Metro Inner Development Assessment Panel Agenda

Meeting Date and Time: Thursday, 17 October 2024; 9:30am
Meeting Number: MIDAP/40
Meeting Venue: 140 William Street, Perth

A live stream will be available at the time of the meeting, via the following link:
MIDAP/40 - 17 October 2024 - City of Belmont - City of South Perth

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 BELMONT

1. Declarations of Due Consideration
2. Disclosure of Interests
3. Form 1 DAP Applications
   - 3.1 Lot 800 (No 203 - 209) Great Eastern Highway, Belmont - Proposed Multi-Storey Car Park – DAP/24/02736
4. Form 2 DAP Applications
5. Section 31 SAT Reconsiderations

PART C – CITY OF SOUTH PERTH

1. Declarations of Due Consideration
2. Disclosure of Interests
3. Form 1 DAP Applications
   - 3.1 No. 64 (Lot 109) Gillon Street, Karawara – Proposed Child Care Premises – DAP/24/02730
4. Form 2 DAP Applications
5. Section 31 SAT Reconsiderations

PART D – OTHER BUSINESS

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

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

ATTENDANCE

DAP Members

Clayton Higham (Presiding Member)
Karen Hyde (Deputy Presiding Member)
Heidi Herget (Specialist Member)

Part B – City of Belmont
Mayor Robert Rossi (Local Government DAP Member, City of Belmont)
Cr Phil Marks (Local Government DAP Member, City of Belmont)

Part C – City of South Perth
Cr Glenn Cridland (Local Government DAP Member, City of South Perth)

Minute Secretary

Laura Simmons (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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4. **Noting of Minutes**

PART B – CITY OF BELMONT

1. Declarations of Due Consideration

2. Disclosure of Interests

3. Form 1 DAP Applications

3.1 Lot 800 (No 203 - 209) Great Eastern Highway, Belmont - Proposed Multi-Storey Car Park – DAP/24/02736

4. Form 2 DAP Applications

Nil.

5. Section 31 SAT Reconsiderations

Nil.

Item 3.1 – Part B – LOT 800 (NO. 203-209) GREAT EASTERN HIGHWAY, BELMONT – PROPOSED MULTI-STOREY CAR PARK

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Inner DAP
Local Government Area:	City of Belmont
Applicant:	Lateral Planning
Owner:	St John Ambulance Western Australia Ltd
Value of Development:	$7 million
Responsible Authority:	City of Belmont
Authorising Officer:	Wilmot Loh, Director Development and Communities
LG Reference:	285/2024
DAP File No:	DAP/24/02736
Application Received Date:	22 July 2024
Report Due Date:	7 October 2024
Application Statutory Process Timeframe:	77 Days
Attachment(s):	1. Development Plans 2. City of Belmont Assessment Sheets 3. MRWA Referral Response 4. DRP Minutes 5. DRP Response Table 6. Public Art expression of interest 7. Landscape Concept Plan 8. Traffic Impact Assessment

Responsible Authority Recommendation

That the Metro Inner DAP resolves to:

1. **Approve** DAP Application reference DAP/24/02736 and accompanying plans (9 September 2024) 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 Belmont Local Planning Scheme No. 15, subject to the following:

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. Development shall be in accordance with the attached approved plan(s) dated 9 September 2024 and subject to any modifications required as a consequence of any condition(s) of this approval. The endorsed plans shall not be modified or

altered without the prior written approval of the Metro Inner Development Assessment Panel or the City of Belmont.

3. This decision constitutes planning approval only and is valid for a period of four years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.

4. Prior to lodging an application for a building permit, the owner/applicant shall seek approval from the City of Belmont for an artist to provide public art on the development site to a minimum value of $70,000 (exclusive GST) to the satisfaction of the City.

5. Where public art will be provided on the development site, the approved concept/strategy shall be thereafter implemented, and the artwork constructed and maintained for the life of the development to the satisfaction of the City.

6. Prior to lodging an application for a building permit, a detailed schedule of external materials, finishes and colours to be used in the construction of the development shall be submitted for approval and implemented to the satisfaction of the City.

7. Prior to lodging an application for a building permit, an amended landscaping and irrigation plan for the subject site and street verge is to be prepared to the satisfaction of the City, and submitted to the City for approval that incorporates the following:

   (a) Details of suitable tree and shrub species that can be accommodated in the proposed landscape areas;

   (b) Landscaping along the Lapage Street frontage to provide screening and discourage pedestrian movements through garden beds; and

   (c) Details and schedule of landscape maintenance.

8. Prior to occupation or use of the development, landscaping, plants, verge treatment and irrigation are to be installed and thereafter maintained in accordance with the approved landscaping and irrigation plan to the satisfaction of the City.

9. Prior to lodging an application for a building permit, the applicant/ owner shall submit a Sustainability Report to the satisfaction of the City, on the advice of the Design Review Panel. The Sustainability Report shall be prepared by a qualified sustainability/ environmental consultant and include:

   (a) Detail of materials used that have low embodied energy for the construction of the buildings;
   (b) Details of on site sustainability initiatives such as electric vehicle (EV) charging, sensor lighting, and landscaping.

   The Sustainability Report is to be endorsed by a qualified sustainability/ environmental consultant and thereafter implemented and maintained for the life of the development.

10. Prior to the commencement of development, a lighting plan shall be submitted for approval and implemented to the satisfaction of the City. The plan must show lighting for the communal areas, landscaped areas, storage, hallways, driveway and pedestrian access to the development.

11. Prior to occupation or use of development, a Car Parking Management Plan shall be prepared and submitted to the satisfaction of the City. The Management Plan shall include:

    a. details regarding the allocation of car parking bays for staff and visitors within the car parking structure;
    b. operational information regarding hours of operation of the entry/exit barriers;
    c. details of the parking management system (such as number plate scanning, use of entry passes or codes) deployed to ensure authorised use of the car park, and to access the car park in the evening when the barriers are in use;
    d. details of wayfinding signage throughout the parking structure;

12. A minimum of 227 car parking bays are to be provided for the existing 'Office', 'Educational Establishment' and 'Café', and maintained to the satisfaction of the City.

13. Prior to lodging an application for a building permit, a geotechnical report prepared by an appropriately qualified consultant shall be submitted to the City, certifying that the ground can accommodate the proposed development and stormwater from roofed and paved area can be managed on site, to the satisfaction of the City.

14. Prior to lodging an application for a building permit, stormwater disposal plans, details and calculations prepared in accordance with the City's engineering requirements and design guidelines shall be submitted for approval and thereafter implemented, constructed, and maintained to the satisfaction of the City.

15. All stormwater from roofed and paved areas shall be collected and disposed of on-site in accordance with the City of Belmont's engineering requirements and design guidelines.

16. Prior to the commencement of site works the applicant shall submit a Construction Management Plan to the City that outlines the following measures:

    a. Public safety and amenity;

    b. Site plan and security;

    c. Contact details of essential site personnel, construction period and operating hours;

    d. Community information, consultation and complaints management procedures;

    e. Noise, vibration, air and dust management;

f. Dilapidation reports of nearby properties;

g. Traffic, access and parking management that accords with the requirements of AS1742 Pt3;

h. Waste management and materials re-use;

i. Earthworks, excavation, land retention/piling methods and associated matters;

j. Street tree management and protection; and/or

k. Any other matter deemed relevant by the City.

The plan shall thereafter be implemented to the satisfaction of the City.

17. Prior to occupation or use of the development, vehicle parking, manoeuvring and circulation areas shall be designed, constructed, sealed, drained, line marked and kerbed in accordance with:

a) The approved plan;
b) Australian Standard AS/NZS 2890 and AS/NZS 1428;
c) Schedule 7 of City of Belmont Local Planning Scheme No. 15; and
d) The City's engineering requirements and design guidelines.

The areas must be sealed in bitumen or concrete in accordance with the City's specifications and thereafter maintained for the life of the development, to the satisfaction of the City.

18. Prior to occupation or use of the development, the owner / applicant shall, after having obtained written approval from the City (Infrastructure Services Clearance Application), construct a vehicle crossover in accordance with the approved plans and the City's engineering specifications to the satisfaction of the City.

19. All access ways, parking areas and hard stand areas shall be constructed and maintained in accordance with the City's engineering requirements and design guidelines.

20. The loading and/or unloading of vehicles is to occur on-site and in a manner that does not interfere with the parking of vehicles in the car park. All car parking bays in the car park are to be always made available for the parking of vehicles by visitors and employees.

21. Signage shall only advertise the businesses operating on the subject lot.

22. The illumination of the sign shall not flash, pulsate, chase, or otherwise cause a nuisance to an adjoining site or the local area to the satisfaction of the City.

23. The level of illumination of the sign shall not exceed a maximum luminance of 300cd/m2 and light spill of 50 lux on other properties.

24. Existing turf, irrigation, verge treatment or street trees located within the verge are City of Belmont assets and as such must not be damaged, removed or interfered with during the course of the development.

Advice Notes

i. A development approval is not an approval to commence any works associated with the development. A Building Permit must be obtained prior to commencement of any site and building works. Please liaise with the City's Building Services Department to ascertain the requirements for a building permit to be issued.

ii. An application for a Building Permit – Certified is required. The application is to be accompanied by a Certificate of Design Compliance from a registered Building Surveying Contractor, a copy of the referenced documents, and payment of the statutory fees.

iii. Once a Building Permit has been granted and the works completed, the building should not be occupied until an application for an Occupancy Permit (accompanied by a Certificate of Construction Compliance and payment of statutory fees) has been applied for and granted by the City's Building Services.

iv. This development approval is not a demolition permit. A demolition permit must be obtained from the City's Building Services Department prior to the commencement of any demolition works. Please liaise with the City's Building Services Department for further information.

v. The proposed public art concept will be forwarded to the Public Art Advisory Panel which will make recommendations for approval by the City's Coordinator Arts and Place. Full details and specifications should be submitted at the earliest opportunity to ensure that the finalisation of the public art does not delay the progression of the development.

vi. The City's Engineering Requirements and Design Guidelines contains detailed specifications which must be adhered to in the preparation of plans submitted for approval in respect of such matters as drainage, paving, parking, accessways, crossovers, land fill and retaining.

    If access ways, parking areas and hard stand is not satisfactorily maintained, the City may require by notice, in writing, that the area be brought up to a satisfactory standard within a specified period and the notice shall be complied with within that period. Without limitation, the notice may require that lines marking car bays be re-painted, pot holes be repaired, damaged kerbs be replaced and degraded access or parking areas be resurfaced generally in accordance with the City's Engineering Requirements and Design Guidelines.

vii. The landscaping plan shall be a minimum size of A3 at a scale of not less than 1:200. It is recommended that the landscaping plan is prepared by a qualified landscape architect / designer and meets the requirements specified in the City's Landscaping Plan Information Sheet.

viii. In relation to the landscaping, the plants are to be nurtured until they reach their typical mature dimensions and shall thereafter be maintained at those mature dimensions unless the City approves otherwise in writing.

ix. This development is not approval for any alteration of the verge and/or removal of street tree/s. A Crossover Upgrade Application is to be lodged and approved, prior to commencement of any work on the verge.

x. The installation of outdoor lighting shall be in accordance with the requirements of Australian Standard AS 4282 – 1997 “Control of the Obtrusive Effects of Outdoor Lighting”.

xi. Neither a development approval nor a building permit constitutes an approval to construct a crossover to a property. Prior to commencement of any site works, separate approval must be obtained from the City’s Infrastructure Services Department to construct a crossover to the property (i.e. from the road to connect with the property’s internal driveway). This approval shall be sought by way of an application for Infrastructure Services Clearance. Failure to obtain approval from the City’s Infrastructure Services for the crossover may result in time delays or refusal of a vehicle crossover subsidy. Please note Infrastructure Services Clearance Applications are determined within 30 working days from date of lodgment provided further information is not required.

xii. The applicant is advised that development approval is not approval for the erection and/or construction of any signage. A building permit is required prior to the erection and/or construction of signage. Please liaise with the City’s Safer Communities – Building Surveying for more information.

xiii. Please be advised that approval of the signage has been granted based on the plans and information submitted. Any physical changes to the sign structure and/or modifications that alter the nature of the sign will require lodgement of a new application unless otherwise approved by the City.

Details: Outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	Local Planning Scheme No. 15
Local Planning Scheme - Zone/Reserve	Mixed Business
Structure Plan/Precinct Plan	Draft Great Eastern Highway Corridor Strategy
Structure Plan/Precinct Plan - Land Use Designation	N/A
Use Class and permissibility:	Carpark – 'D'
Lot Size:	14,450m^2
Existing Land Use:	Office and Education Establishment
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:

Proposed Land Use	Carpark – 'D' use
Proposed GFA	N/A – No proposed change to the existing GFA of existing uses on site Carpark – 6986m^2
Proposed No. Storeys	3 Storeys
Proposed No. Dwellings	N/A

The application proposes the following:

- Demolition of the existing 'Office' building in the rear portion of the site.

- A new three-storey multi-storey carpark structure that includes:
    - 407 parking bays;
    - Stair and lift access; and
    - Bin store and associated screening.

- Landscaping surrounding the new multi-storey car park structure and along the Lapage Street frontage; and

- St John wall signage on the Lapage Street elevation.

A copy of the Development Plans is provided as Attachment 1.

Background:

Site Description

The subject site has frontage to Great Eastern Highway to the north-west, Lapage Street to the north-east and Hehir Street to the south-west. The subject site currently contains:

- A multi-storey office building fronting Great Eastern Highway used by St Johns as their State Office;
- A single storey office/warehouse building located in the eastern portion of the site fronting Lapage Street; and
- Existing car parking throughout the site totalling 259 bays.

St Johns also owns No. 7 Hehir Street, which contains an existing warehouse structure. The City granted approval for the use of 7 Hehir Street as Office and Warehouse under DA 293/2023, which included a condition requiring the landowner to enter into a legal agreement with the City to provide 25 parking bays on Lot 800 (203) Great Eastern Highway.

Figure 1 shows an aerial image of the site and the immediate vicinity/surrounding area.



Figure 1: Aerial of Subject Site – bordered red

Legislation and Policy

Metropolitan Region Scheme

The subject site is zoned Urban under the Metropolitan Region Scheme (MRS). Figure 2 below illustrates the zoning of the property and surrounds under the MRS.

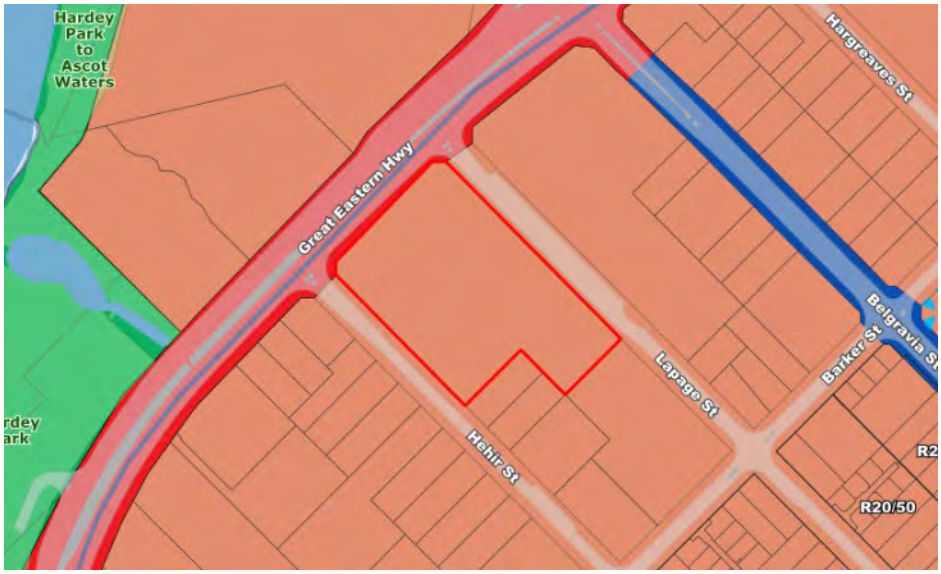


Figure 2: Metropolitan Region Scheme Zoning (Urban) – subject site bordered red

Local Planning Scheme No. 15

The subject site is zoned 'Mixed Business' under Local Planning Scheme No. 15 (LPS 15) as shown in Figure 3 below.



Figure 3: LPS 15 (Mixed Business) – subject site bordered red

The land use relevant to the assessment of this application is 'Carpark'. Under LPS 15, this land use is defined as follows:

> *"**Carpark** means premises used primarily for parking vehicles whether open to the public or not but does not include —*

(a) any part of a public road used for parking or for a taxi rank; or
(b) any premises in which cars are displayed for sale;"

In accordance with Table 1 of LPS 15, 'Carpark' is classified as 'D' land use within the Mixed Business zone, meaning that it is not permitted unless the City has exercised discretion by granting development approval.

- *Clause 4.12*

  Clause 4.12 of LPS 15 sets out development standards that are applicable to all development applications within the Mixed Business Zone. These provisions relate to built form requirements, such as building setbacks, site coverage, pedestrian and garden areas, car parking and loading.

- *Clause 4.16*

  Clause 4.16 of LPS 15 provides requirements relating to vehicle parking and loading arrangements for development proposed across the City.

- *Clause 4.19*

  Clause 4.19 outlines considerations relating to bulk and height, streetscape, amenity and overshadowing that the City is to have due regard to when assessing applications for development along Great Eastern Highway.

- *Clause 4.20*

  Clause 4.20 prescribes maximum building heights for development in the Scheme Area due to the proximity of Perth Airport.

Planning and Development (Local Planning Schemes) Regulations 2015

Clause 67 of the *Planning and Development (Local Planning Schemes) Regulations 2015* (*Regulations*) states the matters to be considered by the decision maker in determining a development application. The following matters are of relevance to this application:

(a) the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;

(b) the requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving;

(c) any approved State planning policy;

(m) the compatibility of the development with its setting, including –

(i) the compatibility of the development with the desired future character of its setting; and

(j) the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development.

(n) the amenity of the locality including the following –

(i) the character of the locality

(p) Whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved;

(r) the suitability of the land for the development taking into account the possible risk to human health or safety;

(s) the adequacy of —

(i) the proposed means of access to and egress from the site; and
(ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles;

(t) the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety;

(za)the comments or submissions received from any authority consulted under clause 66'.

State Government Policies

State Planning Policy 5.4 – Road and Rail Noise

The subject site is located adjacent to the Great Eastern Highway which is a 'Primary Regional Road'. While the subject site is located within the Trigger Distance of State Planning Policy 5.4 (SPP 5.4), the proposed use is not considered to be a 'sensitive land use'. As such, the proposed development is not subject to the requirements of SPP 5.4.

State Planning Policy 7 – Design of the Built Environment

State Planning Policy 7 – Design of the Built Environment (SPP 7) seeks to address design quality and built form outcomes in Western Australia. In doing so, it provides a broad framework for design assessment to all levels of the planning framework.

The City's Design Review Panel (DRP) has reviewed the development proposal against the 10 design principles of SPP 7.

Structure Plans/Activity Centre Plans/Strategic Plans

Draft Great Eastern Highway Urban Corridor Strategy

The Draft Great Eastern Highway Urban Corridor Strategy was adopted by Council on 26 September 2023 to undertake modification for public consultation. The draft Strategy has completed re-advertising for public comment, and will be submitted to Council for final adoption at the October 2024 Ordinary Council Meeting.

The draft Strategy identifies transformation of the Corridor into an urban boulevard, with a mix of land uses. Figure 4 depicts the subject site's location within the corridor area.



Figure 4: Subject site's location within the corridor area

This proposal has been considered against the objectives of the draft Strategy as detailed in Attachment 2.

Local Policies

Local Planning Policy 11 – Public Art Contribution

Local Planning Policy 11 – Public Art Contribution (LPP 11) has been prepared by the City of Belmont to guide the provision of public art within the City of Belmont. The policy applies where the cost of development is greater than $4.5 million. Given the proposal's estimated cost of development is anticipated to be $7 million, the provisions of the Policy are applicable.

Local Planning Policy 12 – Advertisement Signs

Local Planning Policy 12 – Advertisement Signs (LPP 12) has been prepared by the City of Belmont to guide the assessment of advertisement signs within the City of Belmont. As an advertisement sign is proposed as part of this application, the proposal has been assessed against Local Planning Policy No. 12.

Consultation:

Referrals/consultation with Government/Service Agencies

Main Roads Western Australia

As Great Eastern Highway is identified as a 'Primary Regional Road' the proposal was referred to Main Roads Western Australia (MRWA) for comment. MRWA provided comment on 4 September 2024 advising that they have no objections. The MRWA referral response is provided as Attachment 3.

Design Review Panel Advice

The proposal was referred to the City of Belmont's Design Review Panel (DRP) to review and provide comment in accordance with the 10 principles of design as set out by SPP 7.0.

As reflected in the Table 1 below, the DRP adopts a red, orange, and green 'traffic light' system to indicate which elements of the design are acceptable (green), requires attention (orange), or requires rework (red):

Design Quality Principle:	**1st DRP Score**
Principle 1 – Context & character	
Principle 2 – Landscape quality	
Principle 3 – Built form & scale	
Principle 4 – Functionality and build quality	
Principle 5 – Sustainability	
Principle 6 – Amenity	
Principle 7 – Legibility	
Principle 8 – Safety	
Principle 9 – Community	
Principle 10 – Aesthetics	

Table 1: Design Review Panel Scoring for Subject Application

As demonstrated in Table 1, the application scored mostly 'orange' with two 'red' against the policy principles. The DRP did not score the proposal against the Sustainability principle due to insufficient information being provided for assessment by the panel. A copy of the DRP Minutes is provided at Attachment 4.

The DRP provided suggestion on refinements and comments on the design to be considered by the applicant. The applicant considered the feedback from the DRP and provided further refinements. The DRP's comments along with planning officer responses are detailed within Attachment 5.

When evaluating the DRP's comments regarding the proposed car parking structure, it is important to do so in the context of the statutory planning framework. The proposal has been assessed against the requirements of LPS 15 and applicable Local Planning Policies. The application has been considered against the Draft Great Eastern Highway Urban Corridor Strategy. The development complies with all requirements of the planning framework.

The City has recommended conditions to further address the DRP comments, which include providing:

- a detailed landscape plan for the site;
- detail of the public art contribution onsite;
- a schedule of external materials, finishes and colours;
- a Sustainability Report that details sustainability commitments;
- a Car Parking Management plan; and
- a Lighting Plan for the car park.

Considering the proposal's compliance with the statutory planning framework, the City is satisfied that the proposal, along with the recommended conditions, satisfactorily addresses the 10 design principles outlined in SPP 7.0.

Planning Assessment

Land Use

The proposed development is a multi-storey carpark to provide car parking for the existing St John State office located onsite, and other St John facilities in the surrounding area.

In terms of land use classification, the car park has been classified as an independent land use. If the car park were solely servicing the users from the land use on the site, it would be considered incidental and fall under the existing uses. However, because it also provides additional parking facilities for offsite users, it has been classified as an independent land use.

The site is zoned 'Mixed Business' under the LPS 15. In accordance with Table 1 of LPS 15, 'Carpark' is classified as a 'D' land use within the zone. This means that the use are not permitted unless the local government has exercised its discretion by granting development approval.

The objective of the 'Mixed Business' zone under LPS 15 is as follows:

> *"The 'Mixed Business' zone is intended to allow for the development of a mix of varied but compatible business uses such as offices, showrooms, amusement centres, eating establishments and appropriate industrial activities which do not generate nuisances detrimental to the amenity of the district or to the health, welfare and safety of residents and workforce. Uses can mix on adjacent lots of land or on the same lot and uses may mix horizontally on the same or separate lots and/or vertically in buildings. Buildings should be of a high standard of architectural design set in pleasant garden surrounds with limited vehicular access from properties to primary roads."*

It is considered that the proposed land use is consistent with this objective of the zone for the following reasons:

- The carpark is ancillary to the existing St John office that operates from the site. The office is retained, with the proposal providing additional car parking for the staff and visitors to the office. The proposed carpark is compatible with the land use onsite and those listed within the objective and for the 'Mixed Business' zone;

- The carpark will not have a detrimental impact on the amenity of the locality as outlined throughout the assessment of this report; and

- The development is considered to be of an appropriate design, and has adequately addressed the comments made by the City's DRP.

For the reasons outlined above, the proposed development is considered consistent with the objectives of the 'Mixed Business' zone.

Setback and Landscaping

Table 2 provides a comparison of the setback and landscape requirements of LPS 15 and the setbacks proposed by the applicant for both primary and secondary streets.

Street Frontage	**LPS15 Requirement**	**Proposed**
Primary (Great Eastern Highway)	15 metres setback 3m landscape width	There is no proposed change to the existing setback to Great Eastern Highway **Not Applicable**
Secondary (Lapage Street)	7.5 metres Setback 1m landscape width	7.5 metres 7.5 metres landscape width **Complies**

Table 2: Proposed Street Setbacks and Landscaping

There are no proposed changes to the existing setbacks and landscaping widths within the primary street frontage to Great Eastern Highway. The proposed carparking structure is located behind the existing office building, and screened from Great Eastern Highway.

The secondary street setbacks and landscaping widths between the carpark structure and Lapage Street comply with the minimum requirements under Clause 4.12 of LPS 15.

The applicant has provided a landscape concept plan which can be found at Attachment 7. The plan was reviewed by the City's DRP, who recommended further refinements to the landscaping and requested the following be addressed:

- Supports retaining existing trees, however, notes the existing tree species do not provide much shade or screening and need to be supplemented.

- Encourages an increase to the extent of soft landscape on the Lapage Street edge, to improve screening to the carpark.

- Suggested further trees to the landscaping to the south, to provide shade to the hardscaped area.

- Requested more detailed information on the species and location of the proposed new trees/plants.

In response to the DRP comments the applicant provided the following comments:

- The Applicant requests that a condition of development approval be imposed requiring the submission of a revised landscape plan, prior to the issue of a Building Permit, that addresses the items raised by the DRP.

- St John will consider the landscape design in context with the landscaping for the previously approved forecourt enhancement works.

The City recommends a condition for a detailed landscaping plan be provided for approval before lodgement of a Building Permit. The landscape plan is required to address the DRP comments, to the satisfaction of the City.

In addition, prior to occupation of the development, a condition requiring the landscaping, plants, verge treatment and irrigation are installed and thereafter maintained.

Given the above, it is considered that the proposed setbacks and the landscaping treatments are appropriately addressed, subject to the recommended conditions.

Draft Great Eastern Highway Corridor Strategy

The proposed development satisfies the intent for the precinct of the strategy by providing the following:

- The existing St John Office which fronts towards Great Eastern Highway is retained which provides an active frontage to Great Eastern Highway.

- The proposed structure provides for landscaped areas to facilitate planting within the front setback area between the structure and Lapage Street.

- The 24/7 nature of the office onsite means staff will be moving between the office and carpark throughout the day and night, providing passive surveillance across the site.

- Defined pedestrian areas using distinct paving materials, landscaped edges, and clear crossing points to separate them from vehicle areas.

- Vehicle access is maintained via the secondary street frontages (Lapage Street and Hehir Street).

The City is satisfied that the development aligns with the Draft strategy's intent.

Car Parking

The LPS 15 specifies that car parking requirements for land uses within the City. The site currently contains ‘Office’, ‘Café’ and ‘Educational Establishment’.

City records indicate the original approved office and training facility required 227 bays to be provided onsite. A total of 260 car bays were originally approved onsite.

The City recently approved a modification that included amendments to the car parking layout, and internal alterations to the existing office to incorporate a cafe. The cafe was considered ancillary to the existing operations and was proposed to be used by existing

staff and visitors coming to the site. The application resulted in the provision of 273 bays onsite.

Table 3 below provides a summary of the car parking calculations for the site:

Development Application	REQUIREMENT
Original Approval - Office and training facility (Education Establishment)	Required 227 Bays Proposed 260 Bays (surplus of 35 bays) **Complies**
Alterations and Additions Approval **City's Ref. No. 24/2023/DAAM**	Required 227 Bays Proposed 273 Bays (surplus of 46 bays) **Complies**
Current Proposal	Required 227 Bays Proposed 407 Bays (surplus of 180 bays) **Complies**

Table 3: Car Parking Calculations

In assessing the car parking provided on site the following points have been considered:

- The proposed multi-storey carpark is proposed to cater for the existing car parking demand required by the current St Johns operations. There are no proposed changes to the existing office or training facility, staff or visitor numbers at the site.

- The traffic consultant notes the proponent is aware that some staff and visitors to the site currently utilise parking on street. Observations of recent aerial images of the surrounding area confirm a high degree on street parking surrounding the area.

- The St John State Office onsite operates 24/7. To meet the existing demand for parking, St John currently owns / leases two other nearby properties where staff have access to parking.

- The proposed multi-storey carpark will consolidate car parking on the site to meet the existing demand from staff and visitors. This will benefit staff and visitors with secure parking available onsite, and reduce the on street parking reliance in the surrounding area.

- The applicant's traffic consultant confirms all parking bays and aisles within the structure are designed in accordance with Australian Standard 2890.1.

As depicted in Table 3 above, the development requires a total of 227 car parking bays. The development site provides a total of 407 car parking bays which provides a surplus of 180 bays.

As the proposal is an independent land use, the owner could allocate the entirety of the bays to off-site users. Therefore, the City recommends a condition for a minimum of 227 car parking bays be dedicated for the existing 'Office', 'Education Establishment' and 'Café' land uses on site.

The City supports the car parking bays provided onsite as it satisfies the requirements of LPS 15. The City has recommended standard conditions relating to the vehicle parking, manoeuvring and circulation areas shall be designed, constructed, sealed, drained, line marked and kerbed to the City's satisfaction.

Traffic

The applicant has prepared a Traffic Statement for the proposed development (refer Attachment 8), which provides the following points:

- From a technical perspective as traffic generating land uses are not changing it could be argued that no traffic assessment is warranted. However, as the proposal will increase on site car parking by 189 bays, it is evident that local traffic movements will change.
- During the peak periods there will be an increase of traffic using Lapage Street. However, it could be expected that traffic associated with the site will access the new car park and not park on-street and thus provide a minor improvement to access for the angled parking bays on the school side of the street.
- The maximum increase in traffic entering the car park is an additional 35 vehicles from each direction on Lapage Street. With a current peak demand of 119 vehicles, this increase would result in fewer than 150 vehicles using Lapage Street during peak hours.
- Assessment of the changes to local traffic movements shows there will be no material traffic impact because of the proposed development.

Based on the above, it is considered that the proposal can be accommodated within the existing road network.

Signage

The application proposes wall signage on the Lapage Street elevation of the carpark structure. The signage was assessed against the requirements of the City's LPP 12 (Attachment 2). The application was also referred to MRWA for comment.

The signage complies with the requirements of LPP 12. The City recommends standard conditions relating to signage, and notes MRWA provided no objection to the proposal.

Public Art

As the application has a development value of $7 million, the proposal is subject to the City's Local Planning Policy No. 11 – Public Art Contribution (LPP 11). The applicant proposes on structure artwork and has started the process to engage an artist. The City recommends conditions relating to public art contributions if the DAP considers approving the proposed development.

Conclusion:

The City recommends approval for the proposed 'Carpark' development. The proposal complies with the relevant clauses and requirements of the applied planning framework and is supported subject to conditions.

ATTACHMENT 1 – Development Plans

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

209 LAPAGE STREET, BELMONT

ST JOHN AMBULANCE MULTI-STOREY CAR PARK

DEVELOPMENT APPLICATION

DA- DRAWING LIST	
DRAWING NUMBER	DRAWING NAME
DA000	COVER SHEET
DA010	LOCATION PLAN
DA011	SITE SURVEY
DA012	SITE PLAN- DEMOLITION
DA013	SITE PLAN- PROPOSED
DA0100	PROPOSED PLAN- GROUND FLOOR
DA0101	PROPOSED PLAN- LEVEL 01
DA0102	PROPOSED PLAN- LEVEL 02 ROOF
DA0200	PROPOSED ELEVATION - GREAT EASTERN HIGHWAY
DA0201	PROPOSED ELEVATION - LAPAGE STREET
DA0202	PROPOSED ELEVATION - SOUTH EAST
DA0203	PROPOSED ELEVATION ATRIUM SOUTH WEST
DA0500	PERSPECTIVE 01
DA0501	PERSPECTIVE 02
DA0502	PERSPECTIVE 03

City of Belmont
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DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA010	**LOCATION PLAN**

NORTH

SCALE
1 : 500

plus architecture

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LAPAGE STREET

HEHIR STREET

GREAT EASTERN HIGHWAY

BOUNDARY

EXISTING SUBSTATIONS AND TRANSFORMERS

209 LAPAGE STREET
EXISTING 2 STOREY
TRAINING CENTRE / OFFICE BUILDING

209 GREAT EASTERN HIGHWAY
EXISTING 3 STOREY
OFFICE BUILDING

TRAINING CENTRE PUBLIC ACCESS CARPARK
87x STANDARD BAYS
1x ACCESSIBLE BAYS
3x AMBULANCE BAYS

AMBULANCE BAY

AMBULANCE BAY

AMBULANCE BAY

PAVING WITH STEEL PERGOLA

OFFICE
EXISTING 1 STOREY

CANOPY

VISITOR CARPARK
8x STANDARD BAYS
1x ACCESSIBLE BAY
1x LOADING BAY

STAFF SECURE ACCESS CARPARK
128x STANDARD BAYS
1x ACCESSIBLE BAY

7 HEHIR
EXISTING 1 STOREY
OFFICE BUILDING

9 HEHIR STREET
EXISTING 1 STOREY

ST JOHN AMBULANCE PARKING
6x AMBULANCE BAYS

NOTE:
PARKING STANDARDS AS PER AS2890.1
REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA011	**SITE SURVEY**

NORTH

SCALE
1 : 250

plus architecture

City of Belmont
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LAPAGE STREET

EXSTING ENTRY KERBS DEMOLISHED FOR REMOVAL

BOUNDARY

BOUNDARY

EXISTING TREES DEMOLISHED FOR REMOVAL

EXISTING PLANTER WALLS AND RUBBLE DEMOLISHED FOR REMOVAL

TRAINING CENTRE PUBLIC ACCESS CARPARK
87x STANDARD BAYS
1x ACCESSIBLE BAYS
3x AMBULANCE BAYS

209 LAPAGE STREET
EXISTING 2 STOREY
TRAINING CENTRE / OFFICE BUILDING

AMBULANCE BAY

AMBULANCE BAY

AMBULANCE BAY

OFFICE
EXISTING 1 STOREY

EXISTING PROPERTY OFFICE BUILDING TO BE DEMOLISHED

PAVING WITH STEEL PERGOLA

EXISTING PERGOLA AND STRUCTURE DEMOLISHED FOR REMOVAL

CANOPY

EXISTING TREES DEMOLISHED DUE TO CARPARK SURFACE DAMAGE AS A RESULT OF RAISED ROOT PLATES

BOUNDARY

EXISTING FENCE CONTAINING ASBESTOS TO BE DEMOLISHED FOR REMOVAL

GREAT EASTERN HIGHWAY

EXISTING FIRE ESCAPE DEMOLISHED FOR REMOVAL

209 GREAT EASTERN HIGHWAY
EXISTING 3 STOREY
OFFICE BUILDING

VISITOR CARPARK
8x STANDARD BAYS
1x ACCESSIBLE BAY
1x LOADING BAY

STAFF SECURE ACCESS CARPARK
128x STANDARD BAYS
1x ACCESSIBLE BAY

7 HEHIR
EXISTING 1 STOREY
OFFICE BUILDING

9 HEHIR STREET
EXISTING 1 STOREY

ST JOHN AMBULANCE PARKING
6x AMBULANCE BAYS

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

HEHIR STREET

NOTE:
PARKING STANDARDS AS PER AS2890.1
REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

DEVELOPMENT APPLICATION

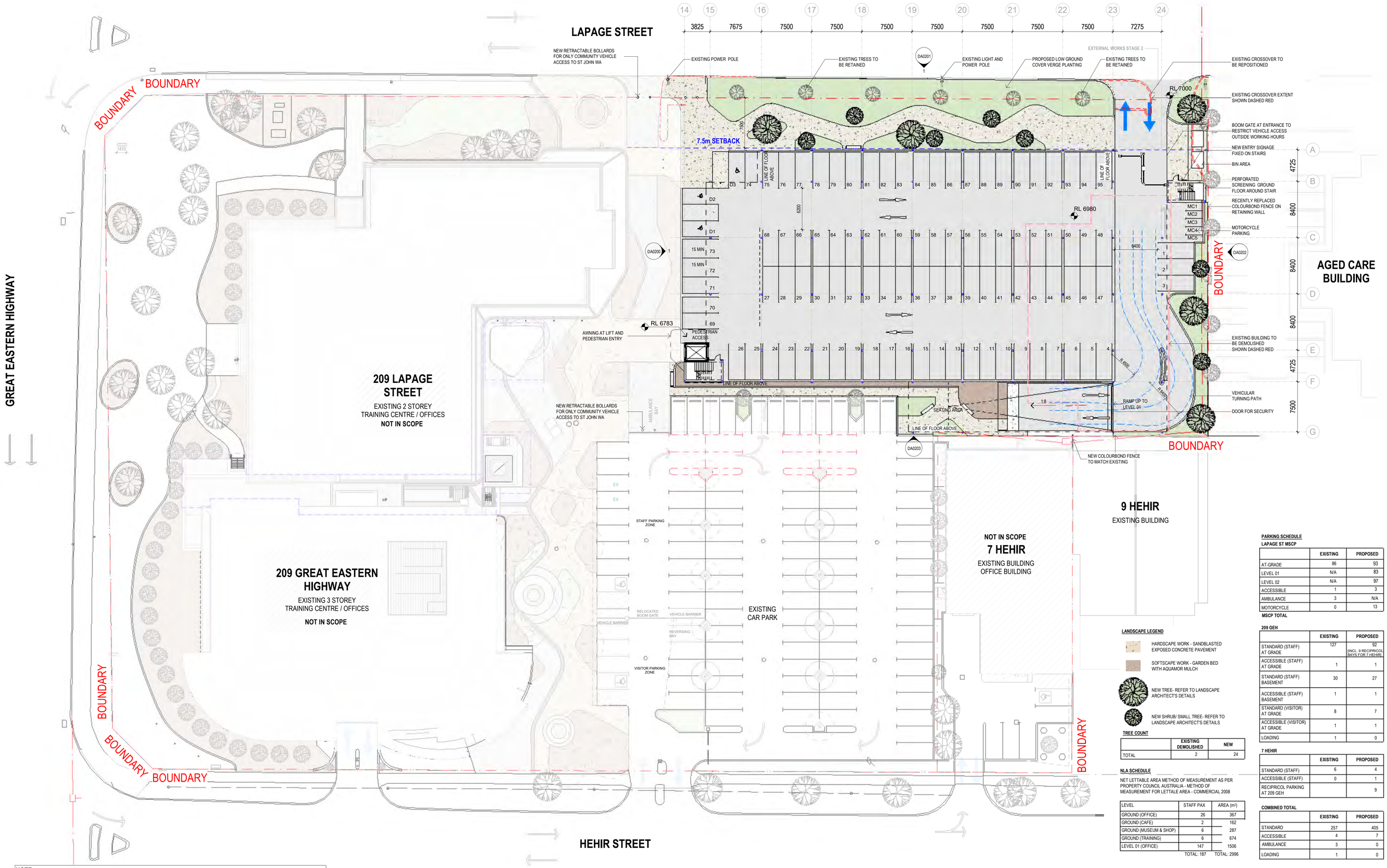
PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA012	**SITE PLAN- DEMOLITION**

NORTH

SCALE
1 : 250

plus architecture

City of Belmont
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NOTE:
PARKING STANDARDS AS PER AS2890.1
REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

PARKING SCHEDULE

LAPAGE ST MSCP

	EXISTING	PROPOSED
AT-GRADE	86	93
LEVEL 01	N/A	83
LEVEL 02	N/A	97
ACCESSIBLE	1	3
AMBULANCE	3	N/A
MOTORCYCLE	0	13

MSCP TOTAL

209 GEH

	EXISTING	PROPOSED
STANDARD (STAFF) AT GRADE	127	92 (INCL. 9 RECIPRICOL BAYS FOR 7 HEHIR)
ACCESSIBLE (STAFF) AT GRADE	1	1
STANDARD (STAFF) BASEMENT	30	27
ACCESSIBLE (STAFF) BASEMENT	1	1
STANDARD (VISITOR) AT GRADE	8	7
ACCESSIBLE (VISITOR) AT GRADE	1	1
LOADING	1	0

7 HEHIR

	EXISTING	PROPOSED
STANDARD (STAFF)	6	4
ACCESSIBLE (STAFF)	0	1
RECIPRICOL PARKING AT 209 GEH		9

COMBINED TOTAL

	EXISTING	PROPOSED
STANDARD	257	405
ACCESSIBLE	4	7
AMBULANCE	3	0
LOADING	1	0

LANDSCAPE LEGEND

- HARDSCAPE WORK - SANDBLASTED EXPOSED CONCRETE PAVEMENT
- SOFTSCAPE WORK - GARDEN BED WITH AQUAMOR MULCH
- NEW TREE- REFER TO LANDSCAPE ARCHITECT'S DETAILS
- NEW SHRUB/ SMALL TREE- REFER TO LANDSCAPE ARCHITECT'S DETAILS

TREE COUNT

	EXISTING DEMOLISHED	NEW
TOTAL	2	24

NLA SCHEDULE

NET LETTABLE AREA METHOD OF MEASUREMENT AS PER PROPERTY COUNCIL AUSTRALIA - METHOD OF MEASUREMENT FOR LETTALE AREA - COMMERCIAL 2008

LEVEL	STAFF PAX	AREA (m²)
GROUND (OFFICE)	26	367
GROUND (CAFE)	2	162
GROUND (MUSEUM & SHOP)	6	287
GROUND (TRAINING)	6	674
LEVEL 01 (OFFICE)	147	1506
	TOTAL: 187	TOTAL: 2996

DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA013	**SITE PLAN- PROPOSED**

NORTH

SCALE
1 : 250

plus architecture

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BOUNDARY

BOUNDARY

14 15 16 17 18 19 20 21 22 23 24

3825 7675 7500 7500 7500 7500 7500 7500 7500 7275

LOW GROUND COVER VERGE PLANTING

PROPOSED NEW TREES

GARDEN BED WITH TREES AND STONE BOULDERS

PROPOSED NEW TREES

BENCH SEATING

PROPOSED NEW TREES

PROPOSED NEW TREE

PROPOSED NEW TREE

2 DA0204

RL 7000

PERFORATED SCREEN WALL FOR BIN AREA

BIN AREA

BIN AREA

1080 3075 500 3075

7.5m SETBACK

EXPOSED AGGREGATE CONCRETE FINISH AS PER LANDSCAPE DESIGN

LINE OF FLOOR ABOVE

RL 6993

BOOM GATE AT EXIT TO RESTRICT VEHICLE ACCESS OUTSIDE OPERATIONAL HOURS

LINE OF FLOOR ABOVE

PROPOSED ENTRY SIGNAGE (1827 x 824)

BOOM GATE AT ENTRANCE TO RESTRICT VEHICLE ACCESS OUTSIDE OPERATIONAL HOURS

STAIR

PERFORATED SCREENING TO GROUND LEVEL FOR SECURITY

MC1

MC2

MC3

MC4

MC5

MOTORCYCLE PARKING

D3 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95

D2

DDA BOLLARD

D1

15 MIN

73

5400

15 MIN

2850

72

1 DA0204

71

70

5400

2400

69

RL 6785

PEDESTRIAN ACCESS

2000

LIFT

STAIR

LINE OF AWNING AT LIFT AND PEDESTRIAN ENTRY

68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48

27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

6200

26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4

1 2 3

1 DA0204

LINE OF FLOOR ABOVE

8400

8400

4725

4725

7500

A B C D E F G

LINE OF FLOOR ABOVE

LINE OF FLOOR ABOVE

FEATURE FACADE ARTWORK

PERFORATED SCREENING FROM LEVEL 02 TO GROUND FLOOR AROUND LIFT AND STAIR

PEDESTRIAN PATHWAY

LANDSCAPE

LINE OF FLOOR ABOVE

SEATING AREA

RL 6650

GRAVEL BELOW RAMP AREA

1:8

RAMP UP TO LEVEL 01

DOOR FOR SECURITY

TREE PLANTING IN NIBS

TREE PLANTING IN NIBS

LINE OF FLOOR ABOVE

PARKING FOR 209 LAPAGE STREET BUILDING

BOUNDARY

2 DA0204

NOTE: SWEPT PATH SHOWN INDICATIVELY FOR INFORMATION

NOTE:
PARKING STANDARDS AS PER AS2890.1
REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0100	**PROPOSED PLAN- GROUND FLOOR**

NORTH

SCALE
1 : 100

plus architecture

City of Belmont
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BOUNDARY

BOUNDARY

14 15 16 17 18 19 20 21 22 23 24

3825 7675 7500 7500 7500 7500 7500 7500 7500 7275

A B C D E F G

4725 8400 8400 4725 8400 7500

7.5m SETBACK

GALVANIZED STEEL COLUMNS TO STRUCTURAL ENGINEER'S DETAILS

FEATURE FACADE ARTWORK FIXED ONTO SUBSTRUCTURE AND WEBNET MESH

PROPRIETARY CRASH BARRIER / HANDRAIL SYSTEM.DESIGNED TO WITHSTAND FORCES AS PER REQUIRED STANDARDS

FEATURE FACADE ARTWORK

SUBFRAME TO SUPPORT FEATURE FACADE ARTWORK

FEATURE FACADE ARTWORK

SUBFRAME TO SUPPORT FEATURE FACADE ARTWORK

FEATURE FACADE ARTWORK

158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178

RL 9700

STAIR

PERFORATED SCREENING FROM LEVEL 02 TO GROUND FLOOR AROUND STAIR

RL 9700

157 156 155 154 153 152 151 150 149 148 147 146 145 144 143 142 141 140 139 138 137

PROPRIETARY CRASH BARRIER / HANDRAIL SYSTEM.DESIGNED TO WITHSTAND FORCES AS PER REQUIRED STANDARDS

PROPRIETARY CRASH BARRIER / HANDRAIL SYSTEM.DESIGNED TO WITHSTAND FORCES AS PER REQUIRED STANDARDS

116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136

FEATURE FACADE ARTWORK FIXED ONTO SUBSTRUCTURE AND WEBNET MESH

6200

RL 9700

AWNING AT LIFT AND PEDESTRIAN ENTRY

RL 9700

115 114 113 112 111 110 109 108 107 106 105 104 103 102 101 100 99 98 97 96

5400

2400

STAIR

GALVANIZED STEEL COLUMNS TO STRUCTURAL ENGINEER'S DETAILS

FEATURE FACADE ARTWORK

PERFORATED SCREENING FROM LEVEL 02 TO GROUND FLOOR AROUND STAIR

PROPRIETARY CRASH BARRIER / HANDRAIL SYSTEM.DESIGNED TO WITHSTAND FORCES AS PER REQUIRED STANDARDS

RL 9700

AISLE TO GRADE LEVEL

1:8

1:8

RL 9700

AISLE TO LEVEL 02

CONVEX SAFETY MIRROR

CONVEX SAFETY MIRROR

BOUNDARY

BOUNDARY

NOTE:
PARKING STANDARDS AS PER AS2890.1
REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

DEVELOPMENT APPLICATION

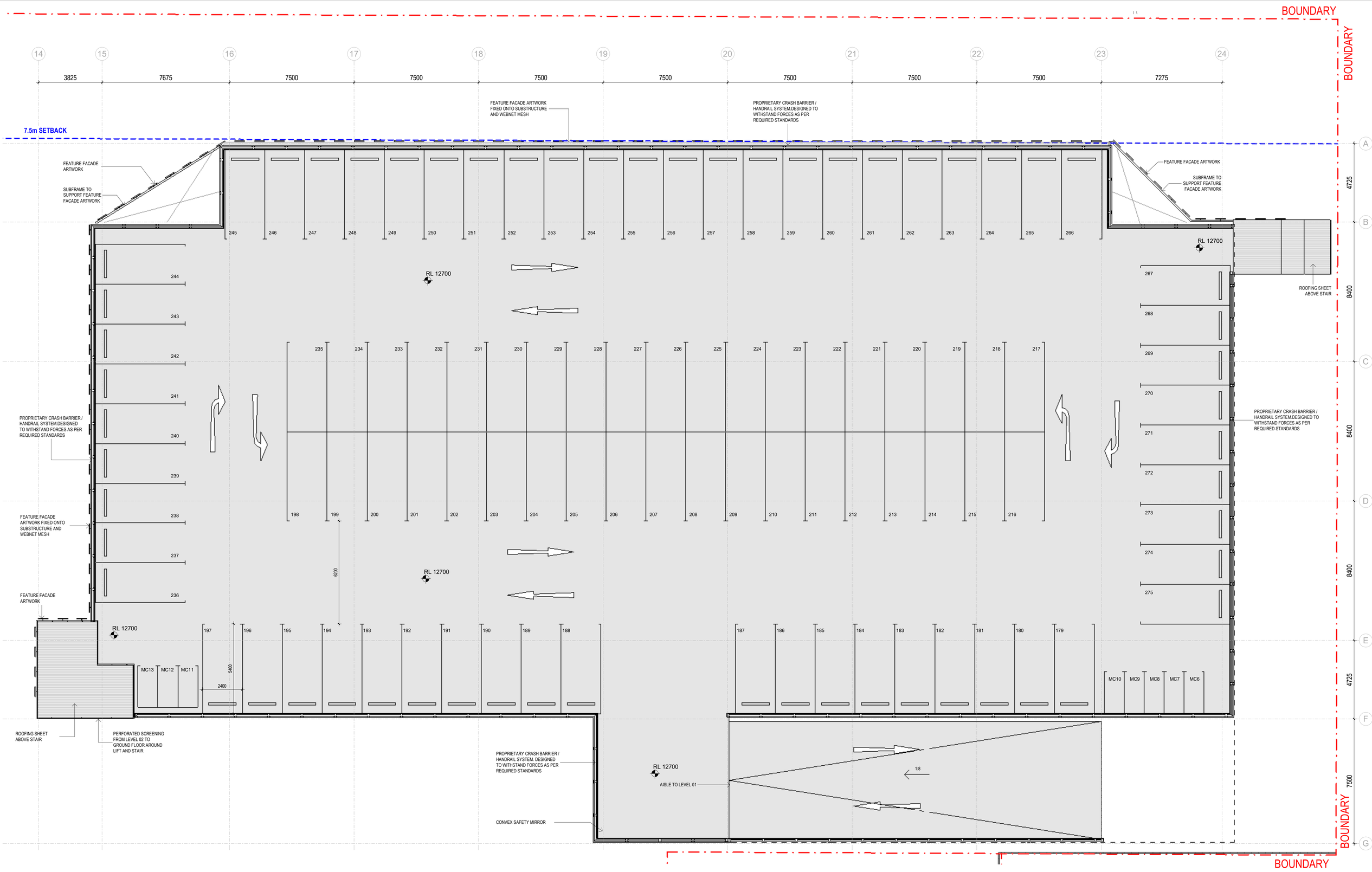
PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0101	**PROPOSED PLAN- LEVEL 01**

NORTH

SCALE
1 : 100

plus architecture

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NOTE:
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REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

DEVELOPMENT APPLICATION

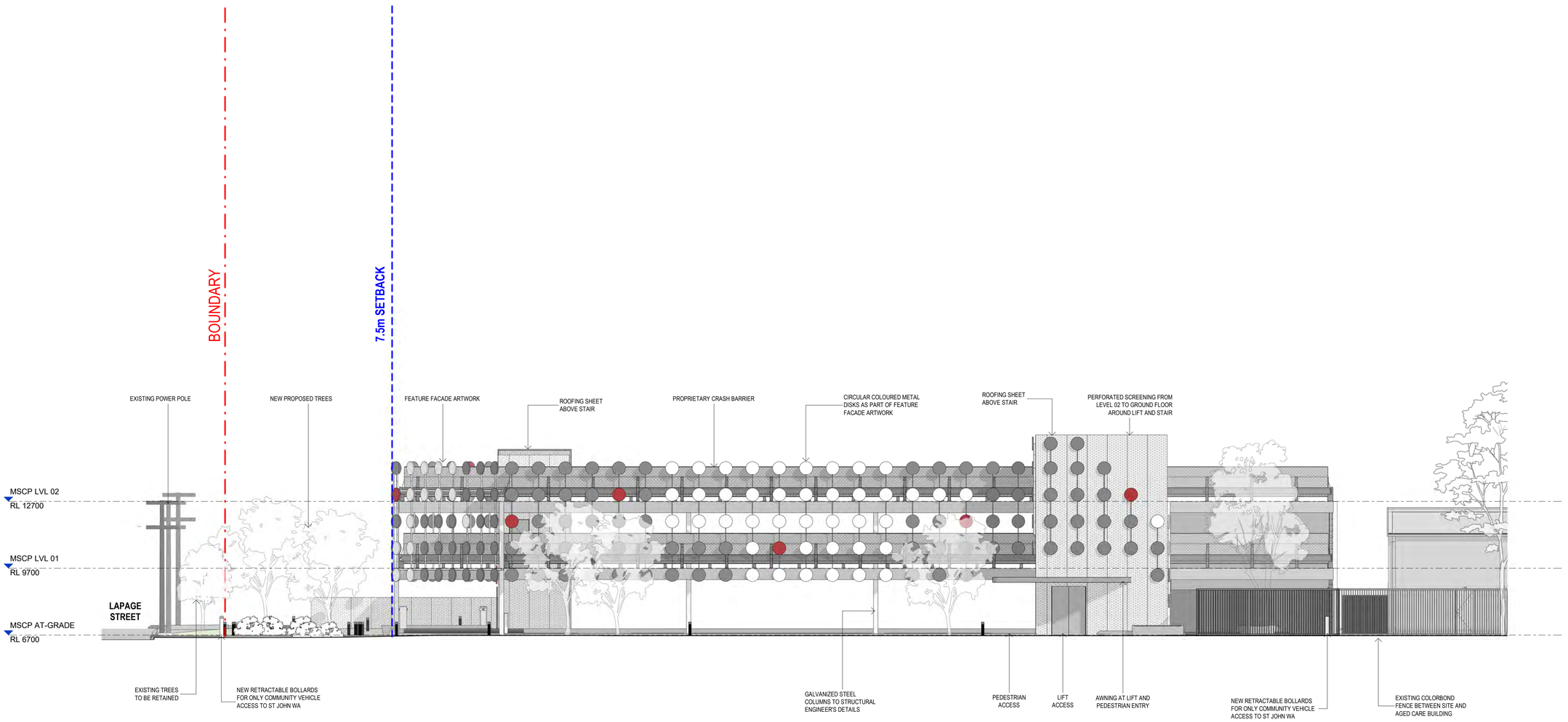
PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0102	**PROPOSED PLAN- LEVEL 02 ROOF**

NORTH

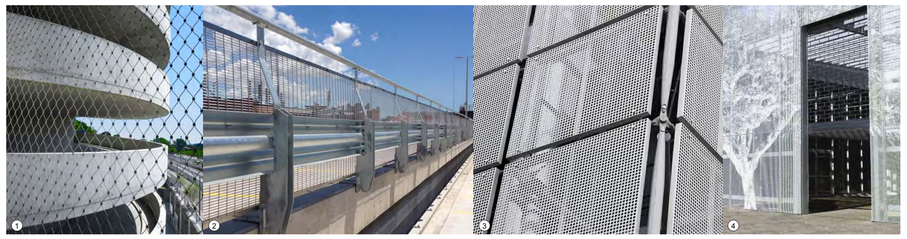
SCALE
1 : 100

plus architecture

City of Belmont
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PROPOSED MATERIALITY



1. FALL PROTECTION- TENSILE STEEL WEBMESH
2. CRASH BARRIER- INTEGRATED EDGE BARRIER & BALUSTRADE
3. PERFORATED MESH SCREENING TO STAIR AND LIFT CORE

NOTE:
PARKING STANDARDS AS PER AS2890.1
REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

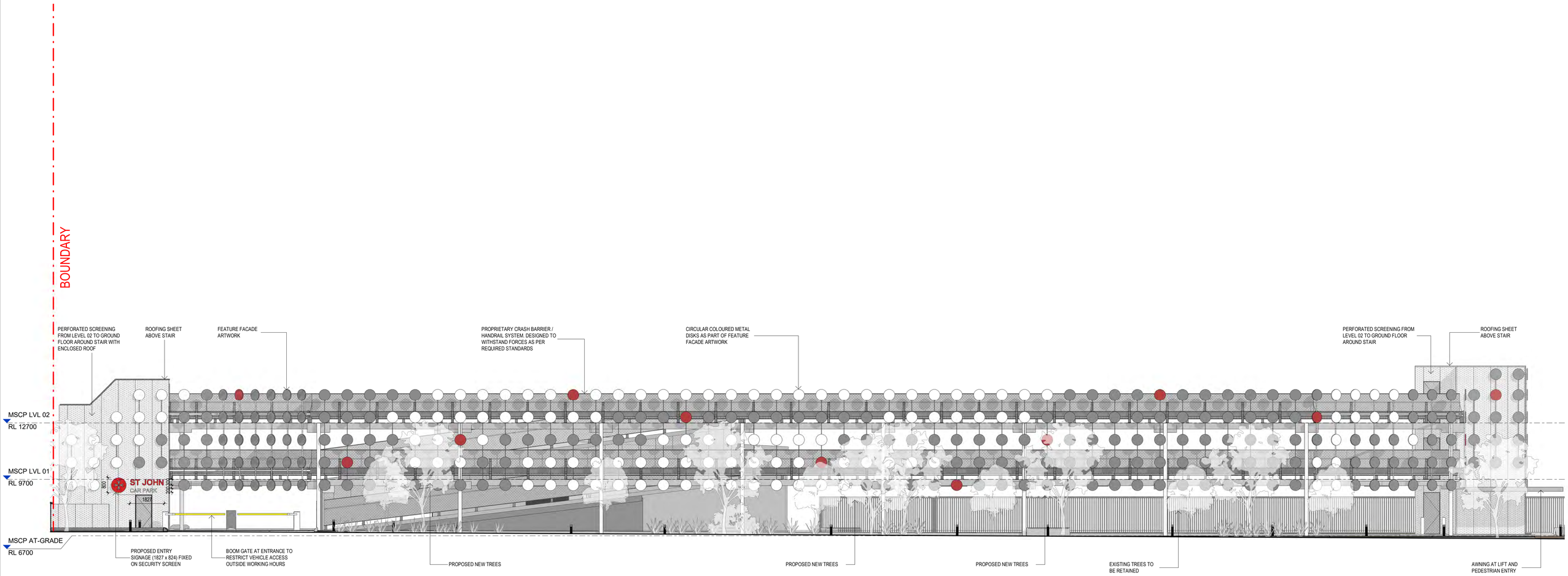
DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0200	**PROPOSED ELEVATION - GREAT EASTERN HIGHWAY**

NORTH	SCALE
	1 : 100

plus architecture

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NOTE:
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REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

DEVELOPMENT APPLICATION

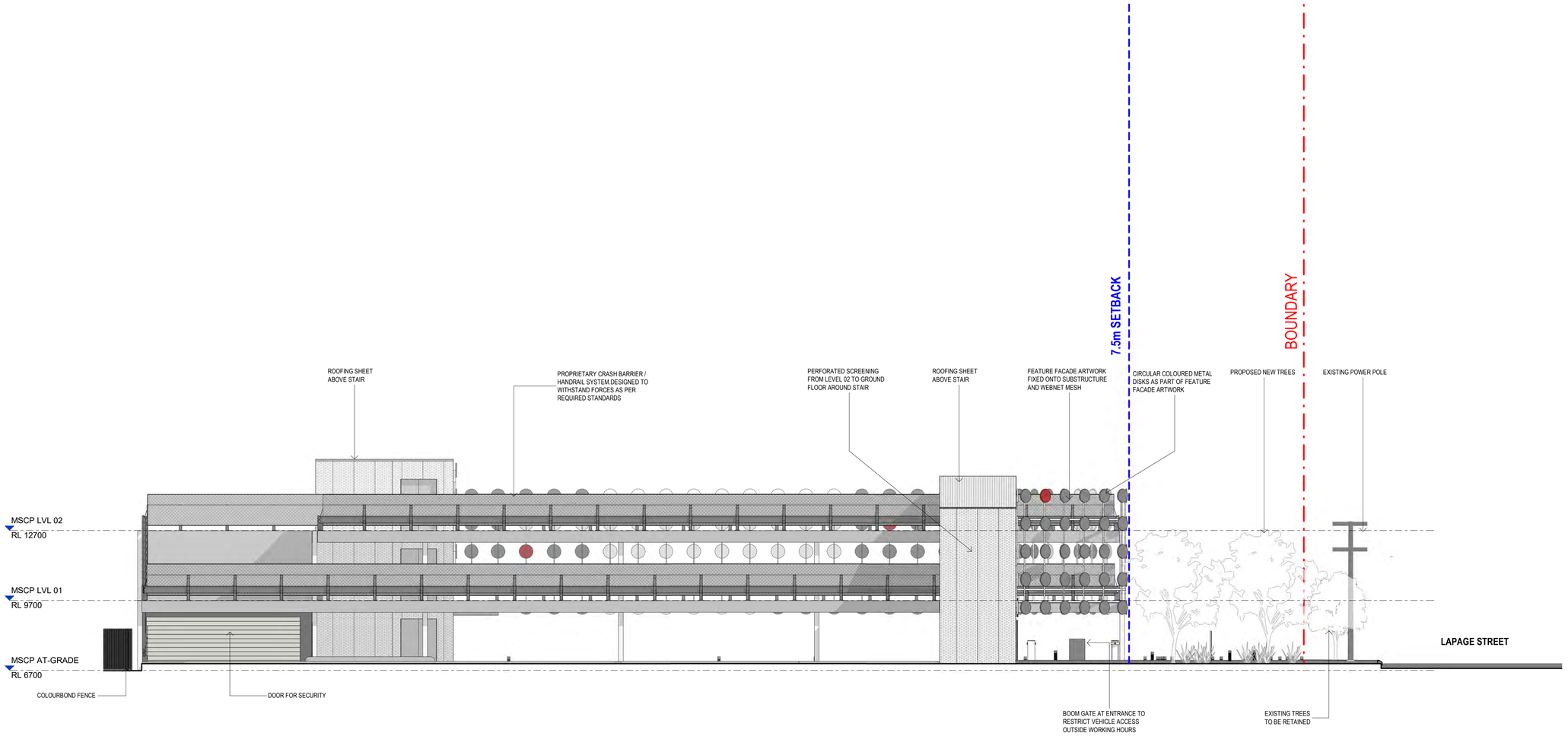
PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0201	**PROPOSED ELEVATION - LAPAGE STREET**

NORTH

SCALE
1 : 100

plus architecture

City of Belmont
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NOTE:
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REFER TO LANDSCAPE ARCHITECT REPORT AND DRAWINGS FOR LANDSCAPE DETAILS AND INFORMATION

DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0202	**PROPOSED ELEVATION - SOUTH EAST**

NORTH	SCALE
	1 : 100

plus architecture

City of Belmont
AMENDED PLANS
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DEVELOPMENT APPLICATION

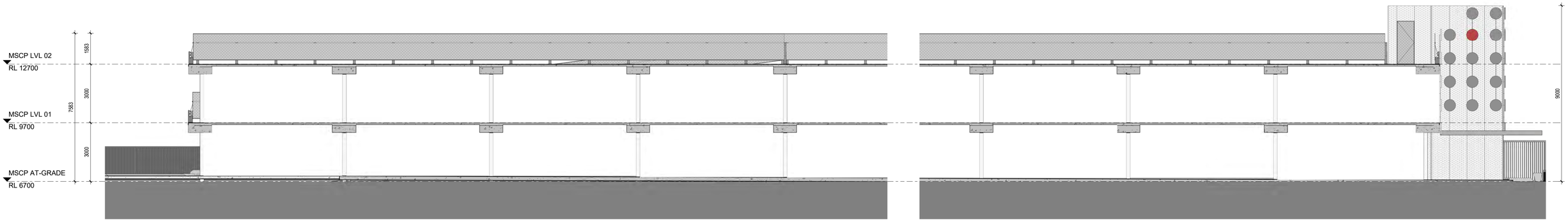
PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0203	**PROPOSED ELEVATION ATRIUM SOUTH WEST**

NORTH

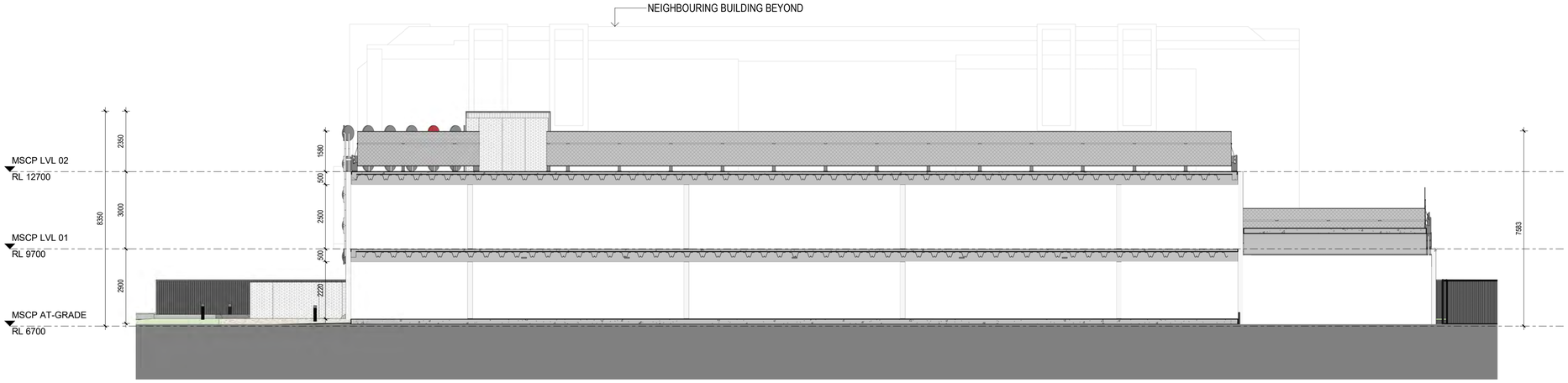
SCALE
1 : 100

plus architecture

City of Belmont
AMENDED PLANS
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1 DA0100 SITE SECTION
Scale: 1 : 100



2 DA0100 SITE SECTION
Scale: 1 : 100

DEVELOPMENT APPLICATION

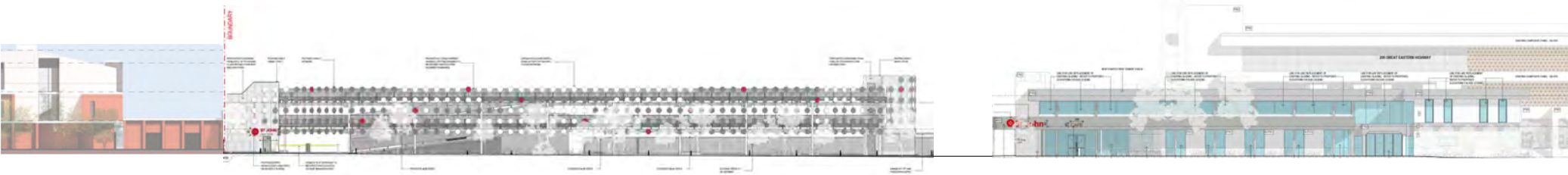
PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	30/08/24	DA0204	**PROPOSED SECTIONS**

NORTH

SCALE
1 : 100

plus architecture

City of Belmont
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RESIDENTIAL CARE FACILITY

PROPOSED CAR PARK

PEDESTRIAN FORECOURT

ST JOHN AMBULANCE OFFICE



1 DA VIEW 01 - VEHICLE ENTRANCE (LAPAGE ST NORTH EAST VIEW)
Scale: 1 : 1

DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0500	**PERSPECTIVE 01**

NORTH	SCALE
	1 : 1

plus architecture

City of Belmont
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2 DA VIEW 02 - 209 AND MSCP SITE ENTRANCE (LAPAGE STREET NORTH WEST ENTRANCE)
Scale: 1 : 1

DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0501	**PERSPECTIVE 02**

NORTH

SCALE
1 : 1

plus architecture

City of Belmont
AMENDED PLANS
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3 DA VIEW 03 - LIFT AND PEDESTRIAN ENTRANCE (CARPARK SOUTH WEST VIEW)
Scale: 1 : 1

DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	08/07/24	DA0502	**PERSPECTIVE 03**

NORTH	SCALE
	1 : 1

plus architecture

City of Belmont
AMENDED PLANS
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Application No: 285/2024



DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	02/09/2024	DA0503	**LAPAGE STREET TRAVELLING NORTH WEST- NIGHT VIEW**

NORTH	SCALE
	1 : 1

plus architecture

City of Belmont
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DEVELOPMENT APPLICATION

PROJECT	JOB NUMBER	DATE	DRAWING NO.	DRAWING
St John WA MSCP Lapage St, Belmont	80631	02/09/2024	DA0504	**LAPAGE STREET TRAVELLING SOUTH EAST- NIGHT VIEW**

NORTH	SCALE
	1 : 1

plus architecture

City of Belmont
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ATTACHMENT 2 – CoB Assessment Sheets

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

LOCAL PLANNING SCHEME NO. 15		
Clause 4.12 – Mixed Business Zone Assessment		
Provision	**Comments**	**Satisfied**
4.12.1 Site and Development Requirements The following site and development requirements shall apply within the 'Mixed Business' zone with the exception of residential development which, subject to subclause 4.12.6 shall conform with the provisions of the Residential Design Codes:		
a) External Space: i. The use of any space external to a building for the conduct of any business activity such as fabrication, or manufacturing, or servicing of vehicles or equipment is prohibited. ii. The outdoor storage of goods, materials, liquid, machinery, equipment or any other thing is prohibited, except where approved by the local government pursuant to an application or development approval. An application for outdoor storage may only be approved if the proposed development complies with all the following provisions: 1) Visual Amenity: Outdoor storage areas must be screened from public view, and must not be located between the street alignment(s) and the building setback line(s). Where trees are used for screening they must be mature trees otherwise non-visually permeable screens will be required; and 2) Site Function: Outdoor storage shall be in a designated area and not conflict with areas used or needed for vehicle parking, loading, manoeuvring or access, landscaping, drainage or effluent disposal, and any other thing or	i. The proposed development seeks to utilise the external space for landscaping, outdoor activity area, vehicle parking and access. ii. There is no proposed storage as part of this application. The structures are located within the site to maximise efficiency of vehicle parking, loading, manoeuvring and access are achieved. iii. No outdoor storage proposed.	Complies

area considered by the local government to be necessary for the proper functioning of the development approved on the land; and 3) Natural Environment: Outdoor storage areas must be located on an adequately paved and drained surface. If in the view of the local government the things to be stored, or the proposed method of storage, pose an unacceptable risk to the natural environment, the outdoor storage shall not be permitted; and 4) Health and Safety: Where appropriate an application for outdoor storage shall be accompanied by a report which addresses matters such as fire risk, impact on human health and safety, drainage, and compliance with relevant legislation. The local government may require an applicant to prepare such a report, and/or a management plan to address any matter associated with the outdoor storage which in the view of the local government requires ongoing management; and 5) if outdoor storage involves the use of sea containers: the sea containers may only be stored at ground level; may not be stacked one on top of the other; must be screened off and behind the primary street building line. iii. Where outdoor storage is approved, the outdoor storage area shall be maintained in a tidy, safe and orderly condition, and in accordance with any approved management plan.		
b) Lot Area and Dimensions: The minimum lot area shall be 2,000 square metres with a minimum effective frontage of 30 metres. However, the local government may support subdivision or approve development of a lot with a lesser area or a lesser effective	The proposal seeks to maintain the existing lot area and dimensions.	Complies

frontage in circumstances where: (i) The lot existed prior to the approval of this Scheme; (ii) The local government is satisfied that the proposal appropriately addresses issues relating to: (1) Motor vehicle access, parking and circulation; (2) Easements in gross for the creation of shared accessways; (3) Rubbish disposal; and (4) Building footprints and design, or (iii) The Commission has approved a subdivision of the subject land which creates a lot or lots with an area or effective frontage less than those nominated in this clause.		
c) Lot Coverage: Building including accessory buildings shall not cover a total of more than 60 percent of the area of any lot. The local government may consider an increase to 70 percent of the area of any lot where the coverage includes a multi storey car park associated with the development which consists of a ground floor and uncovered upper deck.	The proposed buildings and car parking structure results in a total area of 5,778.6m² which accounts for 39.9% of the site area.	Yes
d) Setbacks of Buildings from Site Boundaries: No part of any building shall be built upon that area of land between the street alignment and the building setback line drawn parallel thereto a distance of 15 metres within the site. In regard to any site having more than one street frontage, the minimum setback from the street alignment shall apply to the frontage of the site to the road or roads of higher category as determined by the local government and the setback from the lesser roads shall not be less than a distance of 7.5 metres. The local government will only permit averaging of building setbacks in those cases where it is satisfied that the functioning of any proposed use will be improved	Great Eastern Highway – No change to the existing setback to Great Eastern Highway Lapage Street – 7.5m setback Hehir Street – 58.4m setback	Complies

without detriment to the appearance of the development or the street scene or to the safe movement of traffic on or about the site and in no case will the local government permit a part of any building to be built closer to the street than one half of an average building setback.		
e) Setback Areas: No use of the area between the street alignment and building setback lines shall be permitted other than for planting or for pedestrian and vehicular circulation and vehicle parking in accordance with the provisions of this Scheme, except that an area up to 25 percent of the building setback area may be used for Trade display purposes with the approval of the local government.	The area between the street alignment and building setback lines are proposed for landscaping, vehicular access and pedestrian movements.	Complies
f) Pedestrian and Garden Areas: No less than 3 metres of the building setback area to the primary street frontage and 1 metre to the secondary street frontage must be set aside, developed and maintained as garden space for pedestrian use only. A landscaping and reticulation plan must be submitted to the local government for approval. The landscaping subsequently carried out shall be in accordance with the approved plan. The local government will require as a condition of Development Approval the reticulation and landscaping of the street verge.	Great Eastern Highway – No change to the landscaping within the Great Eastern Highway setback area. Lapage Street – The 7.5m setback area is provided as landscaping and pedestrian path. Hehir Street – 1.7m landscaping width retained.	Complies

<table>
<tr>
<td>4.12.2 Parking and Loading Requirements:

Adequate off-street parking shall be provided on site in accordance with the requirements of Table 2 of the Scheme, together with adequate parking space for customers and visitors as required by the local government. The local government shall also require adequate space for parking, loading and unloading of trade vehicles to be provided on site.</td>
<td>The site currently contains ‘Office’, ‘Café’ and ‘Educational Establishment’. City records indicate the original approved office and training facility required 227 bays to be provided onsite. The table below provides a summary of the carparking requirements for the site.
<table>
<tr><th>Development Application</th><th>REQUIREMENT</th></tr>
<tr><td>Original Approval - Office and training facility (Education Establishment)</td><td><u>Required</u>
227 Bays

<u>Proposed</u>

260 Bays (surplus 35 bays)
Complies</td></tr>
<tr><td>Alterations and Additions Approval

City’s Ref. No. 24/2023/DAAM</td><td><u>Required</u>
227 Bays

<u>Proposed</u>

273 Bays (surplus 46 bays)
Complies</td></tr>
<tr><td>Current Proposal</td><td><u>Required</u>
227 Bays

<u>Proposed</u>

407 Bays (surplus 180 bays)
Complies</td></tr>
</table>
</td>
<td>Complies</td>
</tr>
<tr>
<td>4.12.3 Vehicular Cross Access:

Where necessary vehicular cross access shall be provided over all parcels of land to give customer and service traffic access to streets wherever access to Great Eastern Highway or other important roads is inappropriate or should be minimised. Cross access provision shall take the form of easements in gross or encumbrances on titles granting right of carriageway with the local government a party to the agreements. All documentation costs shall be met by</td>
<td>The development maintains the existing crossover access via Lapage Street and Hehir Street.</td>
<td>Complies</td>
</tr>
</table>

respective owners.		
4.12.4 Building Facades: 1) The primary street frontage of all buildings must have a facade predominantly constructed of brick, concrete, glass or steel or a combination of these materials acceptable to the local government. Where a proposed structure is to extend from one street frontage to another, as distinct from the double street frontage of a corner lot, there must be a full height facade to both street frontages of the above materials or similar materials acceptable to the local government. 2) In the cases of walls fronting secondary streets, the construction must be as above to a minimum height of two metres except that in the case of a building having walls in excess of five metres to plate height the construction must be increased to half the vertical height of the wall. The local government shall retain the discretion to determine which is a primary and which is a secondary street frontage.	The façade consists of concrete, perforated screening and circular coloured metal disks. The proposal was subject to the City's Design Review Panel. Refer to the RAR report for summary.	Complies
4.12.5 Fencing and Walls: (1) It is the local government's intention that in the Mixed Business zone fencing facing any street frontage should be kept to a minimum to allow for an attractive and open streetscape. In special circumstances, the local government may allow fencing facing a street frontage or along a secondary street frontage, provided that in the opinion of the local government it is of exceptionally high quality, is visually permeable, and visually appealing. (2) Notwithstanding clause 4.5, in the Mixed Business zone. (a) the use of cyclone link mesh fencing is prohibited for any fence other than a boundary fence; and (b) the use of barbed wire in any fence is prohibited.	The proposed development has no fencing or walls along either street frontage.	Complies
4.12.6 Discretion to Vary Standards	N/A	N/A

Without affecting the generality of clause 4.2.3, for residential development in the 'Mixed Business' zone the local government may allow a relaxation or variation of the standards and requirements applicable to the 'Mixed Business' zone if the local government is satisfied that the matters referred to in items (a) and (b) conditioning the discretion in clause 4.5.3 are complied with.		

Clause 4.16 – Vehicle Parking and Loading Assessment		
Provision	**Comments**	**Satisfied**
4.16.1 Any person who constructs or substantially reconstructs, alters or adds to a building or changes the use of any land or building shall make provision in accordance with the requirements of subclause 4.16.3 for vehicles used in conjunction with the site (whether by the occupiers, their employees or invitees or other persons) to stand on or, in the opinion of the local government, sufficiently close to the site but not on a street, while being loaded or unloaded or awaiting use.	Refer to comments on subclause 4.16.3	
4.16.2 In circumstances where alterations and/or extensions to an existing development give rise to the need for temporary car parking on land not associated with the alterations and or extensions, the local government may approve the establishment of temporary parking subject to such conditions and time limits as it deems appropriate.	There is sufficient room for temporary car parking to be made available on site during the construction period. It is also noted that St John lease and own multiple tenancies within proximity of the site which can be used for parking during construction.	**Complies**
4.16.3 Size and Location of Car Spaces and Loading Facilities: When considering any Development Application, the local government must have regard to and impose conditions to the location and design of the car parking spaces and loading facilities. In particular, the local government must take into account, and may impose conditions concerning: (a) the proportion of spaces to be roofed or covered;	a) The proposed parking structure provides roofed spaces. b) The car parking proposed as part of this application are proposed at grade and within the multiple storey car park. c) Access to the car parking are facilitated by driveways of sufficient dimensions to allow for efficient manoeuvre. The applicants Traffic Statement prepared by *Parkd* states all parking bays and aisles are in accordance with Australian Standard 2890.1.	**Complies**

(b) the proportion of spaces to be below natural ground level; (c) the means of access to each space and the adequacy of any manoeuvring area; (d) the location of the spaces on the site and their effect if spaces should later be roofed or covered; (e) the adequacy of proposed screening or planting; (f) the extent to which spaces are located within required setback areas; (g) the incorporation of Crime Prevention through Environmental Design principles; (h) the location of proposed footpaths and the effect on traffic movement and safety; and (i) the location of proposed accessways on and off public roads and the effect on traffic movement and safety.	d) If the owner intends to provide additional cover over car parking spaces, this will be subject to a separate development application and assessed on its merits. e) The proposed landscaping area along the street frontages are of sufficient dimensions to screen car parking from street view. f) There are no car parking spaces within the front setback area. g) As the car parking and loading spaces are open, these spaces will be visible from the street, albeit screened with landscaping to minimise visual dominance. Refer to DRP comments relating to security. h) The proposal provides dedicated pedestrian paths linking the car park structure to the office building. The pedestrian paths will not impact traffic or safety. i) There are minor changes to the crossovers to Lapage Street. This includes widening the crossover in the eastern corner of the site, and closing one crossover with retractable bollards for only community vehicle access. The application	
4.16.4 Number and Layout of Parking and Loading Spaces to be provided: (1) The number of spaces to be provided in respect of any particular site shall be determined by the local government, having regard to the nature of the use and the known or likely volume of goods, material or people moving to and from the site. Subject to any provision of the Scheme to the contrary the number of car parking spaces shall be in accordance with the requirements of Table 2. (2) Layout of parking spaces shall be in accordance with Schedule No. 7 or, at the discretion of the local government, the relevant Australian Standard. (3) When making decisions relative to parking provision, the local government shall at all times have regard to any	(1) Refer to 4.12.2 (2) The dimension of car parking spaces and manoeuvring area accords with Schedule No. 7. In addition, it is recommended that a condition be required to ensure this will be achieved. (3) No public parking facilities within the adjoining road.	**Complies**

existing or proposed public parking facilities nearby.		

Clause 4.19 – Development on Great Eastern Highway		
Provision	**Comments**	**Satisfied**
4.19.1 In addition to other matters to which the local government is required to have regard, in considering applications for multi-storey buildings along Great Eastern Highway, the local government shall also have regard to the following: A) The purpose of the proposed building; B) The bulk and height of adjoining and nearby buildings C) Potential impacts of overlooking and/or overshadowing; D) Potential impact of the proposal on the existing and proposed streetscape; and E) Th effect of the proposed building on the amenity of adjoining and nearby properties.	A) The proposed development includes a car parking structure to provide parking for the existing staff and visitors to the St John office, education establishment and café. The proposal is consistent with the objective of the 'Mixed Business' zone as the site will maintain a mix of varied but compatible land uses that don't generate nuisances detrimental to the amenity of the locality. B) The proposed bulk and height of the proposal is consistent with development in the locality. C) Overshadowing associated with the proposed built form will not detrimentally impact the amenity of the locality. D) The developments façade and presentation to the street is deemed appropriate. It is noted that the structure will be screened from view from Great Eastern Highway, and is in keeping with the streetscape along Lapage Street. E) The proposed building is considered to have a negligible impact on the amenity of the adjoining properties given they are also commercial in nature. The proposed building height is also considered to be consistent with the built form and scale of the developments in the locality.	**Complies**
4.19.2 In addition to other matters to which the local government is required to have regard, in considering applications any development along Great Eastern Highway, the local government shall also have regard to the requirement for limited number of crossovers to the Highway and shall require the applicant to gain the approval of a vehicle access plan by the responsible authority.	The City is satisfied with the proposed access arrangement as the development maintains the existing arrangement. The application was referred to Main Roads for comment, who had no objection to the proposal.	**Complies**

Clause 4.20 – Structure Height Control Contours Map		
Provision	**Comments**	**Satisfied**
The height of structures within the Scheme Area shall be subject to the requirements of the Westralia Airports Corporation Structures Height Control Contours Map (Schedule No. 8). Structures erected in the Scheme Area shall not exceed in height the contour level indicated on the map. Where indicated on the map all applications for	The proposed car parking structure does not exceed the Height Control Contours Map, with the proposed height of the structure appropriate to the site.	Complies

development shall be referred to the Westralia Airports Corporation for comment.		

LOCAL PLANNING POLICIES		
LPP 11 – Public Art Contribution Assessment		
Provision	**Comments**	**Satisfied**
1. Public Art to be Required The City of Belmont requires all development proposals within the Policy Area of a value greater than $4.5 million (four and a half million dollars) to provide public art in accordance with the described method for determining Public Art contributions. This Policy shall apply to all proponents, with the exception of those exempt from obtaining Local Authority planning approval under other legislation. Those proponents/projects so exempted should utilise this Policy and the Public Art Masterplan as a guide for the implementation of their respective Percent for Art Policy obligations where applicable.	The proposed development has an estimated cost of $7 million and public art is required to be provided. The applicant states the proponent will engage a public art coordinator and determine the most appropriate form of public art for the development. The City recommends the standard public art conditions to be applied.	Complies
2. Method of determining Public Art Contribution The cost of any Public Art provided under this Policy shall be no less than one percent of the value of the eligible proposal.	Recommended condition requiring public art to be provided at a cost of $70,000, which represents 1 percent of the cost of development.	Yes
3. Form of Public Art Contribution Public Art required pursuant to this Policy shall be provided in kind. Where requested by the proponent, the Council may alternatively accept a cash-in-lieu payment in accordance with the procedures detailed in the City of Belmont Public Art Masterplan.	The applicant seeks to provide Public Art on the subject site.	N/A

4. Location of Public Art Contribution Public Art provided in-kind pursuant to this Policy shall be provided on site, or on crown land immediately adjacent to the site.	The applicant seeks to provide Public Art on the subject site	Yes
5 Separate Approval Generally Not Required for Public Art Public Art, where provided on a development site in fulfilment of a condition of development approval, shall not require a further development approval.	Conditions are recommended to require the approval of a Public Art Strategy and installation of the approved Public Art. Further details are discussed in the Responsible Authority Report	Yes

LPP 12 – Advertisement Signs		
Provision	**Comments**	**Satisfied**
6.1 General Requirements **6.1.1** Advertisement signs shall only advertise services and products available on the premises to which it relates. Third party advertising is not permitted, except in a road reserve when associated with approved bus shelters, bin enclosures, public seating and illuminated street signs. **6.1.2** Advertisement signs must be contained wholly within the property boundaries of a lot and shall not overhang or encroach into any reserve (including road reserve). **6.1.3** Advertisement signs that will or are likely to, cause interference with or be hazardous to vehicular traffic and pedestrians, are prohibited. **6.1.4** Street numbering is to be incorporated into advertisement signage, which is clearly visible from the street. **6.1.5** Except where required by Clause 2.5 of this	**6.1.1** This application includes a St John Car Pak Sign and Logo, and wayfinding sign. **6.1.2** Signage is located wholly on the property. **6.1.3** Signage will not impact on the surrounding roads or developments. The application was referred to Main Roads for comment. **6.1.4** N/A **6.1.5** N/A **6.1.6** N/A **6.1.7** Signage proposed will have no foreseeable impact on existing views to/from the site. Sightlines are maintained.	Complies

LPP 12 – Advertisement Signs		
Provision	**Comments**	**Satisfied**
Policy, development approval is not required in the event that the content of an approved advertisement sign is proposed to be changed, subject to the dimensions, location and structure remaining unchanged. **6.1.6** Development within the Mixed Business Zone (Belmont Business Park) is encouraged to incorporate the 'Belmont Business Park' branding. **6.1.7** Advertisement signs shall not be located in a manner that unreasonably obstructs view of existing public artwork or murals.		
Wall Signs shall: a) not extend laterally beyond either end of the wall or protrude above the top of the wall; and b) not cover more than 10% of the façade for each tenancy within a building and/or development site visible from the public realm; or c) where there is an approved signage strategy, not cover more than 25% of a façade within a building and/or development site visible from the public realm.	**a)** Wall signs are fixed to the wall and do not protrude above the wall or laterally on either end. **b)** Signs cover less than 10% of the façade **c)** Noted	**Complies**

Draft Great Eastern Highway Urban Corridor Strategy – Assessment of Relevant Precinct 2 Provisions		
Strategy Requirements	**Proposed**	**Comments**
Building Setback The building setback will be minimal within the Activity Node and moderate within Activity Corridors, to allow for the provision of a wider public realm which has sufficient room to support the growth of	The development complies with the Local Planning Scheme No. 15 setback requirements. The car parking structure is located behind the main office building which screens the parking from Great Eastern Highway.	**Complies**

mature trees and landscaping. In this Precinct, land subject to the Golden Gateway Structure Plan is anticipated to have a minimal building setback, whilst the rest of the precinct will consist of a moderate setback. Within Precinct 2, there are several sites which have will have a generous building setback due to either the shallow depths of these lots, or the requirement to provide access and parking at the front of the lot due to location or site characteristics. Where the minimal setback cannot be achieved, landscaping within the front setback area will be provided in the form of an Urban Park to contribute to the public realm. The St Johns Ambulance site is an exemplar site demonstrating how this can be achieved.		
Scale In Precinct 2, development will be of a consistent height and scale, acknowledging that there are no directly adjacent residential properties. Development within this precinct will be up to 15 storeys, with a plot ratio of 5.0. Development within the Golden Gateway precinct will be in accordance with the Golden Gateway Local Structure Plan.	The proposed parking structures height of three storeys is deemed appropriated within the surrounding locality.	**Complies**
Landmarks Landmark sites within Precinct 2 are identified on prominent corners of the Activity Node as well as in locations along the Activity Corridor which would benefit from views to the Swan River. The Belmont Primary School site has the potential to be relocated elsewhere within the surrounding locality to capture a larger population catchment, subject to future planning and the Department of	The subject land is not identified as a landmark site.	N/A

Education requirements. The Belmont Primary School will only be eligible as a landmark site if the school was to relocate. If this occurs, the site has potential to be developed to provide a landmark building of high architectural quality which takes advantage of the strategic location adjacent to the Swan River and the Belmont Business Park, and incorporates the heritage value of the site.		
Transition Within Precinct 2 the buildings will predominantly have a medium transition to the surrounding development which is primarily of a commercial nature, or comprises open space. The transition will be low for development adjacent to the existing pocket of residential development on the southern side of the Corridor, in the eastern end of Precinct 2.	The proposed interface to the adjoining properties at 3 storeys is deemed appropriate.	**Complies**
Active Ground Floor Buildings achieving both an active use and active ground floor built form will be a priority along the majority of the edges of Precinct 2. The Active Ground Floor will ensure Precinct 2 forms the vibrant interface between the Belmont Business Park and the Swan River, creating a place that will generate pedestrian interest and movement.	There are no proposed changes to the interface with Great Eastern Highway	**Complies**
Access and Parking The access and parking within Precinct 2 comprises of predominantly Rear Access and Rear Parking. This will ensure there is safe and efficient vehicular movement along the Corridor, and allow for the safe movement of cyclists and pedestrians. There are four sites within Precinct 2 where a Front Access, Front Parking Typology is identified, due to the restrictions on the ability to provide Rear Access and parking as a result of physical constraints of the Swan River and Severin Walk.	The subject site provides vehicle access from Lapage Street and Hehir Street.	**Complies**

An indicative new pedestrian connection is proposed on the southern side of the Corridor, between Abernethy Road and Hehir Street, which will improve the permeability of the large street block, and improve accessibility to development within this area for pedestrians and cyclists.		

ATTACHMENT 3 – MRWA Referral Response

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

Enquiries: Didier Ah-Sue on (08) 9323 4806
Our Ref: 06/2005 (D24#1053760)
Your Ref: 285/2024
DAP Ref: DAP/24/02736

4 September 2024
Chief Executive Officer
City of Belmont
Locked Bag 379
CLOVERDALE WA 6985

Email: belmont@belmont.wa.gov.au (via email)

Dear Sir/Madam,

PROPOSED MULTI-STOREY CAR PARK – LOT 800 (203-209) GREAT EASTERN HIGHWAY BELMONT – DAP/24/02736 - 285/2024

In response to correspondence received on 5 August 2024 please be advised Main Roads has no objections to the proposal.

Should the JDAP disagree with the above conditions or require further information please do not hesitate to contact Didier Ah-Sue on (08) 9323 4806.

Please ensure a copy of the JDAP's final determination is sent to planninginfo@mainroads.wa.gov.au.

Yours sincerely

Didier Ah-Sue
Planning Assessment Officer

ATTACHMENT 4 – DRP Minutes

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

DR3 – Design review report and recommendations (Part 1)

Local government	City of Belmont
Item no.	203-209 Great Eastern Highway BELMONT 6104 - Multi storey carpark - 12/2024/DRP
Date and Time	1st Meeting – 8 August 2024
Location	Online Teams Meeting
Panel members	Jane Wetherall [Chair] Malcolm Mackay Tony Blackwell Stephen Carrick
Local government officers	Nicholas Reddy – Senior Planning Officer
Proponent/s	Alan Stewart – Lateral Planning Bianca Lombardo – Plus Architecture Jo Olive – Plan E Landscape Architects David Thomas - Parkd
Observer/s	Christine Caruso – Planning Administration Officer Brandon Pang – Coordinator Planning
Briefings	
Development assessment overview	Nicholas Reddy – Senior Planning Officer
Technical issues	-
Design review	
Proposed development	Multi Story Carpark
Property address	203-209 Great Eastern Highway BELMONT 6104 (Lot 800 PL 41743)
Background	The applicant has lodged a DAP application for the proposed multi storey carpark. This is the applicants first time being reviewed by DRP.
Proposal	Multi storey carpark
Applicant/representative address to the design review panel	Alan Stewart – Lateral Planning Bianca Lombardo – Plus Architecture Jo Olive – Plan E Landscape Architects David Thomas - Parkd

Key issues/recommendations	The Panel understands the rationale for increased car parking on this site and supports the replacement of on-grade car parking with a multi-level parking structure that has been incorporated alongside a proposed landscaped plaza, providing improved functionality on site and a pedestrian thoroughfare through the site. The large setback along Lapage St provides an opportunity to provide a green oasis and screening to the car park and the Panel encourage the Applicant to increase the level of soft landscaping, especially to increase screening, in this location. The success of the project hinges largely on the façade treatment of the carpark structure and the Panel were unanimous in not supporting the current approach of using discs as an applied motif. The Panel agreed that integration of public art could be successfully incorporated with the façade design and had the potential to provide an interesting and sophisticated result. A professional artist should be engaged. Concern was expressed around lack of information and apparent lack of cover at the roof level of the carpark which should be considered from an amenity and sustainability perspective.
Chair signature	

DR3 – Design review report and recommendations (Part 2)		
Design quality evaluation		
		Supported
		Pending further attention
		Not supported
Principle 1 - **Context and character**		*Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*
		1a. The Panel requested sectional information to assist with understanding the relationship of the carpark to surrounding buildings and to assist with assessing bulk and scale. 1b. The Panel advised the site analysis should include the existing SJA building; consideration of this immediate context should help inform the aesthetic design of the proposed new carpark. 1c. The Panel supports the setback to Lapage Street, acknowledging this landscaped area has the potential to improve the streetscape. 1d. The Panel encouraged the Applicant to also consider the future context of the site, and adaptability of this building typology that will be affected by developments in transport such as autonomous vehicles and mobility on demand.
Principle 2 - **Landscape quality**		*Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.*
		2a. The Panel supports retaining existing trees, however, notes the existing tree species don't provide much shade or screening and need to be supplemented. 2b. The Panel encourages the Applicant to increase the extent of soft landscape on the Lapage Street edge, to improve screening to the carpark. 2c. The Panel suggested further trees to the landscaped to the south, to provide shade to the hardscaped area. 2d. The Panel requested more detailed information on the species and location of the proposed new trees/plants.
Principle 3 - **Built form and scale**		*Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*
		3a. The Panel supports replacement of the current on-grade parking with the multi-level car park structure in this location however requested additional drawings to fully understand the design intent and adjacent context, including sections and all plans and elevations. 3b. Further exploration of the façade and permeability of the car-parking structure is encouraged to enhance view corridors and optimise air flow. The aspect of permeability and voids should also be better communicated in the renders. 3c. The use of landscape in the Lapage Street setback to mitigate the carpark's bulk and scale is encouraged. 3d. The Panel noted the adaptable nature of the Parkd construction, and commented there was potential to consolidate the multi-storey carpark to a smaller footprint and/or with greater height in the future, to release land for other uses. The Applicant was encouraged to prepare a masterplan to test future scenarios and 'future proof' the current design.

Principle 4 - **Functionality and build quality**		*Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.*
		4a. The Panel requested swept path diagrams to demonstrate adequate turning movements within the parking structure. 4b. The Panel queried whether the queuing distance behind the barrier at the vehicle entry was sufficient for peak hours of operation.
Principle 5 - **Sustainability**		*Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.*
		5a. The Panel requests further information and a sustainability strategy addressing initiatives such as EV charging, PV cells, sensor lighting, shade structures on the roof and adaptability and/or recycling of the building in the longer term. 5b. The Panel suggested adding landscape to the path to the rear of the building and along the car park edge to increase shade and help ameliorate heat island effect. 5c. The Panel raised concerns regarding the dark finishes due to solar heat absorption and reradiation. 5d. The Panel encourages the Applicant to commit to measures to reduce the building's carbon footprint; commitment to green concrete could be included in the ESD strategy. 5e. The Panel suggested investigating the large carpark roof deck for rainwater harvesting. 5f. The Panel suggested to consider floor to floor heights when assessing future adaptability of the building.
Principle 6 - **Amenity**		*Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*
		6a. The Panel expressed concern that the large roof deck is uncovered and will not provide good amenity to users, particularly during severe weather conditions. Introducing shade at the roof level will vastly improve the appeal of parking there and will also help ameliorate the heat island effect. This could be achieved via shade structures, potentially integrating PVs, and /or landscape. 6b. Given the 24/7 operations of SJA, the Panel queried whether lighting would be provided to the full carpark, or just the lower levels as suggested in the presentation.
Principle 7 - **Legibility**		*Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*
		7a. The Panel requests further information on the Pedestrian movement arrangement for people on the upper floors of the building, given the lack of upper-level plans. 7b. The Panel recommended introduction of a low wall to the ground floor Lapage Street elevation to discourage pedestrians taking a short cut to access their cars, and trampling plants in the process. This element, if carefully integrated, could also improve the façade design. 7c. The Panel suggests considering ways to encourage pedestrians to utilise the south-west stairwell/lift as the primary entry/exit point, given its co-location with the pedestrian plaza. The pedestrian pathways from the stairs at Lapage St do not provide good connection with the SJA site and encourage unnecessary pedestrian movement across the vehicle entrance. 7d. The Panel suggested signage or other design cues to highlight entrance/exit points for pedestrians from the car park and the lift and stair locations. 7e. The Panel suggested the conventional crossover to the forecourt should be removed/modified to play it down as a vehicular entry and this space prioritised as a pedestrian zone, eg with mountable kerbs to accommodate occasional vehicular access when required for special events.

Principle 8 - **Safety**		*Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*
		8a. The Panel supports the CCTV and suggests additional lighting for security. There may be opportunity for using lighting to also highlight landscaping or public art. 8b. The Panel suggested continuing the footpath material over the crossover to emphasis pedestrian priority.
Principle 9 - **Community**		*Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*
		9a. The Panel discussed the importance of engaging with a professional artist to develop the public art component for this site. 9b. The Panel does not support the currently proposed “disc” design applied to the façade as a successful public art component. 9c. Although the Panel supports the integration of public art with the façade (if undertaken by an artist) in principle, there are other locations that could also be considered such as the lift core, and landscaped areas.
Principle 10 **Aesthetics**		*Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.*
		10a. The Panel does not support the proposed façade design utilising the discs as an applied motif. The panel encouraged the Applicant to engage with a professional artist and develop a more sophisticated response for an integrated façade treatment. 10b. The Panel suggested creating more of a relationship between the existing building and the new car park, including the colour palette for the new building.

DR3 – Design review report and Recommendations (Part 3)			
Design review progress			
	Supported		
	Pending further action		
	Not Supported		
	DR1	*DR2*	*DR3*
Principle 1- **Context and character**			
Principle 2 - **Landscape Quality**			
Principle 3 - **Built form and scale**			
Principle 4 - **Functionality and build quality**			
Principle 5 - **Sustainability**			
Principle 6 - **Amenity**			
Principle 7 – **Legibility**			
Principle 8 – **Safety**			
Principle 9 – **Community**			
Principle 10- **Aesthetics**			

DR3 – Design review report and recommendations (Part 4)			
Recommendations summary			
DR1 Recommendations	**DR 2 Response**	**DR2 Recommendations**	**DR3 Response**
1.	[SUPPORTED / PENDING FURTHER ATTENTION / NOT SUPPORTED] [explanatory text]		[SUPPORTED / PENDING FURTHER ATTENTION / NOT SUPPORTED] [explanatory text]
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

ATTACHMENT 5 – DRP Response Table

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

Design Review Panel Comments

Design quality evaluation		
		Supported
		Pending further attention
		Not supported

	Design Review Panel Comments	*Planning Officer Comments*
Principle 1 - **Context and character**	*Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*	
	1a. The Panel requested sectional information to assist with understanding the relationship of the carpark to surrounding buildings and to assist with assessing bulk and scale. 1b. The Panel advised the site analysis should include the existing SJA building; consideration of this immediate context should help inform the aesthetic design of the proposed new carpark. 1c. The Panel supports the setback to Lapage Street, acknowledging this landscaped area has the potential to improve the streetscape. 1d. The Panel encouraged the Applicant to also consider the future context of the site, and adaptability of this building typology that will be affected by developments in transport such as autonomous vehicles and mobility on demand.	1a – The applicant provided additional section plans and a streetscape diagram which demonstrates the bulk and scale of the development is comparable to the existing buildings surrounding the site. 1b – The streetscape diagrams provided demonstrates the bulk and scale of the development is comparable to the existing buildings surrounding the site. 1c – Noted 1d - The applicant has confirmed in their response to DRP that the design of the car park allows for additional floors to be added at a later date if required, subject to a separate development application.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 2 - **Landscape quality**	*Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.*	
	2a. The Panel supports retaining existing trees, however, notes the existing tree species don't provide much shade or screening and need to be supplemented. 2b. The Panel encourages the Applicant to increase the extent of soft landscape on the Lapage Street edge, to improve screening to the carpark. 2c. The Panel suggested further trees to the landscaped to the south, to provide shade to the hardscaped area. 2d. The Panel requested more detailed information on the species and location of the proposed new trees/plants.	2a – Noted, The City recommends a condition be included for a detailed landscaping plan be provided for approval and implemented to the satisfaction of the City before lodgement of a Building Permit. The landscape plan will be required to address the DRP comments, to the satisfaction of the City. 2b – Noted, refer to point 2a above. 2c - Noted, refer to point 2a above. 2d - Noted, refer to point 2a above.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 3 - **Built form and scale**	*Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*	
	3a. The Panel supports replacement of the current on-grade parking with the multi-level car park structure in this location however requested additional drawings to fully understand the design intent and adjacent context, including sections and all plans and elevations. 3b. Further exploration of the façade and permeability of the car-parking structure is encouraged to enhance view corridors and optimise air flow. The aspect of permeability and voids should also be better communicated in the renders. 3c. The use of landscape in the Lapage Street setback to mitigate the carpark's bulk and scale is encouraged. 3d. The Panel noted the adaptable nature of the Parkd construction, and commented there was potential to consolidate the multi-storey carpark to a smaller footprint and/or with greater height in the future, to release land for other uses. The Applicant was encouraged to prepare a masterplan to test future scenarios and 'future proof' the current design.	3a - A revised set of development plans were provided which include details of the materials proposed throughout the structure. The façade will include perforated mesh screening, tensile steel web mesh and steel barriers and balustrades. The City has also recommended a condition to require the applicant to provide a detailed schedule of a detailed schedule of external materials, finishes and colours prior to lodging a building permit, for approval by the City. 3b – Noted, refer to point 3a above. 3c – Noted, refer to point 2a. 3d – The proposed footprint of the car park is considered appropriate for the site. Having regard for the site context the footprint and scale of the car park sits comfortably within the streetscape, and the development being compliant with the current planning framework.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 4 - **Functionality and build quality**	*Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.*	
	4a. The Panel requested swept path diagrams to demonstrate adequate turning movements within the parking structure. 4b. The Panel queried whether the queuing distance behind the barrier at the vehicle entry was sufficient for peak hours of operation.	4a – The applicant provided amended development plans which has modified the entry/exit design to ensure cars do not encroach into Car Bay No.95 or the abutting column. The plan also demonstrates swept paths that show adequate turning capabilities. 4b – Regarding the queuing distance comments, the applicant stated: • The entry / exit barriers will not be used during the day (peak times) and will remain in the open position, thereby avoiding any queuing of cars at the entry. • The barriers will be lowered in the evening for security purposes. • Automate parking management system such as number plate scanning and use of entry passes / codes will be deployed to ensure authorised use of the car park, and to access the car park in the evening when the barriers are in use. The City has recommended a condition to require a Car Parking Management Plan be submitted to the City for approval prior to use of the car parking structure. The management plan shall include operational details of the parking onsite.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 5 - **Sustainability**	*Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.*	
	5a. The Panel requests further information and a sustainability strategy addressing initiatives such as EV charging, PV cells, sensor lighting, shade structures on the roof and adaptability and/or recycling of the building in the longer term. 5b. The Panel suggested adding landscape to the path to the rear of the building and along the car park edge to increase shade and help ameliorate heat island effect. 5c. The Panel raised concerns regarding the dark finishes due to solar heat absorption and reradiation. 5d. The Panel encourages the Applicant to commit to measures to reduce the building's carbon footprint; commitment to green concrete could be included in the ESD strategy. 5e. The Panel suggested investigating the large carpark roof deck for rainwater harvesting. 5f. The Panel suggested to consider floor to floor heights when assessing future adaptability of the building.	5a - The City has recommend a condition to require the applicant submit a Sustainability Report to include details of proposed sustainability measures to be incorporated into the developments design. 5b - The City recommends a condition be included for a detailed landscaping plan be provided for approval and implemented to the satisfaction of the City before lodgement of a Building Permit. The landscape plan will be required to address the DRP comments, to the satisfaction of the City. 5c - The City has recommended a condition to require the applicant to provide a detailed schedule of a detailed schedule of external materials, finishes and colours prior to lodging a building permit, for approval by the City. 5d – Refer to point 5a. 5e & 5f – The applicant acknowledged the suggestions from the DRP. The proposed development has been assessed against, and complies, with the applicable planning framework. Further details are provided within the RAR.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 6 - **Amenity**	*Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*	

	6a. The Panel expressed concern that the large roof deck is uncovered and will not provide good amenity to users, particularly during severe weather conditions. Introducing shade at the roof level will vastly improve the appeal of parking there and will also help ameliorate the heat island effect. This could be achieved via shade structures, potentially integrating PVs, and /or landscape. 6b. Given the 24/7 operations of SJA, the Panel queried whether lighting would be provided to the full carpark, or just the lower levels as suggested in the presentation.	6a - Regarding the suggestion to introduce shade structures on the roof, the applicants comments regarding the adaptability of the structure to introduce additions to the roof in the future are noted. Any future additions will be subject to a separate development application. In addition, the City has recommended a condition for the applicant to submit a Landscape Plan prior to lodging a building permit. The Landscape plan will be required to provide details of shade tree planting onsite. 6b - The City has recommended a condition that requires the applicant submit and implement a lighting plan prior to commencement of the development. The plan shall detail the lighting throughout the parking structure and surrounding parts of the site.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 7 - **Legibility**	*Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*	
	7a. The Panel requests further information on the Pedestrian movement arrangement for people on the upper floors of the building, given the lack of upper-level plans. 7b. The Panel recommended introduction of a low wall to the ground floor Lapage Street elevation to discourage pedestrians taking a short cut to access their cars, and trampling plants in the process. This element, if carefully integrated, could also improve the façade design. 7c. The Panel suggests considering ways to encourage pedestrians to utilise the south-west stairwell/lift as the primary entry/exit point, given its co-location with the pedestrian plaza. The pedestrian pathways from the stairs at Lapage St do not provide good connection with the SJA site and encourage unnecessary pedestrian movement across the vehicle entrance. 7d. The Panel suggested signage or other design cues to highlight entrance/exit points for pedestrians from the car park and the lift and stair locations. 7e. The Panel suggested the conventional crossover to the forecourt should be removed/modified to play it down as a vehicular entry and this space prioritised as a pedestrian zone, eg with mountable kerbs to accommodate occasional vehicular access when required for special events.	7a – In the applicants response to DRP they state all pedestrians will enter and exit the car park using the lift and stairs at the western corner of the site, situated adjacent to the forecourt to the St John office building. Directional signage will be installed within the car park and on the façade / awning. The stairwell at the eastern corner of the site is an emergency egress stair only and signage will be installed to advise pedestrians to utilise the other stairs / lift unless in the case of an emergency. 7b – The City has recommended a condition for the applicant to submit a Landscape Plan prior to lodging a building permit. The Landscape plan will require the applicant provide a planting schedule to discourage pedestrians short cutting through planting areas and to use dedicated pedestrian paths. 7c – Refer to Point 7a above. 7d - Refer to Point 7a above. 7e – The applicant has stated that the crossover to the forecourt is provided with retractable bollards, and as per the previous approval for the forecourt, contrasting feature paving is proposed to prioritise pedestrian movement. The previous modification was acceptable, and consistent in this application.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 8 - **Safety**	*Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*	
	8a. The Panel supports the CCTV and suggests additional lighting for security. There may be opportunity for using lighting to also highlight landscaping or public art. 8b. The Panel suggested continuing the footpath material over the crossover to emphasis pedestrian priority.	8a & 8b- The City has recommended separate conditions for the applicant to provide a Car Parking Management Plan, Lighting Plan and Schedule of Materials, finishes and colours to the satisfaction of the City. The details of these plans will address the comments made by the DRP.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 9 - **Community**	*Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*	

	9a. The Panel discussed the importance of engaging with a professional artist to develop the public art component for this site. 9b. The Panel does not support the currently proposed “disc” design applied to the façade as a successful public art component. 9c. Although the Panel supports the integration of public art with the façade (if undertaken by an artist) in principle, there are other locations that could also be considered such as the lift core, and landscaped areas.	9a - The applicant has considered the feedback from the DRP and began the process to engage an artist to explore options to incorporate public art onto the site. The applicant has provided a Public Art Submission document, which includes details of possible on structure art concepts for the facade. The City is supportive of the direction that the public art component is progressing. The City has recommended conditions for the applicant seek approval from the City of Belmont for an artist to provide public art on the development site. 9b - The applicant has acknowledged that the current elevations currently show previously proposed ‘discs’, which will be replaced with the final public art elements. 9c – Noted. The City has recommended conditions for the applicant seek approval from the City of Belmont for an artist to provide public art on the development site.

	Design Review Panel Comments	*Planning Officer Comments*
Principle 10 **Aesthetics**	*Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.*	
	10a. The Panel does not support the proposed façade design utilising the discs as an applied motif. The panel encouraged the Applicant to engage with a professional artist and develop a more sophisticated response for an integrated façade treatment. 10b. The Panel suggested creating more of a relationship between the existing building and the new car park, including the colour palette for the new building.	10a – Noted, refer to Point 9a and 9b above. 10b - A revised set of development plans were provided which include details of the materials proposed throughout the structure. The façade will include perforated mesh screening, tensile steel web mesh and steel barriers and balustrades. The City has also recommended a condition to require the applicant to provide a detailed schedule of a detailed schedule of external materials, finishes and colours prior to lodging a building permit, for approval by the City.

ATTACHMENT 6 – Public Art expression of interest

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

209 LAPAGE ST. BELMONT

EXPRESSION OF INTEREST - % FOR ART



ARTitecture

Contact: Luke Davey

luke.davey@artitecture.com.au

0421 991 661

EXPRESSION OF INTEREST - **FIRST THOUGHTS**

EXPRESSION OF INTEREST

This document represents an Expression of Interest for the % for art on the St John Ambulance Multi-Storey Carpark at 209 Lapage St Belmont.

APPROACH

My first thought when looking at the facade was that it reminded me of a filmstrip. I was then watching a djiti djiti (Willy Wagtail) in my backyard and took a video that I broke down into a series of stills. These stills form the basis for my initial art proposal.

I also gave consideration of the ambo's and paramedics who would be using this carpark. I wanted to avoid harsh coloring and references to emergency graphics, rather I looked to create something that inspires and delights. Referencing nature and the always busy djiti djiti seemed to meet this intent.

Within our urban context, carparks invariably become occupied by birds. This sites' adjacency to the Swan River means that it likely to become a nesting site for local birds and as such the artwork also aims to reference this context.

MATERIALITY

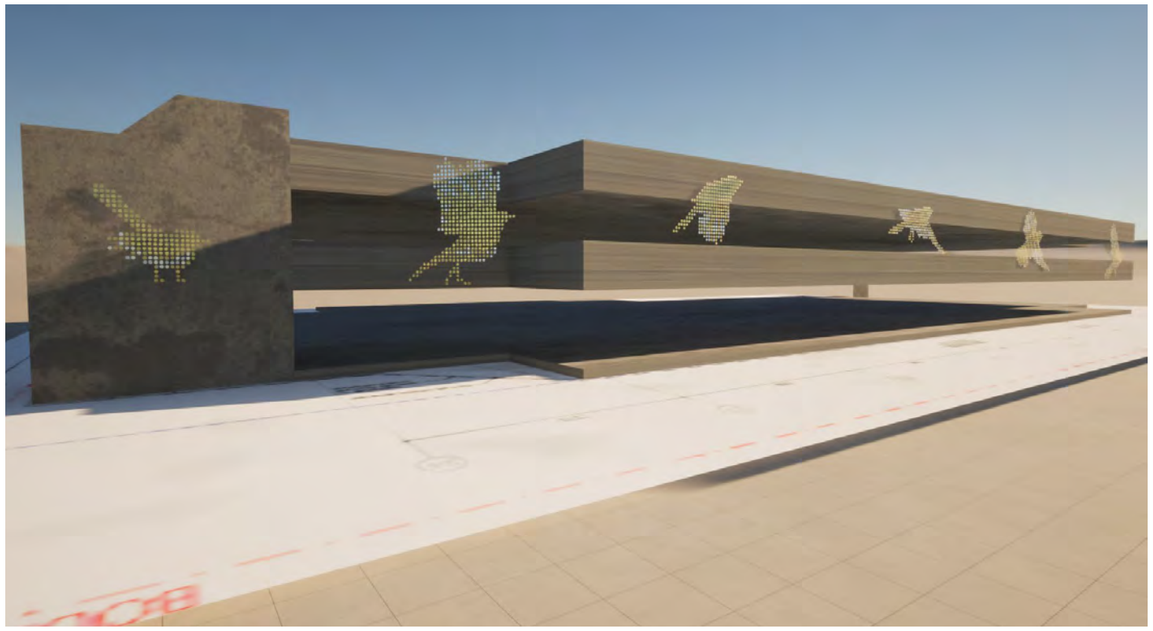
Continuing with the idea of film, I am looking to deconstruct each bird image into a series of pixels. Each pixel will be individually hand-drawn and laser cut from stainless steel and then fixed to the webnet mesh (<45mm opening aperture) using stainless steel bolts and washers. This pixelated approach creates a moire pattern effect that visually shifts dependent on viewer position. This is further enhanced through variation in color and finish on the stainless steel.

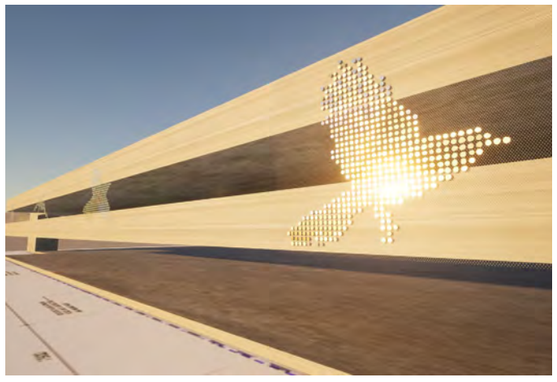
I am nominally looking at using stainless steel in a variety of golds and silvers for the artwork. I have used this material previously on Kulbardi Season (refer Selected Projects later in document).

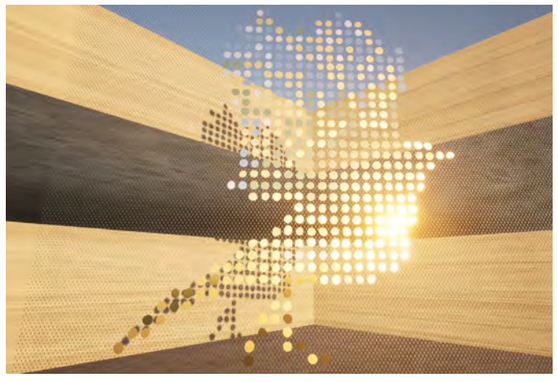
These images shown in this document are quick digital sketches that demonstrate a methodology approach rather than a conclusive artistic outcome. I like to work collaboratively and look forward to exploring these ideas within the project team.

I appreciate the opportunity to provide this EOI and look forward to your feedback.

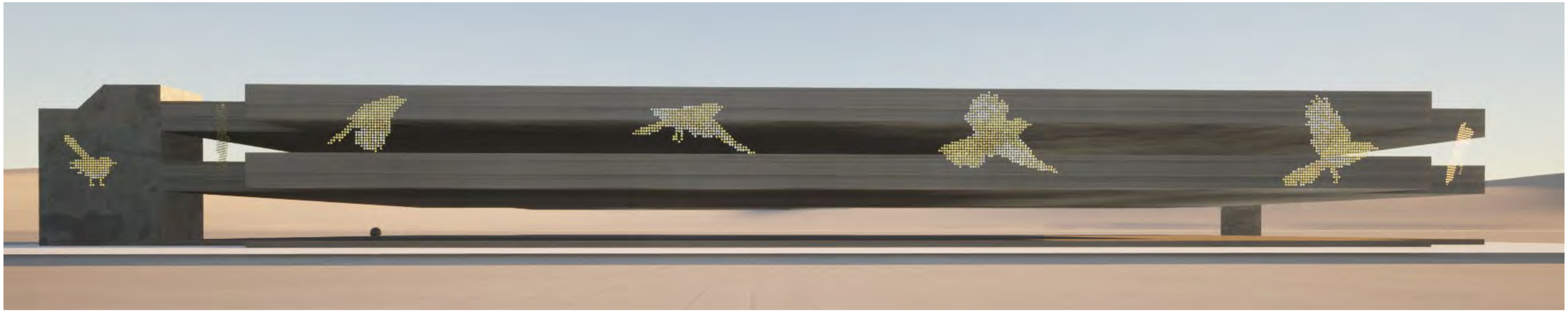
Thank you for your consideration







The carpark typology creates a series of grids similar to a film strip allowing for a static animation across the facade



EXPRESSION OF INTEREST - **A SCALABLE RESPONSE TO BUDGET**

A SCALABLE RESPONSE

The facade on this project is significant and this results in a somewhat problematic cost to benefit ratio when considering the application of artwork. To fill the entire facade feels wasteful and will never disguise the fact that this building is a carpark.

Utilising the idea of the filmstrip to break the facade down into a series of frames provides an opportunity to increase artwork 'resolution' and curatorially engage with the viewer in a way that inspires and delights. The proposed design has an inherent ability to adjust to budget requirements.

On a macro level the number of individual 'bird frames' can be varied dependent on final effect and extent requirements. On a micro level the nominal resolution of each bird can also be adjusted. This scalable response to budget ensures the best value outcome when balanced against the artistic intent.

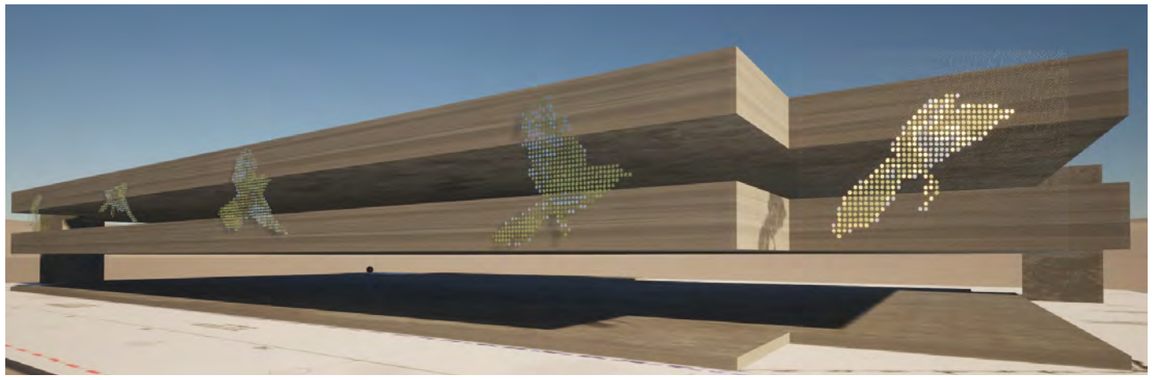
It is our understanding that the facade is currently documented with substructure and webnet mesh to the full extent of the north-west and north-east facades. Our estimation of this extent is approximately 100m length by 4,5m high, totaling 450sqm.

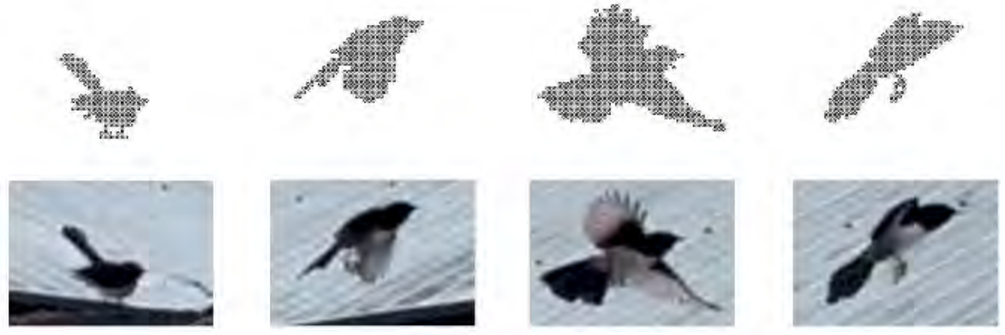
Our approach looks to reduce the extent of this substructure and webnet mesh to only be required where there is artwork. Utilising the artistic idea of the filmstrip to create a cost saving in the base support material and transferring this saving into creating more artwork.

Nominally each bird requires a 6m(w) x 4.5m(h) 'frame'. On this basis the substructure and webnet requirements for the nominated 'bird frames" would be approximately:

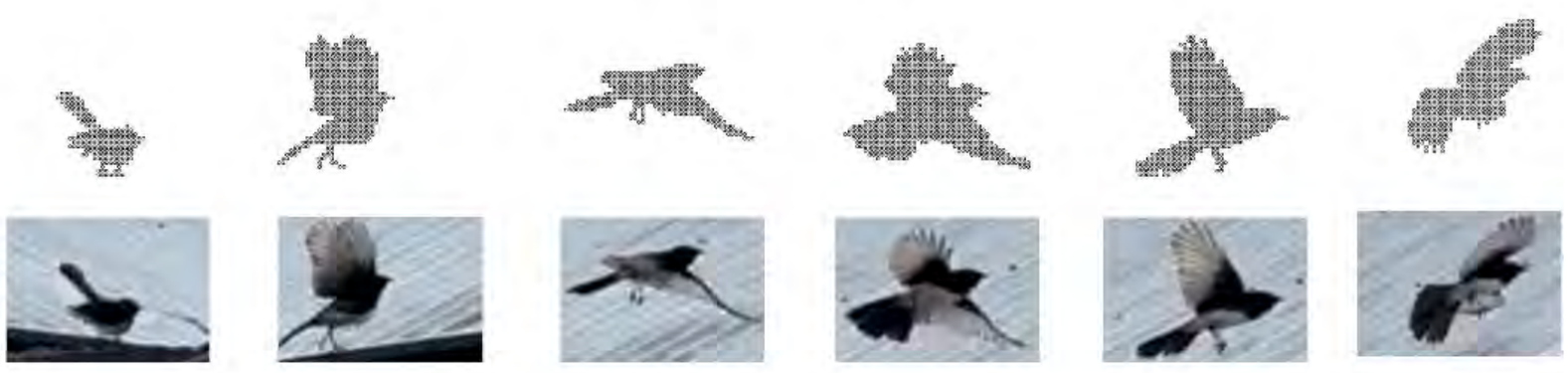
- 4 Birds - 110sqm
- 6 Birds - 170sqm
- 9 Birds - 250sqm

We would look to work closely with the architect and contractor providing the substructure and webnet to best locate the artwork across the facade and note that there may be instances where the artwork is located on liftcores and this may impact detail requirements.





4 Birds - art cost circa $70k



6 Birds - art cost circa $125k



9 Birds - art cost circa $170k

ENGAGEMENT - **FEES**

FEE & BROAD SCOPE

It is our understanding that the project value for this development is approximately $7m. The % for art budget represents 1% of DA stated value. Our proposal provides a response that meets this requirement and additional proposals that see this value increased through savings found in reducing facade extent.

We will develop our scheme based on the confirmed value. As part of detailed design a refined costing of the art proposal will be provided.

TYPICAL COST BREAKDOWN

Concept Design Artist Fee	15%
Design Development & shop drawings	25%
Materials & Fabrication	25%
Installation	25%
Project Management & Completion	10%

Notes:

- Fees to be paid progressively through each stage
- A more detailed program and payment schedule will be provided as part of the engagement contract.
- Fee breakdowns listed above relate to total artwork costs. Should the total artwork cost be greater than 1% project value then fees will be increased accordingly
- %50 of Materials & Fabrication cost is required prior to ordering of materials
- Contribution costs are limited to artist's fees, design documentation, labour, materials, installation and naming plate
- Values and quantities shown in this document are preliminary and subject to change
- Values and quantities shown in this document relate to artwork only and do not include facade elements or substructure
- Artwork shown in this document is based on webmesh with opening aperture <45mm



ABOUT US - **ARTITECTURE**

ARTITECTURE

Artitecture is a multidisciplinary practice making art and architecture on what is and always will be Whadjuk Noongar Boodja, now known as Perth, Western Australia.

Artitecture was founded by artist and architect Luke Davey as a vehicle to fuse his passion for creating artful moments with the more technical realities of master-planning, design and fabrication. The processes of design, making and prototyping form a core value within our work.

We provide a full public art service including all aspects of design, fabrication and delivery. Our art focuses on enlivening the places in between spaces through work that is inherently touched by the artist hand.

With a background in architecture we also collaborate, curate and provide superintendent services on a wide variety of artful outcomes and requirements.

We create responsive art that enriches the day to day experience of the public. From hand-made concrete Mini's to RAC Arena we have designed and built projects at all scales across Perth's urban fabric.

Our Service includes:

- artwork design and integration with client and project requirements
- design documentation
- artwork fabrication
- artwork coordination and installation during construction
- all necessary project management requirements associated with the artwork.
- Council liaison and Engineering/warranty compliance for artwork



EXPERIENCE - **LUKE DAVEY**

ABOUT

Luke Davey is an artist and architect with experience across all aspects of creation and delivery within the public realm. With a strong knowledge base in master planning and an interest in the bespoke, Luke continues to create mythopoetic outcomes that enrich the day to day experience of the public through art and urban design.

Luke's flexible communication and management skills compliment a strong technical understanding of masterplanning, design, construction delivery and architectural detailing. Luke is highly skilled in his ability to amalgamate the processes of 'making' and prototyping as a design tool to test design outcomes and also problem solve fabrication and constructibility issues during delivery.

Luke is also passionate about education and teaches design and technology at Cecil Andrews College and has previously taught architecture and design sessionally in the Faculty of Architecture at the University of Western Australia and Curtin University. Luke has been active in advocacy roles and served as an elected member of WA Chapter Council of the Australian Institute of Architecture from 2014 to 2016.

ARTWORK

2024 Biirdbiirniny Keap
Shortlisted
Project Value - $1,000,000
Role: Artist with Barry McGuire & Sohan Ariel Hayes
For: Metronet

2023 Kulbardi Season
Project Value - $400,000
Role: Artist with Chris Nixon & Kamsani Bin Sallah
For: Perth Transit Operational Control Centre

2023 Pyxel House
Private Commission
Project Value - $30,000
Role: Artist

2023 Mayakowa Koora
Shortlisted
Project Value - $30,000
Role: Artist with Chris Fox & Kamsani Bin Sallah
For: Development WA

2020 Aston Mini and Soffit
% For Art – GRC Mini & Aluminium Soffit
Project Value – $165,000
Role: Artist with Jon Denaro & Bec Juniper
for Suida International

2020 Kit Of Parts
% for Art – GRC & Steel
Project Value – $22,000
Role: Artist with Jon Denaro
For: United Fuel

2020 The Whole World
Foyer Fitout
Project Value – $15,000
Role: Artist with Jon Denaro
For: Brunel

2018 Power for the People
% for art sculpture
Project Value – $30,000
Role: Artist with Jon Denaro
For: Fabric property group

2018 Obscure View
Role: Artist with Jon Denaro & Bec Juniper
For: Sculpture by the Sea Cottesloe

2017 M24 Apartments
% for art sculpture
Project Value – $80,000
Role: Artist with Jon Denaro & Bec Juniper
For: Match

2006-07 Awesome Cre8tive Challenge
Artist in Residence
2006 Punmu & Newman
2007 Wiluna
Role: Artist with Jon Denaro & Bec Juniper

MANAGEMENT & SUPERINTENDENT SERVICES

2024 Subi East
Various Artists
Role: Superintendent
For Apparatus & Development WA

2024 Numbat
By Jack Bromell
Role: Art Consultant
For Scouts WA

2023 Kulbardi Season
Project Value - $400,000
Role: Project Management
With Tilt Industries

2022 Place to Place
By Warren Langley
Role: Superintendent
For: Curtin University
With Tilt Industries

2021 Winin Katidjin Bilya
By Kambarni
School of Design & Built Environment
Curtin University
With Realm Studios

2018-2019 Central Park foyer art relocation
Perron Group
With Jon Denaro & Bec Juniper

PUBLIC REALM & ARCHITECTURE

2020 – 2022 Greater Curtin Stage One
Role: Design, Documentation and Delivery of Landscape and Public Realm
for REALM Studios

2021 Willeton Skate Plaza
City of Canning
Role: Superintendent
for REALM Studios

2014 – 2016 Elizabeth Quay
Role: Project Architect
for ARM Architecture

2014 – 2017 M24 Apartments
Role: Project Architect
for ARM Architecture

2015 – 2016 Greater Curtin Stage One Development Guidelines
Role: Project Lead
for ARM Architecture

2008 – 2013 RAC Arena
Role: Senior Site Architect f
or ARMCCN

2006-2008 Burswood Peninsula
Role: Site Supervisor
for Mirvac



ADVISORY & OTHER

2020 Curtin University Academic Heart Guidelines
Independent Architectural Adviser to Curtin University

2017-2018 Curtin University Greater Curtin Stage One
Independent Architectural Adviser to Curtin University

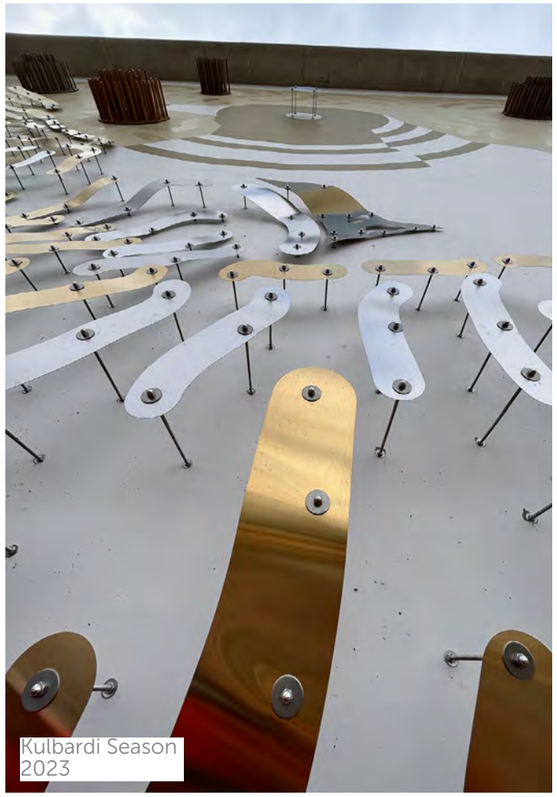
2018-2019 Curtin Mapping
Digital & Physical Mapping of Curtin University

2015-2017 Australian Institute of Architects
Elected Chapter Councilor

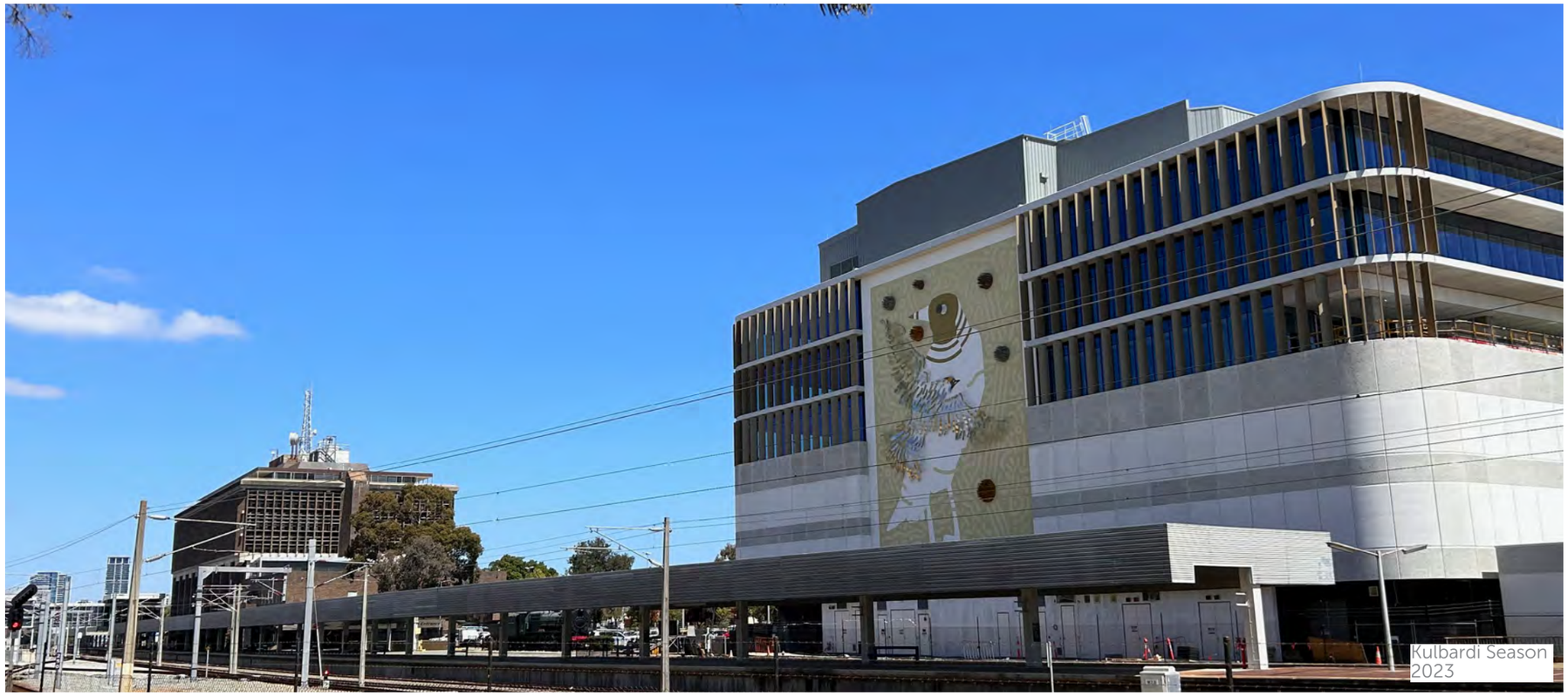
TEACHING

Sessional Academic at the University of Western Australia
2020 – Integrated Design – 3rd Year | Structures & Systems – 1st Year
2019 – Architecture Design – 2nd Year | Integrated Design – 3rd Year
2018 – Future Thinking – 2nd Year
2017 – Integrated Design – 1st Year
2016 – Integrated Design – 1st Year
2015 – Integrated Design – 1st Year
2014 – Practice Management – 4th Year
2013 – Design – 2nd Year

PREVIOUS WORK - **SELECTED PROJECTS**



Kulbardi Season
2023



Kulbardi Season
2023



aston mini
2020



Winin Katidjin Bilya
Artist - Kamsani Bin Salleh
2022

PREVIOUS WORK - **SELECTED PROJECTS**



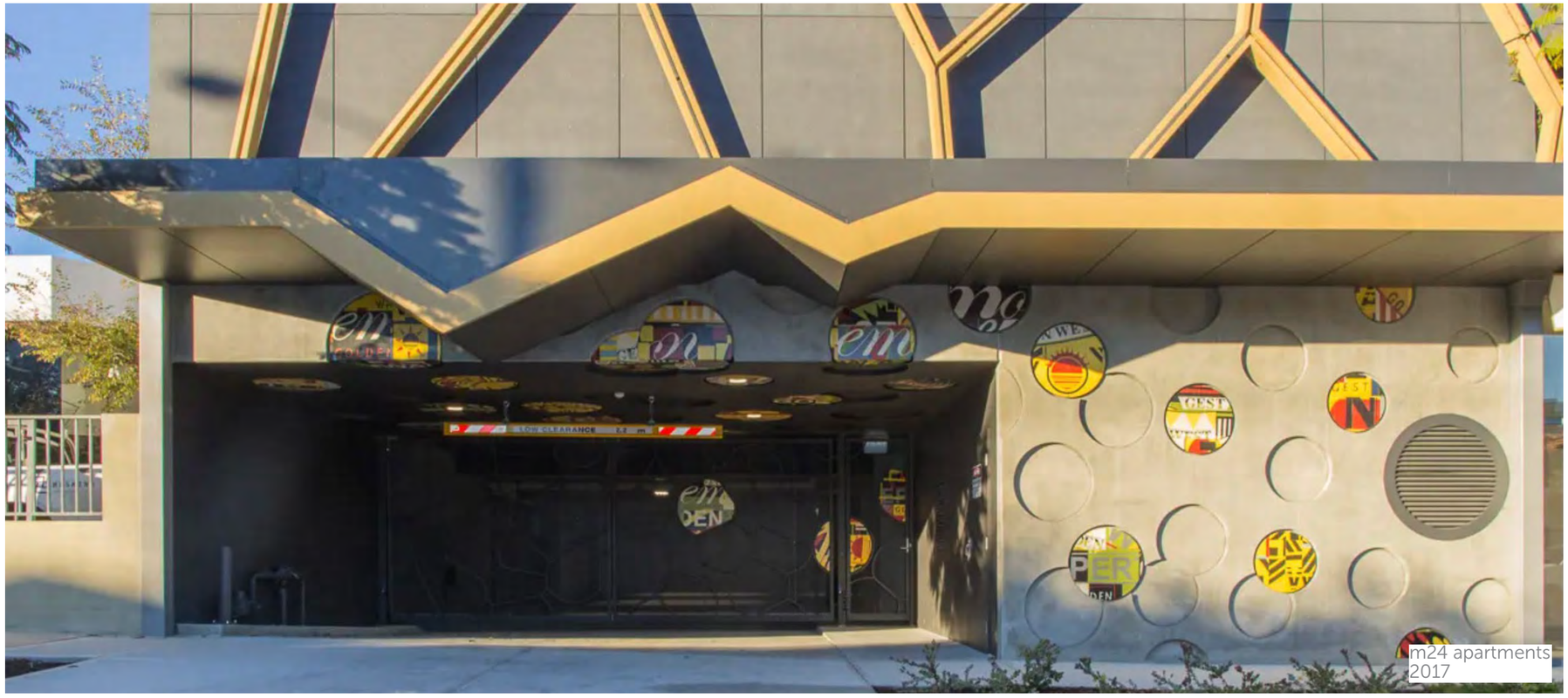
pyxel house
2023



obscure view
2018



power for the people
2019



m24 apartments
2017

ATTACHMENT 7 – Landscape Concept Plan

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

LANDSCAPE CONCEPT PLAN



LEGEND

01 ST JOHN BUILDING ENTRANCE (ENTRY LANDSCAPE DESIGN TBC)

02 MAIN PEDESTRIAN CROSSING POINTS DEFINED WITH CONCRETE COLOURS

03 TRAFFICABLE CONCRETE TO " LANEWAY"

04 FEATURE GRASSTREES (*XANTHORRHOEA*) AT ENTRY

05 BENCH SEATING

06 SEATING WALL

07 EXPOSED AGGREGATE CONCRETE TO MATCH FORECOURT

08 FEATURE GARDEN BEDS WITH SMALL TREES AND STONE BOULDERS

09 EXISTING VERGE TREES TO BE RETAINED

10 LOW GROUND COVER VERGE PLANTING

11 EXISTING OVERHEAD POWER/LIGHT POLE RETAINED

12 EXISTING STREET TREE IN DECLINE, TO BE REMOVED & REPLACED BY COB

13 NEW TREE PLANTING (HEIGHTS TO BE COMPLIANT WITH WP CLEARANCES)

14 MEANDERING GARDEN BED AND LANEWAY ALIGNMENT TO CREATE A PEDESTRIAN FRIENDLY SPACE

15 RETRACTABLE BOLLARDS TO LANEWAY

16 TREE PLANTINGS IN NIBS

17 LOW SHRUB PLANTING

18 SCREENING PLANTING OF MEDIUM SHRUBS AND SHADE TREES TO BOUNDARY

19 RETRO AMBULANCE PARKING LOCATION

20 PLANTING OF SHADE TOLERANT SHRUBS, REFER TO C1.102



14. MEANDERING GARDEN BED ALIGNMENT TO CREATE MORE PEDESTRIAN FEEL



04. FEATURE GRASSTREES (XANTHORRHOEA) AT ENTRY



08. FEATURE STONE BOULDERS



06. SEATING WALL



18. MEDIUM HEIGHT SHRUB PLANTING TO SITE BOUNDARY



20. SHADE TOLERANT SHRUB PLANTING

PLAN E

LANDSCAPE ARCHITECTS
Level 1/278 Railway Pde West Leederville
T: (08) 9388 9566 E: mail@plane.com.au

ST JOHN AMBULANCE CARPARK
LANDSCAPE CONCEPT DESIGN REPORT
PREPARED FOR ST JOHN AMBULANCE
JULY 2024

C1.101
REV E
SCALE: 1:500 @ A3

0 5 10 15 25m

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Version: 1, Version Date: 23/07/2024

PLANTING PALETTE



EUCALYPTUS VITRIX
SNOW QUEEN
8M(H) X 4M(W)



MELALEUCA LEUCADENDRA
WEEPING PAPERBARK
10M(H) X 5M(W)



EUCALYPTUS SPATHULATA
SWAMP MALLEE
12M(H) X 8M(W)



EUCALYPTUS CAESIA
SILVER PRINCESS
8M(H) X 3M(W)



CALLISTEMON "KINGS PARK SPECIAL"
(TO MATCH EXISTING STREET TREES)
4M(H) X 3M(W)



XANTHORRHOEA PREISSII
GRASS TREE
5M(H) X 3M(W)



GREVILLEA CRITHMIFOLIA PROSTRATE
GREEN CARPET
0.6(H) X 3M(W)



EREMOPHILA GLABRA 'BALALLA GOLD'
EMU BUSH
0.2M(H) X 2M(W)



BANKSIA ASHBYI DWARF
0.15M(H) X 0.2M(W)



ANIGOZANTHOS 'YELLOW GEM'
0.7M(H) X 1M(W)



ANIGOZANTHOS MANGLESSI
MANGLES KANGAROO PAW
1M(H) X 1.2M(W)



CALLISTEMON VIMINALIS
LITTLE JOHN(BOTTLEBRUSH)
1M(H) X 0.75(W)



ACACIA COGNATA 'LIMELIGHT'
RIVER WATTLE
1M(H) X 1M(W)



LOMANDRA TANIKA
MAT RUSH
0.7(H) X 0.6(W)



PHILODENDRON XANADU
(SHADE PLANT UNDER RAMP)
1.5(H) X 1.5(W)



BLECHNUM SILVER LADY FERN
(SHADE PLANT UNDER RAMP)
1.2(H) X 1.0 (W)



LIRIOPE MUSCARI "ISABELLA'
(SHADE PLANT UNDER RAMP)
0.4(H) X 0.4(W)

THE PROPOSED PLANTING PALETTE WILL INCLUDE PREDOMINATELY NATIVE, DROUGHT TOLERANT SPECIES WITH AN EMPHASIS ON WA NATIVE SELECTION. THE PALETTE WILL ATTRACT BIRDLIFE AND ALLOW FOR SEASONAL AND THEMATIC COLOUR.

EXISTING TREES WILL BE PROTECTED AND RETAINED WHERE POSSIBLE.

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PLAN E

LANDSCAPE ARCHITECTS
Level 1/278 Railway Pde West Leederville
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PREPARED FOR ST JOHN AMBULANCE
JULY 2024

C1.102

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MATERIALS PALETTE



LEGEND



01 EXPOSED AGGREGATE INSITU CONCRETE PAVEMENT, BGC C161



02 TRAFFICABLE EXPOSED AGGREGATE INSITU CONCRETE PAVEMENT, BGC C161



03 TRAFFICABLE EXPOSED AGGREGATE CONCRETE SPINIFEX



04 ASPHALT FOR CAR PARK



05 CONCRETE SEAT WALLS TO MATCH FORECOURT



06 STONE BOULDERS



07 STAINLESS STEEL BOLLARDS (FIXED AND RETRACTABLE)

PLAN E

LANDSCAPE ARCHITECTS

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ST JOHN AMBULANCE CARPARK
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JULY 2024

C1.103

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SCALE: NTS

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ATTACHMENT 8 – Traffic Impact Assessment

Lot 800 (No. 203-209) Great Eastern Highway, Belmont

LG Reference: **285/2024**
DAP Reference: **DAP/24/02736**

PROPOSED CAR PARKING FACILITY

ST JOHN WA MSCP, LAPAGE STREET, BELMONT

TRAFFIC STATEMENT

July 2024

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4. EXISTING DEVELOPMENT 8
5. PROPOSED DEVELOPMENT 9
6. PARKING REQUIREMENTS 9
7. DAILY TRAFFIC VOLUMES AND VEHICLE TYPES 9
8. TRAFFIC IMPACTS 11
9. VEHICLE ACCESS 12
10. TRAFFIC MANAGEMENT OF FRONTAGE STREETS 13
11. PROVISION FOR SERVICE VEHICLES 13
12. HOURS OF OPERATION 13
13. PUBLIC TRANSPORT ACCESS 13
14. PEDESTRIAN ACCESS 14
15. CYCLE ACCESS 14
16. SITE SPECIFIC ISSUES 14
17. SAFETY ISSUES 14

Issued on	09-07-2024	Amendments	Date
Version	V2	V2 bin store amended	9/7/24
Reference	1123		
Prepared by	Jonathan Riley Ieng, MCIT, MIHT, FIHIE		

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1. EXECUTIVE SUMMARY

1.1. The site is located at 209 Great Eastern Highway but has no access to the highway. Access to the subject site is currently provided at two locations on Lapage Street.

1.2. It is proposed to construct a 275 bay car park to replace the existing 86 bay ground level car park. The proposed development will cater for current parking demands of the site. There are no proposed changes to building floor areas that would be deemed to result in an increase to traffic generated by the subject site.

1.3. From a technical perspective as land uses are not changing it could be argued that no traffic assessment is warranted. However, as the proposal will increase on site car parking by 189 bays, it is evident that local traffic movements will change.

1.4. It is noted that there is an existing Development Approval to increase car parking for St John to 242 bays, which includes for parking upon the subject site. As these additional bays have not yet been constructed, the current DA can be ignored from a traffic perspective.

1.5. The proposed car park has been assessed based on current traffic attraction and the car park being fully occupied. It is forecast that the car park could generate an additional 388 vehicle movements per day to the local road network. However, as the proposal is to cater for existing parking demands, the majority of the “additional” vehicles are probably already on the local road network. Under both scenarios the proposal is shown to have no material traffic impact under the WAPC transport assessment guidelines.

1.6. Lapage Street will continue to operate with very low traffic demands and well within the residential amenity thresholds set out by *Liveable Neighbourhoods*. No traffic impact is forecast to Great Eastern Highway with a morning peak demand of just 3 additional vehicles accessing the highway.

1.7. Whilst the development is noted to be adjacent to a local primary school, no issues have been identified that would be considered to have a detrimental road safety impact. Indeed, it is considered that the proposal may be beneficial when considered against the current use of angled parking bays on Lapage Street.

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2. CHECKLIST

Item	Comments/Proposals
Proposed development	
proposed land uses	275 bay car park
existing land uses	86 bay car park
context with surrounds	In commercial precinct
Vehicular access and parking	
access arrangements	Via existing access
public, private, disabled parking set down / pick up	Disabled parking provided. Appropriate levels of parking considered to be provided.
Service vehicles	
access arrangements	No change, as existing
rubbish collection and emergency vehicle access	No change, as existing
Hours of operation (non-residential only)	No change, as existing
Traffic volumes	
daily or peak traffic volumes	Peak increase 83 vehicle movements
type of vehicles (eg cars, trucks)	Cars and motorcycles
Traffic management on frontage streets	None required
Public transport access	
nearest bus stops/train stations	N/A
pedestrian/cycle links to bus stops/train station	N/A
Pedestrian access/facilities	
existing pedestrian facilities within the development (if any)	N/A
proposed pedestrian facilities within development	To current standards
existing pedestrian facilities on surrounding roads	Acceptable
proposals to improve pedestrian access	N/A
Cycle access/facilities	
existing cycle facilities within the development (if any)	N/A
proposed cycle facilities within development	No change to staff numbers
existing cycle facilities on surrounding roads	Acceptable
proposals to improve cycle access	N/A
Site specific issues	None Identified
Safety issues	None identified

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3. THE LOCAL ROAD NETWORK

3.1. The subject site is located at 209 Great Eastern Highway Belmont. However, no access is provided to Great Eastern Highway and all vehicle access is provided via local side roads.

3.2. The subject site is occupied by the St John Group ambulance service operations centre, which provides a call centre and first aid training. There are other buildings in close proximity that are occupied by St John Group.

3.3. Figure 1 shows the location of the subject site and Figure 2 shows an aerial image of the site.

3.4. Local roads significant to the proposed development are discussed below.

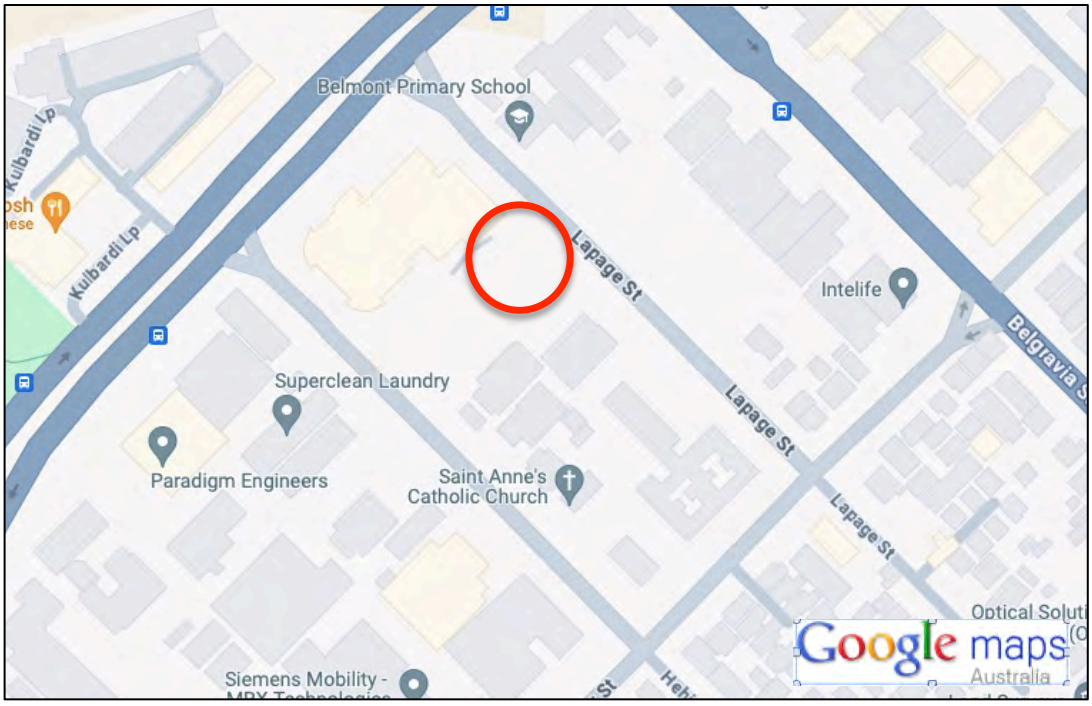


Figure 1 Subject Site Location

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Figure 2 Aerial Imagery (Site area indicative)

Lapage Street

3.5. Lapage Street is designated a local access street in the Main Roads *Functional Road Hierarchy*. It is constructed with a varying pavement width to accommodate parallel and angled parking. The pavement meets standards for two-way traffic.

3.6. At its northern end Lapage Street intersects with the Great Eastern Highway. Access to the highway is restricted to left-in and left-out movements only. Visibility in accordance with current standards is provided.

3.7. A footpath is provided to the northern side adjacent to the existing primary school. A 40kph School Zone speed limit applies during school pick up and drop off times. Site inspection indicates that the reduced speed limit is adhered to and no vehicles were witnessed to be travelling at inappropriate speeds. Outside of the School Zone time the urban 50kph speed limit applies.

3.8. Traffic data is not available from the City of Belmont and a peak hour count has been undertaken. The count was conducted on a Wednesday between 8am and 9an, being the busiest period of commuter and school activity. The count recorded 119 vehicles during

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the peak period. Based on the peak hour equating to 10% of the normal daily traffic demand, Lapage Street is calculated to carry about 1,190 vehicles per day (vpd).

3.9. The traffic count identified 51 northbound movements and 68 southbound movements. The school attracted about 50% of the vehicles, with an equal attraction from north and south. However, 75% of school traffic departed to the south (away from Great Eastern Highway). The data is attached at Appendix A.

3.10. Reference to Appendix B indicates Lapage Street would have capacity to carry 13,500vpd operating with a Level of Service D. However, due to the local primary school the residential threshold of 3,000vpd would be a desirable threshold to maintain better amenity (in line with the Liveable Neighbourhoods guidelines.)

Great Eastern Highway

3.11. Great Eastern Highway is designated a primary regional road in the Main Roads *Functional Road Hierarchy*. It is constructed with three traffic lanes in each direction plus a bus lane adjacent to Lapage Street. A 60kph speed limit applies in the vicinity of the subject site.

3.12. Its intersection with Belgravia Street is controlled by traffic signals and has bus lanes on the Highway approaches. The southbound bus lane ends 40 metres south of the Lapage Street intersection, thus creating a short slip lane, which could increase the ability of vehicles to enter the highway traffic stream from Lapage Street.

3.13. Traffic data provided on the Main Road Traffic Map indicates about 56,000vpd to the south west of Belgravia Street. The data was recorded in 2021 and shows a reduction from about 60,000vpd in 2019. During the morning peak hour 1,458 vehicles head north and 2,513 vehicles head south. During the evening peak 2,591 vehicles head north and 1,923 vehicles head south.

3.14. Reference to Appendix B showing Austroads capacity information suggests that Great Eastern Highway could be operating at Level of Service C southbound during the morning peak and Level of Service B in the evening peak. It is noted that traffic flows well along Great Eastern Highway during peak periods with delays predominately only encountered at major intersections.

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Hehir Street

3.15. Hehir Street fronts the subject site to its south western side but is not impacted by the proposed car park.

4. EXISTING DEVELOPMENT

4.1. The St John Group Ambulance Service headquarters occupies the subject land. The land use is predominately office use with a call centre and administration. First aid training classes are also provided on the site.

4.2. Existing car parking is provided on the subject site as follows:

- 86 existing car bays on the part of the site where the multi-level car park is going.
- 135 bays in the existing car park on the Hehir Street side of the property.
- 2 ACROD bays.
- 3 ambulance Bays.
- 1 loading bay
- 6 car bays on an adjoining property at 7 Hehir Street used for office purposes.
- **Total 232 bays**

4.3. Based on the above data, 86 parking bays are currently accessed from Lapage Street.

4.4. Reference to the traffic count attached at Appendix A indicates that the site access from Lapage Street attracted 32 vehicle movements entering and 6 movements leaving. This equates to a peak hour demand of 0.447 movements per bay with a distribution of 84% in the peak direction.

4.5. There is an existing approved development plan for the subject site that would increase the current level of car parking as follows:

- 108 approved car bays on the part of the site where the multi-level car park is going.
- 128 bays in the proposed car park on the Hehir Street side of the property.
- 4 ACROD bays.
- 1 loading bay.
- 4 car bays and 1 ACROD bay on an adjoining property at 7 Hehir Street used for office purposes.
- **Total 245 bays**

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5. PROPOSED DEVELOPMENT

5.1. The proposed development is for a multi-level car park with access to Lapage Street. In total the proposed facility will provide for 275 car parking bays 3 accessible bays and 13 motor cycle bays.

5.2. The proposed car park can be seen to increase current parking accessed from Lapage Street by (275 – 86) 189 bays, of which 22 have been approved as part of the current Development Approval for the site. However, for the purposes of this report the current DA is ignored.

5.3. Figure 3 shows the proposed ground level of the car park.

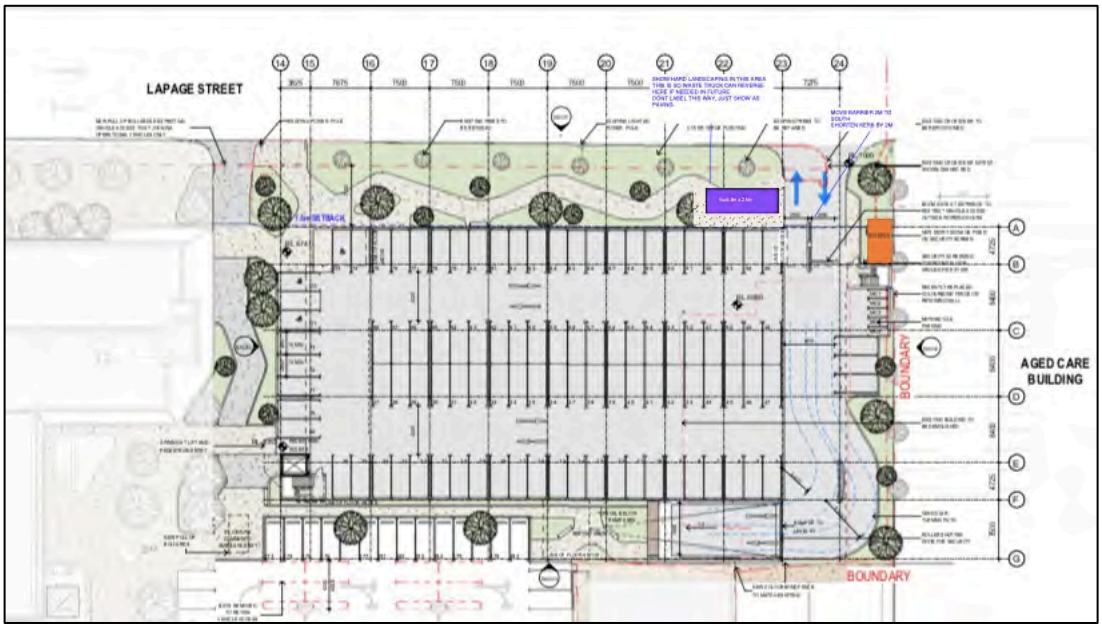


Figure 3 Extract of Proposed Development Plan (refer to DA plans)

6. PARKING REQUIREMENTS

6.1. The proposed facility is a car park that is to cater for existing car parking demands created by the current operations of the subject land. The proposed development does not require parking to be provided to meet Local Government requirements.

6.2. However, all parking bays and aisles are required to be provided in accordance with Australian Standard 2890.1. A review of the design confirms that AS2890.1 has been conformed with.

7. DAILY TRAFFIC VOLUMES AND VEHICLE TYPES

7.1. From a technical perspective the proposed development could be argued to have no traffic generation as the facility is being constructed

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to cater for existing demands. There are no changes to administration building footprints that would be deemed to "generate" additional trips to the locality.

7.2. The proponent is aware that some staff and visitors to the site are parking on street. Although such parking is legal, it reduces the ability for local residents and other businesses to access additional parking. Whist there is space to accommodate 14 cars on Lapage Street to the site frontage, the on-street bays do not provided security or shelter for staff working out of hours. The proponent is therefore investing in a multi-level parking structure to cater for operations at 209 Great Eastern Highway and at other St John Group operations in the locality.

7.3. Whilst from a technical perspective a traffic assessment could be considered unwarranted, it is evident that the new parking structure will consolidate local parking to a single point. As a result some changes to local traffic movements can be expected. The following is provided to identify what impacts, if any, could occur.

7.4. There are no recognised trip generation sources to predict the traffic associated with a car park of this nature. However, reference to the traffic data at Appendix A suggests that based on current parking demands of 32 inward and 6 outward morning peak hour movements, there is a traffic generation of 0.44 trips per bay. The movements are split 84% in the peak direction (inwards).

7.5. Applying the current traffic demands, the proposed car park could be expected to generate (275 x 0.44) 121 morning peak hour trips, of which 101 would enter the car park.

7.6. The car park is intended to cater for staff parking and visitors attending training courses at the site. On this basis it would not be expected that car bays would be used multiple times per day. It is more likely that each bay will be utilised once each day. On this basis the 275 car bays would have a maximum generation of 550 movements per day (assumes 275 enter and then leave).

7.7. Data is not available for the evening peak hour. However, it is noted that the adjacent school attracts peak movements during the developments morning peak, but will not attract traffic during the evening. Thus the traffic impacts are significantly greater during the morning peak hour.

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7.8. Table 2 shows the forecast generated traffic.

Table 2 Traffic Generation

Use	Daily	AM peak	PM peak*
Exiting car park	172	38	38
Proposed car park	550	121	121
Change	+388	+83	+83

*data is not available for the PM peak.

Distribution

7.9. Traffic associated with the proposed car park can be expected to access the surrounding road network in a manner similar to current traffic movements. The traffic count at Appendix A indicates that access to the site is equally distributed 50% from each direction. Departing traffic was recorded to be distributed 75% to the south.

7.10. Appendix C shows the anticipated traffic movements associated with the proposed car park development.

8. TRAFFIC IMPACTS

8.1. Reference to the WAPC *Transport Assessment Guidelines for Developments* states that:

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

8.2. Table 3 considers the potential impact to the daily traffic demands of the increase to forecast traffic assuming the car park is fully occupied each day.

Table 3 Daily Traffic Impacts

Street	**Capacity#1** (at LOS D)	**Development**	**% Capacity** (at LOS D)
Lapage Street North	13,500	+143	1.05%
Lapage Street south	13,500	+245	1.7%
Great Eastern Highway	59,400	+95	<1%

#1 Capacity as indicated in Appendix B

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8.3. It can be seen from Table 3 that the forecast traffic increases to the surrounding road network are well below 10% of the affected road capacity and therefore, under WAPC guidelines, no material traffic impact is deemed to apply.

8.4. In regard to Lapage Street, if the residential amenity threshold of 3,000vpd is applied, the increase equates to 7.8% and thus is still below the WAPC's 10% threshold.

8.5. The assessment is based on all traffic being new to the local road network. However there is a high probability that a significant level of traffic will already be in the local area parking close-by.

8.6. From a daily traffic demand perspective the proposal car park would have no material traffic impact under the WAPC Transport Assessment Guidelines.

Peak Hour Impact

8.7. During the peak periods there will be an increase of traffic using Lapage Street. However, it could be expected that traffic associated with the site will access the new car park and not park on-street and thus provide a minor improvement to access for the angled parking bays on the school side of the street.

8.8. The peak increase is shown for traffic entering the car park with an additional 35 vehicles from each direction. With a current demand of 119 vehicles in the peak hour the increase would retain less than 150 vehicles using Lapage Street during the peak period. Appendix B indicates that Level of Service A will prevail.

8.9. An increase of 35 vehicles on Great Eastern Highway would equate to significantly less than 1% of the current capacity and would be deemed to have no material traffic impact.

8.10. Assessment of the changes to local traffic movements shows there will be no material traffic impact as a result of the proposed development.

9. VEHICLE ACCESS

9.1. Access to the proposed car park will be taken at approximately the same location as the existing southern access from Lapage Street. The access will be relocated slightly north to allow better car park

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access. As a result the separation of access to the adjacent aged care facility is increased and is considered beneficial.

9.2. The existing northern access, which is adjacent to the angled school parking will be reduced in use and provided with bollards. The northern access will cease to provide car access but continue to provide access for the vintage St John ambulance used for community events.

9.3. Visibility in accordance with Australian Standard 2890.1 is achieved at all access points.

10. TRAFFIC MANAGEMENT OF FRONTAGE STREETS

10.1. There is no requirement for traffic management to surrounding streets as a result of the proposed development.

11. PROVISION FOR SERVICE VEHICLES

11.1. Service vehicles will collect waste from the site from the bin store located adjacent to the car parking structure. Refuse vehicles will reverse in from Lapage Street and exit the site in forward gear. It is understood that these servicing arrangements have been discussed with the City of Belmont and are considered acceptable.

11.2. Access will be taken from the northern access to Lapage Street as currently undertaken.

12. HOURS OF OPERATION

12.1. The car park proposal will not impact the current operating hours of the subject land.

13. PUBLIC TRANSPORT ACCESS

13.1. The subject site is located within 100 metres of the Great Eastern Highway with multiple bus services with high frequency services to Perth CBD. However, the proposed development will not attract customers to or from public transport.

13.2. Very good public transport is accessible within a short walking distance of the subject site.

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14. PEDESTRIAN ACCESS

14.1. All surrounding streets have footpaths to current local government requirements. A good walking environment is currently provided and is not affected by the proposed development.

15. CYCLE ACCESS

15.1. The local area provides acceptable cycling facilities with cycle routes provided along Great Eastern Highway. Cycling on Lapage Street would not be expected to raise safety concerns.

15.2. The proposed development is not expected to increase staffing levels and current cycle facilities are considered adequate.

16. SITE SPECIFIC ISSUES

16.1. The proposed development is located within a commercial area adjacent to Great Eastern Highway. On street parking in the immediate vicinity is known to occur, although during the site visit bays were available. However, it is preferable to retain development parking on site and provide easy access for visitors and out of hours operational staff with an allocated place to park.

17. SAFETY ISSUES

17.1. The traffic assessment has not identified any road safety issues as a result of the proposed development. A school 40kph zone covers Lapage Street and thus a slow speed environment exists during the peak period of traffic movements. The amalgamation of site parking to a dedicated facility may reduce any current conflict between on-street parking and the angled parking bays provided for the adjacent school.

17.2. The proposal does not raise any concerns in regard to local road safety. Indeed a slightly safer environment may be created.

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APPENDIX A Traffic Data

Time	North		South	
8am	SDD1DS1S1S1D	12	11111S11DDD1DD1DS1D	19
8:15	SSDDD1SDSD1DS	13	SDDSS1SSSS1SDDSSSSS1D	21
8:30	SDDSSSSSSSDSSDSSDS	18	1DSSS1S1DS1	11
8:45	DSSSSSSS	8	SS1SSSSSS1SS11DSD	17
		51		68

S=School North = 29 South = 31

D=Development North = 16 South = 16

1=through movement North = 6 South = 20

Development Out to north = 2 Out to south = 4

School Out to north = 6 Out to south = 43

Count recorded on Wed 29 May 2024

Based on peak equating to 10% of daily flow, Lapage Street is calculated to carry about (51+68=119) 1,190 vehicles per day.

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APPENDIX B CAPACITY BASED ON DAILY LEVELS OF SERVICE

LOS	Single Carriageway	2-Lane Boulevard	Dual Carriageway (4-Lanes)	Dual Carriageway (4-lane Clearway)
A	2,400vpd	2,600vpd	24,000vpd	27,000vpd
B	4,800vpd	5,300vpd	28,000vpd	31,500vpd
C	7,900vpd	8,700vpd	32,000vpd	36,000vpd
D	**13,500vpd**	**15,000vpd**	**36,000vpd**	**40,500vpd**
E	22,900vpd	25,200vpd[4]	40,000vpd	45,000vpd
F	>22,900vpd	>25,200vpd[4]	>40,000vpd	>45,000vpd

Levels of Service and Capacity are based on Austroads

The actual capacity of any road is greater than shown in the above table. However, a Level of Service D is used as the capacity to provide acceptable operating conditions. Traffic flow thresholds set out by *Liveable Neighbourhoods* are used when considering the impacts to residential streets (amenity threshold).

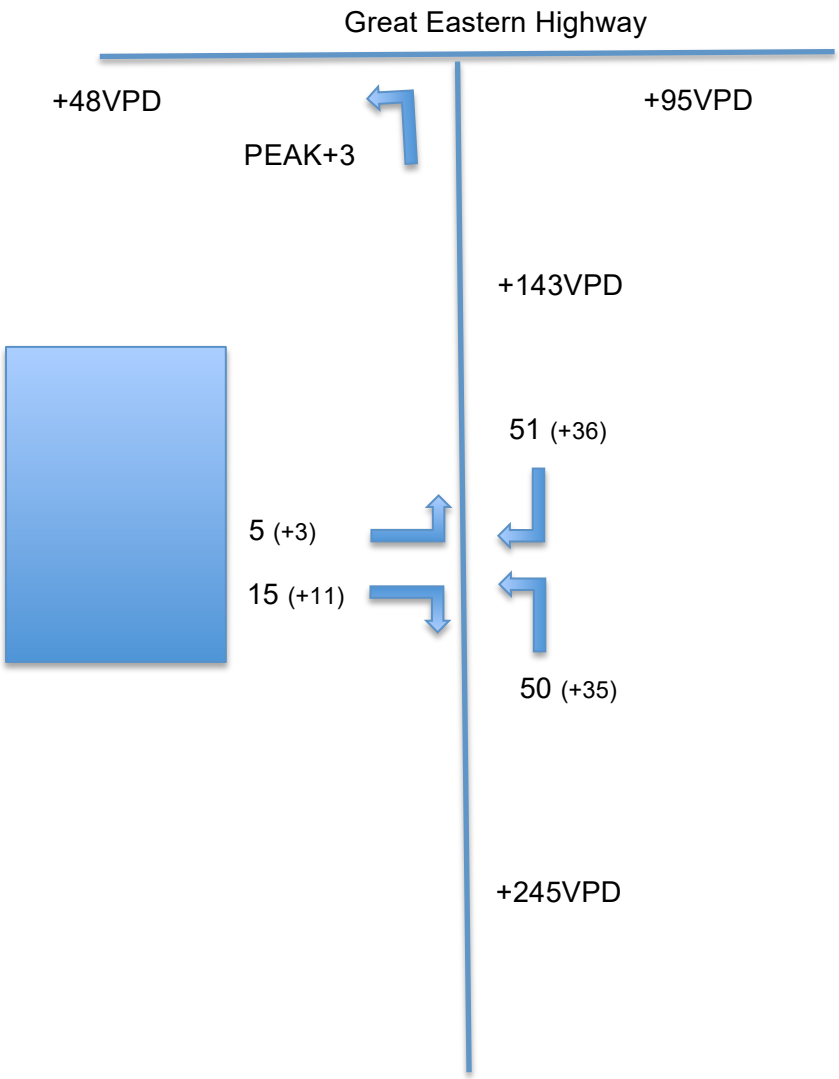
Austroads Peak Flow by road type by Direction

Road Type	**Upper limits of traffic volumes per lane for level of service**				
	A	**B**	**C**	**D**	**E**
2-lane undivided road	510	595	680	765	850
2-lane divided road	570	665	760	855	950
4-lane undivided road	1,050	1,225	1,400	1,575	1,750
4-lane divided road	1,320	1,540	1,760	1,980	2,200
6-lane divided road	1,980	2,310	2,640	2,970	3,300
4-lane expressway	1,560	1,820	2,080	2,340	2,600
4-lane freeway	1,200	2,000	2,800	3,600	4,000
6-lane freeway	1,800	3,000	4,200	5,400	6,000

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Application No: 285/2024

APPENDIX C FORECAST TRAFFIC MOVEMENTS

AM Peak and Daily



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PART C – CITY OF SOUTH PERTH

1. Declarations of Due Consideration

2. Disclosure of Interests

3. Form 1 DAP Applications

3.1 No. 64 (Lot 109) Gillon Street, Karawara – Proposed Child Care Premises – DAP/24/02730

4. Form 2 DAP Applications

Nil.

5. Section 31 SAT Reconsiderations

Nil.

Item 3.1- Part C NO. 64 (LOT 109) GILLON STREET, KARAWARA - PROPOSED CHILD CARE PREMISES

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Inner Development Assessment Panel	
Local Government Area:	City of South Perth	
Applicant:	Rowe Group	
Owner:	Monster Investments Pty Ltd & Mr Marcus Wee	
Value of Development:	$2.1 million ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)	
Responsible Authority:	City of South Perth	
Authorising Officer:	Fiona Mullen, Manager Development Services Scott van Ierland, Senior Urban Planner	
LG Reference:	PDDA-2024/3678	
DAP File No:	DAP/24/02730	
Application Received Date:	9 July 2024	
Report Due Date:	25 September 2024	
Application Statutory Process Timeframe:	90 Days	
Attachment(s):	1. Aerial Image and Zoning Map 2. Design Review Panel Minutes 3. Traffic Impact Statement 4. Waste Management Plan 5. Acoustic Report 6. Environmentally Sustainable Design Report 7. Development Plans	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	☒ Yes ☐ N/A	Complete Responsible Authority Recommendation section
	☐ No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

That the Metro Inner Development Assessment Panel resolves to:

Approve DAP Application reference DAP/24/02730 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of City of South Perth Town Local Planning Scheme No. 7, for the proposed Child Care Premises Lot 109 (No.64) Gillion Street, Karawara subject to the following conditions:

<u>General Conditions</u>

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 development approval only and is valid for a period of four (4) years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.

3. The development shall be in accordance with the approved plans save that, in the event of any inconsistency between the approved plans and a requirement of the conditions set out below, the requirement of the conditions shall prevail.

Public Art

4. Prior to or in conjunction with the submission of a building permit application, the applicant/owner is to comply with the City of South Perth Local Planning Policy - Developer Contributions for Public Art and Public Art Spaces through the contribution of a sum of 1% of the estimated cost of the development towards public art, being either:

    (i) Payment to the City of South Perth the value of 1.0% of the construction value (with the contribution capped at $500,000); or
    (ii) The provision of public art on site to the minimum value of 1.0% of the construction value to the satisfaction of the City of South Perth. The approved public art concept shall be implemented prior to occupation of the development and maintained for the lifetime of the development to the satisfaction of the City of South Perth.

Child Care Operational Conditions

5. A maximum of nine (9) employees are permitted to operate from the premises at any one time.

6. The number of children on-site at any one time shall not exceed fifty-four (54).

7. The opening hours of the Child Care Premises is limited to Monday to Friday - 7:00am to 6:00pm.

8. Outdoor play shall not be permitted before 7:30am and after 5:00pm.

9. With the exception of waste vehicles, service and/or delivery vehicles shall only service the premises between 7:00am to 6:00pm Monday to Saturday, and/or between 9:00am to 7:00pm Sundays and Public Holidays unless otherwise approved by the City of South Perth.

Construction Management

10. Prior to the submission of a building permit application or the commencement of development, whichever is earlier, a Construction Management Plan must be submitted to, and approved by, the City of South Perth. The Construction Management Plan must address the following issues, where applicable:

    (i) public safety and amenity;

(ii) site plan and security;
(iii) contact details of essential site personnel, construction period and operating hours;
(iv) community information, consultation and complaints management plan;
(v) noise, vibration, air and dust management;
(vi) dilapidation reports of nearby properties;
(vii) traffic, access and parking management;
(viii) waste management and materials re-use;
(ix) earthworks, excavation, land retention/piling methods and associated matters;
(x) stormwater and sediment control;
(xi) street tree management and protection;
(xii) removal of onsite effluent disposal system and stormwater management system; and
(xiii) asbestos removal.

The approved Construction Management Plan must be complied with at all times during development, to the satisfaction of the City of South Perth.

Waste and Stormwater Management

11. Waste management shall occur in accordance with the Waste Management Plan prepared by Talis Consultants dated 16 September 2024 and shall be implemented and adhered to at all times, to the satisfaction of the City of South Perth.

12. Prior to the submission of a building permit application, the applicant must be in receipt of an approved Stormwater Drainage Application that confirms the design is to the satisfaction of the City of South Perth.

Landscaping

13. Prior to the submission of an occupancy permit application, the landscaping areas shall be installed in accordance with the approved landscape plans prepared by Kelsie Davies Landscape Architecture dated 17 September 2024. All landscaping areas shall be maintained thereafter to the satisfaction of the City of South Perth.

Parking and Traffic

14. Prior to the submission of an occupancy permit application, all car parking bays shall be marked on-site as staff bays, visitor bays, time limited bays (if proposed), vehicle manoeuvring bays and ACROD bays as indicated on the approved plans and maintained thereafter to the satisfaction of the City of South Perth.

15. Hard standing areas approved for the purpose of car parking or vehicle access shall be accessible at all times, maintained in good condition, free of potholes and dust and shall be adequately paved and drained, to the satisfaction of the City of South Perth.

16. Prior to the submission of an occupancy permit application, the applicant shall supply certification confirming the constructed design of all car parks, vehicle access-ways and bicycle bays are compliant with Australian Standards AS2890.1:2004 – Parking facilities: Off street car parking and AS2890.3:2015 –

Bicycle Parking Facilities Requirements and the approved plans, to the satisfaction of the City of South Perth.

Crossover and Verge

17. Prior to or in conjunction with the submission of a building permit application, the applicant must be in receipt of an approved 'Crossings Application' that confirms the design is to the satisfaction of the City of South Perth.

18. Prior to the submission of an occupancy permit application, all redundant crossovers shall be removed, and the verge and kerbing reinstated to the satisfaction of the City of South Perth.

19. The street trees in the verges adjacent to the development site are required to be retained and protected by a tree protection zone (TPZ) to Australian Standard AS4970-2009 for the duration of the demolition and construction works.

Building Design

20. Prior to or in conjunction with the submission of a building permit application amended plans are to be submitted incorporating a continuous soffit to the car park under-croft area to conceal all soffit services including those descending from wet areas above to the satisfaction of the City of South Perth.

Sustainability

21. Prior to occupancy of the development, certification that the sustainability initiatives outlined on the development plans and within the Environmentally Sustainable Design (ESD) Report have been incorporated in the development shall be provided to and approved in writing by the City of South Perth.

External Fixtures

22. External fixtures shall be integrated into the design of the building so as to not be visually obtrusive when viewed from the street and to protect the visual amenity of residents in neighbouring properties, to the satisfaction of the City of South Perth.

Safety and Lighting

23. Prior to or in conjunction with the submission of a building permit application, a Lighting Plan detailing the proposed lighting to pathways, external play areas and car parking areas shall be submitted to and approved by, the City of South Perth. All illumination must be confined to within the boundaries of the subject site in accordance with the requirements of Australian Standard AS4282-1997 - Control of the obtrusive effects of outdoor lighting, at all times, for the lifetime of the development.

24. Prior to the submission of an occupancy permit application, the approved lighting shall be installed and maintained thereafter, to the satisfaction of the City of South Perth.

Noise Management

25. Prior to the submission of an occupancy permit application, the recommendations of the acoustic report prepared by Stantec dated 18 September 2024 shall be implemented to the satisfaction of the City of South Perth.

26. Prior to the submission of a building permit application, a Noise Management Plan shall be submitted to and approved by the City of South Perth, to the specifications and satisfaction of the City of South Perth. The Noise Management Plan is to be implemented for the life of the development, to the satisfaction of the City of South Perth.

27. Prior to the submission of an occupancy permit application, written certification shall be submitted to and approved in writing by the City of South Perth, demonstrating that all noise attenuation measures, identified in the approved Acoustic Report and Noise Management Plan have been implemented or installed. Such noise attenuation measure shall remain in place in perpetuity.

Signage

28. The signage shall not be illuminated, contain any flashing or moving light, audio, animation or movement in its design or structure; reflective, retro-reflective or fluorescent materials in its design structure to the satisfaction of the City of South Perth.

Advice Notes

1. If an applicant or owner is aggrieved by this determination, there is a right of review by the State Administration Tribunal in accordance with the *Planning and Development Act 2005* Part 14. An application must be made within 28 days of the determination.

2. This is a notice of determination on application for development approval issued in accordance with the *Planning and Development Act 2005*, the *Planning and Development (Local Planning Schemes) Regulations 2015*, the City of South Perth Local Planning Scheme No. 7, and related policies. It is not a building permit or an approval to carry out development under any other law. It is the responsibility of the applicant/owner to obtain any other necessary approvals, consents and licences required under any other law, and to commence and carry out development in accordance with all relevant laws.

3. Where an approval has so lapsed, no development must be carried out without the further approval of the local government having first been sought and obtained.

4. The applicant is advised to liaise with the adjoining landowner(s) regarding the possible retention or replacement of the existing dividing fence along the common lot boundary. Please refer to the *Dividing Fences Act 1961* for the rights and responsibilities of landowners regarding dividing fences.

5. The applicant is advised separate approval is required to be obtained from the local government prior to the commencement of any works within the verge. Landscaping proposed within the verge is to be installed in accordance with the approved landscaping plan prior to occupation of the development. Verge

landscaping is to be appropriately reticulated and managed for the life of the development to the satisfaction of the City of South Perth.

6. In respect to the Construction Management Plan, the Dilapidation Report shall be prepared in consultation with the landowner(s) of the following adjoining properties:

   (i) Lot 108 (No. 62) Gillon Street, Karawara
   (ii) Lot 800 (No. 4) Walanna Drive, Karawara

   The Dilapidation Report shall detail the current condition and status of all buildings (both internal and external together with surrounding paved areas and access ways), including ancillary structures.

   In the event that access to undertake the dilapidation report is denied by an adjoining owner, the applicant must demonstrate in writing to the satisfaction of the City of South Perth that all reasonable steps have been taken to obtain access and that the affected property owner has been advised of the reason for the Dilapidation Report.

7. The Australian Standards specify the following measures are required to protect trees:

   (i) A minimum 2.0m radius tree protection zone (TPZ) shall be provided through 1.8m high fencing around the verge trees (chain mesh panels or other suitable material) during construction of the subject development.
   (ii) The above fencing is not to be moved or removed at any period during construction, and this zone is not to be entered for any reason; signage notifying people of the TPZ and the associated requirements is to be placed on each side of the fencing.
   (iii) All activities and works related to construction of the subject development, including parking of vehicles, storage of materials, and washing of concreting tools and equipment is prohibited within the designated TPZ unless prior approval is sought from the City of South Perth.
   (iv) Any roots identified to be pruned shall be pruned with a final cut to undamaged wood outside of the TPZ. Pruning cuts shall be made with sharp tools such as secateurs, pruners, handsaws or chainsaws. Pruning wounds shall not be treated with dressings or paints. It is not acceptable for roots to be 'pruned' with machinery such as backhoes or excavators.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	City of South Perth Local Planning Scheme No. 7
Local Planning Scheme - Zone/Reserve	Residential (R20)
Structure Plan/Precinct Plan	Nil

Use Class and permissibility:	Child Care Premises ('D' Discretionary Use)
Lot Size:	934m^2
Existing Land Use:	Residential – Single House
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 seeks development approval for a two-storey Child Care Premises at No. 64 Gillon Street, Karawarra. The Child Care Premises will accommodate up to 54 children and nine staff and operate between 7:00am to 6:00pm Monday to Friday. Pedestrian and vehicle access is proposed to be obtained from Walanna Drive to the south of the subject site.

Proposed Land Use	Child Care Premises
Proposed Net Lettable Area	N/A
Proposed No. Storeys	Two (2)
Proposed No. Dwellings	Nil

Background:

Application History

A development application for a Child Care Premises has been previously approved by the Metro Inner South Joint Development Assessment Panel in September 2023.

Site Context

The subject site is 934m² in area and zoned Residential with a density coding of R20. The subject site is a corner lot, with direct frontages to Gillon Street to the west and Walanna Drive to the south.

The site is currently occupied by a single-storey residential dwelling which is proposed to be demolished to accommodate the development. The site abuts three residential lots occupied by both single and two storey single houses to the north and east of the subject site. The adjoining lots are zoned Residential R20.

To the west of the subject site is land zoned Parks and Recreation (Lake Gillon and Goss Avenue Reserve), with Manning Road located further south connecting to Gillon Street.

The Aerial Image and Zoning Map provided at **Attachment 1,** provides a visual context of the site location and its surrounds.

Legislation and Policy:

Legislation

Planning and Development Act 2005
Planning and Development (Local Planning Schemes) Regulations 2015
Planning and Development (Development Assessment Panels) Regulations 2011
Metropolitan Region Scheme (MRS)
City of South Perth Local Planning Scheme No. 7 (LPS7)
Residential Design Codes - Volume 1 (R-Codes)

State Government Policies

State Planning Policy 5.4 - Road and Rail Noise (SPP5.4)
State Planning Policy 7.0 – Design of the Built Environment
Department of Planning, Lands and Heritage Draft Position Statement: Child Care Premises (November 2022)

Structure Plans/Activity Centre Plans

Nil

Local Policies

Local Planning Policy - Child Care Premises
Local Planning Policy– Advertising of Planning Proposals
Local Planning Policy - Design Review Panel
Local Planning Policy - Developer Contributions for Public Art and Public Art Spaces
Local Planning Policy – Non-Residential Parking

Consultation:

Public Consultation

Consultation has been undertaken to the extent and in the manner required by the Deemed Provisions and Local Planning Policy – Advertising of Planning Proposals. A total of 37 letters were sent. No submissions were received during the consultation period.

Referrals/consultation with Government/Service and Agencies

The development application was referred to Water Corporation who raised no objection to the development proposal.

Design Review Panel Advice

The proposal was reviewed by the Design Review Panel (DRP) in June 2024

The minutes of the DRP are contained as **Attachment 2**. In response to the commentary and recommendations made by the DRP the following changes were made to the development:

- An ESD consultant has been engaged to address sustainability initiates for the development.
- Photo Voltaic Cells (5Kw system) and water efficient appliances have been nominated as sustainability initiatives.
- The bin store has been moved 3.0m off the northern lot boundary.

The development is considered to have appropriately responded to the comments and recommendations raised by the DRP and has received the Panel's support.

Planning Assessment:

The primary street frontage is designated as Gillon Street which has been nominated as such due to the numbering and street address of the lots and to promote a consistent streetscape established pre-development. The development does not address the primary street frontage with pedestrian or vehicle access. Pedestrian and vehicle access is proposed from the secondary street, Walanna Drive. The street interface provided by the primary street elevation consists of a 1.8m high fence, consistent with the pre-development state of the subject site.

Vehicle access is proposed to be obtained from the secondary street (Walanna Drive) via a double width driveway and crossover. The site is aligned east-west being regular in shape, having minimal topographic variation.

The proposal has been assessed against all relevant legislative requirements of the Scheme, State and Local Planning Policies. The following aspects of the development proposal do not meet the provisions of relevant Policies and LPS7 and therefore require the application of discretion:

- Land Use (Discretionary ('D')
- Local Planning Policy – Child Care Premises

These matters are outlined and discussed in further detail below.

Traffic and Parking

The submitted Traffic Impact Statement (TIS) at **Attachment 3** indicates the proposed development is predicted to have a total trip generation of 43 vehicles in the peak morning period (8:00am to 9:00am) and 44 vehicles in the peak afternoon period (3:00pm to 4:00pm). The development is expected to result in 221 vehicle movements per day, which can be accommodated by the existing road network, with both roads abutting the subject site being Local Distributor roads. The adjoining road network has a projected capacity of 3,000 vehicles per day in accordance with Liveable Neighbourhoods, Neighbourhood Connector Road characteristics. The vehicle movements created by the development are within the carrying capacity of the existing road network.

According to the Western Australian Planning Commission Transport Impact Assessment Guidelines, an increase of between 10 to 100 peak hour vehicle trips is considered to have a low to moderate impact on the road network and is generally deemed acceptable.

The TIS identified potential conflict points at the Intersections of Gillon Street – Walanna Drive and Gillon Street – Manning Road based on historic crash data. The

intensity of the proposed development and the likely trip generation rates have been reviewed in the context of the historic crash data and the TIS includes the following statement:

"It is very unlikely that this development would have any material impact on road safety in the area due to the low number of trips expected to be generated by this development."

Overall, the development is not considered to have a substantial impact on the surrounding road network and adjoining residential amenity.

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

Waste Management

The development proposes private collection of waste once weekly from the southern verge abutting the subject site which is supported by the City. The WMP proposes waste collection on Sundays, accordingly, the City has recommended a condition of approval restricting servicing times to between 9:00am and 7:00pm on Sundays to mitigate amenity impact to neighbouring properties. The City has reviewed the Waste Management Plan (WMP) in **Attachment 4** and have recommended appropriate conditions to ensure ongoing compliance.

Noise

The Acoustic Report at **Attachment 5** has been reviewed by the City and is supported. The City recommends a condition to ensure the recommendations of the Acoustic Report are implemented.

The submitted Acoustic Report does not include recommendations for the day-to-day operation of the centre to reduce and manage noise factors on-site. Operational procedures are generally established once a childcare provider has been nominated and a centre operation plan produced by the business. Accordingly, the City has recommended a condition of approval requiring a Noise Management Plan to ensure operational procedures appropriately manage any noise that arises from the development.

Land Use

The proposed land use of 'Child Care Premises' is a 'D' (Discretionary) land use in the Residential Zone under LPS 7. It is considered that the proposed land use meets the Residential Zone Objectives as:

- The development is of a scale which is compatible with a prevailing single and two storey residential context;
- The development has been reviewed by the City's DRP which support the proposal, stating the development addresses good design principles for a Child Care Premises;
- The proposed land use is complimentary to a residential context, providing child care facilities for the surrounding commercial and residential area; and
- The site is within close proximity of Curtin University and adjoining Neighbourhood Centre to the east, which contain complimentary land uses for the proposed Child Care Premises.

Western Australian Planning Commission – Draft Position Statement Child Care Premises

The Western Australian Planning Commission's Draft Position Statement: Child Care Premises provide guidance for the matters to be considered with proposed Child Care facilities. It is considered that the proposal addresses the suitable requirements and characteristics of Child Care Premises and does not adversely affect the amenity of adjoining and nearby properties as a result of noise, traffic, parking and pedestrian safety.

Local Planning Policy - Child Care Premises

Policy Provision	Requirement	Proposal
Clause 5.4 – Fencing and landscaping	5.4.1. Front fences shall not exceed a maximum height of 1.8m above natural ground level and be visually permeable above 1.2m to optimise passive surveillance of the street, subject to the need for noise mitigation and onsite security considerations. 5.4.2 Boundary fencing is required to be of masonry construction to the satisfaction of the City.	(a) 1.8m high solid fencing to the primary street. (b) Colorbond fencing proposed to be used for boundary fencing.

Clause 5.4 of Local Planning Policy - Child Care Premises requires primary street fencing to be constructed in accordance with the R-Codes.

Solid primary street fencing is proposed in lieu of fencing which is visually permeable above 1.2m. Accordingly, an assessment against the design principes of the R-Codes is required. The design principles require street fencing to be designed to:

- Permit passive surveillance of the street;
- Enhance the streetscape;
- Provide for traffic attenuation; and
- Provide privacy and noise screening.

Additionally, the development is to address the objectives of the Local Planning Policy Child Care Premises which include:

- Development is to be designed to complement the desired streetscape character; and
- Development is to minimise the impact on the surrounding locality, in particular, to existing residential areas.

The proposed street fencing is considered to meet the design principles and local planning policy objectives and is supported for the following reasons:

- The pre-development state of the subject site includes solid primary and secondary street fencing, constructed of masonry which is proposed to be retained as part of the proposed development. The proposed new street fencing is designed to be complimentary to the retained street fencing, promoting a consistent streetscape interface.
- The development proposes to provide landscaping upgrades of the verge and within the subject site, providing a soft streetscape interface in combination with the proposed street fencing.
- The proposed street fencing has been identified as necessary within the Acoustic Report (**Attachment 5**) submitted to provide noise attenuation for the outdoor play space to adjoining residential lots.
- The development provides passive surveillance of the primary and secondary street through the design of the first floor of the development, containing balconies and major openings which provide surveillance of the adjoining street network.
- The street fencing provides for privacy and security of outdoor play spaces for children which is consistent with the expectations for a Child Care Premises.
- The proposed street fencing is consistent with the prevailing streetscape context of Gillon Street and Walanna Drive which contain examples of solid primary and secondary street fencing along their length.

Planning and Development (Local Planning Schemes) Regulations 2015

In considering an application for development approval, the local government is to have due regard to the matters listed in Clause 67(2) of the Deemed Provisions to the extent that, in the opinion of the local government, those matters are relevant to the development the subject of the application. The proposed development is considered satisfactory in relation to the matters, subject to the recommended conditions.

Conclusion:

The development proposal is consistent with the local planning framework as discussed in the body of the report. The development is of a scale and design which is consistent with the existing development within the locality.

Matters that have the potential to adversely impact the amenity of adjoining residential properties are appropriately addressed through advice contained within specialist reports and via the recommended conditions of development approval.

Accordingly, subject to the inclusion of appropriate conditions, the application is recommended for approval.



City of South Perth	The City of South Perth does not warrant the accuracy of information in this publication and any person using or relying upon such information does so on the basis that The City of South Perth shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.		04/09/2024 1:1000	N

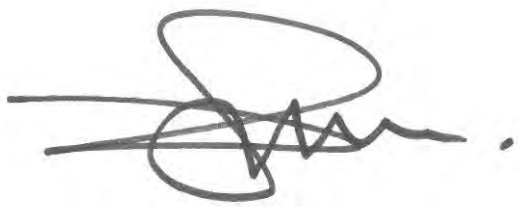


City of South Perth	The City of South Perth does not warrant the accuracy of information in this publication and any person using or relying upon such information does so on the basis that The City of South Perth shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.		04/09/2024 1:500	N

Design Review Report

64 Gillon Street Karawara
Design Review 01

11 June 2024

Design Review Report		
Subject	64 Gillon Street, Karawara – **Design Review 01**	
Date	11 June 2024	
Time	12pm	
Location	City of South Perth	
Design Reviewers	Name Dominic Snellgrove Matthew Dunstan Steven Smyth Oliver Grimaldi	 Chair Panel Member Panel member Panel Member
Proponent	Rowe Group	Nathan Stewart
Project Team		
Planning Authority	City of South Perth	Fiona Mullen Donna Shaw Courtney Wynn Scott Van Ierland
Stakeholders	Monster Investments Pty Ltd	
Declarations	None	
Briefings		
Relevant Authorities Project Team	Scott Van Ierland	
Design Review Report endorsement		
Reviewer's signature	 (Name) Dominic Snellgrove	

Introductory Comments		
Design quality evaluation		
		Supported
		Pending further attention
		Not yet supported
		Yet to be addressed
Strengths of the Proposal		• Comprehensive and instructive presentation • Landscape professional engaged and generous tree canopy • Native species selection • Verge landscape consideration • Permeable paving to the western edge • Successful corner streetscape engagement and built form articulation. • Materiality including white brick, block and timber • Boundary fence mix of permeable and solid, piers and wall arrangement provide a visually diverse presentation to the street • Streetscape and entry legibility • Car park safety including wheel stops and a dedicated foot path • Natural light and ventilation to habitable rooms. • Playful and distinctive architectural expression signally the building's use as a child focused public building • Indicative outdoor play landscape design • Dedicated AC plant enclosure screened from the public and private realm • Outdoor play space located away from adjoining residential. • Incorporation of the ACROD car bay into a raised paved pedestrian focused entry threshold • Fixed upper-level outdoor play shade structure to support shade cloth • 100% electric proposed • Proposed building energy monitoring • Generous setbacks.
Principle 1 **Context and character**		*Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*
		a) The project sits comfortably and appropriately within its immediate context and site. b) The built form success fully addresses the street corner and seeks to minimise the impact of un-sleeved car parking on the public realm c) The built form is arranged with a series of interlocking volumes shapes, and a series of judiciously selected materials that are variously layered and formed to express a visually diverse yet cohesive presentation to the public realm. d) The services have been carefully coordinated along with the introduction of a soffit lining within the undercroft area to ensure the undercroft presents in an attractive way and is not characterised by the appearance of multiple hydraulic services.
Recommendations		**1. None**
Principle 2		*Good design recognises that together landscape and buildings operate as an*

Landscape quality		*integrated and sustainable system, within a broader ecological context.*
		a) The proponent is commended for appointing a landscape professional and producing a detailed concept plan including the outdoor activity/play area and species selection.
Recommendations		**1. The Proponent is encouraged to consider deleting artificial turf where it is proposed on ground over true deep soil.** **2. Optimise soft landscape on structure** **3. Consider waterwise landscape to the verge** **4. Ensure boundary trees have space to thrive**
Principle 3 **Built form and scale**		*Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*
		a) The built form and scale are supported.
Recommendations		**1. None**
Principle 4 **Functionality and build quality**		*Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.*
		a) The proposal is function and well arranged b) Consider the safe integration of the bike lane
Recommendations		**1. Consider a roof to the bin store area.**
Principle 5 **Sustainability**		*Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.*
		a) There does not appear to be an ESD professional appointed. b) This Panel believes it is important to have an ESD professional engaged for the schematic design phase of a project: • to advise on the necessary and demanding design requirements for NCC 2022 and, • to evaluate and demonstrate the ESD commitments associated with a project as opposed to providing a 'shopping list' of possible initiatives
Recommendations		**1. The Proponent is encouraged to engage an ESD professional to assist with providing a wholistic ESD narrative and confirm the extent of commitments proposed.** **2. Consider ESD as an opportunity to engage the children in a learning and experiential process.** **3. Consider rainwater harvesting with 2-5Kl tank and the sizing of the PV array** **4. Consider low carbon timber construction for the top floor.**
Principle 6 **Amenity**		*Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*
		a) The project offers the capacity for high levels of residents and visitor amenity. b) The Proponent is commended for addressing a raft of issues usually associated with childcare center design, including the provision of natural light and ventilation to habitable spaces including cot rooms
Recommendations		**1. Consider an operable roof light in the toddler and baby rooms to facilitate enhanced cross ventilation and natural light.** **2. Consider solar shade to north facing windows.**

Principle 7 **Legibility**		*Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*
		a) The proposal offers high levels of streetscape legibility
Recommendations		**1. None**
Principle 8 **Safety**		*Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*
		a. The built form provides high levels of passive surveillance over the public realm interface. b. Additional safety measures including wheel stops and a dedicated footpath from the car park are commended. c. Consider an 'attractive' sliding gate to the car park to safely secure the area out of hours.
Recommendations		**1. Carefully consider the sight lines at the vehicle access/egress truncation.**
Principle 9 **Community**		*Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*
		a) In a project of this scale the best thing that can be done for the community is to provide an active and engaged streetscape with effective passive surveillance. b) A well-designed childcare centre with high levels of internal amenity is an important piece of community infrastructure.
Recommendations		**1. None**
Principle 10 **Aesthetics**		*Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.*
		a) The Panel are supportive of the aesthetic considerations including built form and materiality. b) The proposal has the capacity to offer an attractive and distinctive presence at the street c) The aesthetic outcome for the project will be contingent on high quality and careful detailing
Recommendations		**1.** Ensure that the detailing is carefully managed along with the selection and application of materials.

Concluding Remarks

- The Panel supports the proposal and commends the Proponent for addressing many of the key design criteria that address good deign principles in a childcare center.
- The Proponent is encouraged to engage more early in the design process with an ESD professional.

Design Review progress

	Supported
	Pending further attention
	Not yet supported
	Yet to be addressed

	DR1	*DR2*	*DR3*
Principle 1 - **Context and character**			
Principle 2 - **Landscape quality**			
Principle 3 - **Built form and scale**			
Principle 4 - **Functionality and build quality**			
Principle 5 - **Sustainability**			
Principle 6 - **Amenity**			
Principle 7 - **Legibility**			
Principle 8 - **Safety**			
Principle 9 - **Community**			
Principle 10 - **Aesthetics**			

Proposed Child Care Centre - 64 Gillon Street, Karawara

Transport Impact Statement

Prepared for: Monster Inv Pty Ltd

Ref: 300305492 | Date: 17 September 2024



Revision

Revision	Date	Comment	Prepared By	Approved By
A	11 November 2022	For Issue	DR	SJL
B	14 November 2022	Minor updates	DR	SJL
C	17 April 2023	Minor updates	BS	SJL
D	24 May 2023	Updated Plans	BS	SJL
E	25 May 2023	Swept Path update	BS	SJL
F	30 June 2023	Updated Plans	BS	SJL
G	10 July 2023	Updated plans	BS	SJL
H	07 May 2024	Updated plans	LL	DH
I	16 May 2024	Minor Update - Reissue	LL	DH
J	15 August 2024	Minor Update - Reissue	RC	DH
K	19 August 2024	Minor Update - Reissue	LL	DH
L	16 September 2024	Updated Plans	LL	DH

For and on behalf of

Stantec Australia Pty Ltd

226 Adelaide Terrace, Perth WA 6000

Acknowledgment of Country

In the spirit of reconciliation, Stantec acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present, and extend that respect to all Aboriginal and Torres Strait Islander peoples.

Limitations

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1. Introduction

1.1 Background

Stantec was commissioned Monster Inv Pty Ltd ("the Client") to prepare a Transport Impact Statement (TIS) for a proposed Childcare Centre at No.64 Gillon Street, Karawara.

This TIS has been prepared in accordance with the *Western Australian Planning Commission (WAPC) Transport Impact Assessment Guidelines for Developments: Volume 4* – Individual Developments (2016) and the checklist is included in Appendix A.

2. Existing Situation

2.1 Site Location and Context

The Site is located at No. 64 Gillon Street, Karawara. **Figure 2-1** shows an aerial image of the Site.

Figure 2-1 Site Location



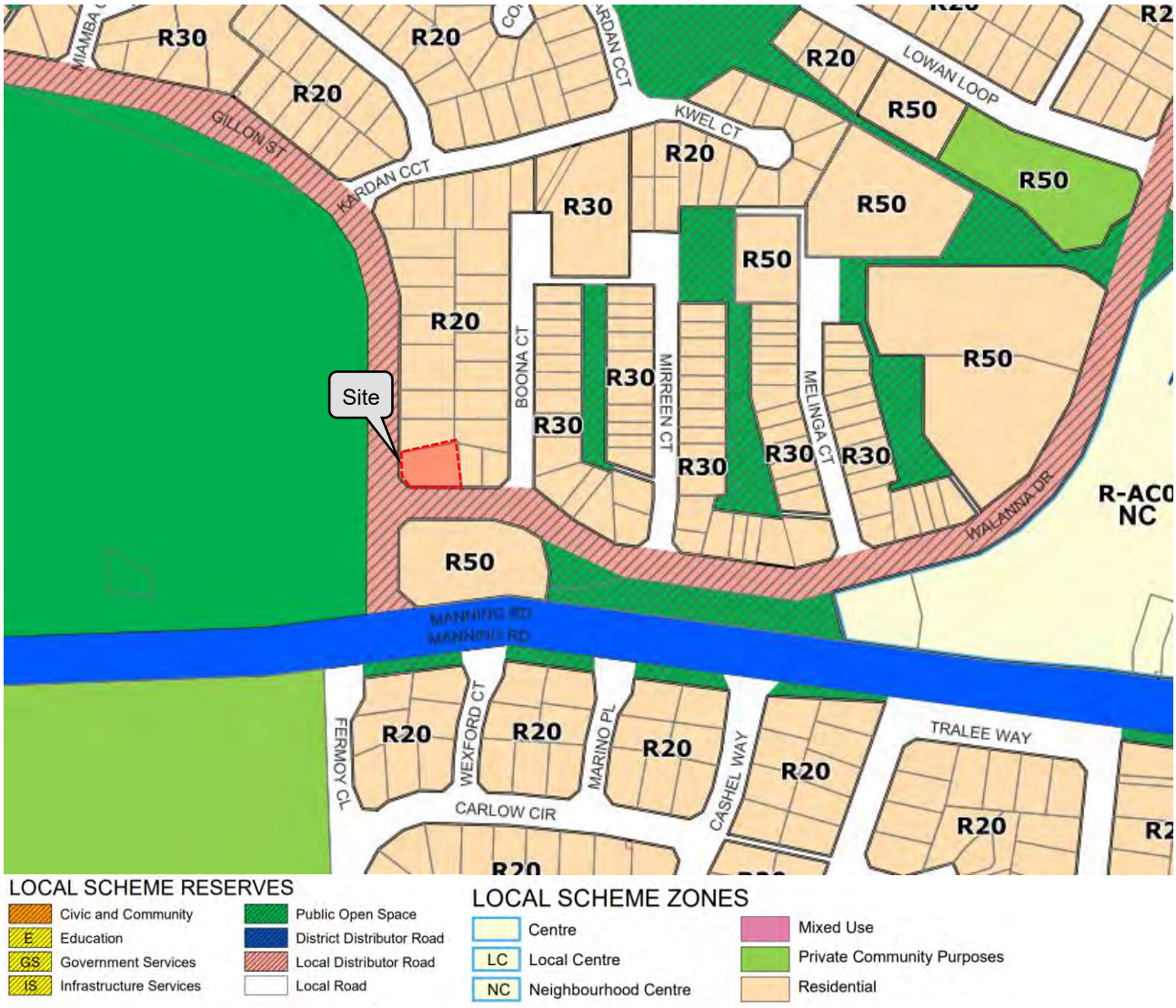
Source: Metromap(2024)

2.2 Zoning

Pursuant to the provision of the *City of South Perth Local Planning Scheme No. 7 (LPS7),* the Site is zoned "Residential" as shown in **Figure 2-2**.

The Site is primarily surrounded by parks and recreation to the north and other residential land uses to the north, east and south.

Figure 2-2 Zoning Map



Source: City of South Perth LPS7

2.3 Existing Road Network

Road Classifications are defined in the Main Roads Functional Hierarchy as follows:

- **Primary Distributors (light blue):** Form the regional and inter-regional grid of Main Roads WA traffic routes and carry large volumes of fast-moving traffic. Some are strategic freight routes, and all are National or State roads. They are managed by Main Roads.
- **Regional Distributors (red):** Roads that are not Primary Distributors, but which link significant destinations and are designed for efficient movement of people and goods within and beyond regional areas. They are managed by Local Government.
- **District Distributor A (green):** These carry traffic between industrial, commercial, and residential areas and connect to Primary Distributors. These are likely to be truck routes and provide only limited access to adjoining property. They are managed by Local Government.
- **District Distributor B (dark blue):** Perform a similar function to District Distributor A but with reduced capacity due to flow restrictions from access to and roadside parking alongside the adjoining property. These are often older roads with traffic demand in excess of what was originally intended. District Distributor A and B roads run between land-use cells and not through them, forming a grid that would ideally be around 1.5 kilometres apart. They are managed by Local Government.
- **Local Distributors (orange):** Carry traffic within a cell and link District Distributors at the boundary to access roads. The route of the Local Distributor discourages through traffic so that the cell formed by the grid of District Distributors only carries traffic belonging to or serving the area. These roads should accommodate buses but discourage trucks. They are managed by Local government.
- **Access Roads (grey):** Provide access to abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function. These roads are bicycle and pedestrian friendly. They are managed by Local government.

The Site is bounded Gillon Street to the west and Walanna Drive to the south. The surrounding road network is further described in **Table 2-1**. **Figure 2-3** shows the road hierarchy as per the Main Roads WA Road Information Mapping System.

Table 2-1 Road Network Classification

Road Name	Road Hierarchy	Jurisdiction	No. of Lanes	No. of Footpaths	Width (m)	Posted Speed (km/h)
Gillon Street	Local Distributor	Local Government	2	1	7m	50 km/h
Walanna Drive	Access Road	Local Government	2	1	10 m (2x 1.5m bicycle lanes)	50 km/h
Manning Road	Distributor A	Local Government	4	1	20m (5m median)	70 km/h

Figure 2-3 Existing Road Network Classification



Source: Main Roads Road Information Mapping System

2.4 Existing Traffic Volumes

Stantec contacted the City of South Perth requesting traffic volumes within close proximity to the Site. However, no volumes were available.

2.5 Crash Assessment

A crash assessment for the surrounding road network of the site has been completed using the Main Roads WA Reporting Centre. The assessment covers all the recorded accidents for the 5-year period between 1 January 2019 to 31 December 2023.

The crashes for the following intersection and midblock sections have been extracted:

- Intersection of Gillon Street / Manning Road
- Intersection of Walanna Drive / Gillon Street
- Intersection of Walanna Drive / Boona Ct

The crash location and severity is illustrated in **Figure 2-4** and the results are summarised in **Table 2-2** and **Table 2-3.**

Table 2-2 Total Crashes

Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Rear End	-	-	-	3	1	4
Right Angle	-	1	1	8	3	13
Right Turn Thru	-	-	1	-	-	1
Sideswipe Same Direction	-	-	-	1	-	1
Non Collision	-	1	-	-	-	1
Hit Object	-	-	-	1	-	1
Total	-	2	2	13	4	21

Table 2-3 Intersection Crashes

Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Gillon St - Manning Rd	-	-	2	11	4	17
Walanna Dr - Gillon St	-	2	-	1	-	3
Walanna Dr - Boona Ct	-	-	-	1	-	1
Total	-	2	2	13	4	21

Figure 2-4 Crash Locations



Source: Maps.co

A summary of the crash data is as follows:

- A total of 21 crashes were recorded in the vicinity of the site.
- There were no fatal accidents recorded.
- 2 out of 21 crashes required hospitalisation; and
- Majority of the crashes recorded resulted in major property damage.

Overall, the number of crashes that occurred within the surrounding area appears to be relatively low. It is very unlikely that this development would have any material impact on road safety in the area due to the low number of trips expected to be generated by this development.

3. Public Transport Facilities

3.1 Existing Public Transport Facilities

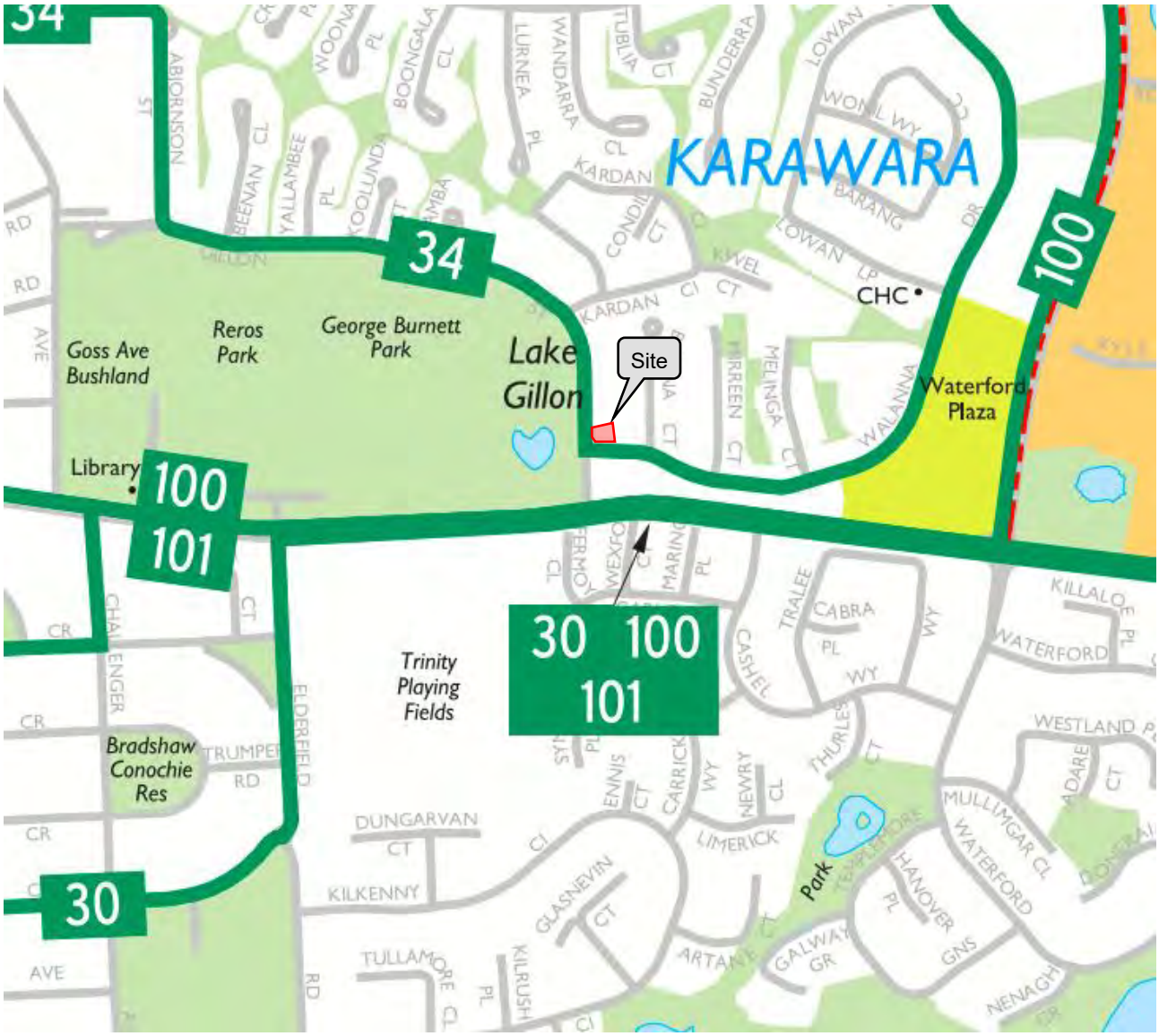
The nearest bus stops to the Site are located at the corner of the Site along Walanna Drive as shown in **Figure 3-1**. Bus route 34 operates from this stop and travels to the Perth Bus Port as shown in **Figure 3-2. Table 3-1** summarises the frequency of the bus service.

Figure 3-1 Nearest Bus Stops



Source: Metromap

Figure 3-2 Existing Bus Routes



Source: Transperth Network Maps (2022)

Table 3-1 Bus Route & Frequency

Bus Route	Route Description	Weekdays	Saturdays	Sundays and Public Holidays
Bus 34	Cannington Station to Perth Bus Port	10-20 minutes	30 minutes	60 minutes

Source: Transperth

3.2 Future Public Transport Facilities

Stantec contacted the Public Transport Authority and understand there are no proposed changes to the network in this area in the short term.

4. Pedestrian/ Cycle Networks Facilities

4.1 Existing Pedestrian/ Cycle Networks

A footpath is provided on Gillon Street and Walanna Drive bounding the Site.

"Good Road Riding Environments" run along Gillon Street, Walanna Drive, Abjornson Avenue and Cashel Way, as shown in **Figure 4-1**. Bicycle lanes are provided along Walanna Drive. The Perth Bicycle Network stretches along Jackson Road, Kent Street and Waterford Avenue.

Overall, the Site is surrounded by good pedestrian/cycle networks that facilitate reasonable walking and cycling access to the Site.

Figure 4-1 Existing Cycling and Pedestrian Network



Source: Department of Transport

4.2 Future Pedestrian/Cycle Network Facilities

Stantec contacted the City of South Perth and understand there are no proposed changes to the network within the short term.

5. Development Proposal

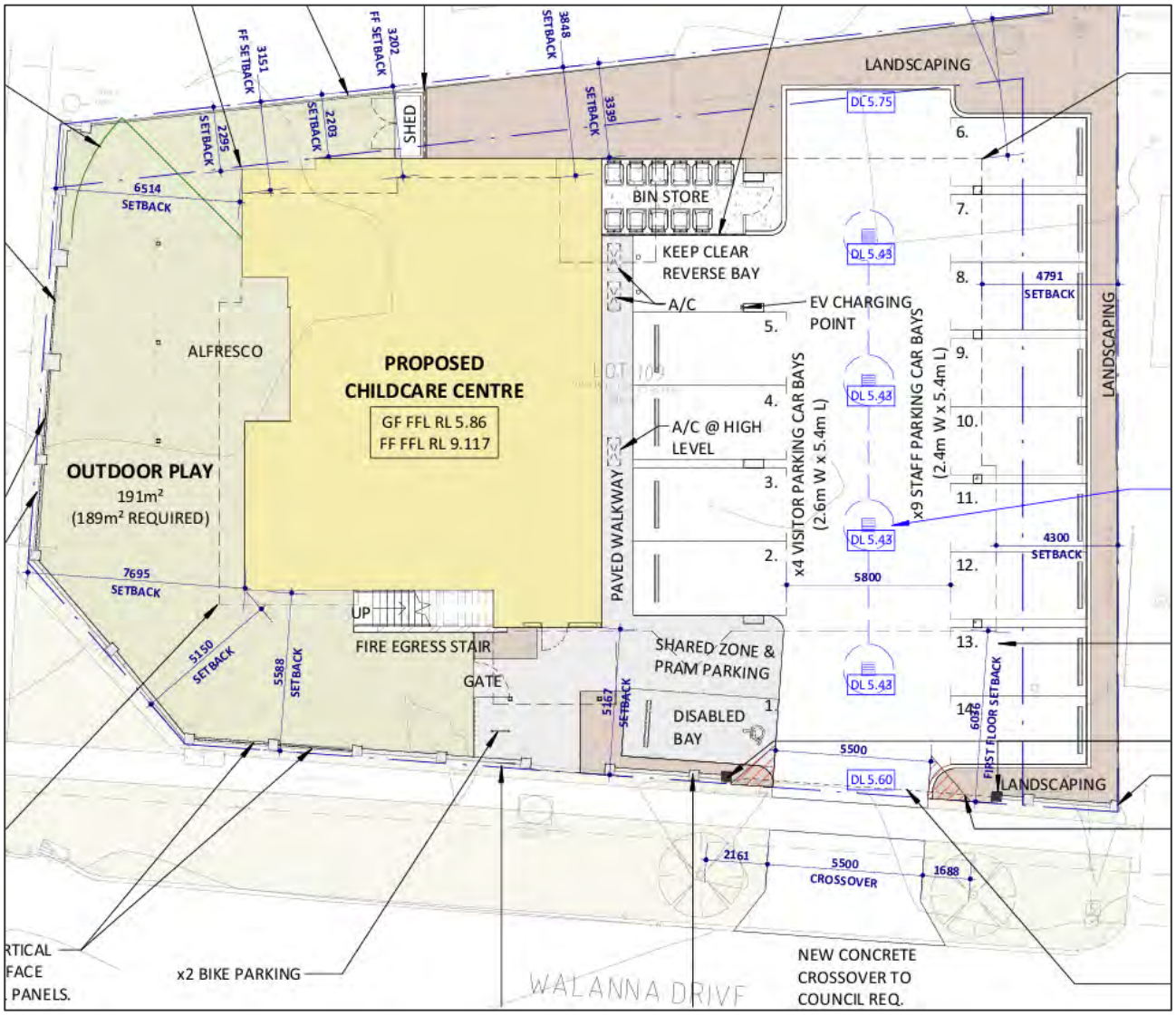
5.1 Proposed Development

The proposal is for a Child Care centre, comprising of the following site-specific design components:

- 54 children;
- 9 staff members; and
- 14 car parking bays (9 staff, 4 visitor & 1 ACROD bay).

The layout of the proposed childcare at the Site is shown below in **Figure 5-1**. Please note, larger versions are included in **Appendix B.**

Figure 5-1 Site Plan



Source: Motivo (2024)

5.2 Access Arrangements

Vehicle access to/from the Site is proposed via a new 5.5m crossover on Walanna Drive.

5.3 Operating Hours

The childcare centre is proposed to operate Monday to Friday between 7:00am and 6:00pm, and the peak hour is anticipated to occur between 8am and 9am in the morning and 3pm and 4pm in the afternoon.

5.4 Traffic Generation

Trip generation rates from the *Institute of Transportation Engineers (ITE) "Trip Generation" 10th Edition* were used to estimate the number of vehicle trips generated by the subject site. The trip generation rate, distribution and development trip generation for the proposed child care centre is summarised in **Table 5-1**, **Table 5-2** and **Table 5-3**.

Table 5-1 Adopted **Trip** Generation Rates

Land Use	ITE Code/Source	AM Peak	PM Peak	Daily
Child Care Centre	ITE 565	0.79 trips per child	0.81 trips per child	4.09 trips per child

Table 5-2 Trip **Distribution** Rates

Land Use	ITE Code/Source	AM Peak		PM Peak		Daily	
		In	**Out**	**In**	**Out**	**In**	**Out**
Child Care Centre	ITE 565	53%	47%	47%	53%	50%	50%

Table 5-3 Estimated **Trip** Generation

Land Use	ITE Code/Source	AM Peak (8am-9am)		PM Peak(3pm-4pm)		Daily	
		In	**Out**	**In**	**Out**	**In**	**Out**
Child Care Centre	ITE 565	23	20	21	23	111	110
Total		**43**		**44**		**221**	

The estimated peak hour trip generation is 43 vehicles in the AM Peak Hour, 44 vehicles in the PM Peak Hour and 221 Daily trips. Based on the numbers above, this low volume of trip generation is anticipated to have no material impact on the surrounding road network.

According to WAPC Transport Impact Assessment Guidelines, developments generating between 10 and 100 trips during the peak hour falls under the 'moderate impact' category and is not considered to have any substantial impact on the surrounding road network.

6. Parking Review

6.1 Parking Requirements

The Statutory parking requirements, in accordance with the *City of South Perth Draft Local Planning Policy – Non-Residential Parking* have been considered in the context of the proposed development and are summarised below in **Table 6-1.**

Table 6-1 Car Parking **Provision** and Requirements

Land Use	Min. Parking Requirements	Yield	Parking Required	Parking Provided	Surplus/ Shortfall
Child Day Care Centre	1 space per 4 children	54 children	14 bays	14 (including 1 ACROD bay)	nil

It is anticipated that the Site will accommodate a maximum of 54 children and 9 staff members.

A total of 14 car parking bays is proposed on the subject Site, 9 of those bays will be allocated for staff only whilst the other 4 bays will be dedicated for visitors/parents to use during drop-off/pick-up times. The remaining one bay is allocated as ACROD bay which will be shared between the staff and visitors as needed. The parking provided satisfies the *City of South Perth Draft LPP – Non-Residential Parking requirements.*

Overall, it is considered that the on-site visitor and staff parking bays are sufficient and are able to cater for any potential parent pick-up/drop-off, with the parking supply sufficient for the predicted peak demand, even when the centre operates at maximum capacity.

6.2 Staff Parking

A total of 9 staff parking bays have been provided and dedicated to staff only.

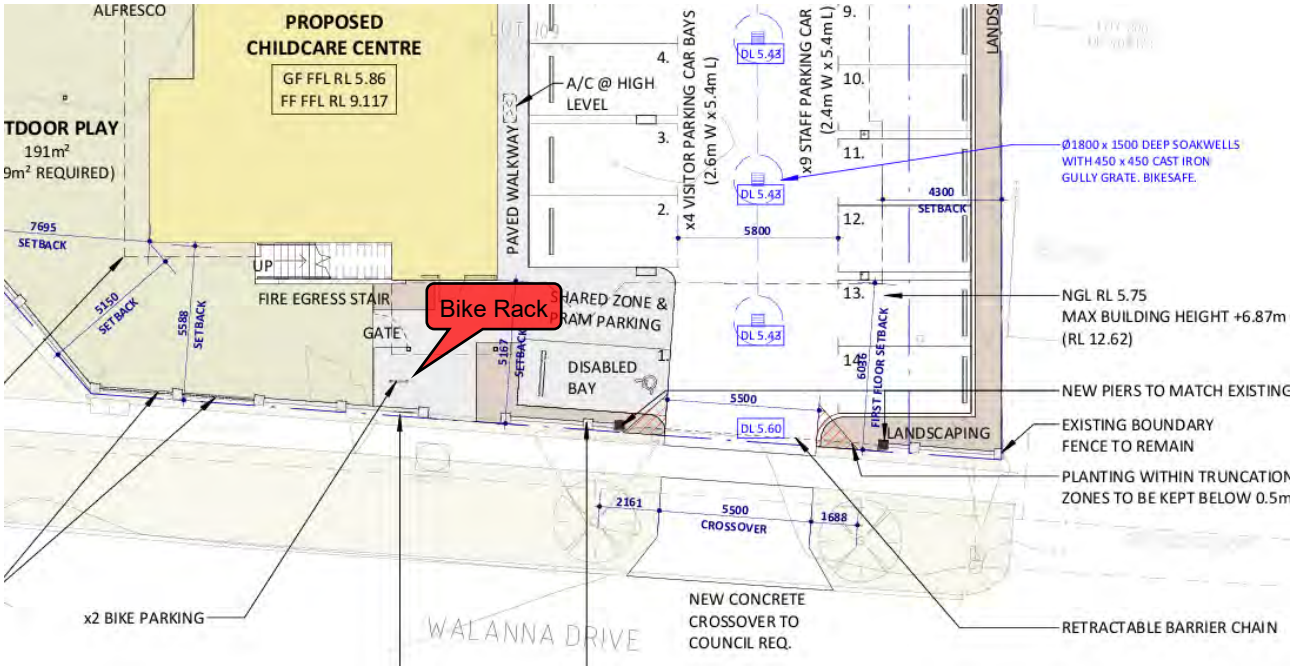
6.3 Parking Compliance with Australian Standards

A review of the proposed car park against AS2890.1:2004 requirements has been undertaken and no non-compliances have been identified.

6.4 Bicycle Parking Requirements

The Bicycle parking requirements as per *City of South Perth Draft Local Planning Policy* specifies 1 space for 10 staff. A total of 2 bicycle parking spaces is proposed for the development which satisfies the requirements. **Figure 6-1** shows the bicycle parking location.

Figure 6-1 Bicycle Parking Location



6.5 Swept Path Analysis

A swept path analysis was undertaken for B85 passenger vehicles for the proposed access points and parking bays of the development. The B85 passenger vehicle is able to adequately access the entry and exit points without any conflicts. The swept path analysis for the proposed car park is shown in **Figure 6-2 to Figure 6-5.**

Figure 6-2 B85 & B99 Swept Path – Access In & Out

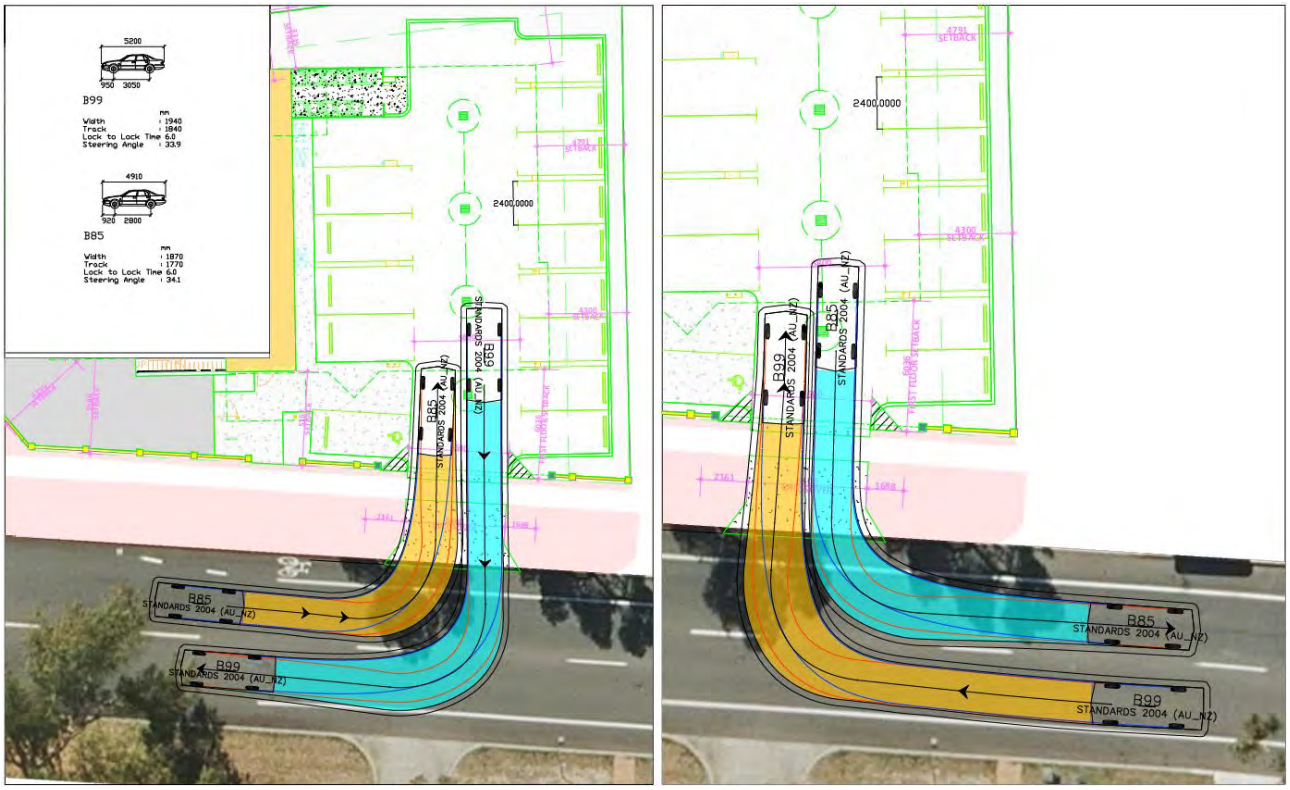


Figure 6-3 B85 Swept Path - Parking In & Out

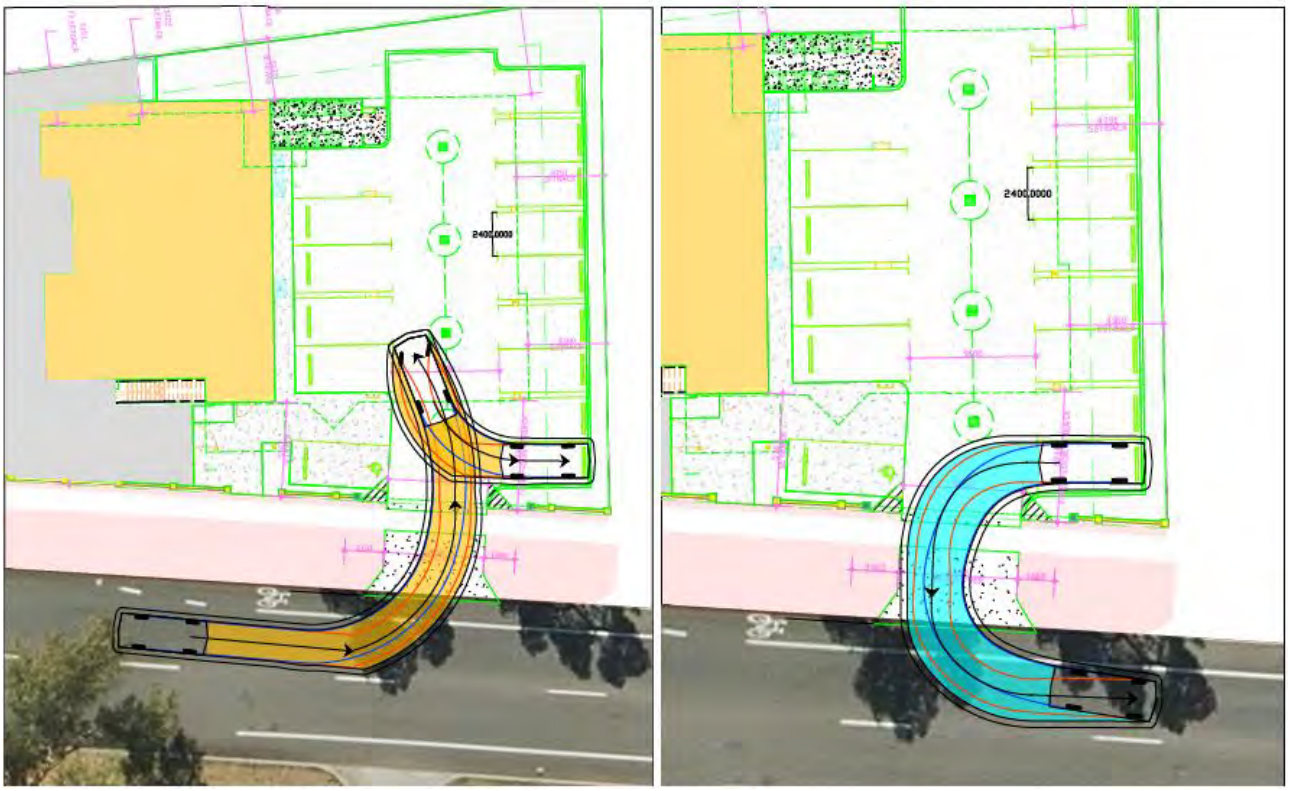


Figure 6-4 B85 Swept Path - Parking In & Out

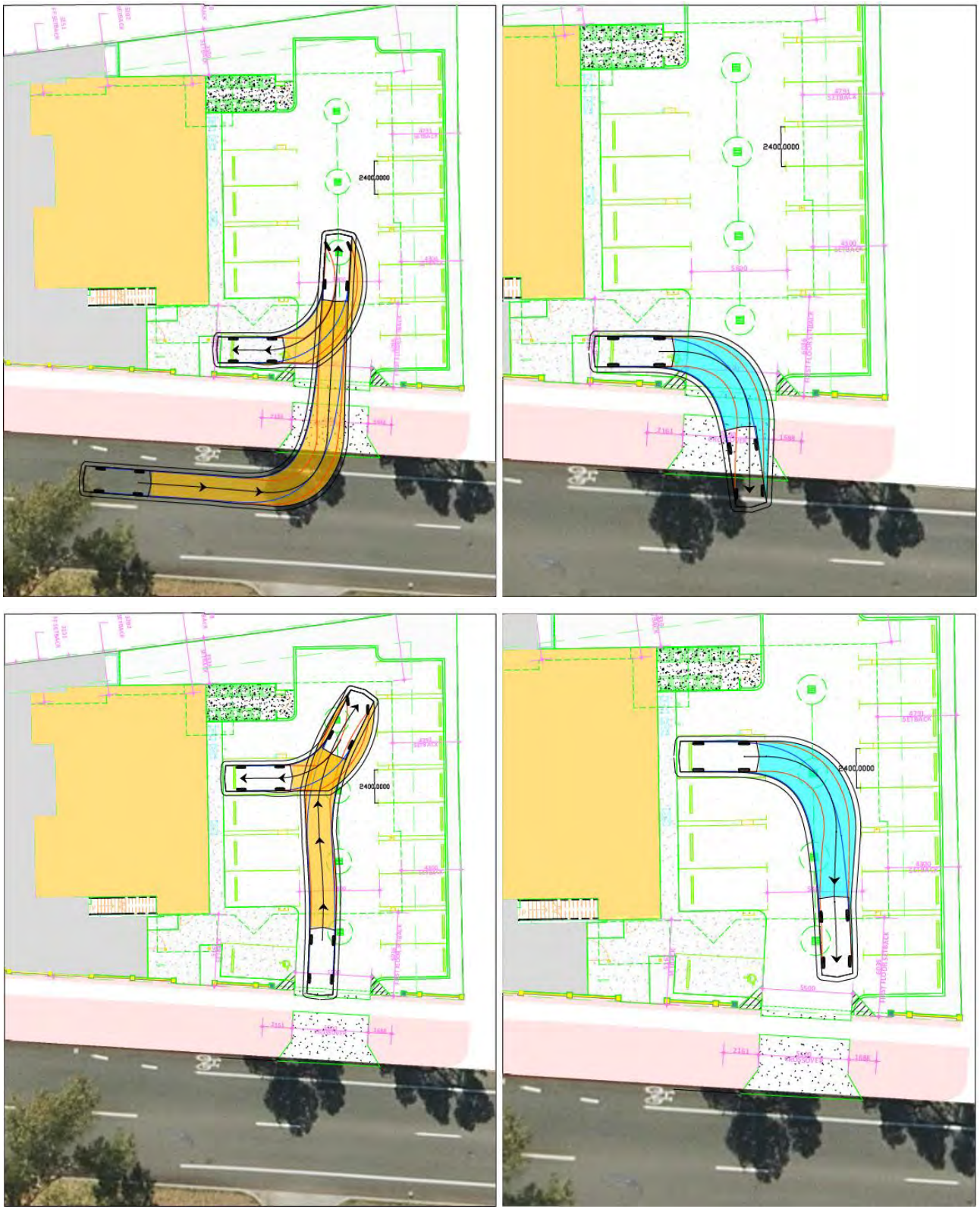


Figure 6-5 B85 Swept Path - **Parking** In & Out Turnaround Bay



7. Summary and Conclusions

This Transport Impact Statement outlines the transport aspects of the proposed development focusing on traffic operations, access, and provision of car parking. Included are discussions regarding pedestrian, cycle, and public transport considerations.

This report has been prepared in accordance with the *WAPC Transport Impact Assessment Guidelines for Developments: Volume 4 – Individual Developments* (2016).

The following conclusions are evident about the proposal:

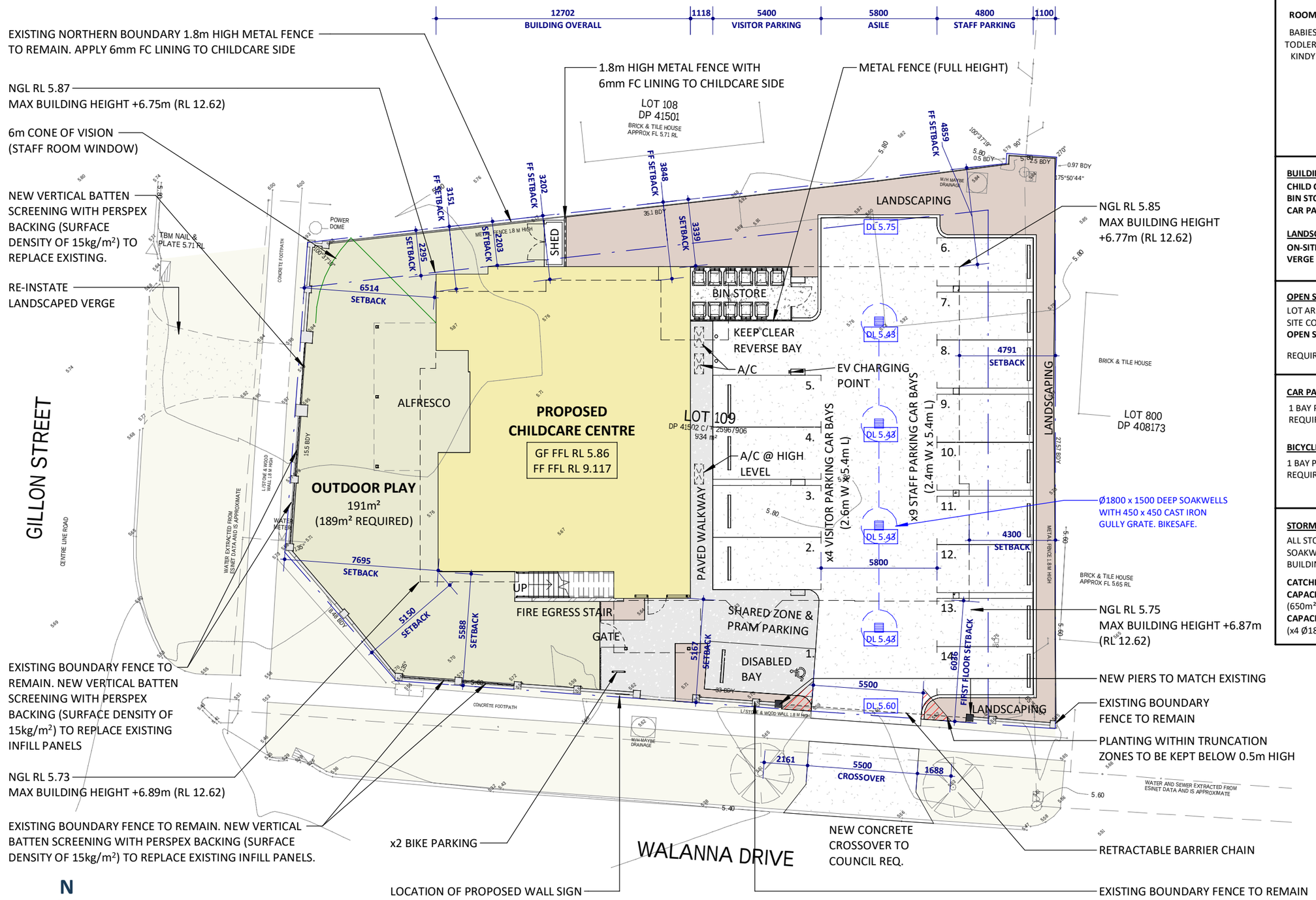
- The proposal is for a Child Care Centre at the subject Site;
- The development is expected to have a total trip generation of approximately 43 vehicles in the AM peak hour, 44 vehicles in the PM peak hour and 221 vehicles daily. This level of traffic generation is anticipated to have no material impact on the surrounding road network;
- The Site is located on the corner along Walanna Drive and is serviced by bus route 34; and
- 14 car parking bays are proposed on-site, comprising of 9 staff parking bays, 1 ACROD bay and 4 drop off/pick up bays.

Overall, the Site is anticipated to have no material impact on the surrounding road network and no material impact on residential amenity.

Appendix A. WAPC CHECKLIST

Item	Status	Comments/Proposals
Proposed development		
proposed land use	Section 5	
existing land uses	Section 2	
context with surrounds	Section 2	
Vehicular access and parking		
access arrangements	Section 5	
public, private, disabled parking set down / pick up	N/A	
Service vehicles (non-residential)		
access arrangements	Section 5	
on/off-site loading facilities	N/A	
Service vehicles (residential)	N/A	
Rubbish collection and emergency vehicle access	N/A	
Hours of operation (non-residential only)	N/A	
Traffic volumes		
daily or peak traffic volumes	Section 2	
type of vehicles (e.g. cars, trucks)	N/A	
Traffic management on frontage streets	N/A	
Public transport access		
nearest bus/train routes	Section 3	
nearest bus stops/train stations	Section 3	
pedestrian/cycle links to bus stops/train station	Section 4	
Pedestrian access/facilities		
existing pedestrian facilities within the development (if any)	Section 4	
proposed pedestrian facilities within development	Section 4	
existing pedestrian facilities on surrounding roads	Section 4	
proposals to improve pedestrian access	Section 4	
Cycle access/facilities		
existing cycle facilities within the development (if any)	Section 4	
proposed cycle facilities within the development	Section 4	
existing cycle facilities on surrounding roads	Section 4	
proposals to improve cycle access	N/A	
Site specific issues	N/A	
Safety issues	N/A	
identify issues	N/A	
remedial measures	N/A	

Appendix B. SITE PLANS



SITE PLAN

SCALE 1 : 200

ROOM CONFIGURATION KARAWARA

ROOM	AGE GROUP	CHILDREN	STAFF	INTERNAL SPACE req.	EXTERNAL SPACE req.
BABIES	0-24 month	12	3 (1:4)	39m²	84m²
TODLERS	2-3 year	15	3 (1:5)	48.75m²	105m²
KINDY	+3 year	27	3 (1:10)	87.75m²	189m²
	TOTAL =	**54**	**9**		

TOTAL INTERNAL SPACE = 182m²
(Min 3.25m² PER CHILD Req) (175.5m² Req)

TOTAL OUTDOOR PLAY = 382m²
(Min 7m² PER CHILD Req) (378m² Req)

BUILDING AREAS

CHILD CARE CENTRE	426m² (GF = 192m² / FF = 234m²)
BIN STORE & A/C	28m²
CAR PARK	358m²

LANDSCAPING

ON-SITE LANDSCAPE	92m² (9.8% of SITE AREA)
VERGE LANDSCAPE	270m²

OPEN SPACE

LOT AREA	= 934m²
SITE COVERAGE	= 463m²
OPEN SPACE	**= 471m² (50.4%)**

REQUIRED OPEN SPACE R20 = 50%

CAR PARKING

1 BAY PER 4 CHILDREN REQUIRED (13.5 CAR BAYS) — **14 CAR BAYS PROVIDED**

BICYCLE PARKING

1 BAY PER 10 STAFF REQUIRED (0.9 BICYCLE BAYS) — **2 BICYCLE BAYS PROVIDED**

STORMWATER MANAGEMENT CONCEPT

ALL STOROMWATER SHALL BE CONTAINED ONSITE.
SOAKWELLS INTERCONNECTED.
BUILDING RAINWATER PIPES CONNECTED TO SOAKWELLS

CATCHMENT AREA = 650m²
CAPACITY REQUIRED = 8.125m³
(650m² x 0.0125)
CAPACITY PROVIDED = 15.28m³
(x4 Ø1800 x 1500d)

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KARAWARA CHILDCARE CENTRE
Project Address
Lot 109, 64 Gillon Street, Karawara

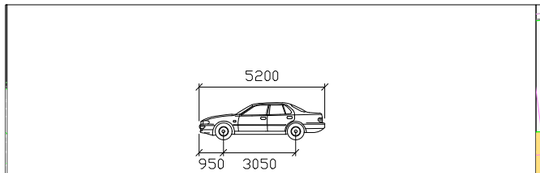
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F	29/08/24	DT	PLANNING APPROVAL
G	05/09/24	DT	PLANNING APPROVAL
H	13/09/24	DT	PLANNING APPROVAL

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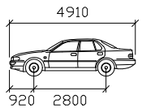
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Appendix C. SWEPT PATHS



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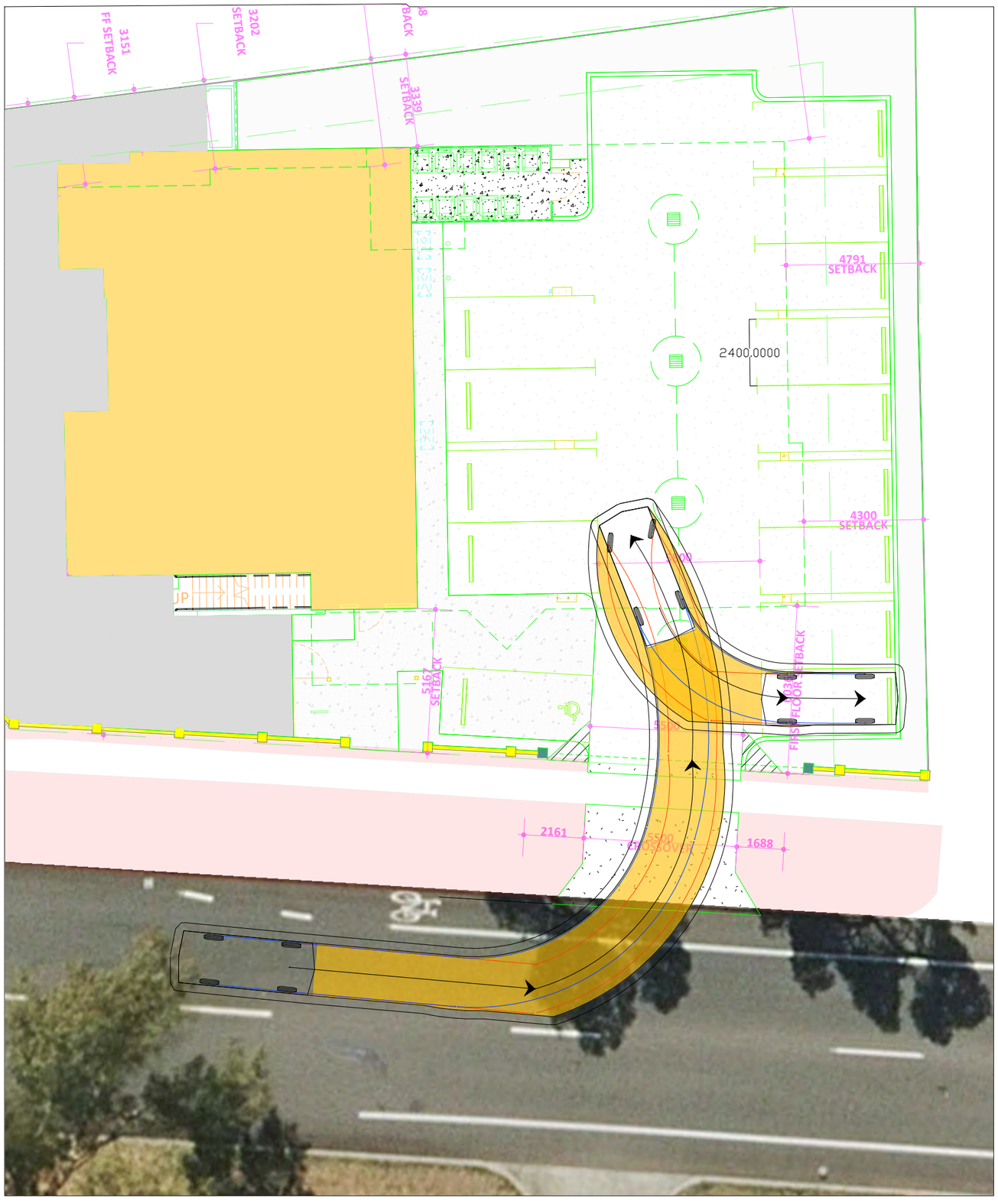
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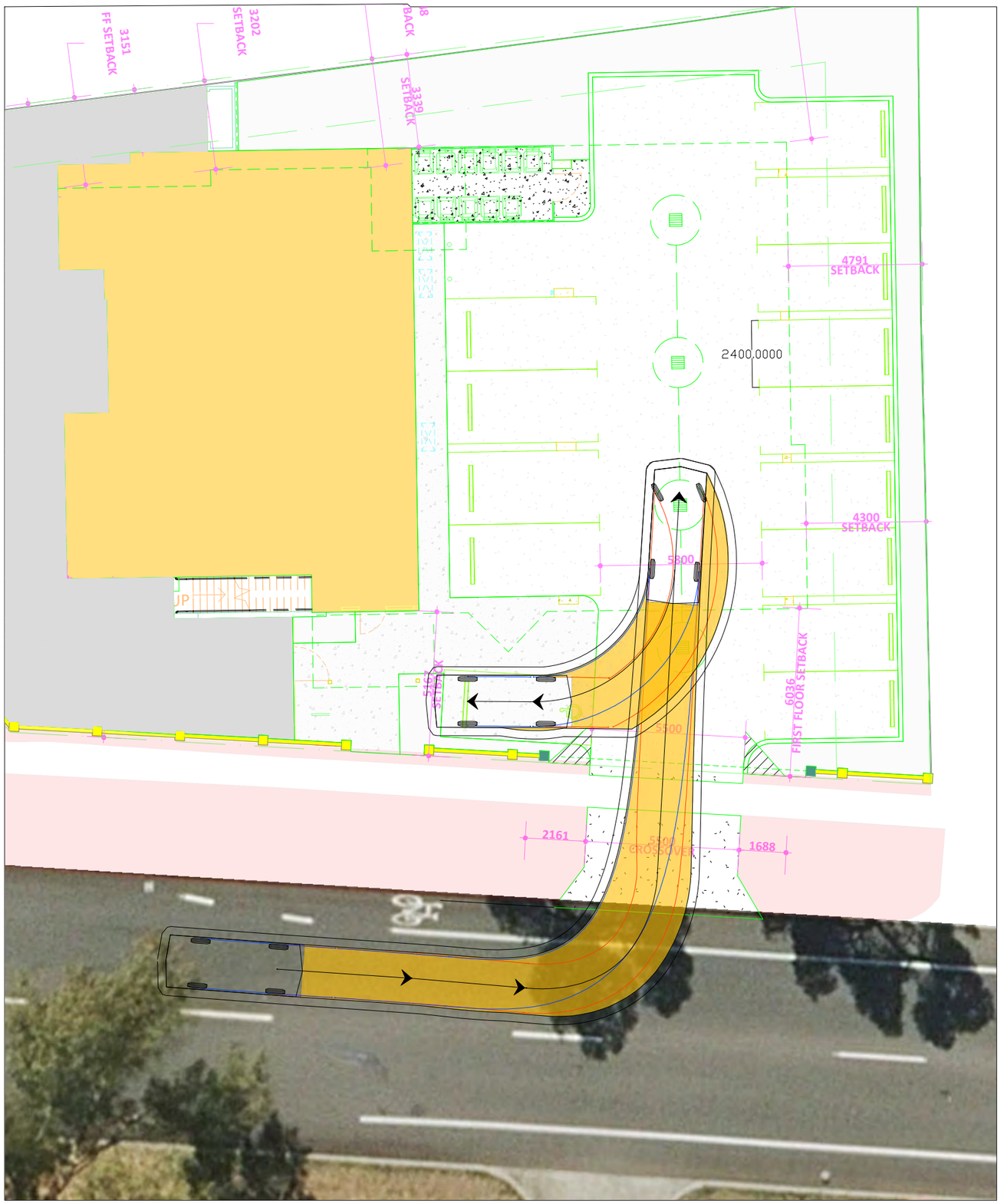
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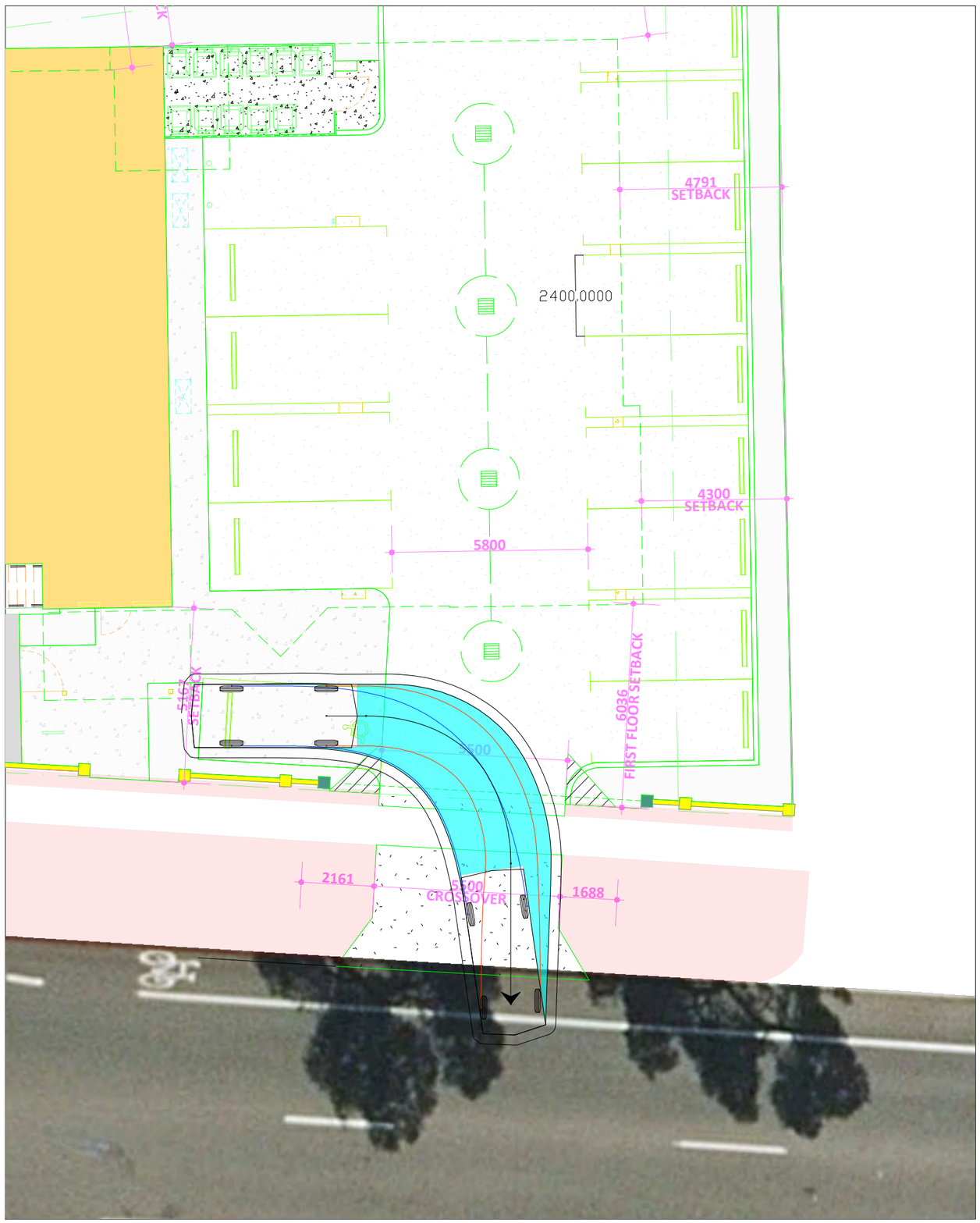
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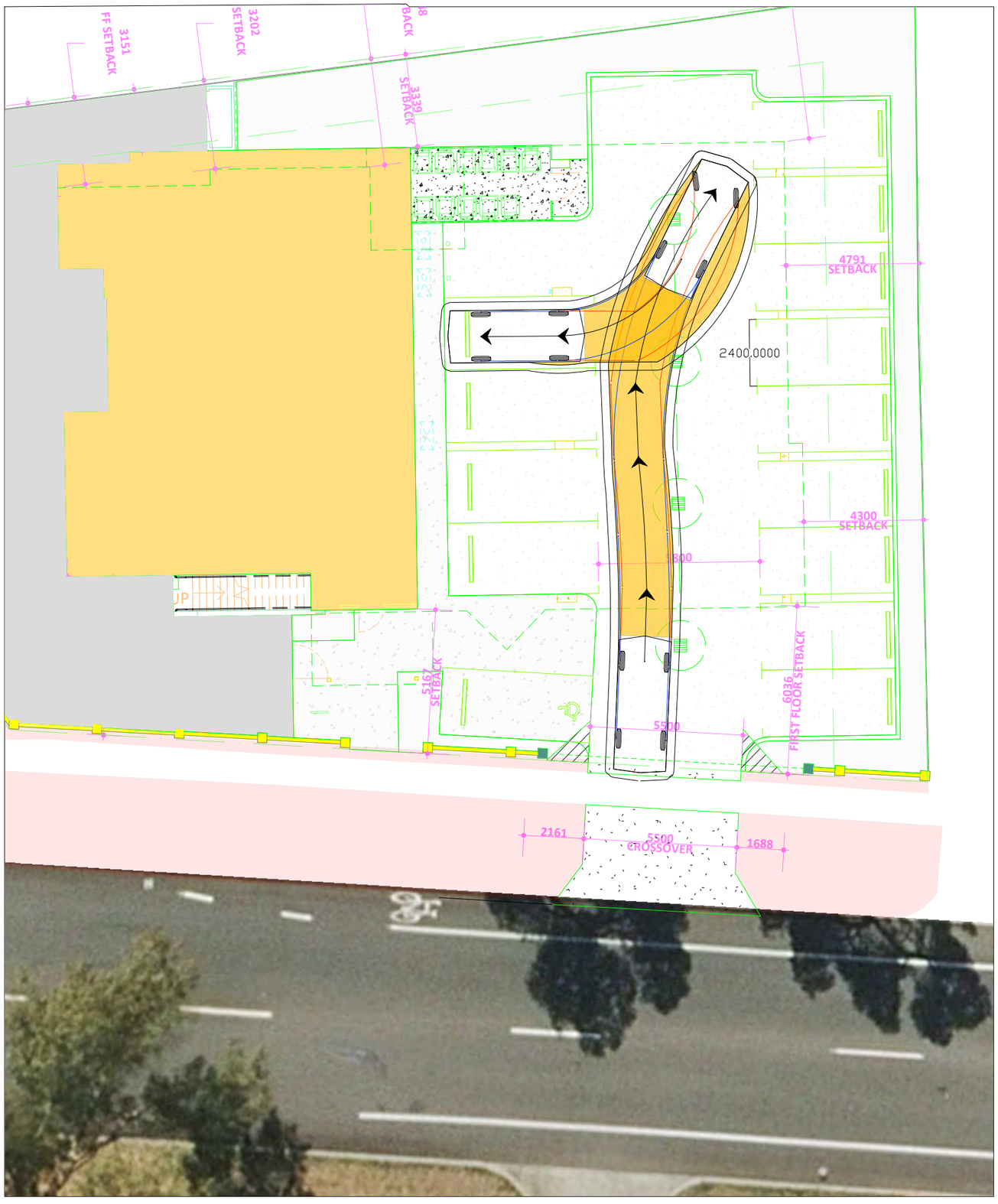


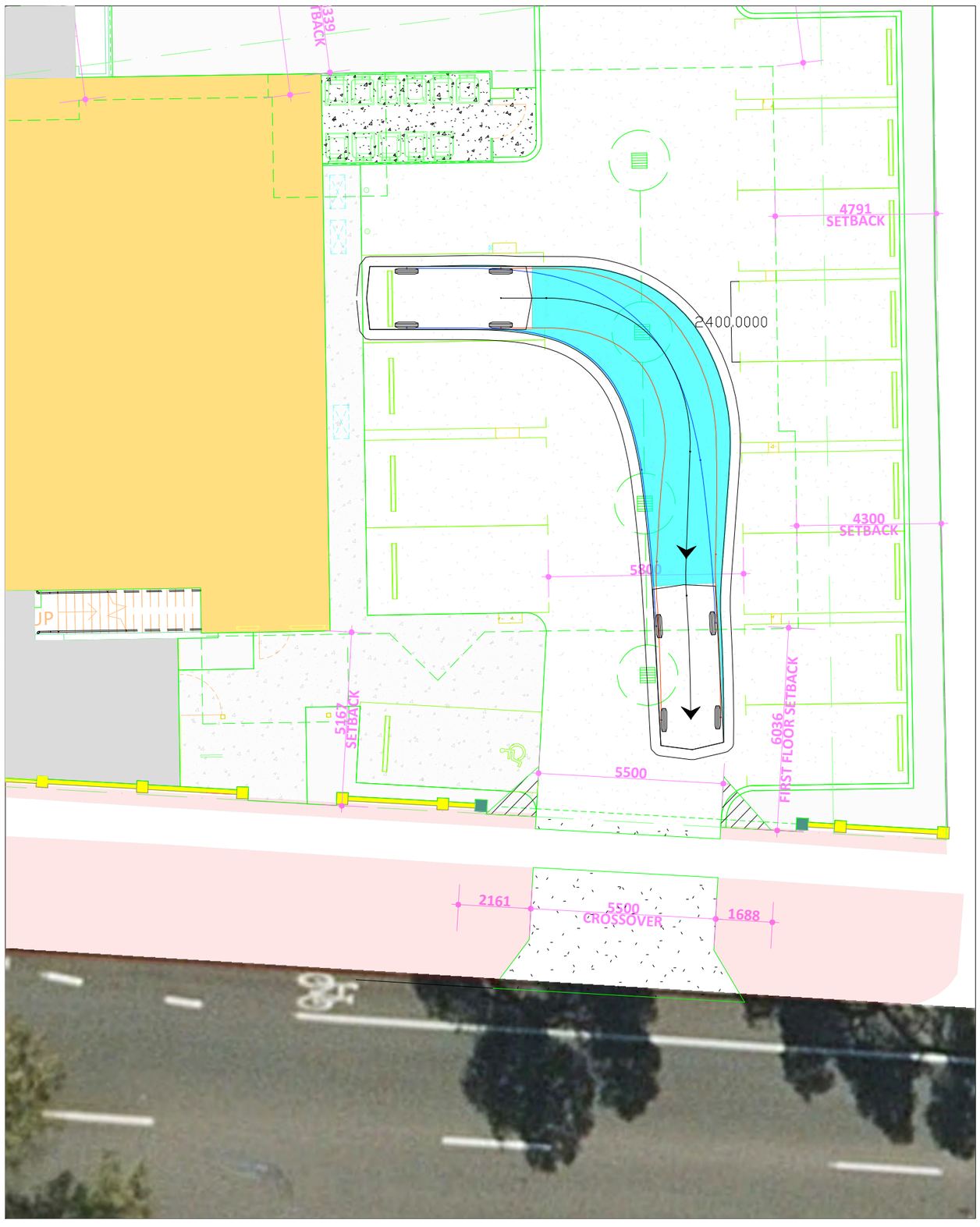

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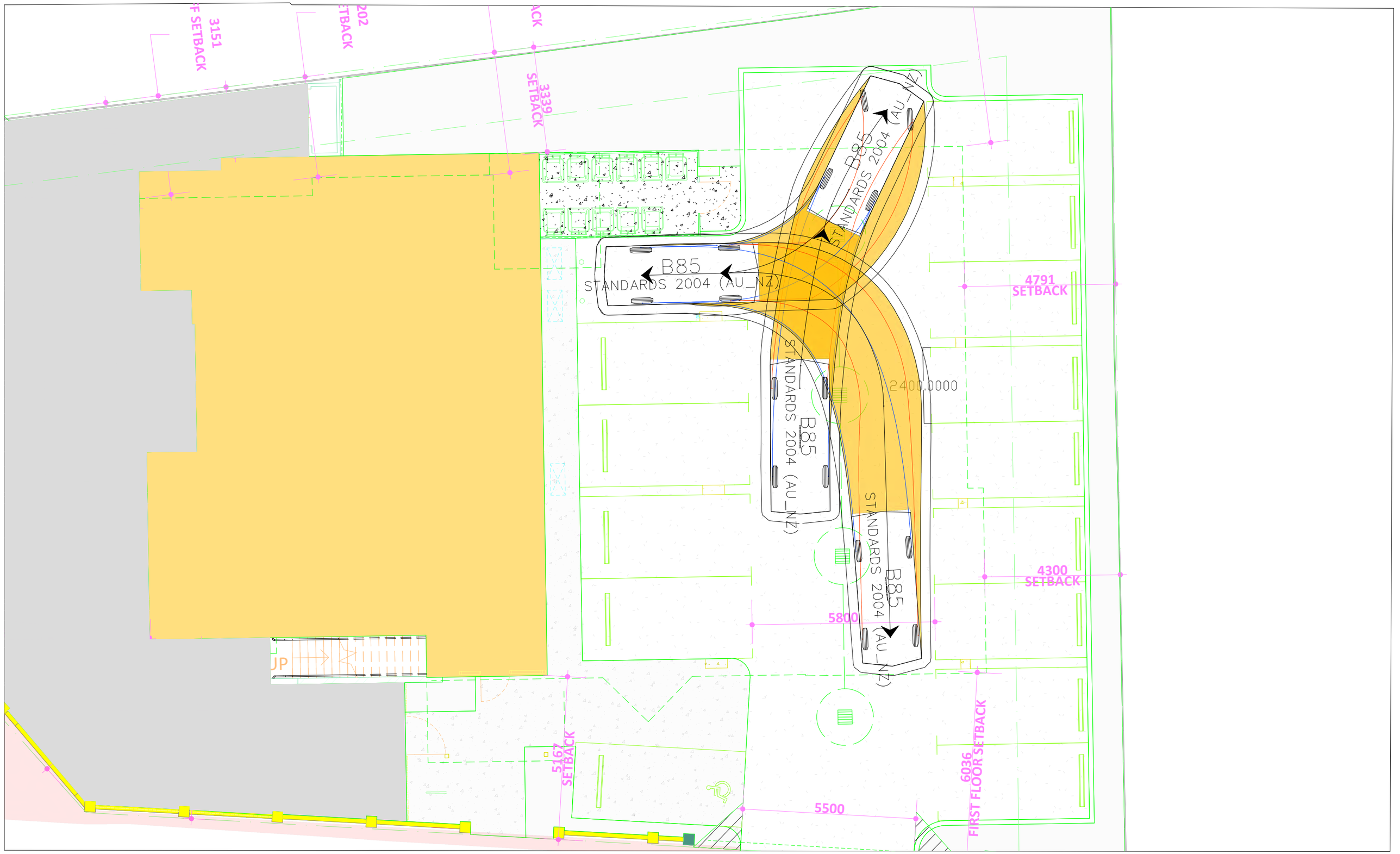

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Waste Management Plan

64 Gillon Street, Karawara

Prepared for Monster Investments Pty Ltd

16 September 2024

Project Number: WMP23019

Assets | Engineering | Environment | Noise | Spatial | Waste

DOCUMENT CONTROL

Version	Description	Date	Author	Reviewer	Approver
1.0	First Approved Release	17/03/2023	DP	RH	AB
2.0	Second Approved Release	17/04/2023	AB	DP	AB
3.0	Third Approved Release	14/05/2023	AB	DP	DP
4.0	Fourth Approved Release	30/04/2024	AB	DP	AB
5.0	Fifth Approved Release	16/09/2024	AB	DP	AB

Approval for Release

Name	Position	File Reference
Ann Brouwer	Project Manager – Waste Management Consultant	WMP23019-01_Waste Management Plan_5.0
Signature		

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Executive Summary

Monster Investments Pty Ltd is seeking development approval for the proposed Childcare Centre located at 64 Gillon Street, Karawara (the Proposal).

To satisfy the conditions of the development application the City of South Perth (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	1,491	360	Five	Once each week	Private Contractor
Recycling	1,491	360	Five	Once each week	Private Contractor

A private contractor will service the Proposal utilising its kerbside collection service. The private contractor's waste collection vehicle will service the bins from the Bin Presentation Area on Walanna Drive.

A caretaker/suitably qualified staff will oversee the relevant aspects of waste management at the Proposal.

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1 Introduction

Monster Investments Pty Ltd is seeking development approval for the proposed Childcare Centre located at 64 Gillon Street, Karawara (the Proposal).

To satisfy the conditions of the development application the City of South Perth (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 developments to the north and east, Walanna Drive to the south and Gillon Street 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 and recyclables) 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: Waste Storage;
- Section 4: Waste Collection;
- Section 5: Waste Management; and
- Section 6: 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 and recyclables is based on the total indoor floor area (m^2) of the Childcare Centre – **426m²**.

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 South Perth's *Guidelines for Waste Management Plans – New Multi-residential Developments (Version 11/2021)* and the City of Melbourne's *Guidelines for Waste Management Plans* (2021) as they contain contemporary estimates of waste generated from Childcare Centres.

It should be noted that this Childcare Centre is not part of a multi-residential development and is a standalone development. The City's generation rates are extensive and are not realistic of what is typically generated by a Childcare Centre and therefore the City of Melbourne waste generation rates have been utilised.

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 Melbourne Guideline Reference	Refuse Generation Rate	Recycling Generation Rate
Childcare Centre	Childcare	350L/100m²/week	350L/100m²/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 are shown in Table 2-2. It is estimated that the Childcare Centre will generate 1,491L of refuse and 1,491L of recyclables each week.

Table 2-2: Estimated Waste Generation

Childcare Centre	Area (m^2)	Waste Generation Rate (L/100m²/week)	Waste Generation (L/week)
Refuse	426	350	1,491
Recycling	426	350	1,491
		Total	**2,982**

3 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.

3.1 Internal Bins

To promote positive recycling behaviour and maximise diversion from landfill, internal bins will be available throughout the Childcare Centre for the source separation of refuse and recycling.

These internal bins will be collected by the caretaker/suitably qualified staff at least once each day and transferred 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 the caretaker, visitors, and staff to dispose of their separate waste materials in the correct bins.

3.2 Bin Sizes

Table 3-1 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 3-1: Typical Bin Dimensions

Dimensions	Bin Sizes		
	240L	360L	660L
Depth (mm)	800	900	800
Width (mm)	600	700	1,300
Height (mm)	1,100	1,100	1,200

Reference: City of South Perth's Guidelines for Waste Management Plans – New Multi-Residential Developments (2021)

3.3 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 3-1 and based on collection of refuse and recyclables once each week.

Based on the results shown in Table 3-2 the Bin Storage Area has been sized to accommodate:

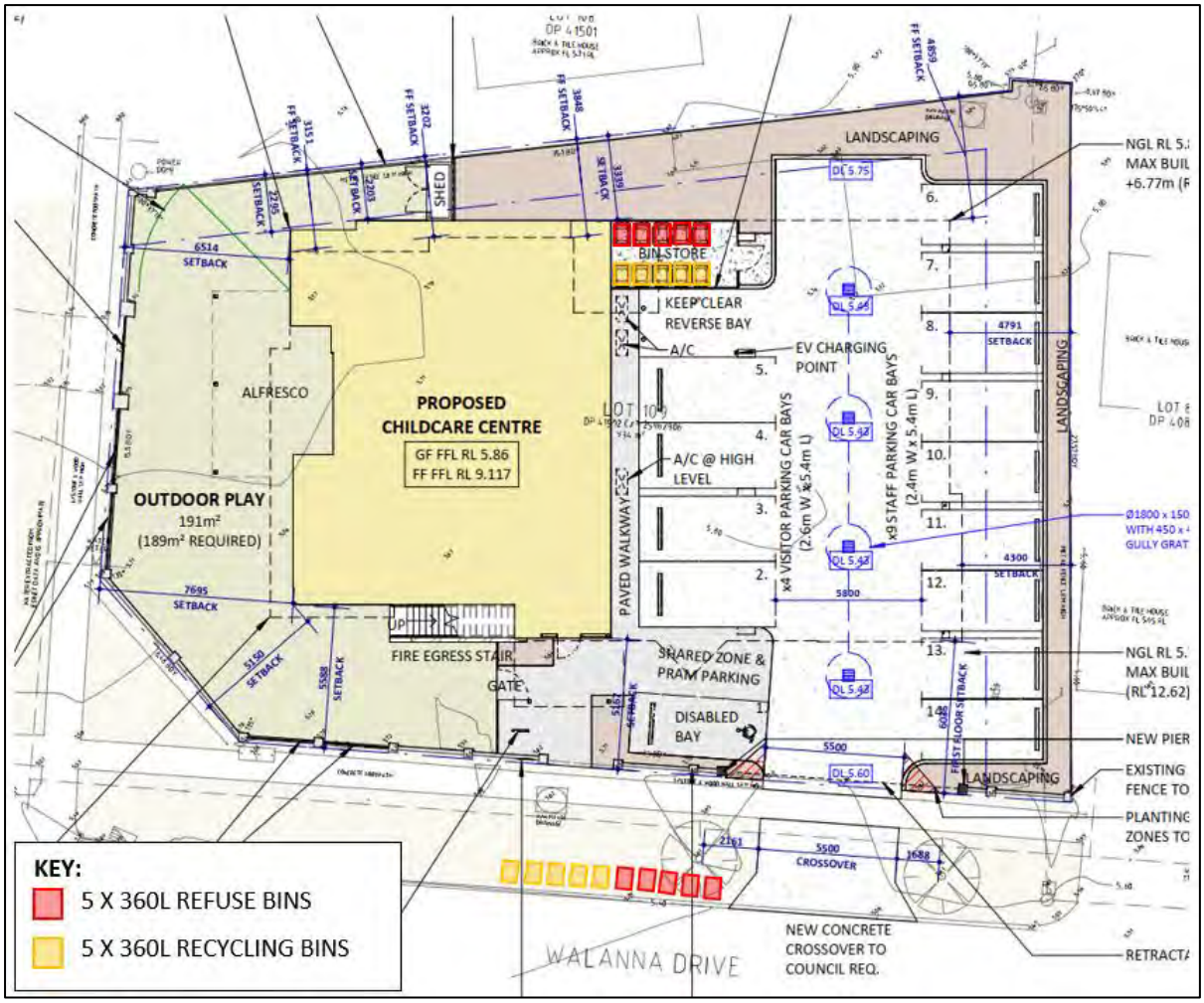
- Four 240L refuse bins; and
- Four 240L recycling bins.

Table 3-2: Bin Requirements for Bin Storage Area

Waste Stream	Waste Generation (L/week)	Number of Bins Required		
		240L	360L	660L
Refuse	1,491	7	5	3
Recycling	1,491	7	5	3

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 recyclables.

Diagram 1: Bin Storage Area and Bin Presentation Area



3.4 Bin Storage Area Design

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

- Bins sitting next to each other not behind each other;
- Smooth and impervious bin room walls;
- Ventilated to a suitable standard where the outlet for vented air will not adversely impact residents;
- Functional to allow all bins to be easily moved, washed and cleaned;
- Should have mains water supply with floor graded to a plumbed sewer drainage outlet/s to allow for the washing of all room surfaces and for the cleaning of bins as required;
- All personnel access ways a minimum width of 900mm wide or 1500mm to accommodate the largest bin;
- All bins having a minimum 50mm clearance on all sides (between bins, against walls etc.);
- Have a minimum 1500mm in width door opening to allow easy removal and return of all bin sizes;
- Doors to the Bin Storage Area should be vermin proof, self-closing but be able to be locked open;

- Signage should identify allowable items and encourage positive waste management behaviour through stickers on bins and posters in and around the Bin Storage Area;
- Bin Storage Area must have a smooth impervious floor sloped to a drain connected to the sewer system of not less than 75mm in thickness;
- Bin Storage Area must be vermin proof, fitted with a self-closing door or gate; and
- Bin Storage Areas shall be provided with artificial lighting, to comply with AS4282-1997, and include safety signing clearly identifying prohibited standing areas.

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

4 Waste Collection

A private waste collection contractor will service the Proposal and provide five 360L bins for refuse and five 360L bins for recyclables.

A private waste collection contractor is proposed to allow flexibility in collection times and frequencies, as the City's waste collection services include less frequent weekly reuse collections and fortnightly recycling collections.

The private contractor's waste collection vehicle will collect refuse and recyclables once each week from the Bin Presentation Area on the verge of Walanna Drive, as shown in Diagram 1.

The private contractor's waste collection vehicle will travel with left hand traffic flow on Walanna Drive and pull up on the kerbside adjacent to the Bin Presentation Area for servicing.

The eight bins being presented on the verge will not exceed 1/3 of the Walanna Drive verge and will not obstruct pedestrians, cyclists, motorist sightlines or street furniture. This collection point is preferred to on-site collection which would require reverse manoeuvring within the carpark. Additionally, due to the operating times of the Childcare Centre there would be minimal occasions which would allow a waste collection vehicle to utilise empty bays for manoeuvring.

The caretaker/suitably qualified staff will ferry the bins to the Bin Presentation Area on collection days. The travel path between the Bin Storage Area and the Bin Presentation Area will be of flat surface and kept free of obstacles. The caretaker/suitably qualified staff will return the bins to the Bin Storage Area as soon as possible on the same day following collection.

Once servicing is complete the private contractor's waste collection vehicle will continue in forward motion on Walanna Drive moving with traffic flow.

4.1 Bulk and Speciality Waste

Bulk and speciality waste materials will be removed from the Proposal as they are generated. Removal of these wastes will be monitored by the caretaker/suitably qualified staff, who will assist with the removal of these wastes, as required.

5 Waste Management

A caretaker/suitably qualified staff will be engaged to complete the following tasks:

- Monitoring and maintenance of bins and the Bin Storage Area;
- Ferrying of bins to and from the Bin Storage Area and the Bin Presentation Area on Walanna Drive on collection days;
- Cleaning of bins and Bin Storage Area, when required;
- Ensure all staff at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor staff 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 staff to develop opportunities to reduce waste volumes and increase resource recovery; and
- Regularly engage with the private contractor to ensure efficient and effective waste service is maintained.

6 Conclusion

As demonstrated within this WMP, the Proposal provides a sufficiently sized Bin Storage Area for storage of refuse and recyclables, 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 and recyclables can be completed from the Proposal.

- Five 360L refuse bins, collected once each week; and
- Five 360L recycling bins, collected once each week.

A private contractor will service the Proposal utilising its kerbside collection service. The private contractor's waste collection vehicle will service the bins from the Bin Presentation Area on Walanna Drive.

A caretaker/suitably qualified staff will oversee the relevant aspects of waste management at the Proposal.

Figures

Figure 1: Locality Plan

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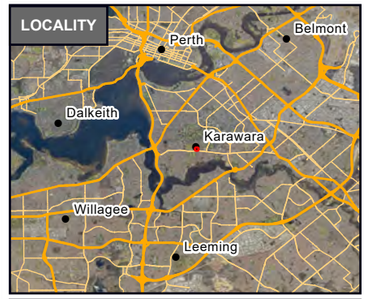
LEGEND

- Site Boundary

Cadastre

- Crown Allotment
- Freehold
- Road
- Easement
- Reserve

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LOCALITY

64 Gillon St
Karawara WA 6152

Monster Investments Pty Ltd

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m
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Coordinate System: GDA2020 MGA Zone 50
Scale @ A3: 1:250

Prepared: T Baskerville	Date: 11/03/2023
Reviewed: D Patel	Revision: A
Project: WMP23019	

talis consultants

Figure 01

Data source: Roads, Cadastre - Landgate, 2023. Imagery: Nearmap, 2023.

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Assets | Engineering | Environment | Noise | Spatial | Waste

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Childcare Centre - 64 Gillon St

Acoustics Report

Development Application

18/09/2024

Ref: 301270064

PREPARED FOR: Monster Investments Pty Ltd

PREPARED BY: Jason Lim and Prasad Kumar

Stantec

Revision

Revision	Date	Comment	Prepared By	Approved By
A	28/10/2022	Issue for Development Application	JLM	IK
B	2/11/2022	Issue for Development Application	JLM	IK
C	15/05/2023	Issue for Development Application	JLM	IK
D	27/06/2023	Issue for Development Application	JLM	IK
E	11/07/2023	Issue for Development Application	JLM	IK
F	1/08/2023	Issue for Development Application	JLM	IK
G	10/05/2024	Issue for Development Application	JLM	IK
H	16/05/2024	Issue for Development Application	NPK	IK
I	22/08/2024	Issue for Development Application	JLM	BEM
J	18/09/2024	Issue for Development Application	JLM	BEM

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Executive Summary

Stantec were commissioned by Monster Investments Pty Ltd to undertake acoustic assessment to support the Development Application of the proposed Childcare Centre.

The proposed development will be located at 64 Gillon St, Karawara WA 6152. The development is located within the City of South Perth.

As part of the development approval process for the residential development, an acoustic assessment has been carried out in order to satisfy the requirements stated in the relevant policies and guidelines applicable to the project. This includes:

- WA Environmental Protection (Noise) Regulations 1997 (WA EPNR 1997)
- Australian Standard 2107:2016 – "Acoustics – Recommended design sound levels and reverberation times for building interiors".
- Western Australian Planning Commission – State Planning Policy 5.4 (SPP 5.4);
- Association of Australian Acoustical Consultants – *"Guideline for Child Care Centre Acoustic Assessment"* (AAAC)

This acoustic report has been prepared for submission to City of South Perth and demonstrates that the project is taking into consideration all acoustic aspects pertinent to the project. Recommendations are provided in this report to address and mitigate any acoustic issues identified.

EPNR 1997 Assigned Noise Levels

Assigned noise levels were determined by calculating the influencing factor, which results from identifying major roads, commercial and industrial areas within a 100m and 450m radius of the nearest noise sensitive receivers surrounding the project site.

The overall influencing factor has been calculated using the current Local Planning Scheme No. 7 (LPS7) obtained from the City of South Perth online mapping system. LPS7 has also been used to calibrate the 100m and 450m radius circle required to be established as per the EPNR Guidelines to determine the overall influencing factor for the nearest noise sensitive receiver.

Traffic Noise Intrusion

As per the SPP 5.4 requirements, traffic noise assessment has been carried out and the minimum recommended external façade construction has been provided in the form of glazing, roof and wall configurations. The predicted noise levels at the building façades were obtained through the use of the 3D noise modelling software Package, SoundPLAN 8.2. The model was calibrated based on long term on-site measurements conducted.

The glazing configurations to achieve the design internal noise levels have been summarized below:

Glazing Configuration	$R_w + C_{tr}$
6mm glass + 12mm air gap + 6mm glass OR	**29** (36;-7)
6.38mm laminated glass	**29** (32;-3)

Outdoor Noise Target

SPP5.4 states that developments are to maintain at minimum one outdoor area that achieves compliance to the SPP5.4 target outdoor noise levels.

To achieve this, the ground floor outdoor area will be required to incorporate a minimum 1.8m high noise barrier at the location detailed in this report.

Noise Emissions

Outdoor Play Areas

Noise emissions from the proposed development are to comply with the assigned noise levels indicated by the Western Australia Environmental Protection (Noise) Regulations 1997 (EPNR).

Noise modelling software SoundPLAN v9.0 was used to predict the noise levels at the closest noise sensitive receivers. The typical sound levels for groups of children playing for different age ranges were obtained from the AAAC's *"Guideline for Child Care Centre Acoustic Assessment V3.0"*.

Noise emissions from outdoor areas were assessed and a cumulative noise assessment was carried out to predict the levels at nearest noise sensitive receivers. Compliance is achieved for all nearby closest receivers to its respective EPNR assigned noise level criteria provided acoustic screening put in place.

Mechanical Services

Noise generated via the mechanical services from the proposed development is required to comply with EPNR criteria. Preliminary unit information has been provided to the acoustic engineer for review. Acoustic assessments of the units assuming they are operational at full duty has been carried out.

In order to achieve compliance at all nearby closest receivers, a solid noise wall to the extent detailed in this report is required to be incorporated.

With the above mitigation measure, it is expected that compliance will be achieved at all nearby receivers. should mechanical unit selection be changed as the project progresses further into the design stages, acoustic assessment will be conducted as necessary to ensure compliance is achieved prior to the issue of Building Permit.

1. Introduction

Stantec were commissioned by Monster Investments Pty Ltd to undertake acoustic assessment to support the Development Application of the proposed Childcare Centre.

The proposed development will be located at 64 Gillon St, Karawara WA 6152. The development is located within the City of South Perth.

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- WA Environmental Protection (Noise) Regulations 1997 (WA EPNR 1997)
- Australian Standard 2107:2016 – "Acoustics – Recommended design sound levels and reverberation times for building interiors".
- Western Australian Planning Commission – State Planning Policy 5.4 (SPP 5.4);
- Association of Australian Acoustical Consultants – *"Guideline for Child Care Centre Acoustic Assessment"* (AAAC)

This acoustic report has been prepared for submission to City of South Perth and demonstrates that the project is taking into consideration all acoustic aspects pertinent to the project. Recommendations are provided in this report to address and mitigate any acoustic issues identified.

1.1 Site Description

The childcare centre development is proposed for 64 Gillon St, Karawara WA 6152. The lots surrounding the site are primarily residential developments.

Major roads surrounding the project site form a major part of the acoustic environment. This includes Manning Rd approximately 80m south of the proposed site.

The surrounding area identified above has been provided in Figure 1.



Source: Nearmap

Figure 1: Project location

1.2 Architectural Volumes

The proposed development is expected to consist of the following architectural volumes:

Ground Floor	
Kindy	Kitchen
Office	Toilets / UAT
Foyer	Store
Level 1	
Toddlers	Babies
Dry Court	Laundry
Staff WC	Staff room
COT	Nappy

2. Acoustic Criteria

2.1 Western Australia Environmental Protection (Noise) Regulation 1997

Environmental noise impacts resulting from the noise emissions from the project are addressed through the Environmental Protection Act 1986, with the regulatory requirements detailed in the Environmental Protection (Noise) Regulations 1997 (EPNR).

The EPNR establishes the maximum permissible noise emission levels (assigned levels) to be received at all adjacent noise-sensitive premises during specific periods of the day as a result of the cumulative noise emissions from all sources proposed for the project site. Compliance to relevant noise limits outlined in the EPNR is compulsory.

The EPNR states noise emissions from any premises are considered not to significantly contribute to the noise at a receiver if the noise emissions are 5 dB or below the assigned levels.

In brief, the assigned levels are determined by considering of the amount of commercial and industrial zones, as well as main transport corridors and sporting venues surrounding the noise sensitive premises. The assigned levels apply at premises receiving the noise (noise sensitive receiver) and not to areas within the project site or lot. In addition, the Environmental Protection (Noise) Regulations 1997 identify the following in Schedule 3, clause 2A:

"If the land within either of the circles is categorised on the land use map as land in respect of which mixed uses are permitted, the use of that land that results in the highest influencing factor is to be used in the determination of the influencing factor."

The nearest noise sensitive receivers have been considered as the residential properties surrounding the project location, with the closest measurable receiver being the following

- 62 Gillon St, Karawara WA 6152.
- 4 Walanna Dr, Karawara WA 6152

The current Local Planning Scheme No. 7 (LPS7) was accessed via City of South Perth website.

Traffic data for roads surrounding the nearest noise sensitive receiver were obtained from Main Roads Western Australia (MRWA) on the 27th October 2022. The available traffic data has been presented in Table 1.

Table 1: Traffic vehicle counts (MWRA)

Transport Corridors	EPNR Classification 1)	Average Daily Traffic Volumes					
		2017/18	2018/19	2019/20	2020/21	2021/2022	2022/23
Manning Rd (West of Elderfield Rd)	Major Road	33425	32781	26291	30423	35975	-

1) As defined by the EPNR. Secondary roads have between 6000-15000 vehicles per day. Major roads have greater than 15000 vehicles per day.

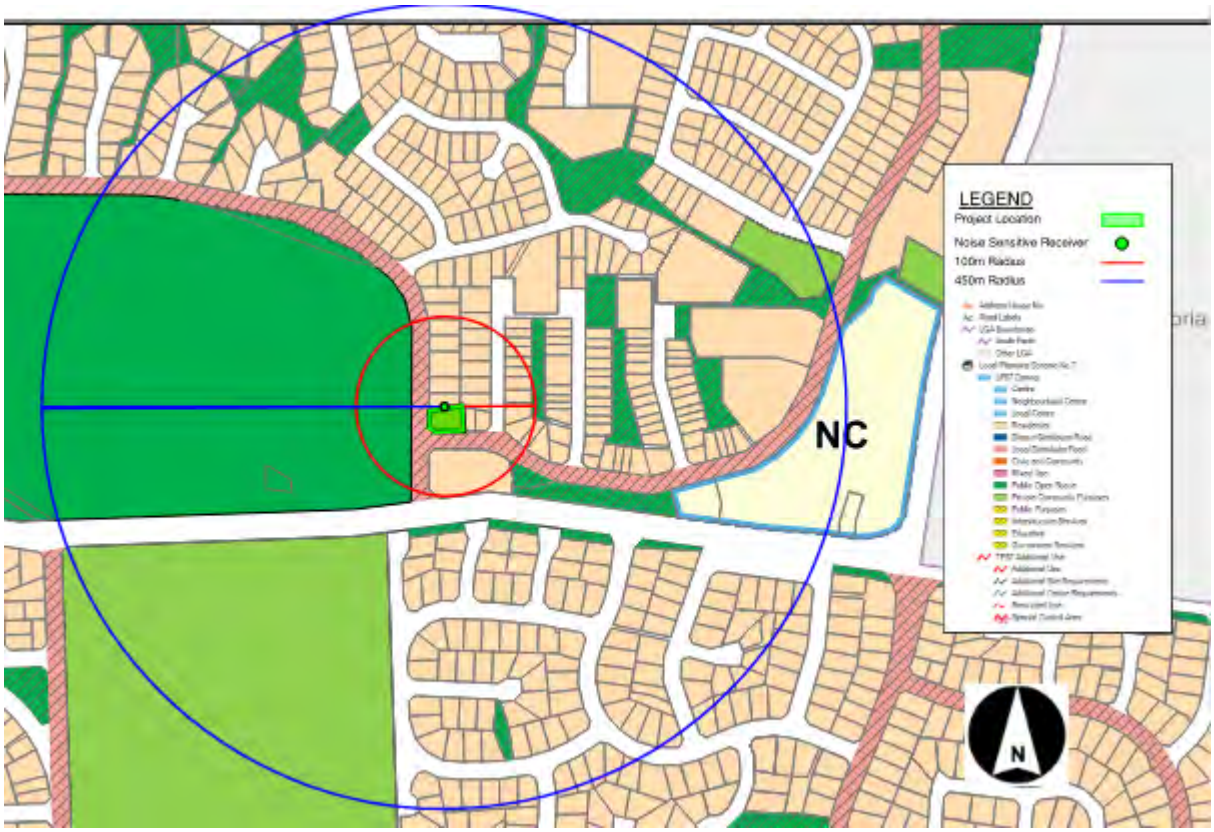
2.1.1 Influencing Factor

The influencing factor for 62 Gillon St and 4 Walanna Dr results from identifying major roads, commercial and industrial areas for all nearest noise sensitive receivers.

The overall influencing factor assessment is summarized in Table 2 and the planning maps indicating the land use type (obtained from City of South Perth online mapping system) has been marked up in Figure 2 and Figure 3. The land zoning map has been used to calibrate the 100m and 450m radius circle around the nearest noise sensitive receiver.

Table 2: Influencing factor (IF) at noise sensitive receiver

Noise Sensitive Premises	Commercial Zones	Industrial Zones	Transport Corridors	Influencing Factor
62 Gillon St	4 % within a 450 m radius	None	Manning Rd within a 450m radius	**2 dB**
4 Walanna Dr	5 % within a 450 m radius	None	Manning Rd within a 100m radius	**6 dB**



Source: City of South Perth Online Mapping System

Figure 2: Zoning map of areas surrounding 62 Gillon St

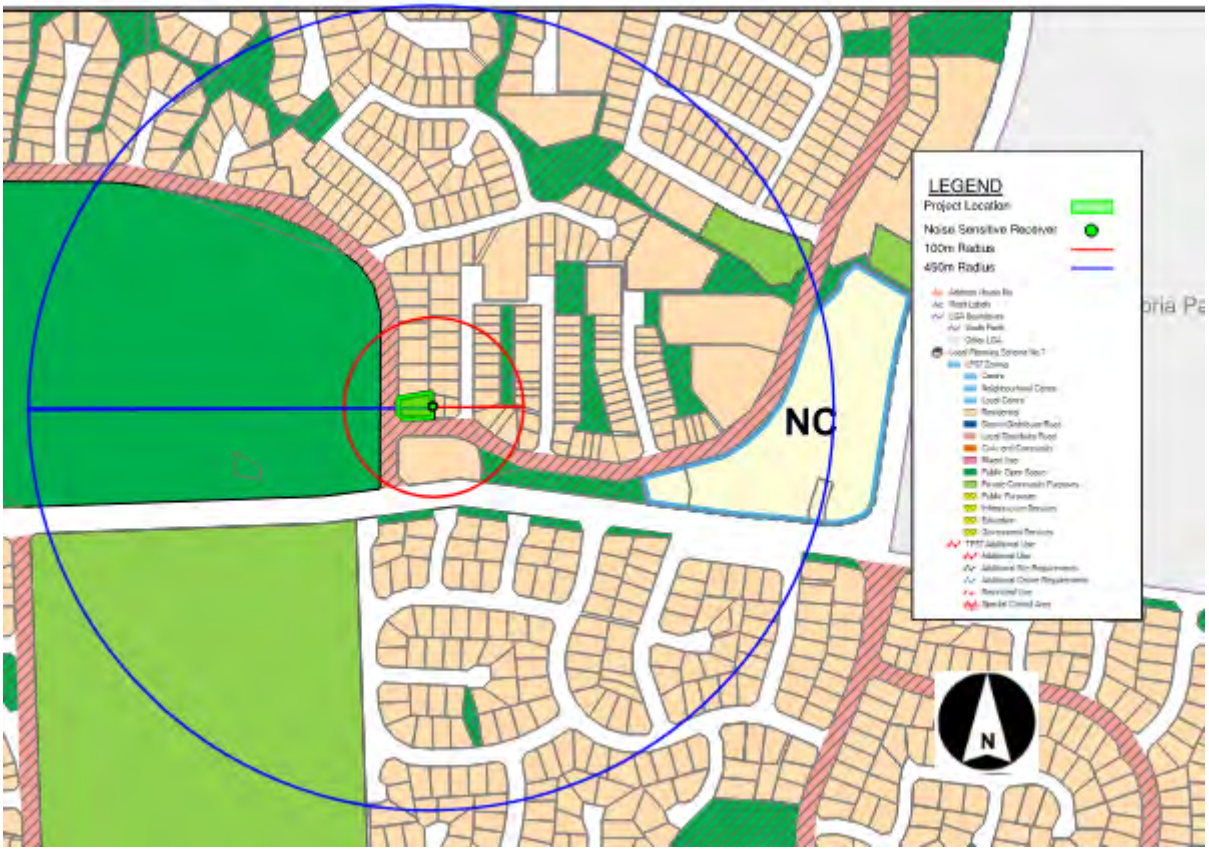


Figure 3: Zoning map of areas surrounding 4 Walanna Dr

2.1.2 Assigned Noise Levels for Nearest Sensitive Receiver

Table 2 summarizes the assigned levels at the nearest noise sensitive premises, which is added to the influencing factor calculated for the receiver detailed in

Table 3 and Table 4. It is required that all noise emissions from the development are below the assigned level for all defined periods of the day and at the lot boundary of the receiver or 15m from any associated building. It is noted that the EPNR assigned levels only apply at the premises receiving the noise only and not to noise within the site.

Table 3: Assigned levels for noise sensitive receiver (62 Gillon St)

Type of premises receiving noise	Time of day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: Highly sensitive area	0700 to 1900 hours Monday to Saturday	47	57	67
	0900 to 1900 hours Sunday & public holidays	42	52	67
	1900 to 2200 hours all days	42	52	57
	2200 hours on any day to 0700 hours Monday to Saturday, and 0900 hours Sunday & public holidays	37	47	57
Noise sensitive premises: any area other than highly sensitive areas	All Hours	60	75	80
Commercial premises	All Hours	60	75	80
Industrial and utility premises	All Hours	65	80	90

Table 4: Assigned levels for noise sensitive receiver (4 Walanna Dr)

Type of premises receiving noise	Time of day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: Highly sensitive area	0700 to 1900 hours Monday to Saturday	51	61	71
	0900 to 1900 hours Sunday & public holidays	46	56	71
	1900 to 2200 hours all days	46	56	61
	2200 hours on any day to 0700 hours Monday to Saturday, and 0900 hours Sunday & public holidays	41	51	61
Noise sensitive premises: any area other than highly sensitive areas	All Hours	60	75	80
Commercial premises	All Hours	60	75	80
Industrial and utility premises	All Hours	65	80	90

2.1.3 Noise Character Adjustments

Regulation 7 states that the noise character must be “free” of annoying characteristics, namely —

- Tonality, e.g. whining, droning;
- Modulation, e.g. like a siren; and
- Impulsiveness, e.g. banging, thumping.

Regulation 9 (1) establishes the methodology for determining noise characteristics. If these characteristics cannot be reasonably and practicably removed, a series of adjustments to the measured levels are required, indicated in Table 5.

Table 5: Noise character adjustment

Adjustment where noise emission is not music these adjustments are cumulative to a maximum of 15 dB			Adjustment where noise emission is music	
Where tonality is present	**Where modulation is present**	**Where impulsiveness is present**	**Where impulsiveness is not present**	**Where impulsiveness is present**
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

Given the data available from air conditioning unit manufacturers is generally limited to broadband data or in 1/1 octaves, it is not possible to objectively determine tonality as described in the noise regulations. One-third octave band data is required, and this information is not typically available. In such cases, a + 5 dB penalty is to be applied to all predicted sound levels generated by noise sources.

Therefore, a +5dB penalty shall be conservatively applied to noise levels generated from mechanical services when assessing noise emissions from mechanical equipment.

2.2 State Planning Policy 5.4

The SPP 5.4 establishes the outdoor noise criteria that apply to a noise sensitive land use due to noise emissions from road and rail transport.

The noise criteria provided in Table 6 applies to new noise-sensitive development proposals at 1 m from the most exposed, habitable façade.

Table 6: Noise target criteria for SPP5.4

Proposal	New/Upgrade	Noise Targets		
		Outdoor		Indoor
		Day (L_{Aeq} (Day) dB) (6am - 10 pm)	Night (L_{Aeq} (Night) dB) (10pm - 6am)	L_{Aeq} dB
Noise-Sensitive land-use and/or development	New noise-sensitive land-use and/or development within the trigger distance of an existing/proposed transport corridor	55	50	Day: L_{Aeq} 40 (living and work areas) Night: L_{Aeq} 35 (Bedrooms)

The policy requires outdoor targets are to be met at all outdoor areas as far as is reasonable and practical to do so using the various noise mitigation measures outlined in the guidelines.

2.3 Internal Noise Levels

The internal noise level criteria detailed in this section are based on the recommendations provided in the Australian Standard AS 2107:2016 *'Acoustics – Recommended design sound levels and reverberation times for building interiors'* (AS 2107).

AS2107 provides recommended internal noise levels (defined as the equivalent continuous A-weighted sound pressure level — $L_{Aeq,t}$) for optimising the acoustic amenity in occupied spaces. The level of noise in an enclosed space typically consists of noise from building services and/or noise intrusion due to external sources (e.g. traffic).

The relevant internal noise level criteria have been outlined in Table 7.

Table 7: Recommended internal noise levels from AS2107

Type of occupancy/activity	Recommended design sound level, L_{eq} dB(A)
Corridor and lobby areas	< 50
Kitchen/Laundry	< 55
Office/Staff room	40 – 45
Foyer	45 – 50
Toddlers/ Kindy/ Babies	35 – 45
Bathrooms/Nappy	45 – 55

The internal noise level criteria in AS2107 refer to the continuous equivalent (L_{Aeq}) levels for background noise. This document is a common reference for establishing satisfactory goals for quasi-static mechanical and external traffic noise ingress.

2.4 Reverberation Control

For acoustically critical areas, acoustic treatment should be incorporated within the design, in order to be able to achieve acceptable mid-frequency reverberation times. The following reverberation time criteria in Table 8 have been targeted for various spaces associated with the development.

Table 8: Optimal Mid-frequency reverberation time criteria from AS 2107

Type of occupancy/activity	Recommended design Reverberation Time (T) Range, s
Corridor and lobby areas	Note 1
Kitchen/Laundry	–
Office/Staff room	0.4 – 0.6
Foyer	–
Toddlers room/ Kindy room/ Babies	0.6 – 0.8
Bathrooms/Nappy	–

3. Noise Survey

Typically, the two main sources of noise considered in noise intrusion assessments are transportation (i.e. road, rail or aircraft noise) and mechanical services noise from within the same or adjoining developments.

Given the location of the project, the dominant noise source is expected to be due to traffic noise from surrounding major road Manning Rd.

3.1 Measurement Methodology

3.1.1 Measurement Locations

As per the requirements of SPP5.4, long term unattended noise measurements were undertaken to establish the surrounding acoustic environment and for use in calibrating the sound model.

Measurements were conducted between 10th October 2022 to the 18th October 2022 at the location shown in Figure 4.



Source: Nearmap

Figure 4: Measurement location

3.1.2 Equipment Details

Unattended measurements have been conducted using instrumentation equivalent to an integrating sound level meter equipped with one octave and one-third octave band filters, and an omni-directional condenser microphone. All instrumentation meets Type 1 specifications as per ANSI S1.4 and ANSI S1.43.

The sound level meter was calibrated by an authorised NATA (National Association of Testing Authorities) laboratory less than 2 years ago and have successfully passed all AS 1259 and AS/NZS 4476 standards and specifications.

The time constant for the RMS detector were set to a slow response (1 sec) for all measurements on all sound level meters. The sound level meter was calibrated before and after the measurement session using a Type 1 acoustic calibrator. The calibrator was also calibrated less than 2 years ago, and is in compliance with AS IEC 60942-2004.

A complete schedule of all equipment used during for acoustic measurements is provided in Table 9. A copy of calibration certificates for the relevant instrumentation may be provided upon request.

Table 9: Equipment and Calibration Details

Manufacturer / Model	Serial Number
Brüel & Kjær 4231 - Calibrator	3005155
NTi XL2 – Sound Level Meter	A2A-14416-E0

3.2 Noise Measurement Summary

Long term unattended noise measurements were undertaken to establish the surrounding acoustic environment at position shown in Figure 4.

Weather data from Bureau of Meteorology from Perth was used and was compared against the conditions defined by Main Roads WA. The data impacted due to adverse meteorological conditions has been excluded in the calculation of any relevant noise parameters used for the purposes of this acoustic assessment.

The noise levels obtained from the unattended noise measurements have been provided in Appendix B.

4. Noise Modelling

4.1 Assessment Methodology

Noise Modelling was undertaken in accordance with SPP 5.4 Road and Rail Noise Guidelines (2019) to determine road traffic noise impacts affecting the project site.

Detailed methodology and assessment specifications are detailed in the SPP 5.4 *Road and Rail Noise Guidelines September 2019* (referred to as the Guidelines in the remainder of this report). Sound PLAN v9.0 (3D noise modelling software) was used to simulate noise emissions expected from road transport corridors and, subsequently, to determine noise levels 1 metre from the façade as well as external noise sensitive areas.

The noise modelling checklist used in the following assessment as provided by SPP5.4 has been given in Appendix C.

4.1.1 Noise Source Inputs

Topography

Topographical data for the project site and surrounding areas was based on data imported from Nearmaps within the SoundPLAN software. The surrounding land elevation has been modelled using the data obtained from the Intergovernmental Committee on Surveying and Mapping online database.

Ground Absorption

To suit the current conditions of the project location, a ground condition of 0.6 has been used in the model, which is in between a soft ground condition (1) and a reflective ground condition (0).

Road Traffic

The road traffic noise assessment has been conducted based on the methodology described by the Calculation of Road Traffic Noise algorithm (CoRTN, UK Transport Agency).

The CoRTN algorithm has been developed to calculate $L_{A10,18hr}$ noise levels. However, SPP5.4 requires road noise assessments to be based upon the energy averaged $L_{Aeq,16hr}$ and $L_{Aeq,8hr}$ noise descriptors for the daytime and night-time respectively. Conversions are applied using the method outlined in the DEFRA publication, *"Method for Converting the UK Road Traffic Noise Index $L_{A10,18hour}$ to the EU Noise Indices for Road Noise Mapping."*

This algorithm considers the following parameters;

- Traffic volume during each period of the day, and for current and future scenarios;
- Average traffic speeds;
- Height of each individual noise source (passenger vehicles, heavy vehicles – engine and exhaust);
- Percentage of heavy vehicles; and
- Gradient and surface of road.

Road traffic noise source heights were incorporated into the noise model in accordance to the description detailed by the Guidelines. The modelled heights of vehicle "strings" are provided below;

- Passenger vehicles: + 0.5 m
- Heavy vehicles — Engine noise: + 1.5 m
- Heavy vehicles — Exhaust: + 3.6 m

The Main Roads Traffic Modelling Branch was contacted on the 28th September 2022 (Contact Thomas Ng) and has provided traffic count and projection data for the surrounding Major transport corridors: Manning Rd.

These have been provided in the form of a ROM24 2021 validation plot and 2021 and 2041 link volume plots. Validation and link volume plots used have been provided in Appendix D.

SPP 5.4 requires all noise assessments to consider changes in traffic volumes expected over the next 20 years which has been included in this acoustic report.

Based on the data provided by Mainroads, the following traffic count growth rates have been calculated for major transport corridor Manning Rd summarised in Table 10. Observed traffic count volumes were used as source inputs to model and assess a worst-case scenario.

Table 10: Major Transport Corridor Growth Rates

Major Transport Corridor	Overall Traffic count growth rate, %/y
Manning Rd (West of Elderfield Rd)	1.7

Table 11 summarises the current and future predicted traffic volumes used in the assessment model.

Table 11: Current and Predicted Future Traffic Volumes

Road	Assessment Year	Predicted Daily Vehicle Volume	Day time 1) vehicle volume per hour	Night-time 1) vehicle volume per hour	Heavy Vehicle Percentage	Mean Speed
Manning Rd (West of Elderfield Rd)	Current – 2024	37996	2247	256	4% - Day	70 km/h
					5% - Night	
	Future – 2044	53464	3161	360	4% - Day	
					5% - Night	

1) Day time period refers to 0600 AM – 2200 PM. Night-time refers to 2200 PM – 0600 AM.

Noise Logging Data Calibration

The noise logging data obtained as per Section 3 was viewed as acceptable with no major disturbances.

Based on this, the average L_{Aeq} noise levels during day and night time periods were used to calibrate the traffic noise source within the 3D model. The average noise measured during day and night time has been summarised in Table 12:

Table 12: Average Measured Noise Levels ($L_{eq,T}$)

Time	L_{Aeq} dB(A)
Day 06:00 AM to 22:00 PM	57
Night 22:00 PM to 06:00 AM	50

The noise model was calibrated based on the on-site noise measurements. An appropriate correction factor was implemented into the sound model to calibrate the model.

4.2 Noise Modelling Results

Road traffic noise impact for the future year (2044) predicted the highest external noise levels for the day and night-time periods to be at the following façade location(s):

- Western Façade, Day-time scenario; **60 dB(A)**
- Western Façade, Night-time scenario; **51 dB(A)**

The majority of the predicted noise levels at the façade are above the 'noise target' values in SPP5.4. Therefore, acoustic treatments are required to achieve compliance.

Detailed noise intrusion assessment and recommendation for the external envelope are provided to achieve compliance to the internal noise level criteria of SPP5.4. Details of assessment & recommendations are provided in section 5.

4.2.1 SPP5.4 Compliant Outdoor Areas

Note that SPP5.4 states that developments are to maintain at minimum one outdoor area that achieves compliance to the SPP5.4 target outdoor noise levels.

The latest architectural drawings indicate an outdoor communal area will be located on ground floor as shown in Figure 5.

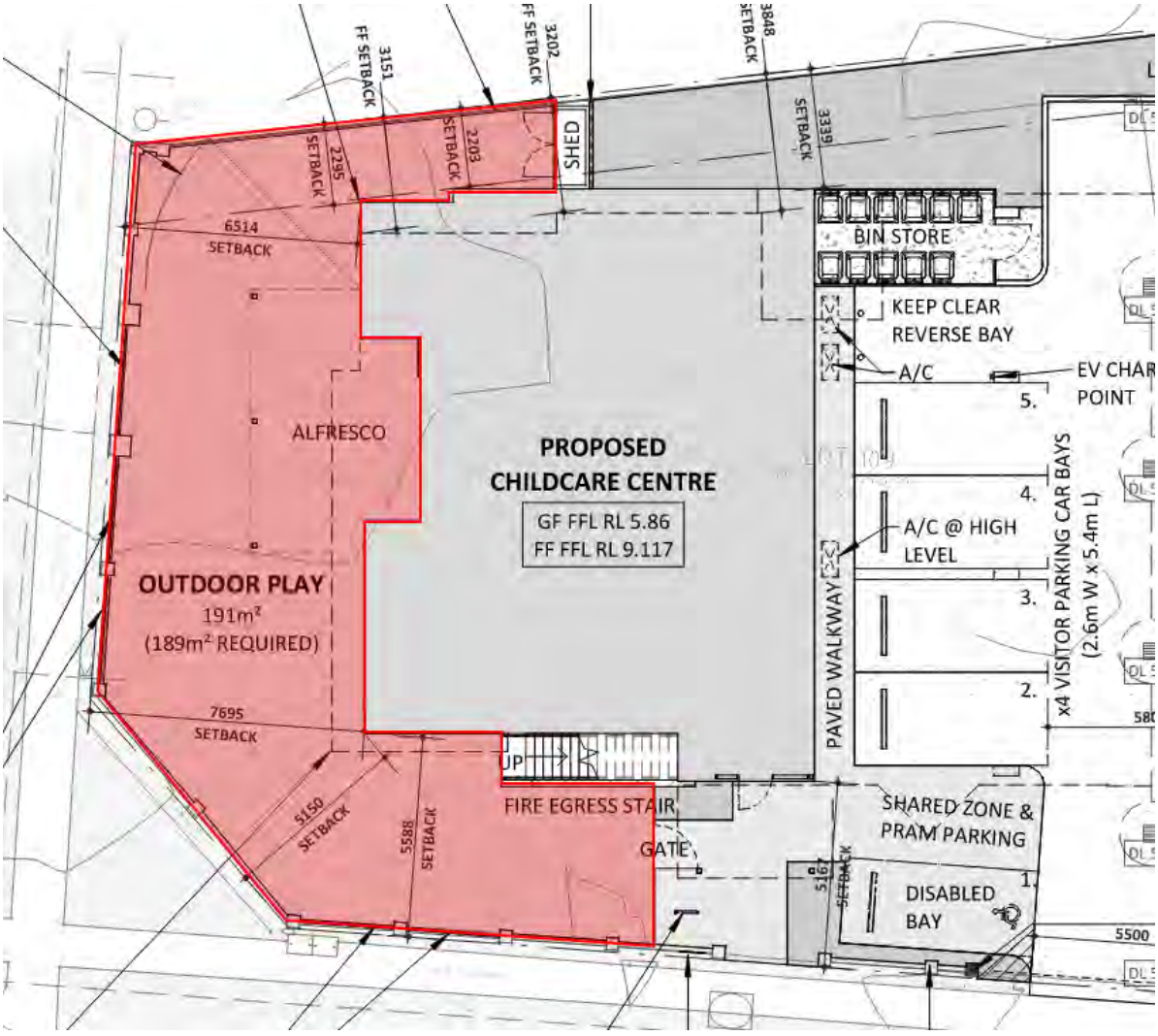


Figure 5: Ground Floor communal outdoor area compliant to SPP5.4 outdoor noise target

To achieve compliance, the outdoor area will be required to incorporate a noise wall. The noise wall will be required to be at minimum 1.8m high and be without air gaps or features that would allow sound to be transmitted through the material. Typical barrier shall be constructed using materials having a surface density of 15kg/m^2. Example materials include fibre cement sheet, wood or Perspex. The location of the wall is shown in Figure 6.

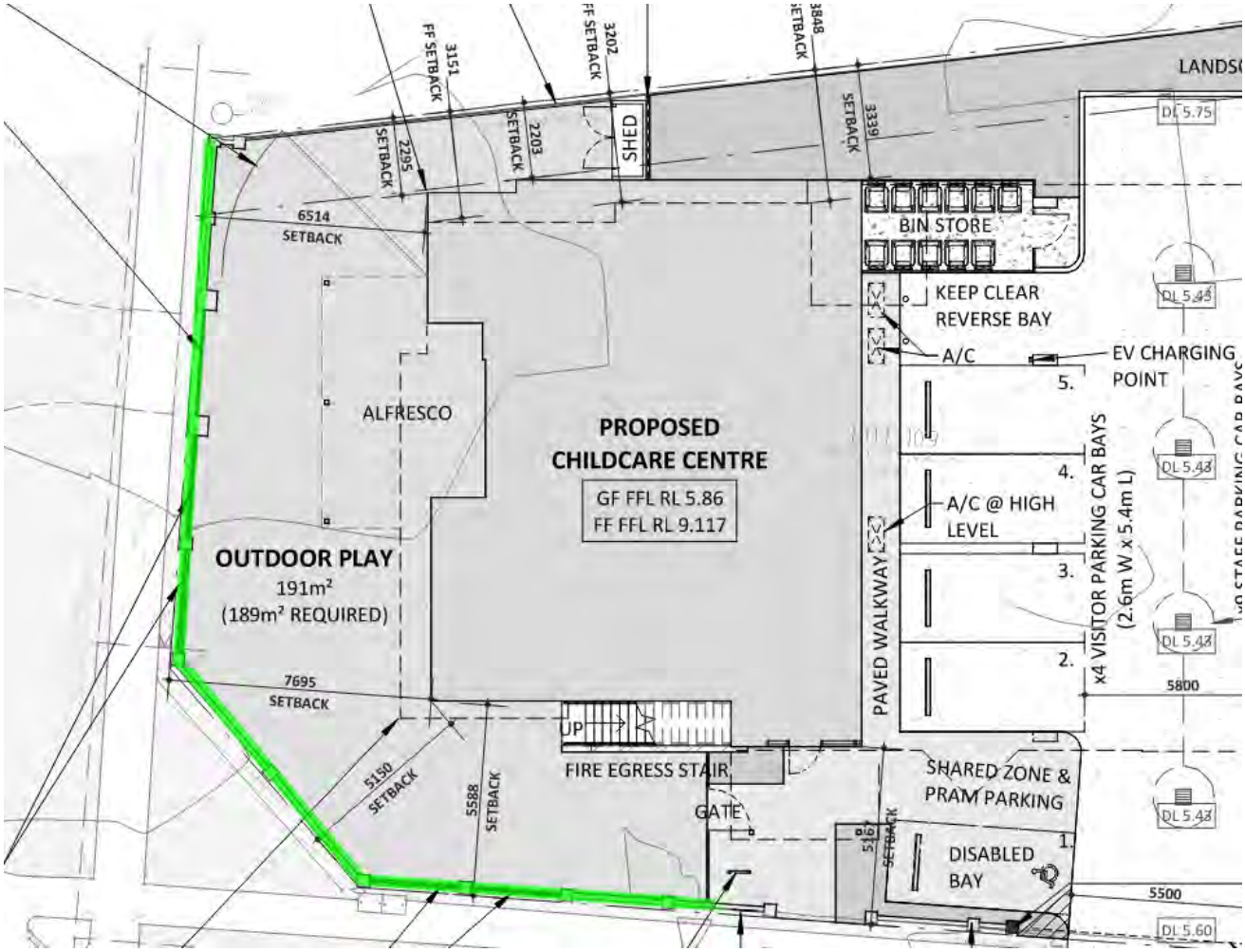


Figure 6: Noise wall location

A noise contour has been shown in Appendix E.

5. Noise Intrusion Assessment

5.1 External Envelope

Noise intrusion calculations were undertaken following the methodology described in British Standard BS EN 12354:2000 and by utilizing the worst case (i.e. highest predicted) noise levels predicted at each façade to determine suitable glazing to achieve the required internal noise levels. Appropriate corrections were applied to the linear spectral noise levels to compensate for potential losses due to flanking paths and façade correction.

5.1.1 External Wall

The noise intrusion has been calculated for all façade elements, which is relative to their surface area.

It is noted in the latest architectural drawings that the majority of the façade will be comprised of glazed elements.

Stantec recommends solid wall elements have a minimum performance of $R_w + C_{tr}$ 40 - 45. Typically, with masonry elements this can be achieved by 150mm concrete wall.

Where lightweight construction is proposed, this will result in reduced acoustic performance specifically in the lower frequencies.

The following construction detailed in is recommended if lightweight walls are to be used, to ensure compliance with the recommended internal noise levels for residential units as specified in SPP 5.4.

Table 13: Façade wall element configuration

Configuration	Wall Performance R_w
One row of 92mm studs (0.55BMT) at 600mm centres with – • Min. 100mm thick glasswool insulation (min. density 11kg/m^3) positioned between row of studs; • One layer 6mm thick fibre cement sheet (min. surface mass 9.4kg/m^2) to outside face; and • One layer 13mm thick standard plasterboard (min. surface mass 8.4kg/m^2) fixed to the other side of the row of studs	> 40

5.1.2 Glazing

Glazing systems and entryway elements typically provide lower airborne sound insulation performance than external walls, forming weak acoustic links in the building envelope.

To satisfy internal noise level design targets, glazed elements located at the façades are determined based on the composite sound reduction index (i.e. the combined sound insulation performance of all façade elements relative to their surface area).

Glazing types for each noise sensitive space located at each façade of the proposed development have been comparatively assessed against the noise levels detailed in this report. The table below provides the glazing performance and proposed locations required to satisfy internal noise level design targets.

The performance ratings outlined below are required for compliance to internal noise level design targets and apply to the glazing system as a whole (i.e. frame, seals and window hardware), with a maximum allowable deviation of 2-3dB only.

Table 14: Façade Glazing configuration

Glazing Configuration	Rw + Ctr	Spectrum Sound Transmission Loss (dB)						
		63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz
Double Glazed Option 6mm glass + 12mm air gap + 6mm glass	**29 (36;-7)**	22	23	19	36	45	41	43
Single Glazed Option 6.38mm laminated glass	**29 (32;-3)**	15	19	24	29	33	35	41

Note: Glazing performance provided for glass only. Overall performance of the glazing system including the frames and seals shall not degrade by more than 3 dB as per the performance requirement stated.

5.1.3 Roof Construction

Whilst it is not a mandatory requirement of the NCC, rain noise intrusion shall be considered with a view of ensuring an adequate level of amenity for occupants.

Additionally, roof construction should be adequately designed to control external noise intrusion from noise sources identified in this report, to satisfactorily provide internal noise levels which are compliant with the criteria established in section 2.3. The following construction is adequate to fulfil the requirements.

One layer of Colorbond sheet metal or similar (0.42 mm); and

- 75 mm thick high-density Anticon insulation hard fixed to the underside of roof and over steel purlins;
- Suspended light weight steel framing system; and
- Min. 50 mm thick glass wool insulation (min. 14kg/m^3) one layer of 13 mm standard plasterboard.

6. Noise Emission Assessment

The proposed development is expected to incorporate the following noise sources as shown on the latest backgrounds:

- Noise emitted from children using the outdoor areas
- Mechanical services – fans and condensers serving the development

6.1 Outdoor Areas

Noise produced by the groups of children present in the childcare center can result in noise levels that might affect any noise sensitive receivers that are located around the proposed project site and is required to comply to the EPNR assigned noise levels.

The proposed childcare center is expected to consist of two outdoor play areas. These play areas will accommodate children of 3 different age groups, for a total of 54 children as shown on the latest architectural drawings:

- 0 – 2 years (Babies) – maximum of 12
- 2 – 3 years (Toddlers) – maximum of 15
- 3 + years (Kindy) – maximum of 27

The respective outdoor areas each age group is expected to occupy has been shown in Figure 7.



Ground Floor: Kindy



Level 1: Toddlers and babies

Figure 7: Outdoor Areas Occupied by Respective Age Groups

Noise modelling software SoundPLAN v9.0 was used to assess noise emissions from outdoor areas of the proposed childcare centre at the nearest noise sensitive receivers. The closest noise sensitive receivers being the following residential lots:

- 62 Gillon St, Karawara WA 6152
- 4 Walanna Dr, Karawara WA 6152

The noise assessment methodology and predicted noise levels are described in the following sections.

6.2 Methodology

The noise assessment has been conducted based on the methodology described in the standard ISO 9613-2: 1996 *"Attenuation of Sound During Propogation Outdoors Part 2: General Method of Calculation"*.

6.2.1 Model Assumptions

The following modelling assumptions have been incorporated into the sound model:

- As per the AAAC "Guideline for ChildCare Centre Acoustic Assessment V3.0", all age groups of children were modelled at 1m height for simplicity
- Based on the latest architectural layouts provided to Stantec, the Outdoor Play Areas are assumed to be utilized by the following Groups respectively as shown in Figure 7:
    - Ground Floor Outdoor Area
        - 3 + years (Kindy)
    - Level 1 Outdoor Area
        - 2 – 3 years (Toddlers)
        - 0 – 2 years (Babies)
- The childcare is expected to only be open during the following times:
    - 0700 to 1800 hours Monday to Friday
- As per the latest architectural layouts, solid screening using a 1.8m high solid fence along the northern boundary and the plant area as shown in Figure 8 will be incorporated. Acoustic screening shall have a minimum weight of 15kg/m^2 typically a 6mm fibre cement sheet with a colorbond fence.

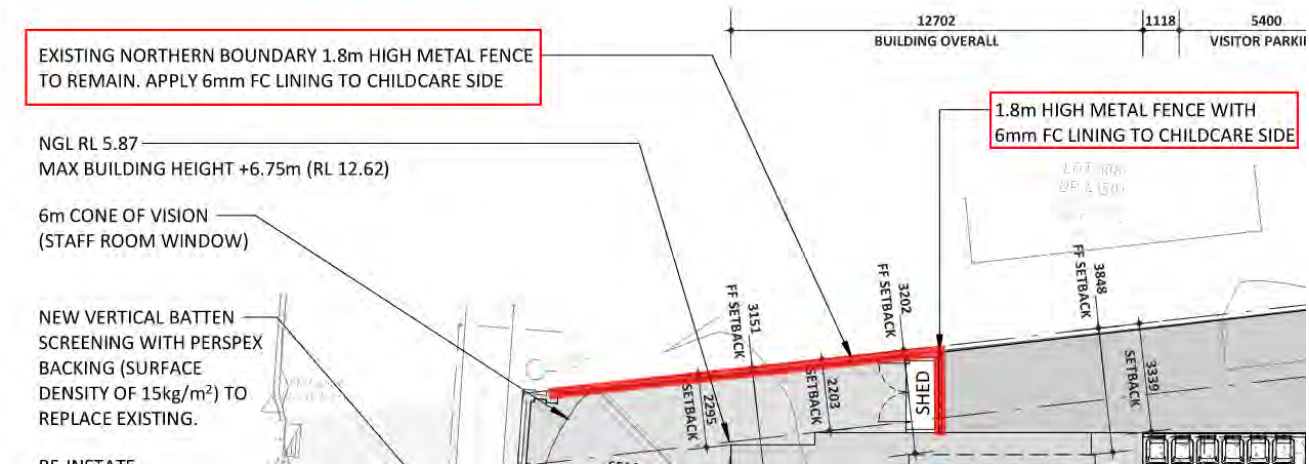


Figure 8: Northern solid fence location

6.2.2 Typical sound levels of groups of children

The AAAC "Guideline for Child Care Centre Acoustic Assessment V3.0" provides recommendations for assessment methods of noise assessments used to accompany a Development Application for childcare centers. The guideline also states typical recommendations for noise control methods when designing a childcare center.

The typical sound power levels for the groups of children playing were determined as per the AAAC guideline Section 4.1.

The following scenarios summarized in Table 15 have been used in this assessment as a worst-case scenario, based on the information provided to Stantec regarding the maximum amount of children for each respective age group:

Table 15: Modelled Scenarios

Scenario	Description
1	All children may use their respective outdoor areas simultaneously - • Ground Floor Outdoor Area o 27 (Kindy) • Level 1 Outdoor Area o 15 (Toddlers) o 12 (Babies) • 1.8m high Acoustic screen along northern boundary (Figure 8)

Sound power level data of varying age groups were taken from AAAC *"Guideline for Child Care Centre Acoustic Assessment V3.0"* and presented in Table 16. Based on the above stated groups of children, sound levels were adjusted for the noise model.

Table 16: Effective sound power levels for groups of children playing

Outdoor Area	Number of Children	Age Group	Overall Sound Power Level, dB(A)	Effective Sound Power Level, dB							
				63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Ground Floor	27	Kindy (3 + years)	**91**	69	75	80	86	88	85	81	77
Level 1	12	Babies (0 – 2 years)	**79**	55	61	67	73	75	72	68	65
	15	Toddlers (2 – 3 years)	**87**	63	69	75	81	83	80	76	72

6.3 Noise Modelling Results

6.3.1 Results Summary

The highest predicted sound power level at nearest noise sensitive receivers for the SoundPLAN v9.0 model have been summarized in Table 17 for each scenario summarized in Table 15. A noise contour illustrating predicted noise levels has been provided in Appendix E.

Table 17: Predicted Noise levels at closest noise sensitive receivers

Scenario	Receiver	Predicted Noise Level L_{A10}, dB(A)	Criteria L_{A10}, dB(A)	Compliance/Exceedance
1	4 Walanna Dr	51	51	Compliant
	62 Gillon St	47	47	Compliant

Predicted noise levels at the closest nearby noise sensitive receivers is shown in Table 17.

Overall, Compliance is achieved for all nearby closest receivers to its respective EPNR assigned noise level criteria.

6.4 Mechanical Services

Noise generated via the mechanical services from the proposed development is required to comply with EPNR assigned noise level criteria. It is expected that mechanical services will only run during operating hours which has assumed to be 0700 to 1800 hours Monday to Friday.

The EPNR assigned noise levels only apply at the premises receiving the noise only and not to noise within the project site. It is important that noise emissions from the site do not present any form of tonality, modulation or impulsiveness (defined in the EPNR).

6.4.1 Condensers

The outdoor condensers serving the proposed development are expected to be located at the position shown in the figure below.

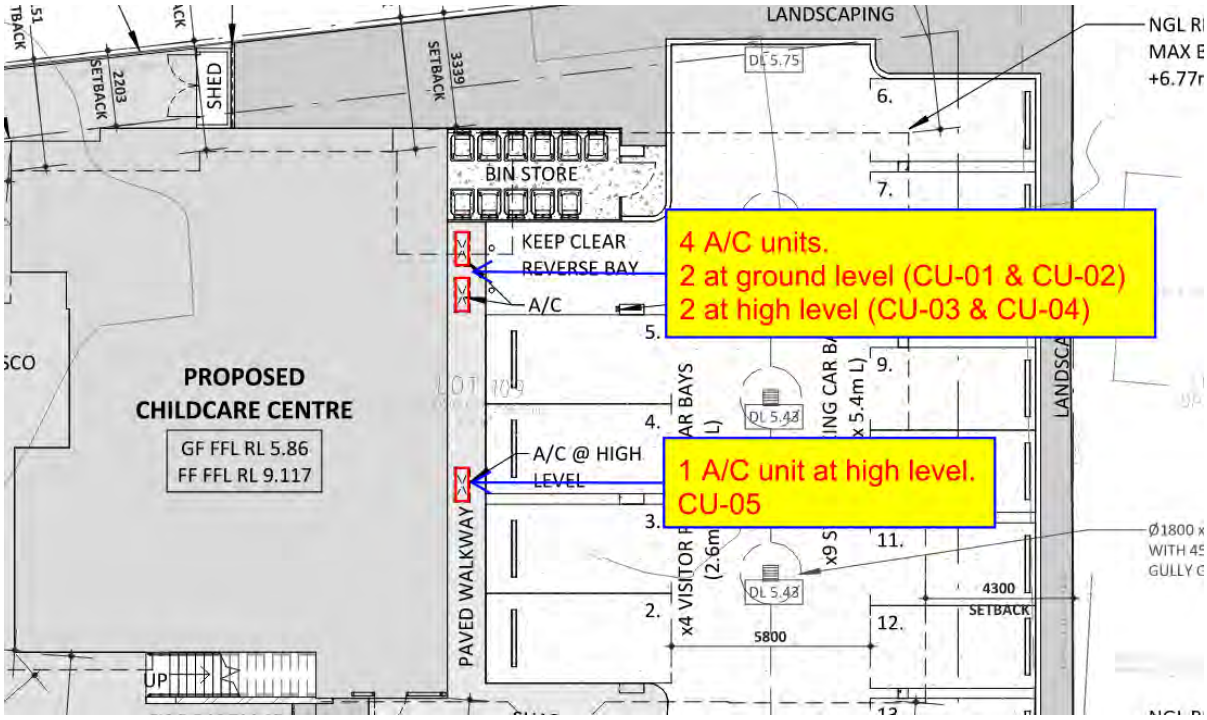


Figure 9: Outdoor Condenser unit locations.

Preliminary unit information for the condensers serving the proposed development has been provided for review. Acoustic assessments of the units assuming they are operational at full duty has been carried out.

The unit sound data has been summarized below:

- CU-01 - DAIKIN RSUYQ6AVMA - 56 dB(A) @1m (SPL)
- CU-02 - DAIKIN RSUYQ4AVMA – 54 dB(A) @1m (SPL)
- CU-03 - DAIKIN RSUYQ5AVMA – 54 dB(A) @1m (SPL)
- CU-04 - DAIKIN RSUYQ5AVMA – 54 dB(A) @1m (SPL)
- CU-05 - DAIKIN RXF60WVMA – 50 dB(A) @1m (SPL)

6.4.1.1 Results Summary

The highest predicted sound power level at nearest noise sensitive receivers were modelled in SoundPLAN v9.0.

In order to achieve compliance at all nearby closest receivers, a solid noise wall to the extent shown in Figure 10 below is required to be incorporated.

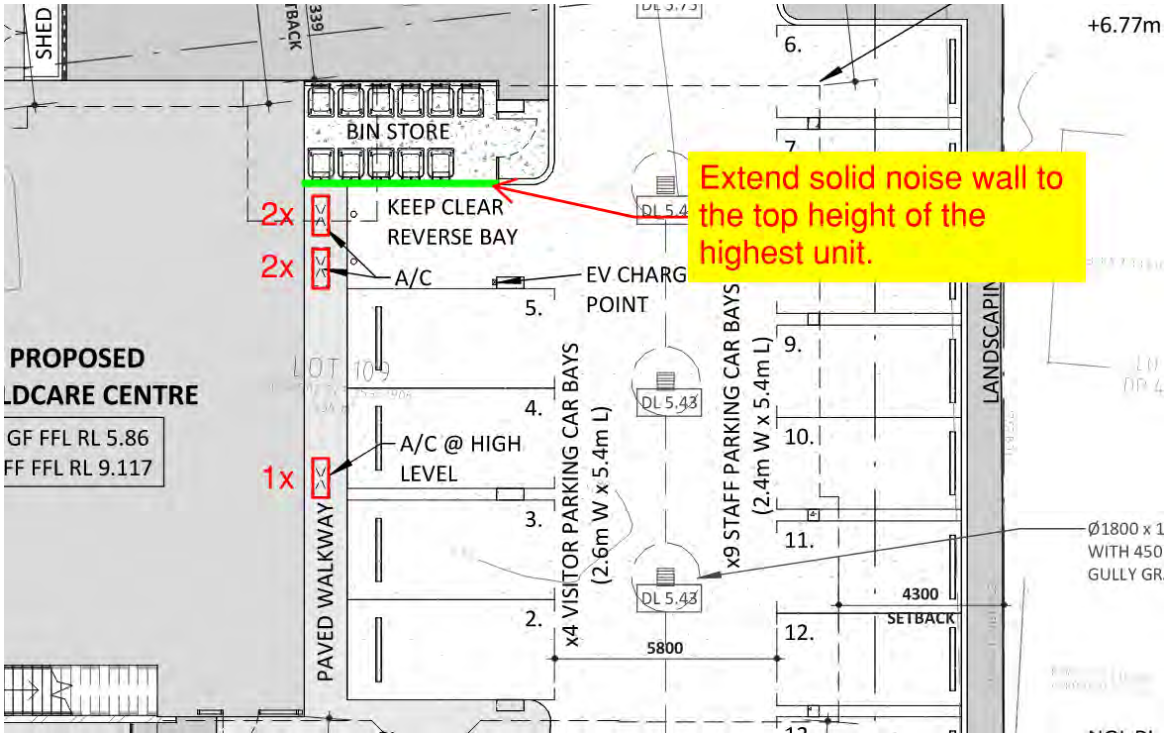


Figure 10: Mechanical Plant – Noise Wall

Noise wall will be required to be extend at minimum to the top height of the highest unit and be without air gaps or features that would allow sound to be transmitted through the material. Typical barrier shall be constructed using materials having a surface density of 15kg/m^2. Example materials include fibre cement sheet, wood or Perspex.

The predicted noise levels at the closest receivers are shown in Table 18.

Table 18: Predicted Noise levels at closest noise sensitive receivers due to outdoor condensers

Receiver	Predicted Noise Level L_{A10}, dB(A)*	Criteria L_{A10}, dB(A)	Compliance/Exceedance
4 Walanna Dr	43	51	**Compliant**
62 Gillon St	47	47	**Compliant**

*Predicted noise levels include the +5dB to account for the presence of tonality

With the above acoustic treatment incorporated, it is expected that compliance will be achieved at all nearby receivers. should mechanical unit selection be changed as the project progresses further into the design stages, acoustic assessment will be conducted as necessary to ensure compliance is achieved prior to the issue of Building Permit.

7. Conclusion

Stantec have been engaged to conduct an acoustic assessment and prepare an acoustic report in support of the development application for the childcare development proposed for 64 Gillon St, Karawara WA 6152 located within the City of South Perth.

The overall influencing factor has been calculated using the Local Planning Scheme No.7 (LPS7) obtained from the City of South Perth online mapping system. LPS7 has also been used to calibrate the 100m and 450m radius circle required to be established as per the EPNR Guidelines to determine the overall influencing factor for the nearest noise sensitive receiver.

Traffic noise assessment has been carried out as per the SPP 5.4 and the minimum recommended external façade construction has been provided in the form of glazing and wall configurations. The predicted noise levels at the building façades were obtained through the use of the 3D noise modelling software Package, SoundPLAN 9.0. On-site unattended measurements were conducted in order to calibrate the model.

Internal design noise levels have been predicted to be achieved based on the recommended external envelope configurations provided in this report.

Noise emissions from outdoor areas were assessed and a cumulative noise assessment was carried out to predict the levels at nearest noise sensitive receivers. Based on the modelled scenario, ccompliance is achieved at all nearby closest receivers to its respective EPNR assigned noise level criteria.

Noise generated via the mechanical services from the proposed development is required to comply with EPNR criteria. Preliminary unit information has been provided to the acoustic engineer for review. Acoustic assessments of the units assuming they are operational at full duty has been carried out.

In order to achieve compliance at all nearby closest receivers, a solid noise wall to the extent detailed in this report is required to be incorporated.

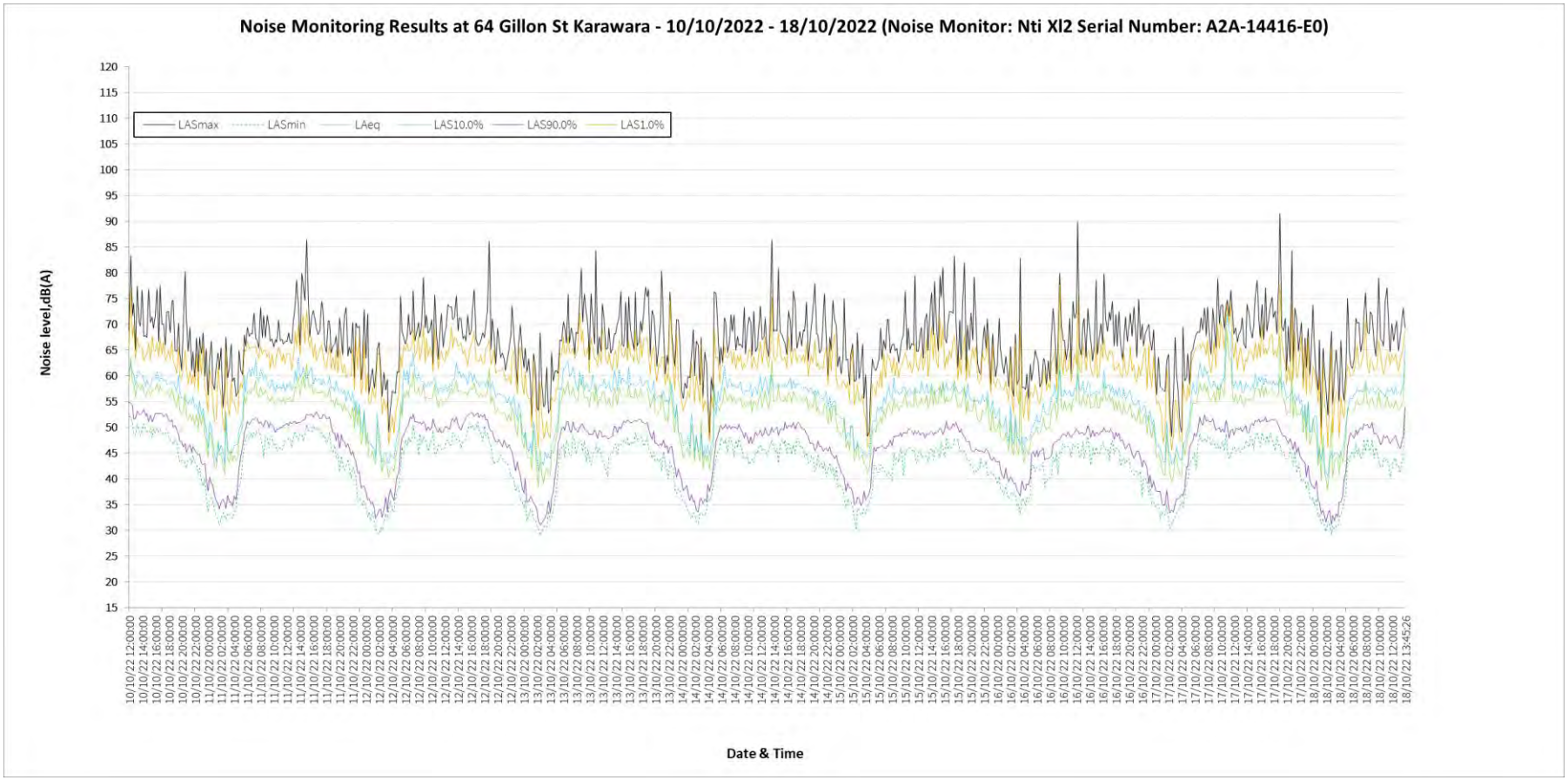
With the above mitigation measure, it is expected that compliance will be achieved at all nearby receivers. should mechanical unit selection be changed as the project progresses further into the design stages, acoustic assessment will be conducted as necessary to ensure compliance is achieved prior to the issue of Building Permit.

Appendix A Glossary of Acoustic Terms

NOISE	
Acceptable Noise Level:	The acceptable LAeq noise level from industrial sources, recommended by the EPA (Table 2.1, INP). Note that this noise level refers to all industrial sources at the receiver location, and not only noise due to a specific project under consideration.
Adverse Weather:	Weather conditions that affect noise (wind and temperature inversions) that occur at a particular site for a significant period of time. The previous conditions are for wind occurring more than 30% of the time in any assessment period in any season and/or for temperature inversions occurring more than 30% of the nights in winter).
Acoustic Barrier:	Solid walls or partitions, solid fences, earth mounds, earth berms, buildings, etc. used to reduce noise.
Ambient Noise:	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment Period:	The period in a day over which assessments are made.
Assessment Location	The position at which noise measurements are undertaken or estimated.
Background Noise:	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level.
Decibel [dB]:	The units of sound pressure level.
dB(A):	A-weighted decibels. Noise measured using the A filter.
Extraneous Noise:	Noise resulting from activities that are not typical of the area. Atypical activities include construction, and traffic generated by holidays period and by special events such as concert or sporting events. Normal daily traffic is not considered to be extraneous.
Free Field:	An environment in which there are no acoustic reflective surfaces. Free field noise measurements are carried out outdoors at least 3.5m from any acoustic reflecting structures other than the ground
Frequency:	Frequency is synonymous to pitch. Frequency or pitch can be measured on a scale in units of Hertz (Hz).
Impulsive Noise:	Noise having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent Noise:	Level that drops to the background noise level several times during the period of observation.
LAmax	The maximum A-weighted sound pressure level measured over a period.
LAmin	The minimum A-weighted sound pressure level measured over a period.
LA1	The A-weighted sound pressure level that is exceeded for 1% of the time for which the sound is measured.
LA10	The A-weighted sound pressure level that is exceeded for 10% of the time for which the sound is measured.
LA90	The A-weighted level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
LAeq	The A-weighted “equivalent noise level” is the summation of noise events and integrated over a selected period of time.

LAeqT	The constant A-weighted sound which has the same energy as the fluctuating sound of the traffic, averaged over time T.
Reflection:	Sound wave changed in direction of propagation due to a solid object met on its path.
R-w:	The Sound Insulation Rating R-w is a measure of the noise reduction performance of the partition.
SEL:	Sound Exposure Level is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations.
Sound Absorption:	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound Level Meter:	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound Pressure Level:	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound Power Level:	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise:	Containing a prominent frequency and characterised by a definite pitch.

Appendix B Unattended Noise Measurement Data



Appendix C Noise Modelling Checklist

Checklist item		Action
Road traffic input data		
Road name	**Manning Rd (West of Elderfield Rd) 2021/22**	
	16-hr daytime road traffic volume	34151
	Percentage of heavy vehicles (daytime)	4
	8-hr night-time road traffic volume	1947
	Percentage of heavy vehicles (night-time)	5
Road pavement	Open Grade Asphalt	
Road traffic heights	Have the road emissions sources been modelled at the following heights?	
	Light and heavy vehicle tyre-road height at +0.5 m	Y
	Heavy vehicle engine height at +1.5 m	Y
	Heavy vehicle exhaust height at +3.6 m	Y
Traffic speed	What is the modelled road posted (signal) traffic speed?	70 km/h

Noise prediction corrections			
Traffic emission	If using the Calculation of Road Traffic Noise algorithms, have the following corrections been applied?		
	-0.8 dB correction to heavy vehicle engine emission?		Y
	-8.0 dB correction to the heavy vehicle exhaust emission?		Y
Road pavement	Has one of the following corrections been applied to the tyre/road emission?		Y
	14 mm chip seal	+3.5 dB	
	10 mm chip seal	+2.5 dB	
	5 mm chip seal	+1.5 dB	
	Dense graded asphalt	0.0 dB	
	Novachip	-0.2 dB	
	Stone mastic asphalt	-1.5 dB	
	Open graded asphalt	-2.5 dB	Y
Australian traffic	Has a -1.7 dB Australian Road Research correction or reasonable equivalent applied?		Y
Receptor façade	Has a +2.5 dB building façade correction been applied?		Y

Appendix D Mainroads Validation and Link Volume Plots

2016 ROM24 Scenario - Link Volume Plot for Manning Rd, Karawara Noise Assessment
All Day
MLUFS Version 1.4 land use assumption with 20-Year Road Network Development Plan

MODEL ASSUMPTIONS

NETWORK: 2016 ROM24 Network (20-Year Road Network Development Plan)
LAND USE: 2016 MLUFS Land Use (Version 1.4 - August 2018)

ROM24 Multi-Modal Model V4.40
24-Hour Traffic Volumes (Factor X 100)

Terms & Conditions :
MRWA Traffic Modelling Data as supplied to approved clients is confidential and is not to be made available to unauthorised persons or organisations. This data should not be used for any purpose other than the stated purpose for which it was requested from MRWA. The MRWA ROM is for estimating regional traffic volumes on regional and major local roads, and it should not be used for estimating local traffic on local roads. The MRWA ROM includes local roads but this is to provide connectivity in the model.
MRWA Traffic Modelling Data should be interpreted by an experienced/qualified person.
This data should not be used in making decisions relating to commercial or residential developments.



mainroads WESTERN AUSTRALIA

Transport Modelling Section
Enquiries Thomas Ng 9323 6366
MRWA Reference Job #42395
Thu 29 Sep 2022
T:\VOYAGER\JOBS_V2022\42395\Reports\LVP\42395_LVP_All Day_Y16 MLUFS V140_Manning Rd_Karawara.VPR

- 1 Lane Each Direction
- 2 Lanes Each Direction
- 3 Lanes Each Direction
- >=4 Lanes Each Direction
- Zone Connector

MRWA ROM24 Base Network - Version 2014
MRWA Transport Modelling Data as supplied to approved clients is confidential and is not to be made available to unauthorised persons or organisations

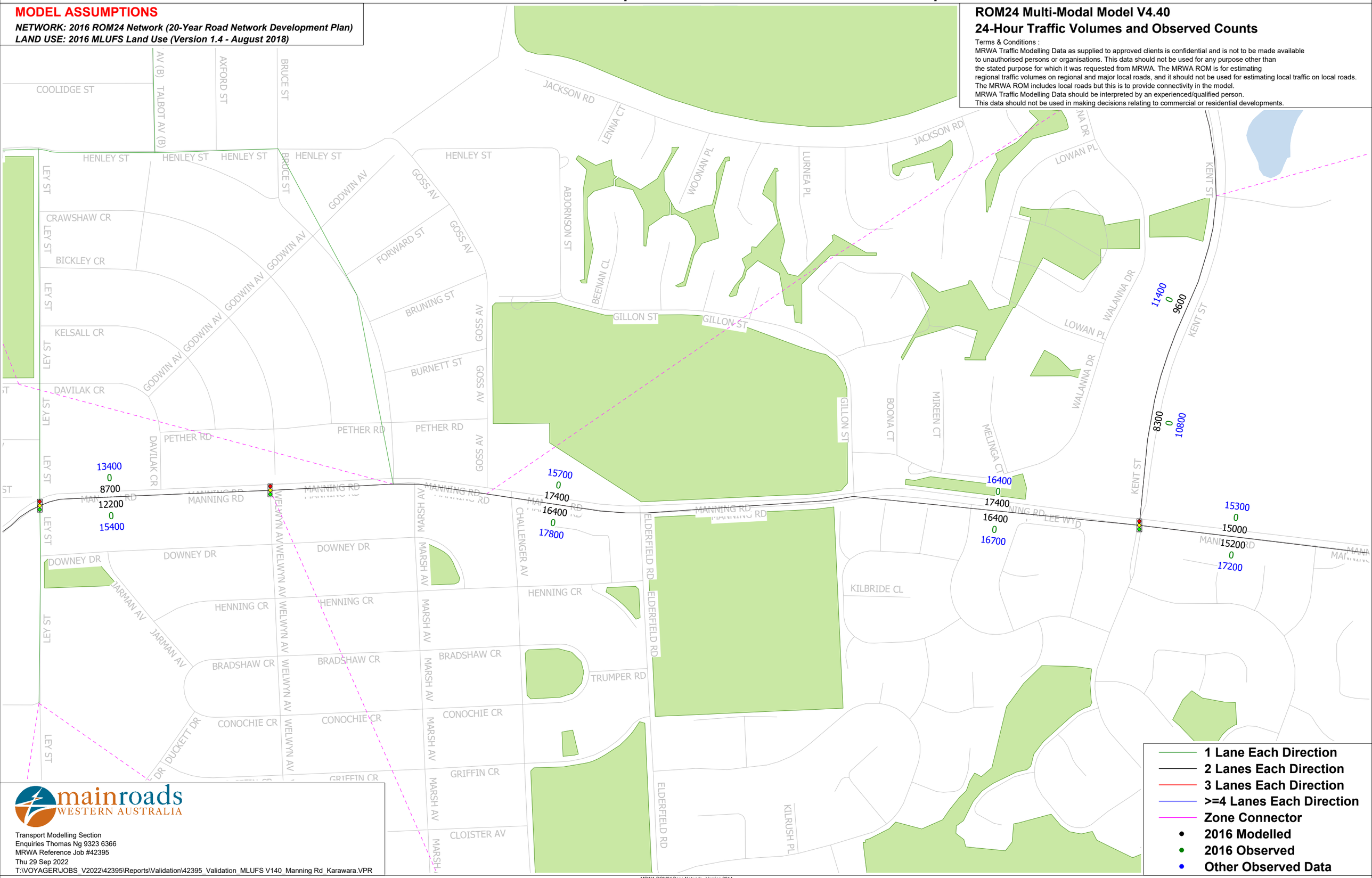
2016 ROM24 Scenario - Validation Plot for Manning Rd, Karawara Noise Assessment
All Day
MLUFS Version 1.4 land use assumption with 20-Year Road Network Development Plan

MODEL ASSUMPTIONS

NETWORK: 2016 ROM24 Network (20-Year Road Network Development Plan)
LAND USE: 2016 MLUFS Land Use (Version 1.4 - August 2018)

ROM24 Multi-Modal Model V4.40
24-Hour Traffic Volumes and Observed Counts

Terms & Conditions :
MRWA Traffic Modelling Data as supplied to approved clients is confidential and is not to be made available to unauthorised persons or organisations. This data should not be used for any purpose other than the stated purpose for which it was requested from MRWA. The MRWA ROM is for estimating regional traffic volumes on regional and major local roads, and it should not be used for estimating local traffic on local roads. The MRWA ROM includes local roads but this is to provide connectivity in the model.
MRWA Traffic Modelling Data should be interpreted by an experienced/qualified person.
This data should not be used in making decisions relating to commercial or residential developments.



1 Lane Each Direction
2 Lanes Each Direction
3 Lanes Each Direction
>=4 Lanes Each Direction
Zone Connector
2016 Modelled
2016 Observed
Other Observed Data

mainroads WESTERN AUSTRALIA
Transport Modelling Section
Enquiries Thomas Ng 9323 6366
MRWA Reference Job #42395
Thu 29 Sep 2022
T:\VOYAGER\JOBS_V2022\42395\Reports\Validation\42395_Validation_MLUFS V140_Manning Rd_Karawara.VPR

MRWA ROM24 Base Network - Version 2014
MRWA Transport Modelling Data as supplied to approved clients is confidential and is not to be made available to unauthorised persons or organisations

2041 ROM24 Scenario - Link Volume Plot for Manning Rd, Karawara Noise Assessment
All Day
MLUFS Version 1.4 land use assumption with 20-Year Road Network Development Plan

MODEL ASSUMPTIONS

NETWORK: 2041 ROM24 Network (20-Year Road Network Development Plan)
LAND USE: 2041 MLUFS Land Use (Version 1.4 - August 2018)

ROM24 Multi-Modal Model V4.40
24-Hour Traffic Volumes (Factor X 100)

Terms & Conditions :
MRWA Traffic Modelling Data as supplied to approved clients is confidential and is not to be made available to unauthorised persons or organisations. This data should not be used for any purpose other than the stated purpose for which it was requested from MRWA. The MRWA ROM is for estimating regional traffic volumes on regional and major local roads, and it should not be used for estimating local traffic on local roads. The MRWA ROM includes local roads but this is to provide connectivity in the model.
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1 Lane Each Direction
2 Lanes Each Direction
3 Lanes Each Direction
>=4 Lanes Each Direction
Zone Connector

mainroads WESTERN AUSTRALIA

Transport Modelling Section
Enquiries Thomas Ng 9323 6366
MRWA Reference Job #42395
Thu 29 Sep 2022
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MRWA ROM24 Base Network - Version 2014
MRWA Transport Modelling Data as supplied to approved clients is confidential and is not to be made available to unauthorised persons or organisations

Appendix E Noise Contours

Child Care Centre
64 Gillon St
Karawara

301270064
16/09/2024
JLM

FUTURE DAY TIME
SCENARIO (2044)

NOISE CONTOUR AT
1.4m RECIEVER HEIGHT

Noise level
in dB(A)

	< 45.0
45.0 <=	< 47.0
47.0 <=	< 49.0
49.0 <=	< 51.0
51.0 <=	< 53.0
53.0 <=	< 55.0
55.0 <=	< 57.0
57.0 <=	< 59.0
59.0 <=	< 61.0
61.0 <=	< 63.0
63.0 <=	< 65.0
65.0 <=	< 67.0
67.0 <=	< 69.0
69.0 <=	< 71.0
71.0 <=	< 73.0
73.0 <=	< 75.0
75.0 <=	< 77.0
77.0 <=	

0 8 16 24 32 40 m

Stantec

Child Care Centre
64 Gillon St
Karawara

301270064
16/09/2024
JLM

FUTURE DAY TIME
SCENARIO (2044)

NOISE CONTOUR AT
1.4m RECIEVER HEIGHT

Noise level
in dB(A)

	< 45.0
45.0 <=	< 47.0
47.0 <=	< 49.0
49.0 <=	< 51.0
51.0 <=	< 53.0
53.0 <=	< 55.0
55.0 <=	< 57.0
57.0 <=	< 59.0
59.0 <=	< 61.0
61.0 <=	< 63.0
63.0 <=	< 65.0
65.0 <=	< 67.0
67.0 <=	< 69.0
69.0 <=	< 71.0
71.0 <=	< 73.0
73.0 <=	< 75.0
75.0 <=	< 77.0
77.0 <=	

0 8 16 24 32 40 m

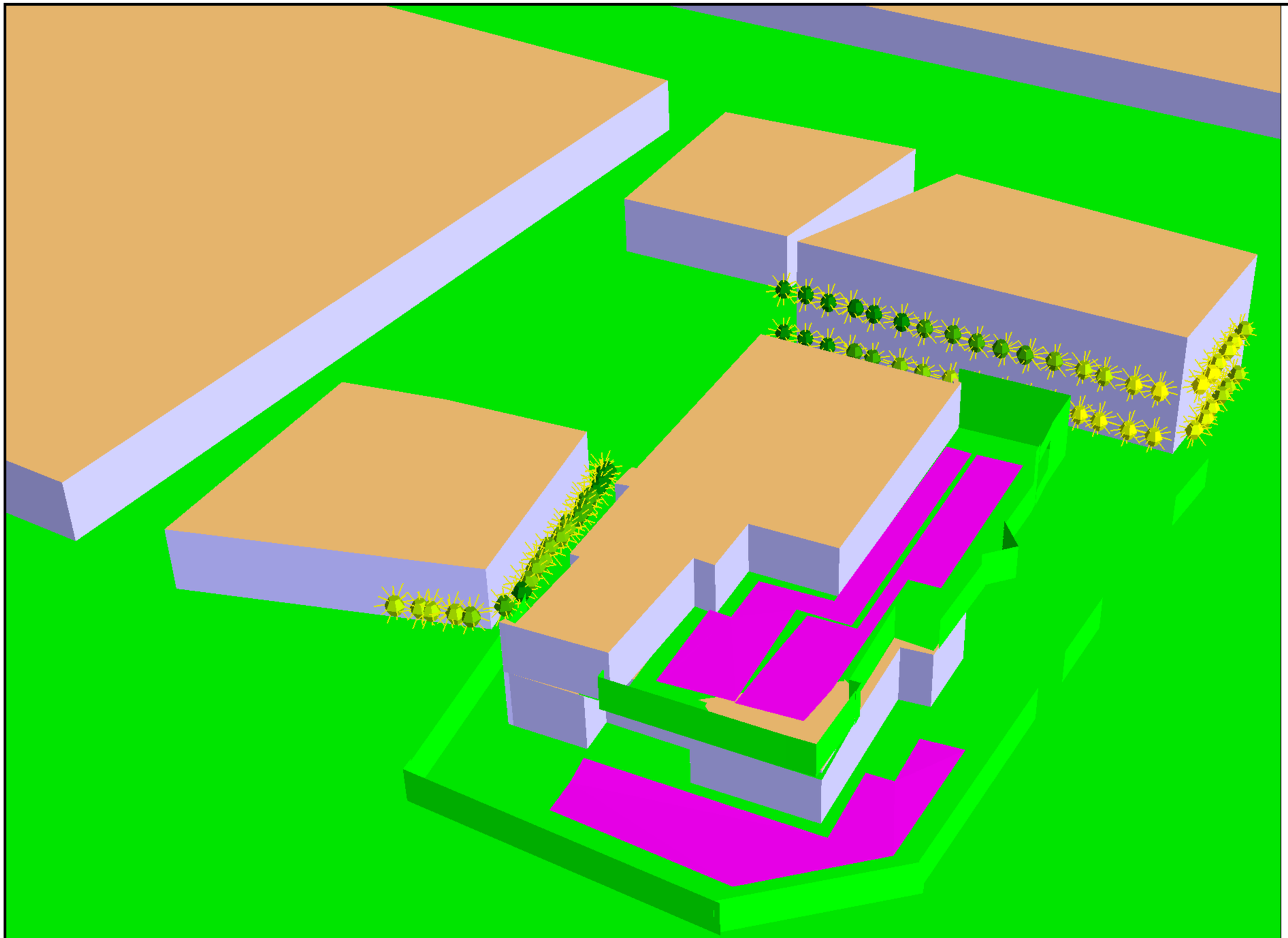
Stantec

Child Care Centre
64 Gillon St
Karawara

301270064
16/09/2024
JLM

Scenario 1

Noise Emitted From
Outdoor Areas
(100% Capacity)



Noise level
in dB(A)

	< 42.0
42.0 <=	< 44.0
44.0 <=	< 46.0
46.0 <=	< 48.0
48.0 <=	< 50.0
50.0 <=	< 52.0
52.0 <=	< 54.0
54.0 <=	< 56.0
56.0 <=	< 58.0
58.0 <=	< 60.0
60.0 <=	< 62.0
62.0 <=	< 64.0
64.0 <=	< 66.0
66.0 <=	< 68.0
68.0 <=	< 70.0
70.0 <=	< 72.0
72.0 <=	< 74.0
74.0 <=	

0 8 16 24 32 40
m

Stantec

Ground Floor
226 Adelaide Terrace
Perth WA 6000
Tel +61 8 6222 7000

Stantec

Connect with us

stantec.com/australia

Job Ref: M3042
13/05/2024

City of South Perth
Cnr Sandgate Street and South Terrace
SOUTH PERTH WA 6151

SUSTAINABLE DESIGN STRATEGY
LOT 109 (NO. 64) GILLON STREET, KARAWARA

Motivo have developed a Sustainable Design Strategy for the proposed childcare premises at 64 Gillon Street, Karawara. The purpose of this report is to support the development applicaon` by idenfying the` principles incorporated in the design that meet sustainable objecves` and targets for the site.

This project shall also comply with the Naonaàl Construction Code Secon` J for Energy Efficiency. All aspects of Section J shall be provided for as compliant regards to building fabric, glazing, mechanical, electrical and hydraulic systems design. These elements of compliance to Secon` J will be provided and Certified by the relevant consultant disciplines during the Building Permit submission process.

The building design has utilised environmentally sustainable design to optimise solar access and airflow through the proposed development. This will reduce the development's reliance on conventional climate control systems.

The building will consist of the following rooms:
Ground Floor: Kindy Room & Toilets, Foyer, Office, UAT, Circulation, Kitchen
First Floor: Toddlers & Babies Room, Cot Room, Nappy Change, Laundry, Dry Court, Staff Room & WC

A variety of nave` species have been utilised in the landscaping areas to minimise water usage and contribute to the visual amenity of the building while also combatting the urban heat island effect as evident in the landscaping plan.

Key Sustainable Iniaàveạs
The following is a summary of the sustainable initiatives for inclusion within the project and provided achievable targets for the development.

1. **Air Quality**
   The air conditioning and ventilation design shall allow for high efficiency filtration systems within air handling and ducted fan coil systems. These filter systems shall be accessible for maintenance, cleaning and replacement to ensure a healthy air quality is maintained in the occupied spaces. The air conditioning shall be designed to allow for individually controlled zones with separate user control for comfort and energy reduction when not in use.

2. **Visual Comfort / Daylight**
   The buildings architectural design has been provided with strong solar passive design and external shading using roof overhangs to avoid glare onto work surfaces. Internal Blinds will be provided in the design.

3. **Lighting**
   The lighting design shall use high efficiency LED lighting instead of convenonal Compact` Fluorescent and Incandescent Lighting. The lighng deạsign shall also use lighting control

system to allow light level adjustment for end user control to allow for energy reducon` when ambient daylight levels are sufficient for occupant use. This will provide significant savings in operation energy.

4. Indoor Pollutants

All paints, adhesives and sealants used for internal application on the project shall have a low VOC content as outlined below:

Product Category	Max TVOC content in grams per litre (g/L) of ready to use product
General purpose adhesives and sealants	50
Interior wall and ceiling paint, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
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

All carpets used within the project shall be certified under a recognised Product Certification Scheme.

All engineered wood products shall have no formaldehyde or meet the limits of the relevant testing protocols. These have been specified below:

Test Protocol	Emission Limit/ Unit of Measure
Plywood - AS/NZS 2269:2004 & AS/NZS 2098.11:2005	< 1.0 mg/L
Particle Board - AS/NZS 1859.1:2004 & AS/NZS 4266.16:2004	< 1.5 mg/L
Plywood & Par. cle Board – JIS A 5908:2003	< 1.0 mg/L
MDF - AS/NZS 1859.2:2004 & AS/NZS 4266.16:2004	< 1.0 mg/L
MDF – JIS A 5905:2003	< 1.0 mg/L
ASTM D5116	< 0.1 (+/- 0.005) mg/m2/hr
ISO 16000	< 0.1 (+/- 0.005) mg/m2/hr
ASTM D6007	< 0.12 mg/m3
ASTM E1333	< 0.12 mg/m3
EN 717-1	< 0.12 mg/m3

5. Water

Perth has a limited potable water supply due to the increases in populaon and reducons in rainfall levels. By reducing this demand will help to alleviate the concerns related to potable water usage. All new water services are to ensure that high WELS rang fixtures and fing are to be installed as appropriate.

- Taps (5 Star WELS Rang), T oilets (4 Star WELS Rang), Showers (3 Star WELS Rang, not more than 7.5L/m).

A variety of nave species have been ul ised in the landscaping areas to minimise water usage. Sub-soil drip Irrigaon f or planng s shall be included.

6. **Improved Thermal Performance**
   Achieving improvement over NCC Secon J ‘ Deemed-to-sasfy ’ requirements will ensure improved thermal performance is achieved for this site. Mov o will work with services consultants during design development stage to ensure the HVAC equipment is to be sized with lower capacity to reduce the operaon c ost of HVAC system. Specificaon of HVAC system shall exceed minimum MEPS requirements and achieve COP/EER of 3.8 or higher.

   Proposed preliminary building fabric specificaon s:
   External Walls (Rt2.3) = Brick cavity walls with insula on
   Roof/Ceiling (Rt5.2) = Reflecve blanket under roof cover & ceiling insulaon . Light coloured roof cover.
   Soffit insulaon to parking = R1 thermal insulaon b oard.
   High performance glazing, high visible transmia nce, light to solar gain ra os of 1. 4.5 U-Value, 0.55 SHGC, >0.55 VLT

7. **PV ARRAY**
   The development will be installing a solar PV system to offset energy use. The economics of solar are very favourable for occupancy of childcare centres. Using solar generated power on site results in much lower emissions associated with the development compared to using the fossil fuel powered grid. Feeding out to the grid assumes a net environmental credit as the electricity will be consumed by a neighbouring consumer therefore reducing the demand on the grid.

   By connecng the system to the grid electricity, energy not used on-site will feed back into the grid. This can be thought of as offseng t he carbon associated with the materials used in construcng and maintaining the building.

8. **Building Metering And Monitoring**
   A monitoring system capable of monitoring at a minimum electrical and potena l for water consumpon t hroughout the building with sow are providing easy to read monitoring and trend usage data. The informa on recorded by this system shall be available to the property owner/tenant. This informaon shall be ul ised by the owner in rela on to billing of water and electricity usage.

9. **Transport**
   It is the intenon of this category to reduce occupant’s dependency on private vehicle usage. This is achieved by providing alternaves methods of transport and provide a high level of amenity in the surrounding vicinity. The development will provide bicycle storage facilies.

This report has presented the key sustainability inia ves which will be pursued during the design and documenta on stage of this development to achieve its sustainability targets for this development site.

Should you require any further informa on or clarifica on in rela on to this ma er, please contact on 9204 5090.

Yours faithfully,

David Turcato
Mov o

24 September 2024

Chief Executive Officer
City of South Perth
Cnr Sandgate Street and South Terrace
SOUTH PERTH WA 6151

Attention: Mr Scott van Ierland – Senior Urban Planner (Statutory)

Dear Sir

PDDA-2024/3678 - Development Application
Lot 109 (No. 64) Gillon Street, Karawara

We write in relation to the Development Application for a childcare centre located at Lot 109 (No. 64) Gillon Street, Karawara (**the subject site**). We refer to the City of South Perth request for information dated 29 August 2024, in which the City requested the Sustainability Vision Report is updated to include a statement that gave a commitment from the proponent/operator of the childcare centre to incorporate the key sustainability aspects listed in the Report into the proposed development.

As the landowner and operator of the proposed childcare centre, we commit to incorporate all of the key sustainability aspects that are listed in the Sustainability Vision Report, including:

- High efficiency filtration systems in the mechanical air conditioning and ventilation design.
- Maximise natural daylight penetration through the building architecture design.
- High efficiency LED lighting to suit the NCC Section J6 lighting density requirements.
- A lighting control system to allow light level adjustment.
- Have sufficient views to the environment outside via smart planning and arrangement of glazing systems.
- Incorporate mechanical air conditioning design to allow individual control against key thermal zones.
- Use of low VOC paints in interior and exterior finishing.
- Use of water efficient toilets and taps.
- Use of high performance double glazing.
- Incorporation of a 5kw solar PV array on the roof of the building.
- A waste management system appropriate for a childcare centre development.

Further details of the above key sustainability aspects are contained in the Sustainability Vision Report dated 29 June 2024.

Should you require any further information or clarification in relation to this matter, please contact the undersigned.

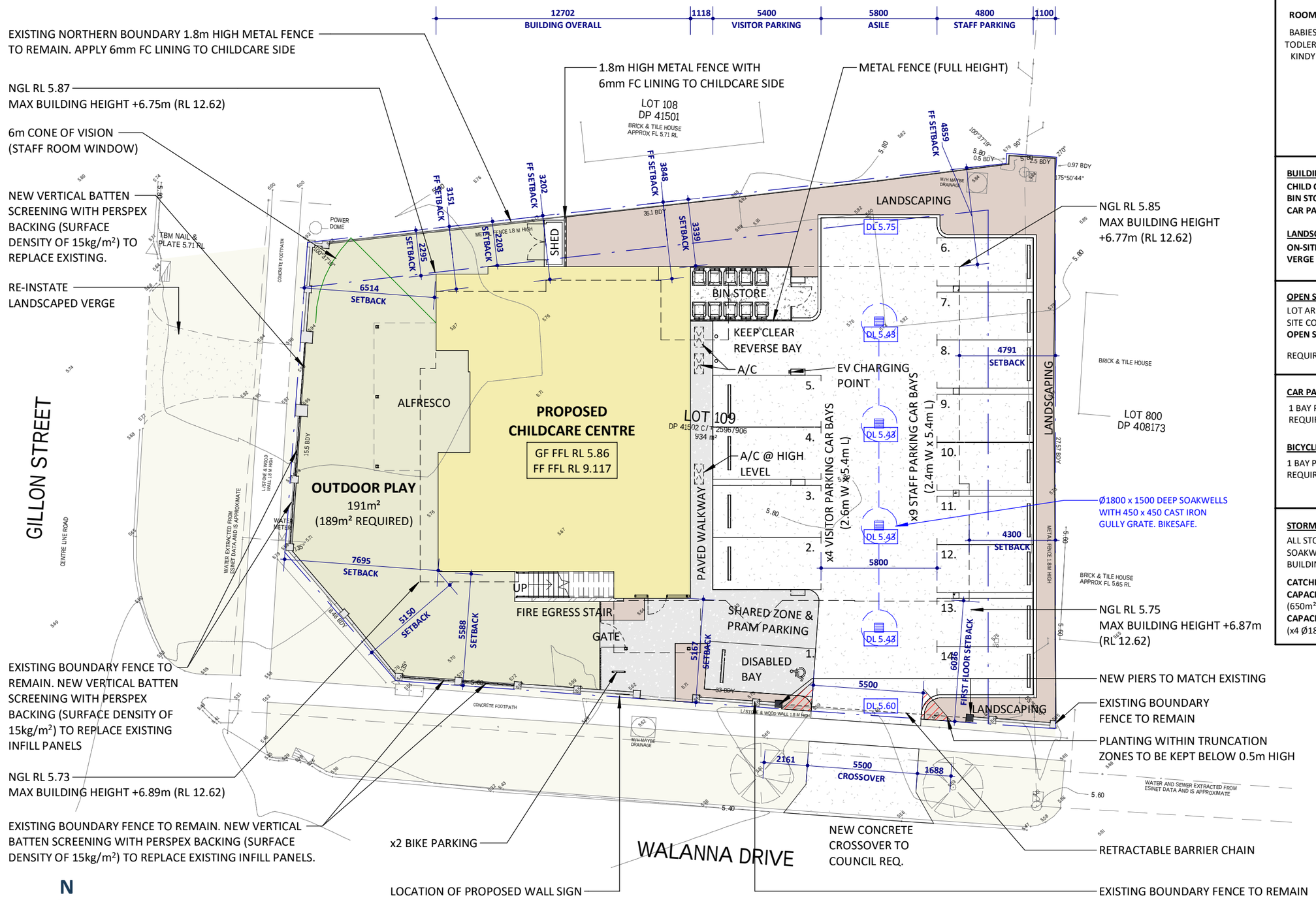
Yours faithfully,



Stephanie Wee
Monster Investments



Marcus Wee
Monster Investments



ROOM CONFIGURATION KARAWARA

ROOM	AGE GROUP	CHILDREN	STAFF	INTERNAL SPACE req.	EXTERNAL SPACE req.
BABIES	0-24 month	12	3 (1:4)	39m²	84m²
TODLERS	2-3 year	15	3 (1:5)	48.75m²	105m²
KINDY	+3 year	27	3 (1:10)	87.75m²	189m²
	TOTAL =	**54**	**9**		

TOTAL INTERNAL SPACE = 182m²
(Min 3.25m² PER CHILD Req) (175.5m² Req)

TOTAL OUTDOOR PLAY = 382m²
(Min 7m² PER CHILD Req) (378m² Req)

BUILDING AREAS

CHILD CARE CENTRE	**426m² (GF = 192m² / FF = 234m²)**
BIN STORE & A/C	**28m²**
CAR PARK	**358m²**

LANDSCAPING

ON-SITE LANDSCAPE	**92m² (9.8% of SITE AREA)**
VERGE LANDSCAPE	**270m²**

OPEN SPACE

LOT AREA	= 934m²
SITE COVERAGE	= 463m²
OPEN SPACE	**= 471m² (50.4%)**

REQUIRED OPEN SPACE R20 = 50%

CAR PARKING

1 BAY PER 4 CHILDREN REQUIRED (13.5 CAR BAYS) — **14 CAR BAYS PROVIDED**

BICYCLE PARKING

1 BAY PER 10 STAFF REQUIRED (0.9 BICYCLE BAYS) — **2 BICYCLE BAYS PROVIDED**

STORMWATER MANAGEMENT CONCEPT

ALL STOROMWATER SHALL BE CONTAINED ONSITE.
SOAKWELLS INTERCONNECTED.
BUILDING RAINWATER PIPES CONNECTED TO SOAKWELLS

CATCHMENT AREA = 650m²
CAPACITY REQUIRED = 8.125m³
(650m² x 0.0125)
CAPACITY PROVIDED = 15.28m³
(x4 Ø1800 x 1500d)

N
W E

SITE PLAN

SCALE 1 : 200

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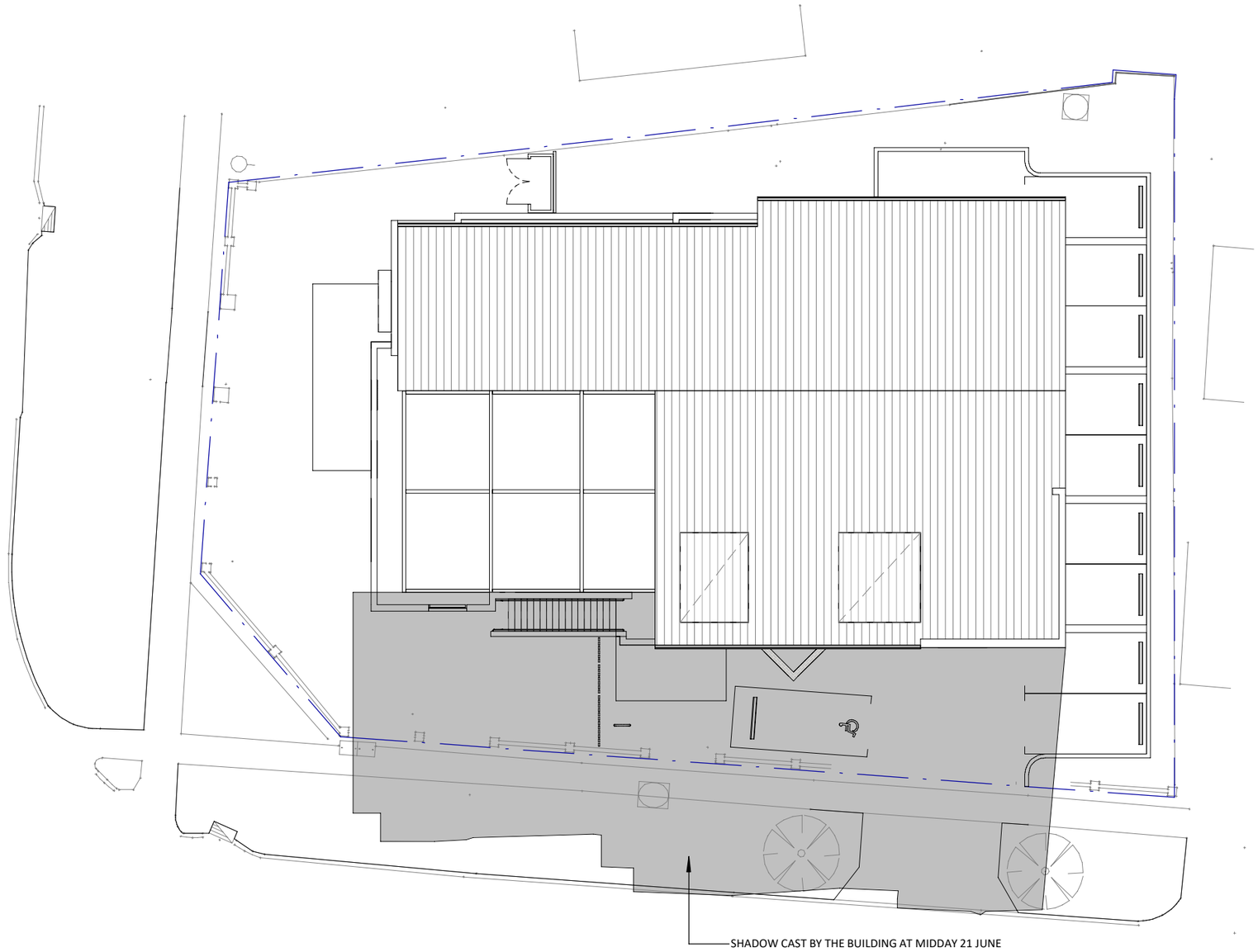
Project Name
KARAWARA CHILDCARE CENTRE
Project Address
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Rev	Date	By	Description
E	15/08/24	DT	PLANNING APPROVAL
F	29/08/24	DT	PLANNING APPROVAL
G	05/09/24	DT	PLANNING APPROVAL
H	13/09/24	DT	PLANNING APPROVAL

Drawing Title
SITE PLAN

Project No.	Drawing No.	Revision	Drawn By	Scale	Page Size
M3042	DA10	H	DT	As indicated	A3



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W E

OVERSHADOW DIAGRAM

SCALE 1 : 200

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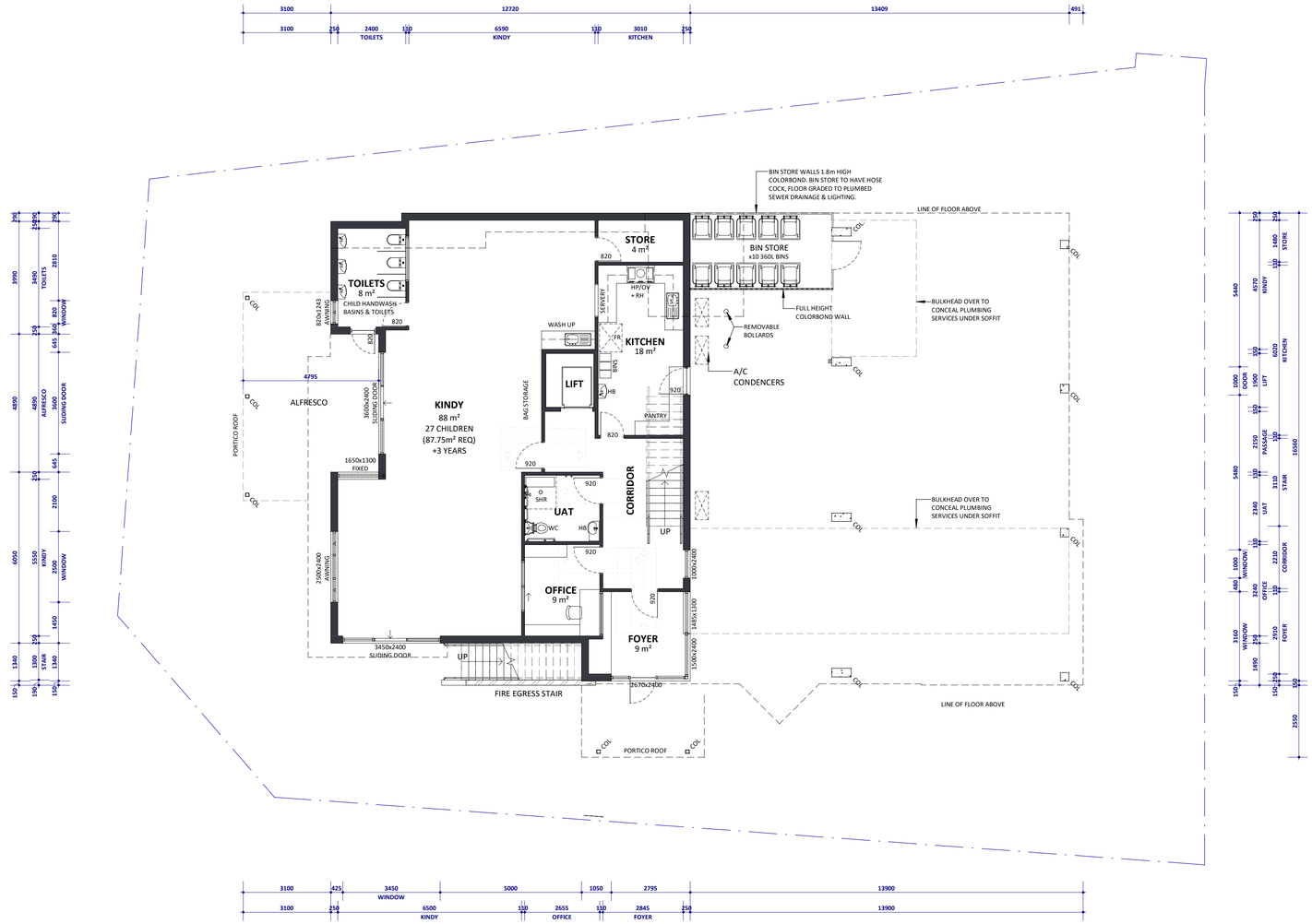
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Drawing Title
OVERSHADOW DIAGRAM

Project No.	Drawing No.	Revision	Drawn By	Scale	Page Size
M3042	DA11	D	DT	1 : 200	A3



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W E

GROUND FLOOR PLAN

SCALE 1 : 100

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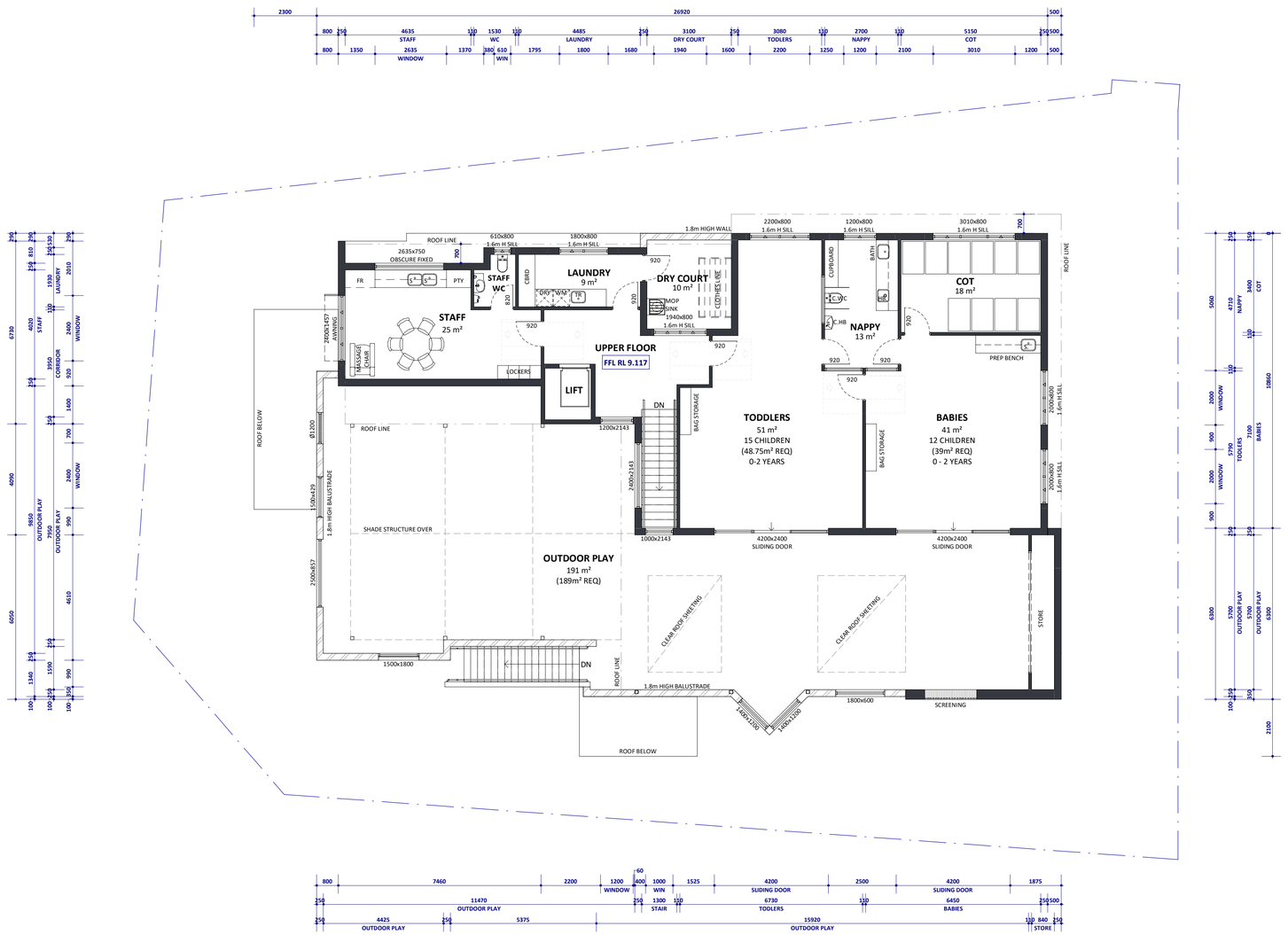
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Drawing Title
GROUND FLOOR PLAN

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D	13/09/24	DT	PLANNING APPROVAL

Project No. **M3042**
Revision **D**
Drawing No. **DA20**
Scale **1 : 100**
Drawn By **DT**
Page Size **A1**





FIRST FLOOR PLAN

SCALE 1 : 100

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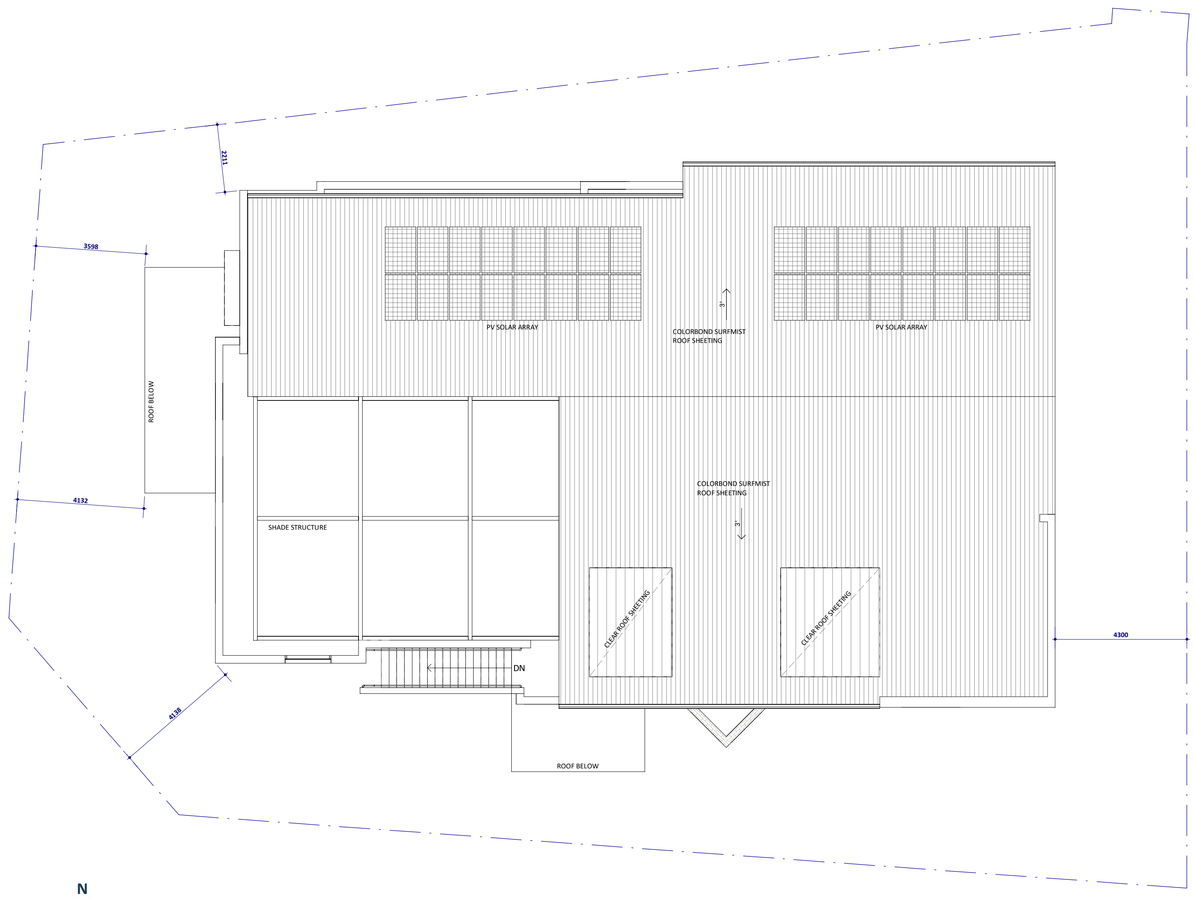
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D	13/09/24	DT	PLANNING APPROVAL

Project No. **M3042** Revision **D**
Drawing No. **DA21**
Scale **1 : 100**
Drawn By **DT**
Page Size **A1**



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W E

ROOF PLAN
SCALE 1 : 100

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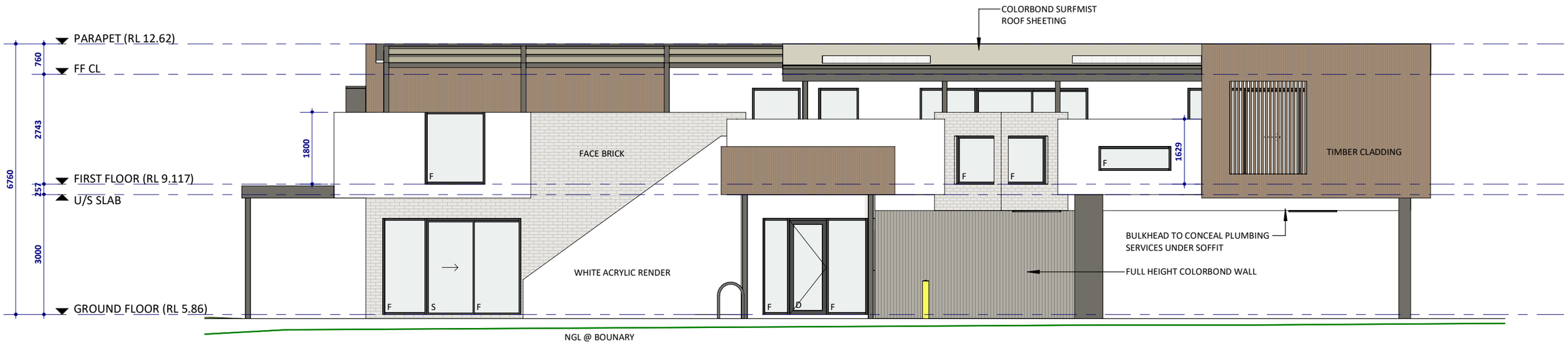
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Drawing Title
ROOF PLAN

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Project No.
M3042
Revision
D
Drawing No.
DA22
Scale
1 : 100
Drawn By
DT
Page Size
A1



SOUTH ELEVATION

SCALE 1 : 100



EAST ELEVATION

SCALE 1 : 100

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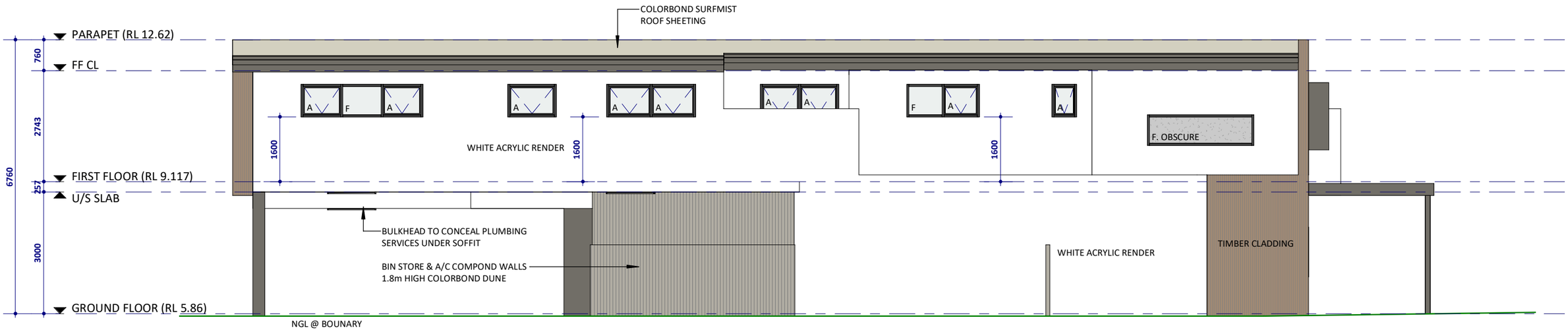
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C	27/06/24	DT	PLANNING APPROVAL
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Drawing Title
ELEVATIONS

Project No.	Drawing No.	Revision	Drawn By	Scale	Page Size
M3042	DA30	D	DT	1 : 100	A3



NORTH ELEVATION

SCALE 1 : 100



WEST ELEVATION

SCALE 1 : 100

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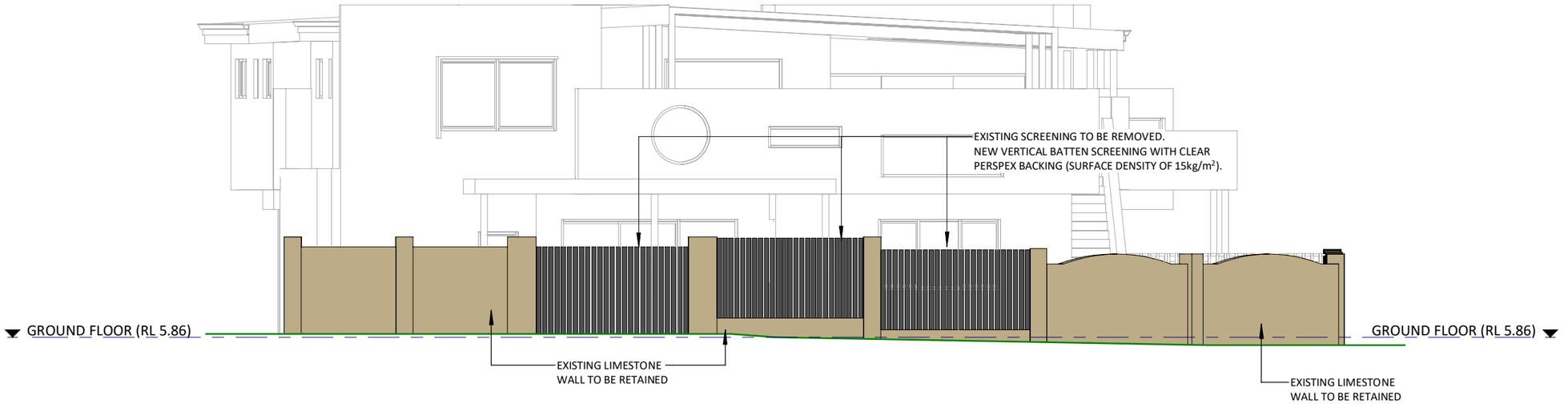
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B	13/05/24	DT	ISSUE FOR REVIEW
C	27/06/24	DT	PLANNING APPROVAL

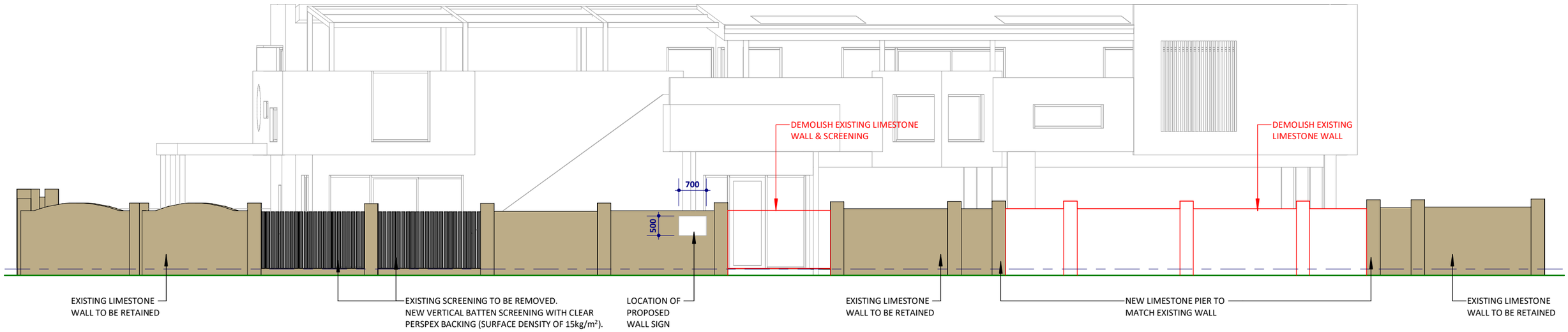
Drawing Title
ELEVATIONS

Project No.	Drawing No.	Revision	Drawn By	Scale	Page Size
M3042	DA31	C	DT	1 : 100	A3



BE1 **GILLON BOUNDARY ELEVATION**

SCALE 1 : 100



BE2 **WALANNA BOUNDARY ELEVATION**

SCALE 1 : 100

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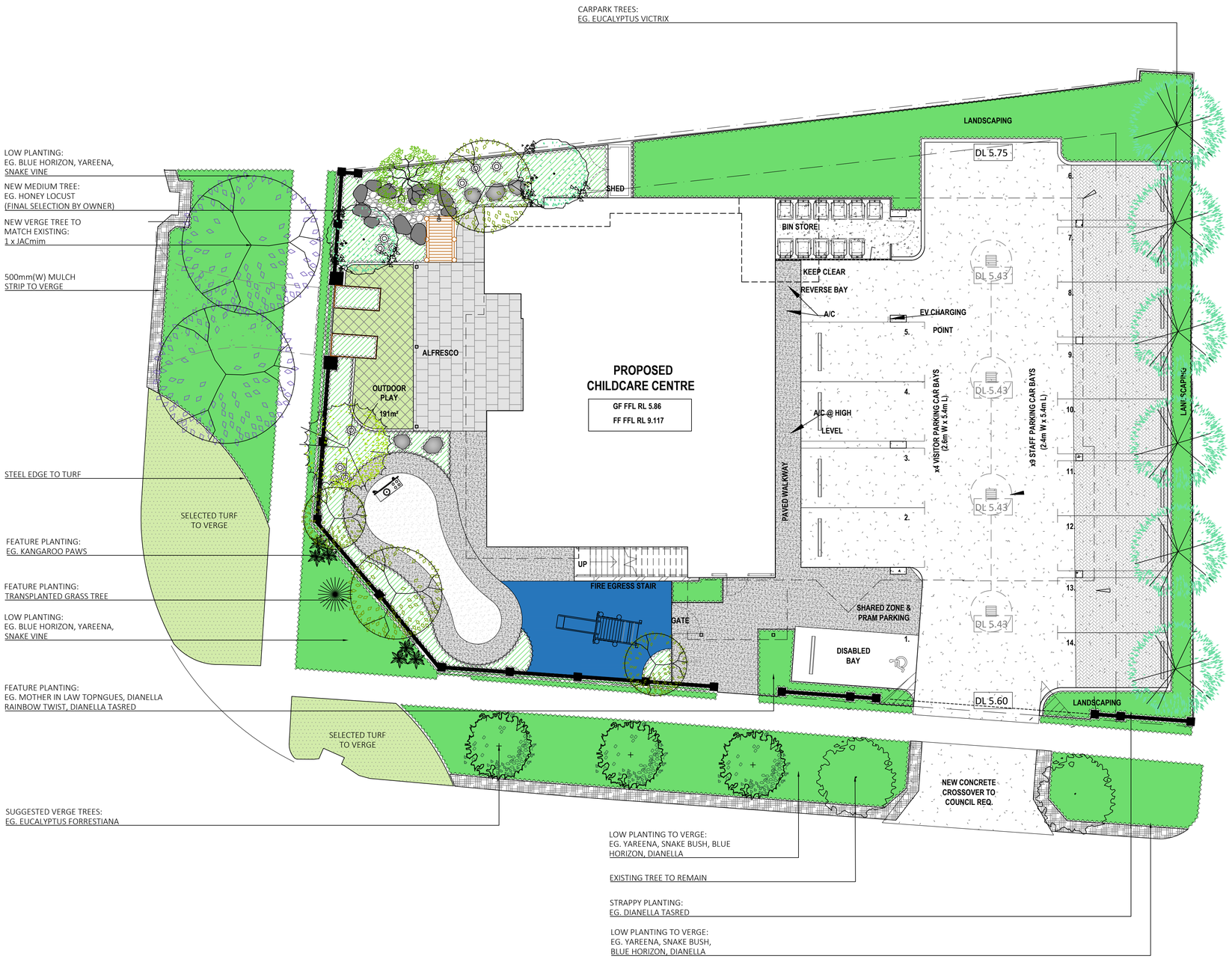
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C	13/09/24	DT	PLANNING APPROVAL

Drawing Title
BOUNDARY ELEVATIONS

Project No.	Drawing No.	Revision	Drawn By	Scale	Page Size
M3042	DA32	C	DT	1 : 100	A3

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REV	DATE	DWN	APP	DESCRIPTION
A	01.11.22	AC	KD	CONCEPT PLAN
B	08.02.23	AC	KD	UPDATED CONCEPT PLAN
C	12.05.23	AC	KD	UPDATED CONCEPT PLAN
D	10.05.23	AC	KD	UPDATED CONCEPT PLAN
E	17.09.24	KD	KD	UPDATED TO NEW PLANS



PLANTING IMAGES


EUCfor


EUCvic


JACmim


XANpre


ANIfla


SANtri


DIArai


DIAtas


MYOpar

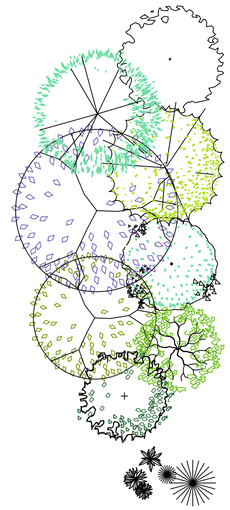

EREblu


HIBsca

PLANTING PALLETTE

Symbol	Species	Common Name	Quantities	Size
Trees:				
EUCfor	Eucalyptus forrestiana	Fushia Gum	As Shown	100L
EUCvic	Eucalyptus victrix	Little Ghost Gum	As Shown	100L
JACmim	Jacaranda mimosaefolia	Purple Jacaranda	As Shown	100L
Shrubs and Groundcovers:				
DIArai	Dianella 'Rainbow Twist'	Rainbow Twist	3/m2	140mm
DIAtas	Dianella tasred	Tasred	3/m2	140mm
EREblu	Eremophila 'Blue Horizon'	Blue Horizon	3/m2	140mm
HIBsca	Hibbertia scandens	Snake Vine	3/m2	140mm
MYOpar	Myoporum parvifolium 'Yareena'	Yareena	3/m2	140mm
SANtri	Sansevieria trifasciata laurentii	Mother-in-law's Tongue	3/m2	200mm
Feature Plants:				
ANIfla	Anigozanthos Flavidus	Kangaroo Paw	As Shown	12L
XANpre	Xanthorrhoea preissii	Grass Tree	Transplanted	As Is

LEGEND



TREES

EXISTING EUCALYPTUS TREES TO BE RETAINED

SELECTED SMALL TREES EG.EUCALYPTUS VICTRIX

SELECTED SMALL TREES EG. EUCALYPTUS FORRESTIANA

SELECTED LARGE TREES EG. JACARANDA

SELECTED FRUITING TREES EG. CITRUS

SELECTED SMALL TREES EG. CREPE MYRTLE

SELECTED FRUITING TREES EG. POMEGRANATE

SELECTED FRUITING TREES EG. EUCALYPTUS LEUCOXYLYN ROSEA

FEATURE PLANTING

EG. GRASS TREE (TRANSPLANTED), GOLDEN CANE PALM, KANGAROO PAWS

PLANTING

PLANTING TYPE 01: MIXED

SELECTED LAWN SPECIES SOFT LEAF BUFFALO

ORGANIC MULCH

PERMEABLE PAVING

NOTES

1. GENERAL

1.1 ALL SCALES ARE AS NOTED AND TO SUIT A1 PAPER SIZE
1.2 THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEDULES, REPORTS AND DRAWINGS AND PROJECT SPECIFICATIONS.
1.3 FOR ALL FINISHED LEVELS, DRAINAGE DESIGN AND WATER CONNECTION POINTS REFER TO ASSOCIATED PROJECT DOCUMENTATION (BY OTHERS).
1.4 PLANTING SETOUT SHOULD BE CHECKED BY SUPERINTENDENT BEFORE INSTALLATION BEGINS.

2. SOIL PREPARATION

2.1 ALL AREAS ARE TO BE FINE GRADED EVENLY TO CONFORM TO KERB LEVELS AND SURROUNDING FINISHES.
2.2 SURFACES SHALL BE FREE FROM DEPRESSIONS, IRREGULARITIES AND NOTICEABLE CHANGES IN GRADE. GENERALLY, GRADES SHALL DEVIATE IN LEVEL NO GREATER THAN 20mm IN ONE LINEAR METRE.
2.3 PLANTED AREAS SHALL BE SPREAD WITH MIN. 50mm OF APPROVED STANDARD SOIL CONDITIONER THAT SHALL BE RIPPED INTO EXISTING SOIL TO A MIN. DEPTH OF 200mm.
2.4 ALL SITE AND IMPORTED SOILS, POTTING MIX, SOIL CONDITIONERS AND MULCHES TO BE IN ACCORDANCE TO RELEVANT AUSTRALIAN STANDARDS.

3.PLANTING

3.1 PLANTED AREAS SHALL BE MULCHED WITH AN ORGANIC MULCH UNLESS OTHERWISE STATED TO A MINIMUM DEPTH OF 75mm.
3.2 ADVANCED TREES SHALL BE STAKED W/ 50x50mm DIA HARDWOOD POSTS. POSTS SHALL BE PAINTED BLACK AND INSTALLED TO A MIN DEPTH OF 500mm. TREES SHALL BE SECURED TO POLES W/ RUBBER TIES IN FIGURE 8.
3.3 TREES PLANTED WITH IN 1000mm OF BOUNDARY WALLS AND/OR PARKING AREAS SHALL BE INSTALLED WITHIN 600mm DEPTH NYLEX ROOT BARRIER MEMBRANE. MEMBRANE SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
3.4 REFER TO PLANTING PLAN FOR SPECIES AND SIZES.
3.5 PLANTS TO BE SET OUT IN EVEN SPACING TO FILL THE DESIGNATED AREAS.
3.6 IN AREAS OF MIXED PLANTING, SPECIES TO BE SPREAD OUT AT RANDOM, IN GROUPINGS OF 2 OR 3.
3.7 PLANTS SHALL BE SUPPLIED FROM AN INDUSTRY ACCREDITED WHOLESALE NURSERY. PLANTS SHALL BE IN APPROPRIATE SIZE FOR THE LISTED POT SIZE AND IN GOOD HEALTH.

4. IRRIGATION

4.1 PLANTING TO GROUND LEVEL TO BE IRRIGATED VIA A FULLY AUTOMATIC SYSTEM FROM MAINS.
4.2 WATER PRESSURE TO HAVE A MINIMUM FLOW RATE OF 30L/pm AT 300kPA FROM THE WATER CONNECTION POINT (OR AS STIPULATED).
4.3 CONTROLLER TO BE LOCATED IN SERVICE ROOM (OR AS SHOWN ON IRRIGATION DETAILS).
4.4 SLEEVES BENEATH PAVED SURFACES AND TO RAISED PLANTING AREAS TO BE PROVIDED BY OTHERS.
4.5 IRRIGATION TO GARDEN BEDS TO BE NETAFIM TECHLINE, SUB SURFACE IRRIGATION. INSTALLED TO MANUFACTURERS SPECIFICATION. IRRIGATION TO TURF TO BE POP UP SPRINKLERS, MP ROTATORS OR SIMILAR. IRRIGATION TO TREES TO BE BE BUBBLERS; TORO FLOOD BUBBLERS OR SIMILAR.
4.6 PLEASE REFER TO IRRIGATION DRAWING SET FOR FINAL LAYOUT AND SCHEDULE (TO FUTURE DETAIL).

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Karrinyup WA 6018
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email: kelsie@kdla.com.au

DEVELOPMENT APPROVAL

JOB No. 0253 PAGE 101 REV E

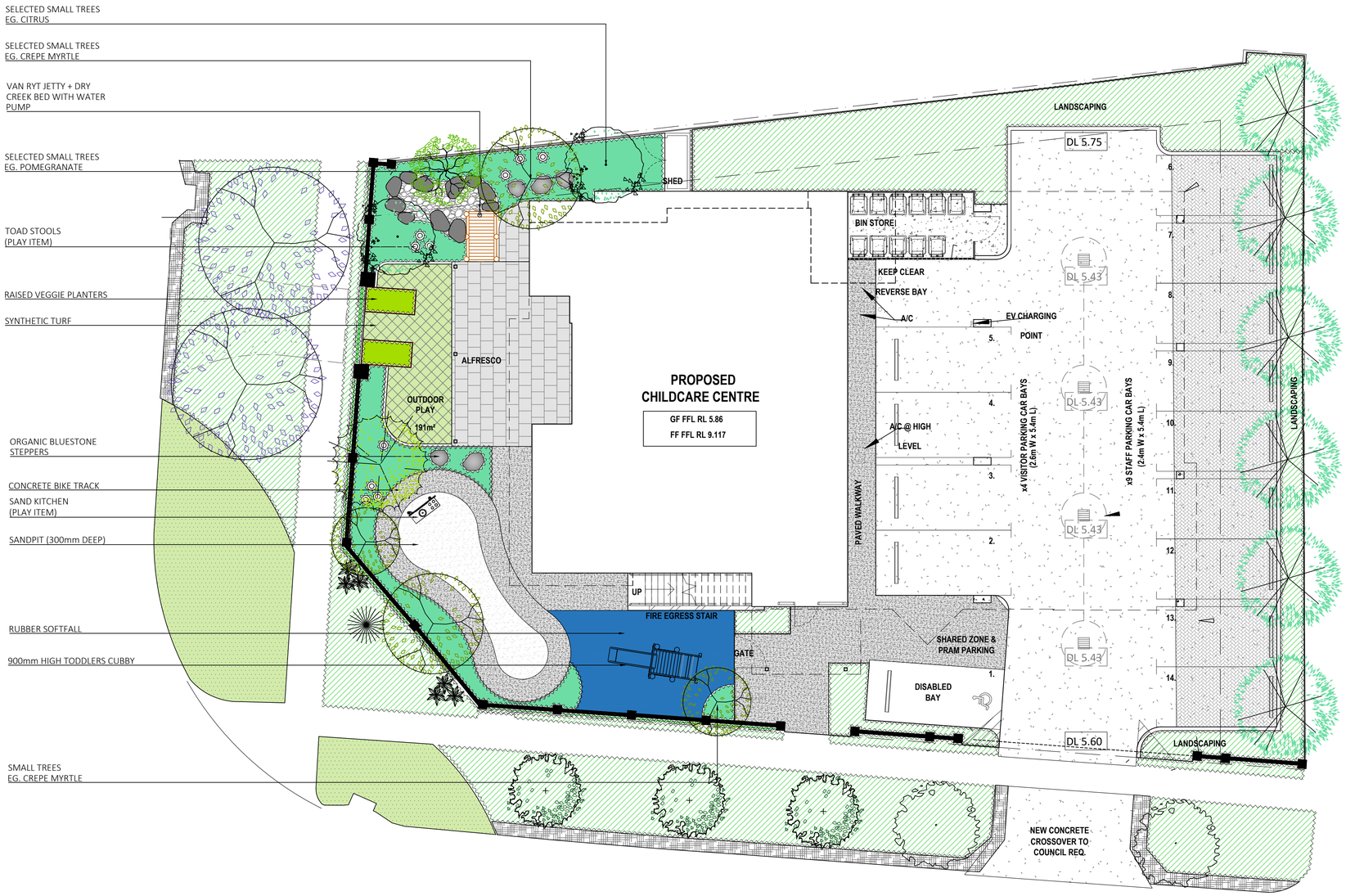
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KARAWARA CHILD CARE CENTRE
LANDSCAPE CONCEPT PLAN
ROWE GROUP
LOT 109, (NO.64) GALLON STREET, KARAWARA

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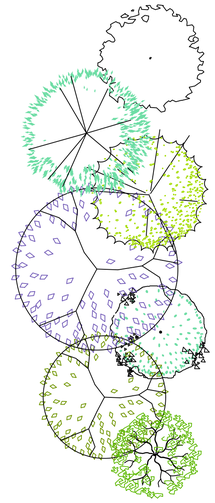
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REV	DATE	DWN	APP	DESCRIPTION
A	10.05.24	AC	KD	PLAY ELEMENTS PLAN
B	11.05.24	AC	KD	UPDATED PLAY ELEMENTS PLAN
C	17.09.24	KD	KD	UPDATED PLAY ELEMENTS PLAN



LEGEND

TREES



EXISTING EUCALYPTUS TREES TO BE RETAINED

SELECTED SMALL TREES EG.EUCALYPTUS VICTRIX

SELECTED SMALL TREES EG. EUCALYPTUS FORRESTIANA

SELECTED MEDIUM TREES EG. JACARANDA

SELECTED FRUITING TREES EG. CITRUS

SELECTED SMALL TREES EG. CREPE MYRTLE

SELECTED FRUITING TREES EG. POMEGRANATE

PLANTING

EXTERNAL PLANTING REFER TO PAGE 101 & 201

PLANTING TYPE 01: MIXED

PLANTING TYPE 02: VEGGIE (BY TENANT)

SELECTED LAWN SPECIES SOFT LEAF BUFFALO

HARDSCAPES

SYNTHETIC TURF

ORGANIC MULCH

PERMEABLE PAVING

SELECTED PAVING (BY BUILDER)

CONCRETE PATHWAYS

MOSS ROCK BOULDERS

DRY CREEK BED

RUBBER SOFTFALL

PLAY SAND

REFER TO PAGE 103 FOR IMAGES

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landscape architecture
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mob: 0450 965 569
email: kelsie@kdla.com.au

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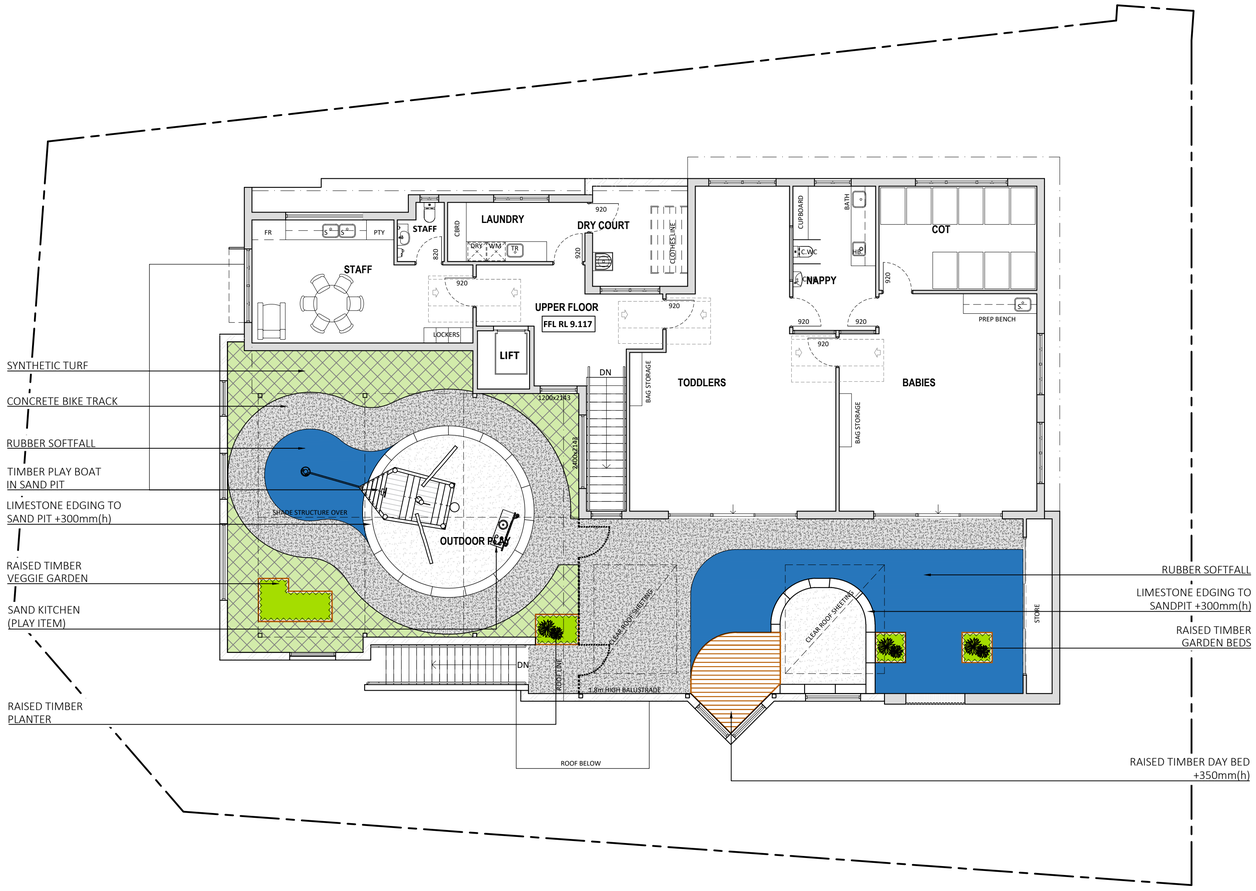
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KARAWARA CHILD CARE CENTRE
PLAY SPACE CONCEPT PLAN - GROUND FLOOR
ROWE GROUP
LOT 109, (NO.64) GALLON STREET, KARAWARA

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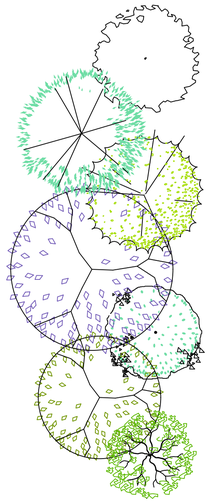
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3. ALL MEASUREMENTS TO BE CHECKED PRIOR TO CONSTRUCTION.

REV	DATE	DWN	APP	DESCRIPTION
A	10.05.24	AC	KD	PLAY ELEMENTS PLAN
B	17.09.24	KD	KD	UPDATED PLAY ELEMENTS PLAN



LEGEND

TREES



EXISTING EUCALYPTUS TREES TO BE RETAINED

SELECTED SMALL TREES EG.EUCALYPTUS VICTRIX

SELECTED SMALL TREES EG. EUCALYPTUS FORRESTIANA

SELECTED MEDIUM TREES EG. JACARANDA

SELECTED FRUITING TREES EG. CITRUS

SELECTED SMALL TREES EG. CREPE MYRTLE

SELECTED FRUITING TREES EG. POMEGRANATE

PLANTING

EXTERNAL PLANTING REFER TO PAGE 101 & 201

PLANTING TYPE 01: MIXED

PLANTING TYPE 02: VEGGIE (BY TENANT)

SELECTED LAWN SPECIES SOFT LEAF BUFFALO

HARDSCAPES

SYNTHETIC TURF

ORGANIC MULCH

PERMEABLE PAVING

SELECTED PAVING (BY BUILDER)

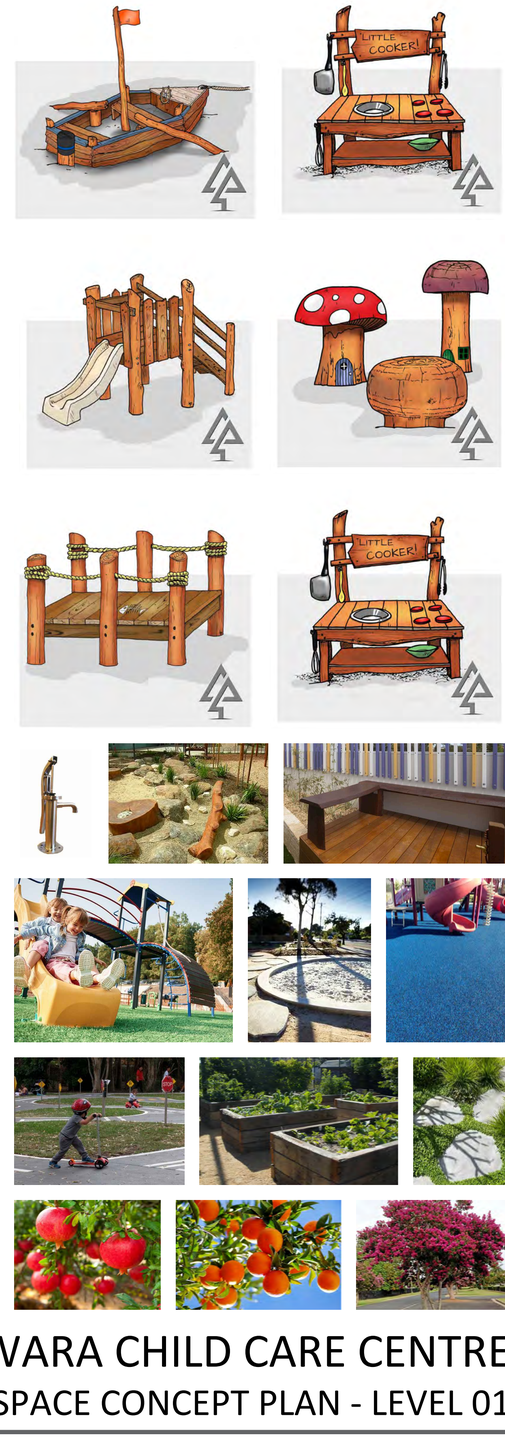
CONCRETE PATHWAYS

MOSS ROCK BOULDERS

DRY CREEK BED

RUBBER SOFTFALL

PLAY SAND



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JOB No. 0253 PAGE 103 REV B

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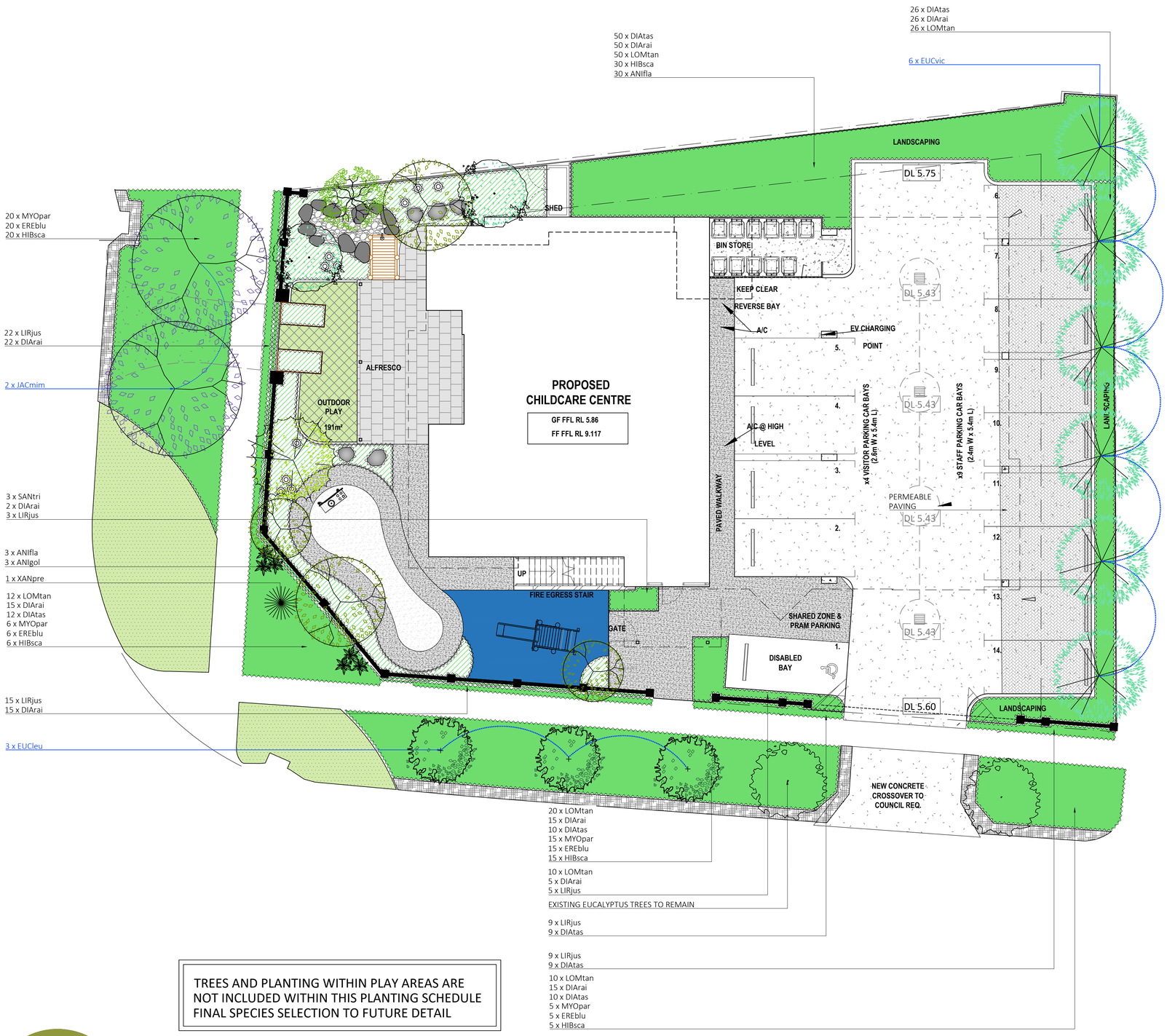
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KARAWARA CHILD CARE CENTRE
PLAY SPACE CONCEPT PLAN - LEVEL 01

ROWE GROUP
LOT 109, (NO.64) GALLON STREET, KARAWARA

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REV	DATE	DWN	APP	DESCRIPTION
F	30.04.24	AC	KD	UPDATED GROUND FLOOR PLANTING PLAN
G	10.05.24	AC	KD	UPDATED GROUND FLOOR PLANTING PLAN
H	11.05.24	KD	KD	UPDATED GROUND FLOOR PLANTING PLAN
I	19.08.24	KD	KD	UPDATED VERGE TREES
J	17.09.24	KD	KD	UPDATED TO NEW BASE PLAN



TREES AND PLANTING WITHIN PLAY AREAS ARE NOT INCLUDED WITHIN THIS PLANTING SCHEDULE FINAL SPECIES SELECTION TO FUTURE DETAIL

LANDSCAPE AREA CALCULATIONS

TOTAL LANDSCAPED AREA

Total Property Area =934m2
Total Landscaped Area = 160m2 (17% of site)
Total First Floor Landscaped area = 6m2 (0.6% of site)
Total Verge Landscaped Area = 248.4m2

CANOPY COVER

WITHIN PROPERTY BOUNDARY:
Proposed Small Trees (5m canopy) x 2 = 39m2
Proposed Small Trees (4m canopy) x 8 = 156.8m2
Proposed Small Trees (3m canopy) x 5 = 35m2
Total Canopy Cover Within Boundary = 230.8m2 (25% of site)
VERGE:
Existing Small Trees (6m canopy) x 2 = 56.6m2
Proposed Small Trees (5m canopy) x 3 = 58.8m2
Proposed Large Trees (10m canopy) x 2 = 157m2
Total Canopy Cover Verge = 272.4m2

PLANTING IMAGES


EUCleu


EUCvic


JACmim


XANpre


ANIfla


SANtri


LOMtan


DIArai


DIAtas


LIRjus


MYOpar

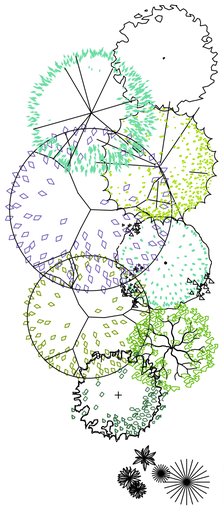

EREblu


HIBsca

PLANTING SCHEDULE

Symbol	Species	Common Name	Quantities	Size
Trees:				
EUCleu	Eucalyptus leucoxylyn rosea	Red Flowering Yellow Gum	3	100L
EUCvic	Eucalyptus victrix	Little Ghost Gum	6	100L
JACmim	Jacaranda mimosaefolia	Purple Jacaranda	2	100L
Shrubs and Groundcovers:				
DIArai	Dianella 'Rainbow Twist'	Rainbow Twist	165	140mm
DIAtas	Dianella tasred	Tasred	126	140mm
EREblu	Eremophila 'Blue Horizon'	Blue Horizon	46	140mm
HIBsca	Hibbertia scandens	Snake Vine	76	140mm
LIRjus	Liriope 'Just Right'	Just Right	63	140mm
LOMtan	Lomandra 'Tanika'	Tanika	128	140mm
MYOpar	Myoporum parvifolium 'Yareena'	Yareena	46	140mm
SANtri	Sansevieria trifasciata laurentii	Mother-in-law's Tongue	3	200mm
Feature Plants:				
ANIfla	Anigozanthos Flavidus	Kangaroo Paw	33	12L
ANIgol	Anigozanthos 'Gold Velvet'	Kangaroo Paw	3	12L
XANpre	Xanthorrhoea preissii	Grass Tree	1	MTP

LEGEND



TREES

EXISTING EUCALYPTUS TREES TO BE RETAINED

SELECTED SMALL TREES EG.EUCALYPTUS VICTRIX

SELECTED SMALL TREES EG. EUCALYPTUS FORRESTIANA

SELECTED LARGE TREES EG. JACARANDA

SELECTED FRUITING TREES EG. CITRUS

SELECTED SMALL TREES EG. CREPE MYRTLE

SELECTED FRUITING TREES EG. POMEGRANATE

SELECTED FRUITING TREES EG. EUCALYPTUS LEUCOXYLYN ROSEA

FEATURE PLANTING

EG. GRASS TREE (TRANSPLANTED), GOLDEN CANE PALM, KANGAROO PAWS

PLANTING

PLANTING TYPE 01: MIXED

SELECTED LAWN SPECIES SOFT LEAF BUFFALO

ORGANIC MULCH

PERMEABLE PAVING

PLAY AREA (BY OTHERS)

INTERNAL PLANTING TO FUTURE DETAIL

HARDSCAPE

NOTES

1. GENERAL

1.1 ALL SCALES ARE AS NOTED AND TO SUIT A1 PAPER SIZE
1.2 THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEDULES, REPORTS AND DRAWINGS AND PROJECT SPECIFICATIONS.
1.3 FOR ALL FINISHED LEVELS, DRAINAGE DESIGN AND WATER CONNECTION POINTS REFER TO ASSOCIATED PROJECT DOCUMENTATION (BY OTHERS).
1.4 PLANTING SETOUT SHOULD BE CHECKED BY SUPERINTENDENT BEFORE INSTALLATION BEGINS.

2. SOIL PREPARATION

2.1 ALL AREAS ARE TO BE FINE GRADED EVENLY TO CONFORM TO KERB LEVELS AND SURROUNDING FINISHES.
2.2 SURFACES SHALL BE FREE FROM DEPRESSIONS, IRREGULARITIES AND NOTICEABLE CHANGES IN GRADE. GENERALLY, GRADES SHALL DEVIATE IN LEVEL NO GREATER THAN 20mm IN ONE LINEAR METRE.
2.3 PLANTED AREAS SHALL BE SPREAD WITH MIN. 50mm OF APPROVED STANDARD SOIL CONDITIONER THAT SHALL BE RIPPED INTO EXISTING SOIL TO A MIN. DEPTH OF 200mm.
2.4 ALL SITE AND IMPORTED SOILS, POTTING MIX, SOIL CONDITIONERS AND MULCHES TO BE IN ACCORDANCE TO RELEVANT AUSTRALIAN STANDARDS.

3.PLANTING

3.1 PLANTED AREAS SHALL BE MULCHED WITH AN ORGANIC MULCH UNLESS OTHERWISE STATED TO A MINIMUM DEPTH OF 75mm.
3.2 ADVANCED TREES SHALL BE STAKED W/ 50x50mm DIA HARDWOOD POSTS. POSTS SHALL BE PAINTED BLACK AND INSTALLED TO A MIN DEPTH OF 500mm. TREES SHALL BE SECURED TO POLES W/ RUBBER TIES IN FIGURE 8.
3.3 TREES PLANTED WITH IN 1000mm OF BOUNDARY WALLS AND/OR PARKING AREAS SHALL BE INSTALLED WITHIN 600mm DEPTH NYLEX ROOT BARRIER MEMBRANE. MEMBRANE SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
3.4 REFER TO PLANTING SCHEDULE FOR SPECIES AND SIZES.
3.5 PLANTS TO BE SET OUT IN EVEN SPACING TO FILL THE DESIGNATED AREAS.
3.6 IN AREAS OF MIXED PLANTING, SPECIES TO BE SPREAD OUT AT RANDOM, IN GROUPINGS OF 2 OR 3.
3.7 PLANTS SHALL BE SUPPLIED FROM AN INDUSTRY ACCREDITED WHOLESALE NURSERY. PLANTS SHALL BE IN APPROPRIATE SIZE FOR THE LISTED POT SIZE AND IN GOOD HEALTH.

4. IRRIGATION

4.1 PLANTING TO GROUND LEVEL TO BE IRRIGATED VIA A FULLY AUTOMATIC SYSTEM FROM MAINS.
4.2 WATER PRESSURE TO HAVE A MINIMUM FLOW RATE OF 30L/pm AT 300kPA FROM THE WATER CONNECTION POINT (OR AS STIPULATED).
4.3 CONTROLLER TO BE LOCATED IN SERVICE ROOM (OR AS SHOWN ON IRRIGATION DETAILS).
4.4 SLEEVES BENEATH PAVED SURFACES AND TO RAISED PLANTING AREAS TO BE PROVIDED BY OTHERS.
4.5 IRRIGATION TO GARDEN BEDS TO BE NETAFIM TECHLINE, SUB SURFACE IRRIGATION. INSTALLED TO MANUFACTURERS SPECIFICATION. IRRIGATION TO TURF TO BE POP UP SPRINKLERS; MP ROTATORS OR SIMILAR. IRRIGATION TO TREES TO BE BE BUBBLERS; TORO FLOOD BUBBLERS OR SIMILAR.
4.6 PLEASE REFER TO IRRIGATION DRAWING SET FOR FINAL LAYOUT AND SCHEDULE (TO FUTURE DETAIL).

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DEVELOPMENT APPROVAL

JOB No. 0253 PAGE 201 REV J

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KARAWARA CHILD CARE CENTRE
LANDSCAPE PLANTING PLAN

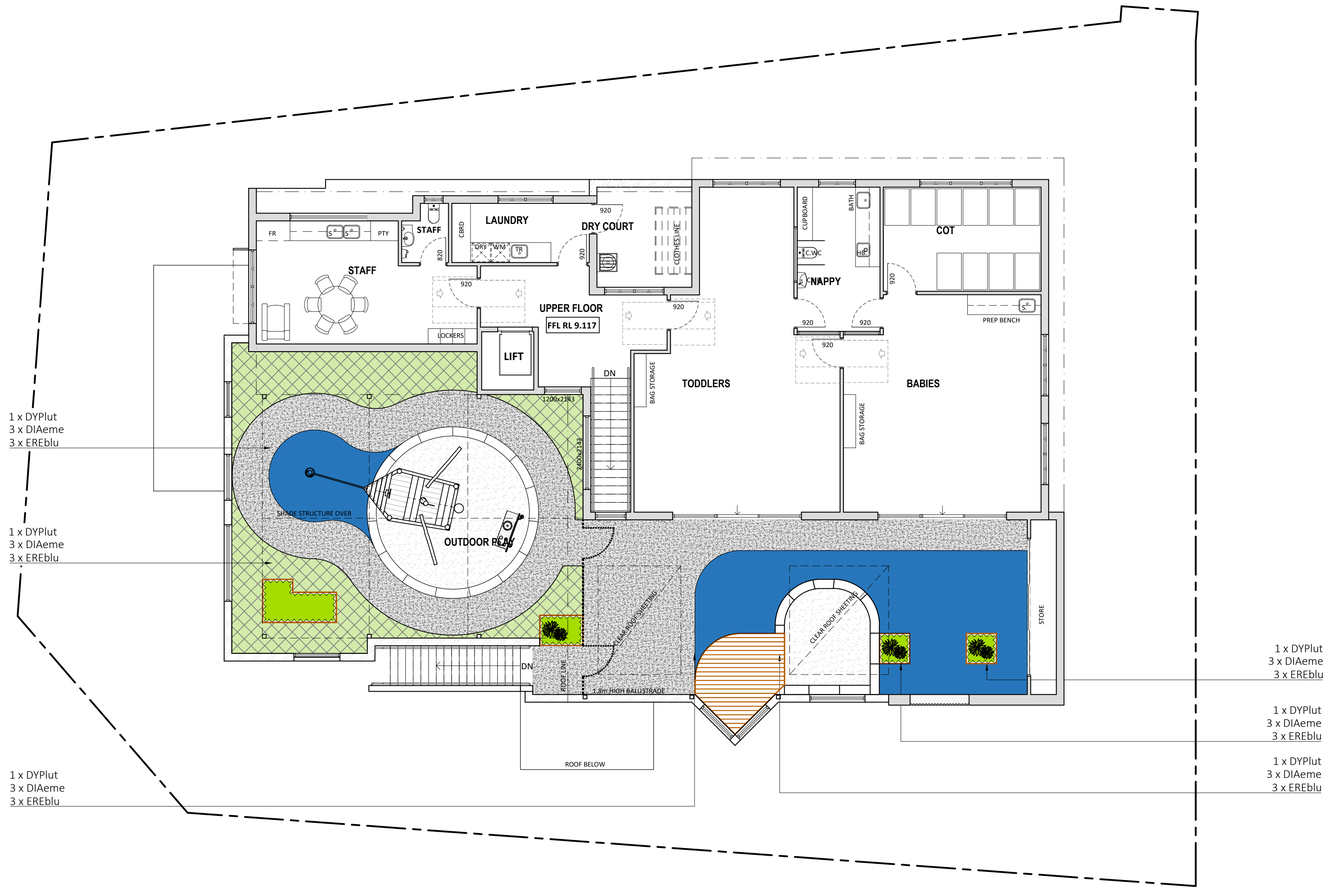
ROWE GROUP
LOT 109, (NO.64) GALLON STREET, KARAWARA

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REV	DATE	DWN	APP	DESCRIPTION
A	08.11.22	AC	KD	FIRST FLOOR PLANTING PLAN
B	15.05.23	AC	KD	UPDATED LANDSCAPE CALCULATIONS
C	20.06.23	AC	KD	UPDATED LANDSCAPE CALCULATIONS
D	30.04.23	AC	KD	UPDATED LANDSCAPE CALCULATIONS
E	17.09.24	KD	KD	UPDATED PLANTING PLAN



PLANTING IMAGES


RAISED PLANTER


LIRjus


DYPlut


DIAeme

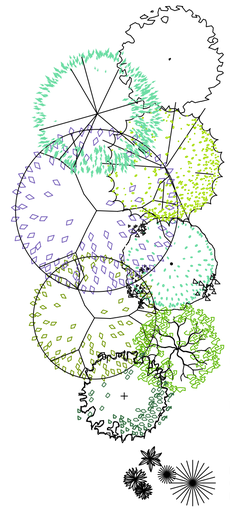

MYOpar


EREblu


DICrep

PLANTING SCHEDULE

Symbol	Species	Common Name	Quantities	Size
Shrubs and Groundcovers:				
DIAeme	Dianella 'emerald arch'	Emerald arch	9	140mm
DICrep	Dichondra repens	Kidney Weed	6	140mm
EREblu	Eremophila 'Blue Horizon'	Blue Horizon	6	140mm
LIRjus	Liriolpe 'Just Right'	Just Right	6	140mm
MYOpar	Myoporium parvifolium 'Yareena'	Yareena	6	140mm
Feature Plants:				
DYPlut	Dypsis lutescens	Golden Cane Palm	6	90L



LEGEND

TREES

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SELECTED SMALL TREES EG. EUCALYPTUS FORRESTIANA

SELECTED LARGE TREES EG. JACARANDA

SELECTED FRUITING TREES EG. CITRUS

SELECTED SMALL TREES EG. CREPE MYRTLE

SELECTED FRUITING TREES EG. POMEGRANATE

SELECTED FRUITING TREES EG. EUCALYPTUS LEUCOXYLYN ROS

FEATURE PLANTING

EG. GRASS TREE (TRANSPLANTED), GOLDEN CANE PALM, KANGAROO PAWS

PLANTING

PLANTING TYPE 01: MIXED

SELECTED LAWN SPECIES SOFT LEAF BUFFALO

ORGANIC MULCH

PERMEABLE PAVING

PLAY AREA (BY OTHERS)

INTERNAL PLANTING TO FUTURE DETAIL

NOTES

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1.4 PLANTING SETOUT SHOULD BE CHECKED BY SUPERINTENDENT BEFORE INSTALLATION BEGINS.

2. SOIL PREPARATION - LEVEL 01

2.1 RAISED PLANTER AREAS AND POTS SHALL BE INSTALLED WITH APPROPRIATE DRAINAGE CELL, AGGREGATE AND GEOTEXTILE MEMBRANE BELOW SOIL. REFER DETAIL (02|706)
2.2 FILL SOIL TO RAISED PLANTER AREAS AND POTS TO BE APPROVED LIGHTWEIGHT LANDSCAPE MIX.
2.3 ALL SITE AND IMPORTED SOILS, POTTING MIX, SOIL CONDITIONERS AND MULCHES TO BE IN ACCORDANCE TO RELEVANT AUSTRALIAN STANDARDS.

3.PLANTING

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4.3 PLANTING ON UPPER LEVEL TO BE IRRIGATED VIA BATTERY OPERATED VALVE (CONNECTION POINTS TO BE PROVIDED TO LEVEL 01).
4.4 CONTROLLER TO BE LOCATED IN SERVICE ROOM (OR AS SHOWN ON IRRIGATION DETAILS).
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DEVELOPMENT APPROVAL

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KARAWARA CHILD CARE CENTRE
FIRST FLOOR PLANTING PLAN

ROWE GROUP
LOT 109, (NO.64) GALLON STREET, KARAWARA

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PART D – OTHER BUSINESS

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