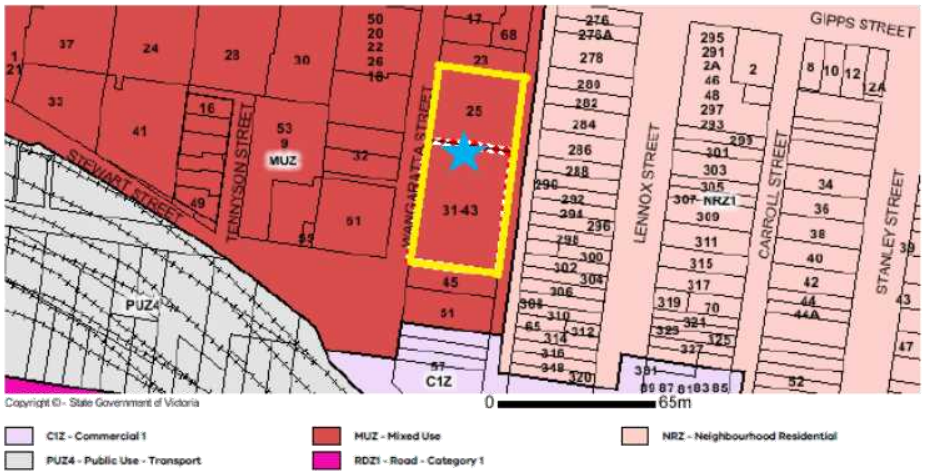
Attachment 1 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Site Plan

ATTACHMENT 1

SUBJECT LAND: 25 – 43 Wangaratta Street Richmond



North

Subject Site

Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

25-43 WANGARATTA ST, RICHMOND, VIC, 3121
TOWN PLANNING SUBMISSION

DRAWING SCHEDULE

DWG NO.	REV	DRAWING SERIES	DRAWING TITLE
TP_A01.00	B	Site	Location Plan
TP_A01.10	B	Site	Existing Site Survey Plan
TP_A01.11	B	Site	Demolition Plan
TP_A02.00	C	Key Plan	Ground Level
TP_A02.10	C	Key Plan	First Level
TP_A02.20	C	Key Plan	Second Level
TP_A02.30	C	Key Plan	Third Level
TP_A02.40	C	Key Plan	Fourth Level
TP_A02.50	C	Key Plan	Fifth Level
TP_A02.60	C	Key Plan	Sixth Level
TP_A02.70	C	Key Plan	Seventh Level (Mezzanine)
TP_A02.80	C	Key Plan	Eighth Level (Roof)
TP_A02.B01	C	Key Plan	Basement Level 01
TP_A02.B02	C	Key Plan	Basement Level 02
TP_A09.00	C	External Elevations	West Elevation
TP_A09.01	C	External Elevations	East Elevation
TP_A09.02	C	External Elevations	North Elevation
TP_A09.03	C	External Elevations	South Elevation
TP_A09.04	C	External Elevations	Streetscape Elevation
TP_A10.00	C	Building Sections	Section AA
TP_A10.01	C	Building Sections	Section BB
TP_A10.02	C	Building Sections	Section CC
TP_A10.03	C	Building Sections	Section DD
TP_A10.04	C	Detail Sections	Facade Sections

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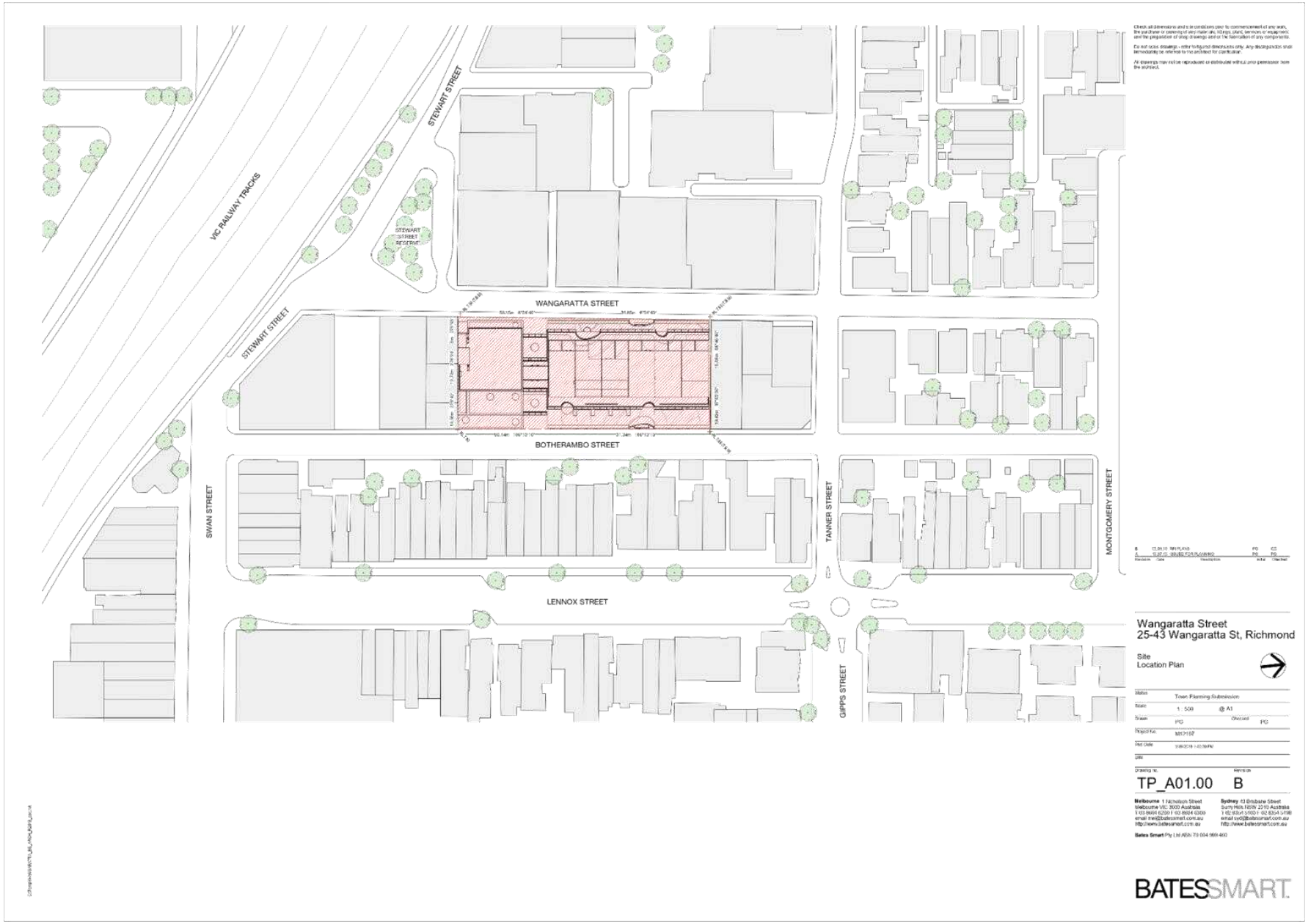
M12197 Wangaratta Street

Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

Wangaratta Street
25-43 Wangaratta St, Richmond

Key Plan
Basement Level 01

Status	Town Planning Submission
Scale	1 : 200 @ A1
Drawn	PG Checked PG

Drawing No. / Revision
TP_A02.B01 C

Melbourne 1 Nicholson Street
Melbourne VIC 3000 Australia

Sydney 43 Brisbane Street
Surry Hills NSW 2010 Australia

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Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

Wangaratta Street
25-43 Wangaratta St, Richmond

Key Plan
Basement Level 02

Status	Town Planning Submission
Scale	1 : 200 @ A1
Drawn	PG Checked PG
Project No.	M12107

Drawing no. TP_A02.B02 Revision C

Melbourne 1 Nicholson Street Melbourne VIC 3000 Australia

Sydney 43 Brisbane Street Surry Hills NSW 2010 Australia

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Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

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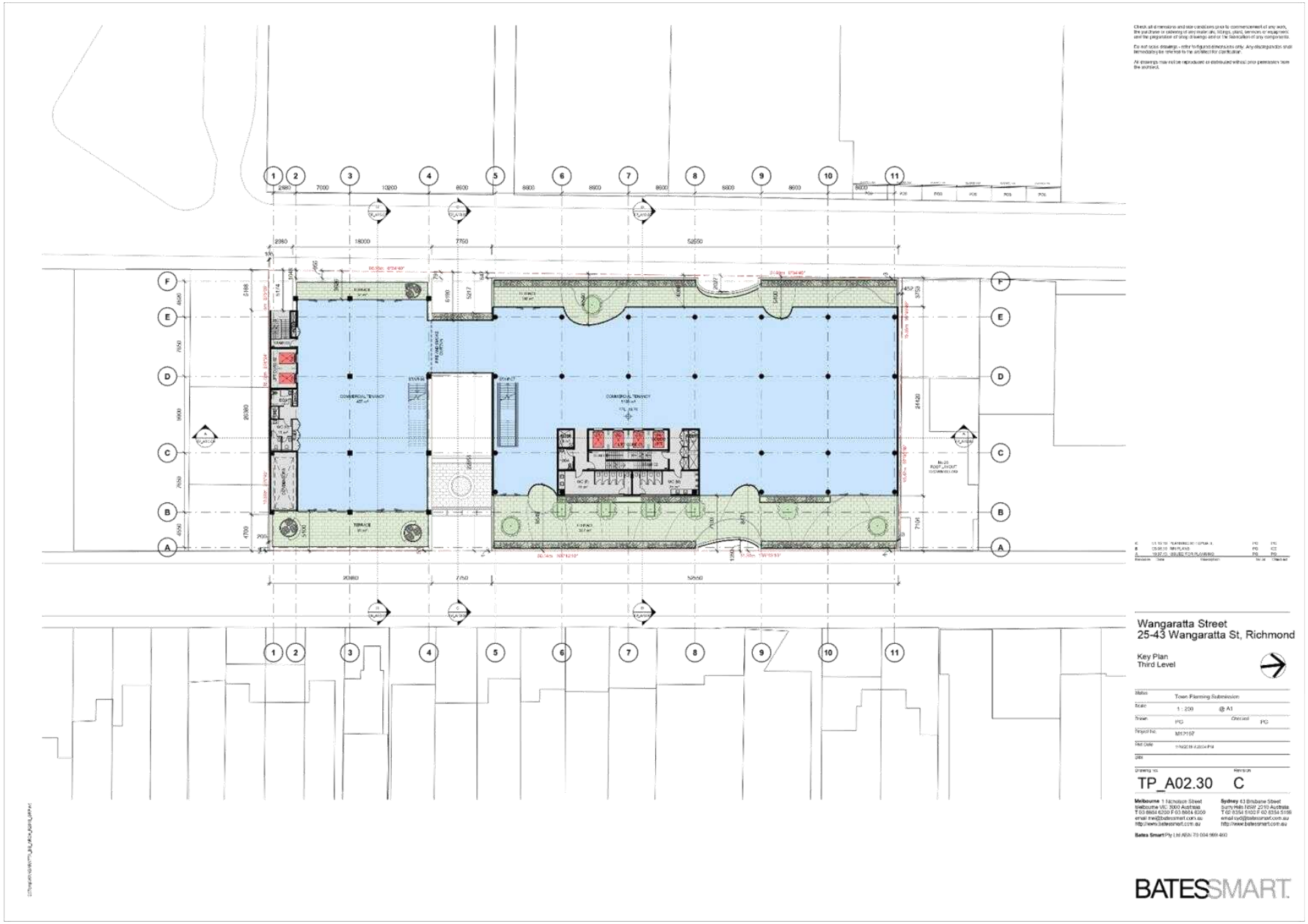

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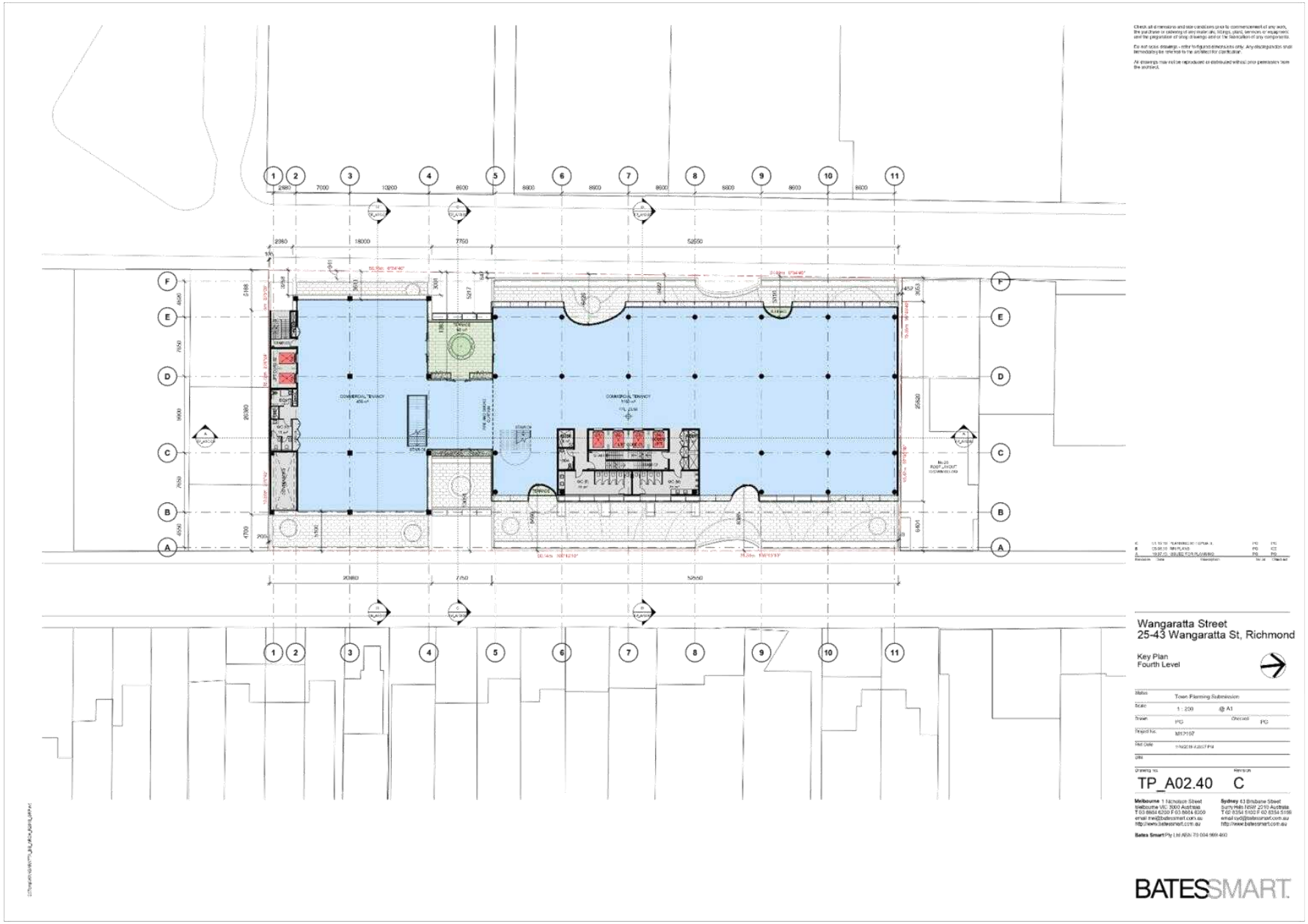

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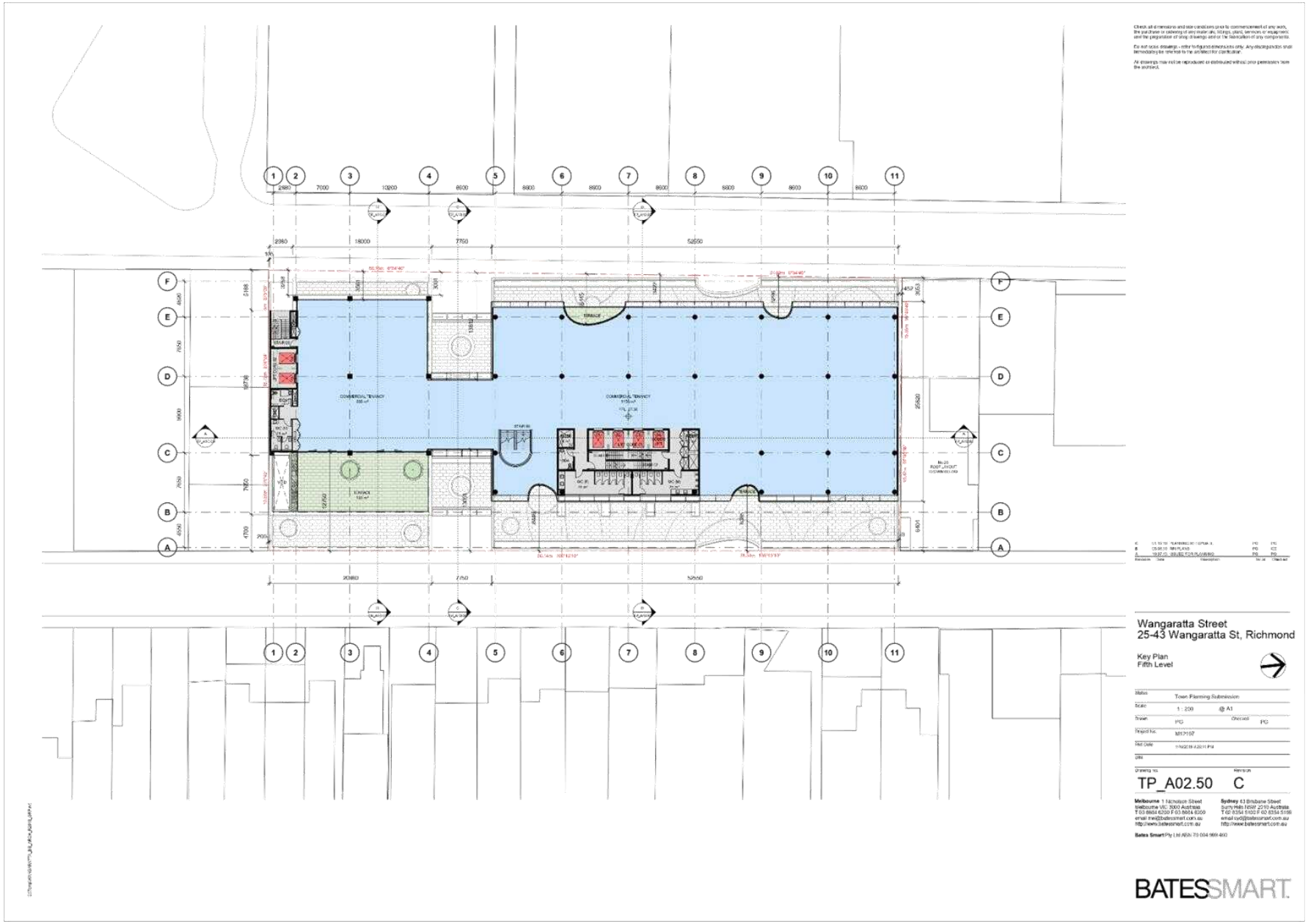

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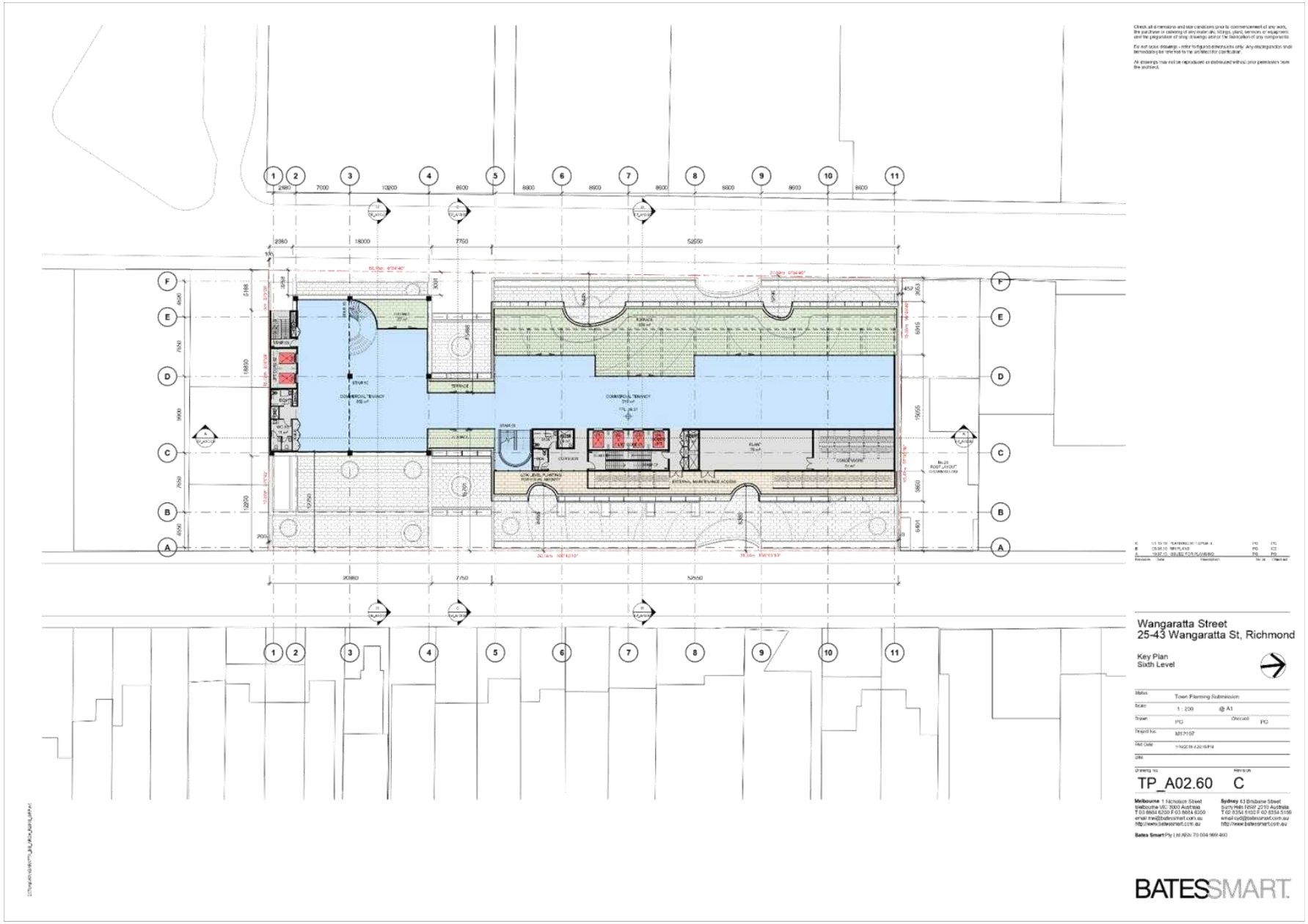

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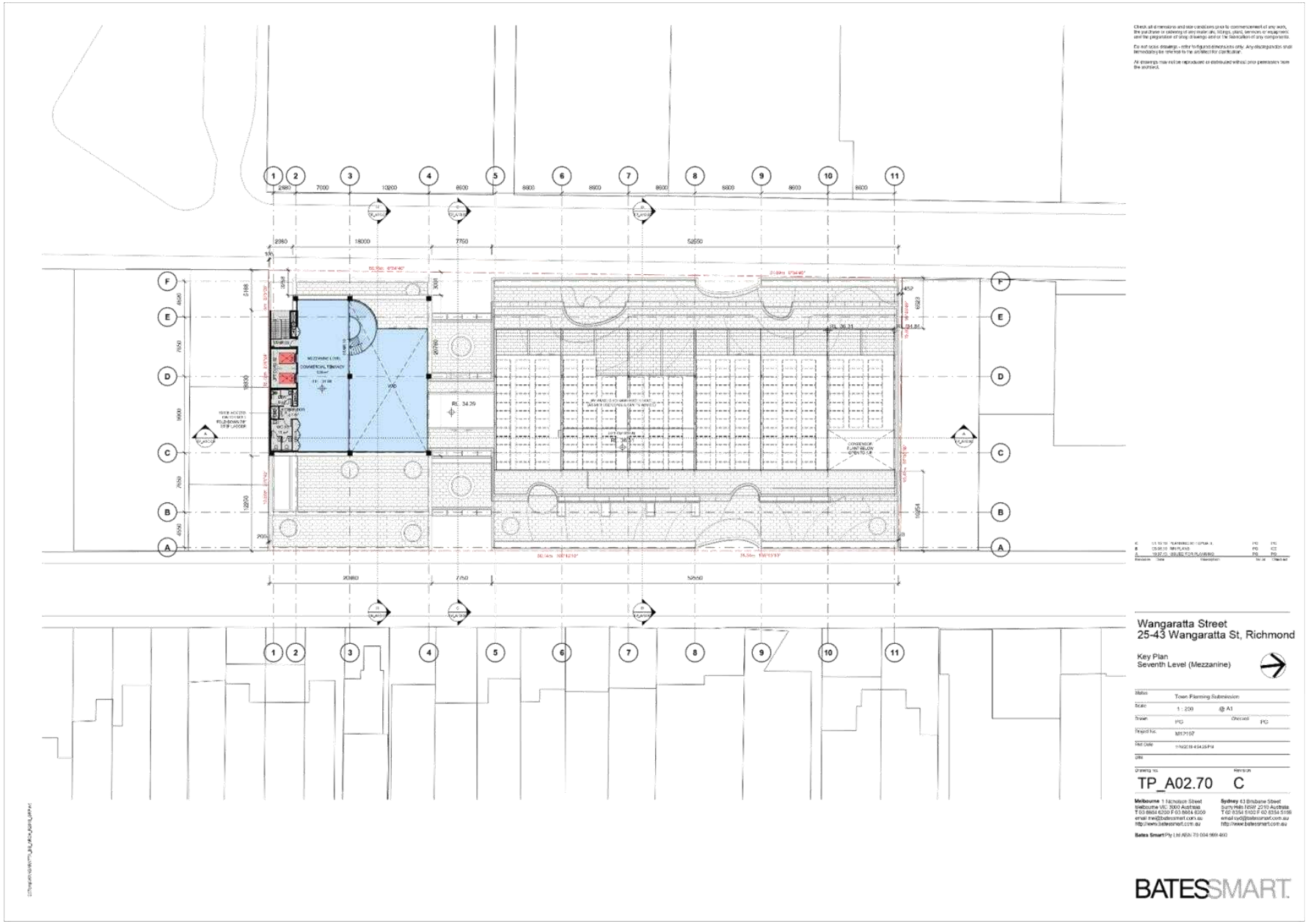

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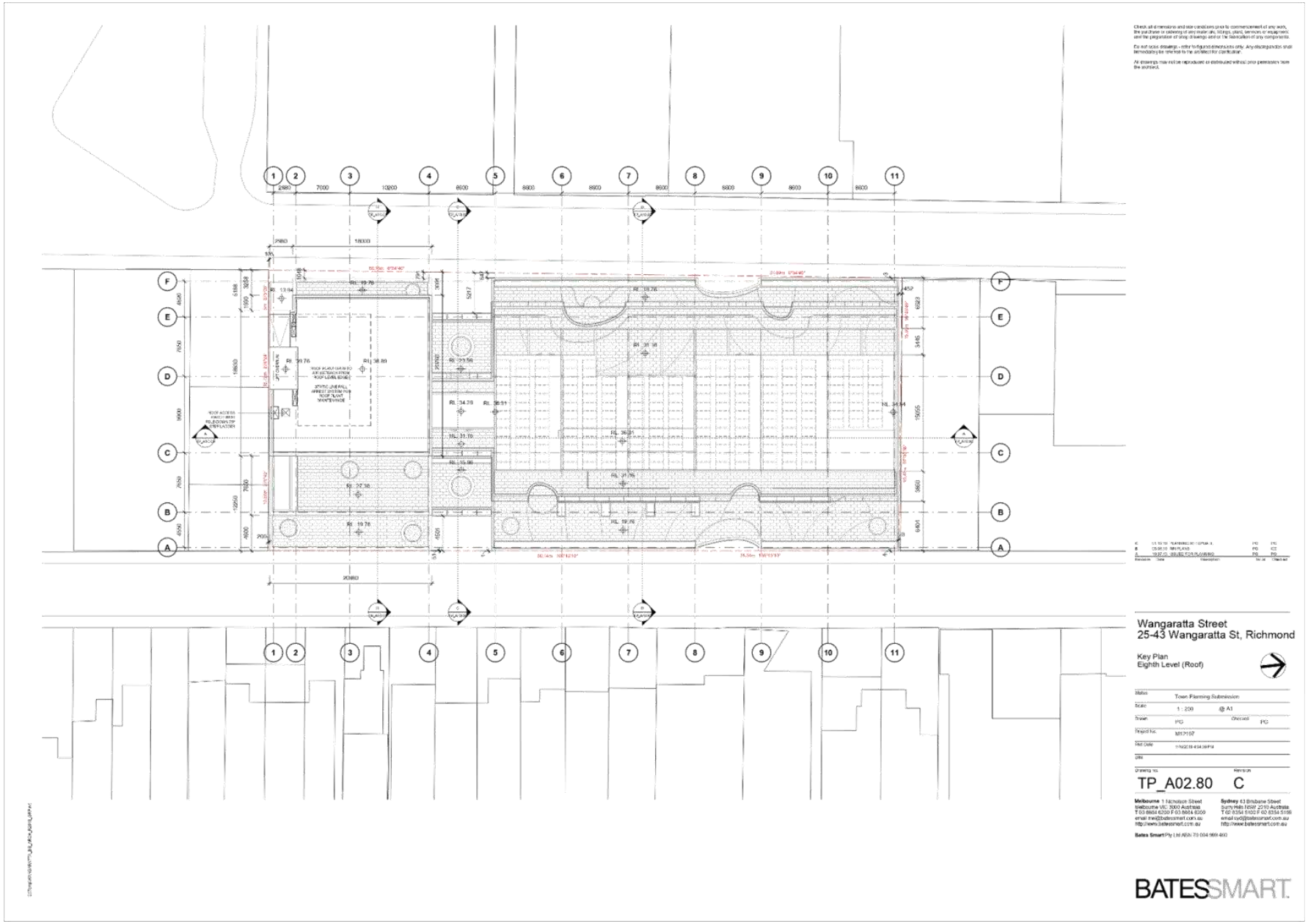
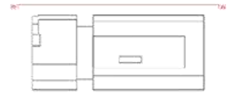
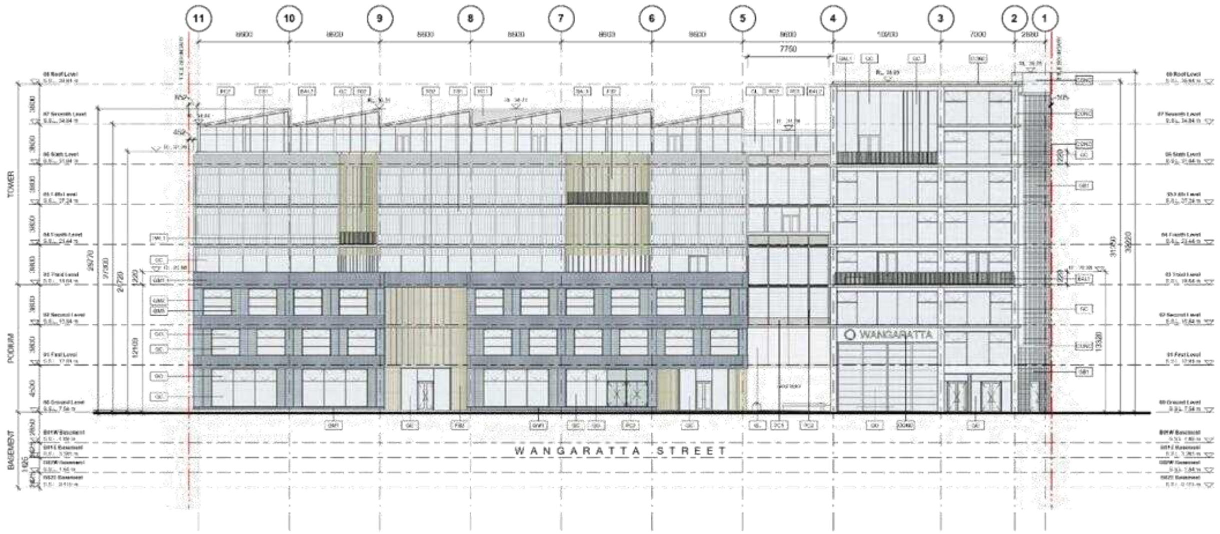


Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

KEY PLAN





LEGEND

BAL1	Fine steel balustrade
BAL2	Clear frameless glass balustrade
CONC	Off-form concrete (textured as annotated)
FB1	Masonry facade batten screen (cool colour palette)
FB2	Masonry facade batten screen (warm colour palette)
GB1	Clear glass block
GB2	Obscured glass block
GC	Clear fixed glazing
GL	Clear glass louvre
GM1	Glazed masonry (dark blue colour)
GM2	Glazed masonry (light blue colour)
GM3	Glazed masonry (dark green colour)
GO	Clear operable glazing
LVR1	Metal louvres
PC1	Powdercoat metal (dark grey colour)
PC2	Powdercoat metal (medium grey colour)
PC3	Powdercoat metal (light grey colour)
PM1	Perforated p/coat metal fold up panel

Wangaratta Street
25-43 Wangaratta St, Richmond

External Elevations
West Elevation

Status	Town Planning Submission		
Scale	1 : 200	@ A1	
Drawn	PG	Checked	PG
Project No.	M12107		
Plot Date			
ctbl			

Drawing no. TP_A09.00 Revision C

Melbourne 1 Nicholson Street
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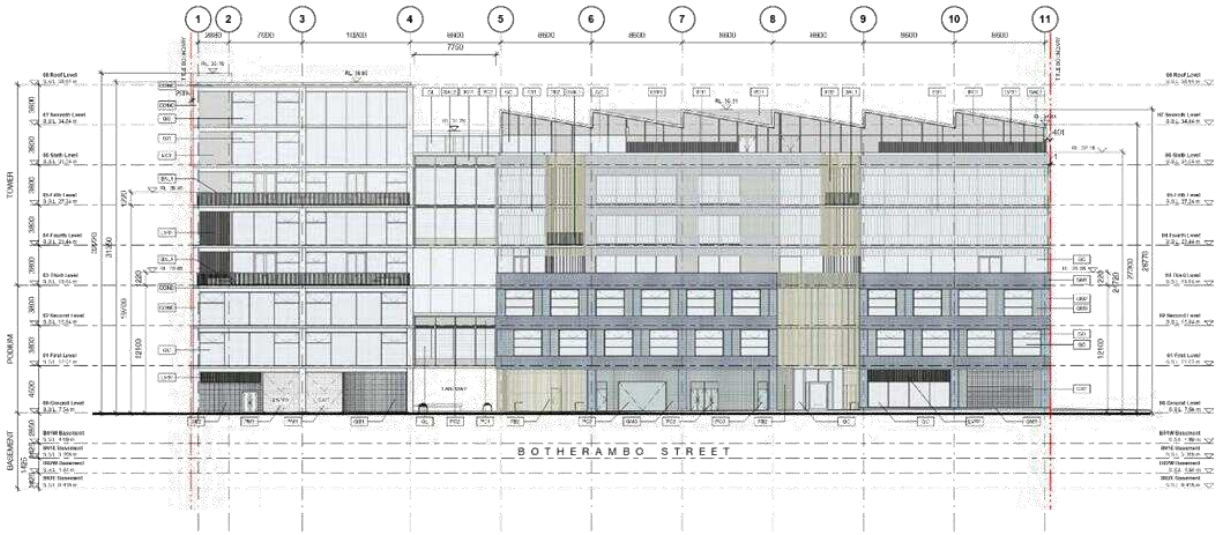
Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any material, fittings, plant, services or equipment, and the preparation of shop drawings and/or the fabrication of any components.

Do not scale drawings – refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

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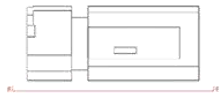
KEY PLAN



LEGEND

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PC2	Powdercoat metal (medium grey colour)
PC3	Powdercoat metal (light grey colour)
PM1	Perforated polycut metal fold up panel

Rev	Date	Description	Prepared	Checked
C	15.10.19	PLANNING SUBMISSION	PG	PG
B	09.08.19	S96 PLANS	PG	PG
A	19.07.19	ISSUED FOR PLANNING	PG	PG

Wangaratta Street
25-43 Wangaratta St, Richmond

External Elevations
East Elevation

Status	Town Planning Submission
Scale	1 : 200 @ A1
Drawn	PG Checked PG
Project No.	MR19107
Last Date	2/10/2019 10:57:44 AM
QRM	

Drawing No. TP_A09.01 Revision C

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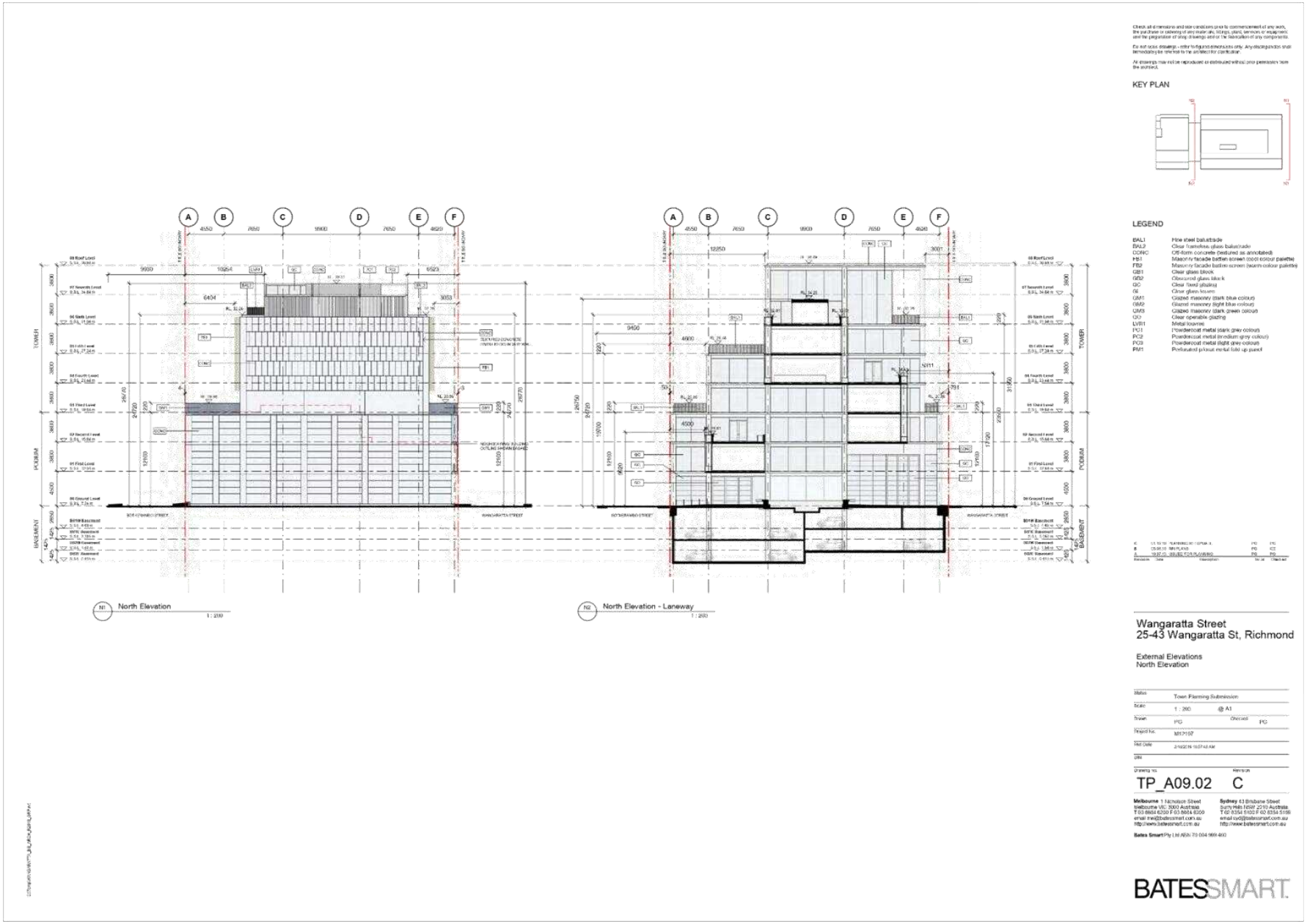
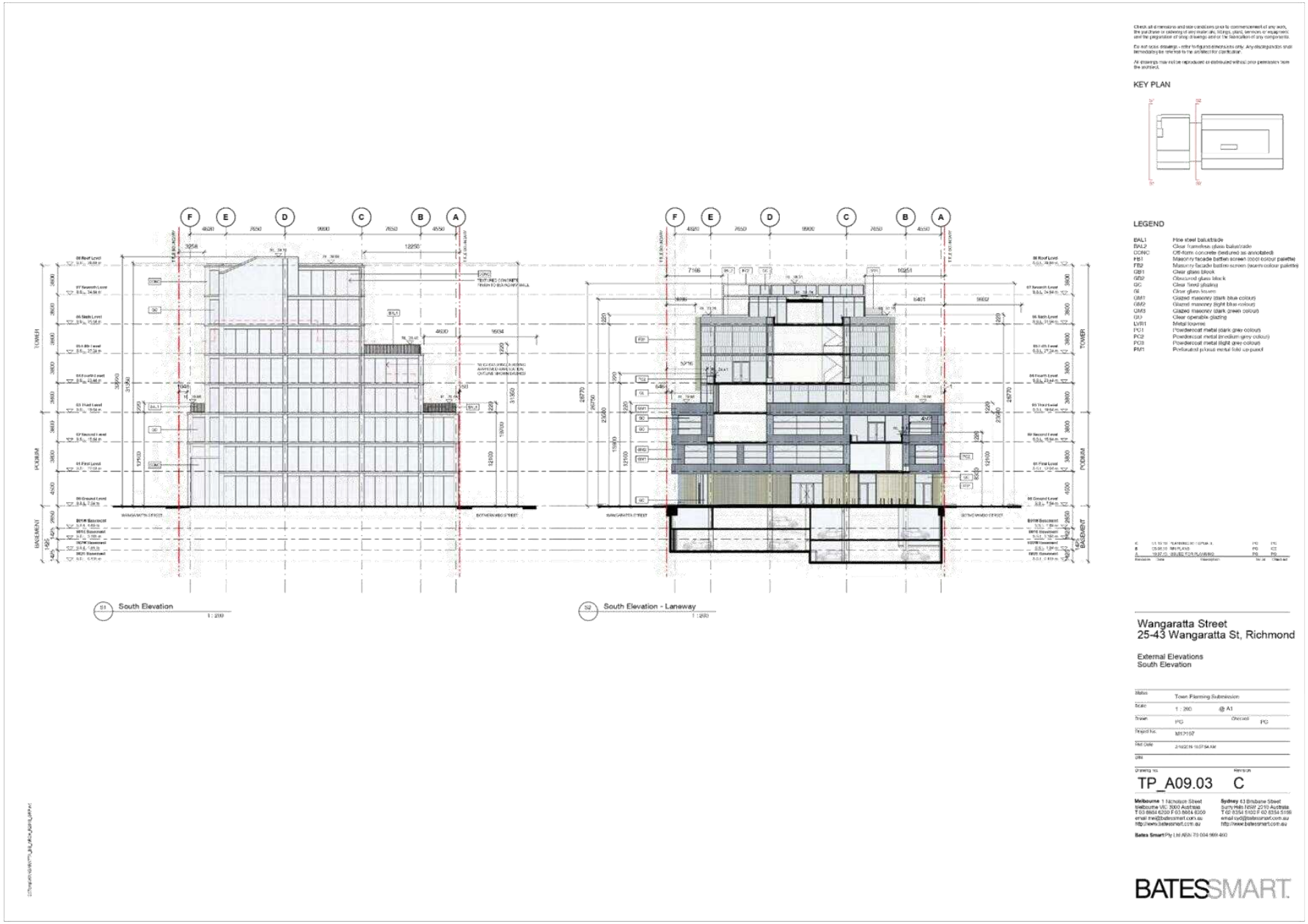
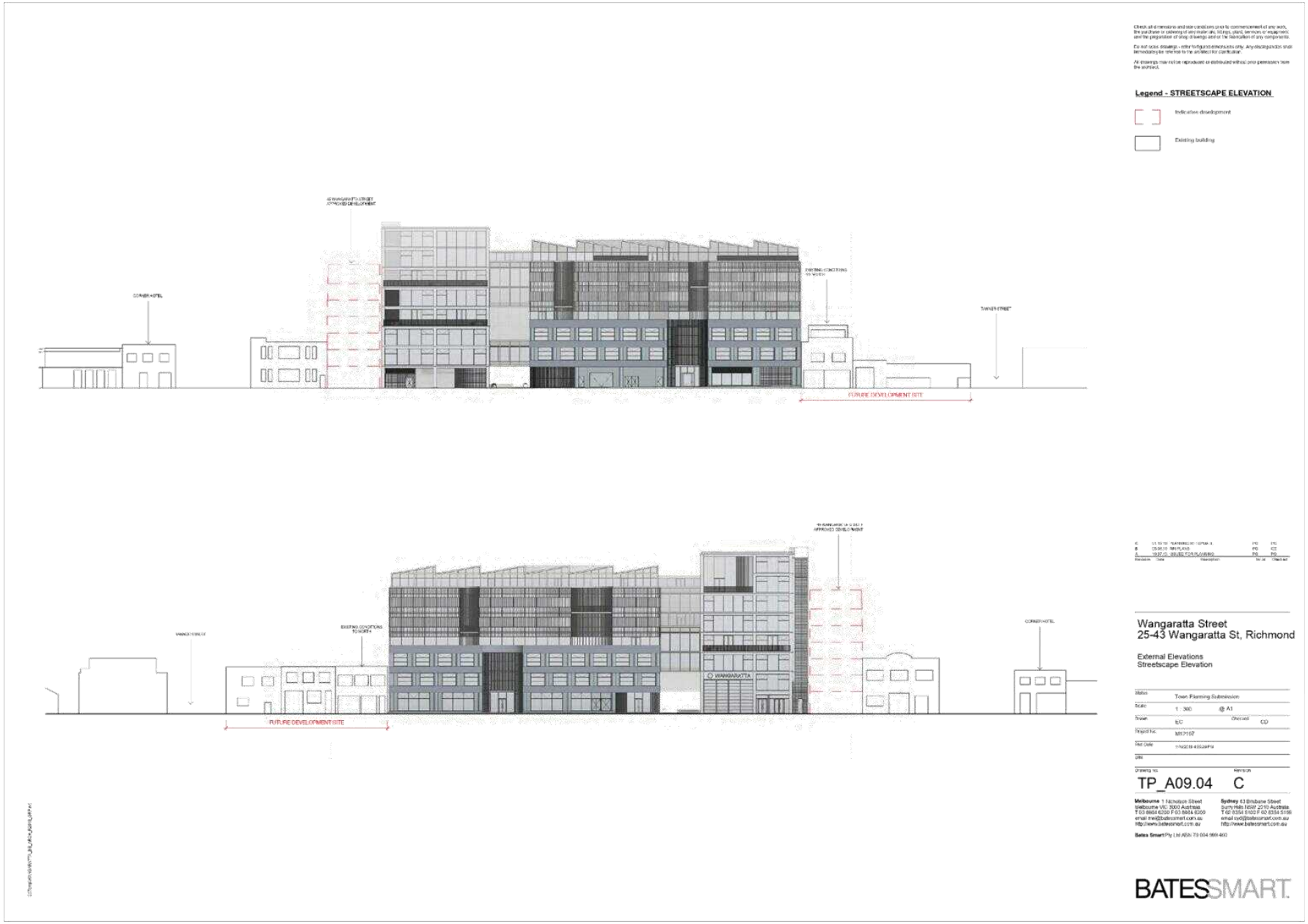
Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

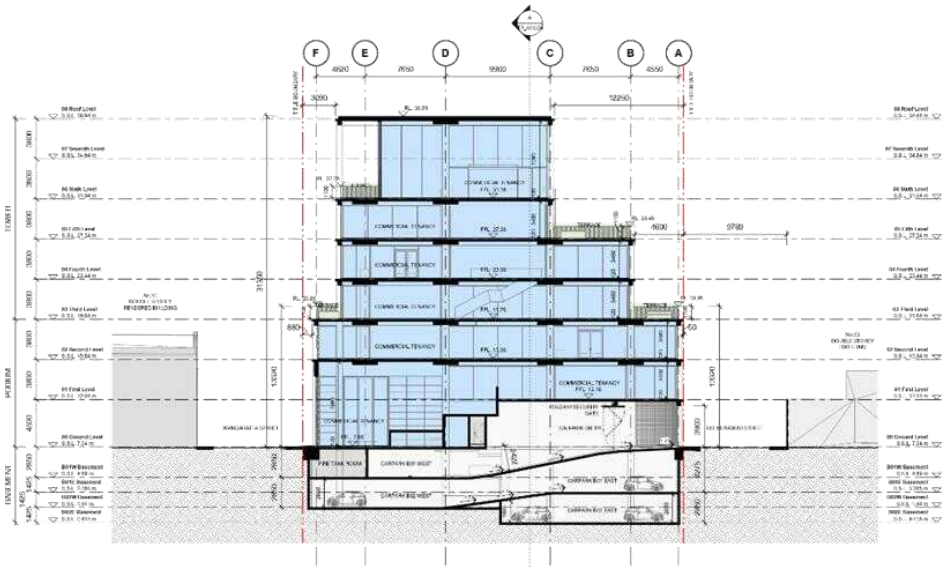


Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



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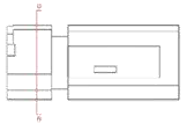
KEY PLAN



C	15.10.19	PLANNING SUBMISSION	PG
B	09.09.19	S57 PLANS	PG
A	19.07.19	ISSUED FOR PLANNING	PG
Revision	Date	Description	Int.

Wangaratta Street
25-43 Wangaratta St, Richmond

Building Sections
Section BB

Status	Town Planning Submission
Scale	1 : 200 @ A1
Drawn	PG Checked PG
Project No.	M191107
Last Date	21/10/2019 10:57:52 AM
DRN	
Drawing No.	TP_A10.01
Revision	C

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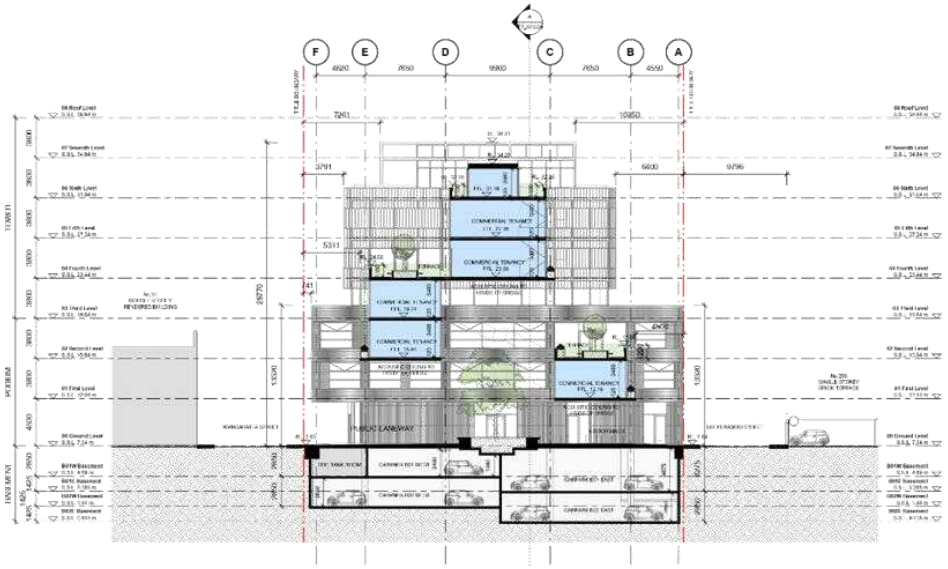
Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



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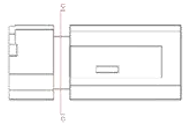

C	15.10.19 PLANNING SUBMISSION	PG	PG
B	09.08.19 S57 PLANS	PG	CC
A	19.07.19 ISSUED FOR PLANNING	PG	PG
Revision	Date	Description	Int.	Checked

Wangaratta Street
25-43 Wangaratta St, Richmond

Building Sections
Section CC

Status	Town Planning Submission		
Scale	1 : 200	@ A1	
Drawn	PG	Checked	PG
Project No.	M182107		
Last Date	2/10/2019 10:57:56 AM		
IRN			
Drawing No.	TP_A10.02	Revision	C

Melbourne 1 Nicholson Street Melbourne VIC 3000 Australia T 61 3 8650 6200 F 61 3 9654 6200 email melb@batessmart.com.au http://www.batessmart.com.au

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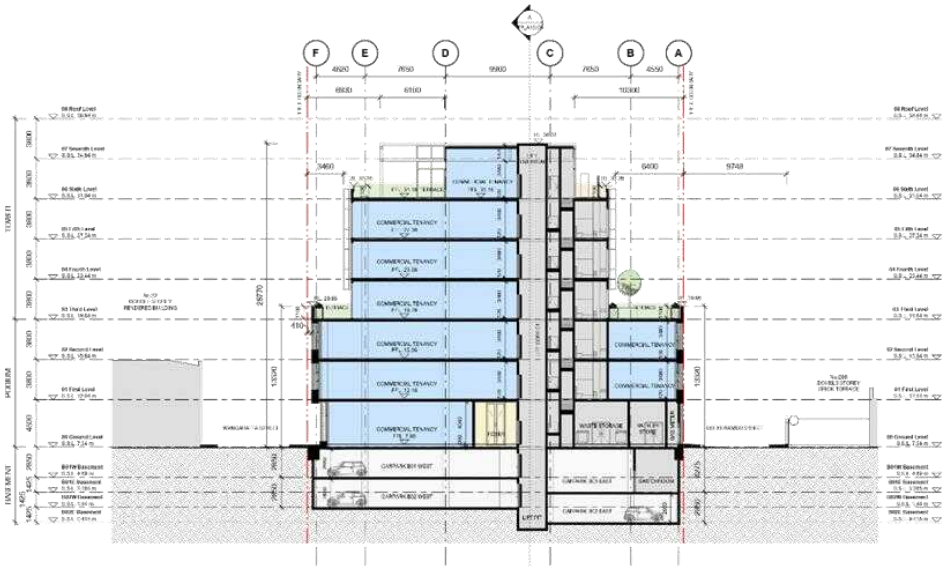
Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



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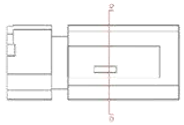

Wangaratta Street
25-43 Wangaratta St, Richmond

Building Sections
Section DD

Status	Town Planning Submission
Scale	1 : 200 @ A1
Drawn	PG Checked PG
Project No.	MR19107
Last Date	2/10/2019 10:57:56 AM
DRN	
Drawing No.	TP_A10.03
Revision	C

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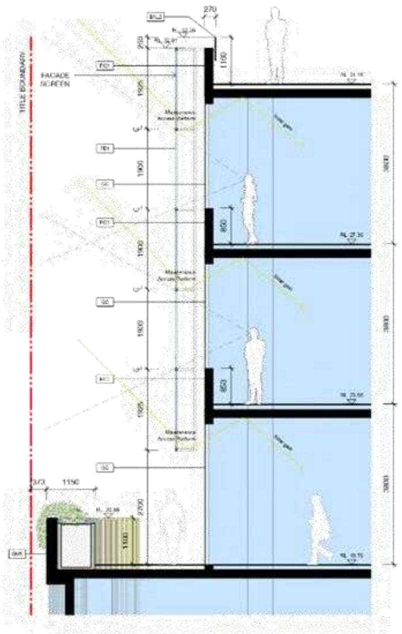
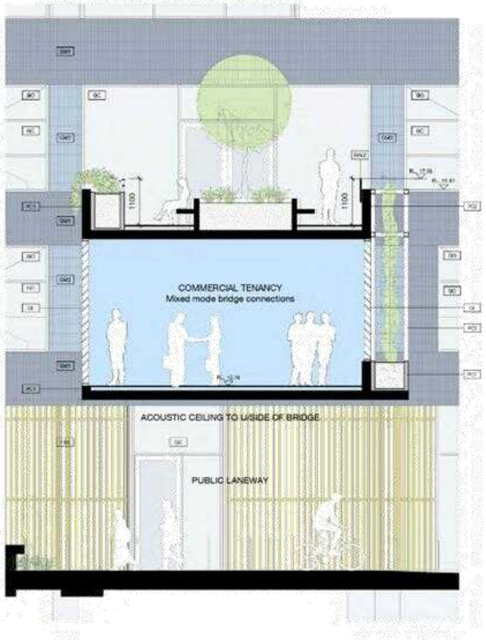
Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans



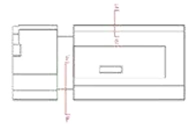
Facade Section - North Building Screen
1 : 50



Facade Section - Bridge Screen
1 : 50

Facade Screen Perspective

KEY PLAN



LEGEND

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PC3	Powdercoat metal (light grey colour)
PM1	Perforated p/coat metal fold up panel

Wangaratta Street
25-43 Wangaratta St, Richmond

Detail Sections
Facade Sections

Status	Town Planning Submission
Scale	1 : 50 @ A1
Drawn	PG Checked PG
Project No.	M12107

Drawing no. TP_A10.04 Revision C

Melbourne 1 Nicholson Street Melbourne VIC 3000 Australia
Sydney 43 Brisbane Street Surry Hills NSW 2010 Australia

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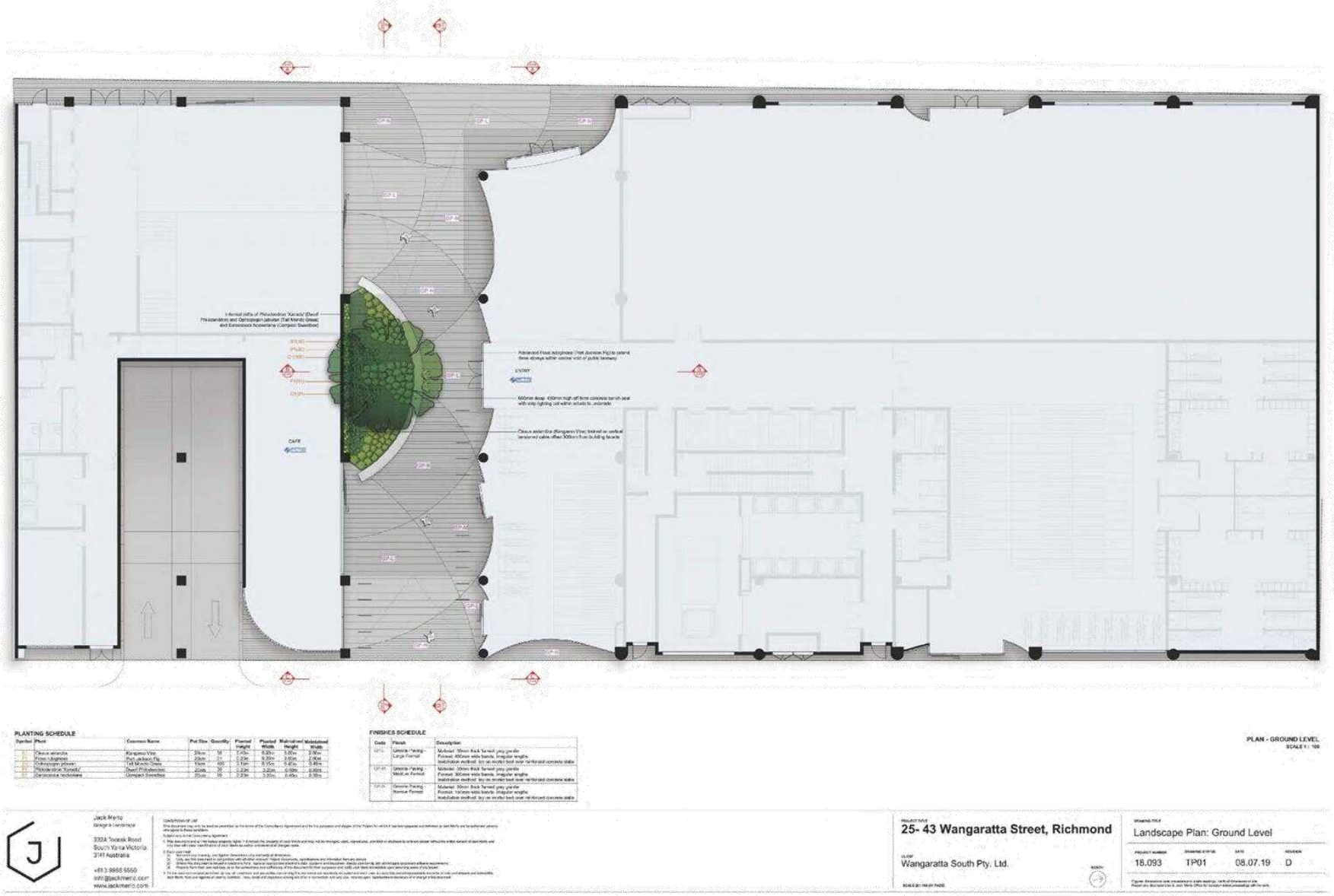
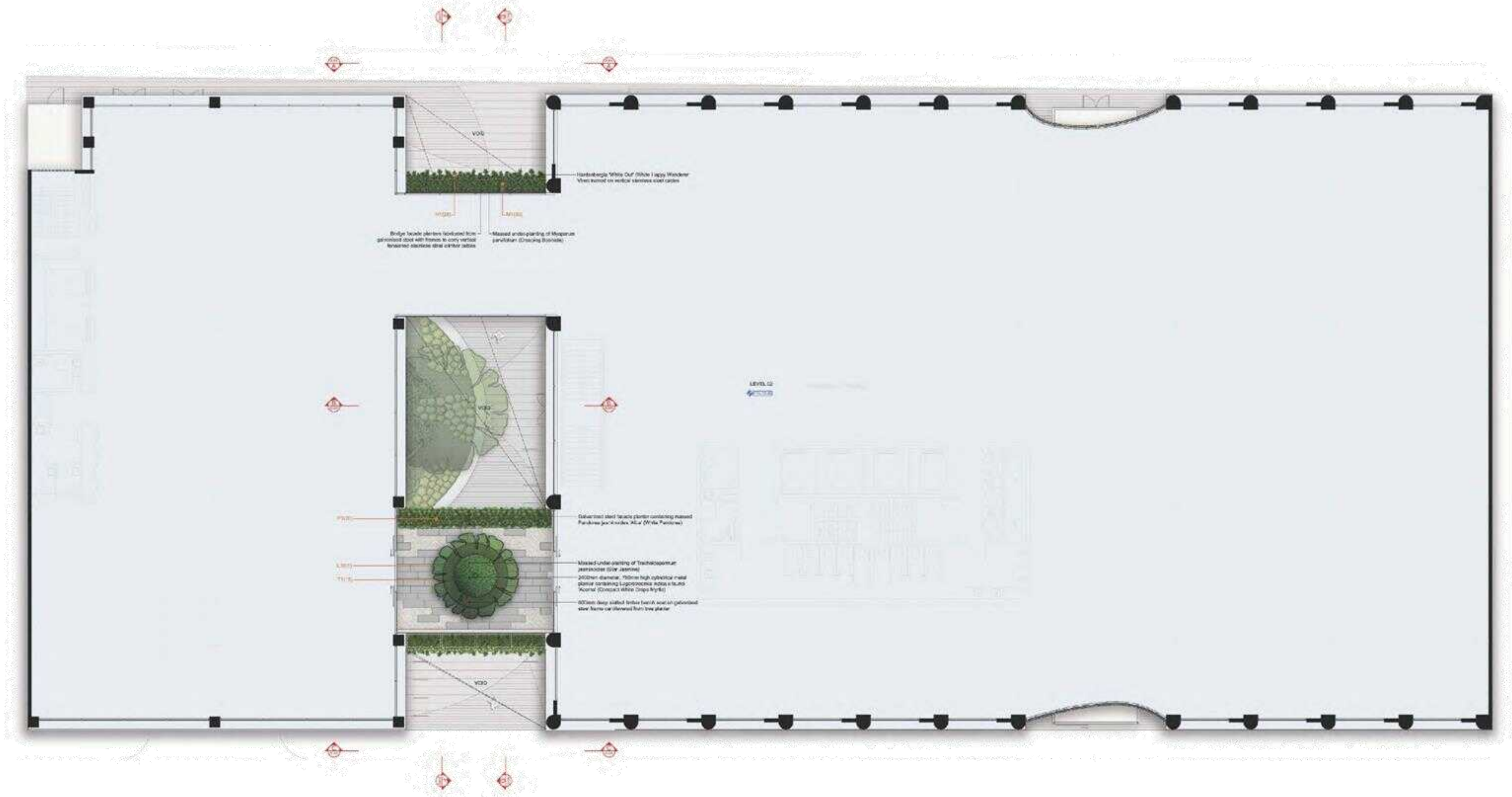
Attachment 2 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans

Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan

Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



PLAN - LEVEL 02
SCALE 1 : 100

PLANTING SCHEDULE

Symbol	Plant	Common Name	Pot Size	Quantity	Planted Height	Planted Width	Maintained Height	Maintained Width
	Lagerstroemia indica x L. fauriei 'Acoma'	Dwarf White Crepe Myrtle	200L	01	2.10m	1.50m	3.00m	3.00m
	Pandorea jasminoides 'Alba'	White Pandorea	20cm	[illegible]	0.40m	[illegible]	[illegible]	[illegible]
	Trachelospermum jasminoides	Star Jasmine	17cm	15	[illegible]	[illegible]	[illegible]	[illegible]

Jack Merlo
Design & Landscape

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3141 Australia

+61 3 9888 5550
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www.jackmerlo.com

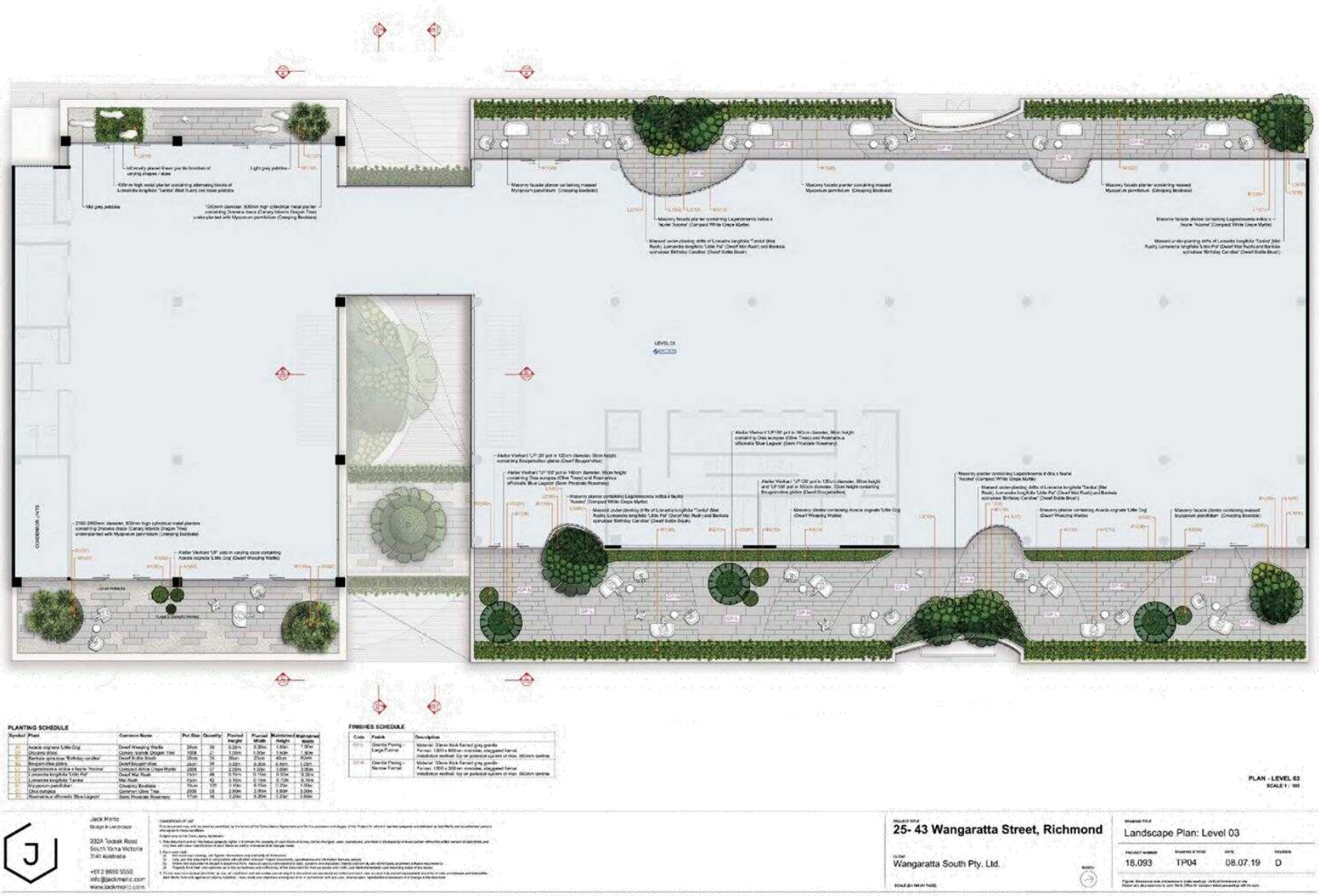
25- 43 Wangaratta Street, Richmond

Wangaratta South Pty. Ltd.

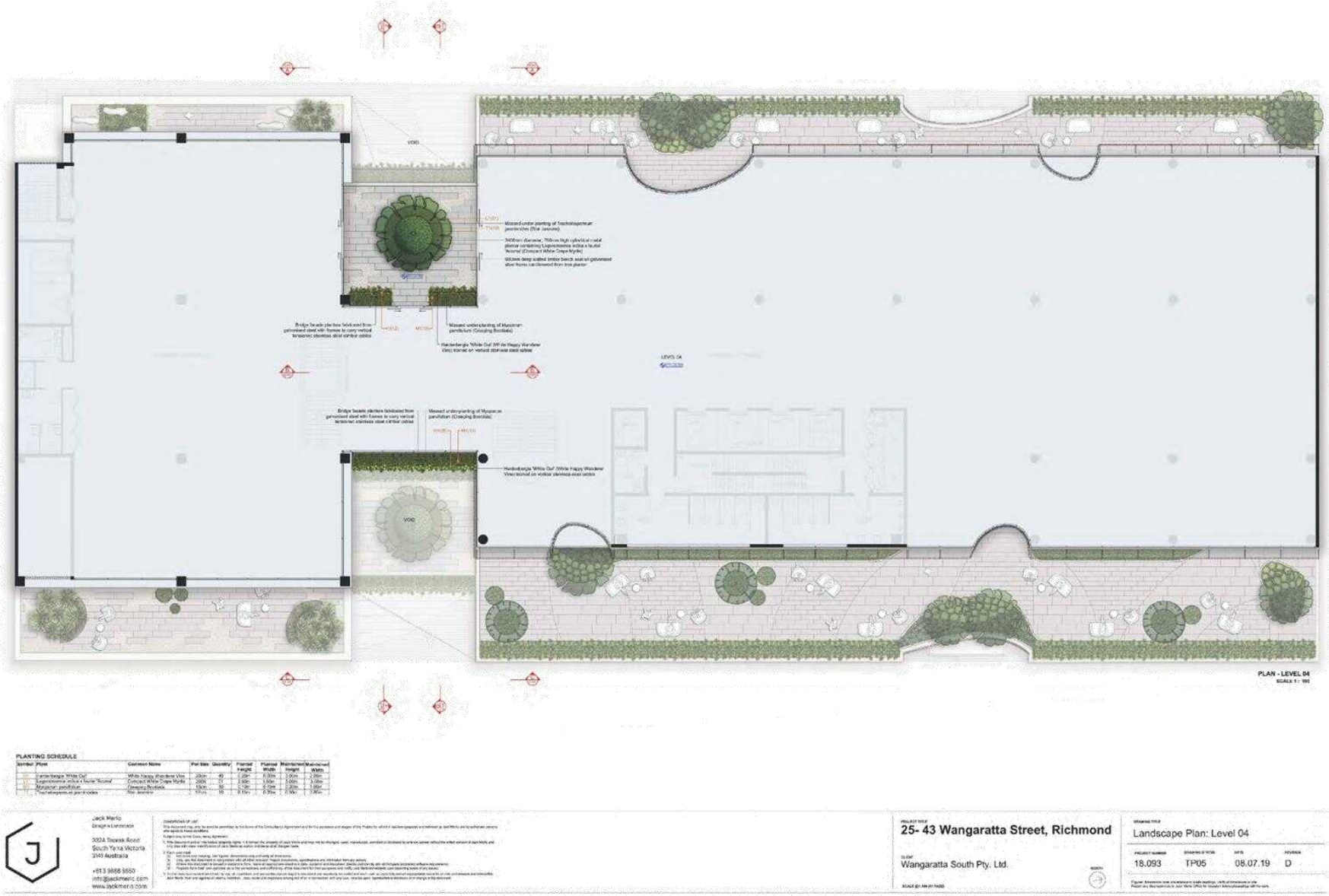
Landscape Plan: Level 02

Project Number	Drawing Status	Date	Revision
18.093	TP03	08.07.19	D

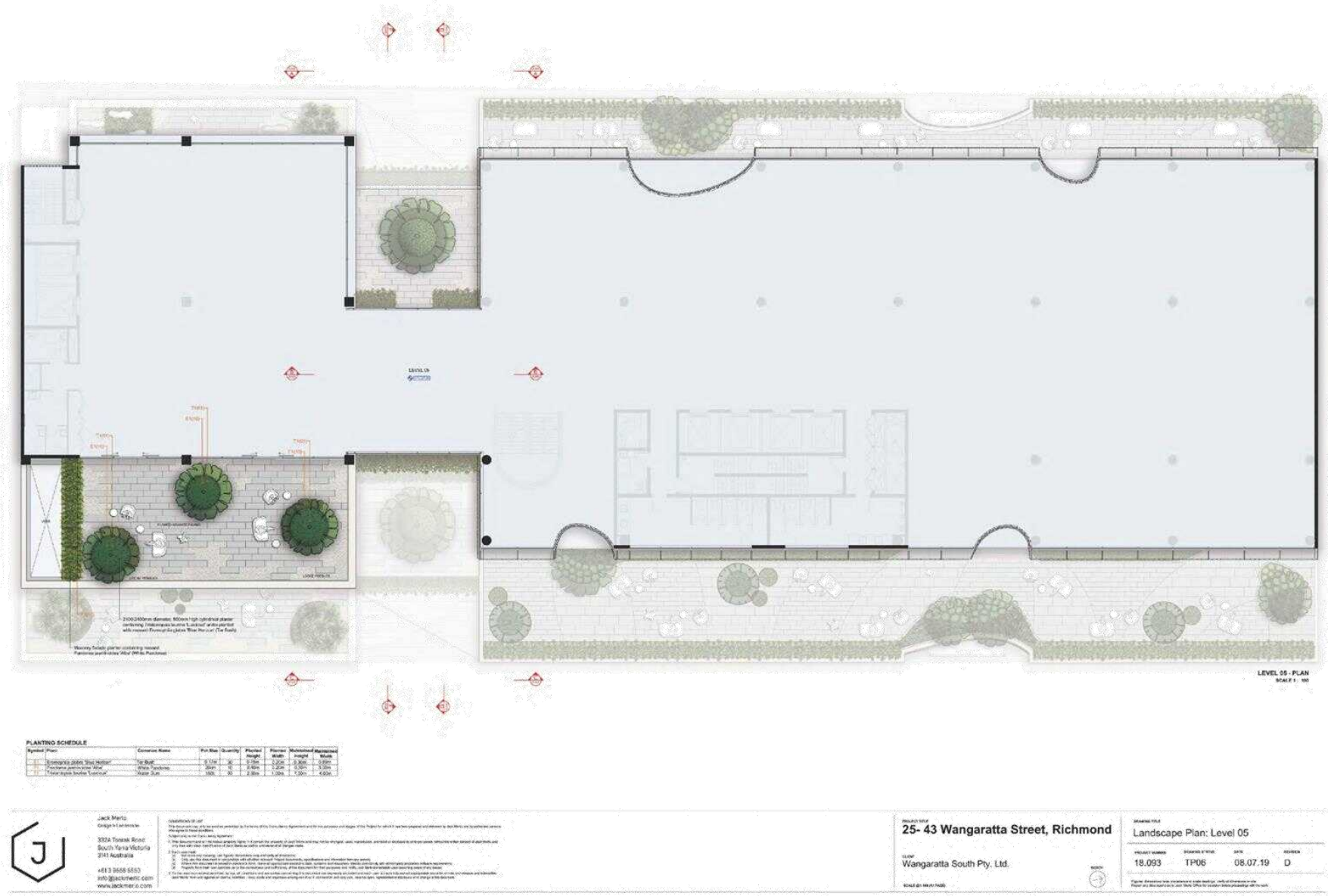
Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



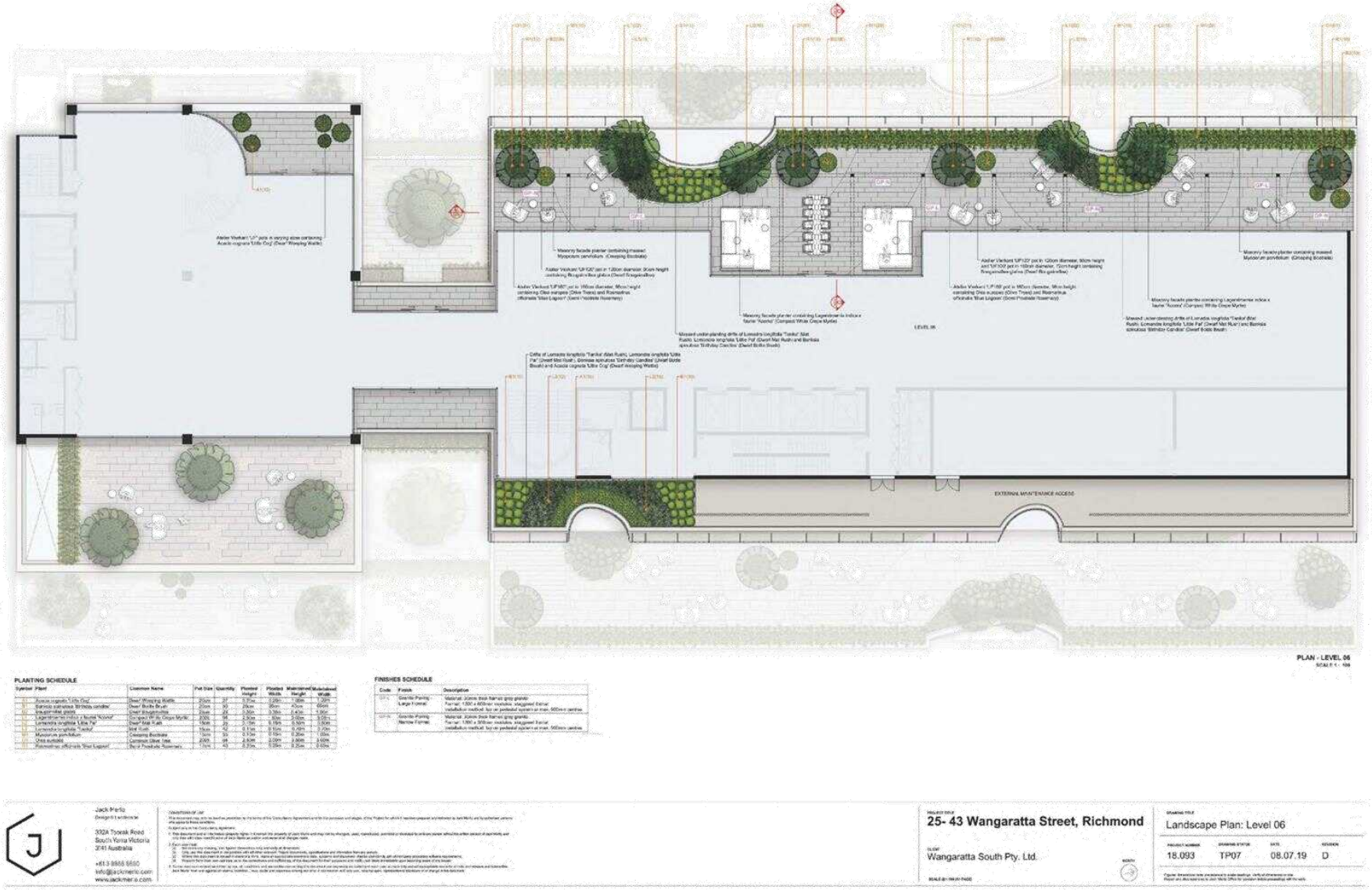
Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



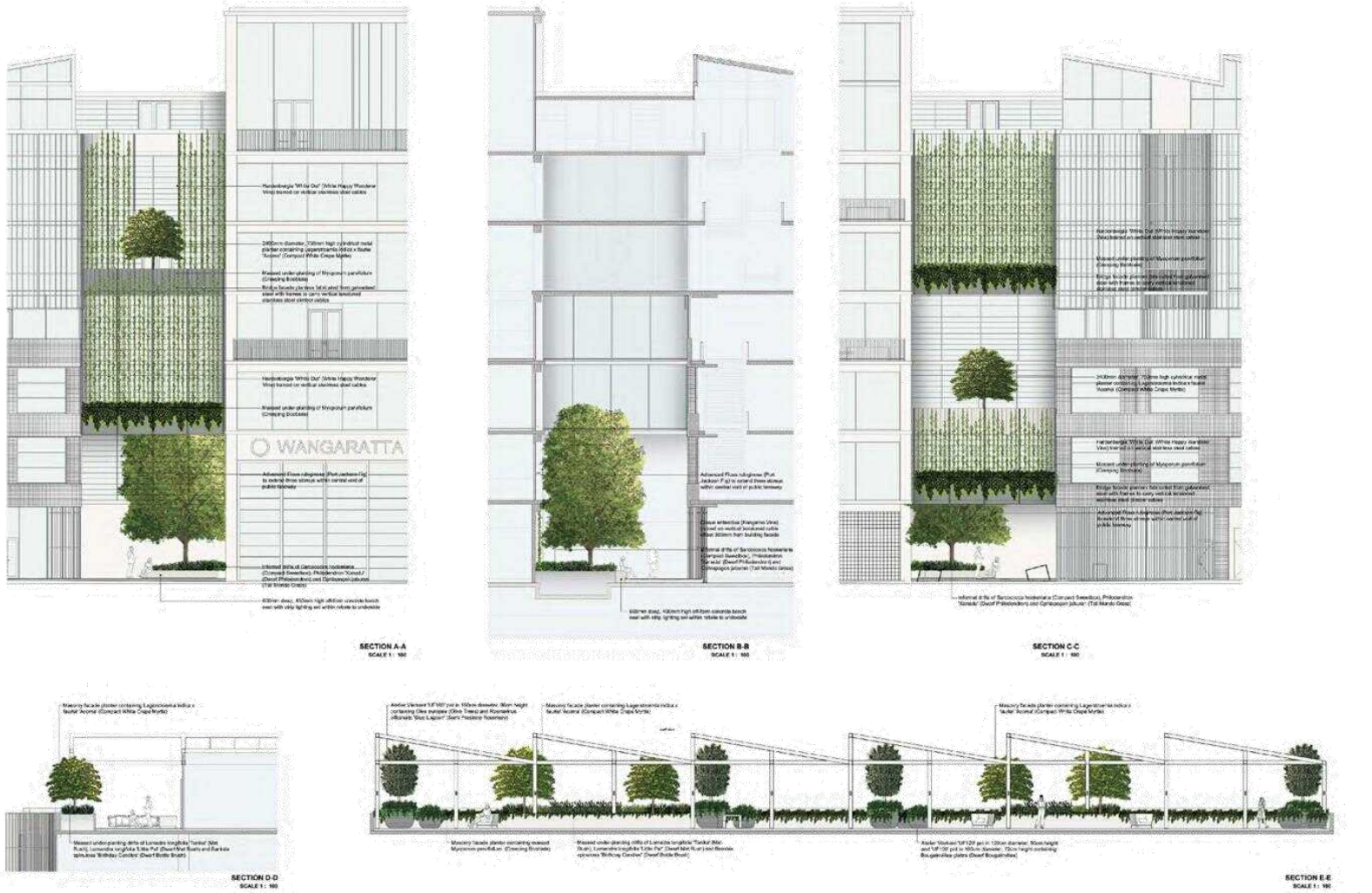
Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



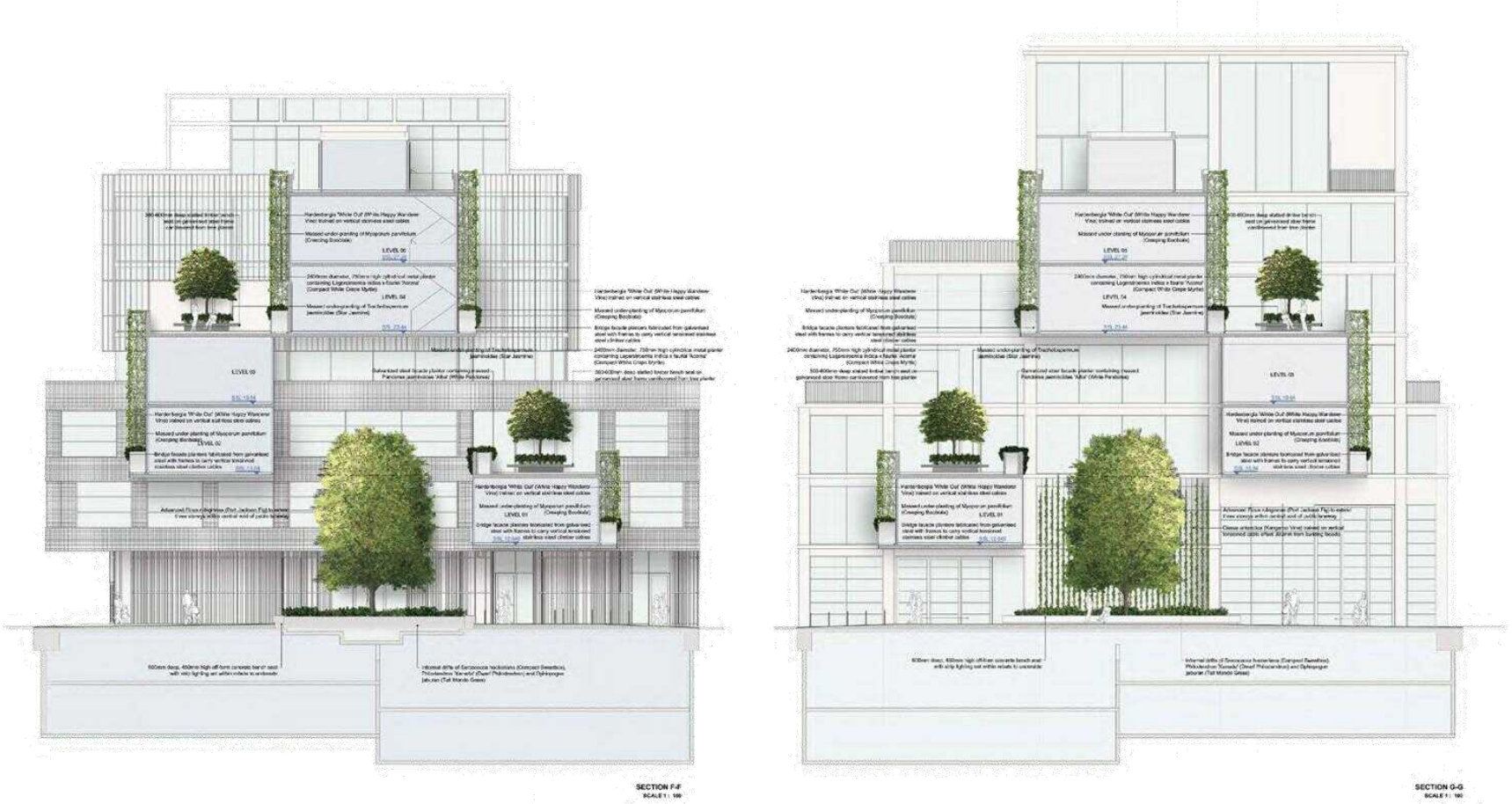
Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



Jack Merlo
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25- 43 Wangaratta Street, Richmond

Wangaratta South Pty. Ltd.

Landscape Sections FF & GG

PROJECT NUMBER	DRAWING STATUS	DATE	REVISION
18.093	TP09	08.07.19	D

Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan

C1 Cissus antarctica (Kangaroo Vine)
F1 Ficus rubiginosa (Port Jackson Fig)
O1 Ophiopogon jaburan (Tall Mondo Grass)
P1 Philodendron 'Xanadu' (Dwarf Philodendron)
S1 Sarcococca hookeriana (Compact Sweetbox)

25-43 Wangaratta Street, Richmond - Ground Level Plants (Laneway)

Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan

A1 Acacia cognata 'Little Cog' (Dwarf Weeping Wattle)
B1 Banksia spinulosa 'Birthday Candles' (Dwarf Bottle Brush)
B2 Bougainvillea glabra (Dwarf Bougainvillea)
H1 Hardenbergia 'White Out' (White Happy Wanderer Vine)
L1 Lagerstroemia indica x L. faurier 'Acoma' (Dwarf White Crepe Myrtle)
L2 Lomandra longifolia 'Little Pal' (Dwarf Mat Rush)
L3 Lomandra longifolia 'Tanika' (Mat Rush)
M1 Myoporum parvifolium (Creeping Boobiala)
O1 Olea europea (Common Olive Tree)
P1 Pandorea jasminoides 'Alba' (White Pandorea)
T1 Trachelospermum jasminoides (Star Jasmine)
R1 Rosmarinus Officinalis 'Blue Lagoon' (Semi Prostrate Rosemary)

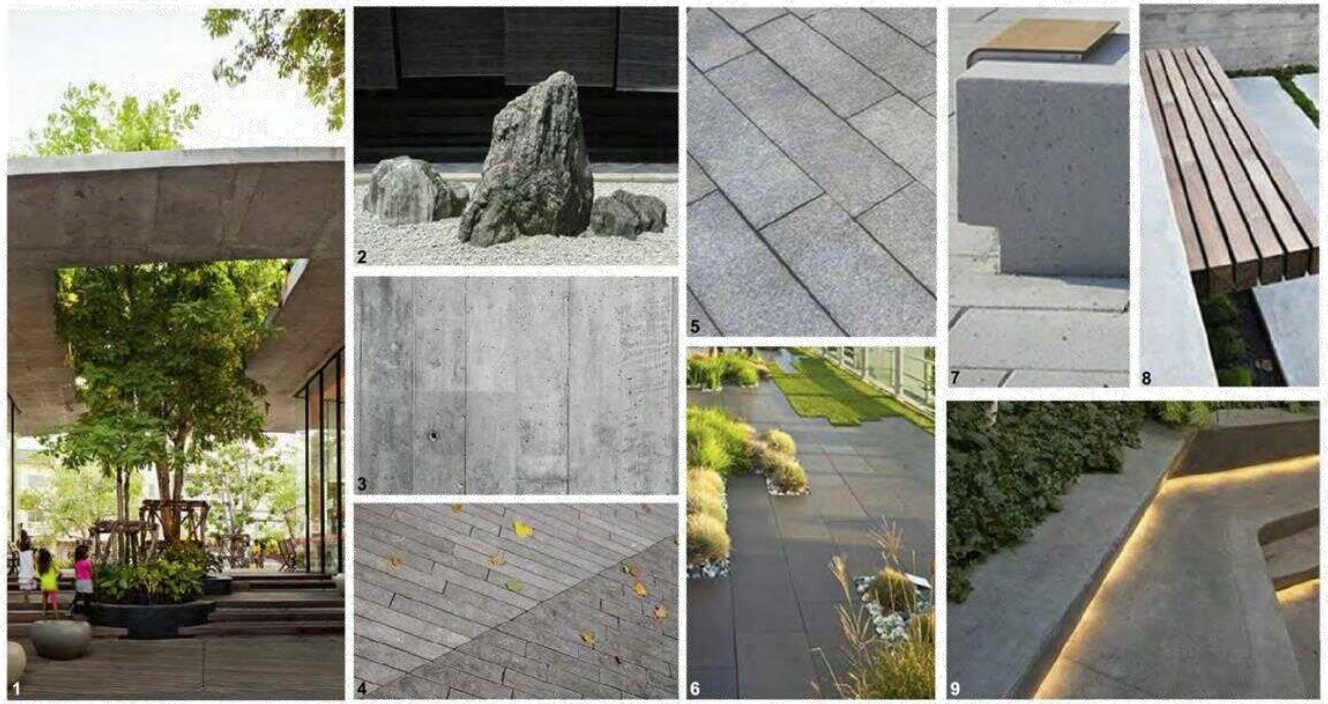
25-43 Wangaratta Street, Richmond - Upper Level Plants (Bridges and North Building)

Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan

A1 Acacia cognata 'Little Cog' (Dwarf Weeping Wattle)
D1 Dracenoa draco (Canary Islands Dragon Tree)
E1 Eremophila glabra 'Blue Horizon' (Tar Bush)
L3 Lomandra longifolia 'Tanika' (Mat Rush)
M1 Myoporum parvifolium (Creeping Boobiala)
P1 Pandorea jasminoides 'Alba' (White Pandorea)
T1 Tristaniopsis Laurina 'Luscious' (Water Gum)

25-43 Wangaratta Street, Richmond - Upper Level Plants (South Building)

Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan



1 Planting Concept
2 Granite Boulders
3 Off- form Concrete
4 Granite Paving - Narrow Format
5 Granite Paving - Large Format
6 Jaggered Paving
7 Off- form Concrete Bench Seat Profile
8 Cantilevered Timber Seating
9 Off- form Concrete Bench Seating

25-43 Wangaratta Street, Richmond - Hard Landscape Reference Images

Attachment 3 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan

1 Indicative Green Facade
2 Vertical Climber Cables
3 Metal Planters

25-43 Wangaratta Street, Richmond - Hard Landscape Reference Images

Attachment 4 - PLN19/0483 - 25-43 Wangaratta Street Richmond - S55 Head, Transport for Victoria referral response

Department of Transport

GPO Box 2392
Melbourne, VIC 3001 Australia
Telephone: +61 3 9651 9999
www.transport.vic.gov.au
DX 201292

File: FOL/19/0512
Ref: HTFV2019/0512

Michelle King
Acting Principal Planner
City of Yara

michelle.king@yarracity.vic.gov.au

Dear Ms King

YARRA PLANNING SCHEME
PLANNING APPLICATION NO: PLN19/0483
PROPOSAL: OFFICE DEVELOPMENT
ADDRESS: 25-43 WANGARATTA STREET RICHMOND

Thank you for your email dated 21st October 2019 referring the above amended application to the Head, Transport for Victoria pursuant to Section 55 of the *Planning and Environment Act 1987*.

The Head, Transport for Victoria, pursuant to Section 56(1) of the *Planning and Environment Act 1987* **does not object** to the grant of a planning permit.

Should you require any further clarification, please feel free to contact myself on telephone 03 8392 7984 or email james.noy@ecodev.vic.gov.au.

Yours sincerely

JAMES NOY
Senior Statutory Planner (Public Transport)
Delegate of the Head, Transport for Victoria

16 / 12 / 19

cc:

VICTORIA State Government

Attachment 5 - PLN19/0483 - 24-43 Wangaratta Street Richmond - Open Space referral response

Memo

To:	**Michelle King**
Cc:	
From:	**Julia Mardjuki**
Date:	**22 October 2019**
Subject:	**PLN19/0483 25-43 Wangaratta Street, Richmond**

Dear Michelle

I have reviewed the landscape plans from Jack Merlo Design and Landscape dated 8 July 2019 for the development at 25-43 Wangaratta Street, Richmond.

I am supportive of the overall concept, I think having vertical green elements incorporated within the design is beneficial to the amenity of the development and is a good alternative greening measure for Cremorne, especially in regards to the provision of tree planting and canopy.

The laneway proposed between the buildings will also be beneficial for permeability through the area.

We require information on these items:

- On level 3, the terrace on the western side of the south building shows doors opening onto a planter bed. Is this an intentional design feature? The planting proposed would be compromised if traversed upon, can the doors be moved or the planter be modified so access is not blocked?
- The loose pebbles specified on some of the ground surfaces of the higher levels could pose a risk if thrown off the building. The material aligns with the aesthetic and design intent of those terraces, I think it is fine as long as any liability is with the developer or Body Corporate, not with Council.
- How will the planter bed on level 6 eastern terrace be accessed for maintenance?
- Will any vertical planting be incorporated on the sawtooth roof feature on the level 6 eastern terrace?

If a planning permit is issued for the development, we will require the following information be provided:

- A typical planter bed detail, including information on waterproofing, growing media, irrigation and mulch. Ensure any mulch specified on the higher levels will not be at risk of blowing away during high wind events.
- Indicate depths of the masonry planters where they have not been specified on the current plans.
- Details of custom furniture proposed, ensuring safety and compliance standards are met.
- The specification of works to be undertaken prior to planting.
- Maintenance schedules and notes, including how any plant failure will be managed.

Attachment 5 - PLN19/0483 - 24-43 Wangaratta Street Richmond - Open Space referral response

Please ensure all plants proposed are not on the list of the DELWP *Advisory List of Environmental Weeds in Victoria*.

If you require any clarification on these comments, please feel free to contact me.

Sincerely

Julia Mardjuki

Open Space Planning and Design

Attachment 6 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Streetscapes and Natural Values referral response

King, Michelle

From: Whitten, Paul
Sent: Friday, 11 October 2019 8:45 AM
To: King, Michelle
Cc: Williames, Glen
Subject: RE: PLN19/0483 - 25 – 43 Wangaratta Street, Richmond - Urban Design / Streetscapes / Open Space referral

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Michelle,

I have reviewed the plans and note that there are 2 existing street trees on the west side of Wangaratta Street.

These trees will require a tree management plan and a bond placed on them as part of the CMP.

Kind regards,

Paul Whitten
Arborist
Streetscapes and Natural Values

PO BOX 168 Richmond VIC 3121
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M 0427 426 224
E paul.whitten@yarracity.vic.gov.au
W yarracity.vic.gov.au
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Attachment 7 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Internal Urban Design referral response

MEMO

To: Michelle King (Statutory Planning)

From: Daniel Perrone (Urban Design)

Date: 31 October 2019

Site address: 25 - 43 Wangaratta Street, Richmond

Application No: PLN19/0483

Description: DEMOLITION OF THE EXISTING BUILDINGS FOR THE DEVELOPMENT OF THE LAND TO CONSTRUCT TWO CONNECTED BUILDINGS (SEVEN AND EIGHT STOREYS PLUS BASEMENT LEVELS) FOR USE AS AN OFFICE WITH A GROUND FLOOR FOOD AND DRINKS PREMISES (CAFÉ) (PERMIT REQUIRED FOR OFFICE USE ONLY, UNRESTRICTED HOURS PROPOSED) AND REDUCTION IN THE CAR PARKING REQUIREMENTS.

Urban Design comments have been sought on the following matters:

- Streetscapes and public realm
- Whether there are any capital works approved or proposed within the area of the subject site.

The comments provided below are based on the following advertised drawings:

- D19 190009 PLN19 0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Plans
- D19 190008 PLN19 0483 - 25-43 Wangaratta Street Richmond - S52 Advertised Landscape Plan

The extent of this review is limited to the proposed development's integration with the streetscape and public realm and excludes landscaping within the building and rooftop landscapes

---

Details required on drawings

The following details are required on the drawings:

- Existing on-street parking – refer to diagram below illustrating existing parking bays. Ensure all existing parking bays are noted within documentation.
- Any existing vehicle crossovers to be removed/reconfigured as a result of the development.
- Locations of existing street trees on the western side of Wangaratta Street.
- Any reconfiguration of on-street parking bays to be shown

These details may be captured on a proposed site plan/streetscape improvement plan. Additional details required on the drawings are set out in the relevant sections below.

Attachment 7 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Internal Urban Design referral response

MEMO

On-street parking

Ensure all existing on-street parking is noted within documentation. Refer to diagram below illustrating existing parking bays on Botherambo Street.

Some reconfiguration of on-street parking on Botherambo Street may be required as a result of new vehicle crossovers as well as the removal of redundant ones. Additionally, it would be undesirable to allow parallel parking immediately in-front adjacent the east-west pedestrian link. Therefore, it is recommended that the parking on the western side of Botherambo Street is rationalised and converted to marked parking bays to allow for the planting of street trees to Botherambo Street – refer to Street Trees section below and attached mark-up.

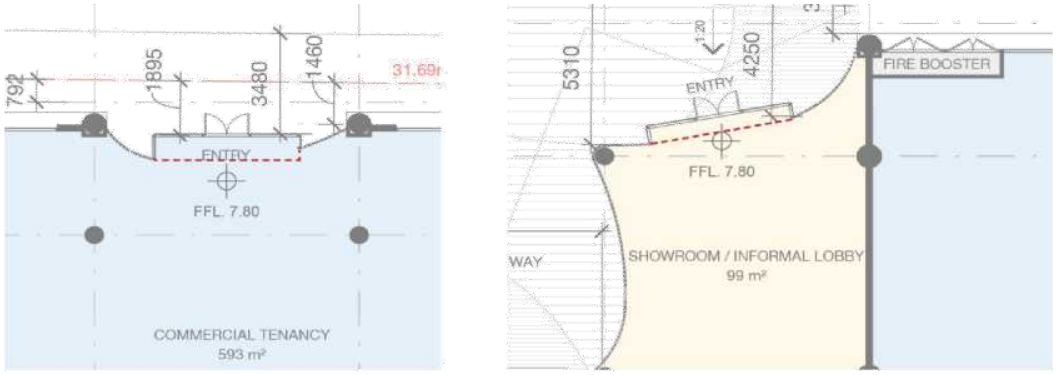
All proposed on-street parking bay dimensions are to comply with AS 2890.5-1993.

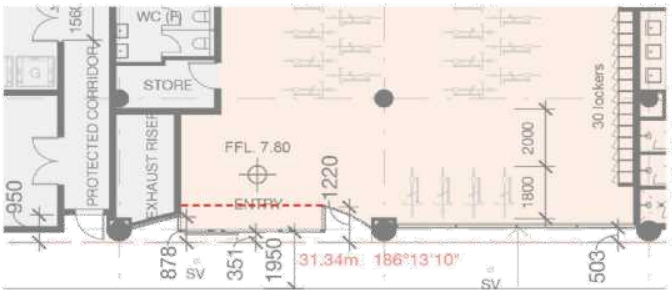
Attachment 7 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Internal Urban Design referral response

MEMO

Ground floor interface

The overall materiality and composition of the façade is supported. It provides a good level of activation, transparency, articulation, and the pedestrian entries are well defined. However, the position of the building entrances within the façade creates a number of awkward corners adjacent the entries, which are likely to create litter traps. If possible, it is recommended that these entrances are further recessed into the building to avoid these corners. See diagram below:





Pavements

- All pavements surrounding the site (Wangaratta and Botherambo streets) are to be reinstated as asphalt footpaths with charcoal coloured concrete kerbs and channels for the full length of the site.
- All proposed streetscape materials should be as per *Technical Notes: City of Yarra Public Domain Manual* and *Yarra Standard Drawings*.
- Proposed vehicle crossovers to be shown on drawings as per *Yarra Standard Drawings*.

Attachment 7 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Internal Urban Design referral response

MEMO

Street tree planting

Botherambo Street has been identified to be planted as part of council's street tree planting program. The street tree layout is still being developed, although it is estimated that the carriageway adjacent the subject site could accommodate up to 5 new street tress. The applicant would be requested to contribute the cost of planting 5 new street trees, which would cover tree sourcing, planting, and two years of maintenance. A cost for this can be provided upon request.

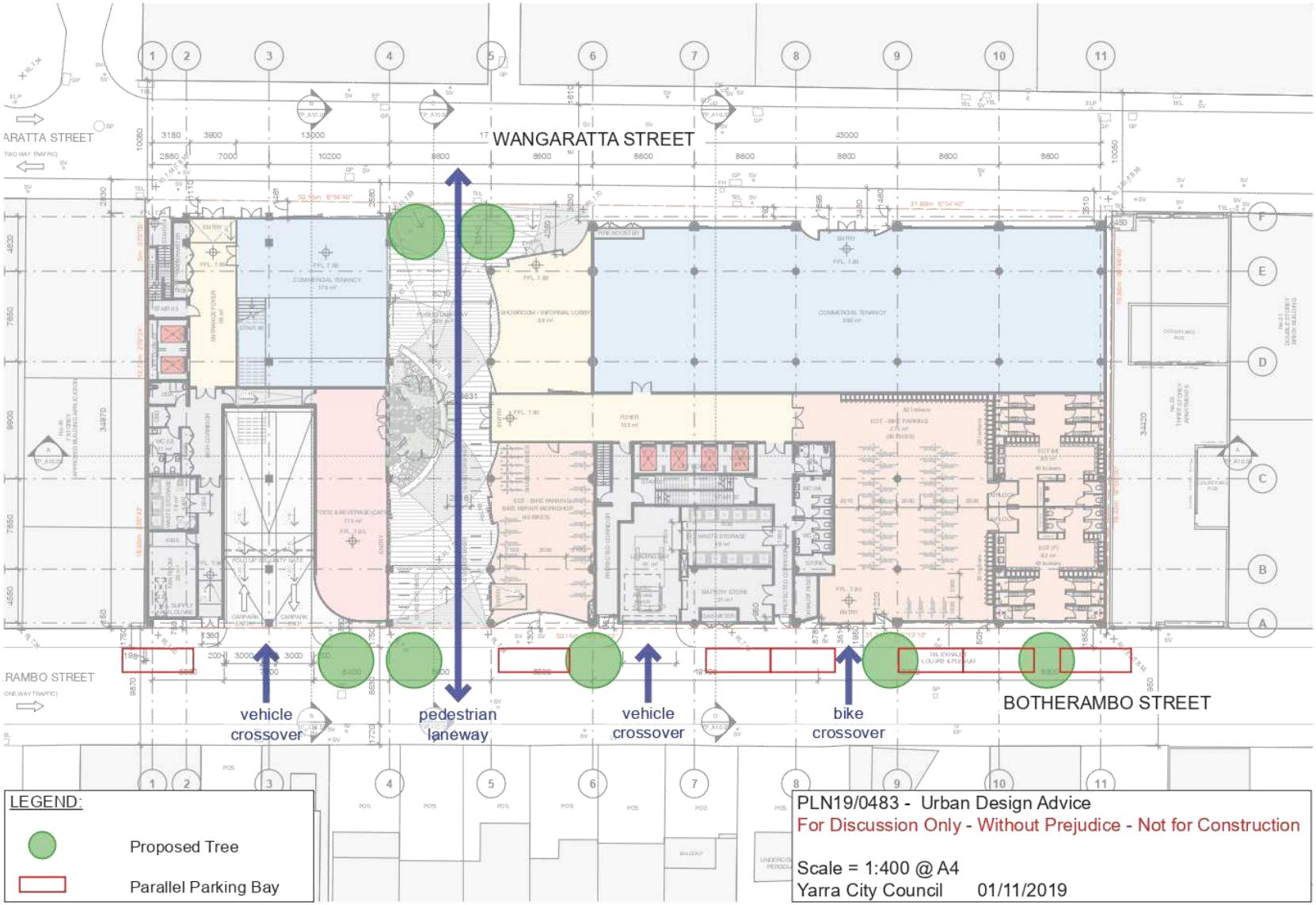
East-west laneway link:

Street tree planting on Wangaratta Street is limited due to the narrow carriageway and footpath. To help enhance the pedestrian amenity of the street, it is recommended that the applicant provide additional tree planting within the subject site, at the western end of the proposed laneway link. This will help define the entrance to the laneway, as well as provide additional greenery to Wangaratta Street. Refer to attached mark-up.

Capital works

Urban Design will be undertaking minor street furniture upgrades along Swan Street in 2020, although these are not likely to affect the subject site. As mentioned, Botherambo Street is likely to undergo street tree planting in 2021, although this is yet to be confirmed.

Attachment 7 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Internal Urban Design referral response



Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

CITY OF YARRA

MEMO

To: Michelle King

From: Artemis Bacani

Date: 8 November 2019

Subject: Application No: PLN19/0483
Description: Mixed Use Development
Site Address: 25-43 Wangaratta Street, Richmond

I refer to the above Planning Application received on 8 October 2019 and the accompanying Traffic and Transport Assessment prepared by Impact Traffic Engineering Pty Ltd (Version Final 02 dated 22 July 2019) in relation to the proposed development at 25-43 Wangaratta Street, Richmond. Council's Civil Engineering unit provides the following information:

CAR PARKING PROVISION

Impact Traffic Engineering *Traffic and Transport Assessment* Version Final 02 dated 22 July 2019

Proposed Development

Under the provisions of Clause 52.06-5 of the Yarra Planning Scheme, the development's parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate*	No. of Spaces Required	No. of Spaces Allocated
Office	10,744 m²	3 spaces per 100 m² of net floor area	322	140
Food and Drink	115 m²	3.5 spaces per 100 m² of leasable floor area	4	1
		Total	**326 Spaces**	**141 Spaces**

* Since the site is located within the Principal Public Transport Network Area, the parking rates in Column B of Clause 52.06-5 now apply.

To reduce the number of car parking spaces required under Clause 52.06-5 (including to reduce to zero spaces), the application for the car parking reduction must be accompanied by a Car Parking Demand Assessment.

Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

Car Parking Demand Assessment
In reducing the number of parking spaces required for the proposed development, the Car Parking Demand Assessment would assess the following:

- *Parking Demand for Office Use*.
  The proposed office would be provided with a total of 140 on-site parking spaces, which equates to a rate of 1.30 spaces per 100 square metres of floor area. Throughout the municipality, a number of developments have been approved with reduced office rates, as shown in the following table:

Development Site	Approved Office Parking Rate
Cremorne	
60-88 Cremorne Street PLN17/0626 issued 21 June 2018	0.85 spaces per 100 m^2 (233 on-site spaces; 27,306 m^2)
9-11 Cremorne Street PLN16/0171 (Amended) issued 13 June 2017	0.85 spaces per 100 m^2 (20 on-site spaces; 2,329 m^2)
Collingwood	
2-16 Northumberland Street PLN16/1150 issued 14 June 2017	0.89 spaces per 100 m^2 (135 on-site spaces; 15,300 m^2)

  The proposed office parking rate of 1.30 spaces per 100 square metres of floor space is considered appropriate having regard to the site's proximity to public transport services and its connectivity to the on-road bicycle network.

- *Parking Demand for Food and Drink Uses*.
  For the food and drinks premises, a staff parking demand rate of 1.0 space per 100 square metres of floor area could be adopted. Applying this rate would equate to a staff parking demand of one space. Customers to this use would be drawn from the office at the subject site as well as from nearby businesses and residences.

- *Availability of Public Transport in the Locality of the Land*.
  The site is within walking distance of tram services operating along Swan Street and Richmond railway station. Bus services are also available along Punt Road, approximately 300 metres west of the site.

- *Convenience of Pedestrian and Cyclist Access.*
  The site has very good pedestrian connectivity to public transport nodes and to the on-road bicycle network.

- *Multi-Purpose Trips within the Area.*
  Customers to the food and drinks premises and clients to the office might combine their trips by engaging in other activities or business whilst in the area.

Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

Appropriateness of Providing Fewer Spaces than the Likely Parking Demand
Clause 52.06 lists a number of considerations for deciding whether the required number of spaces should be reduced. For the subject site, the following considerations are as follows:

- *Availability of Car Parking*.
  Impact had commissioned an on-street spot parking occupancy survey on Wednesday 20 March 2019 at 8:00am, 10.00am, 12.00pm, and 3:00pm. The survey area encompassed Wangaratta Street, Botherambo Street, Woodlawn Street, Tennyson Street, Stewart Street, Tanner Street, Sutton Grove, Montgomery Street, and sections of Swan Street, Gipps Street, Carroll Street, Lennox Street, and Stanley Street. The times and extent of the survey are considered satisfactory. An inventory of 369 publicly available parking spaces was identified in the study area. The results of the survey indicate that the peak parking occupancy occurred at 12:00pm with 59 on-street parking vacancies. Vacancies recorded by the survey ranged from 59 to 132 on-street parking spaces. Some of the site's parking overflow could be accommodated on-street; however, long-stay parking in the area is minimal or non-existent.

- *Relevant Local Policy or Incorporated Document*.
  The proposed development is considered to be in line with the objectives contained in Council's *Strategic Transport Statement*. The site is ideally located with regard to sustainable transport alternatives and the reduced provision of on-site car parking would potentially discourage private motor vehicle ownership and use.

- *The Future Growth and Development of an Activity Centre*.
  Practice Note 22 – *Using the Car Parking Provisions* indicates that car parking should be considered on a centre-basis rather than on a site/individual basis. This is applicable to activity centres, such Swan Street, where spare on-street car parking capacity would be shared amongst sites within the centre.

- *Other relevant Considerations*.
  The lack of available on-street long-stay parking would be a disincentive for employees to travel to the site by private motor vehicle. Employees who have not been allocated any on-site parking would be inclined to make their own travel arrangements to commute to and from the site, such as take public transport or ride a bicycle.

Adequacy of Car Parking
From a traffic engineering perspective, the waiver of the office, and food and drink spaces is considered appropriate in the context of the development and the surrounding area. The on-street parking demand is high and the lack of long-stay parking in the surrounding streets would be a disincentive for employees to travel to and from the site by private motor vehicle. Providing a reduced provision of on-site parking would encourage a modal shift from private vehicle use to more sustainable travel, such as public transport and bicycle use.

The Civil Engineering unit has no objection to the reduction in the car parking requirement for this site.

Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

TRAFFIC GENERATION

Trip Generation

The traffic generation for the site adopted by Impact Traffic Engineering is as follows:

Proposed Use	Adopted Traffic Generation Rate	Daily Traffic	Peak Hour	
			AM	PM
Commercial (Office, Food and Drink Employees)	0.5 trips per parking space per AM peak hour 0.35 trips per parking space per PM peak hour (141 on-site staff spaces)	Not Provided	71	50

Directional Split and Traffic Distribution

Directional split assumptions in each peak hour for the commercial traffic –

- AM Peak – 10% outbound (7 trips), 90% inbound (64 trips); and
- PM Peak – 90% outbound (45 trips), 10% Inbound (5 trips).

The traffic distributions assumptions made in section 6.2 of the Impact Traffic Engineering report are considered reasonable.

It is agreed that the traffic volumes generated by this development can be accommodated in the surrounding road network.

The Civil Engineering unit has no objection to the expected traffic volume generated by the proposed development.

Traffic Impact – Intersection of Botherambo Street and Swa Street

The traffic impact of the Botherambo Street/Swan Street intersection during the weekday AM peak was assessed using the SIDRA program, which measures intersection performance. SIDRA modelling works well under free flowing traffic conditions and may have limitations, such as queuing of downstream traffic. The results of the post-development modelling suggest that the intersection will continue to operate with considerable spare capacity post-development with motorists continuing to experience uncertain queues and delays.

Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

DEVELOPMENT LAYOUT DESIGN

Bates Smart	Drawing Nos.	TP_A02.B01	Revision C dated 1 October 2019
		TP_A02.B02	Revision C dated 1 October 2019
		TP_A02.00	Revision C dated 1 October 2019
		TP_A10.01	Revision C dated 1 October 2019

Layout Design Assessment

Item	Assessment
Access Arrangements	
Development Entrance	The individual entry and exit lanes are each 3.0 metres in width and are provided by a 1.2 metre central separator and outer kerbs of 200 mm in width. The width of the outer kerbs do not satisfy *AS/NZS 2890.1:2004*.
Visibility	A splay is provided at the exit lane in-lieu of a visibility sight triangle.
Headroom Clearance	A headroom clearance of 2.4 metres has been provided throughout the car parks. The plans depict a few areas where headroom clearance partially restricts some spaces. The applicant should consider providing signage for spaces that have restricted headroom clearance. The headroom clearance at the development entrance is 3.9 metres to satisfy AS/NZS 2890.1:2004.
Internal Ramped Accessways	The internal ramped accessways have carriageway widths of 7.6 metres and 7.8 metres and satisfies AS/NZS 2890.1:2004.
Car Parking Modules	
At-grade Parking Spaces	The dimensions of the car parking spaces (2.6 metres by 4.9 metres) satisfy *Design standard 2: Car parking spaces*.
Accessible Parking Spaces	With the exception of the lengths (which satisfy *Design standard 2*), the accessible parking spaces and shared area satisfy the Australian/New Zealand Standard AS/NZS 2890.6:2009.
Aisles	The aisle widths of 6.4 metres satisfy *Table 2: Minimum dimensions of car parking spaces and accessways* of Clause 52.06-9.
Column Depths and Setbacks	Not dimensioned on the drawings.
Clearances to Walls	The clearances of parking spaces adjacent to walls have not been dimensioned.
Gradients	
Ramp Grade for First 5.0 metres inside Property	Prior to assessment, the length of each ramp grade section is to be dimensioned on the drawings.
Ramp Grades and Changes of Grade	Prior to assessment, the length of each ramp grade section is to be dimensioned on the drawings.
Other Items	
Motorcycle Spaces	The dimensions of the motorcycle spaces satisfy AS/NZS 2890.1:2004.
Development Entrance – Vehicle Turning Movements	The swept path diagrams for the B99 design vehicle entering and exiting the development entrance via Botherambo Street are considered satisfactory.
Development Entrance – Medium Rigid Vehicle Turning Movements	The swept path diagrams for a 6.4 metre long Waste Collection Mini Rear Loader vehicle entering and exiting the development entrance via Botherambo Street are considered satisfactory.

Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

Layout Design Assessment

Item	Assessment
Other Items	
Vehicle Circulation Movements	The swept path diagrams adequately demonstrate passing movements for a B99 design vehicle and an on-coming B85 design vehicle between the aisle and the ramped accessway.
Loading Bay – Internal Dimensions	The internal dimensions of the loading bay has not been dimensioned on the drawings.
Loading Bay – Headroom Clearance	Not dimensioned on the drawings.
Vehicle Swept Paths	The swept path diagrams for a B85 design vehicle entering and exiting critical car parking spaces are considered satisfactory.

Design Items to be Addressed

Item	Details
Accessible Parking Spaces	A bollard is to be provided in the shared area and shown on the drawings.
Column Depths and Setbacks	The column depths and setbacks from the edge of the aisle are to be dimensioned on the drawings.
Clearances to Walls	The clearances of parking bays adjacent to a wall are to be dimensioned on the drawings.
Ramp Grades	The length of each ramp grade section is to be dimensioned on the drawings.
Motorcycle Spaces	The individual motorcycle spaces are to be shown and dimensioned on the drawings.
Loading Bay – Internal Dimensions	The internal dimension of the loading bay is to be shown on the drawings.
Loading Bay – Headroom Clearance	The headroom clearance at the entrance to the loading bay is to be dimensioned on the drawings. The headroom clearance is to accommodate a 6.4 metre Waste Collection Mini Rear Loader vehicle.
Service Cabinet Doors	All service cabinet doors that open outwards must be able to swing 180-degrees and be latched to the wall when opened and serviced.
Bicycle Considerations	The bicycle requirements for this development are to be referred to Council's Strategic Transport unit for comments.

Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

ENGINEERING CONDITIONS
Civil Works

Upon the completion of all building works and connections for underground utility services,

- The kerb and channel along the property's Wangaratta Street and Botherambo Street frontages must be reconstructed in bluestone in accordance with Council's *Road Materials Policy - Heritage Overlay Areas*, Council's satisfaction and at the Permit Holder's cost.
- The footpath along the property's Wangaratta Street and Botherambo Street frontages must be reconstructed in asphalt in accordance with Council's *Road Materials Policy - Heritage Overlay Areas*, Council's satisfaction and at the Permit Holder's cost. The footpath must have a cross-fall of 1 in 40 or unless otherwise specified by Council.

Vehicle Crossing

Before the development commences, or by such later date as approved in writing by the Responsible Authority, the new vehicle crossing must be designed and constructed:

- In accordance with any requirements or conditions imposed by Council.
- Demonstrating satisfactory access into and out of the site with a vehicle ground clearance check using the B99 design vehicle, and be fully dimensioned with actual reduced levels (to three decimal places) as per Council's Vehicle Crossing Information Sheet;
- At the Permit Holder's cost; and
- To the satisfaction of Council.

Redundant Vehicle Crossings

- All redundant vehicle crossing must be demolished and reinstated with paving, kerb and channel to Council's satisfaction and at the Permit Holder's cost.

Construction Management Plan

- A Construction Management Plan must be prepared and submitted to Council. The Plan must be approved by Council prior to the commencement of works. A detailed dilapidation report should detail and document the existing and post construction conditions of surrounding road infrastructure and adjoining private properties.

Road Asset Protection

- Any damaged roads, footpaths and other road related infrastructure adjacent to the development site as a result of the construction works, including trenching and excavation for utility service connections, must be reconstructed to Council's satisfaction and at the developer's expense.

Impact of Assets on Proposed Development

- Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.
- Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, valves or meters on Council property will be accepted.

Discharge of Water from Development

- Only roof runoff, surface water and clean groundwater seepage from above the water table can be discharged into Council drains.
- Council will not permit clean groundwater from below the groundwater table to be discharged into Council's drainage system. Basements that extend into the groundwater table must be waterproofed/tanked.

Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

Removal, Adjustment, Changing or Relocation of Parking Restriction Signs

- No parking restriction signs or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.
- Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.
- The removal of any kerbside parking sensors and any reinstatement of parking sensors will require the Permit Holder to pay Council the cost of each parking sensor taken out from the kerb/footpath/roadway. Any costs associated with the reinstatement of road infrastructure due to the removal of the parking sensors must also be borne by the Permit Holder.

ADDITIONAL ENGINEERING ADVICE FOR THE APPLICANT

Item	Details
Legal Point of Discharge	The applicant must apply for a Legal Point of Discharge under Regulation 133 – Stormwater Drainage of the *Building Regulations* 2018 from Yarra Building Services unit. Any storm water drainage within the property must be provided and be connected to the nearest Council pit of adequate depth and capacity (legal point of discharge), or to Council's satisfaction under Section 200 of the *Local Government Act* 1989 and Regulation 133.

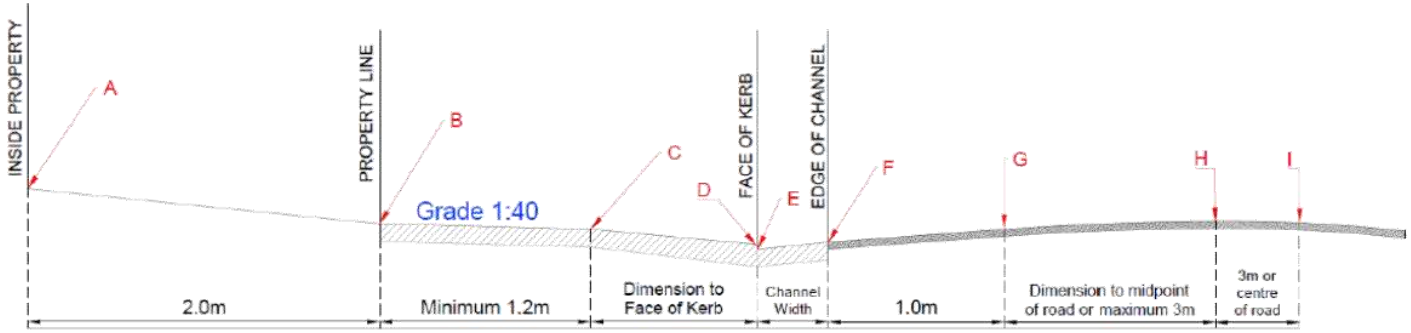
Attachment 8 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Engineering referral response

Vehicle Crossing – Cross Section

The designer is to submit a 1:20 scale cross section for each proposed vehicle crossing showing the following items:

A. Finished floor level 2.0 metres inside property
B. Property line surface level
C. Surface level at change in grade (if applicable)
D. Bullnose (max height 60mm) – must be clearly labelled
E. Surface level at the bottom of the kerb
F. Surface level at the edge of channel
G. Road level 1.0 meter from the edge of channel
H., I. Road levels

- Please note the cross section must be fully dimensioned. As shown in the sketch below.
- Please show both the existing and proposed surface.
- The maximum allowable cross-fall between points B and C is 1:40 (2.5%).
- A bullnose (max 60mm) is permitted at point D, however not compulsory.
- The levels shown must be exact reduced levels, to three decimal points. Interpolation of levels is not acceptable.
- The designer must demonstrate that an 85th or 99th percentile vehicle profile can traverse the design cross section as per the Australian/New Zealand Standard ground clearance template (AS/NZS 2890.1:2004).
- Significant level changes to the existing footpath level B to C will require additional level design either side of the proposed crossing.
- Please include any additional levels or changes in grade that are not shown in the diagram.



Attachment 9 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Strategic Transport referral resposne

Planning Referral

To:	Michelle King
From:	Chloe Wright
Date:	28/11/2019
Subject:	Strategic Transport Comments
Application No:	PLN19/0483
Description:	Demolition of the existing buildings for the use and development of the land to construct two office buildings (seven and eight storeys plus basement levels) with a ground floor food and drinks premises (café) (use permit required for office only) and reduction in the car parking requirements
Site Address	25 – 43 Wangaratta Street, Richmond

I refer to the above Planning Application referred on 08/10/2019, and the accompanying Traffic report prepared by Impact in relation to the proposed development at 25 – 43 Wangaratta Street, Richmond. Council's Strategic Transport unit provides the following information:

Access and Safety

No access or safety issues have been identified.

Bicycle Parking Provision

Statutory Requirement

Under the provisions of Clause 52.34-3 of the Yarra Planning Scheme, the development's bicycle parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate	No. of Spaces Required	No. of Spaces Allocated
Office (other than specified in the table)	10,744 sqm	1 employee space to each 300 sqm of net floor area if the net floor area exceeds 1000 sqm	36 employee spaces	130 employee spaces
		1visitor space to each 1000 sqm of net floor area if the net floor area exceeds 1000 sqm	11 visitor spaces.	30 visitor spaces
Retail premises (other than specified in this table)	115 sqm	1 employee space to each 300 sqm of leasable floor area	0 employee spaces	
		1visitor space to each 500 sqm of leasable floor area	0 visitor spaces	
Bicycle Parking Spaces Total			**employee spaces**	**employee spaces**
			visitor spaces	**visitor spaces**
Showers / Change rooms		1 to the first 5 employee spaces and 1 to each additional 10 employee spaces	**showers / change rooms**	**showers / change rooms**

The development provides a total of 94 additional employee spaces and 19 additional visitor spaces above the requirements of the planning scheme.

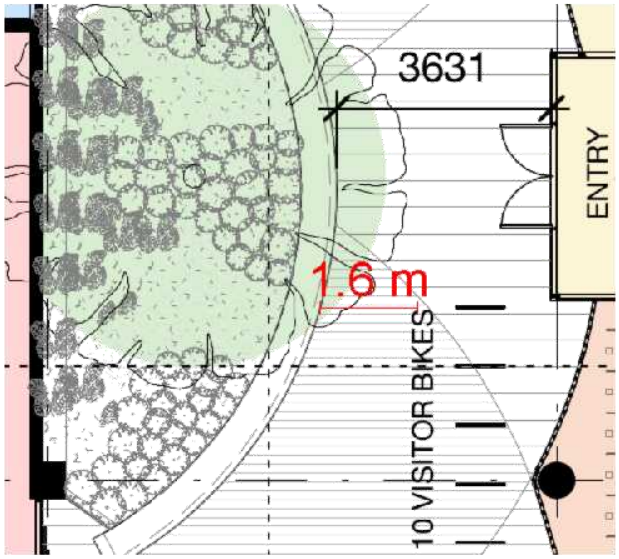
Attachment 9 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Strategic Transport referral resposne

Adequacy of visitor spaces

The provision of visitor spaces is adequate for the following reasons:

- Council's best practice rate[1] generates a recommended provision of 21 visitor spaces and the development proposes 30 visitor spaces.
- Visitor parking is located in an area that is visible from the public realm and easily accessible to visitors at the site.
- All visitor spaces are provided as horizontal at-grade spaces as per requirements of AS2890.3

It is noted that the the 10 visitor bike spaces located adjacent to the central entry (pictured below) could impede pedestrian circulation through the public laneway and adjacent entry when bikes are parked at the hoops. Therefore it is recommended that these 5 visitor hoops are relocated to the Wangaratta Street entrance of the public laneway to provide a wider accessway at this section of the laneway and to also provide visitor bike parking at the Wangaratta Street entrance to the site.



Adequacy of employee spaces

Number of spaces

130 employee spaces are proposed within the basement car park, which exceeds Council's best-practice rate[2] of 108 spaces.

Design and location of employee spaces and facilities

The location and design of employee bike parking is adequate for the following reasons:

- Two bike store rooms are located at the ground floor within a secure facility i.e. access is limited to permitted persons with controlled security access devices such as keys, codes or swipe cards.

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[1] *Category 6 of the Built Environment Sustainability Scorecard (BESS) recommends 1 visitor space to each 500sqm of office floor space.*

[2] *Category 6 of the BESS offers the following for best-practice guidance for employee office rates: 'Non-residential buildings should provide spaces for at least 10% of building occupants.' Assuming a floor-space occupancy of 1 staff member to 10sqm (which is the maximum rate allowed under the National Construction Code for fire safety), providing bicycle spaces for 10% of occupants results in a rate of 1 space per 100sqm of floor area. The Statutory Rates are adequate for the remaining proposed uses.*

- The types of bicycle racks is not specified on the plans or in the traffic report. Based on the number of spaces shown, it is assumed that two-tiered racks are proposed. This meets the requirement for 20% of racks to be horizontal.
- Employee bicycle spaces and access ways appear to be in accordance with the clearance requirements of AS2890.3.

Electric vehicles

Council's BESS guidelines encourage the use of fuel efficient and electric vehicles (EV). The 8 electric vehicle charging bays within basement level 1 are supported.

Green Travel Plan

It is noted the applicant has supplied a Green Travel Plan (GTP). The GTP is generally adequate, however should be modified to include:

(a) The types of bicycle storage devices proposed to be used for employee, resident and visitor spaces (i.e. hanging or floor mounted spaces).
(b) The types of lockers proposed within the change room facilities, with at least 50 per cent of lockers providing hanging storage space.
(c) Signage and wayfinding information for bicycle facilities and pedestrians pursuant to Australian Standard AS2890.3.
(d) Provisions for the green travel plan to be updated not less than every five years.

Recommendations

The following should be shown on the plans before endorsement:

1. 10 visitor bike parking spaces relocated from the centre of the public laneway to the Wangaratta Street entrance of the public laneway.

The Green Travel Plan should be updated with the information outlined previously.

Regards
Chloe Wright

Sustainable Transport Officer
Strategic Transport Unit

Attachment 10 - PLN19/0483 - 25-43 Wangaratta Street Richmond - City Works Unit referral response

King, Michelle

From: Athanasi, Atha
Sent: Friday, 11 October 2019 12:12 PM
To: King, Michelle
Subject: RE: PLN19/0483 - 25 – 43 Wangaratta Street, Richmond - Waste Referral

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Michelle,

The waste management plan for authored by Lid Consulting and dated 18/7/19 is not satisfactory from a City Works branch's perspective. Issues to be rectified include, but may not be limited to the following:

1. Council does not offer a hard waste drop off service. Refer to website for items accepted at the Recycling drop off Centre.
2. Council does not alter signage with regards to waste services at developments. Collection within the boundary of the site is preferred.

Regards,

Atha Athanasi
Contract Management Officer

City Works Services
Parks, Resource Recovery, Cleansing

City of Yarra – City Works Depot
168 Roseneath St CLIFTON HILL VIC 3068
T (03) 9205 5547 **F** (03) 8417 6666
Atha.Athanasi@yarracity.vic.gov.au
www.yarracity.vic.gov.au

From: King, Michelle
Sent: Tuesday, 8 October 2019 11:52 AM
To: Athanasi, Atha <Atha.Athanasi@yarracity.vic.gov.au>
Subject: PLN19/0483 - 25 – 43 Wangaratta Street, Richmond - Waste Referral

Morning Atha,

Application No.: **PLN19/0483**
Address: **25 – 43 Wangaratta Street, Richmond**

Attachment 10 - PLN19/0483 - 25-43 Wangaratta Street Richmond - City Works Unit referral response

An application has recently been lodged for the *demolition of the existing buildings for the use and development of the land to construct two office buildings (seven and eight storeys plus basement levels) with a ground floor food and drinks premises (café) (use permit required for office only) and reduction in the car parking requirements.*

Could you please review the waste arrangements and let me know if the development is satisfactory from a waste perspective?

All documents can be found at the following TRIM references:

	TRIM Ref No.
Town Planning Report	D19/141855
Heritage Statement	D19/141844
Urban Context Report	D19/181023
Traffic Assessment Report	D19/141850
Green Travel Plan	D19/141850 (Starting Page 53)
Sustainable Management Plan	D19/141845
Waste Management Plan	D19/141842
Wind Impact Assessment	D19/141865
Acoustic Report	D19/181037
Landscape Plan	D19/141849
Plans	D19/181030

Please let me know if you require anything else,

Michelle

Michelle King
Senior Statutory Planner
Planning and Placemaking

PO BOX 168 Richmond VIC
T (03) 9205 5333
E michelle.king@yarracity.vic.gov.au
W yarracity.vic.gov.au
Follow us on Facebook, Instagram and Twitter

Yarra City Council acknowledges the Wurundjeri as the Traditional Owners of this country, pays tribute to all Aboriginal and Torres Strait Islander people in Yarra, and gives respect to the Elders past and present.

Attachment 11 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Heritage referral response

City of Yarra
Heritage Advice

Application No.: PLN19/0483

Address of Property: 25 - 43 Wangaratta Street, Richmond

Planner: Michelle King

Yarra Planning Scheme References: Clauses 43.01, 21.05 and 22.02.

Heritage Overlay No. HO 332 **Precinct**: Richmond Hill sub precinct D.

Level of significance

No. 25 Wangaratta Street is listed as a gym, constructed 1970 – 80 and Nos. 31 – 43 Wangaratta Street are listed as a factory/warehouse constructed c, 1970. Both are listed as being Not contributory in Appendix 8, *City of Yarra Review of Heritage Overlay Areas 2007, Rev. May. 2018*.

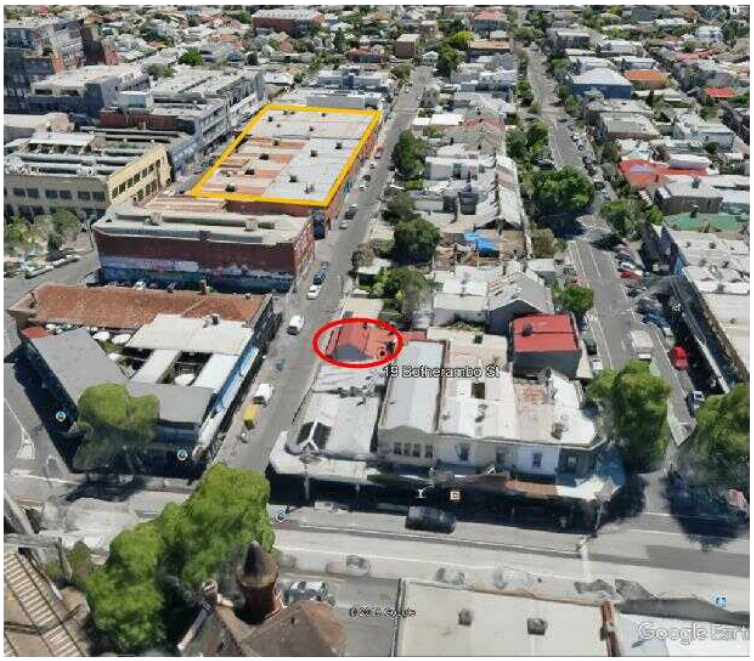
The listings for, and a site inspection of, Wangaratta Street indicate that nearly every building in proximity to the subject site is not contributory and are of a 20th century industrial nature and with buildings up to six, or maybe more, storeys.. There are a few buildings further west and near the railway line, such as Australian Knitting Mills, which have residential storeys above the original industrial buildings. These buildings are not visually connected with the subject site.

The site is in the south-west corner of sub-precinct D.

The sub-precinct Statement of Significance (Updated March 2013) states that *viz*.

> D. The Richmond Hill Heritage Overlay Area (south residential sub-area)
> The Richmond Hill Heritage Overlay Area (south) is significant:
>
> - As one of the earliest private development areas in the City for worker housing, dating initially from the 1840s but extending in the gold-era of the 1850s, as early small cottages set on small allotments;
> - For the historical links of the street layout and subsequent housing development with the Docker family and the estate's designer, the noted architect and surveyor, Charles Laing;
> - As an illustration of a rare type of model private subdivision and development in the Melbourne area in the form of a planned `village', as shown by the regular street patterns, similar allotment sizes, and the originally residential land use.

None of this is applicable to the development site insofar as Wangaratta Street is concerned. In Botherambo Street, the site faces the backs of properties addressing that street. Of those listed in Appendix 8 are No. 1 Botherambo Street which is Contributory and No. 19 Botherambo Street which is Individually significant. It is at the south end of Botherambo Street and is at some distance from the development site and anything constructed on that site will have no effect on No. 19 Botherambo Street.



Aerial view of the development site and its proximity to No. 19 Botherambo Street and Swan Street.

Proposal

Demolition of the existing building(s) and construction of a new building in two blocks, one 7 and one 8 storeys above basements.

Drawing Numbers

24 pages of architectural drawings prepared by Bates Smart and a book of illustrations with pages variously numbered 1 - 143, with Council date stamp 2 Oct 2019.

Assessment of Proposed Works

Demolition

There are no heritage concerns regarding demolition.

Proposed works

Built form (height/setbacks)

There are no heritage concerns with the height, scale and bulk of the proposed building(s). The upper levels are variously set back, the lower levels are constructed to the boundaries, as is typical in this area. The general design of the elevations has picked up on industrial characteristics in the area e.g. sawtooth truss roof profiles, large horizontally-oriented

rectangular windows, concrete etc. and generally has an industrial feel with overtones of Modernism.

I have no issue with the use of glazed bricks and tiles, the colours of which have been derived from nearby buildings, or glass blocks etc. However, I am dubious about the "Gelati" coloured glazed concrete battens (FB2 – warm palette) in terms of colour as I do not think that the palette will stand the test of time. I have less concern with FB1 Cool palette. I have concerns about the expansive use of these elements. I recommend that all colours and their combinations and the expanse of the battens be revisited with a view to a more neutral and enduring palette and less dense spacings – I note that they are intended for sunshading. An alternative treatment should also be considered.

I note that plants and landscaping are an integral part of the design. There needs to be a mechanism to ensure that they are maintained as intended and illustrated, and an Incorporated Landscape Plan, to the satisfaction of the Responsible Authority, should be a permit condition.

Recommendation / Comments:

Approved subject to re-consideration of the colours and materiality as indicated above.

An Incorporated Landscape Plan, to the satisfaction of the Responsible Authority, should be a permit condition.

Signed:

Robyn Riddett

Director – Anthemion Consultancies

Date: 5 December, 2017.

Attachment 12 - PLN19/0483 - 25-43 Wangaratta Street Richmond - ESD referral response

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

ESD in the Planning Permit Application Process

Yarra City Council's planning permit application process includes Environmentally Sustainable Development (ESD) considerations. This is now supported by the ESD Local Policy Clause 22.17 of the Yarra Planning Scheme, entitled *Environmentally Sustainable Development*.

The Clause 22.17 requires all eligible applications to demonstrate best practice in ESD, supported by the Built Environment Sustainability Scorecard (BESS) web-based application tool, which is based on the Sustainable Design Assessment in the Planning Process (SDAPP) program.

As detailed in Clause 22.17, this application is a 'large' planning application as it meets the category Non-r*esidential 1. 1,000m^2 or greater*.

What is a Sustainable Management Plan (SMP)?
An SMP is a detailed sustainability assessment of a proposed design at the planning stage. An SMP demonstrates best practice in the 10 Key Sustainable Building Categories and;

- Provides a detailed assessment of the development. It may use relevant tools such as BESS and STORM or an alternative assessment approach to the satisfaction of the responsible authority; and
- Identifies achievable environmental performance outcomes having regard to the objectives of Clause 22.17 (as appropriate); and
- Demonstrates that the building has the design potential to achieve the relevant environmental performance outcomes, having regard to the site's opportunities and constraints; and
- Documents the means by which the performance outcomes can be achieved.

An SMP identifies beneficial, easy to implement, best practice initiatives. The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. Hence, greater rigour in investigation is justified. It may be necessary to engage a sustainability consultant to prepare an SMP.

Assessment Process:

The applicant's town planning drawings provide the basis for Council's ESD assessment. Through the provided drawings and the SMP, Council requires the applicant to demonstrate best practice.
The following comments are based on the review of the architectural drawings, prepared by *Rothelowman* (Rev. A 26.09.2018, Permit Issue) and the accompanying SMP, prepared by Ark Resources (Ver. C 11.10.2018 – TP Revision).

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

Table of Contents

Attachment 12 - PLN19/0483 - 25-43 Wangaratta Street Richmond - ESD referral response

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

Assessment Summary:

Responsible Planner:	Michelle King
ESD Advisor:	Gavin Ashley
Date:	09.12.2019
Subject Site:	25 – 43 Wangaratta Street Richmond, VIC
Site Area:	Approx. 2,920m^2
Project Description:	Two office buildings (seven and eight storeys plus basement levels) with a ground floor food and drinks premises (café)
Pre-application meeting(s):	Unknown.
Documents Reviewed:	Sustainability Management Plan and WSUD Response, by Ark Resources. 19 July 2019. Architecture Town Planning set, by Bate Smart. Landscape plans by Jack Merlo Design & Landscape Waste Management Plan by LID Consulting

The standard of the ESD does not meet Council's Environmentally Sustainable Design (ESD) standards. Should a permit be issued, the following ESD commitments (1) and deficiencies (2) should be conditioned as part of a planning permit to ensure Council's ESD standards are fully met.

Furthermore, it is recommended that all ESD commitments (1), deficiencies (2) and the outstanding information (3) are addressed in an updated SMP report and are clearly shown on Condition 1 drawings. ESD improvement opportunities (4) have been summarised as a recommendation to the applicant.

The SMP uses the Green Star Design & As Built (Version 1.2) tool as a benchmarking framework to demonstrate that the development has the preliminary design potential to achieve a 5 star standard

(1) Applicant ESD Commitments:

- Green Star 5 Star Rating achievable, Green Star Design & As Built (Version 1.2). 60.5 points targeted, including 7 Innovation points. (60 points required for 5 stars)
- NABERS Energy 5 star rating achievable, but no commitment made
- 86kWp rooftop solar photovoltaic system

(2) Application ESD Deficiencies:

- The Application includes a Green Star pathway which shows that the development has the preliminary design potential to achieve a 5 star Green Star standard but is noticeably short on commitments and supporting details. Provide supporting information requested in (3) and/or details of Green Star project registration is required.
- Recommend the use of CO monitoring to control car park fans.
- Recommend a firm commitment to organics waste separation and collection and receptacles in the café and on all office levels.

(3) Outstanding Information:

- A preliminary energy modelling report is required comprising:
  - Façade properties of the building
  - DHW approach for the building
  - HVAC approach for the building
- Information explaining the discrepancy between solar output in NREL (106MWh) and NABERS (75MWh)
- Confirm extent of water metering proposed for the building.

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

- A WSUD report required prior to construction satisfying site management and maintenance requirements of Clause 22.16
- Information about nearest car share or consider on site car share provision
- Provide a Green Travel Plan with performance targets and monitoring and reporting components included.

(4) ESD Improvement Opportunities

- Consider provision of economy cycle and night purge HVAC controls
- Consider strategies to reduce embodied energy of construction materials.
- Consider a small pallet of materials and construction techniques that can assist in disassembly.
- Consider pipes, cabling, flooring to do not contain PVC or meeting best practice guidelines for PVC.

Further Recommendations:
The applicant is encouraged to consider the inclusion of ESD recommendations, detailed in this referral report. Further guidance on how to meet individual planning conditions has been provided in reference to the individual categories. The applicant is also encouraged to seek further advice or clarification from Council on the individual project recommendations.

1. Indoor Environment Quality (IEQ)

Objectives:

- to achieve a healthy indoor environment quality for the wellbeing of building occupants.
- to provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices.

Issues	Applicant's Design Responses	Council Comments	CAR*
Natural Ventilation and Night Purging	Ventilation system designed to provide high volume of outside air (1 point claimed or 50% increase) Ventilation systems to comply with ASHRAE 62.1, and pre-cleaned prior to handover	Consider provision of economy cycle and night purge HVAC controls	4
Daylight & Solar Access	No points claimed for daylight	Mostly clear glazing - satisfactory	1
External Views	60% of primary spaces to have high quality views	Satisfactory	1
Hazardous Materials and VOC	Specification of low VOC paints, adhesives, sealants and carpets.	Satisfactory	1
Thermal Comfort	PMV between -1 & +1; OR ASHRAE 55 - 80% acceptability	Satisfactory	1

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 1. Indoor Environment Quality
Good Environmental Choice Australia Standards www.geca.org.au
Australian Green Procurement www.greenprocurement.org
Residential Flat Design Code www.planning.nsw.gov.au
Your Home www.yourhome.gov.au

2. Energy Efficiency

Objectives:

- to ensure the efficient use of energy
- to reduce total operating greenhouse emissions
- to reduce energy peak demand
- to minimize associated energy costs.

Issues	Applicant's Design Responses	Council Comments	CAR*
NCC Energy Efficiency Requirements Exceeded	Commit to minimum 5 stars NABERS Energy. Modelling results provided in Appendix A.	A preliminary energy modelling report is required. Comment: The heating energy looks too low.	3
Thermal Performance	No information provided.	Please provide information about façade properties of the building.	3
Greenhouse Gas Emissions	27% reduction in GHG estimated in NABERS calculator	Provide NABERS Energy modelling report	3
Hot Water System	No information provided.	Please describe DHW approach for the building.	3
Peak Energy Demand	Peak energy improvement 20% over Reference Building	Satisfactory	1
Effective Shading	Shading is provided by battens and louvres.	Satisfactory	1
Efficient HVAC system	No information provided.	Please describe the HVAC approach for the building.	3
Car Park Ventilation	No information provided	Recommend the use of CO monitoring to control car park fans.	2
Efficient Lighting	Lighting systems comprise flicker free luminaires, electronic drivers feature 12-bit or greater resolution for all Light-emitting Diode (LED) lighting	Satisfactory	1
Electricity Generation	Solar PV modules with a total capacity of 86kWp will be installed.	Satisfactory provision, however please explain the discrepancy between solar output in NREL (106MWh) and NABERS (75MWh)	3
Other	-	-	

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 2. Energy Efficiency
House Energy Rating www.makeyourhomegreen.vic.gov.au
Building Code Australia www.abcb.gov.au
Window Efficiency Rating Scheme (WERS) www.wers.net
Minimum Energy Performance Standards (MEPS) www.energyrating.gov.au
Energy Efficiency www.resourcesmart.vic.gov.au

3. Water Efficiency

Objectives:

- to ensure the efficient use of water
- to reduce total operating potable water use
- to encourage the collection and reuse of rainwater and stormwater
- to encourage the appropriate use of alternative water sources (e.g. grey water)
- to minimise associated water costs.

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising Amenity Water Demand	Minimum WELS star rating of fixtures: Taps: 6 stars Toilets: 5 stars Showers: 3 stars (>4.5 but <=6.0L/min) Dishwashers 6 stars Urinals: 6 stars	Satisfactory	1
Water for Toilet Flushing	50,000 litre rainwater tanks proposed. 2194sqm of roof area captured. Used for irrigation and flushing toilets on levels Ground to P3.	Satisfactory.	1
Water Meter	Claiming GS6.1 Metering and Monitoring credit	Confirm extent of water metering proposed for the building.	3
Landscape Irrigation	Water-efficient sub-soil drip irrigation system with moisture sensors and timers	Satisfactory	1
Other	No cooling towers Fire test system water storage and re-use	-	

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 3. Water Efficiency
Water Efficient Labelling Scheme (WELS) www.waterrating.gov.au
Water Services Association of Australia www.wsaa.asn.au
Water Tank Requirement www.makeyourhomegreen.vic.gov.au
Melbourne Water STORM calculator www.storm.melbournewater.com.au
Sustainable Landscaping www.ourwater.vic.gov.au

4. Stormwater Management

Objectives:

- to reduce the impact of stormwater runoff
- to improve the water quality of stormwater runoff
- to achieve best practice stormwater quality outcomes
- to incorporate Water Sensitive Urban Design principles.

Issues	Applicant's Design Responses	Council Comments	CAR*
STORM Rating	MUSIC modelling has been submitted that demonstrates best practice and relies 2194m2 of roof on 50kL litre rainwater tank connected to toilet flushing (Ground to L4) and irrigation.	Satisfactory approach, however a WSUD report required prior to construction satisfying site management and maintenance requirements of Clause 22.16	3
Discharge to Sewer	-	-	-
Stormwater Diversion	-	-	-
Stormwater Detention	-	-	-
Stormwater Treatment	-	-	-
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 4. Stormwater Management
Melbourne Water STORM calculator www.storm.melbournewater.com.au
Water Sensitive Urban Design Principles www.melbournewater.com.au
Environmental Protection Authority Victoria www.epa.vic.gov.au
Water Services Association of Australia www.wsaa.asn.au
Sustainable Landscaping www.ourwater.vic.gov.au

5. Building Materials

Objectives:

- to minimise the environmental impact of materials used by encouraging the use of materials with a favourable lifecycle assessment.

Issues	Applicant's Design Responses	Council Comments	CAR*
Reuse of Recycled Materials	No specific information provided.	-	1
Embodied Energy of Concrete and Steel	No commitment on embodied energy. 5.5 points claimed in Materials category	Consider strategies to reduce embodied energy of construction materials.	4
Sustainable Timber	GS 20.2 claimed: 95% of timber will be certified by a forest certification scheme (FSC or AFS).	No comments.	1
Design for Disassembly	No information has been provided.	Consider a small pallet of materials and construction techniques that can assist in disassembly.	4
PVC	No information has been provided.	Consider pipes, cabling, flooring to do not contain PVC or meeting best practice guidelines for PVC.	4

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 5. Building Materials
Building Materials, Technical Manuals www.yourhome.gov.au
Embodied Energy Technical Manual www.yourhome.gov.au
Good Environmental Choice Australia Standards www.geca.org.au
Forest Stewardship Council Certification Scheme www.fsc.org
Australian Green Procurement www.greenprocurement.org

6. Transport

Objectives:

- to minimise car dependency
- to ensure that the built environment is designed to promote the use of public transport, walking and cycling.

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising the Provision of Car Parks	Reduced car parking provided	Satisfactory	1
Bike Parking Spaces	160 bike spaces including racks for 6 shared eBikes	Satisfactory – location of bike parking is excellent.	1
End of Trip Facilities	210 lockers and 12 showers	Satisfactory	1
Car Share Facilities	No information has been provided.	Provide information about nearest car share OR Consider on site car share provision	3 4
Electric vehicle charging	Electric vehicle charging infrastructure for 5% of car-parking spaces	Satisfactory	1
Green Travel Plan	A Green Travel plan has not been provided.	Provide a Green Travel Plan with performance targets and monitoring and reporting components included.	3

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 6. Transport
Off-setting Car Emissions Options www.greenfleet.com.au
Sustainable Transport www.transport.vic.gov.au/doi/internet/icy.nsf
Car share options www.yarracity.vic.gov.au/Parking-roads-and-transport/Transport-Services/Carsharing/
Bicycle Victoria www.bv.com.au

7. Waste Management

Objectives:

- to ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development
- to ensure long term reusability of building materials.
- to meet Councils' requirement that all multi-unit developments must provide a Waste Management Plan in accordance with the *Guide to Best Practice for Waste Management in Multi-unit Developments 2010*, published by Sustainability Victoria.

Issues	Applicant's Design Responses	Council Comments	CAR*
Construction Waste Management	Demolition and construction waste sent to landfill to be less than 5kg per square meter of GFA – claimed under Innovation	Excellent	1
Operational Waste Management	Waste Management Plan provided. Facilities incorporated to separate recyclable waste streams including paper & cardboard, glass, plastic and batteries	Recommend a firm commitment to organics waste separation and collection and receptacles in the café and on all office levels.	2
Storage Spaces for Recycling and Green Waste	38m² Waste room on GF.	Satisfactory	1
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 7. Waste Management
Construction and Waste Management www.sustainability.vic.gov.au
Preparing a WMP www.epa.vic.gov.au
Waste and Recycling www.resourcesmart.vic.gov.au
Better Practice Guide for Waste Management in Multi-Unit Dwellings (2002) www.environment.nsw.gov.au
Waste reduction in office buildings (2002) www.environment.nsw.gov.au

8. Urban Ecology

Objectives:

- to protect and enhance biodiversity
- to provide sustainable landscaping
- to protect and manage all remnant indigenous plant communities
- to encourage the planting of indigenous vegetation.

Issues	Applicant's Design Responses	Council Comments	CAR*
On Site Topsoil Retention	There is no productive topsoil on this site.	-	N/A
Maintaining / Enhancing Ecological Value	Extensive landscaping to terraces, including large fig trees.	Satisfactory	1
Heat Island Effect	GS 25 claimed: At least 75% of the total project site area comprises building or landscaping elements that reduce impact of heat island effect	Satisfactory	1
Other		-	
Green wall, roofs, facades	Happy Wanderer vine on SS cables.	Satisfactory	1

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 8. Urban Ecology
Department of Sustainability and Environment www.dse.vic.gov.au
Australian Research Centre for Urban Ecology www.arcue.botany.unimelb.edu.au
Greening Australia www.greeningaustralia.org.au
Green Roof Technical Manual www.yourhome.gov.au

9. Innovation

Objective:

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

Issues	Applicant's Design Responses	Council Comments	CAR*
Significant Enhancement to the Environmental Performance	• 50% of internal paints to be ultra-low VOC type (<5g/litre) • Embodied impacts of PV modules will be further reduced by procurement from a manufacturer with an above average rating on the current version Silicon Valley Toxics Coalition Solar Scorecard. • Demolition and construction waste sent to landfill to be less than 5kg per square meter of GFA	Excellent	-
Innovative Social Improvements	-	-	-
New Technology	• Provision of 6 shared e-bikes for use of staff, with exemplary ancillary facilities including bike repair station etc. and electronic booking system • 10% of annual consumption met by onsite renewable energy. • Maximising self-consumption due to PV output cabled direct to office tenancy switchboards	Excellent	-
New Design Approach	• Dematerialisation of PV array and support racking by 20% through use of bifacial modules with high-efficiency cells. • Air-tightness testing to achieve good practice level	Excellent	1
Others			-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 9. Innovation
Green Building Council Australia www.gbca.org.au
Victorian Eco Innovation lab www.ecoinnovationlab.com
Business Victoria www.business.vic.gov.au
Environment Design Guide www.environmentdesignguide.com.au

10. Construction and Building Management

Objective:

- to encourage a holistic and integrated design and construction process and ongoing high performance

Issues	Applicant's Design Responses	Council Comments	CAR*
Building Tuning	• Comprehensive commissioning and tuning of building systems • Independent Commissioning Agent engaged directly by developer	Satisfactory	1
Building Users Guide	Detailed guide to building systems provided to tenants	Satisfactory	1
Contractor has Valid ISO14001 Accreditation	Head contractor to have current ISO 14001 certification.	Satisfactory	1
Construction Management Plan	**7.0 Environmental Management Plan** is a mandatory requirement for GS.	Satisfactory	1
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 10. Construction and Building Management
ASHRAE and CIBSE Commissioning handbooks
International Organization for standardization – ISO14001 – Environmental Management Systems
Keeping Our Stormwater Clean – A Builder's Guide www.melbournewater.com.au

Applicant Response Guidelines

Project Information:

Applicants should state the property address and the proposed development's use and extent. They should describe neighbouring buildings that impact on or may be impacted by the development. It is required to outline relevant areas, such as site permeability, water capture areas and gross floor area of different building uses. Applicants should describe the development's sustainable design approach and summarise the project's key ESD objectives.

Environmental Categories:

Each criterion is one of the 10 Key Sustainable Building Categories. The applicant is required to address each criterion and demonstrate how the design meets its objectives.

Objectives:

Within this section the general intent, the aims and the purposes of the category are explained.

Issues:

This section comprises a list of topics that might be relevant within the environmental category. As each application responds to different opportunities and constraints, it is not required to address all issues. The list is non-exhaustive and topics can be added to tailor to specific application needs.

Assessment Method Description:

Where applicable, the Applicant needs to explain what standards have been used to assess the applicable issues.

Benchmarks Description:

The applicant is required to briefly explain the benchmark applied as outlined within the chosen standard. A benchmark description is required for each environmental issue that has been identified as relevant.

How does the proposal comply with the benchmarks?

The applicant should show how the proposed design meets the benchmarks of the chosen standard through making references to the design brief, drawings, specifications, consultant reports or other evidence that proves compliance with the chosen benchmark.

ESD Matters on Architectural Drawings:

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site's permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.

Attachment 13 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Urban Design (external) referral response

hansen

Urban Design Memo

To:	Statutory Planning	**Date:**	November 2019
Company:	City of Yarra	**From:**	Hansen Urban Design Team
Subject:	25-43 Wangaratta Street, Richmond		

Hansen Partnership has been engaged by the City of Yarra to undertake an independent urban design assessment of the proposed 7 to 8 storey commercial development at 23-43 Wangaratta Street, Richmond. Our assessment is based on the RFI plans prepared by Bates Smart, dated October 2019 as well as a review of the site and surrounds, relevant planning policy found within the Yarra Planning Scheme including the Swan Street Structure Plan.

Site & context

The subject site is located mid-block on the east side of Wangaratta Street, approximately 70m to the north of the Swan Street Major Activity Centre, benefitting from an eastern interface with Botherambo Street. The site is an amalgamation of 2 allotments equating to a total site area of 2920m^2, with a frontage to Wangaratta Street of 81.84m and a depth of 35.28m. The site is currently occupied by 2 two storey brick post-war commercial/warehouse buildings. No. 35-43 comprises a front setback to Wangaratta Street accommodating at-grade car parking and No. 25-29 comprises under croft carparking, also accessed from Wangaratta Street. Both sites benefit from vehicle and pedestrian access (including outlook) to the secondary frontage of Botherambo Street.

Aerial of the subject site

Hansen Partnership
Melbourne | Byron Bay | Vietnam
ABN 20 079 864 716

Level 4 136 Exhibition St
Melbourne VIC 3000

T 03 9654 8844
E info@hansenpartnership.com.au
W hansenpartnership.com.au

The site has the following interfaces:

- To the **north** at No. 23 Wangaratta Street is a 3 storey single dwelling comprising garage and front door access from both Wangaratta and Botherambo Streets. Built form presents a 2 storey street wall to Wangaratta Street and a 3 storey Street wall to Botherambo Street. A roof terrace is positioned centrally within the site benefiting from northern outlook and solar aspect.
- To the **south**, the site abuts a vacant lot at No 45 Wangaratta Street. A planning permit for a 7 storey commercial building was granted in 2018 (a mixed-use application was reviewed by this office in 2016).
- To the **east**, is Botherambo Street, a 10m wide road reserve accommodating back-of-house for both residential lots to the east and commercial properties to the west. Opposite the street are traditional fine grain residential lots of predominately 1 and 2 storeys with a primary frontage to Lennox Street. Private open space for each dwelling is set between garages and dwellings in a courtyard format.
- To the **west**, is Wangaratta Street, a 10m wide road reserve that accommodates 2 way traffic and parallel parking on one side of the road. The street comprises 2 and 3 storey commercial forms, most of which comprise vehicle access to garages from the street frontage.

Planning provisions

The subject site is located within the **Mixed Use Zone (MUZ)** of the Yarra Planning Scheme, which seeks:

- *To provide for a range of residential, commercial, industrial and other uses which complement the mixed-use function of the locality.*
- *To encourage development that responds to existing or preferred neighbourhood character of the area*
- *To facilitate the use, development and redevelopment of land in accordance with the objectives specified in accordance with this zone*

The site is also subject to the **Heritage Overlay (HO332 – Richmond Hill Precinct)**, albeit buildings on the site are non-contributory. The **Environmental Audit Overlay (EAO)** also applies to the subject land.

The following State and Local planning policies are considered relevant:

- Clause 11 – Settlement;
- Clause 15 – Built Environment and Heritage;
- Clause 17 – Economic Development;
- Clause 21.03 – Vision;
- Clause 21.04 – Land Use;
- Clause 21.05 – Built Form;
- Clause 21.08 – Neighbourhoods (Central Richmond)
- Clause 22.02 – Development Guidelines for Sites Subject to the Heritage Overlay
- Clause 22.10 – Built form and design policy

The following reference documents are further highlighted as relevant:

- Swan Street Activity Centre Built Form Framework, City of Yarra (2017)
- Swan Street Structure Plan, City of Yarra (2014);
- Plan Melbourne, DEWLP (2017);
- Urban Design Guidelines for Victoria, DELWP (2017); and
- Victorian Government, Urban Design Charter (2010).

Proposal

The proposal seeks the removal of all structures on site for the development of a 7 and 8 storey commercial building comprising 2 levels of basement car parking. Specifically, the proposal includes:

- An overall building height of 31.35m (excluding lift overrun) comprising a 13.3m street wall (3 storeys). Above the street wall, built form is setback from Wangaratta Street between 3.6m to 6.4m and Botherambo Street between 5m-8.5m;
- Presentation of 2 building forms divided by an 8.2m wide ground floor public pedestrian laneway between Wangaratta and Botherambo Streets, positioned 20m to the north of the southern boundary. Upper levels (above level 1) comprise covered glazed links between each building.
- Each building comprises a separate circulation core with the southern accessed directly from the Wangaratta Street frontage via an entrance foyer and the northern access centrally from the public laneway via a foyer.
- The ground floor comprises a mix of commercial and retail tenancies with outlook to Wangaratta Street and the proposed public laneway, many of which are dual aspect.
- Bike parking for up to 130 bikes is accommodated at the ground floor accessed from Botherambo Street and the public pedestrian laneway.
- Vehicle access to the site is gained via a single crossover from Botherambo Street to the south, where most of the building servicing and storage cupboards are also positioned.
- At the upper levels, the building comprises open plan commercial tenancies, with levels 2-6 benefiting from outdoor communal terraces to both street frontages.
- The proposed building adopts a mixed material palette across the 2 buildings. The northern building comprises coloured glazed bricks across the northern podium and glazed concrete battens applied to upper levels. The southern building adopts a more minimalist palette comprising off-form textured concrete, glass block applied vertically across the stairwell, powder coated metal cladding and steel batten balustrades.
- A landscape plan has been prepared by Jack Merlo which specifies new planting within the pedestrian laneway (raised planter), climbing species (vertical tensioned cables) along the glazed bridge links as well as planter boxes along the podium terrace and roof terrace balustrades to both street frontages comprising a mix of small trees and tussock species

3d representation of the proposed development (Source: Bates Smart)

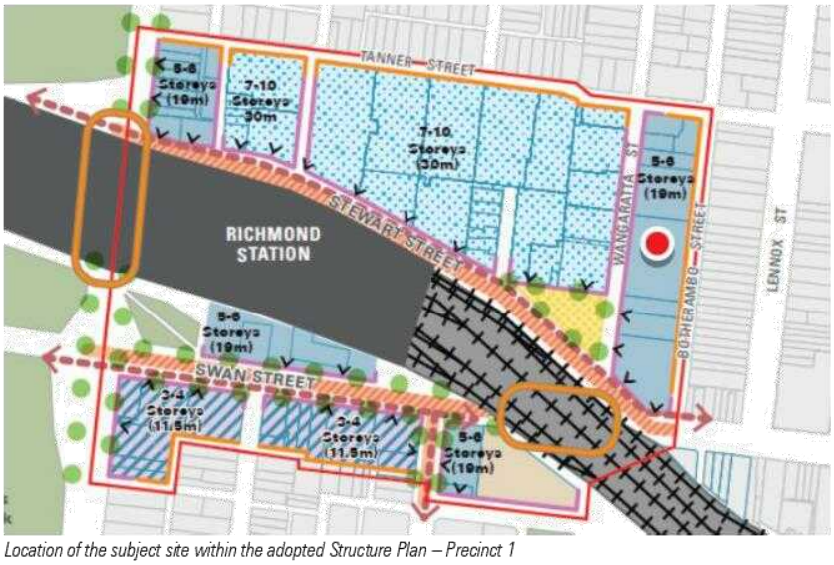
Urban Design assessment

Based on our review of the site and surrounds, as well as relevant planning policy (and reference documents) applying to the land, we acknowledge the subject site has considerable capacity to accommodate a consolidated commercial development to the periphery of the Swan Street Major Activity Centre in the Mixed Use Zone. In assessing a development of this scale it is necessary to consider not only the strategic merit of the proposal but also the impact of the development to the immediate interfaces, including low-scale residential properties to the north and east, the response to the public realm having regard to pedestrian movement and activity from Richmond Station as well as the architectural language of the development acknowledging the preferred future character of built form in the area.

The following urban design assessment outlines our assessment of the proposed 7-8 storey development including several minor recommendations for the refinement of the proposal, specifically relating building profile and massing.

Strategic Context & Development Trajectory

- Based on a review of the **Swan Street Structure Plan**, we acknowledge that strategic policy provides support for a mixed-use development of up to 5-6 storeys (19m) on the site with active frontages at the ground level, a 'low-scale' street wall to Wangaratta Street and the transition in form to residential land to the east. Importantly, built form controls applied to the urban block east of Wangaratta Street differ from the west, due to the low-order residential interface that occurs opposite Botherambo Street, subject to the NRZ. In comparison, land between Tanner Street and the rail corridor to the west of Wangaratta Street is identified to accommodate new form of up to 10 storeys given the traditional industrial character of the area, comprising large heritage warehouse forms on broad allotments of up to 7 storeys, with limited sensitive interfaces. Regarding recent development in the MUZ area, there are examples of new buildings of up to 5 storeys as well as smaller scale townhouse developments of 2 and 3 storeys. We acknowledge a number of **recent higher density development approvals**, including a 7 storey (24m) commercial development abutting the site to the south at No. 45 Wangaratta Street. Further, it is not uncommon to find development approvals of a greater scale behind the Swan Street spine, including a 10-storey approval at 1 Little Lesney Street.



Location of the subject site within the adopted Structure Plan – Precinct 1

- Having regard to the **Urban Design Principles** which form the basis of built form controls within the Structure Plan, we note that the back-block location of the subject site is quite distinct from the finer-grained lots found along the retail corridors of Swan and Church Streets (subject to the C1Z and C2Z). The principles (and subsequent parameters) pertaining to street walls, upper level setbacks and solar access relate specifically to these streets, particularly in those locations where heritage buildings exist. We consider however, the provision of solar access to the public realm and protection of residential interfaces to remain necessary considerations in this off-corridor location, ensuring attractive pedestrian in pockets of greater density to create a more vibrant urban experience. We also consider the management of upper level setbacks, ensuring the traditional warehouse 'base' remain dominant along its Wangaratta Street presentation. Noting distinctive variation in subdivision pattern and development typology within the MUZ precinct, the applicable built form parameters may vary from those along the commercial corridors (Church and Swan Streets).

- Based on the above **we accept a variation of the preferred building height** as specified in the Structure Plan could be contemplated in this location. Across a site of over 2,000m2, with a broad frontage of over 80m, behind the fine-grained commercial spine of Swan Street. From urban design perspective, the proposed 2 interconnected buildings, above 6 storeys can be contemplated subject to a successful transition (along its residential edge), management of amenity on public and private realms, a positive contribution to the broader precinct and its streetscape setting, as well as the resolution of quality architectural outcome. While subject to a precinct-based Heritage Overlay, there are less sensitives regarding upper level additions above heritage warehouse, along a diverse streetscape setting.

- We also note the site is located outside of the study area of the recently adopted **Swan Street Built Form Framework (2017)**, the recommendations made regarding building height and massing along the activity spine remain a relevant consideration when contemplating height and massing on the subject land. The BFR nominates new built form between 5 and 8 storeys (18m-27m) along the northern side of Swan Street. The corner of Swan and Stewart Street has a discretionary height limit of 8 storeys (27.2m). On the basis of development trajectory within its immediate vicinity, the site's attributes and ability to manage the necessary east to west transition, we are of the opinion that the proposed 7-8 storey proposal is supportable in principle.

- While strategic policy supports the redevelopment of the site, it is crucial that the massing and arrangement of form has regard to overshadowing of the public realm and sensitive residential interfaces found to the east, opposite Botherambo Street to mitigate any adverse amenity impacts of overshadowing to private open space visual bulk as viewed from these allotments. The following sections will provide an assessment of these attributes with reference to the design principles found within the Structure Plan.

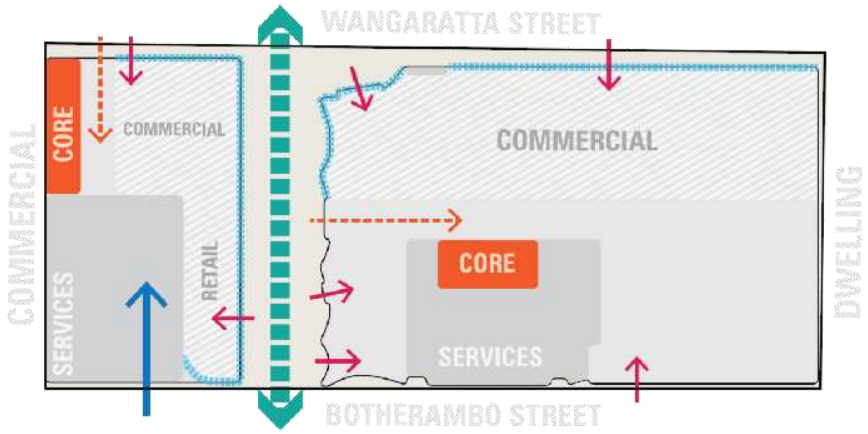
Site planning

- In order to comprehend the rationale for the building height and massing of the proposed development, it is necessary to first consider the site planning regime applied to the site. The proposed development offers a sound site planning proposition that considers the functional arrangement of commercial uses at the ground and upper levels as well as having regard to the broader urban structure and pedestrian network of the mixed-use precinct.
- The integration of an 8.6m wide **public pedestrian laneway** is a highly commendable site planning response, offering a much-needed mid-block pedestrian link along a broad urban block between Stewart Street (and the broader station precinct) to the residential area to the north-east. This site planning gesture break down the large site into 2 more manageable development footprints – comprising individual circulation cores reinforcing functionality and amenity of the building program at upper levels.

- The **arrangement of uses and programs at the ground floor** presents a highly permeable site plan, comprising up to 9 ground floor entries into the building including an entry into each of the building foyers from Wangaratta Street and the proposed pedestrian laneway, respectively. Commercial and retail tenancies at the ground floor (of varying sizes) benefit from dual aspect to street frontages and the pedestrian laneway.

- Botherambo Street is the dedicated street interface accommodating **back-of-house** uses, which is commensurate with the existing presentation of buildings to this edge within the Mixed Use and Neighbourhood Residential Zones. The provision of glazing treatment to ground level bike parking, bike repair workshop and direct access of Botherambo Street are positive contribution that prioritise active transport, as well as back of house activation without over-reliance on retail uses.

- Upper levels provide **outlook to both street frontages** including the staggered glazed pedestrian links between buildings ensuring there is a physical and visual dialogue between the 2 forms while facilitating a meaningful break in building massing across the broad site frontage.



Site planning diagram demonstrates positive contribution to the public realm and clearly demarcated 'front' and 'back'

Building mass to interfaces

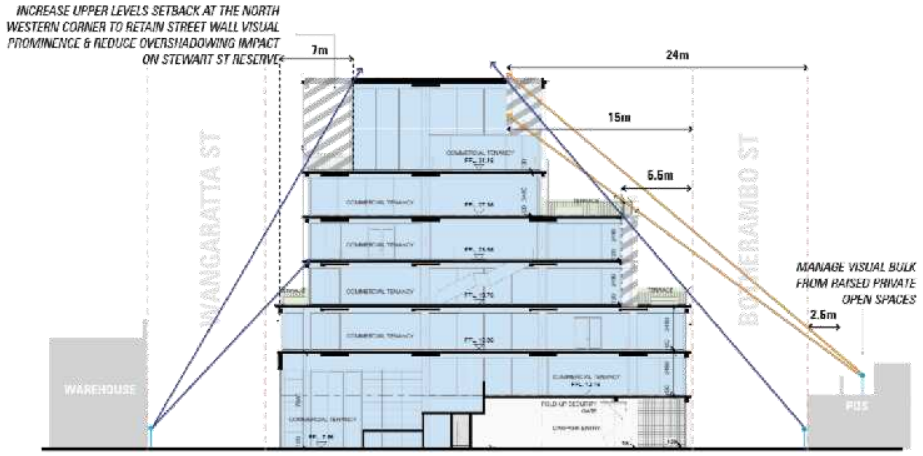
- As highlighted above, we are generally supportive of the overall massing strategy influenced by the established broad urban grain and successful site planning regime. **The overall form, broken into 2 distinctive buildings** (across 7-8 storeys) with a physical break between assists in mitigating an overtly horizontal expression. The smaller footprint and positioning of the 8 storey form along its southern boundary is appropriate, in response to the 7-8 storeys expected on the adjoining site and towards Swan Street.
- To contrast the southern vertical expression, the balance of the development mass has been further broken into parts, comprising robust 3 storey brick base, 3 storey upper levels (with a uniform façade treatment) and a saw-tooth roof profile, referencing its industrial past. Whilst there is minimal stepping down in building heights from 8 to 7, the sawtooth roof profile assists in establishing visual interest in the overall streetscape presentation and achieves a successful balance of vertical and horizontal expression.
- Both buildings (north and south) comprise a **street wall height of 3 storeys** (13.3m) to both street frontages. We acknowledge the street wall height exceeds the 10m discretionary limit found under the Structure Plan, however we support this encroachment given the building offers generous floor to ceiling heights of over 4m at the ground level and 3.48m at upper levels.
- In review of **shadow diagrams** prepared by the Architect, we acknowledge the proposed development has been arranged as to avoid unreasonable overshadowing of residential lots within the NRZ opposite Botherambo Street. With reference to Standard B21 of ResCode, the proposed development does not cast shadow to private open space at the equinox until after 2pm, ensuring private open space receives a minimum of five hours of sunlight between 9am and 3pm. The architect has adequately demonstrated this through detailed, site by site analysis of shadow to individual residential lots.

With regard to recommendations for the refinement of each building to the respective street frontages, having regard to visual bulk to the public realm and residential interfaces, we make the following comments:

Southern Building

- **Wangaratta Street (MUZ) frontage**: The Swan Street Structure Plan is clear in its intent to encourage a 'street-based' precinct outcome, whereby street walls dominate the streetscape presentation with recessive upper levels. Whilst visual concealment is not warranted along Wangaratta Street, noting its less sensitive interface, modification to levels 6 and 7 will assist in ensuring the street wall 'base' is proportionally more prominent when viewed from within the public realm.
- To balance the outcome of increased street wall height (above 10m prescribed by the Structure Plan), an increase in upper level setback (up to 7m) at the upper 2 levels (6 and 7) is recommended. This will also alleviate overshadowing impacts to Stewart Street Reserve and marginally assist in minimising overshadowing of western Wangaratta Street footpath from 10am at the equinox. In review of shadow diagrams prepared by the architect, the proposed building will cast shadow to 47% of the reserve at 10am.
- **Botherambo Street (NRZ) frontage:** The southern building has adopted a more generous setbacks to its residential interfaces. Above the street wall, upper levels to the south are setback between 4.6m (levels 3 and 4) and 12.25m (levels 5 and 6). The building envelope has clearly attempted to locate most of its 'height' along its western interface and present a predominantly 3-storey profile to its residential interface.

- Whilst we are generally supportive of the 'grouping' of upper level setbacks to avoid an overtly stepped building profile, an increase upper level setbacks to 5.5m for levels 3 and 4 and a setback to 15m for the uppermost level (level 7) is required to ensure levels above level 4 are not readily visible from Botherambo Street. Furthermore, an increase to upper level setbacks will also reduce the visual exposure of upper levels from private open space (particularly roof top open spaces).

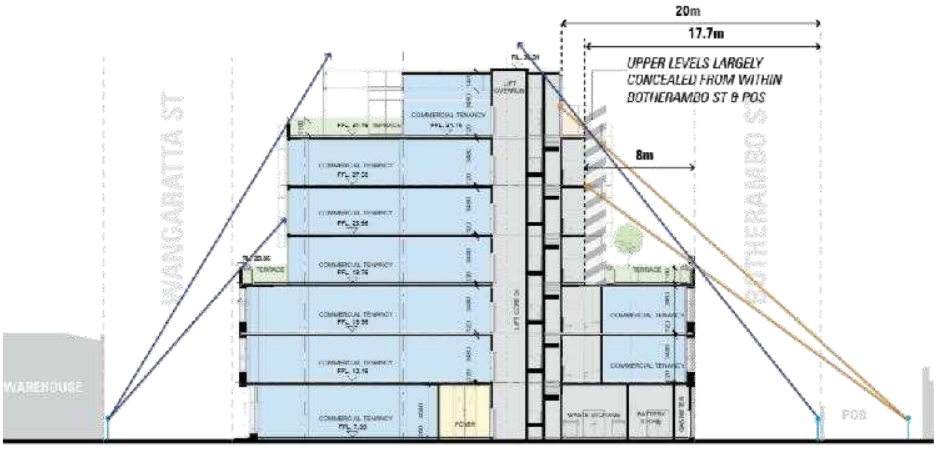


Upper level setback recommendations to Wangaratta St & Botherambo St for the southern building.

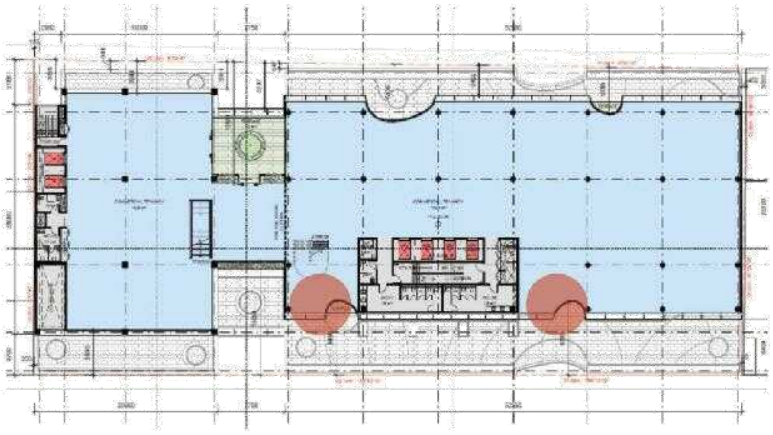
North Building

- **Wangaratta Street:** consistent with the design objectives of the structure plan, we are generally comfortable with the setback response to this public interface, which has ensured the street wall remains as the predominant built element. The setbacks applied to upper levels has ensured only 2 levels are perceived above the street wall from the opposite side of the street (levels4 and 5). The 12m setback applied levels (6 and 7 ensures the uppermost levels will be largely concealed within streetscape views.
- **Botherambo Street:** above the street wall, upper levels are setback between 6.4m (levels 3-5) and 10.3m (level 6). As applied to the southern building, positioning of height toward the western interface, presents a predominantly 3-storey profile to the east, with 2 setbacks above the street wall. **We recommend a minor increase in setbacks at levels 3-5 (up to 8m) to reduce the visual exposure of built form above the street wall, while maintaining the simplistic massing approach (as opposed presenting a highly stepped form).** While level 5 will be visible from rear private open space it is positioned over 17m to the rear of residential boundaries and presents a lightweight and dynamic façade (as opposed to a single plane of reflective glazing). We note however a diminishing effect of the 'sculpted' façade effect given the narrower profile across the eastern elevation. We would recommend the **variation in the sculpted floor plate to be larger**, commensurate with those found along the Wangaratta Street façade. This will assist to further reduce the breadth of the 'typical' façade effect when viewed from further east. Downward overlooking to private open spaces opposite Botherambo Street will also need to be resolved in detailed design to ensure the design integrity is not diminished. It would also be advantageous, if the architect could demonstrate in 3d illustration how the building will be perceived from several residential lots, particularly those which do not have a garage structure on the western boundary.

Attachment 13 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Urban Design (external) referral response



Upper level setback recommendations to Botherambo St for the northern building.



Larger sculpted terraces for Northern Building at 3rd, 4th and 5th levels address visual bulk along Botherambo Street

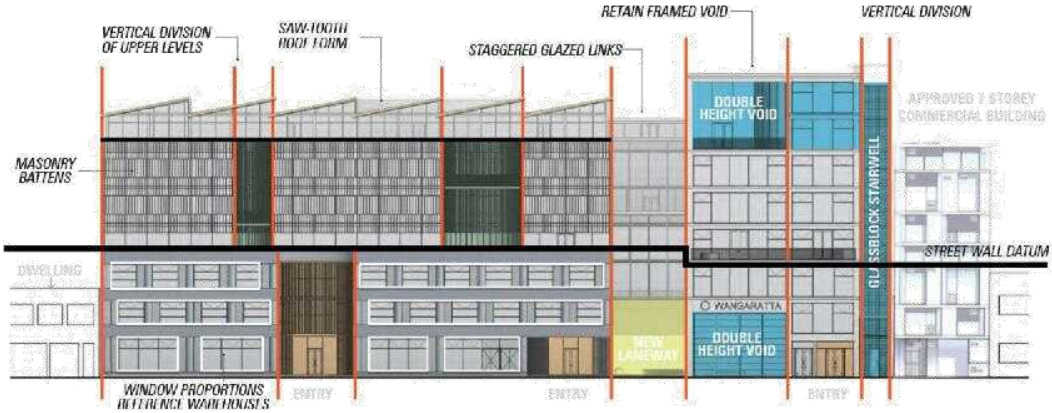
Architectural langue & landscape response

- The architectural language of the proposed development made a strong reference to its industrial context through its robust podium expression, sawtooth roof profile and tactile material palette, which present as a positive contribution in a precinct that is undergoing urban renewal. The architectural interpretation of its industrial context has successfully been reflected in its façade design and materiality, as prominently exhibited in the northern building. The proportions of window openings across the podium replicate those found opposite the site. Further, the adoption of coloured glazed brick and tile cladding across the podium also references the materiality of existing buildings in the precinct.

- Within the upper levels, the coloured glazed concrete battens provide visual interest across the broad frontage as well as provide necessary shading to internal spaces. This detail is further expressed vertically along the building entry to Wangaratta Street. This building is also complemented by the integration of landscaping to terraces comprising low shrub planting and small canopy trees in asymmetrical carvings, adding visual interest along the upper level façade. Given the lack of streetscape vegetation in the precinct, we consider this a positive contribution and one which will improve the amenity of the area.

- The southern building offers a more minimalist expression aided by a restrained material palette. This building appears as a pavilion-like structure with large floor to ceiling window openings framed by textured off-form concrete construction. Lightweight, powder-coated batten balustrades frame the terraces with upper levels comprising a double height void accommodating a new canopy tree visible from surrounding streetscapes. Importantly, the architectural distinction between the 2 buildings (north and south) enhances its streetscape diversity.

- Commendably, to the back-of house interface at Botherambo Street, both buildings present material effects which offer light and permeability through the building across a large portion of the extent, as demonstrated through the application of glass blockwork and masonry battens. The application of solid walling (glazed brick) is only applied to the loading bay entry and service are to the northern building which equates to approximately 20% of the site width.



Architectural response to Wangaratta Street façade

Based on the above urban design assessment, we are generally supportive with the proposed development of a 7-8 storey commercial development within the former industrial, mixed use precinct of Richmond, behind the Swan Street spine. Subject to increased setback recommendations to improve solar access to public realm and minimise the visual impact of upper levels from within and across Botherambo Street.

Should you have any questions, please contact the urban design team on 03 9654 8844.

Yours faithfully,
Hansen Partnership Pty Ltd

Hansen Urban Design Team

Attachment 14 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Acoustic (external) referral response

12 December 2019

640.10090.03410 25-43 Wangaratta St Richmond 20191129.docx

Yarra City Council
PO Box 168
RICHMOND 3121

Attention: Michelle King

Dear Michelle

25-43 Wangaratta Street, Richmond
Development Application Acoustic Review
PLN19/0483

SLR Consulting Australia Pty Ltd (SLR) has been retained by the City of Yarra to provide a review of the acoustic assessment report prepared to support the application for a commercial development 25-43 Wangaratta Street, Richmond.

Details of the report are as follows.

- Title: 25-43 Wangaratta Street, Richmond Planning Report
- Date: 2 October 2019
- Reference: RP 001 R03 20190242
- Prepared for: Wangaratta South Pty Ltd
- Prepared by: Marshall Day Acoustics

A permit for the application has not been issued.

1 Background Information

(Sections 1, and 5 of the acoustic report)

The acoustically significant aspects of the proposal are as follows

- Seven storey commercial development
- Two levels of basement parking
- Ground floor retail
- Existing noise sensitive receivers are to the east, in Botherambo Street.
- Noise impacts to the site include:
  - Rail noise from the elevated railway line to the south and west (given as 'east' in the report)
  - Local road traffic

SLR Consulting Australia Pty Ltd Suite 2, 2 Domville Avenue Hawthorn VIC 3122 Australia
T: +61 3 9249 9400 E: melbourne@slrconsulting.com
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- Patrons from nearby venues

SLR Comments: *The proposed use, noise impacts, and the location of the nearest noise sensitive receivers are clearly identified.*

The proposed hours of operation are not provided in the introductory sections of the report. In Section 6.1 it is stated that use of the facility is not proposed to occur at night, and in Section 9.2 it is indicated that the terraces are assumed to be used during normal office hours only. However, we understand that extended hours of operation may be sought by the application. If this is the case, noise during the evening and night periods should be addressed.

We note that the potential noise generating uses associated with the development (e.g. the loading bay and food and drinks tenancy) are located along the eastern boundary of the subject site, closest to the noise sensitive receivers. This layout is not ideal for acoustics.

The development is proposed to include several terraces on the eastern façade. Whilst not identified in the introductory sections of the report, noise from their use is addressed in the report.

2 SEPP N-1 Noise Limits

(Section 6 and Appendix F of the report)

Attended measurements of background noise were conducted on Thursday 21 March 2019 and Thursday 4 April 2019 at the south western and north eastern corners of the subject site to assist in determining noise limits. Measurement locations are shown in Figure 2. All measurements were undertaken between 8 pm and 11 pm to reflect the quieter periods when the development is likely to operate. The measured levels are presented in Tables 3 and 4 of the report.

The identified limits are based on background noise levels classified as 'neutral' and are therefore equal to the zoning levels.

SLR Comments: *The background noise measurement locations and measured levels look reasonable. Our calculations of the SEPP N-1 zoning levels and noise limits agree with MDA's.*

3 Noise from the Subject Development

3.1 Project Mechanical Plant

(Section 7.2 of the report)

An indication of mechanical plant and equipment likely to be installed on the subject site is provided in Section 7.2. MDA note that the equipment will need to comply with SEPP N-1 at the nearby sensitive receiver location Botherambo Street. They also note that design of noise from mechanical plant to ensure compliance with SEPP N-1 can be conducted during can be conducted during the detailed design phase of the project.

SLR Comments:

Agreed. Given the size of this project and the proximity of existing dwellings, we recommend that a review of all acoustically significant mechanical plant be conducted during the detailed design phase of the project. This requirement could be included as a permit condition, or as a specific recommendation in the acoustic report. If 24 hour operation may occur, plant and equipment should be designed to ensure that the SEPP N-1 night noise limits are met.

3.2 Loading Bay Noise

(Section 7.3 of the report)

MDA assume that deliveries will only be conducted during the day period, and that they are not likely to occur more than once or twice a day. Deliveries are typically proposed to involve vans and small rigid trucks. An indicative SEPP N-1 assessment of noise from deliveries is provided in the report. The SEPP N-1 effective noise level from one delivery is predicted to be 3 dB over the day period SEPP N-1 noise limit of 55 dBA, due to noise from trucks arriving and leaving the site. The provided assessment assumes engines will be turned off while trucks are in the loading bay. MDA suggest that the predicted exceedance is reasonable given the commercial interface and given that all practical measures have been implemented to control noise from the loading bay.

SLR Comments:

While we agree that a marginal exceedance of SEPP N-1 limits from occasional use of the loading bay during the day period is unlikely to be a critical compliance issue, we nevertheless note that SEPP N-1 limits are mandatory, and that if there is a risk of ongoing non-compliance, and/or of use of the facility being underestimated, it would be advisable to locate the loading bay in a less sensitive area (e.g. on the western side of the site). This would eliminate noise issues from its use.

It is also not clear that all practical measures for controlling noise from the loading bay have been implemented. The loading bay could, for example, be fitted with sound absorptive material to minimise reverberant buildup of noise.

The assumption that deliveries occur only during normal office hours should be provided as a recommendation in the report (e.g. in Section 10), particularly if the development is likely to operate during the evening and night periods.

3.3 Carpark Entry Door

(Section 7.5 of the report)

The report requires noise from the carpark entry door to comply with SEPP N-1. Best practice measures for achieving the nominated targets are given in the report and include the requirement for the door to be smooth in operation.

SLR Comments:

Given that some access to the carpark is likely at night it is recommended that the report be updated to include sleep disturbance targets for the door, and to provide an acoustic specification for achieving them (e.g. a decibel rating 1 m from any part of the door such that sleep disturbance levels will be met at the closest dwelling). Alternatively, the planning permit could require an assessment to sleep disturbance targets.

If extended hours of the use are likely, the carpark equipment will also need to comply with the more onerous SEPP N-1 night limits.

3.4 Voice Noise

3.4.1 Ground Floor Cafe

(Section 9.2 of the report)

The ground floor café is anticipated to accommodate up to 20 people. No controls are proposed to manage patron noise from its use during the day period. If the café is proposed to be used during the evening period, MDA recommend that windows and doors be kept closed.

SLR Comments: *The proposed advice is reasonable. Use of the external area for dining should also be restricted to the day period.*

3.4.2 Voice Noise from Office Terraces

(Section 9.3 of the report)

An indicative assessment of voice noise from the office terraces has been carried out to the nearest noise sensitive receivers in Botherambo Street. MDA have assumed use of the areas by office occupants, during normal office hours, and not for functions. Reasonably low levels of voice noise, consistent with quiet conversation (sound power levels of 73 dBA Leq). The assumed number of patrons are detailed in Table 16. The assessments have been conducted to the day and evening noise limits. Compliance with patron noise targets is predicted for both the day and evening periods.

SLR Comments: *The indicative assessment provided is satisfactory for the assumed use by office staff during office hours. We assume that the evening assessment has been provided to address noise impacts during the early evening period only, given that daytime use of the facility is proposed. If this area was used for functions during the evening, we would expect higher voice sound power levels to be used.*

If extended hours of operation are proposed, we would recommend that the terraces are not used during the night period.

4 Road and Rail Noise to the Offices

4.1 Noise Targets for Road and Rail

(Section 10 of the report)

Traffic and train noise are proposed to be controlled to achieve AS/NZS2107:2016 design levels for general offices. The identified levels are 40 to 45 dBA Leq.

SLR Comments: *The design targets are reasonable. We note that these targets are not mandatory, and that Yarra Council do not always require an acoustic report addressing road and rail impacts to commercial developments.*

4.2 Road and Railway Noise Measurements

(Sections 6.2, 6.3 and Appendix F of the report)

Attended measurements of road noise were conducted at street level, in Wangaratta Street (SW of subject site) and Botherambo Street (NE of the subject site) during the day and night periods. Results are detailed in Tables 5 to 9, with the measured levels being in the range 47 dBA to 60 dBA.

Railway noise was also measured on the SW corner of the subject site, with the microphone at approximately 1.5 m above ground.

SLR Comments: *The traffic noise measurements are generally reasonable. Upper levels of the development will have a greater exposure to road noise from Swan Street, however the site is some distance from this road, and a line of sight is unlikely to have implications for façade treatments.*

The ground level railway noise measurements are more of a concern, as it seems unlikely that the measurement location had a line of sight to the railway. MDA may have this data obtained at ground level to predict rail noise to upper levels of the building, however this is not clear from the report.

4.3 Façade upgrade Treatments

(Section 10.1 of the report)

Most of the building façade is proposed to be glazed with 6/12/6 glass, which has a stated sound insulation performance of R_w=33 dB. The two level multi-function space on the ground floor of the building (SW corner) is proposed to be glazed with 6.38/12/6 glass, which has a stated sound insulation of R_w=40 dB.

SLR Comments: *The advice provided is reasonable subject to MDA's confirmation that rail noise has been predicted to upper levels of the building.*

The provided acoustic rating for 6/12/6.38 double glazing is approximately 3 dB higher than our data suggests. However, it is unclear from the report why the higher performance glazing has been applied to this space and consequently a downgrade of the rating is unlikely to have implications for the project.

5 Summary

SLR has undertaken a review of the acoustic report prepared to address noise impacts to and from the commercial development proposed for 25-43 Wangaratta Street, Richmond.

The issues which may require further attention are:

- We understand there is potential for the offices to operate 24/7. If this is the case, the acoustic report should be updated to reflect this. Further attention to the following issues is likely to be required:
  - Loading bay use – e.g. restriction to daytime only
  - Carpark access gate – assessment to sleep disturbance targets and SEPP N-1 night noise limits
  - Terraces – we would suggest that the eastern terraces are not used at night

  If 24/7 operation is proposed it would be prudent to relocate the loading bay and carpark access to the western side of the building where there are no immediate noise sensitive receivers.

Attachment 14 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Acoustic (external) referral response

- Noise from project mechanical plant. Given the size of the project it would be prudent to conduct a detailed assessment of noise from mechanical plant during the detailed design phase of the project. This could be included as permit condition, or as a specific recommendation in a revised acoustic report.
- A 3 dB exceedance is predicted due to use of the loading bay. MDA indicate that the exceedance is acceptable given that all practical measures have been implemented to control noise from the use, and given that the loading bay will be used during the SEPP N-1 day period only. Whilst these arguments are reasonable, we note that compliance with SEPP N-1 is mandatory, and if there is risk of regular non-compliance, further measures should be undertaken to control noise. These could include relocation of the loading bay to the western side of the subject building (accessed via Wangaratta Street), or inclusion of absorption within the loading bay. Loading bay doors could also be required to be kept closed during deliveries.
- The carpark access door is likely to have some use during the night period even if the office building is operated during standard hours only, and as such, should be designed to comply with sleep disturbance targets. It is recommended that the report be updated to include sleep disturbance targets for the door, and to provide an acoustic specification for achieving them (e.g. a decibel rating 1 m from any part of the door such that sleep disturbance levels will be met at the closest dwelling).
- Rail noise has been measured at ground level, and it is unclear whether the assessment takes into consideration the higher levels that may potentially occur further up the building, which will have a line of sight to all rail tracks. Ideally MDA should confirm that the façade treatments have been designed to address these higher levels. However, we note that Yarra Council do not always require an assessment of road and rail noise to commercial developments. As such, the assessment currently provided may be sufficient for this planning application.
- The acoustic rating for 6/12/6.38 double glazing, as specified for the ground floor multi-function room, is higher than SLR would expect. This, however, is not a critical issue on this project given the non-mandatory targets.
- Use of the external area in the ground floor café should, if they are proposed, be restricted to the daytime hours. This is consistent with MDA's requirement for café doors and windows to be kept closed in the evening.

Regards,

Dianne Williams
Associate – Acoustics

Reviewed / checked by: SDL

Attachment 15 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Wind (external) referral response

MEL
CONSULTANTS

(ACN 004 230 013)

22 CLEELAND ROAD
SOUTH OAKLEIGH VIC 3167
AUSTRALIA

Ref: 181-19-DE-REV-00

29 November 2019

City of Yarra
PO Box 168
Richmond VIC 3121

Attn: Michelle King

Dear Michelle,

25-43 Wangaratta Street, Richmond
Review of Vipac Pedestrian Wind Tunnel Study
Vipac Document Number: 30N-19-0117-TRP-675124-0

The review of the Vipac Wind Tunnel Test Report for the development at 25-43 Wangaratta Street, Richmond, is based on our experience of wind flow around buildings and structures. This experience has been developed from more than 40 years of desktop, wind tunnel, and full scale studies of environmental wind conditions in urban and sub-urban areas. No wind tunnel studies have been undertaken to support the review. Our comments are as follows:

- MEL Consultants have no issue with the description of the development site, the proposed development, the wind tunnel model and proximity model, the Wind Climate, and assessment criteria. MEL Consultants would recommend that the walking criterion be the minimum acceptable criterion for the wind assessment as proposed by Vipac.

- Vipac provide recommended criteria for the intend activation of the streetscapes in Section 3.1 in Table 5 and diagrammatically in Figure 8 for the ground level. We have no issue with these recommended criteria for the various locations around the development site. The discussion of the recommended walking criterion for the private terraces and rooftop areas is reasonable and MEL

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Consultants have no issue with the recommendation. We have summarised the criteria recommended by Vipac in Section 3.1 of the report in Table 1 of this document. We note that the information in Appendix A of the Vipac report lists recommended criteria for each Location examined and this has also been summarised in Table 1.

- We have no issue with the modelling of the approach boundary layer for Terrain Category 3. The density of the Locations examined is sufficient. The measurement technique, which utilises Irwin probes, is an accepted method to determine the wind speeds.

- The study has been undertaken for two proposed building configurations; Proposed with current surroundings and Proposed with future development expected to be built within 5 years. This review will examine the compliance for the Proposed with current surroundings against the recommended criteria. No assessment of the impact of the development to the existing wind conditions can be made as no data have been presented for the existing wind conditions in the surrounding streetscapes.

- The wind tunnel data presented in the Vipac report has shown the development would achieve the recommended criteria at ground level except for one location (Location 28) as noted by Vipac. Table 1 has colour coded the criteria achieved (green = pass, red = fail). Vipac have demonstrated a wind control measure (WCM), increasing the column width or setting the entrance back at Location 28, to achieve the standing criterion for all wind directions.

- The wind conditions on the Level terrace at Location 38 (typo in Vipac's report as this is noted and referred to at Location 36) has been shown to not comply with the recommended criterion. Vipac have demonstrated with the proposed landscaping on the north facing edge of the terrace that the wind conditions would comply with the recommended walking criterion.

- We agree with the Vipac conclusions that the proposed development would not cause wind conditions to exceed the safety criterion.

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In summary, we have no issue with the modelling and methodology of the Vipac wind tunnel study. This work has been carried out as would be expected for an environmental wind tunnel study of a proposed development's wind impact. The study has not included measurements of the existing wind conditions so no assessment can be made of the impact of the development on the existing wind conditions of the surrounding streetscapes, only the assessment of wind conditions with the development against the recommended criterion. Vipac have demonstrated compliance with the recommended criteria with wind control measures for all locations except locations 28 and 38. Vipac have demonstrated wind control measures for these two locations would mitigate the wind conditions to satisfy the recommended criterion. Therefore, the report demonstrates the proposed development with wind control measures complies with the recommended criteria in the surrounding streetscapes, at building entrances, and on private terraces.

Yours sincerely,

M. Eaddy

M. Eaddy
MEL Consultants Pty Ltd

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Attachment 15 - PLN19/0483 - 25-43 Wangaratta Street Richmond - Wind (external) referral response

Table 1: Summary of Applicable/Recommended Criteria and Criteria Achieved

Location	Section 3.1 Recommended Criteria	Appendix A Recommended Criteria	Existing Config	Proposed Config 1	Proposed Config 2	Config 1 WCM	Config 2 WCM
1	Walking	Walking	Not measured	Walking	Walking		
2	Walking	Walking	Not measured	Walking	Walking		
3	Walking	Walking	Not measured	Walking	Walking		
4	Walking	Walking	Not measured	Standing	Standing		
5	Walking	Walking	Not measured	Walking	Walking		
6	Walking	Walking	Not measured	Walking	Walking		
7	Standing	Standing	Not measured	Sitting	Sitting		
8	Walking	Walking	Not measured	Sitting	Sitting		
9	Standing	Standing	Not measured	Standing	Standing		
10	Standing	Standing	Not measured	Standing	Standing		
11	Walking	Walking	Not measured	Sitting	Walking		
12	Walking	Walking	Not measured	Standing	Standing		
13	Walking	Walking	Not measured	Sitting	Sitting		
14	Walking	Walking	Not measured	Sitting	Standing		
15	Walking	Walking	Not measured	Walking	Sitting		
16	Walking	Walking	Not measured	Sitting	Sitting		
17	Walking	Walking	Not measured	Sitting	Sitting		
18	Walking	Walking	Not measured	Sitting	Sitting		
19	Standing	Standing	Not measured	Standing	Standing		
20	Walking	Walking	Not measured	Walking	Walking		
21	Walking	Walking	Not measured	Walking	Walking		
22	Walking	Walking	Not measured	Standing	Standing		
23	Walking	Walking	Not measured	Sitting	Sitting		
24	Walking	Walking	Not measured	Standing	Standing		
25	Walking	Walking	Not measured	Standing	Sitting		
26	Walking	Walking	Not measured	Walking	Walking		
27	Walking	Walking	Not measured	Standing	Sitting		
28	Standing	Standing	Not measured	Walking	Not measured	Standing	Standing
29	Standing	Standing	Not measured	Standing	Not measured	Standing	Standing
30	Standing	Standing	Not measured	Sitting	Not measured	Sitting	Standing
31	Standing	Standing	Not measured	Sitting	Sitting		
32	Standing	Standing	Not measured	Sitting	Sitting		
33	Standing	Standing	Not measured	Standing	Standing		
34	Walking	Walking	Not measured	Standing	Walking		
35	Walking	Walking	Not measured	Walking	Sitting		
36	Walking	Walking	N/A	Sitting	Sitting		
37	Walking	Walking	N/A	Standing	Walking		
38	Walking	Walking	N/A	Above Walking	Not measured	Walking	Walking
39	Walking	Walking	N/A	Walking	Walking		
40	Walking	Walking	N/A	Sitting	Sitting		
41	Walking	Walking	N/A	Sitting	Sitting		
42	Walking	Walking	N/A	Sitting	Sitting		
43	Walking	Walking	N/A	Walking	Walking		
44	Walking	Walking	N/A	Standing	Standing		
45	Walking	Walking	N/A	Standing	Sitting		
46	Walking	Walking	N/A	Walking	Walking		
47	Walking	Walking	N/A	Sitting	Sitting		
48	Walking	Walking	N/A	Sitting	Sitting		
49	Walking	Walking	N/A	Sitting	Sitting		

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Attachment 16 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by Marshall Day Acoustics

MEMO

MARSHALL DAY Acoustics

Project:	25-43 Wangaratta Street, Richmond	**Document No.:**	Mm 001 R01
To:	Wangaratta South Pty Ltd	**Date:**	3 February 2020
Attention:	C/O Contour – Tim McBride-Burgess	**Cross Reference:**	-
Delivery:	Email	**Project No.:**	20190242
From:	Tim Nicholls	**No. Pages:**	8 **Attachments:** No
Subject:	Response to SLR review - Acoustics		

Distribution:

Name	Company	Information	Action
Steve Ingram/Gus Cooper/Tim Fowler	Cremorne Properties	☒	☐
Paul Grant/Cian Davis	Bates Smart	☒	☐

INTRODUCTION

SLR Consulting Australia Pty Ltd (SLR) has been engaged by the City of Yarra to provide a review of Marshall Day Acoustics Pty Ltd (MDA) acoustic assessment report (RP 001 R03 20190242 dated 2 October 2019) prepared for the town planning application for the proposed commercial development at 25-43 Wangaratta Street, Richmond. A copy of SLR's review document is provided in Appendix A.

This memorandum provides a summary of the comments from SLR's review and MDA's corresponding responses and proposed actions.

It is proposed that MDA will update the acoustic report to address the items noted in SLR's review.

SUMMARY OF SLR REVIEW

SLR's review highlighted several items for further consideration, including:

- Loading bay noise
- Carpark entry door noise
- Café noise
- Noise from office terraces
- Rail noise impact upon the facade.

The items contained in SLR's review are discussed and responded to in detail below.

Attachment 16 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by Marshall Day Acoustics

MARSHALL DAY Acoustics

MDA RESPONSE

A summary of each item raised in SLR's review, and any further action to be taken, is presented in Table 1.

Table 1: SLR review comments and MDA response

Section reference	SLR comment	MDA response	Action
Section 1.0 - Background information			
Hours of operation	The proposed hours of operation are not provided in the introductory sections of the report. In Section 6.1 it is stated that use of the facility is not proposed to occur at night, and in Section 9.2* it is indicated that the terraces are assumed to be used during normal office hours only. However, we understand that extended hours of operation may be sought by the application. If this is the case, noise during the evening and night periods should be addressed. * *Assumed to mean Section 9.3*	Given the intended operation of the development as a commercial operation, it is difficult to define strict hours of operation as it may be necessary from time to time for employees to access and use the building during evening and night-time periods. Notwithstanding, the report does discuss potential noise sources from the development during the evening and night-time periods as well as daytime – where certain activities are expected to exceed noise limits during evening and night-time periods, this has been addressed in the report accordingly. It is proposed to amend the wording of Section 6.1 and Section 9.3 to reflect the remainder of the report.	**Amend wording to Section 6.1 and Section 9.3 to reflect the remainder of the report.**

Attachment 16 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by Marshall Day Acoustics

MARSHALL DAY Acoustics

Section reference	SLR comment	MDA response	Action
Location of noise generating uses	We note that the potential noise generating uses associated with the development (e.g. the loading bay and food and drinks tenancy) are located along the eastern boundary of the subject site, closest to the noise sensitive receivers. This layout is not ideal for acoustics.	This comment is noted. We have received the following advice from the town planning consultant: 'We understand that the City of Yarra preferences access from vehicles, including loading and waste collection from laneways. This outcome ensures primary pedestrian streets are uninterrupted by crossovers and opportunities for active frontages are maximised. Specifically, Clause 22.07 – Development abutting Laneways of the Yarra Planning Scheme states that "*where appropriate, laneway access for vehicles is to be used in preference to street frontages to reduce vehicle crossovers*." For these reasons, the application proposes vehicle access and loading from Botherambo Street in favour of Wangaratta Street.'	No further action required.
	The development is proposed to include several terraces on the eastern façade. Whilst not identified in the introductory sections of the report, noise from their use is addressed in the report.	Noted.	No further action required.

Attachment 16 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by Marshall Day Acoustics

MARSHALL DAY Acoustics

Section reference	SLR comment	MDA response	Action
Section 2.0 - SEPP N-1 noise limits			
Determination of noise limits	The background noise measurement locations and measured levels look reasonable. Our calculations of the SEPP N-1 zoning levels and noise limits agree with MDA's.	Noted.	No further action required.
Section 3.0 - Noise from the Subject Development			
Mechanical plant noise	Agree with MDA's approach. Recommended that a review of all acoustically significant mechanical plant be conducted during the detailed design phase of the project.	Noted. A detailed review of mechanical services plant would normally be conducted during the detailed design phase of the project.	No further action required.
Loading Bay noise	MDA assume that deliveries will only be conducted during the day period, and that they are not likely to occur more than once or twice a day. Deliveries are typically proposed to involve vans and small rigid trucks. An indicative SEPP N-1 assessment of noise from deliveries is provided in the report. The SEPP N-1 effective noise level from one delivery is predicted to be 3 dB over the day period SEPP N-1 noise limit of 55 dBA, due to noise from trucks arriving and leaving the site. The provided assessment assumes engines will be turned off while trucks are in the loading bay. MDA suggest that the predicted exceedance is reasonable given the commercial interface and given that all practical measures have been implemented to control noise from the loading bay.	The prediction of delivery noise has been reviewed with some parameters amended – refer below.	-
	While we agree that a marginal exceedance of SEPP N-1 limits from occasional use of the loading bay during the day period is unlikely to be a critical compliance issue, we nevertheless note that SEPP N-1 limits are mandatory, and that if there is a risk of ongoing non-compliance, and/or of use of the facility being underestimated, it would be advisable to locate the loading bay in a less sensitive area (e.g. on the western side of the site). This would eliminate noise issues from its use.	As discussed above, it is understood that for architectural/practical reasons, it is not feasible to locate the loading day on the west elevation.	-

Attachment 16 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by Marshall Day Acoustics

MARSHALL DAY Acoustics

Section reference	SLR comment	MDA response	Action
	It is also not clear that all practical measures for controlling noise from the loading bay have been implemented. The loading bay could, for example, be fitted with sound absorptive material to minimise reverberant build-up of noise.	The noise prediction for the loading bay in RP001 R03 assumed the delivery truck would emit noise for a period of one minute per 30 minute period. However, upon further review we believe this over-estimates the length of time that the vehicle will emit assessable noise under SEPP N-1. Because the loading bay opens directly onto the street, the assessable duration of noise from an arrival and departure is expected to be quite short (i.e. a matter of seconds). Furthermore, a sound absorptive lining in the loading bay and an acoustic loading bay door will be recommended. The loading bay door will remain closed during loading/unloading activities. These additional considerations result in predicted compliance from loading bay activities. Additional management control measures will also be recommended.	**Update the report to include:** • **Revise the duration correction for the delivery vehicle** • **Sound absorptive lining in the loading bay** • **Acoustic door to the loading bay** **Management controls to include:** • **Loading door to remain closed when loading bay is in use** • **Loading bay not to be used outside of SEPP N-1 defined Daytime hours** • **Vehicle operators encouraged to use white-noise reversing beepers to minimise noise disturbance.**
	The assumption that deliveries occur only during normal office hours should be provided as a recommendation in the report (e.g. in Section 10), particularly if the development is likely to operate during the evening and night periods.	Noted. The report will be updated to include daytime only operation as a recommendation.	**Report to be updated to include daytime only operation as a recommendation.**
Carpark entry door noise	Given that some access to the carpark is likely at night it is recommended that the report be updated to include sleep disturbance targets for the door.	Noted. The report will be updated to include sleep disturbance targets for the door and a specification/noise limit for the door system.	**Report to be updated to include sleep disturbance targets for the door and a specification/noise limit for the door system.**

Attachment 16 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by Marshall Day Acoustics

MARSHALL DAY Acoustics

Section reference	SLR comment	MDA response	Action
Patron (voice) noise – Café	The proposed advice is reasonable. Use of the external area for dining should also be restricted to the day period.	Noted. The report will be updated to clarify this.	**Section 9.2 will be updated to clarify that the external area should not be used during the evening/night-time periods.**
Patron (voice) noise – terraces	The indicative assessment provided is satisfactory for the assumed use by office staff during office hours. We assume that the evening assessment has been provided to address noise impacts during the early evening period only, given that daytime use of the facility is proposed. If this area was used for functions during the evening, we would expect higher voice sound power levels to be used. If extended hours of operation are proposed, we would recommend that the terraces are not used during the night period.	Noted. The report will be updated to include noise management control recommendations for the terraces.	**Section 9.3 will be updated to include noise management control recommendations.**

Attachment 16 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by Marshall Day Acoustics

MARSHALL DAY Acoustics

Section reference	SLR comment	MDA response	Action
Section 4.0 - Road and Rail Noise to the Offices			
Noise Targets	The design targets are reasonable. We note that these targets are not mandatory, and that Yarra Council do not always require an acoustic report addressing road and rail impacts to commercial developments.	Noted.	No further action required.
Road and Railway Noise Measurements	The traffic noise measurements are generally reasonable. Upper levels of the development will have a greater exposure to road noise from Swan Street, however the site is some distance from this road, and a line of sight is unlikely to have implications for facade treatments. The ground level railway noise measurements are more of a concern, as it seems unlikely that the measurement location had a line of sight to the railway. MDA may have (used) this data obtained at ground level to predict rail noise to upper levels of the building, however this is not clear from the report.	Whilst potential rail noise impact is not considered critical at town planning stage for a commercial development, noise data from a similar commercial development site will be used to assess potential noise impact at the upper levels to confirm the potential facade glazing requirements. However, it is expected that there will be no significant additional impact on the facade glazing requirements, over and above what would normally be required for a commercial development.	**Section 6.3 to be updated to include additional noise data and further analysis of potential noise impact at upper levels.**
Facade upgrade Treatments	The advice provided is reasonable subject to MDA's confirmation that rail noise has been predicted to upper levels of the building. The provided acoustic rating for 6/12/6.38 double glazing is approximately 3 dB higher than our data suggests. However, it is unclear from the report why the higher performance glazing has been applied to this space and consequently a downgrade of the rating is unlikely to have implications for the project.	The report will be updated to clarify this.	**Section 11.1 (previously 10.1) to be updated.**

Attachment 17 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by VicPac regarding wind

Vipac Engineers and Scientists Limited

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w. www.vipac.com.au | A.B.N. 33 005 453 627 | A.C.N. 005 453 627

Wangaratta South Pty Ltd

54 Cremorne Street

Cremorne, Australia

05-02-2020

Ref: 30N-19-0117-TNT-6772657-1

Attention: Steve Ingram

Dear Steve Ingram

25-43 Wangaratta Street, Richmond

Vipac Engineers and Scientists completed a wind tunnel test in July 2019 on the proposed development at 25-43 Wangaratta Street, Richmond. Drawings of the updated design were supplied from Bates Smart in February 2020 and a comparison was made with the findings in the July 2019 wind tunnel test report.

The July 2019 wind report recommended increasing the column widths to 800m, or set back entrance to ameliorate the adverse wind conditions at Location 28. The updated design (February 2020) proposes two alternatives:

- A large tree to extend three storeys within the central void of the public laneway (Figure 1), or
- The same large three storey tree but with a 450 mm high public seating element.

Vipac has reviewed the July 2019 wind tunnel test data with the updated February 2020 design and can conclude that the updated design is expected to fulfil the recommended criterion of standing for Location 28. Therefore, Vipac makes no further recommendations for wind amelioration.

Yours sincerely,

Vipac Engineers & Scientists Ltd

Eric Yuen

Wind Engineer

Attachment 17 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by VicPac regarding wind

Attachment 17 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by VicPac regarding wind

Attachments:

Updated Drawings Received Feburary 2020

DWG NO.	REV	DRAWING SERIES	DRAWING TITLE
TP_A01.00	B	Site	Location Plan
TP_A01.10	B	Site	Existing Site Survey Plan
TP_A01.11	B	Site	Demolition Plan
TP_A02.00	C	Key Plan	Ground Level
TP_A02.10	C	Key Plan	First Level
TP_A02.20	C	Key Plan	Second Level
TP_A02.30	C	Key Plan	Third Level
TP_A02.40	C	Key Plan	Fourth Level
TP_A02.50	C	Key Plan	Fifth Level
TP_A02.60	C	Key Plan	Sixth Level
TP_A02.70	C	Key Plan	Seventh Level (Mezzanine)
TP_A02.80	C	Key Plan	Eighth Level (Roof)
TP_A02.B01	C	Key Plan	Basement Level 01
TP_A02.B02	C	Key Plan	Basement Level 02
TP_A09.00	C	External Elevations	West Elevation
TP_A09.01	C	External Elevations	East Elevation
TP_A09.02	C	External Elevations	North Elevation
TP_A09.03	C	External Elevations	South Elevation
TP_A09.04	C	External Elevations	Streetscape Elevation
TP_A10.00	C	Building Sections	Section AA
TP_A10.01	C	Building Sections	Section BB
TP_A10.02	C	Building Sections	Section CC
TP_A10.03	C	Building Sections	Section DD
TP_A10.04	C	Detail Sections	Facade Sections

Attachment 17 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by VicPac regarding wind

Attachment 17 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Memo prepared by VicPac regarding wind

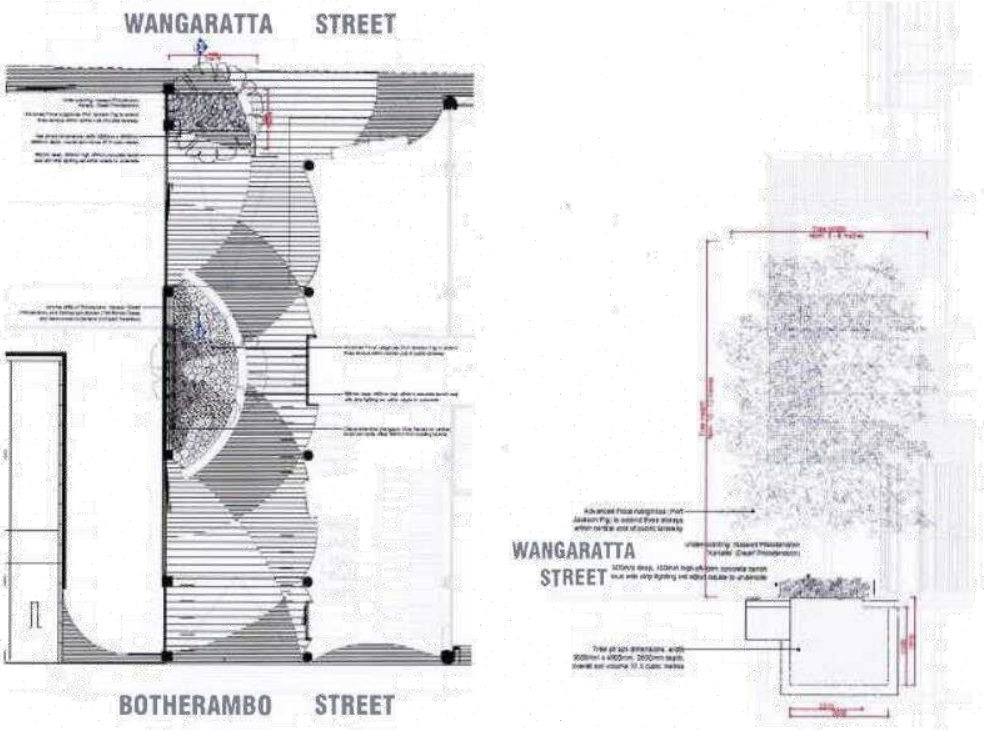
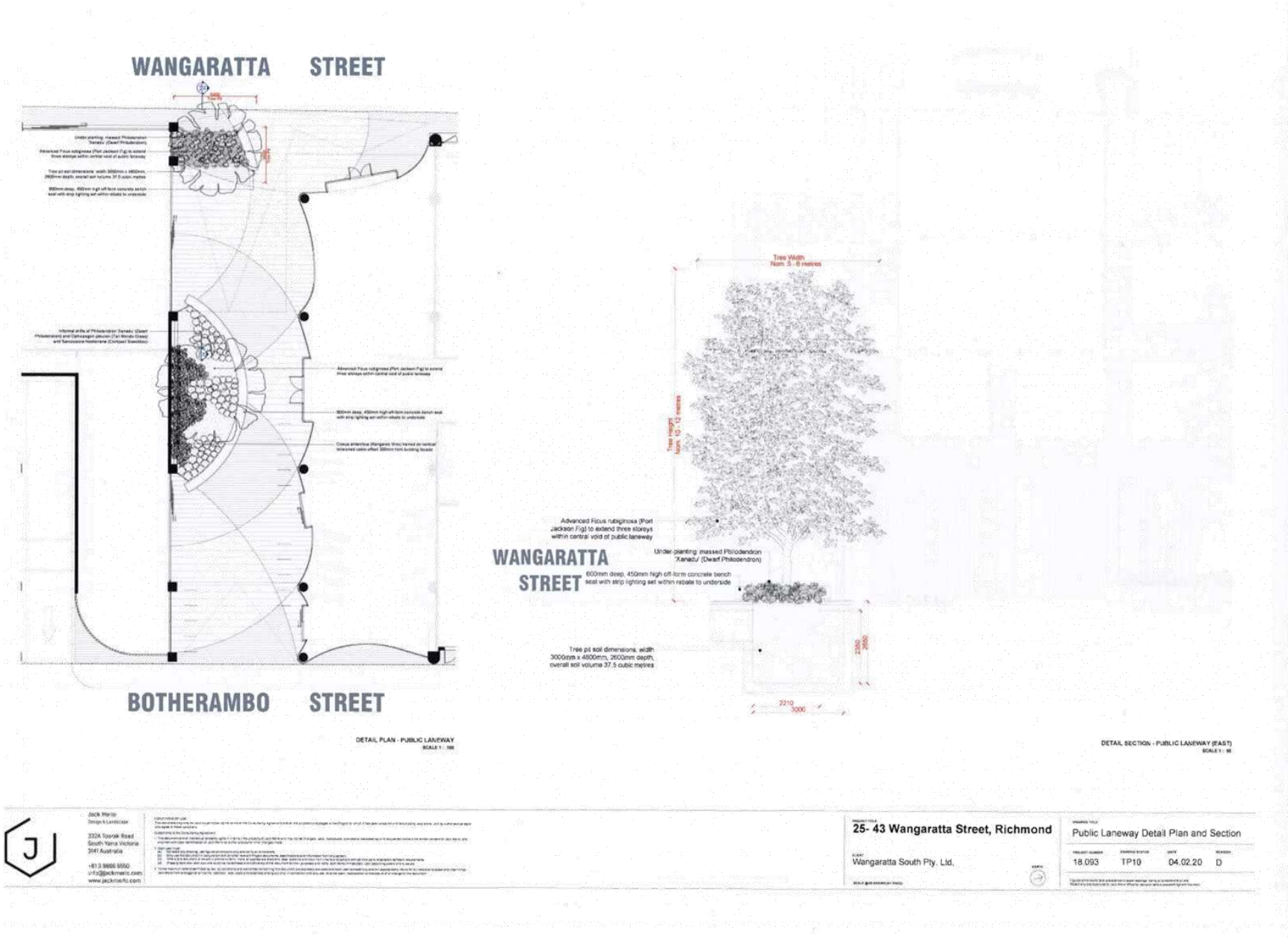


Figure 1: Public Laneway Detail Plan

Attachment 18 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Public laneway detail plans prepared by Jack Merlo Design and landscape



Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.0
SHADOW ANALYSIS

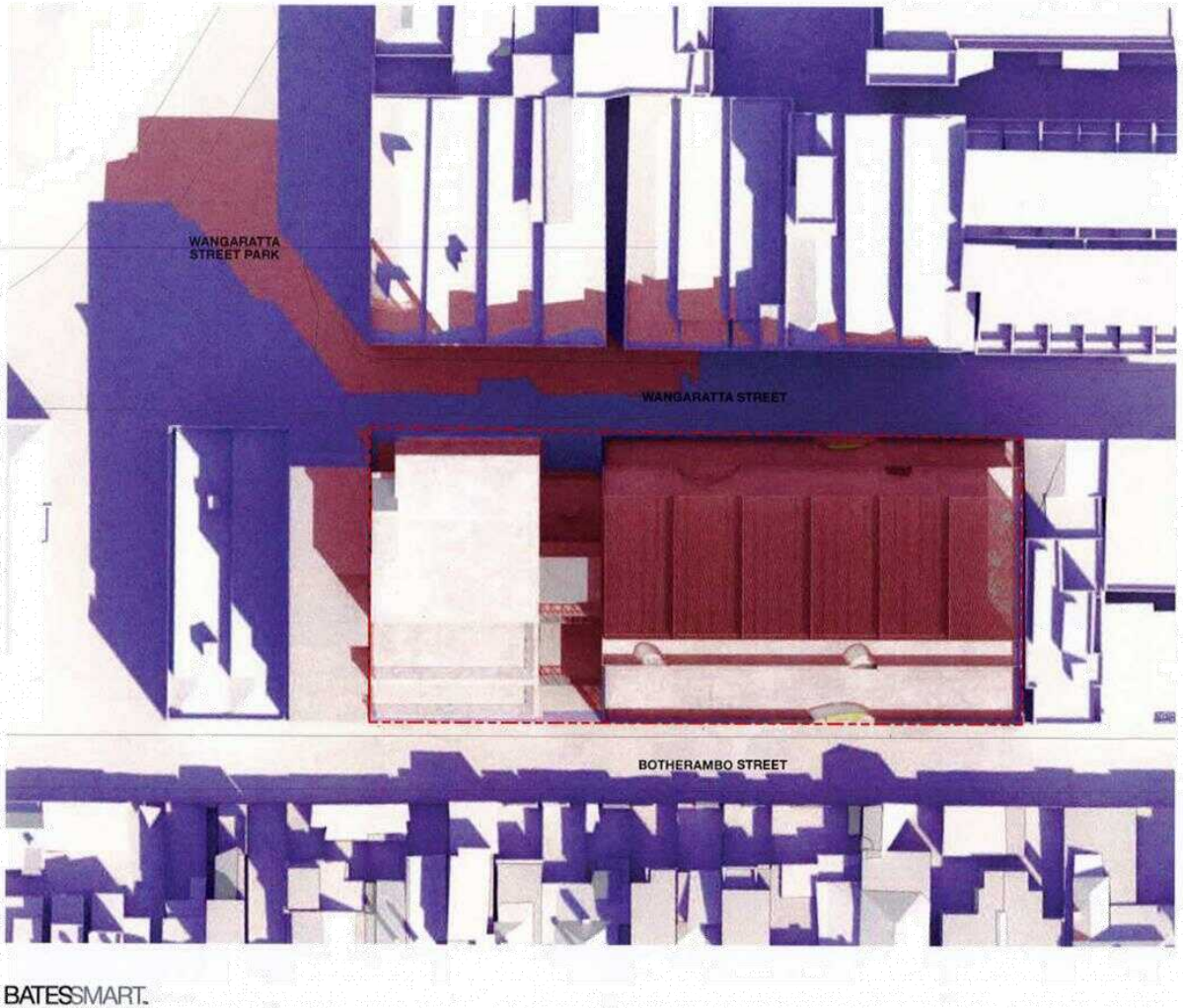
Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

SEPT 22ND 9 AM

- Wangaratta Street Park
- Wangaratta Street Park
  Existing shaded area (%): 49
- Wangaratta Street Park
  Proposed additional shaded area (%): 45

Wangaratta Street Park - 9am		
	Area (m^2)	%
Wangaratta Street Park total area	520	N/A
Existing shaded area	255	49
Total shaded area (existing & proposed)	489	94
Existing unshaded area	265	51
Proposed unshaded area	31	6



Scale 1 : 500

- Existing Shadow (Inc. approved shadow from 45 Wangaratta Street)
- Proposed Additional Shadow

BATESSMART.

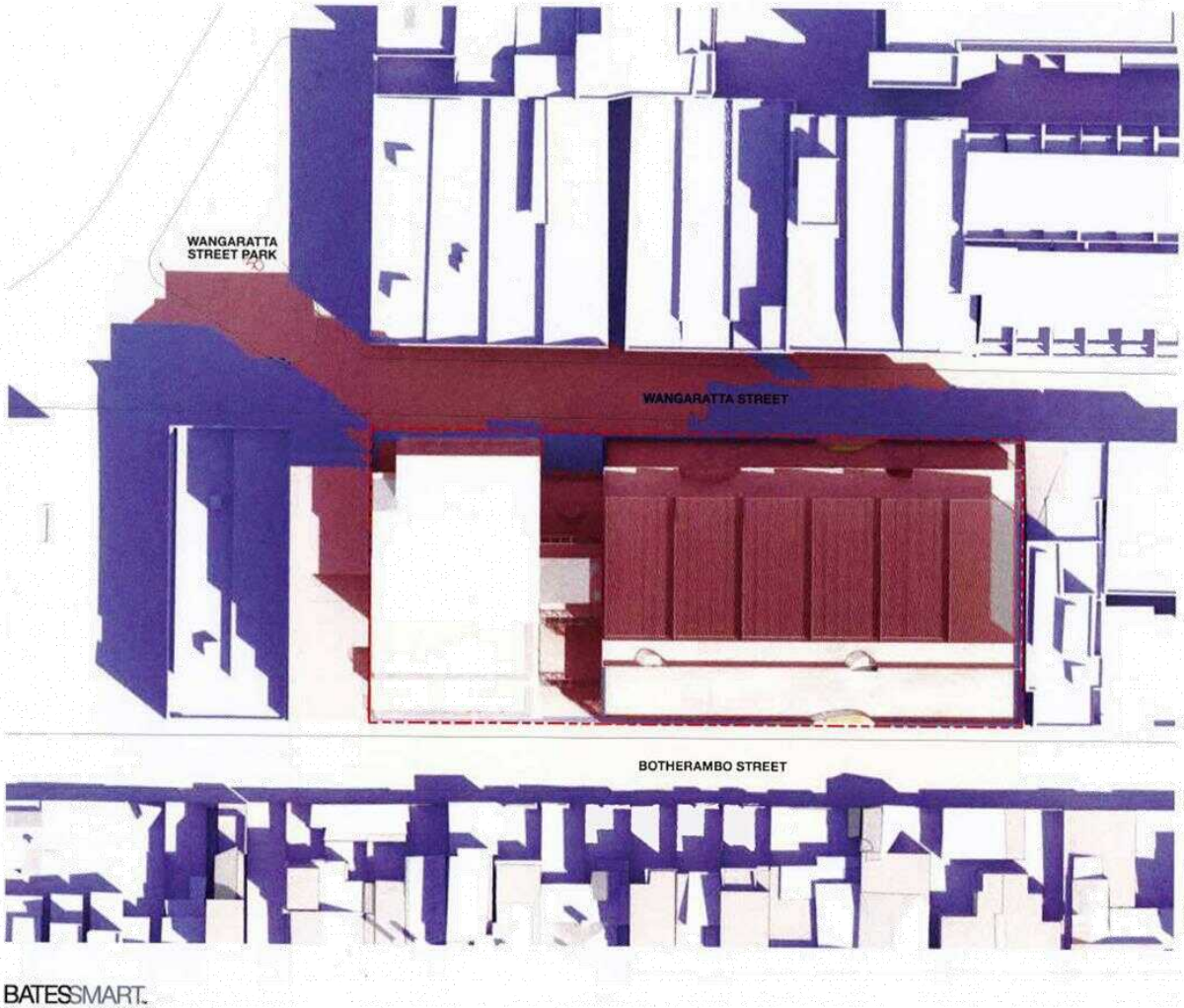
Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

SEPT 22ND 10 AM

- Wangaratta Street Park
- Wangaratta Street Park
  Existing shaded area (%): 16
- Wangaratta Street Park
  Proposed additional shaded area (%): 27

Wangaratta Street Park - 10am		
	Area (m²)	%
Wangaratta Street Park total area	520	N/A
Existing shaded area	83	16
Total shaded area (existing & proposed)	224	43
Existing unshaded area	437	84
Proposed unshaded area	296	57



Scale 1 : 500

- Existing Shadow (inc. approved shadow from 45 Wangaratta Street)
- Proposed Additional Shadow

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

SEPT 22ND 10.30 AM

- Wangaratta Street Park
- Wangaratta Street Park
  Existing shaded area (%): 14
- Wangaratta Street Park
  Proposed additional shaded area (%): 6

Wangaratta Street Park - 10.30am		
	Area (m²)	%
Wangaratta Street Park total area	520	N/A
Existing shaded area	73	14
Total shaded area (existing & proposed)	104	20
Existing unshaded area	447	86
Proposed unshaded area	416	80

Scale 1 : 500

- Existing Shadow (inc. approved shadow from 45 Wangaratta Street)
- Proposed Additional Shadow

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

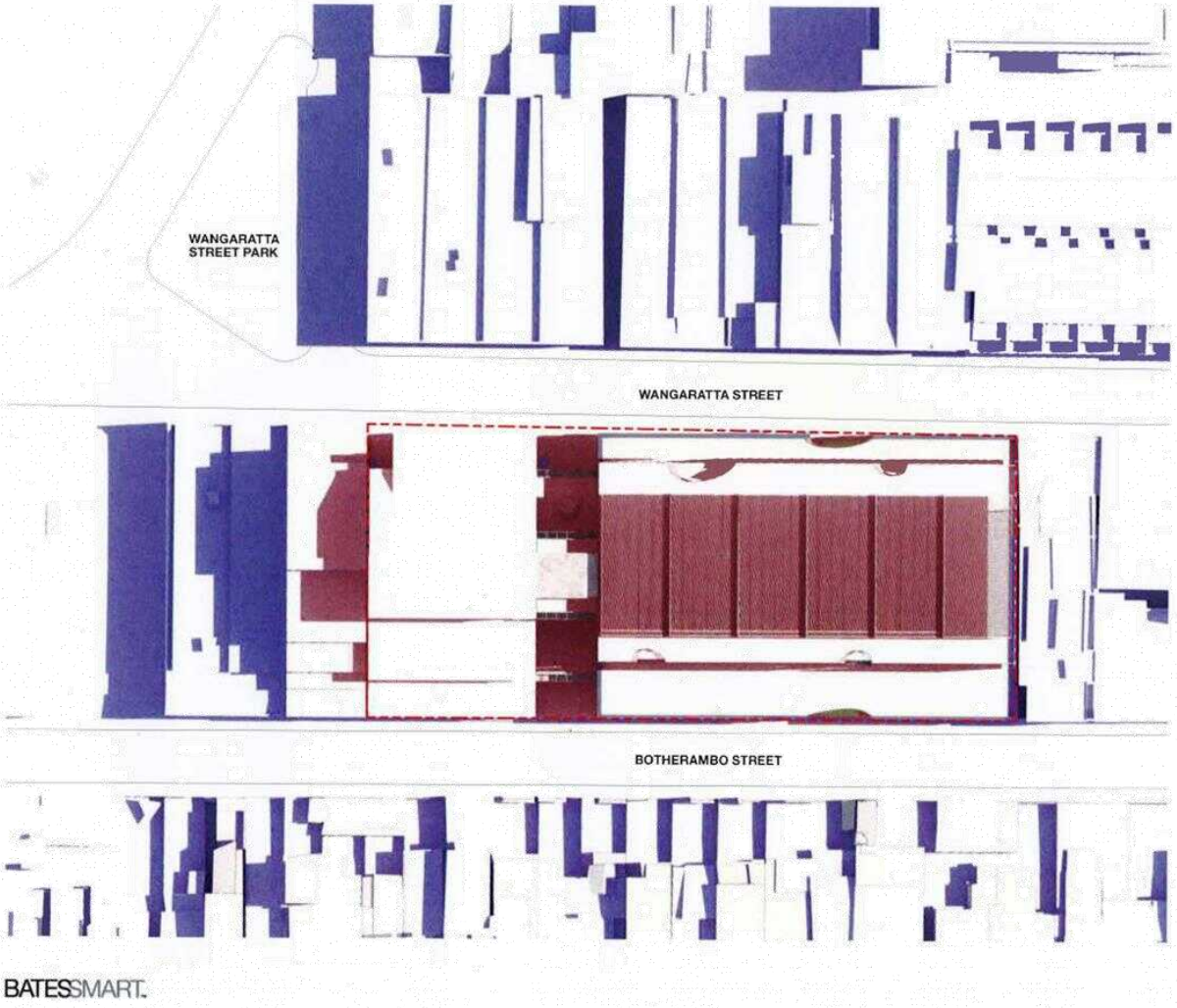
SEPT 22ND 11 AM

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

SEPT 22ND 12 PM

- Wangaratta Street Park
- Wangaratta Street Park
  Existing shaded area (%): 8
- Wangaratta Street Park
  Proposed additional shaded area (%): 0



- Scale 1 : 500
- Existing Shadow (inc. approved shadow from 45 Wangaratta Street)
- Proposed Additional Shadow

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

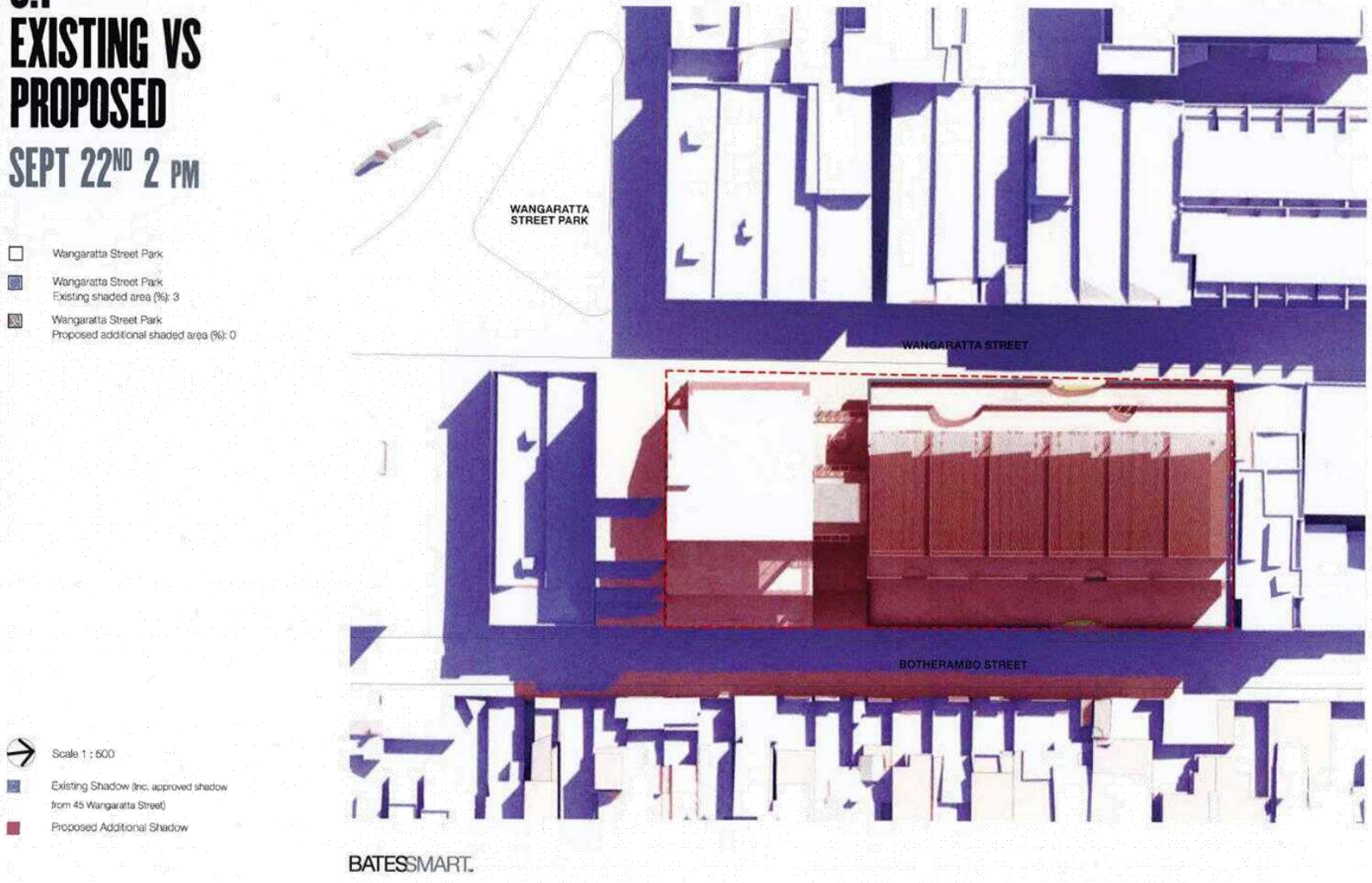
6.1 EXISTING VS PROPOSED

SEPT 22ND 1 PM

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

SEPT 22ND 2 PM



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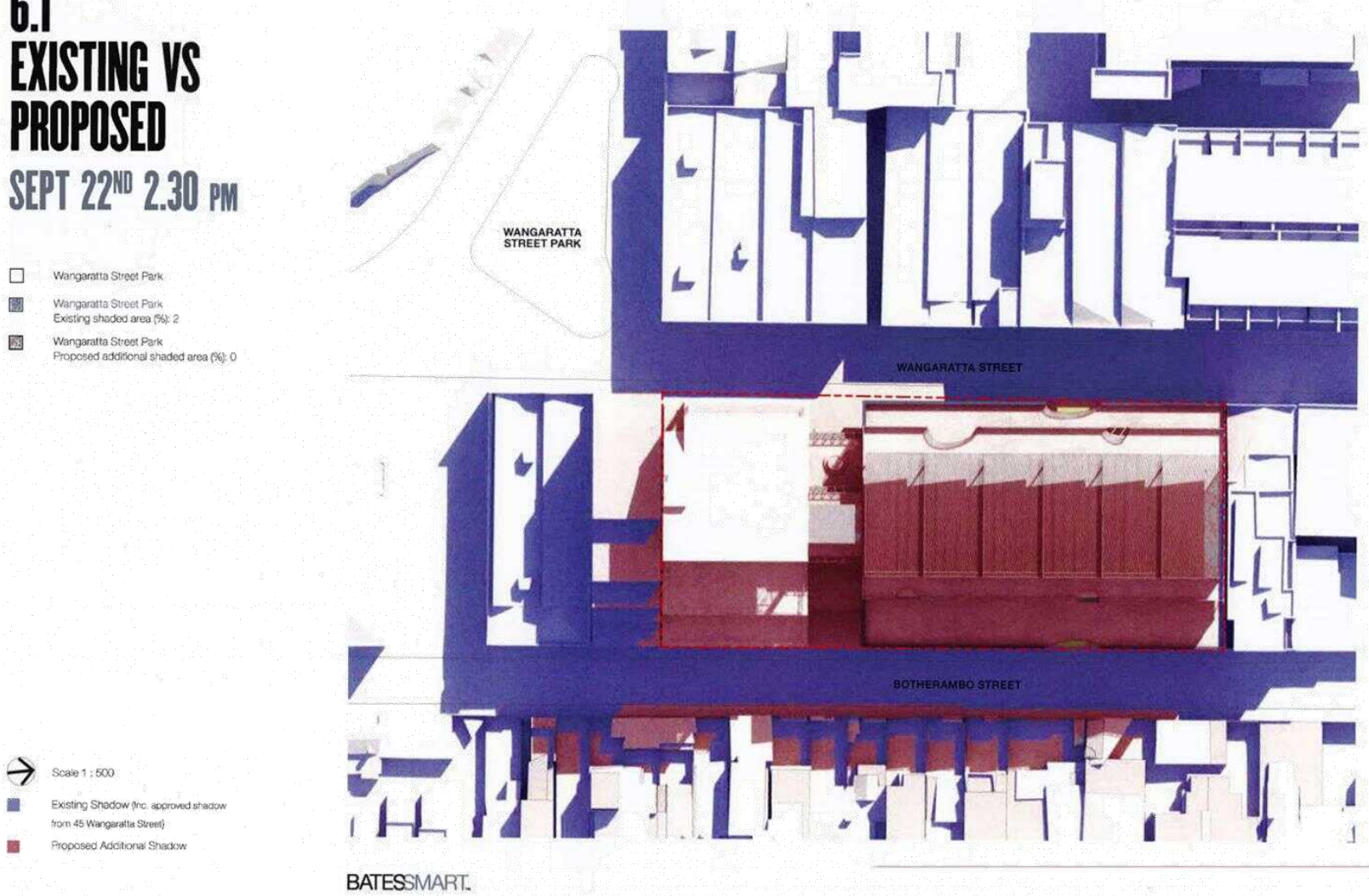
Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

SEPT 22ND 2.30 PM

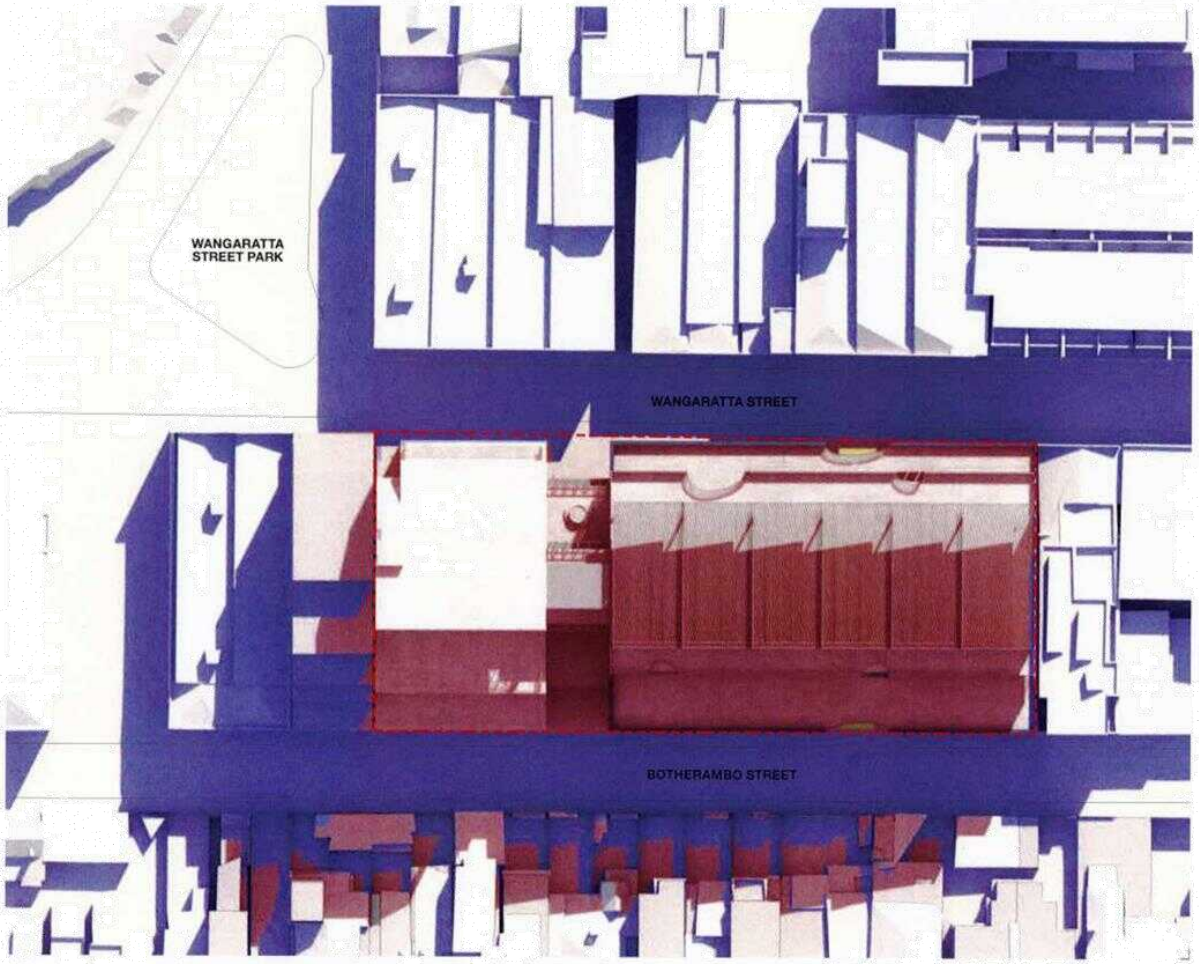


Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

SEPT 22ND 3.00 PM

- Wangaratta Street Park
- Wangaratta Street Park
  Existing shaded area (%): 1
- Wangaratta Street Park
  Proposed additional shaded area (%): 0

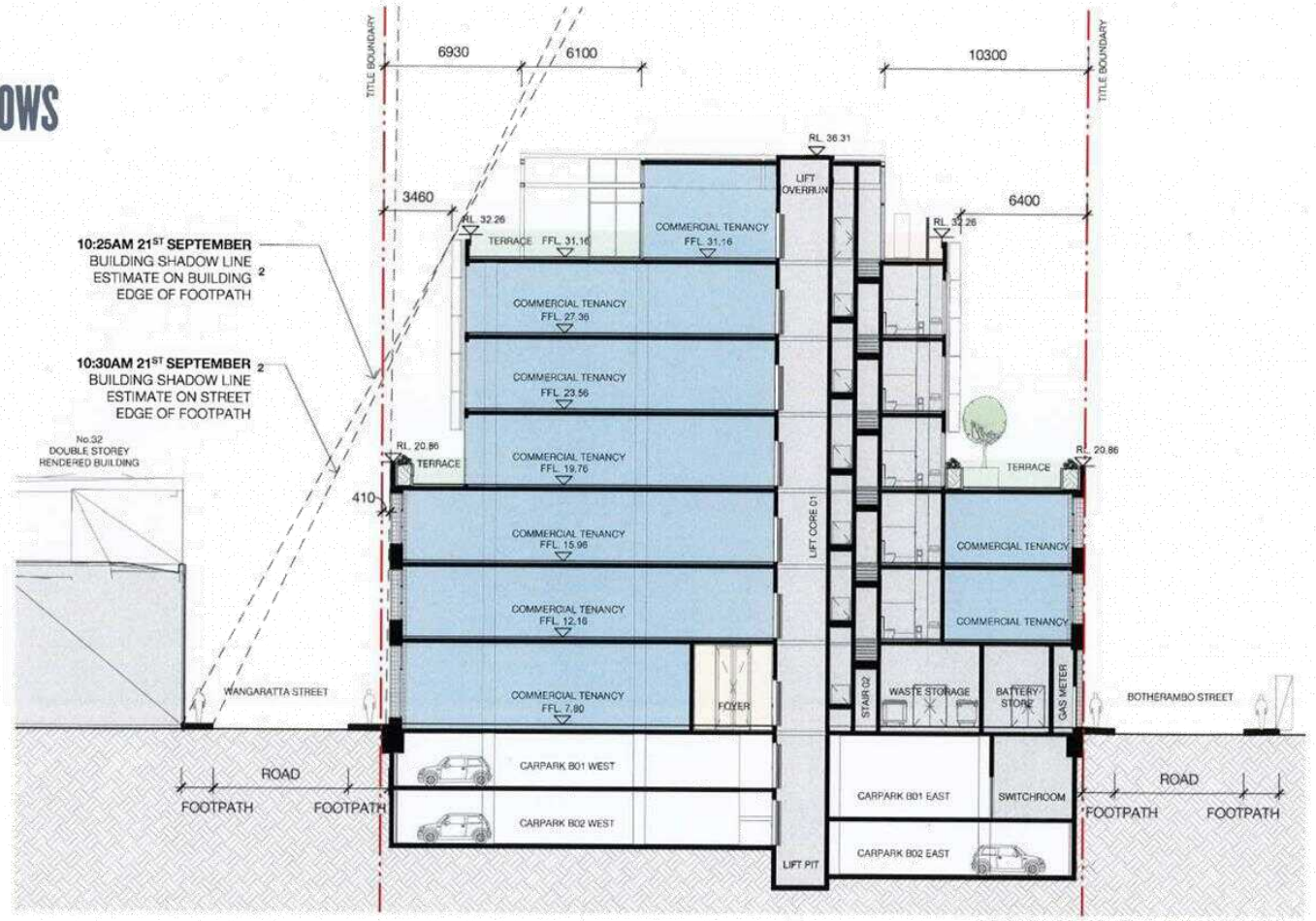


- Scale 1 : 500
- Existing Shadow (inc. approved shadow from 45 Wangaratta Street)
- Proposed Additional Shadow

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 PROPOSED FOOTPATH SHADOWS



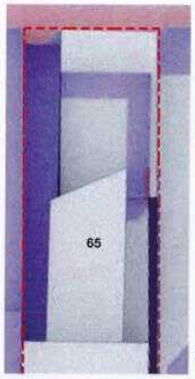
Scale 1 : 200

BATESSMART.

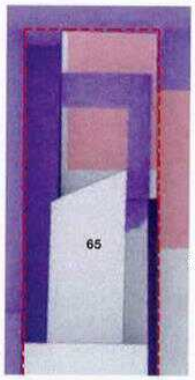
Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

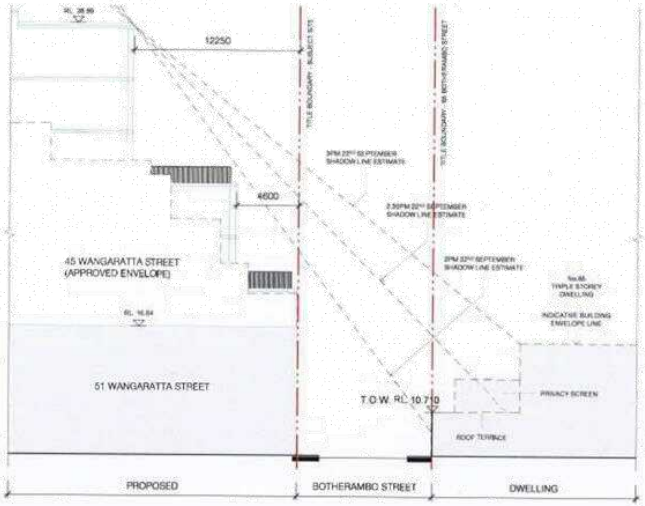
65 BOTHERAMBO ST



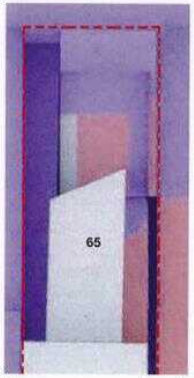
2.00 pm Shadow Diagram



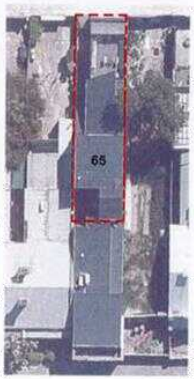
2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

NOTE: PRIVATE OPEN SPACE (POS) EXTENT AND ALL ADJACENT SITE CONDITIONS INCLUDING DIMENSIONS ARE BASED ON SURVEY INFORMATION, DATED 04/04/2019, BY CHARTER KECK CRAMER.

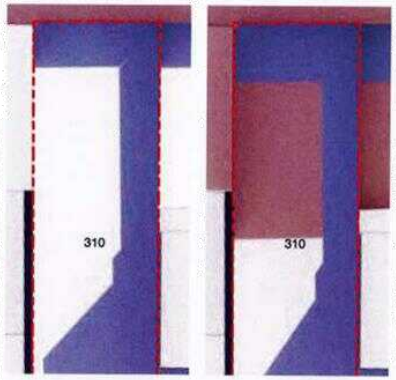
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

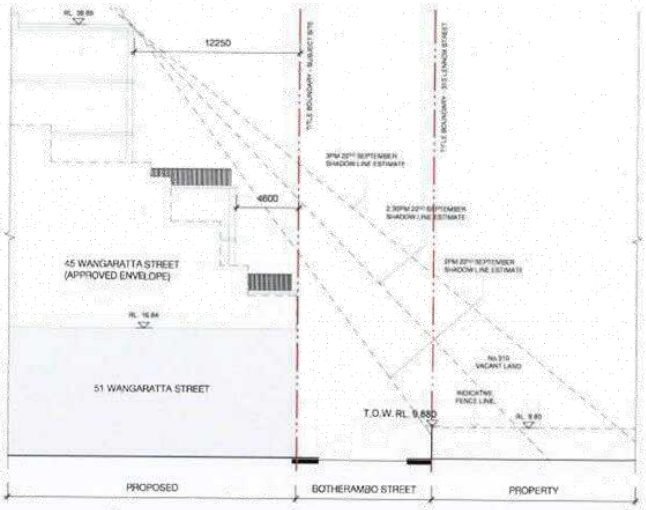
310 LENNOX ST

VACANT LOT



2:00 pm Shadow Diagram

2:30 pm Shadow Diagram



Site Interface Section - Scale 1:300

3:00 pm Shadow Diagram

Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

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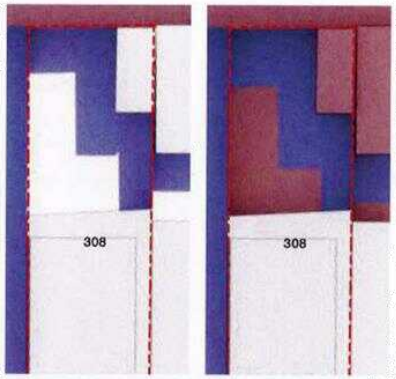
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

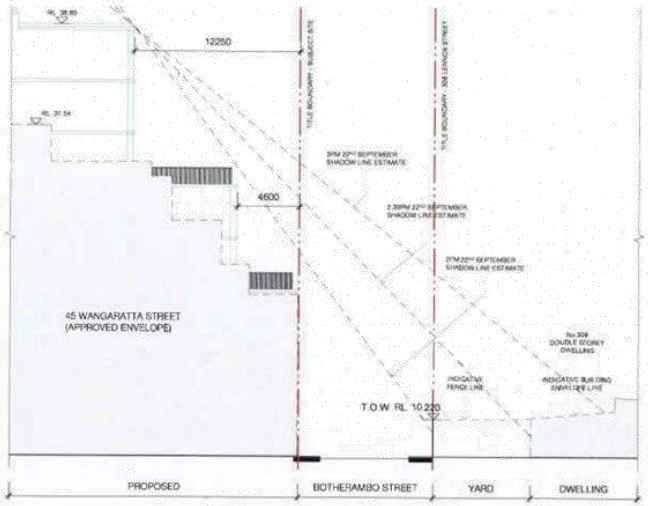
6.1 EXISTING VS PROPOSED

308 LENNOX ST



2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300

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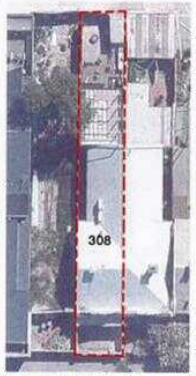

Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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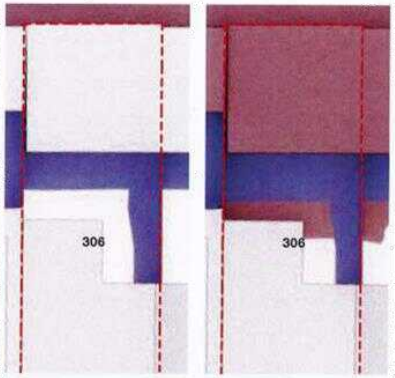
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

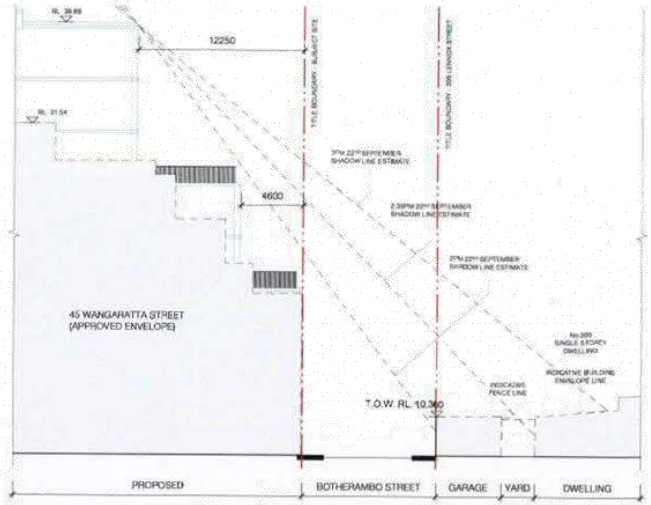
6.1 EXISTING VS PROPOSED

306 LENNOX ST

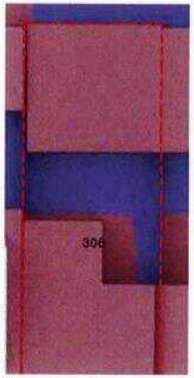


2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



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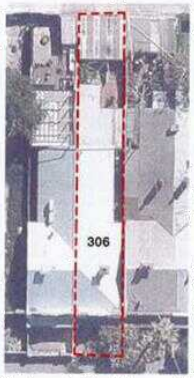

Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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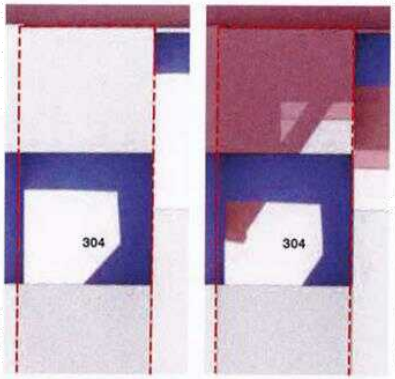
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

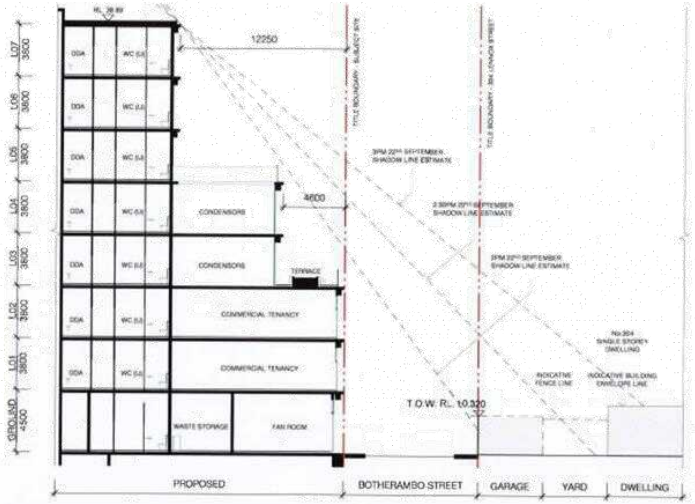
6.1 EXISTING VS PROPOSED

304 LENNOX ST

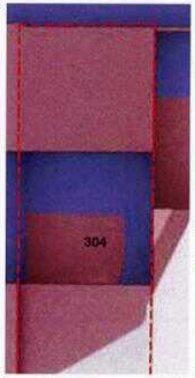


2.00 pm Shadow Diagram

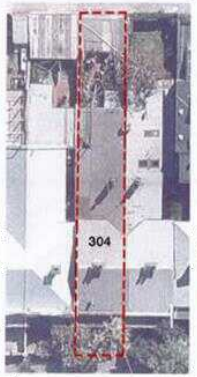
2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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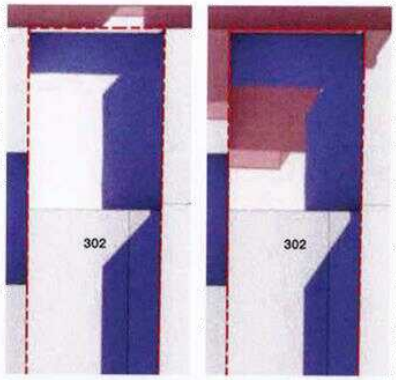
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

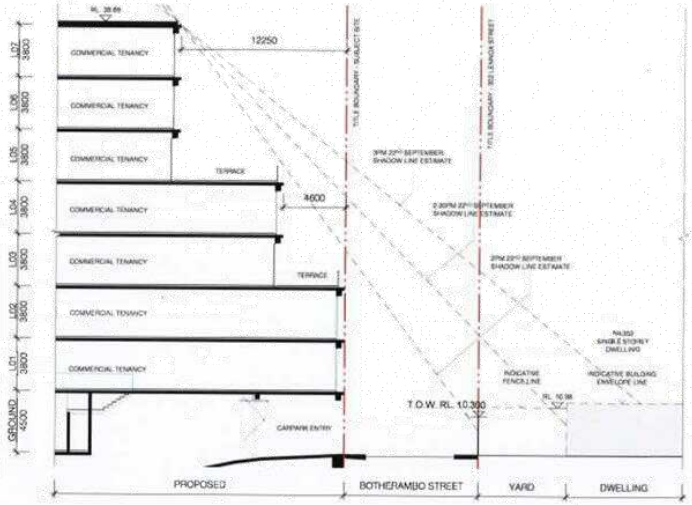
6.1 EXISTING VS PROPOSED

302 LENNOX ST

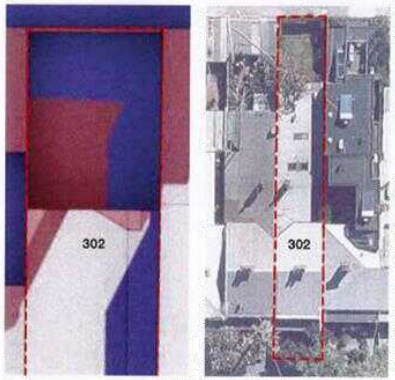


2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram

Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

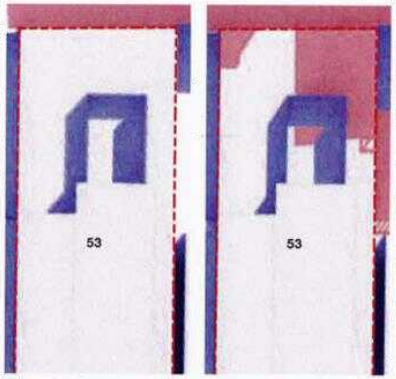
NOTE: PRIVATE OPEN SPACE (POS) EXTENT AND ALL ADJACENT SITE CONDITIONS INCLUDING DIMENSIONS ARE BASED ON SURVEY INFORMATION, DATED 04/04/2019, BY CHARTER KECK CRAMER.

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

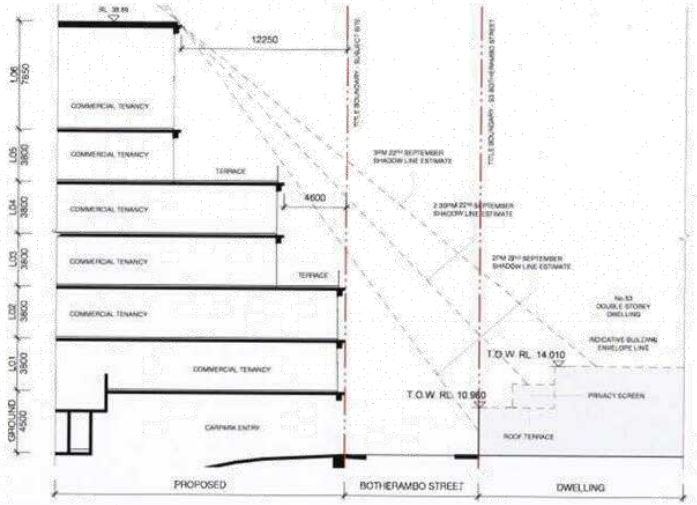
6.1 EXISTING VS PROPOSED

53 BOTHERAMBO ST



2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300

3.00 pm Shadow Diagram

Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

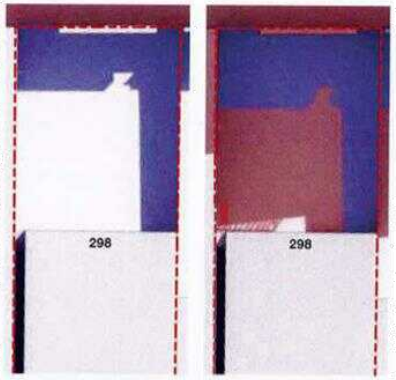
NOTE: PRIVATE OPEN SPACE (POS) EXTENT AND ALL ADJACENT SITE CONDITIONS INCLUDING DIMENSIONS ARE BASED ON SURVEY INFORMATION, DATED 04/04/2019, BY CHARTER KECK CRAMER.

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

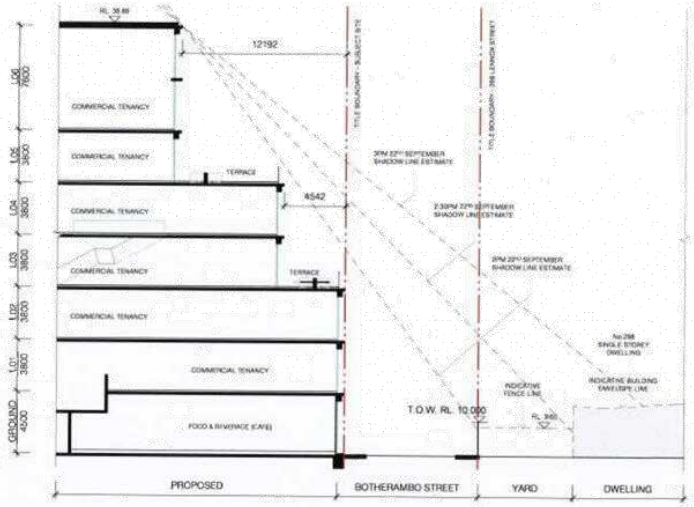
6.1 EXISTING VS PROPOSED

298 LENNOX ST



2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300

3.00 pm Shadow Diagram

Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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BATESSMART.

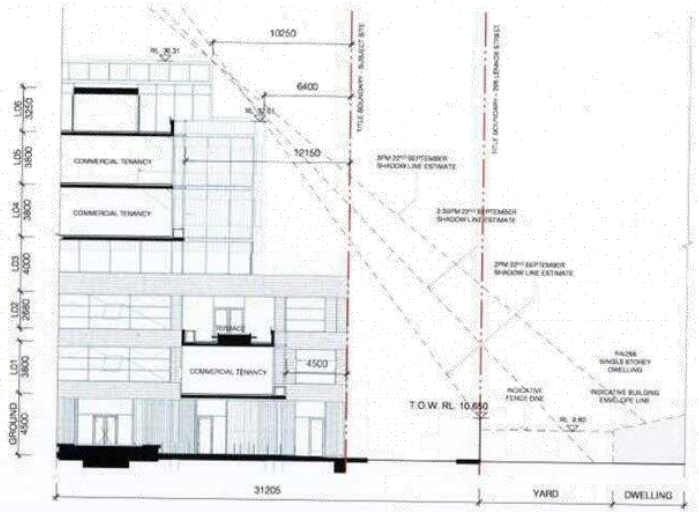
Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

296 LENNOX ST

2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300

3.00 pm Shadow Diagram

Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

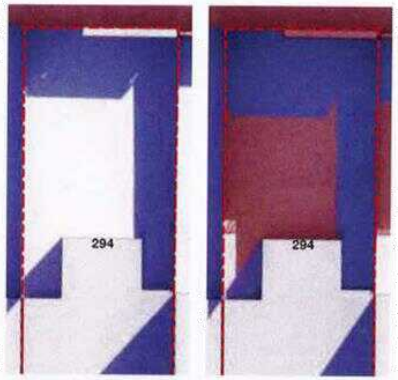
NOTE: PRIVATE OPEN SPACE (POS) EXTENT AND ALL ADJACENT SITE CONDITIONS INCLUDING DIMENSIONS ARE BASED ON SURVEY INFORMATION, DATED 04/04/2019, BY CHARTER KECK CRAMER.

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

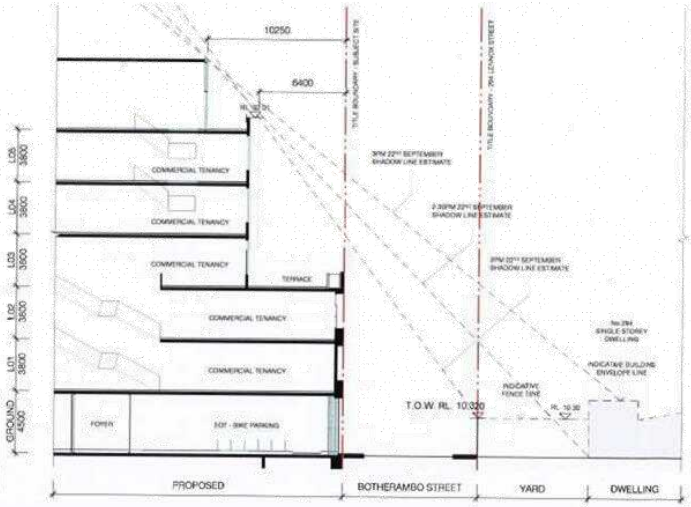
6.1 EXISTING VS PROPOSED

294 LENNOX ST

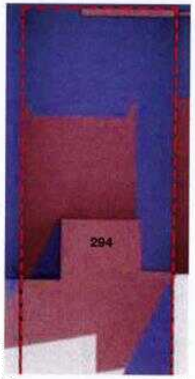


2.00 pm Shadow Diagram

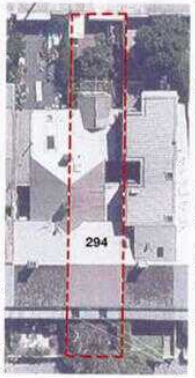
2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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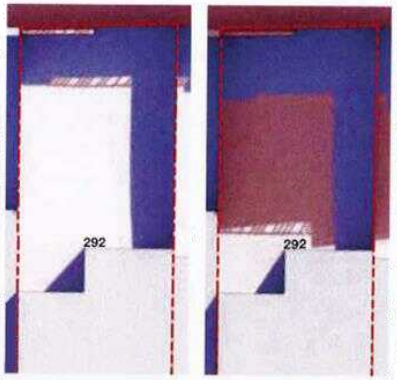
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

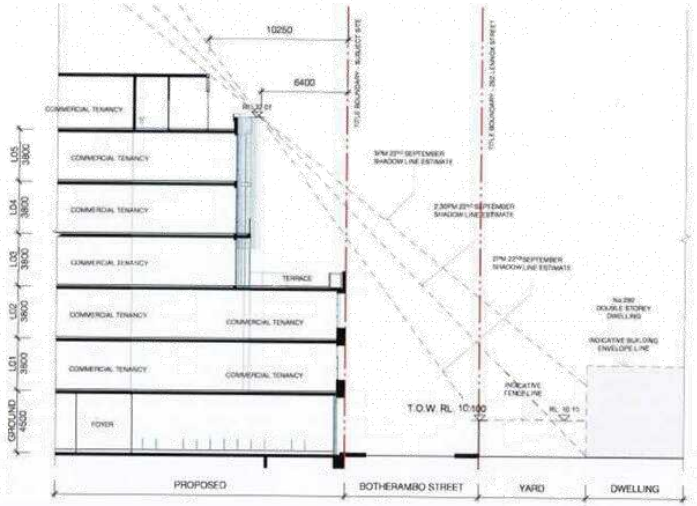
6.1 EXISTING VS PROPOSED

292 LENNOX ST



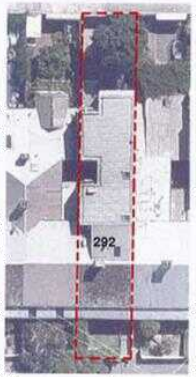
2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:400

3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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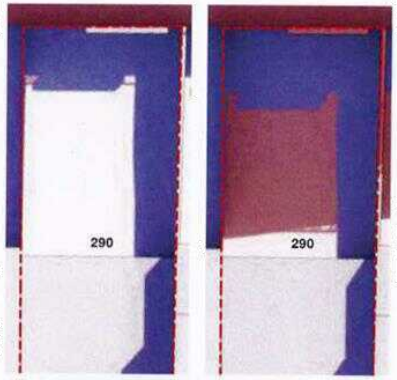
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

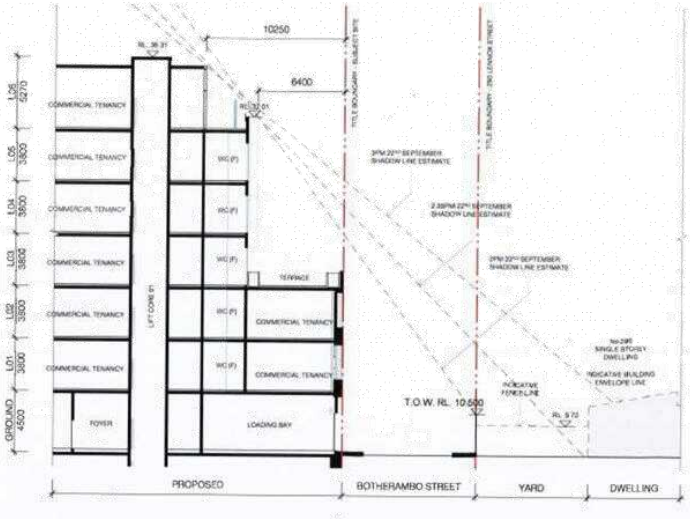
6.1 EXISTING VS PROPOSED

290 LENNOX ST



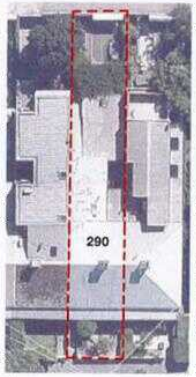
2.00 pm Shadow Diagram

2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300

3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

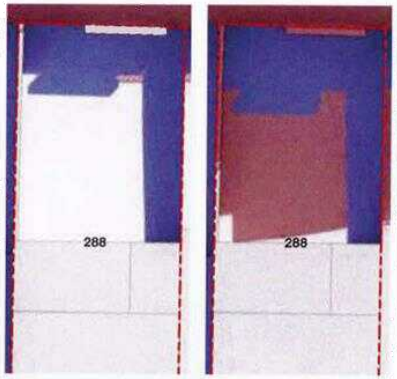
NOTE: PRIVATE OPEN SPACE (POS) EXTENT AND ALL ADJACENT SITE CONDITIONS INCLUDING DIMENSIONS ARE BASED ON SURVEY INFORMATION, DATED 04/04/2019, BY CHARTER KECK CRAMER.

BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

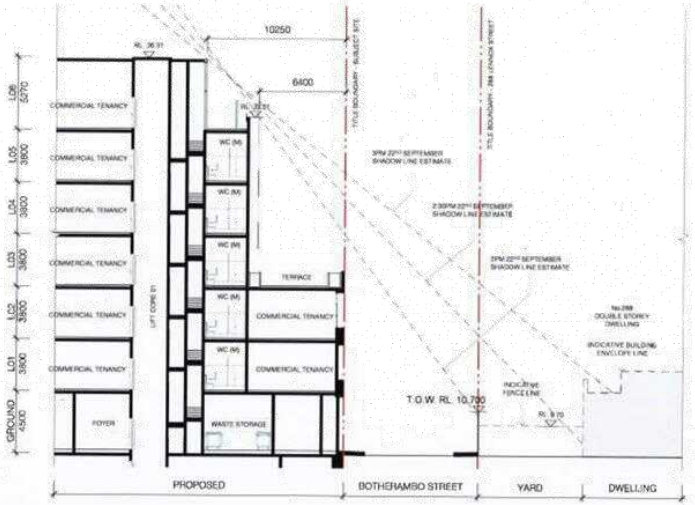
6.1 EXISTING VS PROPOSED

288 LENNOX ST

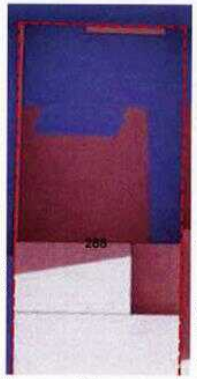


2.00 pm Shadow Diagram

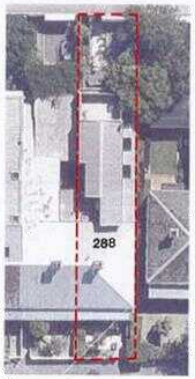
2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

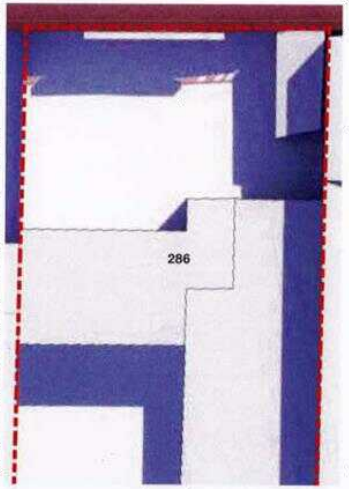
NOTE: PRIVATE OPEN SPACE (POS) EXTENT AND ALL ADJACENT SITE CONDITIONS INCLUDING DIMENSIONS ARE BASED ON SURVEY INFORMATION, DATED 04/04/2019, BY CHARTER KECK CRAMER.

BATESSMART.

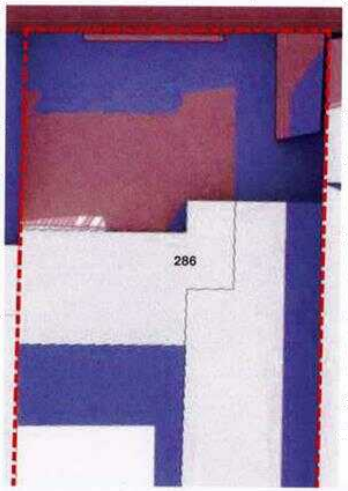
Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

6.1 EXISTING VS PROPOSED

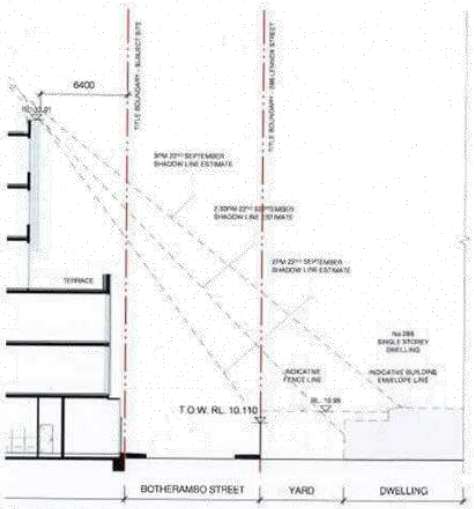
286 LENNOX ST



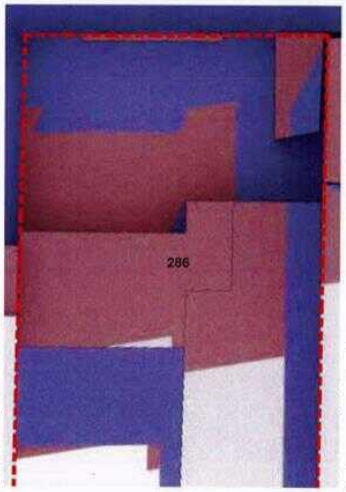
2.00 pm Shadow Diagram



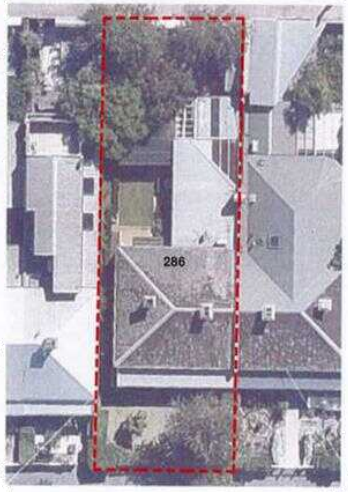
2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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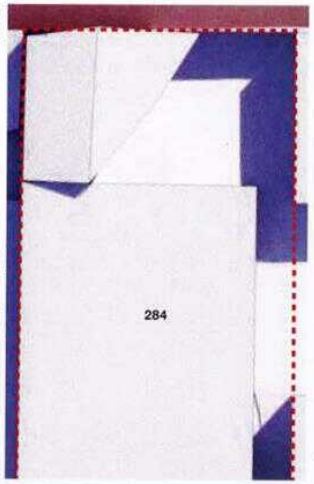
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

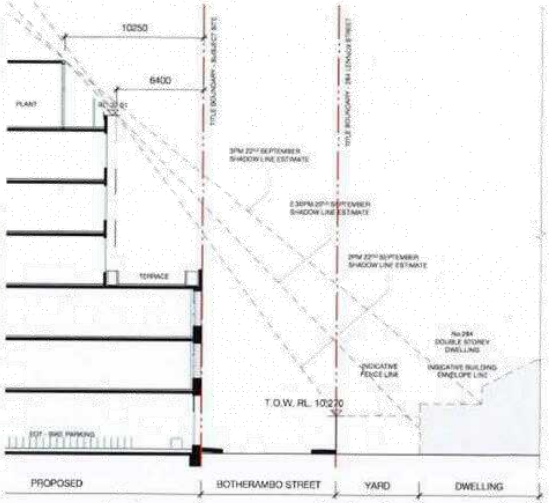
6.1 EXISTING VS PROPOSED

284 LENNOX ST

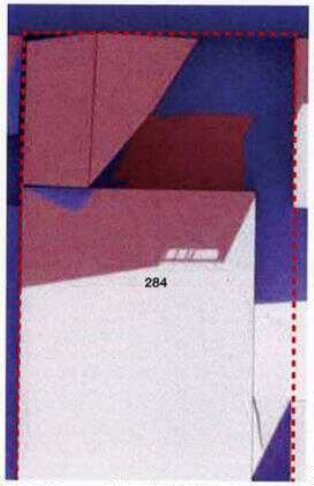


2.00 pm Shadow Diagram

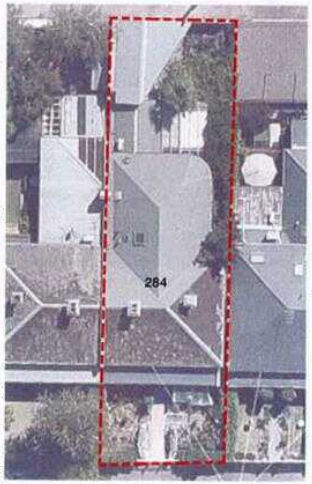
2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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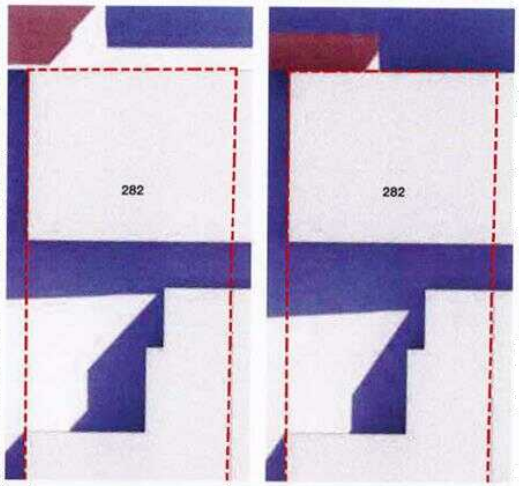
BATESSMART.

Attachment 19 - PLN19/0483 - 23-43 Wangaratta Street Richmond - Updated shadow analysis prepared by Bates Smart Architects

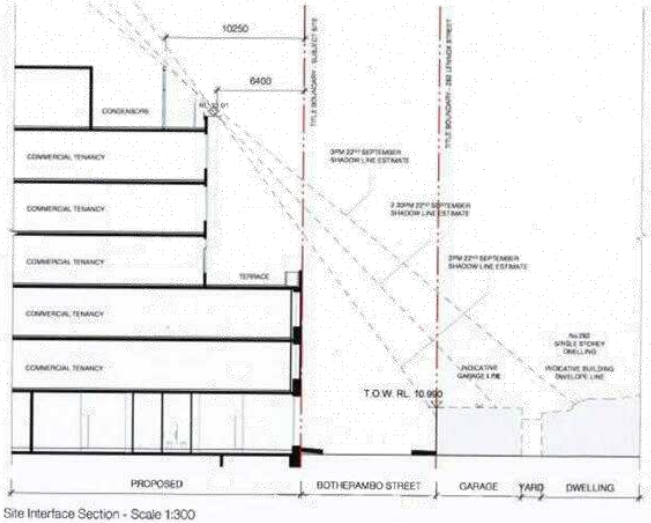
6.1 EXISTING VS PROPOSED

282 LENNOX ST

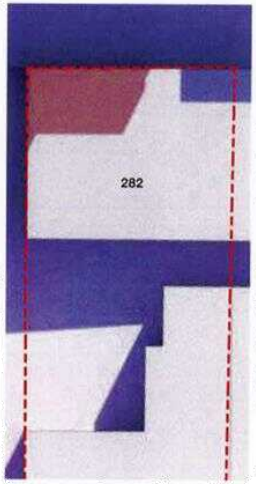


2.00 pm Shadow Diagram

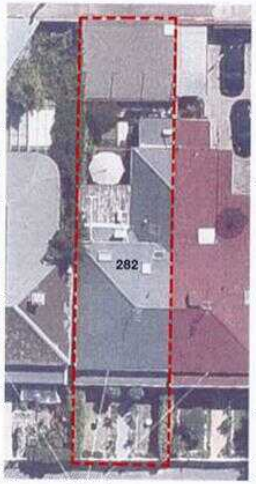
2.30 pm Shadow Diagram



Site Interface Section - Scale 1:300



3.00 pm Shadow Diagram



Aerial Photograph (not to scale)
Source: Nearmap

Aerial Photograph (not to scale)
Source: Nearmap

Existing Shadow

Proposed Additional Shadow

Scale 1 : 150 (unless indicated otherwise)

Property Boundary

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