



Metro South-West Joint Development Assessment Panel Agenda

Meeting Date and Time: 8 November 2019, 9:00 AM
Meeting Number: MSWJDAP/194
Meeting Venue: City of Rockingham Boardroom
Civic Boulevard
Rockingham

Attendance

DAP Members

Mr Tony Arias (Presiding Member)
Ms Lee O'Donohue (Deputy Presiding Member)
Mr Andrew Macliver (Specialist Member)
Cr Deb Hamblin (Local Government Member, City of Rockingham)
Cr Joy Stewart (Local Government Member, City of Rockingham)

Officers in attendance

Mr Greg Delahunty (City of Rockingham)
Mr Stephen Sullivan (City of Rockingham)
Mr Chris Parlane (City of Rockingham)
Mr Mike Ross (City of Rockingham)

Minute Secretary

Ms Nicole D'Alessandro (City of Rockingham)

Applicants and Submitters

Item 8.1

Mr Josh Watson (Planning Solutions)
Mr Nathan Maas (Planning Solutions)

Item 8.2

Mr Samuel Klopper (Klopper & Davis Architects)
Mr Mitch Cook (Klopper & Davis Architects)
Mr Mark Butler (Property Consultants Australia Pty Ltd)

Members of the Public / Media

Nil

1. Declaration of Opening

The 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.



2. Apologies

Nil

3. Members on Leave of Absence

Nil

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** Mr Josh Watson (Planning Solutions) presenting in support of the application at Item 8.1. The presentation will support the proposed development and request a minor modification to the conditions.
- 7.2** Mr Mark Butler (Property Consultants Australia Pty Ltd) presenting in support the application at Item 8.2. The presentation will address the community benefits of the proposed development.
- 7.3** Mr Sam Klopper (Klopper & Davis Architects) presenting in support of the application at Item 8.2. The presentation will address the architectural merit of the proposal, its compliance and the benefits proposed.

The City of Rockingham may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

8. Form 1 – Responsible Authority Reports – DAP Applications

- | | | |
|------------|--------------------------|--|
| 8.1 | Property Location: | Lot 436 (1), Lot 9503 Pedicel Avenue & Lot 437 (2)
Olearia Street, Baldivis |
| | Development Description: | Proposed Child Care Premises |
| | Applicant: | Planning Solutions |
| | Owner: | Perron Developments |
| | Responsible Authority: | City of Rockingham |
| | DAP File No: | DAP/19/01637 |



8.2	Property Location:	Lot 636 Thundelarra Drive, Golden Bay
	Development Description:	4-5 Storey Mixed-Use Project
	Applicant:	Klopper & Davis Architects
	Owner:	636 Golden Bay Pty Ltd
	Responsible Authority:	City of Rockingham
	DAP File No:	DAP/19/01646

9. Form 2 – Responsible Authority Reports – Amending or cancelling DAP development approval

Nil

10. Appeals to the State Administrative Tribunal

Nil

11. General Business / Meeting Closure

In accordance with Section 7.3 of the DAP Standing Orders 2017 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.



Form 1 - Responsible Authority Report (Regulation 12)

Property Location:	Lots 436, 437 and portion of Lot 9503 (No.1) Pedicel Avenue/Nyilla Approach/Olearia Street, Baldivis
Development Description:	Proposed Child Care Premises
DAP Name:	Metro South-West JDAP
Applicant:	Planning Solutions
Owner:	Perron Development Pty Ltd
Value of Development:	\$2.1 million
LG Reference:	DD020.2019.177.1
Responsible Authority:	City of Rockingham
Authorising Officer:	Bob Jeans, Director Planning & Development Services
DAP File No:	DAP/19/01637
Report Due Date:	30 th October 2019
Application Received Date:	19 th July 2019
Application Process Days:	90 days
Attachment(s):	1. Development Application Submission

Officer Recommendation:

That the Metro South-West Joint Development Assessment Panel resolves to:

Approve DAP Application reference DAP/19/01637 as detailed on the DAP Form 1 dated 19 July 2019 and accompanying revised plans received on the 28th August 2019:

- SK01a – Location Plan - Job No: 2734, dated June 2019;
- SK02f – Location Plan – Relationship of ELC & School Crossovers - Job No: 2734, dated June 2019;
- SK03h – Site & Floor Plan - Job No: 2734, dated June 2019;
- SK03h – Site & Floor Plan (coloured) - Job No: 2734, dated June 2019;
- SK04e – Roof Plan - Job No: 2734, dated June 2019;
- SK05f – Elevations - Job No: 2734, dated June 2019;
- SK05f – Elevations (coloured) - Job No: 2734, dated June 2019;
- SK06d – Elevations-Boundary Fence - Job No: 2734, dated June 2019;
- SK06d – Elevations-Boundary Fence (coloured) - Job No: 2734, dated June 2019;
- SK07g- Landscaping Plan - Job No: 2734, dated June 2019
- SK08d- Outdoor Play area Landscaping Plan - Job No: 2734, dated June 2019
- SK09 – Sections - Job No: 2734, dated August 2019;
- SK10 – Site Survey - Job No: 2734, dated June 2019;

in accordance with the Metropolitan Region Scheme and Clause 68 of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the provisions of

68(2)(b) of the deemed provisions of the City of Rockingham Town Planning Scheme No. 2, subject to the following conditions:

Conditions

1. This decision constitutes development approval only and is valid for a period of 2 years from the date of approval. If the subject development is not substantially commenced within the 2 year period, the approval shall lapse and be of no further effect.
2. Prior to applying for a Building Permit, arrangements must be made to the satisfaction of the City of Rockingham for the amalgamation of Lots 436, 437 and portion of Lot 9503 (No.1) Pedicel Avenue/Nyilla Approach/Olearia Street, Baldivis into one Certificate of Title. The amalgamation must be completed prior to occupation of the development.
3. No more than 86 children are to be accommodated by the Child Care Premises at any time, for the duration of the development.
4. The Child Care Premises must only operate between the hours of 6:30am to 6:30pm, Monday to Friday, with children not permitted in the open space areas until after 7:00am.
5. Earthworks over the site associated with the development must be stabilised to prevent sand or dust blowing off the site, and appropriate measures shall be implemented within the time and in the manner directed by the City of Rockingham in the event that sand or dust is blown from the site.
6. Prior to applying for a Building Permit, a Stormwater Management Plan must be prepared by a suitably qualified engineer showing how stormwater will be contained on-site and those plans must be submitted to the City of Rockingham for its approval.

All stormwater generated by the development must be managed in accordance with Planning Policy 3.4.3 - Urban Water Management to the satisfaction of the City of Rockingham.

The approved plans must be implemented and all works must be maintained for the duration of the development.
7. Prior to applying for a Building Permit, an updated Landscaping Plan to the satisfaction of the City of Rockingham must be prepared and must include the following detail:
 - (i) the location, number and type of existing and proposed trees and shrubs, including calculations for the landscaping area;
 - (ii) any lawns to be established and areas to be mulched;
 - (iii) any natural landscape areas to be retained, including retention of all existing street trees adjoining the site;
 - (iv) those areas to be reticulated or irrigated; and
 - (v) proposed upgrading to landscaping, paving and reticulation of all verge areas.

The landscaping, paving and reticulation must be completed prior to the occupation of the development, and the Approved Landscaping Plan must be maintained at all times to the satisfaction of the City of Rockingham for the duration of the development.
8. The on-site car park area shall:
 - (i) be provided with a minimum of 24 parking spaces;

- (ii) be designed in accordance with Australian/New Zealand Standard AS/NZS 2890.1:2004, *Parking facilities, Part 1: Off-street car parking* unless otherwise specified by this approval, prior to applying for a Building Permit;
- (iii) include one car parking space dedicated to people with disability designed in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009, *Parking facilities, Part 6: Off-street parking for people with disabilities*, linked to the main entrance of the development by a continuous accessible path of travel designed in accordance with Australian Standard AS 1428.1—2009, *Design for access and mobility, Part 1: General Requirements for access—New building work*;
- (iv) include one turning bay in accordance with the submitted plans;
- (v) be constructed, sealed, kerbed, drained and marked prior to the development being occupied and maintained thereafter; and
- (vi) have lighting installed, prior to the occupation of the development, to the satisfaction of the City of Rockingham.

The car parking area must comply with the above requirements for the duration of the development.

9. Sixteen staff parking bays, seven visitor car parking bays shall be provided and must be clearly marked on-site for the duration of the development.
10. Prior to applying for a Building Permit, a revised car parking layout plan is to be submitted to the satisfaction of the City of Rockingham, such plan showing:
 - (i) Car parking space No. 24 identified and marked as a visitor car parking space. The dimensions of the car parking space shall be modified so that it meets the minimum requirements for a visitor car parking space having regard to the proposed land use; and
 - (ii) The transition grades between the Pedicel road pavement and the internal driveway shall be modified to comply with AS2890.1; and
 - (iii) The car parking space abutting the eastern side of the bin area being modified to comply with the minimum car parking width.

11. Materials, sea containers, goods or bins must not be stored within the carpark at any time.
12. Prior to applying for a Building Permit, a bin storage area must be designed with a size suitable to service the development and screened from view of the street to the satisfaction of the City of Rockingham.

The bin storage area must be constructed prior to the occupation of the development and must be retained and maintained in good condition for the duration of the Development.

13. Prior to applying for a Building Permit, a Waste Management Plan must be prepared and include the following detail to the satisfaction of the City of Rockingham:
 - (i) the location of bin storage areas and bin collection areas;
 - (ii) the number, volume and type of bins, and the type of waste to be placed in the bins;
 - (iii) management of the bins and the bin storage areas, including cleaning, rotation and moving bins to and from the bin collection areas;
 - (iv) frequency of bin collections;
 - (v) the collection of the bins from an approved position on the Pedicel Avenue road reserve.

All works must be carried out in accordance with the approved Waste Management Plan, for the duration of development and maintained at all times.

14. Any security treatment to windows fronting the street must be located on the inside of the windows, must be open style, must only be used outside normal trading hours and must ensure the windows remain transparent at all times.
15. Prior to applying for a Building Permit, a final Sign Strategy must be prepared (which must include the information required by *Planning Policy 3.3.1, Control of Advertisements*) to the satisfaction of the City of Rockingham and it must thereafter be implemented for the duration of the development.
16. Prior to the occupation of the development, a Final Acoustic Assessment must be prepared and provided to the City of Rockingham which demonstrates to the City's satisfaction, that the completed development complies with the *Environmental Protection (Noise) Regulations 1997*.

The Final Acoustic Assessment must include the following information:

- (i) noise sources compared with the assigned noise levels as stated in the *Environmental Protection (Noise) Regulations 1997*, when the noise is received at the nearest "noise sensitive premises" and surrounding residential area;
- (ii) tonality, modulation and impulsiveness of noise sources; and
- (iii) confirmation of the implementation of noise attenuation measures.

Any further works must be carried out in accordance with the Acoustic Report and implemented as such for the duration of the development.

17. Prior to applying for a Building Permit, the applicant shall submitted revised fencing details to the satisfaction of the City of Rockingham for the sections of fencing that abut the road reserves. Such fencing is to:
 - (i) be 50% visually permeable above 1.2 metres;
 - (ii) have transparent Perspex or similar, installed to the rear of the openings in the fencing to Pedicel Avenue, Nyilla Approach and Olearia Street, to address noise generated from the use of the play areas. A sample of the proposed material shall be submitted with revised plans; and
 - (iii) be designed by a Structural Engineer to minimise the risk of a wall collapsing into the walled play areas from a vehicle colliding with the front fence. If an alternative design option/solution is proposed, details of the alternative design option are to be submitted for consideration by the City of Rockingham.
18. The modified fencing, the subject of condition 17, shall thereafter be constructed, retained and maintained in good condition to the satisfaction of the City of Rockingham for the duration of the development
19. Prior to occupation of the development site, a 1.8m high acoustic wall shall be erected to the northern boundaries of the site to the satisfaction of the City of Rockingham.
20. Prior to the occupation of the development, the verge, footpath and kerbing must be reinstated to the satisfaction of the City of Rockingham.
21. A fire hydrant is to be provided onsite so coverage can be achieved through the main entrance doors, and is to be maintained on a regular basis.
22. The applicant must demonstrate that the proposal complies with the acid Sulfate soils management regime that was approved by DWER as part of the Subdivision Application for the Edge (Stage 1).

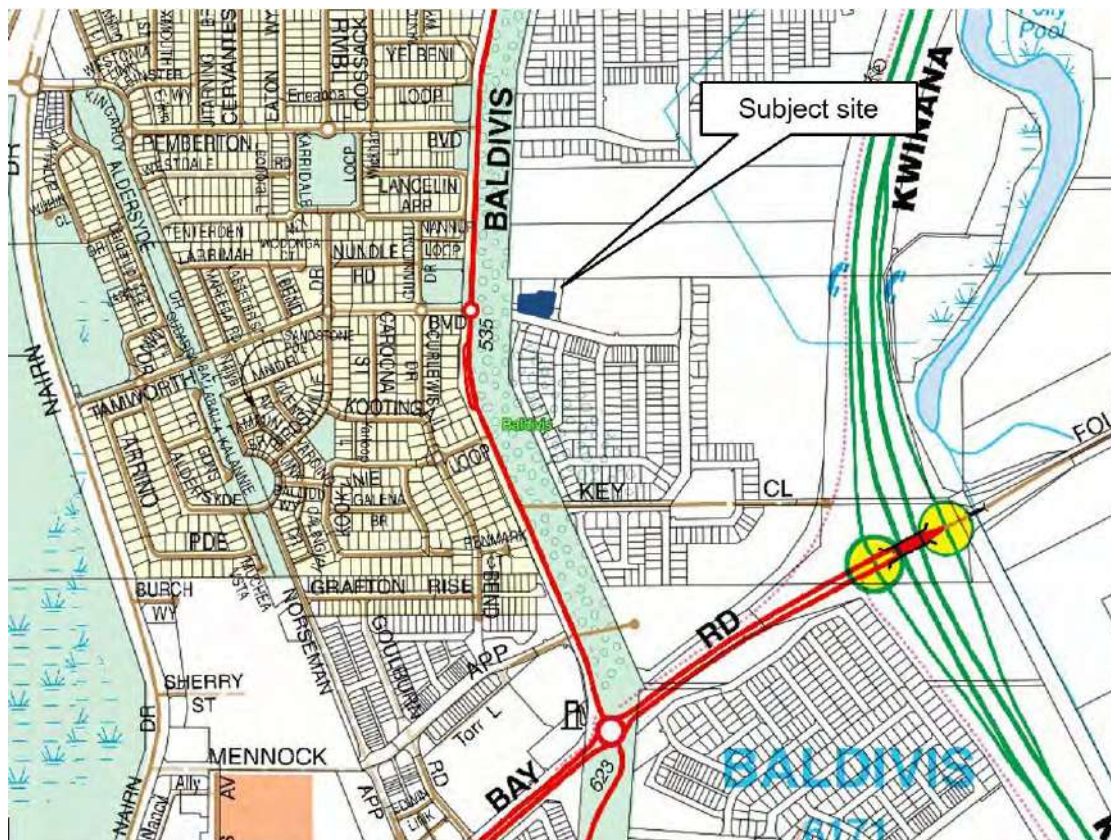
Advice Notes

1. This Approval relates to the details provided in the application; to undertake the development in a different manner to that stated in the application, a new application for Development Approval must be submitted to the City of Rockingham.
2. A Certified Building Permit must be obtained prior to construction and thereafter an Occupancy Permit must be obtained; the applicant and owner should liaise with the City's Building Services in this regard.
3. The development must comply with the *Environmental Protection (Noise) Regulations 1997*; contact the City's Health Services for information on confirming requirements.
4. The development must comply with the *Food Act 2008*, the *Food Safety Standards* and Chapter 3 of the *Australian New Zealand Food Standards Code (Australia Only)*; the applicant and owner should liaise with the City's Health Services in this regard.
5. A Sign Permit must be obtained for any advertising associated with the development, including signage painted on the building; the applicant should liaise with the City's Building Services in this regard.
6. With respect to the landscaping plan, the applicant and owner should liaise with the City of Rockingham's Land Development and Infrastructure Services to confirm requirements for the landscaping plan, including the requirements for developing and maintaining the street verges abutting the development site.
7. All works in the road reserve, including construction of a crossover or footpath and any works to the road carriageway must be to the specifications of the City of Rockingham. The applicant should liaise with the City of Rockingham's Engineering Services in this regard.
8. The applicant is responsible for protecting any existing City streetscape assets along Olearia Street, Nyilla Approach and Pedicel Avenue during the course of the project. This includes any existing streetscape lighting, kerbing, footpaths, trees, irrigation etc. If any damage is caused to the existing assets (identified to be retained), they must be rectified to the satisfaction of the Manager Land and Development Infrastructure. It is recommended that a dilapidation report is undertaken by the applicant, to record the current condition of these assets.
9. Existing street trees adjacent to the development site must be protected throughout the course of the project in accordance with Australian Standard AS 4970-2009 protection of trees on Development Sites.
10. The applicant is to seek approval for a Form 2 - Maximum Accommodation Certificate from the City in addition to the Development Approval.
11. Proposed playground installations must be installed and maintained in accordance with all relevant Australian Standards AS 4685:2014 1-6, 11 and all relevant amendments.

Details: outline of development application

Zoning	MRS:	Urban
	TPS:	Development – Residential RMD R25
Use Class:		Child Care Premises
Strategy Policy:		Planning Policy 3.3.5 Child Care Premises
Development Scheme:		Town Planning Scheme No.2
Lot Size:		2,063m ²
Existing Land Use:		Vacant land

The applicant is seeking Development Approval for a single storey Child Care Premises to be located on Lots 436, 437 and portion of Lot 9503 (No.1) Pedicel Avenue/Nyilla Approach/Olearia Street, Baldvis (the Subject Site), as shown below:



1. Location Plan



2. Location Plan - Aerial Photograph



3. Aerial photograph – Subject Site location – Location of Baldiivis Tramway Reserve

Details of the proposal are as follows:

1. 16 staff members will operate the business;
2. The business will accommodate 86 children;
3. The proposed development is single storey, with the primary pedestrian and vehicular access being from Pedicel Avenue;
4. Proposed hours of operation are 6:30am-6:30pm, Monday to Friday; and
5. The main outdoor play areas are located primarily on the southern side of the site, abutting Nyilla Approach.

The applicant provided the following documents in support of the application:

1. Covering letter/Planning Report;
2. Development Plans;
3. Environmental Noise Assessment;
4. Bushfire Management Plan and Emergency Evacuation Plan; and
5. Transport Impact Statement.

The development plans are shown below:



1 Location Plan N.T.S.



Building and
Interior Design
Solutions

CSA

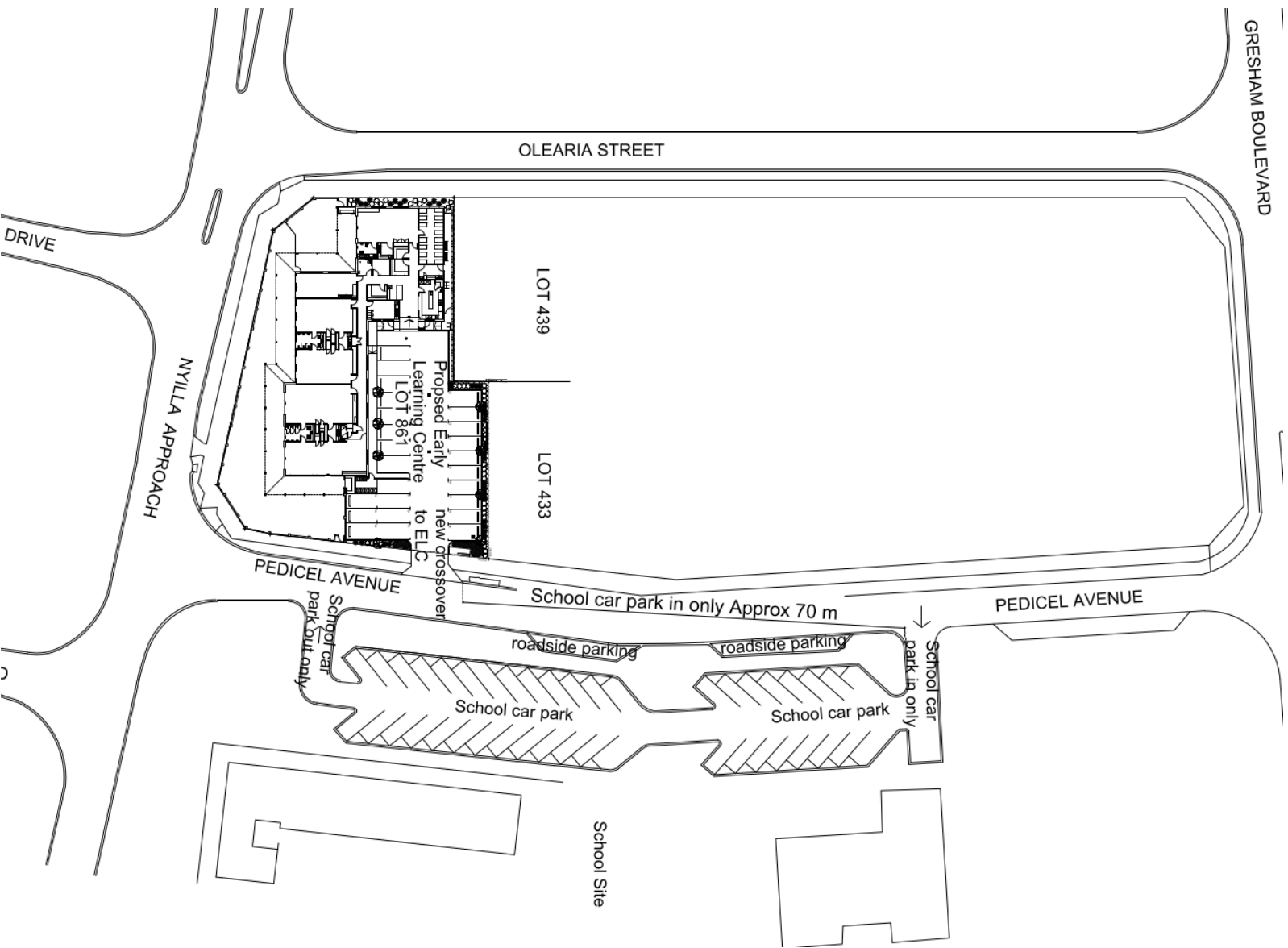
Christopher Senior & Associates

15/172 Beaufort Street Perth WA 6002
Tel: 08 9396 4101 (08 947 71447)
Email: christopher@csasolutions.com.au
Web: www.fedrick.com/ChristopherSenior&Associates-132236596794002
ABN 14946250014

Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

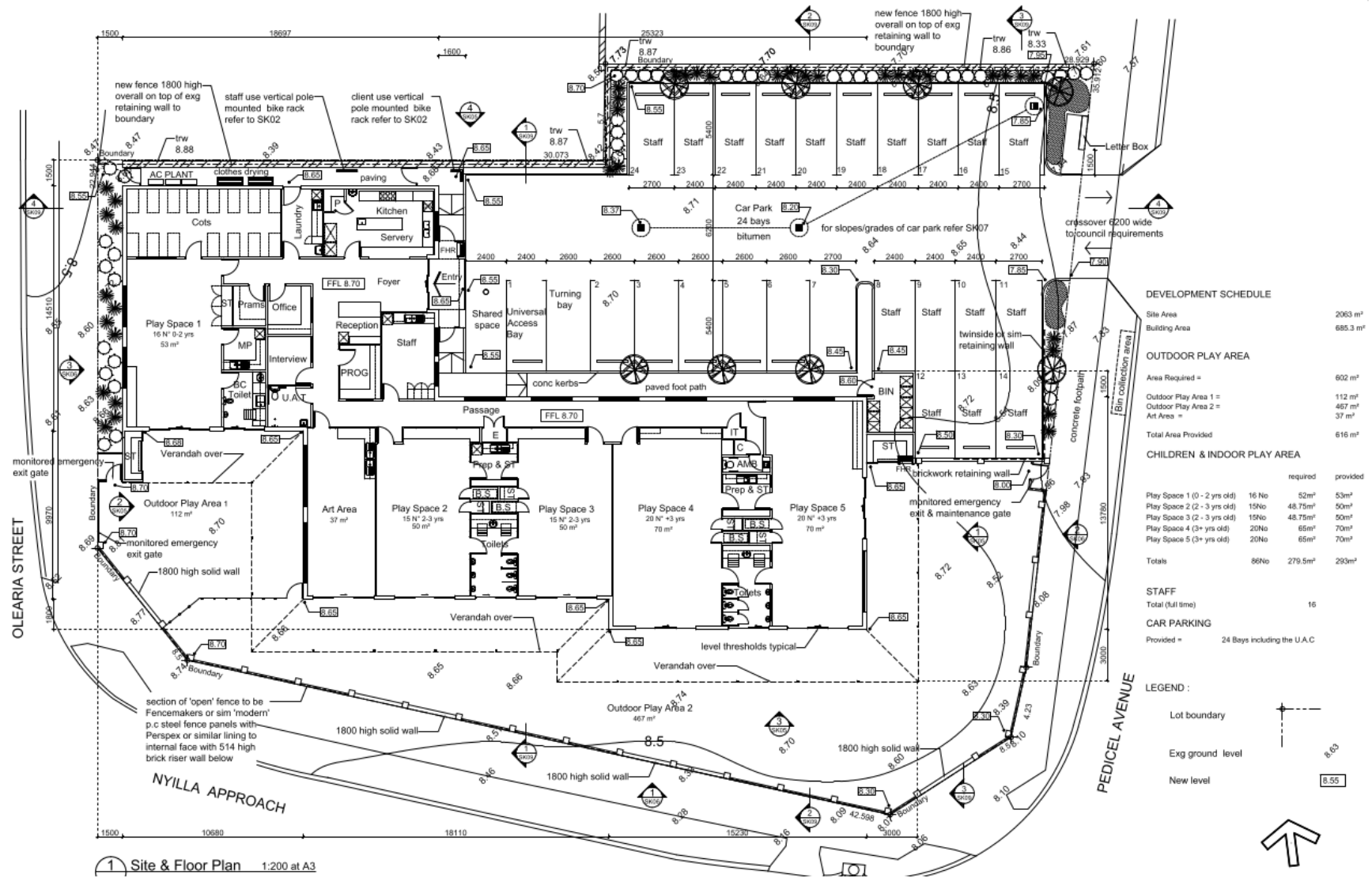
Title Location Plan		
drawn	ASH	date June 2015
scale	N.T.S	designed
date	2734	SK01a

4. Location Plan



5. Location Plan – with Primary School access points to Pedicel Avenue and car parking

Site and Floor Plan



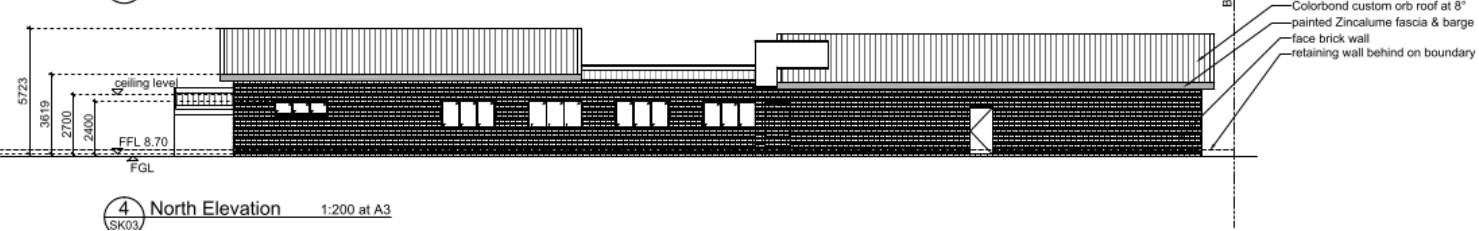
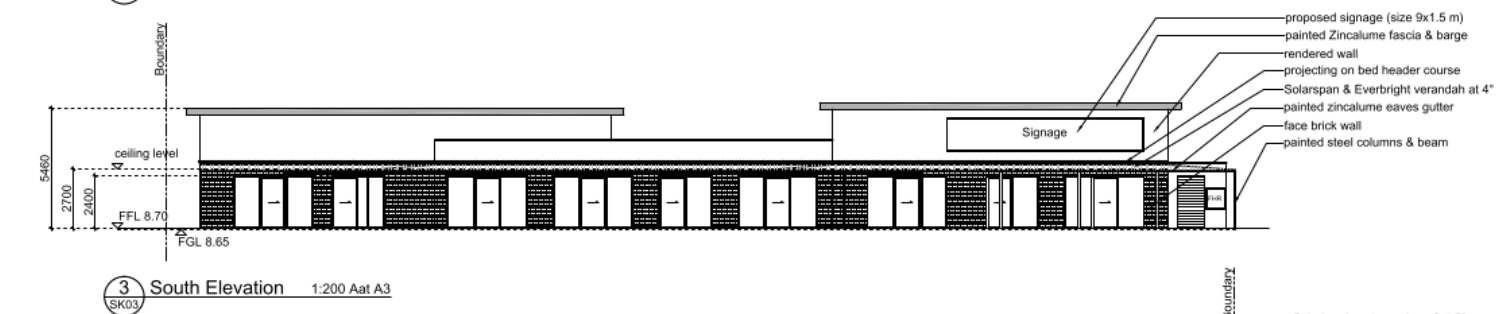
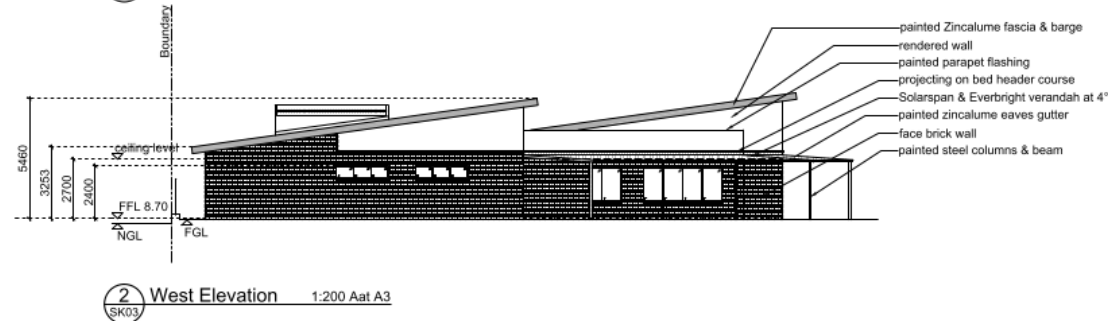
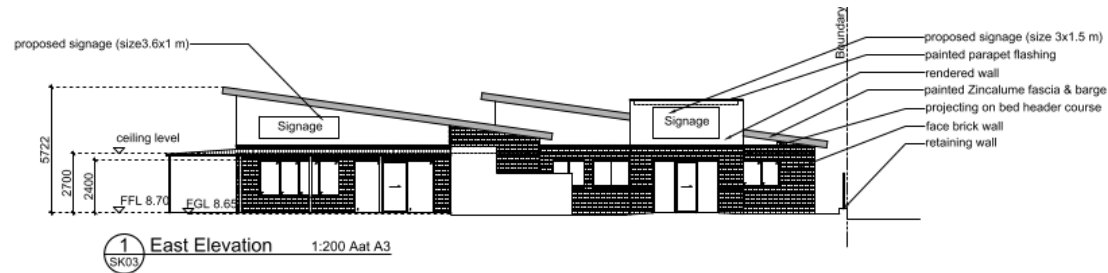
7. Site and Floor Plan (Coloured)



OLEARIA STREET



9. Elevations



MATERIALS & FINISHES SCHEDULE

Walls & Perimeter walls: Face brick, Midland Limestone Hue or similar
Render finish - colour Lexicon Quarter.

Roof Sheeting: Colorbond custom orb - colour Shale Grey

Barge Boards & Fascias: painted Zincalume to match Teal Laminex 412

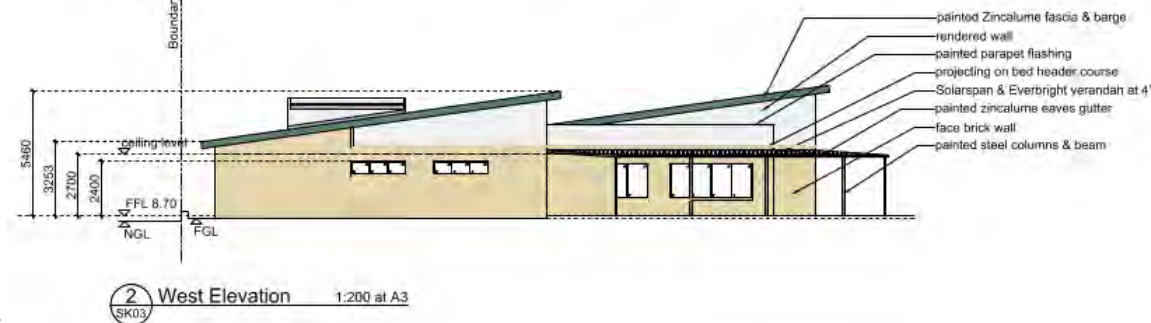
Aluminium Window & Door Frames: Powder coated - Dulux Duralloy, colour - Anotec Silver Grey

Paving: Foot paths - Atlas Easi Pave or similar- colour Charcoal.

Car Park: Bitumen, colour - Black

Fences: Fencemakers or sim 'modern' powder coated steel, colour Monument, with clear Perspex or similar lining to internal face.

10. Elevations (Coloured)



MATERIALS & FINISHES SCHEDULE

Walls & Perimeter walls: Face brick, Midland Limestone Hue or similar
Render finish - colour Lexicon Quarter.

Roof Sheeting: Colorbond custom orb - colour Shale Grey

Berge Boards & Fascias: painted Zincalume to match Teal Laminex #12

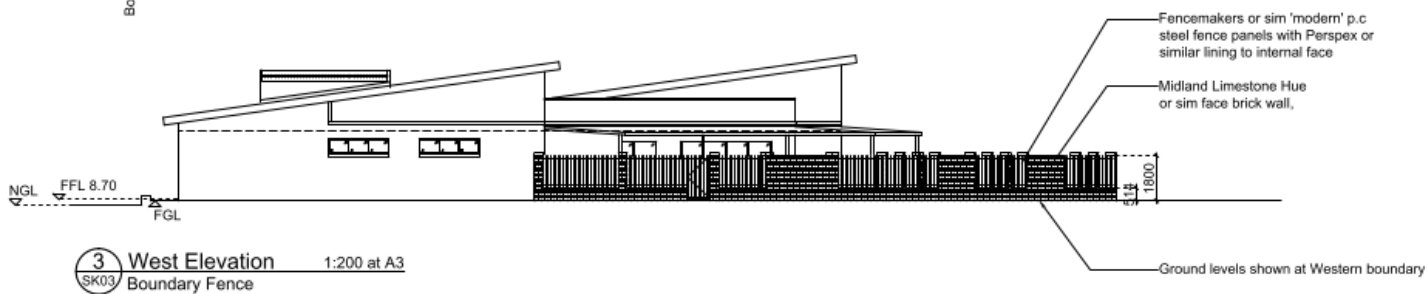
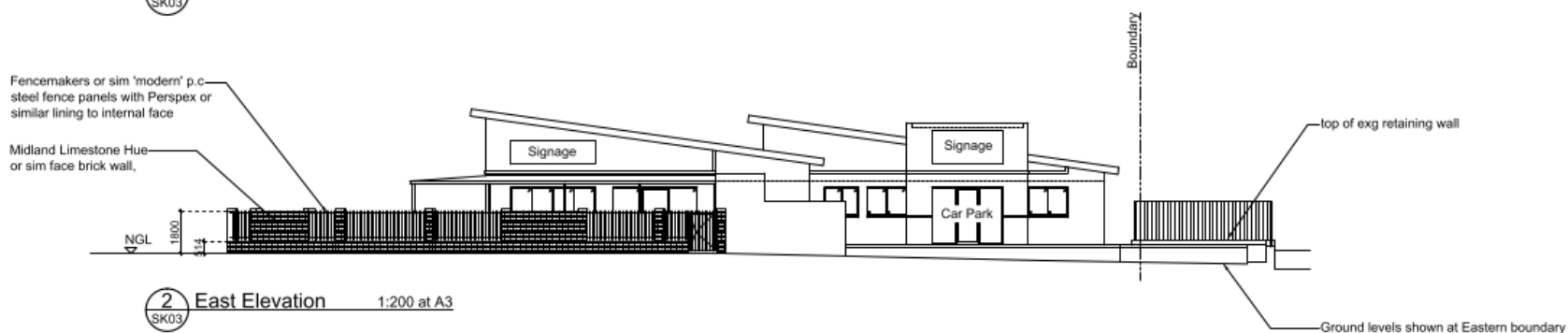
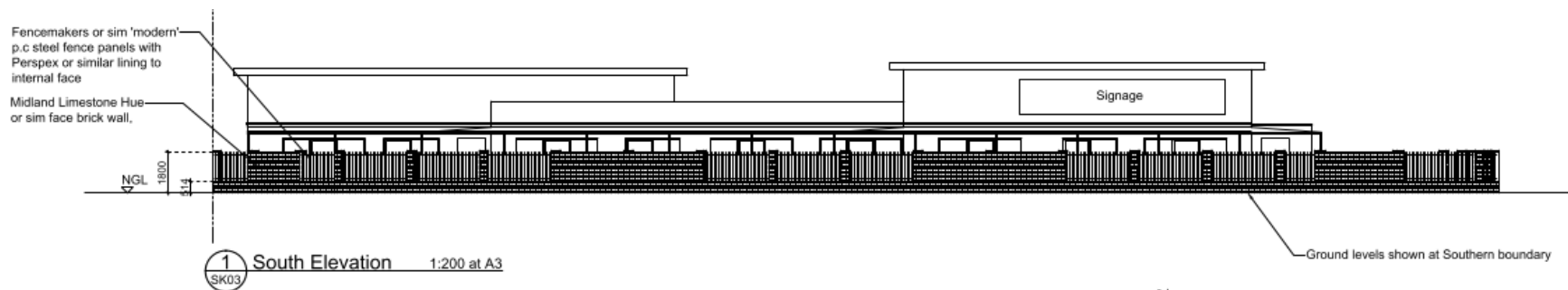
Aluminium Window & Door Frames: Powder coated - Dulux Duralloy, colour - Anotec Silver Grey

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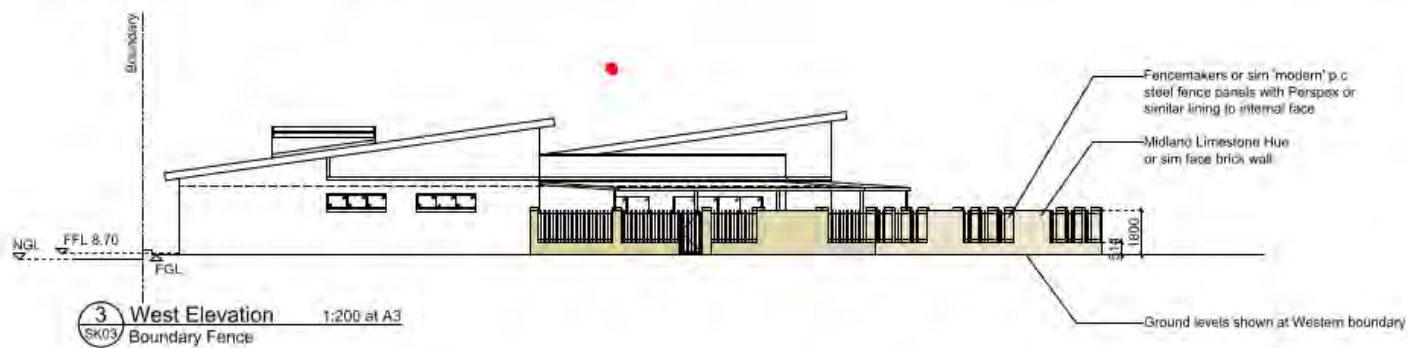
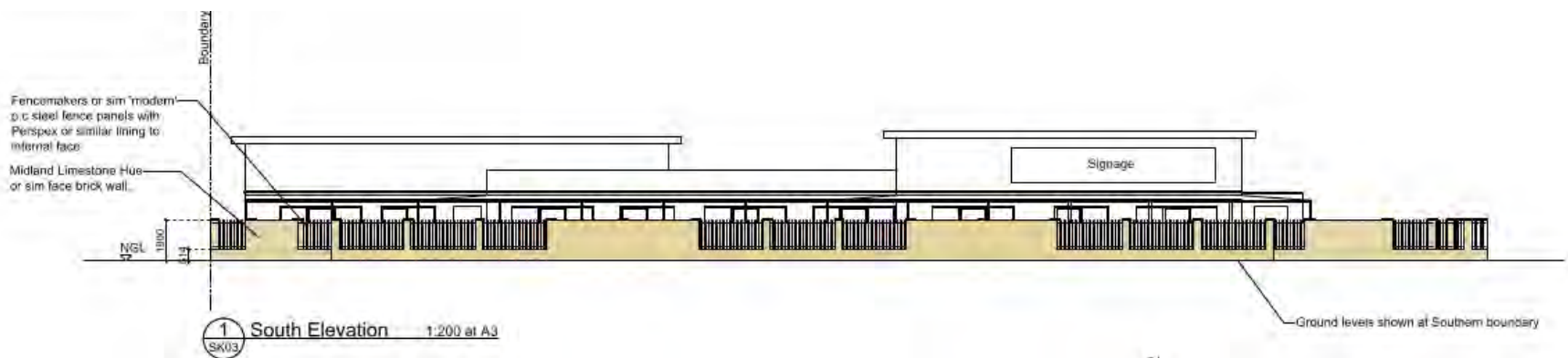
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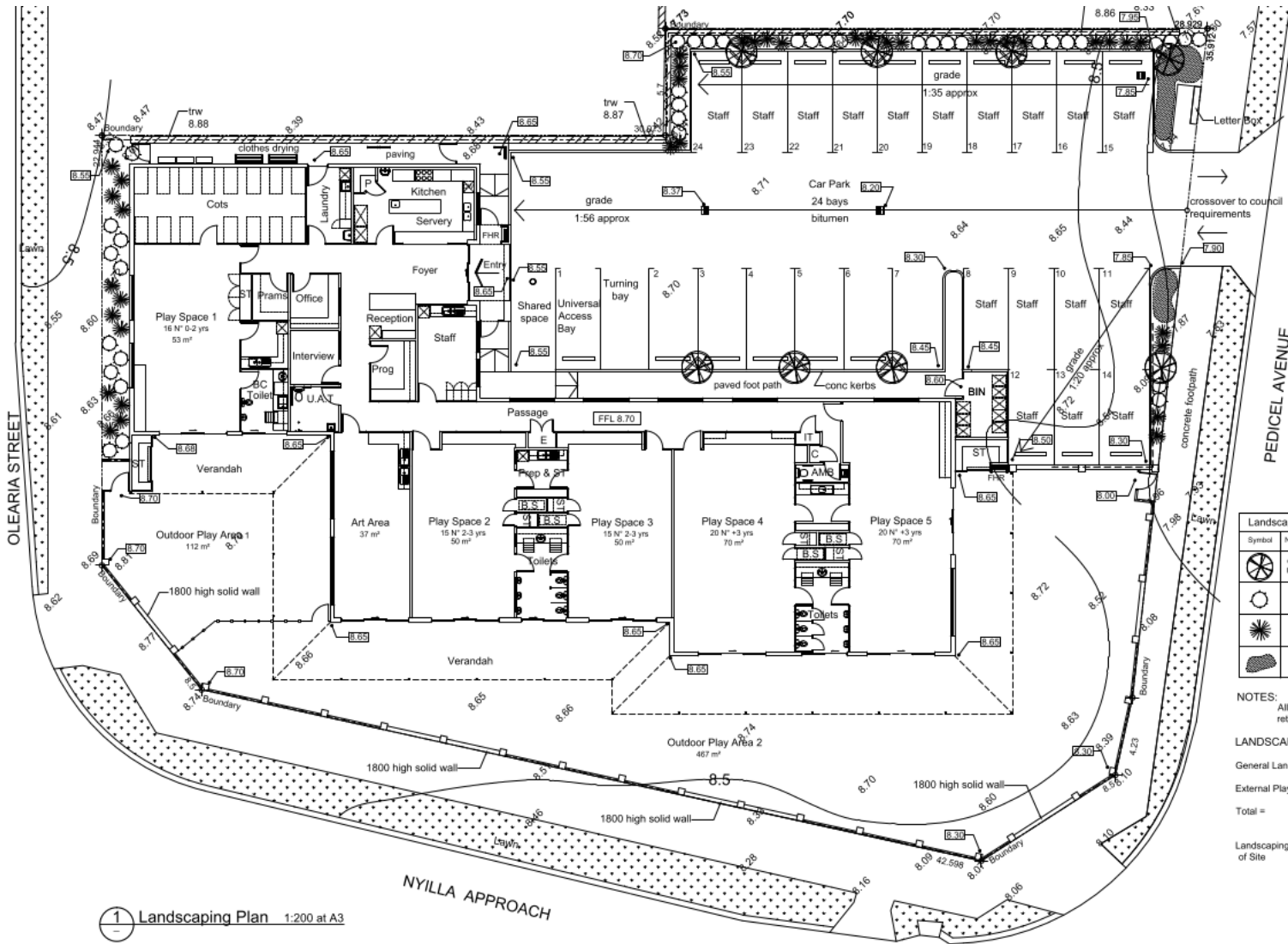
11. Elevations – Boundary Fence



12. Elevations – Boundary Fence (Coloured)



13. Landscaping Plan



Landscaping				
Symbol	Name	Total No.	Pot size	Spacing
	Ornamental Pear Pyrus Bradford	8	30L	NA
	Westringia Fruticosa Coasts Rosemary	38	200mm	800mm
	Grevillea Bonnie Prince Charlie	37	200mm	1000mm
	Flax Lily Dianella	2	150mm	450mm

NOTES:
All garden beds are to be fertilised / mulched & fully reticulated

LANDSCAPE AREA		
General Landscaping	=	78 m²
External Play Space	=	579 m²
Total	=	657 m²
Landscaping as Percentage of Site	=	31.8%

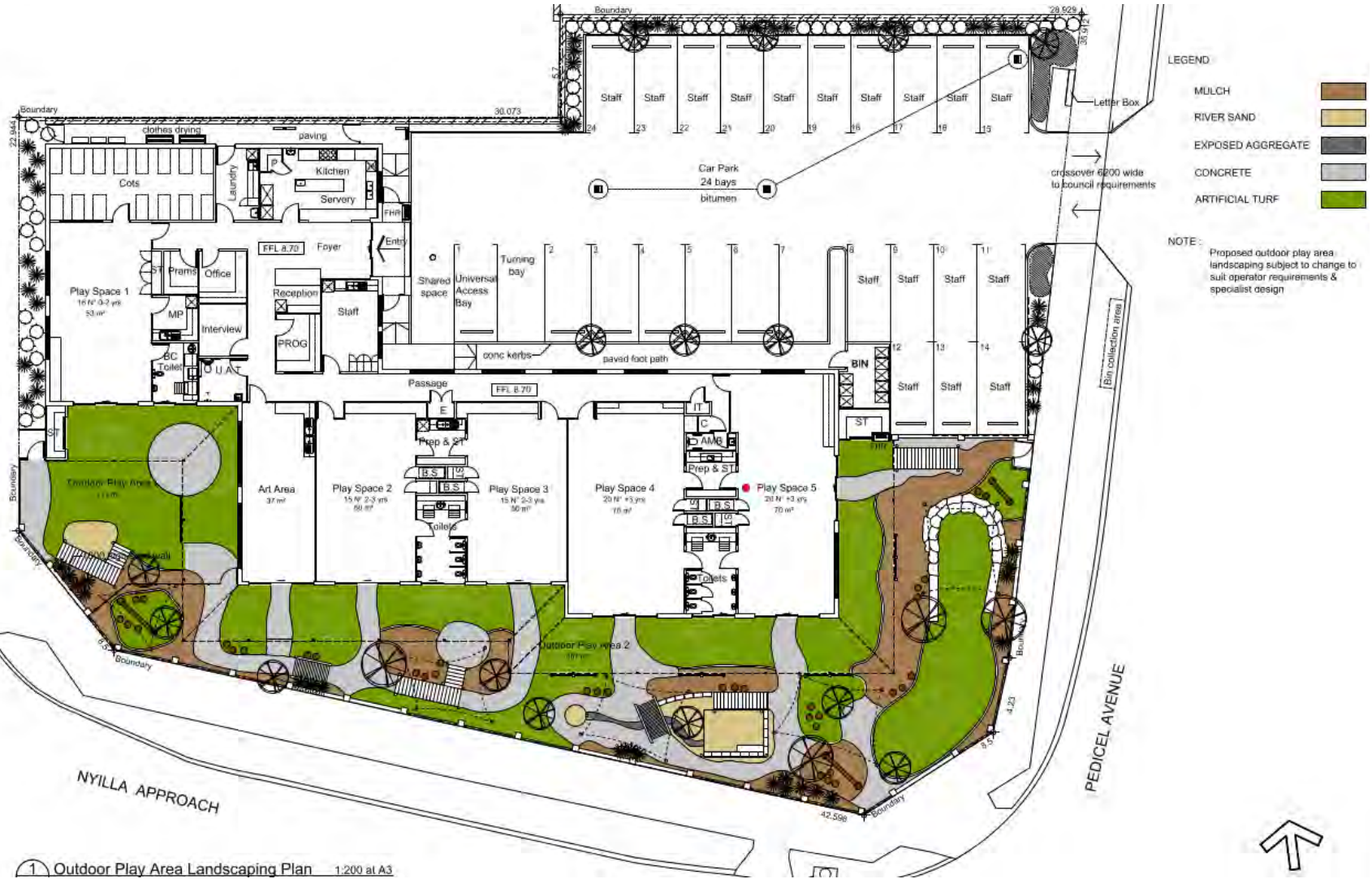
1 Landscaping Plan 1:200 at A3

14. Outdoor Play Area Landscaping Plan

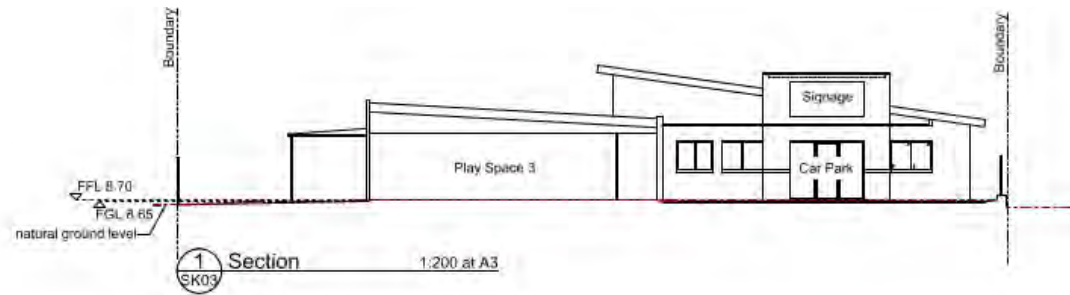
OLEARIA STREET

NYLLA APPROACH

PEDICEL AVENUE



15. Sections



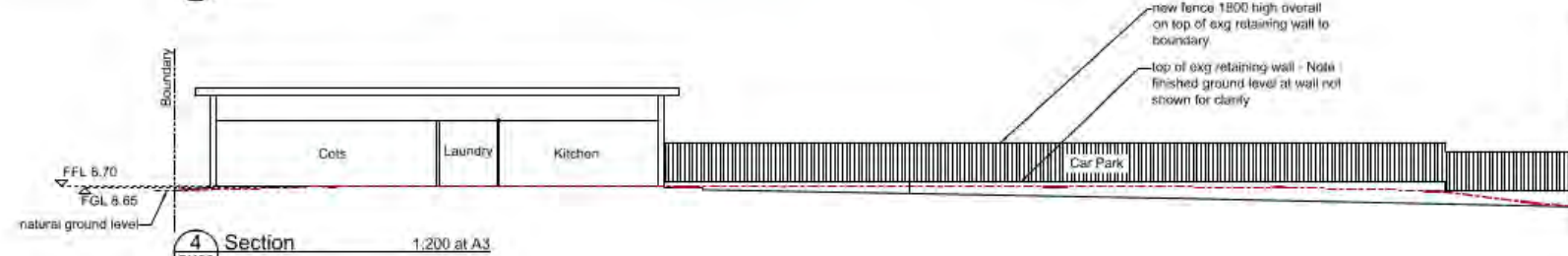
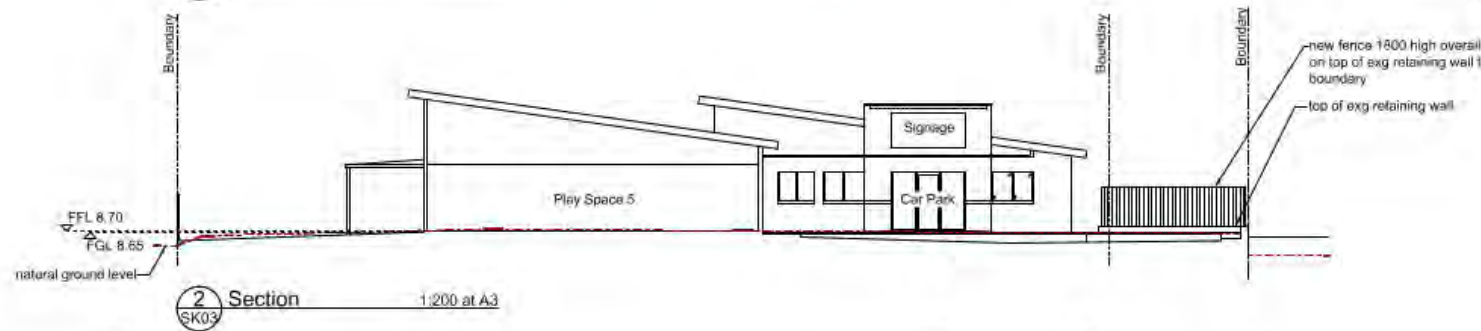
LEGEND

FINISHED GROUND LEVEL

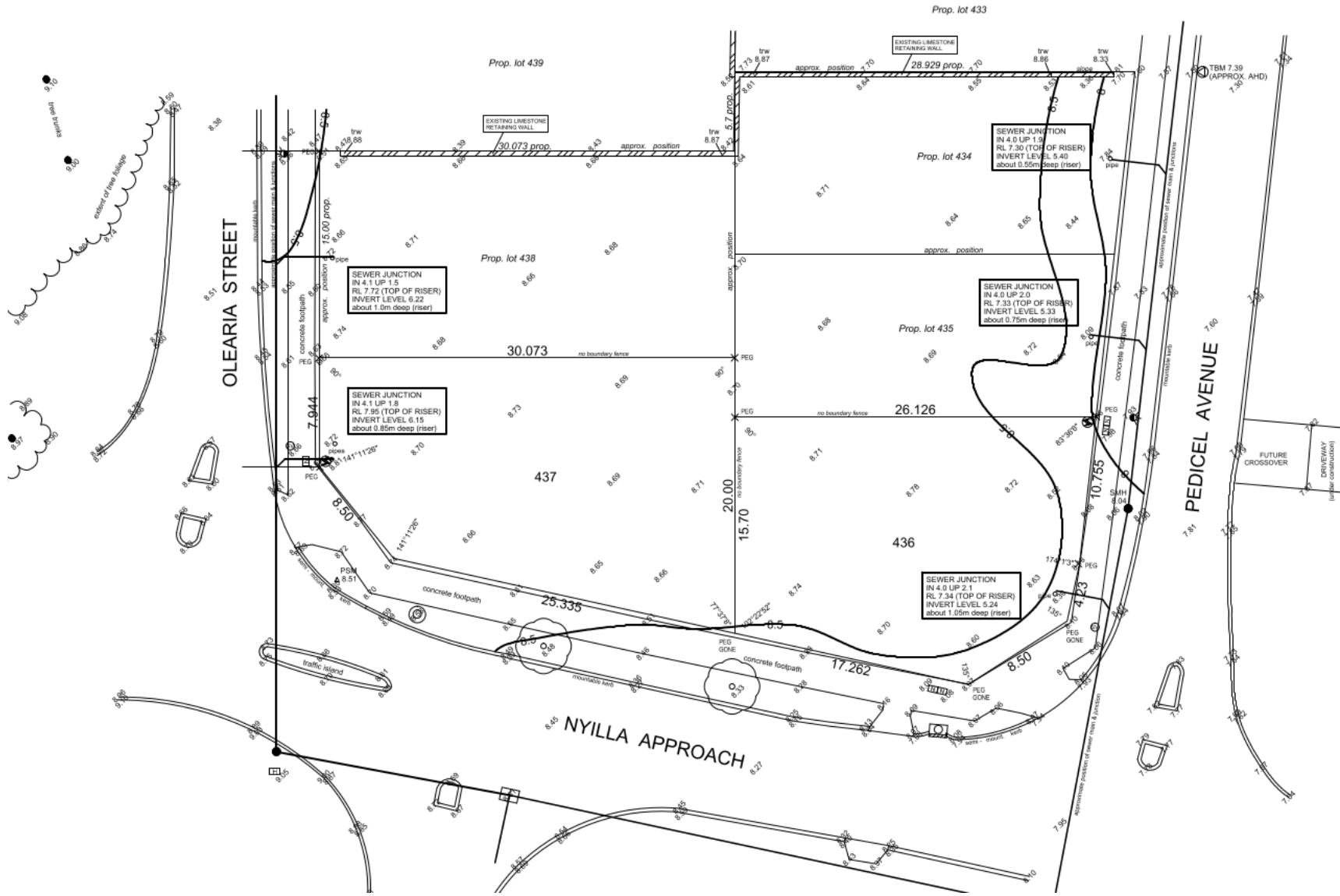
NATURAL GROUND LEVEL

NOTE

for exg & new levels refer drawing SK03



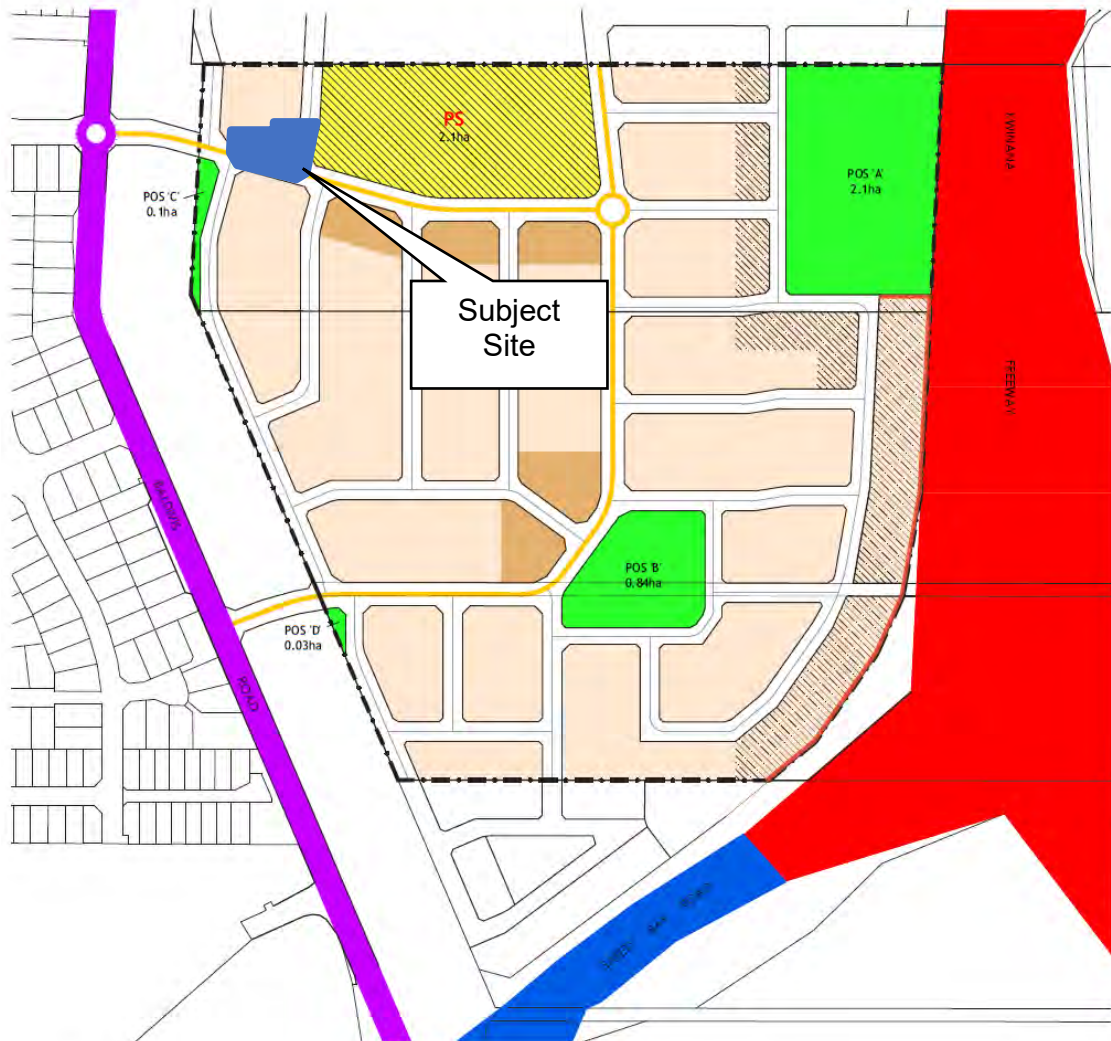
16. Site Survey Plan



Background:

The Subject Site falls within The Edge Local Structure Plan (the LSP). The site is zoned Development with an RMD R25 density coding under the LSP.

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LEGEND

ZONES

- Residential - R25 (RMD)
- Residential - R40 (RMD)

RESERVES

- Public Open Space
- Public Purposes - Primary School
- Primary Regional Road
- Other Regional Road

OTHER

- Structure Plan Boundary
- District Distributor B
- Neighbourhood Connector
- Local Access Streets
- Noise Wall (1.8 - 2.2m)
- Quiet House Design (Package A)

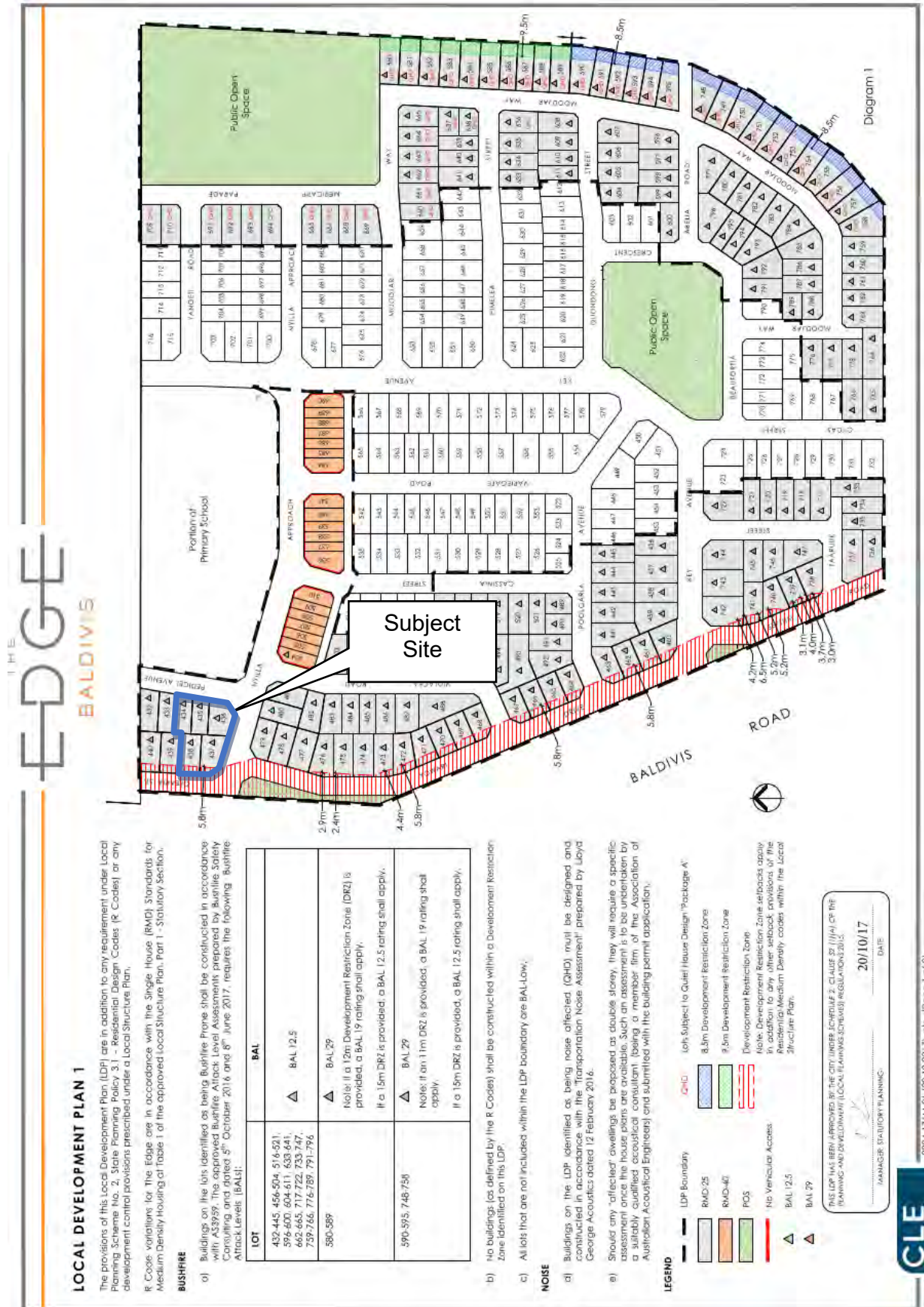
2304-97D-01 (12.10.2015), Not to scale



LOCAL STRUCTURE PLAN

Lot 3 Folly Rd and 921 & 922 Baldivis Rd, East Baldivis - City of Rockingham

17. Approved "The Edge" Local Structure Plan



18. Amended Local Development Plan – The Edge (Stage 1)

The Baldvis Tramway Reserve, which is located to the west of the Subject site, is subject to the Baldvis Tramway Management Plan June 2014 (the Management Plan) – refer to 3. *Aerial photograph – Subject Site location – Location of Baldvis Tramway Reserve.*

The Metro South West Joint Development Assessment Panel (SWJDAP) granted Development Approval for the North Baldvis Primary School (currently under construction) on the 19 September 2018, which is located to the east of the Subject Site.

Plan 18. *Amended Local Development Plan – The Edge (Stage 1)* shows the Subject Site consisting of five lots, however, only 2 of those lots (Lots 436 and 437) have been created. A portion of the remaining parent lot, being Lot 9503, is to be subdivided and amalgamated with Lots 436 and 437 to create the Subject Site as shown in Plan 18 above. On 10 July 2019, the Western Australian Planning Commission granted conditional approval for the subdivision/amalgamation of the land to create the Subject Site. The process to complete the amalgamation of the land has yet to be finalised at the time of writing this report.

The land to the north of the site, including completion of the road network system, is the subject of future staged developments.

Legislation & policy:

Planning and Development (Local Planning Scheme) Regulations 2015 (Planning Regulations)

Clause 3 of Schedule 2 of the Planning Regulations states that the Local Government must have regard to each relevant local planning policy in determining an application. The City's assessment of this proposal has given due regard to relevant policies, in the Policy section of this Report.

Clause 67 of Schedule 2 of the Planning Regulations outlines the matters to which the Local Government is to have due regard when considering an application for development approval. Where relevant, these matters have been discussed throughout this Report.

Town Planning Scheme No.2 (TPS2)

Clause 3.2 – Zoning Table

'Child Care Premises' is an 'A' land use within the Residential Zone under TPS2. An "A" land use means that the use is not permitted unless the Local Government has exercised its discretion by granting development approval after giving special notice in accordance with Clause 64 of the deemed provisions.

Clause 4.2 – Development Zone

The subject site is zoned 'Development' under TPS2. All development within the zone must be in accordance with an approved Structure Plan. The land is zoned 'Residential' under the Structure Plan with an RMD R25 density coding.

Clause 4.6.1 – Objective

The development complies with the objective of the Residential Zone, being:

The objective of the Residential Zone is to promote a high quality residential environment by maintaining and enhancing the quality of existing residential areas and providing for a range of residential densities and housing types throughout the Scheme Area.

The locality is a newly developing residential area and as such, the proposed Child Care Premises will provide an amenity to the existing/future residents of the locality, as well as complimenting the Primary School currently under construction to the east of the Subject Site.

Clause 4.15.1.3 - Carparking

Pursuant to Clause 4.15.1.3, car parking is to be provided in accordance with Table 2 of TPS2:

Land Use	TPS2 Requirement	Staff and Children	Bays Required
Child Care Premises	1 bay per 8 children	86 children	11
	1 per staff	16 staff	16
Total Required	27		
Total Bays Provided on-site	24 (excluding the turning bay)		
Shortfall	3		

There is an identified shortfall of three on-site car parking spaces based on the TPS2 car parking requirements.

The proposed on-site parking consists of:

- 1 Universal Access Bay and shared space;
- 6 visitor car parking spaces; and
- 17 staff car parking spaces, of which, a total of 6 car parking spaces are in tandem formation.

Whilst 17 car parking spaces have been provided for 16 staff, car parking space No. 24 (identified as a staff bay) could be modified in width slightly and then become suitable for use as a visitor bay, thereby increasing the number of visitor car parking spaces from 6 to 7. The Traffic Consultant has indicated that though there is a proposed three car parking space shortfall, a minimum of 6 visitor car parking spaces would be sufficient to meet the on-site visitor parking needs for the proposed use.

In addition, the development proposal also makes provision for a total of 4 (2 staff and 2 visitor) on-site bicycle parking spaces (pole mounted design).

Further, there are two on-street car parking spaces that have been provided on the eastern side of the partially constructed Pedicel Avenue. This will increase to a total of 10 on-street parking spaces following the completion of the construction of Pedicel Avenue to Gresham Boulevard (located on the northern side of the Primary School).

The applicant's TIS (July 2019) supports the visitor shortfall for the following reasons:

- *Many patrons of the child care centre will be local residents, some of which will walk their children to and from the child care centre;*
- *Some patrons of the child care centre may be employed at the adjacent primary school, east of the subject site and as such would not need to utilise the child care centre car park for drop-offs and pick-ups as they would have a reserved parking space at the place of employment;*
- *There are at least 21 embayed public parking bays available on Nyilla Approach and 2 embayed parking bays on Pedicel Avenue in the immediate vicinity of the subject site to accommodate the child care centre patrons during the peak hour pick-up and drop-off activities;*

- *It should be noted that the peak parking demand for child care centres fall outside of the school peak periods; therefore, it is expected that some of the public bays would be available during the child care centre peak parking demand;*
- *The existing child care centre at Lots 3-8, Amberley Drive, Baldivis, which has been approved by the City and is now operating satisfactorily entails 104 children and provides 26 car bays. The proposed child care centre is for 86 children and provides 24 parking bays.*

It could be further argued that parents with children attending the Primary School and the Child Car Premises could use either the on-street parking, Primary School parking or the Child Care Premises to drop off or collect their children. The approach to off-set some parking with adjacent on-street parking is consistent with how Council has considered other Child Care Centres in Baldivis. Overall there is considered to be sufficient parking both on-site and on-street.

Clause 5.3 – Control of Advertisements and Planning Policy 3.3.1 – Control of Advertisements

Under Clause 5.3 of TPS2, Development Approval is required prior to the erection of advertisements. In considering an application for an advertisement, the local government is required to consider the objectives of TPS2 and Planning Policy 3.3.1 – Control of Advertisements, in addition to any licence pursuant to the City's Signs, Hoardings and Bill Posting Local-Law. Three wall panel signs on two elevations have been identified on the plans, those being:

- One fascia sign fronting Nyilla Approach (9m wide x 1.5m high);
- Two fascia signs facing Pedicel Avenue (3.6m wide x 1m high and 3m wide x 1.5m high).

The signs have been included as part of this current development application. Subsequent approval from the City will be required for any signage on the building.

State Government Policies

State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP3.7)

SPP3.7 seeks to ensure that the location and construction standards of buildings within Bushfire Prone areas is commensurate with the calculated fire threat.

As the subject site falls completely within the State's Bushfire Prone Area Map, the application was required to address the requirements of SPP3.7 and the associated Guidelines for Planning in Bushfire Prone Areas (the Guidelines) by providing a Bushfire Management Plan and an Emergency Evacuation Plan. A Childcare Centre is considered to be a vulnerable land use in terms of SPP3.7, requiring an Emergency Evacuation Plan to be submitted in support of a development proposal.

The submitted Bushfire Management Plan and Emergency Evacuation Plan, are considered to be satisfactory and have been approved by the Department of Fire and Emergency Services (DFES). This is discussed in the consultation section of this report.

Local Policies

Planning Policy No.3.3.5 - Child Care Premises (PP3.3.5)

At its meeting held on the 27th August 2019, Council adopted for Final Approval, Amendment No. 176 to TPS2 and separately, supported changes to PP3.3.5 subject to the gazettal of Amendment No. 176. Amendment No. 176, amongst other matters, will change the permissibility of land use for Child Care Premises in the Light Industry Zone from a “D” discretionary land use to an “X” prohibited land use.

The City, running parallel with the Scheme Amendment Process, has undertaken the process to amend PP3.3.5 to address the change in the permissibility of land use as identified above, as well as:

- i) Changing the permitted hours of operation of a Child Care Premises from 7:00am to 6:30am; and
- ii) Various administrative changes.

The key change in PP3.3.5 relevant to this planning application is the change to the permitted hours of operation for a Child Care Premises as outlined in i) above. The proposed hours of operation for the Child Care Premises are consistent with i) above.

Council resolved that the changes to PP3.3.5 will only come into effect upon the gazettal of Amendment No. 176. Consequently, the revised PP3.3.5 can be considered a seriously entertained planning proposal having regard to the advanced stage of the finalisation of Scheme Amendment No. 176.

The following is an assessment of the proposal against the requirements of PP3.3.5:

Requirement	Provided	Compliant
Location		
(a) Distributed strategically to provide the maximum benefit to the community it serves;	(a) The site is located within an area that is an existing/developing residential locality.	Yes
(b) Within easy walking distance or part of appropriate commercial, recreation or community nodes and education facilities;	(b) Pedicel Avenue separates the Subject site and an adjoining education facility (North Baldivis Primary school - currently under construction);	Yes
(c) Located in areas where adjoining uses are compatible with a Child Care Premises (includes considering all permissible uses under the zoning of adjoining properties);	(c) Located in a newly developing Residential area, whilst located adjacent to a Primary School (currently under construction);	Yes
(d) Serviced by public transport (where available);	(d) Public transport not provided within area yet as area is still being developed. Existing public transport provided along Birdsvie Drive (500m) and proposed route along Keys Avenue (east side of Primary School) (estimated 300m);	Yes
(e) Considered suitable from a traffic engineering/safety point of view;	(e) Traffic Impacts are discussed further below, where they are considered to be acceptable.	Yes
(f) Of sufficient size and dimension to accommodate	(f) The lot is 2,063m ² in area, which is sufficient to accommodate a	Yes

development without affecting amenity of the area.	Child Care Centre of this scale.	
Site Characteristics		
As a general rule, sites in a residential area should be of regular shape and greater than 1,000m ² in size. A maximum site coverage of 50% will apply to any proposal to prevent the over-development of any lot.	The site is fairly regular in shape, flat and retained. Some fill is to be removed in north-eastern corner of site to accommodate access to the car parking area from Pedicel Avenue. The site area of 2,063m ² is larger than the 1,000m ² referred to in PP3.3.5. Proposed site coverage does not exceed 50% (approximately 33%)	Yes
Carparking		
Parking to be provided in accordance with TPS2 as discussed above	Discussed in the Legal and Statutory section of this report, sufficient on-site car parking bays have been provided based on the Traffic Impact Statement (TIS).	Yes
Traffic Impacts		
A traffic impact statement /assessment will be required where, in the opinion of the Manager, Statutory Planning, a proposed Child Care Premises has the potential to impact on the functionality and amenity of an area and may create or exacerbate unsafe conditions for children and families using the premises, or for pedestrians or road users.	A TIS has been provided by the applicant, which the City considers to be acceptable.	Yes. Having regard to the location of the walled play areas being adjacent to three intersections, it is considered that the front fencing should be constructed to a higher standard. This is to minimise the risk of a wall collapsing into the play areas from a vehicle colliding with the fence. If an alternative option is proposed, the details are to be submitted to the satisfaction of the City of Rockingham.
Noise Impacts		
A noise impact assessment may be required for the development of a Child Care Premises. The objectives should be to limit the noise impact of the Child Care Premises on adjacent properties, and also limit any noise impact from external sources on the Child Care Premises. This may be achieved either by physical separation, design and layout of	An Environmental Noise Assessment has been provided. The report recommends that certain matters be undertaken to address noise related to outdoor child play, mechanical plant noise and car doors closing. The report also recommends the operators to undertake certain "Best Practices" to help minimise the impact of the activities of the Child Care Premises on the adjoining	Yes – however, it is noted that noise prevention measures will be required to mitigate the potential noise generated by the development. Conditions of approval are recommended in

<p>the premises or by implementing noise mitigation measures, such as acoustic treatments to buildings. Although each application will need to be assessed on its individual merits, the following basic principles apply:-</p> <p>(a) Where a Child Care Premises is located adjacent to a noise sensitive use, such as houses, retirement villages and nursing homes, the noise-generating activities of the Child Care Premises, such as the outdoor play areas, parking areas and any plant equipment, are to be located away from the noise sensitive use;</p> <p>(b) Where, due to design limitations or safety considerations, noise-generating activities such as outdoor play areas are located close to noise-sensitive uses, appropriate noise mitigation is to be undertaken; and</p> <p>(c) The design and construction of buildings may include noise-mitigation measures to reduce impact from external sources and to achieve accepted indoor noise limits.</p>	<p>residential properties.</p> <p>The external play areas are located to the south of the main building. The car parking area will be adjacent to the Pedicel Avenue residential lot. The Acoustic Report has stated that a solid fence will attenuate the impacts of the noise from the car parking area.</p> <p>The Acoustic Report indicates three options for minimising the impact of noise from the child play areas. The preferred and most manageable option is shown on the proposed plans, which incorporates "Perspex or similar" to the openings in the street fence as recommended in the Acoustic Report. There is no objection to this option provided the Perspex or similar material is transparent to allow for street surveillance whilst attenuating noise. The alternative options of controlling the number and age of children within the play areas through conditions and then enforcing the conditions of approval seem unreasonable when a physical noise barrier will achieve the desired outcome.</p>	<p>this respect.</p> <p>Yes</p>
Design Considerations		
<p>The appearance of a Child Care Premises must be consistent with the scale and character of the locality. In this regard, where the development is located in a residential area, the built-form should lend itself to domestic (residential) architecture.</p> <p>Setbacks to side and rear boundaries and the orientation of openings to indoor play areas should minimise any impact on adjoining properties.</p> <p>Outdoor play areas are to be located so as to limit their impact</p>	<p>The building has been design as a single storey building with a lean to roof design. The wall height of the development is 3.25m and the maximum roof pitch height of 5.72m (which is located towards the centre of the site).</p> <p>The development is setback from the northern side boundary in accordance with the R-codes.</p> <p>The landscaped outdoor play areas are to be located to the south and</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>

<p>on the amenity of adjoining properties, whilst taking advantage of a passive solar orientation wherever possible.</p> <p>Measures should be taken to ensure that play areas are large enough and of such dimensions to be useful as play areas, and side setback and leftover building areas are not desirable for the purpose.</p> <p>Where a play area is located in the front setback area, fencing of the area should be of predominantly open construction to provide a safe playing area without closing the site in, casting shadows on the play area, or adversely affecting the residential streetscape.</p> <p>Landscaping will be required along the frontage of the development to a standard equal to that required or provided for on adjacent properties. Landscaping should not include potentially hazardous heights and potentially toxic plants.</p>	<p>east of the main building, away from abutting residential lots. .</p> <p>Play areas are contiguous and partly covered to provide weather protection during various weather conditions.</p> <p>The fencing is of masonry construction with wrought iron panel infills. Any shadowing from fencing will be generally onto the street.</p> <p>Landscaping will be provided in parts along the Pedicel and Olearia Street frontages. The verges are to be upgraded and maintained as part of this approval.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
Hours of Operation		
For Child Care Premises in Residential areas, hours of operation will be restricted to 7.00am to 7.00pm, unless otherwise agreed to by the Council.	Proposed hours of operation are 6:30am – 6:30pm, with children not using the courtyard until after 7:00am	Compliant with adopted final version of PP3.3.5 (to come into force after gazettal of Amendment No. 176).
Advertising Signs		
Any proposed advertising sign must accord with the provisions of clause 5.3 of Town Planning Scheme No 2. Furthermore, a Sign Permit application is required to be submitted to the Building Department, pursuant to the Council's Signs, Hoardings and Bill Posting Local-Law.	Three indicative Wall Panel advertising signs are depicted on the plans. Should the application be approved, a condition requiring the submission of a final Signage Strategy is recommended.	Yes
Need for Child Care Premises		
Where, in the opinion of the Manager, Statutory Planning, a proposed Child Care Premises may have an adverse impact on the level of service to the community by similar existing or	The closest educational facility is 16m away (North Baldivis Primary School), with the closest Child Care Centre located in Monaghan Close/Nairn Drive/Safety Bay Road (Approximately 1.5km away in a	Yes

approved facilities, the proponent will be required to provide further information in regard to the level existing services in the locality, proximity to other Child Care Premises, population catchments for the proposed Child Care Premises and the number of primary schools and kindergartens in the locality, in relation to the development of the proposed new facility.	direct line).	
Building Approval		
Where a Child Care Premises requires the construction of a new building or modifications to an existing building, a Building Permit will be required from the Council (in addition to a Development Approval).	An advice note will stipulate this.	Noted
Health Approval		
Where a Child Care Premises requires the construction of a new building or modifications to an existing building, a Form 2 - Maximum Accommodation Certificate will be required from the Council (in addition to a Development Approval). In addition, an Application for a Certificate of Registration of a Food Premises must also be submitted. The food preparation area is required to comply with the Food Act 2008 and Chapter 3 of the Australia New Zealand Food Standards Code.	An advice note will stipulate this.	Noted
Consultation		
All applications for Development Approval for the establishment of Child Care Premises in the Residential and Development zones will be the subject of a process of community consultation in accordance with clause 6.3.3 of Town Planning Scheme No.2 and Planning Procedure No.1.3 – Community Consultation.	The application was advertised for 21 days to the surrounding community – no submissions were received.	Noted

Consultation:

Public Consultation

The application was advertised to nearby and adjoining landowners for a period of 21 days, concluding 23 July 2019, as per the requirements of *Planning Policy 3.3.5* -

Child Care Premises. Documents supporting the application were also made available to the public on the City's website – "Share your thoughts". At the close of the advertising period, no public submissions had been received.



19. Consultation Plan

Consultation with other Agencies or Consultants

Department of Education

Consultation with the Department of Education occurred as the future land owner of the adjoining primary school site to the east of the subject site. The Department advised in writing that it had no objections to the proposed Child Care Premises.

Department of Fire and Emergency Services

The BMP was referred to the DFES for review and DFES provided the following advice:

DFES advises that the proponent has adequately identified issues arising from the bushfire risk assessment and considered how compliance with the bushfire protection criteria can be achieved within the submitted BMP.

DFES further advises that as per BCA E1.3, buildings over 500m² require fire hydrants. A fire hydrant is preferred to be provided onsite, so coverage can be achieved through the main entrance doors and maintained on a regular basis.

Based on the above, it is considered that a condition of development approval can be imposed to address the matter raised by DFES.

Officer Comments

The proposed development complies with the City's TPS2 and Policies and is considered to be a suitable use/development for the site and the locality.

It is therefore recommended that the SWJDAP conditionally approve the application.

Council Recommendation

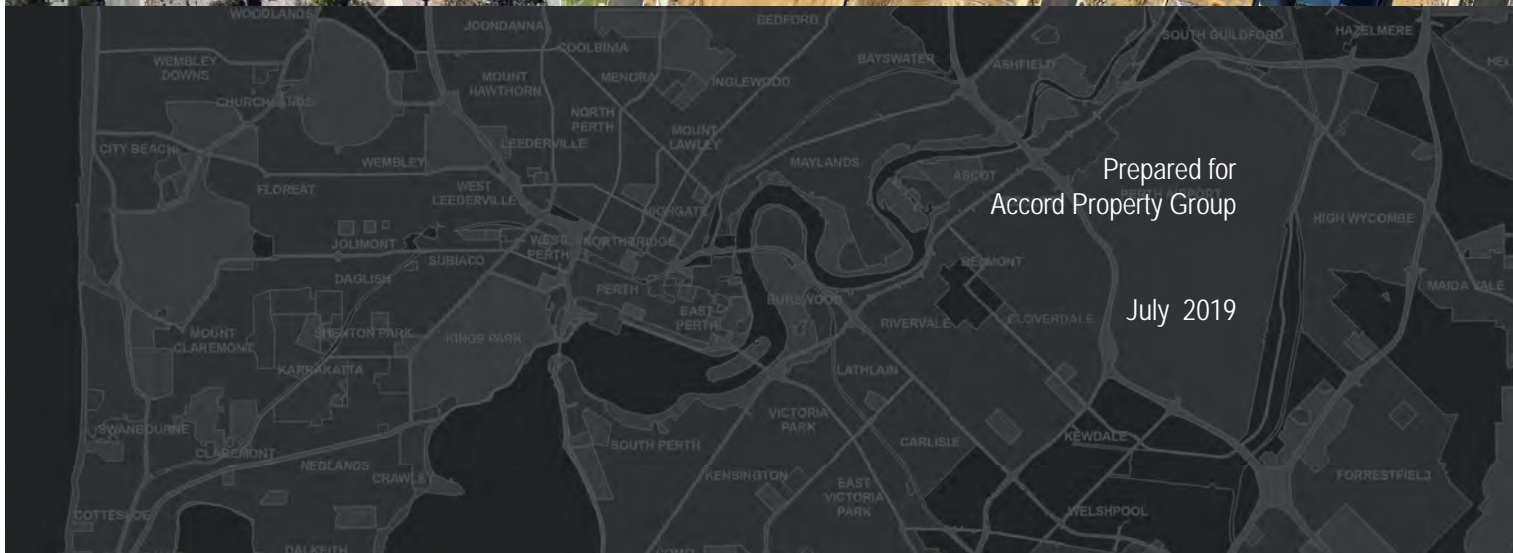
The application was referred to the 29rd October 2019 Ordinary Council Meeting, where the Officer's recommendation was supported by the Council.

Conclusion:

The proposed Child Care Premises is compliant with TPS2 and Policy requirements. It is therefore recommended that the application be conditionally approved.

Proposed Child Care Centre

Lot 9014, Lot 437 (2) Olearia Street
& Lot 436 (1) Pedicel Avenue,
Baldivis, WA



Prepared for
Accord Property Group

July 2019

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- Figure 1: Aerial Photo
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Appendices

- Appendix 1: Certificates of Title and Deposited Plans.
Appendix 2: Development Plans.
Appendix 3: Landscaping Plan.
Appendix 4: Transport Impact Statement.
Appendix 5: Environmental Noise Assessment.
Appendix 6: Bushfire Management Plan.
-

1 Introduction

Planning Solutions acts on behalf of Accord Property Group, the proponent of the proposed development at Lot 436 (1) Pedicel Avenue, Lot 437 (2) Olearia Street and Lot 9014, Baldivis (subject site). Planning Solutions has prepared the following report in support of an Application for Development Approval for an 86 place childcare premises and associated carparking, access, signage and landscaping on the south western portion of the subject site (development area).

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

- Background.
- Site details.
- Proposed development.
- Town planning considerations.

This application seeks approval for the use and development of a childcare premises catering for 86 children and 16 staff on the subject site. The proposed development is appropriately situated within the emerging Baldivis locality and has been designed in manner that responds to the intended prevailing residential character of the locality. The proposed centre is located adjacent to a future primary school and provides additional community services and employment opportunities to the growing locality.

Accordingly, Planning Solutions respectfully requests the Metro South-West Joint Development Assessment Panel (JDAP) grant approval to the application.

2 Background

2.1 Meeting with the City of Rockingham

Ongoing engagement and consultation has occurred with the City of Rockingham (City) since project inception, including a meeting with the City on 9 April 2019.

The outcome of the above engagement was as follows:

- The City's officers have no in-principle objection to the suitability of the proposed development. Notwithstanding, the development will be required to be designed in a manner that responds to the intended residential character of the locality with setbacks, articulation, scale and materials reflecting adjoining properties.
- Development shall be in accordance with the R-MD codes contained within the applicable Local Development Plan as well as the City's Childcare Centre Policy.
- The development should also address Nyilla Approach, and where possible, avoid any blank walls.
- The City's officers advised that any crossover to the site should avoid the location of any crossover to the school, eliminating any four way intersections.
- The City officers advised that Development Restriction Zone contained within the Local Development Plan was part of the Asset Protect Zone for the subdivision. The City will support development within this zone if it can be demonstrated that the development will achieve a BAL-29 rating or less.
- The City noted that an appropriate bin storage area is required and should be detailed on the development plans.

The comment received at this pre lodgement engagement have been factored into the overall design and configuration of the proposal that forms this development application.

2.2 Subdivision

The subject site is currently undergoing subdivision and the lot creation process as part of the development of The Edge housing estate. At the time of application, only Lots 436 and 437 have been created. Ultimately, the development area will also comprise Future Lots 434, 435 and 438, which are currently part of Balance Lot 9014.

Following approval, the development area will be amalgamated into a single title.

3 Site Details

3.1 Land Description

Refer to Table 1 below for a description of the land subject to this development application.

Table 1 – Lot details

Lot	Plan	Volume	Folio	Area (m ²)
436	409216	2915	118	436
437	409216	2915	119	488
9014	413443	2951	951	70,667
Total				71,591

The development area is situated on the south western portion of the subject site and comprises an area of 2,063m².

Refer to Appendix 1 for copies of the Certificates of Title and Deposited Plans.

3.2 Location

3.2.1 Regional Context

The subject site is located within the City of Rockingham (City) and is situated in the suburb of Baldivis, located on the peri-urban fringe of the metropolitan area. The subject site is located approximately 41 kilometres south of the Perth city centre and 10 kilometres south east of the Rockingham city centre.

The subject site is in close proximity to the Kwinana Freeway and Mandurah Road, connecting the subject site to the wider metropolitan area.

Bus services are provided along Baldivis Road, approximately 400 metres from the subject site and link the subject site to the Warnbro Railway Station. Proposed and existing pedestrian and cycling paths are located in close proximity to the subject site, including the Kwinana Freeway PSP.

3.2.2 Local Context, Land Use and Topography

The subject site is situated within the emerging Baldivis locality, located within 'The Edge' estate. The immediate locality is under development with roads, residential lots, and a primary school currently under construction. The subject site is surrounded by cleared allotments and land under development, with single detached residential dwellings located in close proximity, on the opposite side of Nyilla Approach. Ultimately, the subject site will be surrounded by low to medium density residential dwellings and public open space as well as a primary school, situated on the opposite side of Pedicel Avenue.

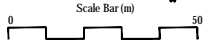
The wider Baldivis locality is generally characterised by residential development (emerging and existing) as well as associated civic, commercial and community uses. The Baldivis town centre is located approximately 600 metres south of the subject site.

The subject site is currently vacant, filled and levelled. The land is generally flat. Refer to Figure 1, aerial photograph and Photos 1-6, depicting the subject site and surrounds.



LEGEND

Subject Site





Photograph 1: The subject site as viewed from Pedicel Avenue, facing south west.



Photograph 2: Pedicel Avenue facing south, .



Photograph 3: The subject site as viewed from Nyilla Approach, facing north.



Photograph 4: The subject site as viewed from the Olearia Street / Nyilla Approach intersection, facing north east.



Photograph 5: Nyilla Approach facing east, as viewed from the Yowari Drive intersection.



Photograph 6: The Nyilla Approach / Olearia Street intersection, facing west.

4 Proposed Development

This application seeks development approval for the construction of a single-storey, 86-place childcare premises and associated parking, access, landscaping and signage. The proposed development will provide an essential community service for the growing Baldivis locality and has synergies with the proposed primary school, situated opposite the subject site which is currently under construction.

The development has been designed in a manner to reflect the emerging residential and ecological character of the locality, with the overall built form and design sensitive to its surrounds. The development has also been designed to minimise any undue amenity impact and has been demonstrated to be satisfactory from a traffic, acoustic and bushfire perspective.

The development maximises the use of its site and has been oriented to address the primary street as well as to minimise any impact to future adjoining residential properties. Extensive landscaping has also been used to ensure the site addresses all street frontages and provides adequate and suitable open space for children of the centre.

4.1 Development Summary

Specifically, the proposed development comprises:

- A single storey childcare centre building on the central portion of the subject site. The building is setback:
 - 1.5 metres from the northern boundary.
 - 1.5 metres from Olearia Street.
 - 5 metres from Nyilla Approach.
 - 9.6 metres from Pedicel Avenue.
- The internal floor layout comprises:
 - Entrance foyer and reception.
 - Kitchen and servery.
 - 5 play spaces.
 - Cot room.
 - Art room.
 - Laundry.
 - Offices, staff rooms, storage rooms and amenities.
- Two separate outdoor children play spaces, intended to serve the respective age group to which they are co-located.
- 24 car parking spaces, comprising:
 - 8 visitor car bays.
 - 16 staff car bays, 6 of which are in tandem.
 - One accessible bay and shared space.
- Six bicycle racks.
- Dedicated clothes drying area, situated at the northern portion of the subject site.
- Dedicated bin storage area, situated at the eastern portion of the subject site.
- 458.8m² of landscaping on the subject site (381.8m² as external play space).

- A 1.8 metre permeable fence, constructed of brick masonry and steel fence panels to surround the outdoor play space.
- Vehicle access via a single 6.2 metre wide full movement crossover to Pedicel Avenue. Access has been configured to optimise the functionality of the site for both visitors and staff and does not impact the proposed crossover for the adjoining primary school.

The proposed centre will cater for the care of up to 86 children, of the following age demographics:

- 16 places for children aged 0-2 years.
- 30 places for children aged 2-3 years.
- 40 places for children aged three and over.

The centre is proposed to operate from 0630 - 1830, Monday to Friday and will accommodate up to 16 staff. No outdoor activities will occur between 0630 and 0700.

Refer Appendix 2, for a copy of the Development Plans and Appendix 3 for a copy of the Landscaping Plan.

4.2 Traffic and Access

The proposed childcare centre has been subject to a detailed traffic analysis, in the form of a Transport Impact Statement (TIS) prepared by Transcore, contained in Appendix 4.

Based on this analysis, the proposed childcare centre was found to generate approximately 65 and 52 vehicles per hour during the weekday AM and PM peak hours, respectively. This level of traffic generation is relatively minimal and falls within the threshold of a Transport Impact Statement as set out by the WAPC guidelines. A TIS has been prepared to demonstrate the proposal's suitability from a traffic and access point of view.

The outcome of the TIS is summarised as follows:

- Traffic generation associated with the proposed facility would have an insignificant impact on the surrounding road network.
- The site features good connectivity via the existing road network and well served by the existing pedestrian networks.
- Although an 'on paper' shortfall of 3 visitor bays is proposed, a parking demand assessment undertaken in the TIS indicates that the proposed 8 visitor bays meet and exceed the parking demand for the visitors. As such, the minor shortfall is considered appropriate.
- The analysis confirms the proposed child care centre operating in conjunction with the proposed primary school would not adversely impact the traffic operation and the parking demand of the proposed child care centre.

4.3 Amenity

As the subject site adjoins residential properties directly to the north, an acoustic assessment has been conducted by a suitably qualified acoustic consultant in the form of an Environmental Noise Assessment.

The assessment considers the noise impacts associated with outdoor child play, AC plant, car doors and indoor child play with respect to adjoining 'noise sensitive' residences. The assessment demonstrates the proposal will comply with the *Environmental Protection (Noise) Regulations 1997* during the respective periods, subject to a minimum 1.8m high solid fence being provided along the boundaries of the outdoor play areas (eastern and southern boundaries). This fence has openings to provide passive surveillance, which comprise steel fence panels with Perspex lining to ensure noise compliance.

The development plans depict a 1.8m high solid wall along the southern boundary, a 1.8m high fence along the portion of the eastern boundary matching the extent of the outdoor play area and a 1.8m high fence along the portion of the eastern boundary matching the extent of the car park. A standard Colorbond fence will also be provided along the northern boundary adjacent to the car park.

The proposed development exceeds the noise attenuation measures recommended by the acoustic assessment.

Refer Appendix 5 for a copy of the Environmental Noise Assessment.

4.4 Waste Management

The proposed development provides a dedicated enclosed bin storage area on the eastern side of the childcare building. Given the relatively low capacity of the centre, bins are likely to be of a standard residential size which are easily transportable to the Pedicel Avenue verge by centre staff or private waste contractors.

Swept path analysis also confirms that an 8.8m rubbish truck would be able to enter and exit the site if needed outside of peak operating hours, when the parking bays are empty.

4.5 Signage

The following signage is proposed as part of the childcare development:

- One 3.61m x 1m ID sign on the eastern elevation, fronting Pedicel Avenue.
- One 3m x 1.5m ID sign on the eastern elevation, fronting the car parking area and above the centre entrance.
- One 9m x 1.5m ID sign on the southern elevation, fronting Nyilla Approach.

The above signage has been carefully considered and incorporated into the development to ensure it serves an important function, whilst integrating with the overall style of design to maintain a high level of quality. Specific details of signage colours / materials can be provided in a separate schedule following development approval and once a tenant has been confirmed.

5 Statutory Planning Framework

5.1 Metropolitan Region Scheme

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

5.2 State Planning Policies

5.2.1 State Planning Policy 3.7: Planning in Bushfire Prone Areas

The Western Australian Planning Commission's (WAPC) *State Planning Policy 3.7 Planning in the Bushfire Prone Areas* (SPP3.7) sets out the foundations for land use planning to address bushfire risk management. It applies to all development located within designated 'bushfire prone areas'.

The subject site falls within a designated bushfire prone area as identified by the Department of Fire and Emergency Services Map of Bushfire Prone Areas. As such, pursuant to the requirements of SPP3.7, a Bushfire Attack Level Assessment (BAL) was prepared for the proposed development.

A Bushfire Management Plan (BMP) and Emergency Evacuation Plan (EEP) have been prepared in support of the proposed development and sets out appropriate mitigation/bushfire protection measures satisfying the relevant requirements of SPP3.7.

Refer Appendix 6 for a copy of the BAL Assessment, BMP and EEP.

5.3 City of Rockingham Town Planning Scheme No. 2

5.3.1 Zoning

The subject site is zoned 'Development' under the provisions of the City of Rockingham's (City) Town Planning Scheme No. 2 (TPS2) and is located within Development Area No. 40 (DA40).

Pursuant to Clause 4.2, Schedule A and Schedule 8 of TPS2, land use permissibility and development control within the Development zone and DA40 is to be guided by an approved Structure Plan and if applicable, a Local Development Plan. The Edge Local Structure Plan (LSP) and The Edge Local Development Plan (LDP) provide the provisions and development standards applicable to the subject site.

Under the provisions of the LSP, the subject site is identified as being zoned 'Residential R25'. Refer to Figure 2, The Edge Local Structure Plan Map.

Pursuant to Clause 4.1.1 of TPS2, the objective of the Residential zone is to:

promote a high quality residential environment by maintaining and enhancing the quality of existing residential areas and providing for a range of residential densities and housing types throughout the Scheme Area.

The proposal involves the use and development of childcare premises which will provide childcare services for up to 86 children.

The centre is suitably located to provide an essential community service to the emerging and existing residential area surrounding the subject site. Noting the site adjoins residential properties, the development has been designed through input from architectural, acoustic and traffic consultants to mitigate any potential impacts on the

surrounding area. The body of reporting supporting this proposal demonstrates the proposal is designed to respond to the subject site and surrounding area and will not cause any significant disturbance to adjacent residences or the residential character of the area.

The proposal is therefore suitable within its context, is consistent with the objective of the Residential zone, and warrants approval accordingly.

5.3.2 Land Use and Permissibility

Pursuant to the provisions of Schedule 1 - Interpretations, the proposed development is best classified as a 'Child Care Premises', defined under TPS2 as:

Child Care Premises: means premises used to provide a child care service within the meaning of the Child Care Services Act 2007, but does not include a Family Day Care Centre.

Pursuant to Clause 3.4 of the LSP, land use permissibility within the structure plan area is to be in accordance with the corresponding zone in TPS2.

Accordingly, pursuant to Table 1 of TPS2, a Child Care Premises is an 'A' advertised land use within the Residential zone meaning the use is not permitted unless the decision maker has exercised their discretion and approved the development following public consultation. It is considered that the proposed use is entirely appropriate and suitable for establishment on the subject site for the following reasons:

1. The proposed centre will provide an additional community service to the growing locality and is suitably situated opposite a future primary school.
2. The proposal has been designed to ensure an appropriate interface to the street and surrounding residential and primary school.
3. The proposed centre is located along the main entrance to the housing estate, which ensures it is accessible to visitors. Additionally, the centre is located within an area with good pedestrian, cycling and public transport facilities which encourages alternative modes of transport for staff.
4. The proposal is supported by a Transport Impact Statement which demonstrates it is satisfactory from a traffic and access point of view.
5. An acoustic assessment has been undertaken, demonstrating the proposal will comply with the *Environmental Protection (Noise) Regulations 1997*.
6. A landscape plan is provided which, in addition to depicting high quality planting throughout the development, indicates the provision of high quality outdoor play spaces and recreational areas for children (contributing to a high level of amenity for the end user).

For the reasons outlined above, the proposed child care premises is entirely compatible within the Residential zone and warrants approval accordingly.



5.3.3 Development Standards

Parts 4 of TPS2 stipulates the general development standards and requirements for Residential zoned land. The majority of the provisions as set out in Part 4 are not applicable to the proposed development, with the exception of car parking, as outlined in Table 2.

Table 2 – Assessment against the development standards of TPS4.

Requirement	Comment	Complies
<p><u>Clause 41.5</u></p> <p>Pursuant to Table 2, the required parking rate for a Child Care Premises is 1 space per every 8 children, plus one space per employee.</p>	<p>The proposed centre will cater for up to 86 children and up to 16 employees. Accordingly, pursuant to Table 2, the required parking provision is 27 bays.</p>	Discretion
<p>Justification: 24 bays are proposed, resulting in an 'on paper' shortfall of 3 bays. The minor shortfall is warranted as the shortfall applies to visitor bays only. Transcore, as part of the TIS in Appendix 4, undertook a detailed parking analysis based on the anticipated peak hour traffic generation of the proposed child care centre.</p> <p>The maximum number of visitors during the morning peak hour is calculated to be 34. Traffic literature has found that the average length of stay for child care centres during pick up / drop off times is 6.8 minutes. Transcore have used a conservative 10 minute timeframe to establish that a minimum of 6 visitor bays are required to ensure functional operation during peak periods. As such, the 8 provided visitor parking bays are considered sufficient to cater for the development.</p> <p>Furthermore, the proposed shortfall is considered acceptable for the following reasons:</p> <ul style="list-style-type: none"> Pick up and drop off times of child care centres are typically staggered. The times are dependent on the employment / movements of parents or carers. For example, a child may be dropped off at 0700 and picked up at 1400 depending on the time their guardian is ready to collect them. This differs from a primary school where there is only one start and finish time. Many patrons of the child care centre will be local residents, some of which will walk their children to and from the child care centre. There are at least 21 embayed public parking bays available on Nyilla Approach for convenient pick up and drop off. An existing child care centre at the corner of Eighty Road and Amberley Drive, Baldvis provides capacity for 18 more children and provides only 2 more parking bays, and operates effectively. 		

For the reasons outlined above, the proposed parking shortfall is considered acceptable.

5.4 The Edge Local Structure Plan and Local Development Plan

Pursuant to Clause 4.2, Schedule A and Schedule 8 of TPS2, The Edge Local Structure Plan (LSP) and The Edge Local Development Plan (LDP) provide additional provisions and development standards applicable to the subject site. An assessment against the relevant provisions of the LSP are provided in Table 3 below.

Table 3 – Assessment against the development standards of the LSP.

Requirement	Comment	Complies
<p><u>Street setback</u></p> <p>3 metres.</p>	<p>The proposed development is setback:</p> <ul style="list-style-type: none"> 1.5 metres from Olearia Street. 5 metres from Nyilla Approach. 9.6 metres from Pedicel Avenue. 	✓

<u>Front fences</u> Maximum height 900mm.	The proposed permeable fence has a maximum height of 1.8 metres. The proposed 900mm variation can by no means considered excessive and is entirely appropriate for a development of this nature. A child care centre relies on a satisfactory external fence to enhance safety and security of the children as well as acoustic insulation. The proposed fencing incorporates visually preambled elements to ensure a satisfactory interface and passive surveillance to the street.	Discretion
<u>Lot boundary setback</u> 1.2 metres.	The proposed development is setback 1.5 metres from the northern lot boundary.	✓

Having regard to Table 3, the proposed development is consistent with the provisions of the LSP and warrants approval accordingly.

5.5 Local Planning Policies

5.5.1 Local Planning Policy 3.3.5 – Child Care Premises

The City's Local Planning Policy 3.3.5 - Child Care Premises (LPP3.3.5) sets out the objectives and policy provisions to which the City will have due regard when assessing planning applications seeking approval for child care centres.

Importantly, the policy acknowledges there is growing demand for childcare facilities in all parts of the City, and this demand is expected to continue given the current and expected urban development being experienced. Noting The Edge Estate is currently undergoing substantial residential subdivision and development, the proposed development is entirely consistent with this policy position.

Refer to Table 4 for an assessment against the relevant policy provisions of LPP3.3.5.

Table 4 – Assessment against the Child Care Premises Policy.

Policy provision	Provided	Complies
4.1 Location of childcare premises		
(a) <i>Distributed strategically to provide the maximum benefit to the community it serves</i>	The proposed development is suitably situated on the main entrance to The Edge estate and is located directly opposite a proposed primary school.	✓
(b) <i>Within easy walking distance or part of appropriate commercial, recreation or community nodes and education facilities</i>	The proposed development is situated opposite a primary school, which is currently under-construction.	✓
(c) <i>Located in areas where adjoining uses are compatible with a Child Care Premises (includes considering all permissible uses under the zoning of adjoining properties)</i>	The development site currently adjoins predominantly vacant land, which is expected to be developed for residential purposes. An acoustic assessment has confirmed the proposal will comply with the Noise Regulations based on existing and future development scenarios.	✓
(d) <i>Serviced by public transport (where available)</i>	No public transport services currently operate within the developing estate, but are expected to be provided in the future as the estate is developed and further matures.	✓
(e) <i>Considered suitable from a traffic engineering/safety point of view</i>	A Transport Impact Statement contained in Appendix 4 confirms the proposal is suitable from a traffic engineering/ safety point of view.	✓

Policy provision	Provided	Complies
(f) <i>Of sufficient size and dimension to accommodate the development without affecting the amenity of the area</i>	The subject site totals 2,063m ² . The proposed development occupies less than half of the site area at 685.3m ² , demonstrating the site is more than adequate to accommodate the proposed development.	✓
4.2 Site characteristics		
<i>As a general rule, sites in a residential area should be of regular shape and greater than 1,000m² in size. A maximum site coverage of 50% will apply to any proposal to prevent the over-development of any lot.</i>	The subject site is 2,063m ² in size, and the proposed site cover of the facility is 685.3m ² , equating to approximately 33.2%.	✓
<i>The topography of the site should be considered, as steep slopes may affect access to the facility, noise transfer and methods of noise mitigation.</i>	The development site is flat.	✓
<i>Sites selected for child care premises should also be assessed to determine their potential for soil and groundwater contamination. Section 6 of the Department of Environment and Conservations 'Contaminated Sites and the Land Use Planning Process' (April 2006) guideline sets out a useful methodology to assist local governments in carrying out such assessments.</i>	The subject site has recently been approved for subdivision by the WAPC to accommodate development for commercial purposes in accordance with The Edge Estate LSP.	✓
4.3 Car parking		
<i>Parking is to be provided in accordance with LPS2 requirements.</i>	A total of 24 car parking bays are provided on site (comprising 16 staff bays and 8 visitors bays) in lieu of the required 27 bays. Refer to the justification provided in section 5.3.3 above. The 3-bay shortfall is considered acceptable and will not adversely impact upon the functionality or operation of the proposed development.	Discretion
<i>Parking areas should be provided in front of the building. If this is not possible, parking areas should be clearly visible and easily accessible from the entry to the site.</i>	The proposed parking area is suitably situated at the front of the building, accessed via Pedicel Avenue. The parking area is accessed via a single 6.2 metre crossover and is easily identifiable.	✓
<i>In addition, landscaping may be required on-site to screen car parking areas from the street and the child care premises from adjoining residences in order to maintain the amenity of the locality.</i>	Landscaping is proposed along all of the site's boundaries, adequately screening the car parking area and improving the verge landscape. A total landscaping area of 458.8m ² is provided, comprising: <ul style="list-style-type: none"> • 85.1m² of general landscaping; and • 381.3m² of external play space. <p>This equates to 22.2% of the development area as landscaping. General landscaping areas comprise attractive flora including Ornamental Pear trees, Coastal Rosemary, Grevillea Bonnie Prince Charlie and Flax Lily Dianella. All garden beds are to mulched, reticulated and maintained to the highest standard to ensure an attractive facility.</p>	✓

Policy provision	Provided	Complies
4.4 Traffic impacts		
<i>A traffic impact statement/assessment will be required where, in the opinion of the Manager, Statutory Planning, a proposed Child Care Premises has the potential to impact on the functionality and amenity of an area and may create or exacerbate unsafe conditions for children and families using the premises, or for pedestrians or road users</i>	A Transport Impact Statement has been prepared in support of the proposal, contained in Appendix 4.	✓
4.5 Noise impacts		
<i>A noise impact assessment may be required for the development of a Child Care Premises. The objectives should be to limit the noise impact of the Child Care Premises on adjacent properties, and also limit any noise impact from external sources on the Child Care Premises. This may be achieved either by physical separation, design and layout of the premises or by implementing noise mitigation measures, such as acoustic treatments to buildings.</i>	<p>An Environmental Noise Assessment has been prepared demonstrating the proposal will comply with the <i>Environmental Protection (Noise) Regulations 1997</i>, contained in Appendix 5.</p> <p>The proposed child care centre has been designed to ensure minimal impact on surrounding residential properties and compliance with the Noise Regulations.</p> <p>The assessment notes the provision of 1.8m high fencing within the site and along the southern site boundary, in addition to the management of outdoor play time for children in order to achieve compliance. These best practice child care measures are acceptable to the proponent.</p> <p>A 1.8m high solid fence will also be provided along the northern boundary of the car park, to contain car park noise.</p>	✓
4.6 Design considerations		
<p><i>The appearance of a Child Care Premises must be consistent with the scale and character of the locality. In this regard, where the development is located in a residential area, the built-form should lend itself to domestic (residential) architecture.</i></p> <p><i>Setbacks to side and rear boundaries and the orientation of openings to indoor play areas should minimise any impact on adjoining properties.</i></p>	<p>The proposed development has been designed in a manner that responds to the intended prevailing residential character of the locality as well as to the future built form of the primary school.</p> <p>The building has been designed in a contemporary manner with the use of a raised roof of Shale Grey Colorbond colouring. The building façades comprise predominantly of natural and earthy colours, including face brick and limestone. These colours and materials are consistent with the design of residential properties in the locality.</p> <p>The proposed development fronts residential properties on one boundary. The building has been designed to back onto this northern boundary so the operations of the child care centre can front the surrounding street.</p>	✓

Policy provision	Provided	Complies
<p><i>Outdoor play areas are to be located so as to limit their impact on the amenity of adjoining properties, whilst taking advantage of a passive solar orientation wherever possible. Measures should be taken to ensure that play areas are large enough and of such dimensions to be useful as play areas, and side setback and leftover building areas are not desirable for the purpose.</i></p> <p><i>Where a play area is located in the front setback area, fencing of the area should be of predominantly open construction to provide a safe playing area without closing the site in, casting shadows on the play area, or adversely affecting the residential streetscape.</i></p>	<p>The outdoor play area is suitably located along the Nyilla Approach frontage, and does not front any residential properties. The outdoor play areas are of an appropriate size and will be landscaped to maximum the use and function for children.</p> <p>The fence to the outdoor play space is permeable, providing an optimal outcome for the users of the outdoor area and to the streetscape.</p>	✓
<p><i>Landscaping will be required along the frontage of the development to a standard equal to that required or provided for on adjacent properties. Landscaping should not include potentially hazardous heights and potentially toxic plants.</i></p>	<p>Suitable landscaping is to be provided as part of this development, including along all street frontages, as described above. Refer to Appendix 3 for a copy of the Landscaping Plan.</p>	✓
4.7 Hours of operation		
<p><i>For Child Care Premises in Residential areas, hours of operation will be restricted to 7.00am to 7.00pm, unless otherwise agreed to by the Council.</i></p>	<p>The centre is proposed to operate from 0630 – 1830 on weekdays, seeking an additional 30 minutes of operating time in the morning. Refer to the further information below regarding the operating hours.</p>	Discretion
<p>Justification: The proposed variation is considered acceptable for the following reasons:</p> <ul style="list-style-type: none"> • The application seeks an additional 30 minutes of operating hour in the morning while closing 30 mins earlier than the permitted closing time in the evening (1830 in lieu of 1900). • Many parents / guardians require an earlier drop off time for their children, so that they have ample time to navigate to their various places of employment. For example, some may work in the Perth CBD and a 0700 drop off time does not allow sufficient time to travel to the City before 9am. • No outdoor play will be permitted before 0700. As such, any potential noise will be entirely contained indoors. • Given an acoustic assessment has been prepared demonstrating compliance with the Noise Regulations on this basis, the proposed operating hours are acceptable and warrant approval. Any noise resulting from the morning drop off has been demonstrated to be compliant with the Noise Regulations. 		

Having regard to Table 4, the proposed development is entirely consistent with the LPP3.3.5 and warrants approval accordingly.

5.5.2 Local Planning Policy 3.3.1 Control of Advertisements

The City's Local Planning Policy – Control of Advertisements (LPP3.3.1) sets out the standards for signage proposed within the scheme area. The proposed childcare centre includes three wall signs incorporated into the facades of the childcare facility (specific details to be provided at a later stage). Refer to Table 5 for an assessment against the relevant policy provisions of LPP3.3.1.

Table 5 – Assessment against LPP3.3.1

Signage Policy provision	Provided	Complies
4.3.1 Signs on Buildings		
<i>Unless otherwise determined by the Manager, Statutory Planning, the advertiser shall submit a Sign Strategy demonstrating compliance with the objectives of this Planning Policy, prior to the placement of any advertisement on a building or structure.</i>	The proposed wall signs are best classified as 'Wall Panels (horizontal)'. The proposed Wall Panel signs require assessment against the objectives of LPP3.3.1, provided below.	-
3. Policy Objectives		
<i>(a) Ensure that advertisements are appropriate for their location;</i>	The proposed signage is part of best practice child care centre design and appropriately located on the development to ensure a satisfactory level of commercial exposure.	✓
<i>(b) Minimise the proliferation of advertisements;</i>	The three signs do not result in any proliferation of signage, with the signs located on separate facades. The signs are required for the appropriate exposure, identification of the site and service offered on site.	✓
<i>(c) Ensure that advertisements do not adversely impact on traffic circulation and management, or pedestrian safety;</i>	The proposed signs will not result in any adverse impacts to motorists or pedestrians.	✓
<i>(d) Protect the amenity of residential areas, townscape areas and areas of environmental significance;</i>	Signs are an important aspect of any commercial business or institution. The wall signs will not adversely impact the residential context of the locality.	✓
<i>(e) Protect the significance of heritage places or buildings;</i>	N/A – The subject site is not of heritage significance.	✓
<i>(f) Ensure that advertisements are constructed with quality materials;</i>	Signage will be constructed to a high standard, of appropriate materials and in accordance with the Australian Standards.	✓
<i>(g) Encourage advertisements located within the Rural or Special Rural Zone or in areas of environmental significance to be sympathetic with the natural environment in terms of materials and colours;</i>	N/A – The proposed development is not within the Rural or Special Rural zone or an area of environmental significance.	N/A
<i>(h) Ensure advertisements are generally erected on land where the advertised business, sale of goods or service is being carried out; and</i>	All signage relates to the child care centre, its identification and services provided only.	✓
<i>(i) Ensure that advertisements are maintained to a high standard.</i>	Signage will be maintained to ensure a high level of amenity and presentation to the locality.	✓

Having regard to Table 5 above, the proposed signage meets the objectives of the signs policy and is warrants approval accordingly.

6 Conclusion

This application seeks approval for the development of a single storey childcare premises as well as associated parking, access, landscaping and signage. The development is suitably situated within the emerging Baldivis locality and will provide an essential community service for the growing community.

The development is suitably situated along the main entrance to The Edge estate as well as opposite a primary school, which is under construction. The development has been designed in a manner that responds to the intended prevailing residential character of the area, with an overall bulk, scale and material palette integrating the development into its residential setting.

The development appropriately responds to all relevant aspects of the planning framework and has been demonstrated to be satisfactory from a traffic, acoustic and bushfire perspective. Having regard to the above, the proposal clearly demonstrates the suitability of the proposed childcare premises on the subject site.

Accordingly, we respectfully request the Application for Development Approval is approved by the Metropolitan South-West Joint Development Assessment Panel.

Appendix 1

Certificates of Title and Deposited Plans

WESTERN



AUSTRALIA

REGISTER NUMBER

436/DP409216DUPLICATE
EDITION
1

DATE DUPLICATE ISSUED

28/11/2016VOLUME
2915FOLIO
118**RECORD OF CERTIFICATE OF TITLE**
UNDER THE TRANSFER OF LAND ACT 1893

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



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 436 ON DEPOSITED PLAN 409216

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

PERRON DEVELOPMENTS PTY LTD OF 4 PLAIN STREET, EAST PERTH

(AF N469348) REGISTERED 22/11/2016

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

1. *N469357 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 27/10/2016.
2. *N469358 NOTIFICATION SECTION 165 PLANNING & DEVELOPMENT ACT 2005 LODGED 27/10/2016.

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

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

STATEMENTS:

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

SKETCH OF LAND: DP409216
PREVIOUS TITLE: 1977-612
PROPERTY STREET ADDRESS: 1 PEDICEL AV, BALDIVIS.
LOCAL GOVERNMENT AUTHORITY: CITY OF ROCKINGHAM

- NOTE 1: N498826 DUPLICATE CERTIFICATE OF TITLE EDITION 1 ISSUED IN ERROR ON DEALING N469348 AND HAS BEEN DESTROYED BY THE WESTERN AUSTRALIAN LAND INFORMATION AUTHORITY TRADING AS LANDGATE.
- NOTE 2: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING N469348

WESTERN



AUSTRALIA

REGISTER NUMBER

437/DP409216DUPLICATE
EDITION**1**

DATE DUPLICATE ISSUED

28/11/2016VOLUME
2915FOLIO
119

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

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



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 437 ON DEPOSITED PLAN 409216

REGISTERED PROPRIETOR:
 (FIRST SCHEDULE)

PERRON DEVELOPMENTS PTY LTD OF 4 PLAIN STREET, EAST PERTH

(AF N469348) REGISTERED 22/11/2016

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

1. *N469357 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 27/10/2016.
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SKETCH OF LAND: DP409216
 PREVIOUS TITLE: 1977-612
 PROPERTY STREET ADDRESS: 2 OLEARIA ST, BALDIVIS.
 LOCAL GOVERNMENT AUTHORITY: CITY OF ROCKINGHAM

- NOTE 1: N498826 DUPLICATE CERTIFICATE OF TITLE EDITION 1 ISSUED IN ERROR ON DEALING N469348 AND HAS BEEN DESTROYED BY THE WESTERN AUSTRALIAN LAND INFORMATION AUTHORITY TRADING AS LANDGATE.
- NOTE 2: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING N469348

WESTERN



AUSTRALIA

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

REGISTER NUMBER	
9014/DP413443	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	N/A

VOLUME
2951FOLIO
951

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



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 9014 ON DEPOSITED PLAN 413443

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

PERRON DEVELOPMENTS PTY LTD OF 4 PLAIN STREET EAST PERTH WA 6004
(AF N849256) REGISTERED 25/7/2018

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

1. *EASEMENT BURDEN CREATED UNDER SECTION 167 P. & D. ACT FOR SEWERAGE PURPOSES TO WATER CORPORATION - SEE DEPOSITED PLAN 413443 AS CREATED ON DEPOSITED PLAN 409216
2. *EASEMENT BURDEN CREATED UNDER SECTION 167 P. & D. ACT FOR WATER PURPOSES TO WATER CORPORATION - SEE DEPOSITED PLAN 413443 AS CREATED ON DEPOSITED PLAN 409216
3. *EASEMENT BURDEN CREATED UNDER SECTION 167 P. & D. ACT FOR ELECTRICITY PURPOSES TO ELECTRICITY NETWORKS CORPORATION - SEE DEPOSITED PLAN 413443 AS CREATED ON DEPOSITED PLAN 409216

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

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

STATEMENTS:

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

SKETCH OF LAND: DP413443
PREVIOUS TITLE: 2915-232
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY: CITY OF ROCKINGHAM

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING
N469348

TYPE

FREEHOLD

S.S.A. YES

PURPOSE

SUBDIVISION

PLAN OF

LOTS 436, 437, 450-460, 479-483, 503-511, 535-542, 568-579, 600-603, 614-624, 650-653, 717-730, 733-747, 765-774, 790-796, 8006, 8008, 8009, 9007-9009, 9500, ROADS, ROAD WIDENINGS AND EASEMENTS

FORMER TENURE

SEE FORMER TENURE TABLE

LOCAL AUTHORITY

CITY OF ROCKINGHAM

LOCALITY

BALDWIN

D.O.L. FILE

FIELD RECORD

118633

SURVEYOR'S CERTIFICATE - REG 54

Charles A. YOUNG
hereby certify that this plan is accurate and is a correct representation of the -
(a) "survey, and/or
(b) "calculations from measurements recorded in the field records, underlain for the purposes of this plan and that it complies with the relevant written laws in relation to which it is lodged.

LICENSED SURVEYOR

Charles Young
2016.10.28 10:46:25 -0800
DATE

26-10-16

89462.50

118431

DATE

FEE PAID

ASSESS No.

I.S.C.

26-Oct-2016

RF

EXAMINED

17.11.2016

DATE

WESTERN AUSTRALIAN PLANNING COMMISSION

FILE 151888

Delegated under S. 16 P&D Act 2005

DATE

18-Nov-2016

SUBJECT TO

Sections 152, 165, 167 and 168(1)(2)(3) P & D Act
Sections 70A and 136C-TLA

FOR INSPECTOR OF PLANS AND SURVEYS

DATE

22-Nov-2016

APPROVED


REG26A (1), (4)


DATE

22.11.2016

INSPECTOR OF PLANS AND SURVEYS

(S. 18) Licensed Surveyors Act 1989





DEPOSITED PLAN

409216

SHEET 01 OF 07 SHEETS

PLUS SURVEY SHEET 130

VERSION 1

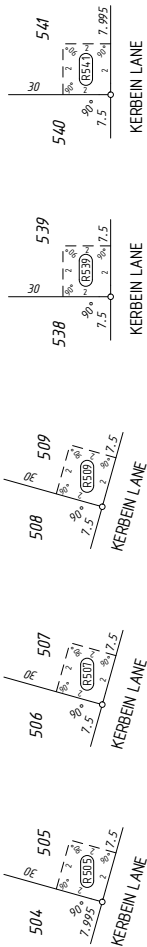
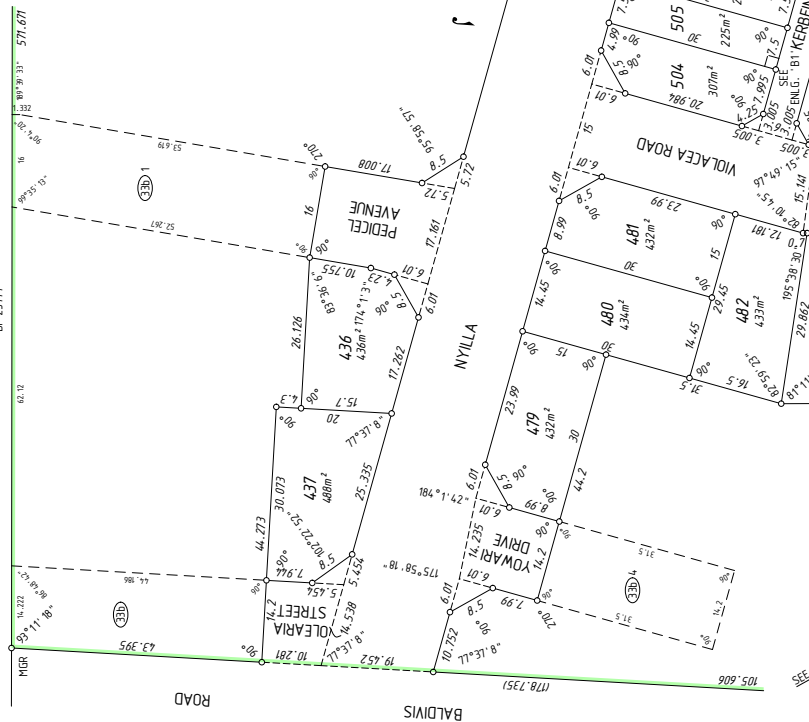


FOR HEADING SEE SHEET 1
FOR INTERESTS AND NOTIFICATIONS
SEE SHEET 4

SEE SHEET 3

750

DP 25777



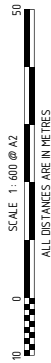
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Not to scale

ENLARGEMENT - B4'
Not to scale

ENLARGEMENT - B3'
Not to scale

ENLARGEMENT - B2'
Not to scale

ENLARGEMENT - B1'
Not to scale



SURVEY CARRIED OUT UNDER REG 76A
SPECIAL SURVEY AREA GUIDELINES
SEE SURVEY SHEETS FOR SURVEY INFORMATION
USE ONLY THE SURVEY SHEETS WHEN DETERMINING
THE TRUE FINAL POSITION AND TYPE OF ALL SURVEY
MARKS PLACED PERTAINING TO THIS PLAN.



MNG Ref: 97199dp-07te - Stage 1A - DP409216.CSD

Charles Young
2016.10.26 10:48:38 +0800

LICENSED SURVEYOR

DATE



DEPOSITED PLAN

409216

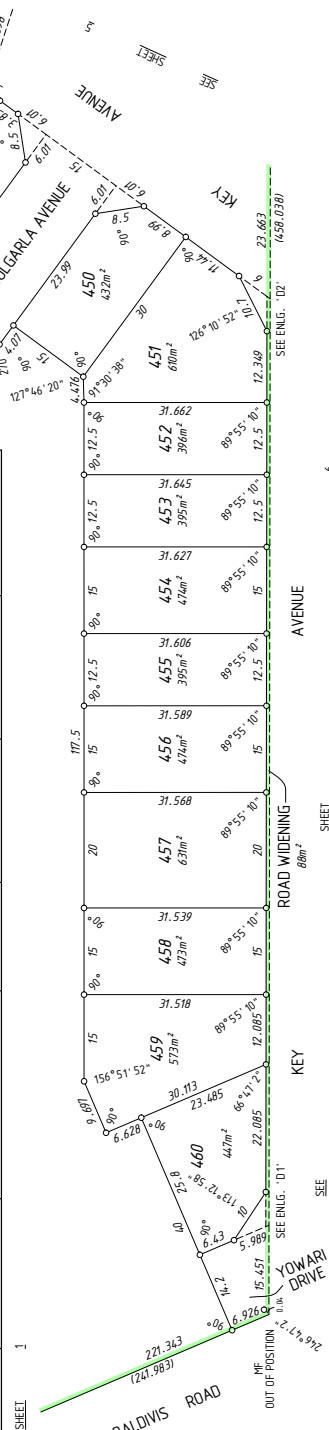
SHEET 02 OF 07 SHEETS
VERSION 1

HELD BY LANDGATE IN DIGITAL FORMAT ONLY

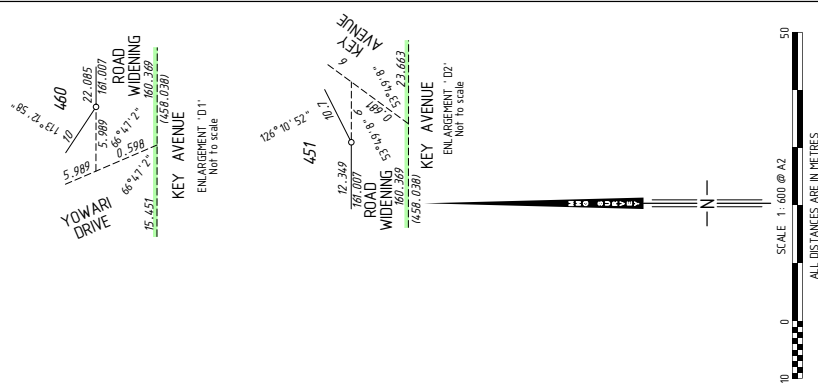
FOR HEADING SEE SHEET 1

INTERESTS AND NOTIFICATIONS

SUBJECT	PURPOSE	STATUTORY REFERENCE	ORIGIN	LAND BURDENED	BENEFIT TO	COMMENTS
(31b)	EASEMENT (Severage) (Water Supply)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9007-9009	WATER CORPORATION	
(31b-1)	EASEMENT (Severage) (Water Supply)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9008 & 9009	WATER CORPORATION	
(31b-2)	EASEMENT (Severage)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9008 & 9009	WATER CORPORATION	
(31b-3)	EASEMENT (Severage)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9009	WATER CORPORATION	
(31b-4)	EASEMENT (Severage)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9009	WATER CORPORATION	
(31b-5)	EASEMENT (Severage)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9009	WATER CORPORATION	
(31b-6)	EASEMENT (Severage)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9009	WATER CORPORATION	
(31b-7)	EASEMENT (Severage)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9009	WATER CORPORATION	
(31b-9)	EASEMENT (Severage)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9009	WATER CORPORATION	
(31b-8)	EASEMENT (Water Supply)	SEC 167 OF THE P. & D. ACT REG 33 (b)	THIS PLAN	LOT 9009	WATER CORPORATION	
(31c)	EASEMENT (Electricity Supply)	SEC 167 OF THE P. & D. ACT REG 33 (c)	THIS PLAN	LOT 9009	ELECTRICITY NETWORKS CORPORATION	
(31c-1)	EASEMENT (Electricity Supply)	SEC 167 OF THE P. & D. ACT REG 33 (c)	THIS PLAN	LOT 9009	ELECTRICITY NETWORKS CORPORATION	
(31c-2)	EASEMENT (Electricity Supply)	SEC 167 OF THE P. & D. ACT REG 33 (c)	THIS PLAN	LOT 9009	ELECTRICITY NETWORKS CORPORATION	
(6503)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N46934.9	LOT 505	LOT 504	
(6507)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N469350	LOT 507	LOT 506	
(6509)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N469351	LOT 509	LOT 508	
(6539)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N469352	LOT 539	LOT 538	
(6541)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N469353	LOT 541	LOT 540	
(6615)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N469354	LOT 615	LOT 616	
(6795)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N469355	LOT 795	LOT 794	
(6725)	EASEMENT (Drainage)	SEC 196C OF THE T.L.A.	THIS PLAN & DDC N469356	LOT 725	LOT 726	
LOTS 8006, 8008 & 8009	RESERVE FOR RECREATION	VESTS IN THE CROWN UNDER SEC 152 OF THE P. & D. ACT	THIS PLAN	LOTS 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000		FIRE MANAGEMENT PLAN
	NOTIFICATION	SEC 165 OF THE P. & D. ACT	DDC N469357	LOTS 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000		MOSQUITO BREEDING AREAS
	NOTIFICATION	SEC 165 OF THE P. & D. ACT	DDC N469358	LOTS 8006, 8008 & 9500		



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SURVEY CARRIED OUT UNDER REG 26A
SPECIAL SURVEY AREA GUIDELINES
SEE SURVEY SHEETS FOR SURVEY INFORMATION

USE ONLY THE SURVEY SHEET/S WHEN DETERMINING
THE TRUE FINAL POSITION AND TYPE OF ALL SURVEY
MARKS PLACED PERTAINING TO THIS PLAN.



MNG Ref : 97199dp-017e - Stage 1A - DP409216.CSD

Charles Young e	DATE
2016.10.26 10:50:26 +08'00'	

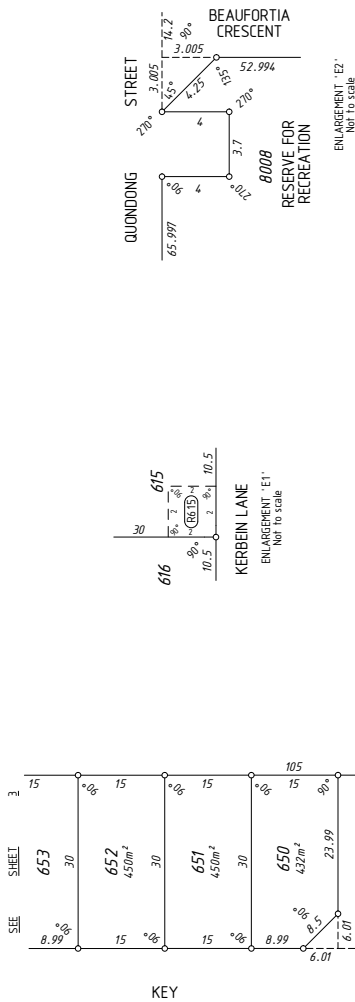


DEPOSITED PLAN

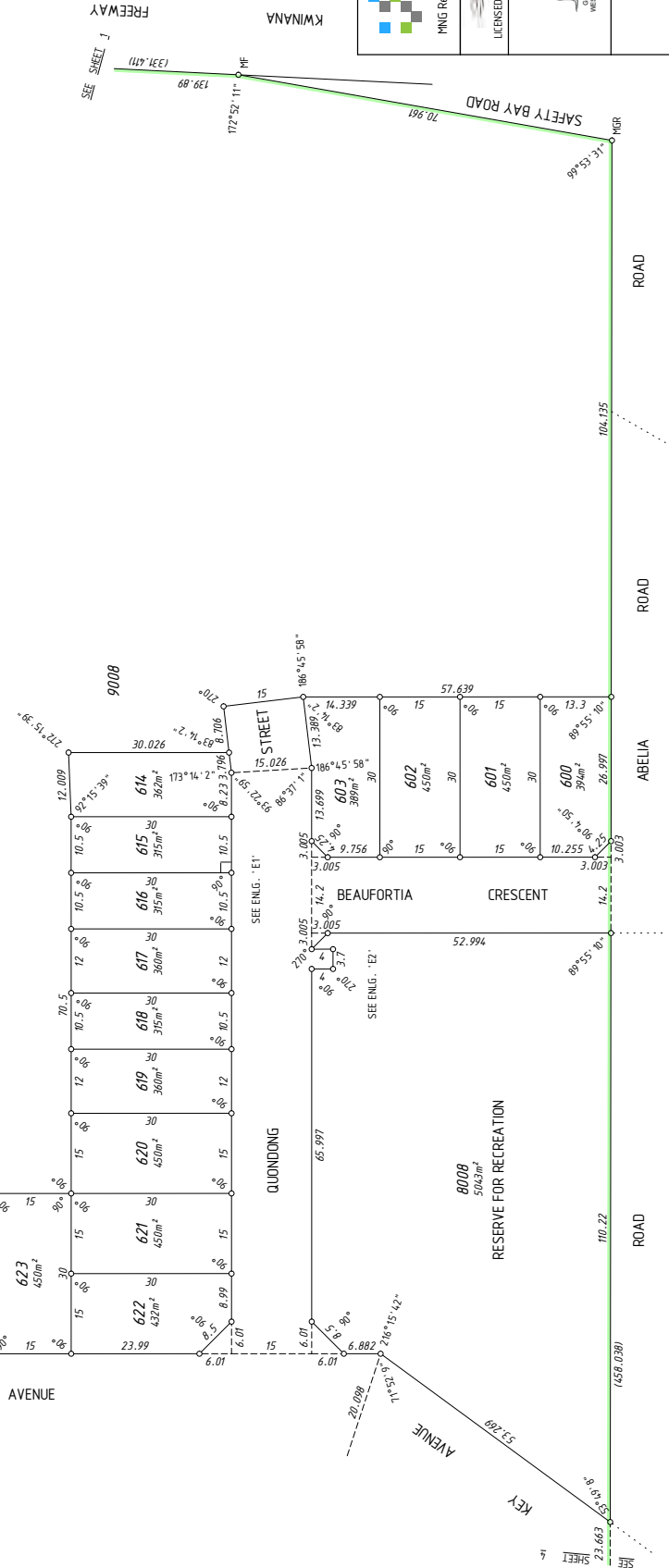
409216

SHEET 04 OF 07 SHEETS
VERSION 1

FOR HEADING SEE SHEET 1
FOR INTERESTS AND NOTIFICATIONS
SEE SHEET 4



SURVEY CARRIED OUT UNDER REG 26A
SPECIAL SURVEY AREA GUIDELINES
SEE SURVEY SHEETS FOR SURVEY INFORMATION
USE ONLY THE SURVEY SHEET/S WHEN DETERMINING
THE POSITION OF ANY INTEREST IN THE SURVEY
MARKS PLACED PERTAINING TO THIS PLAN.



MNG Ref: 971994p-071e - Stage 1A - DP409216.CSD

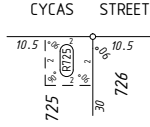
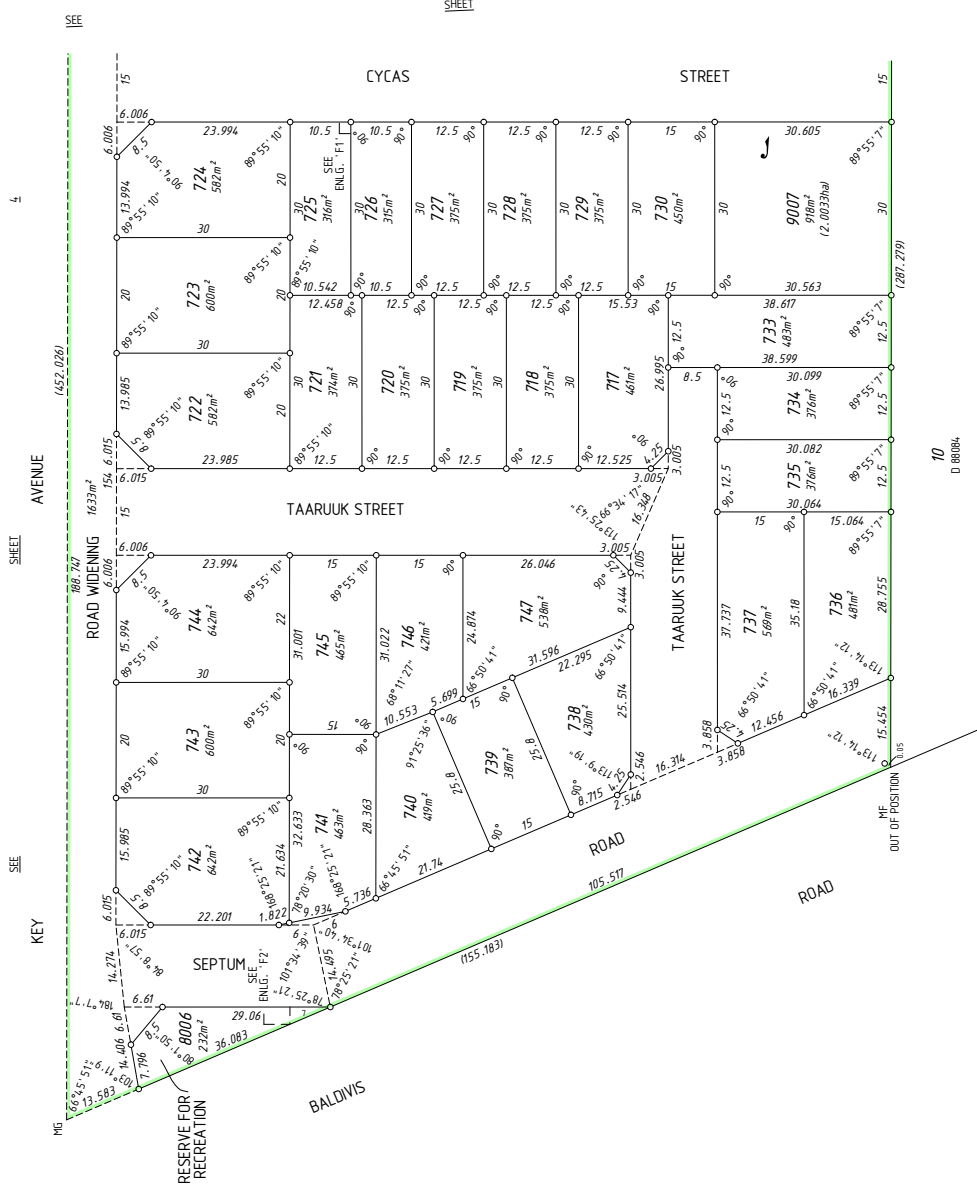
CHUCKY YOUNGER
2016.10.26 10:50:36 +0800
DATE
LICENSED SURVEYOR



DEPOSITED PLAN
409216
SHEET 05 OF 07 SHEETS
VERSION 1

FOR HEADING SEE SHEET 1

FOR INTERESTS AND NOTIFICATIONS
SEE SHEET 4



ENLARGEMENT: F1
NOT TO SCALE

8006
RESERVE FOR
RECREATION

BALDWIN'S
ROAD

SEPTUM

SHEET

ENLARGEMENT: F2
NOT TO SCALE

SCALE 1:600 @ A2
ALL DISTANCES ARE IN METRES

SURVEY CARRIED OUT UNDER REG 26A
SPECIAL SURVEY AREA GUIDELINES
SEE SURVEY SHEETS FOR SURVEY INFORMATION
USE ONLY THE SURVEY SHEET/S WHEN DETERMINING
THE TRUE FINAL POSITION AND TYPE OF ALL SURVEY
MARKS PLACED PERTAINING TO THIS PLAN.



MNG Ref: 97199dp-07te - Stage 1A - DP409216.LSD

Charles Young
2016.10.26 10:50:47 +0800

LICENSED SURVEYOR

DATE



DEPOSITED PLAN

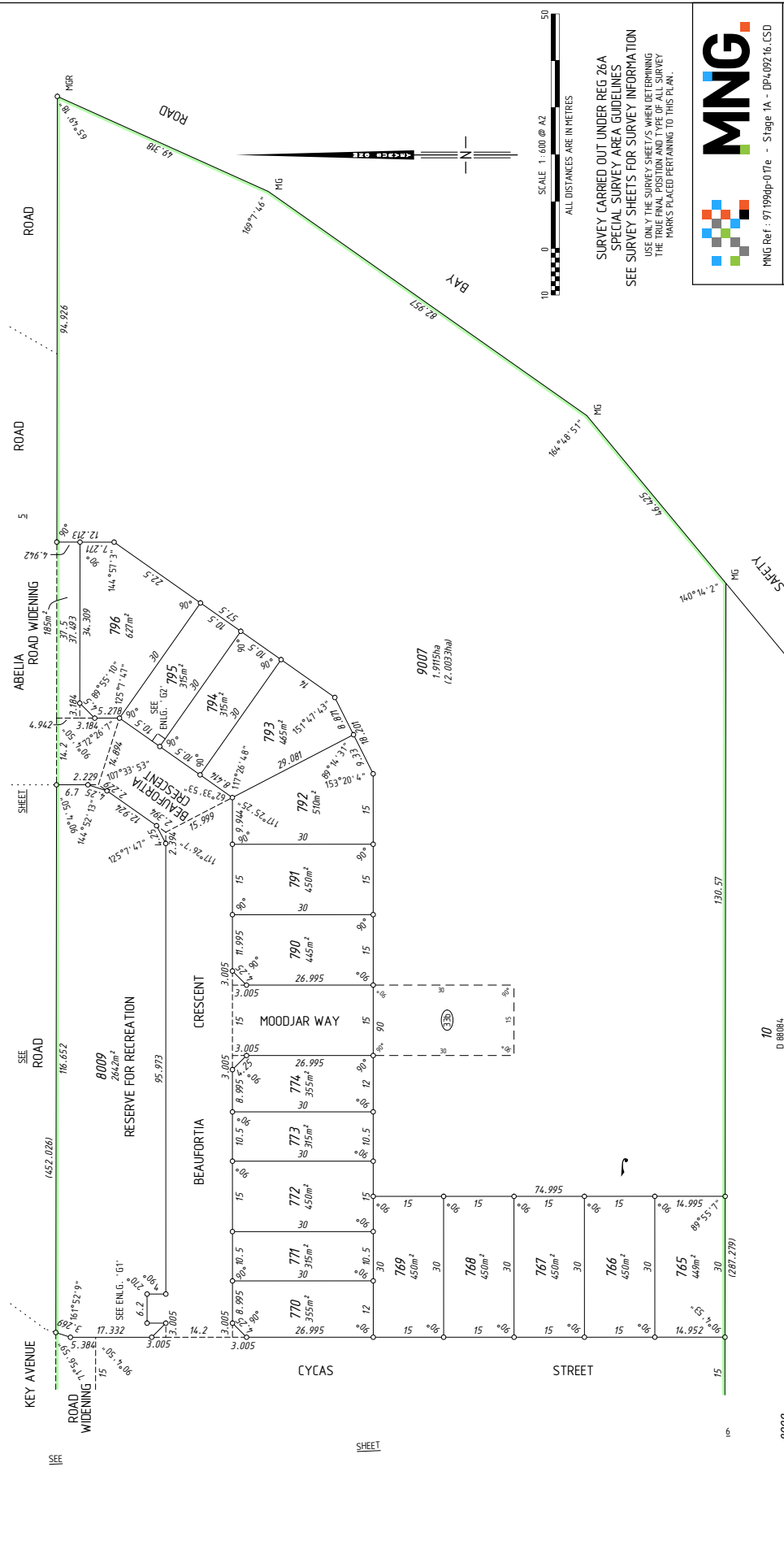
409216

SHEET 06 OF 07 SHEETS
VERSION 1

HELD BY LANDGATE IN DIGITAL FORMAT ONLY

LANDGATE COPY OF ORIGINAL NOT TO SCALE Fri Apr 5 15:21:27 2019

JOB 59031445



SURVEY CARRIED OUT UNDER REG 26A
SPECIAL SURVEY AREA GUIDELINES
SEE SURVEY SHEETS FOR SURVEY INFORMATION
USE ONLY THE SURVEY SHEET/S WHEN DETERMINING
THE TRUE FINAL POSITION AND TYPE OF ALL SURVEY
MARKS PLACED PERTAINING TO THIS PLAN.



WING Ref : 97199dp-017e - Stage 1A - DP409216.CSD

Charles Young
2016.10.26 10:51:24 +0800



DEPOSITED PLAN

409216

SHEET 07 OF 07 SHEETS
VERSION 1

HELD BY LANDGATE IN DIGITAL FORMAT ONLY

SURVEYOR'S CERTIFICATE - REG 54

I, **Charles A. YOUNGE**
 hereby certify that this plan is accurate and
 is a correct representation of the -
 a) "survey, and/or"
 b) "calculations from measurements
 recorded in the field records,
 under seal for the purposes of this plan
 and that it complies with the relevant
 provisions of the laws in relation to which it is
 lodged."

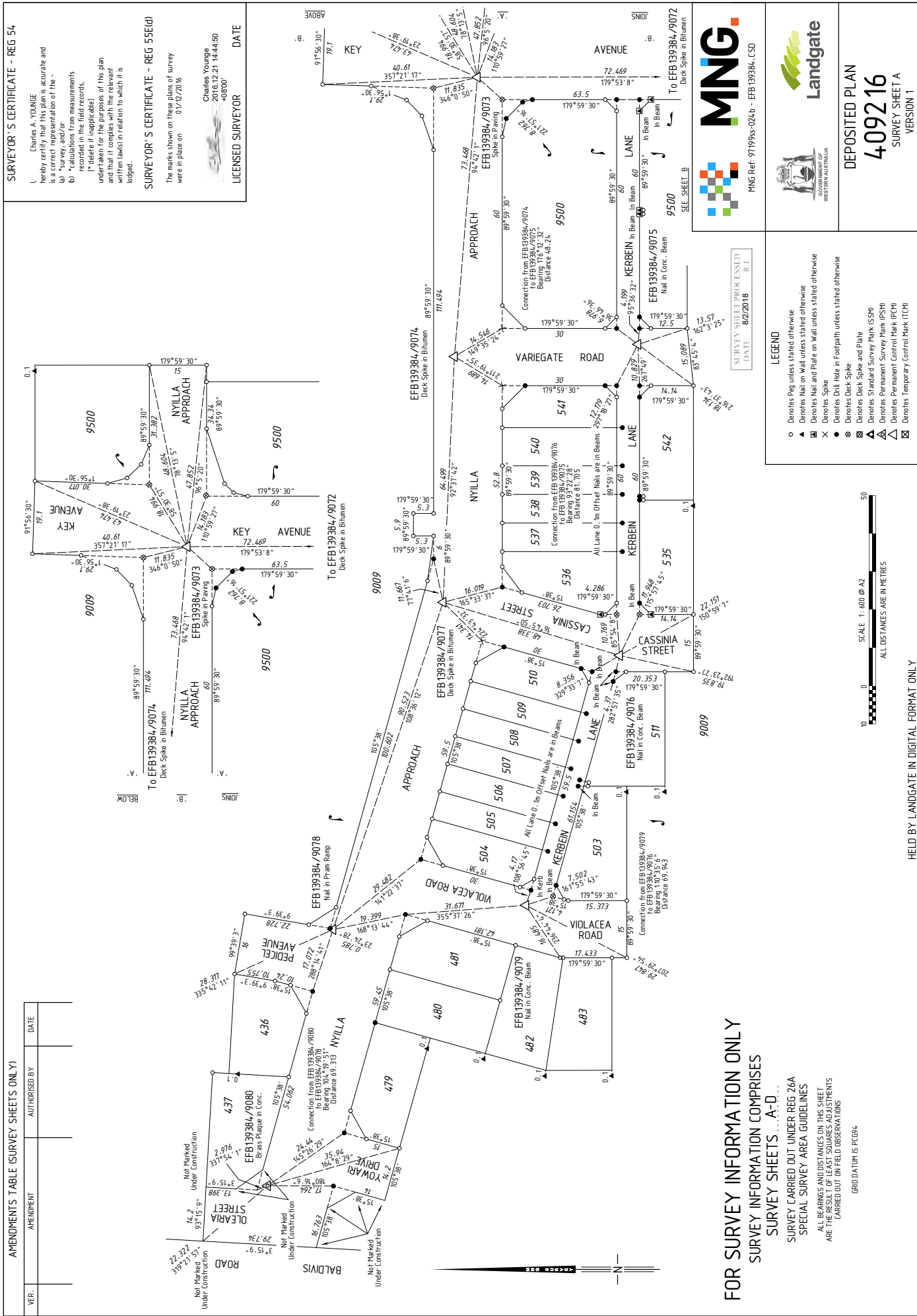
SURVEYOR'S CERTIFICATE - REG 55E(d)

The marks shown on these plans of survey
 were in place on
 01/02/2016

Charles Young
 80012.21 14.44.50
 40900

LICENSED SURVEYOR

DATE



SURVEYOR'S CERTIFICATE - REG 54

I, **Charles A. YOUNGE**
herby certify that this plan is accurate and
is a correct representation of the -
a) "survey, and/or
b) "calculations from measurements
recorded in the field records.
(* delete if inapplicable)
undertaken for the purposes of this plan
and that it complies with the relevant
legislation in relation to which it is
lodged.

SURVEYOR'S CERTIFICATE - REG 55E(d)

The marks shown on these plans of survey
were in place on 01/12/2016.

Charles Young
20161221 14:44:56
+0800

LICENSED SURVEYOR

DATE

FOR SURVEY INFORMATION ONLY

SURVEY INFORMATION COMPRISES

SURVEY SHEETS A-D

SURVEY CARRIED OUT UNDER REG 26A

SPECIAL SURVEY AREA GUIDELINES

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

GRID DATUM IS PC094



LEGEND

- Denotes Peg unless stated otherwise
- ▲ Denotes Nail on Wall unless stated otherwise
- Denotes Nail and Plate on Wall unless stated otherwise
- × Denotes Spike
- Denotes Drill Hole in Footpath unless stated otherwise
- ⊗ Denotes Dark Spike
- ⊗ Denotes Dark Spike and Plate
- ▲ Denotes Standard Survey Mark (SSM)
- ▲ Denotes Permanent Survey Mark (PSM)
- ▲ Denotes Permanent Control Mark (PCM)
- ⊗ Denotes Temporary Control Mark (TCM)



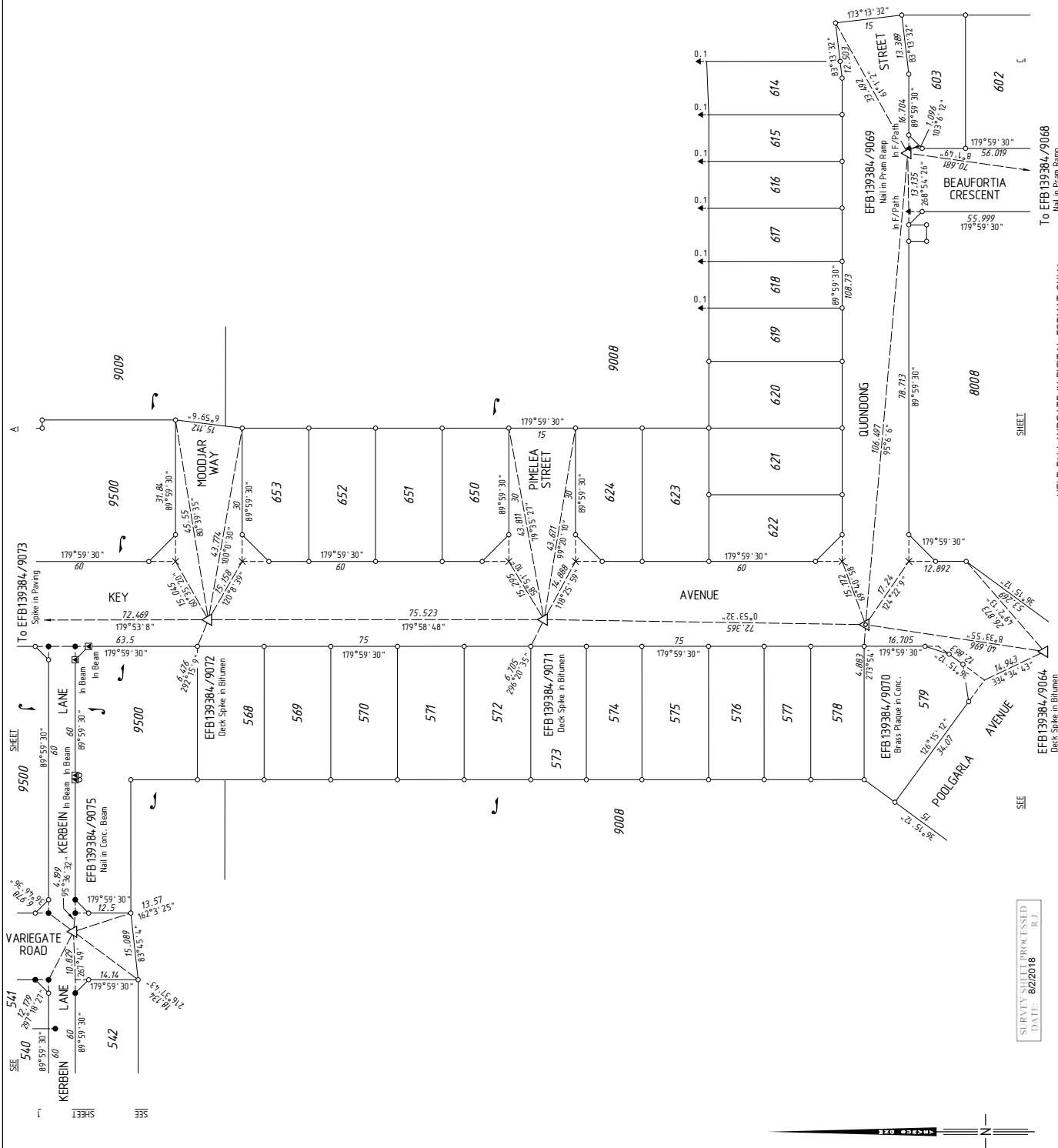
MNG Ref: 97199ss-024b - EFB139384, LSD



DEPOSITED PLAN

409216

SURVEY SHEET B
VERSION 1



HELD BY LANDGATE IN DIGITAL FORMAT ONLY

SURVEY SHEET PROCESSED
DATE: 8/2/2018
R.J.

SURVEYOR'S CERTIFICATE - REG 54

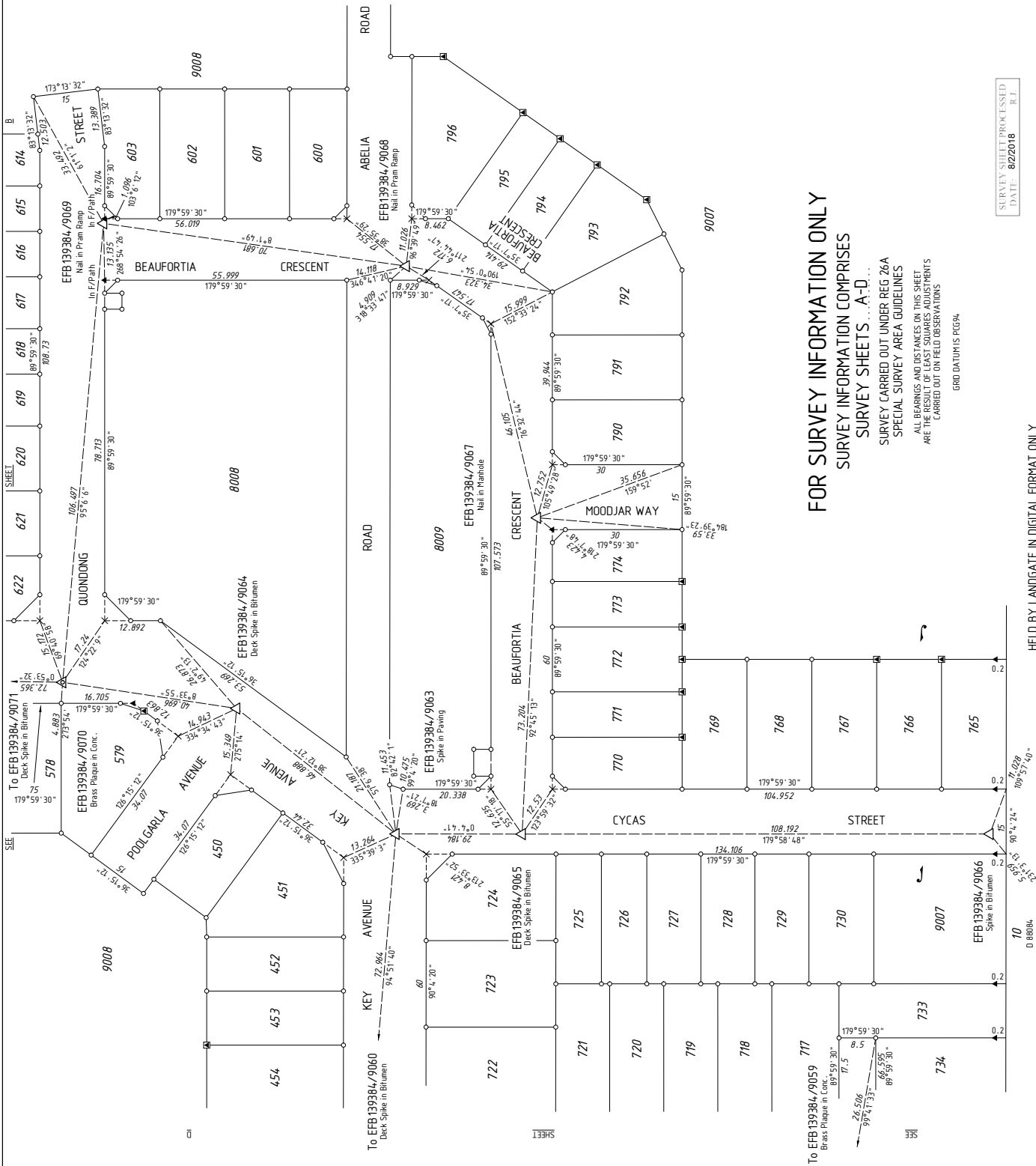
I, **Charles A. YOUNGE**
 hereby certify that this plan is accurate and
 is a correct representation of the -
 (a) "survey, and/or"
 (b) "calculations from measurements
 recorded in the field records."
 (I delete if inapplicable)
 and that it complies with the relevant
 provisions of the laws in relation to which it is
 lodged.

SURVEYOR'S CERTIFICATE - REG 55(d)

The marks shown on these plans of survey
 were in place on 01/02/2016.

Charles YOUNGE
 2016.12.21 144502
 +0800

LICENSED SURVEYOR DATE



FOR SURVEY INFORMATION ONLY
SURVEY INFORMATION COMPRISES
SURVEY SHEETS A-D

SURVEY CARRIED OUT UNDER REG 26A
 SPECIAL SURVEY AREA GUIDELINES
 ALL BEARINGS AND DISTANCES ON THIS SHEET
 ARE THE RESULT OF LEAST SQUARES ADJUSTMENTS
 CARRIED OUT ON FIELD OBSERVATIONS

GRID DATUM IS PGCG94

HELD BY LANDGATE IN DIGITAL FORMAT ONLY

SURVEY SHEET PROCESSED
 DATE: 8/22/2018
 R.I.

SURVEYOR'S CERTIFICATE - REG 54

I, Charles A. YOUNGE
herby certify that this plan is accurate and
is a correct representation of the -
a) "survey, and/or
b) "calculations from measurements
recorded in the field records,
I delete if inapplicable)
undertaken for the purposes of this plan
and that it complies with the relevant
provisions of the laws in relation to which it is
lodged.

SURVEYOR'S CERTIFICATE - REG 55E(d)

The marks shown on these plans of survey
were in place on 01/12/2016.

Charles Young
28/02/21 14:45:07
408700

LICENSED SURVEYOR DATE

FOR SURVEY INFORMATION ONLY

SURVEY INFORMATION COMPRISES

SURVEY SHEETS A-D...

SURVEY CARRIED OUT UNDER REG 26A

SPECIAL SURVEY AREA GUIDELINES

ALL BEARINGS AND DISTANCES ON THIS SHEET

ARE THE RESULT OF LEAST SQUARES ADJUSTMENTS

CARRIED OUT ON FIELD OBSERVATIONS

GRID DATUM IS PG94.

LEGEND

- Denotes Peg unless stated otherwise
- ▲ Denotes Nail on Wall unless stated otherwise
- ✕ Denotes Nail and Plate
- Denotes Spike
- ⊗ Denotes Drill Hole in Footpath unless stated otherwise
- ⊗ Denotes Dark Spike
- ⊗ Denotes Dark Spike and Plate
- ▲ Denotes Standard Survey Mark (SSM)
- ▲ Denotes Permanent Survey Mark (PSM)
- ▲ Denotes Permanent Control Mark (PCM)
- ⊗ Denotes Temporary Control Mark (TCM)



MNG Ref: 971995-024b - EFB139384, LSD



Landgate

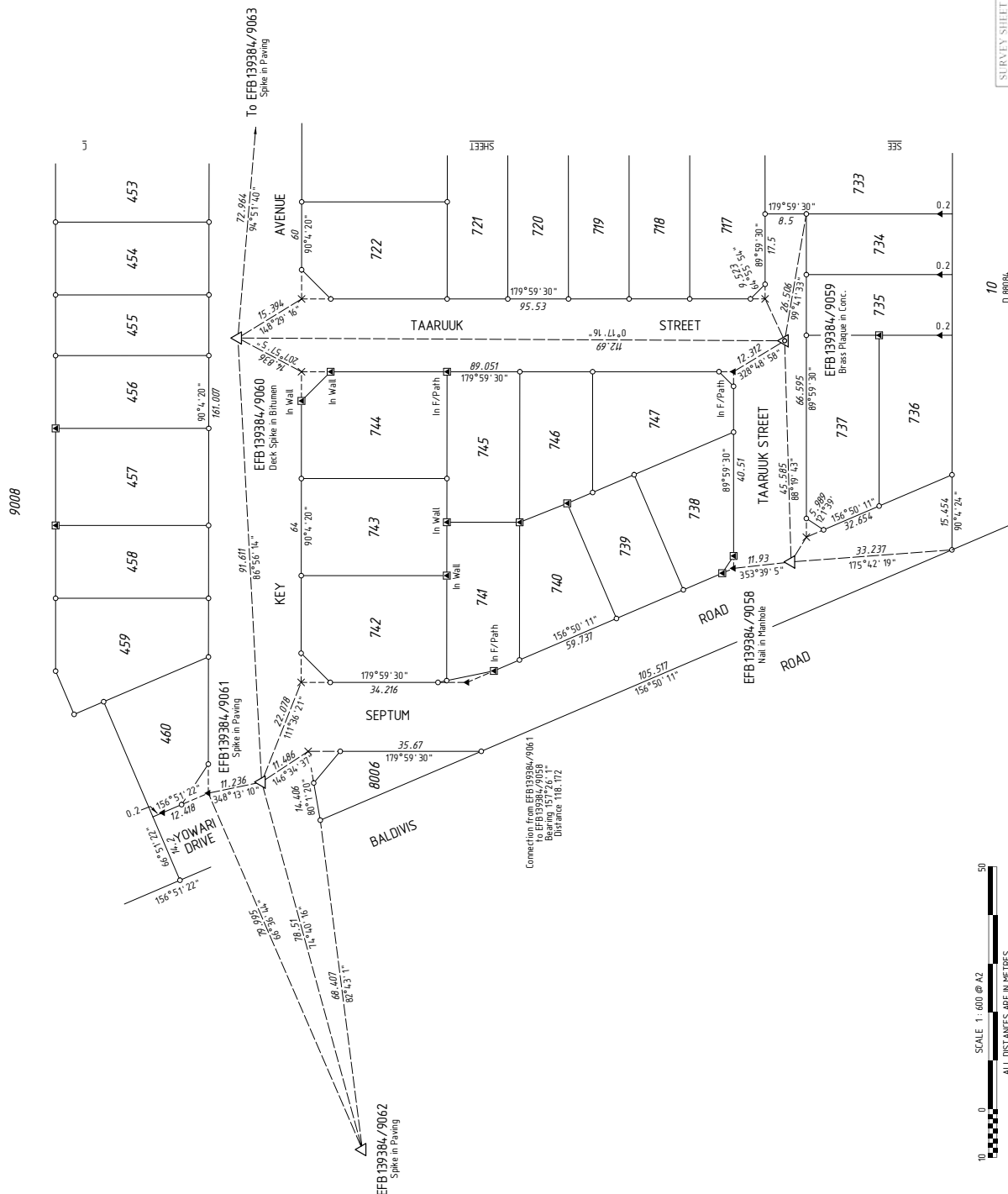
DEPOSITED PLAN

409216

SURVEY SHEET D

VERSION 1

SURVEY SHEET PROCESSED
DATE: 8/2/2018
R.J.



HELD BY LANDGATE IN DIGITAL FORMAT ONLY

Appendix 2 Development Plans

Appendix 3 Landscaping Plan

Appendix 4 Traffic Impact Assessment

Appendix 5 Environmental Noise Assessment

Appendix 6 Bushfire Management Plan

Proposed Early Learning Centre

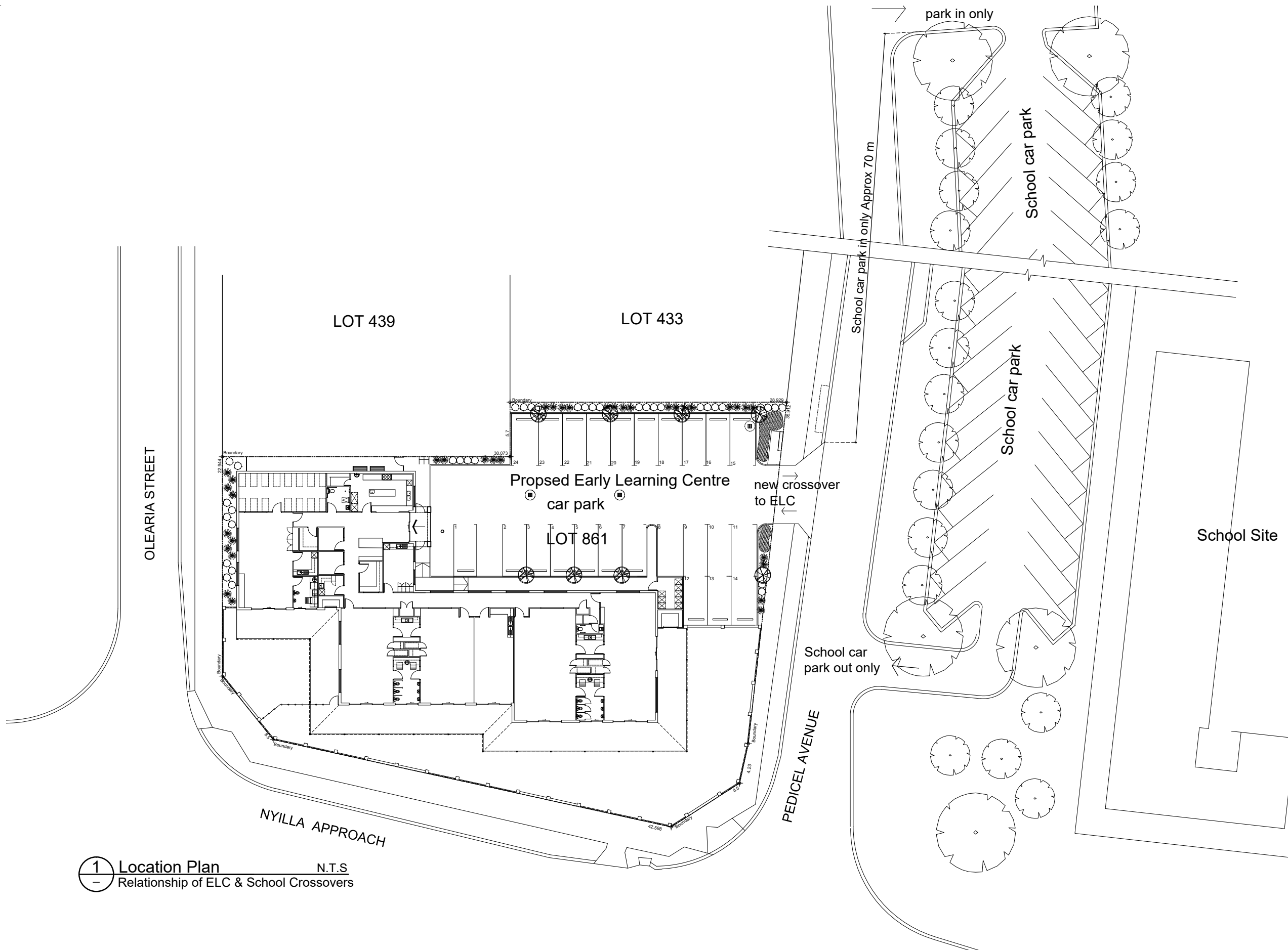
Cnr Nyilla Approach & Pedicel Av North Baldivis

SK00	Cover Page	a b c d e f
SK01	Location Plan	a
SK02	Location Plan - Relationship of ELC & School Crossovers	a b c
SK03	Site & Floor Plan	a b c d e
SK04	Roof Plan	a b c
SK05	Elevations	a b c d
SK06	Elevations-Boundary Fence	a b c
SK07	Landscaping Plan	a b c d
SK08	Outdoor Play Area Landscaping Plan	a
Site Survey		



1 Location Plan N.T.S





1 Location Plan N.T.S.
 - Relationship of ELC & School Crossovers

Building and
 Interior Design
 Solutions

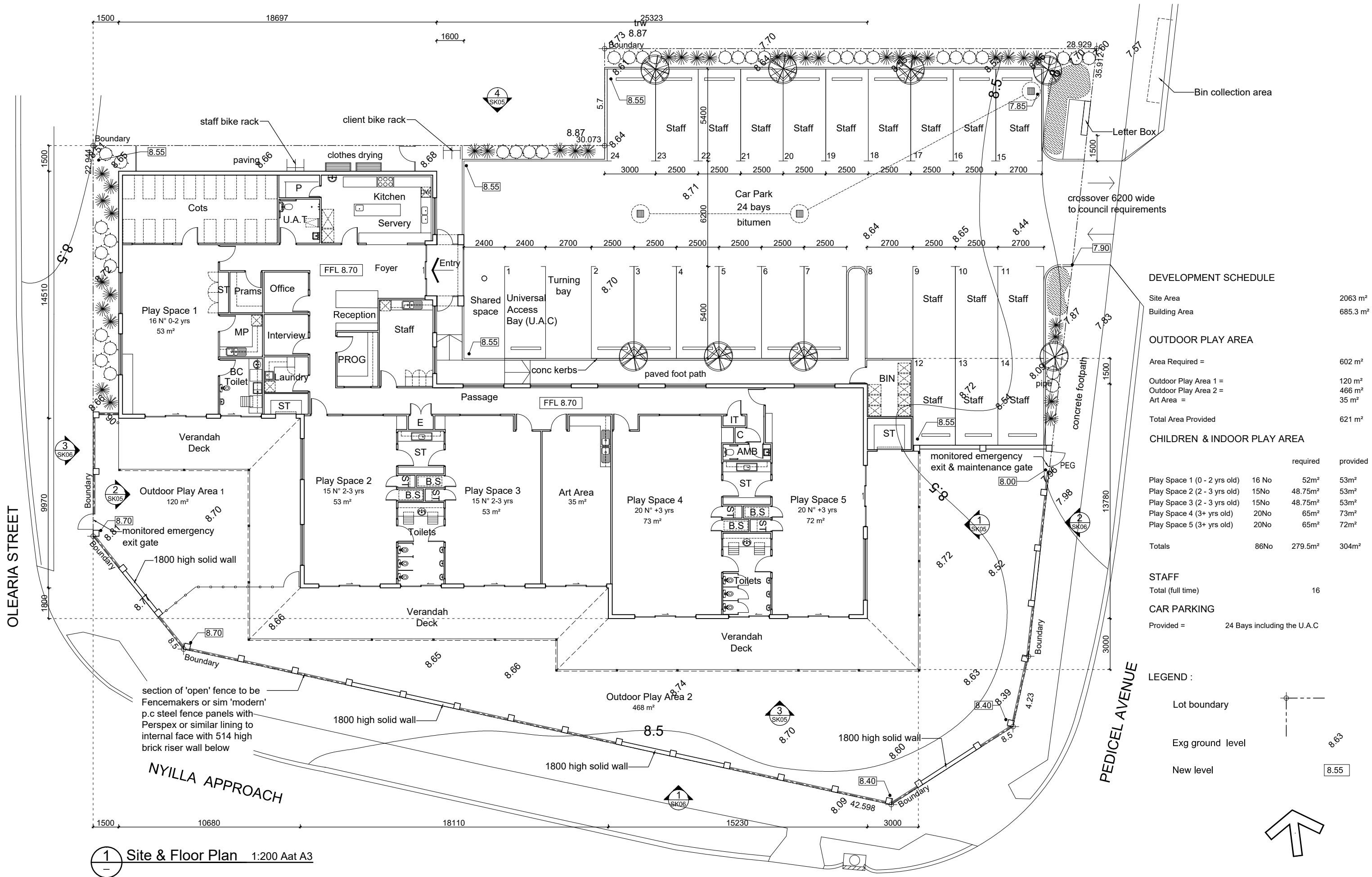
CSA

Christopher Senior & Associates

15/872 Beaufort Street Perth WA 6052
 Tel: 0438991401, (08)94731447
 Email: christopher@csasolutions.com.au
 Web: www.facebook.com/Christopher-Senior-and-Associates-132239896794882
 ABN 14948293014

Proposed Early Learning Centre
 CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
 FOR ACCORD PROPERTY

drawing: Location Plan- Relationship of ELC & School Crossovers			
drawn	ASH	date	June 2019
scale	N.T.S.	dwg no.	
job No.	2734		SK02c



DEVELOPMENT SCHEDULE	
Site Area	2063 m²
Building Area	685.3 m²

OUTDOOR PLAY AREA	
Area Required =	602 m²
Outdoor Play Area 1 =	120 m²
Outdoor Play Area 2 =	466 m²
Art Area =	35 m²
Total Area Provided	621 m²

CHILDREN & INDOOR PLAY AREA		required	provided
Play Space 1 (0 - 2 yrs old)	16 No	52m²	53m²
Play Space 2 (2 - 3 yrs old)	15No	48.75m²	53m²
Play Space 3 (2 - 3 yrs old)	15No	48.75m²	53m²
Play Space 4 (3+ yrs old)	20No	65m²	73m²
Play Space 5 (3+ yrs old)	20No	65m²	72m²
Totals	86No	279.5m²	304m²

STAFF	
Total (full time)	16
CAR PARKING	
Provided =	24 Bays including the U.A.C

LEGEND :	
Lot boundary	
Exg ground level	
New level	

1 Site & Floor Plan 1:200 Aat A3

Building and
Interior Design
Solutions

CSA

Christopher Senior & Associates

15/872 Beaufort Street Perth WA 6052
Tel: 0438991401, (08)94731447
Email: christopher@csasolutions.com.au
Web: www.facebook.com/Christopher-Senior-and-Associates-132239896794882
ABN 14948293014

Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

drawing: Site & Floor Plan	
drawn ASH	date June 2019
scale 1:200 at A3	dwg no.
job No. 2734	SK03e



DEVELOPMENT SCHEDULE

Site Area	2063 m ²
Building Area	685.3 m ²

OUTDOOR PLAY AREA

Area Required =	602 m ²
Outdoor Play Area 1 =	120 m ²
Outdoor Play Area 2 =	466 m ²
Art Area =	35 m ²
Total Area Provided	621 m ²

CHILDREN & INDOOR PLAY AREA

		required	provided
Play Space 1 (0 - 2 yrs old)	16 No	52m ²	53m ²
Play Space 2 (2 - 3 yrs old)	15No	48.75m ²	53m ²
Play Space 3 (2 - 3 yrs old)	15No	48.75m ²	53m ²
Play Space 4 (3+ yrs old)	20No	65m ²	73m ²
Play Space 5 (3+ yrs old)	20No	65m ²	72m ²
Totals	86No	279.5m ²	304m ²

STAFF

Total (full time)	16
-------------------	----

CAR PARKING

Provided =	24 Bays including the U.A.C
------------	-----------------------------

LEGEND :

Lot boundary

Exg ground level

New level

8.63

8.55

Christopher Senior & Associates

15/872 Beaufort Street Perth WA 6052
Tel: 0438991401, (08)94731447
Email: christopher@csasolutions.com.au
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Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

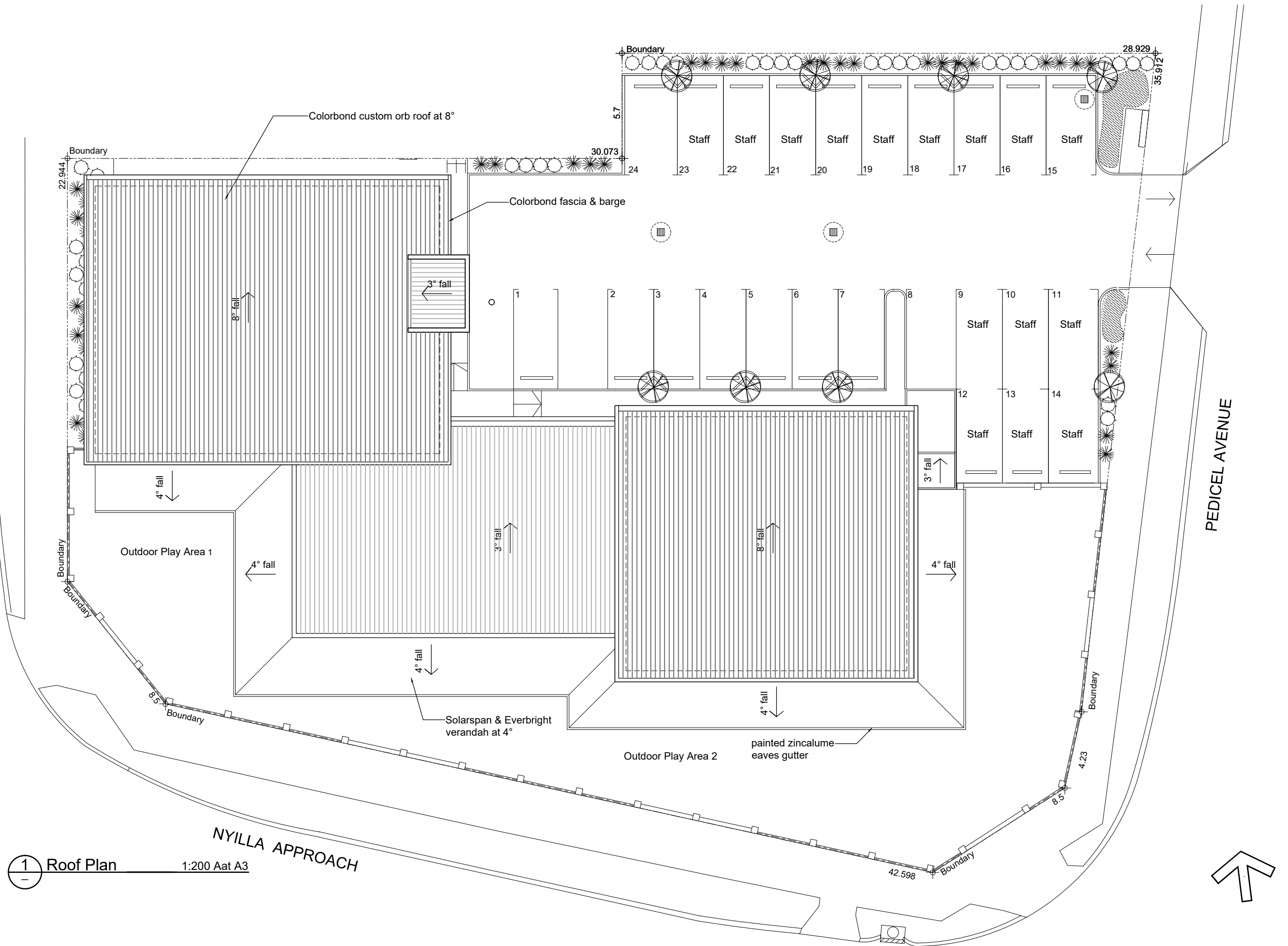
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drawn	ASH
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job No.	2734
date	June 2019
dwg no.	SK03e

Building and
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Solutions

CSA

OLEARIA STREET

PEDICEL AVENUE



1 Roof Plan 1:200 Aat A3

Building and
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Solutions

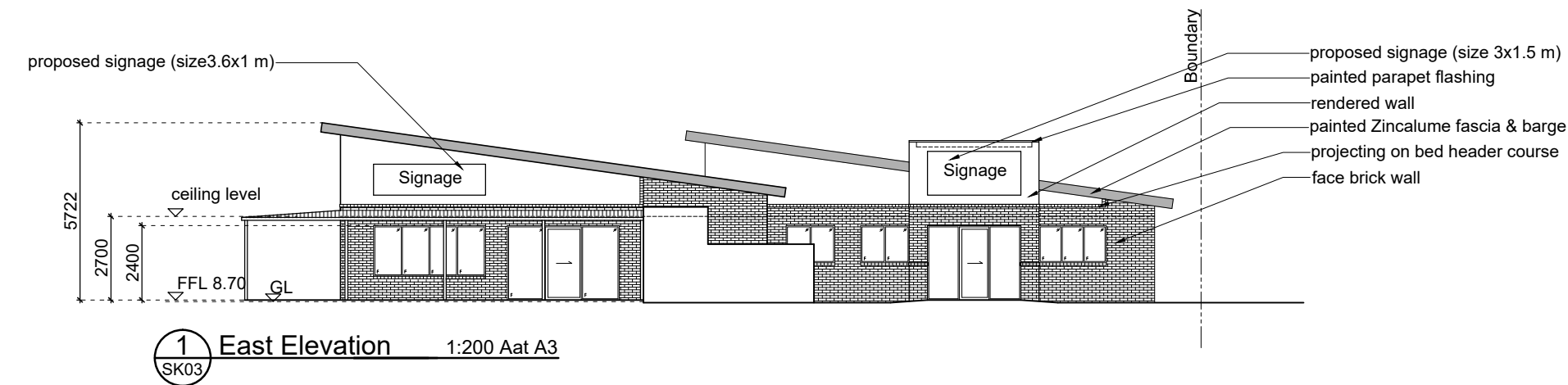
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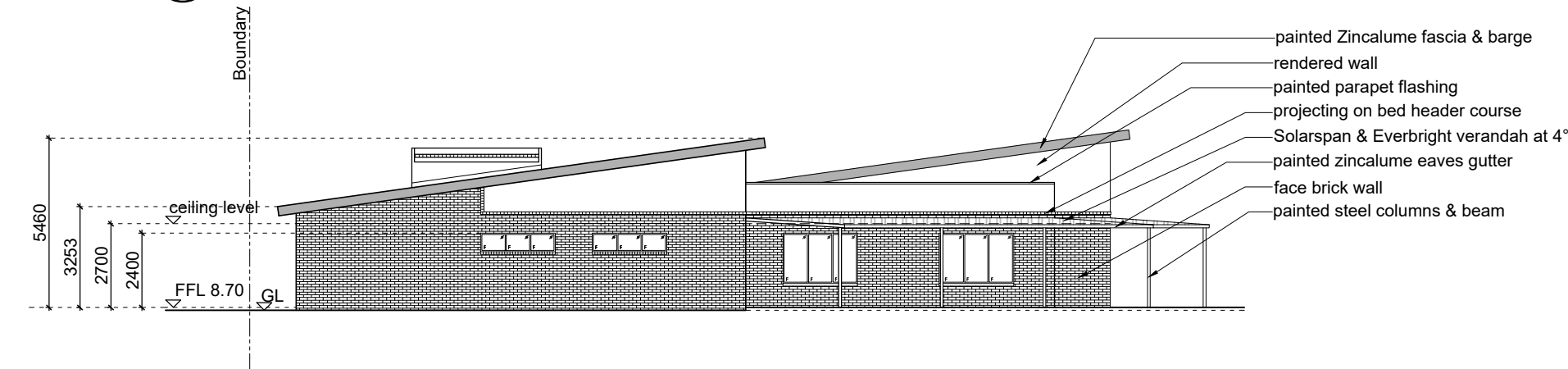
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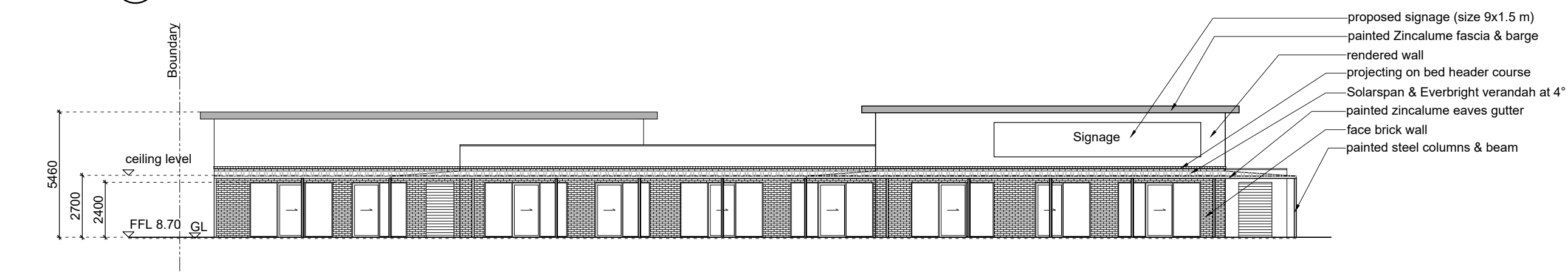
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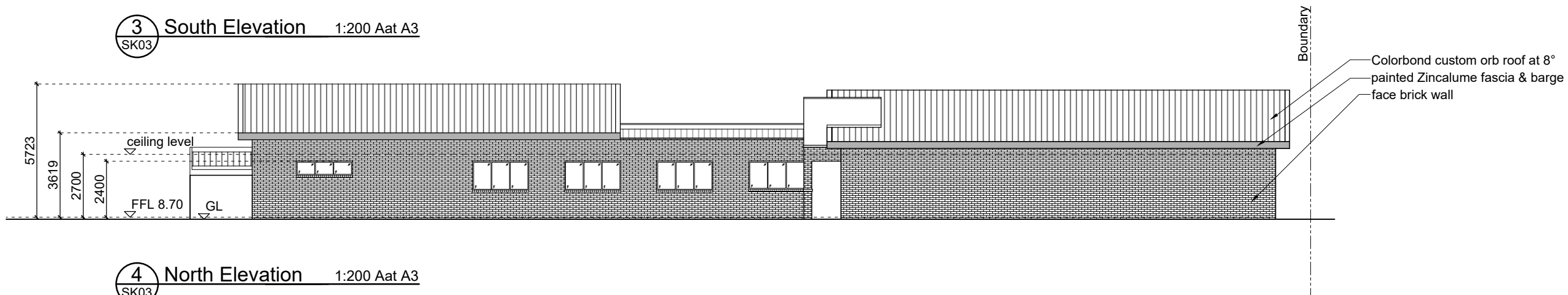
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SK03



2 West Elevation 1:200 Aat A3
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3 South Elevation 1:200 Aat A3
SK03



4 North Elevation 1:200 Aat A3
SK03

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Roof Sheetting: Colorbond custom orb - colour Shale Grey

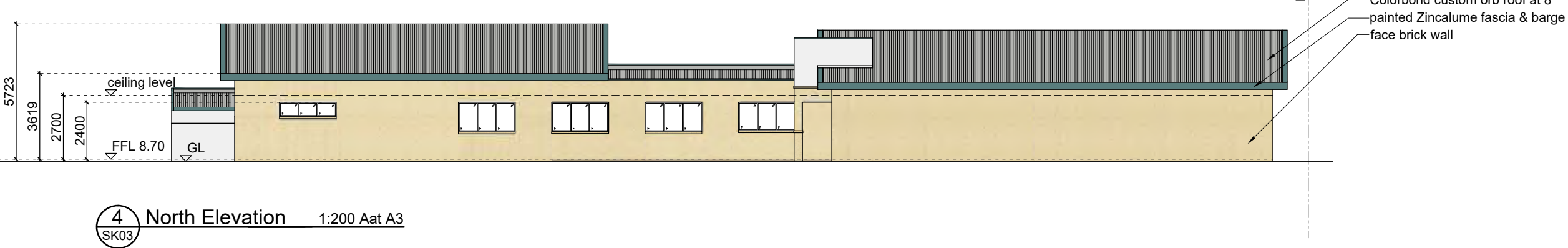
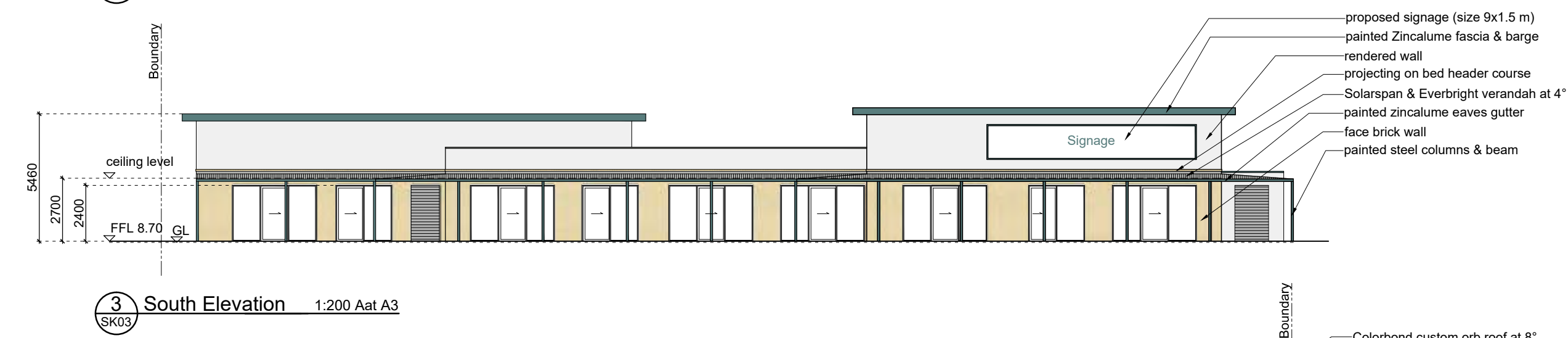
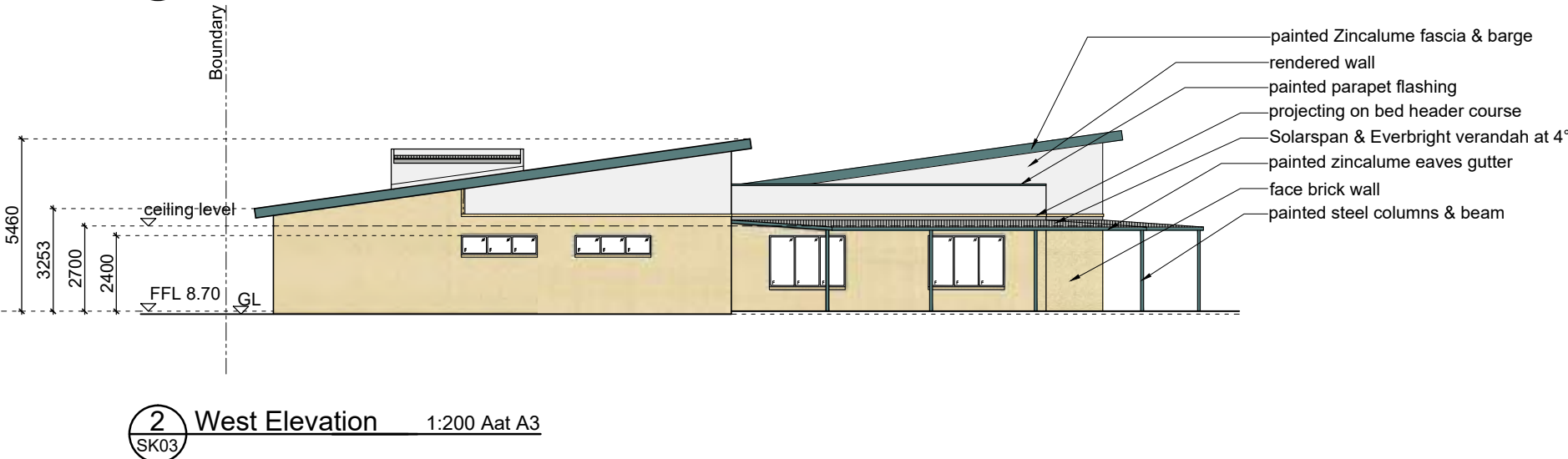
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Aluminium Window
& Door Frames: Powder coated - Dulux Duralloy, colour - Anotec Silver Grey

Paving: Foot paths - Atlas Easi Pave or similar- colour Charcoal.

Car Park: Bitumen, colour - Black

Fences: Fencemaker or sim 'modern' powder coated steel, colour Monument, with clear Perspex or similar lining to internal face.



MATERIALS & FINISHES SCHEDULE

Walls & Perimeter walls: Face brick, Midland Limestone Hue or similar
Render finish - colour Lexicon Quarter.

Roof Sheeting: Colorbond custom orb - colour Shale Grey

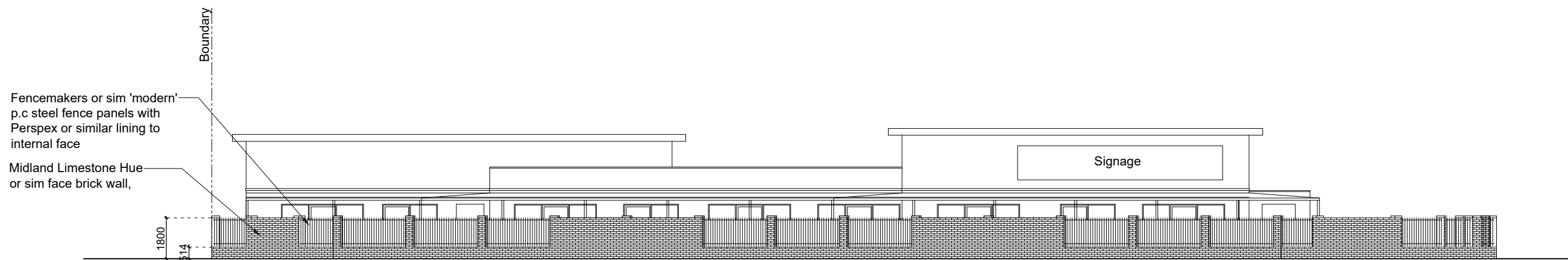
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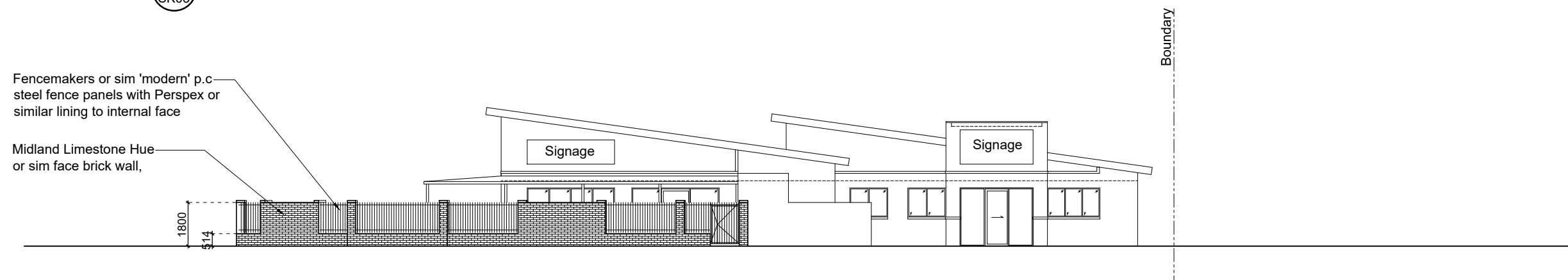
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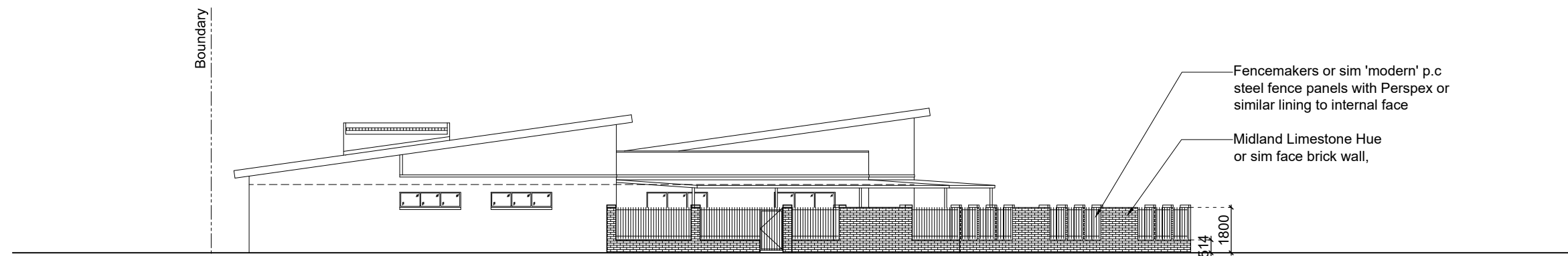
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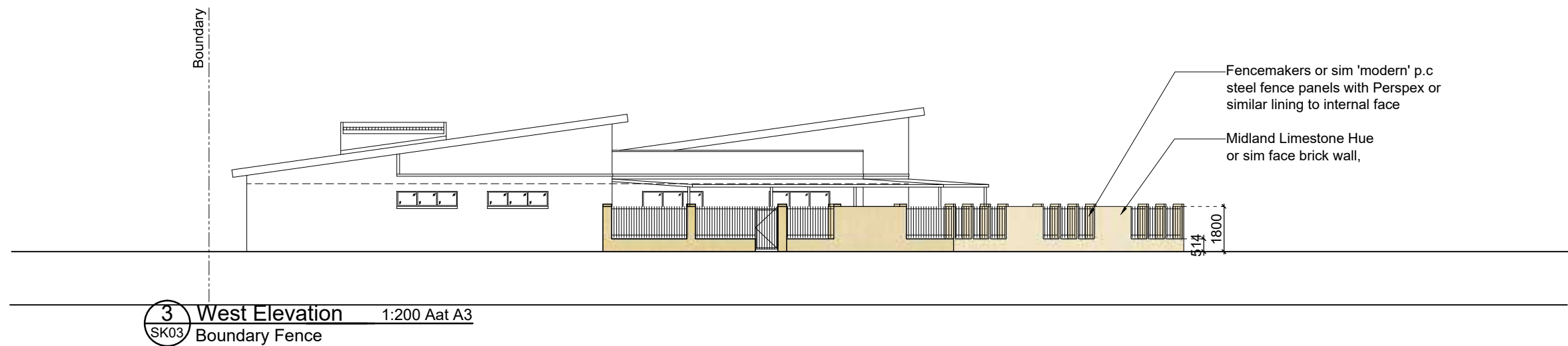
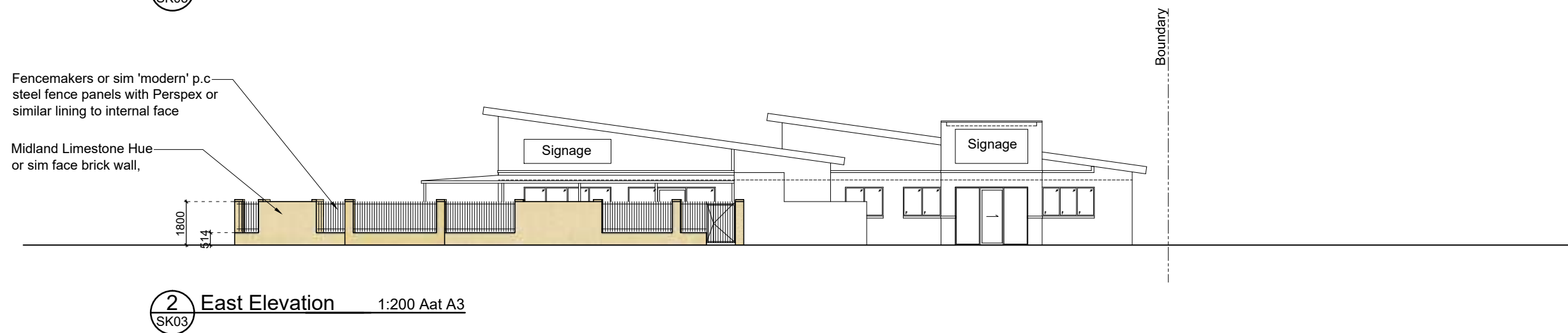
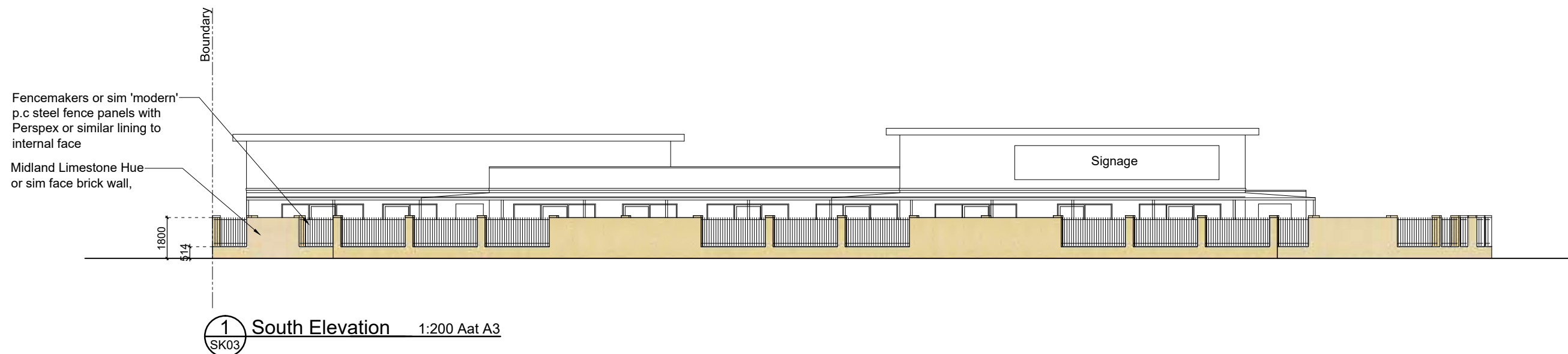
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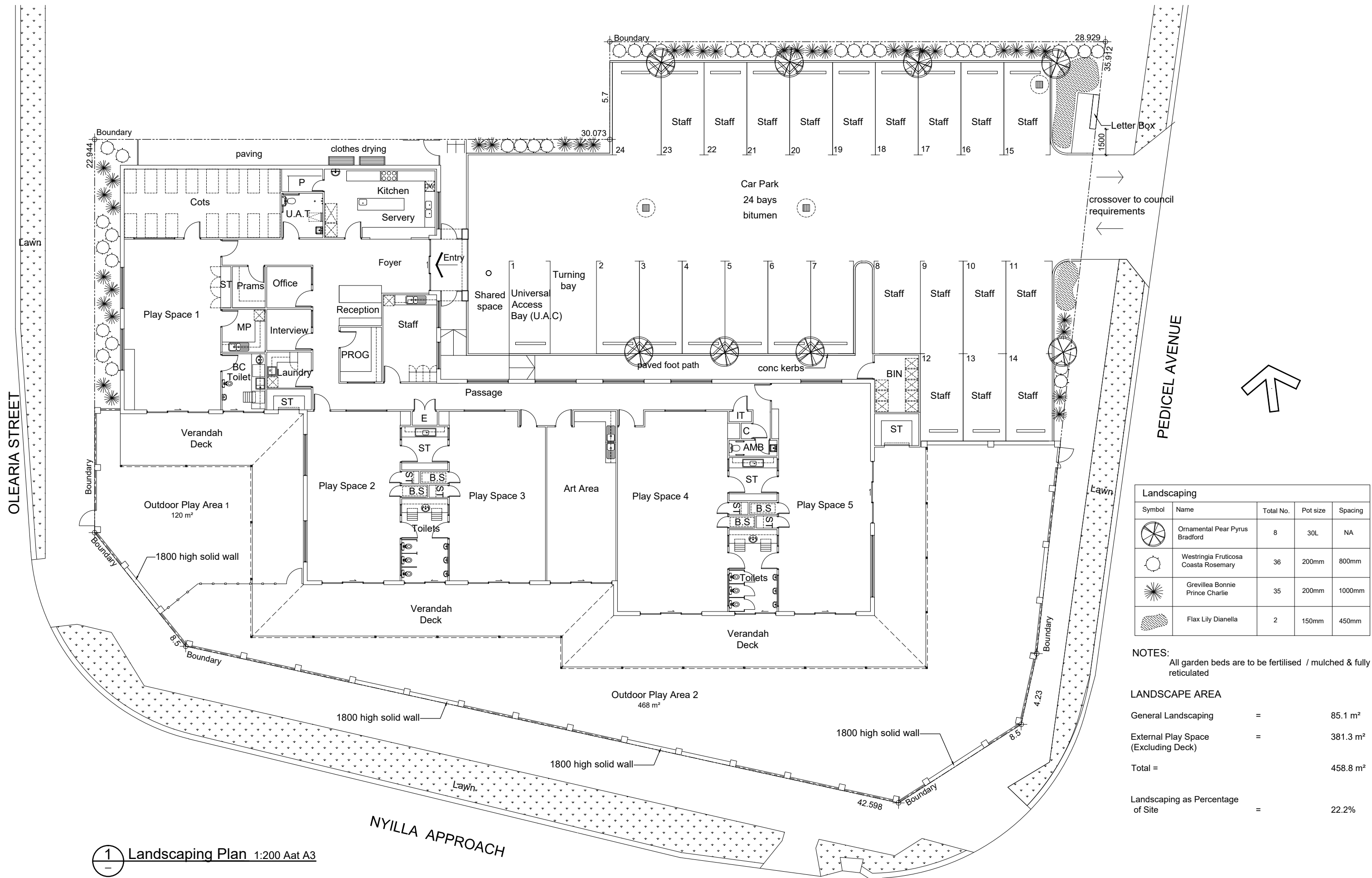


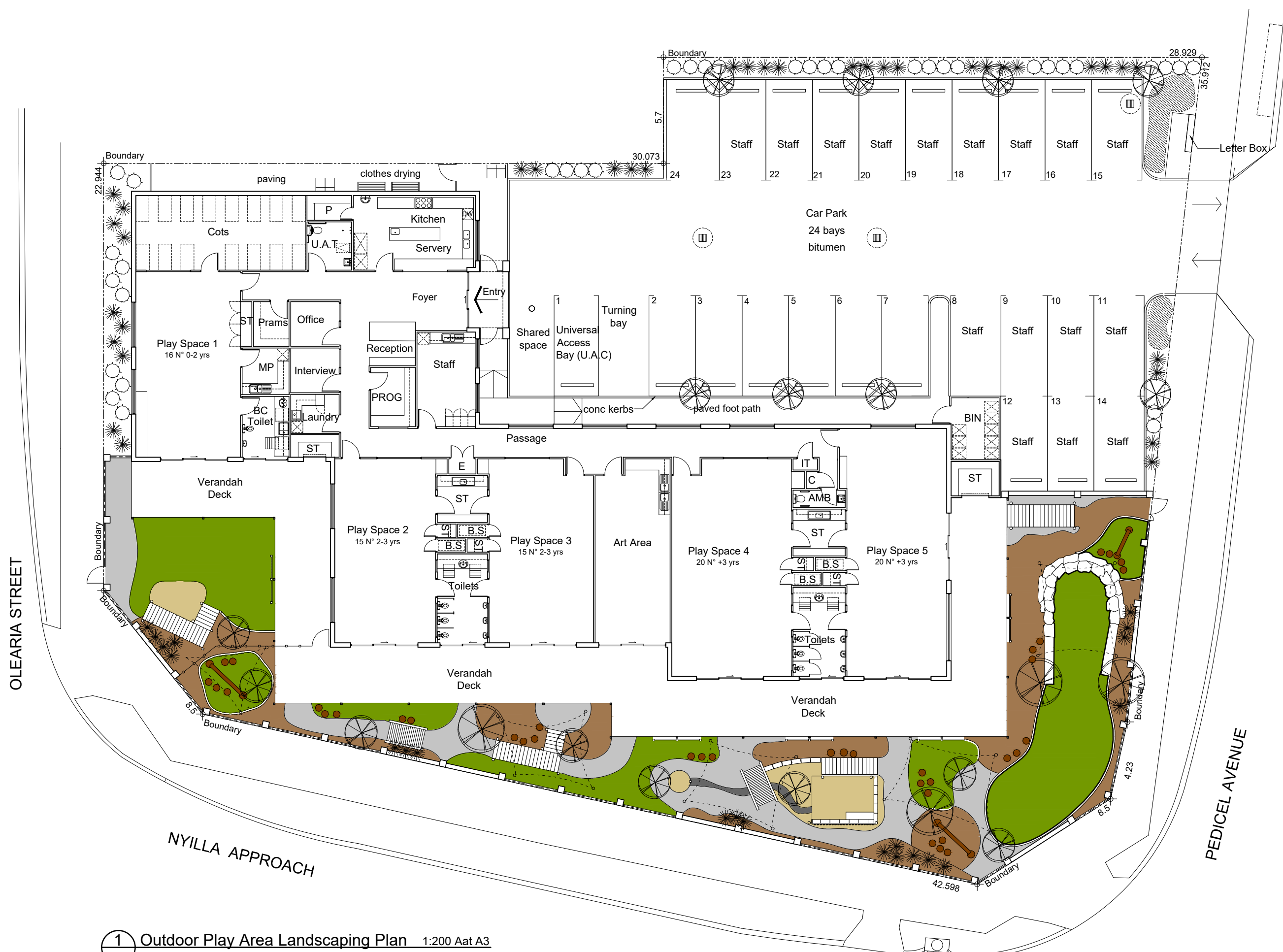
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SK03



3 West Elevation 1:200 Aat A3
SK03 Boundary Fence







- LEGEND :
- MULCH
 - RIVER SAND
 - EXPOSED AGGREGATE
 - CONCRETE
 - ARTIFICIAL TURF

NOTE :
Proposed outdoor play area landscaping subject to change to suit operator requirements & specialist design

1 Outdoor Play Area Landscaping Plan 1:200 Aat A3



Proposed Child Care Centre
Cnr Nyilla Approach & Pedicel
Avenue, Baldivis
Transport Impact Statement

PREPARED FOR:
Accord Property

July 2019

Document history and status

Author	Revision	Approved by	Date approved	Revision type
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Shaju Maharjan	r01a	M Rasouli	12/07/2019	Final

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Author: Shaju Maharjan

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Client: Accord Property

Project: Cnr Nyilla Approach & Pedicel Avenue, Baldivis

Document revision: r01a

Project number: t19.119

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APPENDIX A: PROPOSED SUBDIVISION LOCAL STRUCTURE PLAN

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1.0 Introduction

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Accord Property with regard to the proposed child care centre to be located at the corner of Nyilla Approach and Pedicel Avenue, Baldvis, in the City of Rockingham.

The subject site (approximately 2063 m²) is bounded by Olearia Street to the west, Pedicel Avenue to the east, vacant land to the north and Nyilla Approach to the south as shown in **Figure 1**.

The subject site is located within the proposed Local Structure Plan (LSP) for Lots 10, 921 & 922 Baldvis Road and Lot 3 Key Close within East Baldvis. The proposed LSP entails a Primary School immediately east of the proposed child care centre. **Figure 1** shows the proposed Primary School which is currently under construction.



Figure 1: Location of the subject site

Transcore prepared a Transport Impact Assessment (TIA) report for the proposed LSP in April 2014 (document reference: t13038mrr01a). A copy of proposed Subdivision Plan for Lots 10, 921 & 922 Baldvis Road and Lot 3 Key Close within East Baldvis is illustrated in **Appendix A**. The proposed Subdivision Plan shows that a total of 5 residential lots were initially proposed at the subject site.

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

The key issues that are addressed in this report include the traffic generation and distribution of the proposed development, parking, access and egress movement patterns.

¹ *Between 10 and 100 vehicular trips per hour*

2.0 Proposed Development

The development proposal is for a child care centre comprising:

- ✚ A child care centre building;
- ✚ Outdoor play area;
- ✚ On-site car park providing 24 car bays including one ACROD bay; and,
- ✚ One turning bay.

The child care centre is anticipated to accommodate up to 86 children and 16 staff.

A single full-movement crossover on Pedicel Avenue is proposed to service the proposed development. A separate bicycle parking area with two bike racks each for staff and client is provided at the north-west corner of the child care centre building.

Bin store is located on the east side of the proposed child care centre building adjacent to the staff tandem parking bays.

The pedestrian access to the child care centre is available directly from Pedicel Avenue frontage via existing path network on surrounding roads.

Development site plans are included for reference in **Appendix B**.


3.0 Vehicle Access and Parking

3.1 Access

According to the development plans in **Appendix B**, the proposed development would be serviced via a single full-movement crossover on Pedicel Avenue.

3.2 Parking Demand and Supply

The City of Rockingham Town Planning Scheme No.2, Table No. 2 provides parking requirement for various land uses. The parking rate applicable to the proposed child care centre is:

 Child Care Centre: 1 bay per employee and 1 bay per 8 children.

The proposed child care centre will accommodate up to 86 children and 16 staff which results in a maximum parking demand of 27 bays.

The proposed child care centre provides 16 car bays for staff and 8 bays for visitors which is a total of 24 on site car parking bays (including one ACROD bay and one turning bay). This site plan represents a theoretical potential shortfall of 3 bays for visitors.

3.3 Estimated Actual Parking Demand Based on Trip Generation

Transcore has undertaken a parking analysis based on the anticipated peak hour traffic generation of the proposed child care centre, to estimate the actual peak parking demand of the centre.

Section 6.1 of this report details the anticipated peak hour traffic generation of the proposed child care centre. It was established that the calculated morning peak hour trip generation of the proposed child care centre is 34 vehicles in and 31 vehicles out of the car park (afternoon peak hour is expected to generate less trips).

This represents a potential 34 vehicles using the child care centre car park during the peak hour.

The RTA NSW *“Guide to Traffic Generating Developments”* section on childcare centres provides commentary on childcare centre mode share, parking utilisation and parking length of stay. It should be noted that the commentary provided in the RTA guide is based on surveys of actual parking activity undertaken in New South Wales. The RTA guide indicates highest parking demand of 0.23 cars per child and the average recorded length of stay for all surveyed child care centres of 6.8 minutes.

Conservatively assuming that the length of stay for pick-up/drop-off parking for the proposed child care centre is 10 minutes it is calculated that each parking bay can accommodate a turnover of up to 6 vehicles per hour.

It is therefore established that at least 6 bays ($34/6 = 5.6$ say 6) should be reserved for pick-up and drop-off activities during peak hour periods. The remaining bays can be allocated for staff members. The proposed plan provides 8 bays for visitors and 16 bays for staff which satisfies the actual parking demand of the proposed child care centre.

It should also be noted that:

- + Many patrons of the child care centre will be local residents, some of which will walk their children to and from the child care centre;
- + Some patrons of the child care centre may be employed at the adjacent primary school, east of the subject site and as such would not need to utilise the child care centre car park for drop-offs and pick-ups as they would have a reserved parking space at the place of employment;
- + There are at least 21 embayed public parking bays available on Nyilla Approach and 2 embayed parking bays on Pedicel Avenue in the immediate vicinity of the subject site to accommodate the child care centre patrons during the peak hour pick-up and drop-off activities;
- + It should be noted that the peak parking demand for child care centres fall outside of the school peak periods; therefore, it is expected that some of the public bays would be available during the child care centre peak parking demand;
- + The existing child care centre at Lots 3-8, Amberley Drive, Baldivis, which has been approved by the City and is now operating satisfactorily entails 104 children and provides 26 car bays. The proposed child care centre is for 86 children and provides 24 parking bays.

For the reasons outlined above, it is considered that sufficient parking has been provided to meet the anticipated needs of the proposed child care centre.

4.0 Provision for Service Vehicles

It is anticipated that the proposed development will generate a small volume of service vehicle traffic, primarily associated with deliveries for the child care centre.

It is recommended that smaller vehicles such as vans be used for deliveries. Delivery vehicles may park for a short time within the car park for loading and unloading activities.

Deliveries are anticipated to occur outside the peak activities for the child care centre.

Rubbish bins will be wheeled out from the bin store for kerbside waste collection on waste collection day. Turn path analysis also confirms that an 8.8m rubbish truck would be able to enter and exit the site if needs be during the off peaks and when the parking bays are empty (refer **Appendix C**)

5.0 Hours of Operation

The proposed childcare centre is expected to operate during weekdays between 6:30AM and 6:30PM with heaviest traffic movements during morning drop-off and afternoon pick-up hours, typically between 8:00-9:00AM and 4:30-5:30PM.

6.0 Daily Traffic Volumes and Vehicle Types

6.1 Traffic Generation

6.1.1 Existing Development Traffic

The subject site is currently a vacant land so does not generate any traffic. The proposed subdivision plan for Lots 10, 921 & 922 Baldivis Road and Lot 3 Key Close (refer Appendix B) shows 5 residential dwellings at the subject site which will be replaced by the proposed child care centre. Applying a trip rate of 8 vehicles per day per dwelling would result in about 40 vehicle trips per day for the original residential dwellings at the site.

In order to provide a robust assessment, the total trip generation of the proposed child care centre is established not the net traffic increase due to the change of use.

6.1.2 Proposed Child Care Centre Traffic Generation

In order to establish an accurate traffic generation rate for this centre, a number of traffic count surveys undertaken by Transcore at similar centres in the Perth metropolitan area, were sourced.

Discussions with the respective centre managers revealed that the peak drop-offs and pick-ups for each of these centres occur between the hours of 7:00AM–10:00AM and 3:00PM–6:00PM.

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

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

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

Furthermore, the following average peak hour generation rates were established from the surveys for the child care centres:

- AM peak hour: 8:00AM–9:00AM: 0.75 trips per child (52% in/48% out);
- Site PM peak hour: 3:00AM–4:00PM: 0.6 trips per child (55% in/ 45% out); and,
- Road network PM peak hour: 4:30PM–5:30PM: 0.49 trips per child (43% in/57% out).

Comparison of the six-hour generation rates and the peak hour generation rates confirms that the distribution of traffic from these centres is spread over the peak periods and that full concentration of traffic does not occur in the peak hour. The AM peak hour represents 47% of the 3-hour AM peak period traffic generation and the typical site PM and road network PM peak hours represent 36% and 29% of the 3-hour PM peak period traffic generation, respectively. As such, childcare centres operate quite differently to schools as their peak period is spread out.

Accordingly, assuming a maximum of 86 children being present at the centre (i.e. centre operating at full capacity), the following number of trips was estimated for the proposed centre:

- ✚ AM road network peak hour: 65 trips generated (34 in/31 out);
- ✚ Site PM peak hour: 52 trips generated (29 in/ 23 out);
- ✚ Road network PM peak hour: 43 trips generated (19 in/24 out); and,
- ✚ Daily traffic generation: 301 trips generated (150 in/151 out).

The proposed methodology to estimate the traffic generation of the child care centre by Transcore has been used and accepted for other numerous child care centres within Perth metropolitan area.

6.2 Traffic Flow

Considering that all access to the site is available solely via Pedicel Avenue it is concluded that all of the estimated development-generated traffic would arrive/depart to and from the site via Pedicel Avenue and then dissipate throughout the local road network.

As with similar centres, an overwhelming majority of patrons would originate from within the local area with only a marginal number of patrons arriving from afar.

Hence, based on the general spatial distribution of residential developments in the immediate area, permeability of the local road network and the assumption that all traffic attracted to the proposed child care centre would arrive/depart via Pedicel Avenue, the child care centre's traffic distribution adopted for this analysis is as follows:

- ✚ 50% to/from north of the development crossover; and,
- ✚ 50% to/from south of the development crossover;

Figure 2 illustrates trip generation and traffic distribution over the local road network for the proposed Centre.



Figure 2. Estimated traffic movements for the subject development – AM peak (road network PM peak)

6.3 Impact on Surrounding Roads

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

The proposed child care centre will not increase traffic flows anywhere near the quoted WAPC threshold to warrant further detailed analysis. The proposed development will not increase traffic on any lanes on the surrounding road network by more than 100vph, therefore the impact on the surrounding road network is insignificant.

7.0 Traffic Management on the Frontage Streets

The proposed hierarchy of roads within the LSP area is illustrated in **Figure 3**. This figure is extracted from Transcore's TIA report for the proposed Local Structure Plan for Lots 10, 921 & 922 Baldivis Road and Lot 3 Key Close within East Baldivis and is in accordance with Liveable Neighbourhoods guidelines (2007).

According to Figure 4, Pedicel Avenue is classified as an Access Street C, Olearia Street as an Access Street D and Nyilla Approach as a Neighbourhood Connector B.

Pedicel Avenue near the subject site is a two-lane undivided road with pedestrian paths on both sides of the road. Embayed car parking is also provided on the east side of the road.

Nyilla Approach near the subject site is a two-lane undivided road with pedestrian paths and embayed car parking on both sides of the road.

Olearia Street near the the subject site is a 6m wide carriageway with pedestrian path on the east side of the road.

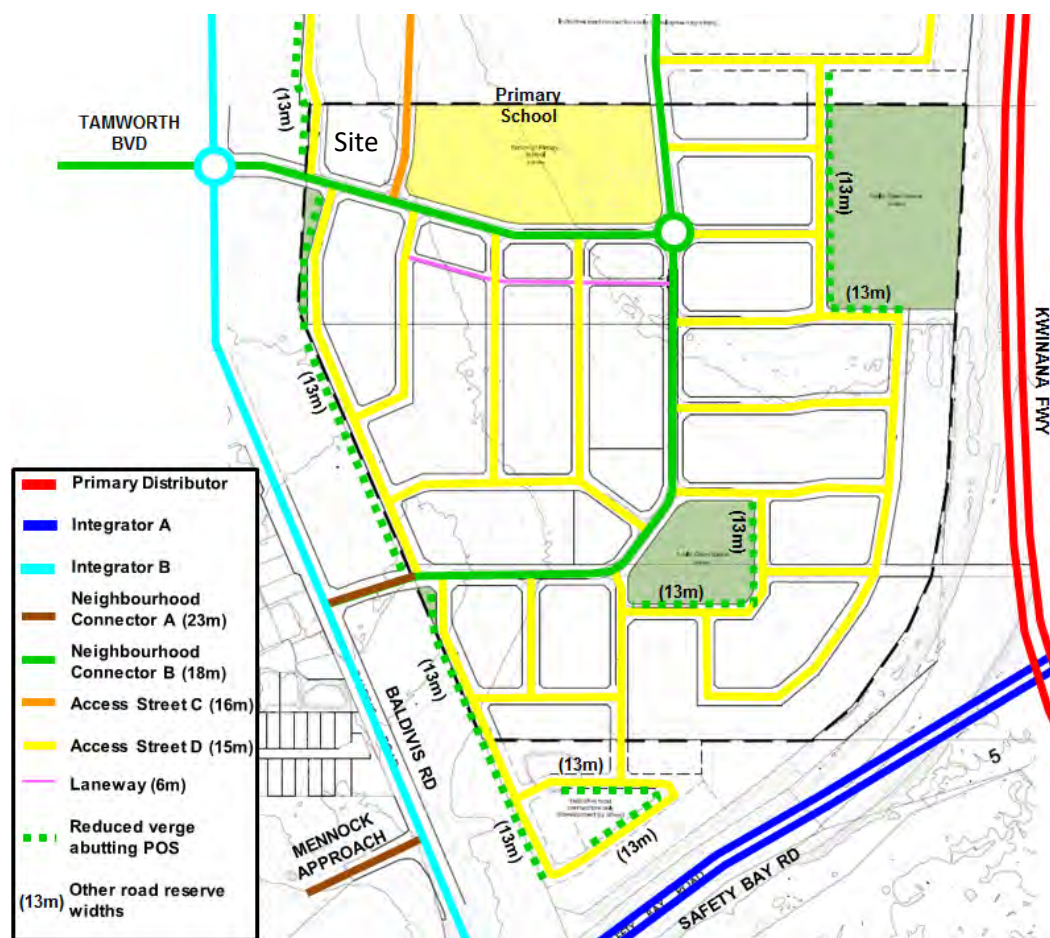


Figure 3: Proposed road hierarchy

8.0 Public Transport Access

The public transport near the subject site is shown in **Figure 4**. The closest bus stop is on Birdsville Drive which is approximately 350m west of the subject site.

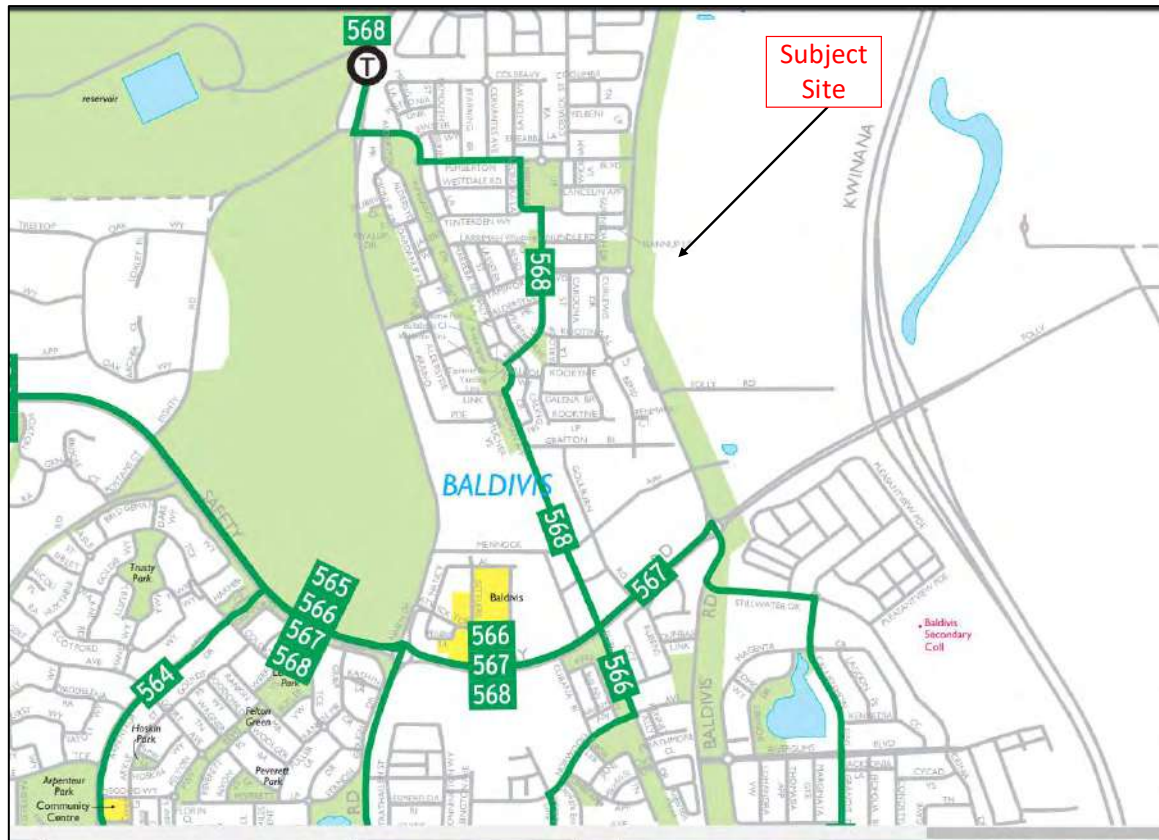


Figure 4: Existing bus services (source: Transperth)

9.0 Pedestrian Access

Pedestrian access to the subject site is available directly from Pedicel Avenue via the existing footpaths on surrounding roads.

10.0 Cycle Access

The Perth Bicycle Network Map (see **Figure 5**) shows the cycle connectivity near the subject site. Baldvis Road is classified as a good road riding environment in this plan.

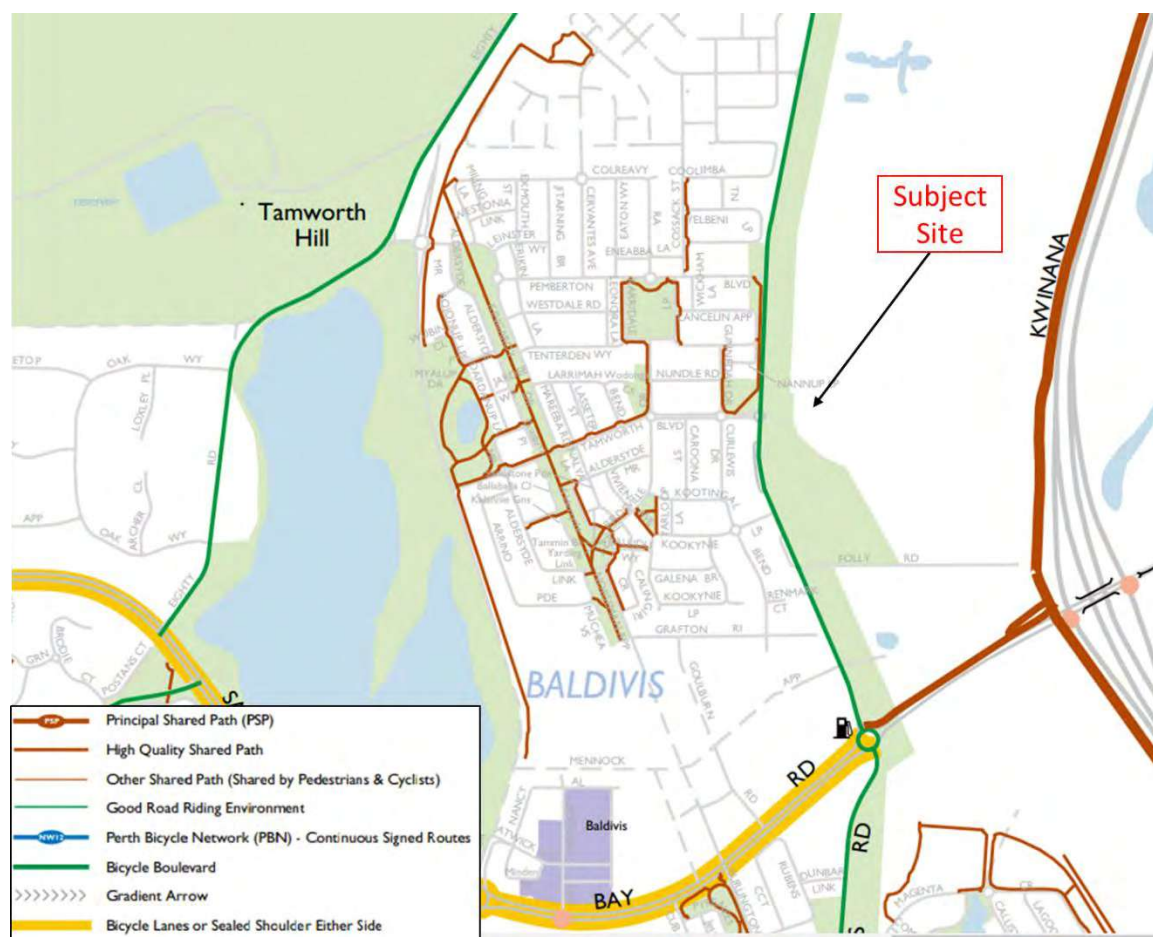


Figure 5: Extract from Perth Bicycle Network (Department of Transport)

11.0 Site Specific Issues

No site-specific issues were identified for the proposed childcare centre. However due to the location of the proposed child care centre which is near the proposed Baldivis North Primary School the interaction of the school traffic and the child care centre traffic and nearby on-street parking is investigated further in this section of the report.

Figure 6 shows the proposed child care centre in relation to the proposed primary school car park along Pedicel Avenue. According to this figure sufficient separation distance is available between the proposed child care centre crossover on Pedicel Avenue and the proposed school car park crossovers.

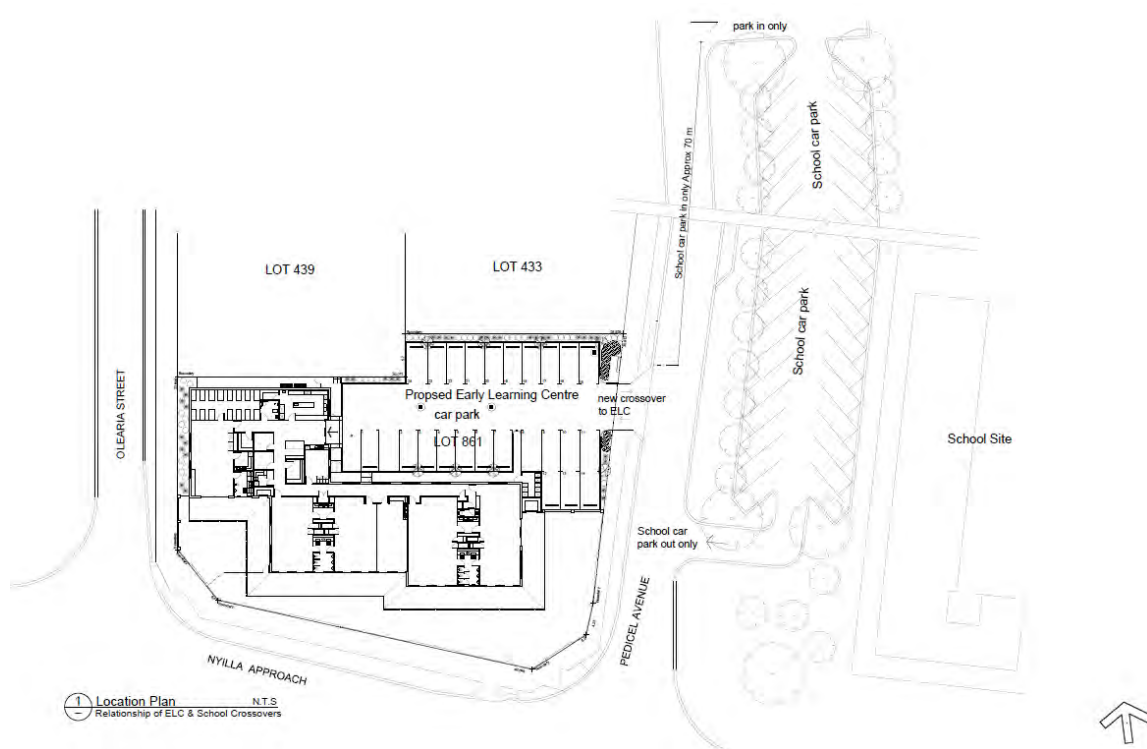


Figure 6: proposed child care centre and the proposed school car park along Pedicel Avenue

The proposed primary school is expected to entail sufficient on-site parking bays to accommodate the school traffic. In any case, as explained in section 6.1.2 of the TIS childcare centres operate quite differently to schools as their peak period is spread out and it is expected that parking demand for child care centres falls outside of the school peak periods. Therefore, the existing on-street bays on the surrounding road network would be available during the child care centre peak parking demand.

Review of the nearmap images indicate that there are at least 21 on-street parking bays available on Nyilla Approach and 2 embayed parking bays on Pedicel Avenue

in the immediate vicinity of the proposed child care centre to accommodate the child care centre patrons during the peak hour pick-up and drop-off activities.

In conclusion, based on estimated actual parking demand for the proposed child care centre discussed in section 3.3 of the TIS, availability of additional nearby on-street public parking, the fact that the peak patronage to the child care centre is spread over several hours and peak parking demand is different to the nearby primary school, it is considered that the vicinity of the proposed child care centre and the proposed primary school would not adversely impact the traffic operation or the parking demand of the proposed child care centre.

12.0 Safety Issues

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

13.0 Conclusions

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Accord Property with regards to the proposed child care centre to be located at the corner of Nyilla Approach and Pedicel Avenue.

The site features good connectivity via the existing road network and well served by the existing pedestrian facilities.

The child care centre is proposed to cater for about 86 children by 16 staff.

Vehicle access to and from the site will be via a single full movement crossover on Pedicel Avenue which leads to a 24-bay on-site car park inclusive of one ACROD bay and one turning bay.

Total parking spaces required for the proposed child care centre is estimated to be 27 bays in accordance with the City of Rockingham Town Planning Scheme No.2. This represents a theoretical shortfall of 3 visitor bays from City of Rockingham requirements. However, actual parking demand assessment undertaken in the TIS indicates that the proposed 8 visitor bay meets and exceeds the parking demand for the visitors.

Based on estimated actual parking demand for the proposed child care centre discussed in section 3.3 of the TIS, availability of additional nearby on-street public parking, the fact that the peak patronage to the child care centre is spread over several hours and peak parking demand is different to the proposed nearby primary school, it is considered that the vicinity of the proposed child care centre and the proposed primary school would not adversely impact the traffic operation and the parking demand of the proposed child care centre.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is relatively low and as such would have insignificant impact on the surrounding road network.

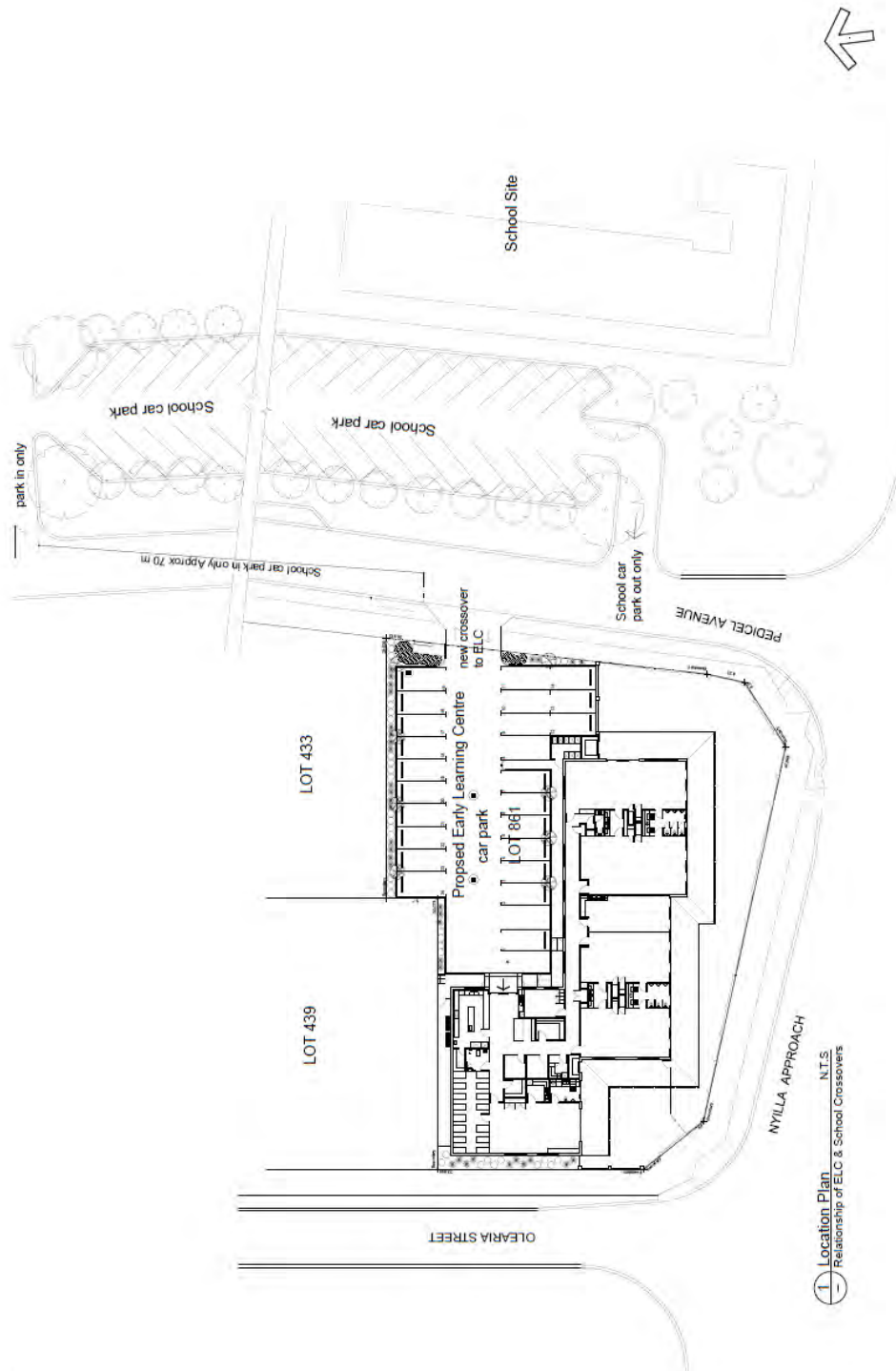
It is concluded that the findings of this Transport Impact Statement are supportive of the proposed child care centre.

Appendix A

PROPOSED SUBDIVISION LOCAL STRUCTURE PLAN

Appendix B

PROPOSED DEVELOPMENT PLANS



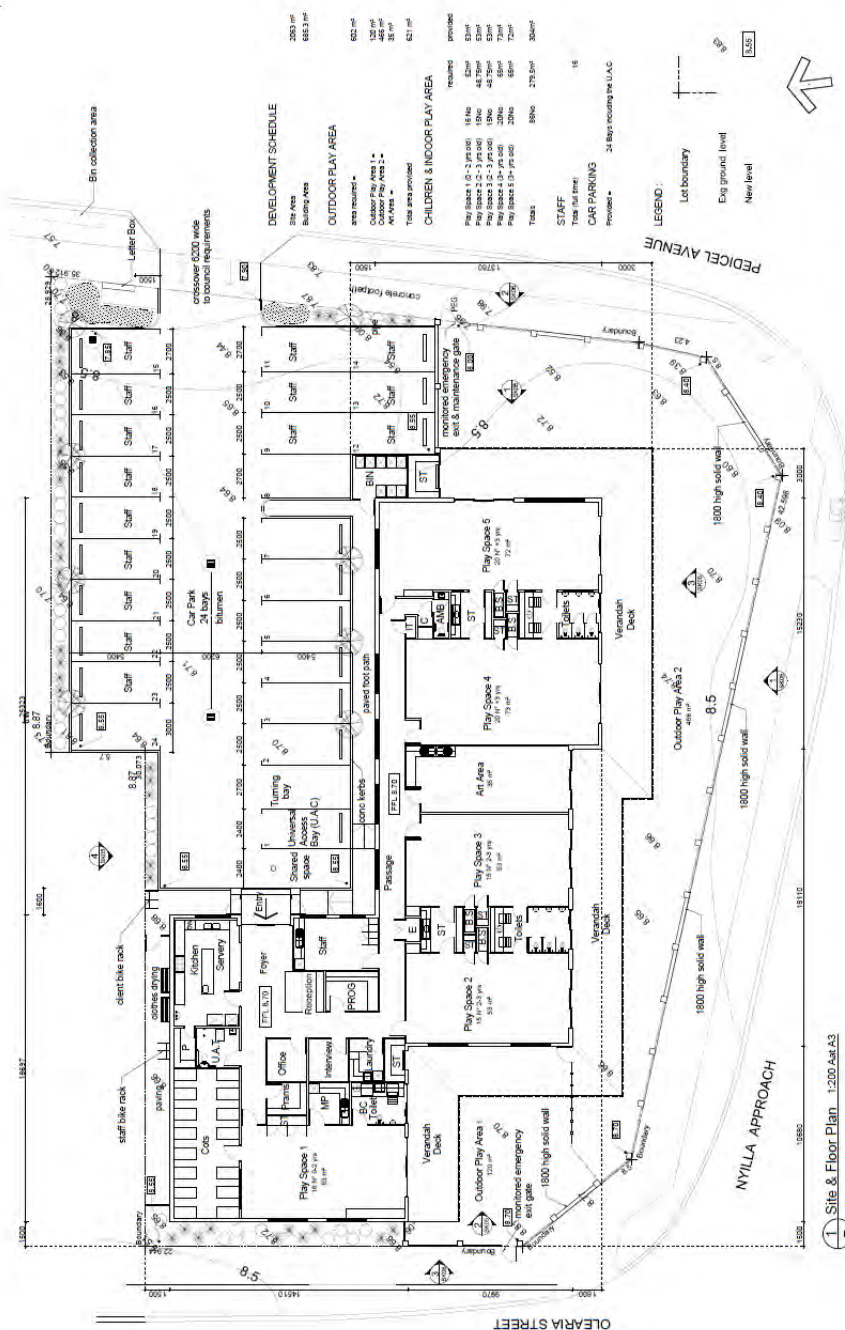
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Rev	N.T.S	1	1
Rev	SK026	1	1

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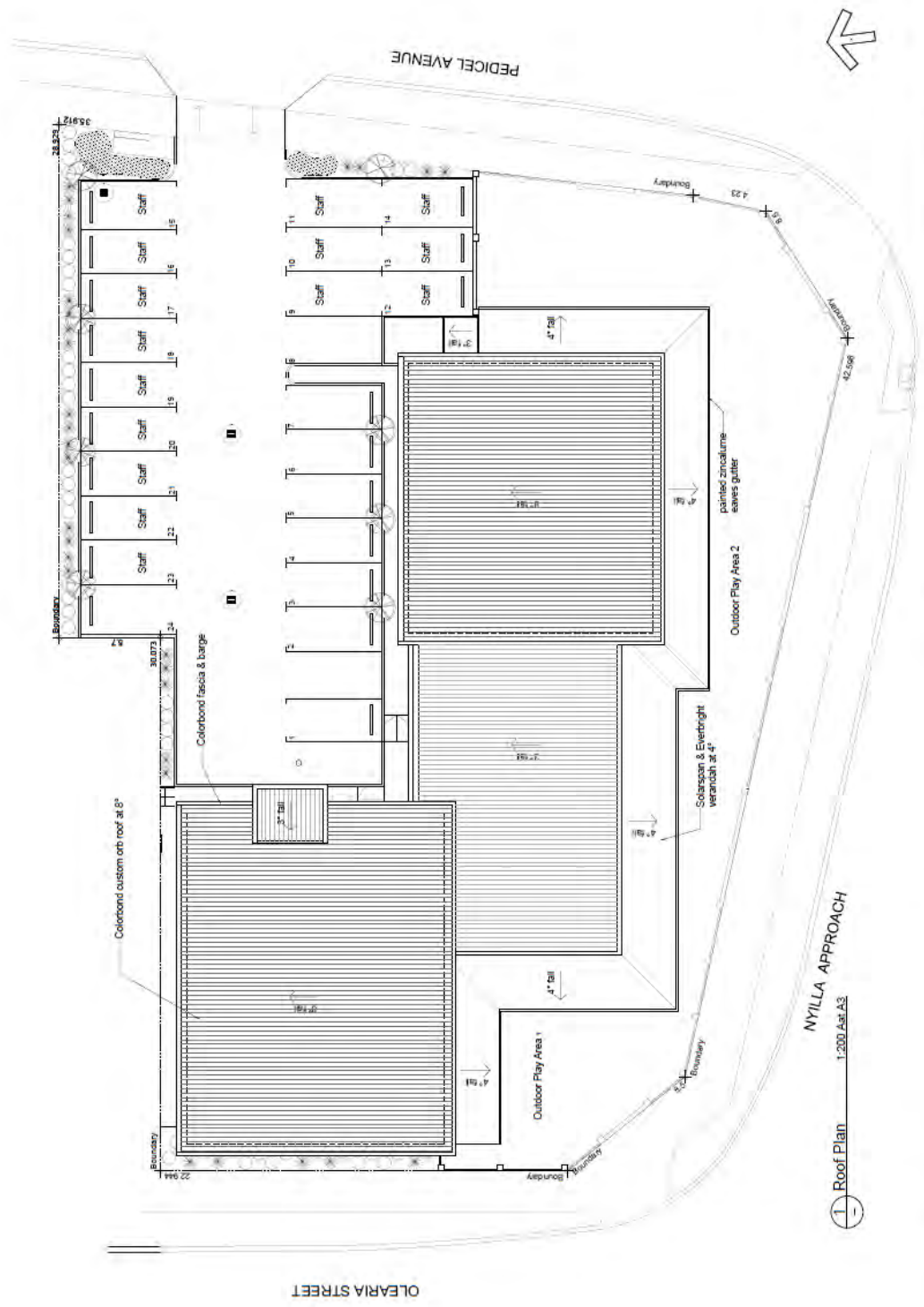
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Site & Floor Plan
 1:200 As/As
 1:200 As/As
 1:200 As/As
 1:200 As/As



1 Roof Plan 1:200 A4/A3
NYLLA APPROACH

Roof Plan			
1:1	A4/A3	1:1	June 2019
1:1	1:200 A4/A3	1:1	SK04c
1:1	1:200	1:1	27/18

Proposed Early Learning Centre
CNR NYLLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

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Building and
Interior Design
Solutions

Appendix C

TURN PATH ANALYSIS



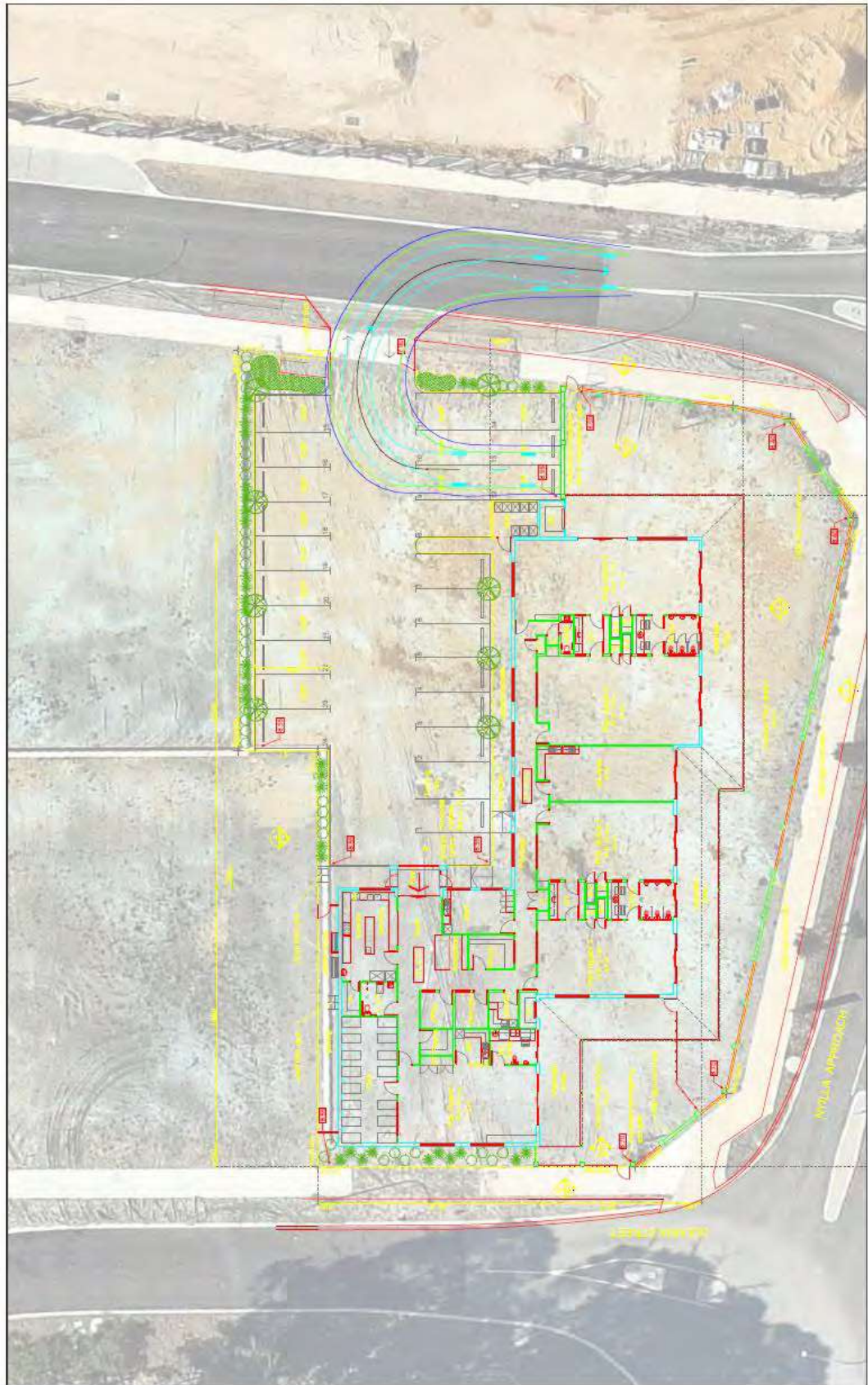
Baldvis Child Care Centre
 Austroads 2013: 8.8 Service Vehicle
 Service Vehicle Circulation

LEGEND
 Vehicle Body
 Wheel Path
 500mm Clearance



t19.119.sk01
 28/06/2019
 Scale: 1:250 @ A3





Baldvis Child Care Centre
 Austroads 2013: 8.8 Service Vehicle
 Service Vehicle Circulation

LEGEND

- Vehicle Body
- Wheel Path
- 500mm Clearance

t19.119.sk02
 28/06/2019
 Scale: 1:250 @ A3



Environmental Noise Assessment

**Proposed Early Learning Centre
Lot 861 Nyilla Approach, Baldivis**

Reference: 19055007-01b

Prepared for:
Accord Property

Report: 19055007-01b

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Date:	Rev	Description	Prepared By	Verified
03-July-19	0	Issued to Client	Benjamin Hillion	Terry George
18-July-19	1a	Issue for DA submission	Benjamin Hillion	-
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B	Land Use Map
C	Terminology

1 INTRODUCTION

It is proposed to develop Lot 861 Nyilla Approach Baldivis (refer *Figure 1-1*), into an Early Learning Centre (ELC). The development is understood to include:

- A new one storey ELC building,
- Two main outdoor play areas with one to the south and the other to the south west corner of the ELC building, and
- A 22 bay car park on the north eastern side, with entry from Pedicel Avenue.

The proposed development is located on residential land with surrounding lots being single storey residential with a primary school to the east.

The proposed ELC will accommodate up to 86 children and for the purpose of this assessment, the following age group distribution was assumed:

- Babies (0-24 months), 16 children,
- Pre-Kindy (2 - 3 years), 30 children overall; and,
- Kindy (3 years and over), 40 children overall.

The proposed hours of operation are 6.30am to 6.30pm Monday to Friday. As such, it is noted that staff and patrons can arrive before 7.00am, although child play noise in the outdoor areas would not occur until after 7.00am.

This report assesses noise emissions from child play, mechanical plant (AC plant and extraction fans) and car doors closing at the proposed site, against the *Environmental Protection (Noise) Regulations 1997*.

Whilst residential lots directly north of site are currently vacant it is taken that compliance with the Noise Regulations would be required at these lots.

The development plans are provided in *Appendix A*.

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



Figure 1-1 Project Locality (Source - IntraMaps City of Rockingham)

2 CRITERIA

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

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

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

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

when assessed under regulation 9”

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

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

- (a) The characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and
- (b) The noise emission complies with the standard prescribed under regulation 7 after the adjustments of *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

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

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

Table 2-2 Baseline Assigned Noise Levels

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

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.

It is noted the project and surrounding land is located within a residential area with no industrial land uses within 450 metres, and some commercial uses within 450 metres. Kwinana Freeway is within 450 metres and considered a major road, as it carries more than 15,000 vehicles per day (33,141 vpd according to MRWA #8457.2018).

Based on the above and the land use map shown in *Appendix B*, the influencing factor, applicable at the noise sensitive premises, has been calculated as 2 dB as shown in *Table 2-3*.

Table 2-3 Influencing Factor Calculation

Description	Within 100 metre Radius	Within 450 metre Radius	Total
Industrial Land	0 %	0 %	0 dB
Commercial Land	0 %	1 %	0.1 dB
Transport Factor			2 dB
Total			2 dB

Table 2-4 shows the assigned noise levels including the influencing factor and transport factor at the receiving locations.

Table 2-4 Assigned Noise Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area ¹	0700 to 1900 hours Monday to Saturday (Day)	47	57	67
	0900 to 1900 hours Sunday and public holidays (Sunday)	42	52	67
	1900 to 2200 hours all days (Evening)	42	52	57
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	37	47	57
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80

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.

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

Furthermore, the assigned noise 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*, which is 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 and 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Environment 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.

3 METHODOLOGY

Computer modelling has been used to predict the noise emissions from the development at all nearby receivers. The software used was *SoundPLAN 8.1* incorporating the ISO 9613 algorithms. These algorithms have been selected as they include the influence of wind and atmospheric stability. Input data required in the model are:

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

3.1 Meteorological Information

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

Table 3-1 Modelling Meteorological Conditions

Parameter	Night (1900-0700)	Day (0700-1900)
Temperature (°C)	15	20
Humidity (%)	50	50
Wind Speed (m/s)	Up to 5 m/s	Up to 5 m/s
Wind Direction*	All	All

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

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

3.2 Topographical Data

For the area of the proposed development, ground elevation points provided in the RG Lester & Associates Site plan (received as email attachment from Jarrad Haynes on 24 June 2019) were incorporated into the noise model. For areas surrounding Lot 861, topographical data was based on that publicly available from *Google Earth* in the form of spot heights. It is noted the topography is relatively flat, with no significant differences in elevations between the proposed site and the surrounding premises.

3.3 Buildings and Receivers

Surrounding existing buildings were included in the noise model as these can provide noise shielding as well as reflection paths.

Single storey buildings were modelled as 3.5 metres high, while school buildings were modelled as 7 metres high. Receivers were located 1.4 metres above ground level (AGL) and floor level.

For the purpose of this assessment future buildings on nearby residential lots were assumed to be single storey.

3.4 Walls and Fences

Boundary fences are going to be a mix of masonry and solid sheet metal (e.g. *Colorbond*) fences and were also included in the model as follows:

- 1.8 metre high fence along the south boundary (alternating between 1.8m masonry, and 0.5m masonry retainer wall with 1.3m assumed tubular metal fencing on top (i.e. acoustically transparent) to the south of the site around the outdoor play areas.
- 0.5 metre retaining walls to the north around the car park.
- 1.8m continuous steel sheet fencing at common boundaries between Lots directly north of the site (i.e. Lots 432, 433, 439 and 440).

Figure 3-1 shows a view of the 3D model based on the information above in relation to topography and building and fences height. Please note non-continuous fencing (i.e. fencing with gaps or openings) is not shown because in practice it provides no acoustic screening effect - therefore only solid continuous barriers are shown.

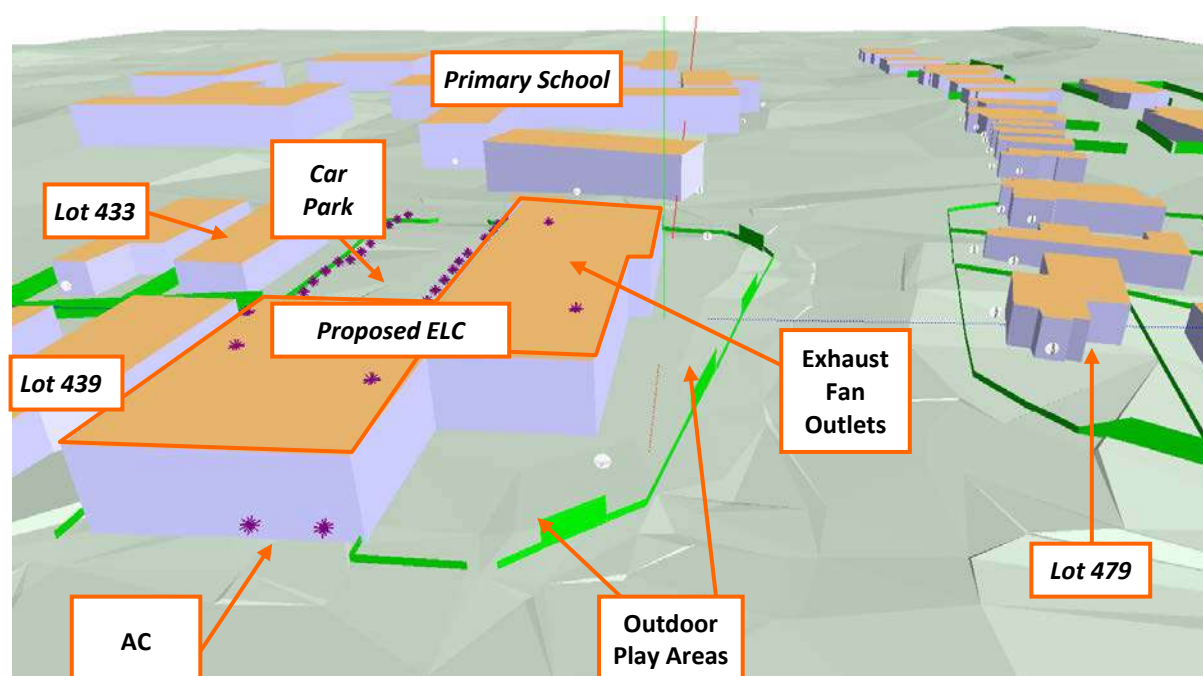


Figure 3-1 West Elevation of 3D Noise Model

3.5 Ground Absorption

Ground absorption varies from a value of 0 to 1, with 0 being for an acoustically reflective ground (e.g. asphalt, concrete) and 1 for acoustically absorbent ground (e.g. grass/sand). In this instance, a value of 1 has been used for outdoor grassed areas and 0 for the surroundings.

3.6 Source Sound Levels

The sound power levels used in the noise model 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	
Child Play Pre-Kindy (30 kids), L_{10}	52	61	71	78	84	82	76	68	87
Child Play Kindy (40 kids), L_{10}	57	66	76	83	89	88	81	73	93
Outdoor Condensing Unit ¹ , (18 kW)	77	79	75	73	67	66	58	49	74
Toilet Exhaust Fan ² (Fantech TD-800/200 SIL)	71	64	61	64	62	60	57	51	67
Kitchen Exhaust Fan ³ (Fantech CEEC45D)	70	76	77	69	71	66	64	51	75
Closing Car Door, L_{max}	71	74	77	81	80	78	72	61	84

Notes:

1. 2x outdoor AC condenser units were modelled in total.
2. 3x toilet exhaust fans were modelled in total
3. 1x kitchen exhaust fan was modelled in total

The following is noted in relation to the source levels above:

- Child play source levels represent the group of children playing outside at the same time. It is noted that based on observations and measurements, the noise levels tend to increase with the children's age and therefore kindy children (3 years and above) were considered noisier than pre-kindy children (2-3 years). Noise from infant play was considered negligible. Outdoor child play was modelled as area sources at various heights to account for the slight difference in height between age groups as follows:
 - Kindy - 1.0 metre above ground plane; and
 - Pre-kindy - 0.9 metre above ground plane.
- Whilst the premises are open prior to 7.00am, it is assumed there would be no outdoor play until after 7.00am.
- Based on similar projects, two outdoor AC outdoor condenser units were assumed to be required for the building. Each was modelled as a point source located 1.2 metres above ground. The AC units are assumed to be operating at night-time (prior to 7.00am);
- Other mechanical plant includes three toilet exhaust fans and one kitchen exhaust fan. All were modelled as point sources approximately 0.5 metre above roof level, and above the area serviced. The kitchen exhaust fan is assumed to only operate after 7.00am; and,
- 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 but can occur prior to 7.00am.

4 RESULTS

4.1 Outdoor Child Play

The ELC development will host up to 86 children including 70 above the age of two and considered to make noise during child play i.e. babies are not considered to make significant noise during play. Kindy and pre-kindergarten children were assumed to play in Outdoor Area 2 (south), with the children distributed over the available space. The south-west outdoor area is considered to be used by infants only.

Given that child play is generally staggered, not all children will be outside at once. Therefore, noise levels were predicted for the following scenarios:

- Scenario 1 (L_{A1}) – 40 kindy (3 years and over) and 30 pre-kindergarten children playing outside during ‘change over period’;
- Scenario 2 (L_{A10}) – 20 kindy and 15 pre-kindergarten children playing outside simultaneously;
- Scenario 3 (L_{A10}) – 15 pre-kindergarten (half of 2-3 years) children playing outside; and
- Scenario 4 (L_{A10}) – 20 kindy (half of 3 years and over) children playing outside.

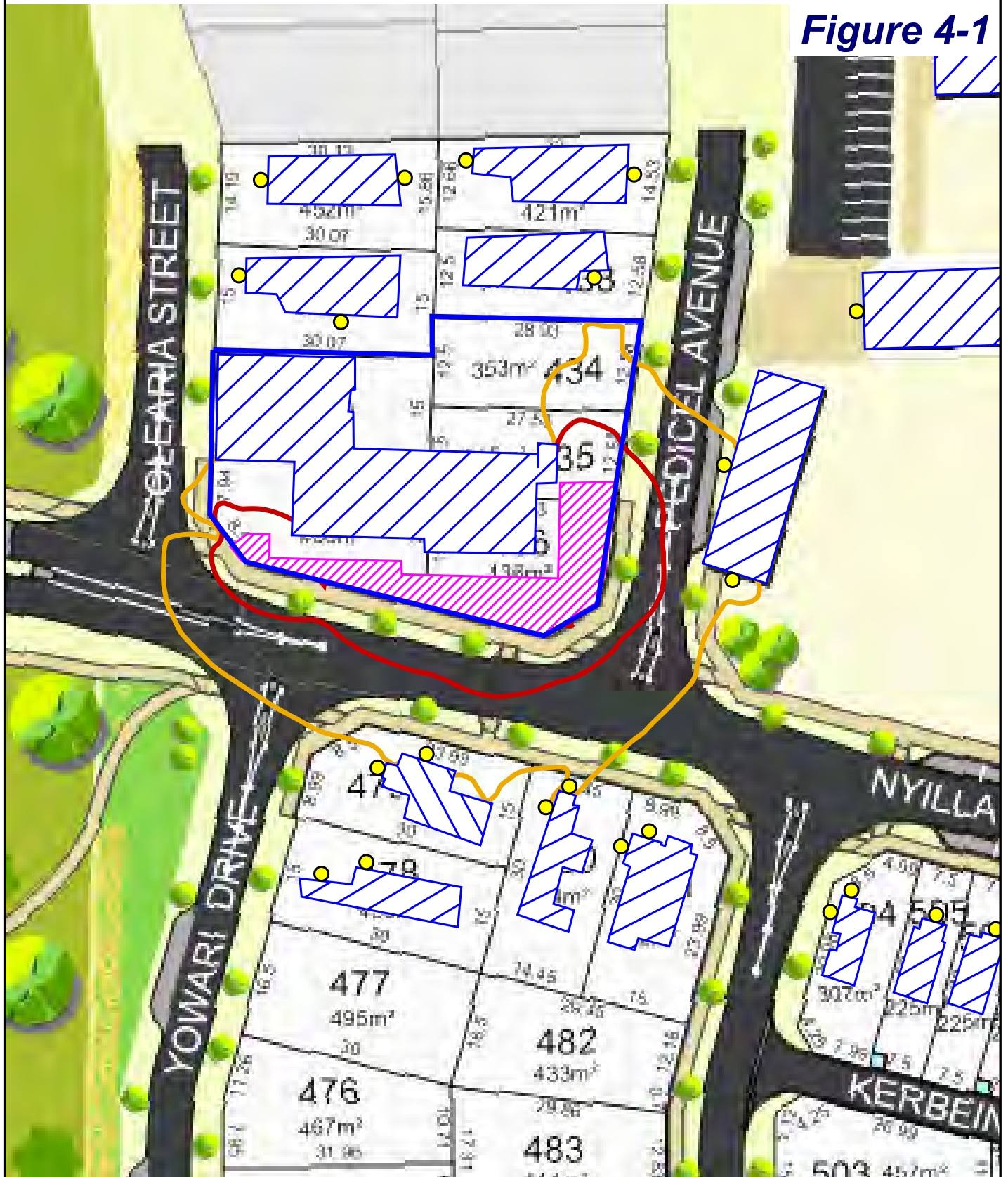
For all scenarios above, the predicted noise levels are from child play only i.e. mechanical plant noise is not included. *Table 4-1* presents the highest noise level at each receiver. *Figures 4-1 to 4-4* also show the predicted noise levels as noise contour maps at ground level (1.4 metres AGL). It can be seen from the results that the receivers most impacted by outdoor child play are those located to the east and south i.e. No.1 Yowarri Drive (Lot 479), No. 4 and No. 6 Nyilla Approach (Lots 480 and 481), and the most western Primary School building along Pedicel Avenue (directly opposite ELC).

Table 4-1 Predicted Noise Levels of Child Play

Receiver	Floor	Scenario 1 dB L_{A1}	Scenario 2 dB L_{A10}	Scenario 3 dB L_{A10}	Scenario 4 dB L_{A10}
Nearest School Building	Ground	51	50	42	50
L shaped School Building (second nearest)	Ground	39	39	31	38
Lot 440 (Olearia Street)	Ground	29	28	19	28
Lot 432 (Pedicel Avenue)	Ground	39	38	30	37
Lot 439 (Olearia Street)	Ground	32	31	22	30
Lot 433 (Pedicel Avenue)	Ground	42	41	33	40
Lot 479 (No.1 Yowari Drive)	Ground	53	53	44	52
Lot 478 (No.3 Yowari Drive)	Ground	38	38	28	37
Lot 480 (No.4 Nyilla Approach)	Ground	47	47	38	46
Lot 481 (No.6 Nyilla Approach)	Ground	49	48	40	48
Lot 504 (No.8 Nyilla Approach)	Ground	44	43	35	43

Outdoor Childplay Noise with 40 Kindy and 30 Pre-kindy children (Scenario 1) Proposed Early Learning Centre - Lot 861 Nyilla Approach, Baldivis

Figure 4-1



Noise Levels
dB L_{A1}

Orange = 52
Red = 57

Signs and symbols

- Yellow dot = Receiver
- Blue outline = Building
- Pink hatched area = Outdoor Play
- Blue line = CCC Lot Outline



2/07/2019

Length Scale 1:750

0 4.5 9 18 27 m

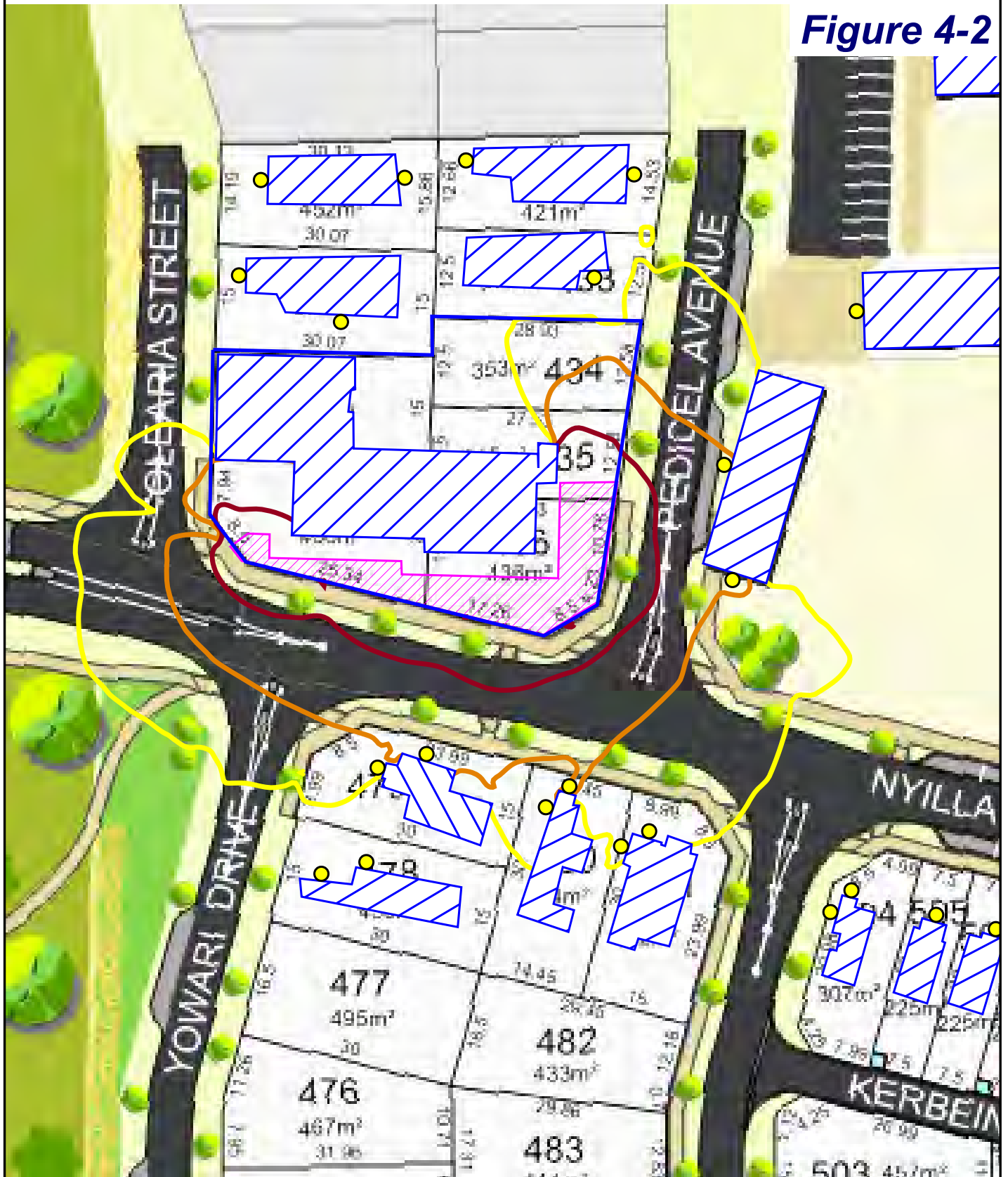


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Outdoor Childplay Noise with 20 Kindy and 15 Pre-kindy children (Scenario 2)

Proposed Early Learning Centre - Lot 861 Nyilla Approach, Baldivis

Figure 4-2



Noise Levels
dB L_{A10}



Signs and symbols

- Receiver
- Building
- Outdoor Play
- CCC Lot Outline



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Length Scale 1:750



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Outdoor Childplay Noise with 15 Pre-kindy children (Scenario 3)

Proposed Early Learning Centre - Lot 861 Nyilla Approach, Baldivis

Figure 4-3



Noise Levels
dB LA10



Signs and symbols

- Receiver
- Building
- Outdoor Play
- CCC Lot Outline



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Length Scale 1:750



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Outdoor Childplay Noise with 20 Kindy Children (Scenario 4)

Proposed Early Learning Centre - Lot 861 Nyilla Approach, Baldivis

Figure 4-4



Noise Levels
dB LA10



Signs and symbols

- Receiver
- Building
- Outdoor Play
- CCC Lot Outline



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Length Scale 1:750



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4.2 Mechanical Plant

Mechanical plant was considered to consist of AC plant and extraction fans for the kitchen and toilets. At this stage, no details in relation to the mechanical plant are available and therefore the location, number of, and size/capacity of the AC units and fans used in this assessment are based on similar projects.

During the daytime, it is assumed that all plant could be operating simultaneously and at full capacity e.g. hot summer day. As the ELC would open from 6.30am, the AC plant and toilet exhaust fans were assumed to operate at night-time (i.e. 6.30am-7.00am). The predicted daytime and night-time mechanical plant noise levels are presented in *Table 4-2*.

The daytime and night-time predicted noise levels are also shown as noise contour maps on *Figure 4-5* and *Figure 4-6* respectively.

Table 4-2 Predicted Noise Levels of Mechanical Plant, dB L_{A10}

Receiver	Floor	Daytime (all plant)	Night-time (AC + TEF)
Nearest School Building	Ground	30	24
L shaped School Building (second nearest)	Ground	29	24
Lot 440 (Olearia Street)	Ground	32	24
Lot 432 (Pedicel Avenue)	Ground	35	26
Lot 439 (Olearia Street)	Ground	44	31
Lot 433 (Pedicel Avenue)	Ground	33	29
Lot 479 (No.1 Yowari Drive)	Ground	31	28
Lot 478 (No.3 Yowari Drive)	Ground	27	25
Lot 480 (No.4 Nyilla Approach)	Ground	27	25
Lot 481 (No.6 Nyilla Approach)	Ground	27	25
Lot 504 (No.8 Nyilla Approach)	Ground	25	22

It can be seen that at most receivers, mechanical plant noise is predicted to be below 35 dB(A). The exception being at Lot 439, along Olearia Street. This receiver is the closest to the kitchen exhaust fan located on the roof of the ELC building – refer to *Section 5.2* for possible mitigations.

Furthermore, compared to the predicted child play noise levels in *Table 4-1*, the mechanical plant will dominate the noise levels at this receiver.



Noise Levels
dB LA10



Signs and symbols

- Receiver
- AC/Exhaust Fan
- Building
- CCC Lot Outline



Length Scale 1:600



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2/07/2019



Noise Levels
dB L_{A10}



Signs and symbols

- Receiver
- AC/Exhaust Fan
- Building
- CCC Lot Outline



Length Scale 1:600



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4.3 Car Door Closing

The model includes noise from car doors closing in the proposed parking bays on site. *Table 4-3* presents the predicted noise levels from car doors closing. *Figure 4-7* also shows the predicted noise levels as a noise contour map at ground level (1.4 metres AGL).

Given the layout of the proposed site and surrounding premises, it can be seen that individual receivers are affected by different car parking bays. However, it is those receivers to the north and east that are most affected, as they are closest to the car park.

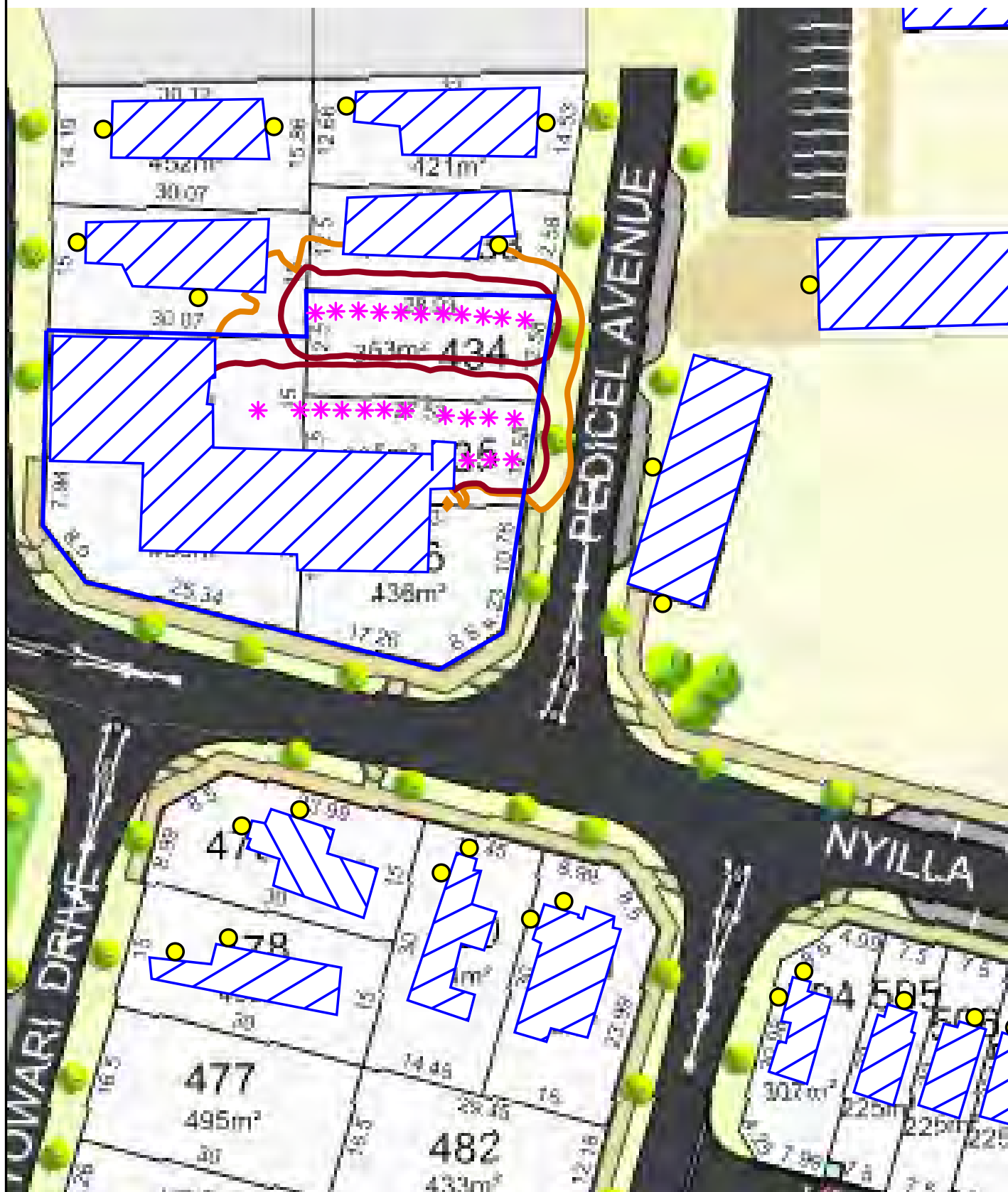
Table 4-3 Predicted Car Doors Closing Noise Levels, dB L_{Amax}

Receiver	Floor	Predicted Noise Level
Nearest School Building	Ground	48
L shaped School Building (second nearest)	Ground	41
Lot 440 (Olearia Street)	Ground	39
Lot 432 (Pedicel Avenue)	Ground	43
Lot 439 (Olearia Street)	Ground	52
Lot 433 (Pedicel Avenue)	Ground	56
Lot 479 (No.1 Yowari Drive)	Ground	34
Lot 478 (No.3 Yowari Drive)	Ground	16
Lot 480 (No.4 Nyilla Approach)	Ground	33
Lot 481 (No.6 Nyilla Approach)	Ground	36
Lot 504 (No.8 Nyilla Approach)	Ground	34

Car Doors Closing Noise Levels

Proposed Early Learning Centre - Lot 861 Nyilla Approach, Baldivis

Figure 4-7



Noise Levels

dB L_{Amax}

57
62

Signs and symbols

- Receiver
- Point source
- Building
- CCC Lot Outline

2/07/2019

Length Scale 1:640

0 4 8 16 24 m

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5 ASSESSMENT

5.1 Outdoor Child Play

Child play will only occur during the daytime, when the assigned noise levels are 47 dB L_{A10} and 57 dB L_{A1} . Noise from child play is not considered to contain annoying characteristics within the definition of the Regulations. Therefore no adjustments are made to the predicted noise levels.

5.1.1 L_{A10} Compliance

As mentioned previously, play time is generally staggered, resulting in smaller groups of children playing outside simultaneously for extended periods of time, as represented in scenarios 2 and 3. *Table 5-1* presents the assessment of the highest predicted noise levels from these scenarios against the L_{A10} assigned noise level. It is further noted that at the receivers shown in *Table 5-1*, the mechanical plant noise levels are not significantly contributing to the overall noise levels, and therefore noise from child play can be considered in isolation. Mechanical plant noise is specifically addressed in *Section 5-2*.

Table 5-1 Assessment of Child Play Noise Levels, dB L_{A10}

Receiver	Floor	Assigned Noise Level ¹	Predicted Noise Levels ²		Exceedence of daytime 47 dB L_{A10}	
			Scenario 2	Scenario 4	Scenario 2	Scenario 4
Nearest School Building	Ground	47	50	50	3	3
No.1 Yowari Drive	Ground	47	53	52	6	5
No.6 Nyilla Approach	Ground	47	48	48	1	1

Notes:

1. The assigned noise level is as defined in *Table 2-4*.
2. From *Table 4-1*.

From the assessment above, it can be seen that exceedences of up to 5-6 dB are predicted at receivers directly to the south of the proposed ELC.

For child play noise to comply with the Regulations, a noise reduction of 6 dB is therefore required for scenario 2.

In general, the noise from the older children (3 years or over) dominates the overall noise levels. Therefore, restricting the number of children over 3 years of age could be part of the noise control strategy. However, given the noise reduction required, restricting the number of children alone would not be a practicable option. For instance, for scenario 4 alone to comply would require that no more than 20 children over 3 years old are playing outside simultaneously.

It is noted that an open style fence is assumed around the main outdoor play areas, which provides little to no acoustic screening effect in practice.

Therefore based on the above, the following options can result in compliance:

- Option 1: South boundary fencing around outdoor play areas to be at least 1.8 metres high (from outdoor area finished level) refer *Figure 5-1* for extent. It is noted the fence, or parts of, can be made from translucent material such as safety glass, plexiglass or *Perspex* to maintain visual amenity e.g. tubular fence between brick piers and backed with plexiglass sheet, OR
- Option 2 : For scenario 4 to comply without a fence upgrade, restrict the number of children playing outside for up to 24 minutes to:
 - No more than 35 kindy children
- Option 3: For scenario 2 to comply without a fence upgrade, restrict the number of kindy children playing outside for up to 24 minutes to 35:
 - No more than 20 kindy children
 - No more than 15 pre-kindy children

It is further noted that additional fencing requirements will be necessary to mitigate noise levels from car doors closing. Refer *Section 5.4* for further details.

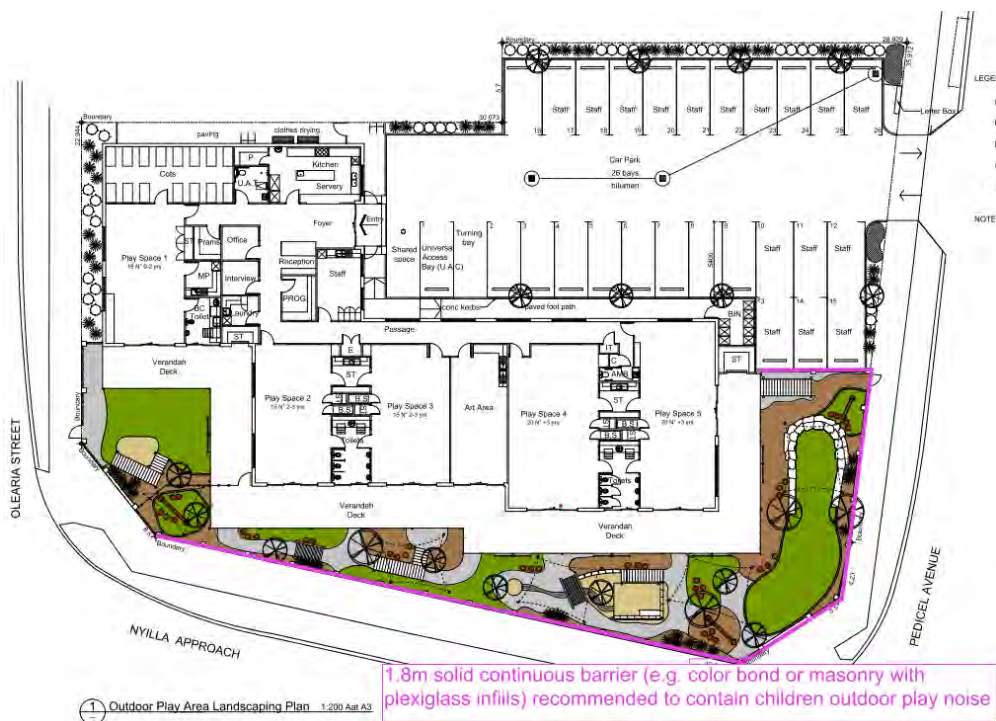


Figure 5-1 Acoustic Fencing Requirements – Child Play Noise

5.1.2 L_{A1} Compliance

As previously mentioned, play time is generally staggered, therefore there may be short periods of time where more than 35 children are outside at once.

This is represented by scenario 1, with up to 70 children outside (i.e. 40 kindy + 30 pre-kindergarten children). However in such a case, the L_{A1} is the applicable parameter, and the highest predicted noise level from scenario 1 is 53 dB L_{A1} at Lot 479 (No.1 Yowari Drive). This complies with the assigned noise level of 57 dB L_{A1} .

5.2 Mechanical Plant

From the modelling results for the mechanical plant, the noise emissions from the AC plant and the kitchen exhaust fan are the main contributor of noise at the receivers.

AC plant would be considered tonal and therefore a +5 dB adjustment is to be made to the predicted night-time noise levels (refer *Figure 4-5*). Based on the predicted noise levels in *Table 4-2* compliance is expected at all receivers.

During the daytime, tonality may still be present in the noise emissions given the relatively short source-receiver distances. Based on the results of *Table 4-2*, the predicted noise level at Lot 439 (Olearia Street) is 44 dB, or 49 dB including tonality, which is 2dB above the L_{A10} daytime assigned level. Noise levels would otherwise be expected to comply at all other receivers. The exceedence is attributable to the kitchen exhaust fan. Therefore an attenuator is likely required to be fitted to the discharge of this fan.

It must be noted this assessment is based on assumptions in relation to the size, number and location of the AC units and exhaust fans. Therefore, mechanical plant noise is to be reviewed by a qualified acoustical consultant during detailed design, when plant selection and location becomes known. Based on the modelling carried out, the following is recommended in relation to mechanical plant:

- Locate outdoor AC condenser alongside west side facade of proposed building;
- Alternatively, consider locating AC on roof the furthest away from any sensitive receiver (e.g. long west side of proposed building). Additional noise mitigation measures such as local noise barriers may be required, and
- Exhaust fans to be located within the ceiling space and ducted to the roof. Roof cowls are then to be located furthest away from sensitive receivers, and
- Allow for silencers in the duct design of exhaust fans in particular for the kitchen exhaust fan, and
- All plant to be mounted on suitable anti-vibration mounts.

5.3 Car Doors

Car doors closing noise are short duration events and were therefore assessed against the L_{Amax} assigned noise level. Given the hours of operation, staff members or parents can arrive before 7.00am, and therefore the night-time L_{Amax} assigned noise level of 57 dB is applicable.

Given the relative short source to receiver distances, car doors closing noise is considered to be impulsive within the definition of the Regulations. Therefore an adjustment of +10 dB is to be applied to the predicted noise levels (refer *Table 2-1*).

There are 3 receivers for which an exceedance of night time assigned noise levels is expected.

Predicted noise levels are 56, 52 and 48 dB L_{Amax} at Lot 433 (Olearia street), Lot 439 (Pedicel Avenue) and nearest School building on Pedicel Avenue respectively. These result in assessable levels of 66, 62 and 58 dB L_{Amax} . These predicted values correspond to a 9, 5 and 1 dB exceedance of the night-time assigned noise level respectively. If compliance with the regulations is required at these receivers the following is required:

- Provide a 1.8m high solid continuous fence around the car park.
- Refer *Figure 5-2* for extent.

At all other receivers, the assessable noise levels are below 57 dB L_{Amax} and therefore compliant.

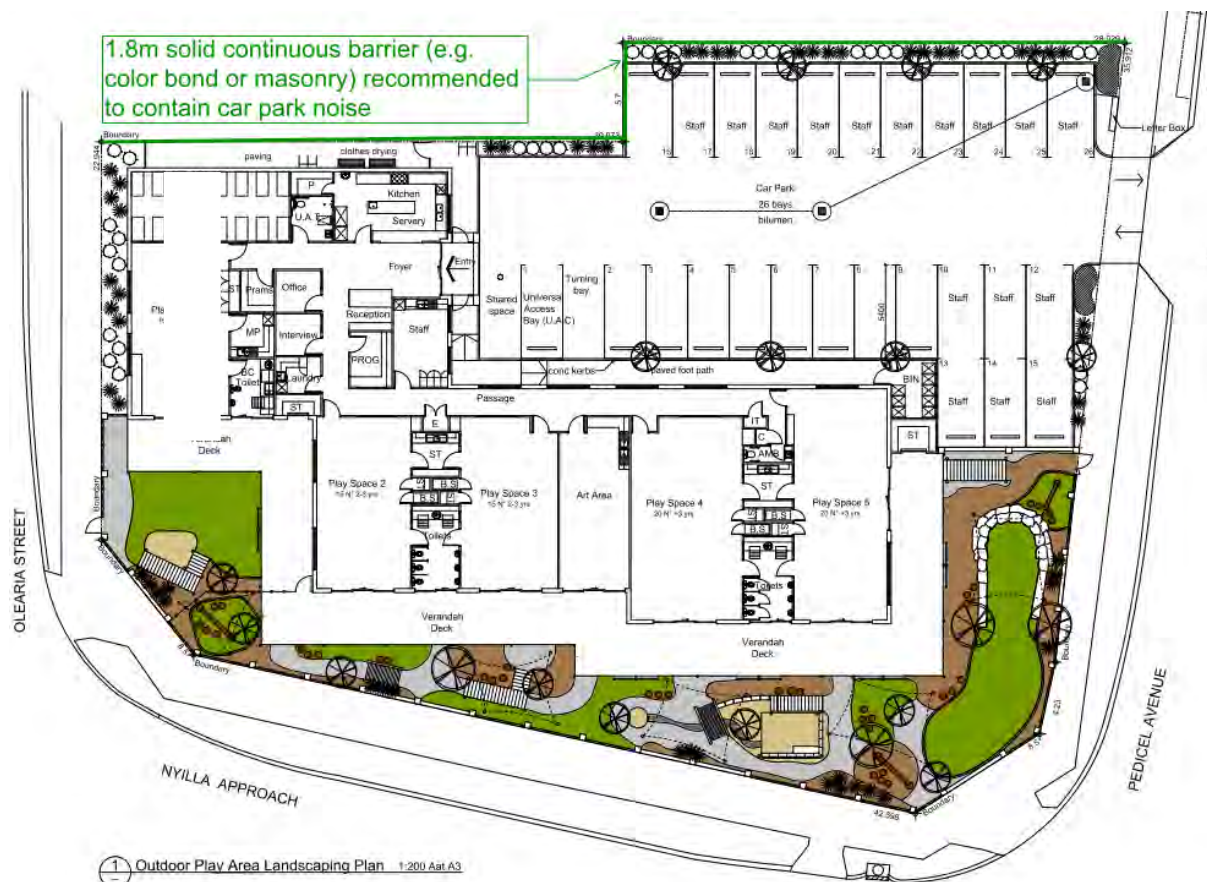


Figure 5-2 Car Park Acoustic Fencing Requirements

6 CONCLUSIONS

The noise impact from the proposed ELC, to be located at Lot 861 Nyilla Approach in Baldivis has been assessed against the relevant criteria of the *Environmental Protection (Noise) Regulations 1997*. Based on the modelling and assessments above in relation to the noise emissions from child play, mechanical plant and car doors closing, it is concluded that compliance can be achieved provided the following is implemented:

With regard to noise from outdoor child play:

- Option 1: South boundary fencing to be at least 1.8 metres high (from outdoor area finished level), refer *Figure 5-1* for extent. It is noted the fence, or parts of, can be made from translucent material such as safety glass, plexiglass or *Perspex* to maintain visual amenity e.g. tubular fence between brick piers and backed with plexiglass sheet, and
- Option 2: For scenario 4 to comply without a fence upgrade, restrict the number of children playing outside for up to 24 minutes as follows:
 - No more than 35 kindy children i.e. no pre-kindy children.
- Option 3: For scenario 2 to comply without a fence upgrade, restrict the number of children playing outside for up to 24 minutes to 35:
 - No more than 20 kindy children;
 - No more than 15 pre-kindy children.

With regard to mechanical plant noise:

- Locate all AC plant along the western facade of the proposed building
- OR locate AC condenser units on roof and the furthest away from any sensitive receiver. Additional noise mitigation measures such as noise barriers on the roof may be required, and
- Exhaust fans to be located within the ceiling space and ducted to the roof. Roof cowls are then to be located furthest away from sensitive receivers, and
- All plant to be mounted on suitable anti-vibration mounts, and
- Allow for silencers in the duct design of exhaust fans particularly for the kitchen exhaust fan, and
- Once plant is selected, a detailed assessment is to be undertaken by a suitably qualified acoustical consultant.

With regard to car doors closing noise:

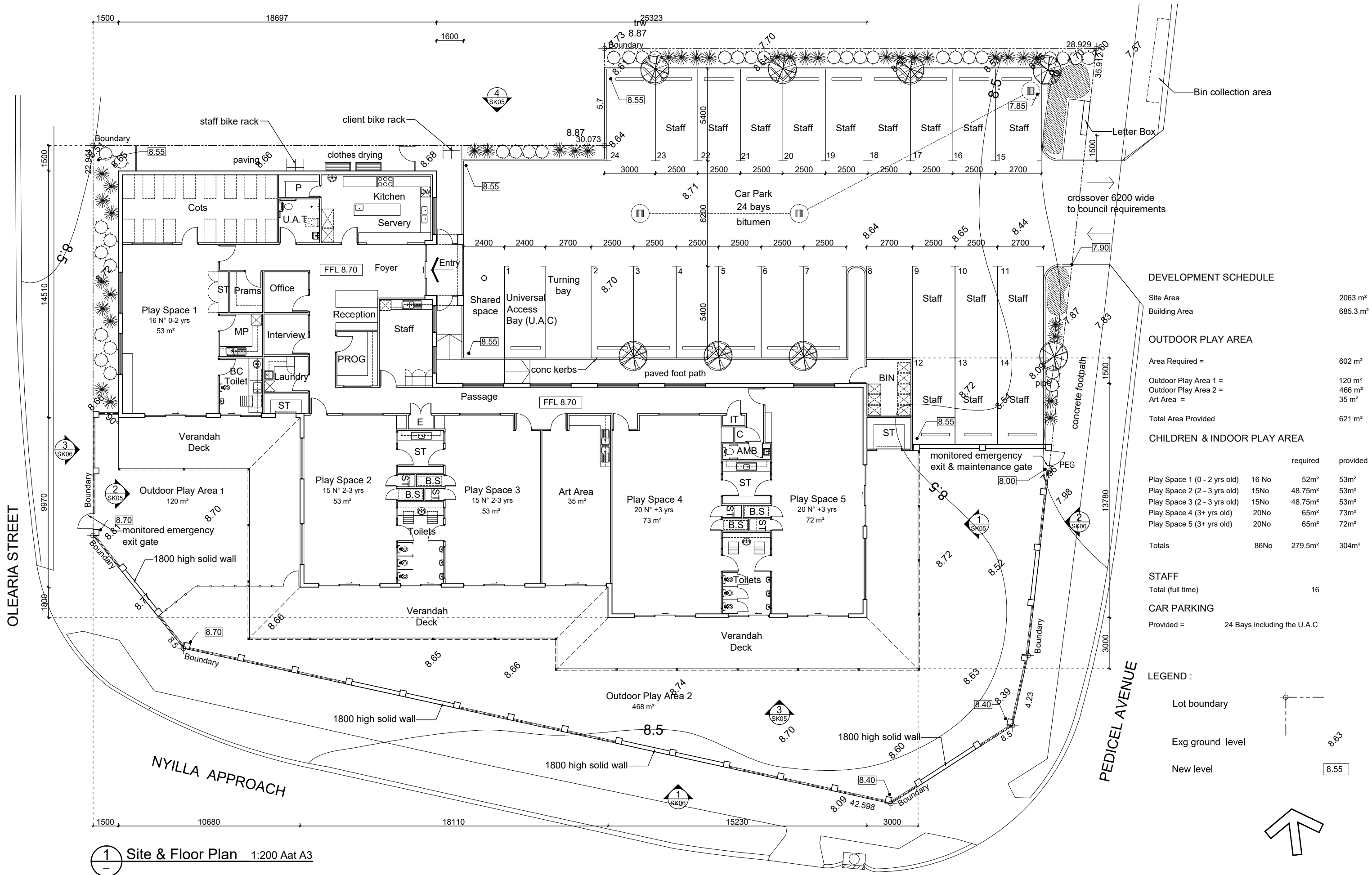
- Incorporate a 1.8 metre high solid continuous fence as depicted in *Figure 5-2* for details of extent.

Finally in addition to the above, the following best practices should be implemented:

- 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,
- No amplified music to be played outside,
- External doors and windows to be closed during indoor activity / play, and
- Any music played within the internal activity areas to be 'light' music with no significant bass content and played at a relatively low level.

Appendix A

Development Plans



DEVELOPMENT SCHEDULE	
Site Area	2063 m²
Building Area	685.3 m²

OUTDOOR PLAY AREA	
Area Required =	602 m²
Outdoor Play Area 1 =	120 m²
Outdoor Play Area 2 =	466 m²
Art Area =	35 m²
Total Area Provided	621 m²

CHILDREN & INDOOR PLAY AREA			
		required	provided
Play Space 1 (0 - 2 yrs old)	16 No	52m²	53m²
Play Space 2 (2 - 3 yrs old)	15No	48.75m²	53m²
Play Space 3 (2 - 3 yrs old)	15No	48.75m²	53m²
Play Space 4 (3+ yrs old)	20No	65m²	73m²
Play Space 5 (3+ yrs old)	20No	65m²	72m²
Totals	86No	279.5m²	304m²

STAFF	
Total (full time)	16
CAR PARKING	
Provided =	24 Bays including the U.A.C

LEGEND :	
Lot boundary	
Exg ground level	
New level	

1 Site & Floor Plan 1:200 Aat A3

Building and
Interior Design
Solutions

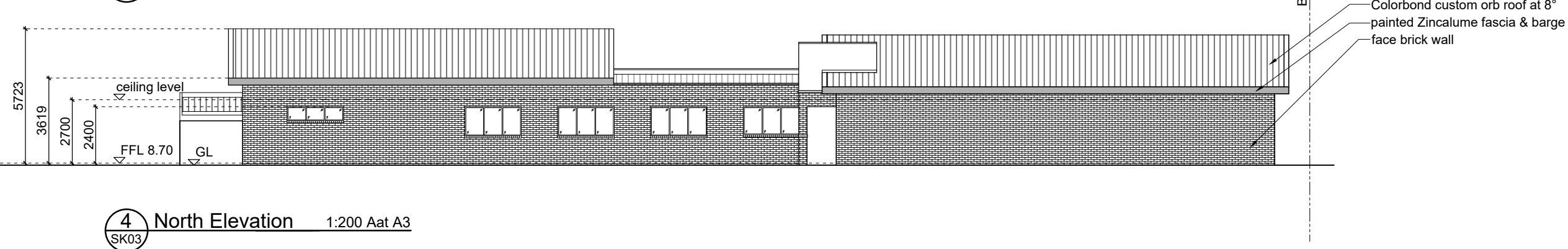
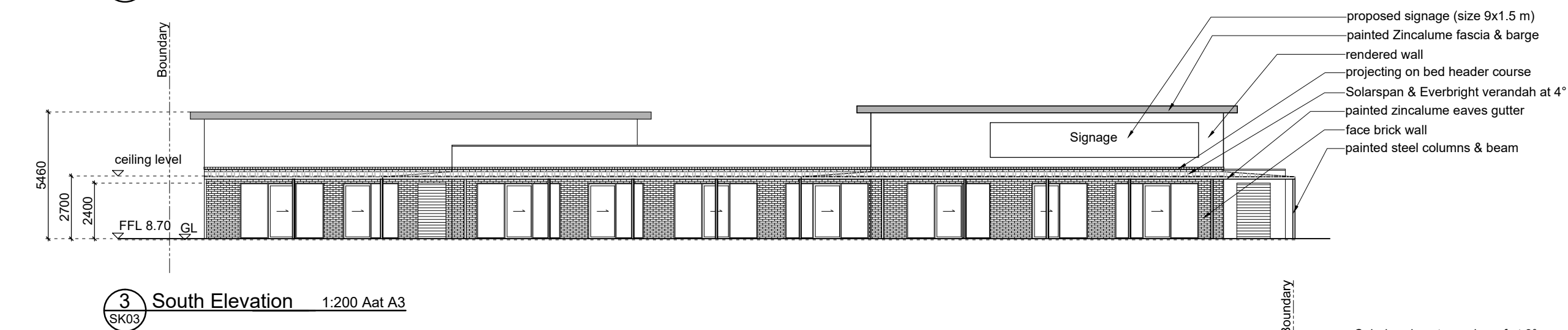
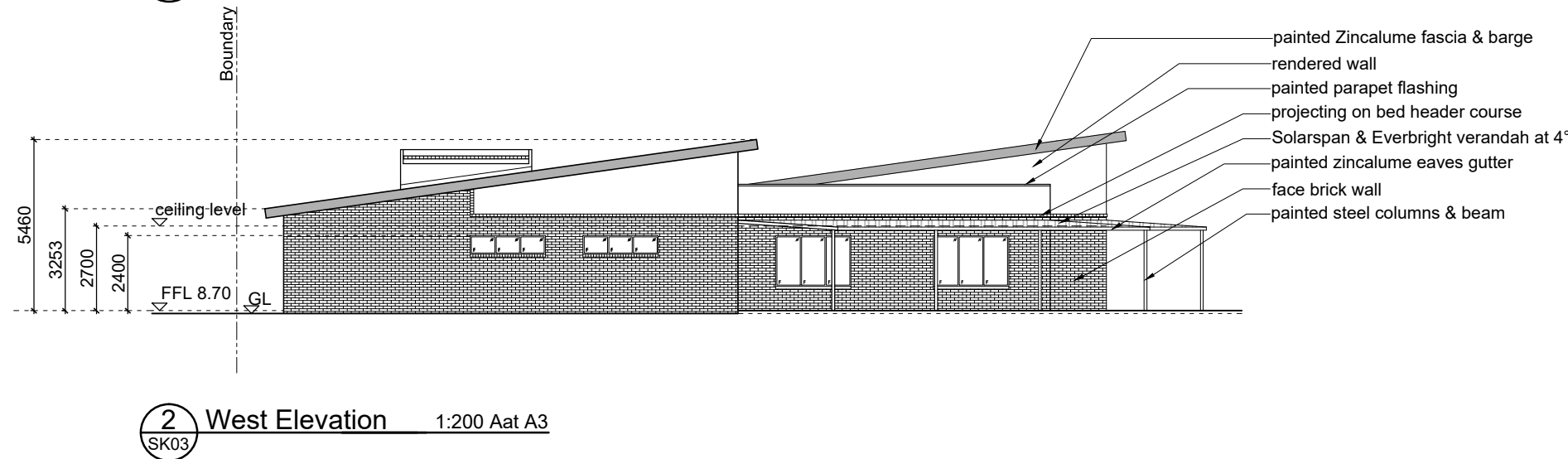
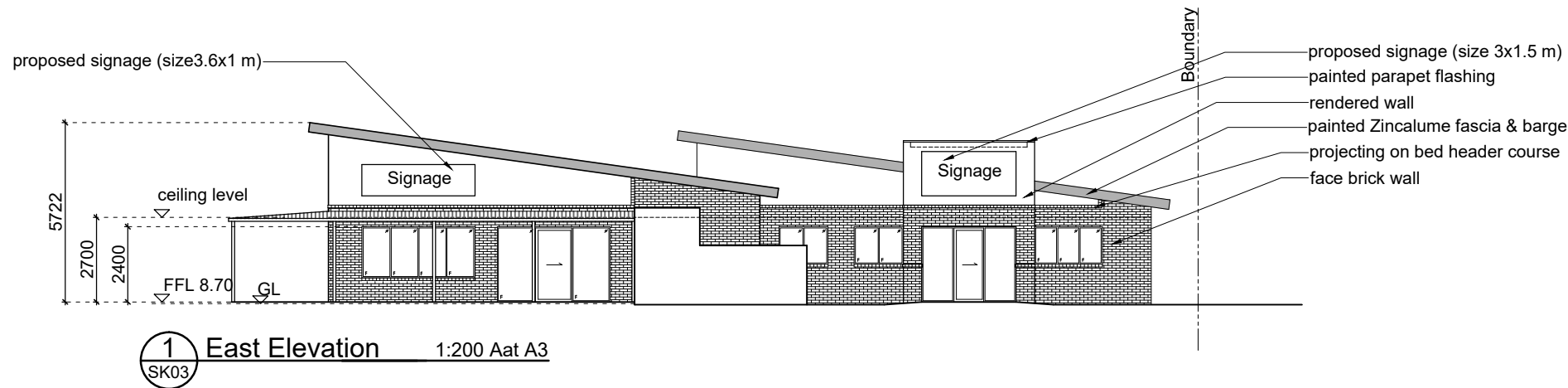
CSA

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Web: www.facebook.com/Christopher-Senior-and-Associates-132239896794882
ABN 14948293014

Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

drawing: Site & Floor Plan			
drawn	ASH	date	June 2019
scale	1:200 at A3	dwg no.	
job No.	2734		SK03d



MATERIALS & FINISHES SCHEDULE

Walls & Perimeter walls: Face brick, Midland Limestone Hue or similar
Render finish - colour Lexicon Quarter.

Roof Sheetting: Colorbond custom orb - colour Shale Grey

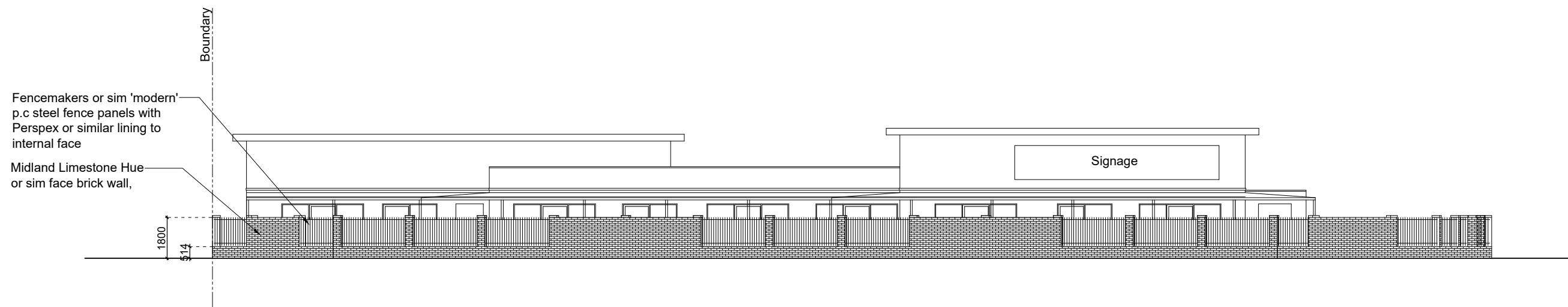
Barge Boards & Fascias: painted Zincalume to match Teal Laminex 412

Aluminium Window
& Door Frames: Powder coated - Dulux Duralloy, colour - Anotec Silver Grey

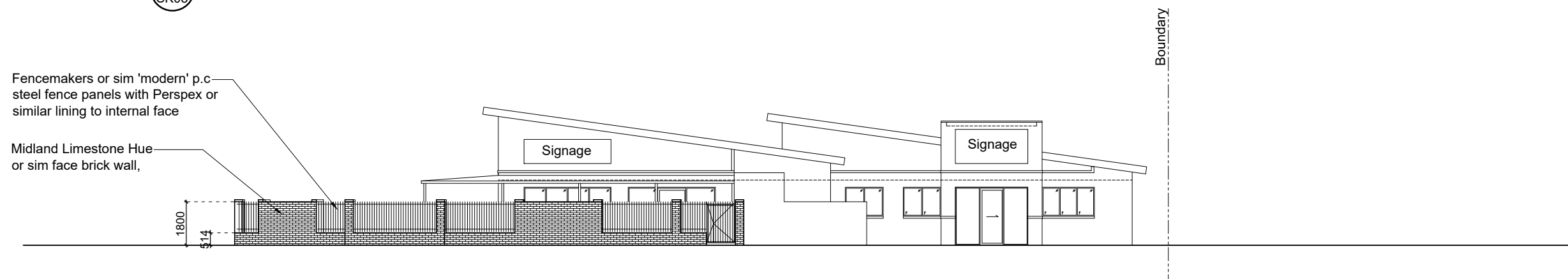
Paving: Foot paths - Atlas Easi Pave or similar- colour Charcoal.

Car Park: Bitumen, colour - Black

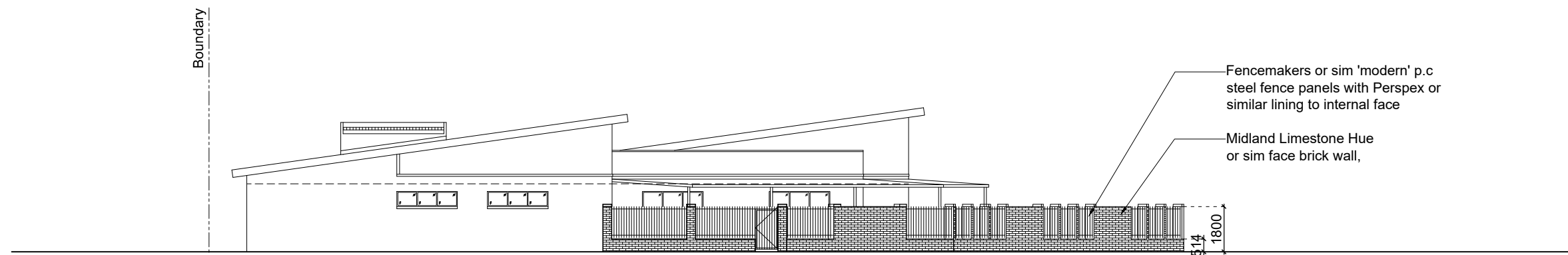
Fences: Fencemaker or sim 'modern' powder coated steel, colour
Monument, with clear Perspex or similar lining to internal face.



1 South Elevation 1:200 Aat A3
SK03



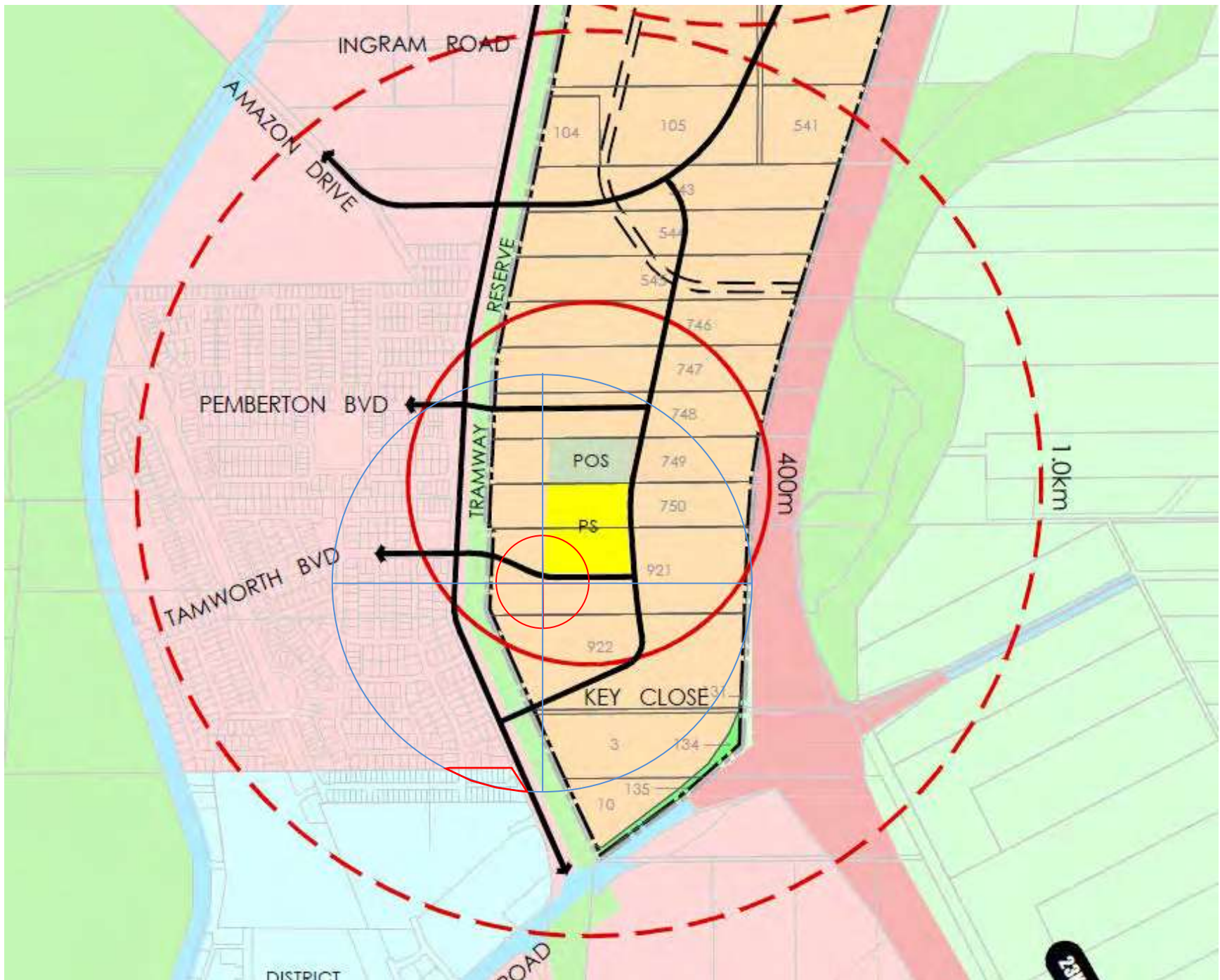
2 East Elevation 1:200 Aat A3
SK03



3 West Elevation 1:200 Aat A3
SK03 Boundary Fence

Appendix B

Land Use Map



Appendix C

Terminology

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

Decibel (dB)

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

A-Weighting

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

Sound Power Level (L_w)

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

Sound Pressure Level (L_p)

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

L_{ASlow}

This is the noise level in decibels, obtained using the A frequency weighting and the S (Slow) time weighting as specified in IEC 61672-1:2002. 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 as specified in IEC 61672-1:2002. This is used when assessing the presence of modulation only.

L_{APeak}

This is the greatest absolute instantaneous sound pressure in decibels using the A frequency weighting as specified in IEC 61672-1:2002.

L_{Amax}

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

L_{A1}

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

L_{A10}

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

L_{Aeq}

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

L_{A90}

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

One-Third-Octave Band

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

L_{Amax} assigned level

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

L_{A1} assigned level

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

L_{A10} assigned level

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

Tonal Noise

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

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

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

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

This is relatively common in most noise sources.

Modulating Noise

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

a variation in the emission of noise that —

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

Impulsive Noise

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

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

Major Road

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

Secondary / Minor Road

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

Influencing Factor (IF)

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

where :

$\% \text{ Type A}_{100}$ = the percentage of industrial land within
a 100m radius of the premises receiving the noise

$\% \text{ Type A}_{450}$ = the percentage of industrial land within
a 450m radius of the premises receiving the noise

$\% \text{ Type B}_{100}$ = the percentage of commercial land within
a 100m radius of the premises receiving the noise

$\% \text{ Type B}_{450}$ = the percentage of commercial land within
a 450m radius of the premises receiving the noise

+ Traffic Factor (maximum of 6 dB)

= 2 for each secondary road within 100m

= 2 for each major road within 450m

= 6 for each major road within 100m

Representative Assessment Period

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

Background Noise

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

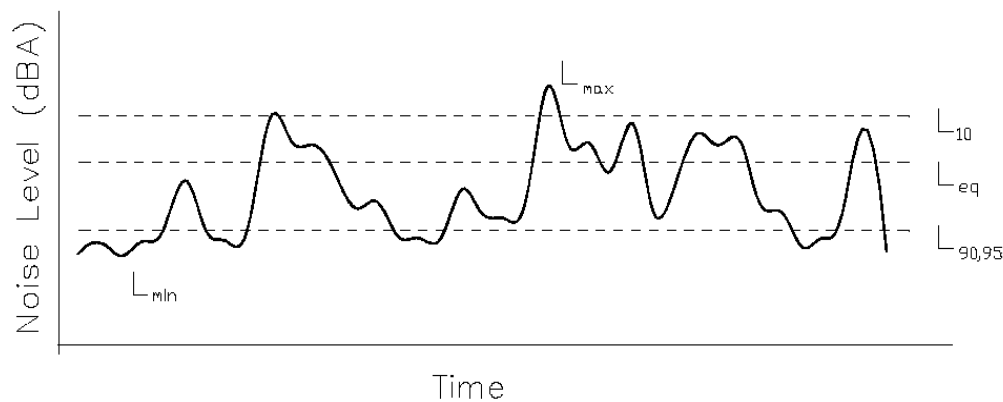
Ambient Noise

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

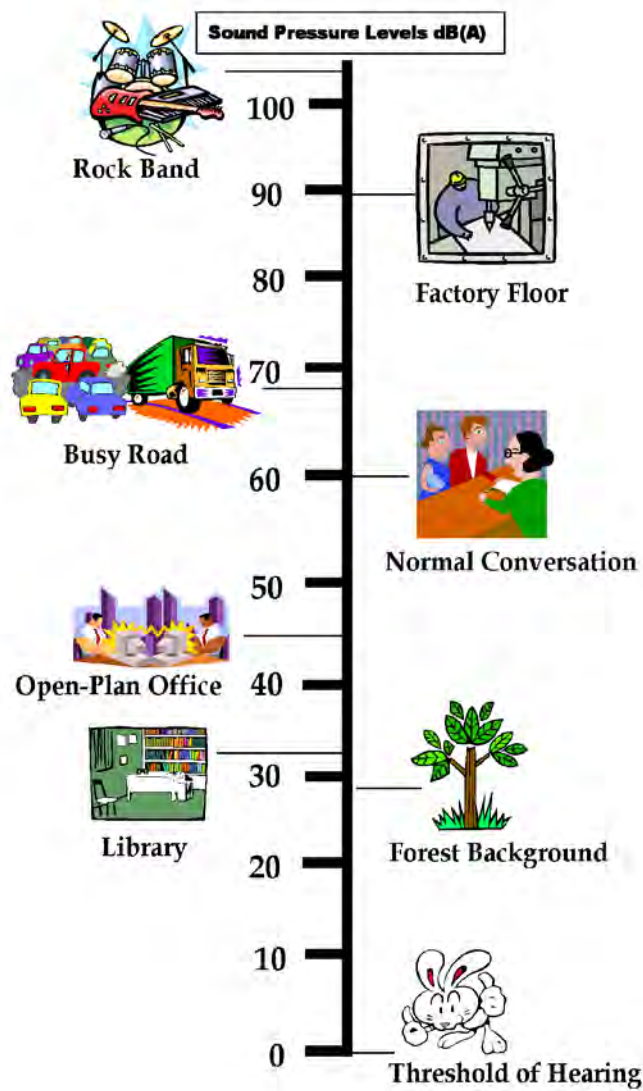
Specific Noise

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

Chart of Noise Level Descriptors



Typical Noise Levels



Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference: Crn Nyilla Approach & Pedicel Ave

Suburb: Baldivis

State: WA

P/code: 6171

Local government area: City of Rockingham

Description of the planning proposal: Construction of a Early Learning Centre

BMP Plan / Reference Number: 19734

Version: A

Date of Issue: 03/07/2019

Client / Business Name: Accord Property C/- Christopher Senior & Associates

Reason for referral to DFES	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

Early Childcare Centre

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Gary McMahon	Level 3	35078	11/2019
Company	Contact No.		
Ecosystem Solutions	(08) 9759 1960		

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner



Date 03/07/2019

Bushfire Management Plan and Emergency Evacuation Plan

Cnr Nyilla Approach & Pedicel Ave, Baldivis

3 July 2019

Prepared for:
Accord Property
C/- Christopher Senior
& Associates



Limitations Statement

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In undertaking this work the authors have made every effort to ensure the accuracy of the information used. Any conclusions drawn or recommendations made in the report are done in good faith and the consultants take no responsibility for how this information and the report are used subsequently by others.

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STATEMENT OF CONFORMITY - *PLANNING AND DEVELOPMENT ACT 2005*



Gary McMahon

B.Sc. M. Env Mgmt. PG Dip Bushfire Protection. C.EnvP, BPAD Level 3 (35078)

The signatory declares that this Bushfire Management Plan meets the requirements of State Planning Policy 3.7.

Document Control

Client - Accord Property

Site - Cnr Nyilla Approach & Pedicel Ave, Baldivis

Version	Revision	Purpose	Author	Reviewer	Submitted	
					Form	Date
Report	Rev A	Initial Report	DP (BPAD46554)	GM (BPAD35078)	Electronic (email)	3/07/2019

Filename: Z:\PROJECTS\19734 Crn Nyilla Approach and Pedicel Ave North Baldivis BMP BEEP\Reports\Crn Nyilla Approach and Pedicel Ave Baldivis BMP BEEP.docx



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Appendices

Appendix 1

City of Rockingham Fire Control Notice

Appendix 2

BAL Assessment Report

Appendix 3

Risk Analysis

Appendix 4

Bushfire Emergency Evacuation Plan

SUMMARY

Site Details					
Address			Corner of Nyilla Approach & Pedicel Avenue, Baldivis		
Local Government Area			City of Rockingham		
Development Application					
Application	Information Requirements		Location	Occupants	
Early Learning Centre Vulnerable Land Use	Bushfire Management Plan Emergency Evacuation Plan		Urban Residential	102 people	
Determined BAL (Appendix 2)					
AS 3959 Assessment Procedure	Vegetation Classification	FDI	Effective Slope	Separation Distance to any building	BAL
Method 1	Class B Woodland	80	Flat/Upslope	71 m	BAL-12.5

1 PROPOSAL

1.1 Introduction

This Bushfire Management Plan (BMP) has been prepared in accordance with the procedure for a simple development application document. An assessment of the proposal against the requirements of State Planning Policy (SPP) 3.7, *Guidelines for Planning in Bushfire Prone Areas* (WAPC, V1.3 December 2017) and the City of Rockingham.

The Bushfire Emergency Evacuation Plan (Appendix 4) is preceded by a risk assessment (Appendix 3) to determine the best approach to be followed in the event of a bushfire. This includes considering the safety of the evacuation route and determined Bushfire Attack Level (BAL).

The purpose of this BMP and BEEP is to detail the fire management methods and requirements that will be implemented to reduce the threat to students, staff and fire fighters in the event of a fire.

1.2 Background

The Site is 2,063 m² in area, situated at 1 Pedicel Avenue, 2 Olearia Street and part Lot 9014, Baldivis within the City of Rockingham. It is proposed to construct a building to be used as an Early Learning Centre (Class 9b). The maximum occupancy for the building is 102 people. The site layout and building plan are provided in Figure 1 and Figure 2 respectively.

The Site is classified “All Land with an area of less than 4,047 m²”, under the City of Rockingham Fire Control Notice (Appendix 1).

The Site is declared bushfire prone (Figure 3).

The nearest classified vegetation is Class B Woodland, upslope/flat with a resultant BAL of BAL-12.5 (Appendix 2).

A safe evacuation route has been identified. Access to the Site is from Pedicel Avenue. The Baldivis town centre is accessed via taking Nyilla Approach to the west to Baldivis Road. Pedicel Avenue, Nyilla Approach and Baldivis Road are wide, well-constructed public roads with an 8 m bituminous seal.

The Fire Danger Index (FDI) for Western Australia is 80, and the fire season is typically between November and April each year. Extreme days mostly occur in January and February.

Extreme fire days are typified by strong south westerly winds in the afternoon. A likely fire will arrive from the south west, which is on a flat slope from the Site.

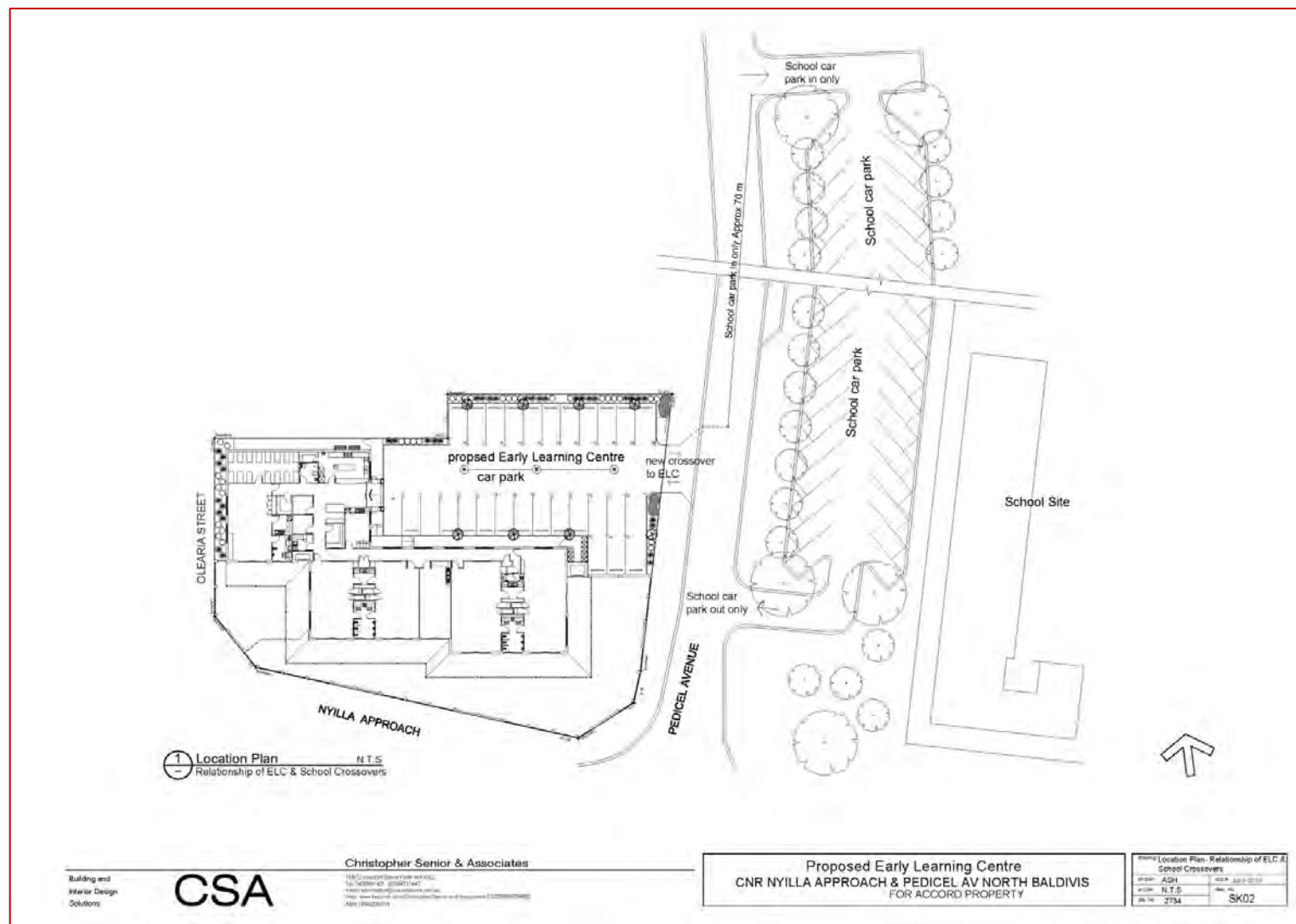


Figure 1 Site Plan

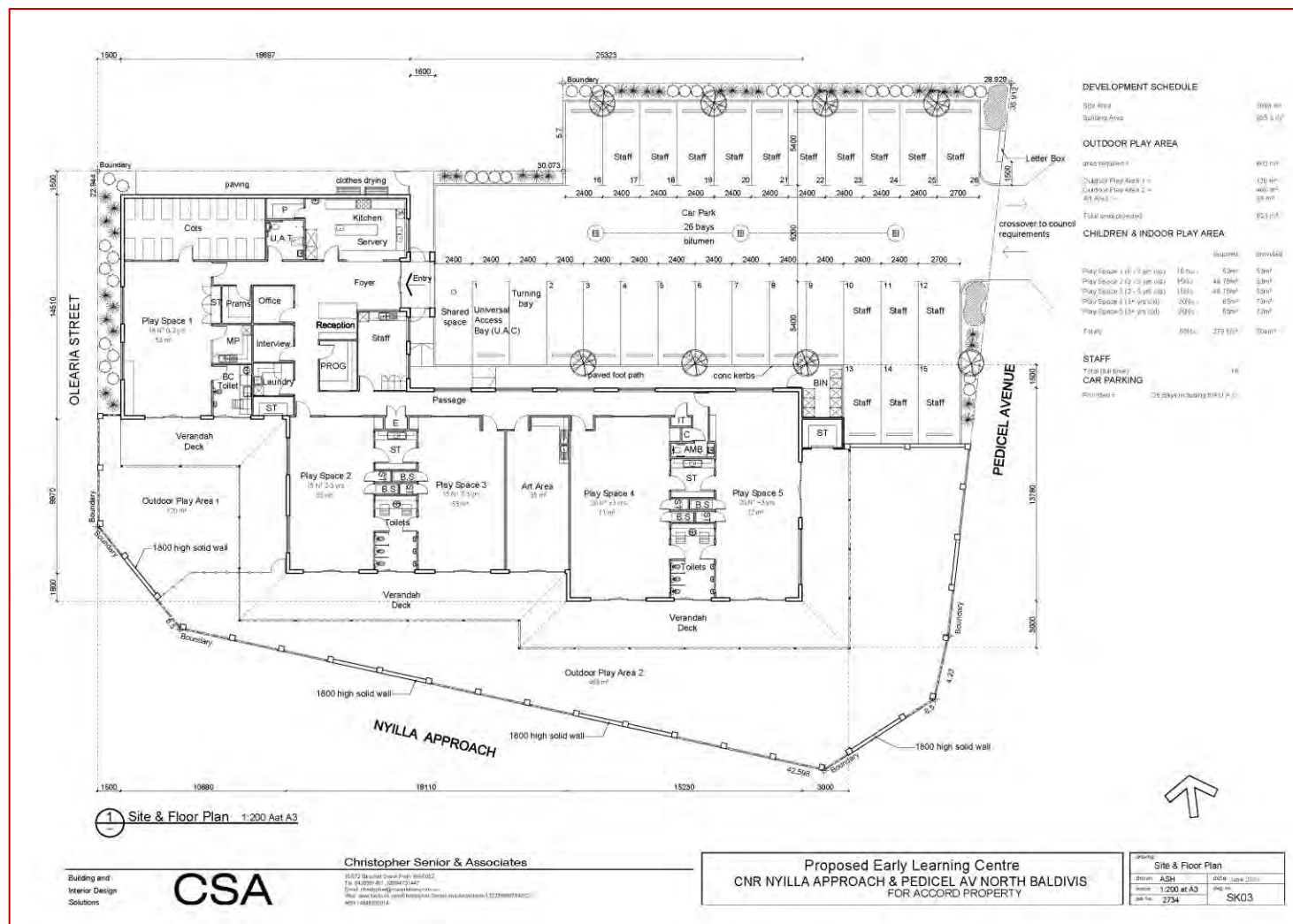


Figure 2 Building Layout



Figure 3 Map of Bushfire Prone Areas, with the Site within the blue polygon

1.3 Regulatory Compliance Requirements

1.3.1 Planning and Development Act 2005

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 in turn guided by Planning in Bushfire Prone Areas and Guidelines for Planning in Bushfire Prone Areas.

The State Planning Policy (SPP) 3.7 and Guidelines now form the foundation for fire risk management planning in WA at a community and land development level.

The SPP 3.7 recognises that whilst bushfire is now an important consideration in subdivision design and protecting the community, there are many lots not yet developed and many buildings that do not comply with contemporary construction requirements for bushfire prone areas.

Vulnerable Land Uses

Vulnerable land uses according to the Guidelines for Planning in Bushfire Prone Areas are those where persons may be less able to respond in a bushfire emergency. These include the following:

“land uses and associated infrastructure that are designed to accommodate groups of people with reduced physical or mental ability such as the elderly, children (under 18 years of age), and the sick or injured in dedicated facilities such as aged or assisted care, nursing homes, education centres, family day care centres, child care centres, hospitals and rehabilitation centres.”

Consideration should be given to an Emergency Evacuation Plan and included within the statement against the bushfire protection criteria.

The proposed development should address the bushfire protection criteria with the aim of achieving BAL-29 or less for the Site. If BAL-29 cannot be achieved, the proposed development should be assessed against clause 6.7.1 of SPP 3.7 and any other planning matters as appropriate.

1.3.2 Building Act 2011

The *Building Act 2011* applies the construction standards of the Building Code of Australia which refers to AS3959-2018 Construction of Buildings in Bushfire Prone Areas. AS 3959 includes the deemed to satisfy solutions which demonstrates compliance with the bushfire performance requirements. AS3959 applies to the construction of Class 1, 2, 3 buildings and associated 10a buildings and decks.

The proposed Early Learning Centre is a Class 9b building, and the City of Rockingham has the authority under their Local Planning Scheme to require these buildings to be constructed to the standards set out in AS 3959-2018.

2 Environmental Considerations

2.1 Native vegetation - modification and clearing

The proposal is for the construction of a new building to be used as an Early Learning Centre.

A basic desktop survey of the Site and 150 m Assessment Area was conducted. The Protected Matters Search Tool (PMST), accessed 27 June 2019, identified Banksia Woodlands of the Swan Coastal Plain and Sedgeland in Holocene dune swales Threatened Ecological Communities (TEC), and a number of threatened flora are likely to be located within the area (Table 1). There is no native vegetation within the Site and no impact is expected to the TECs or threatened flora.

Table 1 Significant Environmental Values

Significant Environmental Values	Yes / No	If Yes, describe
Conservation Covenant	No	Nil
Bushforever	No	Nil
Conservation Wetland or Buffer	No	Nil
Threatened Ecological Communities	Yes	Banksia Woodlands of the Swan Coastal Plain ecological community TEC is likely to be located within the area. Sedgeland in Holocene dune swales of the southern Swan Coastal Plain TEC is known to occur within the area.
Declared Rare Flora	Yes	There are a number of declared rare flora species or species habitat likely to occur within the area.
Environmentally Sensitive Area	No	Nil
Significant for Conservation Local Strategy	No	Nil

2.2 Re-vegetation / Landscape Plans

All landscaping within the Site will be established and maintained in perpetuity to Asset Protection Zone standards.

3 BUSHFIRE ASSESSMENT

3.1 Bushfire Attack Level Assessment

See Appendix 2.

3.2 Determined Bushfire Attack Level

The Determined Bushfire Attack Level (highest BAL) for the Site has been determined in accordance with clause 2.2.6 of AS 3959-2018.

Determined Bushfire Attack Level	BAL-12.5
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4 BUSHFIRE RISK CONTROLS

4.1 Location

ELEMENT 1: LOCATION

Intent: 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.

Acceptable Solution

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.

Compliance

Yes, the BAL assessment report has determined the Site to be BAL-12.5 (Appendix 2).

Further justification under SPP3.7, clause 6.7 is not required.

4.2 Siting and Design of Development

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

Intent: To ensure that the siting and design of development minimises the level of bushfire impact

Acceptable Solution

Compliance

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

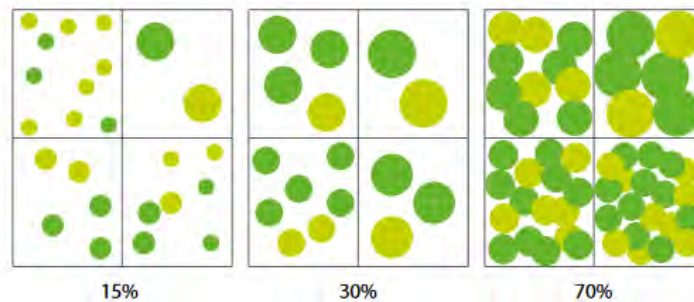
Management: the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones'.

Yes, an Asset Protection Zone (APZ) can be maintained within the lot to the standard in the *Guidelines for Planning in Bushfire Prone Areas* (Figure 4).

Areas of the APZ exceeding the boundary of the lot are excluded under S 2.2.3.2 (e) or (f), being roads, buildings and associated gardens that require maintenance in a low fuel state to the level prescribed in the City of Rockingham Fire Control Notice for 'All Land with an Area of less than 4,047 m²', guaranteeing these areas will be managed to the standards of an APZ in perpetuity.

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 18: Tree canopy cover – ranging from 15 to 70 per cent at maturity



- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Figure 4 Asset Protection Zone Requirements from Guidelines for Planning in Bushfire Prone Areas (WAPC, Dec 2017)

4.3 Vehicle Access

ELEMENT 3: VEHICULAR ACCESS

Intent: To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.

Acceptable Solution

Compliance

A3.1 Two access routes

Two different vehicular access routes are provided, both of which connect to the public road network, provide safe access and egress to two different destinations and are available to all residents/the public at all times and under all weather conditions.

Pedical Avenue connects to the Baldivis township via Nyilla Approach and Baldivis Road, less than 1 km south west of the Site. Nyilla Approach can also be taken to the east to access Cassinia Street, Poolgarla Avenue, Yowari Drive and the Baldivis town centre.

Alternatively, a public road network can be taken to a different destination, as directed by fire services in the event of a bushfire.

A3.2 Public road

Requirements in Table 6, Column 1 of the Guidelines (Figure 5).

All roads listed are public roads, well-constructed and meets the standards of clear shoulders and good vision.

A3.3 Cul-de-sac (including a dead-end road)

Where no alternative exists (i.e. the lot layout already exists, demonstration required):

- Requirements in Table 6, Column 2 (Figure 5);
- Maximum length: 200 m (if public emergency access is provided between cul-de-sac heads maximum length can be increased to 600 m provided no more than eight lots are serviced and the emergency access way is no more than 600 m); and
- Turn-around area requirements, including a minimum 17.5 metre diameter head.

Pedical Road and Olearia Street are currently cul-de-sacs which comply with the requirements of the Guidelines (A3.3) and will extend north to Parkville Boulevard in the future. The Site carpark is on the corner of Pedical Road (Figure 6) and Nyilla Approach, providing a choice of access / egress routes within 50 metres of the access into the Site.

A3.4 Battle-axe

Not applicable to this Site.

ELEMENT 3: VEHICULAR ACCESS

A 3.5 Private driveways >50m

Not applicable to this Site.

A3.6 Emergency access way

Not applicable to this Site.

A3.7 Fire service access routes

Not applicable to this Site.

A3.8 Firebreak width

Lots greater than 0.5 hectares (5,000 m²) must have internal perimeter firebreak of a minimum width of three metres or to the level as prescribed in the local firebreak notice issued by the local government.

The Lot is classified “All Land with an Area of Less Than 4,047 m²” on the City of Rockingham Fire Control Notice.

The Site is 2,063 m² and does not require firebreaks.

TECHNICAL REQUIREMENTS	1 Public road	2 Cul-de-sac	3 Private driveway	4 Emergency access way	5 Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5
*Refer to E3.2 Public roads: Trafficable surface					

Figure 5 Vehicular access technical requirements (Guidelines for Planning in Bushfire Prone Areas Table 6)



Figure 6 Pedicel Avenue

4.4 Water

ELEMENT 4: WATER

Intent: To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.

Acceptable Solution

A4.1 Reticulated Areas

The subdivision, development or land use is provided with a reticulated water supply in accordance with the specification of the relevant water supply authority and Department of Fire and Emergency Services.

Compliance

Yes, the Site will have a reticulated water supply, to the Water Corporation's No 63 Water Reticulation Standard.

A fire hydrant is located within 20 m of the Site (Figure 7) on Nyilla Approach.

Spatial representation of the proposed risk management measures



NOTES

Asset Protection Zone (APZ)
The minimum width for the APZ for this Site is the distance required to meet the BAL-12.5 setback. The 29 metres between the building and the classified vegetation exceeds the Lot boundary. Areas of the APZ exceeding the boundary of the lot are excluded under S 2.2.3.2 (e) or (f), being roads, buildings and associated gardens that require maintenance in a low fuel state to the level prescribed in the City of Rockingham Fire Control Notice for 'All Land with an Area of less than 4,047 m²', guaranteeing these areas will be managed to the standards of an APZ in perpetuity.
The Landowner is required to maintain the area within the Lot to APZ standard. Vegetation within the APZ is to comply with Schedule 1 Element 2 of the Guidelines noting that:

- Trees >5m in height are to be setback a minimum distance of 6m from the building with no branches overhanging the roof.
- Shrubs <5m in height are to be setback a minimum distance of 3m from the building, and not planted in clumps greater than 5 sqm
- Grass is to be maintained at less than 100mm in height.

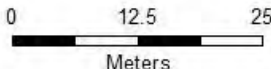

The Site will be provided with reticulated water in compliance with the Water Corporations' No. 63 Water Reticulation Standard. A fire hydrant exists within 20 m of the proposed building.


LEGEND

- Lot Boundary
- Proposed Building
- Asset Protection Zone
- Hydrant

PROPERTY / ASSESSMENT DETAILS

Owner: Accord Property
Property Address: Crn Nyilla Approach & Pedicel Ave North Baldivis
Project No: 19734
Prepared by: D Plowman
Accreditation Level: Level 1
Accreditation Number: 46554
Accreditation Expiry Date: 08/19





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Figure 7 Bushfire Management Strategies

4.5 Vulnerable Development Emergency Evacuation (cl6.6)

The Bushfire Emergency Evacuation Plan, Appendix 4, has followed the State Government of Victoria *CFA Guide to Developing a Bushfire Emergency Plan* to determine whether evacuation or shelter presented the safest option. It has followed the *NSW Rural Fire Service - Guide to Developing a Bush Fire Emergency Management Plan*, the *Bushfire Protection Guidelines WA*, and *AS 3745-2010* to identify the triggers for Evacuation.

The following assumptions have been made:

- Children within the Early Learning Centre are under the supervision of staff members.
- The staff supervising the children are able bodied.
- The staff supervising the children can see and smell smoke and can see a fire
- The staff supervising the children can read and understand the English language.
- A vehicle/s with capacity for all occupants and licenced driver/s will be available at all times in case evacuation is required.

The primary and best course of action is to evacuate early in the event of a bushfire. Any evacuation from the Site should be by car or bus, because a vehicle will provide a level of protection and minimise the time exposed to extreme conditions compared to travel as a pedestrian. While evacuation is preferred, the building should be able to provide adequate protection during a bushfire if no alternative exists.

Key feature to achieve occupant life safety include:

- Establishing alert triggers for evacuation and shelter;
- Establishing an evacuation and shelter procedure; and
- A clear display of evacuation and shelter building locations.

Note: the fire front will be preceded by an ember attack for a period longer than the passage of the fire front itself, with a relatively quick decay after its passage. Secondary fires in structures can pose a longer duration of hazard. The building used as a shelter may be ignited, although it is expected that sufficient time is provided after the fire front has passed to safely escape the building. Importantly, any person taking shelter within the building must monitor conditions and be prepared to evacuate the building when safest to do so - after the fire front has passed.

5 Responsibilities for Implementation and Management of the Required Bushfire Measures

The responsibilities for the Landowner and City of Rockingham are outlined in Table 2 and Table 3 respectively.

Table 2 Landowner / Occupier Responsibilities

Number	Action	Due
1	Establish and maintain the Asset Protection Zone (APZ) to the dimensions and standard stated in the Bushfire Management Plan, specified in Section 4.1 Native Vegetation - modification and Clearing and Section 5.2 Element 2: Siting and design of development.	Prior to use as an Early Learning Centre & Ongoing
2	Maintain compliance with the City of Rockingham Fire Control Notice, 'All Land with An Area of Less Than 4,047 m ² ', including removing all hazardous material from the lot except living trees and maintaining grasses to a height of no greater than 50 mm.	Prior to use as an Early Learning Centre & Ongoing
3	Maintain reticulated water in compliance with the Water Corporation's No 63 Water Reticulation Standard.	Prior to use as an Early Learning Centre & Ongoing
4	Ensure that any builders (of future structures on the Lot) are aware of the existence of this Bushfire Management Plan and the responsibilities it contains regarding the application of construction standards corresponding to the determined BAL rating.	Ongoing

5	<p>Ensure all future buildings the Landowner has responsibility for, are designed and constructed in full compliance with:</p> <p>(a) the requirements of the <i>WA Building Act 2011</i> and the bushfire provisions of the Building Code of Australia (BCA) as applicable to WA; and</p> <p>(b) with any identified additional requirements established by this BMP or the relevant local government.</p>	Ongoing
6	<p>Be aware updating the Bushfire Management Plan may be required to ensure that the bushfire risk management measures remain effective. Bushfire plans do not expire and are a 'living document'. Updating is required in certain circumstances, including (but not limited to) if site conditions change, if further details are required at subsequent development stages or to reflect new technologies or methodologies in best practice bushfire risk management ('Guidelines' s4.6.4).</p>	Ongoing
7	<p>Be familiar with this BMP and in particular the Bushfire Emergency Evacuation Plan (Appendix 4) and ensure that appropriate arrangements are in place at all times for the BMP and the Bushfire Emergency Evacuation Plan to be complied with.</p>	Ongoing
8	<p>Review the Bushfire Emergency Evacuation Plan</p>	Annually
9	<p>Install firefighting equipment, Evacuation Diagram, conduct Seasonal and Daily (during the fire season) preparations (refer to Appendix 4).</p>	<p>Prior to use as an Early Learning Centre & Ongoing</p>

10	<p>A section 70A Notice will be required on title to provide succession of the responsibilities outlined in this report, including the requirements of the Bushfire Emergency Evacuation Plan.</p> <p>This Notice should read:</p> <p>“The building at 1 Pedicel Avenue and 2 Olearia Street, Baldivis is in a bushfire prone area. The use of the building for an Early Learning Centre, is classified as a vulnerable development. The approval of the building 1 Pedicel Avenue and 2 Olearia Street, Baldivis for use as an Early Learning Centre is conditional to the details contained within the Bushfire Management Plan (BMP) dated 2 July 2019 and the accompanying Bushfire Emergency Evacuation Plan (BEEP). The building and the surrounds will be maintained as such that they provide resistance to a radiant heat flux of 12.5 kW/m² (BAL-12.5).”</p>	Prior to use as an Early Learning Centre
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Table 3 City of Rockingham's Responsibilities

Number	Action	Due
1	Monitor landowner compliance with the annual City of Rockingham Fire Control Notice.	Ongoing
2	Develop and maintain district bushfire fighting services and facilities.	Ongoing
3	Promote education and awareness of bushfire prevention and preparation measures through the community.	Ongoing
4	Administer the requirements of the <i>Bush Fires Act 1954</i> , <i>Planning and Development Act 2005</i> and the <i>Building Act 2011</i> .	Ongoing
5	Maintain public roads and Emergency Access Ways in proximity to the Site according to the Guidelines.	Ongoing

6 Conclusion

The qualitative assessment comparing the proposal with the bushfire threat against the Bushfire Protection Criteria has identified practical solutions to achieve occupant life safety and minimise the damage to buildings.

This justification is based upon:

- The Site being able to achieve BAL-12.5, with public road exit routes and with suitable water supply.
- The building can be used to shelter within, as a last resort.
- Landowners implementing their ongoing management responsibilities outlined in this BMP and BEEP and to assist students and staff in preparing for and responding to a bushfire event as may be made by the City or the Department Fire and Emergency Services.

The Landowner acknowledges that:

- BAL-12.5 is a low radiant heat rating, with a risk of ember attack;
- Bushfire protection is their responsibility, assistance from emergency services in an event should not be relied upon;
- Early evacuation is the primary and best option in the event of a bushfire.
- Superficial damage to buildings and grounds will occur during a bushfire event

Appendix 1 City of Rockingham Fire Control Notice

FIRE CONTROL NOTICE

THIS IS YOUR FIRST AND FINAL NOTICE
Deadline 30 November 2018

This notice applies to owners and/or occupiers of all land, developed and undeveloped, in the City of Rockingham



As a measure to assist in the control of bushfires and pursuant to the powers contained in **Section 33 of the Bush Fires Act 1954**, you have a legal requirement to carry out fire prevention works on your property by 30 November 2018 and to maintain the land in this state until 31 May 2019.

*"Take notice that pursuant to **Section 33 (4) of the Bush Fires Act 1954**, where the owner and/or occupier of the land fails or neglects to comply with the requisitions of this Notice within the specified times, the City of Rockingham may by its officers and with such servants, workmen and contractors, vehicles and machinery as the officers deem fit, enter upon the land and carry out the requisitions of this Notice which have not been complied with and pursuant to **Section 33 (5) of the Bush Fires Act 1954**, the amount of any costs and expenses incurred may be recovered from you as the owner and/or occupier of the land."* Government Gazette, September 2018.

Compliance inspections will commence on 1 December 2018. Failure to comply with the City's Fire Control Notice (FCN) may result in a penalty of up to \$5000, with additional contractor and administration costs to carry out fire prevention works on your property.



All Land With An Area Of 4047m² Or More (more than one acre)

Owners/Occupiers of developed and vacant land are required to:

- install and maintain mineral earth firebreaks as per firebreak specifications
- ensure driveways and access ways to all buildings are maintained at a minimum of three (3) metres in width and a vertical clearance height of four (4) metres, with all over hanging vegetation trimmed back to clear access.

All Land With An Area Of Less Than 4047m² (less than one acre)

Owners/Occupiers of vacant land are required to:

- remove accumulated fuel such as leaf litter, twigs, dead bush and dead trees capable of carrying a running fire
- have the entire vacant land clear of weed or long grasses by slashing, mowing or other means to a height no greater than 50mm and maintained in this state.

Owners/Occupiers of developed land are required to:

- ensure driveways and access ways to all buildings are maintained at a minimum of three (3) metres in width and a vertical clearance height of four (4) metres, with all over hanging vegetation trimmed back to clear access.

Firebreak Specifications

- must be not less than three (3) metres wide immediately inside and along all boundaries (including on boundaries adjacent to roads, rail and drain reserves and all public open space reserves)
- must be not more than four (4) metres wide (further width extensions may be considered upon written application for approval to the City)
- may have a corner turning radius of up to ten (10) metres
- must have a vertical clearance height of four (4) metres, with all over hanging vegetation trimmed back clear of the firebreak
- must be a mineral earth firebreak with a continuous trafficable surface for a 4WD vehicle, clear of any obstructions and must not terminate in a cul-de-sac (dead end)
- maintained and living lawns are acceptable in conjunction with or in lieu of mineral earth firebreaks, provided that the same width and height requirements for a firebreak are maintained.

Firebreaks are intended to minimise the spread or extension of a bushfire and provide safe access on your property for emergency vehicles (ensuring fire does not travel under the vehicles or underfoot).



Bushfire Management Plans

(formerly known as a Fire Management Plan)
All properties that are subject to a Bushfire Management Plan as a result of a subdivision or development application or an approved treatment plan, must comply with the requirements of such plans in their entirety.

Additional Works

In addition to the requirements of this notice, regardless of land size and location, you **may** be required to carry out further fire prevention works to reduce hazards **considered necessary by an Authorised Officer**. Any further requirement would be specified by way of a "work order" forwarded to the address of the owner/s and or occupier/s.

Some examples of these could be:

- ensure roofs, gutters and walls of all buildings on the land are free of flammable matter
- remove accumulated fuel such as leaf litter, twigs, dead bush and dead trees capable of carrying a running fire
- unmanaged grasses reduced by slashing, mowing or other means to a height no greater than 50mm and maintained in this state.

Any owner and/or occupier who engages a contractor to undertake works on their behalf is responsible for ensuring that the completed works meet the requirements of this Fire Control Notice.

Any Fire Control Notice previously published by the City of Rockingham in the Government Gazette or in any locally circulated newsprint is hereby revoked.

Variation to the Fire Control Notice

If you consider, for any reason, that it is impractical to meet the requirements as per this notice, you may apply in writing to the City of Rockingham or its duly Authorised Officers no later than 31 October 2018, to request authorisation to employ other methods of fire prevention on your land. If permission is not granted you must comply with the requirements of the Fire Control Notice. If you require further information or wish to discuss further with an Officer, please contact the City on **9528 0333** or email **firecontrol@rockingham.wa.gov.au**.

An Application to Vary Location and Type of Firebreaks can be downloaded from the City's website at **www.rockingham.wa.gov.au/firecontrol**



Appendix 2 BAL Assessment Report

Bushfire Attack Level Assessment Report

Prepared by a BPAD Accredited Practitioner



Fire Protection Association Australia Life Property Environment



AS 3959 BAL Assessment Report

This report has been prepared by an Accredited BPAD Practitioner using the Simplified Procedure (Method 1) as detailed in Section 2 of AS 3959 - 2018. FPA Australia makes no warranties as to the accuracy of the information provided in the report. All enquiries related to the information and conclusions presented in this report must be made to the BPAD Accredited Practitioner.


Property Details and Description of Works

Address Details	Unit no	Street no	Lot no	Street name / Plan Reference		
		1		Pedicel Avenue		
Local government area	Suburb			State	Postcode	
	Baldivis			WA	6171	
Main BCA class of the building	City of Rockingham					
	Class 9b	Use(s) of the building		Early Learning Centre		
Description of the building or works	Construction of an Early Learning Centre					

Report Details

Report / Job Number	Report Version	Assessment Date	Report Date
19734	A	27 June 2019	1 July 2019

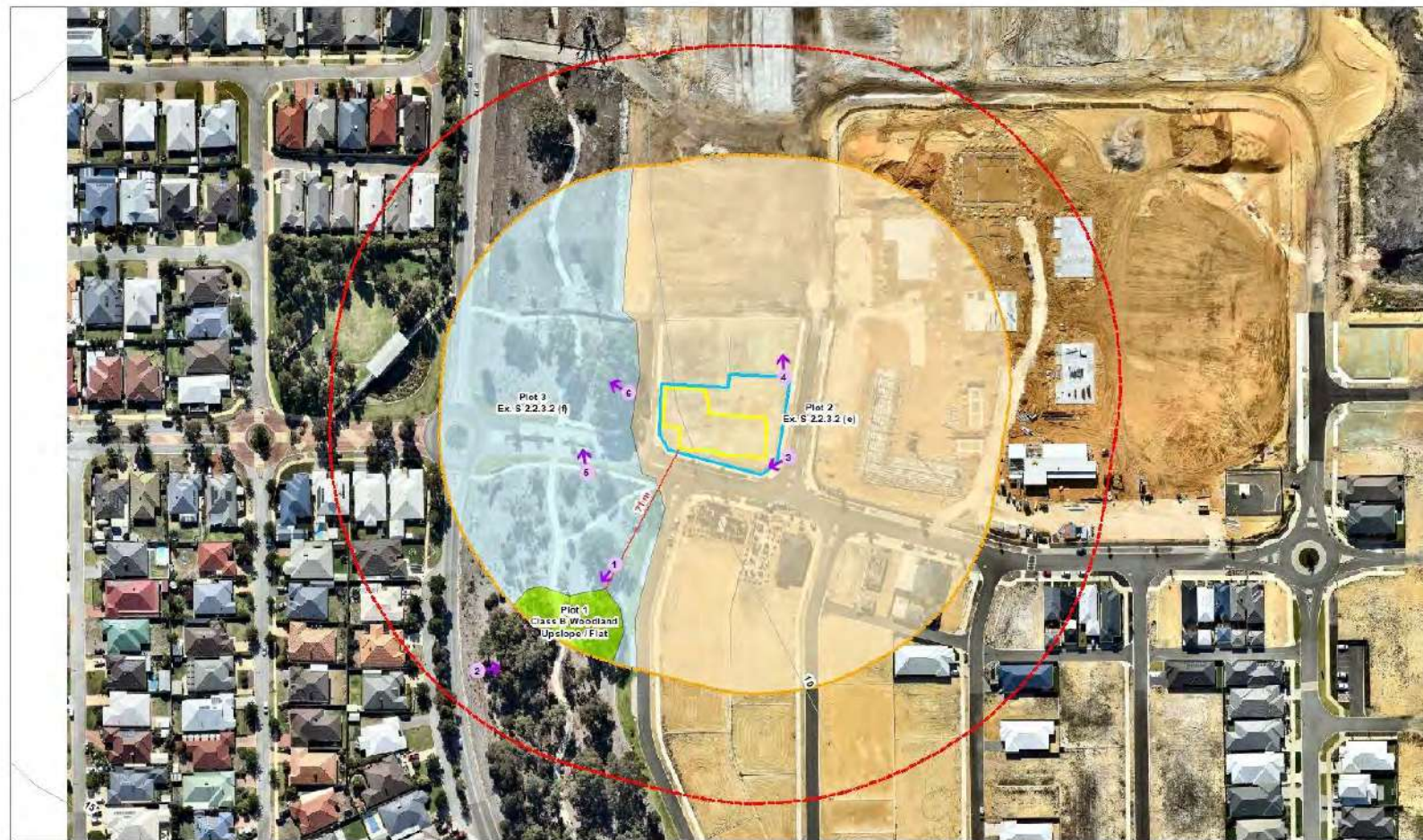
BPAD Accredited Practitioner Details

Name	
Danae Plowman	
Company Details	
 ecosystem solutions www.ecosystemsolutions.com.au ph: (08) 9759 1960	

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

Site Assessment

The assessment of this site / development was undertaken on 26 June 2019 by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959 - 2018 Simplified Procedure (Method 1). Areas greater than 100 m from the Site are excluded under Section 2.2.3.2 (a).



Location details: Cnr Kyilla Approach & Pedicle Av North Baldvies
Project: 19734
Assessment date: 27/06/2018
Prepared by: D Plowman, Accreditation level: Level 1
Accreditation number: 46554, Accreditation expiry date: Aug 19
Date aerial photo: Sept 18

BAL Assessment Map



Legend

- 150m Assessment
- 100m Classification Area
- Lot Boundary
- Proposed Building

- Elevation (m AHD)
- Distance
- Photo

Vegetation Classification

- Class B Woodland
- Ex. S 22.3.2 (e)
- Ex. S 22.3.2 (f)

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Vegetation Classification

All vegetation within 150m of the site / proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified below.




Photo ID: 1	Plot: 1	<p>DIRECTION 216 deg(T)</p> <p>50H 388915 6422975</p> <p>ACCURACY 5 m DATUM WGS84</p>  <p>Baldivis</p> <p>27/6/19, 12:01:15 pm</p>
Vegetation Classification or Exclusion Clause		
Class B Woodland - Open woodland B-06		
Description / Justification for Classification		
Canopy 10 - 30 % of trees 10 m to 30 m high with a grass understorey.		
Photo ID: 2	Plot: 1	<p>DIRECTION 80 deg(T)</p> <p>50H 388853 6422926</p> <p>ACCURACY 5 m DATUM WGS84</p>  <p>Baldivis</p> <p>27/6/19, 12:16:29 pm</p>
Vegetation Classification or Exclusion Clause		
Class B Woodland - Open woodland B-06		
Description / Justification for Classification		
Canopy 10 - 30 % of trees 10 m to 30 m high with a grass understorey.		

Photo ID: 3	Plot: 2	<div>DIRECTION 241 deg(T)</div> <div>50H 388994 6423024</div> <div>ACCURACY 5 m DATUM WGS84</div>  <div>Baldivis</div> <div>27/6/19, 11:56:29 am</div>
Vegetation Classification or Exclusion Clause		
Excludable - 2.2.3.2(e) Non Vegetated Areas		
Description / Justification for Classification		
Areas predominately cleared of vegetation for the development of roads and buildings. An area of mulched verge is included within this plot, excludable as managed vegetation in a low fuel state.		
Photo ID: 4	Plot: 2	<div>DIRECTION 357 deg(T)</div> <div>50H 388992 6423061</div> <div>ACCURACY 5 m DATUM WGS84</div>  <div>Baldivis</div> <div>27/6/19, 11:59:34 am</div>
Vegetation Classification or Exclusion Clause		
Excludable - 2.2.3.2(e) Non Vegetated Areas		
Description / Justification for Classification		
Areas predominately cleared of vegetation for the development of roads and buildings.		
Photo ID: 5	Plot: 3	<div>DIRECTION 351 deg(T)</div> <div>50H 388902 6423017</div> <div>ACCURACY 5 m DATUM WGS84</div>  <div>Baldivis</div> <div>27/6/19, 12:05:54 pm</div>
Vegetation Classification or Exclusion Clause		
Excludable - 2.2.3.2(f) Low Threat Vegetation		
Description / Justification for Classification		
Low threat vegetation managed with evidence of mulch and reticulation. This includes a Reserve also mulched. This includes Baldivis Tramway Reserve, which is also mulched with vegetation in a low fuel state.		

Photo ID:	6	Plot:	3	<div>DIRECTION 299 deg(T)</div> <div>50H 388921 6423053</div> <div>ACCURACY 5 m DATUM WGS84</div>	
Vegetation Classification or Exclusion Clause					
Excludable - 2.2.3.2(f) Low Threat Vegetation					
Description / Justification for Classification					
Low threat vegetation managed with evidence of mulch and reticulation. This includes Baldivis Tramway Reserve, which is also mulched with vegetation in a low fuel state.					

Relevant Fire Danger Index

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

Fire Danger Index

FDI 40 ☐

Table 2.7

FDI 50 ☐

Table 2.6

FDI 80 ☒

Table 2.5

FDI 100 ☐

Table 2.4

Potential Bushfire Impacts

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

Plot	Vegetation Classification	Effective Slope	Separation (m)	BAL
1	Class B Woodland	0°	71 m	BAL - 12.5
2	Excludable - Clause 2.2.3.2(e)	NA	NA	BAL - LOW
3	Excludable - Clause 2.2.3.2(f)	NA	NA	BAL - LOW

Table 1: BAL Analysis

Determined Bushfire Attack Level (BAL)

The Determined Bushfire Attack Level (highest BAL) for the site / proposed development has been determined in accordance with clause 2.2.6 of AS 3959-2018 using the above analysis.

Determined Bushfire Attack Level

BAL - 12.5

Appendix 1: Plans and Drawings

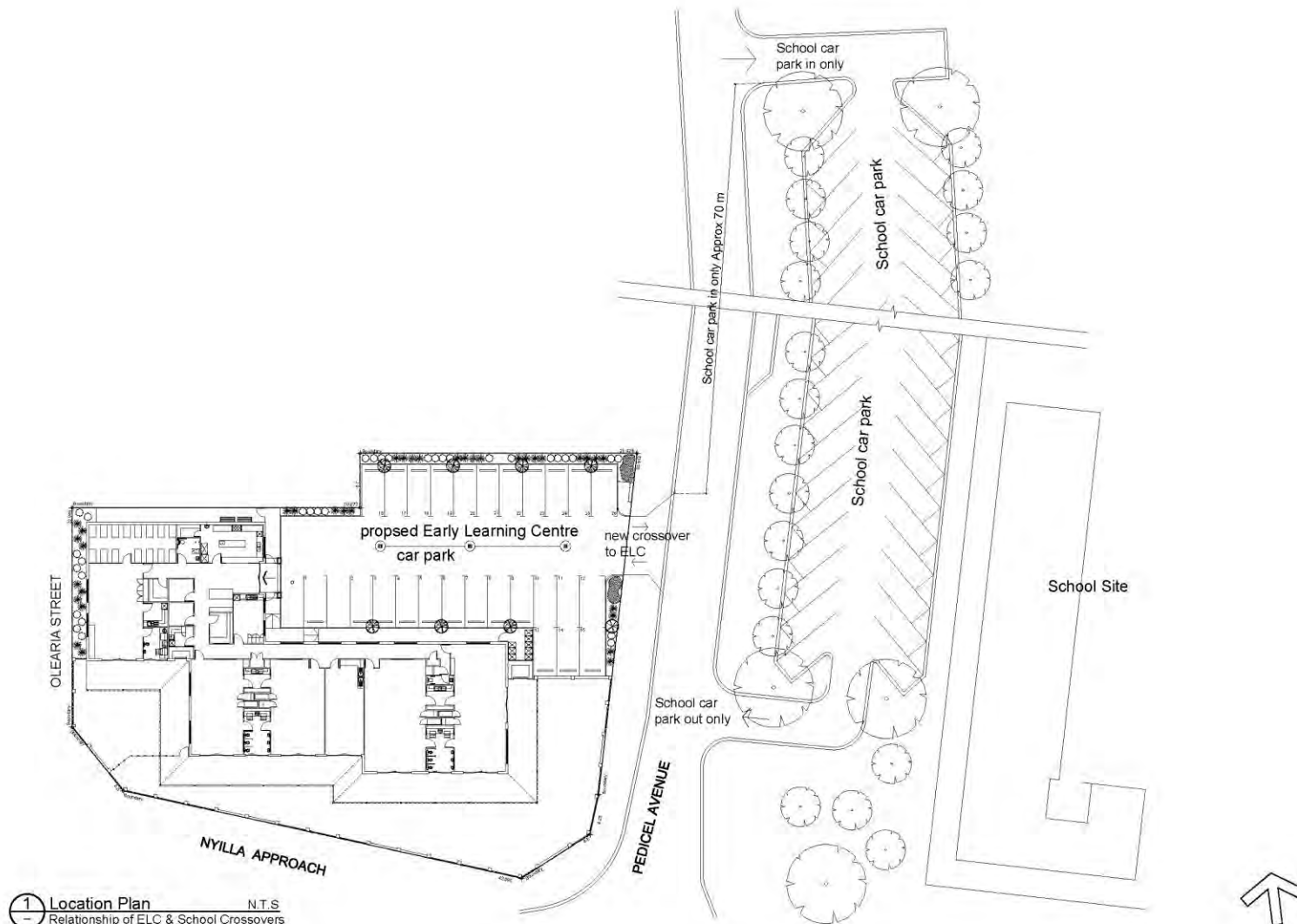
Plans and drawings relied on to determine the bushfire attack level

Drawing / Plan Description **Site Plan showing Early Learning Centre**

Job Number **2734**

Drawing Number **SK02**

Date of Revision **June 2019**



Building and
Interior Design
Solutions

CSA

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Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

drawn: Location Plan- Relationship of ELC & School Crossovers			
drawn: ASH	date: June 2010		
scale: N.T.S	des: m		
job no: 2734	SK02		

Appendix 3 Risk Analysis

RISK ANALYSIS

NSW Rural Fire Service, 2014, Development Planning: A guide to developing a Bushfire Emergency Management and Evacuation Plan

Site Information		
Type of premise	Early Learning Centre	
Occupants	Babies / children / adults	
Needs	Young children with reduced physical and/or mental ability	
Special health considerations	Occupants are able bodied, but some may suffer asthma/breathing difficulty in the presence of smoke.	
Facility is in a bushfire prone area	Yes	
Evacuation		
How accessible is the premise	Nyilla Approach provides access from the Site to two different destinations in two different directions.	Suitable ✓
Quality of roads	Nyilla Approach and nearby roads have a minimum 6 m wide horizontal and 6 m vertical clearance.	Suitable ✓
Does the transport route go through a bush fire prone area	Yes, the Site and surrounding area is bushfire prone. However as two access routes are available to two different destinations, it is unlikely all routes will be blocked in the event of a bushfire.	Suitable ✓
Shelter		
Building conditions	The building may be constructed to BAL-12.5 as per AS3959-2018, depending on requirements of the City of Rockingham. AS 3959-2018 improves the ability of buildings to better withstand attack from bushfire thus giving a measure of protection to the building occupants. It cannot be guaranteed that a building will survive a bushfire event on every occasion.	Limited !

Is the premise likely to be affected by significant radiant heat	The Site is rated as BAL-12.5 which is considered low.	Suitable ✓
Is a defensible space available	Yes, Asset Protection Zones will be maintained in a low fuel state.	Suitable ✓
Is there a designated assembly point	Yes, carpark.	Suitable ✓
Are ground conditions maintained	Yes, Asset Protection Zones and areas maintained in a low fuel state will be maintained according to the <i>Guidelines for Planning in Bushfire Prone Areas</i> are within the lot.	Suitable ✓
Are there amenities provided	Yes, the building will be used as an Early Learning Centre.	Suitable ✓
Is there disabled access to the area	Yes	Suitable ✓
Is there sufficient supervision of occupants	Yes, children will be supervised at all times. Occupants will be unfamiliar with bushfire and may become distressed. Clear Expectation and instruction is required.	Suitable ✓

CONCLUSION

Early Evacuation - Summary

Are occupants needs better suited to evacuation	It is not a primary or essential place of residence. Evacuation early in the development of the bush fire is the best course of action. In the event that early evacuation to a townsite has failed or is not possible, the Manager will direct children and staff to Shelter-within-building.
Destination	Rockingham town center.
Transport	Private vehicle/s

Early Evacuation - Summary

Are special needs addressed	Special needs occupants are not a specific target, but individual care must include evacuation, ie the vehicle for arrival must be available.
-----------------------------	---

Shelter-within-building - Summary

Is the area fit for purpose	<p>Subject to the implementation of the Bushfire Management Plan the building has been calculated to experience a BAL-12.5 (radiant heat of less than 12.5 kW/m²) in a bushfire event.</p> <p>However, construction to AS3959 standards is no guarantee that a building will withstand a bushfire event, shelter-within-building should be used as a last resort only, when evacuation is unsafe.</p>
-----------------------------	--

Appendix 4 Bushfire Emergency Evacuation Plan

BUSHFIRE EMERGENCY EVACUATION PLAN

This Plan has been designed to assist in the protection of life and property in the event of a bushfire. This plan outlines procedures for both evacuation and shelter-within-building to enhance the protection of occupants from the threat of a bushfire. The Landowner is to review this Plan on an annual basis.

The primary action to follow in a bushfire emergency is to:

EVACUATE ☒ SHELTER-WITHIN-BUILDING ☐

FACILITY DETAILS

Location: 1 Pedicel Avenue and 2 Olearia Street, Baldivis
Position: Manager
Type of facility: Early Learning Centre
Occupants: Max 86 Children & 16 Staff, total 102
Shelter capacity: Max 86 Children & 16 Staff, total 102

Table 1 Emergency Contact Details

Name of Organisation	Service Provided	Phone Number/Website
Fire Brigade	Report a fire/receive assistance	000
Department of Fire & Emergency Services (DFES)	Alerts and Warnings	13 3337
	Fire Danger Ratings	www.dfes.wa.gov.au
	Total Fire Bans	twitter.com/dfes.wa
Bureau of Meteorology	Fire Danger Ratings	bom.gov.au/weather/wa
	Weather	http://www.bom.gov.au/climate/outlooks/#/overview/video
	Seasonal Forecast	http://www.bom.gov.au/climate/outlooks/#/overview/video
ABC Local Radio Perth	News and Updates	Radio frequency 720 AM http://www.abc.net.au/southwestwa/
Emergency WA	Alerts and Warnings	https://www.emergency.wa.gov.au/
Rockingham General Hospital	Emergency Medical Service	Elanora Dr, Cooloongup WA 6168 9599 4000

PREPARATION

Equipment

Install and/or maintain the following firefighting equipment (Landowner):

1. 4kg dry chemical Fire Extinguisher(s) with instructions of use displayed.
2. Emergency Evacuation Diagram on the internal face of all external doors.

Seasonal preparation

Prior to each bushfire season, approximately November to May each year, it is important to become ready for an evacuation in the event of a bushfire and understand the potential bushfire climate. The Bureau of Meteorology produces a quarterly climate outlook video which includes an assessment on the potential for a bushfire. It is recommended to watch the BOM video prior to each bushfire season which provides a seasonal forecast, provided in Table 1.

Conduct seasonal works, to be undertaken at the commencement of the Bushfire Season (Landowner):

1. Ensure all access ways have the appropriate vertical and horizontal clearances in good traversable condition.
2. Ensure all roof and building junctions are clear of litter and all gaps greater than 2 mm are sealed with non-combustible material.
3. Ensure all Asset Protection Zones are maintained in a low-fuel state.
4. Ensure all buildings are free of flammable materials, none located within 5 m.
5. Ensure all objects attached to the buildings are non-combustible or easily removable, and the removing mechanism is in working order.
6. Ensure all gas cylinders are positioned with pressure relief valve facing away from the building and not within 6m of a flammable material.
7. Ensure fire hoses and firefighting equipment is in working order. Check the charge level on all fire extinguishers is adequate.
8. Ensure the plan and evacuation details are clearly displayed and conveniently located in all buildings.
9. Verify contacts.

Daily preparation during the fire season

Conduct daily preparation during the fire season, in the morning (Landowner):

1. Check the DFES website for any alerts.
2. Ensure students and staff upon arrival are bushfire aware and familiar with the importance of early evacuation to a townsite and that the use of buildings as a Shelter is a last resort only, as well as being aware of the evacuation procedures.
3. Ensure evacuation logistics and resourcing are fully provided for and immediately accessible, including a suitable vehicle/s, immediately accessible to evacuate all students and staff.
4. Ensure students and staff upon arrival are bushfire aware and familiar with the evacuation and shelter procedures.
5. Inspect grounds to:
 - a. Ensure flammable materials are not stored adjacent to buildings.
 - b. Ensure firefighting equipment and access-ways are clear of any obstructions.
6. Ensure shelter areas are in a ready state.

CARING FOR VULNERABLE PEOPLE

The Bushfire Attack Level that will be experienced at the peak of the fire is high (BAL-29). This is well above the level of human tolerance (BAL-3).

Fire typically has a progressive build up to a peak followed by a progressive decay; the peak (fire front) lasting between two to five minutes. People at the Site will need to evacuate early or take shelter in a bushfire event.

Conditions during a fire can be hazardous and frightening. Ignited embers and heavy smoke can be expected, visibility can be significantly reduced, and it can be extremely windy and noisy. Unless prepared, and as may be expected of vulnerable children - people can become frightened and make dangerous choices. For this reason, early evacuation to a townsite is the best option.

Shelter-within-building is a last resort option as there is no guarantee a building will withstand a bushfire attack. Construction to BAL standards is also no guarantee that a building will not be lost to a bushfire. Importantly though, the construction measures improve resistance, to provide an important delay between the fire front passing and internal conditions becoming untenable, that can enable a safe evacuation. Assembly at a quick exit point whilst the fire front passes is therefore essential.

FIRE DANGER RATING

The Department of Fire and Emergency Services (DFES) 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 (Figure 1).

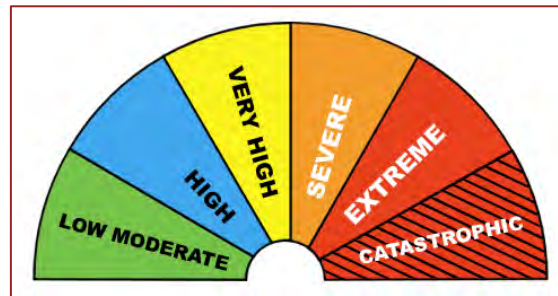


Figure 1 Fire Danger Ratings (DFES website)

‘Catastrophic’ rating is the highest level and represent unsafe conditions. On days where this FDR level is achieved (or if known the day prior) the Early Learning Centre will be closed. In most situations, this will be known at approximately 4.30 pm the day before. This allows time for the Manager to implement the closure. If this occurs, the Manager is to contact and advise the parents and staff of the closure. The Manager and Assistant Manager (minimum of two people) will remain in the carpark until 9:00 am of that day and advise any parents that could not be contacted that the Early Learning Centre is closed (Table 2).

If a ‘Catastrophic’ rating is achieved on the day (unplanned) the controlled evacuation procedure should be enacted.

It is recommended that the Manager uses a range of sources to be prepared for and stay up to date about a bushfire. This includes using the sources listed in Table 1, being alert and aware of your surroundings and talking with neighbours, Staff and Parents about your actions.

Table 2 Summary of actions according to Fire Danger Rating

Fire Danger Rating	Action	Responsible Person
Days of Catastrophic	<ol style="list-style-type: none"> 1. Manager is to contact and advise the parents and staff of centre closure. 2. The Manager and Assistant Manager (minimum of two people) will remain in the carpark until 9:00 am of that day and advise any parents that could not be contacted that the Early Learning Centre is closed. 3. If a 'Catastrophic' rating is achieved on the day (unplanned) the controlled evacuation procedure will be enacted. 	Manager
Days of Extreme, Severe or Very High	<ol style="list-style-type: none"> 1. Stay vigilant, check warnings regularly and be aware of your surroundings to determine if an Evacuation should be issued. 2. Conduct daily preparations 	Manager
Days of Low / Moderate or High <i>(It is likely some of these days are outside the bushfire season)</i>	<ol style="list-style-type: none"> 1. Conduct seasonal preparations, when days are prior to the bushfire season. 2. Conduct daily preparations when days are during the bushfire season only. 	Manager

EVACUATION PROCEDURE

Primary evacuation location:

Location:	Rockingham town centre
Primary route to location:	East on Nyilla Approach, north on Baldivis Road and west on Kujila Road, west on Dixon Road, east on Patterson Road.
Secondary route to location:	West on Nyilla Approach, south on Key Avenue, south on Baldivis Road, west on Safety Bay Road, north on Read Street.
Transportation:	A vehicle/s with capacity for all students and staff and licenced driver/s will be available at all times in case evacuation is required.
Estimated travel time:	15 minutes (when there is a lot of smoke and conditions are hazardous drive slower and expect greater travelling time)

Secondary evacuation location:

Location:	Kwinana Freeway South
Primary route to location:	East on Nyilla Approach, south on Baldivis Road, east on Safety Bay Road, south on Kwinana Freeway.
Transportation:	A vehicle/s with capacity for all students and staff and licenced driver will be available at all times in case evacuation is required.
Estimated travel time:	30 minutes (when there is a lot of smoke and conditions are hazardous drive slower and expect greater travelling time)

The primary action to follow with an imminent bushfire threat is EVACUATE.

A Controlled Evacuation is defined as an evacuation of all staff and children where there is adequate time to allow parents to pick up their children.

Shelter-within-building

Shelter-within-building should only be used as a last resort, when evacuation during a bushfire event becomes unsafe.

Designated building:

Building used for Early Learning Centre

Table 3 Evacuation and shelter-within-building actions according to triggers

Trigger	Action	Responsible Person
<ul style="list-style-type: none"> • Direct advice or Watch and Act warning from Emergency services (DFES, Police); • Signs of smoke arising from the nearby area; or • Bushfire within 5 km or 5 hrs of the Site. • Catastrophic FDR (unplanned) 	<ol style="list-style-type: none"> 1. Upon a direct instruction from Emergency Manager Personnel aware of your circumstance, follow their evacuation instructions. 2. Initiate a Controlled Evacuation to the Primary Evacuation Location, via the primary route. <ol style="list-style-type: none"> a. Notify all Staff; b. Account for all Staff and Children; c. Close all windows and doors and turn off all air conditioners; d. Staff are to keep the children together, within their allocated room and have the day's attendance record on hand. e. Advise parents via group text that the Early Learning Centre will be closed and for them to come and collect their child/children. f. The Assistance Manager and Office Support Staff are to liaise directly with parents where possible. g. The Manager will remain in direct contact with DFES during the full course of the evacuation. 8. Staff will keep record of each child as parents collect them. Staff may be required to man the carpark to direct traffic and keep parents calm. 9. If it is advised by DFES that the window for safe evacuation is limited, those children remaining should be transported to a safer 	

place (Primary or Secondary evacuation location) via private vehicles.

3. Drive to the Primary Evacuation Location, if the roads are blocked utilise the secondary route or Secondary Evacuation Location.

Drive slowly as there could be people, excessive vehicles and livestock on the road. Turn your vehicle headlights and hazard lights on. Close windows and outside vents. If you can't see clearly, pull over and wait until the smoke clears.

-
- | | |
|--|---|
| <ul style="list-style-type: none">• Direct advice from Emergency services (DFES, Police);• Signs of smoke arising from the immediate surrounds; or• Bushfire within 2 km or 2 hrs of the Site. | <ol style="list-style-type: none">1. Upon a direct instruction from Emergency Manager Personnel aware of your circumstance, follow their evacuation instructions.2. Initiate an Emergency Evacuation to the Primary Evacuation Location via the primary route.<ol style="list-style-type: none">a. Notify all Staff;b. Account for all Staff and Children;c. Close all windows and doors and turn off all air conditioners;d. Staff are to keep the children together, within their allocated room and have the day's attendance record on hand.e. Advise parents via group text that the Early Learning Centre will be closed, that an emergency evacuation has been enacted and for them to collect their child/children at a designated location at either the Primary or Secondary evacuation location, away from direction of fire.f. The Assistance Manager and Office Support Staff are to liaise directly with parents where possible.g. The Manager will remain in direct contact with DFES during the full course of the evacuation. |
|--|---|
-

-
- h. Staff will keep record of each child as they are transferred into a vehicle.
 - i. If it is advised by DFES that the window for safe evacuation is limited, shelter-within-building needs to be enacted.

3. Drive to the Primary Evacuation Location, if the roads are blocked utilise the secondary route or Secondary Evacuation Location.

Drive slowly as there could be people, excessive vehicles and livestock on the road. Turn your vehicle headlights and hazard lights on. Close windows and outside vents. If you can't see clearly, pull over and wait until the smoke clears.

<ul style="list-style-type: none"> • Uncontrolled fire observed in or adjacent to the Site; or 	<ol style="list-style-type: none"> 1. Initiate Shelter-within-building <ul style="list-style-type: none"> a. Call - 000 - DFES; b. Notify all Staff; c. Account for all Children and Staff; 	Manager
<ul style="list-style-type: none"> • DFES Emergency Warning to Stay in Place has been issued. 	<ol style="list-style-type: none"> d. All windows and doors are to be closed in each room, and all air conditioners turned off; d. Staff are to keep the room groups together, within their allocated room and have the day's attendance record on hand. e. The Manager should conduct a final check of the Site for any children or staff and ensure that windows and doors are shut, and air conditioners switched off. f. Children and Staff should sit on the ground away from windows and doors. 	
	<ol style="list-style-type: none"> 2. The Manager will take will remain in direct contact with DFES and take directions according to their advice. 	
	<ol style="list-style-type: none"> 3. If shelter catches fire: <ul style="list-style-type: none"> a. Keep out of smoke and stay low. 	

b. Evacuate towards the Primary Evacuation Location or away from the bushfire threat, after the fire front has passed.

There is no obligation upon any staff or students to take action to defend the building from bushfire attack.

RECOVERY

Emergency Services will need to ensure conditions within the Site and surrounding area are safe and all services including power, water and access can be guaranteed prior to allowing the use of the building as an Early Learning Centre to resume. Landowner/manager will take directions from Emergency Services personnel with regards to any activity on the site post bushfire event.

EVACUATION DIAGRAM

Address: Corner Nyilla Approach & Pedicel Avenue, North Baldivis
Contact Person: Manager



Option 1:

Rockingham Township via north on Baldivis Road and west on Kujila Road or west on Safety Bay Road and north on Read Street.

Option 2:

Kwinana Freeway South via south on Baldivis Road & Safety Bay Road.

On Catastrophic Fire Danger Rating days, the Early Learning Centre will be closed. Monitor the ABC Local Radio, 720 AM, or the DFES website for updates. Conduct daily preparations during the Bushfire Season.

The primary action to follow in a bushfire event is to EVACUATE

Controlled Evacuation – Early evacuation to allow Parents to collect children from their allocated room within Centre
Enact if bushfire is within 5 km or 5 hrs, DFES Watch & Act Warning or Signs of smoke from the nearby area.

Emergency Evacuation – Account for and transport all children to a safer place via private vehicle. Advise Parents of the location to collect children.
Enact if bushfire is within 2 km or 2 hrs or signs of smoke arising from the immediate surrounds.

Shelter-within-building
Last resort option only, close all windows/doors and turn off air conditioner. Account for all children and staff and remain within allocated room away from doors and windows.
Evacuate when safe to do so or if Shelter catches fire.
Enact if uncontrolled fire observed in or adjacent to the Site or DFES Emergency Warning to Stay in Place.



PS ref: 6086
City's ref: DA19/139437

27 August 2019

City of Rockingham
PO Box 2142
ROCKINGHAM DC WA 6967

Attention: Stephen Sullivan, Planning Officer

Dear Sir,

**LOTS 436 (1) PEDICEL AVENUE and LOTS 437 (2) and 9014 OLEARIA STREET, BALDIVIS
PROPOSED CHILD CARE PREMISES
RESPONSE TO REQUEST FOR FURTHER INFORMATION**

Planning Solutions acts on behalf of Accord Property Group, the proponent of the proposed development at Lot 436 (1) Pedicel Avenue, Lot 437 (2) Olearia Street and Lot 9014, Baldivis (**subject site**). The application seeks to obtain development approval for an 86-place childcare premises and associated parking access, signage and landscaping on the south western portion of the subject site.

We refer to the Request for Further Information (**RFI**) received from the City of Rockingham (**City**) on 16 August 2019. This submission provides a response to the matters as outlined in the RFI, including minor modifications to the development plans and the Bushfire Management Plan as well as the lodgement of a Waste Management Plan.

1. SUMMARY

The development plans have been amended to address the outstanding concerns raised by the City within its RFI. Specifically, the changes to the development plans comprise:

- Amendments to the locality plan to depict verge parking on the surrounding street network.
- Amendments to the width of the car bays. Bays 8 and 24 have been converted to staff only bays.
- Deletion of the proposed bike racks to be replaced with a pole mounted system.
- Depicting the location of the AC plant on the north western portion of the subject site.
- Depicting all retaining walls and levels.
- Depicting the bin collection area along the Pedicel Avenue verge.

The outstanding matters as requested within the City's RFI are addressed in the sections below.

2. A - AMENDED PLANS AND ELEVATIONS

Refer **Table 1** below for the applicants response to the City's RFI.

Table 1 – Applicant's response to RFI

City's Comment	Applicants Comment
<i>Existing retaining walls have not been shown on any plan or elevation – these are to be shown on all plans and elevations</i>	<p>The site plan and elevations has been amended to depict all retaining walls, with additional notations provided on all plans.</p> <p>Refer Attachment 1 for a copy of the revised development plans.</p>
<i>Any impact of the retaining walls on parking spaces and any other infrastructure is to be identified and addressed</i>	<p>It is advised that the retaining walls will have <u>no impact</u> on the proposed development.</p>
<i>Elevations are to show levels at the lot boundaries, including ground levels on either side of the lot boundaries</i>	<p>The elevations has been amended to depict all levels, with the addition of spot levels and additional notations. It is confirmed that there is a minimal slope on the subject site with a maximum grade of 1:56 across the car parking area.</p> <p>Refer Attachment 1 for a copy of the revised development plans.</p>
<p><i>Internal existing and proposed ground/pathway levels to be provided on plans, including cross-sections to ascertain:</i></p> <p><i>a. grades from the street onto the site and within the car parking/pathway areas; and</i></p> <p><i>b. any proposed cut and fill within the site</i></p>	<p>The development plans have been amended to depict all levels, with an additional plan being prepared to depict the approximate grade through the car parking area.</p> <p>Refer Attachment 1 for a copy of the revised development plans.</p>
<i>Any impact of proposed grades on commercial vehicles entering/leaving the site are to be identified and addressed</i>	<p>As depicted on the revised plans, it is advised that the grades will have <u>no impact</u> on the proposed development, with a maximum grade of 1:56 provided across the car parking area.</p> <p>Refer Attachment 1 for a copy of the revised development plans.</p>
<i>As proposed, parking is not compliant with Town Planning Scheme No.2 (TPS2) requirements, complete locality plan to be submitted showing adjoining streets and street parking, including crossover locations to the Primary School that is under construction</i>	<p>A site locality plan depicting the surrounding street networking, including street parking as well as the crossover locations to the Primary School is provided in Attachment 1.</p>
<i>Gates are not permitted to swing onto road reserve</i>	<p>Noted. It is advised that no gate will swing onto the road reserve.</p>
<i>Parking spaces to be amended to comply with AS AS2890.1</i>	<p>The development plans have been amended to ensure all visitor bays are compliant with Australian Standards</p>

	<p>AS2890.1. In addition, bay number 24 has been converted to a staff bay to ensure compliance.</p> <p>Refer Attachment 1 for a copy of the revised development plans.</p> <p>Notwithstanding the above, it is proposed to retain bays 12-14 in tandem. This is considered acceptable for the following reasons:</p> <ul style="list-style-type: none"> • The proposed bays are for the use of staff only and are provided for a single development. The bays will be managed by staff internally and are used as a legitimate and practical method of parking in other developments with a low turnover. • Whilst the bays do not meet the required on-paper length, the bays as provided allow for the sufficient storage of two cars (B85 and B99) in tandem, this is supported by a swept path analysis, appended in Attachment 3. • It is noted that tandem bays generally require a minimum length of 10 metres. The proposed tandem bays are 10.5 metres in length. • Whilst bay no. 12 does not meet the required on-paper width, the bay allows for the sufficient parking of a B85 vehicle, as supported by the swept path analysis, appended in Attachment 3. Notwithstanding, it is noted that this bay will see two vehicle movements a day, will be managed internally by staff and can be marked for the use by a small car only. <p>A traffic technical note addressing all comments contained within Attachment 1 of the City's RFI is provided in Attachment 3.</p>
<i>Demonstrate bicycle racks are standards compliant</i>	<p>The proposed bicycle racks will be replaced with a pole mounted system to ensure compliance with the Australian Standards.</p> <p>Refer Attachment 1 for a copy of the revised development plans and Attachment 3 for a copy of the transport technical note.</p>
<i>Submit Waste Management Plan</i>	<p>A Waste Management Plan has been prepared and is appended as Attachment 2.</p>
<i>On street bin collection point to be located adjacent to the site and not in front of adjoining properties</i>	<p>The on street bin collection point is located along Pedicel Avenue, adjacent to the subject site. Refer Attachment 2 for a copy of the Waste Management Plan.</p>
<i>As per the recommendations of the Acoustic Report, A/C plant locations to be identified and shown on plans/elevations in areas not visible from the Public Realm</i>	<p>The development plans have been amended to identify the location of the A/C plant on the north western portion of the subject site. Refer Attachment 1 for a copy of the revised development plans. It is noted that the A/C plant will be</p>

	visible from the public realm, as it will be situated behind the boundary fence and landscaping.
<i>Swept path analysis required for delivery vans (identified in Traffic Report) and rubbish removal vehicles if collection is on-site</i>	It is noted that all waste will be collected from the street verge and the only delivery vans to the site will be B99's. Notwithstanding, a swept path analysis has been provided to demonstrate that the proposed development can suitable cater for delivery and rubbish removal vehicles if required. Refer Attachment 3 .
<i>Information on the timing of the construction of Pedicel Avenue and Olearia Street is to be provided to further inform the Traffic Impact Statement</i>	It has been advised that the landowner to the north of the subject site will develop to their boundary only. There is n confirmation to the timing of development beyond this land.

3. B - BUSHFIRE MANAGEMENT PLAN

The Bushfire Management Plan (**BMP**) has been amended and will be lodged under a separate cover.

4. CONCLUSION

We trust the above satisfactorily addresses the outstanding concerns of the City and look forward to confirmation of the above response.

Should you have any queries or require further clarification in regard to the above matter please do not hesitate to contact the undersigned.

Yours faithfully



NATHAN MAAS
PLANNING CONSULTANT

190827 6086 Ltr to City - RFI

ATTACHMENT 1
REVISED DEVELOPMENT PLANS

Proposed Early Learning Centre

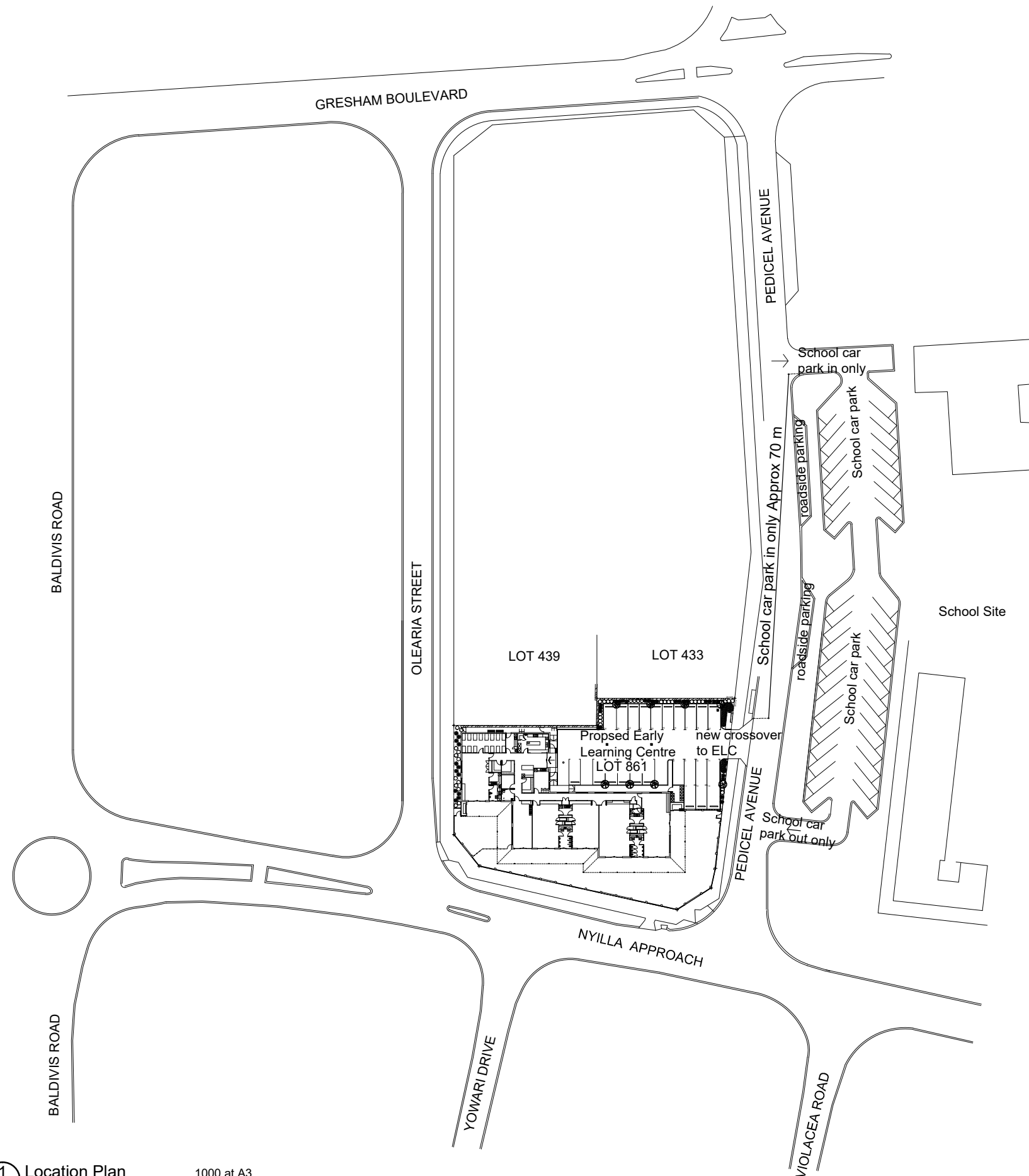
Cnr Nyilla Approach & Pedicel Av North Baldivis

SK00	Cover Page	a b c d e f g h i
SK01	Location Plan	a
SK02	Location Plan - Relationship of ELC & School Crossovers	a b c d e f
SK03	Site & Floor Plan	a b c d e f g h
SK04	Roof Plan	a b c d e
SK05	Elevations	a b c d e f
SK06	Elevations-Boundary Fence	a b c d
SK07	Landscaping Plan	a b c d e f g
SK08	Outdoor Play Area Landscaping Plan	a b c d
SK 09	Sections Showing Ground Levels	
SK10	Site Survey	



1 Location Plan N.T.S



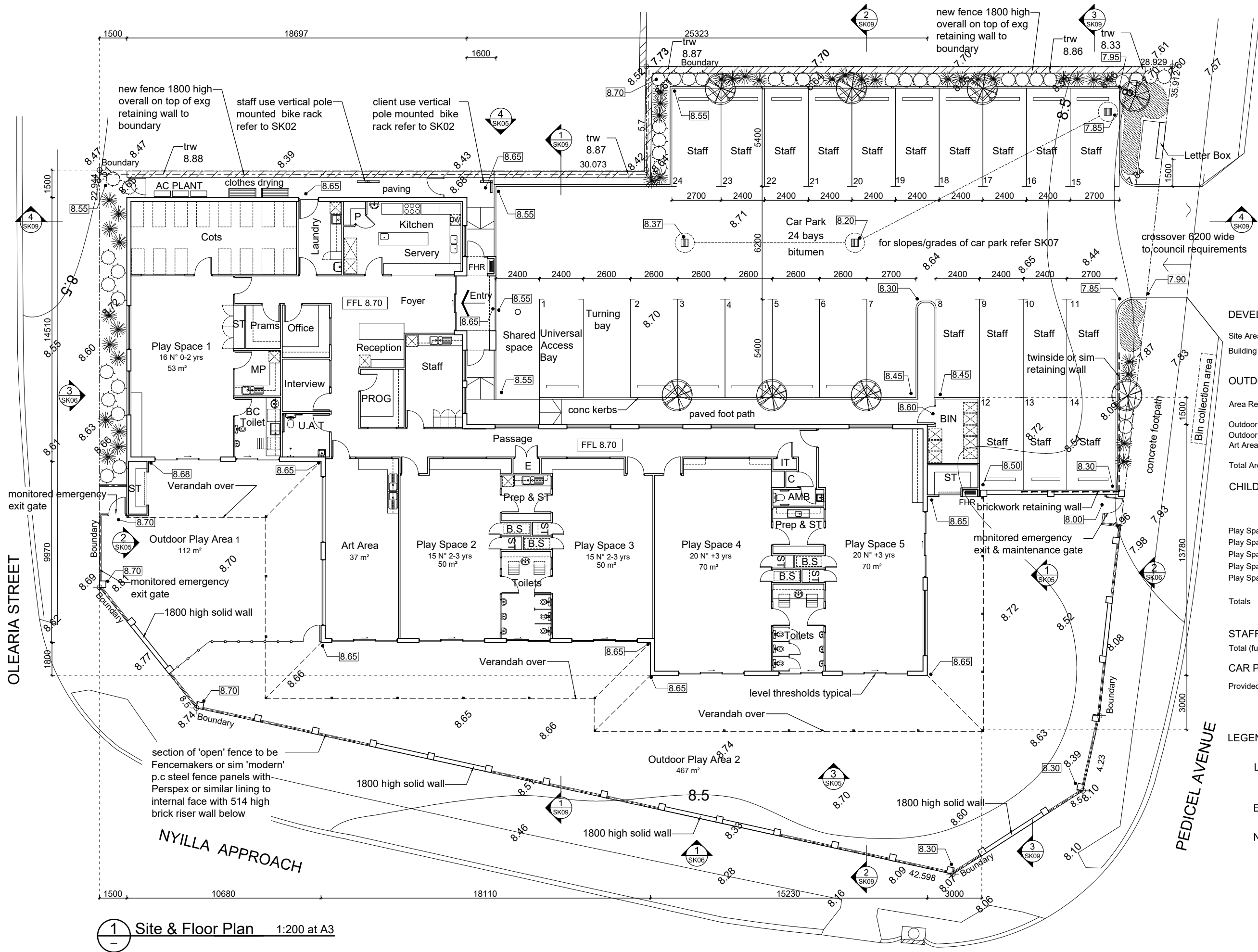


1 Location Plan 1000 at A3
Relationship of ELC & School Crossovers



2 Vertical Pole Mounted Bike Rack





DEVELOPMENT SCHEDULE

Site Area	2063 m ²
Building Area	685.3 m ²

OUTDOOR PLAY AREA

Area Required =	602 m ²
Outdoor Play Area 1 =	112 m ²
Outdoor Play Area 2 =	467 m ²
Art Area =	37 m ²
Total Area Provided	616 m ²

CHILDREN & INDOOR PLAY AREA

		required	provided
Play Space 1 (0 - 2 yrs old)	16 No	52m ²	53m ²
Play Space 2 (2 - 3 yrs old)	15No	48.75m ²	50m ²
Play Space 3 (2 - 3 yrs old)	15No	48.75m ²	50m ²
Play Space 4 (3+ yrs old)	20No	65m ²	70m ²
Play Space 5 (3+ yrs old)	20No	65m ²	70m ²
Totals	86No	279.5m ²	293m ²

STAFF

Total (full time)	16
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CAR PARKING

Provided =	24 Bays including the U.A.C
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LEGEND :

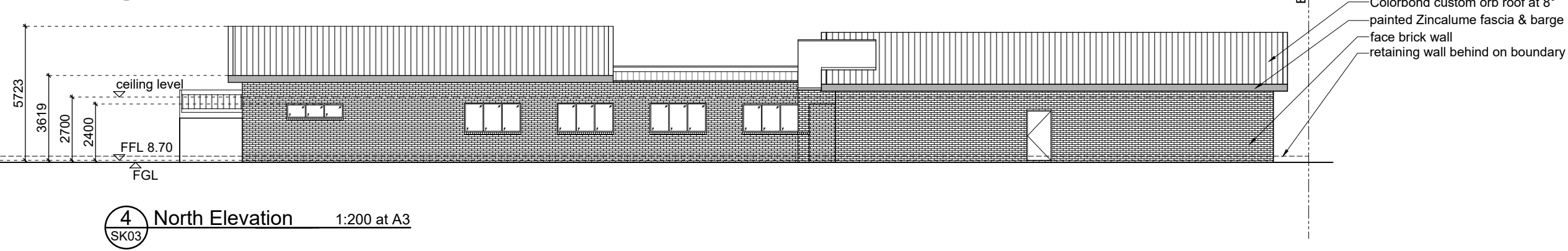
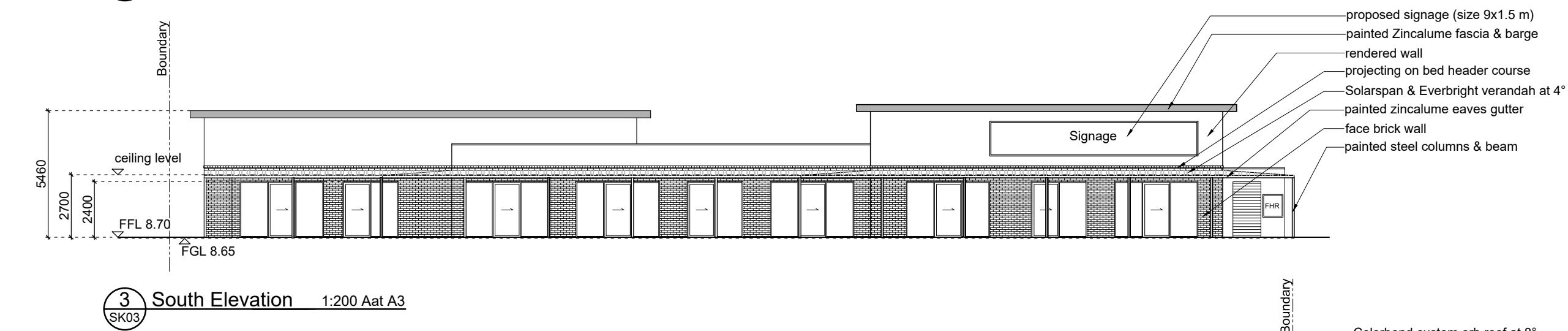
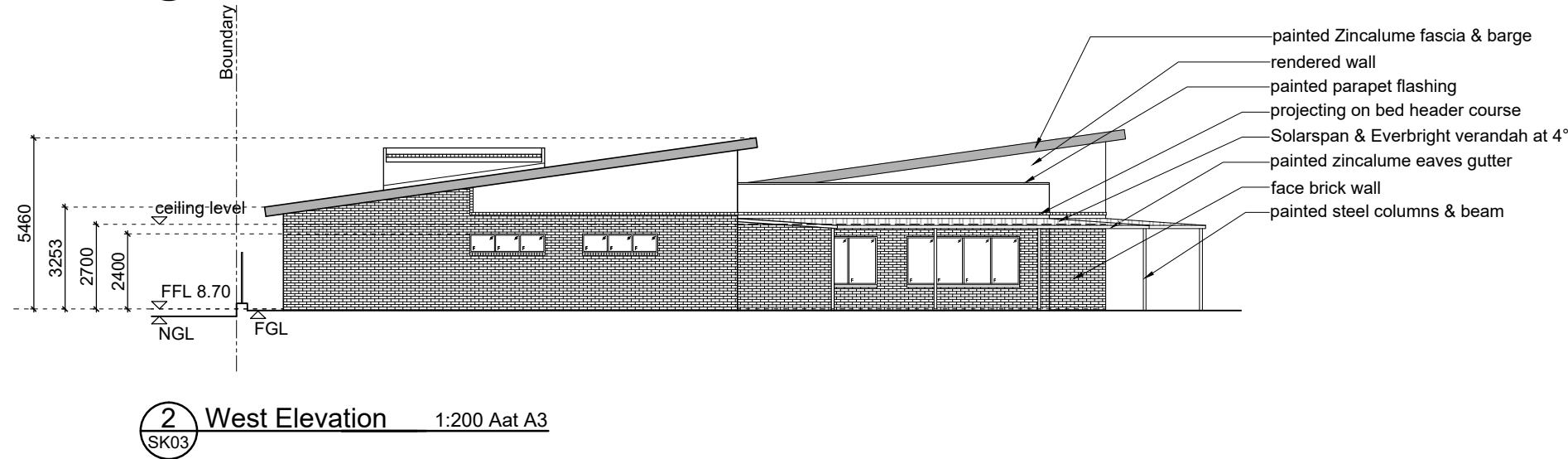
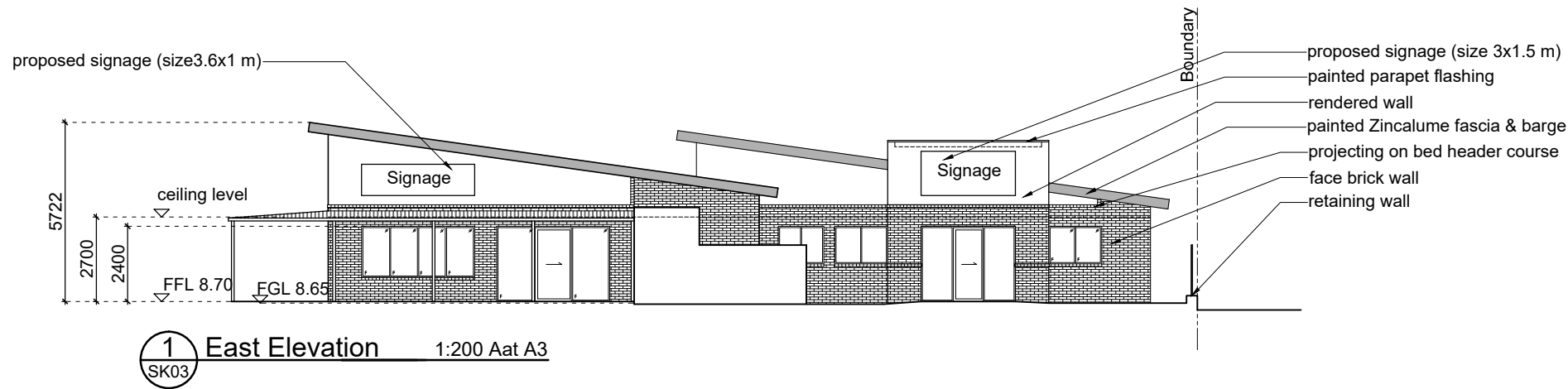
Lot boundary

Exg ground level

New level

drawing: Site & Floor Plan	
drawn: ASH	date: June 2019
scale: 1:200 at A3	dwg no. SK03h
job No. 2734	





MATERIALS & FINISHES SCHEDULE

Walls & Perimeter walls: Face brick, Midland Limestone Hue or similar
Render finish - colour Lexicon Quarter.

Roof Sheetting: Colorbond custom orb - colour Shale Grey

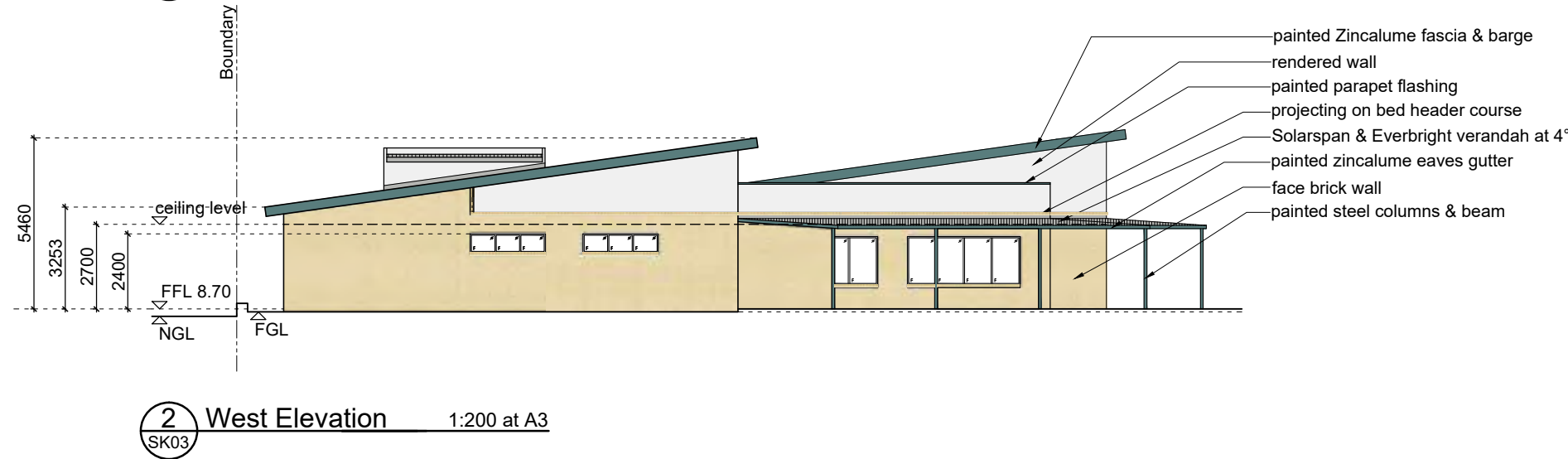
Barge Boards & Fascias: painted Zincalume to match Teal Laminex 412

Aluminium Window & Door Frames: Powder coated - Dulux Duralloy, colour - Anotec Silver Grey

Paving: Foot paths - Atlas Easi Pave or similar- colour Charcoal.

Car Park: Bitumen, colour - Black

Fences: Fencemakers or sim 'modern' powder coated steel, colour Monument, with clear Perspex or similar lining to internal face.



MATERIALS & FINISHES SCHEDULE

Walls & Perimeter walls: Face brick, Midland Limestone Hue or similar
Render finish - colour Lexicon Quarter.

Roof Sheeting: Colorbond custom orb - colour Shale Grey

Barge Boards & Fascias: painted Zincalume to match Teal Laminex 412

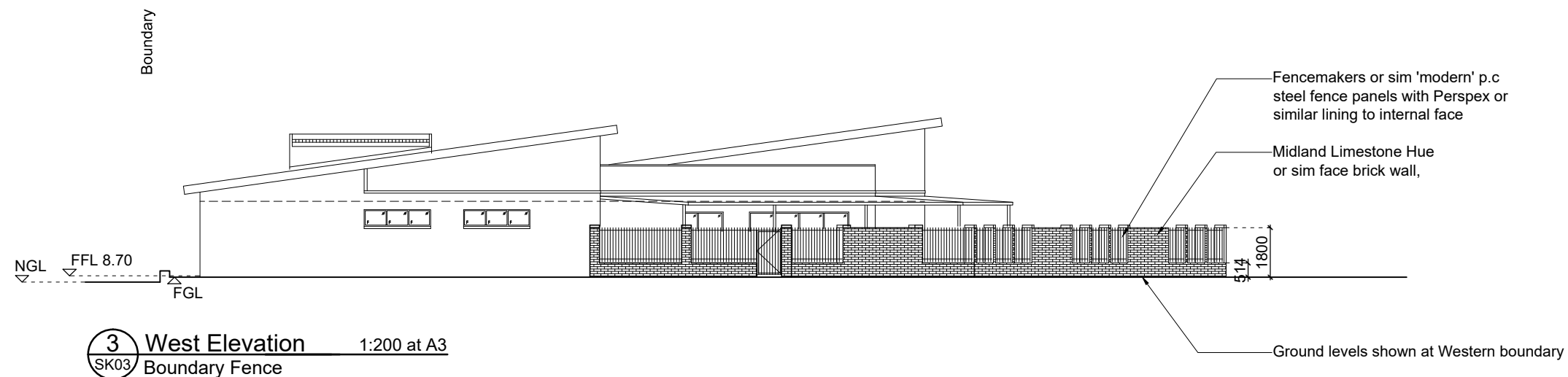
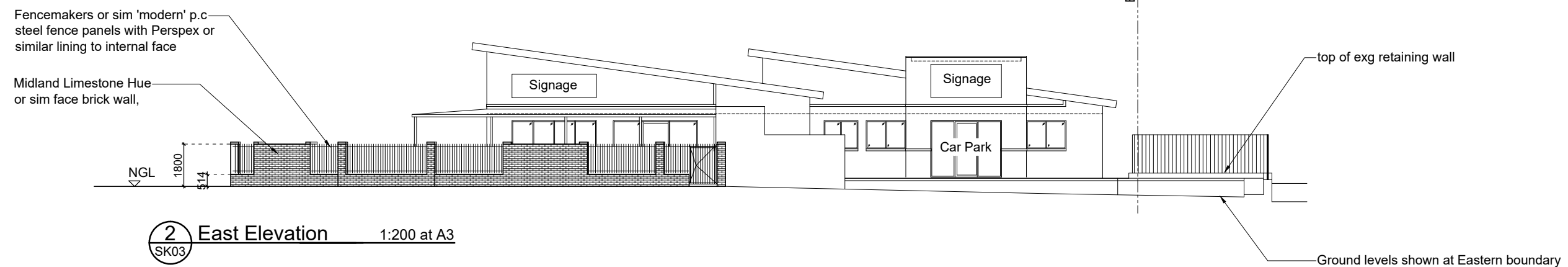
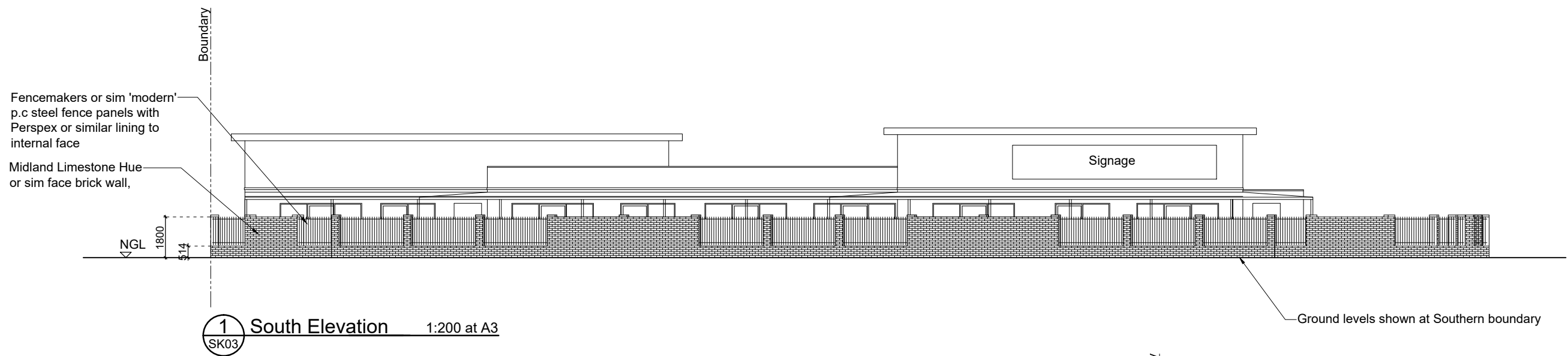
Aluminium Window & Door Frames: Powder coated - Dulux Duralloy, colour - Anotec Silver Grey

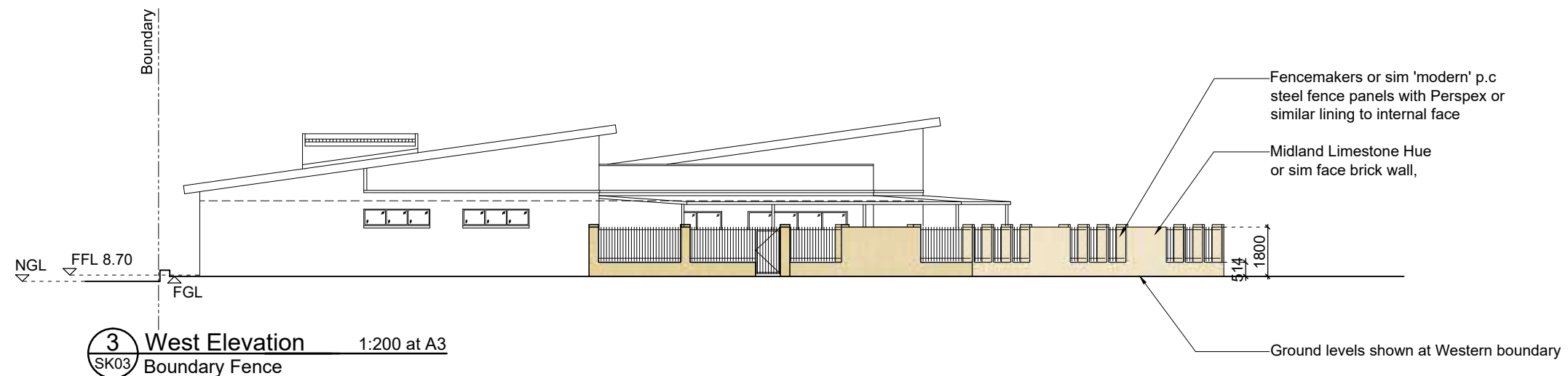
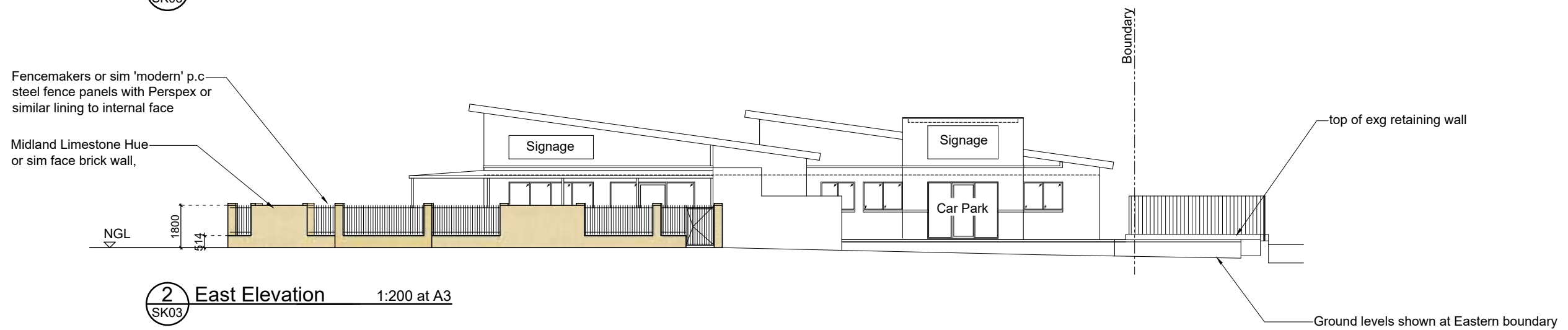
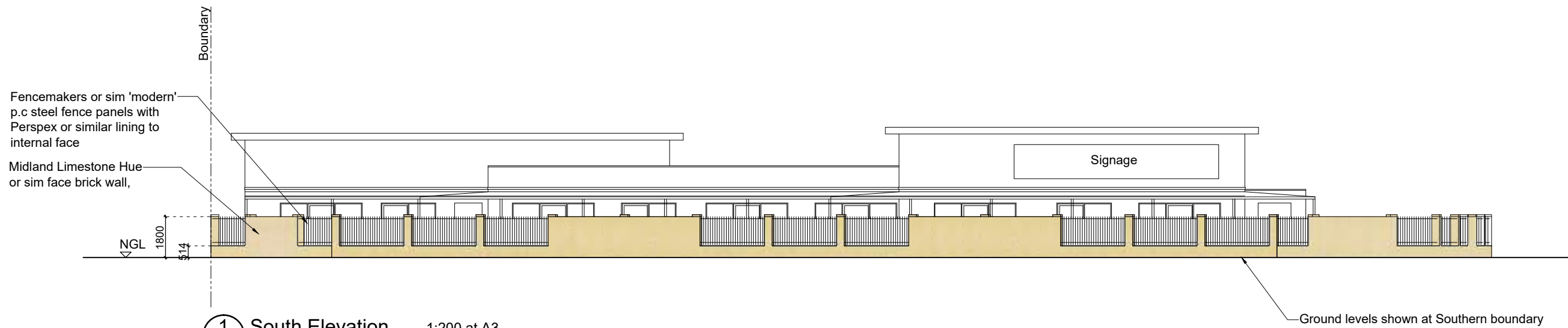
Paving: Foot paths - Atlas Easi Pave or similar- colour Charcoal.

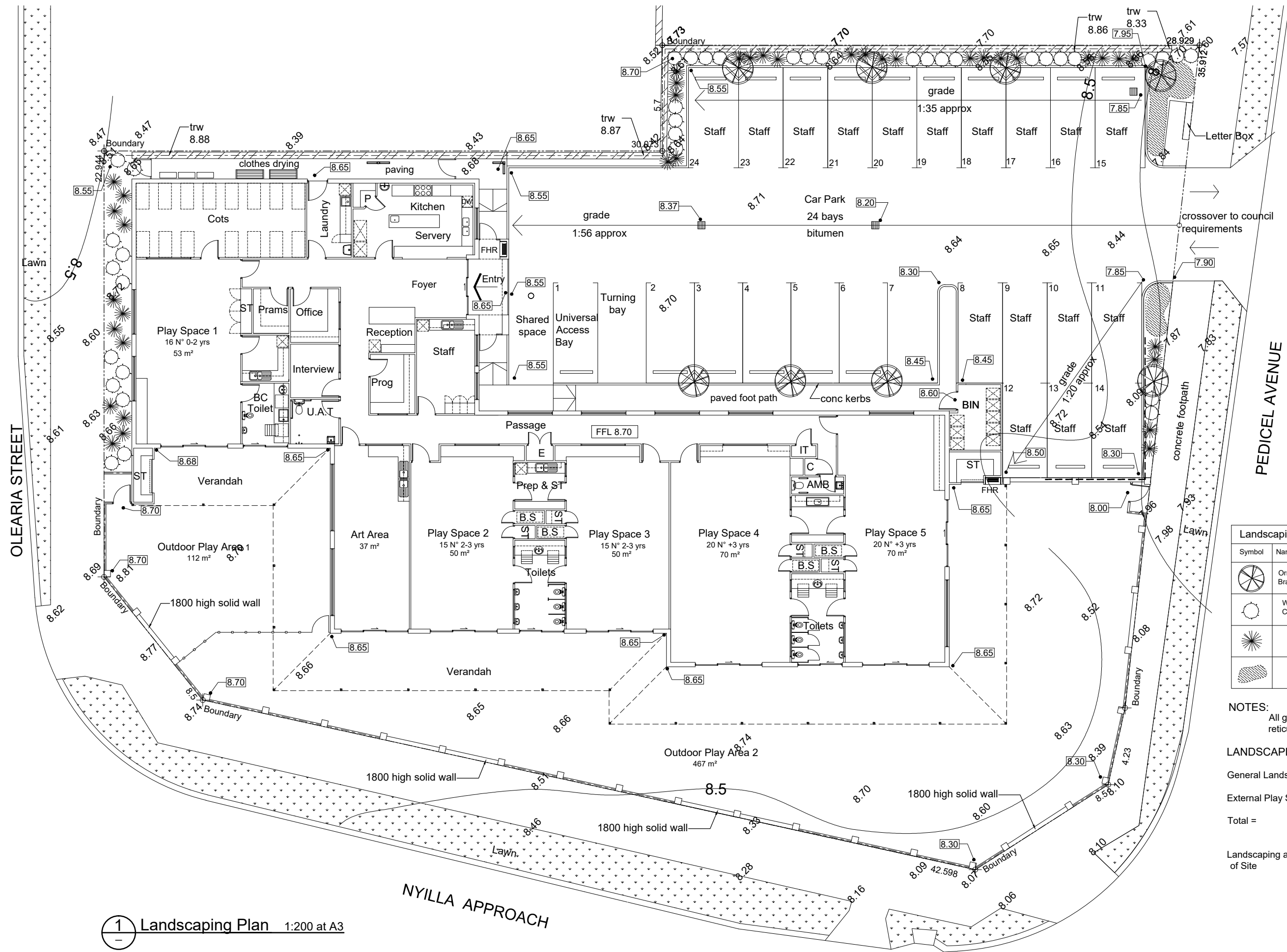
Car Park: Bitumen, colour - Black

Fences: Fencemakers or sim 'modern' powder coated steel, colour Monument, with clear Perspex or similar lining to internal face.

drawing: Elevations		
drawn	ASH	date June 2019
scale	1:200 at A3	dwg no.
job No.	2734	SK05f





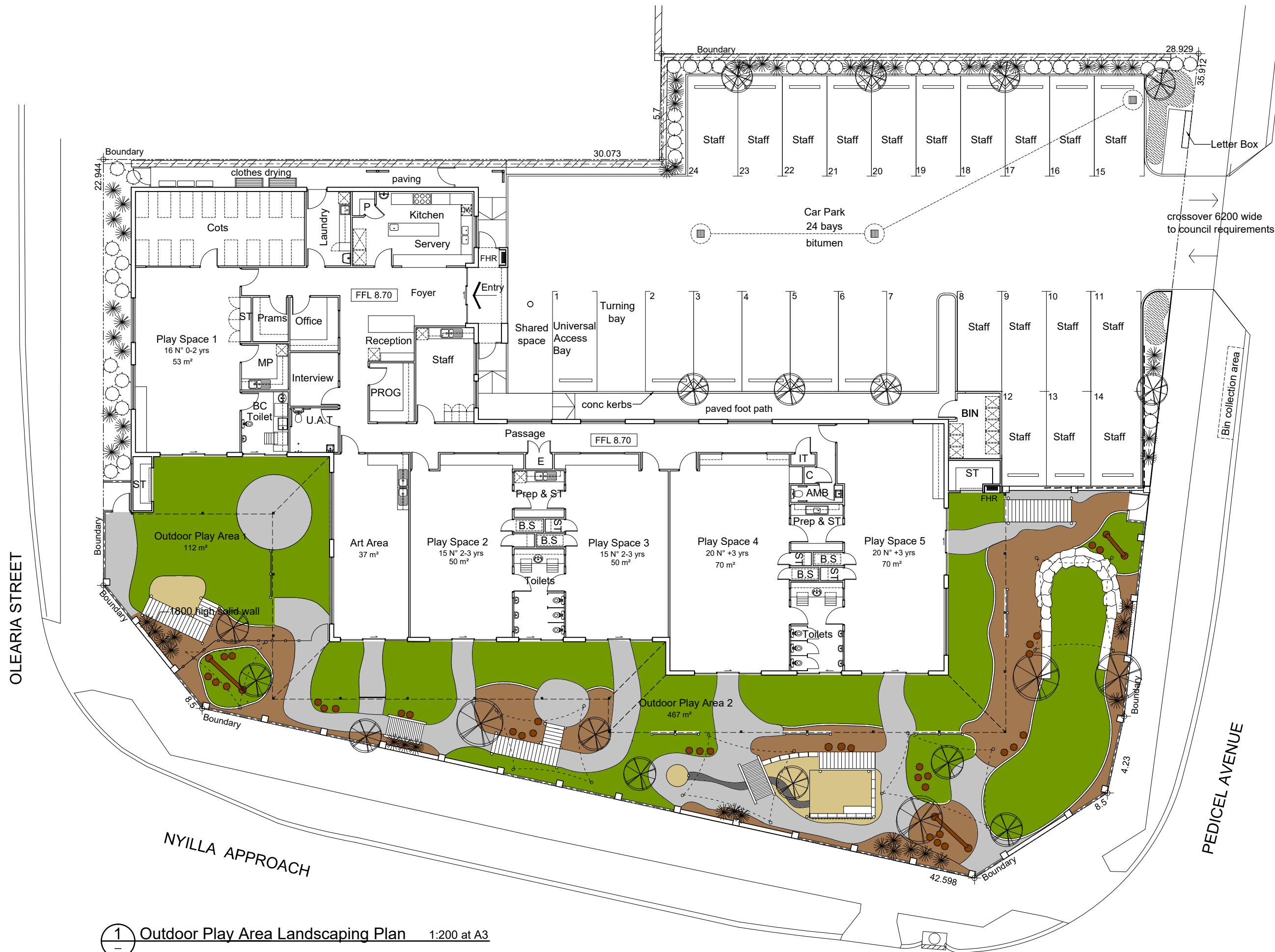


Landscaping				
Symbol	Name	Total No.	Pot size	Spacing
	Ornamental Pear Pyrus Bradford	8	30L	NA
	Westringia Fruticosa Coasta Rosemary	38	200mm	800mm
	Grevillea Bonnie Prince Charlie	37	200mm	1000mm
	Flax Lily Dianella	2	150mm	450mm

NOTES:
All garden beds are to be fertilised / mulched & fully reticulated

LANDSCAPE AREA		
General Landscaping	=	78 m²
External Play Space	=	579 m²
Total =		657 m²
Landscaping as Percentage of Site	=	31.8%

1 Landscaping Plan 1:200 at A3



LEGEND :

- MULCH
- RIVER SAND
- EXPOSED AGGREGATE
- CONCRETE
- ARTIFICIAL TURF

NOTE :

Proposed outdoor play area landscaping subject to change to suit operator requirements & specialist design

1 Outdoor Play Area Landscaping Plan 1:200 at A3

Building and
Interior Design
Solutions

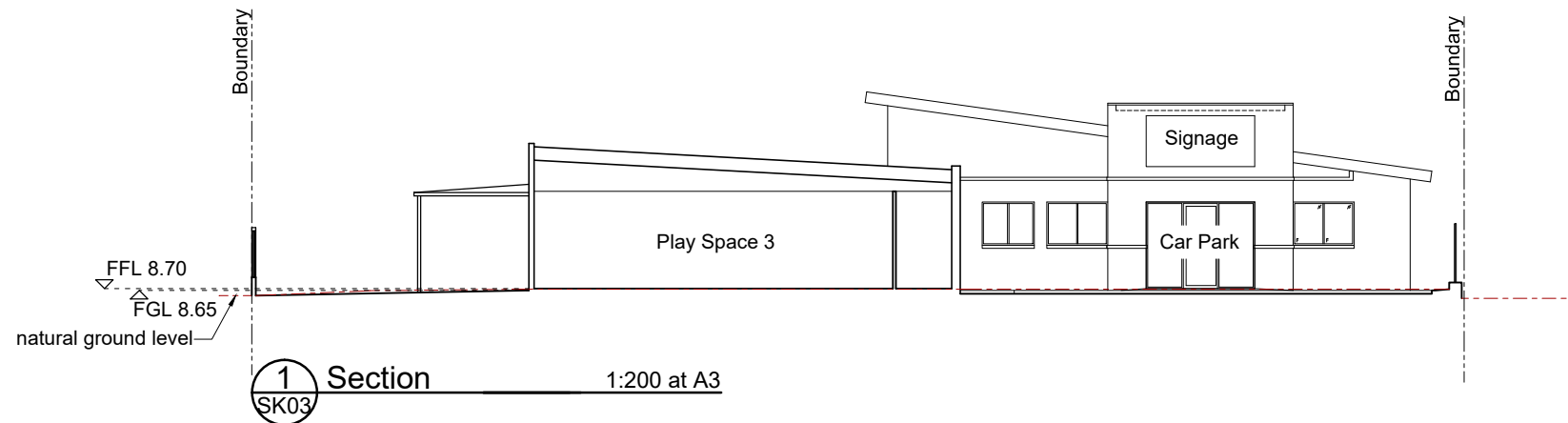
CSA

Christopher Senior & Associates

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Web: www.facebook.com/Christopher-Senior-and-Associates-132239896794882
ABN 14948293014

Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

drawing: Outdoor Play Area Landscaping Plan			
drawn	ASH	date	June 2019
scale	1:200 at A3	dwg no.	
job No.	2734		SK08d



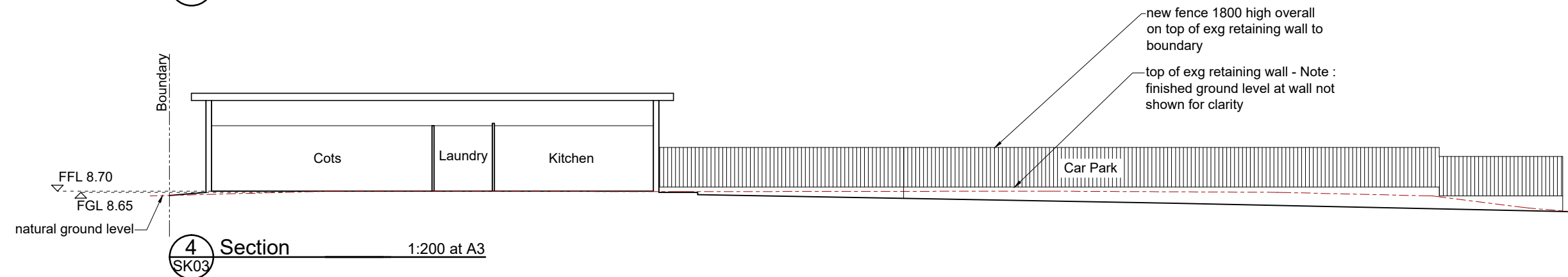
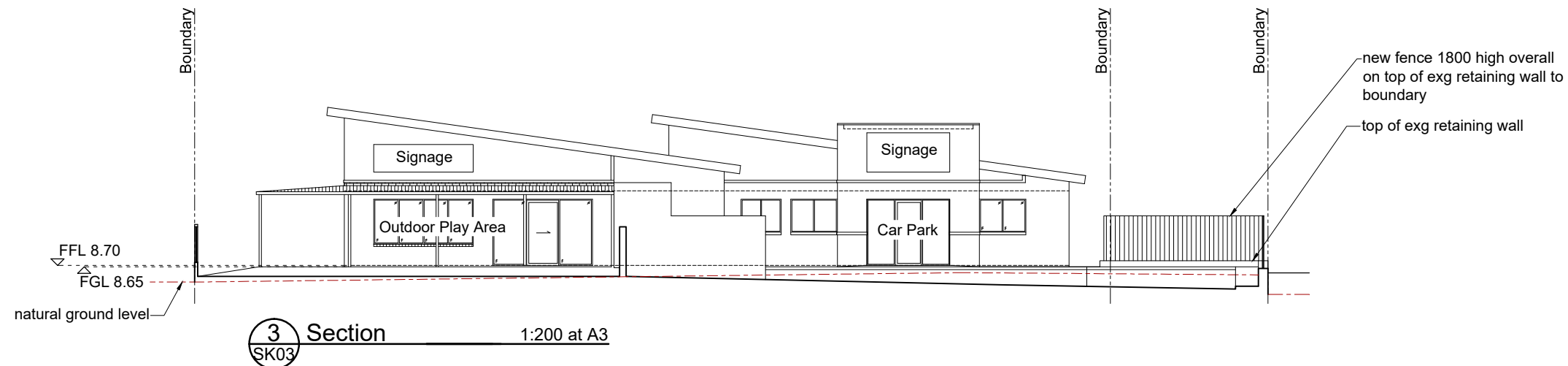
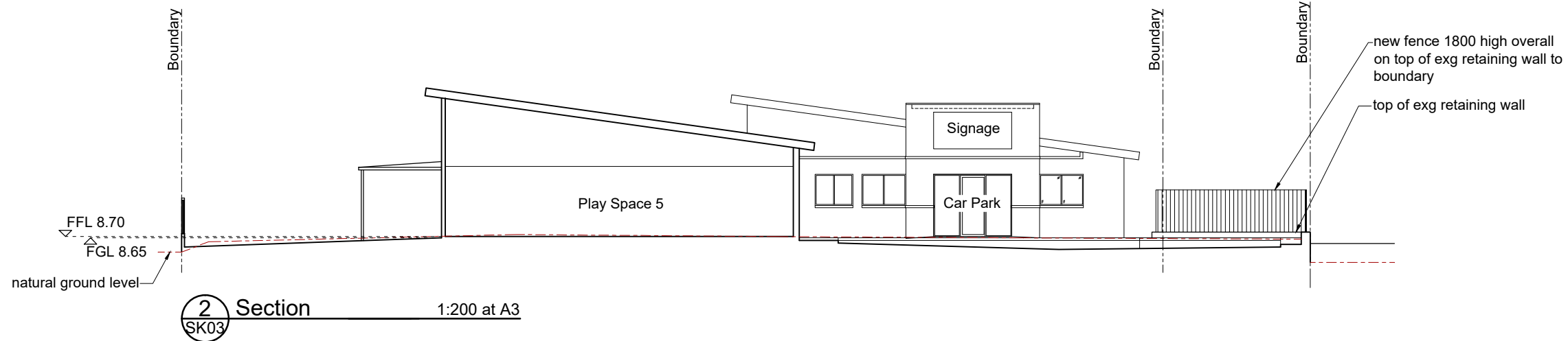
LEGEND :

FINISHED GROUND LEVEL ———

NATURAL GROUND LEVEL - - - - -

NOTE :

for exg & new levels refer drawing SK03



ATTACHMENT 2
WASTE MANAGEMENT PLAN

CSA/E Baldvis ELC/wastemanagement1/rev0

20 August 2019

Waste Management Strategy

East Baldvis Early Learning Centre
Cnr Nyilla Approach and Pedicel Avenue
Baldvis, WA

For: Accord Property

1. The bin store will be constructed in accordance with the approved planning drawings.
2. The bin store will have a concrete floor which will be laid to fall to a waste outlet. The store will also have a cold water tap for cleaning purposes. The store will be enclosed with masonry walls with a painted render finish to facilitate easy cleaning. The bin store will be accessed via a steel framed Colorbond steel clad gate.
3. The bin store will accommodate eight standard 240 L mobile garbage bins, please refer to drawing SK03 for the location and layout of the Bin Store.
4. The operator of the centre will organise the supply of these bins from either Council or their preferred waste disposal contractor. There is a bin collection area shown on drawing SK03 just South of the car park crossover.
5. Access to the bin store will be limited by key access via authorised employees.
6. The operator of the centre will be responsible for checking that the bins and the store is being used correctly by their employees and kept clean.
7. The bins shall be placed out for collection by the relevant service as required. The operator of the centre will be responsible for ensuring that their particular bins are placed conveniently for collection on the appointed day or days. It is envisaged at this stage that there will be one waste collection per week.
8. Bin odour will not be an issue as the bins and bin store will be cleaned often. Odours from used nappies is rarely a problem in early learning centres as these items are disposed of in sealed bags prior to them being removed from the nappy change rooms and toilets.
9. Food scraps from the kitchen will also be bagged prior to being binned.
10. Food provided by early learning centres generally is closely controlled and monitored to ensure that the children are fed a healthy and nutritious diet, menus have to be submitted to the licensing authority for approval. Menus are formulated to reduce the risks of the children eating disagreeable and possible dangerous ingredients such as nuts, crustaceans and other such foods. Whilst every effort is made to ensure that the diets are healthy it is rare that fresh fish would be prepared for service by the kitchen to reduce the possibility of fish bones being ingested by the children, most fish would be pre-prepared boneless fillets or 'fingers'. This is the same approach taken with poultry products. Meals generally consist of a mid-morning snack which varies but normally includes fresh fruit, biscuits, toast or crackers plus a cold drink. Water and fruit juice are the cold drinks of choice normally. Lunch will normally be a hot meal or some form of a salad based meal prepared with pre-prepared or fresh meat, fish or similar produce plus vegetables.

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ABN : 14948293014

Vegetables will normally include a potato dish plus 'greens', a sweet course will be served normally and this will vary from a dish like a plain fruit salad to a fruit or similar sweet pie and dressing. Afternoon tea is usually similar to the morning snack, again light and nutritious. When the kitchen staff do consider any of the waste to be an issue it can be placed in a sealed container and stored at an appropriate temperature until disposal just before bin pick up.

11. Waste generated by the centre will be as follows:

Kitchen Waste.

Please refer to item 10 above which mentions the type of food prepared for the children. The waste generated by the kitchen will generally comprise food scraps and used food packaging and should be considered in relation to the ages of the children being fed. Sixteen of the children will (when the centre is at capacity) be under the age of two years old. These children will be fed formula and baby food. It is common for baby food to be prepared in the centre kitchen but it is not uncommon for pre-prepared food to be served also. There will be some formula tins which will be disposed of in the recycle bin but kitchen waste resulting from these children will be minimal. The remainder of the children will be aged between two to five and as such portion sizes and the waste emitted will be of an appropriate scale.

Baby Change Waste

The centre will use disposable nappies for those children who are not toilet use proficient. It is common these days that children do wear nappies longer than they did ten or so years ago; even so if we allow for all of the naught to two year olds and half of the two to three year olds to be using nappies this still only numbers 31 children. The balance of the children (65) will normally be toilet proficient and as such their toilet wastes will be literally flushed down the toilets. If the 31 or so children used three nappies each a day for 5 days this would mean that the nappy waste from this centre would be less than 500 used nappies. When folded, bagged and packed into larger disposal bags I doubt that this number would require more than two medium sized garbage bags per day.

Staff Room Waste

The staff room will generate limited waste. Most of the staff will provide their own lunches and snacks in reusable containers brought from home. Some packaging, general waste and food scraps will be generated. The staff room will have a two bin policy for recyclables and general waste, the bins will be emptied each work day. The waste from this room will be minimal, about one small garbage bag per work day.

Children and Adult Toilet Waste Paper

The centre uses paper towels for staff use in both the children's and adult toilets. It is common that visitors rarely use the toilets. The staff usually use hand sanitiser in the children's toilets and when changing children's nappies as it is proven to be far more hygienic than paper towels. The children will have the choice of paper towels or hand sanitiser. Waste generated by these toilets is again limited and would account for a medium sized garbage bag per day in total.

Office Waste

There will be some paper waste from the office but as the operator is generally paper free in its internal company correspondence this will be limited and result normally in less than a small waste bin full per day if that.

Play Space Waste

Whilst the internal play spaces do emit waste it is limited. Most waste is limited to paper, card and other such craft materials. The majority of these materials will end up going home with the child that made it, some will be disposed of in the recycle bin but some items will be recycled internally.

Recycling

Wherever possible and practical waste generated by the centre shall be separated into that which is recyclable and that which is non-recyclable for disposal in the appropriate bin.

12. Vermin Prevention

Early learning centres are required to by their controlling regulations to be as vermin proof as possible. Spiders and their webs, cockroaches and other such vermin are regularly checked for and disposed of as necessary. The bin store which will be cleaned, washed/hosed down regularly will also be checked and treated as necessary.

Christopher Senior & Associates

ATTACHMENT 3
TRANSPORT TECHNICAL NOTE

Technical Note: No 1a
Project No: t19.119
Project: Baldivis Child Care Centre
Subject: Car Park Review

Date: 27/08/2019

1.0 Introduction

Transcore prepared a Transport Impact Statement in July 2019 for the proposed child care centre to be located at the corner of Nyilla Approach and Pedicel Avenue, Baldivis, in the City of Rockingham.

The City has reviewed the planning application and has identified a number of issues regarding the parking layout of the proposed development. The parking layout issues were documented in Attachment 1 of the City of Rockingham letter to Planning Solutions dated 16 August 2019.


Accordingly an updated development plan has been prepared by the architect of the project to address the City's requirements and Transcore has undertaken a parking audit on the updated plan to assess the car parking layout for the proposed child care centre against the Australian Standard AS 2890.1:2004 (Parking facilities Part 1: Off-street car parking).

The plan reviewed by Transcore was prepared by Christopher Senior & Associates Architects and dated June 2019 (refer **Appendix A**).

2.0 Car Park Assessment

Table 1 summarise the City of Rockingham's comments and Transcore's responses.

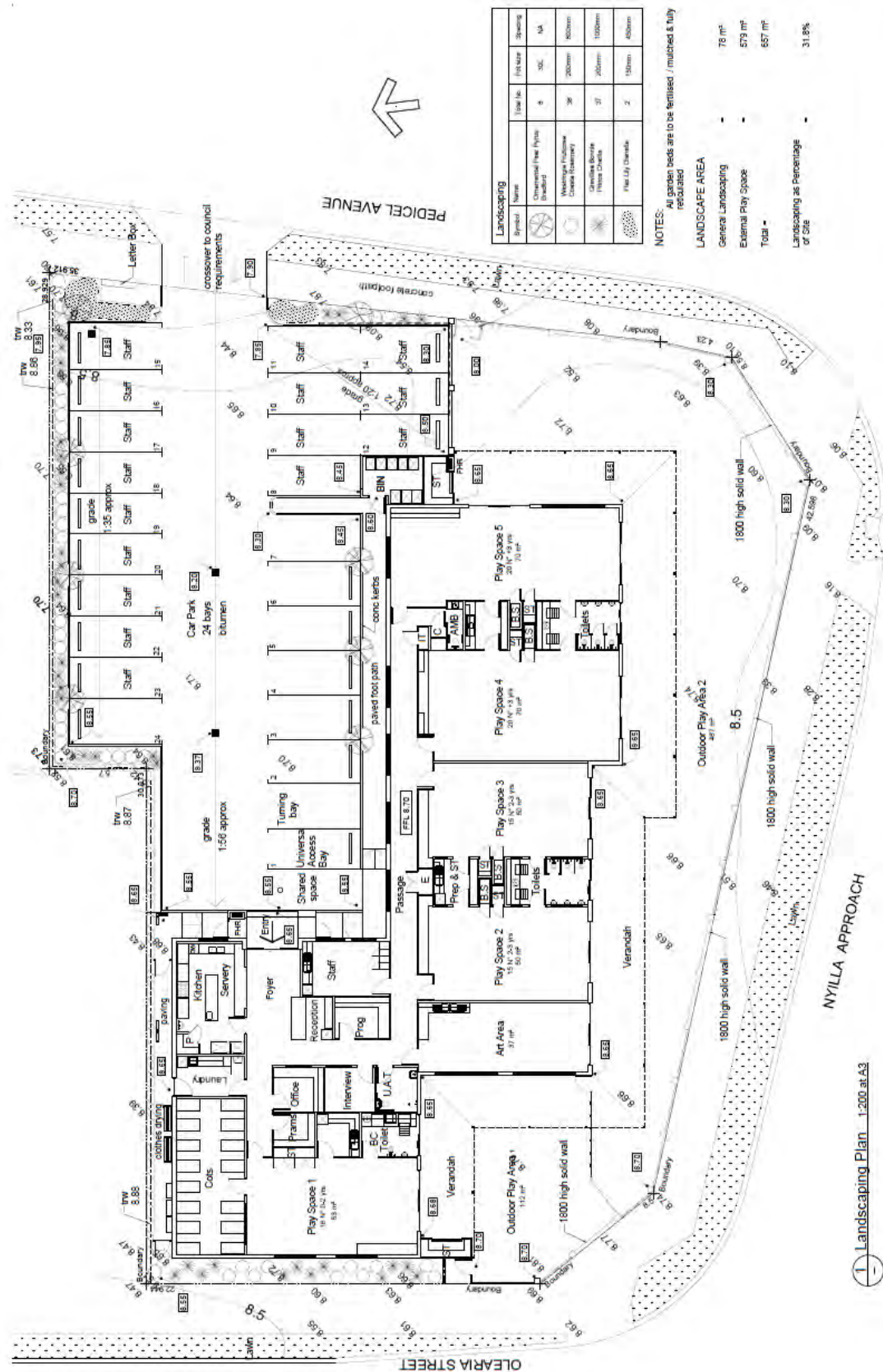
City Comments	Transcore's Responses
AS2890.1 requires a minimum visitor car parking bay dimension of 2.6m (width) by 5.4m (length) for this type of landuse (i.e. high turnover). The car parking bay number two (2) to seven (7) has a width of 2.5m therefore does not comply with AS2890.1.	The updated development plan provides 2.6m (width) by 5.4m (length) for visitor bays.
AS2890.1 requires a minimum staff car parking bay dimension of 2.4m (width) by 5.4m (length) for this type of landuse (i.e. low turnover). The car parking bay number 12 to 14 has an approximate length of 5.1m measured from the site plan therefore does not comply with AS2890.1. It should be noted that LDI does not support these staff tandem bays therefore please remove these bays.	Tandem parking bays are legitimate means of off street parking supply and are generally accepted where the two bays are provided for the use of a single tenancy and where the use would allow for this practice. The proposed tandem bays are designated for staff of the child care centre and will be managed internally by the staff to avoid any potential issues. Generally, minimum requirement of tandem bay is 10.0m in length. The proposed tandem bays provide about 10.5m length which is expected to be sufficient for two cars (B85 and B99) to park in front of each other. Turn path assessment (sk09 and Sk10 in Appendix B) undertaken indicates satisfactory movement of a B85 and B99 passenger vehicle to enter and park at bay number 10 and 12.
AS2890.1 requires that when one side of the car parking bay is bounded by a vertical obstruction which restricts door opening then the width of the car parking bay shall be increased by 0.3m. Staff car parking bay number 12 is located adjacent to the bin store which has a width of 2.5m therefore does not comply with AS2890.1 (i.e. minimum requirement of 2.7m wide). It should be noted that LDI does not support these tandem bays therefore please remove this bay.	However staff parking bay number 12 does not satisfy AS2890.1 requirements, this bay is expected to be practical and functional. Turn path analysis undertaken in Appendix B (Sk09) indicates that the width of the proposed car bay is sufficient for a B85 car to park in this bay. It should be noted that this bay is used by staff and would generate only two movements during the day. Considering the low turnover of this bay, the width of this bay is not expected to be problematic. Also, this bay can be marked as small cars if needs be.
AS2890.1 requires that when one side of the car parking bay is bounded by a vertical obstruction (higher than 0.15m) which restricts door opening then the width of the car parking bay shall be increased by 0.3m. The visitor parking bay number 24 located	This bay is proposed to be converted to staff bay and therefor would comply with the AS2890.1 requirements. This would result in 6 visitor bays for the proposed child care centre. The actual parking demand assessment undertaken in the TIS indicates that the proposed 6 visitor bays meet the parking

<p>adjacent to a retaining wall has a width of 3.0m to the lot boundary which suggests a clear bay width of approximately 2.65m (assuming a 0.35m retaining wall). Please ensure that the minimum clear width for this bay is at least 2.9m (i.e. 2.6m visitor bay width plus additional 0.3m), otherwise amend design accordingly.</p>	<p>demand for the visitors.</p>
<p>Please amend the design for the bicycle rack in accordance with AS2890.3.</p>	<p>Vertical pole mounted bike racks are proposed in the updated development plans. See below figure:</p> 
<p>Please provide the swept path analysis for the delivery van as mentioned in the Transport Impact Statement (TIS) to demonstrate entering and exiting the site in forward gear as well as vehicle movement in and out from a nominated service bay. Please confirm the dimension for the proposed delivery van and note that it is likely required to be modelled as a Small Rigid Vehicle (SRV).</p>	<p>It is anticipated that 8.8m service vehicle will be used for waste collection and 6.4m Small Rigid Vehicle (SRV) will be used for deliveries. Waste collection would be from the verge, however, the turn path analysis undertaken indicates that if required it can happen within the car park.</p> <p>Waste collection/ delivery truck may park for a short time within the car park for loading and unloading activities which would occur outside the peak activities for the child care centre and when the car park is empty. Swept path analysis for 8.8 service vehicle is included in Appendix B (Sk3a and Sk4a).</p>
<p>Please provide gradient information for the areas used for vehicle movement and parking bays so that a complete assessment could be made. Preliminary analysis from a limited number of proposed spot levels suggests that it may not comply with AS2890.1. This is likely to impact on the Finished Floor Level (FFL) of the childcare centre. Please provide the gradient information and ensure that it</p>	<p>Sk07 in Appendix A provides gradient information for the car park area.</p>

has been designed in accordance with AS2890	
--	--

Appendix A

SITE PLAN



Landscaping			Year 10	Year 11	Year 12
	Wellington Pastime Ground (Voluntary)	36	2000m	8000m	4500m
	Greenland Sports Centre (Voluntary)	27	2600m	11000m	4500m
	West City Ground	2	1500m	4500m	4500m

NOTES:
All garden beds are to be fertilised / mulched & fully reticulated

LANDSCAPE AREA		
General Landscaping	-	76 m²
External Play Space	-	579 m²
Total	-	657 m²
Landscaping as Percentage of Site	-	31.8%

Landscaping as Percentage of Site - 31.8%

Christopher Senior & Associates

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CSA

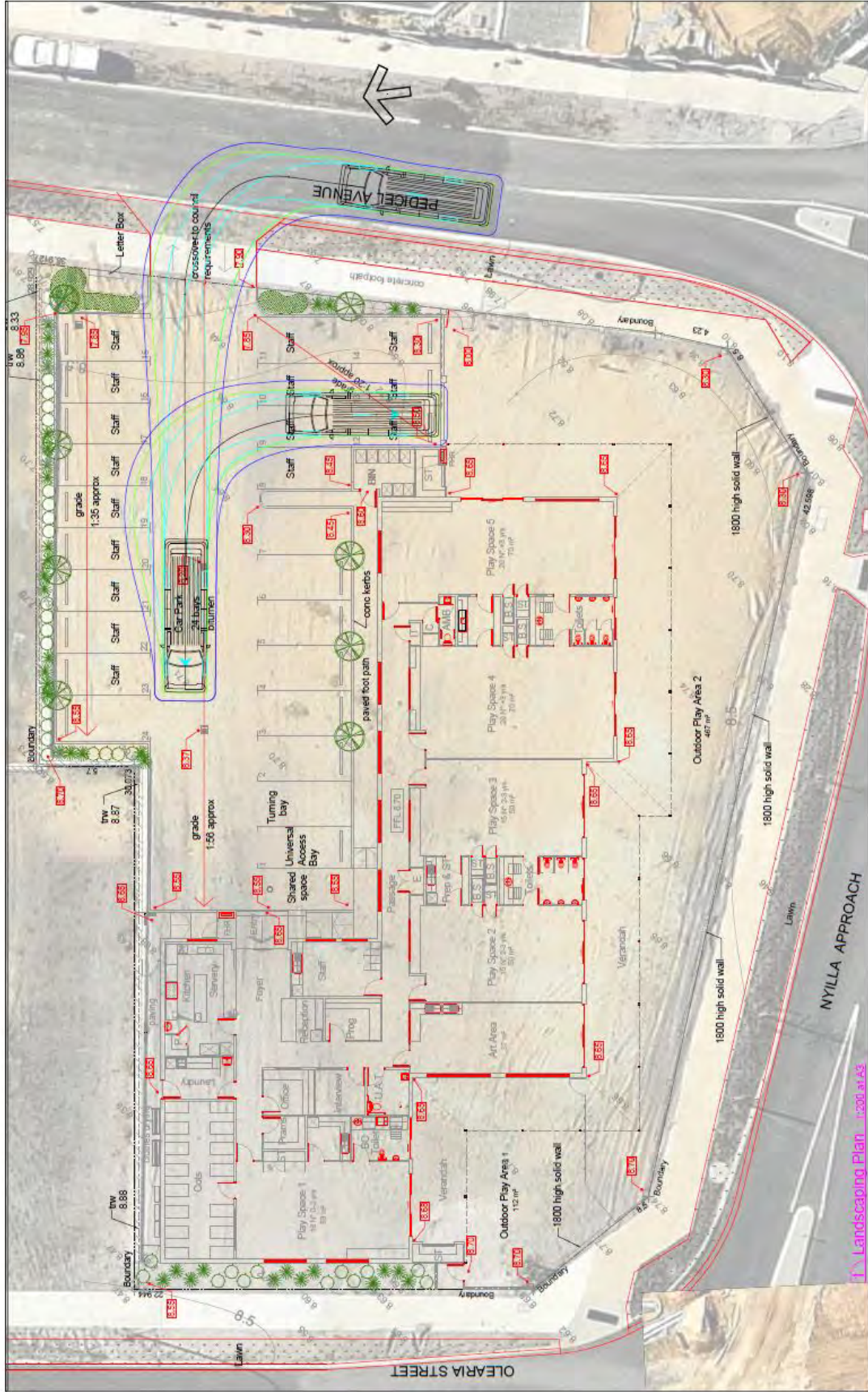
**Building and
Interior Design
Solutions**

Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDVIS
FOR ACCORD PROPERTY

Site		Landscaping Plan	
Item	AGH	Item	June 2016
1	1,200 sq ft	1	SK07g
2	2734		

Appendix B

TURN PATH ANALYSIS



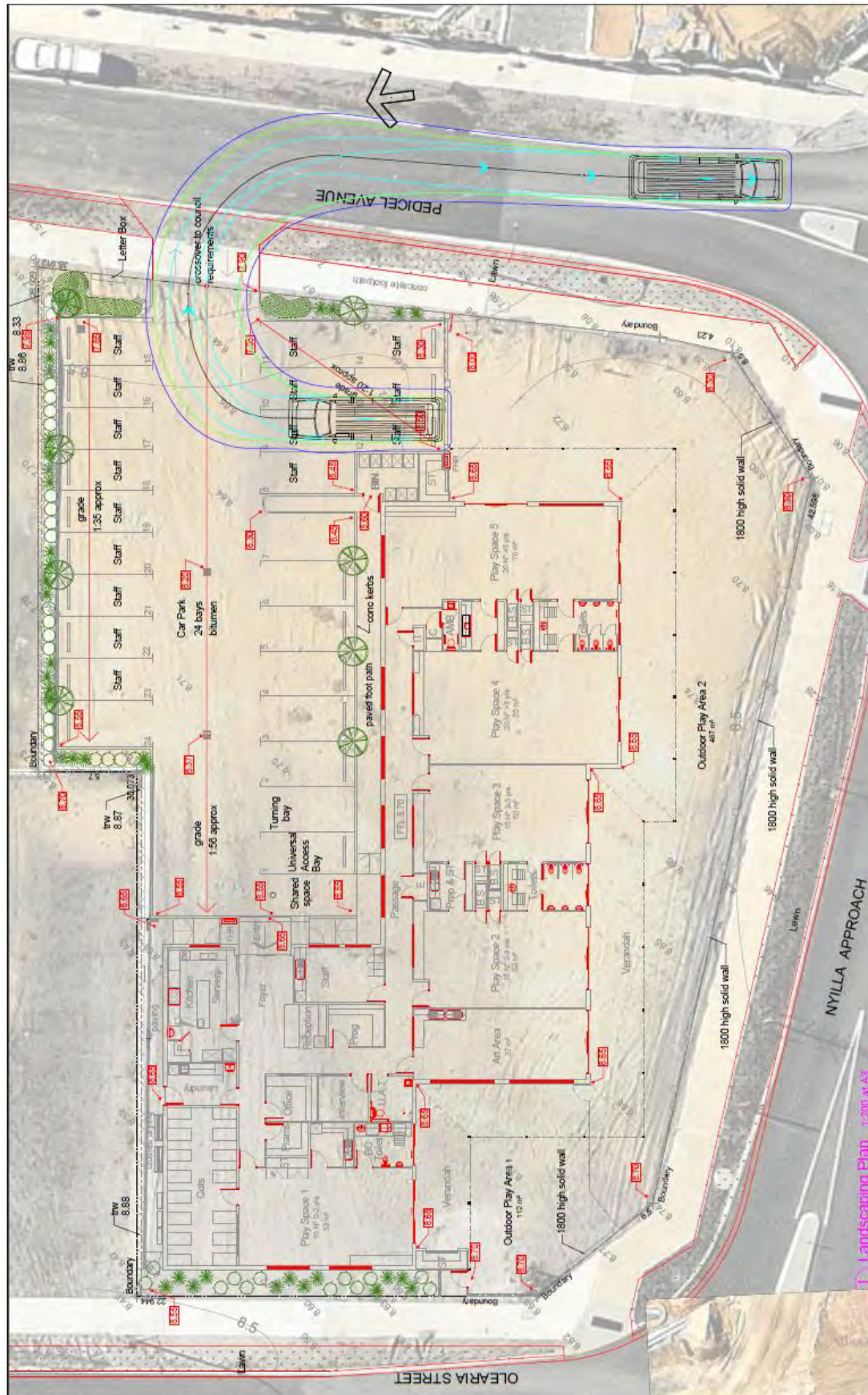
Baldvis Child Care Centre
 Austrorads 2013: 8.8m Service Vehicle
 Service Vehicle Circulation

LEGEND
 Vehicle Body
 Wheel Path
 500mm Clearance



t19.119.sk03a
 23/08/2019
 Scale: 1:200 @ A3





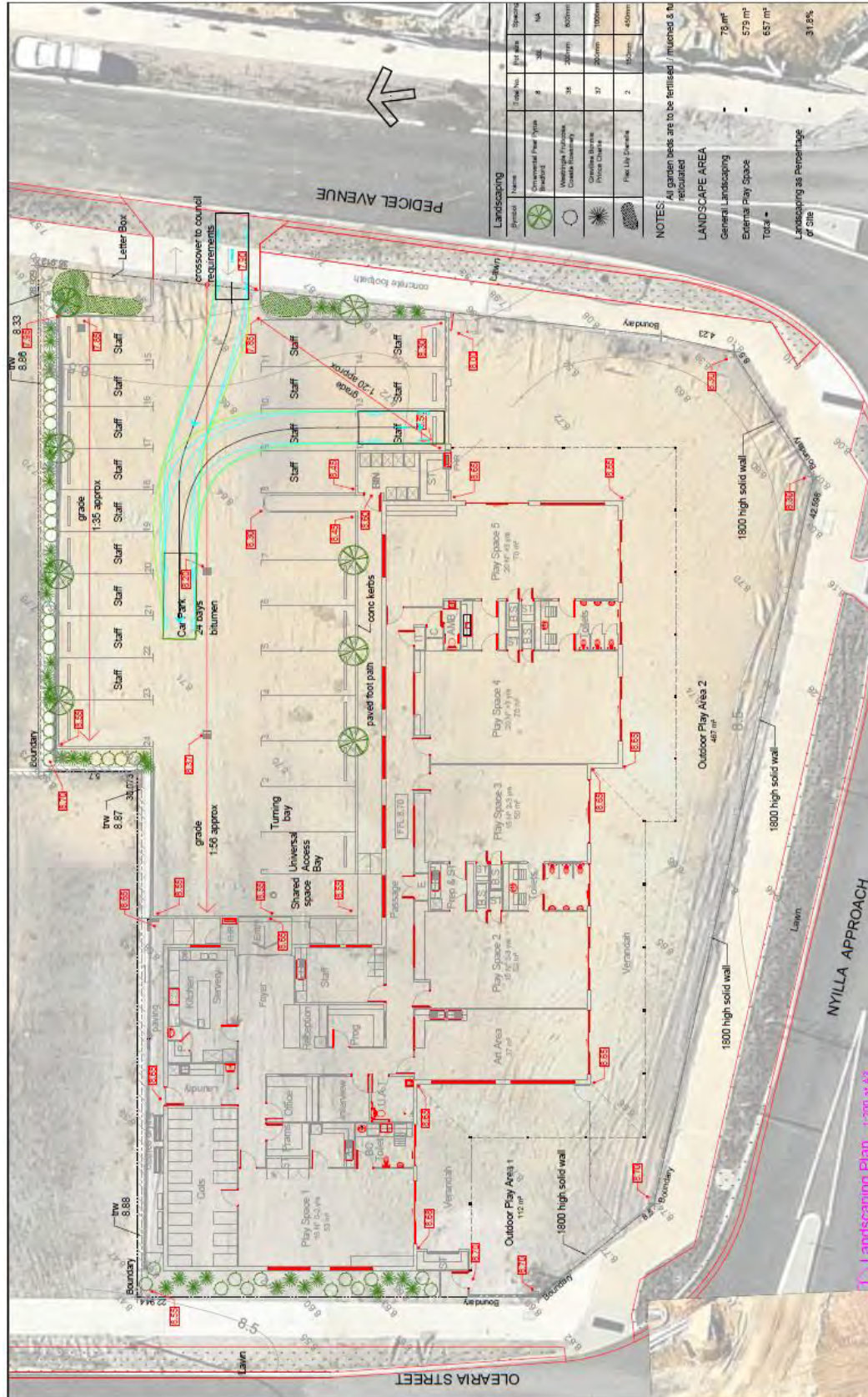
Baldvis Child Care Centre
 Austrroads 2013: 8.8m Service Vehicle
 Service Vehicle Exit

LEGEND
 Vehicle Body
 Wheel Path
 500mm Clearance



t19.119.sk04a
 23/08/2019
 Scale: 1:200 @ A3





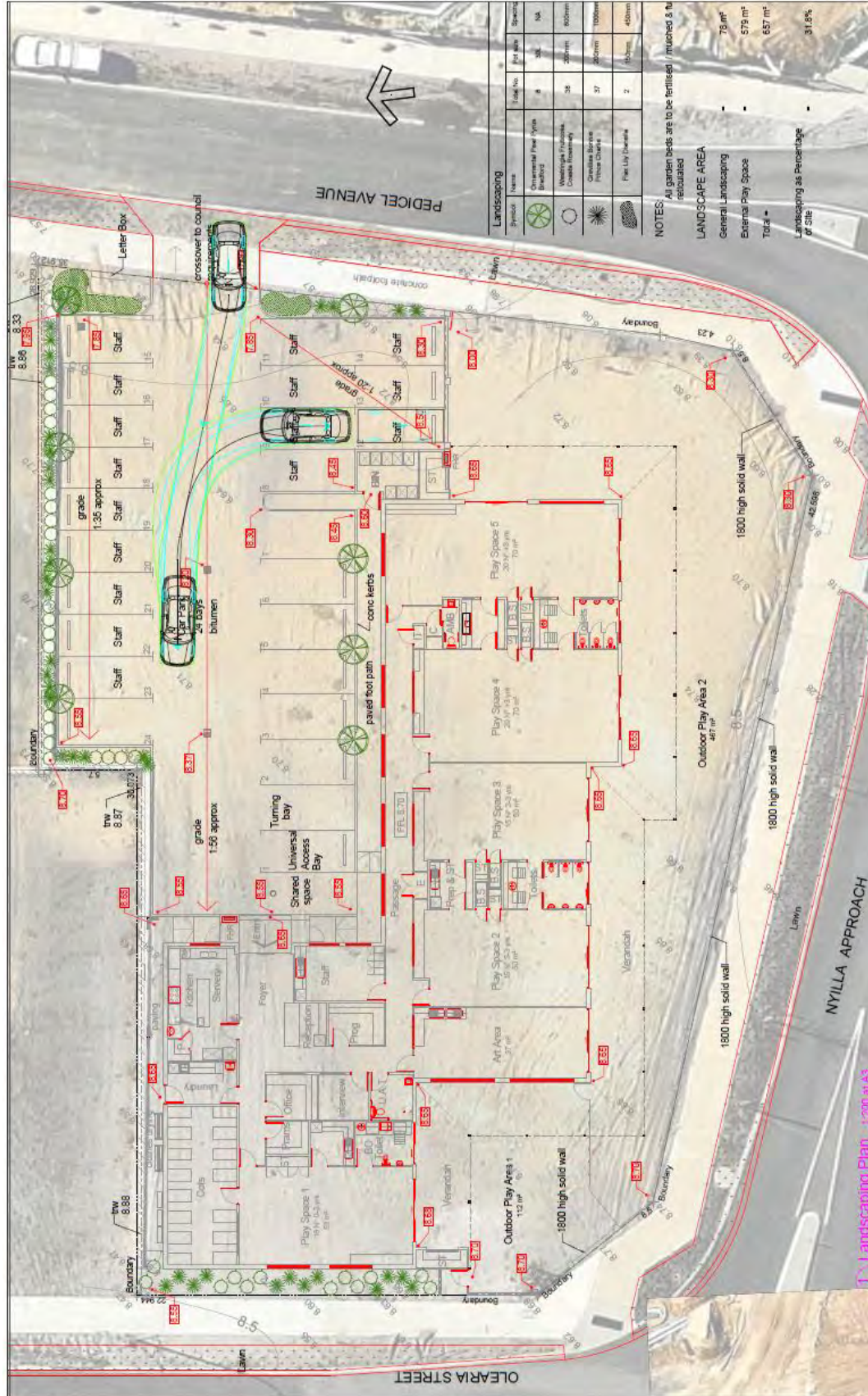
Baldvins Child Care Centre
 Austroads 2013: B85 Passenger Vehicle
 Passenger Vehicle Circulation

LEGEND
 Vehicle Body
 Wheel Path



t19.119.sk09
 27/08/2019
 Scale: 1:200 @ A3





t19.119.sk10
27/08/2019
Scale: 1:200 @ A3

LEGEND
Vehicle Body
Wheel Path

Baldvis Child Care Centre
Austroads 2013: B99 Passenger Vehicle
Passenger Vehicle Circulation



Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference: Crn Nyilla Approach & Pedicel Ave

Suburb: Baldivis

State: WA

P/code: 6171

Local government area: City of Rockingham

Description of the planning proposal: Construction of a Early Learning Centre

BMP Plan / Reference Number: 19734

Version: B

Date of Issue: 26/08/2019

Client / Business Name: Accord Property C/- Christopher Senior & Associates

Reason for referral to DFES	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

Early Childcare Centre

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name Gary McMahon	Accreditation Level Level 3	Accreditation No. 35078	Accreditation Expiry 11/2019
Company Ecosystem Solutions		Contact No. (08) 9759 1960	

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner



Date 26/08/2019

Bushfire Management Plan and Emergency Evacuation Plan

Cnr Nyilla Approach & Pedicel Ave, Baldivis

26 August 2019

Prepared for:
Accord Property
C/- Christopher Senior
& Associates



Limitations Statement

This report has been prepared for Accord Property, C/- Christopher Senior & Associates and remains the property of Ecosystem Solutions. No express or implied warranties are made by Ecosystem Solutions Pty Ltd regarding the findings and data contained in this report. No new research or field studies were conducted other than those specifically outlined in this report. All of the information details included in this report are based upon the research provided and obtained at the time Ecosystem Solutions Pty Ltd conducted its analysis.

In undertaking this work the authors have made every effort to ensure the accuracy of the information used. Any conclusions drawn or recommendations made in the report are done in good faith and the consultants take no responsibility for how this information and the report are used subsequently by others.

Please note that the contents in this report may not be directly applicable towards another organisation's needs. Ecosystem Solutions Pty Ltd accepts no liability whatsoever for a third party's use of, or reliance upon, this specific report.

STATEMENT OF CONFORMITY - *PLANNING AND DEVELOPMENT ACT 2005*



Gary McMahon

B.Sc. M. Env Mgmt. PG Dip Bushfire Protection. C.EnvP, BPAD Level 3 (35078)

The signatory declares that this Bushfire Management Plan meets the requirements of State Planning Policy 3.7.

Document Control

Client - Accord Property

Site - Cnr Nyilla Approach & Pedicel Ave, Baldivis

Version	Revision	Purpose	Author	Reviewer	Submitted	
					Form	Date
Report	Rev A	Initial Report	DP (BPAD46554)	GM (BPAD35078)	Electronic (email)	3/07/2019
Report	Rev B	Comments from City of Rockingham	DC (BPAD48409)	GM (BPAD35078)	Electronic (email)	26/08/2019

Filename: Z:\PROJECTS\19734 Crn Nyilla Approach and Pedicel Ave North Baldivis BMP BEEP\Reports\Crn Nyilla Approach and Pedicel Ave Baldivis BMP BEEP Rev B.docx

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Appendices

Appendix 1

City of Rockingham Fire Control Notice

Appendix 2

BAL Assessment Report

Appendix 3

Risk Analysis

Appendix 4

Bushfire Emergency Evacuation Plan

SUMMARY

Site Details					
Address			Corner of Nyilla Approach & Pedicel Avenue, Baldivis		
Local Government Area			City of Rockingham		
Development Application					
Application	Information Requirements		Location	Occupants	
Early Learning Centre Vulnerable Land Use	Bushfire Management Plan Emergency Evacuation Plan		Urban Residential	102 people	
Determined BAL (Appendix 2)					
AS 3959 Assessment Procedure	Vegetation Classification	FDI	Effective Slope	Separation Distance to any building	BAL
Method 1	Class B Woodland	80	Flat/Upslope	16 m	BAL-29

1 PROPOSAL

1.1 Introduction

This Bushfire Management Plan (BMP) has been prepared in accordance with the procedure for a simple development application document. An assessment of the proposal against the requirements of State Planning Policy (SPP) 3.7, *Guidelines for Planning in Bushfire Prone Areas* (WAPC, V1.3 December 2017) and the City of Rockingham.

The Bushfire Emergency Evacuation Plan (Appendix 4) is preceded by a risk assessment (Appendix 3) to determine the best approach to be followed in the event of a bushfire. This includes considering the safety of the evacuation route and determined Bushfire Attack Level (BAL).

The purpose of this BMP and BEEP is to detail the fire management methods and requirements that will be implemented to reduce the threat to students, staff and fire fighters in the event of a fire.

1.2 Background

The Site is 2,063 m² in area, situated at 1 Pedicel Avenue, 2 Olearia Street and part Lot 9014, Baldivis within the City of Rockingham. It is proposed to construct a building to be used as an Early Learning Centre (Class 9b). The maximum occupancy for the building is 102 people. The site layout and building plan are provided in Figure 1 and Figure 2 respectively.

The Site is classified “All Land with an area of less than 4,047 m²”, under the City of Rockingham Fire Control Notice (Appendix 1).

The Site is declared bushfire prone (Figure 3).

The nearest classified vegetation is Class B Woodland, upslope/flat with a resultant BAL of BAL-29 (Appendix 2).

A safe evacuation route has been identified. Access to the Site is from Pedicel Avenue. The Baldivis town centre is accessed via taking Nyilla Approach to the west to Baldivis Road. Pedicel Avenue, Nyilla Approach and Baldivis Road are wide, well-constructed public roads with an 8 m bituminous seal.

The Fire Danger Index (FDI) for Western Australia is 80, and the fire season is typically between November and April each year. Extreme days mostly occur in January and February.

Extreme fire days are typified by strong south westerly winds in the afternoon. A likely fire will arrive from the south west, which is on a flat slope from the Site.

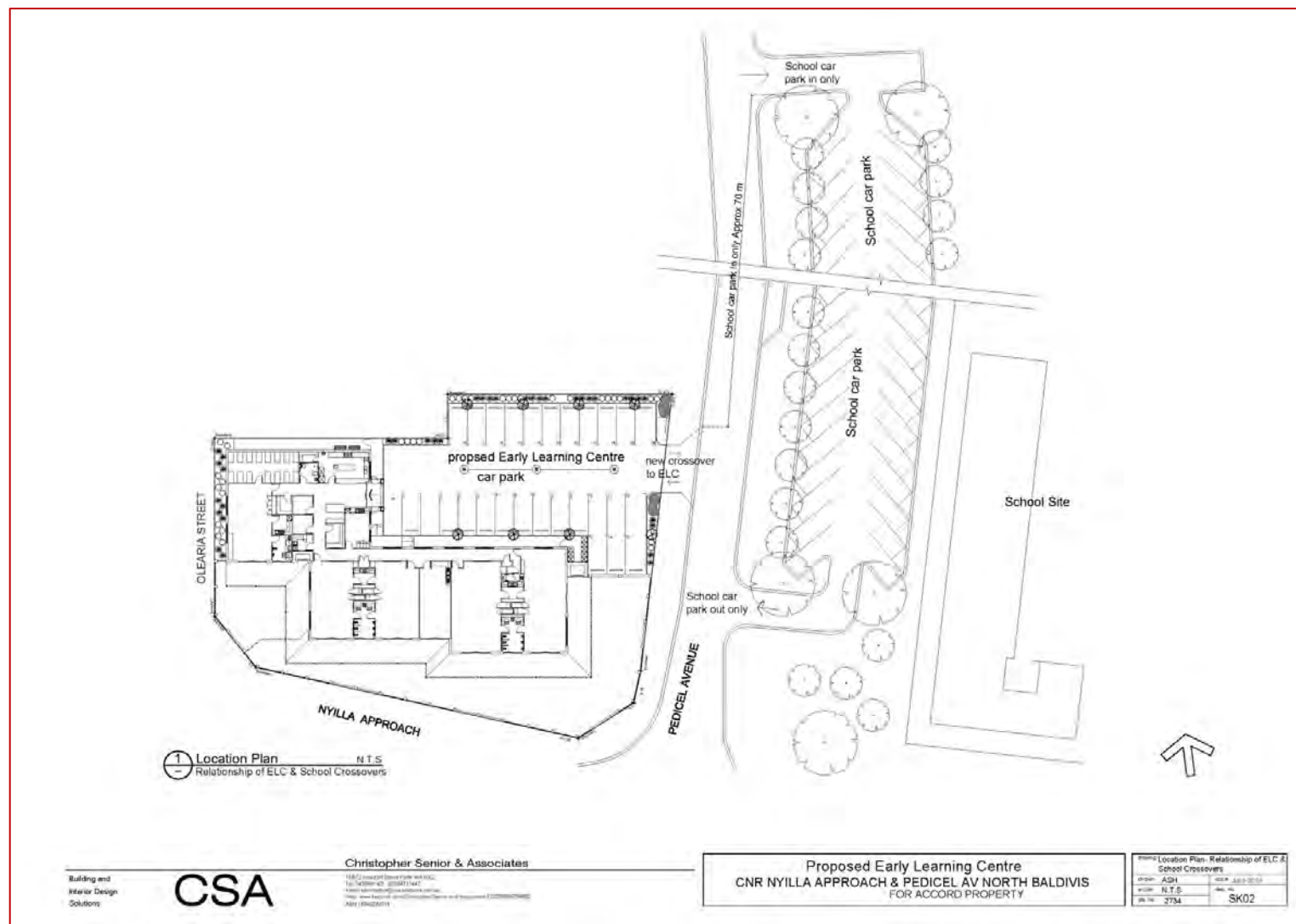


Figure 1 Site Plan

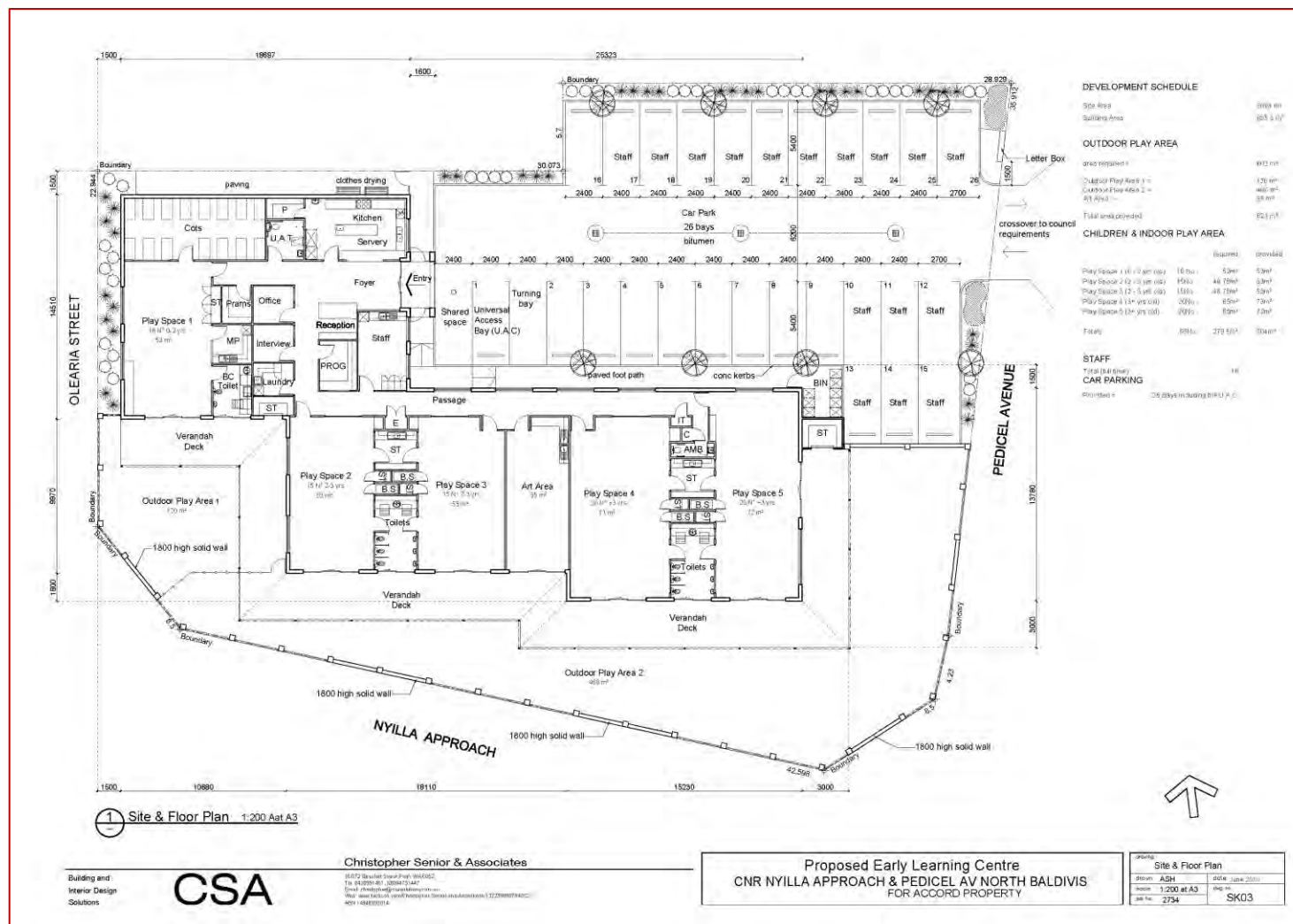


Figure 2 Building Layout



Figure 3 Map of Bushfire Prone Areas, with the Site within the blue polygon

1.3 Regulatory Compliance Requirements

1.3.1 Planning and Development Act 2005

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 in turn guided by Planning in Bushfire Prone Areas and Guidelines for Planning in Bushfire Prone Areas.

The State Planning Policy (SPP) 3.7 and Guidelines now form the foundation for fire risk management planning in WA at a community and land development level.

The SPP 3.7 recognises that whilst bushfire is now an important consideration in subdivision design and protecting the community, there are many lots not yet developed and many buildings that do not comply with contemporary construction requirements for bushfire prone areas.

Vulnerable Land Uses

Vulnerable land uses according to the Guidelines for Planning in Bushfire Prone Areas are those where persons may be less able to respond in a bushfire emergency. These include the following:

“land uses and associated infrastructure that are designed to accommodate groups of people with reduced physical or mental ability such as the elderly, children (under 18 years of age), and the sick or injured in dedicated facilities such as aged or assisted care, nursing homes, education centres, family day care centres, child care centres, hospitals and rehabilitation centres.”

Consideration should be given to an Emergency Evacuation Plan and included within the statement against the bushfire protection criteria.

The proposed development should address the bushfire protection criteria with the aim of achieving BAL-29 or less for the Site. If BAL-29 cannot be achieved, the proposed development should be assessed against clause 6.7.1 of SPP 3.7 and any other planning matters as appropriate.

1.3.2 Building Act 2011

The *Building Act 2011* applies the construction standards of the Building Code of Australia which refers to AS3959-2018 Construction of Buildings in Bushfire Prone Areas. AS 3959 includes the deemed to satisfy solutions which demonstrates compliance with the bushfire performance requirements. AS3959 applies to the construction of Class 1, 2, 3 buildings and associated 10a buildings and decks.

The proposed Early Learning Centre is a Class 9b building, and the City of Rockingham has the authority under their Local Planning Scheme to require these buildings to be constructed to the standards set out in AS 3959-2018.

2 Environmental Considerations

2.1 Native vegetation - modification and clearing

The proposal is for the construction of a new building to be used as an Early Learning Centre.

A basic desktop survey of the Site and 150 m Assessment Area was conducted. The Protected Matters Search Tool (PMST), accessed 27 June 2019, identified Banksia Woodlands of the Swan Coastal Plain and Sedgeland in Holocene dune swales Threatened Ecological Communities (TEC), and a number of threatened flora are likely to be located within the area (Table 1). There is no native vegetation within the Site and no impact is expected to the TECs or threatened flora.

Table 1 Significant Environmental Values

Significant Environmental Values	Yes / No	If Yes, describe
Conservation Covenant	No	Nil
Bushforever	No	Nil
Conservation Wetland or Buffer	No	Nil
Threatened Ecological Communities	Yes	Banksia Woodlands of the Swan Coastal Plain ecological community TEC is likely to be located within the area. Sedgeland in Holocene dune swales of the southern Swan Coastal Plain TEC is known to occur within the area.
Declared Rare Flora	Yes	There are a number of declared rare flora species or species habitat likely to occur within the area.
Environmentally Sensitive Area	No	Nil
Significant for Conservation Local Strategy	No	Nil

2.2 Re-vegetation / Landscape Plans

All landscaping within the Site will be established and maintained in perpetuity to Asset Protection Zone standards.

3 BUSHFIRE ASSESSMENT

3.1 Bushfire Attack Level Assessment

See Appendix 2.

3.2 Determined Bushfire Attack Level

The Determined Bushfire Attack Level (highest BAL) for the Site has been determined in accordance with clause 2.2.6 of AS 3959-2018.

Determined Bushfire Attack Level	BAL-29
----------------------------------	--------

4 BUSHFIRE RISK CONTROLS

4.1 Location

ELEMENT 1: LOCATION

Intent: 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.

Acceptable Solution

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.

Compliance

Yes, the BAL assessment report has determined the Site to be BAL-29 (Appendix 2).

Further justification under SPP3.7, clause 6.7 is not required.

4.2 Siting and Design of Development

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

Intent: To ensure that the siting and design of development minimises the level of bushfire impact

Acceptable Solution

Compliance

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

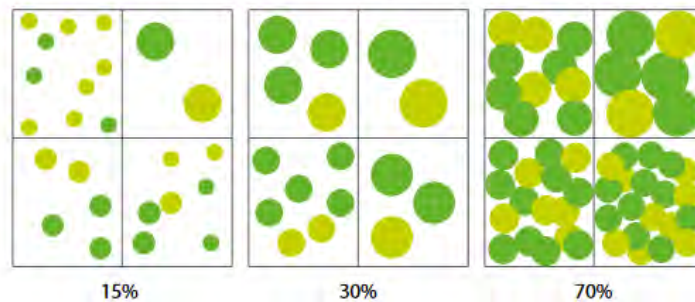
Management: the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones'.

Yes, an Asset Protection Zone (APZ) can be maintained within the lot to the standard in the *Guidelines for Planning in Bushfire Prone Areas* (Figure 4).

Areas of the APZ exceeding the boundary of the lot are excluded under S 2.2.3.2 (e) or (f), being roads, buildings and associated gardens that require maintenance in a low fuel state to the level prescribed in the City of Rockingham Fire Control Notice for 'All Land with an Area of less than 4,047 m²', guaranteeing these areas will be managed to the standards of an APZ in perpetuity.

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 18: Tree canopy cover – ranging from 15 to 70 per cent at maturity



- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Figure 4 Asset Protection Zone Requirements from Guidelines for Planning in Bushfire Prone Areas (WAPC, Dec 2017)

4.3 Vehicle Access

ELEMENT 3: VEHICULAR ACCESS

Intent: To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.

Acceptable Solution

Compliance

A3.1 Two access routes

Two different vehicular access routes are provided, both of which connect to the public road network, provide safe access and egress to two different destinations and are available to all residents/the public at all times and under all weather conditions.

Pedical Avenue connects to the Baldivis township via Nyilla Approach and Baldivis Road, less than 1 km south west of the Site. Nyilla Approach can also be taken to the east to access Cassinia Street, Poolgarla Avenue, Yowari Drive and the Baldivis town centre.

Alternatively, a public road network can be taken to a different destination, as directed by fire services in the event of a bushfire.

A3.2 Public road

Requirements in Table 6, Column 1 of the Guidelines (Figure 5).

All roads listed are public roads, well-constructed and meets the standards of clear shoulders and good vision.

A3.3 Cul-de-sac (including a dead-end road)

Where no alternative exists (i.e. the lot layout already exists, demonstration required):

- Requirements in Table 6, Column 2 (Figure 5);
- Maximum length: 200 m (if public emergency access is provided between cul-de-sac heads maximum length can be increased to 600 m provided no more than eight lots are serviced and the emergency access way is no more than 600 m); and
- Turn-around area requirements, including a minimum 17.5 metre diameter head.

Pedical Road and Olearia Street are currently cul-de-sacs which comply with the requirements of the Guidelines (A3.3) and will extend north to Parkville Boulevard in the future. The Site carpark is on the corner of Pedical Road (Figure 6) and Nyilla Approach, providing a choice of access / egress routes within 50 metres of the access into the Site.

A3.4 Battle-axe

Not applicable to this Site.

ELEMENT 3: VEHICULAR ACCESS

A 3.5 Private driveways >50m	Not applicable to this Site.
A3.6 Emergency access way	Not applicable to this Site.
A3.7 Fire service access routes	Not applicable to this Site.
A3.8 Firebreak width	The Lot is classified “All Land with an Area of Less Than 4,047 m ² ” on the City of Rockingham Fire Control Notice.
Lots greater than 0.5 hectares (5,000 m ²) must have internal perimeter firebreak of a minimum width of three metres or to the level as prescribed in the local firebreak notice issued by the local government.	The Site is 2,063 m ² and does not require firebreaks.

TECHNICAL REQUIREMENTS	1 Public road	2 Cul-de-sac	3 Private driveway	4 Emergency access way	5 Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5
*Refer to E3.2 Public roads: Trafficable surface					

Figure 5 Vehicular access technical requirements (Guidelines for Planning in Bushfire Prone Areas Table 6)



Figure 6 Pedicel Avenue

4.4 Water

ELEMENT 4: WATER

Intent: To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.

Acceptable Solution

Compliance

A4.1 Reticulated Areas

The subdivision, development or land use is provided with a reticulated water supply in accordance with the specification of the relevant water supply authority and Department of Fire and Emergency Services.

Yes, the Site will have a reticulated water supply, to the Water Corporation's No 63 Water Reticulation Standard.

A fire hydrant is located within 20 m of the Site (Figure 7) on Nyilla Approach.

Spatial representation of the proposed risk management measures



NOTES

Asset Protection Zone (APZ)

The minimum width for the APZ for this Site is the distance required to meet the BAL-29 setback. The 14 metres between the building and the classified vegetation exceeds the Lot boundary. Areas of the APZ exceeding the boundary of the lot are excluded under S 2.2.3.2 (e) or (f), being roads, buildings and associated gardens that require maintenance in a low fuel state to the level prescribed in the City of Rockingham Fire Control Notice for 'All Land with an Area of less than 4,047 m²', guaranteeing these areas will be managed to the standards of an APZ in perpetuity.

The Landowner is required to maintain the area within the Lot to APZ standard. Vegetation within the APZ is to comply with Schedule 1 Element 2 of the Guidelines noting that:

- Trees >5m in height are to be setback a minimum distance of 6m from the building with no branches overhanging the roof.
- Shrubs <5m in height are to be setback a minimum distance of 3m from the building, and not planted in clumps greater than 5 sqm
- Grass is to be maintained at less than 100mm in height.

The Site will be provided with reticulated water in compliance with the Water Corporations' No. 63 Water Reticulation Standard. A fire hydrant exists within 20 m of the proposed building.

Installation and upkeep of the APZ, and water supply is the responsibility of the landowner. The measures listed above shall be implemented prior to the use of the building as a Early Learning Centre and shall continue to be maintained in perpetuity.

LEGEND

- Lot Boundary
- Proposed Building
- Asset Protection Zone
- Hydrant

PROPERTY / ASSESSMENT DETAILS

Owner: Accord Property
Property Address: Crn Nyilla Approach
& Pedicel Ave North Baldivis
Project No: 19734
Prepared by: D Plowman
Accreditation Level: Level 1
Accreditation Number: 46554



0 12.5 25
Meters

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solutions
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(08) 9759 1960

Figure 7 Bushfire Management Strategies

4.5 Vulnerable Development Emergency Evacuation (cl6.6)

The Bushfire Emergency Evacuation Plan, Appendix 4, has followed the State Government of Victoria *CFA Guide to Developing a Bushfire Emergency Plan* to determine whether evacuation or shelter presented the safest option. It has followed the *NSW Rural Fire Service - Guide to Developing a Bush Fire Emergency Management Plan*, the *Bushfire Protection Guidelines WA*, and *AS 3745-2010* to identify the triggers for Evacuation.

The following assumptions have been made:

- Children within the Early Learning Centre are under the supervision of staff members.
- The staff supervising the children are able bodied.
- The staff supervising the children can see and smell smoke and can see a fire
- The staff supervising the children can read and understand the English language.
- A vehicle/s with capacity for all occupants and licenced driver/s will be available at all times in case evacuation is required.

The primary and best course of action is to evacuate early in the event of a bushfire. Any evacuation from the Site should be by car or bus, because a vehicle will provide a level of protection and minimise the time exposed to extreme conditions compared to travel as a pedestrian. While evacuation is preferred, the building should be able to provide adequate protection during a bushfire if no alternative exists.

Key feature to achieve occupant life safety include:

- Establishing alert triggers for evacuation and shelter;
- Establishing an evacuation and shelter procedure; and
- A clear display of evacuation and shelter building locations.

Note: the fire front will be preceded by an ember attack for a period longer than the passage of the fire front itself, with a relatively quick decay after its passage. Secondary fires in structures can pose a longer duration of hazard. The building used as a shelter may be ignited, although it is expected that sufficient time is provided after the fire front has passed to safely escape the building. Importantly, any person taking shelter within the building must monitor conditions and be prepared to evacuate the building when safest to do so - after the fire front has passed.

5 Responsibilities for Implementation and Management of the Required Bushfire Measures

The responsibilities for the Landowner and City of Rockingham are outlined in Table 2 and Table 3 respectively.

Table 2 Landowner / Occupier Responsibilities

Number	Action	Due
1	Establish and maintain the Asset Protection Zone (APZ) to the dimensions and standard stated in the Bushfire Management Plan, specified in Section 4.1 Native Vegetation - modification and Clearing and Section 5.2 Element 2: Siting and design of development.	Prior to use as an Early Learning Centre & Ongoing
2	Maintain compliance with the City of Rockingham Fire Control Notice, 'All Land with An Area of Less Than 4,047 m ² ', including removing all hazardous material from the lot except living trees and maintaining grasses to a height of no greater than 50 mm.	Prior to use as an Early Learning Centre & Ongoing
3	Maintain reticulated water in compliance with the Water Corporation's No 63 Water Reticulation Standard.	Prior to use as an Early Learning Centre & Ongoing
4	Ensure that any builders (of future structures on the Lot) are aware of the existence of this Bushfire Management Plan and the responsibilities it contains regarding the application of construction standards corresponding to the determined BAL rating.	Ongoing

5	<p>Ensure all future buildings the Landowner has responsibility for, are designed and constructed in full compliance with:</p> <p>(a) the requirements of the <i>WA Building Act 2011</i> and the bushfire provisions of the Building Code of Australia (BCA) as applicable to WA; and</p> <p>(b) with any identified additional requirements established by this BMP or the relevant local government.</p>	Ongoing
6	<p>Be aware updating the Bushfire Management Plan may be required to ensure that the bushfire risk management measures remain effective. Bushfire plans do not expire and are a 'living document'. Updating is required in certain circumstances, including (but not limited to) if site conditions change, if further details are required at subsequent development stages or to reflect new technologies or methodologies in best practice bushfire risk management ('Guidelines' s4.6.4).</p>	Ongoing
7	<p>Be familiar with this BMP and in particular the Bushfire Emergency Evacuation Plan (Appendix 4) and ensure that appropriate arrangements are in place at all times for the BMP and the Bushfire Emergency Evacuation Plan to be complied with.</p>	Ongoing
8	<p>Review the Bushfire Emergency Evacuation Plan</p>	Annually
9	<p>Install firefighting equipment, Evacuation Diagram, conduct Seasonal and Daily (during the fire season) preparations (refer to Appendix 4).</p>	<p>Prior to use as an Early Learning Centre & Ongoing</p>

10	<p>A section 70A Notice will be required on title to provide succession of the responsibilities outlined in this report, including the requirements of the Bushfire Emergency Evacuation Plan.</p> <p>This Notice should read:</p> <p>“The building at 1 Pedicel Avenue and 2 Olearia Street, Baldivis is in a bushfire prone area. The use of the building for an Early Learning Centre, is classified as a vulnerable development. The approval of the building 1 Pedicel Avenue and 2 Olearia Street, Baldivis for use as an Early Learning Centre is conditional to the details contained within the Bushfire Management Plan (BMP) dated 26 August 2019 and the accompanying Bushfire Emergency Evacuation Plan (BEEP). The building and the surrounds will be maintained as such that they provide resistance to a radiant heat flux of 29 kW/m² (BAL-29).”</p>	Prior to use as an Early Learning Centre
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Table 3 City of Rockingham's Responsibilities

Number	Action	Due
1	Monitor landowner compliance with the annual City of Rockingham Fire Control Notice.	Ongoing
2	Develop and maintain district bushfire fighting services and facilities.	Ongoing
3	Promote education and awareness of bushfire prevention and preparation measures through the community.	Ongoing
4	Administer the requirements of the <i>Bush Fires Act 1954</i> , <i>Planning and Development Act 2005</i> and the <i>Building Act 2011</i> .	Ongoing
5	Maintain public roads and Emergency Access Ways in proximity to the Site according to the Guidelines.	Ongoing

6 Conclusion

The qualitative assessment comparing the proposal with the bushfire threat against the Bushfire Protection Criteria has identified practical solutions to achieve occupant life safety and minimise the damage to buildings.

This justification is based upon:

- The Site being able to achieve BAL-29, with public road exit routes and with suitable water supply.
- The building can be used to shelter within, as a last resort.
- Landowners implementing their ongoing management responsibilities outlined in this BMP and BEEP and to assist students and staff in preparing for and responding to a bushfire event as may be made by the City or the Department Fire and Emergency Services.

The Landowner acknowledges that:

- BAL-29 is a high radiant heat rating, with a risk of ember attack;
- Bushfire protection is their responsibility, assistance from emergency services in an event should not be relied upon;
- Early evacuation is the primary and best option in the event of a bushfire.
- Superficial damage to buildings and grounds will occur during a bushfire event

Appendix 1 City of Rockingham Fire Control Notice

FIRE CONTROL NOTICE

THIS IS YOUR FIRST AND FINAL NOTICE
Deadline 30 November 2018

This notice applies to owners and/or occupiers of all land, developed and undeveloped, in the City of Rockingham



As a measure to assist in the control of bushfires and pursuant to the powers contained in **Section 33 of the Bush Fires Act 1954**, you have a legal requirement to carry out fire prevention works on your property by 30 November 2018 and to maintain the land in this state until 31 May 2019.

*"Take notice that pursuant to **Section 33 (4) of the Bush Fires Act 1954**, where the owner and/or occupier of the land fails or neglects to comply with the requisitions of this Notice within the specified times, the City of Rockingham may by its officers and with such servants, workmen and contractors, vehicles and machinery as the officers deem fit, enter upon the land and carry out the requisitions of this Notice which have not been complied with and pursuant to **Section 33 (5) of the Bush Fires Act 1954**, the amount of any costs and expenses incurred may be recovered from you as the owner and/or occupier of the land."* Government Gazette, September 2018.

Compliance inspections will commence on 1 December 2018. Failure to comply with the City's Fire Control Notice (FCN) may result in a penalty of up to \$5000, with additional contractor and administration costs to carry out fire prevention works on your property.



All Land With An Area Of 4047m² Or More (more than one acre)

Owners/Occupiers of developed and vacant land are required to:

- install and maintain mineral earth firebreaks as per firebreak specifications
- ensure driveways and access ways to all buildings are maintained at a minimum of three (3) metres in width and a vertical clearance height of four (4) metres, with all over hanging vegetation trimmed back to clear access.

All Land With An Area Of Less Than 4047m² (less than one acre)

Owners/Occupiers of vacant land are required to:

- remove accumulated fuel such as leaf litter, twigs, dead bush and dead trees capable of carrying a running fire
- have the entire vacant land clear of weed or long grasses by slashing, mowing or other means to a height no greater than 50mm and maintained in this state.

Owners/Occupiers of developed land are required to:

- ensure driveways and access ways to all buildings are maintained at a minimum of three (3) metres in width and a vertical clearance height of four (4) metres, with all over hanging vegetation trimmed back to clear access.

Firebreak Specifications

- must be not less than three (3) metres wide immediately inside and along all boundaries (including on boundaries adjacent to roads, rail and drain reserves and all public open space reserves)
- must be not more than four (4) metres wide (further width extensions may be considered upon written application for approval to the City)
- may have a corner turning radius of up to ten (10) metres
- must have a vertical clearance height of four (4) metres, with all over hanging vegetation trimmed back clear of the firebreak
- must be a mineral earth firebreak with a continuous trafficable surface for a 4WD vehicle, clear of any obstructions and must not terminate in a cul-de-sac (dead end)
- maintained and living lawns are acceptable in conjunction with or in lieu of mineral earth firebreaks, provided that the same width and height requirements for a firebreak are maintained.

Firebreaks are intended to minimise the spread or extension of a bushfire and provide safe access on your property for emergency vehicles (ensuring fire does not travel under the vehicles or underfoot).



Bushfire Management Plans

(formerly known as a Fire Management Plan)
All properties that are subject to a Bushfire Management Plan as a result of a subdivision or development application or an approved treatment plan, must comply with the requirements of such plans in their entirety.

Additional Works

In addition to the requirements of this notice, regardless of land size and location, you **may** be required to carry out further fire prevention works to reduce hazards **considered necessary by an Authorised Officer**. Any further requirement would be specified by way of a "work order" forwarded to the address of the owner/s and or occupier/s.

Some examples of these could be:

- ensure roofs, gutters and walls of all buildings on the land are free of flammable matter
- remove accumulated fuel such as leaf litter, twigs, dead bush and dead trees capable of carrying a running fire
- unmanaged grasses reduced by slashing, mowing or other means to a height no greater than 50mm and maintained in this state.

Any owner and/or occupier who engages a contractor to undertake works on their behalf is responsible for ensuring that the completed works meet the requirements of this Fire Control Notice.

Any Fire Control Notice previously published by the City of Rockingham in the Government Gazette or in any locally circulated newsprint is hereby revoked.

Variation to the Fire Control Notice

If you consider, for any reason, that it is impractical to meet the requirements as per this notice, you may apply in writing to the City of Rockingham or its duly Authorised Officers no later than 31 October 2018, to request authorisation to employ other methods of fire prevention on your land. If permission is not granted you must comply with the requirements of the Fire Control Notice. If you require further information or wish to discuss further with an Officer, please contact the City on **9528 0333** or email **firecontrol@rockingham.wa.gov.au**.

An Application to Vary Location and Type of Firebreaks can be downloaded from the City's website at **www.rockingham.wa.gov.au/firecontrol**



Appendix 2 BAL Assessment Report

Bushfire Attack Level Assessment Report

Prepared by a BPAD Accredited Practitioner



Fire Protection Association Australia Life Property Environment



AS 3959 BAL Assessment Report

This report has been prepared by an Accredited BPAD Practitioner using the Simplified Procedure (Method 1) as detailed in Section 2 of AS 3959 - 2018. FPA Australia makes no warranties as to the accuracy of the information provided in the report. All enquiries related to the information and conclusions presented in this report must be made to the BPAD Accredited Practitioner.


Property Details and Description of Works

Address Details	Unit no	Street no	Lot no	Street name / Plan Reference		
		1		Pedicel Avenue		
Local government area	Suburb			State	Postcode	
	Baldivis			WA	6171	
Main BCA class of the building	City of Rockingham					
	Class 9b	Use(s) of the building		Early Learning Centre		
Description of the building or works	Construction of an Early Learning Centre					

Report Details

Report / Job Number	Report Version	Assessment Date	Report Date
19734	B	27 June 2019	27 August 2019

BPAD Accredited Practitioner Details

Name	
Danae Plowman	
Company Details	
 ecosystem solutions www.ecosystemsolutions.com.au ph: (08) 9759 1960	

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

Site Assessment

The assessment of this site / development was undertaken on 26 June 2019 by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959 - 2018 Simplified Procedure (Method 1). Areas greater than 100 m from the Site are excluded under Section 2.2.3.2 (a).



Location details: Cm Nyilla Approach & Pedicel Av North Baldivis
Project: 19734
Assessment date: 27/06/2018
Prepared by: D Plowman, Accreditation level: Level 1
Accreditation number: 46554, Accreditation expiry date: Aug 19
Date aerial photo: Sept 18

BAL Assessment Map



Legend

- 150m Assessment Area
- 100m Classification Area
- Lot Boundary
- Proposed Building
- Elevation (m AHD)
- Distance
- Photo
- Vegetation Classification**
- Class B Woodland
- Ex. S 2.2.3.2 (e)

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Vegetation Classification

All vegetation within 150m of the site / proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified below.



Photo ID:	1	Plot:	1
Vegetation Classification or Exclusion Clause			
Class B Woodland - Open woodland B-06			
Description / Justification for Classification			
Canopy 10 - 30 % of trees 10 m to 30 m high with an open understorey.			
			
Photo ID:	2	Plot:	1
Vegetation Classification or Exclusion Clause			
Class B Woodland - Open woodland B-06			
Description / Justification for Classification			
Canopy 10 - 30 % of trees 10 m to 30 m high with an open understorey.			
			

Photo ID: 5	Plot: 1	<div><div>DIRECTION 351 deg(T)</div><div>50H 388902 6423017</div><div>ACCURACY 5 m DATUM WGS84</div></div>  <div>Baldivis27/6/19, 12:05:54 pm</div>
Vegetation Classification or Exclusion Clause		
Class B Woodland - Open woodland B-06		
Description / Justification for Classification		
Canopy 10 - 30 % of trees 10 m to 30 m high with an open understorey. This area has been identified for revegetation and has been assessed based on the potential mature state of proposed plantings		

Photo ID: 6	Plot: 1	<div><div>DIRECTION 299 deg(T)</div><div>50H 388921 6423053</div><div>ACCURACY 5 m DATUM WGS84</div></div>  <div>Baldivis27/6/19, 12:05:00 pm</div>
Vegetation Classification or Exclusion Clause		
Class B Woodland - Open woodland B-06		
Description / Justification for Classification		
Canopy 10 - 30 % of trees 10 m to 30 m high with an open understorey. This area has been identified for revegetation and has been assessed based on the potential mature state of proposed plantings.		

Photo ID:	3	Plot:	2	<div><div>DIRECTION 241 deg(T)</div><div>50H 388994 6423024</div><div>ACCURACY 5 m DATUM WGS84</div></div>  <div>Baldivis27/6/19, 11:56:29 am</div>
Vegetation Classification or Exclusion Clause				
Excludable - 2.2.3.2(e) Non Vegetated Areas				
Description / Justification for Classification				
Areas predominately cleared of vegetation for the development of roads and buildings. An area of mulched verge is included within this plot, excludable as managed vegetation in a low fuel state.				

Photo ID:	4	Plot:	2	<div><div>DIRECTION 357 deg(T)</div><div>50H 388992 6423061</div><div>ACCURACY 5 m DATUM WGS84</div></div>  <div>Baldivis27/6/19, 11:59:34 am</div>
Vegetation Classification or Exclusion Clause				
Excludable - 2.2.3.2(e) Non Vegetated Areas				
Description / Justification for Classification				
Areas predominately cleared of vegetation for the development of roads and buildings.				

Relevant Fire Danger Index

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

Fire Danger Index

FDI 40 ☐

Table 2.7

FDI 50 ☐

Table 2.6

FDI 80 ☒

Table 2.5

FDI 100 ☐

Table 2.4

Potential Bushfire Impacts

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

Plot	Vegetation Classification	Effective Slope	Separation (m)	BAL
1	Class B Woodland	0°	16 m	BAL - 29
2	Excludable - Clause 2.2.3.2(e)	NA	NA	BAL - LOW

Table 1: BAL Analysis

Determined Bushfire Attack Level (BAL)

The Determined Bushfire Attack Level (highest BAL) for the site / proposed development has been determined in accordance with clause 2.2.6 of AS 3959-2018 using the above analysis.

Determined Bushfire Attack Level

BAL - 29

Appendix 1: Plans and Drawings

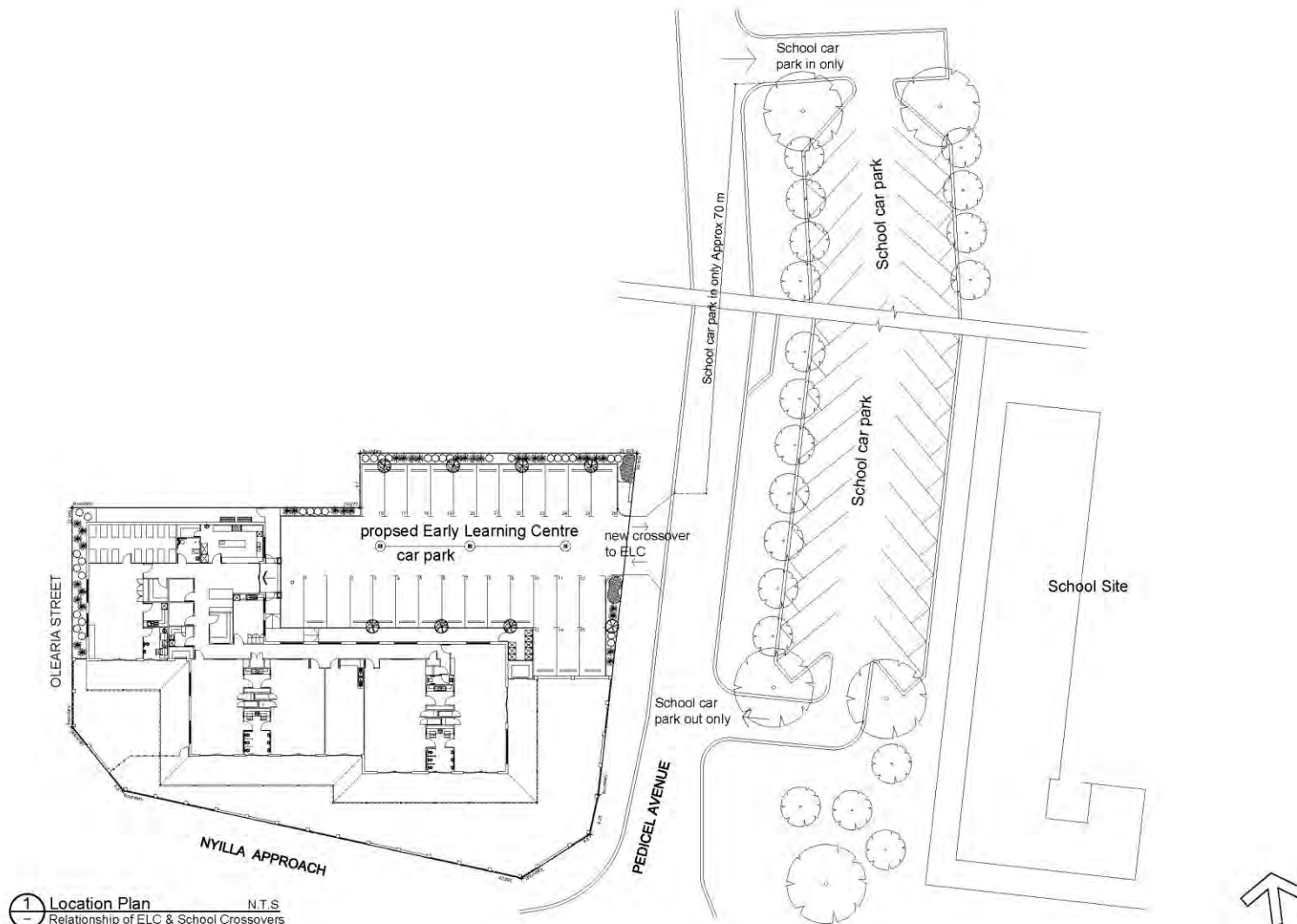
Plans and drawings relied on to determine the bushfire attack level

Drawing / Plan Description **Site Plan showing Early Learning Centre**

Job Number **2734**

Drawing Number **SK02**

Date of Revision **June 2019**



Building and
Interior Design
Solutions

CSA

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ABN 14040293014

Proposed Early Learning Centre
CNR NYILLA APPROACH & PEDICEL AV NORTH BALDIVIS
FOR ACCORD PROPERTY

drawn: Location Plan- Relationship of ELC & School Crossovers			
drawn: ASH	date: June 2010		
scale: N.T.S.	des: m		
job no: 2734	SK02		

Appendix 3 Risk Analysis

RISK ANALYSIS

NSW Rural Fire Service, 2014, Development Planning: A guide to developing a Bushfire Emergency Management and Evacuation Plan

Site Information

Type of premise	Early Learning Centre
Occupants	Babies / children / adults
Needs	Young children with reduced physical and/or mental ability
Special health considerations	Occupants are able bodied, but some may suffer asthma/breathing difficulty in the presence of smoke.
Facility is in a bushfire prone area	Yes

Evacuation

How accessible is the premise	Nyilla Approach provides access from the Site to two different destinations in two different directions.	Suitable ✓
Quality of roads	Nyilla Approach and nearby roads have a minimum 6 m wide horizontal and 6 m vertical clearance.	Suitable ✓
Does the transport route go through a bush fire prone area	Yes, the Site and surrounding area is bushfire prone. However as two access routes are available to two different destinations, it is unlikely all routes will be blocked in the event of a bushfire.	Suitable ✓

Shelter

Building conditions	The building may be constructed to BAL-29 as per AS3959-2018, depending on requirements of the City of Rockingham. AS 3959-2018 improves the ability of buildings to better withstand attack from bushfire thus giving a measure of protection to the building occupants. It cannot be guaranteed that a building will survive a bushfire event on every occasion.	Limited !
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Is the premise likely to be affected by significant radiant heat	The Site is rated as BAL-29 which is considered high.	Suitable ✓
Is a defensible space available	Yes, Asset Protection Zones will be maintained in a low fuel state.	Suitable ✓
Is there a designated assembly point	Yes, carpark.	Suitable ✓
Are ground conditions maintained	Yes, Asset Protection Zones and areas maintained in a low fuel state will be maintained according to the <i>Guidelines for Planning in Bushfire Prone Areas</i> are within the lot.	Suitable ✓
Are there amenities provided	Yes, the building will be used as an Early Learning Centre.	Suitable ✓
Is there disabled access to the area	Yes	Suitable ✓
Is there sufficient supervision of occupants	Yes, children will be supervised at all times. Occupants will be unfamiliar with bushfire and may become distressed. Clear Expectation and instruction is required.	Suitable ✓

CONCLUSION

Early Evacuation - Summary

Are occupants needs better suited to evacuation	It is not a primary or essential place of residence. Evacuation early in the development of the bush fire is the best course of action. In the event that early evacuation to a townsite has failed or is not possible, the Manager will direct children and staff to Shelter-within-building.
Destination	Rockingham town center.
Transport	Private vehicle/s

Early Evacuation - Summary

Are special needs addressed	Special needs occupants are not a specific target, but individual care must include evacuation, ie the vehicle for arrival must be available.
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Shelter-within-building - Summary

Is the area fit for purpose	<p>Subject to the implementation of the Bushfire Management Plan the building has been calculated to experience a BAL-29 (radiant heat of less than 29 kW/m²) in a bushfire event.</p> <p>However, construction to AS3959 standards is no guarantee that a building will withstand a bushfire event, shelter-within-building should be used as a last resort only, when evacuation is unsafe.</p>
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Appendix 4 Bushfire Emergency Evacuation Plan

BUSHFIRE EMERGENCY EVACUATION PLAN

This Plan has been designed to assist in the protection of life and property in the event of a bushfire. This plan outlines procedures for both evacuation and shelter-within-building to enhance the protection of occupants from the threat of a bushfire. The Landowner is to review this Plan on an annual basis.

The primary action to follow in a bushfire emergency is to:

EVACUATE ☒ SHELTER-WITHIN-BUILDING ☐

FACILITY DETAILS

Location: 1 Pedicel Avenue and 2 Olearia Street, Baldivis
Position: Manager
Type of facility: Early Learning Centre
Occupants: Max 86 Children & 16 Staff, total 102
Shelter capacity: Max 86 Children & 16 Staff, total 102

Table 1 Emergency Contact Details

Name of Organisation	Service Provided	Phone Number/Website
Fire Brigade	Report a fire/receive assistance	000
Department of Fire & Emergency Services (DFES)	Alerts and Warnings	13 3337
	Fire Danger Ratings	www.dfes.wa.gov.au
	Total Fire Bans	twitter.com/dfes.wa
Bureau of Meteorology	Fire Danger Ratings	bom.gov.au/weather/wa
	Weather	http://www.bom.gov.au/climate/outlooks/#!/overview/video
	Seasonal Forecast	http://www.bom.gov.au/climate/outlooks/#!/overview/video
ABC Local Radio Perth	News and Updates	Radio frequency 720 AM http://www.abc.net.au/southwestwa/
Emergency WA	Alerts and Warnings	https://www.emergency.wa.gov.au/
Rockingham General Hospital	Emergency Medical Service	Elanora Dr, Cooloongup WA 6168 9599 4000

PREPARATION

Equipment

Install and/or maintain the following firefighting equipment (Landowner):

1. 4kg dry chemical Fire Extinguisher(s) with instructions of use displayed.
2. Emergency Evacuation Diagram on the internal face of all external doors.

Seasonal preparation

Prior to each bushfire season, approximately November to May each year, it is important to become ready for an evacuation in the event of a bushfire and understand the potential bushfire climate. The Bureau of Meteorology produces a quarterly climate outlook video which includes an assessment on the potential for a bushfire. It is recommended to watch the BOM video prior to each bushfire season which provides a seasonal forecast, provided in Table 1.

Conduct seasonal works, to be undertaken at the commencement of the Bushfire Season (Landowner):

1. Ensure all access ways have the appropriate vertical and horizontal clearances in good traversable condition.
2. Ensure all roof and building junctions are clear of litter and all gaps greater than 2 mm are sealed with non-combustible material.
3. Ensure all Asset Protection Zones are maintained in a low-fuel state.
4. Ensure all buildings are free of flammable materials, none located within 5 m.
5. Ensure all objects attached to the buildings are non-combustible or easily removable, and the removing mechanism is in working order.
6. Ensure all gas cylinders are positioned with pressure relief valve facing away from the building and not within 6m of a flammable material.
7. Ensure fire hoses and firefighting equipment is in working order. Check the charge level on all fire extinguishers is adequate.
8. Ensure the plan and evacuation details are clearly displayed and conveniently located in all buildings.
9. Verify contacts.

Daily preparation during the fire season

Conduct daily preparation during the fire season, in the morning (Landowner):

1. Check the DFES website for any alerts.
2. Ensure students and staff upon arrival are bushfire aware and familiar with the importance of early evacuation to a townsite and that the use of buildings as a Shelter is a last resort only, as well as being aware of the evacuation procedures.
3. Ensure evacuation logistics and resourcing are fully provided for and immediately accessible, including a suitable vehicle/s, immediately accessible to evacuate all students and staff.
4. Ensure students and staff upon arrival are bushfire aware and familiar with the evacuation and shelter procedures.
5. Inspect grounds to:
 - a. Ensure flammable materials are not stored adjacent to buildings.
 - b. Ensure firefighting equipment and access-ways are clear of any obstructions.
6. Ensure shelter areas are in a ready state.

CARING FOR VULNERABLE PEOPLE

The Bushfire Attack Level that will be experienced at the peak of the fire is high (BAL-29). This is well above the level of human tolerance (BAL-3).

Fire typically has a progressive build up to a peak followed by a progressive decay; the peak (fire front) lasting between two to five minutes. People at the Site will need to evacuate early or take shelter in a bushfire event.

Conditions during a fire can be hazardous and frightening. Ignited embers and heavy smoke can be expected, visibility can be significantly reduced, and it can be extremely windy and noisy. Unless prepared, and as may be expected of vulnerable children - people can become frightened and make dangerous choices. For this reason, early evacuation to a townsite is the best option.

Shelter-within-building is a last resort option as there is no guarantee a building will withstand a bushfire attack. Construction to BAL standards is also no guarantee that a building will not be lost to a bushfire. Importantly though, the construction measures improve resistance, to provide an important delay between the fire front passing and internal conditions becoming untenable, that can enable a safe evacuation. Assembly at a quick exit point whilst the fire front passes is therefore essential.

FIRE DANGER RATING

The Department of Fire and Emergency Services (DFES) 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 (Figure 1).

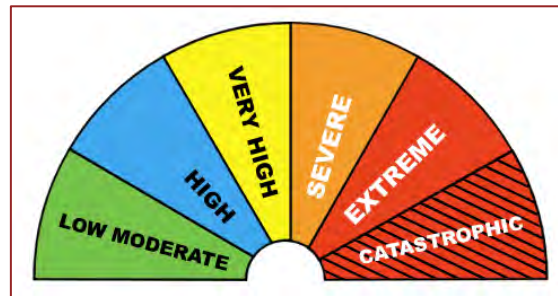


Figure 1 Fire Danger Ratings (DFES website)

‘Catastrophic’ rating is the highest level and represent unsafe conditions. On days where this FDR level is achieved (or if known the day prior) the Early Learning Centre will be closed. In most situations, this will be known at approximately 4.30 pm the day before. This allows time for the Manager to implement the closure. If this occurs, the Manager is to contact and advise the parents and staff of the closure. The Manager and Assistant Manager (minimum of two people) will remain in the carpark until 9:00 am of that day and advise any parents that could not be contacted that the Early Learning Centre is closed (Table 2).

If a ‘Catastrophic’ rating is achieved on the day (unplanned) the controlled evacuation procedure should be enacted.

It is recommended that the Manager uses a range of sources to be prepared for and stay up to date about a bushfire. This includes using the sources listed in Table 1, being alert and aware of your surroundings and talking with neighbours, Staff and Parents about your actions.

Table 2 Summary of actions according to Fire Danger Rating

Fire Danger Rating	Action	Responsible Person
Days of Catastrophic	<ol style="list-style-type: none"> 1. Manager is to contact and advise the parents and staff of centre closure. 2. The Manager and Assistant Manager (minimum of two people) will remain in the carpark until 9:00 am of that day and advise any parents that could not be contacted that the Early Learning Centre is closed. 3. If a 'Catastrophic' rating is achieved on the day (unplanned) the controlled evacuation procedure will be enacted. 	Manager
Days of Extreme, Severe or Very High	<ol style="list-style-type: none"> 1. Stay vigilant, check warnings regularly and be aware of your surroundings to determine if an Evacuation should be issued. 2. Conduct daily preparations 	Manager
Days of Low / Moderate or High <i>(It is likely some of these days are outside the bushfire season)</i>	<ol style="list-style-type: none"> 1. Conduct seasonal preparations, when days are prior to the bushfire season. 2. Conduct daily preparations when days are during the bushfire season only. 	Manager

EVACUATION PROCEDURE

Primary evacuation location:

Location:	Rockingham town centre
Primary route to location:	East on Nyilla Approach, north on Baldivis Road and west on Kujila Road, west on Dixon Road, east on Patterson Road.
Secondary route to location:	West on Nyilla Approach, south on Key Avenue, south on Baldivis Road, west on Safety Bay Road, north on Read Street.
Transportation:	A vehicle/s with capacity for all students and staff and licenced driver/s will be available at all times in case evacuation is required.
Estimated travel time:	15 minutes (when there is a lot of smoke and conditions are hazardous drive slower and expect greater travelling time)

Secondary evacuation location:

Location:	Kwinana Freeway South
Primary route to location:	East on Nyilla Approach, south on Baldivis Road, east on Safety Bay Road, south on Kwinana Freeway.
Transportation:	A vehicle/s with capacity for all students and staff and licenced driver will be available at all times in case evacuation is required.
Estimated travel time:	30 minutes (when there is a lot of smoke and conditions are hazardous drive slower and expect greater travelling time)

The primary action to follow with an imminent bushfire threat is EVACUATE.

A Controlled Evacuation is defined as an evacuation of all staff and children where there is adequate time to allow parents to pick up their children.

Shelter-within-building

Shelter-within-building should only be used as a last resort, when evacuation during a bushfire event becomes unsafe.

Designated building:

Building used for Early Learning Centre

Table 3 Evacuation and shelter-within-building actions according to triggers

Trigger	Action	Responsible Person
<ul style="list-style-type: none"> • Direct advice or Watch and Act warning from Emergency services (DFES, Police); • Signs of smoke arising from the nearby area; or • Bushfire within 5 km or 5 hrs of the Site. • Catastrophic FDR (unplanned) 	<ol style="list-style-type: none"> 1. Upon a direct instruction from Emergency Manager Personnel aware of your circumstance, follow their evacuation instructions. 2. Initiate a Controlled Evacuation to the Primary Evacuation Location, via the primary route. <ol style="list-style-type: none"> a. Notify all Staff; b. Account for all Staff and Children; c. Close all windows and doors and turn off all air conditioners; d. Staff are to keep the children together, within their allocated room and have the day's attendance record on hand. e. Advise parents via group text that the Early Learning Centre will be closed and for them to come and collect their child/children. f. The Assistance Manager and Office Support Staff are to liaise directly with parents where possible. g. The Manager will remain in direct contact with DFES during the full course of the evacuation. 8. Staff will keep record of each child as parents collect them. Staff may be required to man the carpark to direct traffic and keep parents calm. 9. If it is advised by DFES that the window for safe evacuation is limited, those children remaining should be transported to a safer 	

place (Primary or Secondary evacuation location) via private vehicles.

3. Drive to the Primary Evacuation Location, if the roads are blocked utilise the secondary route or Secondary Evacuation Location.

Drive slowly as there could be people, excessive vehicles and livestock on the road. Turn your vehicle headlights and hazard lights on. Close windows and outside vents. If you can't see clearly, pull over and wait until the smoke clears.

-
- | | |
|--|---|
| <ul style="list-style-type: none">• Direct advice from Emergency services (DFES, Police);• Signs of smoke arising from the immediate surrounds; or• Bushfire within 2 km or 2 hrs of the Site. | <ol style="list-style-type: none">1. Upon a direct instruction from Emergency Manager Personnel aware of your circumstance, follow their evacuation instructions.2. Initiate an Emergency Evacuation to the Primary Evacuation Location via the primary route.<ol style="list-style-type: none">a. Notify all Staff;b. Account for all Staff and Children;c. Close all windows and doors and turn off all air conditioners;d. Staff are to keep the children together, within their allocated room and have the day's attendance record on hand.e. Advise parents via group text that the Early Learning Centre will be closed, that an emergency evacuation has been enacted and for them to collect their child/children at a designated location at either the Primary or Secondary evacuation location, away from direction of fire.f. The Assistance Manager and Office Support Staff are to liaise directly with parents where possible.g. The Manager will remain in direct contact with DFES during the full course of the evacuation. |
|--|---|
-

-
- h. Staff will keep record of each child as they are transferred into a vehicle.
 - i. If it is advised by DFES that the window for safe evacuation is limited, shelter-within-building needs to be enacted.

3. Drive to the Primary Evacuation Location, if the roads are blocked utilise the secondary route or Secondary Evacuation Location.

Drive slowly as there could be people, excessive vehicles and livestock on the road. Turn your vehicle headlights and hazard lights on. Close windows and outside vents. If you can't see clearly, pull over and wait until the smoke clears.

-
- | | | |
|---|---|----------------|
| <ul style="list-style-type: none"> • Uncontrolled fire observed in or adjacent to the Site; or • DFES Emergency Warning to Stay in Place has been issued. | <ol style="list-style-type: none"> 1. Initiate Shelter-within-building <ul style="list-style-type: none"> a. Call - 000 - DFES; b. Notify all Staff; c. Account for all Children and Staff; d. All windows and doors are to be closed in each room, and all air conditioners turned off; d. Staff are to keep the room groups together, within their allocated room and have the day's attendance record on hand. e. The Manager should conduct a final check of the Site for any children or staff and ensure that windows and doors are shut, and air conditioners switched off. f. Children and Staff should sit on the ground away from windows and doors. 2. The Manager will take will remain in direct contact with DFES and take directions according to their advice. 3. If shelter catches fire: <ul style="list-style-type: none"> a. Keep out of smoke and stay low. | <p>Manager</p> |
|---|---|----------------|
-

b. Evacuate towards the Primary Evacuation Location or away from the bushfire threat, after the fire front has passed.

There is no obligation upon any staff or students to take action to defend the building from bushfire attack.

RECOVERY

Emergency Services will need to ensure conditions within the Site and surrounding area are safe and all services including power, water and access can be guaranteed prior to allowing the use of the building as an Early Learning Centre to resume. Landowner/manager will take directions from Emergency Services personnel with regards to any activity on the site post bushfire event.

EVACUATION DIAGRAM

Address: Corner Nyilla Approach & Pedicel Avenue, North Baldivis
Contact Person: Manager



Option 1:

Rockingham Township via north on Baldivis Road and west on Kujila Road or west on Safety Bay Road and north on Read Street.

Option 2:

Kwinana Freeway South via south on Baldivis Road & Safety Bay Road.

On Catastrophic Fire Danger Rating days, the Early Learning Centre will be closed. Monitor the ABC Local Radio, 720 AM, or the DFES website for updates. Conduct daily preparations during the Bushfire Season.

The primary action to follow in a bushfire event is to EVACUATE

Controlled Evacuation – Early evacuation to allow Parents to collect children from their allocated room within Centre
Enact if bushfire is within 5 km or 5 hrs, DFES Watch & Act Warning or Signs of smoke from the nearby area.

Emergency Evacuation – Account for and transport all children to a safer place via private vehicle. Advise Parents of the location to collect children.
Enact if bushfire is within 2 km or 2 hrs or signs of smoke arising from the immediate surrounds.

Shelter-within-building
Last resort option only, close all windows/doors and turn off air conditioner. Account for all children and staff and remain within allocated room away from doors and windows.
Evacuate when safe to do so or if Shelter catches fire.
Enact if uncontrolled fire observed in or adjacent to the Site or DFES Emergency Warning to Stay in Place.

