

Traffic Engineering Report

То	Habib Saab	Date	15 November 2024
Prepared by	Bradley Fuller, Modus Traffic Engineer	Approved by	Harj Singh, Modus Executive Director
Location	68 Yerrick Road, Lakemba		
Subject	Proposed Warehouse / Office Development - Traffic Engineering Report		
Status	Final	Attachments	Appendix A: Development Plans Appendix B: Swept Path Assessment

1 Introduction

1.1 Overview

Modus has been commissioned by Habib Saab to provide traffic and transport advice in relation to the proposed Warehouse / Office development located at 68 Yerrick Road, Lakemba.

This Traffic Engineering Report has been produced by Modus to assess the traffic and transport engineering items in support of the proposed development.

1.2 References

The following documents and guidelines have been referenced to inform the assessment herein:

- Canterbury Bankstown Development Control Plan (DCP) 2023,
- ▶ RTA Guide to Traffic Generating Developments (2002).

1.3 Limitations

Modus has completed this traffic report in accordance with the usual care and thoroughness of the consulting profession. The assessment is based on accepted traffic engineering practises and standards applicable at the time of undertaking the assessment. Modus disclaims responsibility for any changes to project planning or road conditions that may occur after completion of the assessment.



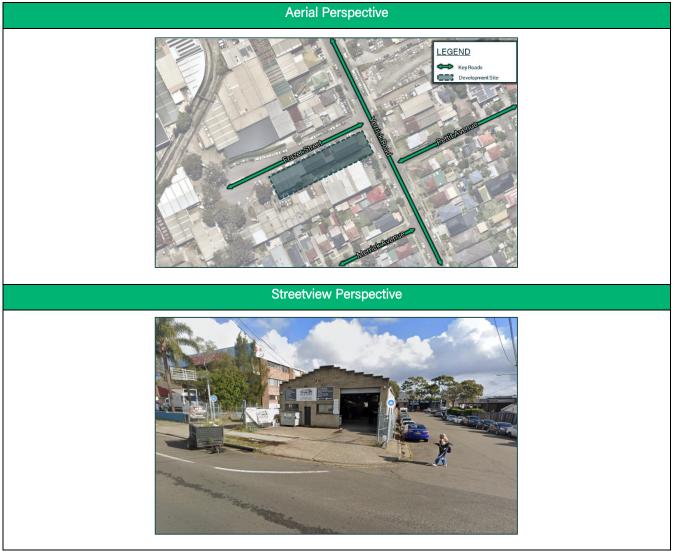


2 Existing Conditions

2.1 Site Location

The development site is located at 68 Yerrick Road, Lakemba and is bounded by Frazer Street to the north, Yerrick Road to the east and Industrial / Commercial uses to the south and west. The site location is shown on Figure 2-1.





Source: Nearmap

2.2 Active and Public Transport Facilities

The development site is within a 400m radius (comfortable 5-minute walk) of ten (10) bus stops, with the closest bus stop being located approximately 100m south of the site.





3 Proposed Development

3.1 Overview

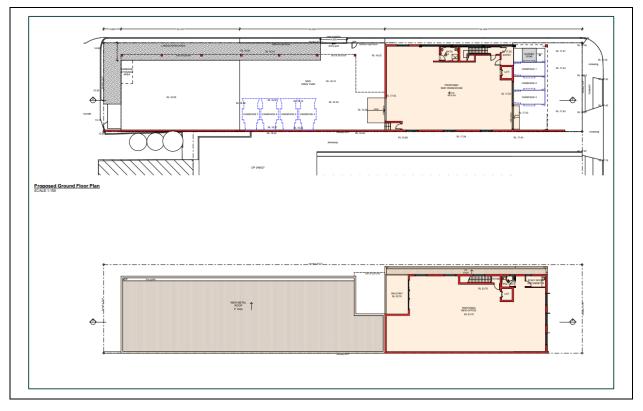
The proposed development consists of a Warehouse / Office use on-site, comprising the following yield:

- Warehouse: 307.4 sq.m GFA,
- Office: 316.5m sq.m GFA.
- ▶ Total Yield: 623.9 sq.m GFA

As part of the proposed development, a total of seven (7) parking spaces are accommodated on-site.

Figure 3-1 illustrates the proposed development site layout. A copy of the development plans are also provided at **Appendix A**.





3.2 Development Access

The proposed development will achieve vehicle access via the existing crossover onto Yerrick Road, in addition to a new 4.5m crossover onto Frazer Road.





4 Traffic and Transport Review

4.1 Access Design

In accordance with Australian Standards AS2890.1, the minimum driveway requirements for the proposed development are outlined in Table 4-1.

Table 4-1	Driveway Design Compliance
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AS2890.1 Driveway Design Compliance	Conditions
Site Conditions	Minor Road Frontage User Class 2 1 - 25 Spaces
Access Facility Category	1
Required Driveway Width	Minimum 3.0m – 5.5m
Proposed Driveway Width	4.5m

Therefore, the proposed driveway width of 4.5m onto Frazer Road complies with Australian Standards AS2890.1.

Furthermore, Modus has undertaken a B85 design vehicle swept path assessment confirming that a B85 design vehicle is able to safely and efficiently manouevre to and from the site via the proposed driveway onto Frazer Road. This swept path assessment is provided at **Appendix B**.

4.2 Parking Provision

In accordance with the Canterbury Bankstown DCP, the minimum car parking requirements for the proposed development are outlined in Table 4-2 below.

Table 4-2	Proposed Development Car Parking Assessment

Land Use	Car Parking Rate	Yield	Car Parking Required
Warehouse	1 car space per 300 sq.m GFA	307.4 sq.m GFA	1.02 spaces
Office	Where an office component is involved and provided this does not exceed 20% of the total gross floor area, 1 car space per 100 sq.m GFA is to be provided. Any additional office space will be assessed at a rate of 1 car space per 40 sq.m GFA.	Office Area Comprising 20% of Total GFA: 124.8 sq.m <u>Net Office Area</u> : 191.7 sq.m GFA	1.25 spaces 4.80 spaces
		<u>TOTAL:</u>	7.07 spaces





Therefore, the proposed development requires seven (7) spaces in accordance with the Canterbury Bankstown DCP, and hence the provision of seven (7) spaces on-site can accommodate the car parking demand.

Furthermore, the site accommodates one (1) PWD parking space in accordance with the National Construction Code.

4.3 Car Park Design

Modus has conducted a design review of the car park against the design guidelines within Australian Standards AS2890.1. The compliance has been summarised below in Table 4-3.

Table 4-3	Car Parking Layout Compliance
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Design Criteria	AS2890.1 Requirement	Proposed Design	Compliant
Parking Bays			•
Bay Length – General Spaces	5.4m	5.4m	✓
Bay Length – PWD Spaces	5.4m	5.4m	✓
Bay Width – General Spaces	2.4m	Min 2.4m	✓
Bay Width – PWD Spaces	2.4m + adjacent 2.4m wide shared zone	2.4m + adjacent 2.4m wide shared zone	✓
Parking Aisles			
Parking Aisle Width	Min 5.8m	Min 5.8m	√
Terminating Aisle Extension	Min 1.0m	Min 1.0m	✓
Parking Clearance (any obstruction exceeding 0.15m)	0.3m	> 0.3m	✓

Therefore, the proposed car parking layout is compliant against the requirements within Australian Standards AS2890.1, and hence is considered acceptable.

4.4 Traffic Generation

In accordance with the RTA Guide to Traffic Generating Developments (2002) document, the following traffic generation rates have been adopted for the assessment herein:

• Warehouse: 0.5 vehicle trips per 100 sq.m GFA,

Therefore, the proposed development traffic generation is detailed in Table 4-4.





 Table 4-4
 Proposed Development Traffic Generation

Land Use	Yield	Traffic Generation Rate	Traffic Generation Volumes
Warehouse	623.9 sq.m GFA	0.5 vehicle trips per 100 sq m GFA	3.2 (4) vehicles

Therefore, the proposed development is anticipated to generate up to four (4) vehicles per hour in the peak hour period.

Provided that this corresponds to an additional vehicle on the external road network once every 15 minutes on average in the peak hour, the proposed development is not anticipated to compromise the safety nor efficiency of the external road network.

5 Summary

Therefore, Modus is of the opinion that the proposed development is acceptable from a traffic engineering perspective and will not have a substantial impact on the safety or efficiency of the external road network.

Should there be any issue with the above, please contact the undersigned.

Yours sincerely,

BFuller

Bradley Fuller Team Leader (Transport Advisory) - Traffic Engineer

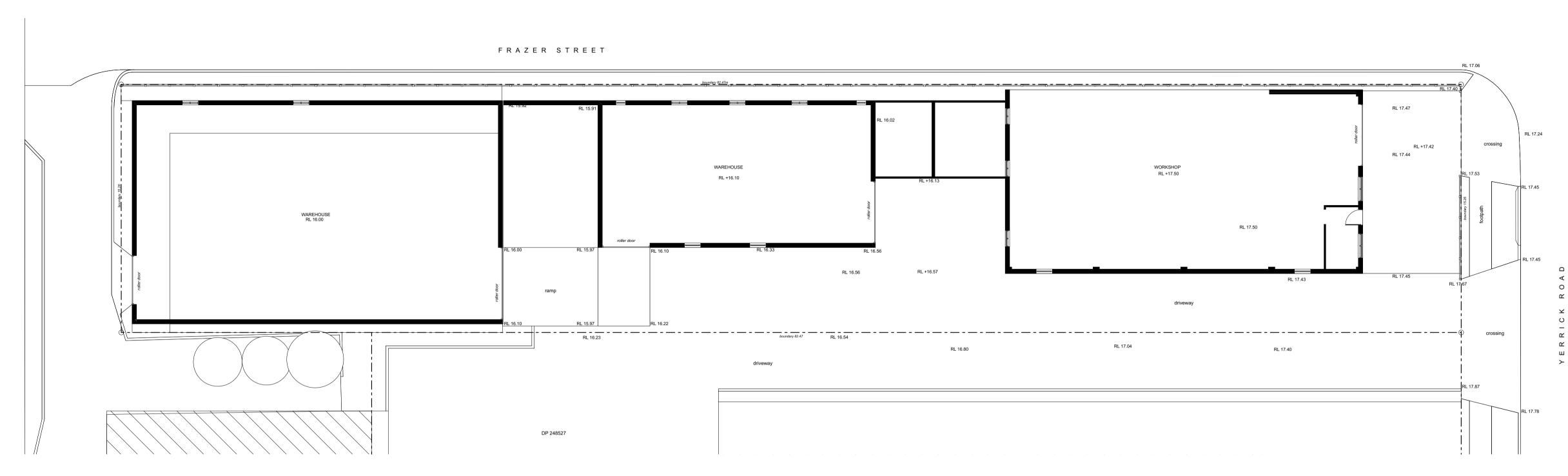




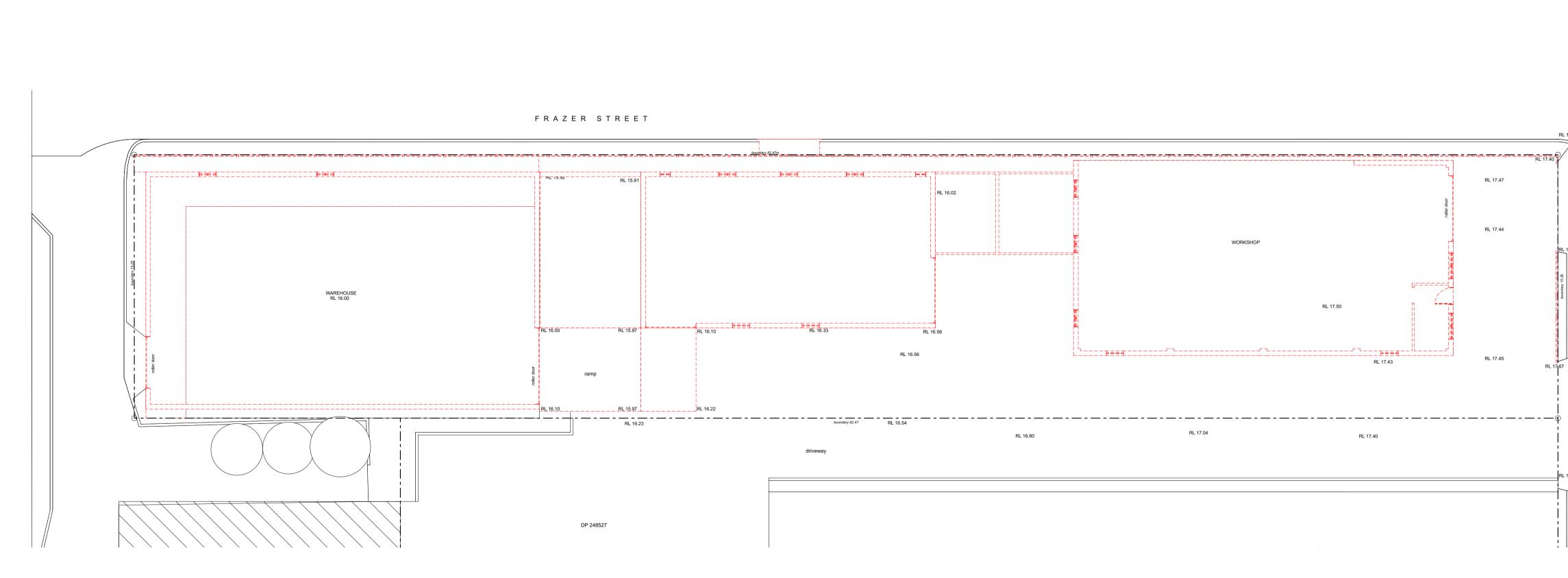
APPENDIX A

Development Plans



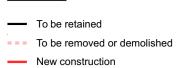


Existing Ground Floor Plan SCALE 1:150

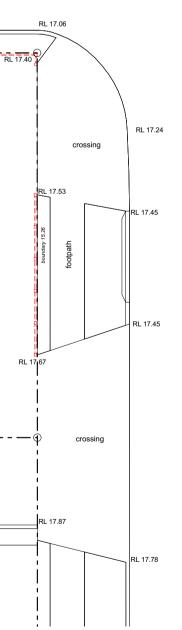


Ground Floor Demolition Plan SCALE 1:150

LEGEND:

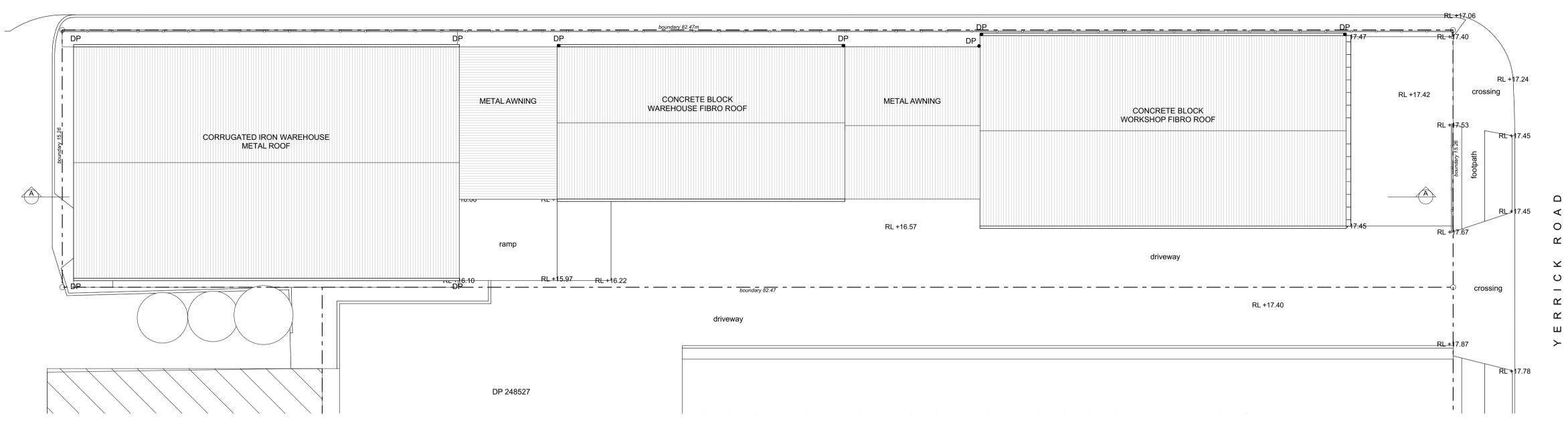




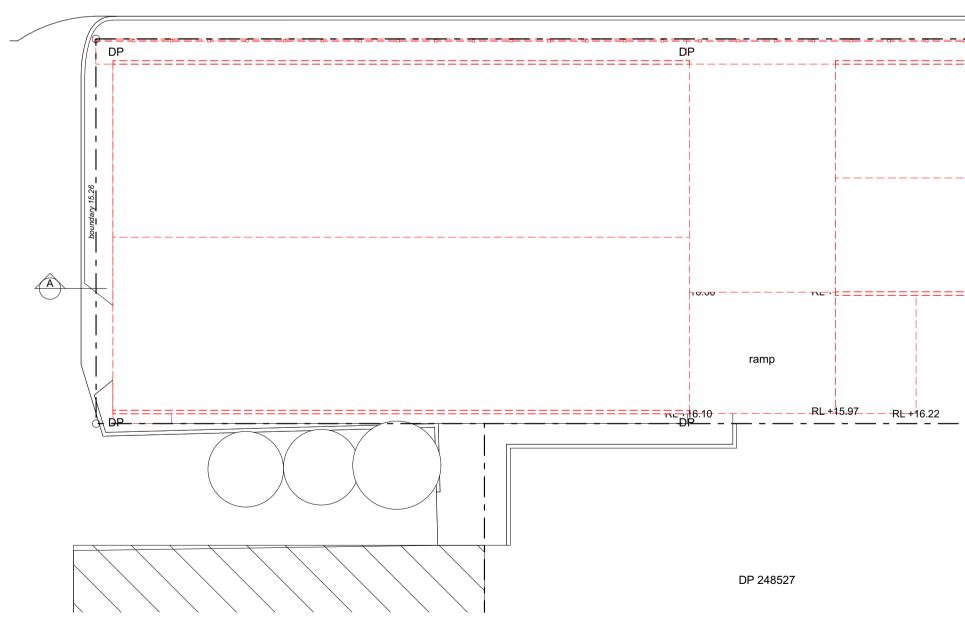








Existing Site and Roof Plan SCALE 1:150



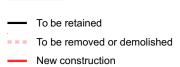
FRAZER STREET

FRAZER STREET

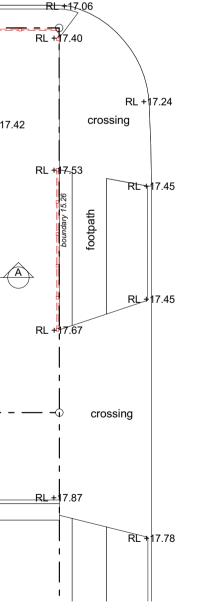
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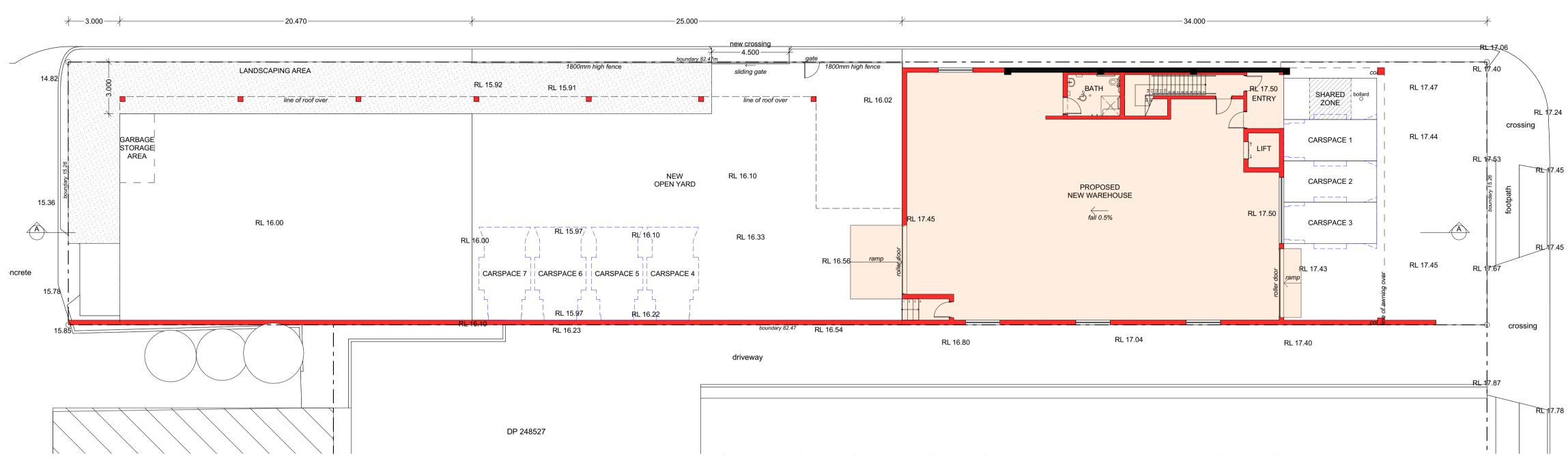




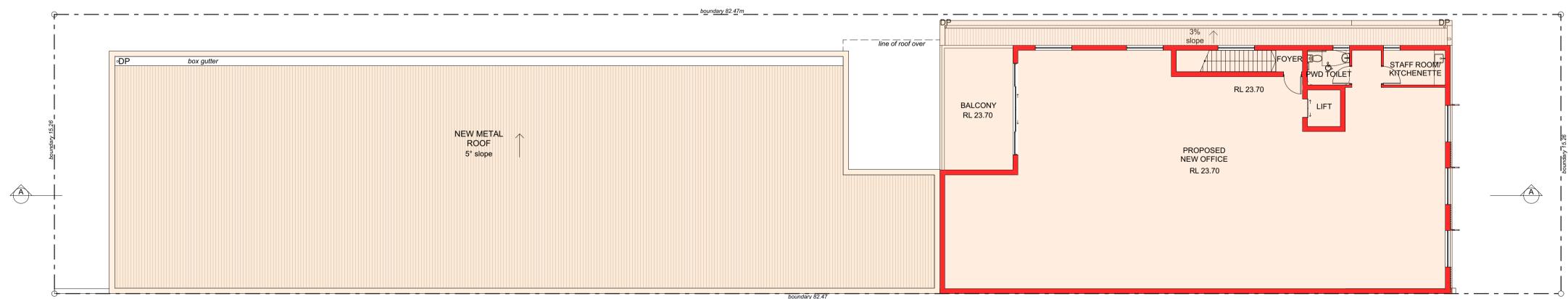








Proposed Ground Floor Plan SCALE 1:150



Proposed First Floor Plan SCALE 1:150

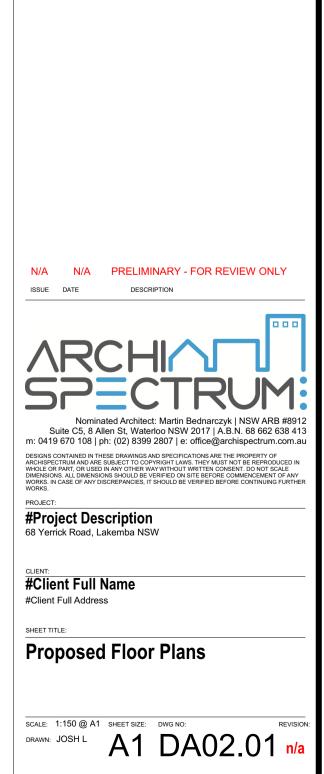
line of roof over	BALCONY RL 23.70	RL 23.70	oundary 15.26
boundary 82.47			

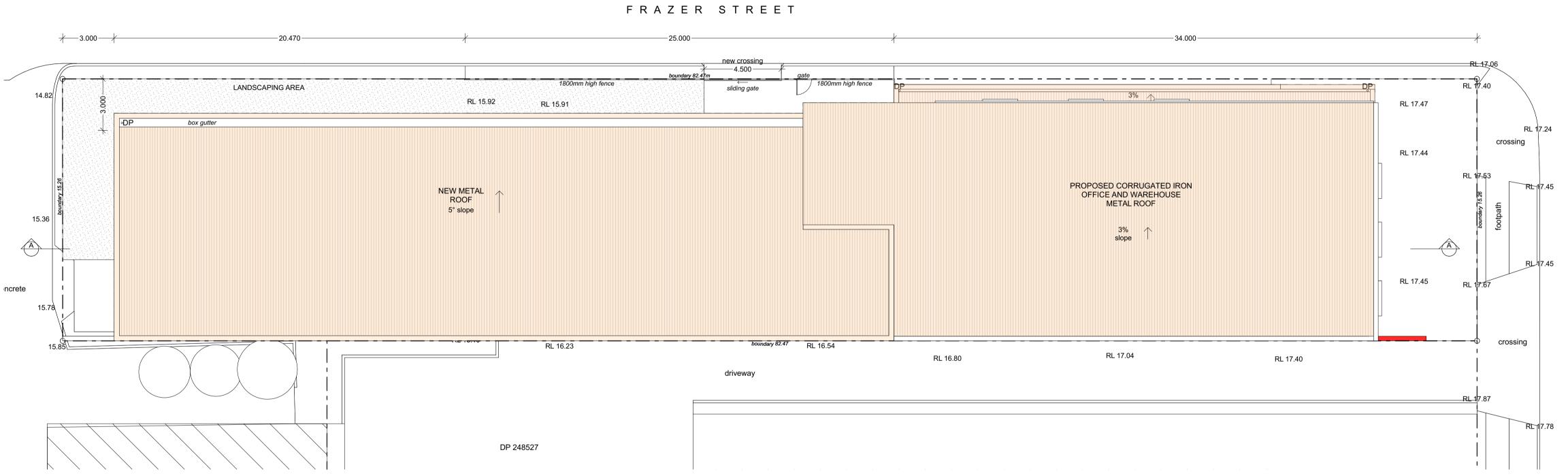
LEGEND:

----- To be retained = = = To be removed or demolished

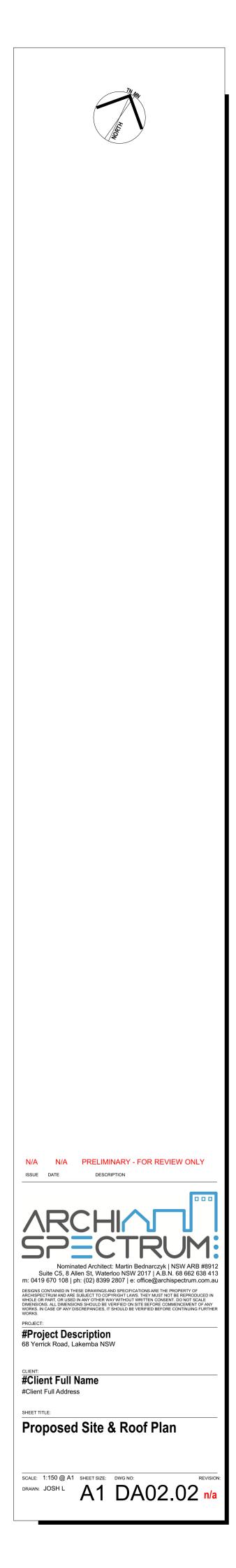
— New construction New element







Proposed Site and Roof Plan SCALE 1:150



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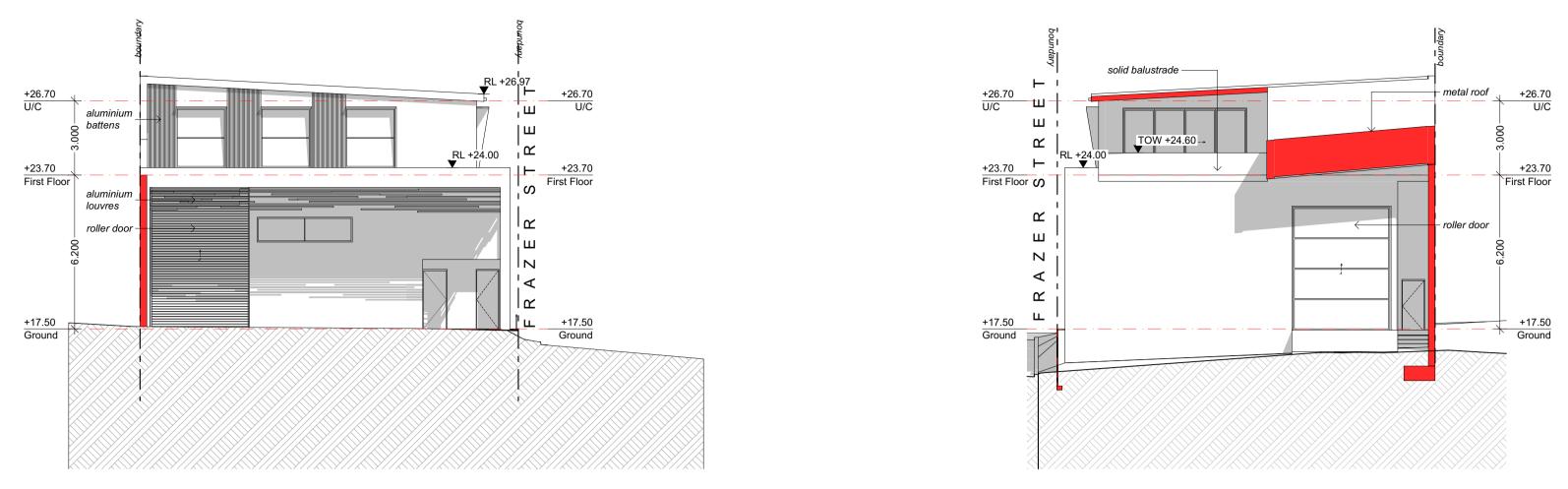
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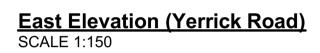
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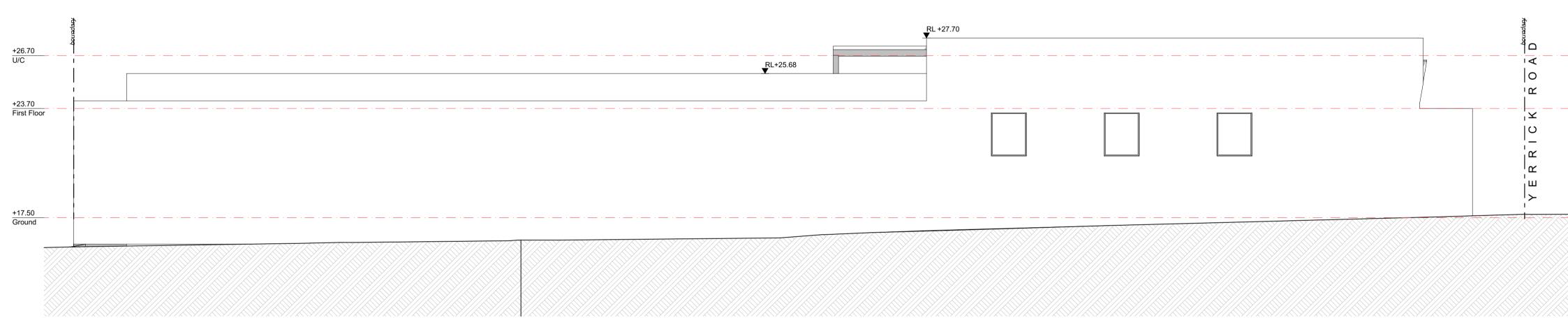
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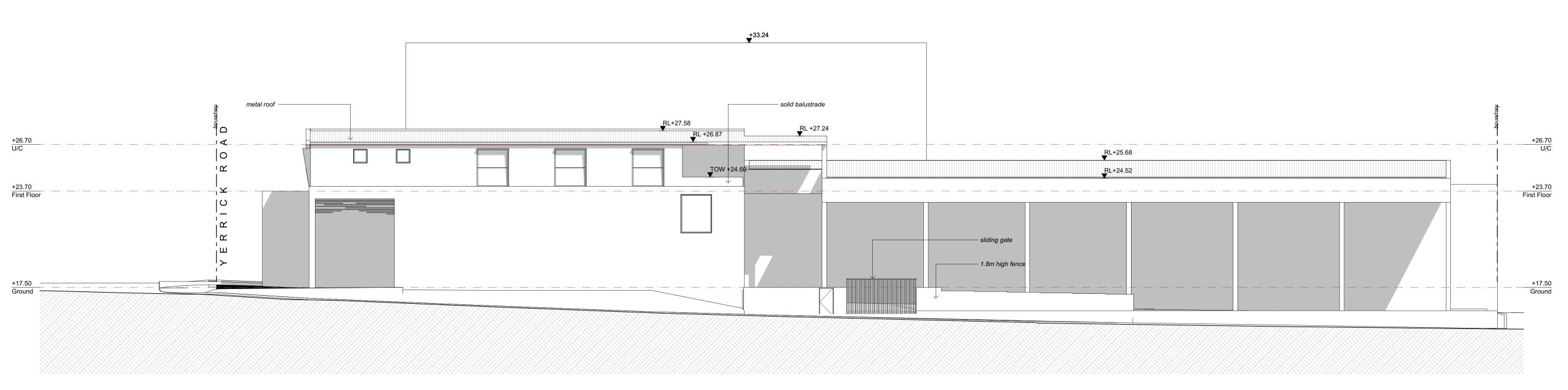
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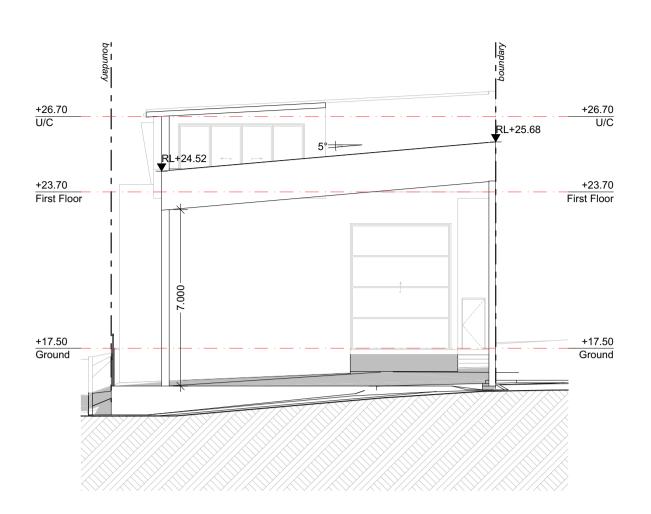




Scale 1:150

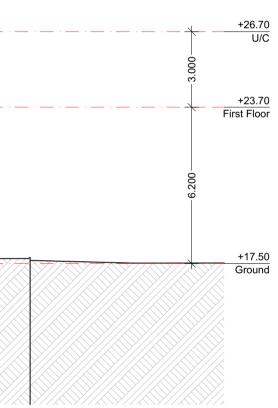




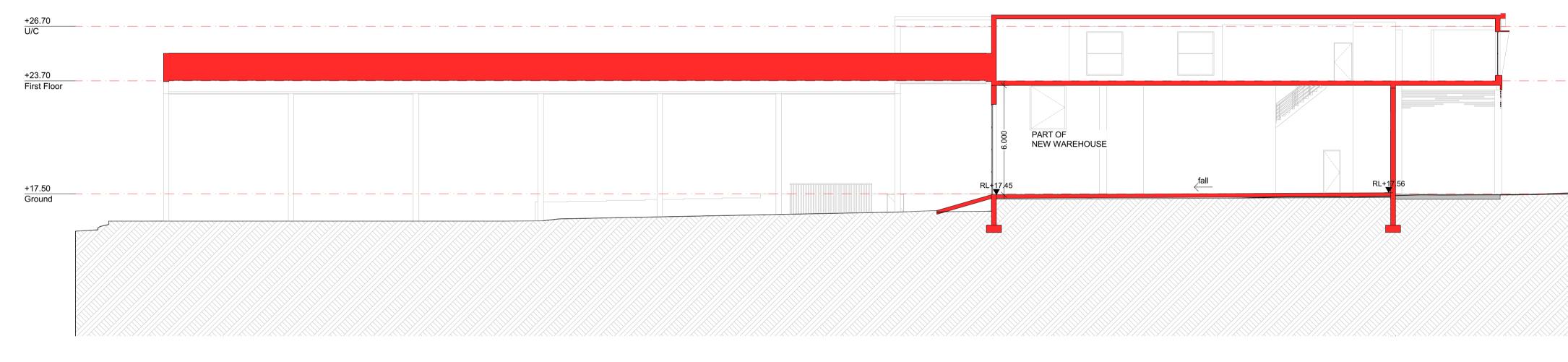


West Elevation (Front Building) SCALE 1:150

West Elevation (Rear Building) SCALE 1:150







SCALE 1:150

+26.70 U/C

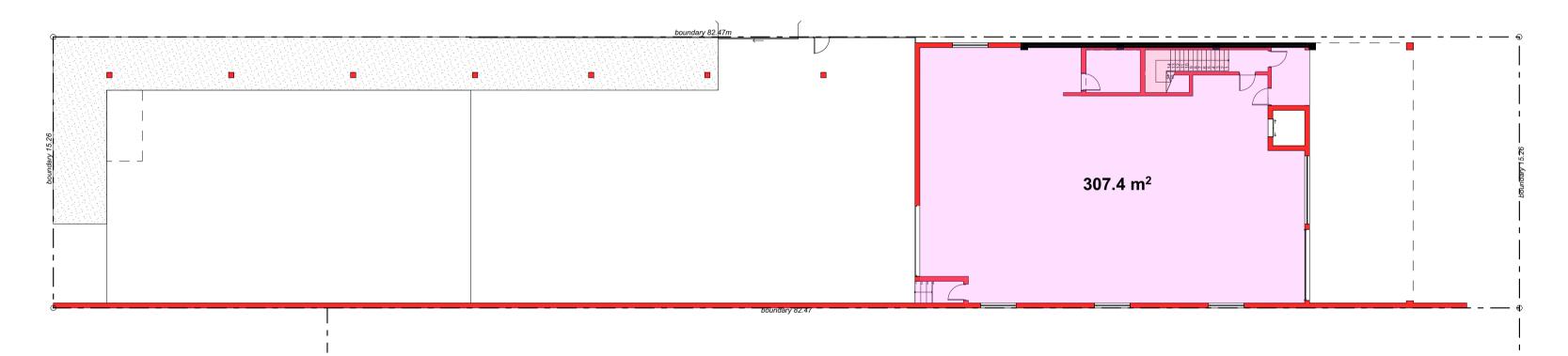
+23.70 First Floor

> +17.50 Ground

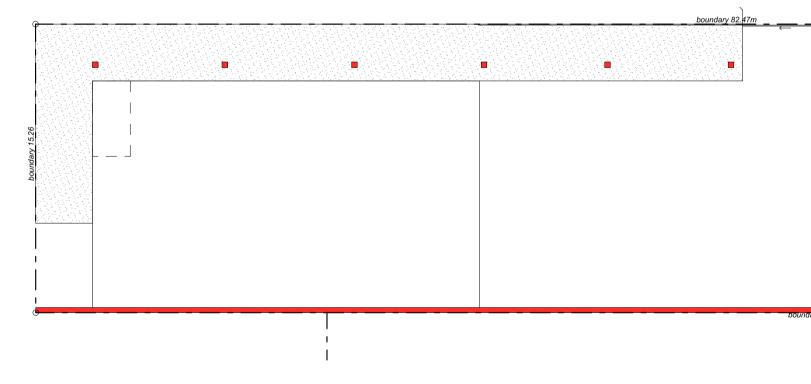
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Areas - First Floor Plan SCALE 1:200



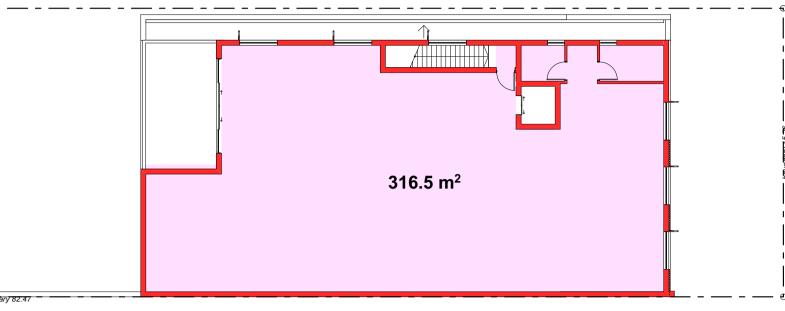
Areas - Ground Floor Plan SCALE 1:200



Site Coverage Plan SCALE 1:200

LEGEND:





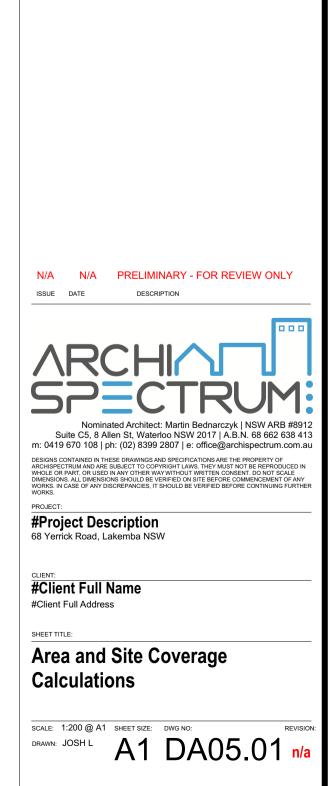
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AREA CALCULATIONSite Area1258.49m²

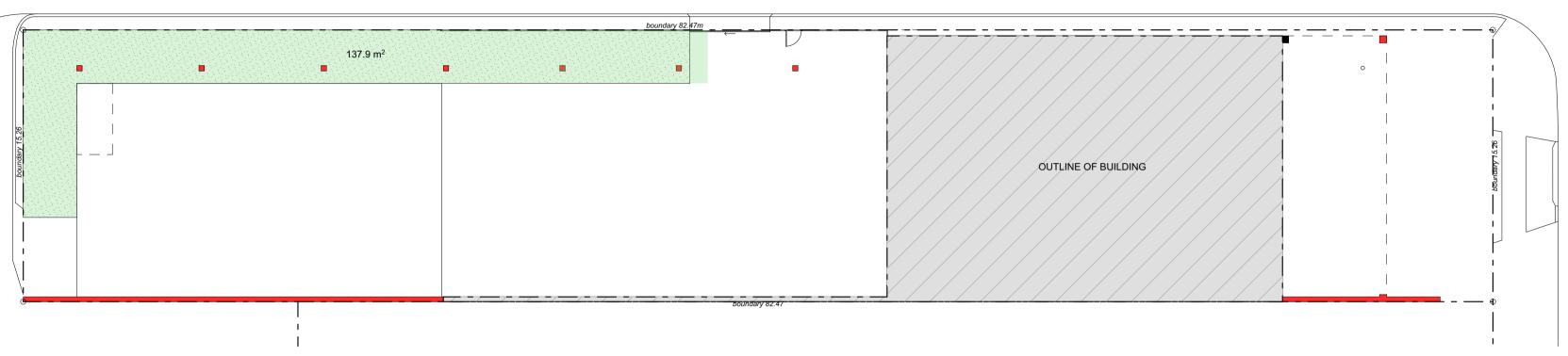
Proposed GFAGround307.4m²First Floor316.5m²Total623.9m² Proposed FSR 0.50:1

<u>Site Coverage</u> Max Proposed





FRAZER STREET



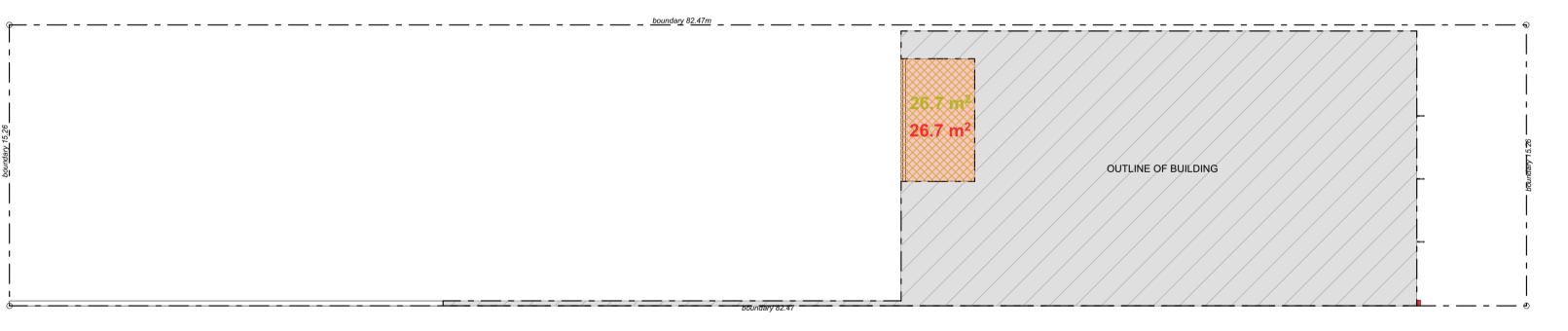
Landscape Plan @ Ground Floor SCALE 1:200

Landscape Plan @ First Floor SCALE 1:200

LEGEND:



Above Ground TOS/ Staff Amenity Area



AREA CALCULATIONSite Area1258.49m²

Landscape Area

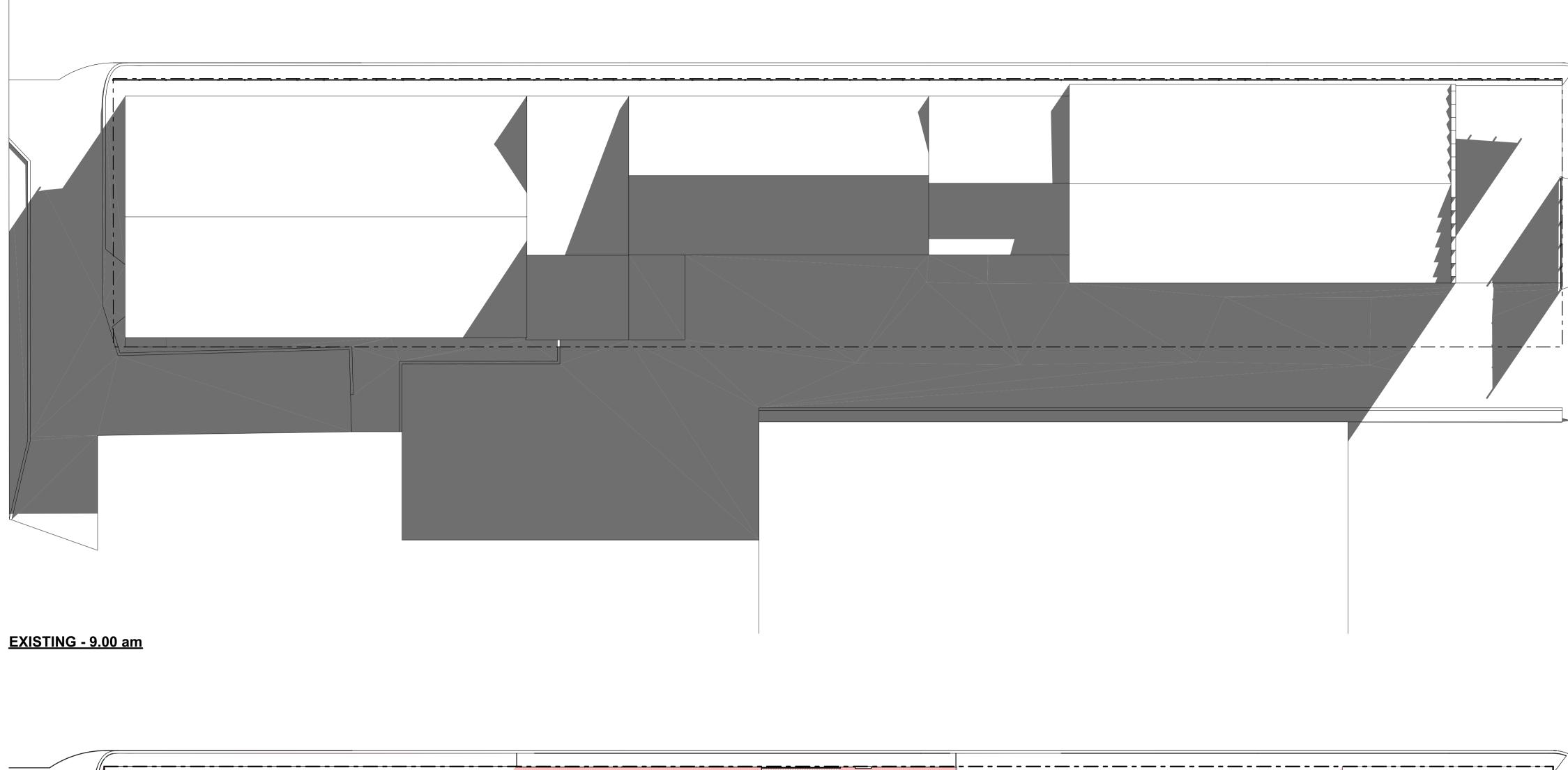
Proposed **137.9**m² % **11%**

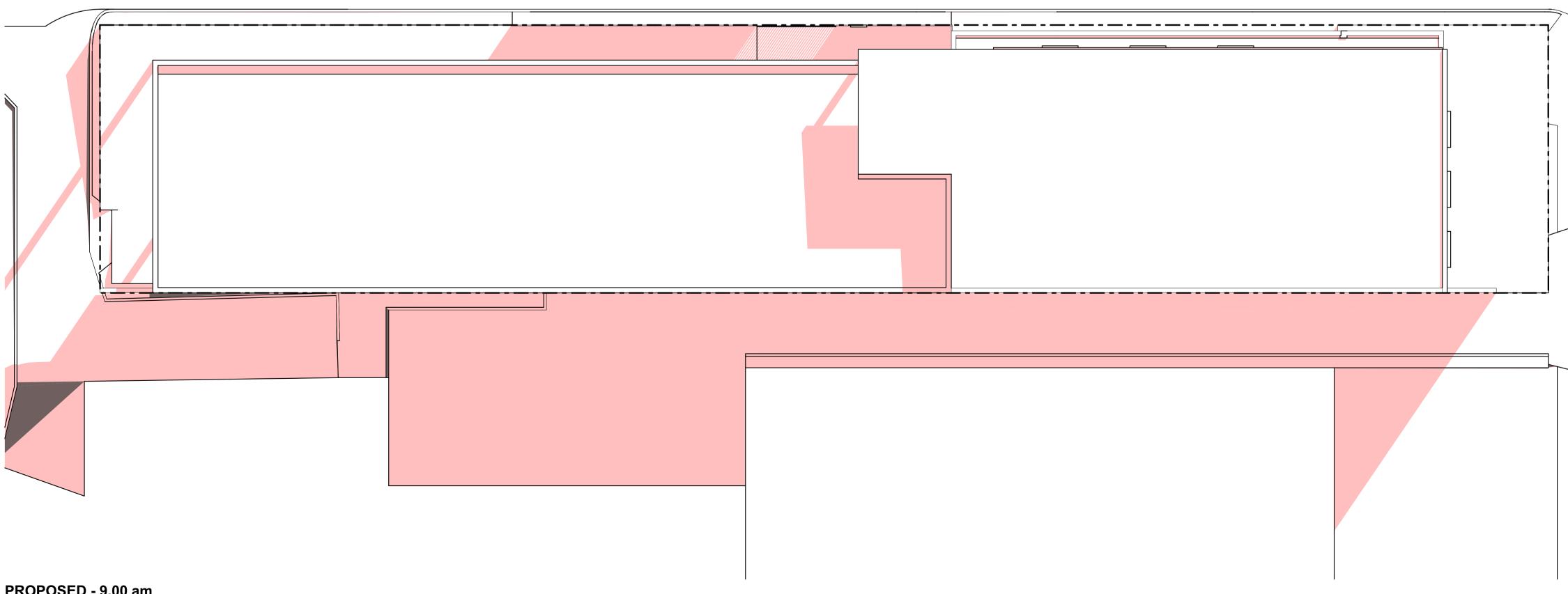
> 26.7m² 2%

Above Ground TOS

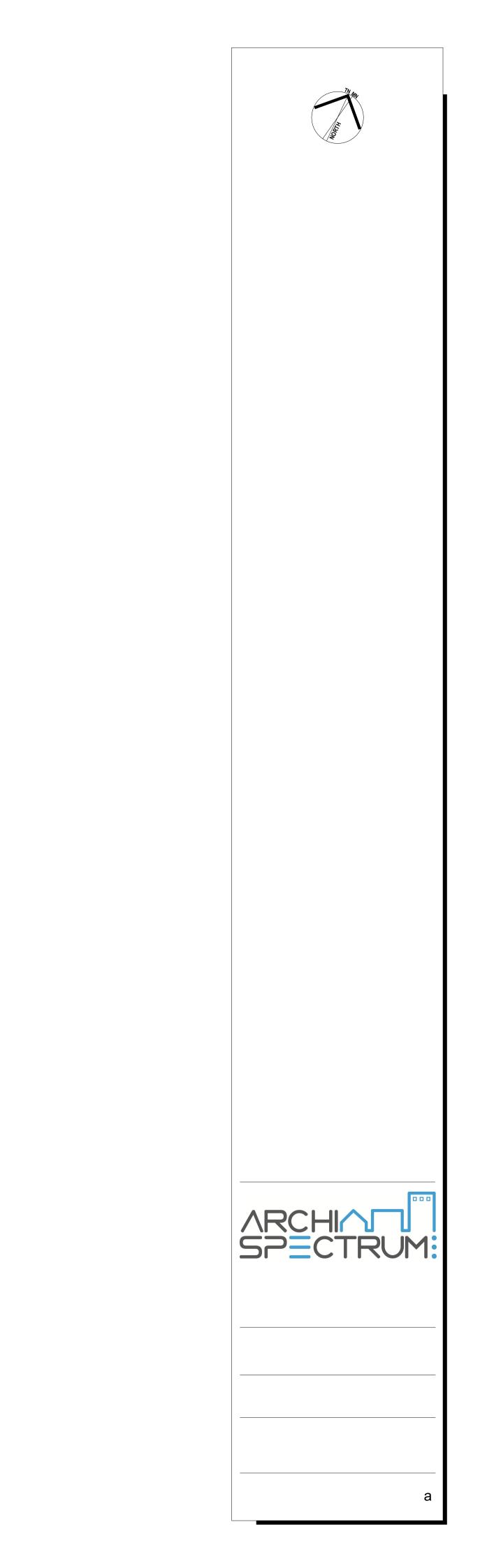
Provided %

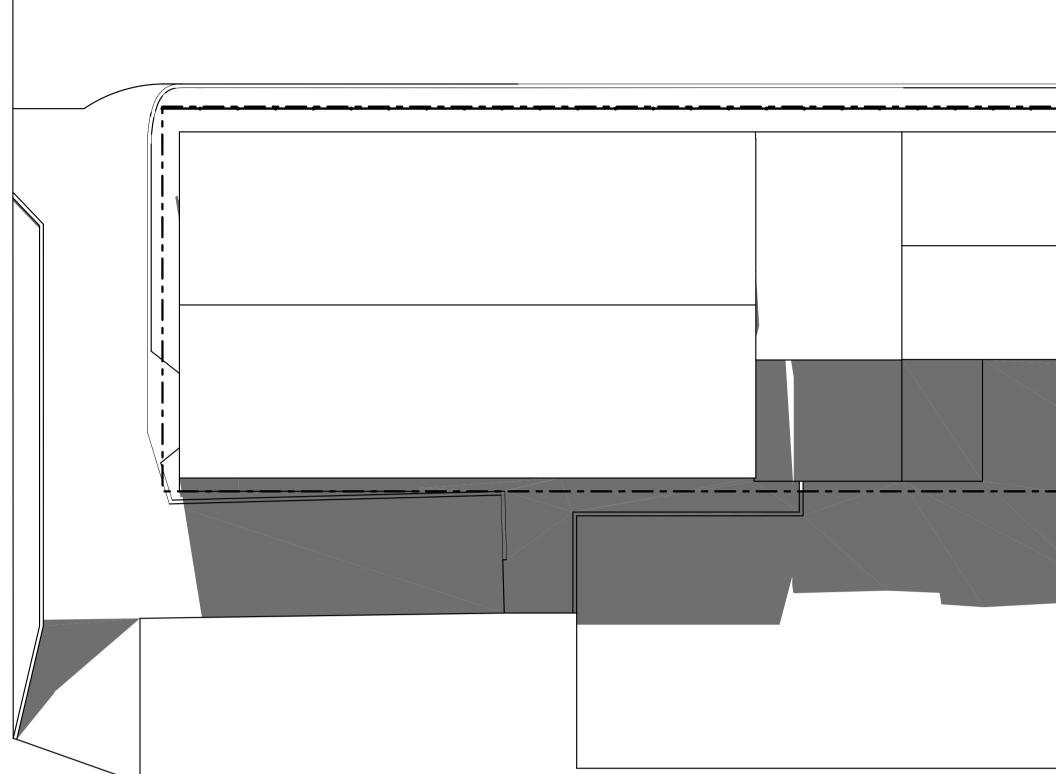




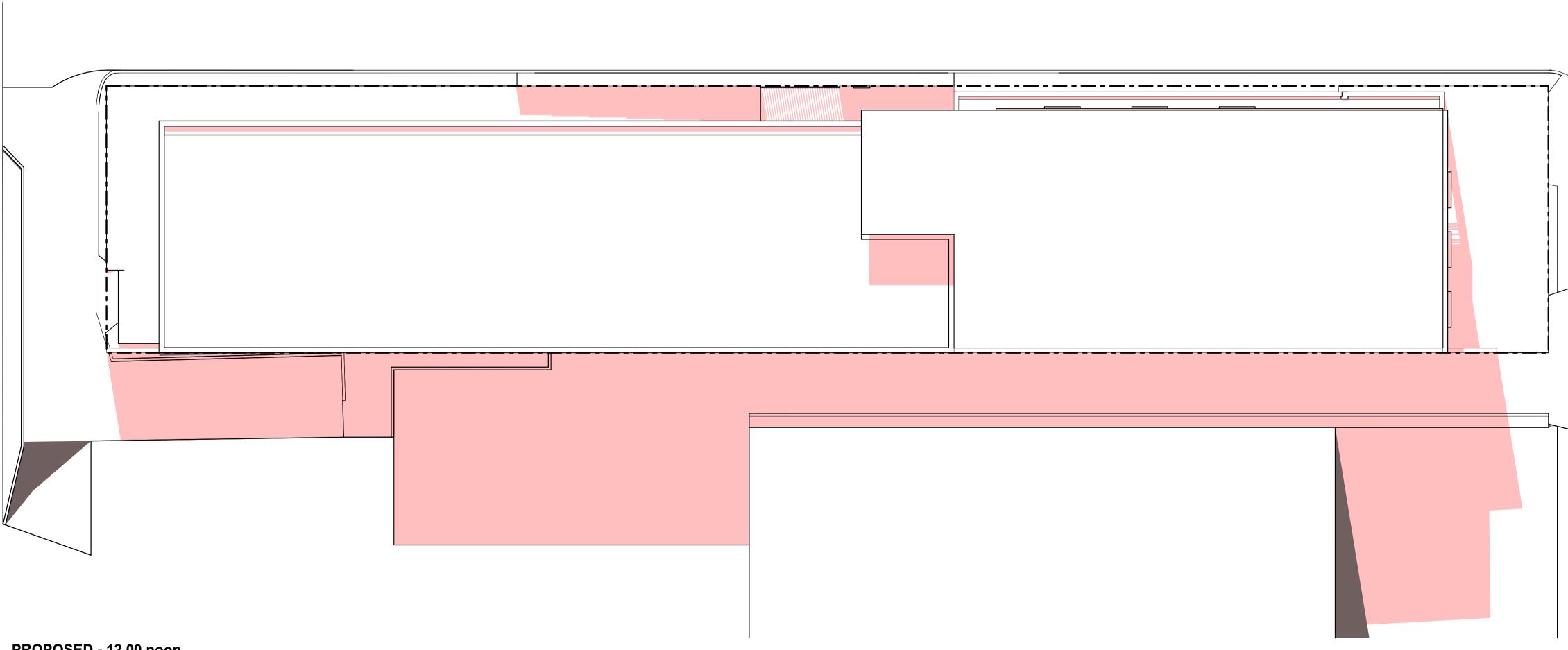


PROPOSED - 9.00 am

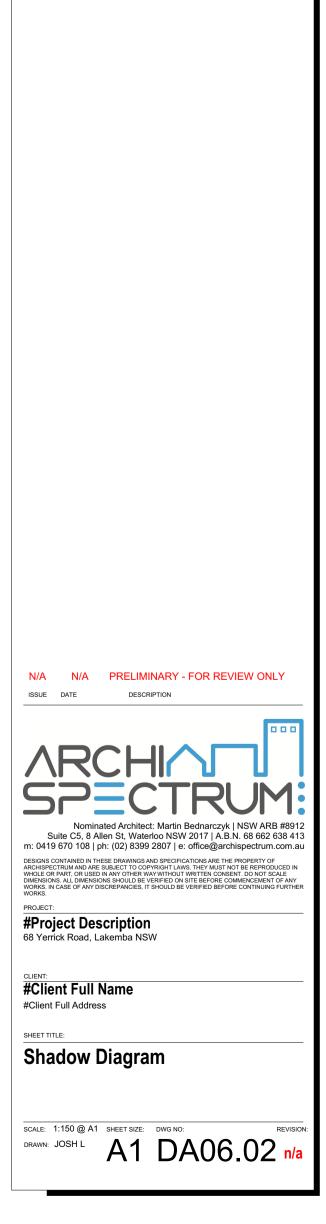


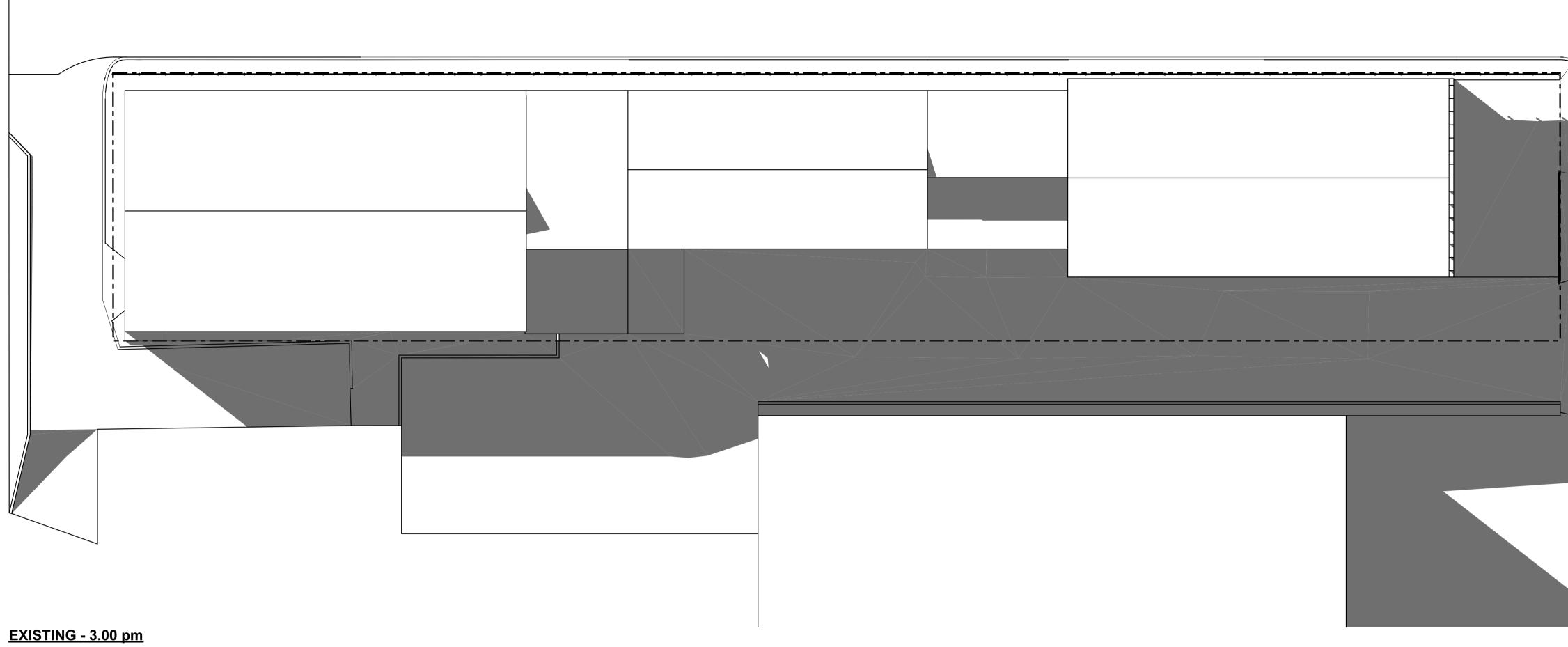


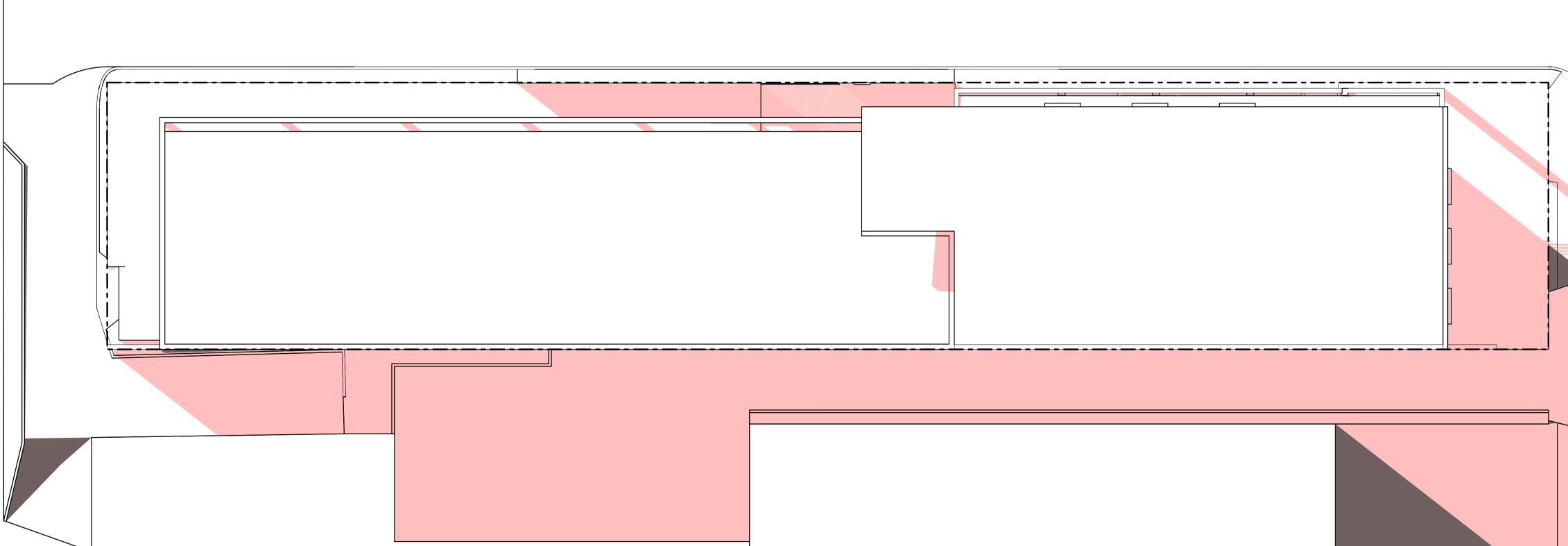
EXISTING - 12.00 noon



PROPOSED - 12.00 noon

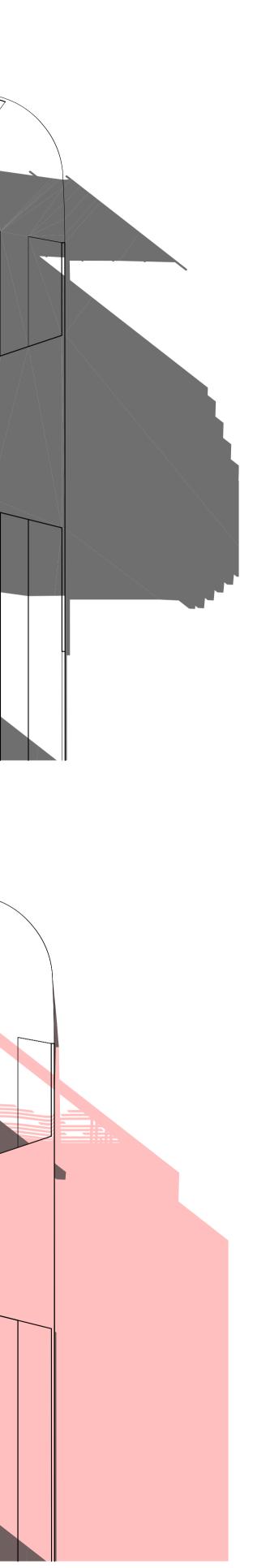


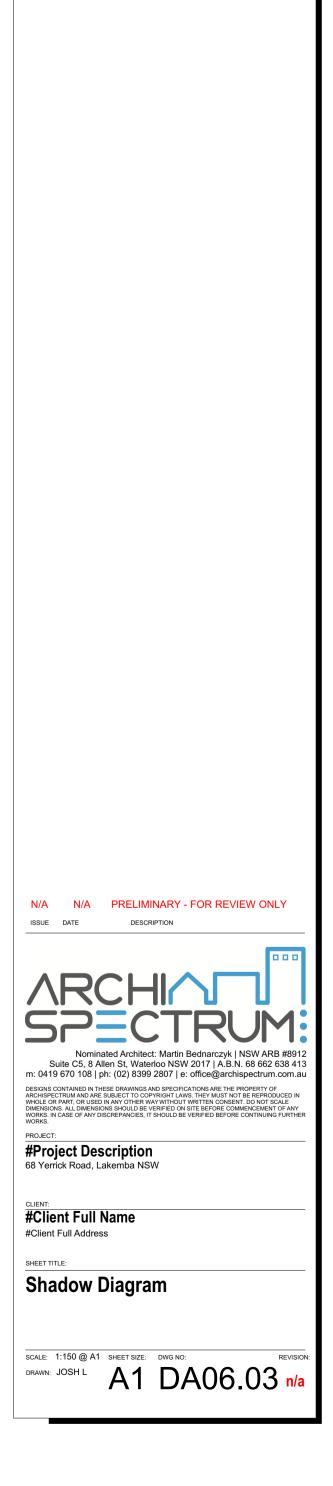




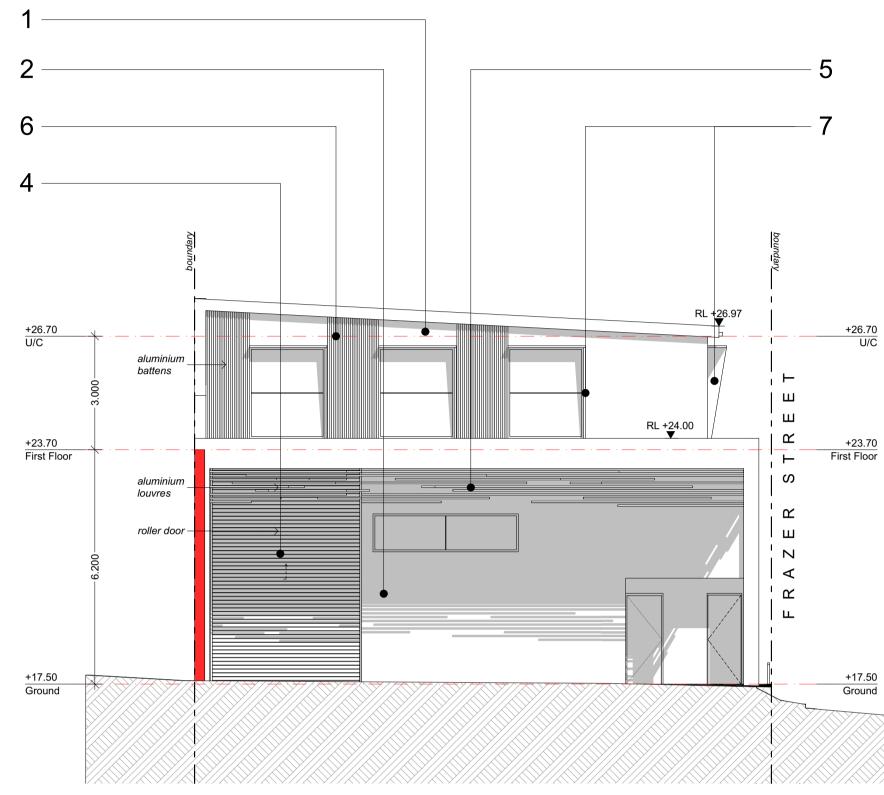
PROPOSED - 3.00 pm





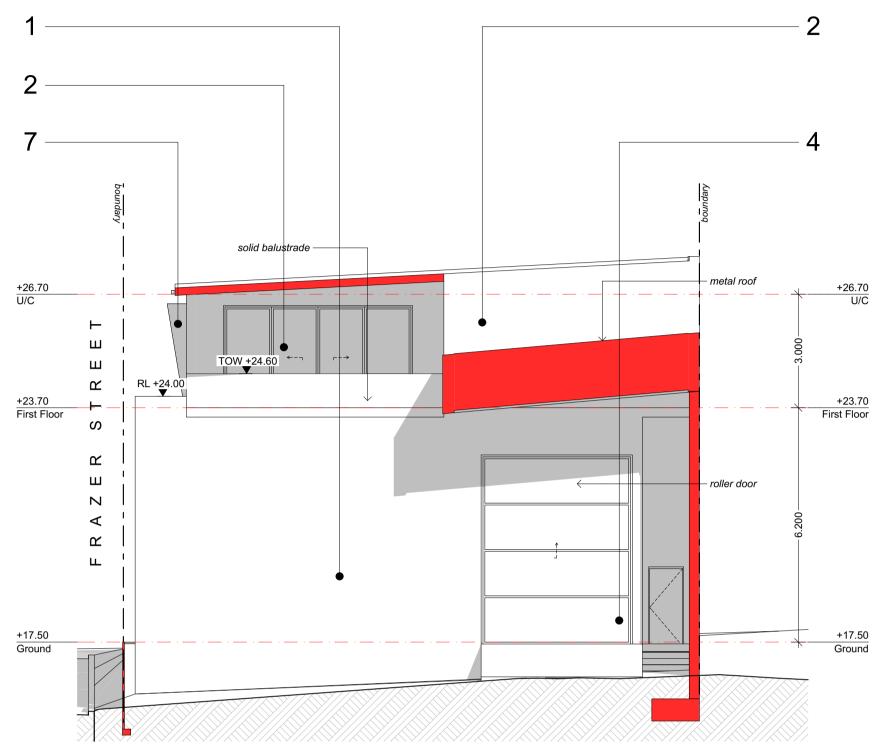






East Elevation

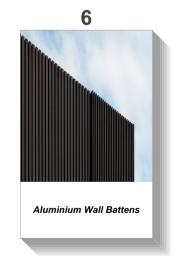




West Elevation SCALE 1:100













APPENDIX B

Swept Path Assessment



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