Metro Outer Joint Development Assessment Panel Agenda

Meeting Date and Time: Thursday, 13 July 2023; 9.30am
Meeting Number: MOJDAP/259
Meeting Venue: Electronic Means

To connect to the meeting via your computer - https://us06web.zoom.us/j/87338818727

To connect to the meeting via teleconference dial the following phone number - +61 8 7150 1149 Australia
Insert Meeting ID followed by the hash (#) key when prompted - 873 3881 8727

This DAP meeting will be conducted by electronic means (Zoom) open to the public rather than requiring attendance in person.

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Attendance

DAP Members

Karen Hyde (A/Presiding Member)
Lindsay Baxter (A/Deputy Presiding Member)
Cr Michelle Rich (Local Government Member, Shire of Serpentine Jarrahdale)
Cr Lauren Strange (Local Government Member, Shire of Serpentine Jarrahdale)

Officers in attendance

David Quelch (Shire of Serpentine Jarrahdale)
Helen Ball (Shire of Serpentine Jarrahdale)
Andrew Trosic (Shire of Serpentine Jarrahdale)

Minute Secretary

Stephen Haimes (DAP Secretariat)

Applicants and Submitters

Alessandro Stagno (Apex Planning)

Members of the Public / Media

Nil

1. Opening of Meeting, Welcome and Acknowledgement

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

This meeting is being conducted by electronic means (Zoom) open to the public. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Gene Koltasz (Presiding Member)
Jason Hick (Third Specialist Member)
Shelley Shepherd (Third Specialist Member)
Diana Goldswain (Third Specialist Member)
John Taylor (Third Specialist Member)
Leigh Penney (Third Specialist Member)

3. Members on Leave of Absence

DAP Member, Gene Koltasz has been granted leave of absence by the Director General for the period of 1 July 2023 to 15 July 2023 inclusive.

DAP Member, Jason Hick has been granted leave of absence by the Director General for the period of 3 July 2023 to 19 July 2023 inclusive.

4. Noting of Minutes

Signed minutes of previous meetings are available on the DAP website.

5. Declarations of Due Consideration

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

6. Disclosure of Interests

Nil

7. Deputations and Presentations

7.1 Alessandro Stagno (Apex Planning) presenting in support of the recommendation for the application at Item 8.1. The presentation will address the requested modification of some conditions.

The Shire of Serpentine Jarrahdale may be provided with the opportunity to respond to questions of the panel, as invited by the A/Presiding Member.

8. Form 1 – Responsible Authority Reports – DAP Applications

8.1 Lot 57 Briggs Road, Byford

Development Description:	Proposed Child-Minding Centre
Applicant:	Apex Planning
Owner:	DRB Developments
Responsible Authority:	Shire of Serpentine Jarrahdale
DAP File No:	DAP/23/02453

9. Form 2 – Responsible Authority Reports – DAP Amendment or Cancellation of Approval

Nil

10. State Administrative Tribunal Applications and Supreme Court Appeals

File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/22/02346 DR47/2023	City of Joondalup	8 Elcar Lane, Joondalup	Two Storey Mixed Used Development	17/03/2022
DAP/18/01543 DR 75/2022	City of Joondalup	Lot 649 (98) O'Mara Boulevard, Iluka	Commercial development	02/05/2022
DAP/22/02394 DR69/2023	City of Mandurah	Lot 9124 Cobaki Brace, Lakelands	Proposed Bulky Goods Showroom	28/04/2023
DAP/22/02379 DR98/2023	City of Swan	Lot 31 (No.1487) Neaves Road, Bullsbrook	Proposed roadhouse	16/06/2023

11. General Business

In accordance with Section 7.3 of the DAP Standing Orders 2020 only the A/Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

12. Meeting Closure

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Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.

Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Alessandro Stagno
Company (if applicable)	Apex Planning
Please identify if you have any special requirements:	**YES** ☐ **NO** ☐ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Metro Outer JDAP
Meeting Date	13th July 2023
DAP Application Number	DAP/23/02453
Property Location	Lot 57 Briggs Road, Byford
Agenda Item Number	8.1

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES** ☒
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT** ☒ **AGAINST** ☐
Is the presentation in support of or against the proposed development?	**SUPPORT** ☒ **AGAINST** ☐
Will the presentation require power-point facilities?	**YES** ☐ **NO** ☒ **If yes, please attach**

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Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* The requested modification of some conditions.

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Refer to attached submission.

apex
planning

Submission to DAP

From:	Alessandro Stagno	**Date:**	10 July 2023
Subject:	Agenda item 8.1 – MOJDAP/259 – proposed child care premises Lot 57 Briggs Road, Byford (**development site**)		

Apex Planning acts on behalf of the proponent of the child care premises proposed at Lot 57 Briggs Road, Byford.

This proposal represents the first step in the urbanisation / redevelopment of the development site, which forms part of the Byford Area D Briggs Larsen Precinct Local Structure Plan (**LSP**). The LSP was endorsed by the WAPC in March 2021 and the area subject of the LSP is still very much in a rural condition.

The development site represents 2,392sqm of the wider Lot 57. The entire lot is in a rural condition and will be urbanised on a staged basis, with the child care facility representing the first stage. The subsequent stages will relate to residential subdivision and development, in accordance with the LSP. The timing of subsequent stages is subject to a range of factors.

The proposed development has been designed and set up in a way which enables it to be constructed in current site conditions, and easily adapted once the surrounding land is urbanised in accordance with the LSP. This is most relevant to the access and servicing arrangements of the development.

We have reviewed the agenda for the upcoming MOJDAP/259 and are pleased that this application is recommended for **approval**.

The application has been supported by the Shire of SJ on the basis that this development is consistent with the planning framework and will increase childcare services / employment opportunities which would support population growth in the area. These sentiments are supported by the applicant.

We have carefully reviewed the recommended conditions and respectfully request a number of modifications, listed out as follows:

- Condition 6 (setting aside land for road reserves and recreation) – amend wording to better clarify the intent of the condition. The timing of the condition is also more reasonably modified to ‘prior to occupation’, rather than ‘prior to the issue of a building permit’.
- Condition 7 (footpath extension and construction of POS) – amend wording to delete limb (i) and (ii), as both of these items are considered to fail the test of need and nexus in relation to this development proposal.
- Condition 13 (landscape and revegetation plan) – amend wording to delete reference to the multiuse corridor, on the basis this does not meet the test of need and nexus.
- Condition 21 (financial contribution for Briggs Road resurfacing) – delete on the basis it is unreasonable, inequitable and fails the test of need and nexus.

The above modifications are explained on the subsequent pages of this submission.

REQUESTED MODIFICATION OF CONDITION 6

Proposed condition wording
6. Prior to ~~the issue of a Building Permit for the development~~ occupancy, the land required for the future construction of Indigo Parkway and the public open space (multiuse corridor) where it exists on the subject land, is to be ~~precipitated~~ set aside as a road reserve and reserve for recreation and drainage respectively by subdivision of the subject land, as depicted within the 'Area D Briggs Larsen Precinct Local Structure Plan', to the satisfaction of the Shire of Serpentine Jarrahdale.

The above changes afford the proponent a more reasonable timeframe in which to deal with land required for local road reserves and Public Open Space (**POS**) under the LSP. Requiring this to occur before a building permit can be applied for creates an unnecessary and avoidable delay to the project. The wording is also slightly adjusted to enhance the clarity of the condition.

REQUESTED MODIFICATION OF CONDITION 7

Proposed condition wording
7. Prior to the issue of a Building Permit or approval of earthworks / civil plans (whichever comes first), updated development plans shall be submitted to and approved by the Shire of Serpentine Jarrahdale which depict the following being undertaken as part of the development: *~~(i) A new footpath being extended on the eastern side verge of Briggs Road to link the development to the existing footpath on Larsen Road;~~* *(ii) The verge abutting the development site on the subject land being upgraded to an urban standard, to match the verge standard approved as part of the adjoining resident subdivision on the western side of the Briggs Road;* *~~(iii) The landscaping and drainage design of the multiuse corridor, in order to reflect the continuation of the design elements located west of the subject land, namely central living stream, offline vegetated swales, lighting and pathways;~~* *Once approved, the applicant must undertake and complete all infrastructure upgrade works prior to the commencement of the development's operations.*

The requirement to extend a footpath south along Briggs Road to connect to the existing footpath on Larsen Road under limb (i) is too onerous and fails to meet the test of need and nexus in relation to this child care development. This is evidenced by:

- The footpath extension equates to over **250m** of distance from the proposed centre. The magnitude of this extension is far beyond what would reasonably be expected as a result of the development of a small portion of a wider site within the LSP area.
- The childcare facility does not generate the need for this footpath extension. The entire Area D precinct is still rural, and the Shire's desired footpath extension would lead to large rural lots, not to any suburban locality. There are only **eighteen** properties that would have any discernible benefit from this footpath extension. It is more likely that rural properties would drive to the centre than walk.
- The area is still yet to be urbanised. The footpath extension will be delivered when urbanisation is progressed in accordance with the LSP. Not only is this the more appropriate time for the upgrade to occur, it also means the upgrade will be delivered equitably amongst the relevant landowners at the time of subdivision.
- At MOJDAP/252, the Panel resolved to delete a similar condition for a child care premises at the western side of Briggs Road.

The requirement to deliver a landscaping and drainage design for the POS area under limb (iii) is onerous, unreasonable and fails the need and nexus test. There is no relationship between the requirement to construct the POS area and the approval of this child care development, hence this is a disproportionate measure.

The delivery of POS is more appropriately coordinated as part of the subdivision process when the site and its surroundings are urbanised. POS is generally triggered as a result of population increase, which will not be the direct result of this development and will be the direct result of subdivision for urban purposes in the future.

REQUESTED MODIFICATION OF CONDITION 13

Proposed condition wording
13. Prior to the issue of a Building Permit, a Landscape and Revegetation Plan shall be submitted to and approved by the Shire of Serpentine Jarrahdale. This is required to include the full extent of verge adjoining the development site~~, and the multiuse corridor~~. Once approved, the Landscape and Revegetation Plan shall be implemented in its entirety and maintained thereafter by the operator, to the Shire's satisfaction.

For the same reasons as outlined for Condition 7(iii).

REQUESTED DELETION OF CONDITION 21

Condition 21 requires a $24,000 contribution toward the upgrade of Briggs Road between the development site and Larsen Road. Based on commentary in the RAR, it is understood this contribution is required to upgrade a "very poor" section linking to Larsen Road.

The required upgrade is unreasonable, inequitable, and does not meet the test of need and nexus for the following reasons:

- The Shire's calculations for this upgrade as set out in the RAR totally ignore existing traffic volumes along Briggs Road, and are only based on projected traffic increase associated with the child care development. Based on March 2022 traffic counts, Briggs Road south of Thomas Road carried 3,829 daily vehicles. It is not fair or equitable that this development should contribute toward an upgrade of a portion of Briggs Road, which is already utilised by many other properties in the locality.
- Briggs Road is not covered by the Development Contribution Plan (**DCP**) for the locality, though it would have been anticipated that traffic volumes would increase due to the urbanisation / intensification of the surrounding structure planned areas. It is not reasonable for this shortcoming to be addressed on an ad-hoc basis, particularly when the Shire has funded the upgrade of a different section of Briggs Road further south.
- The road is already regularly used and its traffic volumes will steadily increase as urbanisation of the surrounding areas occurs, hence any perceived safety issues with this road are equally relevant to all properties using it, not just this development site.

3 CONCLUSION

Approval is sought for a new childcare premises on a 2,392sqm portion of Lot 57 Briggs Road, Byford. Whilst we are pleased that the development is recommended for **approval** and thank the Shire for its collaboration, several modifications to the approval conditions are requested. I look forward to presenting in support of this proposal on Thursday 13th July.

ALESSANDRO STAGNO
APEX PLANNING

Lot 57 Briggs Road, Byford - Proposed Child-Minding Centre

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Outer Joint Development Assessment Panel	
Local Government Area:	Shire of Serpentine Jarrahdale	
Applicant:	Apex Planning	
Owner:	DRB Developments Pty Ltd	
Value of Development:	$2.05 million ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)	
Responsible Authority:	Shire of Serpentine Jarrahdale	
Authorising Officer:	Andrew Trosic Director Development Services	
LG Reference:	PA23/172	
DAP File No:	DAP/23/02453	
Application Received Date:	10 March 2023	
Report Due Date:	26 June 2023	
Application Statutory Process Timeframe:	90 Days	
Attachment(s):	1. Developments Plans 2. Schedule of Submissions and Applicant Response 3. Deemed Provisions Regulations Clause 67 Checklist 4. Environmental Acoustic Assessment 5. Updated Traffic Impact Assessment 6. Updated Bushfire Management Plan 7. Soil Site Evaluation Report 8. Council Report	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	☐ Yes ☐ N/A	Complete Responsible Authority Recommendation section
	☐ No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

That the Metro Outer Joint Development resolves to:

1. **Accept** that the DAP Application reference DAP/23/02453 is appropriate for consideration as a "Child Minding Centre" land use and compatible with the objectives of the zoning table in accordance with Clause 3.2 of the Shire of Serpentine Jarrahdale 2 Town Planning Scheme No. 2.

2. **Approve** DAP Application reference DAP/23/02453 and accompanying plans (SK007) dated November 2022 in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the provisions of the Shire of Serpentine Jarrahdale Planning Scheme No. 2, subject to the following conditions:

Conditions

1. Pursuant to clause 26 of the Metropolitan Region Scheme, this approval is deemed to be an approval under clause 24(1) of the Metropolitan Region Scheme.
2. This decision constitutes planning approval only and is valid for a period of Four (4) years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
3. The development is to be carried out in compliance with the plans and documentation listed below except where amended by other conditions of this consent

Plans and Specifications	Development Plans dated November 2022 Updated Transport Impact Statement dated April 2023 Environmental Acoustic Assessment dated 20 February 2023 Updated Bushfire Management Plan dated 9 May 2023 Soil Site Evaluation Report dated 16 February 2023

4. The maximum number of children on the premises shall not exceed 104.
5. The operating hours shall be between 6:30am and 6.30pm, Monday to Friday.
6. Prior to the issue of a Building Permit for the development, the land required for the future construction of Indigo Parkway and the public open space (multiuse corridor) where it exists on the subject land, is to be precipitated as a road reserve and reserve for recreation and drainage respectively by subdivision of the subject land, as depicted within the 'Area D Briggs Larsen Precinct Local Structure Plan', to the satisfaction of the Shire of Serpentine Jarrahdale.
7. Prior to the issue of a Building Permit or approval of earthworks / civil plans (whichever comes first), updated development plans shall be submitted to and approved by the Shire of Serpentine Jarrahdale which depict the following being undertaken as part of the development:
    (i) A new footpath being extended on the eastern side verge of Briggs Road to link the development to the existing footpath on Larsen Road;
    (ii) The verge abutting the development site on the subject land being upgraded to an urban standard, to match the verge standard approved as part of the adjoining resident subdivision on the western side of the Briggs Road;

(iii) The landscaping and drainage design of the multiuse corridor, in order to reflect the continuation of the design elements located west of the subject land, namely central living stream, offline vegetated swales, lighting and pathways;

Once approved, the applicant must undertake and complete all infrastructure upgrade works prior to the commencement of the development's operations.

8. Prior to the occupation of the development, vehicle parking areas, access ways and crossovers shall be designed, constructed, sealed, kerbed, drained and line marked in accordance with the approved plans and thereafter maintained to the satisfaction of the Shire of Serpentine Jarrahdale.

9. A minimum of one car parking bay is to be provided and marked for the exclusive use of vehicles displaying government issued disabled parking permits. Such bay shall be located conveniently to the principal building entrance and designed in accordance with the relevant Australian Standard.

10. Prior to issue of a Building Permit, the applicant shall submit a Noise Management Plan to the specifications and satisfaction of the Shire of Serpentine Jarrahdale. The Noise Management Plan shall be prepared to ensure appropriate measures are designed and implemented for the development to achieve compliance with the *Environmental Protection (Noise) Regulations 1997,* with particular regard to the following points:

    (i) The design of the wall on the south side of the building;

    (ii) The management of outdoor play areas;

    (iii) The management of indoor activities;

    (iv) The design and shielding of mechanical plant;

    (v) Parking arrangement for drop off before 7:00am.

    Once approved, the Noise Management Plan shall be implemented in its entirety to the satisfaction of the Shire. The plan shall demonstrate the development incorporating all design and operational recommendations as specified within the Environmental Acoustic Assessment, to the satisfaction of the Shire of Serpentine Jarrahdale where associated with construction requirements integrated into plans submitted for a building permit.

11. Prior to issue of a Building Permit, a Waste Management Plan shall be submitted to and approved by the Shire of Serpentine Jarrahdale. Once approved, the Waste Management Plan shall be implemented in its entirety to the satisfaction of the Shire.

12. Prior to issue of a Building Permit, an updated Soil Site Evaluation report is to be submitted to and approved by the Shire of Serpentine Jarrahdale on advice by the Department of Health. The updated report is required to be:

    (i) Modelled during the wettest season times of the year (mid-July-August);

    (ii) Demonstrate that stormwater management does not interfere with the efficacy of the effluent disposal area;

    (iii) A plan detailing the proposed building area, trafficable areas, parking bays setback to land application areas and exclusion areas.

13. Prior to the issue of a Building Permit, a Landscape and Revegetation Plan shall be submitted to and approved by the Shire of Serpentine Jarrahdale. This is required to include the full extent of verge adjoining the development site, and the multiuse corridor. Once approved, the Landscape and Revegetation Plan shall be implemented in its entirety and maintained thereafter by the operator, to the Shire's satisfaction.

14. Prior to the issue of a Building Permit, a Stormwater Management Plan shall be submitted to and approved by the Shire of Serpentine Jarrahdale. All stormwater shall be directed so stormwater is disposed of within the property. Direct disposal of stormwater onto the road, neighbouring properties, watercourses and drainage lines is not permitted. Stormwater may be managed through either soak wells, raingardens or a combination of the two.

15. Prior to issue of a Building Permit, a Signage Strategy must be submitted to and approved by the Shire of Serpentine Jarrahdale. The Strategy shall demonstrate compliance with Local Planning Policy No 4.11 - Advertising Signs. Once approved, signage shall be displayed and maintained in accordance with the Strategy.

16. Prior to occupation of the development, the provision of percent for art being provided in accordance with Local Planning Policy 1.6 - Public Art for Major Developments to the satisfaction of the Shire.

17. Prior to issue of a Building Permit, the landowner/applicant contributing towards development infrastructure, pursuant to the Shire of Serpentine Jarrahdale Town Planning Scheme No. 2.

18. Prior to issue of a Building Permit, a Construction Management Plan is to be submitted to and approved by the Shire of Serpentine Jarrahdale. The Plan should address the following matters:

    (i) Management of car parking, delivery vehicles and traffic associated with the construction of the development;

    (ii) Management of dust and noise.

19. Within three months of the completion of the construction of Indigo Parkway and the eastern access road as depicted within the Subdivision Guide Plan of the 'Area D Briggs Larsen Precinct Local Structure Plan', the access arrangement onto Indigo Parkway will be required to be modified to exit only (left out) and a new full movement access/egress arrangement constructed to the access road to the east to the satisfaction of the Shire of Serpentine Jarrahdale.

20. Once the development is connected to sewer, the wastewater system is to be decommissioned to the satisfaction of the Shire of Serpentine Jarrahdale. The wastewater irrigation area is to be remediated prior to being used for any other purpose to the satisfaction of the Shire.

21. Prior to the issue of a Building Permit, a financial contribution of $24,000 being made to the Shire, reflective of the costs to resurface the 160m section of Briggs Road relied upon for access by the development, with the contribution based upon the pro-rata generation of traffic emanating from the development.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban Zone
Local Planning Scheme	Shire of Serpentine Jarrahdale Town Planning Scheme No. 2 (TPS2)
Local Planning Scheme - Zone/Reserve	Urban Development Zone
Structure Plan/Precinct Plan	Byford District Structure Byford Area D Larsen Precinct Local Structure Plan
Structure Plan/Precinct Plan - Land Use Designation	Residential
Use Class and permissibility:	Child Minding Centre is an 'SA' land use in the 'Residential' zone
Lot Size:	2,392m
Existing Land Use:	Residential
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☒ N/A ☐ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	Yes
Swan River Trust Area	No

Proposal:

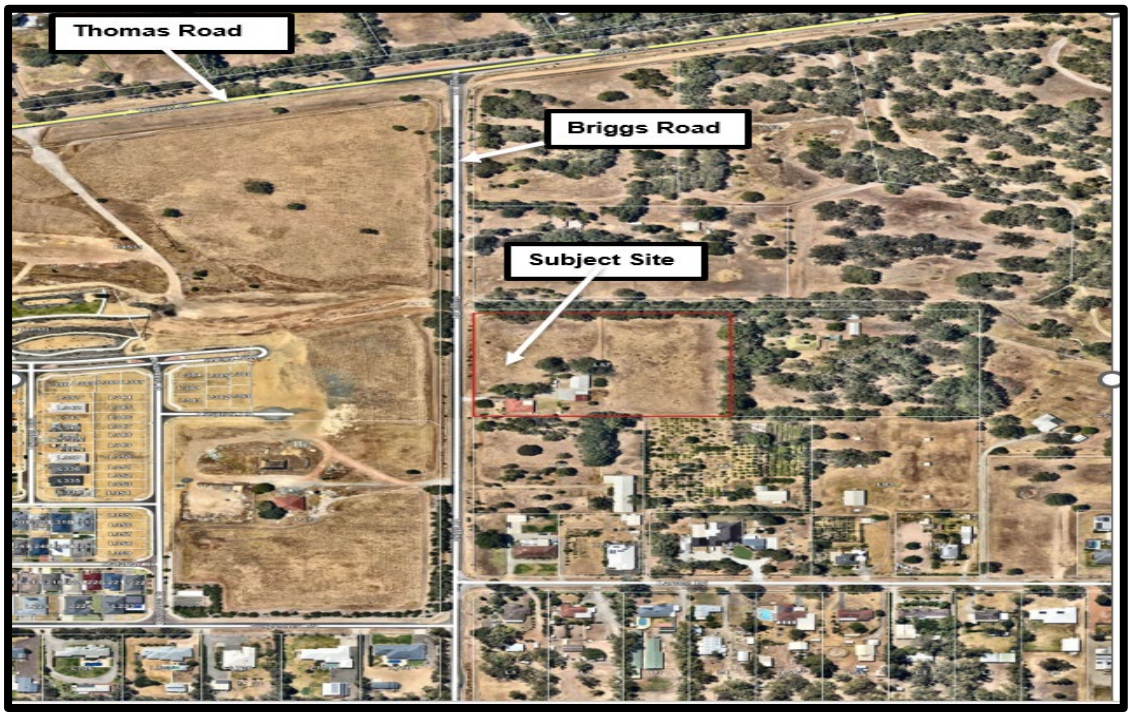
Proposed Land Use	Child Mind Centre
Proposed Net Lettable Area	NA
Proposed No. Storeys	One
Proposed No. Dwellings	NA

The development application is for a 'Child Minding Centre' on Lot 57 Briggs Road, Byford. The development proposes the construction of a new Child Minding Centre for 104 children, associated outdoor play areas, landscaping, signage and car parking.

Background:

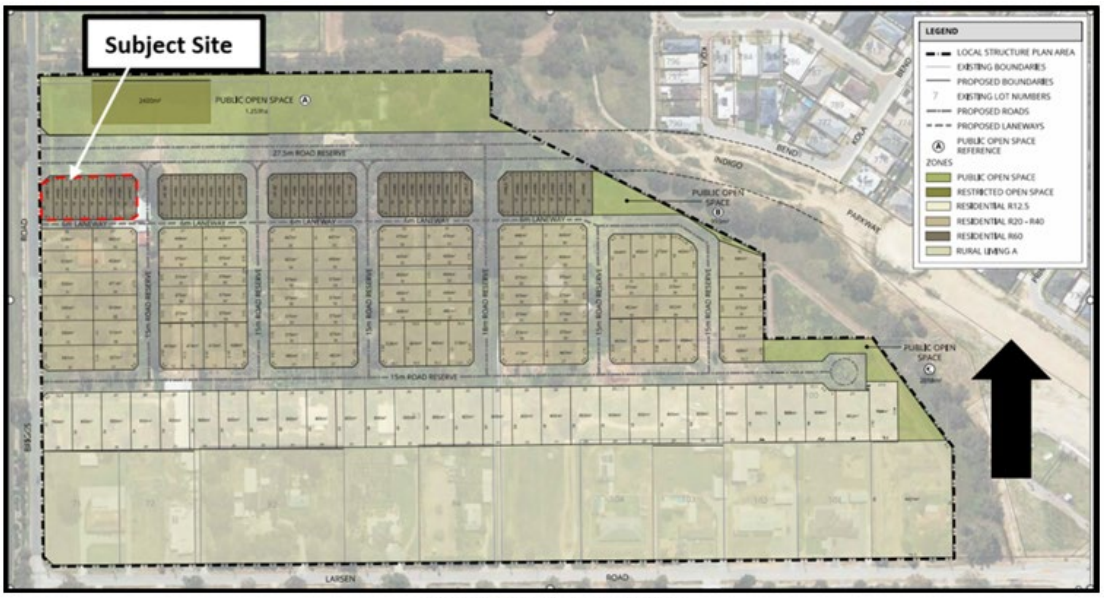
Existing Development

The subject site forms part of Lot 57 Briggs Road which has a total area of 2.0124ha. The site is currently designated as ‘Residential’ within the 'Area D Briggs Larsen Precinct Local Structure Plan' (LSP). It is bound by Briggs Road to the east and the road reserve for the future Indigo Parkway to the north. The Oaklands Main Drain runs parallel to the northern boundary.



The subject site is developed with a single-storey semi-rural dwelling with associated outbuildings, located to the south-western portion of the lot. The remainder of the land consists of large open grassed paddocks with mature vegetation along boundaries to the north and east. Land to the west is undergoing progressive urbanisation with ongoing subdivisions to facilitate low-medium density housing and road infrastructure being constructed.

The site is also subject to an indicative subdivision plan which was prepared as part of the LSP which provides an indicative layout of how the site would ultimately be subdivided. This can be seen following:



Subdivision Guide Plan

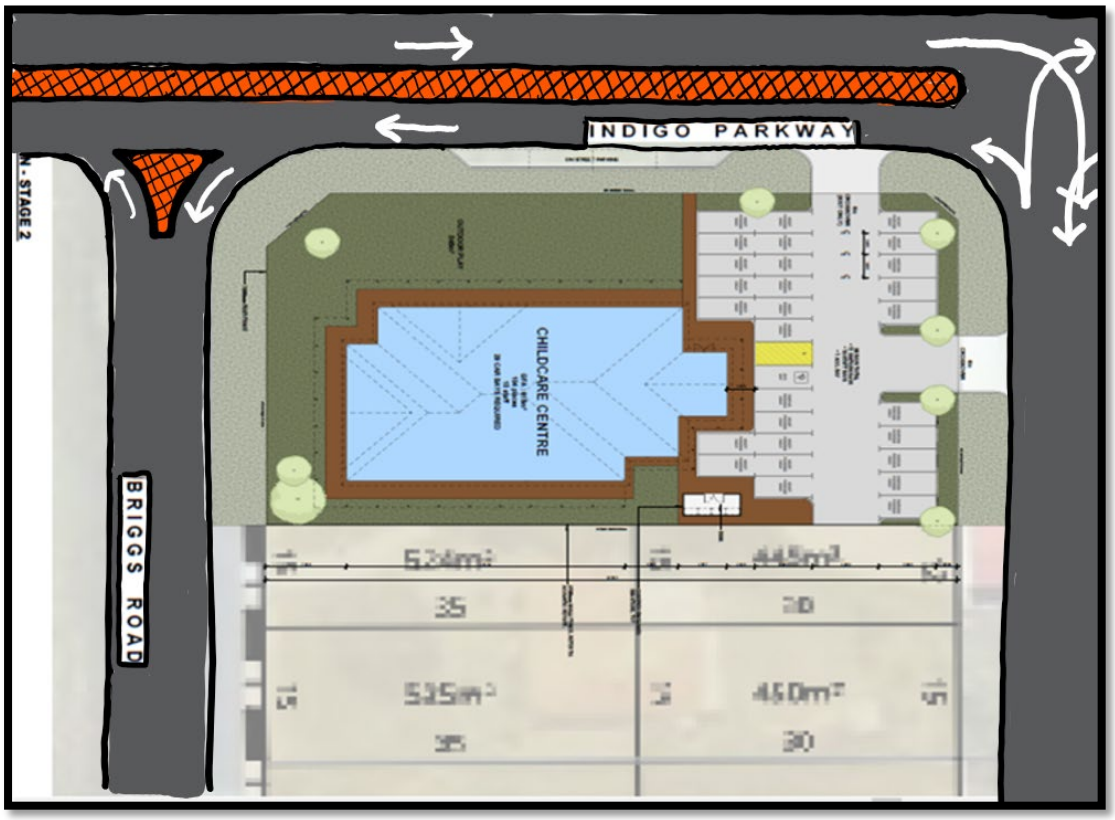
Proposed Development

The proposal seeks approval for the construction of a single storey purpose built 'Child Minding Centre'. The proposed development would occupy 2,392m^2 of the current overall land parcel of 2.024ha, which is identified as 'Residential' within the LSP for the site. The development is proposed to accommodate 104 children and 18 staff.

Vehicle access to the subject site is proposed to be in two stages. Stage 1 which is based on the current road network involves the construction of an interim driveway to Briggs Road. Stage 2 includes the ultimate development scenario as per the LSP, including the construction of Indigo Parkway (north of site) and an access road (to the east). This would result in a minor reconfiguration to access/egress arrangements of the site whereby Indigo Parkway will be an exit only (left out) and the access road to the east resulting in full movement. The two scenarios are shown following:


SITE PLAN - STAGE 1
BRIGGS ROAD
CHILDCARE CENTRE
524m²
445m²
535m²
450m²

Stage 1



Stage 2

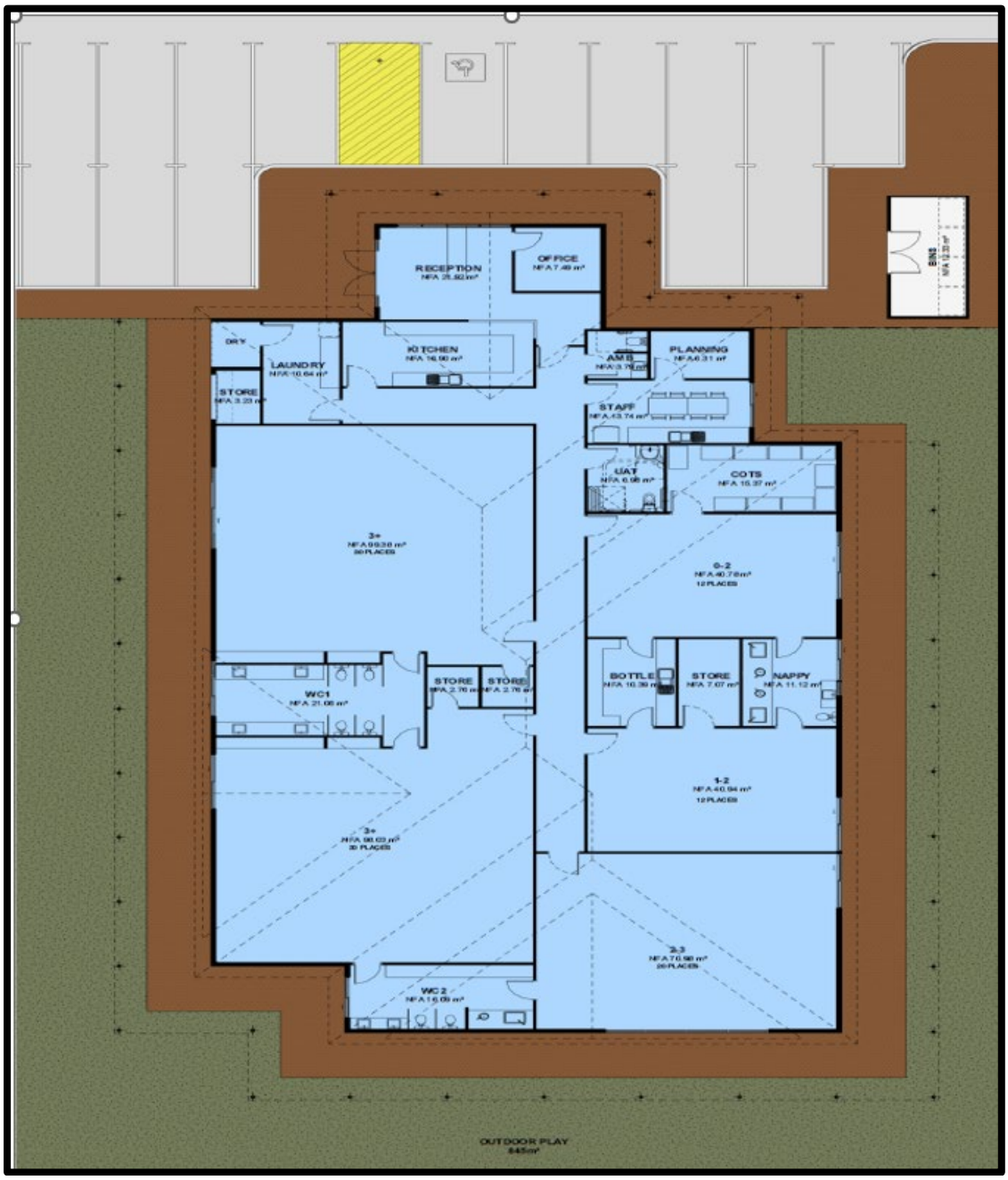
The Child Minding Centre is proposed to operate between the hours of 6:30am - 6:30pm Monday to Friday. The Child Minding Centre is expected to employ up to a maximum of 18 staff across the operations in varying shift times. The applicant provided information that the centre will accommodate children within the following age groups:

- 0-2 years: 24 places;
- 2-3 years: 20 places;
- 3+ years: 60 places.

Specifically, the proposal includes:

- Building comprising of a reception area, office, planning room, staff amenities, staffroom, kitchen, childrens toilets with storage areas, dining area, cots room, nap change/toilets, enclosure bin store, toilets, laundry and storage areas;
- Construction of Stage 1 car park with 31 car parking bays comprising of 12 spaces (visitors) for pick-up and drop-off, 18 staff car parking spaces including one universal access bay;
- Construction of a new six metre crossover on Briggs to provide direct full movement access to the stage 1 car parking area via an internal driveway;
- Construction of outdoor play areas with a total area of 845m^2 provided to the eastern, western and southern aspects of the building;

- Construction of 1.8m garrison style fencing long Briggs Road frontage and future Indigo Parkway along the northern boundary;
- Construction of 2.1 m high acoustic solid fence/wall of minimum (8kg/m^2) surface mass along the outdoor play area's southern boundary abutting future dwellings;
- Perimeter landscaping (2m) along the northern and western car park boundary;
- A fully enclosed bin store along the western boundary.



Legislation and Policy:

Legislation

- *Planning and Development Act 2005*
- Planning and Development (Local Planning Schemes) Regulations 2015
- Environmental Protection (Noise) Regulations 1997
- Planning and Development (Development Assessment Panel) Regulations 2011
- Metropolitan Region Scheme

State Government Policies

- South Metropolitan Peel Sub-Regional Framework Towards Perth and Peel 3.5 Million
- Planning Bulletin 72/2009 - Child Care Centres
- Environmental Protection Authority Environmental Assessment Guideline for Separation Distances

Local Planning Framework

- Shire of Serpentine Jarrahdale Town Planning Scheme No. 2
- Draft Shire of Serpentine Jarrahdale Local Planning Scheme No. 3
- Shire of Serpentine Jarrahdale Local Planning Strategy
- Byford Area D Briggs Larsen Precinct Local Structure Plan

Local Planning Policies

- Local Planning Policy 1.4 - Public Consultation for Planning Matters (LPP1.4)
- Local Planning Policy 1.6 - Public Art for Major Developments (LPP1.6)
- Local Planning Policy 2.4 - Water Sensitive Design (LPP2.4)
- Local Planning Policy 4.15 - Bicycle Facilities Policy (LPP 4.15)
- Local Planning Policy 4.16 - Landscape and Vegetation Policy (LPP4.16)
- Local Planning Policy 4.24 - Child Minding Centres (LPP4.24)

Consultation:

Public Consultation

The application was advertised for a period of 28 days from 20 March 2023 to 17 April 2023 to surrounding landowners within a 500m radius of the subject site, in accordance with LPP1.4 - Consultation for Planning Matters. The application was also advertised on the Shire's website for the same period.

At the conclusion of the consultation, 12 submissions consisting of six objections, three letters of concern and three letters of support were received. The objections and concerns relate to the following summarised issues, which are discussed in the relevant headings of the report and form part of the Officer assessment:

- Safety concerns due to potential localised traffic congestion from the proposal and from the future school and child care centre to the east;
- Traffic movements on the existing road network and potential unsafe traffic and pedestrian environment;
- An upgrade to the Briggs Road and Thomas Road intersection considered to be narrow and in poor condition to support additional traffic;
- Upgrade or widening of Briggs Road to be able to cater for additional traffic movements and potential congestion concerns;
- Inappropriate development is a semi-rural locality earmarked for R60 future residential dwellings thereby reducing the dwelling yield forecast in Byford;
- Lack of footpaths and street lighting along Briggs Road to support the development;
- Increased number of Child Minding Centres within the locality;
- Premature development is not in line with proper and orderly planning due to lack of the appropriate road infrastructure and reticulated sewerage to support the premises;
- Inconsistency of the proposed access way with the ultimate road network presented within the subdivision concept plan that does not provide direct lot access to Indigo Parkway;
- Potential for the intersection of Briggs Road and Indigo Parkway becoming an uncontrolled intersection for cars and pedestrians trying to cross Briggs Road;
- Proposal is not consistent with the Department of Planning, Lands, and Heritage (DPLH) Draft position statement: child care premises with regards to co-location;

Referrals/consultation with Government/Service Agencies

Department of Health (DoH)

The application was referred to the Department of Health who provided no in principle objections to the proposed Child Care Premises subject to ensuring the following are provided during the planning approval process.

Water Supply and Wastewater Disposal
In relation to the management of wastewater, the proposal is to install an onsite wastewater treatment system and disposal area. Unfortunately, the proposed location does not meet the Government Sewerage Policy 2019 objectives, that require a 100-metre setback from winter creeks or the seasonal brook. In addition, the site and soil evaluation (SSE) was not undertaken during the

wettest time of the year, but rather the warmest time of the year, being mid-January. This could significantly influence the minimum design criteria of the effluent disposal area.

DoH appreciates the lot is currently of significant size and should be able to manage wastewater onsite. Therefore, the department supports the proposal subject to ensuring the following are provided during the planning approval process.

As deep sewerage is surrounding the proposal, the DoH recommends connection to deep sewerage as the preferred option and seek costings and schedules for this option vs onsite wastewater treatment options and schedules; If it is not financially viable to connect to deep sewerage.

- *Another specific site and soil evaluation (SSE) report is required for the above proposal that should be undertaken by a qualified consultant that is conducted during the wettest seasonal time of the year only (Mid-July/August) as per AS/NZS 1547:2012 requirements.*
- *As the proposed lot is within an environmentally sensitive area, the secondary treatment system (STS) should be engineer Certified detailing the requirements as specified on the DoH website certification for installation of wastewater treatment systems.*

To ensure the stormwater catchment and diversion/disposal does not influence or interfere with the efficacy of the effluent disposal area.

- *A plan detailing the proposed building envelopes, all trafficable areas, parking bays and land application area/s with setbacks, exclusion zones and measurements shown for the proposal.*
- *Each onsite wastewater treatment system and disposal area requires a formal application to be submitted to the respective local government for assessment and that will be forward onto the DoH for approval.*

<u>Public Health Impacts</u>

- *The site was a former farmhouse and out-buildings and portion of cleared bushland used for grazing. The submission provides no information on the age and construction of the existing buildings, the presence or absence of hazardous materials (including asbestos, fuel tanks, agricultural chemicals etc) or the measures to prevent the release of hazardous materials during any proposed demolition prior to development, causing land contamination.*
- *The site is not registered on the Department of Water and Environmental Regulation contaminated sites database. However, the proponent is advised to obtain a Basic Summary of Records to complete their enquiries*
- *Consideration should be given to the setback of the facility from the main road. There are currently no guidelines for setbacks of child-care premises from busy roads but there is consistent evidence of adverse short and long-term health outcomes in children exposed to traffic-related air pollution (TRAP). The DoH recommends a setback of at least 50m for the main buildings and play areas. The DoH also recommends vegetation barriers between the road and the site.*

Food Act Requirements

- *All food related areas (kitchen, preparation areas, etc.) to comply with the provisions of the Food Act 2008 and related code, regulations and guidelines.*

Department of Water and Environmental Regulation (DWER)

The application was referred to the Department of Water and Environmental Regulation who provided no in principle objections to the proposed Child Care Premises, subject to the following key matters being given due consideration.

Government Sewerage Policy

Lot 57 Briggs Road is within a sewage sensitive area, as it is located with the Peel-Harvey coastal plain catchment. The requirements of the Government Sewerage Policy (GSP) (DPLH, 2019) apply including site requirements for on-site sewerage disposal.

It is acknowledged that a Site and Soil Evaluation (SSE) was included within the application and comments pertaining to the SSE. The SSE lacks detail to demonstrate Lot 57 can manage on-site wastewater treatment and disposal prior to the availability of reticulated sewerage associated with urbanisation of the surrounding area. It is recommended that the SSE is provided to the Department of Health for assessment.

Stormwater Management

DWER recommended for the car park stormwater drainage system to be designed, constructed and managed in accordance with the Stormwater Management Manual for Western Australia (DWER, 2022). Stormwater management within the site should be in accordance with Lots 57, 58 and 70 Briggs Road and Lots 53, 81, 83, 100 and 105 Larsen Road, Byford Local Water Management Strategy (360 environmental, October 2020).

The Department recommends that the first 15mm of stormwater runoff passes through a water quality treatment process, such as rain gardens or tree pits, before infiltration. Flush kerbing between the carpark and surrounding garden beds will assist in capturing stormwater.

Water Supply

Lot 57 is not currently connected to a reticulated potable water supply. An alternative water supply may be required for development on this lot if the proposed water main extension on Briggs Road/future Indigo Parkway (Byford Meadows Estate) has not been completed.

The proposed development area is located within the Serpentine Groundwater Area (Byford 3 sub area) which is proclaimed under the Rights in Water and Irrigation Act 1914. Any groundwater abstraction would be subject to licencing by the Department.

Noise Assessment Report

To be discussed in the noise assessment section of the report.

Water Corporation

The application was referred to Water Corporation who provided no in principle objections to the proposal and provided the following advice:

- *The proposed development does not appear to affect Water Corporation assets. If our assets are affected, the developer may be required to fund new works, or the upgrading of existing works and protection of all works associated with the Water Corporation. Water Servicing is available to the site, Wastewater servicing is not however. The proponent has stated in their planning report that will utilise onsite effluent disposal which is suitable for a lot of this size under the State Sewerage Policy.*
- *This proposal will require approval by our Building Services section prior to the commencement of works. Infrastructure Contributions and fees may be required to be paid prior to approval being issued.*

Department of Fire and Emergency Services (DFES)

DFES provided a submission requiring further clarification within the Bushfire Management Plan in relation to the following matters:

- Classification of vegetation within Plot 2 and Plot 3 and detail specifically how the Class G Grassland classification was derived.
- Correct reflection of the BAL ratings subject to correct vegetation classification
- Inconsistency of the APZ distance throughout the BMP

In response to concerns raised the applicant provided a revised BMP addressing concerns. Offices consider that the revised BMP complies with the policy measure outlined within the *State Planning Policy 3.7: Planning in Bushfire Prone Areas*.

Main Roads Western Australia (MRWA)

The application was referred to MRWA who had no objections to the proposal.

A summary of the submissions including applicant comments can be viewed in attachments.

Design Review Panel Advice

Not Applicable

Swan Valley Planning

Not Applicable

Other Advice

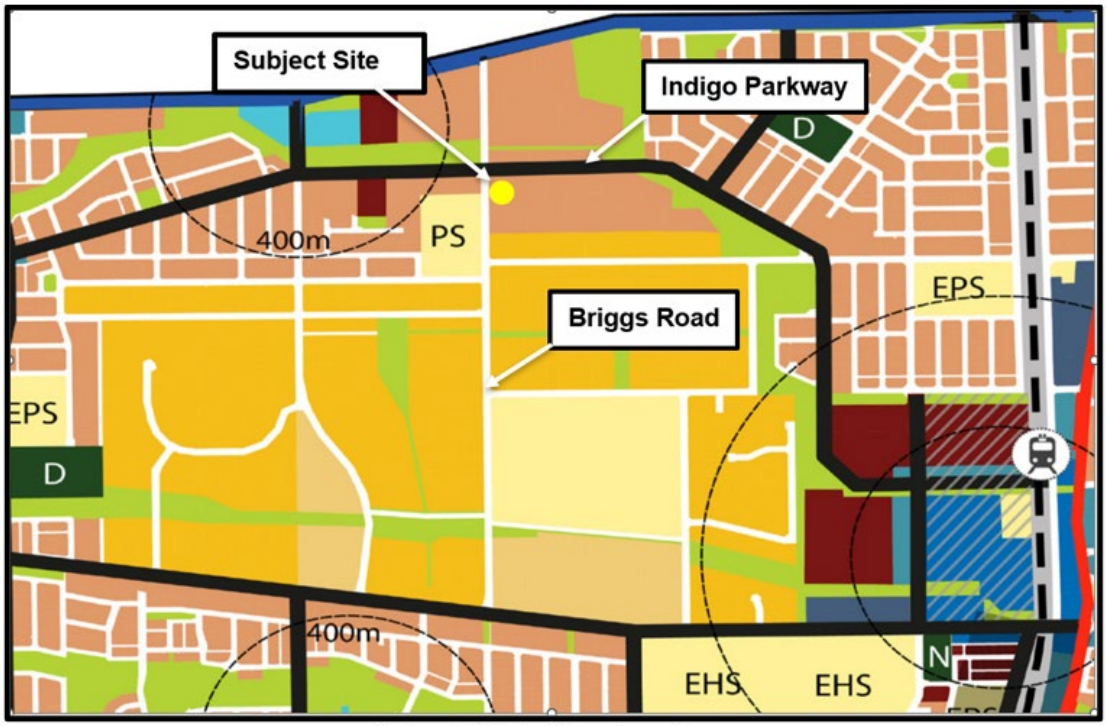
Not Applicable

Planning Assessment:
The proposal has been assessed against the relevant legislative requirements of the Shire of Serpentine Jarrahdale No. 2, Draft Local Planning Scheme No.3 (LPS3), Local Planning Strategy (LPS), Byford District Structure Plan 2020, Byford Area D Larsen Precinct Local Structure Plan and State Policy and Local planning policies.

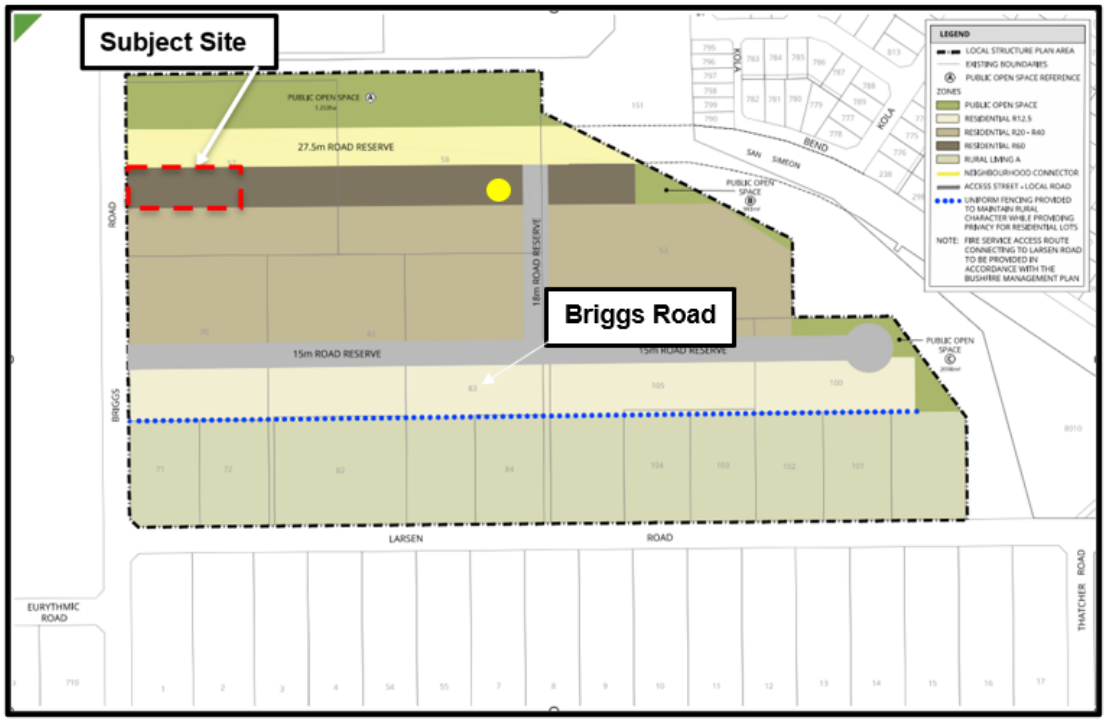
Town Planning Scheme No. 2 (TPS2)

The subject site is zoned 'Urban Development' under the Shire's TPS2. Clause 5.18 of TPS2 sets out the objective of the 'Urban Development' zone as "*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"*. This objective is facilitated through the preparation of Structure Plans, which guide land use permissibility and development.

The subject site is identified as 'Residential' within the Byford District Structure Plan 2020 (BDSP), and the LSP which provide the relevant land use permissibility and indicative land use designation applicable to the site. The proposed land use can be considered within the 'Residential' designation of the structure plans. The two structure plans, showing the land in question, are provided following:



Byford District Sructure Plan



Byford Area D Briggs Larsen Precinct Local Structure Plan

Land Use

The proposal falls within the TPS2 definition of 'Child Minding Centre', which 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".*

The Child-Minding Centre is an 'SA' land use in the 'Residential' zone consistent with the residential designations of the structure plans. SA means, *"that Council may, at its discretion, permit the use after notice of the application has been given in accordance with Clause 64 of the Deemed Provisions."* An 'SA' land use requires the Shire to consider all submissions received and the broader planning framework in applying its discretionary powers to determine an application for approval.

Officers consider that the development, by way of scale, height, orientation intensity and form of development is consistent with the current and intended future amenity of the area. In addition to the future primary school and child minding centre to the west, the locality will be characterised by land uses that attract a higher level of activity compared to other locations within the structure plan area thereby forming an edge to the neighbourhood. Placement of these higher activity generating land uses on the edge of the neighbourhood allows effective management of current and future amenity for the area.

Officers further consider that the design of the development is sympathetic to the existing and the future residential development as it seeks to incorporate design elements such as verandahs, soft tones, pitched roofs and gable

features to the building which, when viewed from the street, would appear residential in form. This will provide a high degree of compatibility with adjoining and nearby medium residential density developments located within the broader locality of the Byford Meadows and Redgum Brook estates.

During the consultation period, concerns were raised regarding the land use permissibility of a child minding premises within the 'Urban Development' zone. In that regard, Officers consider that the proposed land use is consistent with the stated purpose and intent of the 'Urban Development' zone, as guided by the relevant structure plans.

Draft Local Planning Scheme No.3 (LPS3) and Local Planning Strategy (LPS

The zoning of the subject site under draft Local Planning Scheme No.3 (LPS3) would remain zoned 'Urban Development'. The proposal will fall under the land use of 'Child Care Premises' which is defined as:

"means premises where -

(*a) an education and care service as defined in the Education and Care Services National Law (Western Australia) Section 5(1), other than a family day care service as defined in that section, is provided; or*

(b) a child care service as defined in the Child Care Services Act 2007 section 4 is provided".

The use is a discretionary use, subject to advertising within the 'Residential' zone of the structure plans as discussed above.

The land use is consistent with the stated purpose and intent of the 'Urban Development' zone, as guided by the relevant Structure Plans. The 'Residential' zone objective under LPS3 supports a range of non-residential uses, which are compatible with and complementary to residential development, encouraging high quality design, built form and streetscapes throughout residential areas which is appropriate to the climate. The design is considered to reflect such objectives.

Planning Bulletin 72/2009 - Child Care Centres

Location:

During the consultation process, concerns were raised in relation to the compatibility of the child minding centre in this locality. One of the objectives of Planning Bulletin 72/2009 - Child Care Centres is to *"locate child care centres appropriately in relation to their surrounding service area".*

The bulletin provides guidance of planning considerations in relation to the location and development of child care centres. It states that broadly, child care centre activities are located in residential areas and that the ever-increasing demand for child care centres and the strong focus on their appropriate distribution and location is closely linked to demographic change. The objectives of the policy are to:

a) locate child care centres appropriately in relation to their surrounding service area;

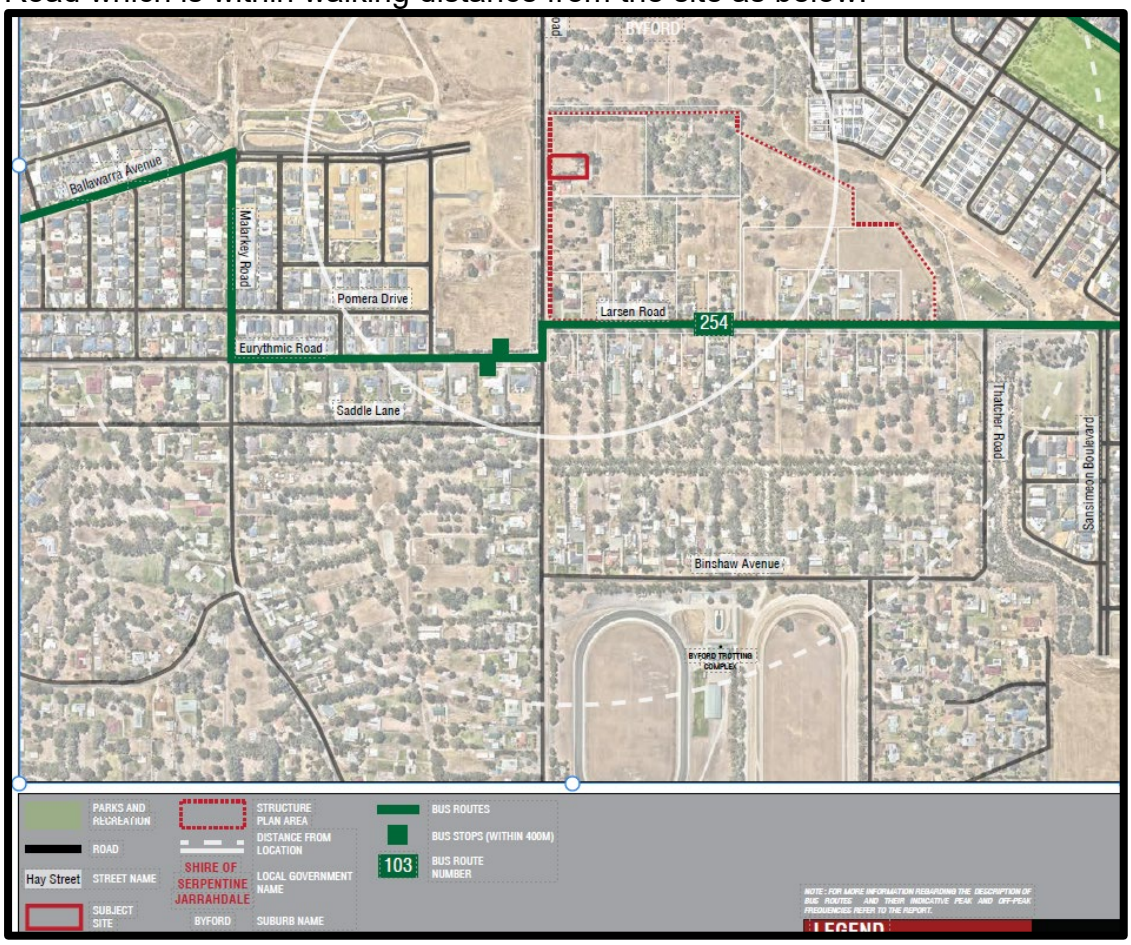
b) *minimise the impact a child care centre has on its surrounds, in particular on the amenity of existing residential areas;*

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.*

The bulletin states that centers should be located to provide the maximum benefit to the community and should be within an easy walking distance and serviced by public transport.

The proposal is in close proximity to land identified for a future school site to the west and is located approximately 400m from the Byford Meadows Neighbourhood Centre Precinct within a medium density housing environment. It is serviced by Transperth bus routes on Eurythmic Boulevard west of Briggs Road which is within walking distance from the site as below.



In this regard, Officers are satisfied that that the proposal is compatible with the adjoining land uses. However, as the site is located with the emerging area of Byford which is still undergoing urbanisation in accordance with the approved LSP, there are no pedestrian footpaths that enable residents from the nearby catchment areas to walk to the subject site. A footpath on Briggs Road would be extended from Eurythmic Road to Indigo Parkway consistent with this objective of the Bulletin. Officers consider that this needs to be addressed as part of a recommendation to the MODAP, in order to provide safe pedestrian access as noted to be a key consideration under the planning bulletin. A

condition is therefore recommended to ensure a new footpath being extended on the eastern side verge of Briggs Road to link the development to the existing footpath on Larsen Road.

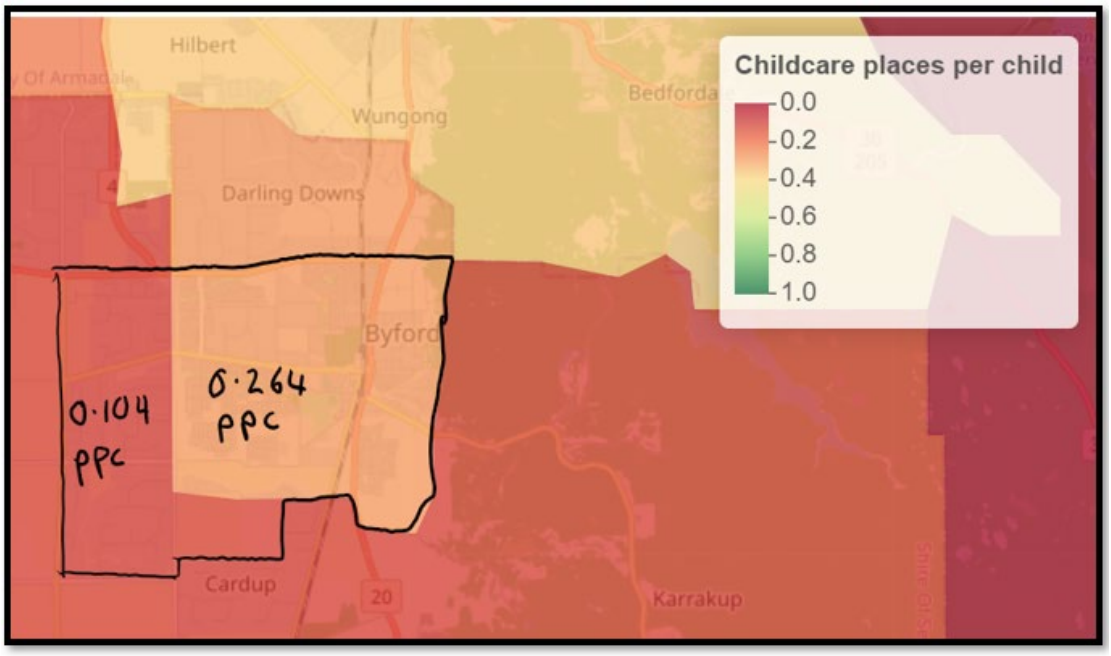
The bulletin also states that it is important in limiting the impact a 'Child Minding Centre' may have on surrounding activities and amenity of existing residential areas. In this regard, the development has been designed in such a way that the outdoor play area is located such that noise impacts to the adjoining future properties are reduced, by minimising the extent of playscape along the southern boundary and locating the youngest age groups in this area. The proposal demonstrates a configuration of development to moderate and manage as best possible noise impacts associated with the development. Noise is also later discussed in the report

During the consultation period, concerns were raised regarding the increasing number of child minding centres in the locality having an excess of four within 1km of the proposed. The planning framework does not specifically limit the number of business types to an area, recognising competitive neutrality as an important component of a market led economy.

Notwithstanding this, it is important for Council to consider the current situation pertaining to a lack of available childcare places, measured as a portion of theoretical places available per child. A recent study undertaken by Victoria University mapped the whole of Australia to determine supply gaps in the provision of childcare. It found that:

1. About 9 million Australians, 35% of the population, live in neighbourhoods classified as *childcare deserts* – populated areas where there are more than three children per childcare place.
2. The map below shows the accessibility of childcare across Australia. Areas in orange and red indicate suburbs more likely to have childcare deserts.

This reveals in respect of Byford:



Map showing childcare places per child

About two thirds of the suburb has only 0.26 childcare places available per child, with the remaining one third about 0.1 places per child. This is a significant issue, given the Shire is the fastest growing local government in Western Australia, and Byford the third fastest growing suburb in total numbers recently reported. Byford experienced the fourth largest number of new born children in WA in 2022 (394), as also recently reported in the regional growth statistics of the ABS. Lack of access to childcare correlates with primary carers having a lack of employment opportunities (particularly mothers). This has an adverse economic impact on both household and local income generation potential.

Overall, the proposal is considered consistent with Planning Bulletin 72/2009.

Car Parking

Clause 67(s) of the Deemed Provisions requires consideration be given to the adequacy of provision for parking of vehicles. As such, a car parking assessment has been undertaken against the requirements from TPS2 and draft LPS3.

Table V of TPS2 sets out the parking requirements for different land uses. The minimum number of car parking bays for a 'Child Minding Centre' is one space per five children accommodated. Accordingly, as the proposal seeks to accommodate up to 104 children, a minimum of 21 parking bays would need to be provided. The plans provided indicate that the proposal is compliant with the minimum TPS2 parking requirements, as it incorporates a total of 31 on-site parking bays including one disabled access bay for Stage 1 and a total of 29 on-site parking bays including one disabled access bay for Stage 2. Two bays will be removed for Stage 2 to allow for addition of a crossover for the future access road.

In terms of draft LPS3, the table below summarises the parking requirements:

Land Use	Parking Requirement	No of Children/Staff	Parking Required	Proposed Bays
Child Minding Centre	1:10 children, plus 1:1 employee	104 18	10.4 (11) bays 18 bays	13 18
Total			31	31

The proposal complies with the parking requirements under LPS3 for both the Stage 1 and Stage 2 scenarios. Officers have also considered that public transport is conveniently located nearby the subject land, leading to this mode of transport being available for use by families and staff alike. The bus stops would be accessible via a footpath along Briggs Road, which forms a recommended condition of approval.

Development Requirements

Clause 7.10 and table 2 of TPS2 sets out the development standards and site requirements for development. Consideration has been given to the requirements as they apply to the 'Residential' zone, which the land is designated as under the LSP.

Table 11 TPS2 set out site requirements for selected uses in the 'Residential' Zone

Child Minding Centre	Required	Provided	Complies
Setbacks			
Front (Briggs Road)	7.5m	7.5m to building 4.5 to verandah	Yes
Side (Future Indigo Parkway)	3.0m	9.8m to verandah 12.75m to building	Yes
Rear (Future access road)	7.5m	20m	Yes
Plot Ratio (ratio of the gross total of the areas of all internal floors of a building to the area of site)	0.5	0.26	Yes
Site Coverage (how much of site is covered by roofed area)	0.3	0.38	No

The development slightly exceeds the prescribed site coverage requirements of TPS2. Officers have considered that the slight exceedance on the site coverage would not adversely impact on the available open space or appear as if the site is overdeveloped. The development features three outdoor playscapes fronting Briggs Road, future Indigo Parkway and future access (east) street frontages that will ameliorate the bulkiness of the building. The minor variation is not considered to present the development as bulky or overbearing when viewed from the street frontage due to the design of the

building particularly the open verandahs which reduces the building bulk. The proposed permeable fencing along Briggs Road and Indigo Parkway boundaries will maintain a sense of openness between the street and the development, removing the presence of bulk.

Form of Development

Part VII of TPS2 provides general development standards. Clause 7.1 of TPS2, relating to the general appearance of buildings and preservation of amenity, requires consideration of architectural style, colour, use of materials and the general appearance of buildings to ensure the exterior design is not out of harmony with existing buildings or likely to impact the amenity of the locality.

Below are the set of elevations, as viewed from the north (Indigo Parkway) east (Briggs Road) west future access road and from the south abutting future residential properties.



In terms of the visual impacts of the development, the proposed building which covers an area of 615m^2 incorporates design elements intended to reflect residential development within the immediate locality, noting the site is designated as under the LSP. The design elements include the use of timber looking decking boards, coloured feature walls, composite cladding, linear texted sheets, brickwork features and Colourbond roof sheets.

The contemporary style building is architecturally designed in response to its corner location. The verandahs, soft colour tones, and gable features will add visual interest to street frontages. The built form and playscapes are oriented

toward key street frontages. The scale, height, orientation and appearance of the development is sensitive to the existing and future characteristics of the locality.

The site is designated as R60 under the LSP. During the consultation period concerns were raised with regard development to the compatibility of the proposal within a semi-rural locality which earmarked for R60 future residential dwellings and its potential to reduce the dwelling yield forecast in Byford. Although the development is not residential in nature and is not required to comply with the density designation, it has been designed to be sympathetic to the R60 density requirements, especially in terms of setbacks and open space to further ensure the development is sympathetic to the existing and future residential development within the locality. The proposal has been designed to address all street frontages to ensure surveillance of the street and to ensure an enhanced streetscape.

Local Planning Policy 4.24 - Child Minding Centres (LPP 4.24)

LPP4.24 seeks to provide guidance for child minding centres in relation to matters such as location, siting, design, traffic, and amenity. The objectives of the policy are as follows:

- *To provide guidance for the location of child minding centres to best take advantage of the surrounding natural environment and provide a compatible setting with the locality.*
- *To ensure that amenity impacts, including noise and traffic, are managed appropriately.*
- *To promote a design of child minding centres which reflect the rural and natural character of the Shire.*
- *To provide guidance for the consideration of convenient access and layout.*

LPP4.24 sets out particular criteria for child minding centres. Development that complies with the 'Acceptable' criteria will generally be supported. Proposals falling within 'Performance Based' are required to demonstrate acceptability in relation to the specific criteria. The application has been assessed against the policy criteria below and generally complies.

Acceptable Development	Performance Based	Officer Comment
Location		
Child minding centres located within easy walking distance of activity centre or recreational nodes. Located within a walkable catchment for the local neighbourhood. Larger child minding centres being encouraged to locate	The chosen location is appropriate to the proposed scale of the child minding centre, and such location benefits from integration with the surrounding natural and built environment.	Acceptable - Proposal located within 400m of a Neighbourhood Centre. It is located within a walkable distance from existing and future

Acceptable Development	Performance Based	Officer Comment
near or within activity centres.		residential development.
The location is close to or adjoins public open space.	Located within a walkable distance to a public open space/recreational area with good quality pathways.	Acceptable - Proposal abuts the Public Open Space to the north of Indigo Parkway as identified on the LSP.
Child minding centres are adequately separated from any incompatible nearby uses, with this supported by a suitably qualified risk assessment forming part of an application. Such risk assessment is to consider elements such as dangerous goods, hazardous materials and public health considerations. Potentially incompatible uses (taking into account design and layout) may include, for example, outlets selling petroleum, fast-food, and alcohol or tobacco products.	Where child mining centres are located within 200m of any incompatible use, such proposal demonstrates that the potential for adverse health impacts is removed. Such demonstration to be in the form of a suitably qualified consultant study.	Acceptable - No incompatible land uses within 200m of the subject site.
Parking		
Parking meets the requirements of the Local Planning Scheme, and demonstrates how this meets the operational aspects of the development. Internal driveways having two-way movement. Landscaped parking areas in accordance with the Local Planning Scheme. Parking areas located so as to provide a separation between surrounding	Suitably demonstrates that there is sufficient parking onsite in the form of a traffic and parking assessment. Design and layout demonstrates safe movement of vehicles and pedestrians internally. Parking areas incorporate layers of landscaping and Water Sensitive Urban Design.	Acceptable - Proposal is compliant with TPS2 and draft LPS3 car parking requirements. Refer to parking section of the report.

Acceptable Development	Performance Based	Officer Comment
dwellings and outdoor play spaces.		
Traffic		
Traffic generation poses an increase of no more than 10% of the current recorded daily volumes on the roads which the development adjoins. This is confirmed by a traffic impact statement. Development facilitates full movement access to and egress from the site.	Demonstrates that traffic impacts can be managed through the submission of a Traffic Management Plan. This demonstrates how traffic will be managed to not represent an adverse safety or amenity impact on the adjoining road environment. Demonstrate that access and egress to the site will not result in unsafe manoeuvring due to the lack of full movement access.	Acceptable - refer to the traffic section of the report.
Infrastructure Requirements		
Designated pedestrian footpaths from the street to the centre and the car park to the centre.	Demonstrate that pedestrians can safely navigate to and around the site, with dedicated pathways.	Acceptable - A condition will be imposed to ensure footpath will be constructed to link the with the existing network.
Car parking visible from the street to discourage verge parking.	Signage or other means to discourage verge or unsafe parking.	Acceptable - refer to the car parking section of the report.
Amenity		
Outdoor play areas located in a safe place within the site, providing adequate shade, and separated from noise sensitive premises. Waste service areas appropriately screened from public areas. Setbacks to side and rear boundaries and the	Outdoor play areas are arranged so as to demonstrate such will not adversely impact sensitive receptors. This is confirmed by an acoustic impact assessment and subsequent noise management plan.	Acceptable - The outdoor play areas are located such that noise impacts to the adjoining future properties is reduced by minimising the extent of playscape along

Acceptable Development	Performance Based	Officer Comment
orientation of openings to indoor play areas located to minimise noise impacts. Acoustic impact assessment submitted demonstrates how noise will be managed, particularly from: - Indoor and outdoor play areas; - Car parking areas and the impulsive noise that comes from car access (especially staff arriving before opening and departing after closure), opening and closing of car doors, arrangement of car parking bays (staff versus visitor).	Noise levels are demonstrated to be consistent with the level of amenity currently afforded to an area.	the southern boundary and locating the youngest age groups in this area.
Hours of operation 7:00am to 7:00pm Monday to Friday.	Demonstrate that operation hours outside of these times would not impact amenity of the area through an acoustic impact assessment and subsequent noise management plan.	Performance - the proposed hours of 6:30.am - 6:30am operation comply. While staff and children arriving prior to 7:00am, the use of the outdoor play areas will not occur until after 7:00am to comply with the acoustic report.
Child minding centres are not subject to unacceptable noise that could impact the health and wellbeing of children.	An acoustic impact assessment and subsequent noise management plan demonstrate that noise external to the site would not adversely impact on the wellbeing of children.	Acceptable - refer to the amenity section of the report.
Sites in residential areas greater than 1,000m^2 in areas.	Demonstrate that sites in residential areas will be able to accommodate all activities (including	Acceptable - the site is greater than 1,000m^2

Acceptable Development	Performance Based	Officer Comment
A maximum site coverage of 60%, in order to mimic typical residential form and to provide future ability to recede back to a residential development should that occur.	parking and play areas) required on the site.	
Landscaping		
On site landscaping and landscape of all adjoining verge areas, in accordance with the Scheme, to provide an attractive setting and contribute to the streetscape.	A reduction in the on-site landscaping requirement is associated with additional verge landscaping.	Acceptable - Proposed landscaping is consistent with the policy. Refer to the built form section of the report.
Design		
Development has the appearance of natural materials i.e. recycled clay face brick, vertical and horizontal patterns of timber cladding, rammed earth construction, earth block features, natural stone elements for columns, sheltering gable roof. Measures should be taken to ensure that play areas are large enough and of such dimensions to be useful as play areas and positive outdoor space. Side setback and leftover building areas are not included for such purpose.	Demonstrate that the development includes natural features to elevate the rural and natural character of the Shire. Demonstrate that the proposal is in keeping with the surrounding built and natural environment. Development in residential areas mimics residential urban patterns (front yard, central placed building, driveway to one size and rear backyard).	Acceptable - refer to Built Form section of report.

Amenity

Clause 67 of the Deemed Provisions, namely clause (n), requires the Local Government to consider the amenity impacts of a development. Noise generated from the proposal has the potential to impact upon the amenity of the area, given the proximity of the proposal to future neighbouring residential dwellings surrounding the subject site (sensitive receptors).

To address noise, the applicant submitted an Environmental Noise Assessment (ENA) in accordance with the *Environmental Protection (Noise) Regulations*

1997 (the Regulations). The report assesses noise emissions from indoor and outdoor child play areas, car doors closing in the car park, and mechanical plants (air conditioning units and exhaust extraction fans), against the prescribed standards the Regulations.

The Regulations set out the maximum allowable noise level that may be received at nearby sensitive receptors. In this case, computer modelling using the noise modelling program SoundPlan 8.2 was used to predict noise emissions from the development at all noise receivers (sensitive receptors identified as shown below and demonstrated within the ENA.

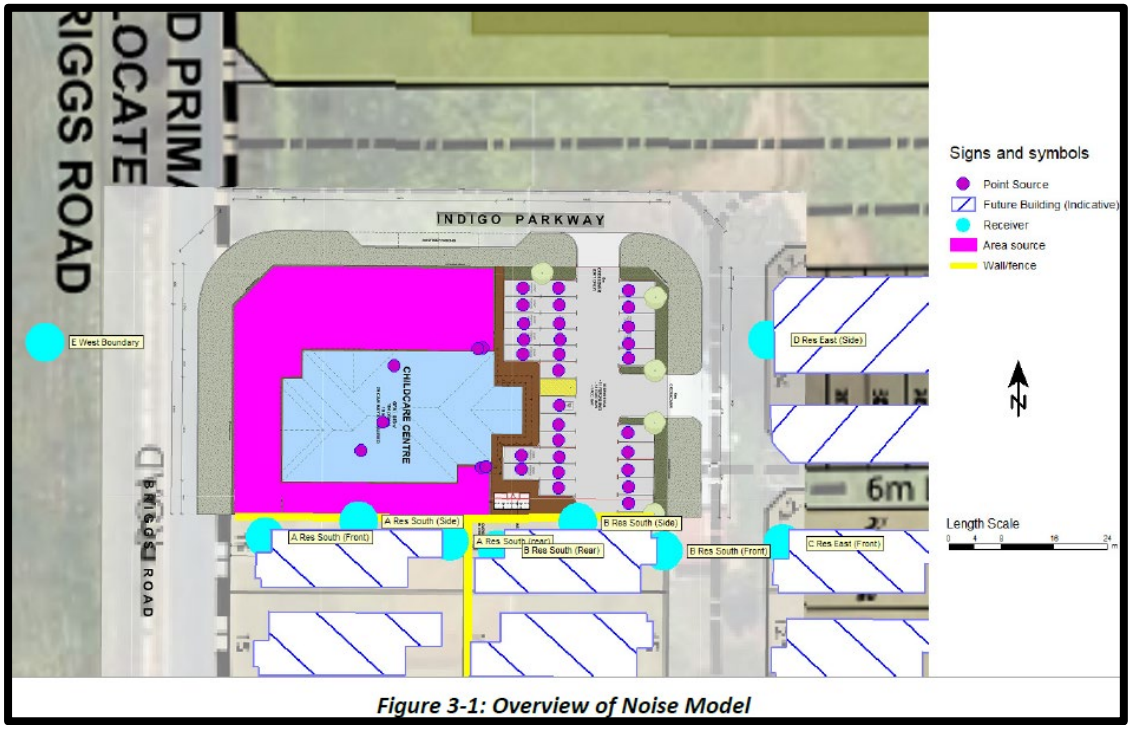
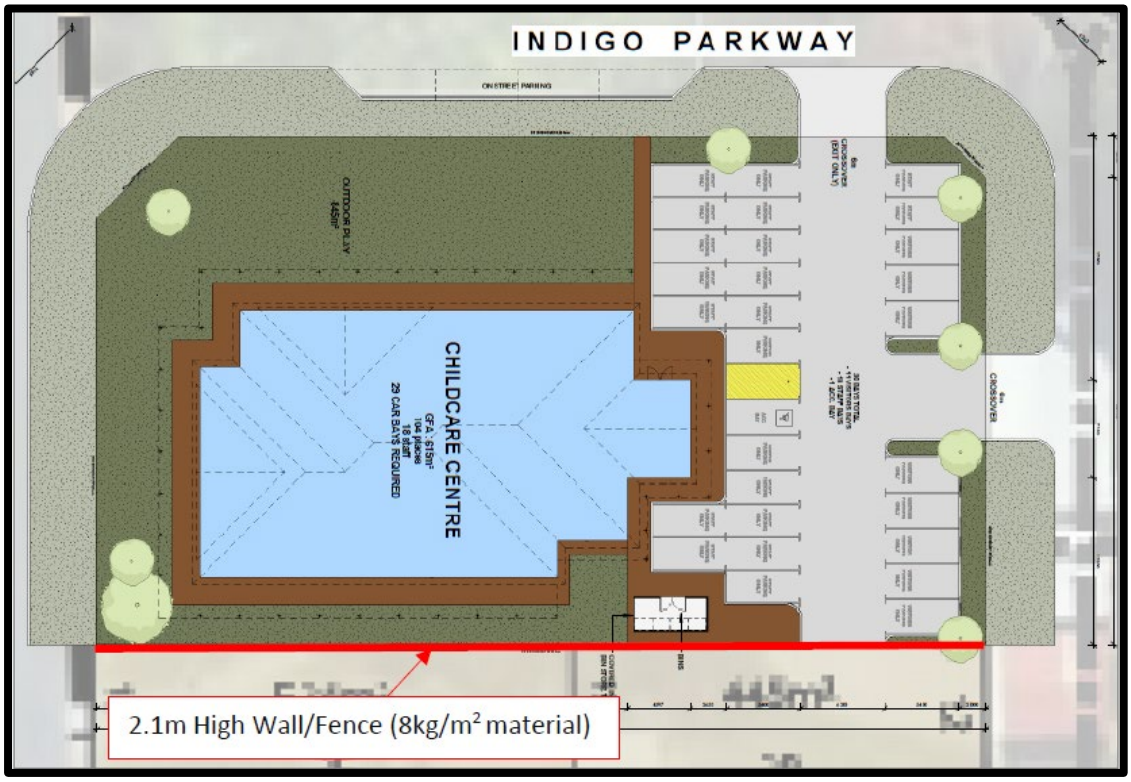


Figure 3-1: Overview of Noise Model

The predicted noise levels received at the future residential properties (sensitive receptors) within the ENA for the major noise sources, have been tabulated in Tables 4.1 to 4.3 of the ENA. The location of these sensitive receptors and noise receivers at this location have been captured in the above diagram.

In terms of the outdoor child play assessment, the ENA assessment demonstrates that all noise receivers will comply with the assigned levels under the regulations with zero exceedance. The acoustic modelling of outdoor play noise was based on the worst-case scenario of all children of any age group of children playing simultaneously within the outdoor play areas shown in the site plan. The noise modelling has been based on construction of a 2.1m solid wall along the southern boundary enclosing the southern outdoor play area and carpark as shown in the site plan following.



The applicant has provided information that whilst the proposed facility would open at 6.30am which is before 7:00am (i.e. during the night period as set in the Regulations) for drop offs, the outdoor play area would only be used after 7:00am thereby restricting outdoor play times. In addition, the applicant has provided information that play time would generally be staggered and therefore not all children would be playing outside at once for extended periods of time. As such, Officers are satisfied that outdoor play area noise received at the neighbouring future residences to the south from the outdoor play area would comply with the assigned and maximum noise levels. The proposal has been designed in such a way that the large footprint of the outdoor play area is located to the north which abuts the future Indigo Parkway and public open space. As such, Officers are satisfied that outdoor play area noise received at the neighbouring future residences to the south and east from the outdoor play area would comply with the assigned and maximum noise levels.

The assessment of noise emitted from the mechanical plant was based on the assumptions relating to the number, location, size and type of mechanical plant. In that regard, the ENA demonstrates that all existing noise receivers predominantly sensitive receptors, comply with the assigned levels under the Regulation. Officers note that adjusted predicted noise levels at future sensitive receptors located to the south meet the threshold limit of the assigned levels which arguably presents a risk of exceedance. To ensure full compliance, the applicant has provided information that mechanical plant noise (specific AC unit types) is to be reviewed by a qualified acoustic consultant during detailed design, to ensure that noise attenuation is applied to achieve compliance with the future sensitive receptors to the south. This will include measures such as acoustic shielding of the units on all sides by a suitable barrier. This has been

conditioned accordingly and required to be met prior to the issue of a building permit.

In respect to car doors opening and closing, ENA demonstrates that all noise receivers will comply with the assigned levels under the regulations based on the construction of a 2.1m high solid wall to the south.

In terms of the indoor child play assessment, the ENA demonstrates that all noise receivers will comply with the assigned levels under the regulations based on the following:

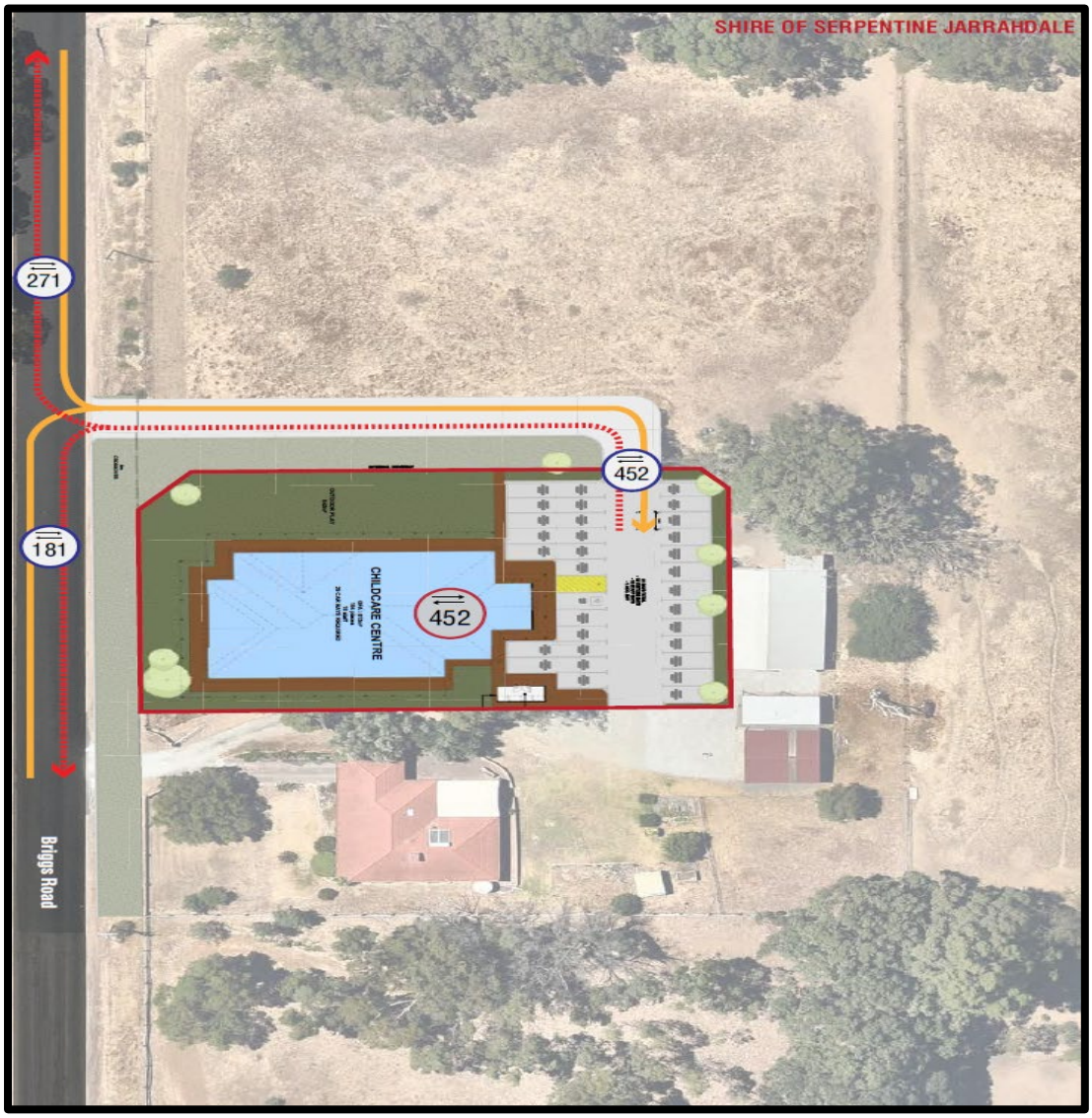
- Internal noise levels within activity rooms would not exceed those from outdoor play for each age group, regardless of windows being open or closed; and
- Any music played within the internal activity areas would be 'light' music with no significant bass content and played at a relatively low level.

Overall, the ENA demonstrates that all noise receivers will comply with the assigned levels under the Regulations. Officers will be recommending a Noise Management Plan be submitted to address all activities associated with outdoor play and indoor child play to further reduce noise emissions from the development and to include the recommendations within ENA. Officers are satisfied that the development can be undertaken without adversely impacting upon the amenity of the locality. Officers are satisfied that the implementation of recommendations within the ENA would result in the development not adversely detracting from the existing amenity of the area currently afforded to occupiers of the area.

Traffic and Access

The category of the vehicles associated with the proposed development will predominantly comprise of small passenger vehicles dropping off and picking up children, as well as staff and waste vehicles. During the consultation period concerns were raised over the impacts of increased traffic movements on Briggs Road and whether its current state would be capable to accommodate additional traffic generated by the proposal.

As discussed above, vehicle access to the subject site is proposed in two stages based on the current road network and the future road network which includes the delivery of roads through the gradual subdivision of land within the LSP area. Vehicle access for Stage 1 of this development is proposed via a single full movement crossover on Briggs Road via an internal driveway to the carpark area as shown below.



The proposed six metre wide crossover on Briggs Road will provide access to the main car park consisting of 31 bays (inclusive of one ACROD bay) as shown in the previous image.

To assess the increased traffic movements on the road network and potential safety issues, a Transport Impact Statement (TIS) was provided with the application, which can be viewed in attachments to this report. The TIS assessed traffic generated by the proposed development and its potential impact on the overall performance of the existing and future surrounding local road network. This includes the current state of Briggs Road and the future Indigo Parkway. Briggs Road is an Access Road and Indigo Parkway a Local Distributor Road. Based on the approved LSP covering the site, Indigo Parkway will thus be upgraded to a Local Distributor Road, with a cross section comprising a single lane of traffic in either direction and central median for boulevard tree planting and drainage management.

Consistent with the planning for Byford and protection of the Byford Trotting Complex, Briggs Road is not intended to function as a Local Access Road, for access into and out of the Byford Trotting Complex.

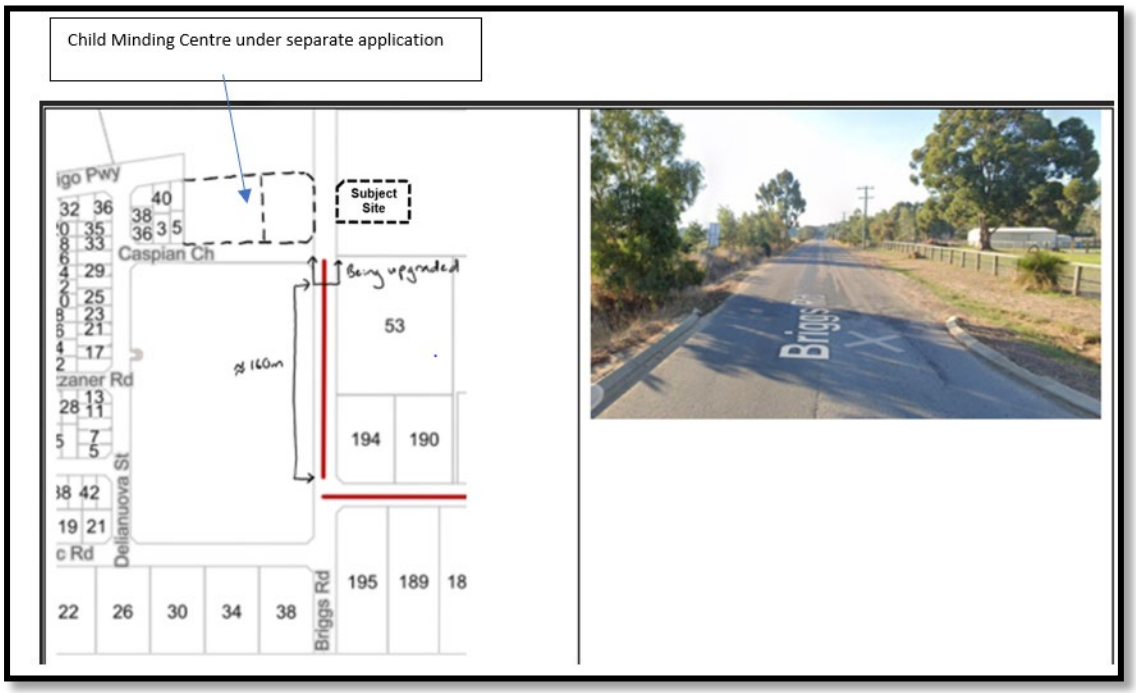
Existing Network

The findings on the volume of traffic likely to be generated by the proposal to the site, based on the existing network was estimated using available trip generation rates from the Institute of Transportation Engineers (ITE). The TIS identifies that the development will generate 452 vehicle trips per day within the local catchment. The AM peak period generating 83 vehicle trips to the site and a PM peak flow of 73 trips generated. The focused distribution of traffic flows associated with the development is expected to be as follows:

- 60% to/from the north via Briggs Road
- 40% to/from the south via Briggs Road



section of Briggs Road, that is designated as 'Very Poor' according to the 2023 asset data capture. The section of concern is shown following:



Without a suitable upgrade, the very poor section of Briggs Road will, in the opinion of Officers, be a risk exacerbated by the intensification of traffic proposed by the development. Officers are of the opinion that the road upgrade at least needs to comprise resurfacing, similar to the recent resurfacing of Briggs Road completed by the Shire south of Larsen Road. Accordingly, a condition is recommended to require a financial contribution to resurfacing of the road, based upon the following formula:

A. Cost to resurface 160m section:	$120,000
B. Number of child care centres proposed:	Two
C. Portion of traffic emanating south:	40%
Formula to calculate financial contribution:	(A/B) x C
Upgrade contribution:	**$24,000**

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

> "*As a general guide, an increase in traffic of less than 10 per cent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 per cent may. All sections of road with an increase greater than 10 per cent 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 per cent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane, should be included in the analysis.*"

In Officers assessing this aspect of the TIS, the actual deteriorated section of Briggs Road does not represent a current infrastructure standard that can safely manage the planned increase in traffic. To address this aspect, a road upgrade

is needed to enable the proposed development to safely operate based on the expected traffic demands which show in the interim period 40% of traffic coming from the south. A financial contribution towards this, based on generated traffic, is recommended to be conditioned.

Upgrade of Footpath

As shown in the following image, the site will be isolated from a safe pedestrian path, and Officers consider that this needs to be addressed as part of approval of the development, by including a footpath on the eastern verge of Briggs Road that connects south to the existing network along Larsen Road.



As such, a condition has been included to secure the required footpath infrastructure that adjoins the frontages of this lot, which also extends to link to the footpath network (existing) on Larsen Road. This is important in order to facilitate safe pedestrian access to the proposed development. Consistent with the planning framework to ensure that all modes of transport are catered for.

Future network

In the longer term, various proposed changes to the surrounding road network will redistribute the child minding centre traffic. This is based upon the approved Byford DSP, which depicts the ultimate network structure which aims to avoid traffic flows running through the Byford Trotting Complex along Briggs Road and Malarkey Road.

The changes to the network in the future are as follows:

- Thomas Road / Briggs Road intersection will be modified to only allow left turns.
- Briggs Road north of Abernethy Road will be modified to limit through traffic in the Byford Trotting Complex.
- Malarkey Road will be extended north to Thomas Road, and new roundabouts will be constructed on Thomas Road at Malarkey Road/Master Road and Kardan Boulevard.

- The Thomas Road / Plaistowe Boulevard intersection will be signalised.
- The median strip along Indigo Parkway will be extended across Briggs Road to block right turns and through movements along Briggs Road.



Based on the long-term changes to the road network depicted in the previous diagram, a median is expected to be constructed on Indigo Parkway, allowing only LILO movements from/to Briggs Road. It is considered that that in the longer term traffic would be evenly distributed through the creation of roads from the gradual subdivision process of the LSP area as depicted within the subdivision concept plan. Furthermore, as a result of the construction of Indigo Parkway in an eastbound direction towards the town centre.



Subdivision Guide Plan

Based on the future scenario it is unlikely that the development will increase traffic on any particular section of road by more than 100 vehicles per hour. Provided the previously mentioned condition of a contribution to upgrading the 160m section of Briggs Road occurs, the development is unlikely to have an adverse impact on the road network in the future.

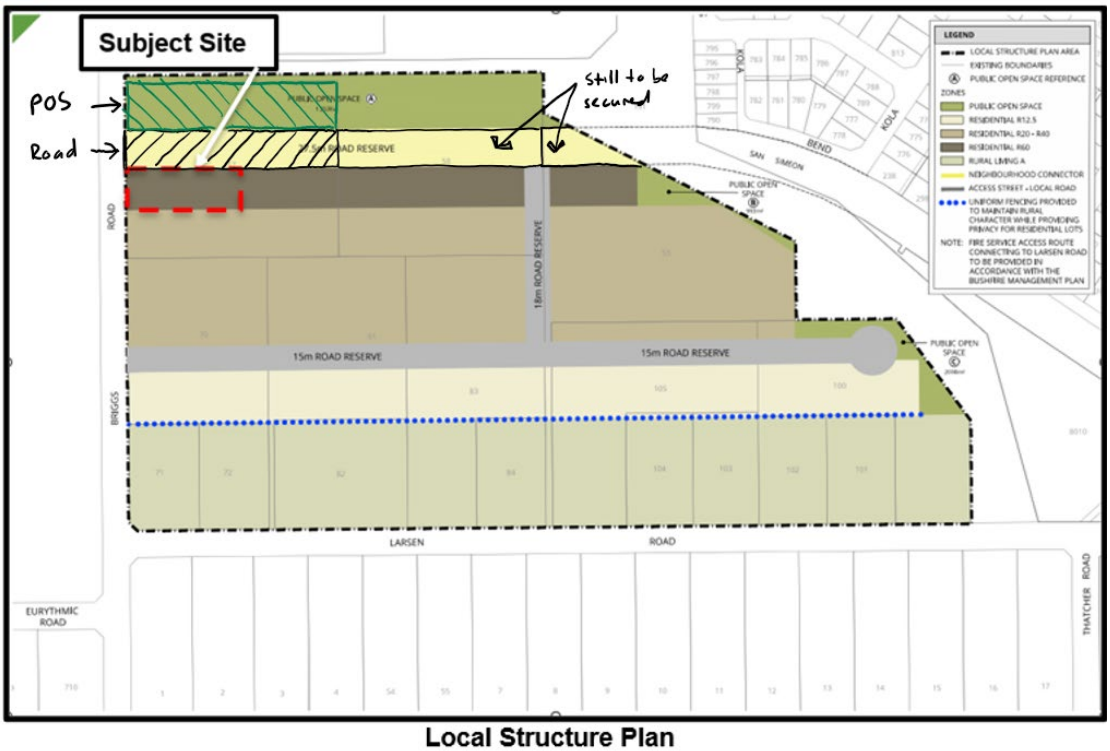
In terms of the Stage 2 access/egress arrangements, the development would be accessed via a full movement crossover to the future eastern access road and an exit only crossover to Indigo Parkway. A condition of approval ensuring the works associated with the modified access/egress arrangements are undertaken at the completion of both Indigo Parkway and the access road.

Ceding of land for Indigo Parkway and Public Open Space (POS)

The role of the structure plan is to attempt to coordinate landowners in subdividing their land, such that land parcels may be subdivided jointly in a coordinated process to layout in a logical manner where roads, POS and development will occur.

It is expected that the road reservation required for the extension of Indigo Parkway and POS Reservation as shown within the LSP is secured through the process of subdivision or a development application, which ever precedes the other. Officers consider that as development of the site has occurred first, ceding of the land for the purposes of a road reservation and the POS corridor is required to occur as part of this process. The POS portion of the land will include provision for drainage, and the portion of road reserve will likely be required for coordinated construction of the Indigo Parkway link around the 2025/2026 financial year. This is conditioned accordingly and shown in the following image.

It is conditioned to construct the POS, whereas it is not conditioned to construct Indigo Parkway given all land required for the link is yet to be secured. The remaining land portion to be secured are also shown following:



Local Structure Plan

Local Planning Policy 1.6 - (LPP 1.6) - Public Art for Major Developments

The objective of LPP1.6 is to facilitate per cent for art to enhance public enjoyment, engagement and understanding of places through the integration of public art. The policy sets out the requirements for physical and financial contributions for public art for any development valued at $1 million or greater.

Officers note that the applicant has not provided any details for a public art feature within the design of the development. Should the application be approved, a percentage for art condition of development approval would be recommended by way of a condition, consistent with the policy.

Local Planning Policy 4.11 (LPP4.11) - Advertising

Local Planning Policy LPP 4.11 - Advertising sets out development standards and requirements for advertisements. The plans, as submitted, have identified nominal wall signage for the proposal integrated into the façade of the development. No detailed drawings of the signage were provided with the application.

If the application is approved, a signage plan will be required to be prepared and approved prior to operation of the development, to ensure any signage is compliant with the policy.

Local Planning Policy 4.15 (LPP4.15) - Bicycle Facilities

LPP4.15 provides guidance to developers on the design and requirements of bicycle parking and end of trip facilities for each specific land use. In accordance with the policy, bicycle facilities are to be provided in accordance with Schedule 1 of the policy. Officers note that the applicant has not provided any details or provisions for a bicycle rack. If the application were to be

approved, the applicant would be required to comply with the requirements of the policy.

Local Planning Policy 2.4 - Water Sensitive Design

LPP2.4 aims to maximise water efficiency by encouraging best practice urban water management methods. The policy aims to ensure water sensitive design best management practices are implemented for new developments with the Shire.

A Stormwater and Drainage Management Plan (SMP) will be required, demonstrating how stormwater is managed and shall be provided prior to issue of a Building Permit.

Local Planning Policy 24 (LPP24) - Designing Out Crime

LPP24 encourages commercial development to incorporate principles of Crime Prevention through Environmental Design (CPTED). LPP24 sets out five key crime prevention principles that are to be applied to different levels of the planning framework according to the policy. A development application needs to be assessed against the principles of the policy. The principles relate to surveillance, access control, territorial reinforcement, target hardening, management, and maintenance.

It is considered that the corner location of the site affords the site with a high level of passive surveillance. In addition, proposed activity spaces and outdoor play areas face public streets and facilitate passive surveillance over the public realm.

State Planning Policy 3.7 - Planning in Bushfire Prone Areas

SPP3.7 provides the requirements and guidelines for development within areas identified as bushfire prone. The subject site is located within a designated bushfire prone area in accordance with the Department of Fire and Emergency Services (DFES) Map of Bushfire Prone Areas. SPP3.7 seeks to ensure the risk of bushfire to developments is considered and mitigated through the development assessment process.

Pursuant to the provisions of SPP3.7, the application included a Bushfire Management Plan (BMP) for the subject site. The BMP which can be viewed in attachments states that on completion the proposed childcare center is expected to achieve a compliant BAL-29 or lower outcome, under the vegetated scenario.

As a Child-Minding Centre is a vulnerable land use, the application has been referred to DFES for assessment. DFES has recommended modifications to be undertaken to the submitted Bushfire Management Plan. These modifications primarily relate to the justification on the classification of vegetation plots and will be conditioned accordingly.

Government Sewerage Policy (2019)

This policy set out the guidelines relating to the provision of sewerage services through the planning and development of land. The policy generally requires connection of new subdivision and development to reticulated sewerage to protect public health and amenity.

The site is not proposed to be connected to deep sewerage surrounding the subject site which can be readily connected. The applicant has proposed an interim alternative effluent disposal system until such a time when the site is fully developed due to costs associated with the deep connection. During the consultation period concerns were raised regarding the lack of reticulated sewerage to support the development and the potential health impacts of the proposed alternative effluent disposal system.

The application and the accompanying Site Soil Evaluation (SSE) report was referred to the DoH. The DoH have recommended connection to deep sewer as their preference, however, are satisfied that the site can manage wastewaters onsite. The DoH have requested an updated SSE to be submitted which is undertaken during the wettest seasonal time of the year (mid-July-August) as per Australian/New Zealand Standard 1547:2012 requirements as part of a condition of approval. Furthermore, more specific details of the development to wastewater management areas (irrigation areas) of the site and confirmation that stormwater and wastewater management will not interact.

To address DoH comments, a condition has been recommended requiring an updated SSE to be submitted to reflect DoH comments. The SSE to be submitted to the Shire for approval on advice by the DoH. It should be noted that subject to a separate approvals process, the wastewater system will have to be approved by the DoH in conjunction with the Shire. This provides a second assessment process to ensure the system is compatible with the land and broader area.

In terms of future sewer connection, once land within the LSP area begins to be subdivided and sewer moves closer to the LSP area, the wastewater treatment system will be decommissioned, and the development will be connected to sewer. Currently the closest connection is 330m away from the development. A condition requiring the irrigation area of the development to be remediated to the satisfaction of the Shire once the development has been connected to sewer.

Development Contributions (DCA1)

This development falls within the development contribution area DCA1 (Area A) and as such is required to contribute towards the cost of common infrastructure under the Byford Traditional Development Contribution Plan. The development contribution area was introduced by way of Amendment 108 to TPS2, and recently updated under Amendment 208.

Under a development application (as opposed to a subdivision), contributions are calculated on the current lot area on which the development is situated, giving a lot “yield” for the site. The liability to pay the contribution is triggered at the building permit stage, and thus the DCP payment will be applied as a development condition needing to be met prior to the issue of a Building Permit. The condition of approval for the applicant to contribute towards the costs of providing common infrastructure is expected to address concerns that were raised during the consultation period.

Conclusion

This report is presented to Council to endorse a Responsible Authority Reports for the Metro Outer Development Assessment Panel for a 'Child Minding Centre' development in the western portion of Byford. Officers consider that the development is consistent with the planning framework, provided conditions are imposed to address the relevant incidental matters that relate to the proposed development. The proposed development will increase the child care services and provide employment opportunities for the local community that will assist to support the population growth within the Shire. Officers are satisfied that the conditions recommended will address concerns raised during public submissions and it is considered to not adversely impact upon the existing amenity of the area.

Alternatives

In accordance with clause 17(4) of the Regulations, the JDAP may determine an application by either approving the application (with or without conditions) or refusing the application.

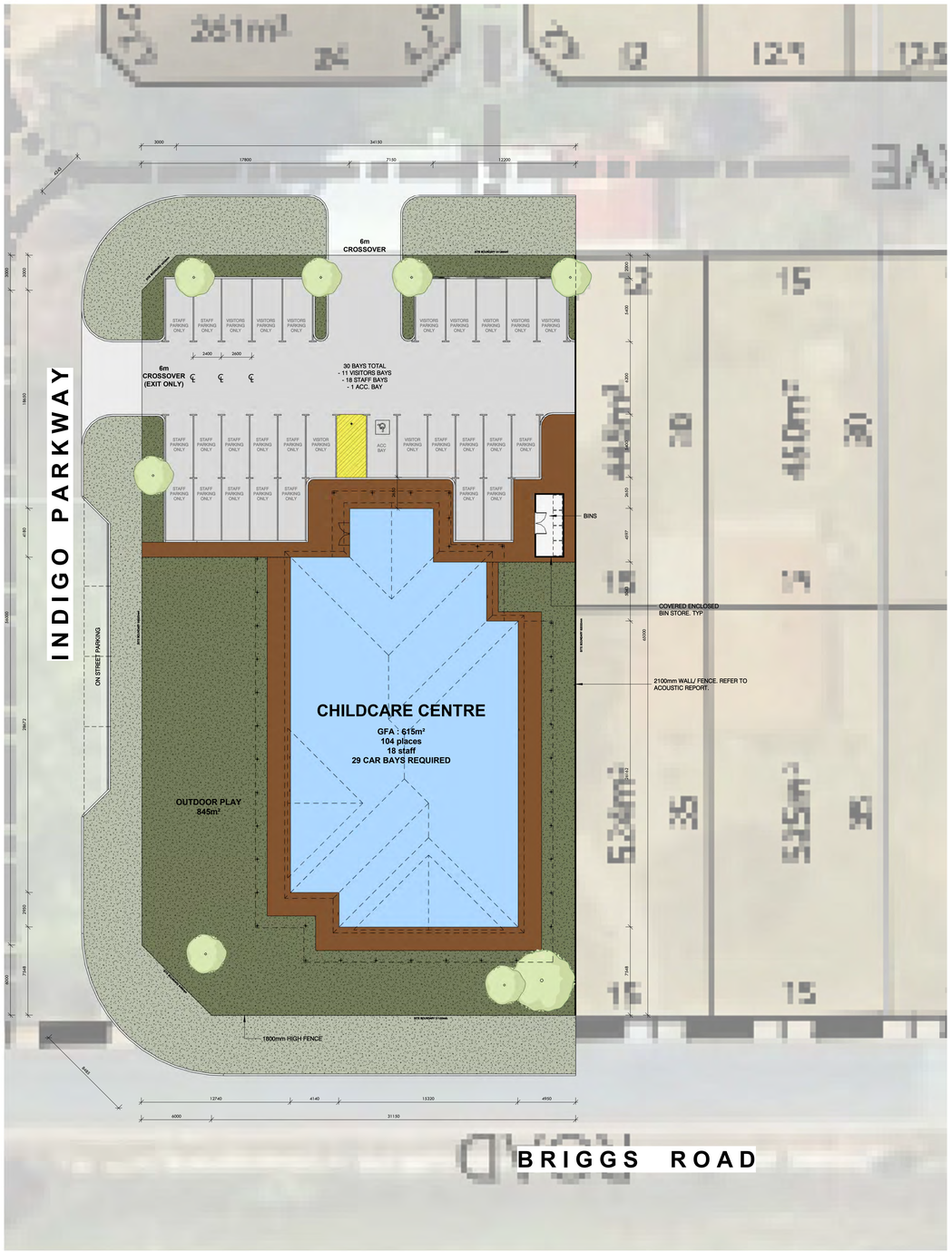
Should the JDAP resolve to refuse the application, this determination needs to be made based on valid planning considerations as outlined under clause 67 of the Planning and Development (Local Planning Schemes) Regulations 2015 and as set out in the Development Assessment Panel Practice Notes: Making Good Planning Decisions.

Officer Recommendation
Reasons for Officer Recommendation



SITE PLAN - STAGE 1

SCALE: 1 : 200



SITE PLAN - STAGE 2

SCALE: 1 : 200

SITE CRITERIA

1. Site Area
a. Site Area — **2,392m²**

2. Landscaping
a. Required 10% of Site Area — **239.2m²**
b. Provided
Soft — 623m²
Hard — 219m²
Total — 845m² (35.2%)

3. Floor Area (GFA) — **615m²**

4. Carparking
i. Cars Required
As per Draft LPS 3
1:10 Kids — 11 Cars
1:1 Staff — 18 Cars
ii. Cars Provided — **29 Cars**

CHILD CARE CRITERIA

1. Centre capacity
a. Number of places — **104 places**

2. Outdoor Play
a. Required 7m² :1 child — **728m²**
b. Provided — 842m²
Total m² provided per child — 8.09 m²

3. Floor Area (GFA)
a. Area required — 338m²
b. Area provided — 352.3 m²

4. Room distribution
a. Room 0-12 m
Number of places — 12 Places
Staff required 1:4 Staff — 3 Staff
Staff provided
b. Room 0-12 m
Number of places — 12 Places
Staff required 1:4 Staff — 3 Staff
Staff provided
c. Room 24 - 36 m
Number of places — 20 Places
Staff required 1:5 Staff — 4 Staff
Staff provided
d. Room +3y
Number of places — 30 Places
Staff required 1:10 Staff — 3 Staff
Staff provided
e. Room +3y
Number of places — 30 Places
Staff required 1:10 Staff — 3 Staff
Staff provided
Total places — 104 Places

Total Staff (+2 Staff (Chef, Manager)) — 18 Places

Landscaping
A. Hard Landscaping
Defined as paved walkways either open or covered.
B. Soft Landscaping
Defined as vegetative landscaping.

Gross Floor Area : GFA
A. All Floor Areas on this plan are shown as GROSS FLOOR AREA.
Unless otherwise noted as Nett Floor Area
B. Definition of Gross Floor Area is defined as:
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Gross Floor Area of an individual Tenancy is defined as the area contained between the centre line of common tenancy walls and the outside edge of external walls.
ii/ GROSS FLOOR AREA OF A BUILDING:
Gross Floor Area of a Building is defined as the total area contained between the outside edge of external walls

Nett Floor Area : NFA
A. Nett Floor Area of a Tenancy on this plan is defined as the area between external or tenancy dividing walls.
B. This area is inclusive of toilets if the toilets are exclusive to the Tenancy.

SITE DESIGN CHECKLIST

- [ ] 1. SEWER MAINS LOCATION TO BE DETERMINED
- [ ] 2. FIRE MAINS PRESSURE TEST REQUIRED
- [ ] 3. FIRE TANKS OR PUMPS TO BE DETERMINED
- [ ] 4. WESTERN POWER TRANSFORMER LOCATION TO BE DETERMINED
- [ ] 5. FULL FEATURE SITE SURVEY REQUIRED
- [ ] 6. DIAL BEFORE YOU DIG REQUIRED
- [ ] 7. BUSHFIRE ATTACK LEVEL (BAL) TO BE DETERMINED
- [ ] 8. STREET POWER POLES TO BE DETERMINED
- [ ] 9. SITE ZONING & USE TO BE DETERMINED

NOTE: Any of the following items that do not have an 'X' in the provided square require determination.

LEGEND

- BUILDING FOOTPRINT - SHOWROOM / WAREHOUSE / FACTORY
- BUILDING FOOTPRINT - OFFICE
- EXTENT OF CONCRETE HARDSTAND
- EXTENT OF ROADBASE HARDSTAND
- EXTENT OF BITUMEN PAVING
- EXTENT OF CERAMIC TILES
- EXTENT OF BRICK PAVING / CONCRETE PAVING
- EXTENT OF LANDSCAPING

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CHILD CARE CENTRE

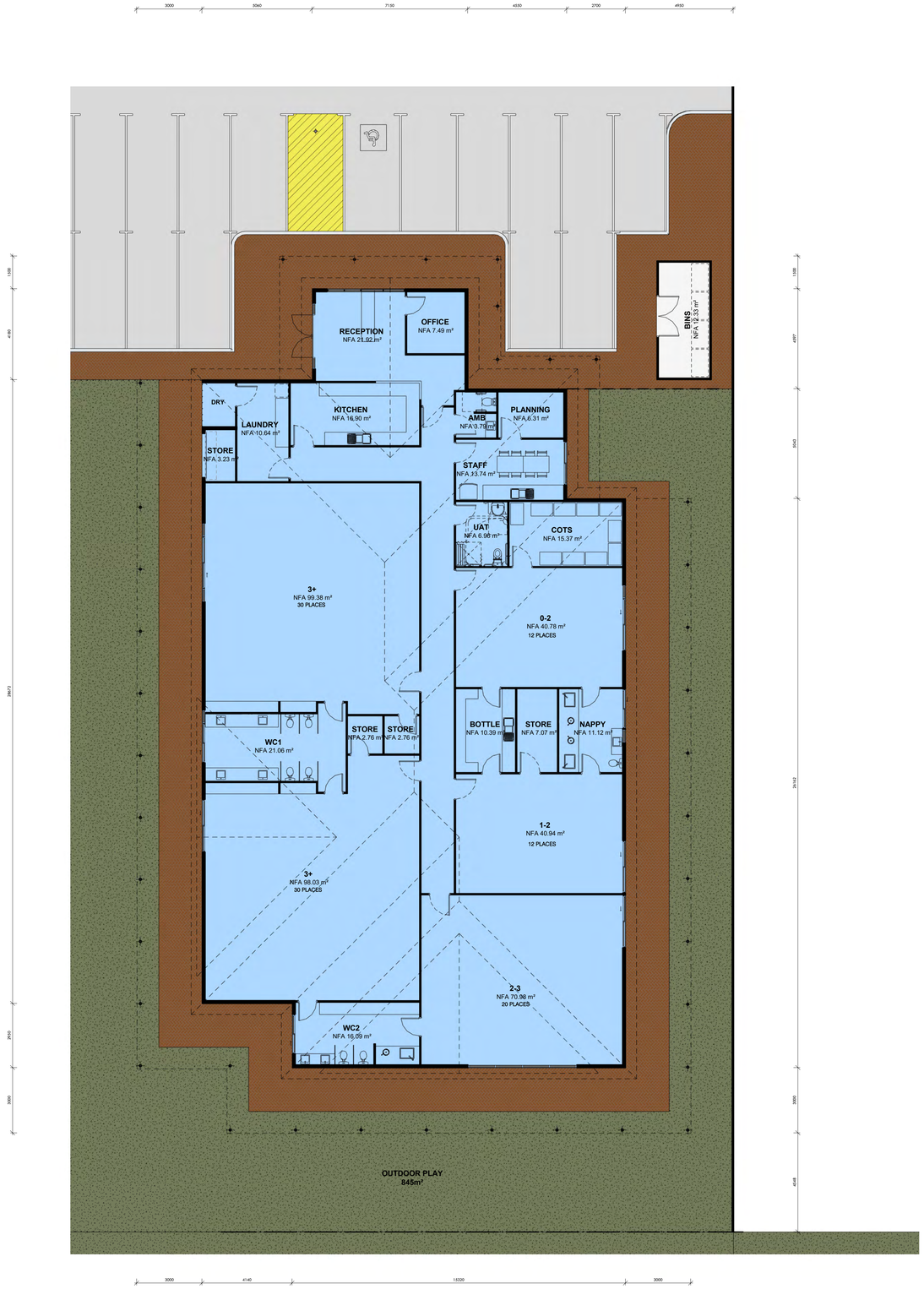
LOCATION : LOT 57 BRIGGS ROAD, BYFORD
FOR : BLOKK PROPERTY

Member Australian Institute of Architects

0 2 4 6 8 10 20

DATE: NOV 2022
REVISION: SK007
SHEET: A - 1002
SCALE: As indicated@A3
PROJECT NUMBER **22-9099**

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PO Box 1294 Subiaco WA 6904
t: 08 9381 8511 e: msa@meyershircore.com.au



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- EXTENT OF BITUMEN PAVING
- EXTENT OF CERAMIC TILES
- EXTENT OF BRICK PAVING / CONCRETE PAVING
- EXTENT OF LANDSCAPING

FLOOR PLAN
SCALE: 1 : 100

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CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD
FOR : BLOKK PROPERTY

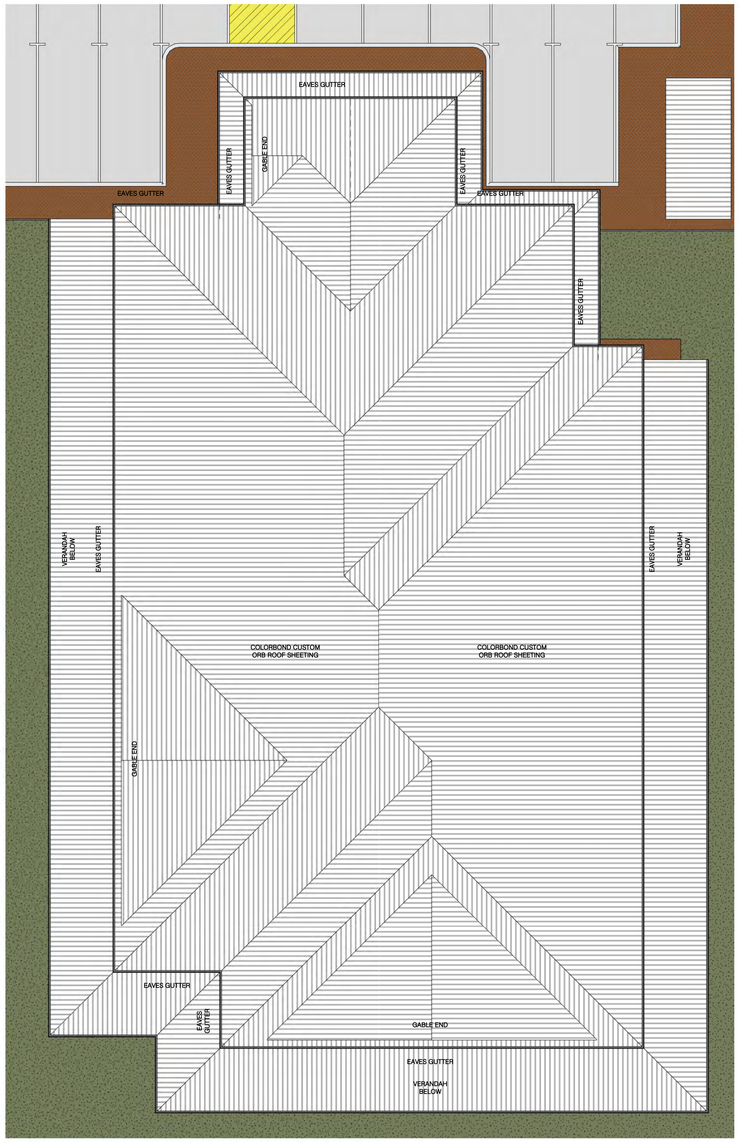
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DATE: NOV 2022
REVISION: SK007
SHEET: A - 2000
SCALE: 1 : 100 @A3

PROJECT NUMBER
22-9099

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ROOF PLAN

SCALE: 1 : 100

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CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD

FOR : BLOKK PROPERTY

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DATE: NOV 2022

REVISION: SK007

SHEET: A - 3000

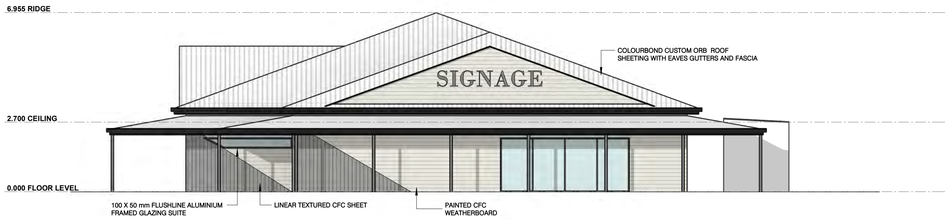
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PROJECT NUMBER

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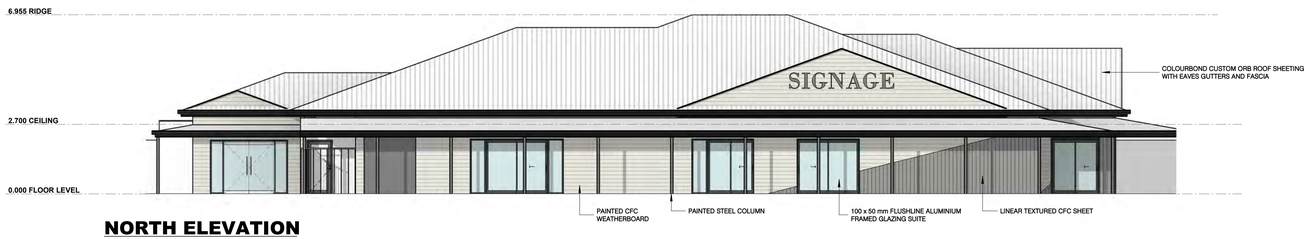
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WEST ELEVATION

SCALE: 1 : 100



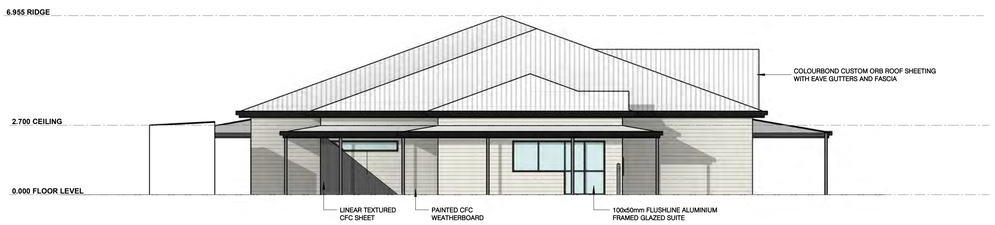
NORTH ELEVATION

SCALE: 1 : 100



SOUTH ELEVATION

SCALE: 1 : 100



EAST ELEVATION

SCALE: 1 : 100

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CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD

FOR : BLOKK PROPERTY

Member Australian Institute of Architects

0 1 2 3 4 5 10

DATE: NOV 2022

REVISION: SK007

SHEET: A - 4000

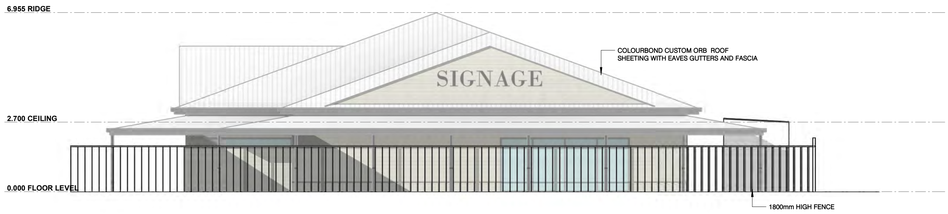
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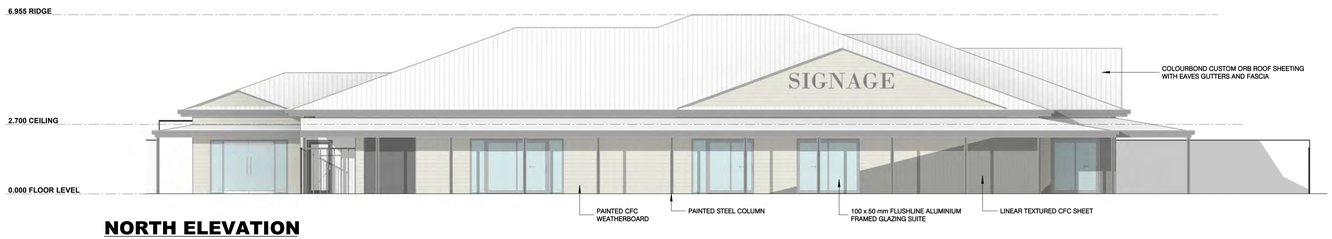
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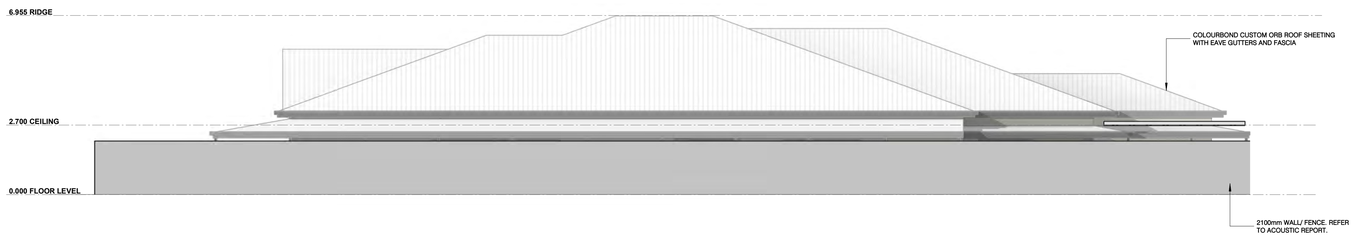
EAST ELEVATION

SCALE: 1 : 100



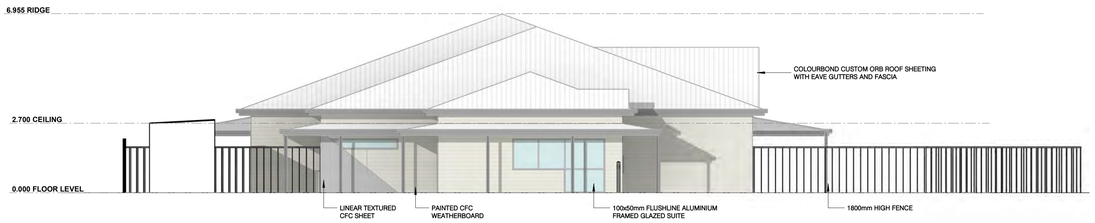
NORTH ELEVATION

SCALE: 1 : 100



SOUTH ELEVATION

SCALE: 1 : 100



WEST ELEVATION

SCALE: 1 : 100

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CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD

FOR : BLOKK PROPERTY

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0 1 2 3 4 5 10

DATE: NOV 2022

REVISION: SK007

SHEET: A - 4001

SCALE: 1 : 100 @A3

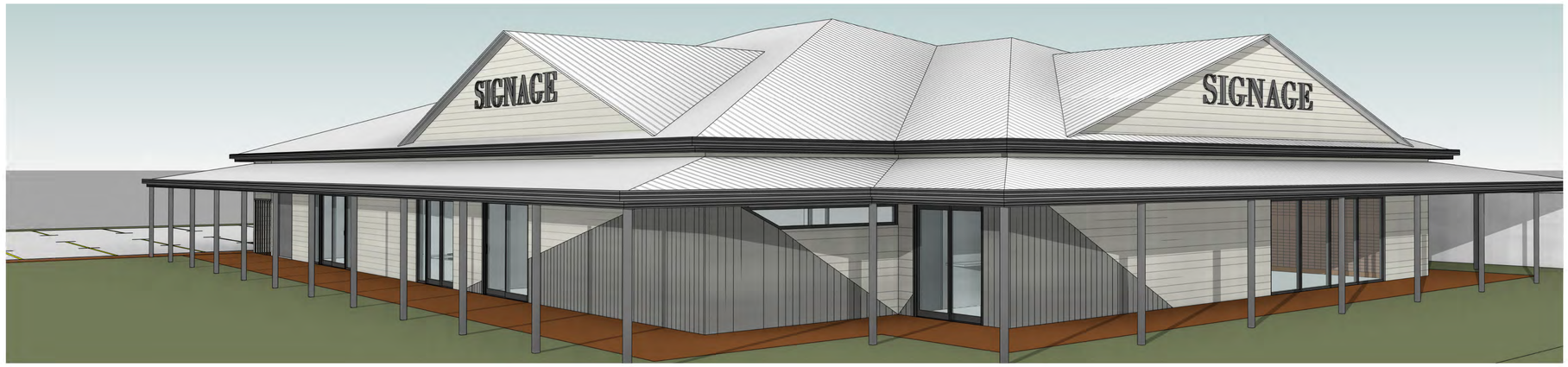
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CHILD CARE CENTRE

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FOR : BLOKK PROPERTY

Member Australian Institute of Architects

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SUMMARY OF SUBMISSIONS

PA23/172 – Lot 57 Briggs Road, Byford – JDAP – Proposed Child Care Centre

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
Water Corporation		Thank you for your letter dated 9th March 2023 requesting comment on the proposed development at Lot 57 Briggs Road, Byford. The proposed development does not appear to affect Water Corporation assets. If our assets are affected, the developer may be required to fund new works, or the upgrading of existing works and protection of all works associated with the Water Corporation. Water Servicing is available to the site, Wastewater servicing is not however. The proponent has stated in their planning report that will utilize onsite effluent disposal which is suitable for a lot of this size under the State Sewerage Policy. Water Corporation has no objections. This proposal will require approval by our Building Services section prior to the commencement of works. Infrastructure Contributions and fees may be required to be paid prior to approval being issued. For further information about building applications, please follow this link: https://www.watercorporation.com.au/Developing-and-building/Building/Lodging-a-building-application The information provided above is subject to review and may change. If the proposal has not proceeded within six months, it is recommended that the developer contacts us to confirm whether or not the above information is still valid.	Noted, in particular comments confirming water servicing is available and that onsite effluent disposal is suitable for a lot this size.	Conditions have been included to ensure that issues raised will be addressed.
MRWA		MRWA Reference: D23#255030 - File: 23/2039 Please be advised that Main Roads has no objections in relation to the above proposal.	Noted.	Noted
DWER		The Department has identified that the proposed childcare centre will impact on environment and/or water resource values. The Department therefore has concerns with the proposal in its current form. Key issues and	Government Sewerage Policy	As discussed in the main report a condition has been

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		recommendations are provided below, and these matters must be addressed to the satisfaction of the Department. **Issue** Government Sewerage Policy **Advice** Lot 57 Briggs Road is within a sewage sensitive area, as it is located with the Peel-Harvey coastal plain catchment. The requirements of the Government Sewerage Policy (GSP) (DPLH, 2019) apply including site requirements for on-site sewerage disposal. It is acknowledged that a Site and Soil Evaluation (SSE) was included within the application and comments pertaining to the SSE are detailed in Attachment 1. The SSE lacks detail to demonstrate Lot 57 can manage on-site wastewater treatment and disposal prior to the availability of reticulated sewerage associated with urbanisation of the surrounding area. Further guidance on what is required in a SSE is found within the Department of Health's https://www.health.wa.gov.au/~/media/Files/Corporate/general%20documents/water/Wastewater/Site-Soil-Evaluation.pdf (DoH, 2021). It is recommended that the SSE is provided to the Department of Health for assessment. **Issue** Stormwater Management **Advice** The development proposal should give due regard to https://www.sjshire.wa.gov.au/documents/30/lpp-24-water-sensitive-design (Shire of Serpentine Jarrahdale, 2018). Stormwater management within the site should be in accordance with Lots 57, 58 and 70 Briggs Road and Lots 53, 81, 83, 100 and 105 Larsen Road,	In reviewing the comments provided by DWER in Attachment 1 of its letter, it is evident that the matters raised can be addressed as part of a revised SSE which can be provided as part of a suitably worded condition of planning approval. With regard to item 3, we confirm the onsite effluent disposal system is proposed entirely within Lot 57. <u>Stormwater Management</u> A stormwater management plan can be provided at detailed design stage, in accordance with a suitably worded condition of planning approval (as per standard practice). <u>Water Supply</u> Water Corp has responded confirming that a water supply is available to the	recommended requiring an updated Site Soil Evaluation (SSE) to be submitted to reflect Department of Health (DoH). The SSE to be submitted to the Shire for approval on advice by the DoH. The main report recommends that a Stormwater and Drainage Management Plan (SMP) be submitted demonstrating how stormwater is managed and shall be provided prior to issue of a Building Permit.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		Byford Local Water Management Strategy (360 environmental, October 2020). Stormwater within the carpark area should be managed in accordance with the https://www.wa.gov.au/government/publications/decision-process-stormwater-management-western-australia (DWER, 2017) and the https://www.wa.gov.au/government/publications/stormwater-management-manual-western-australia (DWER, 2022). Consistent with these documents, the Department recommends that the first 15mm of stormwater runoff passes through a water quality treatment process, such as rain gardens or tree pits, before infiltration. Flush kerbing between the carpark and surrounding garden beds will assist in capturing stormwater. It is not evident from the Application for Planning Approval (Landscape Plan) or Servicing Report (Stormwater Drainage) if these features are proposed. **Issue** Water Supply **Advice** Lot 57 is not currently connected to a reticulated potable water supply. An alternative water supply may be required for development on this lot if the proposed water main extension on Briggs Road/future Indigo Parkway (Byford Meadows Estate) has not been completed. The proposed development area is located within the Serpentine Groundwater Area (Byford 3 sub area) which is proclaimed under the Rights in Water and Irrigation Act 1914. Any groundwater abstraction would be subject to licencing by the Department. Please note that groundwater in the Superficial, Leederville and Cattamarra Coal Measures aquifers in this subarea are currently fully (or near to fully) allocated resulting in no resource being available for new applications. Alternative sources of water will likely need to be sought to satisfy any non-	development. This matter will be addressed at detailed design stage. Noise The comments of DWER in relation to the noise assessment are generally supportive. The recommendations contained within the acoustic assessment can be enforced through appropriately worded conditions of planning approval.	

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		potable water requirements or the applicant can seek a water trade agreement from another groundwater user in the area. Please contact the water licensing section on 9550 4222 for further advice on water availability. **Issue** Noise Assessment Report **Advice** Please refer to Attachment 2 for the Department's technical review of the Environmental Noise Assessment – Childcare Centre dated 20 February 2023 prepared by Lloyd George Acoustics Pty Ltd. In the event there are modifications to the proposal that may have implications on aspects of environment and/or water management, the Department should be notified to enable the implications to be assessed. Environmental Noise Branch Techni		
DFES		This advice relates only to State Planning Policy 3.7: Planning in Bushfire Prone Areas (SPP 3.7) and the Guidelines for Planning in Bushfire Prone Areas (Guidelines). It is the responsibility of the proponent to ensure the proposal complies with relevant planning policies and building regulations where necessary. This advice does not exempt the applicant/proponent from obtaining approvals that apply to the proposal including planning, building, health or any other approvals required by a relevant authority under written laws.	The BMP has been revised in response to the DFES comments. The proposal will comply with *State Planning Policy 3.7: Planning in Bushfire Prone Areas*. submission v2 Briggs Rd CCC.pdf	The applicant provided an updated Bushfire management Plan response to DFES concerns.

<table>
<tr><th>Submitter</th><th>No</th><th>Submitter Comments</th><th>Applicant Comment</th><th>Officer Recommendation</th></tr>
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Assessment

• Further clarification is required within the BMP of the requirements of SPP 3.7, and the supporting Guidelines as outlined in our assessment below.

1. Policy Measure 6.5 a) Preparation of a BAL assessment
<table>
<tr><th>Issue</th><th>Assessment</th><th>Action</th></tr>
<tr><td>Vegetation Classification</td><td>Figure 3 (Vegetation Classification) is difficult to interpret. In particular:

• The southern P1/Ex label appears to be out of position as it is located on an area classified as Grassland. Others may also be, which contributes to poor legibility;

• Plot 2 and Plot 3 are difficult to distinguish with no clear outlines/boundaries; and

• There are areas of vegetation within the area coloured as Grassland that are outlined separately and do not appear to be Grassland. Specifically the drainage reserve, trees to the east and west of Briggs Road, trees around the existing property and trees to the south of the proposed development site (discussed further below).</td><td>Modification to the BMP is required</td></tr>
</table>
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Submitter	No	Submitter Comments			Applicant Comment	Officer Recommendation
			Figure 3 appears to combine both current classification and future (post development) classification. For clarity			
			Noting comment above, vegetation Plots 2 and 3 cannot be substantiated as Class G Grassland in their entirety with the information and photographic evidence available. In particular: • Photos 2.1 and 2.3 appear to show areas of mature trees around the development site, which do not appear to fit the classification of Class G Grassland; • Photo 3.1 does not clearly support Class G Grassland as the visibility is obscured by trees; • Photo 3.2 does not support the proposed classification as Class G Grassland. The drainage reserve appears to comprise Class A Forest vegetation. It is noted that the drainage reserve and the future Public Open Space to the north are described as Forest within the BMP (recognising the future state)	Modification to the BMP is required		

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		however this is not clearly depicted on the classification plan or the BAL Contours. • Phot 3.5 does not appear to support Class G Grassland and it is not clear what the trees shown have been classified as. • The orchards shown in Photo 3.6 would only be excludable (i.e. only the grassland would be classified) under AS3959 if they are maintained to a low threat condition. The images provided do not clearly support this and evidence of management would be required. The BMP should detail specifically how the Class G Grassland classification was derived. If unsubstantiated, the vegetation classification should be revised to consider the vegetation at maturity as per AS3959:2018, or the resultant BAL ratings may be inaccurate.		
		2. Policy Measure 6.5 c) Compliance with the Bushfire Protection Criteria		

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation

Element	Assessment	Action
Location	A1.1 – not demonstrated The BAL ratings cannot be validated for the reasons outlined in the above table. Figure 5a (BAL Contour) shows the play area impacted by BAL40/FZ. DFES recommends that the area considered as vulnerable uses includes the entire development site and therefore that the APZ should extend from the boundary of the development. While it is noted that an APZ specifically relates to habitable buildings, due to the size of the lot, it is considered that greater hazard separation would be achievable and beneficial at this site (noting future development to the north will comprise road reserve).	Modification to the BMP required.
Siting and Design	A2.1 - not demonstrated It has not been demonstrated that the child care centre can achieve BAL-29 or below. The APZ distance is inconsistent throughout the BMP with Section	Modification to the BMP is required.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		2.2 referencing 8m, Figure 5a referencing 9m in the key and 12m on the map. It is unclear if the APZ can be achieved within the boundary on west side and future expected boundary on the south		

Issue	Assessment	Action
Bushfire Emergency Evacuation Plan (BEEP)	The referral has included a 'Bushfire Emergency Evacuation Plan' for the purposes of addressing the policy requirements. Consideration should be given to the Guidelines Section 5.5.4 'Developing a Bushfire Emergency Evacuation Plan'. This contains detail regarding what should be included in a BEEP and will ensure the appropriate content is detailed when finalising the BEEP to the satisfaction of the Shire.	Comment only

<u>Recommendation – Compliance with Acceptable Solutions not demonstrated – modifications required</u>

It is critical the bushfire management measures within the BMP are refined to ensure they are accurate and can be implemented to reduce the vulnerability of the development to bushfire.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		The proposed development design has not demonstrated compliance to – Element 1: Location, and Element 2: Siting and Design. As this planning decision is to be made by a Joint Development Assessment Panel, please forward notification of the decision to DFES for record keeping purposes.		
Department of Health		The DoH provides the following comment: **1. Water Supply and Wastewater Disposal** In relation to the management of wastewater, the proposal is to install an onsite wastewater treatment system and disposal area. Unfortunately, the proposed location does not meet the Government Sewerage Policy 2019 objectives, that require a 100-metre setback from winter creeks or the seasonal brook. In addition, the site and soil evaluation (SSE) was not undertaken during the wettest time of the year, but rather the warmest time of the year, being mid-January. This could significantly influence the minimum design criteria of the effluent disposal area. The DoH appreciates the lot is currently of significant size and should be able to manage wastewater onsite. Therefore, the department supports the proposal subject to ensuring the following are provided during the planning approval process. • As deep sewerage is surrounding the proposal, the DoH recommends connection to deep sewerage as the preferred option and seek costings and schedules for this option vs onsite wastewater treatment options and schedules; If it is not financially viable to connect to deep sewerage. • Another specific site and soil evaluation (SSE) report is required for the above proposal that should be undertaken by a qualified consultant that is conducted during the wettest seasonal time of the year only (Mid-July/August) as per AS/NZS 1547:2012 requirements.	The Department of Health has supported the proposal, subject to the SSE being revised during the wettest months of the year. The author of the SSE has responded as follows: • AS1547 does not require an SSE to be prepared during the wettest months of the year. • There is no need to undertake an SSE during the wet months, as the constant head permeability test saturates the soil to capacity and then	The site is not proposed to be connected to deep sewerage at this time which surrounds the subject site but is approximately 300m away. The DoH have recommended connection to deep sewer as their preference, however, are satisfied that the site can manage wastewaters onsite. he SSE to be submitted to the Shire for approval on advice by the DoH. It should be noted that subject to a separate approvals process, the

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		• As the proposed lot is within an environmentally sensitive area, the secondary treatment system (STS) should be engineer Certified detailing the requirements as specified on the DoH website: https://ww2.health.wa.gov.au/Articles/A_E/Certification-for-installation-of-wastewater-treatment-systems To ensure the stormwater catchment and diversion/disposal does not influence or interfere with the efficacy of the effluent disposal area. • A plan detailing the proposed building envelopes, all trafficable areas, parking bays and land application area/s with setbacks, exclusion zones and measurements shown for the proposal. • Each onsite wastewater treatment system and disposal area requires a formal application to be submitted to the respective local government for assessment and that will be forward onto the DoH for approval. **2. Public Health Impacts** The site was a former farmhouse and out-buildings and portion of cleared bushland used for grazing. The submission provides no information on the age and construction of the existing buildings, the presence or absence of hazardous materials (including asbestos, fuel tanks, agricultural chemicals etc) or the measures to prevent the release of hazardous materials during any proposed demolition prior to development, causing land contamination. The site is not registered on the Department of Water and Environmental Regulation contaminated sites database. However, the proponent is advised to obtain a Basic Summary of Records to complete their enquiries: https://www.der.wa.gov.au/images/documents/your-environment/contaminated-sites/Forms/Form-2.pdf Consideration should be given to the setback of the facility from the main road. There are currently no guidelines for setbacks of child-care premises from busy roads but there is consistent evidence of adverse short and long-term health outcomes in children exposed to traffic-related air pollution	measures the rate of infiltration. The test requires the wicking ability of the soil to get a result. In simple terms, the test simulates rainy conditions and completely saturates the soil as if it is a wet season. • The other items relating to the STS and details of building envelopes, trafficable areas, parking etc will be addressed at detailed design stage of the development.	wastewater system will have to be approved by the DoH in conjunction with the Shire.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		(TRAP). The DoH recommends a setback of at least 50m for the main buildings and play areas. The DoH also recommends vegetation barriers between the road and the site. 3. Food Act Requirements All food related areas (kitchen, preparation areas, etc.) to comply with the provisions of the Food Act 2008 and related code, regulations and guidelines. Details available for download from: https://ww2.health.wa.gov.au/Articles/S_T/Starting-a-food-business-in-WA		
A398230	1	I look to object to this plan for childcare centre on Lot 57 Briggs Road Byford. Reason for my objection is that I bought into this area due to its special zoning, to keep it like the way it is. There are so many places to open child care centre. We already have almost 5 to 6 child care centre in Byford district. To keep Byford suburb, we have got mix of everything. This acre property lots are part of Byford, so they should be kept it is. It is pocket in Byford, that I wouldn't change so please reject this proposal.	The land is zoned Urban Development under the Shire's LPS2 and is subject to the Byford Area D Briggs Larsen Precinct Local Structure Plan, which contemplates the urbanisation of the site and its surroundings.	The Child-Minding Centre' is a discretionary land use in the 'Residential' zone consistent with the residential designations of the structure plans. This means that the land use can be considered as discussed in the main report.
A398408	2	To Whom it may concern I am writing this submission in response to the info pack dating 20 March 2023. It is to do with a school zone and also a childcare centre. I live at 152 Larsen Road and already find this road very busy. Especially at school times. With another school and childcare centre there, it will increase traffic again. Larsen road at school times is already a race track. There is also the problem of traffic trying to get onto the South West Highway. There is one day going to be a serious accident there with people trying to cross the road. The road needs to be widened and also lights or a roundabout. The council	The land is zoned Urban Development under the Shire's LPS2 and is subject to the Byford Area D Briggs Larsen Precinct Local Structure Plan, which contemplates the urbanisation of the site and its surroundings.	A Child Minding Centre can be considered in the location as discussed in the main report

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		needs to continue George Street through to relieve traffic from the h/way. We also bought our property because of the fact it was rural and that blocks needed to be 1 acre. Now right behind our property you have drawn in small blocks. This is NOT in rural plans. It also increases the risk of break-ins as people will be jumping the fences. My wife and I certainly DO NOT support the blocks behind the 1 acre properties on Larsen Road. This submission is all about the council trying to get more blocks in and rates, when they should be trying to enhance the country lifestyle we and lots of other people bought our properties in Byford for. Surely from the previous submission we received last year you as council would have found that the people on Larsen Road do NOT support the subdivision behind their properties.	The application is supported by a traffic assessment prepared by a suitably qualified / experienced traffic engineer, demonstrating minimal impact to the surrounding road network. It is also understood the Shire is intending to address local traffic conditions as part of future detailed planning.	
A202312	3	I am all for progress and have nothing against the proposal. My problem is Briggs Road not having footpaths and adequate lighting to host these changes for the kids and cars expected to use it.	Footpaths and urban infrastructure will be delivered as part of subdivision / development occurring in accordance with local structure plans.	This matter has been discussed in the traffic section of the report. To address the concerns raised a condition of approval has been recommended to require footpaths to be constructed. The footpaths should be extended to link to the footpath network (existing) on Larsen Road.

SUMMARY OF SUBMISSIONS

PA23/172 – Lot 57 Briggs Road, Byford – JDAP – Proposed Child Care Centre

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
A404541	4	We do not object to this proposal in principle, however, we think there needs to be an upgrade to the Briggs Road and Thomas Road intersection, and Briggs Road itself to Abernethy Road for the below reasons; • The childcare centre proposed for the site along Briggs Road is bound to place more traffic volume through the already dangerous intersection of Briggs Road and Thomas Roads, Briggs Road is also very narrow and in poor condition • The upgrade to the above mentioned roads would hopefully also encourage traffic which currently use Eurythmic Road, Marlarkey Road, Ballawara Avenue and Kardan Avenue as a 'rat run' from Thomas Road through to the Abernethy Road schools and shops area to use a newly created more streamlines option • A reduction or at least no increase in traffic along 4 suburban streets and intersections is surely a safety positive	The application is supported by a traffic assessment prepared by a suitably qualified / experienced traffic engineer, demonstrating minimal impact to the surrounding road network. It is also understood the Shire is intending to address local traffic conditions as part of future detailed planning.	This has been discussed in the traffic section of the report.
A398341	5	1st - Why do we need another child care centre within meters of the proposed site lot 9511. Two centres literally across the road from each other will only cause major traffic congestion for Briggs Road. 2nd – will Briggs Road be widened as it is only a single lane carriage way with table drains on either side, making it dangerous to overtake a turning vehicle, our concern lies with the congestion of traffic	The application is supported by a traffic assessment prepared by a suitably qualified / experienced traffic engineer, demonstrating minimal impact to the surrounding road network. It is also understood the Shire is intending to address local traffic conditions as part of future detailed planning.	This has been discussed in the traffic section of the report. A condition of approval is recommended to require a financial contribution to resurfacing of the road, to ensure that the very bad section of Briggs Road would be upgraded.

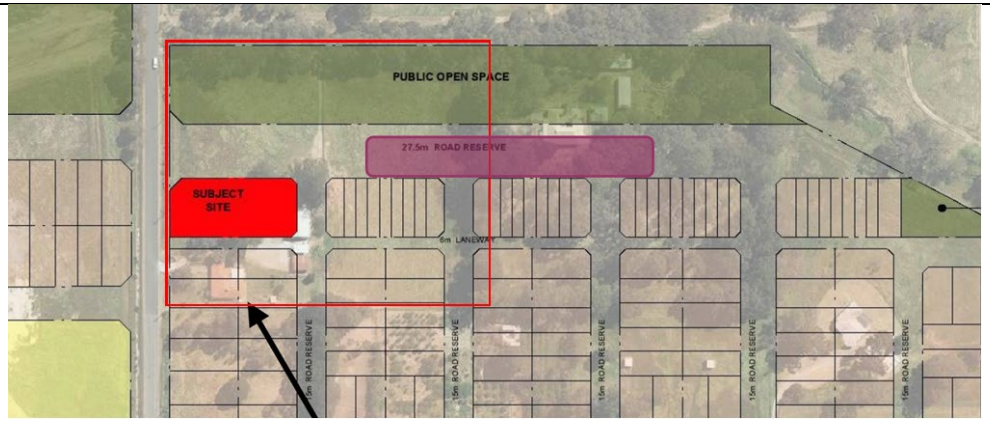
SUMMARY OF SUBMISSIONS

PA23/172 – Lot 57 Briggs Road, Byford – JDAP – Proposed Child Care Centre

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
A400670	6	No complaints here. Perhaps when centre and proposed school is finished it may well reduce the speed limit for a safer community.	Noted.	
A398231	7	This letter is written in comment to the Proposed Child Minding Centre-Lot 57 Briggs Road, Byford. As the owner of property on Larsen Road Byford I wish to comment that I am not in favour of the proposal. The proposal is too much for the area considering there are in excess of four Child Minding Centres already withing 1km of the proposed. There are already two on Larsen Rd, one directly across the South Western Highway and multiple more on the west side of the site also. The proposal hence creates an overall planning layout of proposed new blocks directly behind our larger Rural Living A lots and is not a good design as these properties are quite large and have sheds, animals, etc already established on them and so having small properties directly behind and next to these will create trouble and privacy issues for these properties. It should be proposed that another row of larger blocks as proposed in the plan can back onto the existing Rural Living A blocks and then have the access road in front of them. This will create good privacy for both existing and new proposed lots. This needs to be addressed as this proposal and overall structure plan will create a lot of problems for these larger blocks, that are already existing, and to maintain the existing privacy of these larger blocks with the higher density living, the proposed Child Minding Facility in this location is not supported. This proposal will adversely affect these existing properties, which should not be allowed considering that these properties have been established in place for many years already and the new proposed plan	The perceived oversupply of a land use is not a relevant planning consideration. Child Care Premises is a use contemplated on the site by virtue of its Residential zoning allocation under the Byford Area D Local Structure Plan. The proposed development is consistent with the applicable planning framework and warrants approval. The subdivision layout shown on the proposed plans is not proposed by this application. The layout was taken from the subdivision guide plan contained in the Byford Area D Local Structure Plan.	The planning framework does not specifically limit the number of business types to an area, recognising competitive neutrality as an important component of a market led economy. As discussed in the main report the current situation pertaining to a lack of available childcare places has been considered.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		needs to provide minimal disruption and changes to these existing properties. If you require any further information or comment relating to this comment please feel free to contact me. I trust that these comments will be taken into consideration and not dismissed as it should be the right of us to make comment and changes made accordingly if required.		
A398407	8	This letter is written in comment to the Proposed Child Minding Centre-Lot 57 Briggs Road, Byford. As owners of property on Larsen Road Byford I wish to comment that I am not in favour of the proposal. The proposal is too much for the area considering there are in excess of four Child Minding Centres already withing 1km of the proposed. There are already two on Larsen Rd, one directly across the South Western Highway and multiple more on the west side of the site also. The proposal hence creates an overall planning layout of proposed new blocks directly behind our larger Rural Living A lots and is not a good design as these properties are quite large and have sheds, animals, etc already established on them and so having small properties directly behind and next to these will create trouble and privacy issues for these properties. It should be proposed that another row of larger blocks as proposed in the plan can back onto the existing Rural Living A blocks and then have the access road in front of them. This will create good privacy for both existing and new proposed lots. This needs to be addressed as this proposal and overall structure plan will create a lot of problems for these larger blocks, that are already existing, and to maintain the existing privacy of these larger blocks with the higher density living, the proposed Child Minding Facility in this location is not supported. This proposal will adversely affect these existing properties,	Refer comments above.	The planning framework does not specifically limit the number of business types to an area, recognising competitive neutrality as an important component of a market led economy. As discussed in the main report the current situation pertaining to a lack of available childcare places has been considered. Potential amenity impact to future residential lots have been discussed in the main report.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		which should not be allowed considering that these properties have been established in place for many years already and the new proposed plan needs to provide minimal disruption and changes to these existing properties. If you require any further information or comment relating to this comment please feel free to contact me. I trust that these comments will be taken into consideration and not dismissed as it should be the right of us to make comment and changes made accordingly if required.		
A6119	9	I am a longstanding landowner and ratepayer within the Shire. I <u>strongly object</u> to the proposed Child Minding Centre. On the whole, the development is premature as the appropriate infrastructure is not or will not be in place to support the facility. The development is not in line with proper and orderly planning. **Issues with the lack of sewer and the Site Soil Evaluation (SSE)** The Byford Area D Briggs Larsen Precinct LSP (the LSP) contemplates that the site will be serviced by reticulated sewer however the application is not proposing to connect to sewer. I consider the development should not be permitted without the connection to sewer. The application proposes the use of a Land Application Area (LAA) which is not in compliance with the Government Sewerage Policy (2019) and this is a critical flaw. Only a portion of Lot 57 is planned for this development (i.e., childcare centre) – with all other areas of the site being earmarked for either residential lots, road reserves and public open space (refer image below) – the subject site is shaded red, with the red square indicating the approximate Lot 57 boundary. The purple shading is the currently proposed LAA.	The proposed development has been designed in a manner which allows it to be established under current site conditions and ultimate site conditions. The SSE was produced by a suitably qualified and experienced scientist, and has been reviewed by external authorities. Some minor comments were received which are entirely capable of being addressed during detailed design stage as necessary. The approach of adopting a temporary onsite	As discussed in the main report a condition has been recommended requiring an updated Site Soil Evaluation (SSE) to be submitted to reflect Department of Health (DoH). The SSE to be submitted to the Shire for approval on advice by the DoH. It should be noted that subject to a separate approvals process, the wastewater system will have to be approved by the DoH in conjunction with the Shire. This provides a second assessment process to ensure the

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		 Given the future land use planned for the site, the proposed LAA has been positioned underneath a future road reserve and is also extending into the neighbouring Lot 58. Given the area requirements, the LAA would also be unable to be accommodated within the subject site (i.e. the childcare centre site). Table 4 of Schedule 2 of the Government Sewerage Policy (2019) details the minimum site requirements, which are considered not to be met: • The land application area includes the area restricted to the distribution of treated sewage only and should be kept free of any temporary or permanent structures. • Activities within the land application area should not interfere with the function of the current and future land application system and people should avoid potential contact with effluent residues. • Unless specifically allowed for in the design, the land application area should: o Not be built on or paved in a manner that precludes reasonable access	effluent disposal system is entirely appropriate. It is important to recognise that the use of onsite effluent disposal is a temporary measure. When subdivision and urbanisation of Lot 57 occurs, the onsite effluent system will be decommissioned and a sewer connection created. This would occur at the time the adjoining roads are constructed, as future services are understood to be planned as part of the future road network. The application is supported by a traffic assessment prepared by a suitably qualified / experienced traffic engineer, demonstrating minimal impact to the surrounding road network. It is also understood the Shire is intending to address local	system is compatible with the land and broader area.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		o Not be subject to vehicular traffic (other than a pedestrian controlled lawnmower) o Not be subject to regular foot traffic such as pathways and clothes line areas; and o Should be kept in a manner which enables servicing and maintenance of the disposal system. In consideration of the above and the current development plan provided in the SSE, the critical flaw in this proposal is that the LAA cannot be accommodated in the subject site, nor can it reasonably be accommodated in the remaining area within Lot 57 due to the planned future land uses. There are a number of other issues with the SSE. The site is located within a sewerage sensitive area "Estuary Catchment of the Swan Coastal Plain" and as such requires a groundwater separation distance of 1.5 m from the highest known / demonstrated groundwater level encountered at the site to the LAA. • The SSE incorrectly explained the site is not within a sewerage sensitive area and only requires 0.6 – 1 m groundwater clearance beneath the LAA. • As such, the report also fails to detail the requirement that wastewater needs to be treated via a secondary treatment system with additional nutrient removal. All fieldwork was undertaken in January 2023. The Government Sewerage Policy (2019) requires field investigations to be conducted at the end of winter to be able to demonstrate the likely maximum groundwater level at the site when there is insufficient groundwater data – given the time of year the investigations were undertaken and the lack of any other groundwater data – this has not been adequately demonstrated. Given the excavator encountered refusal at depths of 1.3 and 1.4 meters below ground level – it could be reasonably assumed that this geology may	traffic conditions as part of future detailed planning.	

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		result in perching of infiltrated water. This has not been considered with respect to clearance to groundwater in the LAA design. The site investigation test pits were not conducted in the location of the proposed LAA – this presents some uncertainty in the overall findings. **Traffic and Road Issues** The centre is proposed to be developed before the adjacent road network is completed. The application is proposing temporary access to Briggs Road until Indigo Parkway is constructed on the east side of Briggs Road. This interim access is located broadly opposite the new Briggs / Indigo intersection. Australian Standards AS2890 provides advice on the appropriate location of access driveways and advises against locating driveways within the area of an intersection. I do not believe sufficient consideration or justification has been provided for the interim access. The Transport Impact Statement for the application states "[t]his report will mainly focus on the Stage 1 of this development, where only Childcare Centre and an interim driveway access to Briggs Road are completed …". The application does not adequately address how the development will fit within the ultimate road network. The LSP states in Part Two, Section 5.5.2 that "direct lot access to Indigo Parkway is not provided". The proposal seems to be inconsistent with the LSP as it references that under the ultimate road network, an exit only crossover to Indigo Parkway is proposed. No explanation has been given for the inconsistency.		As discussed in the main report the e predicted AM/PM trip generation peak periods fall under the 'moderate impact' category according to WAPC Transport Impact Assessment Guidelines.

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		Developer Contribution Arrangements In the event the development is permitted (despite my view that it should not be permitted in its current form), it is expected that the appropriate developer contribution arrangements would be levied on the developer. I look forward to my comments being considered and appropriately addressed by the Shire.		
A400875	10	Support the proposal - May be there will be an increase in morning traffic.	Noted.	Noted
A406347	11	Object to the proposal. I strongly object to the proposed Child Care Centre on the portion of Lot 57 Briggs Road, Byford for the following reasons: 1. The proposal is inappropriately located on the eastern side of Briggs Road where parents and children have to cross over a busy Briggs Road to get to and from a future primary school (bounded by Caspian Chase, Briggs Road, Eurythmic Road, and Delianuova Street). This will create traffic congestion, traffic conflicts, and traffic chaos in the immediate local area causing confusion and an unsafe traffic and pedestrian environment. The intersection of Briggs Road and Indigo Parkway will become an uncontrolled intersection for cars and pedestrians trying to cross Briggs Road. It is unsafe, dangerous, and a recipe for accidents. 2. Byford is in need of a childcare centre. However, the location of this proposal is contrary to the orderly and proper planning for a childcare centre. It is on the wrong side of a future primary school. It is impractical for any parents to either drop their primary school-aged children at the future primary school and then hop in their cars to drop the younger children for child care, or vice versa. Doing it any other way would require crossing over a busy Briggs Road. 3. It is unacceptable for the proposal to be connected to an alternative effluent disposal system when the sewer is available in the area and can	The application is supported by a traffic assessment prepared by a suitably qualified / experienced traffic engineer, demonstrating minimal impact to the surrounding road network. It is also understood the Shire is intending to address local traffic conditions as part of future detailed planning. Briggs Road is currently constructed to a rural standard. It will be upgraded to an urban standard as urbanisation occurs in the locality, which will enhance connectivity between the	

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		be readily connected. It is totally unacceptable for our children to be exposed to treated wastewater through irrigation be it surface spray or dripline. A Child Care Centre is a highly sensitive land use and must be treated with the highest level of scrutiny. A childcare centre must be connected to a deep sewer. For the protection of the children's health, the proposal cannot be serviced by other alternative effluent disposal system. 4. The proposal is located in a non-established part of Byford. With the approval of the Local Structure Plan, there will be many disruptions and construction activities, and lots of infrastructure construction activities causing traffic, noise, dust and negative impacts on the health, safety and well-being of young children. 5. The proposal is contrary to the Department of Planning, Lands, and Heritage (DPLH) Draft Position Statement: Child Care Premises as it is NOT co-locating with schools, is not part of the development of childcare premises during the preparation of a Local Structure Plan. The proponent has not adequately demonstrated that the proposed development will not create unsafe conditions for the children and families, or pedestrians, cyclists and vehicles using the roads near childcare premises. The proponent has not prioritised children's health and safety by reference to the Act and Regulations that apply guidance and standards for existing and future childcare premises. 6. The proposal will take away the Residential R60 density earmarked for future residential dwellings thereby reducing the dwelling yield forecast in Byford. The site is unsuitable and not well-planned for a child care centre as it was not envisaged and planned during the preparation of the local structure plan. It is an afterthought and probably tied up in a contract to purchase from the current landowner. The Shire is the custodian of making sure the approved Local Structure Plans are implemented as per the approval. That means the proposed child care centre east of Briggs Rd should not be approved without the Indigo	child care facility and the surrounding areas. The approach of adopting a temporary onsite effluent disposal system is entirely appropriate, given a sewer connection is not currently feasible or possible. It is important to recognise that the use of onsite effluent disposal is a temporary measure. When subdivision and urbanisation of Lot 57 occurs, the onsite effluent system will be decommissioned and a sewer connection created. This would occur at the time the adjoining roads are constructed, as future services are understood to be planned as part of the future road network. The Byford Area D LSP guides the detailed planning for the locality, and is to be given due regard in the assessment	

SUMMARY OF SUBMISSIONS

PA23/172 – Lot 57 Briggs Road, Byford – JDAP – Proposed Child Care Centre

Submitter	No	Submitter Comments	Applicant Comment	Officer Recommendation
		Parkway alignment issue being resolved together with its construction, the roundabout at Briggs Rd / Indigo Parkway must also be built (because this proposal triggers the need and nexus), the construction and contribution of Public Open Space. It is emphasised that all the requirements of the approved Local Structure Plan will have to be imposed on the proposed development if approval were contemplated to ensure the Public Open Space contribution, construction of a roundabout at Indigo Parkway and Briggs Road together with all the Development Contribution Plan requirements for the east side of Briggs Road to be fulfilled and satisfied.	of this application. The proposed child care premises is a use capable of consideration in the Residential zone which is allocated to the site and is consistent with the applicable planning framework.	
A407904	12	My comments to your planning site in Byford as long as your intention is good for the community and have more benefit to the natural beauty of our area. I think no problem. Hope it's nice to live here.	Noted and agreed.	Noted

Deemed Provisions – Cl 67 Matters to be considered by local Government

Land Use:

a) The aims and provisions of this Scheme and any other local planning scheme operating within the area	**YES** ☒	**NO** ☐	**N/A** ☐
Comment: The proposed development is considered to be generally consistent with the aims and provisions of the Scheme. The proposal falls within the TPS2 definition of 'Child Minding Centre', which means: ***"Child Care 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".*** **The Child-Minding Centre' land use is a 'SA' land use in the 'Residential' zone which means, "*that Council may, at its discretion, permit the use after notice of the application has been given in accordance with Clause 64 of the Deemed Provisions*."**			

b) The requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the *Planning and Development (Local Planning Schemes) Regulations 2015* or any other proposed planning instrument that the local government is seriously considering adopting of approving	**YES** ☒	**NO** ☐	**N/A** ☐
Comment: The proposed development is considered to be generally consistent with the Draft Local Planning Scheme No.3 and the Local Planning Strategy. The zoning of the subject site under draft Local Planning Scheme No.3 (LPS3) will remain 'Urban Development'. The proposal would still fall under the land use of 'Child Care Premises' which is defined as: ***"means premises where –*** ***(a) an education and care service as defined in the Education and Care Services National Law (Western Australia) Section 5(1), other than a family day care service as defined in that section, is provided; or*** ***(b) a child care service as defined in the Child Care Services Act 2007 section 4 is provided".***			

c) any approved State planning policy	**YES** ☒	**NO** ☐	**N/A** ☐
Comment: Planning Bulletin 72/2009 – Child Care Centres. The proposal is generally consistent with the provisions of the bulletin. The proposal is in close proximity to land identified for a future school site to the west and is located approximately 400m from the Byford Meadows Neighbourhood Centre Precinct within a medium density housing environment. It is serviced by Transperth bus routes on Eurythmic Boulevard west of Briggs Road which is within walking distance from the site. As discussed in the report the overall, the proposal is considered consistent with Planning Bulletin 72/2009.			

d) any environmental protection policy approved under the *Environmental Protection Act 1986* section 31(d)	**YES** ☐	**NO** ☐	**N/A** ☒
Comment:			

e) any policy of the Commission	**YES** ☐	**NO** ☐	**N/A** ☐
Comment:			

f) any policy of the State	**YES** ☐	**NO** ☐	**N/A** ☒
Comment:			

g) any local planning policy for the Scheme area	**YES** ☒	**NO** ☐	**N/A** ☐

Comment:

- **Local Planning Policy 1.6 – Public Art for Major Developments (LPP 1.6**
- **Local Planning Policy 4.11 – Advertising Policy (LPP4.11)**
- **Local Planning Policy 2.4 – Water Sensitive Design (LPP2.4**
- **Local Planning Policy 24 (LPP24) – Designing Out Crime Local Planning Policy 4.16 –**
- **Landscape and Vegetation Policy (LPP4.16);**
- **Policy 1.4 – Public Consultation on Planning Matters;**
- **Local Planning Policy 4.24 - Child Minding Centres (LPP4.24)**

The proposal has been assessed against these policies as discussed in the main report.

h) any structure plan, activity centre plan or local development plan that relates to the development	**YES** ☐	**NO** ☐	**N/A** ☐

Comment:

- **Byford District Structure Plan 2020**
- **Draft Shire of Serpentine Jarrahdale Local Planning Scheme No.3;**
- **Local Planning Strategy.**

As discussed in the main report the proposal is compatible to the future residential development as it seeks to incorporate design elements to the building which, when viewed from the street, would appear residential in form.

i) any report of the review of the local planning scheme that has been published under the P*lanning and Development (Local Planning Schemes) Regulations 2015*	**YES** ☐	**NO** ☐	**N/A** ☒
Comment:			

j) in the case of land reserved under this Scheme, the objectives for the reserve and the additional and permitted uses identified in this Scheme for the reserve	**YES** ☐	**NO** ☐	**N/A** ☒
Comment:			

Development:

k) the built heritage conservation of any place that is of cultural significance	YES ☐	NO ☐	N/A ☒
Comment:			

l) the effect of the proposal on the cultural heritage significance of the area in which the development is located	YES ☐	NO ☐	N/A ☒
Comment:			

m) 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	YES ☒	NO ☐	N/A ☐
Comment: As discussed in the main report Officers consider that the development, by way of scale, intensity and form of development is consistent with the current and intended future amenity of the area.			

n) the amenity of the locality including the following – I. Environmental impacts of the development II. The character of the locality III. Social impacts of the development	YES ☒	NO ☐	N/A ☐
Comment:			

o) the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or the water resource	YES ☒	NO ☐	N/A ☐
Comment:			

p) whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved	YES ☒	NO ☐	N/A ☐
Comment: The proposal includes areas of landscaping. A condition of approval has been included.			

q) the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bushfire, soil erosion, land degradation or any other risk	YES ☒	NO ☐	N/A ☐
Comment: The proposal is supported by a Bushfire Management Plan.			

r) the suitability of the land for the development taking into account the possible risk to human health or safety	YES ☐	NO ☐	N/A ☐
Comment:			

s) the adequacy of – I. The proposed means of access to and egress from the site; and II. Arrangements for the loading, unloading, manoeuvring and parking of vehicles	YES ☐	NO ☐	N/A ☐
Comment: The proposed access arrangements are generally in accordance with the current and future planning framework.			

t) the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety	YES ☐	NO ☐	N/A ☐
Comment: A Traffic Impact Statement has been provided, which demonstrated traffic generation and predicted volumes can be adequately accommodated on the existing road network. The proposed development will not increase the traffic volume on any particular section of the road by more than 100 vehicles per hour.			

u) the availability and adequacy for the development of the following – I. Public transport services II. Public utility services III. Storage, management and collection of waste IV. Access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities) V. Access by older people and people with disability	YES ☐	NO ☐	N/A ☐

Comment: The proposed development is conveniently located. The site is serviced by Transperth bus routes on Eurythmic Boulevard west of Briggs Road, approximately 350 metres walking distance from the site. There is a section of Briggs Road, that is designated as 'Very Poor' according to the 2023 asset data capture. Without a suitable upgrade, the very poor section of Briggs Road will, in the opinion of Officers, be a risk exacerbated by the intensification of traffic proposed by the development. Officers are of the opinion that the road upgrade at least needs to comprise resurfacing, similar to the recent resurfacing of Briggs Road completed by the Shire south of Larsen Road. Accordingly, a condition is recommended to require a financial contribution to resurfacing of the road, based upon the following formula:

A. Cost to resurface 160m section:	**$120,000**
B. Number of child care centres proposed:	**Two**
C. Portion of traffic emanating south:	**40%**
Formula to calculate financial contribution:	**(A/B) x C**
Upgrade contribution:	**$24,000**

To address this aspect, a road upgrade is needed to enable the proposed development to safely operate based on the expected traffic demands which show in the interim period 40% of traffic coming from the south. A financial contribution towards this, based on generated traffic, is recommended to be conditioned.

v) the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses	YES ☐	NO ☐	N/A ☒
Comment:			

w) the history of the site where the development is to be located	YES ☒	NO ☐	N/A ☐
Comment: The history of the site has been detailed in the report.			

x) the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals	YES ☒	NO ☐	N/A ☐
Comment: The proposed development is intended to provide for child minding centre needs of the direct community. The current situation pertaining to a lack of available childcare places, measured as a portion of theoretical places available per child has been discussed in the main report.			

y) any submissions received on the application	YES ☒	NO ☐	N/A ☐
Comment: Submissions received have been discussed within the report.			

Za) the comments or submissions received from any authority consulted under clause 66	YES ☒	NO ☐	N/A ☐
Comment: Department of Education (DoE), Department of Water and Environmental Regulation (DWER), Water Cooperation and Main Roads Western Australia (MRWA have no in principle objections to the proposal.			

Zb) any other planning consideration the local government considers appropriate	YES ☒	NO ☐	N/A ☐
Comment:			

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Environmental Noise Assessment - Childcare Centre

Lot 57 Briggs Road, Byford

Reference: 23017822-01

Prepared for:
Blokk Property Pty Ltd

Reference: 23017822-01

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Date	Rev	Description	Author	Verified
20-Feb-23	0	Issued to Client	Matt Moyle	Terry George

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EXECUTIVE SUMMARY

Lloyd George Acoustics was engaged by Blokk Property Pty Ltd to undertake a noise assessment for a proposed childcare centre (CCC) to be located at Lot 57 Briggs Road, Byford. This report considered noise emissions from the proposed childcare centre to surrounding properties by way of noise modelling of child play, mechanical plant and car door closings.

The predicted noise from all children playing outside and car door closings is compliant provided walls are constructed on the south side boundary common with residential lots. The wall is to be 2.1 metres high and must be solid, free of gaps and of minimum surface mass 8 kg/m^2. Such material can be brick, limestone with double sheeted *Colorbond* also permissible. For areas where visual permeability is required, sound-rated plexiglass can be used. Mechanical plant noise was also calculated to be compliant, however once the plant has been designed and selected, this should be further reviewed to ensure compliance prior to Building Permit.

1. INTRODUCTION

Lloyd George Acoustics was engaged by Blokk Property Pty Ltd to undertake an environmental noise assessment for a proposed childcare centre (CCC) to be located at Lot 57 Briggs Road, Byford (refer *Figure 1-1*) with the site plan shown in *Figure 1-2* and Development Application (DA) plans provided in *Appendix A*. The purpose of this report is to consider noise emissions from the proposed childcare centre to surrounding future properties.



Figure 1-1: Subject Site Location (Source: Meyer Shircore Architects)

The proposed childcare centre will be open Monday to Friday, 6.30am to 6.30pm and consist of the following:

- Five internal teaching spaces capable of accommodating up to 104 children, grouped as follows:
  - Activity 1: 12 places for children aged 0-1 years;
  - Activity 2: 12 places for children aged 1-2 years;
  - Activity 3: 20 places for children aged 2-3 years;
  - Activity 4 & 5: 60 places for children aged 3-5 years.
- Outdoor play areas;
- Amenities and associated mechanical plant such as:
  - Kitchen exhaust fan assumed to be located on roof above;
  - Various exhaust fans (toilets, laundry, nappy room) assumed to be located on the roof above;
  - Air-conditioning (AC) plant, assumed to located on the ground in the yard as shown on the DA Plans;
- Car parking on the east side of the lot.



Figure 1-2: Proposed Site Plan

With regard to noise emissions, consideration is given to noise from child play, mechanical services and closing car doors at neighbouring properties, against the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*.

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

2. CRITERIA

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

2.1. Regulations 7, 8 & 9

This group of regulations defines the prescribed standard for noise emissions applicable to child play, mechanical services and car door closing as follows:

*"**7. Prescribed standard for noise emissions***

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

(a) must not cause, or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and

(b) must be free of –

(i) tonality; and

(ii) impulsiveness; and

(iii) modulation,

when assessed under regulation 9.

(2) For the purposes of subregulation (1)(a), a noise emission is taken to significantly contribute to a level of noise if the noise emission … exceeds a value which is 5 dB below the assigned level at the point of reception."

Tonality, impulsiveness and modulation are defined in regulation 9 (refer *Appendix B*). Under regulation 9(3), *"Noise is taken to be free of the characteristics of tonality, impulsiveness and modulation if -*

(a) the characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and

(b) the noise emission complies with the standard prescribed under regulation 7(1)(a) after the adjustments in the table [Table 2-1] … are made to the noise emission as measured at the point of reception."

Table 2-1 Adjustments Where Characteristics Cannot Be Removed

Where Noise Emission is Not Music*			Where Noise Emission is Music	
Tonality	Modulation	Impulsiveness	No Impulsiveness	Impulsiveness
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

* These adjustments are cumulative to a maximum of 15 dB.

The assigned levels (prescribed standards) for all premises are specified in regulation 8(3) and are shown in *Table 2-2*. The L_{A10} assigned level is applicable to noises present for more than 10% of a representative assessment period, generally applicable to "steady-state" noise sources. The L_{A1} is for short-term noise sources present for less than 10% and more than 1% of the time. The L_{Amax} assigned level is applicable for incidental noise sources, present for less than 1% of the time.

Table 2-2 Baseline Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	45 + influencing factor	55 + influencing factor	65 + influencing factor
	0900 to 1900 hours Sunday and public holidays (Sunday)	40 + influencing factor	50 + influencing factor	65 + influencing factor
	1900 to 2200 hours all days (Evening)	40 + influencing factor	50 + influencing factor	55 + influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35 + influencing factor	45 + influencing factor	55 + influencing factor
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial Premises	All hours	60	75	80
Industrial and Utility Premises	All hours	65	80	90

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

The influencing factor (IF), in relation to noise received at noise sensitive premises, has been calculated as 0 dB, with the surrounding land uses being either rural or residential (urban development) in nature. *Table 2-3* shows the assigned levels applicable at the receiving locations.

Table 2-3 Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	45	55	65
	0900 to 1900 hours Sunday and public holidays (Sunday)	40	50	65
	1900 to 2200 hours all days (Evening)	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35	45	55

It must be noted the assigned levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces. Where this was not possible to be achieved due to the close proximity of existing buildings and/or fences, the noise emissions were assessed at a point within 1 metre from building facades and a -2 dB adjustment was made to the predicted noise levels to account for reflected noise.

The assigned levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as "*a period of time of not less than 15 minutes, and not exceeding 4 hours*, *determined by* an *inspector* or *authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission*". An inspector or authorised person is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Water Environmental Regulation. Acoustic consultants or other environmental consultants are not appointed as an inspector or authorised person. Therefore, whilst this assessment is based on a 4-hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

2.2. Regulation 3

*"**3. Regulations do not apply to certain noise emissions***

(1) Nothing in these regulations applies to the following noise emissions –

(a) Noise emissions from the propulsion and braking systems of motor vehicles operating on a road;"

The childcare centre car park is considered a road and therefore vehicle noise (propulsion and braking) is not assessed. Noise from vehicle car doors however are assessed, since these are not part of the propulsion or braking system.

2.3. Regulation 14A

"14A. Waste Collection and Other Works

(2) Regulation 7 does not apply to noise emitted in the course of carrying out class 1 works if –

(a) The works are carried out in the quietest reasonable and practicable manner; and

(b) The equipment used to carry out the works is the quietest reasonably available;

class 1 works means specified works carried out between -

(a) 0700 hours and 1900 hours on any day that is not a Sunday or a public holiday; or

(b) 0900 hours and 1900 hours on a Sunday or public holiday.

specified works means -

(a) The collection of waste; or

(b) The cleaning of a road or the drains for a road; or

(c) The cleaning of public places, including footpaths, cycle paths, car parks and beaches;"

In the case where specified works are to be carried out outside of class 1, a noise management plan is to be prepared and approved by the CEO.

3. METHODOLOGY

Computer modelling has been used to predict the noise emissions from the development to all nearby receivers. The software used was *SoundPLAN 8.2* with the ISO 9613 algorithms (ISO 171534-3 improved method) selected, as they include the influence of wind and are considered appropriate given the relatively short source to receiver distances. Input data required in the model are listed below and discussed in *Section 3.1* to *Section 3.4*:

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

3.1. Meteorological Conditions

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

Table 3-1: Modelling Meteorological Conditions

Parameter	Day (7.00am to 7.00pm)	Night (7.00pm to 7.00am)
Temperature (°C)	20	15
Humidity (%)	50	50
Wind Speed (m/s)	Up to 5	Up to 5
Wind Direction*	All	All

* The modelling package allows for all wind directions to be modelled simultaneously.

Alternatives to the above default conditions can be used where one year of weather data is available and the analysis considers the worst 2% of the day and night for the month of the year in which the worst-case weather conditions prevail (source: *Draft Guideline on Environmental Noise for Prescribed Premises*, May 2016). In most cases, the default conditions occur for more than 2% of the time and therefore must be satisfied.

3.2. Topographical Data

Topographical data was adapted from publicly available information (e.g. *Google*) in the form of spot heights and combined with the site plan.

Surrounding future buildings (as suitable for the subdivision) were also incorporated in the noise model, as these can provide noise shielding as well as reflection paths. Single storey future residential buildings are assumed and modelled with a height of 3.5 metres with receivers 1.4 metres above ground.

The area will be suburban in nature with boundary fencing assumed to be *Colorbond*. Whilst *Colorbond* fencing is 1.8 metres high, it is modelled as 1.6 metres high to take into account the lightweight nature of the product and potential lesser acoustic performance of a denser product.

The childcare centre building is incorporated in the noise model as per the *Appendix A* plans. Fencing to the south of the child play area is modelled as being 2.1 metres high. This fencing is to be solid, free of any gaps and of minimum surface mass 8 kg/m^2. Such material can be brick, limestone, concrete with double sheeted *Colorbond* also permissible. For areas where visual permeability is required, sound-rated plexiglass can be used. All other fencing has been assumed as open style (acoustically permeable).

Figure 3-1 shows a 2D overview of the noise model with the location of all relevant receivers identified. Pink dots represent point sources in the noise model (car doors, mechanical plant) with the pink polygon representing child play.

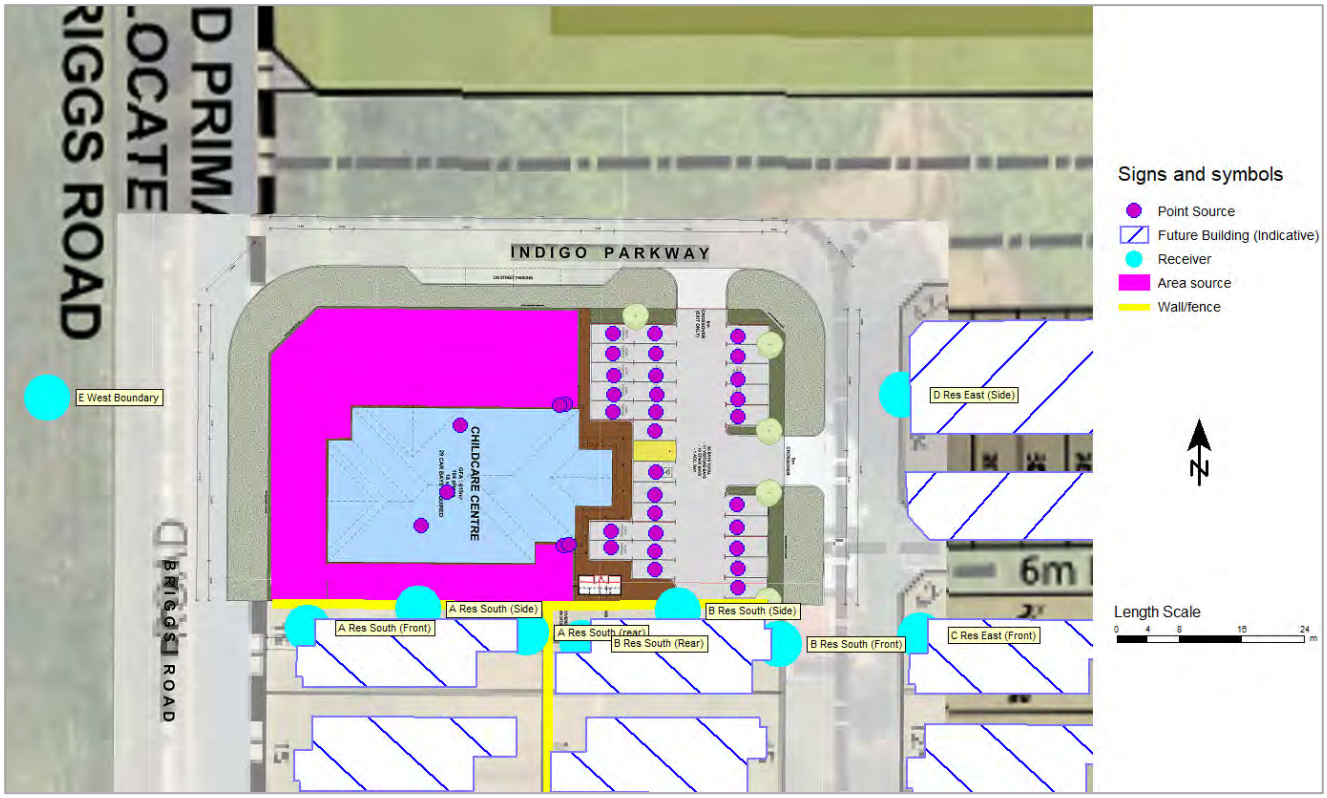


Figure 3-1: Overview of Noise Model

3.3. Ground Absorption

The ground absorption has been assumed to be 0.0 (0%) for the roads, 0.5 (50%) outside of the roads and 1.0 (100%) for the play areas, noting that 0.0 represents hard reflective surfaces such as water and 1.0 represents absorptive surfaces such as grass.

3.4. Source Sound Levels

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

Table 3-2: Source Sound Power Levels, dB

Description	Octave Band Centre Frequency (Hz)								Overall dB(A)
	63	125	250	500	1k	2k	4k	8k	
Babies Play Aged 0-2 Years (10 kids), L_{10}	48	54	60	66	72	74	71	67	**78**
Toddler Play Aged 2-3 Years (10 kids), L_{10}	61	67	73	79	81	78	74	70	**85**
Kindy Play Aged 3+ Years (10 kids), L_{10}	64	70	75	81	83	80	76	72	**87**
AC Plant, double fan unit (each), L_{10}	72	74	68	69	63	61	53	47	**70**
General Exhaust Fans (each), L_{10}	60	65	62	63	60	61	56	53	**67**
Kitchen Exhaust Fan, L_{10}	50	64	61	70	69	66	62	50	**73**
Closing Car Door (each), L_{max}	71	74	77	81	80	78	72	61	**84**

The following is noted in relation to *Table 3-2*:

- Child play source levels are based on *Guideline for Childcare Centre Acoustic Assessments Version 3.0* produced by the Association of Australasian Acoustical Consultants (AAAC) published September 2020. Where the number of children for individual play areas is specified in the plans, these have been adjusted from the reference source levels using appropriate acoustical calculations. Outdoor child play was modelled as area sources at 1-metre above ground level. The sound power levels used in the model were scaled as follows:
  - 24 children aged 0-2 years = 81 dB(A);
  - 20 children aged 2-3 years = 88 dB(A);
  - 60 children aged 3+ years = 94 dB(A).
- Based on the AAAC Guideline 3.0, source sound power levels for AC condensing units were assumed. Medium sized (double fan) outdoor units were deemed appropriate with two (2) modelled as point sources at 1.0m above ground level in the drying area and another two outside the Planning Room.
- Other mechanical plant includes four (4) exhaust fans (toilets and laundry) and one kitchen exhaust fan. All were modelled as point sources approximately 0.5 metres above roof level and above the area serviced.
- 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.

4. RESULTS AND ASSESSMENT

4.1. Outdoor Child Play Noise

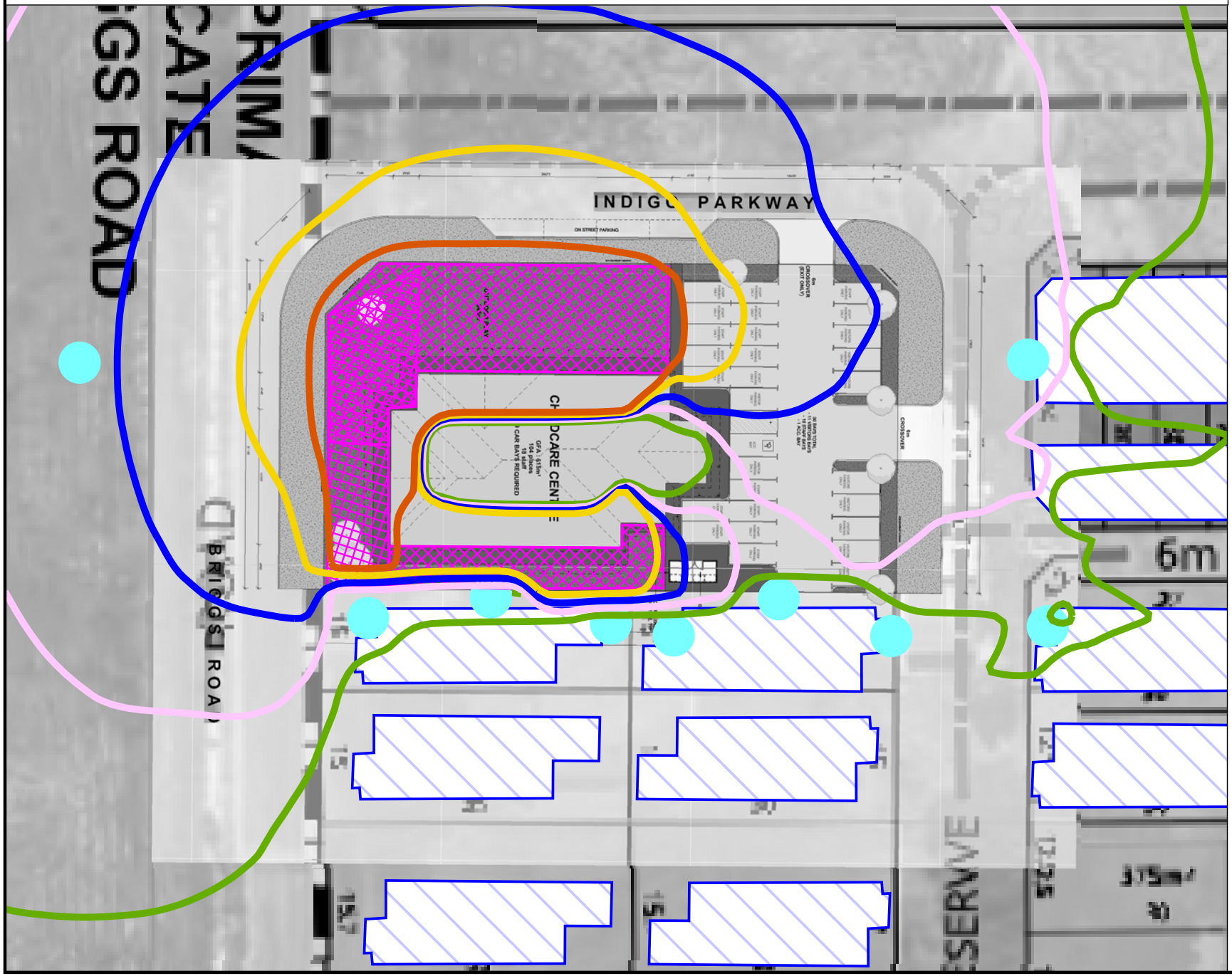
The childcare development will host up to 104 children. It is noted play time is generally staggered and therefore not all children would be playing outside at once for extended periods of time. However, noise levels were conservatively predicted for all children playing simultaneously, as a worst-case scenario with the results provided and assessed in *Table 4-1*. The critical assigned level is during the day, as whilst the childcare centre will open at 6.30am, child play will not commence until after 7.00am. Noise from child play is not considered to contain annoying characteristics within the definition of the Regulations and therefore no adjustments are made to the predicted noise levels. A noise contour plot is also provided in *Figure 4-1* showing noise levels at ground floor.

Table 4-1: Child Play Noise Predicted Levels and Assessment, dB(A)

Receiver	Babies (0-2 yo)	Toddler (2-3 yo)	Kindy (3+ yo)	Total	Assigned Level	Assessment
A Res South (Front)	30	41	39	**43**	**45**	*Complies*
A Res South (Rear)	35	23	28	**36**	**45**	*Complies*
A Res South (Side)	38	32	28	**39**	**45**	*Complies*
B Res South (Front)	23	18	27	**29**	**45**	*Complies*
B Res South (Rear)	34	23	28	**35**	**45**	*Complies*
B Res South (Side)	31	25	27	**33**	**45**	*Complies*
C Res East (Front)	28	22	39	**40**	**45**	*Complies*
D Res East (Side)	33	32	45	**45**	**45**	*Complies*
E West Boundary	30	44	48	**49**	**60**	*Complies*

Based on a conservative scenario of all 104 children playing outside simultaneously, the assessment demonstrates compliance is achieved during the day.

Figure 4-1 Outdoor Child Play Noise Ground Floor (1.5m AGL), dB L_{A10}



Predicted Noise level

	= 40
	= 45
	= 50
	= 55
	= 60

Legend

- Receiver
- Outdoor Childplay
- Future Residential

N

0 3.5 7 14 21 m

Project No: 23017822
Consultant: MM
Date: 20/02/2023
Algorithm: ISO 9613
SoundPLAN Version: 8.2

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4.2. Mechanical Plant Noise

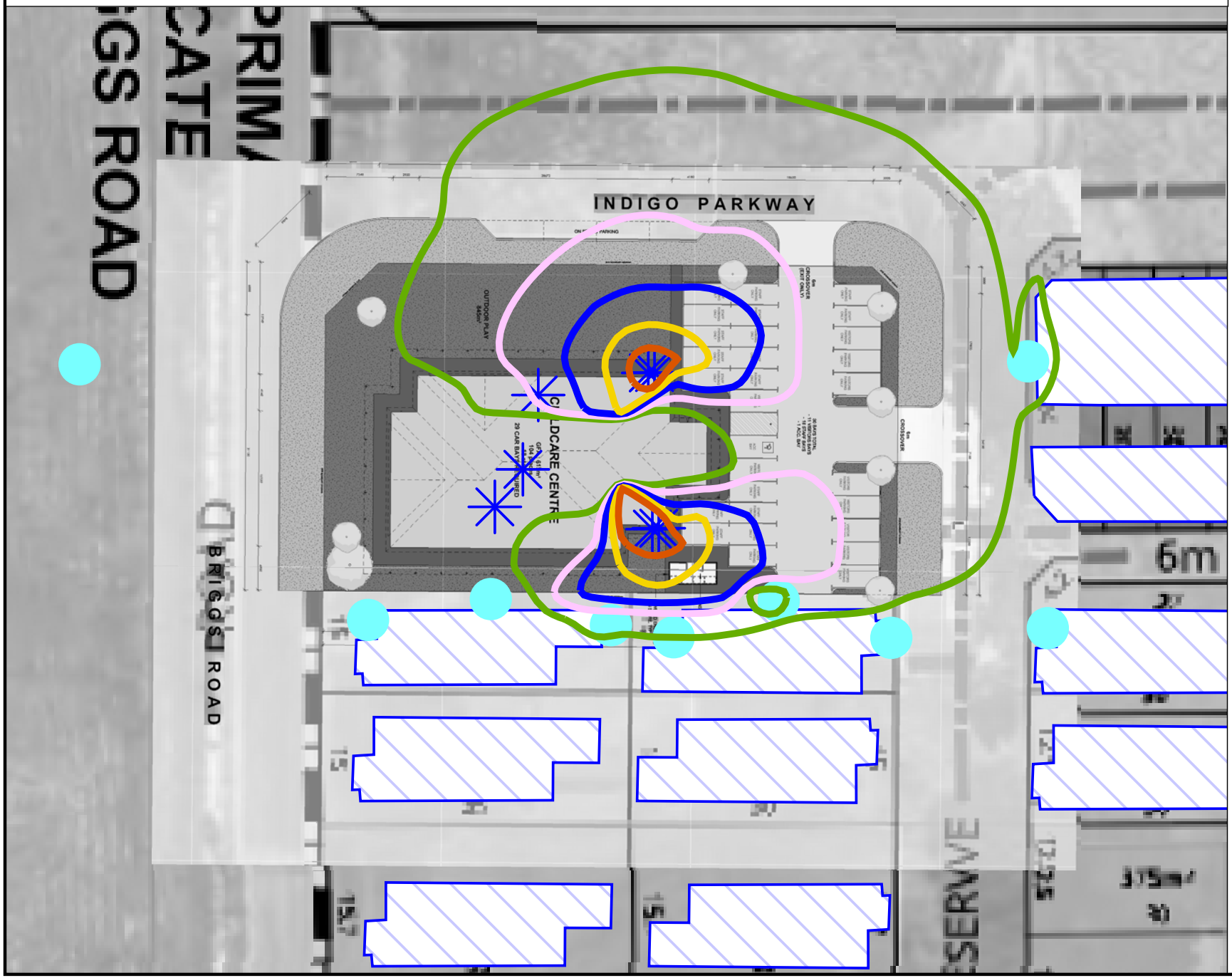
Mechanical plant noise consists of the outdoor AC condensing units and exhaust fans. Predicted and assessed noise levels are provided in *Table 4-2*. The critical assigned level is during the night, as the plant may operate prior to 7.00am. An adjustment of + 5 dB is included for tonality, since this may be present for such noise sources. A noise contour plot is also provided in *Figure 4-2* showing noise levels at ground floor.

Table 4-2: Mechanical Plant Noise Predicted Levels and Assessment, dB(A)

Receiver	AC	Exhaust Fans	Total	Total Adjusted	Assigned Level	Assessment
A Res South (Front)	10	<10	12	**17**	**35**	*Complies*
A Res South (Rear)	30	13	30	**35**	**35**	*Complies*
A Res South (Side)	16	11	17	**22**	**35**	*Complies*
B Res South (Front)	15	10	15	**20**	**35**	*Complies*
B Res South (Rear)	30	14	30	**35**	**35**	*Complies*
B Res South (Side)	27	10	27	**32**	**35**	*Complies*
C Res East (Front)	28	12	28	**33**	**35**	*Complies*
D Res East (Side)	29	14	30	**35**	**35**	*Complies*
E West Boundary	19	12	20	**25**	**60**	*Complies*

The calculations show compliance at all receiver locations. It must be noted that the assessment is based on assumptions in relation to the number, location, size and type of mechanical plant. Therefore, once the mechanical plant has been designed and selected, noise is to be reviewed by a suitably qualified acoustical consultant.

Figure 4-2 Mechanical Plant Noise Ground Floor (1.5m AGL), dB L_{A10}



Predicted Noise level

- = 30
- = 35
- = 40
- = 45
- = 50

Legend

- Receiver
- Future Residential
- Mech Source

N

0 3.5 7 14 21 m

Project No: 23017822
Consultant: MM
Date: 20/02/2023
Algorithm: ISO 9613
SoundPLAN Version: 8.2

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4.3. Car Door Closing Noise

Predicted and assessed noise levels for car doors closing are provided in *Table 4-3* being the maximum noise level from the worst-case car bay for each receiver. The critical assigned level is during the night, as car door closings will occur prior to 7.00am. An adjustment of + 10 dB is included for impulsiveness, since this may be present for such noise sources. A noise contour plot is also provided in *Figure 4-3* showing noise levels at ground floor.

Table 4-3: Car Door Closing Noise Predicted Levels and Assessment, dB(A)

Receiver	Staff Car Door	Visitor Car Door	Max Adjusted	Assigned Level	Assessment
A Res South (Front)	18	15	**28**	**55**	*Complies*
A Res South (Rear)	37	33	**47**	**55**	*Complies*
A Res South (Side)	31	30	**41**	**55**	*Complies*
B Res South (Front)	41	43	**53**	**55**	*Complies*
B Res South (Rear)	39	32	**49**	**55**	*Complies*
B Res South (Side)	41	41	**51**	**55**	*Complies*
C Res East (Front)	42	44	**54**	**55**	*Complies*
D Res East (Side)	45	45	**55**	**55**	*Complies*
E West Boundary	30	29	**40**	**80**	*Complies*

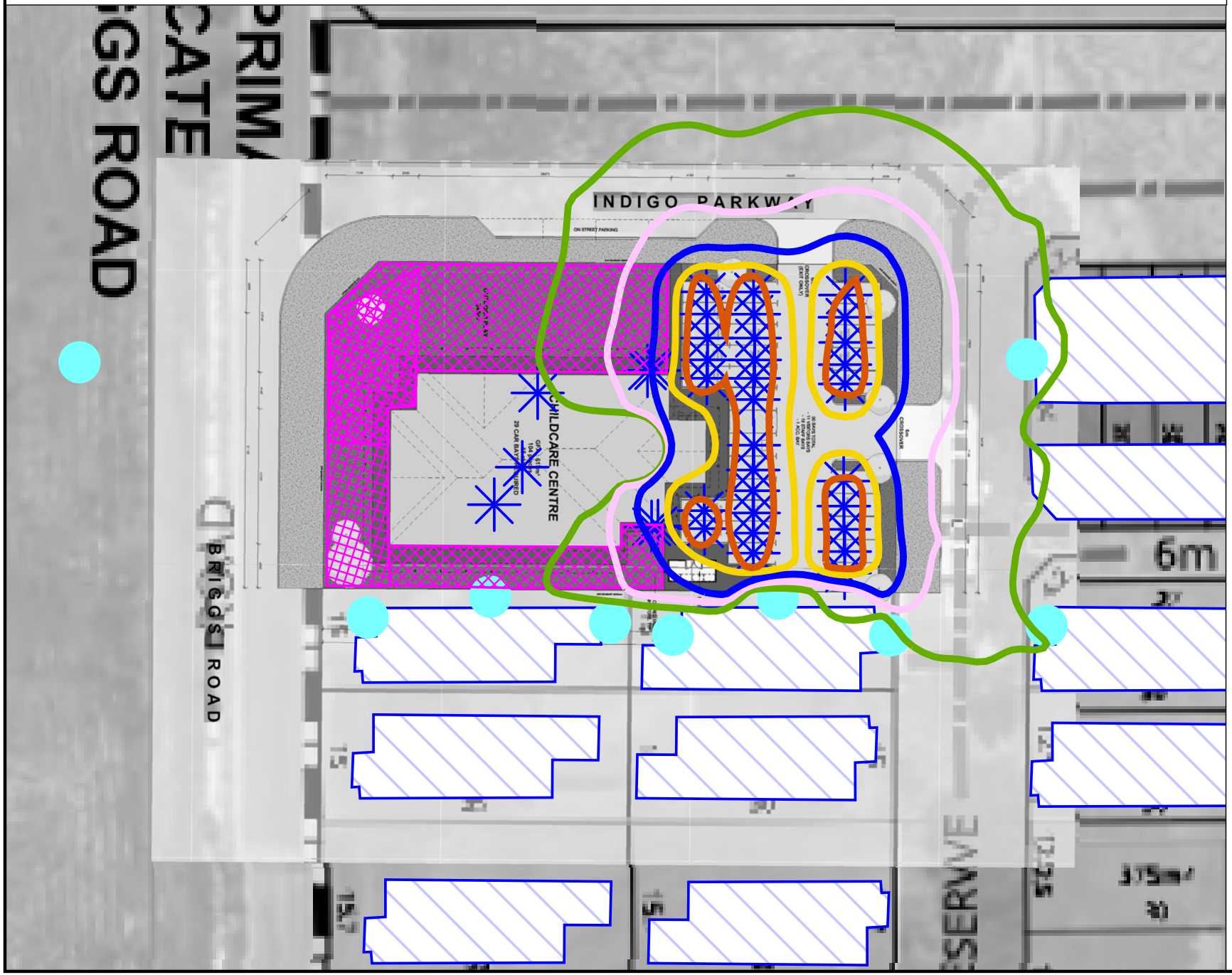
Noise from car doors is predicted to comply at all nearest receivers during the critical night period.

4.4. 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:

- Internal noise levels within activity rooms would not exceed those from outdoor play for each age group, regardless of windows being open or closed; and
- Any music played within the internal activity areas would be 'light' music with no significant bass content and played at a relatively low level.

Figure 4-3 Car Park Noise Ground Floor (1.5m AGL), dB L_{Amax}



Predicted Noise level

	= 45
	= 50
	= 55
	= 60
	= 65

Legend

- Receiver
- Outdoor Childplay
- Future Residential
- Car/Mech Source

N

0 3.5 7 14 21 m

Project No: 23017822
Consultant: MM
Date: 20/02/2023
Algorithm: ISO 9613
SoundPLAN Version: 8.2

Lloyd George Acoustics
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HILLARYS WA 6923
(08) 9401 7770

5. RECOMMENDATIONS

5.1. Child Play

The predicted noise from all children playing outside is compliant provided the south wall/fence as shown on the DA Plans is constructed to be minimum 2.1 metres high and must be solid, free of gaps and of minimum surface mass 8 kg/m^2. Such material can be brick, limestone with double sheeted *Colorbond* also permissible. For areas where visual permeability is required, sound-rated plexiglass can be used.

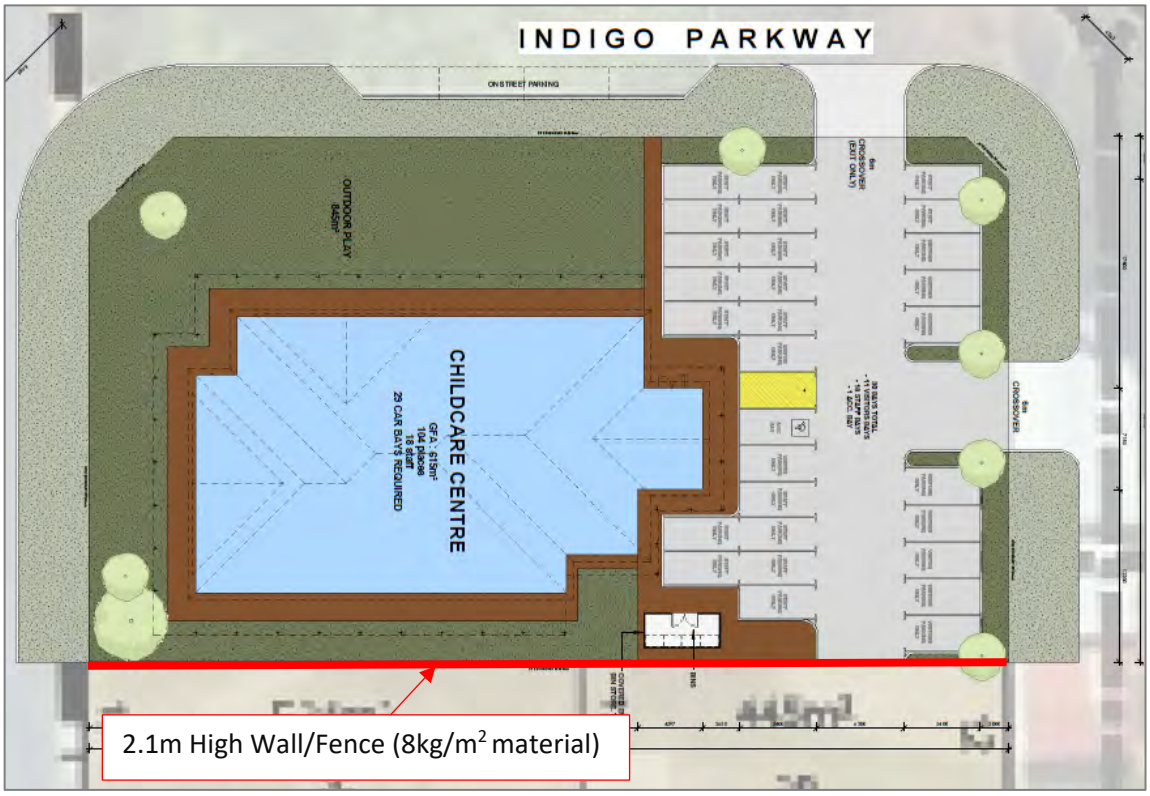


Figure 5-1: Required Noise Mitigation

Whilst not necessarily required for compliance, to further minimise noise impacts as part of best practice, the following are provided:

- 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;
- Favour soft finishes in the outdoor play area to minimise impact noise (e.g. soft grass, sand pit(s), rubber mats) over timber or plastic;
- Favour soft balls and rubber wheeled toys;
- Crying children should be taken inside to be comforted;
- Child play to be staggered;
- No amplified music to be played outside;
- Any music played within the internal activity areas to be 'light' music with no significant bass content and played at a relatively low level;
- Car park drainage grates or similar to be plastic or metal with rubber gasket and secured to avoid excess banging.

5.2. Mechanical Plant

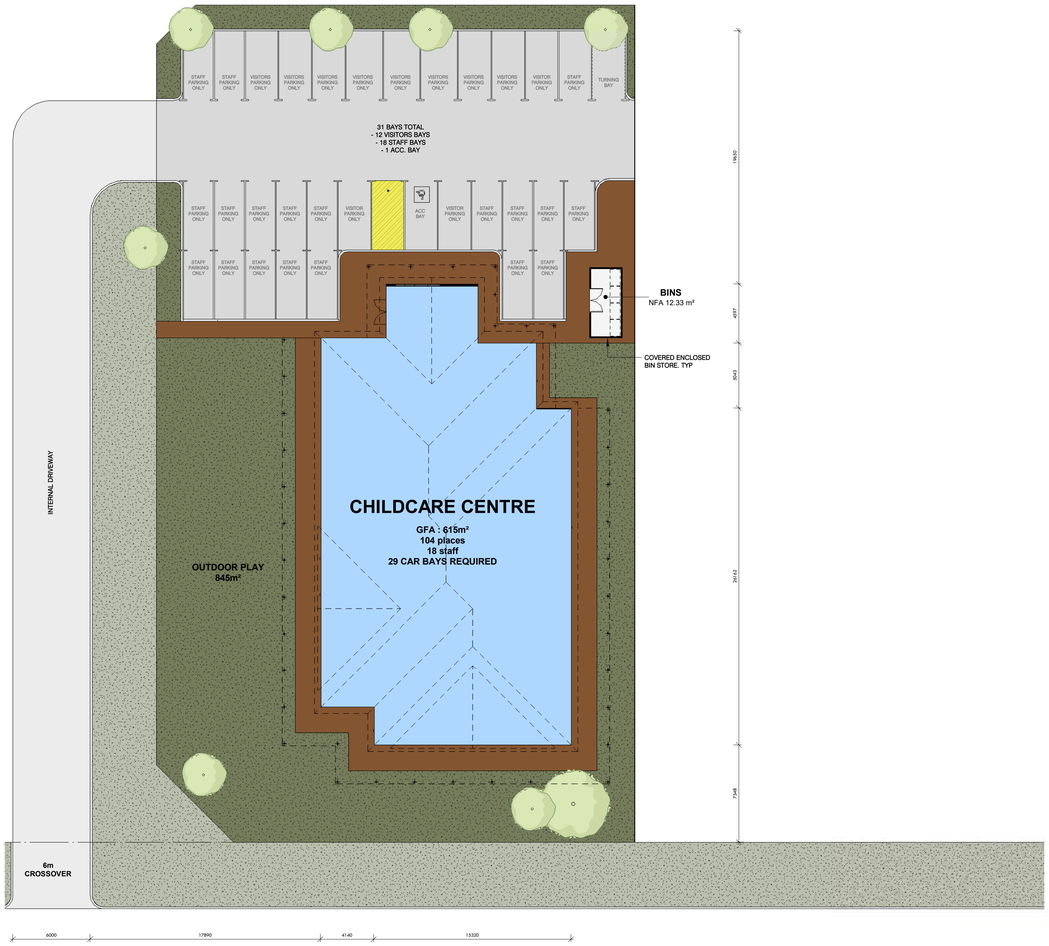
For mechanical plant, the following are recommended:

- Once the mechanical plant has been designed and selected, the noise levels shall be reviewed prior to Building Permit;
- All exhaust fans shall be located inside the ceiling void and shall be axial fan type, allowing the incorporation of an attenuator if required;
- All fans shall be variable speed drive so that maximum speed is only occurring when necessary with demand;
- Air-conditioning shall have a 'night' / 'quiet' mode option, in case required for prior to 7.00am operation, subject to final detailed analysis;
- All plant shall be selected taking into consideration noise levels. That is, when comparing manufacturers of equivalent equipment, select the quieter model;
- All plant is to be appropriately vibration isolated to 95% isolation efficiency.

5.3. Car Doors

The predicted noise from car door closings is compliant provided the walls described in *Section 5.1* are constructed.

Appendix A – Development Plans



SITE PLAN - STAGE 1

SCALE: 1 : 200



SITE PLAN - STAGE 2

SCALE: 1 : 200

SITE CRITERIA

1. Site Area
a. Site Area — **2,392m²**

2. Landscaping
a. Required 10% of Site Area — **239.2m²**
b. Provided
Soft — 623m²
Hard — 219m²
Total — 845m² (35.2%)

3. Floor Area (GFA) — **615m²**

4. Carparking
i. Cars Required
As per Draft LPS 3
1:10 Kids — 11 Cars
1:1 Staff — 18 Cars
ii. Cars Provided — **29 Cars**

CHILD CARE CRITERIA

1. Centre capacity
a. Number of places — **104 places**

2. Landscaping
a. Required 7m² :1 child — **728m²**
b. Provided — 842m²
Total m² provided per child — 8.09 m²

3. Floor Area (GFA)
a. Area required — 338m²
b. Area provided — 352.3 m²

4. Room distribution
a. Room 0-12 m
Number of places — 12 Places
Staff required 1:4 Staff
Staff provided — 3 Staff
b. Room 0-12 m
Number of places — 12 Places
Staff required 1:4 Staff
Staff provided — 3 Staff
c. Room 24 - 36 m
Number of places — 20 Places
Staff required 1:5 Staff
Staff provided — 4 Staff
d. Room +3y
Number of places — 30 Places
Staff required 1:10 Staff
Staff provided — 3 Staff
e. Room +3y
Number of places — 30 Places
Staff required 1:10 Staff
Staff provided — 3 Staff
Total places — 104 Places

Total Staff (+2 Staff (Chef, Manager)) — 18 Places

Landscaping
A. Hard Landscaping
Defined as paved walkways either open or covered.
B. Soft Landscaping
Defined as vegetative landscaping.

Gross Floor Area : GFA
A. All Floor Areas on this plan are shown as GROSS FLOOR AREA.
Unless otherwise noted as Nett Floor Area
B. Definition of Gross Floor Area is defined as:
i/ GROSS FLOOR AREA OF TENANCY:
Gross Floor Area of an individual Tenancy is defined as the area contained between the centre line of common tenancy walls and the outside edge of external walls.
ii/ GROSS FLOOR AREA OF A BUILDING:
Gross Floor Area of a Building is defined as the total area contained between the outside edge of external walls

Nett Floor Area : NFA
A. Nett Floor Area of a Tenancy on this plan is defined as the area between external or tenancy dividing walls.
B. This area is inclusive of toilets if the toilets are exclusive to the Tenancy.

SITE DESIGN CHECKLIST

- ☐ 1. SEWER MAINS LOCATION TO BE DETERMINED
- ☐ 2. FIRE MAINS PRESSURE TEST REQUIRED
- ☐ 3. FIRE TANKS OR PUMPS TO BE DETERMINED
- ☐ 4. WESTERN POWER TRANSFORMER LOCATION TO BE DETERMINED
- ☐ 5. CROSSOVER & ACCESS TO STREET TO BE DETERMINED BY LOCAL AUTHORITY
- ☐ 6. FULL FEATURE SITE SURVEY REQUIRED
- ☐ 7. DIAL BEFORE YOU DIG REQUIRED
- ☐ 8. BUSHFIRE ATTACK LEVEL (BAL) TO BE DETERMINED
- ☐ 9. STREET POWER POLES TO BE DETERMINED
- ☐ 10. SITE ZONING & USE TO BE DETERMINED

NOTE: Any of the following items that do not have an 'X' in the provided square require determination.

LEGEND

- BUILDING FOOTPRINT - SHOWROOM / WAREHOUSE / FACTORY
- BUILDING FOOTPRINT - OFFICE
- EXTENT OF CONCRETE HARDSTAND
- EXTENT OF ROADBASE HARDSTAND
- EXTENT OF BITUMEN PAVING
- EXTENT OF CERAMIC TILES
- EXTENT OF BRICK PAVING / CONCRETE PAVING
- EXTENT OF LANDSCAPING

meyer shircore architects

CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD
FOR : BLOKK PROPERTY

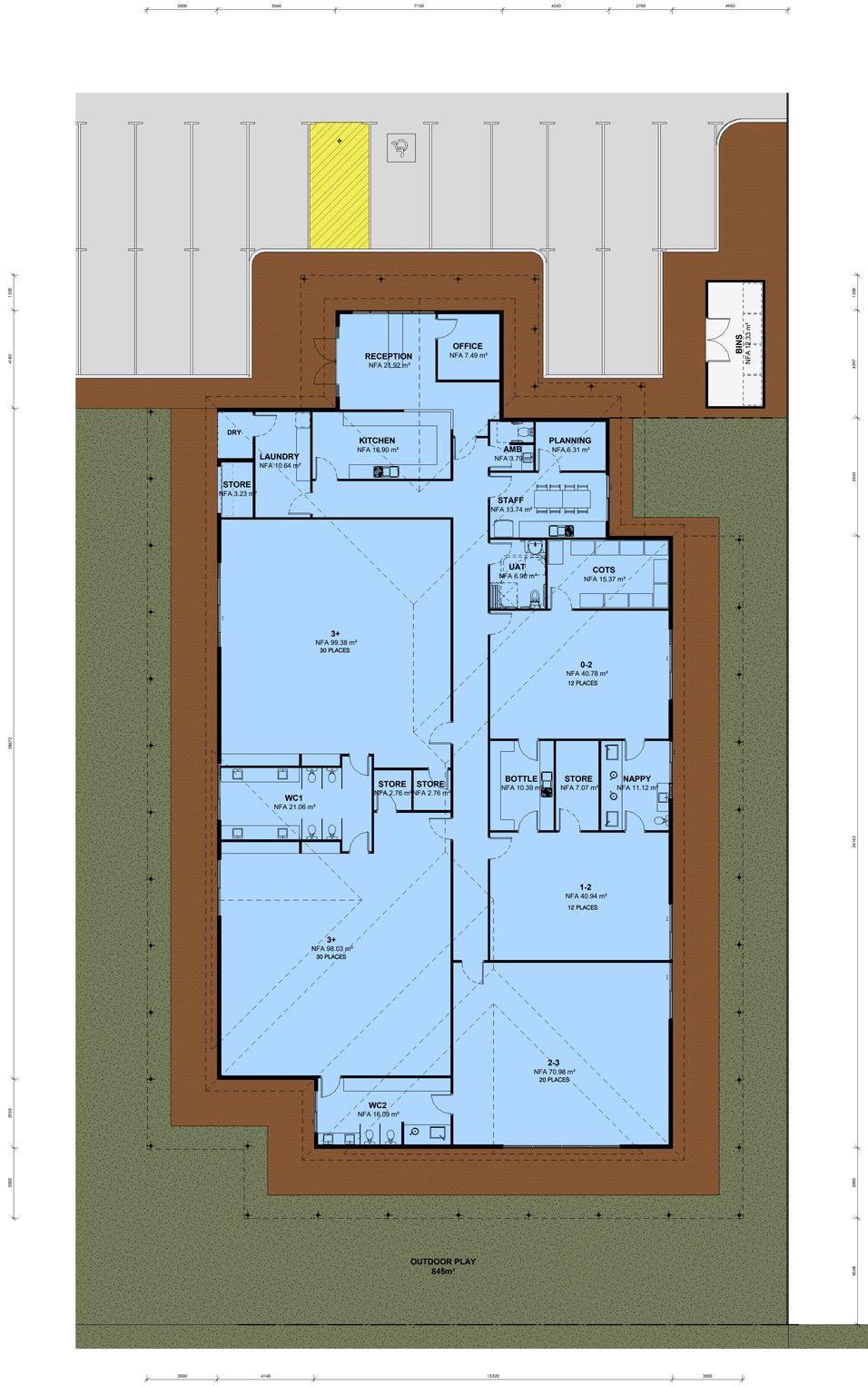
Member Australian Institute of Architects

0 2 4 6 8 10 20

DATE: NOV 2022
REVISION: SK007
SHEET: A - 1002
SCALE: As indicated@A3

PROJECT NUMBER
22-9099

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t: 08 9381 8511 e: msa@meyershircore.com.au



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b. Provided
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Staff provided — 3 Staff
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Number of places — 20 Places
Staff required — 1:5 Staff
Staff provided — 4 Staff
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Number of places — 30 Places
Staff required — 1:10 Staff
Staff provided — 3 Staff
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Staff required — 1:10 Staff
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Total places — 104 Places

Total Staff (+2 Staff (Chef, Manager)) — 18 Places

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Gross Floor Area of an individual Tenancy is defined as the area contained between the centre line of common tenancy walls and the outside edge of external walls.
ii/ GROSS FLOOR AREA OF A BUILDING:
Gross Floor Area of a Building is defined as the total area contained between the outside edge of external walls

Nett Floor Area : NFA
A. Nett Floor Area of a Tenancy on this plan is defined as the area between external or tenancy dividing walls.
B. This area is inclusive of toilets if the toilets are exclusive to the Tenancy.

SITE DESIGN CHECKLIST

- [ ] 1. SEWER MAINS LOCATION TO BE DETERMINED
- [ ] 2. FIRE MAINS PRESSURE TEST REQUIRED
- [ ] 3. FIRE TANKS OR PUMPS TO BE DETERMINED
- [ ] 4. WESTERN POWER TRANSFORMER LOCATION TO BE DETERMINED
- [ ] 5. CROSSOVER & ACCESS TO STREET TO BE DETERMINED BY LOCAL AUTHORITY
- [ ] 6. FULL FEATURE SITE SURVEY REQUIRED
- [ ] 7. DIAL BEFORE YOU DIG REQUIRED
- [ ] 8. BUSHFIRE ATTACK LEVEL (BAL) TO BE DETERMINED
- [ ] 9. STREET POWER POLES TO BE DETERMINED
- [ ] 10. SITE ZONING & USE TO BE DETERMINED

NOTE: Any of the following items that do not have an 'X' in the provided square require determination.

LEGEND

- BUILDING FOOTPRINT - SHOWROOM / WAREHOUSE / FACTORY
- BUILDING FOOTPRINT - OFFICE
- EXTENT OF CONCRETE HARDSTAND
- EXTENT OF ROADBASE HARDSTAND
- EXTENT OF BITUMEN PAVING
- EXTENT OF CERAMIC TILES
- EXTENT OF BRICK PAVING / CONCRETE PAVING
- EXTENT OF LANDSCAPING

FLOOR PLAN
SCALE: 1 : 100

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CHILD CARE CENTRE
LOCATION : LOT 57 BRIGGS ROAD, BYFORD
FOR : BLOKK PROPERTY

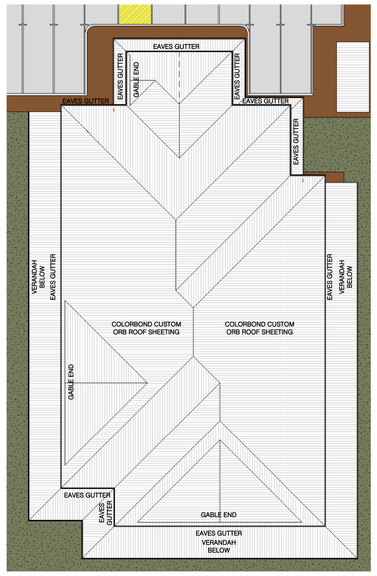
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0 1 2 3 4 5 10

DATE: NOV 2022
REVISION: SK007
SHEET: A - 2000
SCALE: 1 : 100 @A3

PROJECT NUMBER
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ROOF PLAN

SCALE: 1 : 200

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CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD

FOR : BLOKK PROPERTY

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DATE: NOV 2022

REVISION: SK007

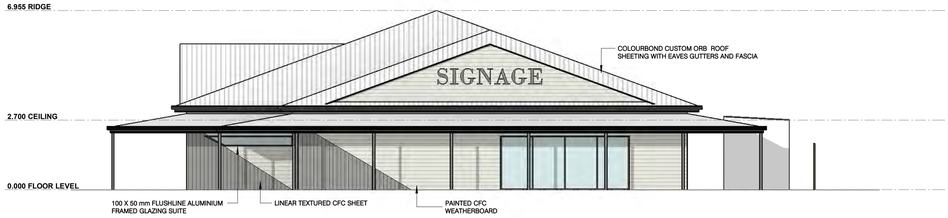
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SCALE: 1 : 200 @A3

PROJECT NUMBER

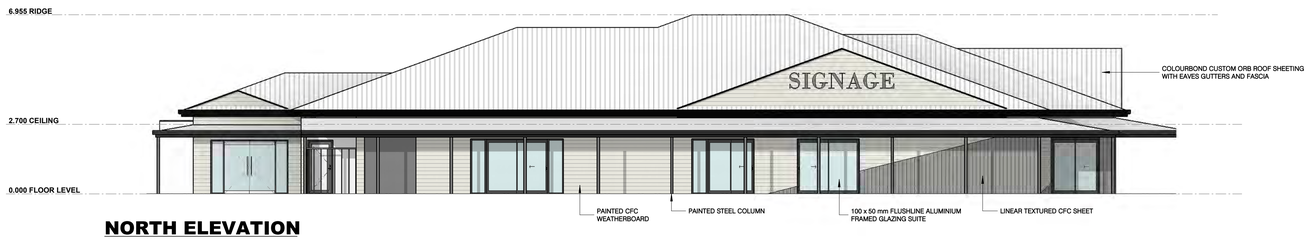
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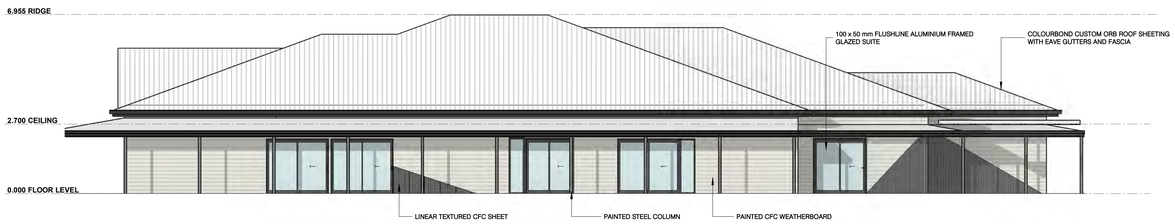
EAST ELEVATION

SCALE: 1 : 100



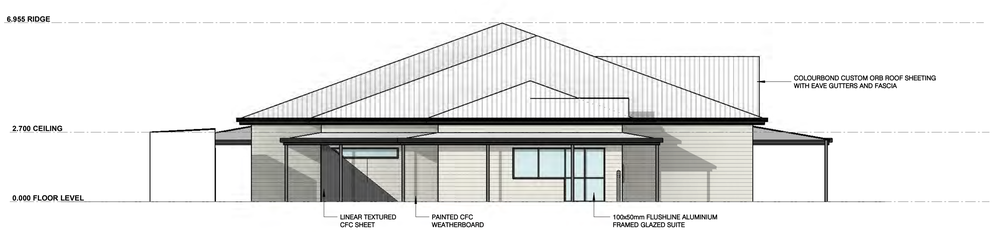
NORTH ELEVATION

SCALE: 1 : 100



SOUTH ELEVATION

SCALE: 1 : 100



WEST ELEVATION

SCALE: 1 : 100

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CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD

FOR : BLOKK PROPERTY

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DATE: NOV 2022

REVISION: SK007

SHEET: A - 4000

SCALE: 1 : 100 @A3

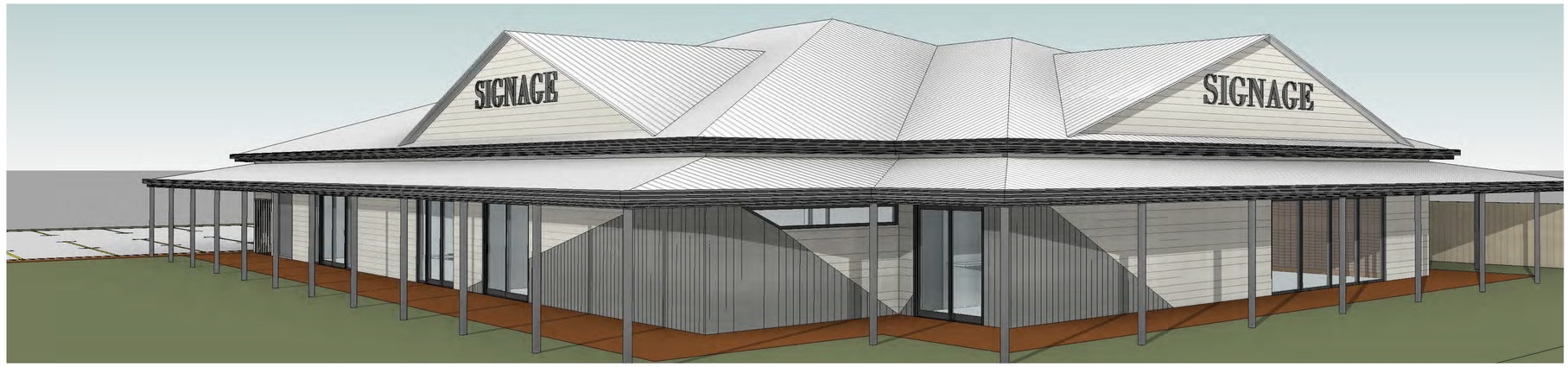
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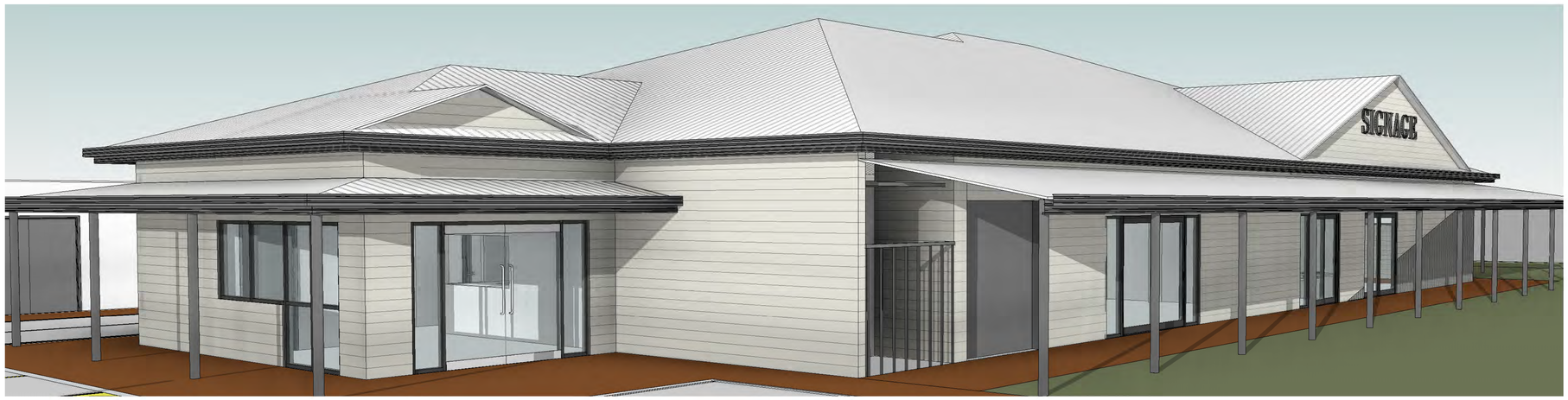
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CHILD CARE CENTRE

LOCATION : LOT 57 BRIGGS ROAD, BYFORD

FOR : BLOKK PROPERTY

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0 1 2 3 4 5 10

DATE: NOV 2022

REVISION: SK007

SHEET: A - 5000

SCALE: @A3

PROJECT NUMBER

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Appendix B – 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 levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

- **A-Weighting**

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

- **Sound Power Level (L_w)**

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

- **Sound Pressure Level (L_p)**

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

- **L_{ASlow}**

This is the noise level in decibels, obtained using the A-frequency weighting and the S (slow) time weighting. Unless assessing modulation, all measurements use the slow time weighting characteristic.

- **L_{AFast}**

This is the noise level in decibels, obtained using the A-frequency weighting and the F (fast) time weighting. This is used when assessing the presence of modulation.

- **L_{APeak}**

This is the greatest absolute instantaneous sound pressure level in decibels using the A-frequency weighting.

- **L_{Amax}**

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

- **L_{A1}**

The L_{A1} level is the A-weighted noise level exceeded for 1 percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

- **L_{A10}**

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

- **L_{A90}**

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

- **L_{Aeq}**

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

- **One-Third-Octave Band**

Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20000 Hz inclusive.

- **Representative Assessment Period**

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

- **L_{Amax} assigned level**

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

- **L_{A1} assigned level**

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

- **L_{A10} assigned level**

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

- **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; and

(b) is present for at least 10% of the representative assessment period; and

(c) is regular, cyclic and audible.

- **Impulsive Noise**

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

– a variation in the emission of a noise where the difference between L_{Apeak} and L_{Amax} is more than 15 dB when determined for a single representative event.

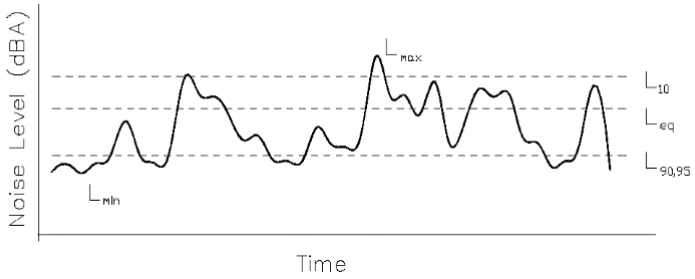
- **Major Road**

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

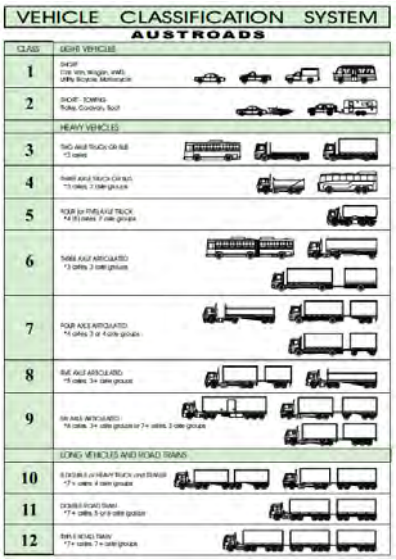
- **Secondary / Minor Road**

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

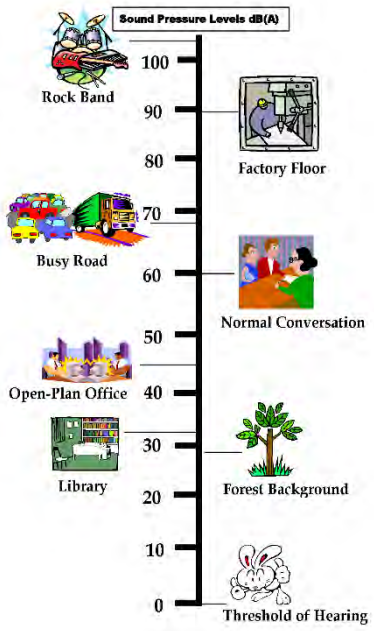
- **Chart of Noise Level Descriptors**



- **Austroads Vehicle Class**



- **Typical Noise Levels**



TRANSPORT IMPACT STATEMENT

Lot 57 Briggs Road

Byford

April 2023

Rev D

kctt

HISTORY AND STATUS OF THE DOCUMENT

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Appendices

Appendix 1 - The layout of the proposed development
Appendix 2 - Transport Planning and Traffic Plans
Appendix 3 - Vehicle Turning Circle Plans

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1. Executive Summary

Site Context

- The project location is Lot 57 Briggs Road, Byford. The subject site is currently occupied by a single residence.
- The subject lot is a part of the Byford Area D Local Structure Plan.
- Stage 1 includes the construction of the Childcare facility with an interim driveway access to Briggs Road.
- Stage 2 includes the ultimate development scenario around the site as per the local structure plan, including the delivery of Indigo Parkway (north) and local access road (east). This will involve the minor reconfiguration of crossovers to the car park.
- The proposed development will be a childcare centre with a capacity for 104 children and 18 staff members.

Technical Findings

- The proposed development is expected to generate up to 452 vehicular trips per day, 83 vehicle trips in the AM peak and 73 vehicular trips in the PM peak.
- According to WAPC this is considered as a moderate traffic impact to the surrounding road network.
- Two major routes are expected to be utilised for access to development:
  - To/from the north via Briggs Road
  - To/from the south via Briggs Road

Relationship with Policies

- According to the Shire of Serpentine – Jarrahdale TPS No. 2 requirements, the proposed development requires 21 carparking bays. According to the Draft Local Planning Scheme No.3 the proposed development would require 29 parking bays.
- The subject development will propose 31 parking bays in stage 1 and 29 in Stage 2.
- Therefore, the proposed development will meet the requirement in both Stages and in accordance with both relevant parking requirement documents.
- Building Code of Australia ACROD Provision – the proposed development will meet the requirement for 1 ACROD bay.

Conclusion

- As stated above the additional traffic attracted to the subject site is expected to increase by a maximum of 452 vehicular trips per day and 83 vehicular trips in the peak hour.
- Briggs Road is classified as Local Distributor as per MRWA classification with the maximum desirable volume of 6,000 vehicles per day. Available traffic counts show approximately 3,900 VPD on Briggs Road south of Thomas Road. Therefore, with the added traffic from the subject site the street would remain well under the maximum desirable traffic volume for Local Distributor roads.
- Other surrounding roads would absorb significantly less traffic than Briggs Road, moreover, the traffic would be dispersed so that the impact can be considered negligible.
- In summary KCTT believe that the proposed development will not have a negative impact on the surrounding road network.

2. Transport Impact Statement

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2.1 Location

Lot Number	57
Street Number	/
Road Name	Briggs Road
Suburb	Byford
Description of Site	The subject site is currently occupied by a single residence. The proposed development will be a childcare centre with a capacity for 104 children and 18 staff members.

2.2 Technical Literature Used

Local Government Authority	Shire of Serpentine-Jarrahdale
Type of Development	Individual Development – Childcare Centre
Is the NSW RTA Guide to Traffic Generating Developments Version 2.2 October 2002 (referenced to determine trip generation / attraction rates for various land uses) referenced?	YES
Which WAPC Transport Impact Assessment Guideline should be referenced?	Volume 4 - Individual Developments
Are there applicable LGA schemes for this type of development?	YES
If YES, Nominate:	
Name and Number of Scheme	Town Planning Scheme No. 2
Are Austroads documents referenced?	YES

2.3 Review of the Available Planning Documents

Which Structure Plan / Subdivision is the development part of?	Byford Area D – Briggs Larsen Precinct Local Structure Plan (Document by Rowe Group Design – March 2021)



Describe the major changes of the surrounding area associated with the completion of the Structure Plan	• Byford Area D is expected to include 161 residential dwellings. • Indigo Parkway, currently located to the west of Briggs Road without an intersection with this road is expected to be extended to the east side of Briggs Road. • Additional internal road will be constructed to intersect with Briggs Road. This road will provide access to Briggs Road for residential developments within Byford Area D.
Describe the expected changes to the proposed development	The proposed development will have an additional crossover to the new road perpendicular to Indigo Parkway. This will allow for a more comfortable manoeuvring within the internal driveway while keeping the minimum required carparking bays.
Changes to the surrounding road network	Based on the information from the Shire of Serpentine-Jarrahdale, a median is expected to be constructed on Indigo Parkway, allowing only LILO movements from/to Briggs Road. The timeframe of this amendment is currently unknown. Furthermore, travel to the south towards Briggs Road will be rerouted as Briggs Road is expected to be closed between Saddle Lane and unnamed path below the training complex.

This report will mainly focus on the Stage 1 of this development, where only Childcare Centre and an interim driveway access to Briggs Road are completed, as the timeframe of Byford Area D completion is not mentioned in the Local Structure Plan document.

2.4 Land Uses

Are there any existing Land Uses	YES
If YES, Nominate:	1 single residence

Proposed Land Uses	
How many types of land uses are proposed?	One (1)
Nominate land use type and yield	Childcare Centre - 104 children - 18 staff members
Are the proposed land uses complementary with the surrounding land-uses?	YES

2.5 Local Road Network Information

How many roads front the subject site? One (1)

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

Road Name	
Number of Lanes	two way, one lane (no linemarking), undivided
Road Reservation Width	20m
Road Pavement Width	7m
Classification	Local Distributor
Speed Limit	50kph
Bus Route	NO
On-street parking	NO

2.6 Traffic Volumes

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)		Heavy Vehicle %	Date of Traffic Count	*If older than 3 years multiply with a growth rate*
			AM Peak Time - AM Peak VPH	PM Peak Time - PM Peak VPH	*If HV count is Not Available, are HV likely to be in higher volumes than generally expected?*		
Briggs Road	South of Thomas Road	3,829	08:00 – 449	15:15 – 411	3%	Mar 2022	–
Thomas Road	West of Briggs Road	11,373	08:00 – 1,020	15:15 – 1,040	8%	Mar 2022	–
	East of Briggs Road	8,362	08:00 – 671	15:15 – 689	10%	Mar 2022	–

Note - These traffic counts have been obtained from the MRWA Traffic Map*

2.7 Vehicular Crash Information

Is Crash Data Available on Main Roads WA website?	NO
If YES, nominate important survey locations:	
Location 1	Briggs Road [SLK 1.20 – 1.53]
Period of crash data collection	01/01/2017 - 31/12/2021
Comment	No crashes were reported for the above location in the 5-year collection period

2.8 Vehicular Parking

Local Government	Shire of Serpentine-Jarrahdale
Local Government Document Utilised	Town Planning Scheme No. 2; Draft Local Planning Scheme No. 3

Description of Parking Requirements in accordance with Scheme:

TPS No. 2:

Child Minding Centre *- 1 space per 5 children accommodated*

Draft LPS No. 3:

Child Care Premises *- 1 per 10 children accommodated under maximum occupancy and 1 bay per employee* with a minimum of 3 spaces*

Calculation of Parking in Accordance with TPS No. 2

Land Use	Requirements	Yield	Total Parking
Childcare Centre	*1 space per 5 children*	104	21
		Total Car Parking Requirement	**21**
		Total Volume of Parking Provided by Proponent	**31 in Stage 1; 29 in Stage 2**

Calculation of Parking in Accordance with Draft LPS No. 3

Land Use	Requirements	Yield	Total Parking
Childcare Centre	*1 space per 10 children;* *1 bay per employee*	104 children; 18 staff members	29
		Total Car Parking Requirement	**29**
		Total Volume of Parking Provided by Proponent	**31 in Stage 1; 29 in Stage 2**

Justification

According to the Shire of Serpentine – Jarrahdale TPS No. 2 requirements, the proposed development requires 21 carparking bays.

According to the Draft Local Planning Scheme No.3 the proposed development would require 29 parking bays.

The subject development will propose 31 parking bays in stage 1 and 29 in Stage 2 (two bays will be deleted to allow for addition of a crossover).

Therefore, the proposed development will meet the requirement in both Stages and in accordance with both relevant parking rates.

Have Vehicle Swept Paths been checked for Parking? YES

If YES, provide description of performance:

The layout for the proposed development has been checked with a B99 Passenger Vehicle (5.2m) and a Service/Waste Vehicle (8.8m). The waste vehicle will have to enter the site after hours of operations as it will require to use the empty carparking bays for manoeuvring.

No navigability issues have been presented. Refer to Appendix 3 for swept path drawings.

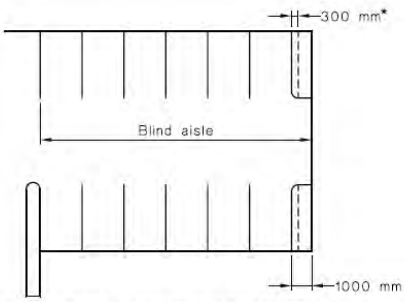
2.9 Compliance with AS2890.1:2004 and AS2890.6

Number of Parking Bays on-site	29
Are Austroads documents referenced?	YES
If YES, Nominate:	• Australian/New Zealand Standard, Parking facilities, Part 1: Off-street car parking - Originated as AS 2890.1—1986. • Australian/New Zealand Standard, Parking facilities, Part 6: Off-street parking for people with disabilities - Originated as AS2890.6
Proposed development User Class	User Class 1A (Residential, domestic and employee parking) User Class 3 (visitors' parking) User Class 4

AS2890.1:2004 Off-street car parking AS2890.6 Off-street parking for people with disabilities						
Parking Bay Type	Parking Bay Length		Parking Bay Width		Aisle Width	
	Required	Proposed	Required	Proposed	Required	Proposed
All bays at 90° (User Class 1A)	5.4m	5.4m	2.4m	2.4m	5.8m	6.2m
All bays at 90° (User Class 3)	5.4m	5.4m	2.6m	2.6m	5.8m	6.2m
ACROD Parking	5.4m	5.4m	2.4m–ACROD 2.4m–shared space	2.4m–ACROD 2.4m–shared space	5.8m	6.2m

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

'' At blind aisles, the aisle shall be extended a minimum of 1 m beyond the last parking space, as shown in Figure 2.3, and the last parking space widened by at least 300 mm if it is bounded by a wall or fence.
In car parks open to the public, the maximum length of a blind aisle shall be equal to the width of six 90 degree spaces plus 1 m, unless provision is made for cars to turn around at the end and drive out forwards.''



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

DIMENSIONS IN MILLIMETRES

FIGURE 2.3 BLIND AISLE EXTENSION

KCTT comment:

Blind aisle	Extended by a minimum of 1 m
Reversing bay	Provided
Does the parking area meet the requirements set in AS2890.1:2004?	KCTT reviewed the proposed development layout and concluded that dimensions of all car parking bays and aisle width comply with the Australian Standard AS/NZS 2890.1/2004.
Does the parking area meet the requirements set in AS2890.6?	YES

2.10 Bicycle Parking

Local Government	Shire of Serpentine-Jarrahdale
Reference Document Utilised	Local Planning Policy 4.15: Bicycle Facilities Policy

Description of Parking Requirements in accordance with the Relevant Document:

No requirements

Justification

The Shire's Local Planning Policy 4.15: Bicycle Facilities Policy applies to the proposed development. LPP 4.15, Schedule 1 specifies rates for the provisions of bicycle parking facilities for certain land uses. A 'Child Minding Centre' is not included in Schedule 1.

Given the location of the proposed development, it is unlikely that the residents or staff members arrive to the Child Care Centre using bicycles.

2.11 ACROD Parking

Class of Building	Class 9b
Does this building class require specific provision of ACROD Parking?	YES
Reference Document Utilised	Building Code of Australia

Description of Parking Requirements:

Class 9b — (b) Other assembly building — (i) up to 1000 carparking spaces; - 1 space for every 50 carparking spaces or part thereof

Parking Requirement in accordance with regulatory documents

Land Use	Requirements	Yield	Total Parking
Childcare Centre	*1 space for every 50 carparking spaces or part thereof*	29	1
	Total Volume of ACROD Parking Required		**1**
	Total Volume of ACROD Parking Provided by Proponent		1

Justification

The proposed development meets the requirement for 1 ACROD bay.

2.12 Delivery and Service Vehicles

Guideline Document used as reference	NSW RTA Guide to Traffic Generating Developments

Requirements

Other uses - 1 space per 2,000m2

Parking Requirement in accordance with regulatory documents

Land Use	Minimum Requirements	Yield	Total Parking
Childcare Centre	*1 space per 2,000m2*	615m^2	1
	Total Volume of Service and Delivery Parking Required		1
	Total Volume of Service and Delivery Parking Provided by Proponent		N/A

Justification

The proposed development will not require a dedicated delivery parking bay.

Waste vehicle is expected to enter the development outside of hours of operation and turnaround on site using empty parking spaces.

2.13 Calculation of Development Generated / Attracted Trips

What are the likely hours of operation?	06:30 - 18:30
What are the likely peak hours of operation?	AM peak 07:30 - 08:30 PM peak 16:30 - 17:30
Do the development generated peaks coincide with existing road network peaks?	YES
If YES, Which:	Partially AM peak
Guideline Document Used	NSW RTA Guide to Traffic Generating Developments
Rates from above document:	***Child Day Care***: • *0.8 trips in AM Peak per child* • *0.7 trips in PM Peak per child* *It should be noted that these rates are given for a 2-hour peak period. For the purposes of this report KCTT will use the worst-case scenario where the two-hour traffic volume will be attracted to the development within one hour.*

Given that the WAPC Transport Assessment Guidelines and NSW RTA Guide to Traffic Generating Developments do not offer daily vehicular trip generation rate for these land uses KCTT have assumed the following to apply:

Childcare centres vehicular daily trips can be assumed to be 4 VPD per child and 2 VPD per employee. Each parent will make 2 vehicular trips when dropping off the child to the day care centre and 2 vehicular trips when picking the child up. Employees will make 1 vehicular trip arriving to work, and another vehicular trip when leaving work. For the calculations below, a conservative approach has been applied **showing the theoretical maximum number of children, under assumption that all children are driven to school, there are no siblings in the centre and there are no sick children absent from the centre.**

Land Use Type	Rate above	Yield	Daily Traffic Generation	Peak Hour Traffic Generation	
				AM	PM
Childcare Centre	*4 VPD per child+2 VPD per employee* *0.8 VPH AM Peak per child* *0.7 VPH PM Peak per child*	104 children 18 staff members	**452**	**83**	**73**

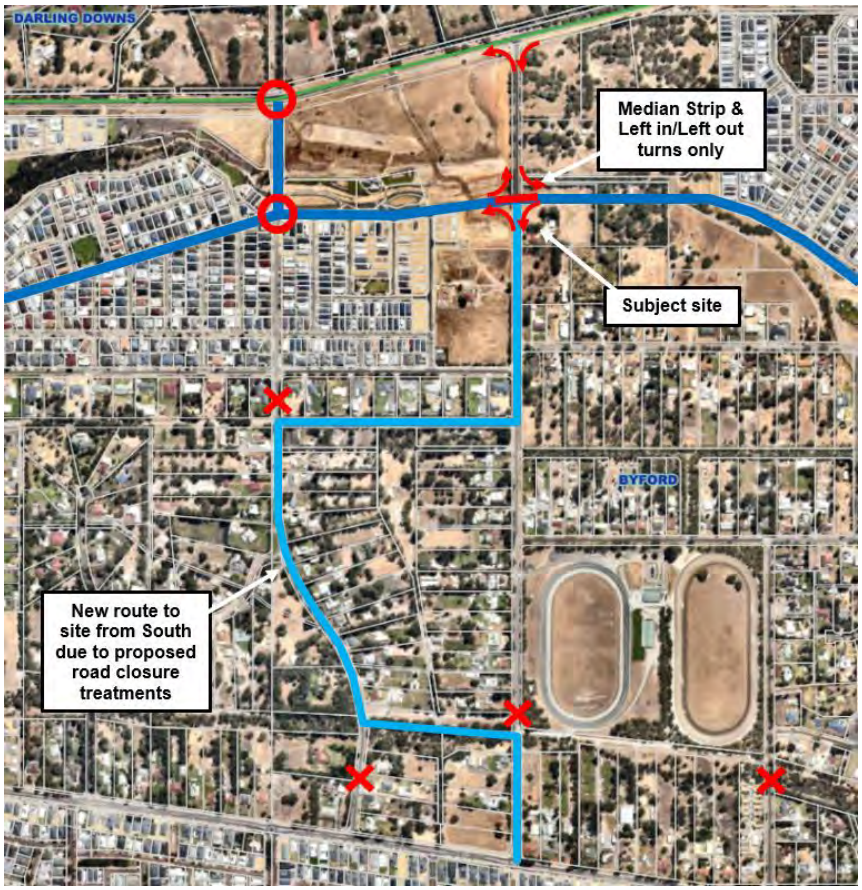
Does the site have existing trip generation / attraction?	YES Single residence 9 vehicular trips per day; 1 vehicular trip per hour in both Peak Hours
What is the total impact of the new proposed development?	The proposed development is expected to generate 443 vehicular trips per day, 82 vehicle trips in the AM peak and 72 vehicular trips in the PM peak (deduction of existing traffic from the proposed traffic). According to WAPC this is considered as a moderate traffic impact to the surrounding road network.

2.14 Traffic Flow Distribution

How many routes are available for access / egress to the site?	Two (2)
Route 1 / Movement 1	
Provide details for Route No 1	To/from the north via Briggs Road
Percentage of Vehicular Movements via Route No 1	60% [271 VPD; AM 50 VPH; PM 44 VPH]
Route 2 / Movement 2	
Provide details for Route No 2	To/from the south via Briggs Road
Percentage of Vehicular Movements via Route No 2	40% [181 VPD; AM 33 VPH; PM 29 VPH]

Note* - The distribution is likely to change after complete development of the Local Structure Plan and Subdivisions, including the extension of Indigo Parkway. Furthermore, based on the information from the Shire of Serpentine-Jarrahdale, a median is expected to be constructed on Indigo Parkway, allowing only LILO movements from/to Briggs Road. This amendment would change the traffic distribution to future routes which would be available for reaching the site. For example, for reaching Thomas Road, vehicles would go through via Indigo Parkway and via future extension of Malarkey Road.

However, the timeframe of this amendment is currently unknown and there is limited information on how the traffic would reroute to reach the site. Therefore, this report and Appendix 2 show the traffic distribution with a full movement intersection of Briggs Road and Indigo Parkway (extended driveway). Below is a screenshot showing the future amendments to the surrounding road network.



Screenshot received from the Shire of Serpentine-Jarrahdale.

2.15 Surrounding Area Developments

Nominate the significant developments in the vicinity of the proposed development.	Future Childcare centre for 110 children on Lots 367 to 373 of the Byford Meadows Stage 7 Development Plan. This lots are fronting Indigo Parkway (west of Briggs Road), Briggs Road and Caspian Chase This proposed development will be located directly across the proposed childcare centre which is the subject of this report.
What is the expected traffic impact from the nominated development	As per Shawmac's TIS report (February 2023), the proposed childcare will generate up to 450 vehicular trips per day and 87 vehicular trips per hour in peak hours.
Will the peak hours of the developments coincide?	Yes. The two childcare centres will have similar traffic impact and given it is the same land use, peak hours will coincide.
Impact on Briggs Road	KCTT believe that having two childcare centres on opposite sides of Briggs Road will not have a negative impact on the traffic flow conditions and traffic safety of this road section. Both childcare centres will have their access points away from Briggs Road. The childcare centre west of Briggs Road will have two crossovers and two connections with Briggs Road: - 1 LILO crossover from/to Indigo Parkway - 1 full movement crossover from/to Caspian Chase. Therefore, traffic will be dispersed from Indigo Parkway / Briggs Road intersection as vehicles will have to use Caspian Chase crossover to reach Briggs Road.
Conclusion	KCTT believe that Briggs Road will successfully absorb both childcare centres' generated traffic. After the expected addition of median on Indigo Parkway (timeframe unknown), traffic volume on Briggs Road will significantly decrease as there will be no direct route via Briggs Road to Thomas Road.

2.16 Vehicle Crossover Requirements

Are vehicle crossovers required onto existing road networks?	YES
How many existing crossovers?	One (1)
How many proposed crossovers?	One full movement crossover will be proposed in the Stage 1 (before the completion of the entire Structure Plan area) One additional full movement is envisioned for the ultimate scenario.
How close are proposed crossovers to existing intersections?	More than 50m
Does this meet existing standards?	YES

2.17 Public Transport Accessibility

How many bus routes are within 400 metres of the subject site?	One (1)
How many rail routes are within 800 metres of the subject site?	None

Bus Route	Description	Peak Frequency	Off-Peak Frequency
254	Armadale Station – Byford via Kardan Boulevard	15 minutes	60 minutes

Walk Score Rating for Accessibility to Public Transport

22 | Minimal Transit. It is possible to get on a bus.

2.18 Pedestrian Infrastructure

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

Currently there is no pedestrian path on Briggs Road.

It is expected that pedestrian path will be added within Byford Area D works on both existing Briggs Road and Indigo Parkway extension.

What is the Walk Score Rating?

2 | Car-Dependent. Almost all errands require a car.

2.19 Cyclist Infrastructure

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

If YES, describe:

Classification	**Road Name**
" Other Shared Path (Shared by Pedestrians and Cyclists)"	Thomas Road
" Good Road Riding Environment"	Masters Road
Are there any PBN Routes within a 400m radius of the subject site?	NO
Does the site have existing cyclist facilities?	NO
Does the site propose to improve cyclist facilities?	The bicycle infrastructure is likely to improve with the completion of the entire Byford Area D.

2.20 Site-Specific Issues and Proposed Remedial Measures

How many site-specific issues need to be discussed?	One (1)
Site-Specific Issue No 1	Traffic Impact
Remedial Measure / Response	As stated above the additional traffic attracted to the subject site is expected to increase by a maximum of 452 vehicular trips per day and 83 vehicular trips in the peak hour. Briggs Road is classified as Local Distributor as per MRWA classification with the maximum desirable volume of 6,000 vehicles per day. Available traffic counts show approximately 3,900 VPD on Briggs Road south of Thomas Road. Therefore, with the added traffic from the subject site the street would remain well under the maximum desirable traffic volume for Local Distributor roads. Other surrounding roads would absorb significantly less traffic than Briggs Road, moreover, the traffic would be dispersed so that the impact can be considered negligible.

Appendix 2

Transport Planning and Traffic Plans

SHIRE OF SERPENTINE JARRAHDALE

Gurners Lane
Rain Lover Court
Masters Road
Thomas Road
Kentucky Drive West
800m
Plaistowe Boulevard
400m
Briggs Road
BYFORD
Ballawarra Avenue
Malarkey Road
Pomera Drive
Eurythmic Road
Saddle Lane
Larsen Road
Thatcher Road
Sansimeon Boulevard
Binshaw Avenue
BYFORD TROTTING COMPLEX

PARKS AND RECREATION
ROAD
Hay Street — STREET NAME
SUBJECT SITE
STRUCTURE PLAN AREA
DISTANCE FROM LOCATION
SHIRE OF SERPENTINE JARRAHDALE — LOCAL GOVERNMENT NAME
BYFORD — SUBURB NAME

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

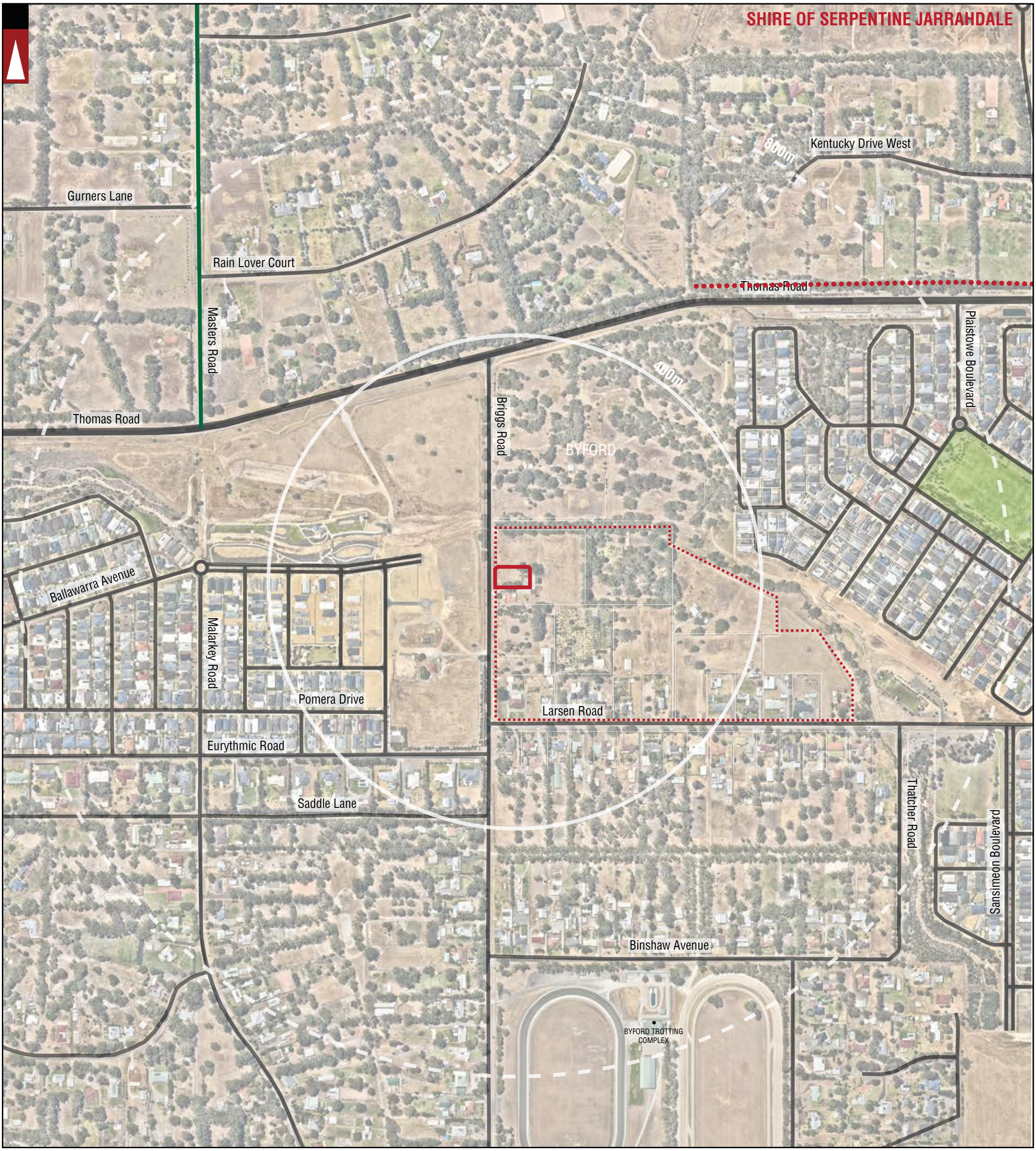
PROJECT: LOT 57 BRIGGS ROAD, BYFORD

TITLE: LOCALITY PLAN - 800M RADIUS

DRAWING NUMBER: KC01522.000_ S01

DRAWN BY: A.M.

Civil & Traffic Engineering Consultants
KCTT (Trading as KC Traffic and Transport Pty Ltd)
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au



PARKS AND RECREATION

ROAD

Hay Street — STREET NAME

SUBJECT SITE

STRUCTURE PLAN AREA

DISTANCE FROM LOCATION

SHIRE OF SERPENTINE JARRAHDALE — LOCAL GOVERNMENT NAME

BYFORD — SUBURB NAME

OTHER SHARED PATH (SHARED BY PEDESTRIANS & CYCLISTS)

GOOD ROAD RIDING ENVIRONMENT

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

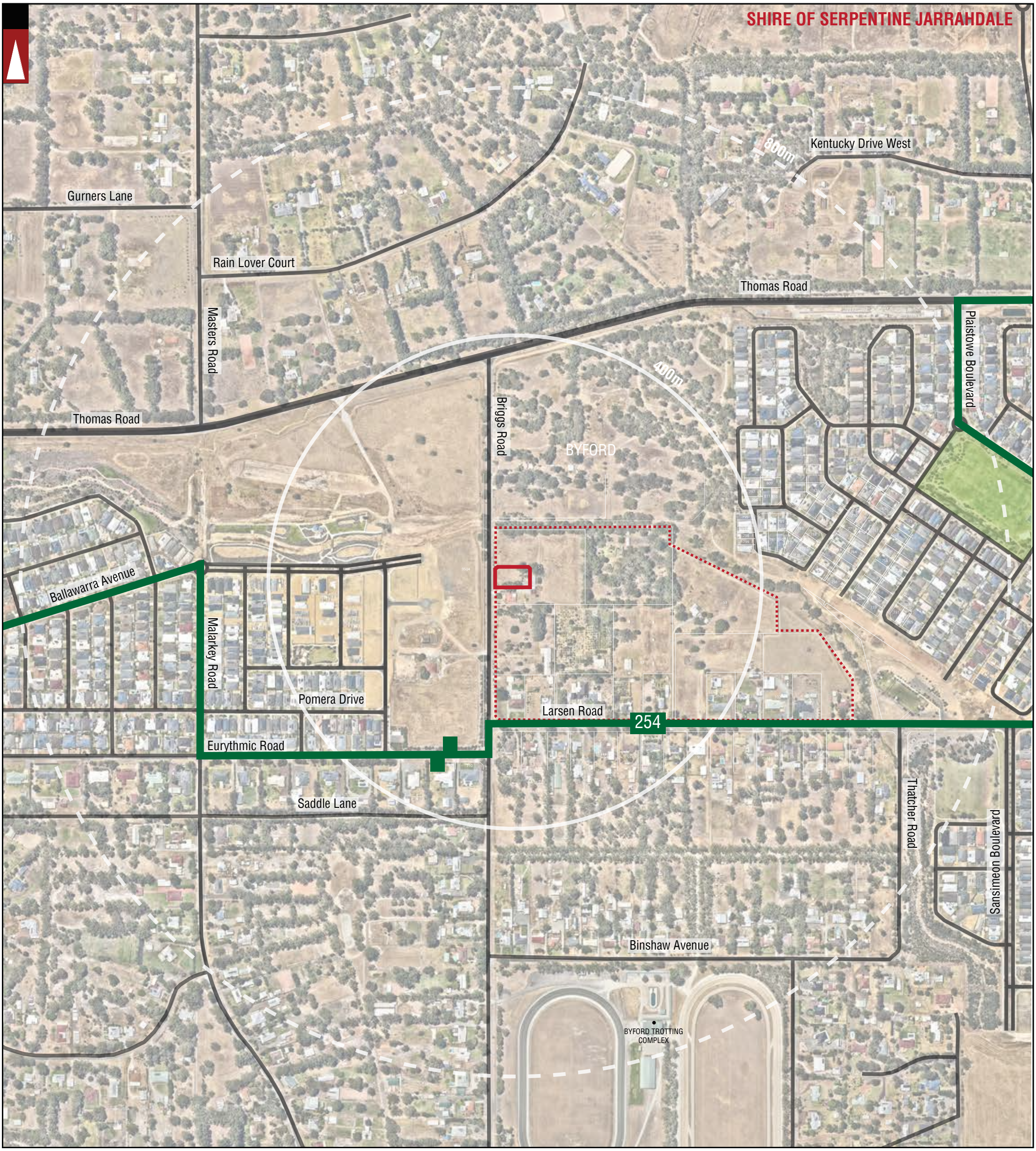
PROJECT: LOT 57 BRIGGS ROAD, BYFORD

TITLE: BICYCLE NETWORK PLAN - 800M RADIUS

DRAWING NUMBER: KC01522.000_ S02

DRAWN BY: A.M.

Civil & Traffic Engineering Consultants
KCTT (Trading as KC Traffic and Transport Pty Ltd)
PO Box 1456 Scarborough WA 6922
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PARKS AND RECREATION

ROAD

Hay Street — STREET NAME

SUBJECT SITE

STRUCTURE PLAN AREA

DISTANCE FROM LOCATION

SHIRE OF SERPENTINE JARRAHDALE — LOCAL GOVERNMENT NAME

BYFORD — SUBURB NAME

BUS ROUTES

BUS STOPS (WITHIN 400M)

103 — BUS ROUTE NUMBER

NOTE : FOR MORE INFORMATION REGARDING THE DESCRIPTION OF BUS ROUTES AND THEIR INDICATIVE PEAK AND OFF-PEAK FREQUENCIES REFER TO THE REPORT.

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

PROJECT: LOT 57 BRIGGS ROAD, BYFORD

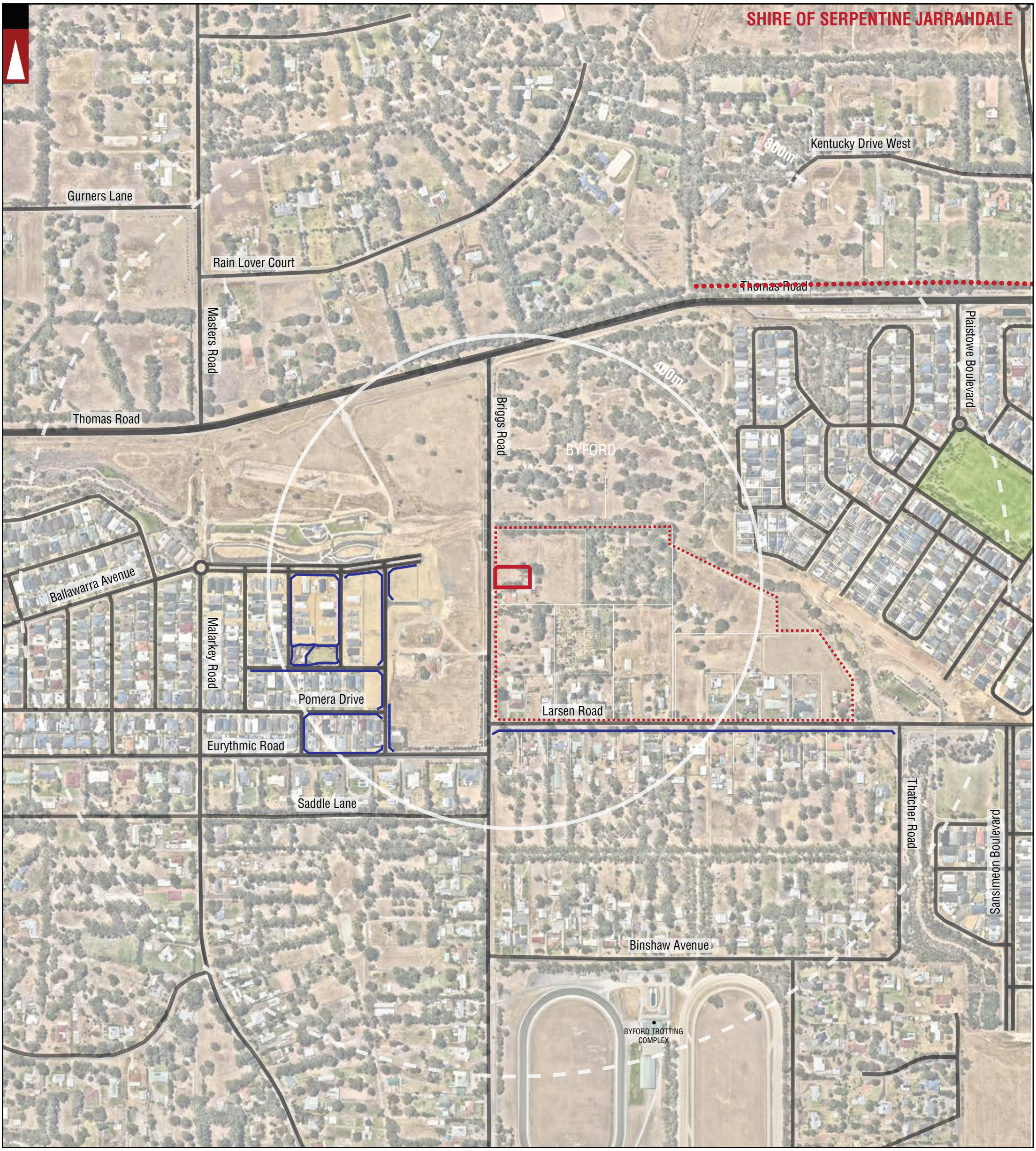
TITLE: PUBLIC TRANSPORT PLAN - 800M RADIUS

DRAWING NUMBER: KC01522.000_ S03

DRAWN BY: A.M.

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kctt



PARKS AND RECREATION

ROAD

Hay Street — STREET NAME

SUBJECT SITE

STRUCTURE PLAN AREA

DISTANCE FROM LOCATION

SHIRE OF SERPENTINE JARRAHDALE — LOCAL GOVERNMENT NAME

BYFORD — SUBURB NAME

OTHER SHARED PATH (SHARED BY PEDESTRIANS & CYCLISTS)

PEDESTRIAN PATH

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

PROJECT: LOT 57 BRIGGS ROAD, BYFORD

TITLE: PEDESTRIAN PATHS PLAN - 800M RADIUS

DRAWING NUMBER: KC01522.000_ S04

DRAWN BY: A.M.

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SHIRE OF SERPENTINE JARRAHDALE

800m

Kentucky Drive West

Gurners Lane

Rain Lover Court

8,362 AM 08:00 – 671 PM 15:15 – 689 2022
EAST OF BRIGGS ROAD

11,373 AM 08:00 – 1,020 PM 15:15 – 1,040 2022
WEST OF BRIGGS ROAD

Thomas Road

Masters Road

Plaistowe Boulevard

3,829 AM 08:00 – 449 PM 15:15 – 411 2022
SOUTH OF THOMAS ROAD

Briggs Road

BYFORD

Thomas Road

Ballawarra Avenue

Malarkey Road

Pomera Drive

Larsen Road

Eurythmic Road

Saddle Lane

Thatcher Road

Sansimeon Boulevard

Binshaw Avenue

BYFORD TROTTING COMPLEX

PARKS AND RECREATION

ROAD

Hay Street — STREET NAME

SUBJECT SITE

STRUCTURE PLAN AREA

DISTANCE FROM LOCATION

SHIRE OF SERPENTINE JARRAHDALE — LOCAL GOVERNMENT NAME

BYFORD — SUBURB NAME

5,512 — NUMBER OF VEHICLES PER DAY

AM 1145 – 381 PM 1630 – 480 — NUMBER OF VEHICLES PER AM PEAK HOUR / NUMBER OF VEHICLES PER PM PEAK HOUR

2014 — YEAR

EAST OF HARLOW ROAD — LOCATION

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

PROJECT: LOT 57 BRIGGS ROAD, BYFORD

TITLE: EXISTING TRAFFIC COUNTS - 800M RADIUS

DRAWING NUMBER: KC01522.000_ S05

DRAWN BY: A.M.

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PH: 08 9441 2700
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SHIRE OF SERPENTINE JARRAHDALE

271

452

181

452

6m CROSSOVER

INTERNAL DRIVEWAY

OUTDOOR PLAY
845m²

CHILDCARE CENTRE
GFA - 615m²
101 CHILDREN
18 STAFF
29 CAR BAYS REQUIRED

81 MVTS TOTAL
- 63 PARENT BAYS
- 18 STAFF BAYS
- 1 ACC. BAY

Briggs Road

LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

1,389 Total Expected Traffic Generation from the proposed development

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

Traffic Flow IN Direction

Traffic Flow OUT Direction

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

PROJECT: LOT 57 BRIGGS ROAD, BYFORD

TITLE: TRAFFIC FLOW DIAGRAM

DRAWING NUMBER: KC01522.000_S06

DRAWN BY: A.M.

Civil & Traffic Engineering Consultants
KCTT (Trading as KC Traffic and Transport Pty Ltd)
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au

SHIRE OF SERPENTINE JARRAHDALE

25

25

41

16

6m CROSSOVER

17

42

41

INTERNAL DRIVEWAY

OUTDOOR PLAY
845m²

CHILDCARE CENTRE
GFA - 615m²
NO. OF CHILDREN
101 PLACES
18 STAFF
29 CAR BAYS REQUIRED

83

81 BAYS TOTAL
- 10 VISITOR BAYS
- 18 STAFF BAYS
- 1 ACC. BAY

Briggs Road

LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

000 000 000 000 Traffic Flow IN Direction

000 000 000 000 Traffic Flow OUT Direction

1,389 Total Expected Traffic Generation from the proposed development - AM peak

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

PROJECT: LOT 57 BRIGGS ROAD, BYFORD

TITLE: TRAFFIC FLOW DIAGRAM - AM PEAK

DRAWING NUMBER: KC01522.000_S07

DRAWN BY: A.M.

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SHIRE OF SERPENTINE JARRAHDALE



LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

000 / 000 / 000 / 000 — Traffic Flow IN Direction

000 / 000 / 000 / 000 — Traffic Flow OUT Direction

1,389 — Total Expected Traffic Generation from the proposed development - PM peak

LEGEND

No	DATE	AMENDMENT
A	08-02-2023	ISSUED FOR REVIEW

PROJECT: LOT 57 BRIGGS ROAD, BYFORD

TITLE: TRAFFIC FLOW DIAGRAM - PM PEAK

DRAWING NUMBER: KC01522.000_S08

DRAWN BY: A.M.

Civil & Traffic Engineering Consultants
KCTT (Trading as KC Traffic and Transport Pty Ltd)
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Appendix 3

Vehicle Turning Circle Plan



NO	DATE	AMENDMENT
A	09-02-2023	ISSUED FOR REVIEW

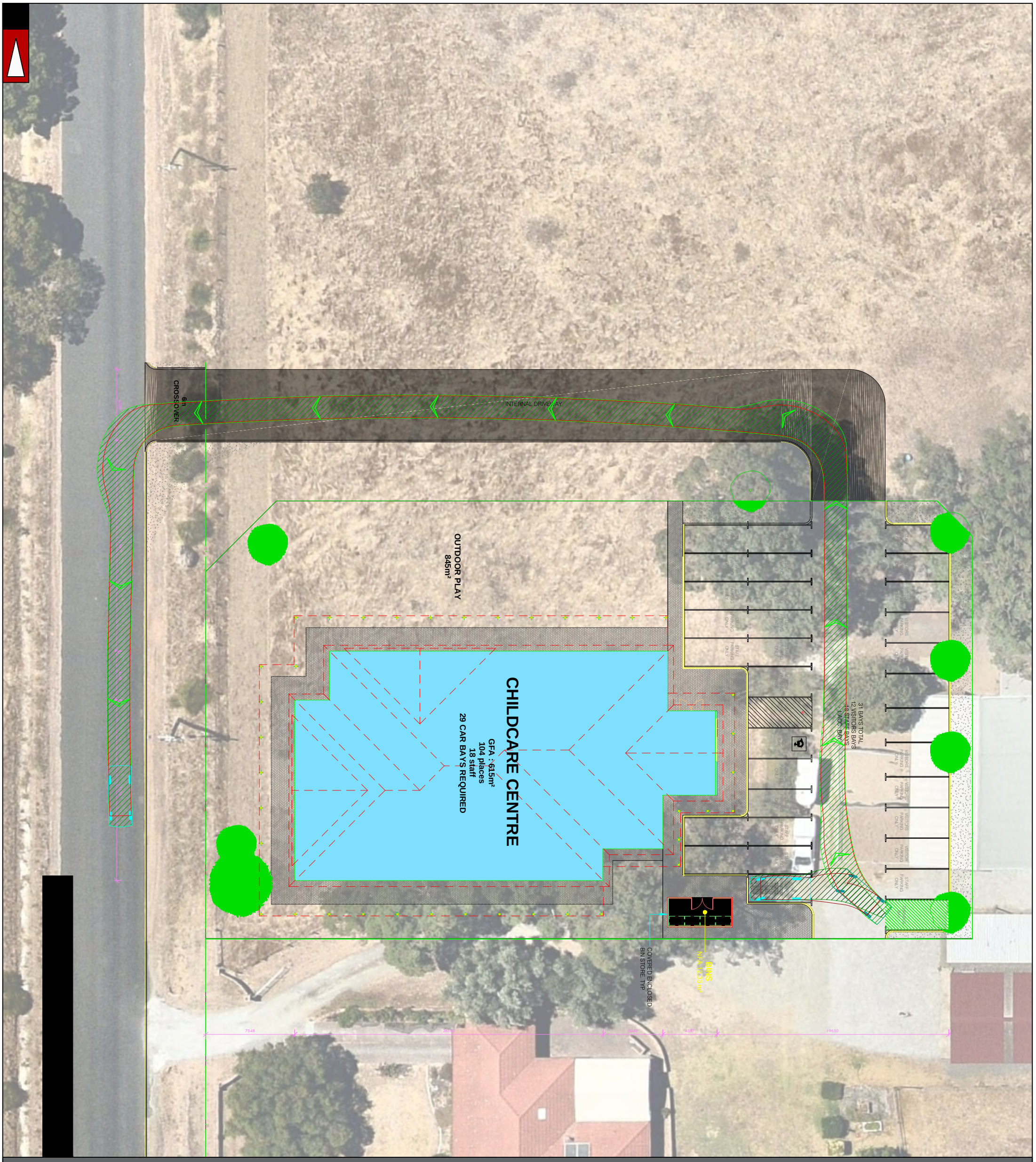
PROJECT:
Lot 57 Briggs Road, Byford

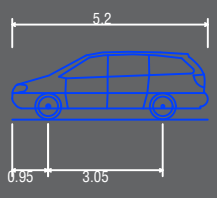
TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)

DRAWING NUMBER:
KC01522.000_S20

DRAWN BY:
N.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au





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

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

LEGEND

NO	DATE	AMENDMENT
A	09-02-2023	ISSUED FOR REVIEW

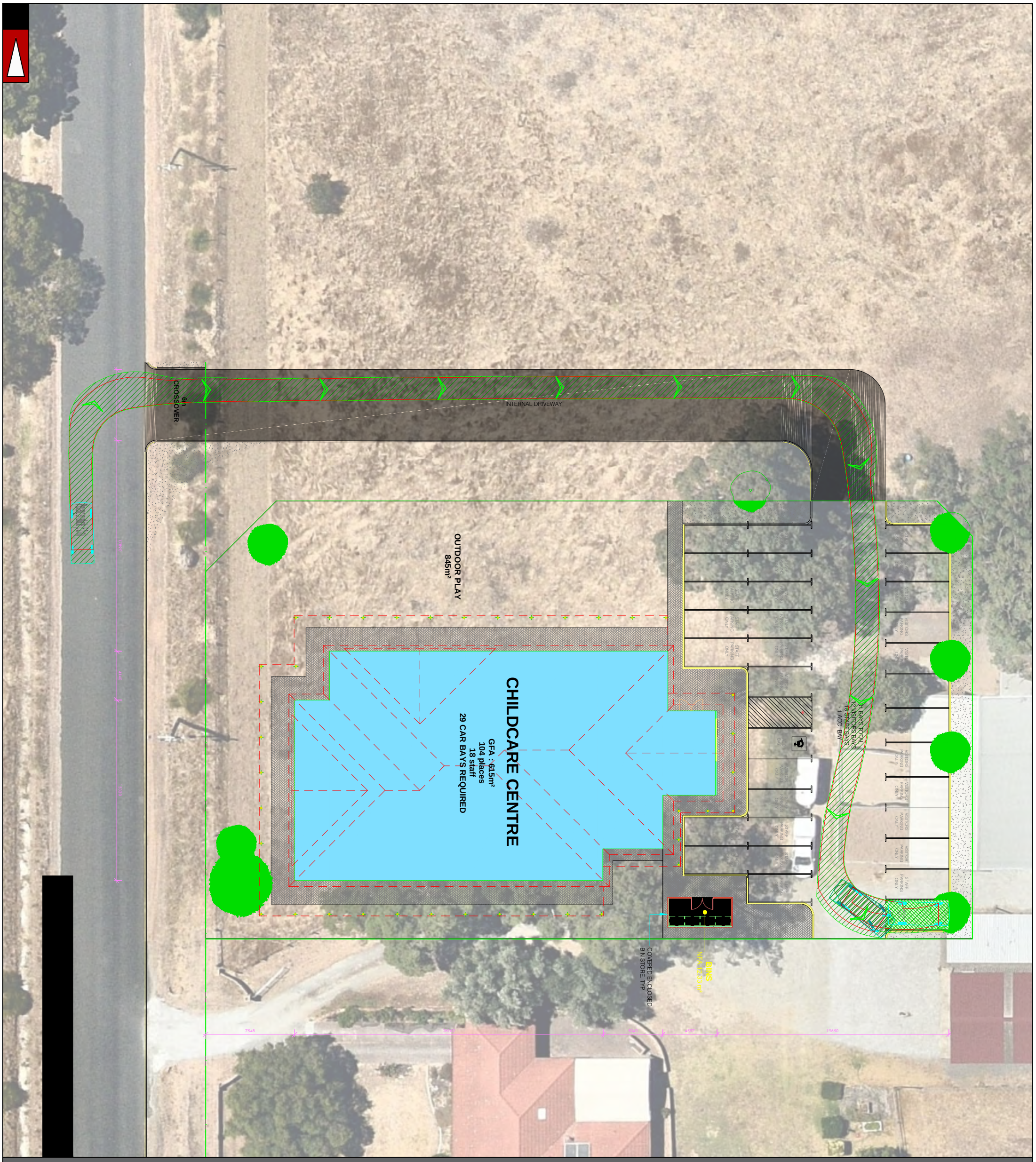
PROJECT:
Lot 57 Briggs Road, Byford

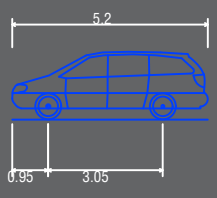
TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)

DRAWING NUMBER:
KC01522.000_S21

DRAWN BY:
N.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au





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

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

LEGEND

NO	DATE	AMENDMENT
A	09-02-2023	ISSUED FOR REVIEW

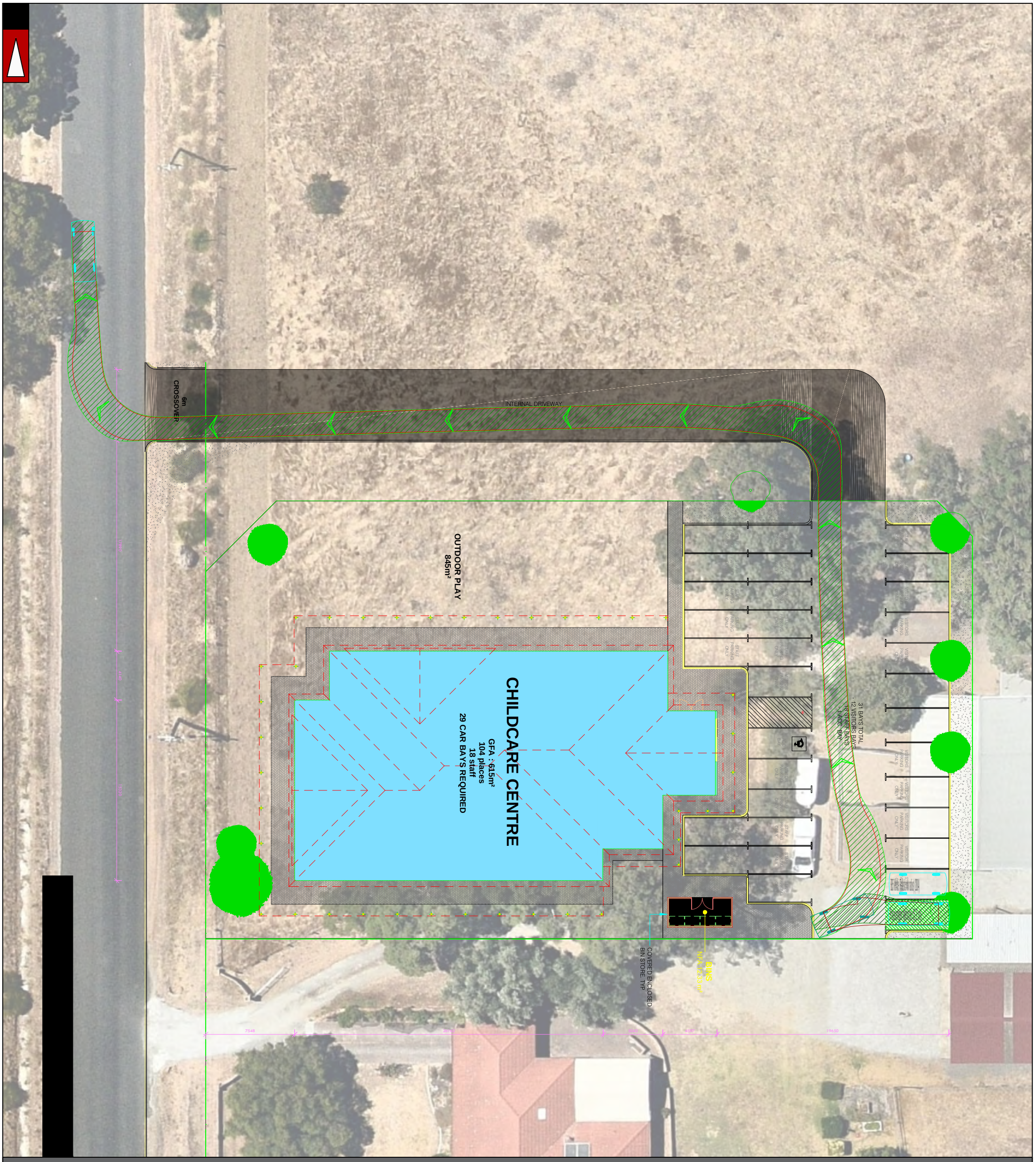
PROJECT:
Lot 57 Briggs Road, Byford

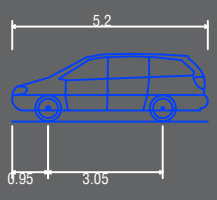
TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)

DRAWING NUMBER:
KC01522.000_S22

DRAWN BY:
N.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au





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

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

LEGEND

NO	DATE	AMENDMENT
A	09-02-2023	ISSUED FOR REVIEW

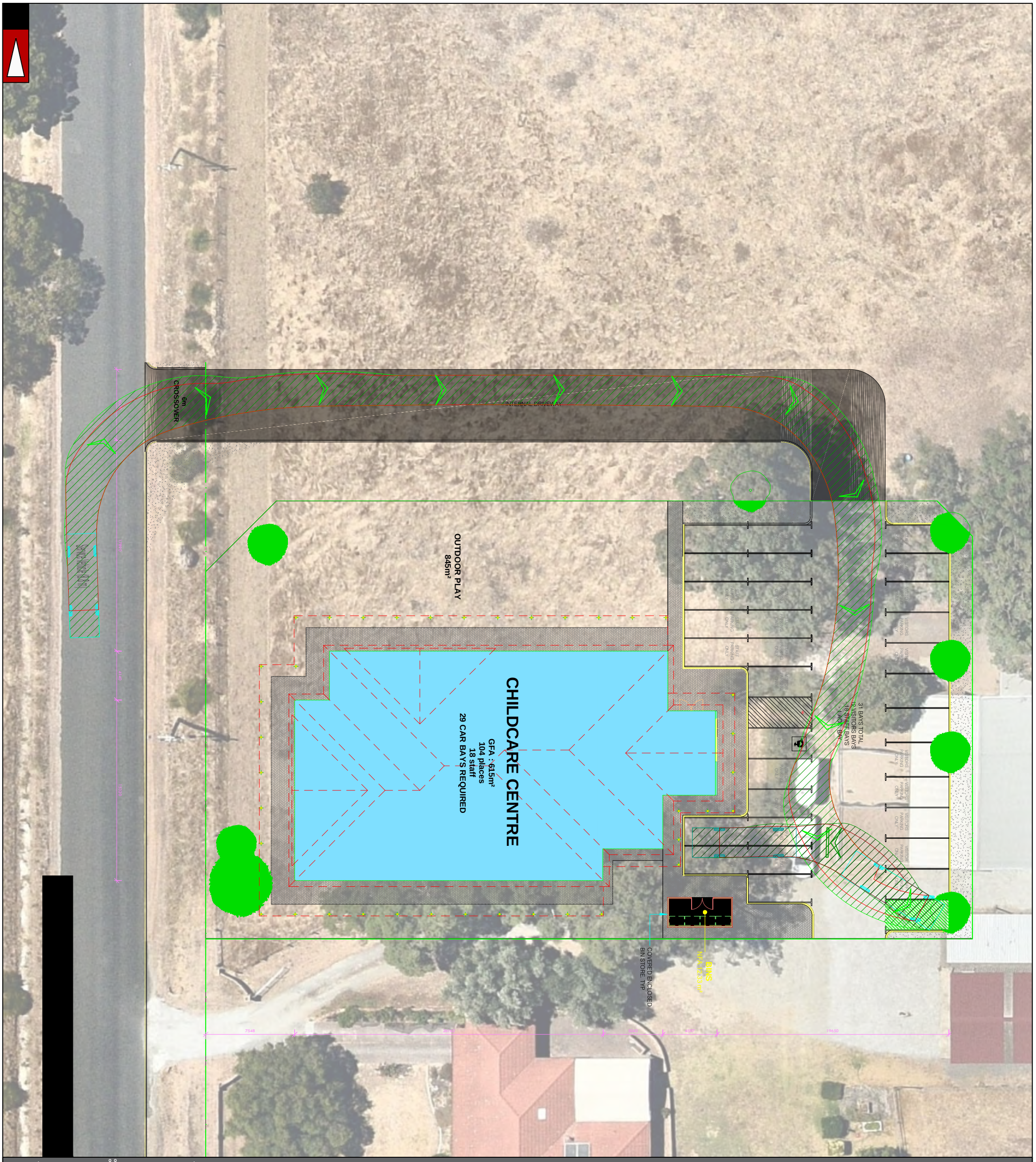
PROJECT:
Lot 57 Briggs Road, Byford

TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)

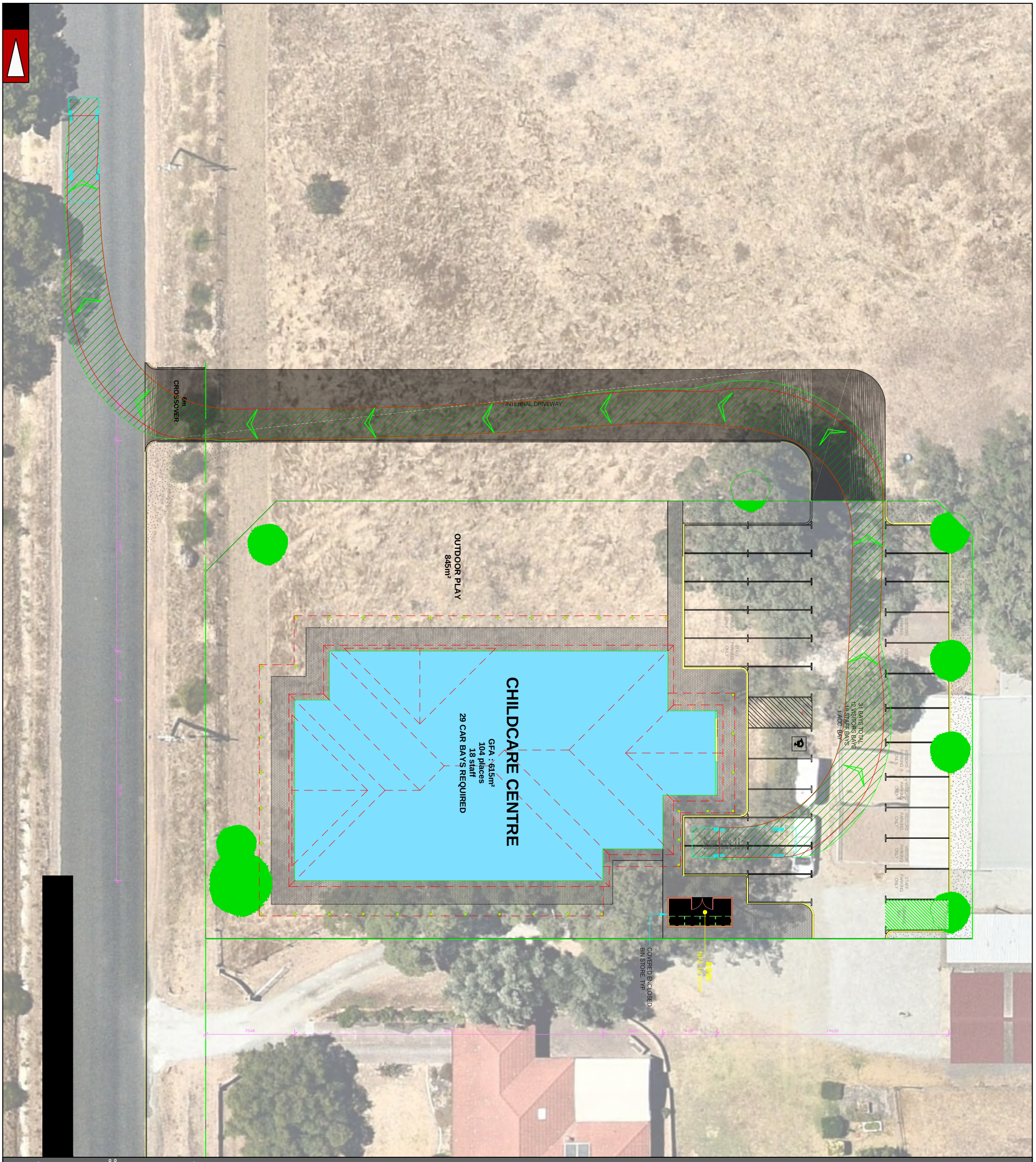
DRAWING NUMBER:
KC01522.000_S23

DRAWN BY:
N.M.

Civil & Traffic Engineering Consultants
PO Box 1456 Scarborough WA 6922
PH: 08 9441 2700
WEB: www.kctt.com.au



			PROJECT: Lot 57 Briggs Road, Byford	DRAWN BY:	Civil & Traffic Engineering Consultants PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au
			TITLE: Vehicle Turning Circle Plan - Service Vehicle (8.8m)	N.M.	
A	09-02-2023	ISSUED FOR REVIEW	DRAWING NUMBER: KC01522.000_S24		
NO	DATE	AMENDMENT			



			PROJECT: Lot 57 Briggs Road, Byford	DRAWN BY:	Civil & Traffic Engineering Consultants PO Box 1456 Scarborough WA 6922 PH: 08 9441 2700 WEB: www.kctt.com.au
			TITLE: Vehicle Turning Circle Plan - Service Vehicle (8.8m)	N.M.	
A	09-02-2023	ISSUED FOR REVIEW	DRAWING NUMBER: KC01522.000_S25		
NO	DATE	AMENDMENT			

Bushfire Management Plan

PROPOSED CHILDCARE CENTRE

Lot 57 Briggs Road, Byford

May 2023

envision
bushfire protection

LIMITATIONS STATEMENT

This Bushfire Management Plan ('BMP') has been for a childcare to be established at Lot 57 Briggs Road Byford. The site is located within the Shire of Serpentine Jarrahdale.

Envision Bushfire Protection

ABN: 90958370365

PO Box 7209 SHENTON PARK WA 6008

Ph: 0428 066 147

Email: admin@envisionbp.com.au

Version Control

Lot 57 Briggs Road Byford			
Version	**Date**	**Author**	
V1	28 February 2023	Anthony Rowe	submission
V2	9 May 2023	Anthony Rowe	Revised Figure 3

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Envision Bushfire Protection accepts no liability for the inaction of the owner to provide or maintain the bushfire protection measures identified in this report. Vegetation is dynamic, building materials may distort, and the accumulation and the location of flammable materials near the building may affect the potential for damage or loss of a building to occur.

Failure to maintain the property and/or building to these standards may compromise an insurance policy if currently covering any of your assets or those of any third party that may be consequentially affected due such failure. If not insured, and if you are seeking insurance, this report may not influence the decision of any insurer not to offer cover.

Importantly the measures contained in this report cannot guarantee human safety or an absence of harm or that the building will not be damaged or would survive a bushfire event on every occasion. This is due to the unpredictable nature of fire behaviour (knowledge in this field continues to develop) and the unpredictable nature of extreme weather conditions.

Scope of this report

Envision Bushfire Protection has been engaged to provide assessment of a proposed childcare centre.

Envision Bushfire Protection has not been engaged to assess the compliance of the site and the construction standard of the building in accordance with its planning and building approvals.

The scope of the advice has been to assess the proposal for compliance with the policy measures described in State Planning Policy 3.7.

The investigations and mitigation measures identified in the BMP, has, in turn, formed the basis for the preparation of a Bushfire Emergency Evacuation Plan.

Client relationship

I was engaged to provide expert bushfire safety and planning advice. My relationship with the client is a standard commercial contract, and no private, personal, or other matter has influenced the content of the BMP or my findings.

STATEMENT OF CONFORMITY – PLANNING AND DEVELOPMENT ACT 2005



Anthony Rowe Level 3 - BPAD36690

Principal

The signatory declares that this Bushfire Management Plan meets the requirements of State Planning Policy 3.7 and the Guidelines for Planning in Bushfire Prone Areas V.1.4.

EXECUTIVE SUMMARY

Preface

This report investigates the suitability of a childcare centre to be established at Lot 57 Briggs Road Byford with the Western Australian Bushfire Protection Guidelines.

The site is located in the Shire of Serpentine Jarrahdale, the decision maker. It is within a declared bushfire prone area and State Planning Policy 3.7 Planning in Bushfire Prone Areas applies.

In accordance with SPP 3.7 the planning authority in determining an application in a declared bushfire prone area must be satisfied the proposal is consistent with the Policy intent, ***to preserve life and reduce the impact of bushfire on property and infrastructure***.

State Planning Policy 3.7 and Guidelines for Planning in Bushfire Prone Areas (WAPC, v.1.4 December 2021) identifies a childcare facility to be classed as a 'vulnerable' development. A 'vulnerable' development in addition to the usual assessment information, is required is also to have a Bushfire Emergency Evacuation Plan (BEEP). The Bushfire Emergency Evacuation Plan in turn follows the options identified in the Bushfire Management Plan.

This BMP has been prepared in accordance with SPP 3.7 and Appendix Five in the Guidelines v.1.4 and the Department of Planning Lands and Heritage (DPLH) *BMP Template for a complex development application;* the following summary has followed the structure (heading topics) illustrated in the DPLH template.

1. **Proposal details (addressed in Section 1)**

The development site is a 2400 m^2 and part of a larger 2 ha lot (Lot 57 Briggs Road Byford) (**the site).**

The larger lot (site) is 2 ha, flat and occupied by a single dwelling with gardens, and outbuildings as part of a rural residential land use. The development site is at the western end of the lot and is flat and clear of trees except along the western fence line.

The site is within an area identified as residential (Local Structure Plan) **(Plate 3**). Under the plan, a public open space is also proposed north of the site, including a drainage channel. It is to be separated from the north boundary of the childcare site by a proposed public road. It is assumed the POS will be vegetated as forest.

The site will also join a public through road at the east boundary which will be followed by residential development. Land south of the boundary will be developed as residential and across Briggs Road (west) will be residential development. Also across Briggs Road and south west of the site is a public purpose reserve. It has been assumed to be developed as forest.

The site has access to a reticulated water supply and a fire hydrant is located in Briggs Road.

2. **Environmental considerations (addressed in Section 2)**

A review of Landgate ecological data base in accordance with the DPLH template has been undertaken to identify any potential restriction (regulated vegetation) upon the implementation of bushfire protection measures, that may require the modification or removal of vegetation and any planned ecological rehabilitation.

The site does not contain any specifically identified regulated vegetation. It is with in a general area identified as habitat for the Carnaby Black Cockatoo.

The proposal and a 122 m Asset Protection Zone will only displace grassland. The existing stand of trees at the south boundary and north west to the carpark can be retained within the Asset Protection Zone standard.

3. **Bushfire assessment results (addressed in Section 3)**

A Bushfire Attack Level assessment following Method 1 AS 3959:2018, and the DPLH *Visual guide for bushfire risk assessment in Western Australia*, and using an FFDI of 80, has been undertaken.

The assessment is illustrated at Figure 5a. It has assumed an Asset Protection Zone can be created around the childcare building within the site to achieve a BAL not exceeding BAL-19. This is required in the interim until the grassland is replaced by residential development.

When the surrounding land is developed the building will be within a BAL-19 area. The future development is illustrated in figure 5b.

Identification of bushfire hazard issues (addressed in Section 4)

The site is within a Mediterranean climate, with cool, wet winters (June to August) followed by a mild spring (September-November), and hot, dry summers (December to February) leading into autumn (March-May).

The bushfire season is typically from the beginning of December through to the end of March each year.

The site is within an area identified as bushfire prone due to vegetation within large residential lots. This may overestimate the risk in this instance because the presents of buildings and gardens fragments the continuity of bushfire fuels.

The site is also within an area that will be developed for medium density residential purposes. In the interim the BAL affecting the building from the immediate land is predominantly from grassland. It requires the shortest separation (12 m) to achieve BAL-19 at the building.

The proposed subdivision layout has the Childcare adjoining residential development surrounded by residential development. It is separated by 40 m from the public open space (public purpose and park - recreation and conservation) to the north of the site and separated by a road. The PoS is assumed to be developed as forest and a retained bushfire threat in the long term.

The road at the east of the site will provide an opportunity to evacuate into a BAL Low area.

A childcare building under NCC 2019 has no bushfire construction requirement and it is at the applicant's discretion to apply a bushfire construction standard. Notwithstanding the childcare will be located within BAL-19 it is recommended the Childcare Building adopt the construction standards for BAL-29, to provide resistance to a bushfire occurring in the reserve north of the site.

During a bushfire the peak radiant heat, upon which the BAL is determined lasts only a short time, typically 2 minutes, with the heat rapidly decaying after the firefront (peak) has passed. Notwithstanding BAL-29 is the acceptable construction standard it is a fatal exposure level for humans; 10 kWm^2 is the maximum short term exposure to evacuate by a vehicle.

In the event of a bushfire the childcare centre should be evacuated, but evacuation will not be able to continue during the peak. Shelter in the building will be required at this time and this is a reason to construct the building to a standard commensurate to the level of bushfire attack.

The BAL-29 construction standard does not account for a direct flame contact. It is important that the grounds are maintained to prevent secondary fires at the site, by the location of flammable objects, that may subject the building to direct flame contact.

Seasonal preparations are described in the Bushfire Emergency Evacuation Plan as a risk treatment, as well as pre-emptive evacuation if there is a fire within 5 km.

4. Assessment against the bushfire protection criteria (addressed in Section 5)

The proposal was compared with the four Bushfire Protection Criteria Elements: Location, Siting and Design, Access, and Water.

Acceptable Solution

Element 1 Location - requires development avoid areas of extreme Bushfire Hazard level and can achieve BAL-29 at completion.

The site is within an establishing residential built out area, transitioning from rural living and pasture grass. The site is within a predominantly a Moderate Bushfire Hazard Level.

The Childcare will achieve BAL-19 at completion.

The proposal is compliant with Element 1.

Element 2 Siting and Design – requires that a planning application should demonstrate the habitable buildings will not be exposed to a BAL greater than BAL-29.

The development site is within a larger ownership responsible for the management of the land, enabling the APZ separation to be created from classified grassland to achieve BAL-19 at the building. This will be required until the adjoining land is subsequently developed for residential purposes, and roadways, both excluded as a threat by AS3959, s.2.2.3.2(e).

The proposal achieves BAL-19 and is compliant with the acceptable solution A2.1.

It is however recommended the building is constructed to BAL-29 standard.

Element 3 Vehicle Access – requires the site has access to a through road to provide alternate routes of escape and access for fire fighters.

The site is initially accessed from Briggs Road which is a through road.

When the adjoining land is developed the carpark will be accessed from a new through road (unnamed) that will be established at the east boundary to the carpark.

The site has access to a public through road, initially and into the future.

The proposal is compliant with Element 3.

Element 4 Water – requires the availability of water for firefighting purposes.

The proposal will be connected to the reticulated water supply. Public hydrants are located on along Briggs Road within 100 m of the site.

Additional Bushfire Management Strategies (addressed in section 5.2)

Additional Bushfire Management Strategies are provided through the Bushfire Emergency Evacuation Plan following planning preparation, response and recovery.

Existing risk controls, external to control by the applicant, are expected to be maintained. This includes public notification of bushfire, the provision of emergency services for the community, the maintenance of public roads, and the capacity of the reticulated water supply.

Spatial representation of the bushfire management strategies (Figure EX 1)

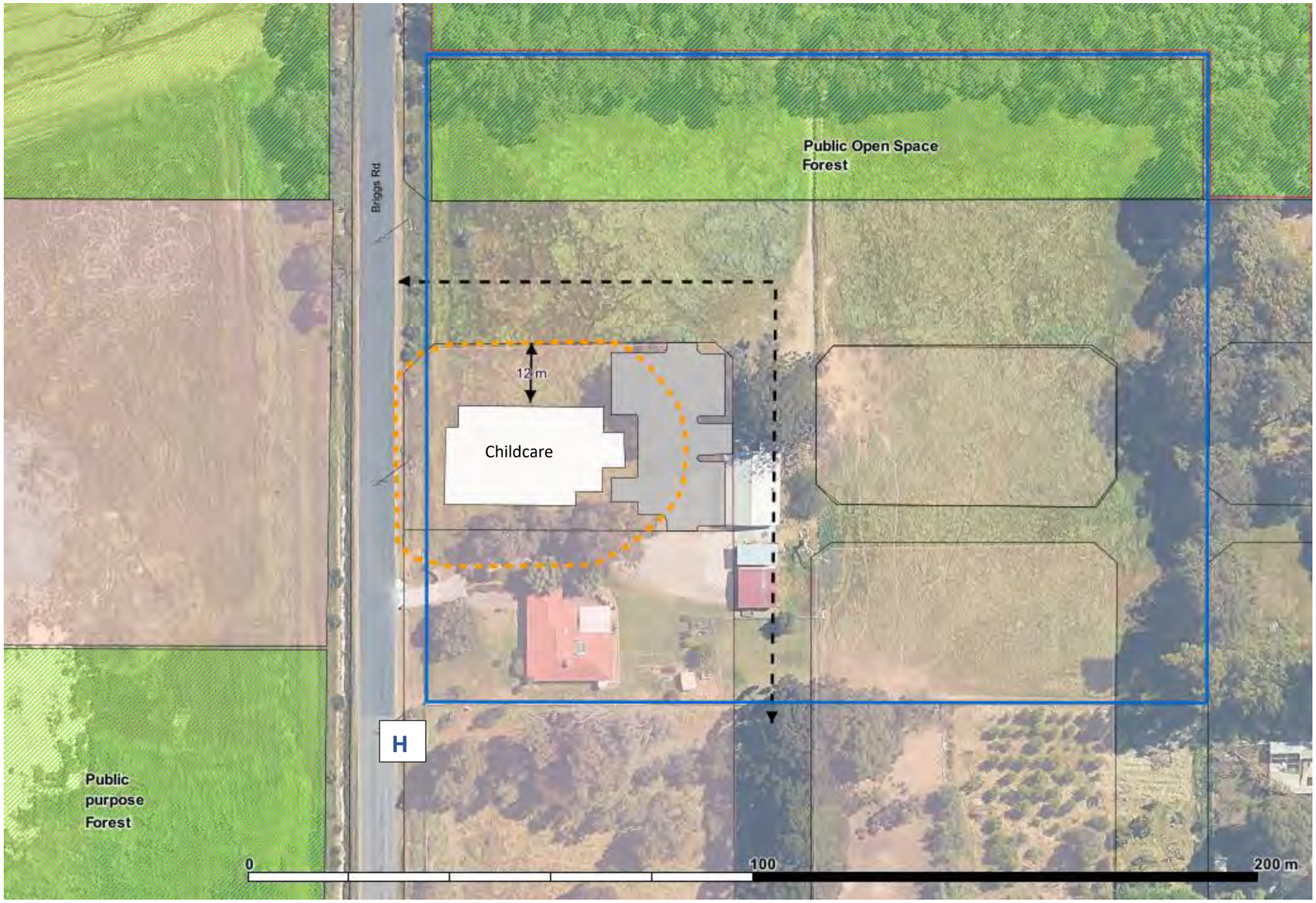
The key features demonstrating compliance with the bushfire protection measures are identified on the *Spatial representation of the bushfire management strategies*.

These actions are reflected in the following *Responsibilities for implementation and management of the bushfire measures.*

5. Responsibilities for implementation and management of the bushfire measures

The *Responsibilities for Implementation and Management of the Bushfire Measures,* addressed in section 6 of the BMP and summarised in Figure EX1 supersede or are additional to the details included within the development application.

Figure Ex 1 - Spatial representation of the proposed risk management strategies - Lot 57 Briggs Road Byford



Responsibilities for implementation and management of the bushfire measures

1. The childcare building Asset Protection Zone (12 m) is to be maintained in accordance with the Asset Protection Zone standard described in the *Guidelines for Planning in Bushfire Prone Areas* v1.4.

2. The childcare building is to be constructed in accordance with the BAL 29 building construction requirements prescribed in sections 3 and 7 in AS3959:2018

3. In furtherance of any *Building Act 2011* requirement, the Childcare is to be connected to the towns reticulated water, and fire hoses are to be provided at capable of applying water to all external surfaces of the building and up to 10 m around the building.

LEGEND

- Site Boundary
- Asset Protection Zone 12 m
- Future roads
- Future residential area
- H — Hydrant

Site assessment Date: 17 November 2022
Prepared: Anthony Rowe
Accreditation Level: BPAD L3
Accreditation Number: 36690

EMERGENCY EVACUATION DIAGRAM

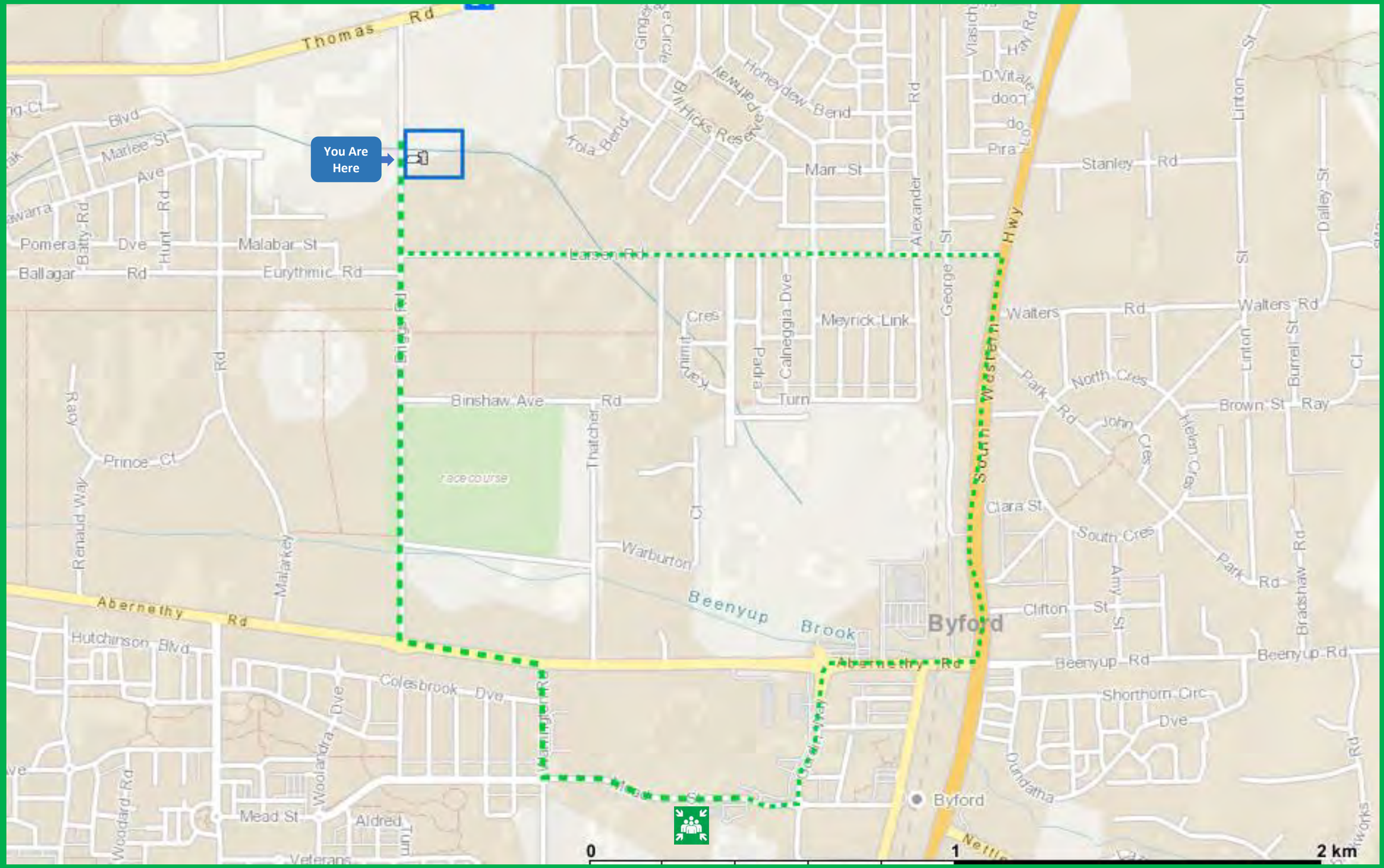


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PROPOSAL DETAILS

1.1 Introduction

Envision Bushfire Protection has been commissioned to provide bushfire consultancy services, in the preparation of a development proposal compliant with the State Planning Policy 3.7, *Planning in Bushfire Prone Areas,* for a proposal to construct a childcare centre at Lot 57 Briggs Road Byford (Plate 1).

The site is located in the Shire of Serpentine Jarrahdale, which is the decision maker.

The subject land is within a declared bushfire prone area (Plate 2).

In accordance with SPP 3.7 the planning authority in determining an application in a declared bushfire prone area must be satisfied the proposal is consistent with the SPP 3.7 Policy Intent, ***to preserve life and reduce the impact of bushfire on property and infrastructure***.

Purpose of this Plan

The purpose of this BMP is to assess the suitability of the proposal and its location for the intended use, to assess the bushfire risk and identify the risk treatments that satisfy the objectives to avoid an increase in the threat of bushfire and reduce the vulnerability of people and property (to the degree necessary) from potentially significant adverse bushfire impacts.

Site and Proposal Description

Address	Lot 57 Briggs Road Byford			
Local Government Area	Shire of Serpentine Jarrahdale			
Local Planning Scheme Zone	(Draft) Local Planning Scheme 3 – Urban Development Local Structure Plan (see Plate 3)			
Bushfire Season	Shire of Serpentine Jarrahdale 1 December – 12 May (precise dates may vary annually)			
Development proposal	Commercial Building (Plate 4)			
Building class	Class 9b – the construction standard is at the discretion of the applicant NCC 2019, but provisions apply when NCC 2022 becomes operational.			
Site area	Development site 2236 m^2			
Adjoining Land uses	North	East	South	West
Within 150 m	Urban	Woodland	Urban	Urban
Within 2.5 km	Pasture (grassland)	Forest (isolated<5%)	Pasture (grassland) Forest	Urban
Road Access	Briggs Road (Local distributor road)			
Water supply	The site has access to a reticulated water supply. The nearest hydrant is immediate to the site on Briggs Road.			

Tele communications	The site is within the Telstra 4G - 5G network
Emergency services	The nearest fire brigades are Byford Volunteer Bush Fire Brigade, Clara Street Byford (2.6 km) Oakford Volunteer Fire Brigade, 1099 Nicholson Rd, Oakford (8 km)
Minor Development	N/A
Unavoidable development	N/A
Vulnerable Development	Yes – Bushfire Emergency Evacuation Plan provided
High risk land use	N/A



Plate 1:Site in Locality (Nationl Map)



Plate 2: OBRM Bushfire Prone Area (Pink area)

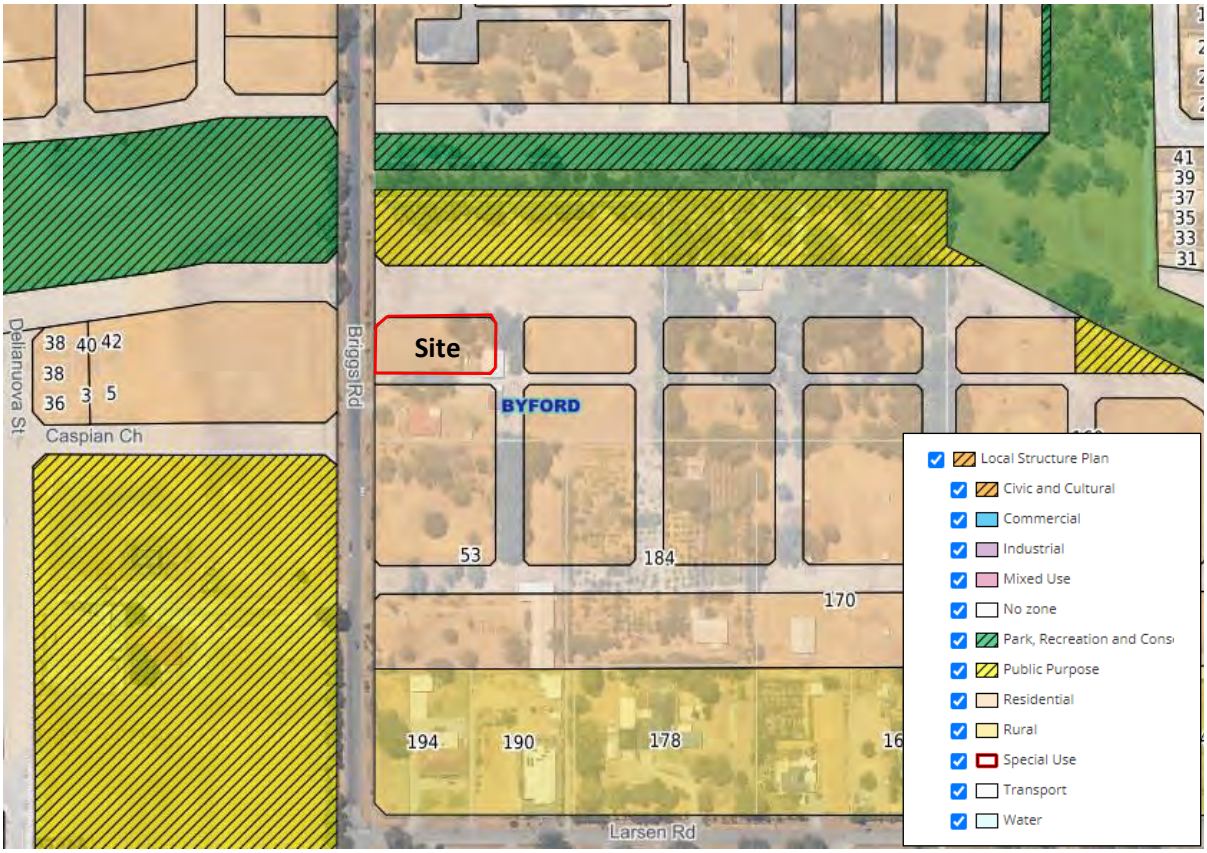


Plate 3: Local Structure Plan



Plate 4: subdivision concept

1.2 Regulatory Compliance Requirements

Planning and Development Act 2005 - SPP 3.7

On 7 December 2015, the State Government introduced by Gazette, a state map of Bushfire Prone Areas by order under the *Fire and Emergency Services Act 1998* and introduced development controls in Bushfire Prone Areas through the *Planning and Development Act 2005*. These controls were authorised by State Planning Policy 3.7 (Planning in Bushfire Prone Areas) regulations introduced under Part 10A Schedule 2 of the *Planning and Development (Local Planning Scheme) Regulations 2015* and guided by the *Guidelines for Planning in Bushfire Prone Areas*.

The State Planning Policy, Regulations, and Guidelines now form the foundation for fire risk management planning in WA at a community and land development level. The Policy Intent of SPP 3.7 is ***to preserve life and reduce the impact of bushfire on property and infrastructure***.

The relevant Policy Objectives of SPP 3.7 are to:

> ***5.1 Avoid any increase in the threat of bushfire to people, property, and infrastructure. The preservation of life and the management of bushfire impact are paramount.*** (Matters that may increase the threat of a bushfire include increasing available fuels or increasing the likelihood of ignition).
>
> ***5.2 Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process***. (Risk is the combination of likelihood and consequence, and reducing vulnerability is the identification of mitigation measures: see Bushfire Protection Criteria and Additional Bushfire Management Strategies).

Applicable clause from SPP 3.7, include:

SPP 6.2: A development application within a bushfire prone area has or will, on completion, have a moderate BHL and/or where BAL-12.5 to BAL-29 applies, may be considered for approval. *In this instance the proposal will not exceed BAL 29 refer to Figure 5a.*

SPP 6.5: A development application in a bushfire protection area is to be accompanied by an assessment against the bushfire protection criteria contained within the Guidelines, demonstrating compliance within the boundary of the development. *The proposed development requires no imposition beyond its site.*

SPP 6.7: A development that will result in the introduction or intensification of development or land use in an area that has or will, on completion, have an extreme BHL and/or BAL-40 or BAL-FZ will not be supported*. The proposal will not exceed BAL 29 refer to Figure 5a.*

SPP 6.10: The decision-maker may impose a 'notice on title' advising that the site is located in a bushfire prone area and is subject to a Bushfire Management Plan. *Routinely imposed as a condition of planning approval.*

SPP 6.11: Precautionary Principle if a landowner/proponent cannot satisfy the performance principles of the relevant policy measures (intent) through either the acceptable solutions outlined in the Guidelines, or through the alternative solutions (Performance Principle) the application may not be approved. *The proposal achieves compliance with the Acceptable solutions.*

Vulnerable Land Uses **(Guidelines for Planning in Bushfire Prone Areas cl.5.5.1)**

Typically, *Vulnerable* land uses are those where persons may be less able to respond in a bushfire emergency; this includes childcare centres.

An additional requirement provided by SPP 3.7 and its Guidelines, is that a proposal classified as a 'vulnerable development' is to be accompanied by a (Bushfire) Emergency Evacuation Plan,

comprising the details described at cl.5.5.4 of the Guidelines V1.4 and in accordance with the DPLH A Guide to developing a Bushfire Emergency Evacuation Plan 2019.

Building Act 2011

The proposal is a Class 9b building for the purpose of the *Building Act 2011*. The Building Act 2011, utilising the National Construction Code 2019 applies AS 3959:2018 construction requirements only upon class 1, 2, 3, and 10a buildings. *The construction requirements in AS 3959:2018 are often exceeded by the construction requirement for other classes of buildings. In instances where it does not, then a higher standard can be volunteered.*

National Construction Code 2022, to become operational in May 2023 has construction requirements 'to the degree necessary' applicable to Class 9 buildings, including Childcare buildings, in a bushfire prone area the degree necessary is attributable to the requirement for the building to provide shelter in a bushfire.

In this instance the proposal does not advocate shelter, as the primary response, other than to wait the passing of the peak flaming period.

Bush Fires Act 1954

Section 33 of the *Bush Fires Act 1954* recognises the responsibility of all landowners to prevent the spread of bushfire. The Local Government issues a Firebreak Notice annually. It can also issue a notice upon the landowner, at any time, to act as and when specified in the notice with respect to anything (stored materials) which in the opinion of the local government's authorised officer, is or is likely to be, conducive to the outbreak of a bushfire, or the spread or extension of a bushfire.

An owner who fails to comply with a notice is guilty of an offence (Penalty: $5,000). The local government may in addition carry out the required works of the notice and recover the costs incurred by application to a Court.

2. ENVIRONMENTAL CONSIDERATIONS

2.1 Native Vegetation – Modification and Clearing

The protection or conservation of certain vegetation may restrict the ability to establish the Asset Protection Zone as required to achieve compliance with the Acceptable Solutions. Approval to modify or remove vegetation may be required under separate legislation (identified below).

The modification of regulated vegetation may be restricted to the extent required to achieve BAL-29. Where removal of regulated vegetation is not authorised an alternate position on site may be required, or a high a construction standard commensurate to the distance available may be required.

In addition to the regulation of native vegetation, Local government may have additional policies, including within their Planning Scheme that would restrict the removal of native vegetation.

This BMP does not affect the independent considerations made under other legislation, or parts of the local Planning Scheme, regulating the modification and removal of native vegetation.

Regulated Vegetation

Environment Protection Act 1986 and Environmental Protection (clearing native vegetation) Regulation 2004

It is an offense to clear native vegetation without the authority of a permit or an exemption. The act of clearing native vegetation, requires a permit from either the Department of Water and Environmental Regulation (DWER) or the Department of Mines, Industry Regulation and Safety (DMIRS), unless an exemption applies.

Exemptions include:

Environment Protection Act 1986

- Clearing required by local government Section 33 *Bush Fires Act 1954.*
- Clearing in accordance with the terms of a subdivision approval.
- Clearing in accordance with a permit under the *Bushfires Act 1954* (prescribed burning) and clearing by a bushfire control officer.

Environmental Protection (clearing native vegetation) Regulation 2004 (exemptions do not apply in Environmentally Sensitive Areas, and clearing > than 5ha)

https://www.der.wa.gov.au/your-environment/environmentally-sensitive-areas

- Clearing to the extent necessary to construct an approved building.
- Clearing that is for fire hazard reduction burning.
- Clearing to maintain an area cleared in the last ten years.

(WA) Biodiversity Conservation Act 2016 and Bio-diversity Conservation Regulations 2018

The *Biodiversity Conservation Act, 2016*, replaces the *Wildlife Conservation Act, 1950*, and the *Sandalwood Act, 1929*, it became operational with the *Bio-diversity Conservation Regulations 2018*, on 1 January 2019.

The Act provides for listing species, threatened ecological communities (TECs), key threatening processes, and critical habitats. It introduces criteria for listing species 'endangered', 'critically endangered' or 'vulnerable,' to align with the Environment Conservation and Biodiversity Conservation Act 1999 (Cth).

The *Biodiversity Conservation Act 2016* recognises that activities approved under the *Environment Protection Act 1986* do not require further approval include clearing of native vegetation that is either exempt or done under the authority of a clearing permit or done in accordance with an implementation decision under Part IV of the *Environment Protection Act 1986*.

The proposal will not affect any vegetation regulated by the above Acts.

Commonwealth Environment Protection Biodiversity Conservation Act 1999 (EPBC)

The Commonwealth Environment Protection Biodiversity Conservation Act 1999 provides for the protection of matters of national environmental significance. National environment law does not generally regulate fire prevention measures taken by state and territory governments, but no specific exemptions are provided.

Department of Lands and Heritage (DPLH) BMP template complex

The Department of Lands and Heritage BMP template complex list the publicly available datasets available from the Landgate SLIP platform. It is provided as a guide. The publicly available datasets are not comprehensive and for some data sets are available only at a general scale. The BMP is not intended as a 'one stop shop' and it does not obviate the need for the owner to apply for authorisation under other legislation.

Table 1: Ecological database assessment.

Is the land affected by:	**Yes/No/NA**	**If yes - describe**
Conservation Wetland or buffer (DBCA-019 DBCA-017)	No	
RAMSAR Wetland (DBCA-010)	No	
Threatened and Priority Flora (DBCA-036)	No	
Threatened and Priority Fauna (DBCA-037)	Nearby	Potential Carnaby Cockatoo Habitat
Threatened Ecological Communities (DBCA-038)	No	
Bush Forever (COP-071)	No	
Environmentally Sensitive Area (DWER-046)	No	
Regionally Significant Natural Areas (DWER-070)	No	
Conservation Covenant (DPIRD-023)	N/A	
Does the proposal require the removal of restricted vegetation?		**NO**

No clearing of regulated vegetation is required, the proposal will not displace habitat for the Carnaby Black Cockatoo.

The proposal imposes no impact upon classified vegetation, either in the establishment of an Asset Protection Zone or by an increased expectation of fuel management on neighbouring land.

2.2 Re-vegetation/Landscape Plans

The Asset Protection Zone will be established 8 m from the childcare building, to provide a separation from adjoining grassland until the grassland is displace by roads and residential development (Low threat AS3959:2018, s.2.2.3.2 (e).

It is anticipated the Public Open Space and Public Purpose areas, within 100 m of the site may be revegetated as forest. The BAL has been assessed on the revegetation assumption and it demonstrates the future BAL at the childcare will be BAL - 19.

3. BUSHFIRE ASSESSMENT

3.1 Bushfire Attack Level Assessment (Inputs)

The following assessment has applied the methodologies described in AS 3959:2018, the Guidelines, and has used the Fire Protection Association Australia accredited practitioner methodology for the preparation of Bushfire Attack Level (BAL) assessments.

All vegetation within 150 m (context) of the subject building has been classified following Clause 2.2.3 (AS 3959 -2018) to determine the predominant vegetation affecting the behaviour at the locality. The Bushfire Attack Level is determined by the **predominant** vegetation within 100 m of r the external face from a habitable building.

The classifications of vegetation used in AS 3959:2018 are based on foliage cover, measured as a percentage of a hectare and by the fuel (vegetation) height.

> ***Foliage cover**: The portion of the ground that would be shaded by foliage when the sun is shining directly overhead, expressed as a percentage for each stratum or identifiable layer of vegetation.*

AS 3959:2018

Layer/ Stratum	Description	Hazard
Bark	Tight/fine – course/ribbon	Spotting and ember attack potential associated with forest
Canopy	Trees taller than 6 m (forest)	Influences the flame height
Elevated fuel	Trees and Shrubs up to 6 m	Influences the flame height
Near surface	Grasses and shrubs taller than 100 mm and up to 2 m	Influences the rate of spread and canopy ignition
Surface	On ground material, leaves, twigs, bark	Influences the rate of spread

From CFA (Vic) Overall fuel assessment guide 2010

AS 3959:2018 describes six categories of Bushfire Attack Level (BAL): BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40, and BAL-FZ. In addition, BAL-FZ describes only performance solutions where the separation from classified vegetation (on completion) is less than 10 m. The BAL level is used for determining the siting of development (to be less than BAL-40) and in turn the construction standard that is equivalent to the BAL at the proposed building location.

This assessment has followed the guidance of AS 3959:2018. This includes:

- A recognition of excluded vegetation types described at cl.2.2.3.2 (e) and (f), but the underlying vegetation should still be classed e.g., an orchard may be excluded but not the grassland within it.
- A separate plot is applied if there is a variation in the slope greater than 5.0^0
- For various vegetation classes a representation that is less than 10%, does not constitute the predominant class. Foliage cover referred to in AS 3959:2018 for various classes is based on the foliage cover for that class as a percentage of a ha. (shadow cast is not representative of foliage cover).
- The measurement point and the most influential vegetation class (presenting the highest BAL at the building) is used for the determination of the BAL at the building (Figure 2.2 AS 3959:2018).
- Consideration of the predominant vegetation is to consider the likelihood of regeneration.
- Orchards, and single tree rows (planted in a row less than 10 m wide) is determined by the underlying near surface fuel.

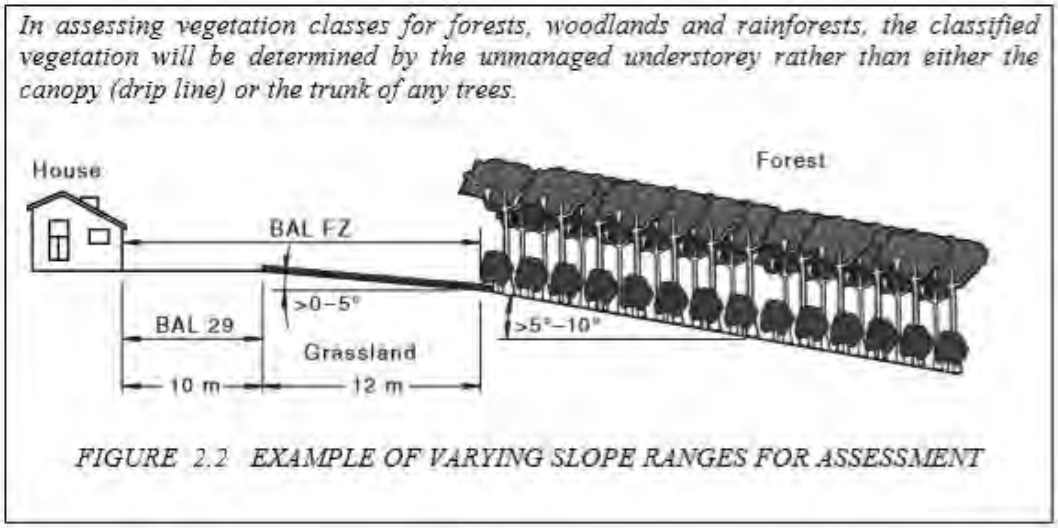


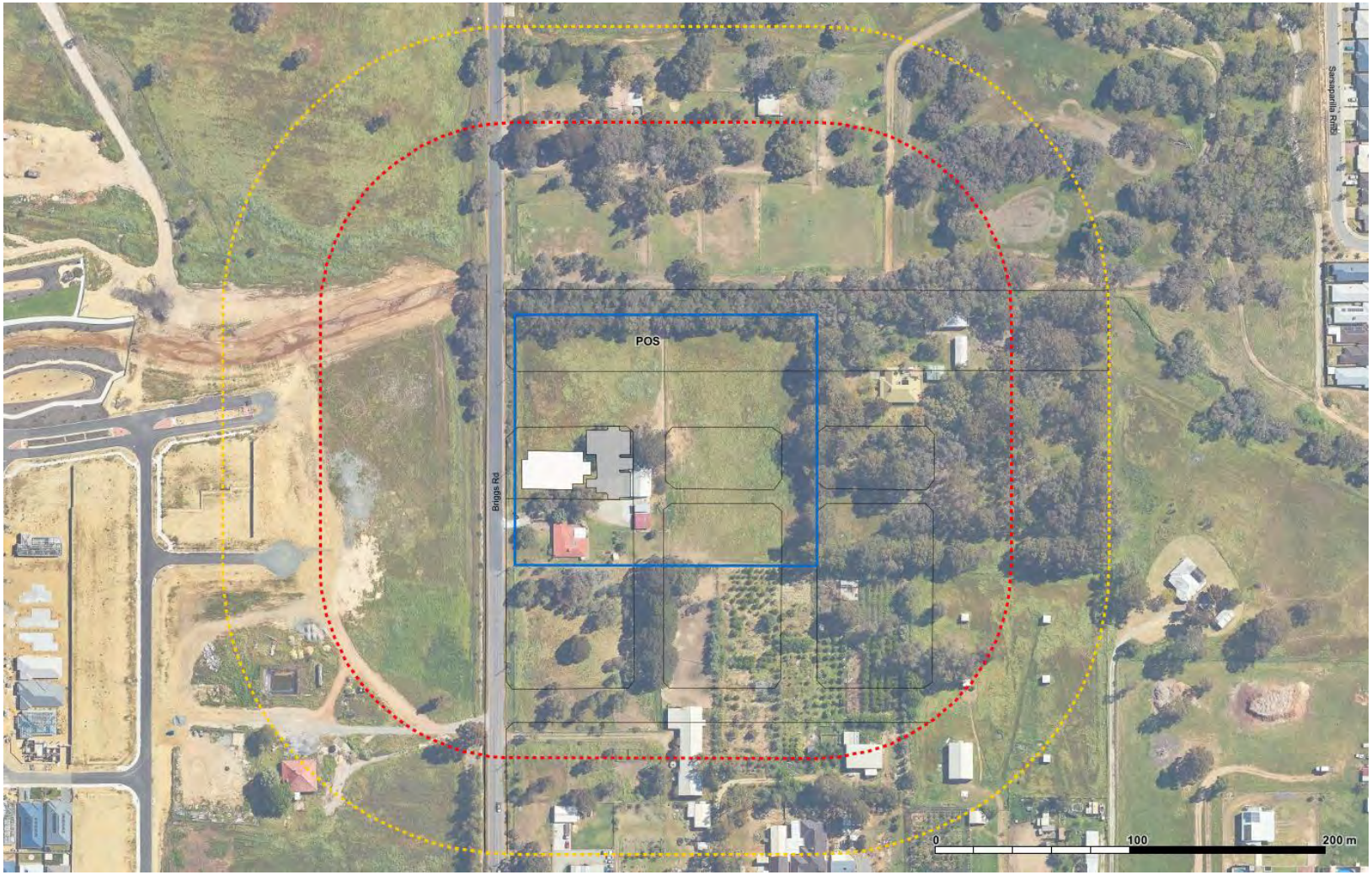
Plate 5: Effective Slope and measurement taken from AS 3959:2018

Effective slope under each vegetation plot was assessed in accordance with the methodology detailed in AS 3959:2018 Construction of buildings in bushfire prone areas (AS 3959) (Standards Australia, 2018 Bushfire Fuels). Slope data was measured on site and cross referenced with Landgate elevation data.

Photo evidence Site Assessment & Site Plans

The assessment of this site / development was undertaken on 17 November 2022 by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959 :2018 Simplified Procedure (Method 1).

Figure 1: Location (future roads shown)



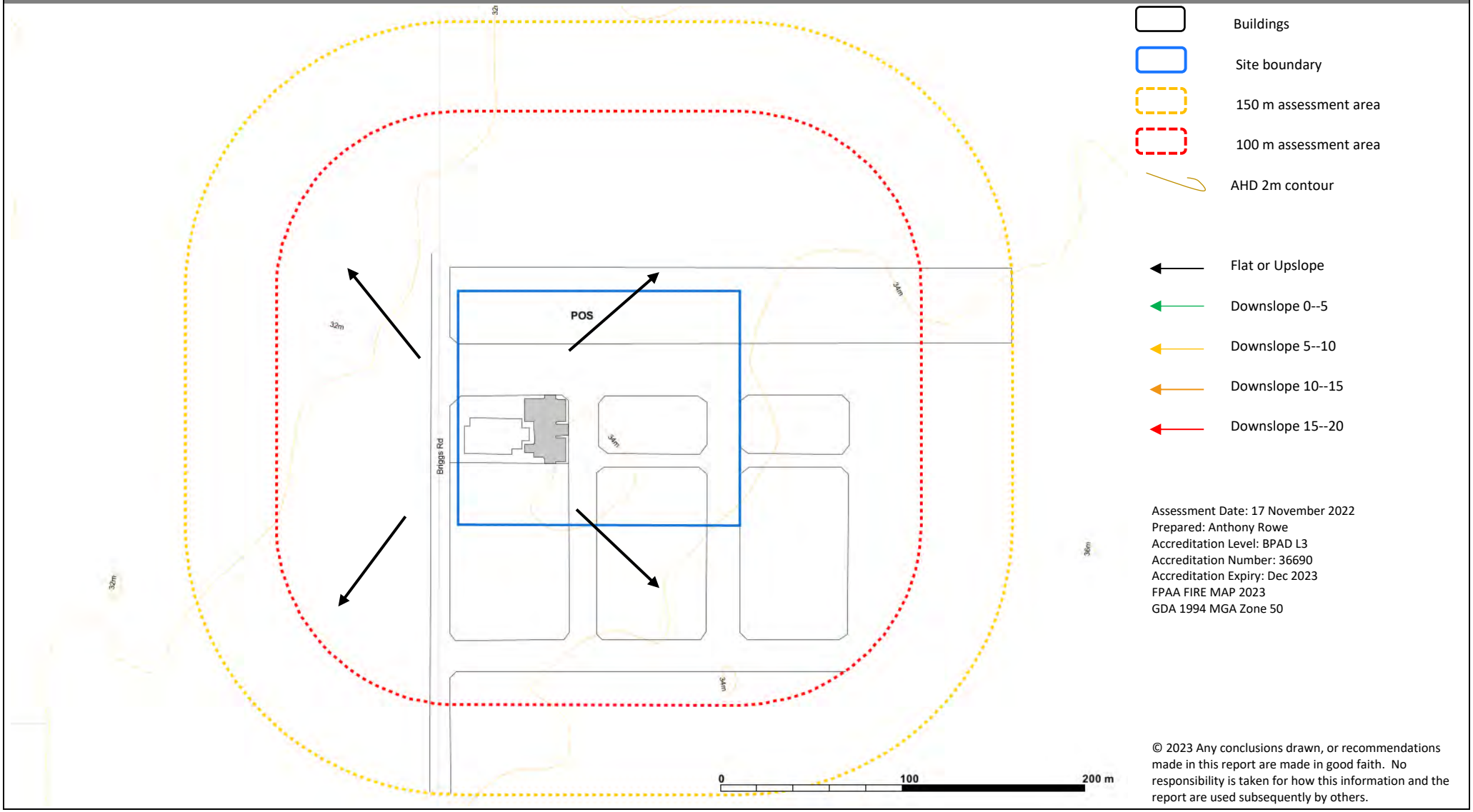
LEGEND

- Site boundary
- 150 m assessment area
- 100 m assessment area

Assessment Date: 17 November 2022
Prepared: Anthony Rowe
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Accreditation Number: 36690
Accreditation Expiry: Dec 2023
FPAA FIRE MAP 2023
GDA 1994 MGA Zone 50

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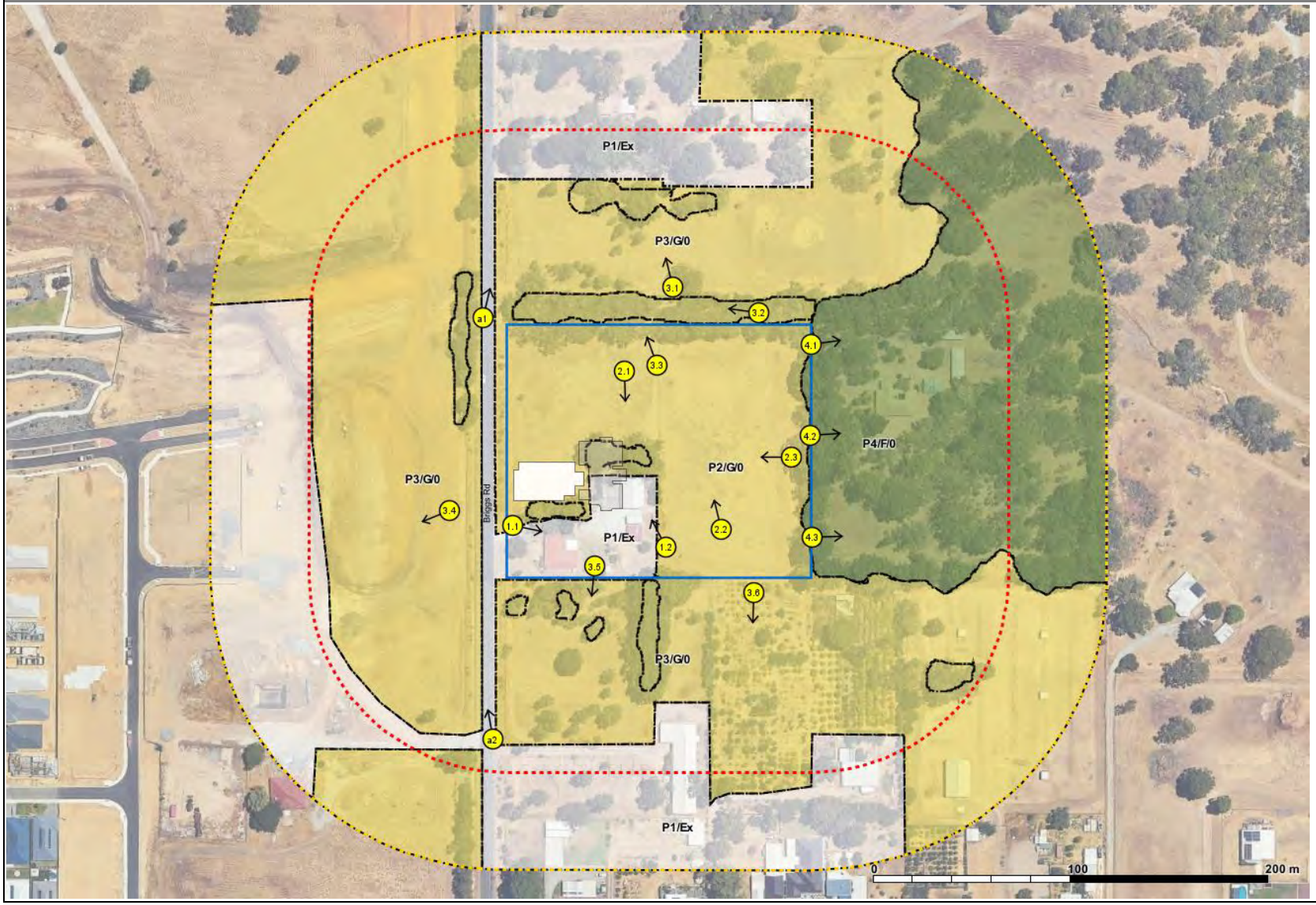
Figure 2: Topography (future road shown)



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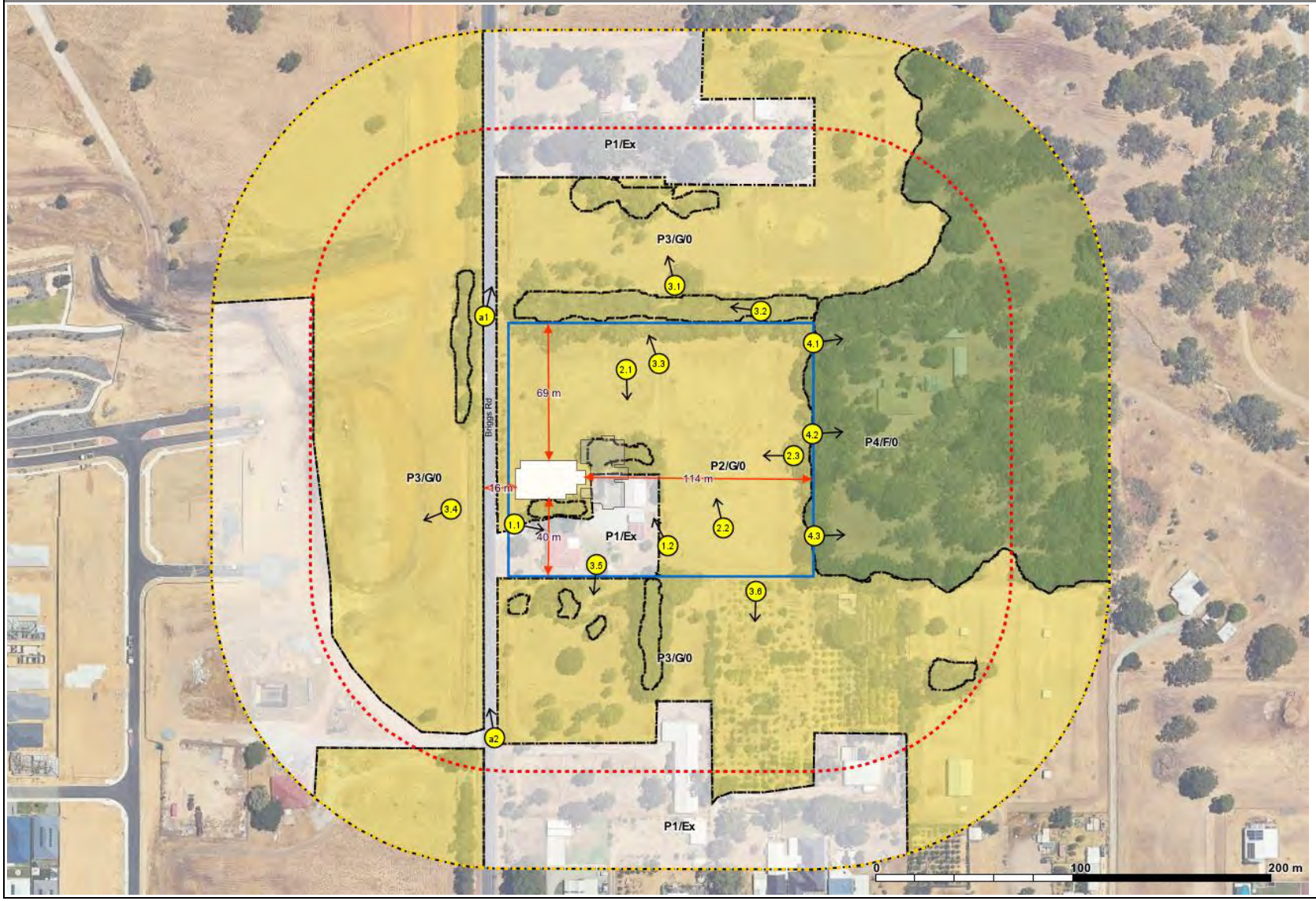
Figure 3: Vegetation Classification



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Figure 4: Vegetation Classification – distance to classified vegetation



Building

Site boundary

150 m assessment area

100 m assessment area

Class A Forest

Class B Woodland

Class C Shrubland

Class D Scrub

Class G Grassland

Excluded

PX/X/X Plot Label

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PLOT:1				
Vegetation Classification			**Slope**	
Excludable - 2.2.3.2(f) Low Threat Vegetation			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low	✓	✓	✓	✓
Moderate				
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.				
Post development				
				
Photo 1.1 – existing dwelling			Photo 1.2 – existing buildings	

PLOT: 2				
Vegetation Classification		**Slope**		
Class G Grassland – Tussock grassland G-22		Flat		
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate				
High	✓			
Very High				
Extreme				
Vegetation Description (AS 3959)				
All forms (except tussock moorlands) including situations with shrubs and trees if the overstorey foliage cover is less than 10%. Includes pasture and cropland. NOTE: Grassland managed in a minimal fuel condition and non-curing cropland is regarded as low threat vegetation for the purposes of Clause 2.2.3.2.				
Post development				
Grassland at the development site to be displaced by the childcare centre and residential lots				



Photo 2.1 Grassland in foreground - childcare location view from north



Photo 2.2 Grassland in foreground – future residential east of childcare - view from south



Photo 2.3 Grassland in foreground - childcare location view from east

PLOT:3				
Vegetation Classification		**Slope**		
Class G Grassland – Tussock grassland G-22		Flat		
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate				
High	✓			
Very High				
Extreme				
Vegetation Description (AS 3959)				
All forms (except tussock moorlands) including situations with shrubs and trees if the overstorey foliage cover is less than 10%. Includes pasture and cropland. NOTE: Grassland managed in a minimal fuel condition and non-curing cropland is regarded as low threat vegetation for the purposes of Clause 2.2.3.2.				
Post development				
Grassland outside of the development site; land zoned for urban development				



Photo 3.1 Grassland future residential north of PoS



Photo 3.2 future PoS area (public purpose) including the drain, to be in forest POS.



Photo 3.3 view north to PoS, including the drain (photo 3.2) to be in forest POS. .



Photo 3.4 grassland west of Childcare across Briggs Road, future residential

PLOT:3				
Vegetation Classification		**Slope**		
Class G Grassland – Closed tussock grassland G-21		Flat		
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate				
High	✓			
Very High				
Extreme				
Vegetation Description (AS 3959)				
All forms (except tussock moorlands) including situations with shrubs and trees if the overstorey foliage cover is less than 10%. Includes pasture and cropland. NOTE: Grassland managed in a minimal fuel condition and non-curing cropland is regarded as low threat vegetation for the purposes of Clause 2.2.3.2.				
Post development				
Grassland on lot zoned for rural living outside of the development site.				



Photo 3.5 grassland south of the site (windrow (excluded) shown within grassland



Photo 3.6 grassland under orchard south of the site. Orchard trees are excluded

PLOT:4				
Vegetation Classification		**Slope**		
Class A Forest - Open forest A-03		Flat		
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low				
Moderate	✓			✓
High		✓		
Very High			✓	
Extreme				
Vegetation Description (AS 3959)				
Trees up to 30 m high; 30%-70% foliage cover (may include understorey of sclerophyllous low trees or shrubs). Typically dominated by eucalypts, melaleuca or callistemon (may include riverine and wetland environments) and callitris. Includes eucalypt plantations.				
Post development				
Forest on land zoned urban development east of the development site				



Photo 4.1 retained within PoS



Photo 4.2 future residential



Photo 4.3 future residential

POTENTIAL BUSHFIRE IMPACT - Outputs

In accordance with SPP 3.7, a BAL Contour Map 5a has been prepared to illustrate the potential radiant heat impacts and associated BAL ratings for the facility.

Table: 2.1

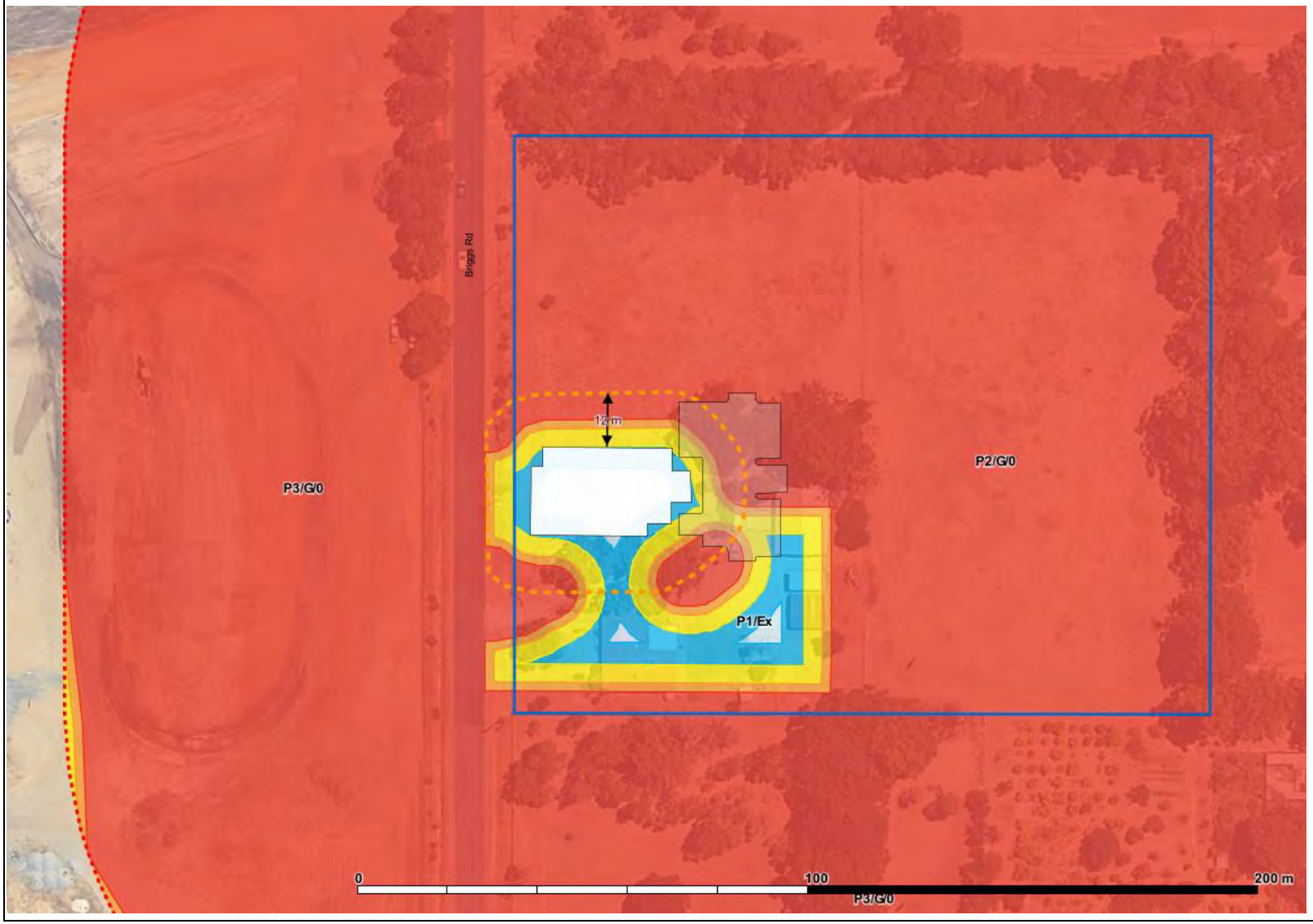
Plot no.	Vegetation Classification	Effective slope	Separation	Present BAL	Separation at completion	BAL at completion
1	Excluded	Flat/Upslope	0 m	BAL - Low	0	BAL Low
2	Grassland	Flat/Upslope*	0 m	BAL - FZ	12 m	BAL 29
3	Grassland	Flat/Upslope	16 m	BAL - 19	16 m	BAL 19
4	Forest	Flat/Upslope	114 m	BAL – Low	114 m	BAL Low

An APZ of 12 m is proposed around the childcare building, consistent with the future subdivision boundary.

The APZ can be established within the existing lot, requiring grass maintained at less than 100 mm around the childcare building (illustrated in figure 5a).

The future BAL when the adjoining land is developed in accordance with the approved structure plan is BAL – 19 (illustrated in figure 5b).

Figure 5a: BAL Contour



Site boundary

100 m assessment area

BAL-FZ

BAL-40

BAL-29

BAL-19

BAL-12.5

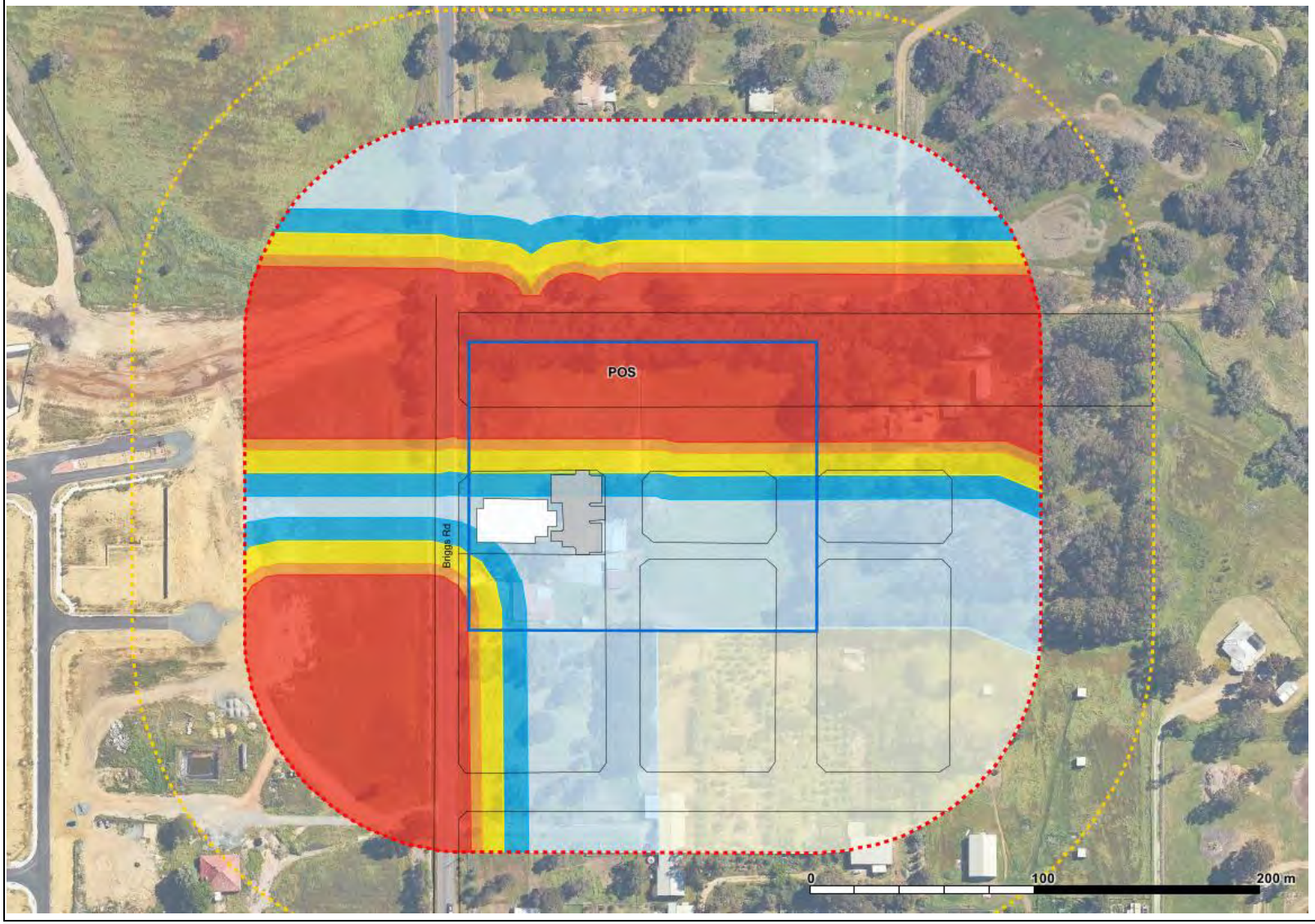
BAL-Low

Asset Protection Zone 9 m

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Figure 5b: BAL Contour - future development



Site boundary

100 m assessment area

BAL-FZ

BAL-40

BAL-29

BAL-19

BAL-12.5

BAL-Low

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4. IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

Bushfire Behaviour

Sustainable fire combustion depends upon the availability of fuel, oxygen, and heat. Removal of any one of the three aspects will extinguish or not sustain a fire. Fuel management, the management of vegetation, is the most practical means of control.

Bushfire behaviour, as it increases in intensity and speed of travel, can exceed human control measures and when this occurs the risk increases to humans and property. Bushfire behaviour is a result of climate, topography, and the availability of bushfire fuel (vegetation).

- Climate (drought and season) & weather (temperature, humidity, wind, atmospheric instability).

  Wind

  Bushfires are influenced by the wind direction and the speed. The wind direction generally determines the direction of the fire and wind speed, along with ground slope, generally determines the speed a fire will travel over ground. As wind strength increases it increases the availability of oxygen allowing the fire intensity to increase.

  Atmospheric conditions determine the potential for the uplift of embers and particles that can be distributed by the prevailing wind direction well ahead of the fire, up to 9 km, to create spot fires that can advance the location of the fire front.

  Fire Danger Index FDI

  FDI is an indicator of potential fire intensity and behaviour based upon weather conditions; temperature, humidity, and wind speed, together with climate measures, drought factor representing the dryness of the ground fuels.

  The FDI is an indicator of the potential for house loss and fatalities.

  The FDI is used as a basis for determining the required design performance of a building.

- Topography (slope of the ground, aspect) – fire travels faster uphill, and in some conditions may determine the direction of the fire. The landform can also channel and increase the windspeed at a locality and create turbulence. It is measured as 0.0^0 or in downslope increments of 5.0^0.

- Vegetation (horizontal and vertical structure, flammability, mass, and availability). Measured as a vegetation classification, or an exclusion, in AS 3959 (Method 1). The arrangement of fuel has a greater effect upon the intensity of a fire than just its mass; its exposure to oxygen is referred to as its availability in a bushfire.

It is assumed that a bushfire will achieve a steady-state and be fully developed to maximum intensity over a 100 m (minimum) fire run. Grass fires travel faster (GFDI) than a forest canopy fire, but a forest canopy fire can eject a higher level of embers and also eject them over a greater distance, up to 5 km.

Crown fires occur when the ground fire is intense, and conversely, when ground fuels are managed, the resultant fire intensity may not be sufficient to involve the crown or sustain a fire.

Fuel reduction initiatives such as slashing and controlled burns are intended to reduce the fuel availability to a level where the intensity of the fire remains controllable.

Climate

The nearest weather station to the site is at Jandakot Aerodrome (23 km north west of the site). The site is within an area described as having a Mediterranean climate of dry summers and mild, wet winters. The majority of rainfall is between May and September. The prohibited burning period is from mid-December to mid-March.

The Bushfire Danger Season has traditionally been between November and April each year, but recent climatic conditions have caused fire danger conditions to be present either side of this period.

Severe bushfire conditions FDI 50+, occur mostly between January and March. Extreme (FDI 50) and Catastrophic (FDI 75+) conditions occur mostly in the afternoon and typically with south-south easterly winds (BoM Cape Naturaliste). A bushfire can however come from any direction.

Bushfires generally travel in the direction of the prevailing wind. The direction of the prevailing wind conditions can affect the options for evacuation and anticipated fire intensity depending upon the slope and fuel.

The wind roses below (Plates 6) for February (averaged) recorded at 9 am and 3 pm. illustrate the winds are strongest and most frequent from the south-east and east in the morning. Morning wind directions are predominantly from the southeast with a higher easterly component. Afternoon winds are generally stronger and of higher frequency from the south, with a higher westerly component.

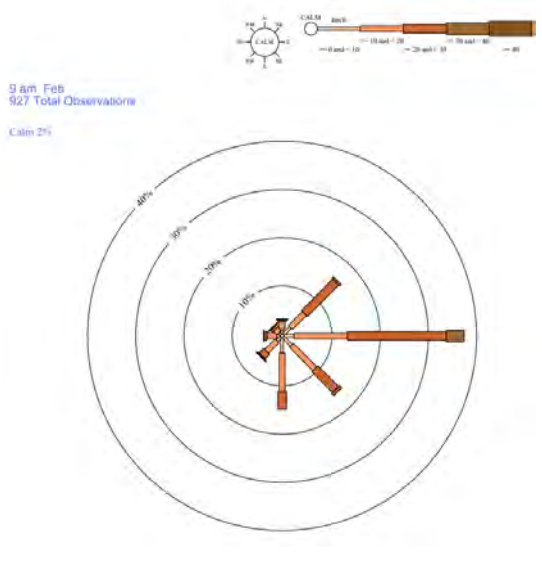


Plate 6a: BoM weather data, prevailing wind directions as at 9 am

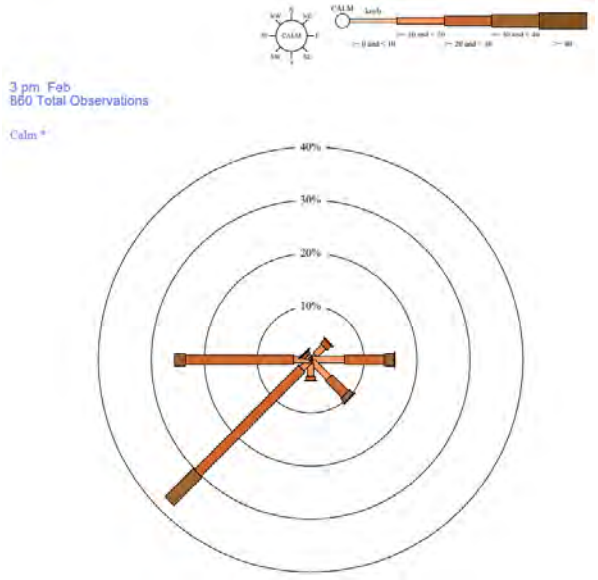


Plate 6b: BoM weather data, prevailing wind directions as at 3 pm

Site Context

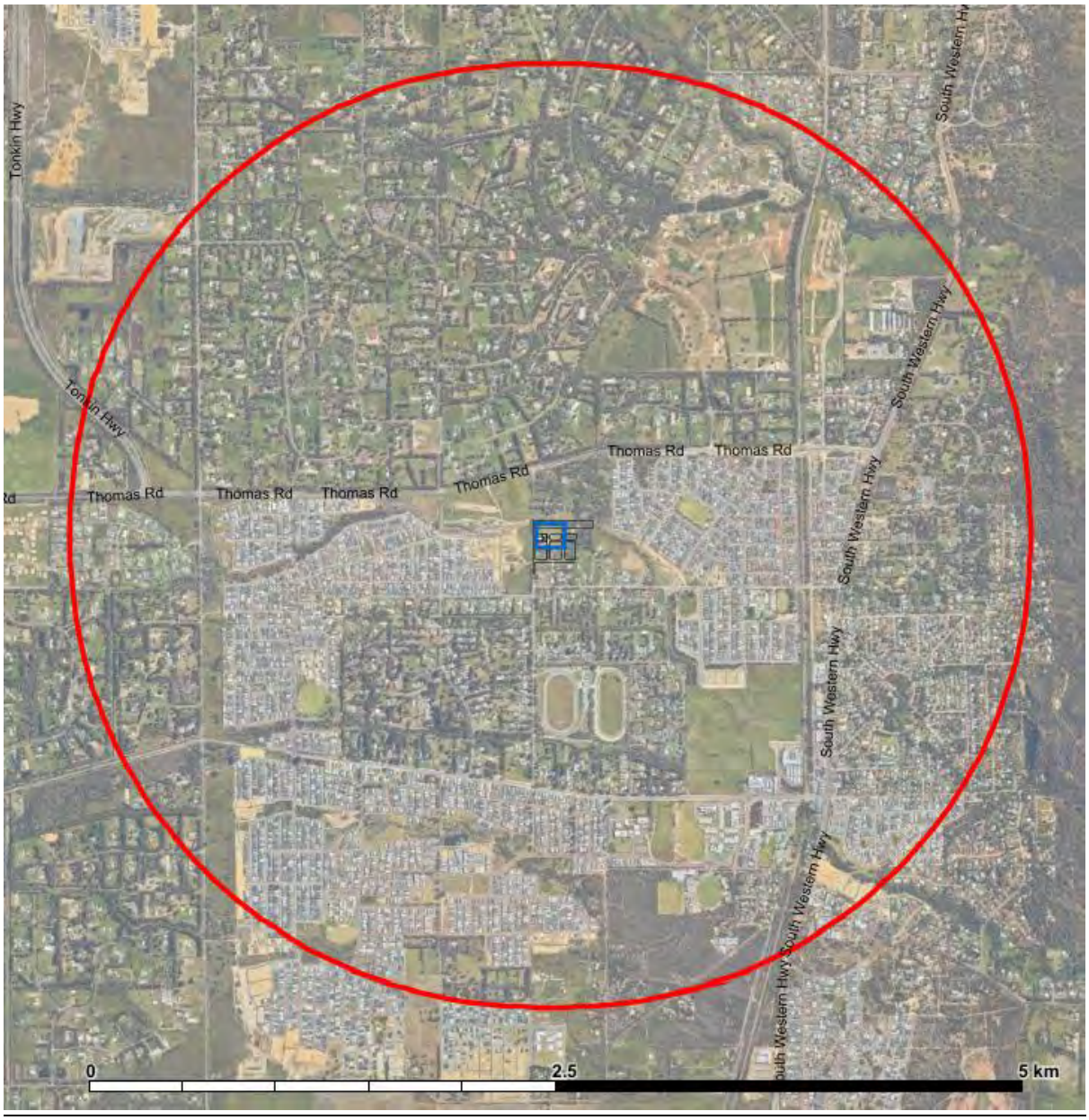


Plate 7: Illustrates the surrounding area within 2.5 km is predominantly urban

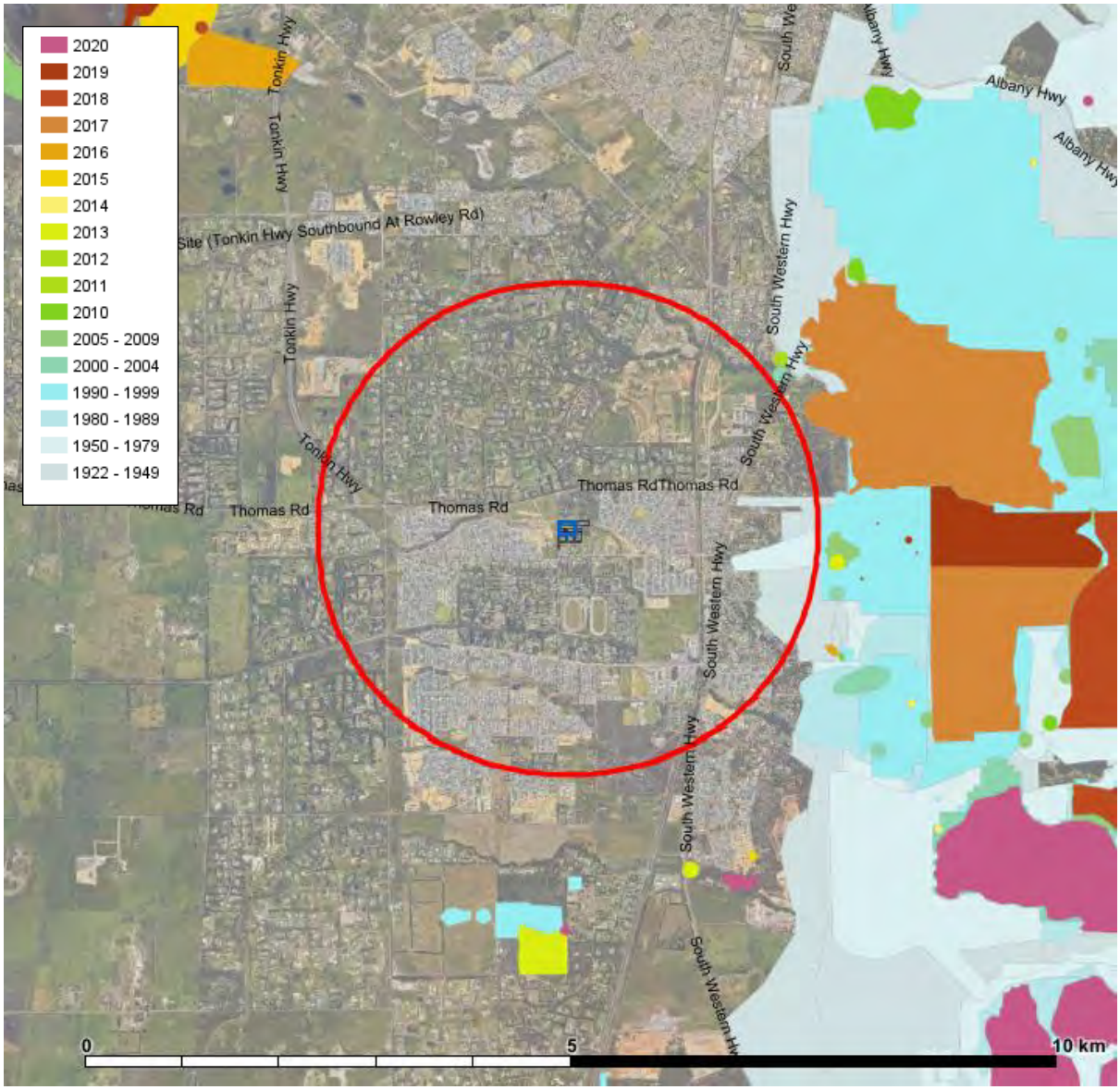


Plate 8: DBCA (indicative) landscape fire history

Plate 7; when combined with Plates 6, suggests a fire that is most likely to affect the childcare from grassland, east and southeast (morning) and (from the southwest) in the afternoon. The site is primarily within a grassland area that is intended for medium density residential development.

The fire history suggests the site is unlikely to be directly affected by a bushfire but there has been activity , both managed fuel reduction and bushfire east of the site in the Darling Scarp and Darling Ranges.

Until the development occurs the site is within a contiguous extent of grassland requiring an Asset Protection Zone to be established around the building to avoid direct flame contact. The Childcare is within a single holding until the adjoining residential development, site works and roads are made. Until then an Asset Protection Zone 12 m from the childcare can be established (BAL-19).

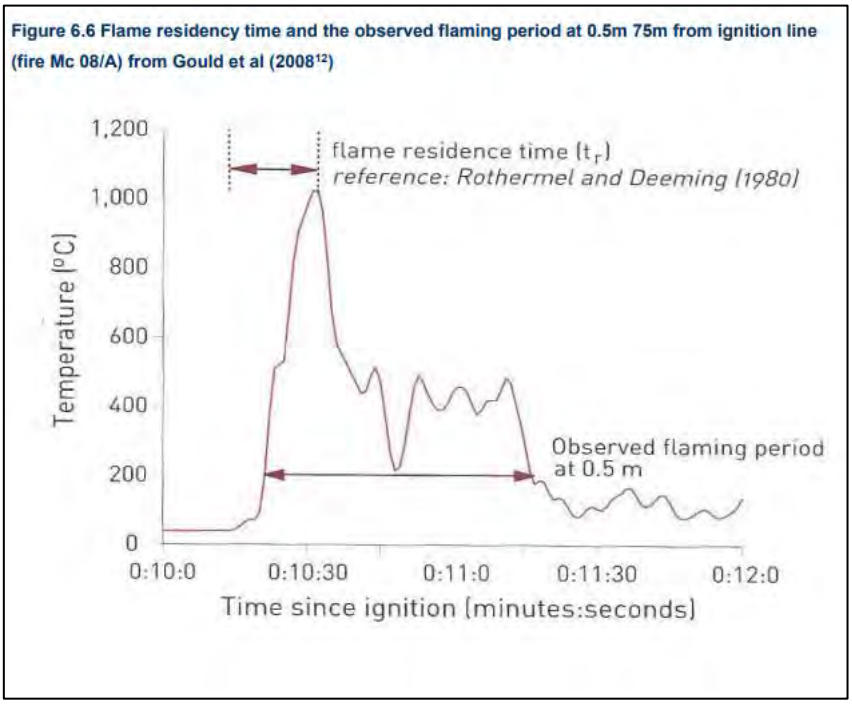
The site is within 5 km to the Darling Scarp and contiguous forest. Forest fire can generate embers that can be dispersed up to 5 km from the fire front, and fires in the Darling Ranges typically travel under winds from the east. The development site is unlikely to be affected by a concentrated ember attack, due to its separation from the Darling Scarp but ember attack could ignite the adjacent grassland.

Ember attack is responsible for the destruction of most buildings, either igniting adjacent flammable materials or penetrating gaps > 2mm to reach flammable materials within a building. Site management and building and maintenance can reduce this risk. Seasonal preparations are described in the Bushfire Emergency Evacuation Plan as a risk treatment.

A childcare building under NCC 2019 has no bushfire construction requirement and it is at the applicant's discretion to apply a bushfire construction standard. Notwithstanding the childcare will be located within BAL-19 it is recommended the Childcare Building adopt the construction standards for BAL-29, to provide resistant to a bushfire occurring in the reserve north of the site.

During a bushfire the peak radiant heat, upon which the BAL is determined lasts only a short time, typically 2 minutes, with the heat rapidly decaying after the firefront (peak) has passed. Notwithstanding BAL - 29 is the acceptable constructions standard it is a fatal exposure level for humans, 10 kWm^2 is the maximum short-term exposure to evacuate by a vehicle.

Figure 6.6 Flame residency time and the observed flaming period at 0.5m 75m from ignition line (fire Mc 08/A) from Gould et al (2008[12])



From Bushfire Verification Method Handbook: NCC/ACBC 2014

In the event of a bushfire the Childcare should be evacuated, but evacuation will not be able to continue during the peak. Shelter in the building will be required at this time and this is a reason to construct the building to a standard commensurate to the level of bushfire attack.

The site has access to a reticulated water supply. The local brigade is also located within 2.6 Km of the site to provide a quick response, although in a bushfire there may be a number of competing priorities. Brigade attendance should therefore not be relied upon for the defence of a building.

The Bushfire construction standard and site maintenance are passive measures that minimise the dependence upon the local brigade for a building's survival.

5. BUSHFIRE PROTECTION MEASURES

5.1 State Planning Policy 3.7 - Planning In Bushfire Prone Areas (SPP 3.7)

SPP 3.7 applies to all development applications in designated bushfire prone areas.

SPP 3.7 Objectives

Policy Measure 5 contains the objectives of SPP 3.7. The following demonstrates how the proposed development meets each of the objectives.

Objective 1: Avoid any increase in the threat of bushfire to people, property, and infrastructure. The preservation of life and management of bushfire impact is paramount.

Development Response

The nature of the proposed activity does not increase the occurrence or intensity of bushfire within its locality.

Objective 2: Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process.

Development Response

The site provides opportunity to satisfy the acceptable solutions in the Bushfire Protection Criteria addressed in Section 5.2 below, which are acceptable treatments to the risk identified by the BAL level.

Objective 3: Ensure that higher order strategic planning documents, strategic planning proposals, subdivision and development applications take into account bushfire protection requirements and include specified bushfire protection measures.

Development Response

Objective 3 is satisfied through the compliance of the proposed development with the Bushfire Protection Criteria addressed in Section 5.2 below.

Objective 4: Achieve an appropriate balance between bushfire risk management measures and, biodiversity conservation values, environmental protection and biodiversity management and landscape amenity, with consideration of the potential impacts of climate change.

Development Response

The proposal does not require any modification to regulated vegetation.

5.2 Guidelines for Planning in Bushfire Prone Areas Version 1.4 (the Guidelines)

The Guidelines apply to development applications located within designated bushfire prone areas. The Guidelines provide supporting information for implementation of SPP 3.7. Specifically, they provide the Bushfire Protection Criteria to be addressed for all applications.

5.2.1 Bushfire Protection Criteria

The bushfire risk mitigation strategies detailed in (Table 2 below) are designed to comply with the Bushfire Protection Criteria detailed in Guidelines for Planning in Bushfire Prone Areas Version 1.4 (the Guidelines) Appendix 4 (WAPC, 2021).

Where discrepancy occurs between State and Local bushfire planning provisions, the higher standard of mitigation has been selected.

Table 2: Bushfire Protection Criteria assessment.

For each of the elements listed within Appendix 4 of the Guidelines for Planning in bushfire-prone areas (V.1.4), the 'intent' must be achieved either by the proposal meeting the acceptable solutions; or where these acceptable solutions cannot be fully met, then by a performance-based solution that can achieve the 'intent.'

The following table also follows Guidelines for Planning in bushfire-prone areas (V.1.4) which now list certain items to be considered in a development application, as distinct to a Strategic document or subdivision proposal.

✓	Acceptable solution provided	C	An Acceptable Solution to be conditioned
N/A	Not Applicable	P	Performance Principal solution see 5.2

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
Element 1: location To ensure that strategic planning proposals, subdivision, and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property, and infrastructure	**A1.1 Development location** The strategic planning proposal, subdivision, and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL–29 or below.	✓		The development site is within an area that is predominantly grassland. It is a moderate Bushfire Hazard Leve area. The childcare building will be located on land not exceeding BAL-29.

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
Element 2: Siting and Design To ensure that the siting and design of development minimises the level of bushfire impact	**A2.1 Asset Protection Zone** Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the following requirements: • Width: Measured from any external wall or supporting post or column of the proposed building, and of sufficient size to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m² (BAL-29) in all circumstances. • Location: the APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity (see explanatory notes). • Management: the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones.' (see Schedule 1).	✓		The Acceptable solution A2.1 requires that the development site can achieve on completion a BAL not exceeding BAL-29, by an APZ within the boundaries of the lot. The development site is adjoined by grassland. An APZ separation to achieve BAL-29 from grassland is 8m. It is proposed to provide an APZ of 12 m, which is a distance that would achieve BAL-19 at the childcare building, which is consistent with the BAL at the childcare building when the immediate area is developed for residential purposes. Figure 5a illustrates an APZ of 12m established within the site. Figure 5b illustrates the BAL when the immediate area is developed for residential purposes. A class 9b building is not a mandatory requirement to be constructed to BAL-29. In this instance the building need not be constructed to a shelter standard because evacuation is possible. The construction standard is at the applicant discretion and in this instance is recommended for construction comparable to BAL-29 construction level prescribed in AS3959:2018.

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
Element 3: Vehicular Access To ensure that the vehicular access serving a subdivision/ development is available and safe during a bushfire event	**A3.1 Public roads** The minimum requirements under this acceptable solution are applicable to all proposed and existing public roads. Public roads are to meet the minimum technical requirements in Table 6, Column 1. The trafficable (carriageway/pavement) width is to be in accordance with the relevant class of road in the Local Government Guidelines for Subdivisional Development (IPWEA Subdivision Guidelines), Liveable Neighbourhoods, Aust Road standards and/or any applicable standards for the local government area.	✓		The site is adjoins Briggs Road which is a sealed public road compliant with Table 6 column 1 The development of the adjoining land will include public roads compliant with the IPWEA standard for a public road.
	A3.2a Multiple access routes Public road access is to be provided in two different directions to at least two different suitable destinations with an all-weather surface (two-way access). If the public road access to the subject site is via a no-through road which cannot be avoided due to demonstrated site constraints, the road access is to be a maximum of 200 metres from the subject lot(s) boundary to an intersection where two-way access is provided. The no-through road may exceed 200 metres if it is demonstrated that an alternative access, including an emergency access way, cannot be provided due to site constraints and the following requirements are met: the no-through road travels towards a suitable destination; and the balance of the no-through road, that is greater than 200 metres from the subject site, is wholly within BAL-LOW, or is within a residential built-out area – Figure 23	✓		The site has access in two different directions to at least two different suitable destinations. Briggs Road is a north south through road. The car park will be accessed from a new road at the east boundary when the adjoining land is developed. The new road (unnamed) is a through road.

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
	A3.2b Emergency access way Where it is demonstrated that A3.2a cannot be achieved due to site constraints, or where an alternative design option does not exist, an emergency access way can be considered as an acceptable solution. An emergency access way is to meet all the following requirements: requirements in Table 6, Column 2; provides a through connection to a public road; be no more than 500 metres in length; and must be signposted	N/A		The site has direct access to a through road.
	A3.6 Private driveways There are no private driveway technical requirements where the private driveway is: within a lot serviced by reticulated water; no greater than 70 metres in length between the most distant external part of the development site and the public road measured as a hose lay; and accessed by a public road where the road speed limit is not greater than 70 km/h. In circumstances where all of the above conditions are not met, or the private driveway is in a non-reticulated water area, the private driveway is to meet all the following require: requirements in Table 6, Column 4; passing bays every 200 metres with a minimum length of 20 metres and a minimum additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres); and turn-around area as shown in Figure 28 and within 30 metres of the habitable building.	✓		The childcare building and carpark is within 70 m of a public road. The technical requirements for private driveways in Table 6 column 4 does not apply.

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
Element 4: Water To ensure that water is available to enable people, property and infrastructure to be defended from bushfire	**A4.2 Provision of water for firefighting purposes** Where a reticulated water supply is existing or proposed, hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority	NA		For the assessment of strategic proposals.
	A4.2 Provision of water for firefighting purposes Where a reticulated water supply is existing or proposed, hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority. Where these specifications cannot be met, then the following applies: The provision of a water tank(s), in accordance with the requirements of Schedule 2; and Where the provision of a strategic water tank(s) is applicable, then the following requirements apply: – land to be ceded free of cost to the local government for the placement of the tank(s); – the lot or road reserve where the tank is to be located is identified on the plan of subdivision; – tank capacity, construction, and fittings, provided in accordance with the requirements of Schedule 2; and – a strategic water tank is to be located no more than 10 minutes from the subject site (at legal road speeds). Where a subdivision includes an existing habitable building(s) that is to be retained, a water supply should be provided to this existing habitable building(s), in accordance with the requirements listed above.	✓		The site has access to a reticulated water supply. and firefighting hydrants (public)

5.3 Bushfire Management Strategies

Additional management strategies not directly addressed by the bushfire protection criteria above include the additional measures required to address the risk to a vulnerable class of development. This includes the provision of an Emergency Evacuation Plan (BEEP), prepared in accordance with clause 6.6 of SPP 3.7.

The following describes the compliance requirement for preparation of the BEEP that has been followed. In addition to these requirements the presentation has been undertaken to compliment an overall emergency in facilities plan (AS 3745:2010) for consideration on an ongoing basis.

Vulnerable Development Emergency Evacuation (Cl 6.6)

Attachment 1 includes the BEEP. This plan has followed the WA Department of Planning Lands and Heritage *A Guide to Developing a Bushfire Emergency Evacuation Plan 2019*.

The attached Emergency Evacuation Plan has also incorporated the requirements listed under section 5.5.2 V1.4 *Guidelines for Planning in Bushfire Prone areas*.

Assumptions

- The childcare centre will be staffed, and children supervised.
- The occupants are able bodied, but require guidance, appropriate support and availability of transport if evacuation is required.
- The supervisors can see and smell smoke and can see a fire.

Key features to achieve occupant life safety include:

- Establishing monitoring of emergency public notifications;
- Establishing alert triggers;
- Establishing evacuation procedure;
- Evacuation transport and alternative destination; and
- Communication with parents and carers.

Compliance with Cl. 5.5.2 Guidelines for Planning in Bushfire Prone Areas

The emergency evacuation plan should be concise and consider:	**Addressed in Emergency Evacuation Plan** ***The plan has followed AS3745-2010***
the number of people at the facility	104 Children aged 0-5 years 18 Staff
whether the occupants are permanent or transient	Visiting
whether there is a caretaker onsite	Hosted
whether there are people with a disability, medically dependent, young children or the elderly	Special transport needs are required for children.
identification of a safe alternative location if there was a need for evacuation/relocation	Serpentine Jarrahdale Community Recreation Centre
a proposed method of movement of occupants to safe location(s)	Children will arrive by private vehicle. A priority emergency transport agreement should be

	entered into with a transport company if in an emergency it could be necessary to supplement existing centre buses.
details of suitable access/egress routes for the expected type/volume of traffic, including alternatives when suitable roads are inaccessible, insufficient or inappropriate	
transport options for those without access to private vehicles	Transport arrangements will be in place.
options to shelter in place as a last resort	Evacuation only. Evacuation is available in opposite directions (east and west), and it is therefore expected to be available in the opposite direction to an approaching fire.
roles and responsibilities of facility personnel and emergency services.	The landowner and/or childcare centre manager will have responsibility for seasonal preparations and daily preparations.
The emergency evacuation plan should consider if actions will change based on a series of triggers, such as:	Addressed in Emergency Evacuation Plan
effective warning methods appropriate for the occupants (including consideration of at-risk persons and the demographics of the occupants)	Centre managers and personnel are expected to recognise smoke, smell of fire and the site of fire. Warning is through monitoring of public resources DFES Emergency WA website ABC Local radio 720 and by observation.
closure of facility and early relocation of occupants appropriate to the fire danger rating (FDR) and bushfire warnings	It would be prudent to consider advising parents and guardians of children with respiratory conditions to avoid attendance on Extreme FDR days. If in attendance such children should be placed as a priority for evacuation.
any local government bushfire requirements (for example, harvest and vehicle movement bans).	Nil
a suitably qualified emergency management professional should prepare the emergency evacuation plan in collaboration with relevant stakeholders including the landowner/developer and the local government (refer to section 6.14 of the Guidelines).	Anthony Rowe Accreditation Level 3 Accreditation Number: 36690

5.4 Spatial representation of the bushfire management strategies

Further to the assessment against the bushfire protection criteria, the key features demonstrating compliance should be represented spatially in the *Spatial representation of the bushfire management strategies*. It represents the required bushfire risk management measures that must be implemented and maintained.

The Spatial representation of the bushfire management strategies is provided in Figure EX1.

6. RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE MEASURES

The responsibilities for implementation and management of the bushfire measures, includes additional measure to achieve compliance with the bushfire protection measures following SPP 3.7. and become part of the development proposal. The details contained within the planning application authorised by the responsible decision maker are enforceable under section 214 of the *Planning and Development Act 2005*.

The Advisory Notes **do not** form part of the Development Proposal and are not enforceable.

Owner

1. The adoption of the Bushfire Emergency Evacuation Plan dated 28 February 2023.	Prior to occupation
2. The inside face of all external doors shall display the Evacuation Diagram.	Prior to occupation and ongoing
3. The childcare building Asset Protection Zone (12 m) is to be maintained in accordance with the Asset Protection Zone standard described in the *Guidelines for Planning in Bushfire Prone Areas* v1.4.	Prior to occupation and ongoing
4. The childcare building is to be constructed in accordance with the BAL 29 building construction requirements prescribed in sections 3 and 7 in AS3959:2018	Prior to occupation and ongoing
5. In furtherance of any *Building Act 2011* requirement, the Childcare is to be connected to the towns reticulated water, and fire hoses are to be provided at capable of applying water to all external surfaces of the building and up to 10 m around the building.	Prior to occupation and ongoing
6. A notification, pursuant to Section 70A Transfer of Land Act 1893 is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor. The notification is to state as follows: *"This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan and a Bushfire Emergency Evacuation Plan."*	Prior to occupation and ongoing

Advisory notes

1. The landowner acknowledges any materials located against or near adjacent to the buildings, should they ignite, will expose the buildings to flame contact and will increase the risk of building ignition.

   Note: The Bushfire Emergency Evacuation Plan includes seasonal preparations to remove the 'open' storage of flammable materials around the building and the elimination of gaps in roof greater than 2 mm (to prevent the entry of embers on to combustible materials in the roof cavity.

2. The landowner is responsible for availing themselves of any promotions and information to assist owners in preparing for and responding to a bushfire event as may be made by the Shire or the Department Fire and Emergency Services

The Shire of Serpentine Jarrahdale

• Developing and maintaining district bushfire fighting services and facilities.	Ongoing
• Administer the *Bush Fires Act 1954* and monitor landowner compliance to maintain land in a state not conducive to the ignition or spread of bushfire.	Ongoing
• Promoting education and awareness of bushfire prevention and preparation measures though the community.	Ongoing
• Administering the requirements of the *Planning and Development Act 2005* and the *Building Act 2011*.	Ongoing

State Government

• Notification of Emergency Alerts - Website and Telecommunication Media	Ongoing

Acknowledgment - Proponent

The proponent acknowledges the responsibilities as listed above and the requirement to ensure that should the land transfer to a new owner, that the new owner is aware of the BMP and their ongoing responsibility.

ATTACHMENT 1 - Emergency Evacuation Plan

SCOPE OF PROJECT

The following Emergency Evacuation Plan Assessment and Emergency Evacuation Plan have been prepared pursuant to clause 6.6 in the State Planning Policy 3.7, Planning in Bushfire Prone Areas.

In accordance with the Department of Planning Lands and Heritage *A Guide to developing a BUSHFIRE EMERGENCY EVACUATION PLAN*, and the Emergency Evacuation Plan Template, compliance with clause 6.6, has been provided in the following documents comprising the

- Emergency Evacuation Plan Assessment; and
- Emergency Evacuation Plan

These documents follow the Bushfire Management Plan prepared **9 May 2023** by Anthony Rowe L3 BPAD 36690 in accordance with the FPA Guidelines.

PLANNING FOR EMERGENCIES IN FACILITIES

The Department of Planning Lands and Heritage *A Guide to developing a BUSHFIRE EMERGENCY EVACUATION PLAN*, and the Australian Standards (AS): AS 3745:2010 – *Planning for emergencies in facilities* are generally consistent and require a documentation of emergency arrangements consisting of preparedness, prevention, response and recovery arrangements.

Typically, the AS 3745:2010 is a response to a range of hazards **within** a building, where as a *Bushfire Emergency Evacuation Plan* is a response to a hazard initially **outside** of the building and includes the ability to move safely within the locality, or alternatively, to use the building for protection - Shelter.

The triggers for evacuation or shelter may be preventative, based upon direction from emergency services or by observation of an external danger.

Whilst *Planning for emergencies in facilities*, will incorporate many similarities, the triggers and subsequent response may be different, including the management arrangements.

A notable difference between the *Guide* and AS 3745:2010, is the description of the management structure. AS 3745:2010, and its Emergency Plan, separates the management duties into the Emergency Planning Committee, responsible for preparation of the facility, and the Emergency Control Organisation, responsible for supervising and undertaking the actions during a bushfire. Whilst the functions are separated in AS 3745:2010, they are instead to be undertaken by the Emergency Management Team, as a single management entity, in a Bushfire Emergency Evacuation Plan.

Also, at the time of seeking Development Approval, the final building design and its internal arrangements will not be determined. At development approval the Bushfire Emergency Evacuation Plan serves to demonstrate the conditions for evacuation or shelter, and it precedes the preparation of the *Planning for emergencies in facilities*.

This Bushfire Emergency Evacuation Plan should therefore be incorporated within or as an addendum to the overall Emergency Plan (AS 3745:2010) *Planning for emergencies in facilities* when it is prepared.

Both the emergency evacuation diagram for the facility, and the emergency evacuation plan (bushfire), are required to be displayed, and the distinction between an internal threat and response and an external threat and response should be clearly illustrated.

LIMITATIONS STATEMENT.

Envision Bushfire Protection

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Version Control

Proposed childcare – Lot 57 Briggs Road Byford			
Version	**Date**	**Author**	
V1	28 February 2023	Anthony Rowe	Submission
V2	9 May 2023	Anthony Rowe	Submission

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Disclaimer

In undertaking this work, the authors have made every effort to accurately apply the available information **at the time of writing** following the instructions of the regulatory authorities and applying best practice as described by the Fire Protection Association Australia. Any conclusions drawn or recommendations made in the report are made in good faith, and the consultants take no responsibility for how this information and the report are subsequently used.

Envision Bushfire Protection accepts no liability for a third party's use of, or reliance upon, this specific report.

Envision Bushfire Protection accepts no liability for the inaction of the owner to provide or maintain the bushfire protection measures identified in this report. Vegetation is dynamic, building materials may distort, and the accumulation and the location of flammable materials near the building may affect the potential for damage or loss of a building to occur.

Failure to maintain the property and/or building to these standards may compromise an insurance policy if currently covering any of your assets or those of any third party that may be consequentially affected due such failure. If not insured, and if you are seeking insurance, this report may not influence the decision of any insurer not to offer cover.

Importantly the measures contained in this report cannot guarantee human safety or an absence of harm or that the building will not be damaged or would survive a bushfire event on every occasion. This is due to the unpredictable nature of fire behaviour (knowledge in this field continues to develop) and the unpredictable nature of extreme weather conditions.

Client relationship

I was engaged to provide expert bushfire safety and planning advice. My relationship with the client is a standard commercial contract and no private, personal, or other matter has influenced the content of the:

- Emergency Evacuation Plan Assessment; and
- Emergency Evacuation Plan

STATEMENT OF CONFORMITY – PLANNING AND DEVELOPMENT ACT 2005



Anthony Rowe Level 3 - BPAD36690
Principal

BUSHFIRE EMERGENCY EVACUATION ASSESSMENT

This assessment has been prepared having regard to:

The Department of Planning Lands and Heritage: A Guide to developing a BUSHFIRE EMERGENCY EVACUATION PLAN

AS 3745-2010: Planning for emergencies in facilities

This assessment has been prepared in accordance with the Guidelines for preparing a bushfire emergency evacuation plan an accredited bushfire practitioner was engaged (Anthony Rowe BPAD L3 36690).

This assessment does not form part of the BUSHFIRE EMERGENCY EVACUATION PLAN.

STEP 1. THE EMERGENCY MANAGEMENT TEAM

For the purpose of a Childcare Centre the Emergency Management Team shall comprise of the owner/s of the facility.

In accordance with the Guidelines for preparing a bushfire emergency evacuation plan an accredited bushfire practitioner was engaged (Anthony Rowe BPAD L3 36690).

The bushfire planning practitioner has been responsible for assisting the emergency management team with

- Formulation of emergency procedures
- Consultation with local government and local emergency services as part of the Development Approval

Following the development of the emergency plan, the owner / operator is responsible to

- Maintain the emergency plan and ensure resources are provided for its implementation. The childcare centre should be provided with;
    - Alarm control for signalling of assembly
    - Emergency kit
        - Communication equipment
        - Hi vis vests for staff
        - First aid equipment
        - Water for hydration
    - Pre-arranged transport
    - Parent communication procedures and set messages
- Ensure the childcare centre is compliant with the building's bushfire safety measures, in liaison with the property owner.
- Nominate staff to key positions who will be on site whenever the centre is operating
    - Identify and assign duties and responsibilities
        - Chief Warden
        - Deputy Chief Warden
        - Evacuation Wardens
    - Ensure the training of staff and a demonstrated understanding of respective roles prior to the commencement of the bushfire season
- Ensure priority is given to the safety of children in care during a bushfire event.
- Ensure parents are informed of preparations, possibility for precautionary closure, response actions (evacuation) and recovery during the bushfire season.
- Maintain awareness of local government and emergency services initiatives in planning for emergencies, bushfire alerts, and evacuation places and safe routes which may change with the circumstance of the bushfire event.

The emergency management team (owner) should regularly review the emergency evacuation plan to ensure it remains practical and current.

STEP 2. FACILITY DETAILS, SITE ANALYSIS AND LOCAL CHARACTERISTICS

The emergency plan applies to the childcare centre at Lot 57 Briggs Road Byford (the site). The facility is located in a developing residential area but is within an area identified as bushfire prone.

The childcare centre provides care for up to 104 children from 0-5 years.

The proposed Childcare Centre site has frontage to Byford Road, a through road. Access to the site will be from the north boundary off the proposed extension of Indigo Parkway.

The site is within a reticulated area and a hydrant is located within 100 m on Briggs Road.

The area has full mobile phone coverage in addition to land lines, a resilient communication infrastructure.

The BMP dated **9 May 2023** describes the sites vulnerability to bushfire.

Key positions and responsibility

Chief Warden

- At regular intervals during the bushfire season the Chief Warden will monitor the DFES Alerts and Warnings web page https://www.emergency.wa.gov.au
- Responsible for determining the need to evacuate through communication with DFES or Police and overseeing the evacuation.
- initiate the evacuation – predetermined transport arrangement.
- Ensure parents are informed of the emergency response, and the arrangements for safe collection of children.
- Responsible to prepare post emergency reports documenting the actions taken and any difficulties with following the emergency plan before, during and after the evacuation.
- It is recommended the Chief Warden delegates the parent communication function to a nominated Warden.

Deputy Chief Warden

- Fulfills the responsibilities of the Chief Warden in the absence of the Chief Warden.

Evacuation Wardens

- Follows directions from the Chief Warden (or deputy) to ensure all children, staff and other visitors are accounted for.

An arrangement is to be entered into for priority attendance by a transport company to provide transport suitable for the evacuation of children 0-5 years in an emergency.

Transport WA requirements for transport of children are as follows **–**

Drivers are legally responsible for ensuring that children are suitably restrained in a vehicle:

- *Aged 0 to 6 months are restrained in a rear-facing child restraint (e.g. infant capsule).*
- *Aged 6 months to under 4 years are restrained in either a rear or forward-facing child restraint with in-built harness.*
- *Aged 4 years to under 7 years seated in either a forward-facing child seat or booster seat restrained by a fastened seat belt or child safety harness.*
- *Aged 7 years to 16 years are either in a suitable child seat or a seatbelt.*
- *Aged under 7 years must not be in the front row of seats, if the vehicle has two or more rows of seats.*
- *Aged between 4 years and 7 years can travel in the front seat if all other rear seats are filled with passengers aged under 7.*

When riding in a bus or taxi, if there is no suitable approved child seat available, children under the age of seven years must not be in the front row of seats where the bus or taxi has two or more rows of seats.

Children seven years and over can be restrained in an adult seat belt or booster seats.

Whilst child restraints are not mandatory on buses or in taxis, staff should be trained in the use of childcare restraints for those children in the baby rooms (maximum 24), and sufficient restraints must either be on hand at the centre or have been negotiated to be provided by the pre-arranged transport company.

STEP 3. PRIMARY AND SECONDARY EMERGENCY ACTIONS

The **primary action** in response to bushfire threat is **early** evacuation to an off-site location at a distance away from the effects of a bushfire.

Evacuate when:

- 'Advice', 'Watch and Act' or 'Emergency Warning' alert is issued from the Department of Fire and Emergency Services.
- There is awareness of fire in the locality with a likelihood of reaching the site
- Smoke or fire has been identified nearby.

Evacuation destination

In a bushfire event, announcements will be made via electronic media and online, regarding bushfire incidents and potential threats to the site.

In a bushfire event follow DFES/Emergency Services advice (public announcements) to determine the safe evacuation route and destination.

Smoke and particles, including embers can fall a distance greater than the heat experienced from the fire and can cause harm; evacuation from the area, by vehicle is therefore recommended.

The facility should be closed on catastrophic fire danger rating days, until the surrounding area is developed for residential purposes.

STEP 4. REQUIREMENTS FOR EVACUATION AND SHELTER-IN-PLACE

This assessment of requirements for evacuation and shelter has been guided by the questions provided in The Department of Planning Lands and Heritage: *A Guide to developing a BUSHFIRE EMERGENCY EVACUATION PLAN.* These have been addressed in Appendix 1

The Shire of Serpentine Jarrahdale has a number of nominated evacuation centres which may be activated in a bushfire emergency.

The Serpentine Jarrahdale Community Recreation Centre 38 Mead St, Byford WA is the closest.

The route is via Briggs Road (travel south) to Abernethy Road, then Warrington Road to Mead Street and east along Mead Street to the Serpentine Jarrahdale Community Recreation Centre. An alternative longer route is available via Southwest Highway, Abernethy Road and Gordin Way to Mead Street and the Serpentine Jarrahdale Community Recreation Centre.

Upon being alerted to a fire approaching the Chief Warden (Manager) will

1. Alert staff (calmly) and initiate their undertaking of assigned responsibilities
2. Confirm evacuation destination and route with DFES
3. Contact the transport company
4. Assemble children within the common area close to the exit
5. Close windows and doors
6. Account for all children (verify against daily registration log)
7. Keep children hydrated and calm
8. Locate fire extinguishers
9. Observe external conditions
10. Monitor condition of the building
11. Upon arrival of arranged transport, evacuate the building taking the emergency kit and daily attendance log (inclusive of parent/guardian contact information).
12. Advise parents/guardians the childcare centre has been evacuated. Instruct them not to attend the child care centre and confirm the evacuation destination and arrangements for collection of children

Notes:

The location may be subject to smoke and ember attack. It is best to remain in the building until transport arrives in order to reduce the likelihood of minor injury and distress to children.

STEP 5. DEVELOP PRIMARY AND SECONDARY EMERGENCY PROCEDURES

PREPAREDNESS

Prior to the commencement of the bushfire season the Emergency Evacuation Plan must be reviewed ensuring all information, procedures, contact details and any attached publications are current.

The A3 size evacuation diagram must include current information and be displayed at all exit doors within the childcare centre.

The facility should be closed on catastrophic fire danger rating days.

Fire extinguishers must be checked to ensure they are charged and in working order.

Fire hoses should be checked to ensure all are in good condition and capable of reaching all surfaces of the building.

Flammable materials should be removed from within 3 m of the building.

Externally located rubbish bins, storage areas, should have closing lids.

No flammable materials should be attached to the building, i.e. shade sails should not be of a flammable material.

Ensure employees and other occupants are informed and familiar with the procedures laid out in the Emergency Evacuation Plan.

Contact off-site location(s) for potential use during a bushfire emergency.

Contact transport suppliers for potential use during a bushfire emergency.

Ensure property access is kept clear and easily trafficable.

Ensure an emergency evacuation kit including first aid kits and adequate levels of drinking water has been prepared and is easily accessible by staff.

AWARENESS

Maintain situational awareness through a range of information sources including local ABC radio 720, the Emergency WA website (emergency.wa.gov.au), DFES Facebook or Twitter, information line 13 DFES (13 33 37) and local emergency services.

Maintain observation of external condition for signs, and smell of smoke.

Alert parents and guardians to expected Catastrophic conditions and notify them of the precautionary closure of the centre.

If an Advice warning is issued, precautionary evacuation must occur; contact parents and carers to arrange urgent collection of children.

Parents and carers contact details are to be confirmed on attendance at sign in.

EMERGENCY RESPONSE

Evacuate when:

- 'Advice', 'Watch and Act' or 'Emergency Warning' alert is issued from the Department of Fire and Emergency Services.
- There is awareness of fire in the locality with a likelihood of reaching the site
- Smoke or fire has been identified nearby.

If sufficient time permits, following advice from DFES or emergency services, contact parents/carers and arrange for immediate collection of children. If there is not sufficient time available to arrange full evacuation by parents/carers, contact the transport company and evacuate to the Shire's nominated evacuation centre.

Check and communicate:

- Confirm building is clear and all children, staff visitors are accounted for.
- Inform DFES and parents and carers of evacuation and destination.

Shelter in place is not recommended and there should be no necessity for shelter in place to occur however if DFES or emergency services have advised it is too late to leave, or it is unsafe to exit the building due to the conditions outside, then staff should ensure all doors and windows are sealed as best as possible.

Staff should move children to the room furthest from the fire front and with ready access to an exit. The centres Emergency in Facilities Plan must identify the location for shelter in the building[1]. The fire front should continue to be observed by a nominated staff member; if the building has ignited the building must be evacuated. As soon as it is safe outside (the fire has passed) a member of the emergency management team should check the building and grounds for any small fires; any small fires should be extinguished.

When safe to do so arrange for the children to be collected.

Recovery

- Maintain communication (appointed responsibility) with parents and carers and arrange collection of children.
- On all clear, the Chief Warden is to check building is suitable for occupation.
- Advise parents/carers when the centre will re-open
- Review incident for improvement and incorporate into the Emergency Plan and training.

[1] Emergency in Facilities Plan AS3745-2010 which addresses a range of emergencies

STEP 6. TRAINING AND EDUCATION ON EMERGENCY PROCEDURES

Staff and volunteers will be provided with information outlining emergency management procedures and bushfire protection measures. The childcare centre manager will practice procedures and ensure that delivery of education and training for staff and any volunteers occurs. The manager will be trained in where to find official emergency information. For example, Emergency WA website, 13 DFES information line, and local ABC Radio 720 for the purpose of monitoring conditions.

As part of the registration process notice must be provided to the responsible parent or carer that the childcare centre is located within a bushfire prone area and precautionary or emergency evacuation may be required during the fire season.

Staff and volunteers must acknowledge that they have sighted and understood the emergency evacuation procedures and understand their role and responsibilities.

- Individual roles and responsibilities.
- Access and egress routes.
- Assembly point location.
- Firefighting equipment locations
- The written procedures applicable to the site.
- Use of child (vehicle) restraints

The following exercise drills should be practiced

- assembly and evacuation procedures
- site preparation procedures and post fire inspections
- firefighting techniques to create a familiarity with the firefighting equipment (which might be used by staff to address small fires)
- the debrief process (which would follow any bushfire event) to identify and discuss any issues that could occur with the emergency plan

Appendix 1

Step 4 Evacuation or Shelter Analysis

The following questions will assist developing or reviewing the Emergency Evacuation Plan to identify an off-site location - EVACUATION.	
If there are occupants with support needs that require a similar facility to support them, is the off-site location suitable?	Yes ☒ No ☐
• Occupants with support needs are people with physical, intellectual, visual, or auditory disability or impairment, either temporary or permanent. It also includes aged persons and juveniles who are dependent on others for their care and wellbeing.	
Comment: The facility provides the care of children who will require supervision and support	
Is the off-site location in an area away from the effects of a bushfire?	Yes ☒ No ☐
• Have you considered locations such as community centres, clubs etc. as possible places to go?	
Comment: Shire nominated emergency shelter - Serpentine Jarrahdale Community Recreation Centre 38 Mead St, Byford WA	
Are there amenities (toilets, food, water etc.) available at the off-site location? (if applicable)	Yes ☒ No ☐
Can the off-site location accommodate the number of occupants?	Yes ☒ No ☐
• Remember that other persons may wish to utilise the same facility as their shelter for evacuation. • Accommodation for more than one day may be required.	
Comment: Shire provided emergency shelter Serpentine Jarrahdale Community Recreation Centre 38 Mead St, Byford WA	
Does an available route to the off-site location avoid transporting through bushfire affected areas or areas that may be affected by an approaching bushfire?	Yes ☒ No ☒
Depending on the extent of the bushfire hazard around the site, the location of a bushfire and the safest route from the site, there may be a need for alternative routes and locations.	
Comment: The most direct access (2.9 km) to the Serpentine Jarrahdale Community Recreation Centre is South along Briggs Road. An alternative route (4.3 km) is available east of the site via Larsen Road to Southwest Highway	
Has the owner of the off-site location advised that they are happy to accommodate occupants if evacuation from a bushfire emergency occurs?	Yes ☒ No ☐

Comment: The Shire promotes the availability of community recreation centres operating at times that the childcare centre is in operation.		
Consider the following questions to assist planning transport arrangements.		
Do you have your own transport for all occupants? **If no, what transport provider will you use?**	Yes No	☐ ☒
Comment: Sufficient transport suitable for all children and staff is required to be arranged at the commencement of each season. Verification of transport availability must be confirmed on days of Extreme conditions when the centre is operating. Whilst child restraints are not mandatory on buses or in taxis, staff should be trained in the use of childcare restraints for those children in the baby rooms (maximum 24), and sufficient restraints must either be on hand at the centre or have been negotiated to be provided by the pre-arranged transport company.		
Are you going to use private vehicles?	Yes No	☒ ☐
Comment: Private transport will be arranged.		
If using private vehicles, will they be available when you need them and will there be drivers available? **If no, consider another mode of transport**	Yes No	☒ ☐
Comment: The availability of pre-arranged transport will be verified on days of Extreme conditions when the centre is operating. In addition, taxis and other forms of hire transport may be used.		
Will there be sufficient vehicles to transport all the occupants?	Yes No	☒ ☐
Comment: An arrangement with a transport provider will be confirmed prior to each bushfire season.		
Have occupants with support needs been considered when determining transport types and necessary timing to evacuate?	Yes No	☒ ☐
Comment: Staff will accompany the children to the evacuation destination.		
Is disabled transport required, and is this sufficient to move the number of occupants from the facility?	Yes No	☒ ☐
Comment: An individual plan should be determined for children with reduced physical ability, which may include ambulance support.		
Do you require ambulances? **If yes, St John Ambulance Australia needs to be consulted.**	Yes No	☐ ☒
Comment: This will be subject to the individual needs of the child, but a bushfire is only one circumstance where emergency support by ambulance may be required and will be part of an individual plan**.**		

Is a community bus available?	Yes No	☐ ☒
Comment: Augmented transport arrangements will be negotiated with local private transport suppliers.		
Will community buses be available when you need them and will drivers be available?	Yes No	☐ ☒
Comment: Not required		
Are other means of transport available?	Yes No	☒ ☐
Comment: Pedestrian access to BAL Low south will be available as the area develops (residential development).		
Do you need any other type of special transport?	Yes No	☒ ☐
Comment: Evacuation will be provided across sealed public roads, only 2wd road going vehicles are required.		

The following questions will assist developing the Emergency Evacuation Plan to identify an on-site building. SHELTER	
Is the property well maintained and kept free from a build-up of fuel and leaf litter in gutters and around buildings?	Yes ☒ No ☐
Comment: The building should be inspected prior to the bushfire season, particularly those aspects that are not readily observable or accessible such as elevated ledges and the roof. During the bushfire season rubbish bins should be self-closing, and material accumulating against the building should be removed.	
Is there a building on-site that is away from bushland and is unlikely to be impacted by bushfire?	Yes ☐ No ☒
• Consider the potential for any adjoining structures, vegetation or combustibles to ignite and impact on the building. • For facilities where occupants are located in numerous buildings or rooms, it may be appropriate to remain in those rooms under supervision.	
Comment: On site refuge is not sought but the building is a single building within BAL 29. Evacuation should be taken if safe to leave.	
Is the building constructed in a manner that minimises bushfire attack with appropriate Asset Protection Zones?	Yes ☒ No ☐
To determine standards of construction, consult Australian Standard AS3959 Construction for buildings in bushfire prone areas.	
Comment: The proposed building will be constructed to the commensurate determined BAL level.	
Can the building accommodate the number of occupants and visitors?	Yes ☒ No ☐
Comment: The building capacity required is 1.2 m^3 per person, as a minimum shelter standard *ABCB Handbook 2014*	
Is there ease of accessibility to the building and is it easily identifiable?	Yes ☒ No ☐
Comment: The main access to the building is from the carpark immediate to Shepparton Boulevard.	
Is there access to amenities (toilets, food, water etc) away from the effects of a bushfire?	Yes ☐ No ☐
Comment: Shire nominated evacuation centres have amenities	

BUSHFIRE EMERGENCY PLAN

NAME OF FACILITY	Child Care Centre
ADDRESS	Lot 57 Briggs Road Byford
PREPARED BY	Anthony Rowe, L3 BPAD 36690
OWNER/OPERATOR	Blokk Property
DATE	9 May 2023
VERSION NUMBER	2

Document Control

Version	Date	Details	Undertaken by
1	28/02/2023	Submission	Anthony Rowe
2	09/05/2023	Submission	Anthony Rowe

Emergency Management Team

Name	Role	Contact Details
	Owner	
	Centre Manager	

FACILITY DETAILS

This Plan is for a Childcare Centre at Lot 57 Briggs Road Byford and has been designed to assist management in protecting life and property in the event of a bushfire.

The plan outlines procedures for both **evacuation** and **shelter-in-place** to enhance the protection of occupants from the threat of a bushfire.

The primary action to follow in a bushfire emergency is to:

Evacuate ☒ Shelter in place ☐

NAME OF CONTACT PERSON			
POSITION / ROLE OF CONTACT PERSON		Centre Manager	
PHONE NUMBER			
FACILITY TYPE	Childcare	NUMBER OF BUILDINGS	1
NUMBER OF STAFF	18	NUMBER OF OCCUPANTS	104 Children (and 18 staff)
NUMBER OF OCCUPANTS WITH SUPPORT NEEDS		104	
DESCRIPTION OF SUPPORT NEEDS		Children will require support and assistance from staff appropriate to their age and development	

RESPONSIBILITIES

The following outlines who has responsibility for implementing emergency procedures in the event of a bushfire.

Position	Role	Responsibility
Owner	Emergency Planning Committee	• Ensure the facility is prepared for the bushfire season
Facility Manager	Chief Warden (Emergency Management Team)	• Daily - check www.emergency.wa.gov.au for any warnings or alerts • Ensure adequate transport is available for evacuation should it be required • Monitor conditions on Severe plus FDR days o Local ABC Radio 720 am o Emergency.wa.gov.au • Advise parents/carers of precautionary closure where catastrophic conditions are forecast • Determine with DFES/emergency services that safe evacuation is available • Consider any special needs of the children that may affect the decision and capability to evacuate • Remain contactable (mobile phone) at all times • oversee evacuation • advise parents or carers of evacuation and arrangements for collection of children
Emergency Management Team (roles allocated to staff)	Deputy Warden	• Activities delegated by the Chief Warden • Supervise any fire suppression activity
	Communications officer	• Responsible for keeping parents informed
	Transport Warden	• Responsible for ensuring the evacuation

EMERGENCY CONTACTS

Name of Organisation	Office / Contact	Contact details
Fire / Police / Ambulance	Fire or Emergency	**000 (112 from a mobile)**
Department of Fire & Emergency Services	Emergency Information	**13 33 37 (13 DFES)**
Emergency WA	Warnings and incidents	**www.emergency.wa.gov.au**
Bureau of Meteorology	Weather information	**1300 659 213**

Secondary Contacts

Name of Organisation	Office / Contact	Contact details
Transport company	TBA	Confirmed annually

PREPAREDNESS

CHECKLIST – ongoing, prior to and during the bushfire season		
BUSHFIRE SEASON: COMMENCES 1 OCTOBER AND CONCLUDES 31 MAY OF EVERY YEAR (UNLESS OTHERWISE ADVISED)		
Action	**Frequency**	**Responsibility**
To be completed just prior to the bushfire season (by November 30 each year)		
1. Review Emergency Evacuation Plan to ensure details, procedures and contact phone numbers are correct. I. Contact off-site location(s) and confirm potential use during a bushfire emergency. II. Contact transport suppliers and confirm arrangements for potential use during a bushfire emergency.	Annual	Owner and Centre Manager
2. Ensure all staff are familiar with the procedures in the Emergency Plan		
3. Affirm parents and carers have been informed of the facilities emergency response procedures for the coming bushfire season and the possibility of precautionary closure on extreme, or catastrophic FDR days and on issue of an Advice level warning.		
4. Ensure the site layout diagram and emergency evacuation diagrams are current and in visible location(s).		
5. Ensure the routes to offsite locations are a safe option.		
6. Ensure any firefighting equipment (fire extinguishers hoses etc.) are serviceable and available.		
7. Ensure property access is clear and easily trafficable		
8. Ensure roof and gutters are free from leaf litter and debris		
9. Ensure staff are aware of their responsibilities as assigned by this plan and have received training on procedures and in the use of firefighting equipment		

To be completed during the bushfire season between 1 December and 12 May each year by the Emergency Management Team (centre manager).		
1. Ensure contact details of the emergency management team and employees are updated as required	Ongoing	Centre Manager
2. All objects attached to the buildings are non-combustible or easily removable, and the removing mechanism is in working order		
3. Smoke detectors are in working order		
4. Ensure first aid kits, fire extinguishers, emergency lighting and other emergency resources are current, serviceable and accessible		
5. The evacuation diagram and the site layout diagram are clearly displayed on the inside face of external doors		
6. Ensure defendable spaces around the building and assembly points are maintained (kept clear).		
7. The daily log book (registration of attendance) is kept on hand and includes parent / guardian contact details in case of evacuation		
8. Emergency communication equipment (mobile phone) is charged and on hand		

The Department of Fire and Emergency Services provides community and emergency advice about predicted and current conditions that advise about the level of bushfire threat.

*The Fire Danger Rating (**FDR**) is based on the forecast weather conditions, the higher the rating, the higher the threat.*

Extreme or Catastrophic ratings are the highest level and represent unsafe conditions. They are rare but represent exceptionally dangerous conditions for travel.

A new national Fire Danger Rating System was launched in September 2022

There are four levels of fire danger in the new system. Fire Danger Ratings are based on predicted conditions such as temperature, humidity, wind and the dryness of the landscape and give an indication of the possible consequences of a fire, if one was to start; the higher the fire danger rating, the more dangerous the conditions.

FIRE DANGER RATINGS

CATASTROPHIC
Catastrophic - For your survival, leave bush fire risk areas
EXTREME
Extreme – Take action now to protect your life and property
HIGH
High – Be ready to act
MODERATE
Moderate – Plan and prepare



BUSHFIRE WARNING SYSTEM

EMERGENCY WARNING

An out of control fire is approaching fast and you need to take immediate action to survive. If you haven't prepared your home it is too late.

You must seek shelter or leave now if it is safe to do so.

WATCH AND ACT

A fire is approaching and there is a possible threat to lives or homes. Put your plan into action. If your plan is to leave, make sure you leave early. If your plan is to stay, check all your equipment is ready.

Only stay and defend if you are mentally and physically prepared.

ADVICE

A fire has started but there is no immediate danger. Stay alert and watch for signs of a fire.

Be aware and keep up to date.

Where can I get information during an emergency?

emergency.wa.gov.au 13 DFES (13 33 37)

@dfeswa @dfes_wa Local ABC Radio

DFES

PREPARATION

The following outlines the preparation that must be taken to ensure occupants are aware of the bushfire threat and can respond with appropriate procedures.

Actions	Frequency	Responsible Person
Throughout the bushfire season		
Check the Emergency WA website **daily** for alerts and warnings www.emergency.wa.gov.au	Daily (in the morning) and again early in the afternoon	Centre Manager
Days forecast with a Catastrophic Fire Danger rating		
Inform parents and staff that due to the fire danger rating the centre will be closed for the duration of the warning.		

If an 'Advice,' 'Watch and Act' or 'Emergency Warning' alert or other communication has been issued by an emergency service authority -

ALERT

An 'Advice' is issued that a fire has started but there is no immediate danger.

Contact DFES for advice on availability of safe evacuation.

Contact parents / carers to arrange urgent collection of children

WATCH AND ACT or EMERGENCY WARNING

In the event of a Watch and Act or Emergency Warning, or if smoke of fire is observed in proximity, confirm with DFES the safe route to the intended destination. Public announcements will include confirmation of safe routes and activated welfare centres.

Method of Alarm

The building is a single building. To avoid distress to the children, the alert condition or condition to evacuate should be verbally communicated to all staff members and procedures followed.

Children should be immediately assembled within the building.

Any staff member who observes smoke or a fire nearby, is to advise the Chief Warden immediately or the acting senior member of staff who should in turn implement the Bushfire Emergency Evacuation Plan.

Parents and Carers are to be contacted and advised of implementation of the Bushfire Emergency Evacuation Plan.

Parent/Guardian Communication

- Advise parent / guardians of precautionary closure of the facility, the day before if there is the potential for the building to be affected by a bushfire (for example a bushfire is distant but may affect the building) or if the forecast FDR for the following day is Catastrophic.
- Advise parent / guardians of pre-emptive evacuation, requirement for urgent collection from the facility if an 'Advice' level warning has been issued.
- Advise parents / guardians of emergency evacuation and ensure they understand they should not attend the childcare centre. As soon as possible following evacuation advise parents / guardians of the location and arrangements for collection of children.

NOTE

The location may be subject to smoke and ember attack. It is best to remain in the building until transport arrives in order to reduce the likelihood of minor injury and minimise distress to children.

Parents and carers are to be informed early and requested to follow an orderly process for the safe collection of children, and importantly enable management to maintain accountability and certainty for the location of each child. The circumstance of a parent acting upon a public notice and collecting their child without appropriate record must be avoided.

Evacuation Destination Details - Preparation

The following destinations and routes may be available in a bushfire event however current public advice from Emergency WA should always be followed to ensure you use the safest evacuation route to the safest destination.			
Designated evacuation assembly point/s			
1. inside the childcare centre			
Primary off-site location			
Name of venue	The Serpentine Jarrahdale Community Recreation Centre		
Address of venue	38 Mead St, Byford WA		
Nearest cross street	Gordin Way (east of the Community Recreation Centre)	Map reference	Q2F2+Q6 Byford
Venue phone number	(08) 92078555		
Primary route to location	Head south on Briggs Road towards Larsen Road, at the roundabout, take the 1st exit onto Abernethy Road and at the next roundabout, take the 2nd exit onto Warrington Rd. From Warrington Road take the first exit at the roundabout onto Mead Street. The Serpentine Jarrahdale Community Recreation Centre is on the right (550 m)		
Secondary route to location	Head south on Briggs Road and turn left onto Larsen Road. Follow Larsen Road to Southwest Highway and turn right. After 1.1 km turn right to the Abernethy Road, then at the roundabout, take the 1st exit at the roundabout onto Gordin Way then the third exit at the roundabout onto Mead Street. The Serpentine Jarrahdale Community Recreation Centre is on the left (170 m)		
Primary transportation arrangements			
An arrangement is to be entered into with a transport company to provide a priority attendance to transport children in an emergency. Two buses each with a 55 person capacity will be required plus the use of private staff vehicles			
Estimated travelling time to destination	50 minutes: 10 minutes travel time plus 40 minutes maximum time required to mobilise transport		

Shelter-In-Place

The **primary action** to follow if there is an imminent bushfire threat is to **EVACUATE** following confirmation (DFES or emergency services) that a safe evacuation route is available. The area is under development and as that development continues areas of BAL-Low will become available south of the site. Until that area is developed evacuation from the facility by vehicle is recommended.

RESPONSE FOR EVACUATION AND SHELTER-IN-PLACE IN THE EVENT OF A BUSHFIRE.

Trigger	Action	Responsible Person
DFES have advised to evacuate and confirmed the route is safe or a bushfire is reported within 3-5 Km of the site or smoke or fire is observed **Confirm with DFES it is safe to evacuate and confirm the destination and route**	• Alert staff to implement the Emergency Plan • Contact transport company to arrange immediate attendance for evacuation • Locate children to the common area of the building close to the exit • Close windows and doors • Account for all children (verify against daily registration log) • Obtain the emergency evacuation kit • Locate fire extinguishers • Monitor external conditions and the condition of the building • Upon arrival of arranged transport evacuate the building taking the emergency kit, the daily attendance log, and water for each child. • Advise DFES the childcare centre has been evacuated. • Check building has been cleared; all children and staff and visitors are accounted for. • Evacuate to determined destination • Contact parents or carers and advise the collection point for children Notes: The location may be subject to smoke and ember attack. It is best to remain in the building until transport arrives in order to reduce the likelihood of minor injury and minimise distress to children.	**Centre Manager**
SURVIVAL- SHELTER – only if advised by DFES it is not safe to leave and shelter in place is a safer option		
A fire is advised or is observed to be approaching and DFES public or direct advice is it is too late to leave (safe evacuation is not available)	Contact emergency services and advise the number of children and staff sheltering in place. Keep fire extinguishers close by. Monitor the building condition for smoke and heat and stay low. Soak towels to block smoke ingress if required Keep children hydrated.	**Centre Manager**

	Monitor the fire's passing and leave the building when safe to do so. Note: Survivable conditions establish quickly after the firefront has passed, when the wind and noise has calmed. Don't stay in a burning building. Move to the carpark space. Inspect the building for any small fires and extinguish if safe to do so If the site and land nearby has been impacted by bushfire, evacuate the site when safe to do so until the area has been assessed and is given an 'All clear' is given.	

RECOVERY

Action	Responsible Person
Inspect building. Advise parents or carers of the date when the centre will re-open	**Centre Manager**
Debrief - assess the severity of the event; - would the actions taken be sufficient to ensure the safety of staff and visitors in an extreme event; - were there any unexpected problems not accounted for in the existing emergency plan; - update the emergency plan to include any learnings from the event.	**Emergency Planning Committee (owner) with the Emergency Management Team (delegate)**

Attachment 1 – Emergency Plan and Evacuation Map

BUSHFIRE EMERGENCY RESPONSE PLAN

Location - Lot 57 Briggs Road Byford

Facility – Childcare Centre

Visitors – Maximum 104 children (plus 18 staff)

CONTACT PERSONS

Centre Manager		
Transport Contact		

Chief Wardens Role:

- Remain informed of DFES Emergency Warnings by monitoring public information sources (listed below)
- Contact Priority Transport provider to confirm availability of transport should it be required.
- Oversee Emergency Evacuation if it is required



INFORMATION SOURCES

Local ABC radio	720 am
DFES information line	13 33 37
Emergency WA	www.emergency.wa.gov.au
Bureau of Meteorology	1300 659 213

ADVICE - prepare to evacuate

Trigger: Fire is greater than 10 km away

An ADVICE warning has been issued across telecommunications media of an incident nearby (within 10 km).

Response:

PRECAUTIONARY EVACUATION IS REQUIRED.

- Contact parents/carers and arrange for immediate collection of children.
- Turn off air conditioning, and close windows and doors
- Monitor emergency information to be informed of any change to the warning level
- Once all children have been collected, evacuate staff

WATCH AND ACT- Evacuate

Trigger

DFES or Police have advised EVACUATION IS REQUIRED (Public Notice)

Confirm with DFES or police the evacuation route which should be taken (public information).

Response:

- Assemble all children in the building to await evacuation.
- Contact (summon) transport company.
- Advise parents/carers that the centre is evacuating and they must not attend
- Turn off air-conditioning
- Close all doors, windows and blinds,
- Account for all children, staff and visitors.
- Board buses and evacuate to the Community Recreation Centre at 38 Mead Street.
- Contact parents/carers and confirm arrangements for collection of children from the safe location

EMERGENCY - Survival

Trigger:

DFES or Police have advised **EVACUATION IS NOT SAFE**

Response

Shelter at the site is not recommended. This Survival Plan should only be enacted in the event that DFES or police have advised a safe evacuation route is not available.

Children and staff should remain in the building for as long as it is safe to do so.

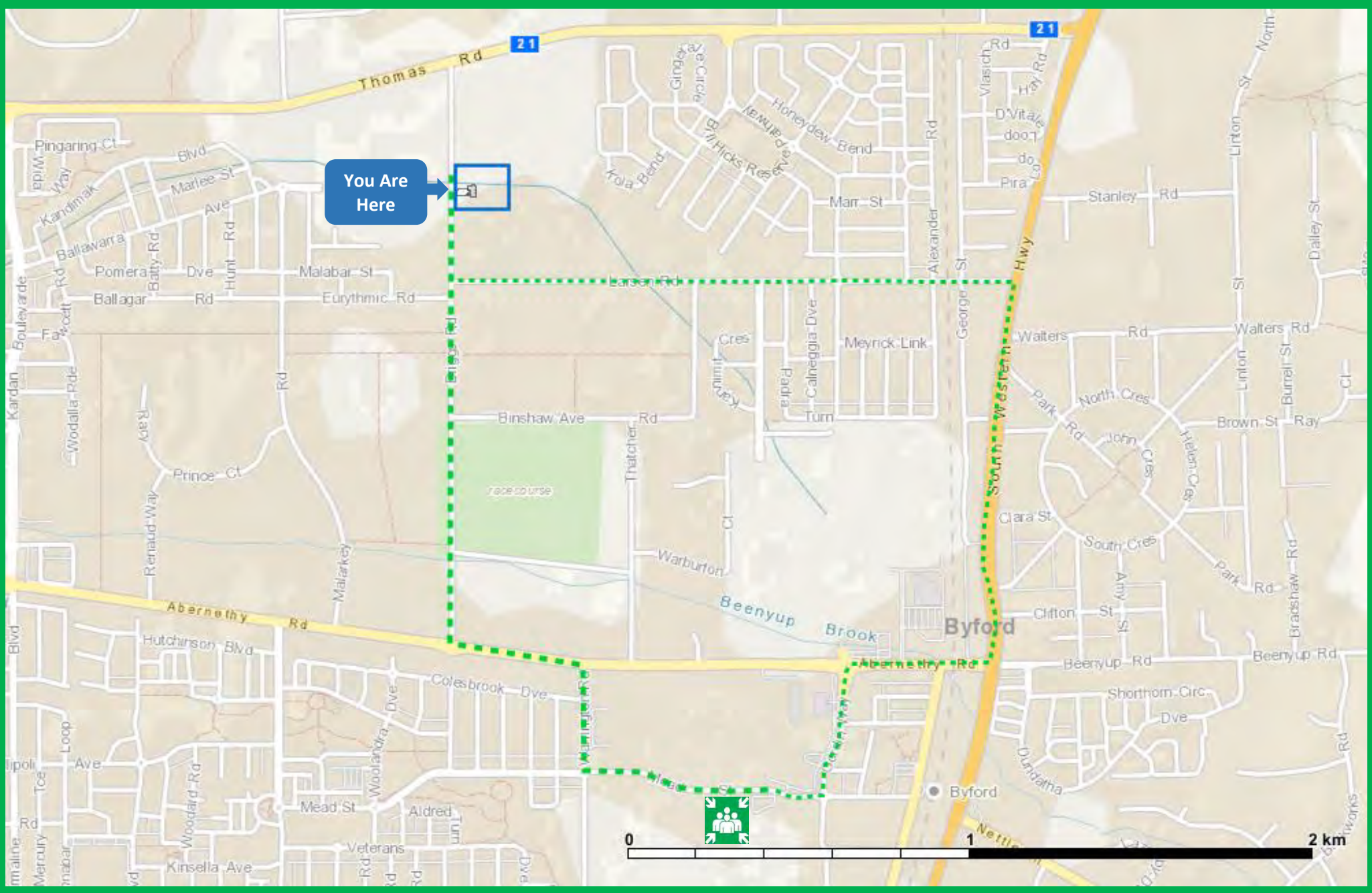
- Advise emergency services of the number of persons sheltering at the site
- Advise parents/carers that you are unable to evacuate and are sheltering in the childcare centre. **Instruct them not to attend the centre.**
- Close all doors and windows and ensure they are sealed as best as possible.
- Turn off air conditioning
- Soak towels and lay them along the inside of external doorways.
- Keep woollen blankets handy for protection against radiant heat.
- Take down curtains and push furniture away from windows.
- Stay low to limit exposure to smoke
- Drink plenty of water to avoid becoming dehydrated
- Shelter in the building for as long as possible.
- If the building catches fire evacuate to the carpark.

ALL CLEAR

When emergency services have deemed the area safe:

- The owner will attend the site and check buildings and grounds for any smouldering objects and determine if it is safe for children and staff to return
- Notify parents / carers of the date when the childcare centre will re-open.
- Commence the debrief process.

EMERGENCY EVACUATION DIAGRAM



ATTACHMENT 2 - References

GENERAL REFERENCES

SA Department of Environment and Natural Resources, Government of South Australia, 2012 *Overall Fuel Hazard Guide for South Australia*

Standards Australia, *AS 3959:2018 Construction of buildings in bushfire-prone areas*, Sydney

Western Australian Planning Commission (WAPC) *Position Statement: Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design* November 2019

WA Department of Planning Land and Heritage 2016*, Visual Guide for bushfire risk assessment in Western Australia*

Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire Prone Areas*, Western Australian Planning Commission, Perth, Perth

Western Australian Planning Commission and Department of Fire and Emergency Services (WAPC and DFES) 2017, *Guidelines for Planning in Bushfire Prone Areas Version 1.4*, Western Australia

Online references

Office of Bushfire Risk management (OBRM), Map of Bush Fire Prone Areas, viewed April 2022, < https://maps.slip.wa.gov.au/landgate/bushfireprone/>

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Site and Soil Evaluation Report

Appraisal of site:
Lot 57 Briggs Road,
Byford.



Prepared by Dr Ross Mars
February 16, 2023.

Field assistants and research: Corey Purdy and Mason Kilian.

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1. Introduction

Water Installations Pty Ltd has been engaged by Darren Blowes of Blokk Property to undertake a Site and Soil Evaluation (SSE) for the 2.01 ha site at Lot 57 Briggs Road, Byford with the view to build a childcare centre. Under the Government Sewerage Policy (GSP) it is a requirement that a Site and Soil Evaluation that addresses the risks of an onsite wastewater system on the environment and public health accompanies all new commercial and development applications.

A field investigation and subsequent report have been undertaken to investigate this possibility.

Recommendations for the monitoring and other management requirements will be made. A number of options are provided for both the treatment system and land application area (LAA). In considering the lot size it is noted that the lot will be of sufficient size to accommodate both the proposed development and have enough land application area as determined by Schedule 2 in the GSP.



Figure 1.1 Overall site plan or map, showing block details.

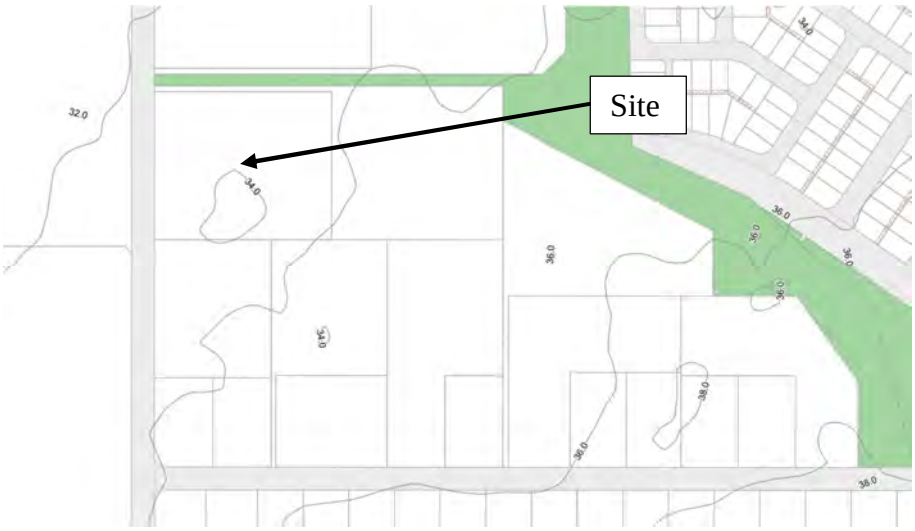


Figure 1.2 Contours and elevation.

Figure 1.2 shows the contours and elevation recorded on site. This indicates an approximate fall of 2 m toward the north west and a very gentle rise near the centre of the block.

2. Description of site and/or development

The site has an existing house and sheds as shown in Figure 1.1. There are multiple paddocks of annual grasses with tall eucalypts along the fence lines. A seasonal brook runs parallel to the northern boundary as visible in Figure 1.1. The proposal is to remove the existing buildings and construct a childcare facility.

Table 2.1 below provides a summary of the proposed development.

Table 2.1 Description of the site and/or development.

Development Characteristic	Description
Site Address	Lot 57 Briggs Road, Byford
Owner/Developer	Ian and Krystina Walton/Darren Blowes
Local Government	Shire of Serpentine-Jarrahdale
Zoning	Urban development (No R Code)
Lot size	20,186 m^2
Proposal	Development of childcare centre
Water Supply	Bore
Anticipated Wastewater Load	Allowance: Childcare centre (122 people). Total design load = **5,490 L/day.**
Availability of Sewer	The area is unsewered and highly unlikely to be sewered for several years, if at all.
Development located within (tick as appropriate)	☐ Public drinking water source area ☑ Sewage sensitive area ☐ Neither In the Serpentine River Catchment Area



Figure 2.1 Local zoning. Block is zoned Urban Development.



Figure 2.2 Proposed development – Construction of childcare centre (in red).



Figure 2.3 Mains water and sewerage availability.

Figure 2.3 shows the available water services in the area, there are no connections to the property.



Figure 2.4 Seasonal brook to the north of the property.

3. Site and soil assessment

Water Installations undertook the site investigations on Tuesday January 31, 2023.

Soil type was determined upon investigation. Both desktop and field studies were used to determine soil category, permeability and any constraints that may influence the type of wastewater system as well as the amount of irrigation and size of dispersal area.

3.1 Site

Table 3.1 summarises the key features of the site. Based on the most constraining site features (landform and drainage), the overall land capability of the site to sustainably manage all effluent onsite is satisfactory. The proposed effluent management area is located well above any local flood level.

Note:

- The site experiences low stormwater run-on as topsoil has good infiltration and drainage.
- There is no evidence of a shallow watertable or other significant constraints.
- The landform is a gentle gradient and risk of effluent transport offsite is very low.

Procedure

Two test pits were dug with an excavator to a depth of at least 2 m wherever possible. Permeability determination was undertaken with a hand auger. Soil samples were randomly selected from the excavated spoil, but typically from the middle to lower areas of soil profile. Topsoil was not included.

Location of test pits is shown in Figure 3.1.

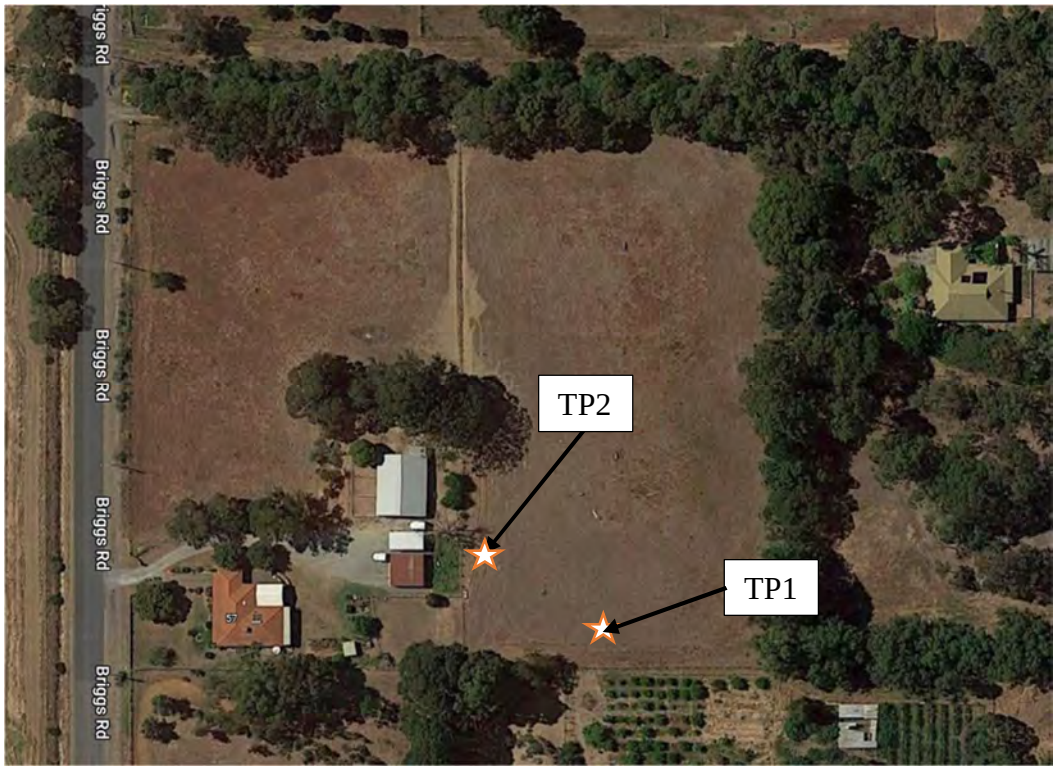


Figure 3.1 Map of test pit locations.

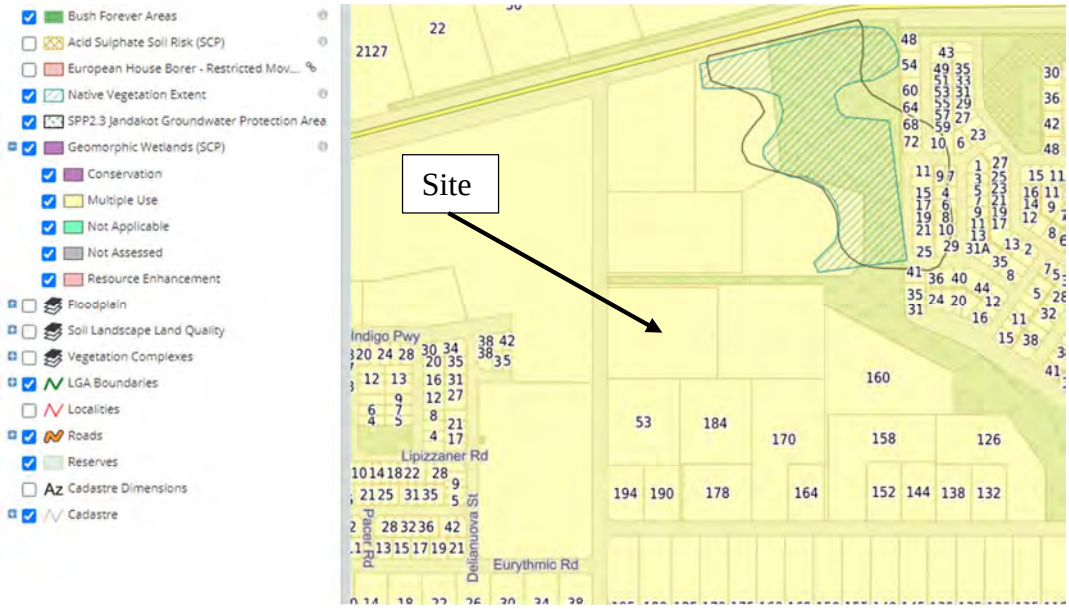


Figure 3.2 Local Natural Area – protection of vegetation.

Figure 3.2 shows reserves nearby, and the site indicated. There is no requirement for natural conservation onsite.

3.2 Soils

Methods

The site's soils have been assessed for their capability for onsite sewage management by a combination of soil survey, permeability studies, laboratory assessment and a desktop review of published soil survey information as outlined in the pages that follow.

Results

Published Soils Information

Suspected soils of the site have been investigated via number of web-based sites such as Shire of Serpentine-Jarrahdale Intramaps site and the DPIRD – Natural resource information, as well as documents published by the Dept of Agriculture and others.

From Figure 3.3 soils typically found in the region are Sandy clays – white-grey to brown, fine to coarse grained, subangular to rounded sand, clay of moderate plasticity, gravel and silt layers near scarp.

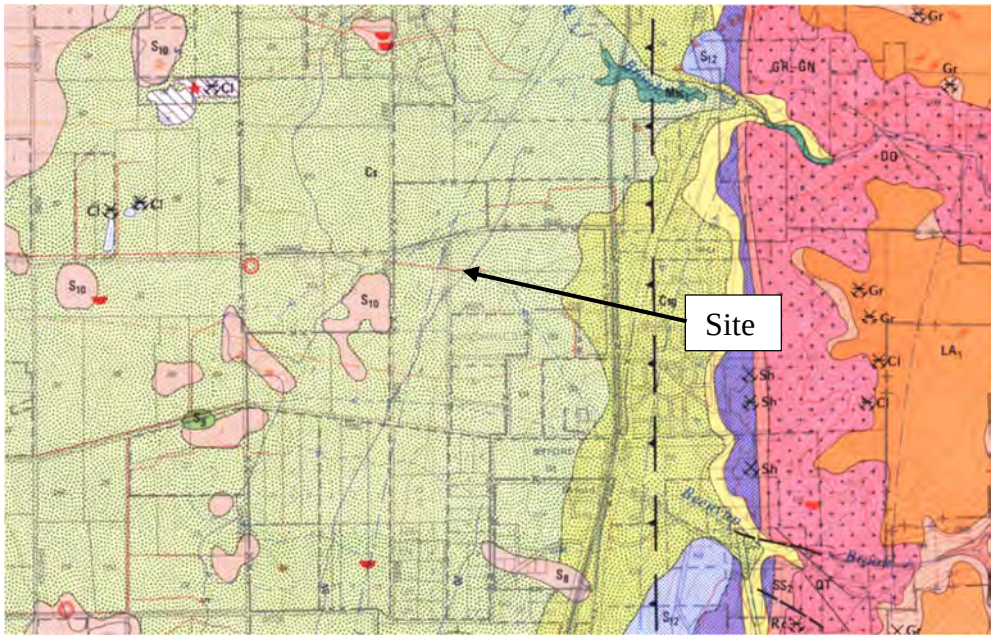


Figure 3.3 Soil types in Byford. Source: Geological Survey of Western Australia.

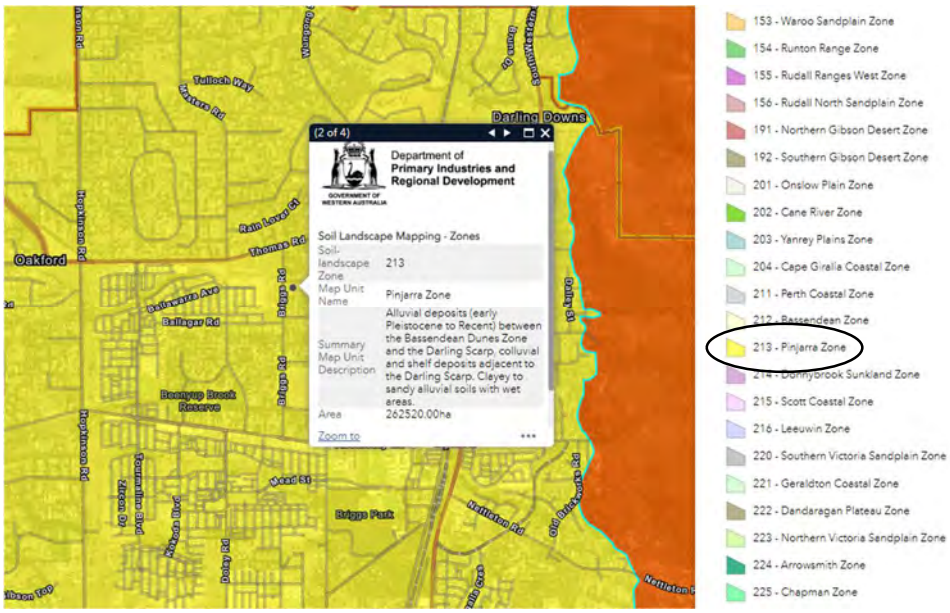


Figure 3.4 Soil zones. Source: DPIRD.

Figure 3.4 shows the soil zone recorded on site as 213 – Pinjarra Zone: Alluvial deposits between the Bassendean dunes and the Darling scarp, colluvial and shelf deposits adjacent to the Darling scarp. Clayey to sandy alluvial soils with wet areas.

Soil Survey and Analysis

A soil survey was carried out at the site to determine capability for the application of treated effluent. Soil investigations were conducted at two locations, as shown in Figure 3.1, using excavator-dug test pits (TP1 and TP2) to 1.4 m depth. Hard digging was encountered in both test pits at depth where excavation stopped. The soils were very similar in both test pits, so only minor variations would be expected throughout the area of interest. The same soil type was encountered in these investigations, with minor differences in the extent of layers. Profile descriptions are provided in the relevant sections that follow.

Generic samples of soil from each test pit were collected for subsequent laboratory analysis of pH, electrical conductivity, nutrient content, Phosphorus Retention Index and Dispersion Class. Various tables in each section describe the soil constraints in detail for each of the soils encountered.

Soils are characterised as loam, with a small amount of gravel, overlying some clay and compacted decomposing granite, typically below 2 m.

Given the physical and chemical characteristics of the subsoil in sampled areas of the site, and the large size of the site, effluent application via any approved method is possible.

Soil classification

Soils were also classified in accordance with the Dept of Agriculture and Food publication “Soil Groups of Western Australia” as shown in Figure 3.5 – see references.

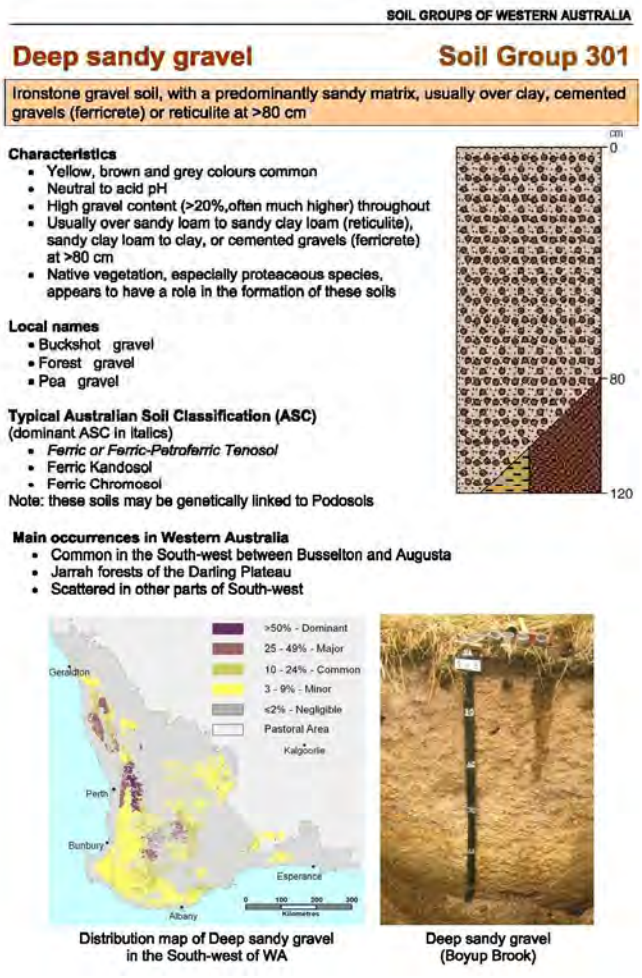


Figure 3.5 Characteristics of gravelly loamy soils.

Munsell soil colour

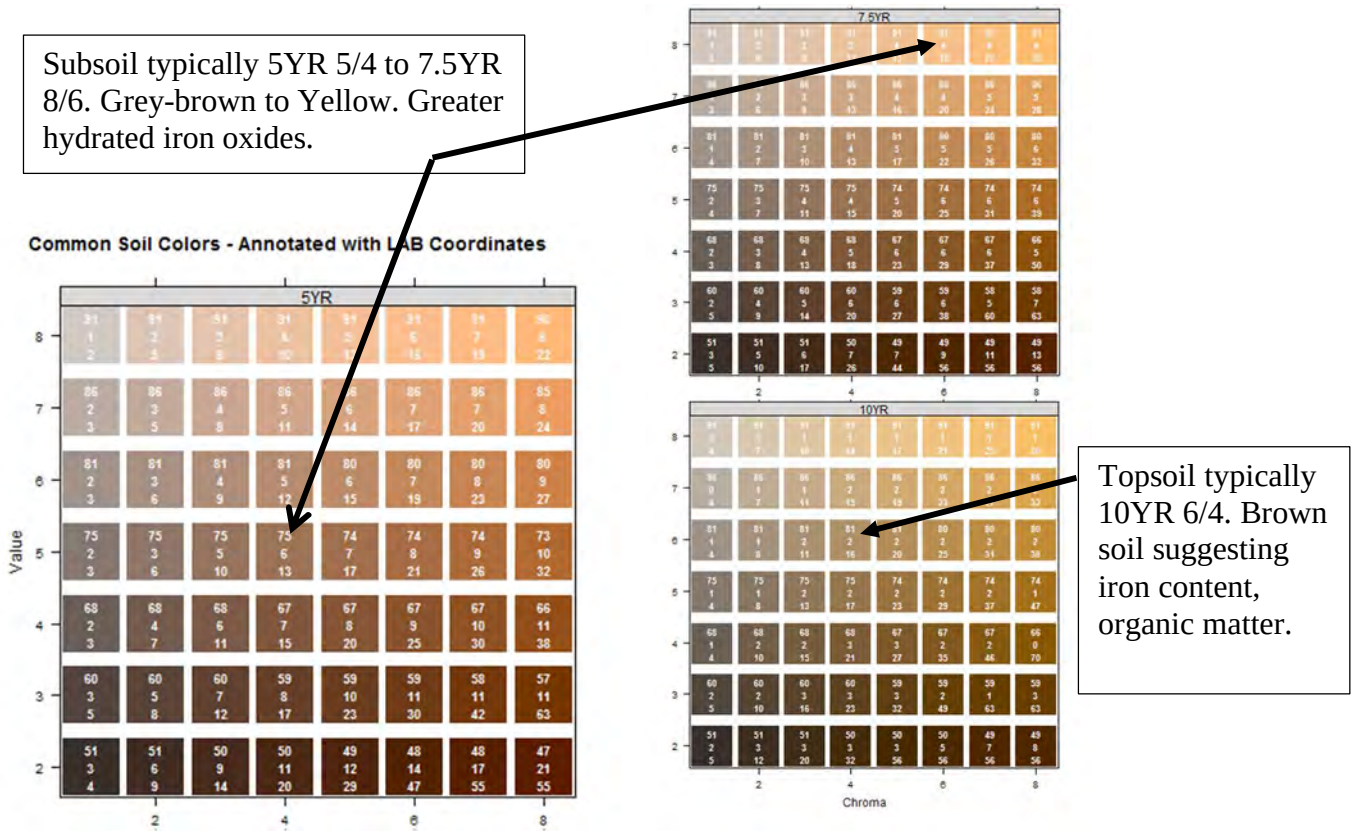


Figure 3.6 Typical colours of soils present on site.

3.3 Hydrology

A review of published literature was used to assess any possible contraints about the site, and then to make recommendations of appropriate wastewater treatment and land application areas.

In particular, the Government Sewerage Policy (GSP) requires that an onsite sewage system is not to be located within any area subject to inundation and/or flooding in a 10 percent Annual Exceedance Probability (AEP) rainfall event.

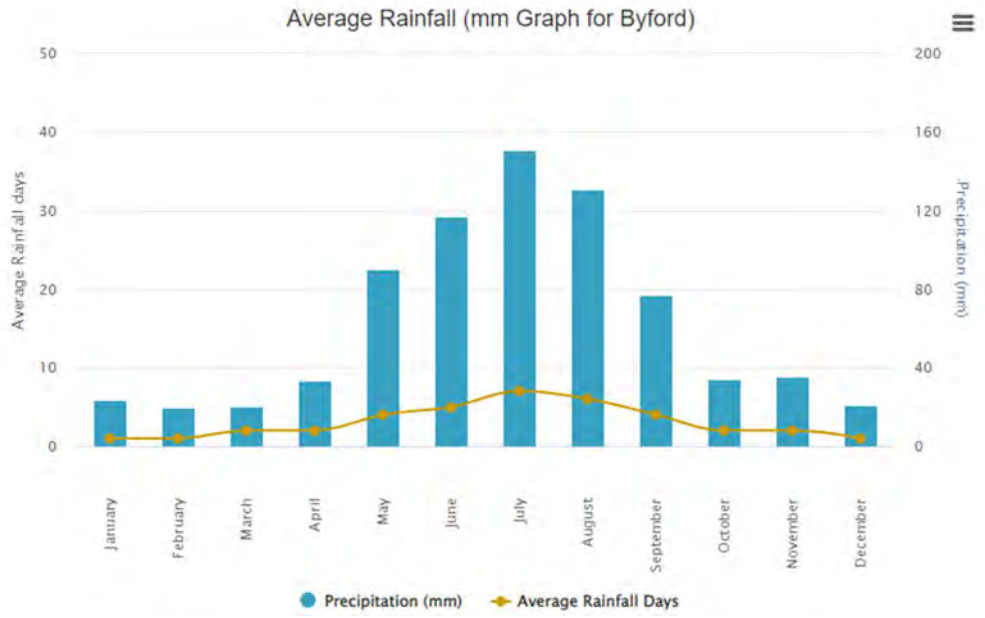


Figure 3.7 Annual rainfall for Byford.

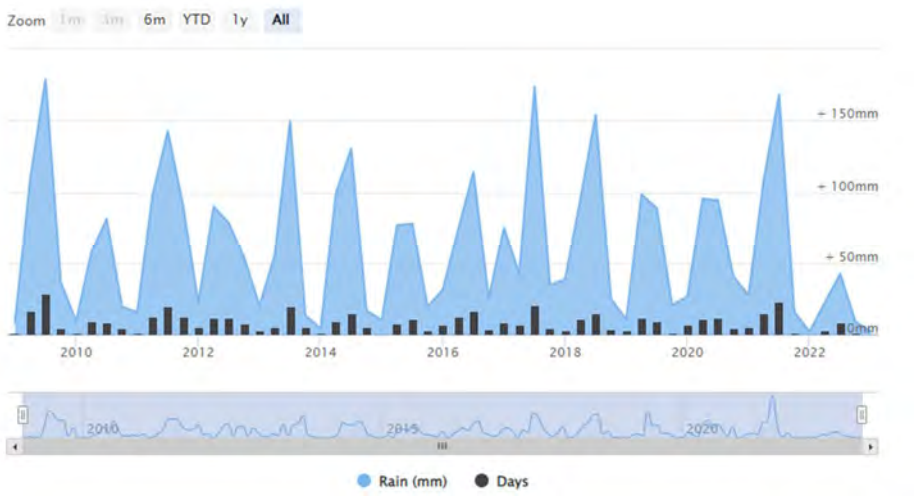


Figure 3.8 Typical rainfall amount and rainy days for Byford.

Byford Long-Term Averages

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Mean Max (°C)	31.4	31.6	29.6	25.8	22.0	19.2	18.0	18.7	20.2	22.9	26.4	29.4	24.6
Mean Min (°C)	16.9	17.2	15.7	12.6	9.3	7.6	7.1	7.3	8.3	9.8	12.7	14.9	11.6
Mean Rain (mm)	15.5	17.8	17.0	42.2	105.8	150.6	174.4	128.9	84.3	47.5	28.0	10.0	813.8
Mean Rain Days	2.5	2.3	3.9	7.3	12.3	15.5	17.9	15.7	13.6	9.1	6.1	3.3	109.2

Figure 3.9 Byford climate averages.

From Figues 3.7, 3.8 and 3.9 it is clear that most rainfall falls in winter but rainfall does fall in every month, and this pattern is consistent from year to year. Furthermore, even in winter, the number of rainy days does not exceed 18 or about two-thirds of each month. Annual rainfall 814 mm, number of rainy days = 109.

Peak flows for various Average Recurrence Interval (ARI) events - the Intensity Frequency Duration (IFD) data – for the site is shown in Figures 3.10 and 3.11. Taking the duration as 5 minutes and the probability of a severe rainfall event as 10% (AEP 10), then the graph and table suggest a Design Rainfall Depth of 9.91 mm. This is consistent with the anticipated maximum rainfall intensity for Byford and the surrounding region. Maximum rainfall about 174 mm for July = 5.5mm/day average, or 9.5 mm per rainy day.

	Annual Exceedance Probability (AEP)						
Duration	**63.2%**	**50%#**	**20%***	**10%**	**5%**	**2%**	**1%**
1 min	1.81	2.01	2.63	3.08	3.53	4.16	4.66
2 min	3.20	3.50	4.49	5.21	5.94	6.95	7.76
3 min	4.28	4.69	6.06	7.04	8.04	9.43	10.5
4 min	5.16	5.67	7.37	8.58	9.83	11.5	12.9
5 min	5.90	6.51	8.49	9.91	11.4	13.4	15.0
10 min	8.52	9.44	12.4	14.6	16.7	19.7	22.1
15 min	10.3	11.4	15.0	17.6	20.2	23.8	26.7
20 min	11.6	12.9	16.9	19.8	22.7	26.8	30.0
25 min	12.7	14.1	18.5	21.6	24.8	29.2	32.7

Rainfall depth at AEP = 10% and storm duration 5 mins.

Figure 3.10 Rainfall depth for duration for Annual Exceedance Probabilities (AEP)

Given an AEP 10% and storm duration of 5 minutes then the anticipated rainfall intensity is 109mm/hr as calculated below. Using this value and the runoff coefficient for a grassed area (Figure 3.12) then a runoff flow value can be calculated as described below. The catchment area is deemed to be about the size of the LAA so that the impact of a severe rainfall event can be determined.

Rainfall intensity = $\frac{\text{Design rainfall depth (mm)}}{\text{Duration (hrs)}}$ Duration = 5 mins = 0.0833 hr

Rainfall intensity = $\frac{9.91}{0.0833}$ = 118.96 mm/hr

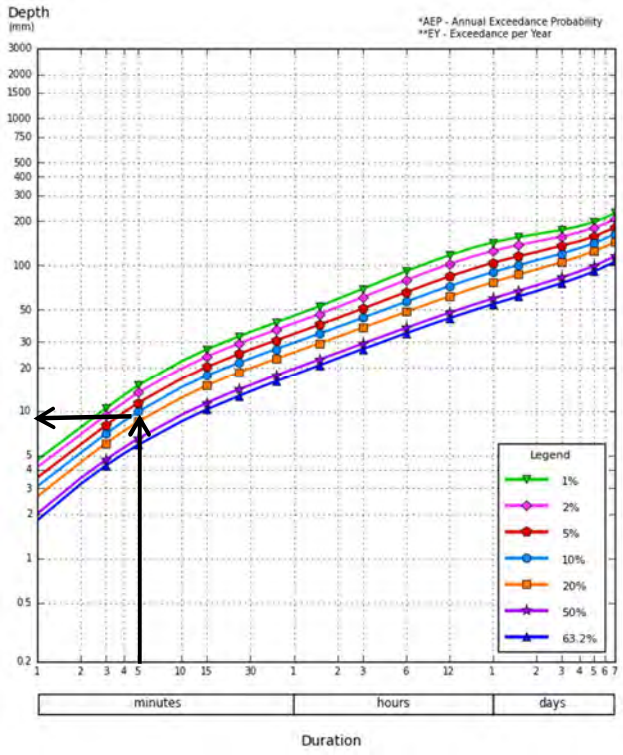


Figure 3.11 Graph of Design Rainfall Depth (mm) at various AEP levels.

COEFFICIENT OF RUNOFF = RUNOFF / RAINFALL

SOIL TEXTURE	COEFFICIENT OF RUNOFF
Concrete, Roof, or Asphalt	1.00
Clay – Bare	0.70
Clay – Light Vegetation	0.60
Clay – Dense Vegetation	0.50
Gravel – Bare	0.65
Gravel – Light Vegetation	0.50
Gravel – Dense Vegetation	0.40
Loam – Bare	0.60
Loam – Light Vegetation	0.45
Loam – Dense Vegetation	0.35
Sand – Bare	0.50
Sand – Light Vegetation	0.40
Sand – Dense Vegetation	0.30
Grass Areas	0.35

Runoff flow (L/s) = CIA/3600

Where:-

C = Coefficient of runoff, I = Rainfall Intensity (mm/hr), A = Catchment Area (m^2)

C = 0.35 (grass areas), I = 118 mm/hr and

A =250 m^2 (one zone of proposed dripline LAA)

Runoff Flow = $\frac{0.35 \times 118 \times 250}{3600}$ = 2.87 L/s

With a slope of about 3-5% then the velocity of water movement across the sandy loam grassed-covered landscape would be less than 1 m/s (assuming width of irrigation area 10 m and 10 mm depth of water).

This poses no threat to the land application area, as water will be able to drain away through the natural ground.

Figure 3.12 Runoff coefficients for soils.



Figure 3.13 Sewerage sensitive areas. Source: DPL&H

As shown in Figure 3.14, the site is within the Swan coastal plain but not located near areas of sewerage sensitivity, such as wetlands and major watercourses.

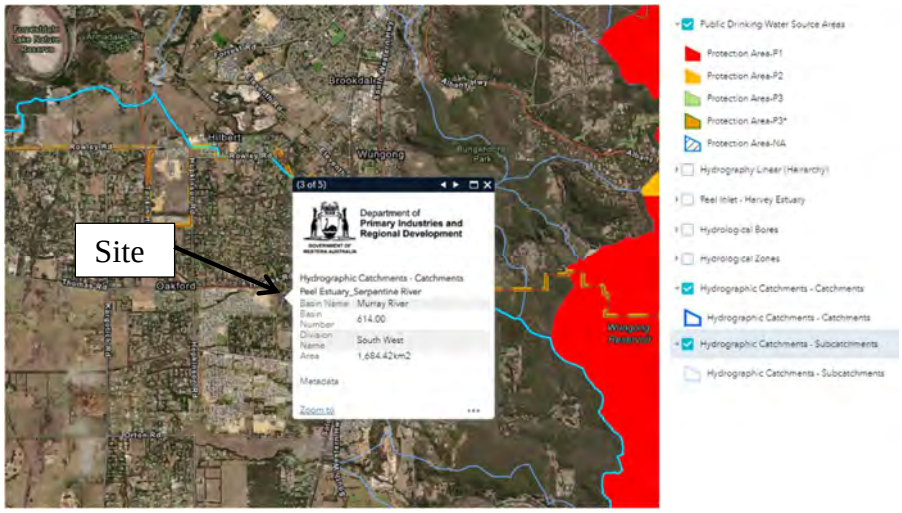


Figure 3.14 Public drinking water source areas. Souce: DPIRD

Figure 3.15 shows the Peel Estuary and Serpentine River catchment. The site is not located in a public drinking water catchment.

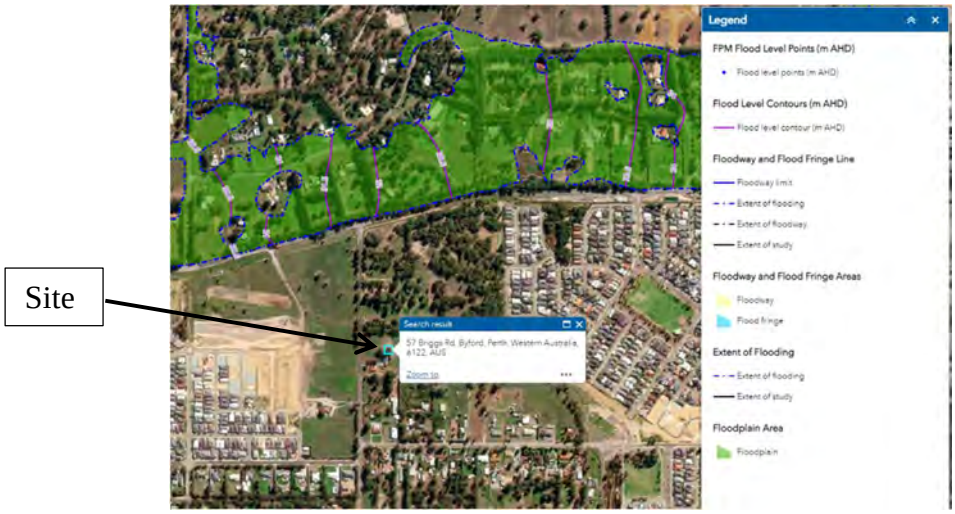


Figure 3.15 Flood hazard risk. Source: Department of Water and Environmental Regulation.

As indicated in Figure 3.16 the site is outside any major flooding risk.

There are no records for groundwater available for the site.

Table 3.1 Laboratory Test results. CSBP Bibra Lake.

		Lab No	JFS23007	JFS23008
		Name	TP 1	TP 2
		Code	01/02/23	01/02/23
		Customer	Briggs	Briggs
		Depth	0-10	0-10
Colour			YWGR	YW
Gravel	%		35-40	55-60
Texture			2.0	2.5
Ammonium Nitrogen	mg/kg		1	< 1
Nitrate Nitrogen	mg/kg		1	< 1
Phosphorus Colwell	mg/kg		3	< 2
Potassium Colwell	mg/kg		32	< 15
Sulfur	mg/kg		14.1	20.2
Organic Carbon	%		0.20	< 0.05
Conductivity	dS/m		0.019	0.017
pH Level (CaCl2)			4.7	5.5
pH Level (H2O)			5.8	6.5
DTPA Copper	mg/kg		0.70	0.21
DTPA Iron	mg/kg		28.50	7.00
DTPA Manganese	mg/kg		2.36	1.05
DTPA Zinc	mg/kg		0.11	2.15
Exc. Aluminium	meq/100g		0.278	0.053
Exc. Calcium	meq/100g		0.86	0.62
Exc. Magnesium	meq/100g		0.97	1.24
Exc. Potassium	meq/100g		0.07	0.03
Exc. Sodium	meq/100g		0.09	0.08
Boron Hot CaCl2	mg/kg		0.39	0.29
Phosphorus Retention Index			105.3	83.7
Dispersion Index			0.00	0.00

General Comments

Soil is moderately acidic, reasonably high in iron (as expected in local soils of this region). Generally, all other nutrients are low (unfertile soil). Both samples have a good phosphorus retention index. Dispersion index suggests stable soil with low dispersion.

Results for cations calcium and magnesum were used to compare to sodium to enable Sodium Absorpion Ratio (SAR) to be calculated. SAR is used to determine the sodicity of a soil and an assessment of any dispersion of clay aggregrates. No dispersion is found in soils with a SAR value less than 3. The exchangeable sodium percentage (ESP) measures the proportion of cation exchange sites occupied by sodium. Soils are considered sodic when the ESP is greater than 6%, and highly sodic when the ESP is greater than 15%.

$$SAR = \frac{[Na]}{\sqrt{\tfrac{1}{2}[Ca + Mg]}}$$

$$ESP = \frac{[Na] \times 100}{[Ca + Mg + K + Na]}$$

Table 3.2 Calculations of SAR and ESP values.

Soil/site	Calcium meq/L	Magnesium meq/L	Potassium meq/L	Sodium meq/L	SAR	ESP
1. TP1	8.6	9.7	0.7	0.9	0.29	4.52%
2. TP2	6.2	12.4	0.3	0.8	0.22	4.06%

Table 3.3: Site Assessment

Feature	Description	Level of Constraint	Mitigation Measures
Climate	Average annual rainfall Byford historical records show an average of about 814 mm. Average no. of rain days per year 109 days. Average annual pan evaporation is about 1800 mm.	Low	NN*
Vegetation	Annual grasses. Established trees along the fencelines and near the existing structures.	Low	Some trees may need to be removed for development.
Slope, Erosion and Landslip	Slope is gentle, no evidence of sheet or rill erosion, and the erosion hazard is low. No evidence of landslip and landslip potential is low. Slope = 1º	Low	NN
Landform	Typically compacted topsoil, loamy well-draining subsoil. Crumbly decomposed granite below 2 m. Medium peds and fine gravel. Gentle planar slope.	Low	Any subsurface or substrata irrigation is suitable.
Rock Outcrops	No surface rock observed. Granite and laterite gravel encountered at depth in both test pits.	Low	NN
Exposure and Aspect	South facing slope with occasional trees, mostly grassed. Fair wind and sun exposure on most of the block	Low	NN
Drainage	No visible signs of surface dampness, spring activity or hydrophilic vegetation in the proposed effluent management area or surrounds. Loamy soil with minor gravel was observed in both test pits, some mottling in subsoil below about 1 m indicating seasonal variation in drainage.	Medium	Adopt DIR or DLR as per permeability studies
Groundwater	No signs of groundwater table. Perched water table unlikely, due to good drainage and soil structure.	Low	NN
Imported Fill	No imported fill material was observed anywhere on the site.	Nil	NN
Land Available for LAA**	Considering all the constraints and buffers, the site has ample suitable land for the land application area for treated effluent.	Nil	NN
Slope of LAA	The proposed effluent management areas are, or can be, reasonably level.	Low	NN
Run-on and Runoff	Negligible stormwater run-on and minor run-off hazard. Irrigation areas can be bunded if required.	Low	NN
Buffer Distances	All relevant buffer distances in the Code are achievable from the proposed effluent management area.	Low	NN

*NN: not needed **LAA: Land Application Area

*** Laterite and granite sheet, of varying depth and thickness, is occasionally found during excavation. This may result in an alternative location within the block to install tanks and the wastewater system or using machinery to break up the rock. Both options are common practice.

4. Test pits

4.1 Test pit 1 GPS 32°12’34.382” S, 115°59’35.466” E. Altitude 38 m. Slope = 1º.

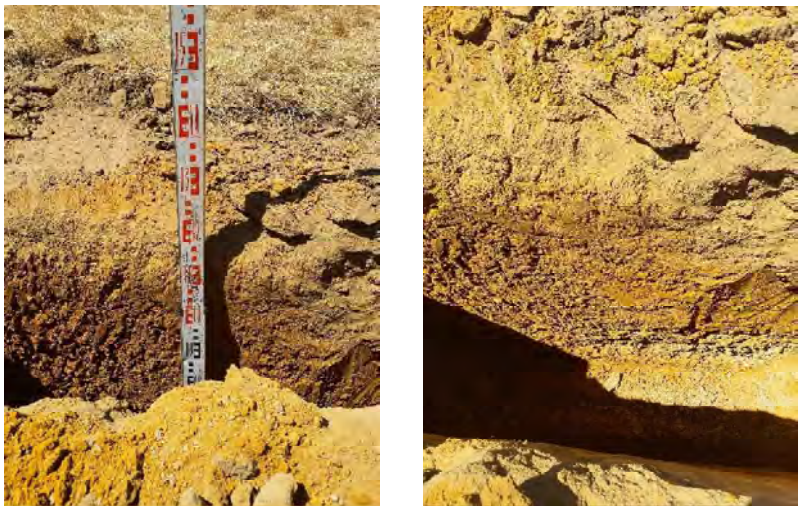


Figure 4.1 (L) Depth achieved 1300 mm. (R) Soil profile for TP1.



Figure 4.2 (L) Spoil. (R) Excavation of test pit.

Comments on TP1

Compacted grey brown silty sand topsoil was found in first 200 mm. Yellow-brown sandy loam, peds <50mm extended another 700 mm and transitioned to yellow and grey sandy loam for another 400mm. Some laterite gravel <10 mm throughout the subsoil.

Dispersion and gypsum responsiveness



Figure 4.3 Dispersion and gypsum responsiveness TP1. In each photo the RHS jar is soil in gypsum solution. LHS jar is soil in water. (L) after 15 minutes, (M) after 2 hours, (R) after 20 hours.

Comments on dispersion of soils TP1

Very minor dispersion evident. CSBP result: 0 = no dispersion. The murkiness in the water jar is clearing, but there is a still some response to gypsum as shown in jar tests, suggesting that this could be used to enable better water infiltration in the irrigation area.

Permeability studies

A sample of soil from the profile was taken and a simple ribbon test performed: the results of which are shown in Table 4.1. A constant head permeameter was employed to measure the infiltration rate into the soil, and the results are summarised in Table 4.2.

Soil category by Ribbon test

Estimated soil category by Ribbon test:

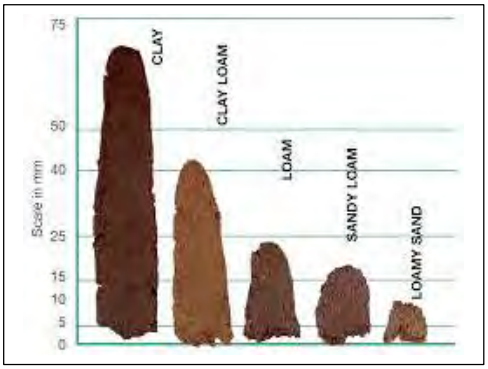


Table 4.1 Results of ribbon test. TP1

Ribbon length (mm)	20
Feel of sample	Slightly gritty
Soil category	3 – loam

Soil category by Permeability

Use of permeameter to measure water movement into the soil as per ASNZS 1547:2012.

Depth of auger hole = 50 cm Depth of water in auger hole = 40 cm

Average radius of auger hole = 4 cm. Depth to any impermeable layer (if known) > 130 cm

Soil was ☐ wet ☐ moist or ☑ dry at time of investigation.

Table 4.2 Results of permeability studies TP1.

Time (sec)	Level in tube (mm)	Drop in level (mm)
Start 0	620	
60	740	120
120	830	90
180	930	100
240	1030	100
	Average	102.5/min
K_{sat} (from AS1547)	0.77 m/day	

Ksat VALUES

Instrument Data

Reservoir internal Diameter (mm)	===>	45	4.5
Breather pipe Outer Diameter (mm)	===>	0	0
Test Hole radius (mm)	===>	40	4
Water Depth in Test Hole (mm)	===>	400	40

Test Results Water Fall Rate (mm)/min		Flow Rate cm3/min	Ksat cm/min	Ksat m/day	Test Results Water Fall Rate (mm)
102.5	10.3	163.02	0.0532	0.77	152.5
103.5	10.4	164.61	0.0538	0.77	153.5
104.5	10.5	166.20	0.0543	0.78	154.5
105.5	10.6	167.79	0.0548	0.79	155.5
106.5	10.7	169.38	0.0553	0.80	156.5
107.5	10.8	170.97	0.0558	0.80	157.5
108.5	10.9	172.56	0.0564	0.81	158.5
109.5	11	174.15	0.0569	0.82	159.5
110.5	11.1	175.74	0.0574	0.83	160.5
111.5	11.2	177.33	0.0579	0.83	161.5

Figure 4.4 Ksat determination.

Soil category from permeability readings: 3 (weakly structured loam).



Figure 4.5 (L) Ribbon test. (R) Permeability TP1.



Figure 4.6 Soil fractions for sample TP1.

Comments

Soil is gravelly loam. Soil category = 3.
CSBP result; 35-40% gravel. Texture: loam. Colour: yellow grey.

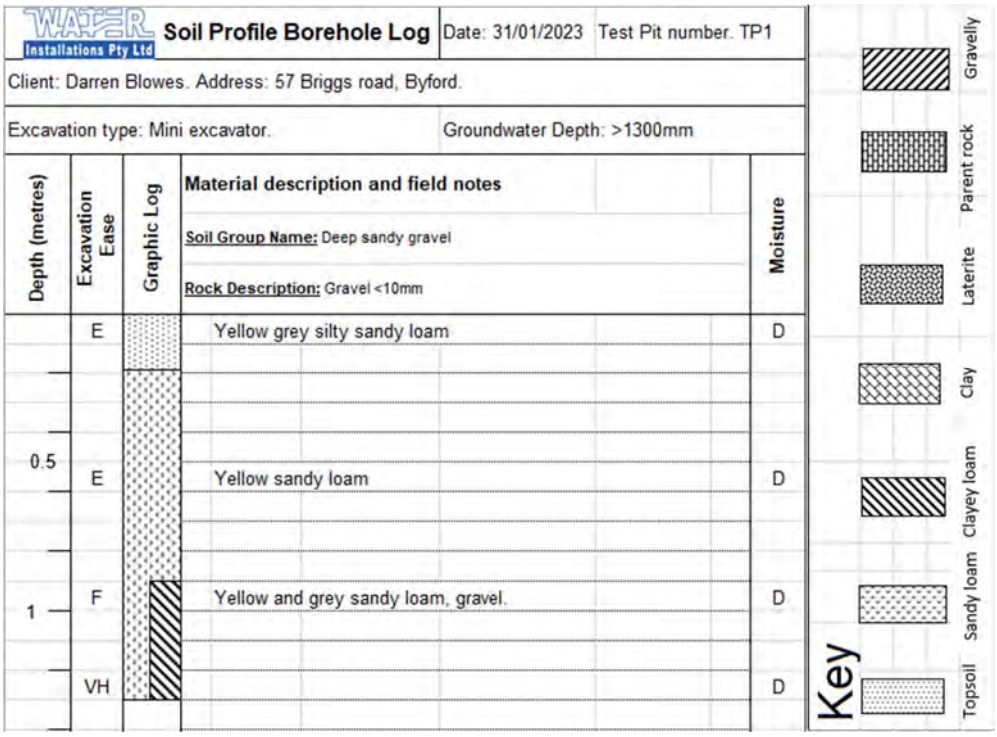


Figure 4.7 Soil profile log TP1.

Table 4.3 Soil Assessment – TP1

Note: These comments are a review of the generic soil fraction. This is both a summary and comments of the laboratory testing as shown in Table 3.1.

Feature	Assessment	Level of Constraint	Mitigation Measures
Cation Exchange Capacity (CEC)	Main cations have low concentration (except iron), and the sodium level is low compared to magnesium.	Low	Soil amelioration unnecessary
Electrical Conductivity	EC and TDS low (12.16 mg/L). [0.019 dS/m]	Low	Monitoring of EC not necessary
Emerson Aggregate Test	Minimal dispersion shown in jar tests. EA Class 2. CSBP test result = 0 stable soil.	Low	Soil amelioration unnecessary
pH	4.7 (5.8 in water) which is slightly acidic. Would expect soil conditions to affect some plant growth, but some soil amendments can occasionally be added.	Low	Addition of alkaline wastewater may restore to optimum pH level
Rock Fragments	Gravel up to 10 mm, typically below 1 m. Figure 4.6 shows some gravel in the screen.	Low	Rock breaking unlikely to be necessary.
Sodicity (ESP)	Sodium concentration is very low – 20.7 ppm. Exchangeable Sodium Percentage (ESP) 4.52%, (<6%=non sodic >15%=highly sodic)	Low	Long-term soil sodicity monitoring unnecessary.
Sodium Absorption Ratio (SAR)	Sodium concentration is lower than Magnesium and Calcium concentrations in the tested samples; SAR is low (0.29). Dispersion tests confirm low sodicity. SAR is usually only a problem for dispersion and permeability if value >5.	Low	NN*. Sodicity and dispersion issues are not expected to pose a constraint.
Phosphorus Retention Index	105.3. Very good PRI, should remove phosphates. Soils above PRI 20 are accepted to remove phosphorus from wastewater.	Low	NN
Soil Depth	Topsoil: 200 mm	Low	Shallow subsurface irrigation in topsoil possible.
	Subsoil: >200 mm. Loamy soil becoming heavier below 900 mm. Excavation stopped at 1300 mm, some small gravel below 1000 mm.	Low	Shallow subsurface irrigation possible, on-site excavation may allow for other dispersal methods.
Soil Permeability and Design Loading Rates	Measured at 0.77 m/day saturated conductivity (K_{sat}) (AS/NZS1547:2012). Category 3 (weakly structured loam); 10-15 mm/day Design Loading Rate (DLR) for beds (30 mm/d for STS) and 4mm/d for irrigation system.	Low	NN
Soil Texture and Structure	Gravelly sandy loam (Category 3), although may be heavier at depth. Permeability soil category =3. CSBP: Gravel-35-40% Texture-2.0 (loam)	Low	NN
Watertable Depth	Groundwater not encountered; pit terminated at 1300 mm. Some evidence of mottling in subsoils suggests intermittent saturation.	Low	Any dispersal method recommended

*NN: not needed

4.2 Test pit 2 GPS 32°12’33.892” S, 115°59’34.625” E. Altitude 38 m. Slope = 1º.

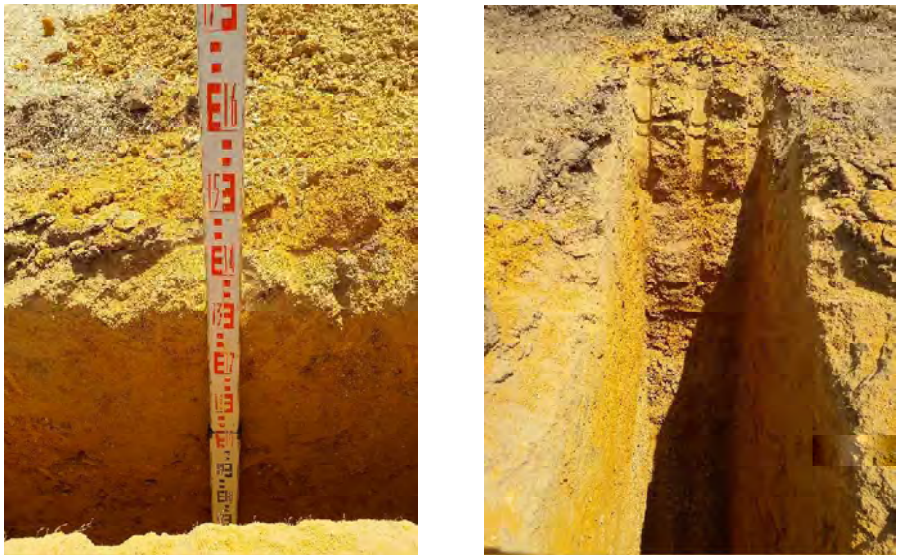


Figure 4.8 (L) Depth achieved 1450 mm. (R) Soil profile for TP2.



Figure 4.9 (L) Spoil. (R) Excavation of TP2.

Comments on TP2

Yellow grey fine sandy topsoil was found in first 250 mm. Yellow and white loam with extended another 1200 mm with gravel up to 30 mm. Excavation stopped at 1450 mm due to hard digging.

Dispersion and gypsum responsiveness



Figure 4.10 Dispersion and gypsum responsiveness TP2. In each photo the RHS jar is soil in gypsum solution. LHS jar is soil in water. (L set) after 15 minutes, (M) after 2 hours, (R set) after 20 hours.

Comments on dispersion of TP2 soil

Dispersion is minimal and water solution cleared rapidly. CSBP result: 0 = no dispersion. There was a very minor response to gypsum, and it is not likely to be required to assist in infiltration.

Permeability studies

A sample of soil from the profile was taken and a simple ribbon test performed: the results of which are shown in Table 4.4. A constant head permeameter was employed to measure the infiltration rate into the soil, and the results are summarised in Table 4.5.

Soil category by Ribbon test

Estimated soil category by Ribbon test:

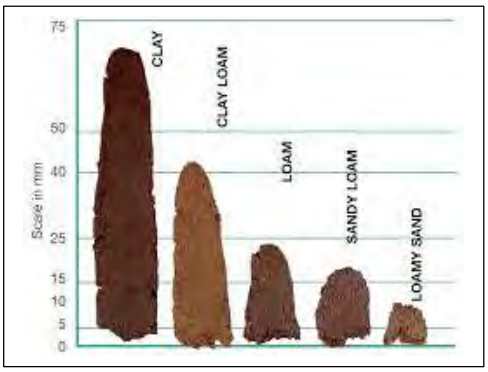


Table 4.4 Results of ribbon test. TP2

Ribbon length (mm)	25
Feel of sample	gritty
Soil category	3 – loam

Soil category by Permeability

Use of permeameter to measure water movement into the soil as per ASNZS 1547:2012.

Depth of auger hole = 50 cm Depth of water in auger hole = 45 cm

Average radius of auger hole = 4 cm. Depth to any impermeable layer (if known) > 145 cm

Soil was ☐ wet ☐ moist or ☑ dry at time of investigation.

Table 4.5 Results of permeability studies TP2.

Time (sec)	Level in tube (mm reading)	Drop in level (mm)
Start 0	620	
60	660	40
120	690	30
180	720	30
240	750	30
	Average	130/min
K_{sat} (from AS1547)	0.82m/day	

Ksat VALUES

Instrument Data

Reservoir internal Diameter (mm)	===>	45	4.5
Breather pipe Outer Diameter (mm)	===>	0	0
Test Hole radius (mm)	===>	40	4
Water Depth in Test Hole (mm)	===>	450	45

Test Results Water Fall Rate (mm)/min		Flow Rate cm3/min	Ksat cm/min	Ksat m/day	Test Results Water Fall Rate (mm)
130	13	206.76	0.0569	0.82	180
131	13.1	208.35	0.0573	0.82	181
132	13.2	209.94	0.0577	0.83	182
133	13.3	211.53	0.0582	0.84	183
134	13.4	213.12	0.0586	0.84	184
135	13.5	214.71	0.0590	0.85	185
136	13.6	216.30	0.0595	0.86	186
137	13.7	217.89	0.0599	0.86	187
138	13.8	219.48	0.0604	0.87	188
139	13.9	221.07	0.0608	0.88	189

Figure 4.11 Ksat determination.

Soil category from permeability readings: 3 (weakly structured loam).



Figure 4.12 (L) Ribbon test. (R) Permeability TP2.



Figure 4.13 Soil fractions of sample TP2.

Comment on soil fractions

Soil is loam with coarse sand particles and some gravel. Soil category = 3.

CSBP result; 55-60% gravel. Texture: clay loam. Colour: yellow.

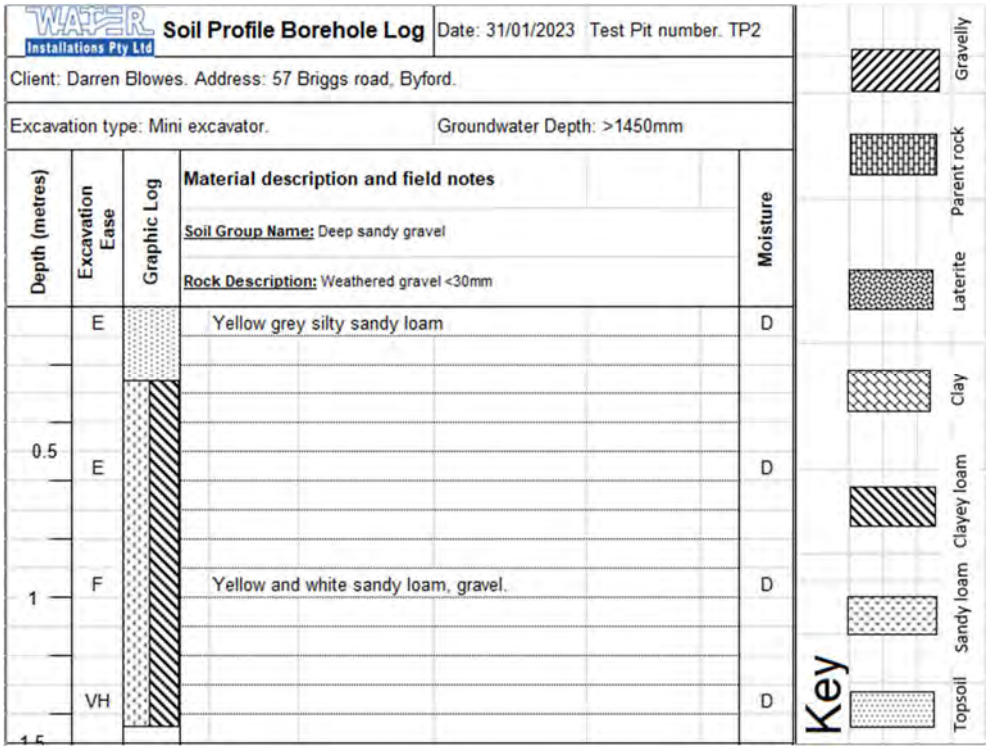


Figure 4.14 Soil profile log TP2.

Table 4.6 Soil Assessment – TP2

Note: These comments are a review of the whole soil fraction. This is both a summary and comments of the laboratory testing, as shown in Table 3.1.

Feature	Assessment	Level of Constraint	Mitigation Measures
Cation Exchange Capacity (CEC)	Main cations have low concentration (except iron), and the sodium level is low compared to calcium and magnesium.	Low	Soil amelioration unnecessary
Electrical Conductivity	EC and TDS low (10.88 mg/L). [0.017 dS/m]	Low	Monitoring of EC not necessary
Emerson Aggregate Test	Minimal dispersion shown in jar tests. EA Class 2. CSBP test result = 0 non dispersive soil.	Low	Soil amelioration unnecessary
pH	5.5 (6.5 in water) which is slightly acidic. Would expect soil conditions to affect some plant growth, but some soil amendments can occasionally be added.	Low	Addition of alkaline wastewater may restore to optimum pH level
Rock Fragments	Some weathered gravel as seen in Figure 4.13. Up to 30 mm encountered throughout test pit.	Low	No consideration required.
Sodicity (ESP)	Sodium concentration is low – 18.4 ppm. Exchangeable Sodium Percentage (ESP) 4.06%, (non-sodic <6%).	Low	Long-term soil sodicity monitoring is unnecessary.
Sodium Absorption Ratio (SAR)	Sodium concentration is lower than Magnesium and Calcium concentrations in the tested samples; SAR is low (0.22). Dispersion tests confirm low sodicity. SAR is usually only a problem for dispersion and permeability if value >5.	Low	NN*. Sodicity and dispersion issues are not expected to pose a constraint.
Phosphorus Retention Index	83.7. Good PRI, sufficient to remove phosphates. Soils above PRI 20 are accepted to remove phosphorus from wastewater.	Low	NN
Soil Depth	Topsoil: 250 mm	Low	Shallow subsurface irrigation in topsoil possible.
	Subsoil: >250 mm. Loamy soil changing into clay loam below 1400 mm. Excavation stopped at 1450 mm, hard digging but impermeable rock not encountered.	Low	Shallow subsurface irrigation possible, on-site excavation may allow for other dispersal methods.
Soil Permeability and Design Loading Rates	Measured at 0.82 m/day saturated conductivity (K_{sat}) (AS/NZS1547:2012). Category 3 (weakly structured loam); 10-15 mm/day Design Loading Rate (DLR) for beds (30 mm/d for STS) and 4 mm/d for irrigation system.	Low	NN
Soil Texture and Structure	Gravelly loam (Category 3), although expect heavier at depth. Permeability soil category = 3. CSBP: Gravel 55-60% Texture-2.5 (clay loam)	Low	NN
Watertable Depth	Groundwater not encountered, pit terminated at about 1450 mm. Some mottling below 1200 mm suggesting intermittent saturation.	Low	Any dispersal method suitable.

NN* not needed

5. Discussion

It is reasonable to suggest that soils over whole site are similar – gravelly loams over clay loam and some weathered stone at depth. The only restriction for leach drains and tank siting may be the evidence of seasonal saturation below 1 m, however, this appeared to be minor. Permeability was good in both test pits, situated 100 m or more from the creek line, and Category 3 soils are found on site (loams) with good phosphorous retention. In all areas, dripline effluent and flatbed drains would be permissible or conventional leach drains may also be possible depending on local siting of system, which is determined upon excavation.

The Shire of Serpentine-Jarrahdale's position with regards to effluent disposal requires an application for the use of an onsite effluent disposal system for all new dwellings/sheds that are not connected to sewer and for renovations and/or additions to existing dwellings.

Government Sewerage Policy

Relevant sections (e.g. 5.2.1, 5.2.2 and 5.2.3) that discuss setbacks and separation from the water table and in relation to lot size and soil types are briefly:

- An onsite sewage system is not permitted in any area subject to inundation and/or flooding in a 10% Annual Exceedance Probability (AEP) rainfall event. This is discussed in detail in Section 3.3 of this report.
- In loams and heavy soils, a vertical separation distance from the highest known groundwater table is to be a minimum of 0.6 m (for lots outside of sewage sensitive and public drinking water source areas).
- Where slope exceeds one in five (1:5 or 20%) the land application area should be engineered to prevent run-off (including levelling, bunding of LAA and interceptor/cut-off drains to divert stormwater intrusion to LAA).
- Local government may approve the location of land application areas outside of building envelopes where the proposed location meets the requirements outlined above.

All of these conditions can be met in the proposed development.

Considering the whole site, calculations of loading rates based on soil assessments are as follows:

Hydraulic/Design Loading Rate

From AS/NZS 1547:2012, Tables L1 and M1, Soil Category 3. Worst case is weakly structured loam (TP1 Ksat approx 0.77 m/d).

DLR Trenches and beds (Table L1) 10-15 mm /day for leach/septic systems and 30 mm/d for Secondary Treatment Systems. **DIR** Drip or spray irrigation (Table M1) = 4 mm.

While the GSP provides information in Schedule 2, Table 3 for the required LAA, this is a commercial development so calculations for the LAA are provided here. Furthermore, as the site is within the coastal plain then only an STS can be installed (septic systems are ignored).

Land Application Area (LAA) Calculations

The following outlines options for the wastewater irrigation systems. These are provided as examples of appropriate system sizing. Childcare centre (122 people – staff and children @ 45L/p/d), total daily volume = 5490 L.

Based on the results of the site and soil assessment, Health Regulation 49 that describes the surface area of drains and the calculations listed above, the overall land capability of the proposed onsite sewage system is as follows:

STS

Dripline irrigation 5490 ÷ 4 = 1373 m^2.

Leach drains 5490 ÷ (1.5 x 30) = 122 m. Assume DLR = 30, SA drains 1.5 m^2. Proposal 2 pairs of alternating drains of 30 m length.

Flatbeds 5490 ÷ (2.4 x 30) = 76 m. Proposal. 4 beds x 19 m long drain.

Conventional leach drains require greater depth of burial, and hard digging may be encountered in some areas of the site. Flatbeds may require a sand cover and so dripline irrigation is recommended, however the developer has choice. All of these systems can be accomodated on the available land application area.

Secondary Treatment System (STS) Recommendations

Any STS system can be used. There is no need for extra nutrient retention and PRI is high over the site. For dripline you will need to ensure disinfection as dispersal is typically substrata, and may be exposed at some times, but for flatbeds and leach drains this is not required as this is situated in subsoil.

Drains will require a diversion valve which can be changed at every service (3 months) by the service technician. Alternatively, a KRain or similar hydraulic valve, which automatically shifts water to a different bed each time the pump is employed, can be installed.

Final statement

There is enough land application area space available in the proposed development area to accommodate the proposal with new structures and effluent dispersal, dependant on final design and regulatory requirements. Permeability is good, so at most 1373 m^2 of irrigated area for a secondary treatment system is required for the calculated design load of 5490 L/day. Depending on Council regulations, there could be more or less footprint for leach drains/flatbeds and calculations using particular surface areas of drains and reduced volumes, based on occupancy and staffing, may allow a smaller area than this.

For a secondary treatment systems the, irrigation area should be as bunded as possible or required on slope, although the tank system can be downhill and slope is only about 1.5-5º. Effluent is typically pumped.

An indicative (suggestion only) area for wastewater effluent dispersal is shown in Figure 5.1. However, setbacks from boundaries and buildings need to be followed as per Council requirements.

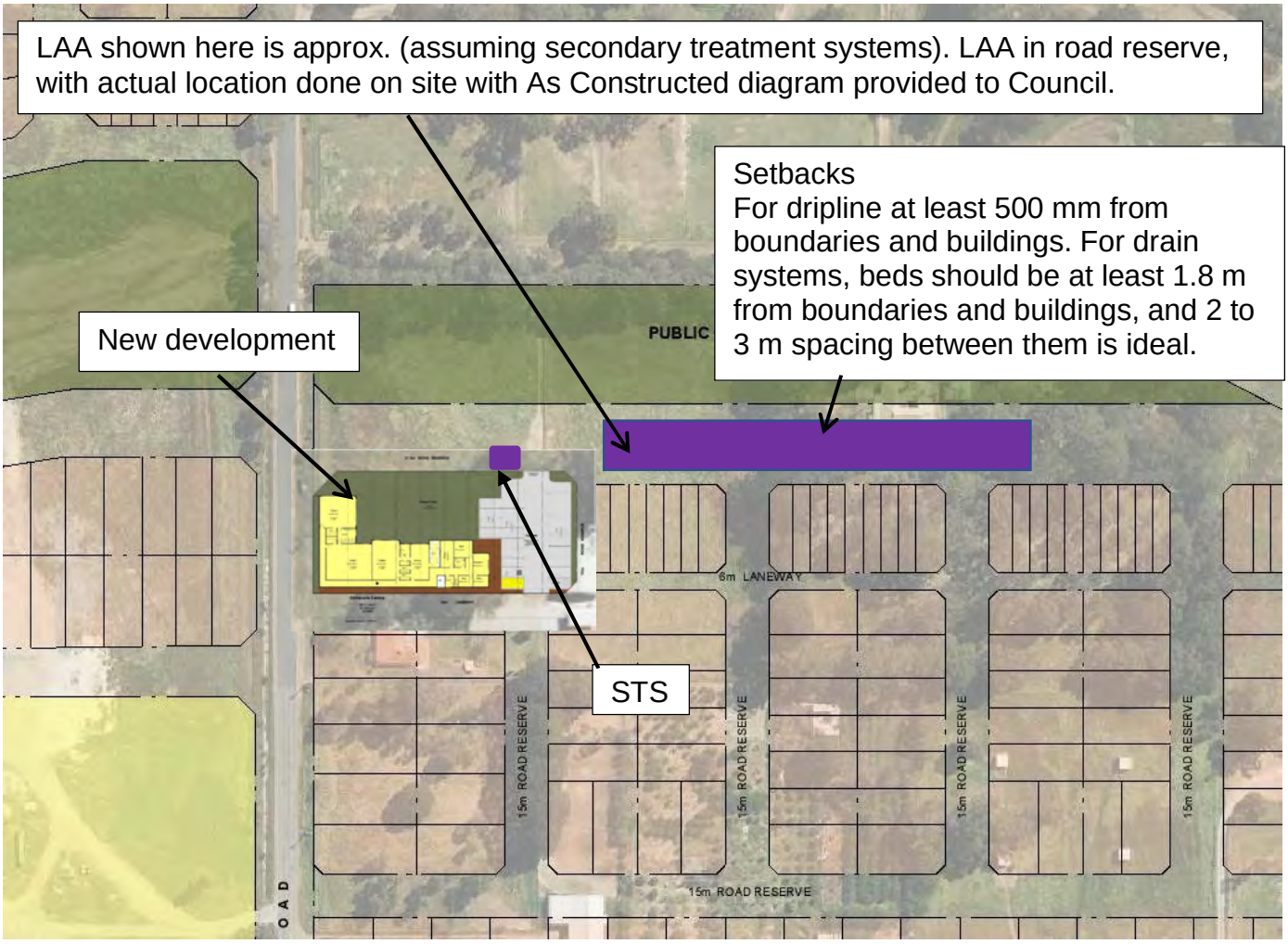


Figure 5.1 Indicative areas for wastewater treatment system.

6. References

Earth Colors - a guide for soil and earthtone colors. (1996). Globe Program. Chicago, USA.

King, P. and Wells, M. (1990). Darling Range Rural Land Capability Study. Land Resources Series No. 3. Dept Agriculture, Perth.

McDonald, R, et al (1990) Australian Soil and Land Survey Field Handbook. Inkata Press, Melbourne.

Schoknecht, N and Pathan, S (2013). Soil groups of Western Australia: a simple guide to the main soils of Western Australia (4th edition). Department of Agriculture and Food. Perth. Report 380.

7. Information on Secondary Treatment Systems (STS)

This is a generic description of considerations for a STS. Further information about the operation and maintenance of these systems can be found from manufacturers and suppliers.

1. Consequences of overloading system.

Every Secondary Treatment System (STS) or septic or wastewater treatment system gradually accumulates sludge and scum. This is because the scum that floats on the surface is mainly oils, grease and fats, and these substances are not readily broken down by the bacteria. Sludge builds up on the bottom as this is foodstuffs and materials that aren't broken down, as well as a build-up of dead bacteria. Literally millions of bacteria die every day and this accumulates as sludge. Should the system experience overloading from too many people using and contributing to the wastewater stream then there is simply not enough retention time for the microbes and processes that occur to satisfactorily break down the solids, so more sludge and scum accumulate, and

untreated sewage passes from one chamber to another, and may eventually be pumped out to irrigation.

In this scenario, eventually, your system will require a pump out – typically anywhere from two to five years.

2. Consequences of under-loading the system.

A Secondary Treatment System relies on a balance between food (household wastewater) and microbes. If not enough wastewater enters the treatment plant (due to homeowners away on holiday, few people staying in home) then microbes run out of food and die – more sludge accumulates. However, the most important effect is that, should a large volume of wastewater suddenly enter the system then there aren't enough microbes to break this down and so untreated sewage passes through the system.

3. Requirements for servicing and maintenance (by authorised Service Technician).

Service Personnel need clear access to your system so that they can carry the required testing and cleaning equipment from their vehicle to the tank/s, and so that they can easily remove hatches and undertake the range of tasks performed at each service. Please:

- Do not cover tanks and hatches with soil, cement, paving or any material.
- Do not prevent quick and easy access to any inspection openings.
- Do not allow roof or surface water to enter any part of the system.
- Allow free access to your property for the service person. Ensure that the gates are unlocked, your dogs are locked up and your children are supervised.
- Keep plants and grass monitored and maintained on land application areas (irrigation zone/s).

4. Homeowners responsibilities

Here are some suggestions that will help to ensure the optimum operation of your wastewater treatment system.

Washing Machines

Try to evenly spread your washing over a period of a week. Avoid where possible to wash everything in one day. It puts too much water and alkaline substances in the system in a short time and your treatment plant will struggle to cope. Liquid soaps breakdown easier than powder types, and they generally contain less salt and are at a lower pH – both of which will affect soils and plant growth. Try not to use too much soap of any type.

Things to Avoid

Chlorine, disinfectant, ammonia, acids, bleaches, caustics and heavy chemical products, nappy pre-soaker products, antibacterial products, fat, oil, grease, milk, toilet deodorizers and cleaners etc are some of the types of products that will cause the bacteria to die off in your STS. It will recover but may cause some odours in the short term.

Don't allow foreign objects, (eg. Nappy liners, disposable nappies, tampons, pads, condoms etc) to enter the system. They do not breakdown and can cause problems.

Avoid pouring large quantities (½ litre or more) of beer, flour, yeast, wine, milk, fruit juice or oils into the system. Products that are acidic may affect bacteria production. (Milk, beer and fruit juices, for example, often contain large amounts of sugar which is digested by some bacteria that rob the water of oxygen, and this, in turn, stops the growth and working of those bacteria that rely of oxygen to survive).

5. Types of products and materials that should not enter the STS plant.

You must try to use environmentally friendly cleaning products as any product used that kills bacteria is harmful to your system. If you wish to use some of the harsher cleaning products, such

as bleach, nappy cleaning products and any disinfectants, it is suggested that you use a bucket and discard the contents in a hole in a disused area of the garden.

Some other things that may cause problems are antibiotics or people who are on chemotherapy. Antibiotics are designed to kill bacteria in your body, and they also wipe out these good bacteria working hard in the STS. We do not suggest that you stop your medication, just expect that the treatment system may not function well for a short time.

It is fair to suggest that all products should be used in moderation.

Surface cleaners - when using surface cleaners try to wipe excess cleaner with a disposable cloth and discard contents into the bin.

Toilet cleaners - cream cleaner or washing soda (Sodium carbonate).

General cleaners – bicarb soda (Sodium hydrogen carbonate), vinegar (not too much).

Floor cleaners - use hot water and detergent.

Laundry powders and liquids - use suitable products that contain low phosphorus and low salt (used as bulking/fill agents).

Do Not Allow These to Enter Your STS (not down the drain)

- oil, paint and chemicals
- drain cleaning or clearing products
- methylated spirits, kerosene, acetone or any other solvents
- flea or tick wash
- oven cleaners
- plastics of any type
- disposable nappies, sanitary napkins



End of document.

10.1.5 - Proposed Child Minding Centre - Lot 57 Briggs Road, Byford (PA23/172)	
Responsible Officer:	Manager Statutory Planning and Compliance
Senior Officer:	Director Development Services
Disclosure of Officers Interest:	No Officer involved in the preparation of this report has an interest to declare in accordance with the provisions of the *Local Government Act 1995*.

Authority / Discretion

Quasi-Judicial	When Council determines an application/matter that directly affect a person's right and interests. The judicial character arises from the obligation to abide by the principles of natural justice. Examples of quasi-judicial authority include local planning applications, building licences, applications for other permits/licences (e.g. under Health Act, Dog Act or Local Laws) and other decisions that may be appealable to the State Administrative Tribunal.

Proponent:	Apex Planning
Owner:	DRB Development Pty Ltd
Date of Receipt:	10 March 2023
Lot Area:	2.0124ha (Planning Parcel 2,392m^2)
Town Planning Scheme No Zoning:	'Urban Development'
Metropolitan Region Scheme Zoning:	'Urban'

Report Purpose

The purpose of this report is for Council to consider endorsing the Responsible Authority Report (RAR) prepared for the development application for a 'Child Minding Centre' on Lot 57 Briggs Road, Byford. The development proposes the construction of a new Child Minding Centre for 104 children, associated outdoor play areas, landscaping, signage and car parking.

The development has an estimated construction value of $2.05 million and the applicant has opted in for the Metro Outer Joint Development Assessment Panel (MODAP), to determine the application. The MODAP will replace Council as the decision-making authority for the application in accordance with the *Planning and Development (Development Assessment Panels)* Regulations 2011. The report is presented to Council to consider the RAR that will be presented to the MODAP, consistent with established delegations.

The RAR, as contained in **attachment 1** recommends that the application be approved subject to conditions. The proposal is considered generally consistent with the objectives of the 'Urban Development' zone, Structure Plan and Policy framework The report has addressed relevant matters including residential amenity, built form, traffic movements and noise management. For the reasons outlined in the report, it is recommended that Council endorse the RAR which recommends approval of the application by the MODAP, subject to conditions.

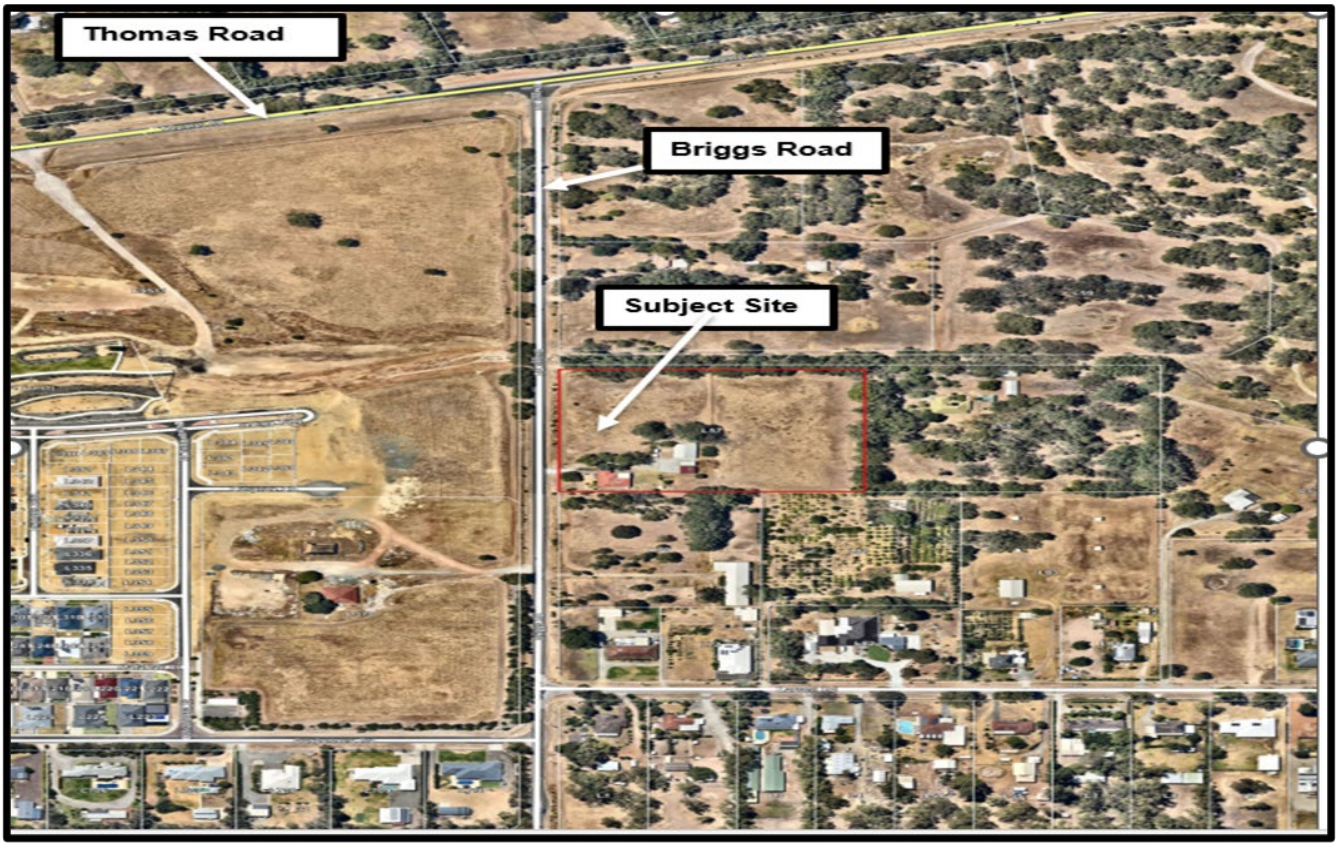
Relevant Previous Decisions of Council

There is no previous Council decision relating to this matter.

Background

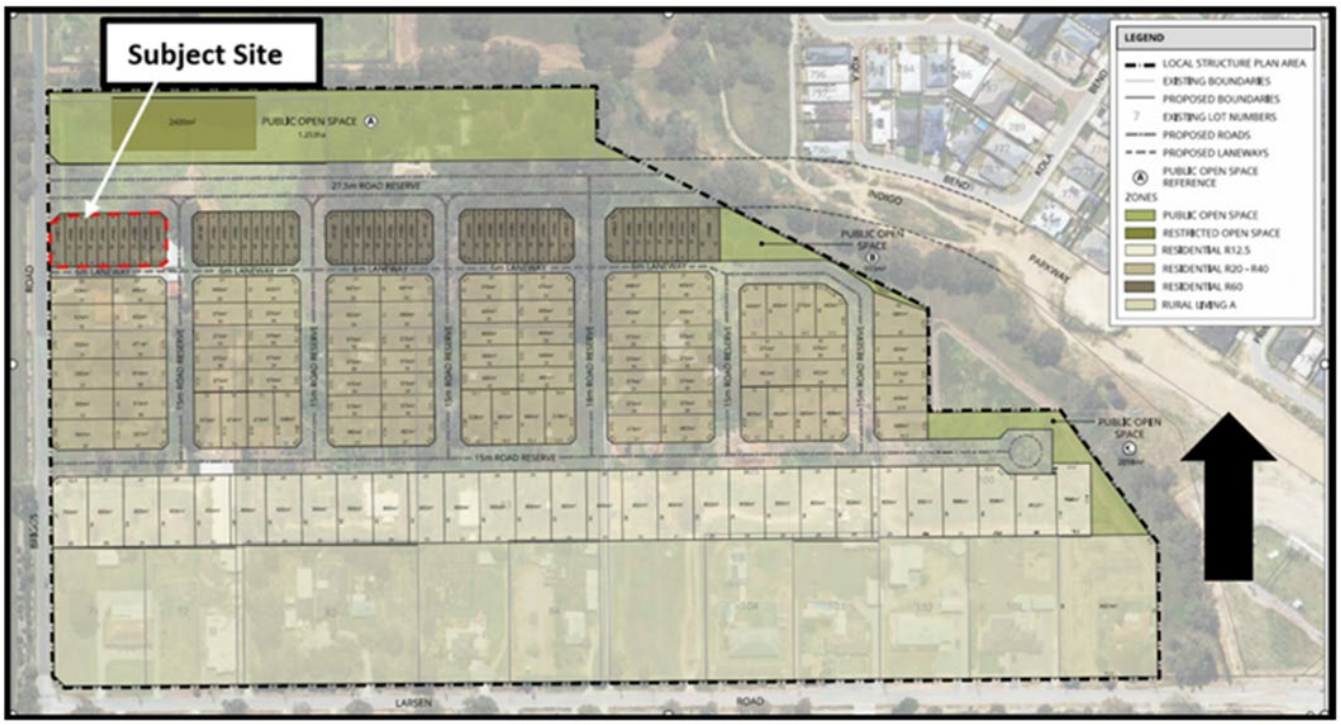
Existing Development

The subject site forms part of Lot 57 Briggs Road which has a total area of 2.0124ha. The site is currently designated as 'Residential' within the 'Area D Briggs Larsen Precinct Local Structure Plan' (LSP). It is bound by Briggs Road to the east and the road reserve for the future Indigo Parkway to the north. The Oaklands Main Drain runs parallel to the northern boundary.



The subject site is developed with a single-storey semi-rural dwelling with associated outbuildings, located to the south-western portion of the lot. The remainder of the land consists of large open grassed paddocks with mature vegetation along boundaries to the north and east. Land to the west is undergoing progressive urbanisation with ongoing subdivisions to facilitate low-medium density housing and road infrastructure being constructed.

The site is also subject to an indicative subdivision plan which was prepared as part of the LSP which provides an indicative layout of how the site would ultimately be subdivided. This can be seen following:



Subdivision Guide Plan

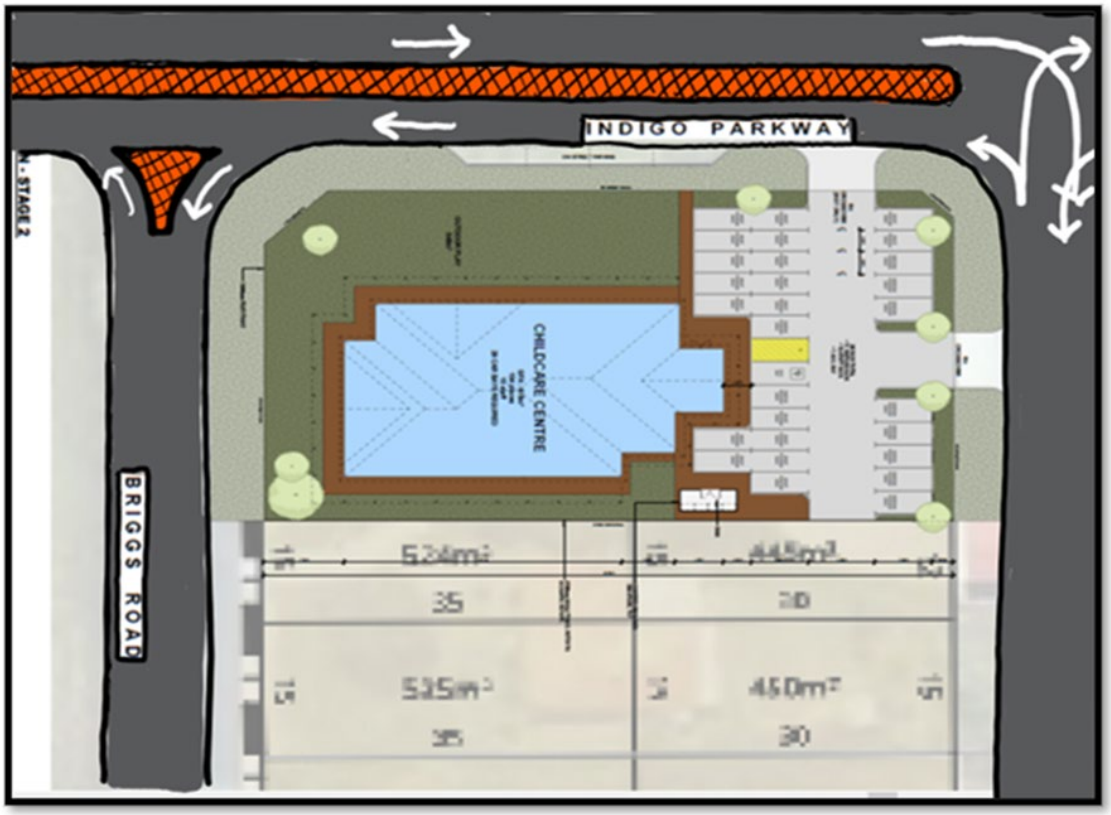
Proposed Development

The proposal seeks approval for the construction of a single storey purpose built 'Child Minding Centre'. The proposed development would occupy 2,392m^2 of the current overall land parcel of 2.024ha, which is identified as 'Residential' within the LSP for the site. The development is proposed to accommodate 104 children and 18 staff.

Vehicle access to the subject site is proposed to be in two stages. Stage 1 which is based on the current road network involves the construction of an interim driveway to Briggs Road. Stage 2 includes the ultimate development scenario as per the LSP, including the construction of Indigo Parkway (north of site) and an access road (to the east). This would result in a minor reconfiguration to access/egress arrangements of the site whereby Indigo Parkway will be an exit only (left out) and the access road to the east resulting in full movement. The two scenarios are shown following:



Stage 1



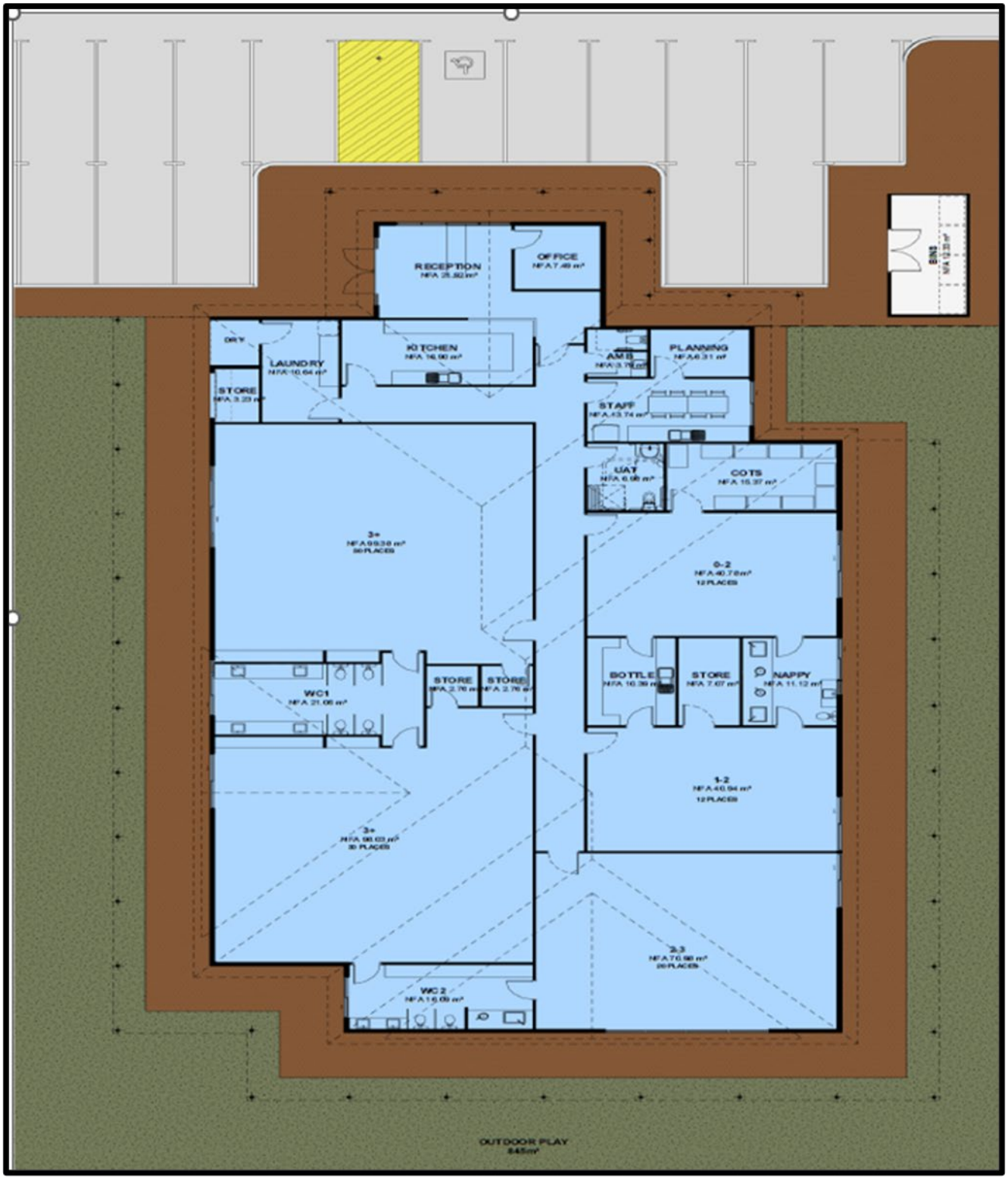
Stage 2

The Child Minding Centre is proposed to operate between the hours of 6:30am - 6:30pm Monday to Friday. The Child Minding Centre is expected to employ up to a maximum of 18 staff across the operations in varying shift times. The applicant provided information that the centre will accommodate children within the following age groups:

- 0-2 years: 24 places;
- 2-3 years: 20 places;
- 3+ years: 60 places.

Specifically, the proposal includes:

- Building comprising of a reception area, office, planning room, staff amenities, staffroom, kitchen, children's toilets with storage areas, dining area, cots room, nap change/toilets, enclosure bin store, toilets, laundry and storage areas;
- Construction of Stage 1 car park with 31 car parking bays comprising of 12 spaces (visitors) for pick-up and drop-off, 18 staff car parking spaces including one universal access bay;
- Construction of a new six metre crossover on Briggs to provide direct full movement access to the stage 1 car parking area via an internal driveway;
- Construction of outdoor play areas with a total area of 845m^2 provided to the eastern, western and southern aspects of the building;
- Construction of 1.8m garrison style fencing long Briggs Road frontage and future Indigo Parkway along the northern boundary;
- Construction of 2.1 m high acoustic solid fence/wall of minimum (8kg/m^2) surface mass along the outdoor play area's southern boundary abutting future dwellings;
- Perimeter landscaping (2m) along the northern and western car park boundary;
- A fully enclosed bin store along the western boundary.



Full details of the proposal are contained within **attachment 2**.

Community / Stakeholder Consultation

The application was advertised for a period of 28 days from 20 March 2023 to 17 April 2023 to surrounding landowners within a 500m radius of the subject site, in accordance with LPP1.4 - Consultation for Planning Matters. The application was also advertised on the Shire's website for the same period.

At the conclusion of the consultation, 12 submissions consisting of six objections, three letters of concern and three letters of support were received. The objections and concerns relate to the following summarised issues, which are discussed in the relevant headings of the report and form part of the Officer assessment:

- Safety concerns due to potential localised traffic congestion from the proposal and from the future school and child care centre to the east;
- Traffic movements on the existing road network and potential unsafe traffic and pedestrian environment;
- An upgrade to the Briggs Road and Thomas Road intersection considered to be narrow and in poor condition to support additional traffic;
- Upgrade or widening of Briggs Road to be able to cater for additional traffic movements and potential congestion concerns;
- Inappropriate development is a semi-rural locality earmarked for R60 future residential dwellings thereby reducing the dwelling yield forecast in Byford;
- Lack of footpaths and street lighting along Briggs Road to support the development;
- Increased number of Child Minding Centres within the locality;
- Premature development is not in line with proper and orderly planning due to lack of the appropriate road infrastructure and reticulated sewerage to support the premises;
- Inconsistency of the proposed access way with the ultimate road network presented within the subdivision concept plan that does not provide direct lot access to Indigo Parkway;
- Potential for the intersection of Briggs Road and Indigo Parkway becoming an uncontrolled intersection for cars and pedestrians trying to cross Briggs Road;
- Proposal is not consistent with the Department of Planning, Lands, and Heritage (DPLH) Draft position statement: child care premises with regards to co-location;

These matters are discussed in the relevant section of the report below.

Consultation with other Agencies or Consultants

Department of Health (DoH)

The application was referred to the Department of Health who provided no in principle objections to the proposed Child Care Premises subject to ensuring the following are provided during the planning approval process.

Water Supply and Wastewater Disposal

In relation to the management of wastewater, the proposal is to install an onsite wastewater treatment system and disposal area. Unfortunately, the proposed location does not meet the Government Sewerage Policy 2019 objectives, that require a 100-metre setback from winter creeks or the seasonal brook. In addition, the site and soil evaluation (SSE) was not undertaken during the wettest time of the year, but rather the warmest time of the year, being mid-January. This could significantly influence the minimum design criteria of the effluent disposal area.

DoH appreciates the lot is currently of significant size and should be able to manage wastewater onsite. Therefore, the department supports the proposal subject to ensuring the following are provided during the planning approval process.

As deep sewerage is surrounding the proposal, the DoH recommends connection to deep sewerage as the preferred option and seek costings and schedules for this option vs onsite wastewater treatment options and schedules; If it is not financially viable to connect to deep sewerage.

- *Another specific site and soil evaluation (SSE) report is required for the above proposal that should be undertaken by a qualified consultant that is conducted during the wettest seasonal time of the year only (Mid-July/August) as per AS/NZS 1547:2012 requirements.*
- *As the proposed lot is within an environmentally sensitive area, the secondary treatment system (STS) should be engineer Certified detailing the requirements as specified on the DoH website certification for installation of wastewater treatment systems.*

To ensure the stormwater catchment and diversion/disposal does not influence or interfere with the efficacy of the effluent disposal area.

- *A plan detailing the proposed building envelopes, all trafficable areas, parking bays and land application area/s with setbacks, exclusion zones and measurements shown for the proposal.*
- *Each onsite wastewater treatment system and disposal area requires a formal application to be submitted to the respective local government for assessment and that will be forward onto the DoH for approval.*

Public Health Impacts

- *The site was a former farmhouse and out-buildings and portion of cleared bushland used for grazing. The submission provides no information on the age and construction of the existing buildings, the presence or absence of hazardous materials (including asbestos, fuel tanks, agricultural chemicals etc) or the measures to prevent the release of hazardous materials during any proposed demolition prior to development, causing land contamination.*
- *The site is not registered on the Department of Water and Environmental Regulation contaminated sites database. However, the proponent is advised to obtain a Basic Summary of Records to complete their enquiries*
- *Consideration should be given to the setback of the facility from the main road. There are currently no guidelines for setbacks of child-care premises from busy roads but there is consistent evidence of adverse short and long-term health outcomes in children exposed to traffic-related air pollution (TRAP). The DoH recommends a setback of at least 50m for the main buildings and play areas. The DoH also recommends vegetation barriers between the road and the site.*

Food Act Requirements

- *All food related areas (kitchen, preparation areas, etc.) to comply with the provisions of the Food Act 2008 and related code, regulations and guidelines.*

Department of Water and Environmental Regulation (DWER)

The application was referred to the Department of Water and Environmental Regulation who provided no in principle objections to the proposed Child Care Premises, subject to the following key matters being given due consideration.

Government Sewerage Policy

Lot 57 Briggs Road is within a sewage sensitive area, as it is located with the Peel-Harvey coastal plain catchment. The requirements of the Government Sewerage Policy (GSP) (DPLH, 2019) apply including site requirements for on-site sewerage disposal.

It is acknowledged that a Site and Soil Evaluation (SSE) was included within the application and comments pertaining to the SSE. The SSE lacks detail to demonstrate Lot 57 can manage on-site wastewater treatment and disposal prior to the availability of reticulated sewerage associated with urbanisation of the surrounding area. It is recommended that the SSE is provided to the Department of Health for assessment.

Stormwater Management

DWER recommended for the car park stormwater drainage system to be designed, constructed and managed in accordance with the Stormwater Management Manual for Western Australia (DWER, 2022). Stormwater management within the site should be in accordance with Lots 57, 58 and 70 Briggs Road and Lots 53, 81, 83, 100 and 105 Larsen Road, Byford Local Water Management Strategy (360 environmental, October 2020).

The Department recommends that the first 15mm of stormwater runoff passes through a water quality treatment process, such as rain gardens or tree pits, before infiltration. Flush kerbing between the carpark and surrounding garden beds will assist in capturing stormwater.

Water Supply

Lot 57 is not currently connected to a reticulated potable water supply. An alternative water supply may be required for development on this lot if the proposed water main extension on Briggs Road/future Indigo Parkway (Byford Meadows Estate) has not been completed.

The proposed development area is located within the Serpentine Groundwater Area (Byford 3 sub area) which is proclaimed under the Rights in Water and Irrigation Act 1914. Any groundwater abstraction would be subject to licencing by the Department.

Noise Assessment Report

To be discussed in the noise assessment section of the report

Water Corporation

The application was referred to Water Corporation who provided no in principle objections to the proposal and provided the following advice:

- *The proposed development does not appear to affect Water Corporation assets. If our assets are affected, the developer may be required to fund new works, or the upgrading of existing works and protection of all works associated with the Water Corporation. Water Servicing is available to the site, Wastewater servicing is not however. The proponent has stated in their planning report that will utilise onsite effluent disposal which is suitable for a lot of this size under the State Sewerage Policy.*
- *This proposal will require approval by our Building Services section prior to the commencement of works. Infrastructure Contributions and fees may be required to be paid prior to approval being issued.*

Department of Fire and Emergency Services (DFES)

DFES provided a submission requiring further clarification within the Bushfire Management Plan in relation to the following matters:

- Classification of vegetation within Plot 2 and Plot 3 and detail specifically how the Class G Grassland classification was derived.
- Correct reflection of the BAL ratings subject to correct vegetation classification
- Inconsistency of the APZ distance throughout the BMP

In response to concerns raised the applicant provided a revised BMP addressing concerns. Offices consider that the revised BMP complies with the policy measure outlined within the *State Planning Policy 3.7: Planning in Bushfire Prone Areas*.

Main Roads Western Australia (MRWA)

The application was referred to MRWA who had no objections to the proposal.

A summary of the submissions including applicant comments can be viewed in **attachment 3.**

Statutory Environment

Legislation

- *Planning and Development Act 2005*
- Planning and Development (Local Planning Schemes) Regulations 2015
- Environmental Protection (Noise) Regulations 1997
- Planning and Development (Development Assessment Panel) Regulations 2011
- Metropolitan Region Scheme

State Government Policies

- South Metropolitan Peel Sub-Regional Framework Towards Perth and Peel 3.5 Million
- Planning Bulletin 72/2009 - Child Care Centres
- Environmental Protection Authority Environmental Assessment Guideline for Separation Distances

Local Planning Framework

- Shire of Serpentine Jarrahdale Town Planning Scheme No. 2
- Draft Shire of Serpentine Jarrahdale Local Planning Scheme No. 3
- Shire of Serpentine Jarrahdale Local Planning Strategy
- Byford Area D Briggs Larsen Precinct Local Structure Plan

Local Planning Policies

- Local Planning Policy 1.4 - Public Consultation for Planning Matters (LPP1.4)
- Local Planning Policy 1.6 - Public Art for Major Developments (LPP1.6)
- Local Planning Policy 2.4 - Water Sensitive Design (LPP2.4)
- Local Planning Policy 4.15 - Bicycle Facilities Policy (LPP 4.15)
- Local Planning Policy 4.16 - Landscape and Vegetation Policy (LPP4.16)
- Local Planning Policy 4.24 - Child Minding Centres (LPP4.24)

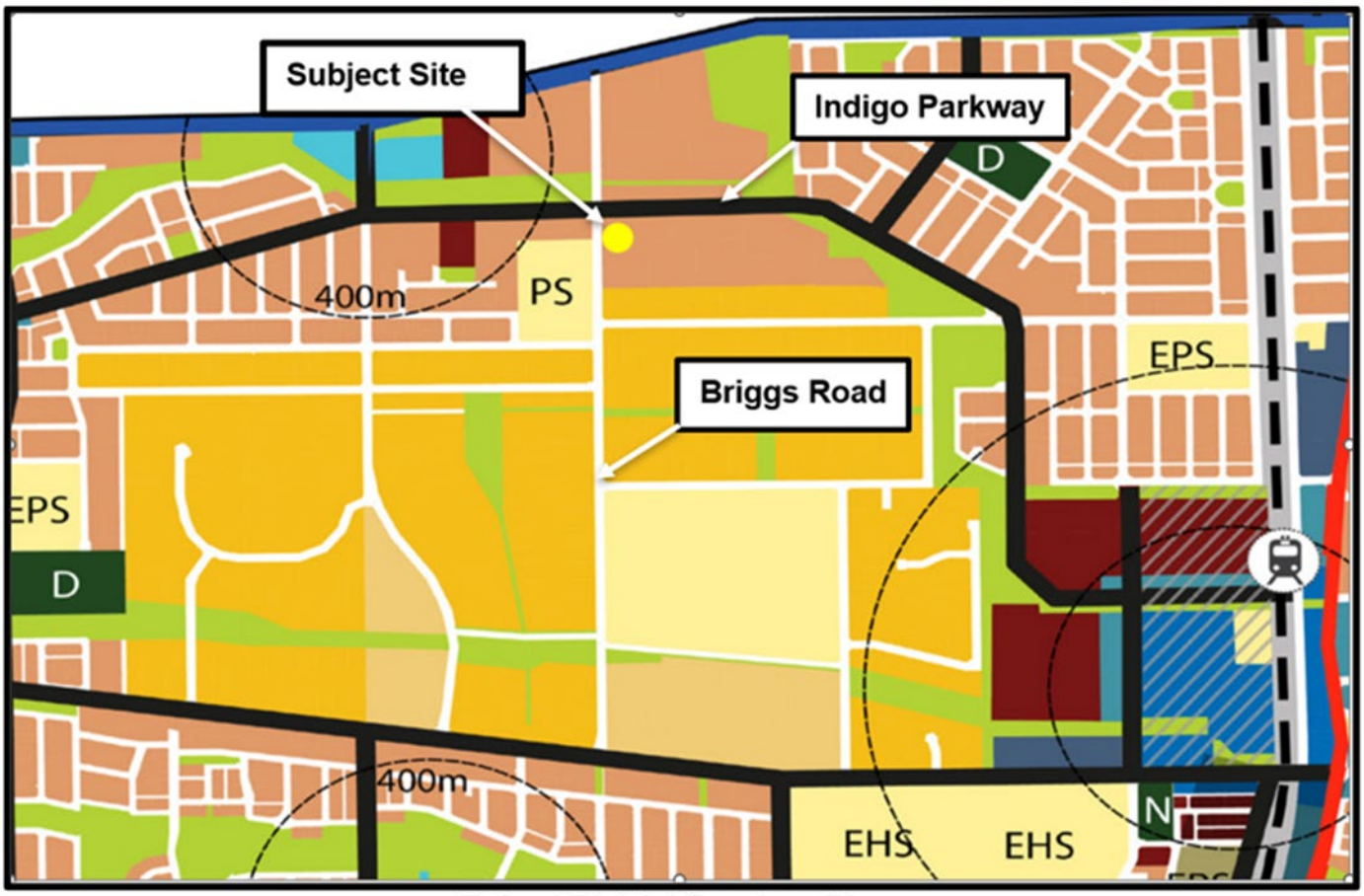
Planning Assessment

Clause 67 of the Deemed Provisions lists matters to be considered in the determination of development applications. A full assessment was carried out against the planning framework in accordance with Clause 67 of the Deemed Provisions which can be viewed within **attachment 4.**

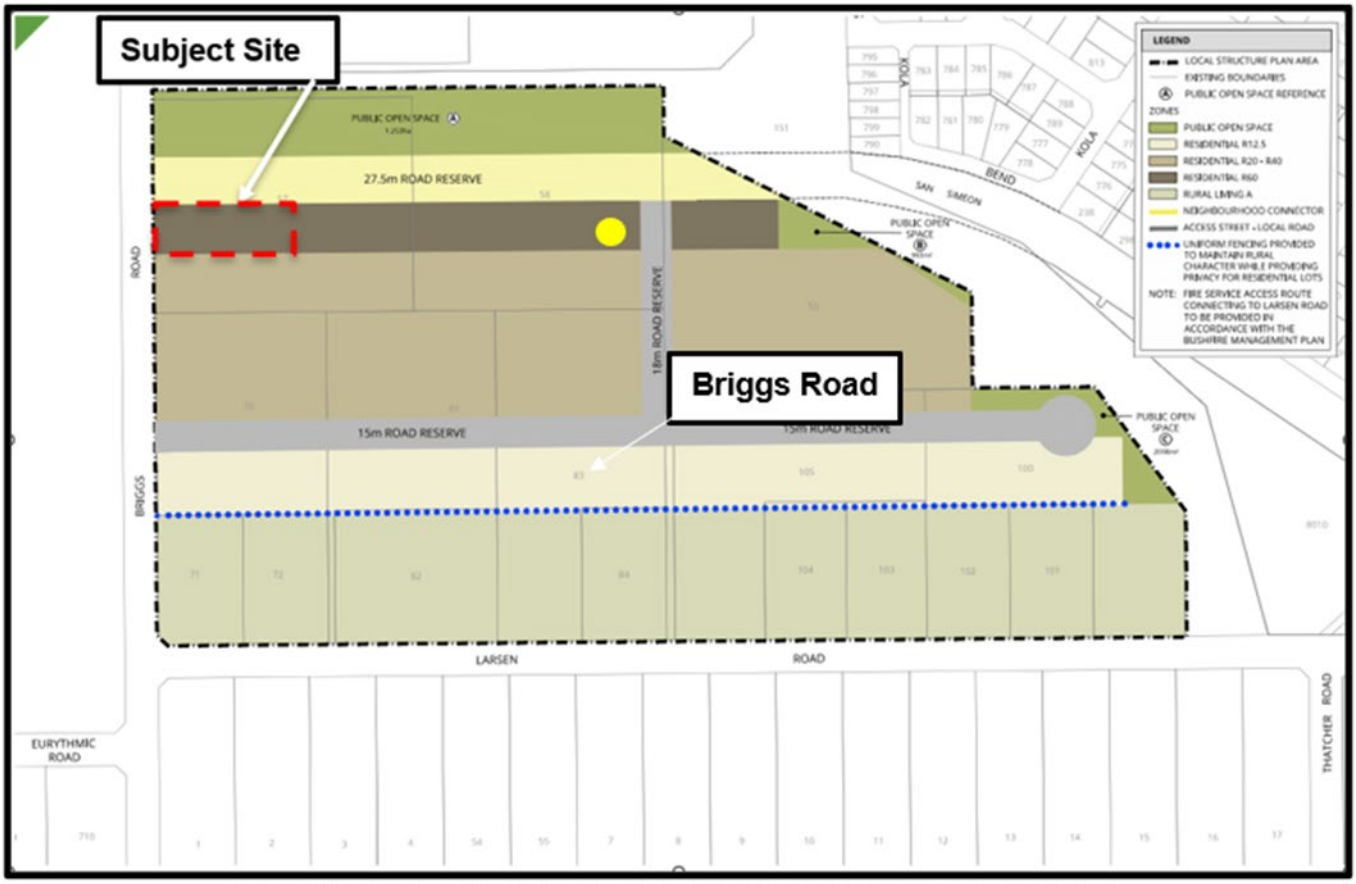
Town Planning Scheme No. 2 (TPS2)

The subject site is zoned 'Urban Development' under the Shire's TPS2. Clause 5.18 of TPS2 sets out the objective of the 'Urban Development' zone as "*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"*. This objective is facilitated through the preparation of Structure Plans, which guide land use permissibility and development.

The subject site is identified as 'Residential' within the Byford District Structure Plan 2020 (BDSP), and the LSP which provide the relevant land use permissibility and indicative land use designation applicable to the site. The proposed land use can be considered within the 'Residential' designation of the structure plans. The two structure plans, showing the land in question, are provided following:



Byford District Sructure Plan



Byford Area D Briggs Larsen Precinct Local Structure Plan

Land Use

The proposal falls within the TPS2 definition of 'Child Minding Centre', which 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".*

The Child-Minding Centre is an 'SA' land use in the 'Residential' zone consistent with the residential designations of the structure plans. SA means, *"that Council may, at its discretion, permit the use after notice of the application has been given in accordance with Clause 64 of the Deemed Provisions."* An 'SA' land use requires the Shire to consider all submissions received and the broader planning framework in applying its discretionary powers to determine an application for approval.

Officers consider that the development, by way of scale, height, orientation intensity and form of development is consistent with the current and intended future amenity of the area. In addition to the future primary school and child minding centre to the west, the locality will be characterised by land uses that attract a higher level of activity compared to other locations within the structure plan area thereby forming an edge to the neighbourhood. Placement of these higher activity generating land uses on the edge of the neighbourhood allows effective management of current and future amenity for the area.

Officers further consider that the design of the development is sympathetic to the existing and the future residential development as it seeks to incorporate design elements such as verandahs, soft tones, pitched roofs and gable features to the building which, when viewed from the street, would appear residential in form. This will provide a high degree of compatibility with adjoining and

nearby medium residential density developments located within the broader locality of the Byford Meadows and Redgum Brook estates.

During the consultation period, concerns were raised regarding the land use permissibility of a child minding premises within the 'Urban Development' zone. In that regard, Officers consider that the proposed land use is consistent with the stated purpose and intent of the 'Urban Development' zone, as guided by the relevant structure plans.

Draft Local Planning Scheme No.3 (LPS3) and Local Planning Strategy (LPS

The zoning of the subject site under draft Local Planning Scheme No.3 (LPS3) would remain zoned 'Urban Development'. The proposal will fall under the land use of 'Child Care Premises' which is defined as:

"means premises where -

(*a) an education and care service as defined in the Education and Care Services National Law (Western Australia) Section 5(1), other than a family day care service as defined in that section, is provided; or*

(b) a child care service as defined in the Child Care Services Act 2007 section 4 is provided".

The use is a discretionary use, subject to advertising within the 'Residential' zone of the structure plans as discussed above.

The land use is consistent with the stated purpose and intent of the 'Urban Development' zone, as guided by the relevant Structure Plans. The 'Residential' zone objective under LPS3 supports a range of non-residential uses, which are compatible with and complementary to residential development, encouraging high quality design, built form and streetscapes throughout residential areas which is appropriate to the climate. The design is considered to reflect such objectives.

Planning Bulletin 72/2009 - Child Care Centres

Location:

During the consultation process, concerns were raised in relation to the compatibility of the child minding centre in this locality. One of the objectives of Planning Bulletin 72/2009 - Child Care Centres is to *"locate child care centres appropriately in relation to their surrounding service area".*

The bulletin provides guidance of planning considerations in relation to the location and development of child care centres. It states that broadly, child care centre activities are located in residential areas and that the ever-increasing demand for child care centres and the strong focus on their appropriate distribution and location is closely linked to demographic change. The objectives of the policy 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;

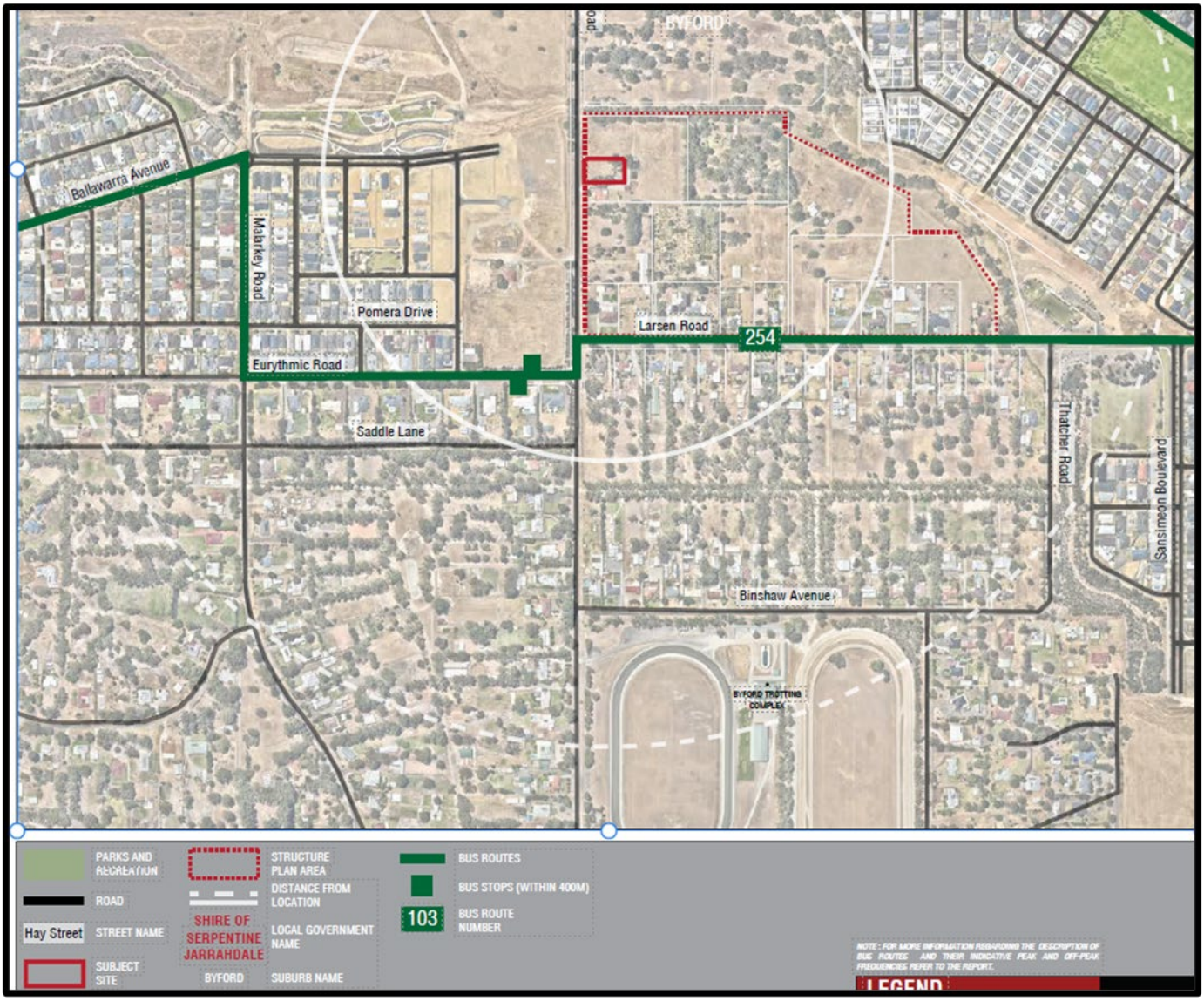
c) minimise the impact the surrounds may have on a child care centre; and

d) consider the health and safety of children attending the child care centre within the confines of the planning system.

The bulletin states that centers should be located to provide the maximum benefit to the community and should be within an easy walking distance and serviced by public transport.

The proposal is in close proximity to land identified for a future school site to the west and is located approximately 400m from the Byford Meadows Neighbourhood Centre Precinct within a

medium density housing environment. It is serviced by Transperth bus routes on Eurythmic Boulevard west of Briggs Road which is within walking distance from the site as below.



In this regard, Officers are satisfied that that the proposal is compatible with the adjoining land uses. However, as the site is located with the emerging area of Byford which is still undergoing urbanisation in accordance with the approved LSP, there are no pedestrian footpaths that enable residents from the nearby catchment areas to walk to the subject site. A footpath on Briggs Road would be extended from Eurythmic Road to Indigo Parkway consistent with this objective of the Bulletin. Officers consider that this needs to be addressed as part of a recommendation to the MODAP, in order to provide safe pedestrian access as noted to be a key consideration under the planning bulletin. A condition is therefore recommended to ensure a new footpath being extended on the eastern side verge of Briggs Road to link the development to the existing footpath on Larsen Road.

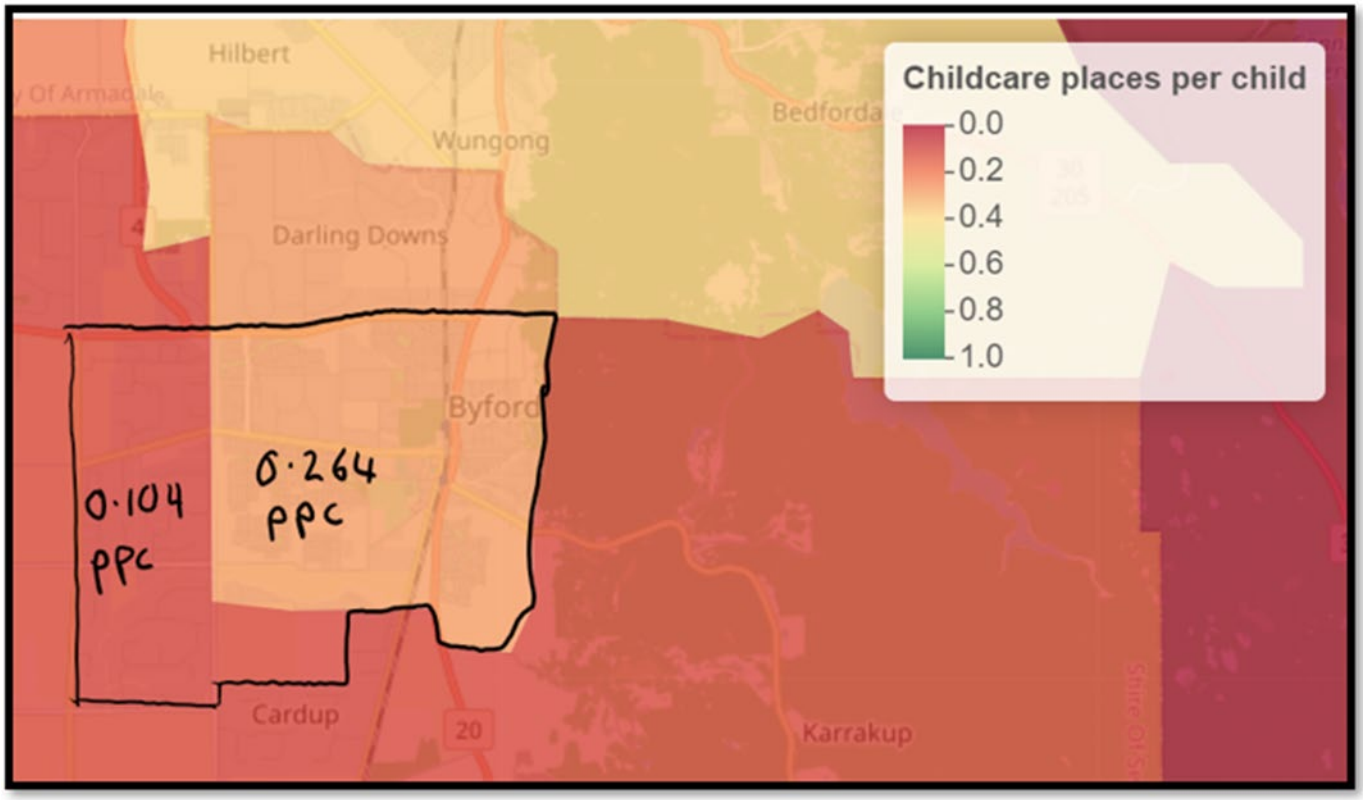
The bulletin also states that it is important in limiting the impact a 'Child Minding Centre' may have on surrounding activities and amenity of existing residential areas. In this regard, the development has been designed in such a way that the outdoor play area is located such that noise impacts to the adjoining future properties are reduced, by minimising the extent of playscape along the southern boundary and locating the youngest age groups in this area. The proposal demonstrates a configuration of development to moderate and manage as best possible noise impacts associated with the development. Noise is also later discussed in the report

During the consultation period, concerns were raised regarding the increasing number of child minding centres in the locality having an excess of four within 1km of the proposed. The planning framework does not specifically limit the number of business types to an area, recognising competitive neutrality as an important component of a market led economy.

Notwithstanding this, it is important for Council to consider the current situation pertaining to a lack of available childcare places, measured as a portion of theoretical places available per child. A recent study undertaken by Victoria University mapped the whole of Australia to determine supply gaps in the provision of childcare. It found that:

1. About 9 million Australians, 35% of the population, live in neighbourhoods classified as *childcare deserts* – populated areas where there are more than three children per childcare place.
2. The map below shows the accessibility of childcare across Australia. Areas in orange and red indicate suburbs more likely to have childcare deserts.

This reveals in respect of Byford:



Map showing childcare places per child

About two thirds of the suburb has only 0.26 childcare places available per child, with the remaining one third about 0.1 places per child. This is a significant issue, given the Shire is the fastest growing local government in Western Australia, and Byford the third fastest growing suburb in total numbers recently reported. Byford experienced the fourth largest number of new born children in WA in 2022 (394), as also recently reported in the regional growth statistics of the ABS. Lack of access to childcare correlates with primary carers having a lack of employment opportunities (particularly mothers). This has an adverse economic impact on both household and local income generation potential.

Overall, the proposal is considered consistent with Planning Bulletin 72/2009.

<u>Car Parking</u>

Clause 67(s) of the Deemed Provisions requires consideration be given to the adequacy of provision for parking of vehicles. As such, a car parking assessment has been undertaken against the requirements from TPS2 and draft LPS3.

Table V of TPS2 sets out the parking requirements for different land uses. The minimum number of car parking bays for a 'Child Minding Centre' is one space per five children accommodated. Accordingly, as the proposal seeks to accommodate up to 104 children, a minimum of 21 parking bays would need to be provided. The plans provided indicate that the proposal is compliant with the minimum TPS2 parking requirements, as it incorporates a total of 31 on-site parking bays including one disabled access bay for Stage 1 and a total of 29 on-site parking bays including one disabled access bay for Stage 2. Two bays will be removed for Stage 2 to allow for addition of a crossover for the future access road.

In terms of draft LPS3, the table below summarises the parking requirements:

Land Use	Parking Requirement	No of Children/Staff	Parking Required	Proposed Bays
Child Minding Centre	1:10 children, plus 1:1 employee	104 18	10.4 (11) bays 18 bays	13 18
Total			31	31

The proposal complies with the parking requirements under LPS3 for both the Stage 1 and Stage 2 scenarios. Officers have also considered that public transport is conveniently located nearby the subject land, leading to this mode of transport being available for use by families and staff alike. The bus stops would be accessible via a footpath along Briggs Road, which forms a recommended condition of approval.

Development Requirements

Clause 7.10 and table 2 of TPS2 sets out the development standards and site requirements for development. Consideration has been given to the requirements as they apply to the 'Residential' zone, which the land is designated as under the LSP.

Table 11 TPS2 set out site requirements for selected uses in the 'Residential' Zone

Child Minding Centre	Required	Provided	Complies
Setbacks			
Front (Briggs Road)	7.5m	7.5m to building 4.5 to verandah	Yes
Side (Future Indigo Parkway)	3.0m	9.8m to verandah 12.75m to building	Yes
Rear (Future access road)	7.5m	20m	Yes
Plot Ratio (ratio of the gross total of the areas of all internal floors of a building to the area of site)	0.5	0.26	Yes

Child Minding Centre	Required	Provided	Complies
Site Coverage (how much of site is covered by roofed area)	0.3	0.38	No

The development slightly exceeds the prescribed site coverage requirements of TPS2. Officers have considered that the slight exceedance on the site coverage would not adversely impact on the available open space or appear as if the site is overdeveloped. The development features three outdoor playscapes fronting Briggs Road, future Indigo Parkway and future access (east) street frontages that will ameliorate the bulkiness of the building. The minor variation is not considered to present the development as bulky or overbearing when viewed from the street frontage due to the design of the building particularly the open verandahs which reduces the building bulk. The proposed permeable fencing along Briggs Road and Indigo Parkway boundaries will maintain a sense of openness between the street and the development, removing the presence of bulk.

Form of Development

Part VII of TPS2 provides general development standards. Clause 7.1 of TPS2, relating to the general appearance of buildings and preservation of amenity, requires consideration of architectural style, colour, use of materials and the general appearance of buildings to ensure the exterior design is not out of harmony with existing buildings or likely to impact the amenity of the locality.

Below are the set of elevations, as viewed from the north (Indigo Parkway) east (Briggs Road) west future access road and from the south abutting future residential properties.



In terms of the visual impacts of the development, the proposed building which covers an area of 615m^2 incorporates design elements intended to reflect residential development within the immediate locality, noting the site is designated as under the LSP. The design elements include the use of timber looking decking boards, coloured feature walls, composite cladding, linear texted sheets, brickwork features and Colourbond roof sheets.

The contemporary style building is architecturally designed in response to its corner location. The verandahs, soft colour tones, and gable features will add visual interest to street frontages. The built form and playscapes are oriented toward key street frontages. The scale, height, orientation and appearance of the development is sensitive to the existing and future characteristics of the locality.

The site is designated as R60 under the LSP. During the consultation period concerns were raised with regard development to the compatibility of the proposal within a semi-rural locality which earmarked for R60 future residential dwellings and its potential to reduce the dwelling yield forecast in Byford. Although the development is not residential in nature and is not required to comply with the density designation, it has been designed to be sympathetic to the R60 density requirements, especially in terms of setbacks and open space to further ensure the development is sympathetic to the existing and future residential development within the locality. The proposal has been designed to address all street frontages to ensure surveillance of the street and to ensure an enhanced streetscape.

Local Planning Policy 4.24 - Child Minding Centres (LPP 4.24)

LPP4.24 seeks to provide guidance for child minding centres in relation to matters such as location, siting, design, traffic, and amenity. The objectives of the policy are as follows:

- *To provide guidance for the location of child minding centres to best take advantage of the surrounding natural environment and provide a compatible setting with the locality.*
- *To ensure that amenity impacts, including noise and traffic, are managed appropriately.*
- *To promote a design of child minding centres which reflect the rural and natural character of the Shire.*
- *To provide guidance for the consideration of convenient access and layout.*

LPP4.24 sets out particular criteria for child minding centres. Development that complies with the 'Acceptable' criteria will generally be supported. Proposals falling within 'Performance Based' are required to demonstrate acceptability in relation to the specific criteria. The application has been assessed against the policy criteria below and generally complies.

Acceptable Development	Performance Based	Officer Comment
Location		
Child minding centres located within easy walking distance of activity centre or recreational nodes. Located within a walkable catchment for the local neighbourhood. Larger child minding centres being encouraged to locate near or within activity centres.	The chosen location is appropriate to the proposed scale of the child minding centre, and such location benefits from integration with the surrounding natural and built environment.	Acceptable - Proposal located within 400m of a Neighbourhood Centre. It is located within a walkable distance from existing and future residential development.
The location is close to or adjoins public open space.	Located within a walkable distance to a public open space/recreational area with good quality pathways.	Acceptable - Proposal abuts the Public Open Space to the north of Indigo Parkway as identified on the LSP.
Child minding centres are adequately separated from any incompatible nearby uses, with this supported by a suitably qualified risk assessment forming part of an application. Such risk assessment is to consider elements such as dangerous goods, hazardous materials and public health considerations. Potentially incompatible uses (taking into account design and layout) may include, for example, outlets selling petroleum, fast-food, and alcohol or tobacco products.	Where child mining centres are located within 200m of any incompatible use, such proposal demonstrates that the potential for adverse health impacts is removed. Such demonstration to be in the form of a suitably qualified consultant study.	Acceptable - No incompatible land uses within 200m of the subject site.

Acceptable Development	Performance Based	Officer Comment
Parking		
Parking meets the requirements of the Local Planning Scheme, and demonstrates how this meets the operational aspects of the development. Internal driveways having two-way movement. Landscaped parking areas in accordance with the Local Planning Scheme. Parking areas located so as to provide a separation between surrounding dwellings and outdoor play spaces.	Suitably demonstrates that there is sufficient parking onsite in the form of a traffic and parking assessment. Design and layout demonstrates safe movement of vehicles and pedestrians internally. Parking areas incorporate layers of landscaping and Water Sensitive Urban Design.	Acceptable - Proposal is compliant with TPS2 and draft LPS3 car parking requirements. Refer to parking section of the report.
Traffic		
Traffic generation poses an increase of no more than 10% of the current recorded daily volumes on the roads which the development adjoins. This is confirmed by a traffic impact statement. Development facilitates full movement access to and egress from the site.	Demonstrates that traffic impacts can be managed through the submission of a Traffic Management Plan. This demonstrates how traffic will be managed to not represent an adverse safety or amenity impact on the adjoining road environment. Demonstrate that access and egress to the site will not result in unsafe manoeuvring due to the lack of full movement access.	Acceptable - refer to the traffic section of the report.
Infrastructure Requirements		
Designated pedestrian footpaths from the street to the centre and the car park to the centre.	Demonstrate that pedestrians can safely navigate to and around the site, with dedicated pathways.	Acceptable - A condition will be imposed to ensure footpath will be constructed to link the with the existing network.
Car parking visible from the street to discourage verge parking.	Signage or other means to discourage verge or unsafe parking.	Acceptable - refer to the car parking section of the report.
Amenity		
Outdoor play areas located in a safe place within the site, providing adequate shade, and separated	Outdoor play areas are arranged so as to demonstrate such will not adversely impact	Acceptable - The outdoor play areas are located such that noise

Acceptable Development	Performance Based	Officer Comment
from noise sensitive premises. Waste service areas appropriately screened from public areas. Setbacks to side and rear boundaries and the orientation of openings to indoor play areas located to minimise noise impacts. Acoustic impact assessment submitted demonstrates how noise will be managed, particularly from: - Indoor and outdoor play areas; - Car parking areas and the impulsive noise that comes from car access (especially staff arriving before opening and departing after closure), opening and closing of car doors, arrangement of car parking bays (staff versus visitor).	sensitive receptors. This is confirmed by an acoustic impact assessment and subsequent noise management plan. Noise levels are demonstrated to be consistent with the level of amenity currently afforded to an area.	impacts to the adjoining future properties is reduced by minimising the extent of playscape along the southern boundary and locating the youngest age groups in this area.
Hours of operation 7:00am to 7:00pm Monday to Friday.	Demonstrate that operation hours outside of these times would not impact amenity of the area through an acoustic impact assessment and subsequent noise management plan.	Performance - the proposed hours of 6:30.am - 6:30am operation comply. While staff and children arriving prior to 7:00am, the use of the outdoor play areas will not occur until after 7:00am to comply with the acoustic report.
Child minding centres are not subject to unacceptable noise that could impact the health and wellbeing of children.	An acoustic impact assessment and subsequent noise management plan demonstrate that noise external to the site would not adversely impact on the wellbeing of children.	Acceptable - refer to the amenity section of the report.
Sites in residential areas greater than 1,000m^2 in areas. A maximum site coverage of 60%, in order to mimic typical residential form and to provide future ability to recede back to a residential development should that occur.	Demonstrate that sites in residential areas will be able to accommodate all activities (including parking and play areas) required on the site.	Acceptable - the site is greater than 1,000m^2
Landscaping		
On site landscaping and landscape	A reduction in the on-site	Acceptable - Proposed

Acceptable Development	Performance Based	Officer Comment
of all adjoining verge areas, in accordance with the Scheme, to provide an attractive setting and contribute to the streetscape.	landscaping requirement is associated with additional verge landscaping.	landscaping is consistent with the policy. Refer to the built form section of the report.
Design		
Development has the appearance of natural materials i.e. recycled clay face brick, vertical and horizontal patterns of timber cladding, rammed earth construction, earth block features, natural stone elements for columns, sheltering gable roof. Measures should be taken to ensure that play areas are large enough and of such dimensions to be useful as play areas and positive outdoor space. Side setback and leftover building areas are not included for such purpose.	Demonstrate that the development includes natural features to elevate the rural and natural character of the Shire. Demonstrate that the proposal is in keeping with the surrounding built and natural environment. Development in residential areas mimics residential urban patterns (front yard, central placed building, driveway to one size and rear backyard).	Acceptable - refer to Built Form section of report.

Amenity

Clause 67 of the Deemed Provisions, namely clause (n), requires the Local Government to consider the amenity impacts of a development. Noise generated from the proposal has the potential to impact upon the amenity of the area, given the proximity of the proposal to future neighbouring residential dwellings surrounding the subject site (sensitive receptors).

To address noise, the applicant submitted an Environmental Noise Assessment (ENA) in accordance with the *Environmental Protection (Noise) Regulations 1997* (the Regulations). This can be viewed as **attachment 5.** The report assesses noise emissions from indoor and outdoor child play areas, car doors closing in the car park, and mechanical plants (air conditioning units and exhaust extraction fans), against the prescribed standards the Regulations.

The Regulations set out the maximum allowable noise level that may be received at nearby sensitive receptors. In this case, computer modelling using the noise modelling program SoundPlan 8.2 was used to predict noise emissions from the development at all noise receivers (sensitive receptors identified as shown below and demonstrated within the ENA.

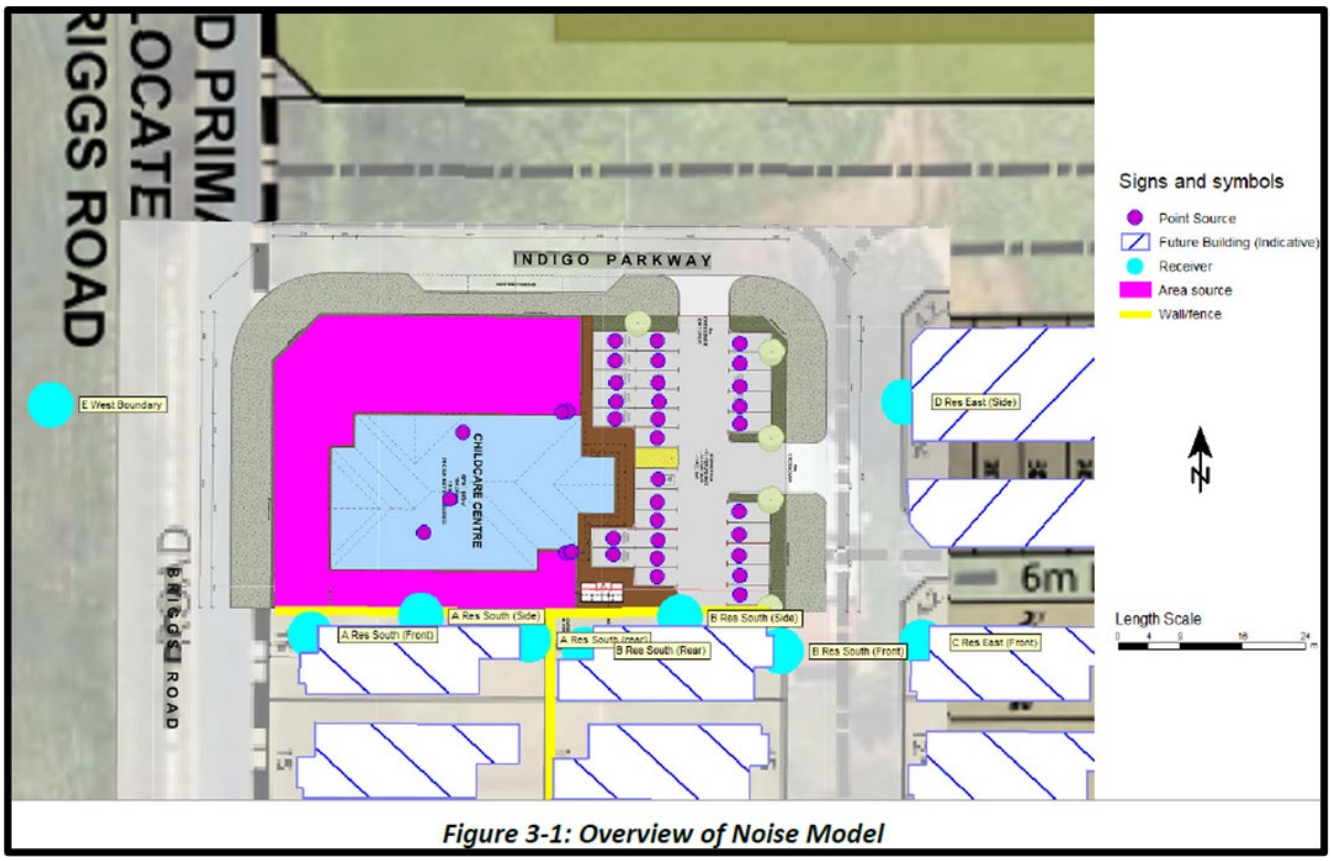
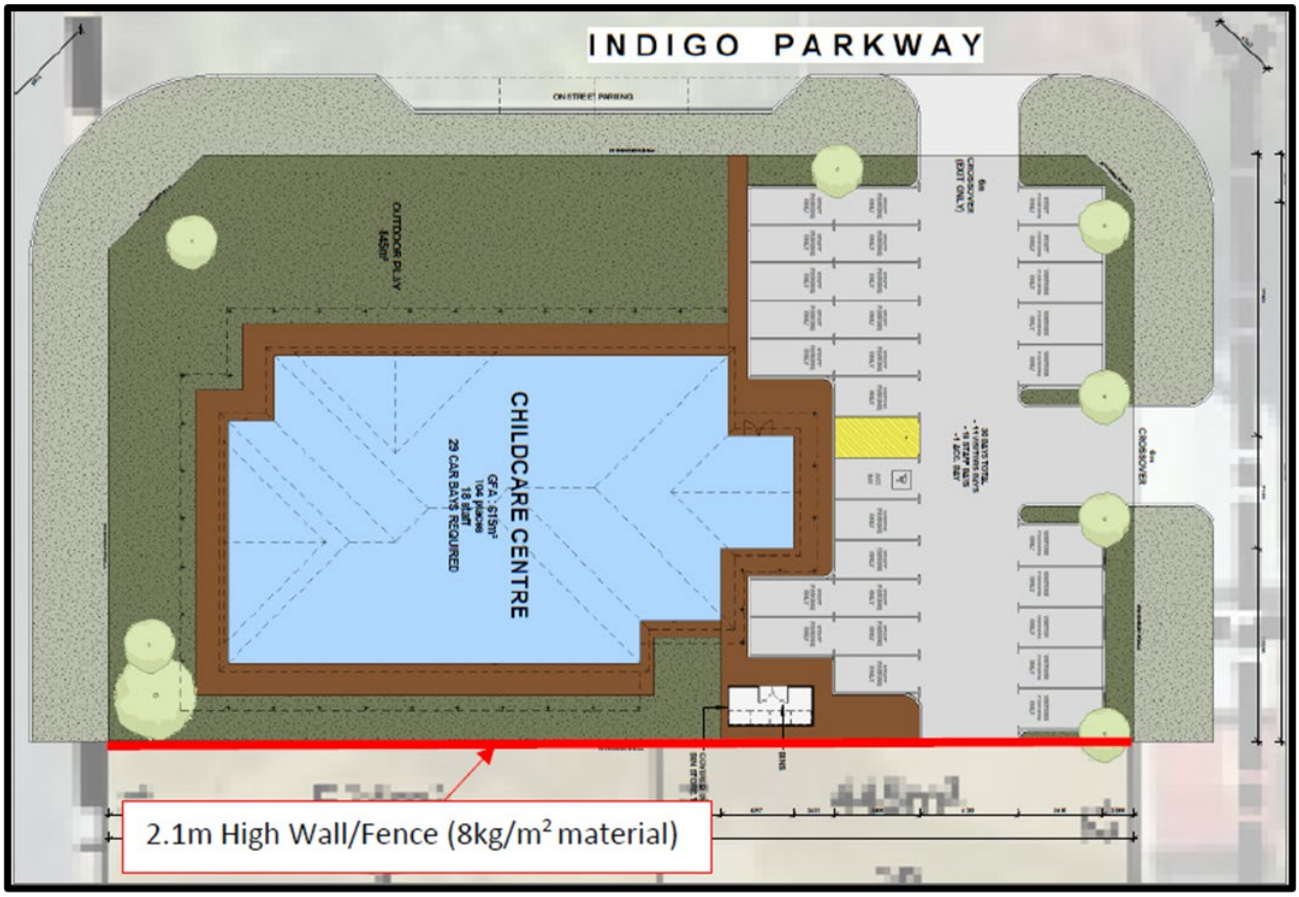


Figure 3-1: Overview of Noise Model

The predicted noise levels received at the future residential properties (sensitive receptors) within the ENA for the major noise sources, have been tabulated in Tables 4.1 to 4.3 of the ENA. The location of these sensitive receptors and noise receivers at this location have been captured in the above diagram.

In terms of the outdoor child play assessment, the ENA assessment demonstrates that all noise receivers will comply with the assigned levels under the regulations with zero exceedance. The acoustic modelling of outdoor play noise was based on the worst-case scenario of all children of any age group of children playing simultaneously within the outdoor play areas shown in the site plan. The noise modelling has been based on construction of a 2.1m solid wall along the southern boundary enclosing the southern outdoor play area and carpark as shown in the site plan following.



The applicant has provided information that whilst the proposed facility would open at 6.30am which is before 7:00am (i.e. during the night period as set in the Regulations) for drop offs, the outdoor play area would only be used after 7:00am thereby restricting outdoor play times. In addition, the applicant has provided information that play time would generally be staggered and therefore not all children would be playing outside at once for extended periods of time. As such, Officers are satisfied that outdoor play area noise received at the neighbouring future residences to the south from the outdoor play area would comply with the assigned and maximum noise levels. The proposal has been designed in such a way that the large footprint of the outdoor play area is located to the north which abuts the future Indigo Parkway and public open space. As such, Officers are satisfied that outdoor play area noise received at the neighbouring future residences to the south and east from the outdoor play area would comply with the assigned and maximum noise levels.

The assessment of noise emitted from the mechanical plant was based on the assumptions relating to the number, location, size and type of mechanical plant. In that regard, the ENA demonstrates that all existing noise receivers predominantly sensitive receptors, comply with the assigned levels under the Regulation. Officers note that adjusted predicted noise levels at future sensitive receptors located to the south meet the threshold limit of the assigned levels which arguably presents a risk of exceedance. To ensure full compliance, the applicant has provided information that mechanical plant noise (specific AC unit types) is to be reviewed by a qualified acoustic consultant during detailed design, to ensure that noise attenuation is applied to achieve compliance with the future sensitive receptors to the south. This will include measures such as acoustic shielding of the units on all sides by a suitable barrier. This has been conditioned accordingly and required to be met prior to the issue of a building permit.

In respect to car doors opening and closing, ENA demonstrates that all noise receivers will comply with the assigned levels under the regulations based on the construction of a 2.1m high solid wall to the south.

In terms of the indoor child play assessment, the ENA demonstrates that all noise receivers will comply with the assigned levels under the regulations based on the following:

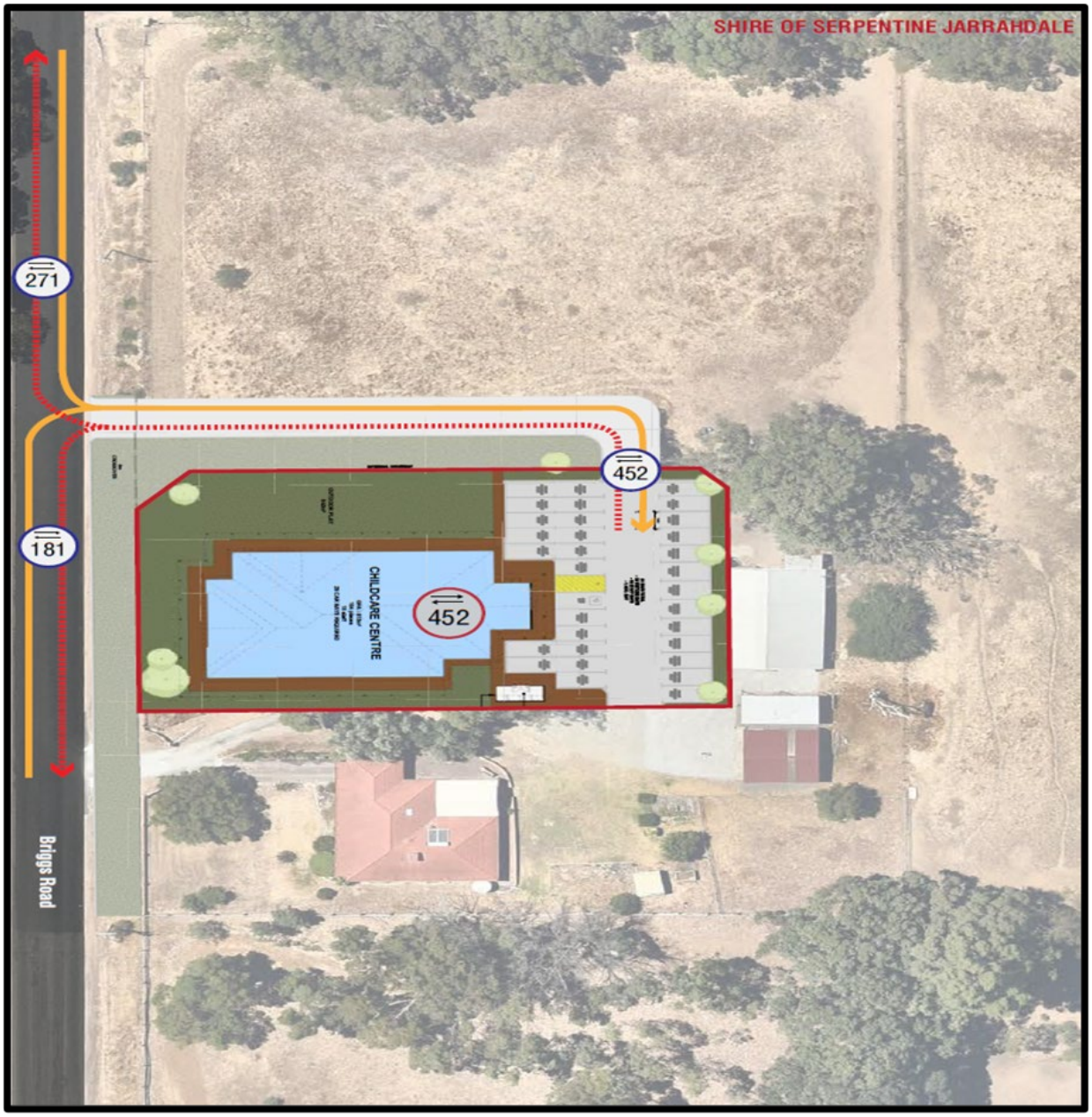
- Internal noise levels within activity rooms would not exceed those from outdoor play for each age group, regardless of windows being open or closed; and
- Any music played within the internal activity areas would be 'light' music with no significant bass content and played at a relatively low level.

Overall, the ENA demonstrates that all noise receivers will comply with the assigned levels under the Regulations. Officers will be recommending a Noise Management Plan be submitted to address all activities associated with outdoor play and indoor child play to further reduce noise emissions from the development and to include the recommendations within ENA. Officers are satisfied that the development can be undertaken without adversely impacting upon the amenity of the locality. Officers are satisfied that the implementation of recommendations within the ENA would result in the development not adversely detracting from the existing amenity of the area currently afforded to occupiers of the area.

Traffic and Access

The category of the vehicles associated with the proposed development will predominantly comprise of small passenger vehicles dropping off and picking up children, as well as staff and waste vehicles. During the consultation period concerns were raised over the impacts of increased traffic movements on Briggs Road and whether its current state would be capable to accommodate additional traffic generated by the proposal.

As discussed above, vehicle access to the subject site is proposed in two stages based on the current road network and the future road network which includes the delivery of roads through the gradual subdivision of land within the LSP area. Vehicle access for Stage 1 of this development is proposed via a single full movement crossover on Briggs Road via an internal driveway to the carpark area as shown below.



The proposed six metre wide crossover on Briggs Road will provide access to the main car park consisting of 31 bays (inclusive of one ACROD bay) as shown in the previous image.

To assess the increased traffic movements on the road network and potential safety issues, a Transport Impact Statement (TIS) was provided with the application, which can be viewed in **attachment 6** to this report. The TIS assessed traffic generated by the proposed development and its potential impact on the overall performance of the existing and future surrounding local road network. This includes the current state of Briggs Road and the future Indigo Parkway. Briggs Road is an Access Road and Indigo Parkway a Local Distributor Road. Based on the approved LSP covering the site, Indigo Parkway will thus be upgraded to a Local Distributor Road, with a cross section comprising a single lane of traffic in either direction and central median for boulevard tree planting and drainage management.

Consistent with the planning for Byford and protection of the Byford Trotting Complex, Briggs Road is not intended to function as a Local Access Road, for access into and out of the Byford Trotting Complex.

<u>Existing Network</u>

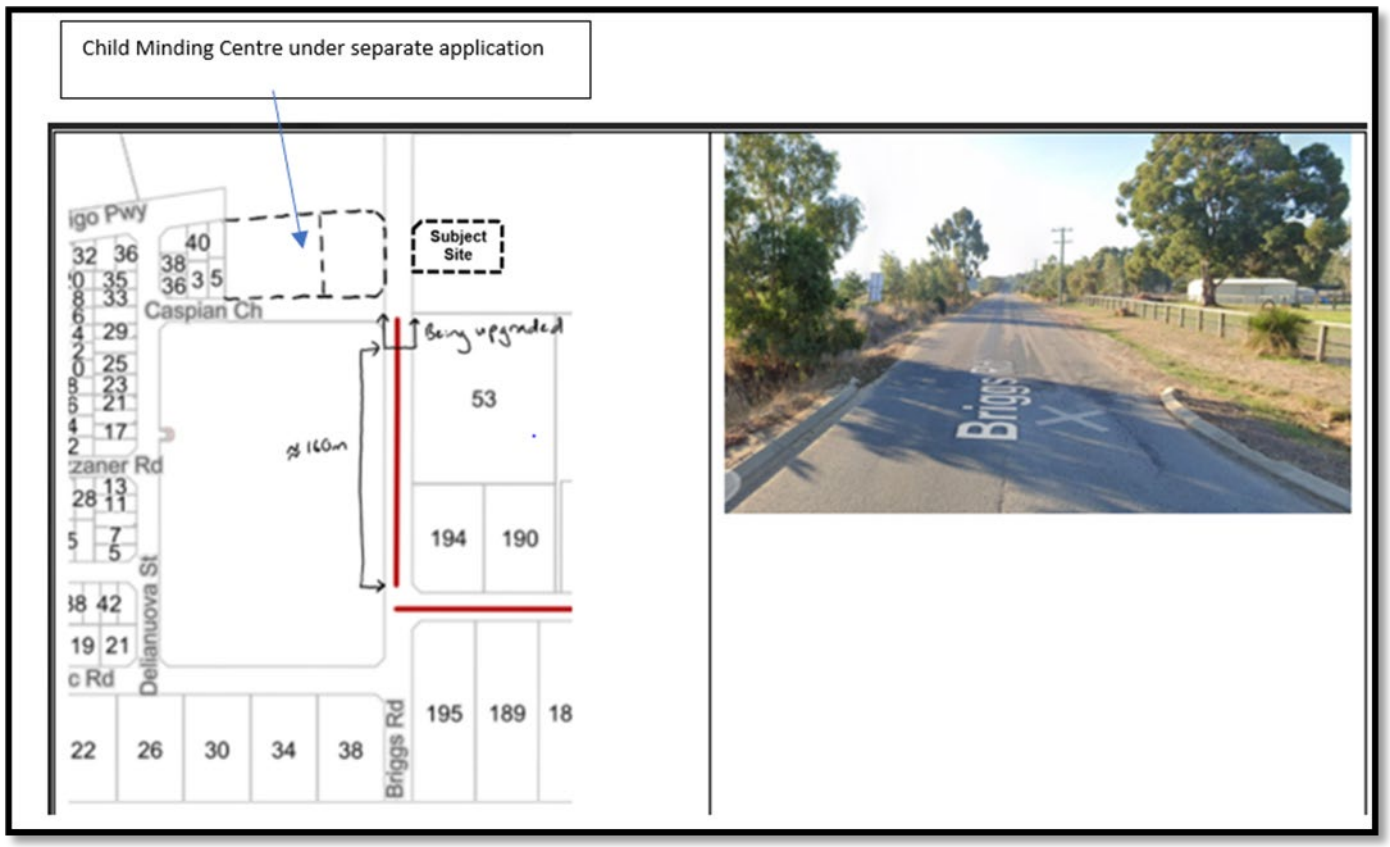
The findings on the volume of traffic likely to be generated by the proposal to the site, based on the existing network was estimated using available trip generation rates from the Institute of Transportation Engineers (ITE). The TIS identifies that the development will generate 452 vehicle trips per day within the local catchment. The AM peak period generating 83 vehicle trips to the site and a PM peak flow of 73 trips generated. The focused distribution of traffic flows associated with the development is expected to be as follows:

- 60% to/from the north via Briggs Road
- 40% to/from the south via Briggs Road



The predicted AM/PM trip generation peak periods fall under the ‘moderate impact’ category according to WAPC Transport Impact Assessment Guidelines. This moderate impact, however,

will in the opinion of Officers, exacerbate the section of Briggs Road which is not being upgraded through the ongoing subdivisions to accommodate the planned increase in traffic. There is a section of Briggs Road, that is designated as 'Very Poor' according to the 2023 asset data capture. The section of concern is shown following:



Without a suitable upgrade, the very poor section of Briggs Road will, in the opinion of Officers, be a risk exacerbated by the intensification of traffic proposed by the development. Officers are of the opinion that the road upgrade at least needs to comprise resurfacing, similar to the recent resurfacing of Briggs Road completed by the Shire south of Larsen Road. Accordingly, a condition is recommended to require a financial contribution to resurfacing of the road, based upon the following formula:

A. Cost to resurface 160m section:	$120,000
B. Number of child care centres proposed:	Two
C. Portion of traffic emanating south:	40%
Formula to calculate financial contribution:	(A/B) x C
Upgrade contribution:	**$24,000**

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

> "*As a general guide, an increase in traffic of less than 10 per cent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 per cent may. All sections of road with an increase greater than 10 per cent 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 per cent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane, should be included in the analysis.*"

In Officers assessing this aspect of the TIS, the actual deteriorated section of Briggs Road does not represent a current infrastructure standard that can safely manage the planned increase in traffic. To address this aspect, a road upgrade is needed to enable the proposed development to safely operate based on the expected traffic demands which show in the interim period 40% of traffic coming from the south. A financial contribution towards this, based on generated traffic, is recommended to be conditioned.

Upgrade of Footpath

As shown in the following image, the site will be isolated from a safe pedestrian path, and Officers consider that this needs to be addressed as part of approval of the development, by including a footpath on the eastern verge of Briggs Road that connects south to the existing network along Larsen Road.



As such, a condition has been included to secure the required footpath infrastructure that adjoins the frontages of this lot, which also extends to link to the footpath network (existing) on Larsen Road. This is important in order to facilitate safe pedestrian access to the proposed development. Consistent with the planning framework to ensure that all modes of transport are catered for.

Future network

In the longer term, various proposed changes to the surrounding road network will redistribute the child minding centre traffic. This is based upon the approved Byford DSP, which depicts the ultimate network structure which aims to avoid traffic flows running through the Byford Trotting Complex along Briggs Road and Malarkey Road.

The changes to the network in the future are as follows:

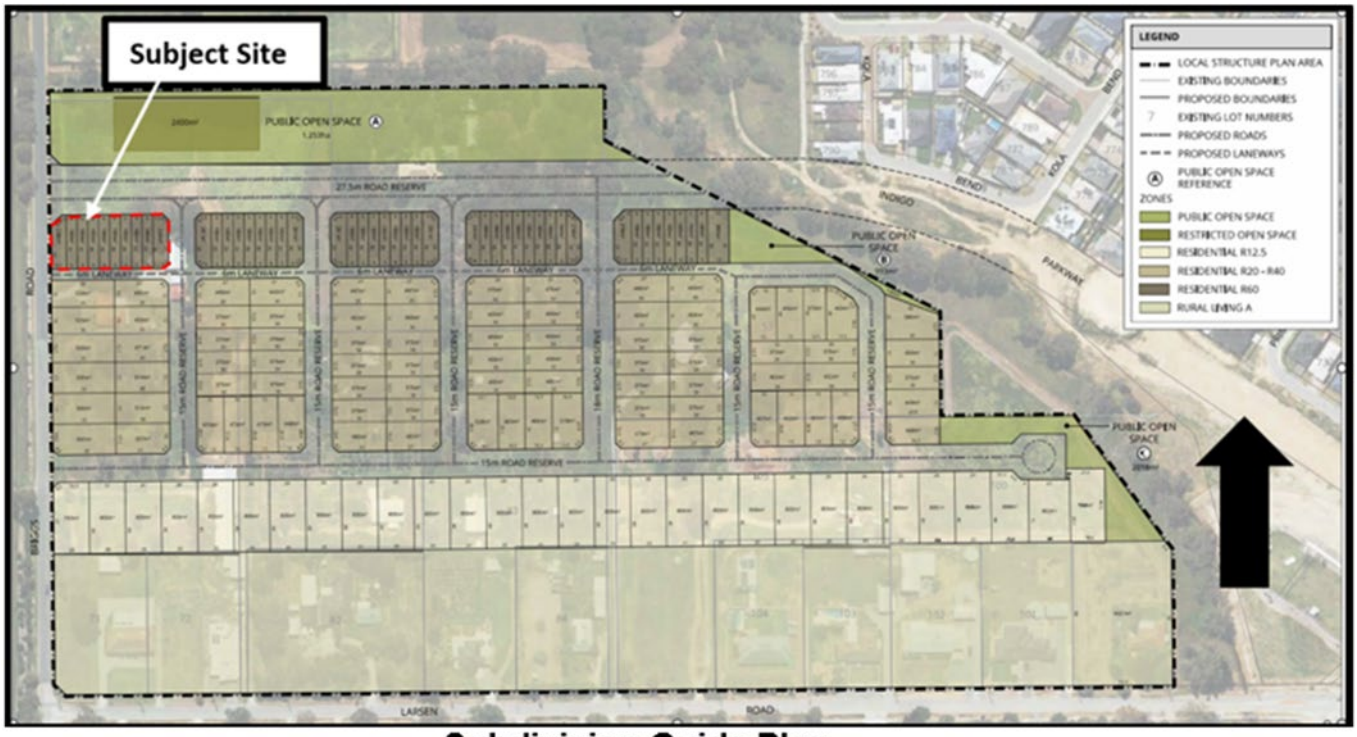
- Thomas Road / Briggs Road intersection will be modified to only allow left turns.
- Briggs Road north of Abernethy Road will be modified to limit through traffic in the Byford Trotting Complex.
- Malarkey Road will be extended north to Thomas Road, and new roundabouts will be constructed on Thomas Road at Malarkey Road/Master Road and Kardan Boulevard.

- The Thomas Road / Plaistowe Boulevard intersection will be signalised.
- The median strip along Indigo Parkway will be extended across Briggs Road to block right turns and through movements along Briggs Road.

The long-term changes to the road network is depicted in the diagram below:



Based on the long-term changes to the road network depicted in the previous diagram, a median is expected to be constructed on Indigo Parkway, allowing only LILO movements from/to Briggs Road. It is considered that that in the longer term traffic would be evenly distributed through the creation of roads from the gradual subdivision process of the LSP area as depicted within the subdivision concept plan. Furthermore, as a result of the construction of Indigo Parkway in an eastbound direction towards the town centre.



Subdivision Guide Plan

Based on the future scenario it is unlikely that the development will increase traffic on any particular section of road by more than 100 vehicles per hour. Provided the previously mentioned condition of a contribution to upgrading the 160m section of Briggs Road occurs, the development is unlikely to have an adverse impact on the road network in the future.

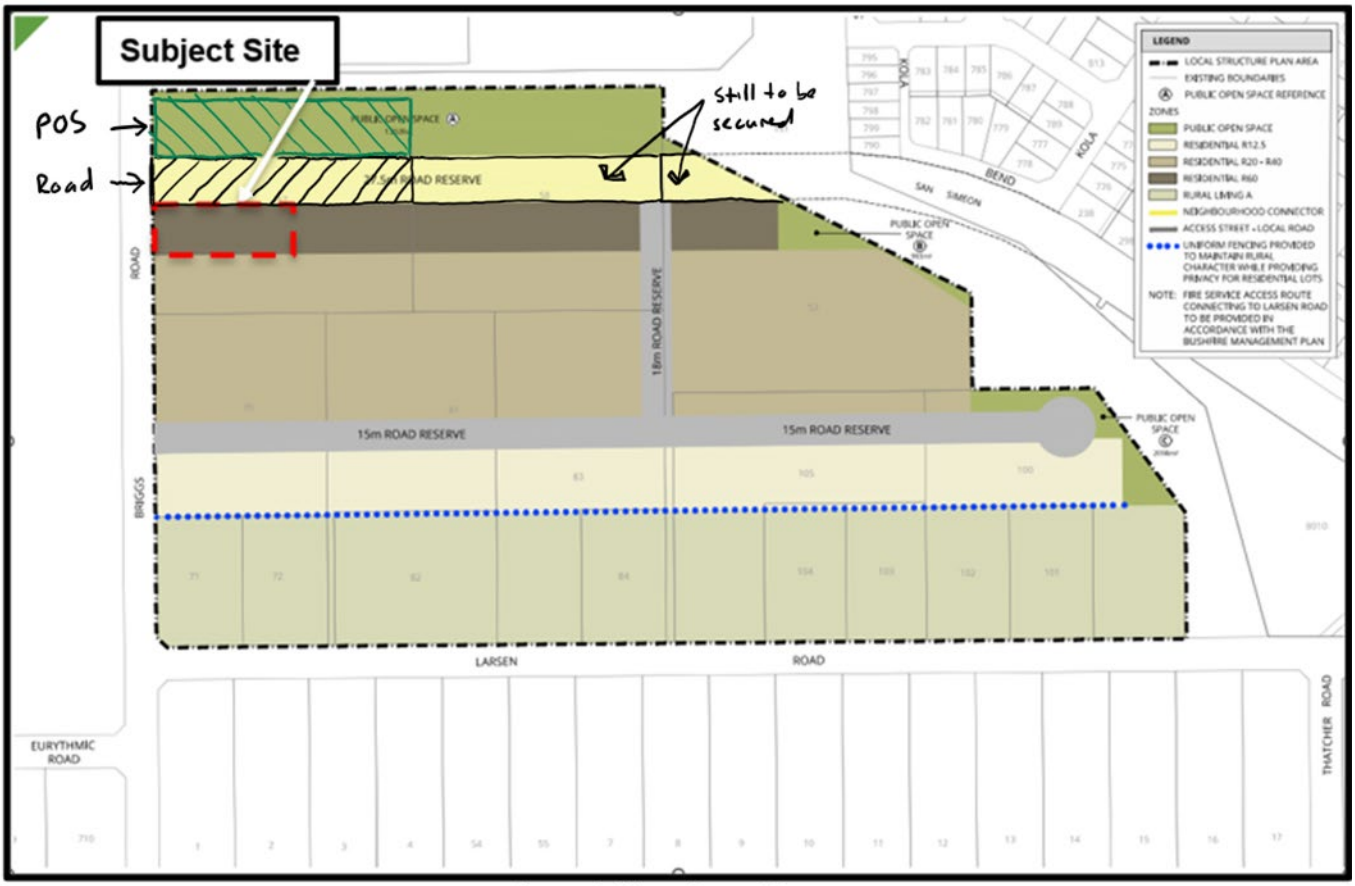
In terms of the Stage 2 access/egress arrangements, the development would be accessed via a full movement crossover to the future eastern access road and an exit only crossover to Indigo Parkway. A condition of approval ensuring the works associated with the modified access/egress arrangements are undertaken at the completion of both Indigo Parkway and the access road.

Ceding of land for Indigo Parkway and Public Open Space (POS)

The role of the structure plan is to attempt to coordinate landowners in subdividing their land, such that land parcels may be subdivided jointly in a coordinated process to layout in a logical manner where roads, POS and development will occur.

It is expected that the road reservation required for the extension of Indigo Parkway and POS Reservation as shown within the LSP is secured through the process of subdivision or a development application, which ever precedes the other. Officers consider that as development of the site has occurred first, ceding of the land for the purposes of a road reservation and the POS corridor is required to occur as part of this process. The POS portion of the land will include provision for drainage, and the portion of road reserve will likely be required for coordinated construction of the Indigo Parkway link around the 2025/2026 financial year. This is conditioned accordingly and shown in the following image.

It is conditioned to construct the POS, whereas it is not conditioned to construct Indigo Parkway given all land required for the link is yet to be secured. The remaining land portion to be secured are also shown following:



Local Structure Plan

Local Planning Policy 1.6 - (LPP 1.6) - Public Art for Major Developments

The objective of LPP1.6 is to facilitate per cent for art to enhance public enjoyment, engagement and understanding of places through the integration of public art. The policy sets out the requirements for physical and financial contributions for public art for any development valued at $1 million or greater.

Officers note that the applicant has not provided any details for a public art feature within the design of the development. Should the application be approved, a percentage for art condition of development approval would be recommended by way of a condition, consistent with the policy.

Local Planning Policy 4.11 (LPP4.11) - Advertising

Local Planning Policy LPP 4.11 - Advertising sets out development standards and requirements for advertisements. The plans, as submitted, have identified nominal wall signage for the proposal integrated into the façade of the development. No detailed drawings of the signage were provided with the application.

If the application is approved, a signage plan will be required to be prepared and approved prior to operation of the development, to ensure any signage is compliant with the policy.

Local Planning Policy 4.15 (LPP4.15) - Bicycle Facilities

LPP4.15 provides guidance to developers on the design and requirements of bicycle parking and end of trip facilities for each specific land use. In accordance with the policy, bicycle facilities are to be provided in accordance with Schedule 1 of the policy. Officers note that the applicant has not

provided any details or provisions for a bicycle rack. If the application were to be approved, the applicant would be required to comply with the requirements of the policy.

Local Planning Policy 2.4 - Water Sensitive Design

LPP2.4 aims to maximise water efficiency by encouraging best practice urban water management methods. The policy aims to ensure water sensitive design best management practices are implemented for new developments with the Shire.

A Stormwater and Drainage Management Plan (SMP) will be required, demonstrating how stormwater is managed and shall be provided prior to issue of a Building Permit.

Local Planning Policy 24 (LPP24) - Designing Out Crime

LPP24 encourages commercial development to incorporate principles of Crime Prevention through Environmental Design (CPTED). LPP24 sets out five key crime prevention principles that are to be applied to different levels of the planning framework according to the policy. A development application needs to be assessed against the principles of the policy. The principles relate to surveillance, access control, territorial reinforcement, target hardening, management, and maintenance.

It is considered that the corner location of the site affords the site with a high level of passive surveillance. In addition, proposed activity spaces and outdoor play areas face public streets and facilitate passive surveillance over the public realm.

State Planning Policy 3.7 - Planning in Bushfire Prone Areas

SPP3.7 provides the requirements and guidelines for development within areas identified as bushfire prone. The subject site is located within a designated bushfire prone area in accordance with the Department of Fire and Emergency Services (DFES) Map of Bushfire Prone Areas. SPP3.7 seeks to ensure the risk of bushfire to developments is considered and mitigated through the development assessment process.

Pursuant to the provisions of SPP3.7, the application included a Bushfire Management Plan (BMP) for the subject site. The BMP which can be viewed as **attachment 7** states that on completion the proposed childcare center is expected to achieve a compliant BAL-29 or lower outcome, under the vegetated scenario.

As a Child-Minding Centre is a vulnerable land use, the application has been referred to DFES for assessment. DFES has recommended modifications to be undertaken to the submitted Bushfire Management Plan. These modifications primarily relate to the justification on the classification of vegetation plots and will be conditioned accordingly.

Government Sewerage Policy (2019)

This policy set out the guidelines relating to the provision of sewerage services through the planning and development of land. The policy generally requires connection of new subdivision and development to reticulated sewerage to protect public health and amenity.

The site is not proposed to be connected to deep sewerage surrounding the subject site which can be readily connected. The applicant has proposed an interim alternative effluent disposal system until such a time when the site is fully developed due to costs associated with the deep connection. During the consultation period concerns were raised regarding the lack of reticulated sewerage to support the development and the potential health impacts of the proposed alternative effluent disposal system.

The application and the accompanying Site Soil Evaluation (SSE) report was referred to the DoH. The DoH have recommended connection to deep sewer as their preference, however, are satisfied that the site can manage wastewaters onsite. The DoH have requested an updated SSE

to be submitted which is undertaken during the wettest seasonal time of the year (mid-July-August) as per Australian/New Zealand Standard 1547:2012 requirements as part of a condition of approval. Furthermore, more specific details of the development to wastewater management areas (irrigation areas) of the site and confirmation that stormwater and wastewater management will not interact.

To address DoH comments, a condition has been recommended requiring an updated SSE to be submitted to reflect DoH comments. The SSE to be submitted to the Shire for approval on advice by the DoH. It should be noted that subject to a separate approvals process, the wastewater system will have to be approved by the DoH in conjunction with the Shire. This provides a second assessment process to ensure the system is compatible with the land and broader area.

In terms of future sewer connection, once land within the LSP area begins to be subdivided and sewer moves closer to the LSP area, the wastewater treatment system will be decommissioned, and the development will be connected to sewer. Currently the closest connection is 330m away from the development. A condition requiring the irrigation area of the development to be remediated to the satisfaction of the Shire once the development has been connected to sewer.

Development Contributions (DCA1)

This development falls within the development contribution area DCA1 (Area A) and as such is required to contribute towards the cost of common infrastructure under the Byford Traditional Development Contribution Plan. The development contribution area was introduced by way of Amendment 108 to TPS2, and recently updated under Amendment 208.

Under a development application (as opposed to a subdivision), contributions are calculated on the current lot area on which the development is situated, giving a lot “yield” for the site. The liability to pay the contribution is triggered at the building permit stage, and thus the DCP payment will be applied as a development condition needing to be met prior to the issue of a Building Permit. The condition of approval for the applicant to contribute towards the costs of providing common infrastructure is expected to address concerns that were raised during the consultation period.

Options and Implications

Option1

That Council RESOLVES the following Responsible Authority Recommendation:

1. That the Metro Outer Joint Assessment Panel APPROVES the development application for the construction of a ‘Child Minding Centre’ at Lot 57 Briggs Road, Byford subject to the following conditions:

a. The development is to be carried out in compliance with the plans and documentation listed below, except where amended by other conditions of this consent.

Plans and Specifications	Development Plans dated November 2022
	Updated Transport Impact Statement dated April 2023
	Environmental Acoustic Assessment dated 20 February 2023
	Updated Bushfire Management Plan dated 9 May 2023
	Soil Site Evaluation Report dated 16 February 2023

b. The maximum number of children on the premises shall not exceed 104.

c. The operating hours shall be between 6:30am and 6.30pm, Monday to Friday.

d. Prior to the issue of a Building Permit for the development, the land required for the future construction of Indigo Parkway and the public open space (multiuse corridor) where it exists on the subject land, is to be precipitated as a road reserve and reserve for recreation and drainage respectively by subdivision of the subject land, as depicted within the 'Area D Briggs Larsen Precinct Local Structure Plan', to the satisfaction of the Shire of Serpentine Jarrahdale.

e. Prior to the issue of a Building Permit or approval of earthworks / civil plans (whichever comes first), updated development plans shall be submitted to and approved by the Shire of Serpentine Jarrahdale which depict the following being undertaken as part of the development:

   (i) A new footpath being extended on the eastern side verge of Briggs Road to link the development to the existing footpath on Larsen Road;

   (ii) The verge abutting the development site on the subject land being upgraded to an urban standard, to match the verge standard approved as part of the adjoining resident subdivision on the western side of the Briggs Road;

   (iii) The landscaping and drainage design of the multiuse corridor, in order to reflect the continuation of the design elements located west of the subject land, namely central living stream, offline vegetated swales, lighting and pathways;

   Once approved, the applicant must undertake and complete all infrastructure upgrade works prior to the commencement of the development's operations.

f. Prior to the occupation of the development, vehicle parking areas, access ways and crossovers shall be designed, constructed, sealed, kerbed, drained and line marked in accordance with the approved plans and thereafter maintained to the satisfaction of the Shire of Serpentine Jarrahdale.

g. A minimum of one car parking bay is to be provided and marked for the exclusive use of vehicles displaying government issued disabled parking permits. Such bay shall be located conveniently to the principal building entrance and designed in accordance with the relevant Australian Standard.

h. Prior to issue of a Building Permit, the applicant shall submit a Noise Management Plan to the specifications and satisfaction of the Shire of Serpentine Jarrahdale. The Noise Management Plan shall be prepared to ensure appropriate measures are designed and implemented for the development to achieve compliance with the *Environmental Protection (Noise) Regulations 1997,* with particular regard to the following points:

   (i) The design of the wall on the south side of the building;

   (ii) The management of outdoor play areas;

   (iii) The management of indoor activities;

   (iv) The design and shielding of mechanical plant;

   (v) Parking arrangement for drop off before 7:00am.

   Once approved, the Noise Management Plan shall be implemented in its entirety to the satisfaction of the Shire. The plan shall demonstrate the development incorporating all design and operational recommendations as specified within the Environmental Acoustic Assessment, to the satisfaction of the Shire of Serpentine Jarrahdale where associated with construction requirements integrated into plans submitted for a building permit.

i. Prior to issue of a Building Permit, a Waste Management Plan shall be submitted to and approved by the Shire of Serpentine Jarrahdale. Once approved, the Waste Management Plan shall be implemented in its entirety to the satisfaction of the Shire.

j. Prior to issue of a Building Permit, an updated Soil Site Evaluation report is to be submitted to and approved by the Shire of Serpentine Jarrahdale on advice by the Department of Health. The updated report is required to be:

   (i) Modelled during the wettest season times of the year (mid-July-August);

   (ii) Demonstrate that stormwater management does not interfere with the efficacy of the effluent disposal area;

   (iii) A plan detailing the proposed building area, trafficable areas, parking bays setback to land application areas and exclusion areas.

k. Prior to the issue of a Building Permit, a Landscape and Revegetation Plan shall be submitted to and approved by the Shire of Serpentine Jarrahdale. This is required to include the full extent of verge adjoining the development site, and the multiuse corridor. Once approved, the Landscape and Revegetation Plan shall be implemented in its entirety and maintained thereafter by the operator, to the Shire's satisfaction.

l. Prior to the issue of a Building Permit, a Stormwater Management Plan shall be submitted to and approved by the Shire of Serpentine Jarrahdale. All stormwater shall be directed so stormwater is disposed of within the property. Direct disposal of stormwater onto the road, neighbouring properties, watercourses and drainage lines is not permitted. Stormwater may be managed through either soak wells, raingardens or a combination of the two.

m. Prior to issue of a Building Permit, a Signage Strategy must be submitted to and approved by the Shire of Serpentine Jarrahdale. The Strategy shall demonstrate compliance with Local Planning Policy No 4.11 - Advertising Signs. Once approved, signage shall be displayed and maintained in accordance with the Strategy.

n. Prior to occupation of the development, the provision of percent for art being provided in accordance with Local Planning Policy 1.6 - Public Art for Major Developments to the satisfaction of the Shire.

o. Prior to issue of a Building Permit, the landowner/applicant contributing towards development infrastructure, pursuant to the Shire of Serpentine Jarrahdale Town Planning Scheme No. 2.

p. Prior to issue of a Building Permit, a Construction Management Plan is to be submitted to and approved by the Shire of Serpentine Jarrahdale. The Plan should address the following matters:

   (i) Management of car parking, delivery vehicles and traffic associated with the construction of the development;

   (ii) Management of dust and noise.

q. Within three months of the completion of the construction of Indigo Parkway and the eastern access road as depicted within the Subdivision Guide Plan of the 'Area D Briggs Larsen Precinct Local Structure Plan', the access arrangement onto Indigo Parkway will be required to be modified to exit only (left out) and a new full movement access/egress arrangement constructed to the access road to the east to the satisfaction of the Shire of Serpentine Jarrahdale.

r. Once the development is connected to sewer, the wastewater system is to be decommissioned to the satisfaction of the Shire of Serpentine Jarrahdale. The wastewater irrigation area is to be remediated prior to being used for any other purpose to the satisfaction of the Shire.

s. Prior to the issue of a Building Permit, a financial contribution of $24,000 being made to the Shire, reflective of the costs to resurface the 160m section of Briggs Road relied upon for

access by the development, with the contribution based upon the pro-rata generation of traffic emanating from the development.

Option 2

That Council RESOLVES the following alternative Responsible Authority Recommendation:

1. That the Metro Outer Development Assessment Panel REFUSES the application for a 'Child Minding Centre' development at Lot 9511 Briggs Road, Byford due to the following reasons:
   a. The size of the development poses an adverse amenity impact on the surrounding current and future sensitive land uses in the area;
   b. The current road condition of Briggs Road, 160m south of the subject land, is in Very Poor Condition and cannot safely accommodate additional traffic generated by this development;
   c. The current footpath network will not be linked to the development and represents an unsafe access situation for pedestrian to access the development;
   d. The proposal is not connected to reticulated sewer contrary to the Government Sewerage Policy.

Option 1 is recommended.

Conclusion

This report is presented to Council to endorse a Responsible Authority Reports for the Metro Outer Development Assessment Panel for a 'Child Minding Centre' development in the western portion of Byford. Officers consider that the development is consistent with the planning framework, provided conditions are imposed to address the relevant incidental matters that relate to the proposed development. The proposed development will increase the child care services and provide employment opportunities for the local community that will assist to support the population growth within the Shire. Officers are satisfied that the conditions recommended will address concerns raised during public submissions and it is considered to not adversely impact upon the existing amenity of the area.

As such, for the reasons outlined in the report, it is recommended that Council approve the application subject to conditions.

Attachments (available under separate cover)

- **10.1.5 - attachment 1** - Responsible Authority (E23/6358)
- **10.1.5 - attachment 2** - Development Plans (E23/6359)
- **10.1.5 - attachment 3** - Summary of Submissions (E23/6210)
- **10.1.5 - attachment 4** - Deemed Provisions Regulations Clause 67 (E23/6347)
- **10.1.5 - attachment 5** - Updated Traffic Impact Assessment (E23/6207)
- **10.1.5 - attachment 6** - Environmental Acoustic Assessment (E23/6360)
- **10.1.5 - attachment 7** - Updated Bushfire Management Plan (E23/6211)

Alignment with our Strategic Community Plan

Outcome 3.1	A commercially diverse and prosperous economy
Strategy 3.1.1	Actively support new and existing local businesses within the district.
Outcome 4.2	A strategically focused Council
Strategy 4.2.1	Build and promote strategic relationships in the Shire's interest.

Financial Implications

Nil.

Risk Implications

Risk has been assessed on the Officer Options and Implications:

Officer Option	Risk Description	Controls	Principal Consequence Category	Risk Assessment			Risk Mitigation Strategies (to further lower the risk rating if required)
				Likelihood	Consequence	Risk Rating	

1	That Council RESOLVES the Responsible Authority Recommendation for the MOJDAP to approve the application, and MODAP propose approval without the full extent of conditions necessary.	A clearly explained report that addresses the validity of each condition.	Social / Community Outcomes	Possible	Moderate	MODERATE	If MODAP were seeking to approve, the provision of the RAR contains justification to the conditions.
2	That Council RESOLVES the Responsible Authority Recommendation for the MOJDAP to refuse the application, and MODAP propose approval without the full extent of conditions necessary.	Panning Framework	Organisational Performance	Possible	Moderate	MODERATE	If MODAP were seeking to approve, the provision of the RAR would include reference to Option 1 so would be a basis to ensure conditions were made aware to MODAP.

Voting Requirements: Simple Majority

OCM134/06/23

COUNCIL RESOLUTION / Officer Recommendation

Moved Cr Duggin, seconded Cr Coales

That Council RESOLVES the following Responsible Authority Recommendation:

1. **That the Metro Outer Joint Assessment Panel APPROVES the development application for the construction of a 'Child Minding Centre' at Lot 57 Briggs Road, Byford subject to the following conditions:**

a. **The development is to be carried out in compliance with the plans and documentation listed below, except where amended by other conditions of this consent.**

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b. **The maximum number of children on the premises shall not exceed 104.**

c. **The operating hours shall be between 6:30am and 6.30pm, Monday to Friday.**

d. Prior to the issue of a Building Permit for the development, the land required for the future construction of Indigo Parkway and the public open space (multiuse corridor) where it exists on the subject land, is to be precipitated as a road reserve and reserve for recreation and drainage respectively by subdivision of the subject land, as depicted within the 'Area D Briggs Larsen Precinct Local Structure Plan', to the satisfaction of the Shire of Serpentine Jarrahdale.

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Once approved, the applicant must undertake and complete all infrastructure upgrade works prior to the commencement of the development's operations.

f. Prior to the occupation of the development, vehicle parking areas, access ways and crossovers shall be designed, constructed, sealed, kerbed, drained and line marked in accordance with the approved plans and thereafter maintained to the satisfaction of the Shire of Serpentine Jarrahdale.

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(v) Parking arrangement for drop off before 7:00am.

Once approved, the Noise Management Plan shall be implemented in its entirety to the satisfaction of the Shire. The plan shall demonstrate the development incorporating all design and operational recommendations as specified within the Environmental Acoustic Assessment, to the satisfaction of the Shire of Serpentine Jarrahdale where associated with construction requirements integrated into plans submitted for a building permit.

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CARRIED UNANIMOUSLY 7/0