Metro Outer Development Assessment Panel Agenda

Meeting Date and Time: Wednesday, 19 February 2025; 9:30am
Meeting Number: MODAP/64
Meeting Venue: 140 William Street, Perth

A live stream will be available at the time of the meeting, via the following link:
MODAP/64 – 19 February 2025 – City of Joondalup

PART A – INTRODUCTION

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

PART B – CITY OF JOONDALUP

1. Declarations of Due Consideration
2. Disclosure of Interests
3. Form 1 DAP Applications
   - 3.1 Lot 900 (57) Marri Road, Duncraig – Multiple Dwelling (14 Aged and Dependent Persons' Dwellings) – DAP/24/02748
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

ATTENDANCE

DAP Members

Karen Hyde (Presiding Member)
Dale Page (Deputy Presiding Member)
Andrew Howe (Specialist Member)
Cr Adrian Hill (Local Government DAP Member, City of Joondalup)
Cr Rebecca Pizzey (Local Government DAP Member, City of Joondalup)

Minute Secretary

Claire Ortlepp (DAP Secretariat)

Officers in Attendance

Ashlee Kelly (DAP Secretariat)

PART A – INTRODUCTION

1. **Opening of Meeting, Welcome and Acknowledgement**
2. **Apologies**
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PART B – CITY OF JOONDALUP

1. Declarations of Due Consideration

2. Disclosure of Interests

3. Form 1 DAP Applications

3.1 Lot 900 (57) Marri Road, Duncraig – Multiple Dwelling (14 Aged and Dependent Persons' Dwellings) – DAP/24/02748

4. Form 2 DAP Applications

Nil.

5. Section 31 SAT Reconsiderations

Nil.

Part B – Item 3.1 – LOT 900 (57) MARRI ROAD, DUNCRAIG – MULTIPLE DWELLING (14 AGED AND DEPENDENT PERSONS' DWELLINGS)

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Outer Development Assessment Panel
Local Government Area:	City of Joondalup
Applicant:	Doepel Marsh Architects
Owner:	Majestic Developments Pty Ltd
Value of Development:	$5.5 million
Responsible Authority:	City of Joondalup
Authorising Officer:	Chris Leigh – Director Planning and Community Development
LG Reference:	DA24/0661
DAP File No:	DAP/24/02748
Application Received Date:	16 August 2024
Report Due Date:	10 February 2025
Application Statutory Process Timeframe:	90 Days (+94 day extension)
Attachment(s):	1. Location Plan. 2. Development Plans and Landscaping Plans. 3. Schedule of Submissions. 4. Water Corporation Comments. 5. JDRP Minutes and Applicants Response. 6. Planning Report. 7. Specialist Disability Accommodation (SDA) Supply Study. 8. Transport Impact Statement. 9. Waste Management Plan. 10. Sustainability Design Report.

Responsible Authority Recommendation

That the Metro Outer Development Assessment Panel resolves to:

1. **Approve** DAP Application reference DAP/24/02748 and accompanying plans (Attachment 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 Joondalup Local Planning Scheme No. 3, subject to the following conditions:

Conditions

1. Pursuant to clause 26 of the Metropolitan Region Scheme, this approval is deemed to be an approval under clause 24(1) of the Metropolitan Region Scheme.

2. This decision constitutes planning approval only and is valid for a period of four (4) years from the date of approval. If the subject development is not substantially

commenced within the specified period, the approval shall lapse and be of no further effect.

3. This approval relates to the '**Multiple Dwellings**' (14 Aged and Dependent Persons' Dwellings), and associated works only and development shall be in accordance with the approved plan(s), any other supporting information and conditions of approval. It does not relate to any other development on the lot.

4. An updated Waste Management Plan shall be submitted to and approved by the City prior to the commencement of development. The development is to be undertaken in accordance with the approved Waste Management Plan and is to be thereafter implemented to the satisfaction of the City.

5. A Construction Management Plan shall be submitted for approval prior to an application for a building permit. This plan is to detail how construction will be managed to minimise disruption in the area and to adjoining landowners. The plan must address the following:

    a. The delivery of materials and equipment to the site, including timing for deliveries.
    b. Storage of materials and the location and types of equipment on site.
    c. Parking arrangements for contractors and sub-contractors.
    d. The impact on traffic movement.
    e. Construction times.
    f. The relocation and/or management of public footpaths.
    g. Measures to minimise impacts of noise, sand drift and dust from the site.
    h. Measures to minimise any potential amenity impacts to adjoining landowners.
    i. Tree protection zones to be established for trees identified to be retained in the approved landscaping plan (including any verge trees and trees within the adjoining Marri Park) where applicable; and
    j. Any other matter required by the City.

    The Construction Management Plan is to be submitted to and approved by the City prior to the commencement of any development.

6. Updated landscaping plans shall be submitted to the City for approval prior to the commencement of development. These landscaping plans are to indicate the proposed landscaping treatment(s) of the subject site and the adjoining road verge(s), and shall:

    a. Provide species which are suitable for the nominated locations, and include the mature height, plant spacing, pot size and quantities;
    b. Provide all details relating to paving and treatment of verges;
    c. Include details regarding the deep soil areas;
    d. Be drawn at an appropriate scale of either 1:100, 1:200 or 1:500;
    e. Show spot levels and/or contours of the site;
    f. Be based on water sensitive urban design principles to the satisfaction of the City;
    g. Be based on Designing out Crime principles to the satisfaction of the City;
    h. Tree protection zones to be established for trees identified to be retained in the approved landscaping plan (including any verge trees) where applicable;

i. Show all irrigation design details.

Landscaping and reticulation shall be established in accordance with the approved landscaping plans, Australian Standards and best trade practice prior to the development first being occupied and thereafter maintained to the satisfaction of the City.

7. Prior to the commencement of development, a full schedule of colours and materials for all exterior parts to the development (including fencing) shall be submitted to and approved by the City prior to the commencement of development. Development shall be in accordance with the approved schedule and all external materials and finishes shall be maintained to a high standard, including being free of vandalism, to the satisfaction of the City.

8. Screening shall be installed along the northern balcony of Units 6 and 7 prior to the occupation of the dwellings and maintained to the satisfaction of the City. All screening devices shall be in accordance with Part C, Clause 3.10, C3.10.2(ii) of the deemed to comply provisions of the Residential Design Codes.

9. Any proposed building plant and equipment, including air conditioning units, piping, ducting and water tanks shall be located so as to minimise any visual and noise impact on surrounding landowners, and screened from view from the street, and where practicable from adjoining buildings. Details shall be submitted to and approved by the City prior to the commencement of development. Development shall be in accordance with these approved details.

10. The car parking bays, driveways and access points shown on the approved plans are to be designed, constructed, drained and marked in accordance with the Australian Standards (AS2890), prior to the occupation of the development. The car bay markings shall also address the parking allocation to occupants and visitors, to the satisfaction of the City. These bays are to be thereafter maintained to the satisfaction of the City.

11. Bicycle parking facilities shall be in accordance with the Australian Standard for Off-street Carparking – Bicycles (AS2890.3-1993 as amended) prior to the development first being occupied.

12. A Parking Management Plan which outlines the allocation of parking bays shall be submitted to and approved by the City prior to the commencement of development and is to be thereafter implemented to the satisfaction of the City.

13. The parking areas, associated access and communal areas indicated on the approved plans must not be used for the purpose of storage or obstructed in any way at any time, without the prior approval of the City.

14. No solid walls, fences or other structures higher than 0.75 metres shall be constructed within 1.5 metres of where the driveway meets the street boundary.

15. Boundary walls, retaining walls and fencing shall be of a clean finish and made good to the satisfaction of the City.

16. All stormwater shall be collected on-site and disposed of in a manner acceptable to the City.

17. All development shall be contained within the property boundaries.

18. Lighting shall be installed along the driveways, footpaths and common areas prior to the development first being occupied, to the satisfaction of the City. The lighting design is to minimise light spillage onto the surrounding properties and be in accordance with the requirements of Australian Standard AS4282.

19. Prior to occupation of the dwellings, each dwelling shall be provided with adequate clothes drying facilities which are screened from view from the street(s) to the satisfaction of the City. No clothes drying is permitted within the courtyards/balconies of the dwellings.

20. Any existing infrastructure/assets within the road reserve are to be retained and protected during construction of the development and are not to be removed or altered. Should any infrastructure or assets be damaged during the construction of the development, it is required to be reinstated to the satisfaction of the City.

Advice Notes

1. The City encourages the applicant/owner to incorporate materials and colours to the external surface of the development, including roofing, that have low reflective characteristics to minimise potential glare from the development impacting the amenity of the adjoining or nearby neighbours.

2. In regard to Condition 4, the Waste Management Plan shall include details for on-site waste collection and a swept path analysis to demonstrate safe movements of the waste truck.

3. In regard to Condition 6, the existing tree/s proposed to be retained onsite are to be protected during construction to avoid damaging or removal of the tree(s). Should the tree not survive, a replacement tree of a similar size at maturity will need to be planted onsite (and thereafter maintained) by the landowners to ensure compliance with this condition of development approval.

4. In regard to Condition 10, four (4) visitor car parking bays shall be provided onsite which are clearly delineated (marked/signed) for visitor use only, prior to the occupation of the development.

5. In regard to Condition 10, the applicant is advised that the associated crossover (including crossover wings) is to be wholly contained within the verge directly adjacent to the subject site and is to be constructed either side of the existing footpath, maintaining a continuous uninterrupted footpath. The crossover is to be designed and constructed in accordance with the City's Crossover Guidelines.

6. In regard to Condition 12, the Parking Management Plan shall include a Wayfinding Strategy with details regarding the allocation of parking bays (visitor and occupant) and directional signage. This should also include details regarding 'no parking' signage proposed to be located within the visitor car park to manage parking during waste collection times.

7. In regard to Condition 14, the solid planter wall located in between the two driveways is 2.63 metres in height and should be reduced in height or located outside of the sight line truncation areas.

8. In regard to Condition 20, the applicant/owner shall liaise with the City's Engineering services for the disconnection and removal/relocation of the two light poles and signage that are located within the subject site. Any associated works are to be undertaken at the cost of the landowner.

9. The applicant/owner is advised that verge treatments are required to comply with the City's Street Verge Guidelines. A copy of the Guidelines can be obtained at www.joondalup.wa.gov.au/residents/roads,-streets-and-verges/verges-and-crossovers

10. In regard to Condition 5, the Construction Management Plan shall be prepared using the City's Construction Management Plan template which can be provided upon request.

11. There is an obligation to design and construct the development to meet compliance with the requirements of the *Environmental Protection Act 1986* and the *Environmental Protection (Noise) Regulations 1997.* This should be considered with the design, installation and use of all plant and equipment at the development.

12. The bin store shall be constructed with a concrete floor, or other impervious material, and graded to an industrial floor waste gully that is connected to sewer. A hose cock is required to be provided in the bin store area.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	City of Joondalup Local Planning Scheme No.3
Local Planning Scheme - Zone/Reserve	Residential – Restricted Use R40
Structure Plan/Precinct Plan	N/A
Structure Plan/Precinct Plan - Land Use Designation	N/A
Use Class and permissibility:	Multiple Dwelling – Discretionary ("D")
Lot Size:	1,366m^2
Existing Land Use:	Vacant land
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 application proposes a 'Multiple Dwelling' development comprising of the following:

Proposed Land Use	Multiple Dwellings
Proposed Net Lettable Area	N/A
Proposed No. Storeys	Three (3)
Proposed No. Dwellings	Fourteen (14)

- A three-storey building comprising of 14 aged and dependent persons' dwellings.
- Basement resident car parking for 14 cars, and a separate car park (with separate crossover) providing visitor parking for four (4) cars.
- Communal open space to the northern portion of the third level, with associated landscaping and garden beds.
- Approximately 276.8m^2 (20.26%) of landscaping, including the proposed retention of six (6) existing trees to the eastern side of the site; and
- Associated site works and retaining to respond to the existing site topography.

Plans of the proposal are provided at **Attachment 2**.

Background:

The subject site is zoned 'Urban' under the Metropolitan Region Scheme (MRS) and Residential – Restricted Use R40 under the City's Local Planning Scheme No.3 (LPS3).

The development site is currently vacant and is bound by Marri Road to the south, Marri Park to the east, a pedestrian accessway to the north and a veterinary hospital to the west. Duncraig Shopping Centre, six (6) Aged or Dependent Persons' Dwellings (grouped dwellings) and Duncraig Primary School are located on the opposite side of Marri Road (south to south-west).

The existing residential neighbourhood is characterised by primarily a mix of single and two storey detached dwellings. The setting is landscaped, with trees within the Marri Road verge, Marri Park immediately east of the subject site and on private properties to the rear of the site.

The subject site has a steep topography, having a fall from the verge (south-west) to the rear (north-east) boundary of approximately 5.0 metres. The site is currently retained to the rear northern boundary and eastern boundary, situated approximately 1.5 metres above the level of the pedestrian accessway, and 1.0 metre above the level of Marri Park.

The subject site was originally owned by the City of Joondalup and leased to the State Government for use as a pre-primary/child health centre facility. Two lots, being Lot 642 (57) and Lot 643 (59) Marri Road were amalgamated in 2016 (WAPC Reference: 151555), to form the subject site, Lot 900 (57) Marri Road. The lot was subsequently sold by the City in 2017, with a restrictive covenant placed on the title restricting any development to 'aged persons' only.

A similar JDAP application for ten Multiple Dwellings (Aged person's dwellings) was submitted to the City in 2019 (DA19/0097 (DAP/19/01576)) which was considered by the JDAP on 17 May 2019 where the application was approved subject to conditions. This approval was never enacted upon and has since lapsed.

Following a request by the landowners, Council resolved to approve an amendment to the restrictive covenant to allow for both 'aged and dependent persons' dwellings' to be developed on the site. This restrictive covenant was registered on 21 March 2024.

Under Clause 20 of LPS3, the use of the land is restricted to 'Grouped Dwelling' or 'Multiple Dwelling', on the conditions that the proposal facilitates residential development restricted to Aged or Dependent Person's Dwellings only in accordance with the above registered restrictive covenant. The proposal is for a 'Multiple Dwelling' development, which is a discretionary ("D") use, as identified in LPS3.

A Water Corporation easement runs along the entirety of the eastern boundary (1.5 metres into the site), for sewerage purposes.

A location plan and site photographs are included as **Attachment 1**.

Legislation and Policy:

Legislation

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

State Government Policies

- State Planning Policy 7.0 Design of the Built Environment.
- Planning Codes – Residential Design Codes of Western Australia – Volume 1.

Structure Plans/Activity Centre Plans

N/A

Local Policies

- Residential Development Local Planning Policy (RDLPP).
- Planning Consultation Local Planning Policy.
- Environmentally Sustainable Design Local Planning Policy.

Consultation:

Public Consultation

The application was advertised for 28 days in accordance with the City's Planning Consultation Local Planning Policy, commencing on 25 September 2024 and concluding on 23 October 2024. Consultation was undertaken in the following manner:

- Letters issued directly to surrounding landowners and occupiers within a 200-metre radius of the development.
- One (1) sign on site; and
- Development plans and information made available for public viewing on the City's website.

The City received a total of nine (9) submissions during the consultation period. Of the submissions received, three (3) were in support, two (2) provided general comment and four (4) objected to the proposal.

The comments raised in the submissions, and the City's and Applicant's responses are included as **Attachment 3**, with the key concerns identified being:

- Pedestrian safety along Marri Road.
- Traffic and number of vehicle access points.
- Parking on the verge and street.
- Building height.

These matters are explored further in the Planning Assessment section below.

Referrals/consultation with Government/Service Agencies

As part of the assessment, the application was referred to the Water Corporation due to the existing easement for sewerage along the eastern portion of the lot. The City received advice from the Water Corporation (**Attachment 4**), providing the following comments:

- The proposed development is situated far enough away from the wastewater main within the adjacent easement that it complies with Water Corporation's Technical Guidelines prescribed proximity to existing assets.
- This proposal will require approval by Water Corporation's Building Services section prior to commencement of works. Infrastructure contributions and fees may be required to be paid prior to approval being issued.
- The developer is expected to provide all water and sewerage reticulation if required. A contribution for Water, Sewerage and Drainage headworks may also be required. In addition, the developer may be required to fund new works or the upgrading of existing works and protection of all works. Water Corporation may also require land being provided for works.

It is therefore considered that with the appropriate approvals from the Water Corporation, the location of the sewer mains does not prevent the development from proceeding.

Design Review Panel Advice

The proposal was presented to the Joondalup Design Review Panel (JDRP) on 18 October 2023, prior to lodging a formal application. The JDRP minutes and the applicant's response to the recommendations are included in **Attachment 5**.

The JDRP was generally supportive of the proposal, however, encouraged further refinement of the proposal in order to meet a number of the design principles of State Planning Policy 7.0 Design of the Built Environment (SPP7.0).

Key issues/recommendations identified by the JDRP included:

1. Improvements to the Marri Street streetscape (activation and screening of visitor carparking), and a more welcoming design for the entry sequence to the entry lobby, lifts and the residents' carpark and its response to the interface with the Park.
2. Articulation, passive surveillance opportunities (eastern side) and materiality for the east and west facing walls (blank walls are not supported). The potential for windows and other articulation are to be explored.
3. Engaging a landscape architect to provide detailed design on all aspects of the open spaces of the proposal.
4. Engaging an ESD professional and developing the passive and active ESD initiatives.
5. Clarification and consideration of amenity and legibility improvements to the central void, communal accessway/lift lobbies and units that interface this area. Several of the private outdoor spaces do not appear to have direct access to light and will require further resolution.
6. Clarification on pedestrian access to the northern ROW and proposed landscaping to the ROW.
7. Details on the panel construction method and achieving a quality materiality and durable finishes; and
8. Developing the aesthetic to better reference the local context and enhance the development's and wider area's unique sense of place.

In response to recommendations made by the JDRP, notable changes were made to the design of the building. Amended plans were submitted on 24 April 2024, being the subject of this determination. The changes included:

- Modifications to the south-east corner and main entry to create a more welcoming approach to the lobby, lifts and resident's car park by including screening to the parking areas and relocation of the resident's secure access door closer to Marri Road.
- Improved articulation of the eastern elevation through the provision of vertical battens, and additional windows with box framed shading devices to overlook the Park.
- Modifications to the species selection in the landscaping plan.
- Modifications to the development plans to incorporate sustainability initiatives such as solar panels, low energy LED lighting, shading devices to windows, rainwater tanks and infrastructure to allow for the installation of charging stations.
- Improvements to amenity and legibility of the central void to create more space and natural light through the provision of glass blocks to transfer direct sunlight to the lower level and private outdoor spaces.
- Reconfiguration of the stairs and chair lift to improve pedestrian access and allow for more natural light, with the addition of a chair lift to access the Park.
- Modifications to the panel construction to include weathertight compressed sheeting on both sides of the panels to achieve a quality materiality and durable finish.

- Modifications to the elevations and wayfinding to the entry to include further articulation and materiality selection to enhance the aesthetic to better reference the local context.

Based on the amendments made to the plans and additional reports provided by the applicant, it is considered that the proposal adequately addresses the recommendations of the JDRP and meets the intent of the principles of SPP 7.0.

Other Advice

As part of the assessment process, the application was referred internally to the City's Building Services, Waste Services, Health Services, Engineering and Landscaping departments.

The comments from these departments have been incorporated into the planning assessment below where relevant.

Planning Assessment:

The proposed 'Multiple Dwellings' have been assessed against the relevant legislative requirements of the City's LPS3, State and Local Planning Policies outlined in the Legislation and Policy Section of this report. The following matters have been identified as key considerations for the determination of this application.

The applicant's Planning Report is included in **Attachment 6.**

Land Use Permissibility

The subject site is zoned 'Residential – Restricted Use' (R40) under the City's LPS3. Under Clause 20 of LPS3, the use of the land is restricted to 'Grouped Dwelling' or 'Multiple Dwelling'. The proposal is for a 'Multiple Dwelling' development to facilitate aged and dependent persons', which is a discretionary ("D") use, as identified in LPS3.

The objectives of the 'Residential' zone under LPS3 are:

- *To provide for a range of housing and a choice of residential densities to meet the needs of the community.*
- *To facilitate and encourage high quality design, built form and streetscapes throughout residential areas.*
- *To provide for a range of non-residential uses, which are compatible with and complementary to residential development.*

In consideration of the above objectives, the City acknowledges that the proposal will enhance diversity in housing stock and supply in the immediate locality. A Specialist Disability Accommodation (SDA) supply study is included in **Attachment 7** which outlines the community need for this type of land use as there are no properties available in Duncraig for people with disabilities. The proposal caters for an aging population and provides the opportunity for residents to remain in the area, supporting accessibility for residents and their families.

In addition, the proposed development will include high quality design, built form and landscaping which will enhance the streetscape as considered through the JDRP process.

Furthermore, it is considered that the proposed development is compatible with the surrounding land uses and provides an alternative housing option to those wishing to remain part of the local community.

In light of the above, the proposed 'Multiple Dwelling' land use is considered to align with the relevant objectives of the zone and is therefore considered to be appropriate.

Waste Management

A Waste Management Plan (WMP) has been provided and is included in **Attachment 9**.

The bin store is proposed to be located on the 'upper ground' level, screened from view of the street, and the entrance to the building. As outlined within the WMP, the proposal will be serviced by private waste collection utilising a rear loaded waste collection vehicle. The waste vehicle is proposed to park on Marri Road, obstructing the proposed crossover, with the bins to be ferried from the waste store to the waste collection vehicle.

The WMP has been reviewed by the City which is generally not supportive of the proposed collection arrangement. Concerns exist due to the potential to impact traffic and pedestrian safety during collection hours as a result of vehicles required to manoeuvre around the waste collection vehicle, with insufficient road width to facilitate this, in addition to an existing solid line marking at this location. Overtaking of a waste vehicle in this location is also in close proximity to the crest of the hill and in close proximity to a pedestrian crossing point.

Through discussions, the applicant has agreed to provide an updated Waste Management Plan to the City prior to the commencement of development, to address the City's concerns and demonstrate how on-site waste collection will be accommodated. It is noted that the waste collection vehicle would need to utilise the proposed visitor bays to turn around to exit in forward gear. Given the visitor driveway has been designed for single direction movement only, this would also mean that during any period of waste collection, the use of the visitor crossover and parking would be obstructed and remain unavailable. A condition requiring an updated Waste Management Plan has therefore been included in the recommendation.

Notwithstanding the above, given the proposal is seeking the use of a private waste collector, any risk associated with the proposed method of waste collection by a private contractor would fall to the landowner including any subsequent car parking management.

The City also recommends that a Parking Management Plan is provided to include details regarding the management of the visitor parking bays during waste collection time, including any signage as required.

Building height

A number of submissions were received raising concern in relation to building height. Clause 3.2 of the R-Codes outlines permissible building height requirements for buildings in areas coded R40 as outlined below:

Provision		Requirement	Proposal
C3.2.1	Maximum number of storeys:	2	3
	Maximum building height – Concealed or skillion roof:	8.0m	10.94m

The proposal as outlined above does not meet the deemed-to-comply requirements for both the number of storeys and overall height of the proposal and as such has been considered against the design principles of Clause 3.2 Building Height of the R-Codes which state:

P3.2.1 *Building height, bulk and scale is appropriate for the existing and/or desired future streetscape and local character of the area and nearby development.*

P3.2.2 *Building height is considerate of the impact on the amenity of adjoining properties or the streetscape, including road reserves and public open space reserves, and where appropriate maintains:*

i. adequate solar access into indoor and outdoor active habitable space and solar collectors; and

ii. access to views of significance.

The existing residential neighbourhood is characterised by primarily a mix of single and two storey detached dwellings. The setting is landscaped, with trees within the Marri Road verge, Marri Park immediately east of the subject site and on private properties to the rear of the site.

As outlined in the Explanatory Guidelines of the R-Codes, low-rise apartment buildings such as what is proposed, can bring significant benefits to residential suburbs that are increasing in density as they can provide a space efficient, more affordable but less imposing built form than high-rise apartments, while contributing to the housing diversity of the area. They are considered to be most suitably located on corner sites with rear laneway access, amalgamated lots (such as the subject site), areas with medium to high density R-Codes, areas of high amenity, with good access to public transport, shops, schools and jobs and areas that can accommodate additional carparking requirements of larger dwelling numbers. Accordingly, the proposed building typology is considered to be consistent with the desired future character of the area.

The proposed development has been determined to be a total of three storeys due to the inclusion of a roof top terrace with a permanent impervious roof structure. However, due to the extensive sloping of the site from Marri Road (south) to the rear (north) of the lot, the building presents as a two-storey building from Marri Road and similarly from the PAW along the northern boundary due to the setback of the rooftop terrace (7.4 metres).

The extent of the building which does not meet the deemed-to-comply requirements is limited to the central and eastern lot boundaries and associated with the rooftop terrace space and lift overruns. The remainder of the proposal remains compliant with the deemed-to-comply height requirements.

Moreover, the proposal has utilised articulation, a variety of materials and openings across all elevations of the building to reduce any perceived bulk impacts. Noting that

per the above, the height of the development is generally compliant at the edge of the lot.

Accordingly, the proposal is considered to be of an appropriate height, bulk and scale which would otherwise be considered appropriate within the existing character of the area.

Due to the orientation of the lot, any overshadowing cast from the proposed development will fall within the subject site and on the street (Marri Road), as opposed to adversely impacting any adjoining properties.

There are not considered to be any views of significance impacted by this proposal.

Given the above, it is considered that the proposed building height is appropriate for the existing and desired future streetscape character of the area and nearby development.

Lot Boundary Setbacks

A number of submissions were received raising concern in relation to the lot boundary setbacks. Clause 3.4 of the R-Codes outlines the lot boundary setback requirements for buildings in areas coded R40 as outlined below:

Provision	Requirement	Proposal
C3.4.1 & C3.4.2	Minimum setback of walls between 3.6 metres to 7 metres in height: 1.5 metres Minimum setback of walls between 7.1 metres to 10 metres in height: 3 metres	Northern boundary • Upper ground floor: 0.5 metres – 2 metres (to Store/balcony), 3m to dwellings. (3m required) Eastern boundary • First floor: 2.45 metres (3m required) Western boundary • Upper ground: 1 metre (1.5m required)

As outlined above, the proposal results in lot boundary setbacks to the northern, eastern and western boundaries that do not meet the deemed-to-comply requirements. These setbacks have been considered against the design principles of Clause 3.4 Lot boundary setbacks of the R-Codes as outlined below:

P3.4.1 *Lot boundary setbacks reinforce the location's streetscape character and are consistent with the existing or desired built form local character.*

P3.4.2 *The setback of development from lot boundaries provides a transition between sites with different land uses or intensity of development.*

P3.4.3 Buildings are set back from lot boundaries or adjacent buildings on the same lot to:

i. provide adequate solar access and natural ventilation to the building and open spaces on the site and adjoining properties; and

ii. address the potential for overlooking and resultant loss of privacy on adjoining properties.

Northern boundary

The northern (rear) elevation of the building is proposed to be setback between 0.5 metres and 2 metres from the balconies and storerooms on the upper ground floor level in lieu of 3 metres required. The varying setback provides for articulation of the built form along this frontage, and interaction with the adjoining pedestrian accessway (PAW) to avoid a blank and uniform interface and to break up the perceived building bulk.

The setback proposed will not be visible from the street but provides a continuous transition to the two-storey dwellings located further north of the site. The 6-metre-wide PAW, will act as a suitable buffer to accommodate the reduced setback and manage any bulk and scale impacts to adjoining properties.

The reduced setback will not result in any impact to solar access or natural ventilation to the building, however, will result in cone of vision (visual privacy) intrusions from the upper ground floor. As outlined in the Visual Privacy section of this report below, it is recommended that a 1.6-metre-high screen be utilised for units 6 and 7 to mitigate this impact and to enable the proposal to meet the design principle elements of this provision.

Accordingly, the proposal is considered to meet the design principles in this instance.

Eastern boundary

The eastern (side) elevation of the building is proposed to be set back between 2.45 metres and 2.92 metres from Unit 14 to the communal outdoor living area on the first floor in lieu of 3.0 metres required.

The portion of building proposed to be located within the required setback area is limited to a 12.3-metre-long portion of Unit 14, with the remainder of the eastern elevation setback the required 3.0 metres. The unit is located above the proposed visitor bay on the upper ground level and as such the interface to this elevation is broken up through the use of planters as well as the incorporation of major openings to reduce any perceived building bulk.

There is not considered to be any negative impact to solar access and natural ventilation for the site as a result of the proposed setback and given the eastern setback is to a public carpark associated with Marri Park, the proposal provides for improved passive surveillance over this space.

Accordingly, the proposal is considered to meet the design principles in this instance.

Western boundary

The proposal is setback 1.0 metres to Unit 9 on the upper ground floor to the western side elevation in lieu of 3.0 metres, as this portion of the proposal has been measured to include a wall height of 8.5 metres above natural ground level.

The western elevation has utilised varying materials and features such as wooden feature screening and metal framed cubed eaves around the windows to break up the perceived bulk and incorporates elements consistent with the remainder of the development to ensure the proposal remains compatible with the surrounding streetscape.

There is not considered to be any negative impact to solar access and natural ventilation for the site as a result of the proposed setback and similarly, as there are no major openings along this elevation there is no impact to visual privacy as a result.

Accordingly, the proposal is considered to meet the design principles in this instance.

Visual privacy

A number of submissions were received raising concern in relation to visual privacy, in particular encroachments from the proposal over the northern PAW. Clause 3.10 of the R-Codes outlines the cone of vision setback requirements for development in areas coded R40 as outlined below:

<table>
<tr><th>Provision</th><th>Requirement</th><th>Proposal</th></tr>
<tr><td>C3.10.1</td><td>All sources of overlooking are oriented, offset or setback in accordance with Table 3.10a so that the cone of vision does not capture major openings and/or active habitable spaces on an adjoining property.

<table><tr><td>Major opening from bedroom or study</td><td>4.5m</td></tr><tr><td>Major opening from habitable room other than bedroom and study</td><td>6m</td></tr><tr><td>Outdoor active habitable space</td><td>7.5m</td></tr></table></td><td>6.5m from the balconies of Unit 6 and Unit 7 on the upper ground floor to the northern lot boundary.
The overlooking falls on to an active habitable space on the adjoining property.</td></tr>
<tr><td>C3.10.2</td><td>Notwithstanding C3.10.1, where the cone of vision captures a major opening or an active habitable space of an existing dwelling behind the street setback on an adjoining property, the source of overlooking is designed to limit or interrupt the line of sight into the major opening or active habitable space of the adjoining property through one or more of the following:
i) Incorporate a permanent, fixed vertical or horizontal building element such as a planter box, fin or window hood.
ii) Have permanent, obscure glazing in any part of the window below 1.6m above floor level; or</td><td>Communal space provided on the upper-level setback 5.3 to 6.4m, however these spaces include a planter box along the northern edge which would result in any horizontal encroachment from the proposal as shown on DA drawing A302.</td></tr>
</table>

	iii) Have permanent screening that is a minimum 75 per cent obscure to any part of the window or active habitable space below 1.6m above floor level.	
C3.10.3	Notwithstanding C3.10.2, a major opening to a bedroom or study may be offset a minimum of 1.5m from a parallel major opening on an adjoining property, measured from the edge of one major opening to another.	No instances where the deemed-to-comply standard has not been met.

The cone of vision radius has been included in the development plans (**Attachment 2**).

As outlined above, the proposal does not meet the deemed-to-comply standards of Clause 3.10.1 as above to units 6 and 7 only, and as such has been considered against the design principles of Clause 3.10 Visual Privacy of the R-Codes as below:

P3.10.1 *Direct overlooking of major openings and active habitable spaces of adjacent dwellings and adjoining properties minimised through:*

- *i. building siting, layout and design;*
- *ii. design and location of major openings;*
- *iii. landscape screening of outdoor active habitable spaces; and/or*
- *iv. design and location of screening devices.*

P3.10.2 *Adequate visual privacy achieved through appropriate interfaces between dwellings and adjoining properties including measures such as:*

- *i. offsetting the location of ground and first floor windows so that viewing is oblique rather than direct;*
- *ii. building boundary walls where appropriate;*
- *iii. setting back the upper storeys from the lot boundary;*
- *iv. providing higher or lower windows, or windows with obscure glazing; and/or*
- *v. screening (including landscaping, fencing, timber screens, external blinds, window hoods and shutters).*

P3.10.3 *Visual privacy strategies maintain amenity of habitable rooms and active habitable space with regard to solar access, natural ventilation and external outlook both within the development and for adjoining properties.*

The proposed development includes balconies set back a minimum of 0.5m metres from the northern lot boundary. The public access way adjoining the northern lot boundary is 6.0 metres in width. Therefore, the balconies are set back 6.5 metres from the residential properties to the north.

City records indicate that the northern grouped dwellings (14 Barker Drive) are setback a minimum 1.1 metres to the garage and 1.5 metres to the dwelling from the lot boundary, with the outdoor living areas of those dwellings located on the northern side of the building. As a result, the cone of vision would only encroach over a portion of the garage and landscaped area between the lot boundary and the dwelling. The cone of vision radius from the balconies therefore does not fall on to any major openings to habitable rooms or active habitable spaces and is considered to be appropriately

setback to facilitate passive surveillance of the PAW, whilst managing any potential overlooking to the adjoining property.

However, the cone of vision has been identified to encroach over a portion of outdoor active habitable space at the rear of 12 Barker Drive, which would result in direct overlooking of this space, given there are no screening devices or elements to obscure the encroachment. Accordingly, the proposal is not considered to meet the design principles for this aspect of the development. However, it is recommended that a condition be imposed, should the DAP be of a mind to support the proposal, requiring a screen of 1.6 metres in height be installed along the balcony of units 6 and 7 in order to provide appropriate protection of the adjoining property's privacy, and maintain a uniform interface for the elevation. It is noted that the applicant provided written correspondence to the City to confirm their agreement to the recommended condition.

Parking

The proposal has been assessed against Clause 2.3 of the R-Codes which outlines the car parking requirements for occupant and visitor parking for multiple dwellings in a R40 coding, as outlined below:

Provision		Requirement	Proposal
C2.3.1	Occupant parking: Minimum: 1 bay per dwelling Maximum: 2 bays per dwelling	14 dwellings Min: 14 bays	14 bays located within basement level.
C2.3.4	Visitor parking: 3 bays, plus 1 additional space per four dwellings or part thereof.	3 + 1 (4) bays Total: 4 bays	4 bays.

In accordance with the R-Codes, the proposal requires a total of 18 car bays to be provided, equating to 14 bays for occupant parking and four (4) bays for visitor parking. A total of 18 bays are proposed on site, which complies with the parking requirements of the R-Codes.

Traffic and Vehicle Access

A number of submissions expressed concern in relation to the current traffic volumes along Marri Road, given the location of a primary school and a shopping centre to the south of the subject site.

A Transport Impact Statement (TIS) was provided as part of the submission and is included in **Attachment 8.** The TIS has been reviewed by the City and it is considered that the assumptions and content included in this document are acceptable.

The proposal has been estimated to generate a total of 70 vehicles per day, with seven vehicles per hour generated during the am and pm peak hours respectively. Based on the amount of vehicle movements on site, the development will have minimal impact on the operation of Marri Road.

In addition to the above, Clause 3.7 (C3.7.2) of the R-Codes require that one vehicle access point is permitted per lot, except where the lot frontage exceeds 40 metres, then two vehicle access points are permitted. The proposal includes two crossovers,

and the lot frontage is 36.57 metres and subsequently does not meet the deemed-to-comply requirement of this provision.

However, the proposal is considered appropriate in facilitating clear and legible access, delineating visitor and resident parking areas on site. The crossovers are of a width so as to not dominate the streetscape, with the visitor crossover designed to facilitate single direction vehicle movements.

The TIS provides evidence that the expected traffic generation for the development and that relating specifically to the visitor car park is well below the requirements for a crossover wide enough to allow bi-directional movements at the same time. As such, the City considers that the three-metre crossover for the car park is sufficient and that the crossovers meet the City's guidelines.

The TIS also outlines that the impact of the proposed development on the existing road network, including during the morning and afternoon peak periods will be minor, and are able to be accommodated by the existing road network.

Accordingly, the additional crossover is considered acceptable. However, in order to maintain appropriate sightlines for the respective crossovers, a condition requiring no obstructions within the truncation areas is required to ensure there is no impact on pedestrian safety.

Landscaping

Clause 1.2 of the R-Codes outlines the requirements for trees and landscaping, as outlined below:

Provision		**Requirement**	**Proposal**
C1.2.1	15% per site: Minimum dimension:	204.9m^2 1.0 metre	Lower Ground: 130.56m^2 Upper Ground: 33.44m^2 First Floor: 112.8m^2 Total: 20.26% (276.8m^2)
C1.2.2	Minimum 30% landscaping within the street setback area:	32.5m^2	40.7% (44.07m^2)
C1.2.3	The communal street (including any adjoining setbacks) and communal open space is landscaped and provided with adequate lighting to pathways and vehicle access areas.		Communal open space to be landscaped per the landscape plan. Lighting has not been demonstrated on the plans, however, will be included as a condition of approval.
C1.2.4	Minimum tree requirements for site areas greater than 1,100m^2:	3 medium trees OR 1 large tree, 1 medium tree and 1 small tree.	2 Medium and 10 Small Trees (inclusive of 6 trees to be retained (4 small and 2 medium)).

	Tree size and deep soil area (DSA) in accordance with Table 1.2b of the R-Codes.	Small: 9m^2 Medium: 36m^2	

A landscaping plan has been provided and is included in **Attachment 2**.

As outlined above, whilst the proposal is generally compliant in terms of landscaping, an instance where the deemed-to-comply requirements are not met is noted for the provision of trees on site. This has been considered against the design principles of Clause 1.2 Trees and Landscaping of the R-Codes as below:

P1.2.1 Site planning allows for:

i. site responsive and sustainable landscape design; and

ii. the retention of existing trees on the subject site and adjoining properties.

P1.2.2 Provision of trees and high-quality landscaping:

i. enhances the built form, streetscape and pedestrian amenity, as viewed from the street.

ii. provides shade and amenity for communal streets and parking areas; and

iii. contributes to the visual appeal, comfort and amenity of the development, in particular private open space and communal open space and outlook from habitable rooms.

P1.2.3 Development provides sufficient deep soil area to sustain healthy tree and plant growth, providing for an increase in urban tree canopy over time, and assist in managing the quantity and quality of stormwater.

The proposal requires the inclusion of 3 medium trees or 1 large tree, 1 medium tree and 1 small tree. The proposal includes the provision of 2 medium and 10 small trees (with 6 trees being retained). Whilst the proposal does not strictly meet the deemed-to-comply requirements, the City considers the provision of landscaping and trees acceptable, given the number of small trees provided on site has been facilitated to respond to the site, whilst maintaining the existing vegetation where possible.

The proposal has utilised on-structure planting to facilitate the additional trees, with the rootable soil zone depth (RSZ) provided for all on-structure planting is at least 1.0 metre in each planting area, such as the planter boxes, which supports healthy root development.

The City considers that the current landscape design could benefit from reconsideration of the species selection. As such, should the application be supported, it is recommended that a revised landscaping plan should be submitted and approved by the City prior to occupation of the development. To optimise tree growth, the revised landscaping plan should have consideration to the local climate and site conditions when selecting species for the nominated locations to ensure that they are suitable in order to thrive. It is noted that the applicant provided written correspondence to the City to confirm their agreeance to the recommended condition.

With regard to the trees being retained on site, the city also recommends that tree protection zones be established during construction to ensure these trees are retained as best as possible.

In consideration of the above, the proposal is considered to meet the relevant design principles with respect to landscaping and can be supported in this regard.

Conclusion:

The proposed development is considered to adequately address the relevant provisions and objectives under the City's LPS3, the R-Codes and SPP7.0.

While discretion is sought in relation to the building height, the building presents as two-storey from Marri Road and features effective articulation on all sides. The proposal is considered appropriate having regard to the context and character of the development being compatible with the surrounding land uses and provides a necessary alternative housing option.

In light of the above, the proposed 'Multiple Dwelling' (14 Aged and Dependent Persons' Dwellings) is considered appropriate and is therefore recommended that the application be approved subject to conditions.



City of Joondalup

lot900-57_marri-10102023

Site Photographs



Marri Road – Facing East



Veterinary Hospital to the West of the Subject Site



Marri Park to the East of the Subject Site



Pedestrian Accessway to the North (Rear) of the Subject Site



Centre of the Subject Site – Facing North Towards the Residential Properties



Centre of the Subject Site – Facing South Towards Marri Road



Centre of the Subject Site – Facing West Towards the Veterinary Hospital



Centre of the Subject Site – Facing East Towards Marri Park



Standing at the PAW to the Rear of the Subject Site facing North



Trees for Retention and Existing Retaining Wall along Eastern Lot Boundary



Rear of Subject Site Facing South-west Towards Veterinary Hospital



Residential Property to the North of the Pedestrian Accessway at the Rear of the Subject Site



Marri Park Car Park to the East of the Subject Site – Facing West



South-West Corner of Subject Site Showing the Highest NGL

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT



LIST OF DRAWINGS

No.	Name
A000	COVER PAGE
A001	AERIAL PHOTOGRAPH
A002	LOCAL CONTEXT PLAN
A003	STREETSCAPE ELEVATIONS AND AERIAL
A004	SITE SURVEY-EXPANDED FEATURE
A005	LANDGATE NATURAL GROUND CONTOURS-5M
A006	NATURAL GROUND CONTOURS
A007	PARKING BELOW NATURAL GROUND LEVEL
A008	PARKING BELOW EXCAVATED GROUND LEVEL
A100	SITE PLAN
A101	LOWER GROUND FLOOR PLAN
A102	UPPER GROUND FLOOR PLAN
A103	FIRST FLOOR FRONT & COMMUNAL OUTDOOR LIVING REAR
A104	ROOF PLAN
A105	SUNLIGHT PENETRATION DIAGRAM
A106	TYPICAL UNIT PLAN
A107	OPEN SPACE CALCULATIONS
A201	ELEVATIONS

LIST OF DRAWINGS

No.	Name
A202	ELEVATIONS
A301	SECTIONS
A302	SECTIONS
A303	SECTIONS-SOLAR INGRESS TO CORE
A401	MODEL VIEW PERSPECTIVES
A402	EXTERIOR RENDERS
A403	INTERIOR RENDERS
A500	LIGHT AND VENTILATION-Lower Ground
A501	LIGHT AND VENTILATION-Upper Ground
A502	LIGHT AND VENTILATION-First Floor
DSA01	DEEP SOIL AREA - Lower Ground
DSA02	DEEP SOIL AREA - Upper Ground
DSA03	DEEP SOIL AREA - First Floor
LAPL 01	LANDSCAPING PLAN 01-Lower Ground
LAPL 02	LANDSCAPING PLAN 02-Upper Ground
LAPL 03	LANDSCAPING PLAN 03-First Floor
LAPL 04	LANDSCAPING PLAN 04-Typical Details
M-A01	COVERED SPACE DIAGRAM
M-A02	FIRST FLOOR - PRIVACY CONE OF VISION
M-A03	ACCESSIBLE WASTE MANAGEMENT DESIGN

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023
Majestic Developments PTY LTD

23.016 A000Rev B

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SCALE 1:2000
AERIAL PHOTO 2023 (FEBRUARY)



SITE LOCATION IN WIDER CONTEXT
Climate Zone 5

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TITLE
AERIAL PHOTOGRAPH (NO ADJOINING RESIDENTIAL PROPERTIES)

@ A1 - 1:200 @ A3

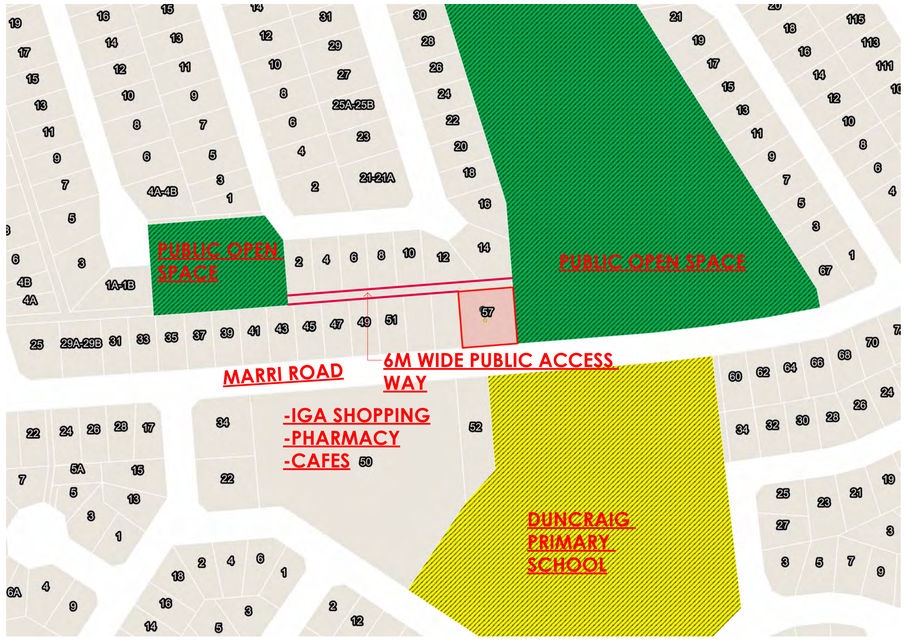
TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

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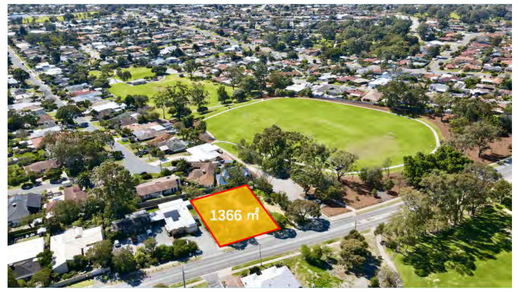
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REVISION B
PROJECT STATUS DA

NORTH
DRAWING NUMBER A001

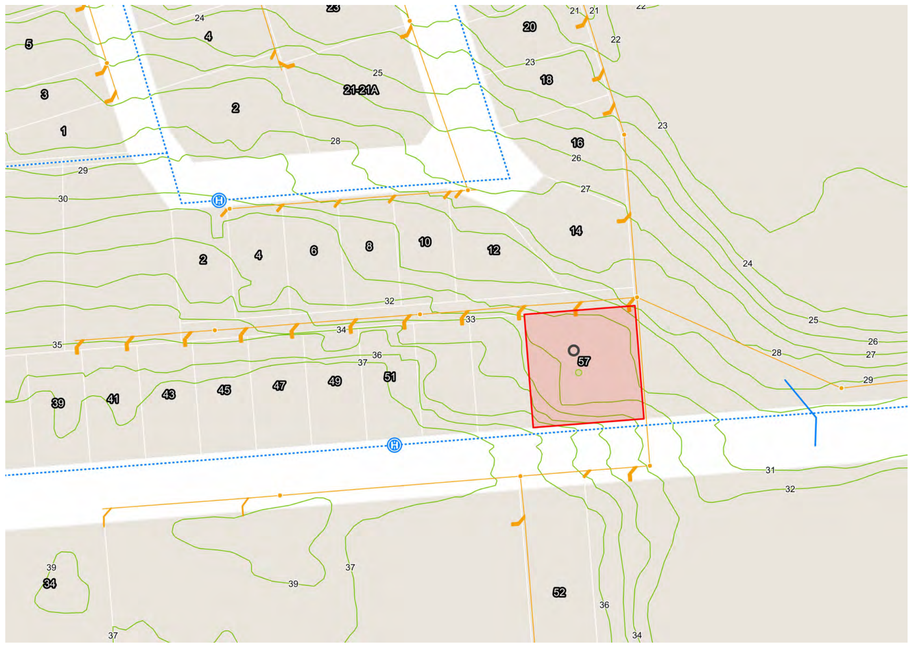
















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TITLE
LOCAL CONTEXT PLAN (NO ADJOINING RESIDENTIAL PROPERTIES)

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TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

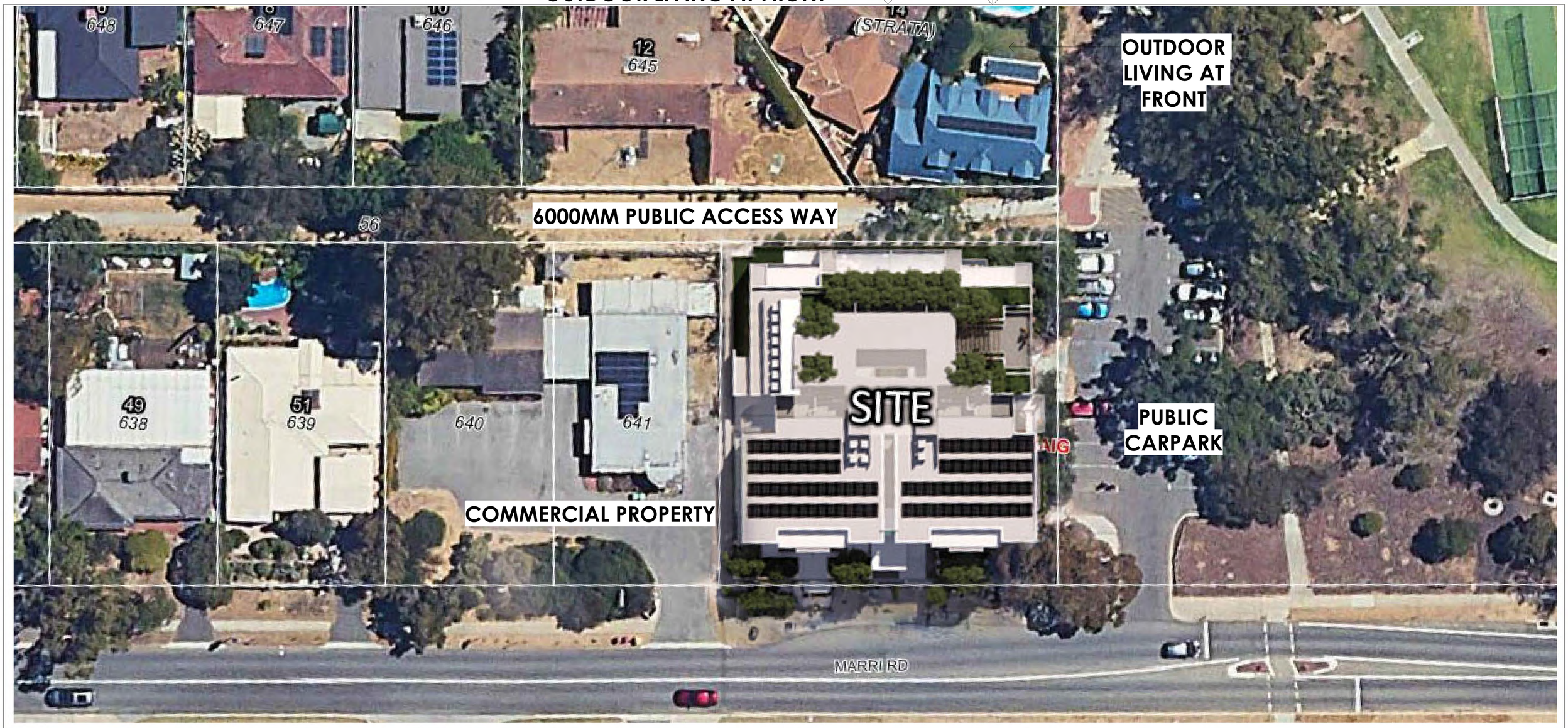
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PROJECT STATUS DA

NORTH
DRAWING NUMBER A002

OUTDOOR LIVING AT FRONT





RESIDENTIAL

RESIDENTIAL

COMMERICAL - VET SURGERY

RESIDENTIAL AGED AND DEPENDANT

PUBLIC CARPARK
23 BAYS INC DISABLED

PUBLIC PARK AMENDED

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TITLE

STREETSCAPE ELEVATIONS AND AERIAL (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:23:22 PM

23.016

REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
A003

NOT ADJOINING RESIDENTIAL PROPERTIES

6000 WIDE PUBLIC ACCESS

Rendered Brick & Tile

Fibro Fence 1.7 High In Poor Condition

Gate

Colorbond Fence on Limestone Retaining Wall 1.8 High

Sewer Junction In: 1.5 Inv: 27.9 Depth: 1.7

Colorbond Fence 1.8 High In Good Condition

Overhanging Hedge

Concrete Footpath

PEG FOUND

Limestone Retaining Wall 1.6 High

Wire Fence & Gate 1.5 High

Limestone Retaining Wall With Wire Fence 1.5 High On Top

Sewer I.O.

100mm Pipe

NAIL & PLATE IN TIMBER

Sewer M/H (28.66)

Sewer Junction In: 1.5 Inv: 26.1 Depth: 1.5

SIGN

LIGHT POLE

DEAD TREE 0.4M DIA. 6M HIGH

DEAD TREE 0.4M DIA. 7M HIGH

DEAD TREE 0.4M DIA. 5M HIGH

DEAD TREE 0.3M DIA. 6M HIGH

TREE 0.3M DIA. 5M HIGH

TREE 0.5M DIA. 8M HIGH

TREE 0.4M DIA. 10M HIGH

Metal Structure

Brick & Tile Vet Clinic (#55) Approx. F.L 33.65

DOOR

Rendered Brick & Tile Approx. F.L 33.81

COMMERCIAL PROPERTY

Site Area 1365.52sqm

ZONED R40

VACANT

Sand

Limestone Retaining Wall With Fibro Fence 1.0 High

Limestone Retaining Wall With Brick Wall 1.0 High

Wire Fence 1.5 High

Trees & Bushes

TREE 0.3M DIA. 10M HIGH

TREE 0.8M DIA. 10M HIGH

TREE 0.3M DIA. 8M HIGH

TREE 0.4M DIA. 13M HIGH

TREE 0.4M DIA. 8M HIGH

WATER METER

POWER DOME

PHONE PIT

PEG FOUND

Concrete Footpath

Bitumen

Semi. Mt.

Non Mt.

Mountable

Steps

Light Pole

SEWERAGE EASEMENT

Concrete Path

Bitumen Carpark

TREE 1.2M DIA. 15M HIGH

TREE 0.8M DIA. 18M HIGH

PUBLIC CAR PARK

PARK

SPRING HEAD NAIL FOUND DATUM IS 36.47M A.H.D. AND WAS ESTABLISHED FROM SEWER M/H E0144 USING DATA SUPPLIED BY THE WATER CORPORATION. LEVEL IS APPROXIMATE ONLY

REF. NAIL & PLATE IN BITUMEN DATUM 32.65M A.H.D.

Marri Road

Sewer M/H (36.45)

Sewer M/H (32.80)

Light Grass

Residential Property

N

SC DRAFTING
ABN: 48 365 708 393
FEATURE SURVEY

DRAWN: SC SURVEYOR: WHITEHURST SURVEYS
EMAIL: scdraftingdesign@gmail.com
JOB DETAILS

JOB #	3169S
CLIENT	EZYDOESIT PTY LTD
LOT	900
STREET	57 MARRI ROAD
SUBURB	DUNCRAIG
LOCAL AUTH	CITY OF JOONDALUP
D.PLAN	406004
VOL./FOLIO	2902/801
LOCATION	SWAN
MAP REF	206-C/7
DATE	17/11/23
MISCLOSE	0.000m
AREA	1366m²
COASTAL	NO

WHITEHURST SURVEYS
A.B.N 95 726 454 206
P.O. BOX 3036 LESMURDIE W.A. 6076
admin@whitehurstsurveys.com.au
MOBILE 0409 492 963

SERVICES	
ELEC.	U/GROUND
WATER	YES
SEWER	YES
GAS	YES(CHECK ALINTA)
PHONE	YES
F'PATH	CONCRETE
ROAD	BITUMEN
KERB	SEMI. MT./MT./NON MT.
DRAINAGE	GOOD
SOIL	SAND

NOTE:
THE TYPE OF SURVEY MARKS / PEGS, ALL BUILDING OFFSETS, DIMENSIONS & FEATURES ARE POSITIONED FROM EXISTING PEGS / FENCES / WALLS WHICH MAY NOT BE ON THE CORRECT ALIGNMENT AND ARE TO BE VERIFIED WITH A REPEG CERTIFICATE.

NOTE:
ALL SEWER DETAILS PLOTTED FROM WATER CORP. INFORMATION

NOTE:
SC DRAFTING ACCEPTS NO RESPONSIBILITY FOR ANY ON SITE PHYSICAL CHANGES TO THE PARCEL OR PORTION OF THE PARCEL OF LAND SHOWN ON THIS SURVEY INCLUDING ADJOINING NEIGHBOURS LEVELS AND FEATURES THAT HAVE OCCURRED AFTER THE DATE ON THIS SURVEY.

PLEASE CHECK TITLE FOR EASEMENTS AND NOTIFICATIONS

2 SITE SURVEY Expanded Feature
SCALE: 1 : 150

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TITLE
SITE SURVEY-EXPANDED FEATURE (NO ADJOINING RESIDENTIAL PROPERTIES)

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TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

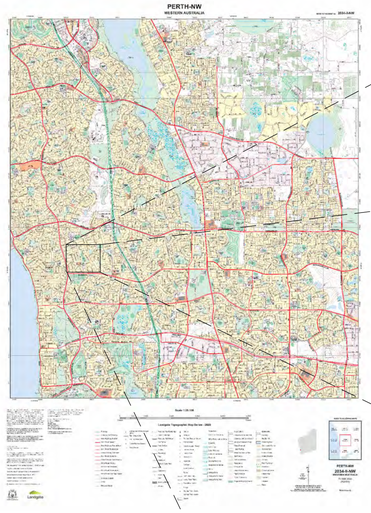
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PROJECT STATUS DA
DRAWING NUMBER A004

ORIGINAL



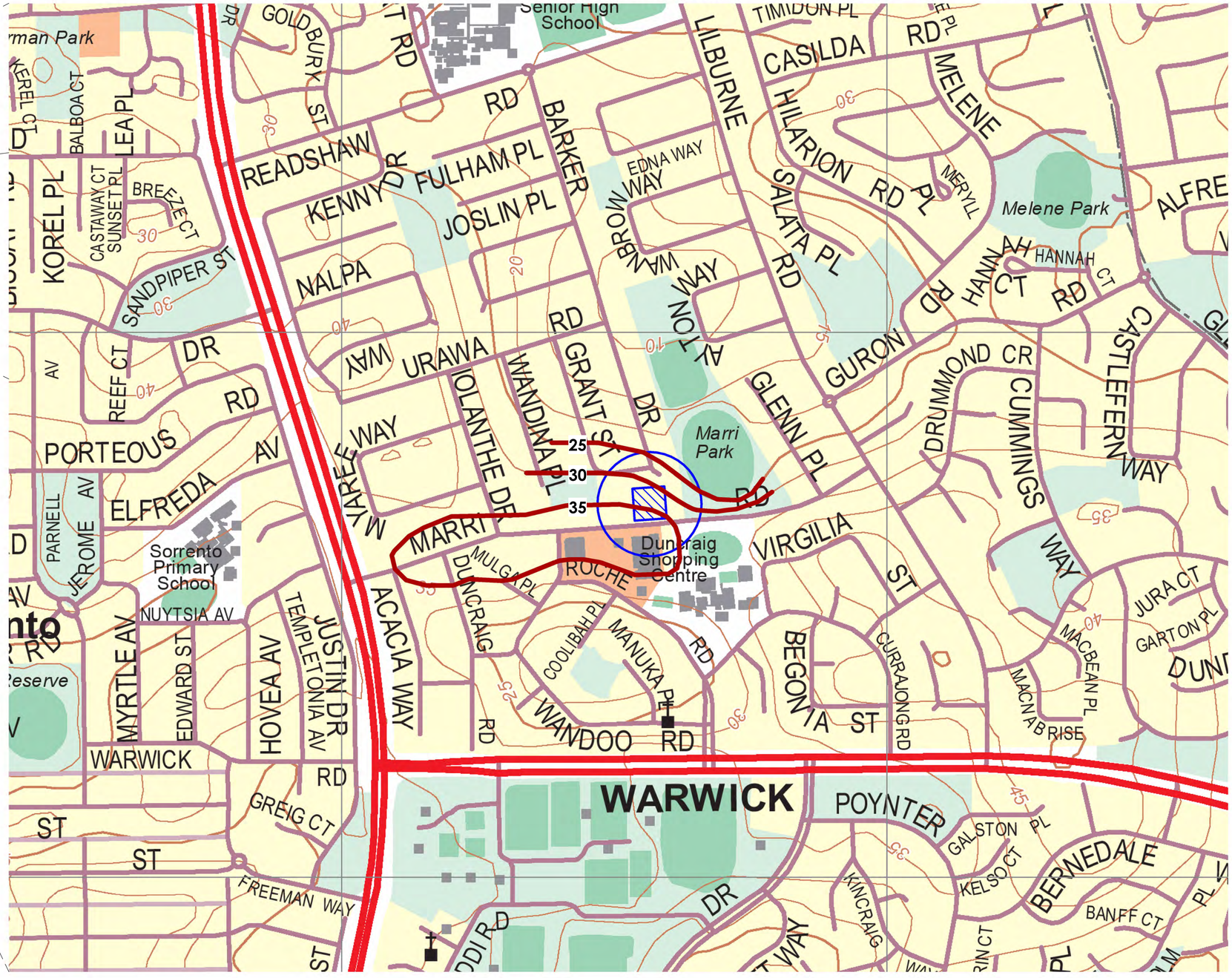


ENLARGED

PERTH-NW

WESTERN AUSTRALIA

REFER TO THIS SHEET AS: **2034-II-NW**



Map produced by:
Location Maintenance and Delivery
Landgate

Base Map data compiled on or converted to the Map Grid of Australia (MGA) from ground surveys and aerial photography flown between 1960 and 2020.

Data in the Perth metropolitan area revised annually. Data in regional centres revised every two to five years. Currency of data varies within the topographic database.

Cultural detail NOT field verified. Map Intent 1:25,000 at scale.

Projection: Universal Transverse Mercator.

Horizontal Datum: Geocentric Datum of Australia 2020.

Vertical Datum: Australian Height Datum 1971.

Contour Interval 5 metres, where available.

Map PDF produced 14/01/2020.

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GOVERNMENT OF WESTERN AUSTRALIA

Landgate

Landgate Topographic Map Series - 2020

SITE LOCATION ADDED

AUTHORS COMMENTS:
-THIS MAP REPRESENTS THE A MORE ACCURATE REPRESENTATION OF THE NATURAL GROUND LEVELS ACROSS THE SITE.
-THIS IS BECAUSE IT OMITS LOCAL EXCAVATION AND RETAINING MODIFICATIONS THAT HAVE OCCURRED ONSITE.
-THESE SMOOTHER TRANSITIONS REFLECT WHAT A PEDESTRIAN WOULD OBSERVE AT STREET LEVEL.

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TITLE
LANDGATE NATURAL GROUND CONTOURS-5M (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:23:28 PM

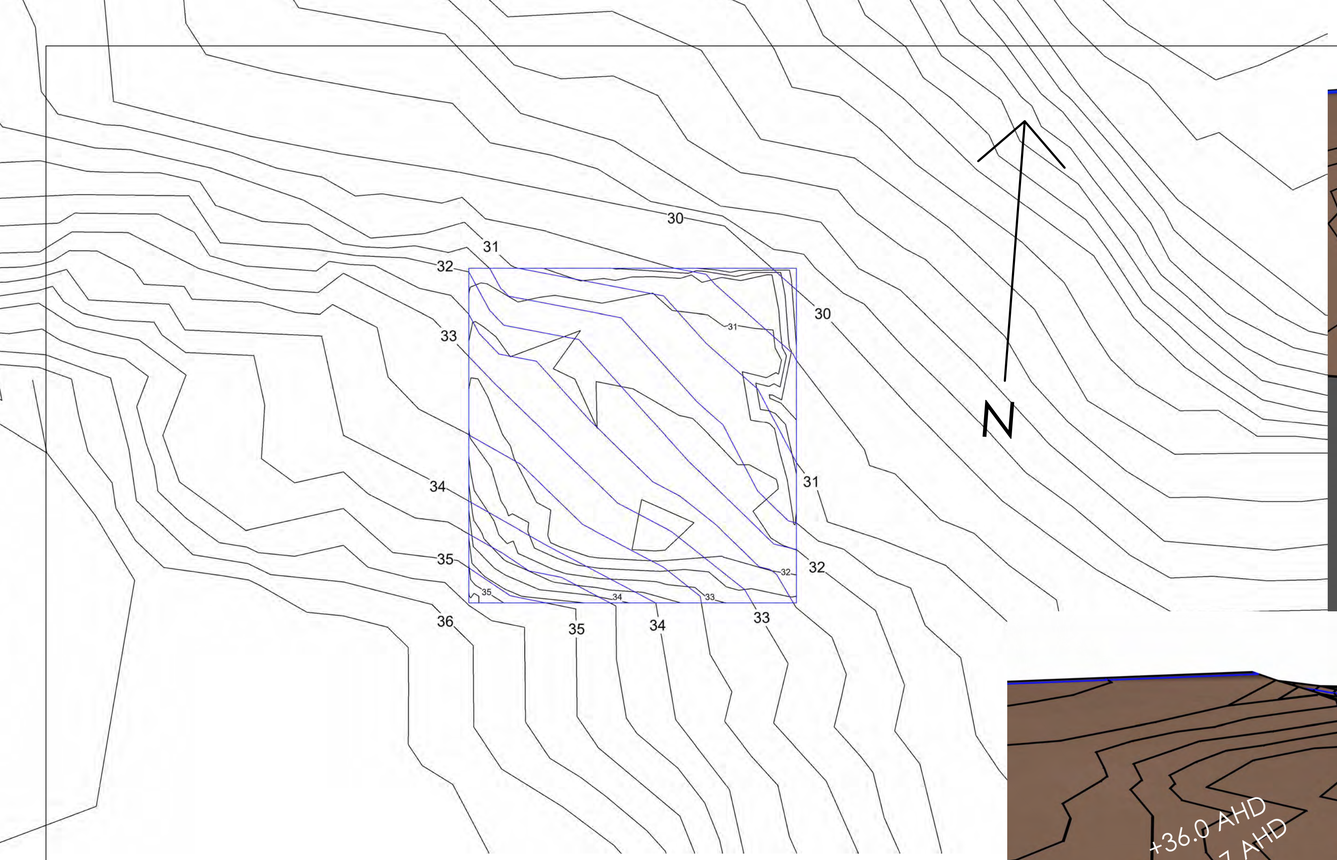
23.016

REVISION **B**

PROJECT STATUS **DA**

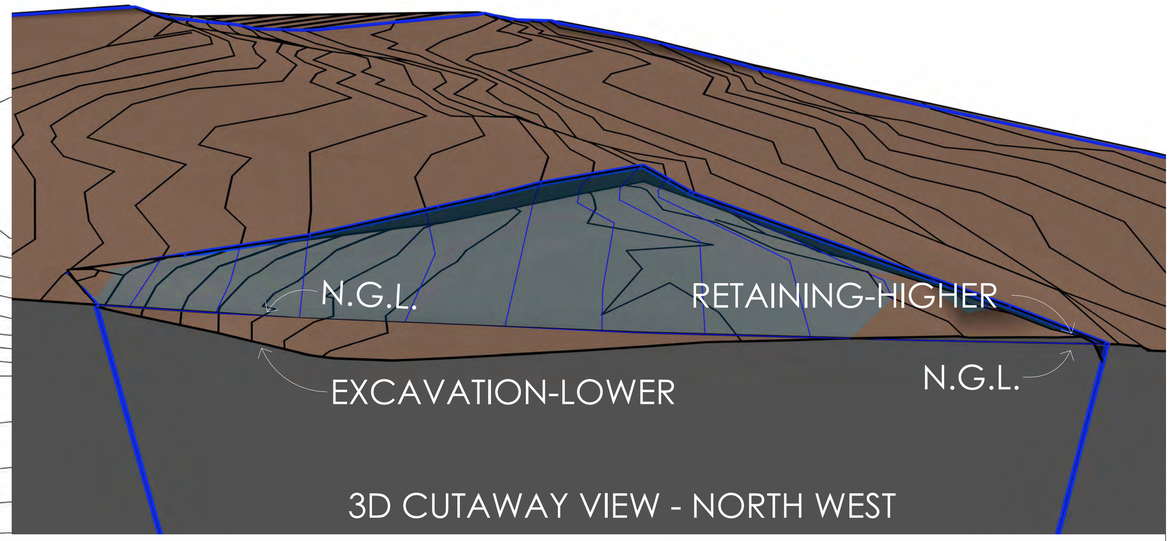
NORTH

DRAWING NUMBER **A005**

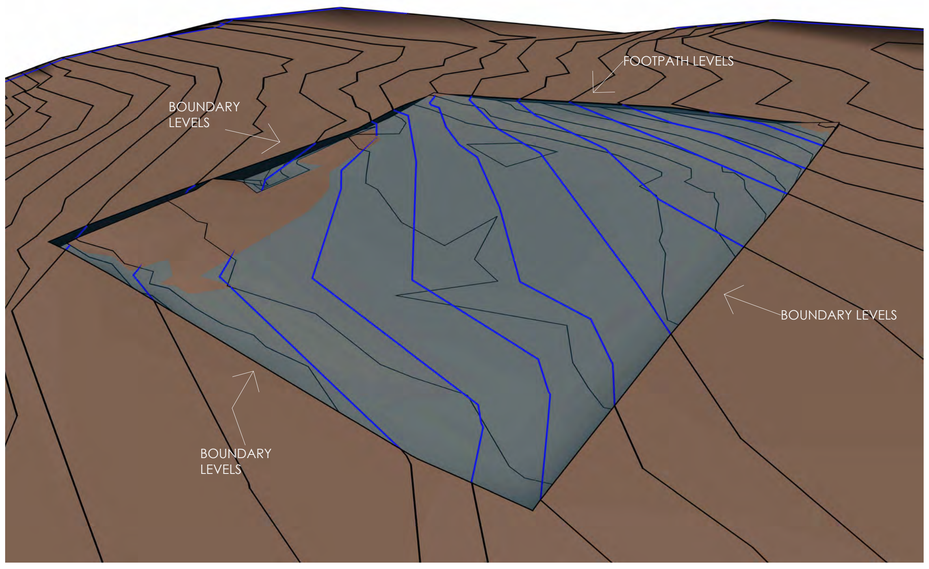


SITE PLAN - NATURAL GROUND CONTOURS

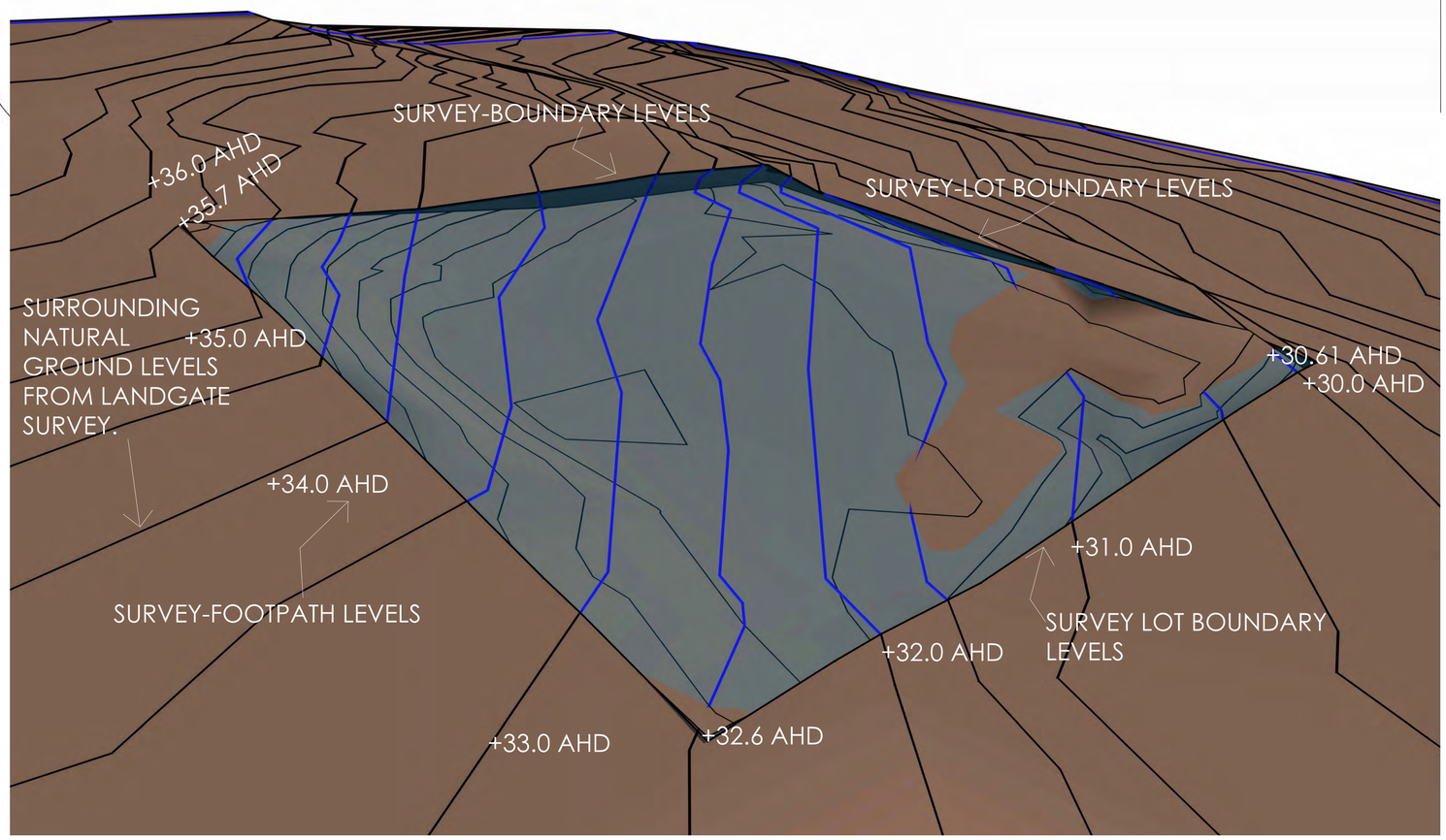
CONSTRUCTED USING THE EXISTING SURROUNDING BOUNDARY LEVELS AND LANDGATE CONTOURS



3D CUTAWAY VIEW - NORTH WEST



3D VIEW - SOUTH EAST



3D VIEW - NORTH WEST

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TITLE

NATURAL GROUND CONTOURS (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

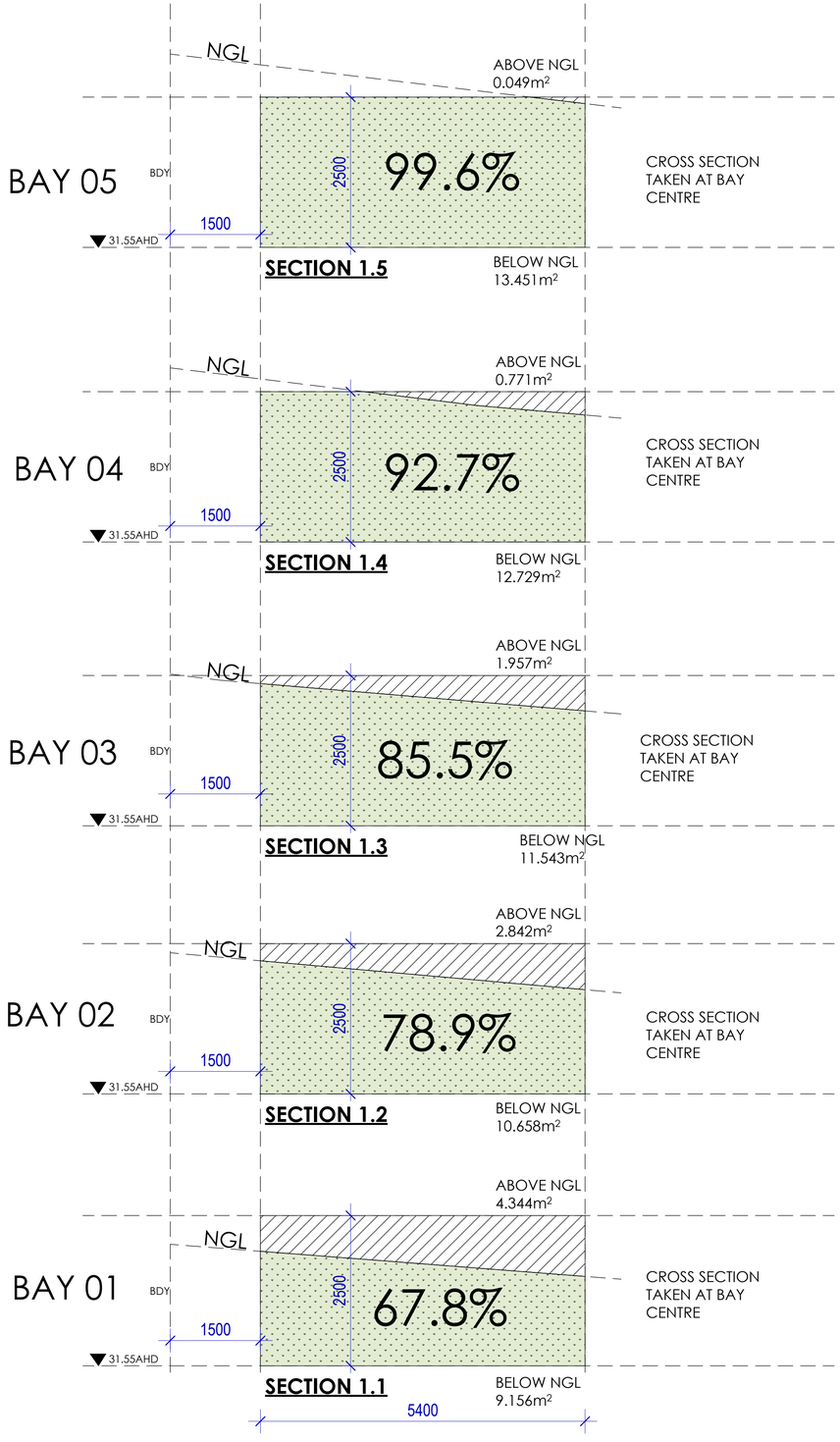
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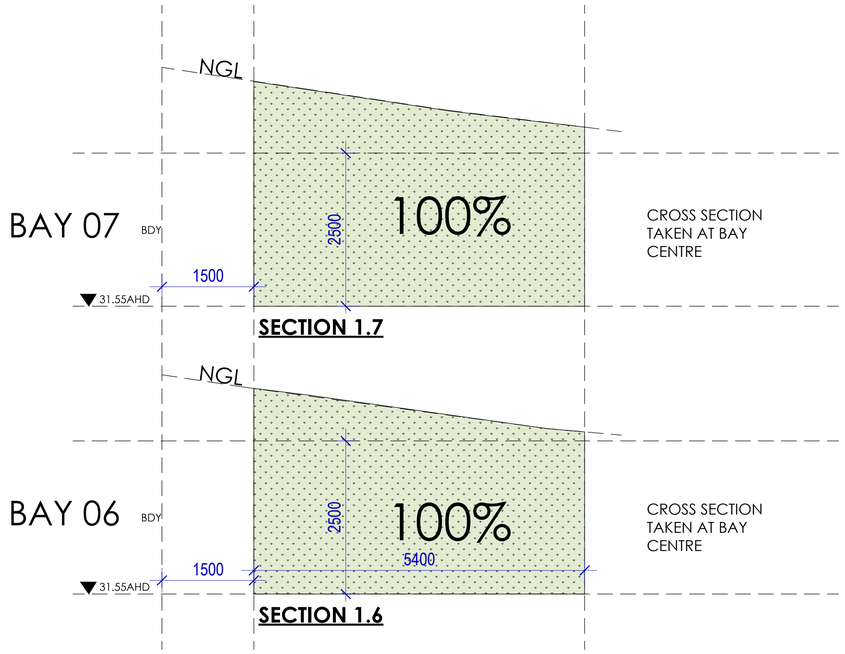
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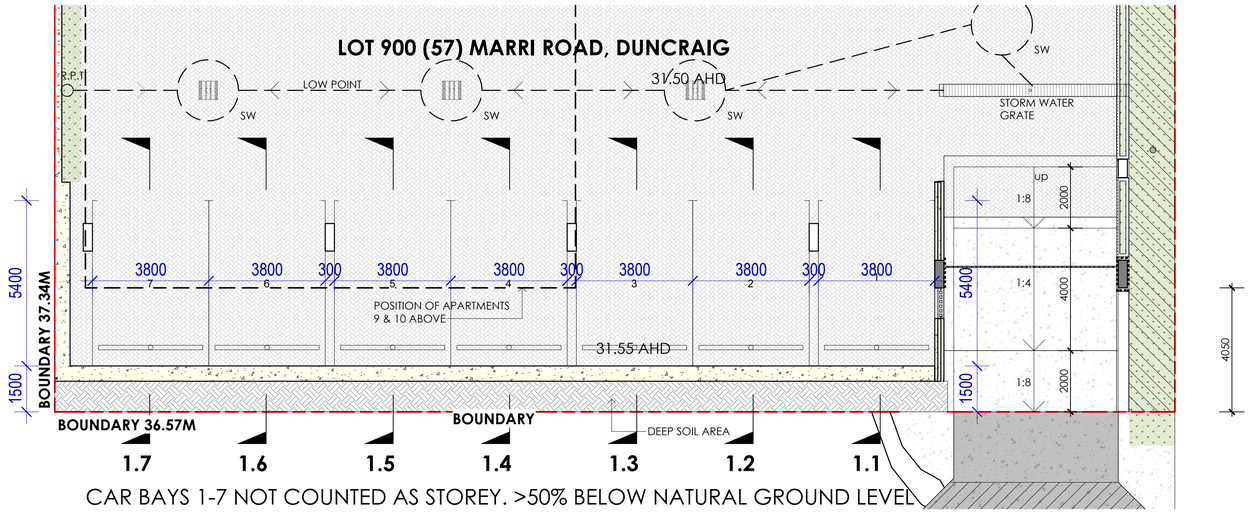
REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
A006







CAR BAYS 1-7 NOT COUNTED AS STOREY. >50% BELOW NATURAL GROUND LEVEL

MARRI ROAD

LOWER GROUND FLOOR PLAN
SCALE: 1 : 100

R-CODES VOL 2-DEFINITIONS (PG 132)

Basement - a **building floor** level in which 50 per cent or more of its volume is below **natural ground level**.

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TITLE
PARKING BELOW NATURAL GROUND LEVEL (NO ADJOINING RESIDENTIAL PROPERTIES)
(BEFORE SUBDIVISION)

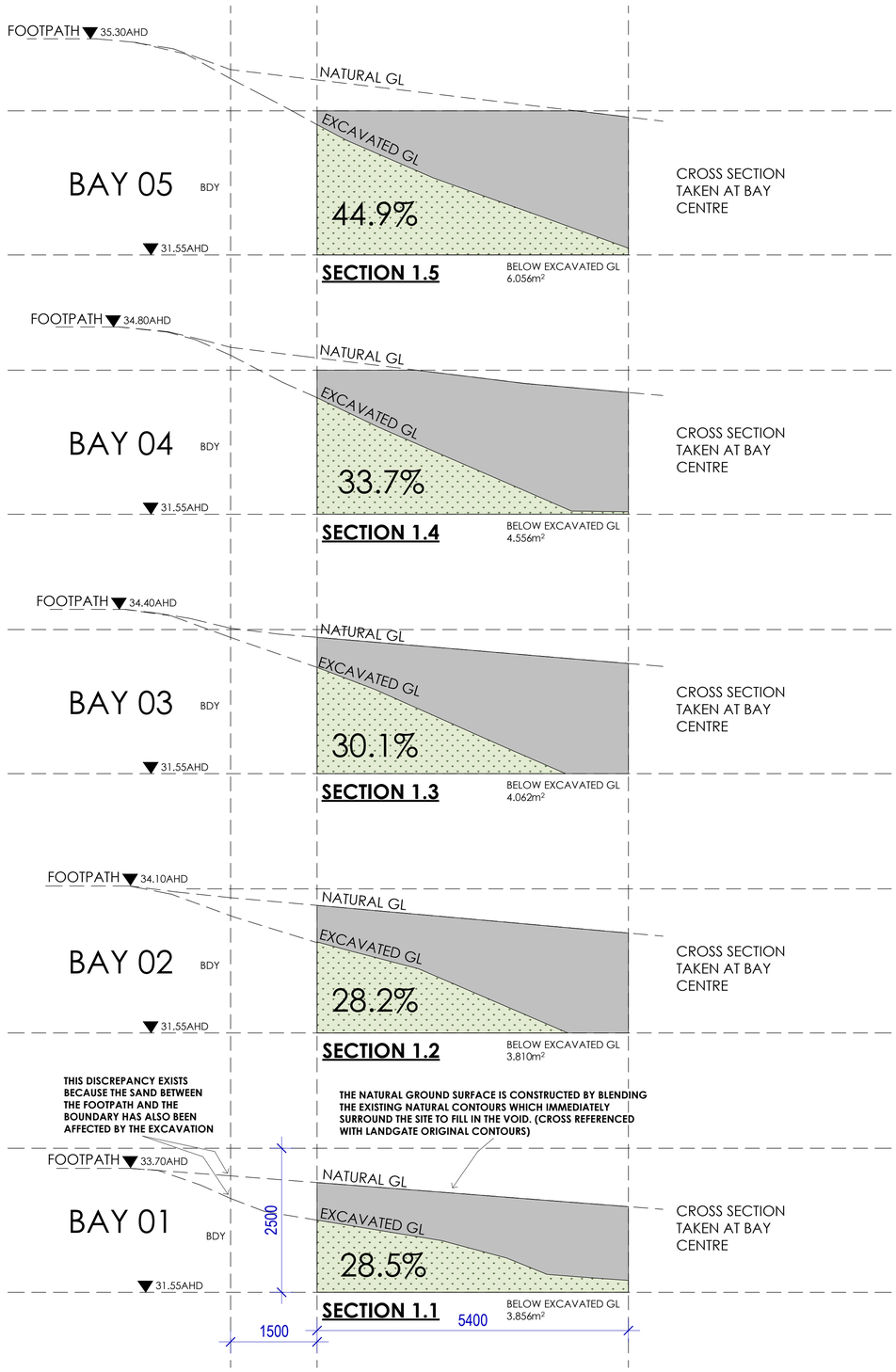
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SCALE 1:100 @ A1 - 1:200 @ A3

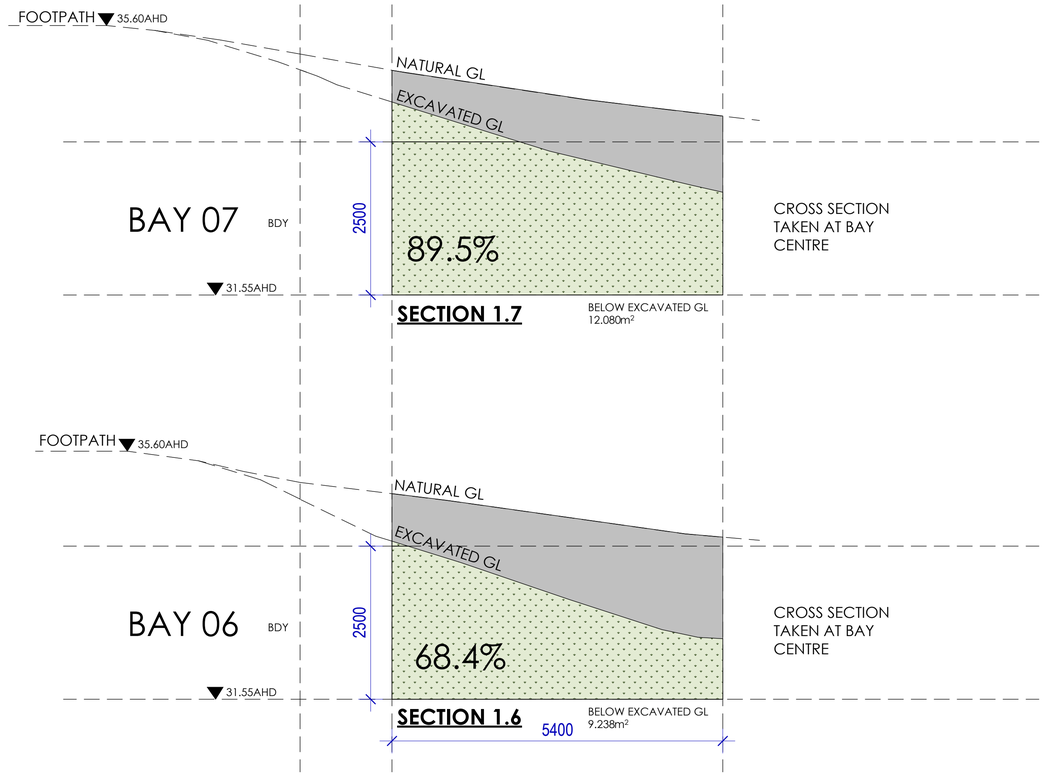
TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

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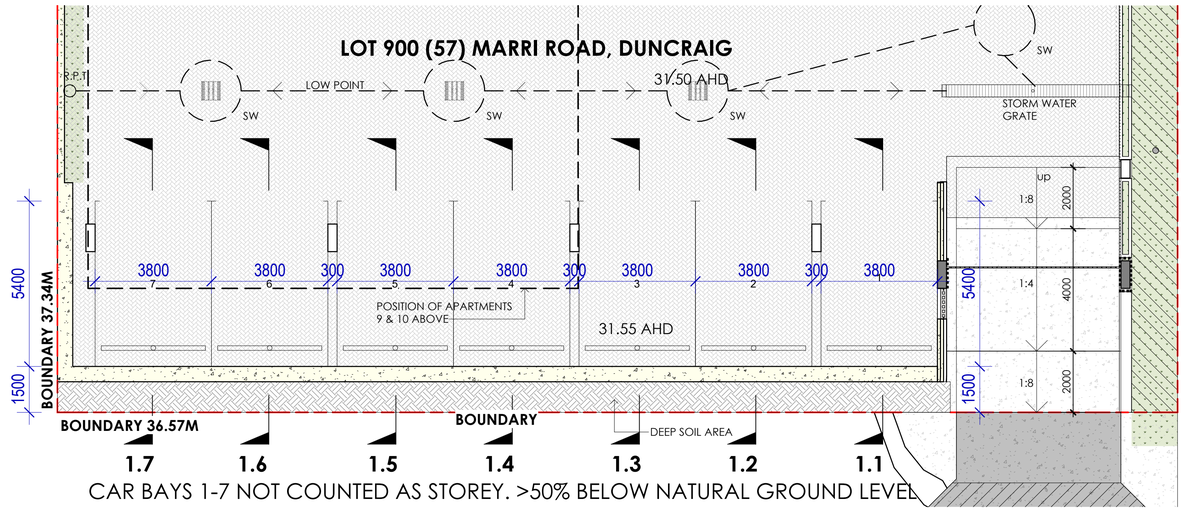
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REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **A007**





NATURAL GROUND LEVEL

EXCAVATED GROUND LEVEL



1 A201 LOWER GROUND FLOOR PLAN
SCALE: 1 : 100

Natural and excavated ground level overlaid for comparison:
The excavated soil level is not representative of the natural slope of the site.

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TITLE
PARKING BELOW EXCAVATED GROUND LEVEL (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:23:34 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **A008**

PATH

SLOPE DOWN

PUBLIC ACCESS WAY (6000 WIDE)

ACCESS TO SPORTING FIELDS AND MARRI PARK AND CAR PARKING AREA

+30.5 AHD 30.567

30.552 +30.5 AHD

30.061 +30.0 AHD

29.576 +29.5 AHD

29.092 +29.0 AHD

28.554 +28.5 AHD

28.581 +28.5 AHD

BOUNDARY 36.57M

28.551 +28.5 AHD

33.721 +33.5 AHD

4500

METAL SHED

EXISTING COMMERCIAL BUILDING

VET SURGERY
F.F.L.L. 33.65 AHD

SOLAR ON COMMERCIAL
N/A (R40 ONLY):

ADJOINING SOLAR
RECIEVES 8 HOURS

9AM-5PM

NO: 55

ST.

ST.

ST.

ST.

3400

REFER TO SECTION
DWG DA A302
FOR SIGHT LINE

RAINWATER TANK

RAINWATER TANK

RAINWATER TANK

RAINWATER TANK

RAINWATER TANK

SETBACK 3000

BOUNDARY 37.34M

4500 SETBACK

3000 SETBACK

REAR SETBACK VOL 2

29.050 +29.0 AHD

+33.5 AHD 33.556

2000

SETBACK COMPLIANT VOL. 2

ROOF FALL

ROOF OVER COMMUNAL OUTDOOR LIVING

OPEN AIR LOOKOUT

4240

TRANSLUCENT ROOF

ROOF FALL

+29.5 AHD 29.552

EXISTING LIGHT POLE

TRANSLUCENT ROOF

TRANSLUCENT ROOF

COURT UNDER

COURT UNDER

TRANSLUCENT ROOF

ROOF FALL

COURT UNDER

COURT UNDER

+30.0 AHD 30.048

PUBLIC CAR PARK

+33.5 AHD 33.549

NOTE: RETAINING WALLS

EXISTING RETAINING WALLS TO WEST, NORTH AND EAST BOUNDARIES. FOLLOWING GENERAL INSPECTION CRACKING AND MORTAR REPAIRS WILL TAKE PLACE UNDER THE SUPERVISION OF A PRACTISING STRUCTURE ENGINEER. INJECTION GROUTING MAY BE USED IF REQUIRED BY ENGINEER.

2450

+30.5 AHD 30.331

+34.0 AHD 34.048

1000

VARIATION - 2M REQUIRED

MINIMUM SETBACK VOLUME 2

1500 WIDE SEWERAGE EASEMENT

EXISTING LIGHT POLE

TRANSLUCENT ROOF AT HIGH LEVEL.

CROSS VENTILATION BELOW

ROOF FALL

ROOF FALL

+31.0 AHD

NOMINAL OVERSHADOWING
-COMMERICAL ZONING
-NOON 21ST JUNE

+34.5 AHD 34.540

+31.5 AHD 31.544

+35.0 AHD 35.064

4000

STREET SETBACK, VOL. 2

+35.5 AHD

BOUNDARY 37.34M

+32.0 AHD 32.047

2000

+32.5 AHD 32.584

1500 EASEMENT

BOUNDARY 36.57M

+36.0 AHD

34.573

VISITOR PARKING

RESIDENTS PARKING

VERGE UPGRADING.
REFER LANDSCAPE PLAN

MAIN PEDESTRIAN AND WHEELCHAIR ACCESS

INDIVIDUAL WHEELCHAIR ACCESS

35.052 +35.0 AHD

34.565 +34.5 AHD

MARRI ROAD

34.049 +34.0 AHD

33.552 +33.5 AHD

33.055 +33.0 AHD

+37.0 AHD 37.048

+36.5 AHD 36.549

+36.0 AHD 36.050

35.568 +35.5 AHD

SITE PLAN
SCALE: 1 : 100

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TITLE

SITE PLAN
(NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

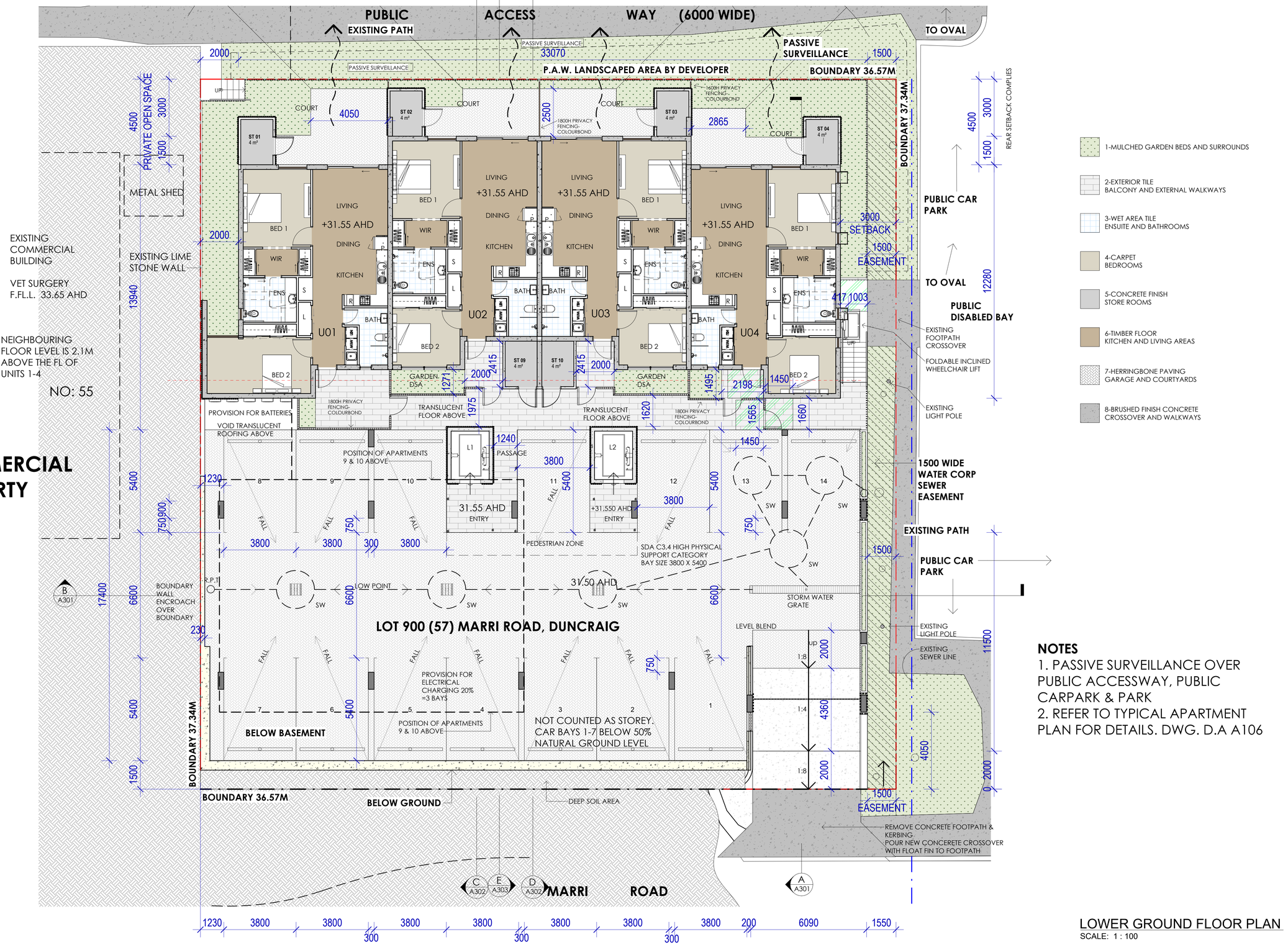
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23.016

REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
A100



NOTES

1. PASSIVE SURVEILLANCE OVER PUBLIC ACCESSWAY, PUBLIC CARPARK & PARK
2. REFER TO TYPICAL APARTMENT PLAN FOR DETAILS. DWG. D.A A106

LOWER GROUND FLOOR PLAN
SCALE: 1 : 100

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TITLE
LOWER GROUND FLOOR PLAN (NO ADJOINING RESIDENTIAL PROPERTIES)

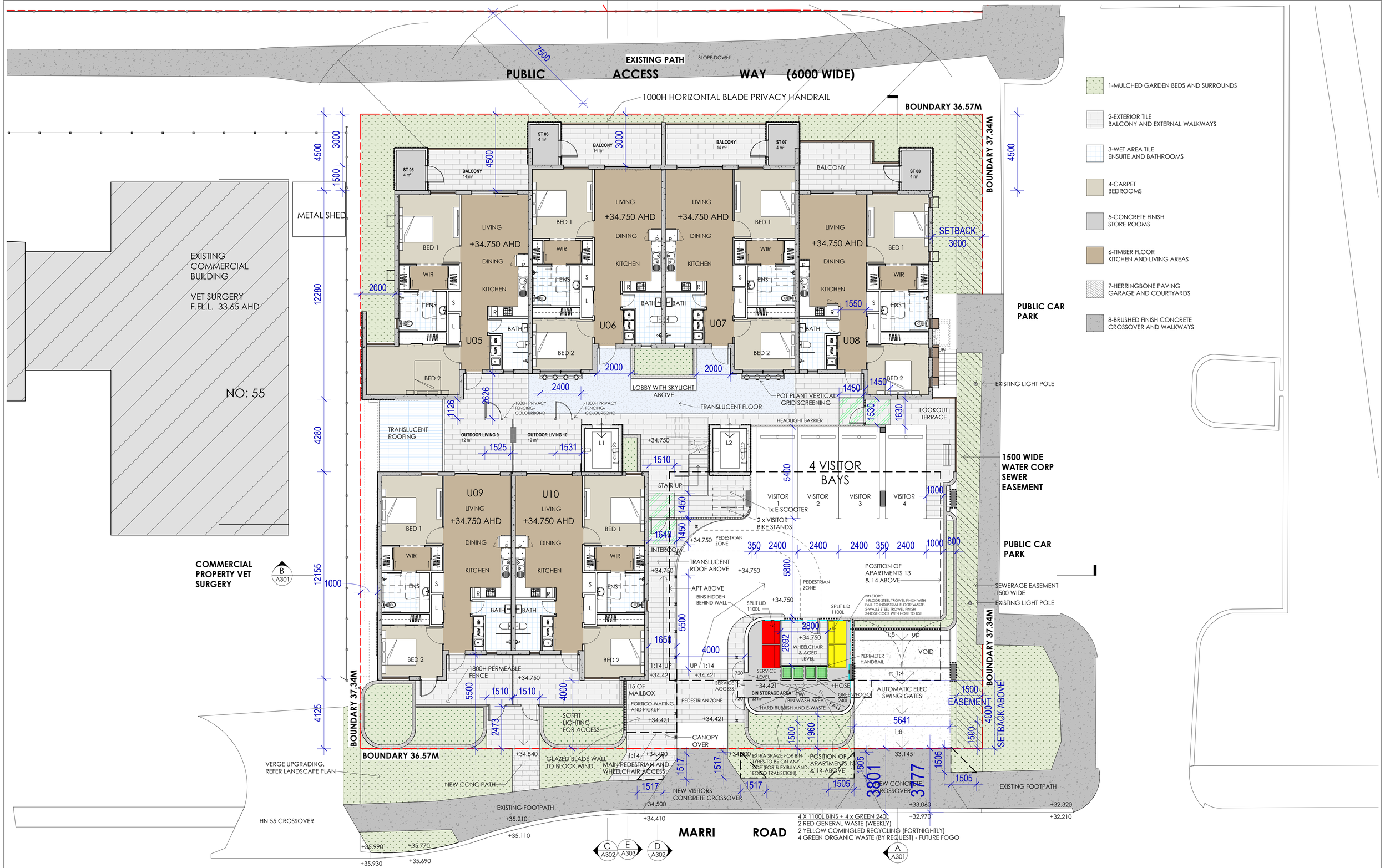
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SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
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23.016
REVISION B
PROJECT STATUS DA
DRAWING NUMBER A101



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TITLE

UPPER GROUND FLOOR PLAN (NO ADJOINING RESIDENTIAL PROPERTIES)

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE 6/12/2024 5:24:09 PM

23.016

REVISION B

PROJECT STATUS DA

DRAWING NUMBER A102

PUBLIC ACCESS WAY (6000 WIDE)

EXISTING PATH SLOPE DOWN

NORTH WINTER SUN

EXISTING COMMERCIAL BUILDING

VET SURGERY
F.F.L.L. 33.65 AHD

NO: 55

COMMERCIAL PROPERTY

METAL SHED

OPEN SPACE

PLANTER BED PROHIBITS VIEWS DOWNWARDS

BOX GUTTER

SERVICE ACCESS

RESIDENT FURNITURE AND TOOLS

OPEN

GRASSED AREA FOR SERVICE ANIMALS

BEAM OVER TO SUPPORT OUTDOOR CINEMA PROJECTOR SCREEN

ROOF FALL

RAINWATER TANK

HORISONTAL SHADING DEVICE

COVERED

COMMUNAL OUTDOOR LIVING AREA/ COVERED 232.78 m²

FLEXIBLE CENTRAL SPACE:
-GARDENING
-MEALS
-GAMES
-OUTDOOR CINEMA SEATING

OPEN SPACE

PERGOLA OVER

OPEN

KITCHENETTE AND BARBEQUE

AC PLANT SCREENING

SKYLIGHT ABOVE

GARDEN MAINTENANCE STORE EQUIPMENT

VOID

LANDSCAPED BUFFER WITH 1800H PRIVACY FENCING

1800H PRIVACY FENCING-COLOURBOND

OBSCURE GLASS FLOOR

+37.950 AHD

GARDEN BED

TRANSLUCENT ROOFING

1800H BWK

OUTDOOR LIVING 11
17 m²

OUTDOOR LIVING 12
16 m²

2000 WIDE ROOF

L1

L2

OUTDOOR LIVING 13
15 m²

OUTDOOR LIVING 14
19 m²

ROOF

INSTEAD OF 2M - VARIATION

U11 +37.950 AHD

U12 +37.950 AHD

U13 +37.950 AHD

U14 +37.950 AHD

37.950

TRANSLUCENT ROOF

BALCONY 5 m²

ST 11 4 m²

ST 12 4 m²

ST 13 4 m²

ST 14 4 m²

TO STORE

ENTRY CANOPY

PASSIVE SURVEILANCE

-CARPARK,
-OVAL
-PARKSIDE FOOTPATHS

PASSIVE SURVEILANCE

OVER CARPARK, OVAL AND PARKSIDE FOOTPATHS

1-MULCHED GARDEN BEDS AND SURROUNDS

2-EXTERIOR TILE
BALCONY AND EXTERNAL WALKWAYS

3-WET AREA TILE
ENSUITE AND BATHROOMS

4-CARPET
BEDROOMS

5-CONCRETE FINISH
STORE ROOMS

6-TIMBER FLOOR
KITCHEN AND LIVING AREAS

7-HERRINGBONE PAVING
GARAGE AND COURTYARDS

8-BRUSHED FINISH CONCRETE
CROSSOVER AND WALKWAYS

B A301

C A302 E A303 D A302 A A301

MARRI ROAD

NOTES

1. REFER TO SECTION DRAWING WHICH DEMONSTRATES IMPOSSIBLE TO OVERLOOK NORTHERN RESIDENTIAL PROPERTIES.
2. REFER TO TYPICAL APARTMENT PLAN FOR DETAILS. DWG DA. A106.

2_FIRST FLOOR
SCALE: 1 : 100

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TITLE
FIRST FLOOR FRONT & COMMUNAL OUTDOOR LIVING REAR (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:24:12 PM

23.016

REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
A103

EXISTING PATH

PUBLIC ACCESS WAY (6000 WIDE)

METAL SHED

EXISTING COMMERCIAL BUILDING

VET SURGERY
F.F.L.L. 33.65 AHD

NO: 55

UP

EAVES GUTTER

FALL

3000

LOOK OUT

5680

GUTTER

3525

2000

ROOF FALL

AC PLANT U1 - U8

ROOF FALL

TRANSPARENT ROOF SHEETING FOR RAINWATER CATCHMENT

TRANSLUCENT ROOFING

AIR FLOW

AC PLANT U9/10/11/12

AC PLANT U13/U14

INCREASED SETBACK OF SHADING STRUCTURES TO REDUCED VISIBLE PERCEPTION OF BUILDING BULK AND SCALE

EXTRA SETBACK

PROVISON FOR SOLAR PANELS

96 Panels= 30-40kw

B A301

1000 VARIATION SOUGHT

4000

PASSIVE SURVEILENCE OVER PUBLIC DOWN

MARRI ROAD

C A302 E A303 D A302

A A301

1-MULCHED GARDEN BEDS AND SURROUNDS

2-EXTERIOR TILE
BALCONY AND EXTERNAL WALKWAYS

3-WET AREA TILE
ENSUITE AND BATHROOMS

4-CARPET
BEDROOMS

5-CONCRETE FINISH
STORE ROOMS

6-TIMBER FLOOR
KITCHEN AND LIVING AREAS

7-HERRINGBONE PAVING
GARAGE AND COURTYARDS

8-BRUSHED FINISH CONCRETE
CROSSOVER AND WALKWAYS

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TITLE

ROOF PLAN (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

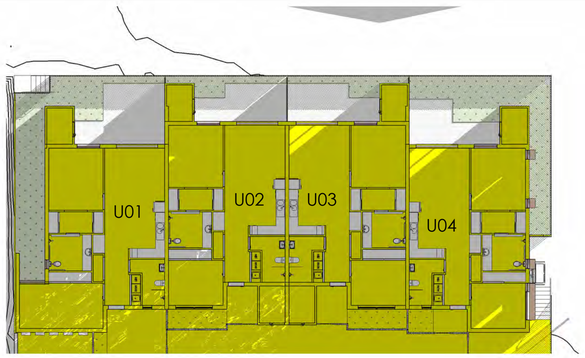
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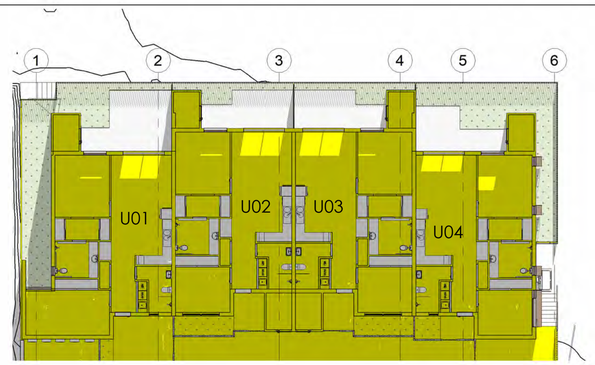
REVISION
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PROJECT STATUS
DA

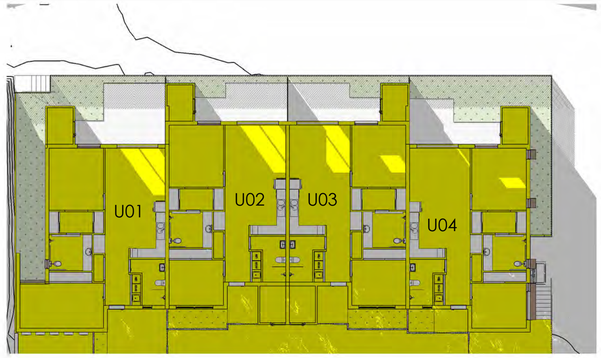
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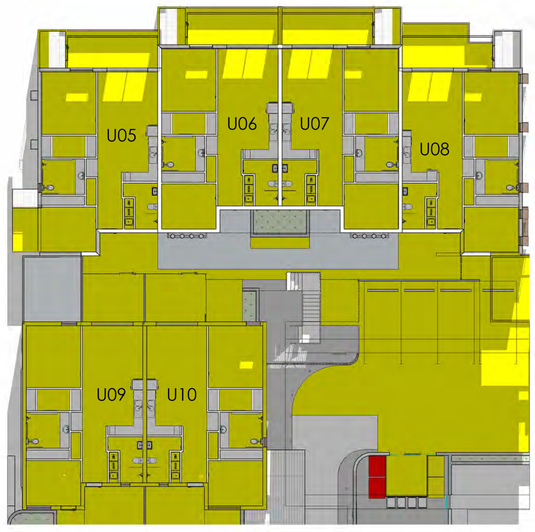
LOWER G.FL. SHADOW- 21ST JUNE @ 9AM



LOWER G.FL. SHADOW- 21ST JUNE @ 12PM



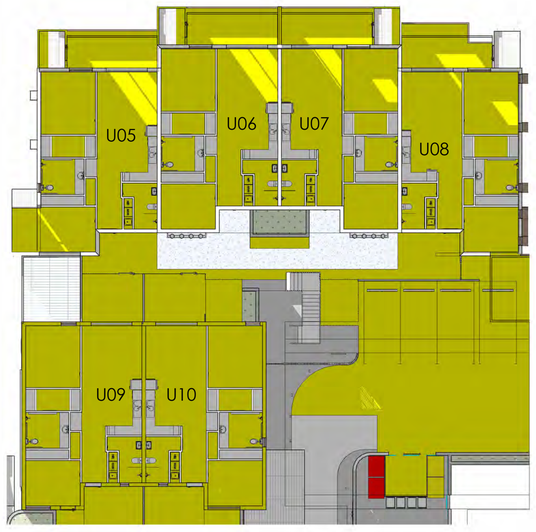
LOWER G.FL. SHADOW- 21ST JUNE @ 3PM



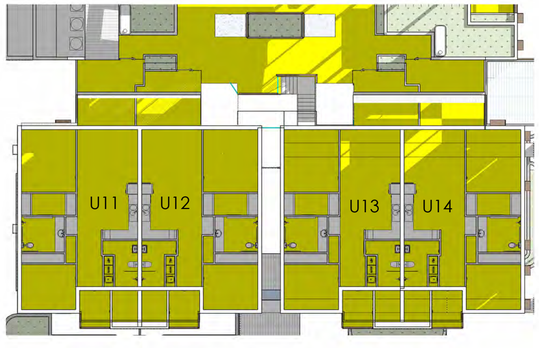
UPPER G.FL. SHADOW- 21ST JUNE @ 9AM



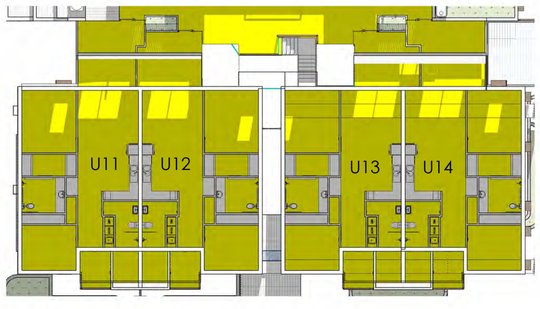
UPPER G.FL. SHADOW- 21ST JUNE @ 12PM



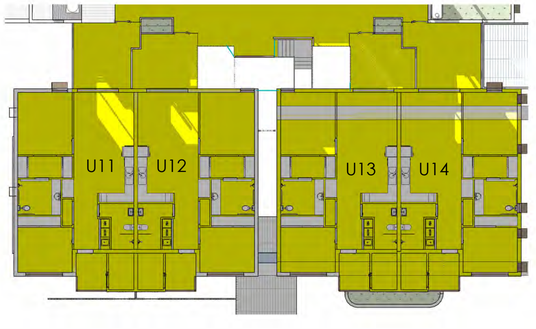
UPPER G.FL. SHADOW- 21ST JUNE @ 3PM



FIRST FL. SHADOW- 21ST JUNE @ 9AM



FIRST FL. SHADOW- 21ST JUNE @ 12PM



FIRST.FL. SHADOW- 21ST JUNE @ 3PM

SCHEDULE OF DIRECT WINTER LIGHT:
Unit 1-(11am-3pm) 4hours
Unit 2-(9am-3pm) 6hours
Unit 3-(9am-3pm) 6hours
Unit 4-(9am-3pm) 6hours

Unit 5-(10am-3pm) 5hours
Unit 6-(9am-3pm) 6hours
Unit 7-(9am-3pm) 6hours
Unit 8-(9am-3pm) 6hours

Unit 9- indirect ambient light predominately:
Living room (3-5pm)2 Hours
Bedroom (1pm-3pm direct sunlight) 4 hours

Unit 10 -indirect ambient light predominately:
Living room (no direct light)
Bedroom (10-2pm) 4 hours

Unit 11-(9am-3pm) 6hours
Unit 12-(10am-3pm) 5hours
Bedroom (1oam-2pm) 4hours

Unit 13-(9am-2pm) 5 hours
Unit 14-(9am-3pm) 6 hours

Minimum 70% compliant (yes)
12/14=85% compliant

Maximum 15% of dwellings non- compliant (yes)
2/14=14%
Compliant

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TITLE
SUNLIGHT PENETRATION DIAGRAM (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

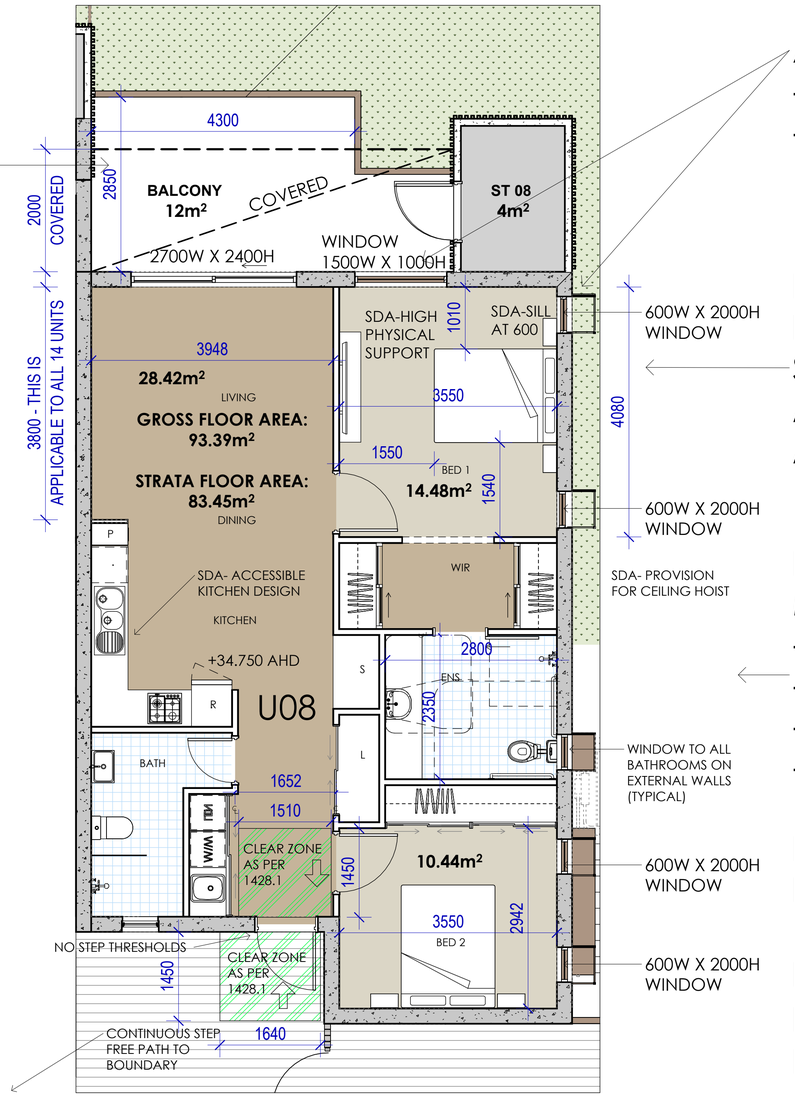
DATE
6/12/2024 5:24:44 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **A105**

TYPICAL UNIT
SPECIALIST DISABILITY ACCOMODATION (SDA)

NDIS Goals
-Assist participants with self determination
-Promote opportunities for social interaction
-Promote economic Participation

ALL BALCONIES TO BE
12m² @ 2800x4300 OR
A MIN. WIDTH OF 2.40m



ACCESSIBLE AWNING WINDOWS
-10% NATURAL LIGHT
-20% VENTILATION

EACH UNIT INCLUDES ALL SDA REQUIREMENTS IN THE **HIGH PHYSICAL SUPPORT CATEGORY.**
ALL UNITS ARE 2x2, WITH BETTER AMENITY THAN HAVING 20% 1x1 UNITS.

BEDROOM 2
MULTI FUNCTION ROOM
-COHABITATION
-HOME OFFICE
-CARERGIVER ACCOMODATION
-OTHER TYPICAL PROVISION

HABITABLE ROOMS REQUIRE 10% OF FLOOR AREA GLAZED.
B1 = 14.48; 10% = 1.448
W 1500 x 1000 = 1.50m² ; W 2 x 600 x 2000 = 2.40m²
B1 TOTAL = 1.50 + 2.40 = **3.90m²; ∴COMPLIES**
B2 = 10.44m² = 1.04m²; 2 x W 600x 2000 = **2.40 m²∴COMPLIES**
LIVING DINING KITCHEN = 28.42m² x 10% = 2.842m²
PROVIDED = **6.48m²; ∴COMPLIES**
GLAZED AREAS + VENTILATION IS GREATER THAN 10% & 20% OF THE REQUIREMENTS.

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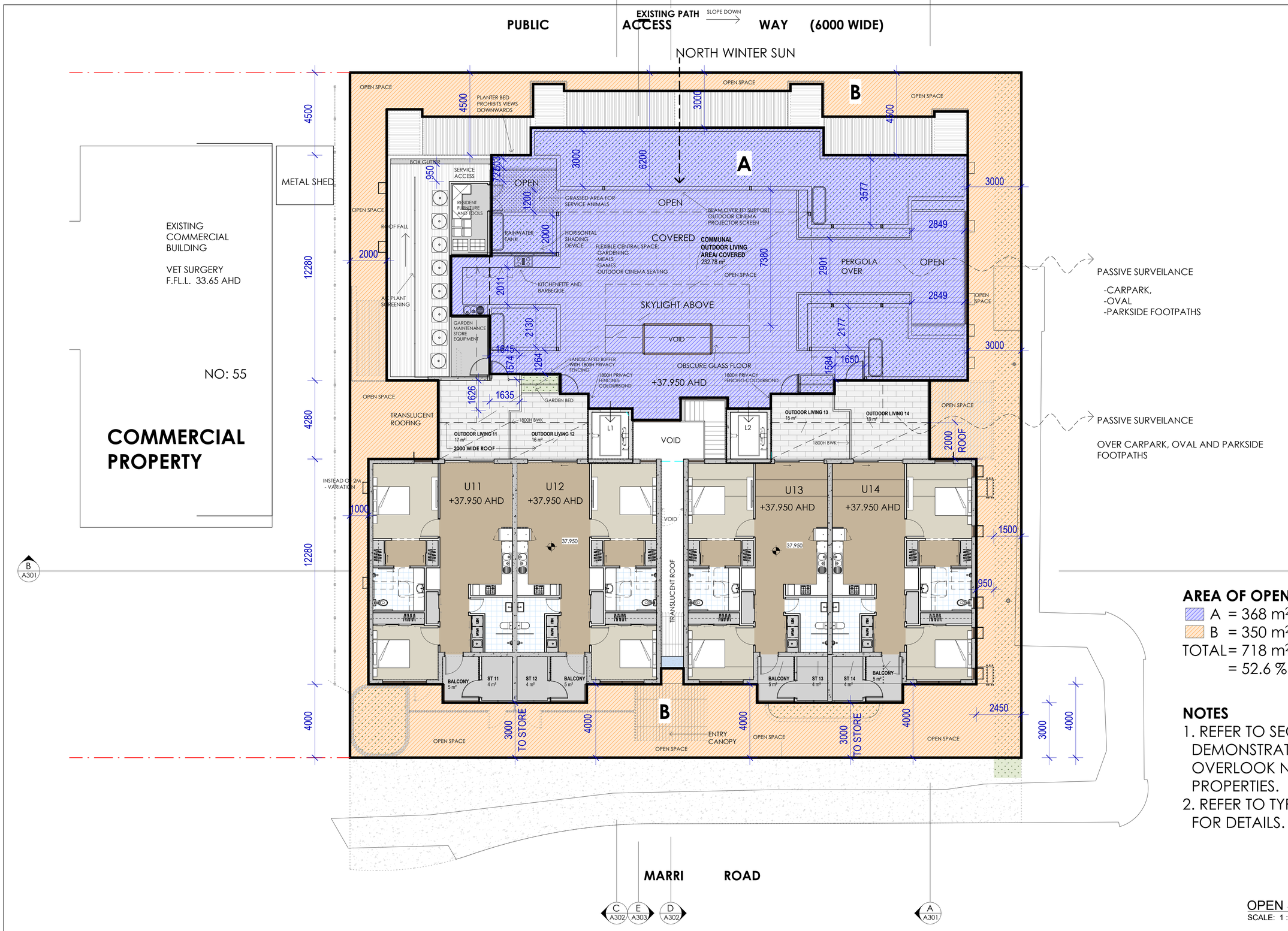
TITLE
TYPICAL UNIT PLAN
(NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
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PROJECT STATUS **DA**
DRAWING NUMBER **A106**



AREA OF OPEN SPACE:

A = 368 m²
B = 350 m²
TOTAL = 718 m² OPEN SPACE
= 52.6 %

NOTES

1. REFER TO SECTION DRAWING WHICH DEMONSTRATES IMPOSSIBLE TO OVERLOOK NORTHERN RESIDENTIAL PROPERTIES.
2. REFER TO TYPICAL APARTMENT PLAN FOR DETAILS. DWG DA. A106.

OPEN SPACE CALCULATIONS
SCALE: 1 : 100

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TITLE
OPEN SPACE CALCULATIONS (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

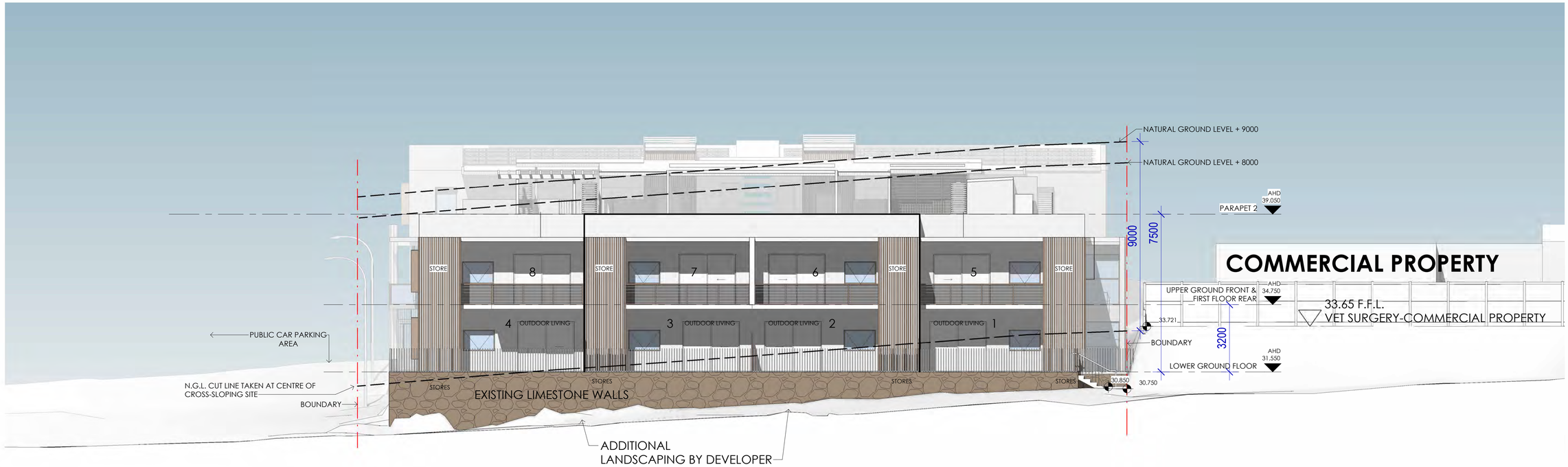
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
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23.016
REVISION **B**
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DRAWING NUMBER **A107**



SOUTH ELEVATION- VIEW FROM MARRI ROAD



NORTH ELEVATION- VIEW FROM 6000MM WIDE PUBLIC ACCESSWAY

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TITLE
ELEVATIONS (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

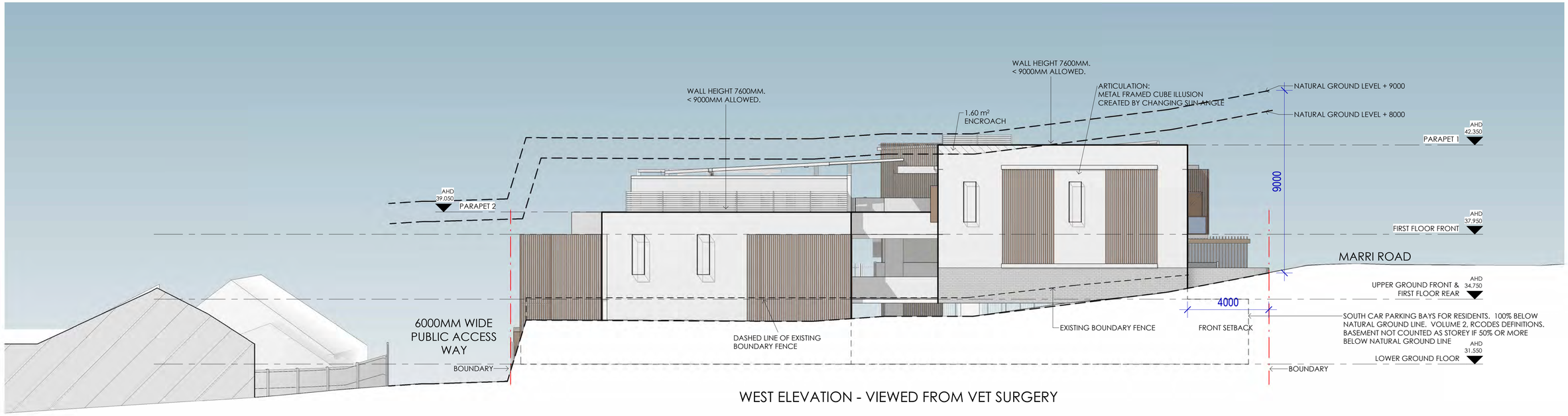
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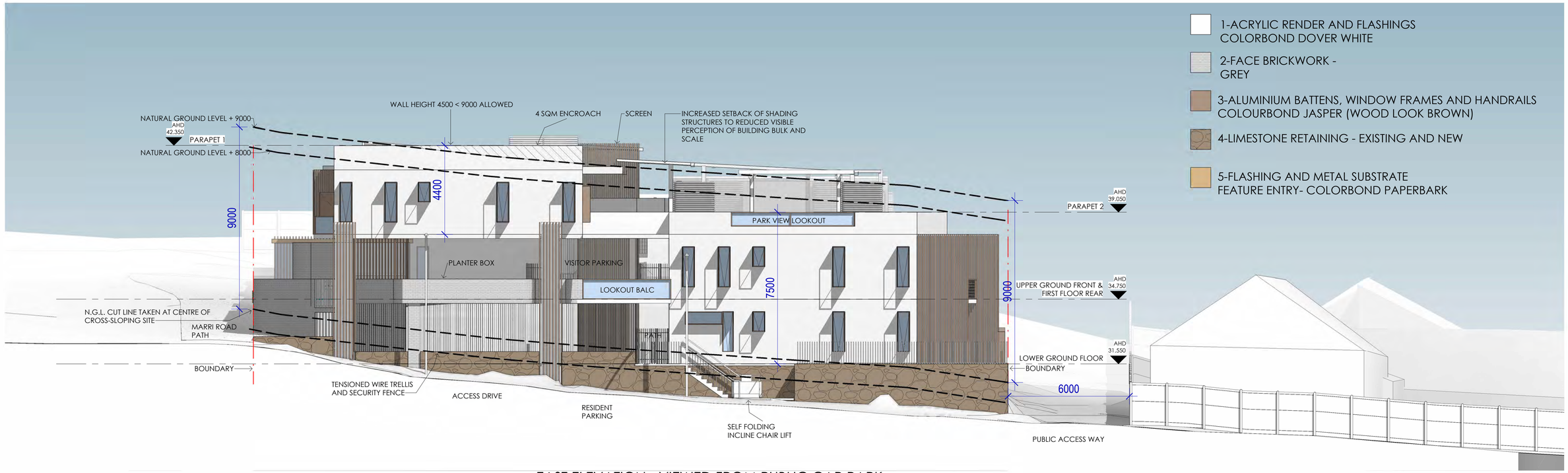
PROJECT STATUS
DA

DRAWING NUMBER
A201



WEST ELEVATION - VIEWED FROM VET SURGERY

COLOURS AND EXTERIOR DESIGN REFERENCES THE NATURAL PALETTE OF THE IMMEDIATE CONTEXT



EAST ELEVATION - VIEWED FROM PUBLIC CAR PARK

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TITLE
ELEVATIONS (NO ADJOINING RESIDENTIAL PROPERTIES)

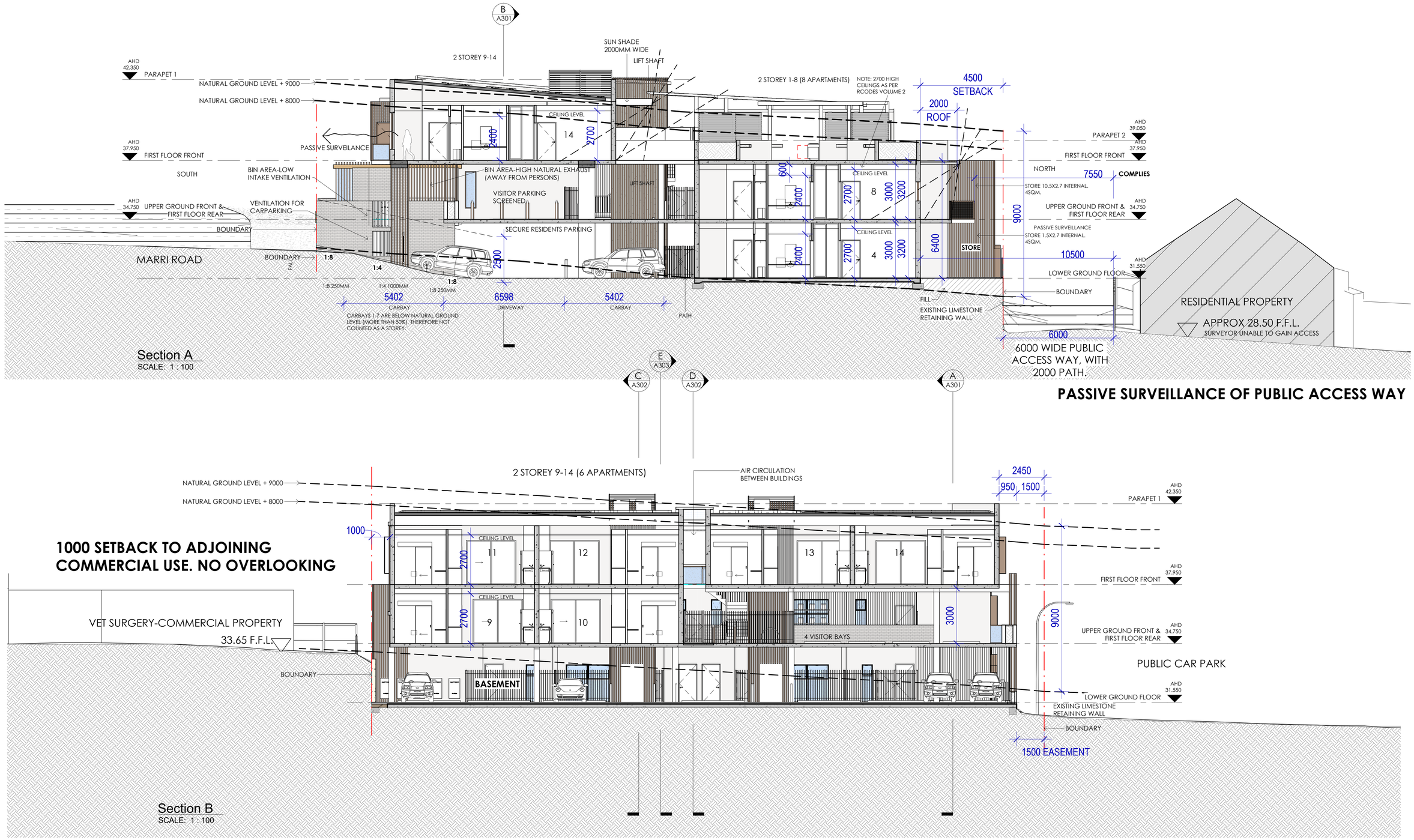
0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:26:37 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **A202**



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TITLE
SECTIONS
(NO ADJOINING RESIDENTIAL PROPERTIES)

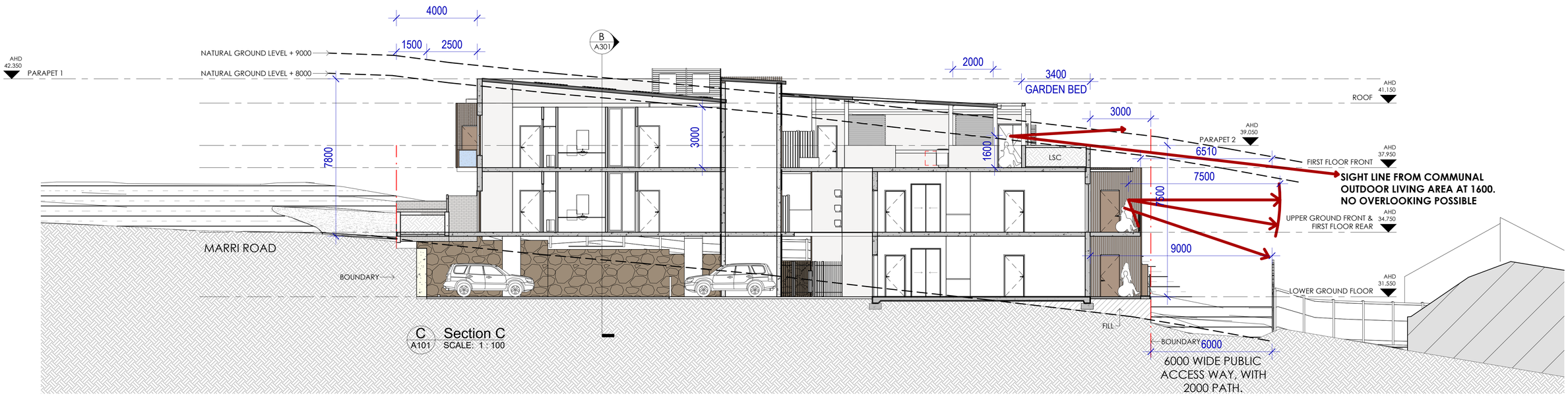
0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

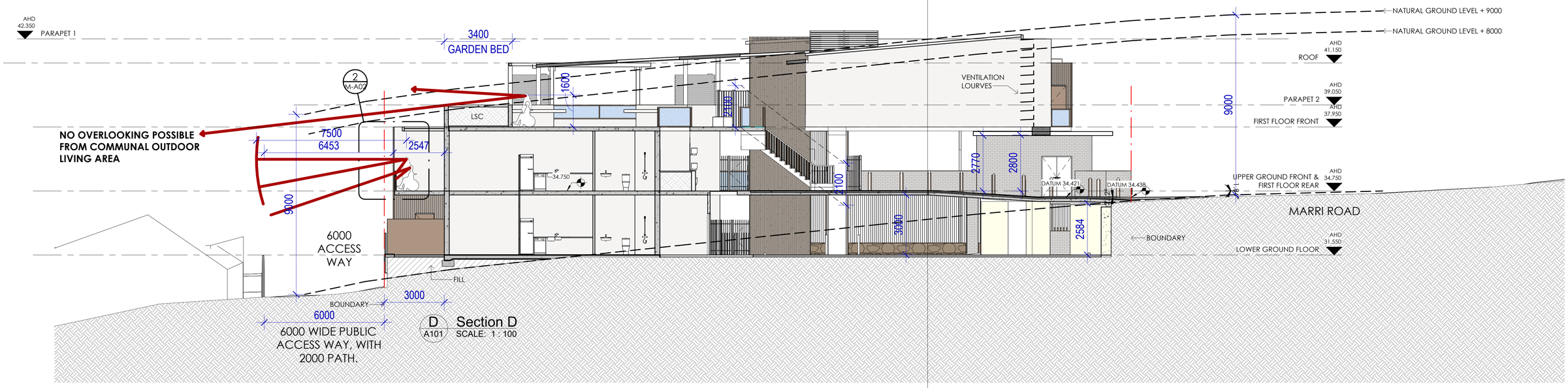
TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:26:48 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **A301**





NO OVERLOOKING FROM COMMUNAL OUTDOOR LIVING AREA

NO OVERLOOKING FROM COMMUNAL OUTDOOR LIVING AREA

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TITLE

SECTIONS (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

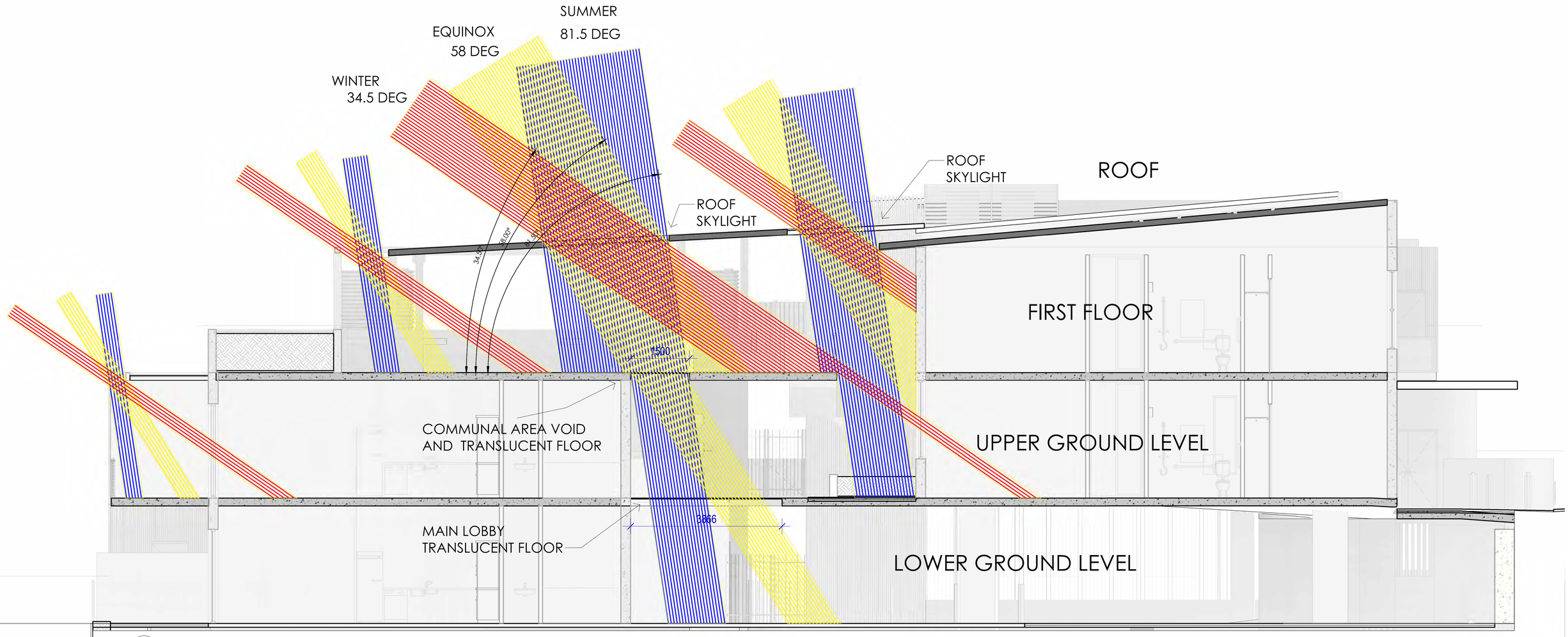
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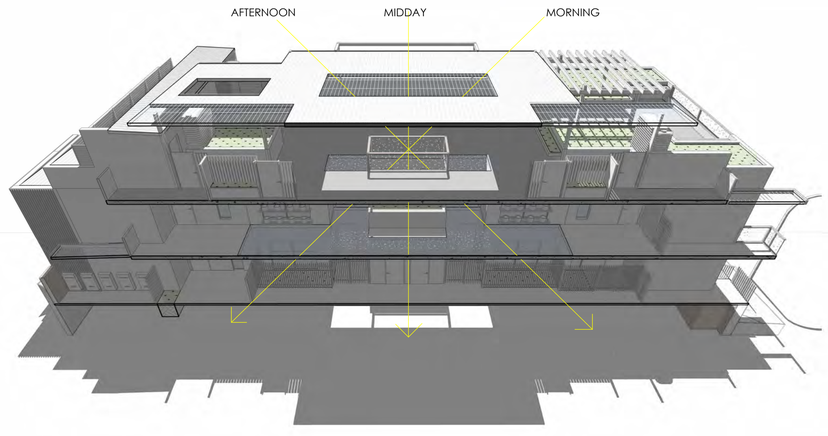
REVISION
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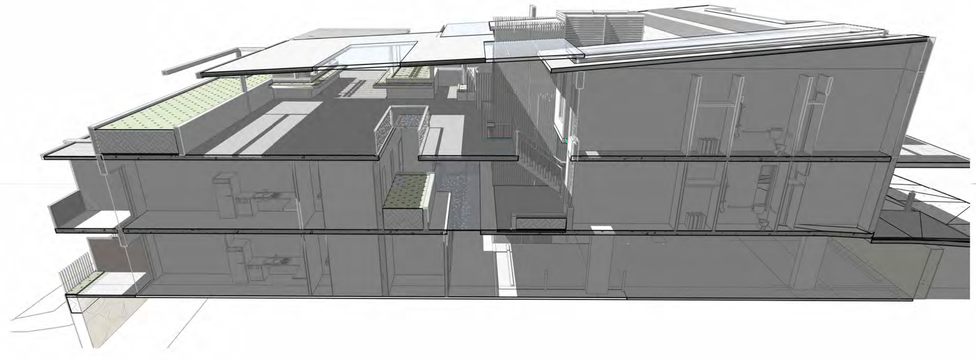
PROJECT STATUS
DA

DRAWING NUMBER
A302



E A101 Section E-Light Ingress
SCALE: 1 : 50





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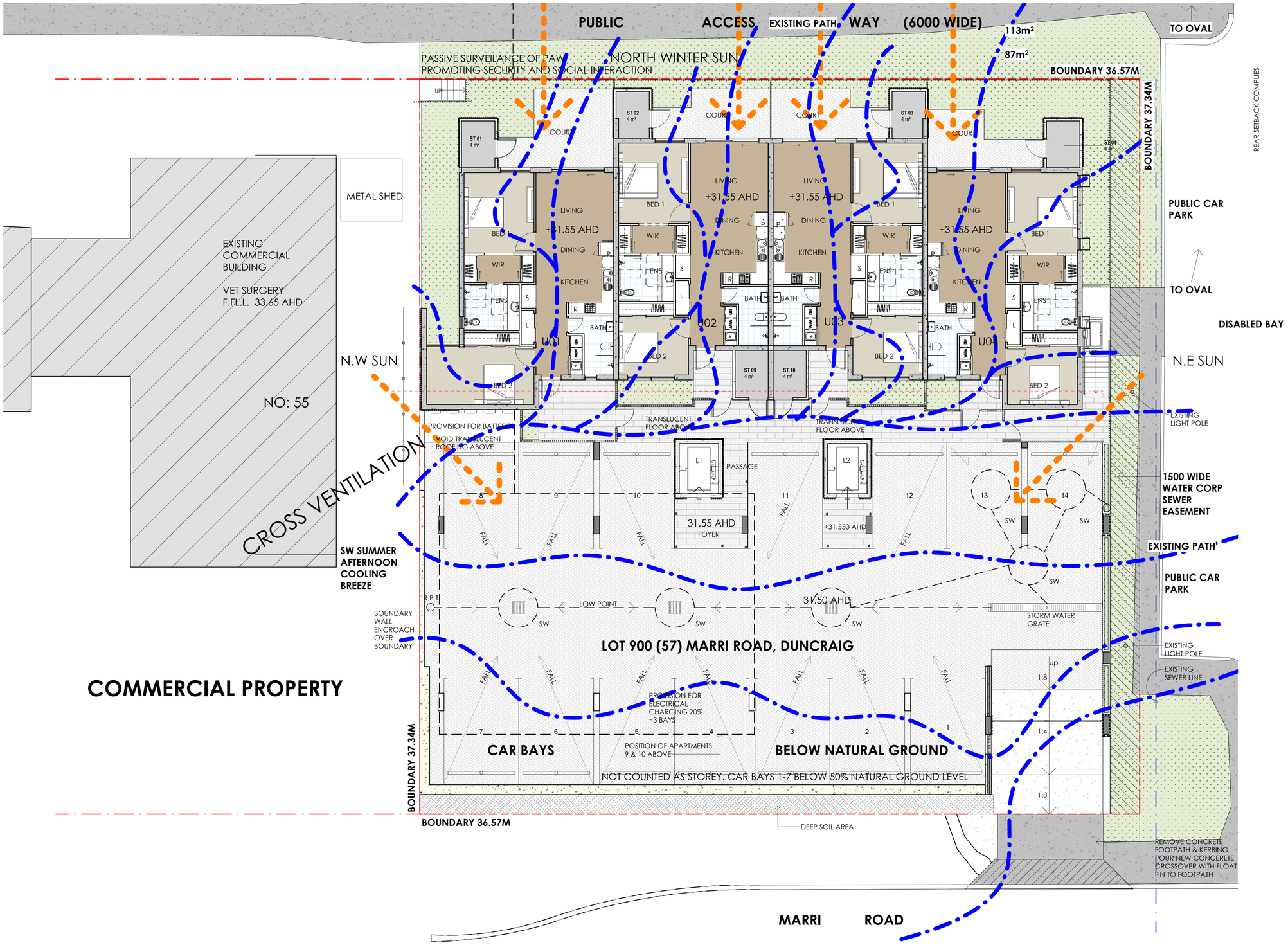
TITLE
SECTIONS-SOLAR INGRESS TO CORE (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:27:19 PM

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PROJECT STATUS DA
DRAWING NUMBER A303



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TITLE
LIGHT AND VENTILATION-Lower Ground (NO ADJOINING RESIDENTIAL PROPERTIES)

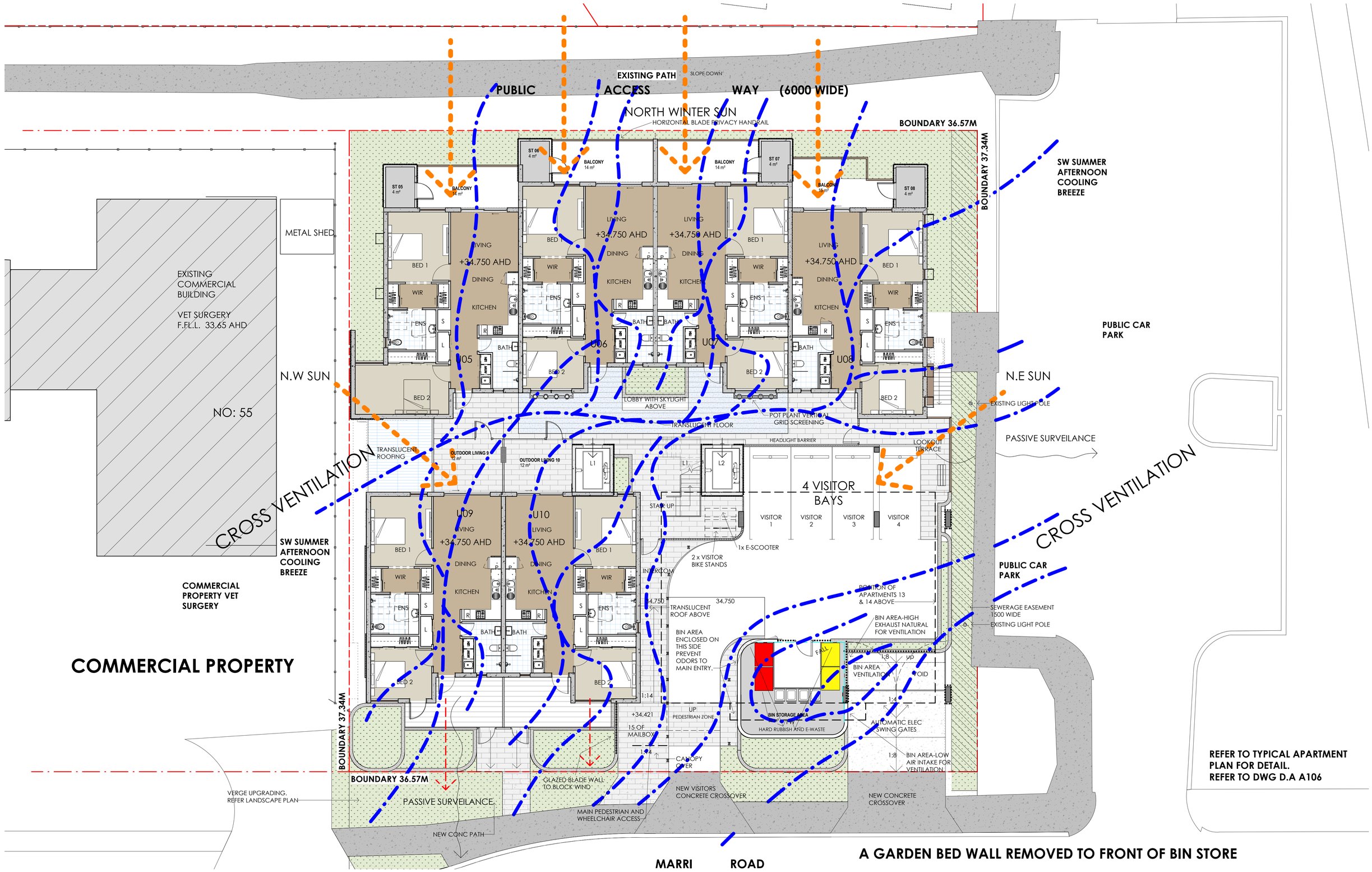
0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:41 PM

23.016
REVISION B
PROJECT STATUS DA
DRAWING NUMBER A500



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TITLE

LIGHT AND VENTILATION-Upper Ground (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE 6/12/2024 5:28:44 PM

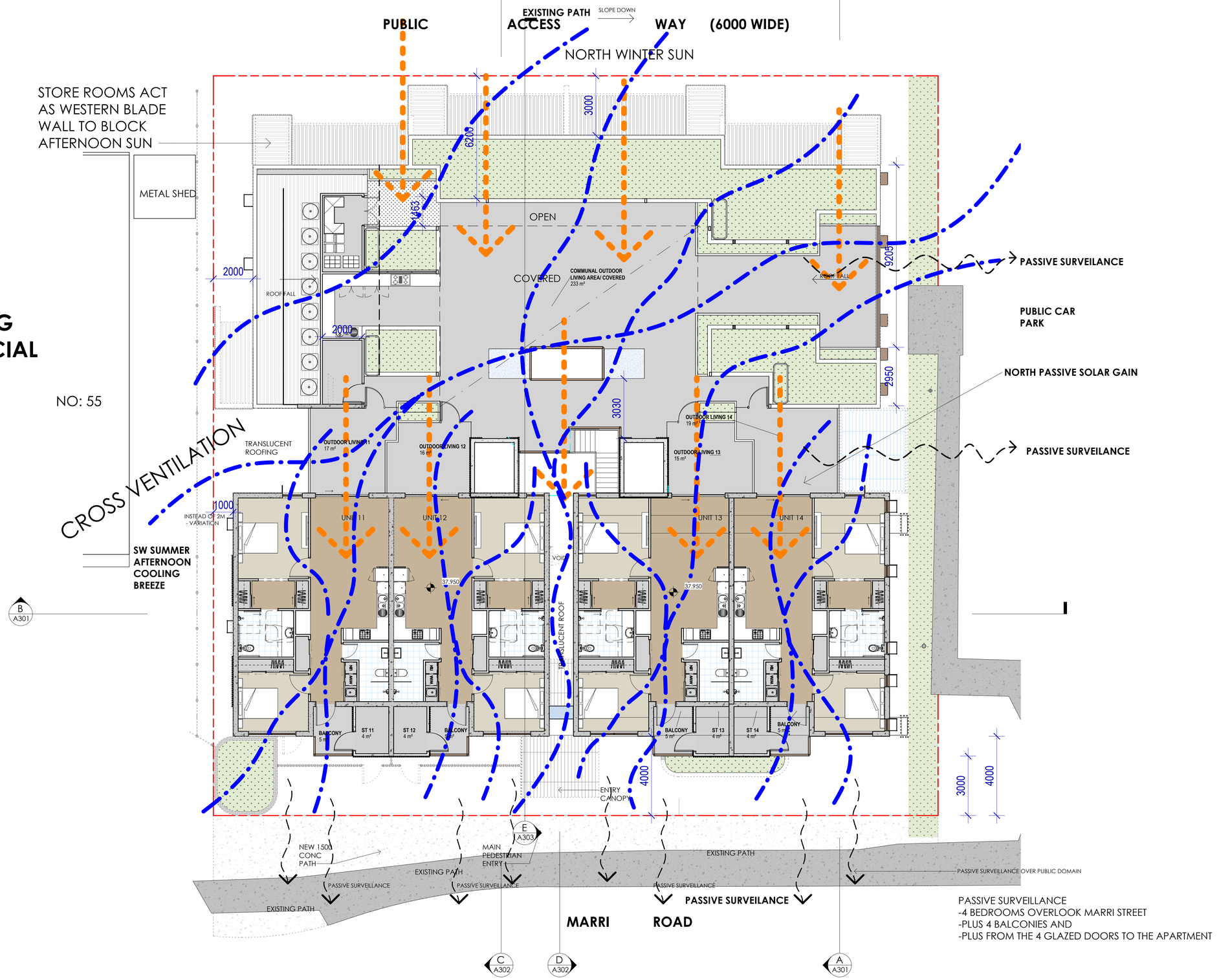
23.016

REVISION B

PROJECT STATUS DA

DRAWING NUMBER A501

1 1. Upper Ground-Light & Ventilation



PASSIVE SURVEILLANCE
-4 BEDROOMS OVERLOOK MARRI STREET
-PLUS 4 BALCONIES AND
-PLUS FROM THE 4 GLAZED DOORS TO THE APARTMENT

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TITLE
LIGHT AND VENTILATION-First Floor (REFER TO TYPICAL PLAN FOR APARTMENT DETAILS)
(NO ADJOINING RESIDENTIAL PROPERTIES)

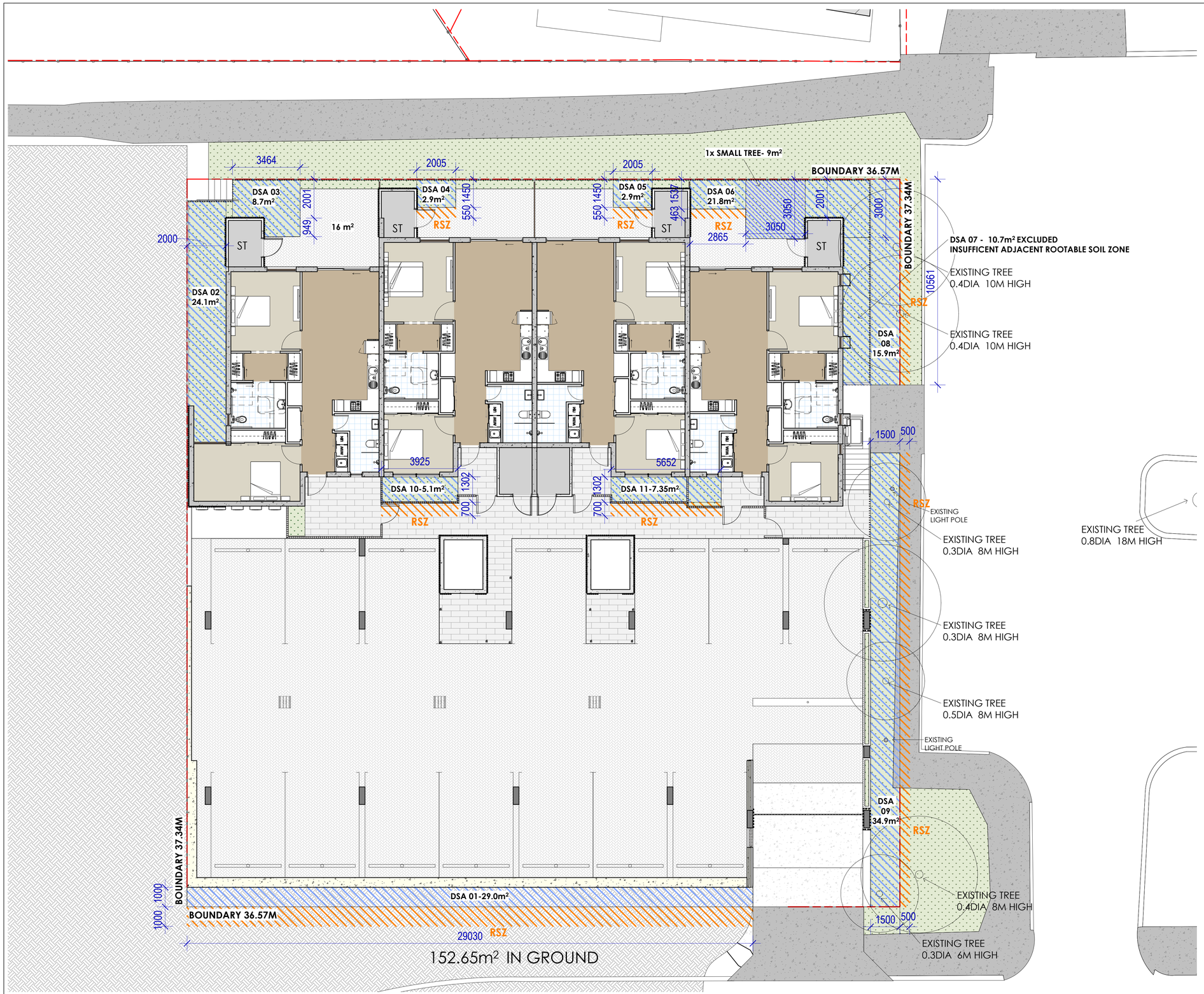
0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:46 PM

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REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **A502**



SOFT LANDSCAPING:

REQURED
15% x 1365m²=204.8m²

PROVIDED:
16% x 1365.52m²= 225.6m²

COMPLIANT

SOFT LANDSCAPING

DSA NAME	ON GROUND	ON STRUCTURE
DSA 01	29	
DSA 02	24.1	
DSA 03	8.7	
DSA 04	2.9	
DSA 05	2.9	**152.65m² LOWER GROUND**
DSA 06	21.8	
DSA 07 EXCLUDED	0	
DSA 08	15.9	
DSA 09	34.9	
DSA 10	5.1	
DSA 11	7.35	
DSA 12		9.5
DSA 13	**20.25m²(38.5) UPPER GROUND**	8.7
DSA 14		10
DSA 15		
DSA 16		10.3
DSA 17 EXCLUDED		0
DSA 18		7.5
DSA 19	**52.7m²(105.4) FIRST FLOOR**	7.8
DSA 20		44.2
DSA 21		24.4
DSA 22		21.5
SUB TOTAL	153.65	143.9
ADJUSTED	153.65 +	71.95

TOTAL DSA(SOFT LANDSCAPING) AREA: 225.6

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TITLE
DEEP SOIL AREA - Lower Ground (NO ADJOINING RESIDENTIAL PROPERTIES)

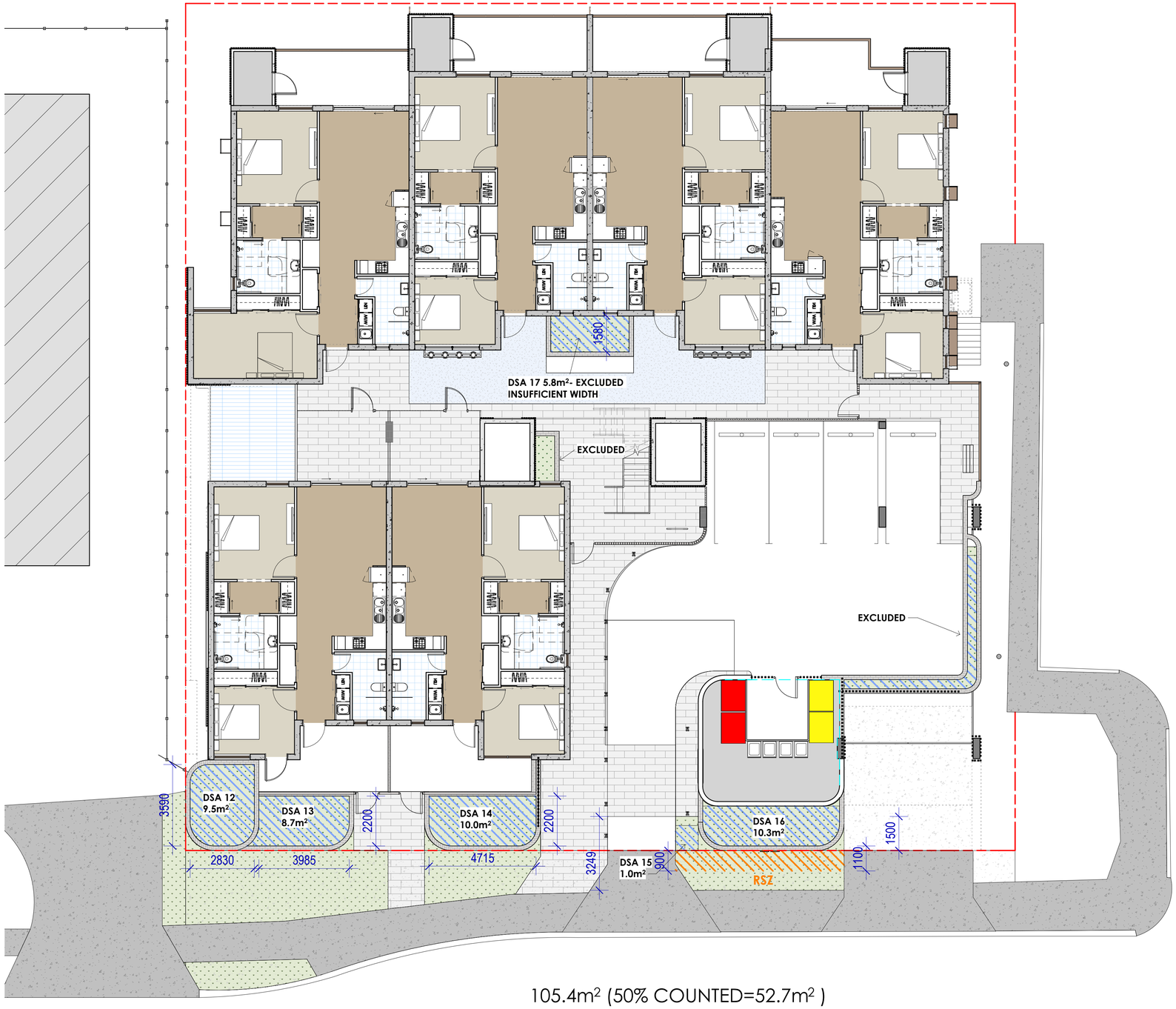
0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:48 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **DSA01**



105.4m² (50% COUNTED=52.7m²)

SOFT LANDSCAPING

DSA NAME	ON GROUND		ON STRUCTURE
DSA 01	29		
DSA 02	24.1		
DSA 03	8.7		
DSA 04	2.9		
DSA 05	2.9	**152.65m² LOWER GROUND**	
DSA 06	21.8		
DSA 07 EXCLUDED	0		
DSA 08	15.9		
DSA 09	34.9		
DSA 10	5.1		
DSA 11	7.35		
DSA 12			9.5
DSA 13		**20.25m²(38.5) UPPER**	8.7
DSA 14			10
DSA 15	1	**GROUND**	
DSA 16			10.3
DSA 17 EXCLUDED			0
DSA 18			7.5
DSA 19		**52.7m²(105.4) FIRST FLOOR**	7.8
DSA 20			44.2
DSA 21			24.4
DSA 22			21.5
SUB TOTAL	153.65		143.9
ADJUSTED	153.65	+	71.95

TOTAL DSA(SOFT LANDSCAPING) AREA: 225.6

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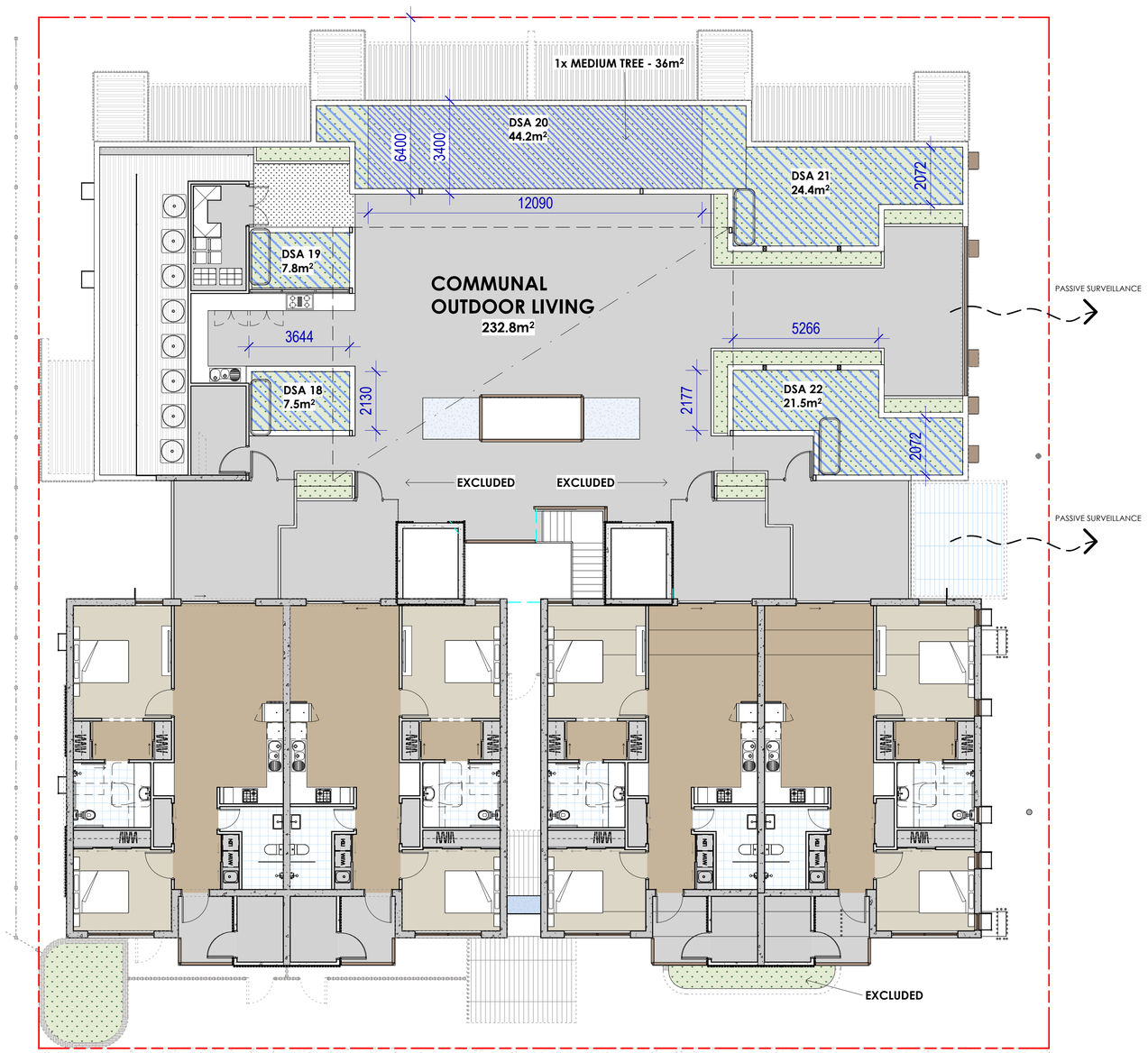
TITLE
DEEP SOIL AREA - Upper Ground
(NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:51 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **DSA02**



105.4m² (50% COUNTED=52.7m²)

SOFT LANDSCAPING

DSA NAME	ON GROUND		ON STRUCTURE
DSA 01	29		
DSA 02	24.1		
DSA 03	8.7		
DSA 04	2.9		
DSA 05	2.9	**152.65m² LOWER GROUND**	
DSA 06	21.8		
DSA 07 EXCLUDED	0		
DSA 08	15.9		
DSA 09	34.9		
DSA 10	5.1		
DSA 11	7.35		
DSA 12			9.5
DSA 13		**20.25m²(38.5) UPPER**	8.7
DSA 14			10
DSA 15	1	**GROUND**	
DSA 16			10.3
DSA 17 EXCLUDED			0
DSA 18			7.5
DSA 19		**52.7m²(105.4) FIRST FLOOR**	7.8
DSA 20			44.2
DSA 21			24.4
DSA 22			21.5
SUB TOTAL	153.65		143.9
ADJUSTED	153.65	+	71.95

TOTAL DSA(SOFT LANDSCAPING) AREA: 225.6

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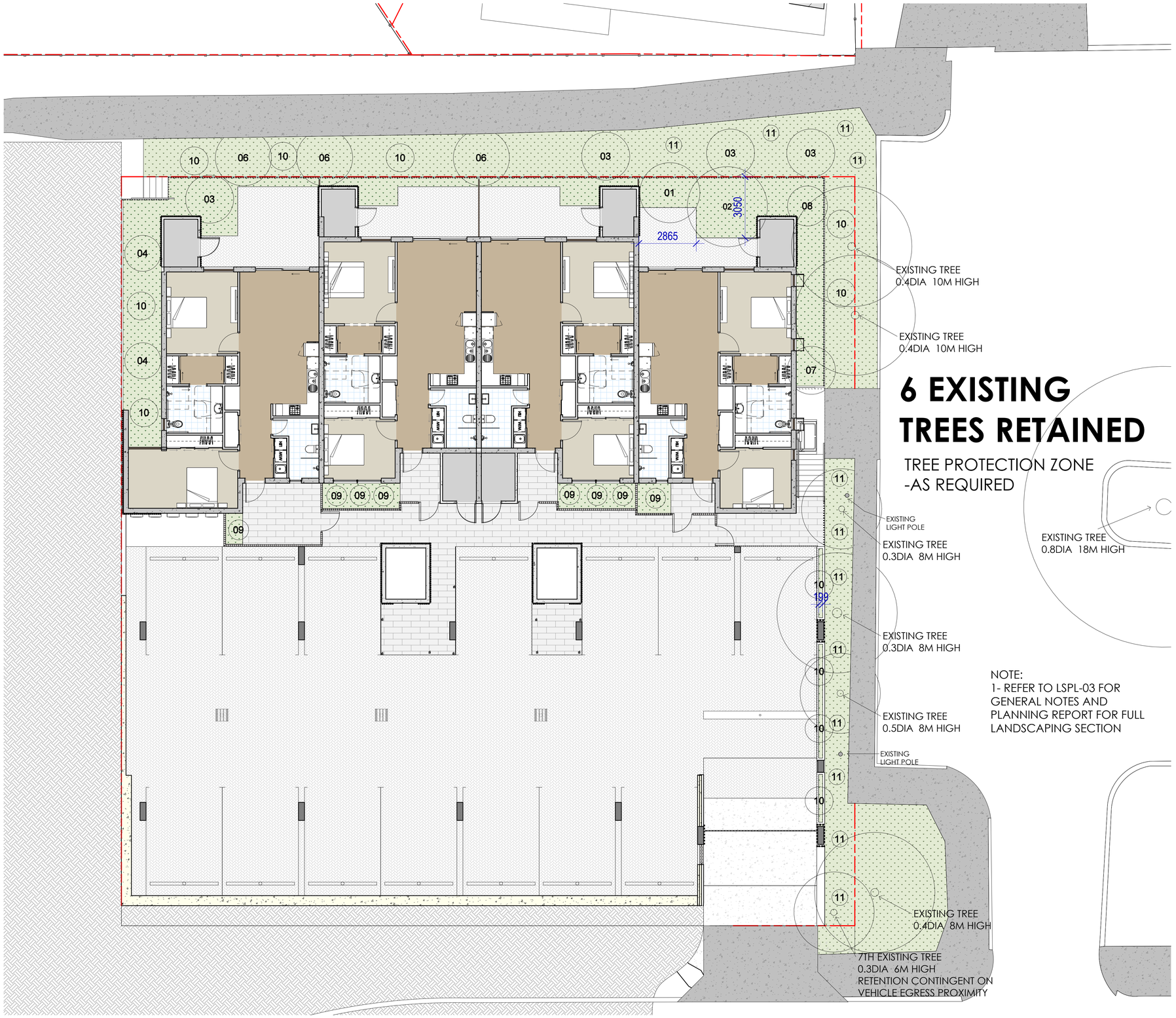
TITLE
DEEP SOIL AREA - First Floor
(NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:53 PM

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REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **DSA03**



6 EXISTING TREES RETAINED

TREE PROTECTION ZONE
-AS REQUIRED

NOTE:
1- REFER TO LSPL-03 FOR GENERAL NOTES AND PLANNING REPORT FOR FULL LANDSCAPING SECTION

PLANT LEGEND

ALL PLANTS SELECTED FROM CITY OF JOONDALUP GROWING LOCALS IN KARRAKATTA SOILS DOCUMENT.

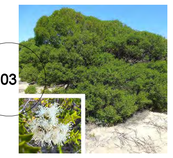
RETICULATION TO BE CARRIED OUT IN ACCORDANCE WITH WATER CORP "BEING"WATERWISE"



01
Trees
Banksia menziesii
Firewood Banksia



02
Trees
Eucalyptus foecunda



03
Shrubs3-5m
Melaleuca cardiophylla



04
Shrubs 3-5m
Kunzea glabrescens
Spearwood



05
Shrubs 3-5m
Acacia cyclops
Red Eyed Wattle



06
Shrubs 3-5m
Acacia saligna
Orange Wattle



07
Shrubs 3-5m
Spyridium globulosum
Basket Bush



08
Shrubs3-5m
Daviesia divaricata
No Common Name



09
Shrub under 1m
Hibbertia racemosa
Stalked Guinea Flower



10
Climbers and Ground Cover
Hardenbergia comptoniana
Native Wisteria



10-alt
Climbers and Ground Cover
Hemiandra pungens
Snake Bush



10-alt
Climbers and Ground Cover
Kennedia prostrata
Scarlet Runner



11
Clumps at 600mm centres
Anigozanthos humilis
Cats Paw



11-alt
Clumps at 600mm centres
Anigozanthos manglesii
Kangaroo Paw



11-alt
Conostylis acculeata
Cotton Heads



11-alt
Dampiera linearis
Common Dampiera



11-alt
Orthrosanthus laxus
Morning Iris



11-alt
Patersonia occidentalis
Purple Flag

ENTIRE LANDSCAPING AREA TO HAVE 100MM OF WOOD MULCH.

SOFT LANDSCAPING REQUIREMENT:
REQUIRED 205m² PROVIDED 225.6m²
SOFT L/SC TO FRONTAGE : PROVIDED 38m²

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TITLE
LANDSCAPING PLAN 01-Lower Ground (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

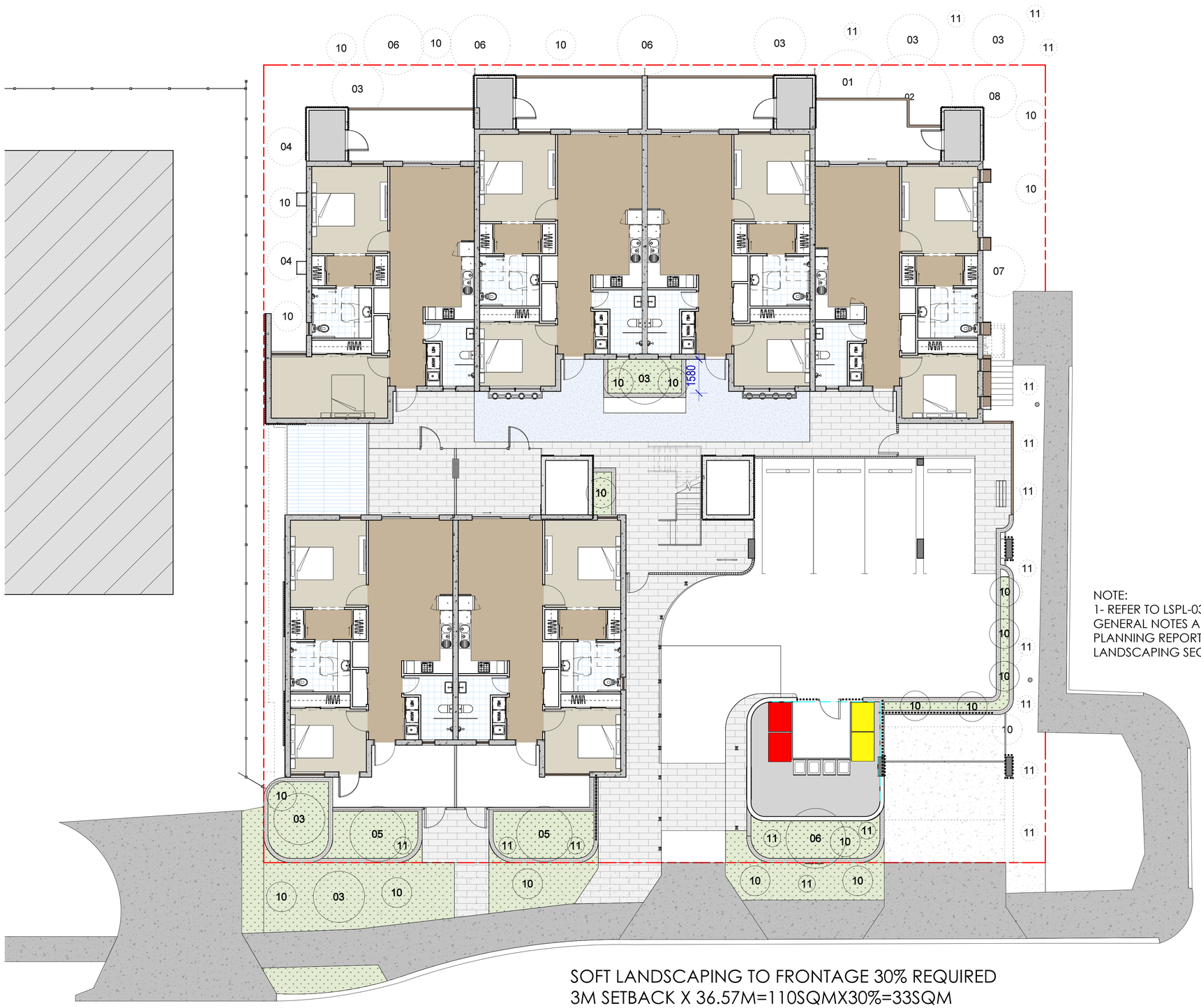
TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DR OMID RISMANCHIAN|**ENT**
PHD LAA (EDIN) BARCH ALAA AAIA
DOEPEL MARSH - LANDSCAPE ARCHITECT

DATE
6/12/2024 5:28:55 PM

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PROJECT STATUS DA
DRAWING NUMBER LAPL 01



SOFT LANDSCAPING TO FRONTAGE 30% REQUIRED
3M SETBACK X 36.57M=110SQMX30%=33SQM
PROVIDED=38SQM COMPLIES

PLANT LEGEND

ALL PLANTS SELECTED FROM CITY OF JOONDALUP GROWING LOCALS IN KARRAKATTA SOILS DOCUMENT.

RETICULATION TO BE CARRIED OUT IN ACCORDANCE WITH WATER CORP "BEING"WATERWISE"



01
Trees
Banksia menziesii
Firewood Banksia



02
Trees
Eucalyptus foecunda



03
Shrubs3-5m
Melaleuca cardiophylla



04
Shrubs 3-5m
Kunzea glabrescens
Spearwood



05
Shrubs 3-5m
Acacia cyclops
Red Eyed Wattle



06
Shrubs 3-5m
Acacia saligna
Orange Wattle



07
Shrubs 3-5m
Spyridium globulosum
Basket Bush



08
Shrubs3-5m
Daviesia divaricata
No Common Name



09
Shrub under 1m
Hibbertia racemosa
Stalked Guinea Flower



10
Climbers and Ground Cover
Hardenbergia comptoniana
Native Wisteria



10-alt
Climbers and Ground Cover
Hemiandra pungens
Snake Bush



10-alt
Climbers and Ground Cover
Kennedia prostrata
Scarlet Runner



11
Clumps at 600mm centres
Anigozanthos humilis
Cats Paw



11-alt
Clumps at 600mm centres
Anigozanthos manglesii
Kangaroo Paw



11-alt
Conostylis acculeata
Cotton Heads



11-alt
Dampiera linearis
Common Dampiera



11-alt
Orthrosanthus laxus
Morning Iris



11-alt
Patersonia occidentalis
Purple Flag

ENTIRE LANDSCAPING AREA TO HAVE 100MM OF WOOD MULCH.

SOFT LANDSCAPING REQUIREMENT:
REQUIRED 205m² PROVIDED 225.6m²
SOFT L/SC TO FRONTAGE : PROVIDED 38m²

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TITLE
LANDSCAPING PLAN 02-Upper Ground (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100@ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL

DR OMID RISMANCHIAN|**ENT**
PHD LAA (EDIN) BARCH ALAA AAIA
DOEPEL MARSH - LANDSCAPE ARCHITECT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:58 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **LAPL 02**



NOTE 1:
1-REFER TO PLANNING REPORT FOR LANDSCAPE ELEMENT DETAILS. LANDSCAPE LEGEND REFER TO DA-DSA03

NOTE 2:
1. ALL TREES 100L BAG SIZE

2. SHRUBS - 300MM DIA POTS, @1000MM CENTRES, STAGGERED

3. GROUND COVERS 150MM DIA POTS, @ 750MM CENTERS, STAGGERED.

4. TOP ALL NEW AREAS AND AROUND THE EXISTING 6 TREES WITH 100MM OF HARD WOOD CHIPS.

5. ALL GARDEN BEDS TO BE SUPPLIED WITH TOP SOIL BLEND TO A DEPTH OF 200MM BELOW ROOT BALL.

6. STAKE ALL TREES WITH HARD WOOD STAKES 50MM SQUARE, AND TIE WITH FLEXIBLE CLOTH 50MM WIDE AT TWO LOCATIONS IN A FIGURE 8 TIE.



FIGURE 1- REFERENCE ONLY - COMMUNAL GARDEN

PLANT LEGEND

ALL PLANTS SELECTED FROM CITY OF JOONDALUP GROWING LOCALS IN KARRAKATTA SOILS DOCUMENT.

RETICULATION TO BE CARRIED OUT IN ACCORDANCE WITH WATER CORP "BEING"WATERWISE"



01
Trees
Banksia menziesii
Firewood Banksia



02
Trees
Eucalyptus foecunda



03
Shrubs3-5m
Melaleuca cardiophylla



04
Shrubs 3-5m
Kunzea glabrescens
Spearwood



05
Shrubs 3-5m
Acacia cyclops
Red Eyed Wattle



06
Shrubs 3-5m
Acacia saligna
Orange Wattle



07
Shrubs 3-5m
Spyridium globulosum
Basket Bush



08
Shrubs3-5m
Daviesia divaricata
No Common Name



09
Shrub under 1m
Hibbertia racemosa
Stalked Guinea Flower



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Climbers and Ground Cover
Hardenbergia comptoniana
Native Wisteria



10-alt
Climbers and Ground Cover
Hemiandra pungens
Snake Bush



10-alt
Climbers and Ground Cover
Kennedia prostrata
Scarlet Runner



11
Clumps at 600mm centres
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Cats Paw



11-alt
Clumps at 600mm centres
Anigozanthos manglesii
Kangaroo Paw



11-alt
Conostylis acculeata
Cotton Heads



11-alt
Dampiera linearis
Common Dampiera



11-alt
Orthrosanthus laxus
Morning Iris



11-alt
Patersonia occidentalis
Purple Flag

ENTIRE LANDSCAPING AREA TO HAVE 100MM OF WOOD MULCH.

SOFT LANDSCAPING REQUIREMENT:
REQUIRED 205m² PROVIDED 225.6m²
SOFT L/SC TO FRONTAGE : PROVIDED 38m²

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TITLE
LANDSCAPING PLAN 03-First Floor (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

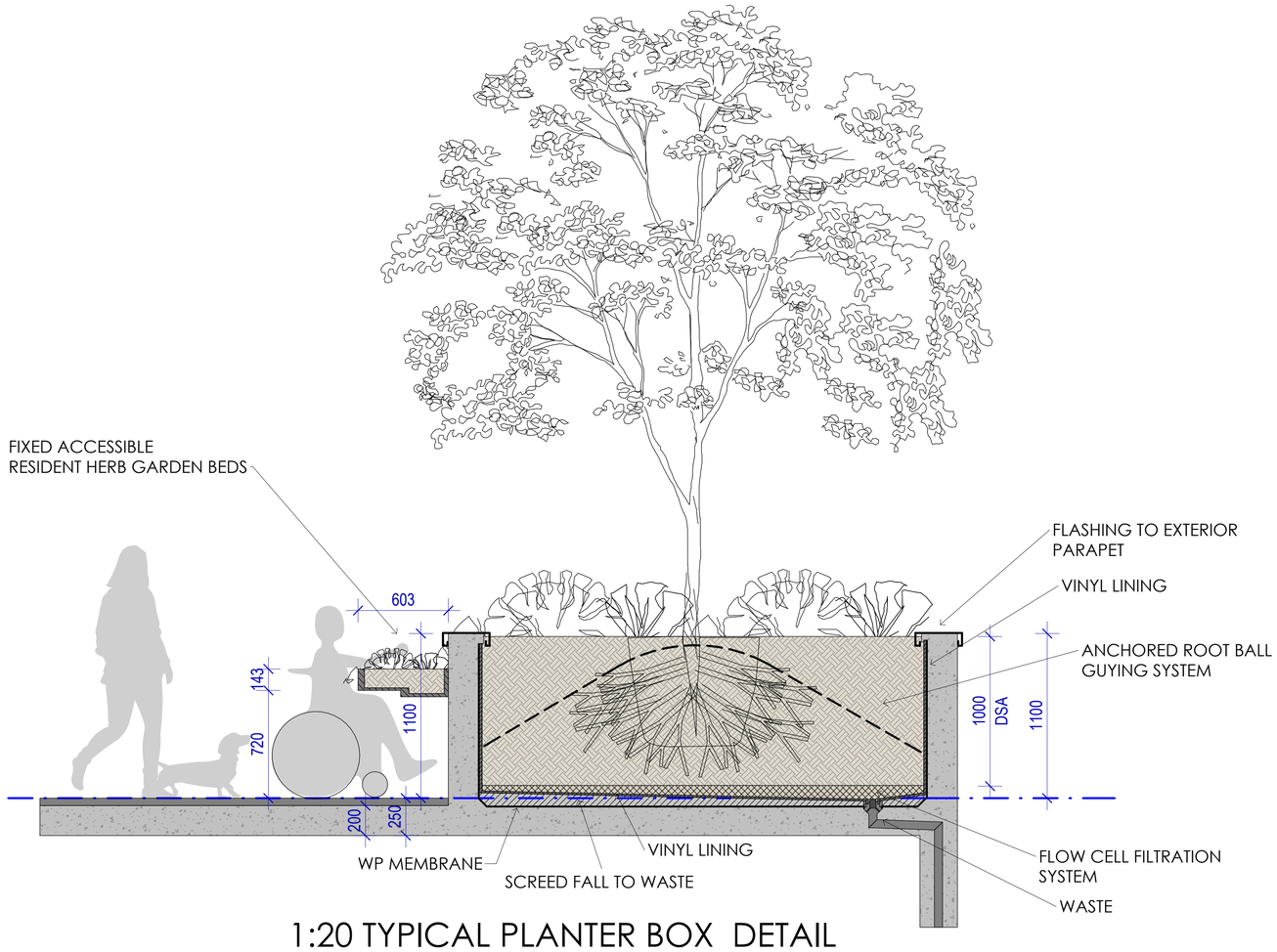
TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL

DR OMID RISMANCHIAN|**ENT**
PHD LAA (EDIN) BARCH ALAA AAIA
DOEPEL MARSH - LANDSCAPE ARCHITECT

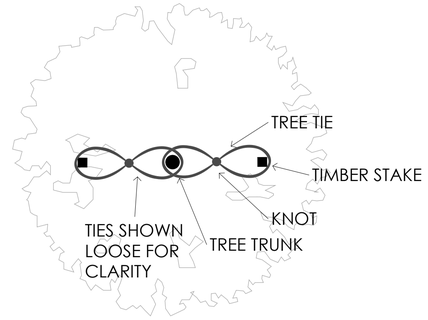
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
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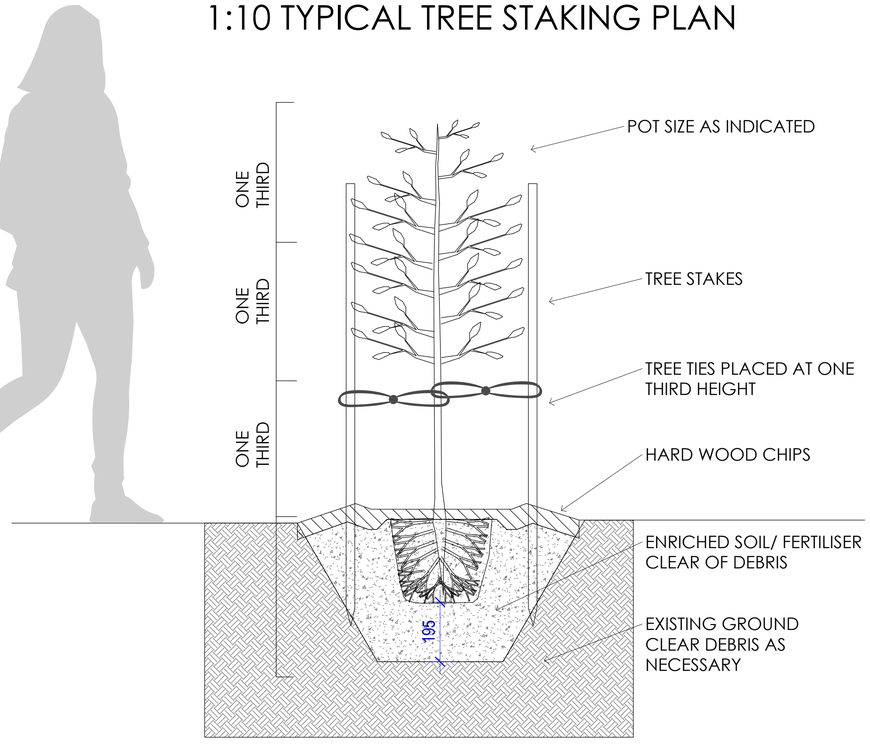
23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **LAPL 03**



1:20 TYPICAL PLANTER BOX DETAIL
(1000MM DSA ON STRUCTURE)



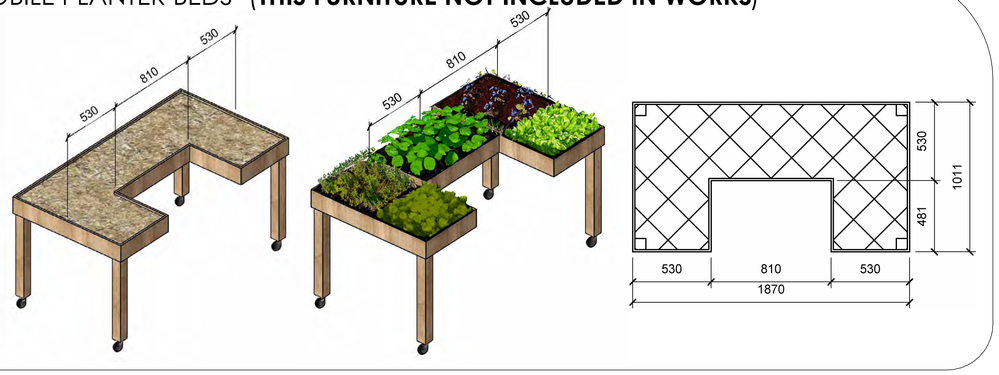
1:10 TYPICAL TREE STAKING PLAN



1:10 TYPICAL TREE STAKING SECTION

STORAGE PROVISIONS FOR MOBILE PLANTER BEDS- (**THIS FURNITURE NOT INCLUDED IN WORKS**)





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TITLE
LANDSCAPING PLAN 04-Typical Details (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

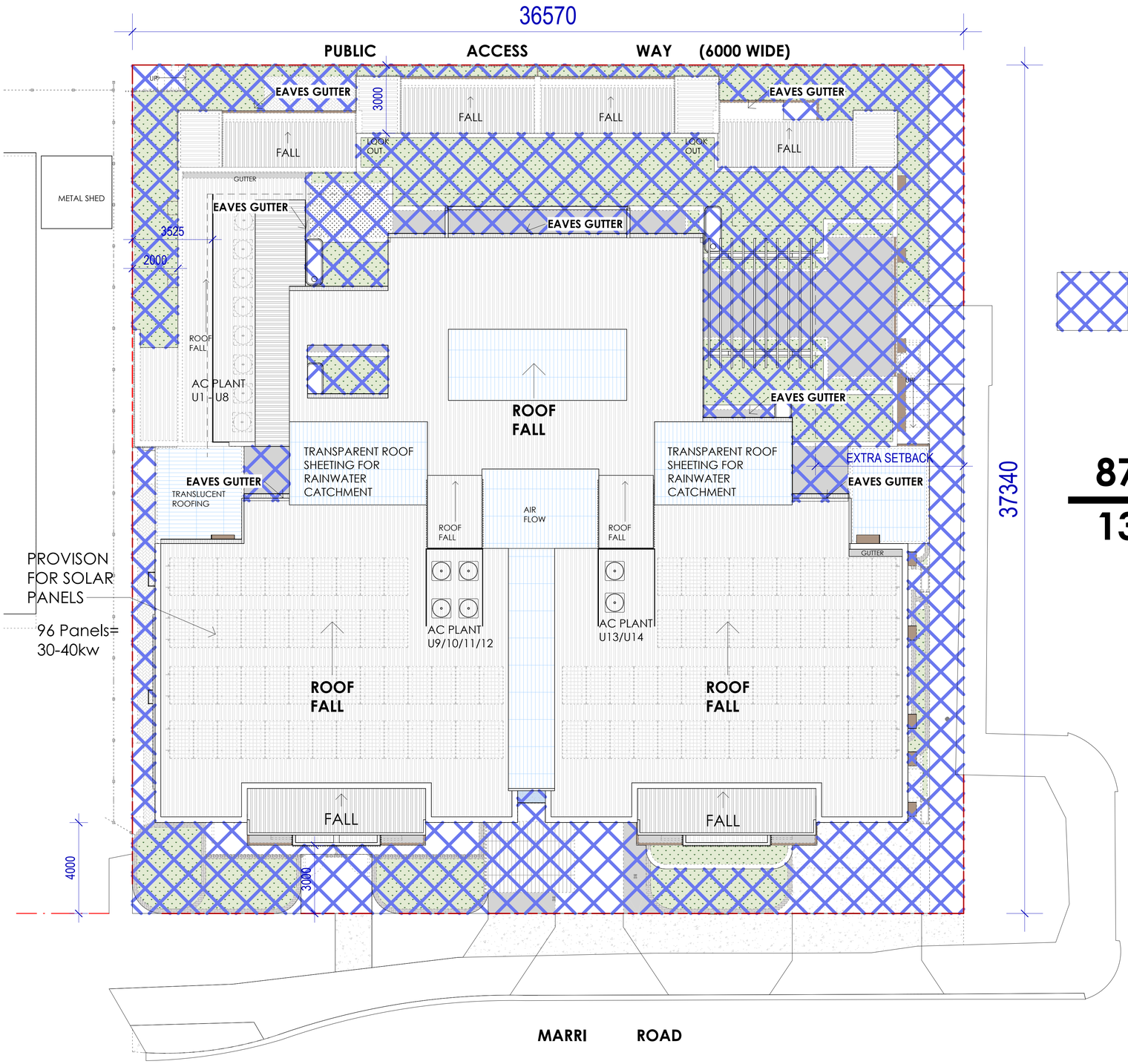
TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL

DR OMID RISMANCHIAN|**ENT**
PHD LAA (EDIN) BARCH ALAA AAIA
DOEPEL MARSH - LANDSCAPE ARCHITECT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:29:01 PM

23.016
REVISION **B**
PROJECT STATUS **DA**
DRAWING NUMBER **LAPL 04**



491.93SQM UNCOVERED
AREA-1365.52SQM = 873.59SQM

$$\frac{\text{873.59SQM COVERED AREA}}{\text{1365.52SQM SITE AREA}} = 63.97\%$$

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TITLE
COVERED SPACE DIAGRAM (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:29:14 PM

23.016
REVISION B
PROJECT STATUS DA
DRAWING NUMBER M-A01

LOT 14

OUTDOOR LIVING AREA

LOT 12

LOT 14

PARK AND OVAL

LIVING AREA

AREA WITHIN CONE OF VISION

REAR BOUNDARY

6000 WIDE PUBLIC ACCESS WAY

7500 CONE OF VISION

7500

9070

7500

45.00°

45.00°

45.00°

45.00°

CONE OF VISION 7500

PRIVACY HANDRAIL

PRIVACY HANDRAIL

PRIVACY HANDRAIL

PRIVACY HANDRAIL

4500

3000

ST

ST

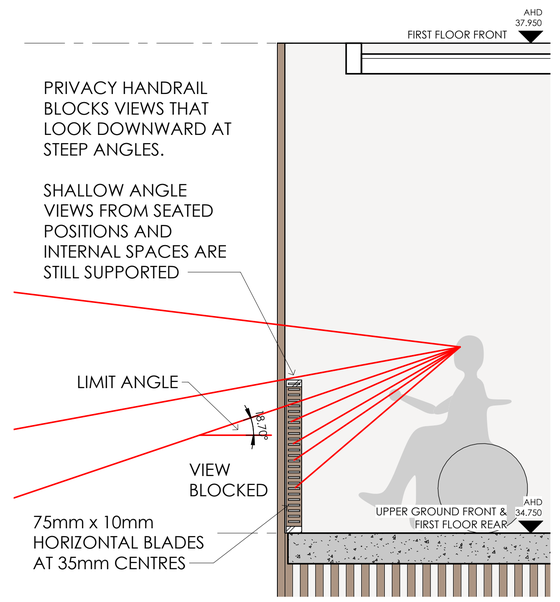
ST

ST

1-HORIZONTAL BLADES WITHIN THE HANDRAIL PREVENT DOWNWARD OVERLOOKING.
2-THERE IS A SMALL AREA OF OVERLAP IN THE WORST CASE SCENARIO (AN AMBULANT PERSON STANDING AGAINST THE HANDRAIL)
3-THIS OVERLAP AREA SHOWN IS OF THE REAR GARDENS AREAS OF LOTS 12 AND 14 (THEIR LIVING AREAS ARE SHIELDED EITHER BY DISTANCE OR BUILT FORM) AND ARE TO THE FRONT OF THE DWELLINGS. THE FENCE ON BOUNDARY IS TO THEIR REAR BOUNDARY.

PUBLIC CAR PARK

TYPICAL PRIVACY HANDRAIL DETAIL



2 A302 Section D-Typical Privacy Handrail
SCALE: 1 : 20

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TITLE
FIRST FLOOR - PRIVACY CONE OF VISION (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:29:17 PM

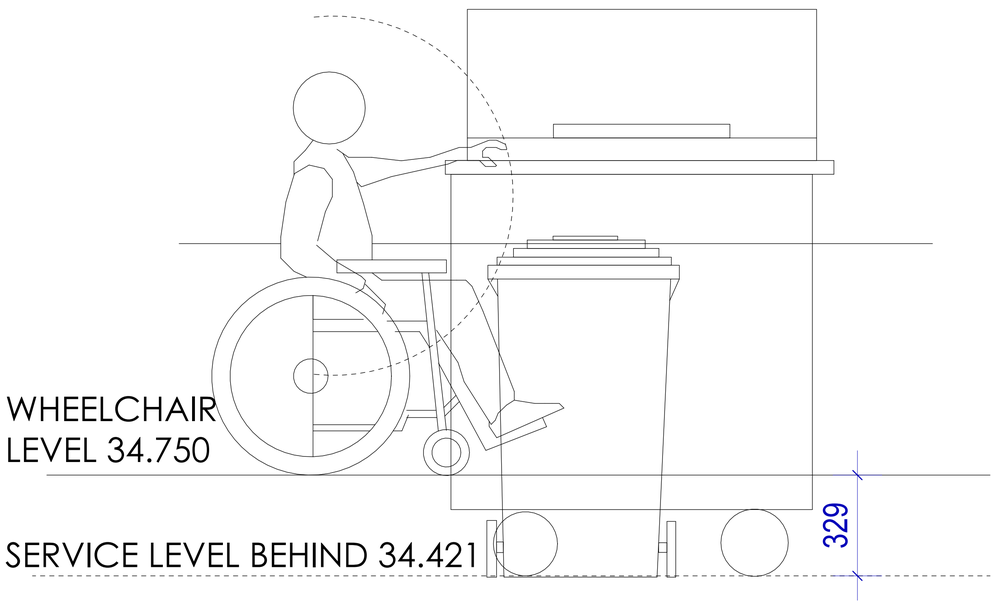
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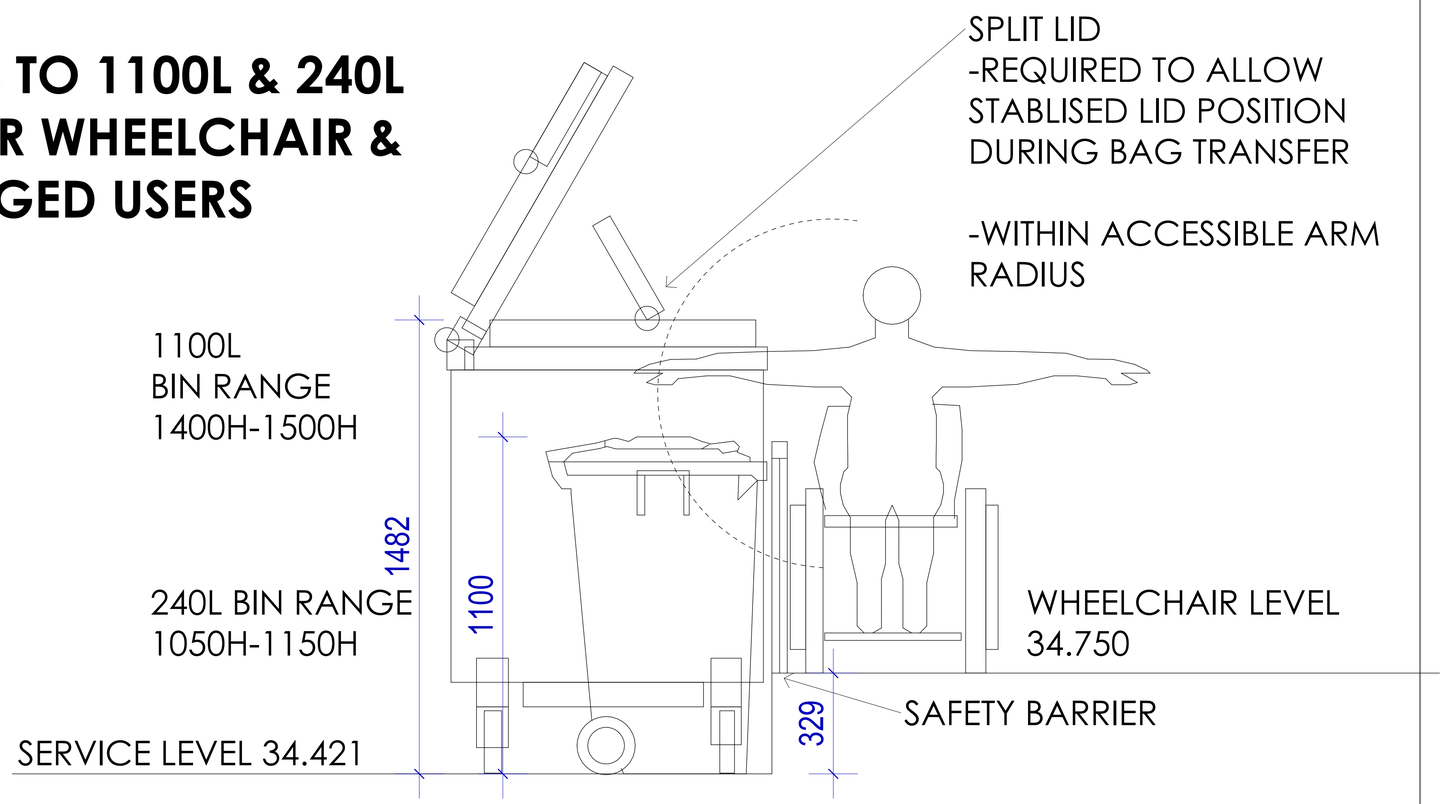
REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
M-A02

ACCESS TO 1100L & 240L BINS FOR WHEELCHAIR & AGED USERS

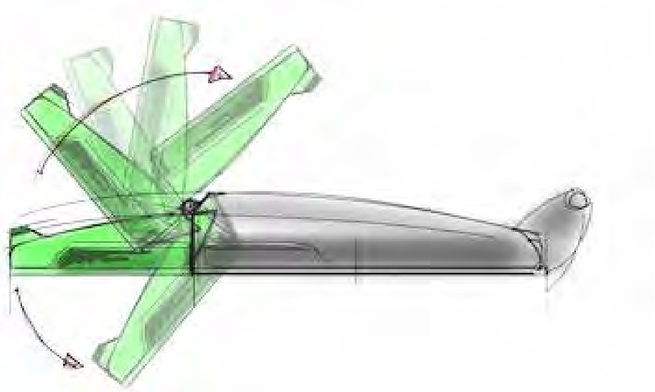




AUS



OTTO-Split lid for 1100L
(SUITS OTTO OR SULO 1100L)



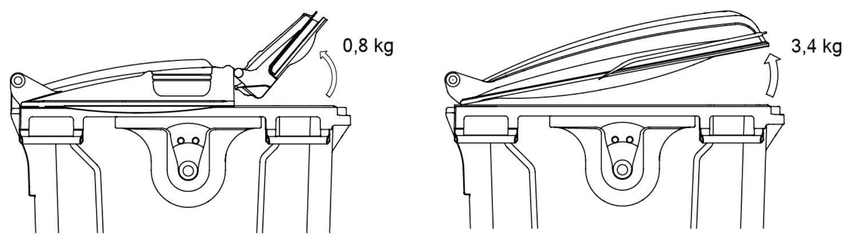
OTTO - LID
ROTATION SKETCH

EU

ESE BRAND
EXAMPLE-NTS



ESE BRAND
EXAMPLE



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TITLE
ACCESSIBLE WASTE MANAGEMENT DESIGN (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

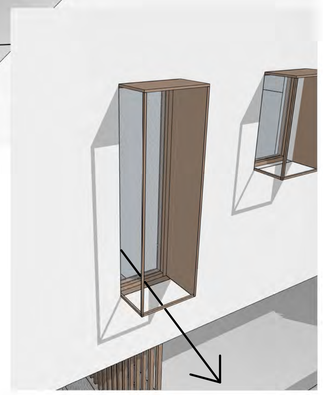
TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:29:18 PM

23.016
REVISION B
PROJECT STATUS DA
DRAWING NUMBER M-A03







WINDOW SHADING DEVICE
FACILITATES PASSIVE SURVEILANCE





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TITLE

MODEL VIEW PERSPECTIVES (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:39 PM

23.016

REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
A401



VIEW FROM 6000 WIDE PUBLIC ACCESS WAY







VIEW FROM PUBLIC CAR PARK AND 6000 WIDE PUBLIC ACCESS WAY

DOEPEL MARSH architects

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TITLE
EXTERIOR RENDERS (NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:39 PM

23.016

REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
A402



LOBBY



COMMUNAL OUTDOOR LIVING



COMMUNAL OUTDOOR LIVING



PASSIVE SURVEILLANCE OVER PUBLIC CAR PARK AND PARK LANE

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TITLE

INTERIOR RENDERS
(NO ADJOINING RESIDENTIAL PROPERTIES)

0 1 2 5 10 20m

SCALE 1:100 @ A1 - 1:200 @ A3

TWO STOREY 14 AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
6/12/2024 5:28:39 PM

23.016

REVISION
B

PROJECT STATUS
DA

DRAWING NUMBER
A403

SCHEDULE OF SUBMISSIONS

Multiple Dwellings (14 Aged and Dependent Persons' Dwelling)

Advertising (28 Days) – 25 September 2024 Until 23 October 2024

Advertising radius	**200m**
Support	**3**
Comment/ Neutral	**2**
Object	**4**
TOTAL SUBMISSIONS	**9**

No.	Position	Submission	Administration Comment	Applicant's Response	Recommendation
1	Neutral	Submitter 1			
	1.1	I note that this DA will be presented to the DAP. This in essence takes control away from CoJ.	Noted.	No, the planning regulations require the application to go to the D.A.P. as there are more than 10 units (14), and the cost is over the threshold.	No modifications required.
	1.2	Since DAP is a child of the current Labor state government who have an underlying hatred of local councils/shires and by default local resident feedback/feelings, I thank you for inviting feedback but suggest it's a waste of your and my time.	Noted.	Comments are political and incorrect. It was a Liberal Government that brought in D.A.P.s.	No modifications required.
	1.3	For what it's worth I have seen these DA proposals before and when they are built, they seldom look like the pretty pictures in the DA. How DAP guarantee that actual matches proposed?	Any approval will be based on any stamped development plans only with any amendments to be minor only and subject to any relevant conditions imposed by the DAP. For example, a condition may be imposed requiring a colours and materials schedule which may alter the finished product, but not modify the built form of the proposal. Any subsequent Building Permit application will be assessed against any approved plans to ensure consistency.	Building permit has to represent D.A and conditions; the development must be finished to match the stamped BP plans.	No modifications required.
	1.4	As per the previous DA on this site, insufficient land is left to plant trees, daisies are not trees.	The proposal has been calculated to provide 276.8m2 (20.26%) of landscaping across the site, above the 204.9m2 (15%) required under the applicable planning framework. Whilst landscaping has been determined to comply with the requirements, the City is recommending than an updated Landscaping Plan be provided to ensure appropriate species selection accordingly.	Incorrect. The D.S.A. has been exceeded, and more trees and shrubs are proposed than the minimum required.	Recommended condition for a revised landscaping plan to be submitted to and approved by the City prior to occupation of the development.
	1.5	How will 28 bins be accommodated on red and yellow bin day? Green bins won't be required.	The applicant has submitted a Waste Management Plan (WMP) to support the proposal. As per the plans and the WMP, the proposal will include two 1,100L refuse bins, two 1,100L recycling bins and provision of four 240L garden organics bins. All waste collection will be undertaken on-site by a private waste collection to accommodate the larger bin size and to minimise any potential disruptions that would otherwise occur from standard kerbside collection methods.	Not correct: Two 660L red bins, two 660L yellow bins, and four green bins are required.	No modifications required.
	1.6	The intended use is a great idea for aged/dependent persons.	Noted.	Agree	No modifications required.

2	Support	Submitter 2			
	2.1	We would like to open communication in relation to the DA. We request the inclusion of a zebra crossing for safe pedestrian access across Marri Road to allow access to the school, the centre and adjoining property owners retail, health and education services.	The interaction with the existing pedestrian crossing further east of the subject site does not form part of the consideration of the proposal, which provides appropriate access and connection to the existing pedestrian footpath network. Any zebra crossing would require approval from Main Roads WA (MRWA). Notwithstanding, the City does not consider that the proposal would likely meet the relevant requirements to facilitate a zebra crossing at that location. The location is also an existing dedicated ward crossing which has been approved through WAPOL Children's crossing unit.	Agreed, cost to install will be paid by the developer	No modifications required.
3	Support	Submitter 3			
	3.1	As a near neighbour, I strongly support this application. It will provide most appropriate and much needed residences for the over 50 or persons living with a disability cohort of our city.	Noted.	Agree	No modifications required.
	3.2	The site is ideally situated for such a purpose with its close proximity to the Marri Road shopping and other retail outlets, as well as both Marri Reserve and Wandina Park.	Noted.	Agree	No modifications required.
	3.3	I am confident that such is the nature of the local community that prospective residents of the complex will find themselves welcomed and offered support as they settle into the neighbourhood. It has been a long time coming, no doubt there have been reasons for that, but I welcome this new proposal and support its rapid progress through the necessary planning approval process.	Noted.	Agree	No modifications required.
4	Support	Submitter 4			
	4.1	Great quiet neighbourhood with a location close to park and shops for less mobile people. I think it's a great way to add higher density housing to the area.	Noted.	Agree	No modifications required.
5	Object	Submitter 5			
	5.1	The violations of the building code on setback, privacy etc are not acceptable.	The City is required to assess planning applications against the requirements of the Residential Design Codes of Western Australia (R-Codes). Applications must either comply with 'deemed-to-comply' requirements or the 'design principles' of the R-Codes in order to obtain approval. Where a design does not meet a deemed-to-comply requirement the City assesses whether it achieves the design principles, considering all relevant factors including submissions received from the community. As a result of the City's assessment against all relevant criteria, the proposal has been considered to meet the relevant design considerations where appropriate as outlined in the Responsible Authority Report.	Incorrect. The building code is not an assessment tool.	No modifications required.

	5.2	The increase traffic AND two driveways into a school zone on a very busy road is a safety risk.	A Transport Impact Statement (TIS) was provided by the application which has taken into account the peak traffic periods of the nearby land uses. The City has reviewed the TIS which found that the predicted increase in traffic is acceptable for the road network.	Not correct. The traffic report indicates very small vehicle movements, well within road capacity.	No modifications required.
	5.3	There is parking and traffic problems at the shopping centre over the road as it is. The adjacent park parking is severely limited and will be used by visitors of this development making the issue worse.	The proposed parking meets the requirements under the R-Codes. In order to ensure that parking is managed effectively, City has recommended a condition of approval that a Parking Management Plan is provided by the applicant, and approved by the City, prior to the commencement of development.	Not true. Parking numbers comply, and not all Dependant residents will have a vehicle. Visitors can use that onsite bay to visit relatives.	Recommended condition for a parking management plan to be submitted and approved by the City prior to commencement of development.
6	Neutral	Submitter 6			
	6.1	There is not enough parking to support this development.	Refer item 5.3 above.	Parking numbers comply with the requirements.	No modifications required.
	6.2	I previously urge the council to make more parking on the verge of Duncraig primary on Marri Road, but they declined saying it's not parking. Welcome to my world. People stop there and do drop offs. They have no choice.	Noted. Parking within the surrounding road network is not a consideration of this application.	Not relevant to this application.	No modifications required.
7	Object	Submitter 7			
	7.1	The enormous bulk and height of the proposed development is out of scale with, and does not fit the character of, the existing neighbourhood.	The proposal has been considered against the relevant provisions of the R-Codes, particularly in relation to Clause 3.2 – Building Height. Whilst a minor variation was noted, this was limited to a minor portion of the building central to the site, with any building at the front and rear of the site being compliant with the building height requirements. Notwithstanding, the variation was considered against the relevant Design Principles which determined that due to the site topography, the proposal presents as a standard two storey development as viewed from Marri Road and was considered to be appropriate for the existing and/or desired streetscape and local character of the area.	Untrue. The scale and height of the proposal have been crafted into the landform and make a positive contribution to the streetscape instead of a derelict site.	No modifications required.
	7.2	The building would loom over my home and backyard, as well as all surrounding houses resulting in an eyesore visible from all surrounding homes	Refer item 7.1 above.	Not correct. It is two storeys at the rear and complies.	No modifications required.
	7.3	The proposed landscaping plan is fanciful, and many proposed plants will not have sufficient space, or the soil depth required to grow to their natural fully grown size. Thus, the proposed landscaping plan will not break up the bulk of the proposed development or screen it's view from surrounding homes including my own.	Refer item 1.4 above.	Landscaping complies with R-Codes; more trees have been provided than required.	Recommended condition for an updated landscaping plan to be submitted and approved by the City prior to the commencement of development.
	7.4	Given the proposed developments failure to comply with the rear setback and the proposed increased height of the retaining wall, the residents of the eight units located at the rear of the development (by the laneway boundary) and anyone on the roof terrace would heavily overlook my garden and have a clear view into the living and dining areas of my home, as well as well as the bedrooms. This poses an enormous invasion of my family's privacy and would significantly reduce our use, comfort and enjoyment of our home.	Refer item 5.1 above.	The distance, including the access land, is greater than the rear setback. The roof terrace access is approximately 3m from the edge, limiting the sight line, so no one can look into the properties to the north. Refer to the section; there is no invasion of privacy. Refer to cone of vision plans.	No modifications required.

	7.5	The proposed development should be required to comply with the rear boundary setback requirements, the height limits and privacy restrictions set out in the Building Code and local planning requirements to ensure the privacy of existing resident's homes.	Refer items 5.1 and 7.1 above.	The rear setback complies. The height complies. There are no privacy issues.	No modifications required.
	7.6	The rear fencing of the development (on the laneway boundary) should be required to be solid to afford my family's, and other existing resident's, privacy from being overlooked by the four lower units. Visually permeable fencing should not be required for passive surveillance of the laneway given the position of the lot at the end of the laneway - the Marri Park carpark located at the end of the laneway is very busy all day and well used, as is the laneway itself (by foot traffic), thus the need for visually permeable fencing is negated.	The proposed fencing adjoining the PAW meets the deemed-to-comply requirements for fencing to public open spaces under Clause 5.2.2 of the City's Local Planning Policy for Subdivision and Dwelling Development Adjoining Areas of Public Space Policy.	Passive surveillance complies. No overlooking is possible due to the 1.8mm high fence and substantial landscaping. Passive surveillance of the access way and public car park maintains safety	No modifications required.
	7.7	Balconies of the four units on the second floor should be enclosed and screened into above head height to prevent overlooking and to ensure my family's, and other existing resident's, privacy.	Refer item 5.1 above.	There is no loss of privacy. Refer to the cone of vision and the properties, which have 1,800mm high fences and blocking landscaping.	No modifications required.
	7.8	Given that the proposed development fails to comply with height limits or privacy restrictions, the roof terrace should either be completely dispensed with or again enclosed and screened into above head height to prevent overlooking and ensure privacy.	Refer item 5.1 above.	The height complies. There is no overlooking possible from the communal outdoor living area, as mentioned above. Refer to the section.	No modifications required.
	7.9	The two crossovers together with the reduced setback at the front of the proposed development pose a significant risk to passing pedestrians and traffic on Marri Road given that sightlines for vehicles exiting the development (particularly via the lower ramped carpark) would be limited by the surrounding walls and the angle of the ramp.	The City has considered impact on sightlines in accordance with Clause 3.7 of the R-Codes. As a result of this assessment, the City has recommended a condition of approval for no solid walls, fences or structures higher than 0.75 metres to be located within the sight lines areas which will require the planter beds to be modified to achieve compliance with this requirement and allow sufficient sightlines.	The front setbacks comply. The two crossovers were supported by the D.R.P. The lower car park ramp complies and has a 1.50m visual truncation on either side, complying with regulations.	Recommended condition for no solid walls, fences or other structures higher than 0.75 metres constructed within 1.5 metres of where the driveway meets the street boundary.
	7.11	The development is adjacent to a school crossing for Duncraig Primary School and the footpath in front of the proposed development is very well used by school children, and local residents accessing Marri Park and the Marri Road Shops. The development should be required to comply with the front boundary setback to improve sightlines and increase safety.	Refer 7.9 above.	The front setbacks comply.	No modifications required.
	7.12	I would strongly encourage and support the City not to support the proposed development, particularly given that the City represented to local residents during the community consultation that it conducted to recode the lot concerning this proposed development from R20 to R40 that the maximum development potential of the lot was for nine dwellings but that "It is likely that the number of dwellings on site will be less than outlined given the need to also meet open space, height, set back, parking and landscaping requirements" (refer to uploaded Resolution).	The proposal has been designed with consideration of the relevant planning framework and its subsequent requirements at the R40 density. Whilst Council had previously supported the rezoning to facilitate development of this nature, the proposal is a DAP application and will be determined independent to any Council recommendation.	The Full Council supported this proposal 13–0 and added Dependent persons to Aged persons. They thanked the proponent and the architect for the proposal and said to contact them (the Full Council) for further support. If we need further support, they look forward to its opening. So, we have the option to go to Full Council and have it approved.	No modifications required.
	7.13	Had local residents been aware at the time that the recoding of the lot by the City and the subsequent changes to the Building Code would result in the lot being used to construct a 14 unit apartment complex that fails to comply with boundary setbacks, privacy requirements and height restrictions, then I have no doubt that there would have been significant community opposition to the City's proposal.	The proposal has been considered against Part D, Clause 1.1 of the R-Codes and was determined to meet the deemed-to-comply requirements for minimum and average lot size based on the proposed 14 dwellings.	The R-Codes changed three times during the design process. The Full Council supports the proposal 13–0. They want it approved, built, and occupied. The proposal complies with design principles.	No modifications required.
8	Object	Submitter 8			

	8.1	We understand that it is only a matter of time before the vacant lot is developed and have no objection in principle to the proposal, which we agree will assist in providing much needed accommodation of this kind, so desperately needed by the community.	Noted.	This comment is from the Vet next door, who supports the proposal with no objections. End of story: he supports the proposal.	No modifications required.
	8.2	Notwithstanding, we wish to express our concerns in relation to several aspects of the proposal to ensure that adverse impacts are mitigated both during and post-construction to ensure the continued, uninterrupted operations of our business, and the ongoing ability to provide efficient, high quality veterinary services to our local community.	Noted.	Having Aged and Dependent neighbours will have no impact on his business, and to imply otherwise is an insult to those less fortunate than him.	No modifications required.
	8.3	The veterinary hospital should be considered as a sensitive land use and essential service that is critical to the animal health care needs of the community and is uniquely susceptible to the adverse impacts of construction-related activities.	Noted.	No more than the rest of the community. Construction-related comments are not valid in planning matters.	No modifications required.
	8.4	The proponent's application documents do not give sufficient due regard to the nature and sensitivity of operations of a practicing veterinary hospital in which animal consultations, surgeries and hospitalisation of admitted patients are performed. Rather, the applicant treats our site as a generic "commercial use" and largely dismisses any impacts during the construction process.	Impacts on adjoining sites as a result of construction is not a planning consideration and would be appropriately managed through the Building Permit process. It is expected that any matters could be appropriately mitigated and managed to avoid any potential impacts occurring.	This is a planning approval, not a building permit. Comment noted and dismissed.	No modifications required.
	8.5	The proposal is also completely lacking in consideration of the issues that may arise post-construction by the approval of aged and dependent persons dwellings (itself a sensitive land use) adjacent to an operating veterinary hospital.	The proposal, similar to other surrounding residential properties is considered to have appropriately considered and existing amenity impacts as part of its building design a well as any potential traffic impacts. Some design considerations include outdoor living areas being located so as not to directly interface the adjoining property.	Dismissed. If the Vet is saying that Aged and Dependant persons are not welcome, then that is discriminatory and actionable under the law.	No modifications required.
	8.6	Pets are far more sensitive than humans to the impacts of construction tools/machinery by way of noise and vibration, the movements of vehicles, workers, etc. and lack the awareness/understanding of why the construction related activities are occurring or the freedom and choice to remove themselves from their environment, except in the care of their human companions.	Noted. Refer item 8.4 above.	Dismissed. The Vet is not discussing planning issues; his comments are not relevant.	No modifications required.
	8.7	Our consultation and hospital ward areas are located on the eastern side of the practice building adjacent to the development site, and so the ability to communicate during consultations and the amenity and comfort of our patients is at high risk of being significantly impacted during construction, causing undue anxiety and distress to our staff, clients and animals.	Noted. Refer item 8.4 above.	Dismissed. This is not a building permit application. However, the building regulations control working hours, dust, and noise etc.	No modifications required.
	8.8	Most critically impacted are the animal patients in our care, whose duty of care we have to provide a safe, quiet, minimal-stress environment that is conducive to the care and treatment of sick and injured animals, including preparing them for procedures, administering treatments while in hospital and providing quiet, comfortable environments when recovering from anaesthesia.	Noted. Refer item 8.4 above.	Yes, well done, he is doing a good job for the animals, this is not relevant to the D.A. application.	No modifications required.
	8.9	Increased patient anxiety and distress risks the health of our patients as well as the safety of our staff who have to handle and treat the patients in our care.	Noted. Refer item 8.4 above.	Dismissed. Is the Vet suggesting that Aged and Dependent persons will put animals in danger.	No modifications required.
	8.11	Concerns in relation to construction impacts on our patients are also naturally shared by our patients' owners who are highly likely to be discouraged from attending the hospital for consultations or admitting their pets for procedures or hospitalisation if they believe the amenity and comfort of their	Noted. Refer item 8.4 above.	Construction issues is controlled by the building regulations. Dismissed. This has nothing to do with planning issues.	No modifications required.

		dearly loved pets is compromised by construction noise, vibration, dust or other associated construction activities.			
	8.12	The viability and profitability of veterinary practices is marginal at best and ranks amongst the most stressful and poorly remunerated professions. Any impacts on the efficiency of the operations of our practice or the attractiveness and public perception on our ability to provide high quality care for clients' pets can have profound repercussions on the financial viability of our hospital and our ability to continue providing services to the local community.	Noted. Refer item 8.4 above.	Dismissed. Once again, the Vet is stating that Aged and Dependent persons will cause him problems. The City zoned the land R40, and the R-Codes determine the development.	No modifications required.
	8.13	We kindly request that any approval include detailed and specific conditions addressing the uniquely sensitive operations of our veterinary hospital. Relevant conditions should include a detailed Construction Management Plan (CMP) to be provided to the satisfaction of the local government, that includes specific consideration and demonstrated consultation and agreement with us, in relation to the timing of construction activities, as well as the requirement for adequate forewarning and ongoing consultation throughout the construction process. The approved CMP should then be implemented accordingly, except where otherwise authorised by the local government, in consultation with us.	The City has recommended a condition of approval for a Construction Management Plan (CMP) to be submitted to and approved by the City prior to the commencement of development.	Construction management plan is required by building permit. Building hours are determined by the City of Joondalup for all builders. Each property owner is entitled to develop their property in accordance with the building regulations and City should not be dictated by the adjoining owners. Dismissed.	Recommended condition for a construction management plan to be submitted to and approved by the City prior to the commencement of development.
	8.14	As a baseline, it is our request that any construction works involving the use of heavy machinery that are likely to cause loud noises, or prolonged or repeated vibrations should only be carried out on Sundays or during early morning hours prior to 8am on weekdays and Saturdays.	Refer item 8.13 above.	No building work is allowed to take place on Sundays. Dismissed. Working hours are determined by the City.	Refer item 8.13 above.
	8.15	The CMP should also ensure that the free access and use of our building surrounds for the exercise, rehabilitation, temporary isolation and toileting of animals is not compromised during operations, by any form of construction-related activity, and that any pollution or emissions by way of noxious odours, fumes, dust, hazardous chemicals or water vapour are fully controlled on site, to ensure these do not impact upon the health or comfort of our patients, or contaminate any part of the grounds and soil on our property, which are frequented by our patients and visiting animals.	Refer item 8.13 above.	The same rules apply to everyone. Once again, comment dismissed; this is a building matter, not planning.	Refer item 8.13 above.
	8.16	Relevant factors for the CMP to address in relation to the uninterrupted operations of our hospital and the safe and comfortable care and hospitalisation of our patients include, but are not limited to: I. Detailed noise and vibration mitigation measures, with specified hours of construction activities, that are categorised as high, medium and low impact construction activities that are programmed to minimise any impacts on the operations of our hospital to ensure the adequate maintenance of environmental comfort levels for our animal patients, clients and staff, as well as the safe, comfortable and uninterrupted use and enjoyment of our rear and side outdoor yard areas by patients and staff.	Refer item 8.13 above.	Dismissed. The building permit will provide the construction conditions. The Vet is imposing his own ideas on others employment. Dismissed	Refer item 8.13 above.

	8.17	II. Detailed control and mitigation measures to contain and prevent any emission, spillage or other form of contamination of our property by way of construction waste, dust, noise, odour, vapour, liquids or fumes of any kind, recognising that the highly developed senses of animals are far more receptive to such substances and that animals are generally far more prone to reactions, toxicity and other deleterious health impacts that may be caused by inhalation of noxious fumes or exposure to hazardous substances by way of direct contact, inhalation or ingestion.	Refer item 8.13 above.	Dismissed. Building permit condition these events, not a planning matter. Dismissed	Refer item 8.13 above.
	8.18	III. Remediation measures and procedures to immediately clean up and remove any spillage or contamination of any part of our property, including the building surrounds and soil, by way of construction waste, dust, or liquids of any kind.	Refer item 8.13 above.	Dismissed. Building permit matter.	Refer item 8.13 above.
	8.19	IV. Management of parking of construction and construction worker vehicles to ensure that the safe access to our hospital is maintained at all times and that the Marri Road verges are not clogged by parked vehicles, or traffic control or road closures implemented that would impact the safe and convenient access to our hospital by our staff, clients, sample collection and other pickup/delivery vehicles.	Refer item 8.13 above.	Dismissed. Building permit matter.	Refer item 8.13 above.
	8.21	The ongoing and future operations of our veterinary hospital should not be curtailed or restricted by the introduction of a sensitive residential land use adjacent to our property.	Noted. There would be no greater impact or consideration than that in addition to the existing surrounding residential properties.	Dismissed. Vet saying that pets are more entitled than human beings.	No modifications required.
	8.22	The subject proposal is located on land which has been sold off by the City of Joondalup and was previously used to operate a child health centre. The change in use of the land from the non-residential, noise generating land use of a child health centre, to a sensitive residential use for aged and dependent persons dwellings risks our hospital's operations being subjected to unreasonable expectations in relation to traffic, animal noise, frequency of vehicles and movement of persons to/from the site.	Refer item 8.5 above.	Dismissed. Don't tell the City now to manage its own land, nothing to do with planning or the D.A	No modifications required.
	8.23	Our hospital's operating hours include Saturdays as well as evenings, which are an essential window for people seeking veterinary care for their pets, outside of their ordinary working hours.	Noted.	Noted but dismissed.	No modifications required.
	8.24	The main clinic building is located adjacent to the boundary of the subject site and includes a surgical theatre, separate cat and dog wards for hospitalised patients, and consultation and waiting room/reception areas. The rear and side setback areas to the hospital are also utilised for temporary animal isolation, toileting, exercise and rehabilitation areas, and to conduct dog lameness testing.	Noted.	Noted but dismissed.	No modifications required.
	8.25	The bulk of veterinary consultations (timed at 20 minutes intervals) are carried out during the hours of 8:30am to 11am and 4pm to 7pm on weekdays, and from 8am to 1pm on Saturdays. Surgeries are usually limited to weekdays and occur from mid-morning to mid-afternoon, except in the case of extended procedures or emergency surgeries when they may also occur outside these hours. We are also subject to regulatory requirements and ethical guidelines to provide minimum standards of treatment and hospitalisation of patients while in our care, and to provide veterinary medical assistance if any animal if presented to us in an emergency.	Noted.	Noted but dismissed.	No modifications required.

	8.26	The above demands of an operating veterinary hospital therefore naturally entail a high frequency in the movement of vehicles, animals, owners, and staff to and from the site, which is not typical of residential areas or the likely amenity expectations of residents within a residential area. This includes the noise and sounds of our staff, visiting clients, and other service/delivery vehicles, as well as our patients. The barking of dogs, cat and bird noises and other creatures that may occasionally come into our care are part and parcel of operation a veterinary hospital. Barking can be particularly difficult to control or mitigate, as dogs are very often anxious and fearful during consultations or when having to be hospitalised, despite efforts to reduce stress and practice fear-free handling, they may also display erratic or reactive behaviours due to their mental and physical state, and/or when recovering from anaesthesia. There are also the frequent movement and parking of vehicles and persons coming to and from the premises (car doors slamming, loud/emotional pet owners, deliveries of equipment/medical supplies, sample pickups, deceased animal collection by cremation providers, etc.).	Noted. Refer item 8.5 above.	Dismissed. The Vet should be subject to the City undertaking sound readings to ensure they do not go over the limit set by the E.P.A. As all the noise he has admitted to will create concern to the Aged and Dependant persons.	No modifications required.
	8.27	We do not accept and believe it to be entirely unreasonable and that the ongoing operations and viability of our veterinary hospital be impeded in any way by the introduction of adjacent residential development for aged care and dependent persons, which has arisen through the Council decision to sell land that has previously been utilised for non-residential purposes.	Noted. Refer item 8.21 above.	Dismissed.	No modifications required.
	8.28	Significant concern is raised that the amenity expectations of aged or dependent persons may be considerably greater and more sensitive to that of typical residential areas, as the residents themselves may reasonably be more sensitive to the noise and operations of an operating veterinary hospital by virtue of illness or limited mobility or simply due to rarely leaving their residence and therefore having prolonged and/or repeated exposure to our veterinary hospital activities. These potential impacts are also increased by way of the existing topography, as sound and privacy impacts are likely to travel 'down' into the proposed development as our hospital sits considerably higher than the subject site.	Noted. Refer item 8.5 and 8.21 above.	If the Vet is concerned about his noise. He should do something about it. Noise attenuation measured by him will reduce his own concerns. Dismissed.	No modifications required.
	8.29	In view of the above, we believe it entirely reasonable for the developer to mitigate and demonstrably address these potential future land use compatibility and amenity issues as part of the subject application.	The proposal is for Multiple Dwellings which is a discretionary land use in the Residential zone, meaning that the use is not permitted unless the local government (or in this instance the DAP) has exercised its discretion by granting development approval. As part of the consideration of this application the land use compatibility and amenity issues have been considered in accordance with Clause 67(2) of the *Planning and Development (Local Planning Schemes) Regulations 2015*.	Dismissed. The land is zoned for both uses and has the unanimous approval and support of the Full Council.	No modifications required.
	8.31	We respectfully request that the following measures be undertaken and committed to by the applicant as part of the subject application: I. Removal of the existing low-height dividing fence (fibro sheeting) above our limestone retaining wall and its replacement with a new screening wall to a height of 1.8 metres above the level of our property that ensures both visual and acoustic privacy to the future residents of the development;	Dividing fences are a civil matter and not a planning consideration. The landowners are to liaise with each other on providing sufficient/adequate fencing between the sites.	Dismissed. If the Vet believes his noise is a problem, he can build a fence at his own cost. However, it would make the fence higher than 2.5m, which is not allowed.	No modifications required.

	8.32	II. A landscape buffer strip which includes trees or tall hedging to be provided behind the wall to further filter and mitigate any noise which may travel over the fencing/acoustic wall;	The landscape plan indicates that the area along the western boundary will include shrubs which can reach a mature height of 3 to 5m. Taking into consideration the site topography, this landscaping would be considered a sufficient buffer in aiding any mitigation of amenity impacts from the adjoining site.	Any noise will come from his business, and he should do whatever is needed to make sure he does not go over the approved sound levels. Dismissed.	No modifications required.
	8.33	III. The proposal be required to incorporate Quiet House design principles consistent with the State Planning Policy 5.4 Guidelines to ensure the mitigation of external noise sources and acoustic comfort and privacy of the dwelling occupants; and	The subject site is not located within an area subject to the requirements of SPP 5.4.	Yes, the Vet needs to comply.	No modifications required.
	8.34	IV. The applicant be required to provide an acoustic report, either prior to determination or as a condition of approval, demonstrating that habitable rooms and outdoor living areas of the proposed units have incorporated sufficient noise attenuation measures to ensure compliance with the Environmental Protection (Noise) Regulations 1997, including measures to attenuate residents from noise associated with the operations of our veterinary hospital, and for such measures to be thereafter carried out and maintained for the lifetime of the development.	The City has recommended an advice note to be included on any approval to state that the development is to comply with the *Environmental Protection (Noise) Regulations 1997*. Attenuation measures associated with adjoining properties would not be a requirement for this proposal.	Dismissed. What a check! He needs to prove to the City that his operations comply with EPA requirements. He appears to have an issue with Aged and Dependent persons while claiming to be caring. I don't think so.	No modifications required.
	8.35	We also request that a condition be imposed on any approval requiring a notification on the strata titles of the units to advise prospective owners and occupiers that the dwellings are located in an area that is subject to noise of various types at various hours of the day and night from surrounding non-residential land uses that are not typically associated with residential environments, including dog barking and other animal noise sources.	This would not be required and no condition to this effect is being imposed. All properties are to comply with the *Environmental (Noise) Regulations 1997*.	No, he can't do that. Each property must comply with the EPA Noise Abatement Act. If the Vet is creating noise above the required limits, he needs to do something about it.	No modifications required.
	8.36	Applicant should be required to detail proposed depth and levels of excavation and retaining relative to top and bottom height of our limestone retaining wall inside our property.	This information has been demonstrated on the development plans.	Already on the drawings, the existing lower sand level is unchanged.	No modifications required.
	8.37	The submitted application documents do not provide adequate clarification of the height of retaining walls and depth of excavation relative to the limestone retaining wall inside our property adjacent to our shared eastern boundary with the proposal.	Refer item 8.36 above.	All levels are on the application.	No modifications required.
	8.38	A further survey should be undertaken to accurately ascertain the top and bottom heights of our retaining wall to ascertain whether the retaining and excavation proposed on the subject site risks undermining the foundations and/or structural integrity of our retaining wall and adjacent driveway/side yard and our veterinary hospital building itself.	A site survey has been provided.	The City requested a new survey, which has been completed and is included in the application.	No modifications required.
	8.39	Detailed section plans should be provided that document the relationship between the applicant's proposal and our retaining wall, as well as details of the proposed construction method to ensure the integrity of our property and any existing structure or improvement are not undermined.	Structural details will be provided at the building permit stage.	This is part of the building permit documentation, not a planning matter.	No modifications required.
	8.41	We request that once the above are supplied, that we are provided with the opportunity for further consultation to consider and comment on the additional information/specifications prior to determination of the application, and for such further comments to be considered and reported on as part of the application assessment prior to its determination.	The City has undertaken consultation on the proposal in accordance with its Planning Consultation Local Planning Policy. No significant amendments have been made to the proposal which would warrant further consultation at this stage.	Dismissed. Who does this adjoining owner thinks he is. The City is processing the application, not the neighbour.	No modifications required.
	8.42	We request that any approval include a condition for a detailed building condition and dilapidation report to be provided to the satisfaction of the local government and provided to us for our information and monitoring, prior to the issue of a building permit for the proposal.	This is not considered to be necessary at this stage or imposed as a condition of approval. Any such matters are able to be considered through the Building Permit process.	Agree. It will form part of the building permit application.	No modifications required.

9	Object	Submitter 9			
	9.1	57 Marri Road Duncraig was originally owned by the City of Joondalup. It was a community asset used for early childhood services. When the land was rezoned and sold the use was limited to 'aged and dependant persons' dwellings to limit the risk of other local landowners seeking rezoning (this land is not in a Housing Opportunity Area). The community was told that any future development would be need to meet open space, height, set back, parking and landscaping requirements (COJ110-07/15, Details Item 1, moved by Cr Fishwick). The proposed development does not meet these requirements.	Refer item 5.1 above.	The application complies with design principles and alternative solutions and has unanimous support from the Full Council. Any attempt to recommend refusal will be referred immediately to the council, as they have offered their support to have it approved. This will be addressed in the November Full Council meeting 2023.	No modifications required.
	9.2	The proposed development is over height, causing privacy impacts for the surrounding houses including my own, with direct views in to garden, living areas and bedrooms. This will impact the privacy, enjoyment and safety of my family.	Refer items 5.1 and 7.1 above.	Not correct. There is no overlooking and no safety issues.	No modifications required.
	9.3	The non-conforming setbacks compound the privacy issues with the building close to the rear boundary.	Refer item 5.1 above.	The setbacks do not impact rear properties, which are separated by a 6m-wide public access way.	No modifications required.
	9.4	A roof top terrace will further compound the issue giving a commanding view in to neighbouring properties.	Refer item 5.1 above. Notwithstanding, no visual privacy variations were identified from the rooftop terrace with any habitable spaces appropriately setback/buffered via planters as demonstrated on page 17 of the development plan package.	Untrue. The 3m-wide landscaping prevents any ability to look down. Refer to the section.	No modifications required.
	9.5	The building is massive with height and bulk not in keeping with the surrounding properties or the area in general.	Refer item 7.1 above.	It is in keeping with R40 R-codes.	No modifications required.
	9.6	The reduced setbacks will render any attempt at landscaping useless, resulting in no impact on breaking up the bulk and scale.	Refer item 1.4 above.	Setbacks have not been reduced. More landscaping has been provided than required.	No modifications required.
	9.7	The building will be visible from all directions, rising high above surrounding properties.	Refer item 7.1 above.	Not correct. Negative comment.	No modifications required.
	9.8	The rear fence is proposed to be visually permeable for 'passive surveillance'. Any development on this site should be subject to the same requirements as other residents. A visually permeable fence increases the privacy concerns as it allows even the ground floor apartments to view into my bedroom's windows, and in this case only serves for aesthetic purposes (to sell the units for a premium).	Refer items 7.1 and 7.6 above.	The rear fence complies. It allows for passive surveillance, which was supported by the DRP. No overlooking is possible into northern properties because of their fences and landscaping.	No modifications required.
	9.9	The area is already high trafficked for a small suburban area. The development is adjacent to a busy primary school, local shops and large active reserve.	Refer item 5.2 above.	Not relevant to this application.	No modifications required.
	9.11	Parking is already pressured during peak times.	Refer items 5.2 and 6.1 above.	Proposal complies with parking requirement.	No modifications required.
	9.12	The development will have insufficient parking for its intended higher-needs residents (28 bedrooms and 14 resident bays).	Refer item 6.1 above.	Not correct. Parking number comply.	No modifications required.
	9.13	Current public car parks cater for overflow parking from the Marri road shops (the staff have been advised not to park at the shops anymore) and residents of the nearby apartments' blocks have been observed parking in the public parking too.	Refer item 5.3 and 6.1 above.	Not relevant.	Recommended condition
	9.14	The developer has presented this as an accessible facility for people with disabilities. This is incorrect. This is an apartment block with one accessible apartment.	The proposed development has been designed to and will be required to comply with the appropriate design standards to facilitate aged and dependant persons as legally required through the restrictive covenant placed on the lots certificate of title.	Incorrect. All apartments comply with the Aged and Dependant requires and can only be occupied by Aged and Dependent persons.	No modifications required.
	9.15	Parking is very tight; driveways are steep and access to larger vehicles (such as wheelchair accessible vans and ambulances) is impractical.	Refer item 5.3 above.	Not correct.	No modifications required.
	9.16	There are insufficient visitor bays to accommodate in home carers or other aged care service providers for 14 apartments.	Refer item 5.3 above.	Visitor bays are provided as required and comply.	No modifications required.

	9.17	The excellent development by Rocky Bay/Shift Homes on Iolanthe Drive is an example of what could and should be done on this site.	Noted.	Not relevant to this application.	No modifications required.
	9.18	This part of Marri Road has a blind crest looking west. At low sun it is impossible to see. Further to this, the road widens at this point creating line of sight issues.	Refer item 5.2 above.	Roads comply, constructed by Main Roads.	No modifications required.
	9.19	Further to this, the road widens at this point creating line of sight issues. The double crossovers/driveways for this development exit on to this stretch of road.	Refer item 5.2 above.	The roads designed by Main Roads WA are safely.	No modifications required.
	9.21	With a reduced front setback and blind crest this is a dangerous exit for 18 vehicles coming and going everyday (14 resident and 4 visitor).	Refer item 5.2 above.	Front setback complies. Low number of car movement. Traffic report confirms this.	No modifications required.
	9.22	This, plus the inevitable street parking (already an issue) will result in traffic and pedestrian safety issues, particularly for school children who cross here.	Refer item 5.2 above.	The land was zoned R40 by the City, who believe an appropriate zoning and use.	No modifications required.
	9.23	The development of a 'tap house' (pub) on the other side of the shops and whole parking and traffic situation around the school will be chaos in the afternoons.	Noted.	Not relevant. Dismissed.	No modifications required.
	9.24	The excellent development at Percy Doyle Reserve is also in close proximity to the area, with Marri Road shops being the closet shops/cafes (and possibly a Pub). Ultimately, this area will need to cater to further increased traffic as Percy Doyle become a destination attraction for families form the surrounding areas.	Noted.	Not relevant. Dismissed.	No modifications required.
	9.25	Forward planning seems to be lacking. In recent years since selling 57 Marri Road, the City (maybe the State?) approved the demolition of four housing lots on Marri Road and Readshaw Road to permit the building to of two new early childhood care facilities (and industry that can't get staff and can barely operate at capacity). We lost four residential lots and replaced them with facilities we already previously had (57 Marri would have made an excellent new childcare facility as it's opposite a school).	Not a valid planning consideration. The proposal is for a Multiple Dwelling development and is not considering alternative land uses.	Not relevant. Dismissed.	No modifications required.
	9.26	More recently two more residential housing lots (cnr Marri Road and Iolanthe Drive) were used to build a dentist facility that was already housed at Marri Road shops. The City has given 6 housing lots in the local vicinity of this site to commercial development (and presumably rezoned them) in the last few years, and now developers want to squeeze as many apartments as possible on to a site that is not conducive with high density living.	Refer item 7.13 above.	Not relevant. Dismissed.	No modifications required.

	9.27	The broad rhetoric is that we need more housing (which I understand) but somehow the City (or maybe the State?) has approved the removal of housing lots for commercial purposes, in close proximity to a site that is already zoned commercial. The whole situation does not seem to have a plan or strategy behind it, with recent decisions actually reducing housing.	Not a valid planning consideration. Land uses and subsequent permissibility within the Residential zone are in accordance with Table 3 of the City's Local Planning Scheme No.3 (LPS 3) and are considered on its merits.	This proposal is to provide much needed Aged and Dependant Housing, and is fully supported by the Full Council, anything other than a recommendation for approval will go against Full Council wishes. If a recommendation is for refusal the application will go to the Full Council for them to approve, they voted 13-0 to support. The proposal added Dependant persons dwellings to the use and are 100% in support. The proposal achieves the intention of the new R Code Vol 1, and this proposal has been designed, then redesigned under the 2023 proposed R-codes before they were cancelled by the new planning minister. Then under R-codes Vol 2, the old code. Then again under the new 2024 R-codes Vol 1, the state government mislead local authorities about bringing the 2023 codes, which reverted back to old codes, then brought out the 2024 new codes. Fair go, how many times can the state government mislead the public and local government regarding planning requirements. The project has been carefully designed over the course of a number of years on a complex sloping site. Immense time has been allocated to the solving of these complex 3D challenges as well as the balancing of resident amenity with the impact of the building on its surroundings. This project offers a high-quality architectural outcome for a community in desperate need of accommodation options. 57 Marri Road Duncraig will increase the vitality of the local area and the social opportunities for both the local residents and the community at large.	No modifications required.

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18 September 2024

Chief Executive Officer
City Of Joondalup
90 Boas Ave
JOONDALUP WA 6027

Attention of: Ciara Slim

Re: Application Referral - Lot 900 (57) Marri Road, Duncraig (City of Joondalup) – Multi-Dwelling - Sewer Easement

Thank you for your letter dated 18 September 2024. We offer the following comments regarding this proposal.

The proposed development is situated far enough away from the wastewater main within the adjacent easement that it complies with Water Corporations Technical Guidelines prescribed proximity to existing assets.

This proposal will require approval by our Building Services section prior to commencement of works. Infrastructure contributions and fees may be required to be paid prior to approval being issued.

For further information about building applications, the developer should follow this link:https://www.watercorporation.com.au/home/builders-and-developers/building/lodging-a-building-application

The developer is expected to provide all water and sewerage reticulation if required. A contribution for Water, Sewerage and Drainage headworks may also be required. In addition, the developer may be required to fund new works or the upgrading of existing works and protection of all works. Water Corporation may also require land being provided for works.

The information provided above is subject to review and may change. If the proposal has not proceeded within the next 6 months, please contact us to confirm that this information is still valid.

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 me at [redacted]

Regards,

[redacted]
Senior Advisor – Land Use Planning
Development Services

Item No. 4.2	Proposed Multiple Dwellings (14 new aged and dependent persons dwellings)	
Date	18 October 2023	
Panel Members	Chris Leigh, Director Planning and Community Development Munira McKay Simon Venturi Kukame McPierze Robin Burnage	Presiding Member Chairperson Member Member Member
Proponent/s	Doepel Marsh Architects (Kim Doepel)	
Design Review		
Property address	Lot 900 (57) Marri Road, Duncraig	
Background	This is a pre-lodgement design review of the proposal.	
	Recommendation	**Applicant Response 2024**
Key Design Review Comments	The Panel recommends: 1. Improvements to the Marri Street streetscape (activation and screening of visitor carparking), and a more welcoming design for the entry sequence to the entry lobby, lifts and the residents' carpark and its response to the interface with the Park. 2. Articulation, passive surveillance opportunities (eastern side) and materiality for the east and west facing walls (blank walls are not supported). The potential for windows and other articulation are to be explored. 3. Engaging a landscape architect to provide detailed design on all aspects of the open spaces of the proposal. 4. Engaging an ESD professional and developing the passive and active ESD initiatives. 5. Clarification and consideration of amenity and legibility improvements to the central void, communal accessway lift lobbies and units that interface this area. Several of the private outdoor spaces do not appear to have direct access to light and will require further resolution. 6. Clarification on pedestrian access to the northern ROWand proposed landscaping to the ROW. 7. Details on the panel construction method and achieving a quality materiality and durable finishes. 8. Developing the aesthetic to better reference the local context and enhance the development's and wider area's unique sense of place.	1. South East Corner and Main Entry have been redesigned to create a more welcoming approach. Screening has been provided to conceal the parking areas. 2. Windows added to east elevation to overlook the park. Vertical Battens and box framed shading devices added to windows. 3. Landscape Architect Engaged, Landscaping plans in Architectural Set. 4. ESD Consultant engaged and report attached with the submission. 5. Central void redesigned to create more space and more natural light. Glass blocks provided to transfer direct sunlight to lower level and private spaces. 6. Step access provided plus additional chair lift provided for resident park access. 7. Weathertight compressed sheeting on both sides of the panels. 8. The elevations and wayfinding to the entry have been further articulated and materiality carefully selected.

Design Principle	**Recommendation**	**Applicant Response**
Principle 1 – Context and character	**Recommendation 1:** 1. Consider improvements to the south-eastern corner of the building to screen visitor carparking from Marri Street; and provide an aesthetically better streetscape and welcoming entry sequence to the below ground residents' carpark that also takes advantage of the outlook to the Park. 2. Consider improved activation/interaction, articulation and materiality of the east and west facing walls prior to the installation of public art.	1. South East corner redesigned, visitors carparking screened and resident secure access door moved closer to the street. Windows added to overlook park. 2. Public art removed. Walls articulated with vertical battens. Windows added to the east.
Principle 2 – Landscape quality	**Recommendation 2:** 1. Engage a landscape architect to consider all open spaces associated with this development proposal (including the verge and ROW as appropriate). 2. Consider meaningful design for trees and landscaped areas integrated with the built form and activity. 3. Ensure DSA allows for trees to mature. 4. Consider the functionality and useability of the first-floor residents' communal open space whilst ensuring there is sufficient deep soil for tree canopy and planting to soften the space. 5. Increase landscape in the communal accessway particularly to provide amenity and privacy to windows of habitable rooms.	1. Landscape Architect has the prepared landscape plan. 2. Done. 3. Done. 4. Minimum tree planting depth 1000mm as per the R-Codes. 5. Done.
Principle 3 – Built form and scale	**Recommendation 3:** None	1. N/A
Principle 4 – Functionality and build quality	**Recommendation 4:** Refer to Principle 10: Aesthetics.	1. N/A
Principle 5 – Sustainability	**Recommendation 5:** 1. Consider more bicycle bays. 2. Further develop the ESD strategy, commitment to passive and active sustainability and provide detail on initiatives.	1. As per ESD Report 2. As per ESD Report
Principle 6 – Amenity	**Recommendation 6:** 1. Provide clarification and consideration of amenity improvements to the central void and communal accessway, particularly into the lift lobbies; sections to demonstrate amenity into internalised units; and possible widening of the void.	1. Stairs and lifts reconfigured and redesigned to allow more natural light in. -Ease of circulation and sufficient movement space. -The void is larger, and it has a larger transparent roof area above to improve direct and ambient lighting.

	2. Consider flipping the plans of Units 9 and 10 to enable living areas to relate to the terraces and Marri Street frontage. Balance the southern orientation and opportunities for street activation and passive surveillance. 3. Consider flipping the plans of Units 4 and 8 to enable living areas with windows to face the eastern Park and to articulate this currently blank elevation.	2. Units have balcony overlooking Marri road. All units facing Marri road have street activation and passive surveillance. They also have winter sun. 3. Windows added to overlook park.
Principle 7 – Legibility	**Recommendation 7:** Refer to Principle 6: Amenity.	-Lifts Stairs and Entry redesigned to allow more light and more space.
Principle 8 – Safety	**Recommendation 8:** Refer to Principle 1: Context and Character and Principle 6: Amenity	-Circulation improved. -Screening added. -Passive Surveillance increased.
Principle 9 – Community	**Recommendation 9:** 1. Provide details on pedestrian access and the development interface with the ROW.	1. -Steps added to ROW lane access. -Chair lift for wheelchair access to park added. -Balconies and other lookouts added to increase community interaction.
Principle 10 – Aesthetics	**Recommendation 10:** 1. Provide details on the materiality and durability of the finishes on the panels. 2. Consider referencing the context in the aesthetic and materials/colours palette to enhance the local sense of place. 3. Increase the level of articulation and diversity of materiality on the east and west facades	1. Compressed Sheet cladding to panels, painted finish. 2. The immediate context is comprised of greenspace, larger trees and typical residential suburbs common to wider Perth. The building references these large trees through the usage of the brown battens and the green planting covering the building. Beyond this, the building is designed to make a novel contribution to the context. 3. -Vertical battens added. -Windows added -Sun screens added

23.016

DEVELOPMENT APPROVAL APPLICATION FOR 14 AGED AND DEPENDENT PERSONS DWELLINGS

LOT 900 (57) MARRI ROAD, DUNCRAIG

PREPARED FOR: MAJESTIC DEVELOPMENTS PTY LTD

PLANNING REPORT

JULY 2024

DOEPEL MARSH ARCHITECTS + PLANNERS
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Date	Rev	Author	Checked	Issue For
6 Aug 2024		KD	JM	DA Application

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1. Introduction

This Application seeks Development Approval for 14 two-bedroom, two bathroom, Aged and or Dependant Persons Dwellings, situated at 57 (Lot 900) Marri Road, Duncraig. The Full Council approved (13-0) at its November 2023 meeting to add Dependant Persons Dwellings to the existing use Aged Persons Dwellings.

A review was undertaken by the Design Review Panel who were generally supportive of the proposal when considered against SPP 7.0 The Built Environment which will be discuss further in the report.

The State Government finally released the new R-Codes on April 10, 2024, Vol 1 for Land zoned up to R60, and Vol 2 for Land zoned R80 and above. The Government delay has caused frustration with this Application, and unnecessary delays, depriving those most in need of somewhere to live.

The Proposal had been amended in accordance with the planning requirements for Multiple Dwellings under Vol 1, 2024, R-Codes.

Research information was presented to the Council, at the November meeting, which confirmed that there was NO accommodation available for Dependant Persons while there were 723 bedrooms available for the Aged.

The proposal will be available for Dependant Persons within the City of Joondalup, and it has been well considered and seeks support from the Responsible Authority for a recommendation for Approval to the JDAP.

2.0 Response to Preliminary Assessment & Design Review Panel Review

2.1 Building Height and Plot Ratio

- The site was purchased after the State Government released the new R-Code Vol 1 and Vol 2, in February 2023 with gazettal on 1 September 2023 as part of the State Government Planning Reforms
- Without warning the State Government scrapped the Planning Reforms and cancelled the gazettal before 1 September 2023
- Our clients purchased the site and relied on the State Government's advice as the new Codes were a ''Seriously Entertained Planning Instrument''
- The design is based on the new R-Codes where side setbacks start from 1m and Plot Ratio is deleted.
- The Planning Reforms were the result of four years of research, testing and public consultation by the Department of Planning, WAPC and the Public
- Had the former Premier retired a month later, the new R-Codes would have been gazetted, which demonstrates that the new Codes could past as easily been gazetted.
- Discretion is required to dismiss Plot Ratio as a requirement.
- The Building Height is two storeys and is fully explained in the Proposal.

2.2 Existing Trees

Subject to the recent site survey, 6 existing trees can be retained and are detailed in part of the Landscape Plan.

The Deep Soil Area has been determined as 7% of the Site Area as 6 existing trees are retained

2.3 Deep Soil Area (DSA)

The proposal confirms that 153m² of DSA in ground has been provided. 95m² are required at 7% x 1365m².

On building landscaping is in addition, to add canopy, insect and bird habitat and addition shrubs and ground covers particularly to the common outdoor area.

2.4 One Adjoining Property: Commercial

- The site has only one adjoining property being the commercial Vet Surgery to the west.
- To the north is a 6m wide Public Access Way, to the east Public Carpark and Park, and to the south Marri Road
- the Planning Report details why there are no concerns overlooking particularly to the north.
- More importantly is the support provided by the DRP to increase passive surveillance to the Public Access Way, the Park, and the Street.

2.5 General Comments

The documentation is now complete which answers the window and ventilation comments, plans and elevations are provided without trees, internal screens and fencing are shown and the roof plan is incorporated into the set.

2.6 Waste Management

Waste Management provisions have been provided from information received from the City of Joondalup and WALGA.

2.7 Full Council Support

The Full Council November Meeting, fully supported this proposal and granted approval to include Dependant Persons Dwellings as an additional USE to the Aged Persons Dwellings.

The vote was 13 - 0 and Councillors spoke about the benefits and need and looked forward to its approval and the completion of the project, to provide homes to those less fortunate in our Community.

2.8 RAR Recommendation: APPROVAL

The RAR can recommend support with a recommendation for approval being considered on its merits and approved under discretion.

3. Design Review Assessment and Comments (18 Oct 2023)

a) A copy of the DRP response is enclosed with explanatory comment provided to further explain the proposal.

b) All DRP recommendations have been incorporated into the proposal which further strengthens the support provided by the DRP and the Full Council

c) Design Strengths of the proposal

- Efficient and functional design
- Double sided units, central void, and communal access ways.
- Building bulk and scale designed in tandem with the site slope of 5m
- Residents car parking, enclosed from public view in a basement
- All units facing north
- Use will be of value to this locality
- 2 crossovers supported to achieve separate and secure parking for residents from visitor parking
- Landscaping to the Verge, Public Access Way landscaping and setback areas address the public realm, which soften the frontages
- Units 9 & 10 have direct access from the street footpath
- Legible and centrally located communal pedestrian approach from Marri Road
- Passive sustainability achieved through northern aspect for winter solar gain and cross ventilation
- ESD confirms high level of sustainability
- North facing Communal Open Area is accessible and generous in size.
- Contemporary architecture language developing well

d) The DRP supports the design and looks forward to refinements as suggested and recommended.

e) All the recommendations have been incorporated into the DA proposal

i. Activation and screening of visitor parking has been achieved, including an improved central access wayfinding sequence to the entry and lifts, with more natural light achieved

ii. Passive surveillance opportunities to east side achieved with the inclusion of windows and outdoor seating areas overlooking the park

iii. Public art removed from east and west facades

iv. A Landscape Architect has provided a fully detailed plan, confirming compliance with inground DSA, retention of 6 existing trees and details of on building landscape to Communal Open Space

v. Emergen has provided a detailed ESD Report confirming a 7 star rating

vi. The central access and amenity area has been redesigned to allow more natural light, by relocating the lifts and stairwell to the central void area

vii. Access to the northern Public Access Way is included plus an external chairlift to access the eastern park

viii. The premade insulated wall panels are similar to Ritek but are complete when delivered to site. No in situ concrete wall filling required.

Wall panels are pre made at a storey height and bonded into the concrete slabs with starter bars with only the top portion concreted.

The external wall finish to both sides is paint grade magnesium flat board which is waterproof and ready for painting or applied finishes.
The insulated roofing system consists of Colorbond roof sheeting, 200mm insulation with Colorbond Mini Orb as the ceiling. The roofing will span 8m internally supported at 2 points and it can cantilever 4m unsupported for eaves.

Load bearing and fire proof walling is filled with a cement / insulation component at the factory and delivered for immediate installation. Fire rating and acoustic values are certified.

The wall panels are bolted to a structural steel channel which is anchored to the concrete floor slab.

This premade elemental system will halve site construction time, reduce waste, and achieve affordable Special Needs Accommodation.

4. 10 Principles of SPP 7.0

All 10 principles of SPP 7.0 Built Environment have been met and the DRP recommendations mentioned have been addressed and included as follows.

Only the items mentioned are addressed as the other elements have already been incorporated.

4.1 Principle 1 : Context and Character

- The southeast corner has been redesigned, the visitor car parking relocated out of view, permeable screening has been added
- The resident's security gate been relocated closer to the street boundary.
- The Eastern elevation has been redesigned to remove public art and include windows
- Public art removed from west and east blank walls.
- Windows have been added to the eastern walls to Units 4, 8 and 14
- The east and west walls have been articulated with portions of vertical battens, which extend the visual conversation from the battened store walls
- Public art will be undertaken by an artist selection process in conjunction with the City of Joondalup Percent for Art Protocol

4.2 Principle 2: Landscape Quality

Landscape Architect, Dr. Omid Rismanchian has designed the landscaping which now has 153m² inground DSA instead of the required 95m², as well as retaining 6 existing mature trees. All recommendations (2) have been incorporated into the design.

4.3 Principle 3: Built Form and Scale

- DRP supports the design
- Setback variations justifiable considering overlooking to the northern Public Access Way.
- Recommendations – none

4.4 Principle 4: Functionality

- Supported recommendation. Refer to Principle 10

4.5 Principle 5: Sustainability

- Bicycle parking complies with 2 visitor bike stands, with 2 more added
- ESD Report provided which demonstrates above requirements with above 7 star rating

4.6 Principle 6: Amenity

- The central void and access approach have been redesigned to provide more natural light, resulting in a more welcoming approach, a safer circulation area, the stair relocated so it is seen on approach and the lifts have been separated which allows more natural light into the void.
- Units 2 and 3 at the Lower Ground Level have a glass walkway above and more clear space in front, ventilation will enter from both sides from the west and east. The second bedroom is defined by the NDIS as a craft, study or work place but will be available as a bedroom for a carer or visiting family member.
- The central void has been enlarged; all windows have opening sashes to allow cross ventilation.
- Recommendations:
  i. The central void has been enlarged, and has more natural light
  ii. The plans to units 9 and 10 do not require flipping as they already relate to the terraces.
  iii. Additional windows have been added to the eastern elevation to take advantage of the park views and increase the surveillance

4.7 Principle 7: Legibility

- Lift lobby redesigned to increase legibility
- Referred to Principle 6 above which incorporates the recommendations.

4.8 Principle 8: Safety

- Improved passive surveillance to Street, Park, and Public Access Way
- Refer to Principle 1 for inclusion of recommendation

4.9 Principle 9: Community

- Commended for developing access to Public Access Way and Park
- A direct set of steps is provided to the Public Access Way and a chairlift and steps have been provided to the east with direct access to the Park.

4.10 Principle 10: Aesthetics

- Details provided for the panel system.
- There is no immediate reference context next to or opposite the site.
- West and east walls have been articulated with vertical battens, with public art removed.

In conclusion, all the recommendations of the DRP have been incorporated. In the final submission. The DRP have supported the proposal along with the City of Joondalup Full Council. The DRP gave no reasons why the proposal should not be supported and approved, as all their comments have been included into the final design.

The RA Report therefore should support the DRP and Full Council with a recommendation for Approval.

5. Proposal Aged + Dependent Persons Dwellings

The proposal is for 14 Aged and Dependent Person Dwellings on a vacant and neglected site, Lot 900, 57 Marri Road, Duncraig.

All apartments are two beds with two bathrooms. Each apartment has its own car bay Special Disability Accommodation standards of 5400mm by 3800mm which are all located at the lower Ground Level secured by an auto gate and fencing, with direct level access to two lifts. This parking is not seen from Marri Street, as it is below the original natural ground level and in a basement.

At the Upper Ground Level is the main pedestrian entry off the Marri Road footpath, direct to the central circulation area, where two lifts service the lower ground level, upper ground level and the first floor.

The required 4 Visitors bays have been located on the Upper Ground Floor Level with direct access to the two lifts and stair.

The composition of the apartments are two stories in height in accordance with the R-40 Density Coding, with the central Upper Ground Floor with one level down to the Lower Ground Floor Level and up a level to the First Floor where four (4) apartments address Marri Road and provide passive surveillance over the public domain.

Below four apartments numbered (11 to 14), are two apartments numbered 9 to 10 which also address the street and make a further contribution to passive surveillance over the public realm. Both these apartments have direct access to Marri Road and have Ground Level Private Outdoor Living Areas, as well as rear north facing courtyard areas.

Apartments 9 to 14, on the First Floor Level have a small balcony overlooking Marri Road and a north facing courtyard, so two private outdoor living areas.

There are eight (8) apartments four (4) to the Lower Ground Floor Level with four (4) above at the Upper Floor Level.

All apartments have direct access to the two lifts with the First Floor having a stair down to the Upper Ground Level. Both the lower and upper floor levels have direct access to open space.

A generously styled Communal Outdoor Living Area is provided to the roof area of apartments 5 to 8 which faces north capturing passive solar energy. This area is extensively landscaped including lower resident garden beds for growing their own herbs and vegetables.

The Deep Soil Area has been provided at the Lower and Upper Ground Levels without the need to count any on building planting areas, that said an extensive landscaped area is provided to the Communal Area for shade, interest, and increased tree canopy, with resident garden beds.

Lot 900 is unique in some ways, as it has only one adjoining property, that to the west, a commercial development and use, being a Vet Surgery. This property is at the original natural ground level, before subdivision, which is the Natural Ground Level used to determine storeys for this Proposal.

The two storey height will be discussed in greater detail further in the Report.

The Overall Design was commended by the Design Review Panel who made some minor recommendations on how the design could be strengthened, with all of the DRP comments now incorporated into the final design. The 10 Elements of SPP 7.0 have been discussed.

6. Retention Of Existing Trees

6.1 Current Site Survey

The City requested an up-to-date site survey be carried out so the existing trees could be reevaluated, which has resulted in six (6) existing trees being retained on site.

6.2 Retained Trees

Cl 2-6, A Retained tree replaces a tree requirement in Table 1.2 a on a like for like basis. Refer to the Landscape section in this report and the Landscape Plan prepared in accordance with Appendix A3.

7. NEW R-Codes

7.1 Cancellation of R-Codes

This proposal has been frustrated by the State Government cancelling the new R-Codes in 2023, which the design was aligned to.

7.2 Design Codes Old Scheme and New Scheme

The proposal was then redesigned to R-Codes Volume Two, Old Scheme and now redesigned in accordance with the April 10, 2024, R-Codes Volume One, being for properties Zoned R60 and lower.

7.3 Current Zoning

The subject site is zoned R40 and will be assessed against PART C, being the Primary Controls for Multiple Dwellings R-Codes, Vol 1, 2024.

7.4 Table C

a) Soft Landscaping, 15% of site area,
15% x 1365m2 = 204.75m2.

b) Maximum Site Cover 65% or 887.25m2.

c) Maximum Building Height: 2 storeys
Have two storeys – Complies.

d) Maximum Wall / Roof Height:
i) Skillion 8m
ii) Pitched/hipped 10m

e) Maximum Wall Height pitched/hipped 7m

f) Minimum Street Setback 3m
4.3m have – Complies.

g) Adjoining Laneway, 0.5m
Have 0.5m adjoining laneway – Complies.

h) Minimum Lot Boundary Setbacks

- Up to 3.5m (1 storey) = 1m
- 3.6m – 7m (2 storeys) = 1.5m

i) Maximum Boundary Wall Height = 3.5m (1 storey), have a boundary wall of 2 storeys, but Ground Floor is 2.65m below adjoining floor level of 33.65m

7.5 The Garden

The objectives of the Garden are to ensure dwellings are provided with functional outdoor amenity and outlook, support the retention of trees (6 existing trees have been retained), to enable solar access and natural ventilation by open space, to ensure that landscaping responds to the key natural features and characters of the location, while effectively managing storm water on site and through water harvesting on site, via water tanks (4 have been provided).

7.5a) Private Open Space

C1.1.3 Multiple Dwellings
Minimum of one private open space for the exclusive use of each dwelling in accordance with Table 1.1.b

C1.1.4 Balconies
Balconies to be unscreened for at least 25% of the total perimeter.

Table 1.1.b
2 bedroom dwellings = minimum private open space 10m2, with a minimum dimension of 2.40m. All balconies are 10m2 or larger with the minimum width 2.4m or wider, proposal has minimum. The areas excluding a/c units, storage and clothes hanging.

7.5b) Trees and Landscaping (Landscaping refer to Landscaping Plan).

C1.2.1 15% of site or 205m2 have 211m2 plus verge area and rear public access way.

Tree Canopy:
C1.2.4 Minimum number of trees to be planted in accordance with Table 1.2a and provided with Deep Soil Area to table 1.2b.

C1.2.5 There are no uncovered car parking at grade.

C1.2.8 Refer to the Landscaping Plan with has been prepared to Appendix 3 requirements.

Table 1.2a Minimum Tree requirements Multiple Dwellings

Sites greater than 1000m2, 2 medium trees, plus 1 medium tree per 400m2 in addition to =1000m2 so 1365m2 site area = 3 medium trees required.

6 Medium trees are being retained on site, which is double the minimum requirements.

Additional trees, shrubs and ground covers are proposed as per the Landscape Plan.

Table 1.2b Tree size and Deep Soil Area. (Refer to Landscape Plan).

7.5c) Communal Open Space

Communal Open Space is required for multiple dwellings in accordance with Table 1.3a at 6m2 per dwelling = 6x14 = 84m2 required.
Provided 270m2 or 3.2 times greater in area than the minimum requirement.

4m wide is the minimum open space dimension and the minimum hard landscaping is greater than 2m2 x 14 = 28m2.

25% can be covered or 84x25% or 21m2 roofed. However, the provision is larger at 270m2 (C.O.S) has been provided with 97m2 covered. The additional space provided will provide public amenity.

7.6 Water Management

C1.4.1 All stormwater runoff is retained on site via soak wells spoon drains or for small, paved areas run off into garden areas. 4 Rainwater Tanks have been provided on the Communal Open Space for use by the residents.

8. The Building

8.1 Size and Layout of Dwellings, Primary Living Spaces

C2.1.1 For R40, all primary living spaces are larger than 3.8m x 3.8m as per Figure 2.1a.

C2.1.3 Primary Living Spaces Access to Private Open Space
All primary living spaces have direct physical and visual access to private open spaces per Table 1.1b

C2.1.4 Max Depth Single Aspect Primary Living Space
The maximum depth of single aspect primary living space is 3 x the ceiling height. Refer Figure 2.1b,
Or 2.7m ceiling height x 3 = 8.1m Complies.

C2.1.5 Bedrooms
All bedrooms are larger than 9m² with a minimum dimension of 2.7m minimum

C2.1.6 Ceiling Height
All ceilings are 2.7m or higher, the slab to slab height is 3.25m

C2.1.7 Minimum Area Table 2.1a

2 bed x 2 bath ≥ 72m²
All 14 dwellings are larger than 72m².
Refer to the Unit Area Schedule on drawings

C2.1.8 Apartment Diversity
For 10 or more Multiple Dwellings, no more than 80% can have the same number of bedrooms.

All 14 Aged and Dependent Person Dwellings are two bedrooms as the second bedroom is for carer or husband or wife or family member .

To provide one bedroom sized dwellings would not be fair or reasonable and would deprive Aged or Dependent Persons with an unacceptable outcome.

C2.1.11 Screened Car Parking
Car parking areas have been screened from habitable rooms.

8.2 Size and Layout of Dwellings:

C2.1.5 All bedrooms are 9m2 or larger, with a minimum dimension of 2.7m or wider in accordance with Figure 2.1.c.

C2.1.6 Minimum Ceiling Heights: all habitable rooms have a Ceiling Height of 2.7 m with all non-habitable rooms 2.4m or higher. Complies.

8.3 Dwelling Size:

C2.1.7 Minimum Floor areas in accordance with Table 2.1a. All dwellings are 2 bedrooms, two bathroom and are greater in area than 72m2, being the minimum for a 2x1. In fact, 5m2 is to be added for the second bathroom so the minimum area is 72+5 = 77 m2. All dwellings are larger than 77m2 refer to the area table on the Architectural Drawings as all units have been designed for universal access.

C2.1.8 All dwellings have been provided with two bedrooms, being aged or dependant persons dwellings, the second bedroom is provided for a family member or a Carer, and as such a Variation to C2.1.8 is sought.
The Full Council supported all dwellings at 2 x 2 at its November 23, 2023, Meeting.

8.4 Storage:

C1.1.9 All dwellings have an exclusive use store area of at least 4m2 each with a minimum width of 1.50 metres and a ceiling height more than 2.10m in accordance with Table 2.1b.

8.5 C2.1.12 Noise Sources:

There are no garage doors, service areas or active communal open space or communal waste storage areas within 1m to an external wall of a habitable room, or 3m to a window or bedroom.

8.6 Solar Access and Natural Ventilation

C2.2.1 Solar Access
Every habitable room in this development has a window of 10% of its floor area, with 20% openable

C2.2.3 Openable Windows
All bathrooms have an opening window, awning type for security

C2.2.5 Orientation Solar Access
All dwellings face north and receive direct sunlight for at least 2 hours between 9am and 3pm on the 21st of June.

8.7 Parking

C2.3.1 Occupant Car Parking
Location A
Frequent bus service within 250m. In fact, in Marri Road in front of the site.

Table 2.3a Car Parking Bays
Minimum 0
Maximum 2
Have 1 for each, 5.4m long x 3.8m wide x 14 bays provided out of sight from the street.

Visitor Parking
Table 2.3a 13 or more dwellings,
3 plus 1 additional for every 4 dwellings,
4 required, 4 provided

8.8 Bicycle Parking Table 2.3b.

Occupant 0.5 x 14 = 7 bicycles

Visitor 0.1x 14 = 1.4 = 2 bicycles
2 Visitor bike stands provided plus one Scooter Bay.

Occupants
Each dwelling has private outdoor space which has area for a bike stand.

8.9 Waste Management

An independent Waste Management Plan and Report has been provided to demonstrate where, and how waste collection removal will take place.

A Private Waste Contractor will be responsible for emptying bins but not before 7am in the morning, nor on weekends, or Public Holidays.

C2.5.1 Waste Bin Store
Located at the front, easy access for occupants, screened from street.

8.10 Outbuildings

There are no outbuildings on this project

8.11 Universal Design

C2.7.1 Universal Design
All dwellings have been designed for universal design.

8.12 Ancillary Buildings

C2.8.1 Ancillary Dwellings

There are no ancillary buildings as part of this Proposal.

8.13 Neighbourliness

813.1 Site Cover

C3.1.1 Table 3.1a.

R40 maximum. Site cover 65%, proposed 63.97%
or 1365m² x 65% = 887.25m² required proposed 873.59, refer to diagram which has the area shown. 491.93m2 uncovered.

The proposal achieves the design objectives which is appropriately scaled has three times the minimum area for Communal Open Space (C.O.S), all apartments and (C.O.S) face north and receive passive solar gain. All utilities have been well sited, away from the habitable space and outdoor living areas and the proposal will provide much needed accommodation. The Project is complimentary to the existing and future streetscape, reinforcing the local character.

8.14 Building Height

C3.2.1 Table 3.2a R40 number of storeys 2 proposed: 2 storeys.
R40 maximum height skillion roof 9m maximum height wall 7m pitched or gable roof 10m maximum.

C3.3.1 Setback to Buildings Table 3.3a min Primary Street setback 3m proposed 4.30m – complies.

C3.3.5 There are no garages or carparks facing the street.

C3.4.1 Table 3.4a Boundary setbacks: Minimum on the boundary, min side setback 1.00m, wall height 3.6 – 7m, 1.50m setback.

C3.4.4 There is one wall on the boundary with a length of 5.20m without major openings and faces west opposite the commercial property. The floor level is 31.55 AHD for the upper ground level. The Vet Surgery ground floor level is 33.45 AHD or 2.10m higher than the lower ground floor level and the upper floor level is 1.30 metres above the commercial floor level adjoining.

The Code allows 2/3 of the boundary dimension after the front setback of 3m is taken off which in this case would be 37.34-3 = 34.34m by 2/3 = 22.89m allowed proposed 5.20m – complies.

The wall height would be 4.80m above the floor level of the Commercial building which is set 3.30m from the boundary.

The 5.20m length of wall allows a north facing window to bedroom 2 to Unit One and Five, without the need to have a west facing window minimasing the western heat..

The boundary wall does not cast a shadow over the adjoining property for the required dates and times.

For the reasons given above the small section of boundary wall can be supported as it will not create any loss of amenity to the adjoining commercial property.

8.16 Site Works and Retaining Walls

The proposal has a retaining wall below natural ground level, one metre from the boundary line, with the adjacent car parking level at the base of the wall at 33.60 AHD.

No greater setback is required as set out in Table 3.5a as the Design Principles P.3.5.1, P3.5.2 and P.3.5.3 have been satisfied.

The resident car parking area is provided at the proposed lower ground floor level, no cars will be seen from the street and the access into the main entry will be level accessing 2 lifts and the stair.

The Lot boundary levels have been respected and the retaining wall will result in a benefit to the residents having their car parking level with the access to the building, without being seen from the street.

There is no loss of amenity to the western adjoining property. The retaining wall will be engineered designed, and landscaping is proposed above at the front boundary to Units 9 and 10, including the street verge as set out on the Landscaping Plan.

8.17 Streetscape

C3.6.2 For multiple dwellings, upper-level balconies and windows overlook the street and provide surveillance and interaction with the public domain.

C3.6.4 Units 9 and 10 have direct access to the street.

C3.6.5 There are no garage doors in the proposal or carports and no resident parking is visible from the street.

C3.8.7 Fences facing the street are visually permeable above 1200mm. There are no pillars forming part of fences.

8.18 Access - Vehicle access

C3.7.2 Vehicle access is limited to one per lot unless the frontage is 40 metres. The site frontage is 36.57m, however two (2) crossovers are proposed, and this was supported by the DRP on the following basis;

a) That one crossover is dedicated for residents only and provides secure access down to a resident car parking area only. The crossover is proposed to the eastern most portion of the site which is the lowest level in relation to the slope to the street Marri Road falling from West to East.

Visitor parking has been designed to prevent access to the resident parking via a second crossover almost in the centre of the street frontage, where four (the required number of visitor bays) are provided next to the main entry point for visitors in front of the lifts and stair.

Further support for two crossovers are reinforced by the Design Principles of 3.7 being;

a) the visitor entry point is well sighted, easy to recognise and allows pedestrian access right at the main entry.
b) provides the lowest volume of traffic
c) provides safe sightlines, clear and unobstructive sight to the pedestrian access.
d) and allows visitors to exit back on to the street in forward gear

The Resident access is dedicated for them only is at the lower level of the street frontage which makes safe access especially given that the residents could be elderly or dependant persons.

Driveways:

C3.7.3 must be 3.00m wide at a minimum, the visitor driveway is 3.50m and the resident driveway is 5.64m which is less than 6m being the maximum, and setback 1.50m from the boundary instead of the minimum 300mm

Both driveways are set at right angles to the street.

C3.7.5 The resident driveway is 5.60m which is wider than the minimum of 5.50m and will allow passing.

The visitor parking driveway is 3.50m wide and services only four (4) bays. There is excellent sight lines of the driveway which would allow an entering vehicle to be seen and allow it to enter as there is passing available on site.

The distance between the two (2) crossovers or driveways is 7.50m with excellent sight lines from each to the other.

Further there is a deceleration lane in front of this site marking access to and from the site unusually safer and easier to enter and exit.

C3.7.9 Pedestrian Access

The pedestrian access of 1.65m is provided instead of the min 1.50m, clear of any projections or utilities and separate to vehicle access to the visitor parking area. The Pedestrian path is continuous from the street direct to the main entry area containing two lifts and the stair, which creates excellent wayfinding when approaching the site from both directions.

An awning is provided over the pedestrian access way from just inside the front boundary all the way to the main entry area and located such that cover, and protection is provided from the south west weather.

8.19 Solar access from adjoining Sites

The site faces north and no shadow falls over any adjoining site for the dates and times mentioned in the Code.

8.20 Visual Privacy

C3.10.1 There are NO adjoining dwellings to the proposed site. That is a Commercial Development.
SOUTH is Marri Road
WEST a public car park and public park
NORTHa six (6) metre wide Public Accessway

Table 3.10 For sites Codes R50 or lower, subject site R40. Cone of vision, 4.5m from bedrooms, 6m to habitable rooms, other than bedrooms and 7.5m from outdoor active habitable space.

The DRP required that additional windows be provided to both the west ad last elevation to increase the opportunity to view open space and increase surveillance, which has been done.

There are no bedroom windows closer to an adjoining property than 4.50m, therefore no overlooking possible likewise there are no adjoining properties closer than 6m from a habitable room, other than a bedroom, so no overlooking possible.

First Floor Rear

The balustrade has horizontal blades which restrict the view when looking downwards. The overlooking cone of vision shows a very small area 900mm wide to the rear of three properties to the north of the 6 metre wide Public Access Way.

None of the 900mm area is active outdoor space, in fact two of the properties have access gates within the Cone of Vision area, and the western property has a very large outdoor living area not affected by the small overlaps.

Also, the eastern property has large overhanging gardens into the Public Access Way, so no vision can be seen into that property at all, this is confirmed on the survey plan and the enclosed arial photograph, also shows the existing situation.

The overlap of the Cone of Vision for 900mm will present no loss of amenity and in fact the DRP where supportive of the design which allowed passive surveillance over the Public Access Way for the full property width.

There are no major openings to the properties to the north of the P.A.W. and the overlaps of the Cone of Vision do not affect those properties.

9. Conclusion

The Proposal for 14 Aged and Dependent Person Dwellings will provide much needed accommodation to those in our community with Special Needs. There is no such accommodation in Duncraig or surrounding suburbs, or in the City of Joondalup.

The Use 'Dependent Persons Dwellings' was added by Full Council at its November 2023 Meeting and approved 13-0. The DRP fully supported and commended the design and provided additional recommendations to strengthen the proposal, all of which have been incorporated into the design.

As a result of the State Government scrapping its Planning Reforms, discretion is required to achieve an RAR with a recommendation for Approval. The incentive requirements have been satisfied and the Full Council, the DRP, the potential residents, the proponents, and the Design Team look forward to the RAR supporting this much needed Special Needs Accommodation with a recommendation for approval.

This project can be the beginning of many such projects delivering to those with Special Needs, a place to call home and be part of City of Joondalup.

DOEPEL MARSH ARCHITECTS.

10. Appendix

10.1 Certificate of Title

Attached in Drawing Package

TABLE 1: SDA Housing **SUPPLY** In Duncraig and Surrounding Area

SDA=Specialist Disability Accomodation (Dependant)

DUNCRAIG SDA SUPPLY 2023 0 Properties

Properties available and ready for SDA Participants:

Source	Type	Name	Total Properties in WA/500km	Properties within 50km	Properties within 10 Km	Properties Within 5km	Properties in Duncraig <2km
https://www.ndis.gov.au/participants/home-and-living/specialist-disability-accommodation-explained/sda-finder#finder	Search Engine/ Database	NDIS SDA Accomodation Finder	218 (25 vacant)	186 (20 vacant)	23 (1 Vacant)	11 (0 Vacant)	0
https://www.housinghub.org.au/search-results?sort=geo_asc&radius=10&postcode=6023&location_string=Duncraig%20WA%2C%20Australia&latitude=-	Search Engine/ Database	SDA Housing Hub	154 found (100km radius)	135 found	20 found (1 vacant in Sharehouse)	2 found (451 Beach Rd Duncraig near Carine)	0
https://www.disabilitysupportguide.com.au/search/accommodation/perth-wa	Service Provider/Supplier Source:					Closest Property (Vacancy TBD)	
https://sanaliving.com.au/disability-housing/location/perth-wa/	Individual Supplier	Sana Living	49 Properties	N/A	N/A	4 (3 in Greenwood) (1 in Craigie)	0 Properties
https://abilitywasda.com.au/ourhomes	Individual Supplier	Ability WA	28 Properties	N/A	N/A	3 (2 in Greenwood) (1 in Craigie)	0 Properties
https://www.shifthomes.org.au/search/	Individual Supplier	Shift Homes	21 Properties	N/A	N/A	(1 in Karrinyup) (1 in Girrawheen)	2 Unbuilt (in development)
https://abilityhousing.com.au/listings_cat/accessible-homes	Individual Supplier	Ability Housing	20 Properties	N/A	N/A	2 in Balga	0 Properties
https://brightwatergroup.com/disability/supported-independent-living/	Individual Supplier	Brightwater	9 Properties	N/A	N/A	1 in Balcatta	0 Properties
https://www.pulsepropertysolutions.com.au/projects/category/SDA+Lifestyle+Home	Individual Supplier	Pulse Property Solutions	9 Properties	N/A	N/A	3 (2 in Warwick) (1 inGirrawheen)	0 Properties
https://www.nulsen.com.au/service/accommodation-vacancies/	Individual Supplier	Nulsen Group	8 Properties	N/A	N/A	2 (1 in Hammersley) (1 in Nollamara)	0 Properties
https://www.activ.asn.au/what-we-do/accommodation/specialist-disability-	Individual Supplier	Activ WA	7 Properties	N/A	N/A	1 in Bassendean	0 Properties
https://www.lwb.org.au/disability/services/supported-independent-living/vacancies/state/wa/	Individual Supplier	Life without barriers	5 Properties	N/A	N/A	1 in Morley (14km)	0 Properties
https://thestarcare.com.au/accommodations	Individual Supplier	Star care group	4 properties	N/A	N/A	1 in Ocean Reef(8km)	0 Properties
https://athomecare.au/services/sda-accommodation/	Individual Supplier	At Home Care	3 Properties	N/A	N/A	1 in Warwick	0 Properties
https://www.sovereignlives.com.au/?s=duncraig	Individual Supplier	Sovereign Lives	No Database				
https://inclusivecare.com.au/accomodation-tenancy/	Individual Supplier	Inclusive Care	No Database				
https://www.accessfoundation.com.au/accommodation?gad_source=1&gclid=EAIaIQobChMIgPfO76TEggMVns_landing_page/	Individual Supplier	Access Foundation	No Database				
https://blossomcommunitycare.com.au/accommodation/	Individual Supplier	Blossom Community Care	No Database				
https://www.bbcare.com.au/services/sil%2Fsda	Individual Supplier	Beyond Barriers Care	No Database				
https://pattyhealthandcare.com.au/accommodation/supported-independent-living/	Individual Supplier	Patty Health Care	No Database				

CONT..

Outcome:
There are no properties available in Duncraig for people with disabilities.

TABLE 2: SDA Housing **DEMAND** In Duncraig and Surrounding Area

Duncraig SDA Demand 2023 **45+**

Participants with SDA Need:

SOURCE NDIS Current Demand For Housing

https://www.ndis.gov.au/providers/housing-and-living-supports-and-services/specialist-disability-accommodation/sda-demand-data

SA3 AREA	Total Participants with SDA need	In SDA dwelling	In SDA dwelling, seeking alternative	Not currently in SDA, seeking dwelling	Not Defined	Improved Livability	High Physical	Robust	Fully Accessible
NDIS Current Demand For Accomodation-Joondalup	78	64	10	4	3	2	5	0	4
NDIS Current Demand For Accomodation-Stirling	220	205	10	5	0	2	9	1	3
NDIS Current Demand For Accomodation-Wanneroo	129	113	12	4	2	0	8	3	3
TOTALS	427	382	32	13	5	4	22	4	10
			Total	45	11%	8%	48%	8%	22%

14 People in Joondalup seeking SDA Accommoda-tion.

None available.

Conclusions

A- A minimum of 45 Dwellings are required

B- 48% or more should be High Physical Disability Accomodation

C- This chart does not include the need of people who are outside of the NDIS system.

TABLE 3: SDA Participant demand **2025 FORECAST** in Duncraig and Surrounding Area

Duncraig SDA Demand by 2025 Forecast **57+**

Participants with SDA Need:

SOURCE-Department of Social Services NDIS Participant Demand Maps

https://blcw.dss.gov.au/demandmap/

Area	Cost Demand For Services	Participants
Current (2023) Duncraig Postcode 6023 and Surrounds	$79 million	1700 people
Forecast (2025) Duncraig Postcode 6023 and Surrounds	$126 million	2148 People
	40% increase	26%increase

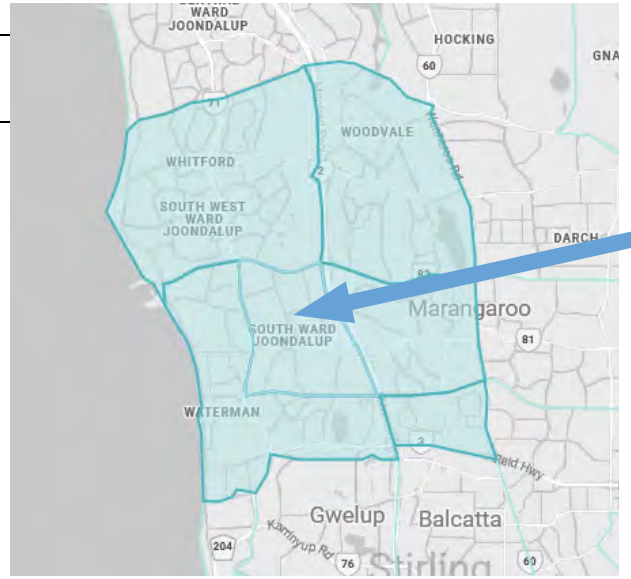


Figure 1-Area included in demand map

There are 57 people forecast to require SDA accommodation by 2025.

There are none available now, and none approved to meet the 57 required by 2025

TABLE 3: Over 55's Dwellings in Duncraig

Over 55's Beds Available 912.5

1km Radius of the Project Location

Total Dwellings 424

Source	Type	Provider	Name	Address	Dwellings	Bedrooms	Bath	Total Beds
https://www.retireeswa.com.au/unit/	Villa	RetireesWA	Patricia Teague Villas	7 Chessell Dr, Duncraig WA 6023	12	2	1	24
https://parcelproperty.com.au/apartments-for-sale/evolve-duncraig/	Apartments	ParcelProperty	Evolve Duncraig	22 Cassinia Road, Duncraig	21	2	1	42
https://www.realestate.com.au/sold/property-villa-wa-duncraig-138884439	Villa	n/A	Beddi Road	41 Beddi Road, Duncraig, WA 6023	12	2	1	24
								0
								0

2km Radius of the Project Location

								0
https://www.amanaliving.com.au/retirement-villages/locations/lady-mccusker-village	Villa	Amana Living	Lady McCusker Village	27 Beddi Rd, Duncraig WA 6023	24	3	?	72
https://www.catholichomes.com/about-our-independent-living/our-independent-living-residences/trinity-village/	Villa	Catholic Homes	Trinity Village	7 Beddi Rd, Duncraig WA 6023	34	2	?	68
https://www.realestate.com.au/sold/property-retirement+living-wa-marmion-124769170	Villa	n/a	Ocean Grove Villas	10 Parnell Avenue, Marmion, WA 6020	14	2	?	28
https://www.realmark.com.au/buy/real-estate/409756/24-17-syree-court-marmion-wa-6020	Villa	n/a	Syree Court Villas	17 Syree Court, Marmion WA 6020	10	2	1	20
n/a	Villa	n/a	Sorrento Estate	7 Hocking Parade Sorrento WA 6020	60	2	1	120
https://www.seacrestvillage.com.au/	Villa	Seacrest V Lifestyle	Seacrest Village	7 Harman Rd, Sorrento WA 6020	110	2.5	1	275
https://www.seacrestvillage.com.au/	Villa	Seacrest V Lifestyle	Seacrest Village	7 Harman Rd, Sorrento WA 6020	59	1	1	59
City of Joondalup TPS3	Villa	Restricted Use	Zoned Aged Care	20 Kanangra Cres, Greenwood				0
https://masoniccarewa.com.au/locations/glengarry-village/	Villa	Masonic Care	Glengarry Village	49 Arnisdale Rd, Duncraig WA 6023	53	2.5	1	132.5
https://www.realestate.com.au/sold/property-villa-wa-duncraig-137708746	Villa	n/a	Quilter Drive	18 Quilter Drive, Duncraig, WA 6023	8	3	2	24
https://www.realestate.com.au/sold/property-villa-wa-duncraig-135244174	Villa	n/a	Halgania Way	18 Halgania Way, Duncraig, WA 6023	4	3	2	12
https://reiwa.com.au/proposed-lot-2-22-ellison-drive-padbury-4703402/	Villa	n/a	Ellison Drive	22 Ellison Drive, Padbury WA 6025	3	4	2	12
					424	2 Bed Avg	1 Bath Avg	912

There are 424 dwellings within Duncraig that are suitable for 'over 55's'.

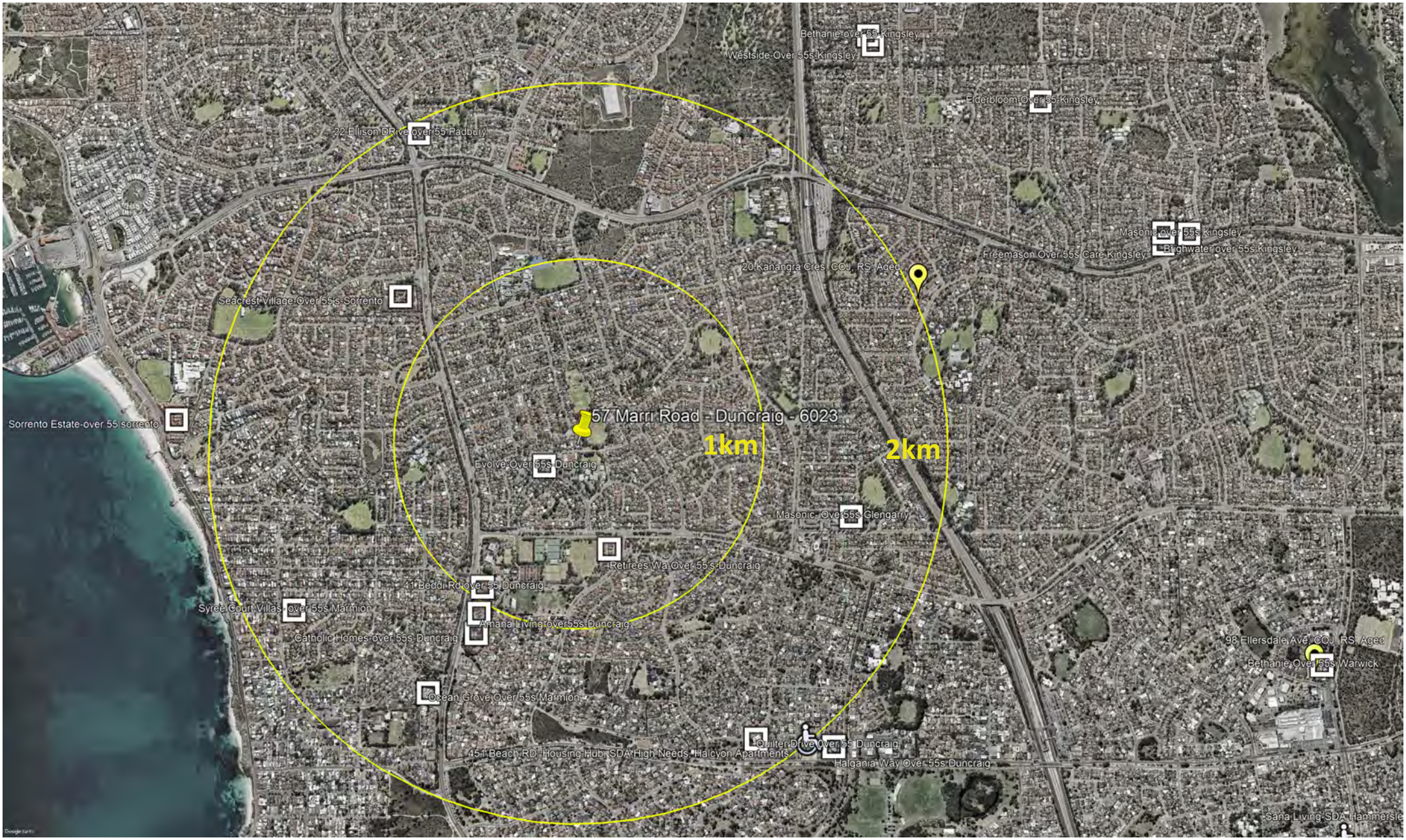


Figure 2-Aerial Map Indicating the proximity of Over 55's and Dependant Person Housing

Project Location-57 Marri Road Duncraig 6023

Over 55's and Retirement Villages

City of Joondalup- Restricted Use Zoned Properties-Aged Dwellings

Dependant Housing/ Specialist Disability Accommodation

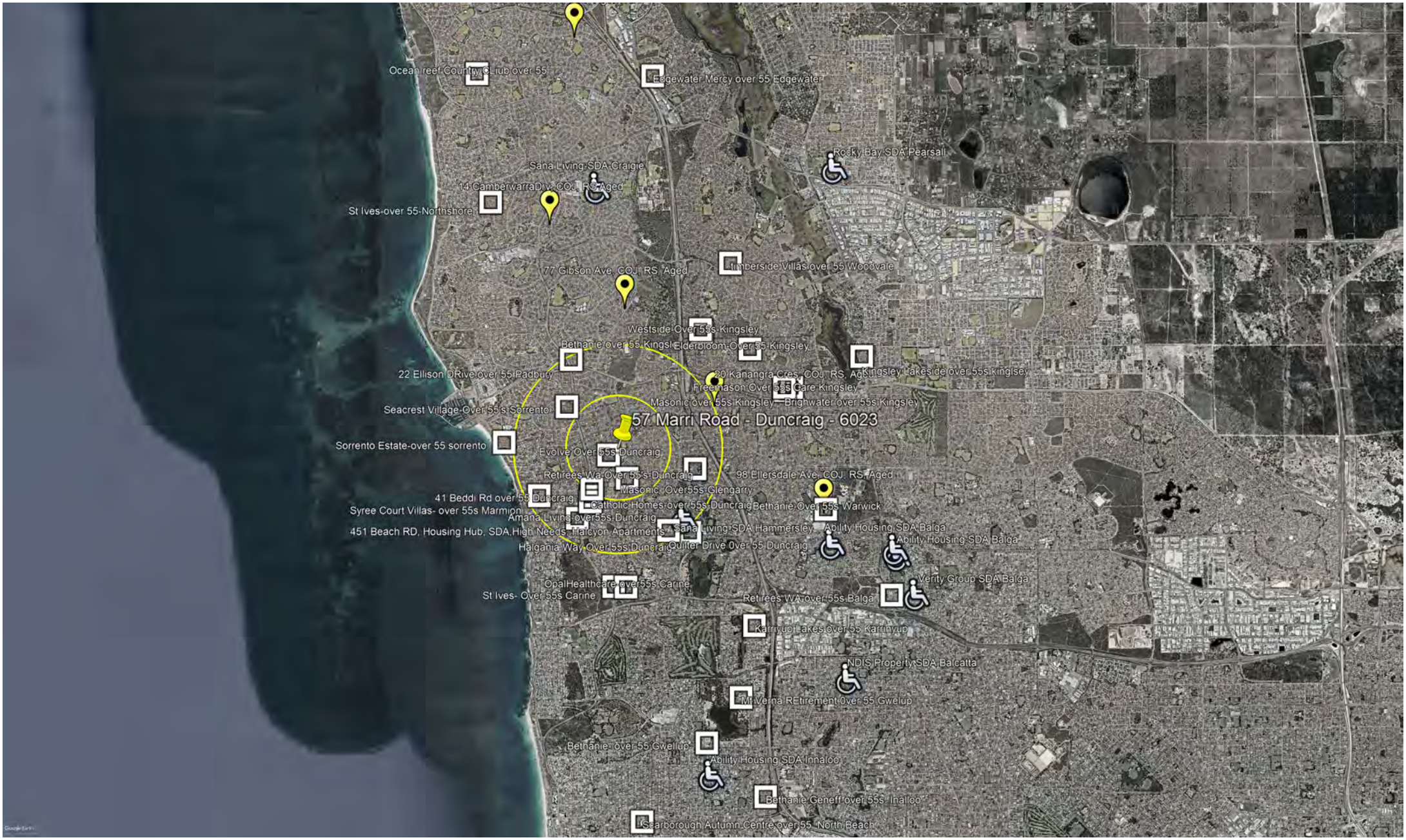


Figure 3-Higher Aerial Map Indicating the proximity of Over 55's and Dependant Person Housing

Project Location-57 Marri Road Duncraig 6023

Over 55's and Retirement Villages

City of Joondalup- Restricted Use Zoned Properties-Aged Dwellings

Dependant Housing/ Specialist Disability Accommodation

Housing Hub

https://www.housinghub.org.au/search-results?sort=geo_asc&radius=10&post-code=6023&location_string=Duncraig%20WA%2C%20Australia&lati-tude=-31.8357748&longitude=115.7824182&radioSdaLookingFor=yes

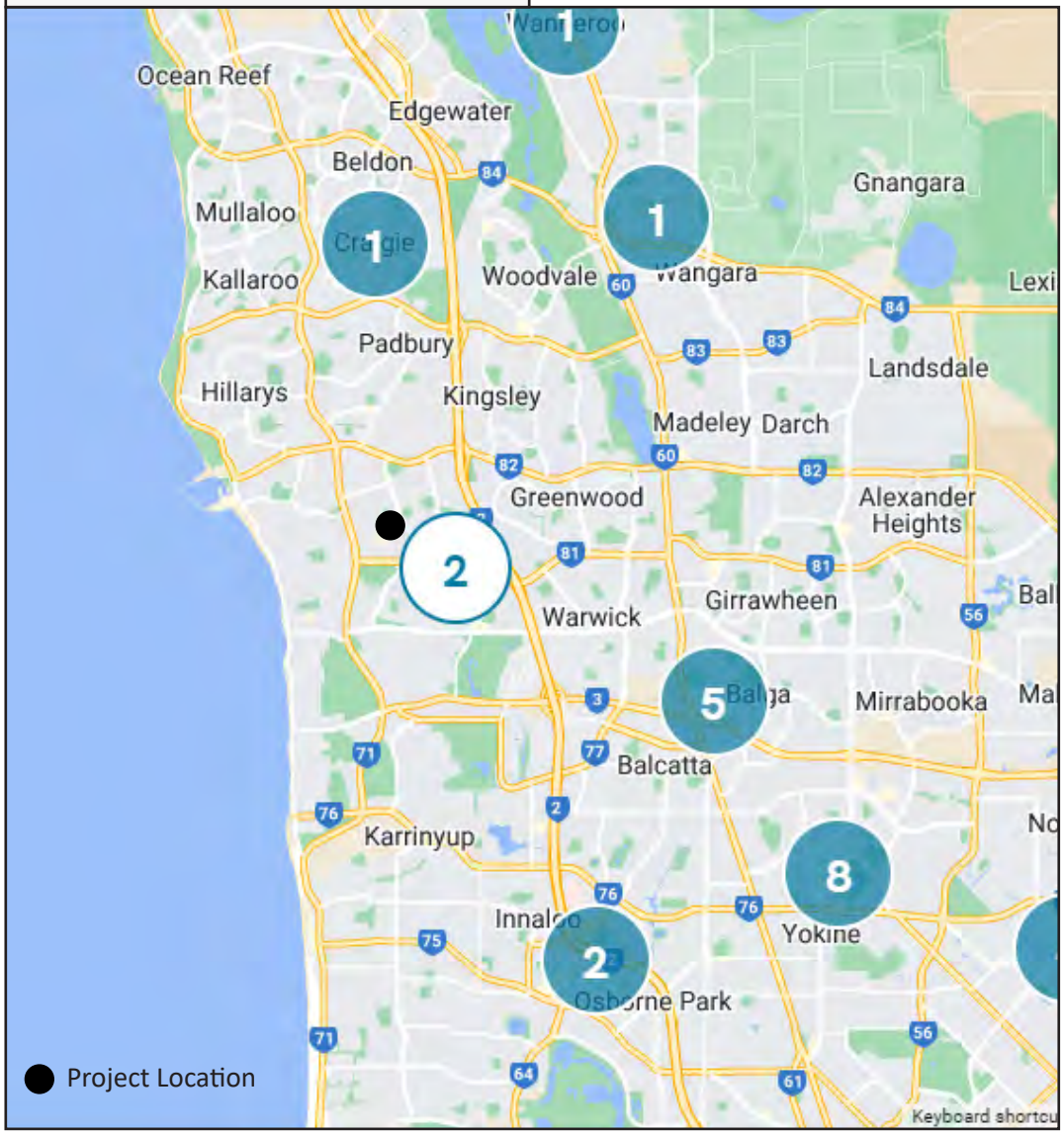


Figure 4-Housing Hub website indicating proximity of SDA / Dependant Person Housing

These two projects are located at 451 Beach Rd, Duncraig near Carine Open Space

ndis

https://data.ndis.gov.au/reports-and-analyses/market-monitoring#special-ist-disability-accommodation-sda-quarterly-report

Figure 5: Enrolled SDA dwellings in states and territories by SDA building type (excluding in-kind arrangements) at the end of Q4 FY21-22

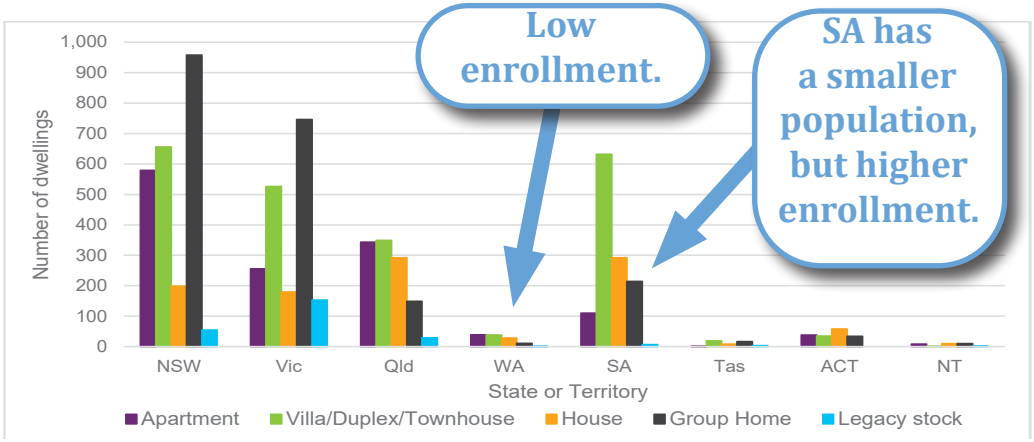


Figure 8: Number of pipeline SDA dwellings in states and territories at the end of Q4 FY21-22

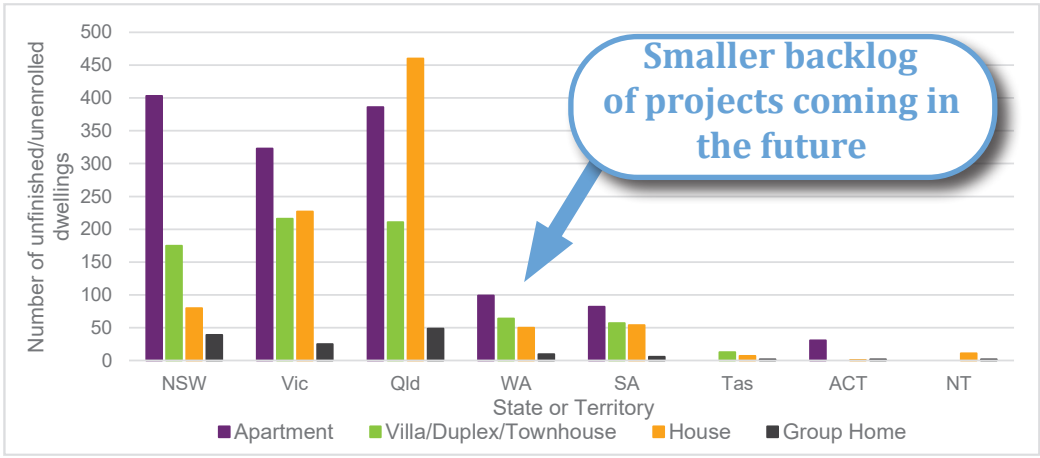


Figure 5-NDIS Specialist Disability Accommodation 21-22 Q4 Report

The data indicates both legacy reclassification and new project development is behind in Western Australia.

urbii

Sustainable Transport. Safe Solutions

57 Marri Road, Duncraig

Proposed Residential Development

TRANSPORT IMPACT STATEMENT



Prepared for:

Majestic Developments Pty Ltd

October 2024

57 Marri Road, Duncraig

Prepared for: Majestic Developments Pty Ltd
Prepared by: Paul Ghantous
Date: 12 October 2024
Project number: U24.127

Version control

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1 Introduction

This Transport Impact Statement has been prepared by Urbii on behalf of Majestic Developments Pty Ltd with regards to the proposed aged and dependent persons residential development, located at 57 Marri Road, Duncraig.

The subject site is situated on the northern side of Marri Road, as shown in Figure 1. The site is presently vacant and is surrounded by a mix of community, retail, education and residential land uses. A public car park and a veterinary clinic are located on the eastern and western boundary of the site, respectively. Duncraig Primary School and a local neighbourhood shopping centre are located to the south on the opposite side of the road.

It is proposed to develop the site into a residential development, delivering 14 units for aged and dependant persons.

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 revised in response to feedback provided by the City of Joondalup Engineering Department. Feedback was provided via email on 26 September 2024. Subsequent correspondence was undertaken with the City and additional information is presented in this revised TIS as requested.



Figure 1: Subject site

2 Scope of work

The WAPC *Transport Assessment Guidelines 2016* identifies the proposed development as being "low impact" (Figure 2). A Transport Impact Statement (TIS) has been prepared to support a robust Development Application and to assist the LGA with demonstration of traffic impact.

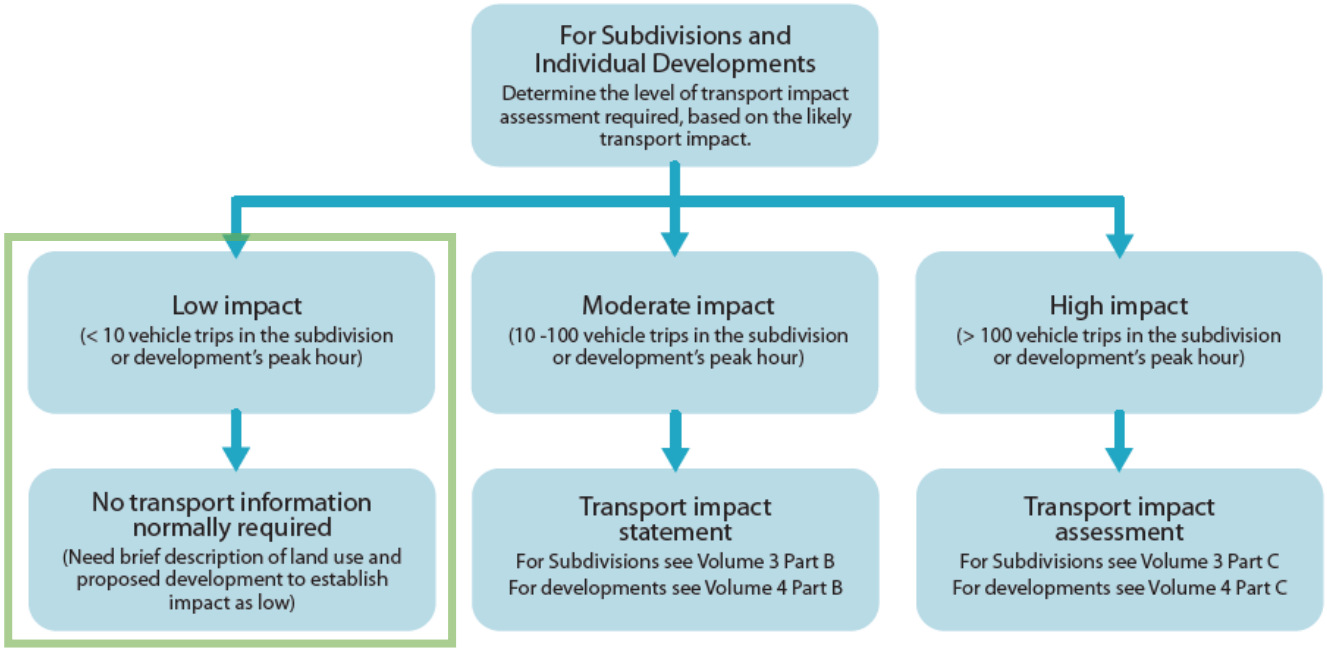


Figure 2: WAPC Transport Assessment Guidelines – reporting requirements

3 Proposed development

The proposal for the subject site is for an aged and dependent persons residential development, comprising:

- A total of 14 residential dwellings configured as apartment units:
  - 14 x 2-bed units;
- 14 x car parking bays for residents on the lower ground floor, designed to the NDIS SDA standard with 3.8m wide spaces;
- 4 x visitor car parking bays on the upper ground floor;
- 2 x visitor bicycle stands and 1 x visitor e-scooter stand on the upper ground floor;
- A portico pick-up/drop-off space and pedestrian zone
- Outdoor recreation space; and,
- A communal bin store which is wheelchair accessible.

Vehicle access to the site is proposed via two crossovers on Marri Road. Bins will be wheeled out from the communal bin store for rear-loader waste collection from Marri Road.

People walking and cycling will access the development from the external path network abutting the site.

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

4 Vehicle access and parking

4.1 Vehicle access

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

Review of aerial images indicates there is no existing vehicle access or parking on site. As detailed in the proposed development plans and in Figure 3, vehicle access to the site is proposed via two crossovers on Marri Road.

The eastern crossover is 5641mm wide, which allows for two-way traffic and connects to the lower ground floor car park. This car park is secured by electric swing gates and provides parking for residents.

The western crossover is 3002mm wide and leads to the upper ground floor car park, which provides four parking spaces for visitors. The 3m wide crossover allows for one direction of traffic flow at a time. This is acceptable given that the crossover services only four car parking spaces.



Figure 3: Proposed vehicle access

4.2 Driveway width

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 B. 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 main development crossover exceeds the minimum 5.5m driveway width required for two-way traffic flow.

The secondary crossover is 3m wide and provides access to a visitor car park with only 4 parking bays. This driveway is around 12m in length before a passing opportunity is provided within the visitor car park.

As detailed in Section 7.1 of this report, the total development traffic generation is estimated to be 7 vph in the peak hour. The secondary crossover services 22% of the onsite car parking. If the site traffic is apportioned accordingly, the visitor car park will generate a maximum of 2vph during the peak hour. It is assumed that this will be 1vph IN and 1vph OUT.

This is well below the 30vph threshold quoted in AS2890.1 for two-way traffic flow.

Based on the above guidance from AS2890.1, it is considered that the proposed development driveway width of 3m is satisfactory for servicing 4 visitor parking bays. It is very unlikely that any two-way movements will coincide on the driveway due to the exceptionally low traffic generation of the development.

4.3 Impact on Marri Road

The probability of two cars using the visitor car park at the same time 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 1 vehicle per hour. It takes one inbound vehicle approximately 30 seconds to enter the site and park at a speed of 5km/h.

As detailed in Figure 4, there is a **99.2%** chance that when a vehicle arrives to enter the visitor car park, there will be no opposing vehicle in the outbound direction exiting the car park. Outside of peak hours, the chance of two-way traffic coinciding on the one way driveway is even lower.

Based on these statistics, and the guidance from AS2890.1, there will be no statistically significant traffic impact on Marri Road adjacent to the site.

Traffic volume	1	**(vph)**	0.00028	**(vps)**
Time period	0.5	**(min)**	30	**(sec)**
Mean number of vehicles	0.00833			
Probability distribution table	**Probability 0 vehicles =**		99.2%	

(x)	p(x)	P(x)
0	0.9917	0.9917
1	0.00826	0.99997
2	3.4E-05	1
3	9.6E-08	1
4	2E-10	1
5	3.3E-13	1
6	4.6E-16	1
7	5.5E-19	1
8	5.7E-22	1
9	5.3E-25	1
10	4.4E-28	1
11	3.3E-31	1
12	2.3E-34	1
13	1.5E-37	1
14	8.9E-41	1
15	4.9E-44	1
16	2.6E-47	1
17	1.3E-50	1
18	5.8E-54	1
19	2.6E-57	1
20	1.1E-60	1

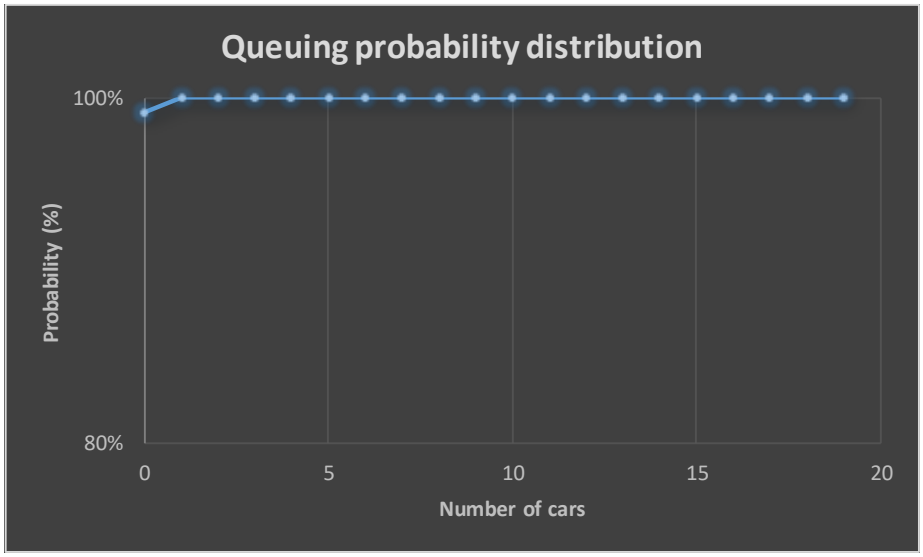


Figure 4: Driveway probability calculation

4.4 Parking requirements

Reference was made to Residential Design Codes for applicable parking requirements. Advice provided to Urbii indicates the site is in 'Location A,' with the following parking rates applicable:

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

Table 2.3a Car parking requirements

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	

*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.*

LOCATION A – includes all land located within:

- *800m **walkable catchment** of a train station on a **high-frequency** rail **route**;*
- *250m walkable catchment of a transit stop:*
  - *on a high-frequency transit route; or*
  - *that has multiple transit routes, that when combined stop every 15 minutes during weekday peak periods (7am – 9am and 5pm – 7pm); or*
- *the defined boundaries of an **activity centre**.*

LOCATION B – includes all land that is not within Location A.

Table 2.3b Minimum bicycle parking requirements

		Minimum number of bicycle spaces		
		Single houses	**Grouped dwellings**	**Multiple dwellings**
Occupant bicycle parking		No minimum requirement		0.5 x the total number of dwellings
Visitor bicycle parking	0-9 dwellings	No visitor bicycle parking required		
	10 or more dwellings	No visitor bicycle parking required		0.1 x the total number of dwellings

Where the bicycle parking calculation results in a fraction of a space, the requirement is to be rounded up to the nearest whole number.

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	28
3+ bedroom dwelling	0	0
Total occupant car parking	**0**	**28**
Visitor car parking	4	
Total car parking	**4**	**32**
Bicycle parking		
Occupant	7*	
Visitor	2	
Total bicycle parking	**9**	
Total motorcycle parking	**0**	

*Note: As this development is for aged and dependent residents, the demand for resident bicycle parking may be lower than calculated in R-Codes for generic residential developments.

4.5 Parking supply and allocation

The proposed development provides the following parking allocation:

- 14 car parking bays provided onsite for residents (compliant).
- 4 car parking bays provided onsite for visitors (compliant).
- Residents can store bicycles in individual store rooms if required.
- 2 bicycle parking spaces and 1 e-scooter parking space for visitors (compliant).

The proposed development parking provisions are satisfactory.

4.6 Swept path analysis (visitor car park)

4.6.1 Design vehicles

The design and checking vehicle selected for swept path analysis was based on the 85th percentile (B85) passenger car as defined in AS2890.1 (Figure 5).

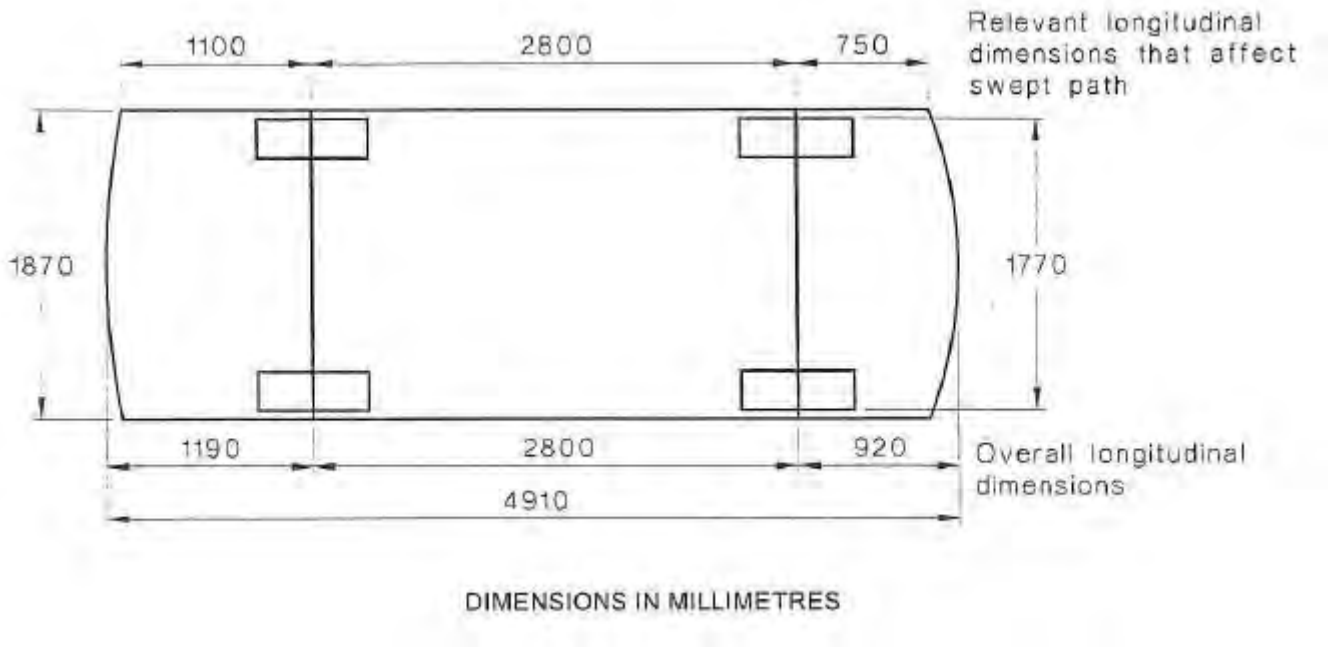


Figure 5: B85 passenger car

It should be noted, that the B85 vehicle represents the 85th percentile size of vehicle in 2004, which is almost 20 years ago. It is acknowledged that SUVs are a more popular choice of vehicle in present times. However, vehicle design has advanced with passenger cars becoming more space efficient. For example, a modern Toyota Landcruiser is 4,980mm long (Figure 6), which is almost the same length as a B85 vehicle.

A Honda CRV is 4,635mm in length, which is substantially shorter than a B85 vehicle. A Hyundai i30 hatchback is 4,340mm in length.

Swept path analysis with the B85 vehicle is conservative. Most vehicles will be able to perform maneuvers better than presented in swept path analysis.

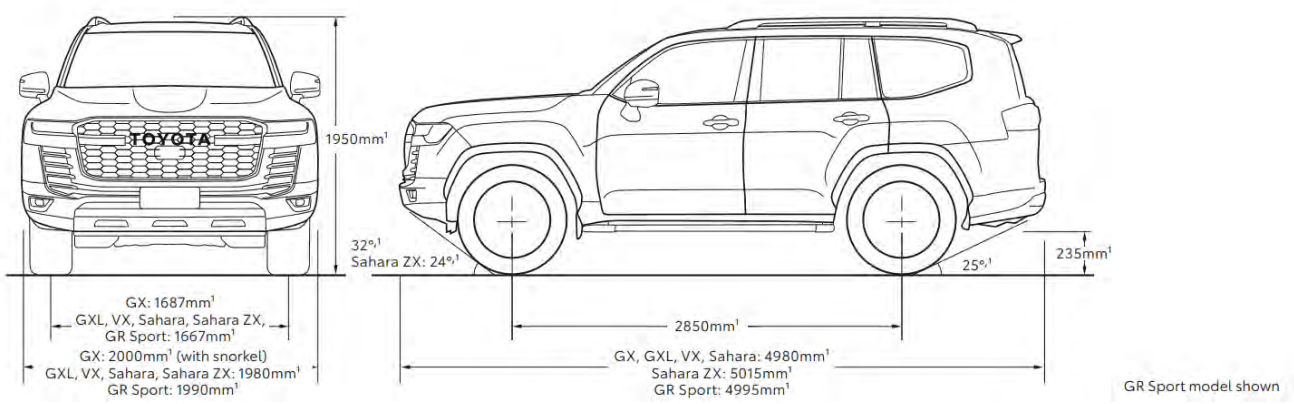


Figure 6: 2021 Toyota Landcruiser dimensions

4.6.2 Swept path analysis

Swept path analysis was undertaken to check vehicle access to the visitor car park. A selection of swept path diagrams is included in Appendix C and provided separately as high quality A3 drawings.

Analysis confirms that cars can enter and exit the car park in forward gear.

4.6.3 Swept path performance benchmark for residential car parks

The following guidance is provided in Clause B4.8 of AS2890.1:

> **B4.8 Parking in residential and domestic car parks**
>
> A reduction in aisle width from 6.3 m to 5.5 m has been allowed in Figure 2.2 at User class 1A developments (see Clause 1.4) for 90 degree turns into parking spaces. This concession which is designed to be of assistance where space is limited, recognizes that such developments will have low turnover and users generally prepared to accept some inconvenience when entering or leaving the parking space. Tests have shown that most vehicles larger than the B85 vehicle will need to make a 3-point turn if the manoeuvring space is the minimum allowable. Some very large vehicles may need to make a 5-point turn.

Based on the above guidance, it is generally accepted that User Class 1A developments have low turnover and large vehicles will need to potentially undertake multiple movements to enter or exit parking spaces. AS2890.1 indicates that 5-point turns may be required for some 'very large' cars.

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 communal bin store for rear-loader waste collection from Marri Road. Given that there is a relatively low number of bins, the waste truck will not need to be parked on the road for long.

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.

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 70 vehicles per day (vpd), with 7 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	14	70	7	7	2	5	5	2

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.

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 Marri Road

Marri Road near the subject site is an approximately 7m wide, two-lane undivided road. Paths for walking and on-street cycling lanes are provided on both sides of the road.

Marri Road is classified as a *Local Distributor* road in the Main Roads WA road hierarchy (Figure 7) and operates under a speed limit of 50km/h (Figure 8). Local Distributor roads are the responsibility of Local Government and are primarily for movement of traffic within local areas and connect access roads to higher order Distributors (Figure 9).

Traffic data obtained from the City of Joondalup indicates that Marri Road carried 2,506 vehicles per day in 2016, with 85th percentile speeds of 53.8 km/h. Assuming an annual traffic growth rate of 1% would result in an estimated traffic volume of 2,720 vpd.

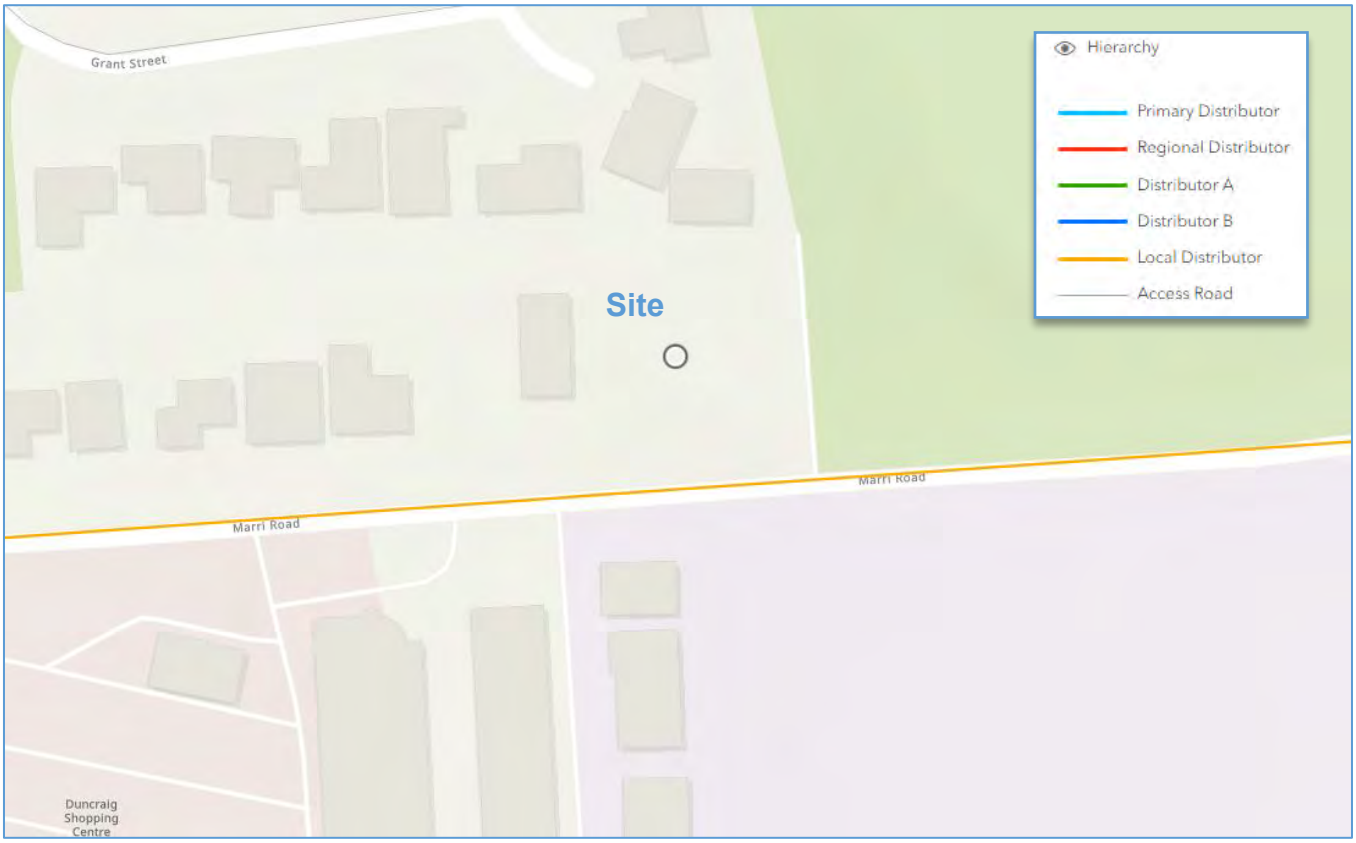


Figure 7: Main Roads WA road hierarchy plan

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

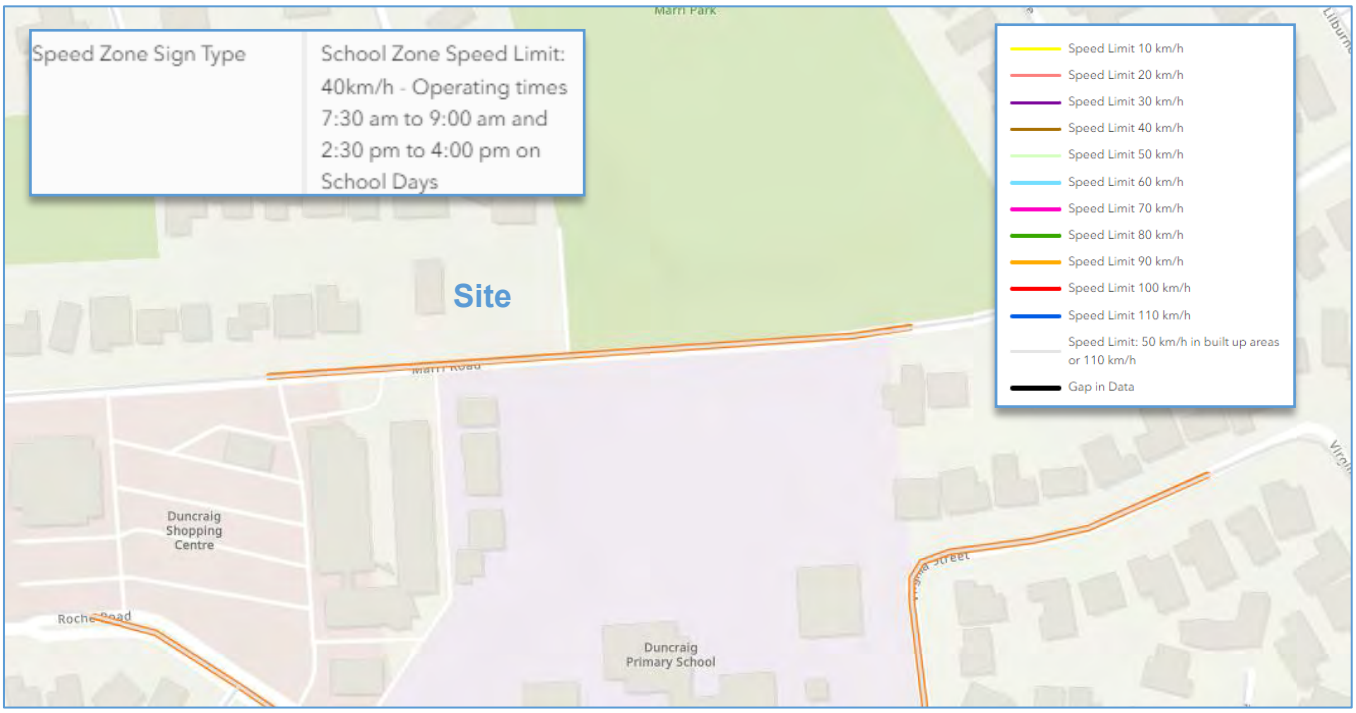


Figure 8: Main Roads WA road speed zoning plan

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

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

CRITERIA	PRIMARY DISTRIBUTOR (PD) (see Note 2)	DISTRICT DISTRIBUTOR A (DA)	DISTRICT DISTRIBUTOR B (DB)	REGIONAL DISTRIBUTOR (RD)	LOCAL DISTRIBUTOR (LD)	ACCESS ROAD (A)
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 siteing 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 9: Road types and criteria for Western Australia

Source: Main Roads Western Australia D10#10992

9 Public transport access

Information was collected from Transperth and the Public Transport Authority 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 443: Whitfords Stn - Warwick Stn via Giles Av.

The closest bus stops are located on Lilburne Road less than 500m walk from the site (Figure 10).

The existing public transport network plan is shown in Figure 11. Bus services provide excellent coverage and connectivity to the rail network.

Public transport services provide a viable alternative mode of transport for residents and visitors of the proposed development.



Figure 10: Closest bus stops serving the proposed development

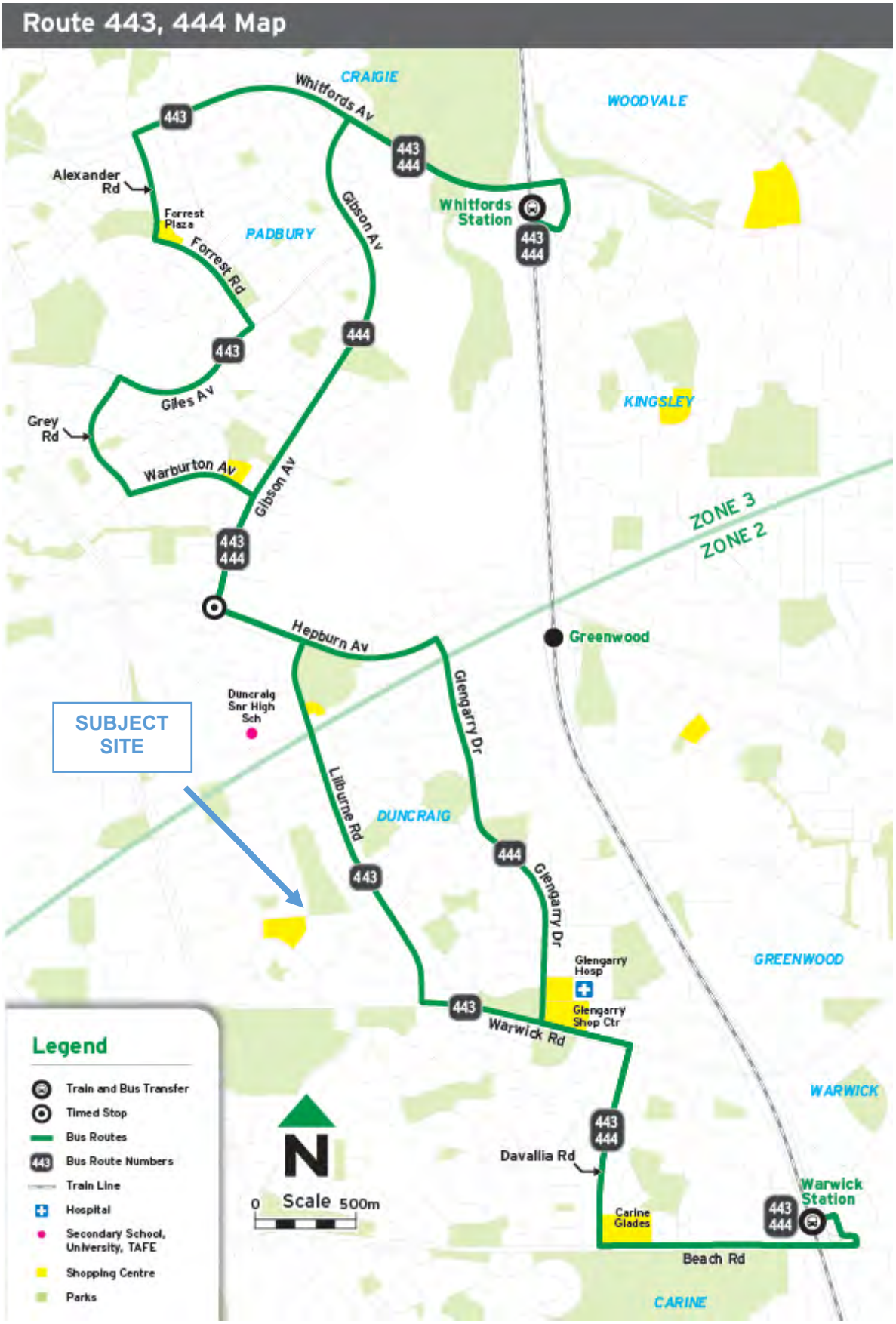


Figure 11: Transperth public transport plan (Route 36)

Source: Transperth

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

Paths for walking and cycling are provided along both sides of Marri Road. A Public Access Way (PAW) runs along the rear (southern) boundary of the site. A pedestrian crossing facility is provided midblock on Marri Road near the site. The pedestrian crossing includes kerb ramps and a refuge island. It also functions as a staffed children's crossing on school days for Duncraig Primary School.

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provide warrants for installing pedestrian priority crossing facilities. This is based on the volume of traffic as the key factor determining if pedestrians can safely cross a road. The guidelines recommend pedestrian priority crossing facilities be considered once the peak hour traffic exceeds the volumes detailed in Table 5.

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

Table 5: Traffic volume thresholds for pedestrian crossings

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

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 Department of Transport Perth Bicycle Network Map (see Figure 12) shows the existing cycling connectivity to the subject site. Marri Road is rated as a 'good road riding environment.' The freeway PSP is accessible within short cycling distance. Less confident people can also legally cycle on footpaths in Western Australia.

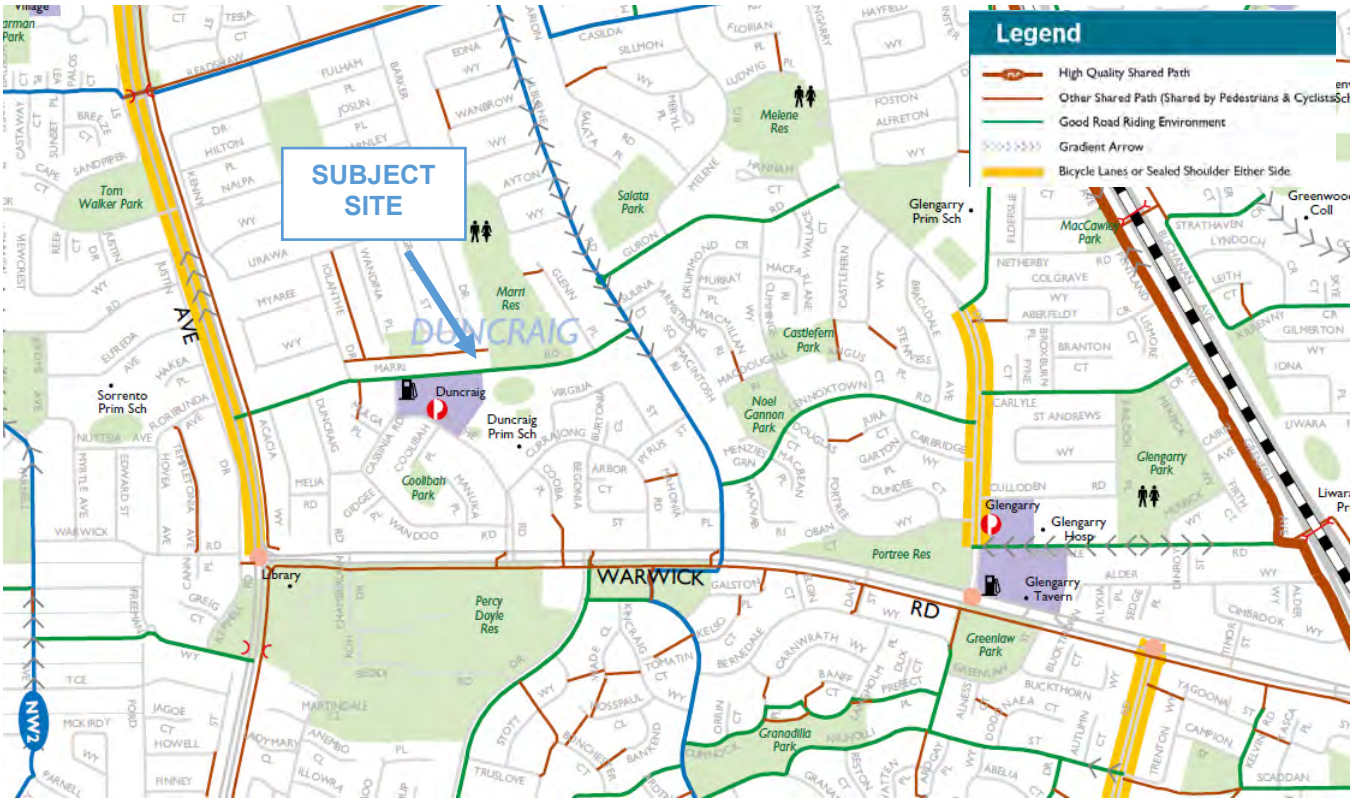


Figure 12: Perth bicycle network plan

11.2 Bicycle parking and end of trip facilities

Parking for 2 visitor bicycles and 1 e-scooter is provided for the development.

The Strava cycling heatmap tool shows some cycling activity on Marri Road. Marmion Avenue and the freeway PSP are relatively popular cycling routes near the site (Figure 13).

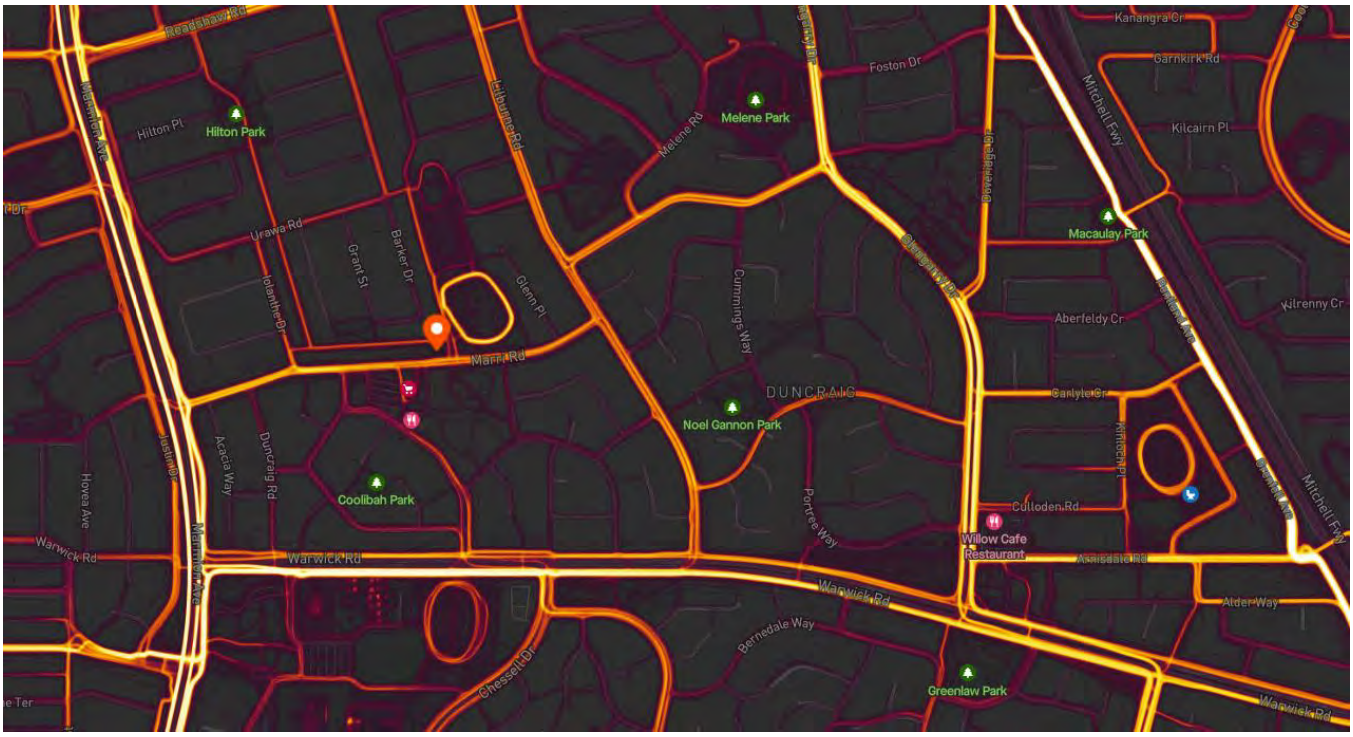


Figure 13: Strava cycling heatmap

11.3 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.

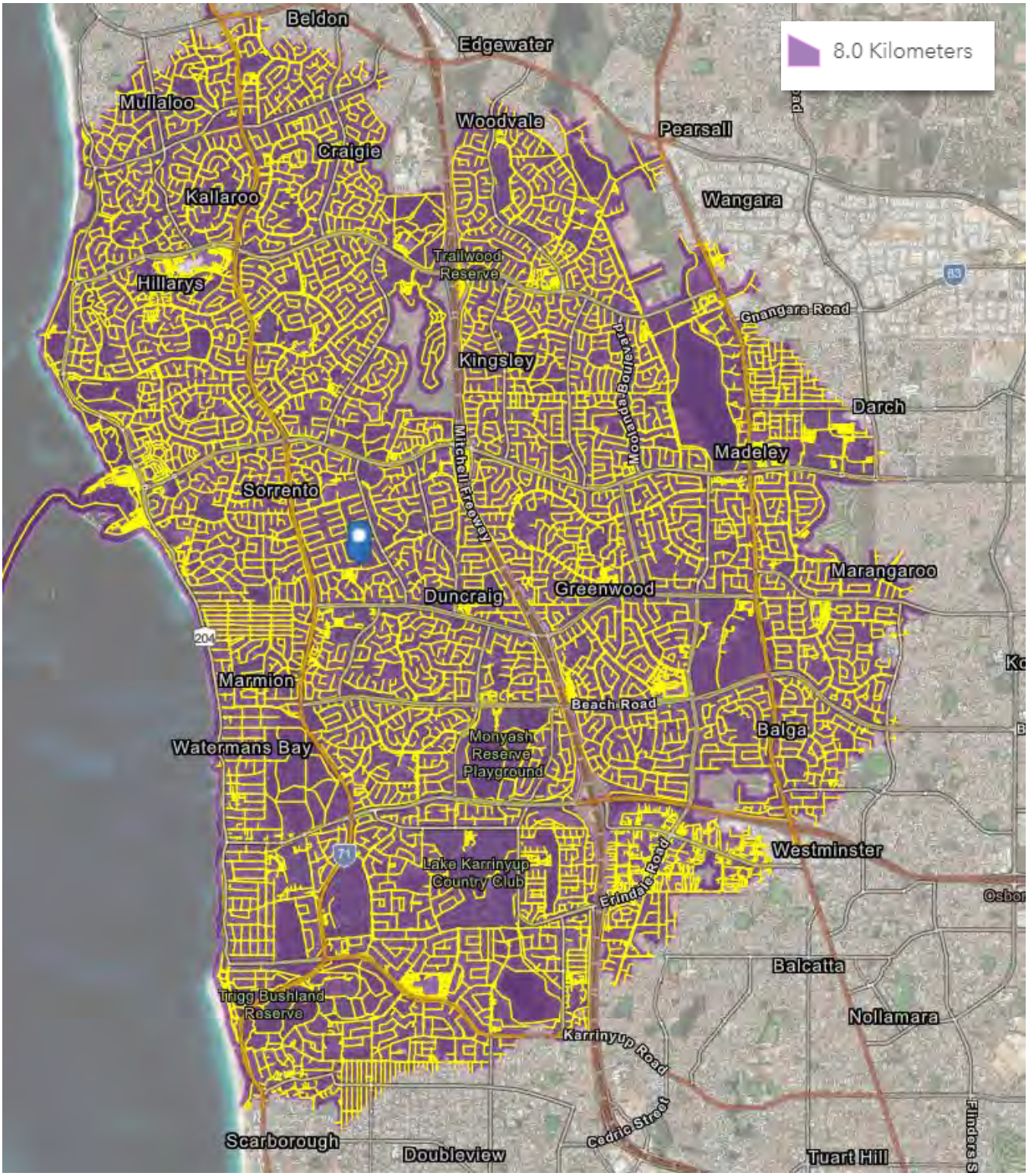


Figure 14: Cycling and micro-mobility catchment

12 Site specific issues

This TIS has been revised in response to feedback provided by the City of Joondalup Engineering Department. Feedback was provided via email on 26 September 2024 and has been addressed as following:

- Traffic data: 8.1.1 Marri Road states that “no traffic data was available to Urbii at the time of preparation of this report.” The existing traffic volumes along Marri Road form a critical part of the assessment with regard to the suitability and assessment of the proposal. The impact on the surrounding road network cannot be calculated if the existing traffic data is not provided. Section 8 of the TIS has been updated with traffic data. The traffic data is dated 2016 and has been scaled up to 2024 using a 1% per annum growth rate.
- Figures used: Specific figures are to be used in the TIS. 4.1 Vehicle access refers to the crossover widths being ‘around’ 5.6m and ‘around’ 3m wide. Accurate figures are required. Section 4.1 of the TIS has been updated with ‘exact’ measurements.
- Turning movements: turning movement diagrams are required, particularly in relation to the visitor parking bays (resident parking bays considered acceptable). Refer to Appendix C for swept path diagrams. Vehicles can enter and exit the visitor car park in forward gear using 3-point turns or less.
- Crossover standards for single width driveway/crossover: It is unclear where the standard of the 3m wide crossover/driveway has been taken from, and how it is considered acceptable. Details relating to the standards/requirements of the single width crossover/driveway to the visitor bays is required, as the current proposal is considered problematic, as a car is exiting the visitor parking area will require a car to stop on Marri Road to allow that car to exit, or where the parking area is full, a visitor will have to reverse from the site onto Marri Road. Refer to Section 4.3 for a detailed analysis of traffic impacts.

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, one crash was recorded in the locality in the last five years. This resulted in minor property damage. The detailed crash history is presented in Table 6. 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 (2019-2023)

Source: MRWA crash mapping tool

Table 6: 5-year crash history in the locality (2019-2023)

Severity	No.	%
Fatal	0	0
Hospital	0	0
Medical	0	0
PDO Major	0	0
PDO Minor	1	100.00

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 Majestic Developments Pty Ltd with regards to the proposed aged and dependent persons residential development, located at 57 Marri Road, Duncraig.

The subject site is situated on the northern side of Marri Road. The site is presently vacant and is surrounded by a mix of community, retail, education and residential land uses.

It is proposed to develop the site into a residential development, delivering 14 units for aged and dependant persons.

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.

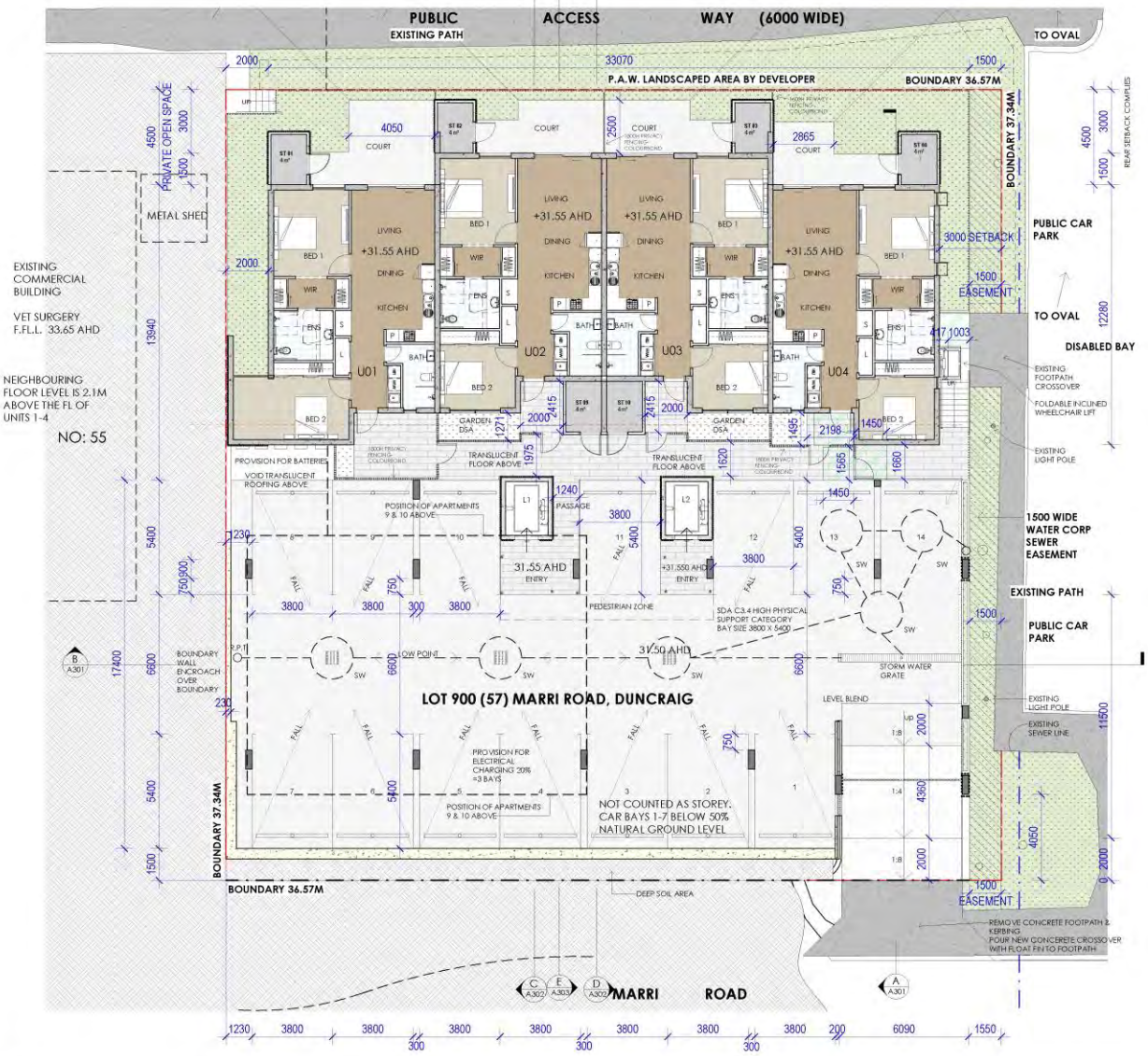
The car parking supply is satisfactory and can accommodate the car parking demand of the proposed development.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is low (less than 10vph on any lane) and as such would have minimal 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



LOWER GROUND FLOOR PLAN
SCALE: 1 : 100

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TITLE
LOWER GROUND FLOOR PLAN

SCALE 1:100 @ A1 - 1:200 @ A3

AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE
7/08/2024 11:10:20 AM

23.016
REVISION
A
PROJECT STATUS
DA
DRAWING NUMBER
A101



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UPPER GROUND FLOOR PLAN

SCALE 1:100 @ A1 - 1:200 @ A3

AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE 7/08/2024 11:10:26 AM

23.016 | REVISION A | DA | A102



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FIRST FLOOR FRONT & COMMUNAL OUTDOOR LIVING REAR

SCALE 1:100 @ A1 - 1:200 @ A3

AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

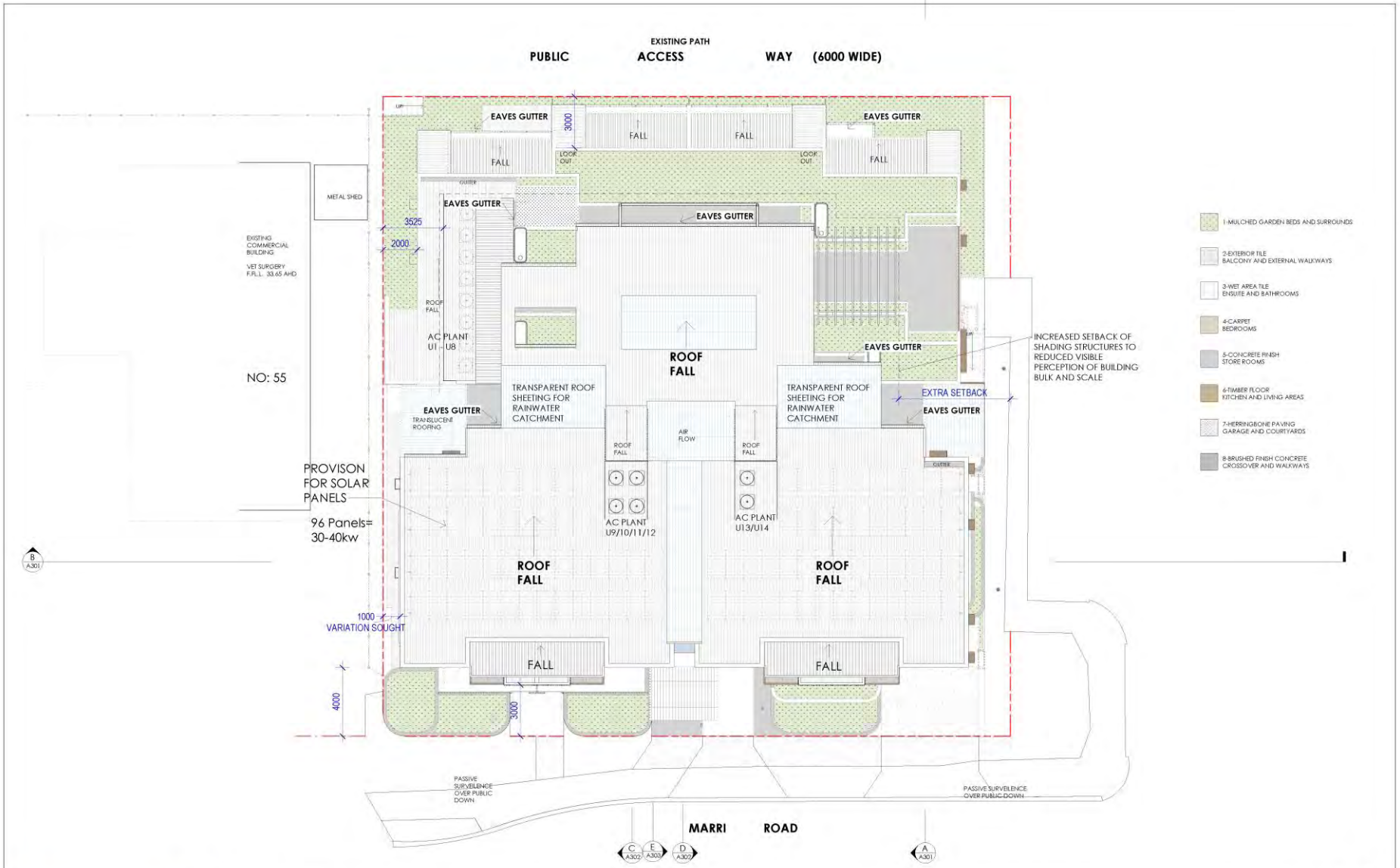
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REVISION A

DA

A103



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ROOF PLAN

SCALE 1:100 @ A1 - 1:200 @ A3

AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT

(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023

DATE 7/08/2024 11:10:42 AM

23.016

REVISION A

DA

A104

TYPICAL UNIT
SPECIALIST DISABILITY ACCOMODATION (SDA)

NDIS Goals
-Assist participants with self determination
-Promote opportunities for social interaction
-Promote economic Participation



ACCESSIBLE AWNING WINDOWS
-10% NATURAL LIGHT
-20% VENTILATION

EACH UNIT INCLUDES
ALL SDA REQUIREMENTS
IN THE
HIGH PHYSICAL
SUPPORT CATEGORY

MULTI FUNCTION ROOM
-COHABITATION
-HOME OFFICE
-CARERGIVER ACCOMODATION
-OTHER

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TYPICAL UNIT PLAN

0 1 2 5 10 20m
SCALE 1:100 @ A1 - 1:200 @ A3

AGED AND DEPENDANT PERSONS RESIDENTIAL DEVELOPMENT
(Lot 900) 57 MARRI ROAD, DUNCRAIG WA 6023
DATE
7/08/2024 11:11:05 AM

23.016
REVISION
DA
A106

Appendix B: Extract from AS2890.1 – Access driveway widths

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.

Appendix C: Swept path diagrams

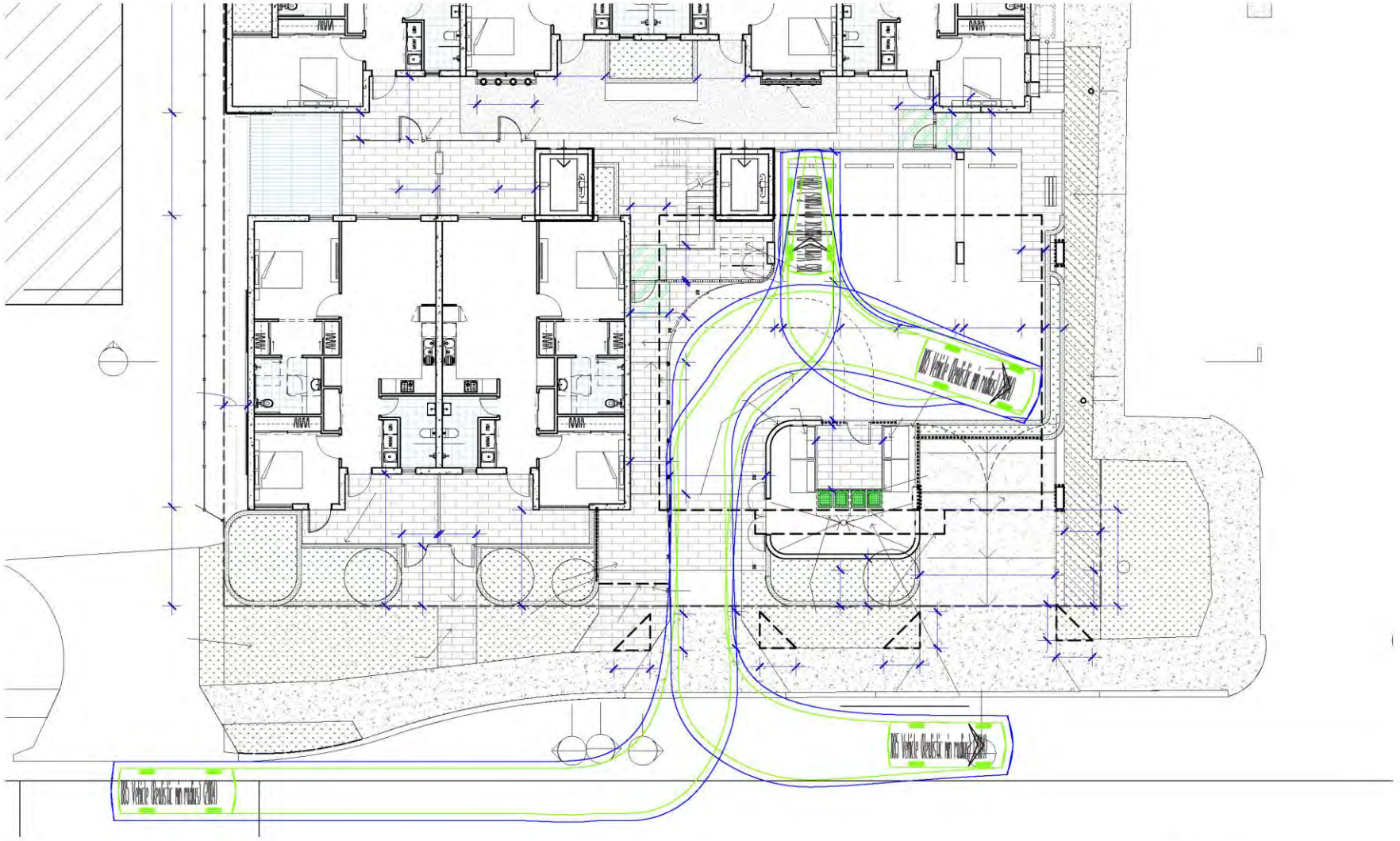
Swept path diagrams are included in this section of the report. Different coloured lines are employed to represent the various envelopes of the vehicle swept path, as described below:

Cyan represents the wheel path of the vehicle

Green represents the vehicle body envelope

Blue represents a buffer 300mm/500mm line, offset from the vehicle swept path

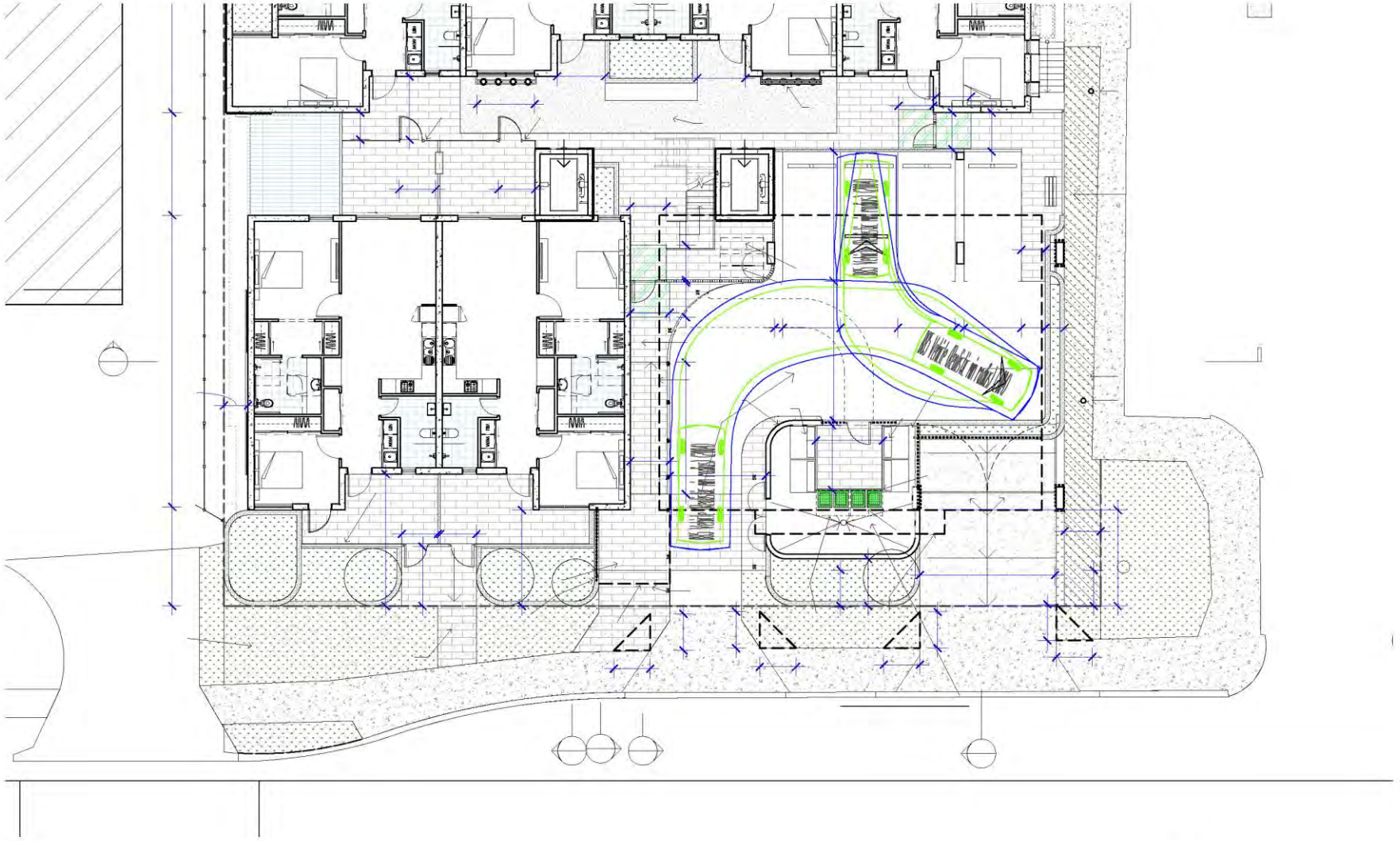
The swept path diagrams are also provided separately in high-quality, A3 PDF format.



Revision notes:

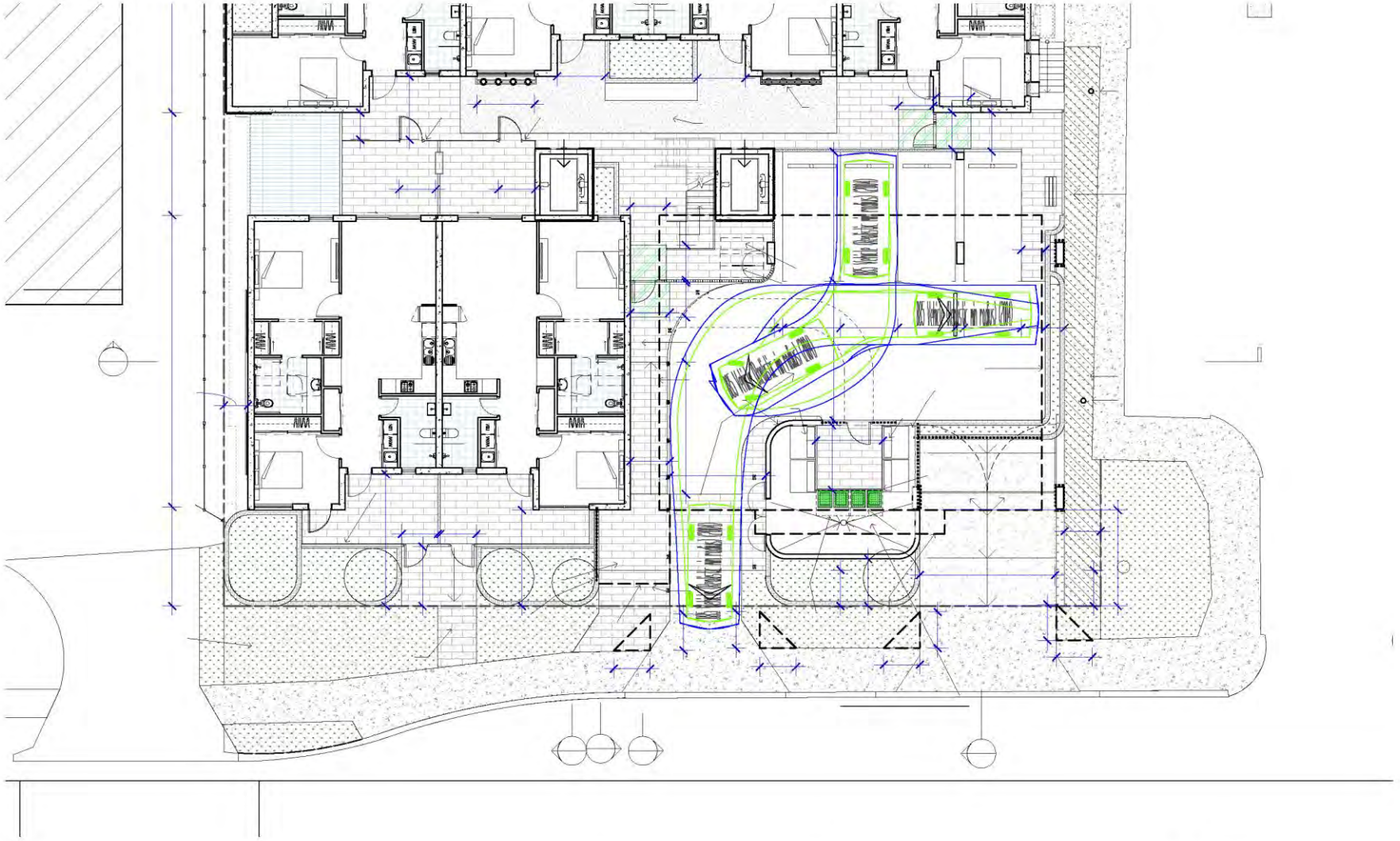
Rev:	Date:	Notes:
1	12/10/2024	Dark blue line represents a 300mm buffer

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Client: Majestic Developments Pty Ltd	**Drawing Title:** Visitor Car Park Swept Path Analysis AS2890.1 - B85 Car	**Scale @ A3:** 1:150	PO Box 4315, Baldivis WA 6171 customer@urbii.com.au 0433856164
		Revision: sk01	



Revision notes:		
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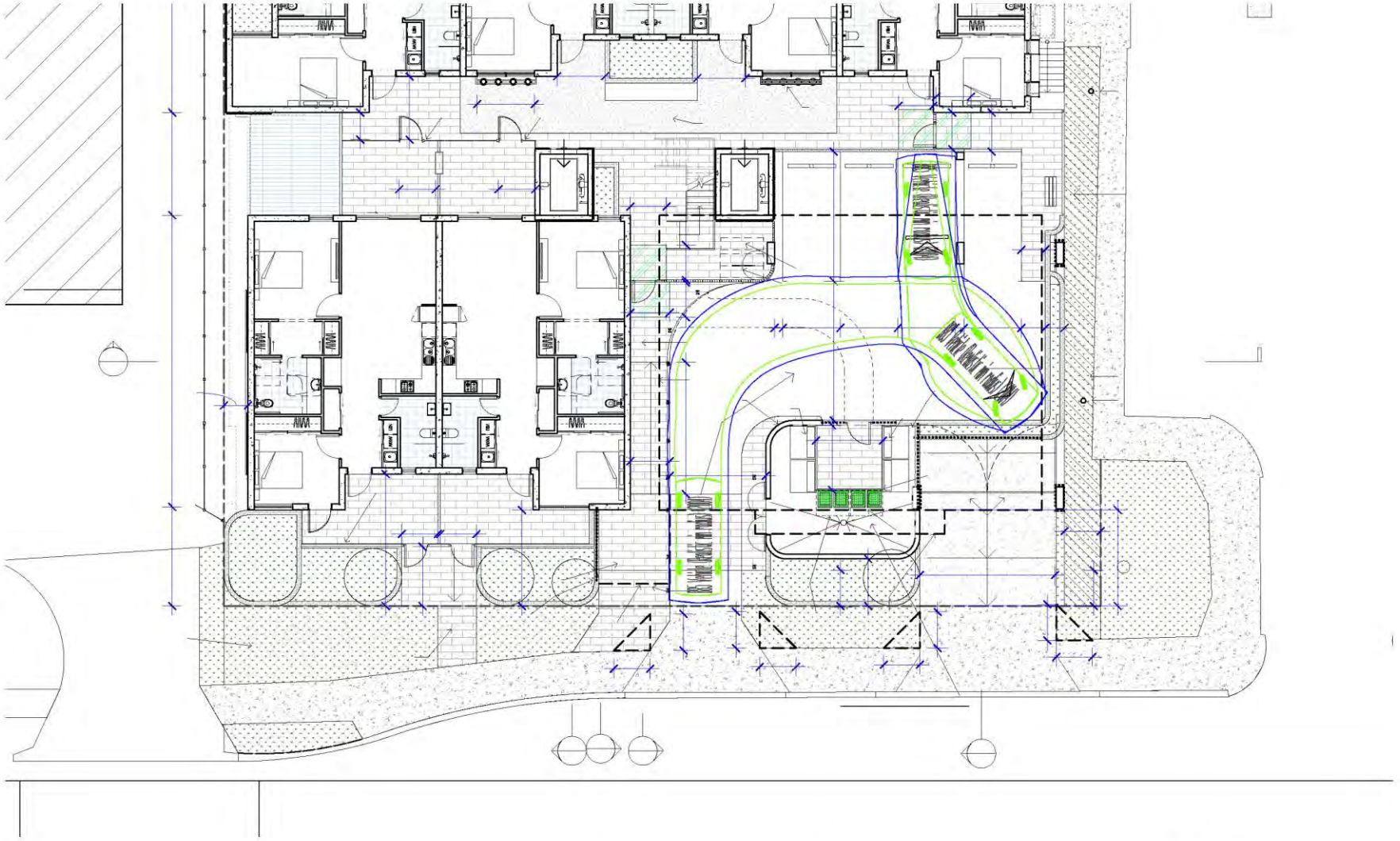
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Client: Majestic Developments Pty Ltd	Drawing Title: Visitor Car Park Swept Path Analysis AS2890.1 - B85 Car	Scale @ A3: 1:150	PO Box 4315, Baldivis WA 6171 customer@urbii.com.au 0433856164
		Revision: sk02	



Revision notes:		
Rev:	Date:	Notes:
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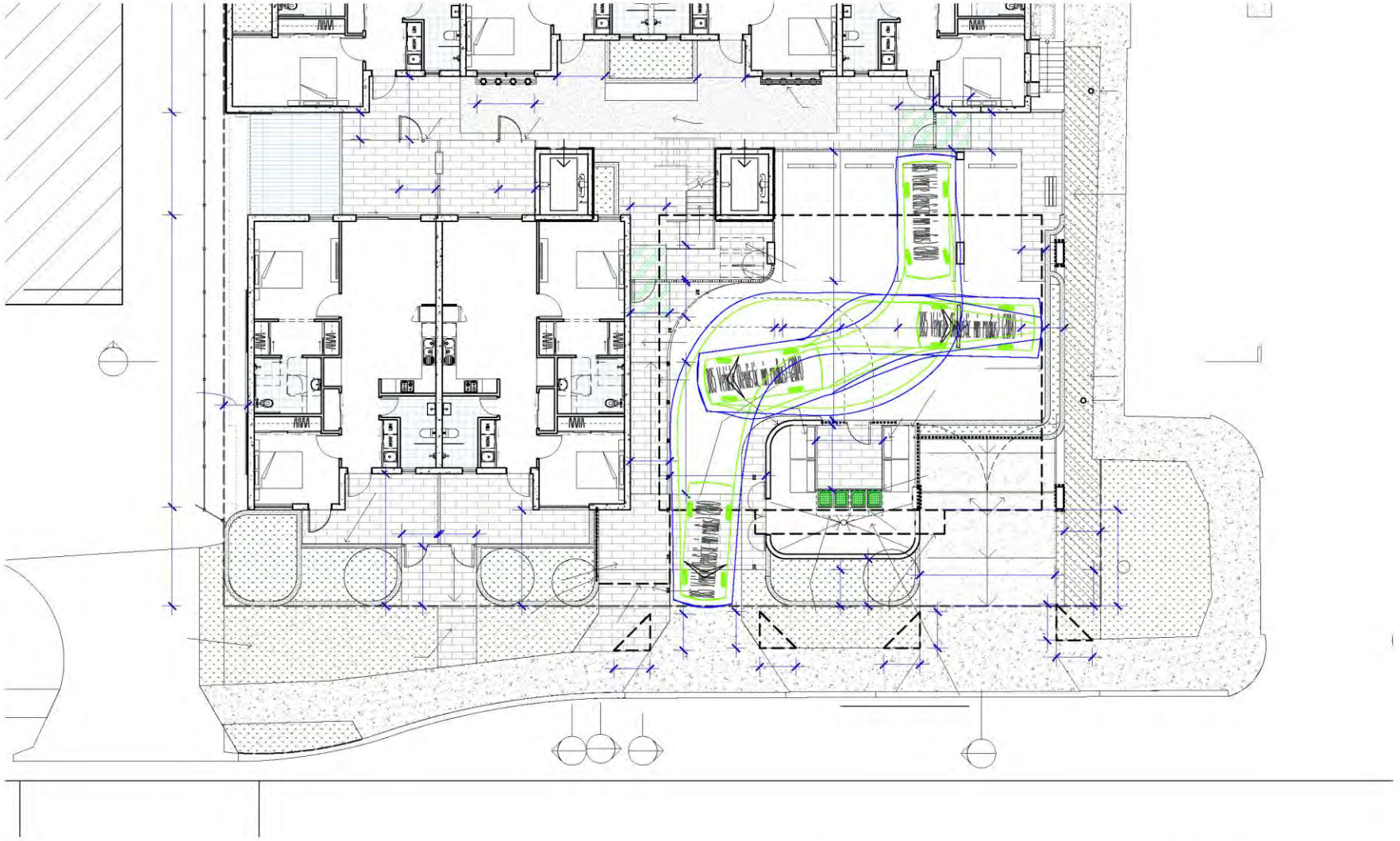
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0433856164



Revision notes:

Rev:	Date:	Notes:
1	12/10/2024	Dark blue line represents a 300mm buffer

Drawn by: Paul Ghantous	Project: U24.127 - 57 Marri Road, Duncraig Proposed Residential Development	Date: 12/10/2024	urbii Sustainable Transport. Safe Solutions
Client: Majestic Developments Pty Ltd	Drawing Title: Visitor Car Park Swept Path Analysis AS2890.1 - B85 Car	Scale @ A3: 1:150	PO Box 4315, Baldivis WA 6171 customer@urbii.com.au 0433856164
		Revision: sk04	



Revision notes:

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1	12/10/2024	Dark blue line represents a 300mm buffer

Drawn by: Paul Ghantous

Client: Majestic Developments Pty Ltd

Project: U24.127 - 57 Main Road, Duncraig
Proposed Residential Development

Drawing Title: Visitor Car Park Swept Path Analysis
AS2890.1 - B85 Car

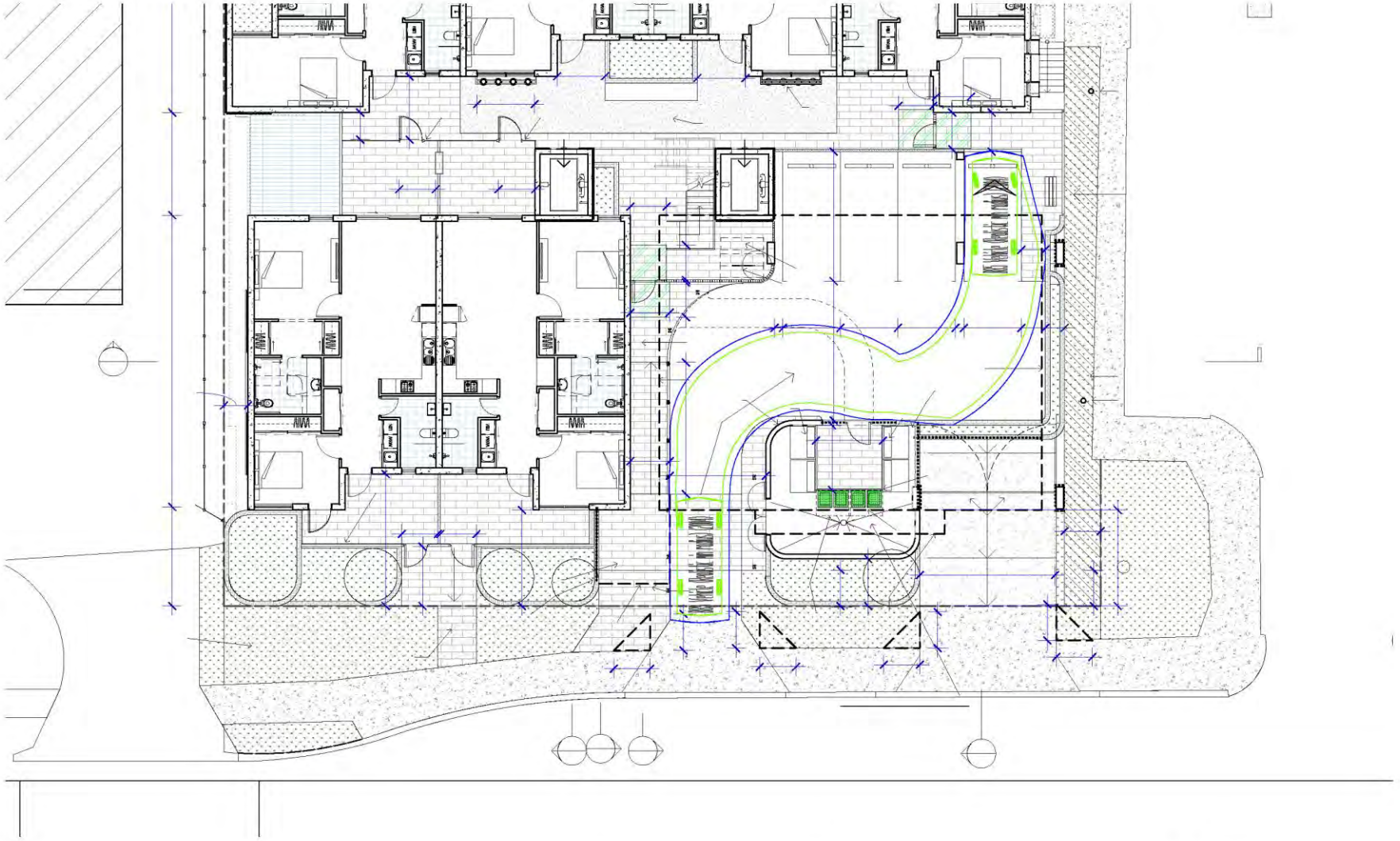
Date: 12/10/2024

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Revision: sk05

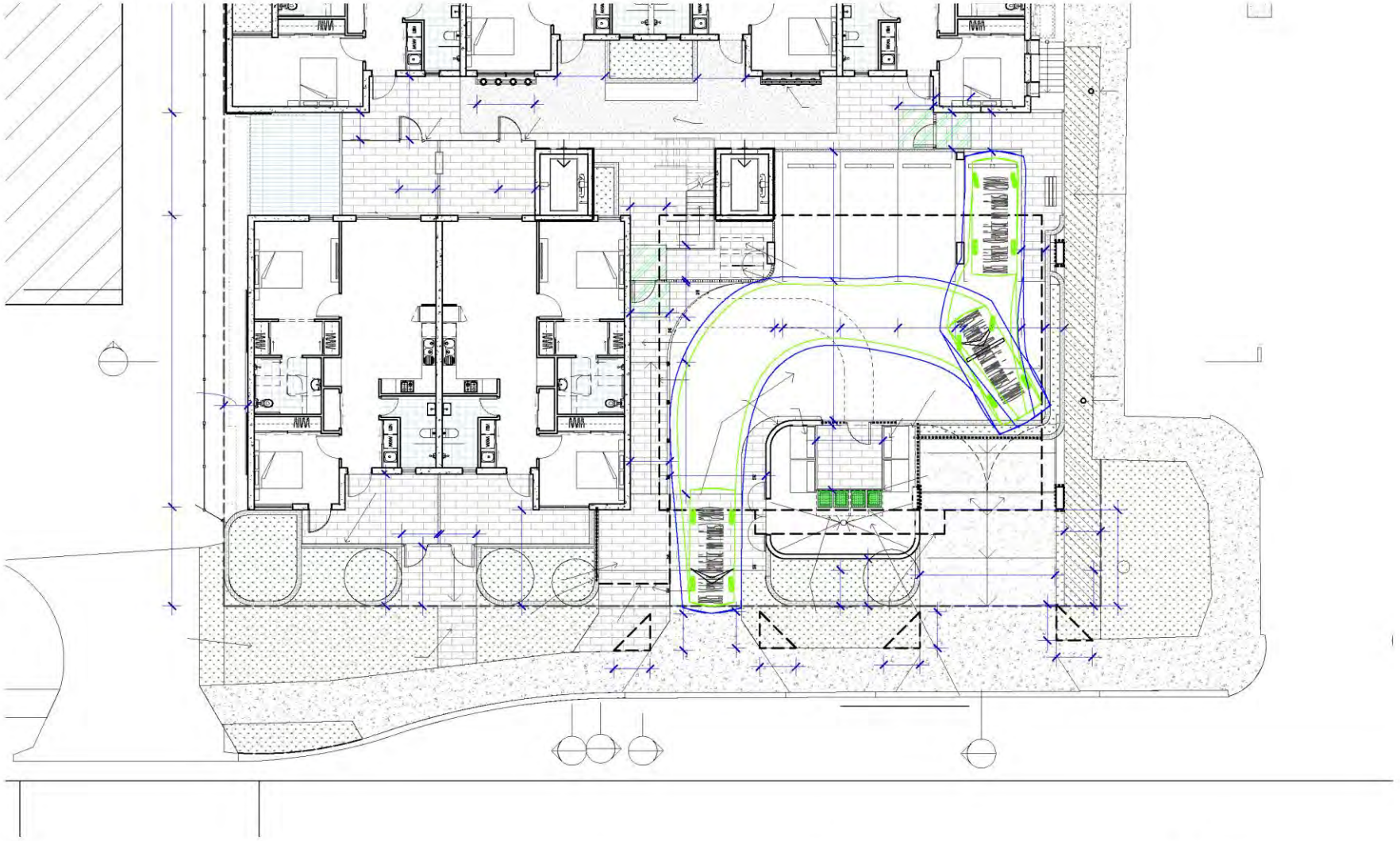
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Revision notes:		
Rev:	Date:	Notes:
1	12/10/2024	Dark blue line represents a 300mm buffer

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Client: Majestic Developments Pty Ltd	Drawing Title: Visitor Car Park Swept Path Analysis AS2890.1 - B85 Car	Scale @ A3: 1:150	PO Box 4315, Baldivis WA 6171 customer@urbii.com.au 0433856164
		Revision: sk06	



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Client: Majestic Developments Pty Ltd	Drawing Title: Visitor Car Park Swept Path Analysis AS2890.1 - B85 Car	Scale @ A3: 1:150		
		Revision: sk07		

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Waste Management Plan

(Lot 900) 57 Marri Road, Duncraig

Prepared for Majestic Developments P/L as Trustee for CM Family Trust

18 July 2024

Project Number: WMP24015

DOCUMENT CONTROL

Version	Description	Date	Author	Reviewer	Approver
1.0	First Approved Release	18/07/2024	AB	DP	DP

Approval for Release

Name	Position	File Reference
Dilan Patel	Project Manager – Waste Management Consultant	WMP24015-01_Waste Management Plan_1.0
Signature	Dilan Patel Digitally signed by Dilan Patel Date: 2024.07.18 13:19:41 +08'00'	

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Executive Summary

Majestic Developments P/L is seeking development approval for the proposed aged and dependent persons residential development located at 57 Marri Road, Duncraig (the Proposal).

To satisfy the conditions of the development application the City of Joondalup (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

A summary of the bin size, numbers, collection frequency and collection method is provided in the below table.

Proposed Waste Collection Summary

Waste Type	Generation (L/week)	Bin Size (L)	Number of Bins	Collection Frequency	Collection
Refuse	1,540	1,100	Two	Once each week	Private Contractor
Recycling	840	1,100	Two	Once each fortnight	Private Contractor
Garden Organics (Future FOGO)	840	240	Four	Once each week	Private Contractor

A private contractor will service the Proposal directly from the Bin Storage Area, in front of the crossover on Marri Road.

A strata manager/caretaker will oversee the relevant aspects of waste management at the Proposal.

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1 Introduction

Majestic Developments P/L is seeking development approval for the proposed aged and dependent persons residential development located at 57 Marri Road, Duncraig (the Proposal).

To satisfy the conditions of the development application the City of Joondalup (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

The Proposal is bordered by residential properties to the north, Marri Reserve to the east, Marri Road to the south and commercial properties to the west, as shown in Figure 1.

1.1 Objectives and Scope

The objective of this WMP is to outline the equipment and procedures that will be adopted to manage waste (refuse, recyclables, and garden organics) at the Proposal. Specifically, the WMP demonstrates that the Proposal is designed to:

- Adequately cater for the anticipated volume of waste to be generated;
- Provide an adequately sized Bin Storage Area, including appropriate bins; and
- Allow for efficient collection of bins by appropriate waste collection vehicles.

To achieve the objective, the scope of the WMP comprises:

- Section 2: Waste Generation;
- Section 3: Internal Transfer of Waste;
- Section 4: Waste Storage;
- Section 5: Waste Collection;
- Section 6: Waste Management; and
- Section 7: Conclusion.

2 Waste Generation

The following section shows the waste generation rates used and the estimated waste volumes to be generated at the Proposal.

2.1 Proposed Tenancies

The anticipated volume of refuse, recyclables and organics is based on the number of two-bedroom units at the Proposal – 14.

2.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Joondalup *Waste Management Guidelines for Proposed Developments* (2022).

Table 2-1 shows the waste generation rates which have been applied to the Proposal.

Table 2-1: Waste Generation Rates

Tenancy Use Type	City of Joondalup Guideline Reference	Refuse Generation Rate	Recycling Generation Rate	Organics Generation Rate
Two Bedroom Units	Two Bedroom Dwelling	110L/week	60L/week	60L/week

2.3 Waste Generation Volumes

Waste generation is estimated by volume in litres (L) as this is generally the influencing factor when considering bin size, numbers and storage space required.

Waste generation volumes in litres per week (L/week) adopted for this waste assessment is shown Table 2-2. It is estimated that the Proposal will generate 1,540L of refuse, 840L of recyclables and 840L of garden organics each week.

Table 2-2: Estimated Waste Generation

Two Bedroom Units	Number of Units	Waste Generation Rate (L/week)	Waste Generation (L/week)
Refuse	14	110	1,540
Recyclables	14	60	840
Garden Organics	14	60	840
		Total	**3,220**

3 Internal Transfer of Waste

To promote positive recycling behaviour and maximise diversion from landfill, the units will have room to accommodate two under counter/kitchen bins for the separate disposal of refuse and recyclables. The resident/carer will then take the contents of these internal bins to the Bin Storage Area for consolidation into the appropriate bins.

All bins will be colour coded and labelled in accordance with Australian Standards (AS 4123.7) to assist residents to dispose of their separate waste materials in the correct bins.

3.1 Provision for Food Organics Garden Organics (FOGO)

In the near future it is expected that the City will be introducing bins for the separate collection of food organics and garden organics (FOGO) within multi-unit residential properties in line with the state government's Waste Avoidance and Resource Recovery (WARR) Strategy 2030. As such, the development has provided sufficient space to accommodate four 240L garden organics waste bins which could be utilised for FOGO should the development be required to separate FOGO for collection in the future.

Kitchen caddies would be used in each house to collect FOGO, which will then be taken by residents/carers to the Bin Storage Area for depositing into the lime green lidded 240L FOGO bins.

4 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Area, as shown in Diagram 1, and discussed in the following sub-sections.

Note: the waste generation volumes are best practice estimates and the number of bins to be utilised represents the maximum requirements once the Proposal is fully operational. Bin requirements may be impacted as the development becomes operational and the nature of the tenants and waste management requirements are known.

4.1 Bin Sizes

Table 4-1 gives the typical dimensions of standard bins sizes that may be utilised at the Proposal. It should be noted that these bin dimensions are approximate and can vary slightly between suppliers.

Table 4-1: Typical Bin Dimensions

Dimensions (m)	Bin Sizes		
	240L	660L	1,100L
Depth	0.730	0.780	1.070
Width	0.585	1.260	1.240
Height	1.060	1.200	1.330

Reference: SULO Bin Specification Data Sheets

4.2 Bin Storage Area Size

To ensure sufficient area is available for storage of the bins, the amount of bins required for the Bin Storage Area was modelled utilising the estimated waste generation in Table 2-2, bin sizes in Table 4-1 and based on collection of refuse and garden organics once each week and recyclables once each fortnight.

Based on the results shown in Table 4-2 the Bin Storage Area has been sized to accommodate:

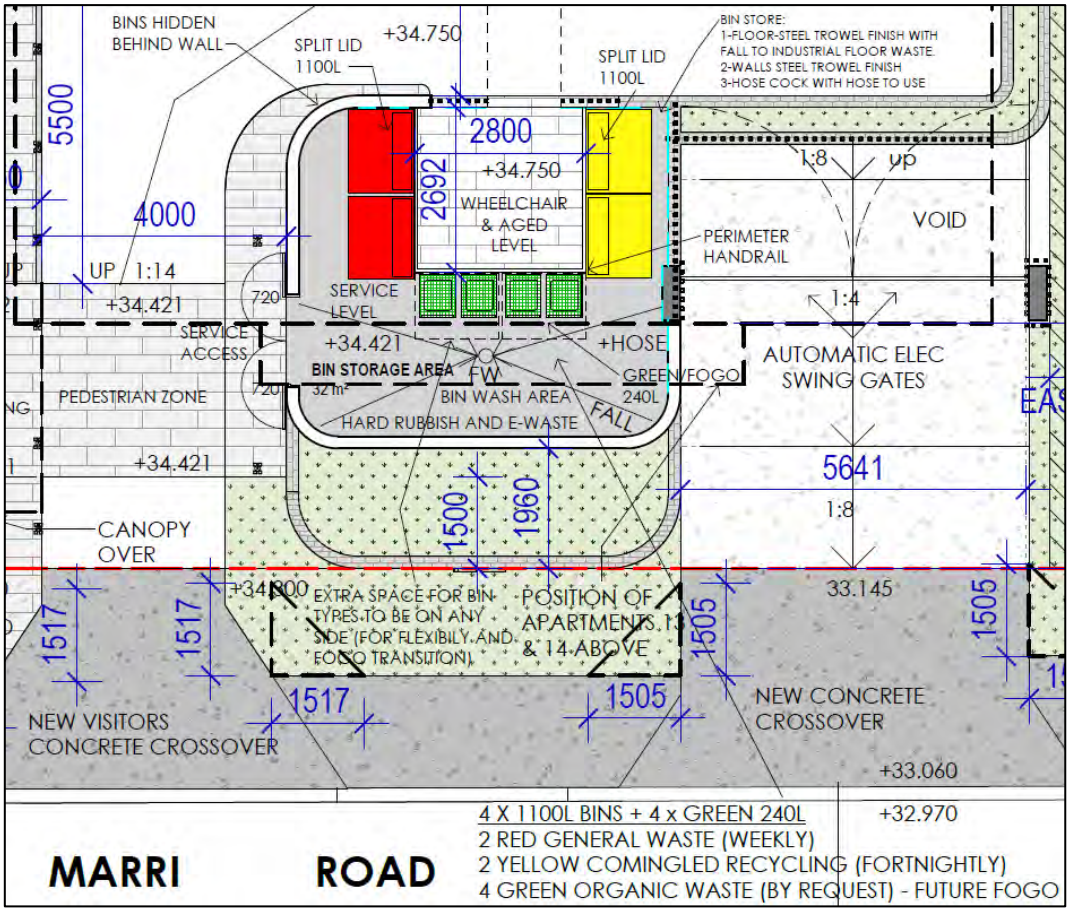
- Two 1,100L refuse bins;
- Two 1,100L recycling bins; and
- Four 240L garden organics bins (future FOGO).

Table 4-2: Bin Requirements for Bin Storage Area

Waste Stream	Waste Generation (L/week)	Number of Bins Required		
		240L	660L	1,100L
Refuse	1,540	7	3	2
Recycling	840	7	3	2
Garden Organics	840	4	2	1

The configuration of these bins within the Bin Storage Area is shown in Diagram 1. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 1 represents the maximum requirements assuming one collection each week of refuse and garden organics and one collection each fortnight of recyclables.

Diagram 1: Bin Storage Area



4.3 Bin Storage Area Design

The design of the Bin Storage Area will take into consideration:

- Smooth impervious floor sloped to a drain connected to the sewer system;
- Taps for washing of bins and Bin Storage Area;
- Adequate aisle width for easy manoeuvring of bins;
- No double stacking of bins;
- Doors to the Bin Storage Area self-closing and vermin proof;
- Doors to the Bin Storage Area wide enough to fit bins through;
- Ventilated to a suitable standard;
- Appropriate signage;
- Undercover where possible and be designed to not permit stormwater to enter the drain;
- Located behind the building setback line;
- Bins not to be visible from the property boundary or areas trafficable by the public; and
- Bins are reasonably secured from theft and vandalism.

Bin numbers and storage space within the Bin Storage Area will be monitored by the strata manager/caretaker during the operation of the Proposal to ensure that the number of bins and collection frequency is sufficient.

5 Waste Collection

A private waste collection contractor will service the Proposal and provide two 1,100L bins for refuse, two 1,100L bins for recyclables and four 240L bins for garden organics (future FOGO).

The private contractor will collect refuse and garden organics once each week and recyclables once each fortnight utilising a rear loader waste collection vehicle.

The private contractor's rear loader waste collection vehicle will service the bins directly from the Bin Storage Area from Marri Road. The private contractor's rear loader waste collection vehicle will travel with left hand lane traffic flow on Marri Road and pull over in front of the crossover for servicing. Traffic management signals may be used so drivers can proceed with caution, such as warning beacons/lights and cones.

Private contractor's staff will ferry bins to and from the rear loader waste collection vehicle and the Bin Storage Area during servicing. The private contractor will be provided with key/PIN code access to the Bin Storage Area and security access gates to facilitate servicing, if required.

Once servicing is complete the private contractor's rear loader waste collection vehicle will continue in a forward motion along Marri Road.

The above servicing method will preserve the amenity of the area by removing the requirement for bins to be presented to the street on collection days. Noise from waste vehicles must comply with the Environmental Protection (Noise) Regulations and such vehicles should not service the site before 7.00am or after 7.00pm Monday to Saturday, or before 9.00am or after 7.00pm on Sundays and Public Holidays.

5.1 Bulk Waste

Bulk and speciality waste materials will be removed from the Proposal as they are generated on an 'as required' basis. These materials will be removed from the Proposal once sufficient volumes have been accumulated to warrant disposal. A temporary skip bin could be utilised for collections, if required. Bulk and specialty waste collection will be monitored by the strata manager/caretaker who will organise their transport to the appropriate waste facility, as required.

6 Waste Management

A strata manager/caretaker will be engaged to complete the following tasks:

- Monitoring and maintenance of bins and the Bin Storage Area;
- Cleaning of bins and Bin Storage Area, when required;
- Ensure all residents at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor resident behaviour and identify requirements for further education and/or signage;
- Monitor bulk and speciality waste accumulation and assist with its removal, as required;
- Regularly engage with residents to develop opportunities to reduce waste volumes and increase resource recovery; and
- Regularly engage with the private contractors to ensure efficient and effective waste service is maintained.

7 Conclusion

As demonstrated within this WMP, the Proposal provides a sufficiently sized Bin Storage Area for storage of refuse, recyclables, and garden organics, based on the estimated waste generation volumes and suitable configuration of bins. This indicates that an adequately designed Bin Storage Area has been provided, and collection of refuse, recyclables, and garden organics can be completed from the Proposal.

The above is achieved using:

- Two 1,100L refuse bins, collected once each week;
- Two 1,100L recycling bins, collected once each fortnight; and
- Four 240L garden organic bins (future FOGO), collected once each week.

A private contractor will service the Proposal directly from the Bin Storage Area, in front of the crossover on Marri Road.

A strata manager/caretaker will oversee the relevant aspects of waste management at the Proposal.

Figures

Figure 1: Locality Plan

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LEGEND

- Site Boundary

Cadastre

- Crown Allotment
- Freehold
- Road
- Strata Plan or Lot
- Easement
- Reserve

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LOCALITY



0 5 10 15 20 km

LOCALITY

57 Marri Road
Duncraig WA 6023

Majestic Developments Pty Ltd
as Trustee for CM Family Trust

N 0 5 10 15 m

Coordinate System: GDA2020 MGA Zone 50
Scale @ A3: 1:400

Prepared:	E Jackson	Date:	7/02/2024
Reviewed:	A Brouwer	Revision:	A
Project:	WMP24015		

talis consultants

Figure 01

Data source: Roads, Cadastre - Landgate, 2024. Imagery: Nearmap, 2024.

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Assets | Engineering | Environment | Noise | Spatial | Waste

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24/07/2024

To whom it may concern,

After reviewing the plans for the proposed 14 unit development located at 57 Marri Road, Duncraig. We are pleased to advise that Veolia is prepared to service the properties waste collection requirements.

We attach an information guide showing all waste services that we can provide at your discretion.

Kind regards,



Dwayne Rapley
Major Account Manager, WA

mob: +61 0401 980 468
65 Howson Way, Bibra Lake WA 6163 (Australia)
www.veolia.com/anz

EMERGEN

SUSTAINABILITY DESIGN REPORT

AGED AND DEPENDANT PERSON RESIDENTIAL DEVELOPMENT

(LOT 900) 57 MARRI ROAD, DUNCRAIG WA 6023

PREPARED BY

NYONIKA OBERAI

Project: 129508

Published date.

3/01/2024

EMERGEN

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DRAWING NO.	DRAWING TITLE	REVISION NO.
DA- A001a-A401	Architectural Drawings	Design Approval

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DISCLAIMER

The contents of this report are based on the documentation and plans provided by the Client to EMERGEN/CADDS Group. The outcomes presented are representative of schematic systems, schedules, and project design. These results should not be considered as actual energy usage.

EMERGEN

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1 STATE PLANNING POLICY SUMMARY

EMERGEN (a division of CADDS GROUP), in collaboration with the design team (Doepel Marsh) has developed a sustainable design strategy for the proposed development at (Lot 900) 57 Marri Road, Duncraig WA 6023 aligning with *State Planning Policy 7.0*, which focuses on the Design of the Built Environment - specifically, Principle 5: Sustainability.

This report serves the vital purpose of bolstering the development application by articulating the sustainability principles and commitments for the project site. We acknowledge the significance of State Planning Policy 7.0 in promoting sustainability within the built environment. Good design, as outlined in the policy, is not only about aesthetics but also optimises the sustainability of our built surroundings, yielding positive outcomes on environmental, social, and economic fronts.

Our approach to sustainable landscape and urban design adheres closely to the established water-sensitive urban design principles, ensuring minimal adverse impacts on existing natural features and ecological processes while promoting green infrastructure at all scales of the project. Furthermore, our strategy for sustainable built environments embraces passive environmental design measures tailored to local climate and site conditions. This includes careful consideration of optimal orientation, shading, building envelope, and natural ventilation, ultimately reducing reliance on energy-intensive heating and cooling technologies. This, in turn, results in reduced energy consumption, decreased resource usage, and lowered operating costs throughout the project's lifecycle.

1.1 DESIGN AND CONSTRUCT TO AUSTRALIAN BEST PRACTICE

The design team will utilise a structured approach to a sustainable outcome for the design and construction of the development including the following Sustainable Targets.

Table 1:Sustainability Targets

DESCRIPTION	GOAL	SUSTAINABILITY COMMITMENTS
CLEAR AIR	Improve indoor environment quality and health and wellbeing of occupants.	Outdoor air provided to primary areas at a rate at least **50%** greater than minimum in AS 1668.2:2012. *(TBC based on mechanical consultant).*
LIGHT QUALITY		Above **40%** of the regularly occupied areas have high level of daylight (above 160 Lux).
EXPOSURE TO TOXINS		The building's paints adhesives, sealants, and carpets are low in TVOC or non-toxic. The building's engineered wood products are low in TVOC or non-toxic. Occupants are not exposed to banned or highly toxic materials in the building.
NATURAL VENTILATION	Increased Fresh air	Natural Ventilation to all apartments.
HEAT RESILIENCE	Reduce impacts of long-term performance.	Light Roof Colour (SRI below 0.50)
ENERGY USE	Reduce emissions and water use.	A minimum of **30%** offset in operational energy usage Electrification of building. Metering and monitoring.
WATER USE		High WELS Ratings (these equal to above **30%** reduction in potable water). Water Sensitive Urban Design, drip irrigation. Stormwater collected, filtered, and used for sub -soil irrigation.
LIGHTING USE		**20%** reduction in lighting power when compared to NCC DTS.
RENEWABLE ENERGY		40kW solar PV system
MOVEMENT AND PLACE	Low carbon options.	Provision for 2 x EV Charging Bays
DESIGN FOR INCLUSION	Social health.	Disability Access and inclusive design

2 PROJECT INFORMATION

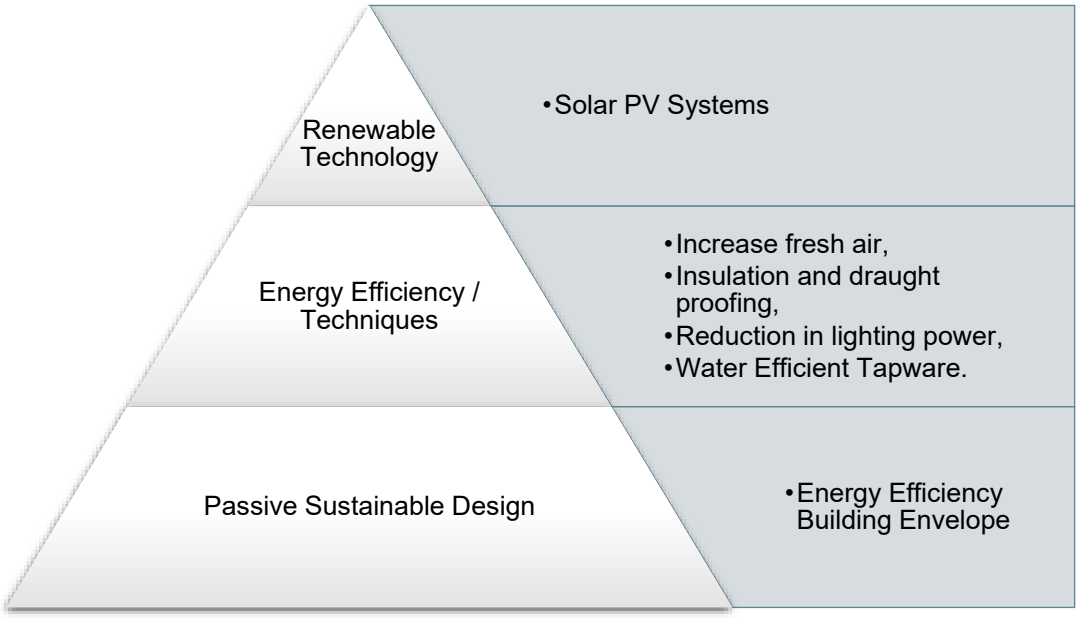
The proposed site is located at (Lot 900) 57 Marri Road, Duncraig WA. The site falls within jurisdiction of the City of Joondalup. The site is now being developed for aged and dependant person residential apartment building.

Image 1 Existing Site Images



3 ENERGY REDUCTION STRATEGY

Table 2 Energy Reduction Strategy



3.1 DESIGN FOR COMFORT USING NATHERS.

The development is designed to exceed the minimum requirement of the NCC by reducing its heating and cooling requirement by approximately 30% over a code compliant building. The project will be targeting an average 7.5 Star NatHERS rating.

Table 2 - Modelling Runs Undertaken

	NCC 2019	NCC 2022	MARRI ROAD, DUNCRAIG
WORST CASE NATHERS RATING	5.0	6.0	6.5
OVERALL AVERAGE NATHERS RATING	6.0	7.0	7.5
ESTIMATE AVERAGE ENERGY LOAD	70.0	52.0	44

The NatHERS assessment will be undertake NatHERS rating certified by an accredited assessor validated with a NatHERS certificate.

4 ENERGY USE

4.1 BUILDING FABRIC FOR RESIDENTIAL

The modelling demonstrated ability to achieve minimum of **6.5** and an average of **7.5** Star NatHERS Rating.

Table 3: Assumed construction type

CONSTRUCTION		DESCRIPTION	REQUIREMENT
ENVELOPE WALLS	**External Wall**	150mm Concrete Wall with Fibre Cement externally and Plasterboard internally lined.	**Insulated with a minimum of R2.0.**
	External Storage Wall	120mm Concrete Wall	**No Insulation Required.**
	Neighbour Wall	250mm Concrete Wall with Plasterboard lining on both sides.	**No Insulation Required.**
	Lift/ Stairwell Wall	250mm Concrete Wall with Plasterboard internally lined.	**No Insulation Required.**
INTERNAL WALLS	**Internal Wall**	Stud-Frame with Plasterboard lining on both sides.	**No Insulation Required.**
FLOORS	**Slab on Ground**	Concrete slab with ground contact. Floor coverings as per plans.	**No Insulation Required.**

	Suspended Concrete Slab Type 1:	200mm Suspended concrete slab. Floor coverings as per plans.	**No Insulation Required.**
	Suspended Concrete Slab Type 2:	200mm Suspended concrete slab. Floor coverings as per plans.	**30mm Kooltherm K10 Cavity board (R1.3)**
ROOFS	**Roof Type 1:**	200mm Suspended concrete slab.	**No Insulation Required.**
	Roof Type 2:	Metal deck roof sheeting. **Colour NS (SA: 0.45).**	**60mm Anticon (R1.3) with R4.0 Insulation Batts** to dropped plasterboard ceilings.

GLAZING SPECIFICATION FOR APARTMENTS		U-Value	SHGC (+/- 5%)
OPTION 1 (SINGLE GLAZING)			
AWNING WINDOW	Single-Glazed Clear, in Aluminium Frame	6.57	0.63
SLIDING DOOR	Single-Glazed Clear, in Aluminium Frame	6.6	0.74
OPTION 2 (DOUBLE GLAZING)			
AWNING WINDOW	Double-Glazed Clear, in Aluminium Frame	3.58	0.54
SLIDING DOOR	Double-Glazed Clear, in Aluminium Frame	3.65	0.63

4.1.1 NATHERS RESULTS

Table 4: NatHERS Outcome

APARTMENT NO.	BASE RATING	FLOOR INSULATION (R1.3)	ROOF INSULATION (R4.0 + R1.3)	OPTION 1	OPTION 2
1	4.9			8.3	8.8
4	6.1			8.6	9.1
9	2.7	X		6.9	7.5
10	2.2	X		5.7	6.5
11	2.0		X	7.7	8.3
14	1.9		X	6.9	7.9

5 RENEWABLE ENERGY

The roof has the capacity to support a 40-kW solar system, and the project aims to achieve a 30% offset. Given that this is a residential property, the installation should be carried out by a professional solar provider.

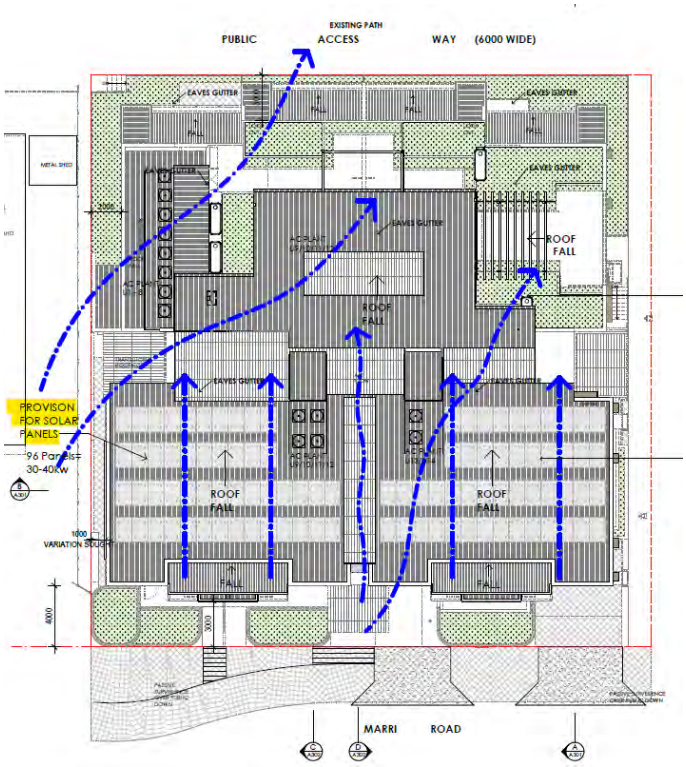


Figure 1: Provision for solar PV

5.1 PROVISIONS FOR INCREASED OUTDOOR AIR

Pollutants entering the building are minimised, and a high level of fresh air is provided to ensure levels of indoor pollutants are maintained at acceptable levels. It is proposed that outdoor air provided to primary areas will be at a rate at least 50% greater than minimum in AS 1668.2:2012, this will need to be confirmed by the mechanical engineer.

6 LIGHTING COMFORT

Lighting within the building must meet the following criteria:

- All lighting must be flicker-free.
- Light sources must have a minimum Colour Rendering Index (CRI) average R1 to R8 of 85 or higher and have a CRI R9 of 50 or higher.
- Light sources must meet best practice illuminance levels for each task within each space type with a maintained illuminance that meets the levels recommended in AS/NZS 1680.1:2006 series applicable to the project type and including maintenance.
- The maintained Illuminance values must achieve a uniformity of no less than that specified in Table 3.2 of AS/NZS 1680.1:2006, with a maintenance factor method as defined in AS/NZS 1680.4.; and

- All light sources must have a minimum of 3 MacAdam Ellipses.
- The walls within the field of view of occupants in regularly occupied spaces must have an average surface reflectance value of 0.70 and an average surface illuminance of at least 50% of the horizontal illuminance levels required for task.
- Vertical illuminance in workspaces: ensure that 50% of the horizontal task illuminance reaches the average eye height for 90% of primary spaces using vertical illuminance calculation grid.
- The illuminance values must be calculated in accordance with AS/NZS 1680 series for the relevant task.

6.1 EFFICIENT LIGHTING AND CONTROL

The installed aggregate illumination power has been designed to be **20%** below the maximum illumination power based on maximum allowable lighting power densities defined in Table J6.2a of the NCC 2019. Motion Detectors and daylight sensors are provided to reduce demand.

Table 5: Lighting Characteristics

PARAMETER	PROPOSED BUILDING	REFERENCE BUILDING
LIGHTING TYPE	LED light fittings	LED light fittings
DESIGN ILLUMINANCE (LUX)	Various lux	Various lux
NOMINAL LIGHTING POWER DENSITY (W/M^2)	**20%** less compared to NCC max requirements.	As per NCC max requirements.
OCCUPANT SENSOR CONTROLS	Motion sensors	N/A
DAYLIGHT CONTROLS	Yes	N/A
OTHER LIGHTING CONTROLS	Timer switches	N/A
ADJUSTMENT FACTOR APPLIED	0.9 – Motion sensor 1 0.7 – Motion sensor 2 0.55 – Motion sensor 3	Room Aspect Ratio

6.2 SOLAR ANALYSIS

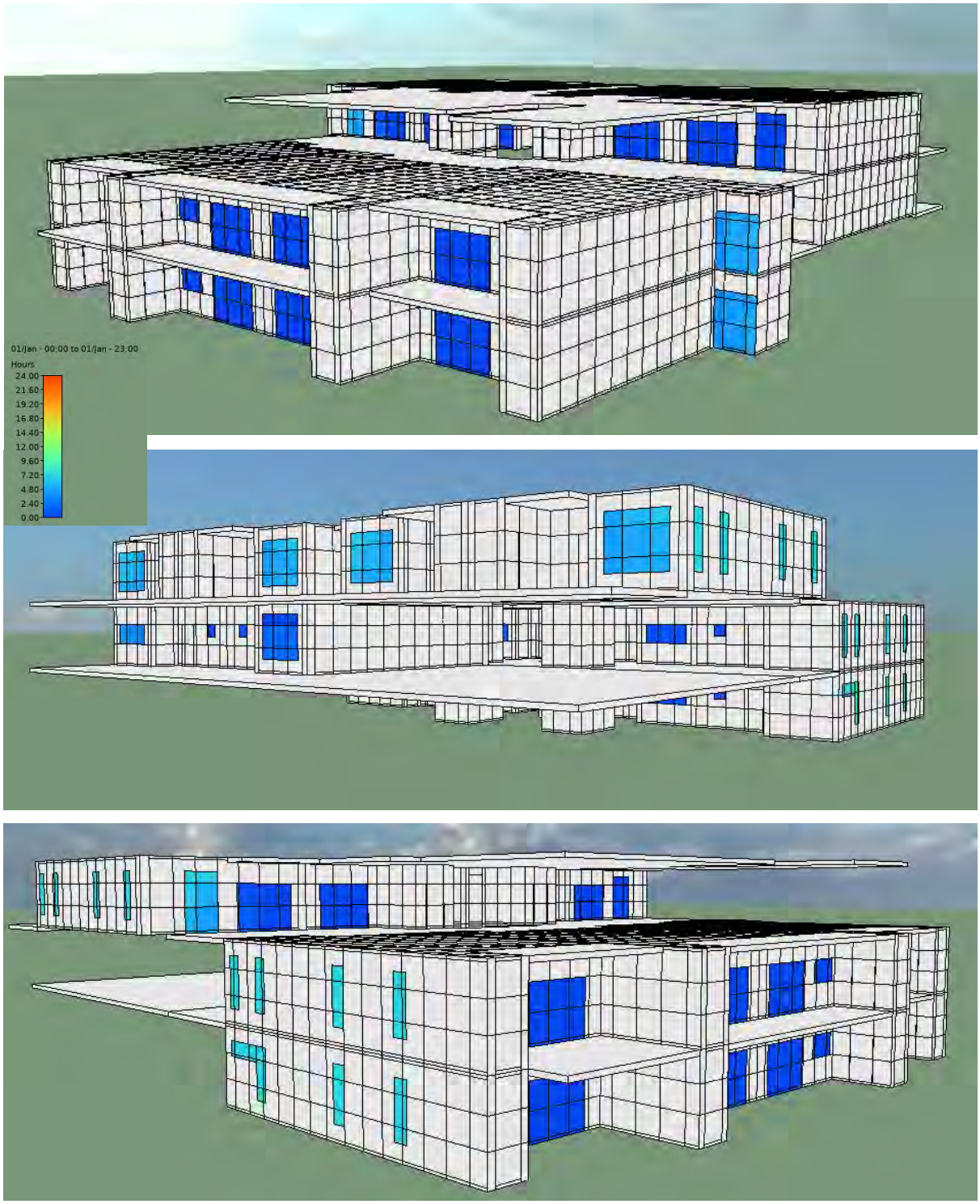


Figure 2: Solar Analysis

The shading elements have been strategically designed to minimize extended solar exposure. Each window, as a result, receives approximately 1 to 7 hours of daylight over the course of the day, striking a balance between harnessing natural light and mitigating excessive sunlight exposure.

6.3 DAYLIGHTING

Emergen have completed preliminary daylight modelling. The analysis has been undertaken using IES software at finished floor level based on CIE standard overcast sky. The study boundary includes Primary Spaces only.

Table 6: Calculations Conditions - Daylight

CALCULATION CONDITIONS	
TEST FACTOR	Daylight Factor
SKY FACTOR	CIE Overcast Sky
DATE	March 21st 12:00pm

Table 7: Daylighting

BUILDING	PROPOSE USAGE	NOMINATED AREA (M²)	COMPLIANT AREA (M²)	COMPLIANT AREA (%)
APPARTMENTS	Primary	899.38	775.35	86.2%

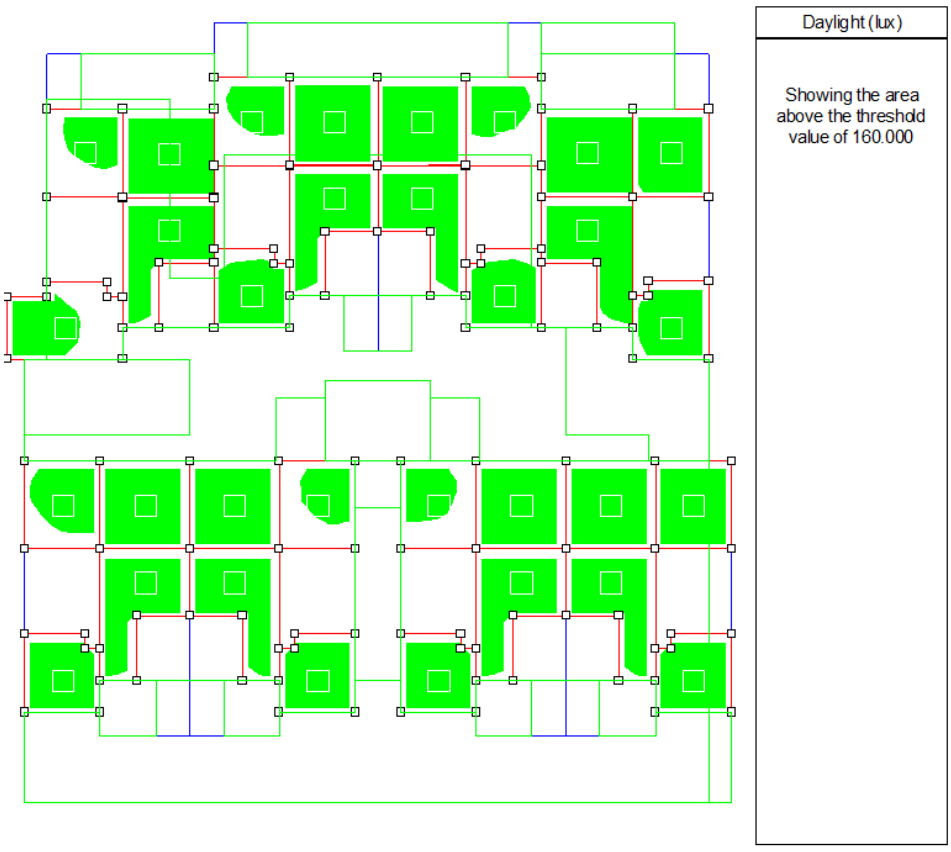
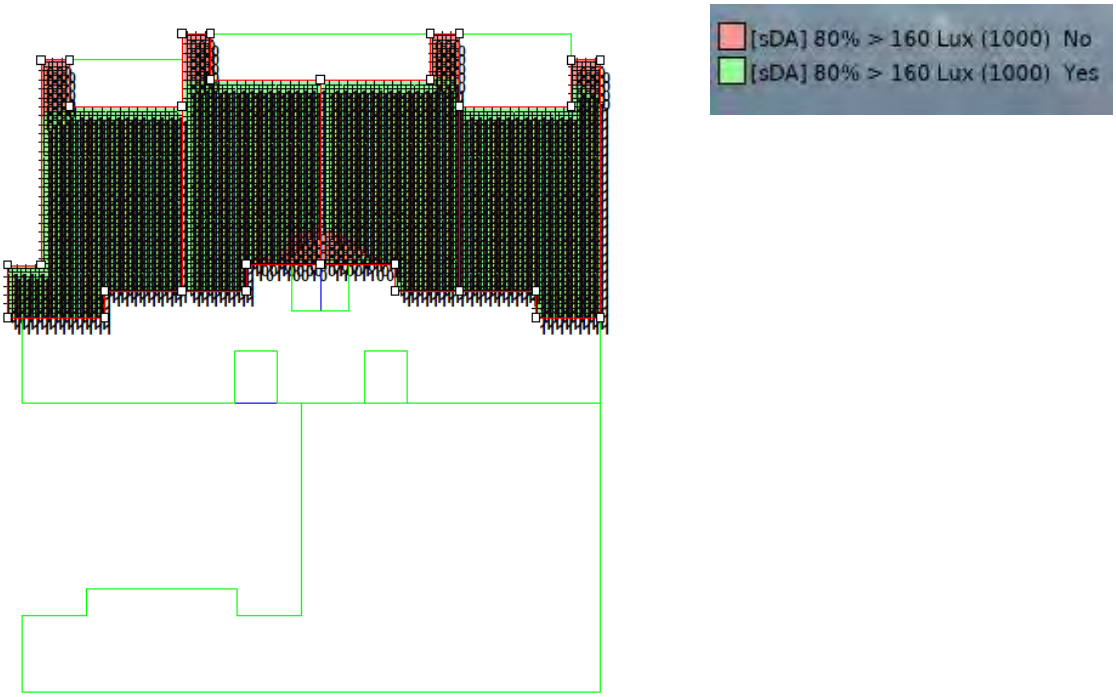
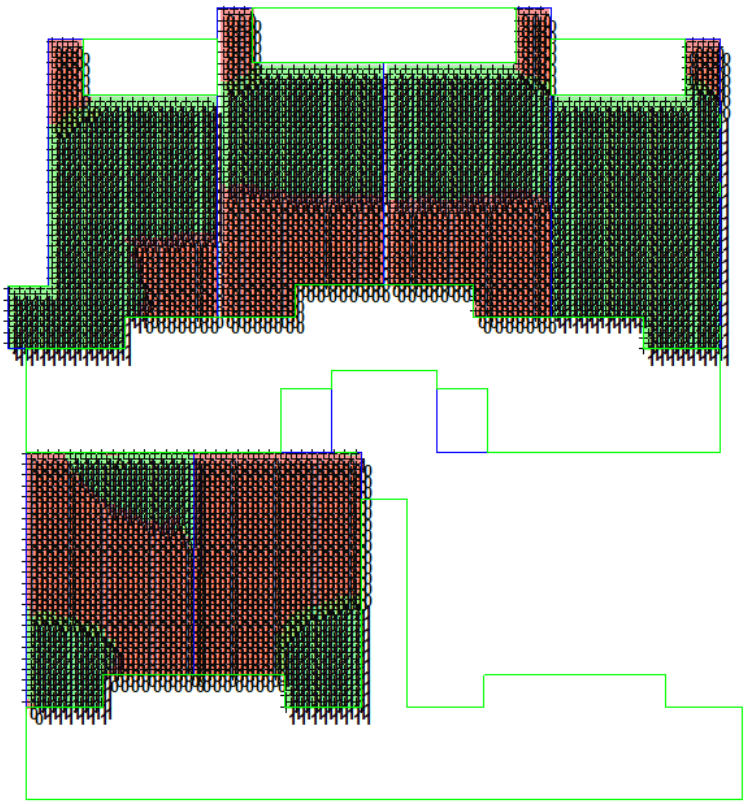


Figure 3: Compliant area

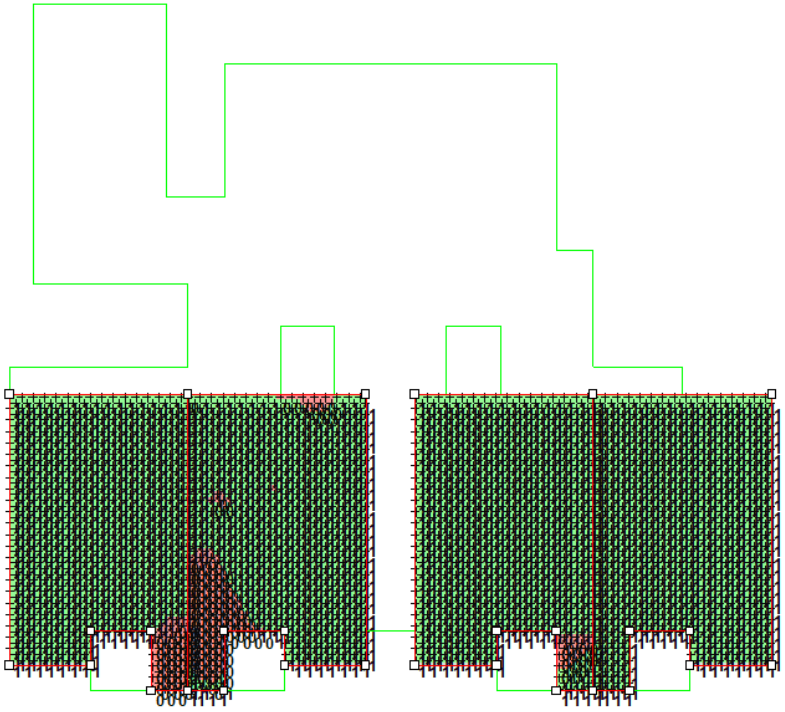
Lower Ground floor



Upper Ground Floor



First floor



7 WATER EFFICIENCY

7.1 SUSTAINABLE WATER INITIATIVES

All new water fixtures are to ensure that high WELS rating fixtures and fitting are to be specified in line with minimum benchmarks below.

Four water tanks have been strategically installed to capture rainwater from both the communal area roof and the communal area storage roof on the west side. These tanks are elevated to facilitate gravity-fed irrigation and are positioned in close proximity to the eaves gutters, in accordance with the details outlined in the First Floor Plan and Site Plan.

Table 8: WELS Ratings

FIXTURE / EQUIPMENT TYPE	WELS RATING
TAPS	5 Star
TOILETS	5 Star
SHOWERS	3 Star
DISHWASHERS	5 Star

Table 9: Estimated Water Use

FITTINGS	PROPOSED BUILDING WATER DEMAND (KL/YEAR)	STANDARD PRACTICE BUILDING WATER DEMAND (KL/YEAR)
TOILETS	863.4	1,151.2
INDOOR TAPS	234.6	351.9
SHOWERS	2,156.9	3,882.4
DISHWASHERS	277.2	448.5
REDUCTION	**46.0%**	

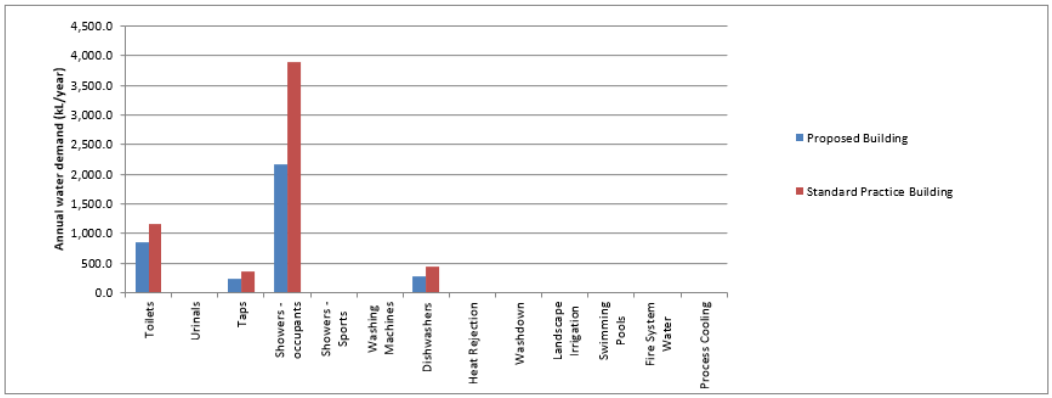


Figure 4: Graph for Estimated Water Use

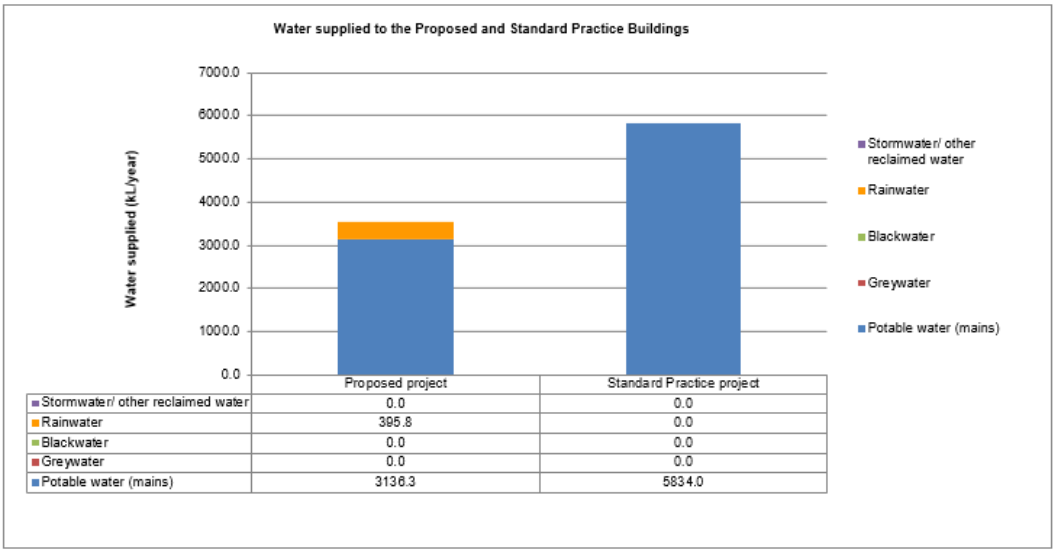


Figure 5: Graph for water supplied

8 MOVEMENT AND PLACE

8.1 BICYLCE PARKING FACILITIES & SUSTAINABLE TRANSPORT FACILITIES

It is the intention of this category to reduce occupant's dependency on carbon intensive vehicles. The development will install infrastructure to allow for future installation of EV charging stations.

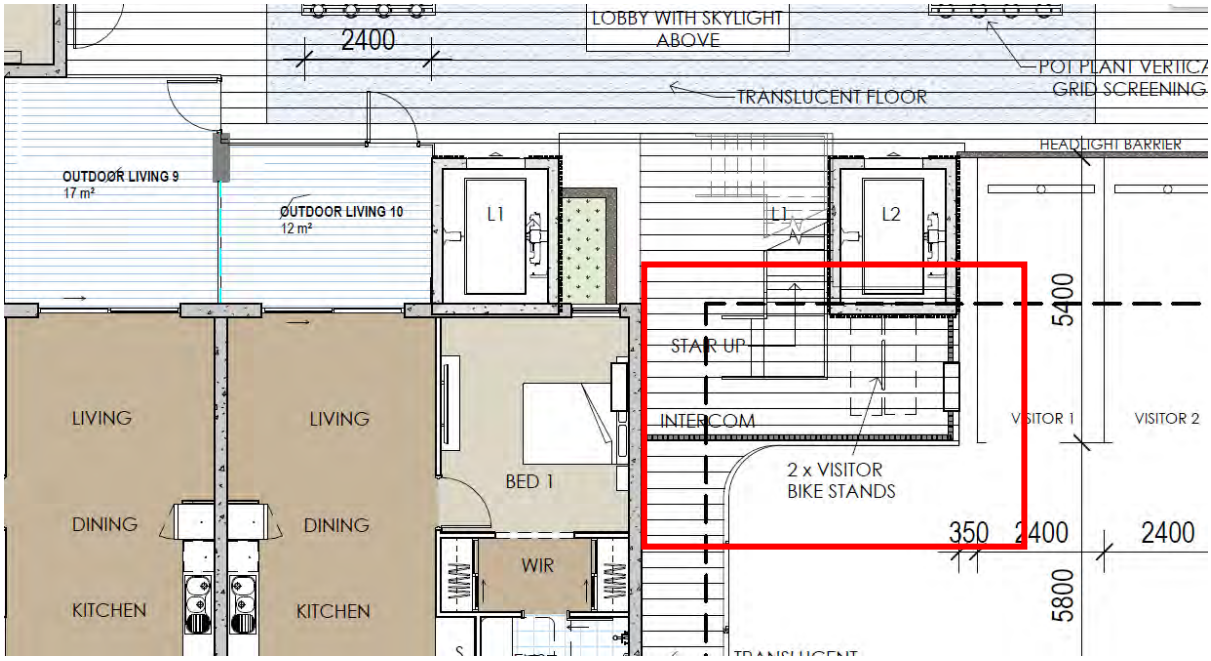


Figure 6: Bike Racks

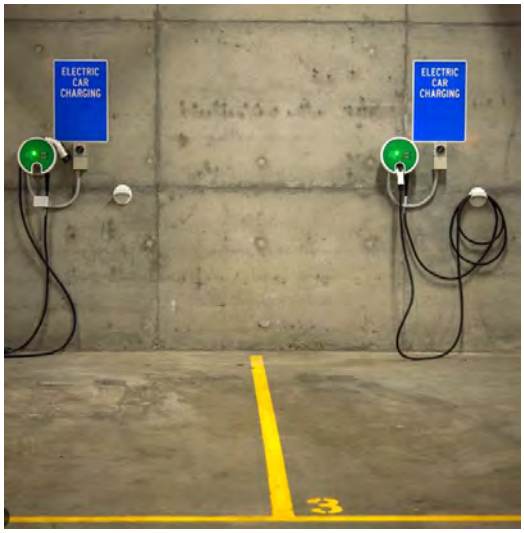


Figure 7: EV charging Stations.

8.2 ENCOURAGING WALKABILITY

The building's design and location encourage walking to and from a number of amenities. This means designing roads within the building boundary to prioritise pedestrians, and either providing within, or being located close to, several amenities.

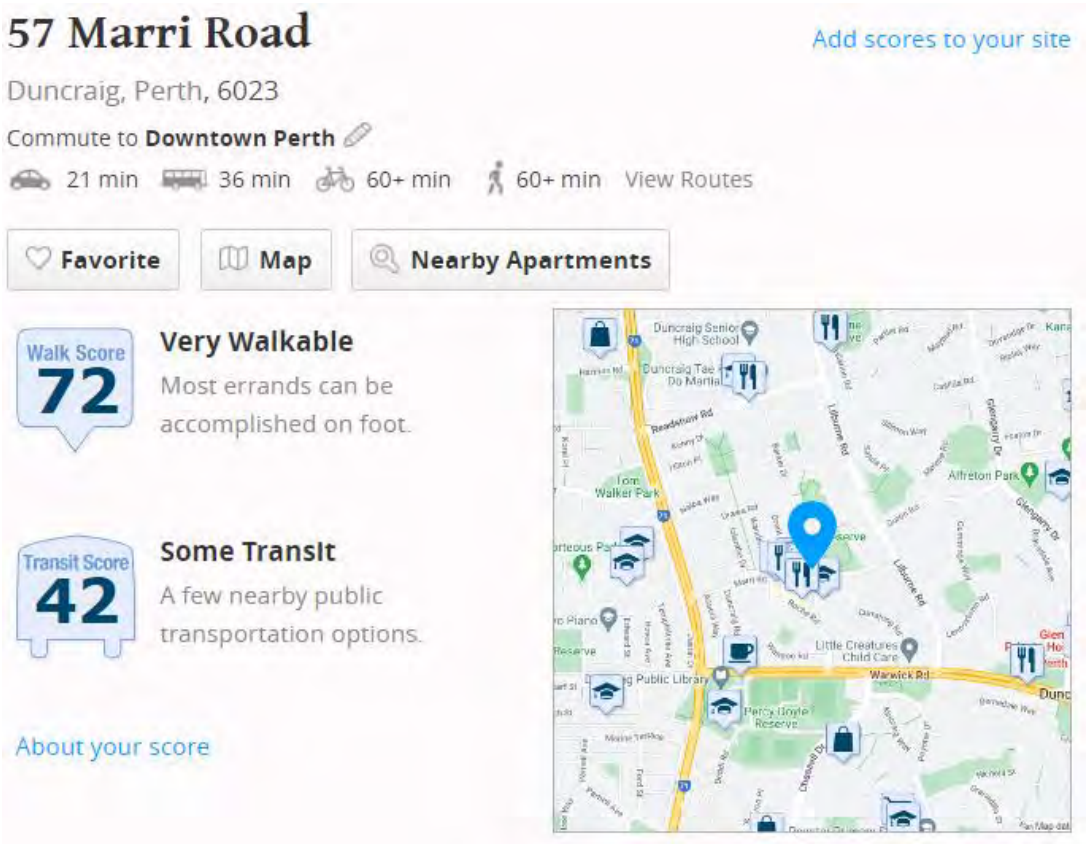


Figure 8: Walkability score of the site

9 LAND USE AND ECOLOGY

9.1 HEAT ISLAND EFFECT

The project will dedicate more than **50%** of the entire site area to include one or a combination of the following:

- Vegetation.
- Roofing materials, including shading structures, having the following:
  - For roof pitched <15°– a three-year SRI of minimum 64; or
  - For roof pitched >15°– a three-year SRI of minimum 34.
- Only where the three-year Solar Reflectance Index (SRI) for products is not available, use the following:
  - For roof pitched <15° – an initial SRI of minimum 82; or
  - For roof pitched >15° – an initial SRI of minimum 39.
- Unshaded hard-scaping elements with a three-year SRI of minimum 34 or an initial SRI of minimum 39.
- Hardscaping elements shaded by overhanging vegetation or roof structures, including solar hot water panels and photovoltaic panels.

9.2 BIODIVERSITY ENHANCEMENT

Landscaping should consist of native vegetation with crop coefficient of 0.5 or below. All landscaping irrigation to include drip irrigation and include moisture sensor override or alternatively the use of Xeriscape Garden. Where Xeriscape Garden is implemented, there will be a provision for the removal of irrigation within three months of landscaping installation reducing the need for watering after. Water for landscaping will be from non-portable sources (where available).

9.3 WASTE EFFICIENCY

A waste planning expert will produce a Waste Management Plan (OWMP) that addresses best practice in waste management, including:

- Identifying the objectives of the plan, by setting diversion from landfill targets and / or target for reducing total materials generation (general waste materials + recyclable / reusable materials);
- Clearly identify waste streams including general waste, paper and cardboard, glass and plastic;
- Clearly identify applicable bins for various waste streams, that allow for separation of recyclable streams – or use of comingled systems where appropriate.
- Clearly identify at least one other waste stream that can be recycled, and for which recycling facilities are provided.
- Clearly identify storage areas for all waste streams identified in the OWMP.
    - Area to be sized sufficiently for all streams nominated above, based on waste generated by the project and the collection frequency for each stream; and
    - Calculations shall be based on third-party best practice guidelines.
- Outline best practice access requirements for the collection of all waste streams identified in the OWMP.
- Outline individual roles responsible for delivering and reviewing the OWMP

10 EXPOSURE TO TOXINS

10.1 PAINTS, ADHESIVES, SEALANTS AND CARPETS

To meet the requirements, at least 95% of internally applied paints, adhesives, sealants (by volume), and carpets (by area) must meet TVOC (Total Volatile Organic Compounds) limits. Compliance with these limits can be achieved through one of the following methods:

1. Product Certification Scheme: The contractor can use products that are certified under a recognized and current Product Certification Scheme at the time of purchase. These schemes assess and verify the TVOC content of the materials, ensuring they meet the specified limits.
2. Laboratory Product Testing: If there are no certified products available, the contractor can conduct laboratory testing on the paints, adhesives, sealants, and carpets to determine their TVOC content. The testing should be carried out using the whole paint, including water and tinters, to obtain accurate results.
3. Absence of Non-compliant Materials: Alternatively, if none of the materials mentioned (paints, adhesives, sealants, and carpets) are present at the time of practical completion (PC), and thus no TVOC emissions are expected, compliance can be achieved.

All paints used for internal application on the job are to have a low TVOC content as outlined below. TVOC content must be based on whole paint (water and tinters included):

Table 10: Paint VOC limits

PRODUCT TYPE / SUBCATEGORY	MAX TVOC CONTENT (G/L OF READY TO USE PRODUCT)
Walls and ceilings – Any gloss level	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65

Maximum TVOC Content Limits for Paints, Varnishes and Protective Coatings

*EU Directive

The TVOC content of the 'ready-to-use' paint shall be theoretically calculated as the sum total of the VOCs of each of the raw material component comprising the paint.

Where the TVOC content of individual components is not known, it must be determined experimentally by one of the following testing methods as appropriate:

- ISO Method 17895 (2005), for a material with a presumed VOC content <1%;
- ISO Method 11890-2 (2006), for a material with a presumed VOC <15%;
- ISO Method 11890-1 (2007), for a material with a presumed VOC content >15%;
- ASTM D3960, which is comprised of four individual testing procedures that measures TVOC (D2369) as well as density (D1475) and water content (D4017). Exempt compounds (D4457) must not be subtracted in the calculation of VOC content.

The contractor must obtain written approval from the design team before using any sealant, adhesive, paint, flooring or fit out items. This approval will be contingent on the provision of proof that the product has a VOC content below that noted above.

At the end of construction, the contractor is required to undertake a final audit to ensure that the correct products have been used.

All sealants used in an internal application on the job are to have a low TVOC content as outlined below.

Table 11: Adhesives/Sealants VOC limits

PRODUCT	MAXIMUM TVOC CONTENT (G/LITRE)
General purpose adhesives and sealants	50
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140

Maximum TVOC limits for Adhesives & Sealants
*Sealants used to enhance the fire- and water-proofing properties are included.

The testing method applicable to adhesive and sealants is only ASTM D3960 as detailed above for paints. For more information on ASTM D3960 refer to South Coast Air Quality Management District Rule 1168.

The contractor must obtain written approval from the design team before using any sealant, adhesive, paint, flooring or fitout items. This approval will be contingent on the provision of proof that the product has a VOC content below that noted above.

At the end of construction, the contractor is required to undertake a final audit to ensure that the correct products have been used.

All carpets and/or other flooring used on the project are to have low TVOC emission rates as outlined below.

Table 12: Carpet VOC limits

ALL CARPET/FLOORING PRODUCTS MUST COMPLY WITH TVOC EMISSION LEVELS	
Total VOC limit	0.5 mg/m^2 per hour
4-pc (4-Phenolcycohexene) limit	0.05 mg/m^2 per hour

Compliance Testing: Refer to Carpet and Rug Institute Green Label (US) OR American Society for Testing and Materials (ASTM) D5116 Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products OR

For carpets and laminate floor coverings, an option for demonstrating compliance with TVOC levels is as follows: ISO 10580 (also known as ISO/TC 219) – Document N238 – Resilient,

Textile and Laminate Floor Coverings Evaluation of Volatile Organic Compounds Emissions, with a limit of 500µg/m^2/hr at 24 hours. OR

For floor coverings (other than carpet), an option for demonstrating compliance with TVOC levels is as follows:

ISO16000 parts 9, 10 and 11 (also known as the EN 13419), with a TVOC limit at three days of 5mg/m²/h and 0.5mg/m²/h at 28 days.

Carpet or other flooring installed as part of the base building works prior to fit out works, can be deemed re-used for the purpose of this credit.

The contractor must obtain written approval from the design team before using any sealant, adhesive, paint, flooring or fit out items. This approval will be contingent on the provision of proof that the product has a VOC content below that noted above.

At the end of construction, the contractor is required to undertake a final audit to ensure that the correct products have been used.

There are two options for demonstrating compliance for carpets, as follows:

Option A - Product Certification:

Carpets certified under a relevant Product Certification Scheme standard recognised by the GBCA under the GBCA assessment Framework for Product Certification Schemes are deemed to satisfy the requirements of this criterion. Relevant GBCA recognized standards are listed on the GBCA web site. The certificate must be current at the time of project registration or submission and list the relevant product name and model.

A UL GREENGUARD Children & Schools® certification current at the time of project registration or submission is another acceptable evidence for demonstrating compliant TVOC levels for carpets.

Option B - Experimental Testing

All carpets comply with the Total VOC (TVOC) limits within Table below. The emission levels detailed in this table must be established by a NATA or another ISO/IEC17025 accreditation laboratory.

Table 13: Flooring VOC limits

ALL CARPET/FLOORING PRODUCTS MUST COMPLY WITH TVOC EMISSION LEVELS – TO ASTM D5116 TEST PROTOCOL	
Carpets using ASTM D5116 Test Protocol:	
Total VOC limit	0.5 mg/m^2 per hour
4-pc (4-Phenolcycohexene) limit	0.05 mg/m^2 per hour
Carpet using ISO 16000 test protocol (also known as EN 13419)	
TVOC at three days-	0.5 mg/sqm per hour
Flooring using ISO 10580 (also known as ISO/TC 219) – Document	
TVOC at 24 hours - 0	0.5mg/sqm per hour

10.2 FORMALDEHYDE MINIMISATION

All engineered wood products used internally, including exposed and concealed applications, must have low formaldehyde emissions as defined in the table below, or contain no formaldehyde. Engineered wood products are defined as particleboard, plywood, veneer, MDF, Laminated Veneer Lumber (LVL), High-Pressure Laminate (HPL), Compact Laminate and decorative overlaid wood panels and include both finished and unfinished products.

These requirements are not applicable to exterior applications, formwork, internal car park applications, reused engineered wood products or raw timber.

The contractor must obtain approval from the design team before substituting any product.

The limits listed here are defined according to the test method. The levels listed are equivalent results for different test procedures.

Table 14: Formaldehyde emission limits

TEST PROTOCOL	EMISSION LIMIT/ UNIT OF MEASUREMENTS
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	< 1.0 mg/L
AS/NZS 1859.1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	< 1.5 mg/L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	< 1.0 mg/L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	< 1.0 mg/L
JIS A 5905:2003 - MDF, with use of testing procedure JIS A 1460	< 1.0 mg/L
JIS A1901 (not applicable to Plywood)	< 1.0 mg/L
ASTM D5116	<0.1 (+/- 0.0005) mg/m²hr (may also be represented as mg/m²/hr)
ISO 16000 part 9, 10 and 11 (also known as EN 13419)	<0.1 (+/- 0.0005) mg/m²hr (may also be represented as mg/m²/hr)
ASTM D6007	0.12mg/m³*
ASTM E1333	0.12mg/m³**
EN 717-1 (also known as DIN EN 717-1)	0.12 mg/m³
EN 717-2 (also known as DIN EN 717-2)	3.5 mg/m²hr (may also be represented as mg/m²/hr).
*The test report must confirm that the conditions of Table 1 comply for the particular wood product type, the final results must be presented in EN 717-1 equivalent (as presented in the table) using the correlation ratio of 0.98.	

** The final results must be presented in EN 717-1 equivalent (as presented in the table), using the correlation ratio of 0.98.

11 CONCLUSION

In conclusion, the presented report provides a comprehensive overview of sustainability commitments that harmonize seamlessly with the core principles of the sustainability philosophy. These initiatives centre around the critical areas of energy conservation, water conservation, and waste reduction, showcasing a concerted effort to create a more environmentally responsible and resource-efficient approach. By prioritising these fundamental aspects, the report underscores a commitment to fostering a greener and more sustainable future.

Table 15: Sustainability Commitments

DESCRIPTION	GOAL	SUSTAINABILITY COMMITMENTS
CLEAR AIR	Improve indoor environment quality and health and wellbeing of occupants.	Outdoor air provided to primary areas at a rate at least **50%** greater than minimum in AS 1668.2:2012. *(TBC based on mechanical consultant).*
LIGHT QUALITY		Above **40%** of the regularly occupied areas have high level of daylight (above 160 Lux).
EXPOSURE TO TOXINS		The building's paints adhesives, sealants, and carpets are low in TVOC or non-toxic. The building's engineered wood products are low in TVOC or non-toxic. Occupants are not exposed to banned or highly toxic materials in the building.
NATURAL VENTILATION	Increased Fresh air	Natural Ventilation to all apartments.
HEAT RESILIENCE	Reduce impacts of long-term performance.	Light Roof Colour (SRI below 0.50)
ENERGY USE	Reduce emissions and water use.	A minimum of **30%** offset in operational energy usage Electrification of building. Metering and monitoring.
WATER USE		High WELS Ratings (these equal to above **30%** reduction in potable water). Water Sensitive Urban Design, drip irrigation. Stormwater collected, filtered, and used for sub -soil irrigation.
LIGHTING USE		**20%** reduction in lighting power when compared to NCC DTS.
RENEWABLE ENERGY		40kW solar PV system

MOVEMENT AND PLACE	Low carbon options.	Provision for 2 x EV Charging Bays
DESIGN FOR INCLUSION	Social health.	Disability Access and inclusive design

PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals

2. Meeting Closure