Maribyrnong CITY COUNCIL

Office Use Only Application No.: Date Lodged: / /

Application to **AMEND a Planning Permit**

Planning Enquiries
Phone: (03) 9688 0200
Web: www.maribyrnong.vic.gov.au

If you need help to complete this form, read MORE INFORMATION at the end of this form.

⚠ Any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the *Planning and Environment Act 1987*. If you have any questions, please contact Council's planning department.

⚠ This form cannot be used to:
- amend a permit or part of a permit if the Victorian Civil and Administrative Tribunal (VCAT) has directed under section 85 of the Act that the responsible authority must not amend that permit or that part of the permit (as the case requires); or
- amend a permit issued by the Minister under Division 6 of Part 4 of the Act (these applications must be made to the Minister under section 97I of the Act).

⚠ **Questions marked with an asterisk (*) must be completed.**

i Click for further information.

Clear Form

The Land i

Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No.: | St. No.: 2-8 | St. Name: Hampstead Road

Suburb/Locality: Maidstone | Postcode: 3012

Formal Land Description *
Complete either A or B.

⚠ This information can be found on the certificate of title.

If this application relates to more than one address, attach a separate sheet setting out any additional property details.

A Lot No.: ◯ Lodged Plan ◯ Title Plan ◯ Plan of Subdivision No.:

OR

B Crown Allotment No.: Section No.:

Parish/Township Name:

Planning Permit Details i

What permit is being amended?*

Planning Permit No.: TP62/2023

The Amended Proposal i

⚠ You must give full details of the amendment being applied for. Insufficient or unclear information will delay your application.

What is the amendment being applied for?*

- Indicate the type of changes proposed to the permit.
- List details of the proposed changes.

If the space provided is insufficient, attach a separate sheet.

This application seeks to amend:

- ☑ What the permit allows
- ☑ Current conditions of the permit
- ☑ Plans endorsed under the permit
- ☐ Other documents endorsed under the permit

Details:

See cover letter

☑ Provide plans clearly identifying all proposed changes to the endorsed plans, together with: any information required by the planning scheme, requested by Council or outlined in a Council checklist; and if required, include a description of the likely effect of the proposal.

Development Cost

Estimate cost of development*

If the permit allows ***development***, estimate the cost difference between the development allowed by the permit and the development to be allowed by the amended permit.

Cost of proposed amended development:		Cost of the permitted development:		Cost difference (+ or –):
$	–	$	=	$ 0

Insert 'NA' if no development is proposed by the permit.

You may be required to verify this estimate.

Existing Conditions

Describe how the land is used and developed now *

For example, vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Have the conditions of the land changed since the time of the original permit application? ☐ Yes ☐ No

If yes, please provide details of the existing conditions.

Vacant

Provide a plan of the existing conditions if the conditions have changed since the time of the original permit application. Photos are also helpful.

Title Information

Encumbrances on title *

Does the proposal breach, in any way, an encumbrance on title such as a restrictrive covenant, section 173 agreement or other obligation such as an easement or building envelope?

- ○ Yes (If 'yes' contact council for advice on how to proceed before continuing with this application.)
- ○ No
- ◉ Not applicable (no such encumbrance applies).

Provide a full, current copy of the title for each individual parcel of land forming the subject site.
The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments', for example, restrictive covenants.

Applicant and Owner Details

Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit.

Name:

Title: | First Name: | Surname:

Organisation (if applicable): BuildCare Property c/o Contour Consultants

Postal Address: | If it is a P.O. Box, enter the details here:

Unit No.: | St. No.: | St. Name:

Suburb/Locality: | State: | Postcode:

Please provide at least one contact phone number *

Contact information for applicant OR contact person below

Business phone: | Email: jthomas@contour.net.au

Mobile phone: 0402 673 921 | Fax:

Where the preferred contact person for the application is different from the applicant, provide the details of that person.

Contact person's details*

Same as applicant ☐

Name:

Title: | First Name: Jessica | Surname: Thomas

Organisation (if applicable): Contour Consultants

Postal Address: | If it is a P.O. Box, enter the details here:

Unit No.: | St. No.: 283 | St. Name: Drummond Street

Suburb/Locality: Carlton | State: Vic | Postcode: 3053

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Same as applicant ☐

Name:

Title: | First Name: | Surname:

Organisation (if applicable): JML Property Hampstead Road Pty Ltd

Postal Address: | If it is a P.O. Box, enter the details here:

Unit No.: | St. No.: 110 | St. Name: Bridport Street

Suburb/Locality: Albert Park | State: Vic | Postcode: 3206

Owner's Signature (Optional):

Date:

day / month / year

Declaration

This form must be signed by the applicant*

Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit.

I declare that I am the applicant; that all the information in this application is true and correct; that all changes to the permit and plan have been listed as part of the amended proposal and that the owner (if not myself) has been notified of the permit application.

Signature:

Date: 12.07.24

day / month / year

Need help with the Application?

If you need help to complete this form, read More Information at the end of this form or contact Council's planning department. General information about the planning process is available at planning.vic.gov.au

Contact Council's planning department to discuss the specific requirements for this application and obtain a checklist. Insufficient or unclear information may delay your application.

Has there been a pre-application meeting with a council planning officer?

◉ No ○ Yes | If 'Yes', with whom?:

Date: day / month / year

Checklist

Have you:

- [x] Filled in the form completely?
- [ ] Paid or included the application fee?

Most applications require a fee to be paid. Contact Council to determine the appropriate fee.

- [x] Attached all necessary supporting information and documents?
- [ ] Completed the relevant council planning permit checklist?
- [x] Signed the declaration above?

Lodgement

Lodge the completed and signed form and all documents with:

Maribyrnong City Council
PO Box 58
Footscray VIC 3011

Cnr Napier & Hyde Streets
Footscray VIC 3011

Contact information:

Phone: (03) 9688 0200
Email: email@maribyrnong.vic.gov.au
DX: 81112

Deliver application in person, by post or by electronic lodgement.

MORE INFORMATION

The Land

It is important that your application to amend a planning permit includes details of the land, consistent with the Planning Permit. Refer to a copy of your Planning Permit, when completing the street address section of the form.

Also ensure you provide up-to-date details for the formal land description, using the current copy of the title.

Planning Permit Details

You must identify the permit being amended by specifying the permit number. This can be found at the beginning of the permit.

The Amended Proposal

First select the type of amendment being applied for. This may include an amendment to:

- the use and/or development allowed by the permit
- conditions of the permit.
- plans approved by the permit.
- any other document approved by the permit.

Then describe the changes proposed to the permit, including any changes to the plans or other documents included in the permit.

Development Cost

In most instances an application fee will be required. This fee must be paid when you lodge the application. The fee is set down by government regulations.

To help Council calculate the application fee, you must provide an accurate cost estimate of the proposed development to be allowed by the amended permit and the difference between the development allowed by the permit.

Council may ask you to justify your cost estimates. Costs are required solely to allow Council to calculate the permit application fee.

Fees are exempt from GST.

The cost difference is calculated as follows:

Development cost related to the Application to Amend a Planning Permit	–	Development cost related to the Application for Planning Permit	=	Cost Difference

If the estimated cost of the proposed amended development is less than the estimated cost of the development allowed by the permit, show it as a negative number.

Example 1

Where the cost of the development to be allowed by the amended permit is lower than the cost of the development allowed by the permit:

$180,000 – $195,000 = -$15,000

Example 2

Where the cost of the development to be allowed by the amended permit is higher than the cost of the development allowed by the permit:

$250,000 – $195,000 = $55,000

⚠ Costs for different types of development can be obtained from specialist publications such as Cordell Housing: Building Cost Guide or Rawlinsons: Australian Construction Handbook.

⚠ Contact the Council to determine the appropriate fee. Go to planning.vic.gov.au to view a summary of fees in the Planning and Environment (Fees) Regulations.

Existing Conditions

How should land be described?

If the conditions of the land have changed since the time of the original permit application, you need to describe, in general terms, the way the land is used now, including the activities, buildings, structures and works that exist (for example, single dwelling, 24 dwellings in a three-storey building, medical centre with three practitioners and 8 car parking spaces, vacant land).

Please attach to your application a plan of the existing conditions of the land, if the conditions have changed since the time of the original permit application. Check with the local Council for the quantity, scale and level of detail required.

It is also helpful to include photographs of the existing conditions.

Title Information

What is an encumbrance?

An 'encumbrance' is a formal obligation on the land, with the most common type being a 'mortgage'. Other common examples of encumbrances include:

- **Restrictive Covenants**: A 'restrictive covenant' is a written agreement between owners of land restricting the use or development of the land for the benefit of others, (eg. a limit of one dwelling or limits on types of building materials to be used).
- **Section 173 Agreements**: A 'section 173 agreement' is a contract between an owner of the land and the Council which sets out limitations on the use or development of the land.
- **Easements**: An 'easement' gives rights to other parties to use the land or provide for services or access on, under or above the surface of the land.
- **Building Envelopes**: A 'building envelope' defines the development boundaries for the land.

Aside from mortgages, the above encumbrances can potentially limit or even prevent certain types of proposals.

What documents should I check to find encumbrances?

Encumbrances are identified on the title (register search statement) under the header 'encumbrances, caveats and notices'. The actual details of an encumbrance are usually provided in a separate document (instrument) associated with the title. Sometimes encumbrances are also marked on the title diagram or plan, such as easements or building envelopes.

What about caveats and notices?

A 'caveat' is a record of a claim from a party to an interest in the land. Caveats are not normally relevant to planning applications as they typically relate to a purchaser, mortgagee or chargee claim, but can sometimes include claims to a covenant or easement on the land. These types of caveats may affect your proposal.

Other less common types of obligations may also be specified on title in the form of 'notices'. These may have an effect on your proposal, such as a notice that the building on the land is listed on the Heritage Register.

What happens if the proposal contravenes an encumbrance on title?

Encumbrances may affect or limit your proposal or prevent it from proceeding. Section 61(4) of the *Planning and Environment Act 1987* for example, prevents a Council from granting a permit if it would result in a breach of a registered restrictive covenant. If the proposal contravenes any encumbrance, contact the Council for advice on how to proceed.

You may be able to modify your proposal to respond to the issue. If not, separate procedures exist to change or remove the various types of encumbrances from the title. The procedures are generally quite involved and if the encumbrance relates to more than the subject property, the process will include notice to the affected party.

⚠ You should seek advice from an appropriately qualified person, such as a solicitor, if you need to interpret the effect of an encumbrance or if you seek to amend or remove an encumbrance.

Why is title information required?

Title information confirms the location and dimensions of the land specified in the planning application and any obligations affecting what can be done on or with the land.

As well as describing the land, a full copy of the title will include a diagram or plan of the land and will identify any encumbrances, caveats and notices.

What is a 'full' copy of the title?

The title information accompanying your application must include a 'register search statement' and the title diagram, which together make up the title. In addition, any relevant associated title documents, known as 'instruments', must also be provided to make up a full copy of the title.

Check the title to see if any of the types of encumbrances, such as a restrictive covenant, section 173 agreement, easement or building envelope, are listed. If so, you must submit a copy of the document (instrument) describing that encumbrance. Mortgages do not need to be provided with planning applications.

⚠ Some titles have not yet been converted by Land Registry into an electronic register search statement format. In these earlier types of titles, the diagram and encumbrances are often detailed on the actual title, rather than in separate plans or instruments.

Why is 'current' title information required?

It is important that you attach a current copy of the title for each individual parcel of land forming the subject site. 'Current' title information accurately provides all relevant and up-to-date information.

Some councils require that title information must have been searched within a specified time frame. Contact the Council for advice on their requirements.

⚠ Copies of title documents can be obtained from Land Registry: Level 10, 570 Bourke Street, Melbourne; 03 8636 2010; www.landata.vic.gov.au – go direct to "titles & property certificates".

Applicant and Owner Details

This section provides information about the permit applicant, the owner of the land and the person who should be contacted about any matters concerning the permit application.

The applicant is the person or organisation that wants the permit. The applicant can, but need not, be the contact person.

In order to avoid any confusion, the Council will communicate only with the person who is also responsible for providing further details. The contact may be a professional adviser (e.g. architect or planner) engaged to prepare or manage the application. To ensure prompt communications, contact details should be given.

Check with Council how they prefer to communicate with you about the application. If an email address is provided this may be the preferred method of communication between Council and the applicant/contact.

The owner of the land is the person or organisation who owns the land at the time the application is made. Where a parcel of land has been sold and an application made prior to settlement, the owner's details should be identified as those of the vendor. The owner can, but need not, be the contact or the applicant.

See **Example.**

Declaration

The declaration should be signed by the person who takes responsibility for the accuracy of all the information that is provided. This declaration is a signed statement that the information included with the application is true and correct at the time of lodgement.

The declaration can be signed by the applicant or owner. If the owner is not the applicant, the owner must either sign the application form or must be notified of the application which is acknowledged in the declaration.

⚠ Obtaining or attempting to obtain a permit by wilfully making or causing any false representation or declaration, either orally or in writing, is an offence under the *Planning and Environment Act 1987* and could result in a fine and/or cancellation of the permit.

Need help with the Application?

If you have attended a pre-application meeting with a Council planner, fill in the name of the planner and the date, so that the person can be consulted about the application once it has been lodged. This will help speed up the processing of your application.

Checklist

You should provide sufficient supporting material with the application to describe the proposal in enough detail for the council to make a decision. It is important that copies of all plans and information submitted with the application are legible.

There may be specific application requirements set out in the planning scheme for the use or development you propose. The application should demonstrate how these have been addressed or met.

The checklist is to help ensure that you have:

- provided all the required information on the form
- included payment of the application fee
- attached all necessary supporting information and documents
- completed the relevant Council planning permit checklist
- signed the declaration on the last page of the application form.

⚠ The more complete the information you provide with your application, the sooner Council will be able to make a decision.

Lodgement

The application must be lodged with the Council responsible for the planning scheme in which the land affected by the application is located. In some cases the Minister for Planning or another body is the responsible authority instead of Council. Ask the Council if in doubt.

Check with council how they prefer to have the application lodged. For example, they may have an online lodgement system, prefer email or want an electronic and hard copy. Check also how many copies of plans and the size of plans that may be required.

Contact details are listed in the lodgement section on the last page of the form.

⚠ **Approval from other authorities**: In addition to obtaining a planning permit, approvals or exemptions may be required from other authorities or Council departments. Depending on the nature of your proposal, these may include food or health registrations, building permits or approvals from water and other service authorities.

EXAMPLE

Applicant and Owner Details

Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit.

Name:
Title: MR | First Name: LEN | Surname: BROWNING
Organisation (if applicable): RESPONSIBLE DEVELOPERS PTY LTD
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: 4 | St. No.: 12 | St. Name: ARDOUR LANE
Suburb/Locality: WYCHEPROOF | State: VIC | Postcode: 3527

Please provide at least one contact phone number *

Contact information for applicant OR contact person below
Business phone: 9123 4567 | Email: tcpl@bigpond.net.au
Mobile phone: 0412 345 678 | Fax: 9123 4567

Where the preferred contact person for the application is different from the applicant, provide the details of that person.

Contact person's details*
Same as applicant ☐
Name:
Title: MR | First Name: ANDREW | Surname: HODGE
Organisation (if applicable): TOWN PLANNING CONSULTANTS
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: | St. No.: | St. Name: PO BOX 111
Suburb/Locality: PARKDALE | State: VIC | Postcode: 3194

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Same as applicant ☑
Name:
Title: | First Name: | Surname:
Organisation (if applicable):
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: | St. No.: | St. Name:
Suburb/Locality: | State: | Postcode:
Owner's Signature (Optional): | Date: day / month / year

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 09517 FOLIO 396 Security no : 124116575876U
Produced 12/07/2024 12:47 PM

LAND DESCRIPTION

Land in Plan of Consolidation 155291.
PARENT TITLES :
Volume 08309 Folio 046 Volume 08491 Folio 622
Volume 08555 Folio 245 to Volume 08555 Folio 246
Created by instrument CP155291 28/06/1983

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
JML PROPERTY HAMPSTEAD ROAD PTY LTD of 110 BRIDPORT STREET ALBERT PARK VIC 3206
AV984406A 22/08/2022

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AW265571L 14/11/2022
NATIONAL AUSTRALIA BANK LTD

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE CP155291 FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: 2-8 HAMPSTEAD ROAD MAIDSTONE VIC 3012

ADMINISTRATIVE NOTICES

NIL

eCT Control 16089P NATIONAL AUSTRALIA BANK LTD
Effective from 14/11/2022

DOCUMENT END

Imaged Document Cover Sheet

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Document Type	**Plan**
Document Identification	**CP155291**
Number of Pages (excluding this cover sheet)	**1**
Document Assembled	**12/07/2024 12:47**

CP155291

PLAN OF CONSOLIDATION

PART OF CROWN ALLOTMENT 62
SECTION 20
PARISH OF CUT PAW PAW
COUNTY OF BOURKE

Scale: 16 8 0 16 32
LENGTHS ARE IN METRES

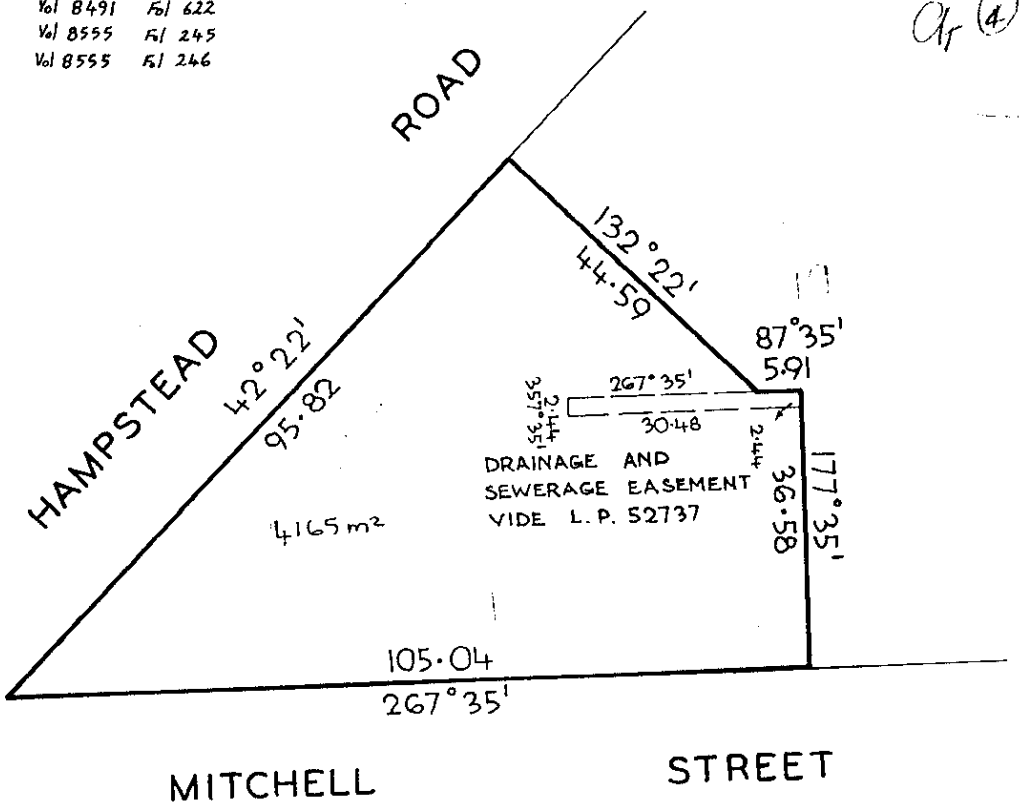
CP155291

Alert
Fees $ 39.00
Cr (4) on K 326278
K 326290

CHART No. 108.

c/t Vol 8309 Fol 046
Vol 8491 Fol 622
Vol 8555 Fol 245
Vol 8555 Fol 246

APPROVED
Assistant Registrar of Titles
DATE 26.6.83 TIME 8.55



VOL 9517 FOL 396

SEAL & ENDORSEMENT OF MUNICIPALITY

Sealed Pursuant to the provisions of Sec. 569 A B of the Local Gov. Act

THIS PLAN OF CONSOLIDATION WAS APPROVED AND THE COMMON SEAL OF THE MAYOR, COUNCILLORS AND CITIZENS OF THE CITY OF SUNSHINE WAS HERETO AFFIXED PURSUANT TO SECTION 569 AB (1) OF THE LOCAL GOVERNMENT ACT 1958 IN OUR PRESENCE

this 11th day of NOVEMBER, 1982

Jean Boles ..... Mayor

G P Connor ..... Councillor

..... Town Clerk

CITY OF SUNSHINE REF. S82/36

Ref N° S82/36

SURVEYORS CERTIFICATION

I certify that this plan has been made by me or under my immediate supervision and accords with title.

P Turner
LICENSED SURVEYOR

DATED 10th SEPTEMBER 1982

KEARNEY & TYRRELL PTY. LTD.
LAND SURVEYORS
194 KEILOR ROAD
ESSENDON NORTH 3041
TEL. 374 1666

REF. 2546

Contour
Town Planners

Section 72 of the *Planning and Environment Act 1987*

2-8 Hampstead Road, Maidstone

Prepared July 2024

Contour
Town Planners

Section 72 of the Planning and Environment Act 1987

2-8 Hampstead Road, Maidstone

Prepared July 2024

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1 Introduction

We act on behalf of BuildCare Property, and reference is made to Planning Permit No. TP62/2023 and the request to amend the permit issued, pursuant to Section 72 of the *Planning and Environment Act 1987.*

The key changes associated with the amended application are as follows:

- Modification to the number of children to a maximum of 168 children;
- Reduction of carparking quantum of 4;
- Relocation of carparking from basement to ground floor (removal of basement)
- Detailed Design Changes
- Additional signage, including a pole sign

This planning report provides an overview of the subject site (including planning permit history), identification of the key amendments and an assessment of the key amendments.

The report is to be read in conjunction with the various specialist sub-consultant reports that accompany this submission.

The project team comprises the following.

BuildCare Property
Client

Contour Consultants
Town Planning

Ellis Group
Project Architects

Keystone Alliance
Landscape Architects

Traffix Group
Traffic Engineers & Waste Consultants

Frater Consulting Services
Environmentally Sustainable Design Consultants

Renzo Tonin & Associates
Acoustic Engineers

EP Risk Management
Environmental Consultants

1

1 Introduction

2 Subject Site and Surrounds

2.1 Subject Site

The subject site is located on the corner of Hampstead Road and Mitchell Street. The land is formally described as:

- CP155291

The subject site is irregular shaped, with frontages to Hampstead Road and Mitchell Street of 95.7m and 104.8m respectively. Yielding a total site area of 4,160m^2.

The subject site is currently vacant, with vegetation, mostly grass, interspersed across the site.

The subject site is improved by dual vehicle access, via two crossovers located along Hampstead Road and Mitchell Street respectively.

Historically, the subject site has previously been used as a supermarket and associated car parking.

2.2 Site Permit History

Planning Permit No. TP62/2023(1) was issued by Maribyrnong City Council on 16 February 2024. The permit allows:

Use and development of the land for the purpose of a childcare centre and display of business identification signage.

In summary, the approved development includes:

- 184 place childcare centre;
- 40 on-site car-park spaces for staff and passed, including 1 disabled car space located in a basement level carpark.
- 10 bicycle spaces
- Operating hours are as follows:
    - Monday to Friday
    - 6:30 am – 6:30pm

2

2.3 Surrounding Area

The subject site is located within an area of Maidstone predominantly improved by Commercial and Industrial land uses servicing the surrounding residential areas. Strategically, the subject site is located within the Hampstead Road East Precinct.

Insofar as the immediate surrounds, the following is noted:

- North: - 10 Hampstead Road is a one-storey 7-Eleven convenience store that serves as a petrol station, with vehicle access provided via Hampstead Road.
- East – 136-124 Mitchell Street is a row of one-storey commercial tenancies including retail and food and drink premises with public car parking located along the frontage along Mitchell Street.
- South – Opposite side of Mitchell Street is a mix of one storey dwellings fronting Mitchell Street, and public open space.
- West – Opposite side of Hampstead Road is a mix of one and two storey buildings used for the purpose of petrol station, dwelling, place of worship and a child care centre.

A locality plan, cadastral plan and aerial photographs are provided on the following pages.

Figure 2.1
CADASTRAL PLAN

Source: Vicplan

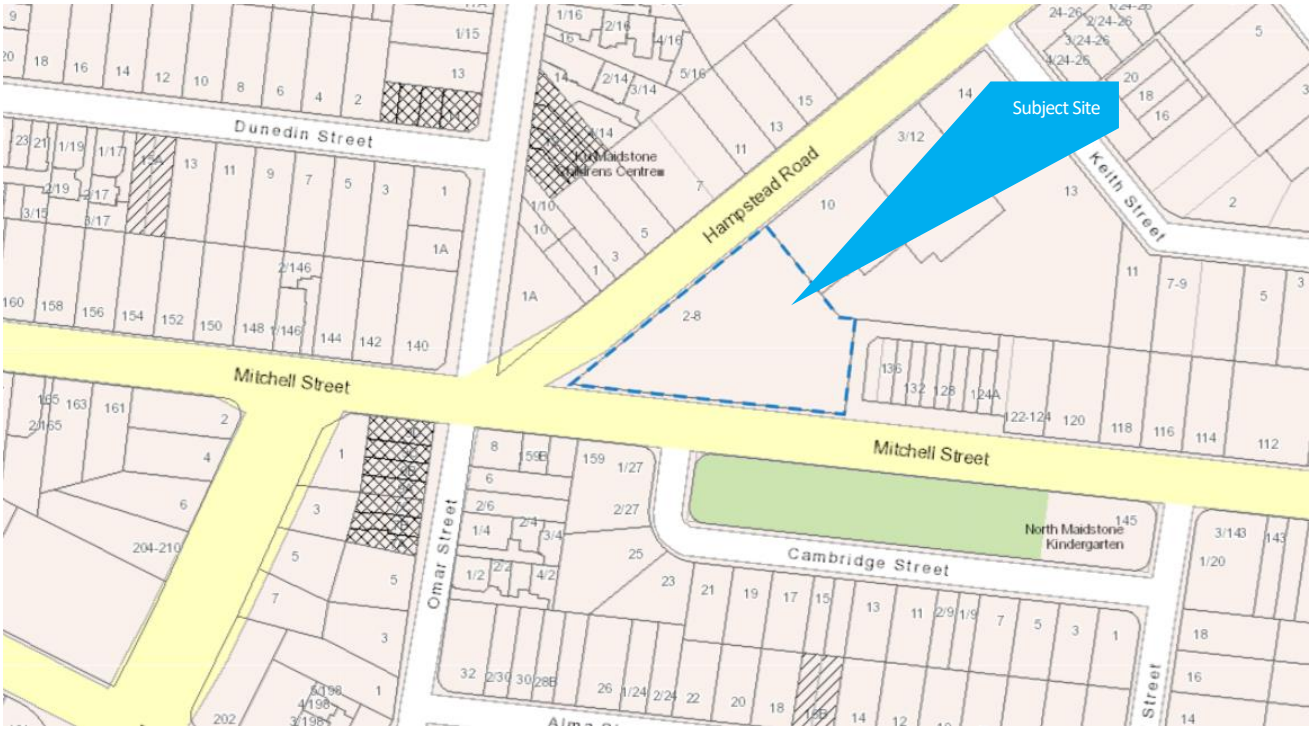


Figure 2.2
LOCALITY PLAN

Source: Melways

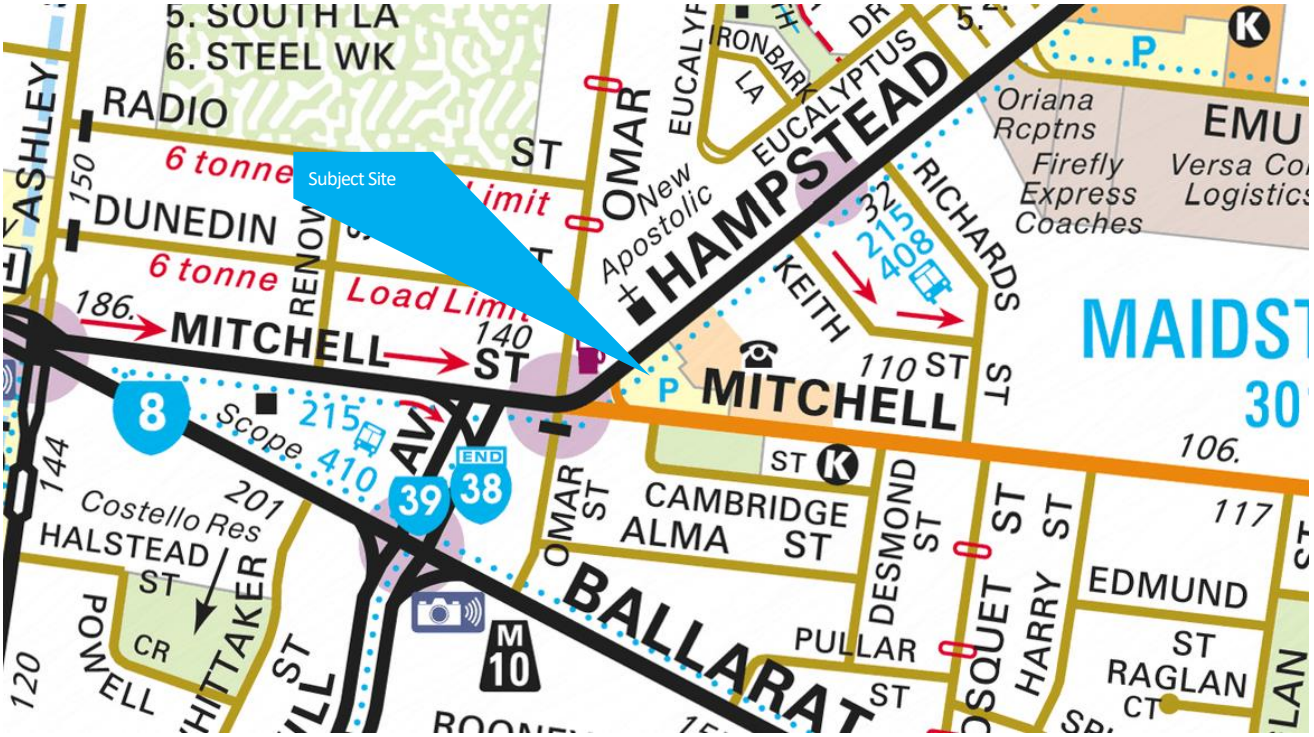


Figure 2.3
AERIAL PHOTOGRAPH

Source: Nearmap Dated February 3 2024

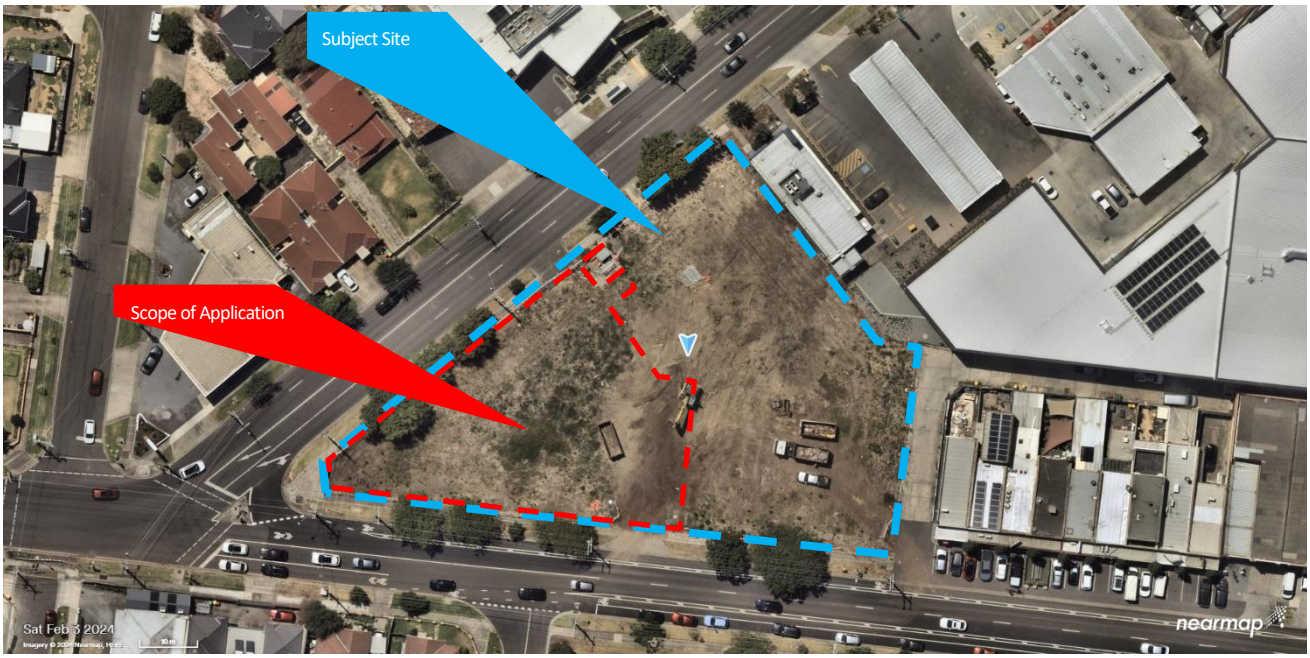
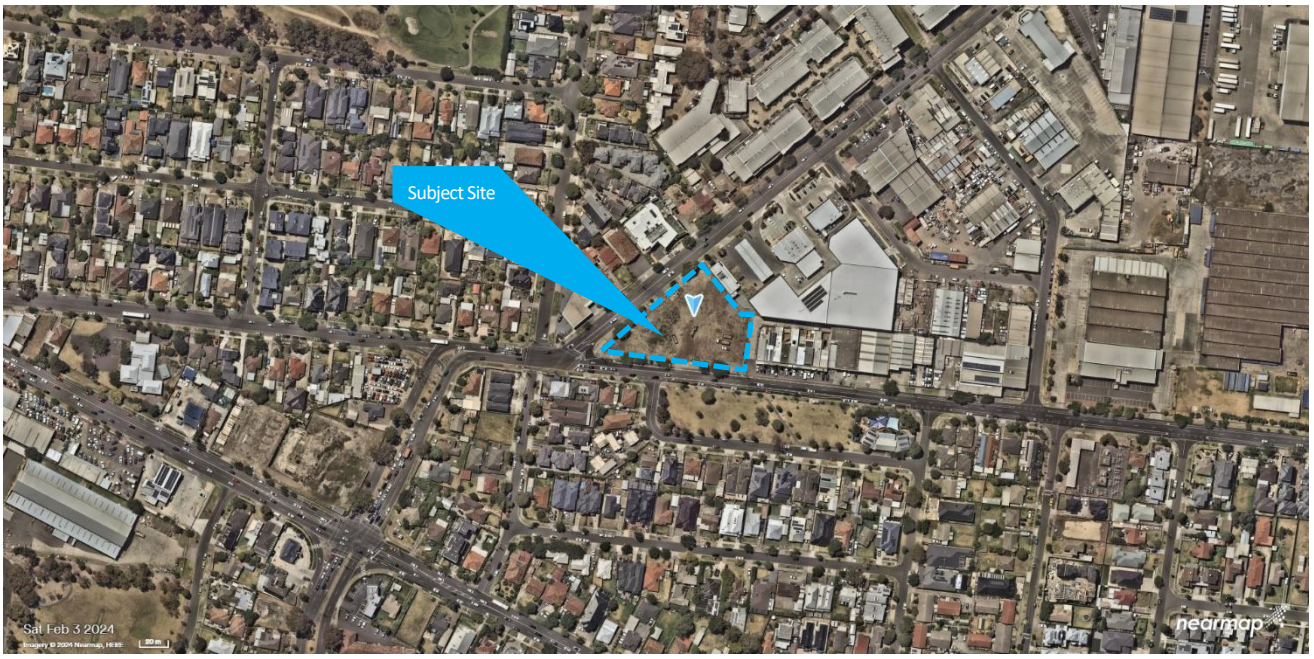


Figure 2.4
AERIAL PHOTOGRAPH

Source: Nearmap (Dated February 3 2024)



3 Planning Policy Framework (Maribyrnong Planning Scheme)

3.1 Planning Policy Framework

The following Clauses within the Planning Policy Framework are considered relevant to the assessment of this proposal:

- Clause 13.07-1S Land Use Compatibility
- Clause 15.01-1S Urban Design
- Clause 15.01-1R Urban Design – Metropolitan Melbourne
- Clause 15.01-2S Building Design
- Clause 19.02-2S Education Facilities
- Clause 19.02-2R Education Precincts – Metropolitan Melbourne

3.2 Local Planning Policy Framework

The following Clauses within Maribyrnong's Local Planning Policy Framework are considered relevant to the assessment of this proposal:

- Clause 21.04-1 Activity Centre Planning
- Clause 21.06-1 Urban Design
- Clause 21.06-2 Environmentally Sustainable Design
- Clause 21.08 Economic Development
- Clause 21.10-1 Community Facilities
- Clause 21.11-8 Maidstone Hampstead Road East Precinct

3.3 Planning Controls

The subject site is affected by the following controls pursuant to the provisions of the Maribyrnong Planning Scheme.

- Commercial 1 Zone (C1Z)
- Development Contributions Plan Overlay, Schedule 2(DCPO2)

<u>Commercial 1 Zone</u>

The purpose of the Commercial 1 Zone is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To create vibrant mixed use commercial centres for retail, office, business, entertainment and community uses.*
- *To provide for residential uses at densities complementary to the role and scale of the commercial centre.*

Pursuant to Clause 34.01-1 (Table of Uses) a Child Care Centre is a 'Section 1 – Permit Not Required' land use subject to the following conditions:

- *Any frontage at ground floor level must not exceed 2 metres.*
- *Must meet the requirements of Clause 52.22-2.*

Pursuant to Clause 34.01-4 (Buildings and Works) a permit is required to construct a building or construct or carry out works.

The schedule to the Commercial 1 Zone does not include any altering provisions to Clause 34.01.

3.4 Particular Provisions

The following particular provisions are of relevant to the proposed application:

- Clause 52.05 Signs
- Clause 52.06 Car Parking
- Clause 52.34 Bicycle Facilities
- Clause 53.18 Stormwater Management in Urban Development

Clause 52.05 Signs

The purpose of Clause 52.05 is

- *To regulate the development of land for signs and associated structures.*
- *To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.*
- *To ensure signs do not contribute to excessive visual clutter or visual disorder.*
- *To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.*

Clause 52.06 Car Parking

The purpose of Clause 52.06 is:

- *To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.*

- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

It is important to note that the subject site is located within the Principal Public Transport Network.

Pursuant to Clause 52.06-5, the following car parking rates apply to this application:

Land Use	Rate	Car Parking Measure
Child Care Centre	0.22	To each Child

In consideration to the above, the following rates are relevant to this application.

	Children Capacity	Statutory Car Spaces Required	Car Spaces Provided
Approved	184	40	40
Proposed	168	36	36

This application is accompanied by a Traffic Engineering Assessment prepared by Traffix Group. An assessment to the proposed amendments response to Clause 52.06 is outlined within Section 5 of this report.

4 Proposal

The scope of this application is limited to the following amendments:

- Modification to the number of children to a maximum of 168
- Reduction in car parking space quantum (-4) and relocation of all car parking from basement to ground floor.
- Reduction in bicycle parking quantum (from 10 spaces to 4)
- Additional signage
- Detailed design changes

Importantly the building height is not proposed to change as a result of this amendment.

The detailed design changes can largely be summarised as façade and building layout amendments.

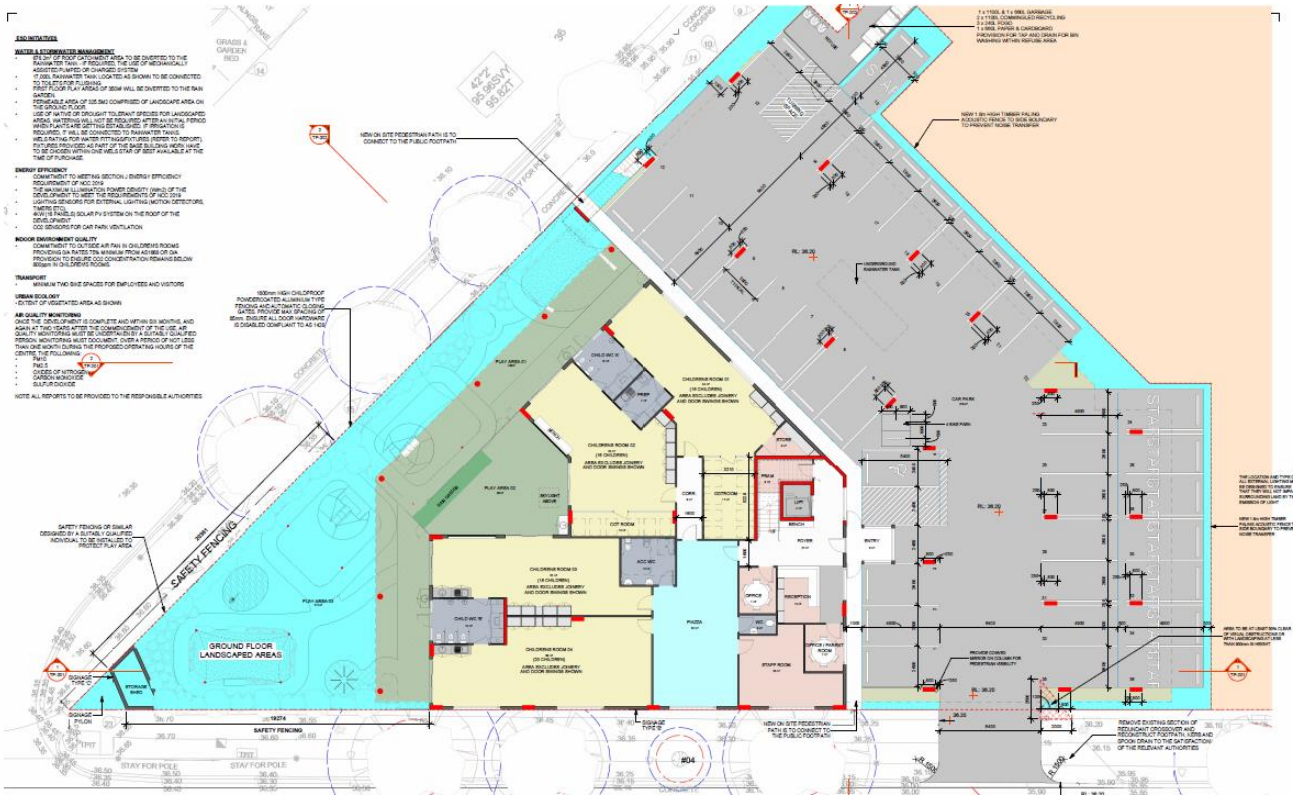
An assessment of the key changes is provided within Section 5 of this report.

For further information regarding the proposed changes, we refer to the architectural plans prepared by The Ellis Group.

4

Figure 4.1
Proposed South-West Perspective

Figure 4.2
Proposed Site Plan



5 Planning Assessment

5.1 Planning Policy Considerations

Key policy that is relevant to the proposal is as follows:

- Clause 13.07-1S "Land Use Compatibility" seeks to protect community amenity, human health and safety while facilitated appropriate development with potential adverse off-site impacts.
- Clause 15.01-1S "Urban Design" seeks to promote good urban design along and abutting transport corridors and requires development to response to its context in terms of character, cultural identity, natural features, surrounding landscape and climate.
- Clause 15.01-1R "Urban Design – Metropolitan Melbourne" supports the creation of well-designed places that are memorable, distinctive and liveable.
- Clause 15.01-2S "Building Design" seeks to achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.
- Clause 19.02-2S "Education Facilities" seeks to ensure education facilities provide safe vehicular drop-off zones, and to locate facilities to maximise access by public transport and safe walking and cycling routes.
- Clause 19.02-2R "Education Precincts – Metropolitan Melbourne" seeks to ensure education precincts are well serviced by community services.

Local Planning Policy Framework

- Clause 21.04-1 "Activity Centre Planning" identifies the subject site within the Mitchell Hampstead Local Centre. Relevantly this clause seeks to enhance the community focus of local activity centres. Aiming to do so by:
    - *Encourage a wider business and land-use mix in local activity centres geared to servicing a wider range of local resident needs.*
    - *Increase employment opportunities in local activity centres.*
- Clause 21.06-1 "Urban Design" seeks to support a sense of place and community in activity centres, by encouraging facilities, services and places in activity centres that support the health and well being of residents, visitors and workers.
- Clause 21.06-2 "Environmentally Sustainable Design" to provide sustainable building design, encouraging development that encompasses best practice environmental sustainable design principles and operating practices.

- Clause 21.10-1 "Community Facilities" seeks to ensure all future community facilities can accommodate co-location and multi purpose uses and can be adapted to suit the needs of the community.

- Clause 21.11-8 "Maidstone Hamstead Road East Precinct" identifies the subject site as being located within this precinct. The objectives of this precinct include:

    - *To revitalise and strengthen the economic role of the precinct as a Core Employment Area.*

    - *To provide safe, convenient and efficient access for all transport modes.*

    - *To improve the overall amenity of the precinct.*

To summarise the above, there is significant policy support for the existing use, with the proposal seeking to enhance the amenity of the subject site considering both internal and external amenity factors.

5.2 Amendments to Permit Conditions

The preamble is currently :

Use and development of the land for the purpose of a childcare centre and display of business identification signage.

It is proposed to amend the preamble to include permission for a pole sign.

Conditions of the permit are proposed to be amended or deleted as follows:

Condition 1(g) requires:

Visibility splays for each driveway with a notation indicating all vegetation and structures are to be less than 1 metre in height within 2.5 metres of the front boundary and for 2 metres along the front boundary.

The original decision plans showed a visibility splay to the eastern side of the driveway.

The Traffic Engineering Assessment prepared by Traffix Engineering noted:

A pedestrian sight triangle is shown on the exit side of the proposed crossover to Mitchell Street. A pedestrian sight triangle is not strictly required for the entry side of the proposed crossover, given sight lines are achieved within the double-width accessway.

The requirement for a visibility splay to both sides of the driveway was not recommended by Council's Transport Engineering Department.

The amended design maintains a splay along the exist side and similarly contains encroachments along the entry side, where a splay is not a necessity. The ground floor plan notes a convex mirror to the column adjacent the entry side for pedestrian visibility.

It is therefore proposed to delete this condition, given there is no change to the decision plan in this regard.

Condition 1(m) requires that:

Amended plans showing a minimum clearance of 2100mm from the ground surface level to the bottom of the proposed advertising sign for clear sight distance.

Signage is now proposed to the ground floor external walls, and as such cannot provide a minimum 2100mm clearance from the ground surface level.

It is therefore proposed to delete this condition.

Conditions 1(h) and 1(i) require, respectively:

(h) The proposed crossover at the title boundary widened from 6.8 metres wide to 7.7 metres to satisfy Ramp requirements under AS2890.1.2004 Table 2.2.

(i) Amended plan/s with a notation to show the increased road width including a section of ramp gradient against length and vertical clearance of basements to be provided with more details.

As the development now proposes at grade parking rather than basement car parking there is no ramp and therefore no need for these conditions. It is proposed they be deleted.

Condition 10

As this proposal seeks to reduce the maximum children capacity from 184 to 168, Condition 10 will need to be amended accordingly. More specifically amended to read:

10. No more than 168 children are allowed on the premises at any one time including for consultation.

Condition 12

Due to the proposed reduction in car parking provided onsite, Condition 12 of the planning permit will need to be amended accordingly. More specifically:

12. No fewer than 36 car spaces must be provided on the land, including spaces clearly marked for use by disabled persons and staff.

As this application now proposes no basement Conditions 1(h) and1(i) are no longer applicable and should be deleted.

Condition 22

This condition should reflect the updated Acoustic Report submitted with this application and should be amended as follows:

22. *Prior to the occupation of the use, the acoustic measures shown on the endorsed plans (including acoustic fencing and screening) and recommendations in the acoustic report prepared by Renzo Town & Associates dated 2024 (endorsed to form part of this permit) must be implemented to the satisfaction of the Responsible Authority.*

Condition 26

This condition should reflect the updated Waste Management Plan submitted with this application and should be amended to read:

26. *Prior to the occupation of the use, the waste management measures shown on the endorsed plans and recommendations in the waste management plan prepared by Traffix Group dated 2024 must be implemented to the satisfaction of the Responsible Authority.*

Further, it is considered opportune to correct the following errors contained within the permit:

- Amend Condition 1(b) to cross-reference the correct permit number containing the landscape requirements. The condition currently references Condition 30 when the landscape requirements are contained within Condition 29.

- Amend Condition 1(d) to cross-reference the correct permit number containing the ESD measures. The condition currently references Condition 7 when the ESD measures are contained within Condition 6.

A track changes copy of the permit document is included in this submission to assist Council officers.

5.3 Built Form Considerations

The reconfigurations to the approved building envelope have been appropriately managed having regard to:

- The required space for at-grade car parking.
- Continuing to achieve outdoor play area requirements.
- Pedestrian and vehicle access.
- Addressing both street frontages.
- Planning policy urban design and built form requirements.

In consideration of the above, and the context of the approved proposal and the surrounding area, the proposed built form amendments are considered appropriate for the following reasons:

- The building height is largely consistent with the approved scheme, specifically the proposed built form includes a decrease in building height of 300mm.
- The carparking location acts as a buffer between the childcare and surrounding land uses.
- The relocation of external play areas and carparking along Hampstead Road and the recession of the built form from the corner of Hampstead Road and Mitchell Street will allow for an improved interface with the public realm, particularly where landscaping provided behind transparent fencing can provide a meaningful contribution to the design outcome of the street edge, enhancing the pedestrian experience.
- Notwithstanding the shift of built form along the southern boundary, the streetscape response to Mitchell Street is largely consistent with what is improved, nothing that play area, built form and traffic access will continue to be located along the southern boundary.
- The at-grade car parking is provided in an undercroft form setback from the Mitchell Street frontage. Its visibility is minimised either by the cantilevering first floor play areas overhead or the built form itself, when viewed from the intersection.
- The amended built form layout will further assist with the provision of boulevard tree planting along both Mitchell and Hampstead Streets, through minimising built-to-boundary development.
- The building takes on a more commercial appearance, as appropriate for a child care centre within a C1Z. The building presents a flat roof form and materials are predominantly render and timber look cladding, with clear glazing used along the first floor balustrades.
- The signage has increased but is spread across the building façade so as not to unreasonably clutter the appearance. It is appropriate for the type of use and the site's commercial location.
- A pylon sign is provided within title boundaries at the corner intersection. It is limited in height to 7 metres and is unlikely to unreasonably impact on sightlines for oncoming traffic, noting that the opposite intersection of Maidstone and Omar Streets contains a petrol station with a pylon sign in proximity of its corner.

5.4 Amenity Considerations

Internal Amenity

The proposal will provide enhanced on-site amenity for future children, employees and parents associated with the operation of the childcare centre. More specifically:

- Relocation of carparking to the ground floor will ensure a more efficient flow of traffic during peak periods.
- The built form and pedestrian walkway will act as a safe buffer between the outdoor play areas and car parking.
- Reconfiguration of open space layout provides a superior onsite amenity offering.
- Relocation of building entry improves accessibility from both Mitchell Street and Hampstead Road as well as proximity to car parking.

External Amenity

- The amended building layout provides a softer built form composition towards both street frontages, acting as a greater external amenity outcome along Hampstead and Mitchell Streets.
- The proposed provides a greater architectural composition towards both frontages, further activating each streetscape.
- The replacement of basement car parking by at-grade car parking is a safer outcome for vehicles along Mitchell Street, as it increases viewpoints of cars entering and exiting the site.

5.5 Traffic Considerations

A Traffic Engineering Assessment has been prepared by Traffix Group to accompany this amendment application.

The car parking allocation as outlined within Condition 12 states the following:

12. No fewer than 40 car spaces must be provided on the land, including spaces clearly marked for use by disabled persons and staff.

Whilst the proposed car spaces are to reduce to 36, this remains in line with statutory car parking requirements commensurate to the reduced number of children accommodated within the facility.

Irrespective of the quantum of car parking requirements, the proposal relocates all onsite car parking to ground level, removing the basement in the process.

In addition to the car parking amendments, the proposal includes a reduction in bicycle parking spaces from 10 to 4.

Within the Traffic Engineering Assessment prepared by Traffix Group, Traffix concluded the following:

a) *The proposed development has a statutory car parking requirement of 36 car spaces under Clause 52.06-5,*

b) *The provision and allocation of 36 car spaces accords with the statutory requirements of Clause 52.06 and a car parking reduction is not required,*

c) *Bicycle parking is not required under Clause 52.34, however a total of 4 spaces are provided on the site in the form of horizontal 'Flat Top' rails,*

d) *The layout of the on-site parking areas is acceptable and accords with the relevant requirements of Clause 52.06-9, AS2890.1-2004 (where relevant) and AS2890.6-2922 (where relevant),*

e) *The level of traffic generated by the proposal will be less than the approved scheme and we are satisfied that there will be no adverse impacts to the operation of Mitchell Street and the surrounding road network,*

f) *Loading activities associated with the proposed childcare centre can be accommodated within the on-site carpark during off-peak times when parent demand is low,*

g) *Waste collection will occur on-site, outside of operating hours and does not pose any significant traffic engineering issues, and*

h) *There are no traffic engineering reasons why a planning permit for the proposed Section 72 amendment to an approved childcare development at 2-8 Hampstead Road, Maidstone, should be refused.*

6 Conclusion

Having regard to the proposed amendments, the application is considered acceptable for the following reasons:

- The proposed amendments are typical of a development of this scale, and are a result of the post-permit approval detailed design process.
- The amendments will vastly improve the internal amenity offering for future patrons and staff having regard to safety, internal and open space amenity improvements.
- The amendments to built form and site configuration are of no significant detriment to the neighbouring sites and surrounding area.
- Car parking, bicycle parking and waste considerations have been appropriately managed on-site and will not impact the amenity of the surrounding area.
- The proposed amendments do not result in a transformation of the proposal.

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Traffix Group

Traffic Engineering Assessment

Proposed Section 72 Amendment to an Approved Childcare Centre

2-8 Hampstead Road, Maidstone

Prepared for
ELG Property Pty Ltd

July 2024

G32519R-03C

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AS/NZS ISO 45001-2018 Occupational Health & Safety Management Systems
AS/NZS ISO 14001 Environmental Management Systems
AS/NZS ISO 9001-2016 Quality Management Systems

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Appendix A **Development Plans**

Appendix B **Parking Inventory and Map**

Appendix C **Swept Path Diagrams**

1. Introduction

Traffix Group has been engaged by ELG Property Pty Ltd to undertake a Traffic Engineering Assessment for a proposed Section 72 amendment to an approved childcare centre at 2-8 Hampstead Road, Maidstone.

2. Proposal

2.1. Current Planning Permit

A current Planning Permit (Permit No. TP62/2023, dated 16th February, 2024) at 2-8 Hampstead Road, Maidstone permits a 184 place childcare centre development.

The development provided 40 on-site car spaces for staff and parents, including 1 disabled car space located in a basement level carpark. A total of 20 of the car spaces within the carpark were provided as tandem pairs (10 pairs), located along the southern side of the carpark aisle. The rear spaces were allocated specifically to staff, whilst the remaining car spaces within the carpark were not labelled, maximising the efficiency of the carpark.

10 bicycle spaces were provided via horizontal 'Flat Top' rails.

Vehicle access to the site was approved via a double-width crossover to Mitchell Street, located at the overall site's midpoint (i.e. at the south-east corner of the childcare centre component of the site).

2.2. Proposed Amendment

The proposed amendment to the development comprises the following scheme:

- 168 place childcare centre (i.e. a reduction of 16 childcare places).
- A total of 36 car spaces provided (i.e. a reduction of 4 spaces) on the site within an at-grade under croft carpark and the removal of basement carpark. Allocation of spaces are as follows:
  - A total of 16 of the car spaces within the carpark are provided as tandem pairs (8 pairs). The rear spaces are allocated specifically to staff.
- Four formal bicycle spaces provided via horizontal 'Flat Top' rails.
- A turning bay for cars is provided adjacent to the bin refuse.

Vehicle access to the site is proposed via a double-width crossover to Mitchell Street, the location of the access is generally consistent with the approved.

The amended set of plans have been prepared by The ELLIS Group Architects and modified by BuildCare (dated July, 2024) and are attached at Appendix A.

The proposed operating hours of the childcare centre will remain the same as the approved scheme, operating between 6:30am to 6:30pm, Monday to Friday.

3. Existing Conditions

3.1. Subject Site

The subject site is 2-8 Hampstead Road, Maidstone. The table below summarises the key characteristics of the subject site.

Table 1: Subject Site Description

Characteristic	Description
Address	2-8 Hampstead Road, Maidstone
Area	1,695m^2
Frontages	95.6m to Hampstead Road 105m to Mitchell Street
Zoning and Overlays	Commercial Zone – Schedule 1 (C1Z)
Current use of site	Vacant (previously occupied by a 'FoodWorks' supermarket)
Car parking and loading provision	None. Previously provided an at-grade car parking on the site accommodating approximately 78 car spaces
Vehicle access	Vehicle access to the site is currently provided with a double-width access to both Mitchell Street and Hampstead Road, located at the site's midpoint
On-street parking along site frontage	'No Stopping' restrictions currently apply along both Mitchell Street and Hampstead Road

A locality plan, aerial photograph, photograph of the site's frontage and land use zoning map are provided at Figure 1 to Figure 4, respectively.

Significant nearby land uses include:

- **Cambrige Reserve,** located directly opposite (south) of the site,
- **North Maidstone Preschool Play Centre,** located approximately 150m south-east of the site,
- **Maribyrnong Golf Club,** located approximately 550m north-west of the site,
- **Eucalyptus Drive Reserve,** located approximately 650m north of the site,
- **Scovell Reserve Playground,** located approximately 700m south-east of the site, and
- **Maidstone Child and Family Centre,** located approximately 800m south of the site.

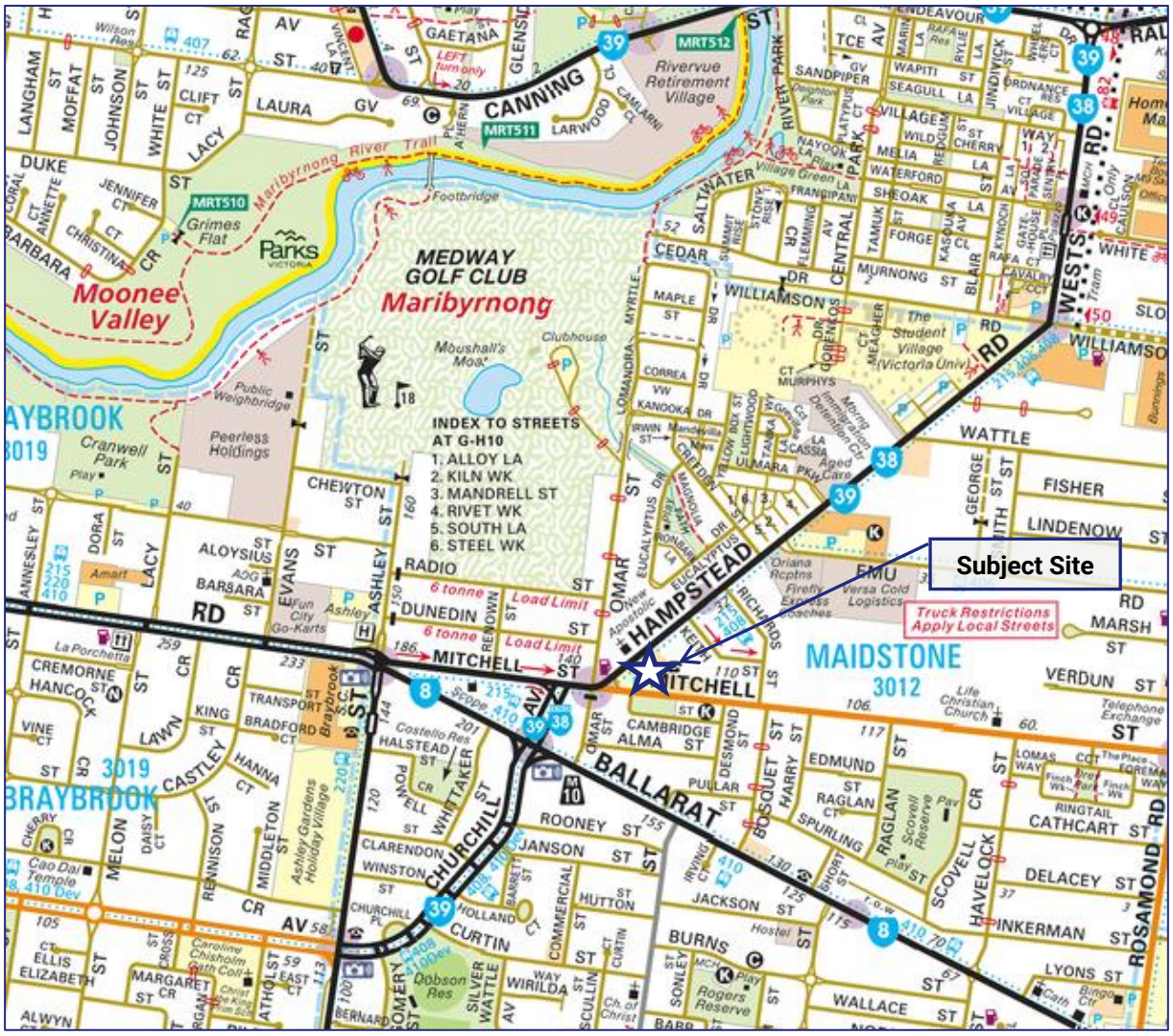


Figure 1: Locality Plan (Source: Melway)

Figure 2: Aerial photograph (Source: Nearmap)

Figure 3: Subject Site (view north-east from Mitchell Street)

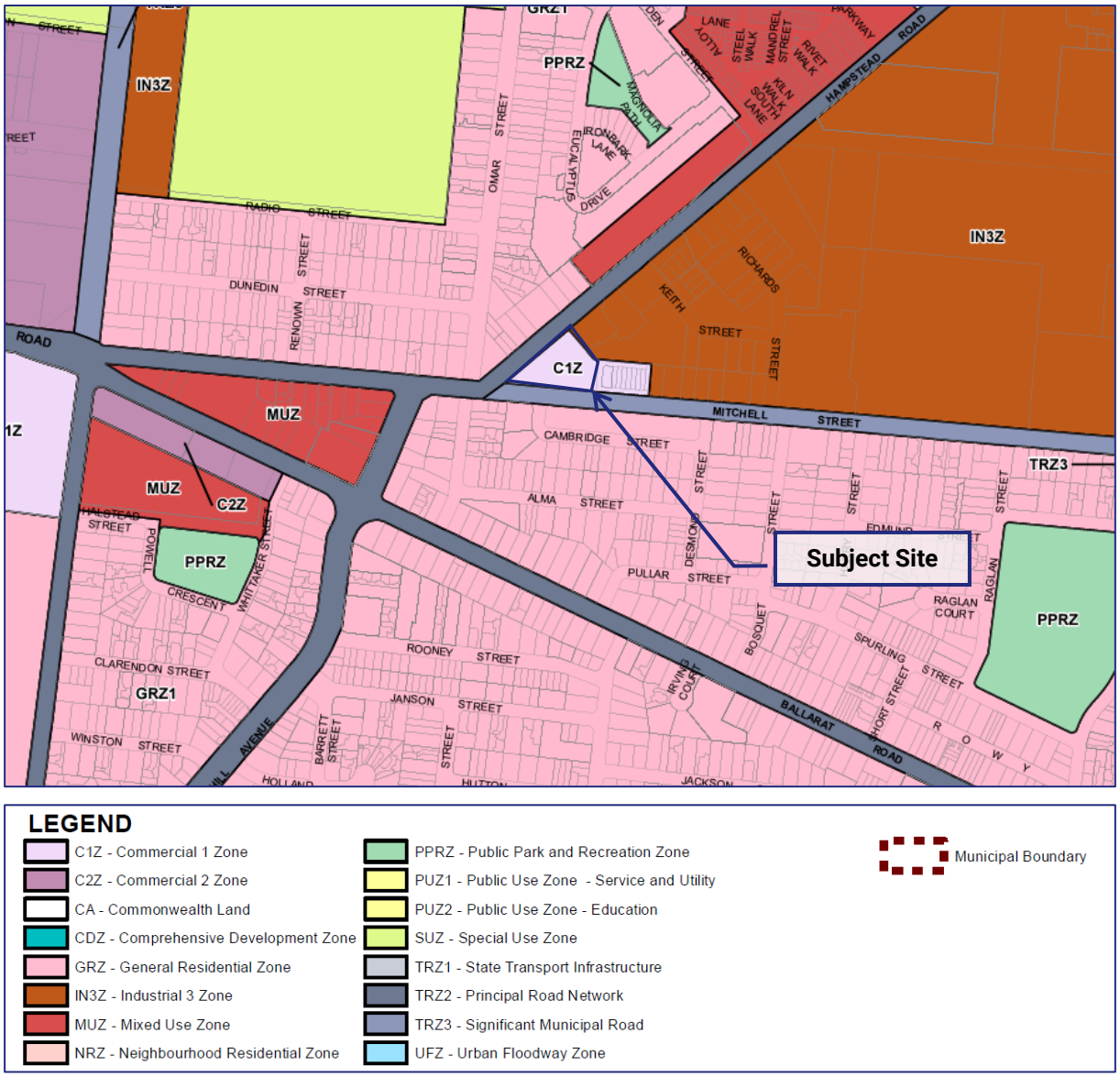


Figure 4: Land use zoning map (Source: Planning Schemes Online)

3.2. Transport Network

3.2.1. Road Network

A summary of the local road network is provided in the table below.

Photographs of the surrounding road network are presented in Figure 7 and Figure 6.

Table 2: Local Road Network

Road Name	Agency	Classification	Transport Zone	Configuration	Speed Limit	On-Street Parking
Hampstead Road	DTP	Arterial Road	Transport Zone 2	Hampstead Road adjacent to the site, provides two traffic lanes in each direction, within an undivided carriageway.	60km/h	Clearway restrictions apply to both sides of the carriageway (6:30-9:30am, 4-6:30pm Mon-Fri).
Mitchell Street	Council	Distributor Road[1]	Transport Zone 3	Mitchell Street adjacent to the site, provides one traffic lane in each direction, within an undivided carriageway. Bicycle lanes are provided on both sides of the carriageway.	50km/h	Mixture of unrestricted and short-term parking on both sides of the carriageway with exception to the site's frontage ('No Stopping' along the frontage)
Churchill Avenue	DTP	Arterial Road	Transport Zone 2	Churchill Avenue provides two traffic lanes in each direction, within a divided carriageway. An addition 2 right-turn southbound lanes are provided at the intersection with Ballarat Road.	60km/h	No Stopping on the west side on the street. There are 12 unrestricted parking spots, along the east side. It is noted that vehicles are unlikely to park along Churchill Avenue given it operates as an arterial road with high traffic volumes.

[1] According to the Maribyrnong City Council – Public Road Register – dated October, 2022.

Figure 5: Hampstead Road – view north-east

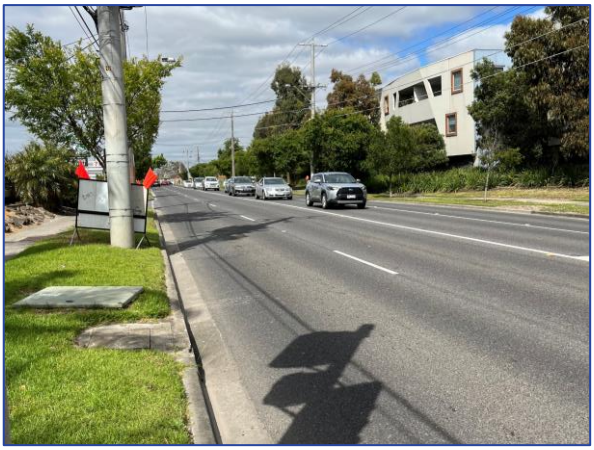


Figure 6: Hampstead Road – view south-west

Figure 7: Mitchell Street – view west

Figure 8: Mitchell Street – view east

Figure 9: Churchill Avenue – view south

Figure 10: Churchill Avenue – view north

3.2.2. Existing Traffic Conditions

Traffix Group commissioned peak period traffic counts of Mitchell Street in the vicinity of the proposed site access on Thursday 1st December 2022, between the hours of 7:00am-10:00am and 3pm-7pm. The survey times cover the typical road network peak hours.

The surveys identified the following peak hours:

- AM peak - 8:15am-9:15am
- School time peak – 3pm-4pm
- PM peak – 4:45pm-5:45pm

A summary of the peak hour traffic counts is presented in the figure below.

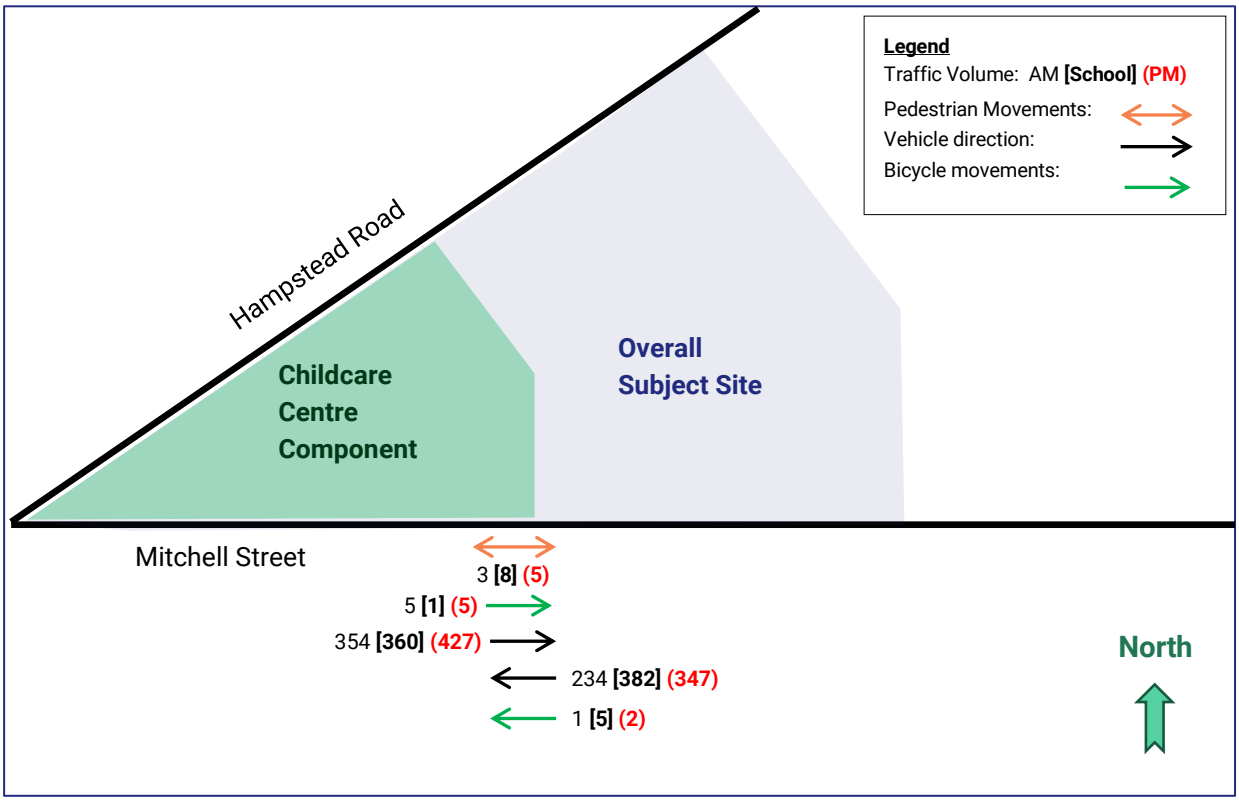


Figure 11: Existing Traffic Conditions

Mitchell Street

Mitchell Street is classified as a 'Distributor Road' managed by the Maribyrnong City Council.

Based on the above traffic counts, Mitchell Street carries a two-way traffic volume of 588, 743 and 774 vehicles in the AM peak, school pick-up peak and PM peak hours, respectively.

It is noted that queueing from the signalised intersection between Mitchell Street and Hampstead Road was observed accumulating past the proposed site access at various times between 3:30pm to 3:50pm, most of these queues cleared relatively quickly.

3.2.3. Car Parking Conditions

Traffix Group completed an inventory of on-street parking during the site inspection on Tuesday 30th November, 2022 at 8am.

The purpose of the inventory was to ascertain the supply and management of car parking in the area. However, as set out at Section 4.1, the development satisfies the statutory car parking requirements of Clause 52.06. Accordingly, the demand for on-street car parking is not a strong consideration for this proposal.

The detailed parking inventory is presented at Appendix B. The parking inventory area is presented in the figure below.

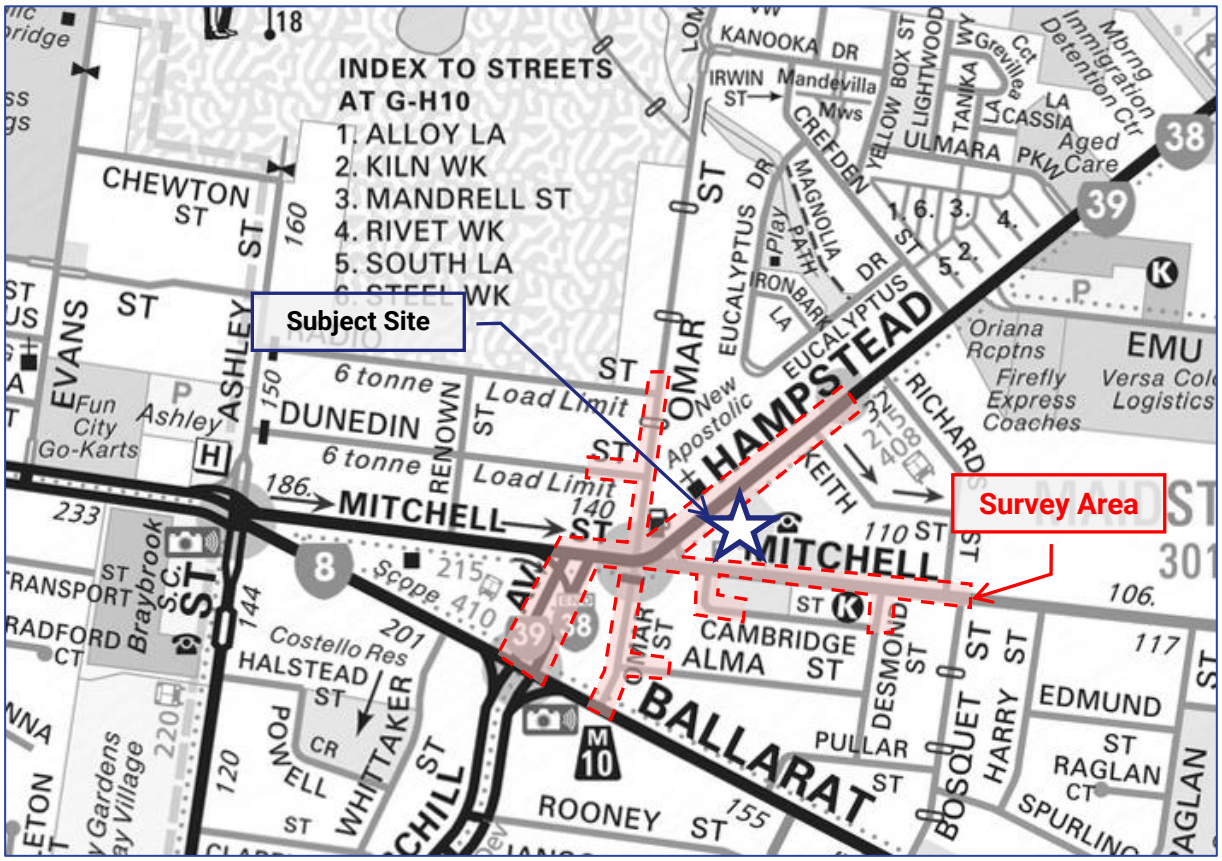


Figure 12: Parking inventory area (Source: Melway)

The key findings of the inventory were:

- There were 161-178 publicly available on-street car spaces within approximately 200m walking distance of the site during the site inspection.
- The demand for on-street parking during the site inspection was moderate, with 67 spaces recorded as occupied (42% occupancy).
- On-street parking is generally unrestricted within the vicinity of the site, with clearway restrictions applying to Hampstead Road in the vicinity of the site.

3.2.4. Road Safety Review

A review of the State Road Accident Records (Crashstats) has been undertaken in the vicinity of the site for the past 5 years of available data (01/05/2018 to 30/04/2023)[2].

The review area is shown in Figure 13.

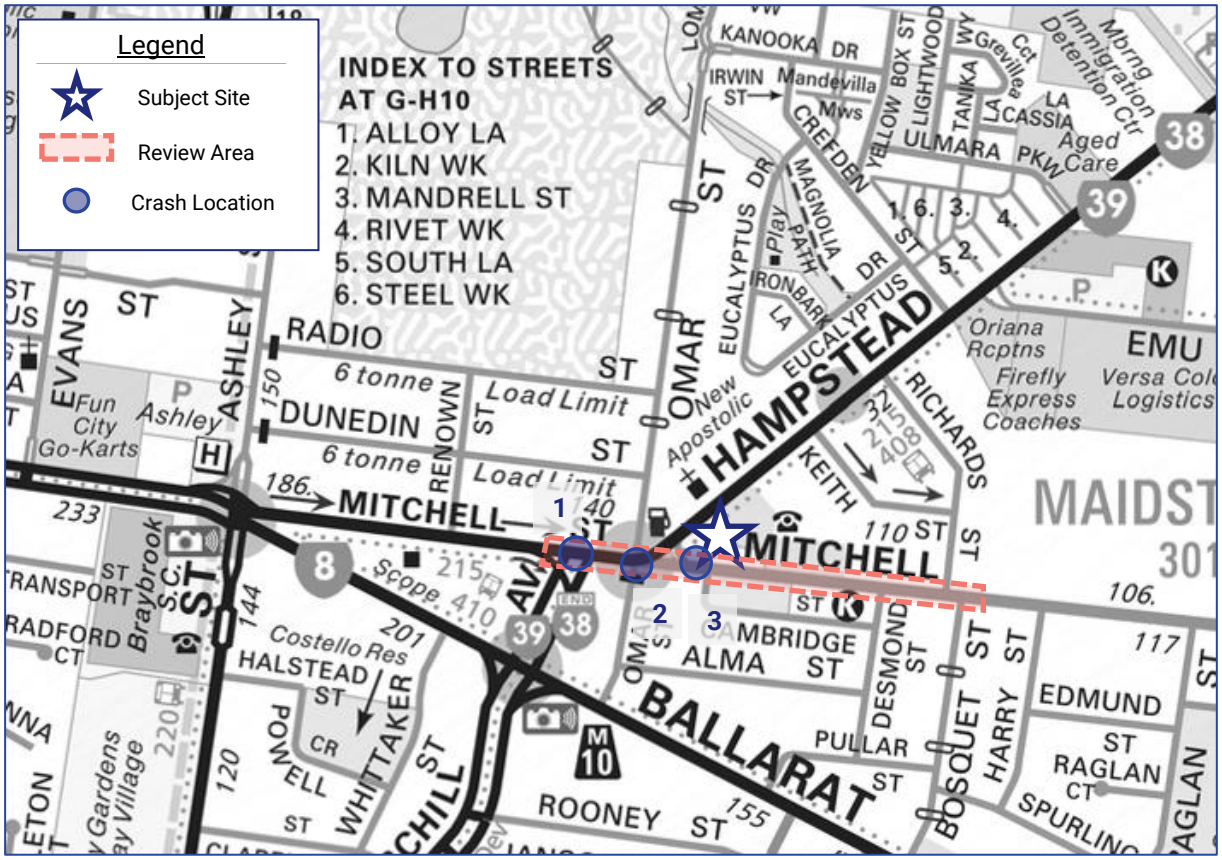


Figure 13: Crash History Investigation Area (Source: Melways)

[2] Casualty crash data is contained in the VicRoads' *Crashstats Internet Database* and includes all reported casualty crashes (i.e. injury crashes), which are classified into Fatal Injury, Serious Injury and Other Injury (i.e. minor injury) crashes. Property damage only or non-injury crashes are not included in the database.

Table 3: Casualty Crash History

No.	Location	Date	Time	Severity	Type (DCA Code)	Type of Accident
1	Churchill Avenue at Mitchell Street	Wednesday 27/02/2022	15:56	OI	102 (P)	Pedestrian far side. Pedestrian hit by southbound vehicle from the left
2	Hampstead Road - Mitchell Street at Omar Street	Sunday 02/09/2018	8:10	OI	110	Cross traffic (intersections only) involving a northbound vehicle and eastbound vehicle.
		Sunday 03/03/2019	16:00	OI	172 (M)	Motorcycle right off carriageway south westbound
		Friday 09/08/2019	13:50	SI	102 (P)	Pedestrian far side. Pedestrian hit by northbound vehicle from the left
		Friday 10/07/2020	10:30	OI	130	Rear end (same lane) with both vehicles travelling southwest.
		Monday 1/08/2022	18:30	SI	179	Any other accidents-off straight not included in DCAs 170-175 involving two westbound vehicles and a northbound vehicle.
		Thursday 20/01/2022	6:45	OI	113 (M)	Right near (intersection only) involving a motorcycle travelling east and vehicle travelling southwest.
		Sunday 5/06/2022	14:25	OI	100 (P)	Pedestrian near side. Pedestrian hit by vehicle travelling eastbound.
		Wednesday 28/07/2021	16:15	SI	125	Collision involving a north-eastbound vehicle and a south-westbound vehicle from opposite directions turning left.
3	Mitchell Street 22m West of Cambridge Street	Monday 13/09/2021	6:37	SI	171	Vehicle left off carriageway eastbound into parked vehicle/object on left of road

LEGEND:

OI:	Other Injury	SI:	Serious Injury	F:	Fatality
(B):	Bicyclist	(M):	Motorcyclist	(P):	Pedestrian
(C):	Bus/Coach	(RT):	Rigid Truck	(ST):	Semi-trailer

A total of 11 casualty crashes have been recorded within the review area, across the given review period. There were 9 casualty crashes at the Hampstead Road/Mitchell Street/Omar Street intersection.

There were a wide variety of crash types within the review area, indicating no obvious and clear crash pattern which warrants concern for this proposal.

Given the volume of traffic travelling along Hampstead Road, Mitchell Street and Churchill Avenue each day (Hampstead Road carries 19,000 and Churchill Avenue carrying 2,000 vehicles per day in 2020)[3], we consider that the number of crashes to be likely as a result of high traffic volumes and therefore higher exposure.

We do not consider that this represents any safety concerns which warrant refusal of the application. The road authority, being the Department of Transport, should continue to monitor the intersections into the future to determine if there are any safety improvements that need to be taken.

[3] According to vicroadsopendata-vicroadsmaps.opendata.arcgis.com/datasets/traffic-volume/ - sourced 5th March, 2024

3.3. Alternative Transport Modes

3.3.1. Public Transport

The site is located within the Principal Public Transport Network area (PPTN), as shown at Figure 15. The site is well served by bus services available in the vicinity of the site.

The available public transport services within proximity of the site are shown in Figure 14. A summary of services is provided at Table 4.

Figure 14: Public transport map (Source: PTV)

Table 4: Public Transport Services

Service	Between	Via
Mitchell Street/Hampstead Road– located along the north frontage of the site		
Bus Route 215	Caroline Springs & Highpoint SC	Sunshine, Deer Park & Burnside
Bus Route 408	Maidstone Station & Highpoint SC	Sunshine Station
Cambridge Reserve/Mitchell Street– located approximately 100m walking distance south of the site		
Bus Route 406	Keilor East & Footscray	Avondale Heights & Maribyrnong
Churchill Avenue/Ballarat Road – located approximately 350m walking distance south of the site		
Bus Route 410	Sunshine Station & Footscray	Ballarat Road

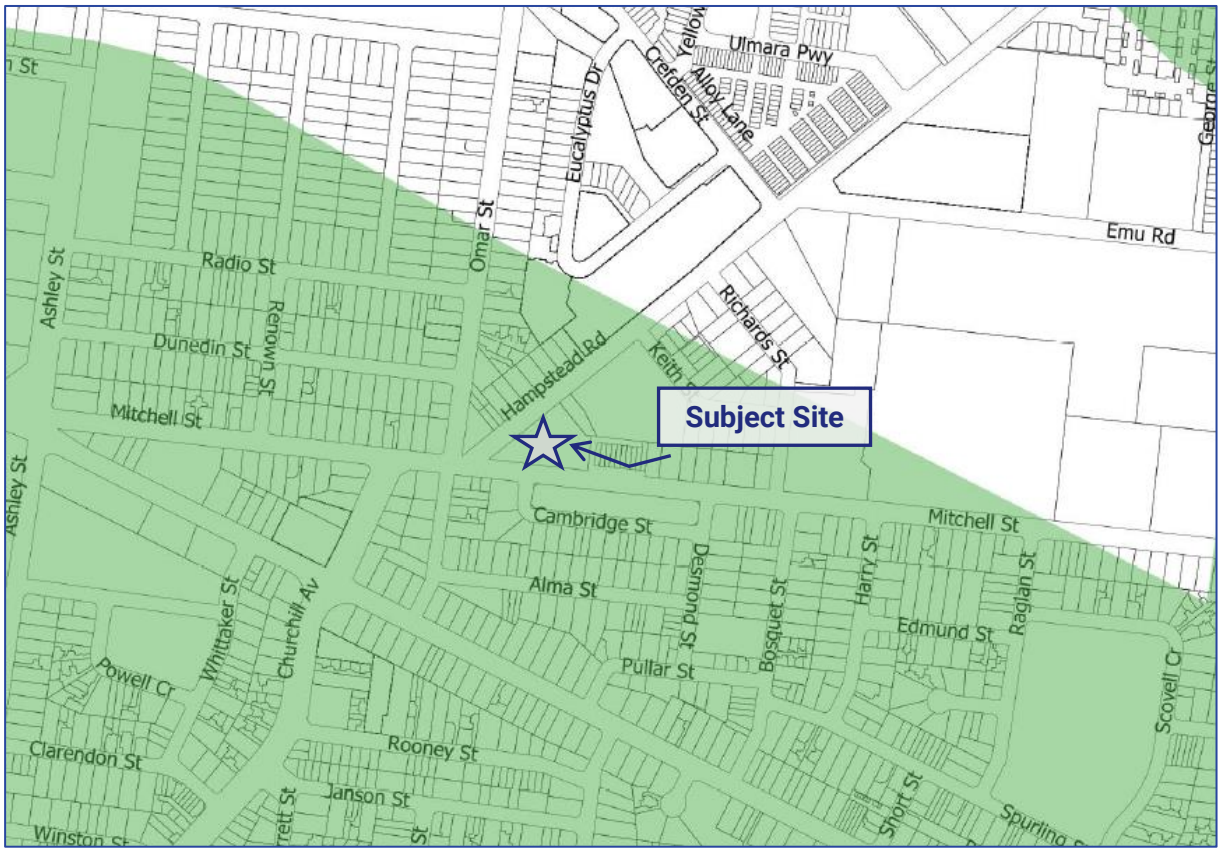


Figure 15: Principal Public Transport Network Area (Source: Vicplan)

4. Traffic Engineering Assessment

4.1. Statutory Car Parking Assessment

The proposed development falls under the land-use category of 'childcare centre' under Clause 73.03 of the Planning Scheme. The Planning Scheme sets out the parking requirements for new developments under Clause 52.06.

The purpose of Clause 52.06 is:

- *To ensure that car parking is provided in accordance with the State Planning Policy Framework and Local Planning Policy Framework.*
- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

The Planning Scheme sets out the parking requirements for new developments under Table 1 at Clause 52.06-5. In this regard Clause 52.06-5 states:

> *Column B applies if:*
>
> - *any part of the land is identified as being within the Principal Public Transport Network Area as shown on the Principal Public Transport Network Area Maps (State Government of Victoria, 2018); or*
> - *a schedule to the Parking Overlay or another provision of the planning scheme specifies that Column B applies.*

The site is located within the Principal Public Transport Area (PPTN Area) and accordingly, the Column B rates set out at Table 1 of Clause 52.06-5 apply to the site.

An assessment of the car parking requirement of the development against the rates presented at the car parking table at Clause 52.06-5 of the Planning Scheme is set out in the table below.

Table 5: Statutory car parking assessment

Use	No.	Statutory Parking Rate (Column B)	Car Parking Req. (Note 1)	Car Parking Provision	Shortfall/Surplus
Approved Scheme (Planning Permit No. TP62/2023(1) – dated 16th February, 2024)					
Childcare Centre	184 places	0.22 spaces to each childcare place	40	40	-
Amended Scheme					
Childcare Centre	168 places	0.22 spaces to each childcare place	36	36	-

Note 1: Clause 52.06-5 specifies that where a car parking calculation results in a requirement that is not a whole number, the number of spaces should be rounded down to the nearest whole number.

Approved Scheme

The statutory car parking requirement for the approved development was 40 car spaces. The approved development provided 40 car spaces, which satisfies the statutory requirements of Clause 52.06-5 and a car parking reduction was not required.

Proposed Amendment

As stated above, the proposal now requires 36 car spaces which is provided on-site. The proposal satisfies the statutory requirements of Clause 52.06-5 and a car parking reduction is not required.

Disabled Parking

Clause 52.06-9 states that:

> *The car parking requirement specified in Table 1 includes disabled car parking spaces. The proportion of spaces to be allocated as disabled spaces must be in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia.*

One disabled car space is required under the NCC for the childcare centre and one has been provided on the site.

4.2. Bicycle Parking Provision

Clause 52.34 of the Planning Scheme specifies bicycle parking requirements for new developments. No bicycle parking is required for the land use of a childcare centre under Clause 52.34.

The approved scheme under Planning Permit No. TP62/2023 – dated 16th February, 2024 provided 4 formal bicycle spaces at the south-west corner of the site, via 2 horizontal 'Flat Top' rails, along with 6 bicycle spaces provided within the basement carpark, via 3 horizontal 'Flat Top' rails.

The proposed amendment provides 4 bicycle spaces within the carpark, located adjacent to the DDA car space. This is 6 less spaces than the approved scheme, however bicycle parking is still provided above the statutory minimum.

We are satisfied with the provision of bicycle parking on the site.

4.3. Carpark Layout and Vehicle Access Arrangements

Traffix Group has provided design advice to the project architect to achieve a satisfactory carpark layout. The proposed parking layout has been assessed under the following guidelines:

- Clause 52.06-9 of the Planning Scheme (Design Standards for car parking),
- AS2890.1-2004 – Part 1: Off-Street Car Parking (where relevant), and
- AS2890.6-2022 – Part 6: Off-Street Car Parking for People with Disabilities.

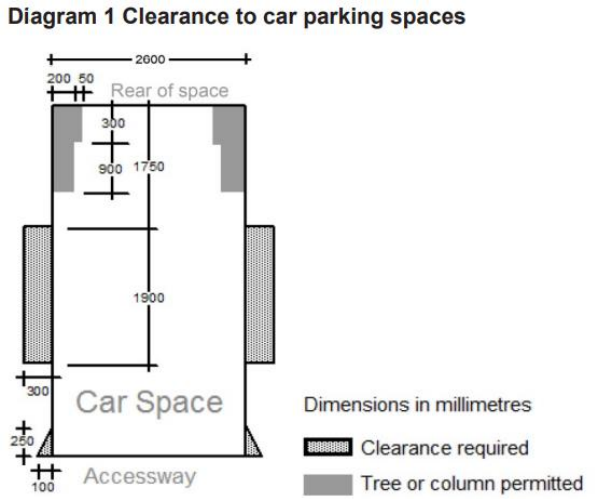
An assessment against the relevant design standards of the Planning Scheme and Australian Standards (where relevant) is provided in the table below.

Table 6: Carpark Layout and Access Assessment

Requirement	Assessment	Design Response
Clause 52.06-9 Design Standard 1 – Accessways		
Must be at least 3m wide	✓	Complies.
Have an internal radius of at least 4m at changes of direction or intersection or be at least 4.2m wide.	✓	Complies. All accessways greater than 4.2m wide.
Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forwards direction with one manoeuvre.	✓	Complies.
Provide at least 2.1m headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8m.	✓	Complies.
If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.	✓	Complies.
Provide a passing area at the entrance at least 6.1m wide and 7m long if the accessway serves ten or more car parking spaces and is either more than 50m long or connects to a road in a Transport Zone 2 or Transport Zone 3.	✓	Complies.

<table>
<tr><th>Requirement</th><th>Assessment</th><th>Design Response</th></tr>
<tr><td>Have a corner splay or area at least 50% clear of visual obstructions extending at least 2m along the frontage road from the edge of an exit lane and 2.5m along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.</td><td>✓</td><td>A pedestrian sight triangle is shown on the exit side of the proposed crossover to Mitchell Street. A pedestrian sight triangle is not strictly required for the entry side of the proposed crossover, given sight lines are achieved within the double-width accessway.</td></tr>
<tr><td>If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6m from the road carriageway.</td><td>✓</td><td>Compiles</td></tr>
<tr><td>If entry to the car space is from a road, the width of the accessway may include the road.</td><td>N/A</td><td>N/A</td></tr>
<tr><td colspan="3">Clause 52.06-9 Design Standard 2 – Car Parking Spaces</td></tr>
<tr><td>Car parking spaces and accessways must have the minimum dimensions as outlined in Table 2 under Clause 52.06-9.
<table>
<tr><th>Angle of car spaces to accessway</th><th>Accessway width</th><th>Car park width</th><th>Car park length</th></tr>
<tr><td>Parallel</td><td>3.6 m</td><td>2.3 m</td><td>6.7 m</td></tr>
<tr><td>45°</td><td>3.5 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td>60°</td><td>4.9 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td>90°</td><td>6.4 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td></td><td>5.8 m</td><td>2.8 m</td><td>4.9 m</td></tr>
<tr><td></td><td>5.2 m</td><td>3.0 m</td><td>4.9 m</td></tr>
<tr><td></td><td>4.8 m</td><td>3.2 m</td><td>4.9 m</td></tr>
</table>
Note to Table 2: Some dimensions in Table 2 vary from those shown in the Australian Standard AS2890.1-2004 (off street). The dimensions shown in Table 2 allocate more space to aisle widths and less to marked spaces to provide improved operation and access. The dimensions in Table 2 are to be used in preference to the Australian Standard AS2890.1-2004 (off street) except for disabled spaces which must achieve Australian Standard AS2890.6-2009 (disabled).</td><td>✓</td><td>All car spaces are provided in accordance with Clause 52.06-9.

We are satisfied that access to all car spaces can be achieved and is satisfactory.</td></tr>
</table>

Requirement	Assessment	Design Response
A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1, other than: • A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1. • A structure, which may project into the space if it is at least 2.1 metres above the space. **Diagram 1 Clearance to car parking spaces**  	✓	Complies.
Car spaces in garages/carports must be at least 6m long and 3.5m wide for a single space and 5.5m wide for a double space measured inside the garage/carport.	N/A	No garages or carports proposed.
Where parking spaces are provided in tandem, an additional 0.5m in length must be provided between each space.	✓	Complies.
Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.	N/A	No dwellings proposed.
Disabled car parking spaces must be designed in accordance with AS2890.6-2009 and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 0.5m. A minimum headroom of 2.5m is to be provided above the disabled car space in accordance with AS2890.6-2009.	✓	Complies.

<table>
<tr><th>Requirement</th><th>Assessment</th><th>Design Response</th></tr>
<tr><td colspan="3">Clause 52.06-9 Design Standard 3 - Gradients</td></tr>
<tr><td>Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.</td><td>✓</td><td rowspan="4">Complies.
Natural grades across the site are low and the accessway grades will readily comply with these requirements.</td></tr>
<tr><td>Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction.
<table>
<tr><th>Type of car park</th><th>Length of ramp</th><th>Maximum grade</th></tr>
<tr><td rowspan="2">Public car parks</td><td>20 metres or less</td><td>1:5 (20%)</td></tr>
<tr><td>longer than 20 metres</td><td>1:6 (16.7%)</td></tr>
<tr><td rowspan="2">Private or residential car parks</td><td>20 metres or less</td><td>1:4 (25%)</td></tr>
<tr><td>longer than 20 metres</td><td>1:5 (20%)</td></tr>
</table></td><td>✓</td></tr>
<tr><td>Where the difference in grade between two sections of ramp or floor is greater that 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.</td><td>✓</td></tr>
<tr><td>Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority</td><td>✓</td></tr>
<tr><td colspan="3">Clause 52.06-9 Design Standard 4 – Mechanical Parking</td></tr>
<tr><td>At least 25 per cent of the mechanical car parking spaces can accommodate a vehicle height of at least 1.8 metres.</td><td>N/A</td><td rowspan="3">No mechanical car parking.</td></tr>
<tr><td>Car parking spaces that require the operation of the system are not allocated to visitors unless used in a valet parking situation.</td><td>N/A</td></tr>
<tr><td>The design and operation is to the satisfaction of the responsible authority.</td><td>N/A</td></tr>
<tr><td colspan="3">Clause 52.06-9 Design Standard 5 – Urban Design</td></tr>
<tr><td>Ground level car parking, garage doors and accessways must not visually dominate public space.</td><td rowspan="2">N/A</td><td rowspan="2">These matters are more related to urban design, rather than specifically traffic engineering.</td></tr>
<tr><td>Car parking within buildings (including visible portions of partly submerged basements) must be screened or obscured where possible, including through the use of occupied tenancies, landscaping, architectural treatments and artworks.</td></tr>
</table>

Requirement	Assessment	Design Response
Design of car parks must take into account their use as entry points to the site.		
Design of new internal streets in developments must maximise on street parking opportunities.	N/A	No internal streets proposed.
Clause 52.06-9 Design Standard 6 – Safety		
Car parking must be well lit and clearly signed.	✓	Lighting of the carpark can be addressed as part of the detailed design stage. The signage within the carpark can be addressed within a Car Parking Management Plan, if required.
The design of car parks must maximise natural surveillance and pedestrian visibility from adjacent buildings.	✓	We are satisfied that the common accessway naturally provides good sightlines.
Pedestrian access to car parking areas from the street must be convenient.	✓	Pedestrian access to the site is available to Mitchell Street via a separate pedestrian pathway located towards adjacent to the vehicle accessway.
Pedestrian routes through car parking areas and building entries and other destination points must be clearly marked and separated from traffic in high activity parking areas.	✓	The separated internal pedestrian pathway is clearly shown on the plans.
Clause 52.06-9 Design Standard 7 - Landscaping		
The layout of car parking areas must provide for water sensitive urban design treatment and landscaping.	N/A	These requirements are not specifically related to traffic engineering matters.
Landscaping and trees must be planted to provide shade and shelter, soften the appearance of ground level car parking and aid in the clear identification of pedestrian paths.		

Overall, we are satisfied that the parking layout and vehicle access arrangements are acceptable and accord with requirements of Clause 52.06, AS2890.1-2004 and AS2890.6-2022, where relevant.

4.4. Land Adjacent to The Principal Road Network

Clause 52.29 applies to land adjacent to a Transport Zone 2, or a Public Acquisition Overlay.

The purpose of this clause is to:

- *To ensure appropriate access to identified roads.*
- *To ensure appropriate subdivision of land adjacent to identified roads.*

A permit is required to:

- *Create or alter access to:*
  - *A road in a Transport Zone 2.*
  - *Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road.*
- *Subdivide land adjacent to:*
  - *A road in a Transport Zone 2.*
  - *Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road.*

Hampstead Road is a road in a Transport Zone 2, however the proposal seeks access via Mitchell Street (consistent with the approved scheme), which is classified as a Council operated 'Distributor Road' and a Transport Zone 3. A permit is not required in relation to the proposed crossover (only revenant for Transport Zone 2), however a redundant crossover to Hampstead Road is to be closed as part of the proposal and therefore access has been altered. As a result of the redundant crossover, a permit is required.

4.4.1. Decision Guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider:

- *The Municipal Planning Strategy and the Planning Policy Framework.*
- *The views of the relevant road authority.*
- *The effect of the proposal on the operation of the road and on public safety.*
- *Any policy made by the relevant road authority pursuant to Schedule 2, Clause 3 of the Road Management Act 2004 regarding access between a controlled access road and adjacent land.*

4.4.2. Assessment

Similarly to the approved scheme, the proposal seeks to provide a two-way vehicle accessway via Mitchell Street rather than Hampstead Road.

We are satisfied that the vehicle access arrangements achieve the objectives of Clause 52.29.

4.5. Loading and Waste Collection Arrangements

The proposed loading and waste collections arrangements are consistent with the approved scheme. In any event, a review of these matters is provided below

Loading

Clause 65.01 of the Planning Scheme specifies the following in respect to loading considerations:

> *Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate:*
>
> – *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*

In practice, loading activities associated with the proposed childcare centre will be undertaken by smaller type vehicles, such as vans, which can be accommodated within the on-site carpark during off-peak times when parent demand is low, as required.

We are satisfied that a childcare centre does not warrant the inclusion of a dedicated on-site loading bay.

Based on the above, we are satisfied with the loading arrangements for the proposed childcare centre.

Waste Collection

A Waste Management Plan has been prepared by our office, detailing the waste collection arrangements for the proposed development.

Waste bins for the childcare centre will be stored in a bin refuse area, located at the northern corner of the carpark. Waste will be collected outside of operating hours when the carpark is empty (or at off-peak periods), providing sufficient space to turn the truck around within the carpark.

Swept path diagrams demonstrating the 6.4m long x 2.08m high waste collection vehicle undertaking entry and exit movements within the carpark are attached at Appendix C.

Based on the above, we are satisfied the loading and waste collection arrangements are acceptable from a traffic engineering perspective.

4.6. Traffic Impact Assessment

The previous approval was for a 184 place childcare centre with a basement carpark accessed via Mitchell Street.

The amendment is for a 168 place childcare centre with a ground level under croft carpark, accessed via a similar location.

The amendment will generate 134 peak hour movements and 672 daily movements, being 13 less vehicle trips in peak hours and 64 less vehicle trips across the day than the approved scheme and is acceptable in the context of the approved Planning Permit.

5. Conclusions

Having undertaken a detailed traffic engineering assessment of the proposed Section 72 amendment to an approved childcare centre at 2-8 Hampstead Road, Maidstone, we are of the opinion that:

a) the proposed development has a statutory car parking requirement of 36 car spaces under Clause 52.06-5,

b) the provision and allocation of 36 car spaces accords with the statutory requirements of Clause 52.06 and a car parking reduction is not required,

c) bicycle parking is not required under Clause 52.34, however a total of 4 spaces are provided on the site in the form of horizontal 'Flat Top' rails,

d) the layout of the on-site parking areas is acceptable and accords with the relevant requirements of Clause 52.06-9, AS2890.1-2004 (where relevant) and AS2890.6-2022 (where relevant),

e) the level of traffic generated by the proposal will be less than the approved scheme and we are satisfied that there will be no adverse impacts to the operation of Mitchell Street and the surrounding road network,

f) loading activities associated with the proposed childcare centre can be accommodated within the on-site carpark during off-peak times when parent demand is low,

g) waste collection will occur on-site, outside of operating hours and does not pose any significant traffic engineering issues, and

h) there are no traffic engineering reasons why a planning permit for the proposed Section 72 amendment to an approved childcare development at 2-8 Hampstead Road, Maidstone, should be refused.

Appendix A

Development Plans

ESD INITIATIVES

WATER & STORMWATER MANAGEMENT
- 676.2m² OF ROOF CATCHMENT AREA TO BE DIVERTED TO THE RAINWATER TANK - IF REQUIRED, THE USE OF MECHANICALLY ASSISTED PUMPED OR CHARGED SYSTEM
- 17,000L RAINWATER TANK LOCATED AS SHOWN TO BE CONNECTED TO TOILETS FOR FLUSHING
- FIRST FLOOR PLAY AREAS OF 350M² WILL BE DIVERTED TO THE RAIN GARDEN.
- PERMEABLE AREA OF 325.5M2 COMPRISED OF LANDSCAPE AREA ON THE GROUND FLOOR.
- USE OF NATIVE OR DROUGHT TOLERANT SPECIES FOR LANDSCAPED AREAS. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS.
- WELS RATING FOR WATER FITTINGS/FIXTURES (REFER TO REPORT). FIXTURES PROVIDED AS PART OF THE BASE BUILDING WORK HAVE TO BE CHOSEN WITHIN ONE WELS STAR OF BEST AVAILABLE AT THE TIME OF PURCHASE.

ENERGY EFFICIENCY
- COMMITMENT TO MEETING SECTION J ENERGY EFFICIENCY REQUIREMENT OF NCC 2019
- THE MAXIMUM ILLUMINATION POWER DENSITY (W/m2) OF THE DEVELOPMENT TO MEET THE REQUIREMENTS OF NCC 2019
- LIGHTING SENSORS FOR EXTERNAL LIGHTING (MOTION DETECTORS, TIMERS ETC).
- 4KW (16 PANELS) SOLAR PV SYSTEM ON THE ROOF OF THE DEVELOPMENT
- CO2 SENSORS FOR CAR PARK VENTILATION

INDOOR ENVIRONMENT QUALITY
- COMMITMENT TO OUTSIDE AIR FAN IN CHILDREN'S ROOMS PROVIDING 0/A RATES 75% MINIMUM FROM AS1668 OR O/A PROVISION TO ENSURE CO2 CONCENTRATION REMAINS BELOW 800ppm IN CHILDREN'S ROOMS.

TRANSPORT
- MINIMUM TWO BIKE SPACES FOR EMPLOYEES AND VISITORS

URBAN ECOLOGY
- EXTENT OF VEGETATED AREA AS SHOWN

AIR QUALITY MONITORING

ONCE THE DEVELOPMENT IS COMPLETE AND WITHIN SIX MONTHS, AND AGAIN AT TWO YEARS AFTER THE COMMENCEMENT OF THE USE, AIR QUALITY MONITORING MUST BE UNDERTAKEN BY A SUITABLY QUALIFIED PERSON. MONITORING MUST DOCUMENT, OVER A PERIOD OF NOT LESS THAN ONE MONTH DURING THE PROPOSED OPERATING HOURS OF THE CENTRE, THE FOLLOWING:
- PM10
- PM2.5
- OXIDES OF NITROGEN
- CARBON MONOXIDE
- SULFUR DIOXIDE

NOTE: ALL REPORTS TO BE PROVIDED TO THE RESPONSIBLE AUTHORITIES

AREA ANALYSIS
CHILD CARE FACILITY

TOTAL SITE AREA:	1,906m²
SITE COVERAGE:	74.63%
SITE PERMEABILITY:	26.8%
CAR PARK AREA:	819m²
GROUND FLOOR BUILDING AREA:	497m²
FIRST FLOOR BUILDING AREA:	632m²
TOTAL BUILDING AREA:	
TOTAL CHILDREN SPACES:	168
OUTDOOR PLAY AREA - REQUIRED:	1,176m²
OUTDOOR PLAY AREA - PROVIDED:	1,197m²
TOTAL CAR PARKING REQUIRED:	36
TOTAL CAR PARKING PROVIDED:	36

PROPOSED CHILDREN ROOM AREAS

ROOM NO.	AREA	CHILDREN
CHILDRENS ROOM 01	54 m²	16
CHILDRENS ROOM 02	52 m²	16
CHILDRENS ROOM 03	52 m²	16
CHILDRENS ROOM 04	66 m²	20
CHILDRENS ROOM 05	74 m²	22
CHILDRENS ROOM 06	74 m²	22
CHILDRENS ROOM 07	72 m²	22
CHILDRENS ROOM 08	72 m²	22
CHILDRENS ROOM 09	51 m²	12
	566 m²	168

1 x 1100L & 1 x 660L GARBAGE
2 x 1100L COMMINGLED RECYCLING
3 x 240L FOGO
1 x 660L PAPER & CARDBOARD
PROVISION FOR TAP AND DRAIN FOR BIN WASHING WITHIN REFUSE AREA

NEW 1.8m HIGH TIMBER PALING ACOUSTIC FENCE TO SIDE BOUNDARY TO PREVENT NOISE TRANSFER

NEW ON SITE PEDESTRIAN PATH IS TO CONNECT TO THE PUBLIC FOOTPATH

1800mm HIGH CHILDPROOF POWDERCOATED ALUMINIUM TYPE FENCING AND AUTOMATIC CLOSING GATES. PROVIDE MAX SPACING OF 85mm. ENSURE ALL DOOR HARDWARE IS DISABLED COMPLIANT TO AS 1428

SAFETY FENCING OR SIMILAR DESIGNED BY A SUITABLY QUALIFIED INDIVIDUAL TO BE INSTALLED TO PROTECT PLAY AREA

PYLON SIGNAGE

168 PLACE CHILDCARE FACILITY 1,129m²

PLAY AREA 01 140m²
PLAY AREA 02 80m²
PLAY AREA 03 221m²
SKYLIGHT ABOVE

4 BIKE PARK
CAR PARK 819m²

FUTURE DEVELOPMENT SITE 2245 m²

THE LOCATION AND TYPE OF ALL EXTERNAL LIGHTING MUST BE DESIGNED TO ENSURE THAT THEY WILL NOT IMPACT SURROUNDING LAND BY THE EMISSION OF LIGHT

NEW 1.8m HIGH TIMBER PALING ACOUSTIC FENCE TO SIDE BOUNDARY TO PREVENT NOISE TRANSFER

AREA TO BE AT LEAST 50% CLEAR OF VISUAL OBSTRUCTIONS OR WITH LANDSCAPING AT LESS THAN 900mm IN HEIGHT

REMOVE EXISTING SECTION OF REDUNDANT CROSSOVER AND RECONSTRUCT FOOTPATH, KERB AND SPOON DRAIN TO THE SATISFACTION OF THE RELEVANT AUTHORITIES #02

PROVIDE CONVEX MIRROR ON COLUMN FOR PEDESTRIAN VISIBILITY

HAMPSTEAD ROAD

No. 10-12 VACANT LAND (UNDEVELOPED)

No. 138 "JENNY HAI BEAUTY" MITCHELL STF SINGLE STOF BRICK BUILDI TILED FACAI TIN ROOFIN

1 PROPOSED SITE LAYOUT

SCALE: 1 : 150

The ELLIS Group Architects
A.C.N. 123 449 838
9 Howard Street,
West Melbourne, Victoria. 3003
Telephone - Line 1: (03) 9329 0806 Line 2: (03) 9329 8386
Email: mail@ellisgroup.com.au

MODIFIED BY:
BuildCare
design • build • maintain

ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
B	ISSUED FOR TOWN PLANNING - RFI RESPONSE	23.05.23
C	ISSUED FOR DISCUSSION	07.06.24
D	ISSUED FOR TOWN PLANNING - SECTION 72	18.06.24
E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED SITE LAYOUT PLAN

Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1 As indicated

TP-101

ESD INITIATIVES

WATER & STORMWATER MANAGEMENT

- 676.2m² OF ROOF CATCHMENT AREA TO BE DIVERTED TO THE RAINWATER TANK - IF REQUIRED, THE USE OF MECHANICALLY ASSISTED PUMPED OR CHARGED SYSTEM
- 17,000L RAINWATER TANK LOCATED AS SHOWN TO BE CONNECTED TO TOILETS FOR FLUSHING
- FIRST FLOOR PLAY AREAS OF 350M² WILL BE DIVERTED TO THE RAIN GARDEN.
- PERMEABLE AREA OF 325.5M2 COMPRISED OF LANDSCAPE AREA ON THE GROUND FLOOR.
- USE OF NATIVE OR DROUGHT TOLERANT SPECIES FOR LANDSCAPED AREAS. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS.
- WELS RATING FOR WATER FITTINGS/FIXTURES (REFER TO REPORT). FIXTURES PROVIDED AS PART OF THE BASE BUILDING WORK HAVE TO BE CHOSEN WITHIN ONE WELS STAR OF BEST AVAILABLE AT THE TIME OF PURCHASE.

ENERGY EFFICIENCY

- COMMITMENT TO MEETING SECTION J ENERGY EFFICIENCY REQUIREMENT OF NCC 2019
- THE MAXIMUM ILLUMINATION POWER DENSITY (W/m2) OF THE DEVELOPMENT TO MEET THE REQUIREMENTS OF NCC 2019
- LIGHTING SENSORS FOR EXTERNAL LIGHTING (MOTION DETECTORS, TIMERS ETC).
- 4KW (16 PANELS) SOLAR PV SYSTEM ON THE ROOF OF THE DEVELOPMENT
- CO2 SENSORS FOR CAR PARK VENTILATION

INDOOR ENVIRONMENT QUALITY

- COMMITMENT TO OUTSIDE AIR FAN IN CHILDREN'S ROOMS PROVIDING 0/A RATES 75% MINIMUM FROM AS1668 OR O/A PROVISION TO ENSURE CO2 CONCENTRATION REMAINS BELOW 800ppm IN CHILDREN'S ROOMS.

TRANSPORT

- MINIMUM TWO BIKE SPACES FOR EMPLOYEES AND VISITORS

URBAN ECOLOGY

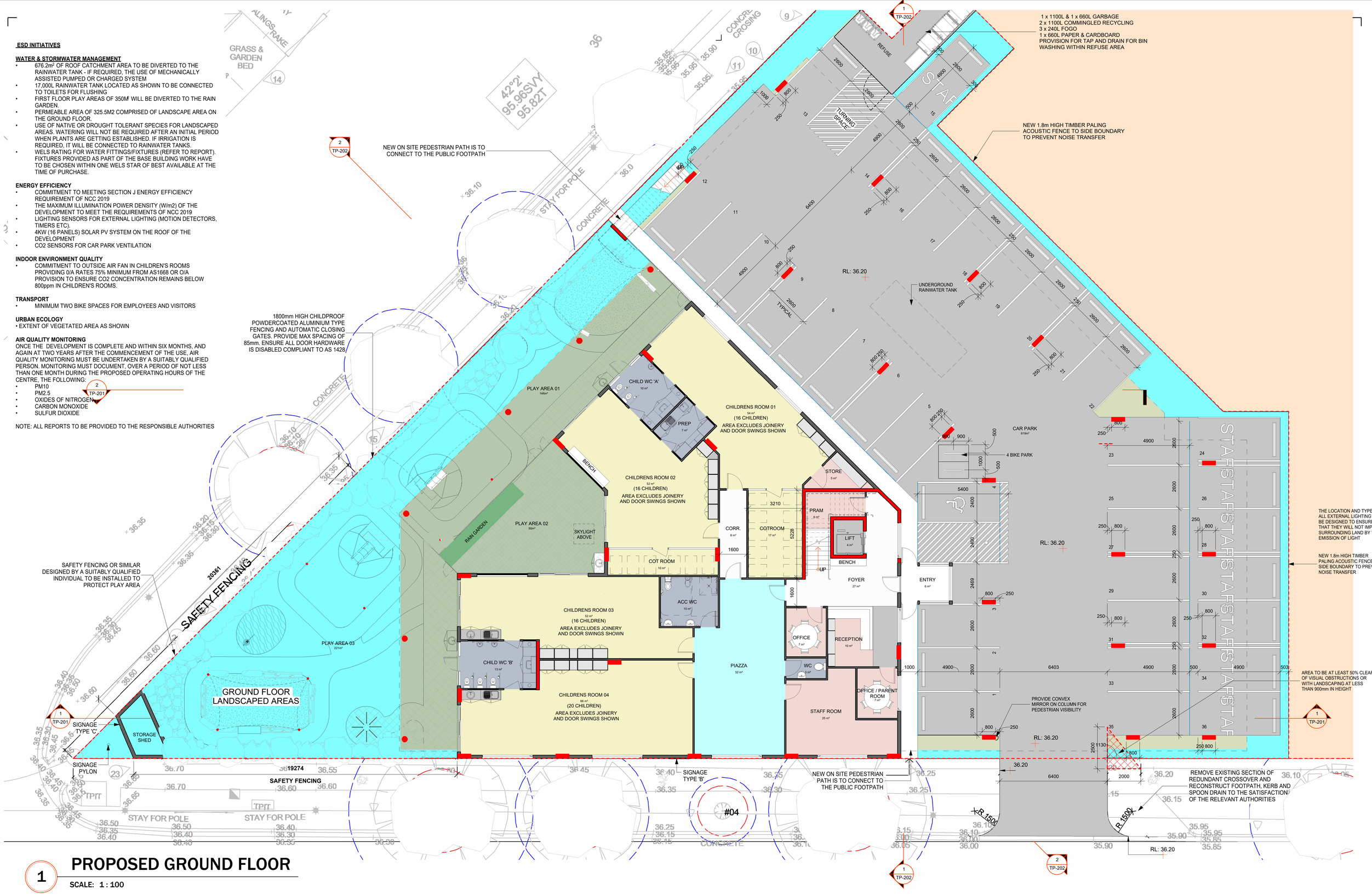
- EXTENT OF VEGETATED AREA AS SHOWN

AIR QUALITY MONITORING

ONCE THE DEVELOPMENT IS COMPLETE AND WITHIN SIX MONTHS, AND AGAIN AT TWO YEARS AFTER THE COMMENCEMENT OF THE USE, AIR QUALITY MONITORING MUST BE UNDERTAKEN BY A SUITABLY QUALIFIED PERSON. MONITORING MUST DOCUMENT, OVER A PERIOD OF NOT LESS THAN ONE MONTH DURING THE PROPOSED OPERATING HOURS OF THE CENTRE, THE FOLLOWING:

- PM10
- PM2.5
- OXIDES OF NITROGEN
- CARBON MONOXIDE
- SULFUR DIOXIDE

NOTE: ALL REPORTS TO BE PROVIDED TO THE RESPONSIBLE AUTHORITIES



1 PROPOSED GROUND FLOOR

SCALE: 1 : 100

The ELLIS Group Architects
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9 Howard Street,
West Melbourne, Victoria. 3003
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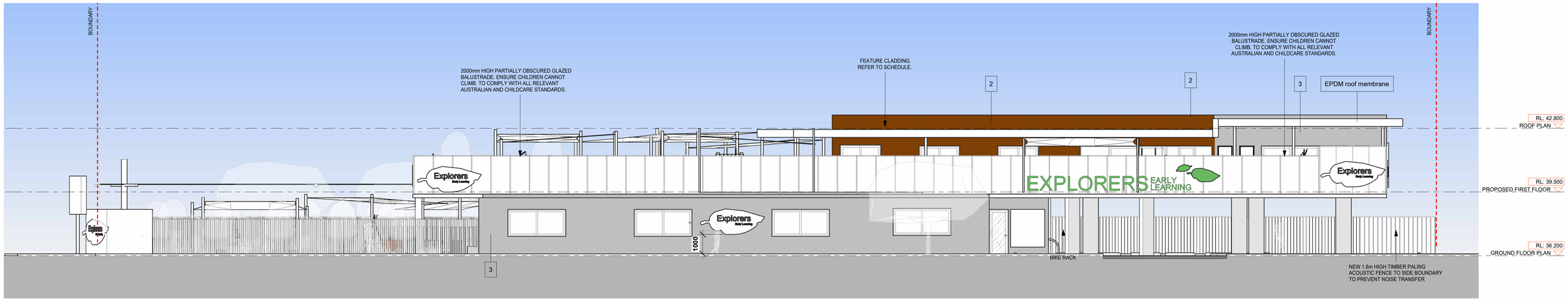
PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED GROUND FLOOR PLAN

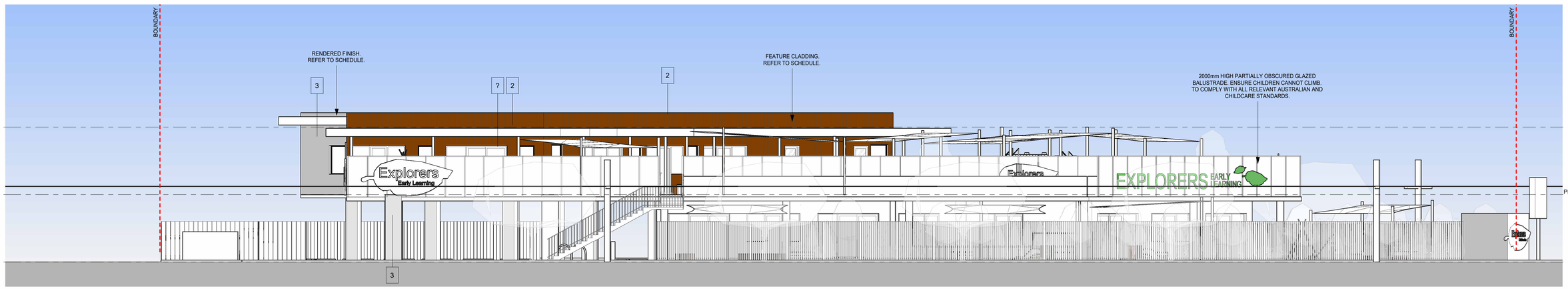
Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1 As indicated

TP-103



1
TP-301
SOUTH ELEVATION
1 : 100

FINISHES SCHEDULE		
	1	CEMINTEL - WOODSLAND - TEAK
	2	CEMINTEL - SAVANNA - SHADOW
	3	RENDER FINISH GREY
	4	CLEAR GLAZING
	5	RENDER FINISH 'WINDSPRAY'.
	6	WINDOW/DOOR FRAMES - BLACK
	7	COLORBOND - MONUMENT



2
TP-301
WEST ELEVATION
1 : 100

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PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED ELEVATIONS

Date: 02.07.24 Drawn. Author
Job No. BC - 24005 Scale@A1 As indicated

TP-301

Appendix B

Parking Inventory and Map

Traffix Group

Surveyed By: Sarah Stephenson **Survey Dates & Times:** See below

Location		Restriction	Capacity Min - Max	Wednesday 30th November 8am
ON-STREET CARPARKING				
Map Ref.	**MITCHELL STREET**			
	South Side			
A	WB #2 to Chruchill Avenue	Urestricted	2	2
		No Stopping (10m)	-	0
B	Chruchill Avenue to Cambridge Street	No Stopping (60m)	-	0
		Urestricted	2	0
		No Stopping (10m)	-	0
C	Cambridge Street to Desmond Street	No Stopping (10m)	-	0
		Disabled Only	1	0
		3P 9am-6pm Mon-Fri, 9am-12noon Sat	13	4
		Bus Zone	-	0
		3P 9am-6pm Mon-Fri, 9am-12noon Sat	7	2
		No Stopping (10m)	-	0
D	Desmond Street to Bosquet Street	No Stopping (10m)	-	0
		Unrestricted	5	3
		No Stopping (10m)	-	0
	North Side			
E	WB #152 to Chruchill Avenue	Urestricted	3	3
		No Stopping (10m)	-	0
F	Richards Street to EB #120	No Stopping (20m)	-	0
		Unrestricted	8	5
G	EB #120 to EB #2-8	No Stopping	-	0
		2P 8am-6pm	16	12
		No Stopping	-	0
	Subject Site	**No Stopping**	**-**	**0**
MITCHELL STREET		**Capacity**	**57 - 57**	**57**
		Total Number of Cars Parked		**31**
		Total Number of Vacant Spaces		**26**
		Percentage Occupancy		**54%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group

Surveyed By: Sarah Stephenson **Survey Dates & Times:** See below

Location		Restriction	Capacity Min - Max	Wednesday 30th November 8am
Map Ref.	**HAMPSTEAD ROAD**			
	South Side			
H	**Subject SIte**	**No Stopping, Clearway 6:30-9:30am & 3:30-6:30pm Mon-Fri**	**-**	**0**
	EB #2-8 to Kieth Street	Clearway 6:30-9:30am & 4-6:30pm Mon-Fri, Bus Zone	-	0
		Clearway 6:30-9:30am & 4-6:30pm Mon-Fri, 1P 9:30am-4pm Mon-Fri & 9am-12noon Sat	2	0
		No Stopping, Clearway 6:30-9:30am & 4-6:30pm Mon-Fri	-	0
		Clearway 6:30-9:30am & 4-6:30pm Mon-Fri, 1P 9:30am-4pm Mon-Fri & 9am-12noon Sat	1	0
		No Stopping (20m)	-	0
	North Side			
I	Pedestrian Crossing to Mitchell Street	No Stopping (20m)	-	0
		Clearway 6:30-9:30am & 4-6:30pm Mon-Fri, 1P 9:30am-4pm Mon-Fri & 9am-12noon Sat	14	0
		No Stopping, Clearway 6:30-9:30am & 4-6:30pm Mon-Fri	-	0
		Clearway 6:30-9:30am & 4-6:30pm Mon-Fri, Bus Zone	-	0
		No Stopping, Clearway 6:30-9:30am & 4-6:30pm Mon-Fri	-	0
HAMPSTEAD ROAD		**Capacity**	**0 - 0**	**0**
		Total Number of Cars Parked		**0**
		Total Number of Vacant Spaces		**0**
		Percentage Occupancy		**0%**
Map Ref.	**CHRUCHILL AVENUE**			
	West Side			
J	Ballarat Road to Mitchell Street	No Stopping, Clearway 6:30-9:30am & 4-6:30pm Mon-Fri	-	0
	North/East Side			
K	Ballarat Road to Mitchell Street	No Stopping (20m)	-	0
		Unrestricted	12	0
		No Stopping (20m)	-	0
CHRUCHILL AVENUE		**Capacity**	**12 - 12**	**12**
		Total Number of Cars Parked		**0**
		Total Number of Vacant Spaces		**12**
		Percentage Occupancy		**0%**
Map Ref.	**DESMOND STREET**			
	West Side			
L	Mitchell Street to Cambridge Street	No Stopping (10m)	-	0
		Unrestricted	1	0
		No Stopping (10m)	-	0
	East Side			
M	Mitchell Street to SB #2	No Stopping (10m)	-	0
		Unrestricted	2	2
DESMOND STREET		**Capacity**	**3 - 3**	**3**
		Total Number of Cars Parked		**2**
		Total Number of Vacant Spaces		**1**
		Percentage Occupancy		**67%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group

Surveyed By: Sarah Stephenson

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Wednesday 30th November 8am
Map Ref.	**DUNEDIN STREET**			
	South Side			
N	Omar Street to EB #9	No Stopping (10m)	-	0
		Unrestricted	8	0
	North Side			
O	Omar Street to EB #6	No Stopping (10m)	-	0
		Unrestricted	5	0
DUNEDIN STREET		**Capacity**	**13 - 13**	**13**
		Total Number of Cars Parked		**0**
		Total Number of Vacant Spaces		**13**
		Percentage Occupancy		**0%**
Map Ref.	**CAMBRIDGE STREET**			
	South/West Side			
P	Mitchell Street to WB #11	No Stopping (40m)	-	0
		Unrestricted	6	0
	North/East Side			
Q	Mitchell Street to WB #11	No Stopping (40m)	-	0
		Unrestricted	11	3
CAMBRIDGE STREET		**Capacity**	**17 - 17**	**17**
		Total Number of Cars Parked		**3**
		Total Number of Vacant Spaces		**14**
		Percentage Occupancy		**18%**
Map Ref.	**ALMA STREET**			
	South Side			
R	Omar Street to WB #19	No Stopping (10m)	-	0
		Unrestricted	3	0
	North Side			
S	Omar Street to WB #26	No Stopping (10m)	-	0
		Unrestricted	7	1
ALMA STREET		**Capacity**	**10 - 10**	**10**
		Total Number of Cars Parked		**1**
		Total Number of Vacant Spaces		**9**
		Percentage Occupancy		**10%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group

Surveyed By: Sarah Stephenson **Survey Dates & Times:** See below

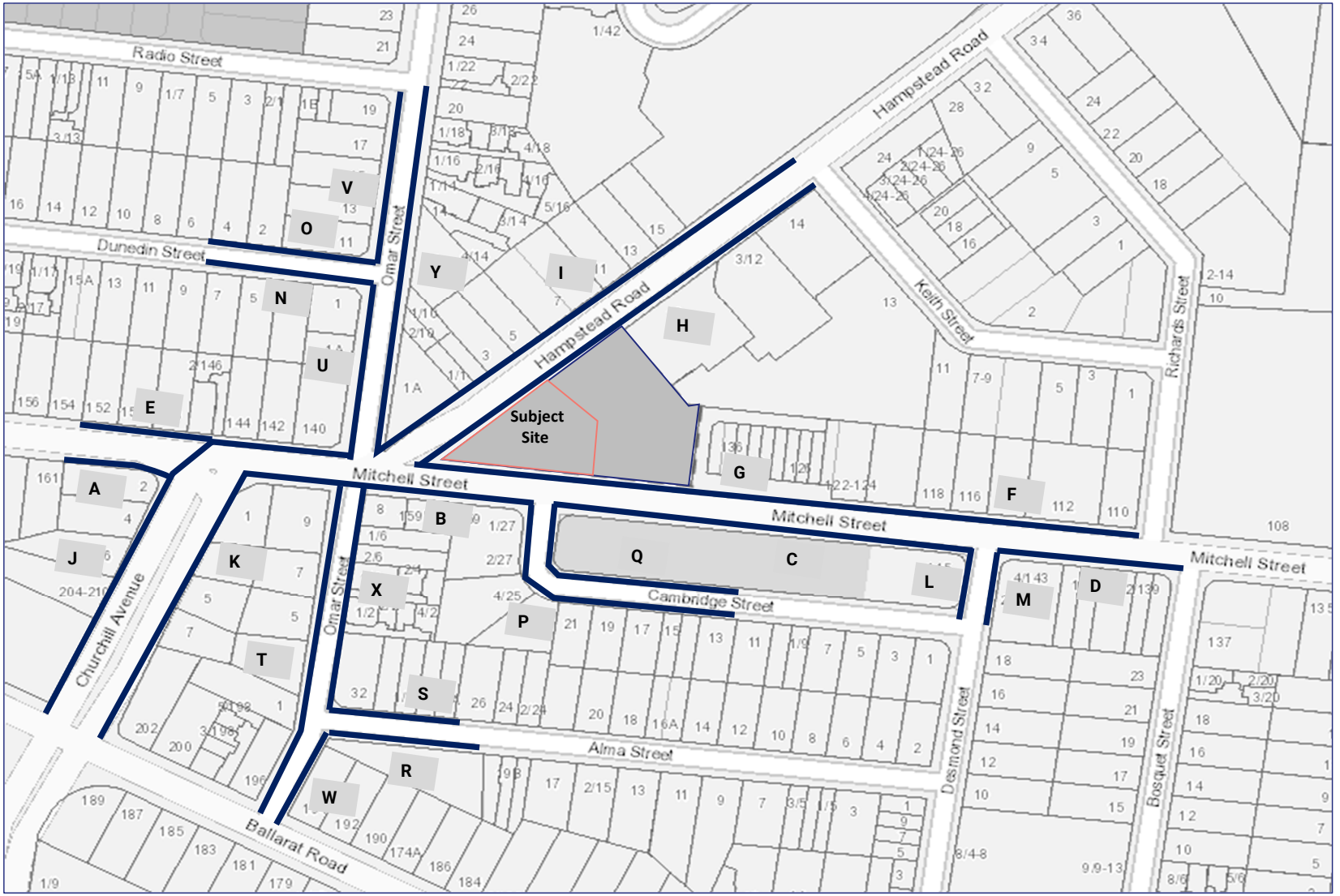
Location		Restriction	Capacity Min - Max	Wednesday 30th November 8am
Map Ref.	**OMAR STREET**			
	West Side			
T	Ballarat Road to Mitchell Street	No Stopping (10m)	-	3
		Unrestricted	13	8
		No Stopping (5m)	-	0
U	Mitchell Street to Dunedin Street	No Stopping (20m)	-	0
		Unrestricted	5	0
		No Stopping (10m)	-	0
V	Dunedin Street to Radio Street	No Stopping (10m)	-	0
		Unrestricted	8	5
		No Stopping (10m)	-	0
	East Side			
W	Ballarat Road to Alma Street	No Stopping (10m)	-	1
		Unrestricted	1	1
		No Stopping (10m)	-	0
X	Alma Street to Mitchell Street	No Stopping (10m)	-	1
		Unrestricted	7	7
Y	Mitchell Street to SB #22	No Stopping (20m)	-	0
		Unrestricted	15	4
OMAR STREET		**Capacity**	**49 - 49**	**49**
		Total Number of Cars Parked		**30**
		Total Number of Vacant Spaces		**19**
		Percentage Occupancy		**61%**
SUMMARY => ON-STREET CARPARKING				
Car Parking Supply			**161 - 161**	**161**
Total Number of Cars Parked				**67**
Total Number of Vacant Spaces				**94**
Percentage Occupancy				**42%**

Note: Public parking includes spaces that are available to the general public and excludes 'No Stopping', 'Clearway' and 'Bus Zones' areas, etc., during the relevant enforcement periods

LEGEND: Public Parking	
Not available to the general public	
Not Available, illegally parked cars included in analysis	
No Stopping/ Other No Parking	

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

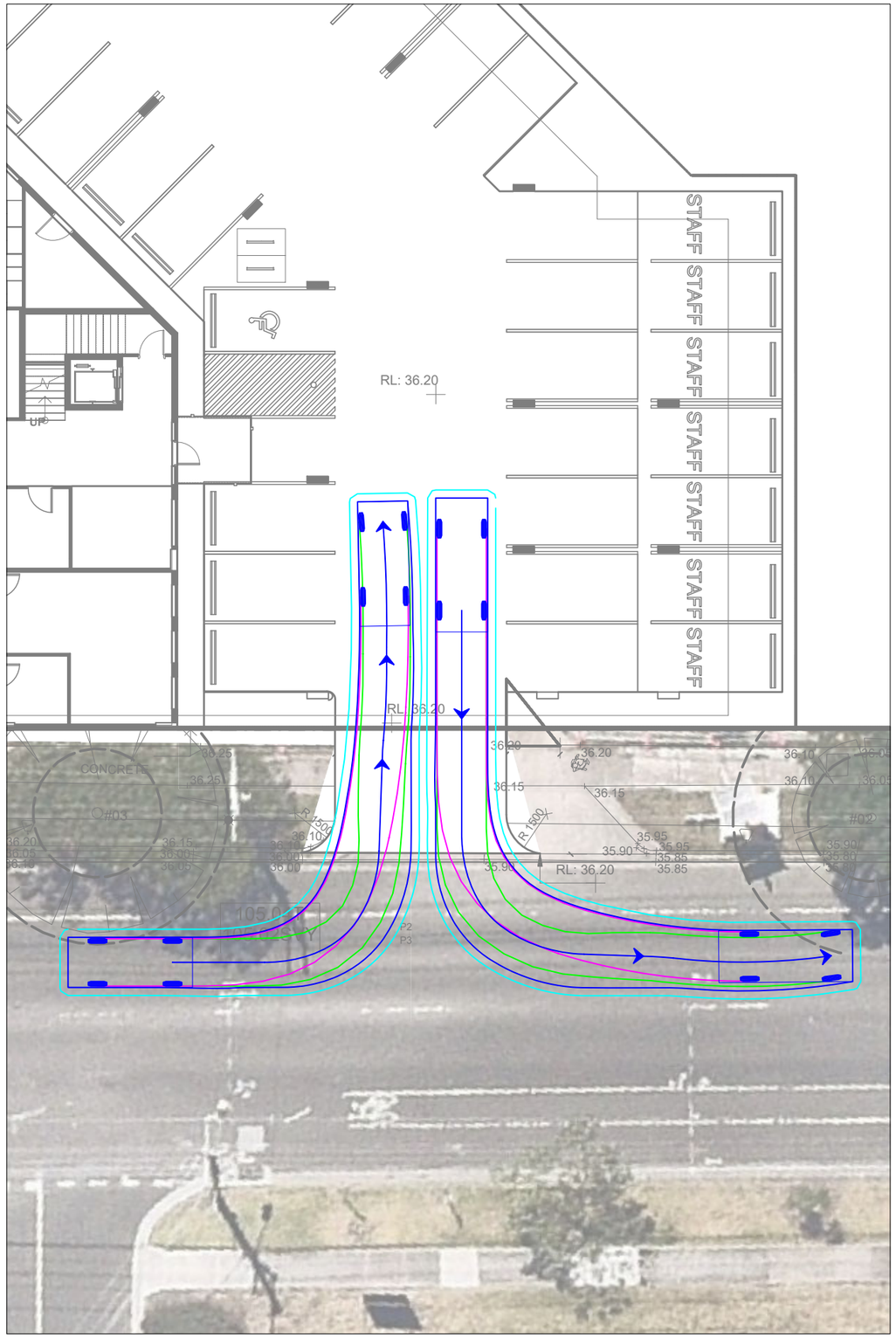
Traffix Group



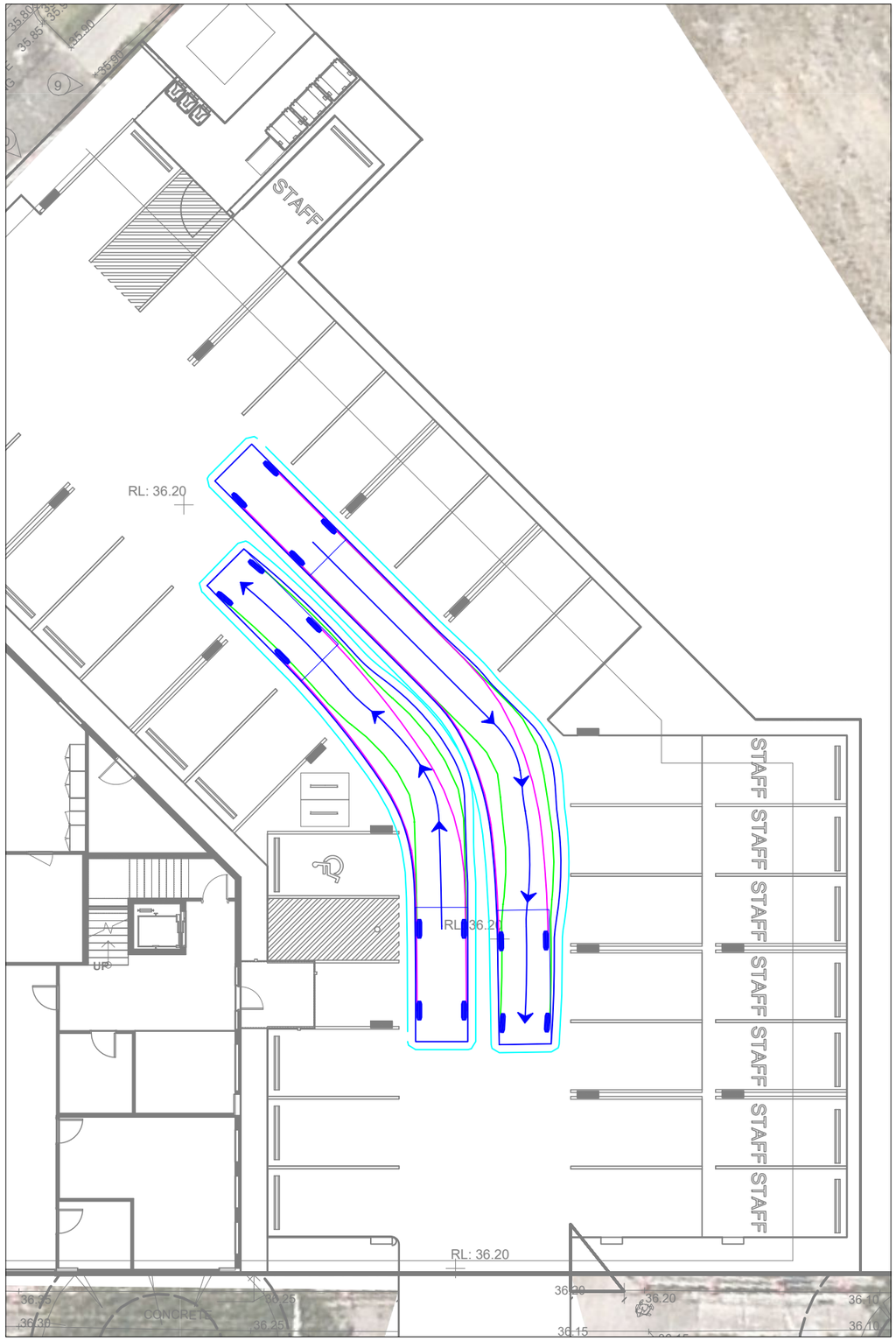
Appendix C

Swept Path Diagrams

SITE ACCESS - B99 VEHICLE - TWO WAY PASSING



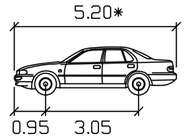
CARPARK BEND - B99 VEHICLE - TWO WAY PASSING



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



99th percentile
(AS/NZS 2890.1:2004)

Width	: 1.94
Track	: 1.84
Kerb to Kerb Radius	12.5m

- actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	17/06/2024	S72 AMENDMENT	S. STEPHENSON	J. STONE
B	11/07/2024	S72 AMENDMENT	S. STEPHENSON	J. STONE

2-8 HAMPSTEAD ROAD, MAIDSTONE

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM: "BC-24005 MAIDSTONE - SITE LAYOUT.dwg"
DRAWINGS BY: The ELLIS Group Architects/BuildCare dated July 2024

FILE NAME: G32519-02A

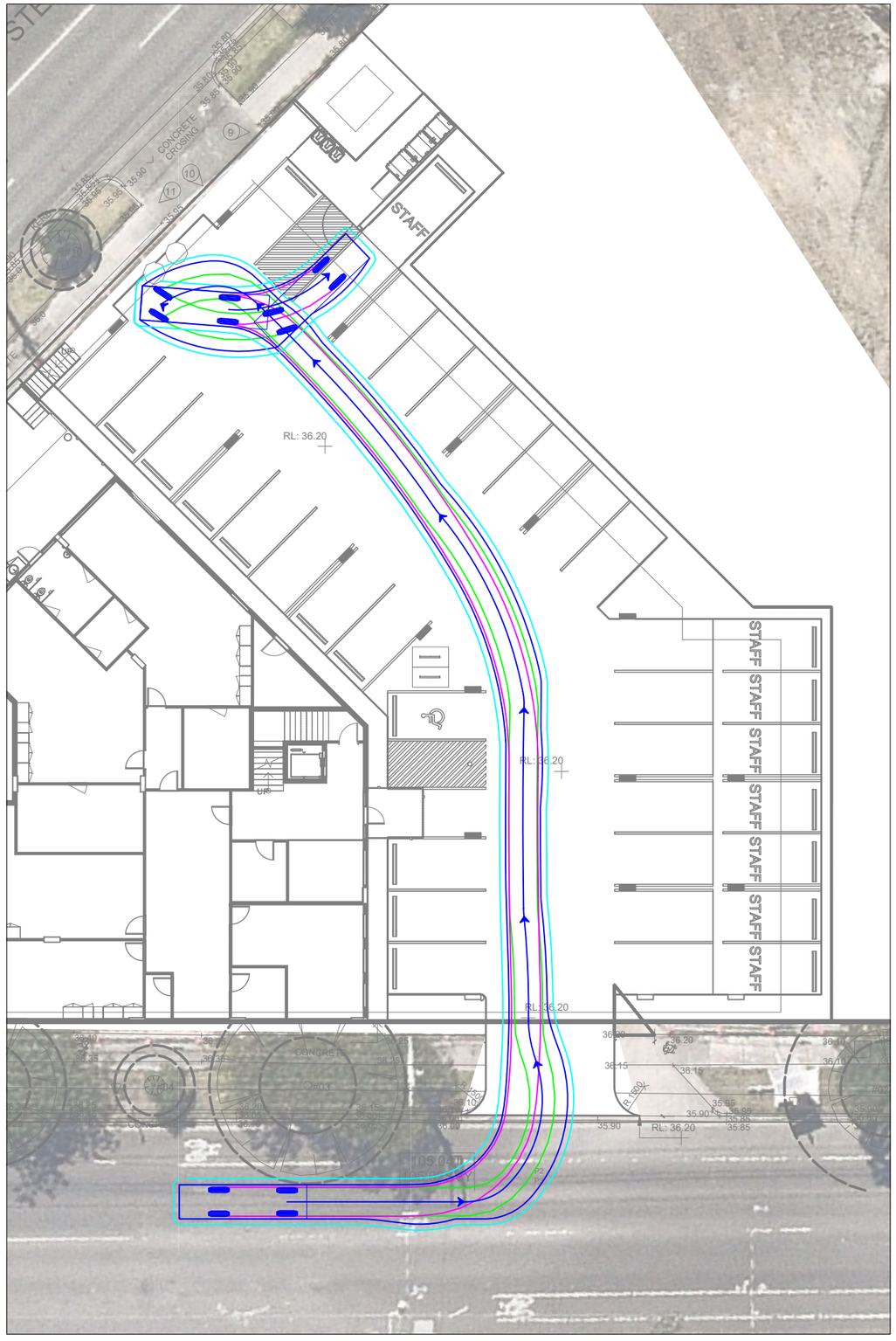
SHEET NO.: 01

SCALE: 1:200 (A3)

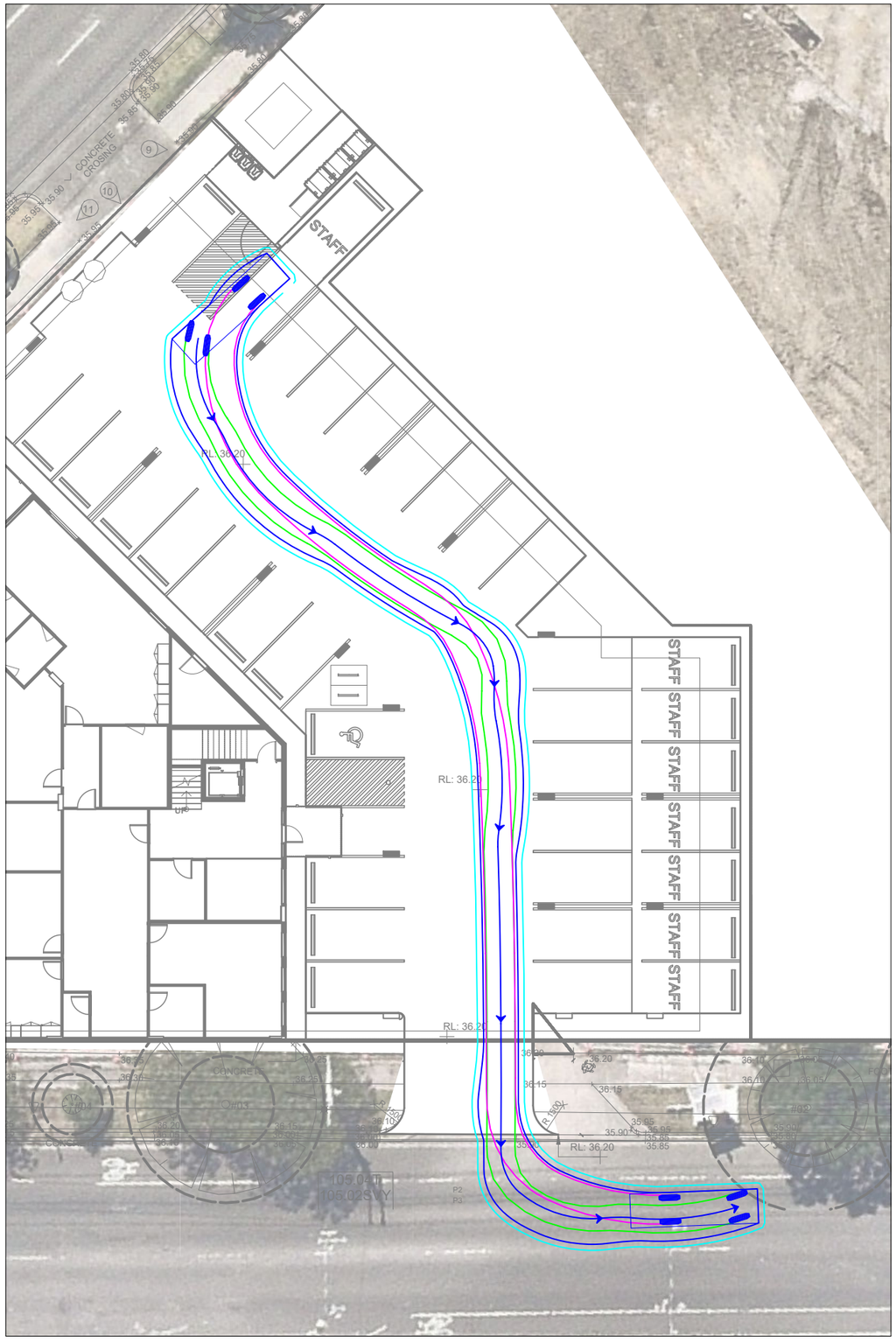
0 2 4

Level 28, 459 Collins St, MELBOURNE VIC 3000
T: (03) 9822 2888
www.traffixgroup.com.au

6.4m WASTE COLLECTION VEHICLE - INGRESS



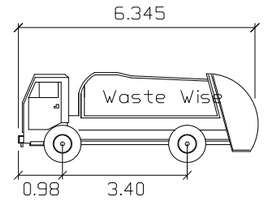
6.4m WASTE COLLECTION VEHICLE - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



Waste Wise Mini (Hino 300)

Width	: 1.7m
Front Track	: 1.4m
Rear Track	: 1.44m
Kerb to Kerb Radius	12.4m

LEGEND

REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
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2-8 HAMPSTEAD ROAD, MAIDSTONE

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM: "BC-24005 MAIDSTONE - SITE LAYOUT.dwg"
DRAWINGS BY: The ELLIS Group Architects/BuildCare dated July 2024

FILE NAME: G32519-02A

SHEET NO.: 02

SCALE: 1:200 (A3)

0 2 4

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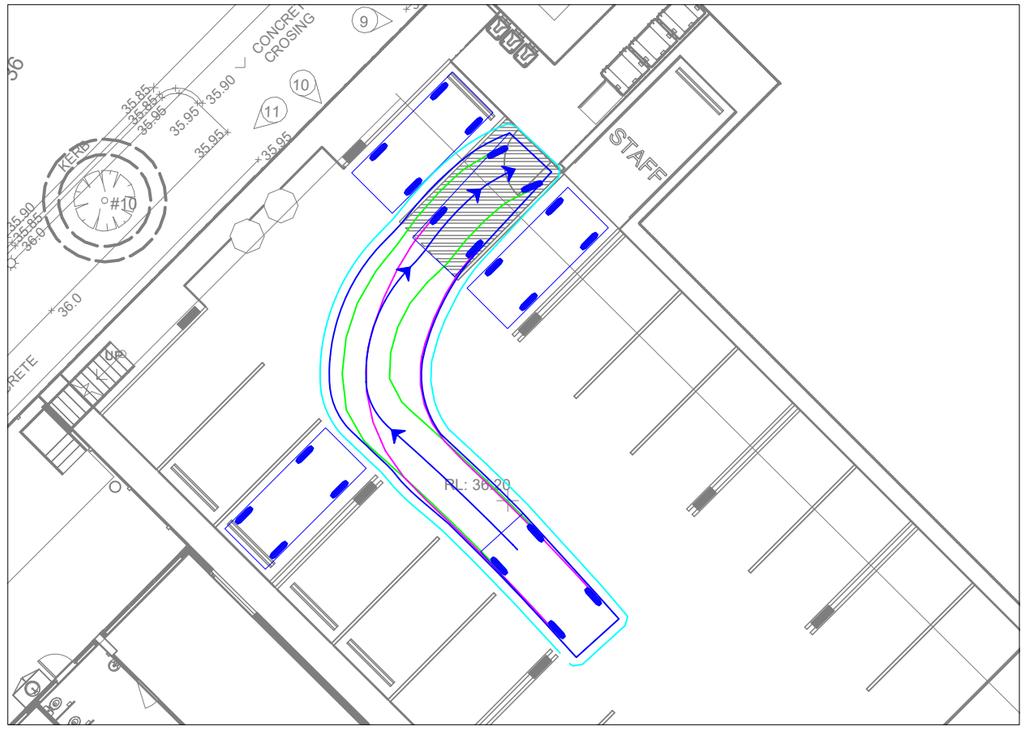
B85 USING TURNING BAY - INGRESS

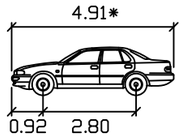


B85 USING TURNING BAY - EGRESS

VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



85th percentile
(AS/NZS 2890.1:2004)

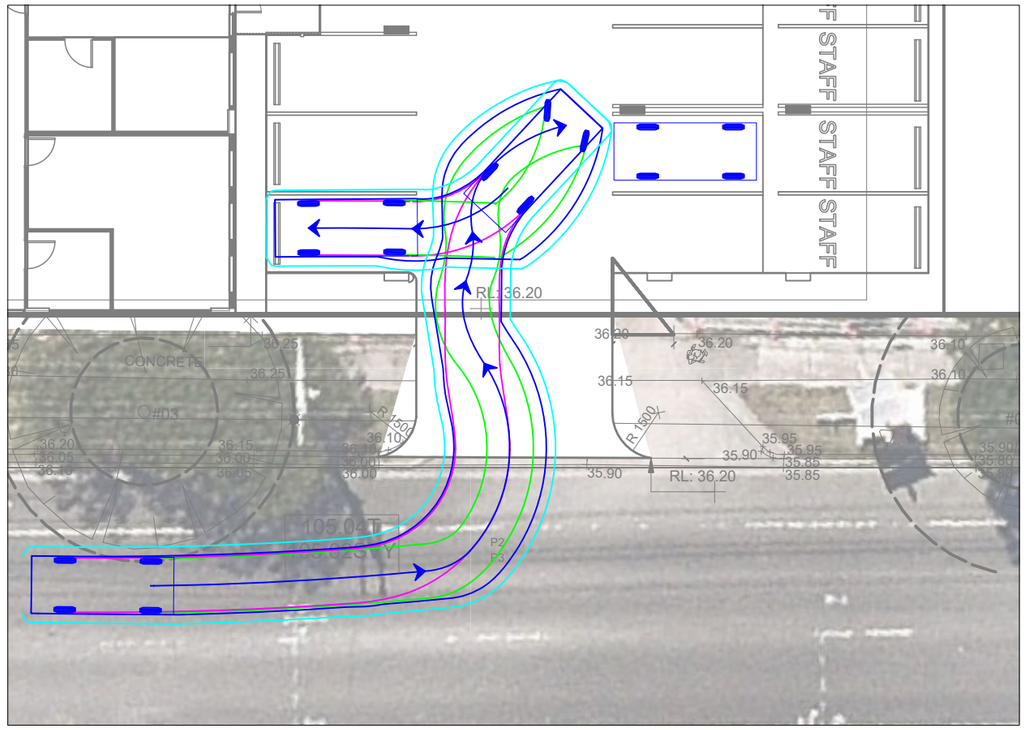
Width	: 1.87m
Track	: 1.77m
Kerb to Kerb Radius	: 11.5m

- actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

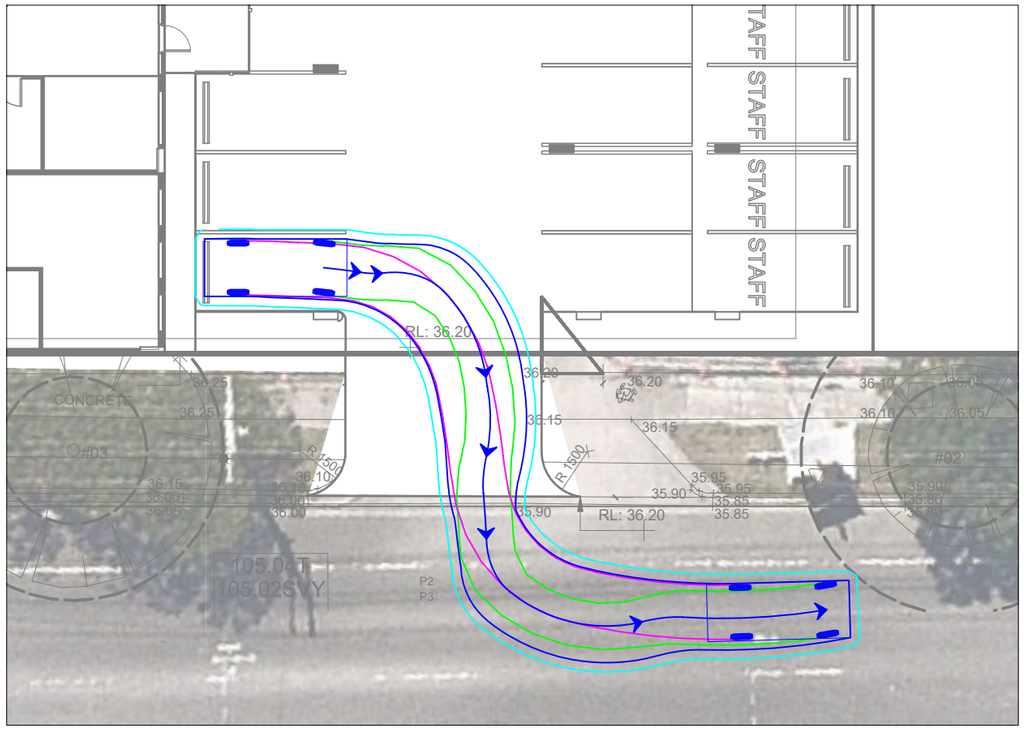
LEGEND

REAR WHEELS	VEHICLE BODY
FRONT WHEELS	BODY CLEARANCE

CAR SPACE 01 - INGRESS



CAR SPACE 01 - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
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B	11/07/2024	S72 AMENDMENT	S. STEPHENSON	J. STONE

2-8 HAMPSTEAD ROAD, MAIDSTONE

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM: "BC-24005 MAIDSTONE - SITE LAYOUT.dwg"
DRAWINGS BY: The ELLIS Group Architects/BuildCare dated July 2024

FILE NAME: G32519-02A

SHEET NO.: 03

SCALE: 1:200 (A3)

0 2 4

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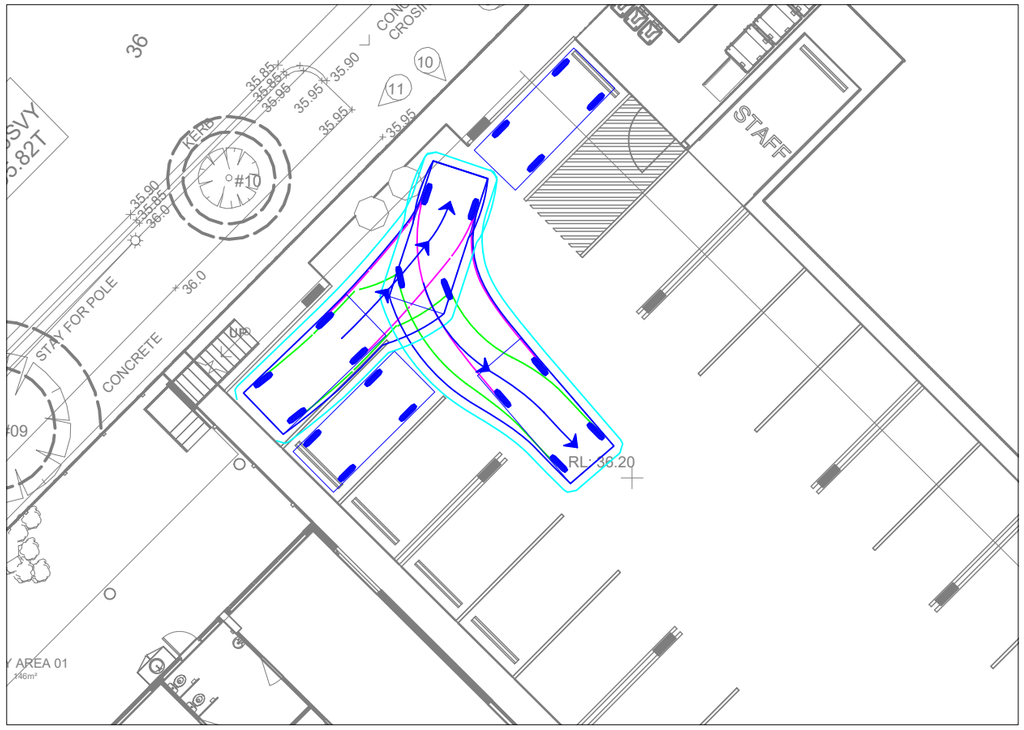
CAR SPACE 12 - INGRESS

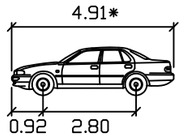
CAR SPACE 12 - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



85th percentile
(AS/NZS 2890.1:2004)

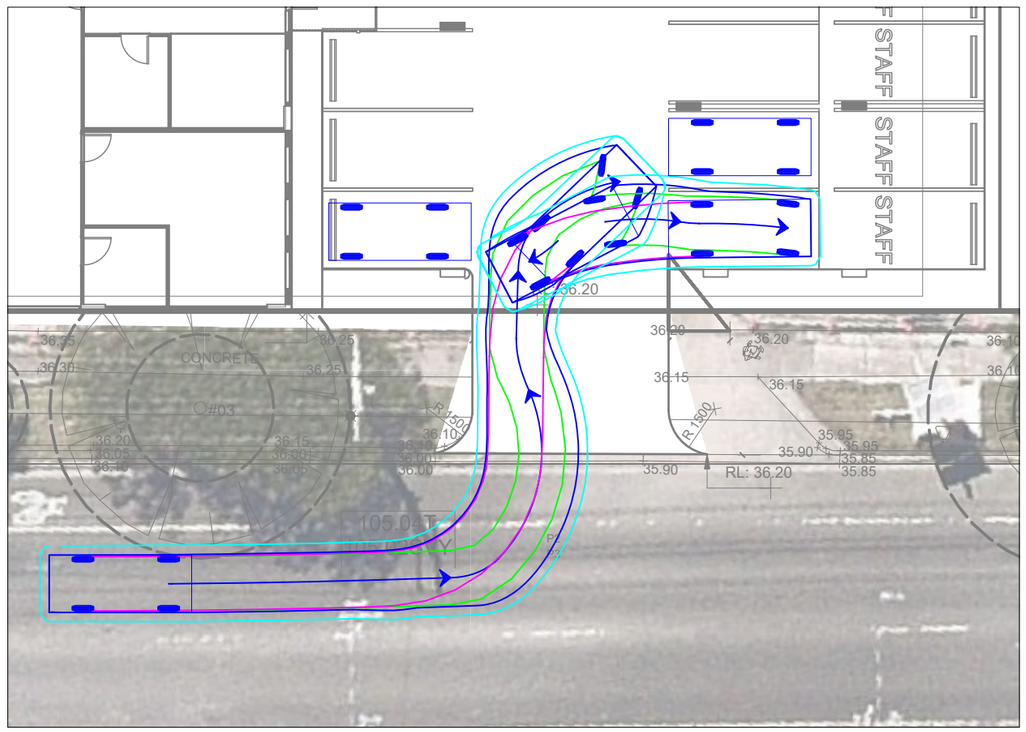
Width	: 1.87m
Track	: 1.77m
Kerb to Kerb Radius	: 11.5m

- actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

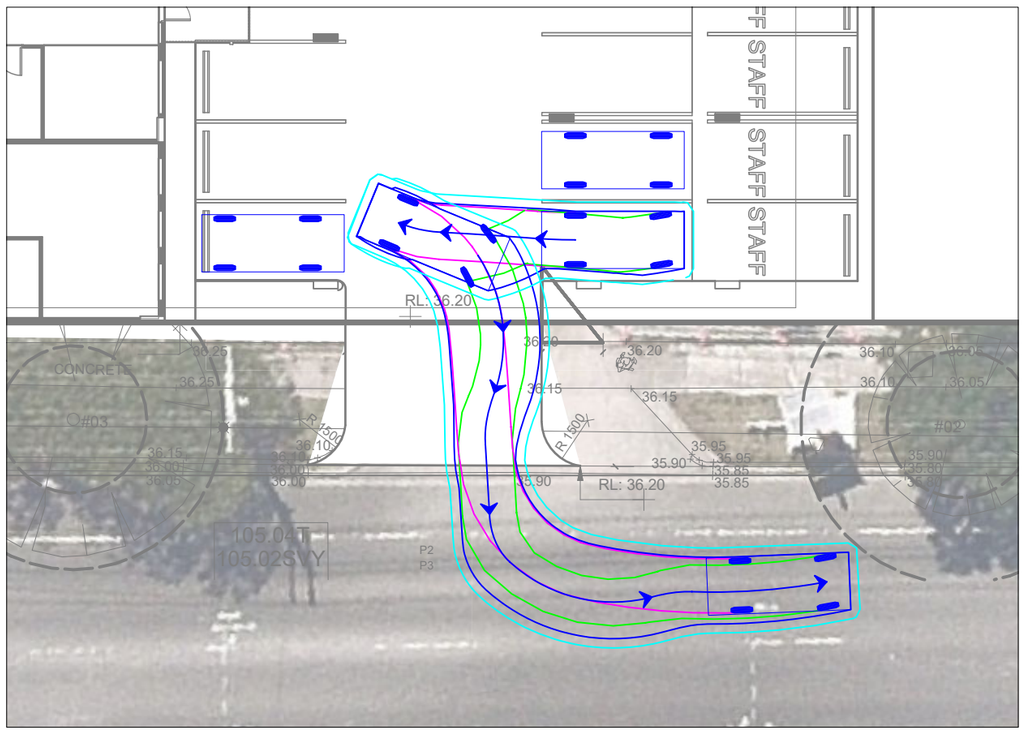
LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

CAR SPACE 35 - INGRESS



CAR SPACE 35 - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	17/06/2024	S72 AMENDMENT	S. STEPHENSON	J. STONE
B	11/07/2024	S72 AMENDMENT	S. STEPHENSON	J. STONE

2-8 HAMPSTEAD ROAD, MAIDSTONE

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM: "BC-24005 MAIDSTONE - SITE LAYOUT.dwg"
DRAWINGS BY: The ELLIS Group Architects/BuildCare dated July 2024

FILE NAME: G32519-02A

SHEET NO.: 04

SCALE: 1:200 (A3)

0 2 4

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Sustainability Management Plan

2-8 Hampstead Road, Maidstone VIC

12/07/2024

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a part of Sustainability Tech Partners Pty Ltd

Sustainable Management Plan (SDA)

Proposed Childcare Facility Development

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DOCUMENT VERSION

Version	Date	Changelog	Author	Review
0	17/02/2023	Issued for Client Review	WZ	DG
1	05/06/2024	Issued for Client Review	WZ	-
2	14/06/2024	Additional Initiatives	WZ	-
3	12/07/2024	As per latest plan	WZ	-

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INITIATIVES TO BE MARKED ON DRAWINGS

Water & Stormwater Management

- Mark-up showing roof catchment area to be diverted to the Rainwater tank for the building – If required, the use of charged pipe system will be explicitly acknowledged on the drawings and charged pipes will not be running underneath the building footprint.
- Location and size of each Rainwater tank proposed
- Note showing connection to the toilets.
- Location of the proposed 7m^2 of raingarden treating the play areas- The raingarden can be separated and location should be chosen in accordance with civil/drainage engineer and landscape consultant (minimum 300mm away from boundary or structural footings and LPOD location consideration)
- Mark-up showing the 350m^2 of play areas area to divert to the proposed raingardens (planter box)
- Note showing use of native or drought tolerant species for landscaped area. Watering will not be required after an initial period when plants are getting established.
- Note showing WELS rating for water fittings/fixtures (refer to report) – Fixtures (e.g. dishwasher) provided as part of base building work have to be chosen within one WELS star of best available at the time of purchase.

Energy Efficiency

- Note showing commitment to exceeding section J energy efficiency requirement of NCC 2019
- Note showing the maximum illumination power density (W/m^2) of the development meet the requirements in NCC 2019
- Lighting sensors for external lighting (motion detectors, timers etc.)
- 4kW Solar PV system on the roof of the development

Indoor Environment Quality

- Note showing commitment to Outside Air Fan in children's rooms providing O/A rates 50% above minimum from AS1668 or O/A provision to ensure CO_2 concentration remains below 800ppm in children rooms.

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Transport

- Minimum 2 bike spaces for employees and visitors
- Electric vehicle charging infrastructure provision (Level 2 – 32amp)

Urban Ecology

- Show extent of vegetated areas around the site (includes lawn)

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INTRODUCTION

Frater Consulting Services have been engaged to undertake a Sustainable Design Assessment for the proposed childcare development located at 2-8 Hampstead Road, Maidstone. This has been prepared to address the Maribyrnong City Council's sustainability requirements especially Clause 21.06-2 *Environmentally Sustainable Development.*

Within Clause 21.06-2, Maribyrnong City Council has identified the following key categories to be addressed

- Energy Performance;
- Water Resources;
- Stormwater Management;
- Indoor Environment Quality;
- Building Materials;
- Construction, Building & Waste Management;
- Transport; and
- Urban Ecology / Innovation.

The site has been assessed using the BESS tool. BESS was developed by association of councils led by Merri-bek City Council. This tool assesses the energy and water efficiency, thermal comfort and overall environmental sustainability performance of new buildings or alterations. It was created to demonstrate how new development can meet sustainability requirements as part of a planning permit application for the participating council.

Each target area within the BESS tool generally receives a score of between 1% and 100%. A minimum score of 50% is required for the energy, water, stormwater and IEQ areas. An overall score of 50% represents 'Best Practice' while a score over 70% represent 'Excellence'. The result of the BESS assessment is included as Appendix D.

The Stormwater Treatment Objective – Relative Measure (STORM) calculator, which addresses stormwater quality considerations, has been used for the development to ensure that stormwater management best practice requirements have been achieved. The result of the STORM assessment is included as Appendix A.

bess
Built Environment
Sustainability Scorecard

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SITE DESCRIPTION

The proposed site is located at 2-8 Hampstead Road, Maidstone. The 1,906m^2 site is currently occupied by a single story building which is proposed to be demolished prior to the construction of the development. It is located within an established residential area approximately 17kms north-west of the Melbourne CBD.

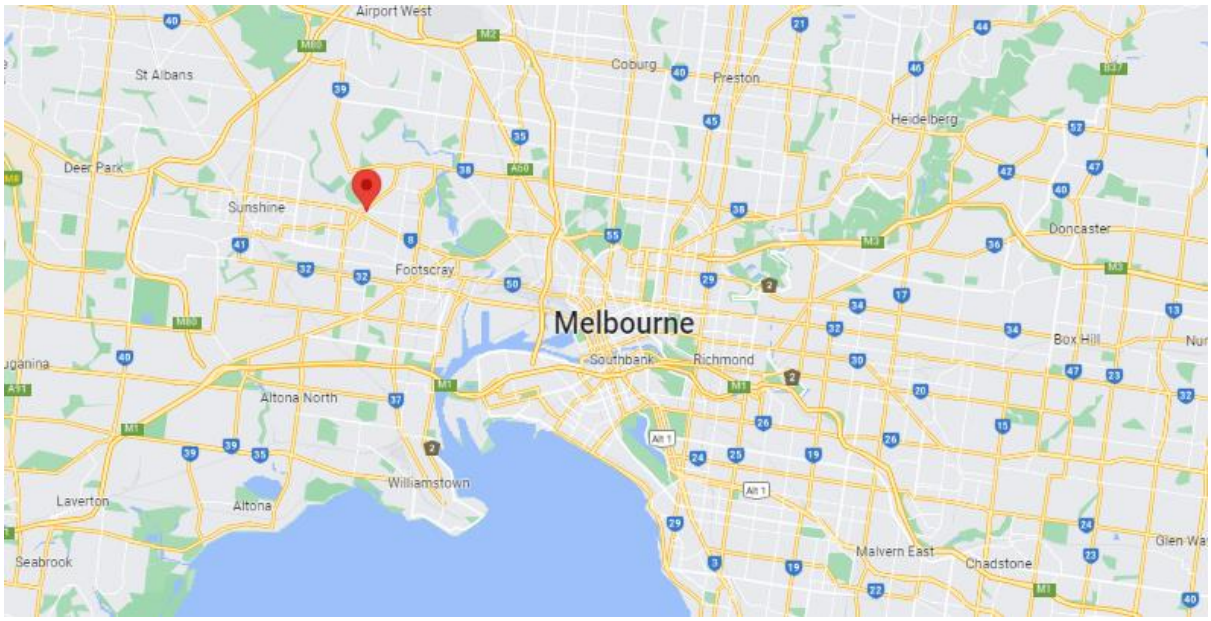

Figure 1: Location of the proposed childcare in Maribyrnong with relation to Melbourne CBD (Source: Google Maps)

PROPOSED DEVELOPMENT

The proposal consists of development of the site into a two-storey childcare facility to accommodate up to 168 children. The area of the site is approximately 1,906m^2. The facility will include 9 children's rooms, a laundry, staff room, kitchens as well as large outdoor play area on ground and first floor.

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ENERGY EFFICIENCY

Energy and its key elements should be integrated into the design of the proposed development. These elements contribute to reducing greenhouse gas emissions by utilising energy efficient appliances, energy conservation measures and renewable energy.

Energy Efficiency

During the building construction stage of the project, a section J (NCC 2019) DTS assessment will occur with the following commitments:

- 10% improvement on floor and ceiling insulation level requirement from NCC 2019;
- Wall and glazing performance to be in line with DTS requirements;
- Heating/cooling system to be chosen within one star of the best available product in the range at the time of purchase or COP/EER 85% or better than most efficient equivalent capacity unit available if no star rating is available; and
- Water heating system to be chosen within one star of the best available product in the range at the time of purchase or 85% or better than most efficient equivalent capacity unit available if no star rating is available.

Alternatively, during the building construction stage of the project, energy modelling will occur with the aim of exceeding requirement of NCC 2019, using an NCC JV3 modelling process. This will be achieved through the use of high performance building fabric and glazing, low energy lighting and building services.

Please note a preliminary JV3 assessment cannot be provided as the required information to prepare it (sections, elevations, RCPs, etc.) are not available. This requirement should be conditioned in the planning permit 'prior to construction'. As soon as working drawings are available and before commencement of construction, a JV3 modelling report will be prepared showing exceeding NCC 2019 compliance requirements. Solar panel and other commitments in this report will help achieving this commitment.

Heating and Cooling Systems

To reduce the energy consumption heating and cooling will be provided by energy efficient air conditioners (chosen within one star of the best available product in the range at the time of purchase or COP/EER 85% or better than most efficient equivalent capacity unit available if no star rating is available).

Hot Water Heating

Hot water will be provided with gas instantaneous system chosen within one star of the best available at the time of purchase (minimum of 6 Star).

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Lighting

The maximum illumination power density (W/m^2) of the development will meet NCC 2019 requirements in by the use of LED throughout the development.

Common, external, service areas lighting will be controlled using occupancy sensor and/or daylight sensors. Ventilation in these areas will be controlled using timers and other sensors.

Energy Efficient Appliances

All appliances provided in the development as part of the base building work (e.g. dishwasher) will be chosen within one energy efficiency star of the best available.

Variable Speed Drives

Variable speed drives will be installed on all major pumps and fans.

Solar PV System

A 4kW solar photovoltaic system for renewable energy generation will be installed on the roof of the development. This will off-set a portion of greenhouse gas emissions and energy use for the project (lighting, pumps etc.)

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WATER EFFICIENCY & STORMWATER MANAGEMENT

Water saving-use and reuse and its key elements should be integrated into the design of the proposed development. These principles contribute to reducing the water demand in addition to promoting water reuse. Stormwater management and its key elements should be integrated into the design of the proposed development. These principles contribute to ensuring natural systems are protected and enhanced whilst promoting on-site retention and aims to reduce runoff or peak flows.

Water Efficient Fittings

The development will include efficient fittings and fixtures to reduce the volume of mains water used in the development. The following WELS star ratings will be specified;

- Toilets – 4 Star;
- Taps (bathroom and kitchen) – 5 Star; and
- Showerhead if provided – 4 Star with aeration device (6.0-7.5L/min)

Rainwater Collection & Use

Rainwater runoff from the entire roof areas (676.2m^2) will be collected and stored in rainwater tanks[1] with a total effective capacity of 17,000L for the development.

If required, a charged pipe system or multiple tanks will be installed to collect water from the entire roof of each dwelling.

In the case of a charged pipe system, the charged pipes will not be running underneath the building footprint (slab) and the stakeholders (builder/developer/architect) will be required to explicitly acknowledge this solution and have the capacity to install it.

Rainwater collected will be used for toilet flushing throughout the development. These initiatives will reduce significantly the stormwater impacts of the development and help achieve compliance with the STORM calculator (See Appendix A).

Stormwater Treatment - Raingardens

First floor play areas will divert towards a minimum of 7m^2 of raingardens before being released at the legal point of discharge.

This will treat the stormwater runoff from part of the roof areas by filtering coarse pollutants before releasing the outflows to the legal point of discharge on site (See Appendix A for details).

The raingardens could be implemented within the landscaped areas adjacent to the roof downpipe and will be installed at least 300mm away from boundary or structural footings. Exact location should be confirmed with civil/ drainage engineer and landscape consultant.

[1] Please note that any stormwater detention volume requirement for the site will be in addition to the proposed rainwater retention and that the proposed tank will not be directly topped up by mains water.

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The owner's corporation will be responsible for the annual maintenance and the replacement of media cartridge as per the manufacturer's requirement).

Water Efficient Appliances

All appliances provided in the development as part of the base building work (e.g. dishwasher) will be chosen within one WELS star of the best available.

Water Efficient Landscaping

Native or drought-tolerant plants will be implemented for the landscaped areas on site. Use of water or irrigation will not be required after an initial period when plants are getting established.

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INDOOR ENVIRONMENT QUALITY

Indoor Environment Quality and its key elements should be integrated into the design of the proposed development. These elements play a significant role in the health, wellbeing and satisfaction of the development occupants. Facilitating a good (IEQ) design provides a naturally comfortable indoor environment and less dependence on building services such as, artificial lighting, mechanical ventilation and heating and cooling device.

Volatile Organic Compounds

All paints, adhesives and sealants and flooring will have low VOC content. Alternatively, products will be selected with no VOCs. Paints such as eColour, or equivalent should be considered. Please refer to Appendix B for VOC limits.

Formaldehyde Minimisation

All engineered wood products will have 'low' formaldehyde emissions, certified as E0 or better. Alternatively, products will be specified with no Formaldehyde. Products such as ecological panel – 100% post-consumer recycled wood (or similar) will be considered for use within the development. Please refer to Appendix B for formaldehyde limits.

Daylight Levels

Daylight penetration will be enhanced with the use of light internal colours to improve daylight reflection. All children room will be provided with large windows (2.4m head height). The depth of most child room from a window will be limited to 9m and multiple windows on different façade will be implemented wherever possible which will allow for large amount of daylight to penetrate the rooms.

Internal windows will also be provided between rooms and between the room and the internal corridor within the development improving further the daylight spreading within the development.

Please refer to appendix C for daylight Hand Calculation showing compliance with best practice requirements.

Mechanical Ventilation – Improved Outside Air Rates

All children's rooms will be provided with O/A fans which will commit to provide 50% increase on O/A provision from AS1668.

Alternatively, O/A will be provided in the children's rooms to ensure that CO_2 concentration in the rooms remains below 800ppm.

Natural Ventilation

Wherever possible, the design should also allow for cross flow ventilation as it will reduce the need for mechanical ventilation. Openable windows will be specified throughout the children rooms to enable natural ventilation. Child Rooms 1,3,4,5,6,9 (6/9 rooms - 67%) will have access to crossflow ventilation. Please see ventilation diagram below.

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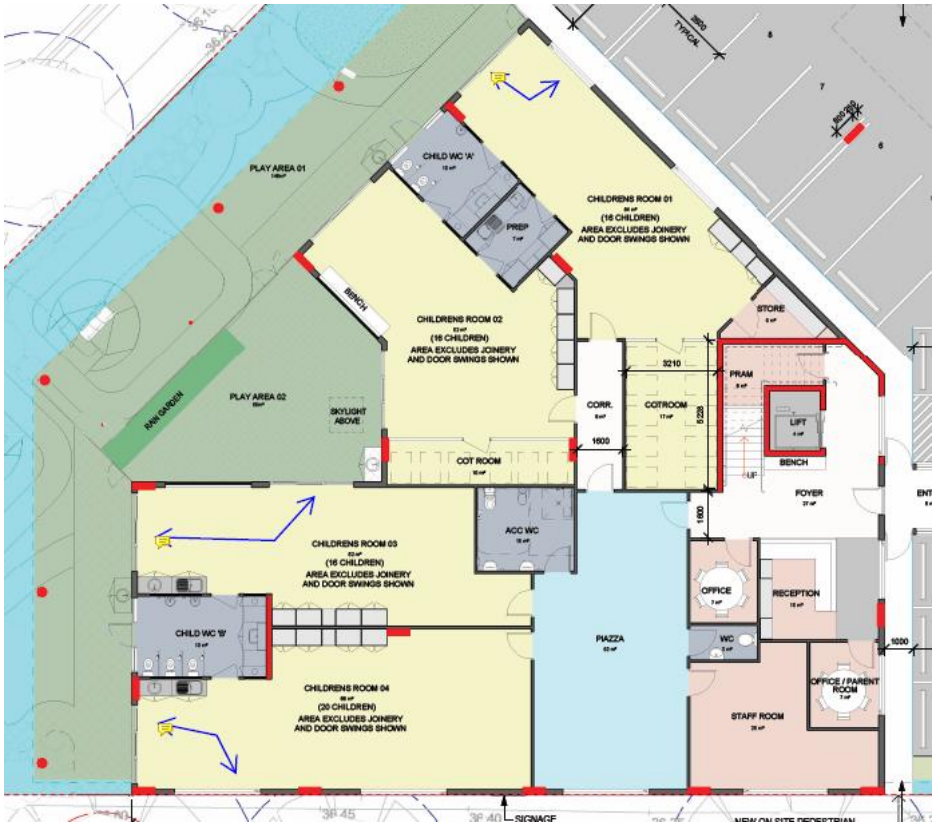

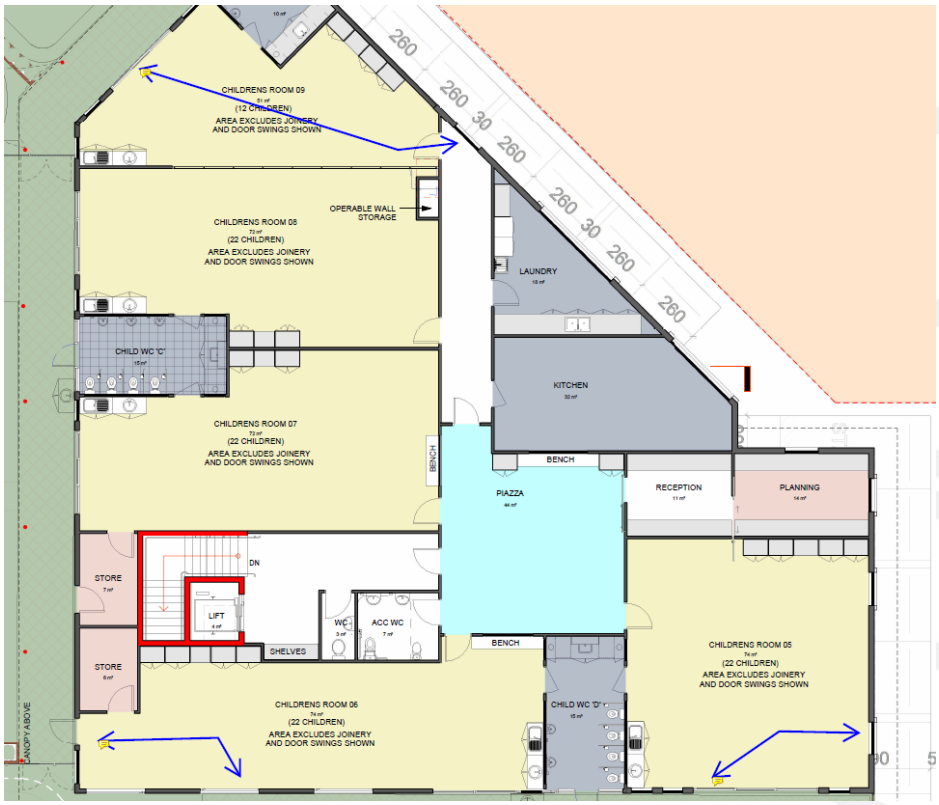

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CONSTRUCTION, BUILDING & WASTE MANAGEMENT

Building Management and its key elements will be integrated into the design of the proposed development. These principles contribute to ensuring efficient and effective on-going building performance. Waste management and its key elements will be integrated into the design of the proposed development. These principles contribute to ensuring minimal waste is transported to landfill by means of disposal, recycling and on-site waste storage and/or collection methods.

Metering and Monitoring

Each unit will be separately metered for potable water and energy. Effective metering ensures that residents/tenants are responsible for their consumption and they can reduce their consumption.

Construction Waste Management

A waste management plan will be introduced to all on-site staff at a site orientation session to ensure that the waste generated on site is minimised and disposed of correctly. A minimum 80% of all construction waste generated on site will be reused or recycled.

Construction Environmental Management

The builder will identify environmental risks related to construction and include management strategies such as maintaining effective erosion and sediment control measures during construction and operation and ensure that appropriate staging of earthworks (e.g. avoid bare earthworks in high risk areas of the site during dominant rainfall period).

Operational Waste

A dedicated storage area will be provided in the basement. The storage area will be sufficiently sized to accommodate the general and recycling waste. Recycling facilities will be as conveniently accessible as the general waste facilities.

Building Users Guide

A Building User's Guide (BUG) will be developed and made available to all owners and occupants. Generally the guide should include the following information:

- A description of operational and maintenance requirements of the heat and cooling systems and hot water systems for efficient and safe use of these systems;
- A description of operational and maintenance requirements of building initiatives to reduce energy and water use;
- A description of operational and maintenance requirements of water sensitive urban design features;
- A description of operational and maintenance requirements of waste management strategy; and
- Transport facilities including public transport information.

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Universal Access

The development will be designed for universal access in accordance with AS1428.2 to allow persons with limited mobility to enter and use the premises.

TRANSPORT

Bicycle Parking

A minimum of 2 bike spaces for employees will be provided. Bikes will be stored in the basement carpark.

Electric Vehicle Car Charging Infrastructure

At least one charging infrastructure (minimum Level 2 – 32amp) for electric vehicle will be provided in the car park.

BUILDING MATERIALS

Materials selection should be integrated into the design of the proposed development. The criteria for appropriate materials used are based on economic and environmental cost.

Timber

All timber used in the development will be Forest Stewardship Council (FSC) or Program for the Endorsement of Forest Certification (PEFC) certified, or recycled / reused.

Flooring

Wherever possible, flooring will be selected from products/materials certified under any of the following:

- Carpet Institute of Australia Limited, Environmental Certification Scheme (ECS) v1.2;
- Ecospecifier GreenTag GreenRate V3.2; and/or
- Good Environmental Choice (GECA).

Joinery

Where possible, joinery will be manufactured from materials/products certified under any of the following:

- Ecospecifier GreenTag GreenRate V3.1;
- Good Environmental Choice (GECA); and/or
- The Institute for Market Transformation to Sustainability (MTS) Sustainable Materials Rating Technology standard Version 4.0 – SmaRT 4.0.

The use of Ecological Panel (or equivalent) will be investigated, which is created from 100% post-consumer recycled products.

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PVC

All PVC products for cables, pipes and flooring will meet the Best Practice Manufacturing Guidelines – The manufacturer's facility will be certified ISO14001.

Steel

Wherever possible, steel for the development will be sourced from a Responsible Steel Maker[2]. Reinforcing steel for the project will be manufactured using energy reducing processes commonly used by large manufacturers such as Bluescope or OneSteel.

[2] A Responsible Steel Maker must have facilities with a currently valid and certified ISO 14001 Environmental Management System (EMS) in place, and be a member of the World Steel Association's (WSA) Climate Action Program (CAP).

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URBAN ECOLOGY

In highly urbanised environments, such as metropolitan Melbourne, it is important to recognise the importance of maintaining and increasing the health of our urban ecosystems to improve living conditions not only for the fauna but also ourselves. We can improve our urban ecosystem through the incorporation of vegetation through landscaping for both new and existing developments.

Landscaping

The landscaping onsite will provide the occupants with a pleasant surrounding environment. The design will incorporate a mix of native species to help maintain local biodiversity.

Insulant ODP

All thermal insulation used in the development will not contain any ozone-depleting substances and will not use any in its manufacturing.

IMPLEMENTATION & MONITORING

The proposed Hampstead Road development will meet the best practice requirement of the City of Maribyrnong through the different initiatives describe in this SMP such as thermally efficient building envelope, efficient air conditioning and hot water system and sustainable materials. An appropriate implementation and monitoring of the initiatives outlined within this SMP will be required.

Implementation of the ESD initiatives outlined in this report requires the following processes:

- Full integration with architectural plans and specifications
- Full integration with building services design drawings and specifications
- Endorsement of the ESD Report with town planning drawings
- ESD initiatives to be included in plans and specifications for building approval

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APPENDIX A – WSUD REPORT / STORM ASSESSMENT

New development must comply with the best practice performance targets for suspended solids, total phosphorous and total nitrogen, as set out in the Urban Stormwater Best Practice Environmental Management Guidelines, Victoria Stormwater Committee 1999. Currently, these water quality performance targets require:

- Suspended Solids - 80% retention of typical urban annual load.
- Total Nitrogen - 45% retention of typical urban annual load.
- Total Phosphorus - 45% retention of typical urban annual load.
- Litter - 70% reduction of typical urban annual load.

The STORM tool, an industry accepted tool, was used to assess the development and ensure that the best practice targets described above are met. A minimum compliance score of 100% is required to achieve for the development.

Site Delineation

For the purpose of the assessment, the development has been delineated into the following surface types:

- Site area of 1,906m^2;
- Roof area runoff of 676.2m^2 which will be diverted into rainwater tank(s);
- First floor play areas of 350m^2 which will be designed to divert towards raingardens;
- Permeable area of 325.5m^2 comprised of landscaped area and the ground floor play area;
- Remainder of impervious areas of 554.3m^2 compromised of other impervious areas around the site.

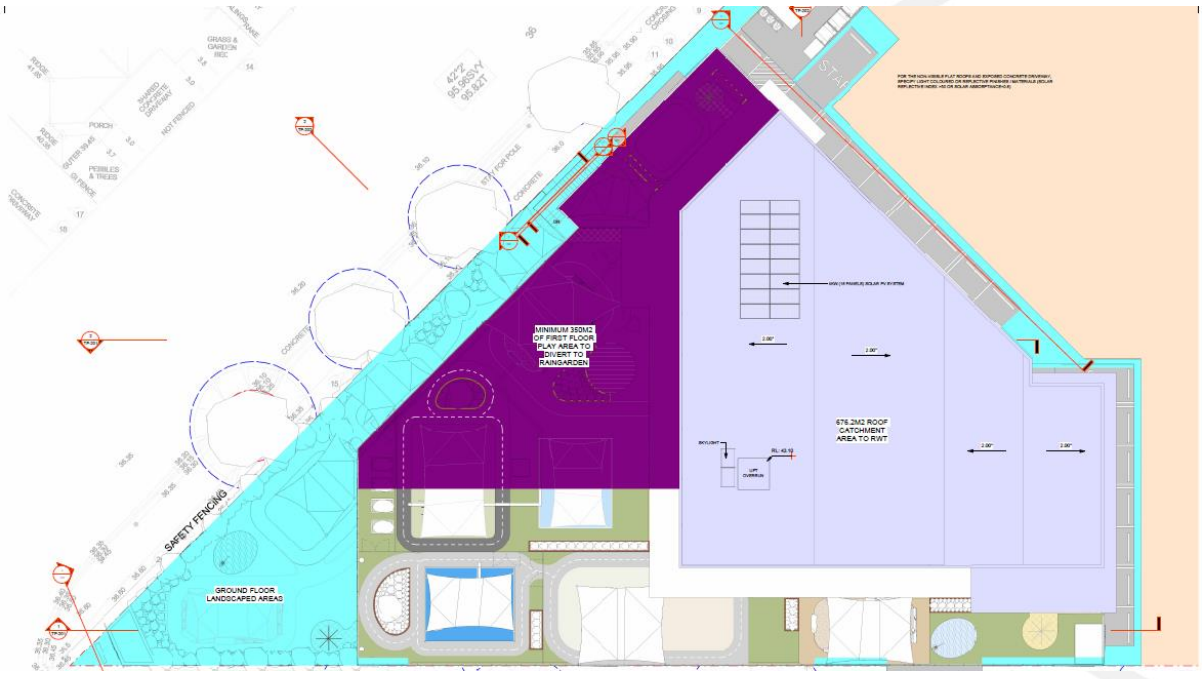

Figure 2: Play areas to raingardens (purple) permeable – landscape ground floor areas (light blue) and roof catchment (light purple).

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Stormwater initiatives

Rainwater Tank
(17,000L Rainwater tank for toilet flushing)

The roof catchment area of 676.2m^2 (as described above) will be diverted to rainwater tank(s) with a total effective capacity of 17,000L for the development. The rainwater collected will be used for toilet flushing in the development.

If required, a charged pipe system or multiple tanks will be installed to collect water from part of the roof of each dwelling.

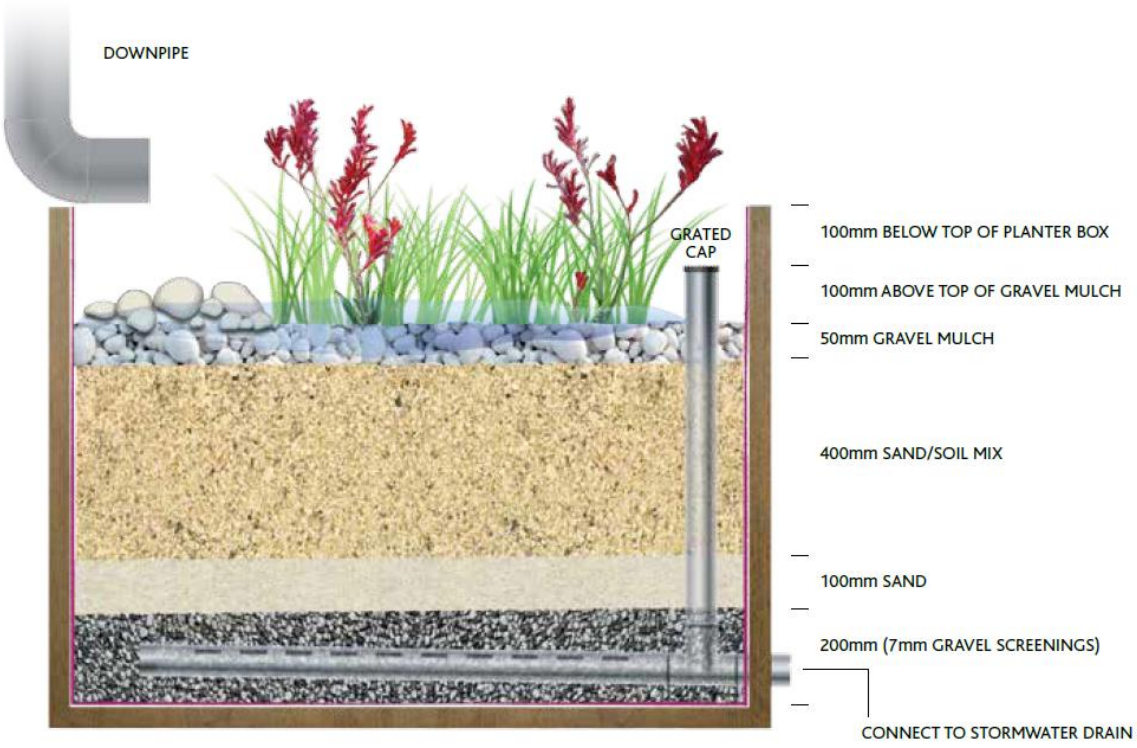
In the case of a charged pipe system, the charged pipes will not be running underneath the slab and the stakeholders (builder/developer/architect) will be required to explicitly acknowledge this solution and have the capacity to install it.

Raingarden

Part of first floor play areas will divert towards a minimum of 7m^2 of raingardens before being released at the legal point of discharge.

The raingardens will be implemented within the landscaped areas adjacent to the roof downpipe and will be installed at least 300mm away from boundary or structural footings.

Outflows from the raingardens will be released at the legal point of discharge on site. The raingarden will help reducing the coarse and fine sediment level in the outflows. For more information on how to build raingarden, please visit - https://www.melbournewater.com.au/community-and-education/help-protect-environment/raingardens.



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The remainder of impervious areas will directly be released at the legal point of discharge on site.

Permeable areas are excluded from the STORM assessment.

Stormwater Results

The initiatives and areas described above have been applied to the STORM calculator and the proposed development has achieved a score of 100%.

Melbourne Water **STORM Rating Report**

TransactionID:	0
Municipality:	MARIBYRNONG
Rainfall Station:	MARIBYRNONG
Address:	2-8 HAMPSTEAD ROAD
	MAIDSTONE
	VIC 3012
Assessor:	FRATER CONSULTING SERVICES
Development Type:	Other
Allotment Site (m2):	1,906.00
STORM Rating %:	100

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
ROOF TO RWT	676.20	Rainwater Tank	17,000.00	100	166.90	80.00
FIRST FLOOR PLAY AREA TO RG	350.00	Raingarden 100mm	7.00	0	128.10	0.00
OTHER IMPERVIOUS AREAS	554.30	None	0.00	0	0.00	0.00

It should be noted that the entire development is connected to the rainwater tank. 100 occupants have been chosen for the childcare due to the 168 child capacity noted on the plans.

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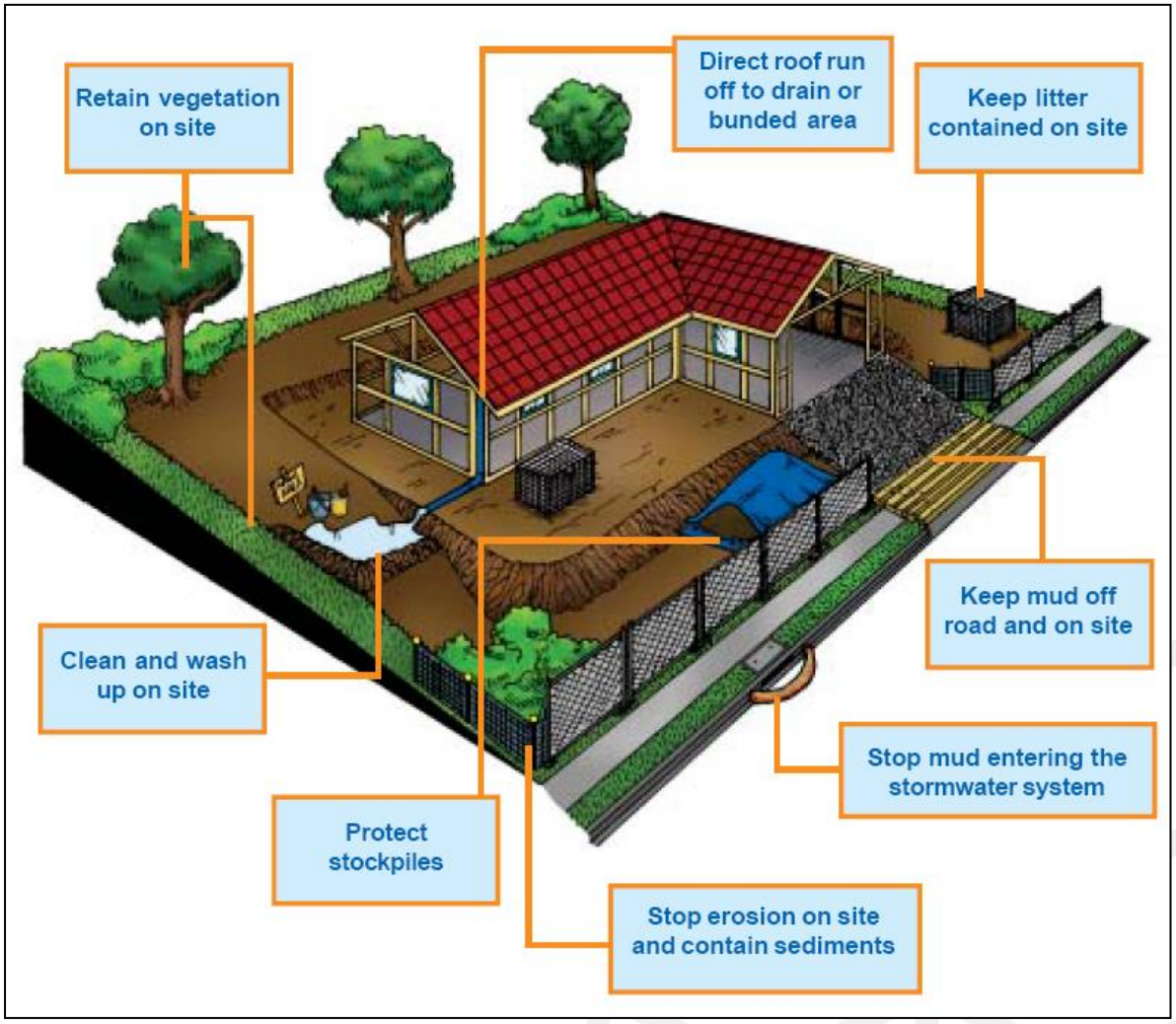
Stormwater Management at Construction Site

To manage stormwater management in the construction stage, measures will be put in place to minimise the likelihood of contaminating stormwater. This will mean ensuring buffer strips are in place, sediment traps are installed, and the site will be kept clean from any loose rubbish. The builder will follow the process outlined in "Keeping Our Stormwater Clean – A Builder's Guide" by Melbourne Water.



Copies of "Keeping Our Stormwater Clean – A Builder's Guide" booklet can be downloaded from the following website.

https://www.clearwatervic.com.au/resource-library/guidelines-and-strategy/keeping-our-stormwater-clean-a-builders-guide.php

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APPENDIX B – DAYLIGHT ACCESS – GREEN STAR CALCULATION

The Green Building Council of Australia (GBCA) has created a daylight access calculation method within the Green Star benchmarking tool. This tool is widely recognised by Councils and Industry.

The Green Star Daylight Hand Calculation method is used to determine if there are risks associated with the current design, particularly with respect to meeting the desired daylight factors referenced in the Sustainable Management Plan in the Planning Process (SDAPP) Indoor Environment Quality guidelines.

According to the SDAPP guidelines, best practice is achieved where 2% daylight factor is achieved across 30% of the floor area of the nominated area.

The calculation method is based on one simple formula to calculate a zone of compliance within a nominated room. The compliant zone is the area of the room achieving 2% daylight factor and can be calculated as follows:

$$\boldsymbol{Zone\ of\ Compliance = 2 \times h \times w}$$

$\boldsymbol{w}$ is the width of the glazing serving the room

$\boldsymbol{h}$ is the height of the window head above the desktop/table level

Windows serving the nominated area are required to have a minimum 40% VLT to use the formula.

The percentage of compliant area within the nominated area can then be easily calculated with the following formula:

$$\boldsymbol{Percentage\ of\ compliant\ area = \frac{Zone\ of\ Compliance}{Nominated\ Area} \times 100}$$

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Site Description

The nominated areas for the Hand Calculation are children's rooms (yellow). Stairs and stairs landing are considered as secondary space and are excluded from the assessment.

The desktop/table level has been estimated to be 400mm.

See below for the mark-up of the compliant zone (orange) within each nominated area (yellow).

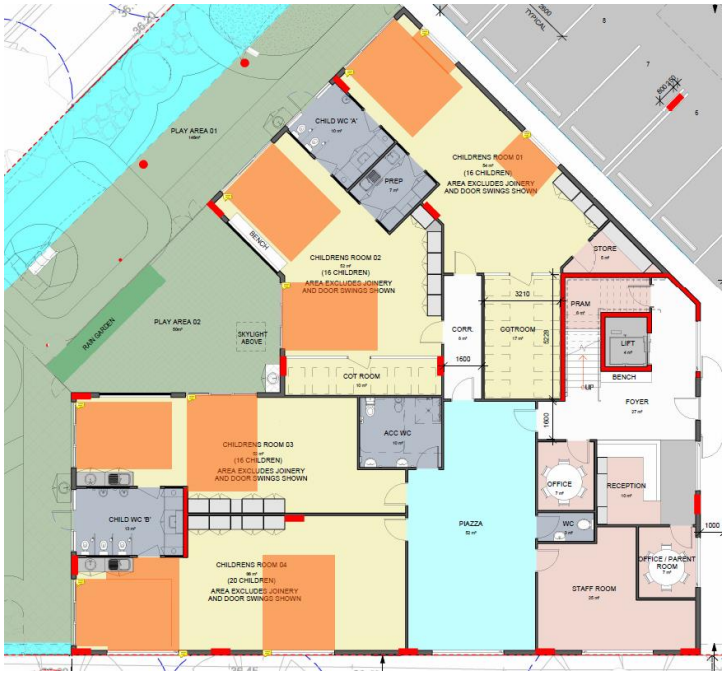

Figure 3: Compliance zone for ground floor play areas

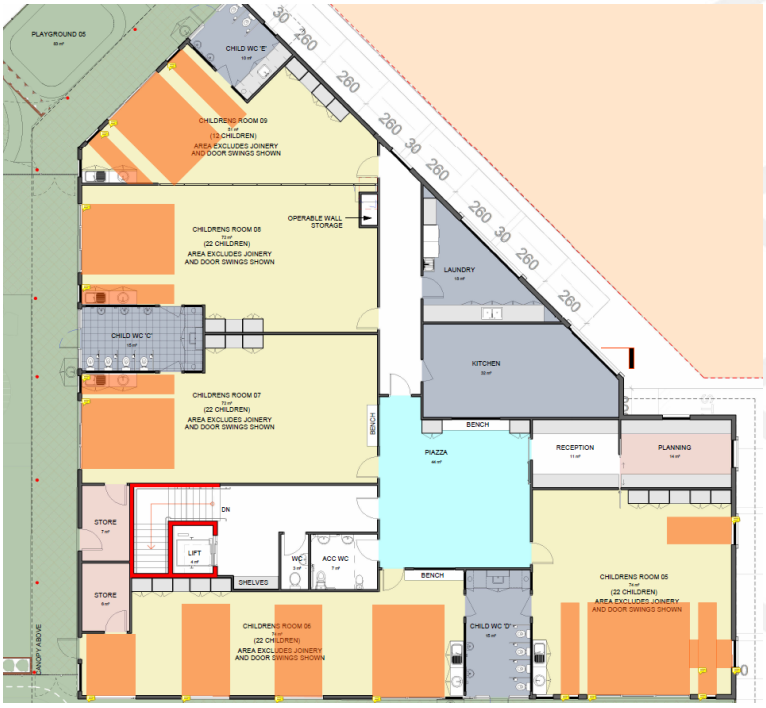

Figure 4: Compliance zone for first floor play areas

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	Nominated Areas (m^2)	Compliant Areas (m^2)	Compliant Areas (%)
CHILD ROOM 1	54	16	
CHILD ROOM 2	52	24	
CHILD ROOM 3	52	23	
CHILD ROOM 4	66	27	
CHILD ROOM 5	74	28	
CHILD ROOM 6	74	34	
CHILD ROOM 7	72	15	
CHILD ROOM 8	72	15	
CHILD ROOM 9	51	17	
TOTAL	567	199	35%

The green star hand calculation for the proposed childcare shows that the development will achieve 35% of floor area at 2% daylight factor and exceed SDAPP best practice requirement.

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APPENDIX C – VOC & FORMALDEHYDE EMISSION LIMITS

The following table are an extract of the Green Star Design and as built submission guidelines:

Table 13.1.1: Maximum TVOC Limits for Paints, Adhesives and Sealants

Product Category	Max TVOC content in grams per litre (g/L) of ready to use product.
General purpose adhesives and sealants	50
Interior wall and ceiling paint, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100

The product complies with the Total VOC (TVOC) limits specified in the Table below.

Carpet Test Standards and TVOC Emissions Limits

Test protocol	Limit
ASTM D5116 - Total VOC limit	0.5mg/m^2 per hour
ASTM D5116 - 4-PC (4-Phenylcyclohexene)	0.05mg/m^2 per hour
ISO 16000 / EN 13419 - TVOC at three days	0.5 mg/m^2 per hour
ISO 10580 / ISO/TC 219 (Document N238) - TVOC at 24 hours	0.5mg/m^2 per hour

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Table 13.2: Formaldehyde Emission Limit Values for Engineered Wood Products

Test Protocol	Emission Limit/ Unit of Measurement
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	≤1mg/ L
AS/NZS 1859.1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5 mg/L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1mg/ L
AS/NZS 4357.4 - Laminated Veneer Lumber (LVL)	≤1mg/ L
Japanese Agricultural Standard MAFF Notification No.701 Appendix Clause 3 (11) - LVL	≤1mg/ L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A 5905:2003 - MDF, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A1901 (not applicable to Plywood, applicable to high pressure laminates and compact laminates)	≤0.1 mg/m²hr*
ASTM D5116 (applicable to high pressure laminates and compact laminates)	≤0.1 mg/m²hr
ISO 16000 part 9, 10 and 11 (also known as EN 13419), applicable to high pressure laminates and compact laminates	≤0.1 mg/m²hr (at 3 days)
ASTM D6007	≤0.12mg/m³**
ASTM E1333	≤0.12mg/m³***
EN 717-1 (also known as DIN EN 717-1)	≤0.12mg/m³
EN 717-2 (also known as DIN EN 717-2)	≤3.5mg/m²hr

*mg/m²hr may also be represented as mg/m²/hr.

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APPENDIX D – BESS ASSESSMENT

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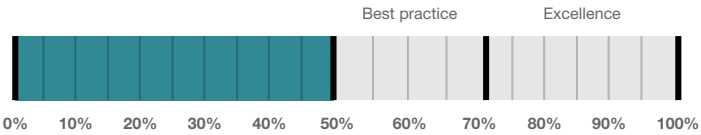
BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 2-8 Hampstead Rd Maidstone Victoria 3012. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Maribyrnong City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score

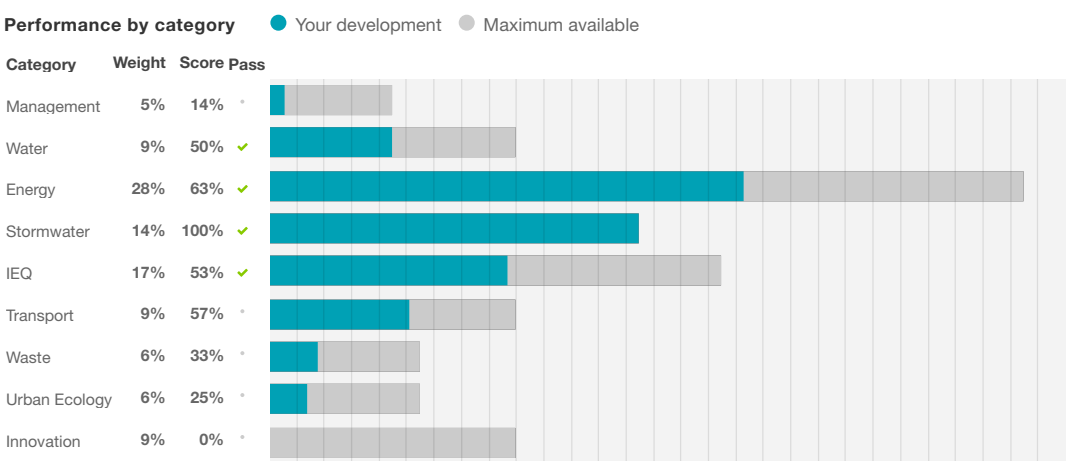


53%

Project details

Address	2-8 Hampstead Rd Maidstone Victoria 3012
Project no	64DEB478-R7
BESS Version	BESS-7
Site type	Non-residential development
Account	wali@fraterconsultingservices.com.au
Application no.	
Site area	1,906.00 m²
Building floor area	1,129.00 m²
Date	12 July 2024
Software version	1.8.1-B.407

Performance by category



Buildings

Name	Height	Footprint	% of total footprint
CHILDCARE	2	1,129 m^2	100%

Dwellings & Non Res Spaces

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Other building				
CHILDCARE	1	1,129 m^2	CHILDCARE	100%
Total	**1**	**1,129 m^2**	**100%**	

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Water 3.1	Annotation: Water efficient garden details		-
Energy 4.2	Location and size of solar photovoltaic system		-
Stormwater 1.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)		-
Transport 1.4	Location of non-residential bicycle parking spaces		-
Transport 2.1	Location of electric vehicle charging infrastructure		-
Waste 2.2	Location of recycling facilities		-
Urban Ecology 2.1	Location and size of vegetated areas		-

Supporting evidence

Credit	Requirement	Response	Status
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings		-
Energy 3.7	Average lighting power density and lighting type(s) to be used		-
Energy 4.2	Specifications of the solar photovoltaic system(s)		-
Stormwater 1.1	STORM report or MUSIC model		-
IEQ 1.4	A short report detailing assumptions used and results achieved.		-

Credit summary

Management Overall contribution 4.5%

		14%
1.1 Pre-Application Meeting		0%
2.3 Thermal Performance Modelling - Non-Residential		0%
3.2 Metering - Non-Residential		N/A Scoped Out
		ONLY ONE BUILDING
3.3 Metering - Common Areas		0%
4.1 Building Users Guide		100%

Water Overall contribution 9.0%

	Minimum required 50%	50% ✔ Pass
1.1 Potable Water Use Reduction		40%
3.1 Water Efficient Landscaping		100%
4.1 Building Systems Water Use Reduction		N/A Scoped Out
		N/A

Energy Overall contribution 27.5%

	Minimum required 50%	63% ✔ Pass
1.1 Thermal Performance Rating - Non-Residential		37%
2.1 Greenhouse Gas Emissions		100%
2.2 Peak Demand		100%
2.3 Electricity Consumption		100%
2.4 Gas Consumption		100%
2.6 Electrification		0% ⊘ Disabled
		Credit is available when project is declared to have no gas connection.
3.1 Carpark Ventilation		N/A Scoped Out
		OPEN CARPARK
3.2 Hot Water		100%
3.7 Internal Lighting - Non-Residential		100%
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A Scoped Out
		No cogeneration or trigeneration system in use.
4.2 Renewable Energy Systems - Solar		100%
4.4 Renewable Energy Systems - Other		0% ⊘ Disabled
		No other (non-solar PV) renewable energy is in use.

Stormwater Overall contribution 13.5%

	Minimum required 100%	100%	Pass
1.1 Stormwater Treatment		100%	

IEQ Overall contribution 16.5%

	Minimum required 50%	53%	Pass
1.4 Daylight Access - Non-Residential		35%	Achieved
2.3 Ventilation - Non-Residential		100%	Achieved
3.4 Thermal comfort - Shading - Non-Residential		0%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
4.1 Air Quality - Non-Residential		100%	

Transport Overall contribution 9.0%

	57%	
1.4 Bicycle Parking - Non-Residential	100%	
1.5 Bicycle Parking - Non-Residential Visitor	0%	
1.6 End of Trip Facilities - Non-Residential	0%	
2.1 Electric Vehicle Infrastructure	100%	
2.2 Car Share Scheme	N/A	Scoped Out
		no car sharing
2.3 Motorbikes / Mopeds	0%	

Waste Overall contribution 5.5%

	33%	
1.1 - Construction Waste - Building Re-Use	0%	
2.1 - Operational Waste - Food & Garden Waste	0%	
2.2 - Operational Waste - Convenience of Recycling	100%	

Urban Ecology Overall contribution 5.5%

	25%	
1.1 Communal Spaces	0%	
2.1 Vegetation	50%	
2.2 Green Roofs	0%	
2.3 Green Walls and Facades	0%	
3.2 Food Production - Non-Residential	0%	

Innovation Overall contribution 9.0%

		0%
1.1 Innovation		0%

Credit breakdown

Management Overall contribution 1%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 42.9% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.3 Thermal Performance Modelling - Non-Residential		0%
Score Contribution	This credit contributes 28.6% towards the category score.	
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2019 Section J1.5?	
Question	Criteria Achieved ?	
Other building	No	
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star?	
Question	Criteria Achieved ?	
Other building	No	
3.2 Metering - Non-Residential		N/A ◈ Scoped Out
This credit was scoped out	ONLY ONE BUILDING	
3.3 Metering - Common Areas		0%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Have all major common area services been separately submetered?	
Question	Criteria Achieved ?	
Other building	No	
4.1 Building Users Guide		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Will a building users guide be produced and issued to occupants?	
Question	Criteria Achieved ?	
Project	Yes	

Water Overall contribution 4% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the built in calculation tools
Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	Yes
Are you installing a rainwater tank?:	Yes
Water fixtures, fittings and connections	
Showerhead:	4 Star WELS (>= 4.5 but <= 6.0)
Bath:	Scope out
Kitchen Taps:	>= 5 Star WELS rating
Bathroom Taps:	>= 5 Star WELS rating
Dishwashers:	>= 5 Star WELS rating
WC:	>= 4 Star WELS rating
Urinals:	Scope out
Washing Machine Water Efficiency:	Occupant to Install
Which non-potable water source is the dwelling/space connected to?:	RWT
Non-potable water source connected to Toilets:	Yes
Non-potable water source connected to Laundry (washing machine):	No
Non-potable water source connected to Hot Water System:	No
Rainwater Tank	
What is the total roof area connected to the rainwater tank?: RWT	676 m^2
Tank Size: RWT	17,000 Litres
Irrigation area connected to tank: RWT	-
Is connected irrigation area a water efficient garden?: RWT	No
Other external water demand connected to tank?: RWT	-

1.1 Potable Water Use Reduction		40%
Score Contribution	This credit contributes 83.3% towards the category score.	
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.	
Output	Reference	
Project	2747 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	2099 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	1778 kL	
Output	% Reduction in Potable Water Consumption	
Project	35 %	
Output	% of connected demand met by rainwater	
Project	94 %	
Output	How often does the tank overflow?	
Project	Never / Rarely	
Output	Opportunity for additional rainwater connection	
Project	1121 kL	

3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 16.7% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	

4.1 Building Systems Water Use Reduction		N/A	Scoped Out
This credit was scoped out	N/A		

Energy Overall contribution 18% Minimum required 50%

Use the BESS Deem to Satisfy (DtS) method for Energy?:	Yes
Do all exposed floors and ceilings (forming part of the envelope) demonstrate a minimum 10% improvement in required NCC2019 insulation levels (total R-value upwards and downwards)?:	Yes
Does all wall and glazing demonstrate meeting the required NCC2019 facade calculator (or better than the total allowance)?:	Yes
Are heating and cooling systems within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available?:	Yes
Are water heating systems within one star of the best available, or 85% or better than the most efficient equivalent capacity unit?:	Yes
Are you installing a cogeneration or trigeneration system?:	No
Non-Residential Building Energy Profile	
Heating, Cooling & Comfort Ventilation - Electricity Reference fabric & services:	50,000 kWh
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:	50,000 kWh
Heating, Cooling & Comfort Ventilation - Electricity Proposed fabric & services:	50,000 kWh
Heating - Gas - Reference fabric and services:	-
Heating - Gas - Proposed fabric and Reference services:	-
Heating - Gas - Proposed fabric and services:	-
Heating - Wood - reference fabric and services:	-
Heating - Wood - proposed fabric and reference services:	-
Heating - Wood - proposed fabric and services:	-
Hot Water - Electricity - Reference:	-
Hot Water - Electricity - Proposed:	-
Hot Water - Gas - Baseline:	1,000 MJ
Hot Water - Gas - Proposed:	899 MJ
Lighting - Reference:	5,000 kWh
Lighting - Proposed:	5,000 kWh
Peak Thermal Cooling Load - Reference:	-
Peak Thermal Cooling Load - Proposed:	-
Solar Photovoltaic system	
System Size (lesser of inverter and panel capacity): SPV	4.0 kW peak
Orientation (which way is the system facing)?: SPV	North
Inclination (angle from horizontal): SPV	10.0 Angle (degrees)

1.1 Thermal Performance Rating - Non-Residential		37%	
Score Contribution	This credit contributes 36.4% towards the category score.		
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J)?		
2.1 Greenhouse Gas Emissions		100%	
Score Contribution	This credit contributes 9.1% towards the category score.		
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?		
2.2 Peak Demand		100%	
Score Contribution	This credit contributes 4.5% towards the category score.		
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?		
2.3 Electricity Consumption		100%	
Score Contribution	This credit contributes 9.1% towards the category score.		
Criteria	What is the % reduction in annual electricity consumption against the benchmark?		
2.4 Gas Consumption		100%	
Score Contribution	This credit contributes 9.1% towards the category score.		
Criteria	What is the % reduction in annual gas consumption against the benchmark?		
2.6 Electrification		0%	⊘ Disabled
This credit is disabled	Credit is available when project is declared to have no gas connection.		
3.1 Carpark Ventilation		N/A	✧ Scoped Out
This credit was scoped out	OPEN CARPARK		
3.2 Hot Water		100%	
Score Contribution	This credit contributes 4.5% towards the category score.		
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?		
3.7 Internal Lighting - Non-Residential		100%	
Score Contribution	This credit contributes 9.1% towards the category score.		
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J6.2a of the NCC 2019 Vol 1?		
Question	Criteria Achieved ?		
Other building	Yes		
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	✧ Scoped Out
This credit was scoped out	No cogeneration or trigeneration system in use.		

4.2 Renewable Energy Systems - Solar		100%	
Score Contribution	This credit contributes 4.5% towards the category score.		
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?		
Output	Solar Power - Energy Generation per year		
Other building	4,847 kWh		
Output	% of Building's Energy		
Other building	15 %		
4.4 Renewable Energy Systems - Other		0%	⊘ Disabled
This credit is disabled	No other (non-solar PV) renewable energy is in use.		

Stormwater

Overall contribution 14% Minimum required 100%

Which stormwater modelling are you using?:	Melbourne Water STORM tool	
1.1 Stormwater Treatment		100%
Score Contribution	This credit contributes 100.0% towards the category score.	
Criteria	Has best practice stormwater management been demonstrated?	
Question	STORM score achieved	
Project	100	
Output	Min STORM Score	
Project	100	

IEQ Overall contribution 9% Minimum required 50%

1.4 Daylight Access - Non-Residential	35%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.	
Criteria	What % of the nominated floor area has at least 2% daylight factor?	
Question	Percentage Achieved?	
Other building	35 %	
2.3 Ventilation - Non-Residential	100%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.	
Criteria	What % of the regular use areas are effectively naturally ventilated?	
Question	Percentage Achieved?	
Other building	67 %	
Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?	
Question	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668:2012?	
Other building	50 %	
Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?	
Question	Value	
Other building	800 ppm	
3.4 Thermal comfort - Shading - Non-Residential	0%	
Score Contribution	This credit contributes 17.6% towards the category score.	
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?	
Question	Percentage Achieved?	
Other building	0 %	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential	0%	
Score Contribution	This credit contributes 5.9% towards the category score.	
Criteria	What percentage of regular use areas in tenancies have ceiling fans?	
Question	Percentage Achieved?	
Other building	0 %	
4.1 Air Quality - Non-Residential	100%	
Score Contribution	This credit contributes 5.9% towards the category score.	
Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?	
Question	Criteria Achieved ?	
Other building	Yes	

Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes

Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Other building	Yes

Transport Overall contribution 5%

1.4 Bicycle Parking - Non-Residential	100%
Score Contribution	This credit contributes 28.6% towards the category score.
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Other building	Yes
Question	Bicycle Spaces Provided ?
Other building	2

1.5 Bicycle Parking - Non-Residential Visitor	0%
Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Other building	No
Question	Bicycle Spaces Provided ?
Other building	-

1.6 End of Trip Facilities - Non-Residential	0%
Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Where adequate bicycle parking has been provided. Is there also: * 1 shower for the first 5 employee bicycle spaces plus 1 to each 10 employee bicycles spaces thereafter, * changing facilities adjacent to showers, and * one secure locker per employee bicycle space in the vicinity of the changing / shower facilities?
Question	Number of showers provided ?
Other building	-
Question	Number of lockers provided ?
Other building	-
Output	Min Showers Required
Other building	1
Output	Min Lockers Required
Other building	2

2.1 Electric Vehicle Infrastructure	100%
Score Contribution	This credit contributes 28.6% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	Yes

2.2 Car Share Scheme	N/A ⌖ Scoped Out
This credit was scoped out	no car sharing

2.3 Motorbikes / Mopeds	0%
Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

Waste Overall contribution 2%

1.1 - Construction Waste - Building Re-Use	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No

2.1 - Operational Waste - Food & Garden Waste	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	No

2.2 - Operational Waste - Convenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

Urban Ecology Overall contribution 1%

1.1 Communal Spaces		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Is there at least the following amount of common space measured in square meters : * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?	
Question	Common space provided	
Other building	-	
Output	Minimum Common Space Required	
Other building	53 m²	
2.1 Vegetation		50%
Score Contribution	This credit contributes 50.0% towards the category score.	
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?	
Annotation	Approximately 15% of total site area is covered by vegetation	
Question	Percentage Achieved ?	
Project	15 %	
2.2 Green Roofs		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	No	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green wall or green façade?	
Question	Criteria Achieved ?	
Project	No	
3.2 Food Production - Non-Residential		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	What area of space per occupant is dedicated to food production?	
Question	Food Production Area	
Other building	-	
Output	Min Food Production Area	
Other building	15 m²	

Innovation Overall contribution 0%

1.1 Innovation		0%
Score Contribution	This credit contributes 100.0% towards the category score.	
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?	

Disclaimer

Traffix Group

Waste Management Plan

Proposed Childcare Centre

2-8 Hampstead Road, Maidstone

Prepared for
ELG Property Pty Ltd

July 2024

G32519R-04C (WMP)

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Document Control

Our Reference: G32519R-04C (WMP)

Issue No.	Type	Date	Prepared By	Approved By
A	Draft	07/03/2024	M. Jora	J. Stone
B	Final	17/06/2024	M. Jora	J. Stone
C	Final	11/07/2024	M. Jora	J. Stone

AS/NZS ISO 45001-2018 Occupational Health & Safety Management Systems
AS/NZS ISO 14001 Environmental Management Systems
AS/NZS ISO 9001-2016 Quality Management Systems

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Appendix A Development Plans

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1. Introduction

Traffix Group has been engaged by ELG Property Pty Ltd to undertake a Waste Management Plan for the proposed childcare centre at 2-8 Hampstead Road, Maidstone.

This Waste Management Plan is intended to act as a guideline for the proposed development and may be subject to the ongoing updates, post-development.

2. Proposal

The proposal on the subject site is for a 168-place childcare centre, with total building area of 1,129m^2. This proposal is only for part of the site (towards the western half), with the remaining part of the site subject to a future development application. The operating hours of the childcare centre will be between 6:30am to 6:30pm, Monday to Friday.

Vehicle access to the site is provided via a two-way crossover to Mitchell Street, located at the south-eastern corner of the childcare centre component of the site.

A waste area is provided at the south-western corner of the carpark. Waste collection is to be undertaken on-site within the carpark via a private contractor using a 6.4m long mini rear loading waste vehicle outside of the operating times of the childcare centre.

A copy of the development plans prepared by The ELLIS Group Architects and modified by BuildCare (dated July 2024) is attached at Appendix A to this report.

3. Waste Management Plan

3.1. Waste Generation

The following table sets out the expected waste generation for the proposed childcare centre. The waste generation rates adopted are based on rates specified under Sustainability Victoria's *Better Practice Guide for Waste Management and Recycling in Multi-unit Developments*.

Table 1: Waste Generation

Waste Source	Size[1]	Waste Generation Rate		Waste Generation	
		Garbage	Recycling	Garbage	Recycling
Childcare centre	1,129m^2	350L/100m^2 per week	350L/100m^2 per week	3,952L per week	3,952L per week

Note:
1. Assessment of waste generation is based on the total building area.

In accordance with the Victorian Government's *Circular Economy Policy*: *Recycling Victoria*, food organics green organics (FOGO), and paper & cardboard waste have been considered separately to help reduce landfill at the source and help separate commingled recycling.

Approximately 30% of garbage waste from the childcare centre is considered as organic waste.

Paper & cardboard waste is included within the 'recycling' waste rates. Approximately 25% of the combined recycling waste from the childcare centre are considered as paper & cardboard.

Based on the above, the childcare centre will produce:

- Garbage – 2,766L/week,
- FOGO – 1,185L/week,
- Commingled Recycling – 2,964L/week, and
- Paper & Cardboard – 988L/week

3.2. Waste Equipment

Based on those rates previously specified, Table 2 provides a summary of the waste storage requirements and the frequency of collection.

Table 2: Waste Bins and Collection Frequencies

Waste Source	Waste Stream	Waste Volume (L/week)	Bin Capacity	No. of Bins Required	Collection Frequency (per week)
Childcare Centre	Garbage	2,766L	660L	1	2
			1,100L	1	
	Recycling	2,964L	1,100L	2	2
	FOGO	1,185L	240L	3	2
	Paper & Cardboard	988L	660L	1	2

As noted above, the proposed childcare centre requires 3 x 240L, 2 x 660L bins, and 3 x 1,100L bins.

Further details regarding the waste equipment required for the proposed childcare centre are detailed in Table 3 below.

Table 3: Bin Details and Colours

Waste Stream	Bin Capacity	Dimensions (H x W x D)[1]	Bin Lid Colour[2]	Bin Body Colour[2]
Garbage	660L	1,200 x 1,260 x 780mm	Red	Dark Green
	1,100L	1,330 x 1,240 x 1,070mm		
Recycling	1,100L	1,330 x 1,240 x 1,070mm	Yellow	
FOGO	240L	1,060 x 585 x 730mm	Light Green	
Paper & Cardboard	660L	1,200 x 1,260 x 780mm	Blue	

Note
1. Bin capacity and dimensions are provided as an indicative dimension, sourced from Bin Supplier, 'Sulo.'
2. Bin lid and body colours are based on the bin colour scheme set out within the *Better Practice Guide for Waste Management and Recycling in Multi-unit Developments*.

3.3. Waste Systems

The waste management systems of the proposed childcare centre comprise of immediate smaller bins to temporarily store garbage and recyclable waste prior to transferring to the mobile garbage bins (MGBs) within the waste storage area.

3.3.1. Waste Streams

The waste generated by the proposed childcare centre will be separated and managed into the following waste streams, as detailed below.

Table 4: Waste Streams

Waste Type	Waste Management
Garbage	The childcare centre shall have smaller bins for temporary storage of waste. Staff will place general landfill waste in tied plastic bags and dispose of the bagged garbage into the garbage bin within the waste area provided.
Recycling	The childcare centre shall have smaller bins for temporary storage of loose recyclable items. Staff will dispose of loose recyclable items into the recycling bin within the waste area provided.
FOGO	The childcare centre shall have small caddy bins for temporary storage of organics waste. Staff will dispose of organic waste directly into the organic bins within the waste area provided. The childcare operator will be responsible for the collection and disposal of any garden waste via a landscape maintenance contractor on a required basis.
Paper & Cardboard	Staff will dispose of loose cardboard directly into the paper & cardboard bin within the waste area provided. Cardboard shall be folded appropriately.
Hard Waste	The childcare operator shall dispose of any hard waste including used furniture/white goods via a private contractor on a required basis.
Other	The childcare operator shall dispose of e-waste including batteries, phones, computers etc. via a private contractor on a required basis or drop it off at Moonee Valley Transfer Station at 188 Holmes Road, Moonee Ponds VIC 3040. E-waste must not be disposed in landfill.

3.3.2. Waste Area and Access

The proposed childcare centre provides a waste area located at the north-eastern corner of the carpark.

The waste area and access route are illustrated at Figure 1.

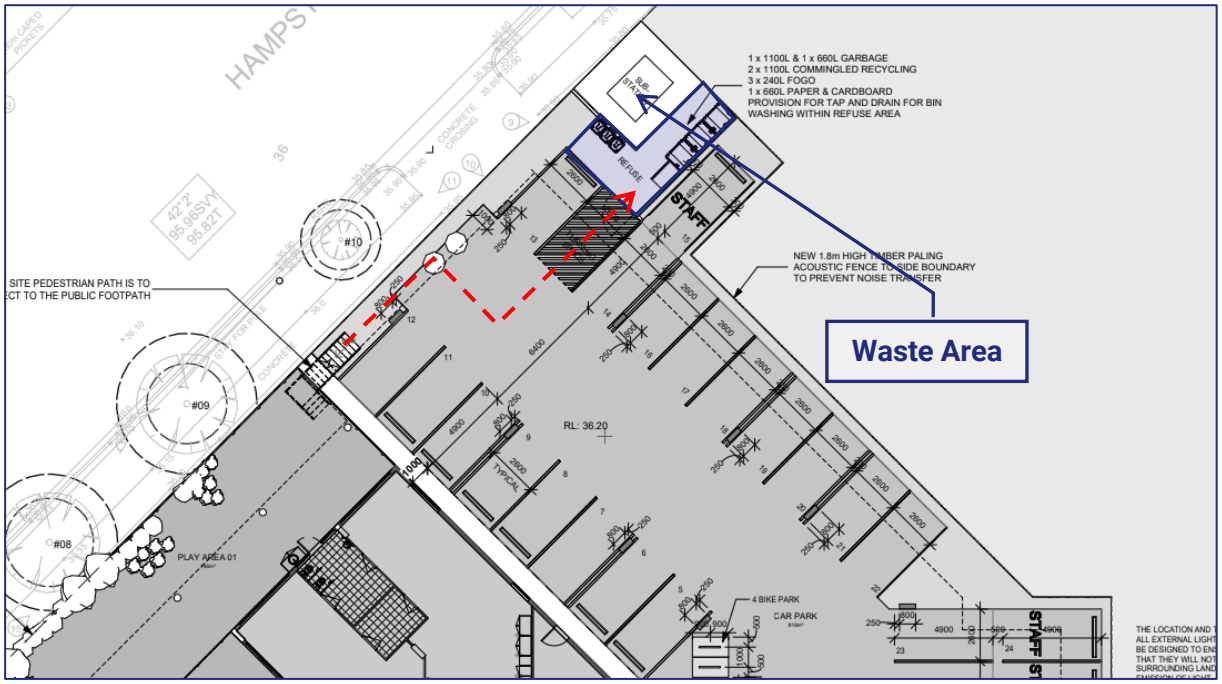

Figure 1: Proposed Waste Area & Pedestrian Access Route

Table 5 details the waste area requirements based on the waste equipment proposed.

Table 5: Waste Area Requirements

Use	Waste Equipment	Net Area[1]	Quantity	Net Waste Storage Area Required	Waste Area Provided
Childcare centre	240L	0.43m^2	3	1.29m^2	16m^2
	660L	0.99m^2	2	1.98m^2	
	1,100L	1.33m^2	3	3.99m^2	
Note 1: Net area required is calculated from the dimensions of the bins.					

Based on the above, sufficient space is provided for on-site waste storage within the proposed childcare centre.

3.4. Signage

Appropriate signage in accordance with Sustainability Victoria will be displayed on the bins and within the waste area, as illustrated in Figure 2. The signage will help guide and encourage staff of the proposed childcare centre to dispose of waste correctly into the appropriate waste streams.

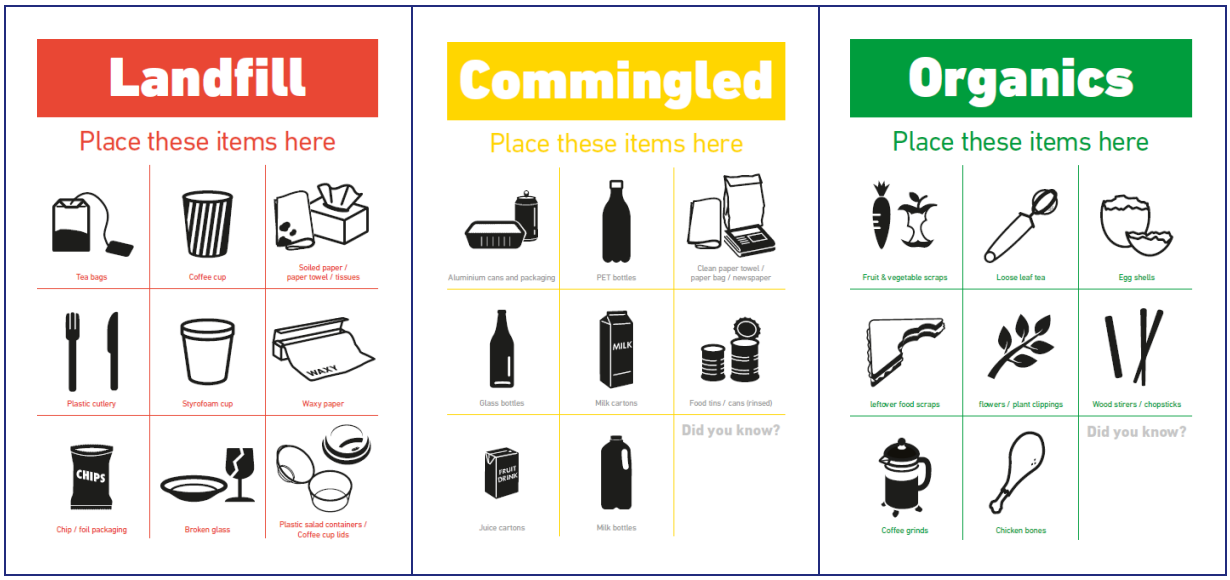

Figure 2: Waste Signage Examples

3.5. Waste Collection Arrangements and Vehicle Access

It is proposed that waste collection will occur on-site within the carpark. A private contractor will be engaged to collect the waste via a mini rear loading waste vehicle (typically 6.4m long and 2.1m high).

The private contractor will enter the site and reverse into and prop temporarily within the vacant car spaces or the aisle whilst the bins are emptied and exit the site in a forward direction. Waste collection will be undertaken outside of the operating times of the childcare centre (or at off-peak times with appropriate signage to allow a truck to turn around) to minimise disruption and ensure there is sufficient space within the carpark for the transfer of bins to and from the waste vehicle.

Traffix Group has provided advice to the project architect in order to accommodate vehicle access of the 6.4m long mini rear loading waste vehicle within the site.

Swept path diagrams demonstrating vehicle access of the 6.4m long mini rear loading waste vehicle entering and exiting the site in a forward direction is attached at Appendix B.

4. Amenity Impacts

It is the responsibility of the childcare operator to carry out the ongoing maintenance of all waste areas to minimise the following amenity impacts.

Ventilation/Odour Prevention

For developments using forced ventilation or air-conditioning system, adequate ventilation will be provided within the bin store areas in accordance with AS1668.2 to ensure waste-related odours are minimised.

Waste areas will be frequently cleaned to prevent the retainment of odours.

Noise Reduction

The waste facilities will comply with BCA and AS2107 acoustic requirements. Private waste collection will follow Council's and EPA guidelines to ensure acoustic impact is minimised.

Collection days and times will be determined following the confirmation of a specific private waste collection contractor by the childcare operator. Waste collection time should comply with the EPA Noise Control Guidelines (Publication 1254):

Industrial Waste Collection

- *Collections occurring once a week should be restricted to the hours 6:30am - 8pm Monday to Saturday, 9am - 8pm Sunday and public holidays*
- *Collections occurring more than once a week should be restricted to the hours 7am - 8pm Monday to Saturday, 9am - 8pm Sunday and public holidays*

The operating hours of the childcare centre will be between 6:30am - 6:30pm Monday to Friday. It is proposed waste collection will occur outside the operating hours of the childcare centre (i.e., between 6:30pm - 8pm Monday to Friday or weekend) in accordance with EPA Noise Control Guidelines.

Vermin Prevention & Litter Management

Waste areas will be secured to prevent any unauthorised use. Waste areas will be monitored by the childcare operator to ensure that bins are not overfilled and any spillage resulting from waste collection is appropriately addressed. All access doors and bin lids will be kept closed at all times to prevent vermin access to the waste areas.

Washing Facilities and Stormwater Pollution

Appropriate washing facilities including water supply and hose will be provided for the regular washing of the bins and waste area by the childcare operator. Washing facility provided will be connected to the sewerage for drainage to prevent any stormwater pollution.

5. Ongoing Maintenance and Sustainability Initiatives

5.1. Maintenance Management

Further to the occupation of the proposed development, it is the responsibility of the childcare operator for the ongoing operation and maintenance of the Waste Management Plan.

The childcare operator will ensure that maintenance work and upgrades are carried out on the waste areas and components of the waste system. When required, the childcare operator will engage an appropriate contractor to conduct maintenance services, replacements, or upgrades.

All ongoing costs are to be fully met by the childcare operator.

5.2. Waste Reduction Strategies

The childcare operator will be responsible to encourage staff of the proposed childcare centre to reduce waste disposal and recycle materials based on the waste management hierarchy set out by Sustainability Victoria.

The hierarchy is detailed at Figure 3 below.

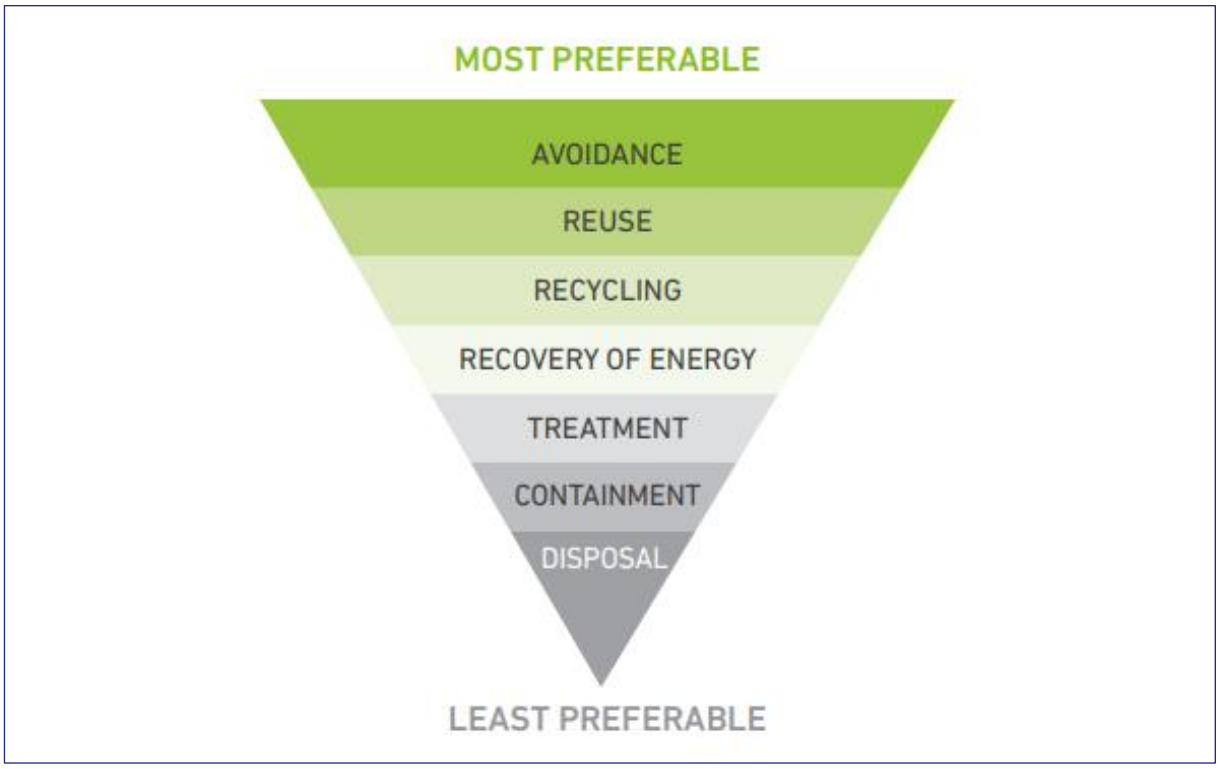

Figure 3: Sustainability Victoria's Waste Management Hierarchy

Additionally, the childcare operator can set targets and measures to reduce garbage going to landfill and increase recycling and choose to participate in Council's waste programs to promote sustainability initiatives.

5.3. Waste Management Rules

It will be the responsibility of the childcare operator to ensure all staff are provided with the relevant information and materials regarding the waste management system and sustainability strategies of the proposed development.

Relevant information will be provided at the waste areas to ensure that all users will operate and maintain safe practice when utilising the waste facilities.

5.4. Monitoring and Review

This Waste Management Plan should be monitored and reviewed on a regular basis to ensure that it meets the regulatory requirements and the expected waste generation rates outlined in Section 3.1. The childcare operator will be responsible for monitoring the Waste Management Plan. Where required, the childcare operator should undertake a waste audit to identify any modifications and/or improvements to the waste management system.

5.5. Occupational Health and Safety Risk Assessment

Further to the occupation of the childcare centre, the childcare operator will ensure the waste collection arrangements comply with the relevant occupational health and safety (OH&S) guidelines including Worksafe Victoria's *Occupational Health and Safety Guidelines for the Collection, Transport and Unloading of Non-hazardous Waste and Recyclable Materials* (June 2003).

Additionally, the childcare operator will ensure the nominated private contractor completes a risk assessment, provides staff training, and implements safety procedures to address the risks associated with waste management activities, including manual bin handling, bin transfers and cleaning of waste equipment.

6. Contact Information

Below is a list of common waste collection service contractors and waste equipment suppliers. The childcare operator is not obligated to procure goods/services from the following suppliers and reserves the right to choose their own preferred suppliers. Traffix Group does not make representations for the goods/services provided by the suppliers listed below.

Table 6: Supplier Contact Information

Service Type	Business Name	Phone	Website
Private Waste Collectors	Citywide Waste	03 9261 5000	www.citywide.com.au
	Cleanaway	13 13 39	www.cleanaway.com.au
	Veolia	13 29 55	www.veolia.com/anz
	JJ Richards	03 9794 5722	www.jjrichards.com.au
	Waste Wise Environmental	1300 550 408	www.wastewise.com.au
	Kartaway	1300 362 362	www.kartaway.com.au
	iDump	1300 443 867	www.idump.com.au
	Waste Ninja	1300 648 088	www.wasteninja.com.au
E-Waste Collection	TechCollect	1300 229 837	www.techcollect.com.au
Equipment Supplier	Sulo Australian (bin supplier)	03 9357 7320	www.sulo.com.au
	Mr Wheelie Bin (bin supplier)	03 9912 2850	www.mrwheeliebin.com.au
	Eco-safe Technologies (odour control system)	1300 135 039	www.eco-safe.com.au
Bin Washing Services	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
	Kerbside Clean-A-Bin	03 9588 1944	www.kerbsidecleanabin.com.au

Appendix A

Development Plans

ESD INITIATIVES

WATER & STORMWATER MANAGEMENT
- 676.2m² OF ROOF CATCHMENT AREA TO BE DIVERTED TO THE RAINWATER TANK - IF REQUIRED, THE USE OF MECHANICALLY ASSISTED PUMPED OR CHARGED SYSTEM
- 17,000L RAINWATER TANK LOCATED AS SHOWN TO BE CONNECTED TO TOILETS FOR FLUSHING
- FIRST FLOOR PLAY AREAS OF 350M² WILL BE DIVERTED TO THE RAIN GARDEN.
- PERMEABLE AREA OF 325.5M2 COMPRISED OF LANDSCAPE AREA ON THE GROUND FLOOR.
- USE OF NATIVE OR DROUGHT TOLERANT SPECIES FOR LANDSCAPED AREAS. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS.
- WELS RATING FOR WATER FITTINGS/FIXTURES (REFER TO REPORT). FIXTURES PROVIDED AS PART OF THE BASE BUILDING WORK HAVE TO BE CHOSEN WITHIN ONE WELS STAR OF BEST AVAILABLE AT THE TIME OF PURCHASE.

ENERGY EFFICIENCY
- COMMITMENT TO MEETING SECTION J ENERGY EFFICIENCY REQUIREMENT OF NCC 2019
- THE MAXIMUM ILLUMINATION POWER DENSITY (W/m2) OF THE DEVELOPMENT TO MEET THE REQUIREMENTS OF NCC 2019
- LIGHTING SENSORS FOR EXTERNAL LIGHTING (MOTION DETECTORS, TIMERS ETC).
- 4KW (16 PANELS) SOLAR PV SYSTEM ON THE ROOF OF THE DEVELOPMENT
- CO2 SENSORS FOR CAR PARK VENTILATION

INDOOR ENVIRONMENT QUALITY
- COMMITMENT TO OUTSIDE AIR FAN IN CHILDREN'S ROOMS PROVIDING 0/A RATES 75% MINIMUM FROM AS1668 OR O/A PROVISION TO ENSURE CO2 CONCENTRATION REMAINS BELOW 800ppm IN CHILDREN'S ROOMS.

TRANSPORT
- MINIMUM TWO BIKE SPACES FOR EMPLOYEES AND VISITORS

URBAN ECOLOGY
- EXTENT OF VEGETATED AREA AS SHOWN

AIR QUALITY MONITORING

ONCE THE DEVELOPMENT IS COMPLETE AND WITHIN SIX MONTHS, AND AGAIN AT TWO YEARS AFTER THE COMMENCEMENT OF THE USE, AIR QUALITY MONITORING MUST BE UNDERTAKEN BY A SUITABLY QUALIFIED PERSON. MONITORING MUST DOCUMENT, OVER A PERIOD OF NOT LESS THAN ONE MONTH DURING THE PROPOSED OPERATING HOURS OF THE CENTRE, THE FOLLOWING:
- PM10
- PM2.5
- OXIDES OF NITROGEN
- CARBON MONOXIDE
- SULFUR DIOXIDE

NOTE: ALL REPORTS TO BE PROVIDED TO THE RESPONSIBLE AUTHORITIES

AREA ANALYSIS
CHILD CARE FACILITY

TOTAL SITE AREA:	1,906m²
SITE COVERAGE:	74.63%
SITE PERMEABILITY:	26.8%
CAR PARK AREA:	819m²
GROUND FLOOR BUILDING AREA:	497m²
FIRST FLOOR BUILDING AREA:	632m²
TOTAL BUILDING AREA:	
TOTAL CHILDREN SPACES:	168
OUTDOOR PLAY AREA - REQUIRED:	1,176m²
OUTDOOR PLAY AREA - PROVIDED:	1,197m²
TOTAL CAR PARKING REQUIRED:	36
TOTAL CAR PARKING PROVIDED:	36

PROPOSED CHILDREN ROOM AREAS

ROOM NO.	AREA	CHILDREN
CHILDRENS ROOM 01	54 m²	16
CHILDRENS ROOM 02	52 m²	16
CHILDRENS ROOM 03	52 m²	16
CHILDRENS ROOM 04	66 m²	20
CHILDRENS ROOM 05	74 m²	22
CHILDRENS ROOM 06	74 m²	22
CHILDRENS ROOM 07	72 m²	22
CHILDRENS ROOM 08	72 m²	22
CHILDRENS ROOM 09	51 m²	12
	566 m²	168

1 x 1100L & 1 x 660L GARBAGE
2 x 1100L COMMINGLED RECYCLING
3 x 240L FOGO
1 x 660L PAPER & CARDBOARD
PROVISION FOR TAP AND DRAIN FOR BIN WASHING WITHIN REFUSE AREA

NEW 1.8m HIGH TIMBER PALING ACOUSTIC FENCE TO SIDE BOUNDARY TO PREVENT NOISE TRANSFER

NEW ON SITE PEDESTRIAN PATH IS TO CONNECT TO THE PUBLIC FOOTPATH

1800mm HIGH CHILDPROOF POWDERCOATED ALUMINIUM TYPE FENCING AND AUTOMATIC CLOSING GATES. PROVIDE MAX SPACING OF 85mm. ENSURE ALL DOOR HARDWARE IS DISABLED COMPLIANT TO AS 1428

SAFETY FENCING OR SIMILAR DESIGNED BY A SUITABLY QUALIFIED INDIVIDUAL TO BE INSTALLED TO PROTECT PLAY AREA

PYLON SIGNAGE

168 PLACE CHILDCARE FACILITY 1,129m²

PLAY AREA 01 140m²
PLAY AREA 02 80m²
PLAY AREA 03 221m²
SKYLIGHT ABOVE

4 BIKE PARK
CAR PARK 819m²

FUTURE DEVELOPMENT SITE 2245 m²

THE LOCATION AND TYPE OF ALL EXTERNAL LIGHTING MUST BE DESIGNED TO ENSURE THAT THEY WILL NOT IMPACT SURROUNDING LAND BY THE EMISSION OF LIGHT

NEW 1.8m HIGH TIMBER PALING ACOUSTIC FENCE TO SIDE BOUNDARY TO PREVENT NOISE TRANSFER

AREA TO BE AT LEAST 50% CLEAR OF VISUAL OBSTRUCTIONS OR WITH LANDSCAPING AT LESS THAN 900mm IN HEIGHT

REMOVE EXISTING SECTION OF REDUNDANT CROSSOVER AND RECONSTRUCT FOOTPATH, KERB AND SPOON DRAIN TO THE SATISFACTION OF THE RELEVANT AUTHORITIES #02

PROVIDE CONVEX MIRROR ON COLUMN FOR PEDESTRIAN VISIBILITY

HAMPSTEAD ROAD

No. 10-12 VACANT LAND (UNDEVELOPED)

No. 138 "JENNY HAI BEAUTY" MITCHELL STF SINGLE STOF BRICK BUILDI TILED FACAI TIN ROOFIN

1 PROPOSED SITE LAYOUT

SCALE: 1 : 150

The ELLIS Group Architects
A.C.N. 123 449 838
9 Howard Street,
West Melbourne, Victoria. 3003
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MODIFIED BY:
BuildCare
design • build • maintain

ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
B	ISSUED FOR TOWN PLANNING - RFI RESPONSE	23.05.23
C	ISSUED FOR DISCUSSION	07.06.24
D	ISSUED FOR TOWN PLANNING - SECTION 72	18.06.24
E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED SITE LAYOUT PLAN

Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1 As indicated

TP-101

ESD INITIATIVES

WATER & STORMWATER MANAGEMENT

- 676.2m² OF ROOF CATCHMENT AREA TO BE DIVERTED TO THE RAINWATER TANK - IF REQUIRED, THE USE OF MECHANICALLY ASSISTED PUMPED OR CHARGED SYSTEM
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- PM2.5
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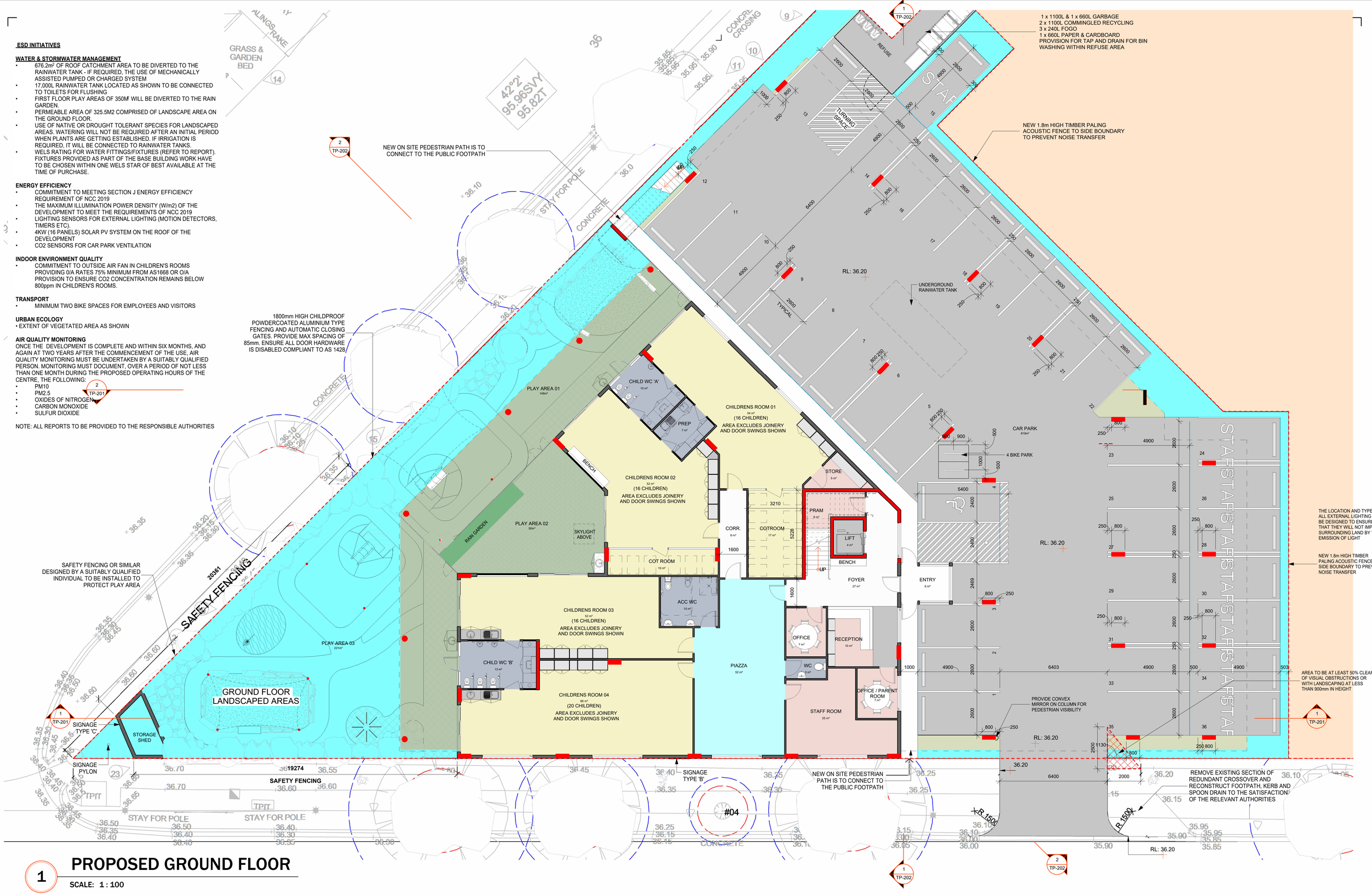

1 PROPOSED GROUND FLOOR

SCALE: 1 : 100

The ELLIS Group Architects
A.C.N. 123 449 838
9 Howard Street,
West Melbourne, Victoria. 3003
Telephone - Line 1: (03) 9329 0806 Line 2: (03) 9329 8386
Email: mail@ellisgroup.com.au

MODIFIED BY:

BuildCare
design • build • maintain

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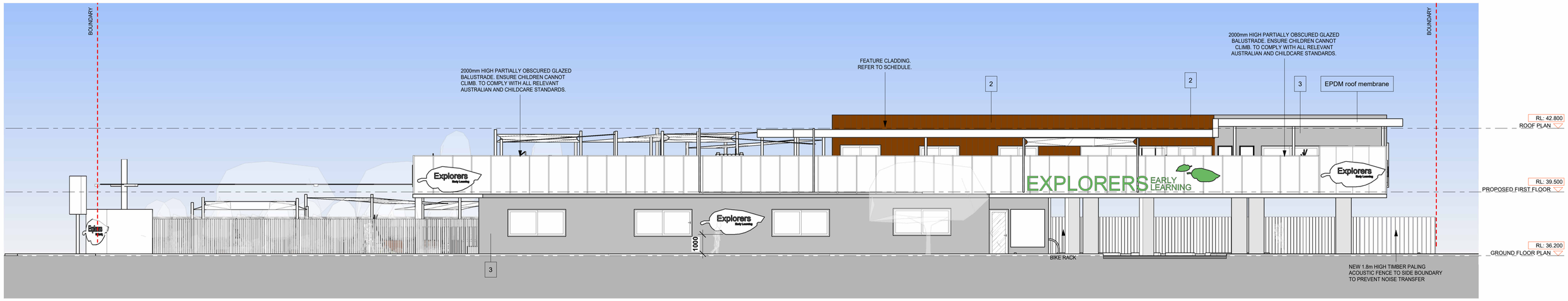
PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED GROUND FLOOR PLAN

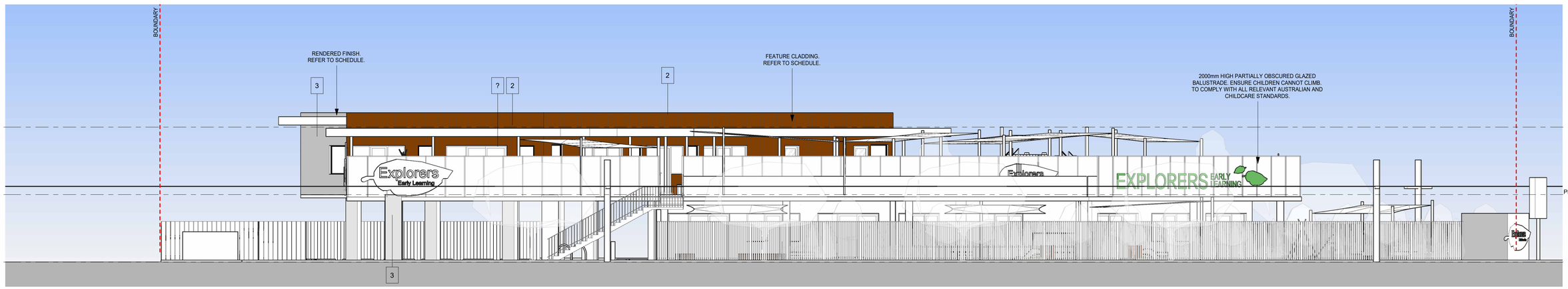
Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1 As indicated

TP-103



1
TP-301
SOUTH ELEVATION
1 : 100

FINISHES SCHEDULE		
	1	CEMINTEL - WOODSLAND - TEAK
	2	CEMINTEL - SAVANNA - SHADOW
	3	RENDER FINISH GREY
	4	CLEAR GLAZING
	5	RENDER FINISH 'WINDSPRAY'.
	6	WINDOW/DOOR FRAMES - BLACK
	7	COLORBOND - MONUMENT



2
TP-301
WEST ELEVATION
1 : 100

The ELLIS Group Architects
A.C.N. 123 449 838
9 Howard Street,
West Melbourne, Victoria. 3003
Telephone - Line 1: (03) 9329 0806 Line 2: (03) 9329 8386
Email: mail@ellisgroup.com.au

MODIFIED BY:
BuildCare
design • build • maintain

ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
B	ISSUED FOR TOWN PLANNING - RFI RESPONSE	23.05.23
C	ISSUED FOR DISCUSSION	07.06.24
D	ISSUED FOR TOWN PLANNING - SECTION 72	18.06.24
E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED ELEVATIONS

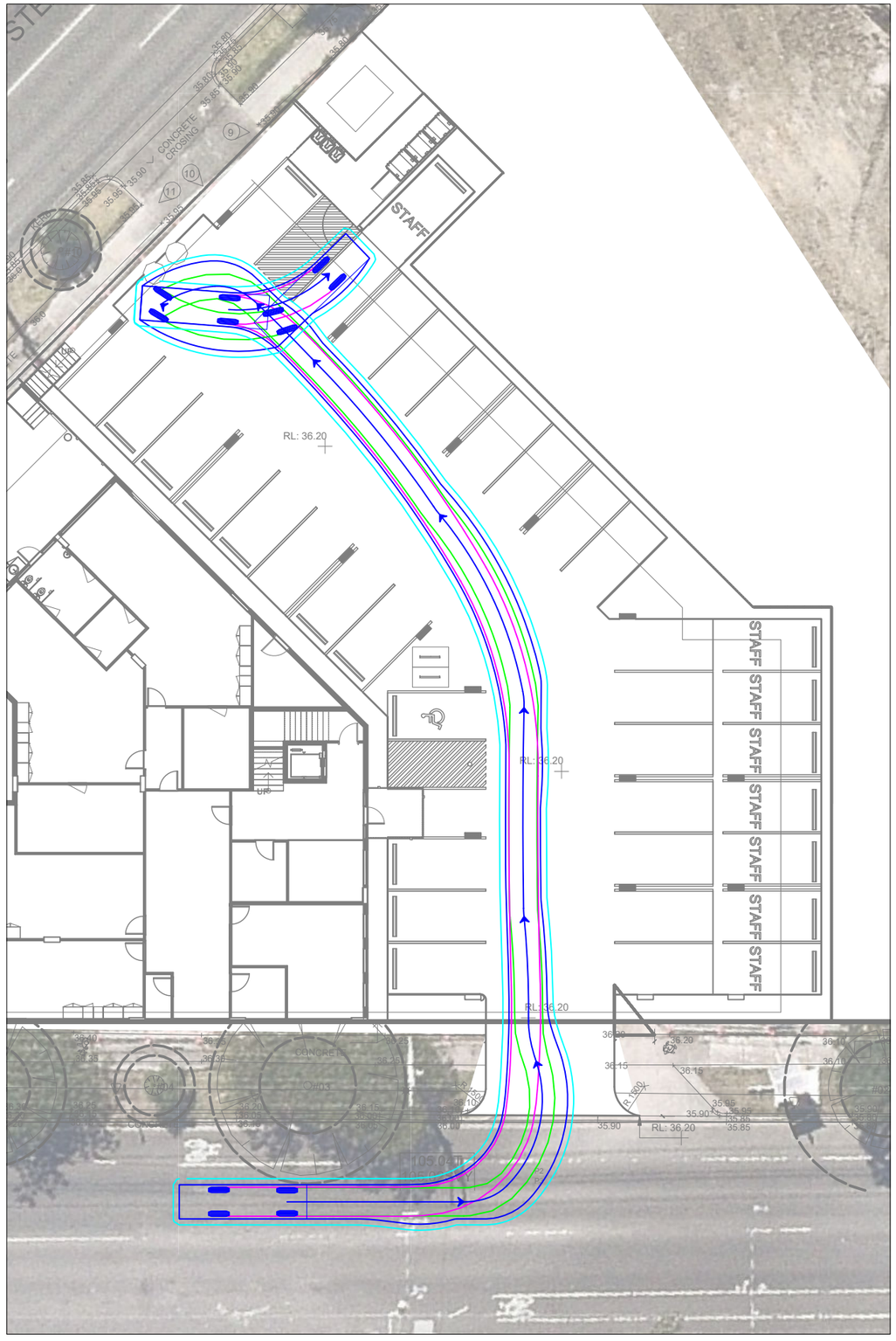
Date: 02.07.24 Drawn. Author
Job No. BC - 24005 Scale@A1 As indicated

TP-301

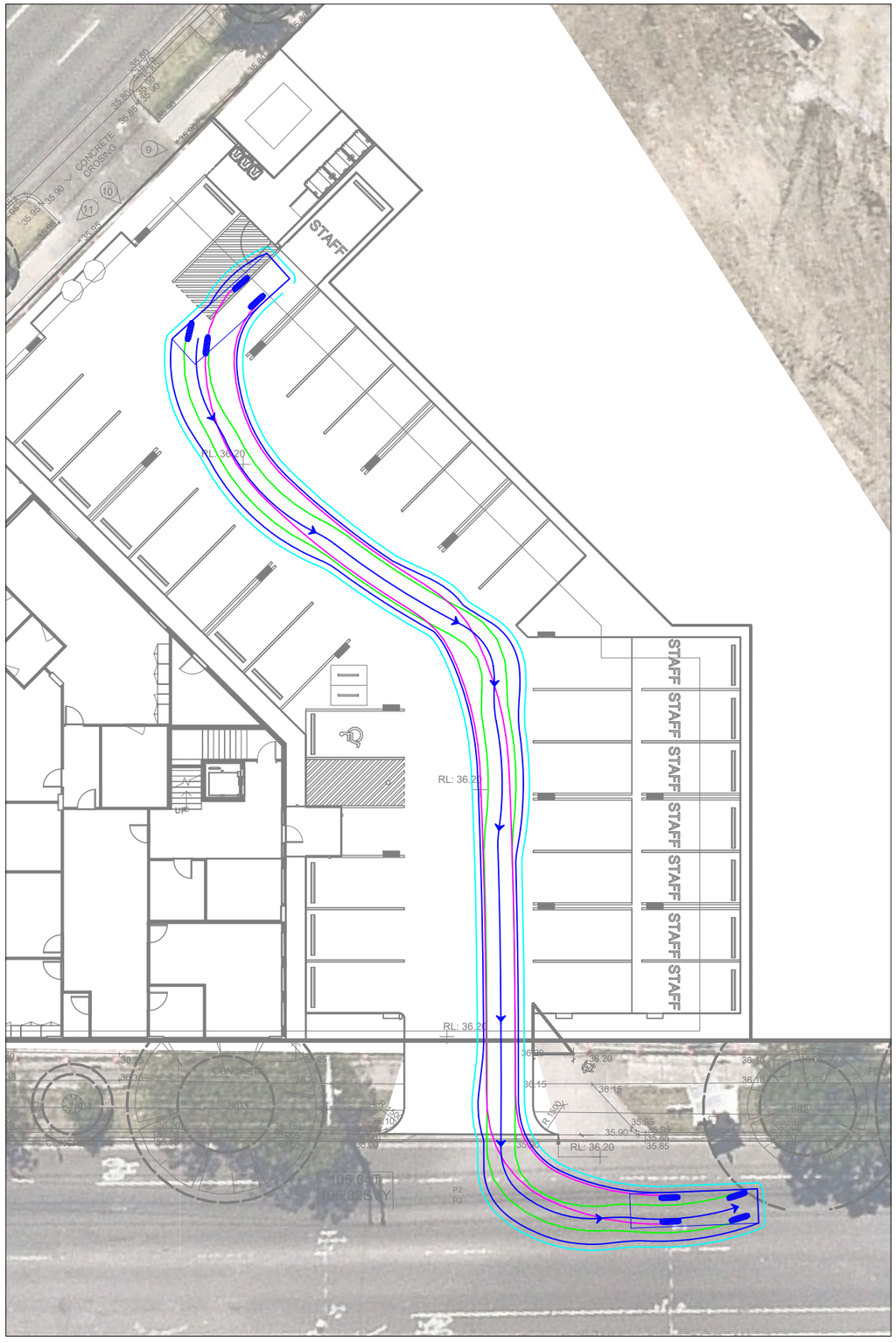
Appendix B

Swept Path Diagrams

6.4m WASTE COLLECTION VEHICLE - INGRESS



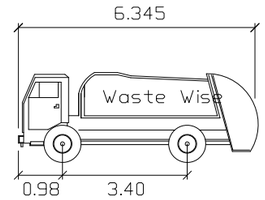
6.4m WASTE COLLECTION VEHICLE - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



Waste Wise Mini (Hino 300)

Width	: 1.7m
Front Track	: 1.4m
Rear Track	: 1.44m
Kerb to Kerb Radius	12.4m

LEGEND

REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	17/06/2024	S72 AMENDMENT	S. STEPHENSON	J. STONE
B	11/07/2024	S72 AMENDMENT	S. STEPHENSON	J. STONE

2-8 HAMPSTEAD ROAD, MAIDSTONE

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM: "BC-24005 MAIDSTONE - SITE LAYOUT.dwg"
DRAWINGS BY: The ELLIS Group Architects/BuildCare dated July 2024

FILE NAME: G32519-02A

SHEET NO.: 02

SCALE: 1:200 (A3)

0 2 4

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Connolly Environmental

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Vic 3003 Australia
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Report to

BuildCare Construction Pty Ltd

Air Quality Monitoring

3-8 Hampstead Road,
Maidstone Vic

October 2024

Executive Summary

Introduction

Connolly Environmental was engaged by BuildCare Construction Pty Ltd to conduct air quality monitoring at the above site. Development of the site as a childcare centre is proposed and an Air Quality Monitoring (AQM) investigation was required to provide to council as part of planning permit requirements prior the commencement of development.

The aim of the AQM was to assess the air quality for a one-month period focussing on the hours of operation (6:30 am to 6:30 pm) of the proposed childcare facility and determine if there is a suitable separation between the adjacent traffic and childcare centre users.

Limitations

Conclusions in this report were based on site observations, testing and other information obtained by Connolly Environmental, and on the assumption that these data were representative and reliable. These conclusions must be read in conjunction with the assumptions and uncertainties included in the report. If site conditions or information different to that set out in the report are identified or appear to be present, please advise us promptly. We will re-evaluate our conclusions where necessary.

This report has been prepared for the exclusive use of the client. We have used a degree of care and skill ordinarily exercised under similar conditions by reputable members of our profession, practicing in the same or similar localities. No other warranty, expressed or implied, is made or intended.

This report is issued on the condition that it will not be altered, amended or abbreviated, issued in part or issued incomplete without our prior approval. We accept no responsibility for any loss, damage or consequence that may arise from breaches of this condition.

Scope of work

The scope of work comprised:

- Particulate monitoring including respirable particulate matter ($PM_{2.5}$) and inhalable particulate matter (PM_{10}).
- Monitoring for gases including nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and carbon monoxide (CO).

Conclusions

As no readings were detected above the adopted investigation levels for air quality monitoring, we concluded there was a sufficient separation between childcare centre users and the adjacent traffic, and that the pollutants monitored did not pose an unacceptable risk to future site users when utilising outdoor areas at the premises.

We were asked to comment on the likely impact increased traffic would have on the air quality results at the site. Traffic engineers confirmed that traffic was believed to be at capacity on Hampstead Road and annual traffic increases were unlikely to be above 2 %. Based on the air quality results obtained during the monitoring period, we do not consider that a 2 % annual traffic increase would result in increases of air quality data to unacceptable levels in the foreseeable future.

Contents

1 Introduction 5
1.1 Limitations 5
2 Scope of work 5
3 Site setting 5
4 Previous investigations 6
5 Adopted environmental assessment criteria 6
6 Sampling methodology 6
7 Results 7
8 Conclusions 7
9 References 7

Appendices

Appendix 1 Figure
Appendix 2 Tabulated soil results
Appendix 3 Development plan
Appendix 4 Calibration certificates

Current document distribution

Company	Name/Location
BuildCare Pty Ltd	Liam MacNeill (electronic copy)
Connolly Environmental	Job file (24081b) (electronic copy)

Document history

Revision	Date	Description
0	24 October 2024	Air Quality Monitoring
1	3 February 2025	Minor wording changes

Current document authorisation

Report written by	Signature
Paul Gruber	

Reviewed and authorised by	Signature
Mark Connolly	

1 Introduction

Connolly Environmental was engaged by BuildCare Construction Pty Ltd to conduct air quality monitoring at the above site. Development of the site as a childcare centre is proposed and an Air Quality Monitoring (AQM) investigation was required to be provided to council as a planning permit requirement prior the commencement of development.

The aim of the AQM was to assess the air quality for a one-month period focussing on the hours of operation (6:30 am to 6:30 pm) of the proposed childcare facility and to determine if there is a suitable separation between the adjacent traffic and childcare centre users.

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2 Scope of work

The scope of work comprised:

- Particulate monitoring including respirable particulate matter ($PM_{2.5}$) and inhalable particulate matter (PM_{10}).
- Monitoring for gases including nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and carbon monoxide (CO).

3 Site setting

The site setting is summarised in Table 3.1 below. The site locality and the site layout are shown in Appendix 1.

Table 3.1 Site setting summary

Site address	2-8 Hampstead Road, Maidstone Vic
Current site uses	Vacant
Site area (approx.)	1,400 m^2
Surrounding land uses	North: Service station
	South: Road, park and residential
	East: Commercial
	West: Road, residential and service station
Zoning	Commercial 1 Zone (CZ1)
Proposed development	Double storey Childcare centre

4 Previous investigations

EP Risk Management (EP Risk 2024) completed air quality monitoring in 2023. The monitoring was conducted based on an earlier design of the proposed facility that included outdoor play areas in the central section of the site. Although the report identified no issues, it was revised to consider a subsequent design change that saw the outdoor playground area moved from the central area of the site to the outer edge of the site near the west site boundary. Given that the monitoring point was centrally located, well away from the current proposed outdoor playground areas of the new design it is understood that council required a subsequent air quality monitoring report to be conducted to ensure the monitoring was representative.

5 Adopted environmental assessment criteria

The National Environment Protection (Ambient Air Quality) Measure (amended 2021) provides standards for air quality via adoption of the ambient air reference standards in the Environmental Reference Standard (Ambient Air) which were amended in 2022 to reflect new air quality standards for several indicators. It provides standards to ensure that we protect public health and improve air quality. The adopted levels for the relevant pollutants listed are provided in the results table in Appendix 3 for particles ($PM_{2.5}$ and PM_{10}) and vehicle emissions (SO_2, NO_2 and CO).

6 Sampling methodology

All work was conducted in accordance with the following guidelines:

- AS/NZS 3580.7.1 (Standards Australia 2023)
- AS/NZS 3580.1.1 (Standards Australia 2016)

Continuous real time monitoring of SO_2, NO_2 and CO was conducted using a Honeywell BWTM RigRat Transportable Multi-gas Area Monitor equipped with SO_2 (ppm), NO_2 (ppm) and CO (ppm) sensors, with air quality data being collected at a frequency of one reading per 15 seconds for a period of one month.

Particulate monitoring was performed using a DustTrak™ DRX Aerosol Monitor to monitor for particulate matter $PM_{2.5}$ and PM_{10} (mg/m3), with air quality data being collected at a frequency of one reading per minute for a period of one month as summarised in Table 6.1.

The air quality monitoring station was set up in the western corner of the site near the corner of Hampstead Road and Mitchell Street. This location was considered to be a peak site for monitoring purposes as it was exposed to any pollutants migrating from both roads as shown in Figure 1, Appendix 1.

Table 6.1 Monitoring period and analysis

Location ID	Monitoring period	Field analysis
West corner of site within area of proposed outdoor playground.	20 September to 20 October 2024	SO_2 (ppm) NO_2 (ppm) CO (ppm) $PM_{2.5}$ and PM_{10} (mg/m^3)

Calibration certificates for the monitoring equipment is included in Appendix 4.

7 Results

Results of real time monitoring of SO_2, NO_2 and CO and readings of $PM_{2.5}$ and PM_{10} are provided in Table 1, Appendix 2. Review of the data downloaded from the monitoring station showed:

- Real time monitoring of SO_2, NO_2 and CO concentrations were below the adopted assessment criteria.
- $PM_{2.5}$ average concentrations ranged between 0.004 mg/m^3 and 0.014 mg/m^3, below the adopted criteria of 0.025 mg/m^3. PM_{10} average concentrations ranged between 0.004 mg/m^3 and 0.015 mg/m^3, below the adopted assessment criteria of 0.05 mg/m^3.

8 Conclusions

As no readings were detected above the adopted investigation levels for air quality monitoring, we concluded there was sufficient separation between childcare centre users and the adjacent traffic, and that the pollutants monitored did not pose an unacceptable risk to future site users when utilising outdoor areas at the premises.

We were asked to comment on the likely impact increased traffic would have on the air quality results at the site. Traffic engineers confirmed that traffic was believed to be at capacity on Hampstead Road and annual traffic increases were unlikely to be above 2 %. Based on the air quality results obtained during the monitoring period, we do not consider that a 2 % annual traffic increase would result in increases of air quality data to unacceptable levels in the foreseeable future.

9 References

NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999, National Environment Protection Council, 1999, updated May 2013.

EP Risk (2024) Air Quality Monitoring Report, 2-8 Hampstead Road, Maidstone, Victoria, prepared for BuildCare Construction Pty Ltd, EP Risk Management, 11 July 2024.

Standards Australia (2023) Australian Standard: Methods for sampling and analysis of ambient air (AS3580.7.1), Standards Australia, 2023.

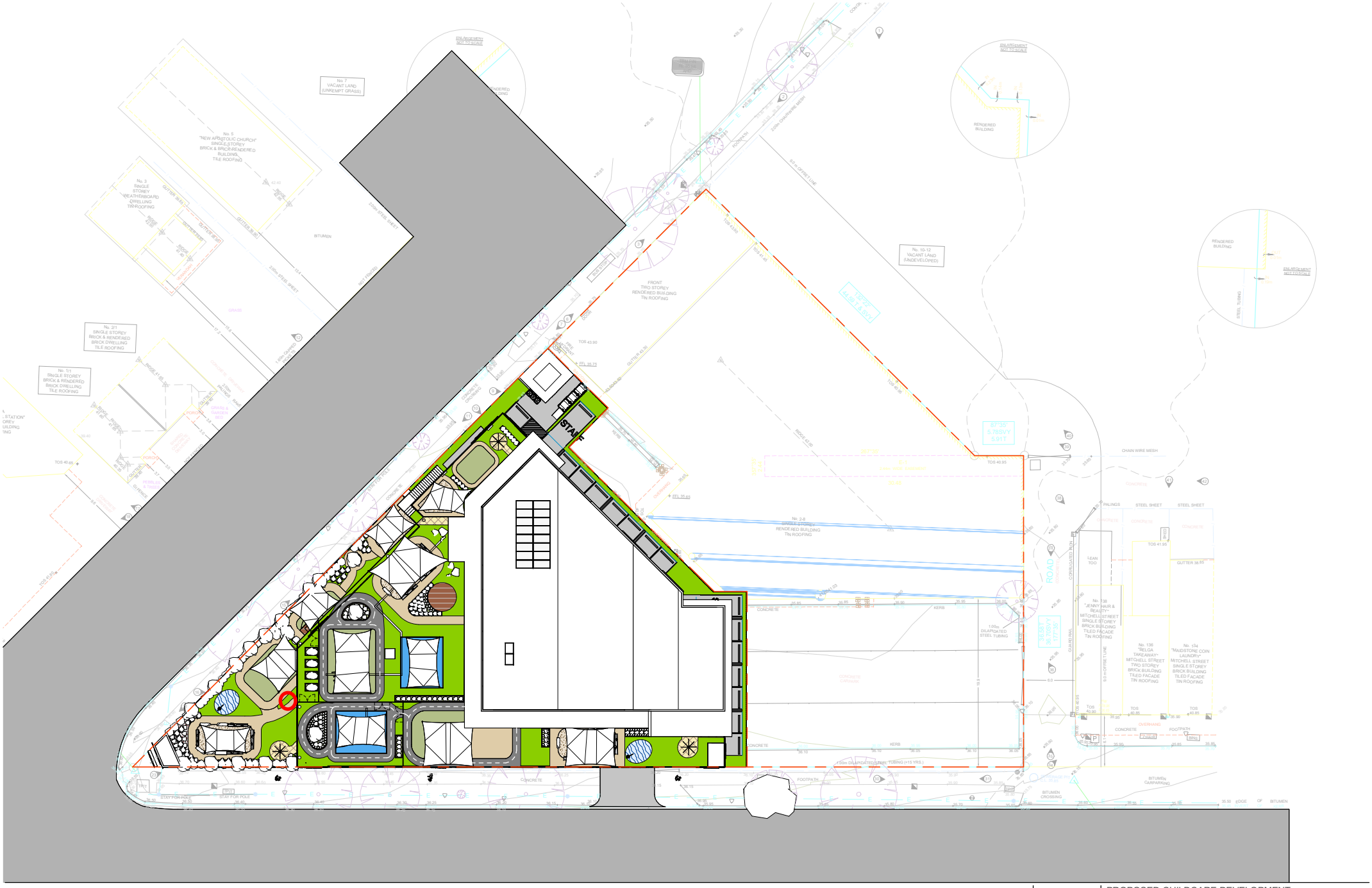
Standards Australia (2016) Australian Standard: Methods for sampling and analysis of ambient air, Part 1.1: Guide to siting air monitoring equipment (AS3580.1.1), Standards Australia, 2016.

ERS (2022) Victoria Government Gazette amendment to the Environment Reference Standard, Victorian Government, 29 March 2022.

ERS (2021) Victoria Government Gazette Environment Reference Standard, Victorian Government, 26 May 2021.

Appendix 1

Figure



Air Quality Monitoring station location

Figure 1: Site Plan

ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
B	ISSUED FOR TOWN PLANNING - RFI RESPONSE	23.05.23
C	ISSUED FOR DISCUSSION	07.06.24
D	ISSUED FOR TOWN PLANNING - SECTION 72	18.06.24
E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
NEIGHBOURHOOD DESIGN RESPONSE

Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1 1 : 200

TP-004

Appendix 2

Tabulated results

Table 1: Air Quality Monitoring Results

		NO2 (minimum)	NO2 (max. test avg value)	NO2 (1 hour average)	SO2 (minimum)	SO2 (max. test avg value)	SO2 (max. 1 hour average)	CO (minimum)	CO (max. test avg value)	CO (max. 8 hour average)	PM2.5 (average)	PM2.5 (minimum)	PM2.5 (maximum)	PM10 (average)	PM10 (minimum)	PM10 (maximum)
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
	ERS 2021 Table 2.2: Indicators and objectives for the ambient air environment			0.08			0.075			9	0.025			0.05		
Week 1	20-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.005	0.001	0.192	0.006	0.001	0.3
	23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0	4	0	0.005	0.004	0.017	0.006	0.018	0.018
	24-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0	2	0	0.005	0.001	0.114	0.005	0.115	0.115
	25-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.004	0.001	0.013	0.005	0.014	0.014
	26-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.007	0.005	0.015	0.008	0.017	0.017
	27-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.009	0.005	0.029	0.009	0.03	0.03
Week 2	30-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.008	0.003	0.037	0.008	0.037	0.037
	1-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	4	0	0.008	0.003	0.038	0.009	0.039	0.039
	2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	1	0	0.014	0.008	0.029	0.015	0.031	0.031
	3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.013	0.007	0.073	0.015	0.075	0.075
	4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.007	0.006	0.03	0.009	0.033	0.033
Week 3	7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.008	0.002	0.027	0.009	0.028	0.028
	8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	3	0	0.004	0.002	0.017	0.004	0.018	0.018
	9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	5	0	0.010	0.005	0.04	0.012	0.041	0.041
	10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	4	0	0.008	0.004	0.031	0.009	0.032	0.032
	11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	3	0	0.009	0.003	0.025	0.010	0.028	0.028
Week 4	14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	2	0	0.012	0.005	0.057	0.013	0.063	0.063
	15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	4	0	0.011	0.005	0.043	0.012	0.044	0.044
	16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	4	0	0.005	0.003	0.017	0.006	0.019	0.019
	17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.007	0.003	0.024	0.008	0.024	0.024
	18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0.009	0.001	0.167	0.009	0.001	0.168

Appendix 3

Development Plan

These plans, designs and specifications and the copyright therein are the property of Explorers Early Learning and must not be reproduced or copied wholly or in part without the written permission of Explorers Early Learning. All dimensions and levels to be checked on site prior to commencing any work or shop drawings. Do not scale drawings.

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ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
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E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
NEIGHBOURHOOD DESIGN RESPONSE

Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1 1 : 200

TP-004

1
TP-202

SECTION 3

1 : 100

2
TP-202

SECTION 4

1 : 100

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ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
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E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED SECTIONS

Date: 02.07.24 Drawn. Author
Job No. BC - 24005 Scale@A1 1 : 100

TP-202

1 / TP-301 SOUTH ELEVATION
1 : 100

FINISHES SCHEDULE

	1	CEMINTEL - WOODSLAND - TEAK
	2	CEMINTEL - SAVANNA - SHADOW
	3	RENDER FINISH GREY
	4	CLEAR GLAZING
	5	RENDER FINISH 'WINDSPRAY'.
	6	WINDOW/DOOR FRAMES - BLACK
	7	COLORBOND - MONUMENT

2 / TP-301 WEST ELEVATION
1 : 100

MODIFIED BY:

BuildCare
design • build • maintain

ISSUE	DESCRIPTION	DATE
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PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED ELEVATIONS

Date: 02.07.24
Job No. BC - 24005
Drawn. Author
Scale@A1 As indicated

TP-301

MODIFIED BY:

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ISSUE	DESCRIPTION	DATE
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E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
SHADOW DIAGRAM - 9AM SEPTEMBER 22

Date: 02.07.24 Drawn. TM
Job No. BC - 24005 Scale@A1 1 : 200

TP-400

MODIFIED BY:

BuildCare
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ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
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C	ISSUED FOR DISCUSSION	07.06.24
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E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
3D IMAGE 01

Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1

TP-501

Appendix 4

Calibration forms

kenelec scientific

TSI Dusttrak
Calibration Certificate

Document KF501
Revision D

Report Number: DT232558

Customer	Active Environmental Solutions
Address	2 Merchant Ave
	Thomastown, Vic 3074
Contact	Nick Dinakis
Equipment	TSI Dusttrak
Model	8533
Serial Number	8533174805
Calibration Date	May 20, 2024
Condition as Received	*As Found Failed*

Reference Instruments

Measurement Variable	Model No.	Serial No.	Calibration Due
Photometer	8587A	71002264	27/09/2024
DC Voltage (Keithley)	2700	1199840	5/12/2024
Pressure	276140-SP	4146296	29/12/2024
Flow and Temperature	4140	41401017004	1/09/2024
1 um PSL	19518-500	A817797	May-24
2.8 um PSL	19520-500	702200	May-24
10 um PSL	DC-10	261682	May-24

ENVIRONMENTAL CONDITIONS

Ambient Temp	24°C
Humidity	39%RH
Barometric Pressure	1012hPa

Kenelec Scientific Pty Ltd Certifies That :-

All performance and acceptance tests required were successfully conducted according to required specifications. All test and calibration data supplied by Kenelec Scientific has been obtained using Emery Oil and has been nominally adjusted to respirable mass standard ISO 12103-1 AI Test Dust. Calibration of sizing is performed using the above particles and verified on the TSI calibration bench.

Procedures Followed:	LABP1
Approved Signatory:	
Date:	21/05/2024

KENELEC SCIENTIFIC PTY LTD
ABN 88 064 373 717
23 Redland Drive
Mitcham Vic 3132
T 03 9873 1022
F 03 9873 0200
info@kenelec.com.au www.kenelec.com.au

kenelec scientific

TSI Dusttrak
Calibration Certificate

Document KF501
Revision D

Report Number: DT232558

As Found Concentration Results				
Testing Number	Calibration Reference mg/m3	Instrument Output mg/m3	Allowable Range +/- 10%	
1	0.047	0.166	0.042	0.052
2	0.602	0.736	0.542	0.662
3	3.740	3.864	3.366	4.114
4	32.110	33.900	28.899	35.321

As Found Pressure/Flow Results							
Flow				Pressure			
Parameter	Standard	Measured	Allowable Range	Parameter	Standard	Measured	Allowable Range
Flow Lpm	3.000	3.060	2.850 - 3.150	Pressure kPA	100.980	100.830	95.931-106.029
Pump Run Hours:	520.00						

As Left Concentration Results				
Testing Number	Calibration Reference mg/m3	Instrument Output mg/m3	Allowable Range +/- 10%	
1	0.050	0.049	0.045	0.055
2	0.641	0.630	0.577	0.705
3	3.952	3.756	3.557	4.347
4	33.824	34.253	30.442	37.206

As Left Pressure/Flow Results							
Flow				Pressure			
Parameter	Standard	Measured	Allowable Range	Parameter	Standard	Measured	Allowable Range
Flow Lpm	3.000	3.040	2.850 - 3.150	Pressure kPA	101.092	101.102	96.037-106.147

KENELEC SCIENTIFIC PTY LTD
ABN 88 064 373 717

23 Redland Drive
Mitcham Vic 3132

T 03 9873 1022
F 03 9873 0200

info@kenelec.com.au www.kenelec.com.au

Calibration Certificate

Calibration Summary

Calibration Performed On	Fresh Air Calibration	Recommended Action
Sep 13 2024 12:17:21	Pass	
Zero Calibration	**Span Calibration**	**Span2 Calibration**
N/A	Pass	N/A

Instrument Tested

Product Name	Model Name	Serial Number
RigRat Diffusion	BWRR100D	HRRD000104A3
		Firmware
		V1.08

Calibration Detailed Results

Audible Alarm	VISIBLE ALARM
N/A	N/A

Inlet information			Gas(Inlet)	Concentration
Inlet	LOT No.	Expiration Date		
0	Rae	Sep 11, 2024	CO (ppm)	50
			H2S (ppm)	10
			O2 (%)	18.0
			CH4 (%LEL)	50
0	NO2	Sep 11, 2024	NO2 (ppm)	5.0
0	SO2	Sep 11, 2024	SO2 (ppm)	10.0

Fresh Air Calibration Results				Reading	Reading
Sensor Enabled	Gas (Inlet)	Results	Concentration	Before Calibration	After Calibration
NO2 (ppm)	Fresh Air	Pass	0	0.0	0.0
CO (ppm)	Fresh Air	Pass	0	0	0
SO2 (ppm)	Fresh Air	Pass	0	0.0	0.0

Zero Calibration Results				Reading	Reading
Sensor Enabled	Gas (Inlet)	Results	Concentration	Before Calibration	After Calibration
NO2 (ppm)	N/A	N/A	N/A	N/A	N/A
CO (ppm)	N/A	N/A	N/A	N/A	N/A
SO2 (ppm)	N/A	N/A	N/A	N/A	N/A

Span Calibration Results				Reading	Reading
Sensor Enabled	Gas (Inlet)	Results	Concentration	Before Calibration	After Calibration
NO2 (ppm)	N/A	Pass	N/A	3.5	5.0
CO (ppm)	N/A	Pass	N/A	37	51
SO2 (ppm)	N/A	Pass	N/A	8.7	10.0

Span2 Calibration Results				Reading	Reading
Sensor Enabled	Gas (Inlet)	Results	Concentration	Before Calibration	After Calibration
NO2 (ppm)	N/A	N/A	N/A	N/A	N/A
CO (ppm)	N/A	N/A	N/A	N/A	N/A
SO2 (ppm)	N/A	N/A	N/A	N/A	N/A

Sensor Information

Sensor Installed	Serial Number	Status	Next Calibration Due	Due In
NO2 (ppm)	S003750025N8	Enable	Mar 12, 2025	179 Days
			Warranty Expires	Due In
			Oct 24, 2012	0 Day
Sensor Installed	Serial Number	Status	Next Calibration Due	Due In
CO (ppm)	S003060166W3	Enable	Mar 12, 2025	179 Days
			Warranty Expires	Due In
			May 13, 2022	0 Day
Sensor Installed	Serial Number	Status	Next Calibration Due	Due In
SO2 (ppm)	S003AF0367U8	Enable	Mar 12, 2025	179 Days
			Warranty Expires	Due In
			Oct 25, 2018	0 Day

Alarm Settings	LOW	HIGH	STEL	TWA
NO2 (ppm)	2.0	5.0	2.0	5.0
CO (ppm)	30	200	50	30
SO2 (ppm)	2.0	5.0	5.0	2.0

Urban Forestry Victoria P/L

Arboricultural Consultation

Arboricultural Construction Impact Assessment

2-8 Hampstead Rd, Maidstone VIC 3012

Date of Report	19/08/2024
Report version	2.2
Prepared by	Urban Forestry Victoria Pty. Ltd.
E:	urbanforestryvictoria@gmail.com
Report Author	Trevor Moulynox[a] (AQF level. 5)
P:	0405 523 954

CITY OF MARIBYRNONG
ADVERTISED PLAN

[a] I Mr. Trevor Moulynox, consent to having my personal information (name, phone number) contained in this document submitted as part of an application for a planning permit, be made available electronically in accordance with the public availability requirements of the Planning and Environment Act 1987. I understand that if I wish to withdraw my consent at any time, I need to notify Council's Statutory Planning Unit in writing.

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Executive Summary

There is a total of thirteen (13) trees included in the assessment. Of these,

- No trees are located within the subject site.
- No trees are located within neighbouring property.
- Thirteen (13) trees are located within municipal property.

The Construction Impact Assessment makes the following conclusions based on the condition of the subject trees within the context of the proposed design.

- Three (3) trees within municipal property will be impacted. Tree 3, 5, and 6
    - Two (2) trees will remain viable with no construction methodology specifications. Tree 5, and 6.
    - One (1) tree will remain viable with construction methodology specifications as detailed within the discussion section. Tree 3.

Introduction

Purpose of the report

The purpose of this report is to identify and assess the degree of impact the proposed development will have on trees that meet the assessment criteria. The assessments herein are in accordance with the Australian Standard, Protection of Trees on Development Sites (AS 4970-2009).

Description of the proposal

The design is a proposed childcare facility.

Municipal tree control

The subject site is located within a Commercial Zone (C1Z) of Maribyrnong Council.

There are no municipal tree controls on the subject site.

Methodology

Urban Forestry Victoria was engaged to assess the construction impact of the proposed design on trees that meet the following criteria.

- All trees within the subject site greater than 3m in height with one or relatively few main stems as defined in the Australian standard for the protection of trees on development sites (AS4970-2009).
- All neighbouring trees greater than 3m in height with one or relatively few main stems as defined in the Australian standard for the protection of trees on development sites (AS4970-2009) that may be impacted by the proposed development.
- All municipal trees bordering the subject site irrespective of size.
- The site inspection was conducted on 7/12/2022.

Vegetation that did not meet the above listed criteria is not considered within the scope of the Construction Impact Assessment. A visual inspection was conducted from the ground in which the data found in this report was collected.

Documentation reviewed

- Existing Site Layout/Demolition Plan, 07/09/22, The Ellis Group Architects
- Proposed Ground Floor, 03/07/24, The Ellis Group Architects (modified by Build Care)

Trees were numbered on the plans provided by Urban Forestry Victoria without reference to any other documentation of the subject site.

The trees included in this report were assessed at the time of inspection using the metrics listed in the Glossary section of the Appendices.

Encroachment percentages were calculated using Microsoft Excel and Bluebeam Revu.

Limitations

All information supplied by Urban Forestry Victoria in this report is believed to be correct at the time of inspection. All information supplied to Urban Forestry Victoria for use in this report is assumed to be correct.

Assessments of trees may be limited or estimated by access or visibility. Identification of trees may be limited by season or access.

All encroachment percentages specified below are approximations only based on the accuracy of the plans provided and the measurements taken by the arboricultural consultant.

Risk assessment is general in methodology unless otherwise specified.

Recommendations made for the protection of the trees during construction phases may be made, however, this report does not constitute a Tree Protection Plan. If the responsible authority makes it conditional within the permit or otherwise requests it, a Tree Protection and Management Plan based on the data and recommendations within this report must be completed prior to any development works within the subject site.

If revised development plans are generated after the completion of the construction impact assessment, it is the responsibility of the client to inform Urban Forestry Victoria and determine if an amendment of the construction impact assessment is required.

Observations

Site Description

The built form and hard surfaces within the subject site include concrete crossovers on the north and south boundaries. The subject site has been demolished.

FIGURE 1: AERIAL IMAGE (VERTICAL), NEARMAP, 16/05/24

Construction Impact Assessment

High Retention Value: There were no trees assessed as having a high retention value.

Medium to High Retention Value: There were eight (8) trees assessed as having a medium to high retention value.

Tree	Common Name	Protected[a]	Proposal[b]	Retainable[c]	SRZ (m)	TPZ (m)	TPZ area (m^2)	Impact area (m^2)	Proposed Impact
1	White Cedar	Yes, Municipal	Retain	Yes	2.9	6.9	148.0	0.0	0%
2	White Cedar	Yes, Municipal	Retain	Yes	2.4	5.2	83.6	0.0	0%
7	Chinese Elm	Yes, Municipal	Retain	Yes	2.4	4.3	58.6	0.0	0%
8	Chinese Elm	Yes, Municipal	Retain	Yes	2.2	3.4	35.5	0.0	0%
9	Chinese Elm	Yes, Municipal	Retain	Yes	2.0	3.5	38.0	0.0	0%
11	Chinese Elm	Yes, Municipal	Retain	Yes	1.5	2.0	12.6	0.0	0%
12	London Plane	Yes, Municipal	Retain	Yes	2.4	4.7	68.8	0.0	0%
13	Chinese Elm	Yes, Municipal	Retain	Yes	2.1	3.0	28.3	0.0	0%

Medium Retention Value: There were three (3) trees assessed as having a medium retention value.

Tree	Common Name	Protected	Proposal	Retainable	SRZ (m)	TPZ (m)	TPZ area (m^2)	Impact area (m^2)	Proposed Impact
3	White Cedar	Yes, Municipal	Retain	Refer to Discussion	2.4	4.9	74.6	9.3	12%
5	White Cedar	Yes, Municipal	Retain	Yes	2.2	4.0	49.3	2.6	5%
6	White Cedar	Yes, Municipal	Retain	Refer to Discussion	2.5	5.5	95.7	11.6	12%

Medium to Low Retention Value: There were two (2) trees assessed as having a medium to low retention value.

Tree	Common Name	Protected	Proposal	Retainable	SRZ (m)	TPZ (m)	TPZ area (m^2)	Impact area (m^2)	Proposed Impact
4	White Cedar	Yes, Municipal	Retain	Yes	1.5	2.0	12.6	0.0	0%
10	Chinese Elm	Yes, Municipal	Retain	Yes	1.5	2.0	12.6	0.0	0%

Low Retention Value: There were no trees assessed as having a low retention value.

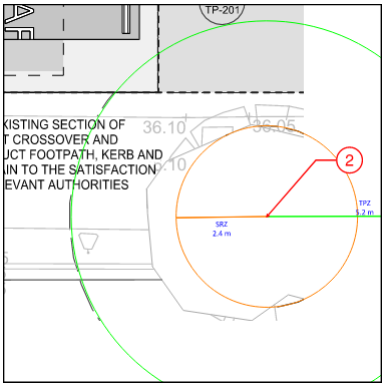
[a] Denotes the protection status of the tree regarding the relevant municipal tree control (Yes/No). Neighbouring and municipal trees are designated as protected irrespective of species or condition.

[b] Denotes the proposed management of the tree as per the proposed design (Retain/Demolish).

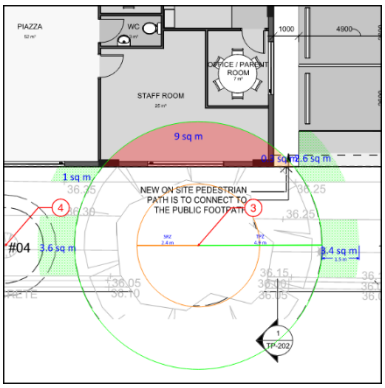
[c] Denotes whether the tree is retainable within the context of the proposed design and may require reference to the discussion section of the report.

Discussion

- **Tree 1** is a mature, Australian native White Cedar of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.
  There is no existing encroachment within the TPZ.
  Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.



- **Tree 2** is a mature, Australian native White Cedar of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.
  There is no existing encroachment within the TPZ.
  Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.



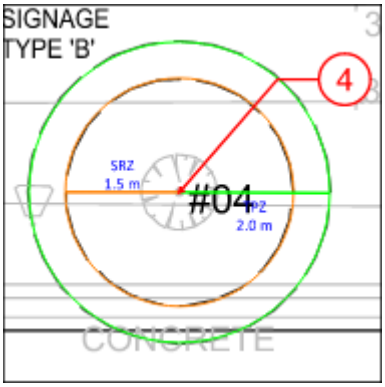
- **Tree 3** is a mature, Australian native White Cedar of medium retention value and moderate significance, located Municipal. There is a cavity within the stem.
  There is no existing encroachment within the TPZ.
  Within the context of the proposed design, the tree will incur an approximate 9.3m^2 (12%) combined TPZ area impact from the proposed
  a) Building, 9.0m^2 (12%) prohibitive impact
  b) Pathway, 0.3m^2 (<1%) semi-prohibitive impact
  This is a major TPZ area encroachment in accordance with AS4970-2009. The tree is proposed to be retained, however, may not remain viable within the context of the proposed design. For the viable retention of the tree within the context of developing the subject site, it will be necessary to implement the following recommendations.

1) Prior to any excavation occurring for the building, a trench must be excavated by non-destructive means (hydro-excavation) along the south edge of the building within the TPZ of Tree 3 to the same depth as the building excavation. During the works:
   a. Excavation must be supervised by the Project Arborist.
   b. Any roots found must be pruned at the edge of the trench closest to the tree using sharp saw or secateurs. Any machinery not specifically designed to prune roots must not be used.

c. Any exposed roots must not be allowed to desiccate. Exposed roots must be covered with pre-moistened thick hessian or jute matting and pinned. The covering must be kept moist until such a time as the roots are permanently covered.

If the above-listed recommendations are implemented, the tree will remain viable within the context of the proposed development as the tree is of good health and has sufficient contiguous open space to compensate for the root loss.

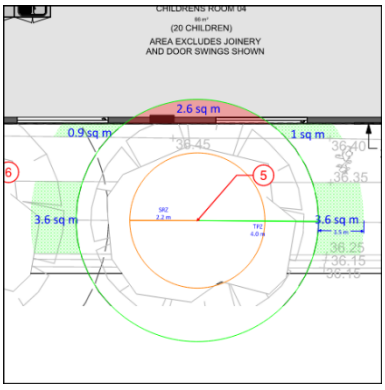
The proposed impact will be compensated for by 10.6m^2 of contiguous open space within 1.5m of the TPZ on the subject site and municipal property.



- **Tree 4** is a young, Australian native White Cedar of medium to low retention value and low significance, located Municipal. The tree is of typical health and structure for its species, age, and location.

There is no existing encroachment within the TPZ.

Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.



- **Tree 5** is a mature, Australian native White Cedar of medium retention value and moderate significance, located Municipal. There is a cavity within the stem.

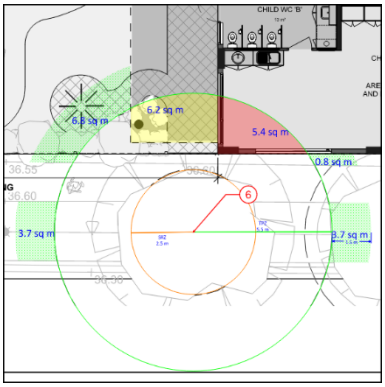
There is no existing encroachment within the TPZ.

Within the context of the proposed design the tree will incur an approximate 2.6m^2 (5%) prohibitive TPZ area impact from the proposed building.

This is within the acceptable range of impact in accordance with AS4970-2009. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction methodologies are necessary for the tree to remain viable within the context of the proposed development.

1) Prior to any excavation occurring for the building, a trench must be excavated by non-destructive means (hydro-excavation) along the south edge of the building within the TPZ of Tree 5 to the same depth as the building excavation. During the works:
   a. Excavation must be supervised by the Project Arborist.
   b. Any roots found must be pruned at the edge of the trench closest to the tree using sharp saw or secateurs. Any machinery not specifically designed to prune roots must not be used.
   c. Any exposed roots must not be allowed to desiccate. Exposed roots must be covered with pre-moistened thick hessian or jute matting and pinned. The covering must be kept moist until such a time as the roots are permanently covered.

The proposed impact will be compensated for by 9.1m^2 of contiguous open space within 1.5m of the TPZ on the municipal property.



- **Tree 6** is a mature, Australian native White Cedar of medium retention value and moderate significance, located Municipal. The tree is codominant and has acutely bifurcated unions with included bark present.

There is no existing encroachment within the TPZ.

Within the context of the proposed design, the tree will incur an approximate 11.6m^2 (12%) combined TPZ area impact from the proposed

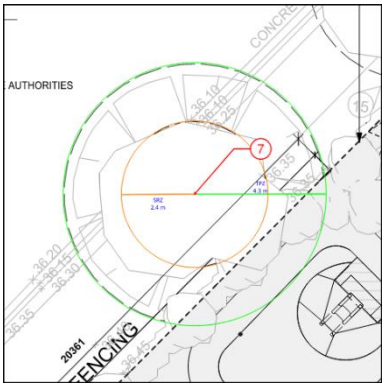
a) Building, 5.4m^2 (6%) prohibitive impact

b) First floor, 6.2m^2 (6%) non-prohibitive impact

This is a major TPZ area encroachment in accordance with AS4970-2009. The tree is proposed to be retained and will remain viable within the context of the proposed development as the prohibitive impact is less than 10%. Root growth will not be prohibited within the footprint of the first floor.

1) Prior to any excavation occurring for the building, a trench must be excavated by non-destructive means (hydro-excavation) along the south edge of the building within the TPZ of Tree 6 to the same depth as the building excavation. During the works:
    a. Excavation must be supervised by the Project Arborist.
    b. Any roots found must be pruned at the edge of the trench closest to the tree using sharp saw or secateurs. Any machinery not specifically designed to prune roots must not be used.
    c. Any exposed roots must not be allowed to desiccate. Exposed roots must be covered with pre-moistened thick hessian or jute matting and pinned. The covering must be kept moist until such a time as the roots are permanently covered.

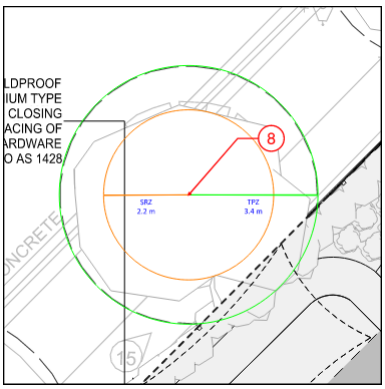
The proposed impact will be compensated for by 15.0m^2 of contiguous open space within 1.5m of the TPZ on the subject site and municipal property.



- **Tree 7** is a mature, non-native Chinese Elm of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.

There is no existing encroachment within the TPZ.

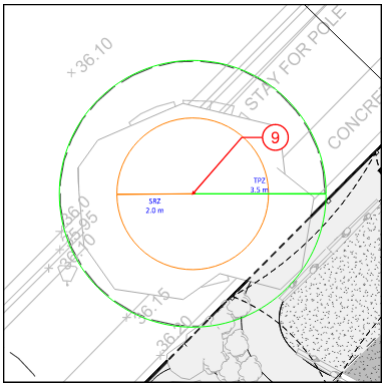
Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.



- **Tree 8** is a mature, non-native Chinese Elm of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.

There is no existing encroachment within the TPZ.

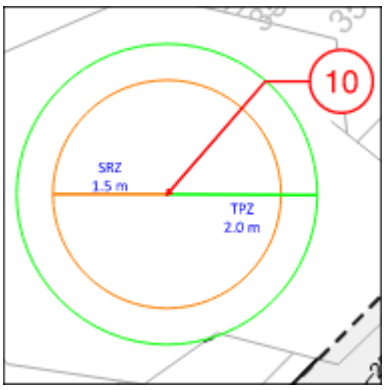
Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.



- **Tree 9** is a mature, non-native Chinese Elm of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.

There is no existing encroachment within the TPZ.

Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.



- **Tree 10** is a young, non-native Chinese Elm of medium to low retention value and low significance, located Municipal. The tree is of typical health and structure for its species, age, and location.

There is no existing encroachment within the TPZ.

Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.

- **Tree 11** is a semi-mature, non-native Chinese Elm of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.

  There is no existing encroachment within the TPZ.

  Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.

- **Tree 12** is a mature, non-native London Plane of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.

There is 11.3m^2 existing prohibitive encroachment within the TPZ.

Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.

- **Tree 13** is a mature, non-native Chinese Elm of medium to high retention value and moderate significance, located Municipal. The tree is of typical health and structure for its species, age, and location.
  There is 0.2m^2 existing prohibitive encroachment within the TPZ.
  Within the context of the proposed development the TPZ will not be impacted. The tree is proposed to be retained and no re-design of the development, or tree sensitive construction techniques are necessary for the tree to remain viable within the context of the proposed development.

- There are no other trees that meet the assessment criteria, on the subject site or within neighbouring or municipal properties that will be affected by the proposed development.

Conclusion & Recommendation

The Construction Impact Assessment makes the following conclusions based on the condition of the subject trees within the context of the proposed design.

- Three (3) trees within municipal property will be impacted. Tree 3, 5, and 6
  - Two (2) trees will remain viable with no construction methodology specifications. Tree 5, and 6.
  - One (1) tree will remain viable with construction methodology specifications as detailed within the discussion section. Tree 3.

- No revision of the design is necessary for the viable retention of the trees, proposed for retention.

- The following tree sensitive construction techniques ***must*** be adhered to for all trees that are to be retained.
  - No excavation, constructions works or activities, grade changes, surface treatments or storage of materials of any kind are permitted within the TPZ unless otherwise approved within the permit or further approved in writing by the responsible authority.
  - No trenching is allowed within the TPZ for the installation of utility services unless tree sensitive installation methods such as hydro excavation have been approved by the Responsible Authority.

- The installation of protection measures for trees to be retained must be done in accordance with a Tree Protection and Management Plan (TPMP).

Appendices

Tree Data[a]

Tree No.	Common Name	Botanical Name	Origin	HxW (m)	DRF (cm)	SRZ (m)	DBH (cm)	TPZ (m)	Health	Canopy	Stem	Age	Significance	ULE	Retention Value	Notes
1	White Cedar	*Melia azedarach*	Aus. native	6x13	73	2.9	57	6.9	G	G	G	M	M	>20	M+	Municipal
2	White Cedar	*Melia azedarach*	Aus. native	5x7	48	2.4	43	5.2	G	G	G	M	M	>20	M+	Municipal
3	White Cedar	*Melia azedarach*	Aus. native	5x10	48	2.4	41	4.9	G	G	F	M	M	>15	M	Municipal
4	White Cedar	*Melia azedarach*	Aus. native	2x1	10	1.5	7	2.0	G	G	G	Y	L	>25	M-	Municipal
5	White Cedar	*Melia azedarach*	Aus. native	5x8	36	2.2	33	4.0	G	G	F	M	M	>15	M	Municipal
6	White Cedar	*Melia azedarach*	Aus. native	5x8	53	2.5	46	5.5	G	G	F	M	M	>15	M	Municipal
7	Chinese Elm	*Ulmus parvifolia*	Non-native	6x12	46	2.4	36	4.3	G	G	G	M	M	>20	M+	Municipal
8	Chinese Elm	*Ulmus parvifolia*	Non-native	5x8	36	2.2	28	3.4	G	G	G	M	M	>20	M+	Municipal
9	Chinese Elm	*Ulmus parvifolia*	Non-native	5x8	30	2.0	29	3.5	G	G	G	M	M	>20	M+	Municipal
10	Chinese Elm	*Ulmus parvifolia*	Non-native	3x1	10	1.5	8	2.0	G	G	G	Y	L	>25	M-	Municipal
11	Chinese Elm	*Ulmus parvifolia*	Non-native	4x3	15	1.5	14	2.0	G	G	G	SM	M	>25	M+	Municipal
12	London Plane	*Platanus x acerifolia*	Non-native	6x11	46	2.4	39	4.7	G	G	G	M	M	>20	M+	Municipal
13	Chinese Elm	*Ulmus parvifolia*	Non-native	6x4	33	2.1	25	3.0	G	G	G	M	M	>20	M+	Municipal

[a] Refer to the Glossary below for item terminology.

Photos

Tree 1

Tree 2

Tree 3

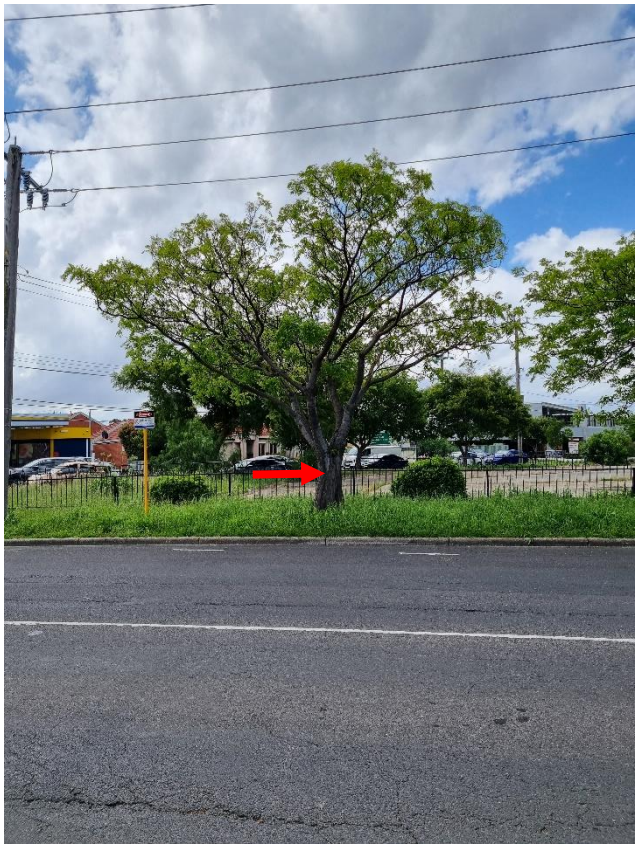
Tree 3 stem cavity

Tree 4

Tree 5

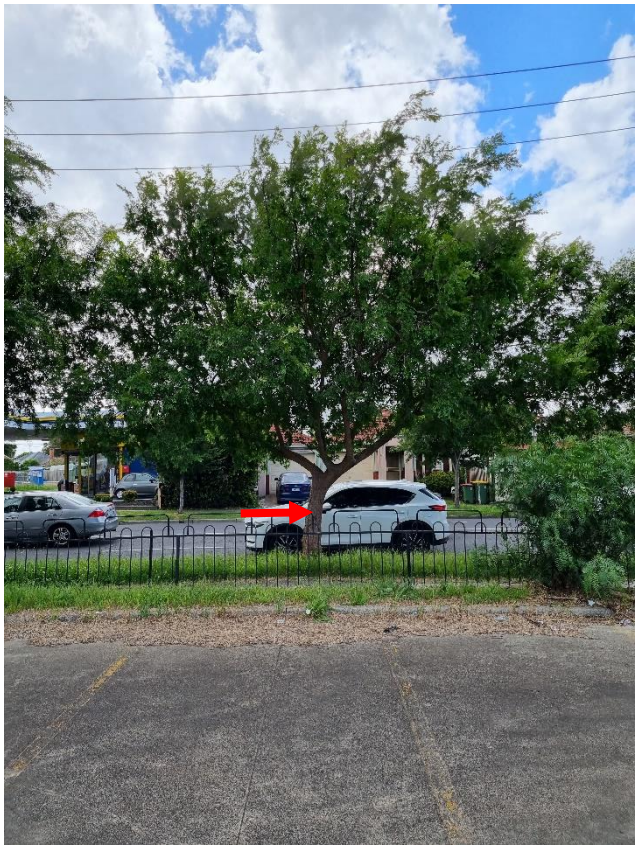
Tree 5 stem cavity

Tree 6



Tree 7

Tree 8



Tree 9

Tree 10

Tree 11

Tree 12

Tree 13

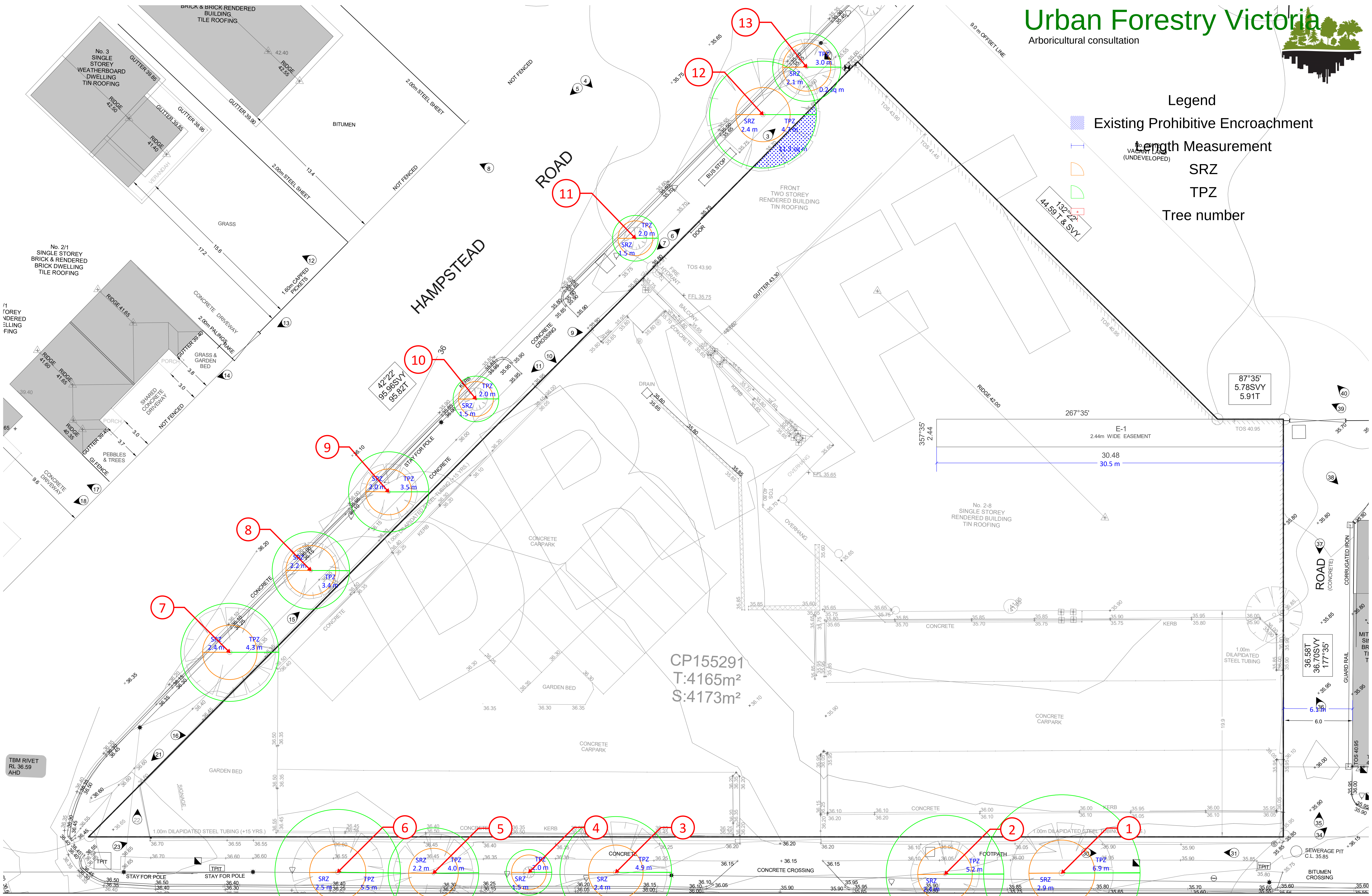
Glossary

Item	Terminology
Age	Y- Young - Juvenile tree and/or recently planted. Will grow to the maximum amount the conditions allow. SM – Semi mature - Tree is steadily growing into its mature shape and structure. M – Mature - Specimen has reached approximately 70% full size in situation but can continue to grow at a reduced rate in the mature stage of its life, depending on conditions. LM – Late mature - Tree is senescent. Over mature and in decline, may still put-on small amounts of growth in some areas of the tree, or it may still be healthy with one or more major structural faults.
Botanical Name	The genus and species of the tree. sp. = species. ssp. = sub-species. var. = variety
Branch Structure	G – The tree has no observable structural faults within the canopy. F – The tree has structural faults within the canopy that could likely be mitigated. The tree has some species typical structural faults within the canopy that may become deleterious. P – The tree has structural faults within the canopy that likely cannot be mitigated.
Common Name	A name commonly associated with the tree, that may vary.
DBH (cm)	Diameter of the stem measured at breast height (1.4m) using a diameter tape or tape measure. Expressed in centimetres. Where multiple trunks are present only the four largest stems are recorded. DBH with an 'e' following the number indicates an estimate due to access or sight restrictions.
DRF (cm)	Diameter of the stem measured at the top of the root flare using a diameter tape or tape measure. Expressed in centimetres. Where multiple trunks are present the measurement is taken at ground level. DRF with an 'e' following the number indicates an estimate due to access or site restrictions.
Existing encroachment	Prohibitive encroachment – Existing encroachment of the TPZ which is likely to have created a physical barrier to root growth. Root growth is unlikely to be present within or beyond the footprint of the built form. Semi-prohibitive encroachment – Existing encroachment of the TPZ which is likely to have created a partial physical barrier (horizontal within the soil profile) to root growth. Root growth may be present within (below) or beyond the footprint of the built form. Non-prohibitive encroachment – Existing encroachment of the TPZ which has not created a physical barrier to root growth. Root growth may be present within or beyond the footprint of the built form.
Health	G – The tree has no observable constraints to its typical physiology. F – The tree has physiological issues that could likely be remediated. P – The tree has physiological issues that likely cannot be remediated.
HxW (m)	H= Estimated height to upper most point of canopy. W= Estimated width of canopy at its widest point. Expressed in meters.
Origin	Aus. native (Native to Australia with no part of its natural range within Victoria) Vic. native (Native to Australia with all or part of its natural range within Victoria) Non-native (No part of its natural range within Australia)
Proposed impact	Prohibitive impact – Proposed encroachment into the TPZ which results in a physical barrier to root growth. Generally, more than 300mm below natural ground level. Semi-prohibitive impact – Proposed encroachment into the TPZ which results in a partial physical barrier to root growth, in which roots may still pass beneath the obstruction. Generally, less than 300mm below natural ground level. Non-prohibitive impact – Proposed encroachment into the TPZ which is above the natural grade and will not result in a physical barrier to root growth. No excavation of the natural grade necessary (excepting post holes to support above grade, built form).
Retention Value	H – High – The tree is worth retention and worth being a constraint on development of the subject site. M – Medium - The tree may be worth retention. L – Low - The tree is not worth retention and should not be a constraint on development of the subject site. A '+' or '– 'This means the description is in-between ratings e.g., M+ means the rating is medium to high, M– means the rating is medium to low.
SRZ (m)	Structural Root Zone: The minimum area of roots required for tree stability. The SRZ is measured as a radius out from the centre of the trunk. Expressed in meters.
Significance	L - Low – Declining health or structure. Generally considered to be a weed species. No aesthetic contribution to the landscape. Young and/or easily replaceable. Ubiquitous species. Problematically located within the environment. M - Moderate – Typical health or structure. Not commonly found on weed lists. Some aesthetic contribution to the landscape. Well established. Commonly planted natives and non-natives. H - High – Typical to good health or structure. Native/remnant trees of fair to good condition. Clear aesthetic contribution to the landscape. Trees of exceptional age, size, or condition for their species.
TPZ (m)	Tree Protection Zone: The area required for the protection of the tree during construction to maintain its health. The TPZ is measured as a radius out from the centre of the stem. Expressed in meters.
Trunk Structure	G – The tree has no observable structural faults within the stem. F – The tree has structural faults within the stem that could likely be mitigated. The tree has some species typical structural faults within the stem that may become deleterious. P – The tree has structural faults within the stem that likely cannot be mitigated.
ULE Years	Useful Life Expectancy – in the trees current condition, without environmental changes or remedial works, it would (<) be reasonable to remove the tree within X years. (>) not be reasonable to remove the tree within X years. *This assessment is outside of the context of construction impact.*

Attached markups

Full scale markups of the following documents are attached below.

- Existing Site Layout/Demolition Plan, 07/09/22, The Ellis Group Architects
- Proposed Ground Floor, 03/07/24, The Ellis Group Architects (modified by Build Care)



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ISSUE	DESCRIPTION	DATE
P1	PRELIMINARY ISSUE FOR CLIENT REVIEW	25.08.22
P2	PRELIMINARY ISSUE FOR CLIENT REVIEW	07.09.22

ISSUED FOR DISCUSSION PURPOSES ONLY

PROPOSED COMMERCIAL DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
EXISTING SITE LAYOUT/DEMOLITION PLAN

Date. 07.09.22 Drawn. TM
Job No. 3130-1 Scale@A1 1 : 150

C:\Users\tim\Documents\3130 Central SK_Tim@ellisgroup.com.au.rvt

SK-A002 P2

ESD INITIATIVES

WATER & STORMWATER MANAGEMENT

- 676.2m² OF ROOF CATCHMENT AREA TO BE DIVERTED TO THE RAINWATER TANK - IF REQUIRED, THE USE OF MECHANICALLY ASSISTED PUMPED OR CHARGED SYSTEM
- 17,000L RAINWATER TANK LOCATED AS SHOWN TO BE CONNECTED TO TOILETS FOR FLUSHING
- FIRST FLOOR PLAY AREAS OF 350M² WILL BE DIVERTED TO THE RAIN GARDEN.
- PERMEABLE AREA OF 325.5M2 COMPRISED OF LANDSCAPE AREA ON THE GROUND FLOOR.
- USE OF NATIVE OR DROUGHT TOLERANT SPECIES FOR LANDSCAPED AREAS. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS.
- WELS RATING FOR WATER FITTINGS/FIXTURES (REFER TO REPORT). FIXTURES PROVIDED AS PART OF THE BASE BUILDING WORK HAVE TO BE CHOSEN WITHIN ONE WELS STAR OF BEST AVAILABLE AT THE TIME OF PURCHASE.

ENERGY EFFICIENCY

- COMMITMENT TO MEETING SECTION J ENERGY EFFICIENCY REQUIREMENT OF NCC 2019
- THE MAXIMUM ILLUMINATION POWER DENSITY (W/m2) OF THE DEVELOPMENT TO MEET THE REQUIREMENTS OF NCC 2019
- LIGHTING SENSORS FOR EXTERNAL LIGHTING (MOTION DETECTORS, TIMERS ETC).
- 4KW (16 PANELS) SOLAR PV SYSTEM ON THE ROOF OF THE DEVELOPMENT
- CO2 SENSORS FOR CAR PARK VENTILATION

INDOOR ENVIRONMENT QUALITY

- COMMITMENT TO OUTSIDE AIR FAN IN CHILDREN'S ROOMS PROVIDING 0/A RATES 75% MINIMUM FROM AS1668 OR O/A PROVISION TO ENSURE CO2 CONCENTRATION REMAINS BELOW 800ppm IN CHILDREN'S ROOMS.

TRANSPORT

- MINIMUM TWO BIKE SPACES FOR EMPLOYEES AND VISITORS

URBAN ECOLOGY

• EXTENT OF VEGETATED AREA AS SHOWN

AIR QUALITY MONITORING

ONCE THE DEVELOPMENT IS COMPLETE AND WITHIN SIX MONTHS, AND AGAIN AT TWO YEARS AFTER THE COMMENCEMENT OF THE USE, AIR QUALITY MONITORING MUST BE UNDERTAKEN BY A SUITABLY QUALIFIED PERSON. MONITORING MUST DOCUMENT, OVER A PERIOD OF NOT LESS THAN ONE MONTH DURING THE PROPOSED OPERATING HOURS OF THE CENTRE, THE FOLLOWING:

- PM10
- PM2.5
- OXIDES OF NITROGEN
- CARBON MONOXIDE
- SULFUR DIOXIDE

NOTE: ALL REPORTS TO BE PROVIDED TO THE RESPONSIBLE AUTHORITIES

1 x 1100L & 1 x 660L GARBAGE
2 x 1100L COMMINGLED RECYCLING
3 x 240L FOGO
1 x 660L PAPER & CARDBOARD
PROVISION FOR TAP AND DRAIN FOR BIN WASHING WITHIN REFUSE AREA

NEW ON SITE PEDESTRIAN PATH IS TO CONNECT TO THE PUBLIC FOOTPATH

NEW 1.8m HIGH TIMBER PALING ACOUSTIC FENCE TO SIDE BOUNDARY TO PREVENT NOISE TRANSFER

1800mm HIGH CHILDPROOF POWDERCOATED ALUMINIUM TYPE FENCING AND AUTOMATIC CLOSING GATES. PROVIDE MAX SPACING OF 85mm. ENSURE ALL DOOR HARDWARE IS DISABLED COMPLIANT TO AS 1428

SAFETY FENCING OR SIMILAR DESIGNED BY A SUITABLY QUALIFIED INDIVIDUAL TO BE INSTALLED TO PROTECT PLAY AREA

SIGNAGE TYPE 'C'

SIGNAGE PYLON

SIGNAGE TYPE 'B'

NEW ON SITE PEDESTRIAN PATH IS TO CONNECT TO THE PUBLIC FOOTPATH

PROVIDE CONVEX MIRROR ON COLUMN FOR PEDESTRIAN VISIBILITY

THE LOCATION AND TYPE OF ALL EXTERNAL LIGHTING MUST BE DESIGNED TO ENSURE THAT THEY WILL NOT IMPACT SURROUNDING LAND BY THE EMISSION OF LIGHT

NEW 1.8m HIGH TIMBER PALING ACOUSTIC FENCE TO SIDE BOUNDARY TO PREVENT NOISE TRANSFER

AREA TO BE AT LEAST 50% CLEAR OF VISUAL OBSTRUCTIONS OR WITH LANDSCAPING AT LESS THAN 900mm IN HEIGHT

REMOVE EXISTING SECTION OF REDUNDANT CROSSOVER AND RECONSTRUCT FOOTPATH, KERB AND SPOON DRAIN TO THE SATISFACTION OF THE RELEVANT AUTHORITIES

Urban Forestry Victoria
Arboricultural consultation

Legend
- Contiguous Open Space
- Length Measurement
- Non-prohibitive Encroachment
- Prohibitive Encroachment
- Semi-prohibitive Encroachment
- SRZ
- TPZ
- Tree Number

1 PROPOSED GROUND FLOOR

SCALE: 1 : 100

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MODIFIED BY:
BuildCare
design • build • maintain

ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING	21.02.23
B	ISSUED FOR TOWN PLANNING - RFI RESPONSE	23.05.23
C	ISSUED FOR DISCUSSION	07.06.24
D	ISSUED FOR TOWN PLANNING - SECTION 72	18.06.24
E	ISSUED FOR TOWN PLANNING	03.07.24

PROPOSED CHILDCARE DEVELOPMENT
2-8 HAMPSTEAD ROAD,
MAIDSTONE, VIC 3012
PROPOSED GROUND FLOOR PLAN

Date: 02.07.24 Drawn. HG
Job No. BC - 24005 Scale@A1 As indicated

TP-103

RENZO TONIN & ASSOCIATES
inspired to achieve

Acoustics
Vibration
Structural Dynamics

CITY OF MARIBYRNONG
ADVERTISED PLAN

2-8 HAMPSTEAD RD, MAIDSTONE

Acoustic Report

11 July 2024

BuildCare Property Pty Ltd

ME115-02F01 Acoustic Report (r1).docx

40 YEARS 1982-2022 ACOUSTIC ENGINEERING EXCELLENCE

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Executive summary

Renzo Tonin & Associates has undertaken an acoustic assessment of the proposed two-storey Childcare centre development, to be located at 2-8 Hampstead Road, Maidstone as part of the development planning application, with the following outcomes:

- Noise from children occupying the outdoor play areas is expected to comply with *AAAC Childcare Centre Noise Assessment Technical Guideline* criterion at the nearest residential receivers, with implementation of acoustic fencing specification set out in Section 7 of this report.
- Criteria for mechanical services were set out, for application in the detailed design phase of the development. The Subject Childcare Centre is considered low risk with respect to EPA Pub. 1826.
- Car park activity is expected to conform with applicable amenity criteria.
- Waste collection and delivery times were proposed with accordance with EPA Publication 1254.

With implementation of the advice set out in this acoustic report it is expected that the Subject Childcare Centre can conform with relevant criteria, and on that basis not unreasonably affect residential amenity in the area.

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1 Introduction

Renzo Tonin & Associates was engaged by BuildCare Property Pty Ltd to undertake an acoustic assessment of a two-storey childcare centre development, to be located at 2-8 Hampstead Road, Maidstone (the Subject Site / Proposed Childcare Centre). Renzo Tonin & Associates has based its assessment of the Subject Childcare Centre on the following drawings:

- Town Planning Drawings BC-24005 entitled *'Proposed Commercial Development 2-8 Hampstead Road, Maidstone VIC 3012'* issued July 2024, by BuildCare Property Pty Ltd

The work documented in this report was carried out in accordance with the Renzo Tonin & Associates Quality Assurance System, which is based on Australian Standard/NZS ISO 9001. Appendix A contains a glossary of acoustic terms used in this report.

2 Site overview

Figure 1: Site overview

3 Childcare centre overview

The proposed operational limits for the Subject Childcare Centre are understood to be:

- Childcare centre attendance: 168
- Hours of operation: 6:30am – 6:30pm Monday to Friday

The Subject Childcare Centre is to comprise:

- A two-storey Childcare centre building
  - 32 placements on Ground Level for 0-to-2-year-olds
  - 36 placements on Ground Level for 2-to-3-year-olds
  - 12 placements on Level 1 for 2-to-3-year-olds
  - 88 placements on Level 1 for 3-to-6-year-olds
- Two outdoor play areas at Ground Level
- Two outdoor play areas on Level 1
- Car parks are located at Ground Level

The Subject Childcare Centre has proposed the acoustic fencing outlined in Section 7.

4 Existing noise environment

To quantify the existing noise levels at the Subject Site, attended noise measurements were conducted on Friday 31st of March 2023. The measurement locations are shown on Figure 1 and described in Table 1 below.

Table 1: Noise measurement locations

ID	Location	Details
M1	1/27 Cambridge St, Maidstone– south of site	i. Measurement duration: Friday 31st of March 2023 from 10:45 am to 10:55am ii. Measured L_{90}: 49 dB(A) iii. The microphone was set in free field conditions at a height of **1.5 metres** above the natural ground level iv. The noise environment consisted of traffic noise from surrounding roads
M2	1 Hampstead Road, Maidstone– north-west of site	i. Measurement duration: Friday 31st of March 2023 from 11:02 am to 11:12am ii. Measured L_{90}: 59 dB(A) iii. The microphone was set in free field conditions at a height of **1.5 metres** above the natural ground level iv. The noise environment consisted of traffic noise from surrounding roads
M3	5 Hampstead St, Maidstone– north-west of site	i. Measurement duration: Friday 31st of March 2023 from 11:13 am to 11:23am ii. Measured L_{90}: 52 dB(A) iii. The microphone was set in free field conditions at a height of **1.5 metres** above the natural ground level iv. The noise environment consisted of traffic noise from surrounding roads

An NTi XL2 sound level analyser was used for the measurement campaign. The XL2 is a Class 1 instrument having accuracy suitable for field and laboratory use. The calibration of the device was checked in the field immediately before and after the measurement using a Brüel & Kjær Type 4231 calibrator; no drift in calibration was observed. The noise monitors conform with IEC 61672-1:2013 and IEC 61260-1:2014; the sound calibrator conforms with IEC 60942:2017, and; all carry manufacturers certification or NATA certification detailing Standard conformance testing within the last two years and one year respectively.

5 Criteria

5.1 Noise emissions from outdoor play areas – AAAC Guideline

The *Association of Australian Acoustical Consultants – Guideline for Childcare Acoustic Assessment v3.0, September 2020* (the AAAC Guideline) sets out a recommended assessment methodology for noise impact assessments to accompany a development application for childcare centres and provides typical recommendations for the control of noise from such centres.

The AAAC guideline sets out *'background +10 dB(A)'* and *'background + 5 dB(A)'* criteria for various scenarios for outdoor play in the context of the NSW planning environment. As applied in numerous Victorian Civil and Administrative Tribunal (VCAT) hearings, the opinion of the Victorian acoustic consulting industry is generally that the *'background +10 dB(A)'* criterion is appropriate in a Victorian context; and *'background + 5dB(A)'* is excessively stringent for protection of residential amenity during the day period for noise from outdoor play. By way of comparison, it is common practice for members of the Victorian acoustic consulting industry to set criteria for licenced venue patron noise as *'background +10 dB(A)'* during the day and evening.

On this basis, Table 2 presents the noise criteria for outdoor play for the Subject Childcare Centre.

Table 2: AAAC guideline – outdoor play area noise criteria

Background measurement location	Background noise level L_{90}, dB(A)	AAAC guideline noise limit at residential receivers L_{eq}, dB(A)
M1 at 1.5 metres above ground level	49[1]	L_{90} + 10 = 59

Note: 1. The minimum measured background noise level per Table 1.

The AAAC Guideline sets out representative sound power levels for children playing and these are shown in Table 3.

Table 3: AAAC sound power levels for groups of 10 children playing

Age group	Sound power level $L_{w,eq}$ [dB ref 10^{-12} watt] at frequency (Hz)							dB(A)
	63	*125*	*250*	*500*	*1k*	*2k*	*4k*	
0 to 2 years	*54*	*60*	*66*	*72*	*74*	*71*	*67*	78
2 to 3 years	*61*	*67*	*73*	*79*	*81*	*78*	*74*	85
3 to 6 years	*64*	*70*	*75*	*81*	*83*	*80*	*76*	87

Note: 1. Per AAAC Guideline, "If applicable, an adjustment to the above sound power levels of -6 dB could be applied in each age group for children involved in passive play."

5.2 Noise from mechanical services - EPA Publication 1826

Effective from 1 July 2021, EPA Publication 1826 *'Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues'* (EPA Pub. 1826) supersedes *'State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1'*, (SEPP N-1); and legislated by way of the Environment Protection Act 2017.

In the context of this assessment, EPA Pub. 1826 uses the same methods to calculate noise limits and assess noise impacts as the superseded SEPP N-1.

Noise criteria for mechanical services were calculated as presented in Table 4.

Table 4: EPA Pub. 1826 noise limits for mechanical services

Period	Location	Zoning level[2] L_{eq}, dB(A)	Background[1] L_{90}, dB(A)	Classification	Applicable limit L_{eq}, dB(A)
Day	Nearest residential receivers	*54*	*49*	*High background*	55
Evening		*48*	*-*	*Neutral*	48
Night		*43*	*-*	*Neutral*	43

Notes: 1. The evening and night noise limit has been determined using neutral background noise methodology

Period Definitions:
Day: Monday-to-Saturday (except public holidays) 7am - 6pm; Sundays and public holidays: NA
Evening: Monday-to-Saturday (except public holidays) 6pm - 10pm; Sundays and public holidays: 7am – 10pm
Night: All days 10pm - 7am

5.3 Car park noise - sleep disturbance

There are currently no legislated policies or guidelines in Victoria for the control or assessment of noise induced sleep disturbance or its associated health impacts. With respect to sleep disturbance, Section 5.4 of the New South Wales Office of Environment and Heritage (formally the Department of Climate Change and Water) *Road Noise Policy, March 2011,* and *NSW EPA document Environmental Criteria for Road Traffic Noise, 1999* (ECRTN) conclude that:

- *From the research on sleep disturbance to date it can be concluded that:*
  - *Maximum internal noise levels below 50-55dB(A) are unlikely to awaken people from sleep*
  - *One or two noise events per night, with maximum internal noise levels of 65-70dB(A), are not likely to affect health and wellbeing significantly.*

When a window to a room is open (such as might be required for natural ventilation during the night), it is commonly accepted that the noise level inside the room due to external sources would be 10-to-15 dB(A) lower than the noise level outside the room. These criteria are generally accepted in Victoria where amenity may be affected due to sleep disturbance and are typically taken to apply between 10pm and 7am the following day. The established sleep disturbance criteria are presented in Table 5.

Table 5: Sleep disturbance criteria

Type	Period	Criterion
Maximum Noise	10pm – 7am	L_{max} 50-55 dB(A) inside bedroom (or L_{max} 65 dB(A) outside an open bedroom window)

5.3.1 Representative car park noise levels

Renzo Tonin & Associates has previously conducted extensive measurements and testing of noise from car parks. Table 6 shows the range of measured noise levels.

Table 6: Measured noise level peaks from car park activity

Noise source	Noise Level L_{max} dB(A)
General car park activity[1]	49 to 63
Test car parking, 12 to 5 metres from microphone	63 to 64
Test car ignition, 5 metres from the microphone	61
Test car boot slam, 10 to 5 metres from the microphone	61 to 69
Test car door slam, 8 to 6 metres from the microphone	57 to 62

Notes: 1. Measurable noise levels from general car park activity were comprised of door slamming for the most part, at a distance of 10 to 60 metres from the microphone.

As shown in Table 6, the controlled measurements using the test car (the test car boot slam) were observed to generate higher noise levels than other car park activity. As such, noise level peaks from the test car were used for analysis detailed in this report. Table 7 presents the noise levels from the maximum test car noise event.

Table 7: Maximum test car noise level spectrum

Details	Noise level L_{max} at frequency (Hz)							dB(A)
	63	*125*	*250*	*500*	*1k*	*2k*	*4k*	
Car boot slam, 5 metres from measurement microphone, L_{max}	*84*	*72*	*69*	*63*	*64*	*62*	*59*	69

5.4 Deliveries to and waste collection from commercial tenancies

EPA Victoria Publication 1254 Noise Control Guidelines provides the following guidelines to mitigate the impact of deliveries and waste collection on residential amenity.

5.4.1 Deliveries

EPA Victoria Publication 1254 *Noise Control Guidelines* provides the following guidelines for deliveries:

- *Schedule: Deliveries to shops, supermarkets & service stations*
  - *7 am - 10 pm Monday to Saturday*
  - *9 am - 10 pm Sundays and public holidays*

  (Outside these hours) … deliveries should be inaudible in a habitable room of any residential premises … regardless of whether any door or window … is open

5.4.2 Waste collection

EPA Victoria Publication 1254 *Noise Control Guidelines* provides the following guidelines for waste collection:

- *Refuse bins should be located at sites that provide minimal annoyance to residential premises.*
- *Compaction should be carried out while the vehicle is moving*
- *Noisy verbal communication between operators should be avoided where possible.*

The following times are recommended for waste collection:

- *One collection per week*
  - *6:30 am - 8 pm Monday to Saturday*
  - *9 am - 8 pm Sunday and public holidays*
- *Two or more collections per week*
  - *7 am - 8 pm Monday to Saturday*
  - *9 am - 8 pm Sunday and public holidays*

6 Noise impact assessment & recommendations

A CadnaA three-dimensional noise model, implementing ISO 9613 noise propagation algorithms was built, to calculate noise propagation from the Subject Childcare Centre to surrounding residential premises.

The built form of the Subject Childcare Centre and surrounding dwellings were integrated into the model. The following propagation effects were included in the predictive model:

- Mitigation of noise with distance, including geometrical spreading and air absorption
- Reflections from buildings and environment
- Barrier effects due to obstructions between noise sources and residential receivers
- Ground absorption effects
- Local topographical changes

6.1 Noise emissions from outdoor play areas

For the analysis, it was assumed that:

- For the 168 children permitted at the Subject Childcare Centre:
  - Child distribution as per the supplied architectural plans
  - All the children are playing outside at any given time
  - All the children are involved in active play
- Noise sensitive receivers were located within residential lot boundaries surrounding the Subject Childcare Centre; outside windows to habitable areas, or within grounds at a height of 1.5 metres.

Table 8 presents predicted noise levels from outdoor play at surrounding residential receivers with the acoustic fencing proposed in Section 7.

Table 8: Outdoor play noise level analysis

Assessment location	Predicted noise L_{eq} dB(A)	AAAC guideline noise limit at residential receivers L_{eq}, dB(A)[1]	Conformance with criteria
1/27 Cambridge St– façade (to south)	**50**	*59*	✓
159 Mitchell St– façade (to south)	**50**	*59*	✓
159A Mitchell St– façade (to south)	**49**	*59*	✓
159B Mitchell St– façade (to south)	**48**	*59*	✓
1/1 Hampstead Rd - façade (to north-west)	**51**	*59*	✓
2/1 Hampstead Rd - façade (to north-west)	**51**	*59*	✓
3 Hampstead Rd - grounds	**49**	*59*	✓

Note: 1. AAAC – Guideline outdoor play area noise criteria per Table 2.

As presented, the proposed acoustic fence is expected to provide sufficient sound reduction for noise levels from outdoor play to materially conform with AAAC guideline criteria. Accordingly, the Architect shall ensure that requirements set out in acoustic specification in Section 7 are satisfied.

6.2 Noise emissions from mechanical services

Section 5.2 sets out noise limits for mechanical services. Whilst details of mechanical plant selection and location are not typically available during the concept design / town planning phase, Renzo Tonin & Associates is able to provide commentary on the likely compliance of the Subject Site's proposed childcare centre plant with noise criteria, drawing on experience from similar projects:

- It is expected that small scale air conditioner condensers and exhaust fans will be used
  - Generally, they are located on balconies, on the rooftop or on Ground Level services area. Such units do not generally generate significant noise and are generally have a sound power level of 65 to 70 dB(A)
- The Subject Childcare Centre is proposed to be two-storey, and have fences as described in Section 7.
- As such, the built form of development is likely to provide acoustic shielding and distance shall provide noise emission reduction
- Air conditioners and exhaust fans are expected to operate during the day period only

On the above basis, it is expected that mechanical services noise from the Subject Childcare Centre will present a low risk with respect to EPA Pub. 1826. As an additional recommendation to guide the development:

- It is good practice to, as practical, locate mechanical services away from surrounding dwellings; and locate services on roof/building sides furthest away from dwellings (in this instance, the north-east or east side).
  This is to maximise noise reduction provided by distance and acoustic shielding from the building.

6.3 Noise emissions from car park

As it is proposed that the Subject Childcare Centre operate from 6:30am weekdays, it is possible that early morning car movements may occur during the night time period. As such, sleep disturbance criteria may be applied for car park noise, as defined in Section 5.3 – *Car park noise - sleep disturbance*. Table 9 presents the analysis of car park noise.

Table 9: Car park noise analysis with proposed fence

Dwelling location	Predicted maximum noise level outside window, L_{max}	Does predicted noise level comply with sleep disturbance criterion? (L_{max} 60-65 dB(A) outside an openable bedroom window)
3 Hampstead Rd – most affected dwelling	48 dB(A)	✓

Note:
- Noise levels calculated from worst case car boot slam documented in Table 8
- Noise levels at other dwellings is lower than the noise levels presented above, as a result of greater distance from the car park

As presented in Table 9, the proposed fencing at a height of 1.8 metre acoustic is expected to provide sufficient sound reduction such that car park activity is not expected to exceed the sleep disturbance criterion of 60-65dB(A) outside adjacent dwelling windows.

The Architect shall ensure that the existing and new fencing comply with the acoustic fence specification in Section 7.

As such, car park activity is not expected to exceed the sleep disturbance criterion of 65dB(A) outside adjacent dwelling windows.

6.4 Deliveries to and waste collection from commercial tenancies

Delivery and waste collection should be conducted in accordance with EPA Publication 1254, as set out in Section 5.4.

7 Acoustic specification

Figure 2: Acoustic treatment specification at Ground Level

Figure 3: Acoustic treatment specification on Level 1

Acoustic fence

1. (green) The proposed acoustic fence shall be built to a minimum of 1.8 m.
2. Acoustic fences and parapets may be constructed using any of treated timber, glass, precast concrete panels, lightweight aerated concrete, transparent acrylic panels, profiled metal sheet cladding, and/or fibre cement sheeting as long the selected material (or combined skins) has a mass of at least 8kg/m^2
3. Where Condition 2 is not demonstrated, the overall sound transmission loss through the material of which the fence is to be constructed shall not be less than R_w 20, to be approved by a suitably qualified acoustic consultant
4. Acoustic fences and parapets shall have no gaps or holes, and shall be designed so that there is no likelihood of them occurring through natural causes or deformations which would allow noise to pass through
5. The fence must be designed and built in an acceptable manner so that noise will not pass underneath it

8 Conclusion

Renzo Tonin & Associates has undertaken an acoustic assessment of the proposed two-storey Childcare centre development, to be located at 2-8 Hampstead Road, Maidstone as part of the development planning application, with the following outcomes:

- Noise from children occupying the outdoor play areas is expected to comply with AAAC Childcare Centre Noise Assessment Technical Guideline criterion at the nearest residential receivers, with implementation of acoustic fencing specification set out in Section 7 of this report.
- Criteria for mechanical services were set out, for application in the detailed design phase of the development. The Subject Childcare Centre is considered low risk with respect to EPA Pub. 1826.
- Car park activity is expected to conform with applicable amenity criteria.
- Waste collection and delivery times were proposed with accordance with EPA Publication 1254.

With implementation of the advice set out in this acoustic report it is expected that the Subject Childcare Centre can conform with relevant criteria, and on that basis not unreasonably affect residential amenity in the area.

APPENDIX A Glossary of terminology

The following is a brief description of the technical terms used to describe noise to assist in understanding the technical issues presented.

Assessment Point	A location at which a noise or vibration measurement is taken or estimated.
Attenuation	The reduction in the level of sound or vibration.
Background noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the LA90 noise level if measured as an overall level or an L90 noise level when measured in octave or third-octave bands.
Barrier (Noise)	A natural or constructed physical barrier which impedes the propagation of sound and includes fences, walls, earth mounds or berms and buildings.
Decibel [dB]	The units of sound measurement. The following are examples of the decibel readings of everyday sounds: 0dB The faintest sound we can hear, defined as 20 micro Pascal 30dB A quiet library or in a quiet location in the country 45dB Typical office space. Ambience in the city at night 60dB CBD mall at lunch time 70dB The sound of a car passing on the street 80dB Loud music played at home 90dB The sound of a truck passing on the street 100dB The sound of a rock band 110dB Operating a chainsaw or jackhammer 120dB Deafening
Free-field	An environment in which there are no acoustic reflective surfaces. Free field noise measurements are carried out outdoors at least 3.5m from any acoustic reflecting structures other than the ground.
Frequency	Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
Habitable Area	Includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom, family room, home theatre and sunroom. Excludes a bathroom, laundry, water closet, pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods.
L90	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
LAeq or Leq	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time, which would produce the same energy as a steady sound level occurring over the same period of time. When A-weighted, this is written as the LAeq.
Lmax	The maximum sound pressure level measured over a given period. When A-weighted, this is usually written as the LAmax.
Reflection	Sound wave reflected from a solid object obscuring its path.

Rw	Weighted Sound Reduction Index A measure of the sound insulation performance of a building element. It is measured in very controlled conditions in a laboratory. The term supersedes the value STC which was used in older versions of the Building Code of Australa. Rw is measured and calculated using the procedure in ISO 717-1. The related field measurement is the DnT,w. The higher the value the better the acoustic performance of the building element.
Sound	A fluctuation of air pressure which is propagated as a wave through air.
Sound absorption	The ability of a material to absorb sound energy by conversion to thermal energy.
Sound level meter	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound power level	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power of 1 pico watt.
Sound pressure level	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone referenced to 20 mico Pascal.
Transmission Loss	The sound level difference between one room or area and another, usually of sound transmitted through an intervening partition or wall. Also the vibration level difference between one point and another. For example, if the sound level on one side of a wall is 100dB and 65dB on the other side, it is said that the transmission loss of the wall is 35dB. If the transmission loss is normalised or standardised, it then becomes the Rw or R'w or DnT,w.