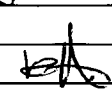


Application for Development Approval

PROPERTY DETAILS OF PROPOSED DEVELOPMENT		
Lot No: 856	House/Street No: 125	Location No:
Diagram or Plan No: 402509	Certificate of Title Vol. No: 2880	Folio: 331
Title encumbrances (e.g easements, restrictive covenants): Restrictive covenants		
Street Name: Kalyang Loop	Suburb: Byford	
Nearest Street Intersection: Guraga Way		

PROPOSED DEVELOPMENT	
Nature of Development:	<input type="checkbox"/> Works <input type="checkbox"/> Use <input checked="" type="checkbox"/> Works and Use
Is an exemption from development claimed for part of the development?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If yes, is the exemption for:	<input type="checkbox"/> Works <input type="checkbox"/> Use
Description of proposed works and/or land use:	Early learning centre
Description of exemption claimed (if relevant):	N/A
Nature of any existing buildings and/or land use:	Vacant
Approximate cost of proposed development (Excluding GST):	\$ \$2.2 million
Estimated time of completion:	9 months

Office Use Only		TDAP	
Fees Paid:	\$9572 = \$3503 - 00	Date Received:	3/10/2016
Receipt No:	129498	Payment Method:	CC
Application Number:	PA16/346	Acceptance Officers Initials:	
		3 OCT 2016	
		SERPENTINE JARRAHDALE	

Contact Us

Enquiries

Call: (08) 9526 1111

Fax: (08) 9525 5441

Email: info@sjshire.wa.gov.au

In Person

Shire of Serpentine Jarrahdale

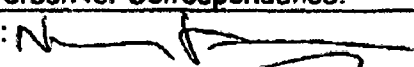

6 Paterson Street, Mundijong WA 6123

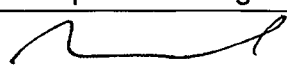
Open Monday to Friday 8.30am-5pm (closed public holidays)



www.sjshire.wa.gov.au



OWNER DETAILS	
Name: Ian Currie Ferguson and Norma Ferguson	
ABN (if applicable):	
Address: 6 Founders Lane, Hillarys WA 6025	
Post Code: 6025	
Phone:	Email: scott@otbdevelopments.com
Mobile:	
Contact Person for Correspondence:	
Signature: 	Date: 29 September 2016
Signature: 	Date: 29 September 2016
<i>The signature of ALL owner(s) is required on all applications. This planning application will not proceed without that signature. For the purposes of signing this application an owner includes the persons referred to in the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 clause 62(2).</i>	


APPLICANT DETAILS (if different from owner)	
Name: Planning Solutions	
Address: PO Box 8701, Perth BC WA	
Post Code: 6849	
Phone: 08 9227 7970	Email: admin@planningsolutions.com.au
Mobile:	
Contact Person for Correspondence: Ross Underwood	
The information and plans provided with this application may be made available by the local government for public viewing in connection with the application. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Signature: 	Date: 30 September 2016

Note: Decision letter will be sent to applicant

**PLANNING APPLICATION CHECKLIST**

INFORMATION REQUIREMENTS	Applicant	Office
Completed Application for Development Approval signed by property owner(s) and applicant (if applicable)	✓	
Appropriate Fee	Applicant to pay by credit card at lodgement	
Copy of Current Certificate of Title with Diagram and Strata Plan where applicable – These can be obtained from www.landgate.wa.gov.au	✓	
Detailed written statement in support of the proposal including:		
<ul style="list-style-type: none"> • Full details of the use/development. 	✓	
<ul style="list-style-type: none"> • Compliance with Scheme/ R-Codes/Policies/Design Guidelines/ Local Development Plans. 	✓	
<ul style="list-style-type: none"> • Justification addressing any proposed variations. 	✓	
Lots identified in Bushfire prone areas require the following: (Check requirements with Shire's Fire and Emergency Services Department – 08 9526 1160)		
<ul style="list-style-type: none"> • Bushfire Attack Level (BAL) Assessment. 	✓	
Site Plan - 2 copies required* (1 set is preferred to be submitted on USB or CD) To be on a scale of 1:100, 1:200 or 1:500 that includes the following:		
<ul style="list-style-type: none"> • The location of the site including street names, lot numbers, north point, scale bar and dimensions of the site. 	✓	
<ul style="list-style-type: none"> • Location, height and type of existing structures and environmental features to be retained. 	✓	
<ul style="list-style-type: none"> • Location of proposed buildings including dimensions, setbacks and their features (e.g. air conditioning units, solar panels, hot water systems etc). 	✓	
<ul style="list-style-type: none"> • Structures and environmental features that are proposed to be removed (including trees/vegetation). 	✓	
<ul style="list-style-type: none"> • Existing and proposed means of access for vehicles and pedestrians to and from the site (including where relevant roads, cross overs, car parking and manouvering). 	✓	
<ul style="list-style-type: none"> • Details of open space and outdoor living areas. 	✓	
<ul style="list-style-type: none"> • Site levels and floor levels. 	✓	
<ul style="list-style-type: none"> • Method of storm water treatment. 	✓	
<ul style="list-style-type: none"> • Location and Details of fencing if proposed within the street front setback. 	✓	



<ul style="list-style-type: none"> Location and details of excavation/fill and method of retaining (when applicable). 	✓	
<ul style="list-style-type: none"> Existing and Proposed contours and levels if the fall across the lot is greater than 0.5m. 	✓	
<ul style="list-style-type: none"> Location of bin enclosures (when applicable). 	✓	
Full Floor Plan (2 copies *) scale not less than 1:100	✓	
Elevation Plans (2 copies *) scale not less than 1:100 including:	✓	
<ul style="list-style-type: none"> All proposed buildings and signage (when applicable) showing building style, materials, colours and finishes. 	✓	
<ul style="list-style-type: none"> Ground levels, wall heights and roof heights. 	✓	
Heritage Area Application to include the following (map of heritage areas available at http://www.sjshire.wa.gov.au/online-mapping/):	n/a	
<ul style="list-style-type: none"> Street elevations drawn as one continuous elevation to a scale not smaller than 1:100 showing the proposed development and the whole of the existing development on each lot immediately adjoining the land the subject of the application. 		
<ul style="list-style-type: none"> A detailed schedule of all finishes, including materials and colours of the proposed development. 		
<ul style="list-style-type: none"> A description of the finishes of the existing developments on the subject lot and on each lot immediately adjoining the subject lot. 		
Detailed Landscape Plan (NOT for single residential development or signage applications)	✓	
Detailed Feature Survey	✓	
Any further information that the Shire may reasonably require to understand and assess the proposed development	Transport Impact Statement Environmental Noise Assessment	
<p>Applications will only be accepted if they are accompanied by the complete package of information as detailed above, including this Checklist, and signed by the Applicant below.</p> <p>  Ross Underwood 30 September 2016 Signature Print Name Date </p> <p>Note 1: The above information is required to enable an initial assessment of the application only. If required the Shire may request additional information to facilitate the assessment process.</p> <p>* If the plans are larger than A3, you are required to provide an electronic copy or A3 set of plans and one set to scale.</p>		



DAP FORM 1

Notice of Development Application to be Determined by a Development Assessment Panel

Planning and Development Act 2005

Planning and Development (Development Assessment Panel) Regulations 2011 – regulations 7, 10, 21

Application Details

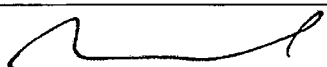
To	Name of local government and/or Western Australian Planning Commission Shire of Serpentine-Jarrahdale	
Planning Scheme(s)	Name of planning scheme(s) that applies to the prescribed land Town Planning Scheme No. 2	
Land	Lot number, street name, town/suburb Lot 856 (125) Kalyang Loop, Byford	
Certificate of Title (provide copy)	Volume Number 2880	Folio 331
	Location Number	Plan / Diagram Number 402509
Details of development application made to responsible authority	Summary of Proposal Early learning centre	
Estimated cost of development (GST Inc)	\$ 2.2 million	

PART A - Acknowledgement by Applicant and Landowner

Mandatory Application	<input type="checkbox"/> I give notice that I understand that this is a mandatory Development Assessment Panel application (regulation 5)
Optional Application	<input checked="" type="checkbox"/> I give notice that I have elected to have the development application that accompanies this form determined by a Development Assessment Panel (regulation 6)
Delegated Application	<input type="checkbox"/> I give notice that I understand that this is an application of a class delegated to a Development Assessment Panel for determination (regulation 9)


Applicant Details (to be completed and signed by applicant)

By completing this notice, I declare that all the information provided in this application is true and correct. I understand that the information provided in this notice, and attached forming part of the development application will be made available to the public on the Development Assessment Panel and local government websites.

Name		
Company	Planning Solutions	
Address	PO Box 8701, Perth BC, 6849	
Contact Details	Email admin@planningsolutions.com.au	Phone 08 9227 7970
Signature		Date 30 September 2016

Landowner Details (to be completed and signed if landowner is different from applicant)

By completing this notice, I give consent to the making of this application by any authorised applicant on my behalf.

Name	Ian Currie Ferguson and Norma Ferguson	
Address	6 Founders Lane, Hillarys WA 6025	
Contact Details	<i>Email</i> scott@otbdevelopments.com	<i>Phone</i>
Signature		<i>Date</i> 29 September 2016

Part B - Acknowledgement by Local Government

Responsible Authority	<input type="checkbox"/> Local Government <input type="checkbox"/> Western Australian Planning Commission <input type="checkbox"/> Dual – Local Government and Western Australian Planning Commission <input type="checkbox"/> Building Management and Works (Department of Finance) – <i>Public School Applications</i>	
Fees for applications (DAP Regulations - Schedule 1)	\$ Amount that has been paid by the applicant \$ Amount to be paid by local government (<i>delegated applications only - regulation 22</i>)	
Statutory Timeframe (regulation 12)	<input type="checkbox"/> 60 days (advertising not required) <input type="checkbox"/> 90 days (advertising required or other scheme provision)	
LG Reference Number (if known)		
Name of planning officer (Report Writer)		
Position/Title		
Contact Details	<i>Email</i>	<i>Phone</i>
Planning Officer's Signature		<i>Date</i>

Please refer to the Development Assessment Panel's "Guidance Note: Lodging a DAP Application" for further information.

PSA ref: 4903

30 September 2016

Chief Executive Officer
Shire of Serpentine Jarrahdale
6 Paterson Street
MUNDIJONG WA 6123

Attention: Planning Services

Dear Sir,

**LOT 856 (125) KALYANG LOOP, BYFORD
APPLICATION FOR APPROVAL TO COMMENCE DEVELOPMENT
EARLY LEARNING CENTRE**

Planning Solutions acts on behalf of TDGP Pty Ltd, the proponent of the proposed development of Lot 856 (125) Kalyang Loop, Byford (**subject site**). In this regard, the following information is provided in support of application for development approval for an early learning centre on the subject site.

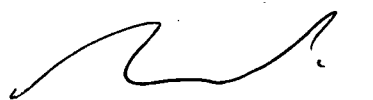
With regard to the above, please find enclosed:

1. Shire's Application for Development Approval Form and Planning Application Checklist, signed by the applicant and landowner.
2. A completed DAP Form 1 Notice of Development Application to be Determined by a Development Assessment Panel.
3. Two copies of the development Application Report, including the development plans and a copy of the Certificate of Title applicable to the subject site.
4. A CD ROM containing an electronic copy of the Development Application Report.

We have estimated the applicable development application fee to be \$9,572.00 (including the DAP fee). We are advised the applicable fee can be paid by credit card. In this regard, please contact Mr Luca Giovannetti on [REDACTED] to make arrangements for the payment of the application fee.

Should you have any queries or require further clarification in regard to the proposal, please do not hesitate to contact the writer.

Yours faithfully,



**ROSS UNDERWOOD
SENIOR PLANNER**

160930 4903 DA cover letter.docx

Proposed Development Early Learning Centre

Lot 856 (125) Kalyang Loop,
Byford



Prepared for
TDGF Pty Ltd

September 2016

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This report has been prepared with particular attention to our Client's instructions and the relevant features of the subject site. Planning Solutions (Aust) Pty Ltd accepts no liability whatsoever for:

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

Direct all inquiries to:

Planning Solutions
296 Fitzgerald Street
Perth WA 6000

All correspondence to:
PO Box 8701
Perth Business Centre WA 6849

Phone: 08 9227 7970
Fax: 08 9227 7971
Email: admin@planningsolutions.com.au
Web: www.planningsolutions.com.au

Project details

Job number	4903	
Client	TDGF Pty Ltd	
Prepared by	Planning Solutions	
Consultant Team	Town planner Architect Acoustic Transport consultant Bushfire planning practitioner	Planning Solutions Raunik Design Group Lloyd George Acoustics Transcore WABAL BushfireAssessmentLogic

Document control

Revision number	File name	Document date
Rev 0	160930 4903 DA report.docx	30 September 2016

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Appendix 4: Transport Impact Statement
Appendix 5: Waste Management Plan
Appendix 6: Bushfire Attack Level Certificate and Assessment
Appendix 7: Local Development Plan No.18 – Redgum Brook Estate – Stage 13
-

1 Preliminary

1.1 Introduction

Planning Solutions acts on behalf of TDGF Pty Ltd, the proponent of a proposed early learning centre at Lot 856 (125) Kalyang Loop, Byford (**subject site**). Planning Solutions has prepared the following report in support of an application for development approval on the subject site.

This report will discuss various issues pertinent to the proposal, including:

- site details
- proposed development
- town planning considerations

The proposal involves the construction of a two-storey early learning centre for placement of up to 128 children on the subject site. The early learning centre is intended to be operated by Green Leaves, an innovative Australia-wide boutique childrens education and care franchise. The proposed development will provide facilities which will cater for the future demand of the locality, servicing the future residents of Redgum Brook and surrounding catchment area. The proposed development is designed to a high standard and complements the adjoining mixed commercial development on Lot 857.

Accordingly, Planning Solutions requests the Metropolitan East Joint Development Assessment Panel grant approval to the proposed child minding centre.

1.2 Background

The subject site forms part of the Redgum Brook Estate, which was subdivided in 2015. A local structure plan and local development plan were prepared for the estate to guide development and provide specific development standards for lots within the estate.

Planning Solutions collaborated with the Shire of Serpentine-Jarrahdale (**Shire**) through 2015 and 2016 to amend Local Development Plan No. 18 (**LDP18**), to accommodate residential land uses (including a child minding centre) on the whole of the subject site. In its report to Council on 25 July 2016, the Shire stated a child minding centre is a valuable service for the local community and will service the future catchment of the locality.

2 Site details

2.1 Land description

The subject site is legally defined as Lot 856 on Deposited Plan 402509, in certificate of title volume 2880 folio 331. The subject site has a legal area of 1,906 m². Refer **Appendix 1** for a copy of the Certificate of Title and Deposited Plan applicable to the subject site.

Various encumbrances and notifications apply to the site as follows:

- Covenant under DP402509 restricting access to and from Thomas Road.
- Restrictive Covenant document N61598, which applies various development/building requirements to the subject site.
- Notification document N61600 – notifying the owner of the subject site of potential amenity impacts associated with its proximity to Thomas Road.
- Notification document N61601 – notifying the owner of the subject site of the requirement of a bushfire management plan.

None of the documents inhibit the development of a child minding centre on the subject site.

2.2 Location

2.2.1 Regional context

The subject site is located in the Perth metropolitan area, approximately 30km south south-east of the Perth city centre and within the municipality of the Shire. The subject site is approximately 7km south of the Armadale city centre, and approximately 3.5km north-west of the Byford town centre.

The subject site abuts Thomas Road to the north. Thomas Road is an arterial road linking with Rockingham Road at Kwinana Bridge, Kwinana Freeway, Tonkin Highway and South Western Highway, providing connection to the wider Perth and Peel regions.

2.2.2 Local context

The subject site is within the suburb of Byford. Specifically, the subject site is located in the Redgum Brook estate, in the northwestern portion of the urban area of Byford.

The subject site is surrounded by rural-residential properties to the north beyond Thomas Road. To the east, south and west, the subject site is surrounded by mixture of recently subdivided lots and newly constructed residential properties forming the northern segment of the Redgum Brook estate. The wider Byford locality is generally characterised by residential and associated land uses.

In its immediate surrounds, the subject site abuts adjoins a Western Power transformer and a commercial development to the east (currently under construction with a fuel convenience store and takeaway food outlet) and a vacant lot to the west (zoned for composite residential and light industrial land uses).

2.3 Land use and topography

The subject site is vacant and cleared of all vegetation, with the exception of three trees which have been planted at the rear of the subject site.

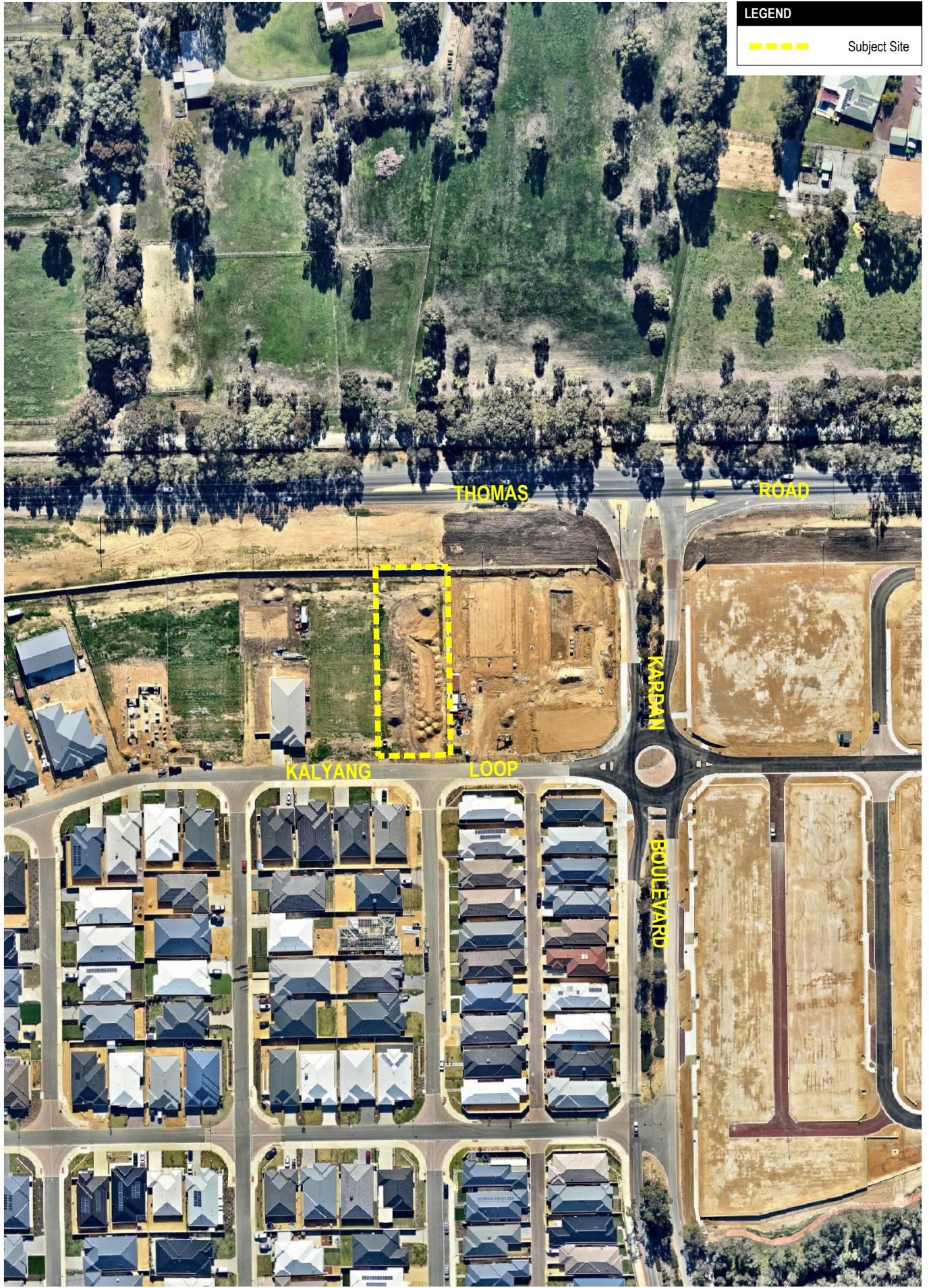
The subject site is generally flat, and contains a shallow drainage swale linking to the west at the rear.

Refer **Figure 1** for an aerial photograph showing the subject site and its surrounds.

LEGEND



Subject Site



3 Proposed development

The proposal involves the development of a two-storey early learning centre on the subject site. The proposed early learning centre will cater for the care of up to 128 children, with up to 25 full-time staff. The proposed early learning centre will cater for the following age demographics:

- 28 places for 0-2 years (rooms 1 and 2).
- 20 places for 1.5-3 years (room 3).
- 40 places for 2-3 years (rooms 4 and 5).
- 40 places for 3-5 years (rooms 6 and 7).

The early learning centre will operate from 6.30am to 6.30pm, Monday to Friday.

The proposed development comprises:

- A two storey building with Colorbond roof, aluminium door and window frames, and aluminium and fibre-cement feature elements. The building has a site cover of 990m² (51% of the site area) setback 8.056m (stairs 6.69m) from Kalyang Loop, 15m from Thomas Road and 3m from the west and east lot boundaries. The building includes:
 - A reception area at the building's entrance point for client greeting and general administrative operations associated with the early learning centre.
 - Seven activity rooms with a total child care area of 461m².
 - Associated amenities including kitchen, pantry, storerooms, toilets and program rooms.
 - Two upper-floor outdoor play areas, with areas of 211m² and 135m² respectively.
- A landscaped outdoor play area on the ground level with an area of 579m², located at the rear of the premises.
- Replacing the existing fence along the western boundary of the subject site with a 2.1m high timber-lapped fence within 30m of Kalyang Loop, and 1.8m high timber-lapped fence along the balance of the boundary line.
- Landscaping throughout the site, comprising native grass, shrubs and trees.
- A footpath linking the building entry with Kalyang Loop.
- 26 on-site car parking spaces accessed via a crossover onto Kalyang Loop, 21 of which are located under the croft of the building.
- A 14m² bin store setback 1.5m from Kalyang Loop and 3m from the eastern lot boundary.
- Signage located on the wall above the building entry, with a dimension of 3.31m x 0.6m.
- Signage located on the southern face of the bin store, with a dimension of 3.35m x 0.75m.

Refer **Appendix 2** for a copy of the development plans.

A number of technical documents are provided in support of the proposed development, including:

- Environmental Noise Assessment (refer **Appendix 3**).
- Transport Impact Statement (refer **Appendix 4**).
- Waste Management Plan (refer **Appendix 5**).
- Bushfire Attack Level Assessment (refer **Appendix 6**).

4 Statutory planning framework

4.1 Metropolitan Region Scheme

The subject site is zoned Urban under the provisions of the Metropolitan Region Scheme (**MRS**). The proposed development is consistent with the provisions of the MRS and may be approved accordingly.

The subject site is setback at least 3m from land to the north which is reserved for Other Regional Roads pursuant to the MRS. Given the subject site does not abut the reserved land, the delegation arrangements set out in the Western Australian Planning Commission's (**Commission's**) *Instrument of Delegation Del 2015/02* do not apply.

4.2 Shire of Serpentine-Jarrahdale Town Planning Scheme No. 2

4.2.1 Zoning

The subject site is zoned Urban Development under the Shire's Town Planning Scheme No. 2 (**TPS2**). Refer **Figure 2** zoning plan.

The purpose of the Urban Development zone under TPS2 is:

To provide for the orderly planning of large areas of land in a locally integrated manner and within a regional context, whilst retaining flexibility to review planning with changing circumstances.

The subject site is situated within Development Area 3 (**DA3**). In relation to development within a development area, clause 5.18.1 of TPS2 states:

- 5.18.1.1 *The local government requires a Structure Plan for a Development Area, or for any particular part or parts of a Development Area, before recommending subdivision or approving development of land within the Development Area.*
- 5.18.1.4 *Appendix 15 describes the Development Areas in more detail and sets out the purpose and particular requirements that may apply to the Development Area.*

Appendix 15 of TPS2 states DA3 is subject to the following local planning documents:

- Byford Structure Plan.
- Redgum Brook Estate – North Local Structure Plan (**Local Structure Plan**).

The above structure plans are addressed in detail below.

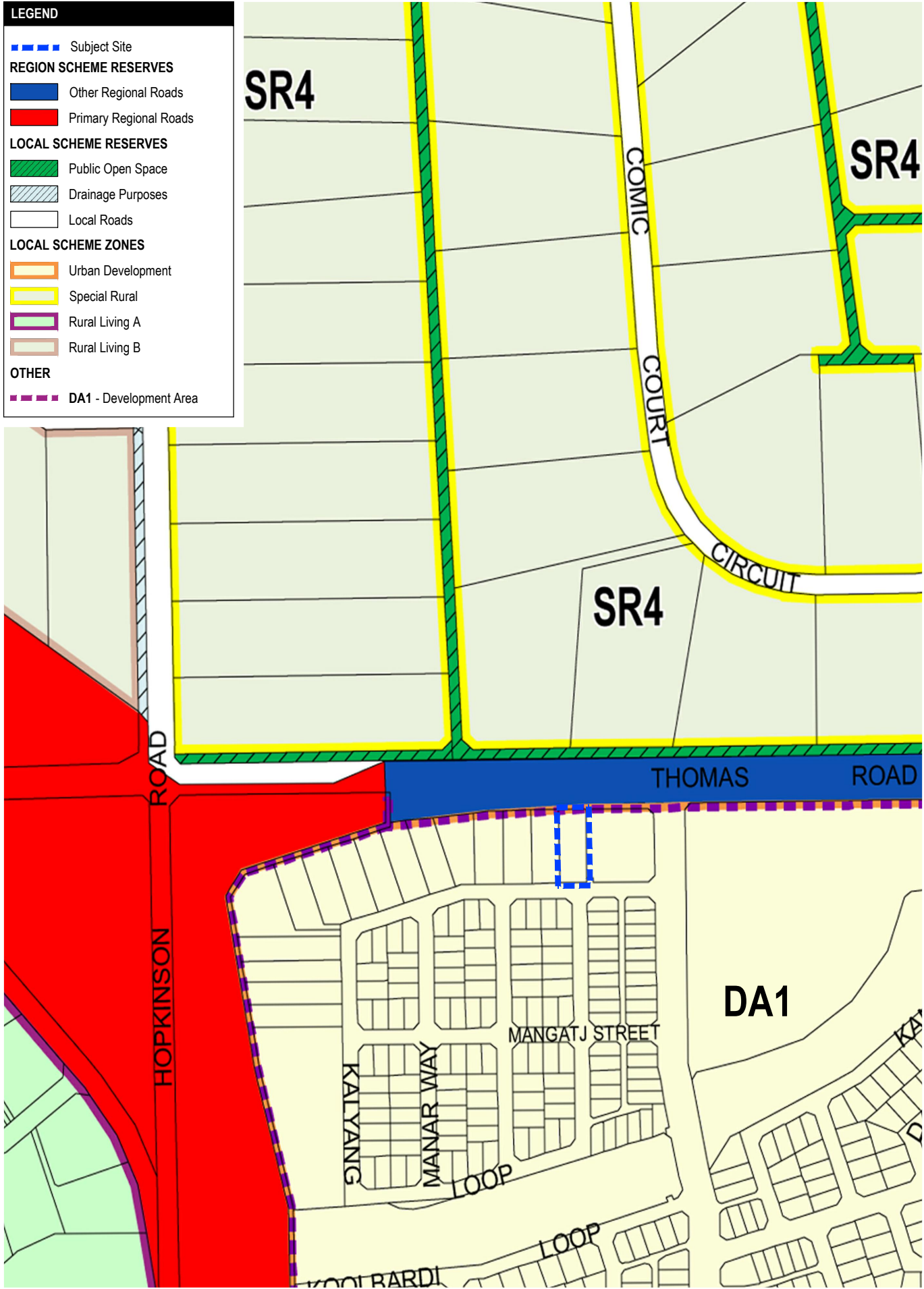
4.2.2 Land use and permissibility

The proposed use is best classified as child minding centre under Appendix 1 – Interpretations of TPS2:

Child Minding Centre - means land and buildings used for the daily or occasional care of children in accordance with the *Child Welfare (Care Centres) Regulations, 1968 (as amended)* but does not include a family care centre as defined by those Regulations, or an institutional home.

LEGEND

- ▬▬▬ Subject Site
- REGION SCHEME RESERVES**
- Other Regional Roads
- Primary Regional Roads
- LOCAL SCHEME RESERVES**
- ▨ Public Open Space
- ▨ Drainage Purposes
- ▭ Local Roads
- LOCAL SCHEME ZONES**
- ▭ Urban Development
- ▭ Special Rural
- ▭ Rural Living A
- ▭ Rural Living B
- OTHER**
- ▬▬▬ DA1 - Development Area



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Land use permissibility is determined by cross referencing the land use with the relevant zone in Table I – Zoning Table of TPS2. The symbol # applies to a child minding centre in the Urban Development zone under the Zoning Table; the footnote to the Zoning Table states:

Refer to clause 5.18.6.3

TPS2 includes the following provisions:

- 5.18.6.2 *Subject to clause 5.18.6.5, if a Structure Plan imposes a classification on the land included in it by reference to reserves, zones, or Residential Planning Codes then:*
- (a) *the provisions of the Structure Plan apply to the land within the area as if its provisions were incorporated into the Scheme and it is binding and enforceable in the same way as corresponding provisions incorporated in the Scheme; and*
 - (b) *provisions in the Scheme applicable to land in those classifications under the Scheme apply to the Development Area.*
- 5.18.6.3 *Without limiting the generality of clause 5.18.6.2, under a Structure Plan:*
- (a) *in the areas designated as zones, the permissibility of uses is to be the same as set out in the Zoning Table as if those areas were zones under the Scheme having the same designation;*
 - (b) *the standards and requirements applicable to the zones and R Codings under the Scheme apply to the areas having corresponding designations under the Structure Plan;*
 - (c) *the planning approval procedures including the procedures for the approval of uses and developments under the Scheme are to apply as if the land were correspondingly zoned or reserved under the Scheme;*
 - (d) *where land is classified as a local reservation, the rights, provisions and procedures, and the obligations of the local government in regard to compensation set out in clauses 2.3 and 2.4 inclusive apply as if the land was correspondingly reserved under the Scheme; and*
 - (e) *any other provision, standard or requirement in the Structure Plan is to be given the same force and effect as if it were a provision, standard or requirement of the Scheme.*
- 5.18.6.5 *If a provision of a Structure Plan which imposes a classification on the land included in it by reference to reserves, zones or Residential Planning Codes is inconsistent with a provision of the Scheme, then the provision of the Scheme prevails to the extent of any inconsistency.*

Pursuant to section 257B of the *Planning and Development Act 2005*, the above provisions are of no effect insofar as they are inconsistent with prescribed deemed provisions. In this regard, clause 27 of Schedule 2 (**Deemed Provisions**) of the *Planning and Development (Local Planning Schemes) Regulations 2015* states:

- (1) *A decision-maker for an application for development approval or subdivision approval in an area that is covered by a structure plan that has been approved by the Commission is to have due regard to, but is not bound by, the structure plan when deciding the application.*

The effect of the above provisions is that a child minding centre is a use which is neither prohibited nor permitted under TPS2.

Even if the Local Structure Plan were deemed to have a binding effect, insofar as it purports to designate land as zones under TPS2, a number of other irreconcilable issues arise including:

- The Local Structure Plan does not define land use permissibility in the Composite Residential / Light Industry zone; instead deferring land use permissibility to a local development plan.
- There is no corresponding 'Composite Residential / Light Industry' zone in TPS2.
- The applicable local development plan does not define land use permissibility for the 'residential' building envelope. Further, the local development plan does not define land use permissibility for setback areas outside of the defined building envelope.

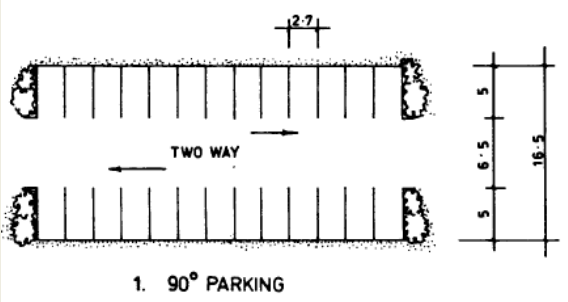
For the purpose of this development application, there is no land use permissibility afforded to the subject site, and it is open to the Metropolitan East Joint Development Assessment Panel to, if appropriate, approve a child minding centre use (or any other use) on the subject site.

4.2.3 Development standards

Part VII of TPS2 contains general provisions applicable to the proposed development. These general provisions are considered and addressed in **Table 1**.

Table 1 – General provisions of TPS2

General Provision	Provided
<p>7.1 GENERAL APPEARANCE OF BUILDINGS AND PRESERVATION OF AMENITY <i>No person shall without the approval of the Council erect or commence to erect a building which by virtue of its colour or type of materials, architectural style, height, bulk or ornamental or general appearance has, in the opinion of Council, an exterior design which is out of harmony with exterior designs of existing buildings or is likely to injure the amenity of the locality.</i></p>	<p>The proposed building comprises a two-storey building, with building heights and setbacks which are consistent with development bulk and scale permissible for residential development. The building includes a range of materials, colours and textures which are designed to break up the appearance of the building such that it complements the residential character of buildings in the locality.</p>
<p>7.4 TWO STREET FRONTAGES <i>Subject to the provisions of Clause 7.6, the Council may in cases where a lot has two street frontages, determine which street is the major frontage and the other frontage shall be as for a side setback for the development as required by this Scheme.</i></p>	<p>The proposed development fronts onto Kalyang Loop. Vehicle access to Thomas Road is restricted by a restrictive covenant. It is therefore considered a side setback for the purposes of TPS2.</p>
<p>7.5 VEHICULAR ACCESS WAYS <i>7.5.3 Access ways shall be constructed and paved to the satisfaction of Council.</i></p>	<p>Vehicle access is proposed to be paved.</p>

General Provision	Provided				
<p>7.7 OFF STREET PARKING</p> <p>7.7.2 Land and buildings shall not be used or developed:</p> <p>(a) for any purpose mentioned in Table 5 unless off street parking is provided in accordance with the requirements in that table;</p> <p>TABLE V – PARKING REQUIREMENTS</p> <table border="1" data-bbox="209 533 778 645"> <thead> <tr> <th>LAND USES</th> <th>MINIMUM NO PARKING SPACES</th> </tr> </thead> <tbody> <tr> <td>Child Minding Centre</td> <td>1 space per 5 children accommodated</td> </tr> </tbody> </table>	LAND USES	MINIMUM NO PARKING SPACES	Child Minding Centre	1 space per 5 children accommodated	<p>Up to 128 children accommodated.</p> <p>26 car parking spaces provided, including nine staff-parking bays in tandem.</p> <p>The number of car parking spaces provided complies with the minimum number of parking spaces required under TPS2.</p> <p>On-street parking is available on Guraga Way, directly opposite the subject site, which can be utilised for parking if for short periods of time during (peak pick-up or drop-off) all on-site car parking bays are full.</p>
LAND USES	MINIMUM NO PARKING SPACES				
Child Minding Centre	1 space per 5 children accommodated				
<p>7.7.3 All parking areas shall be:</p> <p>(a) laid out and designed in accordance with the specifications set out in Appendix 11 and Appendix 12; and</p> <p>(b) paved and marked to the satisfaction of the Council.</p> <p>APPENDIX 11 – PARKING MODULES</p>  <p>1. 90° PARKING</p>	<p>Car parking is provided in bays with dimensions of 5.4m x 2.6m, with a 6.0m parking aisle.</p> <p>Car parking provided achieves the dimensions required for Class 3 (short term) car parking under Australian Standard AS2890.1. The dimensions of the car parking provided is therefore consistent with expectations for parking for child minding centres Australia-wide.</p> <p>Tandem bays will be occupied by staff, who arrive first and leave last. This ensures customers will have access to on-site parking spaces.</p>				
<p>7.7.4 Boundary landscaping shall be provided for open parking areas visible from any public street and with more than five parking spaces, and interior landscaping shall be provided for open parking areas with twenty one or more parking spaces.</p> <p>7.7.5 Landscaping in open parking areas shall comply with the following requirements:</p> <p>(a) for areas with twenty one or more parking spaces, a minimum of one square metre of landscaping for every ten square metres of parking stall area shall be provided in addition to any other landscaping required by this Scheme;</p> <p>(b) landscape strips in accordance with Clause 7.10.2 shall be provided between parking areas and adjoining streets and adjacent to other boundaries if required by the Council.</p>	<p>A 1.5m wide landscape strip is provided adjacent to Kalyang Loop, and a 1.0m wide landscape strip is provided adjacent to side lot boundaries.</p> <p>The majority of car parking spaces are provided under the croft of the building, and are therefore not 'open'.</p>				

General Provision	Provided
<p>7.10 LANDSCAPING</p> <p>7.10.1 <i>Unless otherwise approved by the Council landscaping shall be provided for all developments and shall be:</i></p> <ul style="list-style-type: none"> (a) <i>in accordance with the Site Requirements Table where appropriate;</i> (b) <i>in accordance with a landscape plan approved by the Council; and</i> (c) <i>completed within thirty days of the occupation and use of the site.</i> 	<p>Landscaping is provided in accordance with TPS2.</p>
<p>7.10.2 Landscaping in car parking areas shall comply with the following requirements:</p> <ul style="list-style-type: none"> (a) planting shall be selected and maintained so as to minimise foliage between 0.5 metres and 1.5 metres above ground level; (b) the minimum width of landscaped areas shall be 1.5 metres and 2.0 metres when the landscaped area adjoins a street boundary; (c) all landscaping strips shall provide at least one pedestrian crossing point for every continuous ten metres of length. 	<p>A 1.5m wide landscape strip is provided adjacent to Kalyang Loop, and a 1.0m wide landscape strip is provided adjacent to side lot boundaries.</p> <p>The proposed landscaping is considered acceptable given:</p> <ul style="list-style-type: none"> • Increasing the width of side lot boundary landscaping to 1.5m would result in car parking bays being shortened, and/or the parking aisle or pedestrian path being narrowed. Such an outcome would be undesirable, and would affect the functionality of the development. • Increasing the street-frontage landscape strip from 1.5m to 2.0m would not result in a perceived benefit to the streetscape. The entire Kalyang Loop verge will be landscaped, and increasing the width of the landscaping strip would cause the number of child placements to be reduced to compensate for the loss in building area or outdoor open space. A concession on the width of street-front landscaping is sought to enable to early learning centre to operate at its full capacity for the benefit of the larger community.
<p>7.11 USE OF SET BACKS</p> <p><i>The setback areas shall only be used for one or more of the following:</i></p> <ul style="list-style-type: none"> (a) <i>a means of access;</i> (b) <i>landscaping;</i> (c) <i>firebreaks;</i> (d) <i>trade display provided no more than ten percent of the area is used, and the display is not located within three metres of the street;</i> (e) <i>the loading and unloading of goods; and</i> (f) <i>the parking of vehicles for staff, clients or customers of the development.</i> 	<p>The building setback area is used for landscaping, car parking, vehicle and pedestrian access, and bin store/signage.</p> <p>The location of the bin store within the street setback area is considered appropriate for the following reasons:</p> <ul style="list-style-type: none"> • It provides for convenient access for kerb-side collection of bins. • The bin store's wall screens part of the carpark from the view of the street. • The bin store is of a similar built form to the Western Power infrastructure, immediately east and with a similar setback to Kalyang Loop. In this regard, the bin store is not inconsistent with the existing streetscape. • The bin store provides for the location of unobtrusive signage to allow motorists and pedestrians to readily identify the premises. It is noted a similar use - trade display - is a permissible use of a setback area.

4.2.4 Site requirements

Table II of TPS2 sets out site requirements applicable to selected uses within the Residential zone. The subject site is not located in the Residential zone (the site is zoned Urban Development); nonetheless, the requirements of Table II of TPS2 are considered relevant insofar as it provides guidance on development in a residential context. **Table 2** provides an assessment against the site requirements.

Table 2 – Site requirements in Table II of TPS2

Site requirement	Provided
Minimum effective frontage – 20m	26.5m.
Minimum setback: - Front – 7.5m - Side – 3m - Rear – 7.5m	Front: 6.69m to staircase, 8.056m to building Sides: 3m Rear: 15m The bulk of the building is compliant with the front setback requirement. The width of the staircase (less than 4m) is considered a minor and acceptable intrusion into the setback area.
Maximum plot ratio – 0.5:1	1,033m ² , equates to 0.55:1. The minor exceedance of plot ratio (80m ²) is considered acceptable given the community benefit provided by the early learning centre for the wider Byford area.
Maximum site coverage – 30%	990m ² , equates to 51%. The additional site coverage provides for undercroft car parking. A lesser site coverage would inevitably result in open-air carparks, an outcome which does not provide for additional landscaping or a more pleasing outlook from the street.
Landscaping – 50% of site.	Approximately 594m ² (31%) of the subject site will be developed with soft landscaping at the ground level. This figure excludes the 346m ² of outdoor play areas on the upper floor (18% of the subject site), much of which will be uncovered. The ground-floor landscaping, plus the upper floor outdoor play areas, together is considered to achieve the Table II requirement for 50% of the subject site to be landscaped.

4.2.5 Matters to be considered

Clause 67 of the Deemed Provisions sets out the matters for which due regard shall be given when considering an application for development approval. The relevant considerations are addressed in **Table 3**.

Table 3 – Matters to be considered

Matter to be considered	Provided
(a) <i>the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;</i>	The aims and provisions of TPS2 are considered in section 4.2 of this report.
(b) <i>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;</i>	There is no known amendment to TPS2 affecting the proposed development. The scheme review process is in its early stages, and there are currently no relevant recommendations affecting the proposed development.
(c) <i>any approved State planning policy;</i>	Refer section 4.5 of this report.
(d) <i>any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d);</i>	There are no relevant environmental protection policies applicable to the proposed development.
(e) <i>any policy of the Commission;</i>	Refer section 4.7 of this report.
(f) <i>any policy of the State;</i>	There are no relevant policies of the state applicable to the proposed development.
(g) <i>any local planning policy for the Scheme area;</i>	Refer section 4.6 of this report.
(h) <i>any structure plan, activity centre plan or local development plan that relates to the development;</i>	Refer section 4.3 of this report.
(i) <i>any report of the review of the local planning scheme that has been published under the Planning and Development (Local Planning Schemes) Regulations 2015;</i>	There is no applicable scheme report.
(j) <i>in the case of land reserved under this Scheme, the objectives for the reserve and the additional and permitted uses identified in this Scheme for the reserve;</i>	n/a
(k) <i>the built heritage conservation of any place that is of cultural significance;</i>	The subject site is not affected by any place identified as having cultural heritage significance.
(l) <i>the effect of the proposal on the cultural heritage significance of the area in which the development is located;</i>	The subject site is not affected by any area identified as having cultural heritage significance.
(m) <i>the compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development;</i>	The proposed building incorporates a variety of materials, colours and textures and is articulated along the street elevation. The resultant building is one which presents well to the street, provides variety and interest, and is a development which is appropriate for its context as an interface between a commercial Mixed Use site and lower-scale residential/light industrial properties.

Matter to be considered	Provided
<p>(n) <i>the amenity of the locality including the following —</i></p> <ul style="list-style-type: none"> (i) <i>environmental impacts of the development;</i> (ii) <i>the character of the locality;</i> (iii) <i>social impacts of the development;</i> 	<p>The proposed development responds to the character of the area. In this respect, the proposed development provides a transition between the commercial nature of the Mixed Use site immediately east of the subject site, and the enterprise nature of the composite residential / light industry land immediately to the west of the subject site. The roof form of the building reflects this interface treatment, providing a higher built form towards the Mixed Use site and lower built form towards the west.</p> <p>It has been demonstrated in the Environmental Noise Assessment the proposal will not affect the amenity of the adjacent residential properties. In this regard, noise generated by the proposed development will comply at all times with the <i>Environmental Protection (Noise) Regulations 1997</i>. Refer Appendix 3.</p> <p>There will be no detrimental social impact resulting from the proposed development.</p>
<p>(o) <i>the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or the water resource;</i></p>	<p>The proposed development will not cause pollution of or otherwise affect any surface water flowing west along the rear of the subject site.</p>
<p>(p) <i>whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved;</i></p>	<p>The early learning centre will be landscaped. This includes the planting of vegetation adjacent to the carparks in the front half of the subject site, and landscaping of the outdoor play area suitable for outdoor activities.</p> <p>Screen trees will be incorporated in the landscaping at the rear of the subject site.</p>
<p>(q) <i>the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk;</i></p>	<p>There is minimal risk that the subject site will or could be affected by natural disasters.</p>
<p>(r) <i>the suitability of the land for the development taking into account the possible risk to human health or safety;</i></p>	<p>The proposed development will not detrimentally affect the health of any person.</p>
<p>(s) <i>the adequacy of —</i></p> <ul style="list-style-type: none"> (i) <i>the proposed means of access to and egress from the site; and</i> (ii) <i>arrangements for the loading, unloading, manoeuvring and parking of vehicles;</i> 	<p>A transport impact assessment has been prepared to address access and egress to and from the subject site, including deliveries and parking. Refer Appendix 4.</p>
<p>(t) <i>the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety;</i></p>	<p>A transport impact assessment has been prepared to traffic generated by the proposed development. Refer Appendix 4.</p>

Matter to be considered	Provided
<p>(u) <i>the availability and adequacy for the development of the following —</i></p> <ul style="list-style-type: none"> (i) <i>public transport services;</i> (ii) <i>public utility services;</i> (iii) <i>storage, management and collection of waste;</i> (iv) <i>access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities);</i> (v) <i>access by older people and people with disability;</i> 	<p>Availability of transport options near the subject site is considered in the transport impact assessment prepared for the proposed development – refer Appendix 4.</p> <p>A waste management plan has been prepared for the proposed development. Refer Appendix 5.</p> <p>Provision of bicycle facilities is addressed in section 4.6.2 of this report.</p> <p>One accessible car parking space has been provided for the proposed development. Further, a segregated footpath (accessible path of travel) is provided between the building entry and the street.</p>
<p>(v) <i>the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses;</i></p>	<p>The proposed development will not result in the loss of a community service.</p>
<p>(w) <i>the history of the site where the development is to be located;</i></p>	<p>A relevant consideration is Council's resolution of 25 July 2016 to amend the local development plan relating to the subject site. Specifically, the residential building envelope applicable to the subject site was extended to facilitate the development of a child minding centre or a medical centre on the subject site. The officers, in their report to Council, noted:</p> <p><i>The proposal will benefit the community by facilitating the provision of a 'child minding centre' and 'medical centre' which is a valuable service for the local community.</i></p> <p><i>The location, close to major transport links, adjoining a 'mixed use' development and within a growing residential area provides a feasible location for a 'child minding centre' or 'medical centre'.</i></p> <p><i>The extension of the 'residential' envelope into the 'light industrial' envelope is recommended to ensure off-site impacts are assessed prior to any land use approvals.</i></p> <p>As a result of Council's 25 July 2016 decision, it is considered a child minding centre is a suitable land use on the subject site. The potential for off-site impacts is matter which is substantially addressed in this report.</p>
<p>(x) <i>the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals;</i></p>	<p>It is noted the proposed development will provide full-time employment for 25 people, and provide care and education services for 128 children, providing employment opportunities for residents in the Byford locality. In this respect, there is a positive social outcome resulting from this development.</p>
<p>(y) <i>any submissions received on the application;</i></p>	<p>Submissions will be considered due course.</p>
<p>(za) <i>the comments or submissions received from any authority consulted under clause 66;</i></p>	<p>Referral to any government authority is not anticipated.</p>
<p>(zb) <i>any other planning consideration the local government considers appropriate.</i></p>	<p>No other planning considerations have been identified.</p>

4.3 Structure plans

Pursuant to clause 27(1) of the Deemed Provisions, a decision-maker is to have due regard to, but is not bound by, the following structure plans when deciding the development application.

4.3.1 Byford Structure Plan

Development on the subject site is subject to the provisions of the Byford Structure Plan, described in Provision 2 as follows:

The Byford Structure Plan is a District Structure Plan. The Structure Plan provides the broad-district level planning framework for development of the Structure Plan area. It provides the broad disposition of land use, major roads, rail and other community infrastructure. It is intended that the Structure Plan will form the general basis for subsequent preparation of Local Structure Plans on a precinct-basis.

The Byford Structure Plan identifies a portion of the structure plan area (including the subject site) as:

Land subject to further study to address the requirements for drainage and detailed structure planning consideration to be given to the preferred alignment of the Tonkin Highway Primary Regional roads reservation.

The proposed development is consistent with the Byford Structure Plan.

4.3.2 Redgum Brook Estate – North Local Structure Plan

The Local Structure Plan designates the subject site (and land adjoining the subject site's western boundary) as 'Composite Residential / Light Industrial' zone. The Local Structure Plan does not provide an objective or purpose for the Composite Residential / Light Industry zone, but the provisions of the Local Structure Plan require the preparation of a local development plan prior to the approval of subdivision or development applications.

The Local Structure Plan requires an appropriate interface to be achieved between urban development within the Local Structure Plan area and adjacent rural land to the north. In this regard, the proposed development incorporates landscape and planting in the rear 15m setback area of the subject site.

The relationship between the proposed development and the Local Structure Plan was addressed in the officers' report to the Council meeting on 25 July 2016 relating to the amendment to the local development plan to extend the 'residential' building envelope on the subject site, where the officers advised:

The proposal is considered to be a minor variation of the approved Redgum North LSP, the intent of the LSP is not unreasonably altered by this proposal which is complementary to the adjoining 'residential' and 'mixed use' area. The Planning and Development (Local Planning Schemes) Regulations 2015 require due regard be given to the structure plan, rather than being a strict statutory document.

While the proposal would allow a noise sensitive land use to intrude into the buffer area created by the 'light industrial' building envelope these impacts can be mitigated through construction and design at development application stage.

4.4 Local development plans

Pursuant to clause 56(1) of the Deemed Provisions, a decision-maker is to have due regard to, but is not bound by, a local development plan when deciding the development application.

4.4.1 Local Development Plan No. 18

Local Development Plan No.18 – Redgum Brook Estate – Stage 13 (**LDP 18**) applies to the subject site. LDP 18 was amended by resolution of Council on 25 July 2016 by:

1. Extending the ‘residential’ building envelope into the ‘light industrial’ building envelope on the subject site.
2. Modifying the quiet house design requirements by replacing references to ‘dwelling’ with ‘noise sensitive premises’.
3. Adding a new provision to restrict dwellings on the subject site to within 30m of the street.

A copy of LDP 18 (as amended) is included at **Appendix 7**.

LDP 18 contains a number of provisions relevant for development on the subject site, which are considered in **Table 4**.

Table 4 – Provisions of LDP 18

LDP 18 provision	Provided
<p><i>All structures must be located within the nominated building envelope:</i></p> <ul style="list-style-type: none"> • <i>Primary street building setback – 6.0m as per R20 provisions of the R-Codes.</i> • <i>Side setback – as per R-Codes.</i> • <i>Rear setback – 5m to 10m-wide tree planted buffer (i.e. total 15m setback)</i> 	<p>Front: 6.69m to staircase, 8.056m to building Sides: 3m Rear: 15m</p>
<p>Residential Area – R-Coding</p> <p>3. <i>If no light industrial use is proposed at the rear, side setbacks are to be as per the R-Codes. Garages may be constructed on the side boundary in accordance with the R-Codes.</i></p>	<p>The western wall of the building has a height of 5.7m. The setback of 3m exceeds the minimum deemed-to-comply setback of 2.8m required under Table 2a of <i>State Planning Policy 3.1 Residential Design Codes (R-Codes)</i> (and notwithstanding the R-Codes does not apply to commercial development).</p> <p>The eastern wall of the building has a variable height of up to 7.169m. A deemed-to-comply setback of 3.5m applies under Table 2a of the R-Codes. Nonetheless, given the adjoining property to the east is developed with a convenience store and fast food outlet (no residential development is proposed) the 3.0m setback is considered to complement the adjacent commercial development.</p>
<p>4. <i>On Lot 856 [subject site] a dwelling will only be permitted within 30m of the street.</i></p>	<p>No dwelling is proposed.</p>
<p>Fencing</p> <p><i>All side fencing to be open rural style timber to be constructed by the subdivider.</i></p>	<p>Fencing along the western lot boundary is proposed to be replaced by 1.8m and 2.1m high lapped timber fencing, with no gaps, in order to satisfy the recommendations of the Environmental Noise Assessment (refer Appendix 3). The use of timber materials for the upgraded fencing is considered acceptable, as it complements the existing fencing in the LDP 18 area.</p>

LDP 18 provision	Provided
<p>Noise Attenuation <i>All lots may be affected by traffic noise from Tonkin Highway or Thomas Road. a combination of 'quiet house' design measures and practical barrier s proposed to attenuate traffic noise.</i></p>	<p>Noted.</p>
<p>• Quiet House Design Requirements <i>The noise sensitive premises to be constructed on the subject lots are to be designed to comply with the following 'quiet house' criteria.</i> <i>Design Elements – Building Guidelines</i></p> <ul style="list-style-type: none"> - <i>External walls shall be of double brick construction.</i> - <i>Casement or awning windows with exposure to Tonkin Highway or Thomas Road to be provided with compressive seals.</i> - <i>Ground floor glazing to bedrooms with exposure to Tonkin Highway or Thomas Road to be casement type windows with 6.38mm thick laminated glass. other living spaces with exposure to the Tonkin Highway or Thomas Road to be casement or awning type windows with minimum 6mm glass.</i> - <i>Eaves to be enclosed using 6mm thick compressed cement sheeting or equivalent.</i> - <i>Sliding doors from living spaces to an outdoor area with exposure to Tonkin Highway or Thomas Road are acceptable, provided the sliding doors with seals and overlapping meeting styles.</i> - <i>Sliding doors to bedrooms with exposure to Tonkin Highway or Thomas Road are not acceptable.</i> - <i>Roofs to be colorbond (or equivalent) with minimum 50mm anticon, with ceilings of 13mm plasterboard to the bedrooms and minimum R2.5 insulation laid over the top. R4.1 ceiling insulation is also acceptable.</i> 	<p>Refer to Appendix 3 for the Environmental Noise Assessment which has been prepared specifically for the proposed development.</p>

4.5 State planning policies

4.5.1 SPP 3.7 Planning in Bushfire Prone Areas

State Planning Policy 3.7 Planning in Bushfire Prone Areas (**SPP 3.7**) applies to the proposed development given the subject site is within 100m of land identified as a bushfire hazard.

A BAL Assessment has been undertaken for the proposed development. The BAL Assessment Certificate classifies the proposed development as having a rating of BAL-LOW, being the lowest-possible rating. Refer **Appendix 6** for a copy of the BAL Certificate and BAL Assessment.

Under SPP3.7 there are no specific requirements which apply for land classified as BAL-LOW.

4.5.2 SPP 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning

State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning (**SPP 5.4**) applies to noise sensitive land uses (including child care) adjacent to Thomas Road.

The Environmental Noise Assessment prepared for the proposed development addresses the requirements of SPP 5.4; it includes the following recommendation:

In relation to noise intrusion into the sleeping areas on the first floor, the daytime criterion of 40 dB L_{Aeq} from the State Planning Policy 5.4 would be achieved where external glazing is at least 6mm thick glass and any operable glazing close on compressible foam seals.

Refer **Appendix 3** for a copy of the Environmental Noise Assessment.

4.6 Local planning policies

Pursuant to clause 3(5) of the Deemed Provisions, the local government must have regard to each relevant local planning policy to the extent that the policy is consistent with TPS2. Relevant local planning policies are considered below.

4.6.1 LPP5 Control of Advertisements

The Shire's *Local Planning Policy LPP5 Control of Advertisements (LPP5)* includes the following objectives:

- a) *To ensure that the visual quality and character of particular localities and transport corridors are not eroded;*
- b) *To achieve advertising signs that are not misleading or dangerous to vehicular or pedestrian traffic;*
- c) *To minimise the total area and impact of outdoor advertising commensurate with the realistic needs of commerce for such advertising;*
- d) *To prohibit outdoor advertising which is considered to be superfluous or unnecessary by virtue of their colours, height, prominence, visual impact, size, relevance to the premises on which they are located, number and content;*
- e) *To reduce and minimise clutter; and*
- f) *To promote a high standard of design and presentation in outdoor advertising;*
- g) *Clearly and simply set out the requirements of the Shire of Serpentine-Jarrahdale for applicants making an application within the municipality;*

Table 1 of LPP5 provides for the permissibility of signage types in various zones; however, the Urban Development zone is not listed in Table 1. All signs therefore are to be considered on their merits.

Two signs are proposed. The proposed signs, and an assessment against the requirements for specific signage types in LPP5, is set out below.

Wall sign

A wall sign is defined by LPP5 as:

Means an advertising sign which is fixed to or painted on the external part of a wall of the building, but does not project more than 300 mm out from the wall, and no part of which is above the lowest point of the eaves or ceiling of the building.

Table 5 includes an assessment of the proposed sign above the building's entry.

Table 5 – Wall signs

LPP5 requirement	Provided
<p>Wall signs shall;</p> <ul style="list-style-type: none"> ➤ be limited to a maximum number of two such signs on any one wall for each tenancy within a building other than a building within a residential zone; 	Only one wall sign is proposed.
<ul style="list-style-type: none"> ➤ not exceed 10m² in area in aggregate on any one wall, unless a sign strategy acceptable to the Council for the whole site has been submitted; 	The proposed wall sign has an area of 1.99m ² .
<ul style="list-style-type: none"> ➤ if placed directly over door openings, have a minimum clearance of 2.7m from ground level; 	The wall sign has a clearance greater than 2.7m.
<ul style="list-style-type: none"> ➤ if attached to the building by means of cables, ropes or the like: <ul style="list-style-type: none"> ➤ be non-flammable; or ➤ not be erected for more than 14 days in aggregate in any one calendar year; 	No cables or ropes are proposed.
<ul style="list-style-type: none"> ➤ if located within a residential zone and attached to a building used predominantly for a residential use; ➤ not exceed 0.2m² in area; and ➤ not exceed one sign per lot 	n/a
<ul style="list-style-type: none"> ➤ if located within a residential zone and attached to a building used predominantly for a commercial use: <ul style="list-style-type: none"> • not exceed 1.2m² in area; and • not exceed one sign per lot. 	The subject site is zoned 'Urban Development' pursuant to TPS2. Irrespective, the scale of the proposed signage is considered acceptable for the proposed development.

Name, number and address wall sign

A name, number and address wall sign is defined by LPP5 as:

A sign which displays the name, number and address of the building.

Table 6 includes an assessment of the proposed sign attached to the front elevation of the bin store.

Table 6 – Name, number and address signs

LPP5 requirement	Provided
<p>A maximum of one sign shall be placed on a building and shall;</p> <ul style="list-style-type: none"> ➤ be a maximum area of 0.2m²; 	<p>The proposed sign has an area of 2.51m². In this regard, the size of the sign is considered appropriate for the following reasons:</p> <ul style="list-style-type: none"> • The scale and size of the sign is commensurate with the size of the bin store wall. • The size of the sign is necessary to convey the early learning centre's name, address and contact details, and is less than the permitted maximum size for panel signs (5m²) and hoarding signs (20m²). In this regard, attaching the sign to the wall of the bin store is considered to result in a more visually-pleasing outcome than placing the same sign on a panel or a hoarding.

The two proposed signs are considered appropriate for the building and the locality, are consistent with the objectives of LPP5, and should be approved accordingly.

4.6.2 LPP58 – Bicycle facilities

The Shire's Local Planning Policy LPP58 – Bicycle Facilities (**LPP58**) applies to the proposed development. The objectives of this Policy are to:

- *Encourage cycling and improve conditions for bike riders in proposed urban developments;*
- *Ensure the provision of appropriate bicycle facilities;*
- *Provide an alternative to private vehicle transport through provision of secure and effective end of trip cycling facilities; and*
- *Provide guidance to developers on the design and requirements of bicycle end of trip facilities for both commuters and visitors.*

LPP58 provides rates for the provisions of bicycle parking facilities for certain land uses. Clause 7.8 of LPP58 states:

7.8 Uses not depicted in Schedule 2 indicate that no facilities are mandated, therefore Applicants shall consult with Council in regards to the required provisions.

Specific provision of bicycle parking is not considered necessary for the proposed early learning centre. Nonetheless, space is available for staff to securely store bicycles in the drying court, adjacent to the laundry. Showers and end of trip facilities are not considered necessary.

4.6.3 LPP59 – Public Art Policy for Major Developments

The Shire's Local Planning Policy LPP59 – Public Art Policy for Major Developments (**LPP59**) applies to all development applications with a construction cost of \$1 million or greater. The objectives of this Policy are to:

- *Create artworks in public spaces that are site specific, meaningful and integrated into built and natural forms within the Shire.*
- *Enhance public enjoyment, engagement and understanding of places through the integration of public art, thereby enhancing sense of place.*
- *Enhance the appearance, character and value of buildings and places through the inclusion of high quality public art.*
- *Establish a clear and equitable system for the provision of public art in the development process.*

Pursuant to the Public Art Contribution Matrix in clause 9.1 of LPP59, public art is required to be provided at 1% of the construction cost, either by providing the public art on-site or contributing to the Shire's public art fund.

4.7 Planning Bulletin 72/2009 Child Care Centres

The Commission's Planning Bulletin 72/2009 Child Care Centres (**PB 72**) is intended to provide guidance to decision-makers, developers and the community for uses when planning for child care centres. The objectives of PB 72 are to:

- a) *locate child care centres appropriately in relation to their surrounding service area;*
- b) *minimise the impact a child care centre has on its surrounds, in particular on the amenity of existing residential areas;*
- c) *minimise the impact the surrounds may have on a child care centre; and*
- d) *consider the health and safety of children attending the child care centre within the confines of the planning system.*

Consideration of the provisions of PB 72 are contained in **Table 7** below.

Table 7 – Requirements of PB 72

Requirement	Provided
<p>3.3 Location of child care centres</p> <p><i>The appropriate location of a child care centre is crucial in meeting the needs of children and their families. It also is crucial in limiting the impact a child care centre may have on surrounding activities and vice versa. This may be achieved by locating child care centres on sites that are:</i></p>	
<p>a) <i>distributed strategically to provide the maximum benefit to the community it serves;</i></p>	The subject site is located within the Byford urban cell, and is easily accessible via Kardan Boulevard.
<p>b) <i>within easy walking distance or part of appropriate commercial, recreation or community nodes and education facilities;</i></p>	The subject site is adjacent to land identified as Mixed Use as part of a local activity centre under the Local Structure Plan.
<p>c) <i>located in areas where adjoining uses are compatible with a child care centre (includes considering all permissible uses under the zoning of adjoining properties);</i></p>	<p>The early learning centre is compatible with the adjacent land uses.</p> <p>The early learning centre will have no impact on the convenience store and fast food uses which are currently being developed on the adjacent Mixed Use site adjoining the eastern boundary of the subject site.</p> <p>The Environmental Noise Assessment undertaken for the development (refer Appendix 3) demonstrates the proposed early learning centre will comply with the relevant noise standards in respect of the adjacent residential properties.</p>
<p>d) <i>serviced by public transport (where available);</i></p>	A Transperth bus service operates along Kardan Boulevard and Ballawarra Avenue with bus stops located within a 550m walk of the subject site.
<p>e) <i>considered suitable from a traffic engineering/safety point of view; and</i></p>	<p>The intersection of Kalyang Loop and Kardan Boulevard has been upgraded to a roundabout by the developer of the Redgum Brook estate; this ensures safe access to the subject site.</p> <p>A transport impact statement has been prepared for the proposed development (refer Appendix 4), demonstrating the proposed development will operate within the capacity of the adjacent road network.</p>
<p>f) <i>of sufficient size and dimension to accommodate the development without affecting the amenity of the area.</i></p>	The subject site is of a sufficient size to accommodate the proposed early learning centre.

Requirement	Provided
<p><i>Child care centres generally would not be suitable where:</i></p> <p>g) <i>soil contamination exceeds the levels regarded by DEC and DOH as suitable for standard residential land uses with accessible soils as published in guideline Assessment Levels for Soil, Sediment and Water Department of Environment, November 2003);</i></p>	<p>The subject site is not identified as a contaminated site.</p>
<p>h) <i>groundwater is to be abstracted for the irrigation of gardens and play area within the child care centre and groundwater contamination exceeds 10x Australian drinking water criteria in accordance with the Contaminated Sites Reporting Guideline for chemicals in groundwater (DOH 2006);</i></p>	<p>The subject site has access to scheme water.</p>
<p>i) <i>the service provided by the centre will have a demonstrable, adverse impact on the existing or planned level of child care centre services enjoyed by the local community;</i></p>	<p>The subject site will not affect any existing or planned child care service.</p>
<p>j) <i>access is from a major road or in close proximity to a major intersection where there may be safety concerns;</i></p>	<p>The subject site is not accessed from a major road.</p>
<p>k) <i>access is from a local access street which may impact on the amenity of the area due to traffic and parking;</i></p>	<p>The subject site will be accessed from Kalyang Loop, opposite the intersection with Guraga Way, and therefore will not impact on the amenity of the locality. Car parking will be provided on the subject site in accordance with the requirements of TPS2.</p>
<p>l) <i>the current use or any permissible use under the zoning of the adjoining premises produces unacceptable levels of noise, fumes or emissions or poses a potential hazard by reason of activities or materials stored on-site;</i></p>	<p>It is noted a fuel convenience store and fast food outlet is under construction on adjacent Lot 857, abutting the eastern boundary of the subject site. This development was approved by resolution of Council on 7 December 2015, and the officers' report to Council considered off-site impacts. Specifically, the officers' report noted:</p> <ul style="list-style-type: none"> • An environmental acoustic assessment prepared demonstrated noise from the development will comply with the requirements of the <i>Environmental Protection (Noise) Regulations 1997</i> at all times. The officers were satisfied the proposal was compliant. • Odour and vapour is controlled through a Stage 1 vapour recovery system installed on fuel bowers. The officers accepted the vapour recovery systems will be effective to reduce odour impacts on nearby residents. • No LPG storage was proposed. • Light spill was to be addressed as a condition of approval. • Officers were satisfied soil contamination will not affect adjoining landowners. <p>The convenience store and fast food outlet development was supported by the officers and approved on the basis that off-site impacts were within accepted standards and there would be no off-site impact on the subject site. The proposed early learning centre therefore will not be affected in any way by commercial operations on the adjoining site.</p>

Requirement	Provided
	<p>Light industrial land uses are permissible on the rear of the adjoining property to the west. In this regard, light industry, by definition in TPS2:</p> <p><i>will not adversely affect the amenity of the locality by reason of the emission of light, noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water or other waste products.</i></p> <p>Having regard to the above considerations, neither commercial uses on the Mixed Use site nor light industrial uses on the adjoining composite residential / light industry site will cause harm to or affect the amenity of the proposed early learning centre by way of off-site impacts.</p>
<p>m) <i>noise produced by roads, railways and aircraft are likely to have an adverse impact on the site; and/or</i></p>	<p>The Environmental Noise Assessment demonstrates noise from Thomas Road will not adversely affect the proposed development. Refer Appendix 3.</p>
<p>n) <i>the site is in a heavy industry area or in the buffer area of a heavy industry area.</i></p>	<p>The subject site is not located in proximity to a heavy industrial area.</p>
<p>3.4 Site characteristics <i>Sites selected for child care centres should be of sufficient size and suitable shape to accommodate the development, including all buildings and structures, parking for staff and parents, outdoor play areas and landscaping, as determined by the relevant local planning scheme or local policy and applicable regulations. As a general rule sites in a residential area should be of regular shape and greater than 1000 sqm.</i></p>	<p>The subject site is of a sufficient size and shape to accommodate a child minding centre.</p>
<p><i>The topography of the site and surrounds should also be considered as steep slopes may affect access to the facility, noise transfer and methods of noise mitigation.</i></p>	<p>The subject site is flat.</p>
<p><i>Sites selected for child care centres should also be assessed to determine their potential for soil and groundwater contamination. Section 6 of the DEC's Contaminated Sites and the Land Use Planning Process (April 2006) guideline sets out a useful methodology to assist local governments in carrying out such assessments.</i></p>	<p>The subject site is located in a greenfield estate and is not identified as being potentially contaminated.</p>
<p><i>The licence to operate a child care centre, issued under the regulations (Child Care Services Act 2007) limits the number of children the centre can accommodate.</i></p>	<p>Noted.</p>
<p>3.5 Design of centres <i>The visual appearance of the child care centre, including any signage, building design, colour, scale, shape and form, should be in accordance with the local government local planning scheme or relevant local policy and applicable regulations. In the absence of any specific provisions, the visual appearance of the development should reflect the character of the area, enhance its amenity and be considered appropriate for regular use by children.</i></p>	<p>The proposed building incorporates a variety of materials, colours and textures and is articulated along the street elevation. The resultant building is one which presents well to the street, provides variety and interest, and is a development which is appropriate for its context as an interface between a commercial Mixed Use site and lower-scale residential/light industrial properties.</p>

Requirement	Provided
<p><i>Parking areas should be located in front of the building. If this is not possible they should be clearly visible and easily accessible from the entry to the site. As a general rule, the minimum parking requirement for a child care centre, including staff parking, will be one space per five children. The number of parking bays may be varied by the local government given the specific provisions of the local planning scheme or relevant local policy and any unique circumstances relating to the proposed development, such as reciprocal parking arrangements, available public transport and street parking. Vehicles will be required to enter and exit the site in a forward gear, and there may be additional requirements resulting from a traffic impact assessment.</i></p>	<p>Parking is located in front of an under the croft of the building. The rate of 1 car parking space per five children is achieved.</p>
<p><i>Outdoor play areas should be in a safe location on the site, and away from any adjoining noise-sensitive premises, such as dwellings and nursing homes.</i></p>	<p>Outdoor play areas are located away from dwellings. A screen wall is provided to the western wall of the upper-floor outdoor play area at the front of the building, to protect the residential amenity of the adjacent residential property.</p>
<p><i>Landscaping should be provided in accordance with the relevant local planning scheme or relevant local policy or applicable regulations. In the absence of any such provisions, landscaping will be required along the street frontage of the development to a standard equal to that required or provided for on adjacent properties. Landscaping should not include potentially hazardous heights, landscape fittings, and potentially toxic plants.</i></p>	<p>Landscaping is provided for the proposed development.</p>
<p>3.6 Traffic impacts <i>A traffic impact statement/ assessment should be required for the development of a child care centre. This statement/assessment should address:</i></p> <ul style="list-style-type: none"> a) <i>the site characteristics and surrounding area;</i> b) <i>the proposal and its expected trip generation;</i> c) <i>parking requirements, including the design of parking areas, and any pick-up and drop-off facilities;</i> d) <i>existing traffic conditions and any future changes expected to the traffic conditions;</i> e) <i>current road safety conditions, including a crash history in the locality; and</i> f) <i>the expected impact of the proposed development on the existing and future traffic conditions.</i> <p><i>A child care centre should be approved only if it can be demonstrated that it will have a minimal impact on the functionality and amenity of an area and will not create or exacerbate any unsafe conditions for children and families using the centre, or for pedestrians or road users.</i></p>	<p>A transport impact statement has been provided for the proposed development. Refer Appendix 4.</p>
<p>3.7 Noise impacts <i>A noise impact assessment may be required for the development of a child care centre.</i> <i>The objectives should be to limit the noise impact of the child care centre on adjacent properties, and also limit any noise impact from external sources on the child care centre. This may be achieved either by physical separation, design and layout of the centre or by implementing noise-mitigation measures, such as acoustic treatments to buildings.</i></p>	<p>An Environmental Noise Assessment has been prepared for the proposed development. Refer Appendix 3.</p>

Requirement	Provided
<p><i>As a general rule, the hours of operation of a child care centre should be limited to between the hours of 7 am and 7 pm weekdays and on Saturdays, unless otherwise agreed to with the local government.</i></p>	<p>Operating hours of 6:30am – 6:30pm are proposed. These operating hours reflect industry standards, and is considered appropriate. The Environmental Noise Assessment included at Appendix 3 demonstrates night-time noise from the facility (i.e. noise prior to 7am) will comply with relevant noise regulations.</p>
<p><i>Although each application will need to be assessed on its merits, the following basic principles apply:</i></p> <ul style="list-style-type: none"> a) <i>Where a child care centre is located adjacent to a noise-sensitive use, such as houses, retirement villages and nursing homes, the noise-generating activities of the child care centre, such as the outdoor play areas, parking areas and any plant and equipment, are to be located away from the noise-sensitive use.</i> b) <i>Where, due to design limitations or safety considerations, noise-generating activities such as outdoor play areas are located close to noise-sensitive uses, appropriate noise mitigation is to be undertaken.</i> c) <i>As there is now a considerable body of research that demonstrates the negative impact of inappropriate noise on child development, the design and construction of buildings may include noise-mitigation measures to reduce impact from external sources and to achieve accepted indoor noise limits.</i> 	<p>The Environmental Noise Assessment at Appendix 3 demonstrates the facility will operate within the requirements of the relevant noise regulations and Australian Standards relating to indoor noise.</p>
<p>3.8 Need for child care centres</p> <p><i>Legal decisions have discounted the requirement for an applicant to prove the need for commercial facility, for example through market surveys, as part of the planning approval process. However, if there is a demonstrable impact on the amenity of an area or the level of service enjoyed by a community, then this is a relevant local planning consideration.</i></p> <p><i>Accordingly, the WAPC is of the view that, although a proponent does not have to demonstrate there is sufficient demand for the activity, there may be a need to show that the development will not have an adverse impact on the amenity of the area or the level of service to the community by similar existing or approved facilities.</i></p> <p><i>In such instances, and depending on the scale of the proposal, the applicant may be asked to provide further information in regard to the level of existing services in the locality, proximity to other centres, population catchments for the new centre and the number of primary schools and kindergartens in the locality, in relation to the development of a new facility.</i></p>	<p>It is acknowledged the need for child care premises does not need to be demonstrated.</p> <p>In any event, the Byford urban area is subject to rapid growth, and there is an evident demand for child care premises in the area, referenced by local news outlets in the last two years. The proposed development will provide 128 spaces, thereby relieving the demand for places in the area and ensuring availability of places for local residents.</p>

5 Conclusion

The proposed development of an early learning centre on the subject site is considered to be acceptable, and warrants approval. In this regard, we consider the proposed development addresses the relevant planning requirements in the following fashion:

1. The subject site has been identified as a suitable site for the development of a child minding centre by Council on 25 July 2016, and LDP 18 was specifically modified to allow a child minding centre to be contemplated on the subject site.
2. A child minding centre is a use which can be approved on the subject site pursuant to the provisions of TPS2, and having regard to the Local Structure Plan and LDP 18 (as amended).
3. The proposed development has been designed to function effectively and efficiently with respect to providing placement for 128 children and accommodating 25 full-time staff, without compromising the amenity of the locality. This is achieved through a considerate design which takes advantage of a second storey, allowing the site to be developed to its full potential.
4. The building design incorporates a range of materials, textures and colours, to ensure the building design presents as vibrant and fresh, which ensuring the development provides a suitable transition between the commercial development to the east, enterprise residential/light industry uses to the west and lower-scale residential development to the south.
5. The proposed development complements and does not conflict with the fuel convenience store and fast food outlet on the adjoining property to the east. In this regard, Council resolved to approve the commercial development on 7 December 2015 after considering the Shire's officers advice that the commercial development would not cause off-site impacts such as vapours/odour, noise, light or soil pollution to adjoining properties.
6. The proposed development provides a social benefit to the broader Byford community by providing placement for children (allowing parents and guardians to pursue full-time work), plus provides direct full-time employment for 25 people.

For the above reasons, it is respectfully requested the Metropolitan East Joint Development Assessment Panel grant approval to the proposed development.

Appendix 1

Certificate of Title and Deposited Plan

WESTERN



AUSTRALIA

REGISTER NUMBER 856/DP402509	
DUPLICATE EDITION N/A	DATE DUPLICATE ISSUED N/A

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME
2880

FOLIO
331

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES



LAND DESCRIPTION:

LOT 856 ON DEPOSITED PLAN 402509

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

IAN CURRIE FERGUSON
NORMA FERGUSON
BOTH OF 6 FOUNDERS LANE HILLARYS
AS JOINT TENANTS

(T N223038) REGISTERED 11 JANUARY 2016

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. *COVENANT BURDEN CREATED UNDER SECTION 150 P&D ACT TO SHIRE OF SERPENTINE-JARRAHDAL. SEE DEPOSITED PLAN 402509.
2. *RESTRICTIVE COVENANT BENEFIT - SEE DEPOSITED PLAN 402509 AND INSTRUMENT N61598
3. *RESTRICTIVE COVENANT BURDEN - SEE DEPOSITED PLAN 402509 AND INSTRUMENT N61598.
4. *N061600 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 14.7.2015.
5. *N061601 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 14.7.2015.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP402509.
PREVIOUS TITLE: 2861-972.
PROPERTY STREET ADDRESS: 125 KALYANG LOOP, BYFORD.
LOCAL GOVERNMENT AREA: SHIRE OF SERPENTINE-JARRAHDAL.

END OF PAGE 1 - CONTINUED OVER

RECORD OF CERTIFICATE OF TITLE


REGISTER NUMBER: 856/DP402509

VOLUME/FOLIO: 2880-331

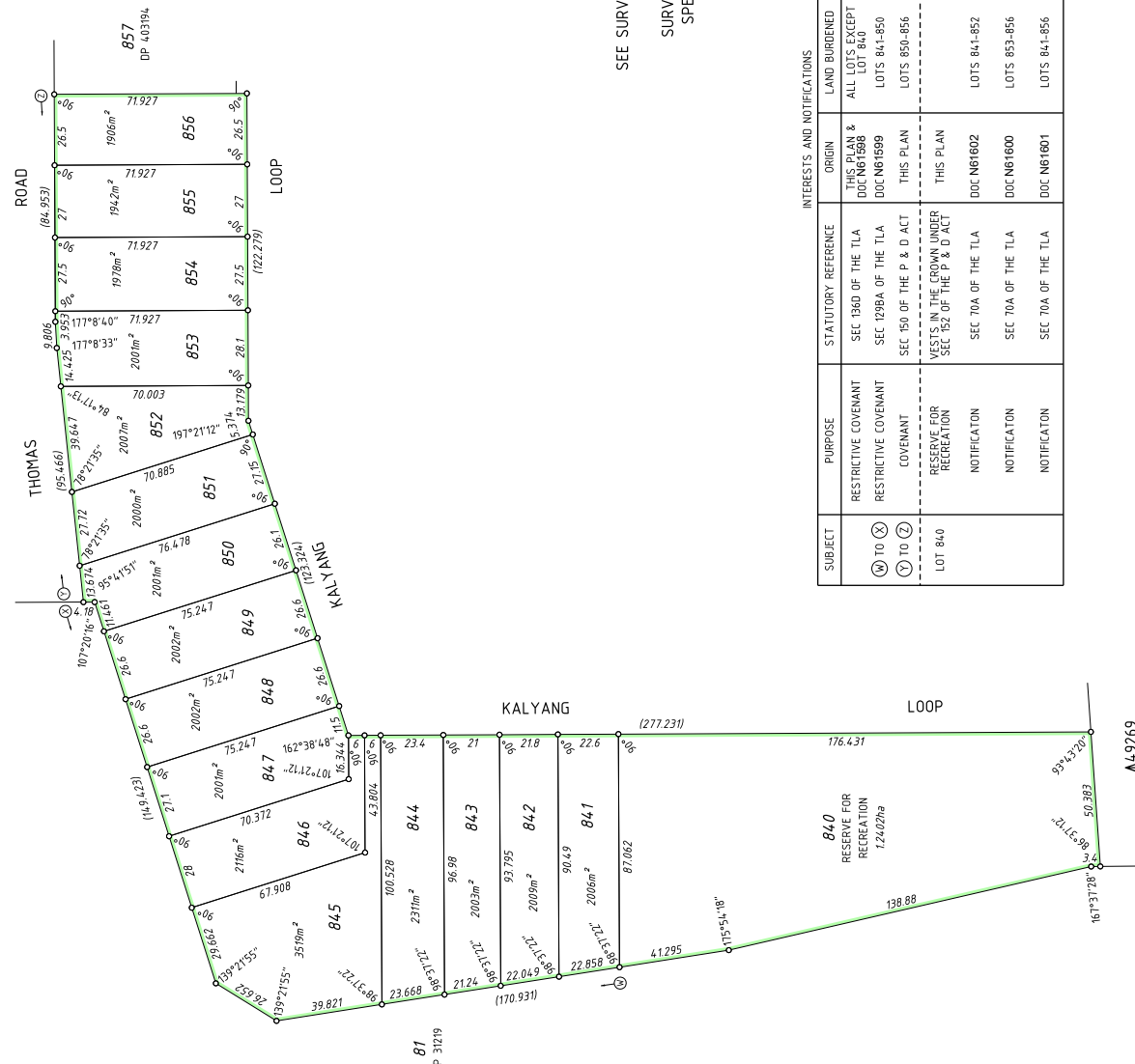
PAGE 2

NOTE 1:

DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING
J727103

TYPE	FREEHOLD	S.S.A.	YES/NO
PURPOSE	SUBDIVISION		
PLAN OF	LOTS 840-856 RESTRICTIVE COVENANT & COVENANT		
FORMER TENURE	D.O.L. FILE		
LOCAL AUTHORITY	SHIRE OF SERPENTINE-JARRAHDALE		
LOCALITY	BYFORD		
FIELD RECORD	90192 (S.M. 3824)	96072 (S.M. 3872)	
	99387 (S.M. 3830)	105184 (S.M. 4353)	
SURVEYOR'S CERTIFICATE - REG 54 I, ROBERT GEDFREY BEARDMAN hereby certify that this plan is accurate and is a correct representation of the - (a) *survey; and/or (b) *calculations from measurements recorded in the field records. (* delete if inapplicable) undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged. Robert Geoffrey Beardman 2015.07.00 10:44:47 +08'00'			
LICENSED SURVEYOR	DATE		
LOGGED	13-JUN-2015	\$1402.00	17691658
DATE	FEE PAID	ASSESS No.	
I.S.C.	EXAMINED	DATE	
G.FONG	16-Jul-15	DATE	
WESTERN AUSTRALIAN PLANNING COMMISSION			
FILE	14563		
Delegated under S.16 P&D Act 2005	21-Jul-2015 DATE		
IN ORDER FOR DEALINGS Sec's 150 & 152 of P&D ACT Sec's 70A, 129BA & 136D of TLA			
FOR INSPECTOR OF PLANS AND SURVEYS	22-Jul-15 DATE		
APPROVED	REG 26A (4)		
INSPECTOR OF PLANS AND SURVEYS	DATE		
(S.18 Licensed Surveyors Act 1909)			
 DEPOSITED PLAN 402509 SHEET 1 OF 1 SHEETS - VERSION 1 (PLUS SURVEY SHEETS)			

SPECIAL SURVEY AREA SUBDIVISION



SEE SURVEY SHEET(S) FOR SURVEY INFORMATION
SURVEY CARRIED OUT UNDER REG 26A
SPECIAL SURVEY AREA GUIDELINES

INTERESTS AND NOTIFICATIONS						
SUBJECT	PURPOSE	STATUTORY REFERENCE	ORIGIN	LAND BURDENED	BENEFIT TO	COMMENTS
⊗ TO ⊗ LOT 840	RESTRICTIVE COVENANT	SEC 136D OF THE TLA	THIS PLAN & DOC N61588	ALL LOTS EXCEPT LOT 840	ALL LOTS EXCEPT LOT 840	EXPIRES ON 31.07.2021
⊗ TO ⊗	RESTRICTIVE COVENANT	SEC 129BA OF THE TLA	DOC N61589	LOTS 841-850	SHIRE OF SERPENTINE-JARRAHDALE	RESTRICTION OF ACCESS TO & FROM ADJACENT ROAD
⊗ TO ⊗	RESERVE FOR RECREATION	SEC 150 OF THE P & D ACT	THIS PLAN	LOTS 850-856	SHIRE OF SERPENTINE-JARRAHDALE	NO ROAD VEHICLE ACCESS TO & FROM ADJACENT ROAD
	RESERVE FOR RECREATION	VESTS IN THE CROWN UNDER SEC 152 OF THE P & D ACT	THIS PLAN			
	NOTIFICATION	SEC 70A OF THE TLA	DOC N61602	LOTS 841-852	SHIRE OF SERPENTINE-JARRAHDALE	(NOISE & VIBRATION FROM TONKIN HWY)
	NOTIFICATION	SEC 70A OF THE TLA	DOC N61600	LOTS 853-856	SHIRE OF SERPENTINE-JARRAHDALE	(NOISE & VIBRATION FROM THOMAS RD)
	NOTIFICATION	SEC 70A OF THE TLA	DOC N61601	LOTS 841-856	SHIRE OF SERPENTINE-JARRAHDALE	(BUSH FIRE MANAGEMENT PLAN)

WHELANS AUSTRALIA PTY LTD
(08) 9224 3383 www.whelans.com.au

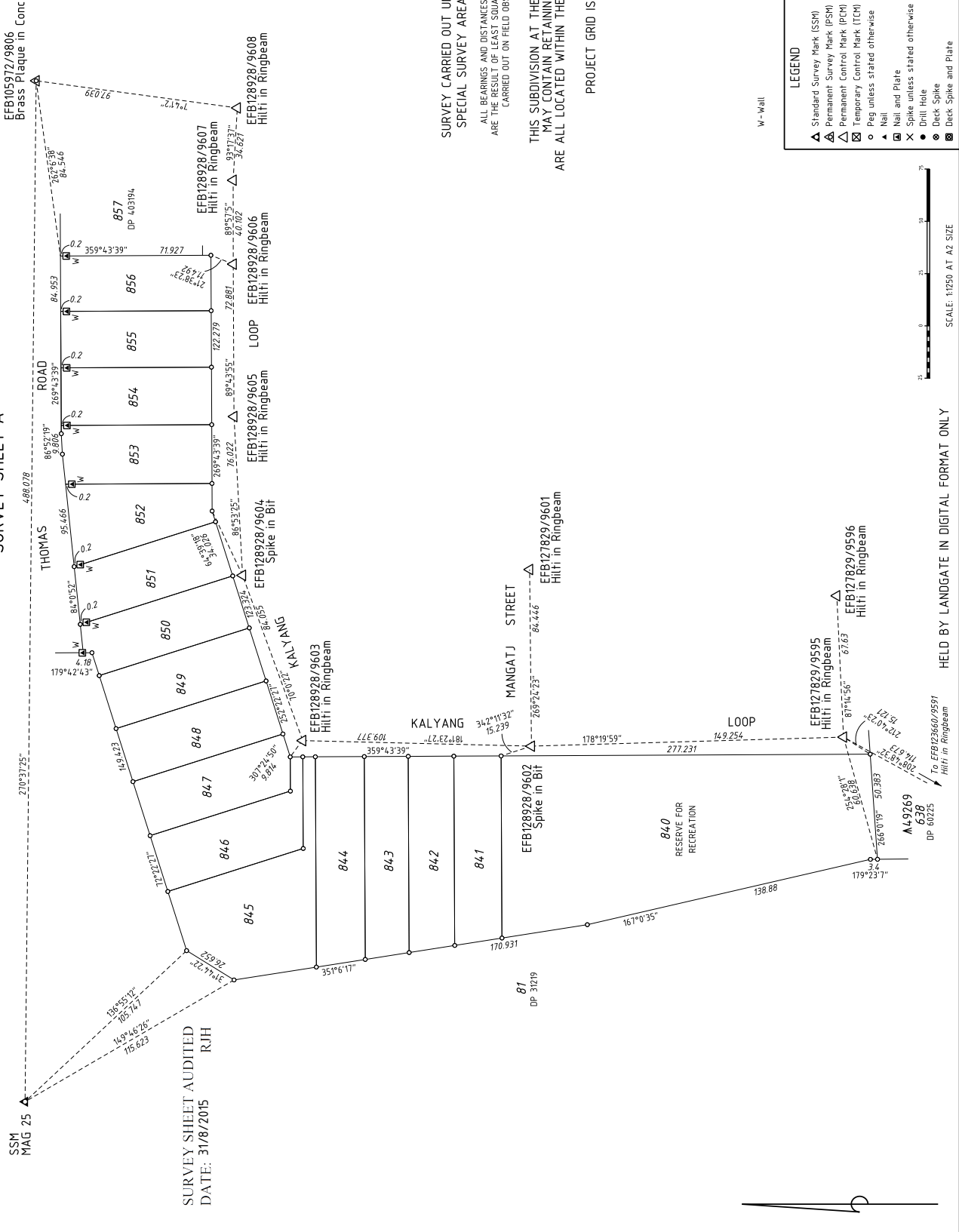



VER.	AMENDMENT	AUTHORISED BY	DATE

HELD BY LANDGATE IN DIGITAL FORMAT ONLY

AMENDMENTS TABLE (SURVEY SHEETS ONLY)		
VER.	AMENDMENT	DATE

FOR SURVEY INFORMATION ONLY
SURVEY INFORMATION COMPRISES
SURVEY SHEET A



SURVEYOR'S CERTIFICATE - REG 54

I, ROBERT GEOFFREY BEARDMAN hereby certify that this plan is accurate and is a correct representation of the -
 (a) survey; and/or
 (b) calculations from measurements recorded in the field records,
 (to delete if inapplicable)
 undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged.

SURVEYOR'S CERTIFICATE - REG 55E(d)

The marks shown on these plans of survey were in place on 06/07/2015

Robert Geoffrey Beardman
 2016.07.21 10:04:35 +0800

LICENSED SURVEYOR DATE

SURVEY SHEET AUDITED
DATE: 31/8/2015
RJH

SURVEY CARRIED OUT UNDER REG 26A SPECIAL SURVEY AREA GUIDELINES

ALL BEARINGS AND DISTANCES ON THIS SHEET ARE THE RESULT OF LEAST SQUARES ADJUSTMENTS CARRIED OUT ON FIELD OBSERVATIONS

THIS SUBDIVISION AT THE TIME OF SURVEY MAY CONTAIN RETAINING WALLS WHICH ARE ALL LOCATED WITHIN THE HIGH (OR LOW) LOT/S

PROJECT GRID IS PCG 94

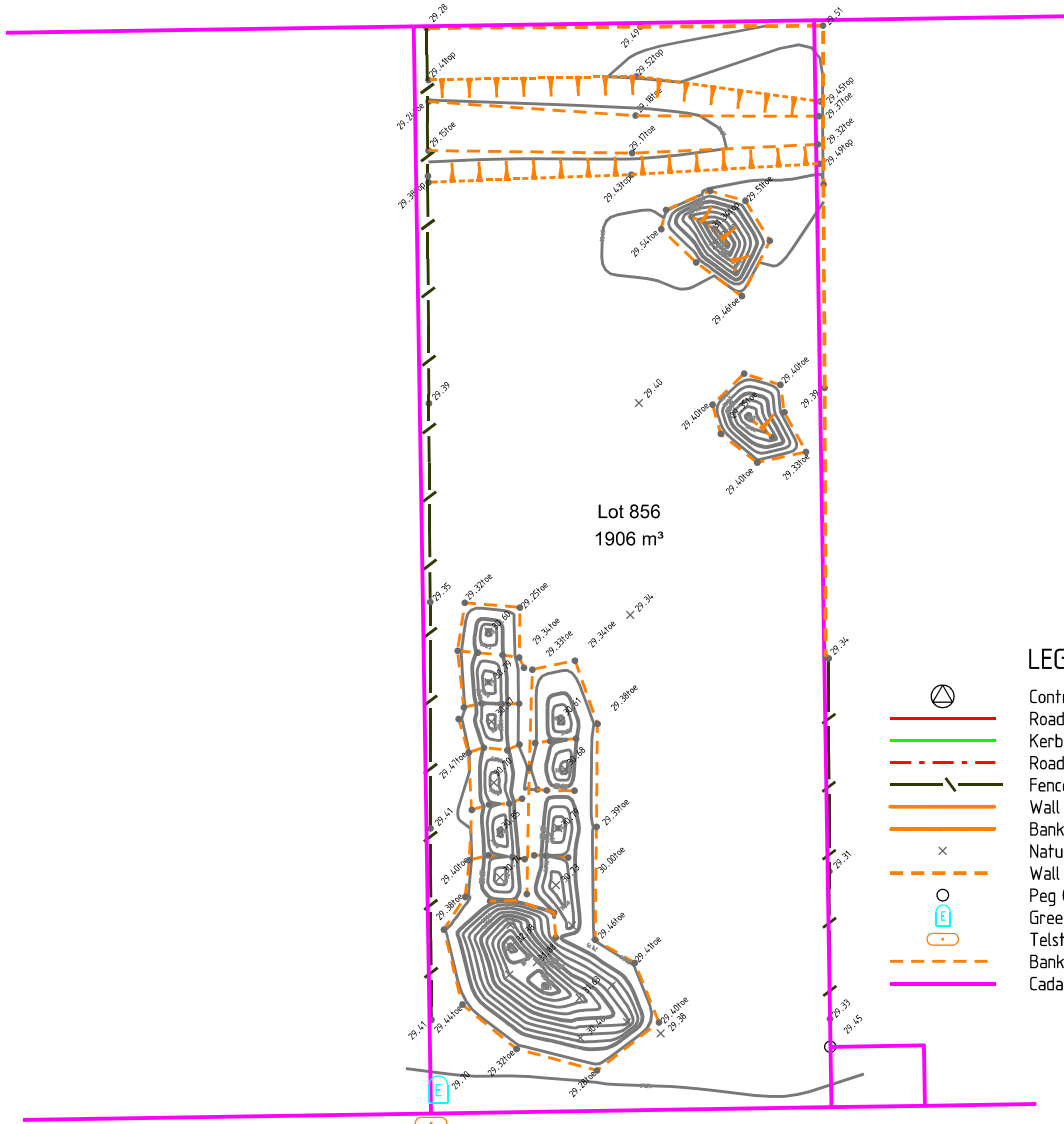


DEPOSITED PLAN
402509
 SURVEY SHEET A
 VERSION 1

- LEGEND**
- ▲ Standard Survey Mark (SSM)
 - △ Permanent Survey Mark (PSM)
 - ▽ Permanent Control Mark (PCM)
 - ⊠ Temporary Control Mark (TCM)
 - Peg unless stated otherwise
 - ▲ Nail
 - ▬ Nail and Plate
 - ⊙ Spike unless stated otherwise
 - Drill Hole
 - ⊗ Deck Spike
 - ⊞ Deck Spike and Plate

















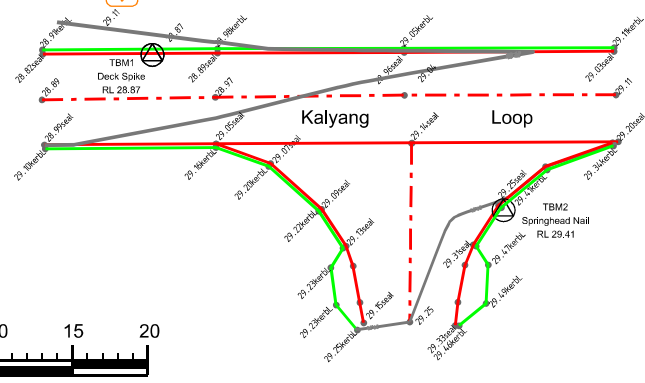
HELD BY LANDGATE IN DIGITAL FORMAT ONLY



Lot 856
1906 m²

LEGEND

-  Control Station (Deck spike)
-  Road Sealed - Edge
-  Kerb
-  Road Sealed - Centreline
-  Fence
-  Wall - Toe (Brick)
-  Bank - Top
-  Natural Surface (Spot Height)
-  Wall - Toe
-  Peg (Red cadast peg)
-  Green Dome
-  Telstra Pit - Centre
-  Bank - Toe
-  Cadastral Boundary



Scale 1:500 @ A4
All Units are Metres

This plan may only be used for contour and feature purposes. The title boundaries as shown herein were not marked at the time of survey. They have been determined by dimensions shown on landgate plans and then positioned over evidence of occupation. It should be noted that Underground Services did not form part of this survey, therefore prior to any demolition, excavation or construction, the relevant authority should be contacted, and certificate of title checked for easements and encumbrances.

AHD Based on SSM MAG22 (R.L. 28.087m)



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TDGF Pty Ltd
Lot 856 Kalyang Loop
Byford
Contour and Feature Survey

					Surveyed	N. Taylor	17/08/16	Datum / Grid PCG '94	
					Drawn	N. Taylor	17/08/16	Height Datum AHD	
					Approved	N. Kitscha	17/08/16	Revision 0	Size A4
0	17/08/16	Approved and Issued To Client	NT	NT	NK	Drawing Number 12844-D001			
Rev	Date	Description	Surveyor	Drawn	Approved				

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Appendix 2 Development Plans



green leaves

BYFORD EARLY LEARNING CENTRE

FOR



DRAWING LIST

16114_A-DA-000_D	COVER
16114_A-DA-100_D	SITE CONTEXT
16114_A-DA-101_D	SITE PLAN
16114_A-DA-102_D	GROUND FLOOR
16114_A-DA-103_D	FIRST FLOOR
16114_A-DA-200_D	ELEVATIONS
16114_A-DA-201_D	ELEVATIONS
16114_A-DA-300_D	SECTIONS
16114_A-DA-500_D	ARTISTS IMPRESSION
16114_A-DA-501_D	ARTISTS IMPRESSION
16114_A-DA-900_D	COLOUR AND SIGNAGE

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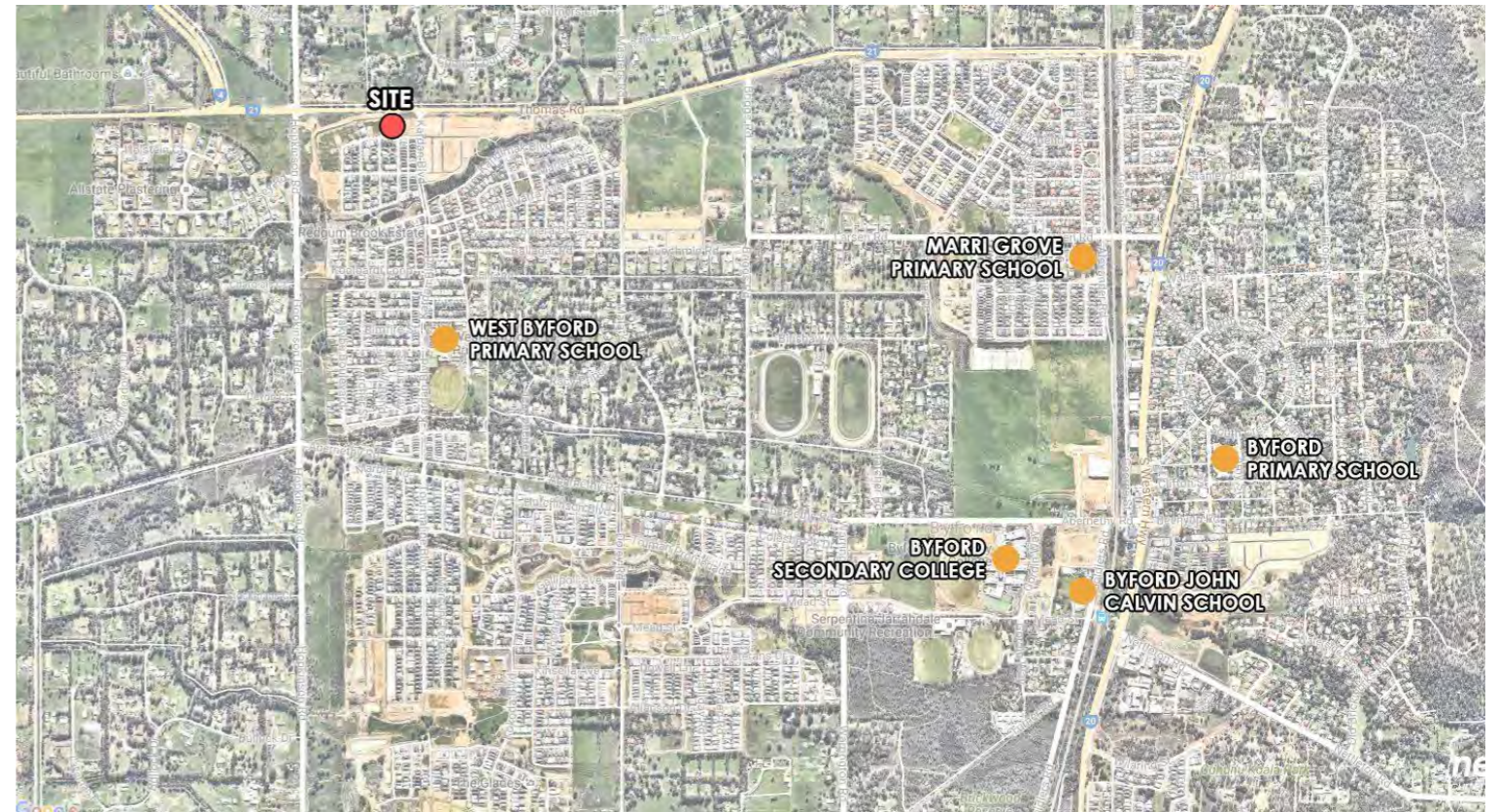
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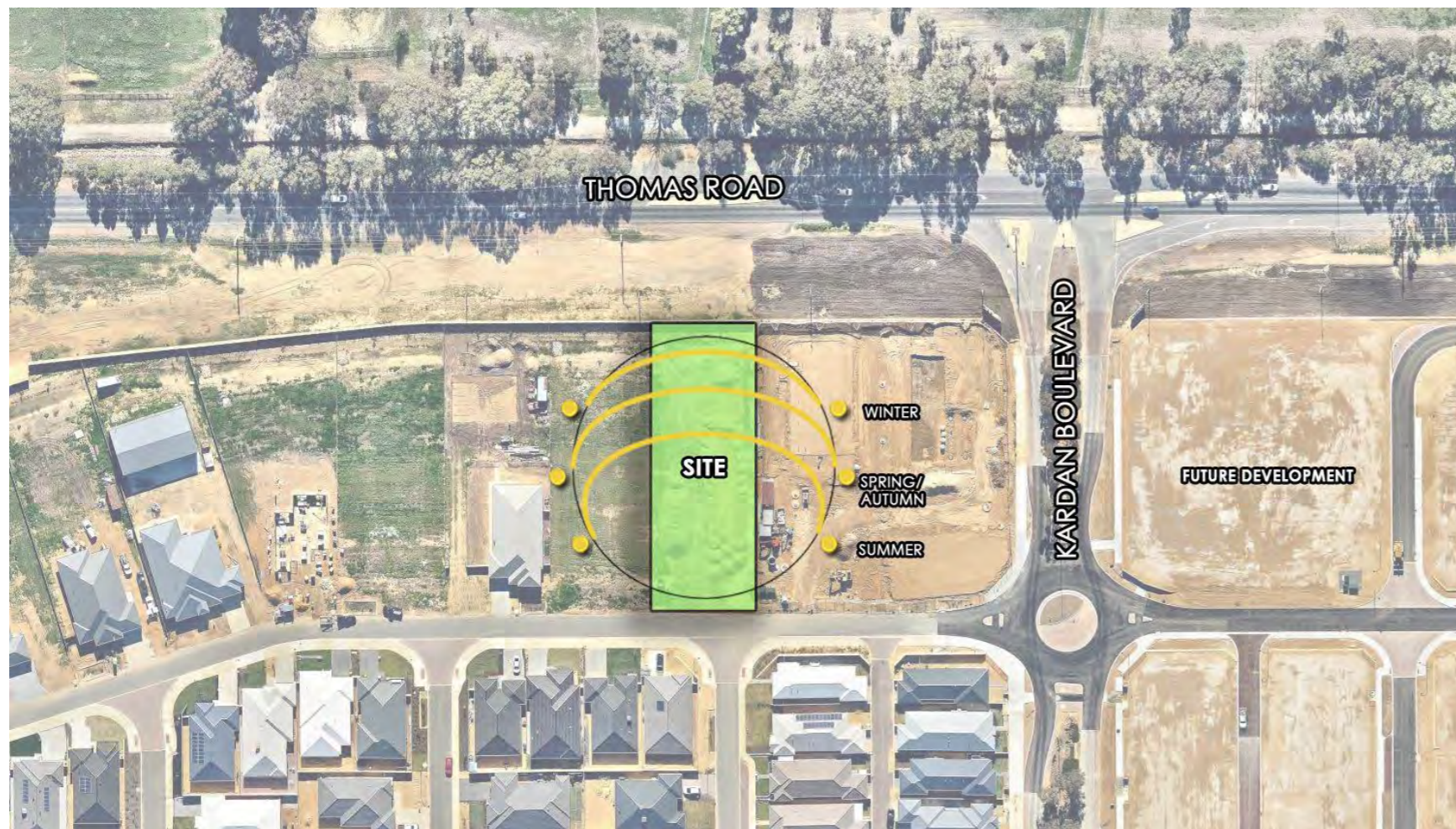
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BYFORD ELC

For TAL



SITE CONTEXT AND SURROUNDS

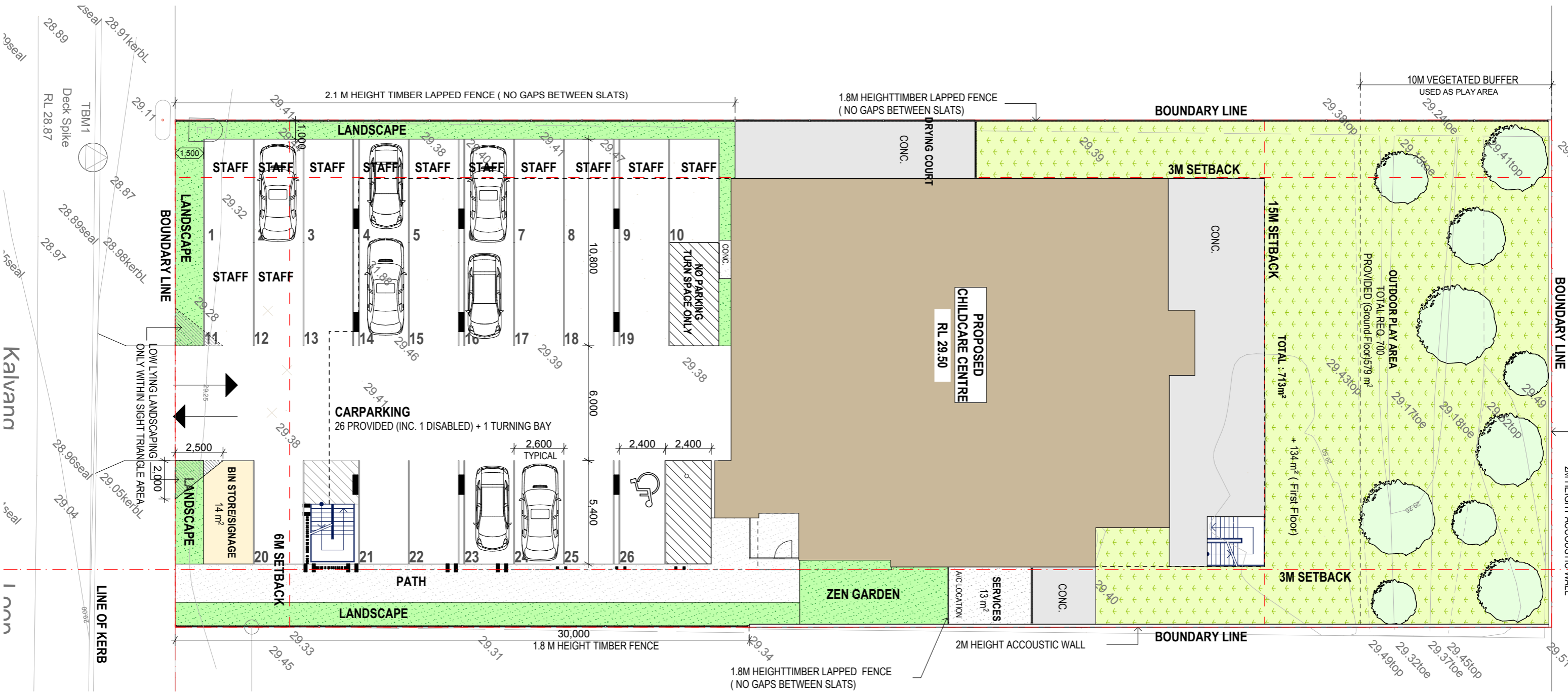


SITE ANALYSIS

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SITE CONTEXT



AREA SCHEDULE

SITE COVER:	51%
SITE COVER:	990 m ²
SITE AREA (Future Lot 856):	1906 m ²
CHILDCARE:	1033 m ²
OUTDOOR STORE:	18 m ²
PLAY AREAS (inc. verandahs):	926 m ²
CARPARK :	597 m ²
OTHER :	269 m ²
POPULATION:	
CHILDREN:	128
FULL TIME STAFF:	25
CARPARKING REQUIRED:	
1 PER 5 CHILDREN	
TOTAL	26
CARPARKING PROVIDED:	
TOTAL	26

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SITE PLAN

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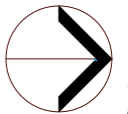
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GROUND FLOOR

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FIRST FLOOR

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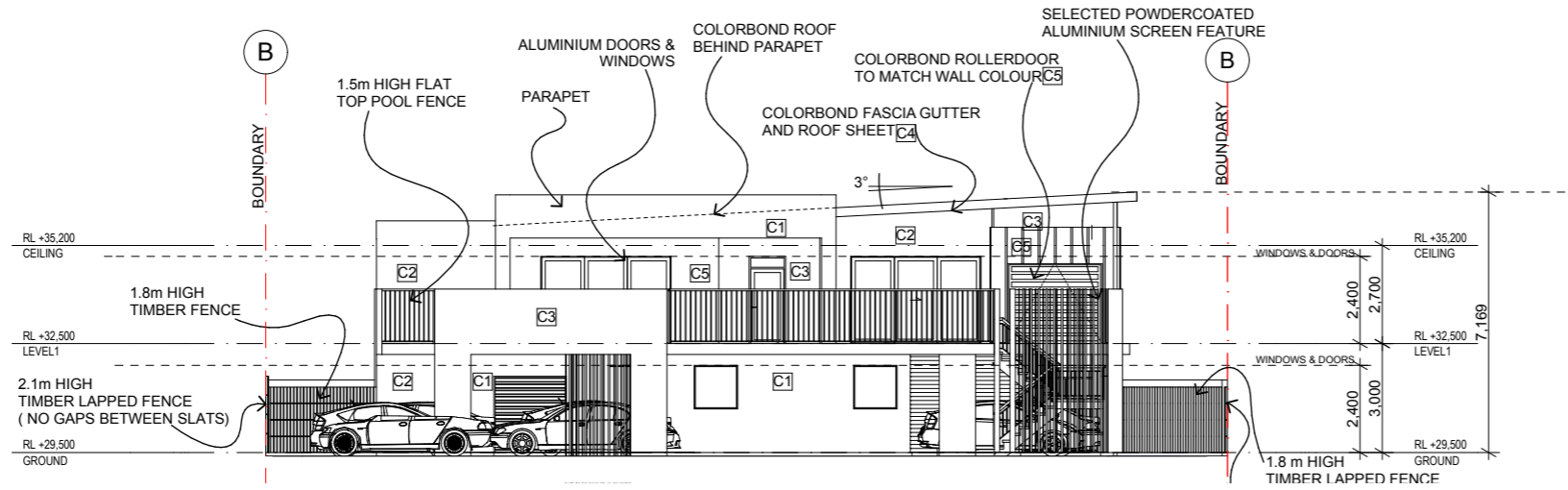
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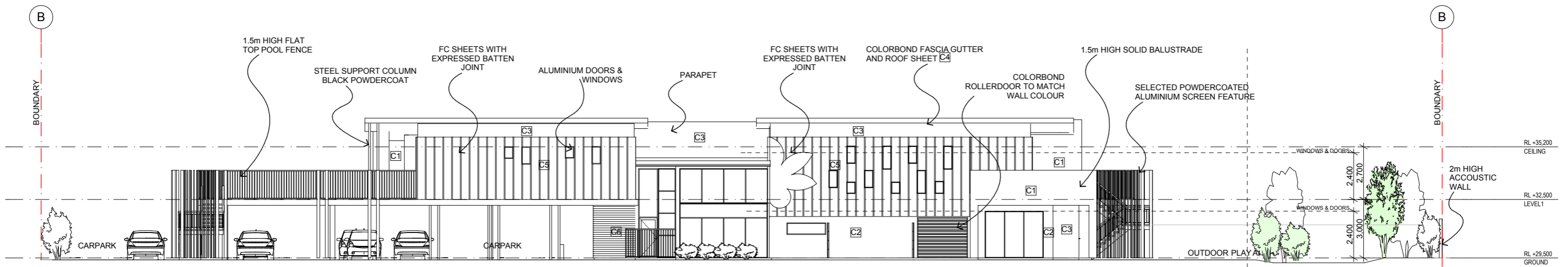


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REFER DA-900 FOR
COLOUR PALETTE



1 SOUTH ELEVATION
1:200



2 EAST ELEVATION
1:200

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ELEVATIONS

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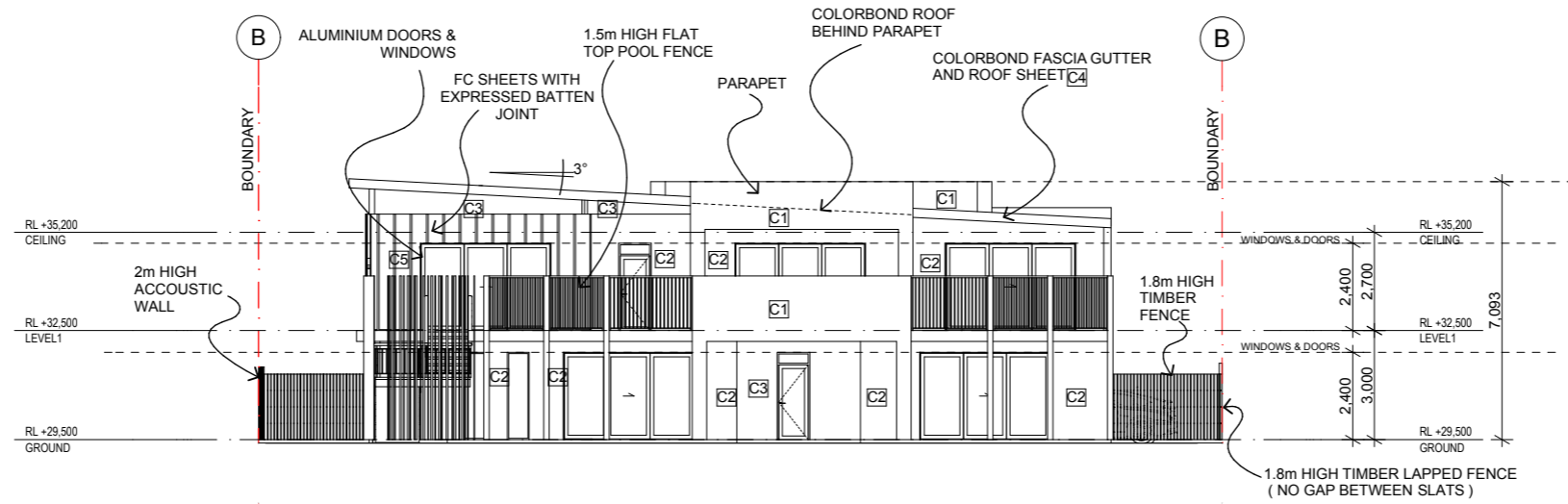
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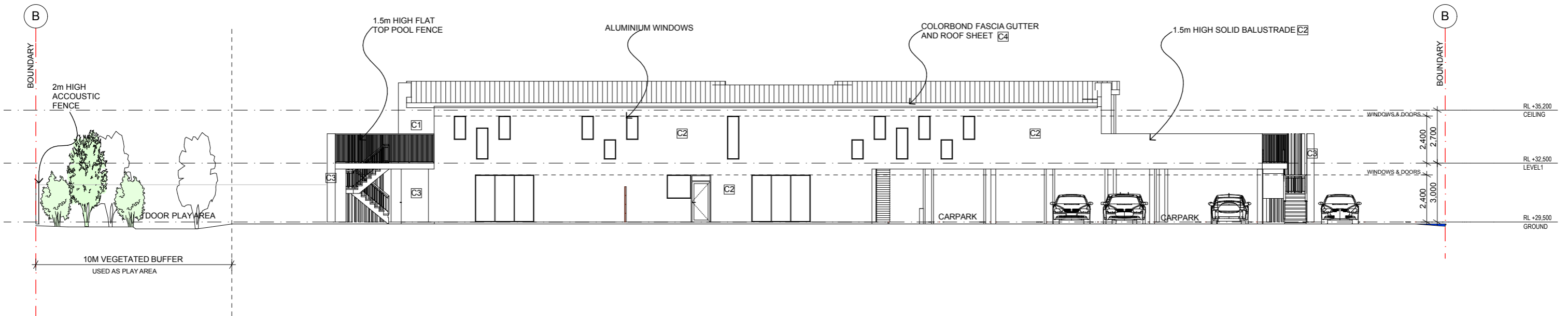
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green leaves

REFER DA-900 FOR
COLOUR PALETTE



1 NORTH ELEVATION
1:200



2 WEST ELEVATION
1:200

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ELEVATIONS

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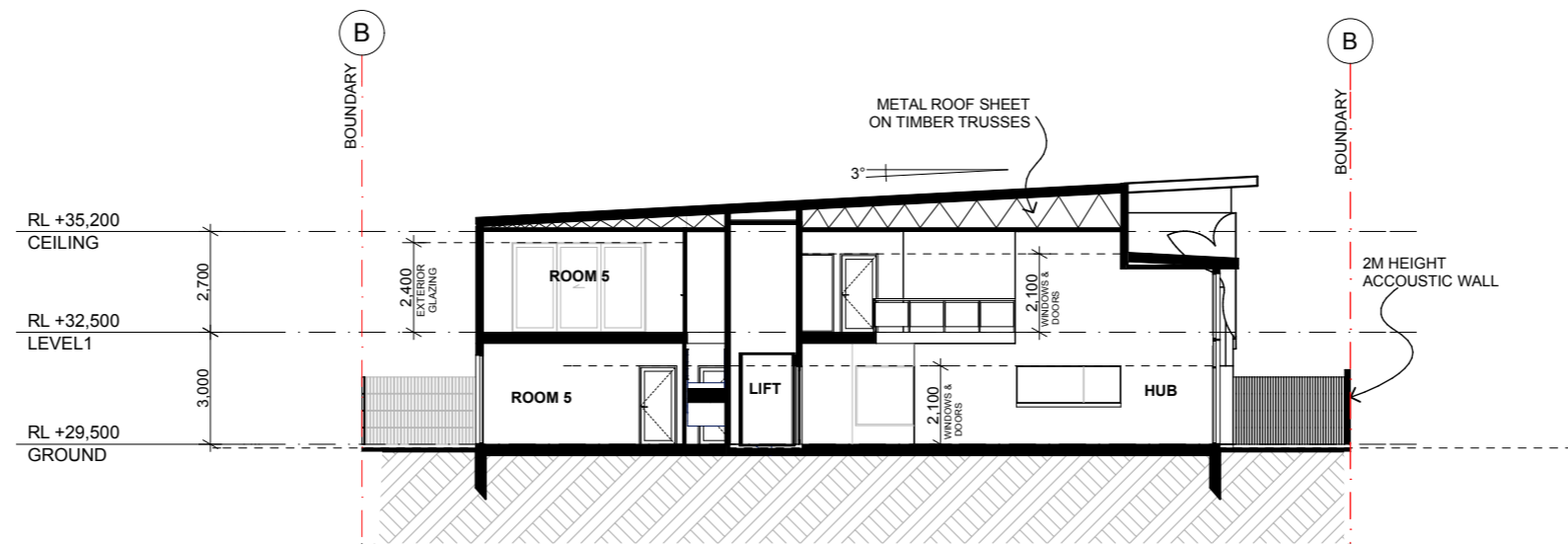
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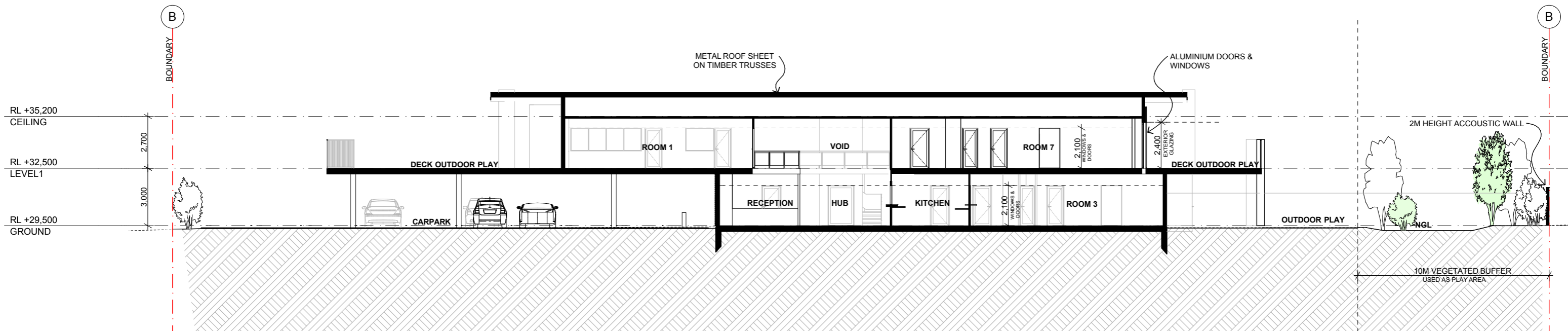
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1 SECTION 1
1:200



2 SECTION 2
1:200

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SECTIONS

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ARTISTS IMPRESSION

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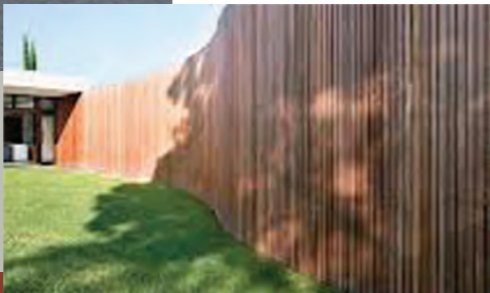
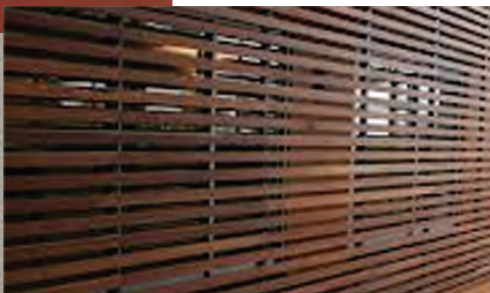

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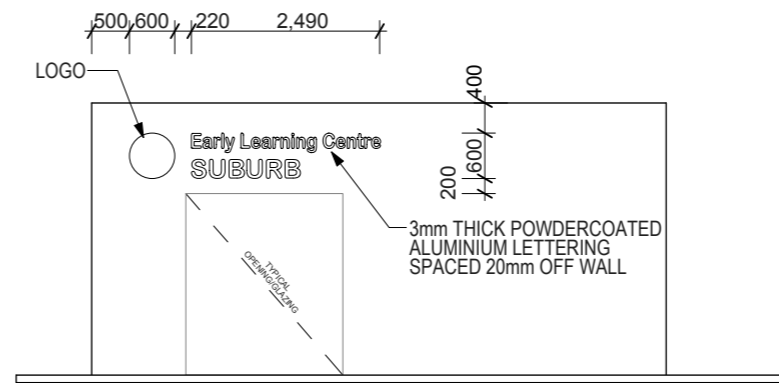
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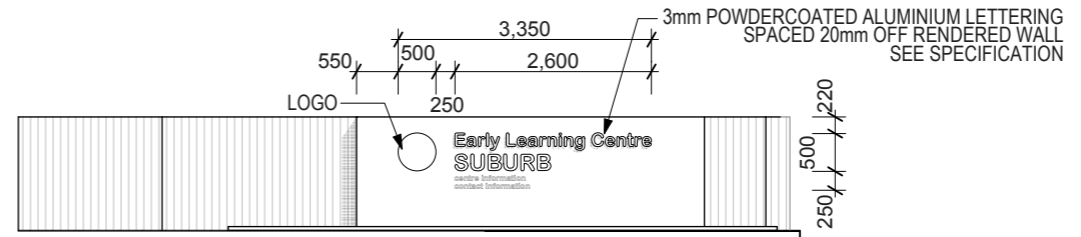


C1 dulux <i>calm balm</i> feature walls	
C2 dulux <i>white on white</i> feature walls sunhoods	
C3 dulux <i>deep ocean</i> feature walls	
C4 colorbond <i>surf mist</i> roofing	
C5 colorbond <i>mud pac</i> main walls fence	C6 flood: spa n dec <i>cedar</i> timber stain
C7 berger paving paint: non slip <i>dark bamboo</i> concrete aprons	

early learning centre
indicative external colour palette



SIGNAGE - HIGH



SIGNAGE - LOW

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COLOUR AND SIGNAGE

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Appendix 3 Environmental Noise Assessment



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Environmental Noise Assessment

**GreenLeaves Early Learning Centre,
Lot 856 Kalyang Loop, Byford**

Reference: 16083688-01b.docx

Prepared for:

TDGF Pty Ltd



Member Firm of Association of Australian Acoustical Consultants

Report: 16083688-01b.docx

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Prepared By:	Olivier Mallié 
Position:	Project Director
Date:	28 September 2016

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- A Site Plan Drawing
- B Noise Model Overview
- C Land Use Map
- D Terminology

1 INTRODUCTION

A GreenLeaves Early Learning Centre (ELC) two storey development is proposed on Lot 856 Kalyang Loop, Byford - refer *Figure 1-1*. The site is located within the Redgum Brook Estate amongst mostly residential zoning with existing residential uses to the west and south and a proposed service station on the adjacent lot to the east.

The proposed ELC will accommodate up to 128 children distributed across four age groups as follows:

- Babies (0-2 years), 28 children;
- Toddlers (18 months - 3 years), 20 children;
- Pre-Kindy (2 - 3 years), 40 children; and,
- Kindy (3 - 5 years), 40 children.

The proposed hours of operation are 6.30am to 6.30pm and therefore staff arriving and children drop-offs are assumed to occur before 7.00am.

Ground level car parking facilities are provided for staff and parents with the proposed first floor of the building extending over the car parking area.

Air-conditioning plant was proposed to be located at ground level on the west side based on the plans assessed. The A/C has since been relocated to the east side as a recommendation of this report.

This report assesses noise emissions from the proposed site against the *Environmental Protection (Noise) Regulations 1997* (the Regulations).



Figure 1-1 Site Locality

The site plans are included in *Appendix A* and forms the basis of this environmental noise assessment.

Appendix D contains a description of some of the acoustic terminology used throughout this report.

2 CRITERIA

2.1 Environmental Protection (Noise) Regulations 1997

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations).

Regulation 7 defines the prescribed standard for noise emissions as follows:

“7. (1) Noise emitted from any premises or public place when received at other premises –

- (a) Must not cause or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and
- (b) Must be free of –
 - i. Tonality;
 - ii. Impulsiveness; and
 - iii. Modulation”.

A “...noise emission is taken to *significantly contribute to* a level of noise if the noise emission exceeds a value which is 5 dB below the assigned level...”

Tonality, impulsiveness and modulation are defined in Regulation 9. Noise is to be taken to be free of these characteristics if:

- (a) The characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and
- (b) The noise emission complies with the standard after the adjustments of *Table 2-1* are made to the noise emission as measured at the point of reception.

Table 2-1 Adjustments for Intrusive Characteristics

Tonality	Modulation	Impulsiveness
+ 5dB	+ 5dB	+ 10dB

Note: The above are cumulative to a maximum of 15dB.

The baseline assigned levels (prescribed standards) are specified in Regulation 8 and are shown in *Table 2-2*.

Table 2-2 Baseline Assigned Noise Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area ¹	0700 to 1900 hours Monday to Saturday (Day)	45 + influencing factor	55 + influencing factor	65 + influencing factor
	0900 to 1900 hours Sunday and public holidays (Sunday)	40 + influencing factor	50 + influencing factor	65 + influencing factor
	1900 to 2200 hours all days (Evening)	40 + influencing factor	50 + influencing factor	55 + influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35 + influencing factor	45 + influencing factor	55 + influencing factor
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial	All hours	60	75	80

1. *highly sensitive area* means that area (if any) of noise sensitive premises comprising —
- a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
 - any other part of the premises within 15 metres of that building or that part of the building;

The influencing factor applicable at the closest noise-sensitive premises has been calculated as 5 dB as shown in *Table 2-3*, and was based on the land use map from the Shire of Serpentine-Jarrahdale shown in *Appendix C*. The transport factor was determined to be 2 dB due to Thomas Road being considered a secondary road (< 15,000 vpd, MRWA short term count east of Hopkinson Rd, June 2010)

Table 2-3 Influencing Factor Calculation

Description	Within 100 metre Radius	Within 450 metre Radius	Total
Industrial Land ('Light Industry')	16 %	3 %	1.9 dB
Commercial Land	15 %	1 %	0.8 dB
Major Road	-	-	0 dB
Secondary Road	Thomas Rd	-	2 dB
Total			5 dB

Table 2-4 shows the assigned noise levels including the influencing factor at the receiving locations shown in *Figure 1-2*.

Table 2-4 Assigned Noise Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area ¹	0700 to 1900 hours Monday to Saturday (Day)	50	60	70
	0900 to 1900 hours Sunday and public holidays (Sunday)	45	55	70
	1900 to 2200 hours all days (Evening)	45	55	60
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	40	50	60
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial	All hours	60	75	80

1. *highly sensitive area* means that area (if any) of noise sensitive premises comprising —
- a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
 - any other part of the premises within 15 metres of that building or that part of the building;

It must be noted the assigned noise levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces. Given the close proximity of existing buildings and fences, the noise emissions were assessed at the most exposed facade(s) of nearby buildings and a -2 dB adjustment was made to the predicted noise levels to account for reflected noise.

2.2 State Planning Policy 5.4

A condition for the local development plan relate to noise intrusion and makes reference to the State Planning Policy 5.4. It is noted this Policy is applicable to future noise-sensitive developments near major roads and would therefore not strictly apply to this proposal.

Nonetheless, as the development include sleeping areas for the children, the internal noise levels were assessed based on a transportation noise study carried out for the local development plan (report 12574-4-10192, November 2010) and guidance from the Policy.

For noise sensitive premises such as residential buildings, acceptable indoor noise levels according to the Policy are 40 dB L_{Aeq(Day)} in living areas and 35 dB L_{Aeq(Night)} in bedrooms. These levels fall within the range of the “Recommended Design Sound Levels” for houses and apartments near major roads, as given in Australian Standard AS 2107:2000 *Acoustics – Recommended design sound levels and reverberation times for building interiors*.¹

¹ The “acceptable indoor noise levels” for residential buildings are exactly midway between the “satisfactory” and “maximum” recommended design sound levels for houses and apartments near major roads.

3 METHODOLOGY

Computer modelling has been used to predict the noise impacts from the development at various receivers. The advantage of modelling is that it is not affected by background noise sources and can provide the noise level for various weather conditions and operating scenarios if necessary.

The software used was *SoundPLAN 7.4* with the CONCAWE algorithms selected. These algorithms have been selected as they include the influence of wind and atmospheric stability. Input data required in the model are:

- Meteorological Information;
- Topographical data;
- Ground Absorption; and
- Source sound power levels.

3.1 Meteorological Information

Meteorological information utilised is provided in *Table 3-1* and is considered to represent worst-case conditions for noise propagation. At wind speeds greater than those shown, sound propagation may be further enhanced, however background noise from the wind itself and from local vegetation is likely to be elevated and dominate the ambient noise levels.

Table 3-1 Modelling Meteorological Conditions

Parameter	Day (0700-1900)
Temperature (°C)	20
Humidity (%)	50
Wind Speed (m/s)	4
Wind Direction*	All
Pasquil Stability Factor	E

* Note that the modelling package used allows for all wind directions to be modelled simultaneously.

It is generally considered that compliance with the assigned noise levels needs to be demonstrated for 98% of the time, during the day and night periods, for the month of the year in which the worst-case weather conditions prevail. In most cases, the above conditions occur for more than 2% of the time and therefore must be satisfied.

3.2 Topographical Data

Based on the site plan provided and *Google Earth* publicly available elevation data, a 3-dimensional model was developed, which included ground elevations and the existing dwellings nearby.

Surrounding existing buildings were included in the noise model as these can provide noise shielding but also reflection paths. It was assumed only single storey buildings are present in the vicinity, which were modelled as 3.5 metres high with the receiver at 1.5 metres above local ground.

3.3 Fences and Boundary Walls

The following fences were included in the model based on the development plans:

- A solid timber lapped fence 1.8 metres high along the west boundary, with the section along the car park within 30 metres of the street at 2.1 metres high;
- A solid timber open fence 1.8 metres within 30 metres of the street along the east side with the balance of the boundary an existing 2 metres high solid wall;
- All balustrades on the upper floor outdoor play areas are 1.5 metres high and of open construction e.g. tubular pool fence; and,
- A 2 metres solid wall along the rear (Thomas Road) boundary.

Fence heights are with reference to the Early Learning Centre elevation and assume the adjacent lots are at similar elevations. An overview of the noise model is shown in *Appendix B*.

3.4 Ground Absorption

Ground absorption varies from a value of 0 to 1, with 0 being for an acoustically reflective ground (e.g. asphalt, concrete) and 1 for acoustically absorbent ground (e.g. grass). In this instance, a value of 0.0 has been used throughout.

3.5 Source Sound Levels

The sound power levels used in the modelling are provided in *Table 3-2*.

Table 3-2 Source Sound Power Levels, dB

Description	Octave Band Centre Frequency (Hz)								Overall dB(A)
	63	125	250	500	1k	2k	4k	8k	
Closing Car Door, L_{max}	79	81	86	90	86	81	78	71	91
General Child Play Toddlers (20 kids), L_{10}	45	54	64	71	77	76	69	61	80
General Child Play Pre-Kindy (40 kids), L_{10}	52	61	71	78	84	83	76	68	88
General Child Play Kindy (40 kids), L_{10}	54	63	73	80	86	85	78	70	90
AC plant, overall L_{10}	98	90	83	81	81	75	70	66	85

With regards to the above, please note the following:

- Car doors closing were modelled as a point source 1.0 metre above ground level. Since noise from a car door closing is a short term event, only the L_{Amax} level is applicable;
- The AC plant was split and modelled as four point sources at ground level and assumed to operate during night-time e.g. before 07.00;
- Outside child play is generally restricted in duration to 1-2 hours. Therefore noise is likely to be present for more than 10% of a representative assessment period and hence the L_{A10} is applicable;

- General Child Play levels represent the full group of children playing outside at the same time. This is somewhat a conservative approach as age groups are usually split and therefore a smaller number of children play simultaneously. It is noted that based on observations and measurements, the noise levels tend to increase with the children's age and therefore Kindy children (3-5 years) were considered noisier than Pre-Kindy children (2-3 years). Noise from babies play was considered negligible and all other child play sources were modelled as area sources at various heights to account for the slight difference in height between age groups as follows:
 - Kindy - 1.0 metre above floor level and playing in north area at ground level;
 - Pre-Kindy - 0.9 metre above floor level and playing on the first floor north area; and,
 - Toddlers - 0.8 metre above floor level and playing on the first floor south area.

4 RESULTS

4.1 Outdoor Child Play and AC Plant

The predicted noise levels from Child Play and the roof mounted AC plant are presented in *Table 4-1*.

Table 4-1 Predicted Noise Levels of Child Play and AC Plant

Receiver	Facade Orientation	Child Play, dB L _{A10}	AC Plant, dB L _{A10}	Overall, dB L _{A10}
15 Kardan Blvd	W	39	17	39
16 Kardan Blvd	N	43	21	43
18 Guraga Way	W	44	26	44
20 Guraga Way	N	47	19	47
20 Guraga Way	W	46	20	46
72 Kalyang Loop	N	41	29	41
74 Kalyang Loop	N	43	30	43
76 Kalyang Loop	N	44	32	44
78 Kalyang Loop	N	45	39	47
117 Kalyang Loop	N	43	34	44
121 Kalyang Loop	N	42	44	46
121 Kalyang Loop	E	51	43	52

In regard to the Child Play, the results assume that all age groups are playing outside at the same time. The results above can therefore be considered conservative as each age group may be split at play time resulting in smaller number of children playing outside at once.

In regard to the AC plant, the results assume all units making up the plant run simultaneously and at full capacity.

4.2 Indoor Child Play

An assessment of noise levels from indoor child play was carried out and the resulting noise levels at all locations were predicted to be well below that of outdoor child play considered in *Section 4.1*. This assessment was carried out based on the following considerations:

- External doors will be closed during indoor activity / play;
- Internal noise levels within activity rooms would not exceed those from outdoor play for each age group;
- Any music played within the internal activity areas would be 'light' music with no significant bass content and played at a relatively low level; and,
- External glazing is assumed to be minimum 6mm thick.

4.3 Car Parking Bays

The model includes noise from car doors closing in either of the 26 proposed parking bays. This type of noise emission is a short event and therefore only the L_{Amax} noise level was considered. *Table 4-2* presents the predicted noise levels from the various sources mentioned above at the most exposed receivers. The highest predicted noise level from a car door closing is 59 dB L_{max} . Given the layout of the proposed site and surrounding premises, it is noted that individual receivers are affected by different source's location.

Table 4-2 Predicted Car Doors Closing Noise Levels

Receiver	Facade Orientation	Car Door Closing, dB L_{A10}
15 Kardan Blvd	W	45
16 Kardan Blvd	N	49
18 Guraga Way	W	52
20 Guraga Way	N	54
20 Guraga Way	W	54
72 Kalyang Loop	N	49
74 Kalyang Loop	N	51
76 Kalyang Loop	N	54
78 Kalyang Loop	N	56
117 Kalyang Loop	N	39
121 Kalyang Loop	N	51
121 Kalyang Loop	E	59

4.4 Noise Intrusion

From the traffic noise assessment conducted by others (Herring Storer Acoustics report 12574-4-10192, November 2010), future traffic noise levels up to 62 dB L_{Aeq} are expected at the west and east facades on the first floor of the proposed building.

To achieve internal noise levels of 40 dB L_{Aeq} within the sleeping areas (daytime criterion), external glazing should be at least 6mm glass with any operable glazing to close on compressible foam seals.

5 ASSESSMENT

5.1 Child Play

Child play will only occur during the daytime only, when the L_{10} assigned noise level is 50 dB.

From *Table 4-1*, the highest predicted noise level from child play is 51 dB at receiver 121 Kalyang Loop on the adjacent lot to the west. The single most significant noise contributor at this receiver is the noise from child play on the first floor south area. Noise from child play is not considered to contain annoying characteristics within the definition of the Regulations and to comply with the daytime assigned noise levels, it is recommended to:

- Include a solid barrier to the west side of the first floor south outdoor play area in-lieu of the pool fence e.g. CFC sheeting.

5.2 AC plant

Given the proposed hours of operation, the AC plant can operate at night-time e.g. before 7am. With the short source to receiver distances and the nature of the source, AC plant noise was considered tonal at night-time and a penalty of 5 dB was applied (refer *Table 2-1*).

Table 5-1 Assessment of AC Noise Levels Against L_{A10}

Location	Assigned Noise Level ¹ , dB L_{A10}	Predicted Noise Level ² , dB L_{A10}	Assessable Noise Level ³ , dB L_{A10}	Calculated Exceedance
15 Kardan Blvd	40	17	22	Complies
16 Kardan Blvd	40	21	26	Complies
18 Guraga Way	40	26	31	Complies
20 Guraga Way	40	20	25	Complies
72 Kalyang Loop	40	29	34	Complies
74 Kalyang Loop	40	30	35	Complies
76 Kalyang Loop	40	32	37	Complies
78 Kalyang Loop	40	39	44	4 dB
117 Kalyang Loop	40	34	39	Complies
121 Kalyang Loop	40	44	49	9 dB

Notes:

1. The assigned noise level is as defined in *Table 2-4*.
2. Overall levels from *Table 4-1*.
3. Predicted levels adjusted by +5 dB for tonality

It can be seen from the above the night-time L_{A10} assigned level may be exceeded at two receivers. The proposed location of the AC plant results in potentially short source-receiver distances and minimal noise barrier attenuation. It is therefore recommended to relocate the AC plant to the east side of the building in the 'Services' area and against the 1.8 metre high timber lapped fence to the south. This recommendation has been implemented in the current development plans.

5.3 Car park

Table 5-1 presents the assessment of the predicted noise levels from the car parking area.

Car doors closing noise are short duration events and were therefore assessed against the L_{Amax} assigned noise level. Given the hours of operation, the L_{Amax} night-time assigned noise level of 60 dB is applicable. It is noted car doors closing are not considered to contain any annoying characteristics within the definition of the Regulations and therefore no penalties were included.

Table 5-2 Assessment of Car Doors Closing Against L_{Amax}

Location	Assigned Noise Level¹ dB L_{Amax}	Predicted Noise Level² dB L_{Amax}	Calculated Exceedance
15 Kardan Blvd	60	45	<i>Complies</i>
16 Kardan Blvd	60	49	<i>Complies</i>
18 Guraga Way	60	52	<i>Complies</i>
20 Guraga Way	60	54	<i>Complies</i>
72 Kalyang Loop	60	49	<i>Complies</i>
74 Kalyang Loop	60	51	<i>Complies</i>
76 Kalyang Loop	60	54	<i>Complies</i>
78 Kalyang Loop	60	56	<i>Complies</i>
117 Kalyang Loop	60	39	<i>Complies</i>
121 Kalyang Loop	60	59	<i>Complies</i>

Notes:

1. The assigned noise level is as defined in Table 2-4.
2. Overall levels from Table 4-1.

6 CONCLUSIONS

Based on the noise modelling and the assessment carried out, the noise emissions from the proposed Early Learning Centre can comply with the Regulations at all receivers provided that:

- The fence on the west boundary is of solid construction e.g. proposed timber lapped, and at least 1.8 metre high, with a 2.1 metre high section along the car park;
- The west balustrade on the first floor south play area is to be of solid construction e.g. CFC sheet;
- AC plant to be located in the Services area on the east side of the building and against the south fence, which is to be of solid construction e.g. timber lapped fence.

It is expected for the noise levels from the Early Learning Centre to be lower where the following common 'good practices' in regard to child play are also implemented:

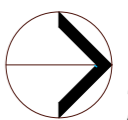
- Plan duration of play and stagger play times where practicable so that:
 - all age groups do not play simultaneously for long periods of time; and,
 - not all children within one age group congregate within one area for long periods of time.
- The behaviour and 'style of play' of children should be monitored to prevent particularly loud activity e.g. loud banging/crashing of objects, 'group' shouts/yelling;
- Crying children should be taken inside to be comforted; and,
- No amplified music should be played outside.

In relation to noise intrusion into the sleeping areas on the first floor, the daytime criterion of 40 dB L_{Aeq} from the State Planning Policy 5.4 would be achieved where external glazing is at least 6mm thick glass and any operable glazing close on compressible foam seals.

Finally, it is noted the noise emissions from the AC plant and the recommendations within this report are based on assumptions from previous projects. These should therefore be reviewed once final equipment selection is available.

Appendix A

Site Plan Drawings



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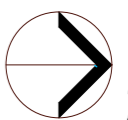
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GROUND FLOOR

BYFORD ELC

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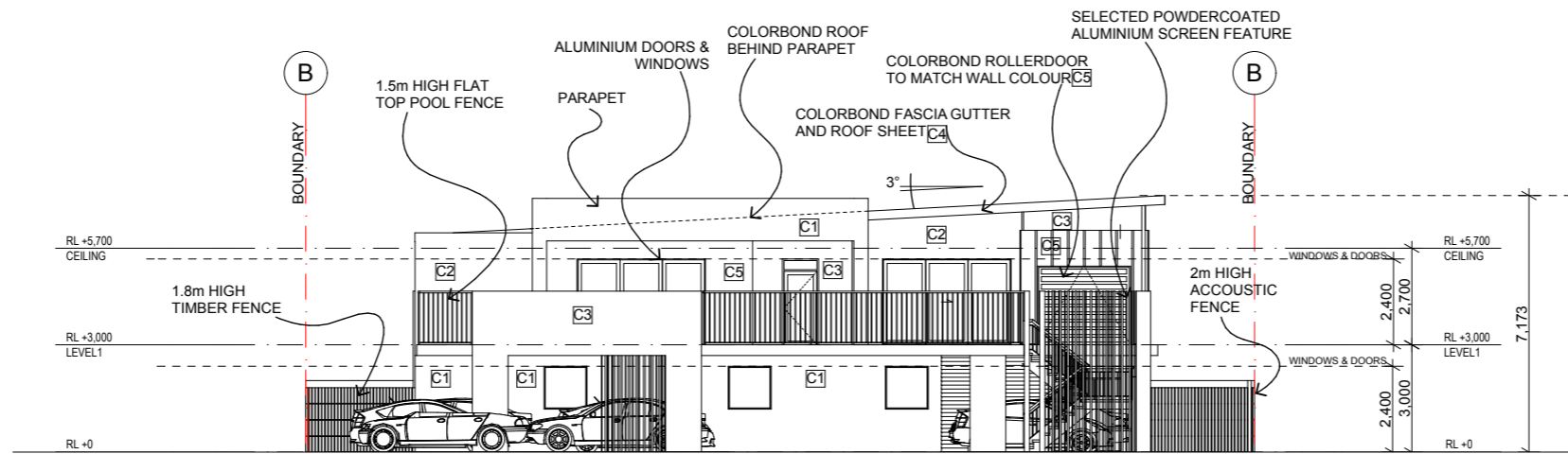
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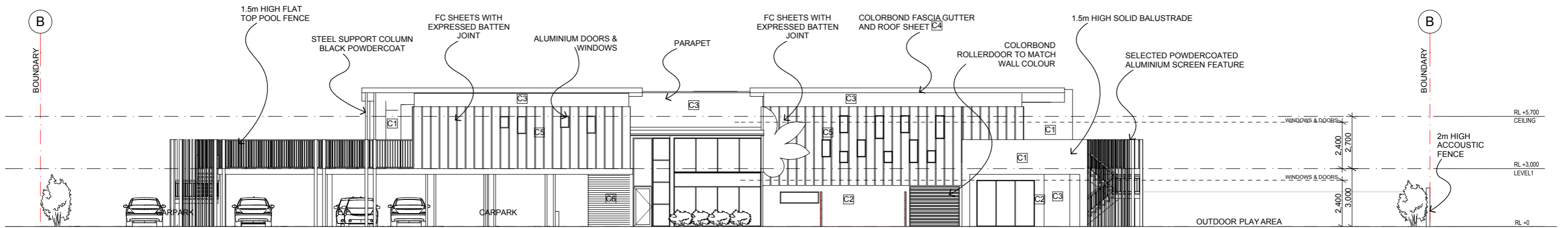


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2 EAST ELEVATION
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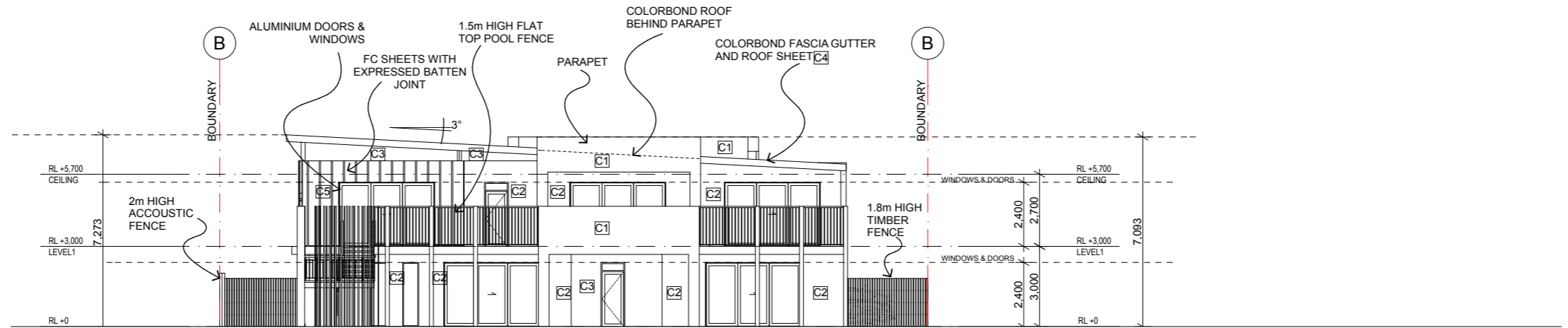
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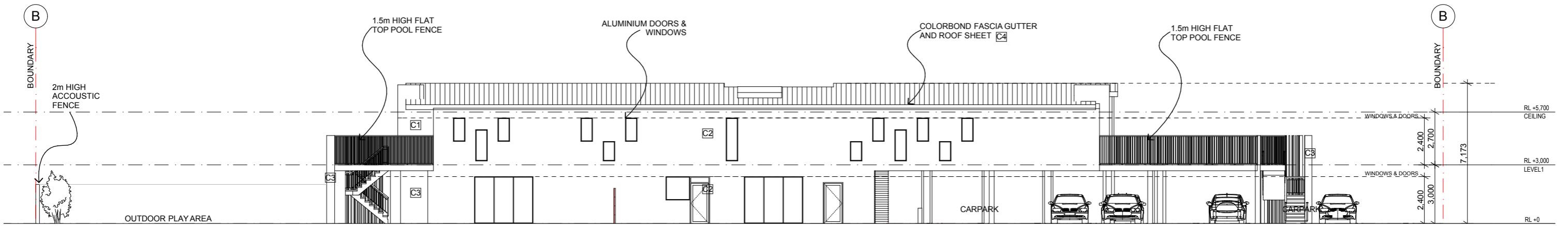
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2 WEST ELEVATION
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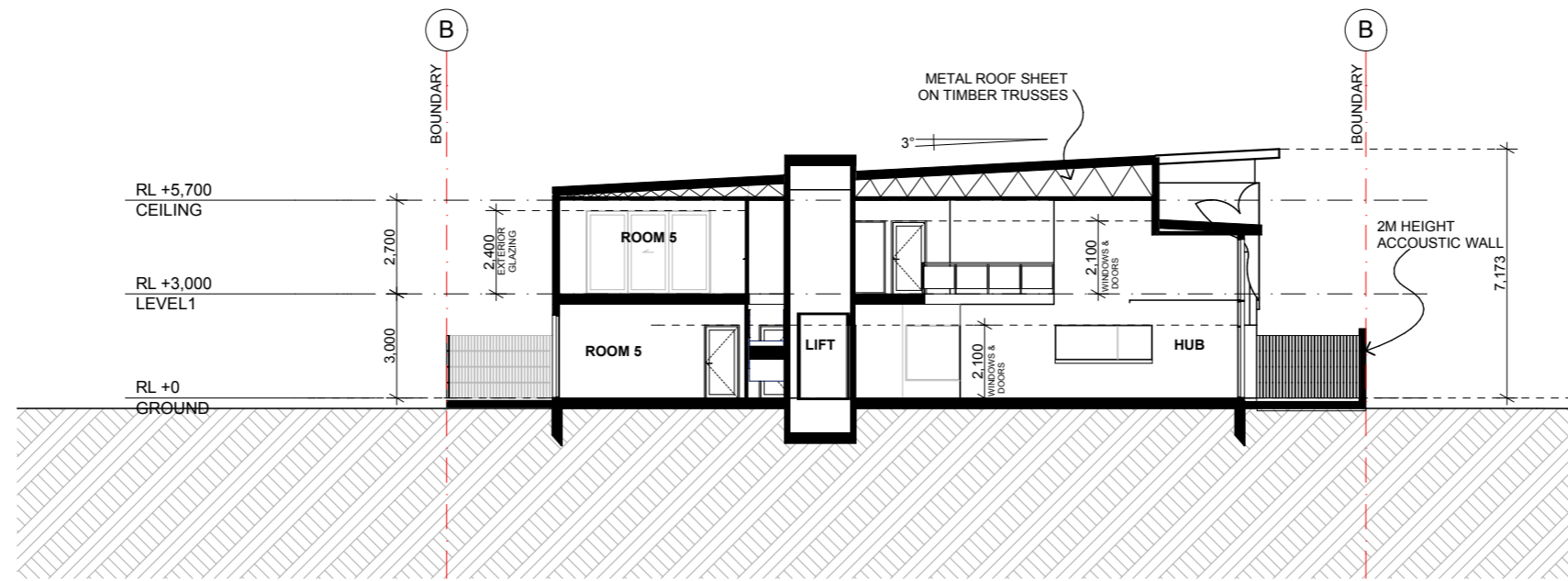
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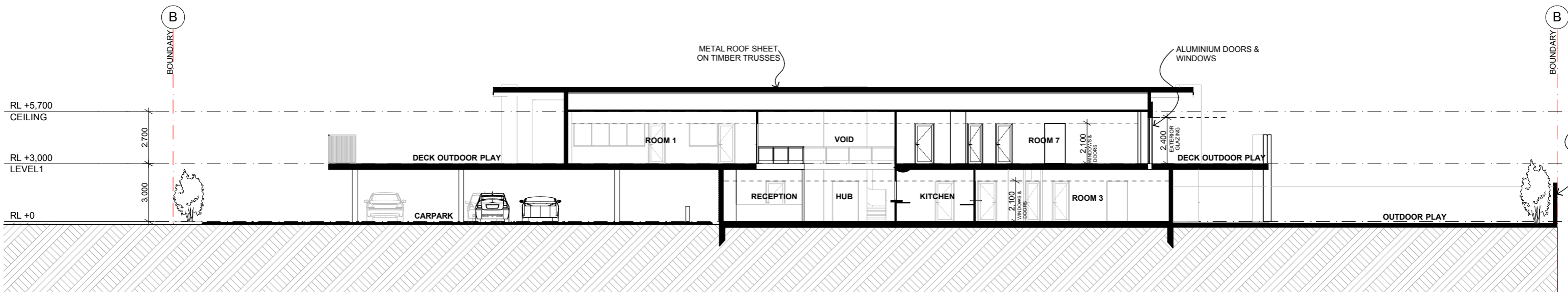
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1 SECTION 1
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2 SECTION 2
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Appendix B

Noise Model Overview

Green Leaves Early Learning Centres - Noise Model Overview Ground Floor
 Lot 856 Kalyang Loop, Byford



Signs and symbols

- Receiver
- Noise Sources
- Outdoor Play Area
- Solid Fences/Walls

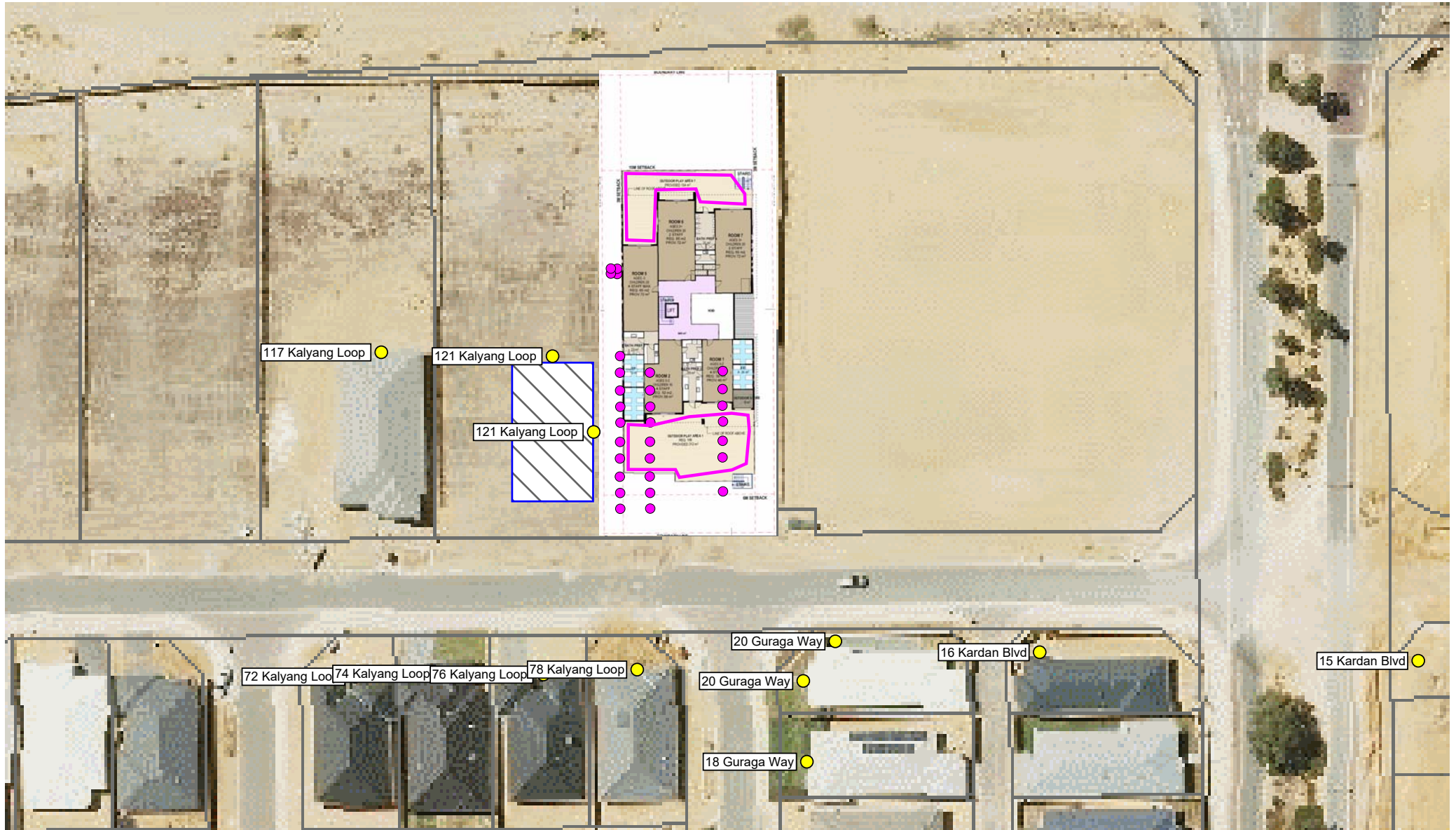


27 September 2016

Length Scale 1:833



Green Leaves Early Learning Centres - Noise Model Overview First Floor
 Lot 856 Kalyang Loop, Byford



Signs and symbols

- Receiver
- Noise Sources
- Outdoor Play Area



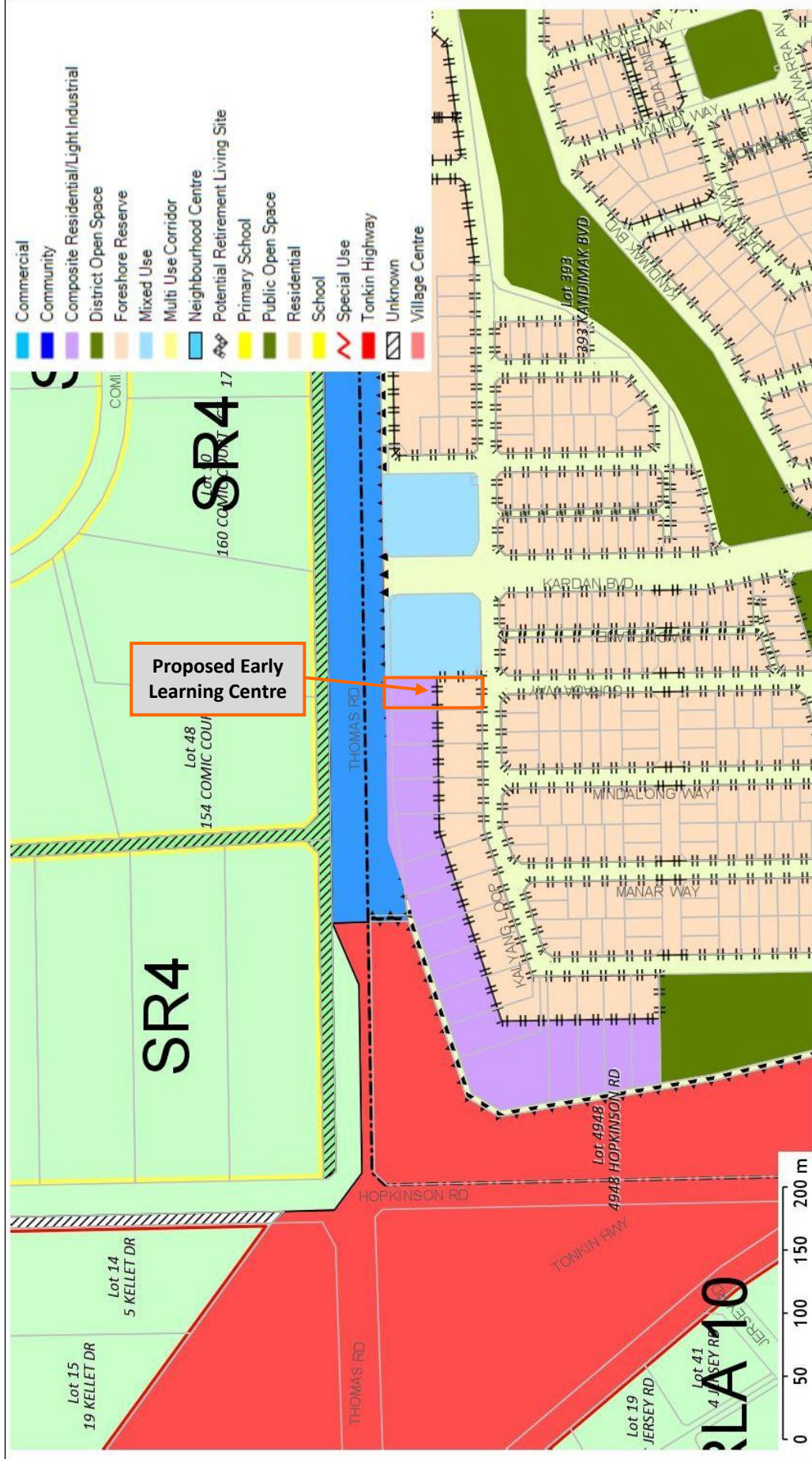
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Appendix C

Land Use Map



 <p>Serpentine Jarrahdale Shire information.</p>	<p>Serpentine Jarrahdale Shire 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 Serpentine Jarrahdale Shire shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.</p>	<p>21/09/2016</p>
		<p>1:4500</p>

Appendix D

Terminology

The following is an explanation of the terminology used throughout this report.

Decibel (dB)

The decibel is the unit that describes the sound pressure and sound power levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

A-Weighting

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as L_A dB.

Sound Power Level (L_w)

Under normal conditions, a given sound source will radiate the same amount of energy, irrespective of its surroundings, being the sound power level. This is similar to a 1kW electric heater always radiating 1kW of heat. The sound power level of a noise source cannot be directly measured using a sound level meter but is calculated based on measured sound pressure levels at known distances. Noise modelling incorporates source sound power levels as part of the input data.

Sound Pressure Level (L_p)

The sound pressure level of a noise source is dependent upon its surroundings, being influenced by distance, ground absorption, topography, meteorological conditions etc and is what the human ear actually hears. Using the electric heater analogy above, the heat will vary depending upon where the heater is located, just as the sound pressure level will vary depending on the surroundings. Noise modelling predicts the sound pressure level from the sound power levels taking into account ground absorption, barrier effects, distance etc.

L_{ASlow}

This is the noise level in decibels, obtained using the A frequency weighting and the S time weighting as specified in AS1259.1-1990. Unless assessing modulation, all measurements use the slow time weighting characteristic.

L_{AFast}

This is the noise level in decibels, obtained using the A frequency weighting and the F time weighting as specified in AS1259.1-1990. This is used when assessing the presence of modulation only.

L_{APeak}

This is the maximum reading in decibels using the A frequency weighting and P time weighting AS1259.1-1990.

L_{Amax}

An L_{Amax} level is the maximum A-weighted noise level during a particular measurement.

L_{A1}

An L_{A1} level is the A-weighted noise level which is exceeded for one percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

L_{A10}

An L_{A10} level is the A-weighted noise level which is exceeded for 10 percent of the measurement period and is considered to represent the "intrusive" noise level.

L_{Aeq}

The equivalent steady state A-weighted sound level (“equal energy”) in decibels which, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the “average” noise level.

 L_{A90}

An L_{A90} level is the A-weighted noise level which is exceeded for 90 percent of the measurement period and is considered to represent the “background” noise level.

One-Third-Octave Band

Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20 000 Hz inclusive.

 L_{Amax} assigned level

Means an assigned level which, measured as a $L_{A\ Slow}$ value, is not to be exceeded at any time.

 L_{A1} assigned level

Means an assigned level which, measured as a $L_{A\ Slow}$ value, is not to be exceeded for more than 1% of the representative assessment period.

 L_{A10} assigned level

Means an assigned level which, measured as a $L_{A\ Slow}$ value, is not to be exceeded for more than 10% of the representative assessment period.

Tonal Noise

A tonal noise source can be described as a source that has a distinctive noise emission in one or more frequencies. An example would be whining or droning. The quantitative definition of tonality is:

the presence in the noise emission of tonal characteristics where the difference between -

- (a) the A-weighted sound pressure level in any one-third octave band; and
- (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\ Slow}$ levels.

This is relatively common in most noise sources.

Modulating Noise

A modulating source is regular, cyclic and audible and is present for at least 10% of the measurement period. The quantitative definition of modulation is:

a variation in the emission of noise that —

- (a) is more than 3 dB $L_{A\ Fast}$ or is more than 3 dB $L_{A\ Fast}$ in any one-third octave band;
- (b) is present for at least 10% of the representative.

Impulsive Noise

An impulsive noise source has a short-term banging, clunking or explosive sound. The quantitative definition of impulsiveness is:

a variation in the emission of a noise where the difference between $L_{A\ peak}$ and $L_{A\ Max\ slow}$ is more than 15 dB when determined for a single representative event;

Major Road

Is a road with an estimated average daily traffic count of more than 15,000 vehicles.

Secondary / Minor Road

Is a road with an estimated average daily traffic count of between 6,000 and 15,000 vehicles.

Influencing Factor (IF)

$$= \frac{1}{10} (\% \text{ Type A}_{100} + \% \text{ Type A}_{450}) + \frac{1}{20} (\% \text{ Type B}_{100} + \% \text{ Type B}_{450})$$

where:

% Type A₁₀₀ = the percentage of industrial land within a 100m radius of the premises receiving the noise

% Type A₄₅₀ = the percentage of industrial land within a 450m radius of the premises receiving the noise

% Type B₁₀₀ = the percentage of commercial land within a 100m radius of the premises receiving the noise

% Type B₄₅₀ = the percentage of commercial land within a 450m radius of the premises receiving the noise

+ Traffic Factor (maximum of 6 dB)

= 2 for each secondary road within 100m

= 2 for each major road within 450m

= 6 for each major road within 100m

Representative Assessment Period

Means a period of time not less than 15 minutes, and not exceeding four hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission.

Background Noise

Background noise or residual noise is the noise level from sources other than the source of concern. When measuring environmental noise, residual sound is often a problem. One reason is that regulations often require that the noise from different types of sources be dealt with separately. This separation, e.g. of traffic noise from industrial noise, is often difficult to accomplish in practice. Another reason is that the measurements are normally carried out outdoors. Wind-induced noise, directly on the microphone and indirectly on trees, buildings, etc., may also affect the result. The character of these noise sources can make it difficult or even impossible to carry out any corrections.

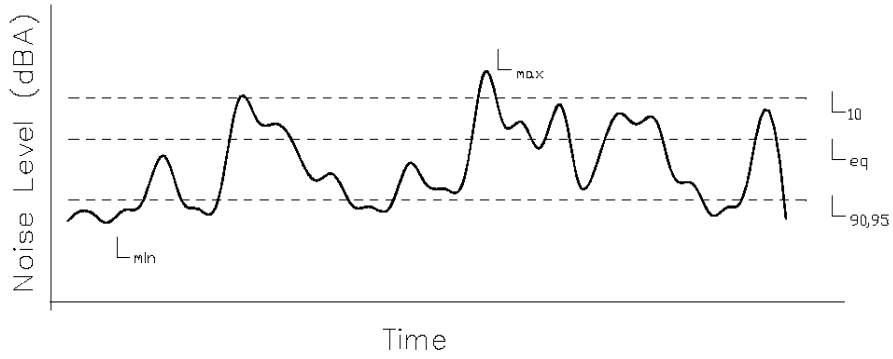
Ambient Noise

Means the level of noise from all sources, including background noise from near and far and the source of interest.

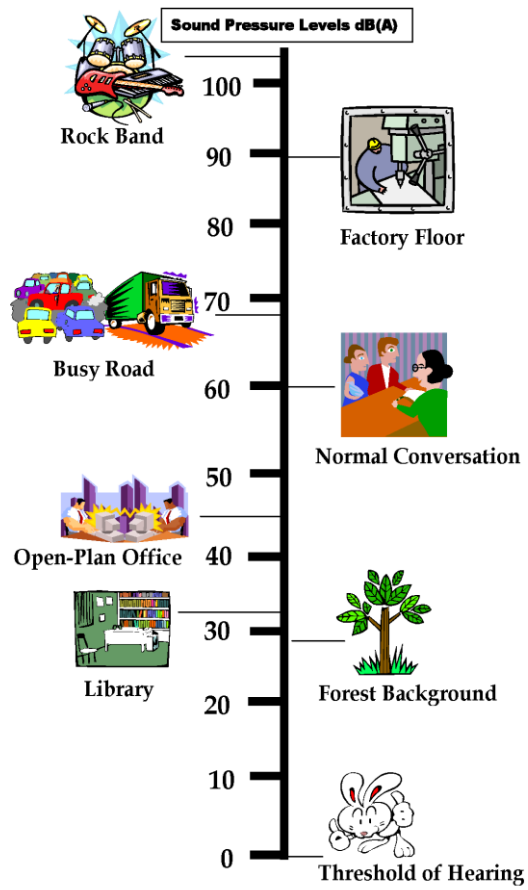
Specific Noise

Relates to the component of the ambient noise that is of interest. This can be referred to as the noise of concern or the noise of interest.

Chart of Noise Level Descriptors



Typical Noise Levels



Appendix 4 Transport Impact Statement



**Proposed Child Care Centre
Lot 856 Kalyang Loop, Byford
Transport Impact Statement**

**PREPARED FOR:
TDGF Pty Ltd**

September 2016

Document history and status

Author	Revision	Approved by	Date approved	Revision type
Ali Rasouli	r01	B Bordbar	27/09/2016	Draft
Ali Rasouli	r01a	R White	28/09/2016	Final
Ali Rasouli	r01b	R White	29/09/2016	Revised Final

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Author: Ali Rasouli

Project manager: Behnam Bordbar

Client: TDGF Pty Ltd

Project: Lot 856 Kalyang Loop, Byford

Document revision: r01b

Project number: t16.208

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APPENDIX A: PROPOSED DEVELOPMENT PLANS

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1.0 Introduction

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of TDGF Pty Ltd with regard to the proposed child care centre, to be located at Lot 856 Kalyang Loop, Byford, in the Shire of Serpentine Jarrahdale.

The Transport Assessment Guidelines for Developments (WAPC, Vol 4 – Individual Developments, revised August 2016) states: “*A Transport Impact Statement is required for those developments that would be likely to generate moderate volumes of traffic¹ and therefore would have a moderate overall impact on the surrounding land uses and transport networks*”. Section 6.0 of Transcore’s report provides details of the estimated trip generation for the proposed development. Accordingly, as the total peak hour vehicular trips are estimated to be less than 100 trips, a Transport Statement is deemed appropriate for this development.

The proposed child care centre development is to be located at Lot 856 Kalyang Loop, Byford and is shown in Figure 1.

The subject site is presently vacant and is bound by Kalyang Loop to the south and vacant lands to the immediate east, west and north. The site is located within a primarily residential area.

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

¹ *Between 10 and 100 vehicular trips*



Figure 1: Location of the subject site

2.0 Proposed Development

The total land area is 1,906m² and the proposal for the subject site is for a child care centre comprising:

- ✚ A two storey child care centre building with 1,033m² GFA with total of 7 rooms to cater for children and a separate staff room;
- ✚ 926m² of outdoor play area including verandahs;
- ✚ A bin store; and,
- ✚ On-site car parking area providing 26 car bays including 1 accessible bay.

It is proposed to provide vehicular access via a single full movement crossover on Kalyang Loop. The crossover and connecting driveway lead to a car parking facility providing 26 bays. 10 of the parking bays are allocated to the staff and the balance of 16 bays are for the drop off/pick up and visitors to the centre.

Rubbish bins will be wheeled out from the bin store facilities for kerbside waste collection from Kalyang Loop. The bin store is located at the southern end of the site in the proposed car park.

It is proposed that pedestrians will access the site via the pedestrian path provided to the eastern end of the proposed car parking area.

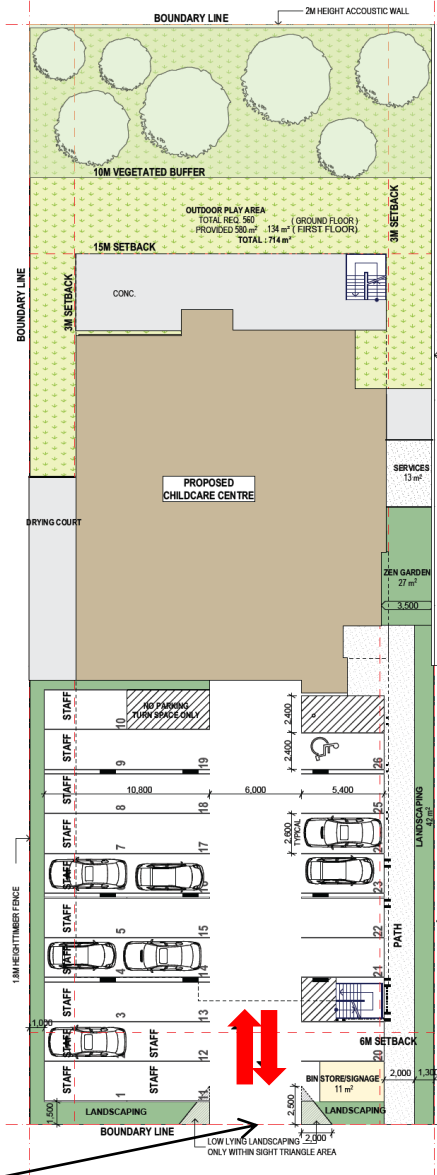
Transcore was the Traffic Engineer for the proposed development at Lot 857 (immediately to the east of the subject site) and prepared the traffic report for the development application at this Lot in August 2015. Accordingly, Transcore is fully aware of the proposed road changes in the vicinity of the subject site. The proposal for Lot 857 was for a service station and a fast food tenancy. It is Transcore's understanding that this development has been approved.

Detailed development plan is included for reference in Appendix A.

3.0 Vehicle Access and Parking

3.1 Access

As shown in Figure 2 a single full movement crossover is proposed on Kalyang Loop to provide access to the proposed development. Access and egress to and from the proposed development will be via Kalyang Loop and therefore all of the traffic generated from the proposed development will be distributed onto this road.



Proposed site access on Kalyang Loop

Figure 2: Proposed development site access

3.2 Parking Demand and Supply

Based on the information provided to Transcore the proposed child care centre will employ up to 25 staff and is proposed to accommodate up to 128 children.

It is proposed to provide a total of 26 car parking bays including one accessible bay on-site. Out of the 26 car bays 10 would be allocated to the staff and the balance of 16 car bays would be allocated to the visitors.

The parking bays to the western side of the proposed development are in the form of tandem bays. It is proposed that the 10 staff car bays be accommodated as the rear bays and the front bays to be used for drop off/pick up and visitors. It is recommended that the staff bays should be delineated with appropriate pavement marking.

A turning bay is also provided in the car parking area to the immediate east of the staff bay number 10. The turning bay facilitates the vehicle circulations within the site and provides a comfortable turning opportunity for the vehicles wishing to egress the site.

Based on the advice provided by the project Town Planners the parking supply of the proposed development meets the relevant Shire's parking requirements and is considered to be satisfactory for meeting the needs of the proposed development.

4.0 Provision for Service Vehicles

It is anticipated that the proposed development will generate a small volume of service vehicle traffic, primarily associated with deliveries for the child care centre. It is recommended that smaller vehicles such as vans be used for deliveries. Delivery vehicles may park for a short time within the car park for loading and unloading activities.

Rubbish bins will be wheeled out from the bin store for kerbside waste collection on waste collection day.

5.0 Hours of Operation

The Centre would cater for a maximum of 128 children aged from 0 to 3+ years and would operate between the hours of 6:30AM – 6:30PM, Monday to Friday. It is also proposed that a maximum of 25 staff would work onsite.

6.0 Daily Traffic Volumes and Vehicle Types

The traffic volume that would be generated by the proposed development has been estimated using Child Care Centre trip generation rates derived from surveys undertaken by Transcore at similar Centres in Canningvale, Midvale, Gosnells and Clarkson.

The site is currently vacant and therefore does not generate any traffic.

Post-development trip generation

Discussions with the managers of the surveyed child care centres revealed that the peak drop-offs and pick-ups for each of these centres usually occur between the hours of 7:00 – 10:00am and 3:00 – 6:00pm.

Accordingly, the result of traffic counts undertaken at these centres during the peak patronage periods were used to derive a trip generation rate for child care centres in WA. During the survey periods, all traffic entering and exiting the centres were counted in half hour intervals.

In consideration of the total number of children at each of the centres on the surveyed days, the following average generation rates were established for the morning and afternoon surveyed periods:

- + 7:00AM–10:00AM: 1.58 trips per child (52% in/48% out).
- + 3:00PM–6:00PM: 1.67 trips per child (47% in/53% out).

From this information, the traffic generation rate for the combined period of 7:00AM–10:00AM and 3:00PM–6:00PM was calculated as 3.25 trips per child. To convert this figure to a daily generation rate, this figure was increased to **3.5 trips per child** to account for any trips outside of the surveyed times. It was assumed that the daily in and out split for vehicle trips was 50/50.

Accordingly, the following average peak hour generation rates were established from the surveys for the Child Care Centres:

- + Morning peak hour: 8:00AM–9:00AM: 0.75 trips per child (52% in / 48% out).
- + Afternoon peak hour: 4:30PM–5:30PM: 0.49 trips per child (43% in / 57% out).

As a result, the following number of trips was estimated for the proposed Child Care Centre, assuming a maximum scenario of 128 children being present (i.e. Centre at full capacity):

- + AM peak hour: 96 trips generated (50 in / 46 out)
- + PM peak hour: 63 trips generated (27 in / 36 out)
- + Daily traffic generation: 448 trips generated (224 in / 224 out)

It is anticipated that most vehicle types would be passenger cars and to a lesser extent 4WDs.

6.1 Traffic Flows

All of the child care centre generated trips would be distributed onto Kalyang Loop via the single full movement crossover. In consideration of catchment area for the proposed child care centre, it is assumed that 80% of the daily generated traffic would be travelling to and from the south and 20% would travel to and from the north and west.

6.2 Impact on Surrounding Roads

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

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

The estimated trip generation and distribution indicates that the maximum possible traffic increase on any traffic lane would be 50 vehicles per hour. Therefore, the proposed development traffic will only be half of the quoted WAPC threshold and does not warrant further detailed analysis. Therefore the impact on the surrounding road network is considered to be insignificant.

As stated in section 6.1, it is anticipated that most of the childcare centre traffic would travel to the site from south and therefore they are expected to use the intersection of Kalyang Loop and Kardan Blvd to travel to the proposed development. The intersection of Kalyang Loop and Kardan Blvd was recently constructed as a roundabout intersection. The analysis undertaken by Transcore for the service station/ fast food development application on Lot 857 indicated that this roundabout would operate at level of services “A” in both AM and PM peak hours in 2031 (degree of saturation only 0.34 to 0.42). Therefore this roundabout would easily be able to accommodate the child care centre traffic without any specific issues.

The existing Guraga Way and Kalyang Loop intersection currently carries very low traffic volumes and the proposed development does not add significant traffic volumes on these roads. The existing sight lines at this intersection are very good as these roads are relatively flat. Therefore the proposed driveway location at this intersection is not expected to cause any traffic problems or to compromise the operation of this intersection.

7.0 Traffic Management on the Frontage Streets

Kalyang Loop in the vicinity of the subject site is a 6m wide, two lane undivided road. There is currently no footpath provided on Kalyang Loop immediately fronting the site but concrete footpath is provided to the southern section of this road.

Kalyang Loop is classified as an *Access Road* in the Main Roads WA *Metropolitan Functional Road Hierarchy* and operates under a default built up area speed limit of 50Km/hr.

There is currently no available traffic count data available on Kalyang Loop but it is expected that this road would carry less than 1,000 vehicles per day (vpd) during an average week day.

Kalyang Loop forms a four way roundabout intersection with Kardan Blvd to its east which was constructed recently in accordance with the requirements for the service station/ fast food development approval on Lot 857.

Kardan Blvd in the vicinity of the subject site is an approximately 22m wide two lane divided road with a 10m wide kerbed and landscaped median. Footpaths and cycle lanes are provided on this road. Few on-street car parking bays are also provided along the eastern side of this road.

Kardan Blvd is classified as an *Access Road* in the Main Roads WA *Metropolitan Functional Road Hierarchy* with a 50 km/h speed limit applies onto this road.

Based on the information provided by the Shire of Serpentine Jarrahdale, Kardan Blvd between Ballawarra Avenue and Wiroo Way carried an average weekday traffic flow of about 2,570vpd in September 2015.

Kardan Blvd currently forms a full movement give way T-intersection with Thomas Road to the north of the subject site. It is proposed that Thomas Road would be upgraded to dual divided carriageway standards (sometime in future) and this may involve construction of a two-lane roundabout at its intersection with Kardan Boulevard.

8.0 Public Transport Access

Existing bus routes in this area are shown in Figure 3. The closest existing bus route is route 254 (from Byford Town Centre to Armadale Train Station), which passes along Kardan Boulevard. Route 254 provides connectivity for the subject site to the surrounding suburbs to the south and Armadale train line.

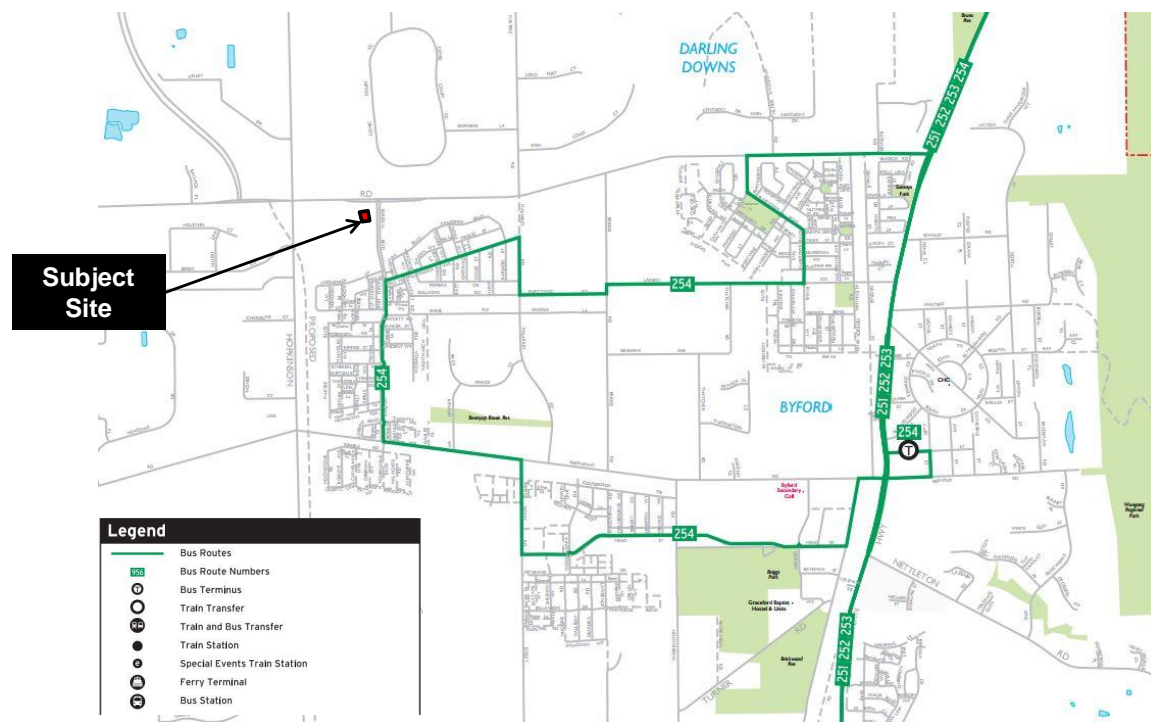


Figure 3: Public transport services (Transperth Maps)

9.0 Pedestrian Access

At present there is no footpath provided within the northern verge of Kalyang Loop immediately fronting the subject site. However a footpath is provided along the southern verge of Kalyang Loop which connects to the roundabout intersection of Kalyang Loop/ Kardan Blvd. Pedestrian crossing facilities including drop kerbs and pedestrian refuges are provided at the roundabout intersection which facilitates pedestrian crossings on Kardan Blvd.

A paved walkway path is provided within the site running between the parking area and the proposed child care centre building and pedestrian entry point.

10.0 Cycle Access

The Perth Bicycle Network Map (see Figure 4) indicates the cyclist connectivity to the subject site. Tonkin Highway in the close proximity of the proposed development is classified as high quality shared path route and Thomas Road includes cycle lanes on both sides. Hopkinson Road in this vicinity is also classified as a Good Riding Environment.

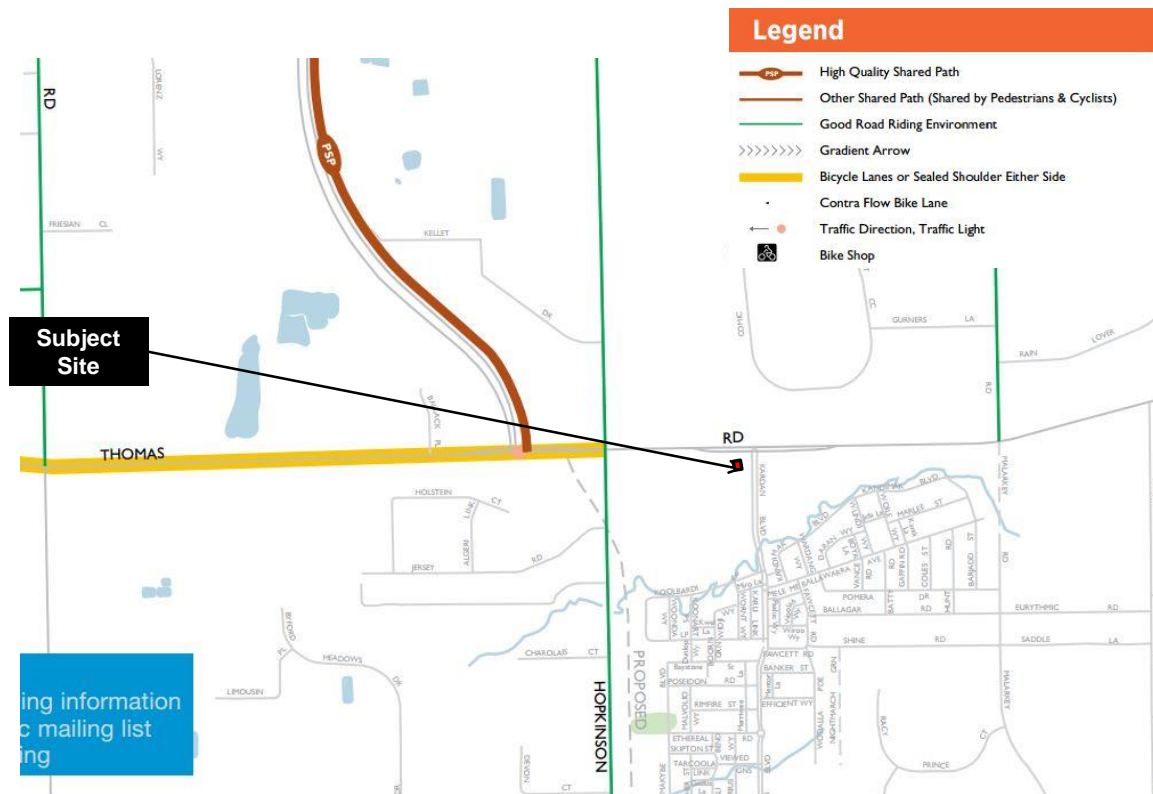


Figure 4: Extract from Perth Bicycle Network (Department of Transport)

Although not shown on this Bike Map (last updated Wednesday 21 September 2016), Kardan Boulevard has been constructed with 5m road carriageways (i.e. 3.5m traffic lane and 1.5m bike lane in each direction) which further demonstrates cyclist accessibility to and from the subject site.

11.0 Site Specific Issues

No particular site specific issues have been identified for the proposed child care centre.

12.0 Safety Issues

No particular safety issues were identified for the proposed child care centre.

13.0 Conclusions

This transport impact statement provides information regarding the proposed child care centre, to be located at Lot 856 Kalyang Loop, Byford, in the Shire of Serpentine Jarrahdale.

The site features good connectivity with the existing road network. There is public transport coverage through nearby bus service (number 254) which connects to the Armadale Train Station. The site also features a reasonable connectivity to the existing cycling facilities provided in the vicinity.

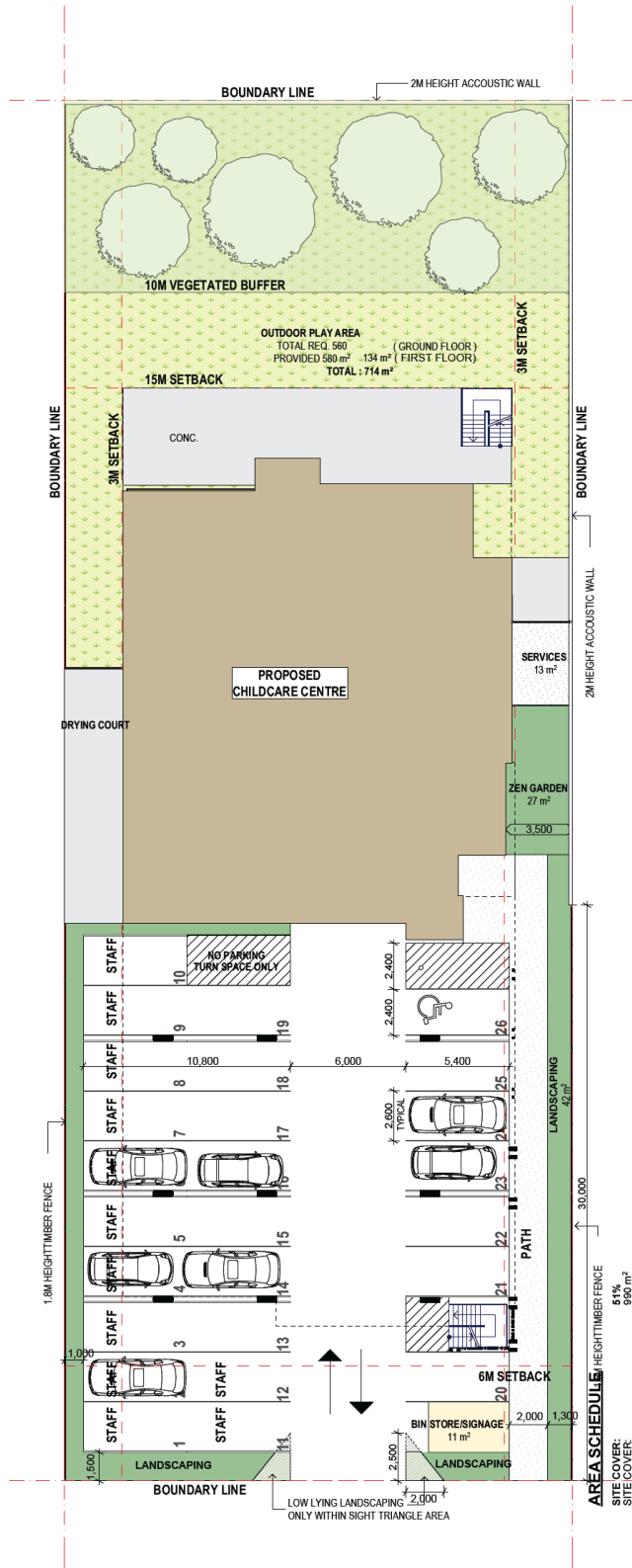
Vehicle access to and from the site will be via a single full movement crossover on Kalyang Loop which leads to 26 on-site parking bays including 1 accessible bay.

Based on the advice provided by the project Town Planners the parking supply of the proposed development meets the relevant Shire's parking requirements and is considered to be satisfactory for meeting the needs of the proposed development.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed development can be accommodated by the surrounding road network with insignificant traffic impacts.

Appendix A

PROPOSED DEVELOPMENT PLAN



AREA SCHEDULE

HEIGHTIMBER FENCE	51%
SITE COVER:	930 m ²
SITE AREA (Future Lot 856):	1906 m ²
CHILDCARE:	1033 m ²
OUTDOOR STORE:	18 m ²
PLAY AREAS (inc. verandahs):	926 m ²
CARPARK:	587 m ²
OTHER:	289 m ²
POPULATION:	128
FULL TIME STAFF:	25
CARPARKING REQUIRED:	
1 PER 5 CHILDREN	26
TOTAL	26
CARPARKING PROVIDED:	26
TOTAL	26

DA ISSUE
21/09/2016
BY FOR CONSTRUCTION



SITE PLAN

BYFORD ELC
LOT 9020, THOMAS ROAD, BYFORD, WA, 6122
FOR TAL



project no: 16028
dwg no: 16114-A-DA-101-C
issue date: 21/09/2016
scale: 1:200 @ A3



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RALINIK
design group
architects
interior designers

Appendix 5 Waste Management Plan

Waste Management Plan – Byford Early Learning Centre

Subject Site:	Lot 856 (125) Kalyang Loop, Byford
Date:	30 September 2016

Contents

1.	Introduction	1
2.	Waste Management Plan	1
2.1	Description of proposed development	1
2.2	Bin storage.....	1
2.3	Waste generation.....	2
2.4	Waste systems and collection.....	2

1. Introduction

This waste management plan has been prepared by Planning Solutions to address waste management considerations associated with the proposed early learning centre on the subject site. It does not apply to construction works.

Proposed waste management measures will sufficiently cater for the proposed use, ensuring the premises may operate efficiently with no undue impacts on the surrounding area.

2. Waste Management Plan

2.1 Description of proposed development

The proposed development comprises an early learning centre with:

- A total capacity of 128 children.
- 25 full time staff.
- A 25m² kitchen.
- Toilets and nappy disposal amenities.

The proposed child minding centre will operate 5 days per week.

2.2 Bin storage

The proposed development provides an enclosed bin store area at the site’s frontage to Kalyang Loop. Refer to the site plan submitted with the development application.

The bin store area is 11m². The bin store area is conveniently positioned to allow access for the early learning centre operators, while maintaining sufficient separation from surrounding properties.

2.3 Waste generation

Table 1 below outlines common waste generation for a child minding centre.

Table 1: Waste generation rates

Land use and GFA	Garbage	Recycling	Total Volume
Child care centre with 1033m ² GFA	10L/100m ² floor area/day	10L/100m ² floor area/day	206L/day

Source of rates: Gold Coast City Council Waste Generation Rates Plan - 2012

Weekly demand for waste management equates to 1,030L per week based on the above rates.

Due to nappy disposal, weekly garbage volumes are regularly higher than recycled waste. On this basis, the operator estimates waste generated by the early learning centre at the following rates:

- 720L per week of general waste.
- 360L per week of recycled waste.

2.4 Waste systems and collection

A total of 6 x 240L wheeled bins will be stored in the bin store, designated for:

- 3 wheeled bins for general waste, to be collected on a weekly basis.
- 3 wheeled bins for recycled waste, to be collected on a fortnightly basis.

Staff at the early learning centre will be responsible for placing waste in the designated wheeled bins on a daily basis.

Kerb-side waste collection will be undertaken by the Shire, in accordance with its standard operating procedures.

Staff of the early learning centre will be responsible for moving wheeled bins from the bin store to the kerb on collection days, and moving bins back to the bin store after waste has been collected.

Appendix 6

BAL Certificate and Assessment

Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2009

This Certificate has been issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme. The certificate details the conclusions of the full Bushfire Attack Level Assessment Report (full report) prepared by the Accredited Practitioner.

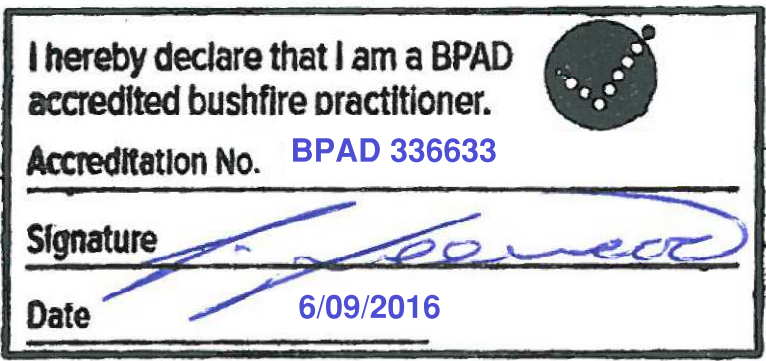
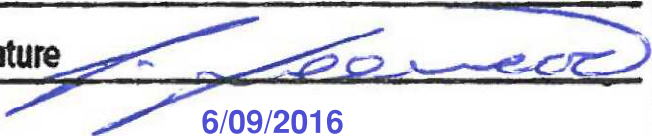
Property Details and Description of Works

Address Details	Unit no	Street no	Lot no	Street name / Plan Reference	
			856	Kalyang Loop	
Local government area	Suburb			State	Postcode
	Byford			WA	6122
Main BCA class of the building	Use(s) of the building				
Description of the building or works	Class 9b		Child Care Centre		
	Double Storey Building				

Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	Class G	Flat	69m	BAL - Low

BPAD Accredited Practitioner Details

Name John Greenwood	 <p>I hereby declare that I am a BPAD accredited bushfire practitioner.</p> <p>Accreditation No. BPAD 336633</p> <p>Signature </p> <p>Date 6/09/2016</p> <p><i>Authorised Practitioner Stamp</i></p>
Company Details WABAL	
I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959-2009 (Incorporating Amendments 1, 2 and 3).	

Reliance on the assessment and determination of the Bushfire Attack Level contained in this certificate should not extend beyond a period of 12 months from the date of issue of the certificate. If this certificate was issued more than 12 months ago, it is recommended that the validity of the determination be confirmed with the Accredited Practitioner and where required an updated certificate issued.

Bushfire Attack Level Assessment Report

Prepared by a BPAD Accredited Practitioner



Fire Protection Association Australia Life Property Environment



AS 3959 BAL Assessment Report

This report has been prepared by an Accredited BPAD Practitioner using the Simplified Procedure (Method 1) as detailed in Section 2 of AS 3959 – 2009 (Incorporating Amendment Nos 1, 2 and 3). FPA Australia makes no warranties as to the accuracy of the information provided in the report. All enquiries related to the information and conclusions presented in this report must be made to the BPAD Accredited Practitioner.

Property Details and Description of Works

Address Details	Unit no	Street no	Lot no	Street name / Plan Reference		
			856	Kalyang Loop		
Local government area	Suburb			State	Postcode	
	Byford			WA	6122	
Main BCA class of the building	Class 9b			Use(s) of the building	Child Care Centre	
Description of the building or works	Double Storey Building					

Report Details

Report / Job Number	Report Version	Assessment Date	Report Date
J004646	1	5 September 2016	6 September 2016

BPAD Accredited Practitioner Details

Name John Greenwood	 WABAL BushfireAssessmentLogic	 I hereby declare that I am a BPAD accredited bushfire practitioner. Accreditation No. BPAD 336633 Signature Date 6/09/2016
Company Details		

Reliance on the assessment and determination of the Bushfire Attack Level contained in this report should not extend beyond a period of 12 months from the date of issue of the report. If this report was issued more than 12 months ago, it is recommended that the validity of the determination be confirmed with the Accredited Practitioner and where required an updated report issued.

Site Assessment & Site Plans

The assessment of this site / development was undertaken on 5 September 2016 by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959 - 2009 Simplified Procedure (Method 1).



<p>Address: Lot 856 Kalyang Loop, Byford</p> <p>Assessment date: 5 September 2016</p> <p>Accreditation level: BPAD level 1</p> <p>Accreditation number: BPAD 336633</p>	<p>BAL ASSESSMENT SITE PLAN</p> <p>0 50 100 150 metres</p>	<p>LEGEND</p> <ul style="list-style-type: none"> Proposed Building 100m wide buffer 150m wide buffer Vegetation extents Photo location and direction Site boundary 	<p style="text-align: center;">WABCA WESTERN AUSTRALIA BUILDING CERTIFIERS AND ASSESSORS</p> <p style="text-align: center;">WABAL BushfireAssessmentLogic</p>
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Vegetation Classification

All vegetation within 100m of the site / proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2009. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified below.



Photo ID: 1	Plot: 1	
Vegetation Classification or Exclusion Clause		
Excludable - 2.2.3.2(f) Low Threat Vegetation		
Description / Justification for Classification		<p>-32°12'28", 115°58'37", -2.0m, 193° 5 Sep 2016 3:53:01 PM</p>
Plot 1 refers to the surrounding urban vegetation, which has been excluded as being low threat.		
Photo ID: 2	Plot: 1	
Vegetation Classification or Exclusion Clause		
Excludable - 2.2.3.2(f) Low Threat Vegetation		
Description / Justification for Classification		<p>-32°12'28", 115°58'37", -2.0m, 241° 5 Sep 2016 3:53:20 PM</p>
A different angle of Plot 1.		

Photo ID:	3	Plot:	2
Vegetation Classification or Exclusion Clause			
Class G Grassland – Closed tussock grassland G-21			
Description / Justification for Classification			
Plot 2 is an area of Class G vegetation located to the North, 69m from the proposed building. The picture shows Plot 1 to the right and Plot 2 to the left.			



Photo ID:	4	Plot:	2
Vegetation Classification or Exclusion Clause			
Class G Grassland – Closed tussock grassland G-21			
Description / Justification for Classification			
A closer look at Plot 2.			



Relevant Fire Danger Index

The fire danger index for this site has been determined in accordance with Table 2.1 or otherwise determined in accordance with a jurisdictional variation applicable to the site.

Fire Danger Index

FDI 40

Table 2.4.5

FDI 50

Table 2.4.4

FDI 80

Table 2.4.3

FDI 100

Table 2.4.2

Potential Bushfire Impacts

The potential bushfire impact to the site / proposed development from each of the identified vegetation plots are identified below.

Plot	Vegetation Classification	Effective Slope	Separation (m)	BAL
1	Excludable – Clause 2.2.3.2(f)	-	-	BAL – LOW
2	Class G Grassland	Flat	69	BAL – LOW

Table 1: BAL Analysis

Determined Bushfire Attack Level (BAL)

The Determined Bushfire Attack Level (highest BAL) for the site / proposed development has been determined in accordance with clause 2.2.6 of AS 3959-2009 using the above analysis.

Determined Bushfire Attack Level

BAL – LOW

Appendix 1: Plans and Drawings

Plans and drawings relied on to determine the bushfire attack level

Drawing / Plan Description Site Plan

Job Number 16028

Revision A

Date of Revision 05/02/2016



AREA SCHEDULE

SITE COVER:	50%
SITE COVER:	968 m ²
SITE AREA (Future Lot 856):	1936 m ²
CHILD CARE:	1029 m ²
OUTDOOR STORE:	29 m ²
PLAY AREAS (inc. verandahs):	863 m ²
CARPARK:	588 m ²
OTHER:	307 m ²
POPULATION:	
CHILDREN:	128
FULL TIME STAFF:	25
CARPARKING REQUIRED:	
1 PER 5 CHILDREN:	26
TOTAL:	26
CARPARKING PROVIDED:	
TOTAL:	26



5/02/2016

GROUND FLOOR

project no: 16028
 dwg no: SK02 REV - A
 issue date: 5/02/2016
 scale: 1:200 @ A3

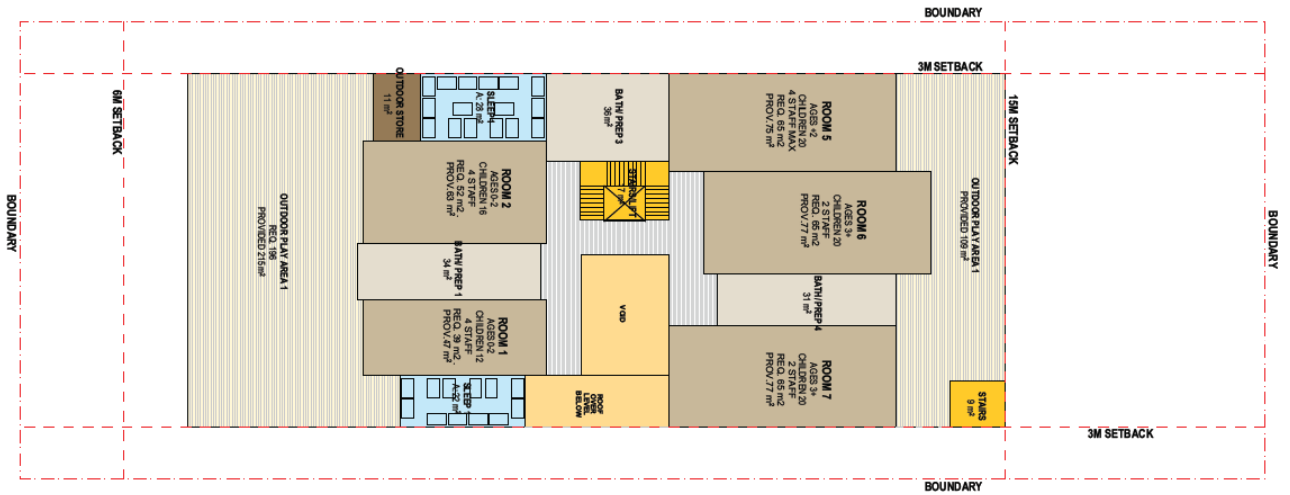
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 Institute of
 Architects

Byford ELC
 LOT 9020, THOMAS ROAD, BYFORD, WA, 6122
 For VEDT Management Pty Ltd as
 trustee for the Veurve Education Trust





CONCEPT
5/02/2016
FIRST FLOOR

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For VEDT Management Pty Ltd as
trustee for the Veurve Education Trust



project no: 16028
dwg no: SK03 REV - A
issue date: 5/02/2016
scale: 1:200 @ A3

Appendix 7

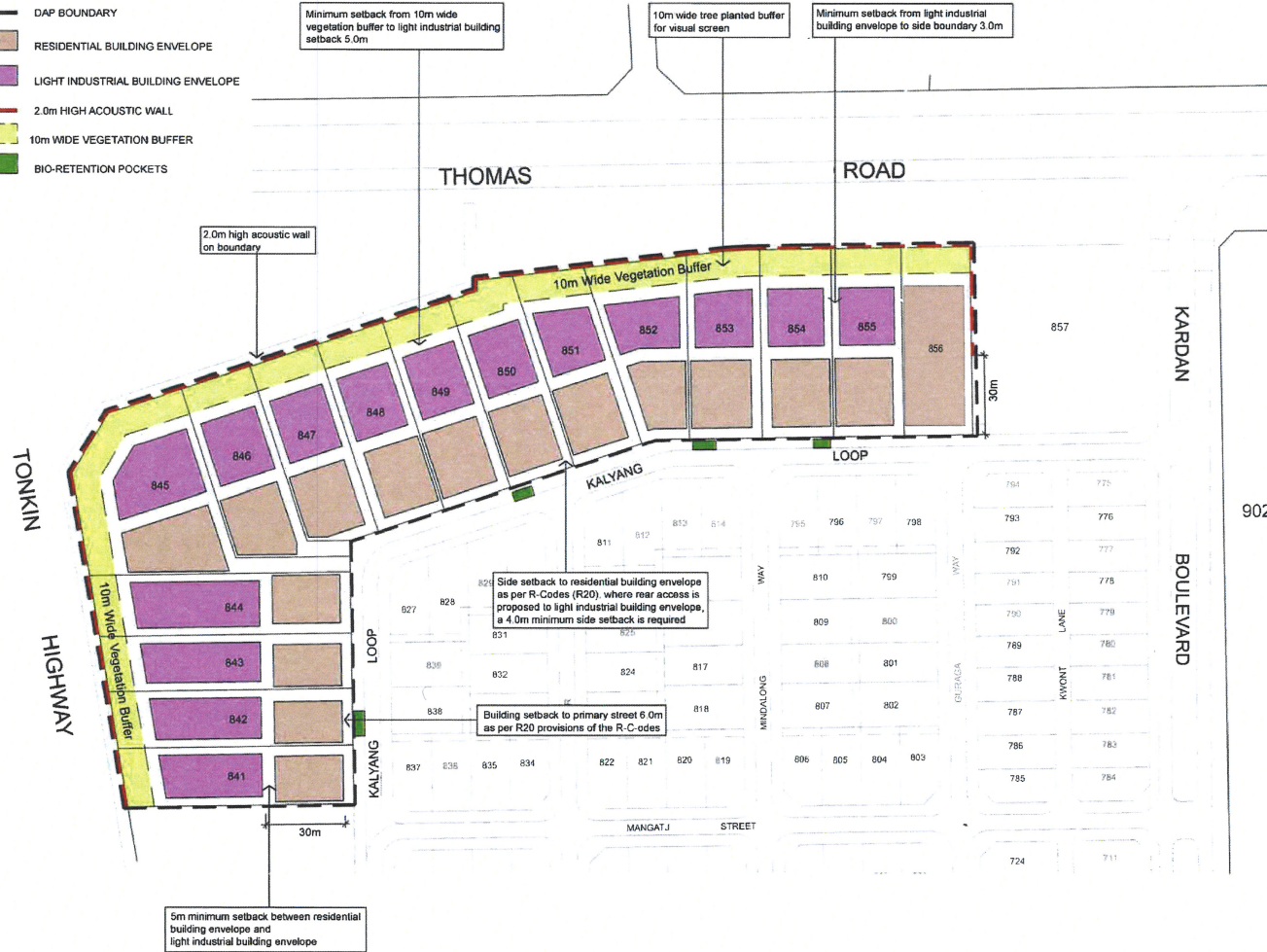
Local Development Plan No.18

TABLE OF AMENDMENTS

Amendment No.	Summary of Amendment	Date Endorsed by Local Government
1	1. Extend the 'residential' building envelope into the 'light industrial' building envelope for Lot 856. 2. Modify the Quiet House Design Requirements by replacing in the first line 'dwelling' with 'noise sensitive premises' 3. Add new provision no.4 to Residential Area - R-Coding to restrict a dwelling on Lot 856 to within 30m of the street.	

LEGEND:

- DAP BOUNDARY
- R20 RESIDENTIAL BUILDING ENVELOPE
- LIGHT INDUSTRIAL BUILDING ENVELOPE
- 2.0m HIGH ACOUSTIC WALL
- 10m WIDE VEGETATION BUFFER
- BIO-RETENTION POCKETS



**REDGUM BROOK ESTATE
LOCAL DEVELOPMENT PLAN OF LOTS 841 - 856 INCLUSIVE (STAGE 13)**

GENERAL PROVISIONS

Under the Redgum Brook North Local Structure Plan the subject lots are defined as composite lots - residential at the front, light industrial at the rear. (no further subdivision is allowed).

A light industrial use is not permitted unless accompanied by a residential dwelling at the front of the lot.

All structures must be constructed within the nominated building envelope.

Residential Area - R Coding

- The residential design code applying to the residential part of the lots is R20.
- No variation to the R-Codes are proposed for the residential part of the lot except that on one side of the dwelling the minimum side setback shall be 4.0m to allow vehicular access to the rear (this 4.0m side setback can be on either side of the lot).
- If no light industrial use is proposed at the rear, side setbacks are to be as per the R-Codes. Garages may be constructed on the side boundary in accordance with the R-Codes.
- On Lot 856 a dwelling will only be permitted within 30m of the primary street.

Light Industrial Land Use

It is intended that only small scale light industrial activities be allowed on the lots so as to minimise any impact on the adjoining residential areas.

Permitted uses include:

- Those use classes listed under light industry in table 1 - zoning table, their permissibility being in accordance with the symbols cross referenced in table 1 except that all 'P' uses become 'AA' uses and the use classes of automotive wrecking, transport depot, fuel depot, automotive repairs, fast food/take away and dry cleaning are uses not permitted in this zone.
- Any development for light industrial purposes shall be subject to those provisions of the scheme relating to light industrial zone. front and side setbacks, however shall be as follows:
 - Minimum front setback 35 metres from street or 5 metres from rear of dwelling.
 - Minimum side setback of 3.0 metres.
 - Minimum rear setback to tonkin highway or thomas road of 15 metres (includes 10m wide vegetation buffer).
 - Minimum separation distance between dwelling and light industrial structure to be 5.0 metres.
 - The maximum floorspace of any light industrial building is 300m² and the maximum height of any structure is 6.0m.

Fencing

All side fencing to be open rural style timber to be constructed by subdivider.

Fire Management

All lots on the DAP are subject to a fire management plan.

Noise Attenuation

All lots may be affected by traffic noise from Tonkin Highway or Thomas Road. a combination of 'quiet house' design measures and practical barrier s proposed to attenuate traffic noise.

Quiet House Design Requirements

The noise sensitive premises to be constructed on the subject lots are to be designed to comply with the following 'quiet house' criteria.

Design Elements - Building Guidelines

- External walls shall be of double brick construction.
- Casement or awning windows with exposure to Tonkin Highway or Thomas Road to be provided with compressive seals.
- Ground floor glazing to bedrooms with exposure to the Tonkin Highway or Thomas Road to be casement type windows with 6.38mm thick laminated glass. other living spaces with exposure to the Tonkin Highway or Thomas Road to be casement or awning type windows with minimum of 6mm glass.
- Eaves to be enclosed using 6mm thick compressed cement sheeting or equivalent.
- Sliding doors from living spaces to an outdoor area with exposure to Tonkin Highway or Thomas Road are acceptable, provided the sliding doors with seals and overlapping meeting styles.
- Sliding doors to bedrooms with exposure to Tonkin Highway or Thomas Road are not acceptable.
- Roofs to be colorbond (or equivalent) with minimum 50mm anticon, with ceilings of 13mm plasterboard to the bedrooms and minimum R2.5 insulation laid over the top. R4.1 ceiling insulation is also acceptable.

Notification On Title

The developer is required to provide prospective purchasers with a copy of this detailed area plan.

Advice Note

1. Planning approval is required for light industrial use at the rear of the lot.

THIS LOCAL DEVELOPMENT PLAN HAS BEEN APPROVED BY THE SHIRE OF SERPENTINE JARRAHDALE IN ACCORDANCE WITH CLAUSE 52 (1) OF SCHEDULE 2 OF THE PLANNING AND DEVELOPMENT (LOCAL PLANNING SCHEMES) REGULATIONS 2015.

COORDINATOR OF STATUTORY PLANNING

09/08/16
DATE

