

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

## Application for

## **Planning Permit**

Planning Enquiries Phone: Web: http://www.hume.vic.gov.au

If you need help to complete this form, read How to Complete the Application for Planning Permit 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 concerns, please contact Council's planning department.

A Questions marked with an asterisk (\*) are mandatory and must be completed.

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

#### The Land

Street Address \*

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

Formal Land Description *
Complete either A or B.

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

U	nit No.:	St. No.: 8		St. Naı	me: PARI	IS RD	
s	uburb/Locality: E	BROADMEADOWS				Po	stcode:3047
Α	Lot No.: 1	Lodged Plan	Title	e Plan	<ul><li>Plan</li></ul>	of Subdivision	No.: 059117
OR							
В	Crown Allotmer	nt No.:				Section No.:	
	Parish/Townshi	ip Name:					

### The Proposal

A You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

For what use, development or other matter do you require a permit? \*

> If you need help about the proposal, read: How to Complete the Application for Planning Permit Form

Provide additional information on the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

Estimated cost of development for which the permit is required \*

Cost \$330K

**DUAL OCCUPANCY** 

**DWELLING ON SITE** 

CONSTRUCTION OF A NEW SINGLE STOREY DWELLING TO THE REAR OF EXISTING

You may be required to verify this estimate.

Insert '0' if no development is proposed (eg. change of use, subdivision, removal of covenant, liquor licence)

### Existing Conditions

Describe how the land is used and developed now \*

> eg. vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

TNB ରୋଖିଲିଣ ଏଡିcument is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The copy must not be used for any other purpose.

**Passeup te that the plan may not be to acale full** 

Title Information	
If you need help about the title, read:  How to Complete the Application for Planning Permit Form	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  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', eg. restrictive covenants.)
Applicant and Owner	- Details
6 Provide details of the applicant a Applicant *	
The person who wants the permit.	
Where the preferred contact person for the application is different from the applicant, provide the details of that person.	
Please provide at least one contact phone number *	
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.	
 Declaration	

(7) This form must be signed by the

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

### Need help with the Application?

If you need help to complete this form, read <u>How to complete the Application for Planning Permit Form</u> General information about the planning process is available at <a href="http://www.dpcd.vic.gov.au/planning">http://www.dpcd.vic.gov.au/planning</a>

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

(8) Has there been a pre-application meeting with a Council planning officer?

○ No	Yes	If 'yes', with whom?:	
		Date:	day / month / year

#### Checklist

9 Have you:

✓ 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.
Provided all necessary supporting information	ation and documents?
✓ A Full, current copy of title information for each	ch individual parcel of land, forming the subject site.
✓ A plan of the existing conditions.	
✓ Plans showing the layout and details of the pr	roposal.
Any information required by the planning sche permit check list.	eme, requested by council or outlined in a council planning
If required, a description of the likely effect of	the proposal (eg. traffic, noise, environmental impacts).
✓ Completed the relevant Council planning p	permit checklist?
✓ Signed the declaration (section 7)?	

### Lodgement

Lodge the completed and signed form, the fee payment and all documents with:

**Hume City Council** 

PO Box 119 Dallas VIC 3047

Pascoe Vale Road Broadmeadows VIC 3047

#### **Contact information:**

Fax: 61 03 93090109

Email: email@hume.vic.gov.au

DX: 94718

Translation: (03) 9205 2200 for connection to Hume Link's multilingual telephone information service



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

Page 1 of 1

VOLUME 09442 FOLIO 476

Security no: 124114008106Y Produced 08/04/2024 08:03 PM

#### LAND DESCRIPTION

Lot 1 on Title Plan 091043F.
PARENT TITLE Volume 04000 Folio 875
Created by instrument J492965 05/06/1981

#### REGISTERED PROPRIETOR

Estate Fee Simple Sole Proprietor

#### ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AX392343F 26/10/2023 WESTPAC BANKING CORPORATION

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 set out under DIAGRAM LOCATION below.

#### DIAGRAM LOCATION

SEE TP091043F 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: 8 PARIS ROAD BROADMEADOWS VIC 3047

#### ADMINISTRATIVE NOTICES

NIL

eCT Control 16320Q WESTPAC BANKING CORPORATION Effective from 26/10/2023

DOCUMENT END

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Title 9442/476 Page 1 of 1



## **Imaged Document Cover Sheet**

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Document Assembled	08/04/2024 20:03

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**EDITION 1** TP 91043F TITLE PLAN **Notations** Location of Land WILL-WILL-ROOK Township: Section: Crown Allotment: Crown Portion: Last Plan Reference: LP 7022 VOL 9442 FOL 476 Derived From: ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON Depth Limitation: NIL

THIS TITLE PLAN

Description of Land / Easement Information

#### ENCUMBRANCES REFERRED TO

As to the land shown marked A - - - -

THE EASEMENTS (if any) existing over - the same by virtue of Section 98 of -- the Transfer of Land Act - - - - - -

THIS PLAN HAS BEEN PREPARED
FOR THE LAND REGISTRY, LAND
VICTORIA, FOR TITLE DIAGRAM
PURPOSES AS PART OF THE LAND
TITLES AUTOMATION PROJECT
COMPILED: 02/08/1999

VERIFIED: A.D.

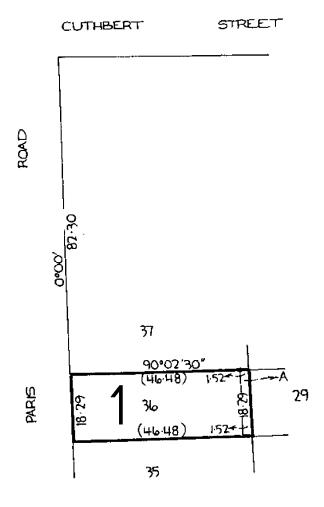


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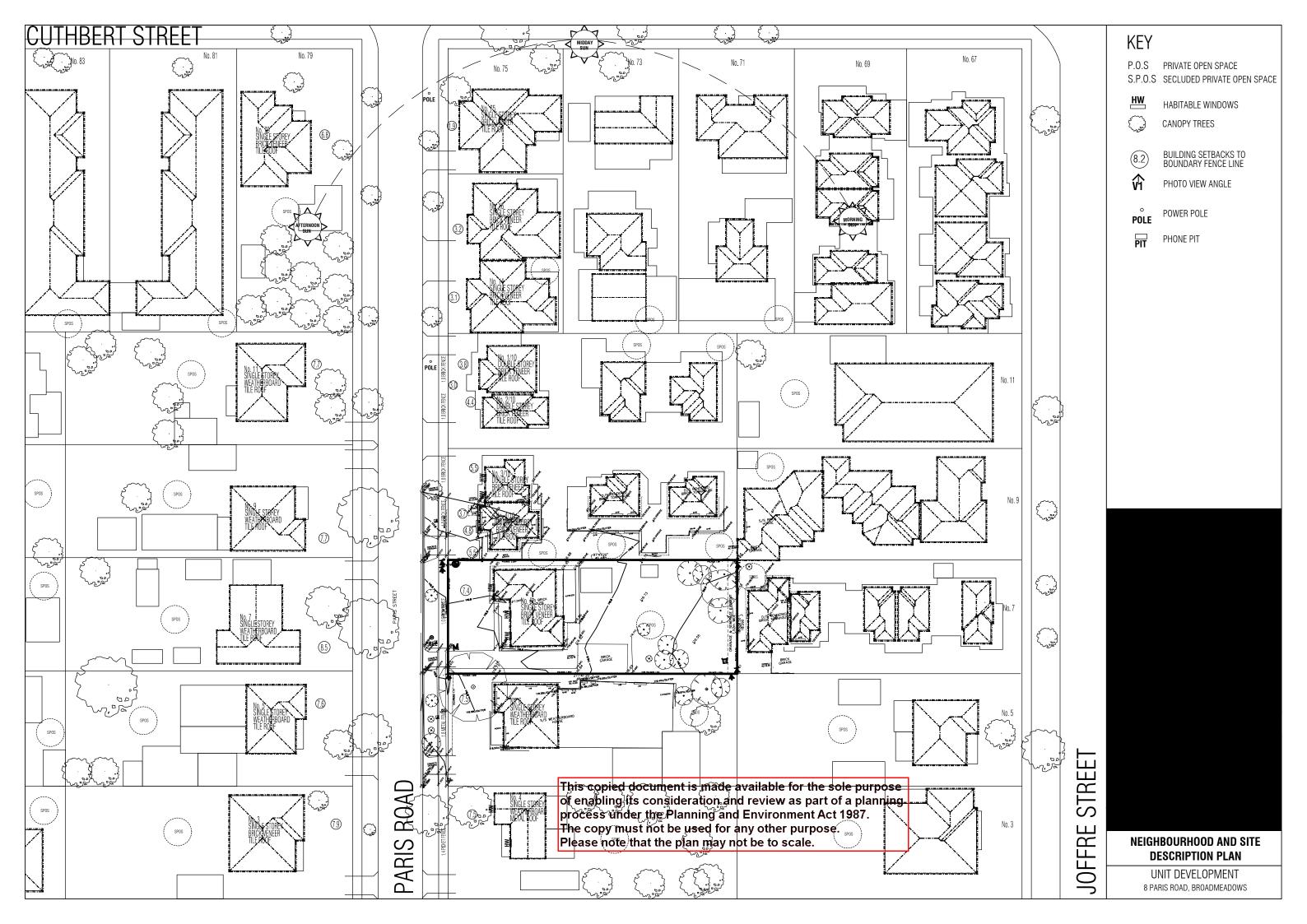
LENGTHS ARE IN METRES

PARCEL 1 = LOT 36 ON LP 7022

Metres = 0.3048 x Feet

Metres = 0.201168 x Links

Sheet 1 of 1 sheets

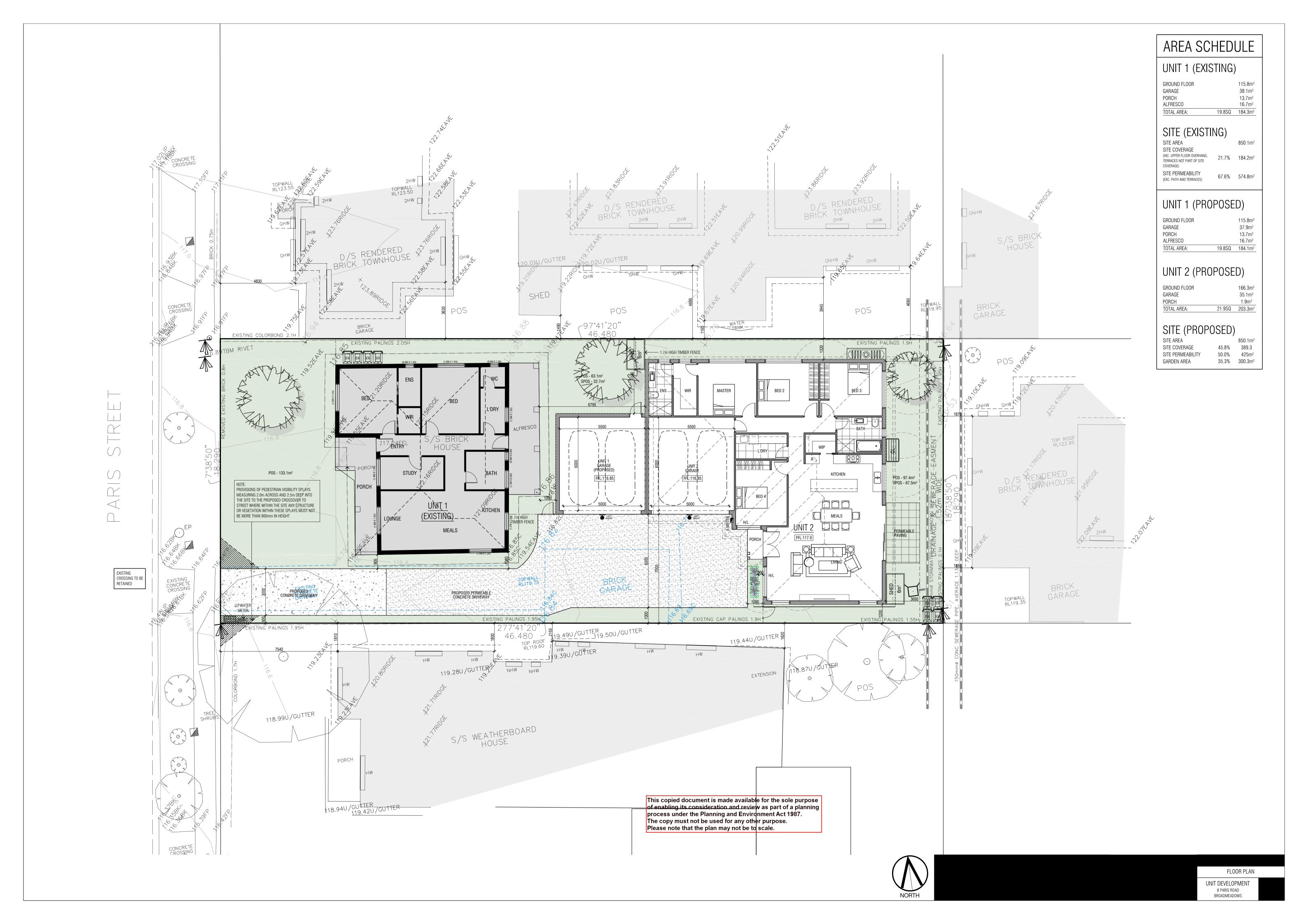


### **SITE PHOTOS**

### PROJECT ADDRESS: 8 PARIS ROAD, BROAMDEADOWS



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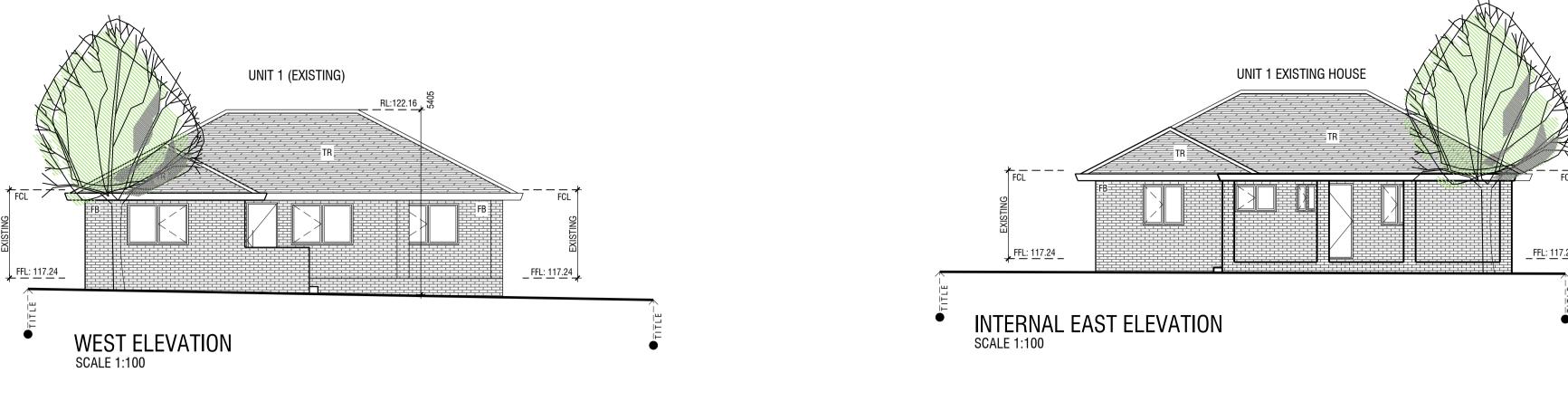
## **MATERIAL SCHEDULE:**

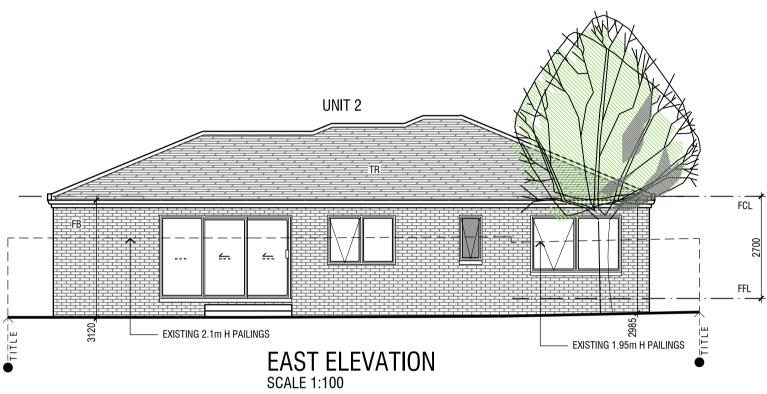
FACEBRICK WALL SELECTED GARAGE DOOR 1.8m HIGH TIMBER PAILING FENCE KLIP-LOK ROOF AT 2 DEGREE PITCH SELECTED TILED ROOF AT 22.5 ADJUSTABLE SHADING DEVICE

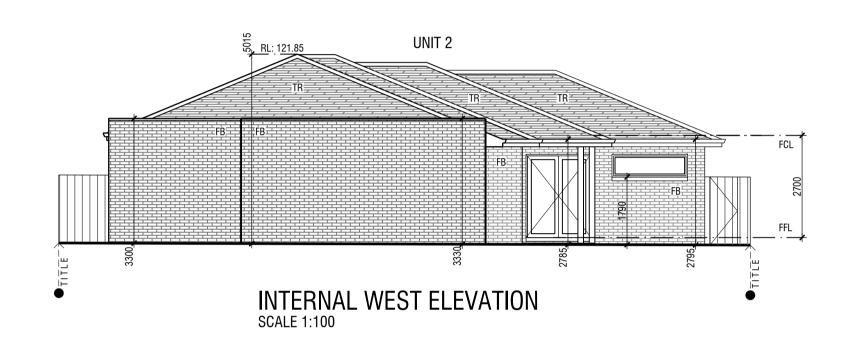
FIXED SHADING DEVICE

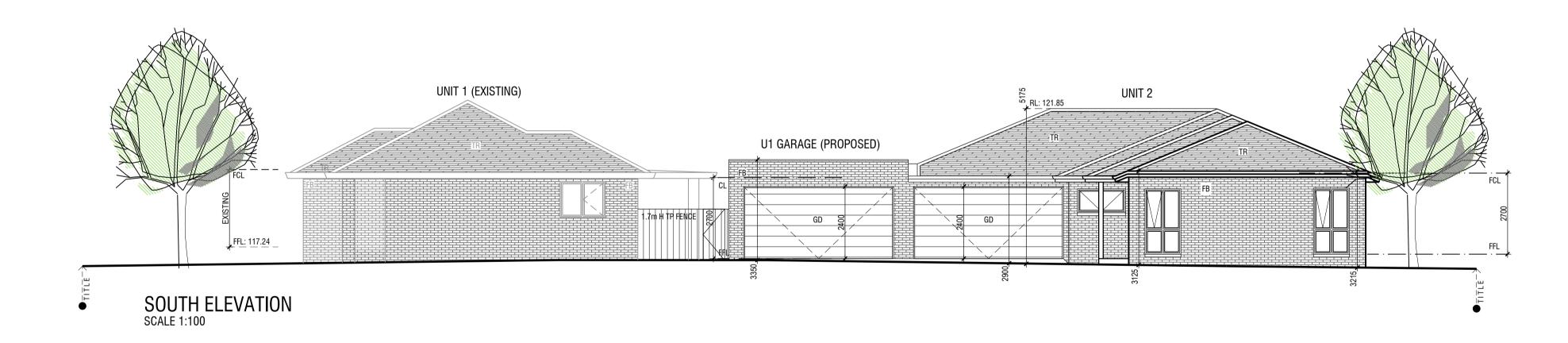
ALUMINIUM WINDOWS THROUGH-OUT

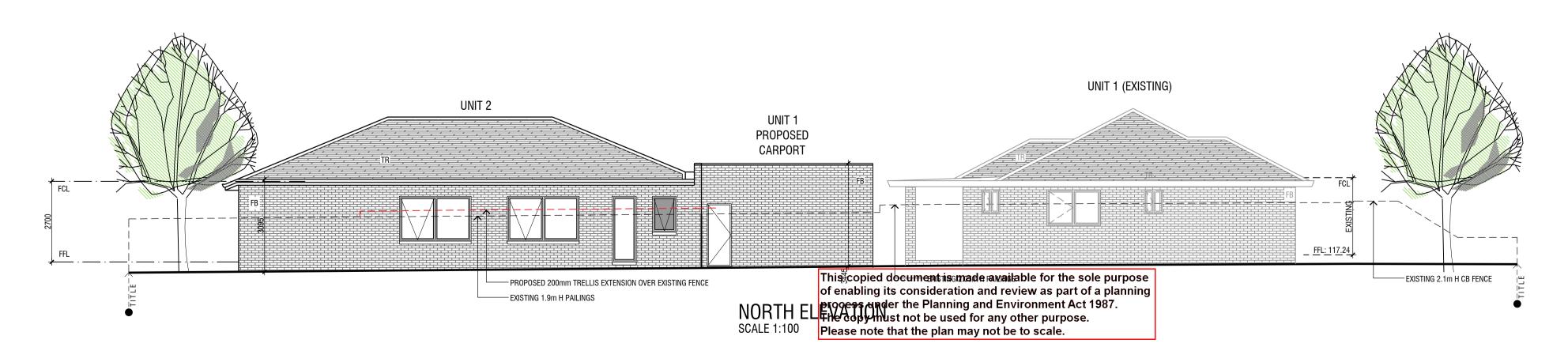


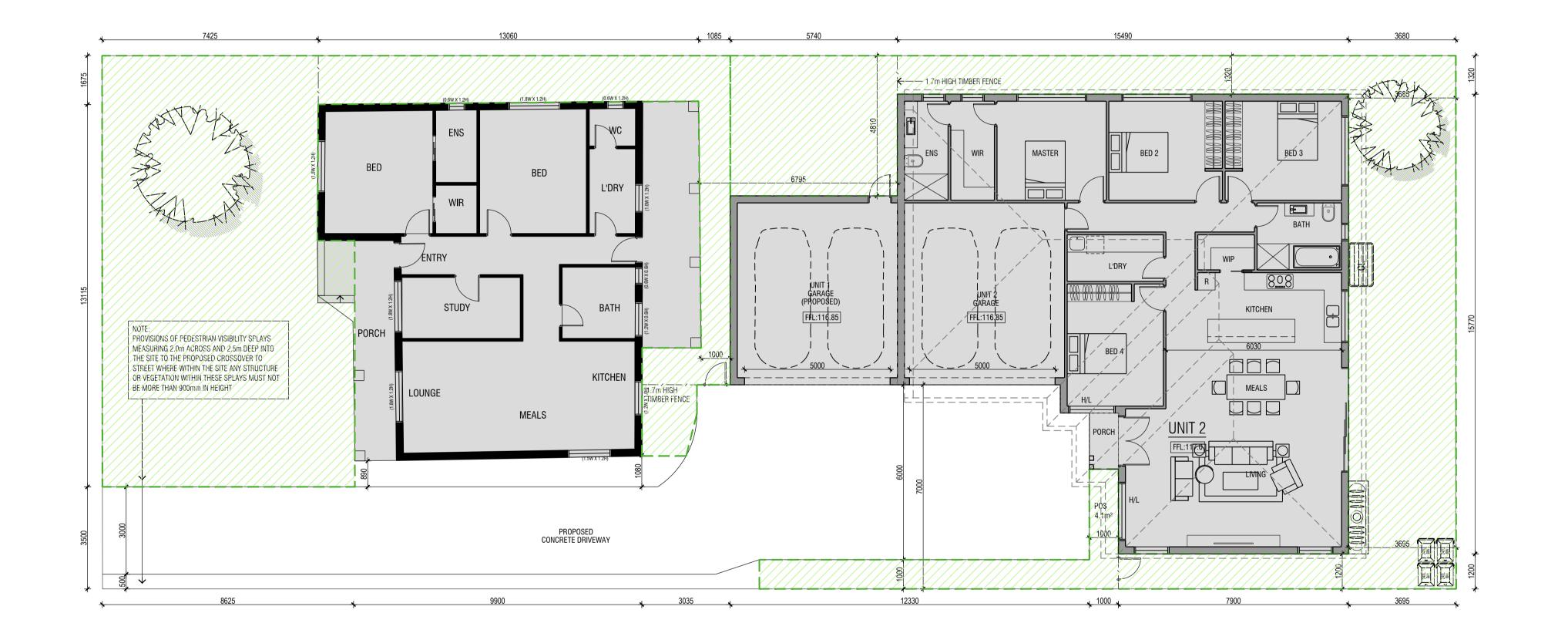












45.8% 389.3 50.0% 425m<sup>2</sup> 35.3% 300.3m<sup>2</sup>

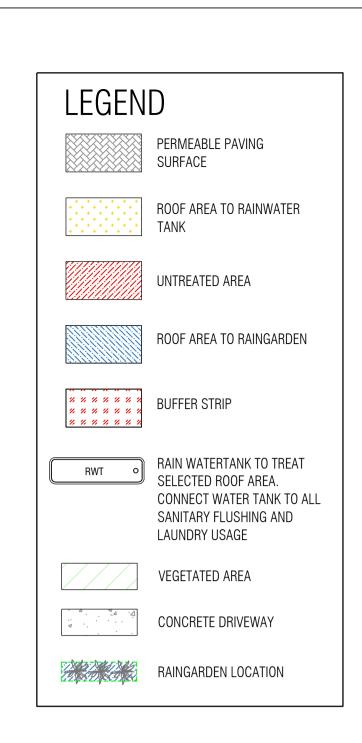
\_\_\_\_\_\_

SITE SITE AREA: 850.1 m<sup>2</sup>
SITE COVERAGE: 45.8% 389.3 m<sup>2</sup>
SITE PERMEABILITY: 50.0% 425 m<sup>2</sup> 35.3% 300.3 m<sup>2</sup> GARDEN AREA:

**LEGEND** 

CONCRETE DRIVEWAY





## WATER SENSITIVE URBAN DESIGN NOTES:

ALL DRAINAGE TO BE DESIGNED AND CERTIFIED BY AUTHORIZED DRAINAGE ENGINEER

EACH RAINWATER TANK IS TO BE CONNECTED TO ALL TOILETS IN EACH DWELLING

GRAVITY FED OR FULLY CHARGED SYSTEM IS NECESSARY TO ACHIEVE THE MINIMUM ROOF CATCHMENT AREA IN ACCORDANCE WITH STORM REQUIREMENTS.

TANK OVERFLOW MUST BE TAKEN TO L.P.D.

RAINWATER TANKS ARE EXCLUDE AND INDEPENDENT OF ANY DETENTION REQUIREMENTS.

GRAVITY FED SYSTEM TO BE USED WHEN HARVESTING STORMWATER FROM ROOF TO RAIN GARDEN.

RAINGARDENS TO BE BUILT MINIMUM 300MM FROM ADJOINING FOOTINGS

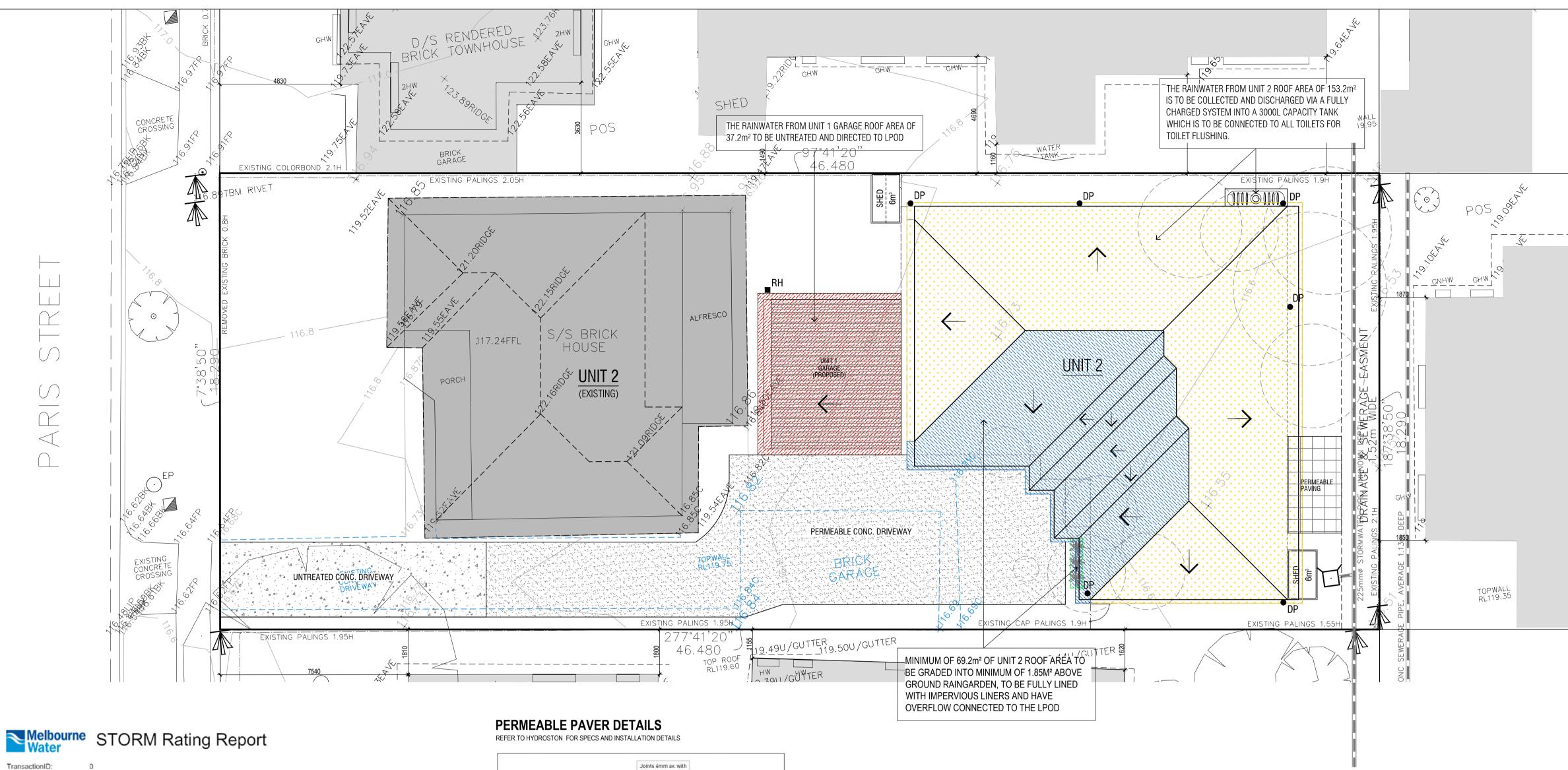
BUILD THE RAIN GARDEN CLOSE TO THE WATER SOURCE. THIS WILL HELP MINIMISE THE ADDITIONAL PLUMBING NEEDED TO BRING WATER TO THE RAIN GARDEN.

RAINGARDEN MUST BE FULLY LINED AND HAVE OVERFLOW PLUMBED INTO THE STORMWATER SYSTEM.

FOR EXCAVATION AND CLEARANCE REFER TO BUILDING A RAINGARDEN INSTRUCTION SHEET, RAINGARDENS MUST BE BUILT TO MELBOURNE WATER REQUIREMENTS

THE FINAL DESIGN OF THE STORMWATER SYSTEM WILL MEET COUNCIL DRAINAGE ENGINEERS' REQUIREMENTS. THE DESIGNED SYSTEM COMPLIES WITH MELBOURNE WATER STORM REQUIREMENTS THAT MEETS VICTORIAN BEST PRACTICE STORMWATER GUIDELINES

RAINGARDEN MAINTENANCE	
<ul> <li>WATER TO PROMOTE PLANT GROWTH AND SURVIVAL, ESPECIALLY DURING THE FIRST TWO YEARS AND DURING DRY SPELLS.</li> <li>INSPECT SITE FOLLOWING RAINFALL EVENTS. ADD/REPLACE VEGETATION IN ANY ERODED AREAS.</li> </ul>	AS NEEDED (FOLLOWING CONSTRUCTION)
- PRUNE AND WEED SWALE TO MAINTAIN APPEARANCE REMOVE ACCUMULATED TRASH AND DEBRIS REPLACE MULCH AS NEEDED.	REGULARLY (MONTHLY)
<ul> <li>- INSPECT INFLOW AREA FOR SEDIMENT ACCUMULATION. REMOVE ANY ACCUMULATED SEDIMENT OR DEBRIS.</li> <li>- INSPECT SITE FOR EROSION AS WELL AS SEDIMENT AND MULCH WHICH HAVE BEEN MOVED AROUND IN THE GARDEN. ADD/REPLACE VEGETATION IN ANY ERODED AREAS.</li> <li>- INSPECT RAIN GARDEN FOR DEAD OR DYING VEGETATION. REPLACE VEGETATION AS NEEDED.</li> <li>- TEST PLANTING BED FOR PH. IF THE PH IS BELOW 5.2, LIMESTONE SHOULD BE APPLIED. IF THE PH IS ABOVE 8.0, IRON SULFATE AND SULFUR SHOULD BE APPLIED.</li> </ul>	ANNUALLY (SEMI-ANUALLY DURING FIRST YEAR)
- REMOVE AND REPLACE MULCH.	EVERY 2 TO 3 YEARS



HUME Municipality: Rainfall Station HUME 8 PARIS RD

Date Generated:

TANKS:

**GUTTERS AND** DOWNPIPES:

FIRST FLUSH **DEVICES**:

22-May-2024

MAINTENANCE GUIDELINES (EVERY 3-6 MONTHS)

TO BE INSPECTED, INLET TO BE CLEANED REGULARLY.

IF APPLICABLE, TO BE INSPECTED AND CLEANED REGULARLY.

IF SLUDGE IS PRESENT, TANKS MUST BE DRAINED BY

PROFESSIONAL PLUMBER AND CLEANED

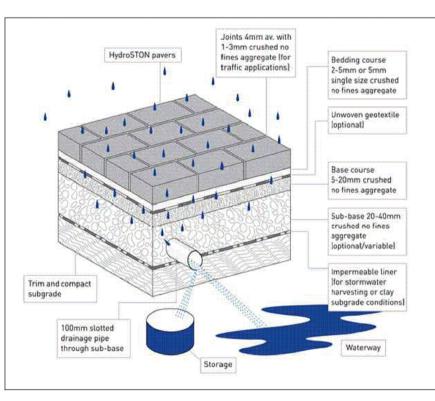
TO BE INSPECTED AND CLEANED REGULARLY.

BROADMEADOWS

	VIC	3047
Assessor:		
Development Type:	Residential - Multi	unit
Allotment Site (m2):	850.10	
STORM Rating %:	100	

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
J2 ROOF TO RWT	153.20	Rainwater Tank	3,000.00	5	134.60	85.90
J1 ROOF TO RAINGARDEN	69.20	Raingarden 100mm	1.00	0	121.65	0.00
J1 ROOF UNTREATED	37.20	None	0.00	0	0.00	0.00
DRIVEWAY	32.00	None	0.00	0	0.00	0.00

Program Version:



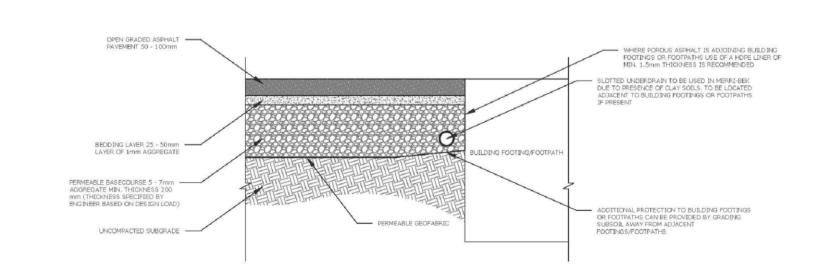
NOTE: THE STANDARD DETAILS SHOWN ON THIS DRAWING ARE TYPICAL ONLY. THESE
DETAILS MAY NEED TO BE RECONFIGURED TO

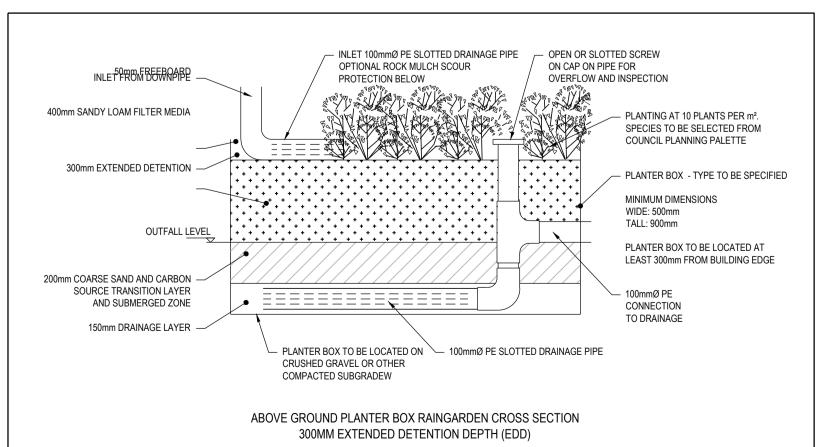
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# C120.09 POROUS/PERMEABLE ASHPALT

1:30





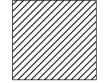
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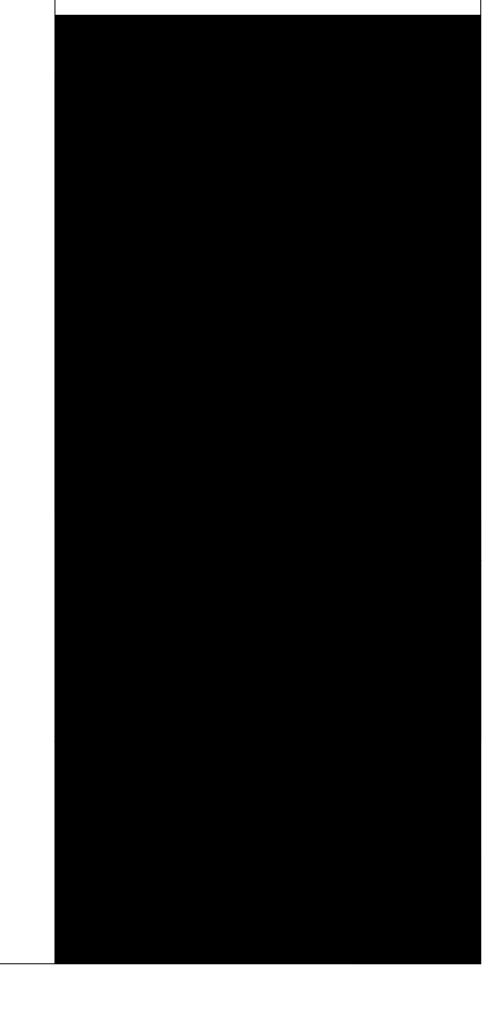




PROPOSED SHADOWS







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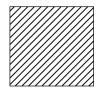
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# LEGEND

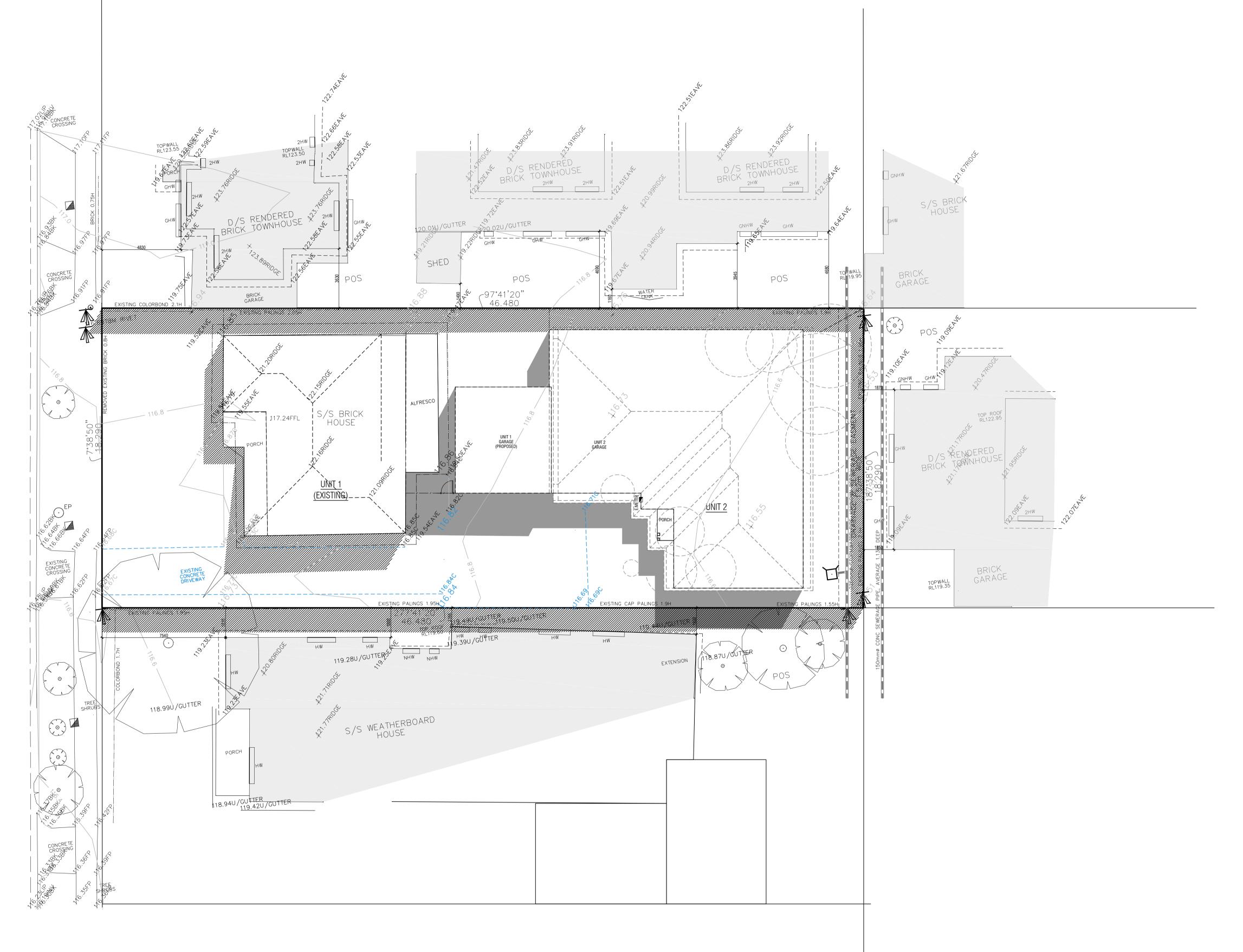


PROPOSED SHADOWS









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# LEGEND



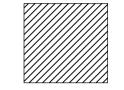
PROPOSED SHADOWS







PROPOSED SHADOWS







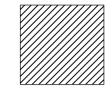
PROPOSED SHADOWS



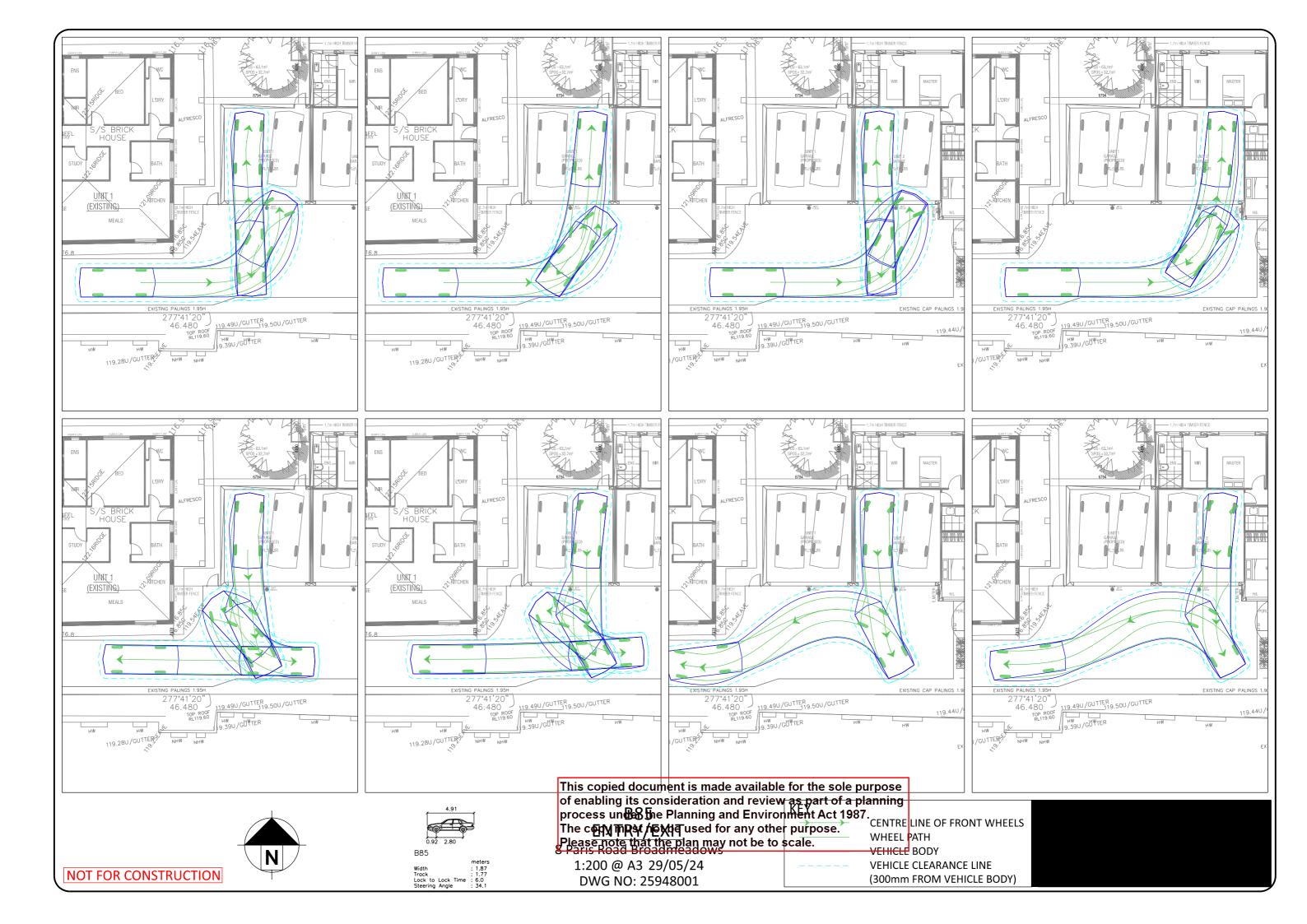


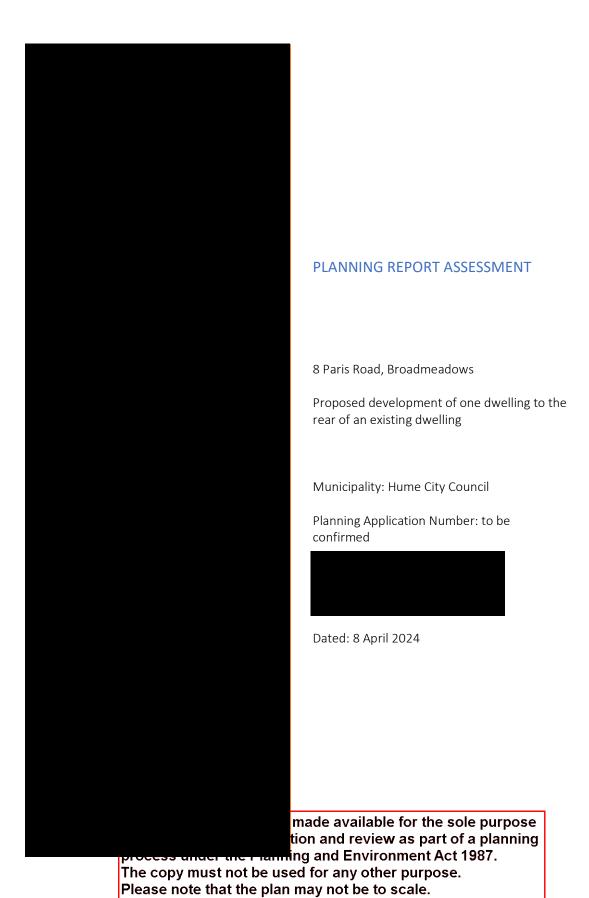


PROPOSED SHADOWS









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# **01** | Proposal

The proposal involves the development of one dwelling to the rear of an existing dwelling in a General Residential Zone (GRZ1) with a Melbourne Airport Environs Overlay (MAEO2). Key features of the development are summarised below:

#### **Dwelling Layout**

- Proposed one single storey dwelling is sited to the rear of an existing single storey dwelling.
- Existing dwelling has two bedrooms.
- Proposed dwelling is designed with three bedrooms.

#### Vehicle access and car parking

- Existing crossover is retained for vehicle access to both dwellings.
- Existing dwelling is provided with a double garage.
- Proposed dwelling is provided with a double garage.

#### Landscaping

- Existing vegetation at the front yard of the site is retained.
- Comprehensive landscaping is introduced with new plantings.
- Direct access to secluded private open space is provided from the living/meals area.

#### Setbacks & Building Heights

- Front setback remains the same, approximately 7.4m from the street.
- Proposed height is 5.4m to the top of the roof ridge.

#### Other features

• No front fence is retained for this development.

#### **Planning Permit Trigger**

Planning permit is required under Clause 32.08-6 of the Hume Planning Scheme to construct two or more dwellings on a lot in a General Residential Zone. The development must meet the requirements of Clause 55.

Planning permit is required under Clause 45.08-2 of the Hume Planning Scheme to use land as a dwelling and to construct a building on a lot under the Melbourne Airport Environs Overlay.

## **02** | Site and Surrounds

#### **Subject Site**

The subject site is located on the north side of Paris Road. It has a total area of 728.0sqm, with a front boundary of 15.85m (south), rear boundary of 15.93m (north) and two side boundaries of 45.14m (east) and 46.65m (west). The site has a fall of approximately 0.1m from northwest to southeast. A drainage, sewerage, and gas easement of 1.83m wide is present along the rear boundary.



The site currently contains a detached single storey brick dwelling with pitched tile roof. It has a setback of approximately 8.3m from Paris Road. The front yard is low maintenance, with metal fencing of 1.6m high along the front boundary. The existing dwelling is to be retained and the pergola at the rear of the dwelling is to be modified into an open pergola. All other structures, including the metal garage and shed located to the rear are to be demolished to accommodate the proposed development.

A street tree is present in the nature strip fronting the site. Vehicle access is available via a crossover located to the east end of the street frontage, this is to be retained for the proposed development.



#### **Surrounding Properties**

The Neighbourhood and Site Description Plan provides details on the site and surrounding context. The immediate interfaces to the subject site are illustrated below:

#### To the left of the site:

#### 418 Paris Road

A single storey brick dwelling with pitched metal roof occupies the property. It has a setback of approximately 9.2m from the street. The front yard is low maintenance, fencing is absent along the front boundary. Vehicle access is provided by a crossover located to the west end of the street frontage, connecting to a metal garage located to the rear of the property.



#### To the right of the site:

#### 425 Paris Road

A single storey weatherboard dwelling with pitched tile roof occupies the property. It has a setback of approximately 7.4m from the street. The front yard is low maintenance, with hedges planted along the woven wire front fence. Vehicle access is provided by a crossover located to the west end of the street frontage, connecting to a metal garage located to the rear of the dwelling.



#### **Neighbourhood Context**

The surrounding area is an established residential area, consists predominantly of post war period dwellings and newer developments. Houses around the neighbourhood are mostly detached one to two storey tall with brick or weatherboard exteriors and pitched tile roofs. Infill developments are emerging in the area. They are generally detached or semi-detached dwellings, diverse in architectural style and form.

Garages and carports are commonly recessive in the streetscape, situated to the side or rear of the dwellings. Front fences when present, are generally of varying styles and heights. Front gardens of adjoining properties are a combination of low maintenance and fully established, consisting of lawn cover and various sized native or indigenous trees and shrubs. High canopy trees are frequently present along the nature strips and inside the garden of properties.

The subdivision pattern of the area is similar in size and shape, block sizes approximately range from 600-700sqm. The setbacks of the dwellings along Paris Road in proximity to the subject site range from approximately 5-9m.

Multi-dwelling developments in the neighbourhood includes:









#### The Locality

Paris Road is a local street connecting to Cuthbert Street (north) and Camp Road (south). The site is located within convenient proximity to various community services and facilities.

#### Public Transport services

- Bus service 902 runs nearby on Camp Road.
- Bus service 538 runs nearby on Camp Road.
- Bus service 540 runs nearby on Cuthbert Street.
- Broadmeadows Station is approximately 1.9km west. Bus interchanges are available at the station for 11 routes.

#### Public open space, sport and recreation facilities

- Seabrook Reserve is approximately 750m east.
- Broadmeadows Reserve is approximately 650m west.
- Meadowlink Linear Park is approximately 450m north.
- Kitchener Street Reserve is approximately 400m west.
- Jack Roper Reserve is approximately 1.2km southeast.
- Broadmeadows Aquatic and Leisure Centre is approximately 2.4km west.

#### **Education services**

- Meadows Primary School is approximately 750m south.
- Hume Central Secondary College is approximately 600m north.
- Penola Catholic College is approximately 1.6m southwest.
- St Dominic's School is approximately 800m southwest.
- Corpus Christi School is approximately 2.8km south.
- Sirius College is approximately 650m east.

#### Retail services

- Olsen Place Shopping Strip is approximately 900m south.
- Glenroy Activity Centre is approximately 1.6km south.
- Broadmeadows Central Shopping Centre is approximately 2.4km west.
- Campbellfield Plaza Shopping Centre is approximately 3.3km east.

#### Religious services

- The Uniting Church in Australia is approximately 850m southwest.
- St Dominic's Catholic Church is approximately 800m southwest.

#### Health services

- Broadmeadows Hospital is approximately 3.4km west.
- Broadmeadows Medical Centre is approximately 400m south.

#### Community services

- Broadmeadows Community Hub is approximately 1.2km south.
- Broadmeadows Library is approximately 2.4km west.

Emergency and government is made available for the sole purpose

- Australia Post is approximately consideration and review as part of a planning process under the Planning and Environment Act 1987.

  Hume City County is approximately 2.4km west in the copy must not be used for any other purpose.
  - Please note that the plan may not be to scale.

#### **Site Opportunities & Constraints**

Site opportunities and constraints are identified through an assessment of the site and context. The proposed development is designed to respond positively to these matters.

#### Opportunities

- The site is located within close proximity to numerous services and facilities including public transport, shops, schools and public open space.
- The orientation of the site provides opportunities to capitalise on the northern aspect.
- The natural slope of the site will have minimum effect on the development.

#### Constraints

- An easement is present along the rear boundary.
- The properties to the north, east and south contain secluded open space areas adjoining to the common boundary. Overlooking, overshadowing and visual bulk impacts on these areas need to be carefully managed.

# **03** Planning Policies and Controls

#### **Municipal Planning Strategy**

The Municipal Planning Strategy (MPS) outlines the overarching strategic directions of a given municipality. The proposal accords with the following key clauses:

#### Clause 02.01 Context:

Hume City is located 20km north west of Melbourne's CBD. It is one of Melbourne's seven growth area municipalities. The settlement pattern comprises of two urban corridors, Hume Corridor and Sunbury Township, separated and surrounded by Rural Areas. The main land uses are industrial, established residential and new residential development, and agriculture.

#### Clause 02.02 Vision:

Hume's vision is to be a sustainable and thriving community with great health, education, employment, infrastructure and a strong sense of belonging. (Council Plan 2021 – 2025, p26). This will be achieved by:

- Valuing education and life long learning.
- Enabling economic growth through the creation of local jobs and supporting local industries.
- Acknowledging and celebrating the diversity of Hume people.
- Supporting active participation by residents in community life.
- Growing in a way that is both sustainable and sensitive to the open, natural and rural spaces.
- Creating a place that will benefit future generations while protecting the environment.
- Advocating for sustainable neighbourhoods.
- Protecting heritage.
- Designing spares that are accessible and fill the community with pride.

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of enabling its consideration and review as part of a planning Clause 02.03 Strategic process under the Planning and Environment Act 1987.

Clause 02.03-1 Settle The copy must not be used for any other purpose.

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- Develop the Hume Corridor to be a sustainable urban area with high quality development in new growth areas.
- Maintain the inter urban break in the Hume Corridor for, larger detached housing and low density rural residential development that supports the conservation of biodiversity and landscape values.
- Develop Hume's regional and predominantly State Significance Employment Areas as major employment locations for manufacturing, logistics and transport.
- Maintain the character of Sunbury Township as a town separated from Melbourne by nonurban areas while accommodating planned growth.
- Limit the expansion of Bulla township.
- Protect Melbourne Airport's curfew free status from encroachment by development.
- Facilitate high density residential development within and around activity centres and Broadmeadows, Craigieburn and Sunbury train stations.
- Sequence development so that it provides communities with access to local infrastructure and services when they move into new housing.
- Facilitate improved street networks and pedestrian amenity through subdivision and redevelopment of large land parcels to create walkable communities and minimise car dependence.

#### Clause 02.03-5 Built Environment and Heritage

In planning for built environment and heritage, council seeks to:

- Improve the image and appearance of Hume Corridor's established areas.
- Deliver high quality development in new growth areas across Hume.
- Enhance the visual and streetscape amenity and appearance of industrial and commercial areas to attract investment, provide businesses and works with a high quality working environment, and quality interfaces with residential areas.
- Support well designed medium and higher density residential development that protects the amenity of existing residents and sensitively responds to identified preferred neighbourhood character.
- Facilitate accessible, functional, well-designed and innovative community buildings.
- Encourage environmentally sustainable design and development including in precinct wide master planning and large- scale development in new growth areas.
- Minimise the contribution of new development to the Urban Heat Island effect.
- Protect places of heritage, cultural and social significance.
- Ensure signs are displayed in a manner that is compatible with the character of the area, and avoids visual clutter.

#### Clause 02.03-6 Housing

In planning for housing, council seeks to:

- Increase the diversity of housing in Hume.
- Encourage well-designed infill residential development that provides housing options for smaller households.
- Encourage housing that can be adapted for different life stages or is suitable for the needs of an ageing household.
- Encourage the development of attractive, well-designed accommodation for older people that meets the Thisdsopjed comment is imade available for the sole/purpose residential are of enabling its consideration and review as part of a planning
- Locate and de synches under the clanning and snyironment Act 1987 munity facilities. The copy must not be used for any other purpose.

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#### **Planning Policy Framework**

The Planning Policy Framework (PPF) provides the broad guiding principles to facilitate appropriate land use and development. The following key themes and policies are of particular relevance to this application:

#### Clause 11 Settlement, including:

- Clause 11.01-1S Settlement
   To facilitate the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.
- Clause 11.01-1R Settlement Metropolitan Melbourne
- Clause 11.02-1S Supply of urban land
   To ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.

#### Clause 15 Built Environment and Heritage, including:

- Clause 15.01-1S Urban design
   To create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity.
- Clause 15.01-1S Urban design Metropolitan Melbourne
   To create a distinctive and liveable city with quality design and amenity.
- Clause 15.01-2S Building design
   To achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.
- Clause 15.01-2L-01 Building design Hume
- Clause 15.01-2L-02 Energy and resource efficiency Hume
- Clause 15.01-2L-03 Environmentally sustainable development Hume To achieve best practice in environmentally sustainable development from the design stage through to construction and operation.
- Clause 15.01-3S Subdivision design
   To ensure the design of subdivisions achieves attractive, safe, accessible, diverse and sustainable neighbourhoods.
- Clause 15.01-3L Subdivision design Hume
- Clause 15.01-4S Healthy neighbourhoods
   To achieve neighbourhoods that foster healthy and active living and community wellbeing.
- Clause 15.01- This applied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

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Clause 15.01-5S Neighbourhood character To recognise, support and protect neighbourhood character, cultural identity, and sense of place.

#### Clause 16 Housing, including:

- Clause 16.01-1S Housing supply To facilitate well-located, integrated and diverse housing that meets community needs.
- Clause 16.01-1R Housing supply Metropolitan Melbourne
- Clause 16.01-2S Housing affordability To deliver more affordable housing closer to jobs, transport and services.

#### Clause 18 Transport, including:

 Clause 18.01-1S Land use and transport integration To facilitate access to social, cultural and economic opportunities by effectively integrating land use and transport.

#### **Statutory Planning Controls**

#### Zone

The land is in a General Residential Zone – Schedule 1. The purpose of this Zone includes:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To encourage development that respects the neighbourhood character of the area.
- To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.
- To allow educational, recreational, religious, community and a limited range of other nonresidential uses to serve local community needs in appropriate locations.

#### Minimum Garden Area requirement

Clause 32.08-4 applies to the construction or extension of a dwelling or residential building. Table below sets out the requirement for the minimum percentage of a lot set aside as garden area:

400-500sam 25% Above 500-650sqm 30% Above 650sgm 35%

#### Maximum building height requirement for a dwelling or residential building

Clause 32.08-10 applies to a dwelling or residential building.

- The building height must not exceed 11 metres; and
- The building must contain no more than 3 storeys at any point.

#### Varied Requirements of Clause 55

There are no varied Clause 55/ResCode requirements in Schedule 1 to the General Residential Zone.

#### Overlay

Overlay includes:

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To implement The Municipal Planning Strategy and the Planning Plane. Please note that the plan may not be to scale.

- To ensure that land use and development are compatible with the operation of Melbourne Airport in accordance with the relevant airport strategy or master plan and with safe air navigation for aircraft approaching and departing the airfield.
- To assist in shielding people from the impact of aircraft noise by requiring appropriate noise attenuation measures in dwellings and other noise sensitive buildings.
- To provide for appropriate levels of noise attenuation depending on the level of forecasted noise exposure.

#### Permit Trigger

As identified earlier in this report, a planning permit is required under the following clauses of the Hume Planning Scheme:

- Clause 32.08-6 to construct two or more dwellings on a lot in a General Residential Zone. The development must meet the requirements of Clause 55.
- Clause 45.08-2 to use land as a dwelling and to construct a building on a lot under the Melbourne Airport Environs Overlay.

#### Particular Provisions

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

#### Clause 52.06 Car Parking

The clause applies for the provision of car parking. Purpose of this clause 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.

#### Clause 52.29 Land Adjacent to the Principal Road Network

The clause applies to land adjacent to a road in the Transport Zone 2. Purpose of this clause is:

- To ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network.
- To ensure appropriate subdivision of land adjacent to Principal Road Network or land planned to form part of the Principal Road Network.

#### Clause 53.18 Stormwater Management in Urban Development

The clause applies to an application to construct a building. Purpose of this clause is:

To ensure that stormwater in urban development, including retention and reuse, is managed to mitigate the impacts of stormwater on the environment, property and public safety, and to provide cooling, local habitat and amenity benefits.

Clause 55 Two or Mon This copied document is made available for the sole purpose The Clause (ResCode) of enabling its consideration and review as partsofa planning is:

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- To achieve residential development that respects the existing neighbourhood character or which contributes to a preferred neighbourhood character.
- To encourage residential development that provides reasonable standards of amenity for existing and new residents.
- To encourage residential development that is responsive to the site and the neighbourhood.

#### **General Provisions**

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

#### Clause 65.01 Approval of an Application or Plan

The clause establishes a list of considerations prior to deciding on an application or approval of a plan. Relevant matters include:

- The matters set out in section 60 of the Act.
- Any significant effects the environment, including the contamination of land, may have on the use or development.
- The Municipal Planning Strategy and the Planning Policy Framework.
- The purpose of the zone, overlay or other provision. Any matter required to be considered in the zone, overlay or other provision.
- The orderly planning of the area.
- The effect on the environment, human health and amenity of the area.
- The proximity of the land to any public land.
- Factors likely to cause or contribute to land degradation, salinity or reduce water quality.
- Whether the proposed development is designed to maintain or improve the quality of stormwater within and exiting the site.
- The extent and character of native vegetation and the likelihood of its destruction.
- Whether native vegetation is to be or can be protected, planted or allowed to regenerate.
- The degree of flood, erosion or fire hazard associated with the location of the land and the use, development or management of the land so as to minimise any such hazard.
- The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.

# **04** | Planning Assessment

#### **Planning Policy Considerations**

The proposal is in accordance with the overarching objectives within the Municipal Planning Strategy and Planning Policy Framework. The findings are as follows:

#### **Urban Consolidation**

The subject site is situated in an established and highly accessible area, achieving urban consolidation for the efficient use of existing infrastructures and services. It is located within the Principal Public Transport Network Area, with walking distance to public transport. Furthermore, it has excellent proximity to activity centres, schools, recreation facilities and other social infrastructure. The high accessibility of the site will encourage residents to use sustainable transport modes such as walking, typing and public transport. As so ign the sole purpose, 11 & of the planning schools, recreation and review as part of a planning process under the Planning and Environment Act 1987.

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#### **Housing Supply**

The proposed development is designed to comply with the managing of change and growth in the residential areas of Hume. The proposal brings an additional single storey dwelling to the area. This will provide greater housing choice and diversity to the neighbourhood. Housing affordability is also encouraged as multi-dwelling developments are relatively more affordable in comparison to low density developments (single dwelling on a similar sized land). As sought by Clause 02.03-6 & 16 of the planning scheme.

#### Design Response

The proposed development sensitively responds to the interfaces to Paris Road and its wider surrounding, making a positive contribution to the locality. The dwellings represent a high-quality, contemporary architectural design to enhance the neighbourhood and streetscape character of the area. Exterior building materials are selected to complement the existing architectural style.

The scale and form of the development is consistent with the area's emerging character. The proposed dwellings are sited with appropriate spacing between the existing dwelling, adjoining developments, and site boundaries to respect the rhythm of spacing in the neighbourhood. Recessed walls are proposed to create visual interest and reduce visual bulk. As sought by Clause 02.03-5 & 15 of the planning scheme.

#### Landscaping

The proposed development will enhance the landscape character of the area by ensuring sufficient open space is provided to allow for the planting of vegetation. Canopy trees are proposed in the front setback to contribute positively to the streetscape. Vegetation is planted along the driveway to soften the appearance of hard surfaces. No front fence is proposed to reinforce the open streetscape character and to allow views to the front garden. As sought by Clause 02.03-5 & 15 of the planning scheme.

#### **Zoning and Overlay Considerations**

#### General Residential Zone

The proposed development meets the purpose of the General Residential Zone in respecting the neighbourhood character of the area and contributing to the diversity of housing types in a location offering good access to services and transport. The design also complies with the minimum garden area requirement by providing 35.6% of garden area for a block above 650sqm in size. The maximum height of the building is also met by providing a single storey development of 5.4m high.

#### Melbourne Airport Environs Overlay

The purpose of limiting use and development to areas affected by this overlay is achieved. The proposal achieves a minimum density of 300sqm per dwelling.

#### **ResCode Considerations**

The proposal demonstrates a high level of compliance with the objectives and standards of Clause 55/ResCode as detailed in the assessment in Appendix 1.

This copied document is made available for the sole purpose Access and Car Parking Considerations of enabling its consideration and review as part of a planning Dwellings will meet the receise marker of heartaining and the vilconine repart 498 the provision of one car space for a or The toop yanust motive lines end for any other plan possee or more bedroom Please note that the plan may not be to scale.

dwelling. The existing dwelling is provided with a double garage and the proposed dwelling is also provided with a double garage.

The proposed parking meets the design standard for the safe and efficient movement of vehicles and pedestrians. The existing crossover located to the east end of the street frontage is to be retained for vehicle access to both dwellings. Please refer to Appendix 2 for a detailed assessment of the objectives and standards in Clause 52.06-9 of the planning scheme.

#### **Stormwater Considerations**

The proposed development provides an appropriate stormwater management system on site to mitigate the impacts of stormwater on the environment, property and public safety.

## **05** Conclusion

In summary, the proposed development of one new dwelling to the rear of an existing dwelling accords with the state and local policies in the Planning Scheme. It is an appropriate form of infill development for the site based on existing developments in the immediate and surrounding area. Therefore, the proposal is deemed worthy of Council support and it is requested that a planning permit be granted.

# **06** Appendices

#### Appendix 1 – ResCode (Clause 55) Assessment

The proposal demonstrates a high level of compliance with the ResCode standards and meets the objectives of Clause 55 of the Planning Scheme as per the assessment below.

<b>I</b>	
Neighbourhood character Clause 55.02-1 Standard B1	Complies with standard and objective.  The proposed development is appropriate to the neighbourhood and the site. Refer to the Neighbourhood and Site Description Plan and Design Response.
Standard B1	The existing single storey dwelling on site will be retained and a new single storey dwelling is proposed to the rear. This respects the preferred single and double storey character of the area and retains the single dwelling presentation from the streetscape.
	The proposed dwelling is a modern, contemporary interpretation of the traditional built form in the area to distinguish the old from the new. It will maintain the predominant built form in the area.
	The building materials proposed for the dwelling have the dual purpose of softening the appearance of the development whilst providing different textures that complement the existing architectural style and enhance the neighbourhood and streetscape character of the area.
	No front fence is proposed for this development to maintain the open streetscape character. A spacious front setback is provided to allow for the planting of canopy trees and shrubs that contribute to the streetscape.
Residential policy Clause 55.02-2 Standard B2	Complies with standard and objective.  The proposed development meets the objectives in aspects such as affordable housing and providing for the needs of residents at various stages of life.
3.01.00.00	The quality of the design, site layout, side and rear setbacks, provision of car parking and open space allocation will ensure that the development provides a good standard of amenity for future residents and good standard for future development in the area.
	The subject site is within close proximity of a number of community facilities and services including open space facilities, schools and shopping facilities are all within proximity of the site. The proposed development supports medium density in an area that can take advantage of public transport and community infrastructure and services.
	The proposed development complies with the State Government's initiatives of urban consolidation and will not cause detriment to the amenity of adjoining properties and will not be out of character with the area.
Dwelling diversity Clause 55.02-3 Standard B3	Not கூறுie அதுied document is made available for the sole purpose The of enabling its consideration and Environment Act 1987. The copy must not be used for any other purpose. Please note that the plan may not be to scale.

Infrastructure Clause 55.02-4 Standard B4	Complies with standard and objective.  The dwelling is proposed in an established area with appropriate utility services and infrastructure. It should also not represent any unreasonable burden on existing services and facilities.
Integration with the street Clause 55.02-5 Standard B5	Complies with standard and objective.  Existing dwelling will have direct integration with Paris Road and proposed dwelling will have indirect integration with Paris Road.
Street setback Clause 55.03-1 Standard B6	Not applicable. Front setback remains unchanged. The existing dwelling is setback 7.4m from the street.
Building height Clause 55.03-2 Standard B7	Complies with standard and objective.  The overall total height of the proposed development is 5.4m to the top of the roof ridge. This is less than the limit of 11m as specified to the zone.
	The development will have minimal visual impact on adjoining properties or when viewed from the street.
Site coverage Clause 55.03-3 Standard B8	Complies with standard and objective. The proposed site coverage is 45.8%, which is less than the maximum 60%.
Permeability Clause 55.03-4 Standard B9	Complies with standard and objective. The proposed site permeability is 37.2%, which is well above the minimum 20%. Hard surfaces are reduced as much as possible to allow for more permeable areas and for landscaping opportunities.
	The proposed development will provide good onsite stormwater infiltration to reduce the impact of increased stormwater runoff.
Energy efficiency Clause 55.03-5 Standard B10	Complies with standard and objective.  The proposal is deemed to achieve a minimum rating of 6 stars as part of the building permit stage.
	The proposed dwelling is sited, oriented, and designed to ensure that the energy efficiency of the existing dwellings on abutting properties is not unreasonably reduced.
	Solar panels are absent on the adjoining properties.
Open space Clause 55.03-6 Standard B11	Not applicable.  The development is not located adjacent to any public and communal open space.
Safety Clause 55.03-7 Standard B12	Complies with standard and objective.  The entrances are not obscured or isolated from the street or internal accessways.  This copied document is made available for the sole purpose  The offenabling its consideration and review as partential planning and Environment Act 1987.  The copy must not be used for any other purpose.  The Please partental the plan may and be to scale by designed and sited

	with the protection of side and rear fences so that it is not used as a public thoroughfare.				
Landscaping Clause 55.03-8 Standard B13 Complies with standard and objective. Generous landscaping opportunities for the planting of canopy trees, shrubs a groundcovers are provided in the front setback, along of the accessways and i secluded private open space of each unit.					
Access Clause 55.03-9 Standard B14	Complies with standard and objective. The existing crossover is retained.  The width of the accessway does not exceed 40% of the street frontage for a site with a street frontage less than 20m.				
Parking location Clause 55.03-10 Standard B15	Complies with standard and objective.  New vehicle storages are proposed close and convenient to each dwelling. Garages are also well ventilated.  Habitable room windows are setback from the shared accessway or car parks of other dwellings at least 1.5m away or 1m away if the window is 1.4m high above ground level.				
Side and rear setbacks Clause 55.04-1 Standard B17	Complies with standard and objective.  The proposed development complies with the side and rear setback as outlined in the standard: 1m, plus 0.3m for every metre of height over 3.6m up to 6.9m, plus 1m for every metre of height over 6.9m.				
Walls on boundaries Clause 55.04-2 Standard B18	Complies with standard and objective.  There are no proposed walls to be built to any boundary for this development.  The length of the new wall does not exceed 10m plus 25% of the remaining length of the boundary of an adjoining lot as suggested by the standard.  The height of the boundary wall does not exceed 3.6m and an average of 3.2m as suggested by the standard.				
Daylight to existing windows Clause 55.04-3 Standard B19	Complies with standard and objective.  The proposed dwelling is sited with sufficient distance from existing windows of adjoining properties. Habitable room windows of adjoining dwellings will still maintain direct access to daylight.  All windows will maintain a light court with a minimum area of 3sqm and minimum dimension of 1m clear to the sky.				
North-facing windows Clause 55.04-4 Standard B20	Complies with standard and objective.  The proposed dwellings will allow adequate solar access to existing north-facing windows.				
Overshadowing open space Clause 55.04-5 Standard B21	Com like พัฒนิเลกเลือดสมบอกุลเล made available for the sole purpose Refer of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. Over Illia เดคาง เบนะ รอดโดย และสะ อุดเลือด และ เบนะ โดย เกาะ เกาะ เกาะ เกาะ เกาะ เกาะ เกาะ เกาะ				

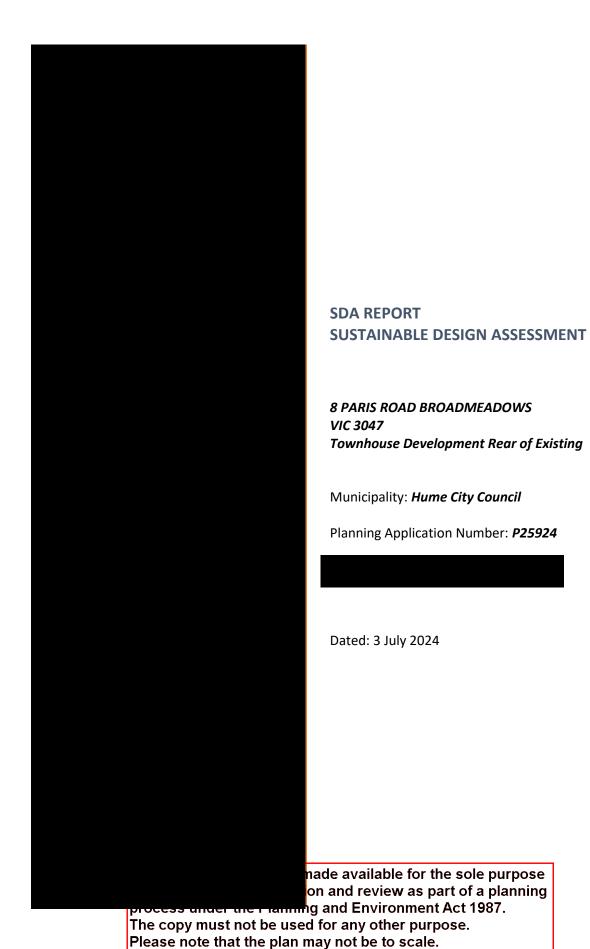
	extent of shadows cast by the existing boundary fences and outbuildings.
	An area of 75% or 40sqm with a minimum width of 3m of secluded private open space for existing dwellings will receive a minimum of five hours of sunlight.
Overlooking Clause 55.04-6 Standard B22	Complies with standard and objective.  The windows are designed to limit overlooking into habitable room windows and secluded open space of adjacent properties.
	Views from living areas are orientated towards the private open space where possible.
Internal views Clause 55.04-7 Standard B23	Complies with standard and objective.  The proposed dwelling is designed to limit views into the secluded private open space and habitable room windows of other dwellings within the development.
Noise impacts Clause 55.04-8 Standard B24	Complies with standard and objective.  The proposed development is designed to contain noise sources within the development and to protect residents from external noise.
	There are no mechanical plants proposed adjacent to or located near bedrooms of immediately adjacent existing dwellings. Noise sensitive rooms and secluded private open space of the new dwelling are designed and sited to take into consideration noise sources on immediately adjacent properties.
Accessibility Clause 55.05-1 Standard B25	Complies with standard and objective.  The proposed dwelling is designed to take into consideration people with limited mobility. The internal layout and configuration of the proposed dwelling can be altered to accommodate people with limited mobility.
<b>Dwelling entry</b> Clause 55.05-2 Standard B26	Complies with standard and objective.  Each dwelling will have its own sense of identity and address.
	The entrances for the dwellings are appropriately oriented to front onto Paris Road and the internal accessway.
Daylight to new windows Clause 55.05-3 Standard B27	Complies with standard and objective.  The proposed development is designed to provide adequate daylight into new habitable room windows.
	All windows have a light court with a minimum area of 3sqm and minimum dimension of $1 \text{m}$ clear to the sky.
Private open space Clause 55.05-4 Standard B28	Complies with standard and objective.  Open space on site for each dwelling is distributed to the rear and throughout the site. The development will provide sufficient private open space for the reasonable recreation, service and storage needs of residents.
	The proposed design meets the requirement of minimum 40sqm of private open space ไท่เราราคทั่งสามารถสาเรา made เลขาล่าไลนโด โดย ประชาวัย เราราคทั่งสามารถสาเรา made เลขาล่าไลนโด โดย ประชาวัย เราราคทั่งสามารถสาเรา made เลขาล่าไลนโด โดย ประชาวัย เราราคทั่งสามารถสาเรารถสาม

Solar access to open space Clause 55.05-5 Standard B29	Complies with standard and objective.  The design has sought to orientate the open space areas to capitalise on the northern aspect as far as applicable.  The southern boundary of secluded private open space is setback from any wall on the north of the space at least 2 + 0.9h.
Storage Clause 55.05-6 Standard B30	Complies with standard and objective.  Each dwelling has convenient access to 6 cubic metres of externally accessible, secure storage space.  The storage facilities will not be visible from the street.
Design detail Clause 55.06-1 Standard B31	Complies with standard and objective.  Design details such as façade articulation, window and door proportions, roof forms, verandahs, eaves and exterior finishes are designed to both enhance and integrate with the streetscape.  Visual bulk is reduced through articulation, recessed walls, spacing and the variety of materials and colours selected for the dwelling.  The garage is designed to be visually compatible with neighbourhood characteristics and form an integral part of the dwelling.
Front fences Clause 55.06-2 Standard B32	Complies with standard and objective.  No front fence is proposed for this development.
Common property Clause 55.06-3 Standard B33	Complies with standard and objective.  The proposed development avoids future management difficulties in areas of common ownership, as the subject site can be functionally subdivided into separate allotments.  Vehicle accessways to the dwellings will be functional and capable of efficient management.  Car parking, access areas and site facilities are practical, attractive and easily maintained.
Site services Clause 55.06-4 Standard B34	Complies with standard and objective.  Adequate and accessible site facilitates will be provided to each dwelling, including mailboxes and bins enclosures.

#### **Appendix 2 – Car Parking Assessment**

The proposal satisfies the design standards for car parking in Clause 52.06-9 of the Planning Scheme as per the assessment below.

Accessways	Complies with standard.
Design standard 1	The accessways are functional, with a minimum width of 3m, an internal radius of
	at least 4m at change of direction, and corner visibility splays.
	The shared accessway connects to a street in the TRZ2, it will allow for vehicles to
	change in direction and exit in a forward movement.
Car parking spaces	Complies with standard.
Design standard 2	A single car space is at least 4.9m long and 2.6m wide, a single garage is at least 6m long and 3.5m wide and a double garage is at least 6m long and 5.5m wide.
Gradients	Not applicable.
Design standard 3	The accessway serves three dwellings or less.
Mechanical parking	Not applicable.
Design standard 4	
Urban design	Complies with standard.
Design standard 5	The garage is designed to be visually compatible with neighbourhood
	characteristics and form an integral part of the dwelling.
Safety	Complies with standard.
Design standard 6	The design of the car parks/accessway provides adequate natural surveillance and
	pedestrian visibility.
Landscaping	Complies with standard.
Design standard 7	The proposed landscaping at the front of the site as well as along the accessways will assist in reducing its visual dominance and in softening the development.



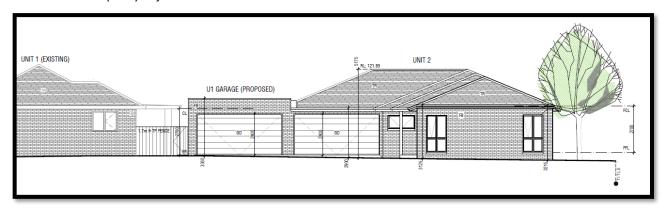
#### **SDA Summary**

This report identifies that the dwellings in this development achieve:

NatHERS **7.0 Star rating average** will be achieved as minimum requirement in accordance with The National Construction Code (NCC) Part 3.12 & **Hume City Council.** 

NatHERS Assessment on thermally unique dwellings will be carried out **upon receiving working drawings** to be sure that the design is final and there is no waste of resources & time earlier on.

- The BESS assessment concludes that the proposed development achieves the minimum BESS score of 50%.
   See BESS Report attached.
- The Melbourne Water storm calculator demonstrates the development meets the minimum 100% required water quality objective. Refer WSUD Plan attached.





#### Methodology

The purpose of this report is to assess the thermal performance of the new development located at **8 Paris Road, Broadmeadows**. Default Heating & Cooling Values been used to ascertain the heating and cooling loads (shown in Mj/m²) which ultimately determine a star rating.

The heating and cooling scores show how much heat energy must be added or removed to maintain comfortable conditions within the home. They are based on a standard set of occupancy conditions used for rating purposes only. They do not reflect actual energy consumption and are not to be used for calculating heating and cooling system requirements.

#### **Development Information**

The proposed development involves the construction of a single storey unit rear of existing (class 1). The project is Located at 8 Paris Road, Broadmeadows. Situated in a developed residential area and surrounded by existing homes and established vegetation, the development is in an area of Suburban Exposure, as per NatHERS tech note (category 3 wind-shielding).

The aerial image below depicts the existing neighbouring buildings at the time of this rating, which along with the documentation, will be considered in the assessment as potential shading screens, as per NatHERS tech note (part 10.12).



Building Fabric: NCC- Part 3.12.1

The basic building structural elements and components of a building including the roof, ceilings, walls and floors. These building elements are to be installed with a minimum of the added insulation values specified in NCC- Part 3.12.1

External Glazing: NCC - Part 3.12.2

If required, the following relationship is the following relations specified on plans. This is the satisfing its consideration and teview as part of a planning process under the Planning and Environment Act 1987. The copy must not be used for any other purpose. Please note that the plan may not be to scale.

#### Building Sealing: NCC - Part 3.12.3

Building sealing procedures are to be as following:

- Mitigation of air leakage is paramount and must be considered in construction of all building elements. Unnoticed air leakage, drafts caused by poorly sealed external openings and construction gaps can affect the building occupants' sense of comfort, causing them to increase the use of artificial heating and cooling.
- All roofs, walls, floors etc are to be constructed in a manner that will minimise air leakage and all external doors and windows are to be adequately sealed by foam or rubber materials to prevent any air infiltration,
- Exhaust fans, Rangehoods must have an inbuilt draught seal or dampers, which must be self-close when the fan is not in operation. A chimney or flue serving an open solid fuel burning appliance is required to have a damper or flap fitted that can be closed (may be operated by the occupants)
- External door seals for an effective seal, compression seals or bulb seals must be fitted to the door jamb, at the head and sides. (Refer to general notes and NCC 2019: Volume 2: Part 3.12.3 Building Sealing, for strategies that may be employed).
- Weather-strips can be factory fitted or installed on site.
- Recessed downlights All internal recessed downlights to be sealed and IC-4 Rated. The IC or insulation contact rating is a measure used to determine whether a recessed downlight is suitable to come in contact with building insulation. Consequently, there is no need to cut clearance around the downlights and therefore the insulation is not compromised.

# Air Movement: NCC - Part 3.12.4

Air movement has been assessed and will been taken into consideration as part of this star rating.

Services: NCC - Part 3.12.5

No heating or cooling services have been considered as part of this FirstRate assessment. It is assumed any mechanical ventilation systems requiring compliance to NCC will be addressed by the projects mechanical engineer.

Artificial lighting and power are to be limited throughout the building, a sufficient electrical design has been provided on plans and shows compliance to the NCC, table below indicating the required maximum wattages to be adhered to.

All external perimeter lighting must be installed as per the following specifications;

- (i) be controlled by—
  - (A) a daylight sensor; or
  - (B) a time switch that is capable of switching on and off electric power to the system at variable represented document is made available for the split pose
  - (C) have an average right in wifes efficiently respectively and respectively as particular of a planning
  - (D) be controlle process winder the Planning and Environment Act 1987.

The copy must not be used for any other purpose. Please note that the plan may not be to scale.

The table below indicates the required maximum artificial lighting and power wattages to be adhered to.

Zones	Maximum W/m²		
Residence (Class 1)	4.0W/m² (a 20% reduction from The NCC allowance)		
Garage (Class 10)	2.4W/m² (a 20% reduction from The NCC allowance)		
Outdoor zones	3.2W/m² (a 20% reduction from The NCC allowance)		

#### NatHERS Assessment – Heating and Cooling Loads

The following table represents the default heating and cooling load of the NatHERS energy assessment. This report identifies that the dwelling achieves the minimum 7.0-star rating average, required in accordance with The National Construction Code (NCC) Part 3.12 & **Hume City Council**.

Dwelling	Star Rating	Heating MJ/m <sup>2</sup>	Cooling MJ/m <sup>2</sup>	Total Energy MJ/m <sup>2</sup>
U2	7.0 ☆	80.0	19.0	99.0
Average:	7.0 ☆			

#### BESS Assessment – Commitments

BESS assessment has been undertaken and the following items have been actioned or shown on the drawings or quantified in the assessment.

BESS 5	51%	Commitments	Score
Manage	ement:		0%
A A A	ESD officer present at PRE-APP Meeting: Preliminary NatHERS:(Planning Permit Stage) Building users guide issued:	Not Present NatHERS Ratings Not Completed (TBC at PP) None Supplied	
Water:			55%
A A A A	Purple Pipe or On-site Water Recycling: Swimming pool: Rainwater Tanks: Bath Size: Fixtures, Fittings & Connections:  Showerhead: Kitchen Taps: Bathroom Taps: Dishwashers: WC: Washing Machine: Water Efficient Landscaping:	None None >3000L with <u>Taps</u> attached, connected to Toilets Default or unrated  4 Star WELS (>4.5 but <-6.0) 5 Star WELS or greater 5 Star WELS or greater Default or unrated 4 Star WELS or greater Default or unrated Yes	
Energy	:		52%
A A A A A A A A A A A A	Installing a Solar Photovoltaic (PV) System: Installing Other Renewable Energy System(s): Energy Supply to Building: Average NatHERS Rating: Heating System & Efficiency: Cooling System & Efficiency: Hot Water System: Contribution from Hot Water: Clothesline: Dryer: External Lighting: Illumination Reduction to 4W/sqm:	No No All Electric 7.0 Star Average Reverse cycle central other, 5 Stars (2011 MEPS) Refrigerative Space, 5 Stars (2019 MEPS) Electric Instantaneous 0% Private Clothesline None Provided Motion Sensor Controlled Yes	
Stormw	vater:		100%
>	STORM score achieved:	Refer to WSUD Plan (100% Min - 120% Best Practice)	
IEQ: (I	ndoor Environmental Quality)		60%
A A A A	Habitable Room Cross Ventilation: Double Glazing to Habitable Areas: External Shading to North, East & West Min. 50% of Living Areas orientated to North	Satisfied Cross Ventilation to Habitable Rooms Windows are Double Glazed in Habitable Areas Unsatisfied External Shading Requirement Unsatisfied North Orientation to Living Areas	
Transp	ort:		50%
>	Secure Bicycle Spaces: Electrical Vehicle Charging:	0 Secure bicycles spaces (One Per Dwelling) GPO Designated for Electric Vehicles	
Waste:			50%
<i>&gt;</i>	Management of Food & Cartien Walling its con process under the The copy must not	nent is made available for the sole purpose is ideration and review as part of a planning Planning and Environment Act 1987. the used for any other purpose. The plan may not be to scale.	6

Urban Ecology: 28%

11% Vegetated Area

None Present

Site Vegetation Cover:Green Roofs, Walls:

Balcony Floor Waste & Tap: No Tap & Floor Waste has been Annotated

Food Production: No Areas Provided

Innovation: 0%

Innovative Ideas/Measures Imposed: None Imposed



#### Additional Sustainable Measures

#### - Energy Efficiency

The proposed development is designed to be energy efficient to reduce carbon emissions. The various systems and features incorporated in the design of the development include:

- Energy Efficiency Requirements/Hume City Council Expectations Exceeded

The proposed dwellings are to meet or exceed the council expectations. The building envelope is insulated to achieve a **minimum 7.0-star rating average** through the use of bulk insulation to external roof, seals to external doors & windows, increase in external wall insulation and concrete slab flooring. *NatHERS will be completed upon receiving working drawings*.

#### - High Performance Glazing

To provide comfortable indoor spaces and reduce energy needed for heating and cooling, high-performance double-glazing window is required for all bedrooms and living areas and single-glazed or better for unconditioned zones.

#### - Natural Lighting

All living areas and bedrooms have direct access to natural daylight to reduce the need for artificial lighting.

#### - External Shading

Proposed appropriate external shading to north facing living area and bedroom windows. Fixed external shading to north facing glazing, such as overhanging eaves, can reduce excessive heat gain in summer while allowing warming winter sun to reach the glazing. As a rule of thumb eaves width should measure 45% of the height from the window sill and the bottom of the eaves.

Adjustable shading allows for greater occupant control and when provided to the east and west helps with low angle sun.



#### Water Energy System

Electric Instantaneous hot water system is specified following the policy that has been implemented through amendment VC250. The system significantly reduces energy use by heating water only when required.

#### Heating/Cooling System

Class leading energy efficient 5 star rated cooling and heating systems is specified to reduce energy used for space cooling.

#### Peak Energy Demand

Peak energy demand during summer is designed to be reduced through the provision of roof insulation to reduce heat gain from roof in order to reduce cooling load, the provision of openable windows and efficient internal layout for natural ventilation to reduce cooling requirements and the provision of class leading energy efficient HVAC systems to reduce energy consumption.

#### **Energy Efficient Light Fittings**

Energy saving LED lighting is specified to reduce lighting energy use.
□ The project has achieved:
□ Class 1 building - maximum allowable wattage 4W/m2
□ Porch & Alfresco - maximum allowable wattage 4W/m2
□ Class 10 building - maximum allowable wattage 3W/m2

(Compact florescent or LED lights with appropriate controls and sensors are encouraged, - Provision of Retractable Clothes Drying Lines

Outdoor retractable clothes drying lines / racks are specified to discourage the use of clothes dryer in order to reduce energy use and pollutants within the dwelling.

#### Additional Sustainable Measures

#### Stormwater Management / Water Sensitive Urban Design

The development is designed to treat stormwater runoff, minimising peak stormwater flows and reducing stormwater pollutants (Nitrogen, Phosphorus, suspended solids, etc) though the provision of:

#### - STORM Ratina

The proposed development meets the required best practice STORM rating benchmark by achieving a rating of 100%. Stormwater Detention Stormwater is to be detained on site to reduce peak flow runoff discharge into council's stormwater drainage system. Rainwater tanks are excluded and independent of any detention requirements.

#### - Permeability

Hard surfaces and hard landscaping are minimised for the development to minimise hard

#### - INDOOR ENVIRONMENT QUALITY (IEQ)

The development is designed to provide a healthy and comfortable indoor environment for the wellbeing of occupants and to lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices. The design achieves this through:

#### Ventilation

The proposed dwellings are designed to have openable windows to all living areas and the layout of the living spaces are configured to maximise cross ventilation opportunities.

#### Orientation of windows

Windows are oriented to maximise views, to allow natural light access and to prevent overlooking of neighbouring secluded private open spaces.

#### - Daylight

The dwellings are designed to provide all living areas and bedrooms to have direct access to natural daylight.

#### - External Views

Living area windows are oriented to landscape areas to present occupants with desirable views. Windows are also provided at the front of the dwellings to enable passive street surveillance and a sense of address for the dwellings.

#### - Thermal Comfort

A thermally efficient building envelope and energy efficient HVAC systems are proposed to maximise thermal comfort of occupants.

#### Transport

The development is designed to encourage walking, the use of public transport and alternative transport means other than cars. The design achieves this through:

- Minimising the Provision of Car Parks for Conventional Vehicles

The development only provides the minimum required number of car spaces required by the planning framework to discourage the use of cars.

- Providing Bike Storage – Refer to BESS – Not Applicable

The garages of the dwellings are designed to be wide enough to accommodate bicycles without the need of bike racks, without encroaching into the minimum required space for the required car parking spaces. However, **Mona Lisa system** bike racks can be installed when necessary to provide sufficient bike parking space without interference to the garage space. The following initiatives have been targeted:

✓ A dedicated AC EV Level 2 charger at up to 22kW (32 Amp, 3-phase) installed per dwelling.

#### Additional Sustainable Measures

#### Waste Management

The development is designed to minimise waste and encourage the reuse of and recycling of materials during the design, construction and occupancy.

#### The design achieves this through:

#### - Construction Waste Minimisation

The development is designed to use readily available materials and is designed to use standard components or dimensions to minimise cutting waste. The nominated builder of the development is encouraged to reuse existing building components (eg bricks) and to recycle reusable waste.

#### - Occupancy Waste Minimisation

Storage areas for recycling bins are proposed to be easily accessible to encourage recycling and to enable an effective recycling service to be provided. A low maintenance garden with drought resistant plants is proposed to minimise green waste.

#### - Storage Spaces for Recycling and Green Waste

Storage areas for recycling bins (240L) are proposed. Sufficient space for green waste bin is provided next to the waste and recycling bins should occupants elect to have one.

#### **Building Materials**

The development is designed to minimise material use, to encourage recycling of existing material where possible, to advocate the use of environmentally friendly materials and to use materials of lower embodied energy. The design achieves this through:

#### - Toxicity

The development is designed to be constructed using non - toxic materials such as timber, plasterboards, bricks and low VOC paints.

#### - Sustainable Timber

The development is designed to be timber framed using locally grown plantation timber. Plantation timber minimise forest and natural habitat destruction. In addition, timber stores carbon which reduces greenhouse gasses in the atmosphere. Suggest using timber that meets the **Australian Forestry Standard (AFS) AS 4707 - 2006.** 

Concrete use supplementary cementitious material (SCM) and recycled aggregate where appropriate and recycled water in its manufacture.

#### **Hazardous Materials and VOC**

Low VOC paints are nominated to be used to minimise indoor air contamination.

(Grade E0 or E1 engineered wood products e.g. MDF, plywood, engineered-wood flooring for formaldehyde emission)





Further information relating to low VOC Paints can be found in the Australian Standard AS/NZS 2311 "The Painting of Buildings" Sections 1.5.2.6 & 4.22

Australia"

Additional information regarding you Paints, you limits and Green Star ratings can be obtained from the "Green Building Council of Australia"

Additional information regarding your Paints, you limits and Green Star ratings can be obtained from the "Green Building Council of Australia" (www.gbca.org.au) or the "Australian face mabling rits reonsideration and review as part of a planning process under the Planning and Environment Act 1987. The copy must not be used for any other purpose.

Please note that the plan may not be to scale.

All fabricated structural steelwork to be supplied by a steel fabricator/contractor accredited to the Environmental Sustainability Charter of the Australian Steel Institute. Sourced from a Responsible Steel Maker i.e. 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).









Considers ESG sustainability impacts across the entire supply chain

#### Construction and Building Management

The development is designed to promote sustainability in all lifecycle stages including construction. The design achieves this through:

- Environmental Management During Construction

The construction of the dwellings is to be carried out with minimal environmental impact including noise. Waste bins are to be provided and where practical, existing materials are to be recycled or stored for future reuse.

- Stormwater Pollution Reduction During Building Construction Works

Stormwater runoff are to be minimised during construction and where applicable, sediment filters or the like are to be provided to prevent sediment runoffs from being discharged into council drains.

By council best practice, a recycling/reuse commitment of **at least 70**% for all demolition and construction waste (by mass).



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#### **Urban Ecology**

The development is designed to protect and enhance biodiversity through the provision of sustainable indigenous and native landscaping. The design achieves this through:

#### - On Site Topsoil Retention

The footprint of the development is proposed to be over the footprint of the existing dwelling to minimise topsoil removal.

#### - Reuse of Already Developed Land

The dwellings are proposed on already developed land as an infill development to minimise the destruction of natural habitats and reduce urban sprawl.

#### - Maintaining Ecological Value

Existing open spaces are retained as much as possible to maintain existing ecological value.

#### - Enhancing Ecological Value

Existing exotic and poor condition plants are to be replaced with native or indigenous plants to enhance the ecological value of the development. Drought resistant plant species are selected to reduce water usage.

#### - Defining synergies between building elements and building uses

The spaces within the dwellings proposed were designed according to their designated uses and to maximise natural lighting and ventilation. Living, dining and kitchen areas were designed to be open plan to maximise the flexibility of the space to be used for activities. Spaces are designed to be close to each other to minimise dead spaces and to reduce the size of the dwellings.

#### - Significant Enhancement to building's environmental performance

The proposed use of class leading energy efficient cooling, heating appliances and water efficient fixtures along with innovative rainwater treatment features significantly enhance the dwellings environmental performance as benchmarked.

#### - Responding to local climate conditions through passive measures

The building envelope is insulated with the use of reflective and bulk insulation to external roof, seals to external doors, increase in external wall insulation and concrete slab flooring to reduce heat loss/gain in winter and summer. Shaded openable windows are proposed to allow for cross ventilation during summer. The proposed features reduce energy use for cooling and heating for thermal comfort.

#### - New Design Approach

The dwellings were designed as an infill development which maximises the use of existing developed land. This reduces urban sprawl, minimises the development footprint and places occupants closer to activity centres.



#### 20 mm recycled aggregate

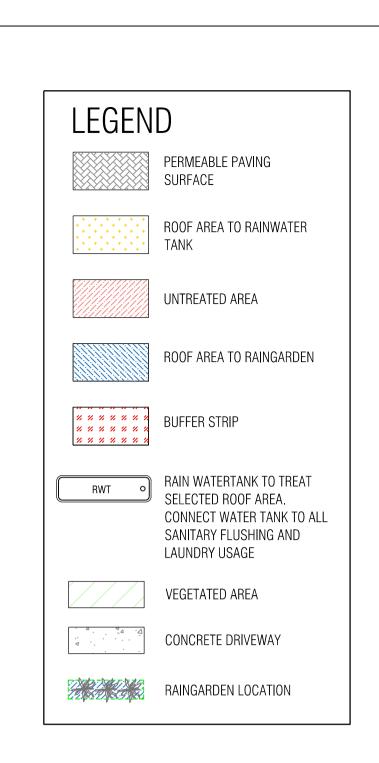
- Used as a base or subbase material for hardstand areas and access roads, pipe bedding, walkways and under concrete pads
- Suitable for drainage material, backfill for retaining walls and decorative applications
- Ideal for creating temporary footings for light excavation equipment during wet weather conditions
- Easy to spread and compact

#### 40 mm recycled aggregate

- Used as a base or subbase material for hardstand areas and access roads, pipe bedding, walkways and under concrete pads
- Suitable for shakedown material for worksites, backfill for retaining walls and open drain or swale lining
- Can be used for a temporary access track on to building sites during wet weather conditions



The availability of recycled aggregate can vary based on site location, demand for product, and availability of materials suitable for recycling. However, as it is sourced locally, supply of recycled aggregates can be more reliable than for virgin aggregates which are often sourced overseas.



#### WATER SENSITIVE URBAN DESIGN NOTES:

ALL DRAINAGE TO BE DESIGNED AND CERTIFIED BY AUTHORIZED DRAINAGE ENGINEER

EACH RAINWATER TANK IS TO BE CONNECTED TO ALL TOILETS IN EACH DWELLING

GRAVITY FED OR FULLY CHARGED SYSTEM IS NECESSARY TO ACHIEVE THE MINIMUM ROOF CATCHMENT AREA IN ACCORDANCE WITH STORM REQUIREMENTS.

TANK OVERFLOW MUST BE TAKEN TO L.P.D.

RAINWATER TANKS ARE EXCLUDE AND INDEPENDENT OF ANY DETENTION REQUIREMENTS.

GRAVITY FED SYSTEM TO BE USED WHEN HARVESTING STORMWATER FROM ROOF TO RAIN GARDEN.

RAINGARDENS TO BE BUILT MINIMUM 300MM FROM ADJOINING FOOTINGS

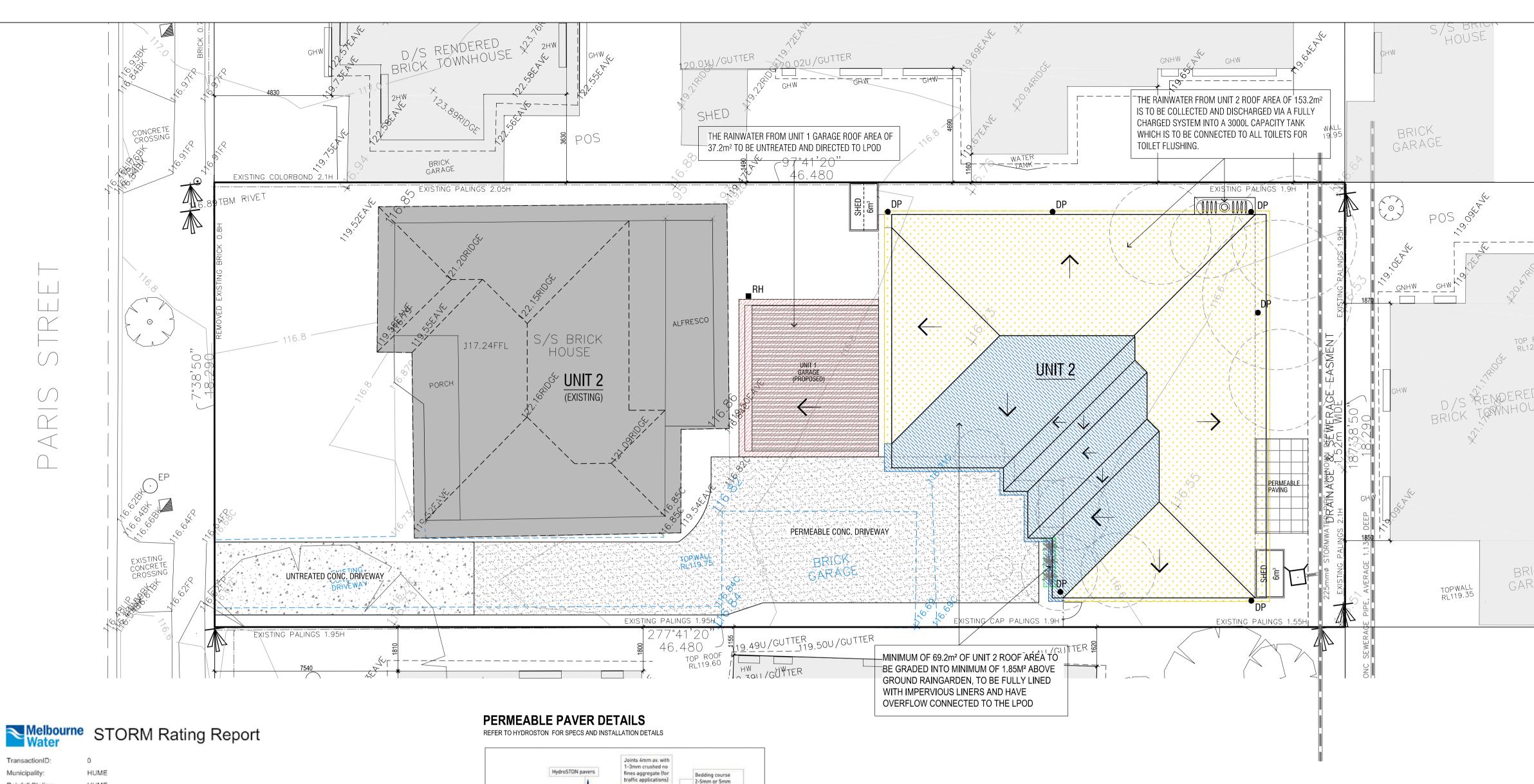
BUILD THE RAIN GARDEN CLOSE TO THE WATER SOURCE. THIS WILL HELP MINIMISE THE ADDITIONAL PLUMBING NEEDED TO BRING WATER TO THE RAIN GARDEN.

RAINGARDEN MUST BE FULLY LINED AND HAVE OVERFLOW PLUMBED INTO THE STORMWATER SYSTEM.

FOR EXCAVATION AND CLEARANCE REFER TO BUILDING A RAINGARDEN INSTRUCTION SHEET, RAINGARDENS MUST BE BUILT TO MELBOURNE WATER REQUIREMENTS

THE FINAL DESIGN OF THE STORMWATER SYSTEM WILL MEET COUNCIL DRAINAGE ENGINEERS' REQUIREMENTS. THE DESIGNED SYSTEM COMPLIES WITH MELBOURNE WATER STORM REQUIREMENTS THAT MEETS VICTORIAN BEST PRACTICE STORMWATER GUIDELINES

RAINGARDEN MAINTENANCE	
<ul> <li>WATER TO PROMOTE PLANT GROWTH AND SURVIVAL, ESPECIALLY DURING THE FIRST TWO YEARS AND DURING DRY SPELLS.</li> <li>INSPECT SITE FOLLOWING RAINFALL EVENTS. ADD/REPLACE VEGETATION IN ANY ERODED AREAS.</li> </ul>	AS NEEDED (FOLLOWING CONSTRUCTION)
- PRUNE AND WEED SWALE TO MAINTAIN APPEARANCE REMOVE ACCUMULATED TRASH AND DEBRIS REPLACE MULCH AS NEEDED.	REGULARLY (MONTHLY)
<ul> <li>- INSPECT INFLOW AREA FOR SEDIMENT ACCUMULATION. REMOVE ANY ACCUMULATED SEDIMENT OR DEBRIS.</li> <li>- INSPECT SITE FOR EROSION AS WELL AS SEDIMENT AND MULCH WHICH HAVE BEEN MOVED AROUND IN THE GARDEN. ADD/REPLACE VEGETATION IN ANY ERODED AREAS.</li> <li>- INSPECT RAIN GARDEN FOR DEAD OR DYING VEGETATION. REPLACE VEGETATION AS NEEDED.</li> <li>- TEST PLANTING BED FOR PH. IF THE PH IS BELOW 5.2, LIMESTONE SHOULD BE APPLIED. IF THE PH IS ABOVE 8.0, IRON SULFATE AND SULFUR SHOULD BE APPLIED.</li> </ul>	ANNUALLY (SEMI-ANUALLY DURING FIRST YEAR)
- REMOVE AND REPLACE MULCH.	EVERY 2 TO 3 YEARS



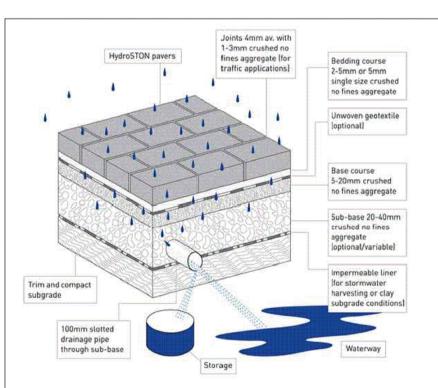
HUME Rainfall Station: 8 PARIS RD Address:

STORM Rating %:

BROADMEADOWS

PLANNING AND DESIGN Development Type: Residential - Multiunit Allotment Site (m2): 850.10

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%
U2 ROOF TO RWT	153.20	Rainwater Tank	3,000.00	5	134.60	85.90
U1 ROOF TO RAINGARDEN	69.20	Raingarden 100mm	1.00	0	121.65	0.00
U1 ROOF UNTREATED	37.20	None	0.00	0	0.00	0.00
DRIVEWAY UNTREATED	32.00	None	0.00	0	0.00	0.00

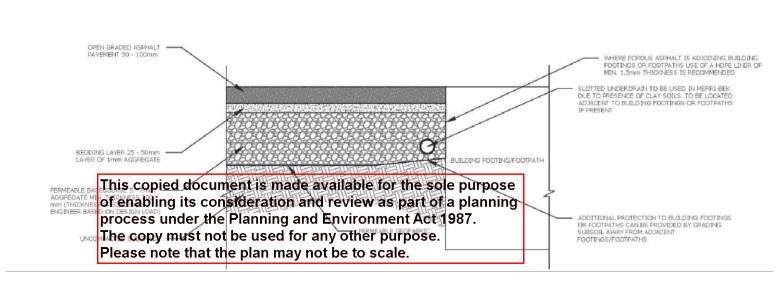


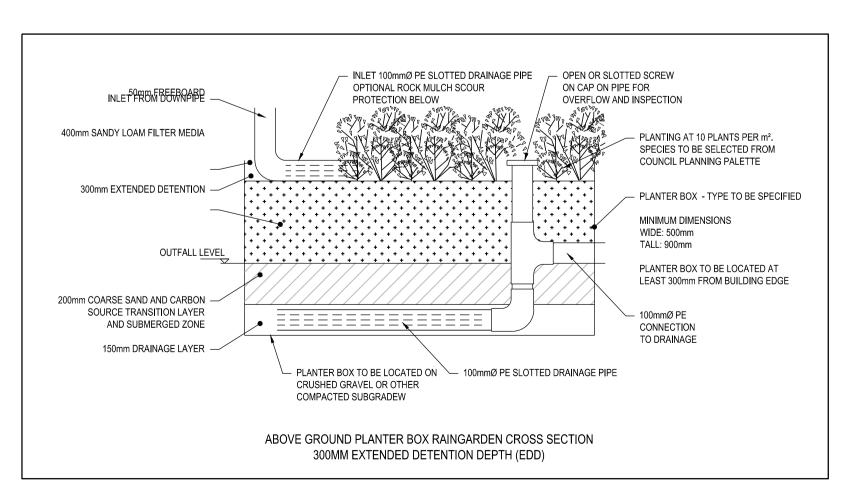
NOTE: THE STANDARD DETAILS SHOWN ON THIS DRAWING ARE TYPICAL ONLY. THESE SUIT SITE SPECIFIC CONDITIONS.

Date Generated: 22-May-2024 Program Version:

MAINTENANC	CE GUIDELINES (EVERY 3-6 MONTHS)
RAINWATER TANKS:	TO BE INSPECTED, INLET TO BE CLEANED REGULARLY. IF SLUDGE IS PRESENT, TANKS MUST BE DRAINED BY PROFESSIONAL PLUMBER AND CLEANED
GUTTERS AND DOWNPIPES:	TO BE INSPECTED AND CLEANED REGULARLY.
FIRST FLUSH DEVICES:	IF APPLICABLE, TO BE INSPECTED AND CLEANED REGULARLY.

# 1:30







PLANNING & DESIGN P/L 31 Enfield Ave Preston 3072 T:9018 1529 E: admin@planninganddesign.com.au

& DATE SCALE DRAWN BY CHECKED BY PROJECT NO ELEVATIONS 8 PARIS ROAD

UNIT DEVELOPMENT BROADMEADOWS





# **Electric vehicles** in buildings

To support Australians making the switch to electric vehicles (EV), the National Construction Code (NCC) is requiring more buildings to be ready for EV charging.

The global experience of EVs to date indicates they have a lower likelihood of being involved in a fire than internal combustion engines, but the characteristics of battery fires are different to liquid fuel fires.

To ensure we understand and respond proportionately to any updated evidence of EV charging risks, the ABCB has reviewed the approaches taken by international regulators, including those countries with greater uptake of EVs. We have also engaged Australian research team EV FireSafe to help develop a set of recommendations that can support the safer installation and use of EV chargers without being an unreasonable barrier to adoption. The full report from EV FireSafe, on which these provisions are based, can be read here.

We believe the recommendations set out in this advisory note are low cost, have low visual impact, are easily implementable and reflect the better practices already being adopted by many reputable suppliers. These recommendations will help reduce the risk of substandard equipment or installation practices emerging as the EV charging industry grows.

This copied document is made available for the sole purpose The ABCB will continue of enabling its consideration and review as part of a process under the Planning and Environment Act 1987 ergency response agencies to review the latestablished between the latestable to review the latestable to be t Please note that the plan may not be to scale.
will review and update our guidance and/or regulatory response as needed.

#### To support safer EV charging, the ABCB recommends:



#### **Master isolation**

Provide a master isolation switch with signage at fire indicator panel/Fire **Detection Indicator Control Equipment** (FDCIE) or building entrance.



#### Break glass fire alarm

Provide additional break glass unit (BGU).



#### **Block plans**

Block plans should be updated for existing sites and implemented for new builds to clearly show the location of charging hubs and master isolation.



#### Regular maintenance

Ensure the owner of the charging unit understands and meets their maintenance obligations.



#### Smart charging

Where possible, prioritise the use of 'Smart charging' to enable remote monitoring and access to disconnect power supply to a connected EV. This gives emergency responders another

intervention when detected.



#### **RCM Tick compliance**

Use chargers that have the Regulatory Compliance Mark (RCM).



#### Placarding site

Provide placarding/signage to identify Provide vehicle impact bollards or each EV charge points.



#### **AS/NZS 3000** App P compliance

Mode 3 and 4 chargers should only be installed by a qualified person and in accordance with AS/NZS 3000 Appendix P.



#### **Complex buildings**

Complex buildings and higher-risk environments should seek comprehensive, specialist fire safety assessment and advice.



#### Placarding at site entrance

Sites with 5 or more Mode 3 or 4 chargers to install ground level or other appropriate level placards to indicate which entrance is most closely located to EV charging hub.



#### **Emergency services** information pack (ESIP)

ESIPs developed for each site and provided for first responders.



#### **Collision protection**

stops.



#### Proximity to evacuation routes and flammable risks

Carefully assess proximity to avoid blocking evacuation routes or placing chargers too close to other flammable



#### Directional signage

Directional signage to be provided to the charging units and to the emergency exits.



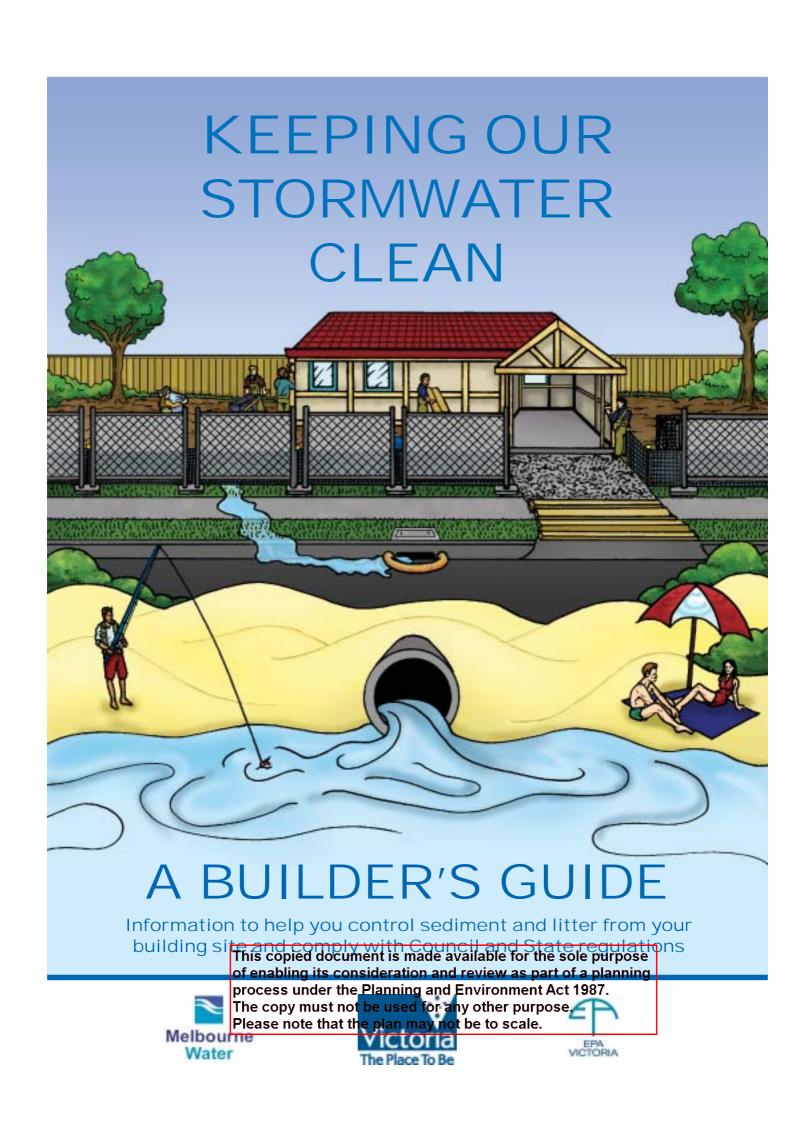
#### Pre-incident plans (PIP)

Where 5 or more chargers are installed, then building owners should invite local fire crews to attend a site familiarisation visit in order to develop a pre-incident plan (PIP).

potential method of shutdown fro This copied document is made available for the sole purpose unit to EV. Encourage operators to of enabling its consideration and review as part of a planning monitor for faults and provide ear process under the Planning and Environment Act 1987. The copy must not be used for any other purpose.

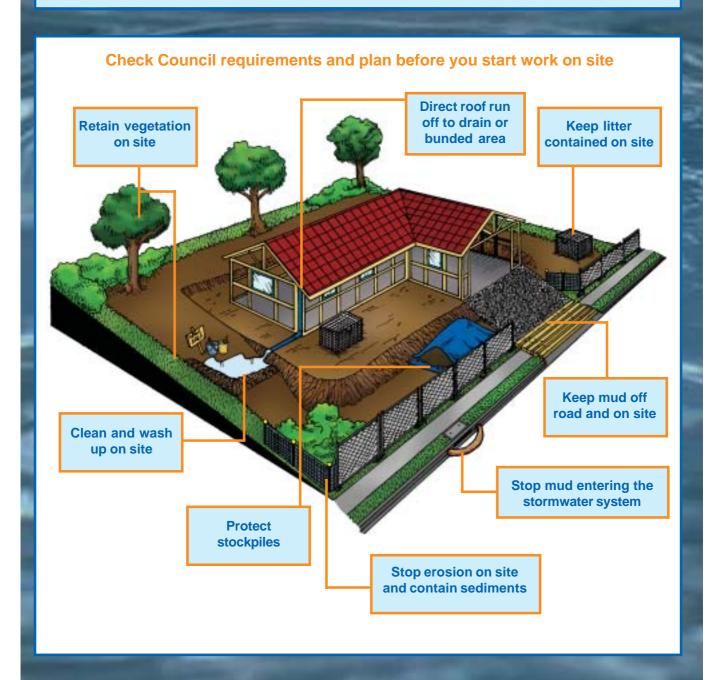
Please note that the plan may not be to scale.

The National Council for Fire and Emergency Services (AFAC) has also issued a position statement "Electric Vehicles (EV) and EV charging equipment in the built environment". Proponents of development applications that are subject to fire authority review, should familiarise themselves with the AFAC position statement and any additional advice issued by their local fire authority.



#### **ACKNOWLEDGEMENTS**

This revised booklet was originally produced with the support of the Victorian EPA, Melbourne Water, Cities of Kingston, Casey, Hume, Melbourne, Moreland and Moonee Valley.



## **CONTENTS**

# SITE RULES TO KEEP STORMWATER CLEAN



SITE **RULE 1** 

Check Council requirements and plan before you start work on site.



SITE RULE 2 Stop erosion onsite and contain sediments.



SITE RULE 3 Protect stockpiles.

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SITE RULE 4 Keep mud off road and on site.



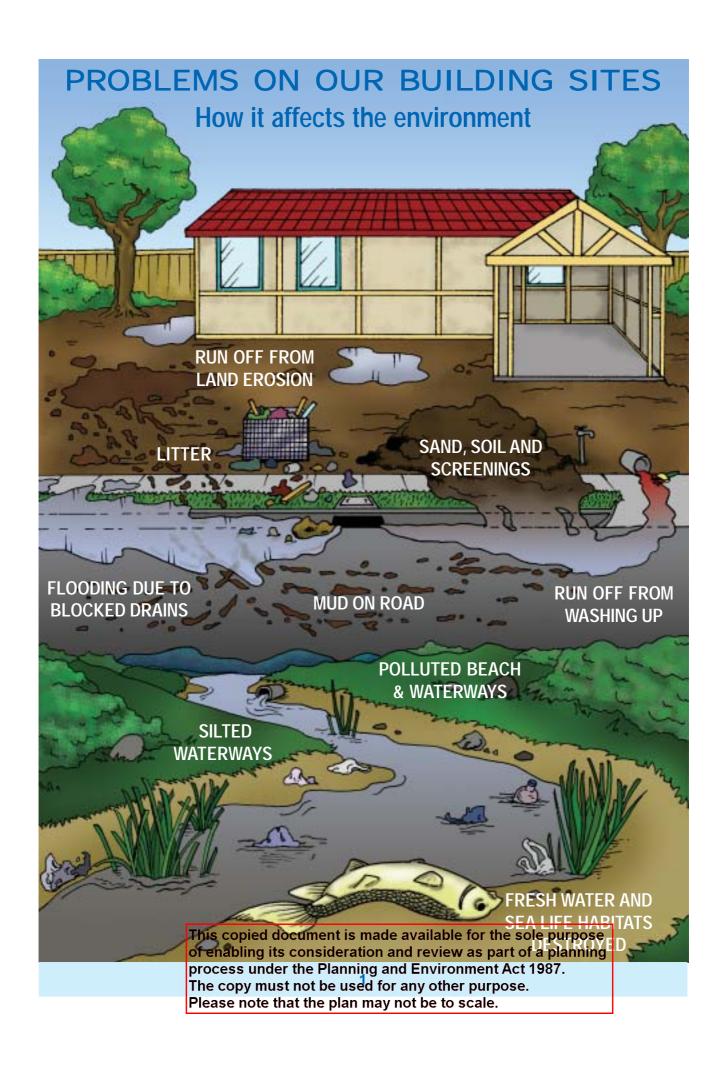
SITE **RULE 5**  Keep litter contained on site.



SITE RULE 6 Clean and wash up on site.

..... Page 21

Use the Site National Indiana process under the Planning and Environment Act 1987. The copy must not be used for any other purpose. Please note that the plan may not be to scale.



# WHY DO I NEED TO PROTECT OUR ENVIRONMENT?

#### It's the law!

Sediment from building sites can pollute stormwater. There are State and local council laws which make this an offence.

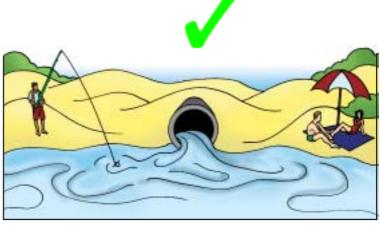
The developer or person managing the building site has the responsibility of making sure that the stormwater is not polluted.

#### Penalties apply for polluting stormwater.

To enjoy using our environment - now and in the future







Stormwater is not treated and carries pollution to local waterways and bays. Pollution in our stormwater can lead to short and long term damage to our environment.

#### To benefit builders

The site looks good (which is good for attracting new customers) and you'll be helping to protect our environment.

The site has fewer hazards. A well organised site has less loose material lying around causing a hazard. This reduces health and safety issues on a building site.

**Downtime is reduced**. A well managed and organised site is more efficient. This saves

time and money.



### USEFUL SUPPLIER INFORMATION



This information is provided for helpful contact details only. The companies are not listed in any particular order and are not necessarily recommended over others that may provide similar services.

#### SEDIMENT CONTROL

Approximate Price: Geofabric fencing 100 m roll from \$55 to \$130

stakes \$12 for 10

Filter socks unfilled: 2 m \$4.50 filled \$8 - \$25

Geofabrics Australasia

03 8586 9111 www.geofabrics.com.au

Products: silt fencing

**Southern Geosynthetics Supplies** 

0419 478 238 www.geosynthetics.com.au

Products: Silt fences, Silt Sausages

Statewide River & Stream Management

03 9702 9757 www.stateplanthire.com Products: silt fence, stakes, silt logs Installation service and site kits

Approx cost: \$220 for 20 m frontage installed, \$88 self

installation

**Treemax** 

03 98787 4111 www.treemax.com.au Products:filter fence, silt worm, silt sock

Zerosion

0408 351 566 www.zerosion.com.au.

Products: silt fence installation

Approx cost: \$215 for up to 20 m frontage

#### STABILISED DRIVEWAYS

For aggregate look under sand, soil and gravel in the Yellow Pages

Recycled aggregate available from major suppliers.

#### **TEMPORARY DOWNPIPE**

Available from major plumbing suppliers

Art Plastic 25 m rolls of temporary plastic downpipe

approx: \$25

**Temporary Flexible Downpipe** 

03 9786 3711 www.tfd.com.au

\$135 per kit - does 2-3 16 This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

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#### OTHER EQUIPMENT

Coates Shorco Sykes 131994 Supply: silt fence \$125 100 m

Hire: Rumble Grids \$180 p/week for 2 panels

Hire: Environmental settlement tanks 4 m tank \$542 p/week

#### **PORTABLE TOILETS**

See Toilets – Portable in the Yellow Pages

#### **TEMPORARY FENCING**

See Fencing Contractors in the Yellow Pages Australian Temporary Fencing 131716 Victorian Temporary Fencing 03 9484 4000

#### **BRICK AND TILE CUTTING**

Slop Mop Recycling Products

www.slopmop.com.au 0418 825 301 Brikasaurus: capture and recycle waste water for brick and tile cutting operations.

Slopmop: water delivery & waste clean up system for use behind concrete saws and grinders.

#### Useful information is available from:

Master Builders Green Living Builders

www.mbav.com.au

HIA GreenSmart Program

www.greensmart.com.au

Keep Australia Beautiful Victoria - CleanSites **Program** 

http://www.kabv.org.au/

Victorian Litter Action Alliance

http://www.litter.vic.gov.au

**Environment Protection Agency Victoria** 

www.epa.vic.gov.au

See Publication 981 - Reducing stormwater pollution

from construction sites



## SITE RULE 1

Check Council requirements and plan before you start work on site.



# tions to as

Planning, BEFORE you start a job, will make a big difference to how well you manage your site. Check Council requirements for site management. Complete a site management plan (one can be found at the back of this booklet).

#### Where is the lowest point on the site?

Water always runs to the lowest point. It is important to know where this point is when planning your site. It will affect where you put your crossover, stockpile materials and sediment fence. Leave a buffer of vegetation along the lowest boundary.

#### Where will I put the crossover?

Try to put the crossover as far away from the lowest point as possible. As water runs to the lowest point it is more likely to be wet and muddy. [See Page 16.]

#### Where will I keep my stockpile?

Stockpiles are best kept on site, as far away from the lowest point as practical. [See Page 12.]

#### Where will I build my sediment control fence?

Sediment control fences should be built on the lowest side/s of a site prior to erecting a temporary fence. A flat site may not need sediment control fences. [See Page 9.] These are a primary management measure to keep sediment on site.

#### Which trees and vegetation will be kept on site?

Rope or fence off the areas you are going to keep. Keeping vegetation such as grassed areas will help to prevent damage to the surface of the site later on and may trap sediment. [See Page 7.]

#### Why fence my site?

Many councils require sites to be fenced. Site fencing helps to keep building activities to the site, helps stop movement of litter, and helps to keep a site safe by stopping members of the public wandering on

site. [See Page 20.]

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# SITE READY TO START JOB



For copy of plan & checklist photocopy pages 23 & 24.

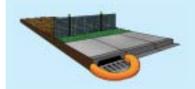


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Site Rule 1 - Plan before

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## SITE RULE 2

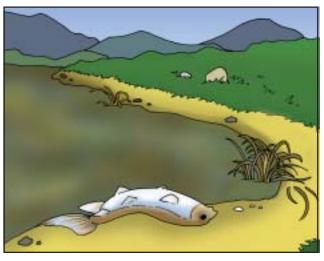
Stop erosion and keep sediment on site

## Why is erosion a problem?

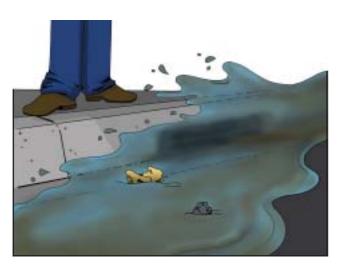
Sediment escaping from building sites can:



1. Make roads and footpaths slippery for vehicles and pedestrians, increasing public liability risk.



2. Enter the stormwater system and make stream and river water cloudy which can kill plants and animals in creeks and the bay.



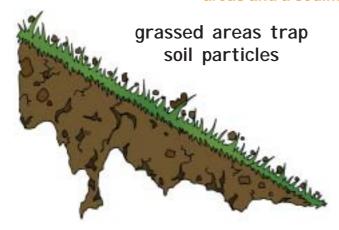
3. Cause blockages to the stormwater system including the side entry pit and pipes, increasing the chance of flooding.

4. Overload and clog local stormwater filtration systems such as raingardens and swales.

# METHODS TO CONTROL EROSION

Control Method 1 - Keep areas of vegetation as a buffer strip at the site boundary.

> To prevent sediment leaving site use existing grassed areas and a sediment control fence.



Vegetation helps protect the soil from the effects of rain and surface water by:

- · Slowing the flow of water across the ground. Fast water is able to carry more soil particles off site
- Holding the soil together and minimising erosion
- Acting as a filter to trap soil particles.

Decide what areas of vegetation you are going to keep on site. Mark and protect trees, shrubs and grassed areas that you are keeping. Then apply for the relevant permits to remove vegetation.



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Site Rule 2 - Stop erosion and keep sediment on site used for any other purpose. Please note that the plan may not be to scale.

#### Control Method 2 - Early downpipe connection



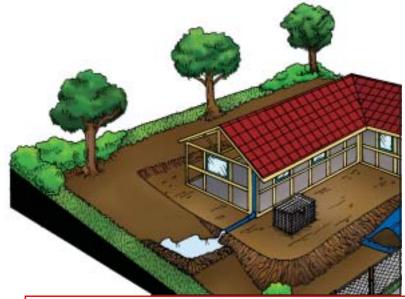
Connecting downpipes to the stormwater or onsite detention system has a number of benefits:

- · Less drainage problems on site
- Less mud on site after rain
- A safer site
- Reduce damage to building foundations
- Less downtime after storms
- Projects get finished sooner.

Aim to have the downpipes connected as soon as the roof is installed (temporary or permanent).

#### Control Method 3 - Pipe roof water onto a grassed or bunded area.

If you cannot connect to the stormwater system, pipe the water away from the building onto a vegetated area where there is good ground cover or to a bunded area.

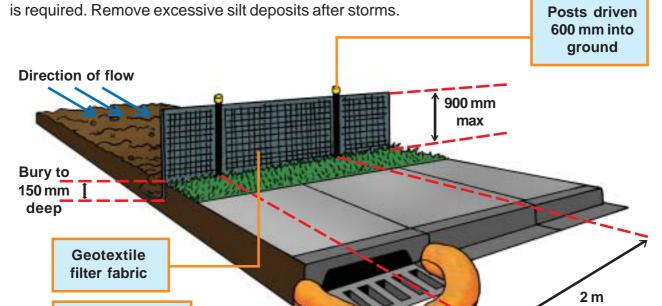


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# METHODS TO CONTAIN SEDIMENT ON SITE

#### Method 1 - Sediment Control Fences

Sediment control fences stop sediment from being washed off site. The fence allows muddy water to pond behind it and for sediment to settle as the water slowly filters through. Geotextile fabrics are required. Shade cloth is NOT suitable. Regular maintenance



## TO BUILD A SEDIMENT CONTROL FENCE:



Gravel sausage. See pg. 15



Site Rule 2 - Stop erosion

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## b) Dig a trench along the fence line before temporary site fencing is installed.

The trench will be used to bury the base of the sediment control fabric.

The trench should be 150 mm deep.



# c) Put in 1500 mm wooden posts (38 mm) or star pickets.

Put 1.5 m star pickets at a maximum of 2 m apart and 600 mm deep.

Put 1.5 m wooden posts (38 mm) at 1.2 m intervals (max 2 m) and 600 mm deep.



#### d) Fix geotextile to posts

Geotextile material allows water to pass through but traps sediments.

Use cable ties or staples to attach the geotextile to the upslope side of the fence posts.

Only join fabric at the pickets with a 150 mm overlap (wrap around post).



#### e) Spread volume of water.

Put a star picket 1.5 m upslope of the others every 20 m (if the fence is longer than 20 m). This spreads the volume of water that flows through each section of fence.

#### Method 2 - Control dust and slurry from cutting

A large amount of dust can be made from cutting materials such as concrete, bricks and tiles. When mixed with water this material can be turned into slurry and washed into waterways. Cement changes the acidity of water which may then kill water plants and animals. The following methods will help keep this waste on site and out of the waterways:



#### a) Cut materials on site

Choose a set area to do all your cutting. This area should be on the building site and away from all stormwater drains.

Equipment is available that captures water used in the cutting process (see page 3).



#### b) Put sediment control filters downslope

Sediment logs should be placed downslope to catch cutting slurry. A back-up sediment fence may also be used.



#### c) Use a gravel sausage or sediment log

When cutting must take place near stormwater drains, use gravel sausages or sediment logs.

Alternatively, you can buy sleeves from geotextile companies and fill these with sand.

Always clean up and correctly dispose of captured sediment.



When you have finished cutting, clean up your equipment in the cutting area.

Use a broom to clean up and get rid of the slurry where it can't get into the stormwater system. Dispose of in waste container

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Site Rule 2 - Stop erosion



# SITE RULE 3

## Contain stockpiles on site

## Why are sand, soil and screenings a problem?

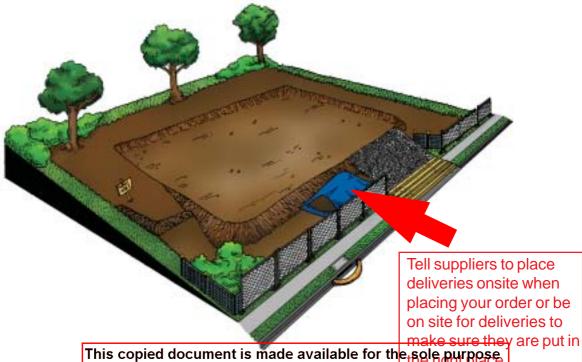


Sand, soil, screenings, dust or sludge from concrete and brick cutting, and other materials escaping from building sites can cause many problems.

Putting stockpiles such as sand, gravel, topsoil and mulch across footpaths and roads will cause a hazard to both vehicles and pedestrians.

Sediment can smother stormwater filtering systems including swales and raingardens.

Stockpiles should be stored on site, not on footpaths or roads.



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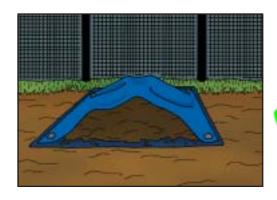
## Stockpiles not stored properly can get washed or blown away and pollute the stormwater.

This is particularly true of stockpiles that:

- Are high
- Have steep sides
- Are put on hard surfaces where they can be blown or washed away.









Place the stockpile in a designated area on site, and upslope of the sediment control fence.

If exposed for some time, stockpiles should be covered with a tarp.



In some cases it may be impossible to store stockpiles on site. In this case, a different set of control methods will be this coppied document is made available for the sole purpose

of enabling its consideration and review as part of a planning Site Rule 3 - Contain stoc Piles on Site Rule 3 - Contain stoc Pil

# WHEN UNABLE TO STORE STOCKPILES ON SITE

You may have to store a stockpile off site (although never on the footpath, gutter or road). Contact the council to make sure that you have the appropriate council permits.

The council will tell you how stockpiles stored off site are to be managed. Materials may be stored on tarps or on pallets. Containers such as rubbish skips with opening sides that you can get into easily are a good idea.



Material must not get into drains, gutters or the stormwater system

The following control methods can be used when storing materials or working off site.

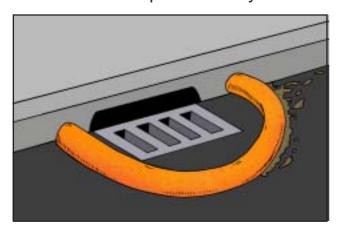
### Method 1 - Cover Stockpile

- a) Place a tarp, plastic or bunded pallet under the area where the stockpile will be placed.
- b) Place a secured covering over the stockpile.
- c) Then place sediment control logs around the downslope base of the stockpile.



## Method 2 - Protect Downstream Stormwater Pit with a Gravel Sausage or Sediment Log

A gravel sausage or sediment log is a temporary collection device that can be used when stockpiles are stored or cutting is done off site. It is also a useful precautionary measure at all sites.

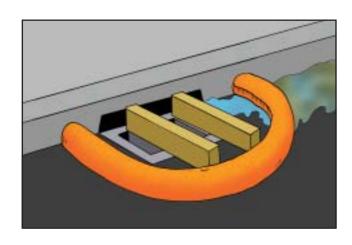


### TO BUILD A GRAVEL SAUSAGE:

### a) Make the sausage sleeve

A gravel sausage is made from a geotextile sleeve filled with 25 - 50 mm gravel.

The gravel sausage should be 150 mm high.



## b) Put the gravel sausage across the opening of the inlet pit

Make sure that the sausage is tight with the kerbing on the upslope side of the inlet pit and extends beyond the grate.

There should be a 100 mm gap between the front of the pit and sausage. Use wooden blocks to keep the 100 mm gap.



### c) Clean out gravel sausage regularly

When soil and sand builds up around the gravel sausage, this should be collected and disposed of on site.

Regular maintenance is required.

## DO NOT HOSE SEDIMENT

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# SITE RULE 4

## Keep mud off road and on site

## Why is mud a problem?

Two things happen when vehicles go on and off the site:

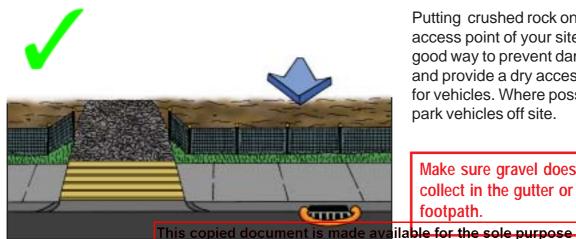
- 1. The surface area of the site is damaged making it dangerous.
- 2. Mud is carried back onto the roads and footpaths, and washes into the stormwater system.





## METHODS TO CONTROL MUD

The following simple methods will help you to protect the surface of your site and help stop vehicles from dropping mud on the road from their wheels. The best way to do this is to put crushed rock on the crossover or access point of your building site.



Putting crushed rock on the access point of your site is a good way to prevent damage and provide a dry access point for vehicles. Where possible park vehicles off site.

Make sure gravel does not collect in the gutter or on the footpath.

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### Control Method 1: Build a crushed rock crossover



Remove a 3m or greater strip of soil from road (or where concrete crossover ends) to nearest building point or a minimum of 5 m.

Use road base or 40 mm aggregate or crushed rock to a depth of 200 mm.

Restrict vehicle access to this point.

### Control Method 2: Keep to crushed rock path



Only drive where you need to. Keep to a set path (preferably on crushed rock).

## Control Method 3: Remove mud from tyres



Use a shovel to remove mud from truck tyres before leaving site.

### Control Method 4: Clean road



If mud goes on road, remove as much as possible and put it back on site.

Use a broom or a shovel. DO NOT USE A HOSE

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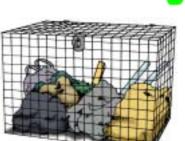
# SITE RULE 5

Keep litter contained on site









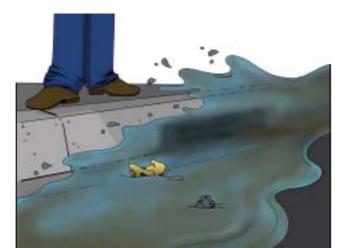


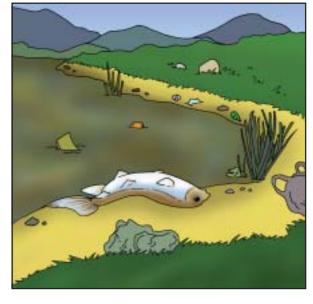
Many building sites have both building rubble and other rubbish spread across them.



## This causes many problems:

You may now have an **UNSAFE WORK ENVIRONMENT!**This could increase the chance of legal and public liability problems





drains.

Litter blowing off site can block stormwater. Litter may spoil local creeks and eventually this copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

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## METHODS TO CONTROL LITTER

The following simple methods will help you to stop litter leaving your site or being a hazard on site.

## Control Method 1: Litter bins or covered skips

A mesh bin with a closeable lid is suitable for larger items like cardboard boxes, plastic wrapping and polystyrene.

Mesh to be 50 mm or smaller

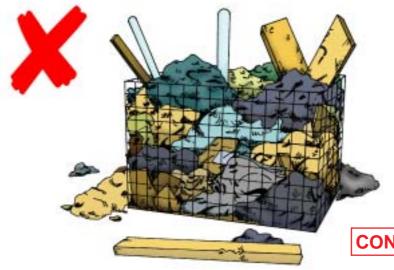




A smaller bin is okay for smaller rubbish like paper, food wrapping and drink containers that may be blown off site. Council bins may be restricted from building sites.

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Site Rule 5 - Keep litter co



Empty the litter bin regularly.
Don't allow overflow. Where
possible, collect the materials from
the litter bin for recycling and /or
keep different materials in
separate bins.

**CONSIDER A RECYCLING BIN** 

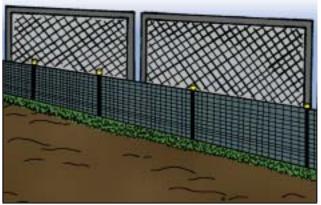
## Control Method 2: Site fencing

Site fencing will help to keep litter from being carried off site by wind or water and provide security.

## A FENCE DOES NOT NEGATE THE NEED FOR A BIN.



Check council requirements for temporary fencing and avoid trip hazards on footpath.



Remember to install a sediment control fence prior to installation of the temporary fence.



# SITE RULE 6

## Clean and wash up on site

## Why is washing up a problem?







When cleaning up after painting, plastering or concreting it's most important to keep the wash water out of the stormwater system.

Problems to the environment include:

- 1. Oil based paints form a thin film over the surface of the water. This starves water plants and animals of oxygen
- 2. Paints and petrol chemicals can contain toxic compounds
- 3. Concrete changes the acidity of waterways which can kill water plants and animals. Concrete washings can harden and block drains
- 4. Roads around a building site can become dirty, slippery and dangerous.



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Site Rule 6 - Clean and v

## METHODS TO CONTROL WASHING UP

The following simple methods will help you to stop the contamination of stormwater from paint, plaster or concrete washings.



# Control Method 1: Have a set washing up area

Choose a set area to do all your washing up. This area should be on the building site and away from all stormwater drains. It should be bunded and contain wash out barrels.

You could use the same area you have chosen for tile and brick cutting.

Contain chemicals and slurry onsite.
Put sediment control fences downslope.

NOTE: SEDIMENT CONTROL FENCES
WILL NOT STOP CHEMICALS

# Control Method 2: Get rid of concrete slurry on site

Collect wash water from concrete mixers and pumps in a wheel barrow and get rid of it in your wash area. You can also safely get rid of

concrete slurry by tipping small amounts in a ditch lined with plastic or geotextile liners. When the water evaporates or soaks into the surface the solids can then be put into a skip bin or recycled in construction or as road base.



# Control Method 3: Clean equipment off before washing

Brush dirt and mud off equipment before you wash it. Spin rollers and brushes to remove paint before you wash them in a wash out bin.

You will then need less water to clean this equipment.



# Control Method 4: Clean painting tools carefully

Use one container to wash the brush and another to rinse it. Let the first container stand overnight to let solids settle. Then pour out the water on to the ground if it is not too dirty and put settled solids in a bin.

Wash oil based paints in solvent baths until clean. DO NOT PUT THE SOLVENT ON THE

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# SITE MANAGEMENT PLAN

Building Company:		Date:	:/_	/
Site Address: Client Name:	C	ontact Number: (	)	
Jilent Name.		Sittact Number: (	/	
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-05112 -		<u>iiii</u>	<u> </u>	
EGEND: Bin III cale:	Rumble grid	- Stabilised access	point	<ul> <li>Vegetation to be retained</li> </ul>
= 1 m Grass filter strip	Silt fence	- Stockpile		
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Management Plan process und	ler the Planning	and Environment A	ct 1 <b>9</b> 87.	
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# **CLEAN SITE CHECKLIST**

# Please photocopy to use on site

SITE DETAILS:  Building Company:  Site Supervisor:	
Site Address:	
Client Name:	Contact Number: ( )
SITE RULE	TASK CHECK
SITE RULE 1 - Check Council requirements and plan before you start work on site.	Crossover away from lowest point  Sediment control fence on lowest side  Stockpiles away from lowest point  Marked trees and vegetation to keep on site
SITE RULE 2 - Stop erosion on site and contain sediments.	Sediment control fence in place  Catch drains on high side of site  Vegetation areas kept at boundary  Gravel sausage at storm water pit  Downpipes set up as early as possible
SITE RULE 3 - Protect stockpiles.	Base and cover for stockpiles  Gravel sausage at stormwater pit
SITE RULE 4 - Keep mud off road and on site.	Crushed rock access point  Vehicles keep to crushed rock areas  Mud removed from tyres before leaving site  Clean road if muddy  Clean stormwater pit and maintain gravel sausage
SITE RULE 5 - Keep litter contained on site.	Litter bins in place with lid closed  Site fencing in place
SITE RULE 6 - Clean and wash up on site.	Cutting and clean up area on site  Clean equipment off before washing  Sediment filters downslope
	Contain all washings on site document is made available for the sole purpose
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	ust not be used for any other purpose. Site Management Plan
	that the plan may not be to scale.

## 6 RULES FOR A CLEAN WORKSITE

SITE RULE 1 -

Check Council requirements and plan before you start work on site.

SITE RULE 2 -

Stop erosion on site and contain sediments.

SITE RULE 3 - Protect stockpiles.

SITE RULE 4 -

Keep mud off road and on site.

SITE RULE 5 -

Keep litter contained on site.

SITE RULE 6 -

Clean and wash up on site.

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First published in 2002

Second edition of visabilities of the sole purpose Third edition of visabilities of splanning Forth edition of visabilities of the Planning and Environment Act 1987.

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## **BESS Report**

Built Environment Sustainability Scorecard



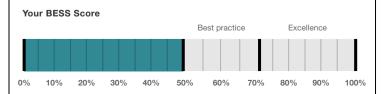






This BESS report outlines the sustainable design commitments of the proposed development at 8 Paris Rd Broadmeadows Victoria 3047. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Hume 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.



51%

### Project details

Address 8 Paris Rd Broadmeadows Victoria 3047

1.8.1-B.407

 Project no
 60424831-R1

 BESS Version
 BESS-8

Site type Single dwelling

Account

Software version

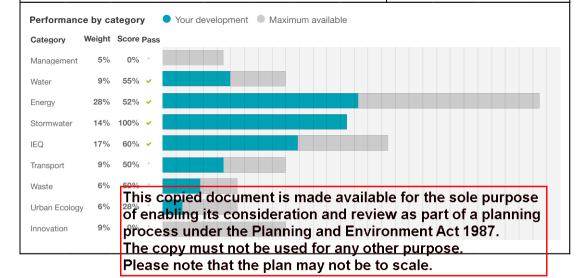
 Application no.
 P25924

 Site area
 850.00 m²

 Building floor area
 166.00 m²

 Date
 03 July 2024





### **Dwellings & Non Res Spaces**

### Dwellings

Name	Quantity	Area	% of total area
Detached dwelling			
Dwelling	1	166 m²	100%
Total	1	166 m²	100%

### Supporting information

### Floorplans & elevation notes

Credit	Requirement	Response	Status
Water 3.1	Annotation: Water efficient garden details		-
Energy 3.3	Annotation: External lighting controlled by motion sensors		-
Energy 3.4	Location of clothes line (if proposed)		-
Stormwater 1.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)		-
IEQ 2.2	2.2 Annotation: Dwellings designed for 'natural cross flow ventilation' (If not all dwellings, include a list of compliant dwellings)		-
IEQ 3.1	Annotation: Glazing specification (U-value, SHGC)		-
Transport 2.1	Location of electric vehicle charging infrastructure		-
Waste 2.1	Location of food and garden waste facilities		-
Urban Ecology 2.1	Location and size of vegetated areas		-

### Supporting evidence

Credit	Requirement	Response	Status
Energy 3.5	Average lighting power density and lighting type(s) to be used -		-
Stormwater 1.1	STORM report or MUSIC model -		-
IEQ 2.2	A list of dwellings with natural cross flow ventilation		-
IEQ 3.1	3.1 Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)		-

### **Credit summary**

### Management Overall contribution 4.5%

	0%
1.1 Pre-Application Meeting	0%
2.1 Thermal Performance Modelling - Single Dwelling	0%

### Water Overall contribution 9.0%

	Minimum required 50%		55%	✓ Pass
1.1 Potable Water Use Reduction			46%	
3.1 Water Efficient Landscaping		100%		

### Energy Overall contribution 27.5%

	Minimum requi	red 50% 52	2% ✓ Pass
1.2 Thermal Performance Rating - Residential		C	0% ✓ Achieved
2.1 Greenhouse Gas Emissions		C	0%
2.6 Electrification		100	0%
2.7 Energy consumption		100	0%
3.3 External Lighting		100	0%
3.4 Clothes Drying		100	0%
3.5 Internal Lighting - Houses and Townhouses		100	0%
4.4 Renewable Energy Systems - Other		Ν	N/A
		No other (non-solar PV)	renewable energy is in use.
4.5 Solar PV - Houses and Townhouses		C	0% Ø Disabled
		No solar PV	renewable energy is in use.

### Stormwater Overall contribution 13.5%

	Mi	linimum required 100%	100%	✓ Pass
1.1 Stormwater Treatment			100%	

### IEQ Overall contribution 16.5%

	Minimum requi	red 50%	60%	✓ Pass
2.2 Cross Flow Ventilation		1	100%	
3.1 Thermal comfort - Double Glazing		1	100%	
3.2 Thermal Comfort - External Shading			0%	
3.3 Thermal Comfort - Orientation			0%	

### Transport Overall contribution 9.0%

			50%	
1.1 Bicycle Parking - Resid	dential		0%	
2.1 Electric Vehicle Inf	าเร็ copied document is m	ade available for	the sole purpose	
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of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

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Please note that the plan may not be to scale.

### Waste Overall contribution 5.5%

	50%
1.1 - Construction Waste - Building Re-Use	0%
2.1 - Operational Waste - Food & Garden Waste	100%

### Urban Ecology Overall contribution 5.5%

	28%
2.1 Vegetation	50%
2.2 Green Roofs	0%
2.3 Green Walls and Facades	0%
3.1 Food Production - Residential	0%

### Innovation Overall contribution 9.0%

		0%	
1.1 Innovation		0%	

### Credit breakdown

### Management Overall contribution 0%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 60.0% towards the cat	egory score.
Criteria	Has an ESD professional been engaged to pro	ovide sustainability advice from schematic
	design to construction? AND Has the ESD pro	ofessional been involved in a pre-
	application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.1 Thermal Performance Mod	elling - Single Dwelling	0%
Score Contribution	This credit contributes 40.0% towards the cat	egory score.
Criteria	Has a preliminary NatHERS rating been under	taken?
Question	Criteria Achieved ?	
Detached dwelling	No	

Water Overall contribution 5% 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?:	No
Are you installing a rainwater tank?:	Yes
Water fixtures, fittings and connections	
Showerhead:	4 Star WELS (>= 4.5 but <= 6.0)
Bath:	Default or unrated
Kitchen Taps:	>= 5 Star WELS rating
Bathroom Taps:	>= 5 Star WELS rating
Dishwashers:	Default or unrated
WC:	>= 4 Star WELS rating
Urinals:	Scope out
Washing Machine Water Efficiency:	Default or unrated
Which non-potable water source is the dwelling/space connected to?:	RWT 2
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 2	153 m <sup>2</sup>
Tank Size: RWT 2	3,000 Litres
Irrigation area connected to tank: RWT 2	
Is connected irrigation area a water efficient garden?: RWT 2	No
Other external water demand connected to tank?: RWT 2	-

1.1 Potable Water Use Reduction	46%
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	213 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	168 kL
Output	Proposed (including rainwater and recycled water use)
Project	149 kL
Output	% Reduction in Potable Water Consumption
Project	30 %
Output	% of connected demand met by rainwater
Project	100 %
Output	How often does the tank overflow?
Project	Very Often
Output	Opportunity for additional rainwater connection
Project	76 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

**Energy** Overall contribution 15% Minimum required 50%

	Dwellings Energy Approach			
	What approach do you want to use for I	Energy?:	Use the built in calculation tools	
	Project Energy Profile Question			
	Are you installing any solar photovoltaic	(PV) system(s)?:	No	
	Are you installing any other renewable e	nergy system(s)?:	No	
	Energy Supply:		All-electric	
	Dwelling Energy Profile			
	Below the floor is:		Ground or Carpark	
	Above the ceiling is:		Outside	
	Exposed sides:		3	
	NatHERS Annual Energy Loads - Heat:		80.0 MJ/sqm	
	NatHERS Annual Energy Loads - Cool:		19.0 MJ/sqm	
	NatHERS star rating:		7.0	
	Type of Heating System:		Reverse cycle central other	
	Heating System Efficiency:		5 Stars (2011 MEPS)	
	Type of Cooling System:		Refrigerative space	
	Cooling System Efficiency:		5 Stars (2019 MEPS)	
	Type of Hot Water System:		Electric Instantaneous	
	% Contribution from solar hot water sys	item:	-	
	Clothes Line:		Private outdoor clothesline	
	Clothes Dryer:		Occupant to install	
	1.2 Thermal Performance Rating - Re	sidential		0%
	Score Contribution	This credit contribute	es 17.6% towards the category score.	
	Criteria	What is the average	NatHERS rating?	
	Output	Average NATHERS F	Rating (Weighted)	
	Detached dwelling	7.0 Stars		
	2.1 Greenhouse Gas Emissions			0%
	Score Contribution	This credit contribute	es 17.6% towards the category score.	
	Criteria	What is the % reduc	tion in annual greenhouse gas emissic	ons against the benchmark?
	Output	Reference Building v	with Reference Services (BCA only)	
	Detached dwelling	3,172 kg CO2		
	Output	Proposed Building w	vith Proposed Services (Actual Buildin	g)
	Detached dwelling	3,807 kg CO2		
	Output	% Reduction in GHC	G Emissions	
	Detached dwelling	-21 %		
	2.6 Electrification This copied	document is i	made available for the	sole purpose
Î	Score Contribution of enabling i	ts considerat	ion.andwieview:asypart	of a planning
			ng and Environment Ad	
	Question The copy mu	ist <sub>i</sub> not be use	d for any other purpos	se.
	Project Please note	that the plan	may not be to scale.	

2.7 Energy consumption	100%
Score Contribution	This credit contributes 23.5% towards the category score.
Criteria	What is the % reduction in annual energy consumption against the benchmark?
Output	Reference Building with Reference Services (BCA only)
Detached dwelling	27,955 MJ
Output	Proposed Building with Proposed Services (Actual Building)
Detached dwelling	16,124 MJ
Output	% Reduction in total energy
Detached dwelling	42 %
3.3 External Lighting	100%
Score Contribution	This credit contributes 2.9% towards the category score.
Criteria	Is the external lighting controlled by a motion detector?
Question	Criteria Achieved ?
Detached dwelling	Yes
3.4 Clothes Drying	100%
Score Contribution	This credit contributes 5.9% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a
	combination of clothes lines and efficient driers against the benchmark?
Output	Reference
Detached dwelling	596 kWh
Output	Proposed
Detached dwelling	119 kWh
Output	Improvement
Detached dwelling	80 %
3.5 Internal Lighting - Houses and T	Townhouses 100%
Score Contribution	This credit contributes 2.9% towards the category score.
Criteria	Does the development achieve a maximum illumination power density of 4W/sqm or less?
Question	Criteria Achieved?
Detached dwelling	Yes
4.4 Renewable Energy Systems - Of	ther N/A • Scoped Ou
This credit was scoped out	No other (non-solar PV) renewable energy is in use.
4.5 Solar PV - Houses and Townhou	uses 0% O Disabled
This credit is disabled	No solar PV renewable energy is in use.

### **Stormwater** Overall contribution 14% Minimum required 100%

	Which stormwater modelling softwa	are are you using?:	Melbourne Water STORM tool
	1.1 Stormwater Treatment		100%
	Score Contribution	This credit contri	butes 100.0% towards the category score.
	Criteria	Has best practic	e stormwater management been demonstrated?
	Question	STORM score ac	hieved
	Project	100	
	Output	Min STORM Sco	re
	Project	100	
_			
EC	Overall contribution 10% Mini	mum required 50%	

2.2 Cross Flow Ventilation	100%
Score Contribution	This credit contributes 20.0% towards the category score.
Criteria	Are all habitable rooms designed to achieve natural cross flow ventilation?
Question	Criteria Achieved ?
Detached dwelling	Yes
3.1 Thermal comfort - Double Glazing	100%
Score Contribution	This credit contributes 40.0% towards the category score.
Criteria	Is double glazing (or better) used to all habitable areas?
Question	Criteria Achieved ?
Detached dwelling	Yes
3.2 Thermal Comfort - External Shadi	ing 0%
Score Contribution	This credit contributes 20.0% towards the category score.
Criteria	Is appropriate external shading provided to east, west and north facing glazing?
Question	Criteria Achieved ?
Detached dwelling	No
3.3 Thermal Comfort - Orientation	0%
Score Contribution	This credit contributes 20.0% towards the category score.
Criteria	Are at least 50% of living areas orientated to the north?
Griteria	
Question	Criteria Achieved ?

### **Transport** Overall contribution 4%

1.1 Bicycle Parking - Residential	0%
Score Contribution	This credit contributes 50.0% towards the category score.
Criteria	How many secure and undercover bicycle spaces are there for residents?
Question	Bicycle Spaces Provided ?
Detached dwelling	0
2.1 Electric Vehicle Infrastructure	100%
2.1 Electric Vehicle Infrastructure  Score Contribution	This credit contributes 50.0% towards the category score.
Score Contribution	This credit contributes 50.0% towards the category score.

### Waste Overall contribution 3%

1.1 - Construction Waste - Building	Re-Use	0%
Score Contribution	This credit contributes 50.0% towards the cate	egory score.
Criteria	If the development is on a site that has been pr	reviously developed, has at least 30% of
	the existing building been re-used?	
Question	Criteria Achieved ?	
Project	No	
2.1 - Operational Waste - Food & G	arden Waste	100%
Score Contribution	This credit contributes 50.0% towards the cate	egory score.
Criteria	Are facilities provided for on-site management	of food and garden waste?
Question	Criteria Achieved ?	
Project	Yes	

#### Urban Ecology Overall contribution 2%

2.1 Vegetation	50%
Score Contribution	This credit contributes 57.1% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?
Question	Percentage Achieved ?
Project	11 %
2.2 Green Roofs	0%
Score Contribution	This credit contributes 14.3% 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 14.3% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	-
3.1 Food Production - Residential	0%
Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	What area of space per resident is dedicated to food production?
Question	Food Production Area
Detached dwelling	-
Output	Min Food Production Area
Detached dwelling	1 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)?

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