

23 August 2024

Our Ref: 24BRT0494

Your Ref:

Attention: Lachlan Grantley

Spring Projects

Dear Lachlan,

RE: Traffic and Parking Assessment for Lots 1180-1182 Carnegie St, AURA

1 Background

TTM has been engaged to provide an assessment of the parking and traffic generation for the proposed use of Lots 1180-1182 Carnegie St, AURA. It is understood this site is located within the Hardware and Trade Supplies area of the Aura Business Park (Precinct 3).

2 Proposed Development

This application assesses the suitability of the development to cater for a mix of Showroom with Hardware and Trade Supplies uses across 2 tenancies, totalling 2,700m² of GFA. The plan of development demonstrating the 2 proposed tenancies is provided in Appendix A.



Figure 1: Site Location

TTM has discussed the Showroom use with a potential tenant as to how it will operate with respect to traffic and parking. This use will display a wide range of stock within the tenancy. Customers representing businesses may come to site to view these samples before purchase. However, this approach is generally expected to be the minority, as most customers will be account holders, with repeat orders, often made online or via phone.

Further to this, TTM has been provided transaction data from a similar size store from the potential operator to allow further investigation of the likely traffic and parking demands.

These identify that the use operates on approximately 70 in-store transactions per day. This is used as the basis from the operating analysis allowing up to 10% of this to occur during a single peak hour period.

3 Transport Requirements

3.1 Traffic Generation

TTM has reviewed traffic generation standards to assist in estimating the traffic generation of the proposed use. Typically, across the standards there is a significant variation of trip generation for showroom uses, based on numerous factors, including tenancy size, operating hours, types of goods sold and profile of customer base.

That said, the RTA Guide to Traffic Generating Development does provide an estimated mean traffic generation rate for showrooms of 2.7 trips per hour/100m². For the proposed tenancy, this would equate to 27 trips per hour.

To assess the appropriateness of this, TTM has also undertaken a first principles assessment of the site operation.

As the business is trade related, rather than the general public, a steady flow of customers is expected between likely operation hours of 7am to 5pm. Based on similar store data, an average of 7 paying customers and 9 customers in total is expected each hour, totalling 70 paying and 90 total customers per day respectively. It is expected the peak will operating time is not fixed and may change daily. This results from the peak being more a statistical variation of access, rather than a specific time of day that would attract more customers.

The peak purchase rate for customers is estimated at 10 per hour. In addition to this an allowance is made for up to 3 customers in the same period not purchasing. These 13 customers, generating both entry and exit movements, results in 26 trips in an hour. Any additional movement for service vehicles or staff would then take this to the 27 estimated in the RMS Guide.

Based on this, 27 vehicle trips per hour is considered a suitable estimate. Further reductions to this generation may also result from the use being in a site with multiple tenancies. Some customers to the site

may access both tenancies in a single trip. These internalised trips are effectively a reduction in traffic generation from each use.

Hardware and trade supplies is estimated to generate traffic at approximately half the rate of showroom, based on the relative parking rated required for the uses. For the 1,000m² of GFA in this tenancy, the traffic is therefore estimated to be approximately 13 vehicles per hour more for showroom than the equivalent area of hardware and trade supplies.

While the use based peak generation for a showroom may be higher, it is also likely to be during the middle of the trading day and offset from the road peak. As such, the impact on the critical peak hour operation of the road network is not expected to be significantly larger than an industrial use occupying the same area.

3.2 Parking Requirement

The Council rates for the proposed development are as follows:

- Hardware and Trade Supplies:
 - 1 space / 50m² GFA (up to 500m²)
 - 1 space / 100m² GFA (component over 500m²)
- Showroom:
 - 1 space / 20m² GFA (up to 100m²)
 - 1 space / 50m² GFA (component over 100m²)

For the entire site of 2,700m² GFA to operate as Hardware and Trade Supplies, this would require 32 parking spaces. The site provides a total of 32 spaces, satisfying this requirement.

Dedicating approximately 1,000m² of GFA to showroom will result in approximately 1,700m² being retained as Hardware and Trade Supplies. The parking therefore required is:

- 22 spaces for Hardware and Trade Supplies
- 23 spaces for Showroom
- Total of 45 spaces

As such, the parking provision of 32 spaces is not compliant for this mix of uses. The following reviews the practical operation of the proposed tenancy to operate with the 10 spaces available.

The parking rate identified in the RMS Guidelines for showroom is provided at 1.9/100m². For 1,000m², this equates to 19 spaces. However, as with traffic generation rates this is a median within a wide range of potential demands and therefore a first principles assessment again needs to be undertaken.

The Required parking needs to consider both staff and customer demands. Based on information from the operator, up to 5 staff may be on-site at any time

The peak customer demand is identified above with respect to traffic generation at 13 customers over an hour. The operation will be with trade customers, rather than the public, with most (80%) being members and therefore regular recurring transactions. This reduces the time on-site browsing display stock. With this operation, an average length of stay below 20 minutes is considered suitable. For 13 customers, this would be 4.25 spaces (rounded up to 5), allowing each space to be used 2 or 3 times each in a peak hour.

Based on this first principles assessment, a total of 10 spaces can be supported.

This is further appropriate considering this is one tenancy on a wider site. While the adjacent tenancy is also classified as Hardware Trade Supplies, and therefore potentially a showroom, it is unlikely that the peak access to each tenancy will occur simultaneously. As stated, the trade based customers, as opposed to general public, are not likely to result in a regular peak. This is likely to also be the case for the adjacent tenancy, and therefore peak parking demand will rarely overlap. Therefore, on a day to day basis, it is expected that up to 20% of a tenancies parking may be available for overflow from the adjacent tenancy, if ever required.

4 Conclusion

Utilising the provided potential tenant data it is noted that the traffic generation and parking for the proposed use can both be catered for within the proposed site, without any significant impact on the external road network operation.

If you wish to discuss this further, please contact the undersigned on 3327 9500.

Yours sincerely,



Simon Crank

Director

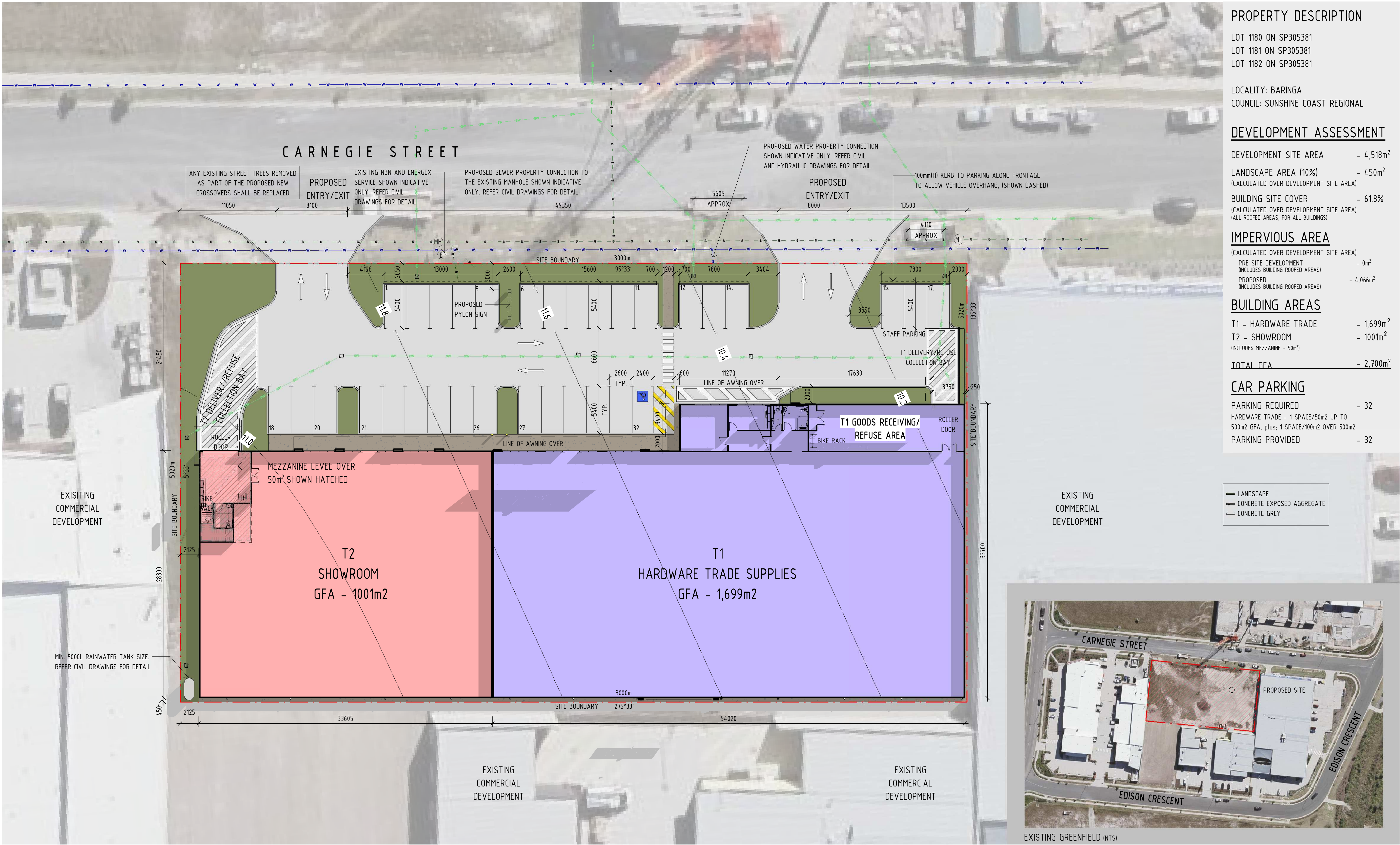
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TTM Consulting Pty Ltd

Appendix A Plan of Development

LANDSCAPING SHOWN IS FOR 'ARTIST IMPRESSION' PURPOSES ONLY. REFERENCE SHOULD BE MADE TO THE LANDSCAPE DRAWINGS PREPARED BY THE RELEVANT CONSULTANT.

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PROPERTY DESCRIPTION	
LOT 1180 ON SP305381	
LOT 1181 ON SP305381	
LOT 1182 ON SP305381	
LOCALITY: BARINGA	
COUNCIL: SUNSHINE COAST REGIONAL	
DEVELOPMENT ASSESSMENT	
DEVELOPMENT SITE AREA	- 4,518m²
LANDSCAPE AREA (10%)	- 450m²
(CALCULATED OVER DEVELOPMENT SITE AREA)	
BUILDING SITE COVER	- 61.8%
(CALCULATED OVER DEVELOPMENT SITE AREA)	
(ALL ROOFED AREAS, FOR ALL BUILDINGS)	
IMPERVIOUS AREA	
(CALCULATED OVER DEVELOPMENT SITE AREA)	
- PRE SITE DEVELOPMENT	- 0m²
(INCLUDES BUILDING ROOFED AREAS)	
- PROPOSED	- 4,066m²
(INCLUDES BUILDING ROOFED AREAS)	
BUILDING AREAS	
T1 - HARDWARE TRADE	- 1,699m²
T2 - SHOWROOM	- 1001m²
(INCLUDES MEZZANINE - 50m²)	
TOTAL GFA	- 2,700m²
CAR PARKING	
PARKING REQUIRED	- 32
HARDWARE TRADE - 1 SPACE/50m2 UP TO 500m2 GFA, plus; 1 SPACE/100m2 OVER 500m2	
PARKING PROVIDED	- 32

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imagine create deliver



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BUILDING DESIGN CO.

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commercial / industrial / retail

fast food restaurant design

travel centre / service stations

project concept to completion

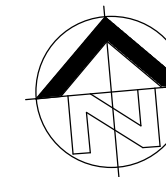
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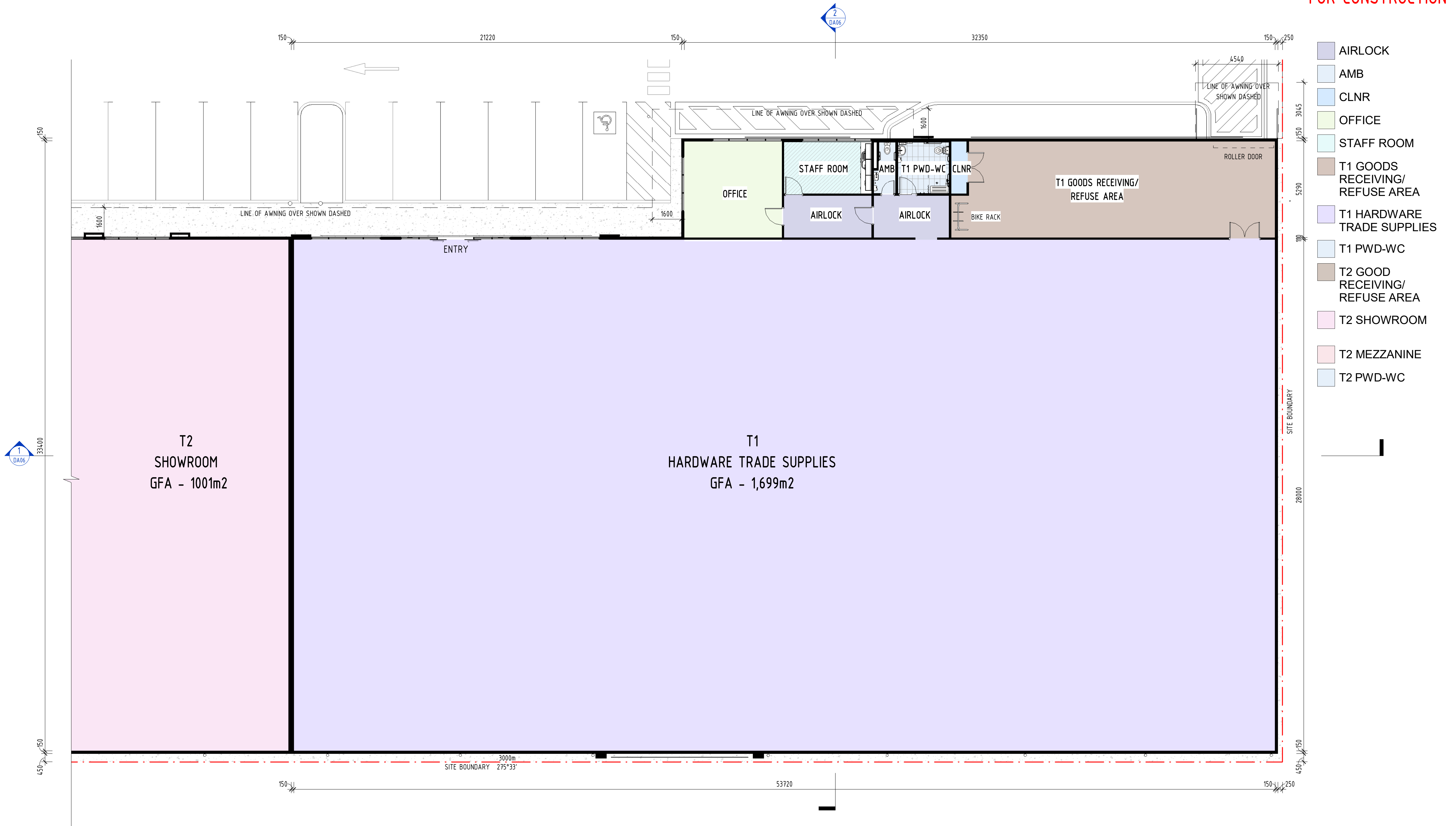
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Revision and approvals					Project Description		Drawing Title	
Rev	Date	Drn	Description	Appr	PROPOSED HARDWARE TRADE SUPPLIES		PROPOSED SITE PLAN	
C	09.02.2024	TM	RESPONSE TO INFORMATION REQUEST	GN				
D	12.02.2024	TM	RESPONSE TO INFORMATION REQUEST	GN				
E	11.03.2024	TM	RESPONSE TO INFORMATION REQUEST	GN				
F	23.04.2024	LN	DA ISSUE	GN	LOT 1180-1182 CARNEGIE STREET, AURA		Job Number - Drawing Number	
G	21.05.2024	LN	DA ISSUE	GN				
H	04.06.2024	LN	DA ISSUE	GN				
I	20.06.2024	LN	DA ISSUE	GN				
Drawn					Scale @A1 1: 200			
GN					Date JUNE 2023			
Approved By					GN		DA02	
							I	

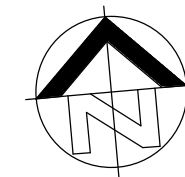


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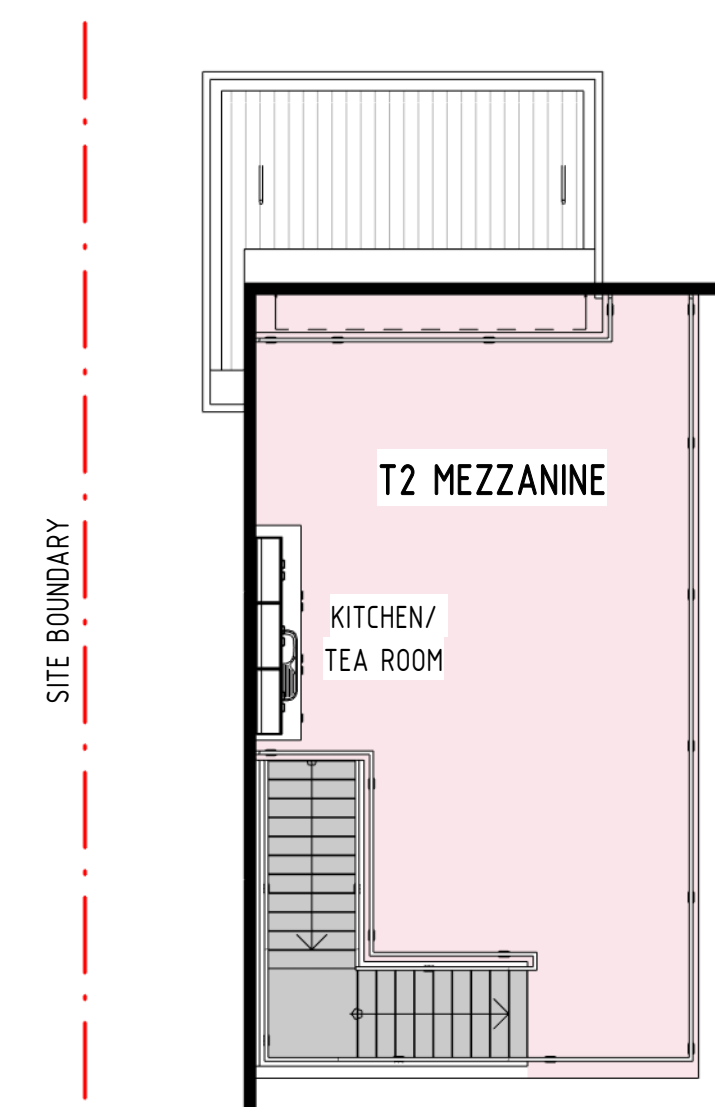
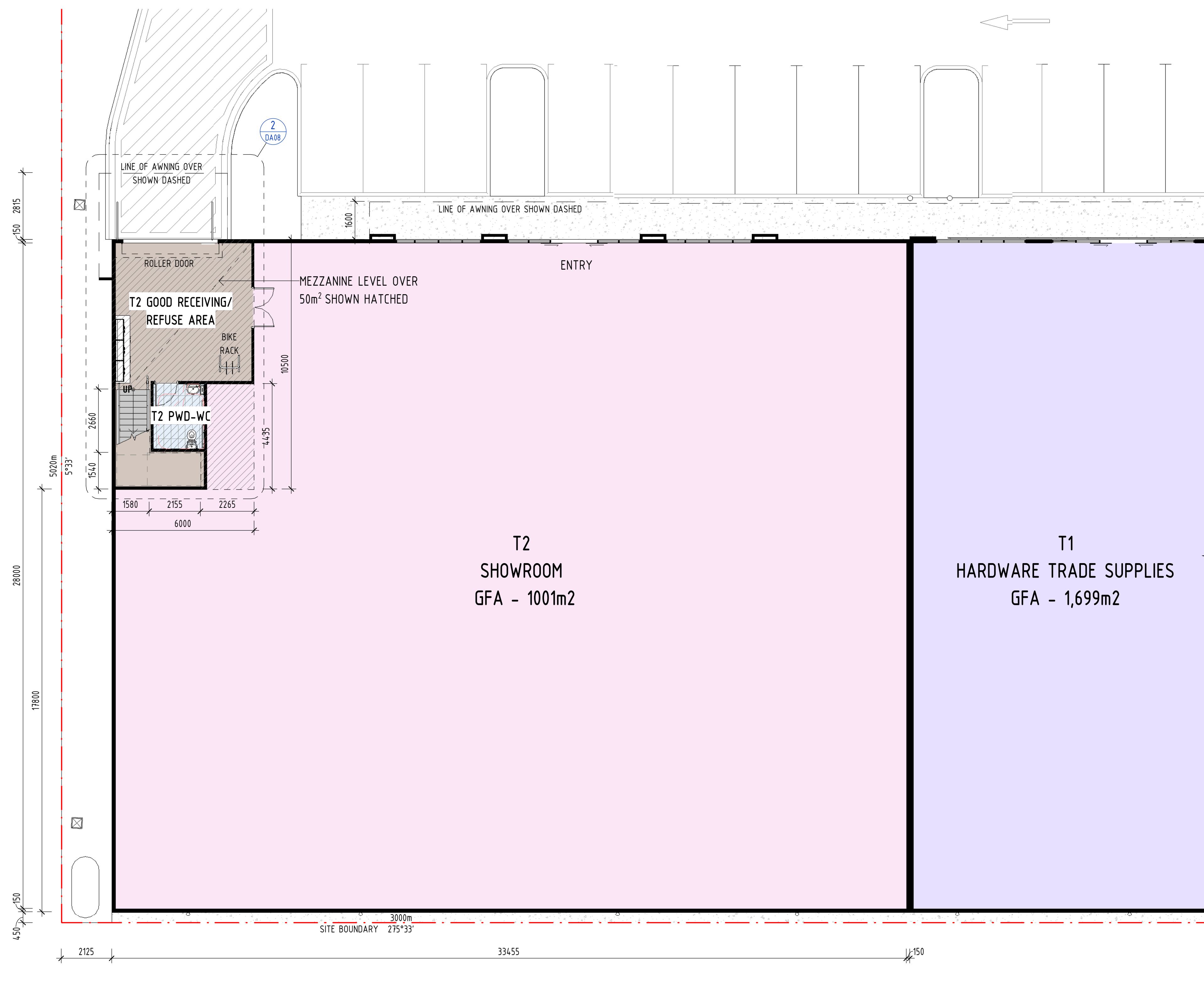
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DA ISSUE

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- AIRLOCK
- AMB
- CLNR
- OFFICE
- STAFF ROOM
- T1 GOODS RECEIVING/
REFUSE AREA
- T1 HARDWARE TRADE SUPPLIES
- T1 PWD-WC
- T2 GOOD RECEIVING/
REFUSE AREA
- T2 SHOWROOM
- T2 MEZZANINE
- T2 PWD-WC



2 T2 MEZZANINE
DA08 1:100

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- commercial / industrial / retail
- fast food restaurant design
- travel centre / service stations
- project concept to completion

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Revision and approvals				
Rev	Date	Drn	Description	Appr
A	21.05.2024	LN	DA ISSUE	GN
B	04.06.2024	LN	DA ISSUE	GN
C	04.06.2024	LN	FOR APPROVAL	GN
D	20.06.2024	LN	DA ISSUE	GN

Project Description	
PROPOSED HARDWARE TRADE SUPPLIES	
LOT 1180-1182 CARNEGIE STREET, AURA	
Scale @A1 1:100	Date JUNE 2023
Drawn GN	Approved By GN

Drawing Title	
PROPOSED FLOOR PLAN - T2	
Job Number - Drawing Number 23042 DA08	Revision D