Attachment 1 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Locality Plan

ATTACHMENT 1

SUBJECT LAND: 48 – 50 Lithgow Street, Abbotsford

North

Subject Site

Attachment 2 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Advertising Plans

PROPOSED MIXED DEVELOPMENT

48-50 LITHGOW STREET, ABBOTSFORD VIC. 3067

TOWN PLANNING DESIGN

FACADE FINISHES:

EB	EXISTING BRICKWORK TO REMAIN. PATCH/MAKE GOOD AS IS REQUIRED TO SUIT NEW WORK
AW	METAL FRAMED WINDOWS/DOORS - COMMERCIAL GRADE FRAMED - COLOUR COLORBOND 'NIGHT SKY' (BLACK).
CF	OFF FORM NATURAL CONCRETE FINISH. TIMBER SAWN PATTERN.
MC-1	METAL CLADDING - FOLDED AND PROFILED CLADDING WITH FOLDED JOINTS AS INDICATED ON DRAWINGS. COLOUR COLORBOND 'NIGHT SKY' (BLACK).

DRAWING LIST

DO NOT SCALE DRAWINGS - USE FIGURED DIMENSIONS ONLY

CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL DIMENSIONS AND LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS OR OF ORDERING MATERIALS.

THESE DRAWINGS ARE FOR OWNER BUILDER PURPOSES, AND BUILDING APPROVAL ONLY - THE SELECTED CONTRACTOR IS RESPONSIBLE FOR THE PRODUCTION OF THEIR OWN SHOP DRAWINGS IF REQUIRED FOR CONSTRUCTION PURPOSES.

THE OWNER SHALL ENSURE THAT ALL WORKS ARE SUPERVISED AND CARRIED OUT BY AN APPROPRIATE AND QUALIFIED PROFESSIONAL TO ENSURE THAT ALL WORKS ARE CARRIED OUT AS DOCUMENTED AND IN ACCORDANCE WITH ALL RELEVANT CODES.

ALL ITEMS REQUIRED FOR COMPLETION OF THE BUILDING, WHILST NOT NECESSARILY BEING MENTIONED OR DESCRIBED IN DETAIL HEREIN, BUT NECESSARY OR INCIDENTAL FOR THE COMPLETION OF THE BUILDING, SHALL BE INCORPORATED AND SHALL CONFORM TO GOOD BUILDING TRADE PRACTICES, MANUFACTURERS' WRITTEN RECOMMENDATIONS WHERE APPLICABLE AND TO THE ARCHITECTS SATISFACTION.

MATERIALS AND EQUIPMENT USED IN THE BUILDING WORKS SHALL BE OF AUSTRALIAN MANUFACTURE UNLESS OTHERWISE SPECIFIED.

ALL WORKS SHALL COMPLY WITH RELEVANT LOCAL HEALTH AND COUNCIL REQUIREMENTS, LOCAL BUILDING REGULATIONS AND RELEVANT A.S CODES.

Date	Issue	Rev
04.12.18	TOWN PLANNING DESIGN	B
12.02.19	TOWN PLANNING DESIGN	C

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Project: PROPOSED DEVELOPMENT 48-50 LITHGOW STREET, ABBOTSFORD VIC. 3067

Scales:
Date: FEB 2019
Drawn: JR-GI
Rev: C

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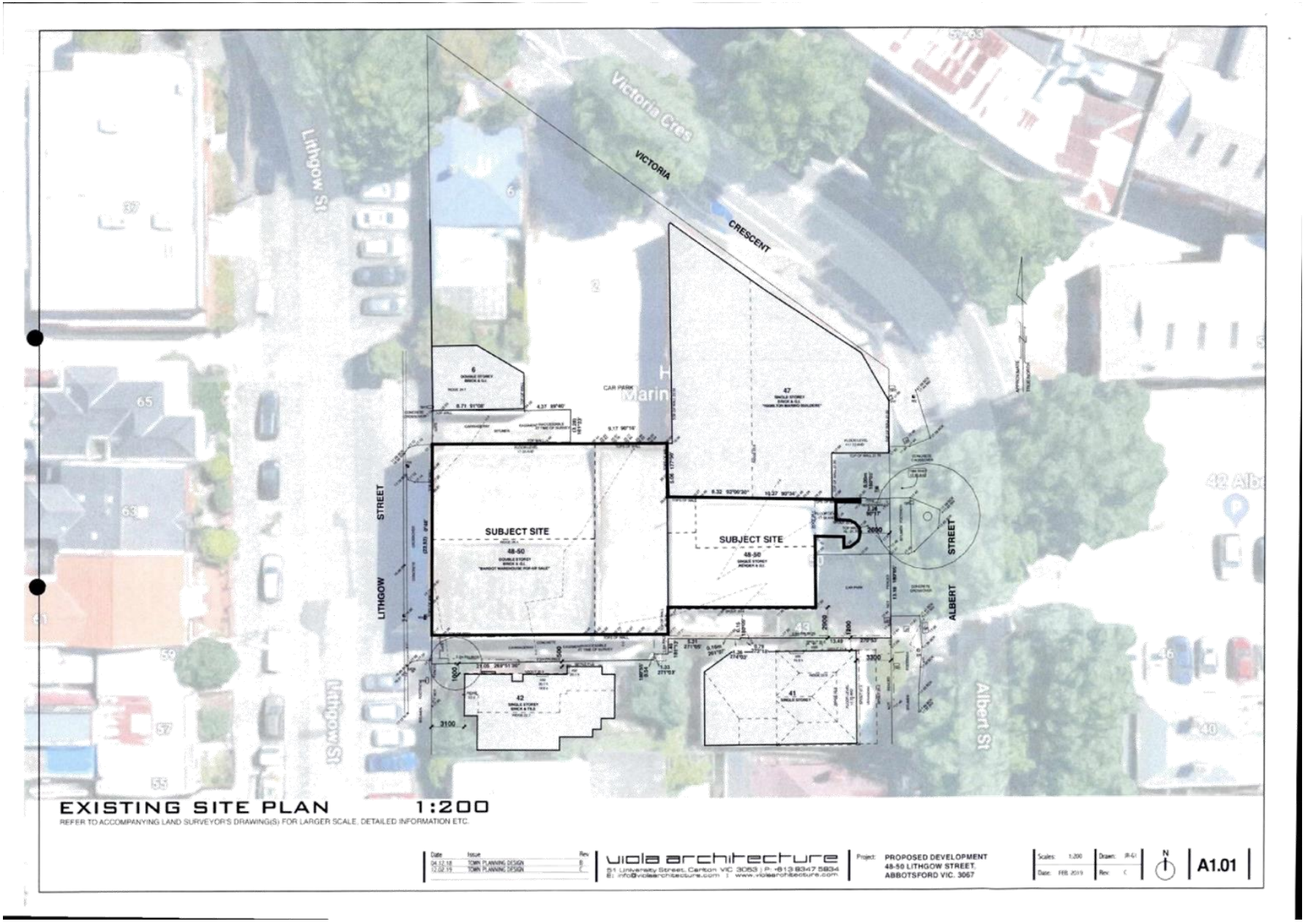
Attachment 2 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Advertising Plans



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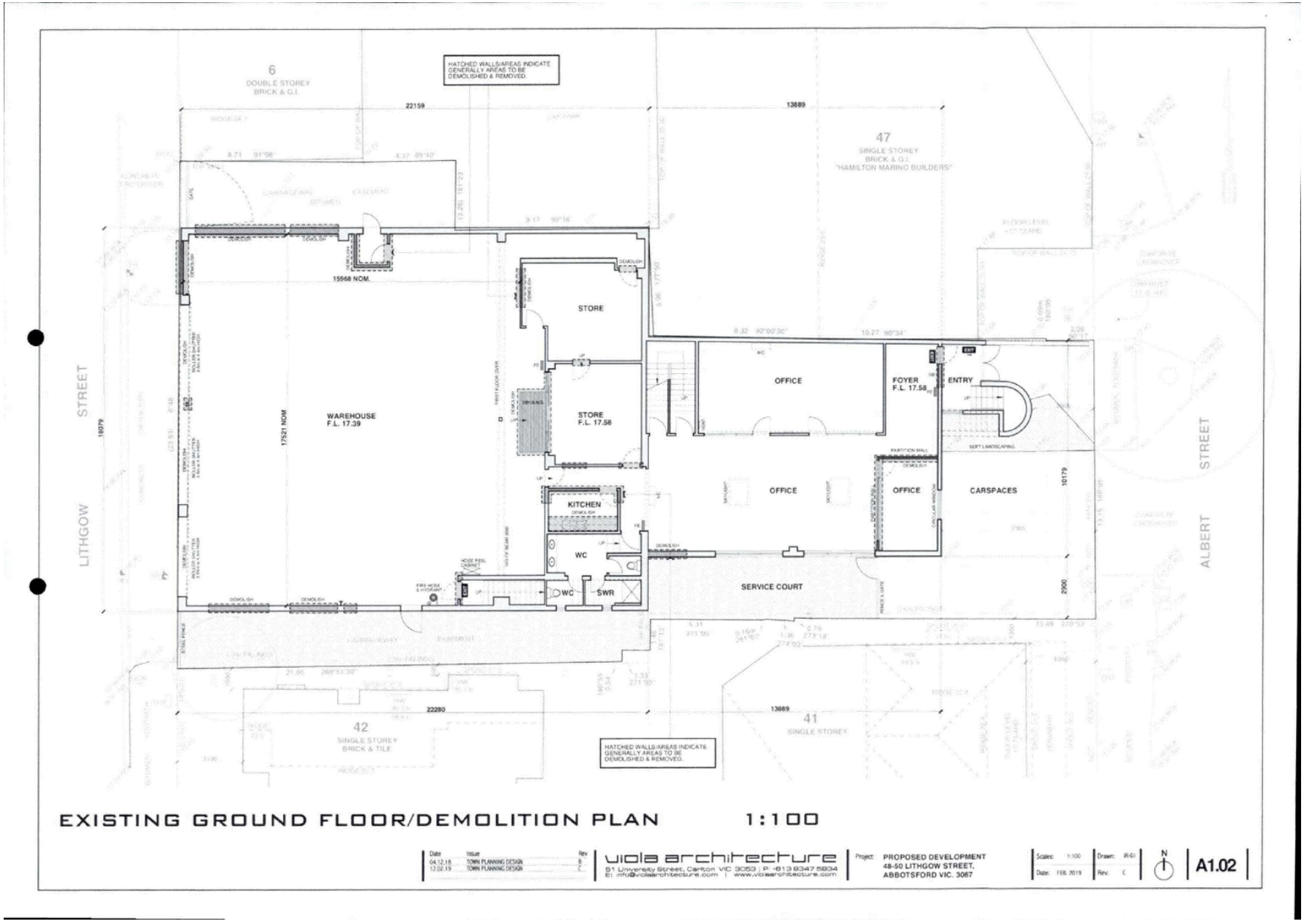

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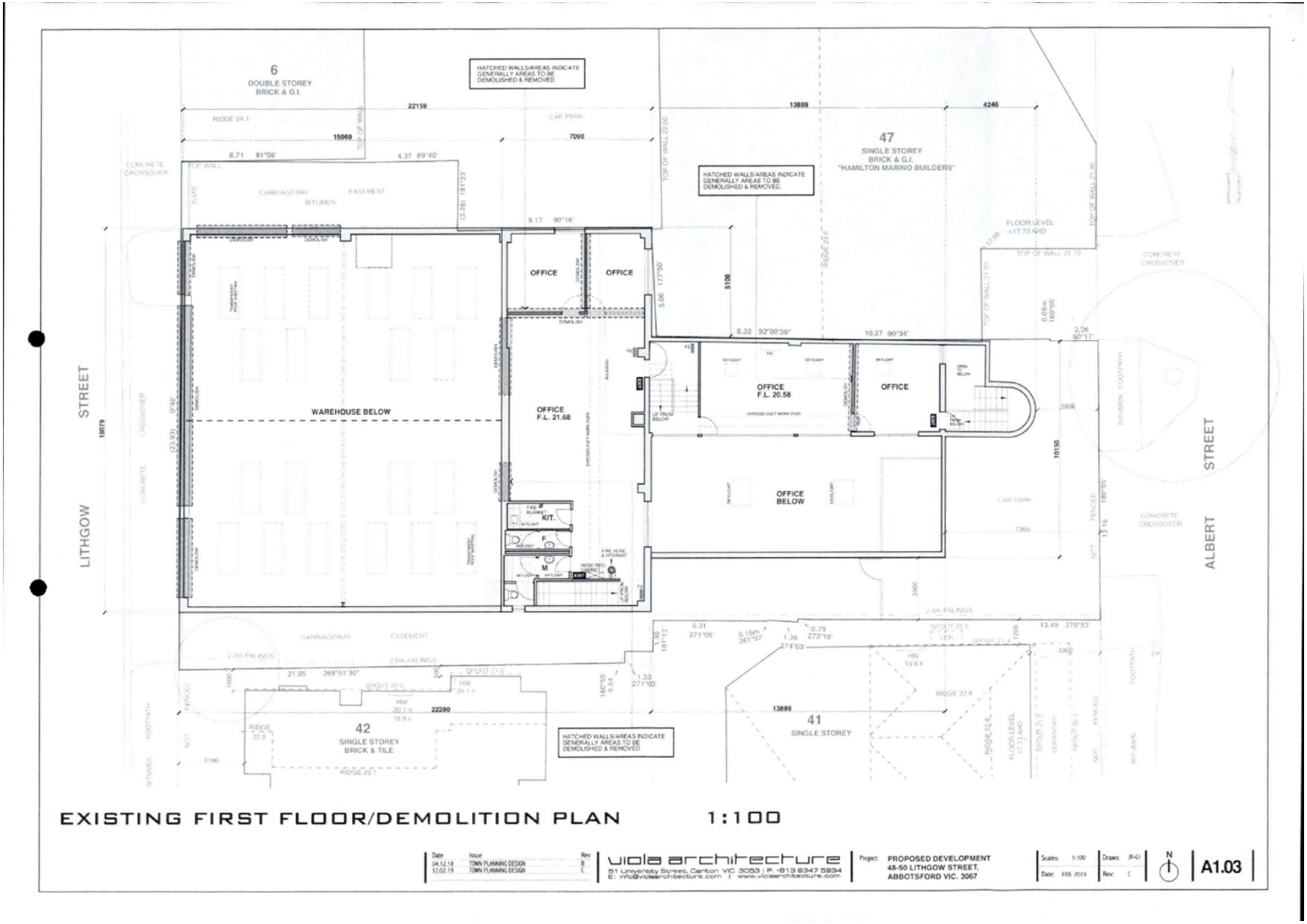

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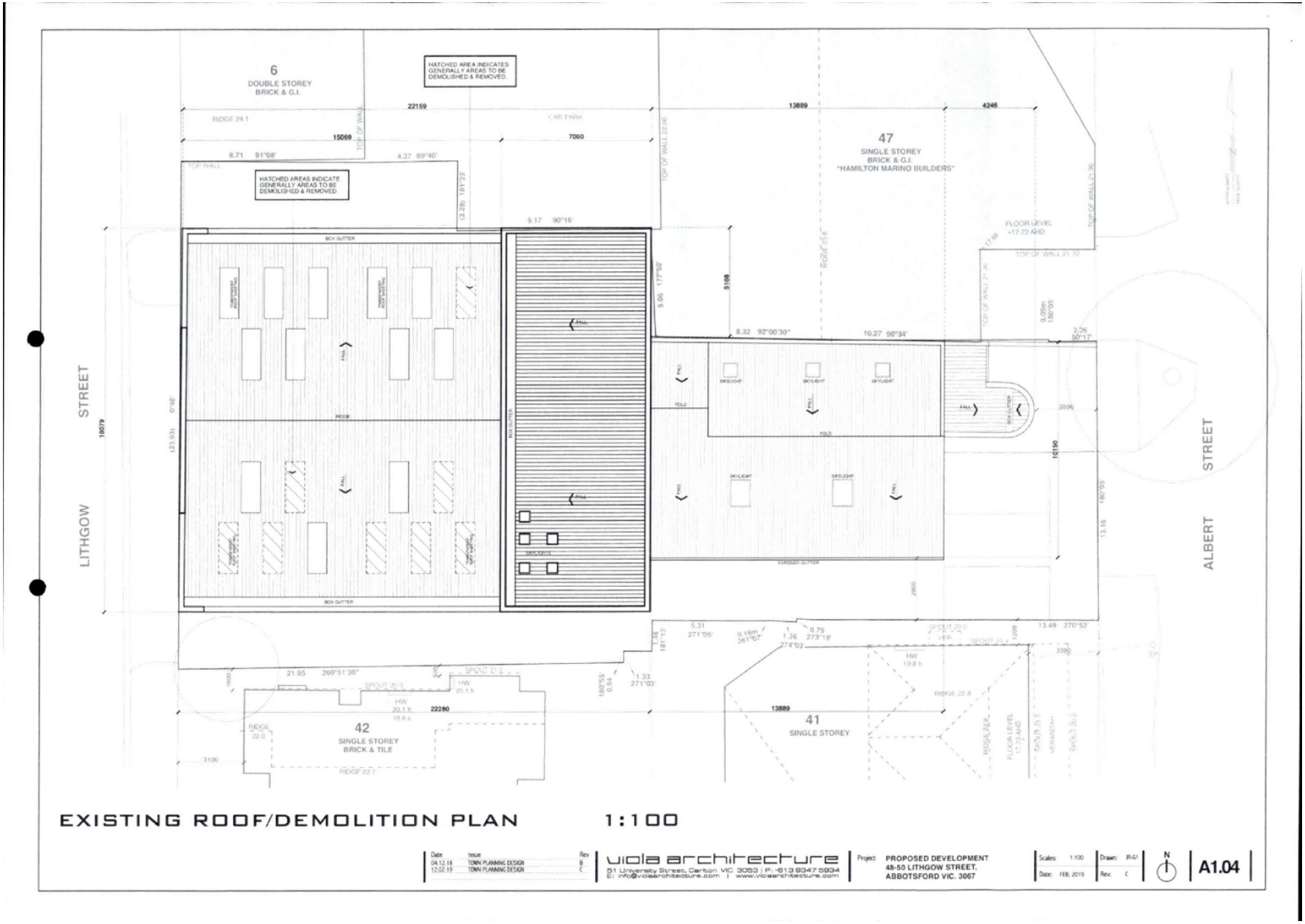

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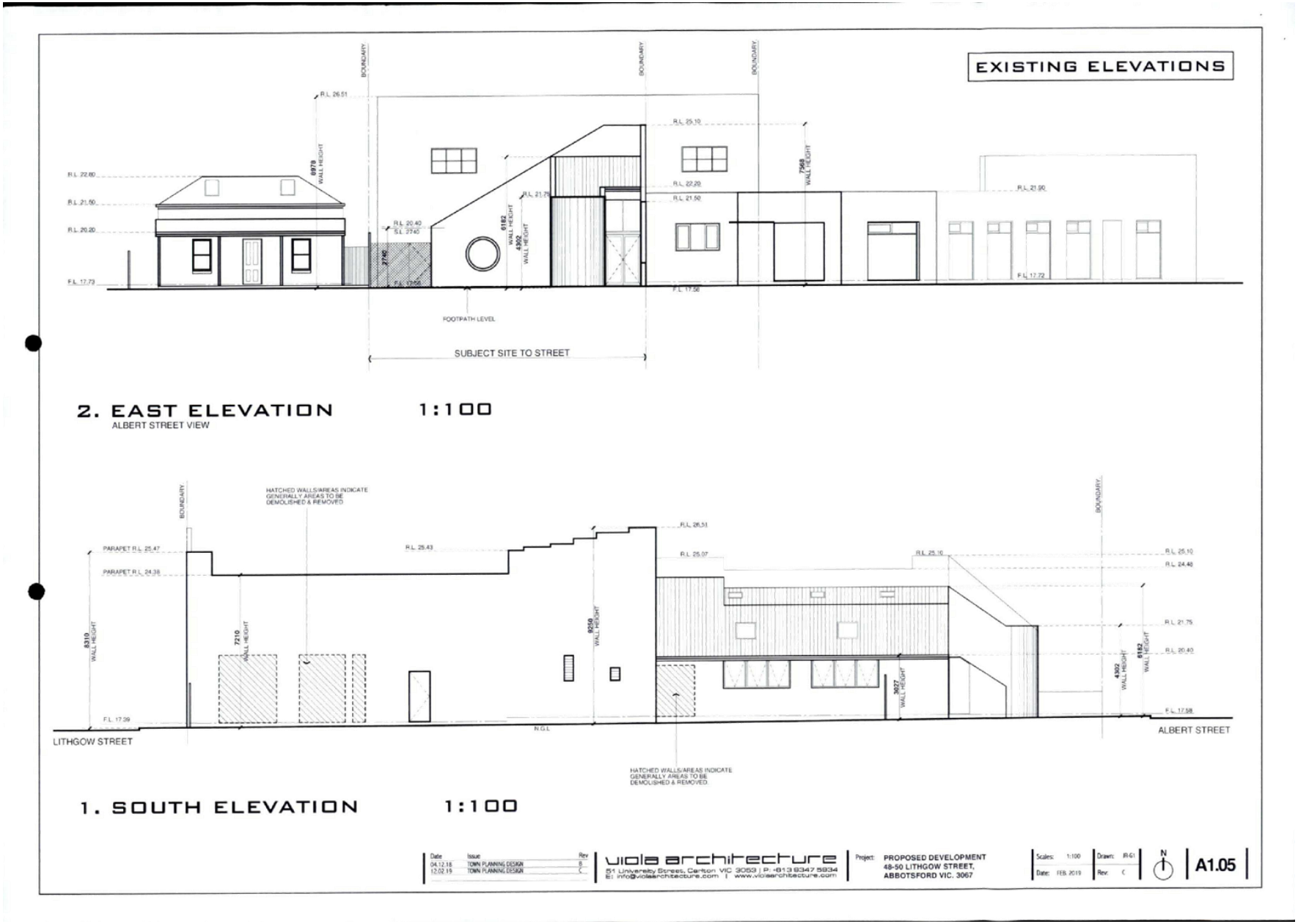
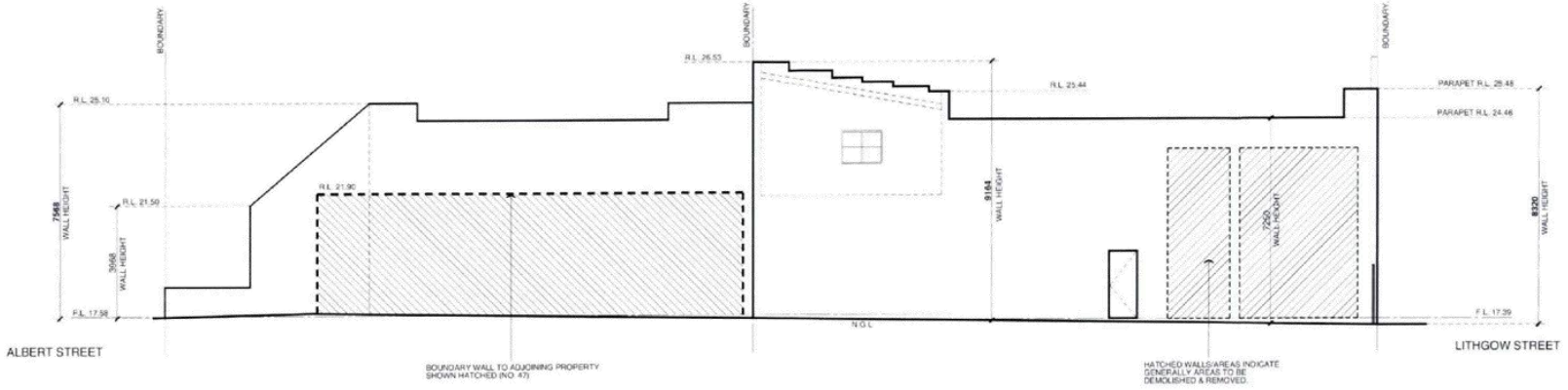
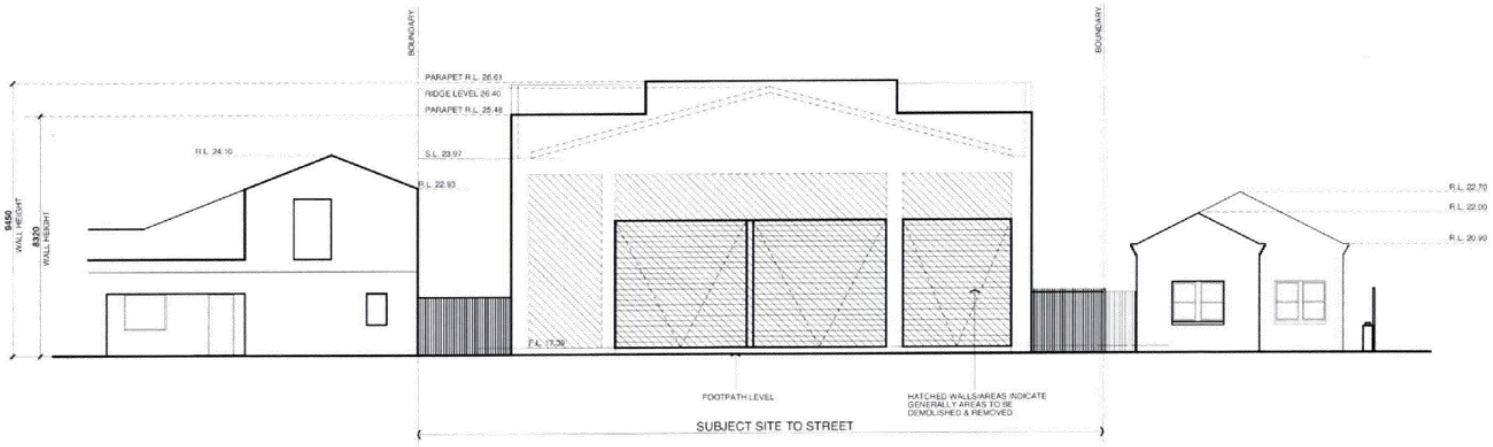


Attachment 2 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Advertising Plans

EXISTING ELEVATIONS



2. SOUTH ELEVATION 1:100



1. WEST ELEVATION 1:100

LITHGOW STREET VIEW

Date	Issue	Rev
04.12.18	TOWN PLANNING DESIGN	B
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48-50 LITHGOW STREET,
ABBOTSFORD VIC. 3067

Scales: 1:100 | Drawn: JR-G1
Date: FEB 2019 | Rev: C

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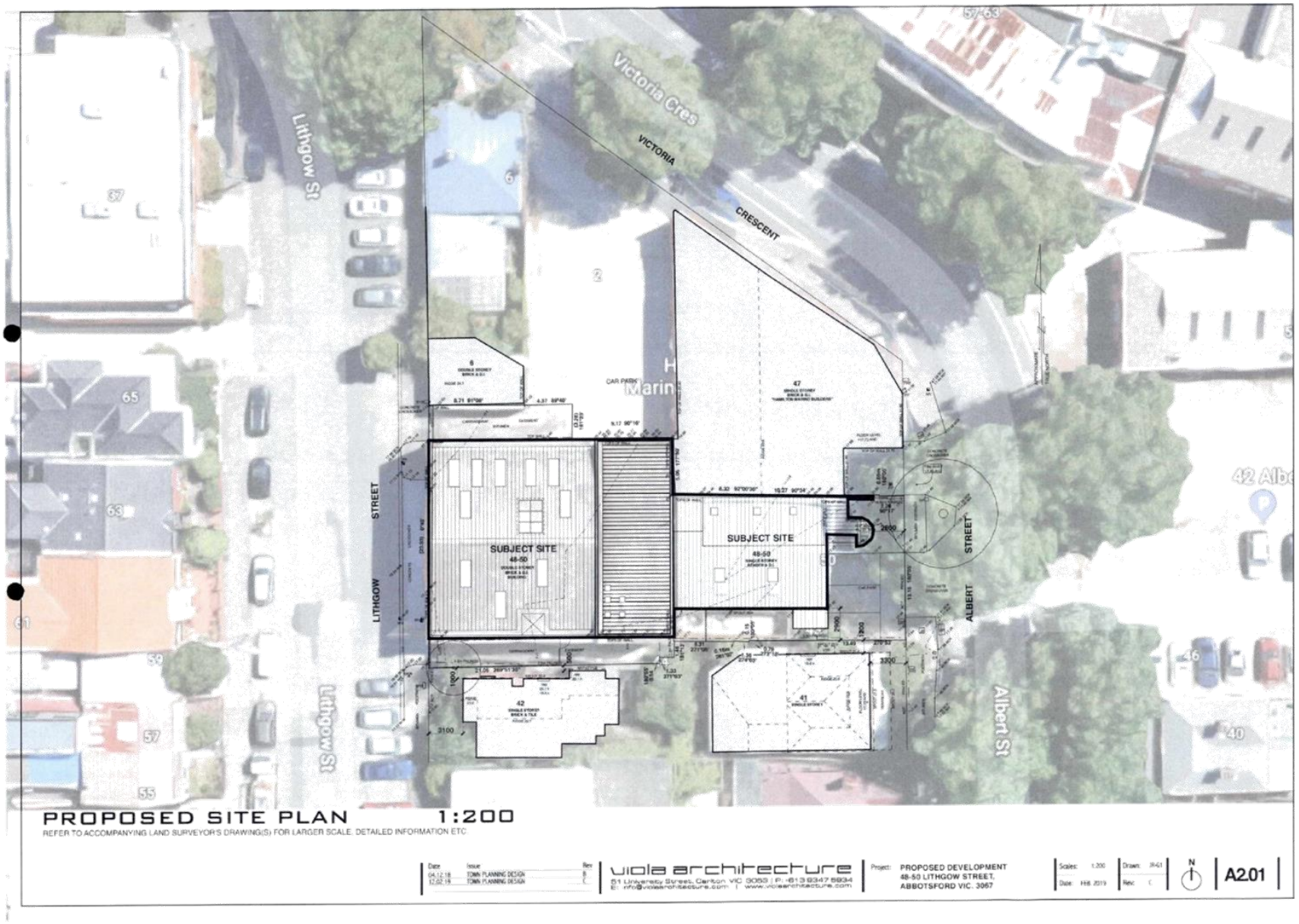
Attachment 2 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Advertising Plans



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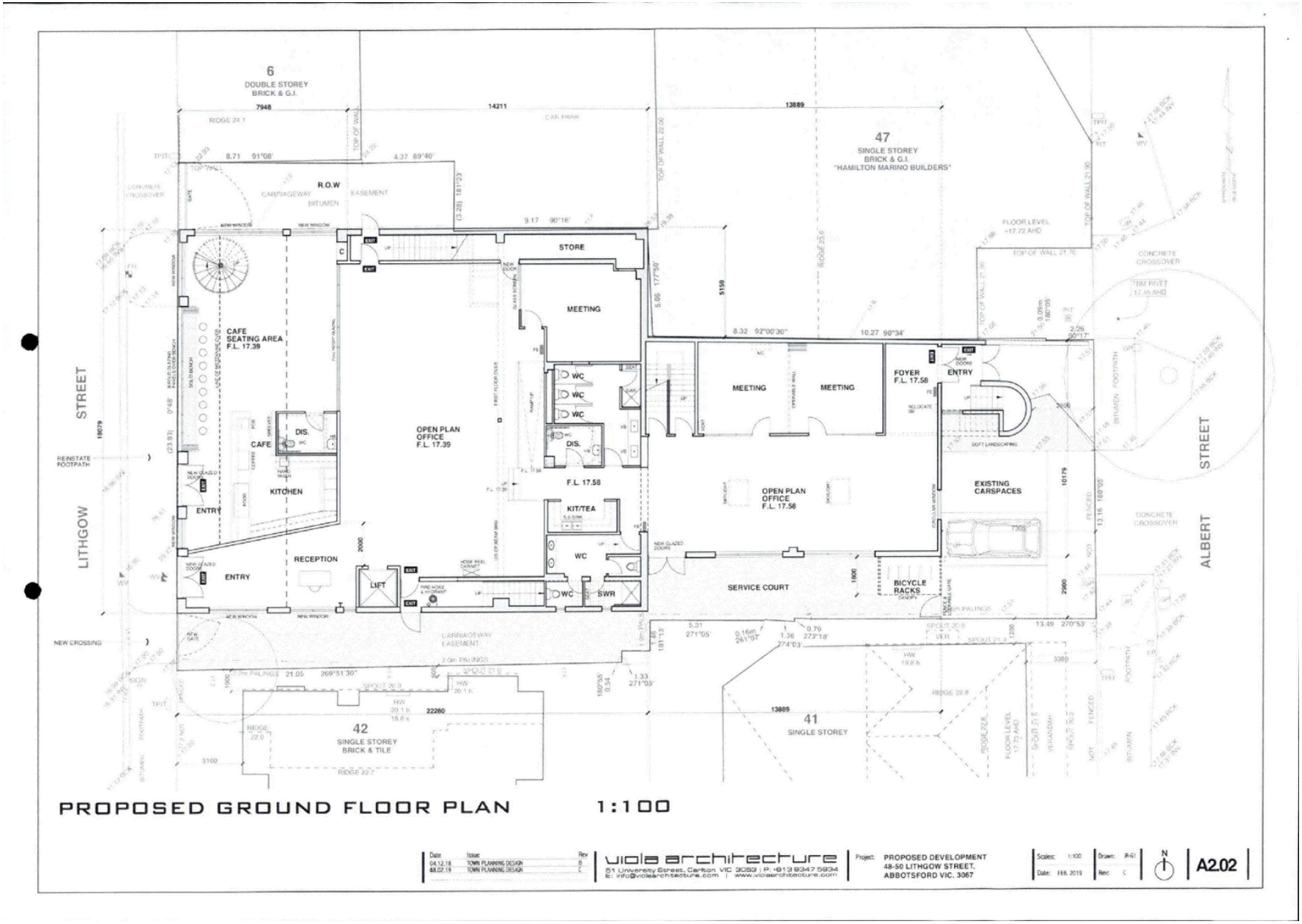

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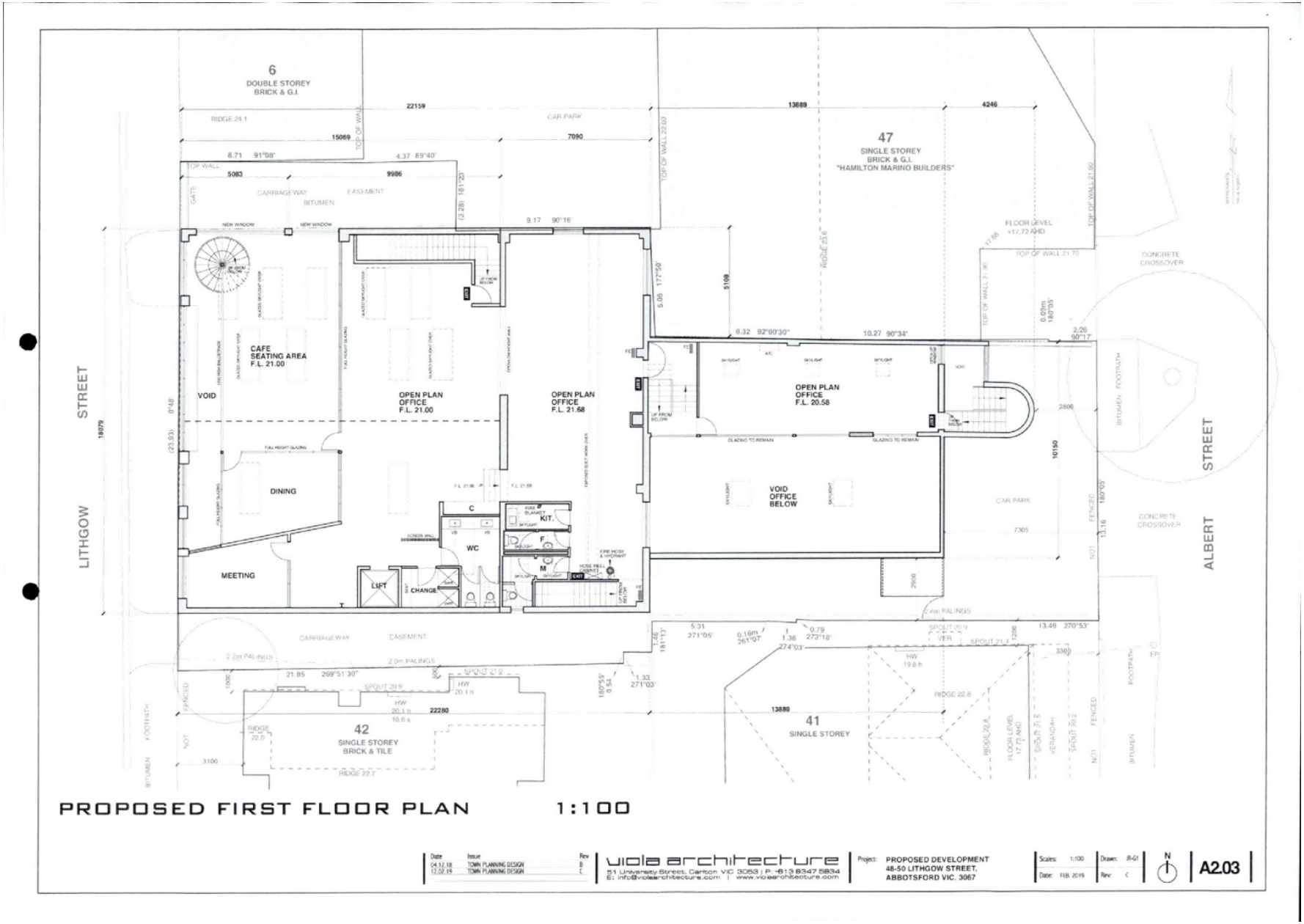

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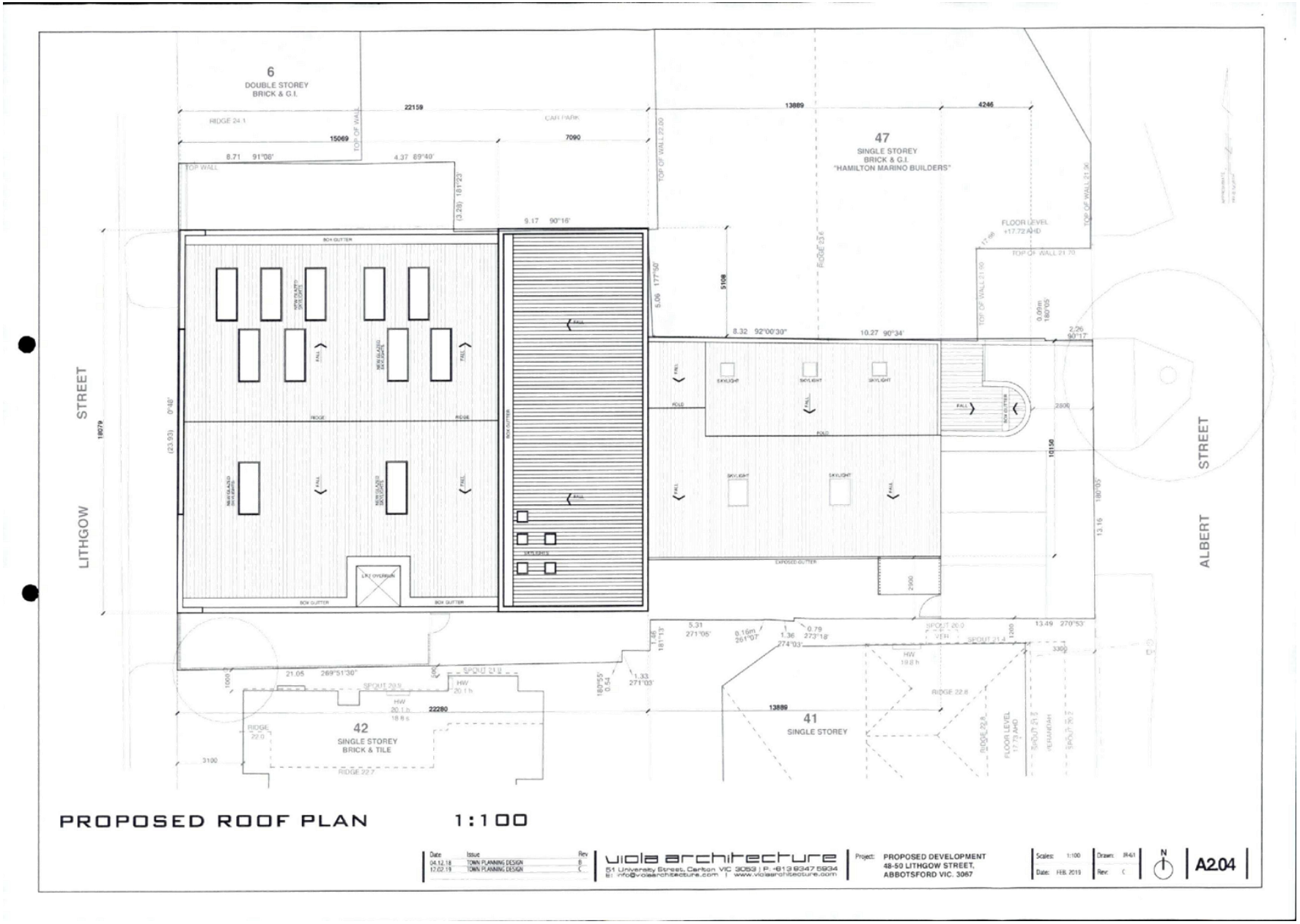

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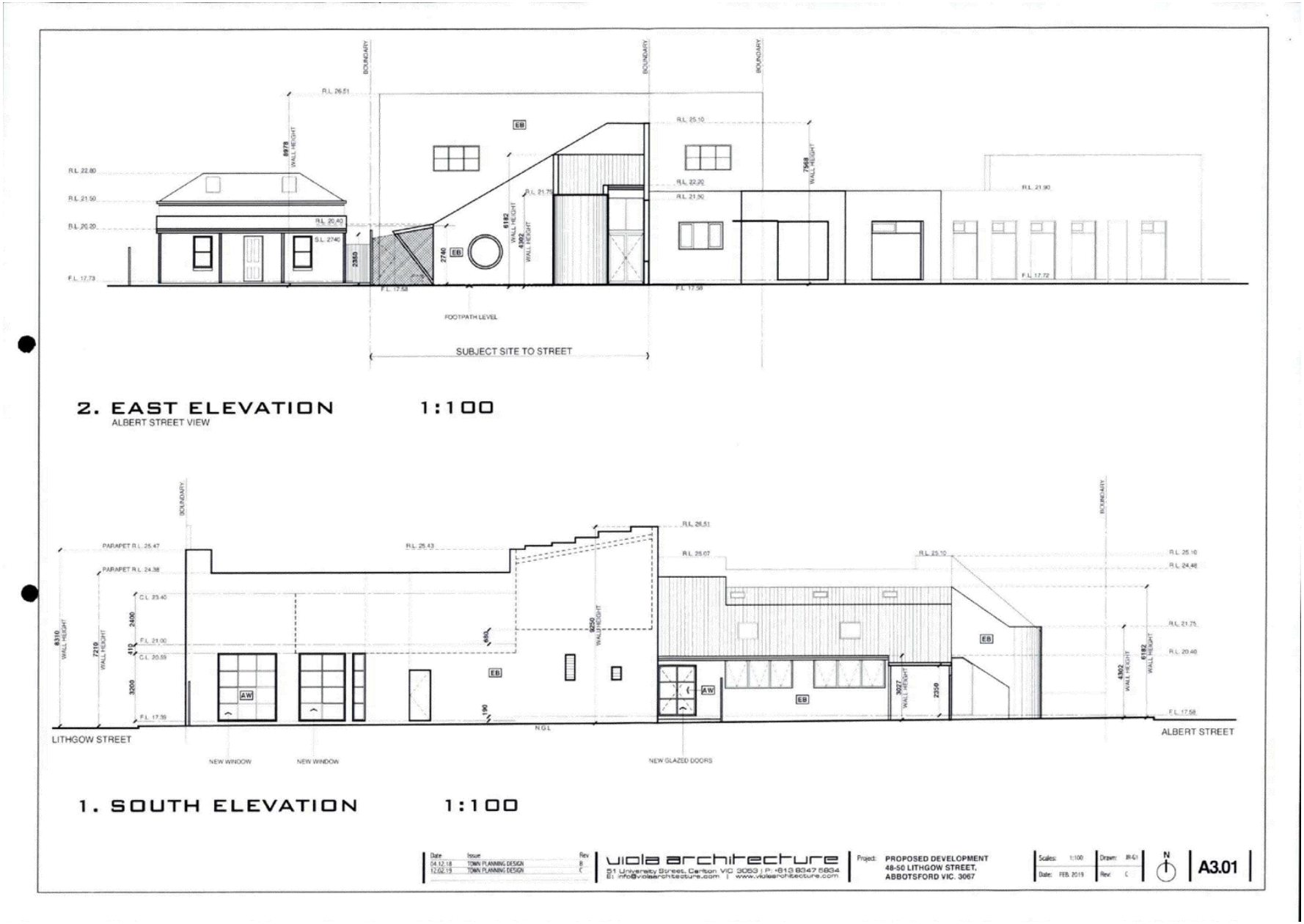

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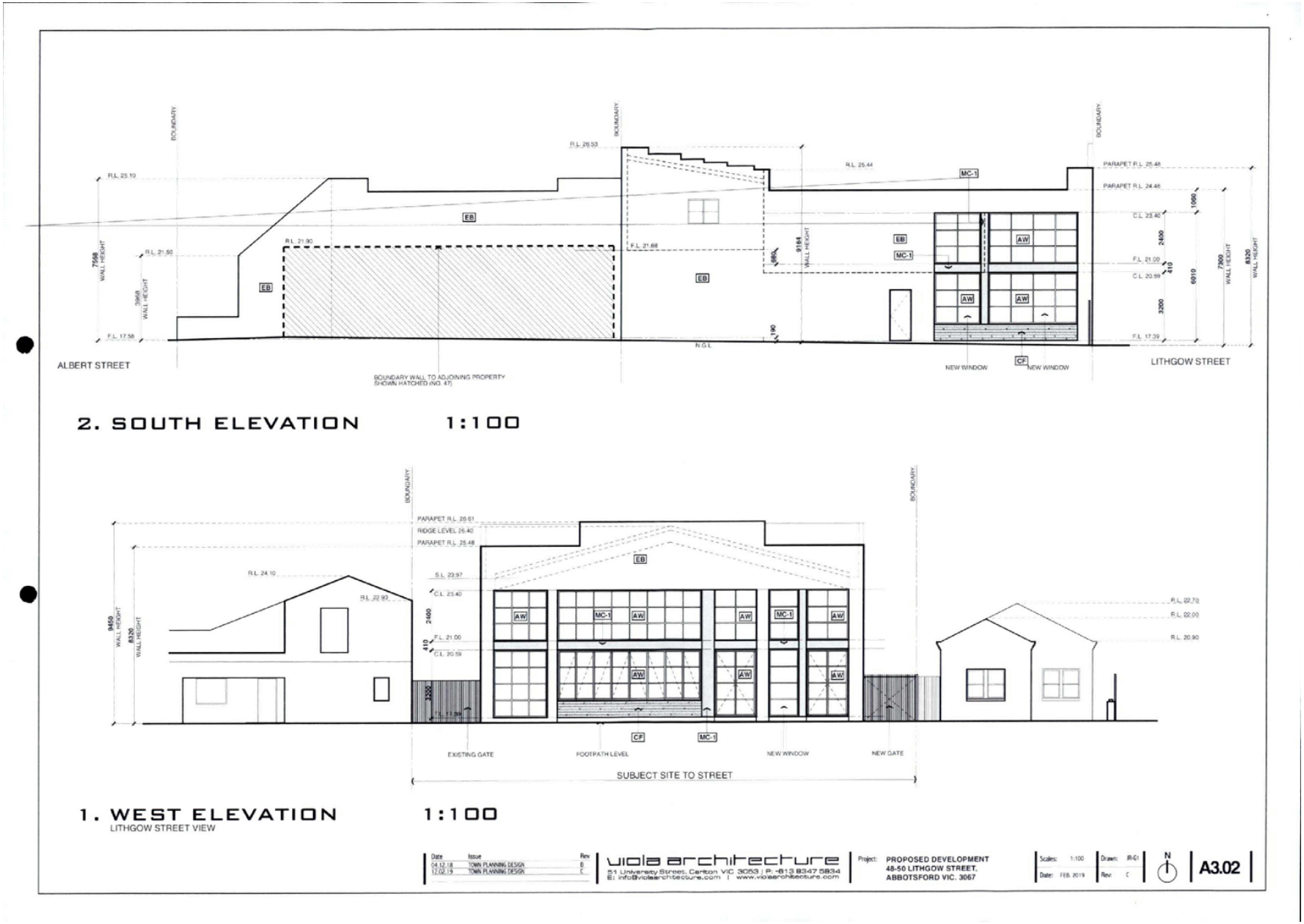

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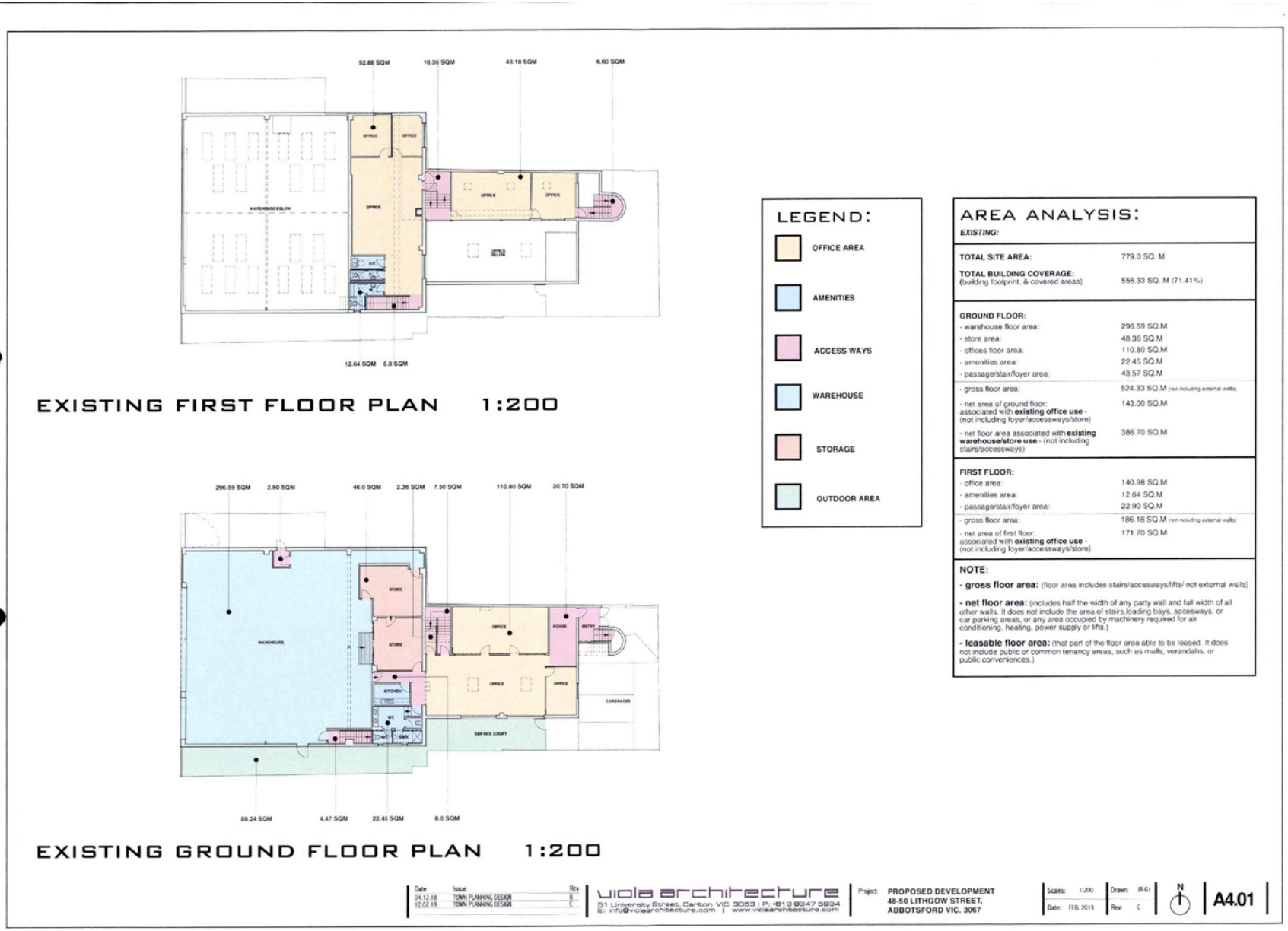

Attachment 2 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Advertising Plans

PROPOSED FIRST FLOOR PLAN 1:200

PROPOSED GROUND FLOOR PLAN 1:200

LEGEND:

- OFFICE AREA
- MEETING AREA
- AMENITIES
- SEATING AREA
- ACCESS WAYS
- STORAGE

AREA ANALYSIS:

PROPOSED:

TOTAL SITE AREA:	779.0 SQ. M
TOTAL BUILDING COVERAGE: (building footprint, & covered areas)	556.33 SQ. M (71.41%)

GROUND FLOOR:

- seating/cafe area:	96.55 SQ.M
- store area:	12.30 SQ.M
- offices/meeting floor area:	279.10 SQ.M
- amenities area:	46.65 SQ.M
- passage/stair/foyer/access area:	74.45 SQ.M
- gross floor area:	525.39 SQ.M (not including external walls)
- net area of ground floor: associated with **proposed office use** - (not including foyer/accessways/store)	331.15 SQ.M
- net leasable floor area: associated with **proposed food and drinks premises**)	96.55 SQ.M

FIRST FLOOR:

- offices/meeting floor area:	259.14 SQ.M
- amenities area:	30.50 SQ.M
- passage/stair/foyer/access area:	28.50 SQ.M
- store area:	1.60 SQ.M
- seating/cafe area:	77.90 SQ.M
- gross floor area:	368.20 SQ.M (not including external walls)
- net area of first floor: associated with **proposed office use** - (not including foyer/accessways/store/void)	347.40 SQ.M
- net leasable floor area: associated with **proposed food and drinks premises**)	77.99 SQ.M

NOTE:

- **gross floor area:** (floor area includes stairs/accesways/lifts/ not external walls)
- **net floor area:** (includes half the width of any party wall and full width of all other walls. It does not include the area of stairs,loading bays, accesways, or car parking areas, or any area occupied by machinery required for air conditioning, heating, power supply or lifts.)
- **leasable floor area:** (that part of the floor area able to be leased. It does not include public or common tenancy areas, such as malls, verandahs, or public conveniences.)

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Scales: 1:200 | Drawn: JR-GI
Date: FEB. 2019 | Rev: C

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A4.02

Attachment 3 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Traffic Report

ratio:

Report
Prepared for
Abacus PTY LTD

Proposed Mixed Use Development

48 -50 Lithgow Street, Abbotsford

February 2019

Traffic impact

r:

Attachment 3 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Traffic Report

ratio:consultants

8 Gwynn Street
Cremorne VIC 3121
ABN 93 983 380 225

Prepared for:

'Abacus PTY LTD'
Our reference 15661T REPD01

Version	Date	Reason for Issue	Prepare By	Check By
02	12/02/18	Final	D Anskaitis	B Young

Directory Path	Y:\15501-16000\15661T - 48-50 Lithgow Street, Abbotsford\Work\Reports\15661T REPD02.docx

ISO 9001 ISO 14001 AS NZS 4801

Table of contents:

1 Introduction :

Ratio Consultants Pty Ltd was commissioned by Abacus Pty Ltd to assess the traffic and parking implications of the proposed mixed-use development at 48-50 Lithgow Street, Abbotsford.

It is proposed to repurpose the existing warehouse building on the site to incorporate an office and café use. Specifically, the proposal has:

- 174.45 sqm leasable floor area of café (Food and drink premises);
- 678.55 sqm net floor area of Office space;
- 3 car parking spaces retained at the rear of the site;
- 10 bicycle spaces; and
- Changeroom and shower facilities.

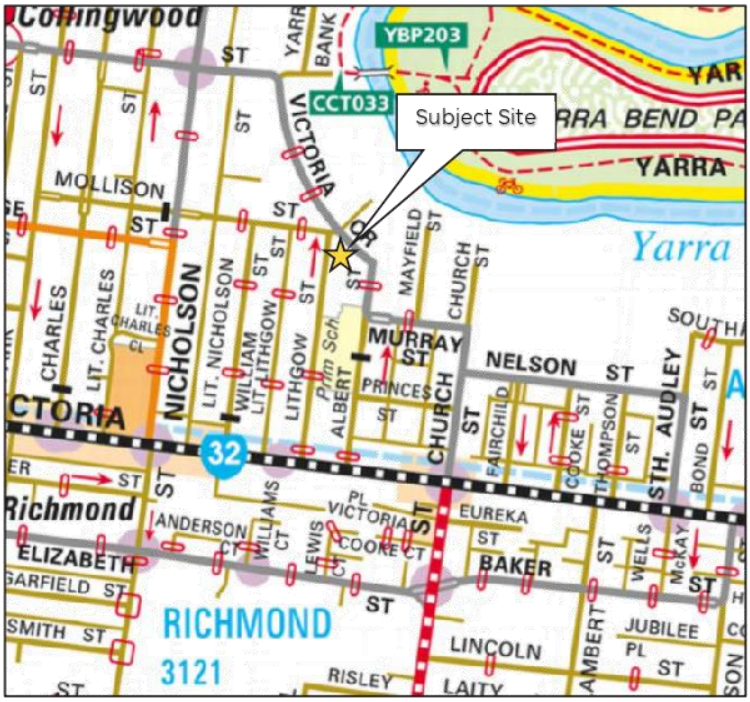
This report has been prepared to address the traffic and parking needs of the proposed change of use and is based on observations in the vicinity of the site and on previous studies of similar developments elsewhere in Melbourne.

2 Existing Conditions:

2.1 Location and Environment

The subject site is addressed as 48-50 Lithgow Street, Abbotsford. The subject site is located on the east side of Lithgow Street near the corner of Lithgow Street and Mollison Street shown in Figure 2.1

Figure 2.1 Site Location



Source: Melways

The site is irregular in shape with a frontage to Lithgow Street of 22.8 metres and frontage to Albert Street of 13.3 metres. The subject site has a depth of 43 metres, with an overall site area of approximately 768 square metres.

Some key land uses within the vicinity of the site include:

- Abbotsford Primary School 100m south of the subject site.
- Victoria Street shopping strip, 300m south of the subject site.
- Victoria Gardens Shopping Centre is located 1.5km east of the subject site.

The site is currently occupied by a two-storey warehouse building, previously occupied by Range Engineering and Delivery. Vehicular access is provided via a 17m wide crossover from Lithgow Street and a double width crossover to/from Albert Street at the rear of the site which provides access to three existing on-site car spaces.

Figure 2.1 provides an aerial photograph of the site and its surrounds.

Figure 2.2: Aerial Photograph

Source: Nearmaps

2.2 Surrounding Road Network

Lithgow Street operates in a north-south direction between Victoria Street and Mollison Street. Vehicular entry movements from Mollison Street to Lithgow Street are not permitted at the northern end, allowing for departing movements only.

Lithgow Street is a Local Road under the care and management of Yarra City Council. It has an approximate overall carriageway width of 13.7 metres, accommodating one trafficable lane in each direction. It operates with the default speed limit applicable to a built-up area of 50km/h.

In the vicinity of the site, Lithgow Street permits time-restricted (5 min, 1P and 4P) parallel parking on the west side of the street and time-restricted (1P and 2P) 90-degree angled parking on the east side of street. Figure 2.3 shows Lithgow Street in the vicinity of the subject site.

Figure 2.3 Lithgow Street facing north

Albert Street is a local road that runs in a north-south alignment between Victoria Street and Victoria Crescent. Victoria street has an approximate carriageway width of 14.5m, accommodating one traffic lane in each direction, kerb side parallel parking lanes, dedicated bicycle lane in both directions and a midblock speed hump.

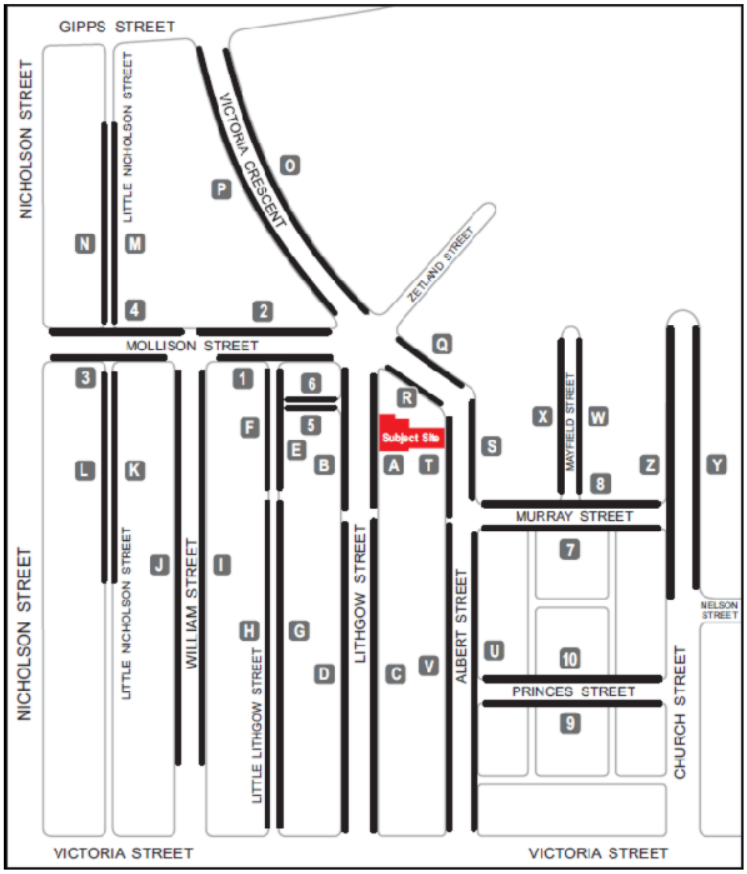
Time restricted parking is permitted on both sides of the street (1/2P, 1P and 2P). Albert Street operates at a default speed limit of 50 km/hr.

Figure 2.4 Albert Street facing north

2.3 Parking Conditions

Ratio Consultants commissioned surveys of parking supply and demand on Thursday 6 September 2018 between 8:00am and 10:00pm. The extent of the survey area is outlined in Figure 2.5 below, with detailed results presented in Table A1 Appendix A.

Figure 2.5 Parking Survey Area



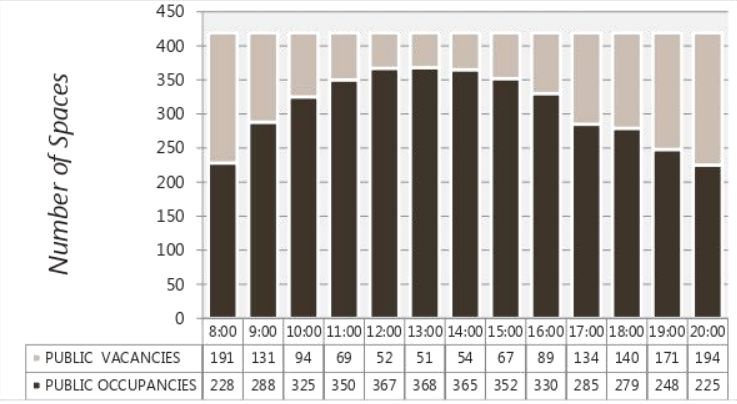
The parking inventory reveals the supply of parking in the precinct is typically subject to short to medium term restrictions, with permit zone restrictions applying in the surrounding residential streets.
In summary, the survey results showed:

Thursday 6 September 2018

- There was observed to be a total of 419 parking spaces within the survey area.
- The demand for parking was moderate to high during the survey period with observed parking occupancies ranging between 54% and 88%.
- The peak period occurred at 1:00pm, when a total of 368 publicly available car parking spaces were recorded occupied out of an available supply of 419 spaces, representing a parking occupancy of 88%. There was a minimum of 51 publicly available spaces at these times.

Figure 2.5 provides a graphical representation of the Thursday parking demands.

Figure 2.6 Parking demand survey results - Thursday 6 September 2018



	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
PUBLIC VACANCIES	191	131	94	69	52	51	54	67	89	134	140	171	194
PUBLIC OCCUPANCIES	228	288	325	350	367	368	365	352	330	285	279	248	225

Overall, the survey results demonstrate that there is a reasonably strong demand for parking within the vicinity of the site, particularly during weekday business hours. Whilst there is some public parking available within the vicinity of the site, it is largely subject to time restrictions and not suitable for longer term staff parking, but is suitable for short-term visitor and customer parking.

2.4 Sustainable Transport

The subject site is located within the Principal Public Transport Network Area (PPTN Area) as shown in Figure 2.7 below

Figure 2.7 PPTN area

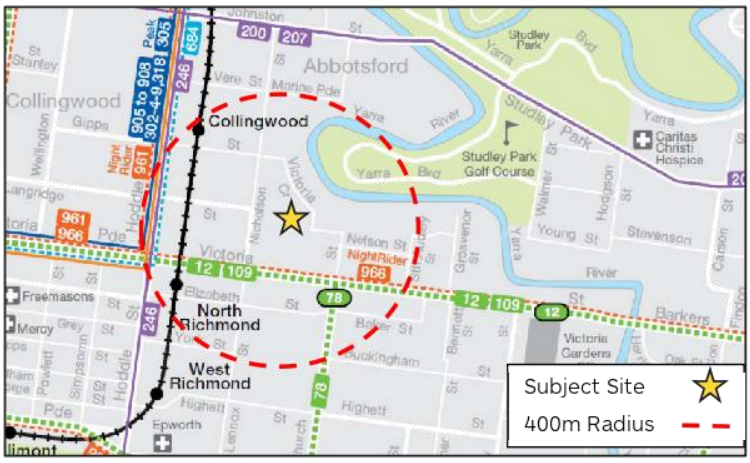
Public Transport

The subject site has excellent access to the public transport network, being within walking distance to a large number of tram and bus routes as well as North Richmond Railway Station. The public transport services operating near the site are detailed in Table 2.1 and illustrated in Figure 2.8.

Table 2.1 Public Transport Services

Service	Route No	Route	Nearest Stop	Walking Distance
Bus	246	Elsternwick - Clifton Hill via St Kilda	Langridge Street/Hoddle Street	750 metres (8-10 minutes)
	302	City - Box Hill via Belmore Rd and Eastern Fwy		
	303	City - Ringwood North via Park Rd		
	304	City - Doncaster SC via Belmore Rd and Eastern Fwy		
	305	City - The Pines SC via Eastern Fwy		
	309	City - Donvale via Reynolds Rd		
	318	City - Deep Creek		
	350	City - La Trobe University via Eastern Fwy		
	905	City - The Pines SC via Eastern Fwy, Templestowe (SMARTBUS Service)		
	906	City - Warrandyte via The Pines SC (SMARTBUS service)		
	907	City - Mitcham via Doncaster Rd (SMARTBUS service)		
	908	City - The Pines SC via Eastern Fwy (SMARTBUS Service)		
Train	Hurstbridge Line, Mernda Line		North Richmond Station	750m (9-10 mins)
	Hurstbridge Line, Mernda Line		Collinwood Station	800m
Tram	12	Victoria Gardens - St Kilda	Victoria Street/Lennox Street	450m (5-6 mins)
	109	Box Hill - Port Melbourne		450m (5-6 mins)

Figure 2.8: Public Transport Map

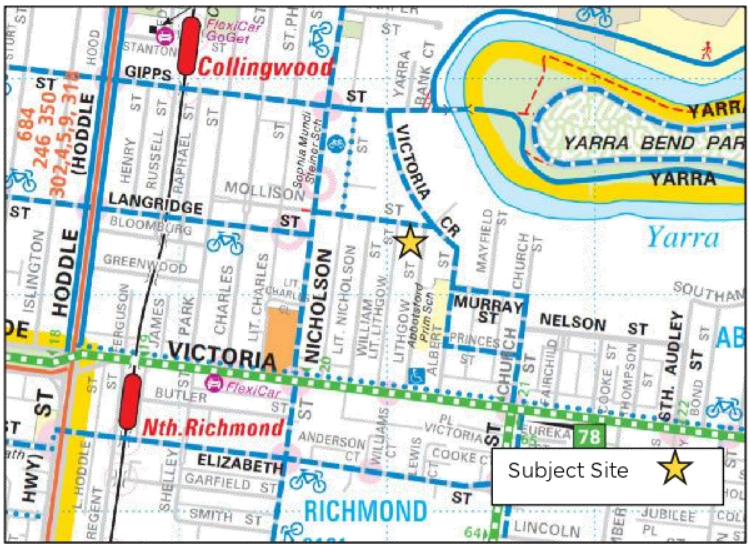


Bicycle Network

The site also has very good access to the surrounding bicycle network, with on-road bicycle lanes along Nicholson Street, Gipps Street, and Langridge Street.

A map of the sustainable transport services including the bicycle network within close proximity of the site is show in Figure 2.6 below.

Figure 2.9 Bicycle Network Map



Car Share

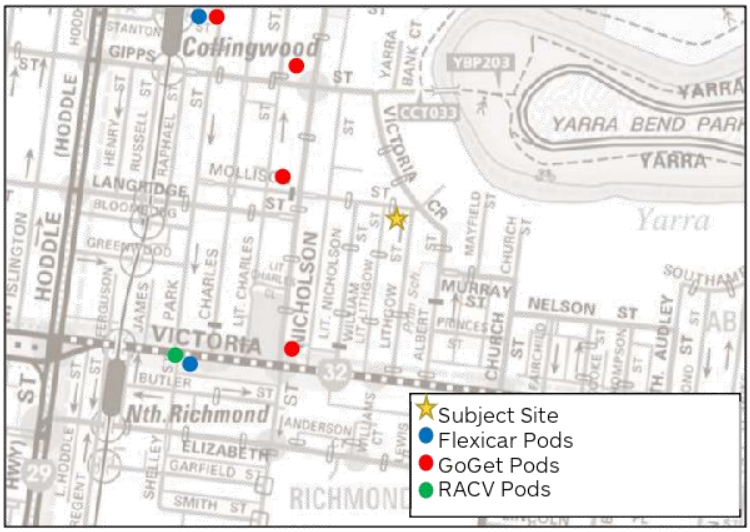
Car share provides vehicles to its members on an hourly basis for those who do not own a car or who only need a need a vehicle on a limited basis. It promotes the sharing of resources and makes non-car ownership more viable

GoGet, Flexicar and RACV provide a number of pods within the vicinity of the subject site, as shown in Figure 2.10. The most convenient car share pods for each of the service providers are detailed below:

- Flexicar – Gipps Street / Lenox Street – 400m walking distance.
- GoGet – Mollison Street / Nicholson Street– 250 metres walking distance (~ 3 minute)
- RACV – North Richmond Station - 750 metres walking distance (~8-10 minutes)

The availability of car share opportunities in the area may be attractive to staff who require the use of a vehicle from time to time.

Figure 2.10: Car Share Locations



3 The Proposal:

It is proposed to repurpose the existing warehouse building on the site to incorporate an office and café use. Specifically, the proposal has:

- 174.45 square metres of café (Food and drink premises);
- 678.55 sqm of office space over two levels;
- 3 car parking spaces retained at the rear of the site;
- 10 bicycle spaces; and
- Changeroom and shower facilities.

Vehicle access to the site is proposed to continue via the existing Albert street crossover where the three existing car spaces remain. The redundant 17m crossover to Lithgow Street is to be reduced in width to maintain access to the carriageway easement at the south of the site, with the kerb and channel reinstated to the satisfaction of the Responsible Authority.

4 Car Parking Assessment:

4.1 Parking Provision

Clause 52.06 – Parking Assessment

Amendment VC148 was incorporated into the Yarra Planning Scheme on the 1st August 2018.

The Amendment changed Clause 52.06 of the Planning Scheme which relates to car park provision, amongst other changes.

Amendment VC148 has changed the parking provision criteria applicable to the subject site since the planning application was lodged.

Parking requirements for a range of development are set out under Clause 52.06 of the Yarra Planning Scheme.

The number of car parking spaces required for the specified uses is listed under Table 1 of Clause 52.06-5. Table 1 includes two sets of parking rates listed as Column A and Column B. Column A rates are to apply unless the Column B rates are applicable. Column B rates are to be used under the following circumstances:

Any part of the land is identified as being within the Principal Public Transport Network Area as shown on the *Principal Public Transport Network Area Maps* (State Government of Victoria, 2018); or

A schedule to the Parking Overlay on another provision of the planning scheme specifies that Column B applies.

The relevant Column B rates applied to the proposed development (due to its location with the PPTN Area) are shown in Table 4.1.

Table 4.1 Car Parking Assessment

Land Use	Size / Number	Parking Rate	Statutory Parking Rate
Office	678.45sqm	3.0 spaces per 100 sq m of net floor area.	20 spaces
Café (Food and drink premises)	174.45 sqm	3.5 spaces per 100 sq m of leasable floor area.	6 spaces
TOTAL			26 spaces

Application of these rates equates to a statutory car parking provision of 26 spaces. Given that the proposal provides 3 on-site spaces, a reduction in parking of 23 car parking spaces is sought.

An application to reduce the number of car parking spaces required under Clause 52.06-5 must be accompanied by a Car Parking Demand Assessment. A Car Parking Demand Assessment and the appropriateness of allowing a reduction of on-site parking for the proposed development are discussed below:

4.2 Car Parking Demand Assessment

In accordance with Clause 52.06-6 of the Planning Scheme, an assessment of car parking demand likely to be generated by the use must have regard to a number of factors, including:

— The likelihood of multi-purpose trips within the locality

- The short-stay and long-stay car parking demand likely to be generated by the proposed use.
- The variation of car parking demand likely to be generated by the proposed use.
- The availability of public transport in the locality.
- The convenience of pedestrian and cyclist access to the site.
- The provision of bicycle parking and end of trip facilities for cyclists.
- The car parking demand likely to be generated by the proposed use.
- The anticipated car ownership rates of likely or proposed visitor to or occupants (resident or employees) of the land

An assessment of the key relevant factors has been given due consideration in the assessment of car parking demands for the proposal, as set out below.

The likelihood of multi-purpose trips within the locality

It can be expected that customers to the café will make multipurpose trips. The café onsite will likely support office occupants and the surrounding activity centre with many customers likely to be people already working or living in the area.

Public Transport in the Locality

The site has excellent access to a range of public transport services with train, tram and bus services operating in close proximity to the subject site. In particular, the site has convenient access to North Richmond Railway Station, which is located approximately 750 metres from the subject site (eight-minute walk). A tram route operates along Victoria Street which is approximated 450m (5-minute walk). These services are outlined in more detail in Section 2.4.

Given the excellent access to sustainable transport options, staff and customers are able to travel to and from the subject site without relying on the use of a private motor vehicle.

The Convenience of Pedestrian and Cyclist Access to the Site

Footpaths are provided on both sides of all roads within the vicinity of the site, which provides a link to the nearby public transport services.

In addition, the site has excellent access to nearby bicycle facilities, including several on road dedicated bike lanes including Albert Street fronting the subject site and the nearby capital city trail.

These facilities provide a viable means of alternative sustainable transport that will reduce future reliance on private motor vehicles.

The Provision of Bicycle Parking and End of Trip Facilities for Cyclists

The proposal includes a generous provision of 10 bicycle spaces with showers, changerooms and lockers also provided. These facilities will help to encourage staff to ride to/from the site and will reduce the dependence on the private motor vehicle.

Access to Car Share Facilities

As discussed in Section 2.4, there are a number of car share pods located within close proximity to the subject site, which can be utilised by staff

who do not drive to work, for day-to-day errands such as attending meetings.

Office Car Parking Demand

The parking surveys suggest a lack of long-term parking available on the streets surrounding the site, due to extensive parking restrictions that have been installed by Council.

Accordingly, it is unlikely that staff will choose to drive to the site unless they choose to pay to park in the limited paid parking that is available in Abbotsford. The parking controls will act to discourage staff from driving to the site and will encourage staff to instead use alternative transport means such as cycling and public transport.

Café Car Parking Demand

A small café premises is likely to draw most of its trade from walk-up customers associated with visitors to the activity centre, nearby residents and staff of the surrounding businesses. Therefore, the demand for parking is expected to be minimal.

Staff of the café would be expected to either cycle, walk or take public transport, given the lack of long-term on-street parking in the area.

Allowing Fewer Spaces to be provided

Clause 52.06-6 sets out the factors to be considered when determining the appropriateness of allowing fewer car parking spaces to be provided. Some of the relevant factors for this case are listed below:

- The Car Parking Demand Assessment.
- Any relevant local planning policy or incorporated plan
- The availability of car parking.
- Access to or provision of alternative transport modes to and from the land.
- Any car parking deficiency associated with the existing use of the land.
- The practicality of providing car parking on the site, particularly for lots of less than 300 square metres.

Those factors relevant to this assessment are discussed in more detail below:

Relevant Local Policy

Clause 21.06 City of the Yarra Planning seeks to reduce car dependence by promoting walking, cycling and public transport. It includes a number of strategies, including:

- *Improve pedestrian and cycling links in association with new development where possible.*
- *Require new development that generates high numbers of trips to be easily accessible by public transport.*
- *Provide efficient shared parking facilities in activity centres.*
- *Require all new large developments to prepare and implement integrated transport plans to reduce the use of private cars and to encourage walking, cycling and public transport.*
- *Ensure access arrangements maintain the safety and efficiency of the arterial and local road networks.*

The proposal is in-line with the strategic intent of Clause 21.06 and the broader aims of the City of Yarra's Strategic Transport Statement (2006) based on the following:

— The proposal is located close to numerous sustainable transport alternatives;
— There is a generous provision of on-site bicycle parking; and

The reduced provision of on-site parking will discourage private motor vehicle use

Availability of Car Parking

As outlined in Section 2.3, the availability and nature of the on-street parking in the vicinity of the site that could potentially be utilised by employees of the development is highly constrained given that the majority of on-street parking is either time restricted or subject to very high occupancy during weekday business hours. This results in a strong disincentive for future employees without an on-site car space to travel to work via a private motor vehicle and will encourage alternative modes of transport.

Conversely, the short-term parking restrictions will ensure any short-term visitors / customers to the area are able to find a parking space within close proximity to the subject site even during periods of peak activity. The parking surveys demonstrate that there was a minimum of 44 short-term parking spaces available for use by visitors / customers of the proposed development. Accordingly, it is considered that any short-term users of the development can be accommodated in suitable off-site parking locations within convenient proximity of the site without adversely impacting on current parking conditions in the precinct (noting that the car parking demand generated by short-term users will be minimal).

Any car parking deficiency associated with the existing use of the land

Using Column B rates, the existing warehouse with ancillary office has a parking requirement as per Table 4.2:

Table 4.2 Car Parking Assessment for Existing Use

Land Use	Size / Number	Parking Rate	Statutory Parking Rate
Warehouse	386.70 sqm	2 spaces to each premises + 1 space per 100 sq m	5 spaces
Office	283.98 sqm	3 spaces per 100 sq m of net floor area	8 spaces
TOTAL			13 Spaces*

**Rounded down in accordance with clause 52.06*

With a total of three spaces on site, the existing use has a deficiency of nine spaces associated with the existing use. Accordingly, the proposal seeks a reduction of 17 spaces from the existing use.

Practicality of Providing More Parking On-site

It is proposed that the existing building footprint will remain the same, given this, it is not practical to provide more than the 3 spaces currently proposed.

Other Relevant Considerations

The reduction of the redundant 17m crossover fronting Lithgow Street will provide additional on-street parking space outside the proposed development. This will further aid in providing parking for any short-term users of the site.

4.3 Adequacy of Parking Provision

On the basis of the above, it is considered that the proposed provision of parking is acceptable for the following reasons.

- The site is well located to take advantage of access to sustainable transport alternatives, such as nearby public transport services, on and off-road bicycle lanes, and the pedestrian footpath network.
- The proposal includes a generous provision of bicycle parking which will encourage staff towards an alternative method of transport to/from the site.
- Given the site's location and accessibility by alternative modes of transport the car parking demand generated by the office is expected to result in a car parking demand less than the Yarra Planning Scheme rate.
- On-street parking spaces in the vicinity of the site are sufficiently protected by parking restrictions and very high occupancy levels during weekday business hours to discourage staff of the proposed development from choosing private motor vehicles for travel to and from the site. Suitable short-term car parking is available within close proximity of the subject site for visitors of the office.
- The small café is not expected to generate a significant demand for car parking, with the majority of customers expected to be walk-up customers from the surrounding area. Notwithstanding this, the parking surveys demonstrate that there is spare capacity within the on-street parking within the vicinity of the site to accommodate an increase in short term parking. Staff can make use of alternative transport modes such as public transport, walking or cycling.
- The removal of the redundant crossover fronting Lithgow Street will provide additional on-street parking spaces outside the proposed development.
- The development helps to achieve the objectives sought by Local Policy by reducing the dependence on private motor vehicles.
- Car share vehicles are provided within the vicinity of the site which can be utilised by staff who do not drive to work, for day-to-day errands such as attending meetings.

On the basis of the reasons discussed above, it is considered that the proposed level of car parking is suitable for the nature and scale of the proposed development.

4.4 Statutory Bicycle Parking Requirements

The provisions set out under Clause 52.34-3 of the Yarra Planning Scheme require that bicycle parking be provided at the following rates:

- Office: *1 employee space to each 300sqm of net floor area if the net floor area exceeds 1,000sqm, and 1 visitor space to each 1,000sqm of net floor area if the net floor area exceeds 1,000sqm.*
- Retail Premises other that listed in Clause 52.34 of the Yarra Planning Scheme: *1 space to each 300sqm of leasable floor area for employees and 1 space to each 500sqm of leasable floor area for visitors.*

As the office does not exceed 1000 sqm there is no requirement to provide bicycle parking for the office use. Notwithstanding application of the above rates is provided within the following table as a guideline.

Table 4.3: Bicycle Parking Rates – Clause 52.34

Land Use		Size / Number	Parking Rate	Bicycle Parking Requirement
Office	Staff	678.55sqm	1 to each 300 sqm of net floor area if the net floor area exceeds 1000 sqm	2 spaces
	Visitor		1 to each 1000 sqm of net floor area if the net floor area exceeds 1000 sqm	0 space
Cafe	Staff	174.45 sqm	1 to each 300 sqm of leasable floor area	1 space
	Visitor		1 to each 500 sqm of leasable floor area	0 spaces
TOTAL				3 spaces

On the basis of the above, the development's proposal to provide 10 bicycle spaces is appropriate.

4.5 Bicycle Parking Design Assessment

The 10 bicycle parking spaces proposed are provided within a secure shelter in the form of horizontal hoops such as the 'Arc de Triomphe' rail.

The bicycle parking spaces have been designed in accordance with the requirements of AS 2890.3:2015. Accordingly, it is considered the design of the bicycle parking spaces is satisfactory.

Refer to Appendix B for the bicycle parking specifications.

5 Waste Assessments:

5.1 Waste Management

Waste is proposed to be stored within the Bin and Recyclables Areas provided within the Ground Level of the development.

It is understood that waste is proposed to be collected kerbside by Council.

This is considered to be an appropriate arrangement from a traffic engineering perspective.

6 Loading Assessment:

6.1 Loading and Unloading Arrangements

Clause 65.01 'Decision Guidelines' of the Yarra Planning Scheme outlines the provision of loading requirements, and states the following:

"Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate:

— *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts."*

Given the nature of the use, it is not anticipated that service vehicles will regularly seek to access the site for loading. Some vans / small trucks may access the site for the loading / unloading for deliveries to café and office uses. This can appropriately be undertaken within the surrounding on-street parking.

7 Traffic Considerations:

7.1 Traffic Generation

The proposed office and café are expected to generate limited traffic given the small number of parking spaces maintained on-site.

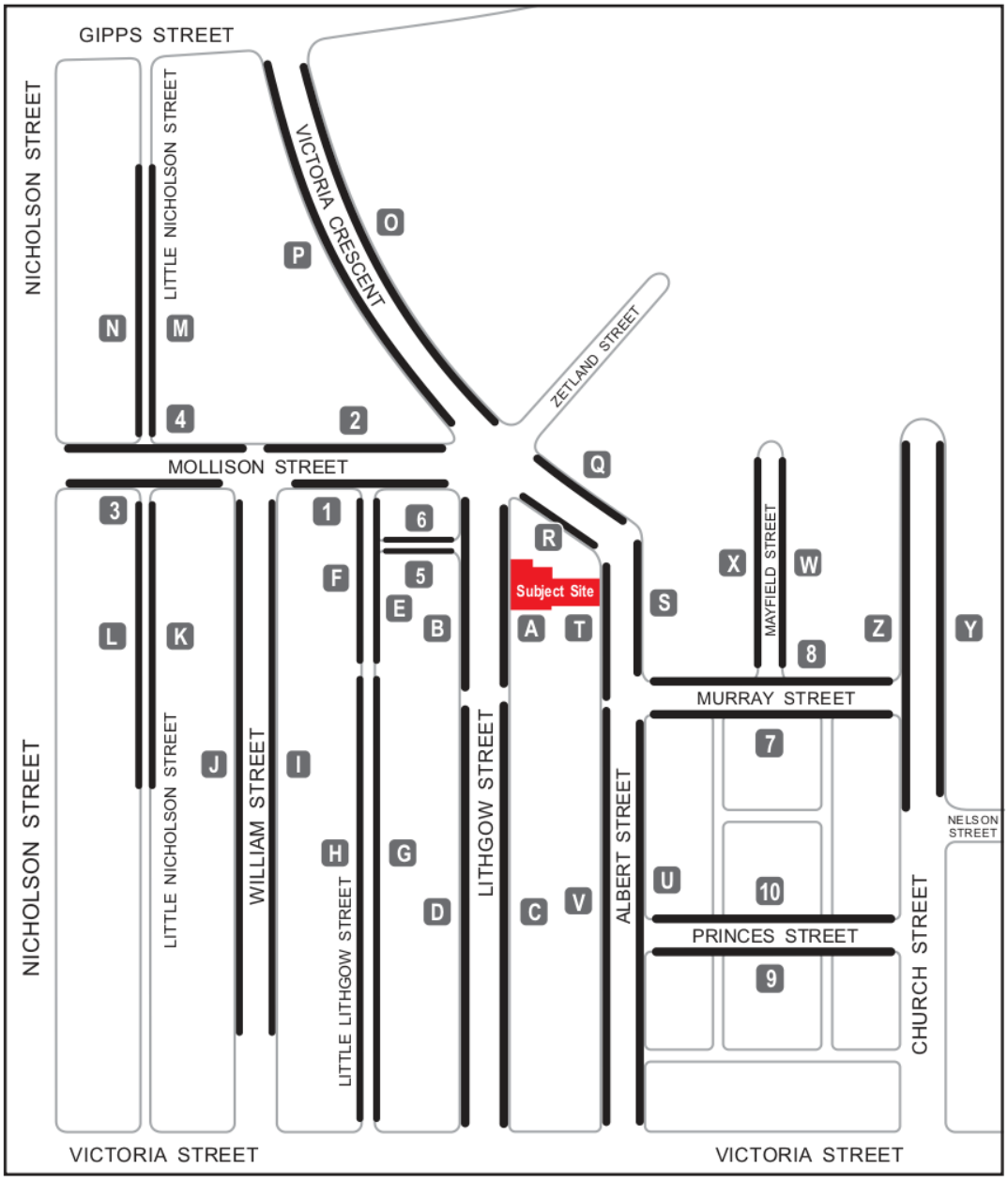
8 Conclusion:

It is proposed to repurpose the existing building warehouse/office development at 48-50 Lithgow Street, Abbotsford into a café and office. Based on the foregoing assessment, the following conclusions have been made:

- The site is well located to take advantage of access to sustainable transport alternatives, such as nearby public transport services, on and off-road bicycle lanes, and the pedestrian footpath network.
- The proposal includes a generous provision of bicycle parking which will encourage staff towards an alternative method of transport to/from the site.
- Given the site's location and accessibility by alternative modes of transport the car parking demand generated by the office is expected to result in a car parking demand less than the Yarra Planning Scheme rate.
- On-street parking spaces in the vicinity of the site are sufficiently protected by parking restrictions and high occupancy levels during weekday business hours to discourage staff of the proposed development from choosing private motor vehicles for travel to and from the site. Suitable short-term car parking is available within close proximity of the subject site for visitors of the office.
- The small café is not expected to generate a significant demand for car parking, with the majority of customers expected to be walk-up customers from the surrounding area. Notwithstanding this, the parking surveys demonstrate that there is spare capacity within the on-street parking within the vicinity of the site to accommodate an increase in short term parking. Staff can make use of alternative transport modes such as public transport, walking or cycling.
- The reduction of the redundant crossover fronting Lithgow Street will provide additional on-street parking spaces outside the proposed development.
- The development helps to achieve the objectives sought by Local Policy by reducing the dependence on private motor vehicles.
- Car share vehicles are provided within the vicinity of the site which can be utilised by staff who do not drive to work, for day-to-day errands such as attending meetings.

- The proposed car park and access arrangements are proposed not to change.

Overall, the proposed development is suitably designed and is not expected to create adverse traffic or parking impacts in the precinct.



Project : 15561T December 2018

FIGURE 3.4
PARKING SURVEY AREAS

Attachment 3 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Traffic Report

Parking 48-50 Lithgow Street, Abbottsford

TRANS TRAFFIC SURVEY
trafficsurvey.com.au

Parking Occupancy Survey

Date:	Thursday, 6 September 2018
Location:	48-50 Lithgow Street, Abbottsford
Weather:	Fine
Customer:	Ratio

Public Parking (1/0)	Map Ref	Street	Section	Side	Restriction	Clear Way	Capacity	Parking Occupancy											
								8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
1	A	Lithgow St	From #38 To Mollison St	E	2P 7:30am-5:30pm, Permit Zone Other Times		7	4	5	6	7	7	7	7	6	6	5	5	4	3
1					2P 7:30am-5:30pm		5	3	4	5	5	5	5	5	5	5	4	4	4	4
1	B			W	1P 7:30am-5:30pm Mon-Fri, Permit Zone Other Times		8	4	5	6	6	7	8	8	8	8	7	6	4	4
1					4P 7am-7pm Mon-Fri		2	0	1	2	2	1	0	1	2	1	0	1	2	0
1	C	Lithgow St	From Victoria St To #38	E	2P 7:30am-5:30pm		10	6	7	8	8	9	9	9	10	8	7	5	3	3
1					4P 7:30am-5:30pm Mon-Fri		18	12	17	16	18	18	18	16	18	13	11	9	6	6
1					P 5mins 8:30am-9:30am,3pm-4pm School Days, 1P 9:30am-3pm,4pm-5:30pm Mon-Fri		11	8	10	6	7	8	9	8	11	6	5	8	11	11
1					4P 7:30am-5:30pm		3	0	2	3	3	3	3	3	3	3	3	3	3	3
1					Permit Zone		15	9	10	11	11	13	14	14	15	13	11	9	7	6
1					1P Ticket 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		4	2	2	3	3	4	4	4	4	4	3	3	3	0
1	D			W	1/4P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		1	0	1	1	1	1	0	0	0	1	1	1	1	1
1					4P 7:30am-5:30pm Mon-Fri		9	8	9	8	9	9	9	9	9	8	7	8	9	9
1					P 5mins 8:30am-9:30am,3pm-4pm Mon-Fri		1	1	1	1	0	0	0	0	0	1	1	1	1	0
1					Loading Zone 7:30am-4:30pm Mon-Fri, 7:30am-12:30pm Sat		4	2	0	0	0	1	2	3	3	3	2	3	3	3
0	E	Little Lithgow St	From Mollison St To Row	E	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	F			W	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	G		From Row To Victoria St	E	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	H			W	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	I	William St	From Mollison St To Blockage	E	1P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		4	2	3	4	4	4	4	4	4	4	4	3	2	1
1					2P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		57	33	47	52	57	57	57	56	55	52	48	44	40	41
1	J			W	Permit Zone		23	9	10	12	13	15	17	17	17	16	15	17	19	16
1					P Disabled		1	0	0	0	0	0	0	0	0	1	1	1	1	1
1					4P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		3	0	0	1	2	3	3	3	3	3	3	2	0	2
1					Works Zone 7am-6pm Mon-Fri, 9am-3pm Sat		3	1	0	0	0	0	0	2	3	3	2	2	2	1
1					1P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		2	0	2	2	1	1	0	1	2	2	2	2	1	0
0	K	Little Nicholson St	From Mollison St To Row	E	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	L			W	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	M	Little Nicholson St	From Mollison St To Row	E	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Attachment 3 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Traffic Report

Parking 48-50 Lithgow Street, Abbottsford

0	N			W	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	O	Victoria Cres	From Mollison St To Gipps St	E	1P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		12	9	10	9	10	11	12	11	12	10	9	6	3	0
1					4P 7am-6pm Mon-Fri		7	5	7	6	7	7	7	7	7	7	6	4	1	2
1					4P 9:15am-3pm Mon-Fri	No Stopping 8am-9:15am, 3pm-4pm Mon-Fri	2	0	0	1	2	2	1	2	0	1	0	1	1	0
1	P			W	Loading Zone 7:30am-7:30pm Mon-Fri, 7:30am-12:30pm Sat		2	0	2	1	0	1	2	2	2	2	2	2	1	2
1					4P 7am-6pm Mon-Fri		10	7	9	10	10	10	10	10	9	9	8	5	2	0
1					2P Disabled 8am-5pm Mon-Fri		1	1	1	1	0	1	1	1	0	0	0	1	1	0
1					1/4P 7:30am-5:30pm Mon-Fri		1	0	1	1	0	0	0	0	0	0	0	0	0	1
1					1P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		4	4	4	4	4	4	4	4	4	4	4	4	3	3
1	Q	Victoria Cres	From Albert St To Mollison St	E	4P 7am-6pm Mon-Fri		2	0	0	1	2	1	0	0	0	0	0	1	1	0
1					1/4P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		2	0	0	1	1	2	2	2	1	1	0	1	2	2
1					P Disabled 7am-6pm Mon-Fri		1	1	0	1	1	1	1	1	0	1	1	1	0	0
0	R			W	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	S	Albert St	From Murray St To Victoria Cres	E	4P 7:30am-5:30pm Mon-Fri		4	2	3	2	1	2	2	1	0	1	1	1	0	0
1	T			W	4P 7:30am-5:30pm Mon-Fri		4	2	3	4	4	4	4	4	3	3	2	3	3	3
1					P Disabled		1	0	1	1	1	1	1	1	1	1	0	0	0	1
1	U		From Victoria St To Murray St	E	4P 7:30am-5:30pm Mon-Fri		10	6	7	9	10	10	10	10	9	8	7	8	9	8
1					1P 7:30am-5:30pm, Permit Zone 5:30pm-11:30pm		5	1	1	1	1	1	1	1	0	1	2	1	0	0
1					1/4P 7am-7pm		1	0	0	0	0	0	0	0	0	0	0	1	1	0
1	V			W	1P Ticket 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		6	0	1	1	1	3	4	4	4	4	3	4	5	4
1					1P 7:30am-5:30pm Mon-Fri, Permit Zone Other Times		10	3	4	5	6	7	7	7	7	7	6	6	5	4
1					4P 7:30am-5:30pm Mon-Fri		29	20	23	26	29	29	29	28	27	23	19	16	13	14
1	W			E	Unrestricted		5	3	4	5	5	5	5	5	4	4	3	3	3	3
1	X	Mayfield St	From Murray St To End	W	Unrestricted		8	5	6	7	8	8	8	8	7	7	6	6	6	6
1	Y	Church St	From Nelson St To End	E	Unrestricted		15	9	11	13	15	15	15	14	13	12	10	12	14	12
1	Z			W	4P 7:30am-5:30pm Mon-Fri		8	6	7	8	8	8	8	8	8	7	6	6	6	6
1					1P 7:30am-5:30pm Mon-Fri		9	6	7	8	9	9	9	8	7	6	5	5	5	5
1	1	Mollison St	From Victoria Cres To William St	S	Unrestricted		2	0	0	1	2	2	1	1	0	1	2	1	0	0
1					Loading Zone 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		2	0	0	1	2	2	2	1	0	0	0	0	0	0
1	2			N	Unrestricted		14	9	10	12	14	14	14	14	13	12	10	9	7	7
1	3		From William St To Nicholson St	S	2P 7am-7pm Mon-Sat		11	7	9	10	11	11	11	10	9	9	8	6	3	3
1	4			N	1P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		4	0	2	2	2	1	0	1	1	1	0	2	4	4
1					Unrestricted		5	3	4	5	5	5	5	5	5	5	4	4	3	3
0	5	Laneway	From Little Lithgow St To Lithgow St	S	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6			N	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	7	Murray St	From Church St To Albert St	S	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	8			N	2P 7:30am-5:30pm Mon-Fri, 7:30am-12:30pm Sat		7	4	5	6	7	7	7	7	6	6	5	4	3	3

Attachment 3 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Traffic Report

Parking 48-50 Lithgow Street, Abbottsford

1					1/4P 7am-4pm Mon-Sat		1	0	0	1	1	1	1	1	0	0	0	1	1	0
1	9	Princes St	From Albert St To Church St	S	2P 7am-11pm		6	4	5	6	6	6	6	6	5	5	5	6	6	5
1					1P 7:30am-5:30pm Mon-Fri, Permit Zone Other Times		4	3	0	1	1	1	0	1	2	3	3	2	0	0
1	10			N	2P 7am-11pm		6	2	3	4	4	5	5	5	4	4	3	4	4	4
1					2P 7:30am-5:30pm Mon-Fri, Permit Zone Other Times		7	2	2	3	3	4	4	4	4	4	3	5	6	5
	PUBLIC CAPACITY							**419**	**419**	**419**	**419**	**419**	**419**	**419**	**419**	**419**	**419**	**419**	**419**	**419**
	PUBLIC OCCUPANCIES							**228**	**288**	**325**	**350**	**367**	**368**	**365**	**352**	**330**	**285**	**279**	**248**	**225**
	PUBLIC VACANCIES							**191**	**131**	**94**	**69**	**52**	**51**	**54**	**67**	**89**	**134**	**140**	**171**	**194**
	PUBLIC % OCCUPANCIES							**54%**	**69%**	**78%**	**84%**	**88%**	**88%**	**87%**	**84%**	**79%**	**68%**	**67%**	**59%**	**54%**

not available for public parking

Appendix B Bicycle Parking

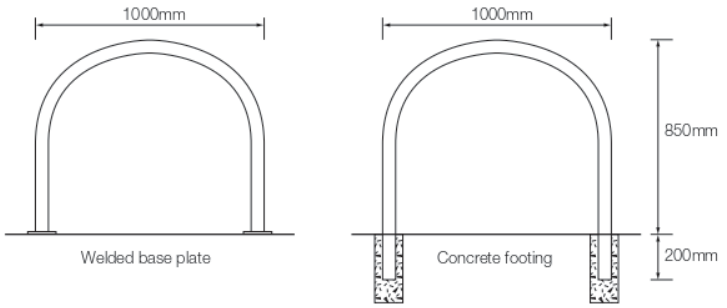
Arc de Triomphe™

Galvanised finish / Stainless Steel finish

Features

- Each rail supports two adult bikes in an upright position
- Can be either bolted to a concrete slab or concreted in situ
- Available in stainless steel or galvanised steel
- Provides the ability to lock both wheels and frame
- Suitable for foyers and entry areas

Dimensions



Specifications

Material options

- Galvanised (Duragal)
- 316 Marine grade stainless steel

Fixing options

- Welded flange - Bolt on
- In situ

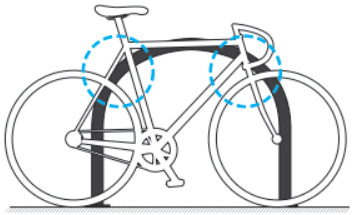
Recommended fasteners

- Galvanised Dynabolts (M10 x 65mm)
- Stainless Dynabolts (M10 x 65mm)
- Shear Nut security fasteners

Dimensions

1000mm [w] x 850mm [h]

Locking Points



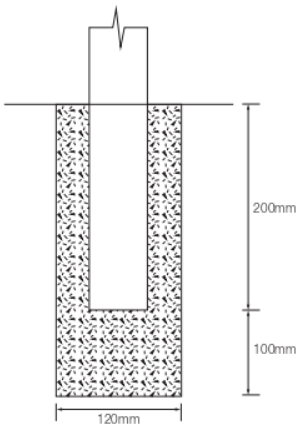
BICYCLE NETWORK BIKE PARKING

DESIGN. SUPPLY. INSTALL.

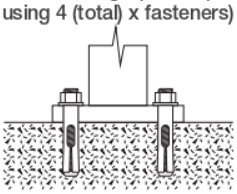
Bicycle Network ABN 41 026 835 903
p. 1300 727 563 e. parking@bicyclenetwork.com.au bikeparking.com.au
VIC Level 4, 246 Bourke Street, Melbourne VIC 3000 NSW 234 Crown Street, Darlinghurst NSW 2010
TAS 210 Collins Street, Hobart TAS 7000 NT Suite 5, 18-20 Cavenagh Street, Darwin 0800

Fixing options

In situ (Concrete footing)

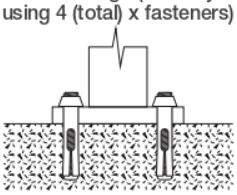


Welded flange (Bolt on)
using 4 (total) x fasteners)



Shown with M10 x 65mm fastener

Welded flange (Security heads)
using 4 (total) x fasteners)

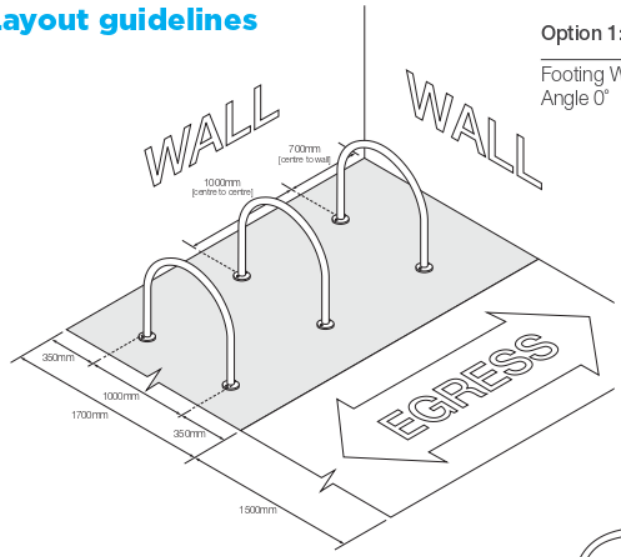


Shown with M10 x 65mm Shear Nuts

Layout guidelines

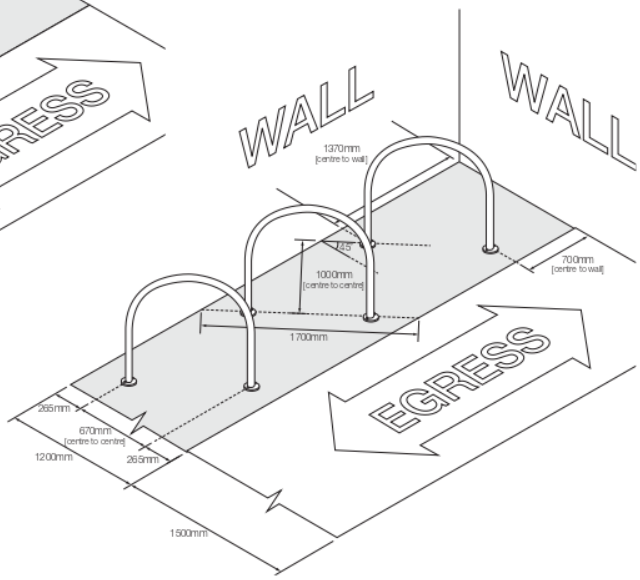
Option 1:

Footing Width 1700mm
Angle 0°

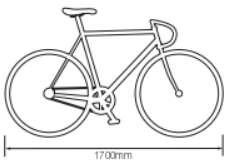


Option 2:

Footing Width 1200mm
Angle 45°



Typical Bicycle Length



BICYCLE NETWORK BIKE PARKING

DESIGN. SUPPLY. INSTALL.
Bicycle Network ABN 41 026 835 903
p. 1300 727 563 e. parking@bicyclenetwork.com.au bikeparking.com.au
VIC Level 4, 246 Bourke Street, Melbourne VIC 3000 NSW 234 Crown Street, Darlinghurst NSW 2010
TAS 210 Collins Street, Hobart TAS 7000 NT Suite 5, 18-20 Cavenagh Street, Darwin 0800

Attachment 4 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - STORM Rating Report

Melbourne Water

STORM Rating Report

TransactionID: 728925
Municipality: YARRA
Rainfall Station: YARRA
Address: 48-50 Lithgow Street
Abbotsford
VIC 3067
Assessor: Claire Whelan
Development Type: Commercial/Retail
Allotment Site (m2): 779.00
STORM Rating %: 88

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Building roof	556.00	Rainwater Tank	5,000.00	100	123.00	58.00
Outdoor hard surface	223.00	None	0.00	0	0.00	0.00

Date Generated: 14-Feb-2019 Program Version: 1.0.0

Attachment 5 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Acoustic Report

WatsonMossGrowcott Acoustics

CONSULTANTS: ACOUSTICS, NOISE & VIBRATION CONTROL

A.C.N. 005 446 579
ABN 44 445 257 249

WATSON MOSS GROWCOTT acoustics pty ltd
SUITE 7, 696 HIGH STREET, KEW EAST
VICTORIA, AUSTRALIA 3102
TELEPHONE: (03) 9859 9447
FACSIMILE: (03) 9859 5552
EMAIL: reception@wmgacoustics.com.au
PO BOX 201, KEW EAST, 3102

PROPOSED COMMERCIAL VENUE

48-50 LITHGOW STREET
ABBOTSFORD

Town Planning Application
Acoustic Report

Acoustic Report Prepared for:

Crystal Palace Catering
3602/8 Franklin Street
Melbourne
Victoria 3000

Ref. 12330-2.1jg
14th February 2019

MEMBER FIRM OF THE ASSOCIATION OF
AUSTRALIAN ACOUSTICAL CONSULTANTS

WatsonMossGrowcott Acoustics

CONSULTANTS: ACOUSTICS, NOISE & VIBRATION CONTROL

A.C.N. 005 446 579
ABN 44 445 257 249

TABLE OF CONTENTS

WatsonMossGrowcott Acoustics

CONSULTANTS: ACOUSTICS, NOISE & VIBRATION CONTROL

A.C.N. 005 446 579
ABN 44 445 257 249

1. INTRODUCTION

The subject site is located at 48-50 Lithgow Street, Abbotsford.

The site is currently occupied by an existing warehouse and multi-level building which will remain as part of the proposal.

The proposal includes the re-configuration of internal areas associated with the existing site to allow for the following:

- Operation of a commercial café venue within the existing warehouse building located on the western portion of the subject site land.
- Provision of commercial office spaces extending over two levels within the existing multi-level buildings located at the site.

As part of town planning application **PLN19/0011**, the City of Yarra has requested further information relating to potential noise emissions associated with the proposed operations at the subject site.

The relevant request is identified as item 5 and is described below.

5. *An acoustic report produced by a suitably qualified acoustic engineer that provides an assessment of the levels of noise pollution associated with the proposed food and drinks premises (café) use. Special attention must be paid to residential uses within the immediate vicinity.*

In response to the request, Watson Moss Growcott Acoustics (WMG) has been engaged to consider noise emissions associated with the proposed operations and assess the noise emissions in accordance with relevant EPA noise legislation.

Based on previous experience with similar types of applications, the relevant legislation/guideline documentation applicable for the proposed operations at the subject site are shown below in Table 1.

Table 1: Assessment Methodology

Noise Source	Assessment Methodology
Mechanical Services Noise	State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1
Patron Noise	State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1
Music Noise	State Environment Protection Policy (Control of Music Noise from Public Premises) No. N-2

This report presents an assessment of the potential noise emissions associated with the proposed operations and provides noise control recommendations to achieve compliance with relevant legislation/guideline documentation where applicable.

2. NOISE ASSESSMENT TERMINOLOGY

Common terminology used within this noise assessment report is described in Table 2 below.

Table 2: Description of Noise Assessment Terminology

Reference	Description
dB(A)	Decibels recorded on a sound level meter, which has had its frequency response modified electronically to an international standard, to quantify the average human loudness response to sounds of different character.
L_{eq}	The equivalent continuous level that would have the same total acoustic energy over the measurement period as the actual varying noise level under consideration. It is the noise measure defined by the EPA as the measure of the noise to use in assessing compliance with noise limits.
L_{90}	The level exceeded for 90% of the measurement period, which is representative of the typical lower levels in a varying noise environment. It is the noise measure defined by the EPA as the measure of the background noise level to use in determining noise limits.
L_{10}	Commonly described as the average of the higher levels of a range of noise levels. It is the value of a range of values exceeded for 10% of the observation period, *i.e.* the level exceeded for 6 minutes for every 60 minutes of observation.

3. MEASUREMENT EQUIPMENT

As part of the assessment works, WMG used the equipment described in Table 3 below:

Table 3: Measurement Equipment List

Equipment Designation	Use of Equipment
Rion NA27 Precision Sound Level Meter	Handheld Noise Measurements
Ngara Real Time Sound Acquisition System	Fixed Position Noise Logging Measurements

The field calibration of the measurement equipment was checked with a Bruel & Kjaer Type 4230 Sound Level Calibrator at the commencement and completion of the noise measurements and found to be within the correct calibration range.

4. PROPOSED SITE LAYOUT AND OPERATIONS

The site is currently occupied by an existing warehouse and multi-level building which will remain as part of the proposal.

The existing multi-level building located on the eastern portion of the site will generally remain unchanged externally. Internally, partitions will be re-configured to allow for an increased number of private spaces at ground level, and a more open plan arrangement at first floor level.

The main works will be associated with the warehouse building located on the western portion of the site whereby the space will be converted into a hospitality space operated as a café combined with commercial office tenancy spaces.

The main focus of the assessment is the potential for noise emissions associated with the proposed café space to impact on off-site noise sensitive residential receptors located nearby to the site.

The proposed café will include internal seating areas constructed over two levels including a ground and mezzanine level. The described spaces will be connected via a common void section located adjacent to the western façade of the warehouse base building.

The internal seating areas will include an openable glazed façade section at ground level which will open onto Lithgow Street to the west. Fixed glazed sections will be also be included within the western and northern facades of the space.

It has been indicated that the number of patrons which will occupy the tenancy will be 100.

The operating hours of the building will be as shown below in Table 4.

Table 4: Proposed Operating Hours

Relevant Operations	Adopted Operating Times
Proposed Café Space	7:00am to 5:00pm Monday to Sunday
Commercial Office Building	8:00am to 6:00pm Monday to Friday

The proposed ground and first level floor plans are shown below in Figure 1 and Figure 2.

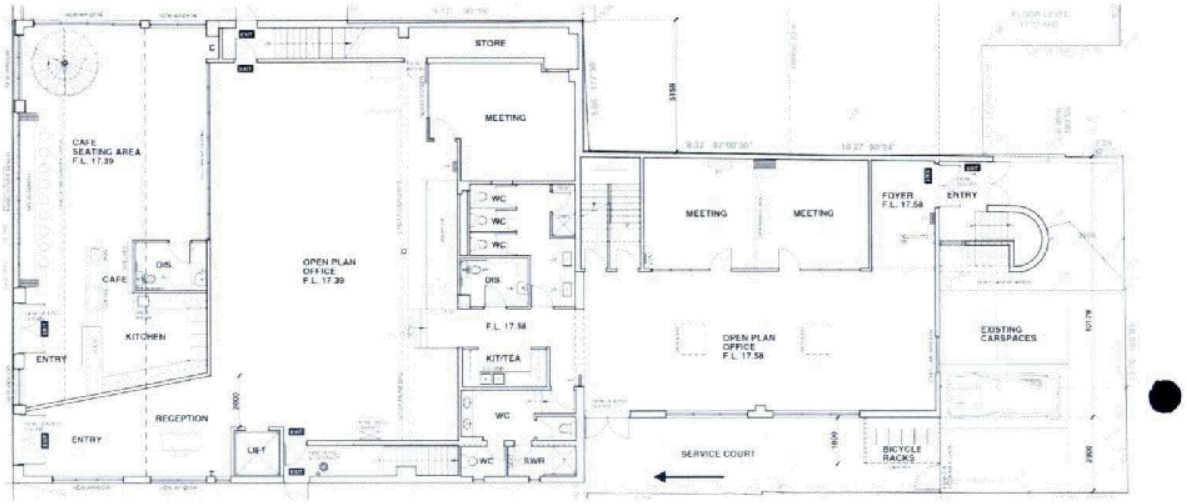


Figure 1: Proposed Ground Floor Plan

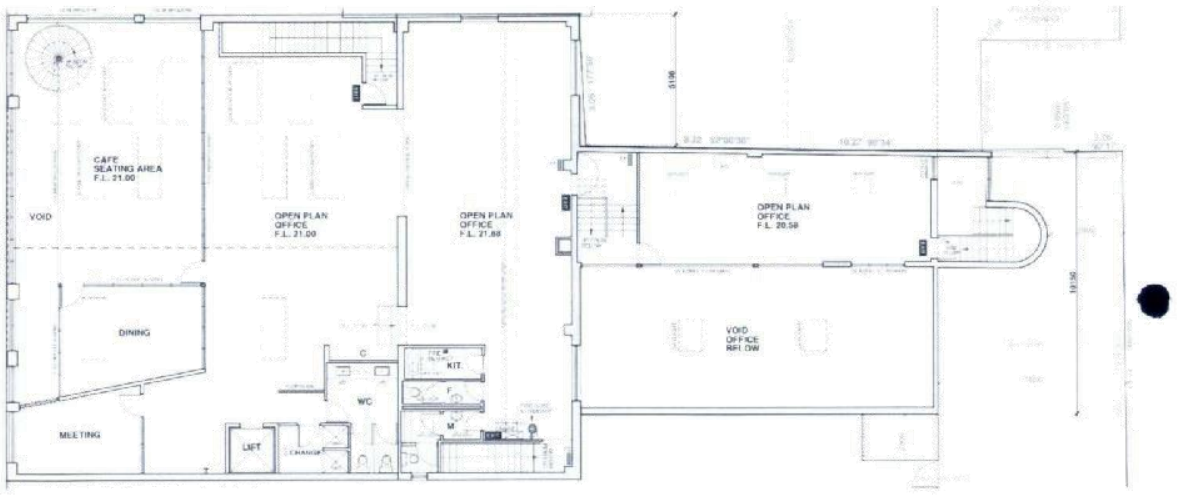


Figure 2: Proposed First Floor Plan

5. SITE AND NEARBY ENVIRONMENT

The subject site is located at the land described as 48-50 Lithgow Street, Abbotsford.

The site abuts Lithgow Street to the west, Albert Street to the east, and existing residential dwellings to the north and south.

The site is occupied by an existing warehouse and multi-level building which will remain as part of the proposal.

Noise emissions associated with the proposed operations will require consideration at residential receptors surrounding the subject site.

Based on the distance separation between the subject site and the nearby residential receptors, the most relevant receptors will be as follows:

- 6 Victoria Crescent located to the north of the site.
- 42 Lithgow Street located to the south of the site.
- 41 Albert Street located to the south of the site.
- 53-65 Lithgow Street located to the west of the site.

An aerial photograph identifying the subject site and surrounds is shown below in Figure 3.

Figure 3: Aerial Photo of Subject Site and Surrounds

6. ATTENDED AND UNATTENDED NOISE MONITORING AT SUBJECT SITE

As part of the assessment works for the proposal, WMG has carried out attended and unattended noise monitoring at and around the subject site.

Attended and unattended noise monitoring were carried out during the following dates and times:

- Attended site surveys during the period 7:45am to 8:30am on Sunday 21st October 2018.
- Unattended noise monitoring during the period Monday 22nd to Monday 29th October 2018.

The purpose of the noise monitoring was to determine the existing acoustic environment at the site to form a basis in determining the following:

- Noise limits in accordance with State and Environment Protection Policy N-1.
- Noise limits in accordance with State Environment Protection Policy N-2.

An aerial photograph identifying the attended noise measurement locations is shown below in Figure 4.

Figure 4: Aerial Photograph identifying Noise Measurement Locations

Based on observations during the early morning site survey, and analysis of audio files recorded by the unattended noise logger, the acoustic environment at the subject site and surrounding areas is primarily due to noise associated with vehicle movements along nearby and distant roads.

During the early morning period, traffic flows along local roads were very limited, therefore the ambient acoustic environment was primarily due to vehicle movements along Victoria Street located in the order of 250 metres to the south of the subject site.

7. ASSESSMENT METHODOLOGY AND DESIGN OBJECTIVES FOR CONSIDERATION OF EXTERNAL NOISE EMISSIONS

Noise emissions associated with the proposal have been considered in accordance with relevant legislation/guideline documentation shown below in Table 5.

Table 5: Assessment Methodology

Noise Source	Assessment Methodology
Mechanical Services Noise	State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1
Patron Noise	State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1
Music Noise	State Environment Protection Policy (Control of Music Noise from Public Premises) No. N-2

7.1 MECHANICAL SERVICES NOISE – STATE ENVIRONMENT PROTECTION POLICY N-1

Commercial premises noise, including noise associated with the mechanical services equipment forming part of the facility operations must comply with limits determined according to State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1) when assessed at residential premises.

Using SEPP N-1 methodology, the noise limits are calculated values determined using the areas of differing land zoning surrounding the relevant residences as described in Schedule 2 of SEPP N-1. Noise limits will vary depending on the time of the day, evening or night, with the highest permitted values during week daytimes.

These periods are defined within several documents provided by the EPA including SEPP N-1, and EPA Noise Control Guidelines Publication 1254. The EPA day, evening and night periods are defined below in Table 6.

Table 6: Details of EPA Assessment Periods

EPA Assessment Period	Relevant Days	Relevant Time Periods
Day	Monday to Friday	7:00am to 6:00pm
	Saturday	7:00am to 1:00pm
Evening	All Days	6:00pm to 10:00pm
	Saturday	1:00pm to 6:00pm
	Sunday, Public Holidays	7:00am to 6:00pm
Night	All Days	10:00pm to 7:00am

Based on the proposed operating hours of the facility, noise emissions during the day and evening periods will require consideration.

The calculated zoning levels will apply when the ambient background noise level falls within the range considered 'neutral'. The 'neutral' range represents a background noise level which is considered typical for the surrounding land zoning.

Adjusted values will apply where the measured values of the existing ambient background noise are above or below the noise level range deemed neutral.

7.2 Commercial Patron Noise – State Environment Protection Policy N-1

There is currently no regulated noise assessment procedure for considering the noise that occurs from patrons gathered in indoor/outdoor areas at licenced venues.

In the opinion of the writer, patron noise from indoor/outdoor areas can be assessed like other noise sources ie. the acceptability or otherwise of patron noise will rely on a comparison of the patron noise levels with the ambient noise occurring at residential locations at noise sensitive times.

The writer's firm has considered possible criteria and believes, by observation, that the noise emitted from groups of patrons in indoor/outdoor areas of licensed venues will be relatively constant in level and be observed as "babble" by offsite listeners rather than individual voices.

Further, if the individual voices can be identified within a patron group then the number of patrons will be very small (likely to be less than ten). The overall patron noise levels for such small groups will be measurably lower than for larger patron groups expected at the proposed venue.

Hence, the effective noise of a small patron group, ie. lower absolute noise level plus individual voice character, is expected to have similar noise impact than a larger group with the more constant babble noise character.

WMG adopts State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1(SEPP N-1) as the most reasonable assessment criteria.

This statement is made in the knowledge that SEPP N-1 explanatory notes indicate that the EPA did not intend at the time of development, to use the policy for assessing individual voices or the noise from (sporting) crowds.

The SEPP N-1 methodology provides the following suitable attributes for assessing patron noise:

- It has been a good predictor for many years of the subjective response from residential communities exposed to noise sources of many differing characters, and in the opinion of the writer, noise sources with the character of groups of socialising club or hotel patrons.
- It provides the ability to determine different noise limits for day, evening and night periods.
- Night-time noise limits have as a prime consideration the protection of residential locations especially those used for sleeping.

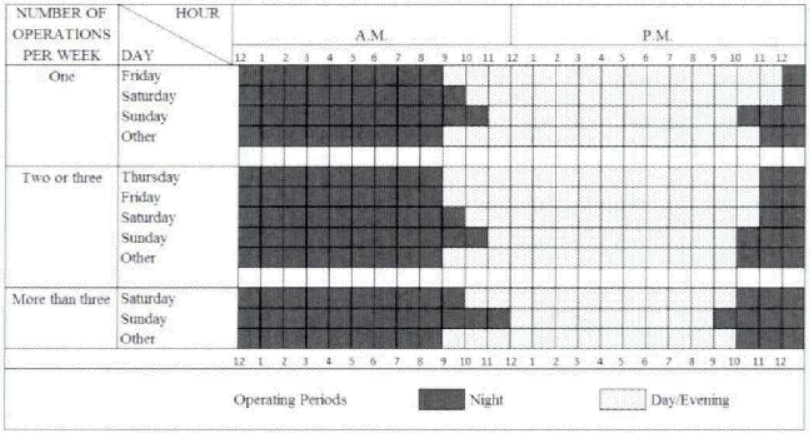
7.3 Commercial Music Noise – State Environment Protection Policy N-2

Music noise emissions from the venue must comply with limits determined in accordance with State Environment Protection Policy (Control of Music Noise from Public Premises) No. N-2 (SEPP N-2).

SEPP N-2 requires compliance with two noise criteria conditions. These include a daytime/early evening criterion and a late evening/night time criterion.

Table 7 below defines for time for the daytime/early evening, and night time periods.

Table 7: SEPP N-2 Assessment Periods



A summary of the requirements during each of the relevant periods is shown below in Table 8 and 9.

Table 8: Daytime/Early Evening Assessment Methodology

Daytime/Early Evening
The higher peaks of music noise do not exceed the lower lulls of the ambient noise by more than 5 dB(A), *i.e.*:   Music dB(A) L_{eq} ≤ Background dB(A) L_{90} + 5 dB(A)

Table 9: Late Evening/Night Time Assessment Methodology

Late evening/Night Time
The higher peaks of music (measured in octave bands) measured inside or outside a room used for sleeping must not exceed the lulls of the ambient noise (also measured in octave bands) by more than 8 decibels, *i.e.*:   Music dB L_{10} (octave 63 - 4 kHz) ≤ Background dB L_{90} (octave 63 - 4 kHz) + 8 dB

Based on the proposed operating hours of the facility as shown in Table 4, consideration to noise emissions during the daytime/early evening period and the late evening/night time period will be required.

7.4 Measured Ambient Background Noise Levels and Calculated SEPP N-1 and SEPP N-2 Noise Limits for the Proposed Operations

Ambient background noise levels refer to the acoustic environment of an area in the absence of noise intrusion associated with any commercial/industrial operations nearby.

Ambient background noise levels are typically controlled by noise associated with vehicle movements on nearby and distant roads.

Noise measurements of the ambient background noise level are described as the dB(A) L_{90}. The dB(A) L_{90} refers to the level exceeded for 90% of the measurement period.

This value is considered representative of the typical lower levels in a varying noise environment and is the noise measure defined by the EPA as the measure of the background noise level to use in determining the relevant SEPP N-1 and SEPP N-2 noise limits.

In order to determine the existing ambient background noise environment at the subject site, WMG carried out attended noise monitoring as described in Section 6 of this report.

7.4.1 Relevant Assessment Periods for Proposed Operating Hours

Based on the proposed operating hours associated with the tenancy, a summary of the relevant assessment periods for SEPP N-1 and SEPP N-2 methodology is shown below in Table 10.

Table 10: Relevant Assessment Periods for SEPP N-1 and SEPP N-2 Compliance

Day	Operating Hours	Relevant SEPP N-1 Assessment Period	Relevant SEPP N-2 Assessment Period
Monday to Friday	7:00am to 9:00am	Day	Late Evening/Night
	9:00am to 5:00pm	Day	Day/Early Evening
Saturday	7:00am to 10:00am	Day	Late Evening/Night
	10:00am to 1:00pm	Day	Day/Early Evening
	1:00pm to 5:00pm	Evening	Day/Early Evening
Sunday	7:00am to 12:00pm	Evening	Late Evening/Night
	12:00pm to 5:00pm	Evening	Day/Early Evening

Based on previous experience with ambient background noise levels in Melbourne suburban areas, the limiting criterion will be provided by the early morning periods on Saturday and Sunday.

The described periods are typically when the lowest ambient noise levels will occur and will therefore be subject to the lowest noise limits.

Compliance with SEPP N-1 and SEPP N-2 noise limits at these times will result in compliance at all other times.

7.4.2 State Environment Protection Policy N-1 Noise Limits

A summary of the adopted ambient background noise levels, and corresponding SEPP N-1 noise limits for the off-site noise sensitive receptors is shown below in Table 11.

Table 11: Calculated SEPP N-1 External Noise Limits

EPA-defined Assessment Period	Day	Relevant Time Period	Adopted Ambient Background Noise Levels		Calculated SEPP N-1 Noise Limits
			Measured Value	Measured Value Relative to Neutral Range	
Day	Monday to Friday	7:00am to 5:00pm	45 dB(A) L_{90}	Neutral	57 dB(A) Leq
	Saturday	7:00am to 1:00pm	43 dB(A) L_{90}	Low	55 dB(A) Leq
Evening	Saturday	1:00pm to 5:00pm	44 dB(A) L_{90}	Neutral	51 dB(A) Leq
	Sunday	7:00am to 5:00pm	41 dB(A) L_{90}	Low	49 dB(A) Leq

7.4.3 State Environment Protection Policy N-2 Noise Limits

A summary of the measured ambient background noise levels and corresponding external SEPP N-2 noise limits during the day/early evening, and late evening/night periods are shown below in Table 12 and Table 13.

Table 12: Calculated SEPP N-2 External Music Noise Limits (Day/Early Evening)

Day/Early Evening	Relevant SEPP N-2 Noise Limit
Measured ambient background noise level – 41 dB(A) L_{90}	46 dB(A) Leq

Table 13: SEPP N-2 External Music Noise Limits Late Evening/Night (Early Morning) Assessment Period

Late Evening/Night Time	Noise Levels dB Octave Band Centre Frequency, Hz						
	63	125	250	500	1k	2k	4k
Background noise during early morning weekend (Sunday)	44	41	36	33	32	28	21
EPA adjustment to determine SEPP N-2 limits	+8	+8	+8	+8	+8	+8	+8
EPA SEPP N-2 Noise Limits for early morning weekend (Sunday)	52	49	44	41	40	36	29

8. NOISE EMISSIONS ASSESSMENT

8.1 Noise Associated with Mechanical Services Equipment

8.1.1 Proposed New Mechanical Services Equipment

Given the early stages of the proposal, the mechanical services equipment design has not been completed. Based on the proposed operations, the types of equipment which will form part of the proposal will likely include the following:

- Outdoor air conditioning condenser units.
- Outdoor refrigeration plant.
- Kitchen exhaust fan.
- Toilet exhaust fans.

As is typical for these types of scenarios, WMG recommend that during detailed design for the project, equipment selections and locations are reviewed by an acoustic consultant to ensure that compliance with SEPP N-1 noise limits are achieved at all relevant residential receptors surrounding the subject site.

8.1.2 Existing Mechanical Services Equipment

It is noted that there are two small outdoor air conditioning condenser units located above the roof of the existing office building, as well as a third wall mounted outdoor air conditioning condenser unit located centrally adjacent to the southern boundary of the subject site.

Figure 5 below presents an aerial photograph of the subject site and includes the locations of the relevant existing equipment.

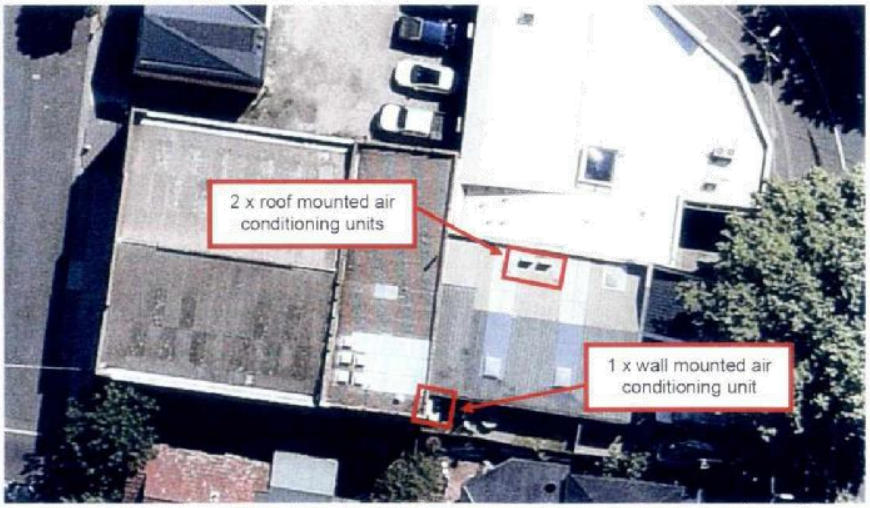


Figure 5: Aerial Photograph Identifying Existing Mechanical Services Equipment

During each of the site inspections WMG could not observe or measure noise emissions associated with the identified units.

Based on the size of the units, and the location of the units relative to the nearby noise sensitive receptors, WMG has concluded that compliance with SEPP N-1 noise limits will be achieved during the relevant EPA periods.

8.2 Noise Emissions Associated with Patrons Located at the Venue

8.2.1 Patron Source Noise Levels

The proposal allows for the venue to include a maximum of 100 patrons at any stage during the proposed operating hours.

Based on observations and measurements of noise from patrons in smoking and alcohol consumption areas at different venues by members of this firm and others, the following source levels have been adopted for calculation purposes.

The source levels are based on a formula derived by the writer's firm from site measurements by this firm.

Patron Noise dB(A) Leq = 20 log (patron Numbers) + 43 dB(A)
(measured in the area 2-3 metres above an area enclosing a group of hotel patrons).

The further refinement of this formula is that once patron numbers exceed nominally 100, then the noise per unit area will be relatively constant.

In consideration of the above, the adopted noise level associated with the patrons located within the internal and external areas associated with the venue will be as shown below in Table 14.

Table 14: Adopted Patron Noise Levels

Relevant Area	Approximate Number of Patrons	Adopted Source Noise Level
Within Internal Seating Area	100	83-85 dB(A) Leq

8.2.2 Noise Emission Assessment

Patron noise from the internal areas associated with the venue will be reduced by the base building external envelope construction combined with the distance separation between the base building external facades and the off-site noise sensitive receptors.

The external facades of the existing warehouse building include brickwork walls and metal deck roofing. The proposal includes the introduction of glazed sections to the western external facades overlooking Lithgow Street, as well as fixed glazed sections along the western and northern façades of the space.

The external façade brickwork will provide significant noise control for patron noise located in the internal areas within the warehouse space. The metal deck roofing of the warehouse space will be significantly higher than the height of the nearby noise sensitive receptors.

As a result, noise transfer via the roofing will receive significant off axis attenuation in the direction of the nearby noise sensitive receptors.

In consideration of the above, the dominant noise transmission path from within the warehouse space to the nearby noise sensitive receptors will be the proposed external façade glazed sections.

Based on the location of the openable external façade sections of the building, the critical residential receptors will be as follows:

- 6 Victoria Crescent.
- 53-65 Lithgow Street.

All other nearby receptors will be exposed to equivalent or lesser patron noise impacts than the critical dwellings.

In consideration of the above, a summary of the calculations to predict noise levels impacts on the described noise sensitive receptors is shown below in Table 15 and Table 16.

Table 15: External Assessment 6 Victoria Crescent

External Assessment to 6 Victoria Crescent	
Adopted Patron Noise Level within main internal seating area (including sound absorption to internal surfaces)	83 dB(A)
Noise reduction provided base building construction including fixed glazing	30 dB(A)
Distance Attenuation and Off Axis Attenuation to Nearest Noise Sensitive Receptors	8 dB(A)
Predicted residual noise level outside noise sensitive receptors	45 dB(A)
SEPP N-1 External Noise Limit (critical Sunday period)	49 dB(A)
SEPP N-1 Compliance	YES

Table 16: External Assessment 53-65 Lithgow Street

External Assessment to 53-65 Lithgow Street	
Adopted Patron Noise Level within main internal seating area (including sound absorption to internal surfaces)	83 dB(A)
Noise reduction provided by partially open external facades (sufficient for ventilation)	15 dB(A)
Distance Attenuation and Off Axis Attenuation to Nearest Noise Sensitive Receptors	19 dB(A)
Predicted residual noise level outside noise sensitive receptors	49 dB(A)
SEPP N-1 External Noise Limit (critical Sunday period)	49 dB(A)
SEPP N-1 Compliance	YES

The predicted values comply with the relevant SEPP N-1 noise limits at the most noise sensitive residential receptors and will therefore comply at all other noise sensitive receptors.

8.3 Noise Emissions Associated with Music Being Played at the Venue

Music noise associated with the operation of the venue will be played through an in-house system within the internal seating area.

Music from the internal seating area will be reduced by the base building external envelope construction combined with the distance separation between the base building external facades and the off-site noise sensitive receptors.

As is discussed in Section 8.2.2 above, the dominant noise transmission path from within the internal seating area to the nearby noise sensitive receptors will be the proposed external façade glazed sections and access doors.

Due to the location of the glazed sections relative to off-site receptors, the critical receptors will be the dwellings located opposite the western facades of the base building at 53-65 Lithgow Street, and the multi-level residential dwelling located at 6 Victoria Crescent. All other nearby receptors will be exposed to equivalent or lesser patron and music noise impacts than the critical dwellings.

A summary of the maximum allowable internal music noise levels within the main internal seating warehouse area is shown below in Table 17 and Table 18.

Table 17: Allowable Internal Music Noise Levels – 53-65 Lithgow St (Bi-fold Windows Partially Open)

Noise Sensitive Receptors: 53-65 Lithgow St	Noise Levels dB Octave Band Centre Frequency, Hz							
	63	125	250	500	1k	2k	4k	dB(A)
Adopted background noise level with main warehouse internal seating area dBL_{10}	79	77	74	75	73	68	60	77
Noise Reduction from within the venue to 1 metre external to the building by the proposed partially open glazed sections	8	10	12	15	15	15	15	N/A
Noise Reduction due to off axis propagation between external building elements and the nearby noise sensitive receptors	19	18	18	19	18	17	16	N/A
Predicted residual music noise level outside nearest relevant residential façade	52	49	44	41	40	36	29	N/A
EPA SEPP N-2 Noise Limits	52	49	44	41	40	36	29	N/A

Table 18: Allowable Internal Music Noise Levels – 6 Victoria Crescent

Noise Sensitive Receptor: 6 Victoria Crescent	Noise Levels dB Octave Band Centre Frequency, Hz							
	63	125	250	500	1k	2k	4k	dB(A)
Adopted background noise level with main warehouse internal seating area dBL_{10}	79	77	74	75	73	68	60	77
Noise reduction provided by proposed fixed glazing and acoustically sealed solid core door sections	20	23	25	30	34	35	37	N/A
Noise Reduction due to off axis propagation between external building elements and the nearby noise sensitive receptors	10	9	9	9	8	8	8	N/A
Predicted residual music noise level outside nearest relevant residential façade	49	45	40	36	31	25	15	N/A
EPA SEPP N-2 Noise Limits	52	49	44	41	40	36	29	N/A

In consideration of the values described in Table 17 and Table 18, music noise emissions associated with the proposed operations will comply with the SEPP N-2 music noise limits.

The described values are consistent with background music which will still enable occupiers of the space to communicate with relative ease.

9. NOISE CONTROL RECOMMENDATIONS

Noise control recommendations for the project only consider noise impacts on nearby noise sensitive residential receptors.

The treatments described within this report are tentative in nature. Should other initiatives or provisions be incorporated within the development which ensure that the relevant noise limits are met, the treatments herein may be amended at the approval of a qualified acoustic consultant.

9.1 New Mechanical Services Equipment

Given the early stages of the proposal, the mechanical services equipment design has not been completed.

WMG recommend that during detailed design for the project, equipment selections and locations are reviewed by an acoustic consultant to ensure that compliance with SEPP N-1 noise limits are achieved at all relevant residential receptors surrounding the subject site.

9.2 Internal Seating Areas

9.2.1 External Façade Glazing

The proposal includes bi-fold windows installed in the western façade of the warehouse building overlooking Lithgow Street. In addition, there will be fixed glazed sections along the western and northern façade of the base building.

Noise emission calculations indicate that the proposed bi-fold windows cannot be completely open, and instead must be either completely closed or partially open to comply with SEPP N-1 noise limits at surrounding residential receptors.

Partially open will be an open are equal to approximately 10% of the proposed open area (approx. 1m^2). The described open area will likely allow for some minor ventilation into the warehouse space if required.

The glazing treatments for the fixed glazed sections will be 10.38mm single glazing or 6/12/10.38mm double glazing. The nominated glazing system must have a minimum weighted sound reduction index (Rw) value of 33.

Commercial suppliers of noise rated window or sliding door glazed systems are readily available, such as Australian Aluminium, Capral and G James.

Any systems offered to the project should include Australian based noise reduction test data or demonstrate on site to be capable of achieving the required noise reduction performance. The systems and seals installed on the project must be guaranteed to be the same as the tested systems.

For the bi-fold sections the glazing can be 6mm standard building glazing or 6/12/6 double glazing fitted with perimeter acoustic seals.

9.2.2 Access Doors

The proposal includes a double access door in the south western corner of the café space.

The double access door must be 40mm solid core timber or 10.38mm laminated glass fitted with effective perimeter seals.

Suitable seals will be as follows:

- Raven RP10 (tops and sides of doors);
- Raven RP38 (threshold of doors);
- Raven RP16 (between double doors).

The access doors must be kept closed with the exception of short periods during times when patrons are entering/exiting the venue. It is recommended that the access doors are fitted with automatic closing mechanisms to ensure that this occurs.

9.2.3 Internal Sound Absorption

In order to control build-up of noise within the main warehouse building, it is recommended that sound absorption be included within the design.

The recommended treatment will be as follows:

- Install sound absorbing materials to an area equivalent to 60% of the ceiling area of the designated space. This will include both the mezzanine ceiling and the underside of the mezzanine floor within the ground level area.
- The proposed materials must achieve a minimum Noise Reduction Coefficient (NRC) of 0.7, with a minimum performance of 0.7 at 500 Hz and 1000Hz.
- The materials must be installed uniformly throughout the relevant space.

The described performance will be achieved by a 25mm thick x 32kg/m^3 fibreglass fibrous insulation panel faced with perforated metal or wrapped in open weave fabric.

An open weave fabric will be any fabric that can be blown through with little resistance. Melded Fabrics "Front Runner" fabric is a modestly priced, tough fabric which has often been used for the purpose and is available in many colours.

Suitable manufacturers of pre-fabricated sound absorbing panels which will achieve the performance specification are listed below.

- Total Noise Control: (03) 9786 6088
- Laine: (03) 9720 6566
- Europanel: (02) 8284 6410
- Atkar Industries: (03) 9796 3333
- Soundblock Solutions (02) 9327 7410
- Megasorber Pty Ltd (03) 9077 2918

It is recommended that once a product is selected, WMG review the product to ensure it is suitable for the application.

9.3 Patron and Music Allowances

Based on noise level calculations, the following limitations will be incorporated into the operations of the facility:

- Maximum of 100 patrons located within main warehouse internal area at any time.
- Music speakers **only** to be located within main warehouse internal area and a minimum of 3 metres from the proposed western façade openable sections, including the access doors.
- Music noise levels to be limited to the following:

	Noise Levels dB Octave Band Centre Frequency, Hz							
	63	125	250	500	1k	2k	4k	dB(A)
Measured music noise levels within studio space dBL_{10}	79	77	74	75	73	68	60	77

The documented noise levels are to be measured at 3 metres from the speaker locations within the space and must be run through the in-house music system which will include spectrum shaping capabilities.

Calibration of the in-house sound system to achieve music noise levels consistent with background music can be carried out by Watson Moss Growcott Acoustics or other acoustic consultancy firm.

9.4 Waste Collection

Waste collection associated with the proposed facility should be limited in accordance with the Environmental Protection Authority (EPA) noise control guidelines regarding 'industrial waste collection'.

These are provided within Victorian *EPA Noise Control Guidelines Publication 1254 (October 2008)*.

An extract from the guidelines is described below:

> Where a residential area is impacted by noise from the collection of refuse, then collections should be restricted to the times contained within the schedule.
>
> The scheduled times are as follows:
>
> **One Collection Per Week**
> 6:30am – 8pm Monday to Saturday
> 9am – 8pm Sunday and public holidays
>
> **Two or More Collections Per Week**
> 7am – 8pm Monday to Saturday
> 9am – 8pm Sunday and public holidays
>
> - Refuse bins should be located at sites that provide minimal annoyance to residential premises.
> - Compaction should be carried out while the vehicle is moving.
> - Bottles should not be broken up at collection site.
> - Routes which service predominantly residential areas should be altered regularly to reduce early morning disturbances.
> - Noisy verbal communication between operators should be avoided where possible.

9.5 Operational Noise Impact Assessment

Once the facility is operational, it is suggested that an assessment is carried out by an acoustic consultant at each of the off-site noise sensitive receptors to ensure that compliance with the relevant SEPP N-1 and SEPP N-2 noise limits is achieved.

10. OVERVIEW

Watson Moss Growcott Acoustics (WMG) has carried out an acoustic assessment for the proposed operations at the site described as 48-50 Lithgow Street, Abbotsford.

The proposal includes the following:

- Operation of a commercial café venue within the existing warehouse building located on the western portion of the subject site land.
- Provision of commercial office spaces extending over two levels within the existing multi-level buildings located at the site.

As part of the assessment works, WMG has considered potential noise emissions associated with the proposed operations in accordance with legislation/guideline documentation shown below in Table 19.

Table 19: Assessment Methodology

Noise Source	Assessment Methodology
Mechanical Services Noise	State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1
Patron Noise	State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1
Music Noise	State Environment Protection Policy (Control of Music Noise from Public Premises) No. N-2

Based on the assessment, WMG has concluded that in the absence of noise control treatments, noise emissions associated with the proposed operations will have the potential to impact on surrounding noise sensitive residential receptors.

WMG has developed a package of noise control recommendations which will result in compliance with the relevant legislation/guideline documentation including the following:

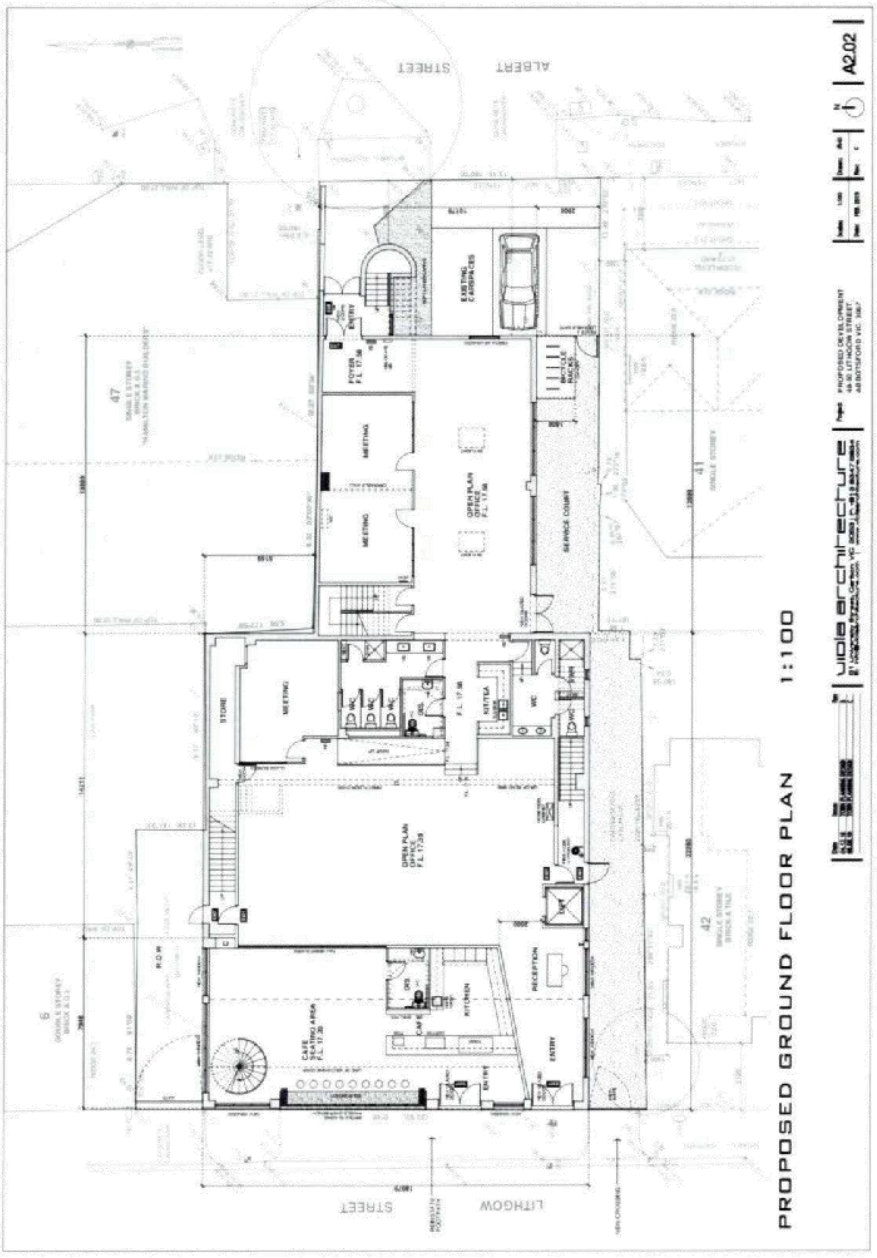
- Patron and music limitations.
- Treatments to warehouse space access doors/glazing.
- Sound absorption within the main warehouse space.
- Detailed review of mechanical services equipment during detailed design for the proposal.

The relevant noise control recommendations are detailed in Section 9 of this report.

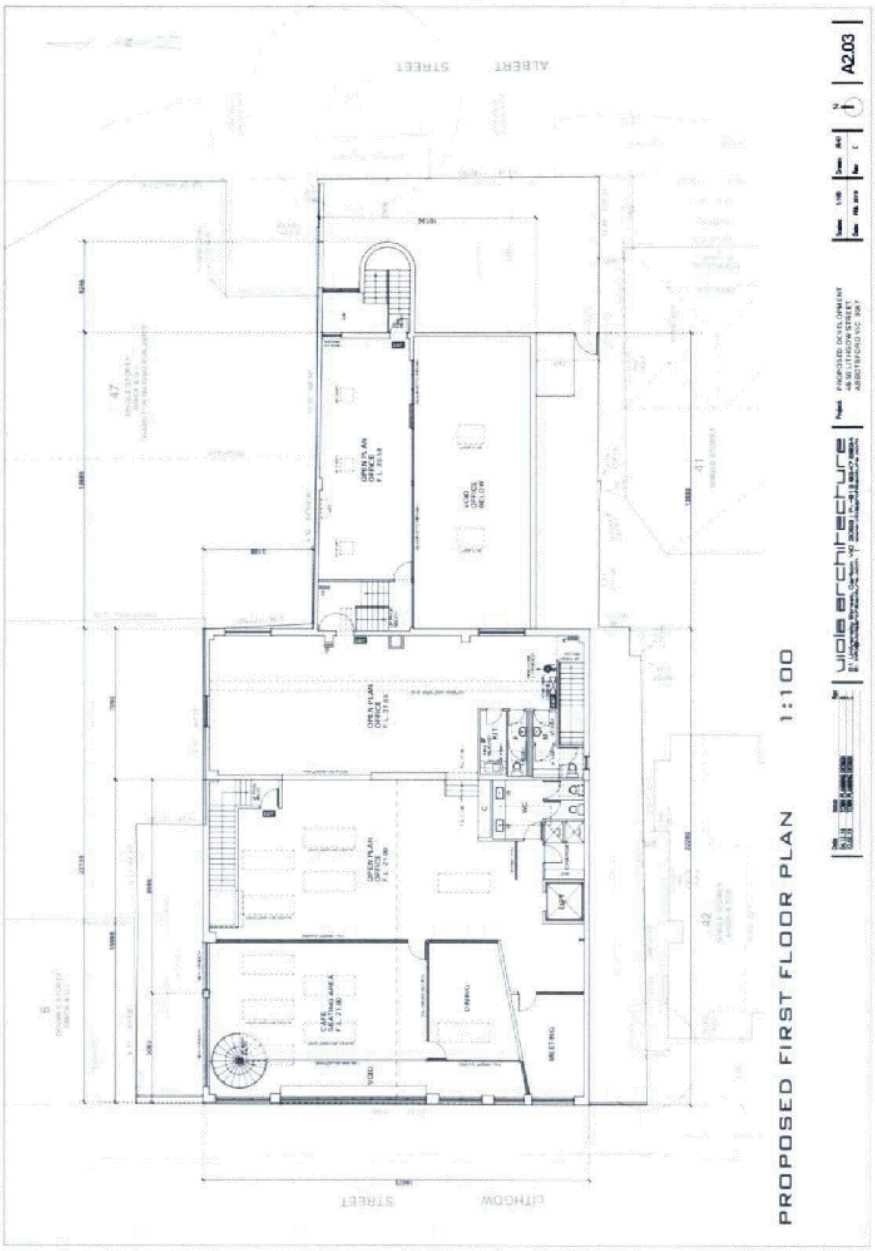
JORDAN GROWCOTT
WATSON MOSS GROWCOTT
acoustics pty ltd

11. APPENDICES

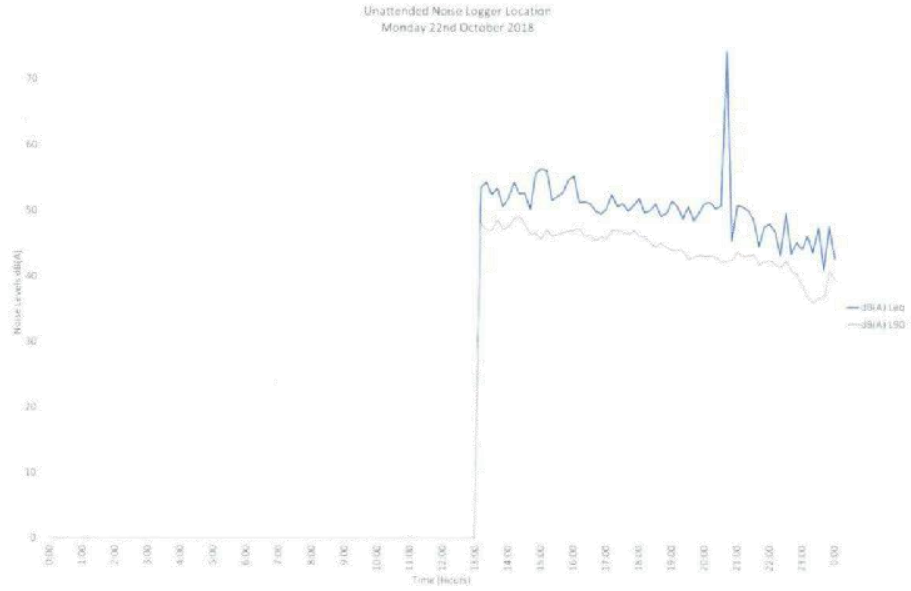
11.1 PROPOSED GROUND LEVEL FLOOR PLAN

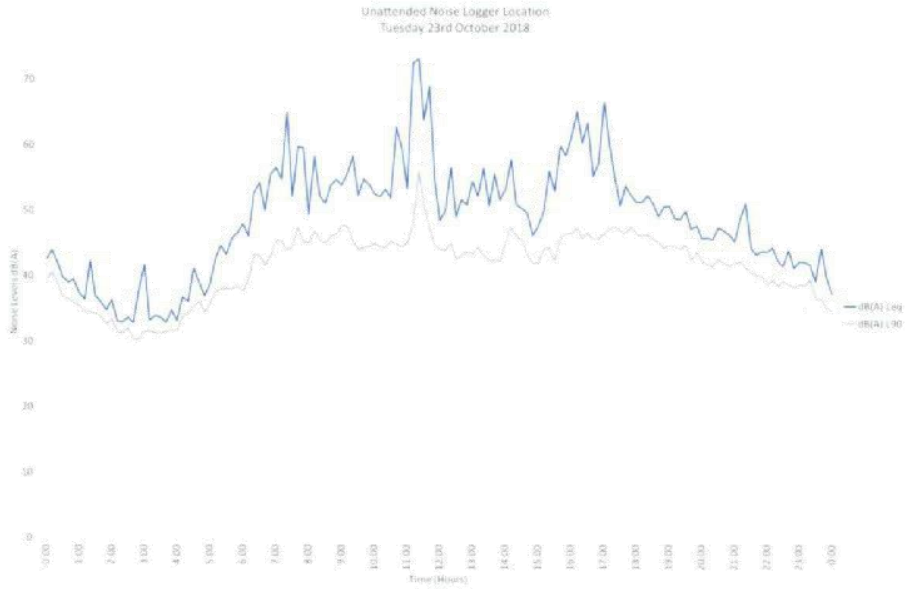


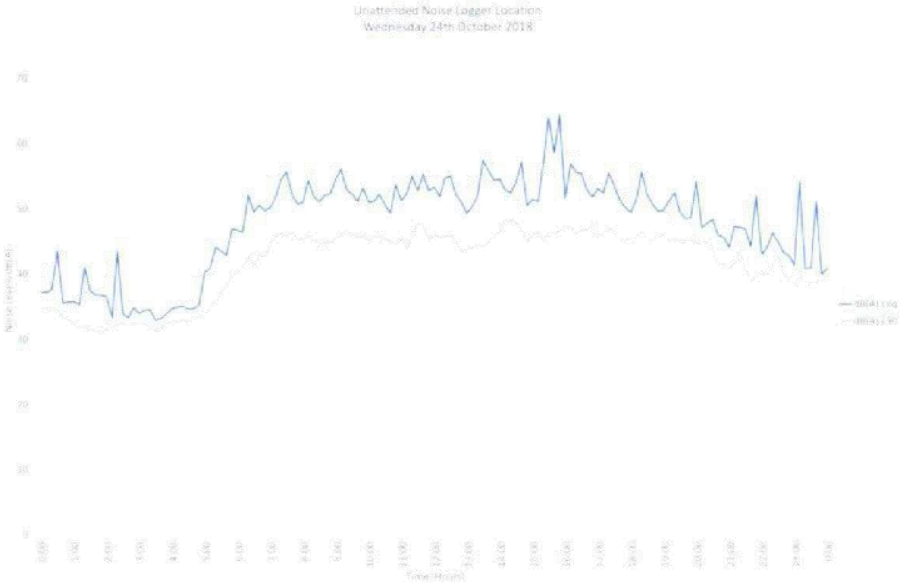
11.2 Proposed First Level Floor Plan

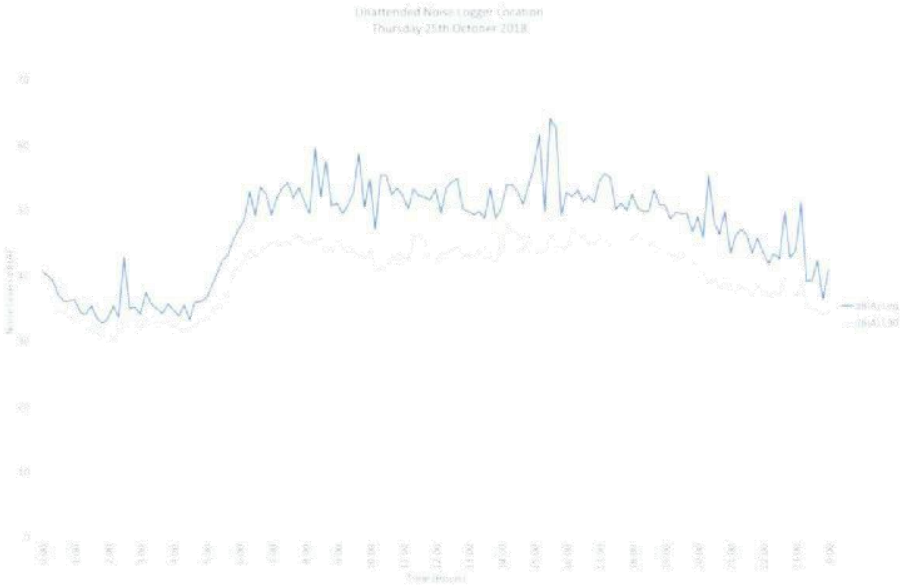


11.3 UNATTENDED NOISE MONITORING DATA

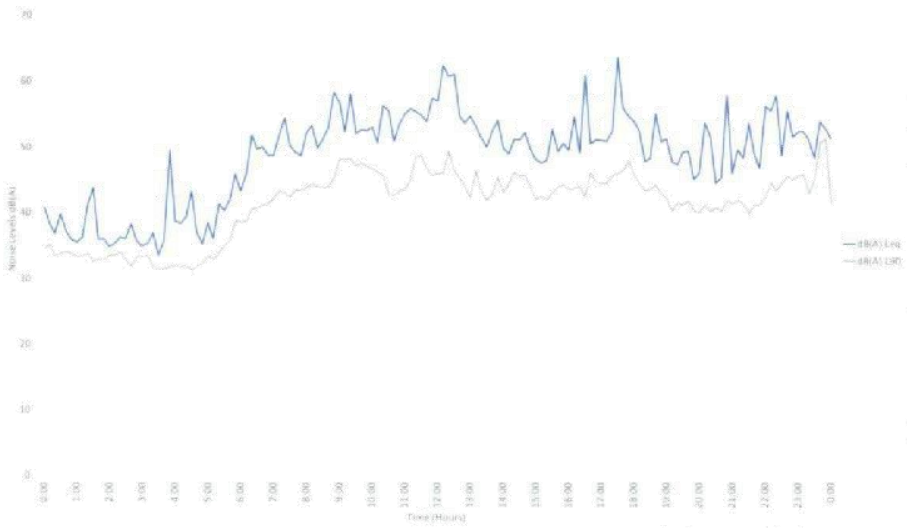




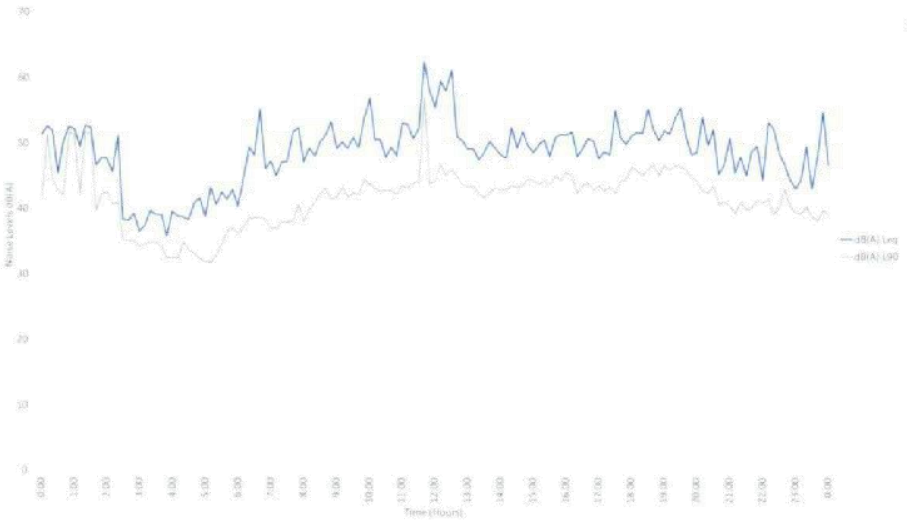


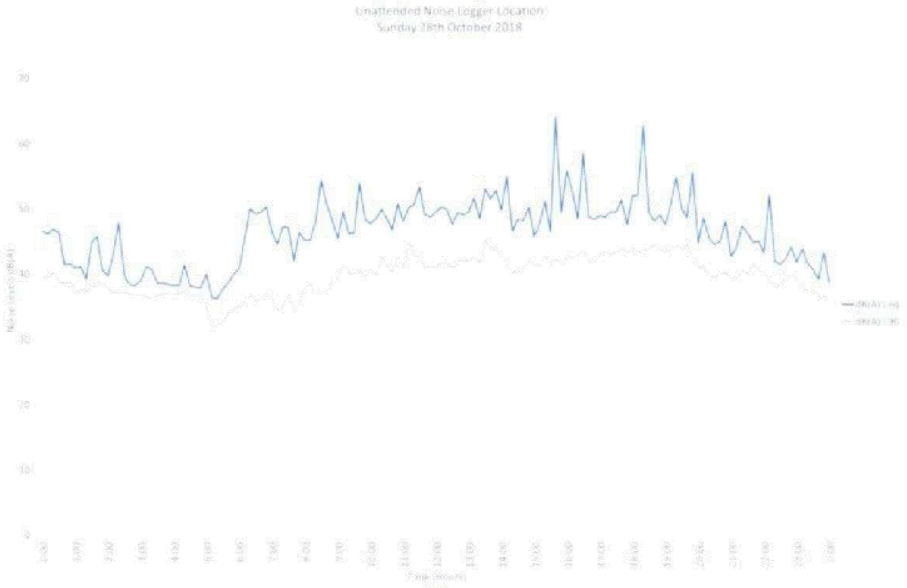


Unattended Noise Logger Location
Friday 26th October 2018



Unattended Noise Logger Location
Saturday 27th October 2018




Unattended Noise Logger Location
Sunday 28th October 2018

26 March 2019

640.10090.05850 48-50 Lithgow St Abbotsford.docx

Yarra City Council
PO Box 168
RICHMOND 3121

Attention: Chris Stathis

Dear Chris

48-50 Lithgow Street, Abbotsford
Development Application Acoustic Review
PLN 19/0011

SLR Consulting Pty Ltd (SLR) has been retained by the City of Yarra to provide a review of the acoustic assessment report for the mixed use development proposed for 48-50 Lithgow Street, Abbotsford.

Details of the report are as follows.

- Title: Proposed Commercial Venue, 48-50 Lithgow Street, Abbotsford, town Planning Application Acoustic Report
- Reference: 12330-2.1jg
- Date: 14 February 2019
- Prepared for: Crystal Palace Catering
- Prepared by: Watson Moss Growcott Acoustics Pty Ltd (WMG)

The report has been prepared to address *Item 5 of the City of Yarra RFI for the project. Item 5 is reproduced below.*

> 5. *An acoustic report produced by a suitably qualified acoustic engineer that provides an assessment of the levels of noise pollution associated with the proposed food and drinks premises (café) use. Special attention must be paid to residential uses within the immediate vicinity.*

1 Background Information

(Sections 1, 4 and 5 of the acoustic report)

The project is the fitout of an existing warehouse building. The fitout is proposed to comprise:

- Commercial café spread over two levels, with a capacity for up to 100 patrons. The café is proposed to have a glazed openable façade onto Lithgow Street, and direct (single door) access to the open plan offices within the building.

SLR Consulting Australia Pty Ltd Suite 2, 2 Domville Avenue Hawthorn VIC 3122 Australia
T: +61 3 9249 9400 E: melbourne@slrconsulting.com
www.slrconsulting.com ABN 29 001 584 612

- Offices over two levels

Potential noise impacts from the subject development are identified as:

- Mechanical plant
- Patron noise from the cafe
- Music noise from the cafe

Noise sensitive receivers are identified as:

- 6 Victoria Crescent, north of the site (two storey detached house)
- 42 Lithgow Street, south of the site (single level detached house)
- 41 Albert Street, south of the site (single level detached house)
- 53-65 Lithgow Street, west of the site (two storey dwellings)

The proposed operating hours are:

- Café: 7 am to 5 pm 7 days a week
- Offices: 8 am to 6 pm Monday to Friday

SLR Comments: *The proposal and potential noise impacts and the nearest noise sensitive receivers have been identified. Pavement dining is not discussed in the report and we assume it is not proposed.*

2 Background Noise Levels

(Section 6 of the report)

Attended and unattended measurements of background noise have been undertaken to quantify the ambient noise environment. This information is used to set environmental noise limits. The monitoring locations are shown in Figure 4 of the report.

- Attended monitoring was undertaken between 7:45 to 8:30 am Sunday 21 October 2018.
- Unattended monitoring was undertaken from Monday 22 October to Monday 29 October 2018.

The primary source of ambient noise was noted to be road traffic, with distant traffic i.e. vehicles on Victoria Street, dominating during the Sunday morning measurement, and local traffic dominating at busier times of the day and week.

Graphical data for the week long monitoring period is attached to the acoustic report. The average background noise levels for various times are presented in Section 7.4.2 of the acoustic report. These levels are understood to be the arithmetic averages of the hourly data for the relevant time periods.

The Sunday morning measurement results appear to be included in Table 13.

SLR Comments: *The background noise monitoring was undertaken at appropriate locations and times, and is generally clearly presented.*

3 SEPP N-1 Noise Limits

(Section 7.4.2 of the report)

The SEPP N-1 noise limits are calculated from the measured background noise levels and the land use zoning. The identified limits are presented in Table 11 of the report.

SLR Comments: *Our calculations of the SEPP N-1 noise limits, taking into consideration the WMG logging data, agree with WMGs.*

4 Music Noise

4.1 Music Noise Criteria

(Section 7.3 of the report)

Music noise is proposed to be assessed to SEPP N-2. The SEPP N-2 day/evening limit is equal to the background noise level + 5 dB. The identified limit is 46 dBA, based on the average measured background noise level for Sunday of 41 dBA L_{90}.

The SEPP N-2 night noise limit applies during some parts of the morning. For venues that operate more than 3 days week, the SEPP N-2 night period includes:

- Weekdays up to 9 am
- Saturdays up to 10 am
- Sundays up to midday

The noise limits for these times have been calculated from the Sunday morning background octave band background noise measurement, and are presented in Table 13.

SLR Comments: *Our calculations of the SEPP N-2 noise limits agree with WMG's.*

4.2 Music Noise Controls and Assessment

(Sections 9.2.1 and 9.3 of the report)

The following advice is provided with respect to music in the café:

- Loudspeakers are only to be located inside the building, and must be at least 3 m from the western façade and openable windows and doors.
- Music is to be no louder than 77 dBA L_{10}, with the allowable octave band spectrum provided in the report.
- The documented music levels are to be measured no more than 3 m from speaker locations.
- The sound system is to include spectrum shaping capabilities and is to be calibrated by a suitably qualified acoustical consultant.
- The operable wall is to be partly open only. In Section 9.2.1 this is defined as approximately 10% of the open area or approximately 1 m^2.
- Glazing advice is provided.

With the above noise controls in place WMG predict that music will comply with the SEPP N-2 night noise limits at all residential receivers.

SLR Comments: *Our indicative calculations suggest that the SEPP N-2 night noise limits (which apply during the early morning period) will be met with the above controls in place.*

Separate consideration is not provided in the report for compliance during the SEPP N-2 day/evening period. From our understanding of the report and the music noise limits, the requirement to keep the operable wall almost fully closed will apply unless music is played at lower levels than those identified in the report.

5 Patron Noise

5.1 Patron Noise Criteria

(Section 7.2 of the report)

Patron noise is proposed to be assessed to SEPP N-1 limits.

SLR Comments: *Agreed.*

5.2 Patron Noise Controls and Assessment

(Sections 8.2 of the report)

Patron noise has been predicted based on the following assumptions:

- Up to 100 patrons in the café, and a reverberant patron noise level of 83-85 dBA L_{eq}.
- Absorptive treatments are to be installed within the café. This treatment is used to justify using 83 dBA L_{eq} (i.e. the lower end of the predicted range for patron noise), in calculations to residential receivers.
- Glazing, including the openable windows and doors onto Lithgow Street, will be the dominant source of noise.
- The operable wall is to be partly open only. In Table 16 of the report the open area is defined as being 'sufficient for ventilation' and is further defined in Section 9.2.1 as being approximately 10% of the open area or 1 m².

With the above noise controls in place WMG predict that patron noise will comply with the SEPP N-1 Sunday noise limit, which is the most onerous limit, at all residential receivers.

SLR Comments: *Our indicative calculations agree with WMG's.*

Less onerous operating restrictions could apply during the SEPP N-1 defined 'day' period, provided that the music noise limits will also be met at this time.

6 Mechanical Plant

(Sections 7.1 and 8.1 of the report)

Project mechanical plant is proposed to be assessed to SEPP N-1. WMG state that the following items of equipment are likely to be installed:

- Outdoor AC condenser units
- Outdoor refrigeration plant
- Kitchen exhaust fan
- Toilet exhaust fans

WMG recommend that an acoustic review of the proposed plant be undertaken during the detailed design.

Existing project mechanical plant is identified in the report, and WMG state that, given the location and size of the equipment, noise from its operation is likely to comply with SEPP N-1.

SLR Comments: *The assessment of commercial noise provided in the report is reasonable for the planning stage. We agree that a more detailed review should be undertaken during the detailed design.*

7 Recommendations

(Section 9 of the report)

All recommendations for noise control are fully detailed in this section of the report, and include:

- Recommendation for a full review of noise from mechanical plant once the details become available.
- Requirement to keep 90% of the operable glazed façade closed during café operation.
- Specification for glazing and door seals.
- Recommendation for internal sound absorption over 60% of the ceiling space.
- Allowable music levels within the café and a specification of where these levels are to be met (within 3 m of any speaker).
- Recommendation that the music system incorporate spectrum shaping capabilities, and that the music levels be calibrated by a suitably qualified acoustical consultant.
- EPA Schedule for managing noise from waste collection.
- Recommendation for noise assessments to be conducted following commissioning, to ensure that the identified noise limits are met.

WMG include the statement that the treatments described in the report are tentative, and may be amended at the approval of a qualified acoustical consultant.

SLR Comments: *The advice for noise control is clearly documented and can be expected to manage noise impacts from the proposed use.*

We note that the 'recommendations' in the report are indicated as tentative.

8 Summary

A review of the acoustic report prepared for the proposed cafe and office development at 48-50 Lithgow Street is provided above. The report addresses all noise impacts from the proposed use in so far as they can be addressed during the design stage of the development.

A number of the recommendations provided in the report are expressed as tentative. We suggest these are implemented unless alternative solutions are documented by a suitably qualified acoustical consultant, and the documentation is submitted to, and approved by, the Responsible Authority.

Regards,

Dianne Williams
Associate – Acoustics

Checked/
Authorised by: JA

Attachment 7 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Engineering comments

CITY OF YARRA

MEMO

To:	**Chris Stathis**	
From:	**Artemis Bacani**	
Date:	**1 April 2019**	
Subject:	**Application No:**	**PLN19/0011**
	Description:	**Major Development**
	Site Address:	**48-50 Lithgow Street, Abbotsford**

I refer to the above Planning Application received on 12 March 2019 and the accompanying *Traffic Impact* report (Version 02 dated 12 February 2019) prepared by Impact Consultants in relation to the proposed development at 48-50 Lithgow Street, Abbotsford. Council's Civil Engineering unit provides the following information:

CAR PARKING PROVISION

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	678 m²	3 spaces per 100 m² of net floor area	20	3
Food and Drink (café)	174 m²	3.5 spaces per 100 m² of leasable floor area	6	
		Total	**26 Spaces**	**3 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.

The site would have a parking shortfall of 23 car spaces. 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.

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 the Food and Drink Uses*.
  The parking demand associated with the food and drink use would be staff parking and a rate of 1.0 space per 100 square metres of floor space is considered reasonable. Applying this rate to the food and drink use would equate to one space.

- *Parking Demand for the Office Use.*
  Parking associated with office type developments is generally long-stay parking for employees and short term parking (say up to two hours' duration) for customers and clients.

  The proposed office use for the development would have an on-site car parking provision of 0.44 spaces per 100 square metres of floor area. Throughout the municipality, Council has, in recent times, approved small scale office developments with little or no on-site car parking. The following table lists some sites that have been approved with reduced on-site car parking:

Development Site	Approved Office Parking Rate
Richmond	
314-329 Swan Street and 236 Coppin Street PLN16/0034 (Corrected) issued 6 July 2017	2.23 spaces per 100 m^2 123 on-site spaces, 5,605 m^2)
Cremorne	
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)
33 Balmain Street PLN15/0309 issued 21 October 2015	0.78 spaces per 100 m^2 (14 on-site spaces; 1,788 m^2)
13 Cubitt Street PLN16/1022 issued 20 December 2016	0.41 spaces per 100 m^2 (3 on-site spaces; 726.25 m^2)
506 & 508-510 Church Street PLN17/0278 issued 11 January 2018	1.09 spaces per 100 m^2 (226 on-site spaces; 20,744 m^2)

  The proposed on-site office parking rate of 0.44 spaces is considered appropriate, having regarding to the site's good accessibility to public transport services and proximity to Melbourne.

- *Availability of Public Transport in the Locality of the Land.*
  The site is within walking distance of tram services operating along Victoria Street. Rail services can be accessed from Collingwood and North Richmond railway stations.

- *Multi-Purpose Trips within the Area.*
  Customers, clients and patrons might combine their visits to the development by engaging in other activities or business whilst in the area.

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.*
  Ratio Consultants had commissioned on-street parking occupancy surveys of the surrounding area on Thursday 6 September 2018 from 8:00am to 10:00pm. The survey area sections of Mollison Street, Murray Street, Princes Street, Little Nicholson Street, William Street, Little Lithgow Street, Lithgow Street, Albert Street, Victoria Crescent, Mayfield Street, and Church Street. The times and extent of the survey are considered appropriate. An inventory of 419 publicly available parking spaces were identified. The results of the survey indicate that the peak parking occupancy in the study area had occurred at 1:00pm with 88 % of spaces occupied or 51 vacant spaces. The parking demand declined during the afternoon and into the evening with an occupancy of 46 % at 8:00pm. The very limited opportunity to park on-street would encourage both employees and visitors to use more sustainable forms for transportation to commute to and from the site.

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.

- *Access to or Provision of Alternative Transport Modes.*
The site has very good accessibility to public transport and connectivity to the on-road bicycle network. The site is also in proximity to on-street car share pods. GoGet car share pods are available in Nicholson Street and Victoria Street which are both approximately within 320 metres of the site.

- *Car Parking Deficiency associated with Existing Land Use*.
The existing site had accommodated a warehouse with a floor area of 386.7 m^2 and an office with a floor area of 283.98 m^2. The site had three on-site car spaces. The site would have had a statutory parking requirement of 13 spaces. The property would have a parking deficiency of 10 spaces. This parking deficiency could be potentially transferrable to the new development.

Adequacy of Car Parking
From a traffic engineering perspective, the waiver of parking associated with the development is considered appropriate in the context of the development and the surrounding area. The area's high parking demand and lack of long-stay parking would be disincentives for staff and patrons to commute to the site by car.

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

DEVELOPMENT LAYOUT DESIGN
Viola Architecture Drawing Nos. A2.02 and A3.02 Revision C dated February 2019

Layout Design Assessment

Item	Assessment
Access Arrangements	
Vehicle Crossing – Albert Street	The applicant has proposed to utilise the existing vehicle crossing to access the on-site car spaces off Albert Street.

Design Items to be Addressed

Item	Details
Vehicle Crossing – Albert Street	The existing vehicle crossing currently spans the width of two car spaces. The vehicle crossing must be widened to span the width of all car spaces.
Side Entry Pit – Albert Street	The widening of the vehicle crossing would impact on the function of the grated side entry pit. The existing grated side entry pit has a larger inlet capacity than a single grated pit; therefore, a grated pit and a separate side entry pit with heavy duty cover must be constructed to maintain the inlet capacity. Prior to the application of a vehicle crossing permit, a detailed design of the pits must be submitted to Council for assessment and approval.

Design Items to be Addressed

Item	Details
Side Entry Pit – Albert Street (cont.)	All works must be to Council's Standards - Council's Standard Drawings can be accessed on the following link: https://www.yarracity.vic.gov.au/services/roads-and-traffic/yarra-standard-drawings
Emergency Exit Doors	The pedestrian emergency exit door on the northern and southern boundary of the site opens immediately out onto a road easement. The doors are to be recessed inside the building.

ENGINEERING CONDITIONS
Civil Works

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

- The redundant vehicle crossing along the Lithgow Street frontage is to be demolished and reinstated with paving, and kerb and channel to Council's satisfaction and at the Permit Holder's cost. The footpath must have a cross-fall of 1 in 40or unless otherwise specified by Council.
- The vehicle crossing that services the road easement off Lithgow Street is to be demolished and reconstructed to Council's satisfaction and standards. The Permit Holder is responsible for the cost of the works. The vehicle crossing must satisfy the ground clearance requirements for a B99 design vehicle.
- The vehicle crossing along the Albert Street frontage must be demolished and reconstructed to in accordance with Council's Standard Drawings, Council's *Infrastructure Road Materials Policy* and engineering requirements. The vehicle crossing must satisfy the ground clearance requirements for a B99 design vehicle.

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.

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.

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.

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.

Attachment 7 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - Engineering comments

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 - PLN19/0011 - 48 - 50 Lithgow Street Abbotsford - File Note (Strategic Transport Comments)

CITY OF YARRA

URBAN PLANNING FILE NOTE

Date:	16 April 2019
Property Address:	48-50 Lithgow Street, Abbotsford
Application No:	PLN19/0011
Officer:	Chris Stathis
Subject:	Bicycle Parking Assessment
Attendees:	Chris Stathis / Julian Wearne

COMMENTS:

- Bicycle provision exceeds the requirements of Clause 52.34 (1 space for the food and drinks premises).
- The location of the bicycle spaces will be functional for office employees; appropriate dimensions have been provided. However the southern-most car space on site will block access for cyclists. This needs to be addressed to enable satisfactory access.
- The location of the bicycle spaces will make them unlikely to be used by patrons of the food and drinks premises. So it is recommended to provide at least 2 horizontal hoop spaces at the reinstated footpath along Lithgow Street.

Chris Stathis
Senior Statutory Planner

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