PROPOSED 15 UNITS DEVELOPMENT 15 MORRISON STREET, BRIGHTON, TAS

ARCHITECTURAL DRAWING

DA31

DRAWINGS NO. DRAWING NAME

DA00	COVER & SITE PLAN_LEVEL GROUND
DA01	EXISTING & DEMOLITION PLAN
DA02	SITE PLAN_LEVEL ROOF
DA03	LANDSCAPE PLAN
DA04	SITE SECTIONS
DA05	SITE SECTIONS
DA06	SUN SHADOW DIAGRAMS
DA10	UNIT_TYPE A_PLAN
DA11	UNIT_TYPE A_ELEVATIONS
DA20	UNIT_TYPE B_PLANS
DA21	UNIT_TYPE B_ELEVATIONS
DA30	UNIT_TYPE C_PLANS

UNIT_TYPE C_ELEVATIONS

 SITE INFORMATION

 TITLE REF
 130608/16

 PROPERTY ID
 5022786

 SITE AREA
 4973 sq.m

 DENSITY
 15/4973 sq.m = 331.53 sq.m

 SITE COVERAGE
 1829.01 sq.m / 4973 sq.m = 36.78% <50%</td>

 PERVIOUS SURFACES
 2149.30 sq.m / 4973 sq.m = 43.22% >25%

133.58 SQ.M. (INCLUDING EXTERNAL WALL)

UNIT 1-8 & 10-11 (TYPE A) LEVEL GR

VEL GR 109.59 SQ.M.(INCLUDING EXTERNAL WALL)

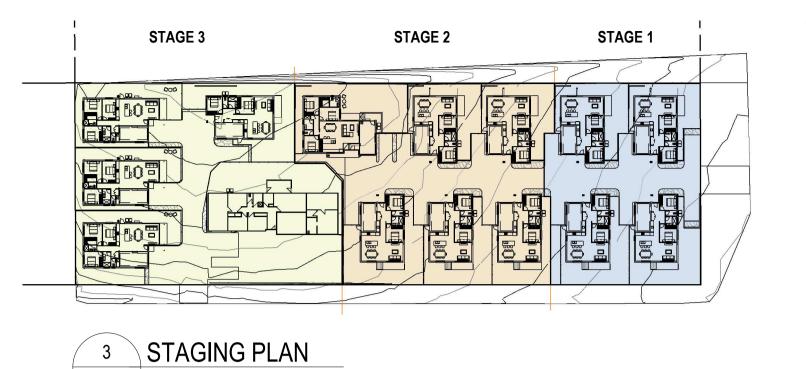
<u>UNIT 9 (TYPE B)</u> LEVEL GR

UNIT 12 (EXISTING HOUSE)
LEVEL GR REMAIN UNCHANGED

UNIT 13-15 (TYPE C) LEVEL GR

127.27 SQ.M. (INCLUDING EXTERNAL WALL)

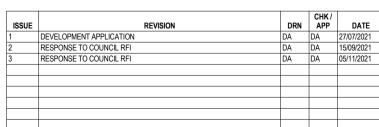
PRIVATE GARDEN SPACE
REFER LANDSCAPE PLAN (DA03)





2 SITE LOCATION PLAN
Scale 1:50

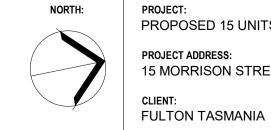






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PROJECT:
PROPOSED 15 UNITS DEVELOPMENT

PROJECT ADDRESS:
15 MORRISON STREET, BRIGHTON

DRAWING TITLE:
COVER & SITE PLAN_LEVEL GROUND

SCALE:
As indicated @ A1

DRAWING No.:

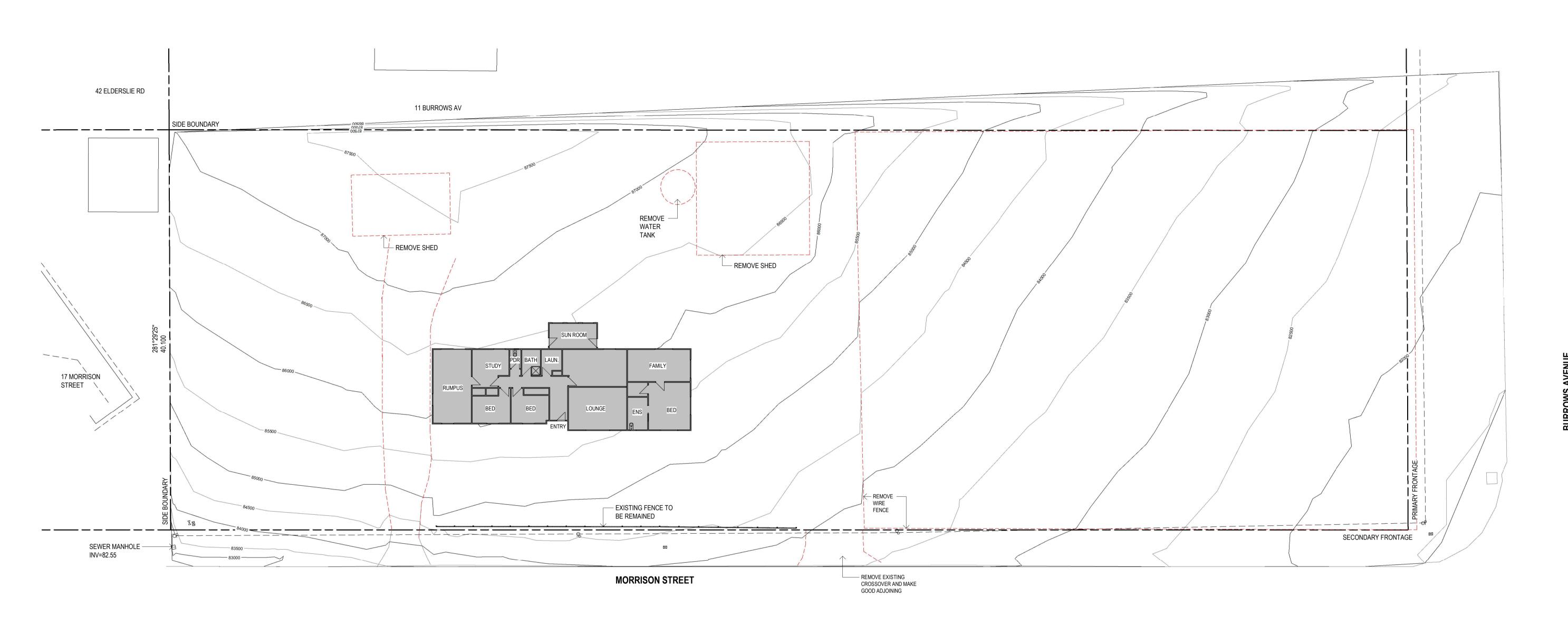
DRAWING No.:

REVISION:

3

PROJECT DATE:





EXISTING & DEMOLITION PLAN Scale 1 : 200

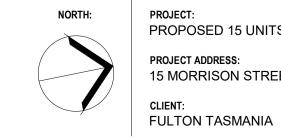
DEVELOPMENT APPLICATION
RESPONSE TO COUNCIL RFI
RESPONSE TO COUNCIL RFI

ARCHITECT 設計師 DAVID WAI HO AU PHONE 電話 EMAIL 電郵 WEBSITE 網站 DAVID@MINDARCHITECTS.COM.AU MINDARCHITECTS.COM.AU

CONSULTANTS:

REASON FOR ISSUE PROJECT No.: DEVELOPMENT APPLICATION 2126

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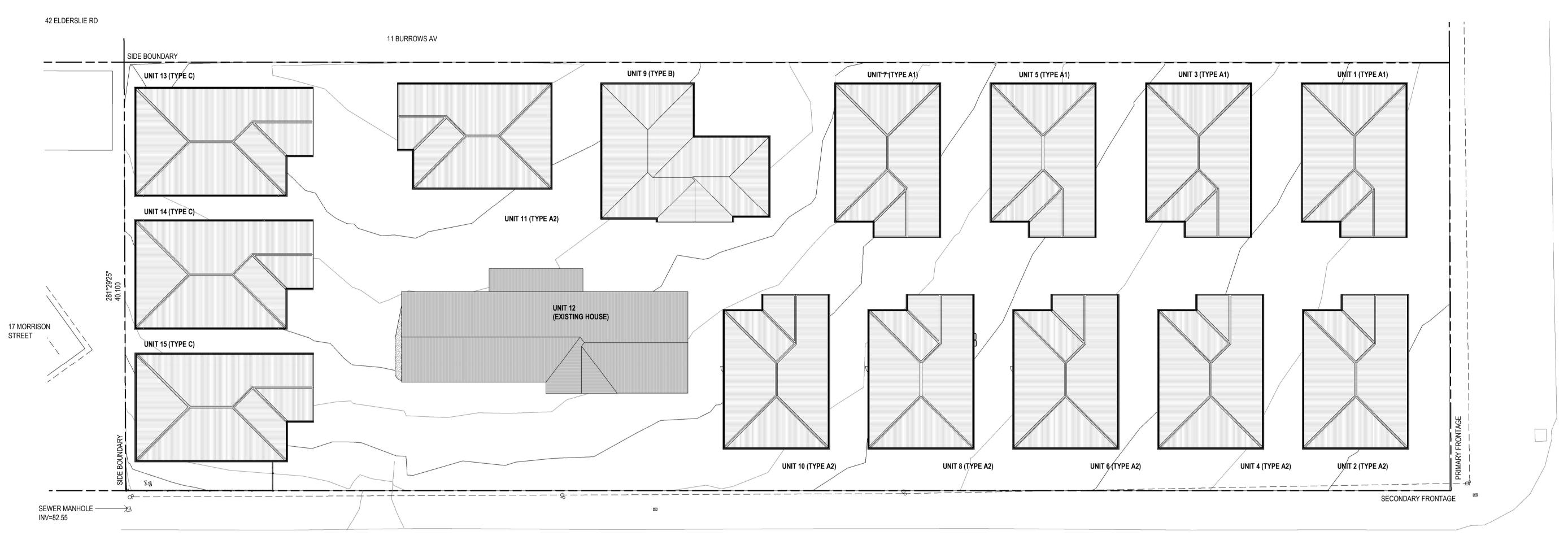


PROJECT: PROPOSED 15 UNITS DEVELOPMENT PROJECT ADDRESS: 15 MORRISON STREET, BRIGHTON

DRAWING TITLE: EXISTING & DEMOLITION PLAN

PROJECT DATE: SCALE: 1 : 200 @ A1 2021

DRAWING No.: **DA01**



MORRISON STREET

ROOF PLAN Scale 1:200

			CHK/	
ISSUE	REVISION	DRN	APP	DATE
1	RESPONSE TO COUNCIL RFI	DA	DA	15/09/2021
2	RESPONSE TO COUNCIL RFI	DA	DA	05/11/2021



CONSULTANTS:

REASON FOR ISSUE PROJECT No.: DEVELOPMENT APPLICATION 2126 THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK OR MAKING OF ANY SHOP DRAWINGS. FIGURED DIMENSIONS MUST BE USED IN PREFERENCE TO SCALED DIMENSIONS. ALL SCALED DIMENSIONS MUST BE VERIFIED ON SITE. THIS DRAWING IS COPYRIGHT AND REMAINS THE PROPERTY OF THE ARCHITECT.

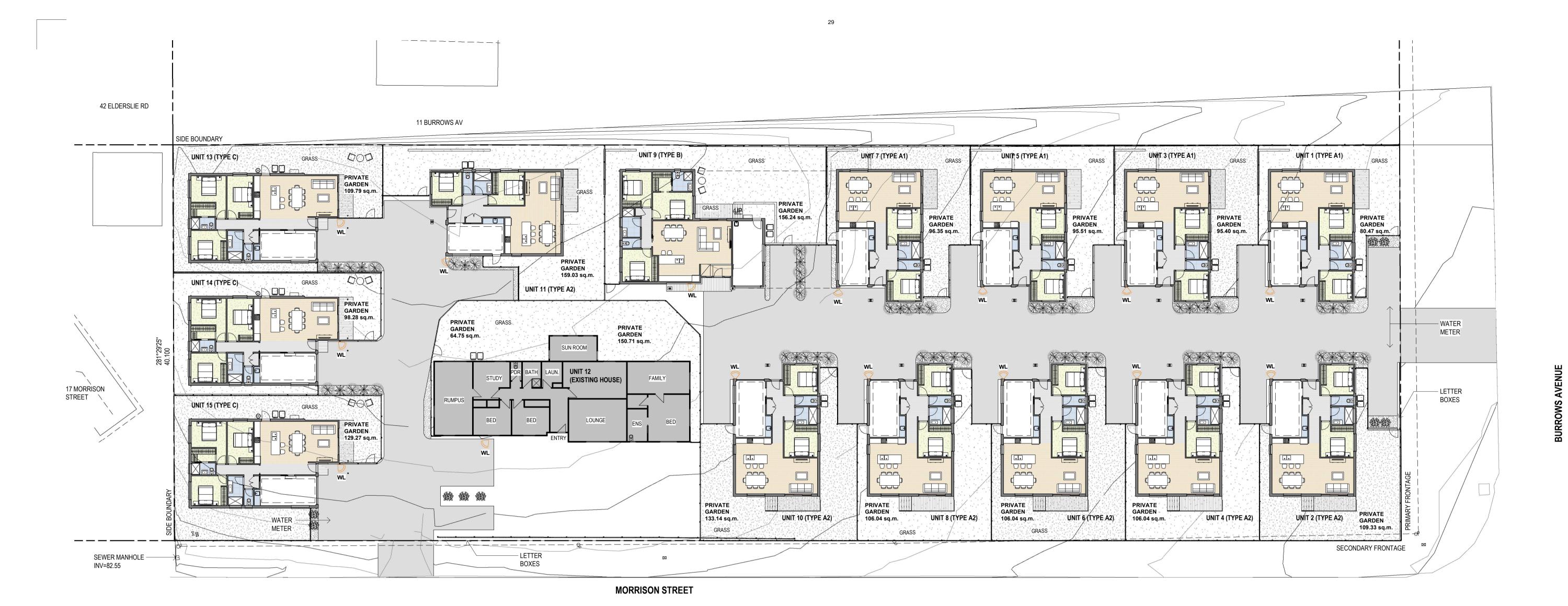
FULTON TASMANIA

PROJECT: PROPOSED 15 UNITS DEVELOPMENT PROJECT ADDRESS: 15 MORRISON STREET, BRIGHTON

DRAWING TITLE: SITE PLAN_LEVEL ROOF

PROJECT DATE: SCALE: 1 : 200 @ A1 DRAWING No.:

2021 **DA02**



1 LANDSCAPE PLAN
Scale 1:200

MULCHED AND PLANTED GARDEN BED

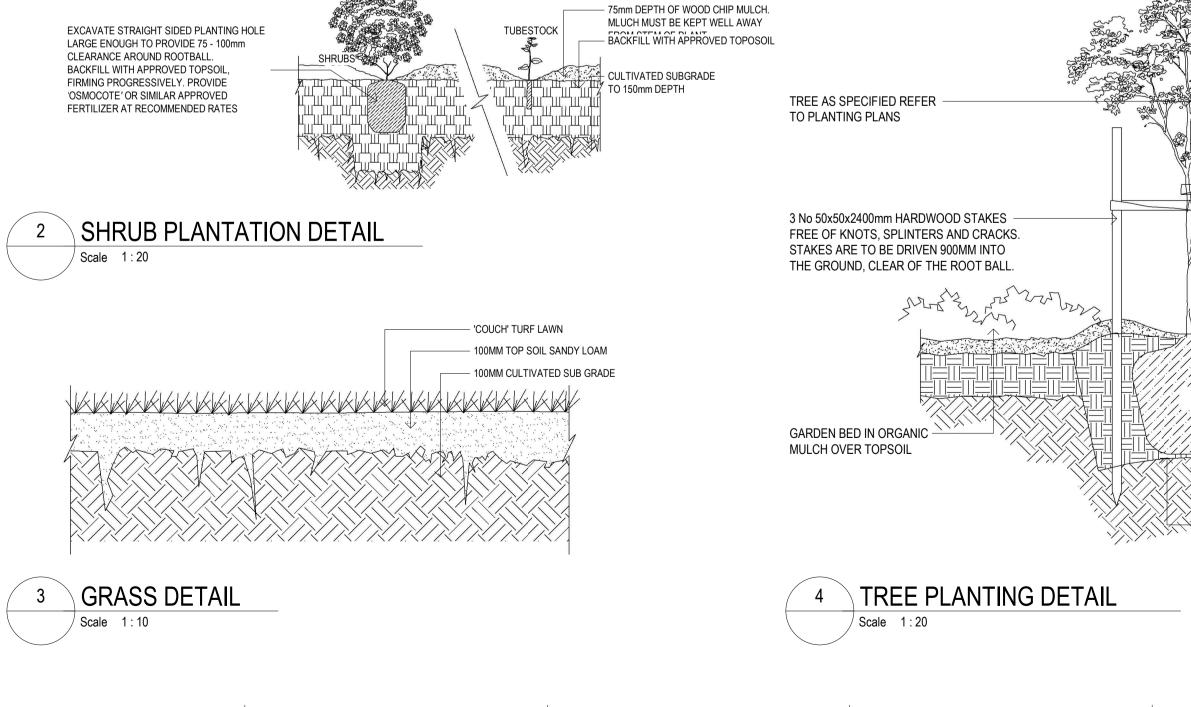
WALL MOUNT LIGHT WL
(WIRE BACK TO THE UNIT)

BOLLARD LIGHT **BL** (SOLAR POWERED)

		NAME	EXPECTED MATURE HEIGHT	PLANT SIZE	QUANTITY
CR		GENUS: DORYANTHES SPECIES: D. EXCELSA COMMON NAME: GYMEA LILY	MEDIUM SIZED SHRUB 1.5M	1.5M WIDE	8 NO.
AC		GENUS: ACACIA SPECIES: COGNATA COMMON NAME: ACACIA COGNATA 'FETTUCINI'	SMALL SIZED SHRUB 0.75M	1.0M WIDE	19 NO.
TD	*	GENUS: HEBE SPECIES:TURKISH DELIGHT COMMON NAME: TURKISH DELIGHT	SMALL SIZED SHRUB 0.80M	0.8M WIDE	23 NO.



CONSULTANTS:



PROJECT No.: 2126

REASON FOR ISSUE

CONSTRUCTION

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PROJECT:
PROPOSED 15 UNITS DEVELOPMENT

PROJECT ADDRESS:
15 MORRISON STREET, BRIGHTON

CLIENT:
FULTON TASMANIA

DRAWING TITLE: LANDSCAPE PLAN SCALE:
As indicated @ A1

- 3 NO. BLACK CLOTH REINFORCED RUBBER TIES, ATTACHED WITH GALVANISED NAILS NAILED INTO STAKE

- MULCH (AS FOR GARDEN BEDS)

PROVIDE 'OSMOCOTE' OR SIMILAR

²APPROVED AT RATES

RECOMMENDED BY THE

MANUFACTURER

BOTTOM OF HOLE

AND MULCHED

- WATERING BOWL FORMED UP WITH SOIL

- APPROVED IMPORTED TOPSOIL/ SITE SOIL

150MM CLEARANCE AROUND ROOT BALL.

MIX BACKFILL TO PLANTING HOLE, MIN

- MOUND BASE OF HOLE AS SHOWN, PRIOR TO PLANTING OF TREE.

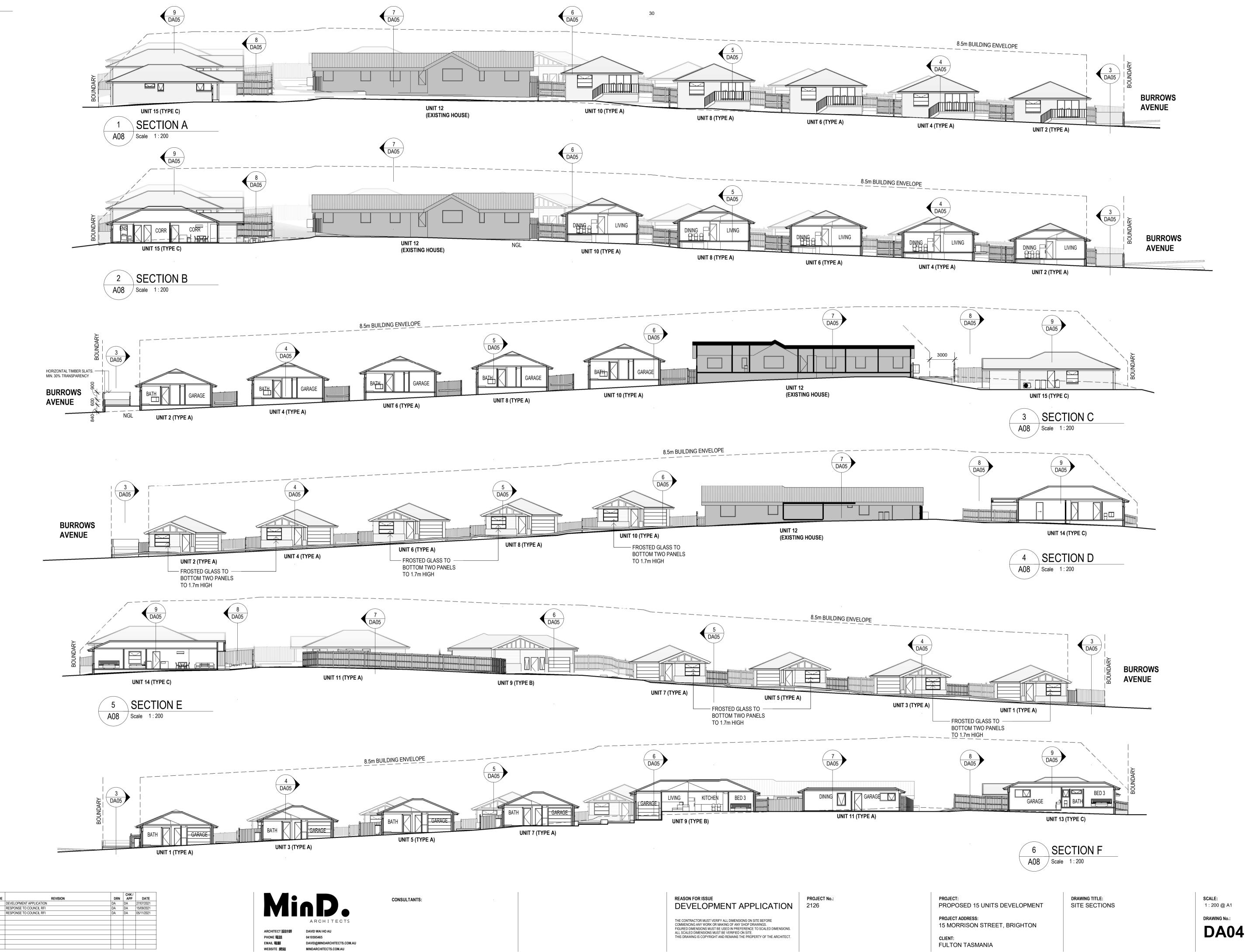
- ROUGHEN SIDES AND FIRM SOIL AT

DA03

REVISION:

PROJECT DATE:

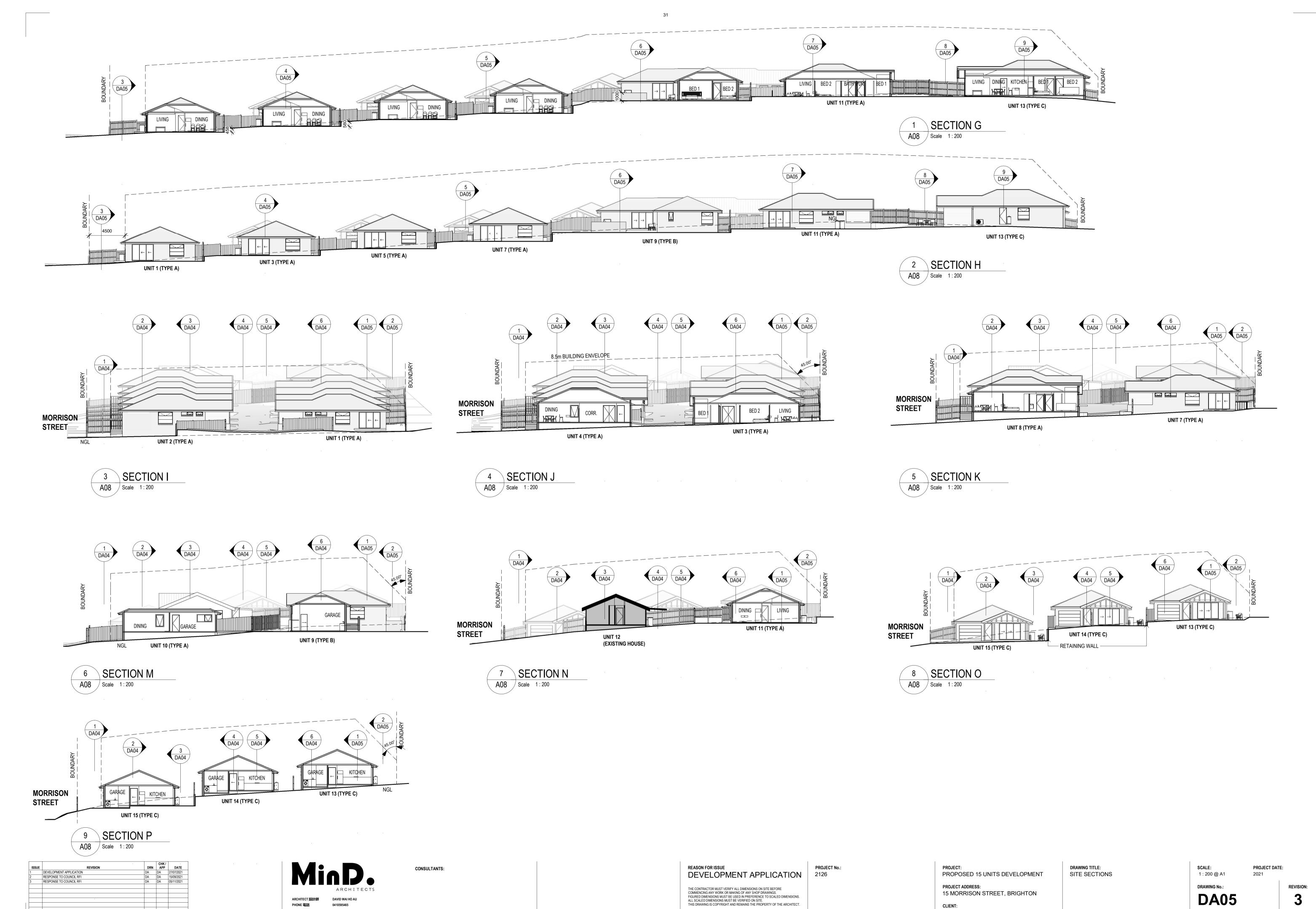
2021



3

REVISION:

PROJECT DATE:



ARCHITECT 設計師

PHONE 電話 EMAIL 電郵

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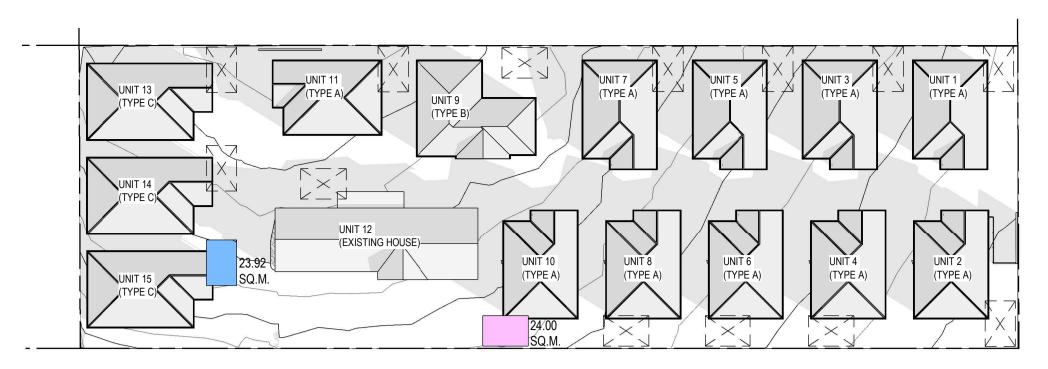
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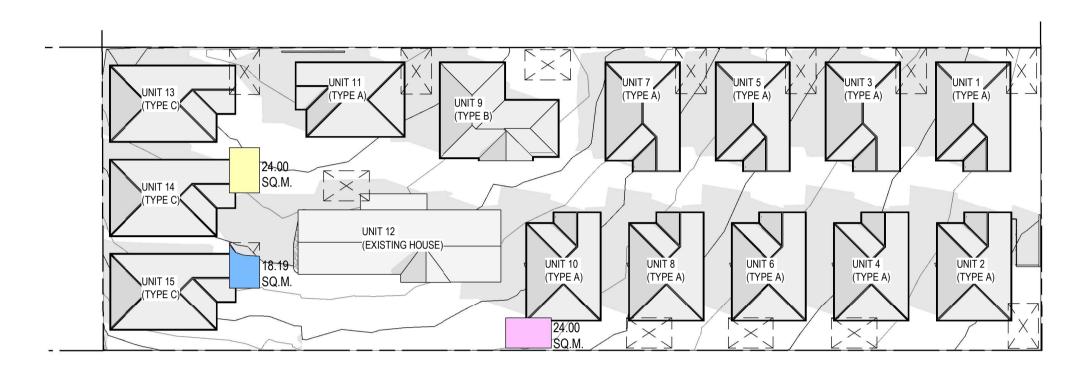
15 MORRISON STREET, BRIGHTON

FULTON TASMANIA

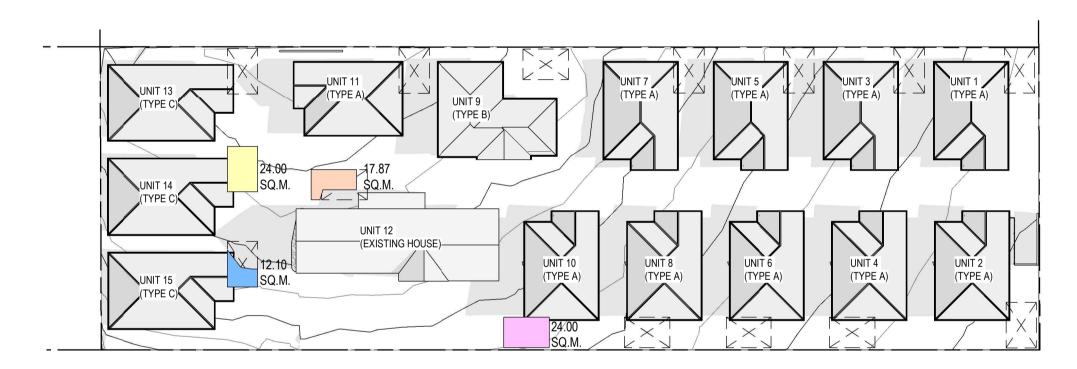


1 21 JUNE_0900am

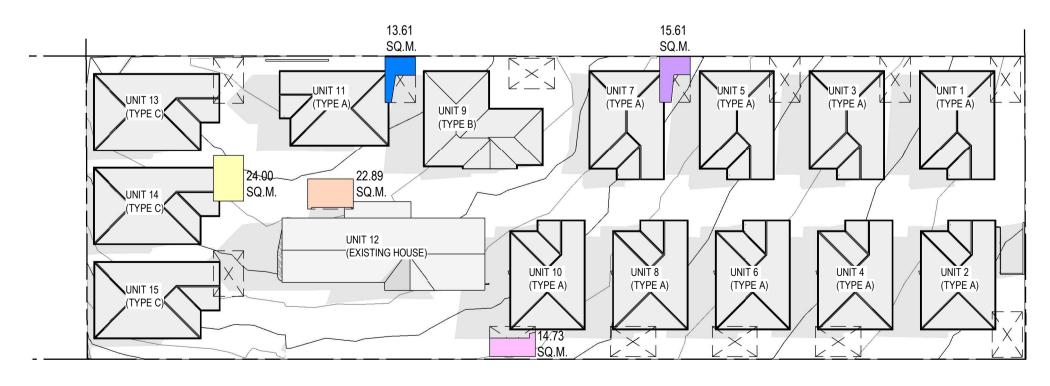
Scale 1:500



2 21 JUNE_1000am Scale 1:500



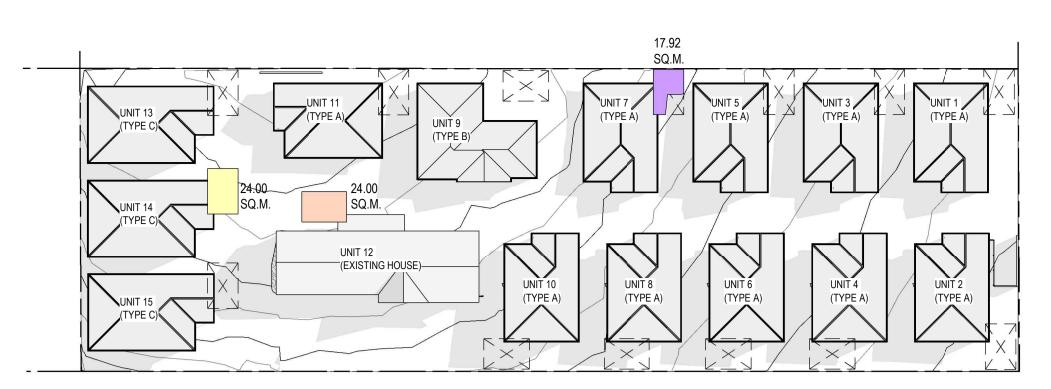
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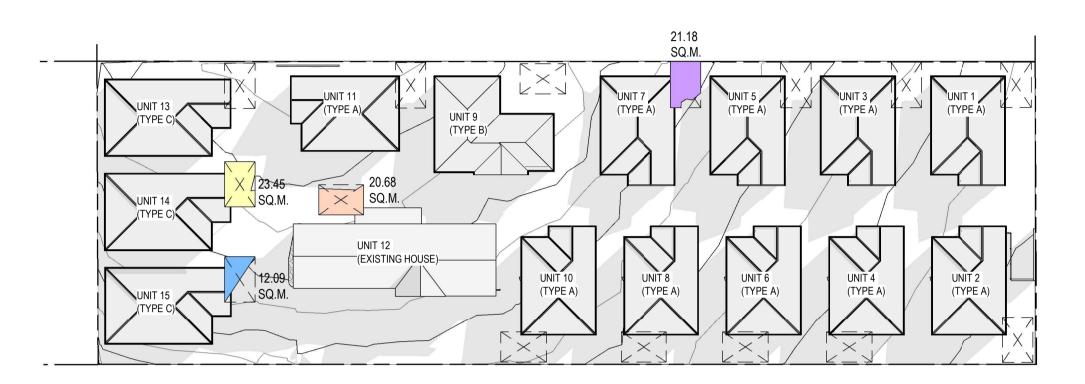
4 21 JUNE_1200pm Scale 1:500



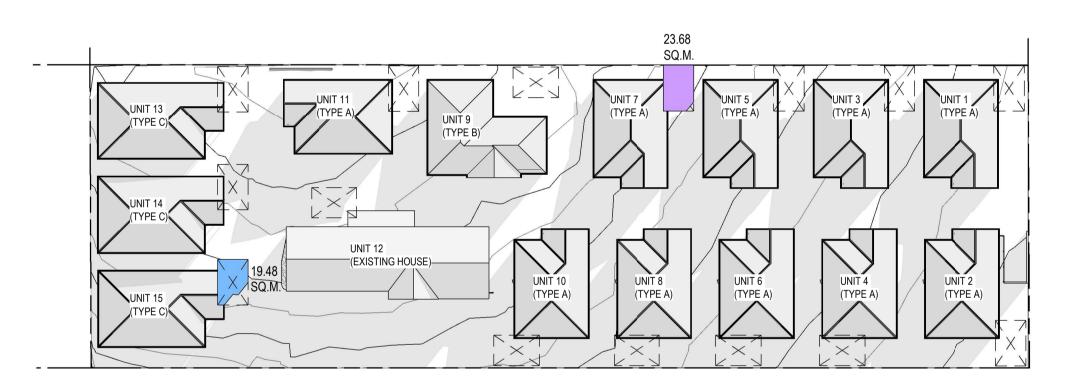
CONSULTANTS:



5 21 JUNE_1300pm Scale 1:500



6 21 JUNE_1400pm Scale 1:500

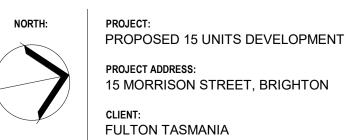


7 21 JUNE_1500pm Scale 1:500

NOTE: SHADOW ONLY SHOWN WITHIN PROPERTY BOUNDARY

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DRAWING TITLE: SUN SHADOW DIAGRAMS SCALE: 1:500 @ A1

DA06

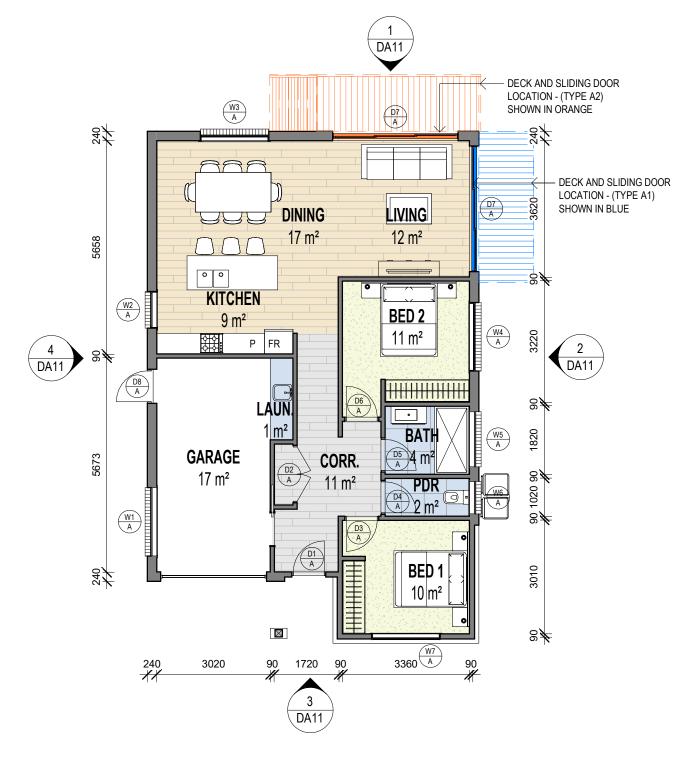
REVISION:

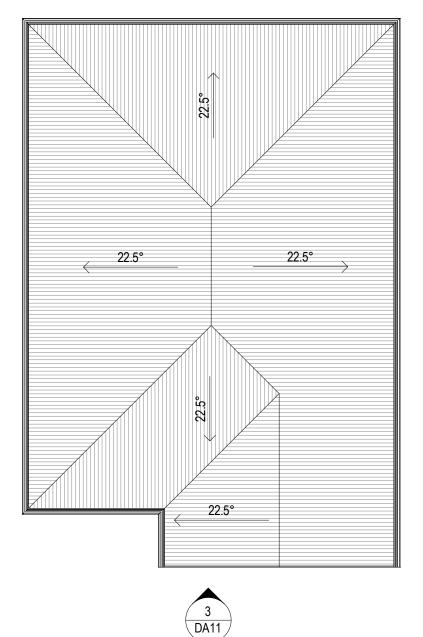
PROJECT DATE:

2021

(4) (DA11)











LEVEL ROOF DA11 Scale 1:100

NORTH:

Room Schedule	
Name Area	

PDR	2 m²
BED 2	11 m²
BATH	4 m²
BED 1	10 m²
GARAGE	17 m²

Room Schedule		
Name Area		

LIVING	12 m²
DINING	17 m²
KITCHEN	9 m²
CORR.	11 m²
Room	1 m²
LAUN.	1 m²

ISSUE	REVISION	DRN	APP	DATE
1	DEVELOPMENT APPLICATION	DA	DA	27/07/2021
2	RESPONSE TO COUNCIL RFI	DA	DA	15/09/2021

DESIGNER 設計師 PHONE 電話 EMAIL 電郵 WEBSITE 網站

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PROPOSED 15 UNITS DEVELOPMENT UNIT_TYPE A_PLANS

PROJECT ADDRESS: 15 MORRISON STREET, BRIGHTON CLIENT: **FULTON TASMANIA**

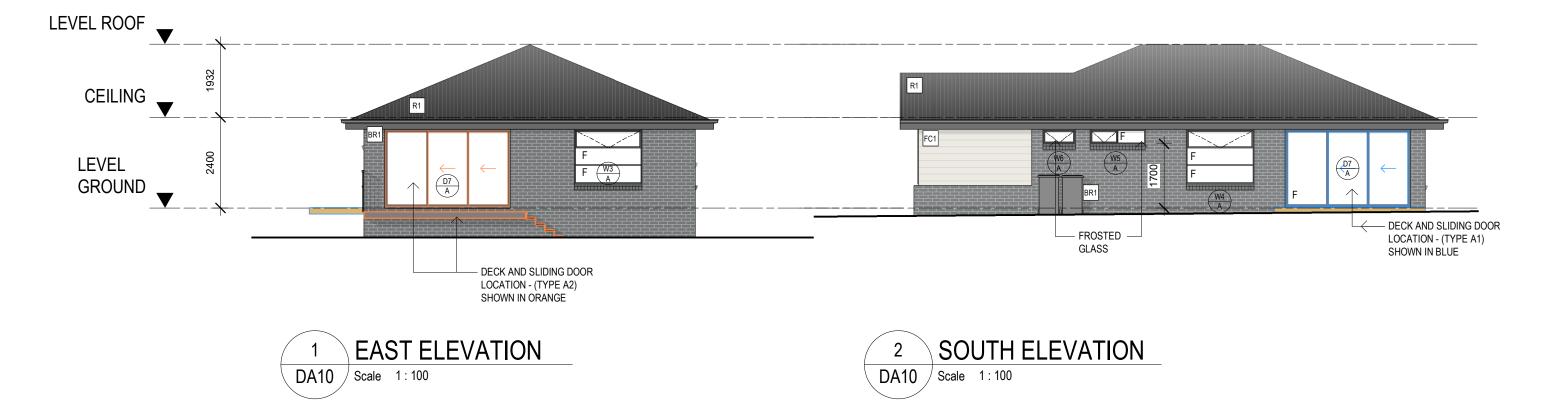
DRAWING TITLE: PROJECT NO.: 2126

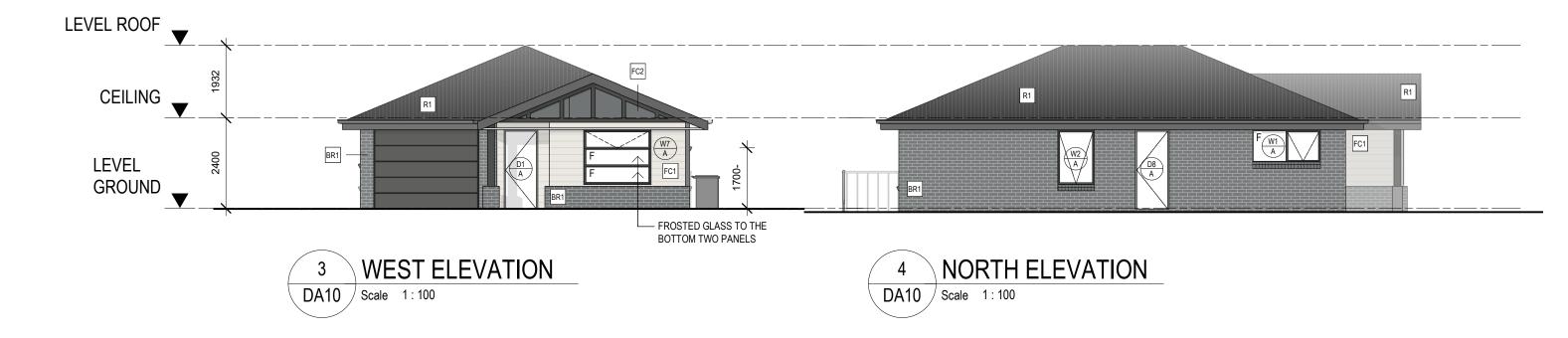
SCALE: 1:100@

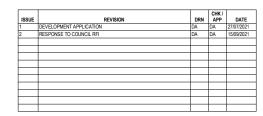
DRAWING No.: **DA10**

R1 - CUSTOM ORB BR1 - BRICK VENEER FC1 - WEATHERBOARD

FC2 - FIBER CEMENT CLADDING







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PROJECT:
PROPOSED 15 UNITS DEVELOPMENT

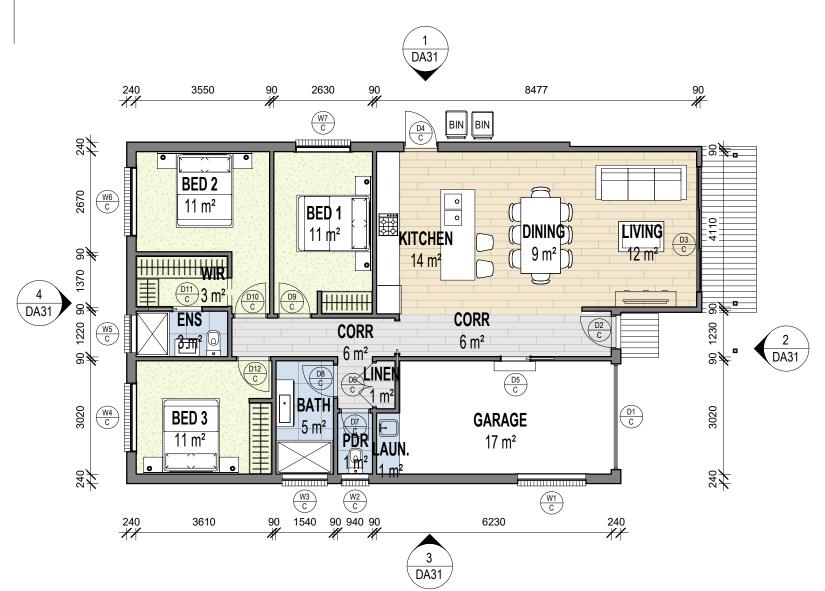
PROJECT ADDRESS:
15 MORRISON STREET,
BRIGHTON
CLIENT:
FULTON TASMANIA

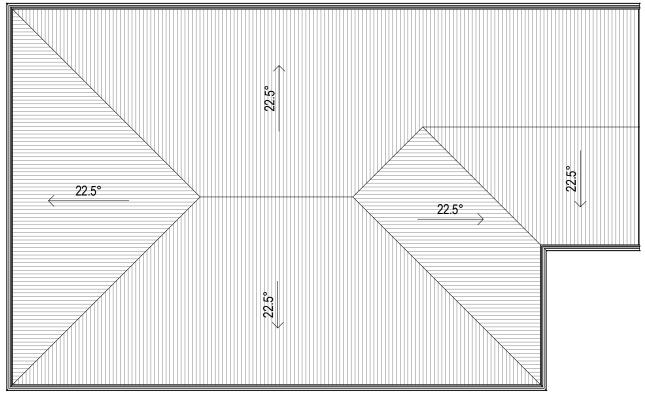
DRAWING TITLE:
UNIT_TYPE A_ELEVATIONS

PROJECT NO.: 2126

SCALE: 1:100@ A3

DRAWING No.:





LEVEL GROUND DA31 Scale 1:100

LEVEL ROOF DA31 Scale 1:100

Room Schedule	
Name	Area

LIVING	12 m²
BED 1	11 m ²
BED 2	11 m²
WIR	3 m²
ENS	3 m²
BED 3	11 m²

Room Schedule		
Name	Area	

BATH	5 m²
PDR	1 m²
LINEN	1 m²
CORR	6 m²
GARAGE	17 m²
LAUN.	1 m²

Room Schedule		
Name	Area	
KITCHEN	14 m²	
DINING	9 m²	
CORR	6 m ²	

ISSUE	REVISION	DRN	CHK / APP	DATE
1	DEVELOPMENT APPLICATION	DA	DA	27/07/2021
2	RESPONSE TO COUNCIL RFI	DA	DA	15/09/2021

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NORTH:	PROJEC
	PROF
	PROJEC

CT ADDRESS:

15 MORRISON STREET, BRIGHTON CLIENT: **FULTON TASMANIA**

ECT: DRAWING TITLE:
DPOSED 15 UNITS DEVELOPMENT UNIT_TYPE C_PLANS PROJECT NO.:

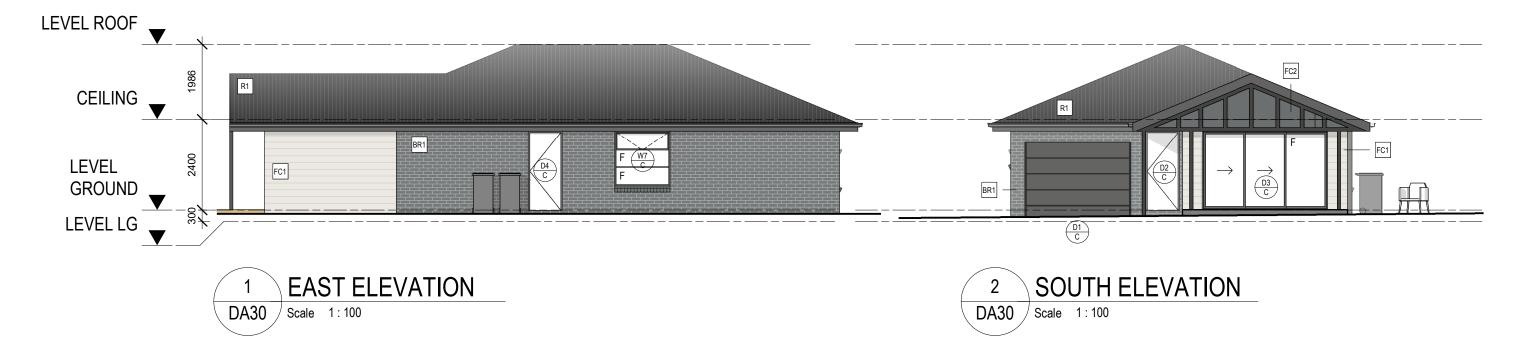
2126

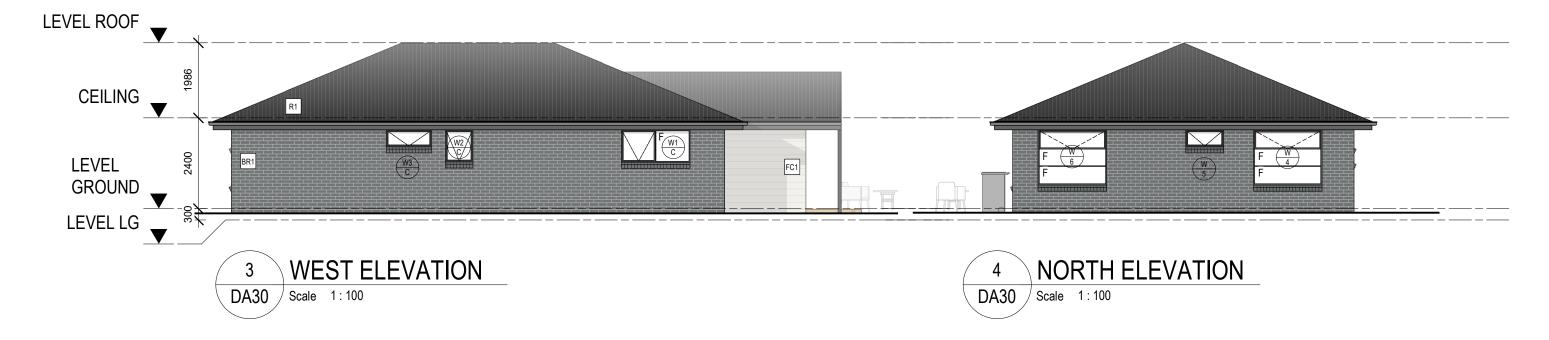
SCALE: 1:100@ A3

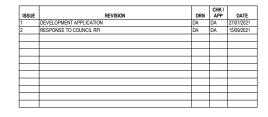
DRAWING No.: **DA30**

R1 - CUSTOM ORB BR1 - BRICK VENEER FC1 - WEATHERBOARD

FC2 - FIBER CEMENT CLADDING







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PROJECT:
PROPOSED 15 UNITS DEVELOPMENT

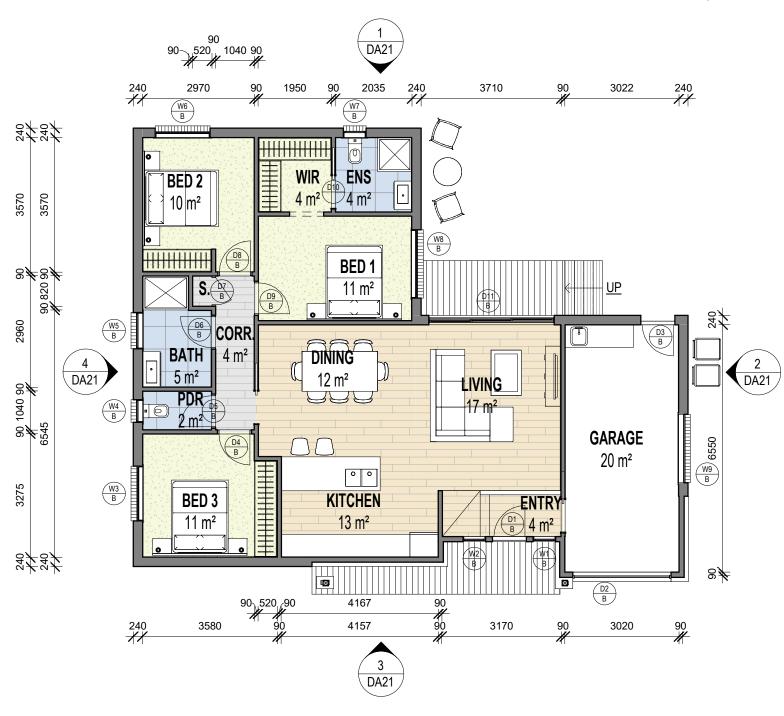
PROJECT ADDRESS:
15 MORRISON STREET, BRIGHTON

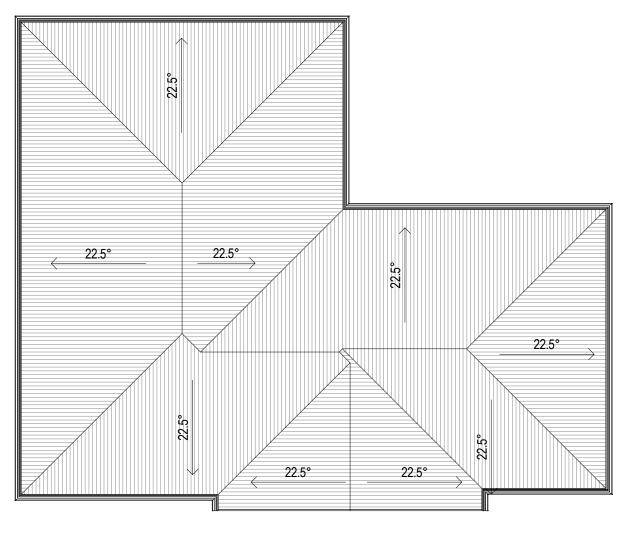
CLIENT: FULTON TASMANIA DRAWING TITLE:
UNIT_TYPE C_ELEVATIONS

PROJECT NO.: 2126

SCALE: 1:100@ A3

DRAWING No.:





1 LEVEL GROUND
DA21 Scale 1:100

3 LEVEL RF
DA21 Scale 1:100

Room Schedule	
Name Area	

GARAGE	20 m ²
BED 1	11 m²
ENS	4 m²
WIR	4 m²
BED 2	10 m²
BATH	5 m²
PDR	2 m²
BED 3	11 m²

Room Schedule	
Name	Area

CORR.	4 m²
S.	0 m²
DINING	12 m²
KITCHEN	13 m²
LIVING	17 m²
ENTRY	4 m²

ISSUE	REVISION	DRN	CHK / APP	DATE
1	DEVELOPMENT APPLICATION	DA	DA	27/07/202
2	RESPONSE TO COUNCIL RFI	DA	DA	15/09/202

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REASON FOR ISSUE
DEVELOPMENT
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NORTH: PROJECT: PROPOSED

PROJECT ADDRESS:
15 MORRISON STREET,
BRIGHTON
CLIENT:
FULTON TASMANIA

PROJECT:
PROPOSED 15 UNITS DEVELOPMENT

PROJECT ADDRESS:
15 MORRISON STREET,

DRAWING TITLE:
UNIT_TYPE B_PLANS

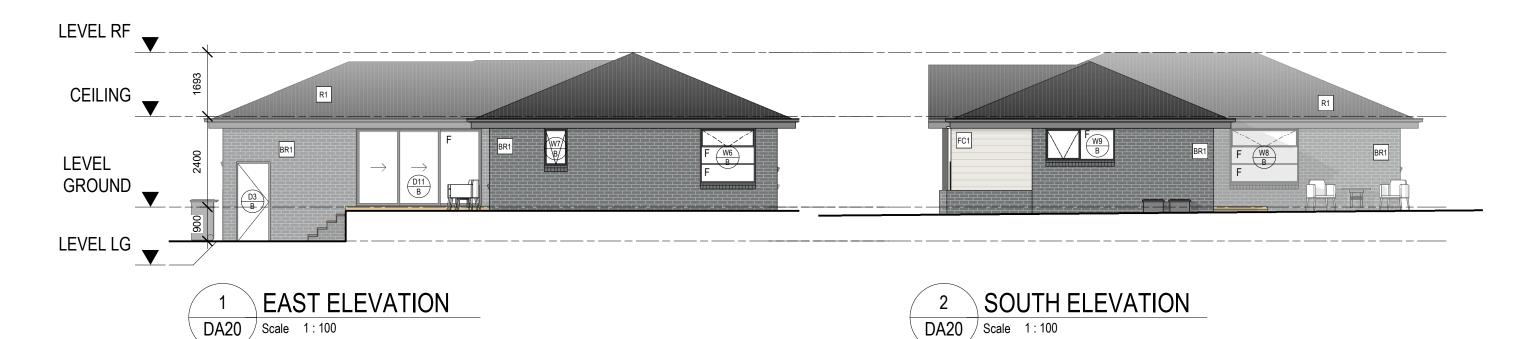
PROJECT NO.:
2126

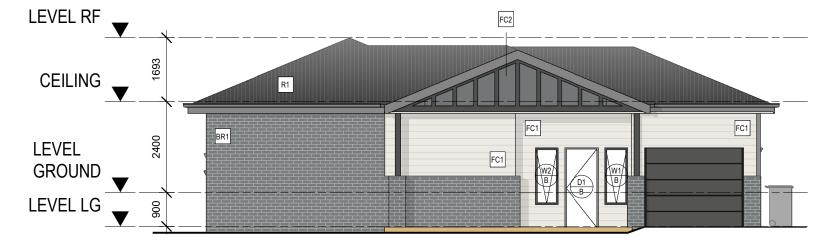
SCALE: 1:100@ A3

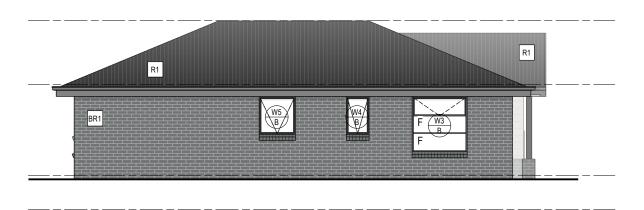
DA20

R1 - CUSTOM ORB BR1 - BRICK VENEER

FC1 - WEATHERBOARD FC2 - FIBER CEMENT CLADDING









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NORTH ELEVATION DA20 | Scale 1:100

PROJECT:
PROPOSED 15 UNITS DEVELOPMENT

DRAWING TITLE:
UNIT_TYPE C_ELEVATIONS

PROJECT ADDRESS: 15 MORRISON STREET, BRIGHTON **FULTON TASMANIA**

PROJECT NO.: 2126

SCALE: 1:100@

DRAWING No.: **DA21**



MinD Architects

15 Morrison Street, Brighton Traffic Impact Assessment

November 2021







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1. Introduction

1.1 Background

Midson Traffic were engaged by MinD Architects to prepare a traffic impact assessment for a proposed residential unit development at 15 Morrison Street. Brighton.

1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management*, Part 12: *Traffic Impacts of Developments*, 2019.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This TIA also addresses the relevant clauses in C2.0, *Parking and Sustainable Transport Code*, and C3.0, *Road and Railway Assets Code*, of the Tasmanian Planning Scheme – Brighton, 2021.

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 25 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004



- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.5 Subject Site

The subject site is located at 15 Morrison Street, Brighton. The site area is approximately 4,973m². The site currently contains a residential dwelling with two accesses on Morrison Street.

The subject site and surrounding road network is shown in Figure 1.



Figure 1 Subject Site & Surrounding Road Network

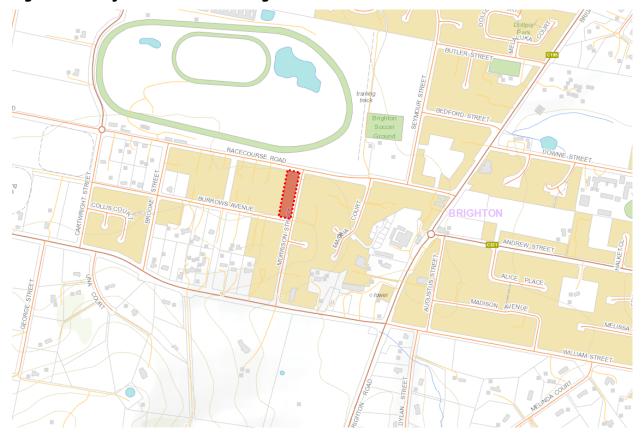


Image Source: LIST Map, DPIPWE

1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Tasmanian Planning Scheme Brighton, 2021 (Planning Scheme)
- Austroads, Guide to Traffic Management, Part 12: Traffic Impacts of Developments, 2019
- Austroads, Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections, 2021
- Department of State Growth, Traffic Impact Assessment Guidelines, 2020
- Roads and Maritime Services NSW, *Guide to Traffic Generating Developments*, 2002 (RMS Guide)
- Roads and Maritime Services NSW, Updated Traffic Surveys, 2013 (Updated RMS Guide)
- Australian Standards, AS2890.1, Off-Street Parking, 2004 (AS2890.1:2004)



2. Existing Conditions

2.1 Transport Network

For the purpose of this report, the transport network consists of Morrison Street, Elderslie Road, Burrows Avenue and Racecourse Road.

Morrison Street is a local residential street that connects between Racecourse Road and Elderslie Road. Morrison Street provides access to residential properties along its length and has an estimated traffic volume of 300 vehicles per day. The General Urban Speed Limit of 50-km/h applies to Morrison Street. Morrison Street near the subject site is shown in Figure 2.

Figure 2 Morrison Street





Elderslie Road is a collector road that connects to Brighton Road at its eastern end and Pelham Road/ Clifton Vale Road at its north-western end. It is approximately 20 kilometres long and provides connectivity between Brighton, Broadmarsh and Elderslie. Near the subject site Elderslie Road provides access to predominantly residential property.

Burrows Avenue is a local residential street that connects between Morrison Street and Cartwright Street. Burrows Street adjacent to the site is shown in Figure 3.



Figure 3 Burrows Street





Racecourse Road connects between Brighton Road and Ferguson Road, a distance of approximately 1.9-kilometres. Racecourse Road is sealed between Brighton Road and Cartwright Street and unsealed between Cartwright Street to Ferguson Road. Traffic volumes on Racecourse Road are less than 1,000 vehicles per day.

The General Urban Speed Limit of 50-km/h applies to Racecourse Road. It predominantly provides access to residential frontages along its length, noting that the majority of residential properties are located along the southern side of the road. A horse racing track is located on the northern side of the road for the majority of the road's length.

2.2 Road Safety Performance

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

Crash data was obtained from the Department of State Growth for a 5+ year period between 1st January 2016 and 30th August 2021 for the full length of Morrison Street. No crashes were reported during this time.



3. Proposed Development

3.1 Development Proposal

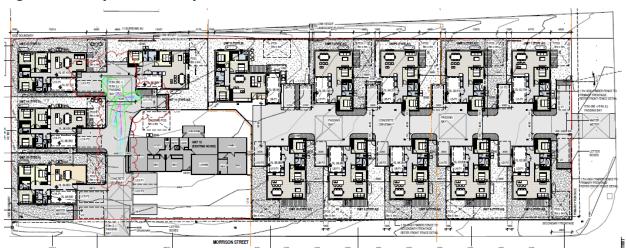
The proposed development involves the construction of 14 units on the subject site. The existing dwelling is to be maintained.

The development provides a total of 34 on-site car parking spaces. This consists of 30 spaces for the units (2 spaces for each unit, including the existing dwelling) and 4 visitor parking spaces.

Access is proposed via driveways connecting to Morrison Street and Burrows Avenue.

The proposed development is shown in Figure 4.

Figure 4 Proposed Development Plans





4. Traffic Impacts

4.1 Trip Generation

Traffic generation rates were sourced from the RMS Guide. The RMS Guide states the following traffic generation rates for medium density residential developments:

Daily vehicle trips
 6 trips per dwelling per day

Weekday peak hour vehicle trips 0.6 trips per dwelling per hour

Based on these trip generation rates, the new traffic generation from the proposed new units is 90 vehicles per day with a peak of 9 vehicles per hour.

4.2 Trip Assignment

Traffic generation will be split between the two accesses as follows:

Morrison Street
 Burrows Avenue
 Morrison Street
 Wehicles per day, peak of 3 vehicles per hour
 Vehicles per day, peak of 6 vehicles per hour

4.3 Access Impacts

The Acceptable Solution A1.2 of Clause C3.5.1 of the Planning Scheme states "For a road, excluding a category 1 road or a limited access road, written consent for a new junction, vehicle crossing, or level crossing to serve the use and development has been issued by the road authority".

In this case road authority written consent has not been provided. The Performance Criteria P1 of Clause C3.5.1 of the Planning Scheme states:

"Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:

- (a) any increase in traffic caused by the use;
- (b) the nature of the traffic generated by the use;
- (c) the nature of the road;
- (d) the speed limit and traffic flow of the road;
- (e) any alternative access to a road;
- (f) the need for the use;
- (g) any traffic impact assessment; and
- (h) any advice received from the rail or road authority".



The following is relevant with respect to the development proposal:

- a. <u>Increase in traffic</u>. The site is currently a residential dwelling with traffic generation of approximately 7 vehicles per day. The development will generate 90 vehicles per day across 2 accesses. The peak generation will be 9 vehicles per hour across two accesses. The traffic generation will not have any significant adverse impacts in terms of traffic efficiency or safety.
- b. <u>Nature of traffic</u>. The traffic generation will be residential in nature, which is consistent with traffic generation from the surrounding area.
- c. <u>Nature of road</u>. Morrison Street is a local residential road that carries predominantly residential traffic.
- d. <u>Speed limit and traffic flow of road</u>. Morrison Street and Burrows Avenue have a posted speed limit of 50-km/h and carry less than 300 vehicles per hour. The speed limit and traffic flow of these road is compatible with the traffic generation associated with the proposed development.
- e. Alternative access. No alternative access is considered necessary.
- f. <u>Need for use</u>. The accesses are required to provide vehicular access to the residential units associated with the development.
- g. Traffic impact assessment. This report details the findings of a traffic impact assessment.
- h. <u>Road authority advice</u>. Council (as road authority) have states that a TIA is required to be submitted with the development application.

Based on the above assessment, the proposed development meets the requirements of Performance Criteria P1 of Clause C3.5.1 of the Planning Scheme.

4.4 Sight Distance

Australian Standards, AS2890.1, provide the sight distance requirements for residential driveways. Sight distance requirements are lower for residential driveways compared to road junctions.

Morrison Street has a vertical crest that restricts available sight distance; this is shown in Figure 2. The available sight distance at the Morrison Street access is approximately 80 metres to the north and approximately 70 metres to the south.

Burrows Avenue has relatively straight vertical and horizontal alignment and has unrestricted sight distance at the site's proposed access as a result.

The minimum sight distance requirements for a residential driveway in a 50-km/h frontage road is 45 metres (the desirable sight distance is 69 metres). The available sight distance exceeds this requirement in both directions along Morrison Street and Burrows Avenue (noting that full sight distance is available to the termination of Burrows Avenue into Morrison Street).



4.5 Pedestrian Impacts

The proposed development is likely to attract a relatively small amount of pedestrian movements in the surrounding network. It is noted that there are several pedestrian generating land uses in the nearby surrounding network, including Brighton town centre.

Pedestrian infrastructure in the surrounding road network is generally of a high standard with footpaths provided on the eastern side of Morrison Street near the subject site.

The Acceptable Solution A1 of Clause C2.6.5 of the Planning Scheme states:

"Uses that require 10 or more car parking spaces must:

- (a) have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by:
 - (i) a horizontal distance of 2.5m between the edge of the footpath and the access way or parking aisle; or
 - (ii) protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and
- (b) be signed and line marked at points where pedestrians cross access ways or parking aisles".

The proposed development does not provide a separate pedestrian path to the driveways. The driveway accesses are considered 'shared zones' where vehicles must give way to pedestrians. This is a relatively commonplace treatment in medium density residential developments.

The Performance Criteria P1 of Clause C2.6.5 of the Planning Scheme states:

"Safe and convenient pedestrian access must be provided within parking areas, having regard to:

- (a) the characteristics of the site;
- (b) the nature of the use;
- (c) the number of parking spaces;
- (d) the frequency of vehicle movements;
- (e) the needs of persons with a disability;
- (f) the location and number of footpath crossings;
- (g) vehicle and pedestrian traffic safety;
- (h) the location of any access ways or parking aisles; and
- (i) any protective devices proposed for pedestrian safety".

The following is relevant with respect to the development:



- a. <u>Characteristics of site</u>. The site is a medium density residential development. The movement of cars and pedestrians only relates to activity associated with the residential units and would be expected by all road users.
- b. Nature of the use. The use is medium density residential.
- c. <u>Number of parking spaces</u>. A total of 34 on-site parking spaces are proposed, accessed via two driveways (Morrison Street accesses 12 spaces and Burrows Avenue accesses 22 spaces).
- d. <u>Frequency of vehicle movements</u>. The peak traffic generation will be 3 and 6 vehicles per hour at the Morrison Street and Burrows Avenue accesses respectively. The low traffic generation coupled with the low vehicle speeds will result in an acceptable safety environment for shared use between pedestrians and cars.
- e. Needs of persons with a disability. Not applicable.
- f. Location and number of footpath crossings. Not applicable.
- g. <u>Vehicle and pedestrian safety</u>. The driveways will be 'shared zones' where vehicles and pedestrians share the space with pedestrians having priority. As noted in d above, the low traffic generation coupled with the low vehicle speeds will result in an acceptable safety environment for shared use between pedestrians and cars.
- h. <u>Location of access ways or parking aisles</u>. The development has a relatively simple layout consisting of two linear accesses. Parking is accessed at 90-degrees to the driveways. There are no internal junctions within the accesses.
- i. <u>Protective devices</u>. No pedestrian protective devices are included in the design.

Based on the above assessment, the development meets the requirements of Performance Criteria P1 of Clause C2.6.5 of the Planning Scheme.

4.6 Road Safety Impacts

The proposed development generates a relatively small amount of additional traffic on the surrounding road network (in the order of 9 vehicles per hour during peak times).

No significant adverse road safety impacts are therefore foreseen for the following reasons:

- The existing crash history of Morrison Street near the subject site network does not indicate that
 there are any road safety deficiencies that would be exacerbated by the proposed development
 (specifically noting that there have not been any crashes near the subject site in the past five
 years).
- The traffic generation of the proposed development is considered to be very low (in the order of 9 vehicles per hour during peak periods, spread across 2 accesses), and therefore will not alter the level of service of any part of the transport network. No significant road safety impacts are likely to result without a corresponding deterioration in the network's level of service.



• The site access is located in a residential low speed environment. All traffic movements into and out of the site are clear and obvious for other road users.



5. Parking Assessment

5.1 Parking Provision

The proposed development provides a total of 34 on-site car parking spaces. This consists of 30 spaces for the units (2 spaces for each unit, including the existing dwelling) and 4 visitor parking spaces.

5.2 Car Parking Demand

The RMS Guide provides guidance on parking demands associated with medium density residential developments. The RMS Guide recommends the following parking provision for the 15 proposed units:

•	1 space per unit	15 spaces
•	+ 1 space for every 5 x 2 bedroom unit	2.8 spaces
•	+ 1 space for every 2 x 3 bedroom unit	0.5 spaces
•	+ 1 space for 5 units (visitor parking)	2.8 spaces
•	<u>TOTAL</u>	22 spaces

The minimum parking provision of 22 spaces is therefore recommended for the development. The provision of 34 spaces exceeds the RMS parking recommendation by 12 spaces.

5.3 Planning Scheme Requirements

The Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme states:

"The number of on-site car parking spaces must be no less than the number specified in Table C2.1, excluding if:

- (a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan;
- (b) the site is contained within a parking precinct plan and subject to Clause C2.7;
- (c) the site is subject to Clause C2.5.5; or
- (d) it relates to an intensification of an existing use or development or a change of use where:
 - (i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is greater than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case no additional on-site car parking is required; or
 - (ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is less than the number of car parking spaces specified in Table



C2.1 for the proposed use or development, in which case on-site car parking must be calculated as follows:

N = A + (C-B)

N = Number of on-site car parking spaces required

A = Number of existing on site car parking spaces

B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1

C= Number of on-site car parking spaces required for the proposed use or development specified in Table C2.1".

In this case, sub-points (a), (b), (c), and (d) are not applicable. The car parking requirements in Table C2.1 for residential land use is:

- 2 spaces for dwelling; plus
- 1 dedicated space per 4 dwellings for visitor parking.

This equates to a parking requirement for 34 spaces. The provision of 34 spaces meets the requirements of Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme.

5.4 Car Parking Layout

The car parking layout was assessed using B85 Vehicle swept paths for all parking spaces. This analysis is provided in Appendix A.

The Acceptable Solution A1.1 of Clause C2.6.2 of the Planning Scheme states:

"Parking, access ways, manoeuvring and circulation spaces must either:

- (a) comply with the following:
 - (i) have a gradient in accordance with Australian Standard AS 2890 Parking facilities, Parts 1-6;
 - (ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces;
 - (iii) have an access width not less than the requirements in Table C2.2;
 - (iv) have car parking space dimensions which satisfy the requirements in Table C2.3;
 - (v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces;
 - (vi) have a vertical clearance of not less than 2.1m above the parking surface level; and



- (vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or
- (b) comply with Australian Standard AS 2890- Parking facilities, Parts 1-6".

The following is relevant with respect to the development proposal:

a. Layout

- i. The gradients comply with the relevant requirements of AS2890.
- ii. All vehicles can enter and exit the site at Morrison Street and Burrows Avenue in a forward direction. Refer to Section 5.5 for analysis.
- iii. Table C2.2 requires a internal access width not less than 5.5m. In this case the access widths are 5.5m at the two main access aisles that connect to Morrison Street and Burrows Avenue.
- iv. Table C2.3 requires parking dimensions of 5.4m length x 2.6m width with combined access and manoeuvring width of 6.4m for 90-degree parking. In this case some parking spaces do not comply with the aisle width requirements.
- v. Refer to iv above.
- vi. The vertical clearance exceeds 2.1m above the parking surface level.
- vii. Line marking is provided on all on-site visitor car parking spaces. Garage and car port car parking spaces do not require line marking.
- b. <u>Australian Standards Assessment</u>. Australian Standards, AS2890.1, requires minimum dimensions of 2.4m x 5.4m with an aisle width of 5.8m for residential parking spaces. All parking spaces exceed the width requirements, meet the length requirements, and some spaces have less than 5.8m aisle width (minimum 5.6m). Technically the parking spaces do not comply with the requirements of AS2890.1 in terms of dimensions.

Based on the above assessment the development does not meet the requirements of Acceptable Solution A1.1 of Clause C2.6.2 of the Planning Scheme.

The Performance Criteria P1 of Clause C2.6.2 of the Planning Scheme states:

"All parking, access ways, manoeuvring and circulation spaces must be designed and readily identifiable to provide convenient, safe and efficient parking, having regard to:

- (a) the characteristics of the site;
- (b) the proposed slope, dimensions and layout;
- (c) useability in all weather conditions;



- (d) vehicle and pedestrian traffic safety;
- (e) the nature and use of the development;
- (f) the expected number and type of vehicles;
- (g) the likely use of the parking areas by persons with a disability;
- (h) the nature of traffic in the surrounding area;
- (i) the proposed means of parking delineation; and
- (j) the provisions of Australian Standard AS 2890.1:2004 Parking facilities, Part 1: Off-street car parking and AS 2890.2 -2002 Parking facilities, Part 2: Off-street commercial vehicle facilities".

The following is relevant with respect to the development proposal:

- a. <u>Characteristics of the site</u>. The development will be a residential development, with homogenous user class (ie. the parking will not provide public car parking, but only for residences and their visitors).
- b. <u>Slope, dimension and layout</u>. The site is located on relatively flat topography. The dimensions facilitate the manoeuvring of B85 vehicles into and out of all car parking as demonstrated in Appendix A.
- c. <u>Useability in all weather conditions</u>. The car parking will have an all weather surface seal.
- d. <u>Vehicle and pedestrian safety</u>. The car parking will be in a residential unit development which will provide a low speed shared vehicular/ pedestrian environment.
- e. Nature and use of development. The use of the development will be residential.
- f. Expected number and type of vehicles. The traffic generation of the development will be 90 vehicles per day split across two accesses (Morrison Street will have 30 vpd and Burrows Avenue will have 60 vpd). All vehicles will be cars associated with the residential development.
- g. <u>Likely use of parking areas by persons with a disability</u>. The development is residential in nature and is not required to provide on-site disabled car parking.
- h. <u>Nature of traffic in surrounding area</u>. Traffic volumes in the surrounding road network are very low. There is a large pool of available on-street car parking available for vehicles that do not wish to access the car park.
- i. <u>Proposed means of parking delineation</u>. Spaces will be clearly defined by kerbing, line marking and garages.
- j. <u>Provisions of AS2890.1</u>. The car parking layout generally complies with the requirements of AS2890.1. Whilst the aisle width is deficient in some areas (minimum 5.6m), there is sufficient manoeuvring area to facilitate a B85 vehicle into and out of the spaces. This is due to the additional space width and the low speed operating environment. Engineering plans demonstrate the accessibility of all parking spaces by a B85 vehicle, as shown in Appendix A.



Based on the above assessment, the development complies with the requirements of Performance Criteria P1 of Clause C2.6.2 of the Planning Scheme.

5.5 On-Site Turning

The B85 vehicle swept paths provided in Appendix A demonstrate that all vehicles can enter the site in a forward direction, access a designated parking space, and exit the site in a forward direction.

In circumstances where all parking spaces are fully occupied, on-site turning should be provided to facilitate forward entry and forward exit for the site.

On-site turning at the termination of the Morrison Street and Burrows Avenue access driveways is shown in Figure 5 and Figure 6 respectively. It can be seen that Burrows Avenue facilitates a relatively straightforward three-point turn manoeuvre, whereas the Morrison Street access requires a multiple-point turn which is not considered ideal. The Morrison Street access services fewer parking spaces than the Burrows Avenue access.

It is likely that residents would be aware of the parking associated with the units (ie. two parking spaces that are dedicated to each unit). Visitor parking spaces are located at the front of the driveway in clear view for approaching motorists. If all visitor parking spaces are fully occupied then it is likely that a visitor car will chose not to enter the site (and park elsewhere such as on-street).





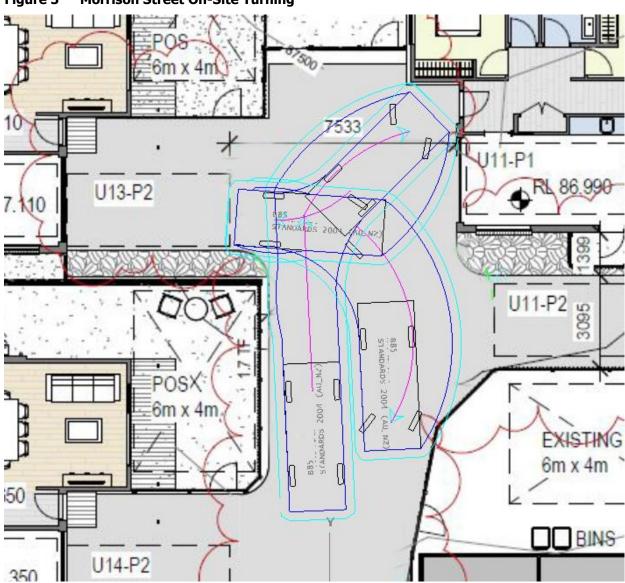
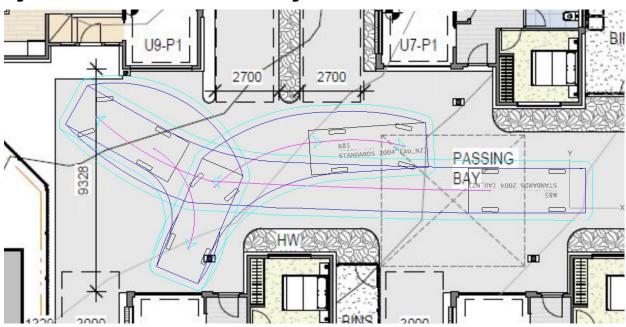




Figure 6 Burrows Avenue On-Site Turning





6. Conclusions

This traffic impact assessment (TIA) investigated the traffic and parking impacts of a proposed residential unit development at 15 Morrison Street, Brighton.

The key findings of the TIA are summarised as follows:

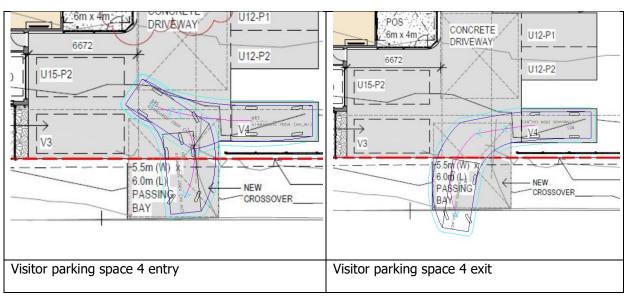
- The traffic generation of the development is likely to be 90 vehicles per day with a peak generation of 9 vehicles per hour.
- Traffic generation is split between 2 main accesses at Morrison Street and Burrows Avenue. The traffic generation at the accesses will not have any significant adverse impacts on traffic efficiency or road safety. The development meets the requirements of Performance Criteria P1 of Clause C3.5.1 of the Planning Scheme.
- The car parking provision of 34 on-site parking spaces meets the requirements of Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme. It is also noted that the parking demands of the development will be lower than the Acceptable Solution parking requirements, and there is a large pool of on-street car parking available immediately adjacent to the site.
- The car parking layout of the development meets the requirements of Performance Criteria P1 of Clause C2.6.2 of the Planning Scheme.

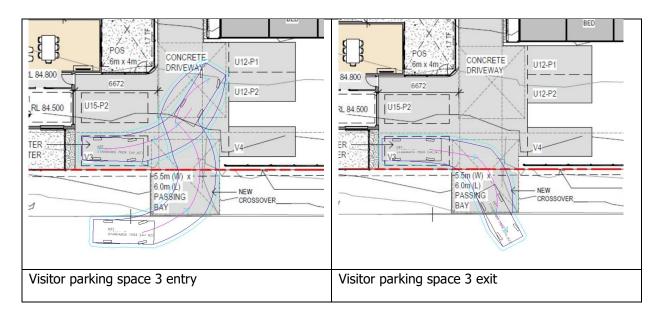
Based on the findings of this report and subject to the recommendations above, the proposed development is supported on traffic grounds.



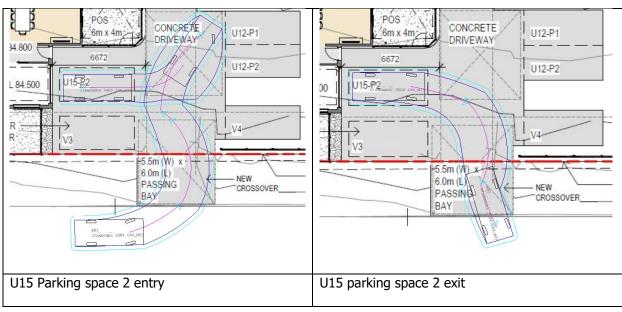
Appendix A B85 Vehicle Swept Paths

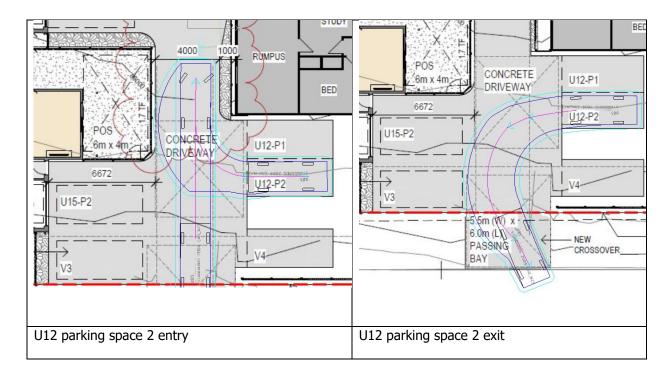




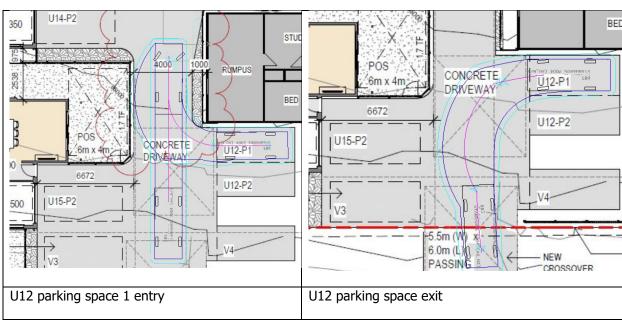


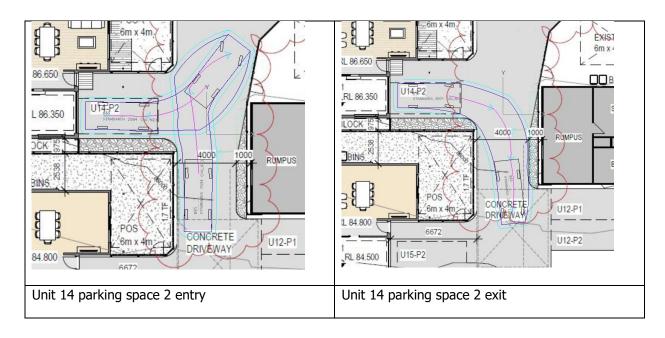




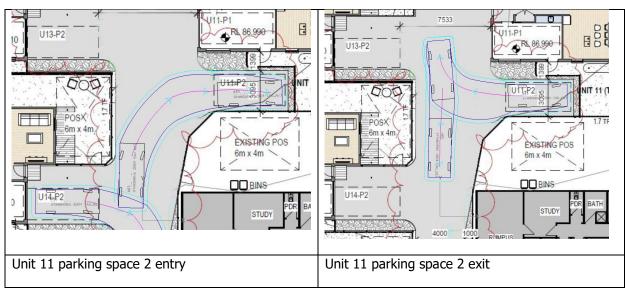


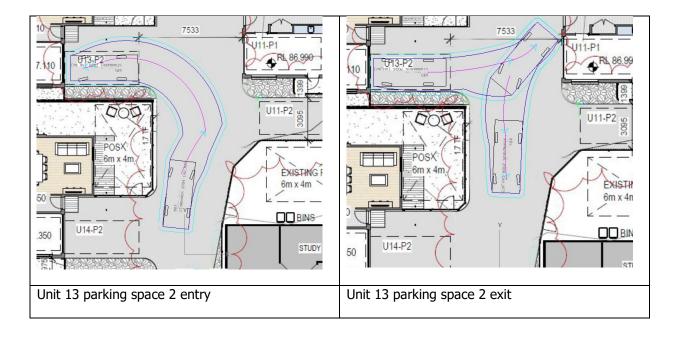




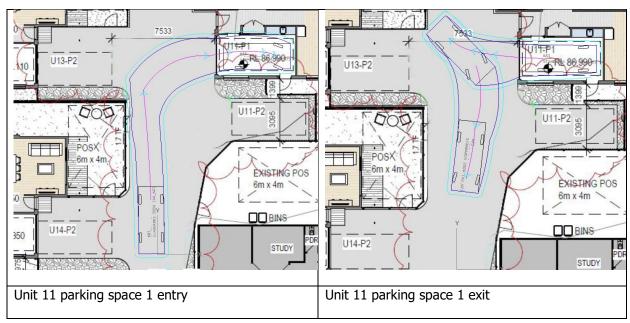


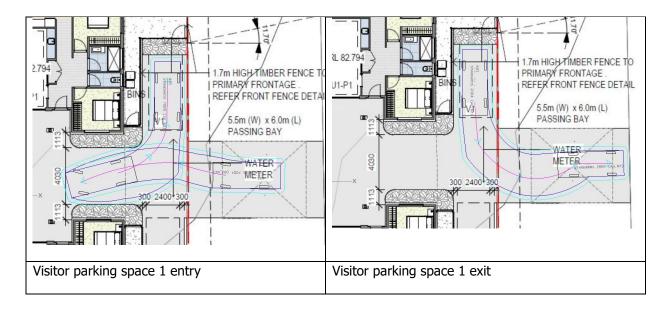




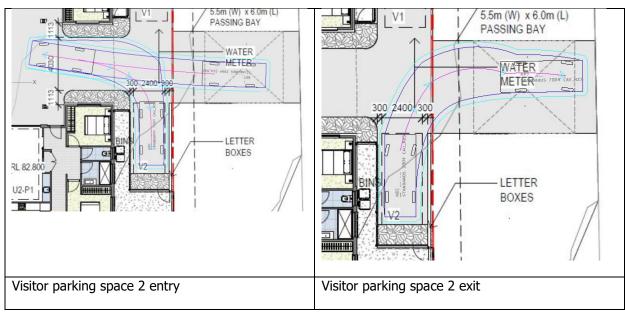


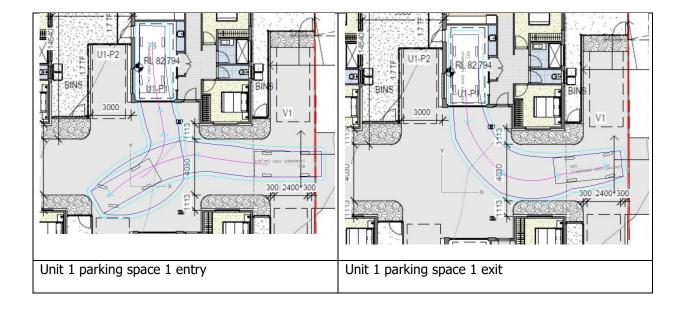




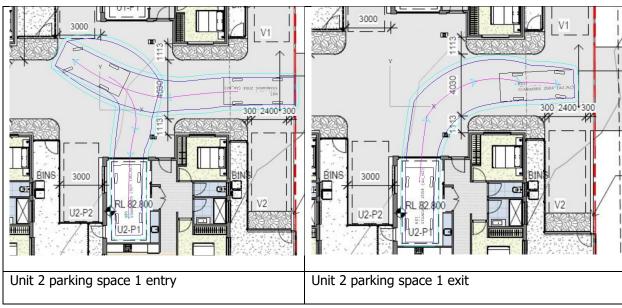


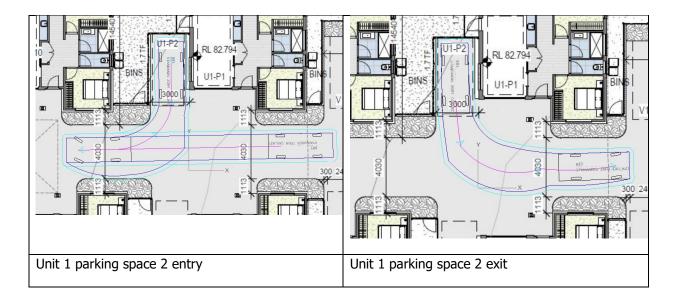




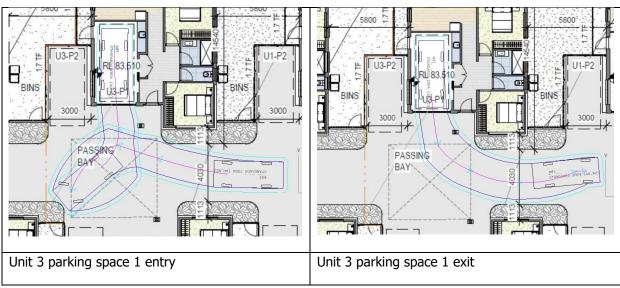


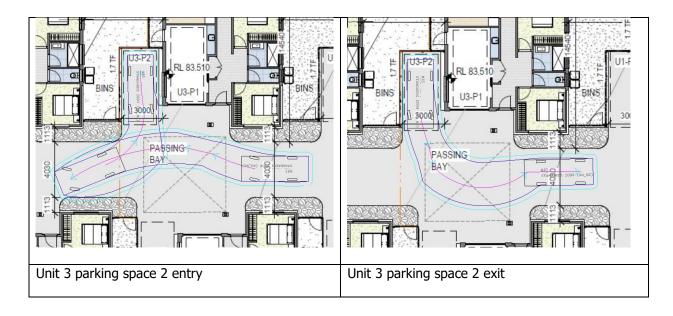




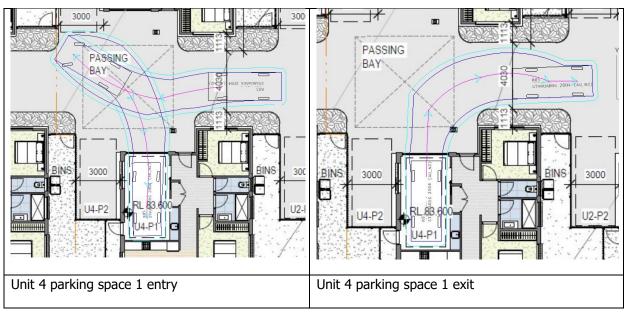


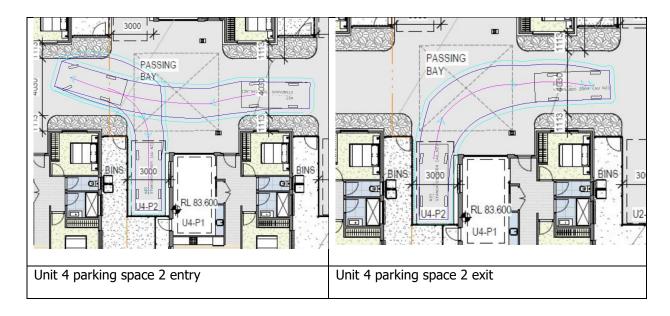




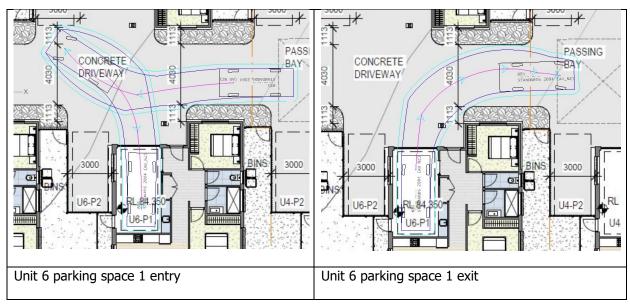


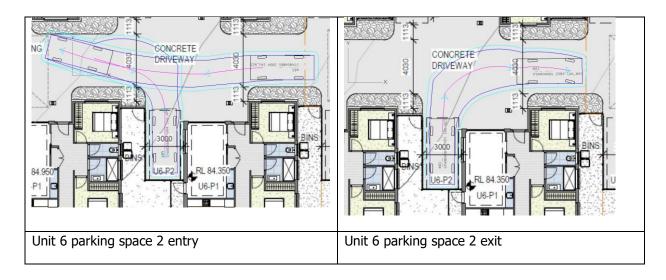




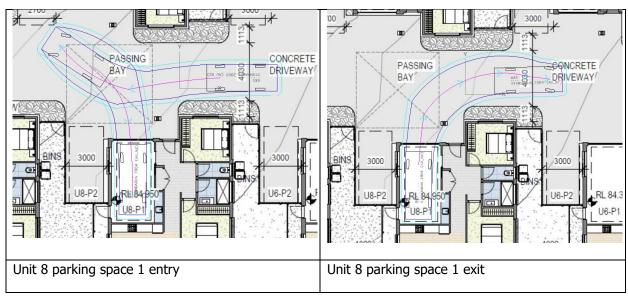


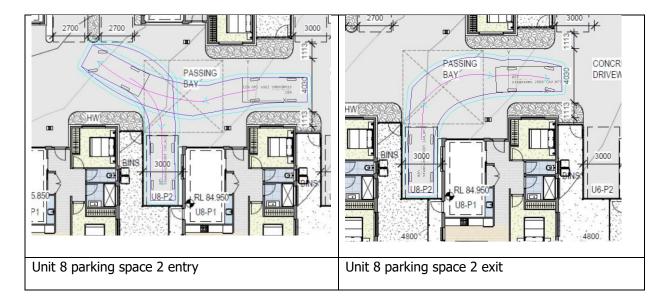




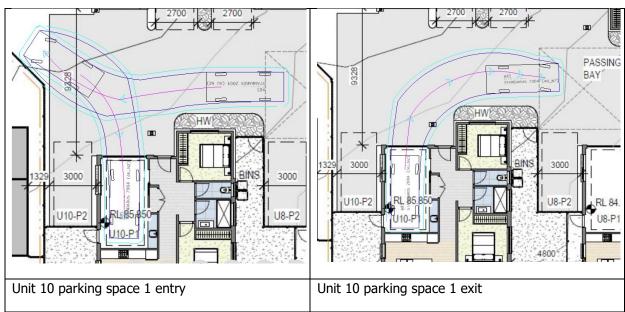


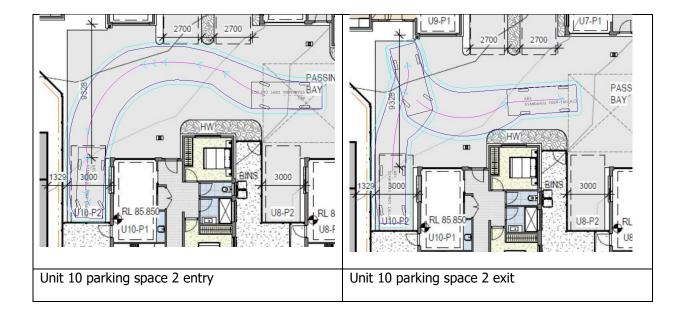




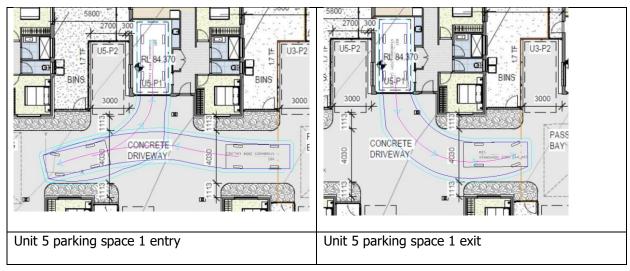


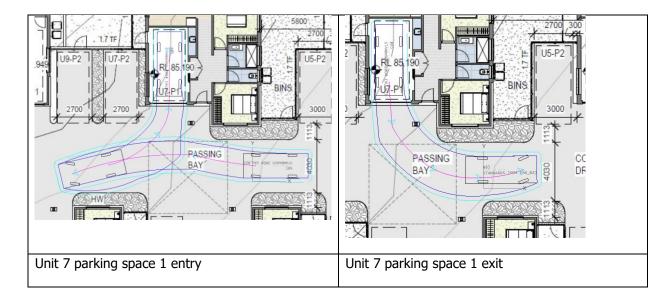




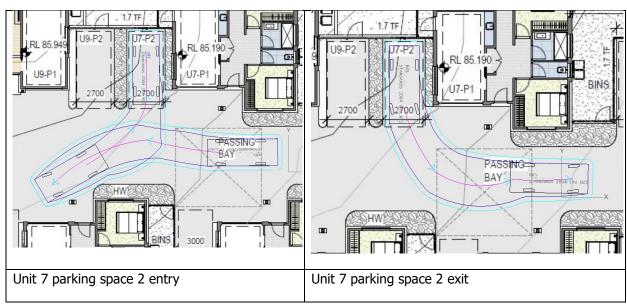


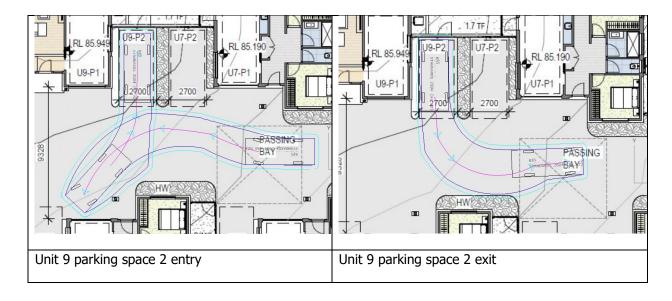




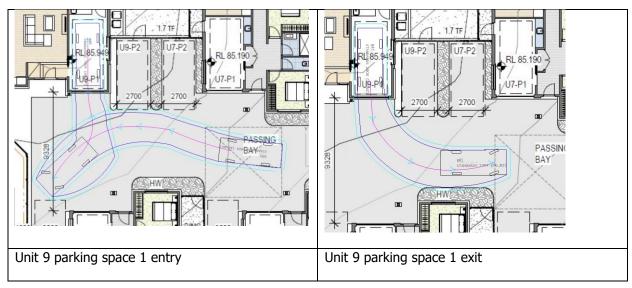














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Document Status

Revision	Author	Review	Date
0	Keith Midson	Zara Kacic-Midson	22 September 2021
1	Keith Midson	Zara Kacic-Midson	8 October 2021
2	Keith Midson	Zara Kacic-Midson	5 November 2021



Keith Midson Midson Traffic Pty Ltd 28 Seaview Avenue Taroona TAS 7053 0437 366 040

5 November 2021

David Wai Ho Au 3 Adele Court Hoppers Crossing VIC 3029

Dear David,

15 MORRISON ST - RESPONSE TO COUNCIL RFI

This letter provides a response to Council's 2nd request for further information regarding the abovementioned development.

1. Design and Layout of Parking Areas

Council stated:

Morrison St on site turning involves excessive turning to complete coming into conflict with other parking spaces, concrete edging, garden spaces and domestic walling.

The design of the car parking and southern driveway have been modified to provide increase manoeuvring space. Revised swept paths now demonstrate improved manoeuvring.

2. Passing Bays

Council stated:

Passing bays are positioned in some instances without vehicle tapers for entry and exit without reversing.

The revised plans now have passing bays with increased space on at least one approach, thus facilitating passing of two vehicles in opposing directions unimpeded.

3. Swept Paths

Council stated:

In numerous circumstances the concrete driveway is insufficient in width to support the depicted sweep path demonstrated .

All swept paths include a 300mm buffer zone around the vehicle. In all cases the wheel path is contained within the kerbing of the driveways.

4. Impingement on Adjacent Spaces

Council stated:

On occasion turning vehicles encroach on the assigned space of other vehicles.

All swept paths include a 300mm buffer zone around the vehicle. In all cases the wheel path is contained within the parking space under assessment. It is also noted that in practice, some encroachment would be normal as a car parked in an adjacent space does not take up the entirety of a parking space.

5. Garage Space Manoeuvring

Council stated:

Several sweeps proposed require the nominated vehicle to turn whilst enclosed in a garage encroaching on limited opening space.

The increased driveway width for the southern driveway greatly improves manoeuvring for garage spaces, so that only a three-point turn is necessary.

6. Dimensions

Council stated:

Requested is more dimensioning of isle widths at pinch points to better understand compliance or deviation from the standard.

Revised plans show dimensions of key areas.

7. B85 & B99 Vehicles

Council stated:

Further information is required to understand the justification for defaulting to a B85 in lieu of the B99 requested in the RFI.

As stated in the previous RFI response, Australian Standards, AS2890.1, provides the requirements of the type of vehicles used in parking areas. There are two 'car' vehicle types contained in AS2890.1: B85 and B99 vehicles. These vehicles represent the 85th and 99th percentile cars in the Australian fleet respectively.

AS2890.1 states the following with respect to B99 vehicles:

"Design dimensions based on the B99 vehicle are required at all locations where failure of a vehicle to be able to physically fit into the facility would occasion intolerable congestion and possible hazard. Such locations shall include all access driveways, ramps and circulation roadways, unless there are special circumstances of severe space limitation coupled with relatively low traffic volumes in which case the B85 vehicle dimensions may be used".

In this case the development proposal is domestic and will not provide public car parking. With a peak generation of 5 vehicles per hour it would not be possible to create 'intolerable' congestion if a vehicle did not physically fit within the development site. It is therefore not agreed that a B99 vehicle is appropriate to model for the proposed development. B99 vehicles are often used to test turning paths on critical components of a public car park (such as ramps, etc), where failure for the vehicle to complete the turn may result in congestion or safety issues.

The design of a domestic or residential property need only take into account the swept paths of a B85 vehicle. This philosophy is no different to a public car park design.

AS2890.1 also states "Except as permitted in Clause 2.5.2(c) and Paragraph B2.2, design dimensions based on the B85 vehicle shall be limited to parking spaces and parking aisles. NOTE: This is based on the philosophy that the statistical chance of two or more longer vehicles seeking to occupy adjacent spaces at the one time is relatively low, and where this does occur, a driver can divert to an alternative space with only minor disruption to other users".

The assessment of the car parking requirements of a residential unit development was recently tested in an RMPAT appeal (53-21P, Costmac Investments Pty Ltd vs Sorell Council). It was agreed in evidence (and agreed by traffic experts) that the B85 vehicle was the appropriate design vehicle for residential development, not the B99 vehicle.

Please contact me on 0437 366 040 if you require any further information.

Yours sincerely,

Keith Midson BE MTraffic MTransport FIEAust CPEng EngExec NER

DIRECTOR

Midson Traffic Pty Ltd



Submission to Planning Authority Notice

Council Planning Permit No.	DA 2021 / 00199		Council notice date		3/08/2021	
TasWater details						
TasWater Reference No.	TWDA 2021/01295-BTN		Date o	f response	15/10/2021	
TasWater Contact	Phil Papps Phone No.		0474 931 272			
Response issued to						
Council name	BRIGHTON COUNCIL					
Contact details	development@brighton.tas.gov.au					
Development details						
Address	15 MORRISON ST, BRIGHTON		Property ID (PID)		5022786	
Description of development	Multiple dwellings x 15 (Staged)					
Schedule of drawings/documents						
Prepared by	Drawing/document No.			Revision No.	Date of Issue	
MinD Architects	Site/Staging Plan / DA00			2	15/09/2021	

AD Design Conditions

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:

Water & Sewerage Servicing / D-1-10-00,01,02 & 03

CONNECTIONS, METERING & BACKFLOW

- A suitably sized water supply with metered connections and sewerage system and connections to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.
- 2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.
- 3. Prior to use of the development, any water connection utilised for the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.

ASSET CREATION & INFRASTRUCTURE WORKS (Sewer main extension)

- 4. Plans submitted with the application for Engineering Design Approval must, to the satisfaction of TasWater show, all existing, redundant and/or proposed property services and mains.
- 5. Prior to applying for a Permit to Construct the new infrastructure the developer must obtain from TasWater Engineering Design Approval for new TasWater infrastructure. The application for Engineering Design Approval must include engineering design plans prepared by a suitably qualified person showing the hydraulic servicing requirements for water and sewerage to TasWater's satisfaction.
- 6. Prior to works commencing, a Permit to Construct must be applied for and issued by TasWater. All infrastructure works must be inspected by TasWater and be to TasWater's satisfaction.
- 7. In addition to any other conditions in this permit, all works must be constructed under the supervision of a suitably qualified person in accordance with TasWater's requirements.
- 8. Prior to the issue of a Certificate of Water and sewerage Compliance (Building and/or Plumbing) all

20/08/2021

Α



additions, extensions, alterations or upgrades to TasWater's water and sewerage infrastructure required to service the development, are to be completed generally as shown on, and in accordance with, the plans listed in the schedule of drawings/documents, and are to be constructed at the expense of the developer to the satisfaction of TasWater, with live connections performed by TasWater.

- 9. After testing, to TasWater's requirements, of newly created works, the developer must apply to TasWater for connection of these works to existing TasWater infrastructure, at the developer's cost.
- 10. At practical completion of the water and sewerage works and prior to applying to TasWater for a Certificate of Water and Sewerage Compliance (Building and/or Plumbing), the developer must obtain a Certificate of Practical Completion from TasWater for the works that will be transferred to TasWater. To obtain a Certificate of Practical Completion:
 - a. Written confirmation from the supervising suitably qualified person certifying that the works have been constructed in accordance with the TasWater approved plans and specifications and that the appropriate level of workmanship has been achieved;
 - b. A request for a joint on-site inspection with TasWater's authorised representative must be made;
 - c. Security for the twelve (12) month defects liability period to the value of 10% of the works must be lodged with TasWater. This security must be in the form of a bank guarantee;
 - d. Work As Constructed drawings and documentation must be prepared by a suitably qualified person to TasWater's satisfaction and forwarded to TasWater.
- 11. After the Certificate of Practical Completion has been issued, a 12 month defects liability period applies to this infrastructure. During this period all defects must be rectified at the developer's cost and to the satisfaction of TasWater. A further 12 month defects liability period may be applied to defects after rectification. TasWater may, at its discretion, undertake rectification of any defects at the developer's cost. Upon completion, of the defects liability period the developer must request TasWater to issue a "Certificate of Final Acceptance". The newly constructed infrastructure will be transferred to TasWater upon issue of this certificate and TasWater will release any security held for the defects liability period.
- 12. The developer must take all precautions to protect existing TasWater infrastructure. Any damage caused to existing TasWater infrastructure during the construction period must be promptly reported to TasWater and repaired by TasWater at the developer's cost.
- 13. Ground levels over the TasWater assets and/or easements must not be altered without the written approval of TasWater.

56W CONSENT

14. Prior to the issue of the Certificate for Certifiable Work (Building) and/or (Plumbing) by TasWater the applicant or landowner as the case may be must make application to TasWater pursuant to section 56W of the Water and Sewerage Industry Act 2008 for its consent in respect of that part of the development which is built within a TasWater easement or over or within two metres of TasWater infrastructure.

DEVELOPMENT ASSESSMENT FEES

15. The applicant or landowner as the case may be, must pay a development assessment fee of \$699.36 to TasWater, as approved by the Economic Regulator and the fee will be indexed, until the date paid to TasWater.

The payment is required within 30 days of the issue of an invoice by TasWater.



Advice

General

For information on TasWater development standards, please visit http://www.taswater.com.au/Development/Development-Standards

For application forms please visit http://www.taswater.com.au/Development/Forms

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

The location of this infrastructure as shown on the GIS is indicative only.

- (a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure. Further information can be obtained from TasWater
- (b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

Jason Taylor

Development Assessment Manager

TasWater Contact Details					
Phone	13 6992	Email	development@taswater.com.au		
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au		