

“PRESTONS INDUSTRIAL ESTATE”
PROPOSED WAREHOUSE
DEVELOPMENT
S96(2) APPLICATION (MOD 3)
CNR YARRUNGA STREET AND KOOKABURRA ROAD,
PRESTONS
Assessment of Traffic and Parking
Implications

June 2017
(Rev C)

Reference 15168

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Transportation, Traffic and Design Consultants
Suite 502, Level 5
282 Victoria Avenue
CHATSWOOD 2067
Telephone (02) 9411 5660
Facsimile (02) 9904 6622
Email: info@ttpa.com.au

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1. INTRODUCTION

This report has been prepared to accompany a S96(2) Application to Planning and Environment NSW for a proposed modification to an approved warehouse development scheme for the “Prestons Industrial Estate” which is located in the southern part of the large industrial precinct at Prestons (Figure 1).

The Prestons area is a developing mixed industrial precinct which has evolved on largely vacant land bound by Kurrajong Road, Westlink M7 and Cabramatta Creek. There is a wide range of industrial, manufacturing, warehouse, waste recycling and other uses in the area which has excellent access to the arterial road system that links to the regional motorway systems.

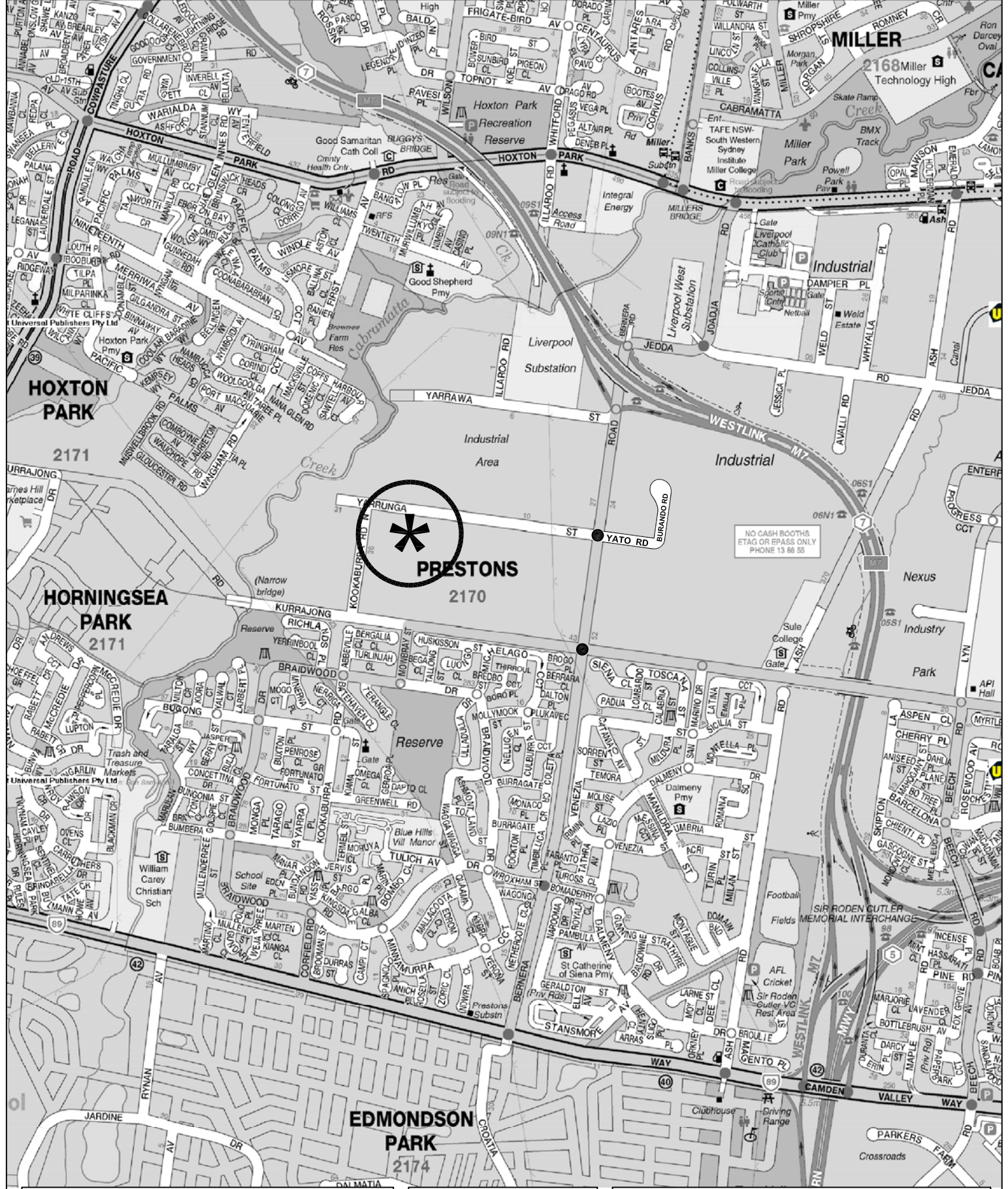
Approval has been granted for the staged development of the “Prestons Industrial Estate” comprising 5 warehouse buildings with ancillary offices. Warehouses 2 and 5 have been constructed and occupied while a separate S96(2) application it is proposed to modify Warehouse 3 and to introduce an indoor sports and leisure centre use into Warehouse 4.

The subject S96(2) Application proposes to extend the Estate site to the west and to:

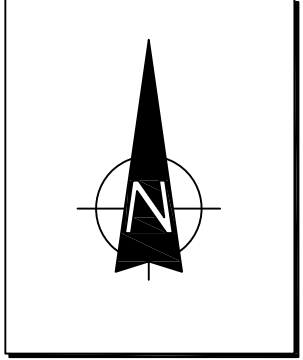
- extend the approved Warehouse 1 west (Building 1B)
- provide a Sales, Spare parts and Servicing facility for Volvo

The purpose of this report is to:

- * describe the site, the approved development scheme and the proposed S96(2) modification
- * describe the road network serving the site and the prevailing traffic conditions
- * assess the potential traffic implications in the context of the two S96(2) applications having regard for the proposed access intersection upgrade
- * assess the adequacy of the proposed parking provision
- * assess the suitability of the proposed vehicle access, internal circulation and servicing arrangements



LEGEND



LOCATION

FIG 1

2. PROPOSED DEVELOPMENT

2.1 SITE AND CONTEXT

The Prestons Industrial Estate site (Figure 2) has been expanded to incorporate Lots A and B in DP 408207 and now occupies an irregular shaped total area of approximately 24.34ha with frontages to the Yarrunga Street, Bernera Road and Kookaburra Road in the southern part of the Prestons Industrial Precinct.

The nearby uses comprise:

- * the surrounding existing and developing industrial uses
- * the residential area extending to the south of Kurrajong Road

2.2 APPROVED DEVELOPMENT

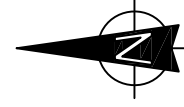
The approved development scheme for the Prestons Industrial Estate comprised:

WAREHOUSE FACILITY 1		WAREHOUSE FACILITY 4	
Warehouse	26,950m ²	Warehouse	3,285m ²
Office	1,800m ²	Office	300m ²
WAREHOUSE FACILITY 2		WAREHOUSE FACILITY 5	
Warehouse	30,005m ²	Warehouse	32,400m ²
Office	820m ²	Warehouse Mezzanine	6,560m ²
		Dock Office	55m ²
		Office Area	650m ²
WAREHOUSE FACILITY 3		TOTAL	
Warehouse	12,280m ²	Warehouse	111,480m ²
Office Area	1,100m ²	Office	4,725m ²
		Building	116,205m ²



SITE

LEGEND



LOCATION

FIG 2

The approved vehicle accesses comprise:

- * 2 ingress/egress driveways on the Yarrunga Street frontage for truck access
- * 4 combined ingress/egress driveways on the Yarrunga Street frontage for cars
- * An ingress/egress driveway on the Bernera Street frontage for cars
- * An ingress/egress driveway on the Bernera Street frontage for trucks

Details of the approved development scheme are provided on the plans prepared by Axis Architectural which are reproduced in part in Appendix A.

2.3 OTHER DEVELOPMENT

The relevant major nearby development is the Charter Hall warehouse complex (M5M7 Logistics Estate) which has frontages to Yato Road and Kurrajong Road. This development scheme involves 4 large warehouse buildings together with an extension of Yato Road and comprises:

Building 1	Building 3	
Warehouse 15,000m ²	Warehouse 30,000m ²	
Office 250m ²	Office 569m ²	
Building 2	Building 4	Total
Warehouse 10,000m ²	Warehouse 25,800m ²	Warehouse 80,000m ²
Office 300m ²	Office 500m ²	Office 1,619m ²

This warehouse complex will have its vehicle access through the Bernera Road, Yarrunga Road and Yato Road intersection and details of this development scheme are provided in Appendix B.

2.4 PROPOSED S96(2) SCHEME

The proposal is to extend the Estate site to the west incorporating 2 lots with the western lot having frontage to Kookaburra Road (as well as Yarrunga Road). This additional area will be combined with the approved Building 1 site and re-subdivided into 2 lots which will be subject to the earthworks to provide level platforms for the new buildings and hardstand areas. It is proposed to provide a warehouse on Site 1B (i.e. larger than the approved Building 1 warehouse) and provide a Spare Parts, Sales and Servicing facility for Volvo on the other lot.

The proposed changed/additional development which is the subject of this application comprises:

Site 1B (incorporating WH1)		Volvo Site	
Area	55,750m ²	Area	29,856m ²
Warehouse	35,365m ²	Building	5,899m ² GLA
Office	1,200m ²	Car Parking	124 spaces
Total	36,565m² GLA	Vehicle access on Yarrunga Street	
Car Parking	152 spaces		
Vehicle access on Yarrunga Street			

Details of the proposed S96(2) development scheme are provided on the plans prepared by Axis Architectural which accompany the Application and are reproduced in part in Appendix C.

3. ROAD NETWORK AND TRAFFIC CONDITIONS

3.1 ROAD NETWORK

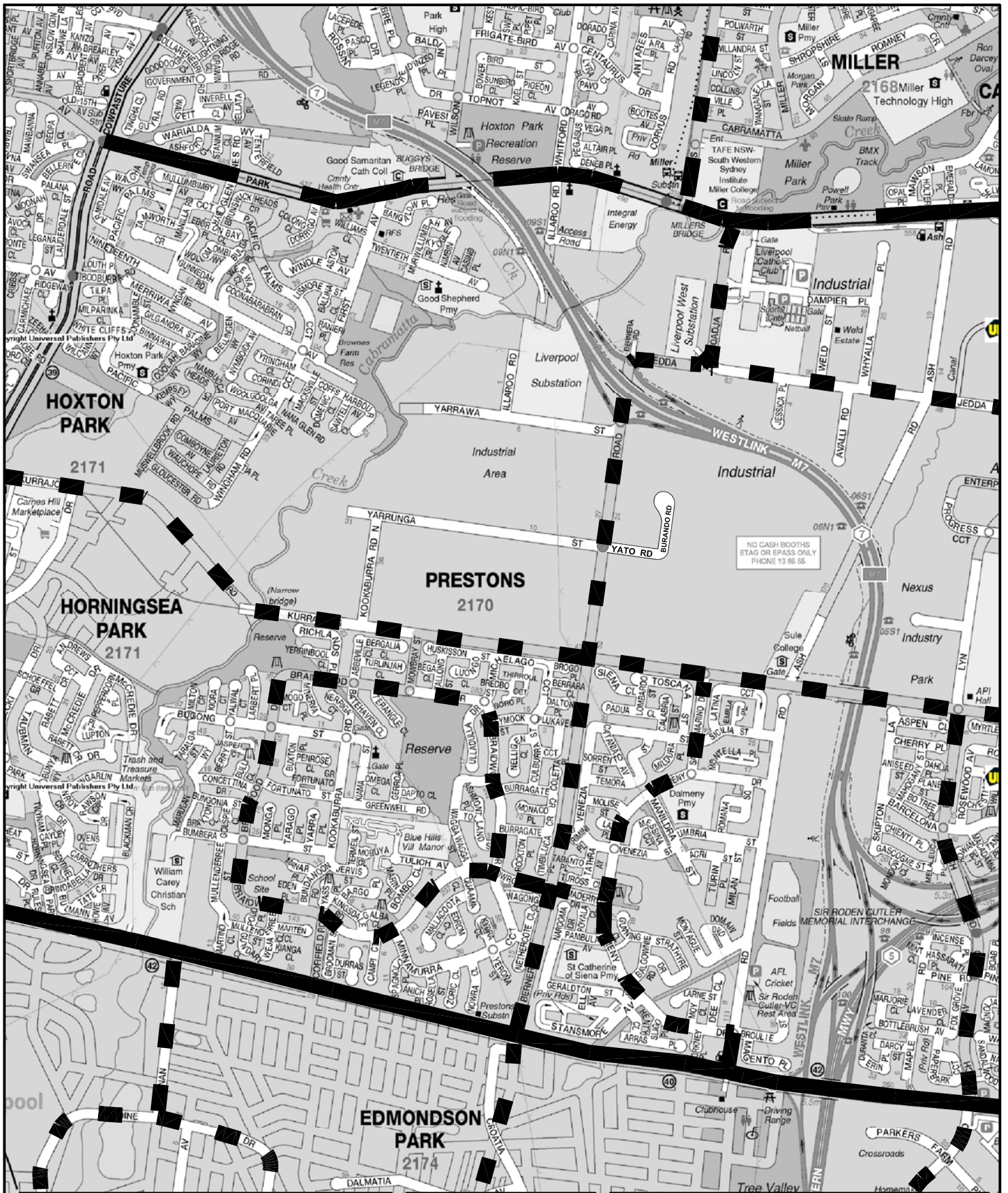
The road network serving the Prestons area (Figure 1) comprises:

Arterial and Sub-Arterial Routes




- * *Westlink (M7) Motorway* which links between the M2 Motorway at Seven Hills and the M5 Motorway at Prestons
- * *South Western (M5) Motorway* which links across the Georges River and continues southwards past Campbelltown
- * *Hume Highway* which runs along the western edge of Liverpool CBD to The Crossroads
- * *Camden Valley Way* which extends from The Crossroads across Cowpasture Road to Camden
- * *Hoxton Park Road* which extends from Hume Highway to Cowpasture Road
- * *Cowpasture Road* which extends northwards from Camden Valley Way across Hoxton Park Road

Collector Road Routes

- * *Kurrajong Road* which extends westerly from Hume Highway and will connect to Cowpasture Road when the current upgrading over Cabramatta Creek is completed
- * *Bernera Road* which extends (north-south) between Camden Valley Way and Hoxton Park Road (via sections of Jedda Road and Joadja Road)
- * *Ryan Avenue* which extends which extends to the south of Camden Valley Way
- * *Croatia Avenue* which extends to the south of Camden Valley Way.



LEGEND

-  **ARTERIAL**
-  **SUB-ARTERIAL**
-  **COLLECTOR**



ROAD NETWORK

FIG 3

There are also numerous other 'lower order' collector routes through the Prestons, Hoxton Park, Horningsea Park, Casula and Lurnea areas including Yarrunga Street / Kookaburra Road North.

3.2 TRAFFIC CONTROLS

The existing traffic controls on the road system (Figure 4) are largely concentrated on the arterial and sub-arterial perimeter roads. Numerous intersections are controlled by traffic signals particularly along the Hume Highway and Camden Valley Way routes providing controlled access and crossing for the collector and local road system.

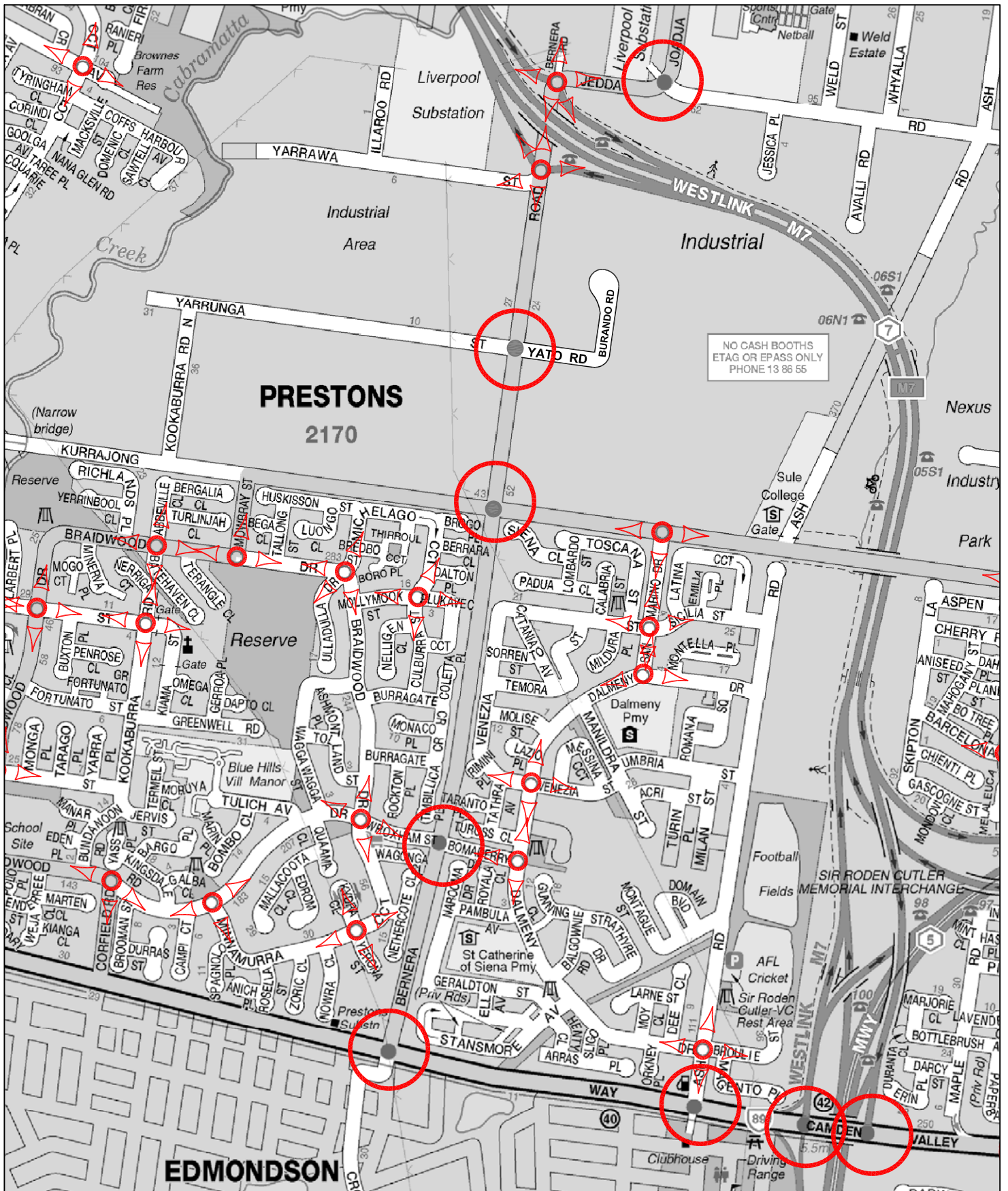
Of particular relevance to the access provisions for the development site are:

- * traffic signal control at the Camden Valley Way, Bernera Road and Croatia Avenue intersection
- * traffic signal control at the Kurrajong Road and Bernera Road intersection
- * traffic signal control at the Bernera Road and Yarrunga Street intersection
- * roundabout controls at the intersections of Bernera Road and Jedda Road with the M7 ON/OFF Ramp intersections

A 70 kmph speed restriction applies along the Camden Valley Way route, however the speed limit on the local and collector road systems is generally 50 kmph.




3.3 TRAFFIC CONDITIONS

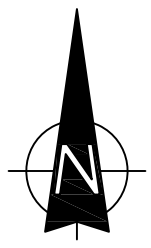
An indication of the existing morning and afternoon peak traffic conditions in the area is provided by traffic surveys undertaken at the principal intersections relevant to the site. The results of these surveys are summarised in Figure 5 and the operational performance of these intersections was assessed using SIDRA for the earlier application. The results for the morning and afternoon peak periods are summarised in the following while the criteria for interpreting SIDRA output is reproduced overleaf:



NO CASH BOOTHS
ETAG OR EPASS ONLY
PHONE 13 86 55

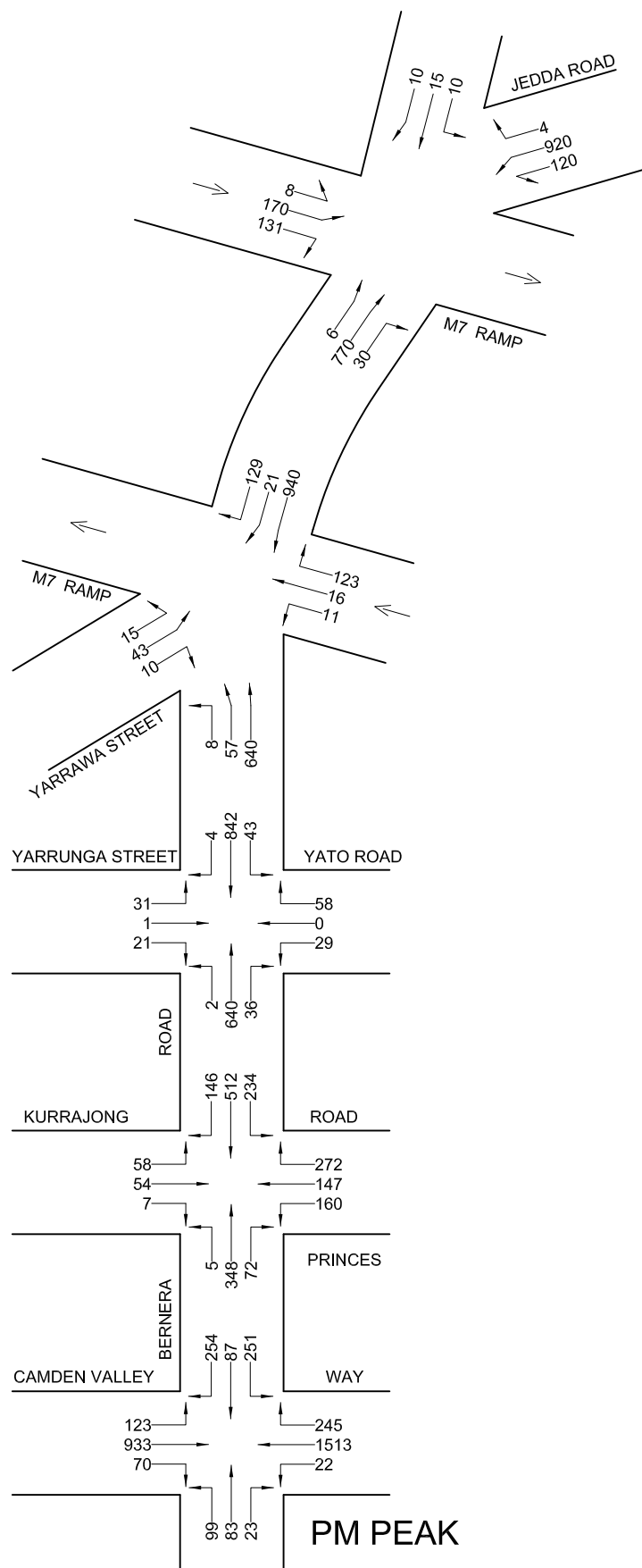
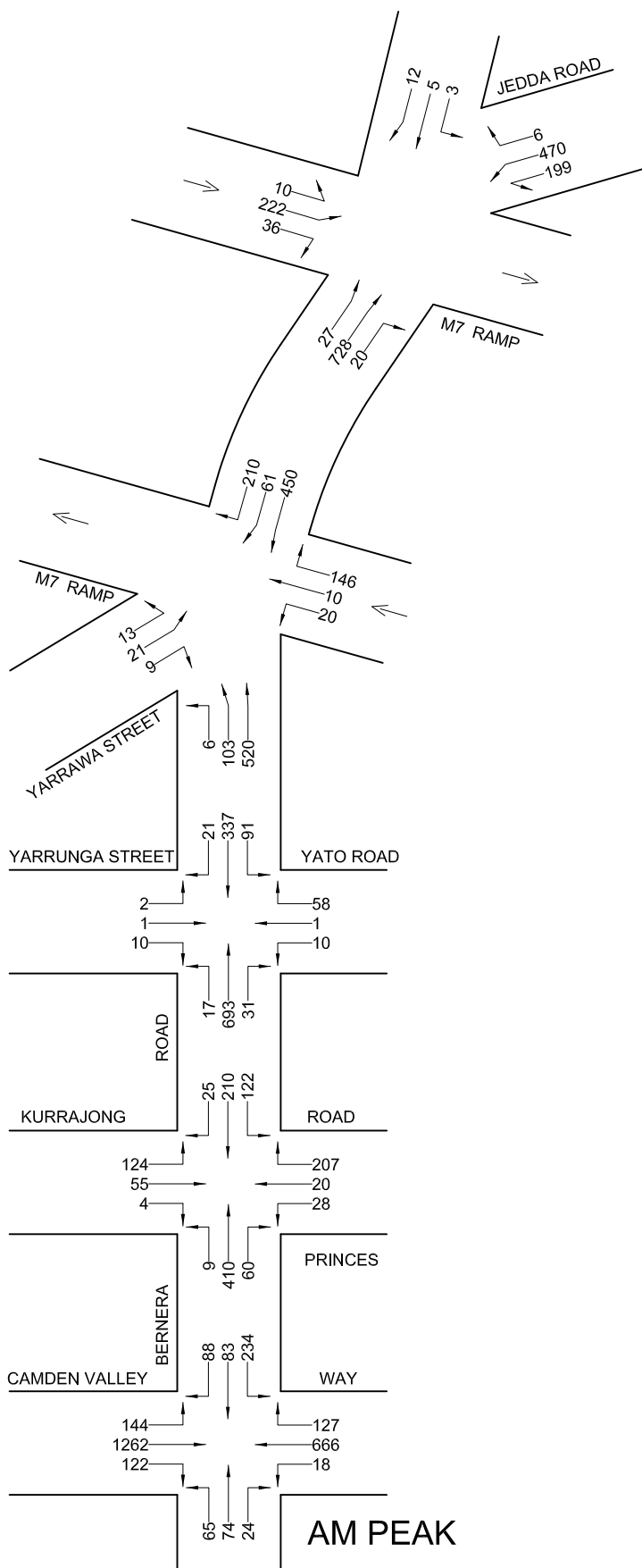
LEGEND

-  TRAFFIC SIGNAL CONTROL
-  ROUNDABOUT
-  RESTRICTED TURNING MOVEMENT



TRAFFIC CONTROLS

FIG 4



LEGEND



**EXISTING PEAK
TRAFFIC MOVEMENTS**

FIG 5

	AM		PM	
	LOS	AVD	LOS	AVD
Bernera/Yarrunga	A	9.4	A	10.4
Bernera/Kurrajong	B	23.5	B	25.1
CVWY/Bernera	B	17.2	B	25.9
Bernera/M7	A	5.8	A	4.6
Jedda/M7	A	6.6	A	6.7

The results of this assessment indicate that these intersections currently operate with a satisfactory level of service.

3.4 PROPOSED INTERSECTION UPGRADE

In order to accommodate the additional traffic demands of development on both the Prestons Industrial Estate and the M5M7 Logistic Estate, it has been agreed that the Bernera Road, Yarrunga Street and Yato Road intersection will be significantly upgraded. Details of the upgrading scheme are provided on the plan prepared by Costin Roe Consulting which is reproduced in Appendix D.

3.5 TRANSPORT SERVICES

At the present time, there is only somewhat limited public transport servicing of the Prestons area. The railway stations at Edmondson Park, Glenfield, and Casula are some 3 to 4km from the site where the Cumberland, Airport and East Hills, Inner West and Southern Railway lines provide connections to the Liverpool, Campbelltown, Fairfield, Bankstown, Parramatta and the Sydney CBD areas.

'Busabout' currently operates along Camden Valley Way with the Route 864 and 867 services providing connection to Glenfield Railway Station and Route 856 and 857 providing connection to Liverpool Railway Station and Interchange (see Appendix E details).

Criteria for Interpreting Results of SIDRA Analysis

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good	Good
'B'	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
'C'	Satisfactory	Satisfactory but accident study required
'D'	Operating near capacity	Near capacity and Accident Study required
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode
'F'	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below, which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabouts	Give Way and Stop Signs
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by **traffic signals**¹ both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a **roundabout or GIVE WAY or STOP signs**, satisfactory intersection operation is indicated by a DS of 0.8 or less.

¹ the values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs

4. TRAFFIC

The traffic generation rate adopted for the previous Prestons Industrial Estate assessment had regard for the results of surveys of comparable warehouse sites in a recent RMS publication. The relevant surveyed results for Sites 1 and 3 from TDT 2013-4b are as follows:

	Site 1	Site 3	Average
Site Peak AM	0.15	0.20	0.18
Site Peak PM	0.16	0.19	0.18
Network Peak AM	0.13	0.17	0.15
Network Peak PM	0.14	0.17	0.16

These are very consistent results and the reasons for the difference between these generation rates and the earlier former RTA criteria are:

- * large contemporary warehouses with low staffing levels
- * 12 hour shifts where worker arrival/departure does not occur during the network commuter peak periods

It is appropriate to assess the compound traffic outcome resultant to the two proposed S96(2) applications as follows:

Warehouse 1B		Warehouse 3 (Total of 3)	
Warehouse	35,370m ²	Warehouse	10,854m ²
Office	1,200m ²	Office	1,500m ²
Warehouse 2		Warehouse 5	
Warehouse	30,005m ²	Warehouse	32,400m ²
Office	820m ²	Mezzanine	6,560m ²
		Office	705m ²
Total Warehouse	108,629m²		
Total Office	4,225m²		
Total	112,854m²		

Application of a worst case peak generation rate derived from the RMS working paper of say 0.19 vtpm per 100m² (i.e. rather than 0.15-0.17) to the total warehouse building area of 119,070m² indicates a total traffic generation of 226 vtpm for the AM & PM on-street peak periods. The proposed Volvo facility will be a replication (and relocation) of their existing facility at 120 Hume Highway, Chullora (building of 6,860m²). Traffic surveys have been undertaken at the existing Chullora site, which has accesses on Hume Highway and Anzac Street, and the following peak access movements were recorded.

		AM		PM	
		Truck	Car	Truck	Car
Anzac	IN	8	23	4	3
	OUT	7	5	2	29
Highway	IN	3	14	2	3
	OUT	2	3	1	15
Total	IN		48		12
	OUT		17		47

The projected total traffic generation of all of the warehouses together with the Volvo facility is as follows:

		AM		PM	
		IN	OUT	IN	OUT
		206	85	80	205

The proposed Sports and Leisure use in Building 4 will reflect that of the comparable existing Hills Sports Centre at 20 Distribution Place, Seven Hills which is identified on the image overleaf. The results of traffic surveys undertaken at this centre during the weekday morning and afternoon road network peak periods are provided in Appendix F and summarised in the following.

Total Peak Traffic Generation			
AM (7.45 – 8.45)		PM (5.00 – 6.00)	
IN	OUT	IN	OUT
33	9	60	72

11/28/2015

20 Distribution Pl



Assessment of the directional distribution of the vehicle movements generated by development on the Prestons Industrial Estate has had regard for the survey results of the existing industrial access movements at the Bernera Road/Yarrunga Street/Yato Road intersection. All of the existing, proposed warehouse and Volvo elements will have vehicle access on Yarrunga Road except for the very minor truck “breezeway” egress for Building 3B while the proposed Indoor Sports Centre element will have left turn IN/OUT access on Bernera Road.

Assessment of the existing intersection movements indicates:

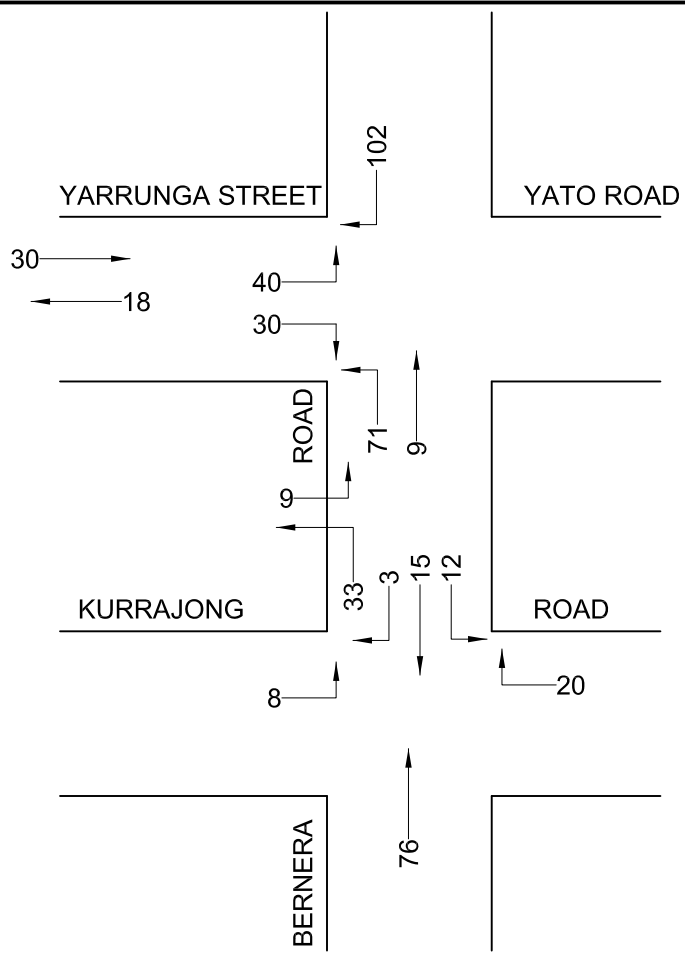
- * a peak directional split (i.e. IN/OUT) of 70%/30%
- * a geographical split of 60% north and 40% south on Bernera Road

The assessed generated traffic movements resultant to the two S96(2) applications for the AM and PM “network” peak periods on this basis (incorporating the Sports Centre movements) are shown on Figure 6.

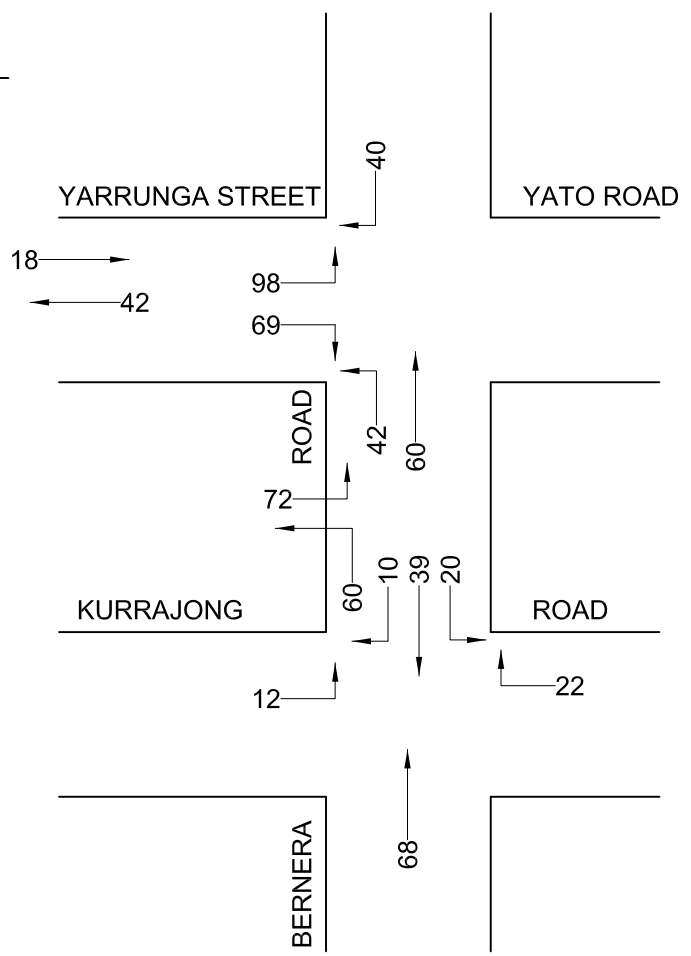
The proposed Charter Hall development in Yato Road has a projected total traffic generation of 173 vtp/h in the AM and PM road network peak periods. The projected traffic movements at the Bernera Road, Yarrunga Street and Yato Road intersection consequential to the S96(2) applications and the Charter Hall development are shown on Figure 7.

A SIDRA intersection assessment has been undertaken in relation to this outcome. The results of the SIDRA modelling indicating a satisfactory operational performance outcome are provided in Appendix G and summarised in the following:

	AM		PM	
	LOS	AVD	LOS	AVD
Bernera/Yarrunga	C	32.6s	D	48.7s

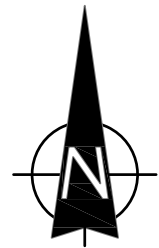


AM PEAK



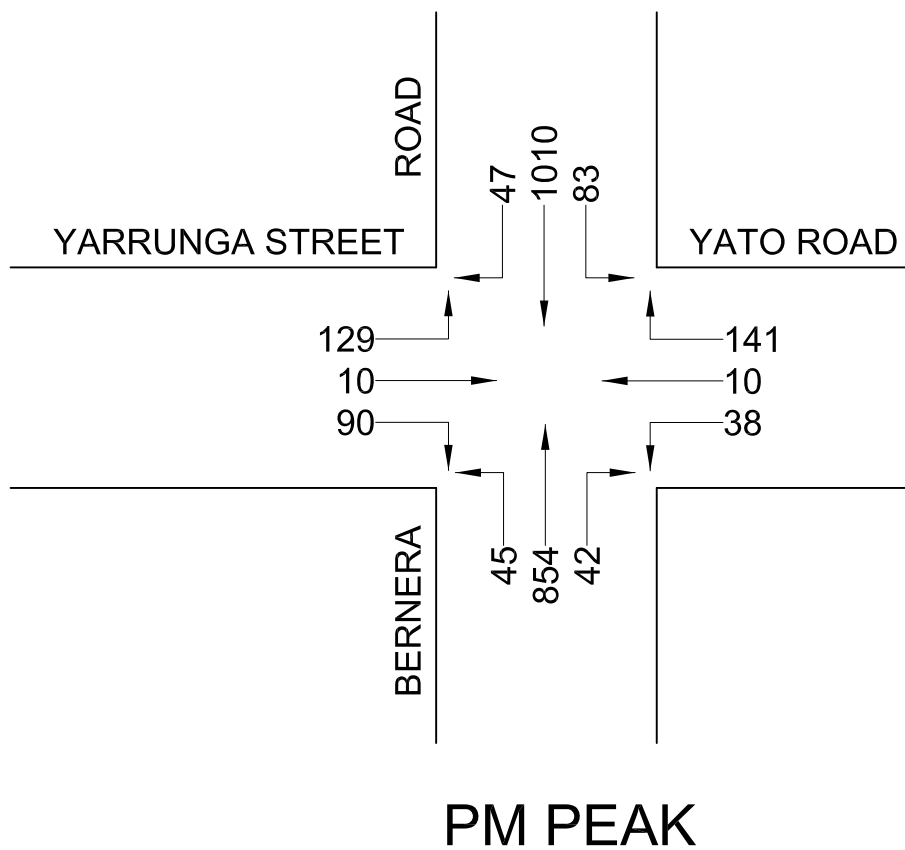
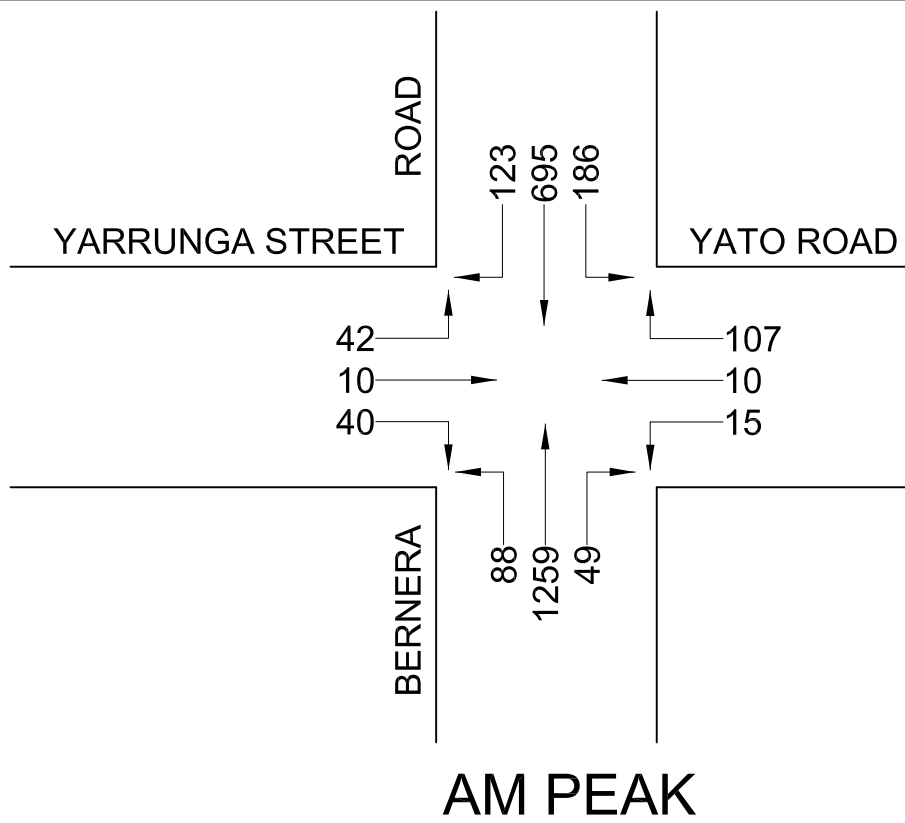
PM PEAK

LEGEND



GENERATED TRAFFIC MOVEMENTS

FIG 6



LEGEND



**TOTAL PEAK
TRAFFIC MOVEMENTS**

FIG 7

5. PARKING

The parking provision criteria for 'warehouse' use contained in a number of Metropolitan Councils DCP's do not reflect the realities of contemporary warehouse and distribution centre type uses. Liverpool City Councils parking criteria is typical in specifying the following.

Warehouse

- * 1 space per 35m² of office LFA
- * 1 space per 75m² of warehouse LFA

It has been the accepted practice for large contemporary warehouse developments to assess parking provision with reference to the RMS Guidelines which specify a parking provision for warehouse use of 1 space per 300m² (warehouse and office floorspace) and this was the accepted approach for the previous approvals for the Prestons Industrial Estate and M5M7 Logistic Estate developments.

For these developments, it has been accepted that a parking provision in the range of 1 space per 200m² to 300m² is applicable and the parking provision for the proposed S96(2) warehouse outcome are as follows:

Warehouse 1B 36,565m² - 152 spaces (1 space per 241m²)

The proposed Volvo facility is a unique combination of uses not covered by any RMS or DCP criteria and in these circumstances, it is appropriate to make comparison with a comparable existing situation. This is provided by the existing Volvo facility at Chullora where 132 car parking spaces are provided along with spaces for vehicle display and storage/waiting for servicing.

It is apparent that the proposed parking provisions will be adequate and appropriate with a suitable provision of accessible spaces.

6. ACCESS, INTERNAL CIRCULATION AND SERVICING

ACCESS

The proposed changed/additions to the approved vehicle access provisions for the proposed S96(2) development comprise:

- * deletion of the proposed carpark access directly on Yarrunga Street with this access now to connect to the cul-de-sac driveway shared with Building 2 & 5
- * a 12.0m wide combined ingress/egress driveways for trucks and car on the Yarrunga Street frontage of the Volvo facility being located well away from the Kookaburra Road intersection

The proposed vehicle accesses will be located where good sight distances are available and there will be appropriate separation from intersections and each other. The truck accesses will accommodate all vehicles requiring access to the site as indicated on the turning path diagrams in Appendix H.

INTERNAL CIRCULATION

The design of the carpark areas complies with the requirements of AS2830.1 and 6 with quite satisfactory provision for turning and manoeuvring.

The design of the loading dock areas including driveways and manoeuvring areas for warehouse B and the Volvo facility comply with AS2890.2 and will accommodate B Double trucks.

The ability for trucks to manoeuvre on the site is confirmed by the turning path assessments for representative movements which are depicted on the diagrams in Appendix H.

SERVICING

Refuse will be removed by contract vehicle and this vehicle as well as other service vehicles will be able to utilise the large hardstand areas provided.

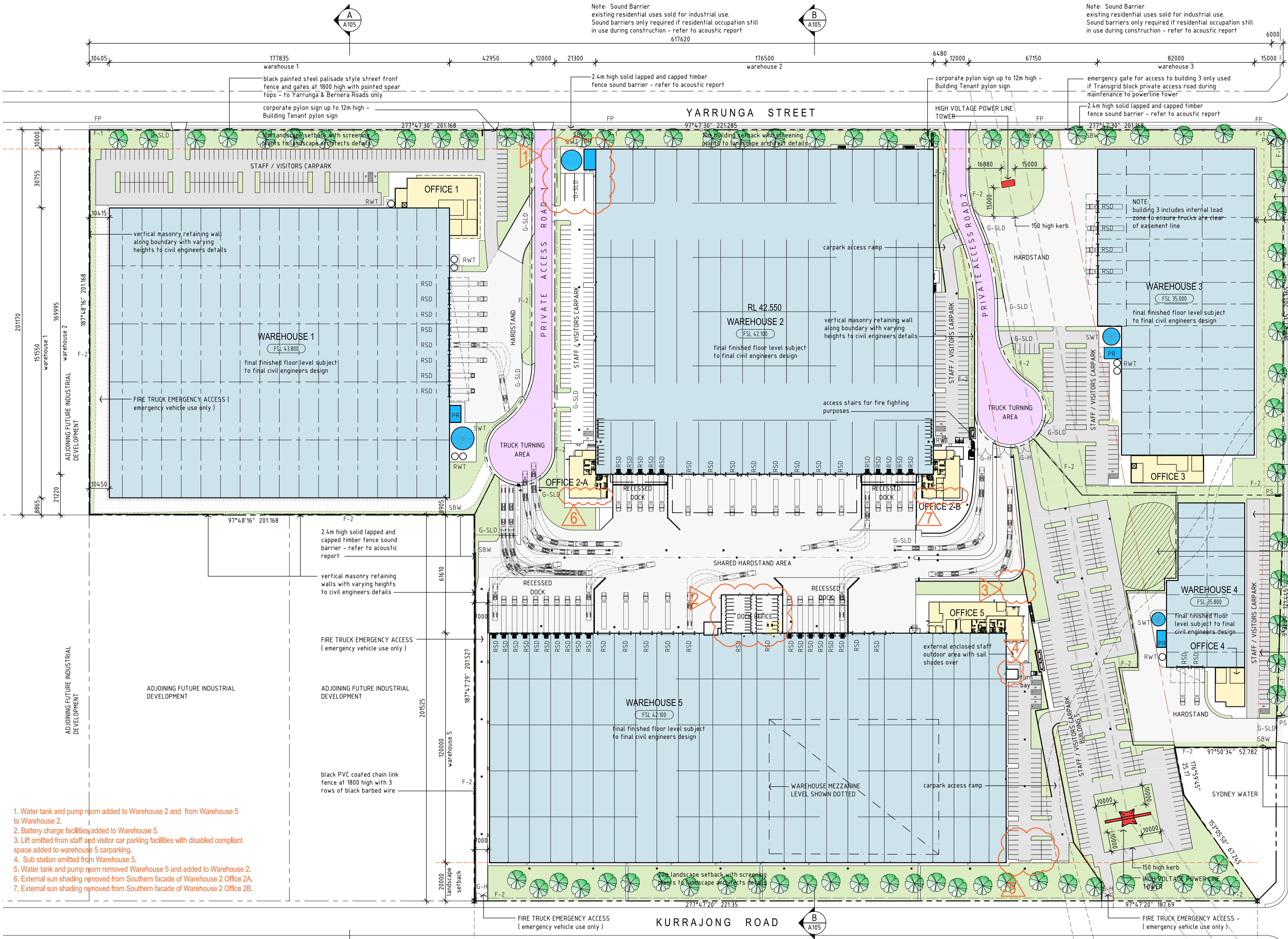
7. CONCLUSION

This assessment of the potential traffic and parking implications of the proposed S96(2) (MOD3) development scheme for the Prestons Industrial Estate has concluded that:

- * there will not be any unsatisfactory traffic implications
- * the proposed parking provision will be suitable and adequate
- * the proposed vehicle access arrangements will be appropriate and will accommodate all vehicles requiring to access the site
- * the proposed internal circulation arrangements will be suitable and appropriate for the manoeuvring and standing of trucks and cars

APPENDIX A

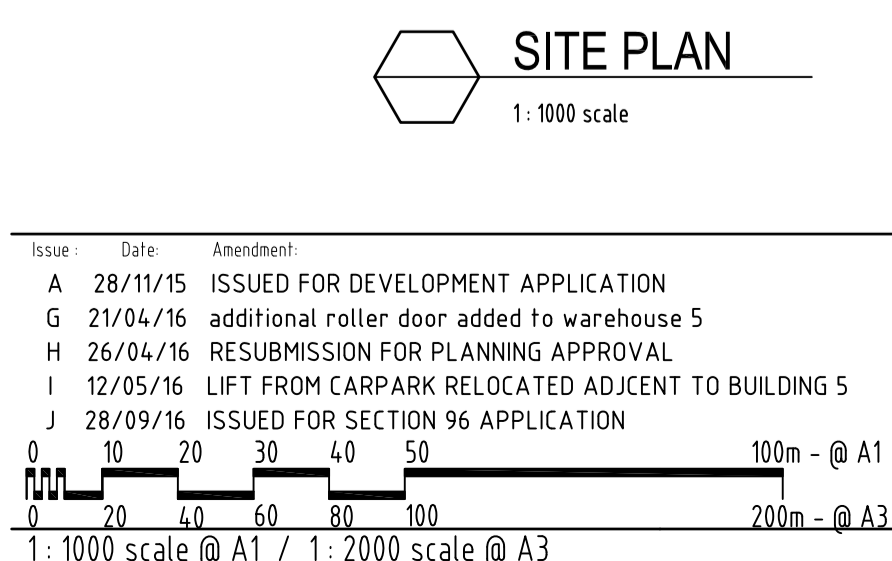
APPROVED PLANS



ABBREVIATIONS - GENERAL	
FP	footpath - street path 1.2m wide
F-1	fence type 1 - 1800 high black palisade fence with pointed spear tops
F-2	fence type 2 - 1800 high black chain link fence with 3 rows of barb wire
FSL	finished structural level
G-SLD	gate - sliding
G-H	gate - hinged
PR	pump room for fire service
PS	pylon sign
RSD	roller shutter door - power operated
RWT	rain water tank
SBW	sound barrier wall - 2.4m high lapped timber
SWT	sprinkler water tank for fire service

- Water tank and pump room added to Warehouse 2 and from Warehouse 5 to Warehouse 2.
- Battery charge facilities added to Warehouse 5.
- Lift omitted from staff and visitor car parking facilities with disabled compliant space added to warehouse 5 carparking.
- Sub station omitted from Warehouse 5.
- Water tank and pump room removed Warehouse 5 and added to Warehouse 2.
- External sun shading removed from Southern facade of Warehouse 2 Office 2A.
- External sun shading removed from Southern facade of Warehouse 2 Office 2B.

SECTION 96 APPLICATION TO MODIFY EXISTING DEVELOPMENT APPLICATION



Development Manager:
LOGOS LOGOS Property Group
Suite 12.02 / 167 Macquarie Street
Sydney NSW 2000
F: + 612 9119 6066 F: + 612 9231 0948

Project Manager:
DBL PROPERTY
Project / Development Managers
Level 6 / 432 Kent Street
Sydney NSW 2000
F: + 612 9267 4267 F: + 612 9267 4265

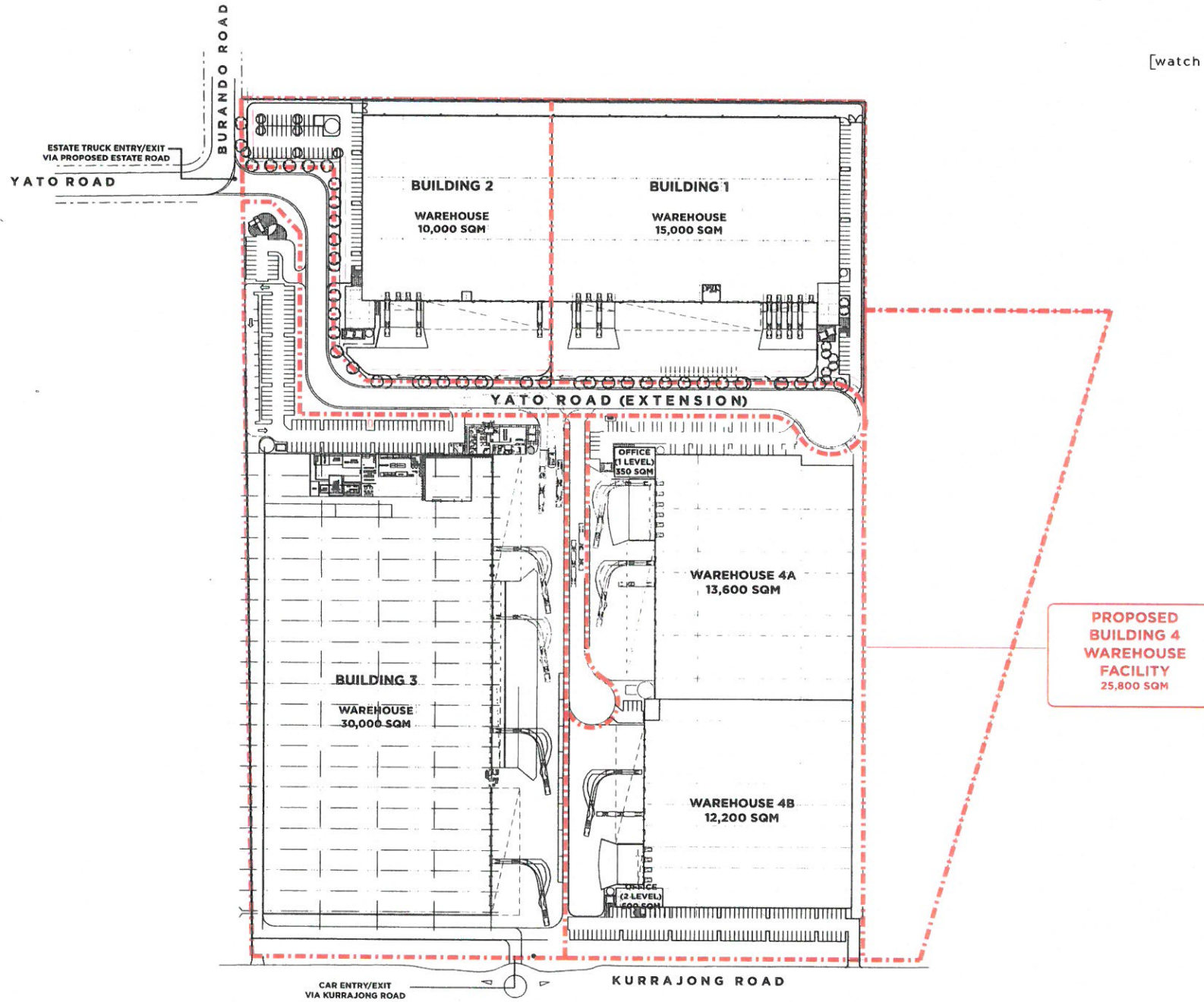
PRESTONS INDUSTRIAL ESTATE
PROPOSED WAREHOUSE DEVELOPMENT
Cnr YARRUNGA STREET & BERNERA ROAD, PRESTONS NSW

AXIS ARCHITECTURAL
4 / 112 Cronulla Street, Cronulla NSW 2230
p + 02 9523 7858 / m + 0414 954 405
e + david@axisarchitects.com.au
AXIS ARCHITECTURAL Pty Ltd - ABN 18 086 853 376
Nominated Architect - David McDonald NSW ARB No. 7997

Drawn: AA	Project No: 140604	Drawing No: S96 - A 102	Issue: J
Date: November 2015	Scale: 1:1000 @ A1	Scale: 1:2000 @ A3	

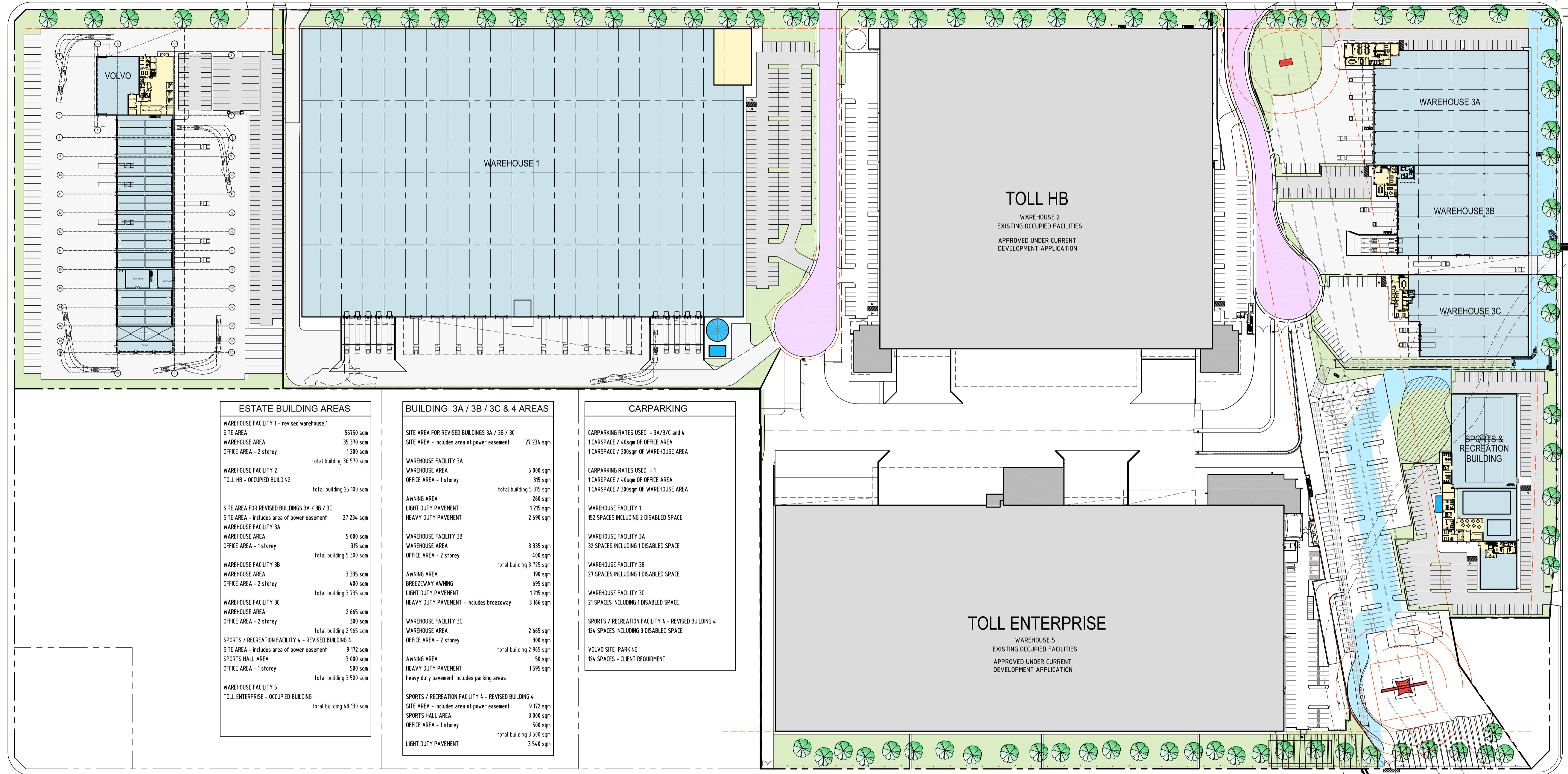
APPENDIX B

OTHER DEVELOPMENT PLANS



APPENDIX C

S96(2) PLANS



ESTATE BUILDING AREAS	
WAREHOUSE FACILITY 1 - revised warehouse 1	
SITE AREA	55750 sqm
WAREHOUSE AREA	35 370 sqm
OFFICE AREA - 2 storey	1 200 sqm
total building	36 570 sqm
WAREHOUSE FACILITY 2	
TOLL HB - OCCUPIED BUILDING	
total building	25 100 sqm
SITE AREA FOR REVISED BUILDINGS 3A / 3B / 3C	
SITE AREA - includes area of power easement	27 234 sqm
WAREHOUSE FACILITY 3A	
WAREHOUSE AREA	5 000 sqm
OFFICE AREA - 1 storey	315 sqm
total building	5 300 sqm
WAREHOUSE FACILITY 3B	
WAREHOUSE AREA	3 335 sqm
OFFICE AREA - 2 storey	400 sqm
total building	3 735 sqm
WAREHOUSE FACILITY 3C	
WAREHOUSE AREA	2 665 sqm
OFFICE AREA - 2 storey	300 sqm
total building	2 965 sqm
SPORTS / RECREATION FACILITY 4 - REVISED BUILDING 4	
SITE AREA - includes area of power easement	9 172 sqm
SPORTS HALL AREA	3 000 sqm
OFFICE AREA - 1 storey	500 sqm
total building	3 500 sqm
WAREHOUSE FACILITY 5	
TOLL ENTERPRISE - OCCUPIED BUILDING	
total building	48 130 sqm

BUILDING 3A / 3B / 3C & 4 AREAS	
SITE AREA FOR REVISED BUILDINGS 3A / 3B / 3C	
SITE AREA - includes area of power easement	27 234 sqm
WAREHOUSE FACILITY 3A	
WAREHOUSE AREA	5 000 sqm
OFFICE AREA - 1 storey	315 sqm
total building	5 315 sqm
AWNING AREA	260 sqm
LIGHT DUTY PAVEMENT	1 215 sqm
HEAVY DUTY PAVEMENT	2 690 sqm
WAREHOUSE FACILITY 3B	
WAREHOUSE AREA	3 335 sqm
OFFICE AREA - 2 storey	400 sqm
total building	3 735 sqm
AWNING AREA	190 sqm
BREEZEWAY AWNING	695 sqm
LIGHT DUTY PAVEMENT	1 215 sqm
HEAVY DUTY PAVEMENT - includes breezeway	3 166 sqm
WAREHOUSE FACILITY 3C	
WAREHOUSE AREA	2 665 sqm
OFFICE AREA - 2 storey	300 sqm
total building	2 965 sqm
AWNING AREA	50 sqm
HEAVY DUTY PAVEMENT	1 595 sqm
heavy duty pavement includes parking areas	
SPORTS / RECREATION FACILITY 4 - REVISED BUILDING 4	
SITE AREA - includes area of power easement	9 172 sqm
SPORTS HALL AREA	3 000 sqm
OFFICE AREA - 1 storey	500 sqm
total building	3 500 sqm
LIGHT DUTY PAVEMENT	3 540 sqm

CARPARKING	
CARPARKING RATES USED - 3A/B/C and 4	
1 CARSPACE / 40sqm OF OFFICE AREA	
1 CARSPACE / 200sqm OF WAREHOUSE AREA	
CARPARKING RATES USED - 1	
1 CARSPACE / 40sqm OF OFFICE AREA	
1 CARSPACE / 300sqm OF WAREHOUSE AREA	
WAREHOUSE FACILITY 1	152 SPACES INCLUDING 2 DISABLED SPACE
WAREHOUSE FACILITY 3A	32 SPACES INCLUDING 1 DISABLED SPACE
WAREHOUSE FACILITY 3B	27 SPACES INCLUDING 1 DISABLED SPACE
WAREHOUSE FACILITY 3C	21 SPACES INCLUDING 1 DISABLED SPACE
SPORTS / RECREATION FACILITY 4 - REVISED BUILDING 4	124 SPACES INCLUDING 3 DISABLED SPACE
VOLVO SITE PARKING	124 SPACES - CLIENT REQUIREMENT

SITE PLAN
1:1200 scale

Issue Date Amendment

LOGOS LOGOS Property Group
Suite 12.02 / 167 Macquarie Street
Sydney NSW 2000
t. + 61 2 9119 6066 F. + 61 2 9231 0948

Project Manager

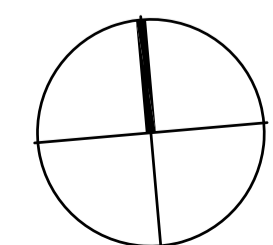
Project

PRESTONS INDUSTRIAL ESTATE

PROPOSED WAREHOUSE DEVELOPMENT

Cnr YARRUNGA STREET & BERNERA ROAD, PRESTONS NSW

AXIS ARCHITECTURAL
4 / 112 Cronulla Street, Cronulla NSW 2230
p + 02 9523 7858 / m + 0414 954 405
e + david@axisarchitects.com.au
AXIS AXIS ARCHITECTURAL Pty Ltd - ABN 18 086 853 376
Nominated Architect - David McDonald NSW ARB No. 7997

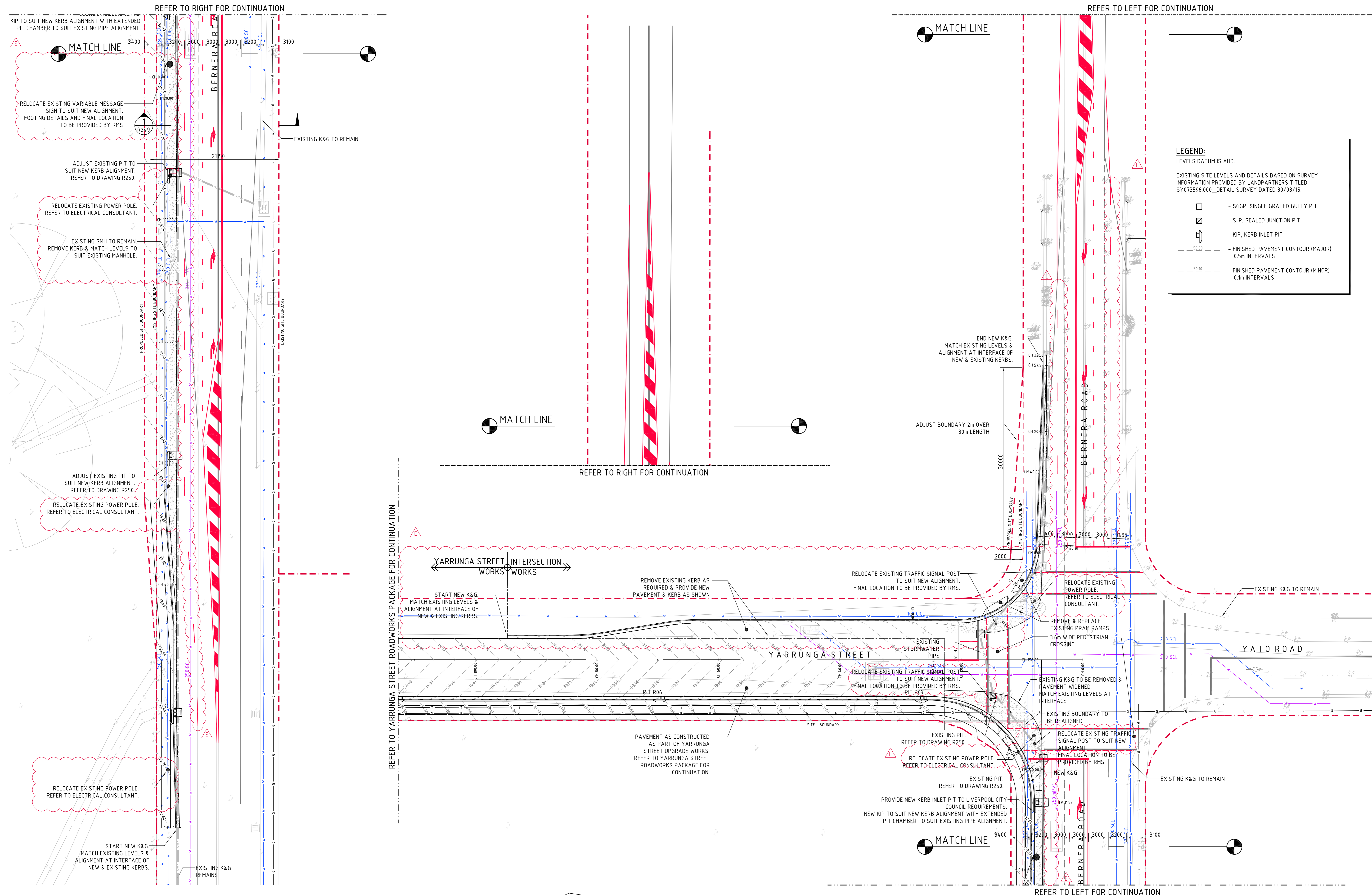


Drawing: **SITE PLAN - COLOURED OVERALL ESTATE PLAN**

Drawn: AA	Project No: 140604	Drawing No: S96 - A 103	Issue: P2
Date: November 2015			
Scale: 1:1200 @ A1			
1:2400 @ A3			

APPENDIX D

INTERSECTION DETAILS



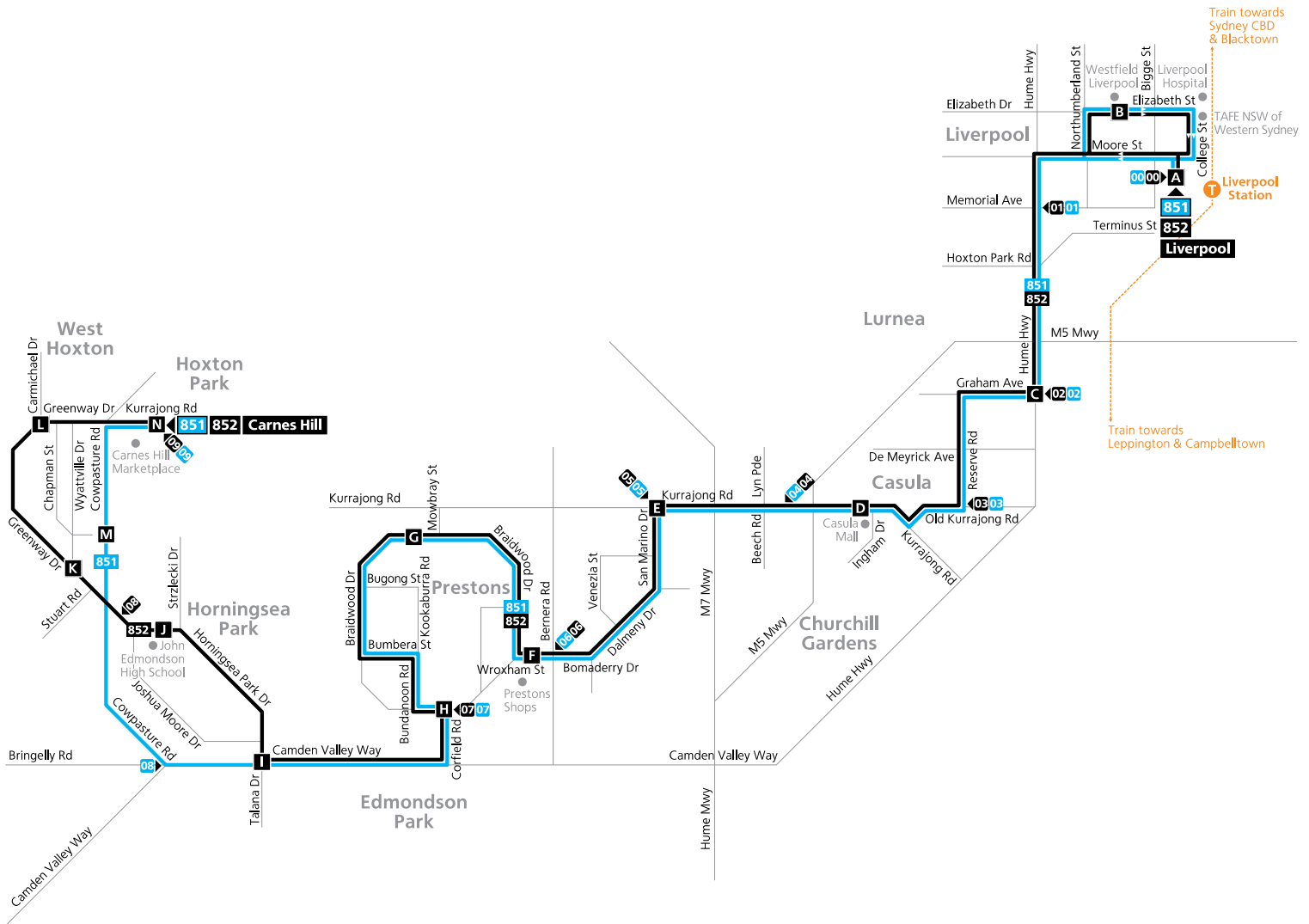
ROADWORKS LAYOUT PLAN
SCALE 1:200

FOR APPROVAL

EXTENT OF WORKS & LINEMARKING REVISED AS CLOUDED 19.01.17 E VERGE WIDTH & SITE BOUNDARY REVISED AS CLOUDED 02.12.16 D VERGE WIDTH & SITE BOUNDARY REVISED AS CLOUDED 06.10.16 C KERB LAYOUT REVISED AS CLOUDED 28.09.16 B ISSUED FOR APPROVAL 09.09.16 A			ARCHITECT CLIENT LOGOS PROPERTY SUITE 02, LEVEL 12 167 MACQUARIE STREET SYDNEY NSW			PROJECT PROPOSED DEVELOPMENT 32 YARRUNGA ROAD PRESTONS NSW			Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 9 Windmill Street Walsh Bay, Sydney NSW 2000 Tel: (02) 8551-7899 Fax: (02) 8541-3721 email: mail@costinroe.com.au			DRAWING TITLE ROADWORKS LAYOUT PLAN		
AMENDMENTS DATE ISSUE AMENDMENTS DATE ISSUE			ARCHITECT DATE ISSUE			CHECKED SIZE SCALE A0 AS SHOWN			CAD REF: C08753.11-R240			PRECISION COMMUNICATION ACCOUNTABILITY DRAWING No. C08753.11-R240 ISSUE E		

APPENDIX E

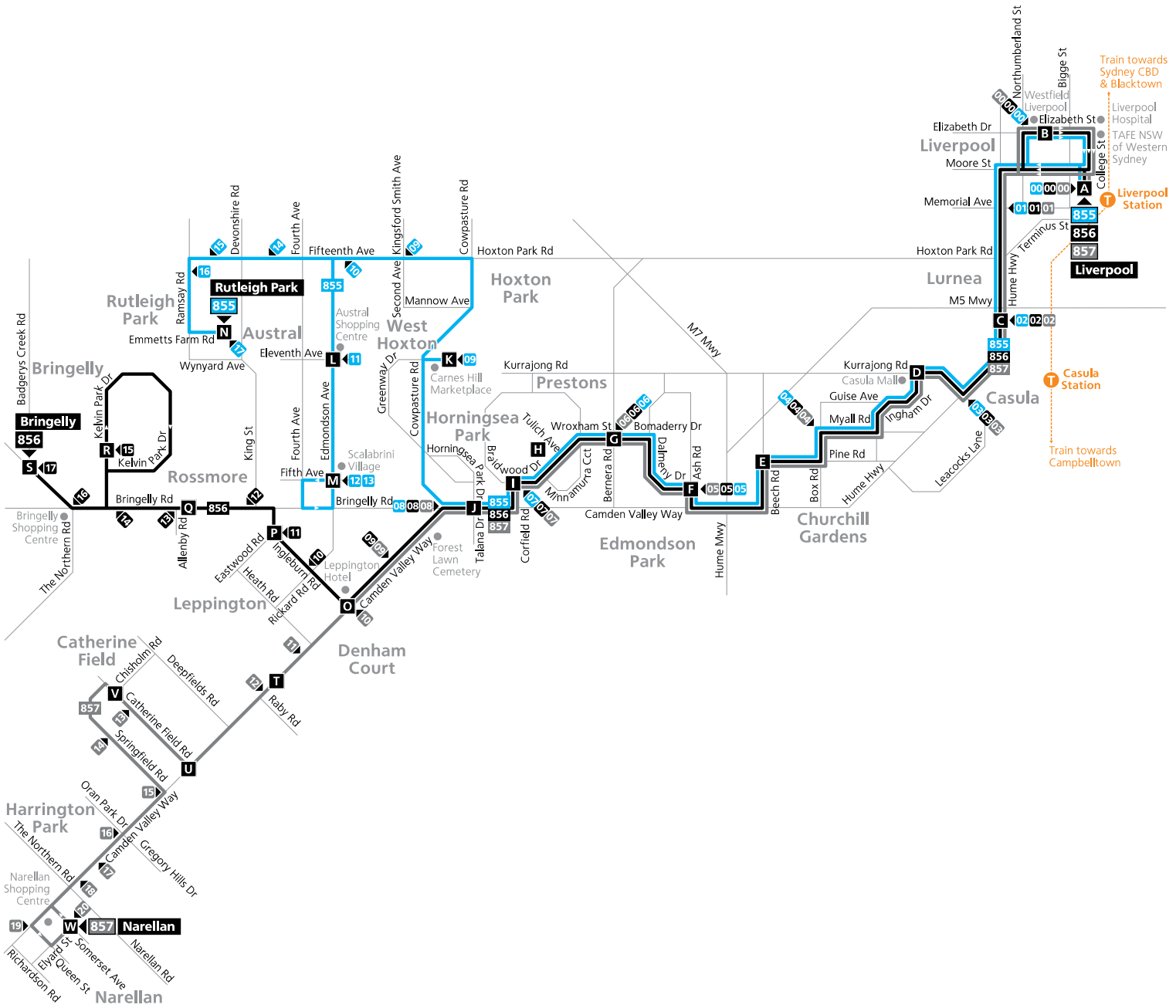
BUS SERVICES



- Legend**
- Bus route
 - 851 Bus route number
 - A Timing point
 - 00 Section point
 - T Train line/station

Diagrammatic Map
North
Not to Scale





Legend

- Bus route
- 855 Bus route number
- A Timing point
- 00 Section point
- T Train line/station

Diagrammatic Map
Not to Scale



APPENDIX F

TRAFFIC SURVEY RESULTS



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Capacity 60

At Start 5

Client : TTPA
 Job No/Name : 6467 SEVEN HILLS 20 Distribution PI
 Day/Date : Monday 29th May 2017

Car Park

20 DISTRIBUTION PL			
Car Park			
Time Per	IN	OUT	TOT
0600 - 0615	2	1	3
0615 - 0630	0	0	0
0630 - 0645	1	2	3
0645 - 0700	0	2	2
0700 - 0715	1	1	2
0715 - 0730	5	0	5
0730 - 0745	5	3	8
0745 - 0800	8	3	11
0800 - 0815	9	2	11
0815 - 0830	7	1	8
0830 - 0845	9	3	12
0845 - 0900	5	2	7
Per End	52	20	72

CAR PARK	
Time Per	Accumul
0600 - 0615	6
0615 - 0630	6
0630 - 0645	5
0645 - 0700	3
0700 - 0715	3
0715 - 0730	8
0730 - 0745	10
0745 - 0800	15
0800 - 0815	22
0815 - 0830	28
0830 - 0845	34
0845 - 0900	37

At Finish 37

20 DISTRIBUTION PL			
Car Park			
Time Per	IN	OUT	TOT
1600 - 1615	12	8	20
1615 - 1630	12	10	22
1630 - 1645	12	12	24
1645 - 1700	20	14	34
1700 - 1715	16	15	31
1715 - 1730	21	20	41
1730 - 1745	9	24	33
1745 - 1800	14	13	27
1800 - 1815	19	14	33
1815 - 1830	27	22	49
1830 - 1845	26	26	52
1845 - 1900	8	9	17
Per End	196	187	383

Car Park

20 DISTRIBUTION PL			
Car Park			
Peak Per	IN	OUT	TOT
0600 - 0700	3	5	8
0615 - 0715	2	5	7
0630 - 0730	7	5	12
0645 - 0745	11	6	17
0700 - 0800	19	7	26
0715 - 0815	27	8	35
0730 - 0830	29	9	38
0745 - 0845	33	9	42
0800 - 0900	30	8	38

PEAK HR	33	9	42
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Capacity 60

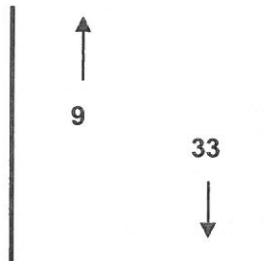
At Start 45

20 DISTRIBUTION PL			
Car Park			
Peak Per	IN	OUT	TOT
1600 - 1700	56	44	100
1615 - 1715	60	51	111
1630 - 1730	69	61	130
1645 - 1745	66	73	139
1700 - 1800	60	72	132
1715 - 1815	63	71	134
1730 - 1830	69	73	142
1745 - 1845	86	75	161
1800 - 1900	80	71	151

PEAK HR	86	75	161
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AM PEAK HOUR
0745 - 0845

Distribution PI

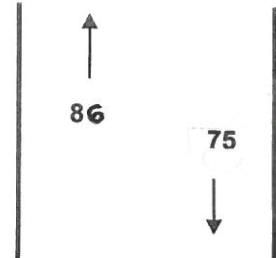


CAR PARK	
Time Per	Accumul
1600 - 1615	49
1615 - 1630	51
1630 - 1645	51
1645 - 1700	57
1700 - 1715	58
1715 - 1730	59
1730 - 1745	44
1745 - 1800	45
1800 - 1815	50
1815 - 1830	55
1830 - 1845	55
1845 - 1900	54

At Finish 54

PM PEAK HOUR
1745 - 1845

Distribution PI





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A

Job No/Name : 5789 PRESTONS Bernera Rd

Day/Date : Thursday / 1st October 2015

All Vehicles	NORTH			WEST			SOUTH			EAST			TOT
	Bernera Rd			Yarrunga St			Bernera Rd			Yato Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
0700 - 0715	17	99	8	2	1	2	3	131	2	1	0	10	276
0715 - 0730	23	103	11	0	0	0	3	135	2	0	0	9	286
0730 - 0745	15	77	4	2	0	2	0	158	6	4	0	17	285
0745 - 0800	20	107	2	0	1	2	1	160	3	1	1	5	303
0800 - 0815	26	86	4	1	1	2	2	177	7	1	1	15	323
0815 - 0830	21	74	4	0	0	2	4	170	5	2	0	12	294
0830 - 0845	13	90	8	1	0	2	3	192	10	4	0	11	334
0845 - 0900	31	87	5	0	0	4	8	154	9	3	0	20	321
Period End	166	723	46	6	3	16	24	1277	44	16	2	99	2422

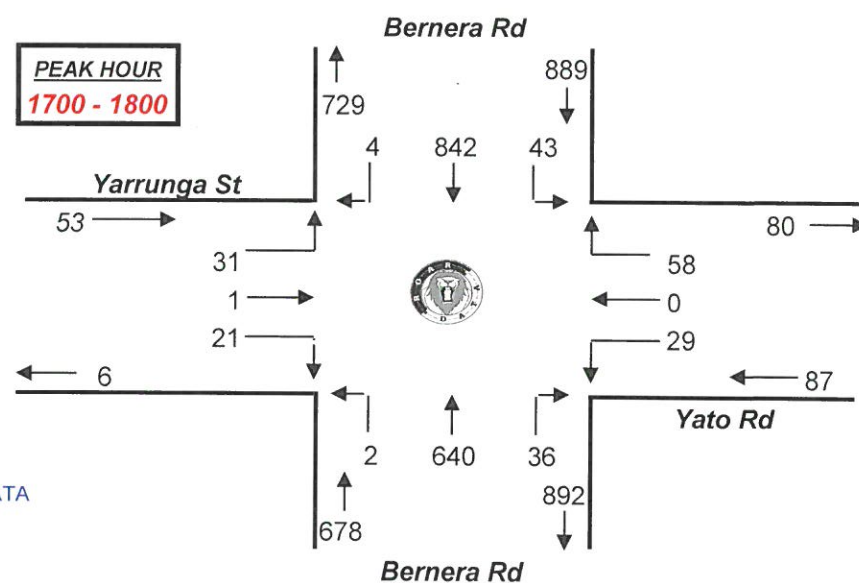
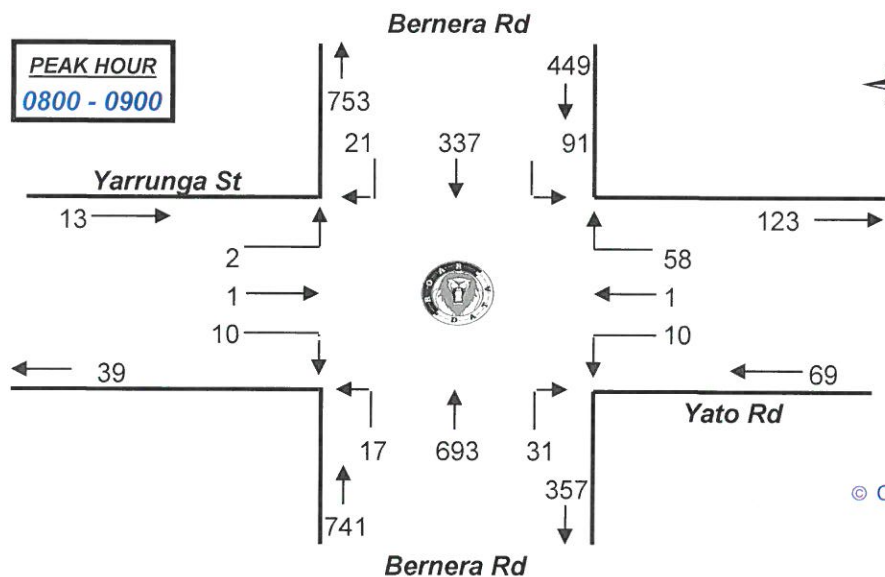
All Vehicles	NORTH			WEST			SOUTH			EAST			TOT
	Bernera Rd			Yarrunga St			Bernera Rd			Yato Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
1600 - 1615	6	187	2	2	0	4	0	148	4	8	0	24	385
1615 - 1630	3	220	2	12	0	0	2	154	2	2	0	22	419
1630 - 1645	6	174	2	0	0	1	1	172	2	12	0	15	385
1645 - 1700	10	162	0	3	0	2	0	148	1	3	0	12	341
1700 - 1715	4	198	1	15	1	11	0	163	3	9	0	16	421
1715 - 1730	13	230	1	10	0	3	0	174	10	8	0	22	471
1730 - 1745	13	216	1	3	0	3	0	149	15	7	0	13	420
1745 - 1800	13	198	1	3	0	4	2	154	8	5	0	7	395
Period End	68	1585	10	48	1	28	5	1262	45	54	0	131	3237

Peak Time	NORTH			WEST			SOUTH			EAST			TOT
	Bernera Rd			Yarrunga St			Bernera Rd			Yato Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
0700 - 0800	75	386	25	4	2	6	7	584	13	6	1	41	1150
0715 - 0815	84	373	21	3	2	6	6	630	18	6	2	46	1197
0730 - 0830	82	344	14	3	2	8	7	665	21	8	2	49	1205
0745 - 0845	80	357	18	2	2	8	10	699	25	8	2	43	1254
0800 - 0900	91	337	21	2	1	10	17	693	31	10	1	58	1272

Peak Time	NORTH			WEST			SOUTH			EAST			TOT
	Bernera Rd			Yarrunga St			Bernera Rd			Yato Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
1600 - 1700	25	743	6	17	0	7	3	622	9	25	0	73	1530
1615 - 1715	23	754	5	30	1	14	3	637	8	26	0	65	1566
1630 - 1730	33	764	4	28	1	17	1	657	16	32	0	65	1618
1645 - 1745	40	806	3	31	1	19	0	634	29	27	0	63	1653
1700 - 1800	43	842	4	31	1	21	2	640	36	29	0	58	1707

PEAK HOUR	91	337	21	2	1	10	17	693	31	10	1	58	1272
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PEAK HOUR	43	842	4	31	1	21	2	640	36	29	0	58	1707
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APPENDIX G

SIDRA RESULTS

MOVEMENT SUMMARY

 Site: S1 [C/L 120s FUT AM BERNERRA RD / YARRUNGA RD UPDATE]

Signals - Fixed Time Coordinated Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: BERNERRA RD											
1	L2	88	10.0	0.906	31.1	LOS C	37.0	281.3	0.88	0.88	39.6
2	T1	1259	10.0	0.906	25.7	LOS C	37.0	281.3	0.85	0.85	40.7
3	R2	49	10.0	0.339	60.6	LOS E	2.7	20.6	0.94	0.74	28.0
Approach		1396	10.0	0.906	27.3	LOS C	37.0	281.3	0.85	0.85	40.0
East: YATO RD											
4	L2	15	50.0	0.107	52.6	LOS D	1.3	12.6	0.88	0.69	30.2
5	T1	10	50.0	0.107	46.5	LOS D	1.3	12.6	0.88	0.69	33.0
6	R2	107	50.0	0.469	56.4	LOS E	5.9	58.5	0.95	0.79	30.3
Approach		132	50.0	0.469	55.2	LOS E	5.9	58.5	0.94	0.77	30.5
North: BERNERRA RD											
7	L2	186	10.0	0.630	34.3	LOS C	20.9	158.8	0.84	0.82	38.9
8	T1	695	10.0	0.630	28.2	LOS C	20.9	158.8	0.82	0.75	39.2
9	R2	123	10.0	0.851	73.7	LOS E	8.0	61.0	1.00	0.94	26.7
Approach		1004	10.0	0.851	34.9	LOS C	20.9	158.8	0.84	0.79	36.9
West: YARRUNGA RD											
10	L2	42	20.0	0.237	57.2	LOS E	2.8	22.9	0.93	0.74	30.6
11	T1	10	20.0	0.237	51.4	LOS D	2.8	22.9	0.93	0.74	31.3
12	R2	40	20.0	0.185	56.7	LOS E	2.1	17.5	0.92	0.74	29.0
Approach		92	20.0	0.237	56.4	LOS E	2.8	22.9	0.93	0.74	30.0
All Vehicles		2624	12.4	0.906	32.6	LOS C	37.0	281.3	0.86	0.82	37.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped	
P1	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95	
P2	East Full Crossing	53	26.7	LOS C	0.1	0.1	0.67	0.67	
P3	North Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95	
P4	West Full Crossing	53	26.7	LOS C	0.1	0.1	0.67	0.67	
All Pedestrians		211	40.5	LOS E			0.81	0.81	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: S1 [C/L 120s FUT PM BERNERRA RD / YARRUNGA RD UPDATE]

Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: BERNERRA RD											
1	L2	45	10.0	0.740	42.7	LOS D	23.8	181.2	0.94	0.84	34.8
2	T1	854	10.0	0.740	37.1	LOS D	23.8	181.2	0.93	0.83	35.7
3	R2	42	10.0	0.485	70.2	LOS E	2.6	19.6	1.00	0.74	25.9
Approach		941	10.0	0.740	38.8	LOS D	23.8	181.2	0.94	0.82	35.1
East: YATO RD											
4	L2	38	15.0	0.103	40.5	LOS D	2.1	16.5	0.78	0.70	34.1
5	T1	10	15.0	0.103	34.8	LOS C	2.1	16.5	0.78	0.70	36.5
6	R2	141	15.0	0.306	42.9	LOS D	6.6	51.8	0.84	0.78	34.6
Approach		189	15.0	0.306	42.0	LOS D	6.6	51.8	0.82	0.76	34.6
North: BERNERRA RD											
7	L2	83	10.0	0.897	61.7	LOS E	36.6	278.2	1.00	1.06	30.5
8	T1	1010	10.0	0.897	54.6	LOS D	36.6	278.2	1.00	1.06	30.0
9	R2	47	10.0	0.542	70.6	LOS E	2.9	22.1	1.00	0.75	27.4
Approach		1140	10.0	0.897	55.8	LOS E	36.6	278.2	1.00	1.05	29.9
West: YARRUNGA RD											
10	L2	129	10.0	0.599	60.1	LOS E	7.9	60.2	0.99	0.80	29.8
11	T1	10	10.0	0.599	54.5	LOS D	7.9	60.2	0.99	0.80	30.3
12	R2	90	10.0	0.389	58.3	LOS E	5.0	37.7	0.96	0.78	28.7
Approach		229	10.0	0.599	59.2	LOS E	7.9	60.2	0.98	0.79	29.4
All Vehicles		2499	10.4	0.897	48.7	LOS D	36.6	278.2	0.96	0.92	31.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped	
P1	South Full Crossing	53	43.4	LOS E	0.2	0.2	0.85	0.85	
P2	East Full Crossing	53	33.1	LOS D	0.1	0.1	0.74	0.74	
P3	North Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95	
P4	West Full Crossing	53	33.1	LOS D	0.1	0.1	0.74	0.74	
All Pedestrians		211	41.0	LOS E			0.82	0.82	

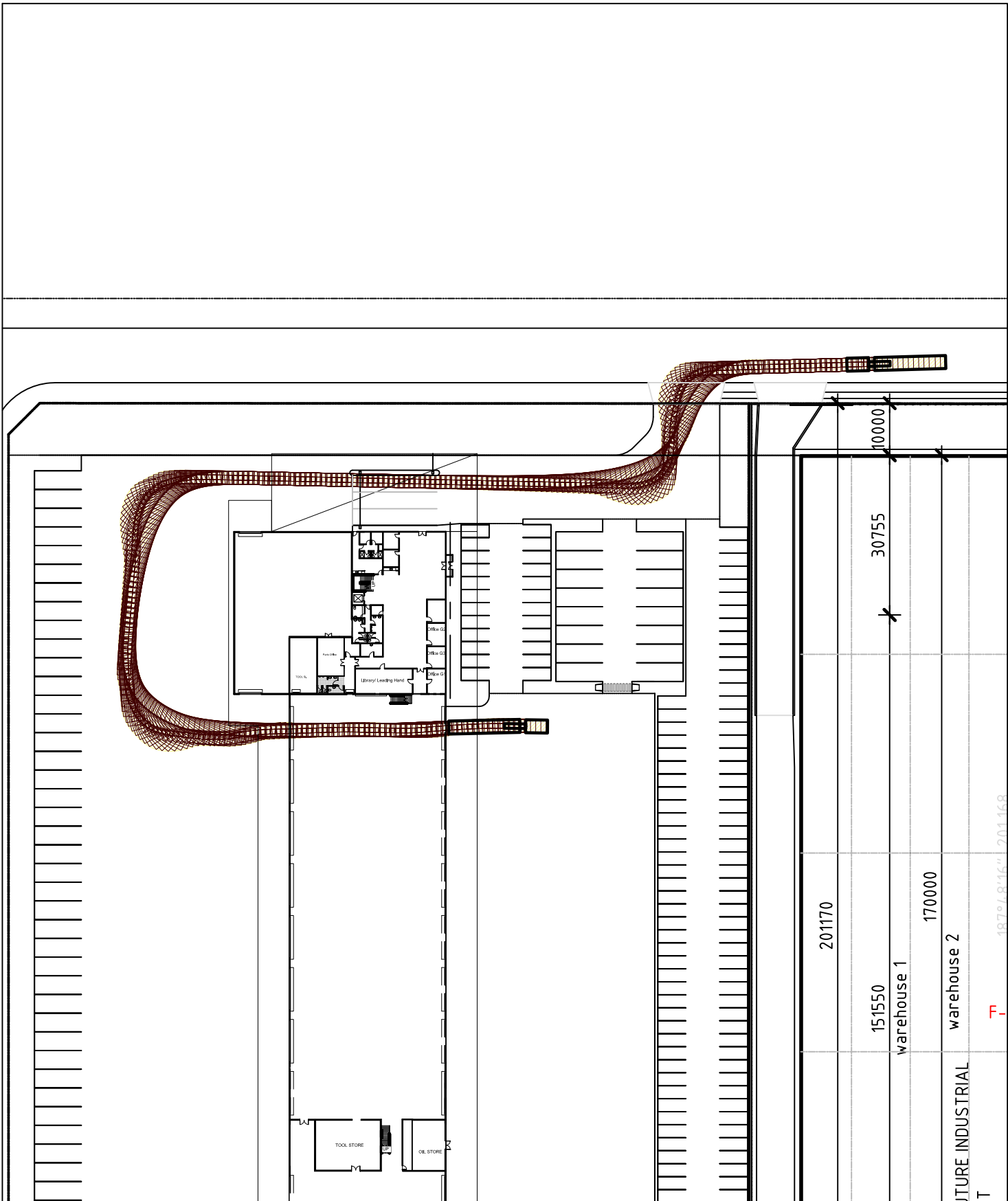
Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

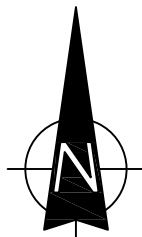
APPENDIX H

TURNING PATH ASSESSMENT



LEGEND

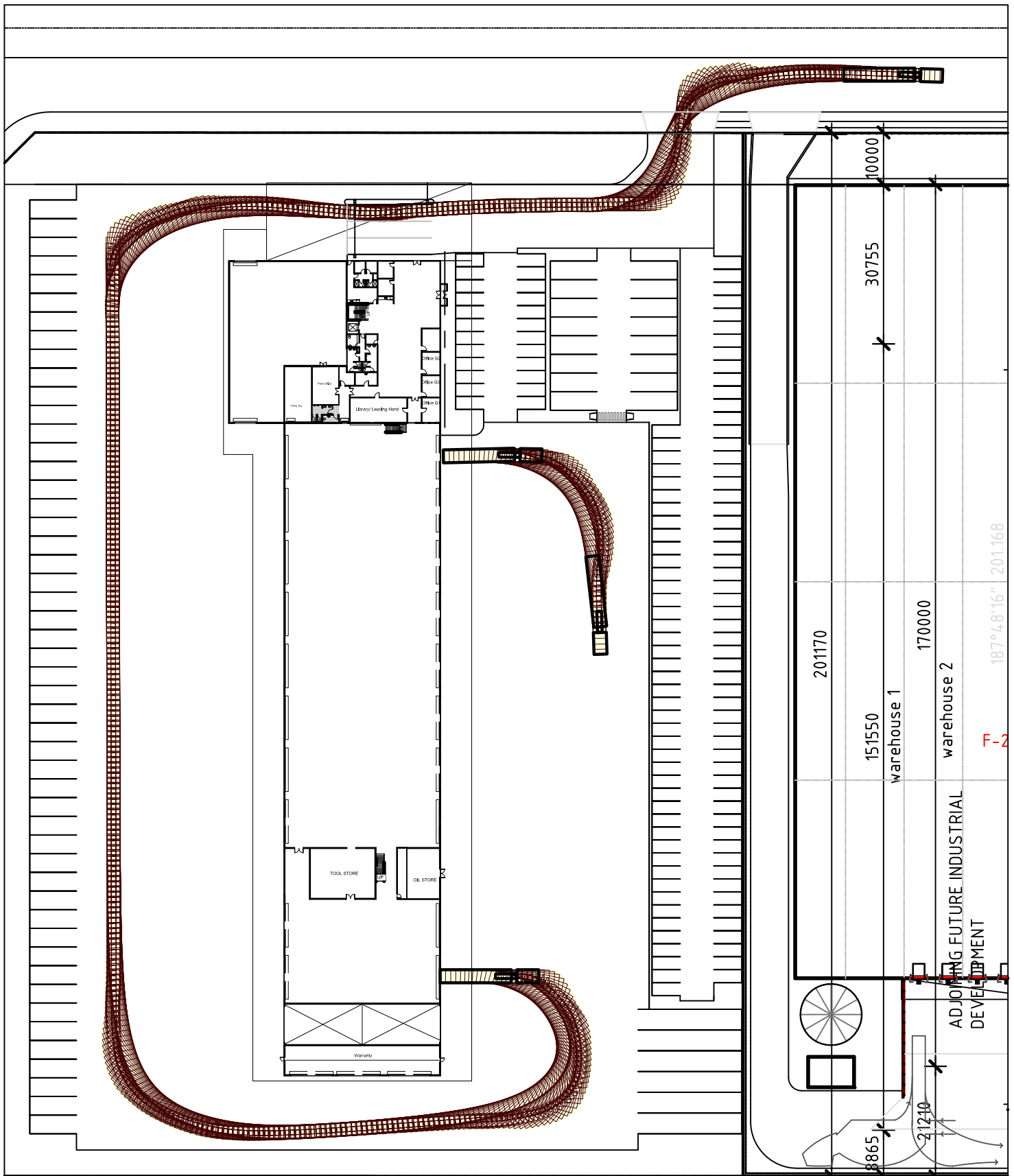
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



SWEPT PATH ANALYSIS OF A 19m ARTICULATED VEHICLE ENTERING THE SITE

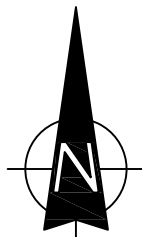
SP 1

201170
151550
warehouse 1
170000
warehouse 2
FUTURE INDUSTRIAL
T
187°/48'16" 2.01.168



LEGEND

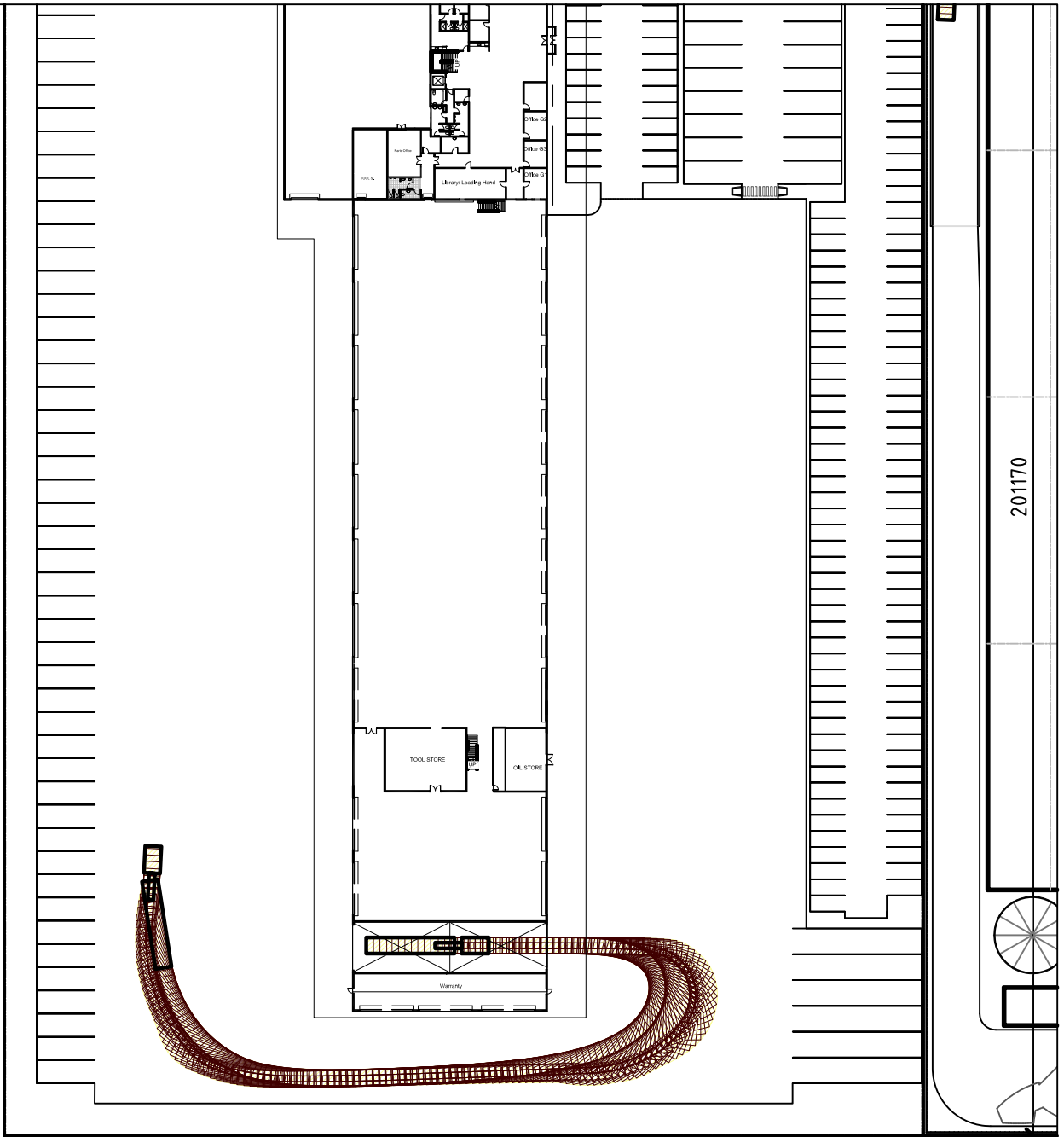
This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



SWEPT PATH ANALYSIS OF 19m ARTICULATED VEHICLES EXITING THE SITE

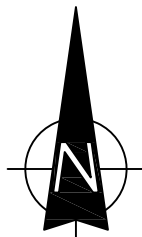
SP 2

KOOKABURRA ROAD NORTH



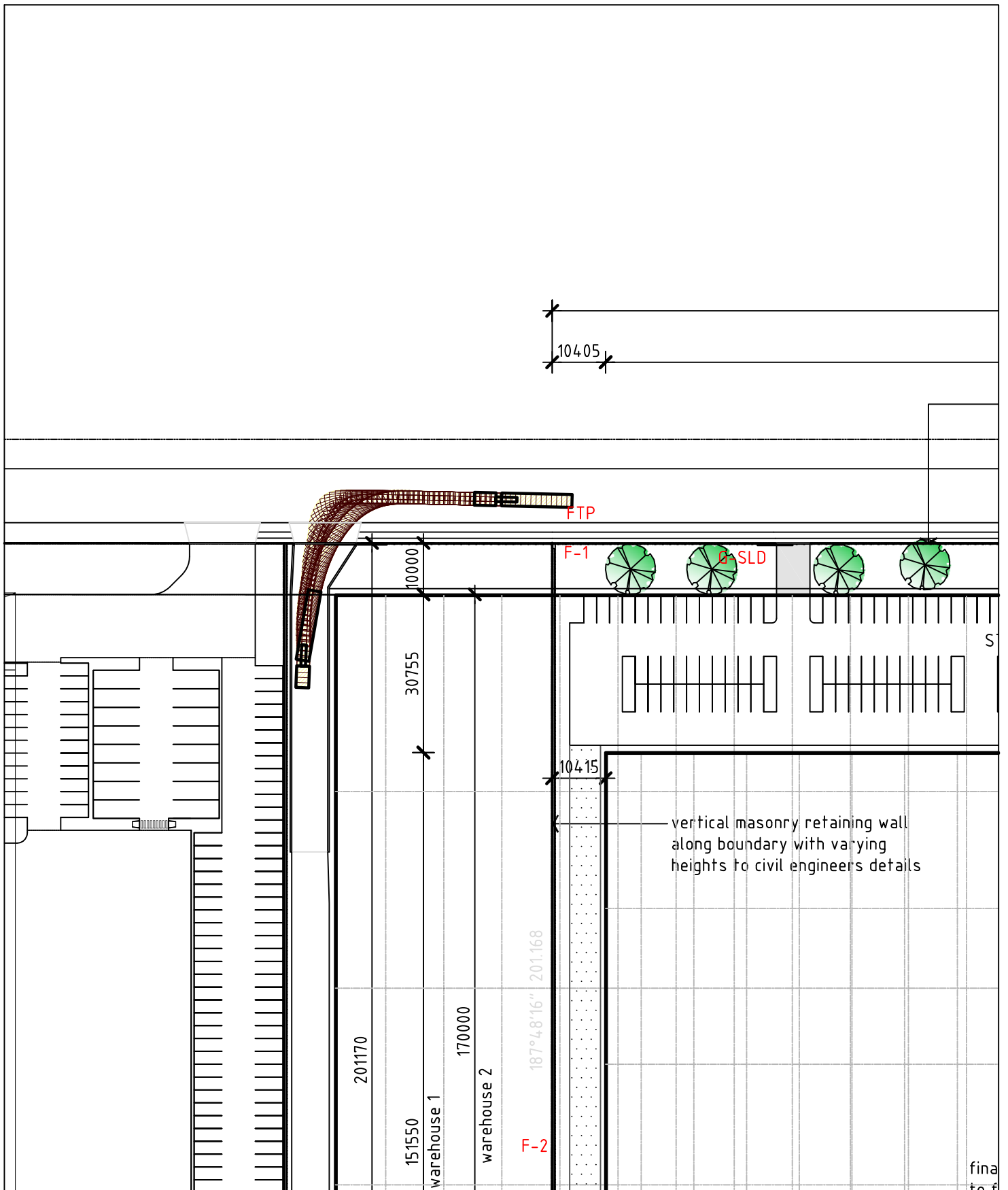
LEGEND

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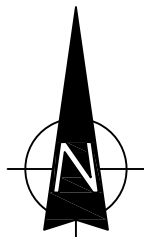
**SWEPT PATH ANALYSIS
OF A 19m ARTICULATED
VEHICLE EXITING THE SITE**

SP 3



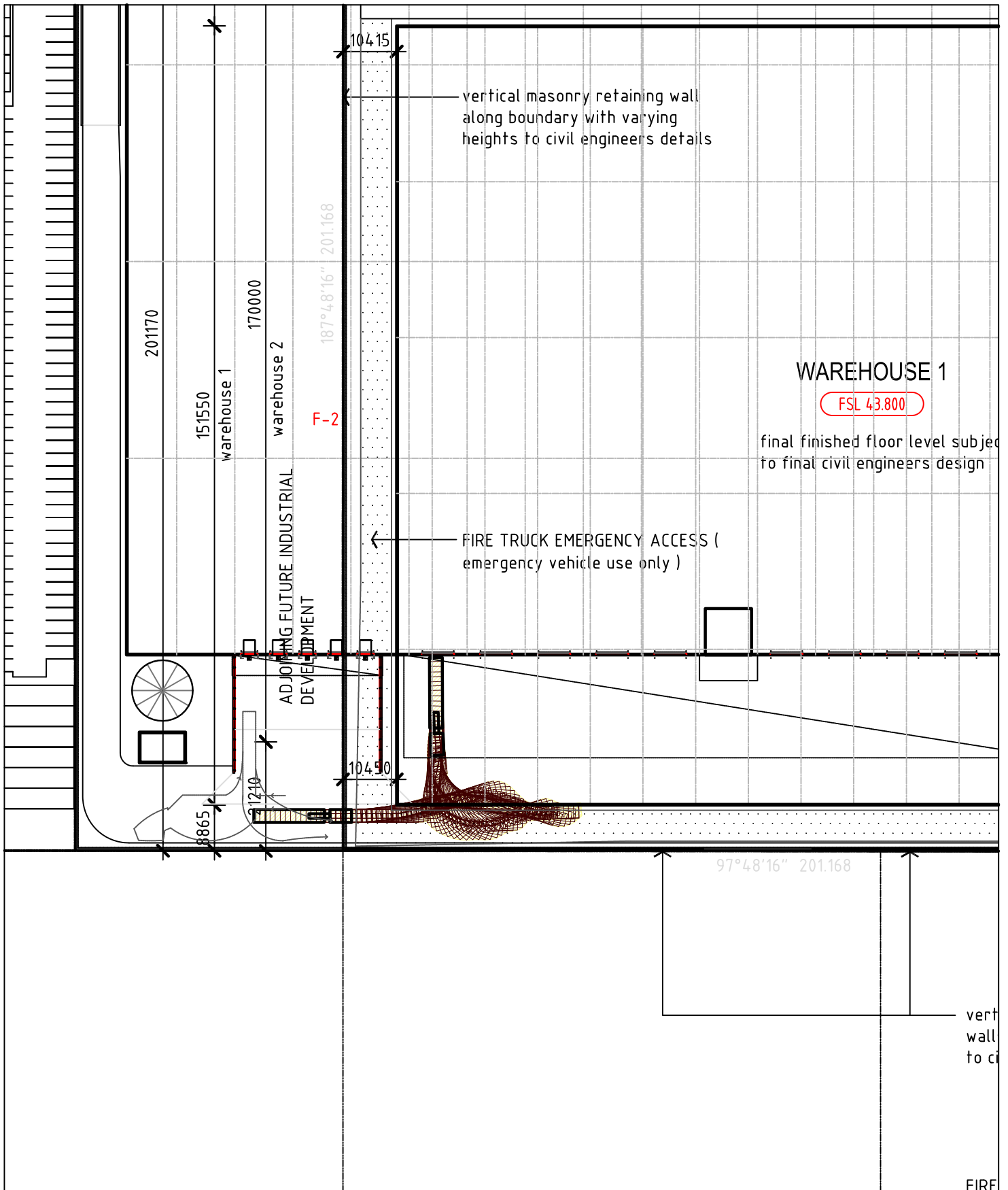
LEGEND

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SWEPT PATH ANALYSIS OF A 19m ARTICULATED VEHICLE ENTERING THE SITE

SP 4



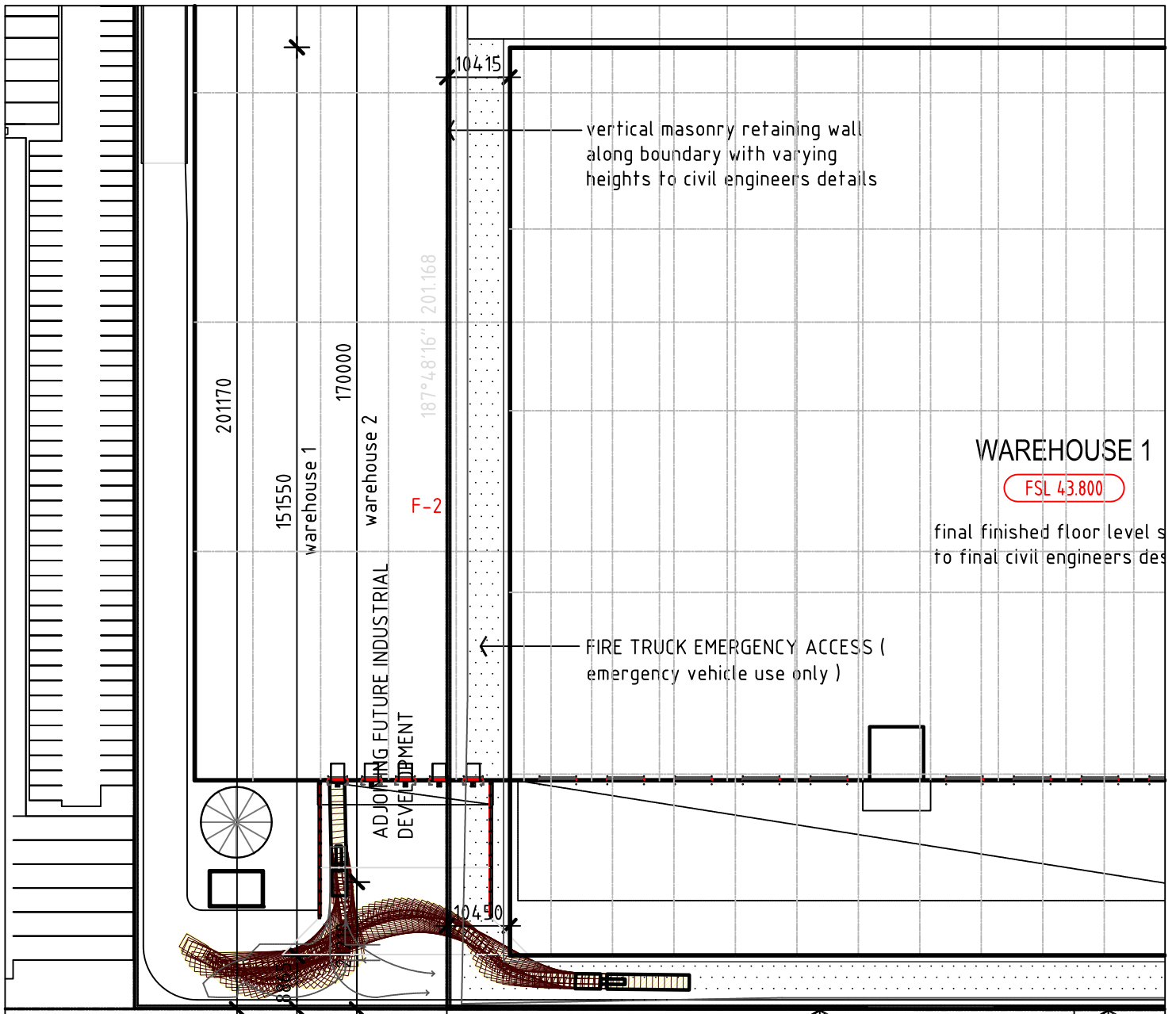
LEGEND

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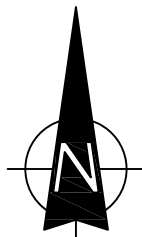
**SWEPT PATH ANALYSIS
OF A 19m ARTICULATED
VEHICLE ENTERING THE SITE**

SP 5



LEGEND

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SWEPT PATH ANALYSIS OF A 19m ARTICULATED VEHICLE ENTERING THE SITE

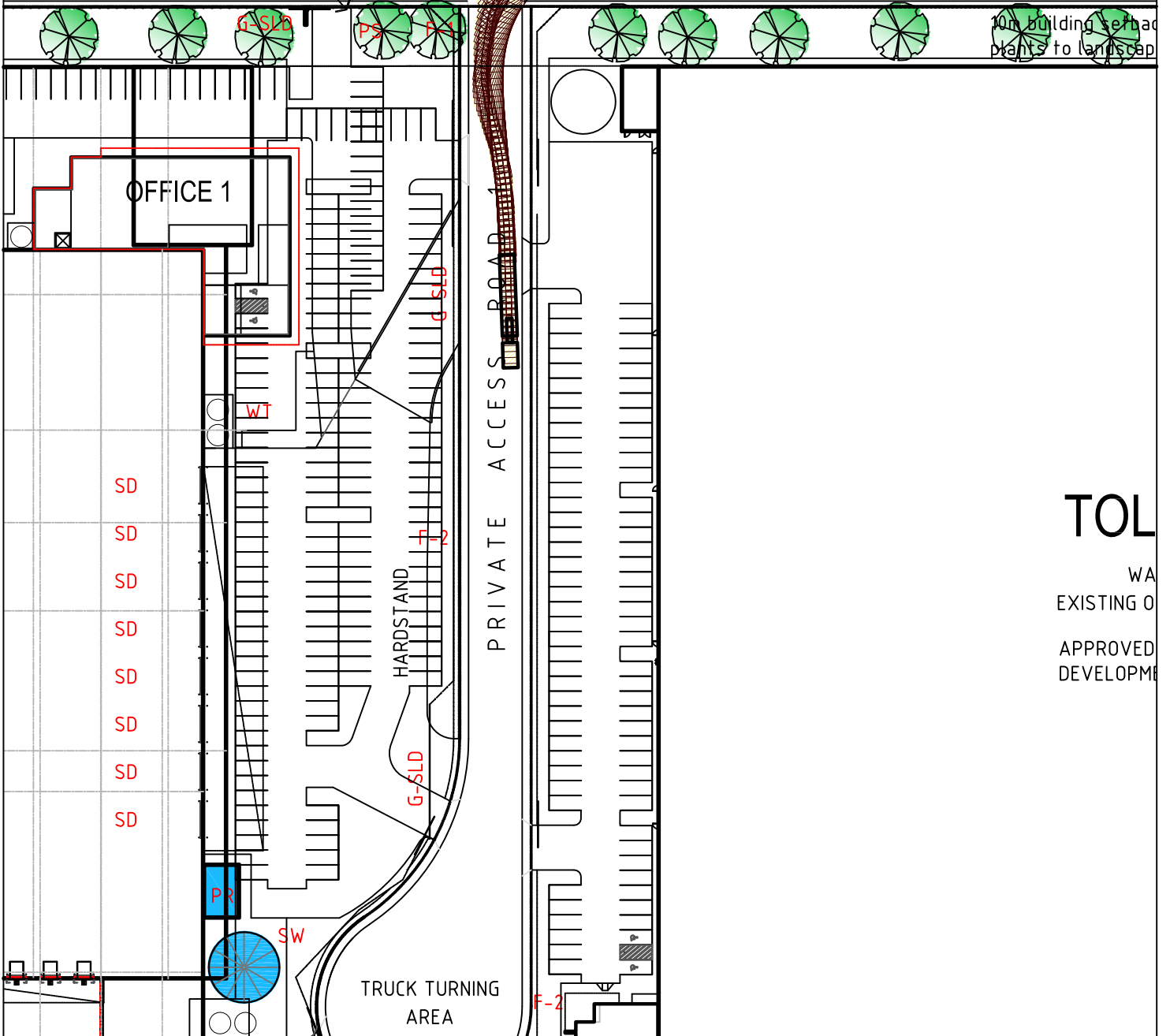
SP 6

42950 12000 21300

front
spear

war

YARRUNGA



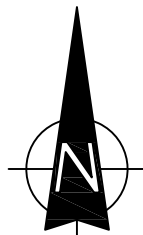
10m building setback
plants to landscape

TOL

WA
EXISTING O
APPROVED
DEVELOPME

LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2013. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



**SWEPT PATH ANALYSIS
OF A 19m ARTICULATED
VEHICLE ENTERING THE SITE**

SP 7

in use during construction - refer to acoustic report

6480

12000

67150

82000

warehouse 3

corporate pylon sign up to 12m high -
Building Tenant pylon sign

HIGH VOLTAGE POWER LINE
TOWER

FTP

F-2

G-SLD

retaining walls

HARDSTAND

SD

SD

SD

SD

SD

WAREHOUSE 3A

FSL 35.000

final finished floor level subject
to final civil engineers design

G-SLD

OFFICE

WAREHOUSE 3B

FL 35.000

final finished floor level subject
to final civil engineers design

F-2

TRUCK TURNING
AREA

OFFICE

WAREHOUSE 3C

FL 35.000

final finished floor level subject
to final civil engineers design

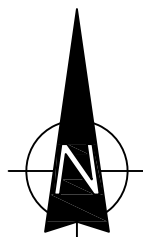
G-SLD

G-H

F-2

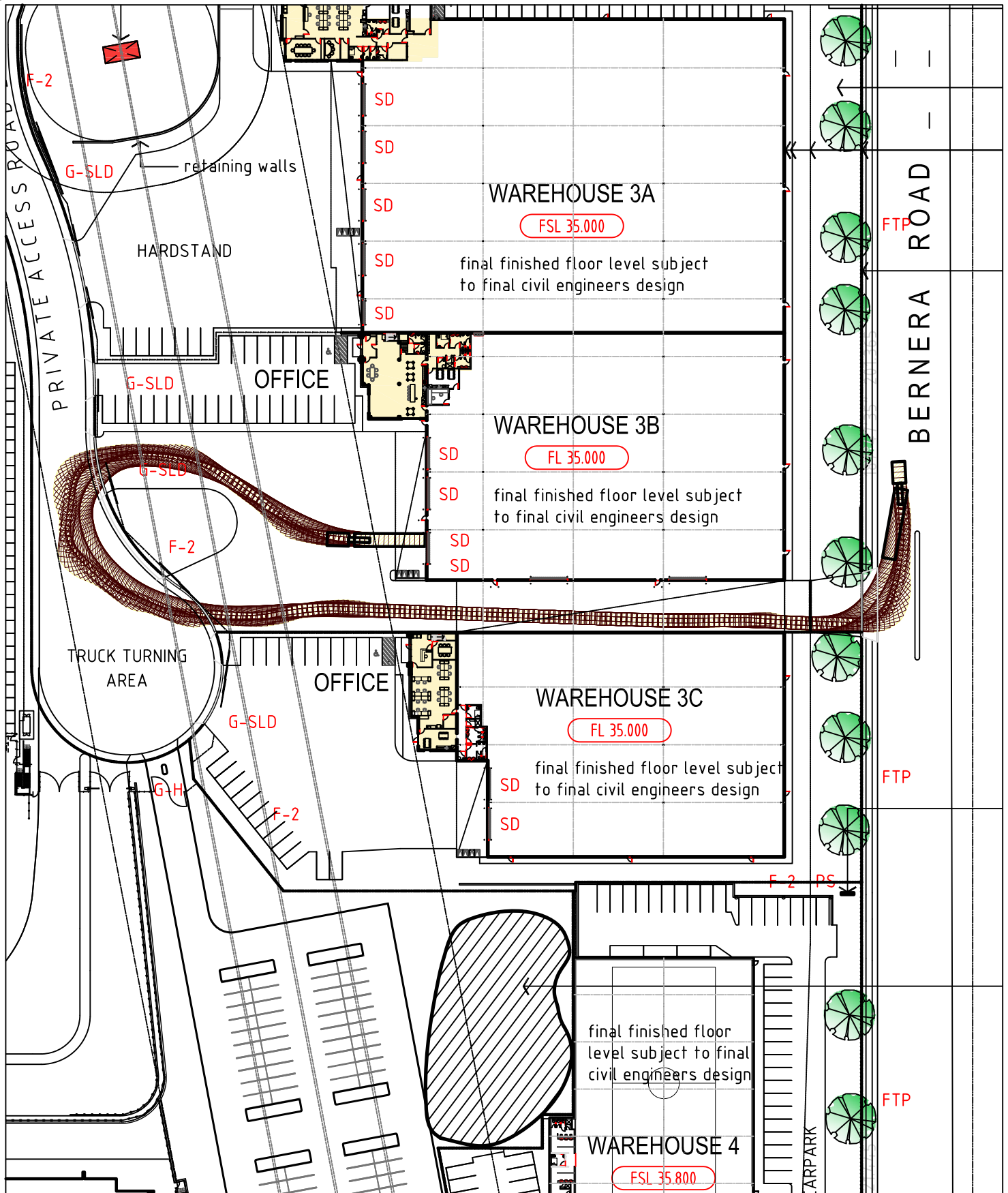
LEGEND

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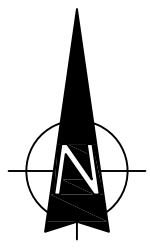
SWEPT PATH ANALYSIS OF A 19m ARTICULATED VEHICLE ENTERING THE SITE

SP 8

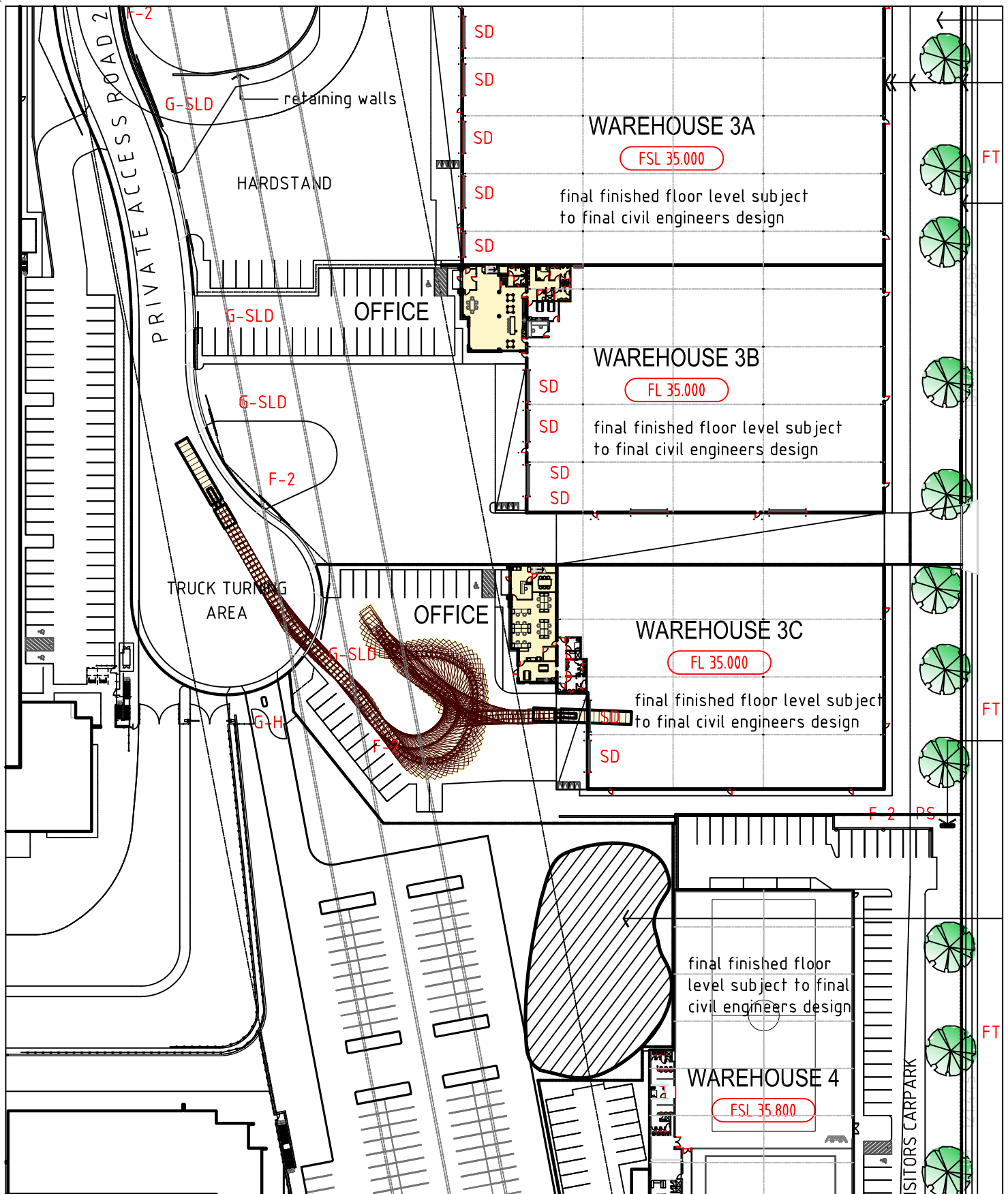


LEGEND

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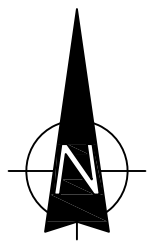


SWEPT PATH ANALYSIS OF A 19m ARTICULATED VEHICLE EXITING THE SITE



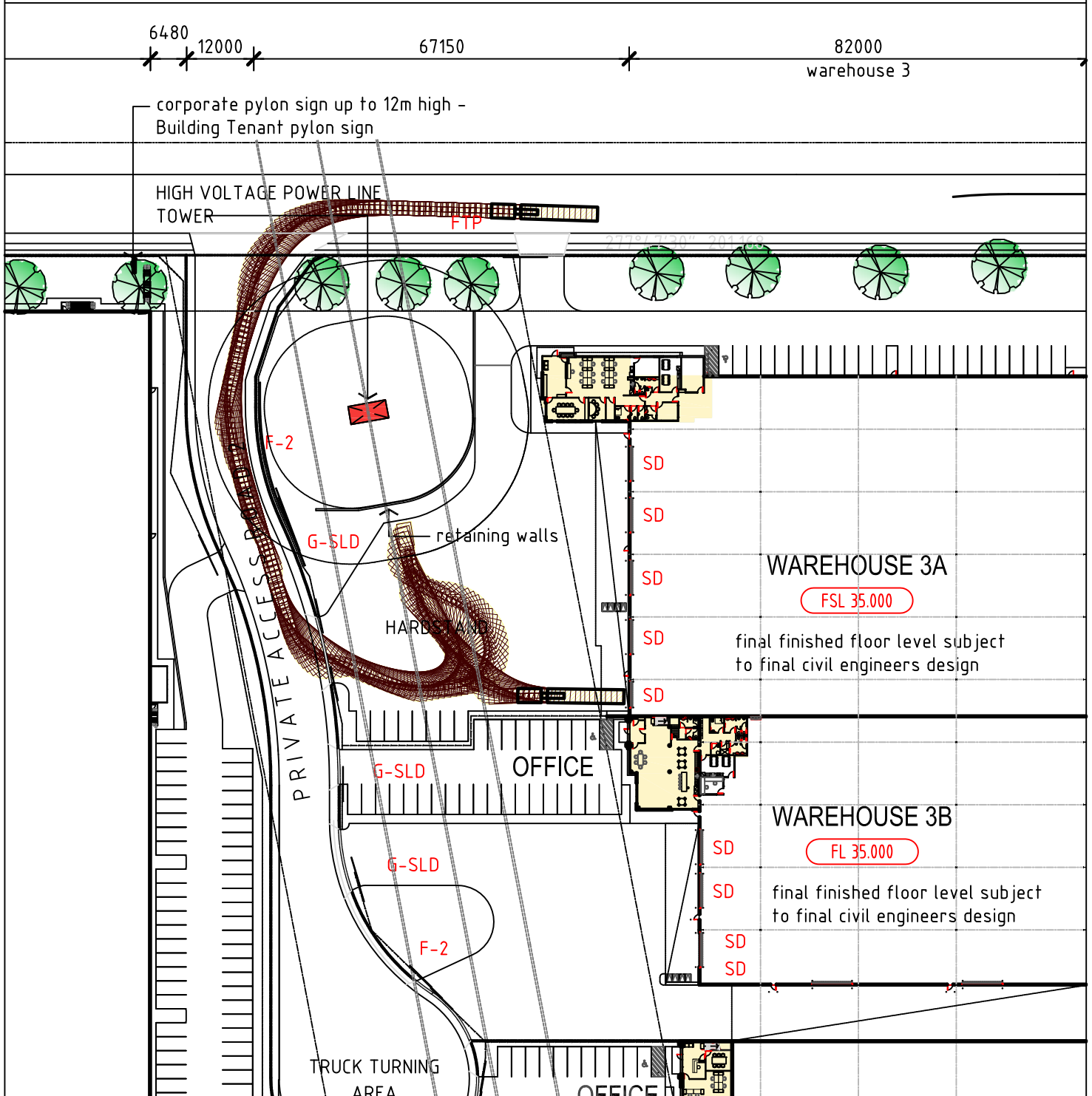
LEGEND

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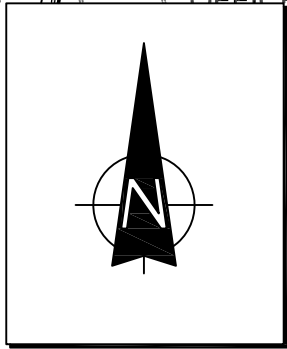
SWEPT PATH ANALYSIS OF A 19m ARTICULATED VEHICLE ENTERING THE SITE

Note: Sound Barrier
 existing residential uses sold for industrial use.
 Sound barriers only required if residential occupation still
 in use during construction - refer to acoustic report



LEGEND

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**SWEPT PATH ANALYSIS
 OF A 19m ARTICULATED
 VEHICLE ENTERING THE SITE**

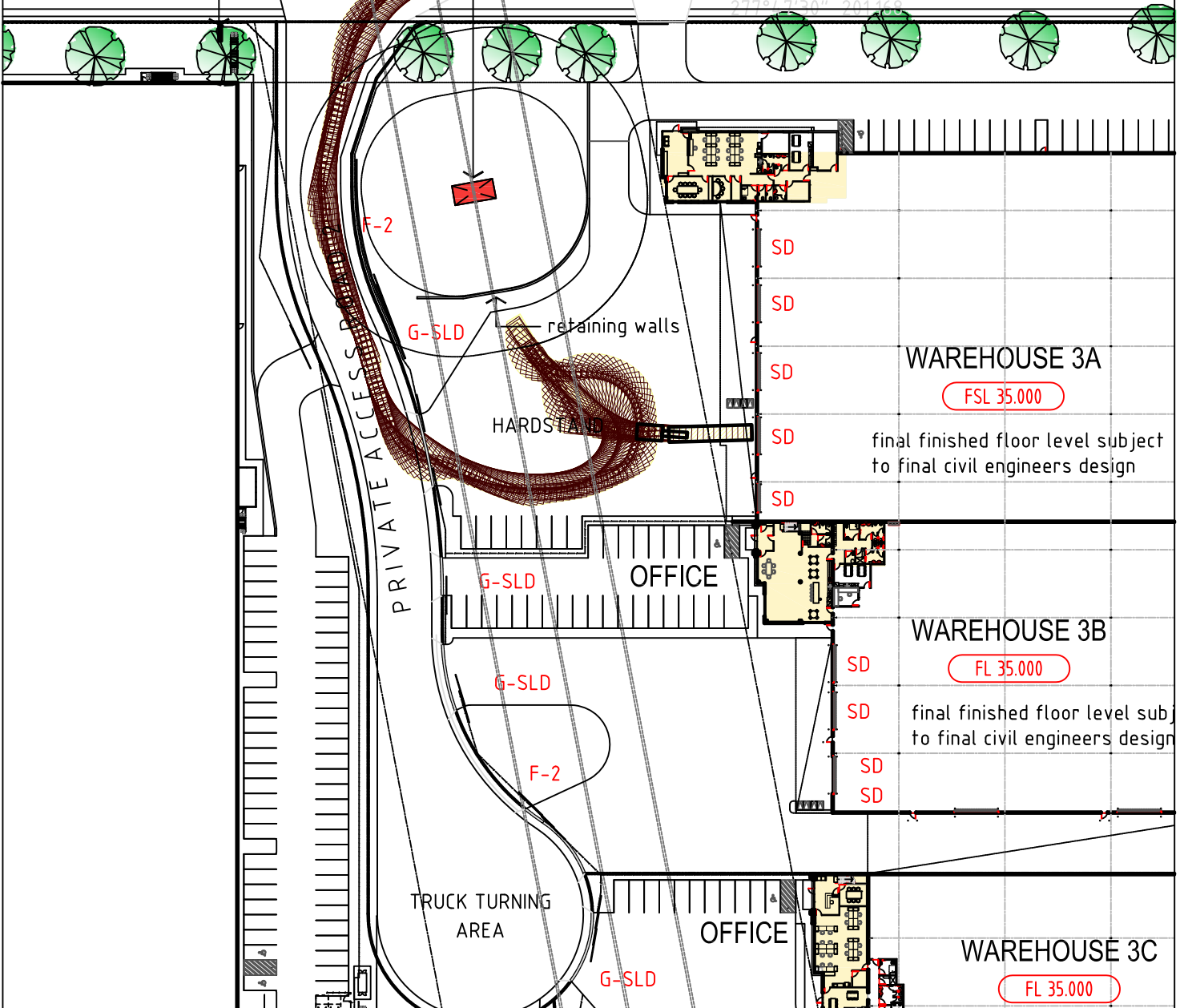
SP 11

Note: Sound Barrier
 existing residential uses sold for industrial use.
 Sound barriers only required if residential occupa
 in use during construction - refer to acoustic rep

6480 12000 67150 82000
 warehouse 3

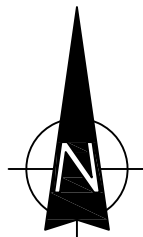
corporate pylon sign up to 12m high -
 Building Tenant pylon sign

HIGH VOLTAGE POWER LINE
 TOWER



LEGEND

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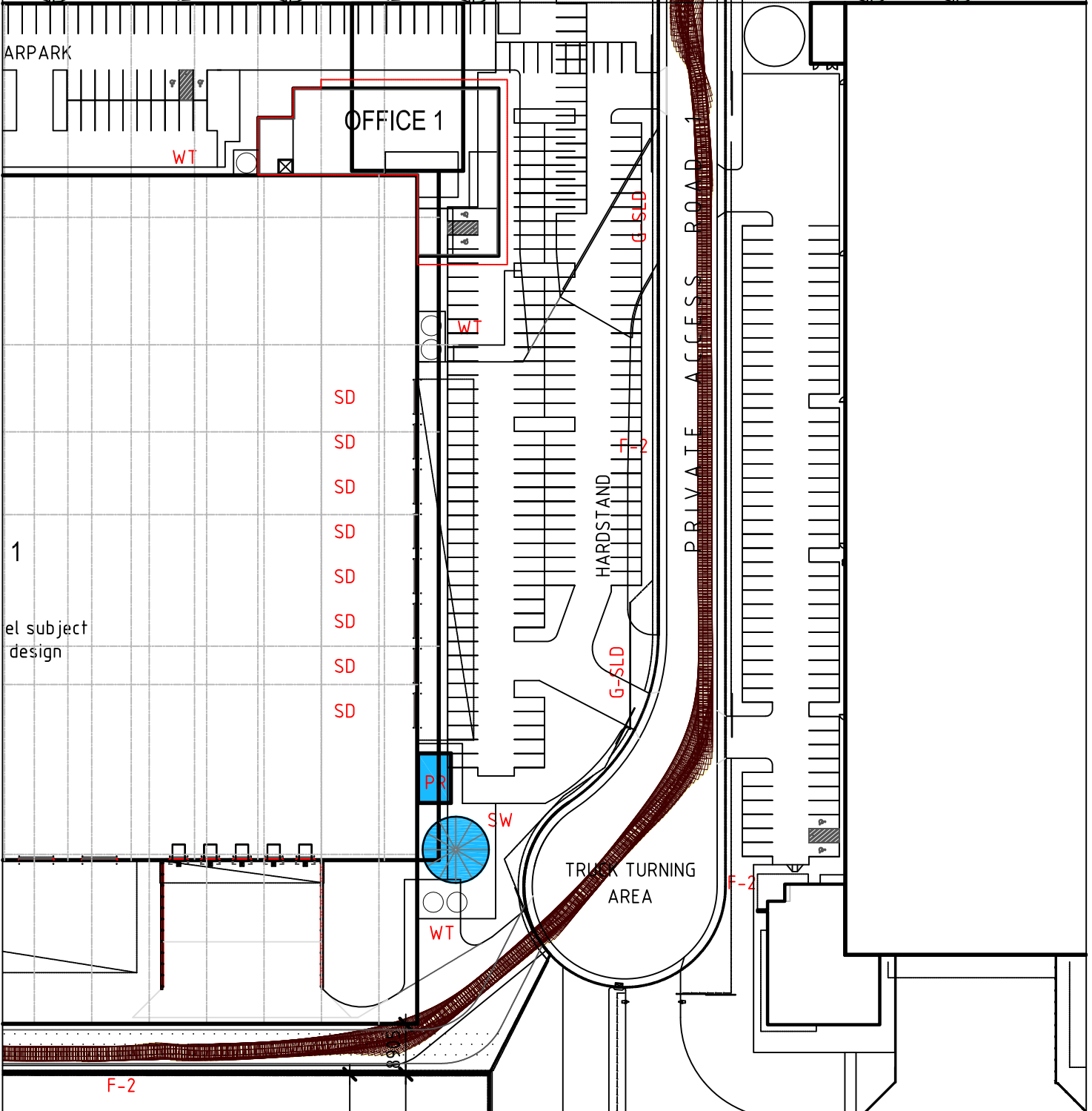
**SWEPT PATH ANALYSIS
 OF A 19m ARTICULATED
 VEHICLE ENTERING THE SITE**

SP 12

at 1000 high with pointed spear
ge & Berne Roads only

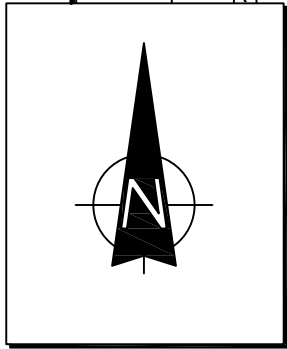
sign up to 12m high -
pylon sign

feedback with screening
space affects details



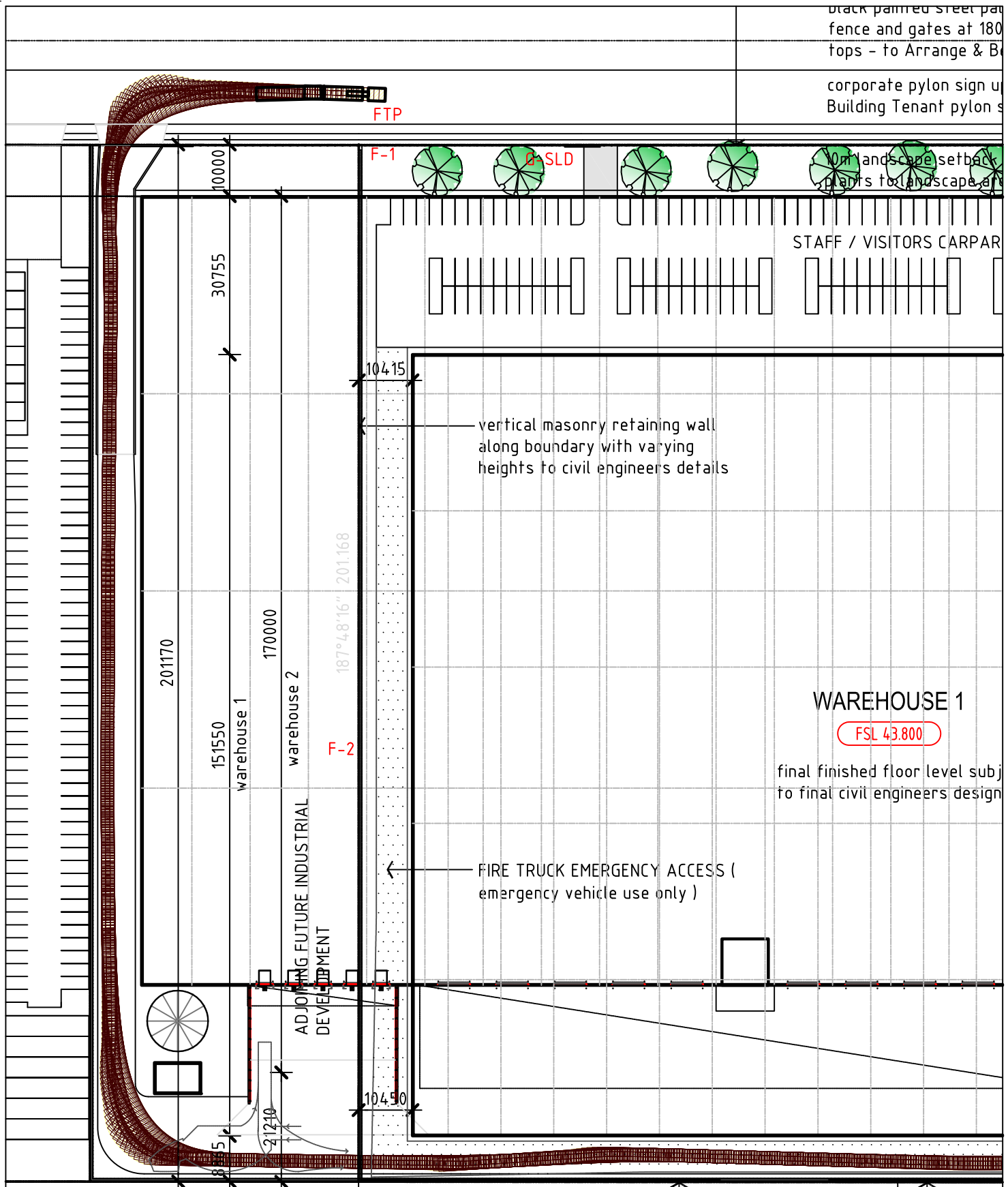
LEGEND

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**SWEPT PATH ANALYSIS
OF A 25m ARTICULATED
VEHICLE ENTERING THE SITE**

SP 13



black painted street pavement
 fence and gates at 180
 tops - to Arrange & B
 corporate pylon sign up
 Building Tenant pylon s

10m landscape setback
 plants to landscape ar

STAFF / VISITORS CARPAR

vertical masonry retaining wall
 along boundary with varying
 heights to civil engineers details

WAREHOUSE 1

FSL 43.800

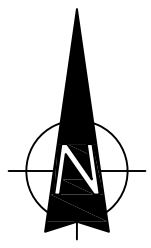
final finished floor level subj
 to final civil engineers design

FIRE TRUCK EMERGENCY ACCESS (
 emergency vehicle use only)

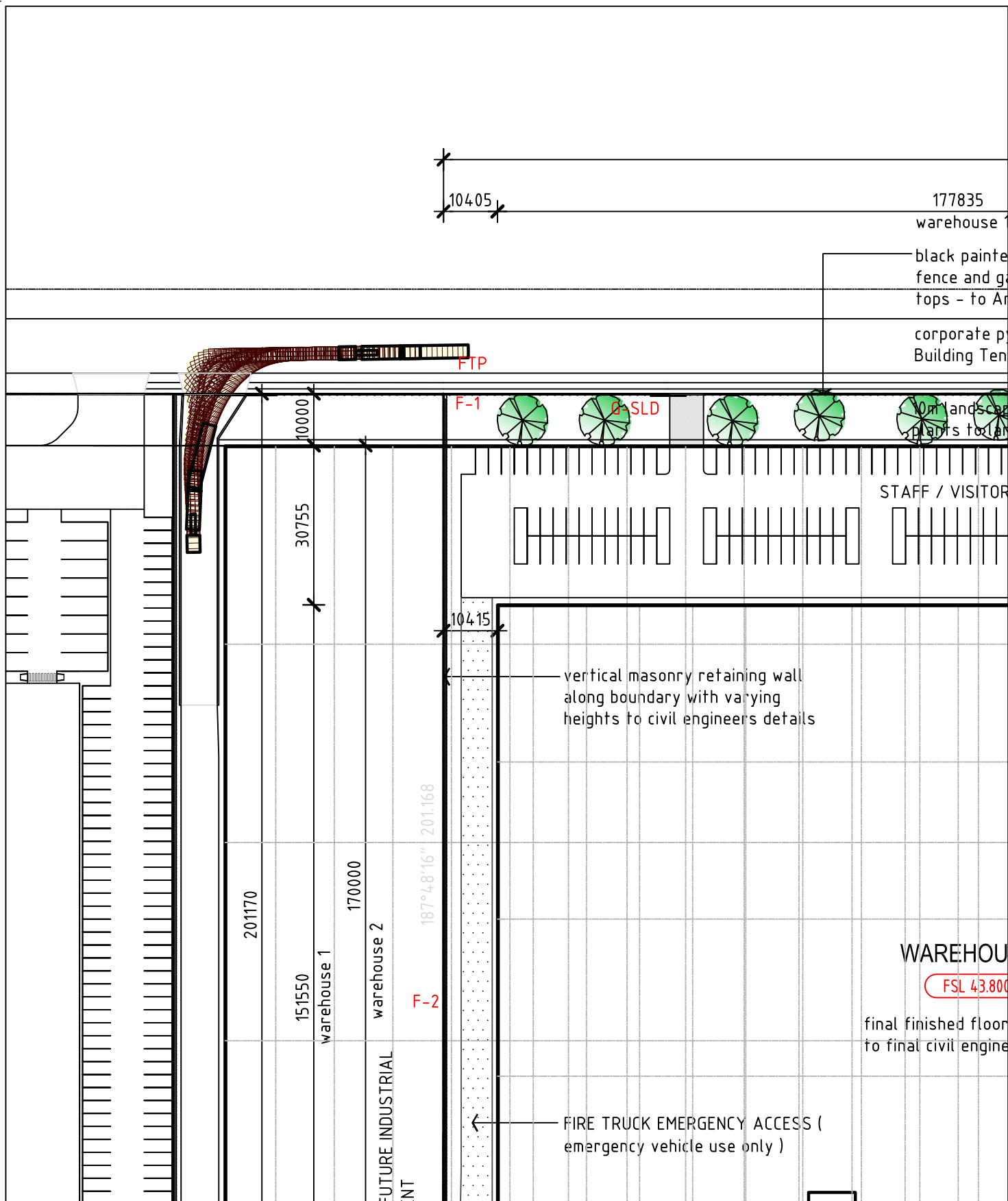
ADJOINING FUTURE INDUSTRIAL
 DEVELOPMENT

LEGEND

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 modelling computer software AutoTrack V5.00a in
 conjunction with AutoCAD 2013. The vehicle used
 is based upon vehicle data provided by Austroads
 and incorporates a reasonable degree of tolerance.
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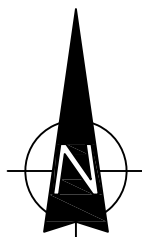


**SWEPT PATH ANALYSIS
 OF A 25m ARTICULATED
 VEHICLE EXITING THE SITE**



LEGEND

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SWEPT PATH ANALYSIS OF A 25m ARTICULATED VEHICLE ENTERING THE SITE

SP 15

42950

12000

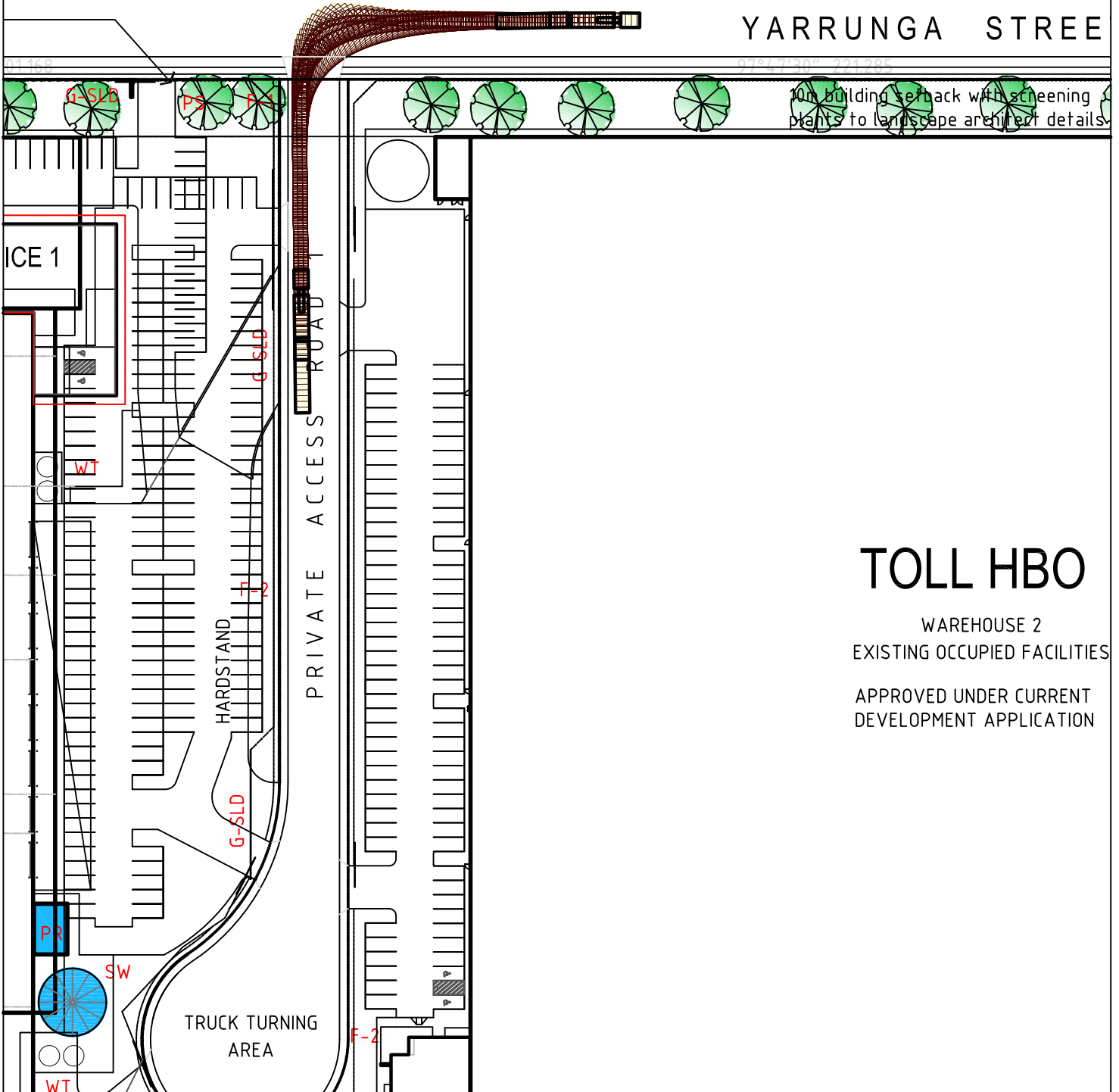
21300

176500

warehouse 2

YARRUNGA STREET

10m building setback with screening plants to landscape architect details



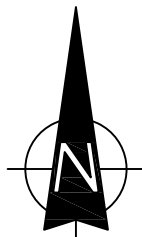
TOLL HBO

WAREHOUSE 2
EXISTING OCCUPIED FACILITIES

APPROVED UNDER CURRENT
DEVELOPMENT APPLICATION

LEGEND

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SWEPT PATH ANALYSIS OF A 25m ARTICULATED VEHICLE EXITING THE SITE

SP 16