this report

2. CRITERIA

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations).

2.1. Regulations 7, 8 & 9

This group of regulations provide the prescribed standard for noise as follows:

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“7. Prescribed standard for noise emissions

- (1) Noise emitted from any premises or public place when received at other premises –*
 - (a) must not cause, or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and*
 - (b) must be free of –*
 - (i) tonality; and*
 - (ii) impulsiveness; and*
 - (iii) modulation,**when assessed under regulation 9.*
- (2) For the purposes of subregulation (1)(a), a noise emission is taken to significantly contribute to a level of noise if the noise emission ... exceeds a value which is 5 dB below the assigned level at the point of reception.”*

Tonality, impulsiveness and modulation are defined in regulation 9 (refer *Appendix C*). Under regulation 9(3), “Noise is taken to be free of the characteristics of tonality, impulsiveness and modulation if -

- (a) the characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and*
- (b) the noise emission complies with the standard prescribed under regulation 7(1)(a) after the adjustments in the table [Table 2-1] ... are made to the noise emission as measured at the point of reception.”*

Table 2-1 Adjustments Where Characteristics Cannot Be Removed

Where Noise Emission is Not Music*			Where Noise Emission is Music	
Tonality	Modulation	Impulsiveness	No Impulsiveness	Impulsiveness
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

* These adjustments are cumulative to a maximum of 15 dB.

The assigned levels (prescribed standards) for all premises are specified in regulation 8(3) and are shown in *Table 2-2*. The L_{A10} assigned level is applicable to noises present for more than 10% of a representative assessment period, generally applicable to “steady-state” noise sources. The L_{A1} is for short-term noise sources present for less than 10% and more than 1% of the time. The L_{Amax} assigned level is applicable for incidental noise sources, present for less than 1% of the time.

Table 2-2 Baseline Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area ¹	0700 to 1900 hours Monday to Saturday (Day)	45 + influencing factor	55 + influencing factor	65 + influencing factor
	0900 to 1900 hours Sunday and public holidays (Sunday)	40 + influencing factor	50 + influencing factor	65 + influencing factor
	1900 to 2200 hours all days (Evening)	40 + influencing factor	50 + influencing factor	55 + influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35 + influencing factor	45 + influencing factor	55 + influencing factor
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial Premises	All hours	60	75	80
Industrial and Utility Premises	All hours	65	80	90

1. *highly sensitive area* means that area (if any) of noise sensitive premises comprising —

- (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
- (b) any other part of the premises within 15 metres of that building or that part of the building.

The influencing factor (IF), in relation to noise received at noise sensitive premises, has been calculated as 11 dB, as determined in *Appendix B*. *Table 2-3* shows the assigned noise levels including the influencing factor and transport factor at the receiving premises groups shown in *Figure 2-1*.

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Table 2-3 Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
All Nearest +11 dB IF Noise sensitive premises: highly sensitive area ¹	0700 to 1900 hours Monday to Saturday (Day)	56	66	76
	0900 to 1900 hours Sunday and public holidays (Sunday)	51	61	76
	1900 to 2200 hours all days (Evening)	51	61	66
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	46	56	66
Commercial Premises	All hours	60	75	80

It must be noted the assigned levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces.

The assigned levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as “a period of time of not less than 15 minutes, and not exceeding 4 hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission”. An inspector or authorised person is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Water Environmental Regulation. Acoustic consultants or other environmental consultants are not appointed as an inspector or authorised person. Therefore, whilst this assessment is based on a 4-hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

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2.2. Regulation 3

“3. Regulations do not apply to certain noise emissions

- (1) Nothing in these regulations applies to the following noise emissions –*
- (a) Noise emissions from the propulsion and braking systems of motor vehicles operating on a road;”*

The restaurant car park is considered a road and therefore vehicle noise (propulsion and braking) is not assessed. Noise from vehicle car doors and refrigeration units on delivery trucks however are assessed, since these are not part of the propulsion or braking system. However, vehicle propulsion noise in the drive-through area has been considered assessable in this report due to the nature of the lanes being used solely for food ordering purposes and not road access.

2.3. Regulation 14A

“14A. Waste Collection and Other Works

- (2) Regulation 7 does not apply to noise emitted in the course of carrying out class 1 works if –*
- (a) The works are carried out in the quietest reasonable and practicable manner; and*
 - (b) The equipment used to carry out the works is the quietest reasonably available;*

class 1 works means specified works carried out between –

- (a) 0700 hours and 1900 hours on any day that is not a Sunday or a public holiday; or*
- (b) 0900 hours and 1900 hours on a Sunday or public holiday.*

specified works means –

- (a) The collection of waste; or*
- (b) The cleaning of a road or the drains for a road; or*
- (c) The cleaning of public places, including footpaths, cycle paths, car parks and beaches;”*

In the case where specified works are to be carried out outside of class 1, a noise management plan is to be prepared and approved by the CEO.

3. METHODOLOGY

Computer modelling has been used to predict the noise emissions from the development. The software used was *SoundPLAN 9.1* with the ISO 9613 algorithms (ISO 17534-3 improved method) selected, as they include the influence of wind and are considered appropriate given the relatively short source to receiver distances. Input data required in the model are listed below and discussed in *Section 3.1* to *Section 3.4*:

- Meteorological Information;
- Topographical data;
- Ground Absorption; and
- Source sound power levels.

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3.1. Meteorological Conditions

Meteorological information utilised is provided in *Table 3-1* and is considered to represent worst-case conditions for noise propagation. At wind speeds greater than those shown, sound propagation may be further enhanced, however background noise from the wind itself and from local vegetation is likely to be elevated and dominate the ambient noise levels.

Table 3-1: Modelling Meteorological Conditions

Parameter	Day (7.00am to 7.00pm)	Night (7.00pm to 7.00am)
Temperature (°C)	20	15
Humidity (%)	50	50
Wind Speed (m/s)	Up to 5	Up to 5
Wind Direction*	All	All

* The modelling package allows for all wind directions to be modelled simultaneously.

Alternatives to the above default conditions can be used where one year of weather data is available and the analysis considers the worst 2% of the day and night for the month of the year in which the worst-case weather conditions prevail (source: *Draft Guideline on Environmental Noise for Prescribed Premises*, May 2016). In most cases, the default conditions occur for more than 2% of the time and therefore must be satisfied.

3.2. Topographical Data

Topographical data was adapted from publicly available information (e.g. *Google*) in the form of spot heights and combined with the site plan, including a 1.2-metre high parapet atop the new building.

Surrounding existing buildings were also incorporated in the noise model, as these can provide noise shielding as well as reflection paths. Single storey buildings are modelled with a height of 3.5 metres and double storey at 6.0 metres with receivers 1.4 metres above floor level. Neighbouring commercial buildings are modelled at 6.0 metres high.

Figure 3-1 shows a 2D overview of the noise model with the location of all relevant receivers and noise sources identified.



Figure 3-1: Overview of Noise Model

3.3. Ground Absorption

The ground absorption has been assumed to be 0.0 (0%) for the roads and car park and 0.5 (50%) elsewhere, noting that 0.0 represents hard reflective surfaces such as water and 1.0 represents absorptive surfaces such as grass.

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3.4. Source Sound Power Levels

The source sound power levels used in the modelling are provided in *Table 3-2*.

Table 3-2: Source Sound Power Levels, dB

Description	Octave Band Centre Frequency (Hz)								Overall dB(A)
	63	125	250	500	1k	2k	4k	8k	
Refrig Condenser Package – L_{A10}	88	87	85	81	76	70	64	59	82
AC-1&2 Actron PCA233U Package Unit High Speed – L_{A10}	-	76	75	74	71	66	65	60	76
Toilet and Kitchen Exhaust Fans – L_{A10}	80	78	74	71	62	64	63	53	73
Refrigerated Truck delivery – L_{A1}	100	91	87	88	83	81	79	75	90
Drive-Through Speaker – L_{A1}	62	64	66	77	80	73	57	42	82
Car Idling – L_{A10}	81	78	74	72	74	74	67	64	79
Car Door Closing – L_{Amax}	71	74	77	81	80	78	72	61	84

The following is noted in relation to *Table 3-2*:

- Mechanical plant sound levels are estimated from previous projects;
- Exhaust fans are located 0.5m above roof;
- Two AC Condensers and two refrigeration condensers are assumed located on the roof, 1.0m above roof level.
- Car noises are modelled at 0.5 metres above ground;
- 4 to 9 vehicles are modelled idling in the drive-thru, depending on the modelling scenario.
- Refrigerated delivery truck condenser is modelled in the loading area at 2.2m above ground.

Noise modelling was undertaken for the following scenarios:

- Night-time L_{A10} – Consists of all mechanical plant operating and 4 vehicles idling in the drive-thru areas;
- Night-time L_{A1} – Consists of drive-thru speakers, 9 vehicles idling, mechanical plant and a small delivery truck in the designated bay;
- Sunday Day L_{A10} – Includes all mechanical plant and 9 vehicles idling in the drive-thru areas;
- Night-time L_{Amax} – Considers car door closings.

4. RESULTS AND ASSESSMENT

4.1. Scenario 1 – Night-time L_{A10}

The results for night-time operations are provided in *Table 4-1* with a noise contour plot provided in *Figure 4-1*.

Table 4-1: Scenario 1 Night-time Predicted Levels and Assessment, dB L_{A10}

Receiver	Mech Plant	4 Drive-Thru Vehicles	Combined	Assigned Level	Assessment
28 Yirrigan Dr	34	40	41	46	<i>Complies</i>
30 Yirrigan Dr	33	41	41	46	<i>Complies</i>
32 Yirrigan Dr	36	43	44	46	<i>Complies</i>
32 Yirrigan Dr (1F)	38	43	44	46	<i>Complies</i>
34 Yirrigan Dr	37	45	46	46	<i>Complies</i>
36 Yirrigan Dr	37	45	46	46	<i>Complies</i>
38 Yirrigan Dr	37	44	45	46	<i>Complies</i>
40 Yirrigan Dr	35	42	43	46	<i>Complies</i>
42 Yirrigan Dr	32	39	40	46	<i>Complies</i>

The worst-case combined level is 46 dB L_{A10} , at #34 and #36 Yirrigan Drive, which meets the night-time assigned level and is therefore compliant. No adjustments are applicable for tonality, since the car idling noise is the dominant noise source, which is variable in sound over a representative period. Where the mechanical plant is considered in isolation (no cars present) and a + 5 dB adjustment applied for tonality, compliance is still achieved.

Summary Scenario 1: Compliance achieved at all receivers.

Figure 4-1 Scenario 1: Night Time Noise Ground Floor (1.4m AGL), dB LA10

43 Yirrigan Drive, Mirrabooka



Predicted Noise level

- = 30
- = 35
- = 40
- = 45
- = 50

Legend

- Receiver
- New Building
- Fence/Parapet
- Mech/Car Source

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Scale 1:1000



Project No: 250310070
Consultant: MM
Date: 24/04/2025
Algorithm: ISO 9613
SoundPLAN Version: 9.1



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4.2. Scenario 2 – Night-time L_{A1}

The results for night-time operations are provided in *Table 4-2* with a noise contour plot provided in *Figure 4-2*. Note, this assumes deliveries will take less than 24 minutes in a 4-hour period, which is considered sufficient time for a small scale store.

Table 4-2: Scenario 2 Night-time Predicted Levels and Assessment, dB L_{A1}

Receiver	Truck Delivery	Drive-Thru Speaker	9 Drive-Thru Vehicles	Combined*	Assigned Level	Assessment
28 Yirrigan Dr	36	28	43	44	56	Complies
30 Yirrigan Dr	36	31	43	44	56	Complies
32 Yirrigan Dr	35	37	46	47	56	Complies
32 Yirrigan Dr (1F)	36	38	46	48	56	Complies
34 Yirrigan Dr	35	39	48	49	56	Complies
36 Yirrigan Dr	31	40	48	49	56	Complies
38 Yirrigan Dr	35	41	47	49	56	Complies
40 Yirrigan Dr	38	39	45	47	56	Complies
42 Yirrigan Dr	37	36	42	45	56	Complies

* Combined noise level also includes mechanical plant.

The worst-case combined level is 49 dB L_{A1} , which is 7 dB below the night-time assigned level and therefore compliant. No adjustments are applicable for tonality, since the idling vehicle noise is dominant and considered to be variable in frequency. The calculations also assume the delivery is occurring during a full drive-thru, which is a conservative worst-case scenario.

Summary Scenario 2: Compliance achieved at all receivers by at least 7 dB.

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Figure 4-2 Scenario 2: Night Time Noise Ground Floor (1.4m AGL), dB LA1

43 Yirrigan Drive, Mirrabooka



Predicted Noise level

- = 30
- = 35
- = 40
- = 45
- = 50

Legend

- Receiver
- New Building
- Fence/Parapet
- Mech/Car Source
- Delivery Truck

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4.3. Scenario 3 – Sunday Daytime L_{A10}

The results for Sunday daytime operations are provided in *Table 4-3* with a noise contour plot provided in *Figure 4-3*.

Table 4-3: Scenario 3 Sunday Predicted Levels and Assessment, dB L_{A10}

Receiver	Mech Plant	9 Drive-Thru Vehicles	Combined	Assigned Level	Assessment
28 Yirrigan Dr	34	43	44	51	Complies
30 Yirrigan Dr	33	43	44	51	Complies
32 Yirrigan Dr	36	46	47	51	Complies
32 Yirrigan Dr (1F)	38	46	47	51	Complies
34 Yirrigan Dr	37	48	49	51	Complies
36 Yirrigan Dr	37	48	49	51	Complies
38 Yirrigan Dr	37	47	48	51	Complies
40 Yirrigan Dr	35	45	46	51	Complies
42 Yirrigan Dr	32	42	43	51	Complies

The worst-case combined level is 49 dB L_{A10} , which is 2 dB below the night-time assigned level and therefore compliant. No adjustments are applicable for tonality, since the car idling noise is the dominant noise source, which is variable in sound over a representative period. Where the mechanical plant is considered in isolation and a + 5 dB adjustment applied for tonality, compliance is still achieved.

Summary Scenario 3: Compliance achieved at all receivers by at least 2 dB.

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Figure 4-3 Scenario 3: Sunday Noise Ground Floor (1.4m AGL), dB LA10

43 Yirrigan Drive, Mirrabooka



Predicted Noise level

- = 30
- = 35
- = 40
- = 45
- = 50

Legend

- Receiver
- New Building
- Fence/Parapet
- Mech/Car Source

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Project No: 250310070
Consultant: MM
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SoundPLAN Version: 9.1



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4.4. Scenario 4 – Night-time L_{Amax}

The results for night-time maximum noise levels are provided in *Table 4-4* with a noise contour plot provided in *Figure 4-4*.

Table 4-4: Scenario 4 Night-time Predicted Levels and Assessment, dB L_{Amax}

Receiver	Car Doors*	Assigned Level	Assessment
28 Yirrigan Dr	50	66	<i>Complies</i>
30 Yirrigan Dr	51	66	<i>Complies</i>
32 Yirrigan Dr	51	66	<i>Complies</i>
32 Yirrigan Dr (1F)	52	66	<i>Complies</i>
34 Yirrigan Dr	51	66	<i>Complies</i>
36 Yirrigan Dr	49	66	<i>Complies</i>
38 Yirrigan Dr	46	66	<i>Complies</i>
40 Yirrigan Dr	45	66	<i>Complies</i>
42 Yirrigan Dr	44	66	<i>Complies</i>

* Adjusted by + 10 dB for impulsiveness.

The worst-case level from car doors is 52 dB L_{Amax} , including the + 10 dB adjustment for impulsiveness, which may be applicable.

Summary Scenario 4: Compliance achieved at all receivers by at least 14 dB.

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Figure 4-4 Scenario 4: Car Park Noise Ground Floor (1.4m AGL), dB L_{Amax}

43 Yirrigan Drive, Mirrabooka



Predicted Noise level

- = 30
- = 35
- = 40
- = 45
- = 50

Legend

- Receiver
- New Building
- Fence/Parapet
- Car Door

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Consultant: MM
Date: 24/04/2025
Algorithm: ISO 9613
SoundPLAN Version: 9.1



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5. RECOMMENDATIONS & CONCLUSIONS

The assessment has demonstrated that noise from the fast food development can comply with the assigned levels determined in accordance with the *Environmental Protection (Noise) Regulations 1997* without the need for mitigation measures.

To ensure compliance with the Noise Regulations, delivery vehicles are encouraged to have broadband type reversing alarms fitted rather than standard tonal alarms. This is also in line with the guidance provided by DWER and considered less likely to elicit complaints from the community.

Bin servicing shall occur between 7.00am and 7.00pm Mondays to Saturdays in order to fall under Regulation 14A and provided it is carried out within the stipulated hours and undertaken as quietly as reasonably practicable, the 'normal' assigned levels do not apply.

Once the mechanical plant has been designed and selected, the noise levels shall be reviewed prior to Building Permit by a suitably qualified acoustical consultant (qualifying for membership with the Australian Acoustics Society).

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Appendix A – Development Plans

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STARBUCKS
MIRRABOOKA SQUARE

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061



DRAWING REGISTER:

ARCHITECTURAL DRAWINGS: VODA BUILDING SERVICES

DRAWING No.	DESCRIPTION	REV
24015-TP000	COVER SHEET & DRAWING REGISTER	F
24015-TP001	LOCATION PLAN: EXISTING	A
24015-TP002	SITE PLAN: EXISTING	B
24015-TP003	SITE PLAN: PROPOSED	E
24015-TP020	SITE PLAN: SIGN LOCATION & SCHEDULE	D
24015-TP021	SIGNAGE DETAILS: PYLON SIGN, BUILDING SIGNS DIRECTIONAL SIGNS, MENU BOARD & SPEAKER POST	B
24015-TP022	SIGNAGE DETAILS: CLEARANCE BAR, DIRECTIONAL SIGNS & GRAPHIC	B
24015-TP023	SIGNAGE DETAILS: CANOPY & TRAFFIC SIGNS	B
24015-TP101	FLOOR PLAN: PROPOSED	D
24015-TP120	ROOF PLAN	B
24015-TP200	BUILDING ELEVATIONS: ELEVATIONS: NORTH & EAST	B
24015-TP201	BUILDING ELEVATIONS: ELEVATIONS: SOUTH & WEST	B
24015-TP210	3D VIEWS	C

Client
FAWKNER PROPERTY LTD

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REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	DRAWING REGISTER & 3D UPDATED	LL	29.04.25	
C	DRAWING REGISTER & 3D UPDATED	LL	01.05.25	
D	DRAWING REGISTER UPDATED	LL	12.05.25	
E	DRAWING REGISTER UPDATED	LL	29.05.25	
F	DRAWING REGISTER UPDATED	LL	23.06.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
**COVER PAGE &
DRAWING REGISTER**

Drawing Scale As Shown	Plot Date December 2024	Option
Drawn By LL	Store Number: -	
Project No. 24015	Drawing No. TP000	Revision F



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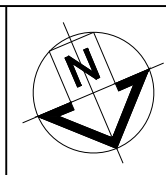
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A	TP ISSUE	LL	14.04.25	SB

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTRE
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
LOCATION PLAN: EXISTING

Drawing Scale As Shown	Plot Date December 2024	Option
Drawn By LL	Store Number: -	Revision
Project No. 24015	Drawing No. TP001	A



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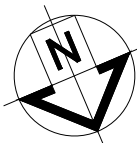
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B	GENERAL REVISION	LL	23.06.25	

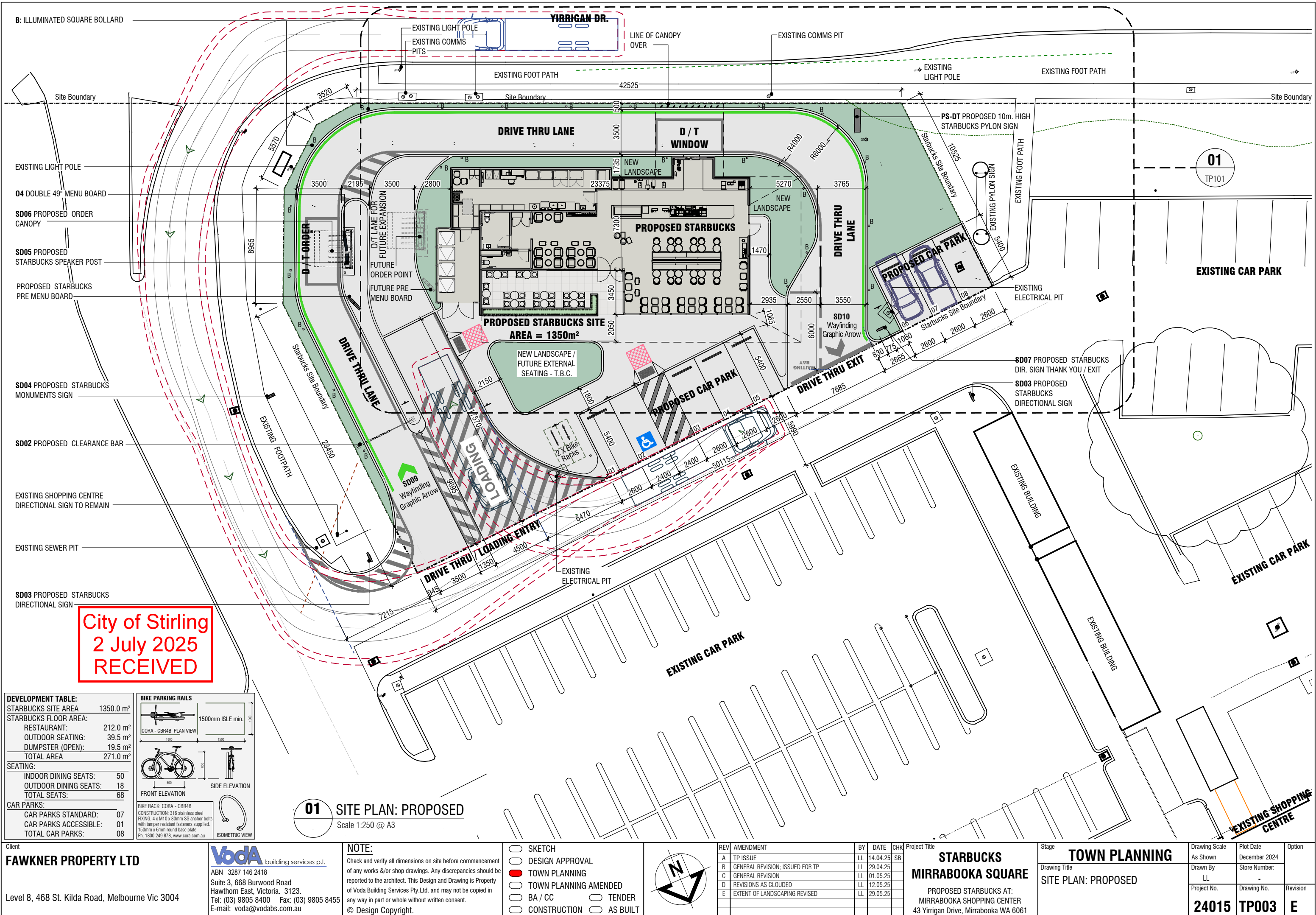
Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
SITE PLAN: EXISTING

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By	Store Number:	
LL	-	
Project No.	Drawing No.	Revision
24015	TP002	B



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YIRRIGAN DR.

STARBUCKS SIGNAGE SCHEDULE:

CODE	DESCRIPTION	ILLUMINATION	Qty
PS-DT	10 METER HIGH STARBUCKS INLINE PYLON SIGN	☒	01
SB1	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 405mm HIGH	☒	02
SB2	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 355mm HIGH	☒	01
SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
SB4	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1525mm Ø	☒	01
SD02	CLEARANCE BAR	☒	01
SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
SD10	WAYFINDING GRAPHIC ARROW - EXIT COLOUR: WHITE	☒	01

SD 05a 04 ODMB DOUBLE
49" MENU BOARD

SD06 ORDER CANOPY

SD05 SPEAKER POST

PROPOSED STARBUCKS
PRE MENU BOARD

SD04 MONUMENTS SIGN

SD02 CLEARANCE BAR

SD03 DIRECTIONAL SIGN

01 SITE PLAN: SIGNAGE LOCATION

Scale 1:250 @ A3

Client
FAWKNER PROPERTY LTD

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Hawthorn East, Victoria. 3123.
Tel: (03) 9805 8400 Fax: (03) 9805 8455
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A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION; ISSUED FOR TP	LL	29.04.25	
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D	GENERAL REVISION	LL	12.05.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

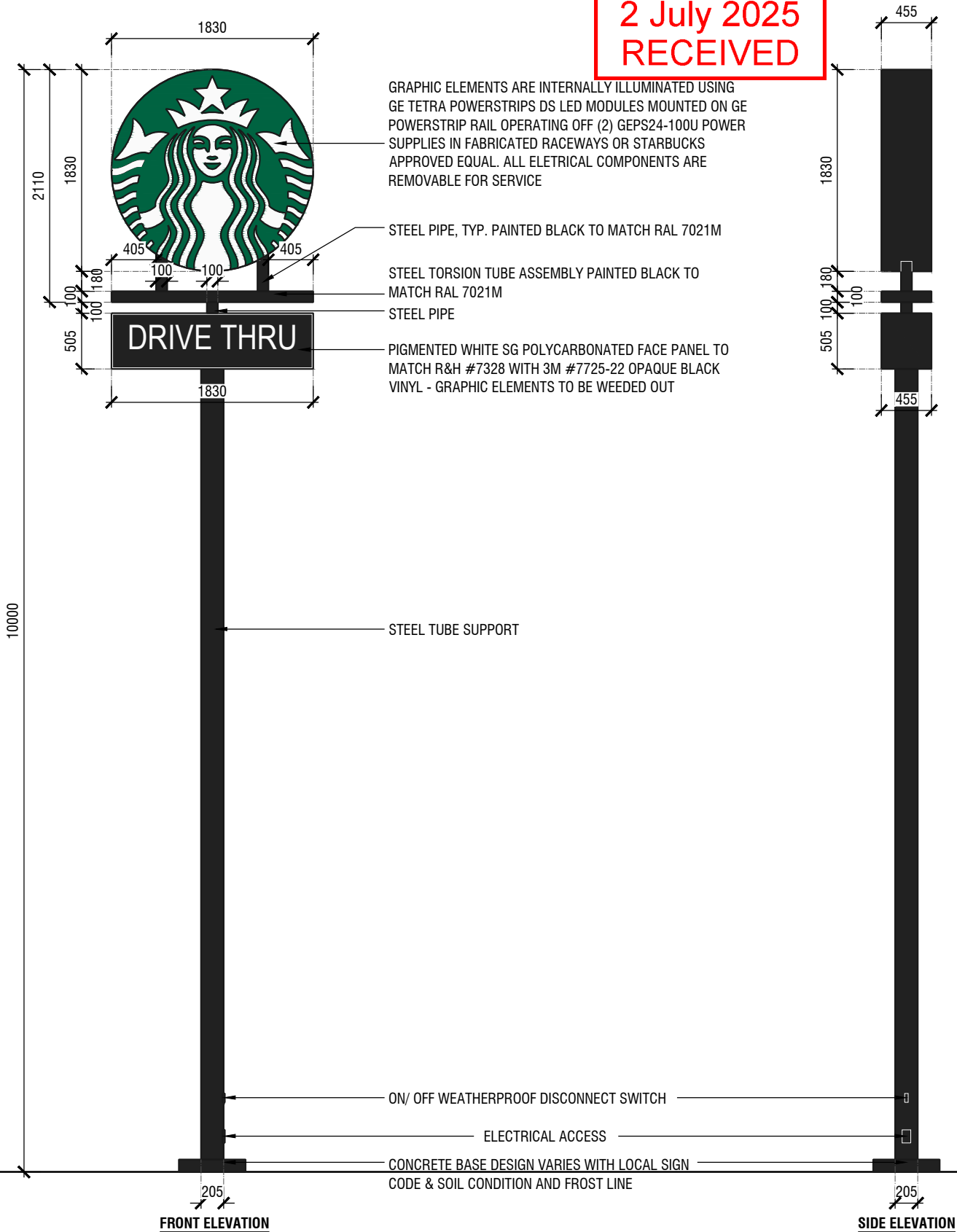
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

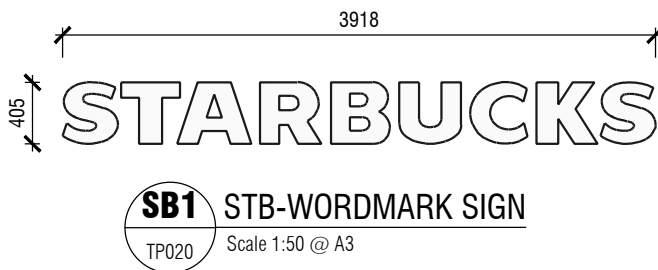
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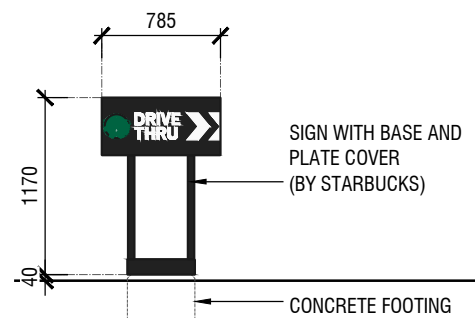
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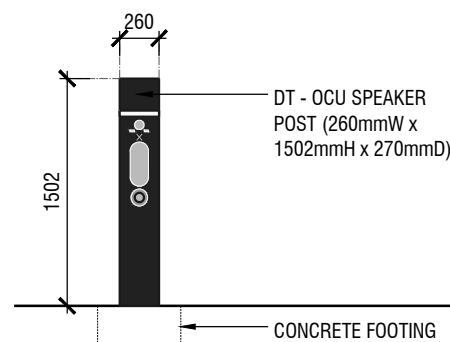
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SB3 STB-LOGO DISC SIGN
TP020 Scale 1:50 @ A3



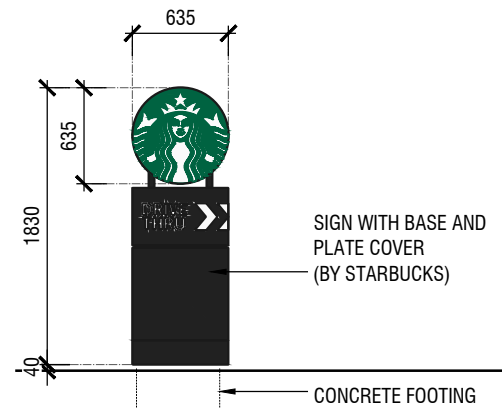
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TP020 Scale 1:50 @ A3



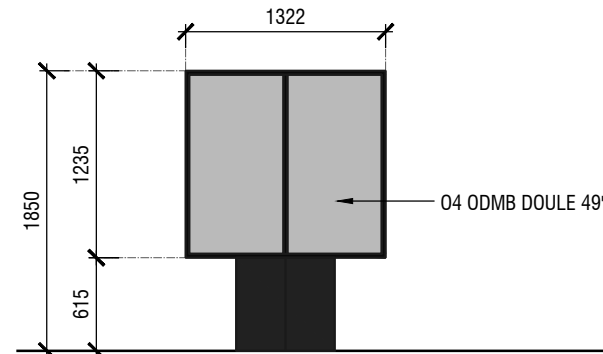
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TP020 Scale 1:50 @ A3



SB4 STB-LOGO DISC SIGN
TP020 Scale 1:50 @ A3



SD04 STB-MONUMENT SIGN
TP020 Scale 1:50 @ A3



SD05a STB-MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING
TP020 Scale 1:50 @ A3

STARBUCKS SIGNAGE SCHEDULE:			
CODE	DESCRIPTION	ILLUMINATION	Qty
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SB1	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 405mm HIGH	☒	02
SB2	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 355mm HIGH	☒	01
SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
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SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
SD10	WAYFINDING GRAPHIC ARROW - EXIT COLOUR: WHITE	☒	01

Client
FAWKNER PROPERTY LTD

Level 8, 468 St. Kilda Road, Melbourne Vic 3004

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ABN 3287 146 2418
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☐ AS BUILT

REV	AMENDMENT	BY	DATE	CHK
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B	GENERAL REVISION	LL	01.05.25	

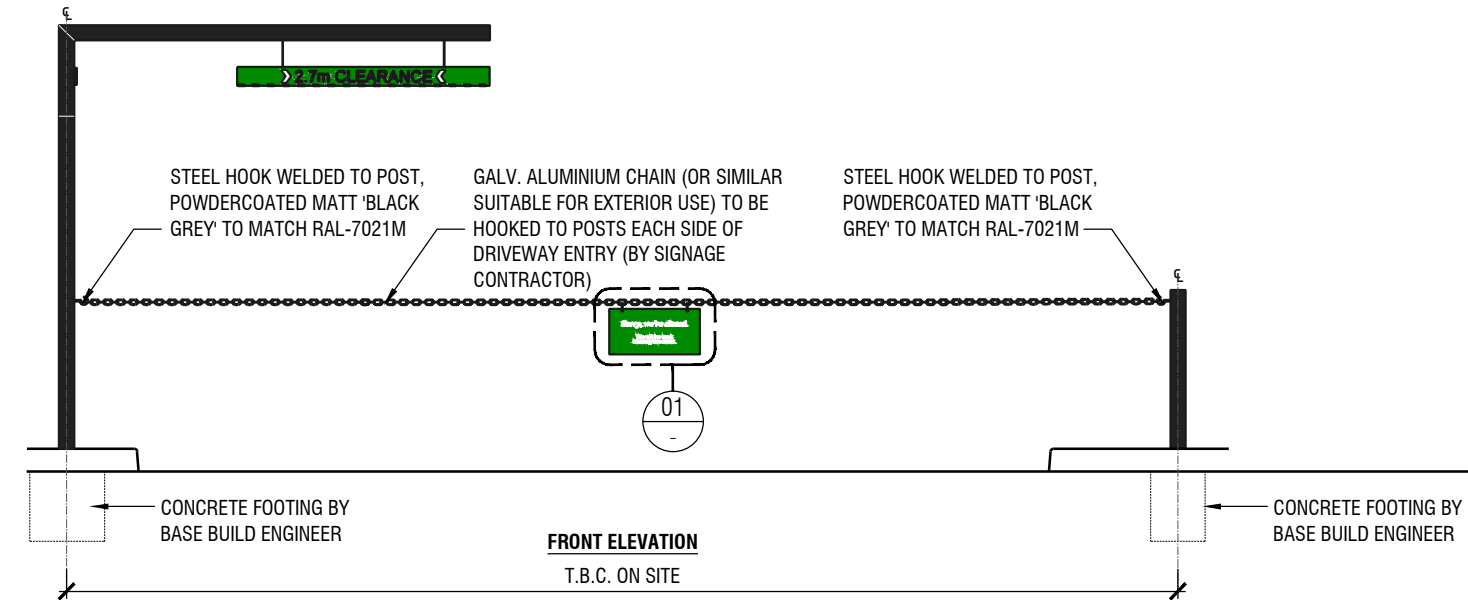
Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

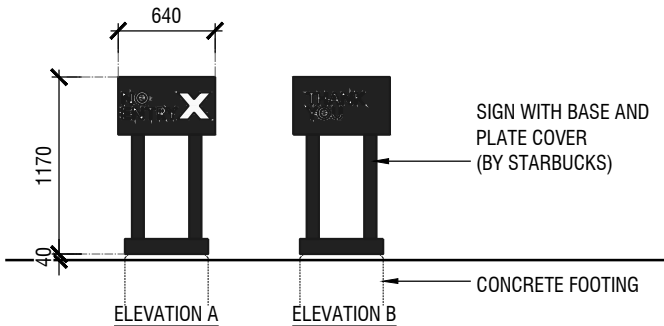
Stage
TOWN PLANNING

Drawing Title
**SIGNAGE DETAILS: PYLON SIGN,
BUILDING SIGNS, DIRECTIONAL
SIGNS, MENU BOARD & SPEAKER**

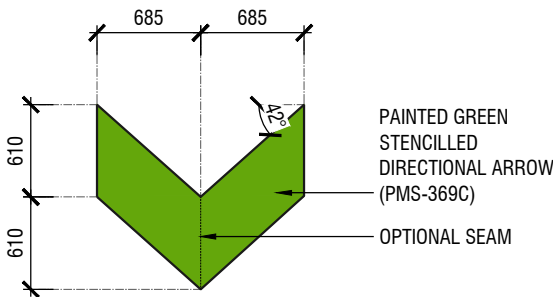
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Drawn By EC	Store Number: -	
Project No. 24015	Drawing No. TP021	Revision B



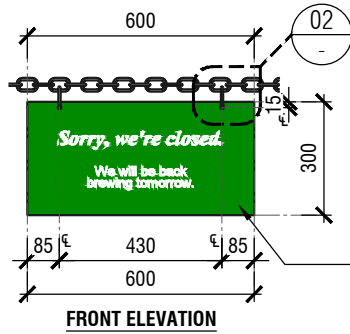
SD02 STBTP020CLEARANCE BAR
TP020 Scale 1:50 @ A3



SD07 STBTP020DIRECTIONAL SIGN
TP020 Scale 1:50 @ A3

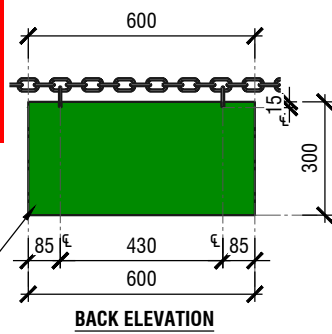


SD09 STBTP020WAYFINDING GRAPHIC ARROW TP020 SINGLE
TP020 Scale 1:50 @ A3

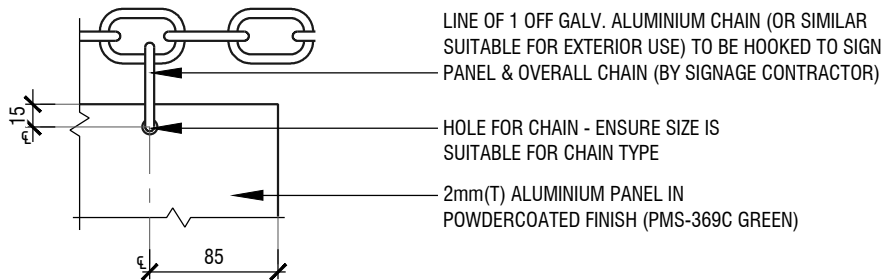


2mm(T) ALUMINIUM PANEL WITH ROUNDED EDGES, POWDERCOATED FINISH (PMS-369C GREEN) WITH SIGNAGE IN 3M #680-10 WHITE SCOTCHLITE REFLECTIVE VINYL FILM - CLEAR COATED FOR PROTECTION

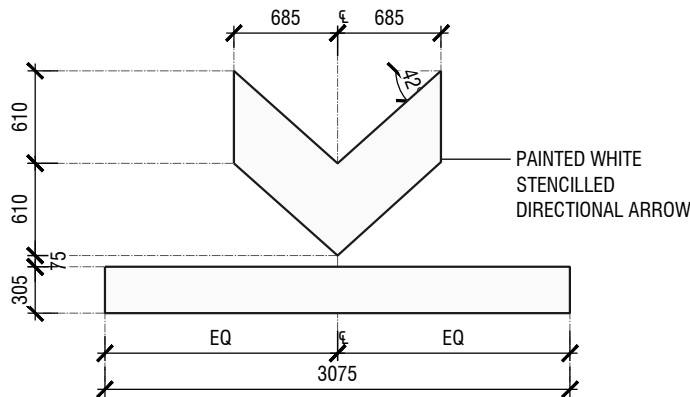
NOTE: STARBUCKS TO PROVIDE EPS FILE OF SIGNAGE GRAPHIC



01 STBTP020CLEARANCE BAR CLOSURE SIGN
TP020 Scale 1:20 @ A3



02 STBTP020CLEARANCE BAR CLOSURE SIGN TP020DETAIL
TP020 Scale 1:20 @ A3



SD10 STBTP020WAYFINDING GRAPHIC ARROW TP020 EXIT
TP020 Scale 1:50 @ A3

STARBUCKS SIGNAGE SCHEDULE:

CODE	DESCRIPTION	ILLUMINATION	
			Qty
PS-DT	10 METER HIGH STARBUCKS INLINE PYLON SIGN	☒	01
SB1	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 405mm HIGH	☒	02
SB2	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 355mm HIGH	☒	01
SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
SB4	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1525mm Ø	☒	01
SD02	CLEARANCE BAR	☒	01
SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
SD10	WAYFINDING GRAPHIC ARROW - EXIT COLOUR: WHITE	☒	01

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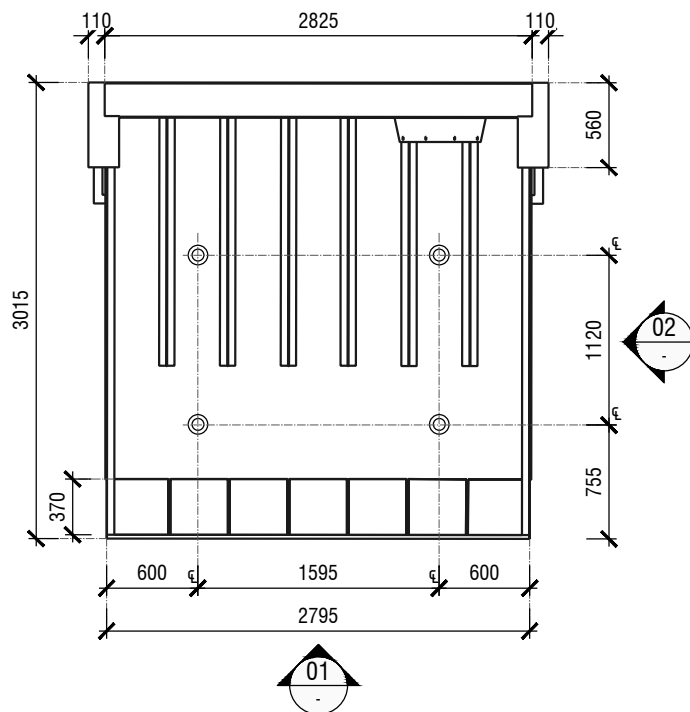
Project Title
STARBUCKS MIRRABOOKA SQUARE

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

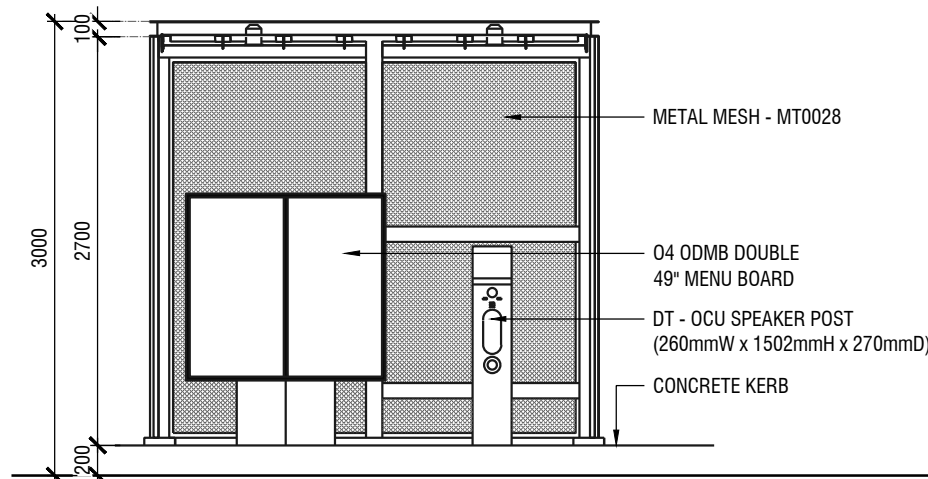
Stage
TOWN PLANNING

Drawing Title
SIGNAGE DETAILS: CLEARANCE BAR, DIRECTIONAL SIGNS, GRAPHICS

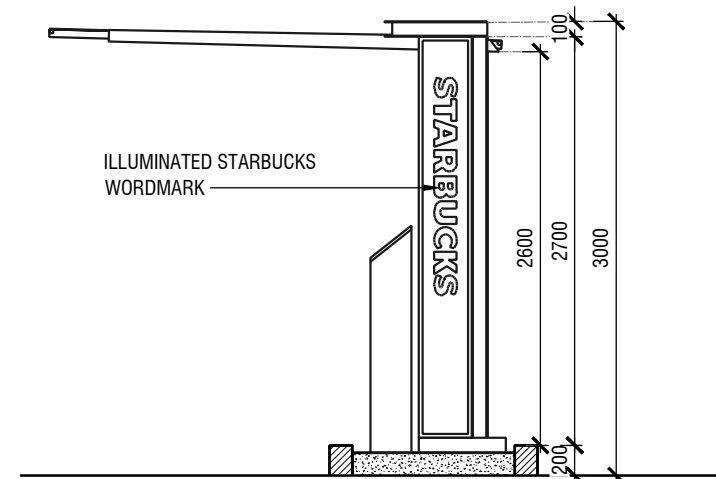
Drawing Scale As Shown	Plot Date December 2024	Option
Drawn By EC	Store Number: -	
Project No. 24015	Drawing No. TP022	Revision B



SD06 STB-ORDER POINT CANOPY: REFLECTED PLAN
Scale 1:50 @ A3



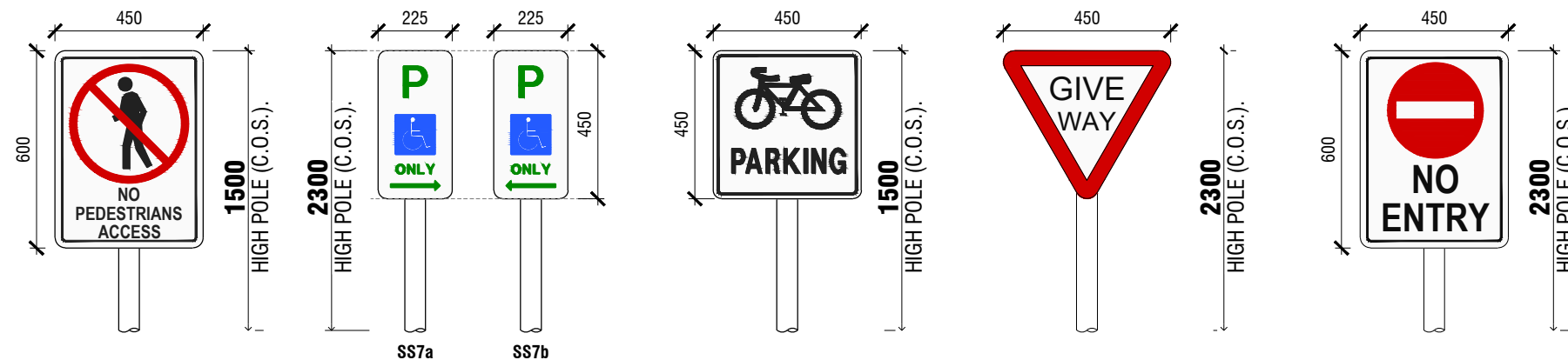
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Scale 1:50 @ A3



02 STB-ORDER POINT CANOPY: SIDE ELEVATION
Scale 1:50 @ A3

STARBUCKS SIGNAGE SCHEDULE:			
CODE	DESCRIPTION	ILLUMINATION	Qty
PS-DT	10 METER HIGH STARBUCKS INLINE PYLON SIGN	☒	01
SB1	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 405mm HIGH	☒	02
SB2	STARBUCKS INTERNALLY ILLUMINATED WORDMARK SIGN SIZE: 355mm HIGH	☒	01
SB3	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1220mm Ø	☒	02
SB4	STARBUCKS INTERNALLY ILLUMINATED LOGO DISC SIGN SIZE: 1525mm Ø	☒	01
SD02	CLEARANCE BAR	☒	01
SD03	STARBUCKS DIRECTIONAL SIGN WITH LOGO	☒	02
SD04	STARBUCKS MONUMENTS SIGN	☒	01
SD05	STARBUCKS OCU SPEAKER POST SIZE: 260 W x 1502 H x 270 D	☒	01
SD05a	STARBUCKS MENU 04 ODMB DOUBLE 49" PANEL FREESTANDING	☒	01
SD06	STARBUCKS ORDER POINT CANOPY	☒	01
SD07	STARBUCKS DIRECTIONAL SIGN THANK YOU/ EXIT	☒	01
SD09	WAYFINDING GRAPHIC ARROW - SINGLE COLOUR: GREEN	☒	01
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ST5 TRAFFIC SIGN: NO PEDESTRIAN ACCESS
TP020 Scale 1:20 @ A3
QUANTITY: 01

ST7 TRAFFIC SIGN: ACCESSIBLE PARKING
TP020 Scale 1:20 @ A3
QUANTITY: 01 OF EACH SIGN

ST19 BICYCLE PARKING
TP020 QUANTITY: 01

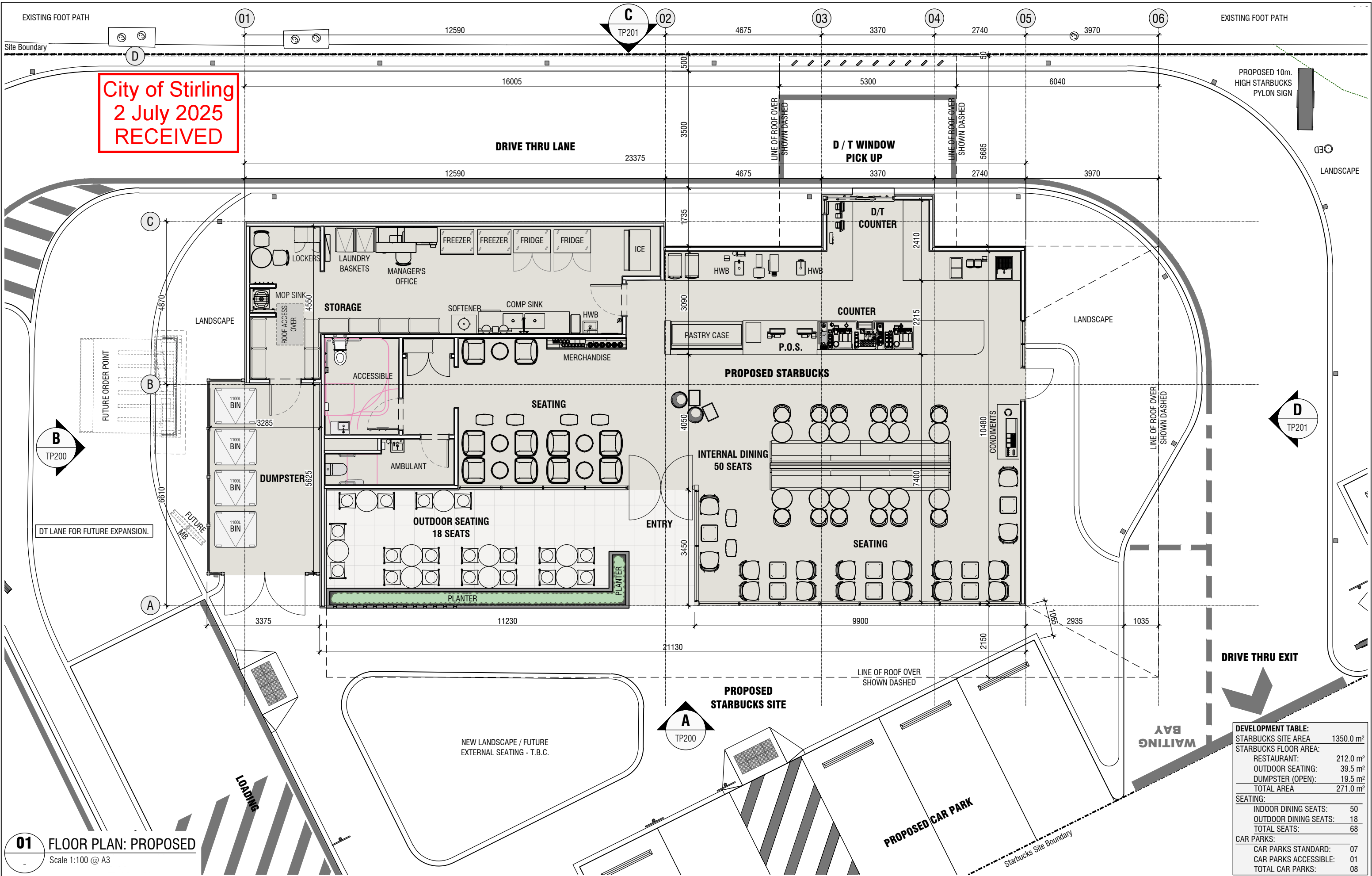
ST30 GIVE WAY
TP020 QUANTITY: 01

SS31 NO ENTRY
TP020 QUANTITY: 01

TP020 TRAFFIC SIGNS DETAILS
Scale 1:50 @ A3

NOTE: REFER TO SIGNAGE LOCATION DRAWING TP020 FOR TRAFFIC SIGNS LOCATION

Client FAWKNER PROPERTY LTD Level 8, 468 St. Kilda Road, Melbourne Vic 3004	 ABN 3287 146 2418 Suite 3, 668 Burwood Road Hawthorn East, Victoria. 3123. Tel: (03) 9805 8400 Fax: (03) 9805 8455 E-mail: voda@vodabs.com.au	NOTE: Check and verify all dimensions on site before commencement of any works &/or shop drawings. Any discrepancies should be reported to the architect. This Design and Drawing is Property of Voda Building Services Pty.Ltd. and may not be copied in any way in part or whole without written consent. © Design Copyright.	☐ SKETCH ☐ DESIGN APPROVAL ☒ TOWN PLANNING ☐ TOWN PLANNING AMENDED ☐ BA / CC ☐ CONSTRUCTION	☐ TENDER ☐ AS BUILT	REV	AMENDMENT	BY	DATE	CHK	Project Title STARBUCKS MIRRABOOKA SQUARE PROPOSED STARBUCKS AT: MIRRABOOKA SHOPPING CENTER 43 Yirrigan Drive, Mirrabooka WA 6061	Stage TOWN PLANNING	Drawing Scale As Shown	Plot Date December 2024	Option B
					A	TP ISSUE	LL	14.04.25	SB					
					B	GENERAL REVISION	LL	01.05.25						
Drawing Title SIGNAGE DETAILS: ORDER POINT CANOPY & TRAFFIC SIGNS												Drawn By EC	Store Number: -	Revision
												Project No. 24015	Drawing No. TP023	



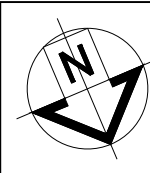
DEVELOPMENT TABLE:	
STARBUCKS SITE AREA	1350.0 m ²
STARBUCKS FLOOR AREA:	
RESTAURANT:	212.0 m ²
OUTDOOR SEATING:	39.5 m ²
DUMPSTER (OPEN):	19.5 m ²
TOTAL AREA	271.0 m ²
SEATING:	
INDOOR DINING SEATS:	50
OUTDOOR DINING SEATS:	18
TOTAL SEATS:	68
CAR PARKS:	
CAR PARKS STANDARD:	07
CAR PARKS ACCESSIBLE:	01
TOTAL CAR PARKS:	08

Client
FAWKNER PROPERTY LTD
Level 8, 468 St. Kilda Road, Melbourne Vic 3004

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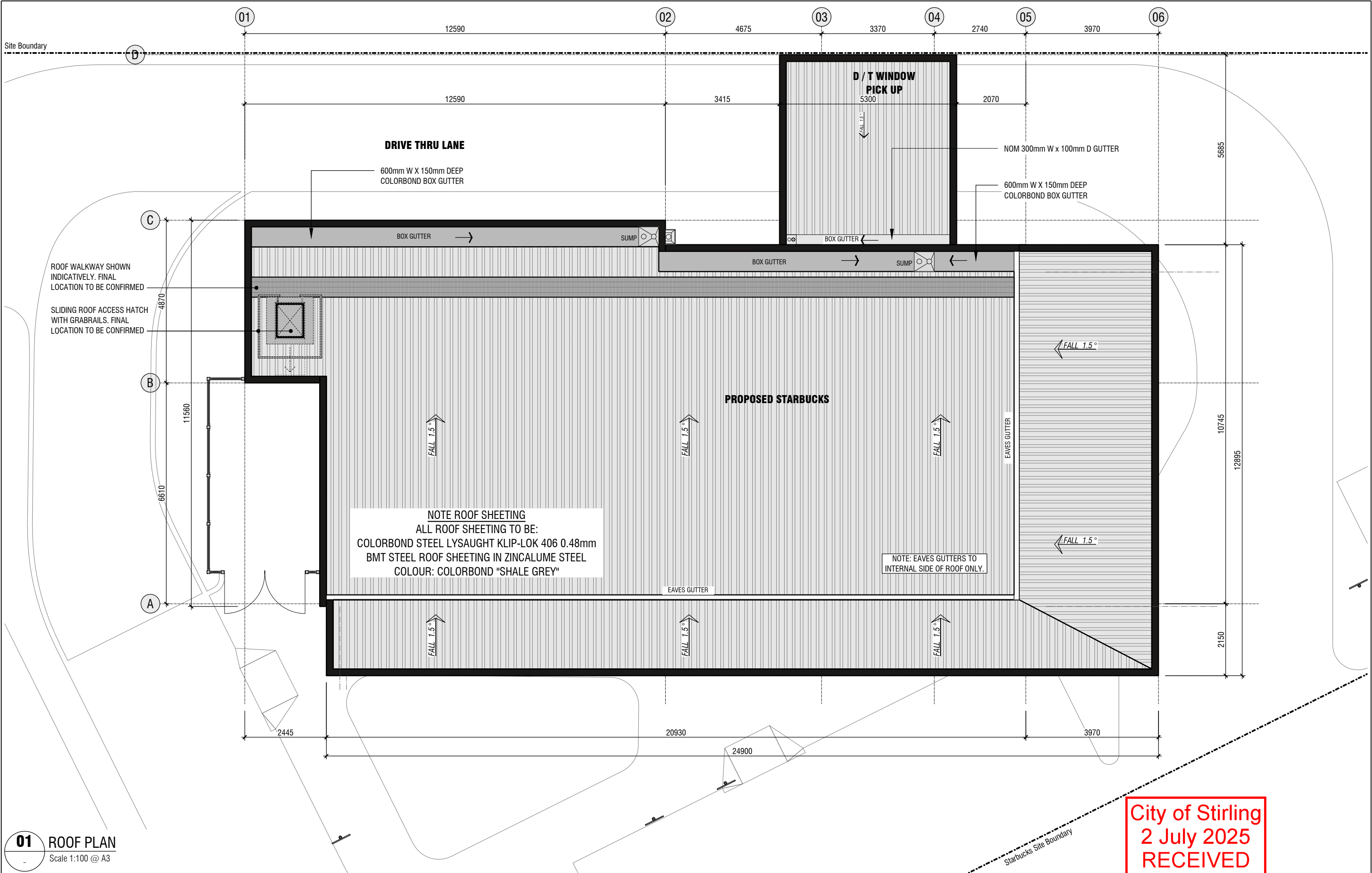


REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION; ISSUED FOR TP	LL	29.04.25	
C	GENERAL REVISION	LL	01.05.25	
D	EXTENT OF LANDSCAPING REVISED	LL	29.05.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING
Drawing Title
FLOOR PLAN: PROPOSED

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By	Store Number:	
LL	-	
Project No.	Drawing No.	Revision
24015	TP101	D



01

ROOF PLAN

Scale 1:100 @ A3

Client

FAWKNER PROPERTY LTD

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B	GENERAL REVISION	LL	01.05.25	

Project Title

STARBUCKS
MIRRABOOKA SQUARE
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage

TOWN PLANNING
Drawing Title
ROOF PLAN: PROPOSED

Drawing Scale

As Shown

Plot Date

December 2024

Option

Drawn By

LL

Store Number:

-

Project No.

24015

Drawing No.

TP120

Revision

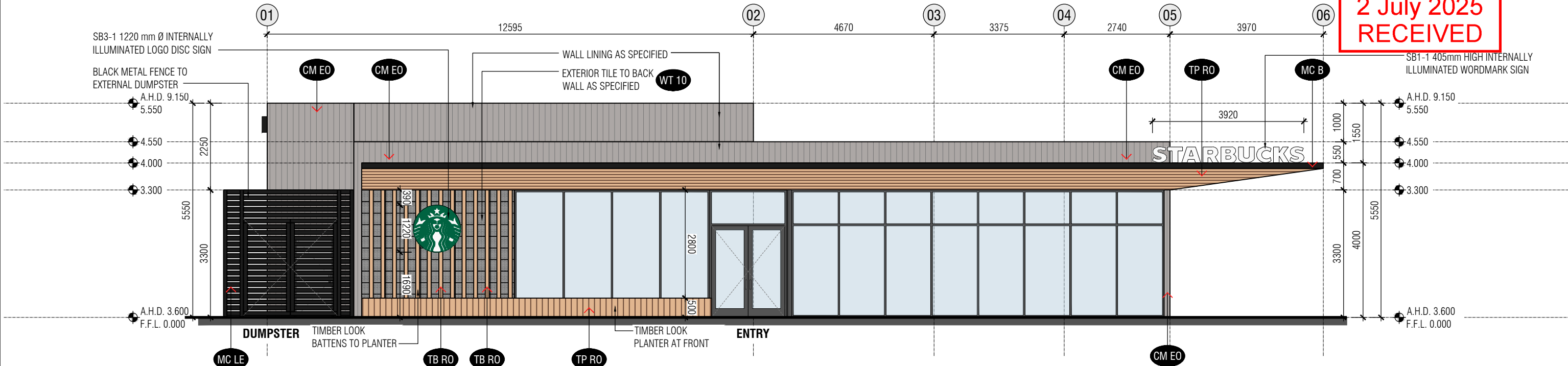
B

City of Stirling

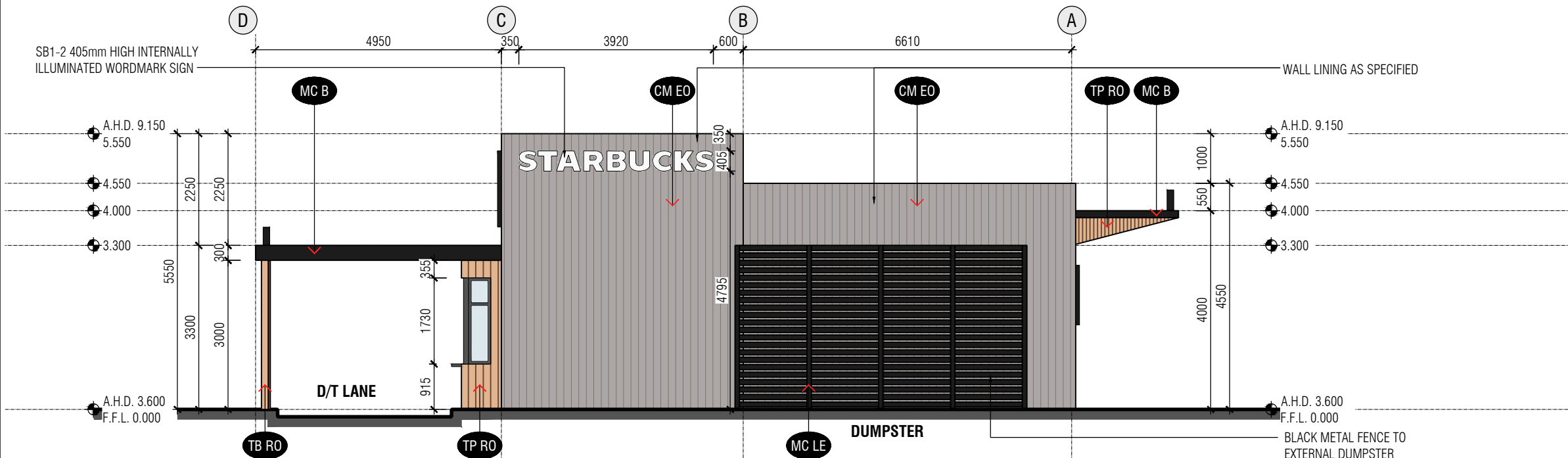
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A NORTH ELEVATION
TP101 Scale 1:100 @ A3



B EAST ELEVATION
TP101 Scale 1:100 @ A3

EXTERNAL FINISHES SCHEDULE

NOTE: TO BE CONFIRMED BY STARBUCKS DESIGN MANAGER

CODE	SAMPLE	DESCRIPTION
CM-EO		VJ CLADDING WALL PANEL Brand: CEMINTEL Range: EDGE CLADDING OXFORD Colour: HAYMES CLOUDED ROCK
TP-RO		TIMBER LOOK ALUMINIUM PLANK Brand: KNOTWOOD Size: 150mm Colour: ROYAL OAK, MEDIUM TONE WD0068
TB-RO		TIMBER LOOK ALUMINIUM BATTENS Brand: KNOTWOOD Size: 100mm x 50mm Colour: ROYAL OAK, MEDIUM TONE WD0068
WT-10		EXTERIOR WALL TILE Brand: INTEGRA SURFACE Range: STONELAND WATTLE GREY Size: 300mm x 900mm HORIZONTAL STACK
MC-B		ALUMINIUM PANEL Brand: MONDOCLAD Supplier: HVG Colour: BLACK
MC-LE		METAL CLADDING Brand: COLORBOND Colour: ZEUS LUNAR ECLIPSE

Client
FAWKNER PROPERTY LTD

Level 8, 468 St. Kilda Road, Melbourne Vic 3004

Voda building services p.l.
ABN 3287 146 2418
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Hawthorn East, Victoria. 3123.
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E-mail: voda@vodabs.com.au

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REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION	LL	01.05.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

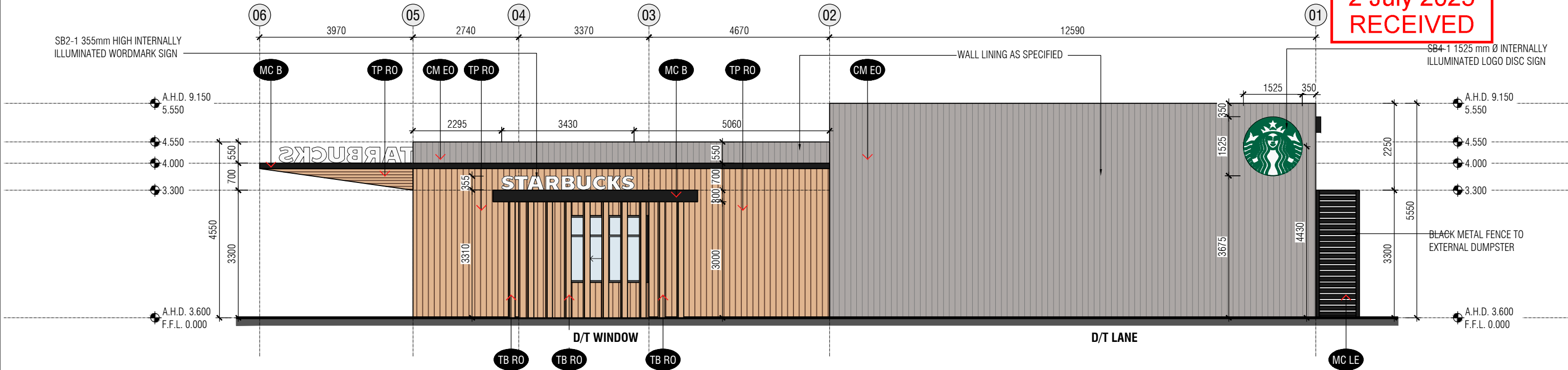
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

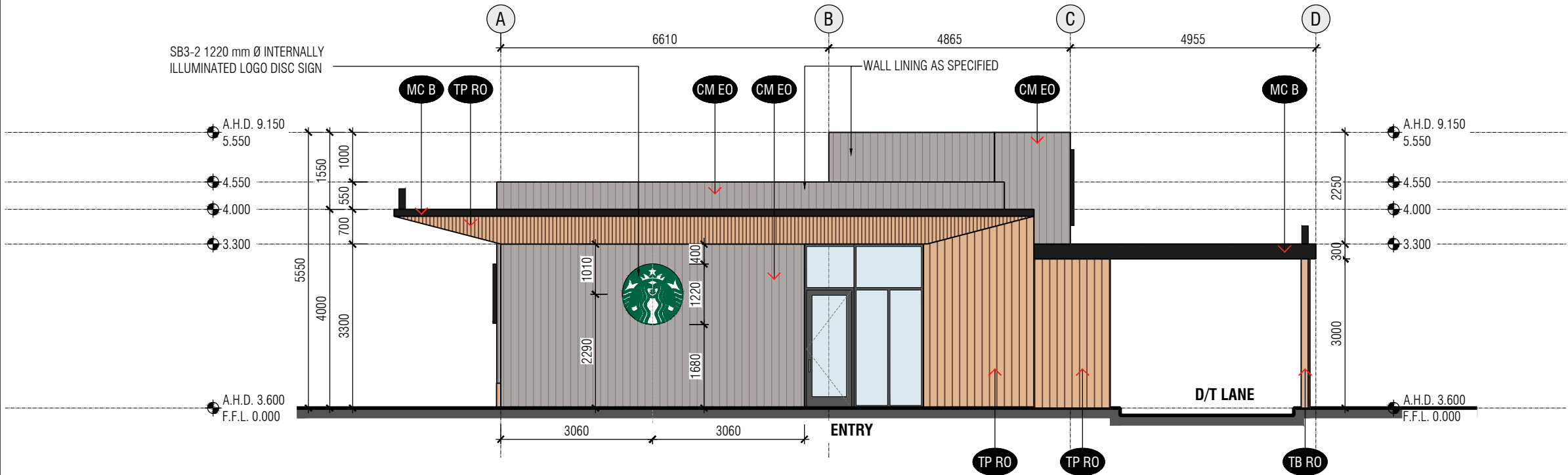
Drawing Title
**BUILDING ELEVATIONS:
NORTH & EAST**

Drawing Scale As Shown	Plot Date December 2024	Option
Drawn By LL	Store Number: -	
Project No. 24015	Drawing No. TP200	Revision B

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C SOUTH ELEVATION
TP101 Scale 1:100 @ A3



D WEST ELEVATION
TP101 Scale 1:100 @ A3

EXTERNAL FINISHES SCHEDULE

NOTE: TO BE CONFIRMED BY STARBUCKS DESIGN MANAGER

CODE	SAMPLE	DESCRIPTION
CM-EO		VJ CLADDING WALL PANEL Brand: CEMINTEL Range: EDGE CLADDING OXFORD Colour: HAYMES CLOUDED ROCK
TP-RO		TIMBER LOOK ALUMINIUM PLANK Brand: KNOTWOOD Size: 150mm Colour: ROYAL OAK, MEDIUM TONE WD0068
TB-RO		TIMBER LOOK ALUMINIUM BATTENS Brand: KNOTWOOD Size: 100mm x 50mm Colour: ROYAL OAK, MEDIUM TONE WD0068
WT-10		EXTERIOR WALL TILE Brand: INTEGRA SURFACE Range: STONELAND WATTLE GREY Size: 300mm x 900mm HORIZONTAL STACK
MC-B		ALUMINIUM PANEL Brand: MONDOCLAD Supplier: HVG Colour: BLACK
MC-LE		METAL CLADDING Brand: COLORBOND Colour: ZEUS LUNAR ECLIPSE

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☐ AS BUILT

REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	GENERAL REVISION	LL	01.05.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**
PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrigan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING
Drawing Title
**BUILDING ELEVATIONS:
SOUTH & WEST**

Drawing Scale As Shown	Plot Date December 2024	Option
Drawn By LL	Store Number: -	
Project No. 24015	Drawing No. TP201	Revision B



Client
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- ☐ AS BUILT

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A	TP ISSUE	LL	14.04.25	SB
B	3D VIEWS UPDATED	LL	29.04.25	
C	3D VIEWS UPDATED	LL	01.05.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrgan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
3D VIEWS

Drawing Scale As Shown	Plot Date December 2024	Option
Drawn By EC	Store Number: -	
Project No. 24015	Drawing No. TP210	Revision C

Appendix B – Influencing Factor Calculation

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The assigned levels combine a baseline assigned level with an influencing factor, with the latter increasing the assigned level on the basis of the existence of significant roads and commercial or industrial zoned land within an inner circle (100 metre radius) and an outer circle (450 metre radius) of the noise sensitive premises. The calculation for the influencing factor is:

$$= \frac{1}{10} (\% \text{ Type A}_{100} + \% \text{ Type A}_{450}) + \frac{1}{20} (\% \text{ Type B}_{100} + \% \text{ Type B}_{450})$$

where :

$\% \text{ Type A}_{100}$ = the percentage of industrial land within
a 100m radius of the premises receiving the noise

$\% \text{ Type A}_{450}$ = the percentage of industrial land within
a 450m radius of the premises receiving the noise

$\% \text{ Type B}_{100}$ = the percentage of commercial land within
a 100m radius of the premises receiving the noise

$\% \text{ Type B}_{450}$ = the percentage of commercial land within
a 450m radius of the premises receiving the noise

+ Transport Factor (maximum of 6 dB)

= 2 for each secondary road (6,000 to 15,000 vpd) within 100m

= 2 for each major road (> 15,000 vpd) within 450m

= 6 for each major road within 100m

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The nearest noise sensitive are identified as:

- 28 Yirrigan Dr
- 30 Yirrigan Dr
- 32 Yirrigan Dr
- 34 Yirrigan Dr
- 36 Yirrigan Dr
- 38 Yirrigan Dr
- 40 Yirrigan Dr
- 42 Yirrigan Dr

Of the above list, these can be grouped as all being nearest to the development and within 100 metres of Yirrigan Drive.

Table B-1 shows the percentage of industrial and commercial land within the inner (100 metre radius) and outer (450 metre radius) circles of the noise sensitive premises.

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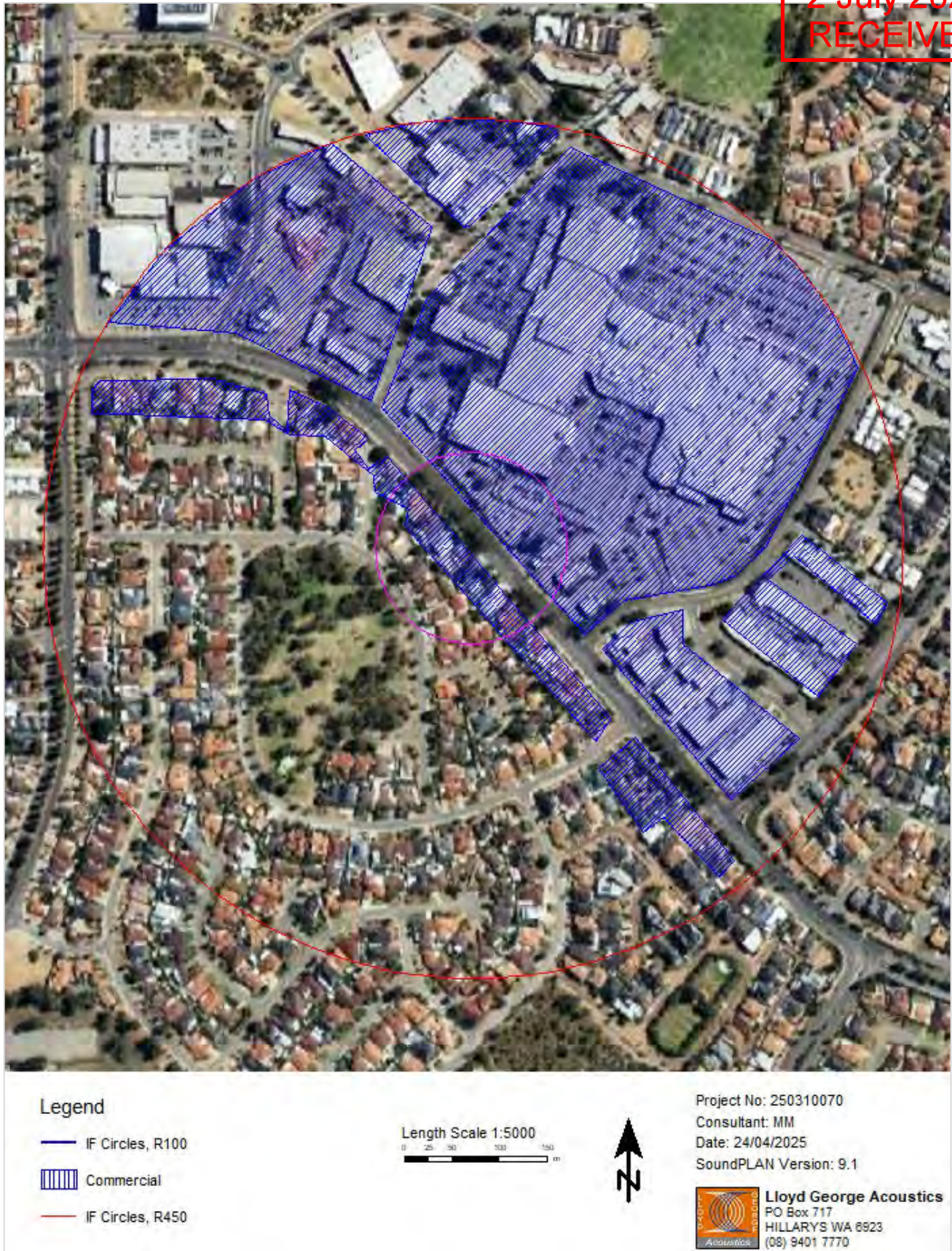


Figure B-1: Land Types within 100m and 450m Radii

Table B-1: Percentage of Land Types within 100m and 450m Radii

Receiver	Land Type	Within 100m	Within 450m
All Nearest Noise Sensitive Premises	Type A - Industrial and Utility	0	0
	Type B – Commercial	50	44

Table B-2 shows the relevant roads and their traffic estimates within the inner (100 metre radius) and outer (450 metre radius) circles.

Table B-2: Relevant Roads within 100m and 450m Radii

Receiver	Within 100m		Within 450m
	Major Road (+ 6 dB)	Secondary Road (+ 2 dB)	Major Road Not Within 100m (+ 2 dB)
All Nearest Noise Sensitive Premises	Yirrigan Drive (18,079 vpd - LM00419, 2023)	-	-

Table B-3 combines the percentage land types and Transport Factor to calculate the influencing factor.

Table B-3: Influencing Factor Calculation, dB

Receiver	Industrial Land	Commercial Land	Transport Factor	Total
Receivers East of Wanneroo Rd	0.0	4.7	6	11

The influencing factor calculated in Table B-3 is combined with those baseline assigned levels of Table 2-2, resulting in the project assigned levels provided in Table 2-3.

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Appendix C – Terminology

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The following is an explanation of the terminology used throughout this report:

- **Decibel (dB)**

The decibel is the unit that describes the sound pressure levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

- **A-Weighting**

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as L_A , dB.

- **Sound Power Level (L_w)**

Under normal conditions, a given sound source will radiate the same amount of energy, irrespective of its surroundings, being the sound power level. This is similar to a 1kW electric heater always radiating 1kW of heat. The sound power level of a noise source cannot be directly measured using a sound level meter but is calculated based on measured sound pressure level at known distances. Noise modelling incorporates source sound power levels as part of the input data.

- **Sound Pressure Level (L_p)**

The sound pressure level of a noise source is dependent upon its surroundings, being influenced by distance, ground absorption, topography, meteorological conditions etc. and is what the human ear actually hears. Using the electric heater analogy above, the heat will vary depending upon where the heater is located, just as the sound pressure level will vary depending on the surroundings. Noise modelling predicts the sound pressure level from the sound power levels taking into account ground absorption, barrier effects, distance etc.

- **L_{ASlow}**

This is the noise level in decibels, obtained using the A-frequency weighting and the S (slow) time weighting. Unless assessing modulation, all measurements use the slow time weighting characteristic.

- **L_{AFast}**

This is the noise level in decibels, obtained using the A-frequency weighting and the F (fast) time weighting. This is used when assessing the presence of modulation.

- **L_{APeak}**

This is the greatest absolute instantaneous sound pressure level in decibels using the A-frequency weighting.

- **L_{Amax}**

An L_{Amax} level is the maximum A-weighted noise level during a particular measurement.

- **L_{A1}**

The L_{A1} level is the A-weighted noise level exceeded for 1 percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

- **L_{A10}**

The L_{A10} level is the A-weighted noise level exceeded for 10 percent of the measurement period and is considered to represent the “intrusive” noise level.

- **L_{A90}**

The L_{A90} level is the A-weighted noise level exceeded for 90 percent of the measurement period and is considered to represent the “background” noise level.

- **L_{Aeq}**

The equivalent steady state A-weighted sound level (“equal energy”) in decibels which, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the “average” noise level.

- **One-Third-Octave Band**

Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20000 Hz inclusive.

- **Representative Assessment Period**

Means a period of time not less than 15 minutes, and not exceeding four hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission.

- **L_{Amax} assigned level**

Means an assigned level, which, measured as a L_{ASlow} value, is not to be exceeded at any time.

- **L_{A1} assigned level**

Means an assigned level, which, measured as a L_{ASlow} value, is not to be exceeded for more than 1 percent of the representative assessment period.

- **L_{A10} assigned level**

Means an assigned level, which, measured as a L_{ASlow} value, is not to be exceeded for more than 10 percent of the representative assessment period.

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• Tonal Noise

A tonal noise source can be described as a source that has a distinctive noise emission in one or more frequencies. An example would be whining or droning. The quantitative definition of tonality is:

- the presence in the noise emission of tonal characteristics where the difference between -
 - (a) the A-weighted sound pressure level in any one-third octave band; and
 - (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\text{ Slow}}$ levels.

This is relatively common in most noise sources.

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• Modulating Noise

A modulating source is regular, cyclic and audible and is present for at least 10% of the measurement period. The quantitative definition of modulation is:

- a variation in the emission of noise that —
 - (a) is more than 3 dB $L_{A\text{ Fast}}$ or is more than 3 dB $L_{A\text{ Fast}}$ in any one-third octave band; and
 - (b) is present for at least 10% of the representative assessment period; and
 - (c) is regular, cyclic and audible.

• Impulsive Noise

An impulsive noise source has a short-term banging, clunking or explosive sound. The quantitative definition of impulsiveness means:

- a variation in the emission of a noise where the difference between L_{Apeak} and L_{Amax} is more than 15 dB when determined for a single representative event.

• Major Road

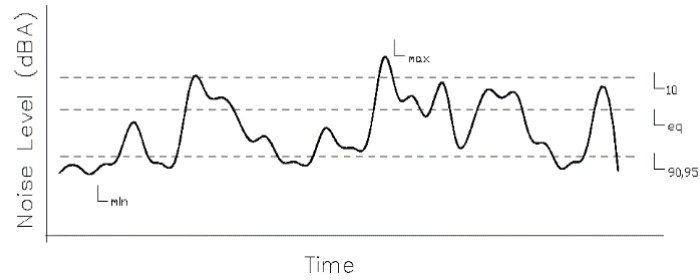
Is a road with an estimated average daily traffic count of more than 15,000 vehicles.

• Secondary / Minor Road

Is a road with an estimated average daily traffic count of between 6,000 and 15,000 vehicles.

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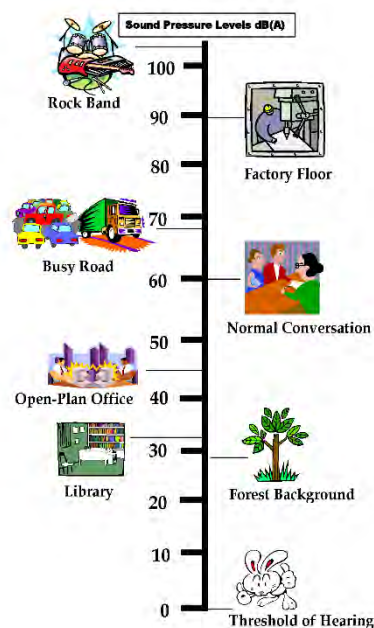
- Chart of Noise Level Descriptors



- Austroads Vehicle Class

VEHICLE CLASSIFICATION SYSTEM AUSTROADS	
CLASS	VEHICLE
1	Light Cars, vans, mopeds, utility vehicles, motorbikes
2	Light Trucks Trucks, trailers, semi-trailers
3	Heavy Trucks Two axle trucks or bus 12 wheel
4	Heavy Trucks Three axle trucks or bus 12 wheel, 3 axle groups
5	Heavy Trucks Four axle trucks or bus 14 wheel, 4 axle groups
6	Heavy Trucks Three axle articulated 12 wheel, 3 axle groups
7	Heavy Trucks Four axle articulated 14 wheel, 4 axle groups
8	Heavy Trucks Five axle articulated 16 wheel, 5 axle groups
9	Heavy Trucks Six axle articulated 18 wheel, 6 axle groups
10	Heavy Trucks Seven axle articulated 20 wheel, 7 axle groups
11	Heavy Trucks Eight axle articulated 22 wheel, 8 axle groups
12	Heavy Trucks Nine axle articulated 24 wheel, 9 axle groups

- Typical Noise Levels



**Attachment 7d – 3D Render Perspectives by the Applicant received 7 November 2025
and 24 November 2025**



AMENDED PLAN

City of Stirling
07 Nov 2025
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Client
FAWKNER PROPERTY LTD

Level 8, 468 St. Kilda Road, Melbourne Vic 3004

Voda building services p.l.
ABN 3287 146 2418
Suite 3, 668 Burwood Road
Hawthorn East, Victoria. 3123.
Tel: (03) 9805 8400 Fax: (03) 9805 8455
E-mail: voda@vodabs.com.au

NOTE:
Check and verify all dimensions on site before commencement of any works &/or shop drawings. Any discrepancies should be reported to the architect. This Design and Drawing is Property of Voda Building Services Pty.Ltd. and may not be copied in any way in part or whole without written consent.
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- ☐ SKETCH
- ☐ DESIGN APPROVAL
- ☒ TOWN PLANNING
- ☐ TOWN PLANNING AMENDED
- ☐ BA / CC
- ☐ CONSTRUCTION
- ☐ TENDER
- ☐ AS BUILT

REV	AMENDMENT	BY	DATE	CHK
A	TP ISSUE	LL	14.04.25	SB
B	3D VIEWS UPDATED	LL	29.04.25	
C	3D VIEWS UPDATED	LL	01.05.25	
D	3D VIEWS UPDATED	EC	21.10.25	
E	3D VIEWS UPDATED	EC	23.10.25	
F	ARTWORK ADDED	LL	06.11.25	

Project Title
**STARBUCKS
MIRRABOOKA SQUARE**

PROPOSED STARBUCKS AT:
MIRRABOOKA SHOPPING CENTER
43 Yirrgan Drive, Mirrabooka WA 6061

Stage
TOWN PLANNING

Drawing Title
3D VIEWS

Drawing Scale	Plot Date	Option
As Shown	December 2024	
Drawn By	Store Number:	
EC	-	
Project No.	Drawing No.	Revision
24015	TP210	F





City of Stirling
24 Nov 2025
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**Attachment 7e – Applicant's Landscaping Plans prepared by Brendon Burke
Landscape Architecture received 7 November 2025**

STARBUCKS MIRRABOOKA

Project name

43 YIRRIGAN DRIVE, MIRRABOOKA WA 6061

Project address

BRENDON BURKE
LANDSCAPE ARCHITECTURE
brendon@bbla.au
+61 438 165 511



FOR TOWN PLANNING APPLICATION

Project status

DRAWING REGISTER

DRAWING NAME	SHEET NO.	REV
COVER SHEET	LCD-001	G
GENERAL NOTES	LCD-002	G
LANDSCAPE PLAN	LCD-601	G
LANDSCAPE DETAILS	LCD-901	G

Fawkner Property Group Pty Ltd
LEVEL 8, 468 ST KILDA ROAD
MELBOURNE, VIC 3004

Client details

COVER SHEET

Drawing title

25.002

Project reference No.

LCD-001

Sheet No.

G

Revision No.

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AMENDED PLAN

LANDSCAPE NOTES

TRAFFIC MANAGEMENT NOTE:

PRIOR TO THE COMMENCEMENT OF WORKS A TRAFFIC MANAGEMENT PLAN MAY BE REQUIRED TO BE SUBMITTED TO COUNCIL IN ACCORDANCE WITH THE 'TRAFFIC MANAGEMENT ACT 2004' & SECTION 99A 'ROAD SAFETY ACT 1986'. VERIFY REQUIREMENTS WITH THE PROJECT MANAGER.

SECURING THE SITE NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARLY DEFINING THE WORKS AREA AT ALL TIMES WITH BARRIERS AND TEMPORARY FENCES TO AVOID ANY RISK TO THE PUBLIC OR WORKERS. THE CONTRACTOR SHALL PROVIDE, SET UP, OPERATE, MAINTAIN AND REMOVE ALL NECESSARY WARNING LIGHTS AND BARRIERS AND TEMPORARY DEVICES TO PROTECT THE PUBLIC, WORKMEN, PLANT AND EQUIPMENT, AND THE WORKS. ALL WARNING AND TEMPORARY DEVICES SHALL BE SET UP AND MAINTAINED IN ACCORDANCE WITH AS 1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PART 1 & 3 AND THE APPROVAL OF THE RELEVANT AUTHORITIES.

ALLOW TO TEMPORARILY FENCE THE FULL EXTENT OF THE RESERVE AS SHOWN ON THE PLANS, UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT.

THE LANDSCAPE MAINTENANCE PLAN PROVIDE BELOW IS TYPICAL AND STATES THE GENERAL EXPECTED MAINTENANCE TASKS REQUIRED TO ENSURE THE ONGOING SUCCESS OF THE LANDSCAPE OUTCOME.

1. LANDSCAPE MAINTENANCE PROGRAM

MAINTENANCE SHALL MEAN THE CARE AND MAINTENANCE OF THE LANDSCAPE WORKS BY ACCEPTED HORTICULTURAL PRACTICE AS RECTIFYING ANY DEFECTS THAT BECOME APPARENT IN THE LANDSCAPE WORKS UNDER NORMAL USE. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, WATERING, MOWING, FERTILISING, RESEEDING, RETURFING, WEEDING, PEST AND DISEASE CONTROL, STAKING AND TYING, REPLANTING, CULTIVATION, PRUNING, AERATING, RENOVATING, TOP DRESSING, MAINTAINING THE SITE IN A NEAT AND TIDY CONDITION AS FOLLOWS.

2. GENERAL

THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE WORKS FOR THE TERM OF THE MAINTENANCE (OR PLANT ESTABLISHMENT) PERIOD TO THE SATISFACTION OF THE COUNCIL. THE LANDSCAPE CONTRACTOR SHALL ATTEND TO THE SITE ON A WEEKLY BASIS. THE MAINTENANCE PERIOD SHALL COMMENCE AT PRACTICAL COMPLETION AND CONTINUE FOR A PERIOD OF FIFTY TWO (52) WEEKS.

3. WATERING

GRASS, TREES AND GARDEN AREAS SHALL BE WATERED REGULARLY SO AS TO ENSURE CONTINUOUS HEALTHY GROWTH.

4. RUBBISH REMOVAL

DURING THE TERM OF THE MAINTENANCE PERIOD THE LANDSCAPE CONTRACTOR SHALL REMOVE RUBBISH THAT MAY OCCUR AND REOCCUR THROUGHOUT THE MAINTENANCE PERIOD. THIS WORK SHALL BE CARRIED OUT REGULARLY SO THAT AT WEEKLY INTERVALS THE AREA MAY BE OBSERVED IN A COMPLETELY CLEAN AND TIDY CONDITION.

5. REPLACEMENTS

THE LANDSCAPE CONTRACTOR SHALL REPLACE ALL PLANTS THAT ARE MISSING, UNHEALTHY OR DEAD AT THE LANDSCAPE CONTRACTOR'S COST. REPLACEMENTS SHALL BE OF THE SAME SIZE, QUALITY AND SPECIES AS THE PLANT THAT HAS FAILED UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACEMENTS SHALL BE MADE ON A CONTINUING BASIS NOT EXCEEDING TWO (2) WEEKS AFTER THE PLANT HAS DIED OR IS SEEN TO BE MISSING.

6. STAKES AND TIES

THE LANDSCAPE CONTRACTOR SHALL REPLACE OR ADJUST PLANT STAKES AND TREE GUARDS AS NECESSARY OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. REMOVE STAKES AND TIES AT THE END OF THE MAINTENANCE PERIOD IF SO DIRECTED.

7. PRUNING

TREES AND SHRUBS SHALL BE PRUNED AS DIRECTED BY THE LANDSCAPE ARCHITECT. PRUNING WILL BE DIRECTED AT THE MAINTENANCE OF THE DENSE FOLIAGE OR MISCELLANEOUS PRUNING AND BENEFICIAL TO THE CONDITION OF THE PLANTS. ANY DAMAGED GROWTH SHALL BE PRUNED. ALL PRUNED MATERIAL SHALL BE REMOVED FROM THE SITE.

8. MULCHED SURFACES

ALL MULCHED SURFACES SHALL BE MAINTAINED IN A CLEAN AND TIDY CONDITION AND BE REINSTATED IF NECESSARY TO ENSURE THAT A DEPTH OF 75MM IS MAINTAINED. ENSURE MULCH IS KEPT CLEAR OF PLANT STEMS AT ALL TIMES.

9. PEST AND DISEASED CONTROL

THE LANDSCAPE CONTRACTOR SHALL SPRAY AGAINST INSECT AND FUNGUS INFESTATION WITH ALL SPRAYING TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. REPORT ALL INSTANCES OF PESTS AND DISEASES (IMMEDIATELY THAT THEY ARE DETECTED) TO THE LANDSCAPE ARCHITECT.

10. GRASS AND TURF AREAS

THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL GRASS AND TURF AREAS BY WATERING, WEEDING, DRESSING, ROLLING, MOWING, TRIMMING OR OTHER OPERATIONS AS NECESSARY. SEED AND TURF SPECIES SHALL BE THE SAME AS THE ORIGINAL SPECIFIED MIXTURE. GRASS AND TURF AREAS SHALL BE SPRAYED WITH APPROVED SELECTIVE HERBICIDE AGAINST BROAD LEAFED WEEDS AS REQUIRED BY THE LANDSCAPE ARCHITECT AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. GRASS AND TURF AREAS SHALL BE FERTILISED ONCE A YEAR IN AUTUMN WITH "DYNAMIC LIFTER" FOR LAWNS AT A RATE OF 20KG PER 100M2. FERTILISER SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. IRREGULARITIES IN THE GRASS AND TURF SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. GRASS AND TURF AREAS SHALL BE KEPT MOWN TO MAINTAIN A HEALTHY AND VIGOROUS SWARD. MOWING HEIGHT: 30-50MM.

11. WEED ERADICATION

ERADICATE WEEDS BY ENVIRONMENTALLY ACCEPTABLE METHODS USING A NON-RESIDUAL GLYPHOSATE HERBICIDE (EG. 'ROUNDUP') IN ANY OF ITS REGISTERED FORMULAE, AT THE RECOMMENDED MAXIMUM RATE. REGULARLY REMOVE BY HAND, WEED GROWTH THAT MAY OCCUR OR RECUR THROUGHOUT GRASSED, PLANTED AND MULCHED AREAS. REMOVE WEED GROWTH FROM AN AREA 750MM DIAMETER AROUND THE BASE OF TREES IN GRASSED AREAS. CONTINUE ERADICATION THROUGHOUT THE COURSE OF THE WORKS AND DURING THE MAINTENANCE PERIOD.

12. SOIL SUBSIDENCE

ANY SOIL SUBSIDENCE OR EROSION WHICH MAY OCCUR AFTER THE SOIL FILLING AND PREPARATION OPERATIONS SHALL BE MADE GOOD BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE CLIENT.

SITE LOCATION

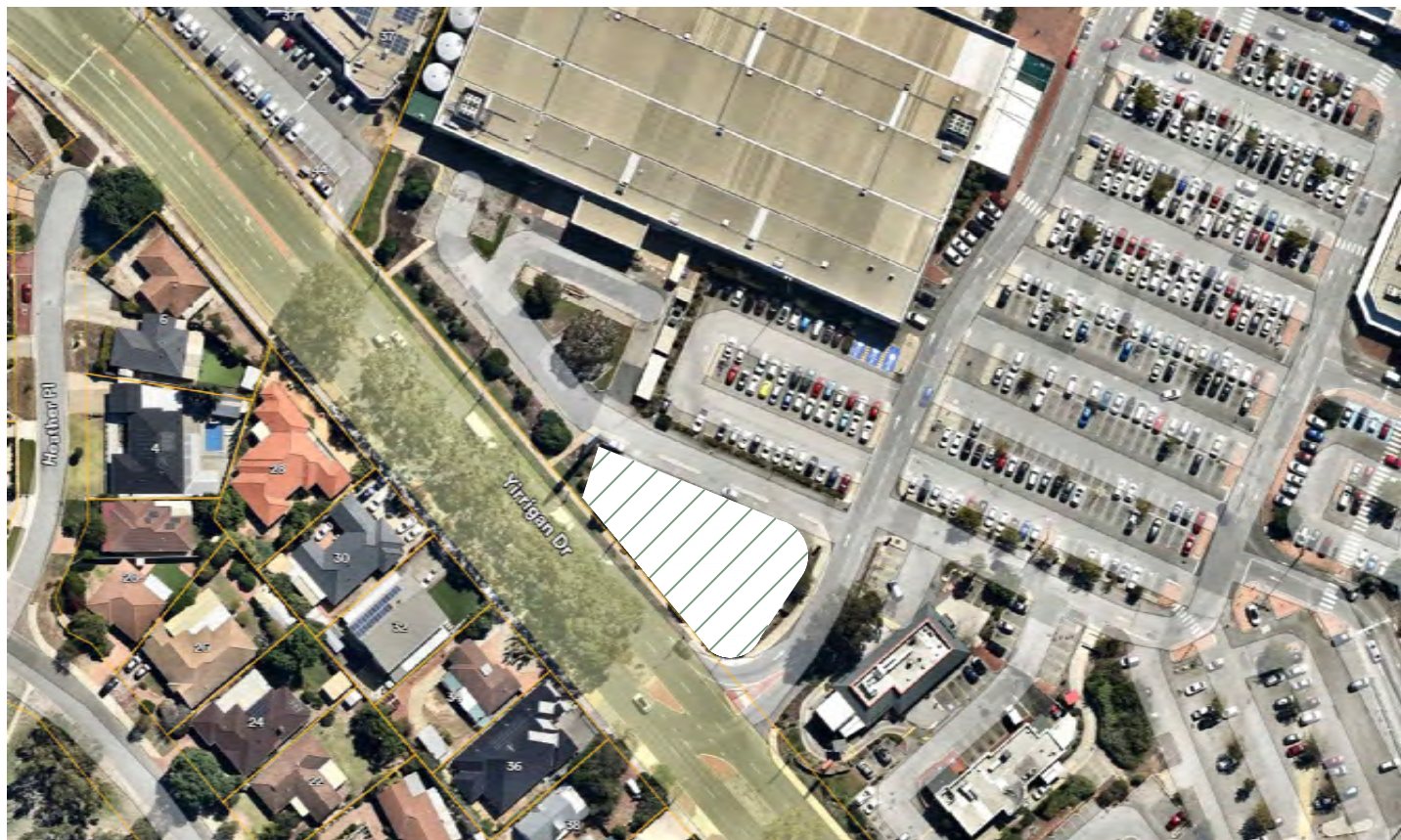


IMAGE SOURCE: NEARMAPS (SUBJECT SITE IN GREEN)

STARBUCKS MIRRABOOKA

Project name

TOWN PLANNING APP.
NOT FOR CONSTRUCTION

43 YIRRIGAN DRIVE
MIRRABOOKA, WA 6061

Address

Fawkner Property Group Pty Ltd
LEVEL 8, 468 ST KILDA ROAD
MELBOURNE, VIC 3004

Client details

25.002
Project reference No.

⚠ TOWN PLANNING APPLICATION	29.05.2025
⚠ TOWN PLANNING APPLICATION	30.05.2025
⚠ TOWN PLANNING APPLICATION	11.06.2025
⚠ TOWN PLANNING APPLICATION	12.07.2025
⚠ TOWN PLANNING APPLICATION	18.10.2025
⚠ TOWN PLANNING APPLICATION	23.10.2025
⚠ TOWN PLANNING APPLICATION	07.11.2025

Revision status

Revision date

WARNING:
BEWARE OF UNDERGROUND SERVICES.
THE LOCATIONS OF UNDERGROUND SERVICES
ARE INDICATIVE ONLY. THEIR EXACT POSITION
SHOULD BE PROVEN ON SITE. ENSURE CONTACT
WITH BEFORE YOU DIG AUSTRALIA (BYDA) IS
UNDERTAKEN.

CONTRACTOR TO VERIFY ALL DIMENSIONS ON
SITE COMMENCING WORK. REPORT ALL
DISCREPANCIES TO SUPERINTENDENT PRIOR TO
CONSTRUCTION. FIGURED DIMENSIONS TO BE
TAKEN IN PREFERENCE FROM SCALED
DRAWINGS.

Scale @A1: NA
Scale @A3: NA

GENERAL NOTES

Drawing title

Project North

LCD_002

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Sheet No.

Revision No.

STARBUCKS MIRRABOOKA

Project name

TOWN PLANNING APP. NOT FOR CONSTRUCTION

Status

43 YIRRIGAN DRIVE
MIRRABOOKA, WA 6061

Address

Fawcner Property Group Pty Ltd
LEVEL 8, 468 ST KILDA ROAD
MELBOURNE, VIC 3004

Client details

25.002

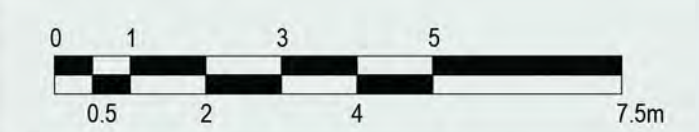
Project reference No.

TOWN PLANNING APPLICATION	29.05.2025
TOWN PLANNING APPLICATION	30.05.2025
TOWN PLANNING APPLICATION	11.06.2025
TOWN PLANNING APPLICATION	12.07.2025
TOWN PLANNING APPLICATION	18.10.2025
TOWN PLANNING APPLICATION	23.10.2025
TOWN PLANNING APPLICATION	07.11.2025

Revision status Revision date

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CONSTRUCTION. FIGURED DIMENSIONS TO BE
TAKEN IN PREFERENCE FROM SCALED
DRAWINGS.



Scale @A1: 1:100
Scale @A3: 1:200

LANDSCAPE PLAN

Drawing title

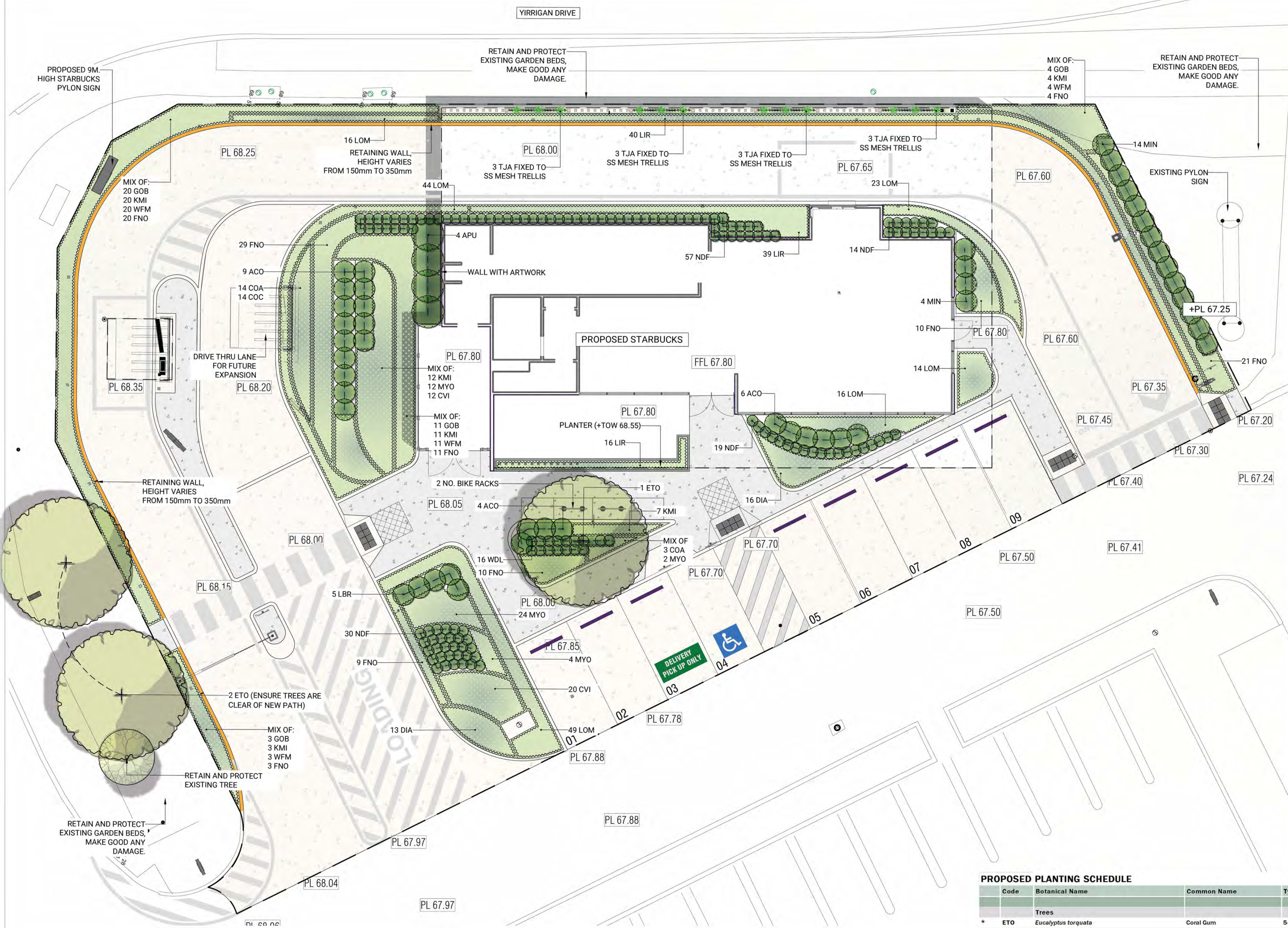
Project North

LCD_601

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Sheet No.

Revision No.



DEEP SOIL GARDEN BED PROVISION
THE TOTAL GARDEN BED (DEEP SOIL) AREA IS
273m², WHICH EQUATES TO APPROXIMATELY
20% OF THE TOTAL SITE AREA (1350m²).

PROPOSED PLANTING SCHEDULE

Code	Botanical Name	Common Name	Typical H x W (m)	Spacing	Installed Size	Caliper	Quantity
Trees							
* ETO	<i>Eucalyptus torquata</i>	Coral Gum	5.8 x 6	As shown	Refer note below**		3
Shrubs							
# LBR	<i>Leucophyta brownii</i>	Cushion Bush	1 x 1	As shown	100mm pot		5
# MIN	<i>Melaleuca incana nana</i>	Dwarf Grey Honey Myrtle	1 x 1	As shown	100mm pot		18
# WDL	<i>Westringia dampieri</i> low form	Westringia	0.5 x 0.5	As shown	100mm pot		16
# ACO	<i>Acacia cognata</i> 'Limelight'	Limelight Wattle	0.6 x 1	As shown	100mm pot		19
# NDF	<i>Nandina domestica</i> 'Flirt'	Nandina Flirt	0.6 x 0.6	As shown	100mm pot		120
& APU	<i>Acacia pulchella</i>	Prickly Moses Wattle	1.5 x 2	As shown	100mm pot		4
Grasses / tufting							
# COA	<i>Conostylis aurea</i>	Golden Conostylis	0.4 x 0.3	4 per m2	100mm pot		17
# COC	<i>Conostylis candicans</i>	Grey Cottonheads	0.3 x 0.3	4 per m2	100mm pot		14
# FNO	<i>Ficinia nodosa</i>	Knotted Clubrush	0.75 x 0.75	3 per m2	100mm pot		117
# DIA	<i>Dianella</i> 'Little Jess'	Dianella Little Jess	0.4 x 0.4	4 per m2	100mm pot		29
# LOM	<i>Lomandra</i> 'Tanika'	Mat-rush Tanika	0.6 x 0.6	4 per m2	100mm pot		162
# LIR	<i>Liriope muscari</i>	Liriope muscari	0.4 x 0.4	4 per m2	100mm pot		95
Groundcovers							
# CVI	<i>Carpobrotus virescens</i>	Coastal Pig Face	<0.5 x 1	3 per m2	100mm pot		32
# GOB	<i>Grevillea obtusifolia</i> 'Gingin gem'	Grevillea 'Gingin gem'	0.25 x 3	3 per m2	100mm pot		38
# WFM	<i>Westringia fruticosa</i> 'Mundi'	Westringia hybrid 'Mundi'	0.4 x 1.5	3 per m2	100mm pot		38
# KMI	<i>Kennedia microphylla</i>	Kennedia microphylla	<0.5 x 2	3 per m2	100mm pot		57
# MYO	<i>Myoporum parvifolium</i>	Creeping Boobialla	<0.5 x 2	3 per m2	100mm pot		42
Climbers							
TJA	<i>Trachelospermum jasminoides</i>	Chinese Star Jasmine	Climber	As shown	100mm pot		12

#Verge Treatment Guidelines - City of Stirling (August 2022)

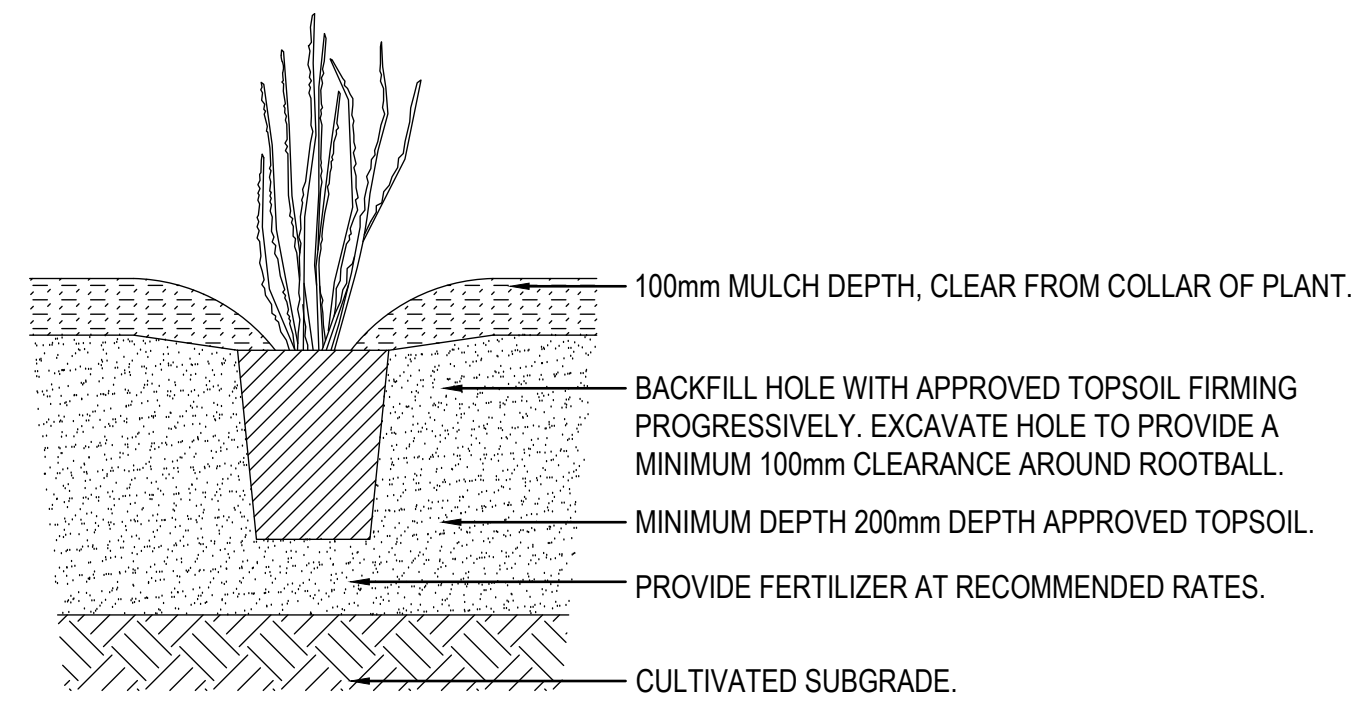
&Grow Local Plants - City of Stirling (2013)

*Trees and Development (LP Scheme No.3)

**All trees are required to be sourced in a 90 litre container or greater size and which is at least 2 metres in height and at least 2 years of age

AMENDED PLAN

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07 Nov 2025
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SCALE 1:20 @ A1



SCALE 1:10 @ A1

vision No.



PLAN 8054/40
REVISION 0

**Attachment 7f – Operational Waste Management Plan prepared by Fawkner Property
Ltd received 2 July 2025**

City of Stirling
2 July 2025
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Fawkner Property Ltd

Starbucks Mirrabooka Square

OPERATIONAL WASTE MANAGEMENT PLAN

WGA250659

WGA250659-RP-WM-0001_B

19 May 2025



City of Stirling
2 July 2025
RECEIVED

Revision History

REV	DATE	ISSUE	ORIGINATOR	CHECKER	APPROVER
A	3/04/2025	DRAFT	NB	MV	MV
B	19/05/2025	FINAL	NB	MV	MV

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2 July 2025
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1 INTRODUCTION

1.1 General

WGA has been engaged by Fawkner Property Ltd to prepare an Operational Waste Management Plan (WMP) for the proposed development situated within Mirrabooka Square Shopping Centre, located at 43 Yirrigan Drive, Mirrabooka WA.

The proposed 'takeaway store' premise is proposed to be operated by Starbucks post-development.

This WMP covers operational waste management considerations for the development only. Consequently, detailed considerations relating to demolition/construction waste management are excluded from the scope of this assessment.

The assumptions adopted to inform the following assessments are listed throughout this plan.

1.2 Documentation Referenced

This WMP has been prepared to accompany a Development Application.

In preparing this assessment we have referenced the following documentation / information:

- Proposed site plans prepared by Voda Building Services dated 12 May 2024
- WA Waste Authority's '*Waste Avoidance and Resource Recovery Strategy 2030*'
- Western Australian Local Government Association's (WALGA) '*Commercial and Industrial Waste Management Plan Guidelines*'
- Any other technical information as referenced and relied on throughout this Plan

1.3 Included Within This Report

The subsequent sections of this WMP include details regarding:

- Land use
- Waste generation
- Waste systems
- Bin quality, size and colour
- Collection frequency and location
- Bin storage rooms and areas
- Collection strategy
- Collection Contractor
- Signage
- Educational material
- Additional waste requirements

2 PROPOSED DEVELOPMENT

2.1 General

It is proposed to construct a new Starbucks tenancy within the existing at-grade car parking area of Mirrabooka Square Shopping Centre, located at 43 Yirrigan Drive, Mirrabooka. The use is proposed to span across approximately 212m² of internal dining space and 40m² of outdoor seating and will accommodate a single-entry drive through lane.

An extract of the proposed site plan is illustrated in Figure 2.1.



Figure 2.1: Extract – Proposed Site Plan

2.2 Loading & Waste Collection Provisions

An on-site loading bay capable of fully accommodating commercial vehicles up to an 12.5m Heavy Rigid Vehicle in size is proposed to be provided externally adjacent drive thru lane.

Details relating to proposed waste vehicle access and collection arrangements are discussed in Section 3.4.5 of this plan.

3 WASTE MANAGEMENT

3.1 Objectives of This Waste Management Plan

The primary objectives of this WMP are to:

- Identify all potential waste streams likely to be generated on site
- Provide a description of how waste is likely to be stored, handled, processed and disposed of, or reused and recycled

3.2 Waste Management Hierarchy & Better Practice

The WA Waste Authority's 'Waste Avoidance and Resource Recovery Strategy 2030' describes waste management hierarchy in Western Australia as shown within Figure 3.1.

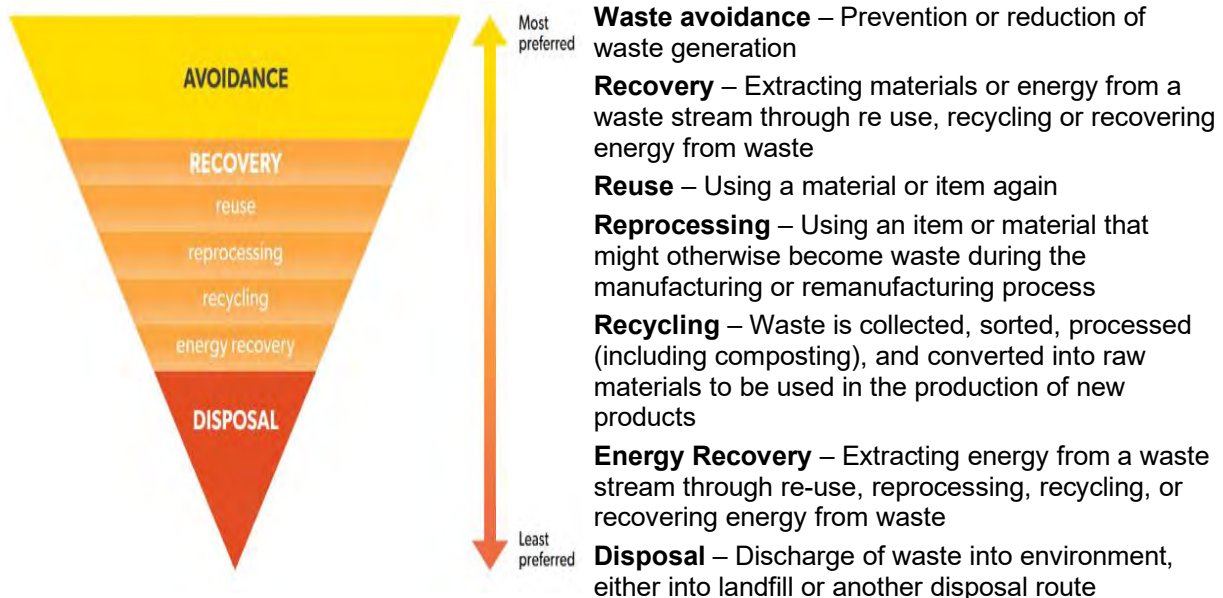


Figure 3.1: Waste Hierarchy 'Waste Avoidance and Resource Recovery Strategy 2030'

In relation to the above hierarchy, the term 'better practice' refers to practices and approaches that are considered by the Waste Authority to be outcomes-focused, effective and high performing, which have been identified based on evidence and benchmarking against jurisdictions.

Better practice waste management systems for commercial developments may incorporate any, or all, of the following:

- **Garbage** (landfill waste) services to manage residual wastes, being those not collected by a dedicated recycling, glass, organics, etc. collection service.
- **Recycling** services to manage recyclable materials within classifiable streams. These materials may vary from development to development, but generally cover paper, glass bottles/jars, cardboard, plastic film, metals (i.e. aluminium/steel cans) and recyclable containers.
- **Bulky** ('hard') waste services to manage bulky items, such as furniture and fit-out materials.
- **Specialty** waste services, such as electrical waste ('e-waste').

Better practice waste management systems are effective and safe. Tenants and cleaners can use them with ease and collection contractors can easily service them. The design, installation and ongoing management of better practice systems encourages tenants and cleaners to use the services appropriately. This increases participation in waste management which helps to minimise waste generation, increase resource recovery and reduce contamination of recyclables and organics.

3.3 Anticipated Waste Generation

3.3.1 Primary Waste Streams

The Western Australian Local Government Association's (WALGA) 'Commercial and Industrial Waste Management Plan Guidelines' provides guidance on waste generation rates across a number of land use types.

To determine approximate proportions of the waste for each stream nominated, waste generation rates for 'takeaway stores' uses within *Appendix 1 of 'Commercial and Industrial Waste Management Plan Guidelines'* by WALGA are applicable to the site. Given the guide does not specify waste generation rates associated with commingled recycling for the use, commingled recycling waste generation rates for 'takeaway/café' uses within the *'Waste Management and Recycling in Multi-unit Developments'* guide by Sustainability Victoria is referred to. Based on these guidelines, the generation rates for garbage and commingled recycling are equivalent. Therefore, the commingled recycling rate has been adopted to match the garbage rate similar to the guide by Sustainability Victoria.

Accordingly, the data suggests the proposed development could be expected to generate waste in accordance with the rates summarised in Table 3.1.

Table 3.1: Daily Waste Generation Rates

USE	WEEKLY WASTE GENERATION	
	GARBAGE	COMMINGLED RECYCLING
Takeaway Stores	80 L / 100m ² floor area / day	80 L / 100m ² floor area / day

Application of the above rates to the proposed development schedule (252 m² of waste generating areas) results in the projected weekly waste generation volumes shown in Table 3.2.

Table 3.2: Weekly Waste Generation Rates

USE	SIZE/ CAPACITY	ANTICIPATED WEEKLY VOLUMES	
		GARBAGE	COMMINGLED RECYCLING
Takeaway Stores	252m ²	1,408 L	1,408 L

3.3.2 Food Organics

The proposed development is expected to generate food waste primarily in the form of spent coffee grounds and food scraps, such as leftover and/or expired products. To improve waste management efficiency, consideration could be given to segregating food waste from general waste. Where possible, arrangements could be considered for the physical separation of these streams by revising bin allocations as required.

3.4 Waste Storage Requirements

3.4.1 Bin Composition & Collection Frequency

The breakdown of proposed bin compositions and collection frequency intended to be provided to service the development is listed in Table 3.3.

Table 3.3: Bin Composition and Collection Frequency

WASTE STREAM	WEEKLY WASTE GENERATION	BIN SIZE	NUMBER OF BINS	NUMBER OF COLLECTIONS / WEEK	TOTAL WEEKLY BIN CAPACITY
General	1,408 L	1,100 L	2	1	2,200 L
Commingled Recycling	1,408 L	1,100 L	2	1	2,200 L

3.4.2 Waste Bins

Typical bin dimensions for the nominated bin types are shown in Table 3.4, courtesy of the Western Australian Local Government Association's (WALGA 'Commercial and Industrial Waste Management Plan Guidelines'.

Table 3.4: Bin Dimensions

WASTE STREAM	BIN TYPE	WIDTH	DEPTH	HEIGHT
Garbage & Commingled Recycling	1,100 L	1.37m	1.245m	1.470m

A private bin collection arrangement is proposed. Accordingly, bin colours can be adopted from options provided in AS 4123.7 (should the tenant wish) and labelled accordingly to identify the waste generator and site address.

3.4.3 Waste Storage Area

Waste bins are to be stored within both a designated bin room and waste enclosure, designed to be within accordance of the *Australia New Zealand Food Standards Code – Standard 3.2.3*. Proposed bin storage provisions are shown in Figure 3.2 (generally prepared to scale).

The discrete bin room location will not detract from the visual amenity of the site and its surroundings, nor cause disruptions to on-site operations. Conversely, it has been specifically located adjacent to the covered area to allow for easy and efficient transfer of bins to/from the waste collection vehicle.

In accordance with *City of Stirling's Policy Manual* for bin storage areas, the bin room design considers the following requirements/guidelines:

- Bin storage areas in non-residential zones shall have the following dimensions:
 - Minimum size of 10m²
 - Minimum width of 3.5m
- Location of Bin Storage Area shall:
 - Be located behind the building setback line
 - Ensure that adequate space is available for the bulk refuse truck to access the bin area and manoeuvre
- Design of Bin Storage Area:
 - Shall be screened from view to a minimum height of 1.8m so that it is not visible from the street
 - Materials shall match with the building
 - Shall be sealed and regularly cleaned and maintained
 - Stormwater and effluent drainage facilities shall be contained within this area

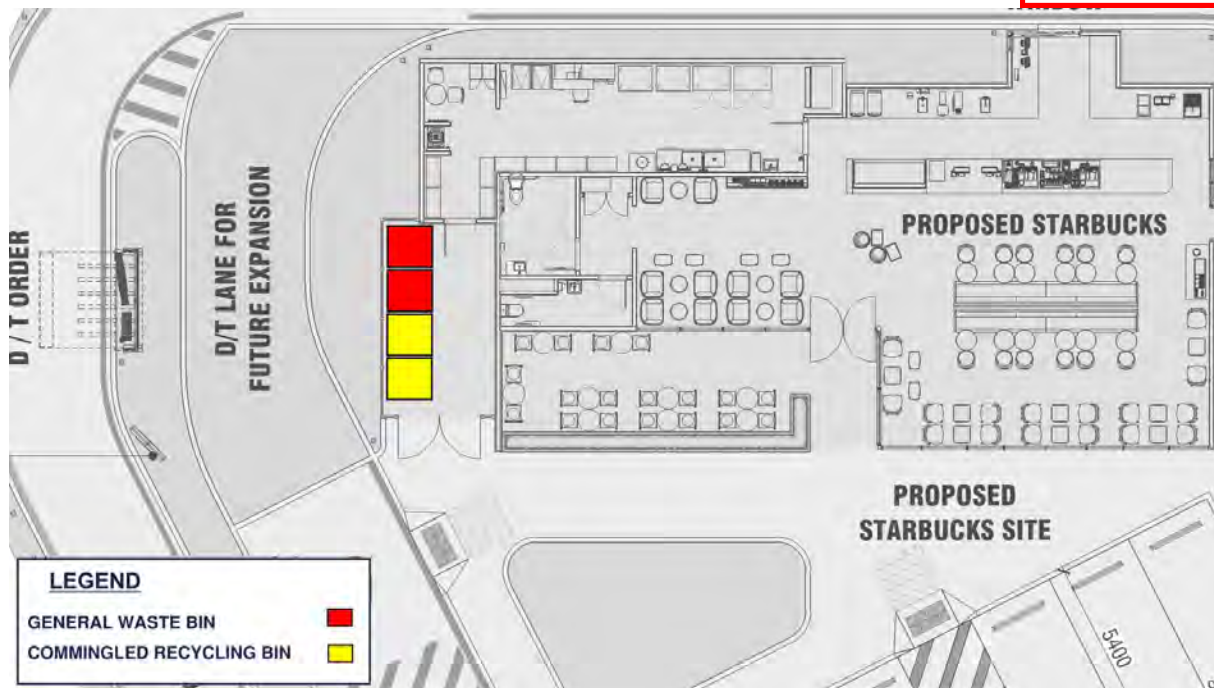


Figure 3.2: Proposed Bin Room Layout

Based on the provided plans, a total enclosed area of 19.5m² is provided to store waste bins.

The adequacy of proposed storage arrangements is further assessed in Table 3.5.

Table 3.5: Storage Space Requirements

WASTE STREAM	STORAGE SPACE REQUIRED	STORAGE SPACE PROVIDED
Garbage	3.40m ²	
Commingled Recycling	3.40m ²	
TOTAL	6.80m² (excluding circulation area)	19.5m² (including circulation area)

3.4.4 Waste Disposal

The tenant will be responsible for arranging the transportation of waste from internal receptacles to the designated waste storage areas.

Garbage shall be placed within tied plastic bags prior to being transferred to the designated waste bin. Cardboard shall be flattened and recycling containers un-capped, drained, and rinsed prior to disposal into the commingled recycling bin provided. It is noted that bagged recycling is not permitted.

3.4.5 Waste Collection Strategy

Waste shall be collected within the subject site footprint, with a Private Waste Collection Contractor to be engaged.

Swept path diagrams prepared by Transcore suggest that the development plans make adequate provision for appropriate access and manoeuvring for vehicles up to a 12.5m Heavy Rigid Vehicle in size.

It is recommended that waste collection be scheduled to occur strictly outside of typical site operating periods, in order to minimise potential conflicts between waste and passenger vehicles.

The nominated contractor will transfer bins between the bin store and the collection vehicle, unload and return bins to the bin store before egressing the site. These procedures are expected to ensure protection against damage, theft and unauthorised access to the both the bins and storage areas. It is expected that the tenant will arrange for adequate access to the on-site bin stores for the collection contractor.

The nominated bins are able to be transferred to the rear of the vehicle via the proposed pram ramp as shown in Figure 3.3.

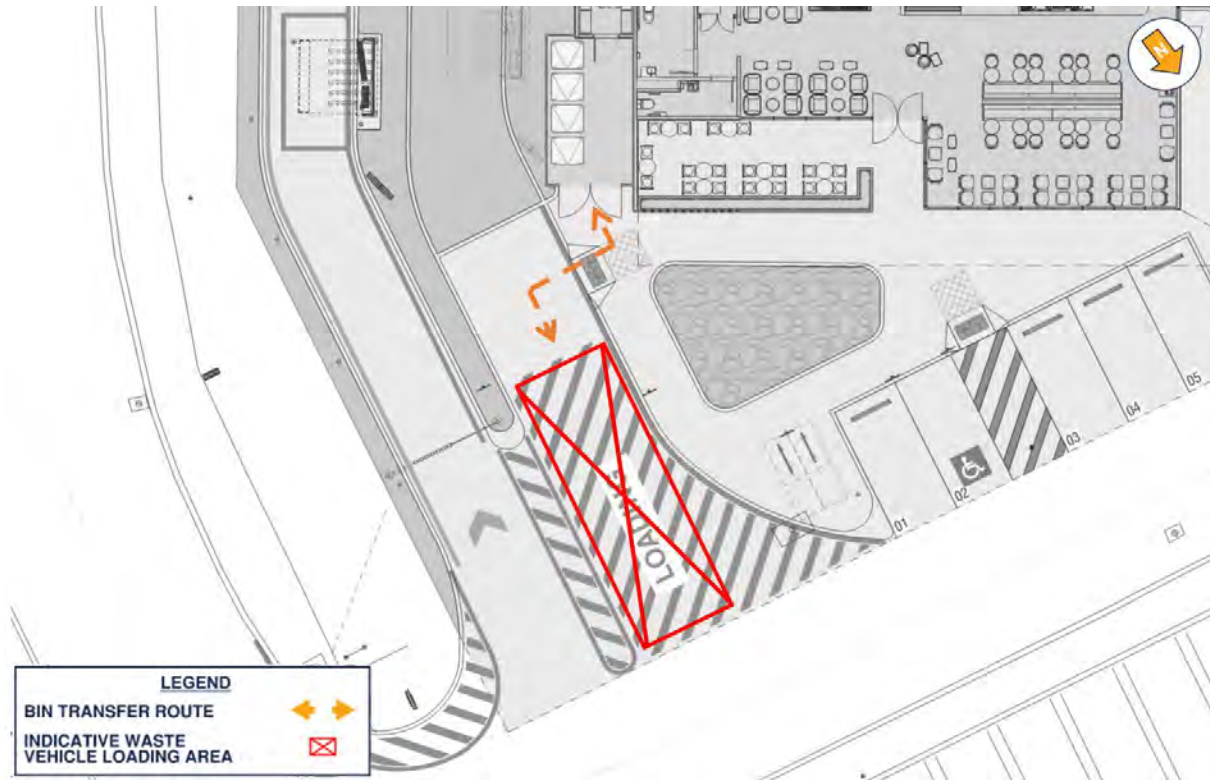


Figure 3.3: Bin Transfer Path During Rear-Loading

The tenant shall be responsible for managing the waste system and for developing and implementing adequate safe operating procedures.

3.4.6 Amenity Management

3.4.6.1 Washing, Ventilation and Vermin-Prevention Measures

The tenant shall maintain, wash, sanitise/deodorise and arrange vermin prevention measures for their bins and bin rooms as required. The design of the bin room and enclosure allow for adequate space for washing and circulation. Bin storage areas should be equipped with cold running water (including a hose) and a connection to the sewer (as water from this source cannot be disposed of into stormwater drains).

It is noted that enclosed waste rooms should be designed in accordance with the ventilation requirements of the *Building Code of Australia and Australian Standard 1668.2*.

3.4.6.2 Noise Reduction Measures

The hours of waste collection shall be as specified in Council's local laws and/or in accordance with the *Western Australian Environmental Protection (noise) Regulations, 1997 Control Guidelines*. This includes:

- Eliminating the need for collection vehicles to reverse where practical
- Proposing collection times which ensure the least number of disturbances to neighbours

3.4.6.3 Stormwater Pollution Prevention

To prevent stormwater pollution, the tenant will be required to:

- Ensure all waste is disposed into bins
- Ensure garbage and commingled recycling items are secured so they can't blow away
- Keep bins closed to prevent animals from searching through waste
- Make sure any bin room spillage is cleaned up using dry absorbent materials (such as sand, sawdust or paper towel, as required)

3.5 Other Waste Streams

3.5.1 Hard Waste & Miscellaneous Items

It is expected that the tenant will arrange for the disposal of hard waste and other miscellaneous waste items as required, with a Private Contractor to be engaged for an agreed cost.

Hard waste will be transported to the proposed on-site loading bay immediately prior to the Private Contractor's scheduled arrival period.

3.5.2 Garden Waste

Tenants are typically responsible for engaging a Private Contractor to maintain all landscaped areas on their site.

In this instance, however, we expect that the appointed contractor currently maintaining the **overall** shopping centre development may be directly responsible for the same-day disposal of any garden waste requiring removal located on the subject tenancy. This is expected to be negotiated between the landlord and tenant.

3.5.3 Large Packaging

Generally, packaging can be broken up to fit within the commingled recycling bins provided to the tenant.

3.6 Signage

Regardless of the type of development, signage and education are critical to assist with promoting the intended waste management system.

Signage and education are important as they:

- Inform cleaners, tenants and other users of the system why it is important to recycle (raise awareness and perceived importance of resource recovery and the environment)
- Provide clear instructions on how to recycle using the services provided

Education and communication must be regular and ongoing. The main signage aspects to consider are:

- General waste and commingled recycling bins must be clearly and correctly labelled at all times
- Waste storage areas must have clear signage instructing cleaners and tenants how to correctly separate various waste streams being collected
- Should it be required, the location of, and directions to, waste storage areas must be well signposted, with directional signs, arrows or lines on the floor showing the most direct routes for cleaners and tenants
- All hazards or potential dangers associated with the waste facilities should be clearly identified, especially those linked to compaction or other waste handling equipment
- Emergency contact information should be displayed in the event there are any issues with the waste and recycling systems/services in the building

Waste drop-off areas and bins will be clearly marked and signed with the appropriate signage. Example signage sourced from the EPA NSW guidelines referred to within the Western Australian Local Government Association's (WALGA) *'Commercial and Industrial Waste Management Plan Guidelines'* is shown in Figure 3.4 and Figure 3.5. Alternatively, custom signage may be developed and implemented.



Figure 3.4: Example General Waste Signage



Figure 3.5: Example Commingled Recycling Signage

All signage should conform to the relevant Australian Standard and the City of Stirling standard bin signage.

3.7 Key Contact Information

3.7.1 Council

- **City of Stirling**

Ph: (08) 9205 8555

3.7.2 Key Suppliers / Contractors

- **Cleanaway** – Private Waste Collector
- **Veolia** – Private Waste Collector
- **JJ Richards & Sons Pty Ltd** – Bin supplier / Private Waste Collector

Ph: 13 13 39

Ph: 132 955

Ph: 1300 971 325

3.7.3 Other Useful Contacts

- **EPA WA**

Ph: +61 8 6364 7000

4 CONCLUSIONS

This operational Waste Management Plan (WMP) has been prepared to assess the waste management-related implications of the proposed development within the existing Mirrabooka Square Shopping Centre, located at 43 Yirrigan Drive, Mirrabooka.

As part of the preceding assessment:

- All potential waste streams likely to be generated on site have been identified
- Descriptions relating to how waste is likely to be stored, handled, processed and disposed of, or reused and recycled have been provided

Based on the discussions and analysis outlined within this report, the following key conclusions are derived:

- The site is proposed to be redeveloped to accommodate a 'takeaway store' land use spanning 252 m² across internal and external dining areas
- Based on waste generation rates identified, the proposed tenancy is expected to generate:
 - Approximately 1,408L per week of general waste
 - Approximately 1,408L per week of commingled recycling waste
- A dedicated bin room and waste enclosure are provided to cater for development-generated waste storage requirements
- Two (2) 1,100L MGBs are proposed to store general waste will need to be collected one (1) time per week, on average
- Two (2) 1,100L MGBs are proposed to store commingled recycling waste will need to be collected one (1) time per week, on average
- An on-site loading bay capable of fully accommodating commercial vehicles up to a 12.5m Heavy Rigid Vehicle in size based on the swept path assessment conducted by Transcore. This provision is considered acceptable in the context of the nominated waste management system.

5 LIMITATIONS

This Waste Management Plan is intended to inform and accompany a Development Application.

It is our expectation that the tenant will adjust the recommended strategy to respond to actual operational conditions. These adjustments could include, but are not limited to, increasing the number of bins and or increasing the collection frequency - subject to Council approval.

To this end, Subject to Council request, changes in legal requirements, changes in the development's needs and / or waste patterns (waste streams, volumes or distributions), or to address unforeseen operational issues, the tenant shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required):

- A waste audit and new waste strategy
- Revision of the waste system (bin size/quantity / streams / collection frequency)
- Re-education of users / staff
- Revision of the services provided by the waste collector(s)
- Any necessary statutory approval(s)

City of Stirling
2 July 2025
RECEIVED



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PART C – OTHER BUSINESS

- 1. State Administrative Tribunal Applications and Supreme Court Appeals**
- 2. Meeting Closure**