



Office Use Only

Application No.:

Date Lodged: / /

Application for Planning Permit

Planning Enquiries
Phone: 03 9205 2200
Web: <http://www.hume.vic.gov.au>

If you need help to complete this form, read [How to complete the Application for Planning Permit form](#).

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

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

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

Clear Form

The Land i ① Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No.:	St. No.: 17-19	St. Name: Harker Street
Suburb/Locality: Sunbury		Postcode: 3428

Formal Land Description *

Complete either A or B.

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

A	Lot No.: 1	<input type="radio"/> Lodged Plan	<input checked="" type="radio"/> Title Plan	<input type="radio"/> Plan of Subdivision	No.: 550022H
OR					
B	Crown Allotment No.:		Section No.:		
Parish/Township Name:					

Remove Address

Formal Land Description *

Complete either A or B.

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

A	Lot No.:	<input type="radio"/> Lodged Plan	<input type="radio"/> Title Plan	<input type="radio"/> Plan of Subdivision	No.:
OR					
B	Crown Allotment No.: 12		Section No.: 11		
Parish/Township Name: Township of Sunbury Parish of Buttlegorrk					

Remove Address

If this application relates to more than one address, please click this button and enter relevant details.

Add Address

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? *

If you need help about the proposal, read:

[How to Complete the Application for Planning Permit Form](#)

9 Unit Development to be built on two lots.

⚠ 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 \$2500000
You may be required to verify this estimate. Insert '0' if no development is proposed.
If the application is for land within metropolitan Melbourne (as defined in section 3 of the Planning and Environment Act 1987) and the estimated cost of the development exceeds \$1 million (adjusted annually by CPI) the Metropolitan Planning Levy must be paid to the State Revenue Office and a current levy certificate must be submitted with the application. Visit www.sro.vic.gov.au for information.

Existing Conditions i

4 Describe how the land is used and developed now *

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

17 Harker St is occupied by a single dwelling. 19 Harker St is vacant.
Provide a plan of the existing conditions. Photos are also helpful.

Title Information i

5 Encumbrances on title *

If you need help about the title, read: How to complete the Application for Planning Permit form

Does the proposal breach, in any way, an encumbrance on title such as a restrictive 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 i

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.

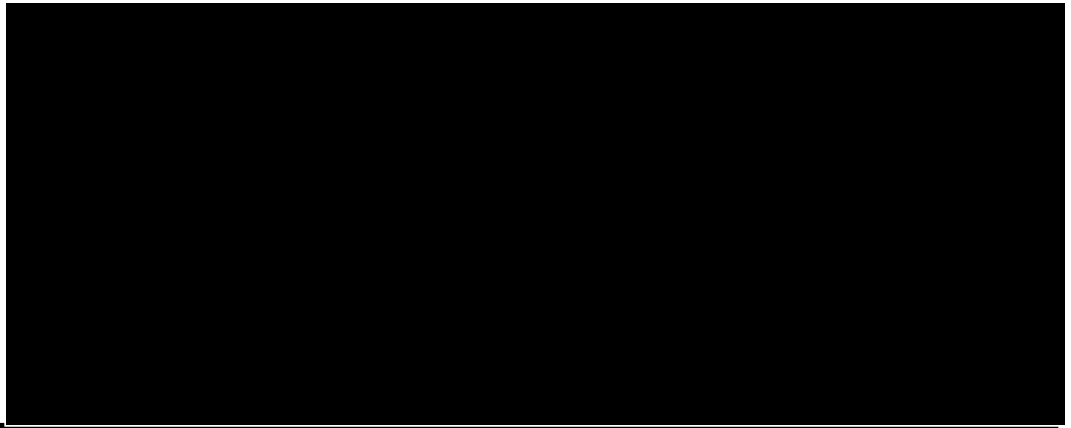
Please provide at least one contact phone number *

Name: Title: First Name: Justin Surname: Mastores
Organisation (if applicable): 1719 Harker St PTY LTD
Postal Address: Unit No.: St. No.: 9 St. Name: Prince Patrick St
Suburb/Locality: Richmond State: VIC Postcode: 3121
Contact person's details * Same as applicant (if so, go to 'contact information')
Name: Title: First Name: Justin Surname: Mastores
Organisation (if applicable): 1719 Harker St PTY LTD
Postal Address: Unit No.: St. No.: 9 St. Name: Prince Patrick St
Suburb/Locality: Richmond State: VIC Postcode: 3121
Contact information Business Phone: 03 8573 0555 Email: jmastores@reesgroup.com.au
Mobile Phone: 0419 515 312 Fax:

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.

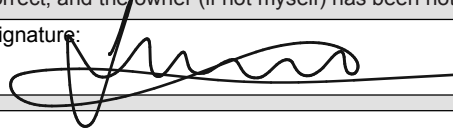


Declaration i

7 This form must be signed by the applicant *

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

I declare that I am the applicant; and that all the information in this application is true and correct; and the owner (if not myself) has been notified of the permit application.

Signature: 

Date: 30/8/2021
day / month / year

Need help with the Application?

If you need help to complete this form, read [How to complete the Application for Planning Permit form](#)
General information about the planning process is available at www.delwp.vic.gov.au/planning

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

Checklist

9 Have you:

Filled in the form completely?

Paid or included the application fee?

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

 Provided all necessary supporting information and documents?

A full, current copy of title information for each individual parcel of land forming the subject site

A plan of existing conditions.

Plans showing the layout and details of the proposal

Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.

If required, a description of the likely effect of the proposal (eg traffic, noise, environmental impacts).

If applicable, a current Metropolitan Planning Levy certificate (a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office and then cannot be used). Failure to comply means the application is void.

Completed the relevant Council planning permit checklist?

Signed the declaration (section 7)?

Lodgement

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

Hume City Council
PO Box 119 Dallas VIC 3047
Pascoe Vale Road Broadmeadows VIC 3047

Contact information:

Telephone: 61 03 9205 2200

Email: email@hume.vic.gov.au

DX: 94718

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

Deliver application in person, by fax, or by post:

Print Form

Make sure you deliver any required supporting information and necessary payment when you deliver this form to the above mentioned address. This is usually your local council but can sometimes be the Minister for Planning or another body.

Save Form:

Save Form To
Your Computer

You can save this application form to your computer to complete or review later or email it to others to complete relevant sections.

Town Planning Submission

Proposed Unit Development

17-19 Harker Street
Sunbury, Vic 3429

May 2021

Table of Contents

1. Introduction	3
2. Site Analysis	4
3. Design Response	8
4. Planning Controls & Overlays.....	9
5. Planning Policies	10
6. Character Study.....	14
7. Particular Provisions	15
8. Conclusion	17
9. ResCode Assessment	18
Clause 55.02 - Neighbourhood Character and Infrastructure	18
Clause 55.03 - Site Layout and Building Massing	19
Clause 55.04 - Amenity Impacts.....	25
Clause 55.05 - On-Site Amenity and Facilities.....	30
Clause 55.06 - Detailed Design.....	32

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 & Environment Act 1987*. The copy must not be used for any other purpose.

1. Introduction

1.1 Overview

Lazarovski Design have prepared this Planning Report & proposed design for a medium density residential development at 17-19 Harker Street, Sunbury.

The subject site is within a General Residential Zone - Schedule 1 (GRZ1), and is affected by the following overlays:

- Nil

This planning submission describes the site and broader context in which the site is located. The development proposal has been assessed against the relevant planning controls and policies set out in the Planning Scheme and is provided within. This report should be read in conjunction with the following:

- Neighbourhood & Site Description
- Design Response
- Architectural Plans
- Shadow Diagrams

1.2 Proposal

The proposal seeks permission for a medium density development to be built on the site, of a double-storey scale. Two dwellings face the street, with the other seven dwellings at the rear with access available to each dwelling via the street front.

This Planning Report outlines the high level of compliance with the relevant standards and assess the development against the relevant planning polices and controls.

Figure 1 – Proposed Development



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 & Environment Act 1987*. The copy must not be used for any other purpose.

2. Site Analysis

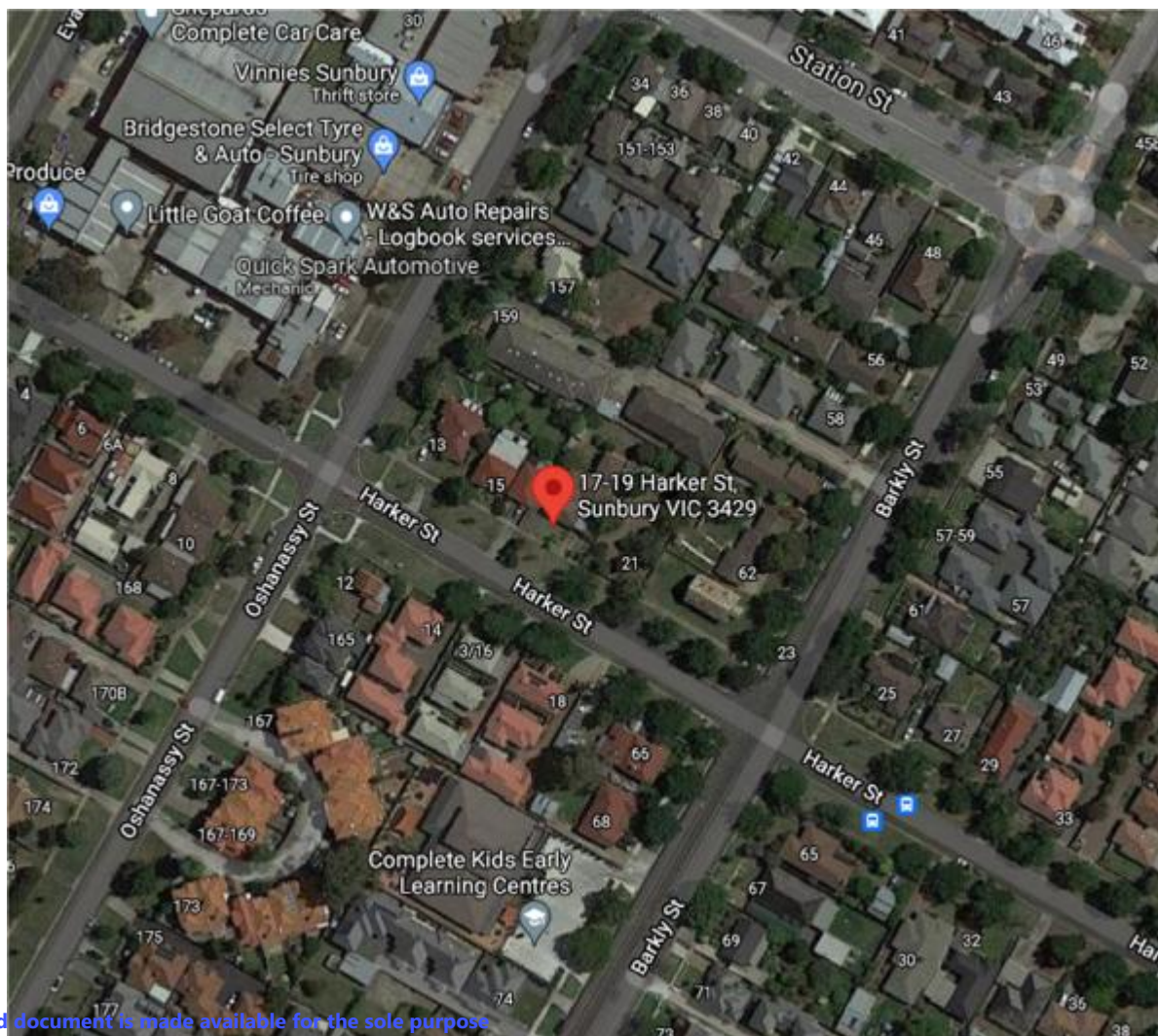
2.1 Neighbourhood Description

The site is located on a quiet residential street, surrounded by a number of medium density developments of double & single-storey dwellings within the area. The adjoining dwellings are generally built of brick veneer or weatherboard, with either tiled or metal roofs, most of which also have eaves. The adjoining lot sizes are generally consistent in the area, and the front setbacks are generous with established landscaping.

Private open spaces are generally located to the rear of the dwellings and there are mostly large driveways to the side of the dwellings. Outbuildings and sheds are also common, with the majority within the immediate neighbourhood having some form of metal or brick shed, carport or garage located either adjacent or to the rear of the dwelling. Off street car parking is also a common theme with many of the adjoining dwellings. Side fences are generally 1800h, and front fences are generally of a low scale, where present.

Subdivisions and multi dwelling developments are very common within the immediate area and the wider neighbourhood.

Figure 2 – Aerial Photo



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 & Environment Act 1987*. The copy must not be used for any other purpose.

2.2 Subject Site

The subject site is rectangular in shape, 1612.16m² in total area and has a southern orientation. The site has a frontage of 40.12m, an overall length of 40.167m. There are no easements located on the site however there are unregistered pipes across both sites. The site has a significant downhill slope, a characteristic that follows onto the adjoining properties, and the wider area. There is no change of level from one site to the next. Solar access is adequate to the site, as there are no significant buildings or walls built to the northern boundary.

There is a single dwelling located at No 17, while No 19 is currently vacant. The adjoining properties are of a single storey scale, with a number of two storey dwellings present. The adjoining dwellings are mostly setback off the side boundaries, and generally have their private open spaces located on the side boundary also, with adequate solar access. There are a number of windows and private open spaces located within 9m of the subject site, all of which have been considered within the proposal. There are no significant views from the subject site.

There are several canopy trees located on the site. Adjoining landscape areas are mostly established, also consisting of small shrubs and canopy trees. There is an existing vehicle crossover located along the site's frontage, and typical kerbs and channels. There are no other significant features along the frontage such as street poles, Telstra or sewer pits.

The site is located within walking distances to local shops, public transport services and public open spaces. Please refer to the Neighbourhood & Site Description Plan.

Figure 1 – Street Directory



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 & Environment Act 1987*. The copy must not be used for any other purpose.

Figure 3 – Subject Site



Figure 4 & 5 – Adjoining Properties



Adjoining Property – 15 Harker Street, Sunbury

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 & Environment Act 1987*. The copy must not be used for any other purpose.



Adjoining Property – 62 Barkly Street, Sunbury

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 & Environment Act 1987*. The copy must not be used for any other purpose.

3. Design Response

3.1 The Proposal

The proposal involves the construction of nine (9) double storey dwellings to be built on the site at number 17-19 Harker Street, Sunbury.

Key characteristics:

Dwelling 1 & 9:

- The dwelling is proposed with its own street frontage
- To be built of brick veneer, weatherboards and architectural cladding with pitched metal roof and eaves.
- A covered entrance and porch, clearly identifiable from the street
- A living space facing the street front for passive surveillance
- Main living areas receiving adequate north light
- Access to the private open space is directly via the living spaces
- Adequate vehicle storage and parking locations, with easy street access.

Dwelling 2 - 8:

- To be built of brick veneer, weatherboards and architectural cladding with pitched metal roof and eaves.
- A covered entrance and porch
- A living space facing the front for passive surveillance
- Main living areas receiving adequate north light
- Access to the private open space is directly via the living spaces
- Adequate vehicle storage and parking locations, with easy street access.

General:

In general, the proposed development is considered to have been carefully designed while having a full regard to both the constraints exhibited by the site and the neighbourhood context into which the proposal is incorporated. The proposed development shall provide a positive contribution to the street, and not be detrimental to the adjoining properties, or surrounding character of the area, with no loss of amenity to either.

Key characteristics:

- The setback has been designed to maintain the rhythm of the street and characteristics of the street
- The overall height does not exceed 9m
- The choice of colour and materials aid in the proposal nestling well within the existing streetscape
- A new crossover will be constructed and used to allow access to all dwellings
- Letterboxes have been provided to each dwelling fronting the site
- Adequate bin and storage facilities have been provided to each dwelling
- Landscaping opportunities have been provided within the front setback, and private open spaces to each dwelling

An assessment against Clause 55 has been provided at the end of this report and should be read in conjunction with the architectural plans provided. Also provided is an existing and proposed

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 & Environment Act 1987*. The copy must not be used for any other purpose.

4. Planning Controls & Overlays

4.1 Zone

The subject site is within a General Residential Zone - Schedule 1 (GRZ1)

Key characteristics:

	Standard	Requirement
Minimum street setback	B6	None specified
Site coverage	B8	None specified
Permeability	B9	None specified
Landscaping	B13	None specified
Side and rear setbacks	B17	None specified
Walls on boundaries	B18	None specified
Private open space	B28	None specified
Front fence height	B32	None specified

4.2 Overlays

The subject site is affected by the following overlays:

- Nil

5. Planning Policies

5.1 State Planning Policy Framework

Clause 15 – Built Environment & Heritage:

Planning is to recognise the role of urban design, building design, heritage and energy and resource efficiency in delivering liveable and sustainable cities, towns and neighbourhoods.

Planning should ensure all land use and development appropriately responds to its surrounding landscape and character, valued built form and cultural context.

Planning should protect places and sites with significant heritage, architectural, aesthetic, scientific and cultural value.

Planning must support the establishment and maintenance of communities by delivering functional, accessible, safe and diverse physical and social environments, through the appropriate location of use and development and through high quality buildings and urban design.

Planning should promote development that is environmentally sustainable and should minimise detrimental impacts on the built and natural environment.

Planning should promote excellence in the built environment and create places that:

- Are enjoyable, engaging and comfortable to be in.
- Accommodate people of all abilities, ages and cultures.
- Contribute positively to local character and sense of place.
- Reflect the particular characteristics and cultural identity of the community.
- Enhance the function, amenity and safety of the public realm.

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 15.01-1R - Urban design - Metropolitan Melbourne: To create a distinctive and liveable city with quality design and amenity.

Clause 15.01-2S - Building design: To achieve building design outcomes that contribute positively to the local context and enhance the public realm.

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 16 - Housing:

Planning should provide for housing diversity, and ensure the efficient provision of supporting infrastructure.

Planning should ensure the long-term sustainability of new housing, including access to services, walkability to activity centres, public transport, schools and open space.

Planning for housing should include the provision of land for affordable housing.

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 & Environment Act 1987*. The copy must not be used for any other purpose.

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.

5.1a Response:

The objective of the State Planning Policy Framework is to encourage higher density housing in locations with access to physical and community infrastructure whilst providing a range of lot sizes and dwellings to allow housing to accommodate varying household sizes.

The policy seeks to support change within the existing context. The current proposal which includes the re-development of an existing site, with substantial garden areas will allow for the proposal to merge with the existing neighbourhood at an increment which can be absorbed by the existing street context.

Whilst a strategy to locate higher density housing close to existing urban infrastructure exists, other objectives must also be met. Such objectives require development to respect and reflect the context of the site, provide for convenient and safe connections to the road network, be cost effective in infrastructure provision, energy efficient, designed with water design sensitive principles whilst encouraging public transport use.

The development has been carefully designed to minimise adverse amenity impacts with the external materials and architectural detailing, all providing a uniquely sympathetic development. The proposal compliments the amenity of adjoining properties and streetscape through careful site planning, layout of the design and the respectful use of building form which derive from the existing neighbourhood character. The design response also carefully considers the adjoining land uses through the utilisation of effective urban design principles.

We believe that the proposed development responds well to the site constraints and opportunities and will have a minimal impact on the amenity of the neighbouring properties and surrounding area. The proposal is consistent with the State Planning Policy Framework in this regard as the consolidation of the land provides for an efficient use of infrastructure whilst complying with the local planning and amenity provisions outlined in the scheme. We believe that the proposal is of a design that satisfies with the State Planning Policy Framework.

5.2 Local Planning Policy Framework

Clause 21.07-1 Residential Growth: To accommodate appropriate residential growth in identified locations.

Clause 21.07-2 Housing Diversity: To ensure a range of housing types are available to meet the diverse needs of residents. To encourage the development of older persons accommodation.

Clause 21.07-3 Residential Design: To promote development that is well designed, innovative and responds to its location and context. To facilitate the development of attractive, safe, high amenity neighbourhoods that have a strong sense of identity and neighbourhood character. To ensure new development demonstrates best practice environmentally sustainable design.

5.2a Response:

The site is zoned Residential and is within close proximity to services and amenities. It is therefore deemed that the proposal is compliant with the above planning policy. The proposal will also result in

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 & Environment Act 1987*. The copy must not be used for any other purpose.

an increased living density where it will replace the existing dwelling with a new development, allowing future residents of diverse backgrounds to meet their needs.

Within the Residential Zone, increased density developments are supported, should they meet the relevant planning requirements. The proposal is designed to compliment the characteristics of the area, by the use of building form, roof type and material selection. The variety of materials and finishes help to minimise any impressions of monotony and bulk.

Front setbacks will be similar to the existing front setbacks of the other dwellings along the street front. The proposed development will also have ample landscaping opportunities incorporated into the design, along with adequate carparking facilities and locations. There will be increase in noise with the proposed development, and the design will complement the neighbourhood and surrounds.

The proposal has also been designed with the following **Environmental Sustainability Design Principles**:

The new dwellings have been designed to maximise energy efficiency. A 6-star energy rating will be completed at a later stage during the building permit process, but nevertheless, the thermal properties have been considered and implemented into the design.

The attached form of dwellings and the use of a concrete sub floor are considered ecologically sustainable design solutions with regard to thermal massing. Environmental sustainability has been further increased by the use of the following:

- Providing north facing windows to the living areas of the proposed dwellings;
- The use of thermal insulation in the walls
- The use of thermally improved aluminium windows to reduce heat loss.
- The use of clothes drying facilities.
- The sealing and draft proofing of the dwellings
- Permeability well over 20% of the site and the use of appropriate paving to ensure the run-off of water from the site is of a high standard.

5.3 Urban Design and Neighbourhood Character Response

The site is suitable re-development from a single lot to a medium density housing. The size of the site allows for substantial garden area which subsequently minimises off site impacts in terms of daylight and solar access to adjoining lots. The proposal is respectful of the existing neighbourhood character whilst seeking to provide for minimal off-site impacts to adjoining owners/occupiers. Development potential exists and has been the inspiration of the design response and planning for the site - to ensure that the proposal nestles well within its surroundings. In order to achieve this, the proposal includes the following design aspects:

5.3.1 Scale

The proposal includes a built form which is considered appropriate in this predominantly single and double storey streetscape. The design response provides substantial setbacks from the side and rear title boundaries and allows for the proposal to substantially mitigate against amenity impacts to the adjoining lots. The scale of the proposal is common for the area and will unlikely impact the adjoining sites.

5.3.2 Siting & Location

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 & Environment Act 1987*. The copy must not be used for any other purpose.

The design response was derived to provide for a medium density housing design solution to the site whilst retaining the amenity and liability of the adjoining properties. This has been achieved by locating the vehicle crossovers considerately and providing the private open spaces along the northern boundary with significant setbacks. There is adequate solar access to the living areas and the private open spaces, while minimising the extent of the overshadowing to the adjoining properties.

5.3.3 Façade Design

The proposal has been well articulated and detailed. Elements of the detailing include different colours and texture which are to be applied to the facades, a combination of window shapes and sizes whilst vertical elements across the facades provide for a highly appealing response to the dwelling exteriors. The use of these features together with the pitched roof elements provide for a high level of visual interest which will positively contribute to the existing neighbourhood character.

The dwellings within the immediate neighbourhood include an eclectic range of styles starting from interwar, post war and later styles of overtly contemporary housing. The proposal uses contemporary features to provide articulation and detailing, and the overall shape, form and facade of the proposed dwellings will allow for the proposal to easily merge with the existing streetscape.

5.3.4 Front Setback

The proposal is consistent with the setbacks within the area. Front setbacks generally vary from 5-9m and the proposal takes the two adjoining properties into account when siting the proposal. The immediate area consists of substantial front gardens, for which the development contributes to. The setback proposed will allow for the planting of canopy trees along the frontage which will over time provide for the protection of the front dwelling whilst filtering views of the proposal from the street.

5.3.5 Front Boundary Treatment

There is no proposed fence along the front boundary as part of the application. This will allow for the integration of the frontage to the street and provide substantial contribution to the existing streetscape.

6 Character Study

Not Applicable

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 & Environment Act 1987*. The copy must not be used for any other purpose.

7 Particular Provisions

7.1 Minimum Garden Area Requirement

A minimum garden area requirement is being introduced into the Neighbourhood Residential Zone and the General Residential Zone. It will protect the open garden character of our suburbs, towns and cities.

A Garden Area does not include driveways, areas set aside for car parking, or any buildings or roofed areas.

The requirement allows for areas that are normally associated with the use of garden area, such as open entertaining areas, lawns, garden beds, swimming pools, and tennis courts to be included in the calculation of the garden area.

Table –Minimum Garden Area Requirement

400 – 500 square metres	25%
501 – 650 square metres	30%
Above 650 square metres	35%

Response:

The proposed development has a total site area of 1612.16m², therefore the Garden Area Requirement is a minimum of 564.256m². The proposal provides 613.99m² of Garden Area and is therefore compliant with this standard. Please refer to the Garden Area Requirement Plan as part of the architectural drawings.

7.2 Clause 52.06 – Car Parking

Purpose

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

To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.

To support sustainable transport alternatives to the motor car.

To promote the efficient use of car parking spaces through the consolidation of car parking facilities.

To ensure that car parking does not adversely affect the amenity of the locality.

To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

Response:

7.2.1 Design standard 1 – Accessways

The proposal involves the construction of 2 dwellings facing the street front and 7 dwellings situated behind. The proposed accessway is 3.6m wide and a 4.0m radius change of direction has been provided as required. All head heights are a minimum of 2.1m, and corner splays of 2.0m x 2.5m have been provided to the accessway as required.

7.2.2 Design standard 2 – Car parking spaces

All dwellings are of a 2 bedroom scale, and therefore 1 car space has been provided. There is a single garage with a minimum dimension of 6.0m x 3.5m provided to each dwelling and one visitors car space provided to the development with a minimum dimension of 3.0m x 5.8m.

Dwelling No	No of Bedrooms	Car Spaces Required	Car Spaces Provided	Compliance
Dwelling 1	2	1	1	✓ Complies
Dwelling 2	2	1	1	✓ Complies
Dwelling 3	2	1	1	✓ Complies
Dwelling 4	2	1	1	✓ Complies
Dwelling 5	2	1	1	✓ Complies
Dwelling 6	2	1	1	✓ Complies
Dwelling 7	2	1	1	✓ Complies
Dwelling 8	2	1	1	✓ Complies
Dwelling 9	2	1	1	✓ Complies

7.2.3 Design standard 3: Gradients

The site has a significant fall to the rear, the gradients of each accessway will be no steeper than 1:8. There are no ramps as part of the application.

7.2.4 Design standard 4: Mechanical parking

There is no mechanical parking part of the application.

7.2.5 Design standard 5: Urban design

The garages and garage doors have been setback behind the facades of the dwellings and therefore do not dominate the façade or interrupt the rhythm of the streetscape. The entry points are easily identifiable and accessible for the occupants.

7.2.6 Design standard 6: Safety

There are ample opportunities for sensor lights to be installed near and around the accessways. Pedestrian and vehicle access is via the street front, where all access points and entries are clearly identifiable and maintained.

7.2.7 Design standard 7: Landscaping

The proposed accessway and car parking locations allow for adequate landscaping opportunities to help soften the accessway appearance.

8 Conclusion

The design compliments the neighbourhood character of the area, by the use of building form, choice of roof style, colours and materials. We believe that the proposed development will not impact the amenity of the adjoining properties, nor will it be detrimental to the streetscape. The proposal has high regard to the context of the site and neighbouring properties.

The proposal is a typical type of development that is encouraged by Council, meeting the requirements of the General Residential Zone by contributing to the provision of more diverse housing stock, suited to the local requirements. The proposal will maintain the amenity of the adjoining properties whilst providing an improved level of amenity for the future residents of the subject site. The development is proposed to be constructed of high-quality materials and will be a positive addition to the existing streetscape.

Based on the design and report submitted, we believe that the proposed development is an appropriate response to the relevant policies and overlays. There is a high level of compliance with the standards of ResCode, and all the objectives have been met.

It is therefore submitted that the proposal should be supported by Council and that a permit should be granted.

9 ResCode Assessment

Clause 55.02 - Neighbourhood Character and Infrastructure

<p>Clause 55.02-1 Neighbourhood character objectives</p> <p>To ensure that the design respects the existing neighbourhood character or contributes to a preferred neighbourhood character.</p> <p>To ensure that the design responds to the features of the site and the surrounding area.</p>	<p>Standard B1</p> <p>The design response must be appropriate to the neighbourhood and the site.</p> <p>The proposed design must respect the existing or preferred neighbourhood character and respond to the features of the site.</p>	<p>Response:</p> <p>The proposed development consists of nine (9) double-storey dwellings to be constructed, 2 of which have their own street frontages. The scale, form and choice of materials and colours aids the proposal to nestle successfully within the streetscape and is not detrimental to the neighbouring properties nor the streetscape. Similar proposals are evident within the area, and no precedent will be set by this development.</p> <p>The proposal provides a high level of architectural design, which is sympathetic to its surroundings. Adequate setbacks have been provided to the front, sides and rear, all of which continue to compliment the site context. There are also ample opportunities for canopy trees and landscaping on the site.</p> <p>✓ Complies</p>
<p>Clause 55.02-2 Residential policy objectives</p> <p>To ensure that residential development is provided in accordance with any policy for housing in the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.</p> <p>To support medium densities in areas where development can take advantage of public transport and community infrastructure and services.</p>	<p>Standard B2</p> <p>An application must be accompanied by a written statement to the satisfaction of the responsible authority that describes how the development is consistent with any relevant policy for housing in the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.</p>	<p>Response:</p> <p>Please refer to Section 5 of this report. This written response provides the necessary responses as to how the development satisfies the applicable housing policies.</p> <p>Also, please refer to the Neighbourhood & Site Description plans as to the location and convenient proximity to a range of public transport services, shops, schools and public open spaces.</p> <p>✓ Complies</p>
<p>Clause 55.02-3 Dwelling diversity objective</p> <p>To encourage a range of dwelling sizes and types in developments of ten or more dwellings.</p>	<p>Standard B3</p> <p>Developments of ten or more dwellings should provide a range of dwelling sizes and types, including:</p> <ul style="list-style-type: none"> ▪ Dwellings with a different number of bedrooms. 	<p>Response:</p> <p>Not applicable – 10 or more dwellings.</p> <p>✓ Not Applicable</p>

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 & Environment Act 1987*. The copy must not be used for any other purpose.

	<ul style="list-style-type: none"> At least one dwelling that contains a kitchen, bath or shower, and a toilet and wash basin at ground floor level. 	
<p>Clause 55.02-4</p> <p>Infrastructure objectives</p> <p>To ensure development is provided with appropriate utility services and infrastructure.</p> <p>To ensure development does not unreasonably overload the capacity of utility services and infrastructure.</p>	<p>Standard B4</p> <p>Development should be connected to reticulated services, including reticulated sewerage, drainage, electricity and gas, if available.</p> <p>Development should not unreasonably exceed the capacity of utility services and infrastructure, including reticulated services and roads.</p> <p>In areas where utility services or infrastructure have little or no spare capacity, developments should provide for the upgrading of or mitigation of the impact on services or infrastructure.</p>	<p>Response:</p> <p>The proposed development shall be connected to all typical reticulated services such as power, water, gas, phones. The proposal should not unreasonably exceed the capacity of any utility services.</p> <p>The site is also located well within local infrastructure such as schools, parks, public open spaces and public transport systems.</p> <p>Please refer to the Neighbourhood & Site Description for further details.</p> <p>✓ Complies</p>

Clause 55.03 - Site Layout and Building Massing

<p>Clause 55.02-5</p> <p>Integration with the street objectives</p> <p>To integrate the layout of development with the street.</p>	<p>Standard B5</p> <p>Developments should provide adequate vehicle and pedestrian links that maintain or enhance local accessibility.</p> <p>Development should be oriented to front existing and proposed streets.</p> <p>High fencing in front of dwellings should be avoided if practicable.</p> <p>Development next to existing public open space should be laid out to complement the open space.</p>	<p>Response:</p> <p>The proposal involves the construction of nine (9) double-storey dwellings, and there is no front fencing proposed, enabling views into the gardens from the street.</p> <p>Vehicle and pedestrian access is via the streetfront. This access is easily identifiable, managed and maintained. All entrances are clearly visible and accessible.</p> <p>✓ Complies</p>
--	---	---

<p>Clause 55.03-1</p> <p>Street setback objective</p> <p>To ensure that the setbacks of buildings from a street respect the existing or preferred neighbourhood character and make efficient use of the site.</p>	<p>Standard B6</p> <p>Walls of buildings should be set back from streets the distance specified in Table B1. Porches, pergolas and verandahs that are less than 3.6 metres high and eaves may encroach not more than 2.5 metres into the setbacks of this standard.</p>	<p>Response:</p> <p>The proposed development has a minimum front setback of 5.50m, which exceeds the average of the two adjoining properties by only 35mm. The property to the west has a front setback of 5.27m, while the property to the east has a side setback of 5.80m.</p> <p>We are seeking a concession to this standard as we believe that the setback is not excessive, nor out of character to the area. It is noted that the adjoining dwelling to the east is on a corner block that faces Barkly Street. While to the east, there is an adjoining garage between the development and the dwelling. We believe this variation in the setback is neither disrespecting of the immediate neighbours or the surrounding area.</p> <p>The porches do not exceed 3.6m in height and do not encroach more than 2.5m into this setback.</p> <p>✓ Variation Required</p>
<p>Clause 55.03-2</p> <p>Building height objectives</p> <p>To ensure that the height of buildings respects the existing or preferred neighbourhood character.</p>	<p>Standard B7</p> <p>The maximum building height should not exceed the maximum height specified in the zone, schedule to the zone or an overlay that applies to the land.</p> <p>If no maximum height is specified in the zone, schedule to the zone or an overlay, the maximum building height should not exceed 9 metres, unless the slope of the natural ground level at any cross section wider than 8 metres of the site of the building is 2.5 degrees or more, in which case the maximum building height should not exceed 10 metres.</p> <p>Changes of building height between existing buildings and new buildings should be graduated.</p>	<p>Response:</p> <p>The proposal is of a double-storey scale. The maximum overall height does not exceed 9m.</p> <p>The generous setbacks also allow for an appropriate transition to the adjoining sites. The proposal does not dominate the streetscape based on scale or bulk.</p> <p>✓ Complies</p>

<p>Clause 55.03-3 Site coverage objective</p> <p>To encourage development that respects the landscape character of the neighbourhood. To encourage the retention of significant trees on the site.</p>	<p>Standard B8</p> <p>The site area covered by buildings should not exceed 60 per cent.</p>	<p>Response:</p> <p>The site has a total area of 1612.16m². The total site coverage proposed is 708.48m², which is a total of 43.95%.</p> <p>✓ Complies</p>
<p>Clause 55.03-4 Permeability objectives</p> <p>To reduce the impact of increased stormwater run-off on the drainage system.</p> <p>To facilitate on-site stormwater infiltration.</p>	<p>Standard B9</p> <p>At least 20 per cent of the site should not be covered by impervious surfaces.</p>	<p>Response:</p> <p>The total permeability provided is 593.48m², which equals 36.81%. The proposal provides more than the required permeability and allows for adequate landscaping opportunities within the development.</p> <p>✓ Complies</p>
<p>Clause 55.03-5 Energy efficiency objectives</p> <p>To achieve and protect energy efficient dwellings and residential buildings.</p> <p>To ensure the orientation and layout of development reduce fossil fuel energy use and make appropriate use of daylight and solar energy.</p>	<p>Standard B10</p> <p>Buildings should be:</p> <ul style="list-style-type: none"> ▪ Oriented to make appropriate use of solar energy. ▪ Sited and designed to ensure that the energy efficiency of existing dwellings on adjoining lots is not unreasonably reduced. <p>Living areas and private open space should be located on the north side of the development, if practicable.</p> <p>Developments should be designed so that solar access to north-facing windows is maximised.</p>	<p>Response:</p> <p>The proposed dwellings have also been designed to maximise energy efficiency with the following Environmental Sustainability Design Principles:</p> <p>The attached form of dwellings and the use of a concrete sub floor are considered ecologically sustainable design solutions with regard to thermal massing. Environmental sustainability has been further increased by the use of the following:</p> <ul style="list-style-type: none"> • Providing north facing windows to the living areas of the proposed dwellings; • The use of thermal insulation in the walls • The use of thermally improved aluminium windows to reduce heat loss. • The use of clothes drying facilities. • The sealing and draft proofing of the dwellings • Permeability well over 20% of the site and the use of appropriate paving to ensure the run-off of water from the site is of a high standard. <p>A 6-star energy rating will be completed at a later stage, during the building permit process, but nevertheless, the thermal properties have been considered and implemented into the design.</p> <p>✓ Complies</p>

<p>Clause 55.03-6 Open space objective</p> <p>To integrate the layout of development with any public and communal open space provided in or adjacent to the development.</p>	<p>Standard B11</p> <p>If any public or communal open space is provided on site, it should:</p> <ul style="list-style-type: none"> ▪ Be substantially fronted by dwellings, where appropriate. ▪ Provide outlook for as many dwellings as practicable. ▪ Be designed to protect any natural features on the site. ▪ Be accessible and useable. 	<p>Response:</p> <p>Not applicable – there are no public or communal open spaces proposed as part of the development.</p> <p>✓ Not Applicable</p>
<p>Clause 55.03-7 Safety objective</p> <p>To ensure the layout of development provides for the safety and security of residents and property.</p>	<p>Standard B12</p> <p>Entrances to dwellings and residential buildings should not be obscured or isolated from the street and internal accessways.</p> <p>Planting which creates unsafe spaces along streets and accessways should be avoided.</p> <p>Developments should be designed to provide good lighting, visibility and surveillance of car parks and internal accessways.</p> <p>Private spaces within developments should be protected from inappropriate use as public thoroughfares.</p>	<p>Response:</p> <p>The entrances to dwelling 1 & 9 are easily identified and accessed via the street front. Dwellings 2 - 8 are accessible via a generous 3.6m common driveway. The dwellings also have adequate windows facing the accessways which enables a high level of surveillance of the area.</p> <p>Sensor lights may be provided to the carparking and accessways to increase the sense of surveillance. Private open spaces are located behind the facades of the dwellings and are appropriately screened with 1800h fences.</p> <p>Planting opportunities exists to maintain a safe and accessible development, via the use of low-level vegetation and canopy trees with the front setback.</p> <p>✓ Complies</p>

<p>Clause 55.03-8</p> <p>Landscaping objectives</p> <p>To encourage development that respects the landscape character of the neighbourhood.</p> <p>To encourage development that maintains and enhances habitat for plants and animals in locations of habitat importance.</p> <p>To provide appropriate landscaping.</p> <p>To encourage the retention of mature vegetation on the site.</p>	<p>Standard B13</p> <p>The landscape layout and design should:</p> <ul style="list-style-type: none"> ▪ Protect any predominant landscape features of the neighbourhood. ▪ Take into account the soil type and drainage patterns of the site. ▪ Allow for intended vegetation growth and structural protection of buildings. ▪ In locations of habitat importance, maintain existing habitat and provide for new habitat for plants and animals. ▪ Provide a safe, attractive and functional environment for residents. <p>Development should provide for the retention or planting of trees, where these are part of the character of the neighbourhood.</p> <p>Development should provide for the replacement of any significant trees that have been removed in the 12 months prior to the application being made.</p> <p>The landscape design should specify landscape themes, vegetation (location and species), paving and lighting.</p>	<p>Response:</p> <p>There is sufficient space allowed for within the front setback, along the accessways, and within the private open spaces for each dwelling. There are adequate spaces for canopy trees and screen planting to enhance the amenity to each dwelling, and to soften the appearance of hard surfaces within the development.</p> <p>A landscape plan shall be submitted at a later stage by a qualified Landscape Architect, to the satisfaction of the Responsible Authority.</p> <p>We do request that the landscaping requirement be added as a condition on any permit.</p> <p>✓ Complies</p>
---	--	--

<p>Clause 55.03-9</p> <p>Access objectives</p> <p>To ensure the number and design of vehicle crossovers respects the neighbourhood character.</p>	<p>Standard B14</p> <p>The width of accessways or car spaces should not exceed:</p> <ul style="list-style-type: none"> ▪ 33 per cent of the street frontage, or ▪ if the width of the street frontage is less than 20 metres, 40 per cent of the street frontage. <p>No more than one single-width crossover should be provided for each dwelling fronting a street.</p> <p>The location of crossovers should maximise the retention of on-street car parking spaces.</p> <p>The number of access points to a road in a Road Zone should be minimised.</p> <p>Developments must provide for access for service, emergency and delivery vehicles.</p>	<p>Response:</p> <p>The site has an overall frontage of 40.12m. We propose a new crossover between the two sites to allow access to all dwellings via a 3.6m wide common driveway.</p> <p>The crossover shall be 3.6m in width, along the street frontage. This equals 9% of the site's frontage, and within the allowable standard. The proposed new crossover shall have splay widths that comply to Council Standards.</p> <p>There is a dedicated visitors car park provided on-site as well as ample on-street parking available along Harker Street.</p> <p>✓ Complies</p>
<p>Clause 55.03-10</p> <p>Parking location objectives</p> <p>To provide convenient parking for resident and visitor vehicles.</p> <p>To avoid parking and traffic difficulties in the development and the neighbourhood.</p> <p>To protect residents from vehicular noise within developments.</p>	<p>Standard B15</p> <p>Car parking facilities should:</p> <ul style="list-style-type: none"> ▪ Be reasonably close and convenient to dwellings and residential buildings. ▪ Be secure. ▪ Be designed to allow safe and efficient movements within the development. ▪ Be well ventilated if enclosed. <p>Large parking areas should be broken up with trees, buildings or different surface treatments.</p> <p>Shared accessways or car parks of other dwellings and residential buildings should be located at least 1.5 metres from the windows of habitable rooms. This setback may be reduced to 1 metre where there is a fence at least 1.5 metres high or where window sills are at least 1.4 metres above the accessway.</p>	<p>Response:</p> <p>Each dwelling has been provided with its own single garage or secure carport. The garages and parking locations are conveniently located to each dwelling, and are secured by garage doors, but well ventilated.</p> <p>The garages do not abut habitable room windows, and the accessways are located over 1.5m from any habitable room window.</p> <p>✓ Complies</p>

[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 & Environment Act 1987*. The copy must not be used for any other purpose.](#)

Clause 55.04 - Amenity Impacts

<p>Clause 55.04-1</p> <p>Side and rear setbacks objective</p> <p>To ensure that the height and setback of a building from a boundary respects the existing or preferred neighbourhood character and limits the impact on the amenity of existing dwellings.</p>	<p>Standard B17</p> <p>A new building not on or within 200mm of a boundary should be set back from side or rear boundaries:</p> <ul style="list-style-type: none"> ▪ At least the distance specified in a schedule to the zone, or ▪ If no distance is specified in a schedule to the zone, 1 metre, plus 0.3 metres for every metre of height over 3.6 metres up to 6.9 metres, plus 1 metre for every metre of height over 6.9 metres. <p>Sunblinds, verandahs, porches, eaves, fascias, gutters, masonry chimneys, flues, pipes, domestic fuel or water tanks, and heating or cooling equipment or other services may encroach not more than 0.5 metres into the setbacks of this standard.</p> <p>Landings having an area of not more than 2 square metres and less than 1 metre high, stairways, ramps, pergolas, shade sails and carports may encroach into the setbacks of this standard.</p>	<p>Response:</p> <p>There are no proposed walls to be built along any of the site boundaries. The entire the development has been sufficiently setback off the side and rear boundaries and complies to this standard.</p> <p>There are no proposed encroachments into the building envelope.</p> <p>✓ Complies</p>
<p>Clause 55.04-2</p> <p>Walls on boundaries objective</p> <p>To ensure that the location, length and height of a wall on a boundary respects the existing or preferred neighbourhood character and limits the impact on the amenity of existing dwellings.</p>	<p>Standard B18</p> <p>A new wall constructed on or within 200mm of a side or rear boundary of a lot or a carport constructed on or within 1 metre of a side or rear boundary of lot should not abut the boundary:</p> <ul style="list-style-type: none"> ▪ For a length of more than the distance specified in a schedule to the zone; or ▪ If no distance is specified in a schedule to the zone, for a length of more than: 	<p>Response:</p> <p>There are no proposed walls to be built on any of the site boundaries.</p> <p>Please refer to the Site Layout & Ground Floor Plan of the architectural plans.</p> <p>✓ Complies</p>

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 & Environment Act 1987*. The copy must not be used for any other purpose.

	<ul style="list-style-type: none"> ○ 10 metres plus 25 per cent of the remaining length of the boundary of an adjoining lot, or ○ Where there are existing or simultaneously constructed walls or carports abutting the boundary on an abutting lot, the length of the existing or simultaneously constructed walls or carports, <p>whichever is the greater.</p> <p>A new wall or carport may fully abut a side or rear boundary where slope and retaining walls or fences would result in the effective height of the wall or carport being less than 2 metres on the abutting property boundary.</p> <p>A building on a boundary includes a building set back up to 200mm from a boundary.</p>	
<p>Clause 55.04-3 Daylight to windows objective To allow adequate daylight into existing habitable room windows.</p>	<p>Standard B19 Buildings opposite an existing habitable room window should provide for a light court to the existing window that has a minimum area of 3 square metres and minimum dimension of 1 metre clear to the sky. The calculation of the area may include land on the abutting lot.</p> <p>Walls or carports more than 3 metres in height opposite an existing habitable room window should be set back from the window at least 50 per cent of the height of the new wall if the wall is within a 55 degree arc from the centre of the existing window. The arc may be swung to within 35</p>	<p>Response: We have taken into account the windows to each adjoining property, and therefore the proposal does not impact any of these existing windows. Please refer to the site layout plan.</p> <p>✓ Complies</p>

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 & Environment Act 1987*. The copy must not be used for any other purpose.

	<p>degrees of the plane of the wall containing the existing window.</p> <p>Where the existing window is above ground floor level, the wall height is measured from the floor level of the room containing the window.</p>	
<p>Clause 55.04-4</p> <p>North facing windows objective</p> <p>To allow adequate solar access to existing north-facing habitable room windows.</p>	<p>Standard B20</p> <p>If a north-facing habitable room window of an existing dwelling is within 3 metres of a boundary on an abutting lot, a building should be setback from the boundary 1 metre, plus 0.6 metres for every metre of height over 3.6 metres up to 6.9 metres, plus 1 metre for every metre of height over 6.9 metres, for a distance of 3 metres from the edge of each side of the window. A north-facing window is a window with an axis perpendicular to its surface oriented north 20 degrees west to north 30 degrees east.</p>	<p>Response:</p> <p>There are no north facing habitable room windows located within 3.0m of the subject site.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details.</p> <p>✓ Complies</p>
<p>Clause 55.04-5</p> <p>Overshadowing open space objective</p> <p>To ensure buildings do not significantly overshadow existing secluded private open space.</p>	<p>Standard B21</p> <p>Where sunlight to the secluded private open space of an existing dwelling is reduced, at least 75 per cent, or 40 square metres with minimum dimension of 3 metres, whichever is the lesser area, of the secluded private open space should receive a minimum of five hours of sunlight between 9 am and 3 pm on 22 September.</p> <p>If existing sunlight to the secluded private open space of an existing dwelling is less than the requirements of this standard, the amount of sunlight should not be further reduced.</p>	<p>Response:</p> <p>The adjoining properties shall receive at least 5 hours of sunlight between 12pm and 5pm to each POS, at a minimum size of 40m².</p> <p>Please refer to the Shadow Diagrams for details. The shadow diagrams demonstrate that the proposed shadows shall not significantly impact the adjoining properties.</p> <p>✓ Complies</p>

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 & Environment Act 1987*. The copy must not be used for any other purpose.

<p>Clause 55.04-6</p> <p>Overlooking objective</p> <p>To limit views into existing secluded private open space and habitable room windows.</p>	<p>Standard B22</p> <p>A habitable room window, balcony, terrace, deck or patio should be located and designed to avoid direct views into the secluded private open space of an existing dwelling within a horizontal distance of 9 metres (measured at ground level) of the window, balcony, terrace, deck or patio. Views should be measured within a 45 degree angle from the plane of the window or perimeter of the balcony, terrace, deck or patio, and from a height of 1.7 metres above floor level.</p> <p>A habitable room window, balcony, terrace, deck or patio with a direct view into a habitable room window of existing dwelling within a horizontal distance of 9 metres (measured at ground level) of the window, balcony, terrace, deck or patio should be either:</p> <ul style="list-style-type: none"> ▪ Offset a minimum of 1.5 metres from the edge of one window to the edge of the other. ▪ Have sill heights of at least 1.7 metres above floor level. ▪ Have fixed, obscure glazing in any part of the window below 1.7 metre above floor level. ▪ Have permanently fixed external screens to at least 1.7 metres above floor level and be no more than 25 per cent transparent. <p>Obscure glazing in any part of the window below 1.7 metres above floor level may be openable provided that there are no direct views as specified in this standard.</p>	<p>Response:</p> <p>Overlooking has been addressed by the use of 1800h fences, and screening or obscure glazing to overlooking windows, where applicable.</p> <p>✓ Complies</p>
--	---	---

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 & Environment Act 1987*. The copy must not be used for any other purpose.

	<p>Screens used to obscure a view should be:</p> <ul style="list-style-type: none"> ▪ Perforated panels or trellis with a maximum of 25 per cent openings or solid translucent panels. ▪ Permanent, fixed and durable. ▪ Designed and coloured to blend in with the development. <p>This standard does not apply to a new habitable room window, balcony, terrace, deck or patio which faces a property boundary where there is a visual barrier at least 1.8 metres high and the floor level of the habitable room, balcony, terrace, deck or patio is less than 0.8 metres above ground level at the boundary.</p>	
<p>Clause 55.04-7 Internal views objective</p> <p>To limit views into the secluded private open space and habitable room windows of dwellings and residential buildings within a development.</p>	<p>Standard B23</p> <p>Windows and balconies should be designed to prevent overlooking of more than 50 per cent of the secluded private open space of a lower-level dwelling or residential building directly below and within the same development.</p>	<p>Response:</p> <p>Internal views have been limited to less than 50% of an adjoining Secluded Private Open Space</p> <p>✓ Complies</p>
<p>Clause 55.04-8 Noise impacts objective</p> <p>To contain noise sources in developments that may affect existing dwellings.</p> <p>To protect residents from external noise.</p>	<p>Standard B24</p> <p>Noise sources, such as mechanical plant, should not be located near bedrooms of immediately adjacent existing dwellings.</p> <p>Noise sensitive rooms and secluded private open spaces of new dwellings and residential buildings should take account of noise sources on immediately adjacent properties.</p> <p>Dwellings and residential buildings close to busy roads, railway lines or industry should be designed to limit noise levels in habitable rooms.</p>	<p>Response:</p> <p>There are no significant noise sources that will be located near adjoining habitable room windows. The locations of the habitable room windows and private open spaces have been considered and therefore designed to minimise any noise impacts from the adjoining properties.</p> <p>✓ Complies</p>

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 & Environment Act 1987*. The copy must not be used for any other purpose.

Clause 55.05 - On-Site Amenity and Facilities

<p>Clause 55.05-1 Accessibility objective</p> <p>To encourage the consideration of the needs of people with limited mobility in the design of developments.</p>	<p>Standard B25</p> <p>The dwelling entries of the ground floor of dwellings and residential buildings should be accessible or able to be easily made accessible to people with limited mobility.</p>	<p>Response:</p> <p>The entries to each dwelling are located on the ground floor and are easily identified and accessed via the street front.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>
<p>Clause 55.05-2 Dwelling entry objective</p> <p>To provide each dwelling or residential building with its own sense of identity.</p>	<p>Standard B26</p> <p>Entries to dwellings and residential buildings should:</p> <ul style="list-style-type: none"> ▪ Be visible and easily identifiable from streets and other public areas. ▪ Provide shelter, a sense of personal address and a transitional space around the entry. 	<p>Response:</p> <p>The dwelling entries are visible from the street and other public areas. Each entry has a covered porch to allow for a sense of address, shelter and acts as a transitional space.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>
<p>Clause 55.05-3 Daylight to new windows objective</p> <p>To allow adequate daylight into new habitable room windows.</p>	<p>Standard B27</p> <p>A window in a habitable room should be located to face:</p> <ul style="list-style-type: none"> ▪ An outdoor space clear to the sky or a light court with a minimum area of 3 square metres and minimum dimension of 1 metre clear to the sky, not including land on an abutting lot, or ▪ A verandah provided it is open for at least one third of its perimeter, or ▪ A carport provided it has two or more open sides and is open for at least one third of its perimeter. 	<p>Response:</p> <p>All proposed habitable room windows have been provided with 3.0m² of clear area to the sky, with a minimum dimension of 1.0m.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>

<p>Clause 55.05-4 Private open space objective</p> <p>To provide adequate private open space for the reasonable recreation and service needs of residents.</p>	<p>Standard B28</p> <p>A dwelling or residential building should have private open space of an area and dimensions specified in the schedule to the zone.</p> <p>If no area or dimensions are specified in the schedule to the zone, a dwelling or residential building should have private open space consisting of:</p> <ul style="list-style-type: none"> ▪ An area of 40 square metres, with one part of the private open space to consist of secluded private open space at the side or rear of the dwelling or residential building with a minimum area of 25 square metres, a minimum dimension of 3 metres and convenient access from a living room, or ▪ A balcony of 8 square metres with a minimum width of 1.6 metres and convenient access from a living room, or ▪ A roof-top area of 10 square metres with a minimum width of 2 metres and convenient access from a living room. 	<p>Response:</p> <p>Each dwelling has been provided with more than the required Private Open Space. The POS is also conveniently located to maximise the northerly aspect and is accessible directly via the living spaces of each dwelling.</p> <p>Please refer to the Private Open Space Plan for more details.</p> <p>✓ Complies</p>
<p>Clause 55.05-5 Solar Access to Open Space</p> <p>To allow solar access into the secluded private open space of new dwellings and residential buildings.</p>	<p>Standard B29</p> <p>The private open space should be located on the north side of the dwelling or residential building, if appropriate.</p> <p>The southern boundary of secluded private open space should be set back from any wall on the north of the space at least $(2+0.9h)$ metres, where 'h' is the height of the wall.</p>	<p>Response:</p> <p>The proposal includes north facing SPOS for each dwelling. There are no walls over 3.0m abutting the POS to each dwelling.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>

Clause 55.06 - Detailed Design

<p>Clause 55.05-6 Storage</p> <p>To provide adequate storage facilities for each dwelling.</p>	<p>Standard B30</p> <p>Each dwelling should have convenient access to at least 6 cubic metres of externally accessible, secure storage space.</p>	<p>Response:</p> <p>Each dwelling has a minimum of 6m³ storage, which is easily accessible.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>
<p>Clause 55.06-1 Design Detail</p> <p>To encourage design detail that respects the existing or preferred neighbourhood character.</p>	<p>Standard B31</p> <p>The design of buildings, including:</p> <ul style="list-style-type: none"> ▪ Façade articulation and detailing, ▪ Window and door proportions, ▪ Roof form, and ▪ Verandahs, eaves and parapets, <p>should respect the existing or preferred neighbourhood character.</p> <p>Garages and carports should be visually compatible with the development and the existing or preferred neighbourhood character.</p>	<p>Response:</p> <p>The proposed development consists of nine (9) double storey dwellings at number 17-19 Harker Street, Sunbury. The scale, form and choice of materials and colours aids the proposal to nestle successfully within the streetscape and is not detrimental to the neighbouring properties nor the streetscape. Similar proposals are evident within the area, and no precedent will be set by this development. The key architectural characteristics of the neighbourhood have been successfully incorporated into the proposal.</p> <p>The proposal provides a high level of architectural design, which is sympathetic to its surroundings. Adequate setbacks have been provided to the front, sides and rear, all of which continue to compliment the site context. There are also ample opportunities for canopy trees and landscaping on the site.</p> <p>The façade and building bulk is appropriately articulated by the use of materials and colours, but more importantly by the proposed garage location sitting behind the facade. The proposed garages are a part of the built form but have been softened in appearance due to the siting, and roof form.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>

<p>Clause 55.06-2 Front Fences</p> <p>To encourage front fence design that respects the existing or preferred neighbourhood character.</p>	<p>Standard B32</p> <p>The design of front fences should complement the design of the dwelling or residential building and any front fences on adjoining properties.</p> <p>A front fence within 3 metres of a street should not exceed:</p> <ul style="list-style-type: none"> ▪ Streets in a Road Zone, Category 1: 2 metres. ▪ Other streets: 1.5 metres. 	<p>Response:</p> <p>There is no proposed front fence as part of the application.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Not Applicable</p>
<p>Clause 55.06-3 Common Property</p> <p>To ensure that communal open space, car parking, access areas and site facilities are practical, attractive and easily maintained.</p> <p>To avoid future management difficulties in areas of common ownership.</p>	<p>Standard B33</p> <p>Development should clearly delineate public, communal and private areas.</p> <p>Common property, where provided, should be functional and capable of efficient management.</p>	<p>Response:</p> <p>The only common property is the common driveway used to access all dwellings. This area is easily identified, managed and maintained.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>
<p>Clause 55.06-4 Site Services</p> <p>To ensure that site services can be installed and easily maintained.</p> <p>To ensure that site facilities are accessible, adequate and attractive.</p>	<p>Standard B34</p> <p>The design and layout of dwellings and residential buildings should provide sufficient space (including easements where required) and facilities for services to be installed and maintained efficiently and economically.</p> <p>Bin and recycling enclosures, mailboxes and other site facilities should be adequate in size, durable, waterproof and blend in with the development.</p> <p>Bin and recycling enclosures should be located for convenient access by residents.</p> <p>Mailboxes should be provided and located for convenient access as required by Australia Post.</p>	<p>Response:</p> <p>There are bins located on and within the proposed development. These areas are easily accessed and maintained.</p> <p>There are proposed letterboxes facing the street. These are to be of a durable nature and easily identified and accessible by Australia Post and the occupants.</p> <p>Please refer to the Site Layout & Ground Floor Plan for details</p> <p>✓ Complies</p>

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

Page 1 of 1

VOLUME 08962 FOLIO 135

Security no : 124092130976N
Produced 30/08/2021 11:01 AM

LAND DESCRIPTION

Lot 1 on Title Plan 550022H.
PARENT TITLE Volume 08329 Folio 878
Created by instrument E669430 16/01/1973

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
1719 HARKER ST PTY LTD of 9 PRINCE PATRICK STREET RICHMOND VIC 3121
AT009440L 20/02/2020

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AT236090T 12/05/2020
WESTPAC BANKING CORPORATION

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

DIAGRAM LOCATION

SEE TP550022H FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 17 HARKER STREET SUNBURY VIC 3429

ADMINISTRATIVE NOTICES

NIL

eCT Control 16977H ST GEORGE BANK
Effective from 13/05/2020

DOCUMENT END

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

Page 1 of 1

VOLUME 08413 FOLIO 703

Security no : 124092131175W
Produced 30/08/2021 11:06 AM

LAND DESCRIPTION

Crown Allotment 12 Section 11 Township of Sunbury Parish of Buttlejorrk.
PARENT TITLE Volume 07702 Folio 120
Created by instrument B548628 20/11/1962

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
1719 HARKER ST PTY LTD of 9 PRINCE PATRICK STREET RICHMOND VIC 3121
AT244035G 14/05/2020

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AT244036E 14/05/2020
WESTPAC BANKING CORPORATION

For details of any other encumbrances see the plan or imaged folio set out
under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP331656L FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 19 HARKER STREET SUNBURY VIC 3429

ADMINISTRATIVE NOTICES

NIL

eCT Control 16977H ST GEORGE BANK
Effective from 22/06/2020

DOCUMENT END

Metropolitan Planning Levy (MPL)

Certificate

1719 harker st pty ltd

PO BOX 4667

richmond east

Certificate Number: MPLCERT18567

Issue Date: 15 June 2021

Expiry Date: 13 September 2021

PART 1 - APPLICANT DETAILS

Details of person who applied for this Certificate:

Name: 1719 harker st pty ltd

Address: PO BOX 4667
richmond east

PART 2 - LEVIABLE LAND DETAILS

Address of land to which the Metropolitan Planning Levy applies:

Street Address: 17 HARKER Street
sunbury VIC 3429

Formal Land Description:

Vol/Folio: 8962 / 135 **Lot/Plan:** CA11 / RP11 **Block/Subdivision:**

Crown Reference:

Other: 19 harker st sunbury vic 3429 vol 08413 folio 703 lot CA12 plan 11

Municipality: Hume City Council

Estimated Cost of Development: \$2,000,000

PART 3 - MPL PAYMENT DETAILS

MPL Application ID: MPL18567

MPL Paid: \$2,600.00

MPL Payment Date: 10 June 2021

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 & Environment Act 1987. The copy must not be used for any other purpose.

PART 4 - CERTIFICATION

The Commissioner of State Revenue confirms that the whole of the amount of the MPL has been paid in respect of the estimated cost of development.

Paul Broderick
Commissioner of State Revenue

PART 5 – EXPLANATORY NOTES

General

- The Metropolitan Planning Levy (MPL) is imposed for the privilege of making a leviable planning permit application.
- A leviable planning permit application is an application made to a responsible authority or planning authority under sections 47 and 96A of the *Planning and Environment Act 1987* (PEA) for a permit required for the development of land in metropolitan Melbourne, where the estimated cost of the development for which the permit is required exceeds the threshold amount (see MPL threshold amount).
- As a statutory requirement of making a leviable planning permit application, the applicant must give the responsible authority or planning authority a current MPL Certificate. The estimated cost of development stated in the MPL Certificate must be equal to or greater than the estimated cost of the development stated in the leviable planning permit application. If an applicant fails to comply with this requirement, the application for the leviable planning permit is void.
- The applicant for the leviable planning permit application is liable for the MPL.
- The Commissioner of State Revenue (Commissioner) has the general administration of the MPL.

MPL threshold amount

- The threshold amount is \$1 million for the 2015-2016 financial year.
- For the financial year beginning on 1 July 2016 and each subsequent financial year, the Consumer Price Indexed (CPI) adjusted threshold amount will be calculated in accordance with section 96R of the PEA.
- On or before 31 May each year, the Commissioner must publish the CPI adjusted threshold amount for the following financial year on the SRO website.

How MPL is calculated

- The amount of MPL is \$1.30 for every \$1000 of the estimated cost of the development for which the leviable planning permit is required.
- If the estimated cost of the development for which the leviable planning permit is required is not a multiple of \$1000, the estimated cost is to be rounded up or down to the nearest \$1000 (and, if the amount by which it is to be rounded is \$500, it is to be rounded up).

Notification and Payment of MPL to the Commissioner

- Before making a leviable planning permit application, the applicant must submit a completed Application for Metropolitan Planning Levy (MPL) Certificate and pay the whole MPL amount to the Commissioner. This Application must state the estimated cost of the development and any other information required by the Commissioner.
- If, after the Commissioner has issued a MPL Certificate which has not expired (see MPL Certificate), and the estimated cost of the development increases before the leviable planning permit application is made, the applicant must submit an Application for Metropolitan Planning Levy (MPL) Certificate (*Revised*) and pay the whole additional MPL amount to the Commissioner. This revised Application must state the increased estimated cost of the development and any other information required by the Commissioner.

MPL Certificate

- The Commissioner must issue a MPL Certificate if he is satisfied that the whole amount of the MPL has been paid in respect of the estimated cost of the development.
- Subject to section 96U(3) of the PEA, a MPL Certificate expires 90 days after the day on which it is issued.

Revised MPL Certificate

- The Commissioner must issue a revised MPL Certificate if:
 - the Commissioner has issued a MPL Certificate, which has not expired;
 - the estimated cost of the development increases before the application for a leviable planning permit is made; and
 - he is satisfied that the whole amount of the MPL has been paid in respect of the increased estimated cost of the development.
- The Commissioner may also issue a revised MPL Certificate to:
 - Correct any error in the information listed in the MPL Certificate (except the estimated cost of development as explained below), or
 - the estimated cost of the development stated in the MPL Certificate is different from the estimated cost of the development stated in the Application for Metropolitan Planning Levy (MPL) Certificate lodged by the applicant.
- A revised MPL Certificate expires 90 days after the day on which it is issued.

Refund of MPL

- The only circumstance under which a person who has paid a MPL is entitled to a refund is where there has been a mathematical error in calculating the amount of the MPL by reference to the estimated cost of the development stated in the original or revised Application for Metropolitan Planning Levy (MPL) Certificate. Other than that, a person who has paid a MPL is not entitled to a refund of the whole or any part of the MPL.

Certificate number

- The Certificate number is on the top right corner on the front of this Certificate.
- Quoting this Certificate number will give you access to information about this Certificate and enable you to enquire about your application by phone.
- You should quote this number in any correspondence.

For more Metropolitan Planning Levy information please contact the State Revenue Office:

Mail State Revenue Office, GPO Box 4376, MELBOURNE VIC 3001 or DX260090 Melbourne	Internet www.sro.vic.gov.au Email mpl@sro.vic.gov.au Phone 13 21 61 (local call cost) Fax 03 9628 6856
---	---

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 & Environment Act 1987*. The copy must not be used for any other purpose.





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 & Environment Act 1987. The copy must not be used for any other purpose.

LAZAROVSKI DESIGN

LAZAROVSKI DESIGN PTY LTD
MELBOURNE: 101 MORAY ST SOUTH MELBOURNE VIC 3205
GEE LONG: L1787 LITTLE MALOP ST GEE LONG VIC 3220
hello@lazarovski.com.au | 1300 95 88 88 | CDP-AD 64532

© COPYRIGHT 2021 THESE DRAWINGS ARE NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR

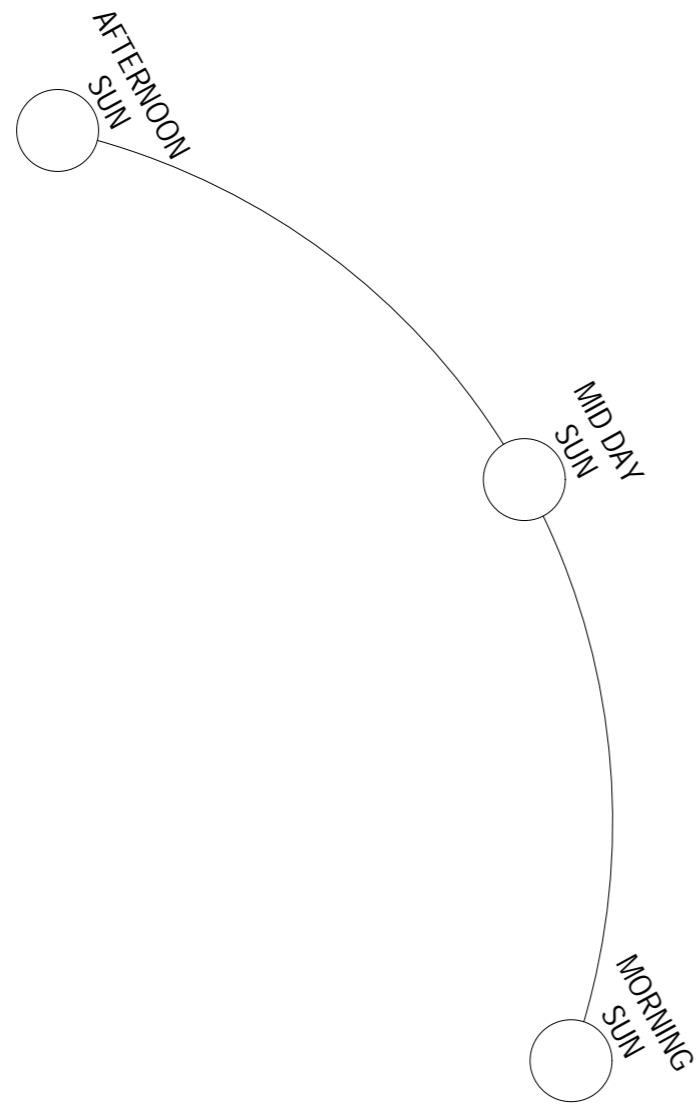
CONTENTS

- A01 COVER PAGE
- A02 NEIGHBOURHOOD & SITE DESCRIPTION
- A03 DESIGN RESPONSE
- A04 SITE LAYOUT & FLOOR PLAN
- A05 FIRST FLOOR PLAN
- A06 GARDEN AREA PLAN
- A07 POS PLAN
- A08 WSUD PLAN
- A09 GROUND FLOOR BESS PLAN
- A10 FIRST FLOOR BESS PLAN
- A11 ELEVATIONS
- A12 ELEVATIONS
- A13 3D PERSPECTIVES
- A14 SHADOW DIAGRAM 9am
- A15 SHADOW DIAGRAM 10am
- A16 SHADOW DIAGRAM 11am
- A17 SHADOW DIAGRAM 12pm
- A18 SHADOW DIAGRAM 1pm
- A19 SHADOW DIAGRAM 2pm
- A20 SHADOW DIAGRAM 3pm

TOWN PLANNING APPLICATION

PROPOSED:
UNIT DEVELOPMENT

AT:
17-19 HARKER STREET
SUNBURY VIC 3428



ADJOINING PROPERTY - No. 13



ADJOINING PROPERTY - No. 15



SUBJECT SITES - No. 17-19



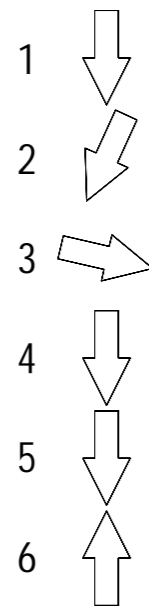
ADJOINING PROPERTY - No. 23



ADJOINING PROPERTY - No. 25

LEGEND

- 1 NOISE DIRECTION
- 2 CBD 39 km
- 3 SCHOOL 1 km
- 4 PUBLIC TRANSPORT 130 m
- 5 PARKLAND 450 m
- 6 SHOPS 350 m
- 7 ADJOINING BV RES
- 8 ADJOINING WB RES
- 9 ADJOINING SHED
- 10 VACANT LAND
- CP CARPORT
- G GARAGE
- TPF TIMBER PAILING FENCE
- CBF COLOURBOND FENCE
- PW POST & WIRE FENCE
- SF STEEL FENCE
- BF BRICK FENCE
- POS EXISTING VEHICLE CROSSING
- HABITABLE ROOM WINDOWS
- 4.0 FRONT SETBACK



NEIGHBOURHOOD & SITE DESCRIPTION

SCALE 1:500

This copied document is made available for the sole purpose of exhibiting for consideration and review as part of a planning process under the Planning & Environment Act 1987. The copy must not be used for any other purpose.

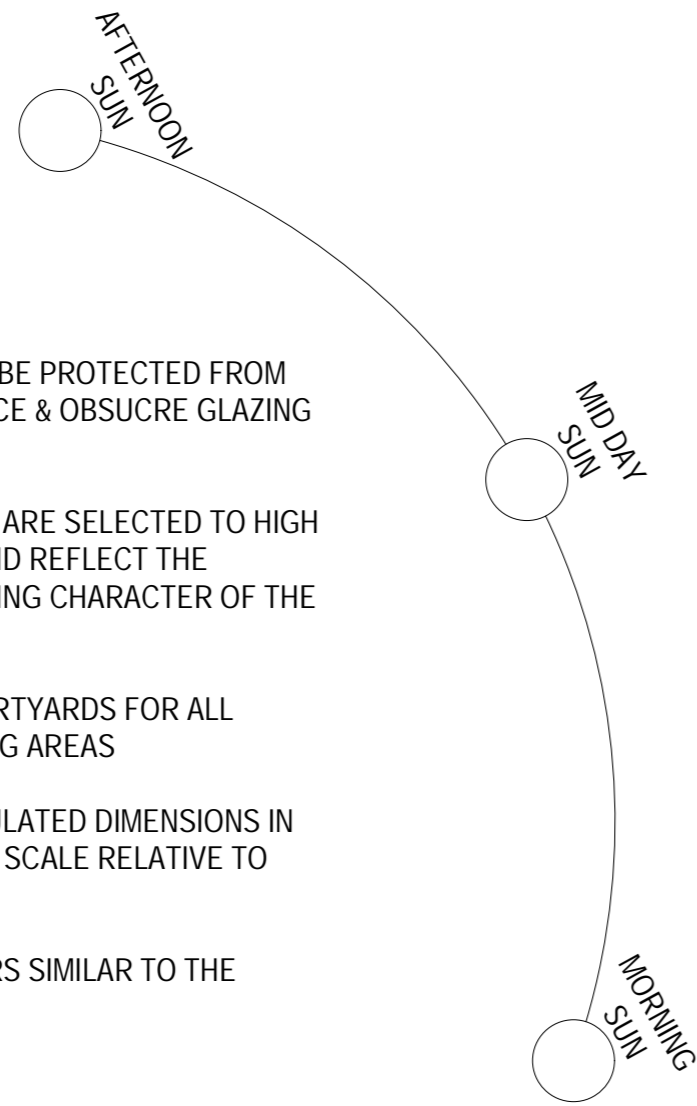
PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:500 @ A2 SHEET:

A02
LAZAROVSKI DESIGN
MELBOURNE: 101 MORAY ST
SOUTH MELBOURNE VIC 3205
hello@lazarovski.com.au | 1300 95 88 88 | CDP-AD 64532
GEELENG: L1/87 LITTLE MALOP ST
GEELENG VIC 3220
© COPYRIGHT 2021 THESE DRAWINGS ARE NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR





- A ADJACENT PRIVATE OPEN SPACES TO BE PROTECTED FROM OVER LOOKING WITH A 1.8M HIGH FENCE & OBSUCRE GLAZING TO OVERLOOKING WINDOWS
- B MATERIALS, COLOURS AND TEXTURES ARE SELECTED TO HIGH LIGHT THE ARCHITECTURAL FORMS AND REFLECT THE ADJACENT DWELLINGS & THE PREVAILING CHARACTER OF THE AREA
- C CREATE PRIVATE NORTH FACING COURTYARDS FOR ALL RESIDENCES, AND NORTH FACING IVING AREAS
- D BREAK UP LARGE FORMS WITH ARTICULATED DIMENSIONS IN PLAN AND ELEVATIONS TO MAINTAIN A SCALE RELATIVE TO ADJOINING BUILDINGS
- E SETBACK MAINTAINED AT 5.500 METERS SIMILAR TO THE ADJOINING PROERTIES
- F SITE IS RELATIVELY FLAT

LEGEND

- | | | |
|--------------------------|-------|---|
| 1 NOISE DIRECTION | 1 | ↓ |
| 2 CBD | 39 km | ↓ |
| 3 SCHOOL | 1 km | ↘ |
| 4 PUBLIC TRANSPORT | 130 m | ↘ |
| 5 PARKLAND | 450 m | ↘ |
| 6 SHOPS | 350 m | ↘ |
| 7 ADJOINING BV RES | | ↘ |
| 8 ADJOINING WB RES | | ↓ |
| 9 ADJOINING SHED | | ↓ |
| 10 VACANT LAND | | ↓ |
| CP CARPORT | | ↓ |
| G GARAGE | | ↓ |
| TPF TIMBER PAILING FENCE | | ↓ |
| CBF COLOURBOND FENCE | | ↓ |
| PW POST & WIRE FENCE | | ↓ |
| SF STEEL FENCE | | ↓ |
| BF BRICK FENCE | | ↓ |
| POS PRIVATE OPEN SPACE | | ↑ |
| ● HABITABLE ROOM WINDOWS | | ↑ |
| 4.0 FRONT SETBACK | | ↑ |



This copied document is made available for the sole purpose of exhibiting for consideration and review as part of a planning process under the Planning & Environment Act 1987. The copy must not be used for any other purpose.



ADJOINING PROPERTY - No. 13



ADJOINING PROPERTY - No. 15



SUBJECT SITES - No. 17-19



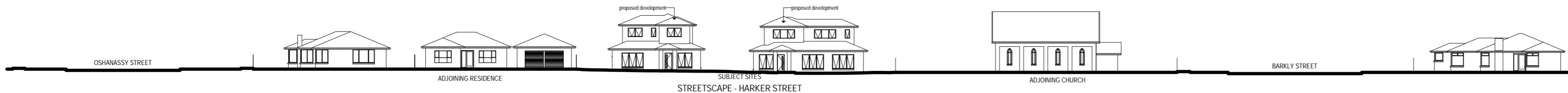
ADJOINING PROPERTY - No. 23



ADJOINING PROPERTY - No. 25

DESIGN RESPONSE

SCALE 1:500



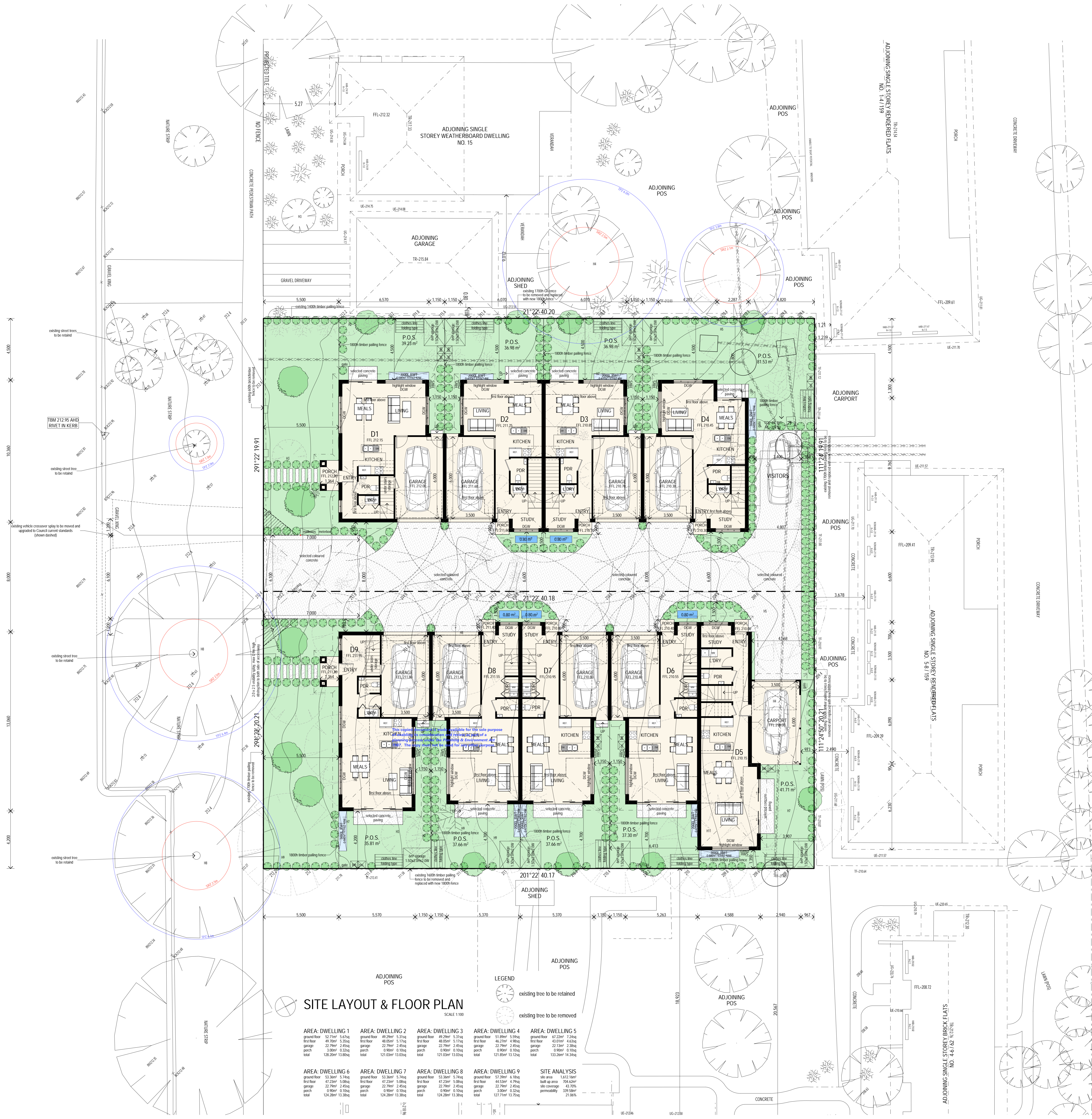
PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:500 @ A2 SHEET:

A03
LAZAROVSKI DESIGN
MELBOURNE: 101 MORAY ST
SOUTH MELBOURNE VIC 3205
hello@lazarovski.com.au | 1300 95 88 88 | CDP-AD 64532
GEELENG: L1/87 LITTLE MALOP ST
GEELENG VIC 3220
© COPYRIGHT 2021 THESE DRAWINGS ARE NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR

HARKER STREET



SITE LAYOUT & FLOOR PLAN
SCALE 1:100

AREA: DWELLING 1	AREA: DWELLING 2	AREA: DWELLING 3	AREA: DWELLING 4	AREA: DWELLING 5
ground floor 53.30m ² 5.76sq	ground floor 49.20m ² 5.31sq	ground floor 49.20m ² 5.31sq	ground floor 49.20m ² 5.31sq	ground floor 49.20m ² 5.31sq
first floor 49.20m ² 5.31sq	first floor 49.20m ² 5.31sq	first floor 49.20m ² 5.31sq	first floor 49.20m ² 5.31sq	first floor 49.20m ² 5.31sq
garage 22.79m ² 2.45sq	garage 22.79m ² 2.45sq	garage 22.79m ² 2.45sq	garage 22.79m ² 2.45sq	garage 22.79m ² 2.45sq
porch 0.90m ² 0.10sq	porch 0.90m ² 0.10sq	porch 0.90m ² 0.10sq	porch 0.90m ² 0.10sq	porch 0.90m ² 0.10sq
total 128.20m ² 13.80sq	total 128.20m ² 13.80sq	total 128.20m ² 13.80sq	total 128.20m ² 13.80sq	total 128.20m ² 13.80sq

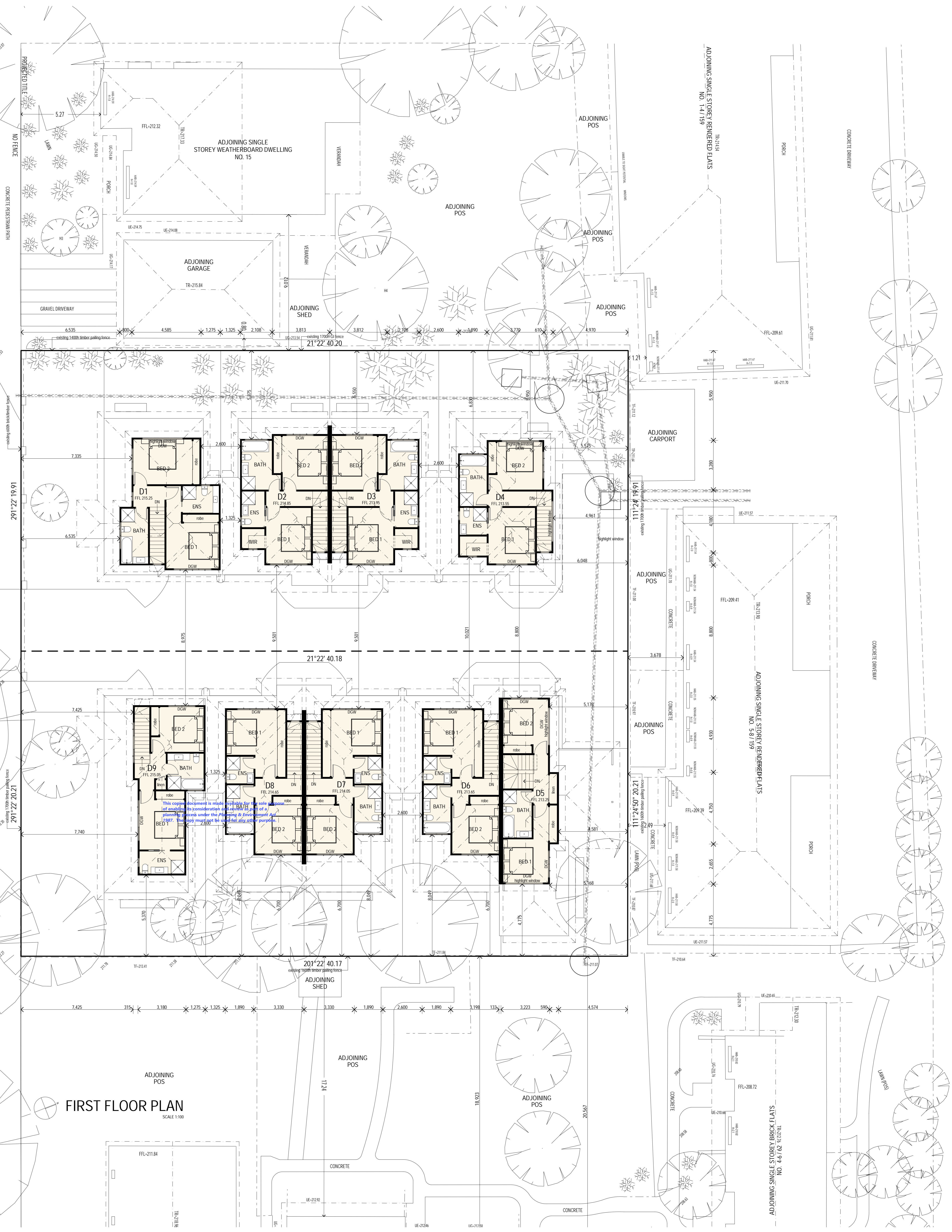
AREA: DWELLING 6	AREA: DWELLING 7	AREA: DWELLING 8	AREA: DWELLING 9
ground floor 53.30m ² 5.76sq	ground floor 53.30m ² 5.76sq	ground floor 53.30m ² 5.76sq	ground floor 53.30m ² 5.76sq
first floor 49.20m ² 5.31sq	first floor 49.20m ² 5.31sq	first floor 49.20m ² 5.31sq	first floor 49.20m ² 5.31sq
garage 22.79m ² 2.45sq	garage 22.79m ² 2.45sq	garage 22.79m ² 2.45sq	garage 22.79m ² 2.45sq
porch 0.90m ² 0.10sq	porch 0.90m ² 0.10sq	porch 0.90m ² 0.10sq	porch 0.90m ² 0.10sq
total 128.20m ² 13.80sq	total 128.20m ² 13.80sq	total 128.20m ² 13.80sq	total 128.20m ² 13.80sq

- LEGEND**
- existing tree to be retained
 - existing tree to be removed

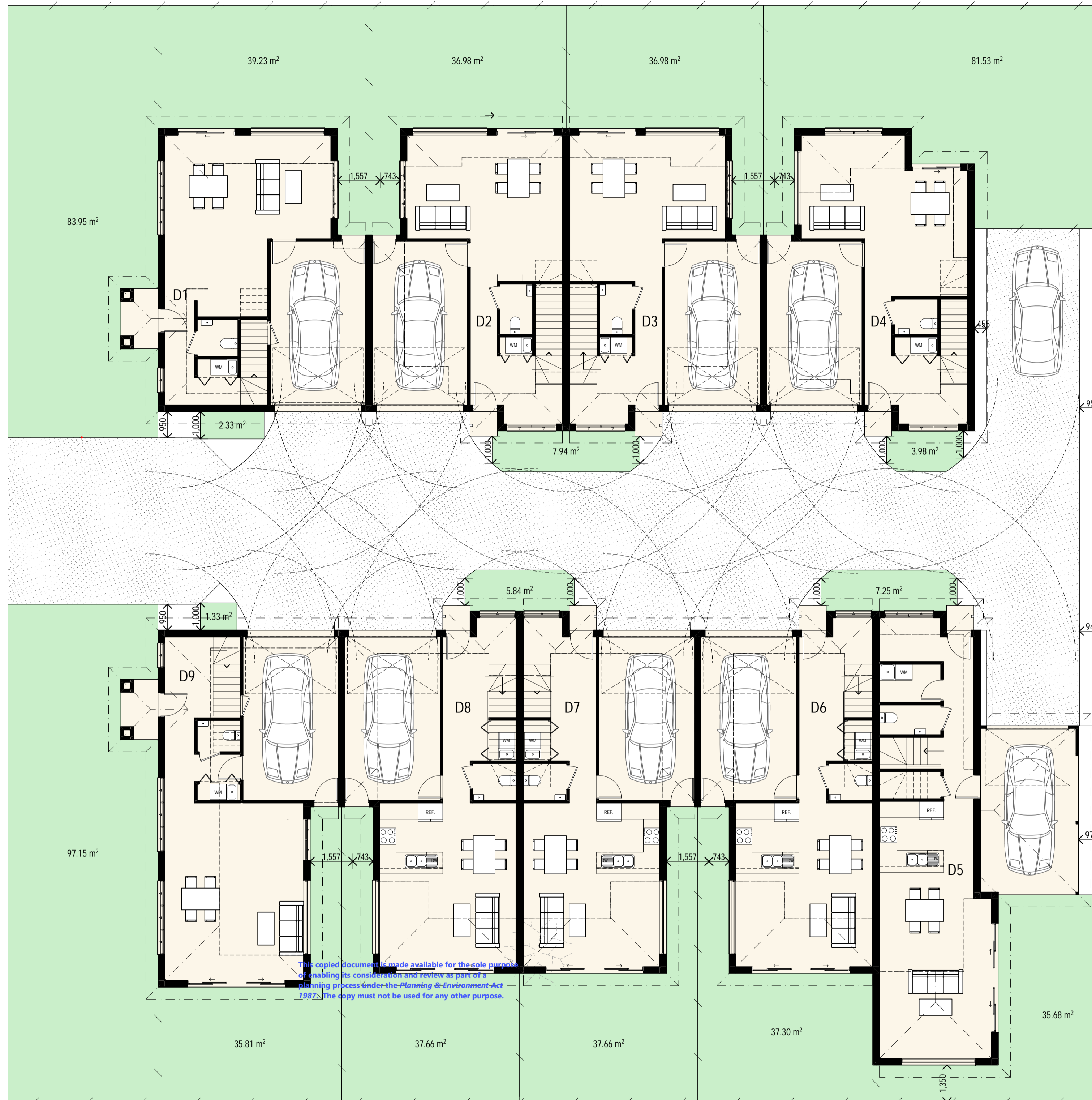
HARKER STREET

6.785
4.587
3.180
5.678
4.070
4.310
6.375

existing sheet piling to be retained
FBA 212 95 A111 RIVET IN KERB
existing sheet pile to be retained
existing vehicle crossover splay to be moved and upgraded to Council current standards (shown dashed)



FIRST FLOOR PLAN
SCALE 1:100



GARDEN AREA REQUIREMENT				
LOT SIZE	MINIMUM	SITE AREA	GARDEN AREA	PROPOSED
m ²	REQ.	m ²	REQUIREMENT	GARDEN AREA
400m ² - 500m ²	25%	N/A	N/A	N/A
501m ² - 650m ²	30%	N/A	N/A	N/A
650m ² and above	35%	1,611.50m ²	564.02m ²	588.60m ² = complies

LEGEND	
	CONCRETE DRIVEWAY
	GARDEN AREA (MIN 1m WIDE)
	BUILT UP AREA

GARDEN AREA REQUIREMENT PLAN

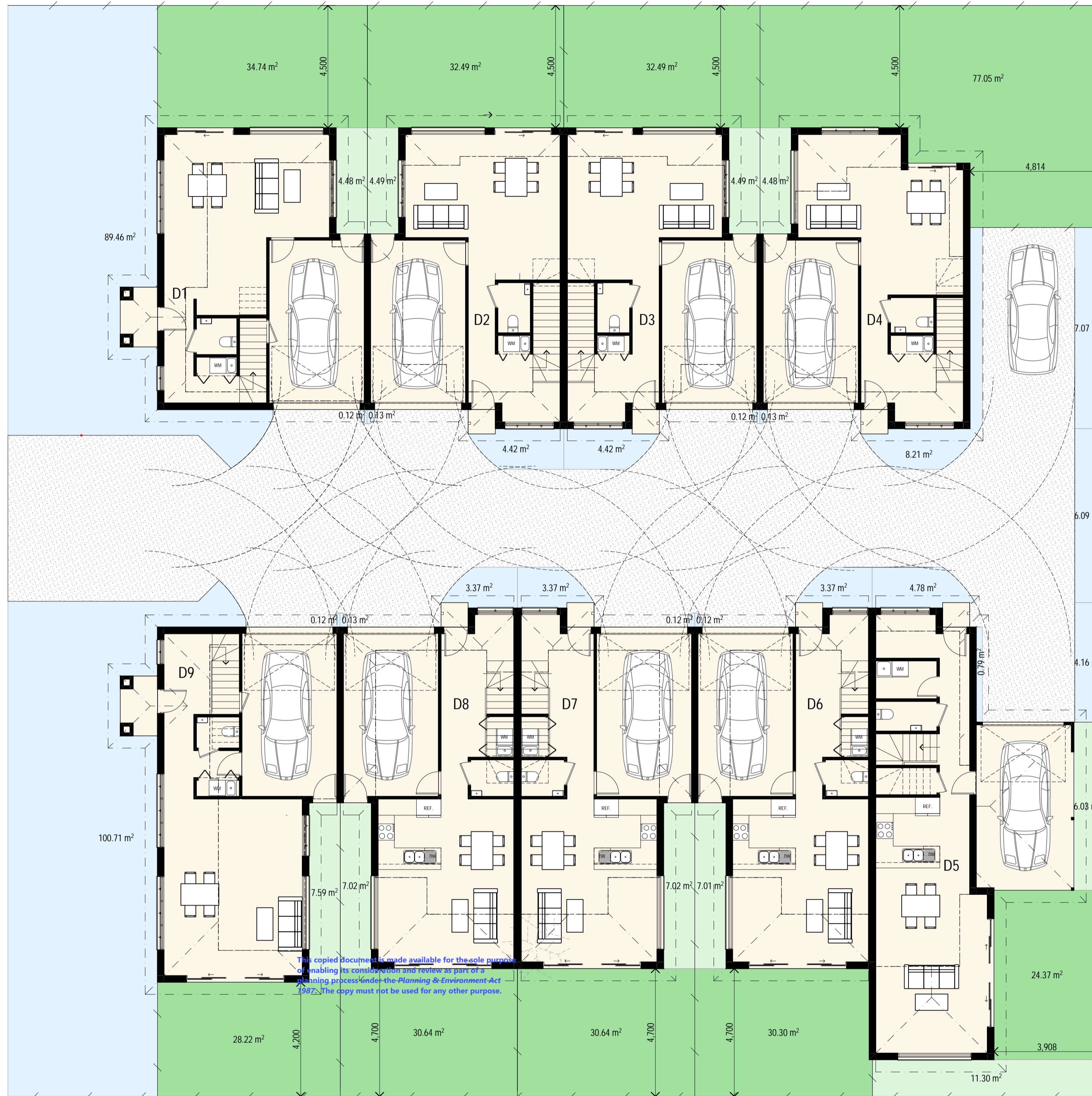
SCALE 1:100

PROPOSED
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:100 @ A1 SHEET:

A06
LAZAROVSKI DESIGN
MELBOURNE: 301 MURRAY ST
SOUTH MELBOURNE VIC 3205
tel@lazarovski.com.au | 1300 95 88 88 | CDP-AD 44532
GEOLOG: 1387 LITTLE MALOP ST
GEOLOG VIC 3220
© COPYRIGHT 2021 THIS DOCUMENT IS NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR



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 & Environment Act 1987. The copy must not be used for any other purpose.

UNIT	S.P.O.S >4m	P.O.S <4m	P.O.S BALANCE	P.O.S TOTAL
1	34.74 m ²	4.48 m ²	89.58 m ²	128.80 m ²
2	32.49 m ²	4.49 m ²	4.55 m ²	41.53 m ²
3	32.49 m ²	4.49 m ²	4.54 m ²	41.52 m ²
4	77.05 m ²	4.48 m ²	15.41 m ²	99.94 m ²
5	24.37 m ²	17.33 m ²	9.73 m ²	51.43 m ²
6	30.30 m ²	7.01 m ²	3.49 m ²	40.80 m ²
7	30.64 m ²	7.02 m ²	3.49 m ²	41.15 m ²
8	30.64 m ²	7.02 m ²	3.50 m ²	41.16 m ²
9	28.22 m ²	7.59 m ²	100.83 m ²	136.64 m ²

 PRIVATE OPEN SPACE PLAN
SCALE 1:100

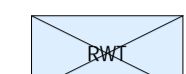
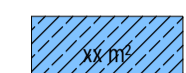

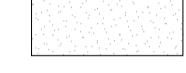
PROPOSED
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:100 @ A1 SHEET:

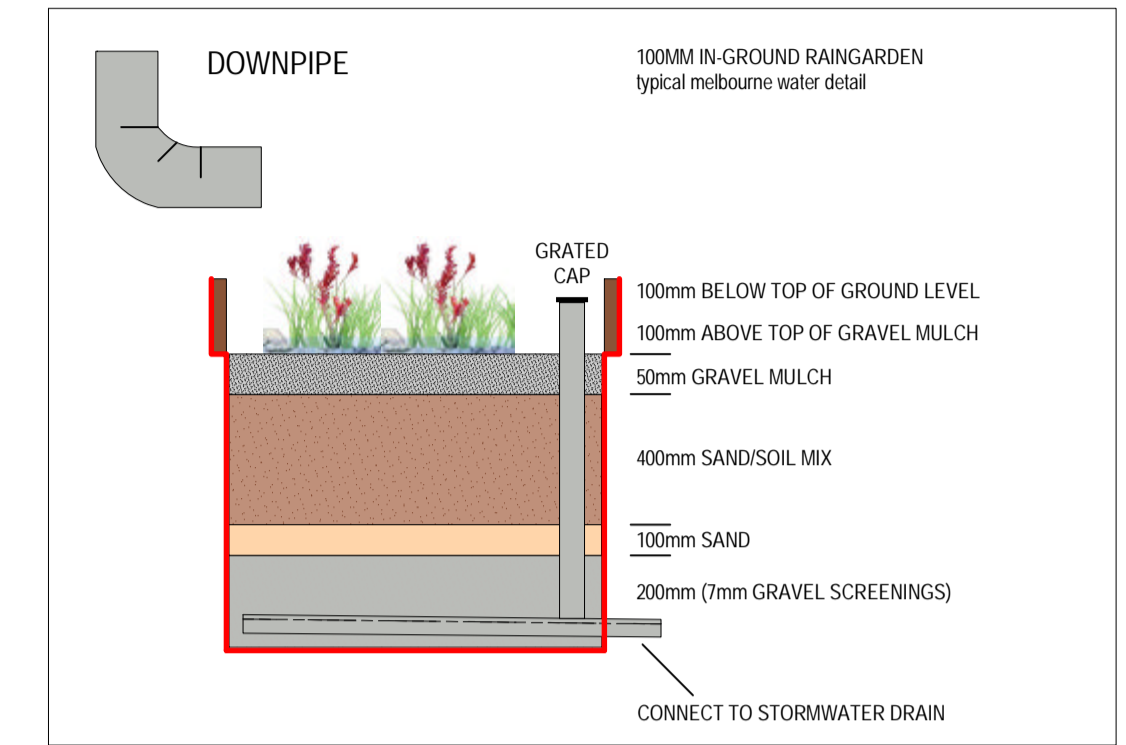
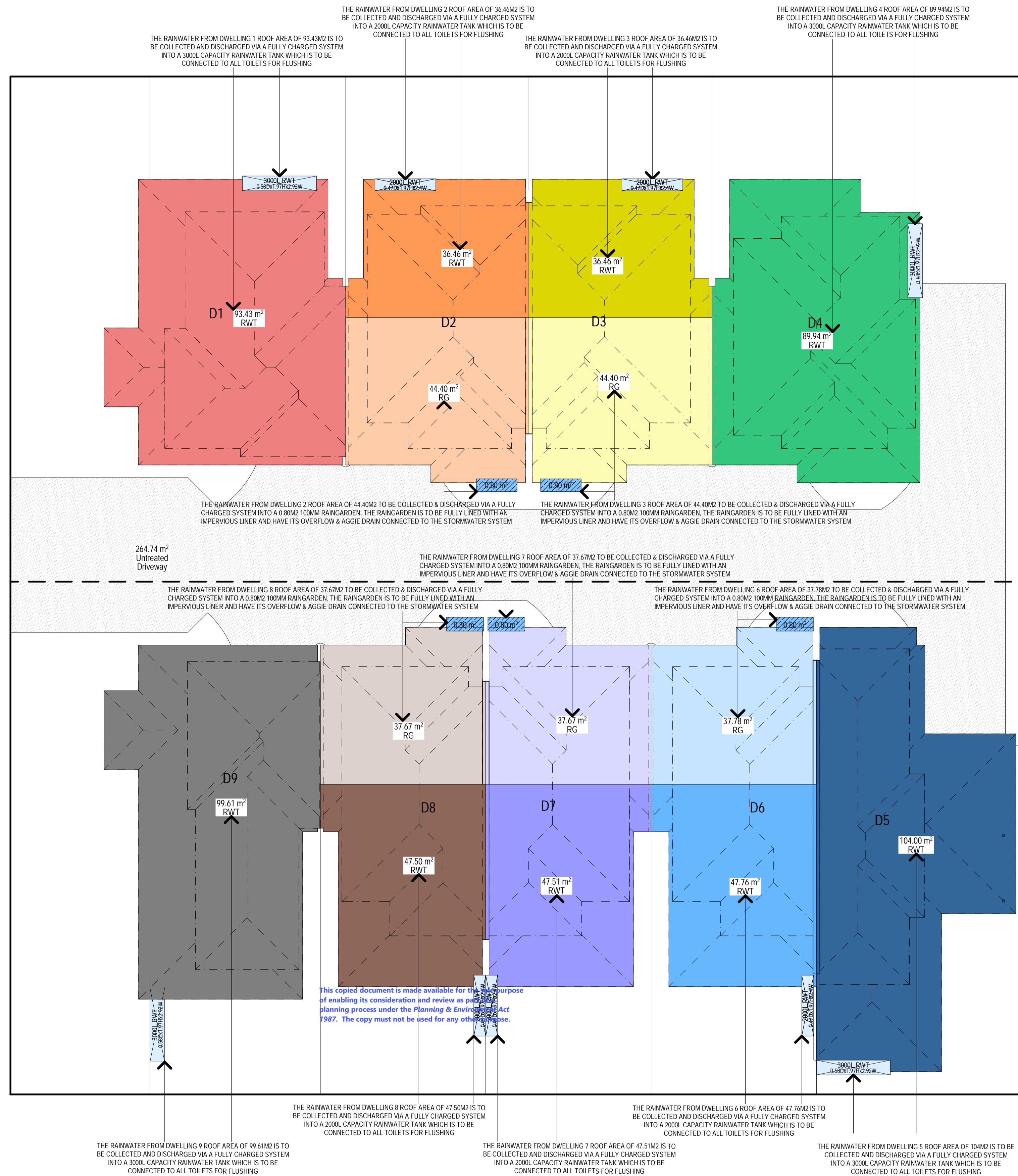
A07
LAZAROVSKI DESIGN
MELBOURNE: 1307 MURRAY ST
SOUTH MELBOURNE VIC 3205
GEEELONG: 1387 LITTLE MALOP ST
GEEELONG VIC 3210
t: 03 5242 1000 | f: 03 5242 1001
e: info@lazarovski.com.au | 1300 95 88 88 | CDIP-AD 44532
© COPYRIGHT 2021 THIS DOCUMENT IS NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR

LEGEND

-  DENOTES RAINWATER TANK FOR INDIVIDUAL DWELLING RE-USE (SIZE AS SHOWN)
-  RAINGARDEN - SIZE AS SHOWN
-  CONCRETE PAVING - UNTREATED
-  CONCRETE PAVING - TREATED
- NOTE:
ALL UNHATCHED AREAS ARE ZONE FOR LANDSCAPING

W.S.U.D. SCHEDULE

-  DWELLING 1: ROOF AREA DRAINING TO 1 X 3000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 2: ROOF AREA DRAINING TO 1 X 2000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 2: ROOF AREA DRAINING TO 1 X 0.80m RAINGARDEN (100mm)
-  DWELLING 3: ROOF AREA DRAINING TO 1 X 2000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 3: ROOF AREA DRAINING TO 1 X 0.80m RAINGARDEN (100mm)
-  DWELLING 4: ROOF AREA DRAINING TO 1 X 3000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 5: ROOF AREA DRAINING TO 1 X 3000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 6: ROOF AREA DRAINING TO 1 X 2000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 6: ROOF AREA DRAINING TO 1 X 0.80m RAINGARDEN (100mm)
-  DWELLING 7: ROOF AREA DRAINING TO 1 X 2000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 7: ROOF AREA DRAINING TO 1 X 0.80m RAINGARDEN (100mm)
-  DWELLING 8: ROOF AREA DRAINING TO 1 X 2000L RAINWATER TANK (FULLY CHARGED)
-  DWELLING 8: ROOF AREA DRAINING TO 1 X 0.80m RAINGARDEN (100mm)
-  DWELLING 9: ROOF AREA DRAINING TO 1 X 3000L RAINWATER TANK (FULLY CHARGED)



RAINGARDEN INSTRUCTION & MAINTENANCE INFORMATION
<https://www.melbournewater.com.au/community-and-education/help/protect-environment/raingardens>
<https://www.melbournewater.com.au/sites/default/files/WSUDMaintenance-Inspection-and-maintenance-activi>

This copied document is made available for the sole purpose of enabling its consideration and review as part of the planning process under the Planning & Environment Act 1987. The copy must not be used for any other purpose.

- LEGEND**
- IEQ2.2 - NATURAL CROSS VENTILATION
 - IEQ3.1 - DOUBLE GLAZED WINDOWS
 - IEQ3.3 - NORTH FACING LIVING AREAS
 - UE2.1 - VEGETATED AREAS
 - UE2.4 - TAPS AND FLOOR WASTE ON BALCONIES
 - W2.0 - FOOD AND GARDEN WASTE FACILITIES
 - T1.1 - BICYCLE SPACES
 - T2.1 - ELECTRIC VEHICLE CHARGING
 - S1.1 - STORM WATER MANAGEMENT SYSTEMS
 - E3.3 - EXTERNAL LIGHTING SENSORS
 - E3.4 - CLOTHES LINE
 - W3.1 - WATER EFFICIENT GARDEN



GROUND FLOOR BESS PLAN
SCALE 1:100

BESS Report Notes:

Energy3.5 - Artificial Lighting Schedule to be completed as part of the NATHERS Energy Ratings provided Registered Building Surveyor for the issue of a Building Permit at a later date.

IEQ3.1 - Glazing Specifications to be completed as part of the NATHERS Energy Ratings provided Registered Building Surveyor for the issue of a Building Permit at a later date.

Stormwater1.1 - Refer to Sustainability Design Assessment.

PROPOSED
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:100 @ A1 SHEET:

A09
LAZAROVSKI DESIGN
MELBOURNE: 301 MURRAY ST
SOUTH MELBOURNE VIC 3205
GEEELONG: 1387 LITTLE MALCOLM ST
GEEELONG VIC 3210
http://www.lazarovskidesign.com.au | 1300 95 88 88 | CDIP-AD 44532
© COPYRIGHT 2021 THIS DOCUMENT IS NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR

LEGEND

- IEQ2.2 - NATURAL CROSS VENTILATION
- IEQ3.1 - DOUBLE GLAZED WINDOWS
- IEQ3.3 - NORTH FACING LIVING AREAS
- UE2.1 - VEGETATED AREAS
- UE2.4 - TAPS AND FLOOR WASTE ON BALCONIES
- W2.0 - FOOD AND GARDEN WASTE FACILITIES
- T1.1 - BICYCLE SPACES
- T2.1 - ELECTRIC VEHICLE CHARGING
- S1.1 - STORM WATER MANAGEMENT SYSTEMS
- E3.3 - EXTERNAL LIGHTING SENSORS
- E3.4 - CLOTHES LINE
- W3.1 - WATER EFFICIENT GARDEN



FIRST FLOOR BESS PLAN
SCALE 1:100

BESS Report Notes:

Energy3.5 - Artificial Lighting Schedule to be completed as part of the NATHERS Energy Ratings provided Registered Building Surveyor for the issuing of a Building Permit at a later date.

IEQ3.1 - Glazing Specifications to be completed as part of the NATHERS Energy Ratings provided Registered Building Surveyor for the issuing of a Building Permit at a later date.

Stormwater1.1 - Refer to Sustainability Design Assessment.

PROPOSED UNIT DEVELOPMENT AT: 17-19 HARKER STREET SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290

SCALE: 1:100 @ A1 SHEET:

-  FB1
face brick - charcoal
-  CR1
colourbond roof 22.5° pitch charcoal
-  WC1
FC weatherboard cladding light grey
-  AC1
axon cladding grey
-  FGD
fascia, gutter & downpipes grey
-  GD1
garage door - white panel lift
-  CP1
coloured concrete paving
-  WD1 / SD1
aluminium windows & sliding doors - silver
-  OBS
fixed obscure glazing to 1700h above FFL



SOUTH ELEVATION

SCALE 1:100



EAST ELEVATION - INTERNAL

SCALE 1:100



WEST ELEVATION

SCALE 1:100

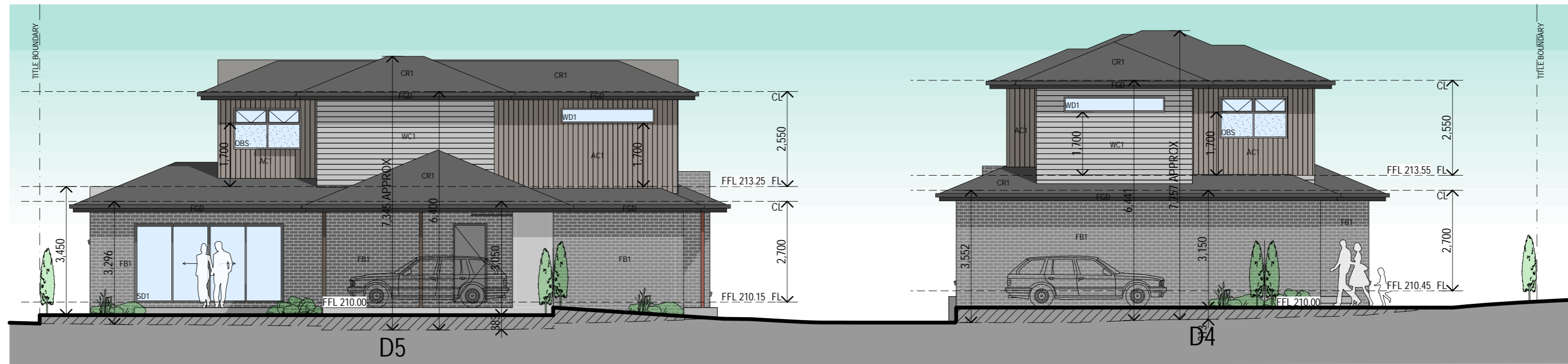
PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

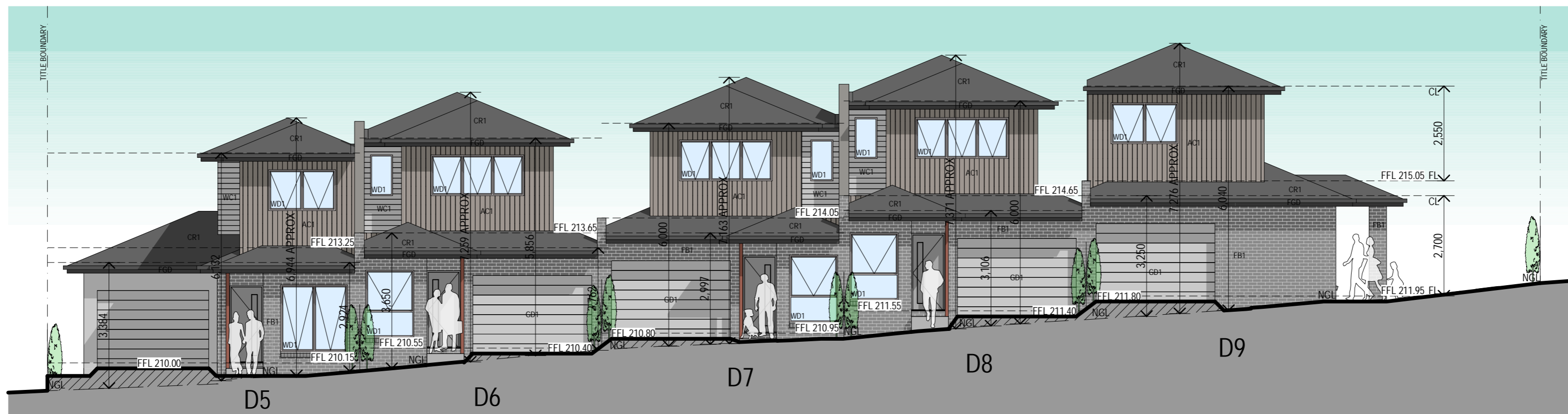
SCALE: 1:100 @ A2 SHEET:

A11
LAZAROVSKI DESIGN
MELBOURNE: 101 MORAY ST
GEELENG: 1/187 LITTLE MALOP ST
SOUTH MELBOURNE VIC 3205 GEELENG VIC 3220
hello@lazarovski.com.au | 1300 95 88 88 | CDP-AD 64532
© COPYRIGHT 2021 THESE DRAWINGS ARE NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR

-  FB1
face brick - charcoal
-  CR1
colourbond roof 22.5° pitch charcoal
-  WC1
FC weatherboard cladding light grey
-  AC1
axon cladding grey
-  FGD
fascia, gutter & downpipes grey
-  GD1
garage door - white panel lift
-  CP1
coloured concrete paving
-  WD1 / SD1
aluminium windows & sliding doors - silver
-  OBS
fixed obscure glazing to 1700h above FFL



NORTH ELEVATION
SCALE 1:100



WEST ELEVATION - INTERNAL
SCALE 1:100



EAST ELEVATION
SCALE 1:100

PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:100 @ A2 SHEET:

A12
LAZAROVSKI DESIGN
MELBOURNE: 101 MORAY ST
SOUTH MELBOURNE VIC 3205
hello@lazarovski.com.au | 1300 95 88 88 | CDP-AD 64532
GEELENG: L1/87 LITTLE MALOP ST
GEELENG VIC 3220
© COPYRIGHT 2021 THESE DRAWINGS ARE NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR



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 & Environment Act 1987*. The copy must not be used for any other purpose.

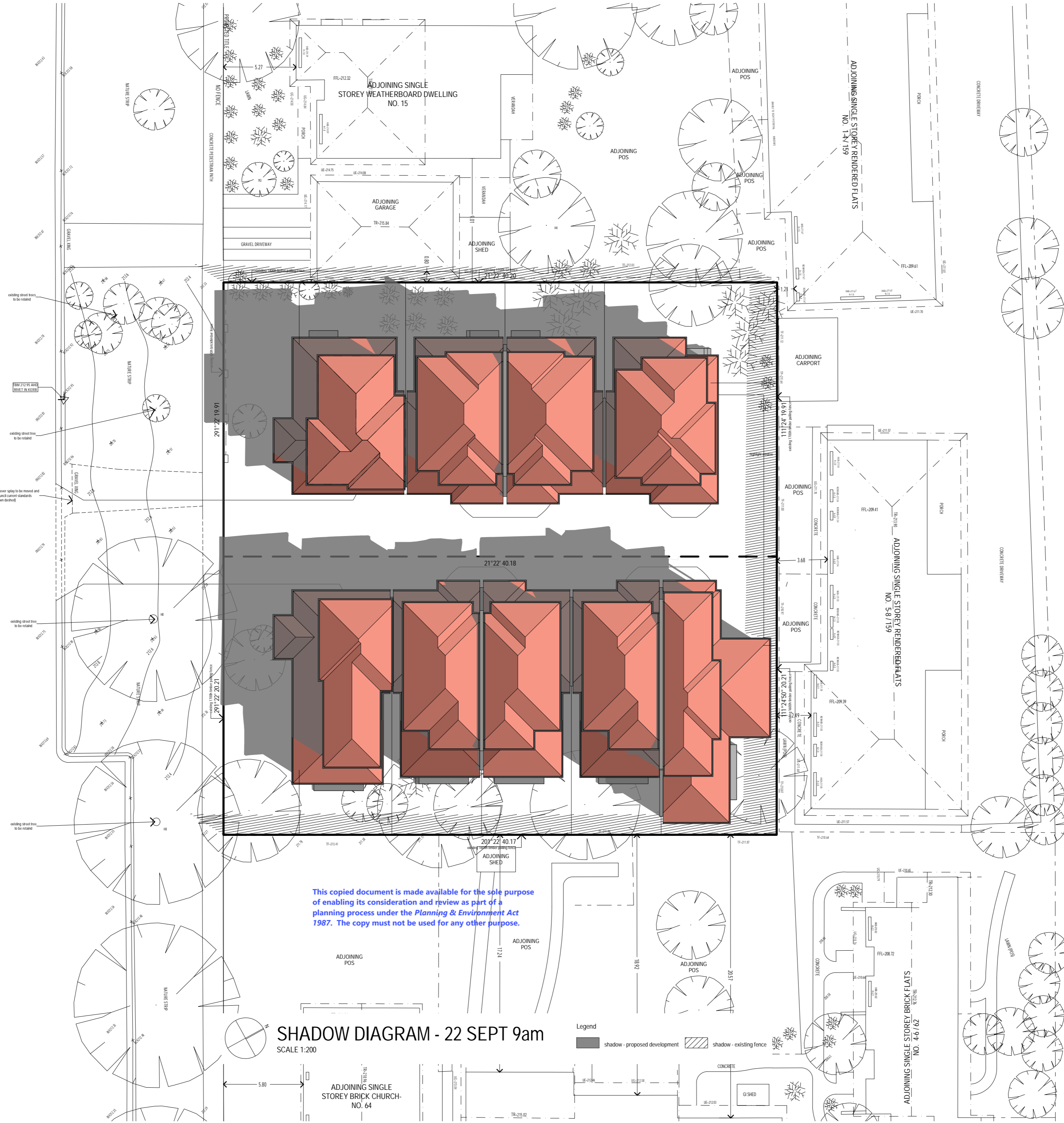
PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: @ A2 SHEET:

A13
LAZAROVSKI DESIGN
MELBOURNE: 101 MORAY ST SOUTH MELBOURNE VIC 3205
GEELOG: 1/187 LITTLE MALOP ST GEELOG VIC 3220
hello@lazarovski.com.au | 1300 95 88 88 | CDP-AD 64532
© COPYRIGHT 2021 THESE DRAWINGS ARE NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR

HARKER STREET



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 & Environment Act 1987*. The copy must not be used for any other purpose.

SHADOW DIAGRAM - 22 SEPT 9am
SCALE 1:200

Legend

- shadow - proposed development
- shadow - existing fence

PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:200 @ A2 SHEET:

HARKER STREET



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 & Environment Act 1987*. The copy must not be used for any other purpose.

SHADOW DIAGRAM - 22 SEPT 10am

SCALE 1:200

Legend

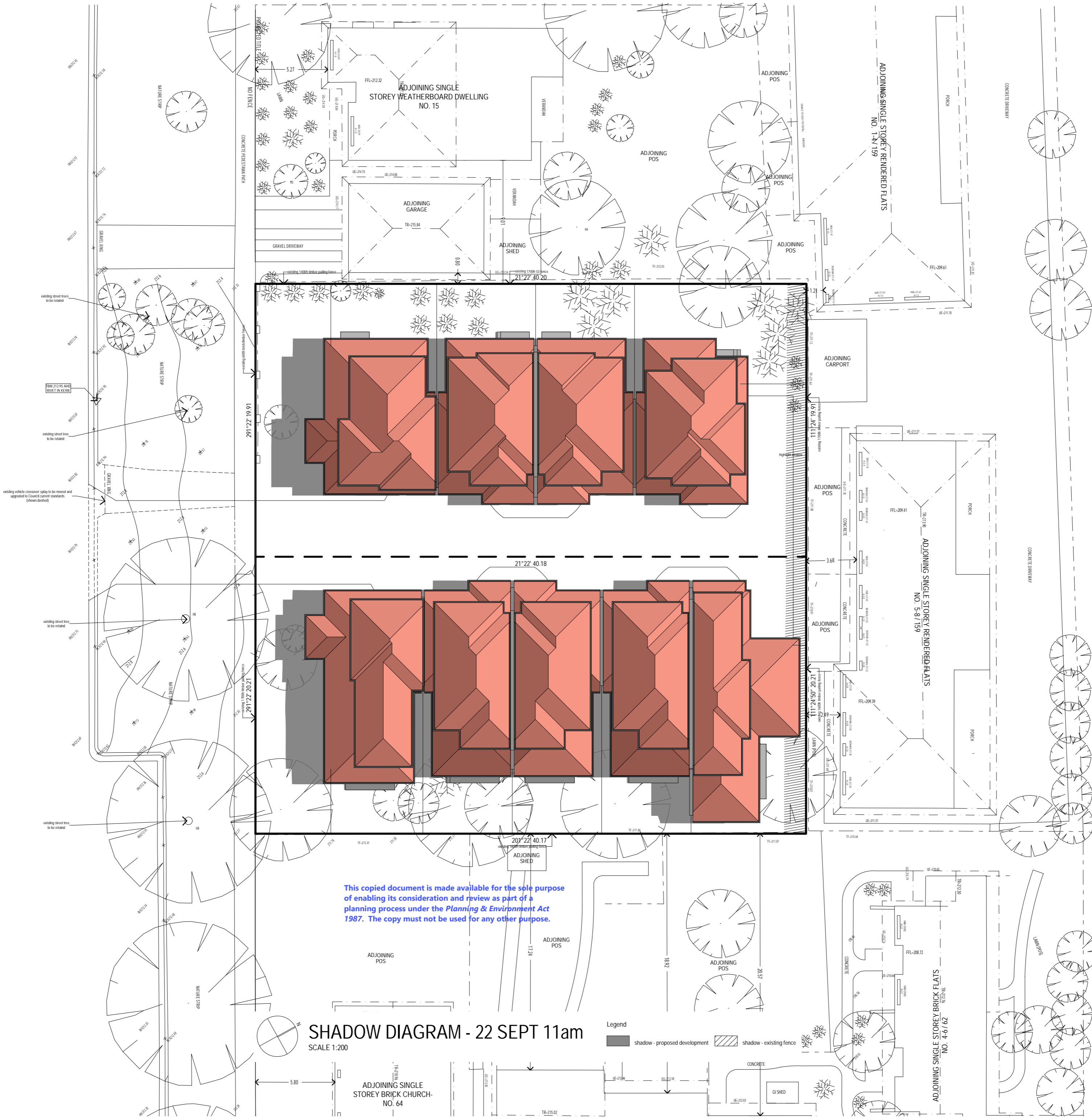
- shadow - proposed development
- shadow - existing fence

PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:200 @ A2 SHEET:

HARKER STREET



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 & Environment Act 1987*. The copy must not be used for any other purpose.

SHADOW DIAGRAM - 22 SEPT 11am
SCALE 1:200

Legend
 shadow - proposed development
 shadow - existing fence

PROPOSED:
 UNIT DEVELOPMENT
 AT:
 17-19 HARKER STREET
 SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
 AMENDMENTS:

SCALE: 1:200 @ A2 SHEET:

A16
 LAZAROVSKI DESIGN
 MELBOURNE: 101 MORAY ST
 SOUTH MELBOURNE VIC 3205
 GEECONG: 1/187 LITTLE MALOP ST
 GEECONG VIC 3220
 hello@lazarovski.com.au | 1300 95 88 88 | CDP-AD 64532
 © COPYRIGHT 2021 THESE DRAWINGS ARE NOT TO BE COPIED IN PART OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF THE AUTHOR

HARKER STREET



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 & Environment Act 1987*. The copy must not be used for any other purpose.

SHADOW DIAGRAM - 22 SEPT 12pm
SCALE 1:200

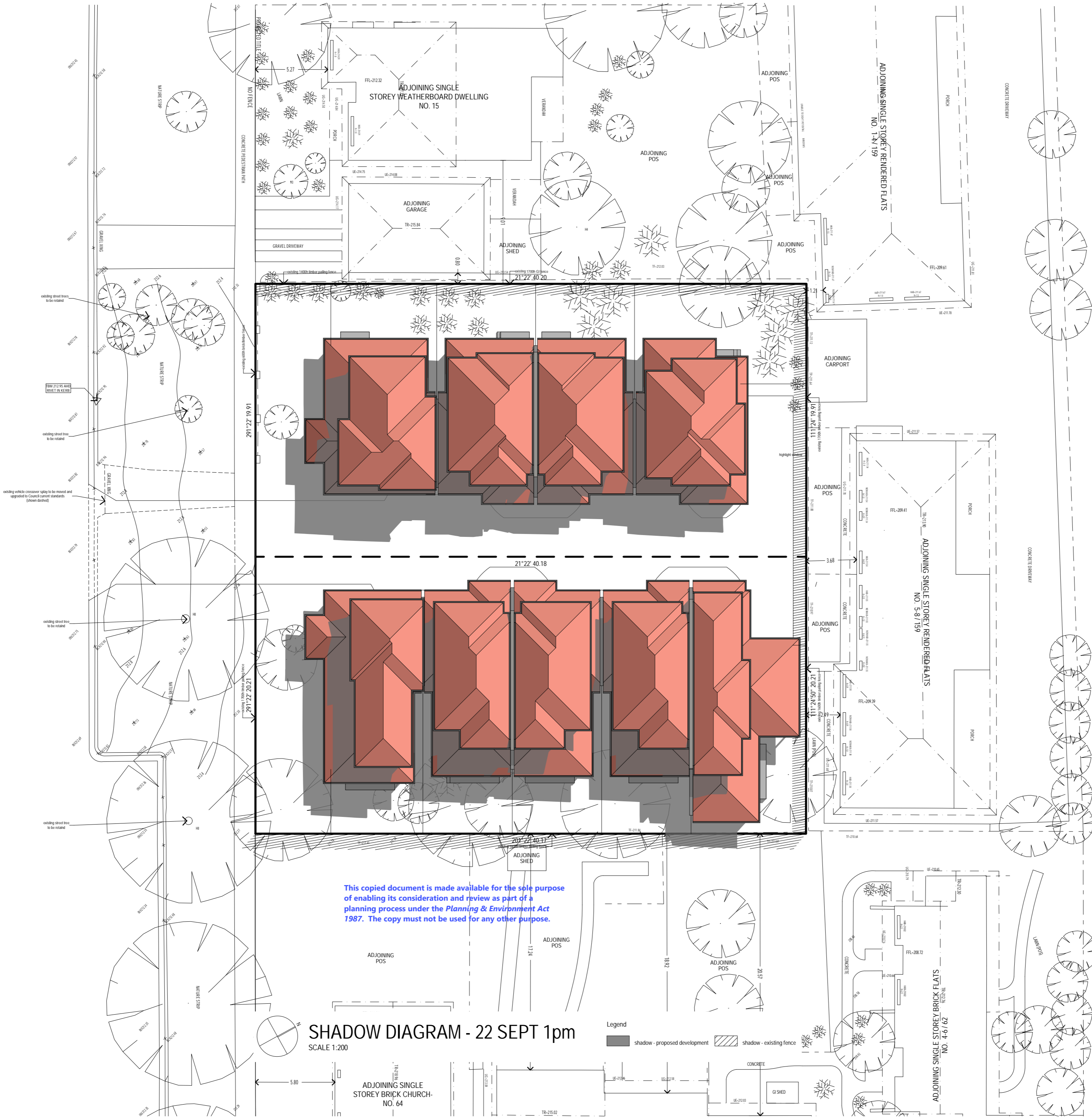
Legend
 shadow - proposed development
 shadow - existing fence

PROPOSED:
 UNIT DEVELOPMENT
 AT:
 17-19 HARKER STREET
 SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
 AMENDMENTS:

SCALE: 1:200 @ A2 SHEET:

HARKER STREET



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 & Environment Act 1987*. The copy must not be used for any other purpose.

SHADOW DIAGRAM - 22 SEPT 1pm

SCALE 1:200

Legend

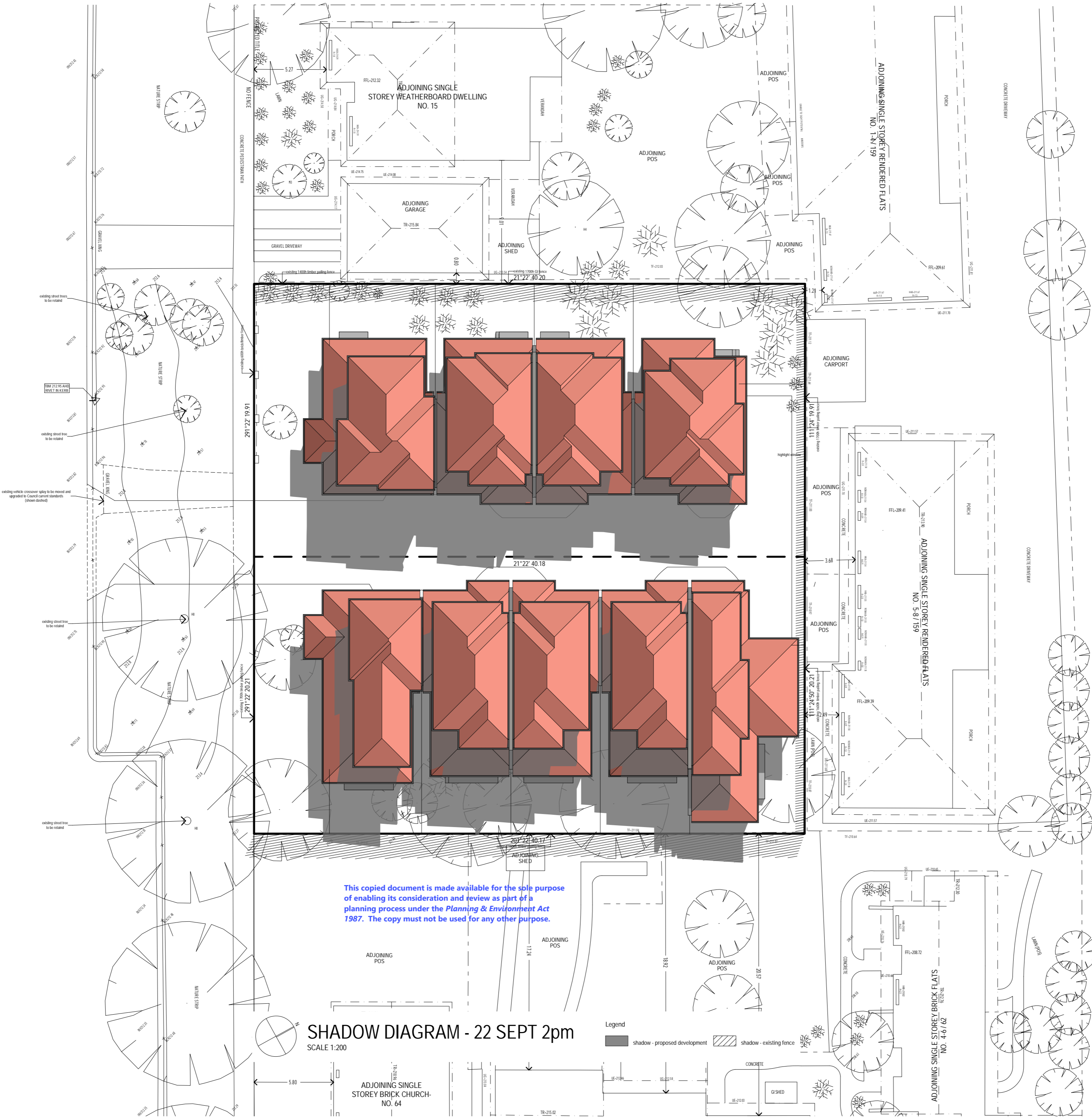
- shadow - proposed development
- shadow - existing fence

PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:200 @ A2 SHEET:

HARKER STREET



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 & Environment Act 1987*. The copy must not be used for any other purpose.

SHADOW DIAGRAM - 22 SEPT 2pm
SCALE 1:200

Legend

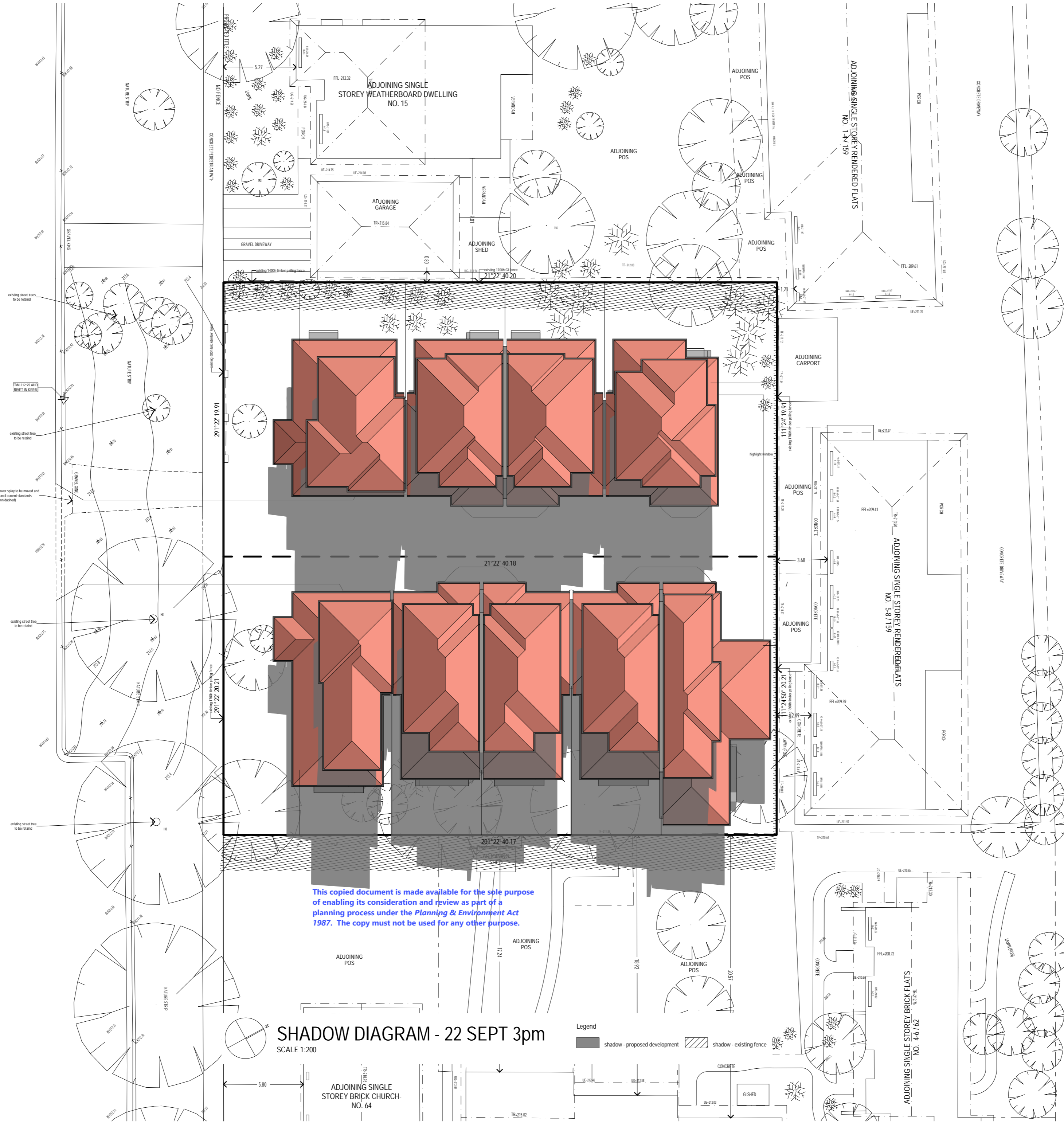
- shadow - proposed development
- shadow - existing fence

PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:200 @ A2 SHEET:

HARKER STREET



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 & Environment Act 1987*. The copy must not be used for any other purpose.

SHADOW DIAGRAM - 22 SEPT 3pm
SCALE 1:200

Legend

- shadow - proposed development
- shadow - existing fence

PROPOSED:
UNIT DEVELOPMENT
AT:
17-19 HARKER STREET
SUNBURY VIC 3428

DATE: 7/12/2021 PROJECT NO: 83290
AMENDMENTS:

SCALE: 1:200 @ A2 SHEET:

GUM & MAPLE CONSULTING

30/11/2021

Lazarovski Design
101 Moray Street
South Melbourne VIC 3205

ADDRESS: 17-19 HARKER STREET SUNBURY

PROPOSAL: TO CONSTRUCT NINE DOUBLE STOREY DWELLINGS

Thank you for engaging Gum and Maple Consulting to assist you in satisfying the specific items relating to Arboriculture contained in the Council Request for Further Information (RFI) letter authored by Fenella Kennedy dated 26 October 2021.

To address item 1 under the heading "*Site Plans modified to show the following*", the below table provides a Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) radius for each neighbouring tree (including the street trees) where they extend into the subject site. These radii have been calculated in accordance with Australian Standards AS4970-2009 *Protection of Trees on Development Sites*.

Kind regards,



Liam Kennedy – Consulting Arborist

Gum and Maple Consulting

M: 0422 177 477 – **E:** lkennedy@gumandmaple.com.au

GUM & MAPLE CONSULTING

#	Species	Common Name	Height	DBH	TPZ	SRZ	Health	Structure	Form	Origin	Ownership	Permit Status	Retention Value
1	<i>Ulmus procera</i>	English Elm	4.5	8	2.0	1.5	Fair	Good	Good	E	Council	PARKS	High
2	<i>Ulmus procera</i>	English Elm	10	53	6.4	2.5	Poor	Fair	Fair	E	Council	PARKS	High
3	<i>Ulmus procera</i>	English Elm	11	51	6.1	2.5	Fair	Good	Good	E	Council	PARKS	High
4	<i>Coprosma repens</i>	Mirror Plant	5.5	50	6.0	2.5	Fair	Good	Good	E	Neighbouring	TPO	High
5	<i>Acacia sp.</i>	Wattle	4	32	3.8	2.1	Poor	Poor	Poor	N	Neighbouring	TPO	High

Heading Definitions

~Height – metres

DBH (Diameter at Breast Height) – centimetres

TPZ & SRZ – radius in metres

Origin

I – Indigenous | V – Victorian

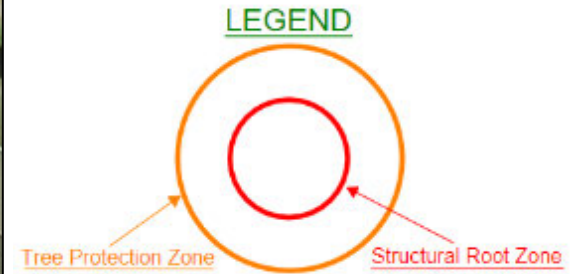
N – Native | E – Exotic

NPR – No Permit Required – Tree can be removed 'as-of-right'

PARKS – Hume Council Parks department managed

TPO – Third Party Ownership

SITE MAP



TITLE PLAN	EDITION 1	TP-550022H						
Location of Land Parish: BUTTLEJORRK Township: SUNBURY Section: 11 Crown Allotment: 11 (PT) Crown Portion: Last Plan Reference: Derived From: VOL. 8962 FOL 135 Depth Limitation: NIL		Notations ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN						
Description of Land / Easement Information ALL THAT piece of land delineated and coloured red on the map in the margin-- being part of Crown Allotment Eleven Section Eleven Township of Sunbury -- Parish of Buttlegjork County of Bourke Together with a right of drainage -- over along or through the land coloured yellow on the said map - - - - -		THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT COMPILED: 30/06/2000 VERIFIED: AA						
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">TABLE OF PARCEL IDENTIFIERS</th> </tr> <tr> <td colspan="2" style="text-align: center;"> WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 2A of the Sale of Land Act 1962 </td> </tr> <tr> <td colspan="2" style="text-align: center;"> PARCEL 1 = CA 11 (PT) </td> </tr> </table>			TABLE OF PARCEL IDENTIFIERS		WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 2A of the Sale of Land Act 1962		PARCEL 1 = CA 11 (PT)	
TABLE OF PARCEL IDENTIFIERS								
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 2A of the Sale of Land Act 1962								
PARCEL 1 = CA 11 (PT)								
COLOUR CODE R = RED Y = YELLOW								
LENGTHS ARE IN METRES = 0.3048 x Feet FEET & INCHES METRES = 0.301465 x Links								
		Sheet 1 of 1 sheets						

This copied document is made available for the sole purpose of enabling its registration and review as part of a planning process under the Planning & Environment Act 1987. The copy must not be used for any other purpose.

TITLE PLAN	EDITION 1	TP 331656L
Location of Land Parish: BUTTLEJORRK Township: SUNBURY Section: 11 Crown Allotment: 12 Crown Portion: Last Plan Reference Derived From: VOL 8413 FOL 703 Depth Limitation: NIL	Notations ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN	
Description of Land / Easement Information		THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT COMPILED: 24/02/2000 VERIFIED: AA
LENGTHS ARE IN METRES = 0.3048 x FEET FEET & INCHES METRES = 0.201168 x LINKS		Sheet 1 of 1 sheets

Sustainability Design Assessment

Proposed Development of

**17-19 Harker Street
Sunbury, Vic 3429**

Prepared for

Hume City Council

Contents

1	Project Information	3
2	Built Environment Sustainability Scorecard (BESS)	3
3	Energy Performance	4
4	Water Resources	4
5	Stormwater Management.....	5
6	Indoor Environment Quality	6
7	Transport.....	7
8	Waste Management.....	7
9	Urban Ecology	8
10	Innovation	8
11	Building Materials.....	9
12	Construction and Building Management.....	9
13	Further Information	10
	Appendix A – STORM Report	11
	Appendix B – BESS Report.....	12
	Appendix C – Waste Minimisation & Pollution Plan	26
	Appendix D – Keeping Our Stormwater Clean	29

1 Project Information

Municipality:	Hume City Council
Site Address:	17-19 Harker Street, Sunbury Vic 3429
Planning Application No.:	P23309
Site Area:	1612.16m ²
Proposal:	Unit Development
Number of Dwellings:	9

The tools used in the assessment are as follows:

STORM – Melbourne Water's STORM Calculator
BESS – Built Environment Sustainability Scorecard

2 Built Environment Sustainability Scorecard (BESS)

The development has been assessed using the BESS assessment tool (www.bess.net.au). A summary of the results is shown in the table below. For the full BESS Report refer **APPENDIX B**

BESS Score Achieved – 53%

Category	% of Total	Score	Pass
Management	5%	0%	.
Water	9%	50%	✓
Energy	28%	50%	✓
Stormwater	14%	100%	✓
IEQ	17%	60%	✓
Transport	9%	66%	.
Waste	6%	50%	.
Urban Ecology	6%	62%	.
Innovation	9%	0%	.

3 Water Resources

Objectives:

- To improve water efficiency.
- To reduce total operating potable water use.
- To encourage the collection and reuse of stormwater.
- To encourage the appropriate use of alternative water sources (eg. greywater).

Considerations:

Water-efficiency rating of fixtures within one star of the best available
Showers - 4 Star WELS rating $\geq 6.0L/min.$ but not more than $7.5L/min.$
Taps - 5 Star WELS rating
Toilets - 4 Star WELS rating

Size, capacity and location of rainwater tanks

Dwelling 1 roof catchment area of 93.43m² connected to a 3000L capacity rainwater tank
 Dwelling 2 roof catchment area of 36.46m² connected to a 2000L capacity rainwater tank
 Dwelling 3 roof catchment area of 36.46m² connected to a 2000L capacity rainwater tank
 Dwelling 4 roof catchment area of 89.94m² connected to a 3000L capacity rainwater tank
 Dwelling 5 roof catchment area of 104.00m² connected to a 3000L capacity rainwater tank
 Dwelling 6 roof catchment area of 47.76m² connected to a 2000L capacity rainwater tank
 Dwelling 7 roof catchment area of 47.51m² connected to a 2000L capacity rainwater tank
 Dwelling 8 roof catchment area of 47.50m² connected to a 2000L capacity rainwater tank
 Dwelling 9 roof catchment area of 99.61m² connected to a 3000L capacity rainwater tank

To be collected and discharged via fully charged systems which will be connected to all toilets for toilet flushing, irrigation & laundry cold water tap/washing machine.

Please refer to the **W.S.U.D. Plan** and the **Site Layout & Ground Floor Plan** on the architectural drawings for the locations, size & dimensions of rainwater tanks.

Provisions for a more water efficient landscaping

Water efficient landscape shall be installed and maintained on the site. A Landscape Plan shall be completed at a later stage.

Size and general location of greywater treatment/storage systems

There are no such systems proposed.

4 Energy Performance

Objectives:

- To improve the efficient use of energy, by ensuring development demonstrates design potential for ESD initiatives at the planning stage.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand through particular design measures (eg. appropriate building orientation, shading to glazed surfaces, optimise glazing to exposed surfaces, space allocation for solar panels and external heating and cooling systems).

Considerations:

Energy rating of building fabric in excess of minimum BCA requirements

The dwellings shall achieve a minimum 6.0-Star energy rating in accordance with Council's best practice.

External shading devices to north, east and west facing glazing
There are no external shading devices proposed.

Heating and Cooling system types and associated energy-efficiency rating/benchmark
A refrigerated cooling system and gas ducted heating system shall be installed and be at least one star within the best available

Hot water system type and associated energy-efficiency rating/benchmark
A gas hot water system shall be used and be at least one star within the best available

Location of fixed clothes drying lines/ racks
The use of private outdoor clothesline has been provided to each dwelling. Please refer to the **Site Layout & Ground Floor Plan** for details.

Lighting strategy
Energy efficient lighting shall be used throughout the development. The average lighting power density shall not exceed 4W/sqm.

Location and size of renewable energy systems including photovoltaic (PV) solar power, solar hot water, wind turbines, geo-thermal etc.
There are no such systems proposed.

5 Stormwater Management

Objectives:

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.
- To incorporate the use of water sensitive urban design, including stormwater re-use.

Considerations:

Total site area
The subject site is 1612.16m².

Total number and area of impervious surfaces and their related treatments prior to off-site release

- D1 Roof – 93.43m² to Rainwater Tank 3000L
- D2 Roof – 36.46m² to Rainwater Tank 2000L
- D3 Roof – 36.46m² to Rainwater Tank 2000L
- D4 Roof – 89.94m² to Rainwater Tank 3000L
- D5 Roof – 104.00m² to Rainwater Tank 3000L
- D6 Roof – 47.76m² to Rainwater Tank 2000L
- D7 Roof – 47.51m² to Rainwater Tank 2000L
- D8 Roof – 47.50m² to Rainwater Tank 2000L
- D9 Roof – 99.61m² to Rainwater Tank 3000L
- D2 Roof – 44.40m² to 0.80m² Rain Garden
- D3 Roof – 44.40m² to 0.80m² Rain Garden

D6 Roof – 37.78m² to 0.80m² Rain Garden
 D7 Roof – 37.67m² to 0.80m² Rain Garden
 D8 Roof – 37.67m² to 0.80m² Rain Garden
 Driveway – 264.74m² Untreated

Please refer to the **W.S.U.D. Plan** on the architectural drawings for further information. For the full STORM Rating Report refer **APPENDIX A**

Total number and area of pervious surfaces (detention through on-site filtration)
 Please refer to the **W.S.U.D. Plan** on the architectural drawings for further information.

Provide additional STORM calculations (www.storm.melbournewater.com.au/)
 For the full STORM Rating Report refer **APPENDIX A**

6 Indoor Environment Quality

Objectives:

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, and natural daylight.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by encouraging use of materials with low toxic chemicals.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Considerations:

Access to daylight

All habitable rooms shall receive adequate natural light, improving the amenity and energy efficiency of the dwelling. Each area will achieve minimum 10% ratio for window/s to floor area but not exceed 20% ratio to ensure energy efficiency requirements are achieved.

Access to natural ventilation

All habitable rooms shall receive adequate natural ventilation, improving the amenity and energy efficiency of the dwelling. Each area will achieve minimum 5% ratio for window/s to floor area.

Thermal Comfort

Double glazed windows have been incorporated to improve and provide more comfort to the occupant, along with a savings on energy consumption. Please refer to the **BESS Plan** for more details.

Reduction in volatile organic compounds

The builder is committed to using low VOC paints to internal walls

7 Transport

Objectives:

To ensure that the built environment is designed to promote the use of walking, cycling and public transport, in that order.

To minimise car dependency.

To promote the use of low emissions vehicle technologies and supporting infrastructure.

Considerations:

Provide convenient and secure bike storage facilities for building users and guests

The site is located within good proximity to shops which can be easily commuted to via bicycle. The proposal includes the provision of bicycle parking within each garage or carport. Please refer to the **Site Layout & Ground Floor Plan** on the architectural drawings for further details.

Infrastructure for electric vehicles charging

There are no such systems proposed.

Access to public transport

The site is located within walking distance to a variety of public transport facilities along with a number of shops and public open spaces. This will reduce the need for car dependency and promotes the use of these facilities.

8 Waste Management

Objectives:

To promote waste avoidance, reuse and recycling during the design, construction and operation stages of development.

To ensure durability and long term reusability of building materials.

To ensure sufficient space is allocated for future change in waste management needs, including (where possible) composting and green waste facilities.

Considerations:

Allocated space(s) for general waste, recycling and green waste

Storage spaces for general waste and recycling bins have been included in the proposal to encourage separation of waste streams produced by the occupants as indicated on the **Site Layout & Ground Floor Plan** of the architectural drawings.

Operation Waste Management Plan

The dwelling will be provided with bins for both general and recycling waste. Recycling bins will also be provided next to general waste bins in the kitchen.

Construction Waste Management Plan

The development is to recycle a minimum of 70% of construction waste.

9 Urban Ecology

Objectives:

- To protect and enhance biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats and minimise the urban heat island effect.
- To encourage the retention of significant trees.
- To encourage the planting of indigenous vegetation.
- To encourage the provision of space for productive gardens, particularly in larger residential developments.

Considerations:

Landscaped areas to be designated

Large landscaped areas will be provided within the front setback, around the site and within the private open spaces. The design will incorporate a mix of native, water efficient species to help maintain local biodiversity. A Landscape Plan shall be provided at a later stage.

Retention and inclusion of native vegetation

Drought tolerant and native vegetation will be incorporated into the proposal. A Landscape Plan shall be provided at a later stage.

Season heat control

The use of new deciduous canopy trees within the front setback and within the private open spaces may assist with blocking the summer sun whilst maximising solar gain in winter.

Irrigation

No irrigation has been proposed, drought tolerant vegetation and landscaping has been incorporated into the proposal. A Landscape Plan shall be provided at a later stage.

10 Innovation

Objectives:

- To encourage innovative technology, design and processes in all development, so as to positively influence the sustainability of buildings.

Considerations:

N/A	Significant enhancement of best practice ESD standards
N/A	Unique sustainable design element or new technology implemented to enhance ESD outcomes
N/A	Excellent passive design approach
N/A	Responding to local climate conditions

11 Building Materials

Objectives:

- To reduce the embodied energy and CO2 impact of materials.
- To maximise the responsible sourcing materials.
- To maximise the use of recycled material.
- To maximise the reuse of materials.
- To reduce the use of material that contains high levels of VOC (or other toxic elements).

Considerations:

Reuse of Materials and other Recycled Materials
Where possible, the development is to recycle a minimum of 70% of construction waste.

Embodied Energy
No provisions are proposed with this development

Sustainable Timber
No provisions are proposed with this development

Design for Disassembly
No provisions are proposed with this development

Environmental toxicity
The builder is committed to using low VOC paints to internal walls

12 Construction and Building Management

Objectives:

- Best practice for building management means that sustainability is integrated from concept design through the construction process. Good decisions made early will always deliver the maximum benefit for the lowest cost.
- Best practice building management also means giving future occupants the information they need to be able to run their buildings in the most efficient way.

Considerations:

Tuning of building systems
N/A

Building User's Guide that explains a building's ESD principles
N/A

Operation Environmental Management Plan
The builder is committed to addressing stormwater pollution by various measures during the construction as outlined in the attached Melbourne Water's Keeping Your Stormwater Clean

Environmental credentials of project team
N/A

13 Further Information

For further Information & details, please refer to the following documents:

STORM Report

Attached, Refer to Appendix A

WSUD Plan

Refer to the architectural drawings prepared by Lazarovski Design

BESS Report

Attached, Refer to Appendix B

BESS Plan

Refer to the architectural drawings prepared by Lazarovski Design

Stormwater Management Plan (Construction)

Attached, Refer to Appendix C

Please refer to the attached Melbourne Water's Keeping Your Stormwater Clean

WSUD Maintenance Plan

Attached, refer to the attached Melbourne Water's WSUD Maintenance Guidelines

Appendix A – STORM Report



STORM Rating Report

TransactionID: 1270394
 Municipality: HUME
 Rainfall Station: HUME
 Address: 17-19 Harker Street

Sunbury
 VIC 3428

Assessor: Lazarovski Design
 Development Type: Residential - Multiunit
 Allotment Site (m2): 1,612.16
 STORM Rating %: 101

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
D1 Roof - RWT	93.43	Rainwater Tank	3,000.00	2	120.00	97.90
D2 Roof - RWT	36.46	Rainwater Tank	2,000.00	2	170.00	82.00
D3 Roof - RWT	36.46	Rainwater Tank	2,000.00	2	170.00	82.00
D4 Roof - RWT	89.94	Rainwater Tank	3,000.00	2	124.00	97.30
D5 Roof - RWT	104.00	Rainwater Tank	3,000.00	2	116.00	98.50
D6 Roof - RWT	47.76	Rainwater Tank	2,000.00	2	163.00	84.40
D7 Roof - RWT	47.51	Rainwater Tank	2,000.00	2	168.00	82.80
D8 Roof - RWT	47.50	Rainwater Tank	2,000.00	2	168.00	82.80
D9 Roof - RWT	99.61	Rainwater Tank	3,000.00	2	120.00	97.90
D2 Roof - Raingarden	44.40	Raingarden 100mm	0.80	0	126.40	0.00
D3 Roof - Raingarden	44.40	Raingarden 100mm	0.80	0	126.40	0.00
D6 Roof - Raingarden	37.78	Raingarden 100mm	0.80	0	128.65	0.00
D7 Roof - Raingarden	37.67	Raingarden 100mm	0.80	0	128.65	0.00
D8 Roof - Untreated	37.67	Raingarden 100mm	0.80	0	128.65	0.00
Driveway - Untreated	264.74	None	0.00	0	0.00	0.00

BESS Report

Built Environment Sustainability Scorecard

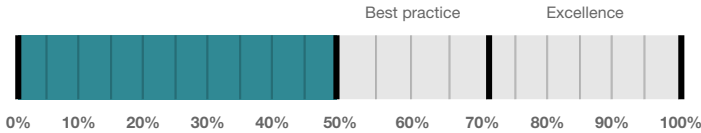


This BESS report outlines the sustainable design commitments of the proposed development at 17-19 Harker St Sunbury VIC 3429. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Hume 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.

Note: This is a DRAFT and not suitable for submission to council

Your BESS Score



53%

Project details

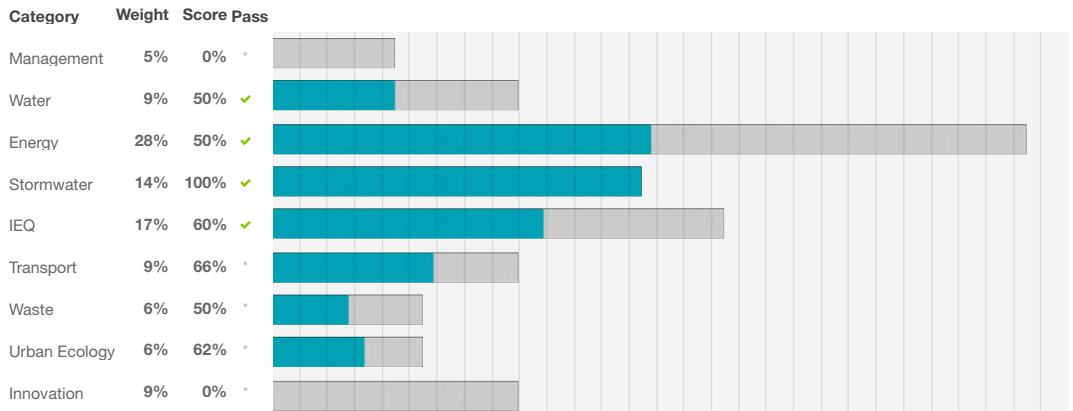
Address 17-19 Harker St Sunbury VIC 3429
Project no 6B11D8BD
BESS Version BESS-6

Site type Multi dwelling (dual occupancy, townhouse, villa unit etc)
Account hello@lazarovski.com.au
Application no. P23309
Site area 1,612 m²
Building floor area 1,226.97 m²
Date 15 November 2021
Software version 1.7.0-B.375



Performance by category

● Your development ● Maximum available



Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	% of total area
Townhouse			
Dwelling 5	3	110 m ²	26%
Dwelling 2	2	97.3 m ²	15%
Dwelling 9	1	102 m ²	8%
Dwelling 8	1	101 m ²	8%
Dwelling 7	1	101 m ²	8%
Dwelling 6	1	101 m ²	8%
Dwelling 4	1	98.2 m ²	8%
Dwelling 1	1	102 m ²	8%
Dwelling 3	1	97.3 m ²	7%
Total	12	1,226 m²	100%

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Water 3.1	Water efficient garden annotated		-
Energy 3.3	External lighting sensors annotated		-
Energy 3.4	Clothes line annotated (if proposed)		-
Stormwater 1.1	Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips)		-
IEQ 3.1	Glazing specification to be annotated		-
IEQ 3.3	North-facing living areas		-
Transport 1.1	All nominated residential bicycle parking spaces		-
Transport 1.2	All nominated residential visitor bicycle parking spaces		-
Waste 2.1	Location of food and garden waste facilities		-
Urban Ecology 2.1	Vegetated areas		-
Urban Ecology 2.4	Taps and floor waste on balconies / courtyards		-

Supporting evidence

Credit	Requirement	Response	Status
Energy 3.5	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.		-
Stormwater 1.1	STORM report or MUSIC model		-
IEQ 3.1	Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)		-
IEQ 3.3	Reference to the floor plans showing living areas orientated to the north.		-

Credit summary

Management Overall contribution 4.5%

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

Water Overall contribution 9.0%

		Minimum required 50%	50%	✔ Pass
1.1 Potable water use reduction			40%	
3.1 Water Efficient Landscaping			100%	

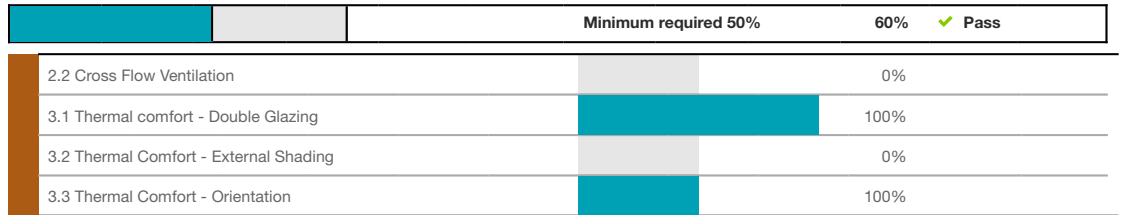
Energy Overall contribution 27.5%

		Minimum required 50%	50%	✔ Pass
1.2 Thermal Performance Rating - Residential			0%	
2.1 Greenhouse Gas Emissions			100%	
2.2 Peak Demand			0%	
2.3 Electricity Consumption			100%	
2.4 Gas Consumption			100%	
2.5 Wood Consumption			N/A	✦ Scoped Out
				No wood heating system present
3.2 Hot Water			100%	
3.3 External Lighting			100%	
3.4 Clothes Drying			100%	
3.5 Internal Lighting - Residential Single Dwelling			100%	
4.4 Renewable Energy Systems - Other			N/A	⊘ Disabled
				No other (non-solar PV) renewable energy is in use.
4.5 Solar PV - Houses and Townhouses			N/A	⊘ Disabled
				No solar PV renewable energy is in use.

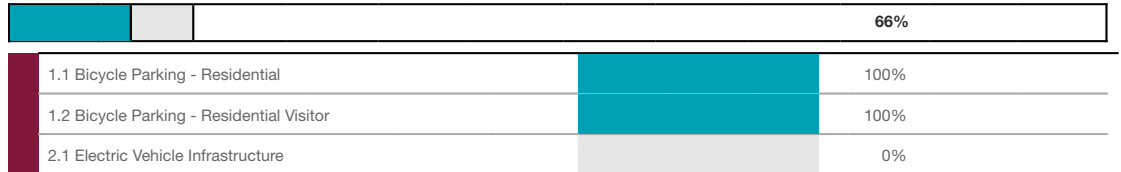
Stormwater Overall contribution 13.5%

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

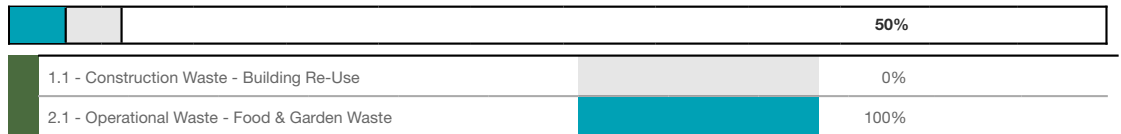
IEQ Overall contribution 16.5%



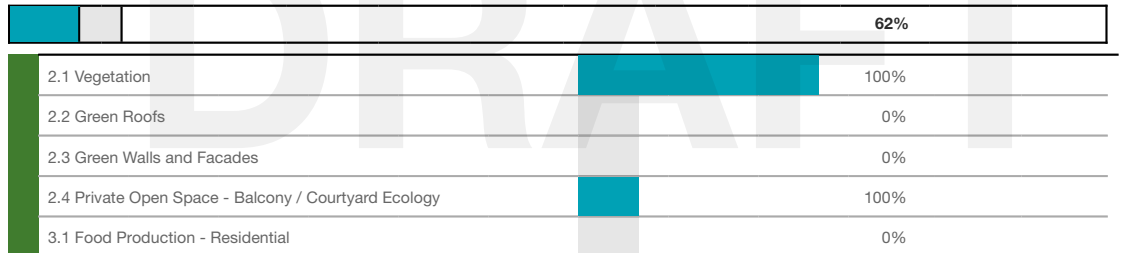
Transport Overall contribution 9.0%



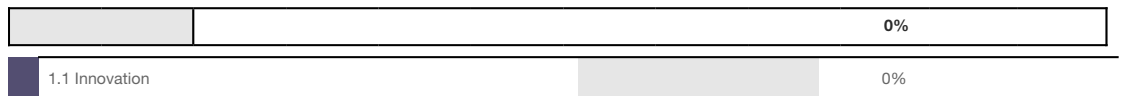
Waste Overall contribution 5.5%



Urban Ecology Overall contribution 5.5%



Innovation Overall contribution 9.0%



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 Modelling - Multi-Dwelling Residential		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	

DRAFT

Water Overall contribution 4% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the built in calculation tools
Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes
Water fixtures, fittings and connections	
Showerhead: All	4 Star WELS (>= 6.0 but <= 7.5)
Bath: All	Medium Sized Contemporary Bath
Kitchen Taps: All	>= 5 Star WELS rating
Bathroom Taps: All	>= 5 Star WELS rating
Dishwashers: All	Default or unrated
WC: All	>= 4 Star WELS rating
Urinals: All	Scope out
Washing Machine Water Efficiency: All	Default or unrated
Which non-potable water source is the dwelling/space connected to?:	
Dwelling 1	RWT 1
Dwelling 2	RWT 2
Dwelling 3	RWT 3
Dwelling 4	RWT 4
Dwelling 5	RWT 5
Dwelling 6	RWT 6
Dwelling 7	RWT 7
Dwelling 8	RWT 8
Dwelling 9	RWT 9
Non-potable water source connected to Toilets: All	Yes
Non-potable water source connected to Laundry (washing machine): All	No
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	93.4 m ²
RWT 2	36.5 m ²
RWT 3	36.5 m ²
RWT 4	89.9 m ²
RWT 5	104 m ²
RWT 6	47.8 m ²
RWT 7	47.5 m ²
RWT 8	47.5 m ²
RWT 9	99.6 m ²

Tank Size:

RWT 1	3,000 Litres
RWT 2	2,000 Litres
RWT 3	2,000 Litres
RWT 4	3,000 Litres
RWT 5	3,000 Litres
RWT 6	2,000 Litres
RWT 7	2,000 Litres
RWT 8	2,000 Litres
RWT 9	3,000 Litres

Irrigation area connected to tank:

RWT 1	34.7 m ²
RWT 2	32.5 m ²
RWT 3	32.5 m ²
RWT 4	77.0 m ²
RWT 5	35.7 m ²
RWT 6	30.3 m ²
RWT 7	30.6 m ²
RWT 8	30.6 m ²
RWT 9	28.2 m ²

Is connected irrigation area a water efficient garden?:

RWT 1	Yes
RWT 2	Yes
RWT 3	Yes
RWT 4	Yes
RWT 5	Yes
RWT 6	Yes
RWT 7	Yes
RWT 8	Yes
RWT 9	Yes

Other external water demand connected to tank?:

RWT 1	-
RWT 2	-
RWT 3	-
RWT 4	-
RWT 5	-
RWT 6	-
RWT 7	-
RWT 8	-
RWT 9	-

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	2129 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	1804 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	1556 kL	
Output	% Reduction in Potable Water Consumption	
Project	26 %	
Output	% of connected demand met by rainwater	
Project	77 %	
Output	How often does the tank overflow?	
Project	Often	
Output	Opportunity for additional rainwater connection	
Project	734 kL	
3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 16.7% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	

Energy Overall contribution 14% Minimum required 50%

Dwellings Energy Approach	
What approach do you want to use for Energy?:	Use the built in calculation tools
Project Energy Profile Question	
Are you installing any solar photovoltaic (PV) system(s)?:	No
Are you installing any other renewable energy system(s)?:	No
Gas supplied into building:	Natural Gas
Dwelling Energy Profiles	
Below the floor is:	
Dwelling 1	Ground or Carpark
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	
Above the ceiling is:	
Dwelling 1	Outside
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	
Exposed sides:	
Dwelling 1	3
Dwelling 3	
Dwelling 4	
Dwelling 6	
Dwelling 2	2
Dwelling 5	
Dwelling 7	-
Dwelling 8	
Dwelling 9	

DRAFT

NatHERS Annual Energy Loads - Heat:

Dwelling 1	110 MJ/sqm
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	

NatHERS Annual Energy Loads - Cool:

Dwelling 1	27.6 MJ/sqm
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	

NatHERS star rating:

Dwelling 1	6.0
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	

Type of Heating System:

Dwelling 1	B Gas central ducts
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	

Heating System Efficiency:


Dwelling 1	5 Star
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	

DRAFT

Type of Cooling System:		
Dwelling 1	Refrigerative space	
Dwelling 2		
Dwelling 3		
Dwelling 4		
Dwelling 5		
Dwelling 6		
Dwelling 7	-	
Dwelling 8		
Dwelling 9		
Cooling System Efficiency:		
Dwelling 1	5 Stars	
Dwelling 2		
Dwelling 3		
Dwelling 4		
Dwelling 5		
Dwelling 6		
Dwelling 7	-	
Dwelling 8		
Dwelling 9		
Type of Hot Water System:		
Dwelling 1	F Gas Storage 5 star	
Dwelling 2		
Dwelling 3		
Dwelling 4		
Dwelling 5		
Dwelling 6		
Dwelling 7	-	
Dwelling 8		
Dwelling 9		
Is the hot water system shared by multiple dwellings?:		
Dwelling 1	No	
Dwelling 2		
Dwelling 3		
Dwelling 4		
Dwelling 5		
Dwelling 6		
Dwelling 7	-	
Dwelling 8		
Dwelling 9		
% Contribution from solar hot water system: All		-

DRAFT

Clothes Line:	
Dwelling 1	D Private outdoor clothesline
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	
Clothes Dryer:	
Dwelling 1	A No clothes dryer
Dwelling 2	
Dwelling 3	
Dwelling 4	
Dwelling 5	
Dwelling 6	
Dwelling 7	-
Dwelling 8	
Dwelling 9	
1.2 Thermal Performance Rating - Residential	0%
Score Contribution	This credit contributes 30.0% towards the category score.
Criteria	What is the average NatHERS rating?
Output	Average NATHERS Rating (Weighted)
Townhouse	4.5 Stars
2.1 Greenhouse Gas Emissions	100%
Score Contribution	This credit contributes 10.0% towards the category score.
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?
Output	Reference Building with Reference Services (BCA only)
Townhouse	57,422 kg CO2
Output	Proposed Building with Proposed Services (Actual Building)
Townhouse	24,139 kg CO2
Output	% Reduction in GHG Emissions
Townhouse	57 %
2.2 Peak Demand	0%
Score Contribution	This credit contributes 5.0% towards the category score.
Criteria	What is the % reduction in instantaneous (peak-hour) demand against the benchmark?

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	37,231 kWh	
Output	Proposed	
Townhouse	9,113 kWh	
Output	Improvement	
Townhouse	75 %	
2.4 Gas Consumption		100%
Score Contribution	This credit contributes 10.0% towards the category score.	
Criteria	What is the % reduction in annual gas consumption against the benchmark?	
Output	Reference	
Townhouse	378,341 MJ	
Output	Proposed	
Townhouse	288,777 MJ	
Output	Improvement	
Townhouse	23 %	
2.5 Wood Consumption		N/A  Scoped Out
This credit was scoped out	No wood heating system present	
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 hot water system against the benchmark?	
Output	Reference	
Townhouse	53,428 kWh	
Output	Proposed	
Townhouse	35,918 kWh	
Output	Improvement	
Townhouse	32 %	
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	

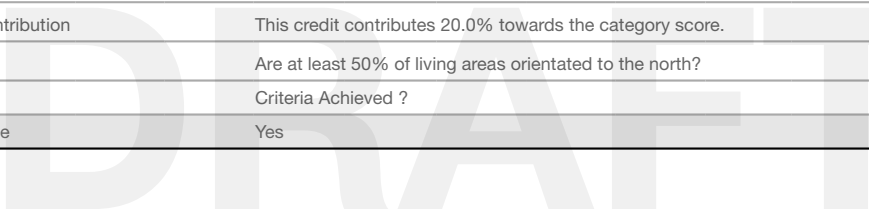
3.4 Clothes Drying		100%
Score Contribution	This credit contributes 5.0% towards the category score.	
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a combination of clothes lines and efficient driers against the benchmark?	
Output	Reference	
Townhouse	6,735 kWh	
Output	Proposed	
Townhouse	1,012 kWh	
Output	Improvement	
Townhouse	84 %	
3.5 Internal Lighting - Residential Single Dwelling		100%
Score Contribution	This credit contributes 5.0% towards the category score.	
Criteria	Does the development achieve a maximum illumination power density of 4W/sqm or less?	
Question	Criteria Achieved?	
Townhouse	Yes	
4.4 Renewable Energy Systems - Other		N/A <input type="checkbox"/> Disabled
This credit is disabled	No other (non-solar PV) renewable energy is in use.	
4.5 Solar PV - Houses and Townhouses		N/A <input type="checkbox"/> Disabled
This credit is disabled	No solar PV renewable energy is in use.	

Stormwater Overall contribution 14% Minimum required 100%

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

IEQ Overall contribution 10% Minimum required 50%

2.2 Cross Flow Ventilation		0%
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	No	
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 Shading		0%
Score Contribution	This credit contributes 20.0% towards the category score.	
Criteria	Is appropriate external shading provided to east, west and north facing glazing?	
Question	Criteria Achieved ?	
Townhouse	No	
3.3 Thermal Comfort - Orientation		100%
Score Contribution	This credit contributes 20.0% towards the category score.	
Criteria	Are at least 50% of living areas orientated to the north?	
Question	Criteria Achieved ?	
Townhouse	Yes	



Transport Overall contribution 6%

1.1 Bicycle Parking - Residential		100%
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	How many secure and undercover bicycle spaces are there per dwelling for residents?	
Question	Bicycle Spaces Provided ?	
Townhouse	12	
Output	Min Bicycle Spaces Required	
Townhouse	12	
1.2 Bicycle Parking - Residential Visitor		100%
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	How many secure bicycle spaces are there per 5 dwellings for visitors?	
Question	Visitor Bicycle Spaces Provided ?	
Townhouse	3	
Output	Min Visitor Bicycle Spaces Required	
Townhouse	3	
2.1 Electric Vehicle Infrastructure		0%
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	Are facilities provided for the charging of electric vehicles?	
Question	Criteria Achieved ?	
Project	No	

Waste Overall contribution 3%

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

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	36 %	
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 - Balcony / Courtyard Ecology		100%
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	Yes	
3.1 Food Production - Residential		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	8 m²	

Innovation Overall contribution 0%

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

Note

This is a DRAFT and not suitable for submission to council.

Disclaimer

The Built Environment Sustainability Scorecard (BESS) has been provided for the purpose of information and communication. While we make every effort to ensure that material is accurate and up to date (except where denoted as 'archival'), this material does in no way constitute the provision of professional or specific advice. You should seek appropriate, independent, professional advice before acting on any of the areas covered by BESS.

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

DRAFT

Appendix C – Waste Minimisation & Pollution Plan

Waste Minimisation Plan – Clean Site Check List		
Site Rules	Clean Site Check List	
	Task	<input checked="" type="checkbox"/>
Site Rule 1 - Check council requirements and plan before you start on site.	Cross over away from lowest point	<input type="checkbox"/>
	Sediment control fence on lowest side	<input type="checkbox"/>
	Stockpiles away from lowest point	<input type="checkbox"/>
	Marked trees and vegetation to keep on site	<input type="checkbox"/>
Site Rule 2 - Stop erosion on the site and contain sediments.	Sediment control fence in place	<input type="checkbox"/>
	Catch drains on the high side of the site	<input type="checkbox"/>
	Vegetation areas kept at boundary	<input type="checkbox"/>
	Gravel sausage at stormwater pit	<input type="checkbox"/>
	Downpipes set up as early as possible	<input type="checkbox"/>
Site Rule 3 – Protect stockpiles	Base and cover for stockpiles	<input type="checkbox"/>
Site Rule 4 – Keep mud off road and on the site	Crushed rock access point	<input type="checkbox"/>
	Vehicles keep to crushed rock areas	<input type="checkbox"/>
	Mud removed from tyres before leaving the site	<input type="checkbox"/>
	Clean road if muddy	<input type="checkbox"/>
	Clean stormwater pit and maintain gravel sausage	<input type="checkbox"/>
Site Rule 5 – Keep litter contained on site	Litter bins in place with lid closed	<input type="checkbox"/>
	Site fencing in place	<input type="checkbox"/>
	Recycling bins/areas provided on site	<input type="checkbox"/>
Site Rule 6 – Clean and wash up on site	Cutting and clean up area on site	<input type="checkbox"/>
	Clean equipment before washing	<input type="checkbox"/>
	Sediment filters down slope	<input type="checkbox"/>
	Contain all washings on site	<input type="checkbox"/>

Waste Minimisation Plan - Site Layout Plan

LEGEND

- Stock pile
- Site fence
- Stabilised Access point
- Litter Bin
- Dump Bin
- Recycling Bins
- Vegetation
- Drains
- Silt Fence
- Wash up area
- Gravel Sausage

Note:
 Provide sediment control fence (or equivalent) at lowest point of site

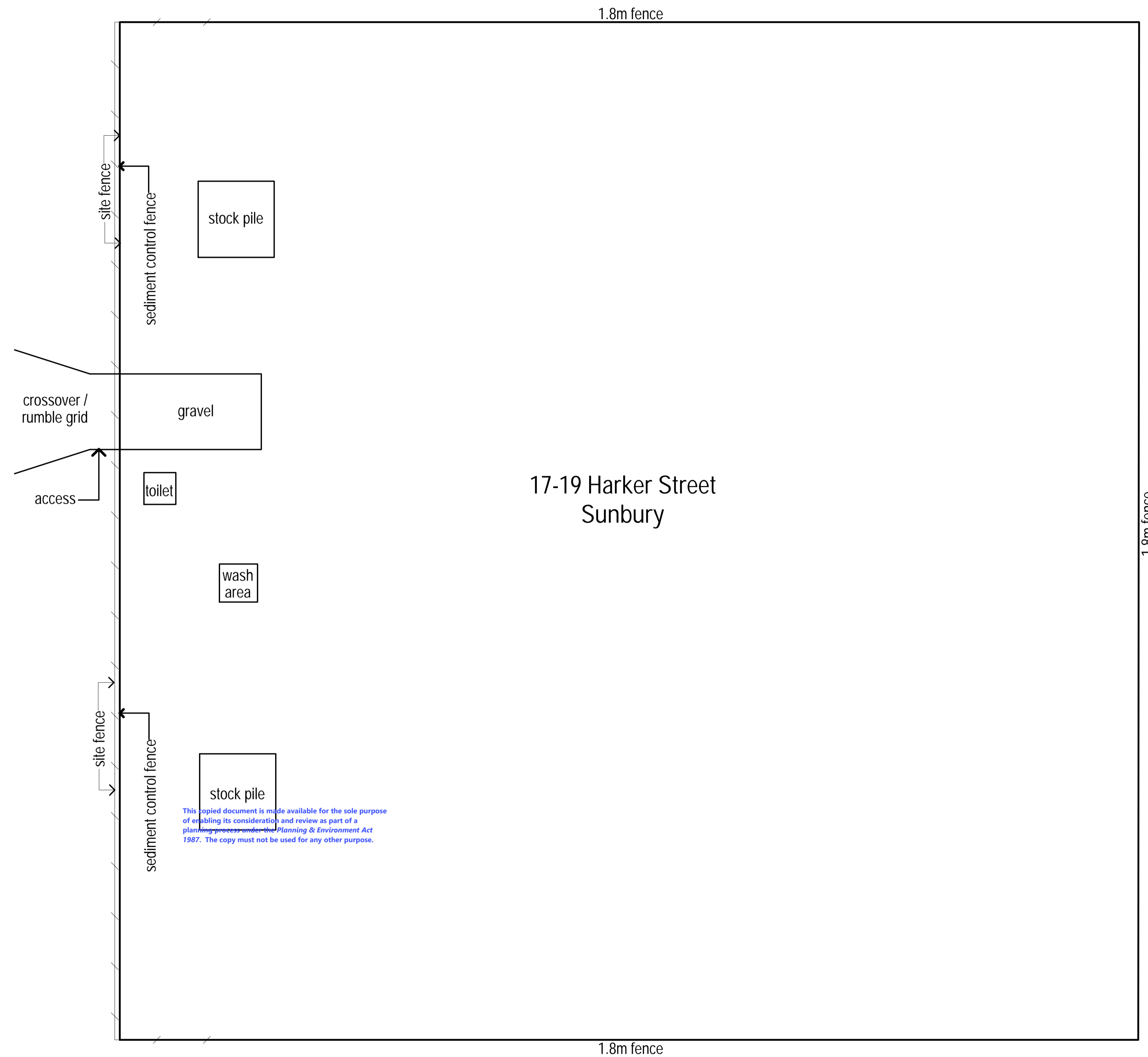
Cutting & clean up area onsite

Clean equipment before washing

Contain all washing in wash area

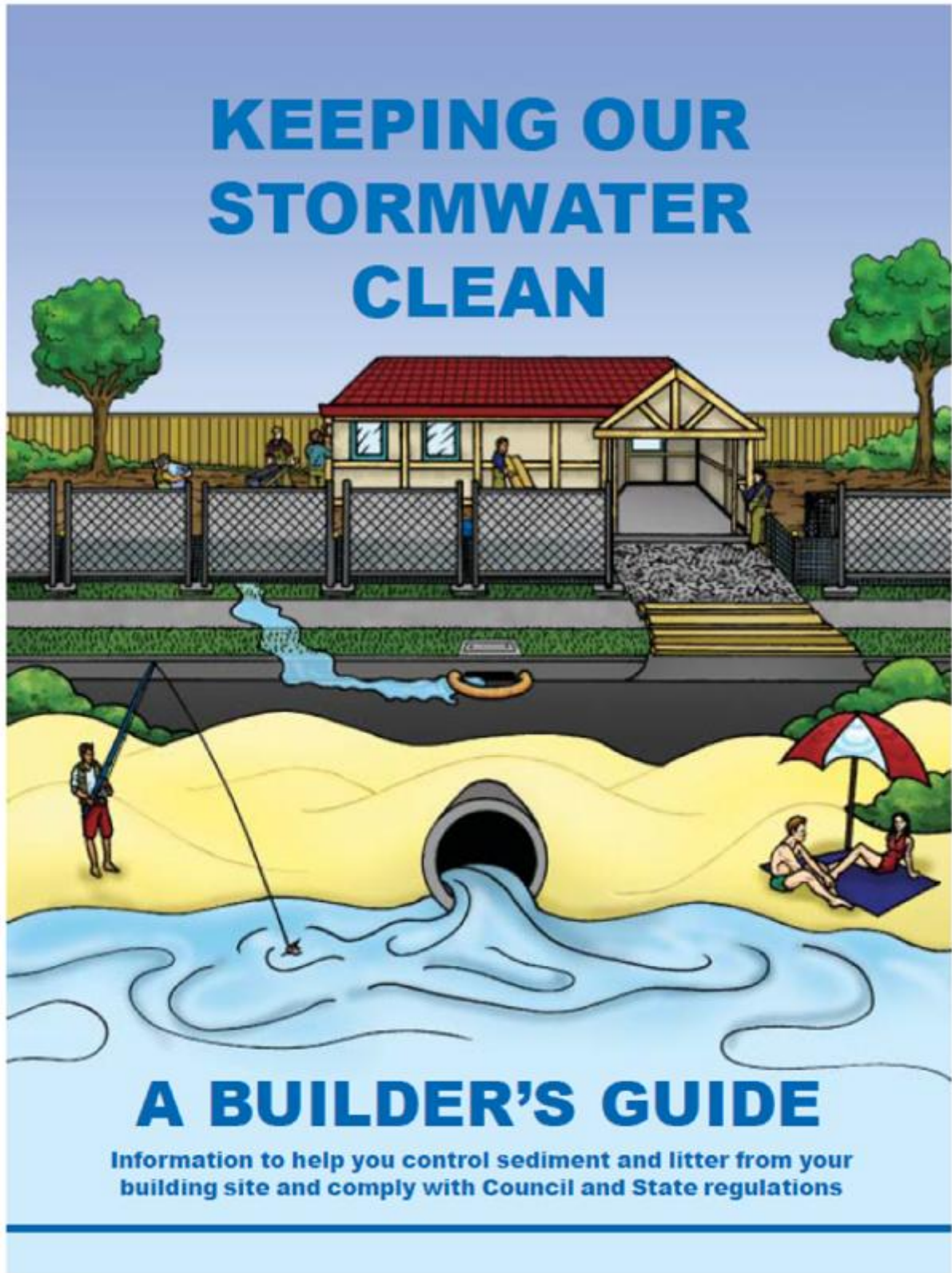
Sediment filters down slope

Wash area to be cleaned & maintained regularly & as required



Waste Minimisation Plan – Method				
Generated Waste Materials	Method for Waste Minimisation			
	Amount M2 and/or tonnes	Waste reduction Technique e.g. Minimal Quantity orders Reuse on / off-site	Off-site Reuse? Name of Recycler? Transfer site?	Disposal Name of Contractor Landfill site Amount
Green Waste				
Soil				
Waffle pods				
Concrete				
Timber				
Roofing Iron				
Metals				
Bricks				
Cardboard and Paper				
Plaster				
PVC				
Plastic Wrapping				
Carpet / Underlay				
Pavers				
Other				

Appendix D – Keeping Our Stormwater Clean



Environment Protection Authority Victoria

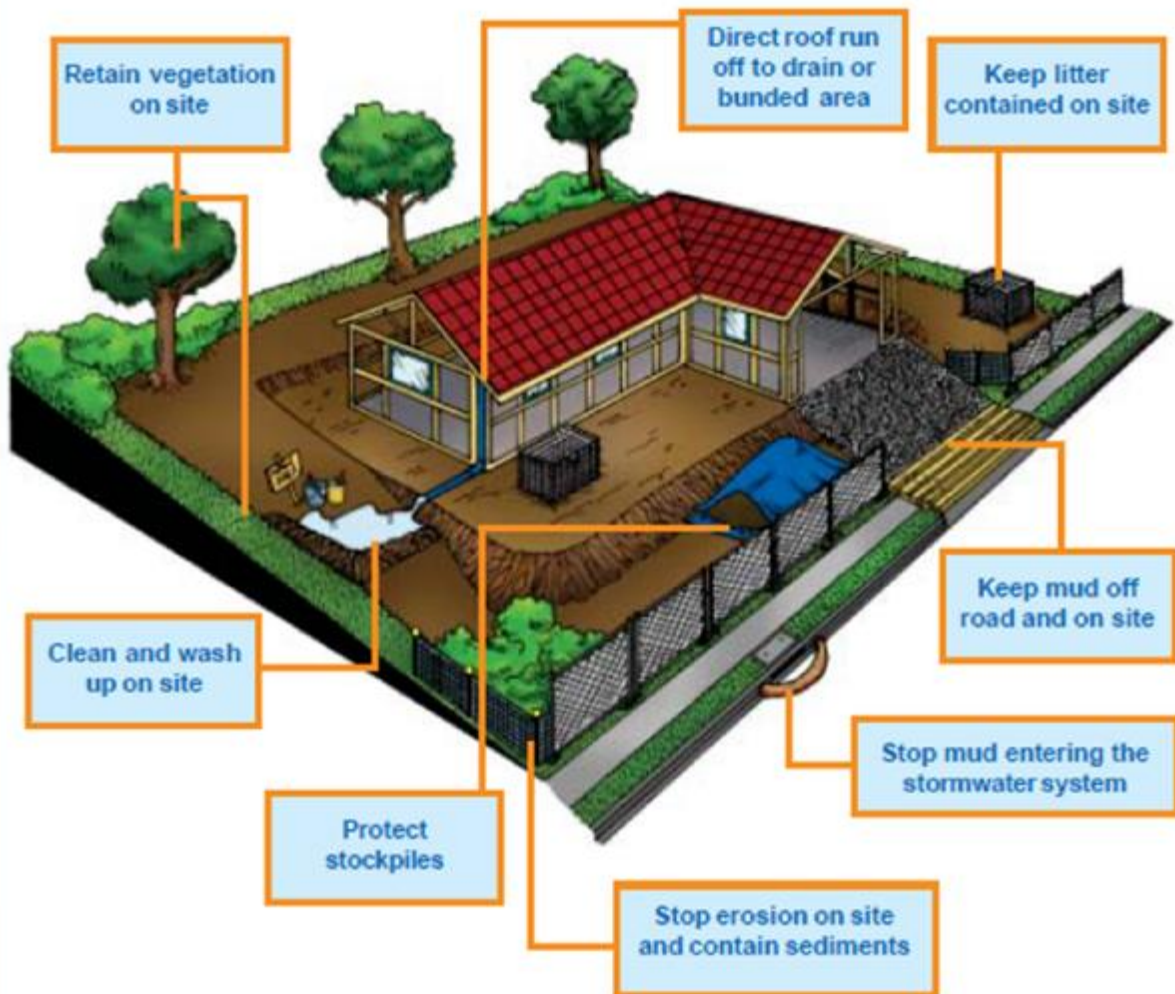


This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the *Planning & Environment Act 1987*. The copy must not be used for any other purpose.

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.

Check Council requirements and plan before you start work on site



Supplier information for sediment & erosion control on page 3

CONTENTS

6 SITE RULES TO KEEP STORMWATER CLEAN



SITE RULE 1

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

..... Page 4



SITE RULE 2

Stop erosion onsite and contain sediments.

..... Page 6



SITE RULE 3

Protect stockpiles.

..... Page 12



SITE RULE 4

Keep mud off road and on site.

..... Page 16



SITE RULE 5

Keep litter contained on site.

..... Page 18

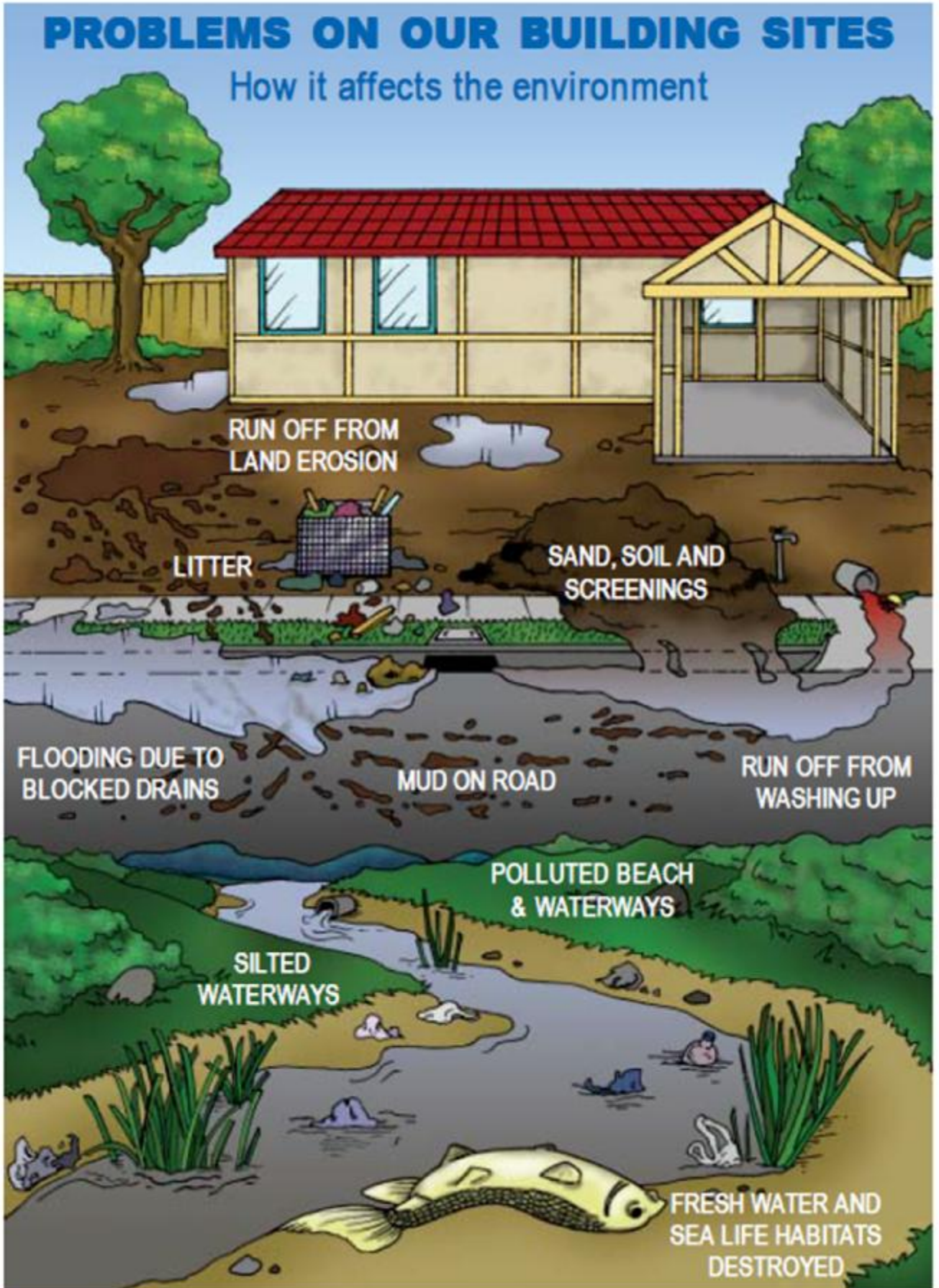


SITE RULE 6

Clean and wash up on site.

..... Page 21

Use the Site Management Plan..... Page 23



WHY DO I NEED TO PROTECT OUR ENVIRONMENT?

It's the law!

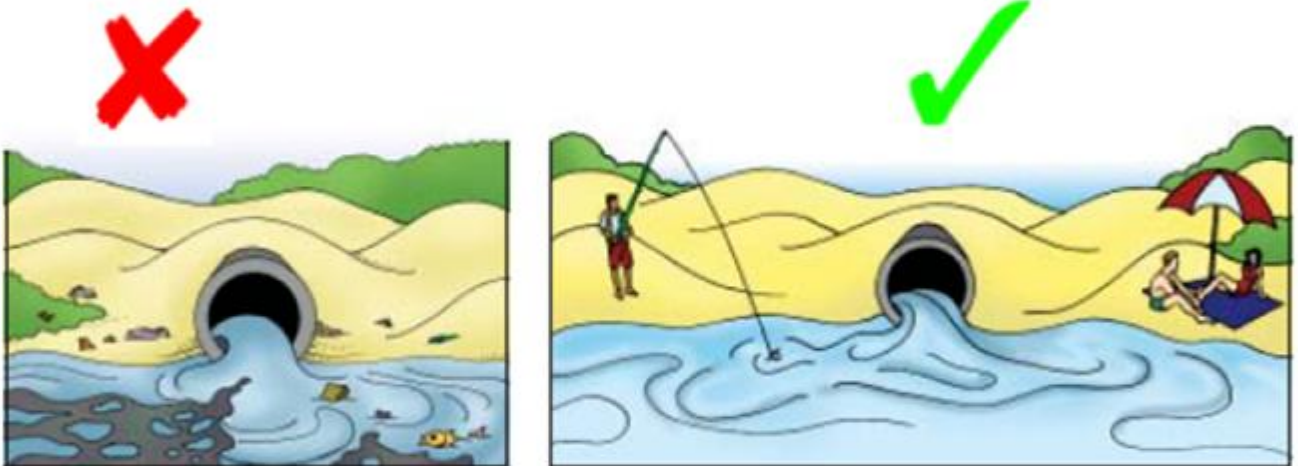
Sediment from building sites can pollute stormwater. There are State and local council laws which make this an offence.

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



Penalties apply for polluting stormwater.

To enjoy using our environment - now and in the future



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

To benefit builders

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

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

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



USEFUL SUPPLIER INFORMATION



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

SEDIMENT CONTROL

Approximate Price:
Geofabric fencing
100 m roll from \$55 to \$130
stakes \$12 for 10
Filter socks unfilled: 2 m \$4.50 filled \$8 - \$25

Geofabrics Australasia
03 8586 9111 www.geofabrics.com.au
Products: silt fencing

Southern Geosynthetics Supplies
0419 478 238 www.geosynthetics.com.au
Products: Silt fences, Silt Sausages

Statewide River & Stream Management
03 9702 9757 www.stateplanthire.com
Products: silt fence, stakes, silt logs
Installation service and site kits
Approx cost: \$220 for 20 m frontage installed, \$88 self installation

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

Zerosion
0408 351 566 www.zerosion.com.au
Products: silt fence installation
Approx cost: \$215 for up to 20 m frontage

For NT Contractors look under Sediment Control in the NT Yellow Pages

STABILISED DRIVEWAYS

For aggregate look under sand, soil and gravel in the NT 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

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
See also silt fencing – in the NT Yellow Pages

PORTABLE TOILETS

See Toilets – Portable in the NT Yellow Pages

TEMPORARY FENCING

See Temporary Fencing Hire Contractors in the NT Yellow Pages

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
Civil Contractors Federation NT
www.civilcontractors.com
Keep Australia Beautiful Victoria – CleanSites Program
www.kabcnt.org.au/
Victorian Litter Action Alliance
www.litter.vic.gov.au
NT Environment Protection Authority
www.ntepa.nt.gov.au
Environment Protection Authority Victoria
www.epa.vic.gov.au
Melbourne Water
www.melbournewater.com.au



SITE RULE 1

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



Questions to ask BEFORE you start

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

SITE MANAGEMENT PLAN

Building Company: _____ Date: ____/____/____
 Site Address: _____
 Client Name: _____ Contact Number: | _____

Site Management Plan 23

CLEAN SITE CHECKLIST

Please photocopy to use on site

SITE DETAILS
 Building Company: _____
 Site Supervisor: _____
 Date: ____/____/____
 Site Address: _____
 Client Name: _____
 Contact Number: | _____

SITE RULE	TASK	CHECK
SITE RULE 1 - Check Council requirements and plan before you start work on site.	Crossover away from lowest point Sediment control forms on lowest side Stockpiles away from lowest point Marked trees and vegetation to keep on site	<input type="checkbox"/>
SITE RULE 2 - Stop erosion on site and contain sediment.	Sediment control forms in place Catch drains on high side of site Vegetation areas kept at boundary Overpipes set up as early as possible	<input type="checkbox"/>
SITE RULE 3 - Prevent stockpiles.	Base and cover for stockpiles Gravel sealage at stormwater pit	<input type="checkbox"/>
SITE RULE 4 - Keep mud off road and on-site.	Crossed rock across point Mudbins kept to crossed rock areas Mud removed from tyres before leaving site Clean road if muddy	<input type="checkbox"/>
SITE RULE 5 - Keep litter controlled on site.	Litter bins in place with lid closed Site fencing in place	<input type="checkbox"/>
SITE RULE 6 - Clean and wash up on site.	Cleaning and wash up area on site Clean equipment off before washing Sediment filter's downspout Contain all materials on site	<input type="checkbox"/>

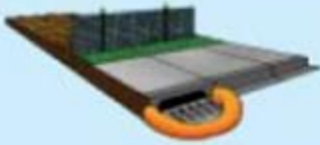
Site Management Plan 24

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



Site Rule 1 - Plan before you start work on site.

5



SITE RULE 2

Stop erosion and keep sediment on site

Why is erosion a problem?

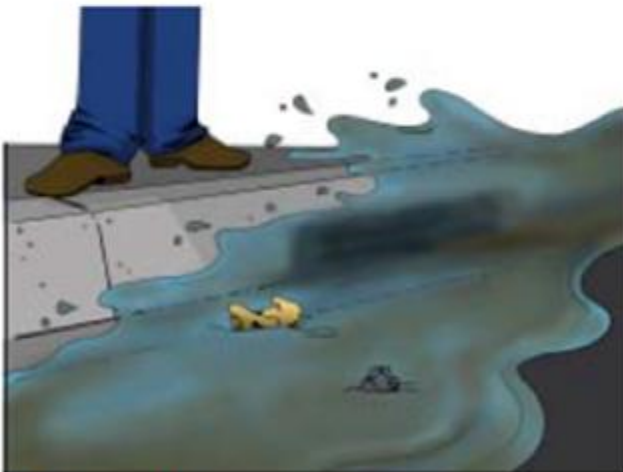
Sediment escaping from building sites can:



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.

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

Control Method 2 - Early downpipe connection



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

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

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

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



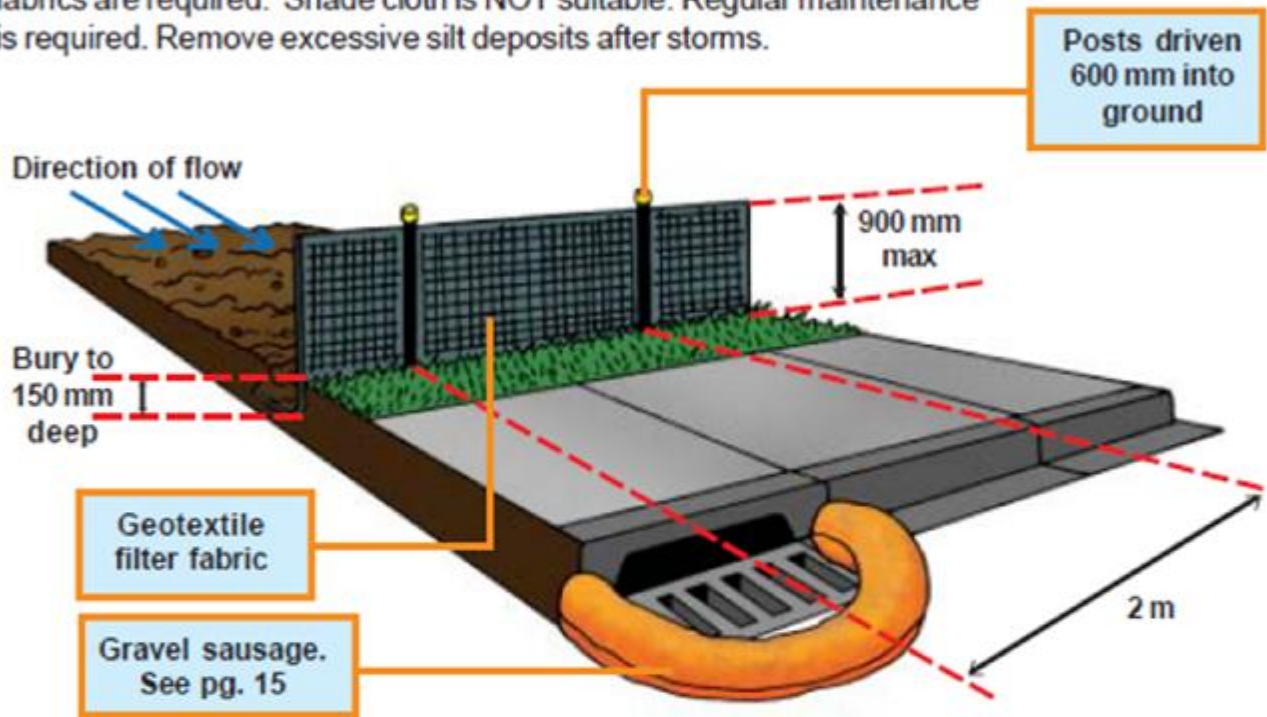
This lets water seep into the ground with less damage to the surface of the soil.

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

METHODS TO CONTAIN SEDIMENT ON SITE

Method 1 - Sediment Control Fences

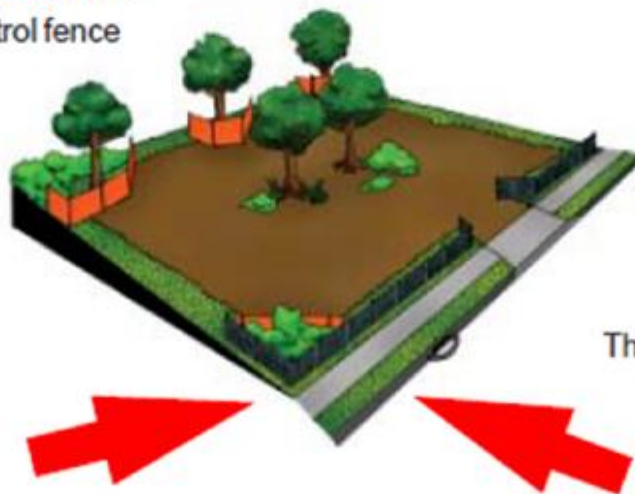
Sediment control fences stop sediment from being washed off site. The fence allows muddy water to pond behind it and for sediment to settle as the water slowly filters through. Geotextile fabrics are required. Shade cloth is NOT suitable. Regular maintenance is required. Remove excessive silt deposits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



TO BUILD A SEDIMENT CONTROL FENCE:

a) Identify the low point of site.

Place sediment control fence along boundaries where the low point is.



This is the point where the land will allow water to carry sediment off the building site.



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.

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

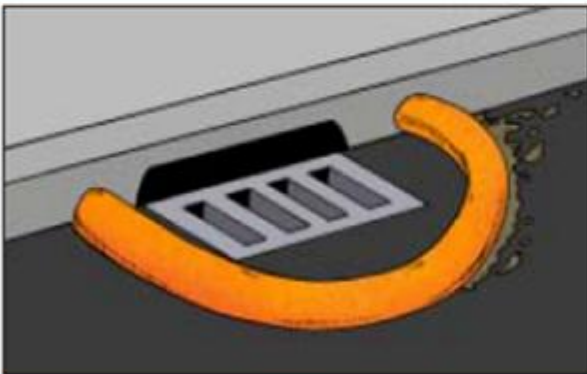
Choose a set area to do all your cutting. This area should be on the building site and away from all stormwater drains.

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?

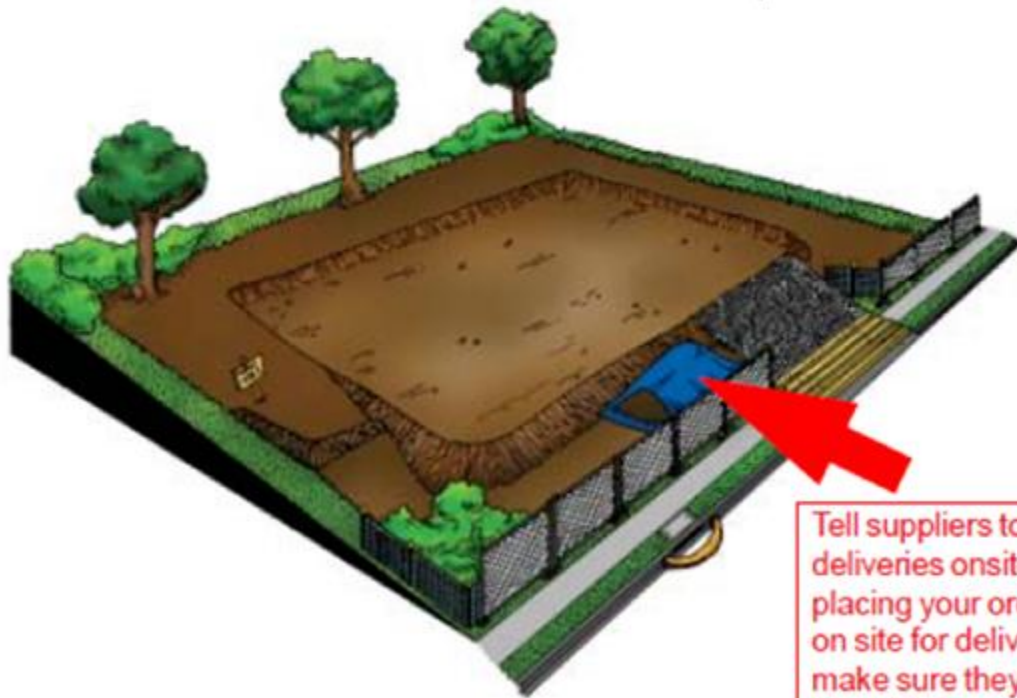


Sand, soil, screenings, dust or sludge from concrete and brick cutting, and other materials escaping from building sites can cause many problems.

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.

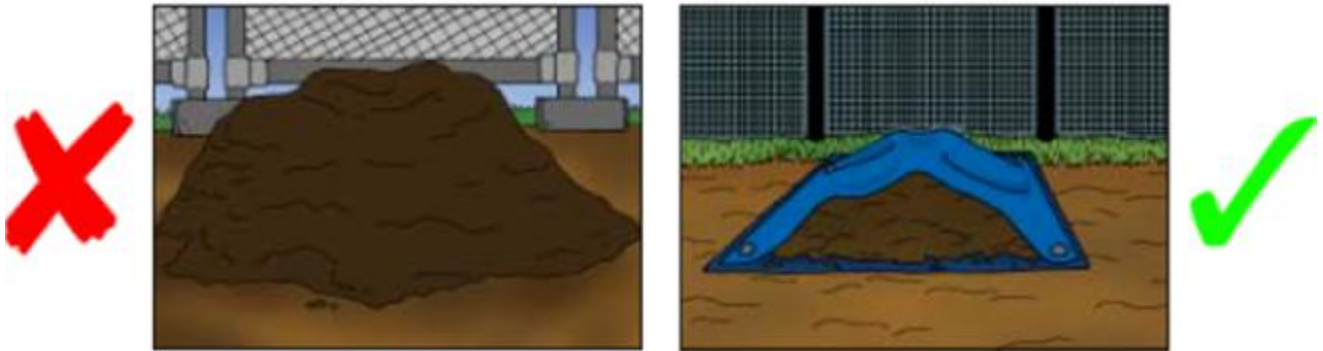


Tell suppliers to place deliveries onsite when placing your order or be on site for deliveries to make sure they are put in the right place.

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.

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



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

A gravel sausage or sediment log is a temporary collection device that can be used when stockpiles are stored or cutting is done off site.

It is also a useful precautionary measure at all sites.

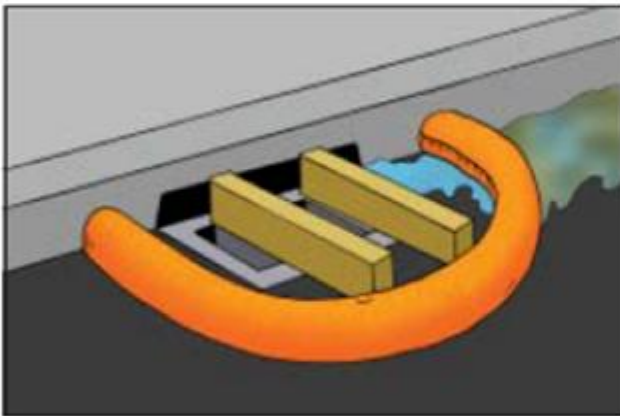


TO BUILD A GRAVEL SAUSAGE:

a) Make the sausage sleeve

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

The gravel sausage should be 150 mm high.



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

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

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



c) Clean out gravel sausage regularly

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

Regular maintenance is required.

DO NOT HOSE SEDIMENT DOWN THE GUTTER



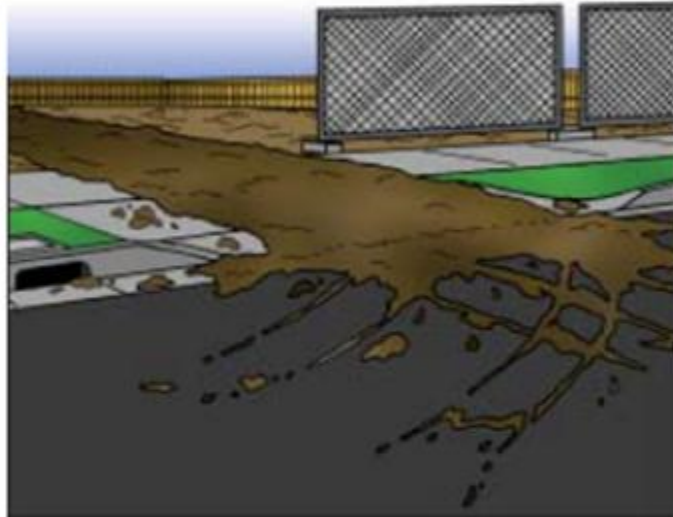
SITE RULE 4

Keep mud off road and on site

Why is mud a problem?

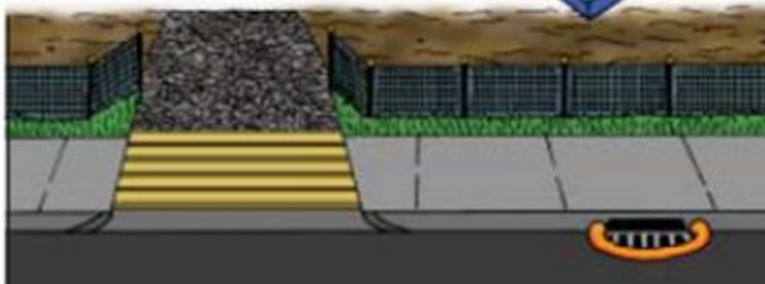
Two things happen when vehicles go on and off the site:

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.



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.

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?

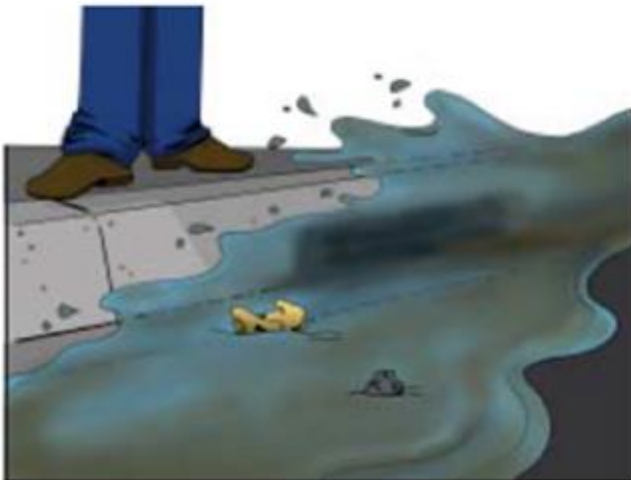


Many building sites have both building rubble and other rubbish spread across them.



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.

METHODS TO CONTROL LITTER

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

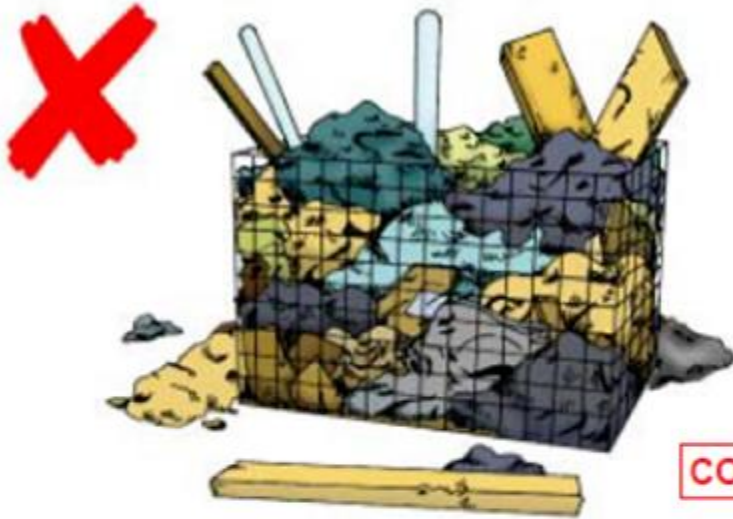
Control Method 1: Litter bins or covered skips

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.



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.



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

Control Method 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



Control Method 3: Clean equipment off before washing

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

You will then need less water to clean this equipment.



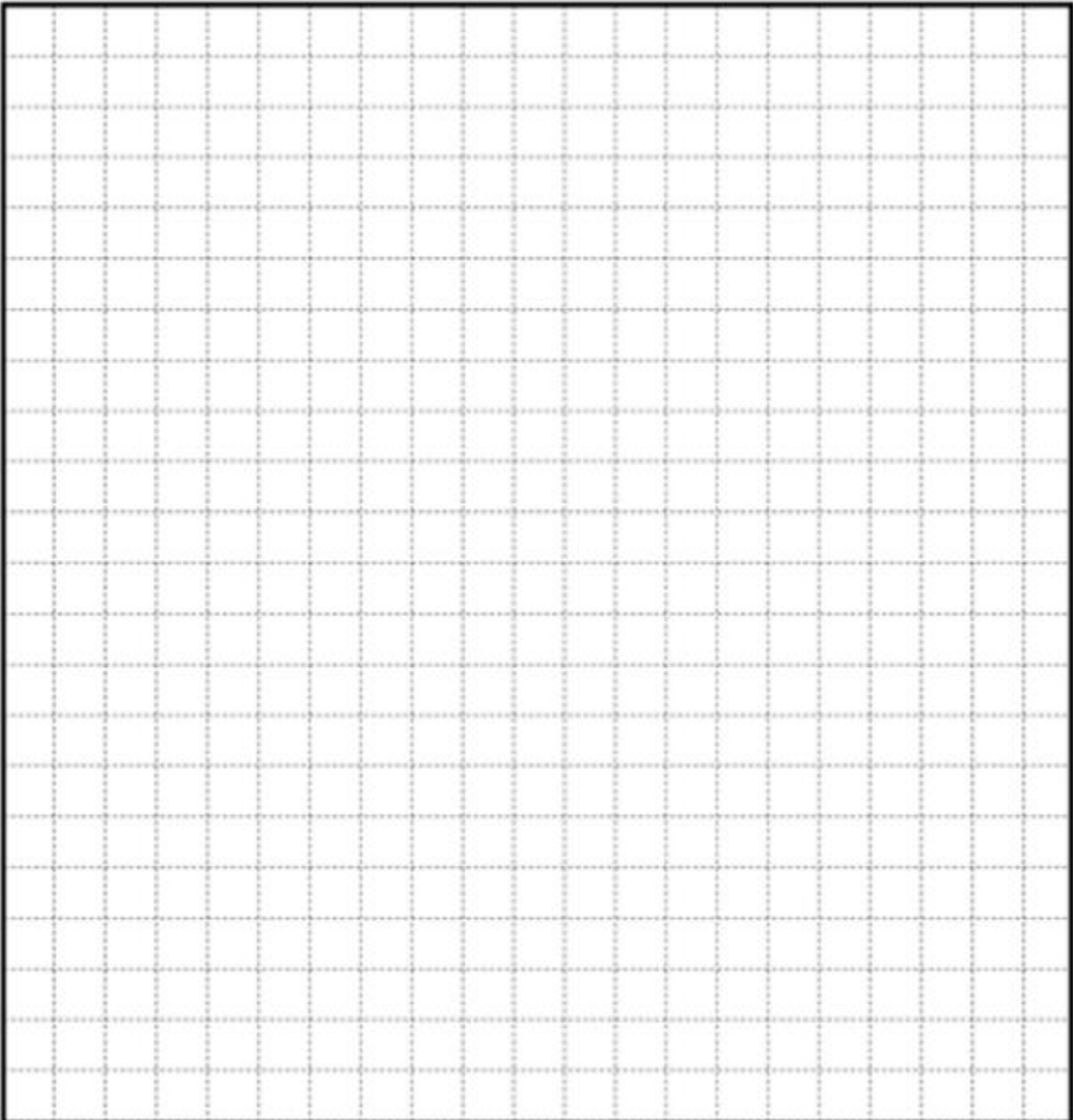
Control Method 4: Clean painting tools carefully

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

Wash oil based paints in solvent baths until clean. **DO NOT PUT THE SOLVENT ON THE GROUND.** Contact a waste disposal company for removal.

SITE MANAGEMENT PLAN

Building Company: _____ Date: ____ / ____ / ____
Site Address: _____
Client Name: _____ Contact Number: () _____



LEGEND:

- Bin	- Rumble grid	- Stabilised access point	- Vegetation to be retained
Scale: = 1 m	- Grass filter strip	- Silt fence	- Stockpile
- Nth	- Gravel sausage	- Skip	- Temporary Fencing
			- Wash up area

CLEAN SITE CHECKLIST

Please photocopy to use on site

SITE DETAILS:

Building Company: _____ Date: ___ / ___ / ___

Site Supervisor: _____

Site Address: _____

Client Name: _____ Contact Number: () _____

SITE RULE	TASK	CHECK
SITE RULE 1 - Check Council requirements and plan before you start work on site.	Crossover away from lowest point	<input type="checkbox"/>
	Sediment control fence on lowest side	<input type="checkbox"/>
	Stockpiles away from lowest point	<input type="checkbox"/>
	Marked trees and vegetation to keep on site	<input type="checkbox"/>
SITE RULE 2 - Stop erosion on site and contain sediments.	Sediment control fence in place	<input type="checkbox"/>
	Catch drains on high side of site	<input type="checkbox"/>
	Vegetation areas kept at boundary	<input type="checkbox"/>
	Gravel sausage at storm water pit	<input type="checkbox"/>
	Downpipes set up as early as possible	<input type="checkbox"/>
SITE RULE 3 - Protect stockpiles.	Base and cover for stockpiles	<input type="checkbox"/>
	Gravel sausage at stormwater pit	<input type="checkbox"/>
SITE RULE 4 - Keep mud off road and on site.	Crushed rock access point	<input type="checkbox"/>
	Vehicles keep to crushed rock areas	<input type="checkbox"/>
	Mud removed from tyres before leaving site	<input type="checkbox"/>
	Clean road if muddy	<input type="checkbox"/>
SITE RULE 5 - Keep litter contained on site.	Clean stormwater pit and maintain gravel sausage	<input type="checkbox"/>
	Litter bins in place with lid closed	<input type="checkbox"/>
	Site fencing in place	<input type="checkbox"/>
SITE RULE 6 - Clean and wash up on site.	Cutting and clean up area on site	<input type="checkbox"/>
	Clean equipment off before washing	<input type="checkbox"/>
	Sediment filters downslope	<input type="checkbox"/>
	Contain all washings on site	<input type="checkbox"/>

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.

Reproduced with permission from EPA Victoria and Melbourne Water. No part of this publication may be reproduced or published without the prior written permission of EPA Victoria and Melbourne Water. For more information please contact: Melbourne Water on 131 722 or email enquiry@melbournewater.com.



Environment
Protection
Authority Victoria



For copies of this guide please contact:
Melbourne Water on 131 722
or email enquiry@melbournewater.com

Desktop publishing and editing was done by:

First published in 2002
Second edition, revised, published 2002
Third edition, revised, published September 2003
Forth edition, revised, published October 2006



PLAN OF SURVEY
TITLE RE-ESTABLISHMENT

PARCEL IDENTIFICATION

POSTAL ADDRESS: 17-19 HARKER STREET,
SUNBURY 3429
TITLE REFERENCE: VOL. 8962 FOL. 135
VOL. 8413 FOL. 703
LAND DESCRIPTION: LOT 1 ON TP 550 022 H
CA 12 - TP 331 656 L

EASEMENTS

E - ENCUMBERED A - APPURTENANT


NIL

NOTATIONS

The land in this survey is shown enclosed by thick continuous lines. Offsets from title boundaries to occupation have been exaggerated for clarification purposes and are shown thus: \rightarrow 0.02m. Offsets are in metres.

Survey reference marks are placed on title corners unless otherwise stated.

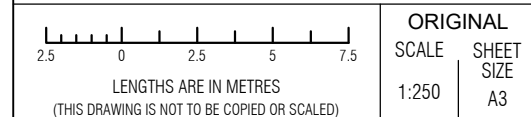
CERTIFICATION BY SURVEYOR

I, SALVATORE ZUCCARELLO
Licensed Surveyor of Unit 27/22-30 Wallace Avenue, Point Cook
3030 certify that this plan correctly represents the adopted
boundaries as defined by the survey completed on the
23rd February 2021.
Signed: 

FIELD SURVEYOR: IW/RV DRAFTSPERSON: SD/SD

REF: 32849 VERSION: 1 SHEET: 1 OF 1

SCALE



Melbourne 03 9369 0730 Geelong 03 5223 3069 E info@pmkennedy.com.au W www.pmkennedy.com.au

IMPORTANT NOTE

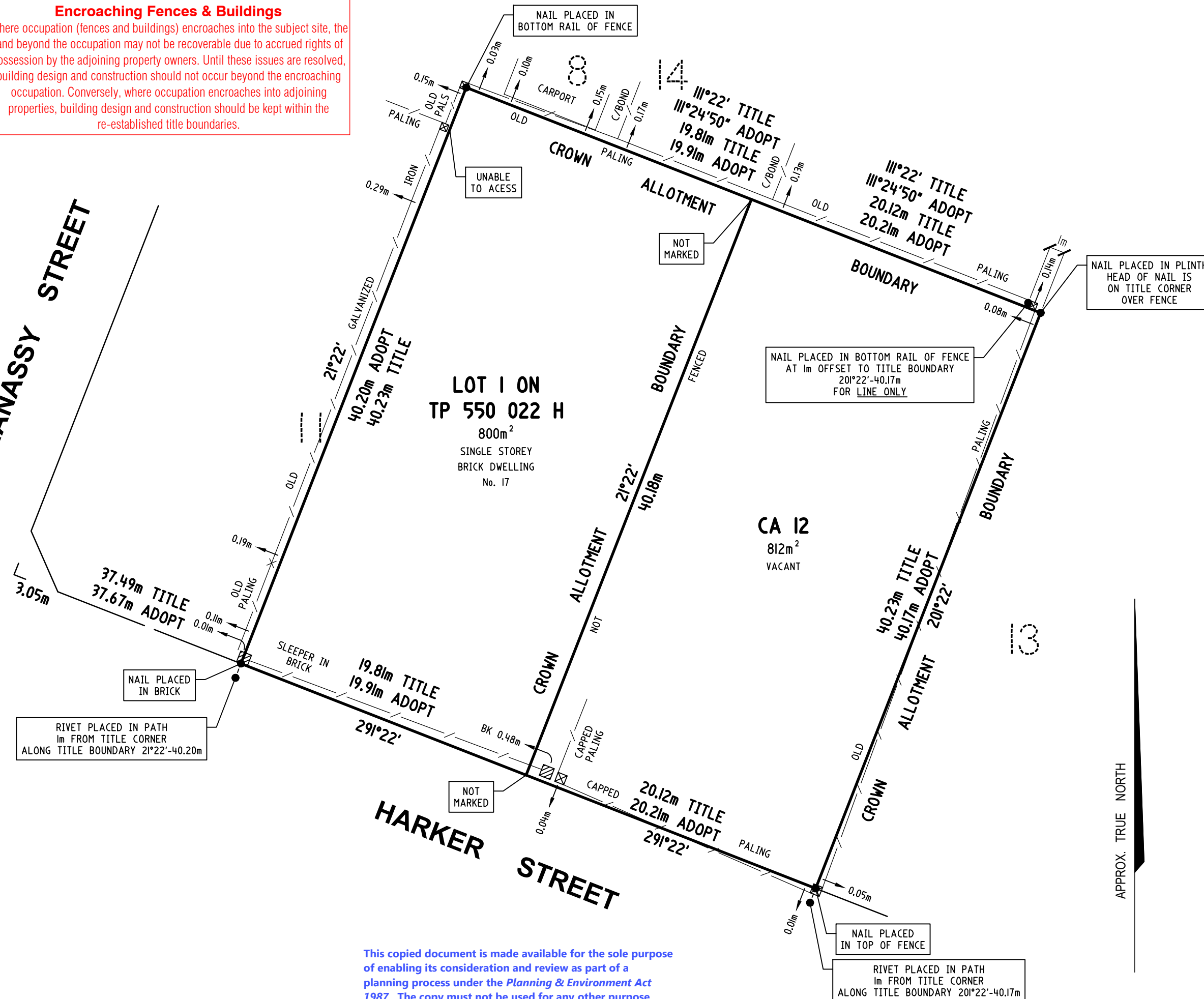
Encroaching Fences & Buildings

Where occupation (fences and buildings) encroaches into the subject site, the land beyond the occupation may not be recoverable due to accrued rights of possession by the adjoining property owners. Until these issues are resolved, building design and construction should not occur beyond the encroaching occupation. Conversely, where occupation encroaches into adjoining properties, building design and construction should be kept within the re-established title boundaries.

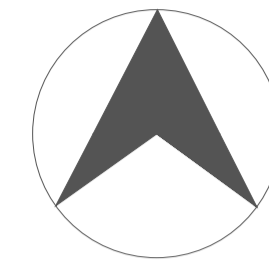
OSHANASSY STREET

HARKER STREET

APPROX. TRUE NORTH



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 & Environment Act 1987. The copy must not be used for any other purpose.



APPROX TRUE NORTH



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 & Environment Act 1987. The copy must not be used for any other purpose.

PM KENNEDY ACCEPTS NO RESPONSIBILITY IN RELATION TO THE ACCURACY OF THE TITLE BOUNDARIES OR FOR ANY OTHER USE OTHER THAN FOR DIAGRAMMATIC PURPOSE ONLY.

FOR AN ACCURATE DEPICTION OF THE TITLE BOUNDARIES FOR THE SUBJECT LAND REFER PM KENNEDY PLAN OF SURVEY TITLE RE-ESTABLISHMENT NUMBER 32849

A.H.D WAS DETERMINED USING A LEICA RTK GPS WITH A REPORTED ACCURACY OF +/- 0.03 (95% CONFIDENCE INTERVAL)

PM KENNEDY DOES NOT WARRANT THAT THIS PLAN IS DEFINITIVE NOR FREE OF ERROR AND DOES NOT ACCEPT LIABILITY FOR ANY LOSS CAUSED OR ARISING FROM RELIANCE UPON INFORMATION PROVIDED HEREIN.

CONTRACTORS ARE TO LAISE WITH ALL SERVICING AUTHORITIES TO DETERMINE THE LOCATION OF ANY SERVICES PRIOR TO ANY EXCAVATION ON THE SITE.

THERE IS NO GUARANTEE THAT ALL EXISTING SERVICES ARE SHOWN.

LEGEND	
IN036.23 INVERT OF KERB	IN036.23 INVERT OF KERB
TR=20.81 TOP PAVEMENT	TR=20.81 TOP PAVEMENT
TR=44.60 ROOF HEIGHT	TR=44.60 ROOF HEIGHT
BRCK (H=0.85) WALL/FENCE	BRCK (H=0.85) WALL/FENCE
HW=11.91 VARIABLE WINDOW	HW=11.91 VARIABLE WINDOW
NONHAB=41.91 NON HABITABLE	NONHAB=41.91 NON HABITABLE
FFW=30.91 FIRST FLOOR WINDOW	FFW=30.91 FIRST FLOOR WINDOW
UC=42.12 UNDERSIDE EAVE	UC=42.12 UNDERSIDE EAVE
UC=30.71 UNDERSIDE GUTTER	UC=30.71 UNDERSIDE GUTTER
45.16 SPOT LEVEL	45.16 SPOT LEVEL
TR=39.81 TOP FENCE	TR=39.81 TOP FENCE
HW	HW
BOX/3.23 BACK OF KERB	BOX/3.23 BACK OF KERB
GAS METER	GAS METER
WATER METER	WATER METER
STORMWATER WHOLE	STORMWATER WHOLE
UNCLASSIFIED SOMERISE	UNCLASSIFIED SOMERISE
BOLLARD	BOLLARD
UNCLASSIFIED UTILITY	UNCLASSIFIED UTILITY
ELEC. HV/POLE	ELEC. HV/POLE
TBL COMM PIT	TBL COMM PIT
TREE HEIGHT	TREE HEIGHT
TRAIL/VEGET	TRAIL/VEGET
OVERHEAD WIRE	OVERHEAD WIRE
FENCE	FENCE
BUILDING / WALL	BUILDING / WALL
CONCRETE	CONCRETE
STORMWATER CONNECTION	STORMWATER CONNECTION
GATE	GATE
TILE	TILE
CONTOURS 200/MM	CONTOURS 200/MM

Scale	1:200 @ A1
Date	23/02/2021
Drawn by	S.J.N. J.C.
Checked by	S.J.N. J.C.
Description/Notes	TREE SIZES TO BE CONFIRMED ON SITE ONLY VISIBLE SERVICES LOCATED LEVELS TO AHD
Job number	210218-1161
DWG Number	RESCODE-32849-V0
Permanent Survey Mark	BUTLERORR PM 64 AHD 213.408 MGA ZONE 55

Client	17-19 HARKER STREET SUNBURY
RESCODE SURVEY	

PM KENNEDY
LAND SURVEYOR

Melbourne 03 9369 0730 Geelong 03 5223 3069 E info@pmkennedy.com.au W www.pmkennedy.com.au

Scale bar: 0 2 4 6 8 10
LENGTHS ARE IN METERS

A1