This form is only to be used for changes made to a current planning permit application				
DECLARATION FOR		PLANNING PERMIT NO:		
AMENDMENT TO A		Office Use Only:		
PLANNING PERMIT		DATE RECEIVED:		
APPLICATION		FEE PAID: \$		

Planning and Environment Act 1987 Sections 50 & 50A & 57A. Planning and Environment Regulations, Regulation 16. Council is collecting the information on this form so that it may consider your application in accordance with Part IV of the Planning and Environment Act 1987. Council must make a copy of this application available for any person to inspect free of charge in accordance with Section 51 of the Act.

Please print clearly. Please read the notes on the back before completing this form.

THE LAND: Give the address and title particulars of the land.

93 KITCHENER ST, BROADMEADOWS VIC 3047

**PROPOSED AMENDMENTS:** what changes are being requested since lodging the original application for planning permit (attach letter if required)

**1. REDUCE THE FRONT SETBACK** 

2. RELOCATED THE UNIT 1 GARAGE

3. KEEP ONE CROSSOVER FOR THE DEVELOPMENT

4. REDESIGN THE UNIT 1 LAYOUT

	THE C Name Addre		· ·	
-		<b>DECLARATION TO BE COMPLETED FO</b> This form must be signed. Please		
	A	I declare that I am the Application and Owner of this land information given is true and correct		
				Date:
	В	I am the Owner of the land. I have seen this application		Owner Signature:
				Date:
		I/We the Applicant declare that all information given is correct	true and	Applicant Signature:
				Date:
		dboomlent Applicate algebra lengt of the sole optice t tabout sitis environting ned text all plater optice t		Applicant Signature
roce	ss und	ef <sup>o</sup> ffe <sup>c</sup> Planning and Environment Act 1987. Ist not be used for any other purpose.		24/07/2024 Date:
		ist not be used for any other purpose.		·

Please Haathent heathtbecup and an and a strange and a str

## This form is only to be used for changes made to a current planning permit application HOW TO AMEND AN APPLICATION FOR A PLANNING PERMIT

## Section 50. Amendment to application at request of applicant before notice

(1) An applicant may ask the responsible authority to amend an application before notice of the application is first given under section 52.

- (2) An amendment to an application may include-
  - (a) an amendment to the use or development mentioned in the application; and
  - (b) an amendment to the description of land to which the application applies; and
  - (c) an amendment to any plans and other documents forming part of or accompanying the application.
- (3) A request under this section must—
  - (a) be accompanied by the prescribed fee (if any); and
  - (b) be accompanied by any information or document referred to in section 47(1)(c) to 47(1)(e) that relates to the proposed amendment to the application and that was not provided with the original application; and
  - (c) if the applicant is not the owner of the land to which the application applies, be signed by the owner or include a declaration by the applicant, that the applicant has notified the owner about the request.
- (4) Subject to subsection (5), the responsible authority must amend the application in accordance with the request.

5) The responsible authority may refuse to amend the application if it considers that the amendment is so substantial that a new application for a permit should be made.

(6) The responsible authority must make a note in the register if any amendment is made to an application under this section.

(7) On the amendment of an application under this section, the amended application is to be taken—

- (a) to be the application for the purposes of this Act; and
- (b) to have been received on the day that the request for amendment was received by the responsible authority.

#### 50A. Amendment of application by responsible authority before notice

(1) With the agreement of the applicant and after giving notice to the owner, the responsible authority may make any amendments to an application that it thinks necessary before notice of the application is first given under section 52.
 (2) An amendment to an application may include—

- (a) an amendment to the use or development mentioned in the application; and
- (b) an amendment to the description of land to which the application applies; and
- (c) an amendment to any plans and other documents forming part of or accompanying the application.
- (3) The responsible authority may require the applicant-
  - (a) to notify the owner under subsection (1); and
  - (b) to make a declaration that that notice has been given.

(4) The responsible authority must make a note in the register if any amendment is made to an application under this section.

(5) On the amendment of an application under this section, the amended application is to be taken-

- (a) to be the application for the purposes of this Act; and
- (b) to have been received on the day that the applicant agreed to the amendment.

#### 57A. Amendments to application after notice of application is given

(1) An applicant may ask the responsible authority to amend an application after notice of the application is given under section 52.

- (2) An amendment to an application may include-
  - (a) an amendment to the use or development mentioned in the application; and
  - (b) an amendment to the description of land to which the application applies; and
  - (c) an amendment to any plans and other documents forming part of or accompanying the application.
- (3) A request under this section must-
  - (a) be accompanied by the prescribed fee (if any); and
  - (b) be accompanied by any information or document referred to in section 47(1)(c) to 47(1)(e) that relates to the proposed amendment to the application and that was not provided with the original application; and
  - (c) if the applicant is not the owner of the land to which the application applies, be signed by the owner or include a declaration by the applicant that the applicant has notified the owner about the request.
- (4) Subject to subsection (5), the responsible authority must amend the application in accordance with the request.

(5) The responsible authority may refuse to amend the application if it considers that the amendment is so substantial that a new application for a permit should be made.

(6) The responsible authority must make a note in the register if any amendment is made to an application under this section.

(7) On the amendment of an application under this section-

- (a) the amended application is to be taken-
  - (i) to be the application for the purposes of this Act; and

(ii) to have been received on the day that the request for amendment was received by the responsible authority; and

(b) all objections made in relation to the original application are to be taken to be objections to the amended application.

(8) Nothing in this section affects any right a person may have to make a request under section 87 or 89 in respect of anything done or not done in relation to the original application

## This copied for une or not done in relation to the original application of enabling its consideration and apply to an amended application process under the Planning and Environment Acount and an application The copy must not be used for any other purpase.Box 119, Dallas 3047 Please note that the plan may not be to state Pascoe Vale Rd. BROADMEADOWS



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

## Office Use Only

Application No.:

Date Lodged: / /

## Application for **Planning Permit**

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.

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

## The Land

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

Street Address *	Unit No.:       St. No.: 93       St. Name: KITCHENER ST         Suburb/Locality: BROADMEADOWS       Postcode: 3047
Formal Land Description * Complete either A or B. This information can be found on the certificate of	A Lot No.: 170 OLodged Plan Title Plan Plan of Subdivision No.: 059117 OR
title.	B     Crown Allotment No.:       Parish/Township Name:

## The Proposal

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.

2 For what use, development or other matter do you require a permit? *	3-UNIT DEVELOPMENT CONSTRUCTION OF 3 NEW DWELLINGS
If you need help about the proposal, read: <u>How to Complete the</u> <u>Application for Planning</u> <u>Permit Form</u>	
	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.
3 Estimated cost of development for which the permit is required *	Cost \$912K       Insert '0' if no development is proposed (eg. change of use, subdivision, removal of covenant, liquor licence)
Existing Conditions	
4 Describe how the land is used and developed now *	SINGLE DWELLING

eg. vacant, three dwellings,		
This copile and a this made a	ailable for the sole purpose	
of enabling its consideration and	review as part of a planning	
processinger the Planning and I	Portenta Act the 98 sting condition	ons. Photos are also helpful.
The copy must not be used for <del>ar</del>	ny other purpose.	
Please note that the plan may not	t be to scale.	

## **Title Information**

## 5 Encumbrances on title \*

If you need help about the title, read: <u>How to Complete the</u> <u>Application for Planning</u> <u>Permit Form</u> Does the proposal breach, in any way, an encumbrance on title such as a restrictrive covenant, section 173 agreement or other obligation such as an easement or building envelope?

○ Yes. (If 'yes' contact Council for advice on how to proceed before continuing with this application.)

🔵 No

Not applicable (no such encumbrance applies).

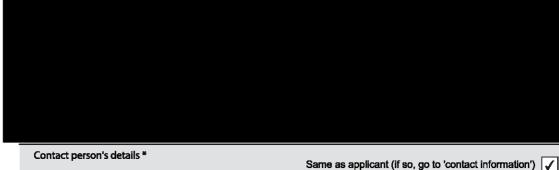
Provide a full, current copy of the title for each individual parcel of land forming the subject site. (The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments', eg. restrictive covenants.)

## Applicant and Owner Details

(6) Provide details of the applicant and the owner of the land.

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

 $\gamma
ight)$  This form must be signed by the applicant \*

A Remember it is against This copied to provide false of insteading information of enabling its consideration and environment Act 1 process under the after its consideration and Environment Act 1 The copy must more after used for any other purpose. Please note that the plan may not be to scale.

information in this application is true a	ind
otified of the permit application.	

Date: 09/02/02024

day / month / year

## 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 <u>http://www.dpcd.vic.gov.au/planning</u>

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	d in the form o	ompletely?			
	🖌 Paid	or included th	e application fee?	Most applications determine the ap	s require a fee to be paid. Contact Council to propriate fee.	
	Provided all necessary supporting information and documents?					
	$\checkmark$	A Full, current co	ppy of title information for ea	ach individual parcel of lar	nd, forming the subject site.	
	$\checkmark$	A plan of the exi	sting conditions.			
	$\checkmark$	Plans showing th	ne layout and details of the	proposal.		
		Any information permit check list		heme, requested by coun	cil or outlined in a council planning	
	$\checkmark$	If required, a des	cription of the likely effect of	of the proposal (eg. traffic,	noise, environmental impacts).	
	✓ Com	pleted the rele	evant Council planning	permit checklist?		
	🖌 Sign	ed the declara	ation (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





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

## PLANNING REPORT ASSESSMENT

93 Kitchener Street, Broadmeadows

Proposed development of three dwellings

Municipality: Hume City Council Planning Application Number: to be confirmed

Applicant: Planning & Design P/L

Dated: 9 February 2024

# **Table of Contents**

01   Proposal
Planning Permit Trigger
02   Site and Surrounds 4
Subject Site
Surrounding Properties
Neighbourhood Context6
The Locality7
Site Opportunities & Constraints
03   Planning Policies and Controls
Planning Policy Framework
Local Planning Policy Framework
Statutory Planning Controls
04   Planning Assessment
Planning Policy Considerations
Zoning and Overlay Considerations
ResCode Considerations14
Access and Car Parking Considerations
Stormwater Considerations
05   Conclusion
06   Appendices
Appendix 1 – ResCode (Clause 55) Assessment15
Appendix 2 - Car Parking Assessment

## 01 Proposal

The proposal involves the development of three double storey dwellings in a General Residential Zone (GRZ1). Key features of the development are summarized below:

## **Dwelling Layout**

- Proposed dwellings are sited in tandem with unit 1 facing onto Kitchener Street.
- All dwellings are designed with traditional living configurations featuring open plan living, meal and kitchen area located on the ground level.
- All units are designed with one bedroom on the ground level and three bedrooms on the first level.

## Vehicle access and car parking

- The existing crossover located to the right end of the street frontage will be modified for vehicle access to unit 2 & 3.
- A new crossover is proposed to the left end of the street frontage for unit 1 vehicle access.
- Unit 1 is designed with a single garage and single car space.
- Unit 2 & 3 are designed with a double garage.

## Landscaping

- Existing trees on site will be removed.
- Comprehensive landscaping will be introduced with new plantings.
- Each dwelling will have direct access to secluded private open space from the living/meals area.

## Setbacks & Building Heights

- Proposed setback of unit 1 is 9.0m from Kitchener Street.
- The overall height of the proposed dwellings is 7.7m to the top of the roof ridge

## Other features

• A new 1.2m front fence is proposed 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.

## **02** Site and Surrounds

## **Subject Site**

The subject site is located to the south side of Kitchener Street. The site has a total area of 801sqm, with a front and rear boundary of 16.52m (north & south) and two side boundaries of 48.6m (west) and 48.77m (east). The site has a fall of approximately 1.0m from north to south. An easement is present along the rear boundary of the site.



The current site contains a detached single storey concrete dwelling with tile roof. It has a setback of approximately 9.1m from Kitchener Street and Court. The garden is low maintenance, with a timber front fence running along the front boundary. A shed is situated to the rear of the dwelling. All existing structures are proposed to be demolished to accommodate the proposed development.

A street tree and power pole are present in the nature strip along Kitchener Street. The existing single crossover located to the right end of the street frontage will be modified to Council's standards.



### **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 north of the site:

#### 91 Kitchener Street

The property is occupied by a single storey concrete dwelling with tile. It is setback approximately 9.4m from Kitchener Street. The front setback consists of a low maintenance front garden with a timber fence running along the front boundary. A crossover is located to the left end of the frontage, connecting to a long concrete driveway that leads to a carport and shed towards the rear of the property.



### To the east of the site:

95 Kitchener Street

The property is occupied by a single storey concrete dwelling with tile roof. The dwelling has a front setback of approximately 13.8m from the street. The front garden is low maintenance, with a wire front fence. A crossover is located to the right end of the street frontage.



## **Neighbourhood Context**

The surrounding area is an established residential area, consists predominantly of post war period dwellings and newer developments. Houses are mostly detached single storey brick dwellings with pitched tile roof. Multi-dwelling developments are common in the neighbourhood. They vary in style, form, and construction era, however, are generally double storey in height.

Garages and carports are commonly recessive in the streetscape, situated to the side or rear of the dwellings. Front fences, when present along the street frontages, are of varying styles and heights. The front setbacks of properties are mostly low maintenance with lawn cover, trees and shrubs. High canopy native and exotic trees are 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 200-900sqm. The setbacks of the dwellings along Kitchener Street in proximity to the subject site range from approximately 2-13m.

Multi-dwelling developments in the neighbourhood includes:



## **The Locality**

Kitchener Street is a local street connecting to Railway Crescent (west) and Goulburn Street (east). The site is located within convenient proximity to various community services and facilities.

## Public Transport services

- Bus service 540 Upfield Broadmeadows via Coolaroo runs nearby on Blair Street.
- Broadmeadows Station is approximately 750m west. Bus interchanges are available at the station for 11 routes.

## Public open space, sport and recreation facilities

- Seabrook Reserve is approximately 950m east.
- Jack Roper Reserve is approximately 1.4km east.
- Anderson Reserve is approximately 1.7km south.
- Broadmeadows Town Park is approximately 2.1km west.
- Broadmeadows Aquatic and Leisure Centre is approximately 2.1km west.

## Education services

- Broadmeadows Primary School is approximately 550m north.
- Hume Central Secondary College is approximately 550m north.
- St Dominic's School is approximately 700m south.
- Penola Catholic College is approximately 1.4km south.
- Glenroy Private is approximately 2.0km south.

## Retail services

- Olsen Place shopping area is approximately 850m south.
- Broadmeadows Central is approximately 1.2km west.
- Dallas shopping area is app is approximately 1.4km north.

## Religious services

• The Uniting Church in Australia is approximately 750m west.

## Health services

- Broadmeadows Medical Centre is approximately 550m south.
- Broadmeadows Hospital is approximately 3.2km west.

## Community services

- Seabrook Reserve Community Hall is approximately 950m east.
- Broadmeadows Library is approximately 1.1km west.

## Emergency and government services

- Australia Post is approximately 2.3km west.
- Hume City Council is approximately 2.5km west.
- Broadmeadows Police Station is approximately 2.4km west.
- Centrelink and Medicare is approximately 2.9km west.

## Site Opportunities & Constraints

Site opportunities and constraints has been identified through an assessment of the site and context. The proposed development has been 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 natural slope of the site will have minimum effect on the development.

## Constraints

- Existing trees on site will need to be removed.
- The site has an easement running along the rear south boundary.
- The property to the east and west contains secluded open space areas in proximity to the common boundary. Overlooking, overshadowing and visual bulk impacts on these areas need to be carefully managed.

## **03** Planning Policies and Controls

## **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 promote 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 Maintain a permanent urban growth boundary around Melbourne to create a more consolidated, sustainable city and protect the values of non-urban land.
- 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.

To achieve building design outcomes that contribute positively to the local context and enhance the public realm.

- Clause 15.01-3S Subdivision design To ensure the design of subdivisions achieves attractive, safe, accessible, diverse and sustainable neighbourhoods.
- Clause 15.01-4S Healthy neighbourhoods
   To achieve neighbourhoods that foster healthy and active living and community wellbeing.
- Clause 15.01-5S Neighbourhood character
   To recognise, support and protect neighbourhood character, cultural identity, and sense of place.
- Clause 15.02-1S Energy and resource efficiency To encourage land use and development that is energy and resource efficient, supports a cooler environment and minimises greenhouse gas emissions.

## Clause 16 Housing, including:

- Clause 16.01-1S Housing supply To facilitate well-located, integrated and diverse housing that meets community needs.
- Clause 16.01-2S 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 planning
   To create a safe and sustainable transport system by integrating land use and transport.
- Clause 18.02-4S Car parking
   To ensure an adequate supply of car parking that is appropriately designed and located.

## Local Planning Policy Framework

The Municipal Strategic Statement (MSS) and Local Planning Policies outline key objectives and strategies of a given municipality and provide specific guidelines for planning, land use and development. The proposal accords with the following key municipal strategies and local policies:

## Clause 21.01 Municipal Profile:

Hume City is one of Melbourne's seven growth area municipalities. It also forms a part of Melbourne's Northern Growth Corridor, which plays a vital role in meeting demands of the growing population. The municipal is a key gateway to the north of Melbourne with great accessibility to the Melbourne CBD, Melbourne Airport and the Port of Melbourne.

## Clause 21.02 Urban Structure and Settlement:

Clause 21.02-1 Managing Growth and Increasing Choice focuses on the diversity and mix use of land for the growing population. Key objectives and strategies of relevance include:

	employment, transport, services and facilities.
Strategy 1.2	Identify strategic development sites with good access to public transport that
	can accommodate increased dwelling densities and provide for smaller
	housing products.
Strategy 1.3	Facilitate high density residential development within and around activity
	centres and train stations.
<i>Objective 2</i>	To ensure that the planning for growth in Hume minimises the impact on the
	environment and heritage.
Strategy 2.1	Ensure biodiversity, landscape, heritage and waterway values are
	appropriately considered during the planning process.
Strategy 2.2	Ensure new development maximises the retention of biodiversity, including
	scattered trees.

## Clause 21.03 Liveable Neighbourhoods and Housing:

Clause 21.03-2 Housing focuses on housing diversity and the increasing demand for smaller dwellings to accommodate the ageing population. Key objectives and strategies of relevance include:

Objective 4	To increase the diversity of housing in Hume.		
Strategy 4.1	Encourage well designed infill residential development that provides smaller		
	housing product.		
Strategy 4.2	Encourage the development of one and two bedroom dwellings.		
Strategy 4.3	Encourage housing that is able to be adapted for different life stages or is suitable for the needs of an ageing household.		

## Clause 21.04 Built Environment and Heritage:

Clause 21.04-1 Urban Design focuses on the appearance, layout and function of the built environment. Key objectives and strategies of relevance include:

<i>Objective 1</i>	To improve the image and appearance of Hume Corridor's established areas and deliver high quality development in new growth areas across Hume.
Strategy 1.3	Ensure development addresses the street and provides an active interface to the public realm, including open space and creek corridors.
<i>Objective 3</i>	To enable well designed medium and higher density residential development that protects the amenity of existing residents and sensitively responds to identified preferred neighbourhood character.
Strategy 3.6	Encourage and support well designed infill residential development in areas characterised by single and double storey detached dwellings.
Strategy 3.8	Encourage front fencing that is low and/or permeable.

Clause 21.04-2 Environmentally Sustainable Design and Development focuses on the sustainability of new developments to be more resilient to the impacts of climate change and more resource, energy and water efficient. Key objectives and strategies of relevance include:

Objective 7	To encourage environmentally sustainable design and development.		
Strategy 7.3	Ensure the design of new subdivisions and the siting of buildings maximises		
	passive solar design principles.		

This copied docologient/is8made atcailable/fort/thecsoflebpt/possee w development to the Urban Heat Island of enabling its consideration and free iew 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.

## Strategy 8.1 Encourage development to maximise the use of permeable surfaces.

## Clause 21.07 Transport Connectivity and Infrastructure:

Clause 21.07-1 Connectivity and Choice focuses on transport connectivity and variety in transport modes. Key objectives and strategies of relevance include:

Objective 4To design high quality, well-connected neighbourhoods which promote<br/>sustainable modes of transport.Strategy 4.1Ensure the design of subdivisions provides a permeable and legible street<br/>network which allows safe and direct pedestrian and cycle access to local

destinations and the major road network.

## **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.

#### Permit Trigger

As identified earlier in this report, a 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.

## 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:

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

## Varied Requirements of Clause 55

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

## Overlay

The land is not affected by any planning overlays.

#### **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 This copied document is made available for the sole putpose cordance with the Municipal Planning Strategy 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. Please note that the plan may not be to scale.

- 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.

Proposal is assessed in accordance with the objectives and standards of Clause 52.06, please refer to Appendix 2.

## 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 More Dwellings on a Lot and Residential Buildings

The Clause (ResCode) applies as a standard guideline to the proposal. Purpose of this clause is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- 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.

Proposal is assessed in accordance with the objectives and standards of Clause 55, please refer to Appendix 1.

## General Provisions

Clause 65 Decision Guidelines 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.

This copied document is made available, for the sole purposes sociated with the location of the land and the of enabling its consideration and provide an argumatic of an planner of a so as to minimise any such hazard. process under the Planning and Environment Act 1987. The copy must not be used for any other purpose. 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 Planning Policy Framework and Local Planning Policy Framework, including the Municipal Strategic Statement. The findings are as follows:

## Urban consolidation

The subject site is situated in an established area with a range of existing infrastructures and services. It is within walking distance to Broadmeadows Activity Centre and public transportation. Furthermore, it has excellent proximity to schools, recreation facilities and other social infrastructure. The high accessibility of the site will encourage residents to use sustainable transport modes such as walking, cycling and public transport. As sought by Clause 11, 18, 21.02 and 21.07 of the planning scheme.

## Housing supply, diversity and affordability

The proposed development has been designed to comply with the managing of change and growth in the residential areas of Hume. The proposal brings a total of three double storey dwellings of different sizing and layout to the area. This will provide greater housing choice and diversity to the neighbourhood. Housing affordability is encouraged as multi-unit developments are relatively more affordable in comparison to low density developments (single dwelling on a similar sized land). As sought by Clause 16 and 21.03 of the planning scheme.

## Neighbourhood character

The proposed development sensitively responds to the interfaces to Kitchener Street and its wider surrounding, making a positive contribution to the locality. The dwellings are a modern, contemporary interpretation of the traditional built form in the area to distinguish the old from the new. The exterior building materials proposed for the dwellings are selected to complement the architectural style and enhance the neighbourhood and streetscape character of the area. The upper floor level footprint is recessed from the ground floor envelope to reduce visual bulk and creates a more gradual transition between the single and double storey built form of the neighbourhood. The layout is designed to incorporate pedestrian safety by providing passive surveillance over the public realm, whilst minimising direct overlooking into the neighbouring property.

The proposed development will enhance the existing landscape character of the area by ensuring sufficient open space is provided to allow for the planting of canopy trees. A new 1.2m front fence is proposed for this development to reinforce the open streetscape character and to allow views to the front gardens. As sought by Clause 15 and 21.04 of the planning scheme.

## **Zoning and Overlay Considerations**

The proposed development meets the purpose of the General Residential Zone in respecting the 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. The copy must not be used for any other purpose. 13 Please note that the plan may not be to scale.

offering good access to services and transport. The design also complies with the minimum garden area requirement by providing 35% of garden area for a block above 650sqm in size.

## **ResCode Considerations**

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

## **Access and Car Parking Considerations**

Each dwelling will meet the requirements of Clause 52.06-5 of the planning scheme in the provision of two car space for three or more bedroom units. Unit 1 is provided with a single garage and car space while unit 2 & 3 are provided with a double garage.

The proposed parking meets the design standard for the safe and efficient movement of vehicles and pedestrians. A new single crossover is proposed to the left end of the frontage to Kitchener Street for unit 1 vehicle access and the existing single crossover situated to the right end of the frontage will be modified for unit 2 & 3 vehicle access. Please refer to Appendix 2 for a detailed assessment of 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 three new dwellings on a lot accords with the state and local policies in the Planning Scheme. It is an appropriate form of infill for the site based on existing development 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.

Neighbourhood character Clause 55.02-1	<b>Complies with standard and objective.</b> Refer to the Neighbourhood and Site Description Plan
Standard B1	The proposed development is appropriate to the neighbourhood and the site. The design respects the neighbourhood character.
	The existing dwelling on site will be removed and three new double story dwellings are proposed to be built. This respects the single and double storey character of the area.
	The proposed dwellings are a modern, contemporary interpretation of the traditional dwelling built form in the area to distinguish the old from the new. They will maintain the predominant built form in the area.
	The building materials proposed for the dwellings 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.
	A new 1.2m front fence is proposed for this development to encourage the open streetscape character. A spacious front setback is provided to allow for planting of canopy trees and shrubs that contribute to the streetscape.
Residential policy Clause 55.02-2 Standard B2	<b>Complies with standard and objective.</b> The proposed development meets the objectives in aspects such as affordable housing and providing for the needs of residents at various stages of life.
	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	Not applicable.
This copied doculinenity's made	available for the sole of mpose exceed ten dwellings. nd review as part of a planning
process under <u>the Planning ar</u> The converget not be used for	
The copy must not be used for Please note that the plan may	

	Infrastructure Clause 55.02-4 Standard B4	<b>Complies with standard and objective.</b> The dwellings are proposed in an established area with appropriate utility services and infrastructure.
	Stanuaru b4	They should also not represent any unreasonable burden on existing services and facilities.
	Integration with the street Clause 55.02-5 Standard B5	<b>Complies with standard and objective.</b> Unit 1 will have direct integration with Kitchener Street and units 2 & 3 will have indirect integration with Kitchener Street.
	Street setback Clause 55.03-1 Standard B6	<b>Complies with standard and objective.</b> Unit 1 will have a front setback of 9.0m from Kitchener Street. This complies with the regulation of having the same distance as the setback of the abutting dwelling or 9m for front setback and 2m for side setback.
	<b>Building height</b> Clause 55.03-2 Standard B7	<b>Complies with standard and objective.</b> The overall total height of the proposed development is 7.7m to the top of the roof ridge. This is less than the limit of 9m 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	<b>Complies with standard and objective.</b> The proposed site coverage is 42.2%, which is less than the allowable 60%.
	<b>Permeability</b> Clause 55.03-4 Standard B9	<b>Complies with standard and objective.</b> The proposed site permeability is 35.1%, which is well above the required 20%. Hard surfaces have been reduced as much as possible to allow for more permeable areas and for landscaping opportunities.
		The proposed development will provide good onsite stormwater infiltration and not cause an increase in storm water runoff.
	Energy efficiency Clause 55.03-5 Standard B10	<b>Complies with standard and objective.</b> The proposal is deemed to achieve a minimum rating of 6 stars as part of the building permit stage.
		The proposed dwellings are sited, oriented and designed to ensure that the energy efficiency of the existing dwellings on abutting properties is not unreasonably reduced.
	<b>Open space</b> 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	<b>Complies with standard and objective.</b> The entrances are not obscured or isolated from the street. They will enable casual surveillance of visitors and the street.
f enabling its o rocess under	onsideration ar the Planning an	at at a property of the provide part of the property of the pr
	t the plan may r	any other purpose. not be to scale.

	Landscaping Clause 55.03-8 Standard B13	<b>Complies with standard and objective.</b> Generous landscaping opportunities for the planting of canopy trees, shrubs and groundcovers are provided in the front setback, along of the accessways and in the secluded private open space of each unit.
	Access Clause 55.03-9 Standard B14	<b>Complies with standard and objective.</b> The existing crossover will be modified for vehicle access to unit 2 & 3 and another new crossover is proposed to the left of the street frontage to allow vehicle access to unit 1.
		The width of the two accessways combined does not exceed 33% of the street frontage for a site with a frontage more than 20cm.
	Parking location Clause 55.03-10 Standard B15	<b>Complies with standard and objective.</b> New vehicle storages for proposed units are close and convenient to each dwelling. Garages are also well ventilated.
	Side and rear setbacks Clause 55.04-1	<b>Complies with standard and objective.</b> The proposed development complies with the side and rear setback as outlined in the standard: <i>1 metre, plus 0.3 metres for every metre of height over 3.6 metres up to 6.9</i>
	Standard B17	metres, plus 1 metre for every metre of height over 6.9 metres.
	Walls on boundaries Clause 55.04-2	Not applicable. A wall is proposed to be built along the east boundary of the site.
	Standard B18	The length of the new wall does not exceed 10m plus 25 per cent 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 an average of 3.2m as suggested by the standard.
F	Daylight to	Complies with standard and objective.
	existing windows Clause 55.04-3 Standard B19	The proposed dwellings are 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	<b>Complies with standard and objective.</b> The proposed dwellings will allow adequate solar access to existing north-facing windows.
	Overshadowing open space Clause 55.04-5	<b>Complies with standard and objective.</b> Refer to the proposed Shadow Diagram.
	Standard B21	Overshadowing to the secluded private open space of the surrounding dwellings due to the proposed dwellings will be minimal and not substantially greater than the extent of shadows cast by the existing boundary fences and outbuildings.
of enabling its c	<b>Ovsitbekati</b> jon ar	available for the sole purpose notomylingwats pantlaftand abjentige. dVEinvironment Act 19937ed to limit overlooking into habitable room windows and
	ot be used for	any other purpose.

	Standard B22	secluded open space of adjacent properties.
		Views from living areas are orientated towards the private open space where possible.
	<b>Internal views</b> Clause 55.04-7 Standard B23	Complies with standard and objective. The proposed dwellings have been designed to limit the 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	<b>Complies with standard and objective.</b> The site is not situated close to any excessively high noise sources, such as a busy road, railway line or industry.
		The proposed development has been 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 dwellings have been designed and sited to take into consideration noise sources on immediately adjacent properties.
	Accessibility Clause 55.05-1 Standard B25	<b>Complies with standard and objective.</b> The proposed dwellings have been designed to take into consideration people with limited mobility. The internal layout and configuration of the proposed dwellings can be altered to accommodate people with limited mobility.
	Dwelling entry	Each dwelling has access to the entrance from the pedestrian links and access ways. Complies with standard and objective.
	Clause 55.05-2 Standard B26	Each dwelling will have its own sense of identity and address. The entrances for the proposed dwellings are appropriately oriented to front onto Kitchener Street and the common driveway.
	Daylight to new windows Clause 55.05-3 Standard B27	<b>Complies with standard and objective.</b> The proposed dwellings have been 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 1m clear to the sky.
	<b>Private open</b> <b>space</b> Clause 55.05-4 Standard B28	<b>Complies with standard and objective.</b> 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 (POS) and minimum 25sqm of secluded private open space (SPOS) with a minimum dimension of 3m.
f enabling its o	onsideration a	available for the sole out posellings is located off living areas, in the rear or side of fiving areas, in the rear or side of fiving areas, in the rear or side of five a planning d Environment Act 1987.
he copy must		any other purpose.

Solar access to open space Clause 55.05-5 Standard B29	<b>Complies with standard and objective.</b> The design has sought to orientate the open space areas to capitalize on the northern aspect as far as applicable.	
<b>Storage</b> Clause 55.05-6 Standard B30	<b>Complies with standard and objective.</b> 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.	
<b>Design detail</b> Clause 55.06-1 Standard B31	<b>Complies with standard and objective.</b> The design detail of the proposed dwellings respects the neighbourhood character of the area.	
	The detailing, massing, and building materials are designed to both enhance and integrate with the streetscape.	
	The garages are designed to be visually compatible with neighbourhood characteristics and form an integral part of each dwelling.	
Front fences Clause 55.06-2 Standard B32	Not applicable. A new 1.2m front fence is proposed for this development.	
<b>Common</b> <b>property</b> Clause 55.06-3 Standard B33	<b>Complies with standard and objective.</b> 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.	
<b>Site services</b> Clause 55.06-4 Standard B34	<b>Complies with standard and objective.</b> 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	<b>Complies with standard and objective.</b>	
Design standard 1	The accessways are functional, with a minimum width of 3m, and corner visibility splays.	
<b>Car parking spaces</b>	Complies with standard and objective.	
Design standard 2	A single garage is at least 6m long and 3.5m wide, and a single car space is at least 4.9m long and 2.6m wide.	
<b>Gradients</b>	Not applicable.	
Design standard 3	The site is relatively flat and accessway grades are not steeper than 1:10 within 5m of the frontage.	
Mechanical parking Design standard 4	Not applicable.	
<b>Urban design</b>	<b>Complies with standard and objective.</b>	
Design standard 5	The garages are designed to be visually compatible with neighbourhood characteristics and from an integral part of the dwelling.	
<b>Safety</b>	<b>Complies with standard and objective.</b>	
Design standard 6	The design of the car parks/accessway provides adequate natural surveillance and pedestrian visibility.	
<b>Landscaping</b>	<b>Complies with standard and objective.</b>	
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.	

## **SITE PHOTOS PROJECT ADDRESS: 93 KITCHENER STREET, BROADMEADOWS**



This ©op[ed doopument|is made available for the sole purpose of enabling its consideration and review as part of a planding ASE REFER TO NEIGHBOURHOOD AND SITE DESCRIPTION PLAN FOR PHOTO VIEW REFERENCES V01-V12 process under the Planning and Environment Act 1987. The copy must not be used for any other purpose. Please note that the plan may hot be to scale.

ADDRESS: 31 ENFIELD AVENUE, PRESTON VIC 3072 PH:03 9018 1529 FAX: 03 9014 7197 EMAIL: admin@planninganddesign.com.au



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

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

Page 1 of 1

VOLUME 08728 FOLIO 980

Security no : 124112537847G Produced 09/02/2024 02:40 PM

#### LAND DESCRIPTION

Lot 170 on Plan of Subdivision 059117. PARENT TITLE Volume 08644 Folio 850 Created by instrument A930970 26/06/1968

#### **REGISTERED PROPRIETOR**

#### ENCUMBRANCES, CAVEATS AND NOTICES



#### DIAGRAM LOCATION

SEE LP059117 FOR FURTHER DETAILS AND BOUNDARIES

#### ACTIVITY IN THE LAST 125 DAYS

NIL

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

Street Address: 93 KITCHENER STREET BROADMEADOWS VIC 3047

#### **ADMINISTRATIVE NOTICES**

NIL

eCT Control 15940N COMMONWEALTH BANK OF AUSTRALIA Effective from 23/05/2023

DOCUMENT END



## The document following this cover sheet is an imaged document supplied by LANDATA®, Secure Electronic Registries Victoria.

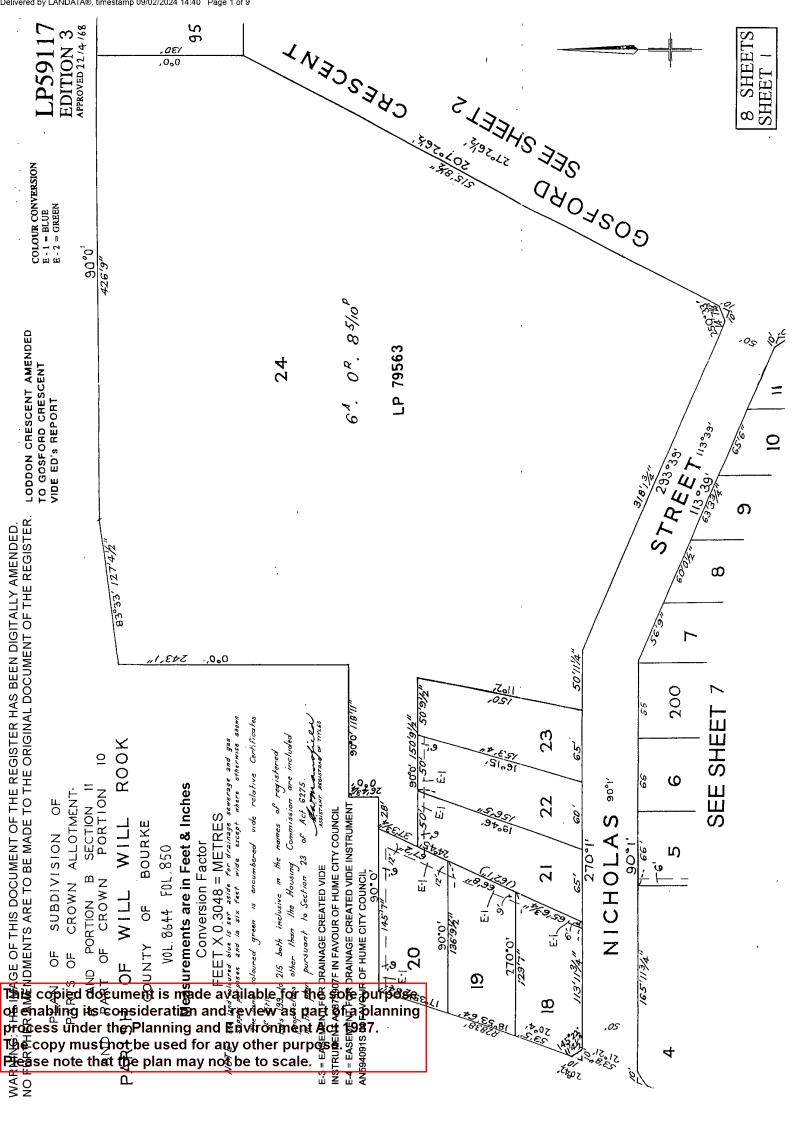
Document Type	Plan
Document Identification	LP059117
Number of Pages	9
(excluding this cover sheet)	
Document Assembled	09/02/2024 14:40

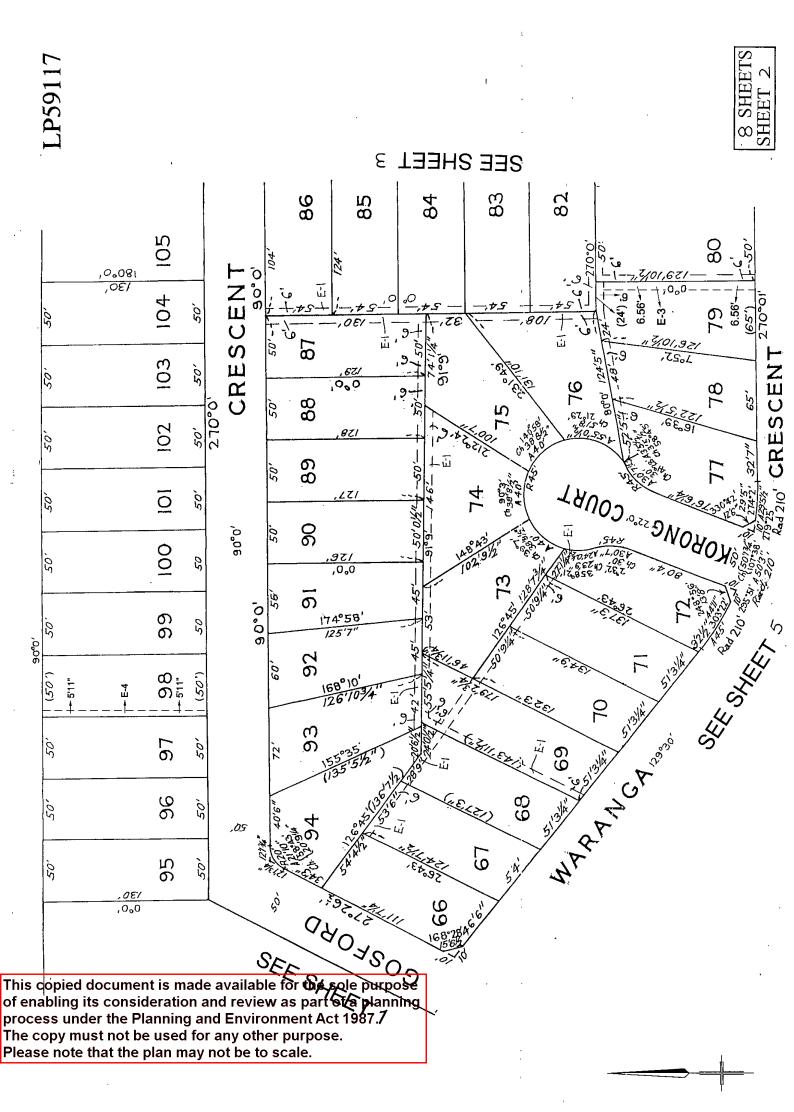
## Copyright and disclaimer notice:

© State of Victoria. This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act 1968 (Cth) and for the purposes of Section 32 of the Sale of Land Act 1962 or pursuant to a written agreement. The information is only valid at the time and in the form obtained from the LANDATA® System. None of the State of Victoria, LANDATA®, Secure Electronic Registries Victoria Pty Ltd (ABN 86 627 986 396) as trustee for the Secure Electronic Registries Victoria Trust (ABN 83 206 746 897) accept responsibility for any subsequent release, publication or reproduction of the information.

The document is invalid if this cover sheet is removed or altered.

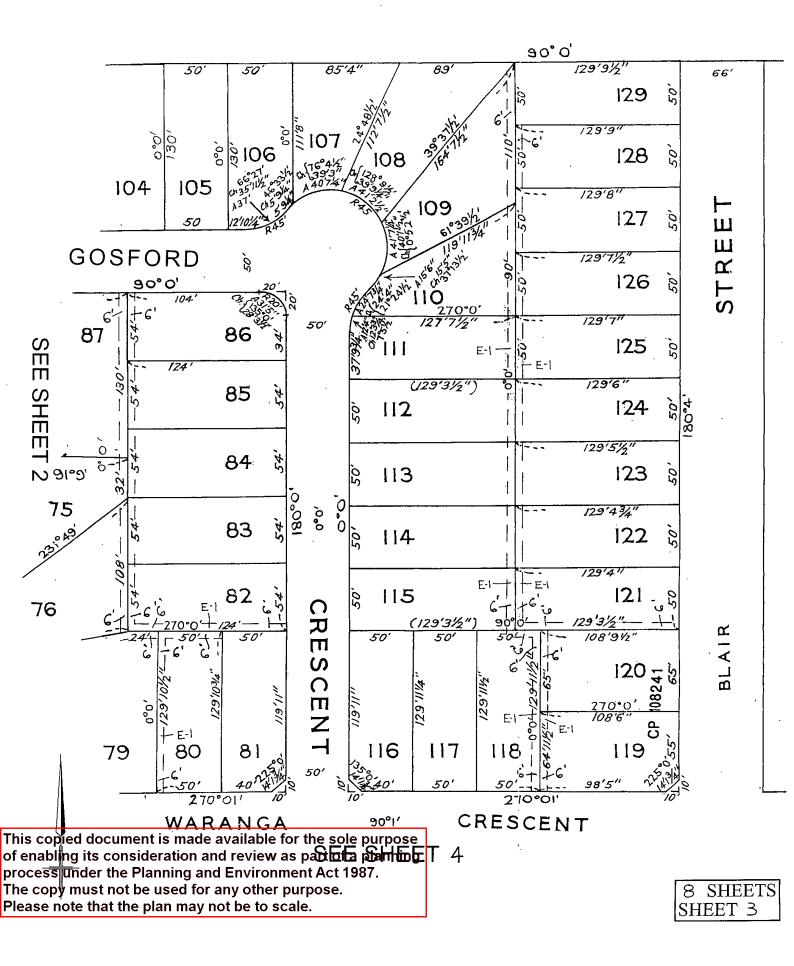
Delivered timestamp 09/02/2024 14:40 Page 1 of 9



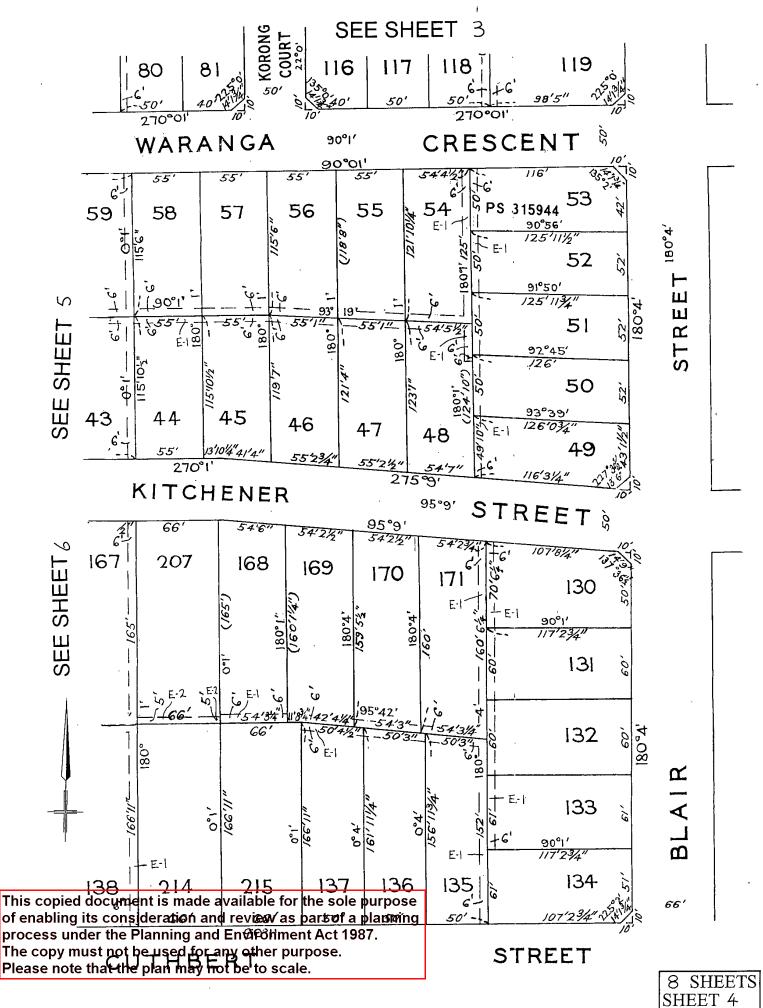


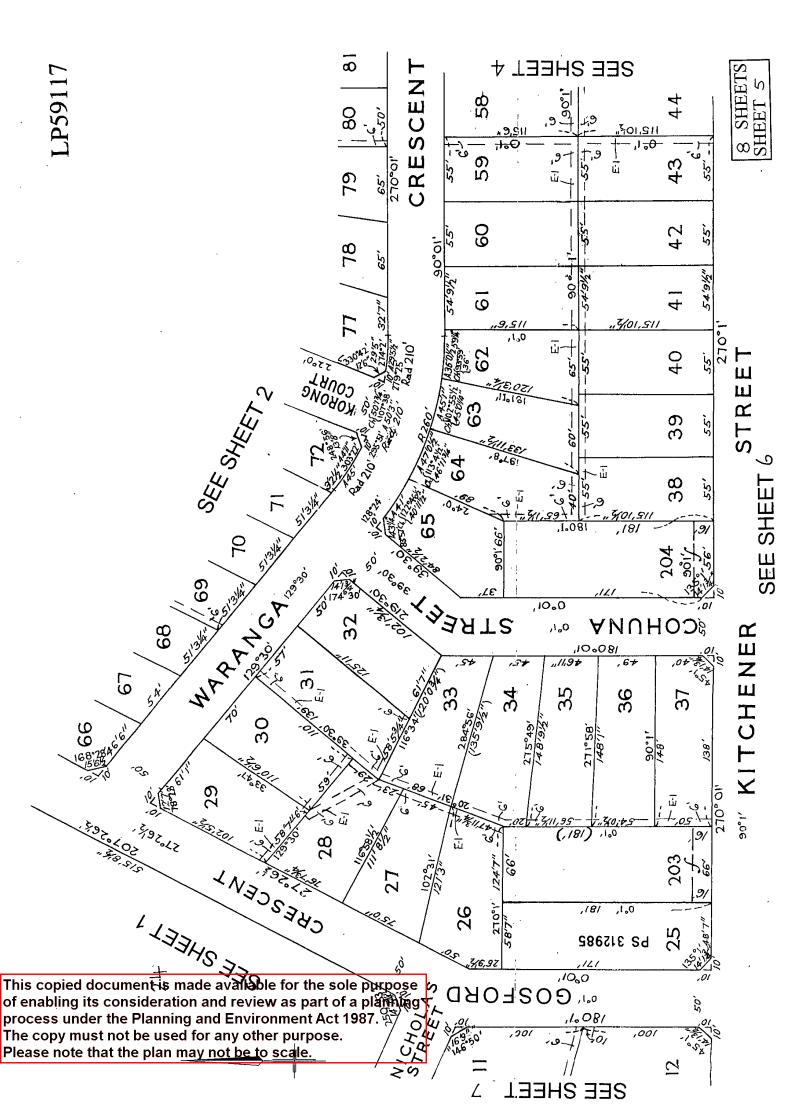
ł

í



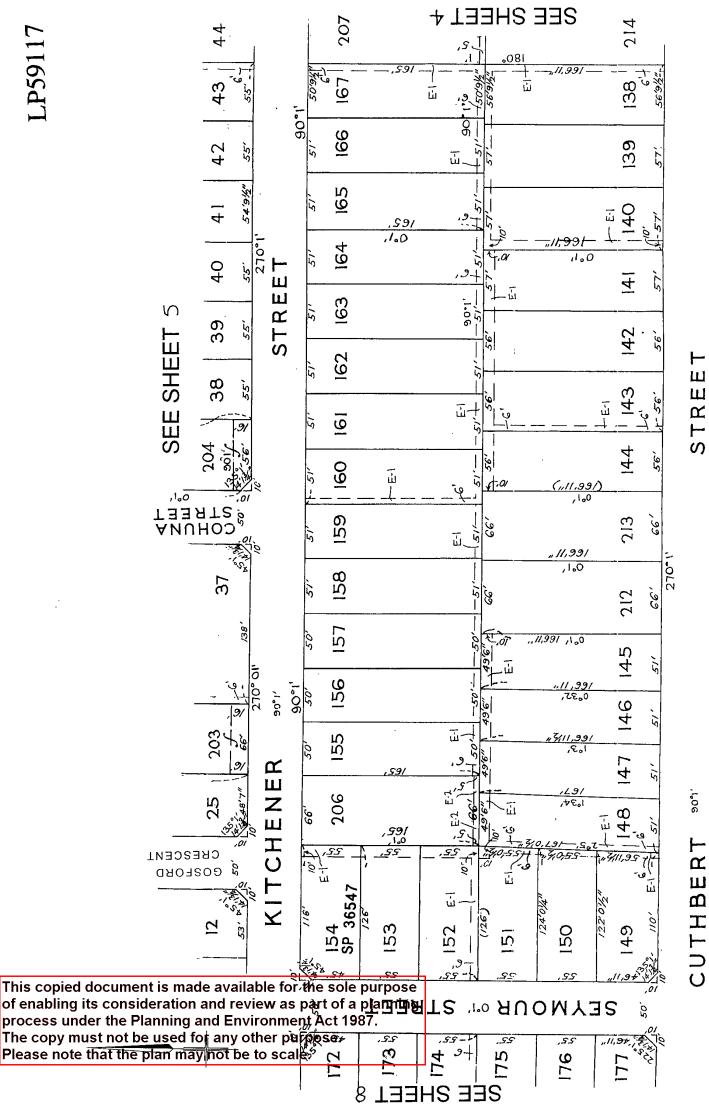
LP59117



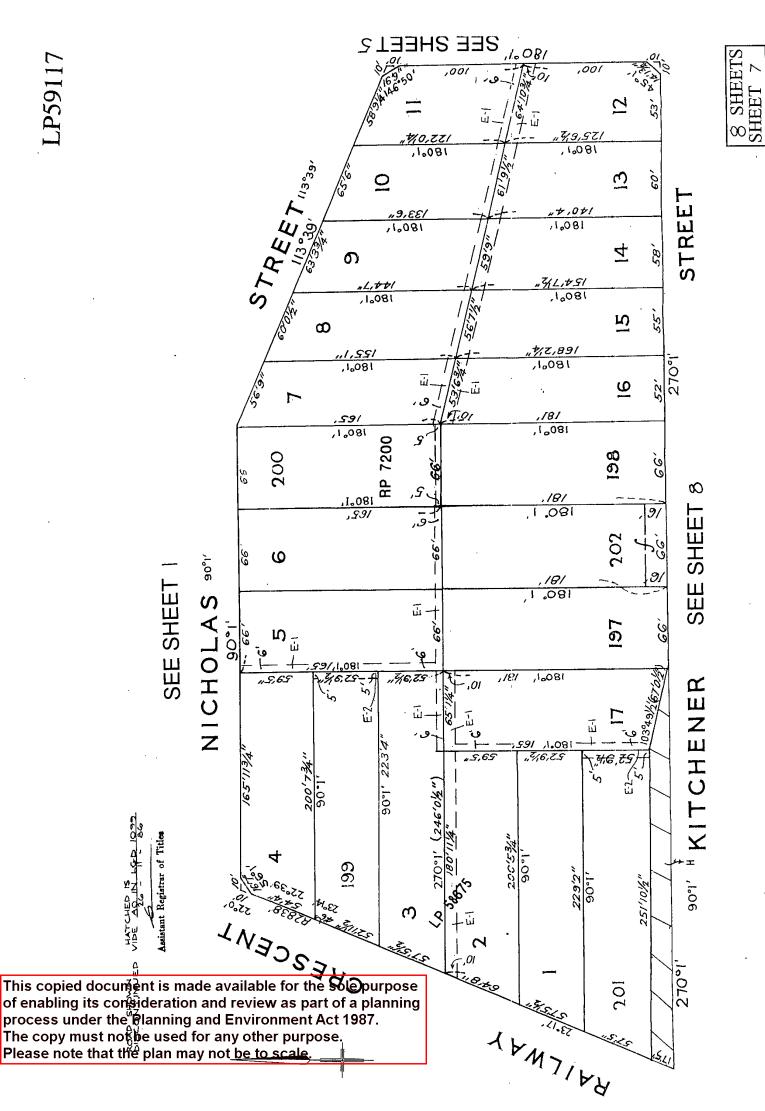


Delivered by LANDATA®, timestamp 09/02/2024 14:40 Page 6 of 9

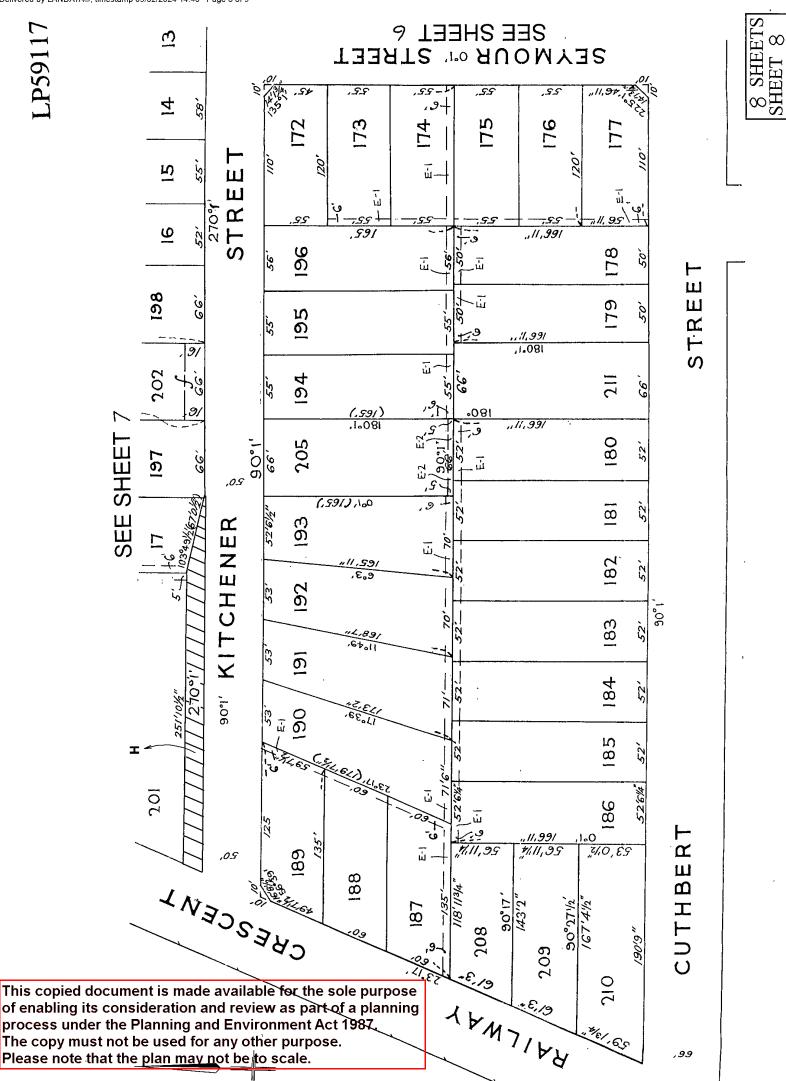




S 8 SHEET 6 SHEET 6 Delivered by LANDATA®, timestamp 09/02/2024 14:40 Page 7 of 9



Delivered by LANDATA®, timestamp 09/02/2024 14:40 Page 8 of 9



# **MODIFICATION TABLE**

RECORD OF ALL ADDITIONS OR CHANGES TO THE PLAN

# **PLAN NUMBER**

# **LP59117**

## WARNING: THE IMAGE OF THIS DOCUMENT OF THE REGISTER HAS BEEN DIGITALLY AMENDED. NO FURTHER AMENDMENTS ARE TO BE MADE TO THE ORIGINAL DOCUMENT OF THE REGISTER.

	AFFECTED LAND/PARCEL	LAND/PARCEL IDENTIFIER CREATED	MODIFICATION	DEALING NUMBER	DATE	EDITION NUMBER	ASSISTANT REGISTRAR OF TITLES
	LOT 79	E-3	CREATION OF EASEMENT	AK875907F	7/2/14	2	LW
	LOT 98	E-4	CREATION OF EASEMENT	AN594091S	12/5/17	3	E.T.H
of enal proces	ling its consider s under the Planr	hing and Environme	part of a planning ent Act 1987.				
The co	<del>by must not be u</del> s	sed for any other pu n may not be to sca	arpose.				



Telephone: 03 9205 2200 Facsimile: 03 9309 0109 www.hume.vic.gov.au

Our File: P25827 Enquiries: Pankhuri Srivastava Telephone: 9205 2200

15 March 2024

Dear Sir/Madam,

# RE: PROPOSED: DEVELOPMENT OF THREE DWELLINGS LOCATED AT: 93 KITCHENER ST BROADMEADOWS VIC 3047

COUNCIL REF: P25827

I refer to your planning permit application received on 9/02/2024. I wish to advise that more information is required before Council will process this application.

The required information is as follows:

- 1. **Stormwater Management Report** Provide stormwater treatment details which incorporate Water Sensitive Urban Design features to maximise stormwater retention, infiltration and reuse on site; and manage and improve the quality of stormwater leaving the site, in accordance with the requirements of Clause 53.18 and Clause 55.03-4 (Permeability and Stormwater Management Objectives). At a minimum, you must provide:
  - A STORM report that achieves a minimum STORM rating of 100%; and
  - Site layout plan that shows roof Catchment areas (pervious and impervious), flow directions with areas (m2), and Location and size of WSUD feature (must be a separate plan to the development plans).

*Please note:* WSUD and STORM reports should take into account all proposed buildings and impervious surfaces (including paths and roofed areas). Council will only accept the following WSUD features for this type of development:

- Rainwater tanks;
- Above ground Rainwater Garden; and
- Permeable driveways/surfaces.

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. The copy must not be used for any other purpose. Please note that ସାହା ଅନ୍ୟାର୍ଥ ନାଇନ ଅନ୍ୟାର Seessment (before RFI)\RFI\BROADMEADOWS - 93 Kitchener Street - RFI.docx\P

- 2. **Sustainable Design Assessment** (SDA) demonstrating the sustainable design features of the proposed development in accordance with Clause 22.21 (Environmentally Sustainable Development) of the Hume Planning Scheme.
- 3. **Site Plan/ Ground floor plan** Amended Site Plan, drawn to scale and fully dimensioned. The plans must clearly show:
  - side setback for Unit 1
  - location of mailboxes
- 4. **Shadow Diagrams** A copy of additional shadow diagrams drawn to a scale for the hours of 10.00am, 11.00 noon 1.00pm and 2.00pm on 22 September. The diagrams must clearly detail the shadow cast by the proposed development on the private open space areas and habitable room windows of the adjoining properties. The plan must include:
  - Existing solar panels on the adjoining lots.
  - Projection from the existing and the proposed fences (preferably in different colour/hatch).
- 5. **Landscape Plan** (prepared by someone suitably qualified) demonstrating that how proposal meets the objectives of Clause 55.03-8.
- 6. Written response Please provide a written response on how the proposal addresses each concern in the RFI.

## **INITIAL CONCERNS:**

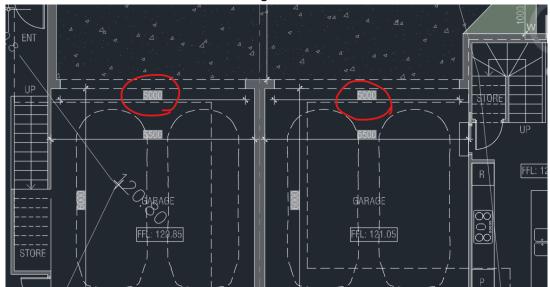
- 1. As per Clause 55.04-1, please increase the side setback for Unit 3 to 2.2m.
- 2. As per Clause 55.03-10, please provide minimum 500mm landscape buffer between Unit 1 and internal accessway.

# OTHER MATTERS

The application was internally referred to both the Traffic and Civil Departments and a response from both is included below. <u>Please provide a point-by-point response for all the issues stated.</u>

# Traffic comments:

- If an access way serves four or more car spaces, the access way must be designed so that vehicles can exit the site in a forward direction. Applicant to provide swept path analysis showing that all vehicles can enter and exit in a forward motion. Swept path analysis to be prepared by a suitably qualified traffic engineering in accordance with AS2890.1. Applicant to update plans and resubmit.
- 2. Garage access width should be a minimum of 5.2 metres for a double garage. As shown in the image below, the garage access widths are detailed as 5 m. Applicant to update plans.



- 3. Any structure or landscaping within visibility splays of driveway (2.0m along front boundary & 2.5m into property) must be no greater than 900mm in height.
- 4. New vehicles crossings and/or modifications to existing vehicle crossings require an application for a 'Consent to Dig in the Road Reserve' permit for a vehicle crossing to be submitted to Council for approval. A copy of the Council endorsed plan showing all vehicle crossing details is to be attached to the application.
- 5. Any service relocation associated with the works are to be approved by the Service Authorities and at the owner's cost.
- 6. Consultation with Council's Parks Team is required due to the proximity of the proposed crossover works to an existing street tree in the nature strip.
- 7. The vehicle crossover must be constructed as per standard drawing EDCM 501 Residential Vehicular Crossing (Single).

# **Civil comments:**

- 1. There is a 1.83m wide drainage easement, which runs along the southern rear boundary of the property. According to Council plans, Council has no assets located within this easement of the property.
  - a. Approval for building works within an easement is required from Council and any other authorities in which the affected easement is vested.
  - b. The construction of a permanent garage, carport or structure within an easement is not permitted.
  - c. Rainwater tanks and/or raingardens are not to be located within the easement.
- 2. An "Application for Stormwater Legal Point of Discharge: Multi-unit Drainage **Investigation**" is required for this development (fees apply). Plans to be submitted to Council's Civil Design section for assessment. This will determine if an on-site detention system, upgrading of Council's existing drainage pipes or new drainage pipes are required by the owners/developers.
- 3. An "Application for Stormwater Legal Point of Discharge: R133 Legal Point of Stormwater Discharge" is required to be submitted to Council with the above Drainage Investigation application.
- 4. According to Council's records, this property is not currently serviced by Council's

	- sting of mouse Operating the importance where
underground stormwater network. Constr	uction of new Council drainage works
This copied document is made available for the sole purpose	
between the subject site and the Council	nominated point of discharge may be
of enabling its consideration and review as part of a planning	
process under the Planning and Environment Act 1987.	
The converse not he used for any other numbers	
The copy must not be used for any other purpose.	
Diagon note that the plan may not be to goale	
Please note that the plan may not be to scale.	

3

required as part of this development at no cost to Council. Such drainage works must be designed by a qualified engineer and submitted to and approved by Council. Computations will also be required to demonstrate that the capacity of Council's drainage network will not be exceeded by the impacts imposed by the new development. Construction of the drainage system must be carried out in accordance with Council specifications and under Council supervision. Fees may apply.

- 5. Stormwater runoff from all areas must be retained within the property and drained to the site's underground internal stormwater system.
- 6. Any cut or fill must not interfere with the natural overland stormwater flow.
- 7. No polluted and / or sediment laden runoff is to be discharged directly or indirectly into Council's drains or watercourses during construction.
- 8. Prior to commencement of any works within the road reserve, an 'Application form for Consent to work within a Hume City Council Road Reserve' is required to be submitted to Council to obtain a permit to carry out the works.
- 9. Any structure proposed to be built over an easement requires Council and relevant service authority's approval prior to the issuing of a building permit.

If the information requested is not received by **18 May 2024** the application will be considered lapsed and a new application and associated fees will be required to be submitted and paid.

If you have difficulty providing the information by the date specified by Council, you can request to extend the date in writing provided it is submitted before the expiry date. Whilst an application may be made to extend the time in which further information is submitted, it does not necessarily mean that Council will approve the request.

If Council refuses to extend the time for providing the required information you may have the right of review to VCAT provided that the application to VCAT is made before the lapse date.

Please contact the writer on the above phone number if you have any further enquiries.

Yours faithfully

Pankhuri Srivastava TOWN PLANNER

# Date: 01st May 2024

Pankhuri Srivastava Hume City Council 301 Hampshire Road Sunshine Vic 3020

Application Number:P25827Address:93 KITCHENER ST, BROADMEADOWS, VIC 3047Proposal:CONSTRUCTION OF THREE TWO STOREY DWELLINGS

# Dear Pankhuri

Please see my response to council's further information request dated 29<sup>th</sup> March 2021.

I addition to the information provided below, please find attached supporting documentation:

- Landscape plan
- SDA Report
- WSUD
- Updated Architectural Plans including
  - o Garden area plans
  - o Shadow diagrams
  - o Elevations
  - o Swept path plan

# We submit the following information for Council's consideration.



Address: 31 Enfield Ave Preston Vic 3072

Mob: 0411 758 381 Ph: 03 9018 1529 Fax: 03 9014 7197

Email: aaron@planninganddesign.com.au

Prelimi	nary Concerns	Assessment	
	Stormwater management report: In accordance with the requirements of Clause 53.18 and Clause 55.03-4, a	1. STORM report achieves ratin refer to TP05.	g of 100%
	STORM report that achieves a minimum STORM rating of 100% Site layout plan that shows roof Catchment areas	Roof plan refer to TP03.	
2.	Sustainable Design Assessment (SDA) Demonstrating the sustainable design features of the proposed development in accordance with Clause 22.21 (Environmentally Sustainable Development) of the Hume Planning Scheme.	2. Refer to new submitted SDA	report.
3.	Site Plan/ Ground floor plan Amended Site Plan, drawn to scale and fully dimensioned. The plans must clearly show: 1. side setback for Unit 1 2. location of mailboxes	<ol> <li>Added setback dimension for Added location of mailboxes Refer to TP01</li> </ol>	Unit 1
4.	Shadow Diagrams	4. Shadow Diagrams of 10.00ar	n, 11.00
The copy mu	A copy of additional shadow diagrams desument is in adreavailable for the ts consideration and review as par leg the Planning and Environment A ust not be weed for any other burge	sole purposition and 2.00pm of t of a planning shadow Diagrams Act 1987. se.	awing.
Please note	that the plan may not be to scale.		

open space areas and habitable room windows of the adjoining properties. The plan must include: • Existing solar panels on the adjoining

Projection from the existing and the

• Projection from the existing and the proposed fences (preferably in different colour/hatch).

5. Landscape Plan

Demonstrating that how proposal meets the objectives of Clause 55.03-8.

- 6. As per **Clause 55.04-1**, please increase the side setback for Unit 3 to 2.2m.
- 7. As per **Clause 55.03-10**, please provide minimum 500mm landscape buffer between Unit 1 and internal access way.

# 8. Swept path analysis

If an access way serves four or more car spaces, the access way must be designed so that vehicles can exit the site in a forward direction. Applicant to provide swept path analysis showing that all vehicles can enter and exit in a forward motion. Swept path analysis to be prepared by a suitably qualified traffic engineering in accordance with AS2890.1.

- 9. **Garage access width** should be a minimum of 5.2 metres for a double garage.
- 10. Any structure or landscaping within **visibility splays of driveway** (2.0m along front boundary & 2.5m into property) must be no greater than 900mm in height.
- 11. New vehicles crossings and/or modifications to existing vehicle crossings require an application for a 'Consent to Dig in the Road Reserve' permit for a vehicle crossing to be submitted to Council for approval. A copy of the Council endorsed plan showing all vehicle crossing details is to be attached to the application.
- 12. Any service relocation associated with the works are to be approved by the Service

- 5. Refer to Landscape Plan TP06
- 6. Changed the side setback for Unit 3 to 2.2m
- 7. Added 500mm landscape buffer between Unit 1 and internal access way.
- 8. Refer to Swept Path Plan.

- 9. Changed garage access width to 5.2 metres for all double garage.
- 10. Notated on Ground floor plan and Landscape plan and keep all structure or landscaping within visibility splays no greater than 900mm in height.
- 11. Please add it in the Permit Conditions.

12. All service relocation associated with the works will be approved by the

<ol> <li>Consultation with Council's Parks Team is required due to the proximity of the proposed crossover works to an existing street tree in the nature strip.</li> </ol>	13. Refer to the amended Ground Floor Plan – TP01
14. The vehicle crossover must be constructed as per standard drawing EDCM 501 – Residential Vehicular Crossing (Single).	14. Changed and notated new vehicle crossover as per standard drawing EDCM 501 – Residential Vehicular Crossing (Single). Refer to amended Ground Floor Plan – TP01

I trust this meets Council requirements and look forward to your approval of amended plan.

Extension of time:

We have provided all information requested as best as we can. If any other further information is required, we request for an extension of time until the 15<sup>th</sup> July 2024 to enable us to provide additional information (only if any required) and to ensure that the application will not lapse.

If you wish to discuss any issues further, please feel free to contact the office

Yours sincerely,

Aaron Wu





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

## **SDA REPORT ASSESSMENT**

93 Kitchener Street, Broadmeadows VIC 3047

Three Unit Townhouse Development

Municipality: Hume City Council

Planning Application Number: P25827

Applicant: Planning & Design P/L

Dated: 27 March 2024

# SDA Summary

This report identifies that the dwellings in this development achieve:

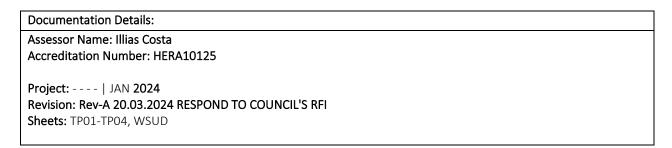
• NatHERS 6.0-star rating & 6.5-star rating average will be achieved as minimum requirement in

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 **93 Kitchener Street, Broadmeadows**. Default Heating & Cooling Values been used to ascertain the heating and cooling loads (shown in Mj/m<sup>2</sup>) 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 **Three double storey unit dwellings** (class 1). The project is Located at **93 Kitchener Street**, **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 <u>minimum</u> of the added insulation values specified in NCC- Part 3.12.1

## External Glazing: NCC - Part 3.12.2

The following performance values need to be achieved for each window system, as specified on plans.

- Double Glazing to Habitable Areas
- Single Glazing or greater to Non-Habitable Areas

# Window and glazed door type and performance

Default\* windows

				Substitution to	lerance ranges
Window ID	Window description	Maximum U-value*	SHGC*	SHGC lower limit	SHGC upper limit
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62
ALM-001-01 A	Aluminium A SG Clear	6.7	0.57	0.54	0.6
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7	0.66	0.74

If Required 'High Solar Gain Low E' Glazing' will be used to achieve the Average Star Rating

# Window and glazed door type and performance

Default\* windows

			200	Substitution to	lerance ranges
Window ID	Window description	Maximum U-value*	SHGC*	SHGC lower limit	SHGC upper limit
ALM-003-03 A	Aluminium A DG Air Fill High Solar Gain Iow-E -Clear	4.3	0.47	0.45	0.49
ALM-004-03 A	Aluminium B DG Air Fill High Solar Gain Iow-E -Clear	4.3	0.53	0.5	0.56
ALM-001-03 A	Aluminium A SG High Solar Gain Low-E	5.4	0.49	0.47	0.51
ALM-002-03 A	Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61

# 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 be 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 pre-programmed times and on variable pre-programmed days; and
- (C) have an average light source efficacy of not less than 60 Lumens/W; or
- (D) be controlled by a motion detector

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

Zones	Maximum W/m <sup>2</sup>
Residence (Class 1)	4.0W/m <sup>2</sup> (a 20% reduction from The NCC allowance)
Garage (Class 10)	2.4W/m <sup>2</sup> (a 20% reduction from The NCC allowance)
Outdoor zones	3.2W/m <sup>2</sup> (a 20% reduction from The NCC allowance)

# NatHERS Assessment - Results

The following table represents the default heating and cooling load of the NatHERS energy assessment. This report identifies that the dwelling achieves the minimum 6-star rating & **6.5-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>
U1- U3	6.5 ☆	96.0	22.0	118.0
AVG:	6.5 ☆			

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		Commitments
Manage	ment:	
	ESD officer present at PRE-APP Meeting: Preliminary NatHERS:(Planning Permit Stage) Building users guide issued:	Not Present NatHERS Ratings not yet Completed (TBC at PP) None Supplied
Water:		
> > > > > > > > > > > > > > > > > > >	Purple Pipe or On-site Water Recycling: Swimming pool: Rainwater Tanks: Bath Size: Fixtures, Fittings & Connections: Showerhead: Kitchen Taps: Bathroom Taps: Dishwashers: WC: WC: Washing Machine: Water Efficient Landscaping:	None None >2000L with <u>Taps</u> , 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
		105
Energy:		
A A A A A A A A A A A	Installing a Solar Photovoltaic (PV) System: Installing Other Renewable Energy System(s): Gas 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 Natural Gas 6.5 Star Average Reverse Cycle Other, 4 Star Refrigerative Space, 4 Star Electric Heat Pump, Band 2 0% Private Clothesline Occupant to Install Motion Sensor Controlled Yes
Stormw	ater:	
	STORM score achieved:	Refer to WSUD Plan (100% Min - 120% Best Practice)
IEQ: (Ir	ndoor Environmental Quality)	
	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
Transpo	ort:	
A A	Secure Bicycle Spaces: Electrical Vehicle Charging:	0 Secure bicycles spaces (One Per Dwelling) GPO Designated for Electric Vehicles
Waste:		
A A	Min. 30% Reuse Existing Building? Management of Food & Garden Waste:	Site is being Fully Redeveloped Not Present
ng its c under f must i	cument is made available for the sole p consideration and review as part of a p the Planning and Environment Act 1983 not be used for any other purpose. t the plan may not be to scale.	lanning

## Urban Ecology:

- Site Vegetation Cover:
- ➢ Green Roofs, Walls:
- Balcony Floor Waste & Tap:
- Food Production:

### Innovation:

Innovative Ideas/Measures Imposed:

None Imposed

35% Vegetated Area

**No Areas Provided** 

No Tap & Floor Waste has been Annotated

None Present

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. The copy must not be used for any other purpose. Please note that the plan may not be to scale. 0%

# **BESS Report**





Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 93 Kitchener St 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.

				Be	st practic	ce 	Excell	ence	_	<b>EO0</b> /
										50%
0% 10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
Project deta	nils									
Address		93 Kitche	ener St Br	oadmeade	ows Victo	orla 3047				
Project no		791594A	9-R1							
<b>BESS Version</b>		BESS-7								
Site type										
Account										
Application no	o	P25827								<b>1174</b> 2
Site area		801.00 m	n²							
		458.80 m								
<b>Building floor</b>	area	438.80 II	ne							
Building floor Date	area	458.80 m 22 March	-							
-	ion	22 March 1.8.1-B.4	h 2024 407	our devel	opment	Ma	ximum av	ailable		
Date Software versi Performance	ion e by ca	22 March 1.8.1-B.4	h 2024 407 • Yo	our devel	opment	Ma	ximum av	ailable		
Date Software versi Performance	ion e by ca	22 March 1.8.1-B.4	h 2024 407 • Yo	our devel	opment	Ma	ximum av	ailable		
Date Software versi Performance Category	ion e by ca Weight	22 March 1.8.1-B.4 Itegory Score Pa	• 2024 407 • Yo ass	our devel	opment	Ma	ximum av	ailable		
Data Software versi Performance Category Management	ion e by ca Weight 5%	22 March 1.8.1-B.4 Itegory Score Pa 0%	• 2024 407 • Yo ass	our devel	opment	Ma	ximum av	ailable		
Date Software versi Performance Category Management Water	ion e by ca Weight 5% 9%	22 March 1.8.1-B.4 tegory Score Pa 0%	• 2024 407 • Yo ass	our devel	opment	Ma	ximum av	ailable		
Date Software versi Performance Category Management Water Energy	ion e by ca Weight 5% 9% 28%	22 March 1.8.1-B.4 itegory Score Pa 0% 50% 55%	• 2024 407 • Yc 255	our devel	opment	Ma	ximum av	ailable		
Date Software versi Performance Category Management Water Energy Stormwater	e by ca Weight 5% 9% 28% 14%	22 March 1.8.1-B.4 Itegory Score Pa 0% 50% 55% 100%	• 2024 407 • Yc 255	our devel	opment	Ma	ximum av	ailable		
Date Software version Performance Category Management Water Energy Stormwater IEQ	lon e by ca Weight 5% 9% 28% 14% 17%	22 March 1.8.1-B.4 itegory Score Pa 0% 55% 100% 60%	• 2024 407 • Yc 255	our devel		Ma	ximum av	ailable		
Date Software versi Performance Category Management Water Energy Stormwater IEQ Transport	e by ca Weight 5% 28% 14% 17% 9% 6%	22 March 1.8.1-B.4 tegory Score Pa 0% 55% 100% 55% 50%	• 2024 407 • Yc 255	our devel	opment	Ma	ximum av	ailable		
Date Software version Performance Category Management Water Energy Stormwater IEQ Transport Waste	e by ca Weight 5% 28% 14% 17% 9% 6%	22 March 1.8.1-B.4 <b>Score Pa</b> 0% 50% 100% 50% 0% 50% 0%	<ul> <li>You</li> <li>You</li></ul>						e purp	oose
Date Software versi Category Management Water Energy Stormwater IEQ Transport Waste Urban Ecology	e by ca Weight 5% 9% 28% 14% 17% 9% 6% 6% doct	22 March 1.8.1-B.4 <b>Score Pa</b> 0% 50% 55% 100% 50% 0% 50% 0% 50% 0% 50% 0% 50% 0% 50%	• Yo ass • Yo ass • Yo ass • Yo • Yo • Yo • Yo • Yo • Yo • Yo • Yo	nade a	availa d rev	able 1	for the	e sol rt of	a plan	

BESS, 93 Kitchener St, Broadmeadows VIC 3047, Australia 93 Kitchener St, Broa...

### Dwellings & Non Res Spaces

Dwellings				
Name	Quantity	Area	% of total area	
Townhouse				
Unit 2	1	157 m <sup>2</sup>	34%	
Unit 1	1	152 m <sup>2</sup>	33%	
Unit 3	1	149 m <sup>2</sup>	32%	
Total	3	458 m <sup>2</sup>	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	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		-
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	EQ 2.2 A list of dwellings with natural cross flow ventilation		-
IEQ 3.1	Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)		-

#### **Credit summary**

	0%
1.1 Pre-Application Meeting	0%
2.2 Thermal Performance Modelling - Multi-Dwelling Residential	0%
4.1 Building Users Guide	0%

BESS, 93 Kitchener St. Broadmeadows VIC 3047, Australia 93 Kitchener St. Broa...

#### Water Overall contribution 9.0%

	Minimu	m required 50%	50% 🗸 Pass	
1.1 Potable Water Use Reduction			40%	
3.1 Water Efficient Landscaping			100%	

#### Energy Overall contribution 27.5%

	Minimum	required 50%	55%	✓ Pass
1.2 Thermal Performance Rating - Residential			16%	
2.1 Greenhouse Gas Emissions			100%	
2.2 Peak Demand			0%	
2.3 Electricity Consumption			100%	
2.4 Gas Consumption			N/A	Scoped Out
			No	gas connection in use
2.5 Wood Consumption			N/A	Scoped Out
			No wood h	neating system present
2.6 Electrification			100%	
3.2 Hot Water			100%	
3.3 External Lighting			100%	
3.4 Clothes Drying			100%	
3.5 Internal Lighting - Houses and Townhouses			100%	
4.4 Renewable Energy Systems - Other			0%	Ø Disabled
		No other (non	-solar PV) rene	wable energy is in use.
4.5 Solar PV - Houses and Townhouses			0%	Ø Disabled
		N	o solar PV rene	wable energy is in use.

#### Stormwater Overall contribution 13.5%

	Minimum required 100%	100%	<ul> <li>Pass</li> </ul>
1.1 Stormwater Treatment		100%	

#### IEQ Overall contribution 16.5%

	Minimum required 50%	60%	<ul> <li>Pass</li> </ul>
2.2 Cross Flow Ventilation		100%	
3.1 Thermal comfort - Double Glazing		100%	
3.2 Thermal Comfort - External Shading		0%	
s. Copied document is made available for	the sole nurnose	0%	
enabling its consideration and review as cess under the Planning and Environme	part of a planning		

The copy must not be used for any other purpose. Please note that the plan may not be to scale ce for a Sustainable Built Environment (CASBE).

BESS, 93 Kitchener St, Broadmeadows VIC 3047, Australia 93 Kitchener St, Broa...

#### Transport Overall contribution 9.0%

	50%
1.1 Bicycle Parking - Residential	0%
1.2 Bicycle Parking - Residential Visitor	N/A 💠 Scoped Out
	Not enough dwellings.
2.1 Electric Vehicle Infrastructure	100%

#### Waste Overall contribution 5.5%

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

#### Urban Ecology Overall contribution 5.5%

	50%	
2.1 Vegetation	100%	
2.2 Green Roofs	0%	
2.3 Green Walls and Facades	0%	
2.4 Private Open Space - Balcony / Courtyard Ecology	0%	
3.1 Food Production - Residential	0%	

#### Innovation Overall contribution 9.0%

	0%
1.1 Innovation	0%

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.	
The copy must not be used for any other purpose.	
Pleaset note that the liplan may not be to scale to a Sustainable Built Enviro	nment (CASBE).

#### Credit breakdown

#### Management Overall contribution 0%

1.1 Pre-Application Meeting	0%
Score Contribution	This credit contributes 50.0% towards the category score.
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic
	design to construction? AND Has the ESD professional been involved in a pre-
	application meeting with Council?
Question	Criteria Achieved ?
Project	No
2.2 Thermal Performance Modelli Residential	ing - Multi-Dwelling 0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Have preliminary NatHERS ratings been undertaken for all thermally unique dwellings?
Question	Criteria Achieved ?
Townhouse	No
4.1 Building Users Guide	0%
Score Contribution	This credit contributes 16.7% towards the category score.
Criteria	Will a building users guide be produced and issued to occupants?
Question	Criteria Achieved ?
Project	No

#### Water Overall contribution 4% Minimum required 50%

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	No
recycling system?: Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes
	100
Water fixtures, fittings and connections	
Showerhead: All	4 Star WELS (>= 4.5 but <= 6.0)
Bath: All	Default or unrated
Kitchen Taps: All	>= 5 Star WELS rating
Bathroom Taps: All Dishwashers: All	>= 5 Star WELS rating
WC: All	Default or unrated Default or unrated
Urinals: All	Scope out
Washing Machine Water Efficiency: All	Occupant to Install
Washing Wachine Water Enciency. An Which non-potable water source is the dwelling/space	
connected to?:	
Unit 1	RWT 1
Unit 2	RWT 2
Unit 3	RWT 3
Non-potable water source connected to Toilets: All	Yes
Non-potable water source connected to Laundry (washing	No
machine): All	
Non-potable water source connected to Hot Water System:	All No
Rainwater Tanks	
What is the total roof area connected to the rainwater tank?:	
RWT 1	53.8 m <sup>2</sup>
RWT 2	53.1 m <sup>2</sup>
RWT 3	95.6 m <sup>2</sup>
Tank Size:	
RWT 1	2,000 Litres
RWT 2	2,000 Litres
RWT 3	2,000 Litres
Irrigation area connected to tank:	
RWT 1	56.0 m <sup>2</sup>
RWT 2	40.4 m <sup>2</sup>
RWT 3	47.4 m <sup>2</sup>
Is connected irrigation area a water efficient garden?:	
opied document is made available for bling its consideration and review as	
sa,under the Planning and Environme	
by must not be used for any other pl	

Other external water demand connect	ted to tank?:
RWT 1	-
RWT 2	-
RWT 3	-
1.1 Potable Water Use Reduction	40%
Score Contribution	This credit contributes 83.3% towards the category score.
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances,
	rainwater use and recycled water use? To achieve points in this credit there must be
	>25% potable water reduction.
Output	Reference
Project	687 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	592 kL
Output	Proposed (including rainwater and recycled water use)
Project	495 kL
Output	% Reduction in Potable Water Consumption
Project	27 %
Output	% of connected demand met by rainwater
Project	60 %
Output	How often does the tank overflow?
Project	Sometimes
Output	Opportunity for additional rainwater connection
Project	219 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

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.	
The copy must not be used for any other purpose.	
Please note that the iplan may not be to scale nee for a Sustainable Built Enviro	nment (CASBE).

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

Dwellings Energy Approach		
What approach do you want to use for	or Energy?:	Use the built in calculation tools
Project Energy Profile Question		
Are you installing any solar photovolt	aic (PV) system(s)?:	No
Are you installing any other renewabl	e energy system(s)?:	No
Energy Supply:		All-electric
Dwelling Energy Profiles		
Below the floor is: All		Ground or Carpark
Above the ceiling is: All		Outside
Exposed sides:		
Unit 1		3
Unit 3		
Unit 2		2
NatHERS Annual Energy Loads - Hea	it: All	96.0 MJ/sqm
NatHERS Annual Energy Loads - Coo	ol: All	22.0 MJ/sqm
NatHERS star rating: All		6.5
Type of Heating System: All		Reverse cycle central other
Heating System Efficiency: All		4 Star
Type of Cooling System: All		Refrigerative space
Cooling System Efficiency: All		4 Stars
Type of Hot Water System: All		Electric Heat Pump Band 2
Clothes Line: All		Private outdoor clothesline
Clothes Dryer: All		Occupant to Install
1.2 Thermal Performance Rating -	Residential	16%
Score Contribution	This credit contrib	putes 30.0% towards the category score.
Criteria	What is the avera	ge NatHERS rating?
Output		S Rating (Weighted)
Townhouse	6.4 Stars	
2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contrib	putes 10.0% towards the category score.
Criteria	What is the % rec	duction in annual greenhouse gas emissions against the benchmarl
Output	Reference Buildin	g with Reference Services (BCA only)
Townhouse	32,660 kg CO2	
Output	Proposed Buildin	g with Proposed Services (Actual Building)
Townhouse	9,948 kg CO2	
Output	% Reduction in G	and Emissions
Townhouse	69 %	

BESS, 93 Kitchener St, Broadmeadows VIC 3047, Australia 93 Kitchener St, Broa...

Score Contribution	This credit contributes 5.0% towards the category score.
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?
Output	Peak Thermal Cooling Load - Baseline
Townhouse	39.7 kW
Output	Peak Thermal Cooling Load - Proposed
Townhouse	39.9 kW
Output	Peak Thermal Cooling Load - % Reduction
Townhouse	-1 %
2.3 Electricity Consumption	100%
Score Contribution	This credit contributes 10.0% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
Output	Reference
Townhouse	32,020 kWh
Output	Proposed
Townhouse	9,753 kWh
Output	Improvement
Townhouse	69 %
2.4 Gas Consumption	N/A 💠 Scoped
This credit was scoped out	No gas connection in use
2.5 Wood Consumption	N/A 💠 Scoped
This credit was scoped out	No wood heating system present
2.6 Electrification	100%
Score Contribution	This credit contributes 10.0% towards the category score.
Criteria	Is the development all-electric?
Question	Criteria Achieved?
Project	Yes
3.2 Hot Water	100%
Score Contribution	This credit contributes 5.0% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the ho
	water system against the benchmark?
Output	Reference
Townhouse	45,113 MJ
Output	Proposed
Townhouse	10,546 MJ
Output	Improvement
· · · · · · · · · · · · · · · · · · ·	nade available for the sole purpose

BESS, 93 Kitchener St. Broadmeadows VIC 3047, Australia 93 Kitchener St. Broa...

3.3 External Lighting		100%		
Score Contribution	This credit contributes 5.0% towards the category score.			
Criteria	Is the external lighting controlled by a motion detector?			
Question	Criteria Achieved ?			
Townhouse	Yes			
3.4 Clothes Drying		100%		
Score Contribution	This credit contributes 5.0% towards the category score.			
Criteria	What is the % reduction in annual energy consumption (ga	as and elect	ricity) fro	om a
	combination of clothes lines and efficient driers against the	e benchmar	k?	
Output	Reference			
Townhouse	2,037 kWh			
Output	Proposed			
Townhouse	407 kWh			
Output	Improvement			
Townhouse	80 %			
3.5 Internal Lighting - Houses	and Townhouses	100%		
Score Contribution	This credit contributes 5.0% towards the category score.			
Criteria	Does the development achieve a maximum illumination po less?	wer density	of 4W/	sqm or
Question	Criteria Achieved?			
Townhouse	Yes			
4.4 Renewable Energy System	is - Other	0%	0	Disable
This credit is disabled	No other (non-solar PV) renewable energy is in use.			
4.5 Solar PV - Houses and Tov	vnhouses	0%	0	Disabled
This credit is disabled	No solar PV renewable energy is in use.			

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

Which stormwater modelling are yo	u using?: Melbourne Water STORM tool
1.1 Stormwater Treatment	100%
Score Contribution	This credit contributes 100.0% towards the category score.
Criteria	Has best practice stormwater management been demonstrated?
Question	STORM score achieved
Project	103
Output	Min STORM Score
Project	100

IEQ

Overall contribution 10% Minimum 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 ?
	Townhouse	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 ?
	Townhouse	Yes
	3.2 Thermal Comfort - External Shadin	<b>g</b> 0%
	3.2 Thermal Comfort - External Shadin Score Contribution	This credit contributes 20.0% towards the category score.
	Score Contribution	This credit contributes 20.0% towards the category score.
	Score Contribution Criteria	This credit contributes 20.0% towards the category score. Is appropriate external shading provided to east, west and north facing glazing?
	Score Contribution Criteria Question	This credit contributes 20.0% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ?
	Score Contribution Criteria Question Townhouse	This credit contributes 20.0% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ? No
- - - - - - - - - - - - - - - - - - -	Score Contribution Criteria Question Townhouse 3.3 Thermal Comfort - Orientation	This credit contributes 20.0% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ? No 0%
	Score Contribution Criteria Question Townhouse 3.3 Thermal Comfort - Orientation Score Contribution	This credit contributes 20.0% towards the category score. Is appropriate external shading provided to east, west and north facing glazing? Criteria Achieved ? No 0% This credit contributes 20.0% towards the category score.

#### Transport Overall contribution 4%

	0%		
This credit contributes 50.0% towards the categor	y score.		
How many secure and undercover bicycle spaces	are there per dwo	elling fo	or residents?
Bicycle Spaces Provided ?			
0			
isitor	N/A	¢	Scoped Out
Not enough dwellings.			
	100%		
This credit contributes 50.0% towards the categor	y score.		
Are facilities provided for the charging of electric ve	ehicles?		
Criteria Achieved ?			
Yes			
	How many secure and undercover bicycle spaces Bicycle Spaces Provided ? 0 isitor Not enough dwellings. This credit contributes 50.0% towards the categor Are facilities provided for the charging of electric ve Criteria Achieved ?	This credit contributes 50.0% towards the category score. How many secure and undercover bicycle spaces are there per dwe Bicycle Spaces Provided ? 0 isitor N/A Not enough dwellings. 100% This credit contributes 50.0% towards the category score. Are facilities provided for the charging of electric vehicles? Criteria Achieved ?	This credit contributes 50.0% towards the category score. How many secure and undercover bicycle spaces are there per dwelling for Bicycle Spaces Provided ? 0 isitor N/A  Not enough dwellings. 100% This credit contributes 50.0% towards the category score. Are facilities provided for the charging of electric vehicles? Criteria Achieved ?

#### Waste Overall contribution 0%

1.1 - Construction Waste - B	uilding 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 p the existing building been re-used?	previously developed, has at least 30% of
Question	Criteria Achieved ?	
Project	No	
2.1 - Operational Waste - Fo	od & Garden Waste	0%
Score Contribution This credit contributes 50.0% towards the category score.		egory score.
Criteria	Are facilities provided for on-site management of food and garden waste?	
Question	Criteria Achieved ?	
Project	No	

#### **Urban Ecology** Overall contribution 3%

2.1 Vegetation	100%
Score Contribution	This credit contributes 50.0% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the
	total site area?
Question	Percentage Achieved ?
Project	35 %
2.2 Green Roofs	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	No
2.3 Green Walls and Facades	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	No
2.4 Private Open Space - Bale	cony / Courtyard Ecology 0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Is there a tap and floor waste on every balcony / in every courtyard?
Question	Criteria Achieved ?
Townhouse	No
3.1 Food Production - Reside	ntial 0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	What area of space per resident is dedicated to food production?
Question	Food Production Area
Townhouse	• · · · ·
Output	Min Food Production Area
Townhouse	3 m <sup>2</sup>

#### Innovation Overall contribution 0%

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

#### Disclaimer

This copied document is made available for the sole purpose munication. While we make every effort of enabling a try constitue the provision of professional advice before at planning way constitute the provision of professional 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 tro scale or a Sustainable Built Environment (CASBE). BESS, 93 Kitchener St. Broadmeadows VIC 3047, Australia 93 Kitchener St. Broa...

The Municipal Association of Victoria (MAV) and CASBE (Council Alliance for a Sustainable Built Environment) member councils do not guarantee, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of BESS, any material contained on this website or any linked sites

#### 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.

THE TANKS MUST BE USED ONLY FOR REUSE WITHIN THE OWELLINGS. AND ARE COMPLETELY INDEPENDENT OF ANY DETENTION REQUIREMENTS (THROUGH THE LEGAL POINT OF DISCHARGE PROCESS)

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

RAINGARDENS TO BE BUILT MINIMUM SOOMM 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 THE HINK DESIGN OF THE OTOMINATION STOLEN THAT HILL HILL BOOM DRAINAGE ENGINEERS' REQUIREMENTS. THE DESIGNED SYSTEM COMPLIES WITH MELBOURNE WATER STORM REQUIREMENTS THAT MEETS VICTORIAN BEST PRACTICE STORMWATER GUIDELINES

MAINTENANCE	GUIDELINES	(EVERY 3-6 MONTHS)
rainwater Tanks:	IF SLUDGE IS PRESE	NLET TO BE CLEANED REGULARLY. INT, TANKS MUST BE DRAINED BY MBER AND CLEANED
GUTTERS AND DOWNPIPES:	TO BE INSPECTED A	ND CLEANED REGULARLY.
FIRST FLUSH DEVICES:	IF APPLICABLE, TO E	EINSPECTED AND CLEANED REGULARLY.

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.

#### PERMEABLE DRIVEWAY DETAIL



UNIT 3 OK. AD RADD PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PRO-H PR
RUPLOY ROOFING ROOFING ROOFING ROOF AT TWIK ROOF AT TWIK ROOF AT TWIK ROOF AT TWIK ROOF AT TWIK ROOF AT TWIK ROOFING RELEATE ROOFING RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE RELEATE R

4	Melbourn Water	<sup>e</sup> STORM F	Rating Repo	rt			
Treatment Application	Water	1991 16 200 19 20 1983 3					
* This treatment is to be specified							
uhara which kading un	TransactionID:		0				
The transmet is sublisite for trainertial citizeness.	Municipality:	HUME	•				
	Rainfall Station:	HUME					
	Address:	93 KITCHENER					
	, taurose.	STREET					
MEMERALE RUNNIC		BROADMEADOWS					
Hardtowshift 31 Stor April Repriment asystochig to		VIC	3047				
and a second sec	Assessor	AARON WU					
	Development Type:	Residential - Multiunit					
	Allotment Site (m2):	801.0	10				
EESTING CONCEPT     Galaxies All Turns tas beed	STORM Rating %:	103					
into acciting careerine ig 300 nm db	oronaning to.						
	Description	Impervious Area (m2	) Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability
	U1 Roof - Tank	53.8	80 Rainwater Tank	2,000.00	4	170.00	82.00
	U1 Roof - Raingarden	56.0		1.00	0	126.20	0.00
	U2 Roof - Tank	53.1	10 Rainwater Tank	2,000.00	4	170.00	82.00
	U2 Roof - Raingarden	40.4	10 Raingarden 100mm	1.00	0	130.25	0.00
	U2 Roof - Untreated	17.9		0.00	0	0.00	0.00
	U3 Roof - Tank	95.6	60 Rainwater Tank	2,000.00	4	160.40	81.40
PORCUS CONCRETE Educamental laura 2014 of cell	U3 Roof - Untreated	18.1	10 None	0.00	0	0.00	0.00
Fagiperiese age to previously	Common Driveway -	78.9	0 None	0.00	0	0.00	0.00
GIOTOTULI · JBWCB							
document is made available	U1 Drveway - Untreated	30.1	10 None	0.00	0	0.00	0.00
d document is made available	for the sole p	urpose					
ig its consideration and review	Date Generated	20-Mar-202	24			Program Version:	



AREA SCHEDULE

77.0m² 25.5m² 2.0m² 75.4m² 19.580 180.0m²

WIDE SOLANI TALL SOLANI PLANTER BOX RAI ARDEN CROSS SECTION



# KEEPING OUR STORMWATER CLEAN

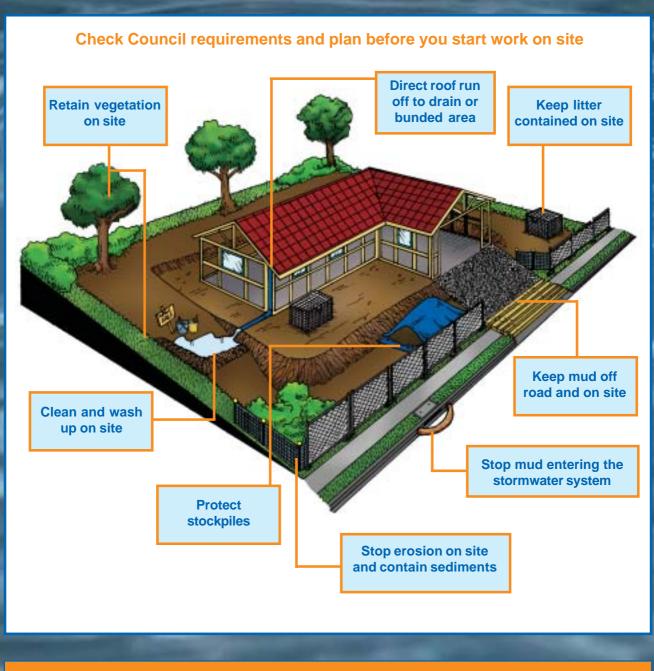
# A BUILDER'S GUIDE

Information to help you control sediment and litter from your building site and comply with Council and State regulations

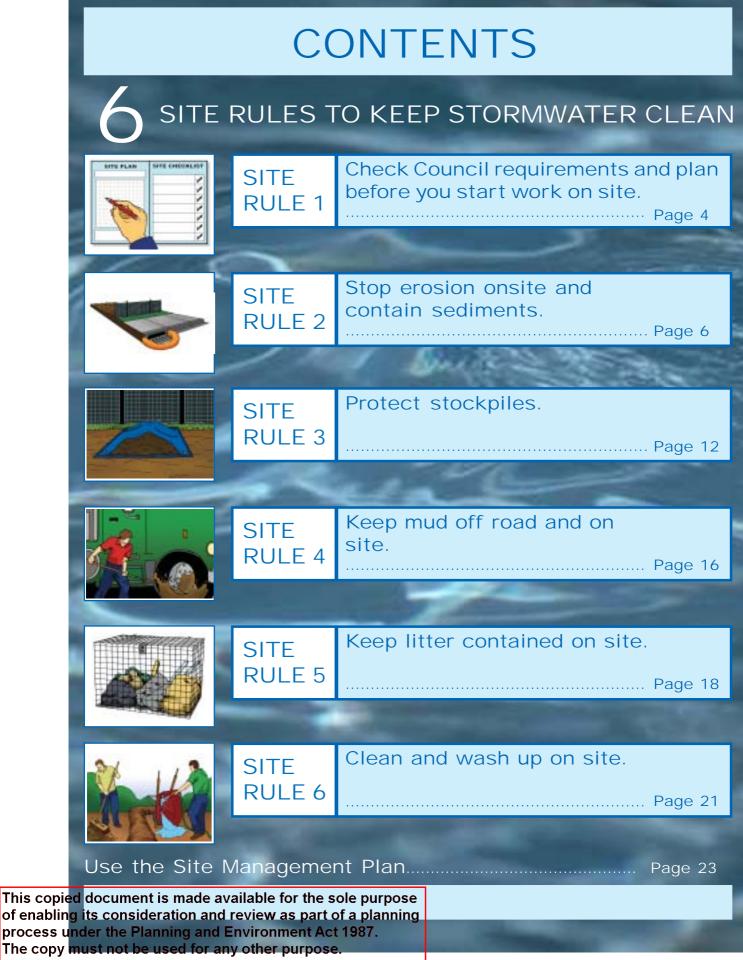


# ACKNOWLEDGEMENTS

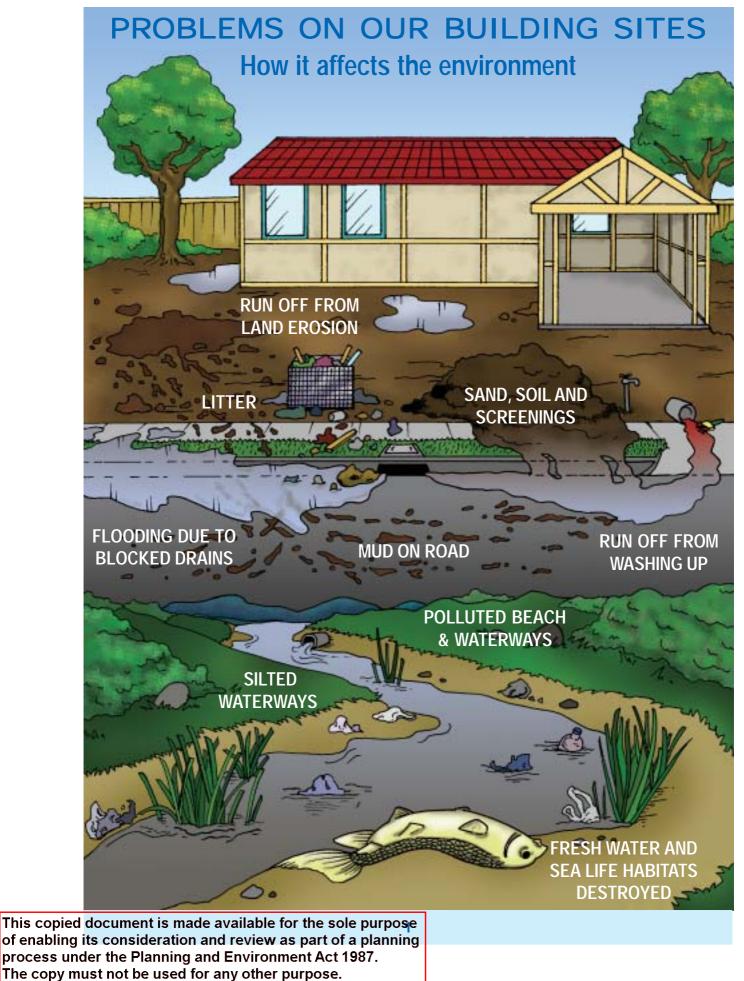
This revised booklet was originally produced with the support of the Victorian EPA, Melbourne Water, Cities of Kingston, Casey, Hume, Melbourne, Moreland and Moonee Valley.



# Supplier information for sediment & erosion



Please note that the plan may not be to scale.



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.

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



Polluting Our Waterways

other building materials to be speaked, pumped, drained or all enter the stammater system.

## 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 sq houses

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

#### 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 Melbourne Water www.melbournewater.com.au



## SITE RULE 1

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



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.]

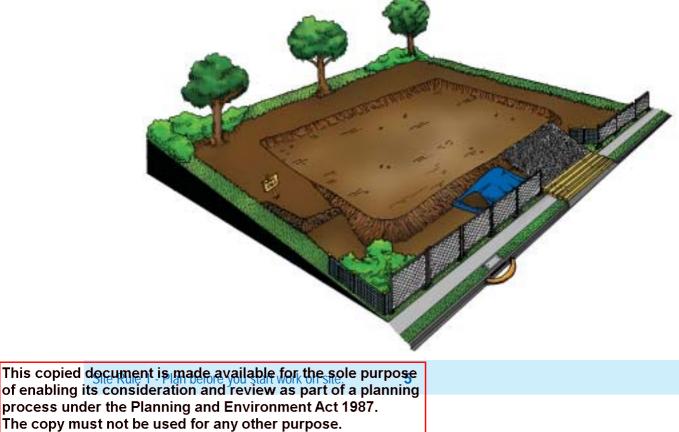
#### Why fence my site?

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.]

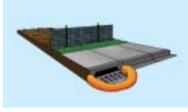
## SITE READY TO START JOB



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



Please note that the plan may not be to scale.



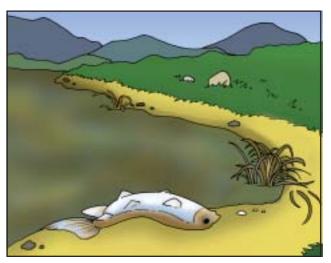
SITE RULE 2

Stop erosion and keep sediment on site

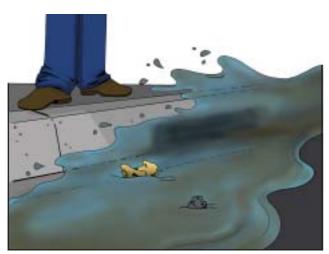
## Why is erosion a problem? Sediment escaping from building sites can:



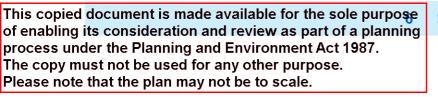
1. Make roads and footpaths slippery for vehicles and pedestrians, increasing public liability risk.



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 and requiring regular cleaning.





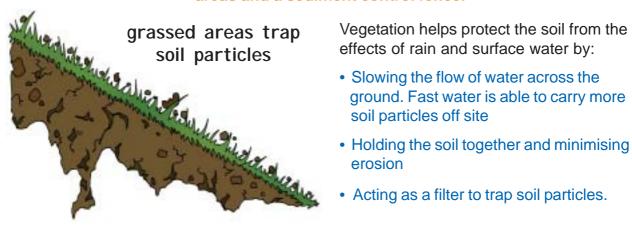
4. Overload and clog local stormwater filtration systems such as raingardens and swales.

Site Rule 2 - Stop erosion and keep sediment on site.

## METHODS TO CONTROL EROSION

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

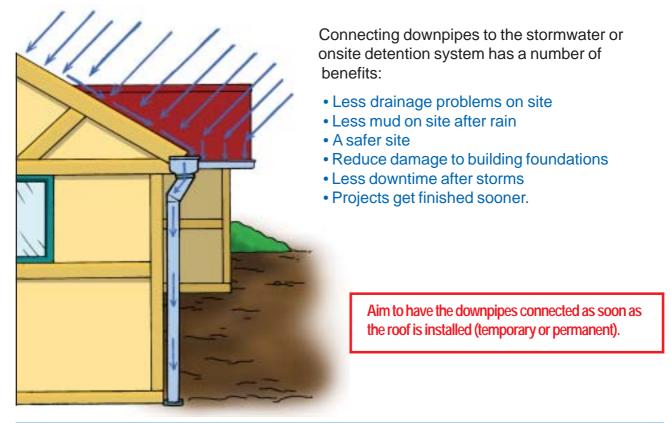
## To prevent sediment leaving site use existing grassed areas and a sediment control fence.



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.

Protect areas close to the boundary, drains and gutters, and where surface water flows may carry sediment off site.

## Control Method 2 - Early downpipe connection



## 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.



This lets water seep into the ground with less damage to the surface of the soil.

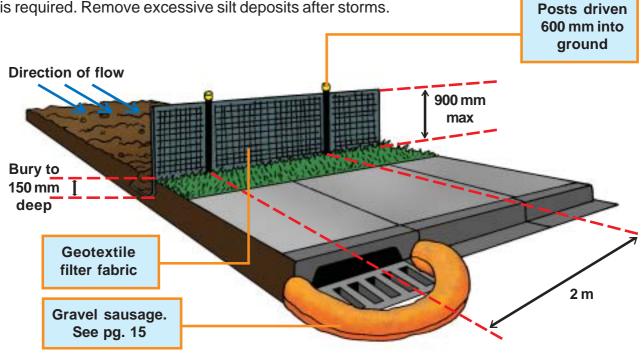
This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The copy must not be used for any other purpose. Please note that the plan may not be to scale.

Site Rule 2 - Stop erosion and keep sediment on site.

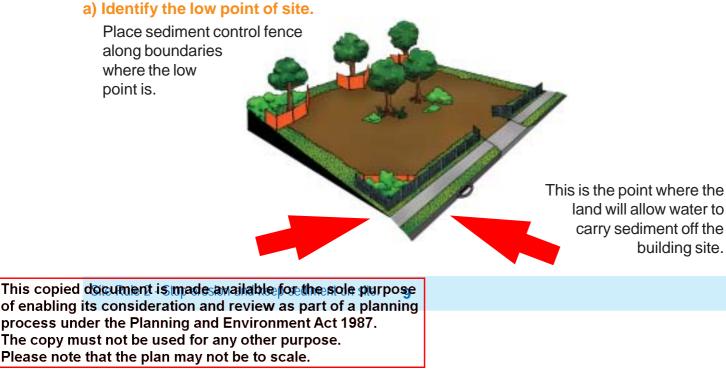
## METHODS TO CONTAIN SEDIMENT ON SITE

## 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 is required. Remove excessive silt deposits after storms.



## TO BUILD A SEDIMENT CONTROL FENCE:





## 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.

Turn ends up slope to allow for ponding.

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

Site Rule 2 - Stop erosion and keep sediment on site.

## 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

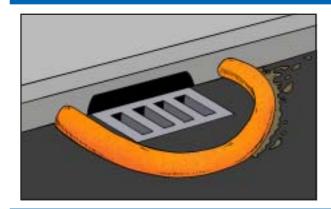
Choose a set area to do all your cutting. This area should be on the building site and away from all stormwater drains.

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.

## d) Clean up when finished

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

## DO NOT HOSE THE SLURRY AWAY





## 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.

This copied document is made available for the sole purpose

Tell suppliers to place deliveries onsite when placing your order or be on site for deliveries to make sure they are put in the right place.

Site Rule 3 - Contain stockpiles on site.

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. Please note that the plan may not be to scale.

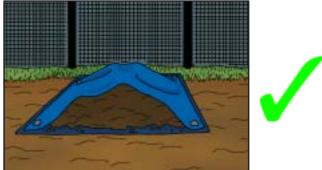
## Stockpiles not stored properly can get washed or blown away and pollute the stormwater.

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.



## **KEEPING STOCKPILES ON SITE**

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 used.

This copied	document is made available for the sole purpose
of enabling i	ts consideration and review as part of a planning
process und	er the Planning and Environment Act 1987.
The copy mu	ist not be used for any other purpose.
Please note	that the plan may not be to scale.

## 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.

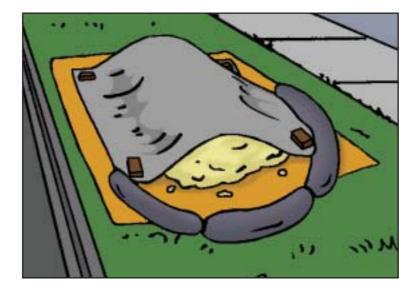


Material must not get into drains, gutters or the stormwater system

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.

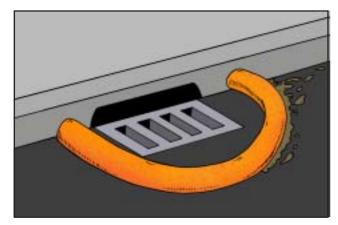


This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The copy must not be used for any other purpose. Please note that the plan may not be to scale.

Site Rule 3 - Contain stockpiles on site.

## 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.

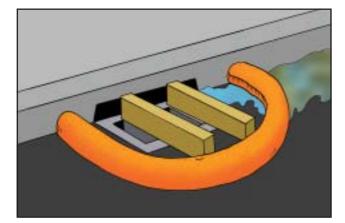


## TO BUILD A GRAVEL SAUSAGE:

### 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.



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

## 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 DOWN THE GUTTER



## **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:

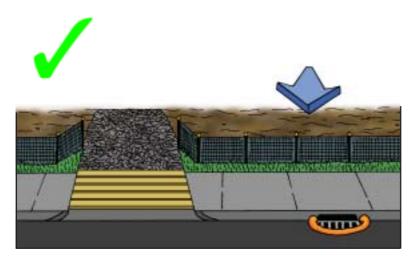
1. The surface area of the site is damaged making it dangerous.

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.



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

Site Rule 4 - Keep mud off road and on site.

## 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.** 



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

## Why is litter a problem?



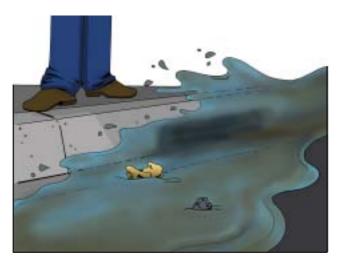


Many building sites have both building rubble and other rubbish spread across them.



## This causes many problems:

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



Litter blowing off site can block stormwater drains.



Litter may spoil local creeks and eventually find its way to the coast.

Site Rule 5 - Keep litter contained on site.

## METHODS TO CONTROL LITTER

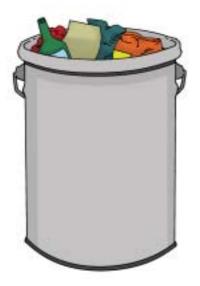
The following simple methods will help you to stop litter leaving your site or being a hazard on site.

## Control Method 1: Litter bins or covered skips

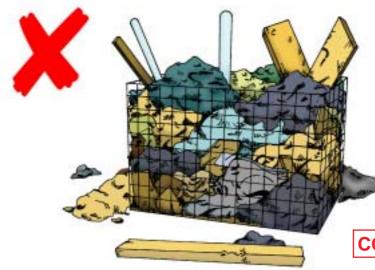
A mesh bin with a closeable lid is suitable for larger items like cardboard boxes, plastic wrapping and polystyrene.



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.



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.

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

Site Rule 5 - Keep litter contained on site.



## **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.



## 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.





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 GROUND. Contact a waste disposal company for removal.

Site Rule 6 - Clean and wash up on site.

Site Address:			
Client Name:	Conta	act Number: ( )	
	+		
		· · · · · · · · · · · · · · · · · · ·	
LEGEND: Bin	Rumble grid 💷	💵 - Stabilised access point	veg Ve
Scale:		- Stockpile	to b
		~ .	- Wa
Gravel sa	usage 💷 - Skip 💷	- Temporary Fencing	

## **CLEAN SITE CHECKLIST**

Please photocopy to use on site

#### SITE DETAILS:

Building Company:\_\_\_\_\_

Site Supervisor:\_\_\_\_\_

Site Address:

Client Name:\_\_\_\_\_ Contact Number: (

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

)\_\_\_\_\_

2	SITE RULE	TASK	СНЕСК
	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 sausag	¢
	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	

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

Site Management Plan

## 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.

This publication or parts of may be reproduced if accompanied by the following acknowledgement: "Reproduced with permission from EPA Victoria and Melbourne Water."



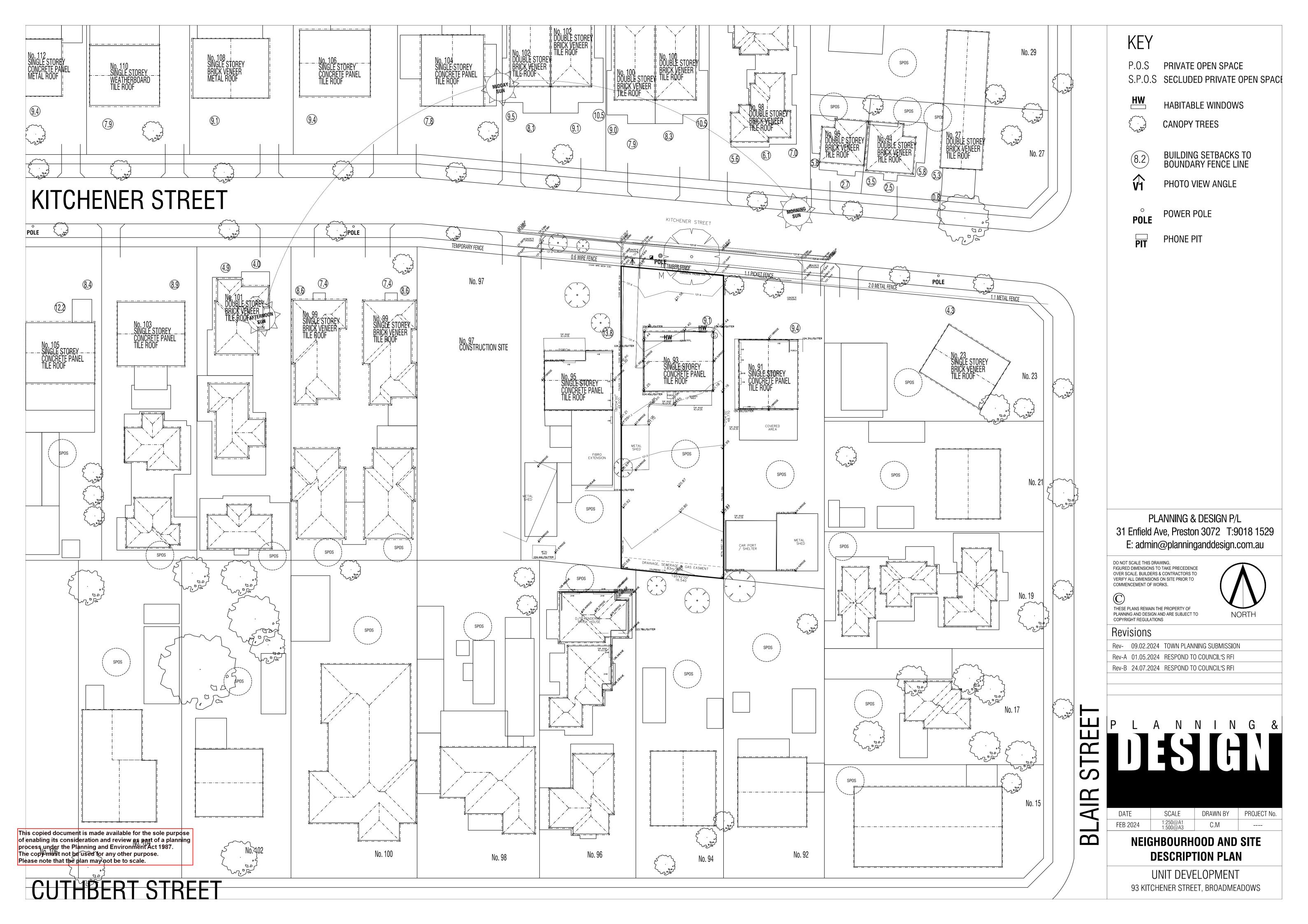




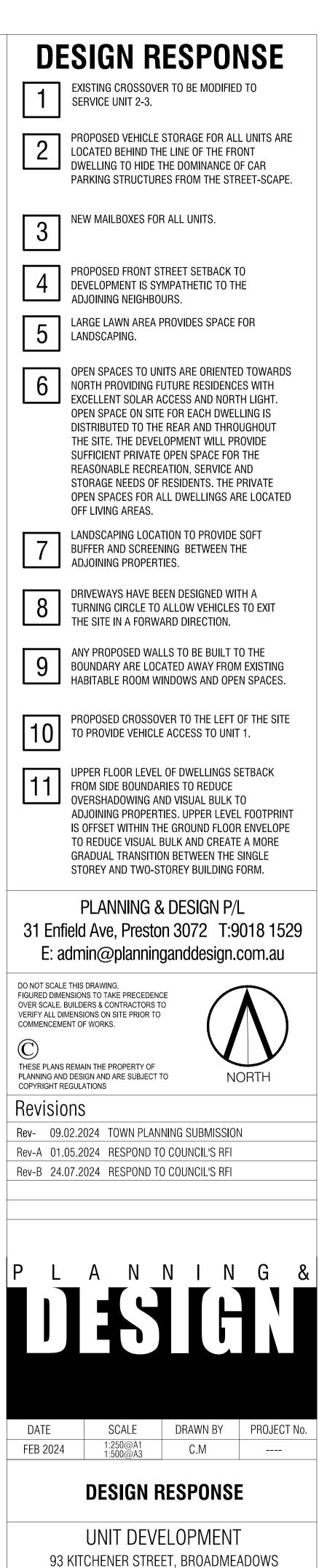


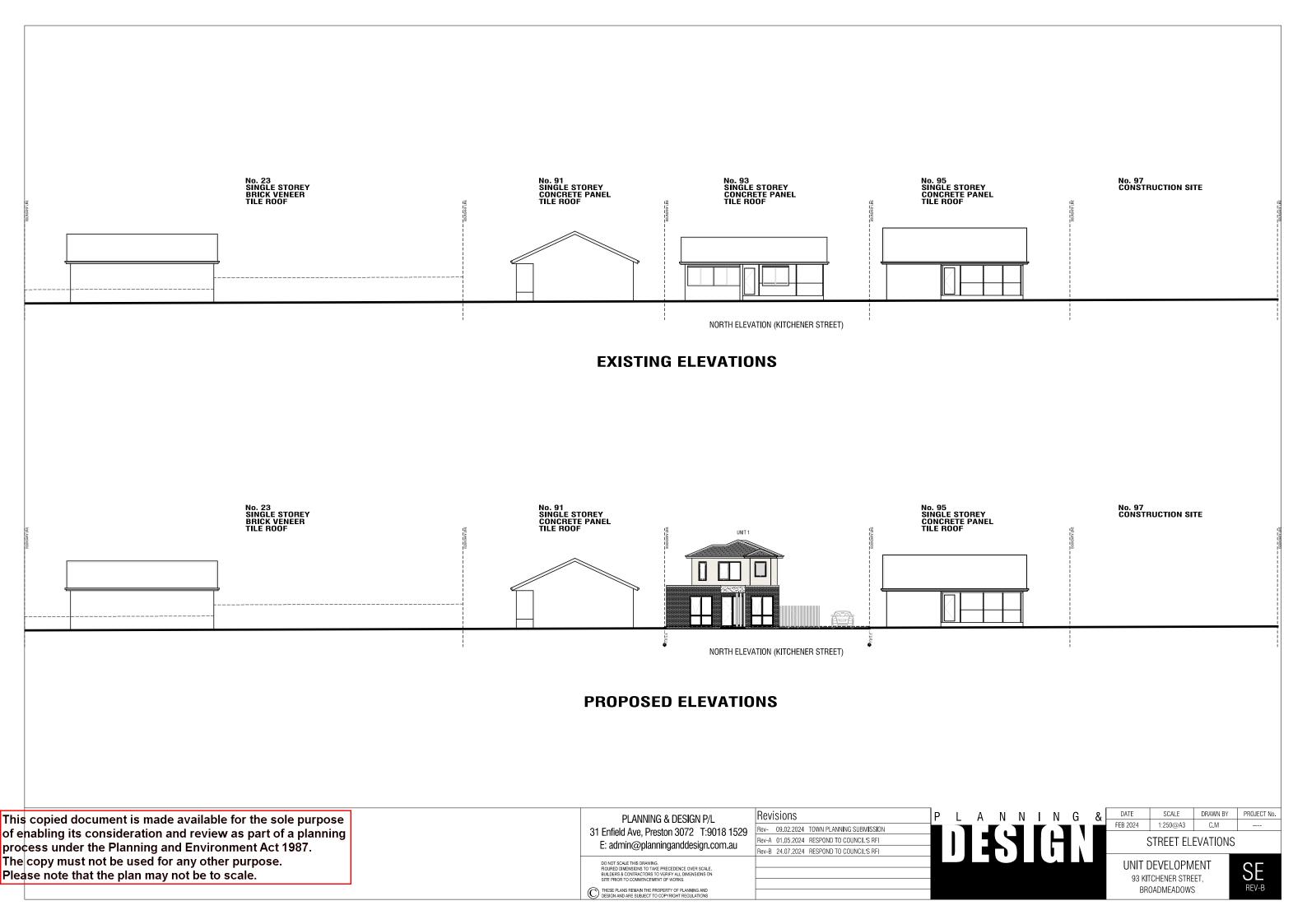
First published in 2002 Second edition, revised, published 2002 Third edition, revised, published September 2003



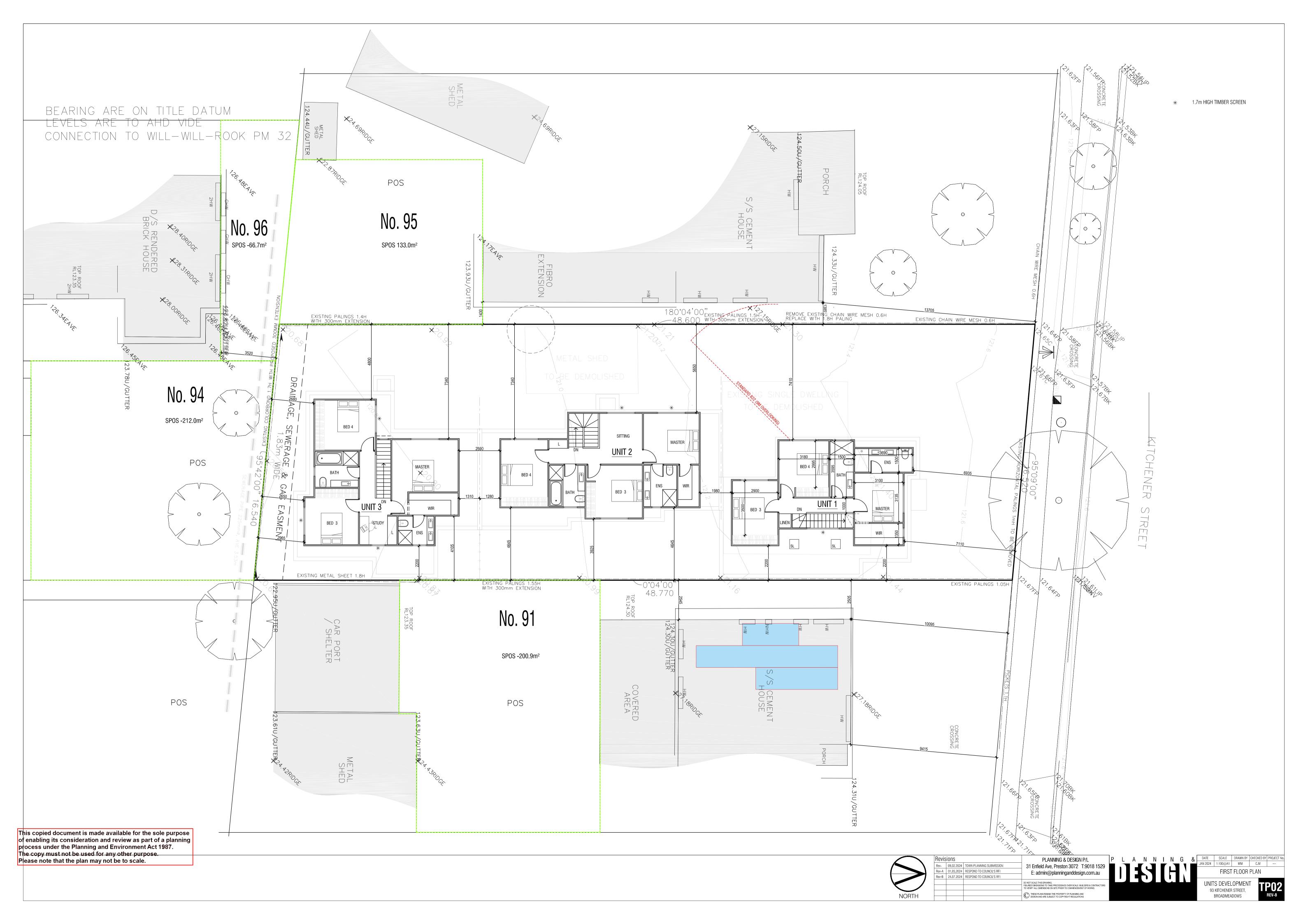


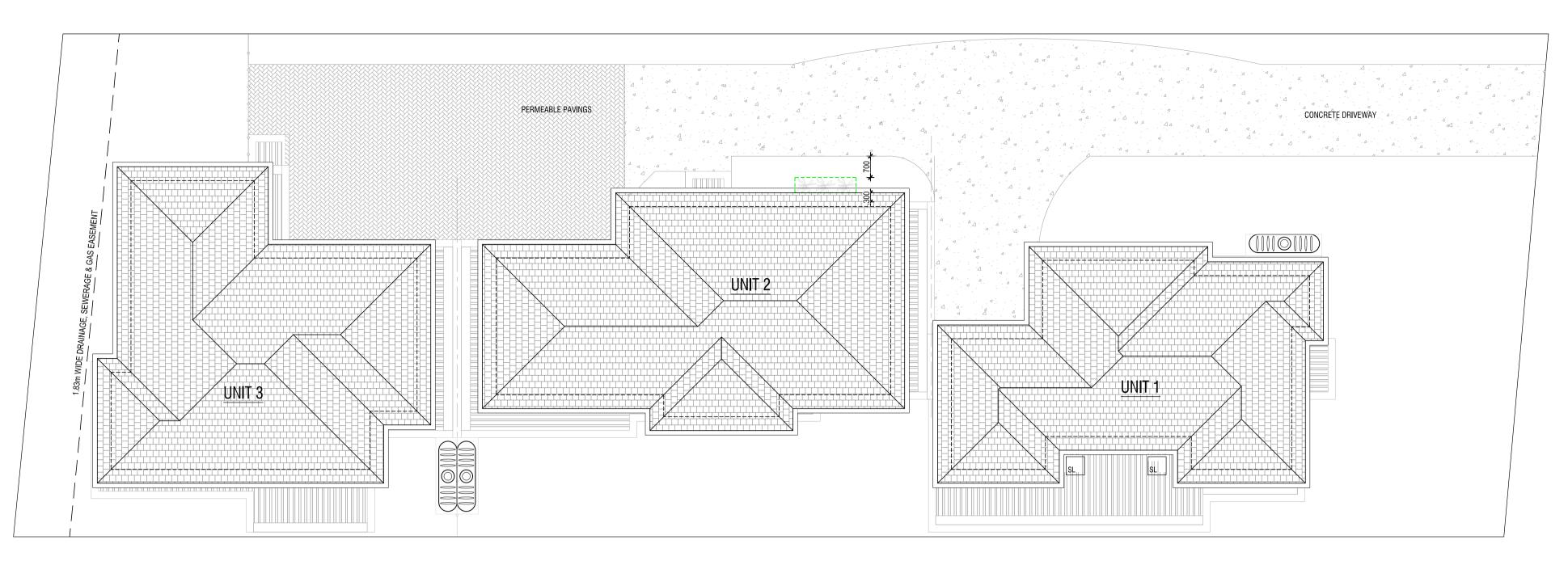




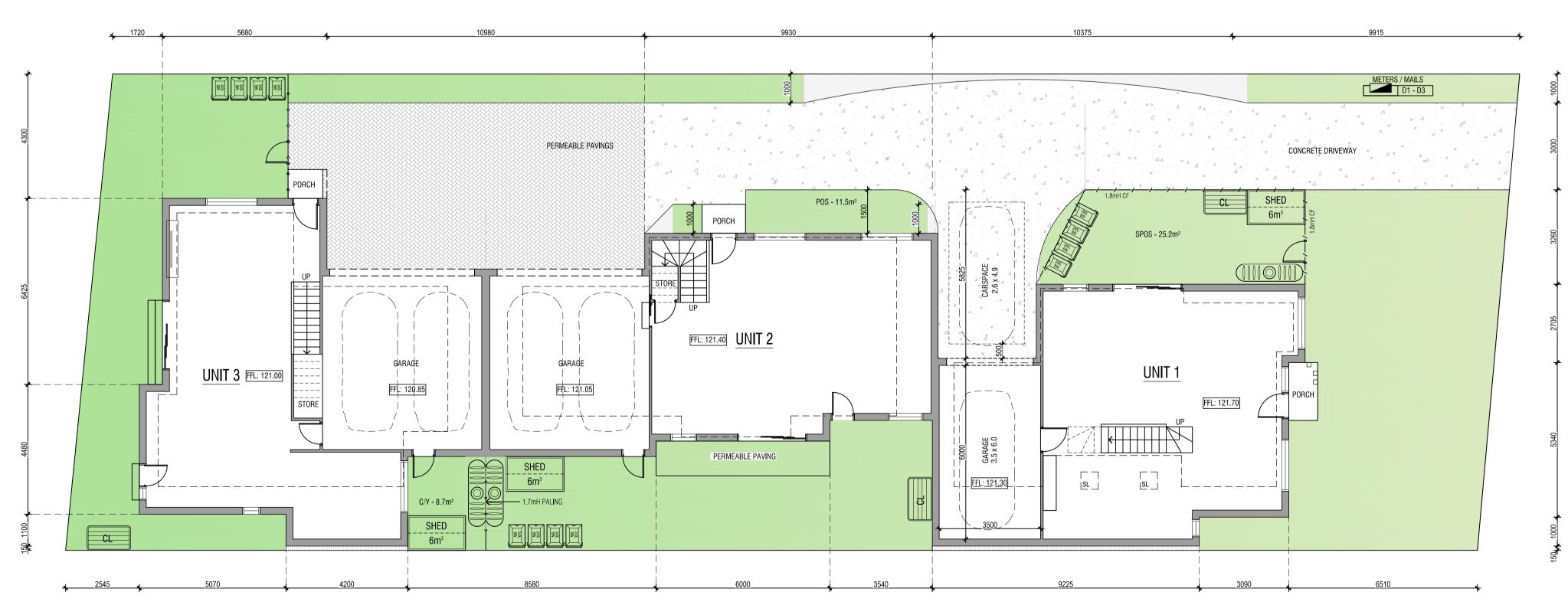






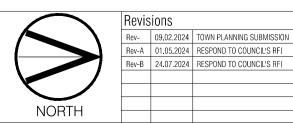


**ROOF PLAN** 

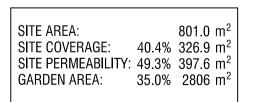


GARDEN AREA

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



## GARDEN AREA ANALYSIS SCALE 1:100



GARDEN AREA INCLUDED

GARDEN AREA NOT INCLUDED

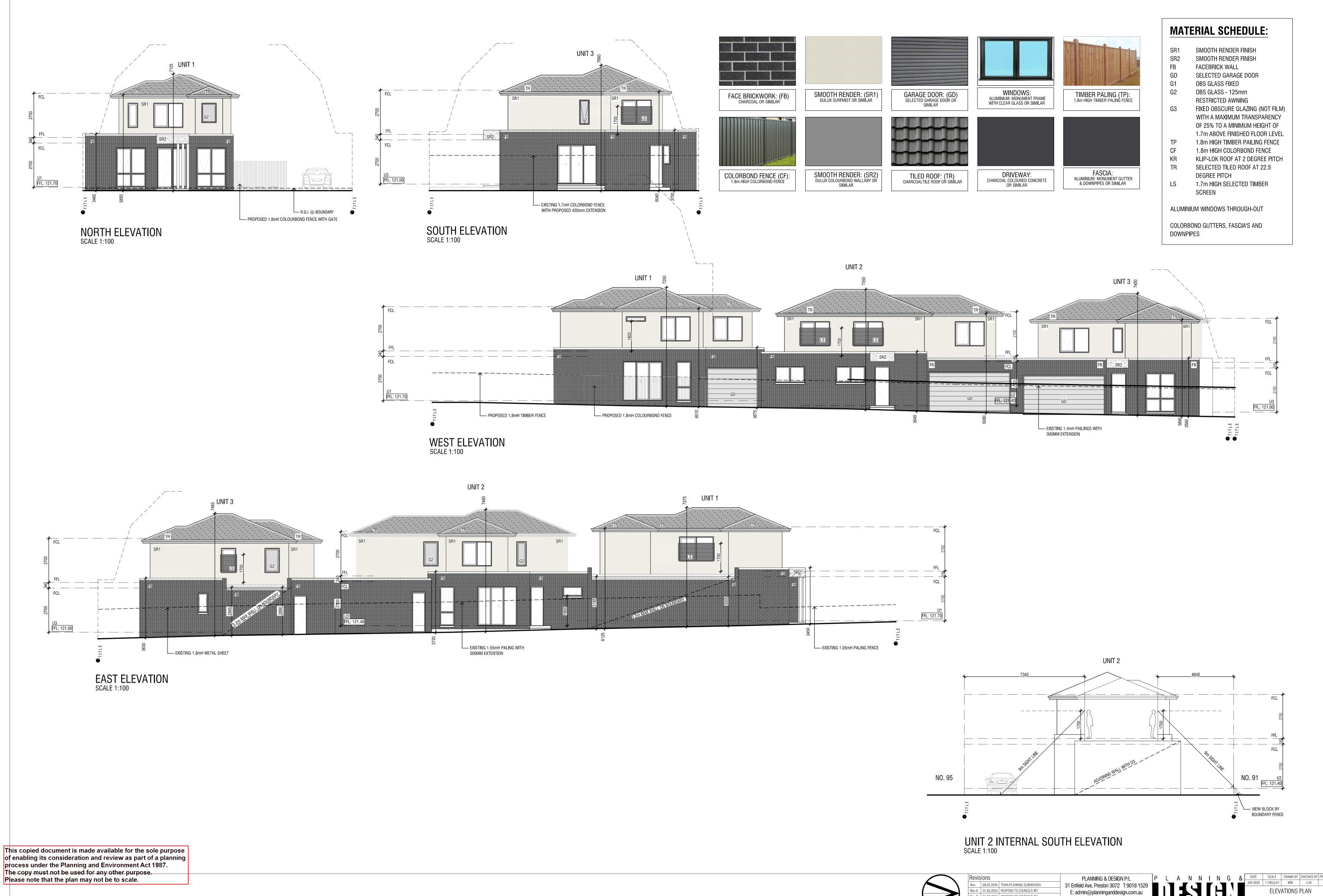


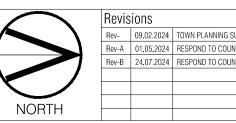
UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS

GARDEN AND ROOF PLAN



DO NOT SCALE THIS DRAWING. FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALE. BUILDER TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS





	PLANNING & DESIGN P/L	Р	L	А	Ν	Ν	1	Ν	G	&	DATE	SCALE	DRAWN BY	CHECKED BY	PROJECT No.
NG SUBMISSION	31 Enfield Ave, Preston 3072 T:9018 1529						Ż		Ň	Ň	JAN 2024	1:100@A1	WM	C.M	
COUNCIL'S RFI	E: admin@planninganddesign.com.au				4			Н				ELEV	ATIONS	PLAN	
COUNCIL'S RFI	E. admin@planninganddcsign.com.ad														
	DO NOT SCALE THIS DRAWING. FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALE. BUILDERS & CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS.										93	S DEVEL KITCHENER BROADMEA	STREET,		Р <b>04</b> <sub>REV-B</sub>

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. THE TANKS MUST BE USED ONLY FOR REUSE WITHIN THE DWELLINGS, AND ARE COMPLETELY INDEPENDENT OF ANY DETENTION REQUIREMENTS (THROUGH THE LEGAL POINT OF DISCHARGE PROCESS) 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

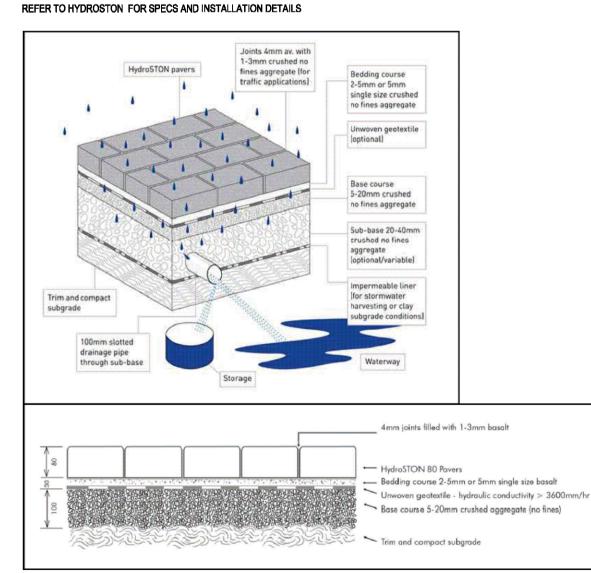
THE STORMWATER SYSTEM.

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

MAINTENANCE 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.						

## PERMEABLE PAVER DETAILS

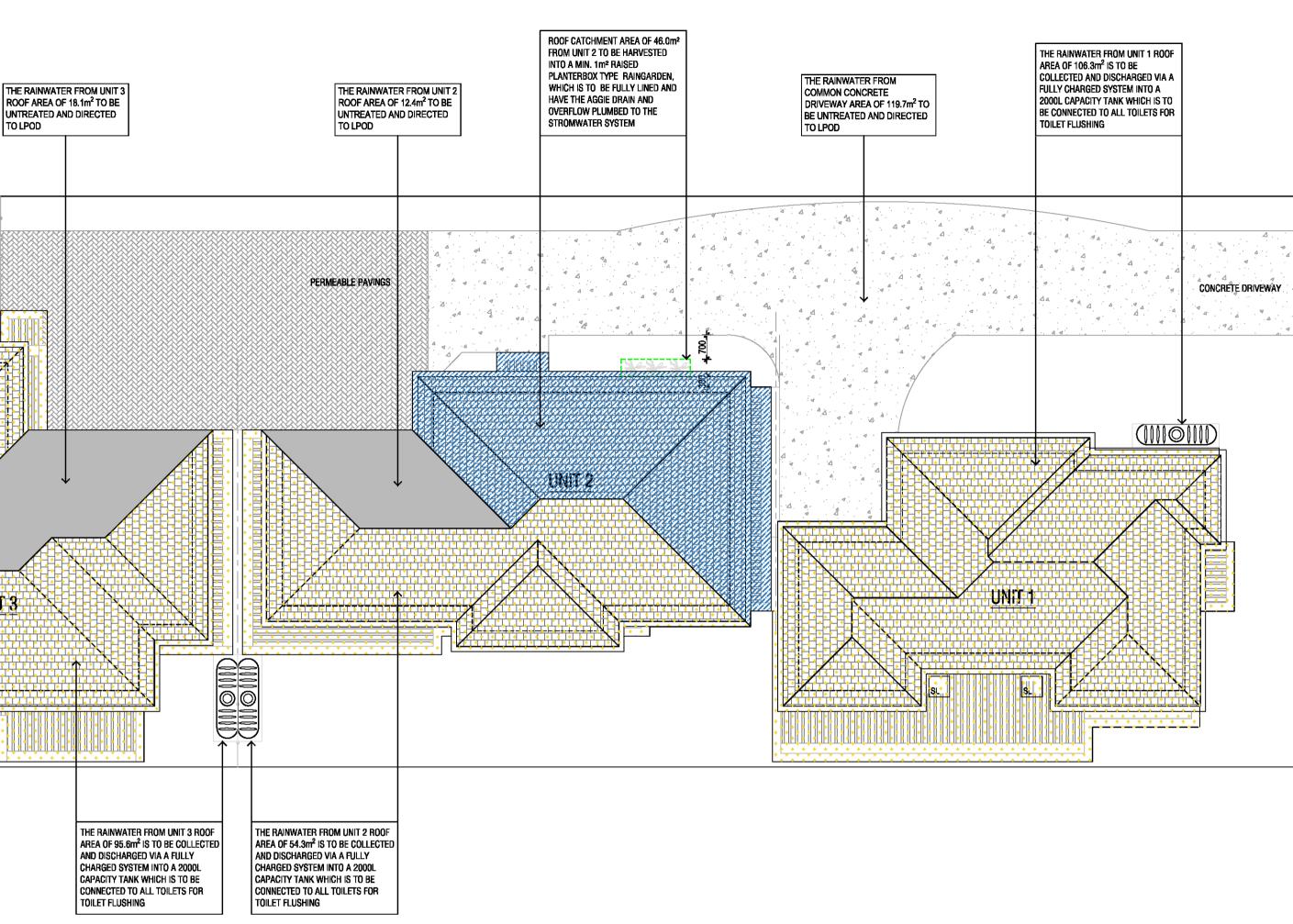


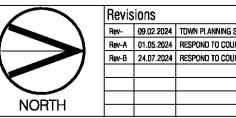
This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The copy must not be used for any other purpose. Please note that the plan may not be to scale.

Melbourne Water	STORM Ra	ating Repo	ort			
TransactionID:	0					
Municipality:	HUME					
Rainfall Station:	HUME					
Address	93 KITCHENER ST					
Assessor						
Development Type:						
Allotment Site (m2):						
STORM Rating %:						
Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
U1 Roof - Tank	106.30	Rainwater Tank	2,000.00	4	141.40	82.90
U2 Roof - Tank	54.30	Rainwater Tank	2,000.00	4	170.00	82.00
U2 Roof - Raingarden	46.00	Raingarden 100mm	1.00	0	128.90	0.00
U2 Roof - UNTREATED	12.40	None	0.00	0	0.00	0.00
U3 Roof - Tank	95.60	Rainwater Tank	2,000.00	4	160.40	81.40
U3 Roof - UNTREATED	18.10	None	0.00	0	0.00	0.00
Common Driveway -	119.70	None	0.00	0	0.00	0.00
Untreated						
Date Generated:	11-Jul-2024				Program Version:	1.0.0

UNIT 3

TO LPOD





## NOTE: STORMWATER RUNOFF FROM ALL AREAS MUST BE RETAINED WITHIN THE PROPERTY AND DRAINED TO THE SITE'S UNDERGROUND INTERNAL STORMWATER SYSTEM.

4. 4.

141

## AREA SCHEDULE

## UNIT 1

GROUND FLOOR		76.4m²
GARAGE		23.9m <sup>2</sup>
PORCH		2.0m <sup>2</sup>
FIRST FLOOR		62.8m <sup>2</sup>
TOTAL AREA:	17.8SQ	165.1m <sup>2</sup>

## UNIT 2

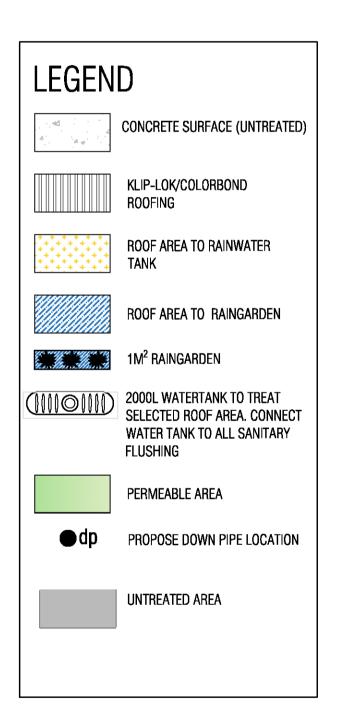
GROUND FLOOR		82.1m <sup>2</sup>
GARAGE		26.5m <sup>2</sup>
PORCH		2.0m <sup>2</sup>
FIRST FLOOR		74.9m <sup>2</sup>
TOTAL AREA:	20.0SQ	185.5m <sup>2</sup>

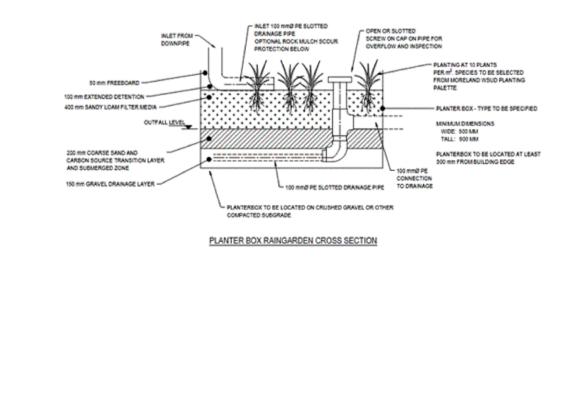
## UNIT 3

GROUND FLOOR		75.4m <sup>2</sup>
GARAGE		35.8m <sup>2</sup>
PORCH		1.2m <sup>2</sup>
FIRST FLOOR		74.0m <sup>2</sup>
TOTAL AREA:	20.1SQ	186.4m²

## SITE

	801.0m <sup>2</sup>	
40.4%	326.9m²	
49.3%	397.6m²	
35.0%	280.6m²	
	49.3%	40.4% 326.9m <sup>2</sup> 49.3% 397.6m <sup>2</sup>





		_													
	PLANNING & DESIGN P/L	Р	1	Α	Ν	Ν	1	Ν	G	8	DATE	SCALE	DRAWN BY	CHECKED BY	PROJECT No.
G SUBMISSION	31 Enfield Ave, Preston 3072 T:9018 1529	Ŀ.			<b>r</b> .	Ϋ́.	Ż		ĩ٦	Ŭ	JAN 2024	1:100@A1	WM	C.M	
OUNCIL'S RFI OUNCIL'S RFI	E: admin@planninganddesign.com.au										er sens	ENSITIVE URBAN DESIGN			
	DO NOT SCALE THIS DRAWING. HGURED DIMENSIONES TO TAKE PRECEDENCE OVER SCALE, BUILDERS & CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS. THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COMPRISHT REGULATIONS										93	'S DEVEL KITCHENEF BROADMEA	STREET,	VV	SUD rev-b

## **SPECIFICATIONS**

#### SUBGRADE PREPARATION

SITE TO BE PREPARED IN ACCORDANCE WITH BEST HORTICULTURAL PRACTICE AND UNDER APPROPRIATE CONDITIONS. DISTURBANCE TO NATIVE SOIL STRUCTURE IS TO BE MINIMISED. THE USE OF MACHINERY THAT MAY DAMAGE SOIL STRUCTURE OR PROFILE IS NOT ACCEPTABLE. ALL LAWN AND PLANTED AREAS SUB-GRADE TO IS TO BE CULTIVATED TO A MINIMUM DEPTH OF 150MM. DRAINAGE FALLS TO BE SHAPED PRIOR TO TOP SOILING, TEST SUB GRADE TO BE TO DETERMINE PH, SALINITY AND GYPSUM REQUIREMENT PRIOR TO PREPARATION AND CONDITIONING. ANY GYPSUM REQUIRED IS TO BE DISTRIBUTED ACCORDING TO MANUFACTURERS RECOMMENDED RATE AND CULTIVATED INTO THE SUB-GRADE AT A MINIMUM DEPTH OF 150MM. TOPPING AREAS TO BE GRADED / DRAINED TO AVOID WATER DISCHARGE INTO ADJOINING PROPERTIES.

## WEED CONTROL

ENVIRONMENTAL WEEDS TO BE REMOVED AND DISPOSED OFF OF SITE PRIOR TO SUB GRADE PREPARATION, TOPSOILING AND PLANTING WORKS.

#### SOIL PREPARATION SPREAD TOPSOIL IN MAXIMUM 150MM LAYERS, LIGHTLY COMPACTED BY USE OF A 150 -

200KG ROLLER, OR BY CAREFULLY WALKING UNTIL IT IS SETTLED AT FINISHED KERB LEVELS OR TO WITHIN 75MM BELOW EDGING LEVELS TO ACCOMMODATE MULCH. IMPORTED TOPSOIL FOR GARDEN BEDS IS TO BE MEDIUM TEXTURE GENERAL PURPOSE GARDEN SOIL AND LIGHTLY COMPACTED TO MINIMUM 300MM DEPTH TO GARDEN BEDS. SOIL IS TO COMPLY WITH AS 2223-1978, AND AS FOLLOWS: • FREE FROM PERENNIAL WEEDS AND THEIR ROOTS, BULBS AND RHIZOMES

- FREE FROM BUILDING RUBBLE AND ANY OTHER MATTER DELETERIOUS TO PLANT GROWTH PH TO BE 6.0-7.0
- TEXTURE TO BE LIGHT TO MEDIUM FRIABLE LOAM

 FREE FROM SILT MATERIAL IMPORTED TOPSOIL FOR LAWN REJUVENATION / ESTABLISHMENT SHALL HAVE THE ABOVE CHARACTERISTICS, BUT SHALL BE A FREE DRAINING SANDY LOAM. LIGHTLY COMPACT TO MINIMUM DEPTH OF 100MM.

## MULCH

MULCH FOR GARDEN BEDS IS TO BE AN AGED ORGANIC MATERIAL WITH 60 - 80 PERCENT WOOD CHIPS PARTICLES IN A SIZE RANGE OF 25 - 50 MM MAXIMUM BY VOLUME. SPREAD MULCH AT A CONSOLIDATED DEPTH OF 75MM.

#### PLANTING PROCEDURE

FILL PLANTING HOLE WITH WATER AND ALLOW TO DRAIN COMPLETELY IF SOIL IS DRY TREE ROOTS ARE TO BE TEASED OUTWARDS IF MATTED OR CIRCLING OCCURS PRIOR TO BACKFILLING. PLACE TREE IN CENTRE OF HOLE ON FIRM SOIL TO PREVENT SINKING, ENSURING TOP OF THE ROOTBALL IS FLUSH WITH THE SURROUNDING SOIL SURFACE AND THE TRUNK IS VERTICAL. BACKFILL MATERIAL IS TO BE IN A LOOSE, FRIABLE STATE, WITH NO BRICKS, ROCKS OR FOREIGN MATERIAL - IF SUFFICIENT MATERIAL IS NOT AVAILABLE FORM THE ORIGINAL HOLE TO BACKFILL, A SIMILAR SOIL TYPE MUST BE SOURCED AND USED. PREVENT LARGE AIR POCKETS IN SOIL FROM OCCURRING BY FIRMLY BACKFILLING SOIL IN LAYERS THEN THOROUGHLY WATERED IN. TREES TO BE STAKED WITH TWO 2250MM X 70MM HARDWOOD STAKES DRIVEN FIRMLY INTO THE GROUND. DO NOT BE PLACE STAKE THROUGH THE ROOTBALL AREA. TREES ARE TO BE SECURED TO EACH STAKE WITH A STRONG, SOFT AND FLEXIBLE MATERIAL, TIGHT ENOUGH TO SUPPORT THE TREE IN WINDY CONDITIONS BUT FLEXIBLE ENOUGH TO STIMULATE DEVELOPMENT OF A GOOD SUPPORTIVE ROOT SYSTEM. TREE TIE MATERIAL MUST NOT DAMAGE TREE BARK OR RESTRICT TRUNK GROWTH FOR A MINIMUM PERIOD OF THREE YEARS. SLOW RELEASE FERTILISER (3/6 MONTH FORMULATION) SUCH AS 'OSMOCOTE' IS TO BE APPLIED TO THE TOP OF THE ROOTBALL AREA AWAY FROM THE TRUNK / STEM TO MANUFACTURERS SPECIFICATIONS AND WATERED IN IMMEDIATELY. ALL TREES TO BE MULCHED TO A DIAMETER OF 1200MM WIDE AND TO A DEPTH OF 100MM BUT MUST NOT BE IN CONTACT WITH THE TREE TRUNK. MULCH IS TO BE AN AGED ORGANIC MATERIAL WITH 60 - 80 PERCENT OF ITS VOLUME BEING WOOD CHIP PARTICLES IN A SIZE RANGE OF 25 -50MM MAXIMUM, MULCH IS TO BE SPREAD AT A CONSOLIDATED DEPTH OF 75MM. THE PLANTING HOLE SURFACE IS TO BE SHAPED TO MINIMISE WATERLOGGING/EXCESSIVE WATER RETENTION BUT RETAIN THE MULCH MATERIAL NEATLY. THE SITE MUST BE LEFT IN A CLEAN AND SAFE CONDITION.

#### PLANT ESTABLISHMENT PERIOD

THE LANDSCAPE IS TO BE MAINTAINED BY APPLYING BEST HORTICULTURAL PRACTICE TO PROMOTE HEALTHY PLANT PERFORMANCE FOR A 13 WEEK ESTABLISHMENT PERIOD FOLLOWING THE APPROVAL OF PRACTICAL COMPLETION BY THE RESPONSIBLE AUTHORITY INCLUDING (BUT NOT LIMITED TO) THE FOLLOWING TASKS - PRUNING AS NECESSARY TO MAINTAIN PLANTS IN A HEALTHY AND STRUCTURALLY SOUND MANNER, PEST AND DISEASES - VEGETATION TO BE PEST AND DISEASE FREE, MULCHING, STAKING AND TYING. MAINTAINED 75MM MULCH DEPTH AROUND TREE BASES THROUGHOUT MAINTENANCE PERIOD, WATER AS OFTEN AS NECESSARY TO ENSURE HEALTHY AND VIGOROUS GROWTH IN ACCORDANCE WITH CURRENT LOCAL WATERING REGULATIONS, MAINTAIN WEED FREE STATE OVER THE ENTIRE MULCH AREA BY SPRAYING OR MECHANICAL WEEDING, FERTILISING - 3/6 X MONTHLY SLOW RELEASE FERTILISER IN ACCORDANCE WITH MANUFACTURERS RECOMMENDED APPLICATION RATES, REPLACEMENT OF DECEASED, STOLEN OR VANDALISED PLANTS BEYOND REPAIR OR REGROWTH WITH THE SAME SPECIES AS SPECIFIED IN THE PLANT SCHEDULE WITHIN THE ASSIGNED MAINTENANCE PERIOD

#### IRRIGATION

IF APPLICABLE, INSTALL IN-GROUND AUTOMATIC DRIP IRRIGATION SYSTEM TO ALL GARDEN AREAS AND PLANTER BOXESIN ACCORDANCE WITH CURRENT LOCAL WATERING REGULATIONS

#### TIMBER EDGING

TIMBER EDGING TO BE 75MM X 25MM TREATED PINE SECURED TO 300MM LONG TREATED PINE STAKES AT NOM. MIN 1000MM SPACINGS WITH GALVANISED SCREWS AND INSTALLED TO ALL JUNCTIONS BETWEEN GARDEN BEDS, LAWN AND TOPPING / PEBBLE AREAS

#### DRAINAGE

LANDSCAPE AND / OR BUILDING CONTRACTOR(S) ARE RESPONSIBLE FOR CIVIL AND HYDRAULIC COMPUTATIONS FOR LANDSCAPE BUILDING WORKS INCLUDING, BUT NOT LIMITED TO SURFACE AND SUB SURFACE DRAINAGE FOR ALL LANDSCAPE AREAS PRIOR TO COMMENCEMENT OF WORKS

#### GENERAL

WHILE CARE HAS BEEN TAKEN TO SELECT TREE SPECIES WITH NON-INVASIVE ROOT SYSTEMS IT IS RECOMMENDED THAT ROOT CONTROL BARRIERS BE INSTALLED FOR ANY TREES LOCATED WITHIN TWO METRES OF ANY BUILDING LINES. CLIMBING PLANTS (IF APPLICABLE) ARE TO BE TRAINED TO SUPPORTIVE MESH, WIRE OR LATTICE FIXED OVER ENTIRE FENCE SECTION FROM BASE TO TOP DO NOT SCALE FROM PLAN - CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING CONSTRUCTION

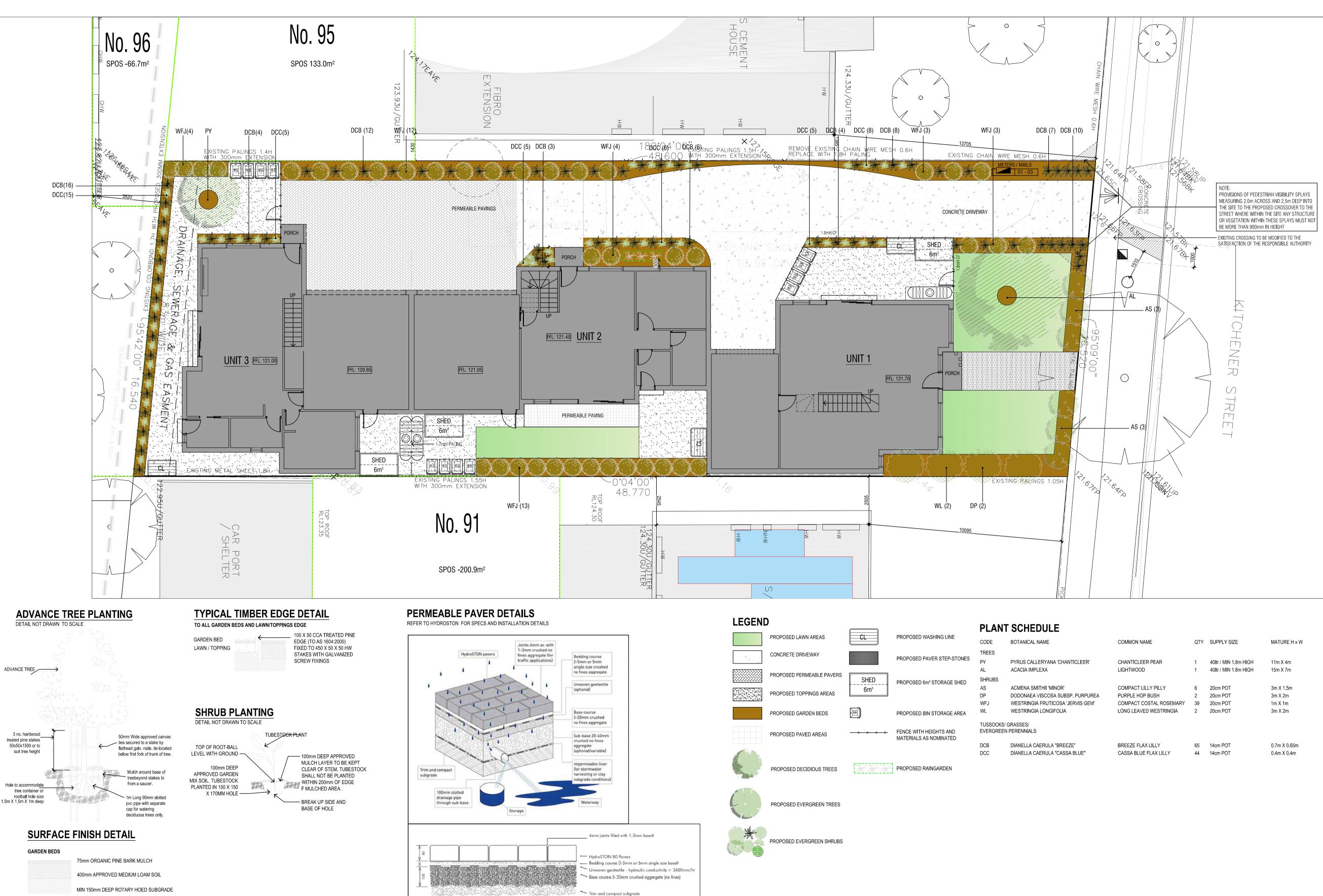
## PLANTS - QUALITY OF TREES AND SHRUBS

PROVIDE PLANTS AT SPECIFIED PLANT HEIGHTS AND POT SIZES, AT MINIMUM, PROVIDE LARGER STOCK IF PLANT MATERIAL IS UNAVAILABLE IN THESE SIZES, TREES AND SHRUBS SHALL BE HEALTHY NURSERY STOCK FREE FROM PESTS. INSECTS. DISEASES AND WEEDS. SUBSTITUTE PLANS ARE NOT ACCEPTABLE UNLESS DEEMED ACCEPTABLE BY THE RESPONSIBLE AUTHORITY IN WRITING, SEMI MATURE TREES TO BE SUPPLIED TO MEET THE FOLLOWING CRITERIA: HAVE A MINIMUM PLANTED HEIGHT TO SIZES AS INDICATED IN THE PLANT SCHEDULE, HAVE A MINIMUM TRUNK CALLIPER OF 50MM AT GROUND LEVEL, BE UNDAMAGED AND FREE OF DISEASES AND INSECT PESTS, NOT BE ROOT BOUND OR HAVE CIRCLING OR GIRDLING ROOTS BUT HAVE ROOTS GROWN TO THE EDGE OF - THE CONTAINER, SHOULD BEAR A SINGLE STRAIGHT TRUNK, STRONG BRANCHING PATTERN, AND FULL CANOPY, SHOW HEALTHY, VIGOROUS GROWTH

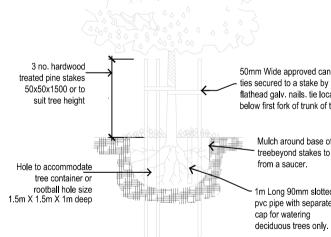
#### **PROTECTION OF EXISTING TREES**

ALL EXISTING VEGETATION SHOWN ON THE ENDORSED PLAN ON BOTH SUBJECT SITE AND NEIGHBOURING PROPERTIES TO BE RETAINED MUST BE SUITABLY MARKED AND PROTECTED (IF REQUIRED) PRIOR TO COMMENCEMENT OF DEVELOPMENT ON SITE INCLUDING DEMOLITION. VEGETATION MUST NOT BE REMOVED, DESTROYED OR LOPPED WITHOUT THE WRITTEN CONSENT OF THE RESPONSIBLE AUTHORITY. BEFORE THE COMMENCEMENT OF WORKS INCLUDING DEMOLITION. TREE PROTECTION BARRIERS MUST BE ERECTED AROUND TREES ON BOTH SUBJECT SITE AND ADJOINING PROPERTIES TO FORM A DEFINED TREE PROTECTION ZONE DURING DEMOLITION AND CONSTRUCTION IN ACCORDANCE WITH TREE PROTECTION MEASURES AS PER AS 4970-2009, ANY REQUIRED PRUNING MUST BE CARRIED OUT BY A TRAINED AND COMPETENT ARBORIST WITH A THOROUGH KNOWLEDGE OF TREE PHYSIOLOGY AND PRUNING METHODS. PRUNING TO BE CARRIED OUT AS PER AS 4373-2007. ALL TREE PROTECTION PRACTICES MUST MEET THE REQUIREMENTS OF A CONSULTING ARBORIST AND / OR TO THE SATISFACTION OF THE RESPONSIBLE AUTHORITY.

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







## SURFACE FINISH DETAIL

TOPPINGS AREAS

LAWN AREAS

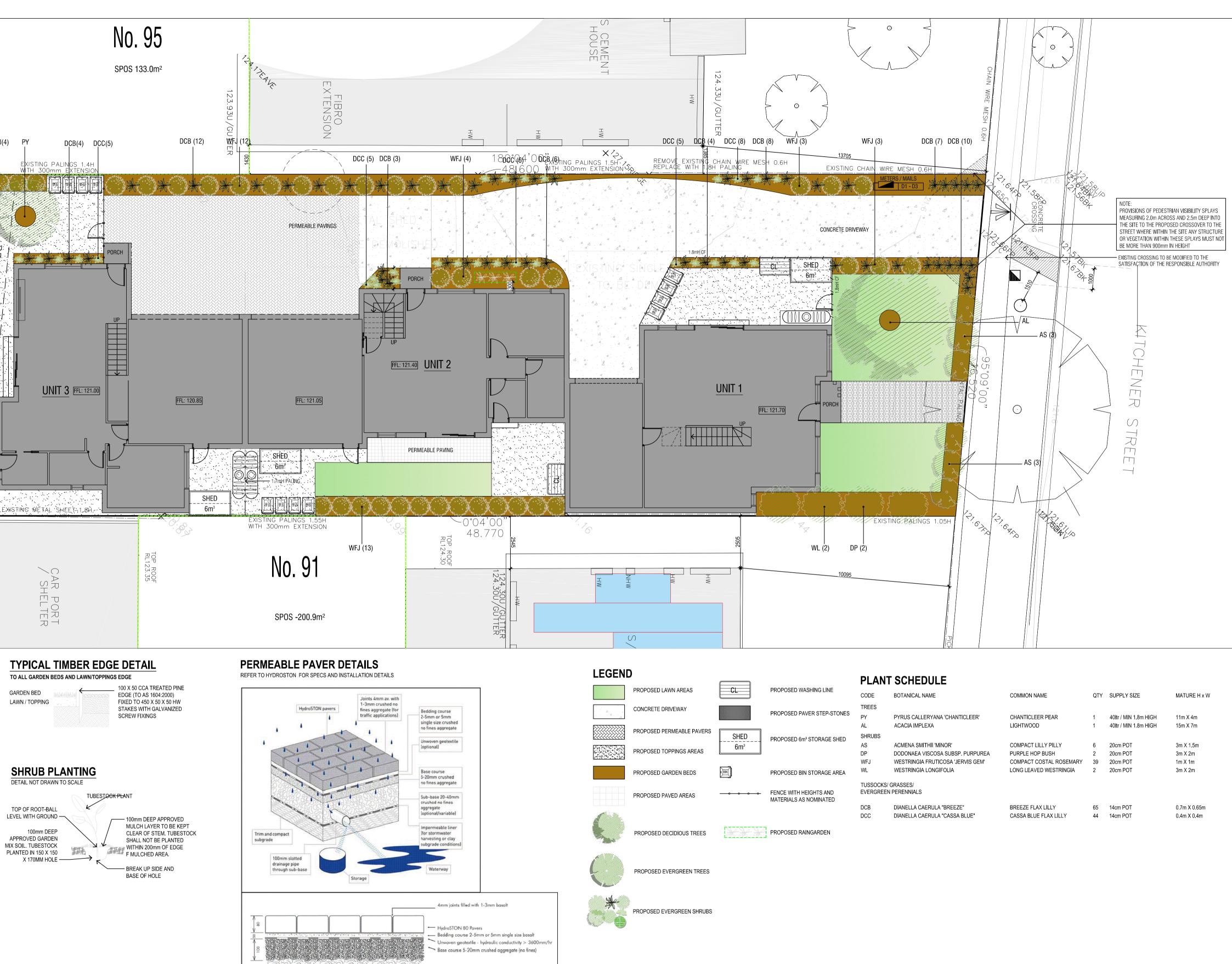
GARDEN BEDS	
	75mm ORGANIC PINE BARK MULCH
	400mm APPROVED MEDIUM LOAM SOIL
	MIN 150mm DEEP ROTARY HOED SUBGRADE

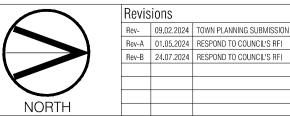
40mm COMPACTED SELECTED TOPPINGS 75mm COMPACTED FCR BASE (NO COMPACTED BASE AROUND BASE OF EXISTING TREES) SUBGRADE

#### STRATHAYAR WALTER SOFT LEAF BUFFALO OR SIMILAR INSTANT LAWN 100mm APPROVED SANDY LOAM SOIL

MIN 150mm DEEP ROTARY HOED SUBGRADE

TO ALL GARDEN	BEDS AND LAWN/TOPPING	SEDGE
GARDEN BED LAWN / TOPPING		100 X 50 CCA TREATED PIN EDGE (TO AS 1604:2000) FIXED TO 450 X 50 X 50 HW STAKES WITH GALVANIZED SCREW FIXINGS





		•••••==				
	CODE	BOTANICAL NAME	COMMON NAME	QTY	SUPPLY SIZE	MATURE H x W
	TREES					
ONES	PY	PYRUS CALLERYANA 'CHANTICLEER'	CHANTICLEER PEAR	1	40ltr / MIN 1.8m HIGH	11m X 4m
	AL	ACACIA IMPLEXA	LIGHTWOOD	1	40ltr / MIN 1.8m HIGH	15m X 7m
HED	SHRUBS					
	AS	ACMENA SMITHII 'MINOR'	COMPACT LILLY PILLY	6	20cm POT	3m X 1.5m
	DP	DODONAEA VISCOSA SUBSP. PURPUREA	PURPLE HOP BUSH	2	20cm POT	3m X 2m
	WFJ	WESTRINGIA FRUTICOSA 'JERVIS GEM'	COMPACT COSTAL ROSEMARY	39	20cm POT	1m X 1m
REA	WL	WESTRINGIA LONGIFOLIA	LONG LEAVED WESTRINGIA	2	20cm POT	3m X 2m
	TUSSOCKS/ EVERGREEN	GRASSES/ I PERENNIALS				
	DCB	DIANELLA CAERULA "BREEZE"	BREEZE FLAX LILLY	65	14cm POT	0.7m X 0.65m
	DCC	DIANELLA CAERULA "CASSA BLUE"	CASSA BLUE FLAX LILLY	44	14cm POT	0.4m X 0.4m



PLANNING & DESIGN P/L 31 Enfield Ave, Preston 3072 T:9018 1529 E: admin@planninganddesign.com.au DO NOT SCALE THIS DRAWING. FIGURED DIMENSIONS TO TAKE PRECEDENCE OVE TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO CO

C THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS



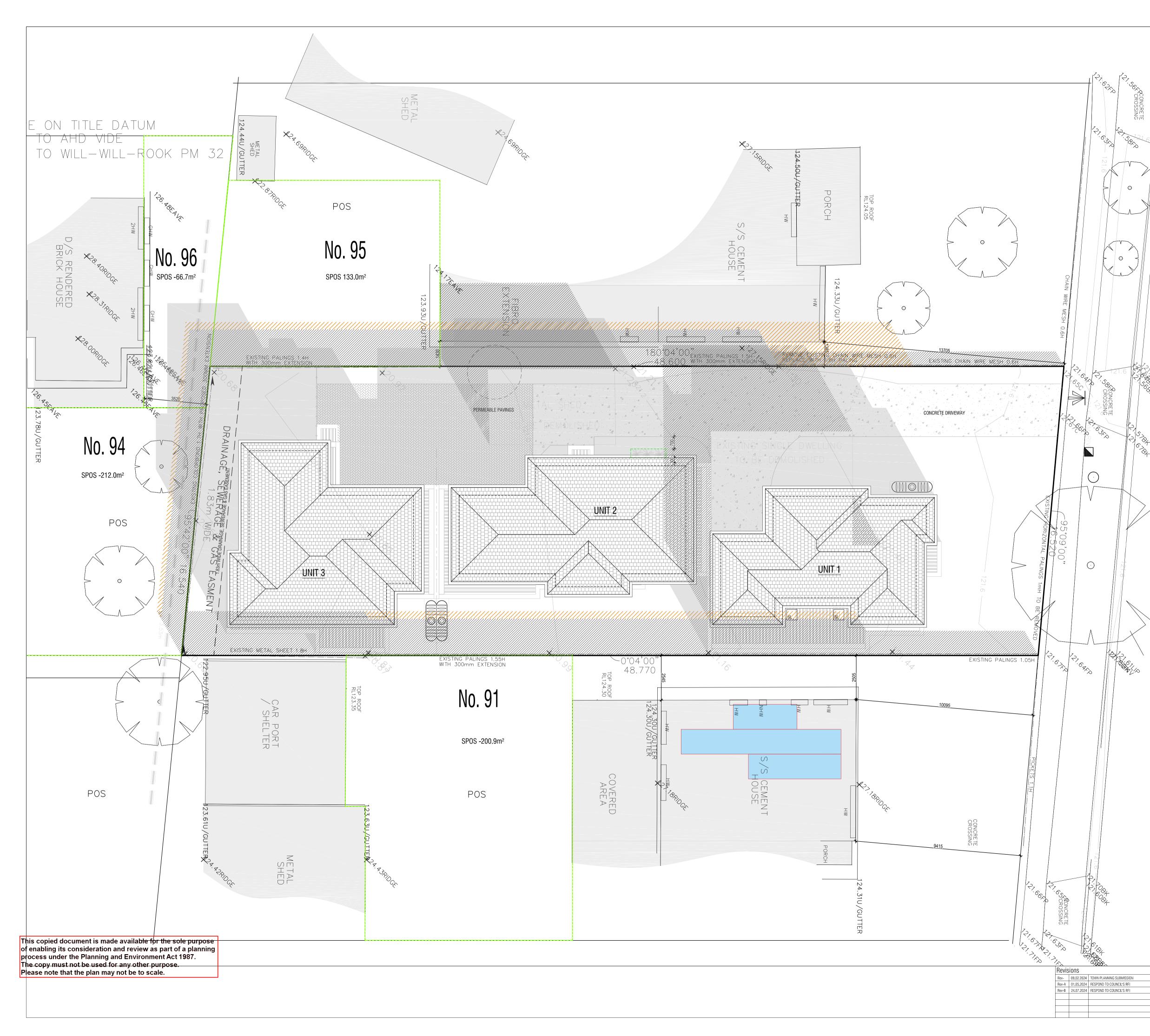
LANDSCAPE PLAN UNITS DEVELOPMENT

93 KITCHENER STREET, BROADMEADOWS

DATE SCALE DRAWN BY CHECKED BY PROJECT N

1:100@A1 WM C.M

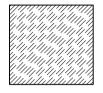
LP REV-B





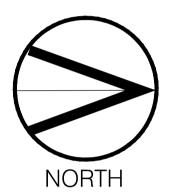
PROPOSED FENCE SHADOWS

PROPOSED SHADOWS



EXISTING SHADOWS

EXISTING AJOINING SOLAR PANELS



## SHADOW DIAGRAM 9AM 22nd OF SEPTEMBER

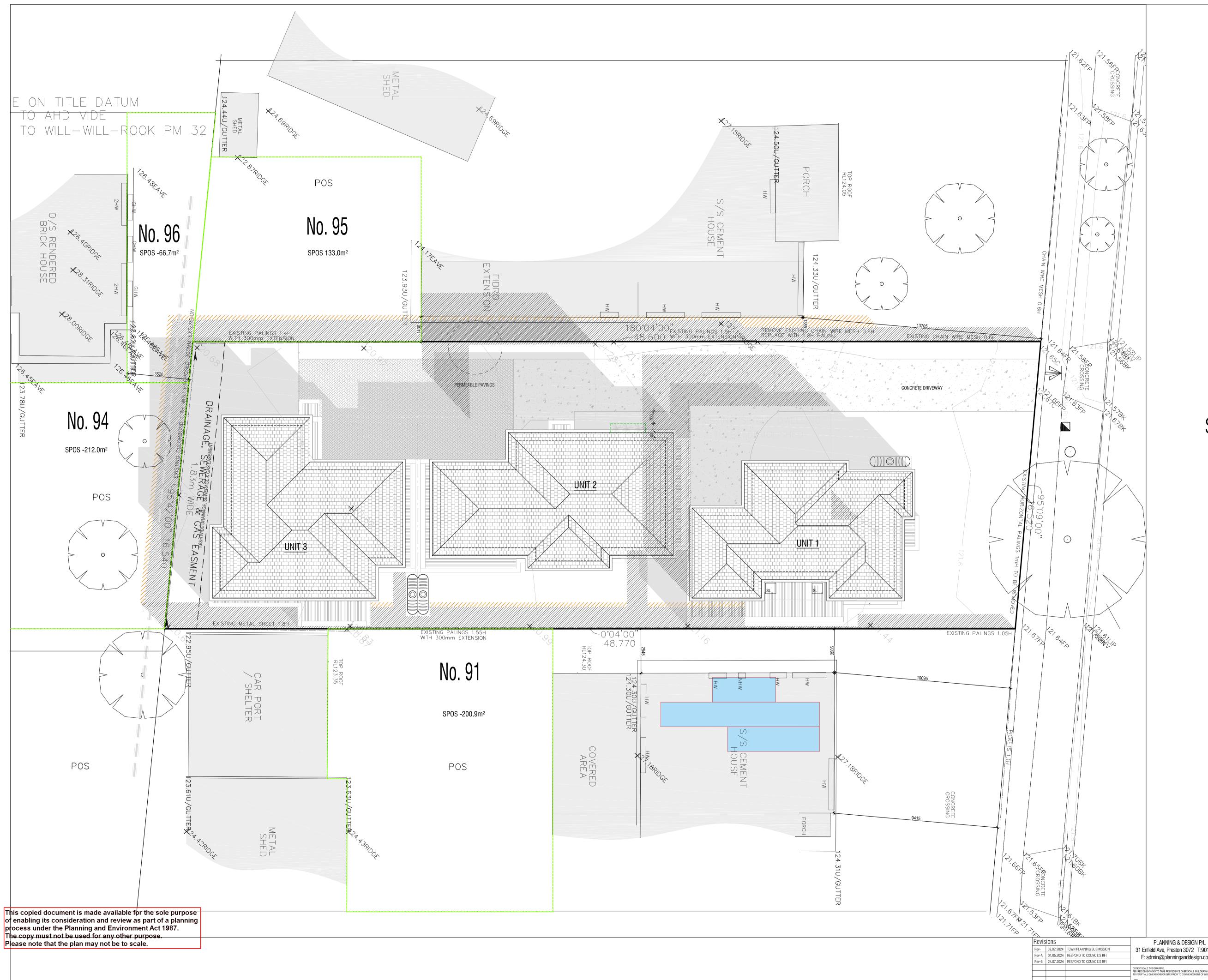
Hours	Existing shadowed SPOS % /sqm		Existing unshadowed SPOS % /sqm		Additional overshadowing SPOS % /sqm		Post-development unshadowing SPOS % /sqm		Difference % / sqm			
9 am	20.5 %	27.2 sqm	79.5 %	105.8 sqm	5.4 %	7.2 sqm	74.1 %	98.6 sqm	25.9 %	34.4 sqm		
10 am	12.3 %	16.4 sqm	87.7 %	116.6 sqm	2.5 %	3.3 sqm	85.2 %	113.3 sqm	14.8 %	19.7 sqm		
11 am	6.0 %	8.0 sqm	94.0 %	125 sqm	1.2 %	1.6 sqm	92.8 %	123.4 sqm	7.2 %	9.6 sqm		
12 am	1.2 %	1.6 sqm	98.8 %	131.4 sqm	0 %	0 sqm	98.8 %	131.4 sqm	1.2 %	1.6 sqm		
1 pm	0 %	0 sqm	100 %	133.0 sqm	0 %	0 sqm	100 %	133.0 sqm	0 %	0 sqm		
2 pm	0 %	0 sqm	100 %	133.0 sqm	0 %	0 sqm	100 %	133.0 sqm	0 %	0 sqm		
3 pm	0 %	0 sqm	100 %	133.0 sqm	0 %	0 sqm	100 %	133.0 sqm	0 %	0 sqm		
NO.91 Shadow Schedule - September Equinox (22 September)												
Hours			adowed unshadowed		Additional overshadowing		Post-devel unshadowi		Difference % /			

	SPOS % /sqm		SPOS % /sqm		SPOS % /sqm		SPOS % /sqm		sqm		
9 am	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	
10 am	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	
11 am	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	
12 am	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	100 %	200.9 sqm	0 %	0 sqm	
1 pm	2.6 %	5.3 sqm	97.4 %	195.6 sqm	0.6 %	1.2 sqm	96.7 %	194.4 sqm	3.3 %	6.5 sqm	
2 pm	6.2 %	12.4 sqm	93.8 %	188.5 sqm	1.4 %	2.8 sqm	92.2 %	185.7 sqm	7.8 %	15.2 sqm	
3 pm	10.9 %	21.8 sqm	89.1 %	179.1 sqm	5.0 %	9.9 sqm	84.1 %	169.2 sqm	15.9 %	31.7 sqm	

NO.94 Shadow Schedule - September Equinox (22 September)													
Hours	Existing shadowed SPOS % /sqm		Existing unshadowed SPOS % /sqm		Additiona overshac SPOS % /sqm		Post-devel unshadowi SPOS % /sqm		Difference % / sqm				
9 am	8.5 %	18.0 sqm	91.5 %	194 sqm	3.4 %	7.2 sqm	88.1 %	186.8 sqm	11.9 %	25.2 sqm			
10 am	8.2 %	17.5 sqm	91.7 %	194.5 sqm	3.8 %	8.0 sqm	83.3 %	176.5 sqm	16.7 %	35.5 sqm			
11 am	7.9 %	16.7 sqm	92.1 %	195.3 sqm	3.6 %	7.6 sqm	88.5 %	187.7 sqm	11.5 %	24.3 sqm			
12 am	7.8 %	16.5 sqm	92.2 %	195.5 sqm	2.9 %	6.1 sqm	89.3 %	189.4 sqm	10.7 %	22.6 sqm			
1 pm	7.6 %	16.2 sqm	92.4 %	195.8 sqm	2.9 %	6.0 sqm	89.5 %	189.8 sqm	10.5 %	22.2 sqm			
2 pm	7.0 %	14.9 sqm	93.0 %	197.1 sqm	1.8 %	3.7 sqm	91.2 %	193.4 sqm	8.8 %	18.6 sqm			
3 pm	6.9 %	14.7 sqm	93.1 %	197.3 sqm	1.6 %	3.3 sqm	91.5 %	194.0 sqm	8.5 %	18.0 sqm			

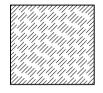
NO.96 Shadow Schedule - September Equinox (22 September)

		Hours	SPOS	shadowed u SPOS S		Existing unshadowed SPOS % /sqm		Additional overshadowing SPOS % /sqm		Post-development unshadowing SPOS % /sqm			Differen % / sqm		
		9 am	9.1 %	9.1 % 6.1 sqm		57.6 sqm	13.2 %	8.8 sqm	77.7 %		51.8 sqm		22.3 % 14		sqm
		10 am	7.1 %	4.7 sqm	92.9 %	62 sqm	5.3 %	3.5 sqm	8	7.7 %	58.5 sqn	וו	12.3 %	8.2 sqm	
		11 am	5.4 %	3.6 sqm	94.6 %	63.1 sqm	1.4 %	0.9 sqm	93	3.0 %	62.2 sqm		6.8 % 4.5		sqm
		12 am	4.3 %	2.9 sqm	95.7 %	63.8 sqm	0.9 %	0.6 sqm	94	94.8 % 63.2		ı 5.2 %		3.5 sqm	
		1 pm	3.8 %	2.5 sqm	96.2 %	96.2 % 64.2 sqm		0.5 sqm	95.4 %		63.7 sqm 4		4.6 %	3.0	sqm
		2 pm	3.0 %	2.0 sqm	97.0 %	97.0 % 64.7 sqm		6 0.3 sqm		6.5 %	64.4 sqm		3.5 %	3.5 % 2.3 sqm	
		3 pm	2.4 %	1.6 sqm	97.6 %	65.1 sqm	0.2 %	0.1 sqm	97.4 %		65.0 sqn	sqm 2.6 %		1.7 sqm	
	PLANN	ING & DES	GN P/L		P L	A N	IN I	NG	&	DATE	SCALE				PROJECT No.
 31 Enfield Ave, Preston 3072 T:9018 1529 E: admin@planninganddesign.com.au						<b>H</b>	H		JAN 2024 PRC	1:100@A1 )POSED	w SHA		IAGR	AM	
 FIGURED DIM TO VERIFY AL	I SCALE THIS DRAWING, D DIMENSIONS TO TAKE PRECEDENCE OVER SCALE, BUILDERS & CONTRACTORS MEY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS. THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COVINGHI REGULATIONS									93	S DEVEL KITCHENER BROADMEA	STRE	ET,		<b>D01</b> Rev-b
Sector Desig	N AND ARE SUBJECT	TO COPYRIGHT REG	IULATIONS										J		



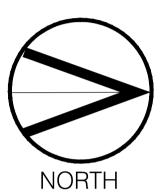
PROPOSED SHADOWS

PROPOSED FENCE SHADOWS



EXISTING SHADOWS

EXISTING AJOINING SOLAR PANELS



SHADOW DIAGRAM 10AM 22nd OF SEPTEMBER

31 Enfield Ave, Preston 3072 T:9018 1529 E: admin@planninganddesign.com.au



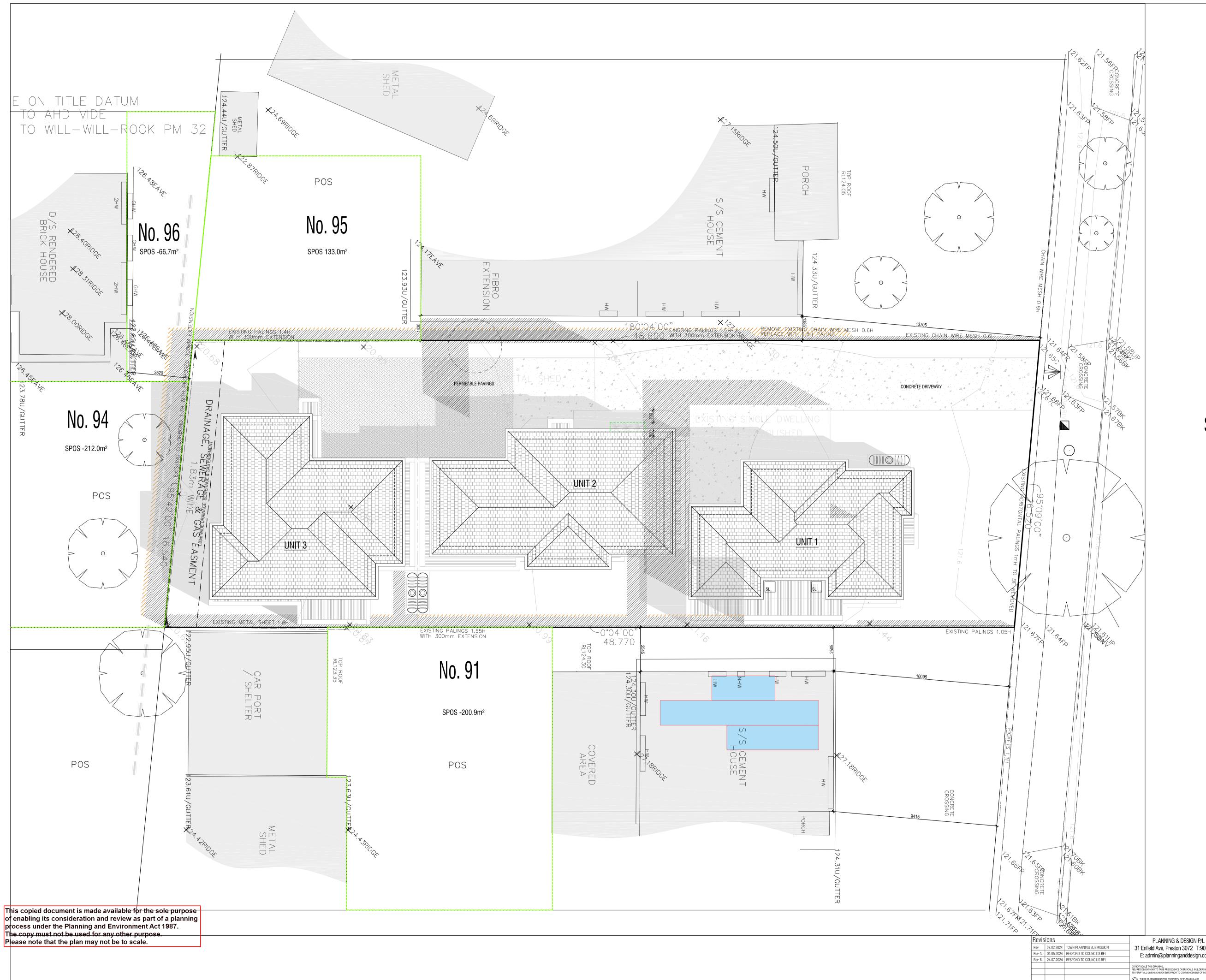
PROPOSED SHADOW DIAGRAM UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS

 DATE
 SCALE
 DRAWN BY
 CHECKED BY
 PROJECT No

 JAN 2024
 1:100@A1
 WM
 C.M
 --



THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS



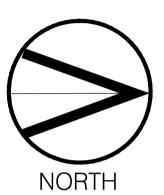
PROPOSED FENCE SHADOWS

PROPOSED SHADOWS



EXISTING SHADOWS

EXISTING AJOINING SOLAR PANELS



SHADOW DIAGRAM 11AM 22nd OF SEPTEMBER

31 Enfield Ave, Preston 3072 T:9018 1529 E: admin@planninganddesign.com.au

THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS

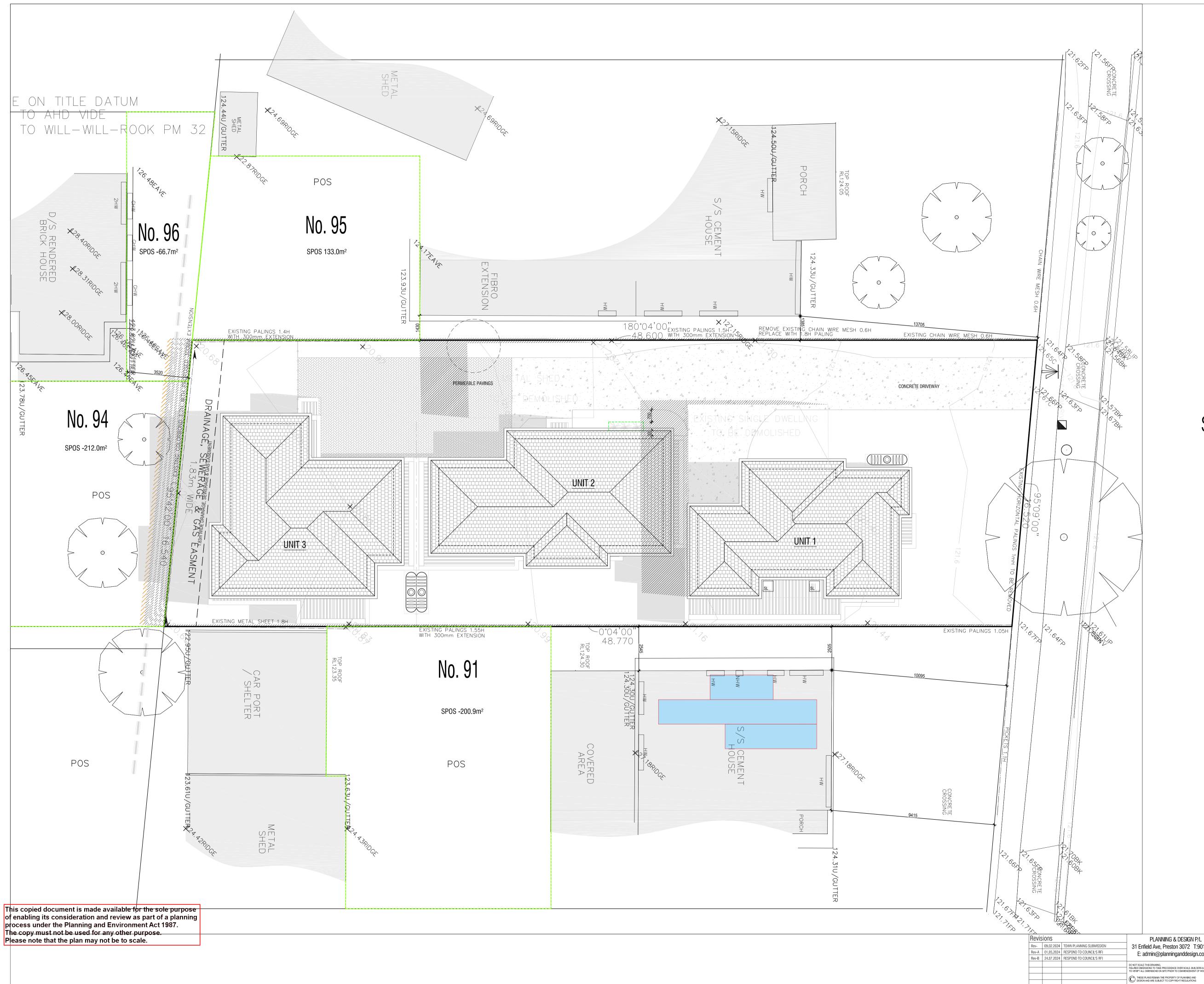


PROPOSED SHADOW DIAGRAM UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS

 DATE
 SCALE
 DRAWN BY
 CHECKED BY
 PROJECT No

 JAN 2024
 1:100@A1
 WM
 C.M
 --







PROPOSED SHADOWS

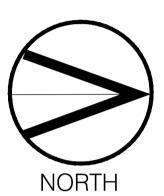
PROPOSED FENCE SHADOWS



EXISTING SHADOWS



EXISTING AJOINING SOLAR PANELS



SHADOW DIAGRAM 12PM 22nd OF SEPTEMBER

31 Enfield Ave, Preston 3072 T:9018 1529 E: admin@planninganddesign.com.au

ANNING DESIGN

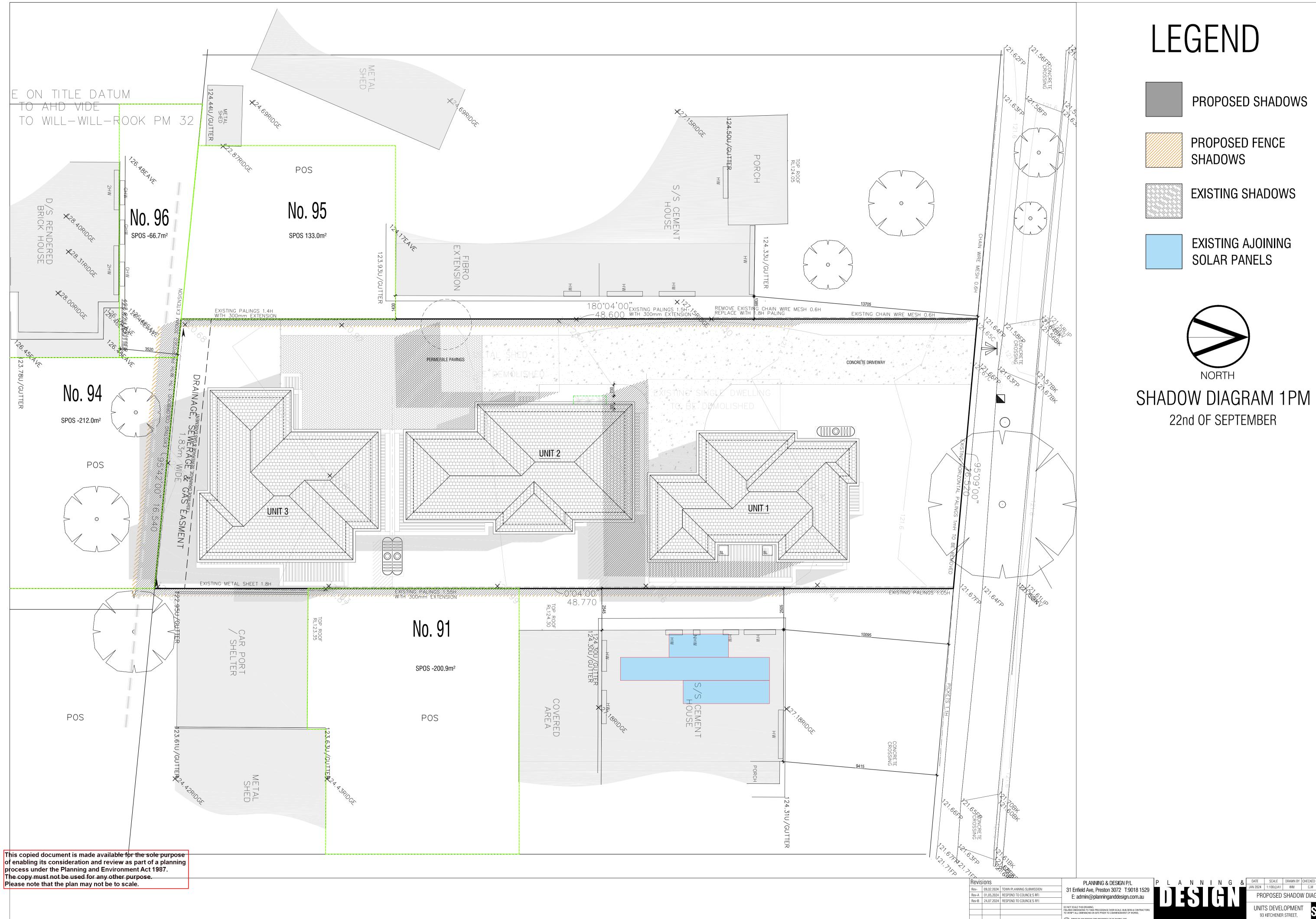
UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS

 DATE
 SCALE
 DRAWN BY
 CHECKED BY
 PROJECT No

 JAN 2024
 1:100@A1
 WM
 C.M
 --

PROPOSED SHADOW DIAGRAM





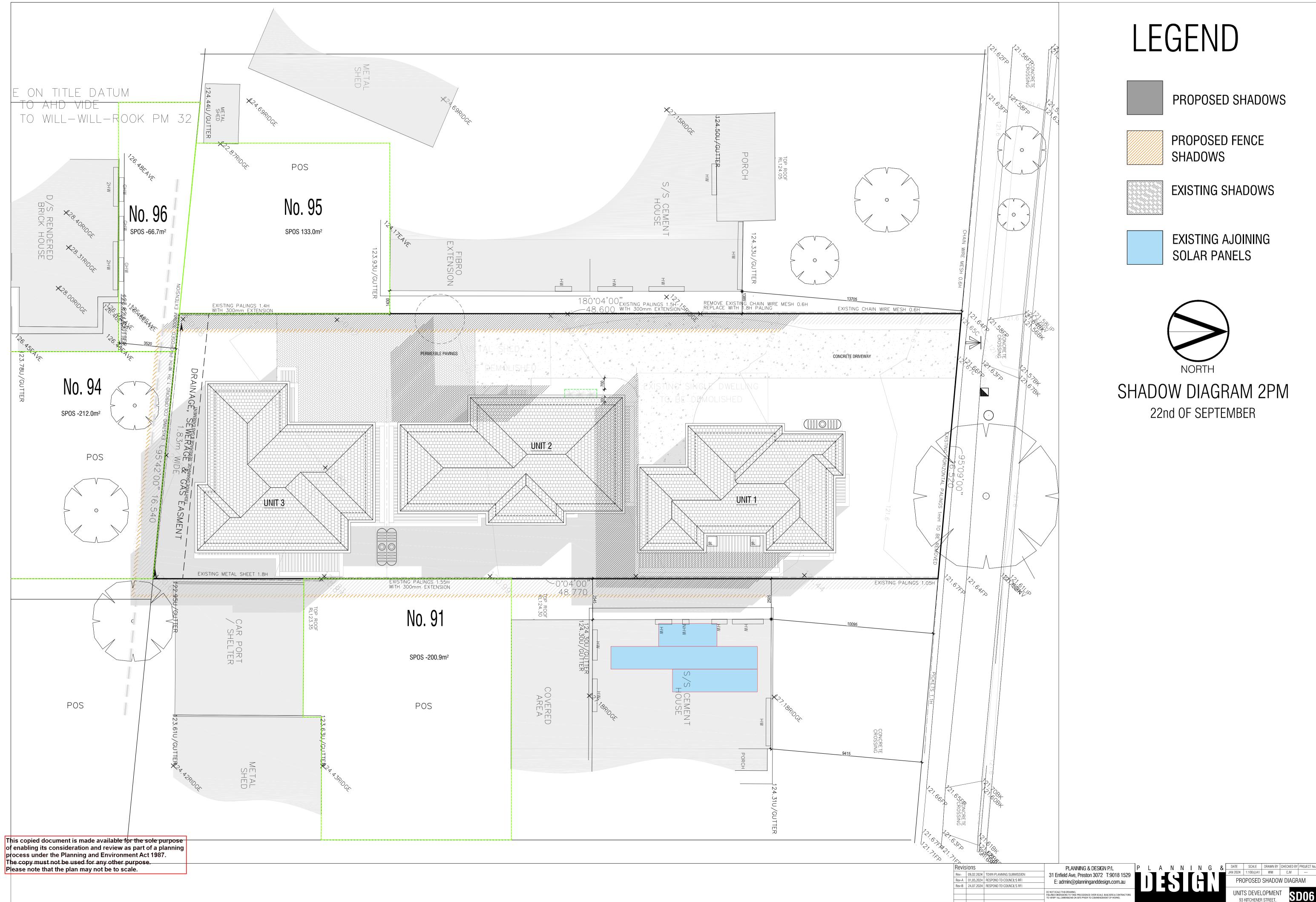
PROPOSED SHADOW DIAGRAM UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS

 DATE
 SCALE
 DRAWN BY
 CHECKED BY
 PROJECT No

 JAN 2024
 1:100@A1
 WM
 C.M
 --



THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS



PROPOSED SHADOWS

PROPOSED FENCE

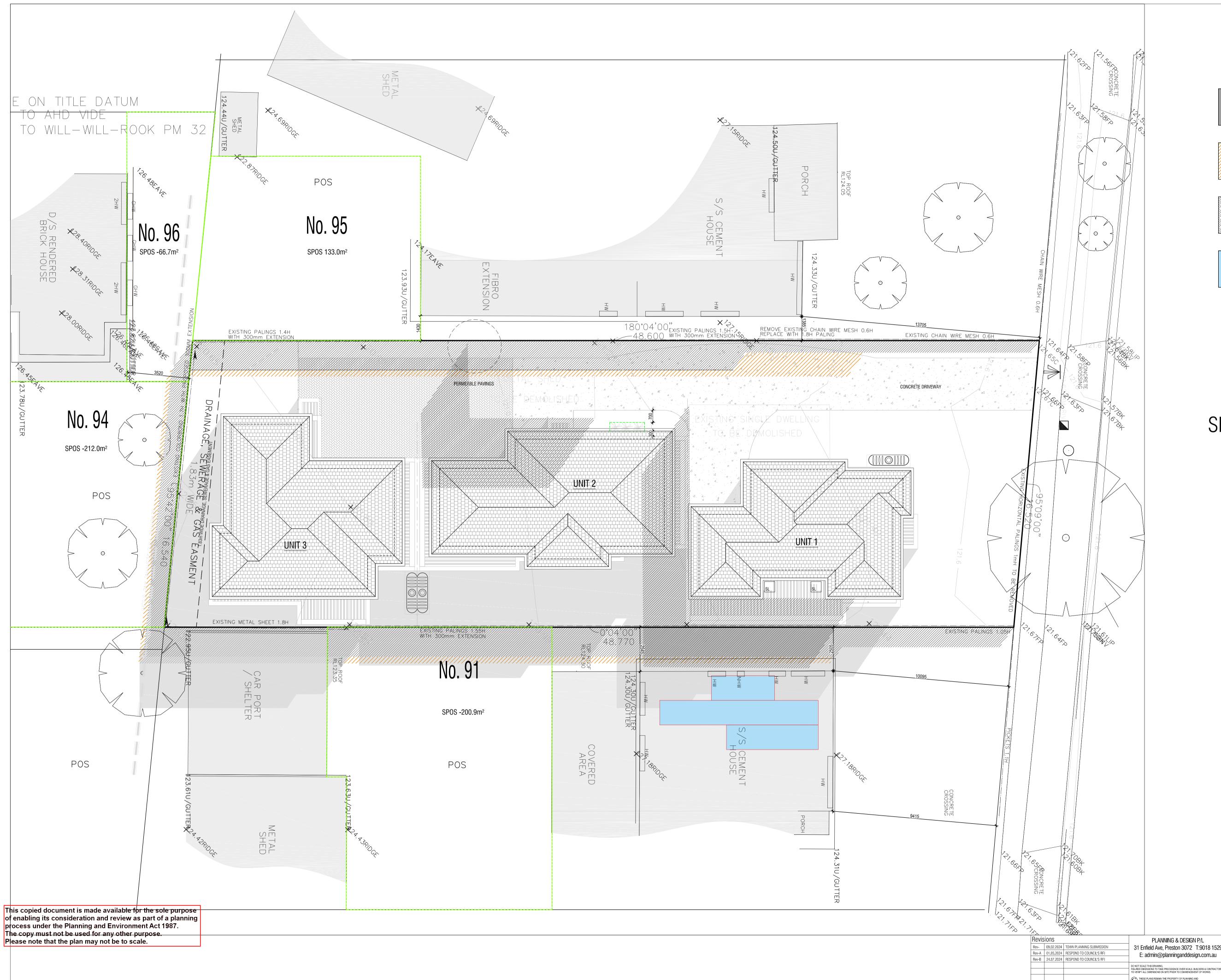
EXISTING AJOINING SOLAR PANELS

SHADOW DIAGRAM 2PM 22nd OF SEPTEMBER

THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS

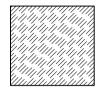
PROPOSED SHADOW DIAGRAM UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS





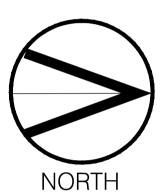
PROPOSED FENCE SHADOWS

PROPOSED SHADOWS



EXISTING SHADOWS

EXISTING AJOINING SOLAR PANELS



SHADOW DIAGRAM 3PM 22nd OF SEPTEMBER

E: admin@planninganddesign.com.au

NNING DESIGN

UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS

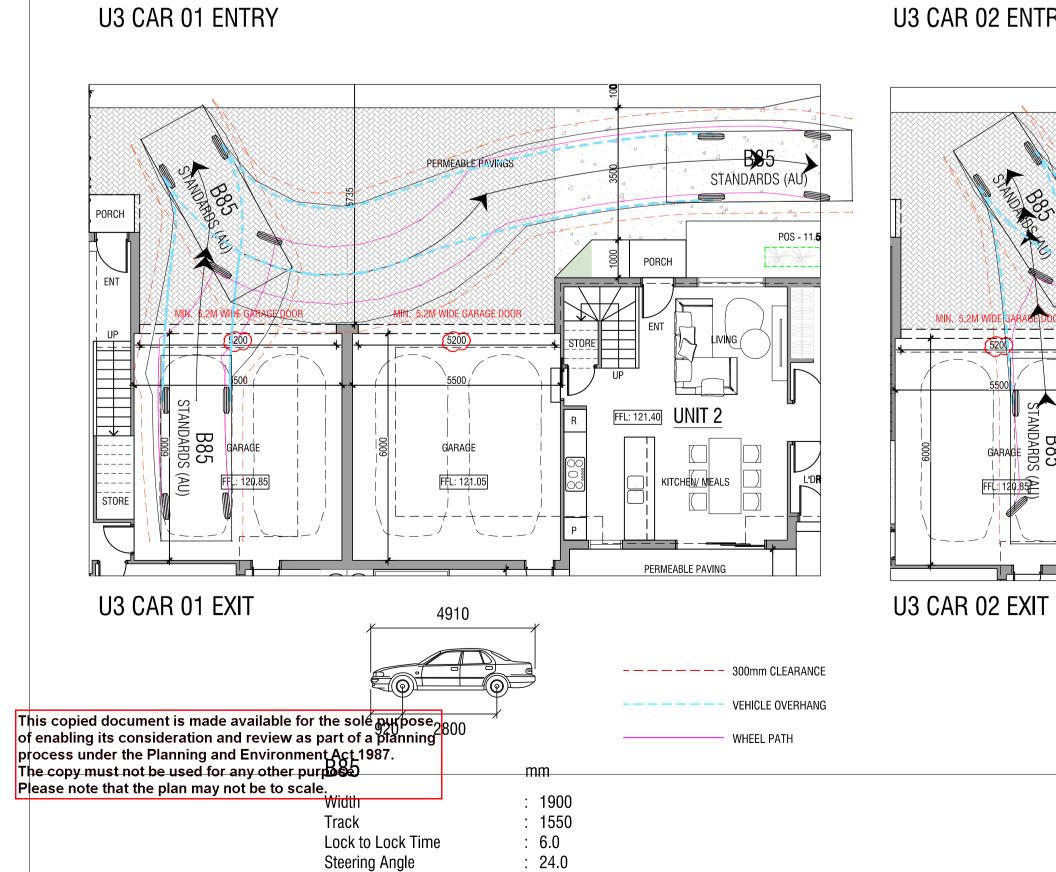
 DATE
 SCALE
 DRAWN BY
 CHECKED BY
 PROJECT No

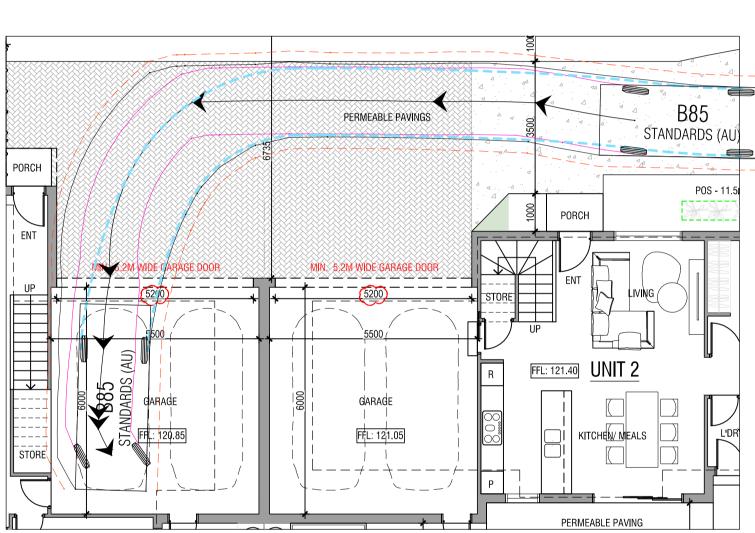
 JAN 2024
 1:100@A1
 WM
 C.M
 --

PROPOSED SHADOW DIAGRAM

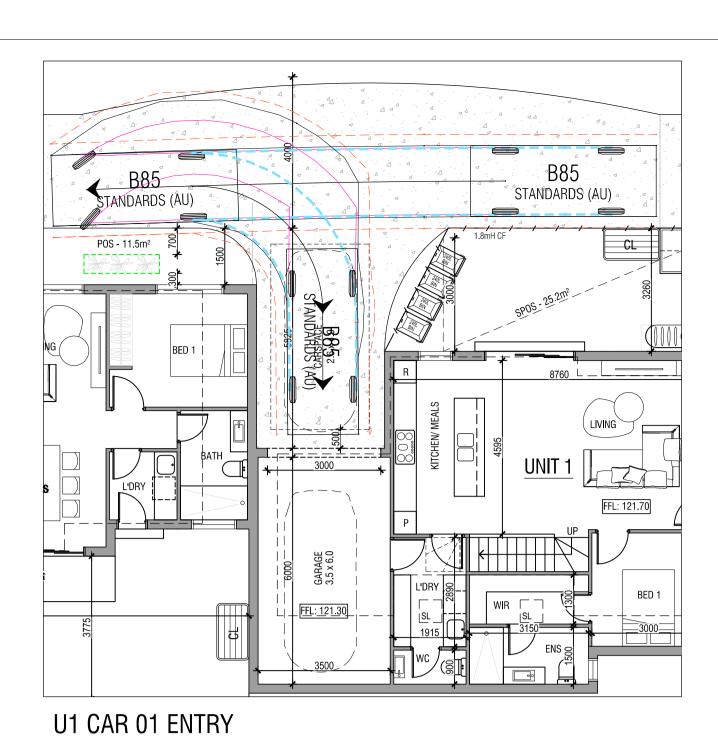


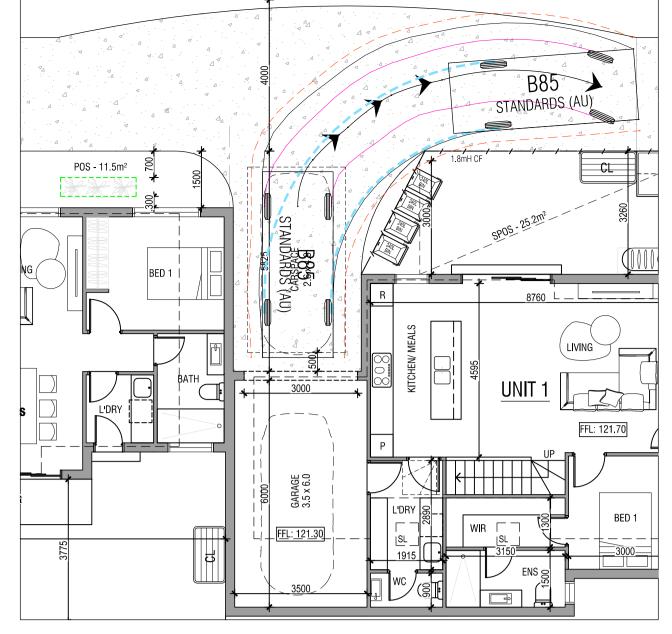
THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS



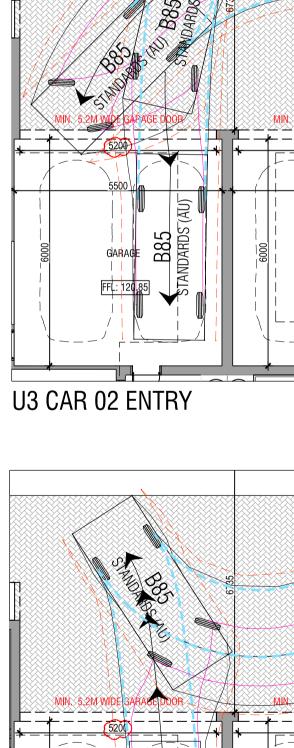








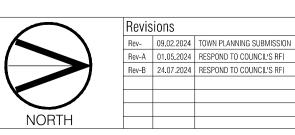
U1 CAR 01 EXIT

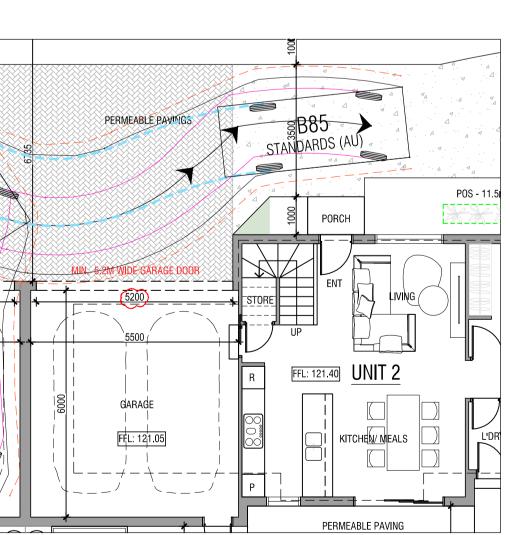


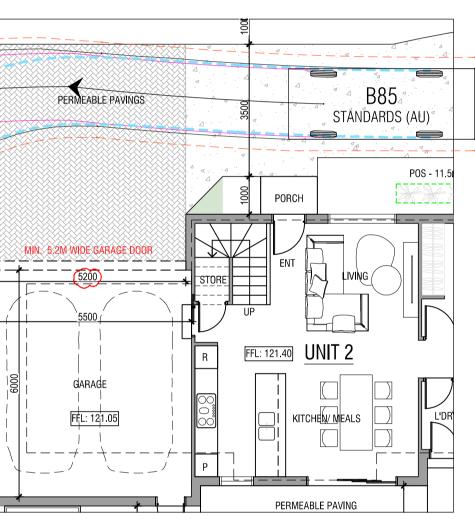
B85

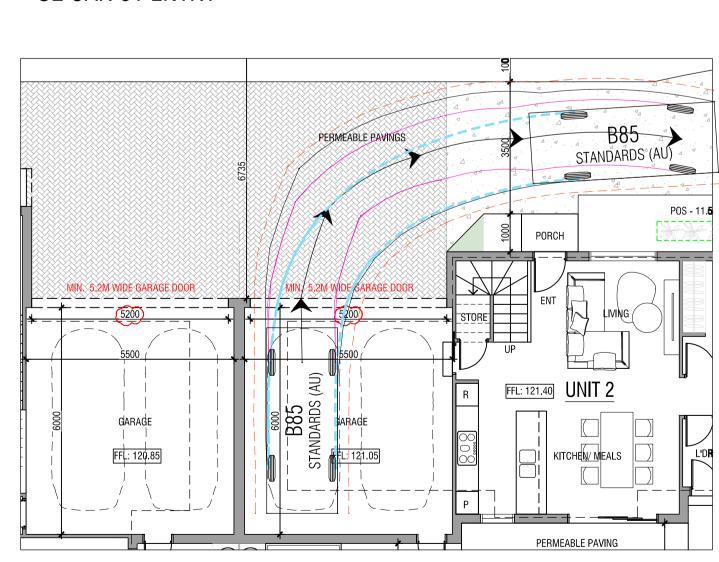
GARAGE

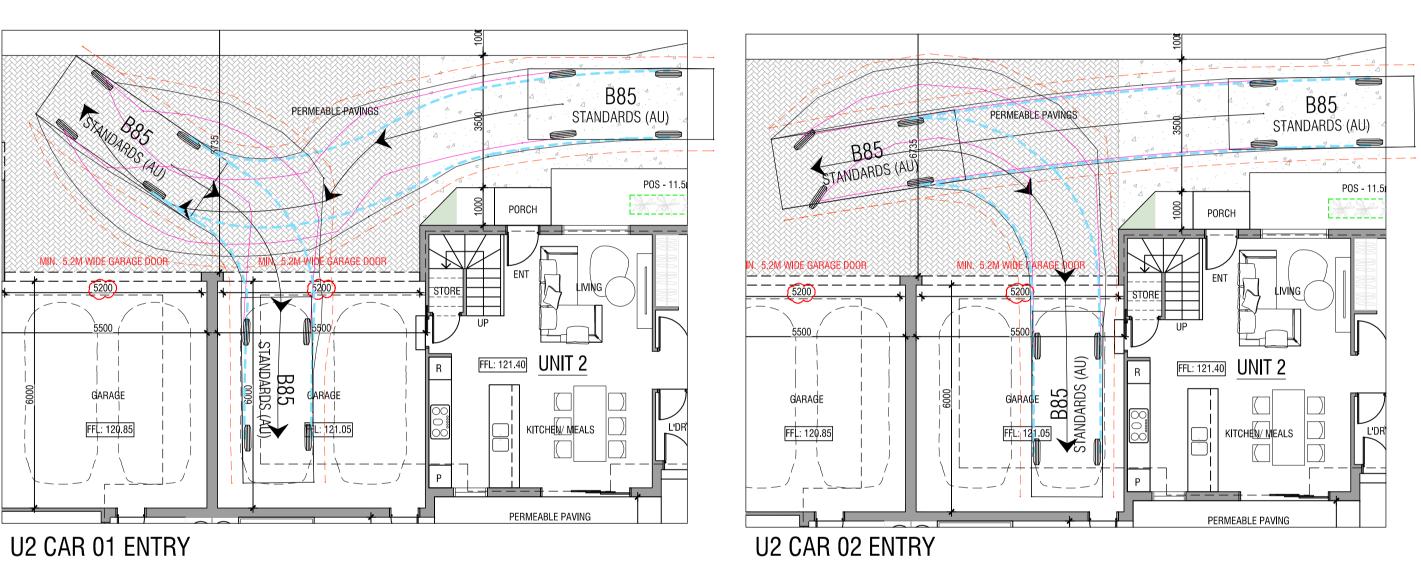
FFL: 120 85





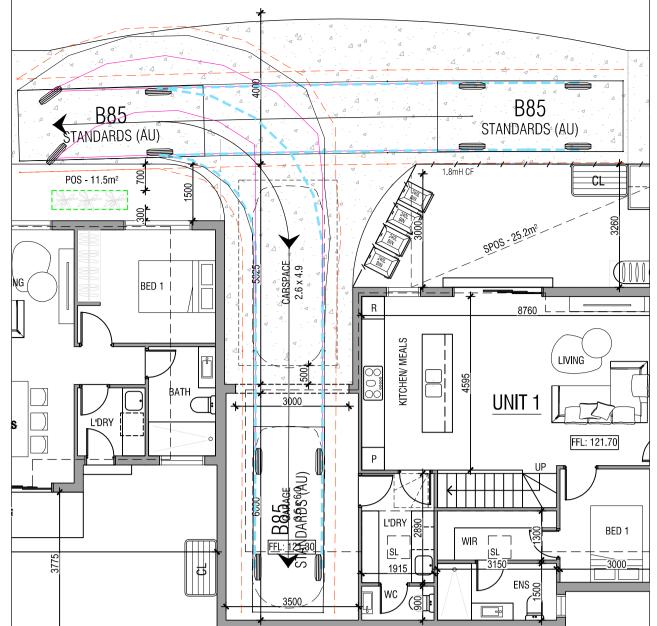


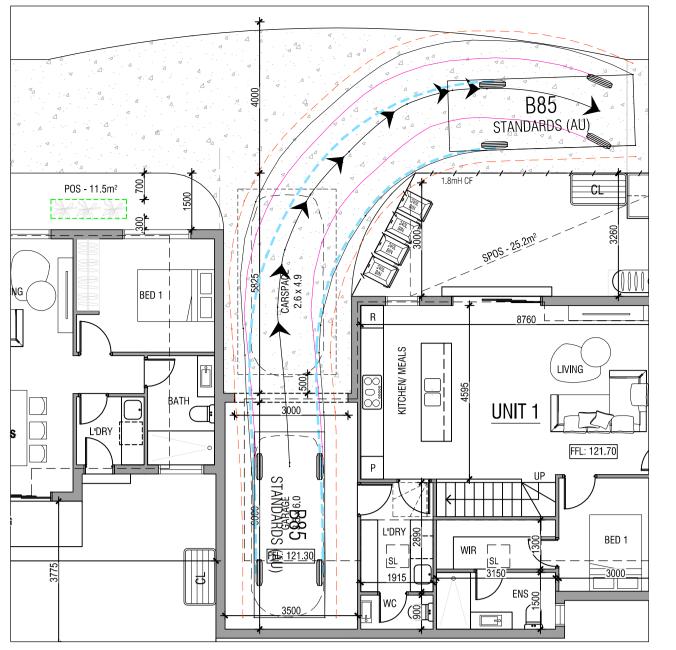




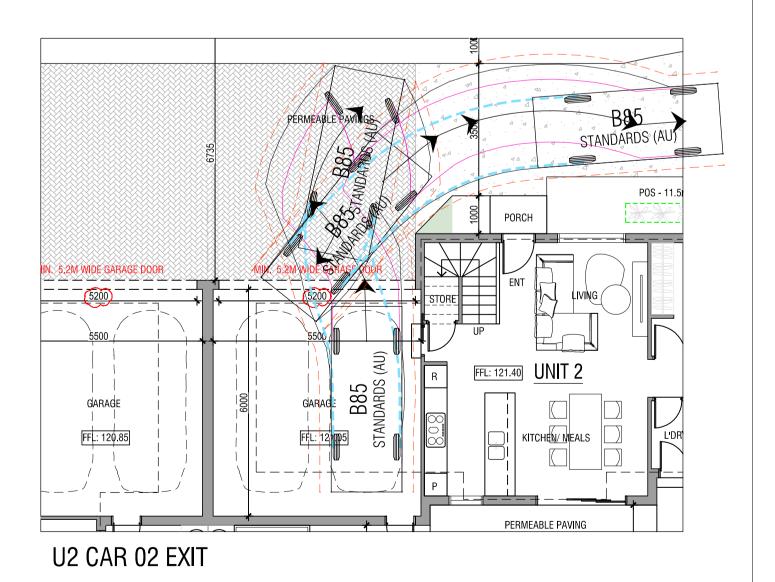


U2 CAR 01 EXIT





U1 CAR 02 EXIT



 
 DATE
 SCALE
 DRAWN BY
 CHECKED BY
 PROJECT No.

 JAN 2024
 1:100@A1
 WM
 C.M
 -- ANNING PLANNING & DESIGN P/L DESIGN 31 Enfield Ave, Preston 3072 T:9018 1529 E: admin@planninganddesign.com.au SWEPT PATH PLAN UNITS DEVELOPMENT 93 KITCHENER STREET, BROADMEADOWS SP REV-B DO NOT SCALE THIS DRAWING. FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALE. TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEI THESE PLANS REMAIN THE PROPERTY OF PLANNING AND DESIGN AND ARE SUBJECT TO COPYRIGHT REGULATIONS