

Proposed Industrial Development, Lot 16 Proximity Place, Stapylton

Traffic Report

Revision A
14 November 2023

Our Ref: 1923_IPL65

Prepared for: i-plan Town Planning Pty Ltd

Prepared by: Richard Quinn
Director, Q Traffic
BE Civil, MIEAust, RPEQ



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Q Traffic has prepared this report solely for the benefit and use of its Client for the sole purpose of lodging a development application. This report takes into account the particular instructions and requirements of the client. In preparing this report we assume that all information and documents provided to us by the client or their consultants were complete, accurate and current. Q Traffic will not be liable for any conclusion drawn resulting from omission or lack of full disclosure by the client or its consultants.

This report may not be relied upon by a third party. Q Traffic does not and shall not assume any responsibility or liability whatsoever to any third party arising from the use, reliance upon, or any decision made regarding the contents of this report.

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1.0 Introduction

Q Traffic was engaged to undertake a Traffic Impact Assessment to accompany an application for a Medium Impact Industry development on Lot 16 Proximity Place, Stapylton.

The site is located in the City of Gold Coast Local Government Area, and the proposal has been assessed considering Council's City Plan

This report provides relevant background information regarding the proposal, and documents the results and findings of our investigations addressing the following key traffic design elements and issues:

- Vehicular access arrangements;
- On-site parking provision for cars, service vehicles and bicycles;
- On-site service vehicle manoeuvring; and
- The traffic impacts anticipated as a result of the development.

2.0 Context

2.1 Subject Site

The subject development site is approved Lot 16 Proximity Place in Stapylton, which forms part of the 'parent' subdivision of the land at 84-160 Christensen Road South (approved under MIN/2020/494).

The site has an area of approximately 12,345m², and is located at the termination of Proximity Place on the eastern side of the cul-de-sac, as shown in the figures below.

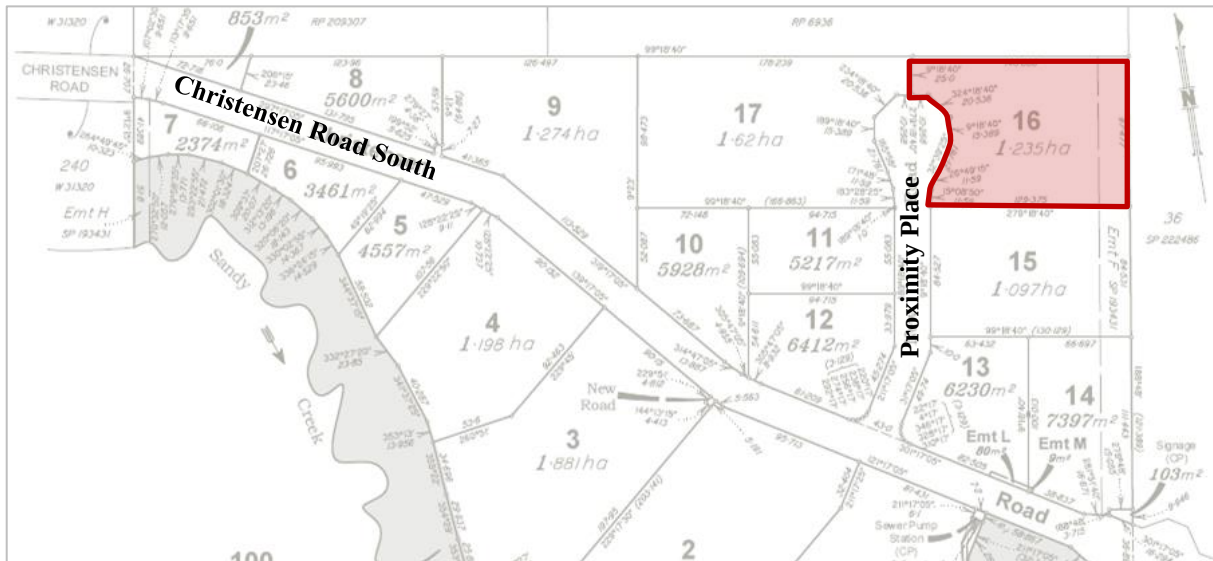


Figure 2.1a: Site Location

Source: Subdivision Proposal Plan, AJS Surveys



Figure 2.1b: Subject Site

Source: Queensland Globe

3.0 Proposal

This application seeks approval for the construction of a Medium Impact Industry Warehouse on the subject site. The development scheme comprises a single tenancy with 4,500m² gross floor area of fabrication/warehouse space and 450m² gross floor area of ancillary office space (total 4,950m² gross floor area).

A hardstand area will accommodate 57 parking spaces and will also facilitate access to 11 roller doors integrated into the warehouse structure, on the southern, eastern and northern faces of the building. Two access driveways are proposed onto Prosperity Place for access to the car parking and servicing areas.

Architectural Plans prepared by Multi Span Australia are included as **Appendix A**, with an extract of the Site Plan provided as **Figure 3** below.

The traffic elements of the proposed development are discussed in the following sections, taking into consideration the requirements of Council's City Plan, as well as the relevant Australian Standards.

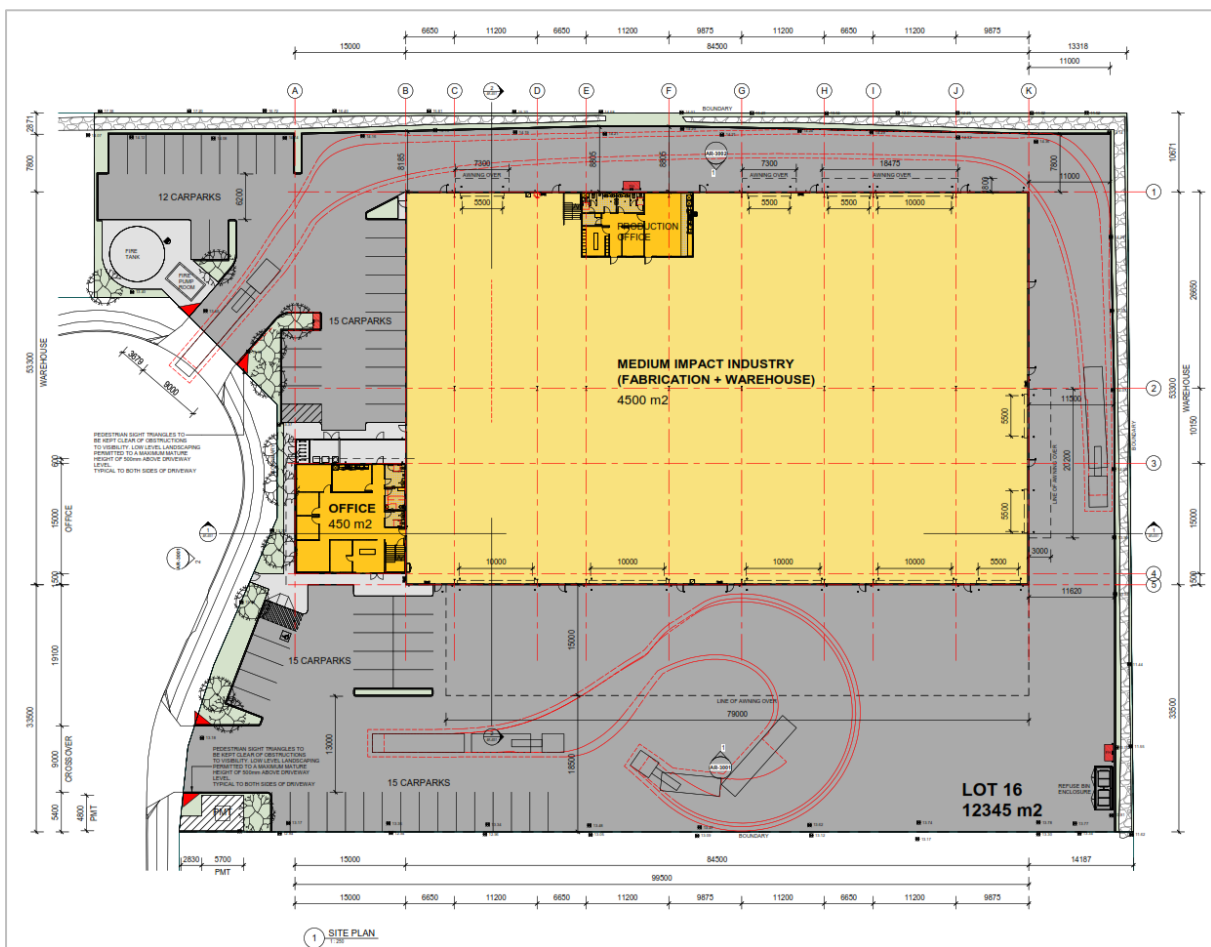


Figure 3: Extract from Site Plan

3.1 Vehicle Access

Access to the proposed development is provided via two crossovers from Proximity Place, each of which is 9m wide in order to accommodate large service vehicles.

The vehicle tracking diagrams included as **Appendix B** demonstrate that the proposed access driveways would comfortably accommodate the entry and exit movements of 20m articulated vehicles (noting however that circulation around the building is intended to be limited to the clockwise direction only, therefore the northern driveway is expected to accommodate the heavy vehicle entry movement only).

Clear pedestrian sight triangles (2.0m wide x 2.5m deep) are proposed adjacent to the exit side of the driveways immediately inside the frontage property boundary, in order to ensure satisfactory visibility between vehicles exiting the site, and pedestrians approaching the driveways along the frontage road footpath.

In summary, the proposed vehicular site access arrangements are considered to be acceptable and supportable from a traffic engineering perspective.

3.2 Car Parking Provision

Under the City Plan's Transport Code (Section 9.4.13), the minimum car parking rate for Medium Impact Industry uses is as follows:

- 2 per tenancy or lot plus 1 per 50m² of TUA up to and including 500m², and 1 per 100m² of TUA over 500m²

Application of these rates to the proposed development (4,950m² gross floor area) equates to a minimum requirement for 57 parking spaces.

As shown in the site plans included in **Appendix A**, a total of 57 parking spaces would be available on the site, including one (1) parking space for people with disabilities.

The proposal therefore meets Council's requirements in this regard.

3.3 Car Park Design

The car parking layout has been designed generally in accordance with the requirements of the relevant Australian Standards, as summarised following:

- Standard parking spaces are 2.5m wide and 5.4m long with 6.2m wide (minimum) car parking aisles, exceeding the minimum dimensional requirements for low turnover (User Class 1) car parking areas as stipulated in AS2890.1;
- The accessible car parking space is 2.5m wide and 5.4m long with a 2.5m wide x 5.4m long adjacent shared area, exceeding the minimum dimensional requirements as stipulated in AS2890.6; and
- A 1.5m long parking aisle extension is proposed at the termination of all blind parking aisles to facilitate manoeuvring for end spaces. This exceeds the requirement stipulated in AS2890.1 for a 1m minimum terminated aisle extension.

In summary, the proposed car parking arrangements are generally in accordance with the requirements of the relevant standards and guidelines. Any minor refinements considered necessary could reasonably be addressed at detailed design stage, in response to a condition of the approval.

3.4 Servicing

Council's Transport Code nominates an Articulated Vehicle as the minimum class of service vehicle for Medium Impact Industry developments. Notwithstanding this, the proposed development has been designed for efficient distribution and therefore the applicant has made provision for vehicles up to the size of a 26m B-Double to service the site, as well as 20m articulated vehicles, as shown in the vehicle tracking diagrams included as **Appendix C**. As shown in these diagrams, all service vehicles would be able to enter and exit the site in a forward direction.

On-site refuse collection is proposed, with refuse collection vehicles able to travel directly to the bin store area in the south-eastern corner of the site for collection (either front-loading or rear-loading, depending upon the size of the bins), and exiting the site in a forward gear.

Overall, the proposed servicing arrangements are considered to be appropriate given the nature and scale of the development.

3.5 Bicycle Parking Provision

Under the City Plan's Transport Code (Section 9.4.13), bicycle parking for staff use (Security Level B) is to be provided for Medium Impact Industry uses at a rate of 1 bicycle space per 150m² TUA. This rate is however considered excessive in the case of the proposed development as the majority of floor space will be used for warehousing (low employee density).

As such, the following bicycle parking rates for Warehouse developments are considered to be more appropriate:

- 1 space per 800m² TUA for staff use (Security Level B); and
- 1 space per 200m² TUA for visitor parking (Security Level C)

Given the nature of the proposed development however, the number of visitors to the site is expected to be extremely low, and the visitor bicycle parking demand is therefore expected to be negligible. As such, it is considered reasonable that only staff bicycle parking be provided. This would generate a requirement for six (6) bicycle parking spaces based upon the staff bicycle parking rate for Warehouse developments.

As shown in the plans included as **Appendix A**, a bicycle parking area is proposed adjacent to the office, with six (6) bicycle rails to be provided. This area would therefore accommodate at least six (6) bicycles, which is considered to be an appropriate level of provision based upon the scale and nature of the proposed development.

The detail of bicycle parking devices could reasonably be addressed at detailed design stage, in response to a condition of the approval.

4.0 Traffic Impact Assessment

The RTA Guide to Traffic Generating Developments provides traffic generation rates for various land uses. The peak hour traffic generation rate suggested for warehouse developments is 0.5 trips per 100m² GFA.

Based upon the total GFA of 4,950m² the estimated trip generation is therefore 25 vehicle trips in the peak hour. This is equivalent to fewer than one (1) vehicle trip per two (2) minutes, on average, during the peak hour. This level of traffic generation is low, and once distributed onto the surrounding road network, would be within the range of typical fluctuations in traffic volumes.

Furthermore, it is assumed that the site usage will be generally consistent with what was envisaged for the lot as part of the 'parent' subdivision of the land at 84-160 Christensen Road South (approved under MIN/2020/494).

In light of the above, no material impact upon the performance of the surrounding road network is anticipated as a result of the development. As a consequence, no external roadworks should be imposed upon this development, and any impacts (however minor) could be mitigated by way of infrastructure charges levied against the development.

5.0 Recommendation

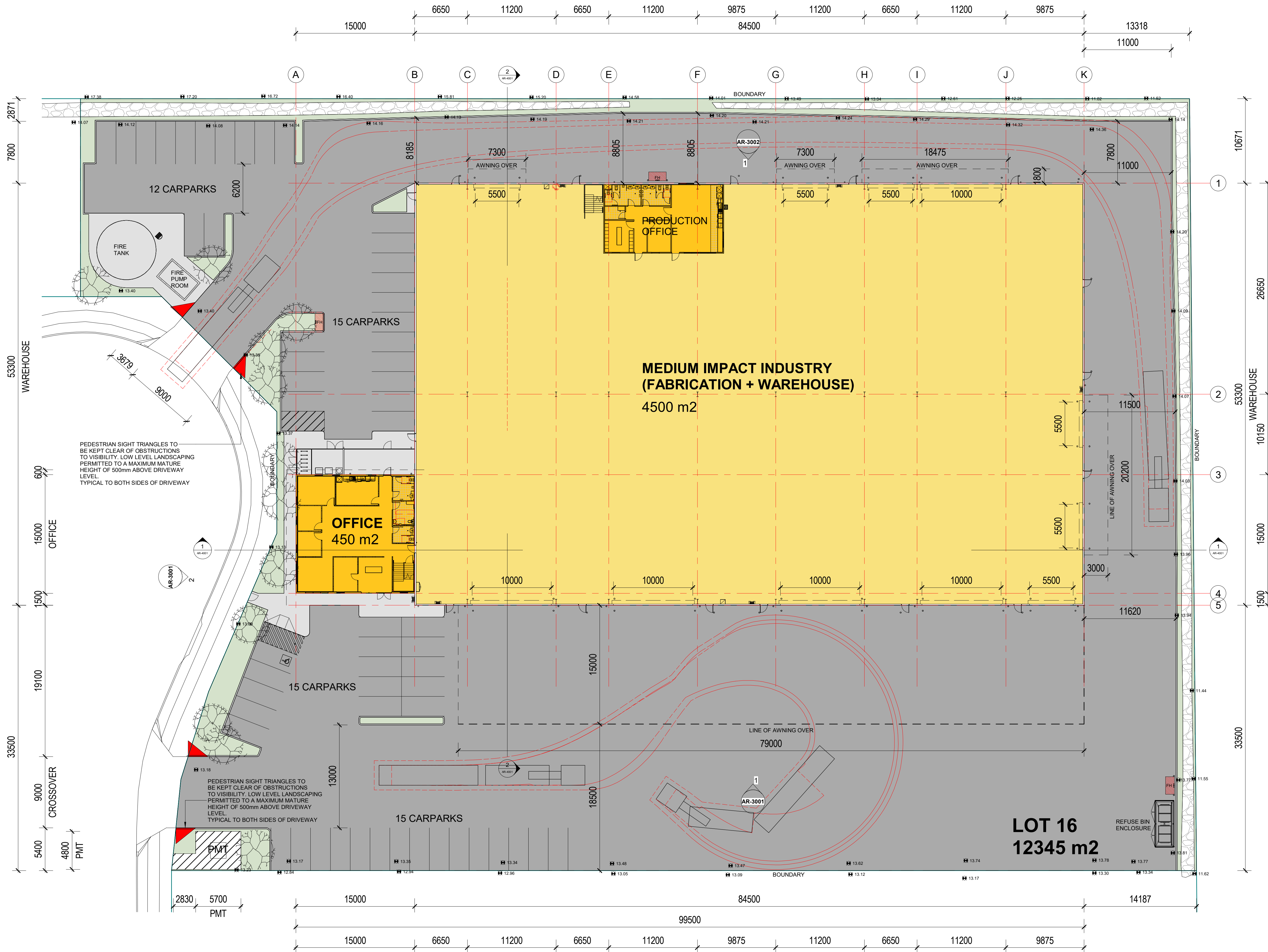
In light of the information contained within this report, we consider that the proposal is satisfactory from a traffic operations perspective and recommend that the development application be approved.

5.1 Qualifications

This report has been approved by Richard Quinn | Director | RPEQ 08565

APPENDIX A

Architectural Plans



DEVELOPMENT SUMMARY

LOT 16 PROXIMITY PLACE
on DP 320479
SITE AREA 12345 m2

PROPOSED DEVELOPMENT
CLASS 8 AND 5
TYPE B CONSTRUCTION

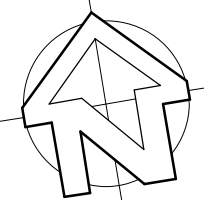
MEDIUM IMPACT INDUSTRY TOTAL	4636 m2	GFA 4595 m2
OFFICE - GROUND FLOOR	254 m2	GFA 233 m2
OFFICE - FIRST FLOOR	224 m2	GFA 191 m2
OFFICE TOTAL	478 m2	GFA 424 m2
TOTAL	5114 m2	GFA 5019 m2
AWNING	1291 m2	

CARPARKING	
REQUIRED	57
PROVIDED	57

LANDSCAPING 490 m2 / 4.0%

1 SITE PLAN
1:250

0 5 10 15 20 25m 1:250 @ A1

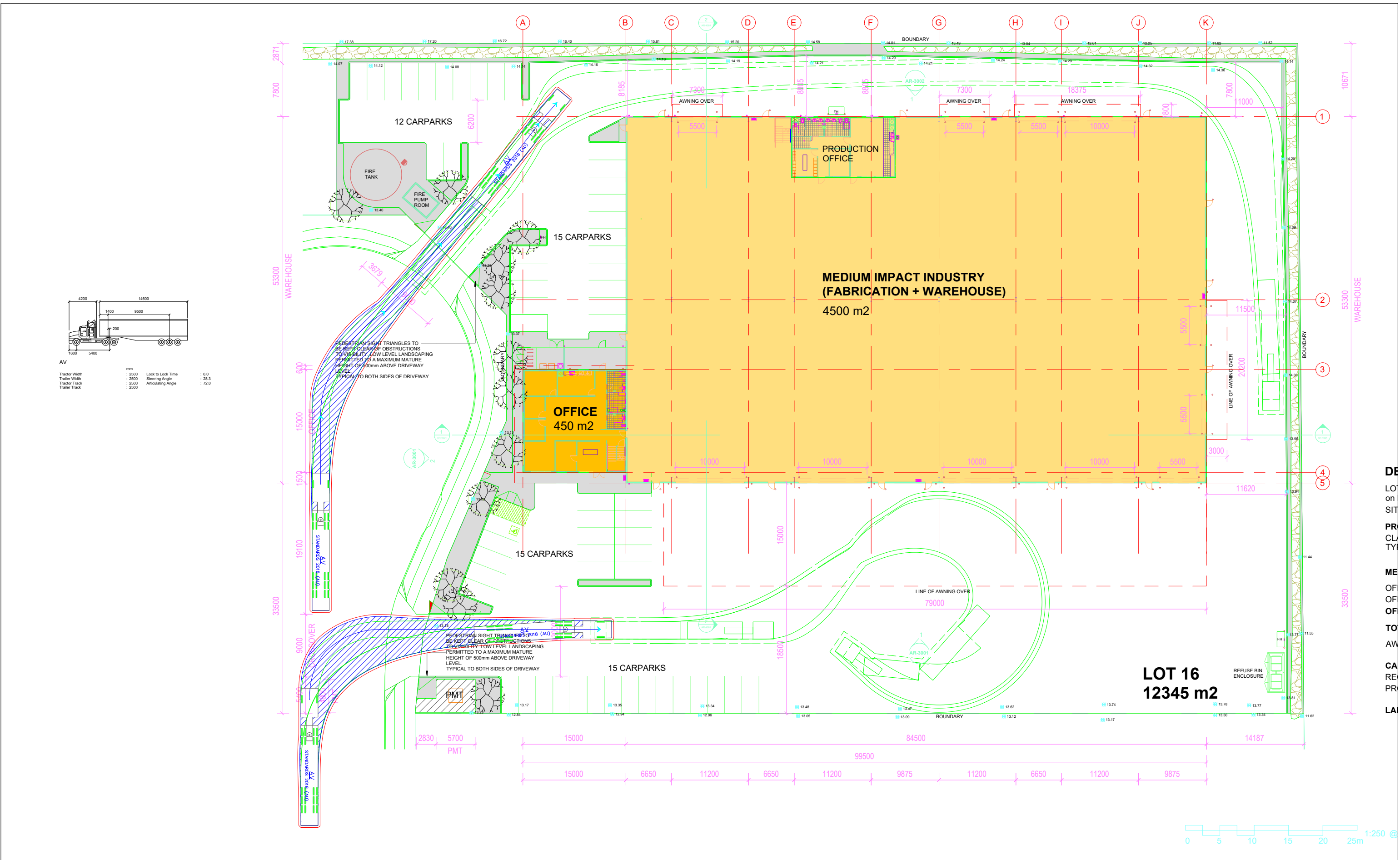


ISSUED FOR
DEVELOPMENT APPROVAL

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APPENDIX B

Swept Path Analysis – Access Driveways



I, Richard Quinn (RPEQ 08565), certify that the swept paths have been carried out in accordance with AS2890.1 and/or AS2890.2

Richard Quinn

LEGEND

- Vehicle Wheelpath
- Body of Vehicle
- 300mm Clearance Envelope from Body of Vehicle

drawing title

Lot 16 Proximity Place, Stapylton
Vehicle Tracking Analyses

drawn: RQ

Scale: 1:500 @ A3

date: 14/11/2023

1923_IPL65

project no.

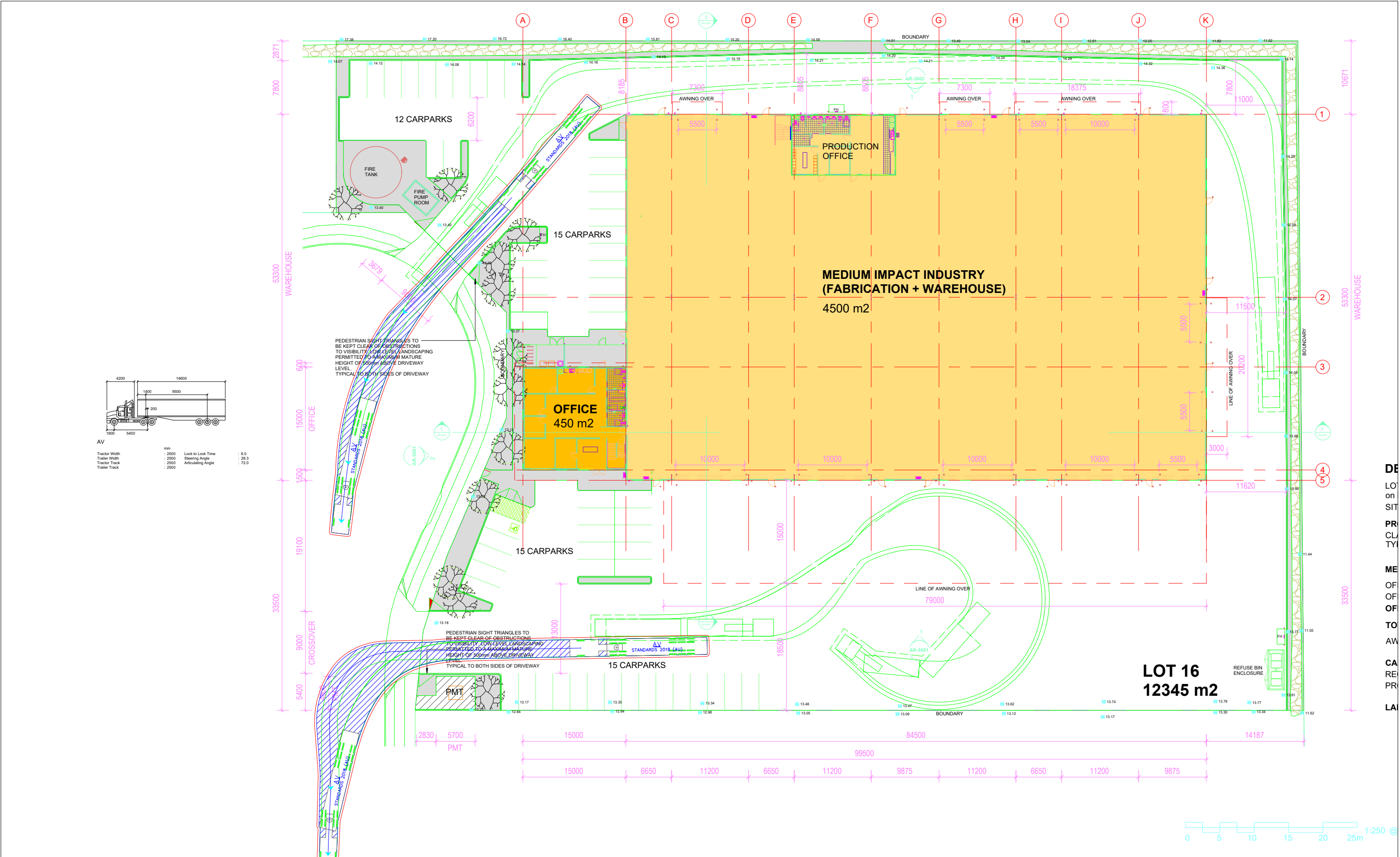
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Richard Quinn

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drawing title

Lot 16 Proximity Place, Stapylton
Vehicle Tracking Analyses

drawn: RQ

Scale: 1:500 @ A3

date: 14/11/2023

1923_IPL65

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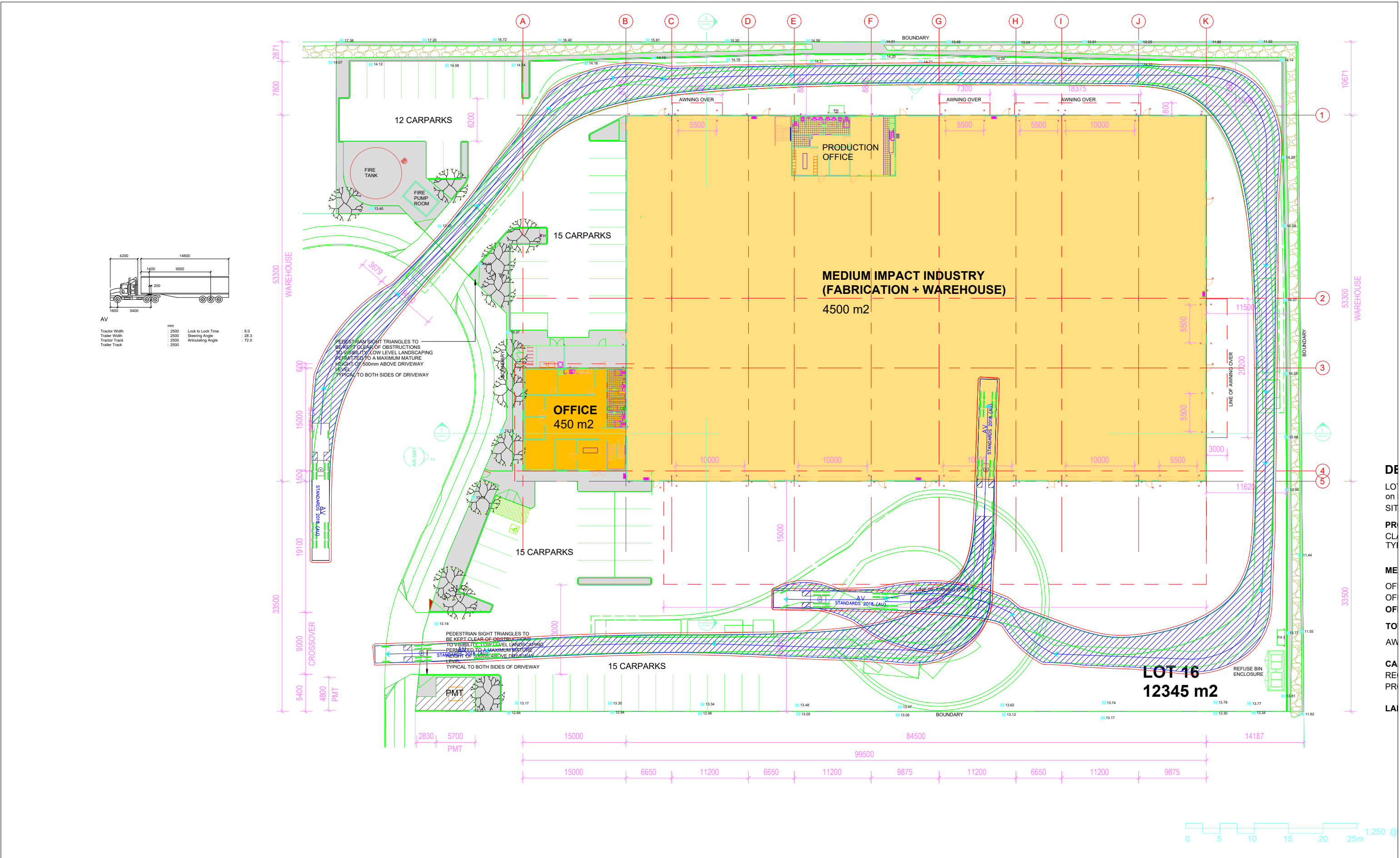
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APPENDIX C

Swept Path Analysis – Internal Circulation and Manoeuvring



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Richard Quinn

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drawing title

Lot 16 Proximity Place, Stapylton
Vehicle Tracking Analyses

drawn: RQ Scale: 1:500 @ A3 date: 14/11/2023

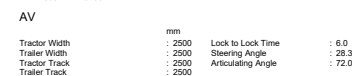
The base drawing is provided to Q Traffic by others. This drawing is draft for discussion purposes only.

1923_IPL65 project no.

SK.05 drawing no.

A rev

QTraffic Engineering Consultants



Richard Quinn

- Vehicle Wheelpath
- Body of Vehicle
- 300mm Clearance Envelope from Body of Vehicle

drawing title		
Lot 16 Proximity Place, Stapylton Vehicle Tracking Analyses		
drawn: RQ	Scale: 1:500 @ A3	date: 14/11/2023
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1923_IPL65	SK.06	A
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