

Traffic Impact Assessment Report

Industrial Development
2A Helles Avenue, Moorebank

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1 Introduction

1.1 Overview

Ason Group has been engaged by A.C. McGrath & Co Pty Ltd, to prepare a Traffic Impact Assessment (TIA) report to support a Planning Proposal at 2A Helles Avenue, Moorebank (the Site). The proposal generally seeks to permit vehicle sales and auctions to be undertaken on the site. The Site is located within the Liverpool City Council (LGA) and is therefore subject to that's Council's controls.

This TIA report provides an assessment of the relevant traffic, transport and parking implications of the Proposal. In preparing this TIA, Ason Group has referenced key planning documents, these include:

- Liverpool Development Control Plan (LDCP) (2008)
- Liverpool Local Environmental Plan (LEP) (2008)
- Moorebank Intermodal Terminal Facility (MITF)—Technical Note 4 (Hyper Consulting)

This TIA also references general access, traffic and parking guidelines, including:

- Roads and Maritime Services, *Guide to Traffic Generating Developments* (RMS Guide)
- Australian Standard 2890.1: Parking Facilities – Off Street Car Parking (AS 2890.1)
- Australian Standard 2890.2: Parking Facilities – Off Street Commercial Vehicle Facilities (AS 2890.2)
- Land Use Traffic Generation Data and Analysis 9 – Car Sales and Spares

1.2 Report Structure

The report is structured as follows:

- Section 2 provides a summary of the proposed development
- Section 3 describes the existing site conditions and land use
- Section 4 describes planned public transport and pedestrian links.
- Section 5 outlines the parking requirements applicable to the proposed development.
- Section 6 assesses the traffic impacts of the development including the Site's projected trip generation and forecasted network performance
- Section 7 discusses the site access and internal design of the development
- Section 8 provides a summary of the key conclusions.

2 Overview of Proposal

2.1 Summary of Proposed Development

A detailed description of the proposed development is included in the Statement of Environmental Effects, prepared separately by Willowtree Planning. In summary, the application aims to permit vehicle sales and auctions within the site. For the purposes of this report, general vehicle sales activities, not associated with the auctions events, are referred to as “fixed sales”.

The following summarises key aspects of the Proposal:

- Site area of 16,126 m² including:
 - 5,880 m² associated with the auction use; and
 - 10,246 m² associated with the fixed sales component (being the balance of the overall site)
- Provision of 71 car parking spaces including 41 customer spaces and 30 staff spaces.
- Operational hours:
 - Fixed sales 8am to 6pm for fixed sales
 - Auction Same as above but generally limited to 10am to 3pm
- 20 staff for the entire site
- Number of customers expected (at any one time):
 - Fixed sales 5
 - Auction 30 (this includes any customers associated with concurrent fixed sales)
- Vehicular access via the 2 existing driveways from Helles Avenue.

Reference should be made to the plans prepared by AHG, which are submitted separately. A reduced copy of the relevant plans are reproduced at a reduced scale for context below.



Figure 1: Site Plan

3 Existing Conditions

3.1 Site & Location

The Site is located within Liverpool LGA in Moorebank approximately 1.5 kilometres south of Liverpool and 27 kilometres south-west of Sydney CBD. It has a site area of 16,126 m² with frontages to Helles Avenue to the north, Moorebank Avenue to the east and industrial premises to the west and south. The site is legally described as Lot 3 in DP626253.

A Site Plan is presented in **Figure 2** which provides an appreciation of the site and the existing conditions.

3.1.1 Existing Land Use

The Site is currently zoned IN1 General Industrial under Liverpool Local Environment Plan 2008.

It is currently occupied by a warehouse building with a total Gross Floor Area (GFA) of some 5,780m² and is generally used for vehicle storage/display and a vehicle workshop. Vehicle sales to the public are not currently permitted on-site.

3.1.2 Existing Site Access

The site is accessed via 2 driveways to Helles Avenue.

3.2 Existing Site Generation

The existing industrial buildings on-site provide an approximate floor area of 5,780 m² of Gross Floor Area (GFA). In this regard, the RMS Guide to Traffic Generating Developments (RMS Guide) specifies a traffic generation rate of 0.5 – 1.0 trips per 100 m² for warehouse and industrial developments. Application of this rate to the existing industrial floor area would result in a peak hour traffic generation in the order of 29 – 55 trips during peak periods. This rate has been established through the application of relevant trip rates adopted within the RMS Guidelines.

3.3 Existing On-street parking controls

Unrestricted kerbside parking is generally available within Helles Avenue. However, parking is not permitted along the southern side of Helles Avenue past the northern driveway (110m along the frontage of the site from Moorebank Avenue). On the northern side of Helles Avenue parking is not permitted for 65 metres from Moorebank Avenue.

3.4 Road Hierarchy

The key roads providing in the vicinity of the site are summarised below:

- M5 Motorway – A classified RMS road (MR 6005) that traverses in an east-west direction to the south of the site. It forms one of the primary transport corridors and links central Sydney to the south-west. Signalised off-ramps are provided at its intersection with Moorebank Avenue.
- Moorebank Avenue – A classified RMS Main Road (MR657) that generally runs in a north-south direction and forms the eastern frontage of the Site. It provides connection to the M5 South Western Motorway to the south and Heathcote Road to the north. Parking is not permitted on either side of the road. Moorebank Avenue carries two lanes of traffic in each direction with a posted speed limit of 60km/h.
- Helles Avenue – a local road that traverses in the east-west direction that forms the northern frontage of the site. It forms an unsignalised intersection with Moorebank Avenue and terminates in a cul-de-sac. A speed limit of 50km/hr applies to Helles Avenue.



Figure 2: Site and Road Hierarchy

3.5 Existing Intersection Performance

3.5.1 Baseline SIDRA Performance Testing

Traffic survey data was extracted from the *Moorebank Intermodal Terminal Facility (MITF) - Technical Note 4* to determine existing traffic volumes at Helles Avenue / Moorebank Avenue, a key intersection in the vicinity of the site. A summary of the base case traffic volumes are presented in Figure 3.

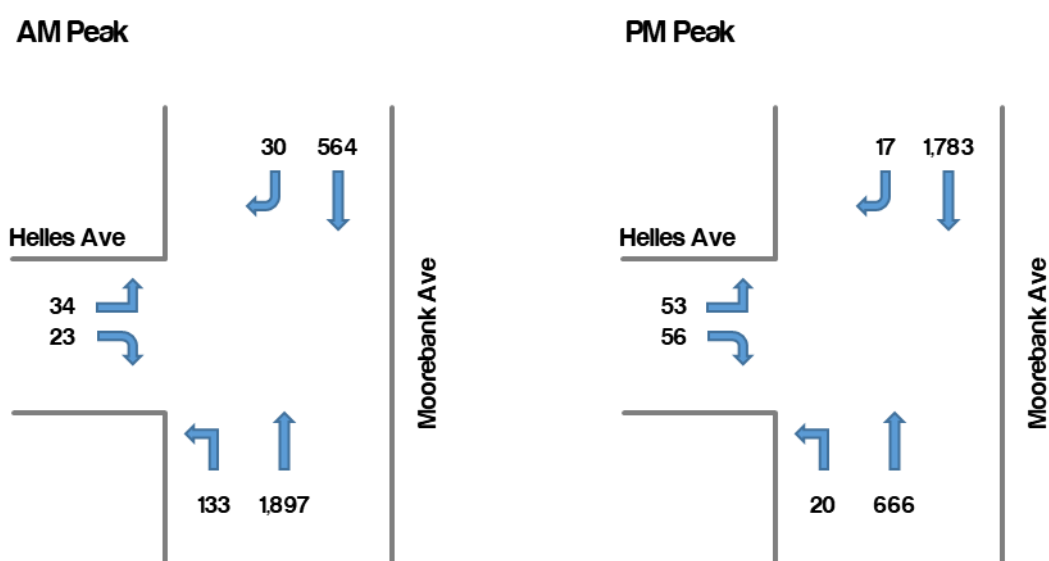


Figure 3: Network Traffic Volumes - Baseline

The performance of the key intersections has been analysed using the SIDRA Intersection computer program. SIDRA modelling outputs a range of performance measures, in particular:

- *Average Vehicle Delay (AVD)* – The AVD (or average delay per vehicle in seconds) for intersections also provides a measure of the operational performance of an intersection and is used to determine an intersection's Level of Service (see below). For signalised intersections, the AVD reported relates to the average of all vehicle movements through the intersection. For priority (Give Way, Stop & Roundabout controlled) intersections, the AVD reported is that for the movement with the highest AVD.
- *Level of Service (LOS)* – This is a comparative measure that provides an indication of the operating performance, based on AVD.

The following table provides a recommended baseline for assessment as per the RMS Guide.

Table 1: RMS Intersection Performance Assessment Criteria

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

The performance of the local network is summarised in Table 2 which presents the SIDRA intersection modelling results of the key intersections under the existing “baseline” scenario. Relevant SIDRA model outputs are attached at **Appendix A**.

Table 2: Local Network Performance - Baseline Conditions

Intersection	Control Type	Period	Intersection Delay	Level of Service
Helles Avenue / Moorebank Avenue	Priority	AM	>70	F
		PM	>70	F

The analysis indicates that the intersection of Helles Avenue with Moorebank Avenue exceeds capacity under base case conditions, irrespective of any changes as a result of the development.

4 Public Transport and Pedestrian Access

4.1 Existing Mode Share

Existing travel modes for persons employed with the locality have been established by review of available Journey-to-Work data for Travel Zone 3816 which includes the subject site. A summary of the mode share by various means is presented in Figure 4.

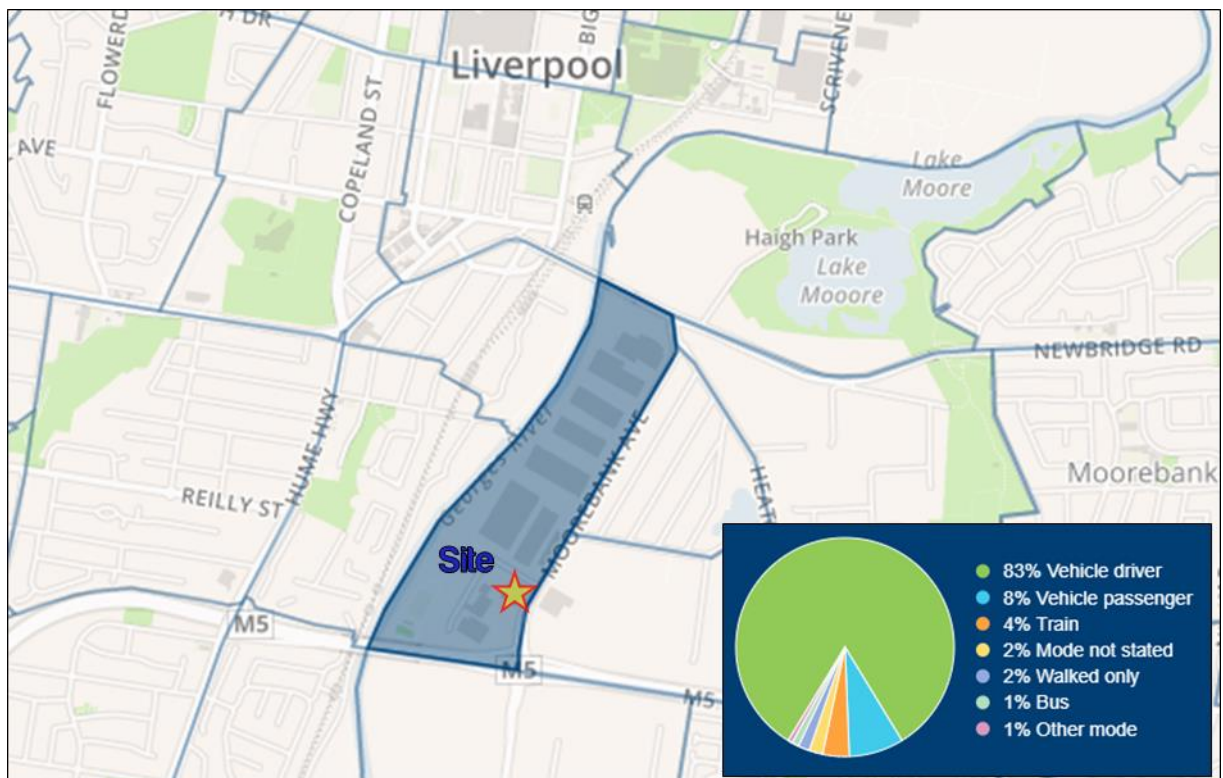


Figure 4: Existing JTW Travel Modes

4.2 Public Transport Services

The Site is well serviced by local public transport infrastructure, with key rail and bus services presented in Figure 5: Public Transport NetworkFigure 5Error! Reference source not found. and summarised below.

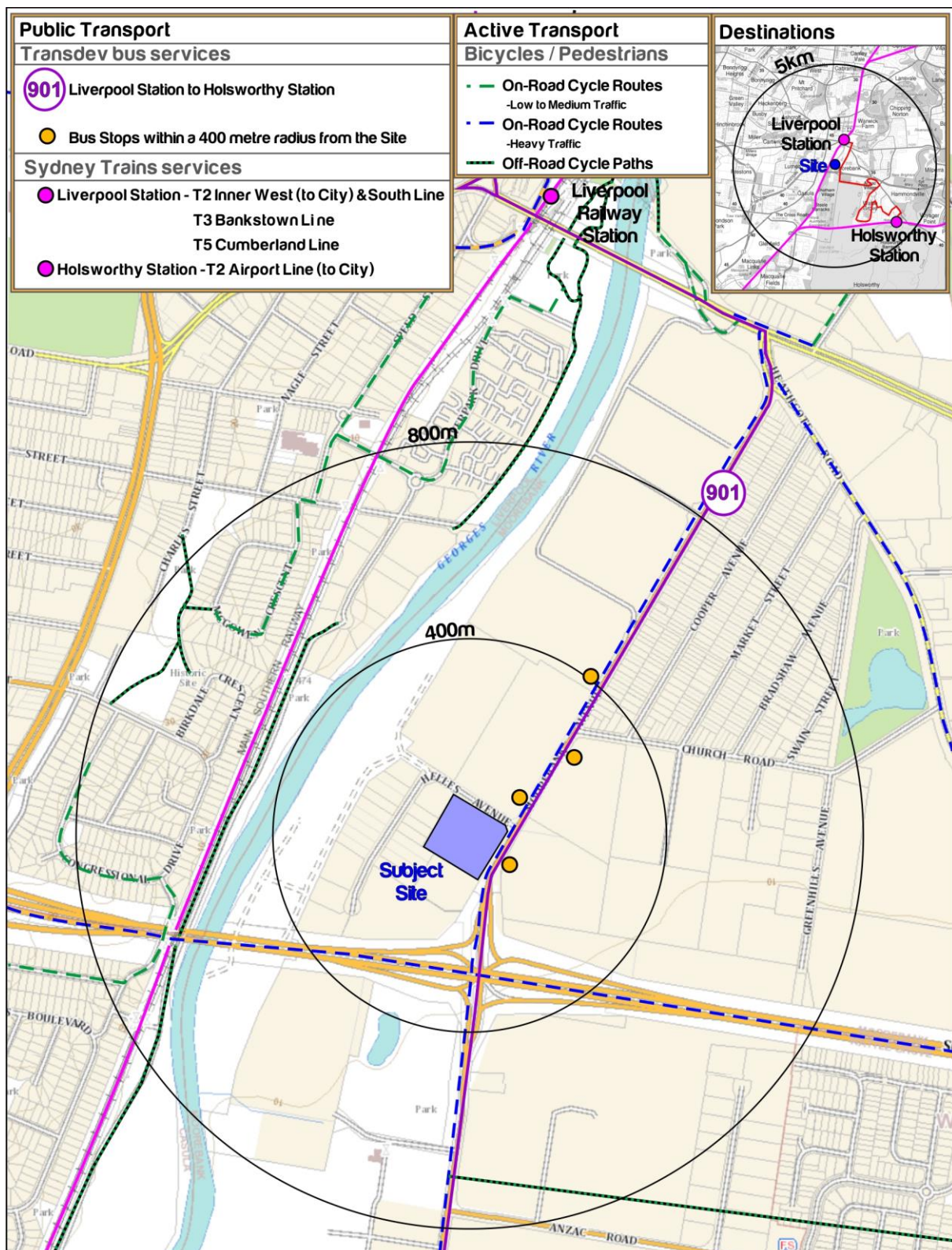


Figure 5: Public Transport Network

4.2.1 Railway Services

The *Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area* (Transport for NSW, December 2013) state that rail services influence the travel mode choices of areas within 800 metres walk (approximately 10 minutes) of a railway station.

The Site is located approximately 1.4 kilometres south of Liverpool Railway Station and 4 kilometres north-west of Holsworthy Railway Station both accessible via bus services as will be outlined in Section **Error! Reference source not found..**

Liverpool Railway Station is serviced by T2 Inner West & South West Line, T3 Bankstown Line and T5 Cumberland Line services, with connections to the Sydney CBD, Parramatta and Lidcombe. Holsworthy Railway Station is serviced by T2 Airport Line.

4.2.2 Bus Services

Having regard to the standard bus travel, the *Integrated Public Transport Service Planning Guidelines* state that bus services influence the travel mode choices of sites within 400 metres (approximately 5 minutes) of a bus stop. There are four bus stops within 400 walking distance of the Site as shown in Figure 5Error! Reference source not found. which are serviced by bus route 901 and provide connections to Liverpool Station and Holsworthy Station

4.3 Pedestrian Accessibility

Pedestrian footpaths are provided along both sides of Helles Avenue in the vicinity of the site.

Footpaths are provided in Moorebank Avenue, to the north of Helles Avenue. No formal footpath is provided in Moorebank Avenue adjacent to the site, however there is a level grass verge which does permit pedestrian connectivity.

5 Parking Requirements

5.1 Car Parking

5.1.1 DCP Requirement

Section 20.2 Council's DCP outlines the parking requirements for development outside of the Liverpool City Centre and applicable to the development. Of the rates included in Table 12 of the DCP, a "vehicle showroom" would be considered the most applicable to the proposed use, which required car parking to be provided at the following rate:

- Vehicle showroom 1 space per 130m²

The DCP does not specify which areas this rate is to be applied against. However, it is similar to the *RMS Guide to Traffic Generating Developments* "motor showroom" rate of 0.75 spaces per 100m² of site area. Accordingly, it is assumed the intent is for Council's DCP rate to apply to the relevant site area (16,126m²) resulting in a nominal requirement for 125 spaces.

However, this is considered to be excessive as only part of the site area is being used for general vehicle sales purposes with remainder of the site being used for intermittent car auctions. In this regard, the auction area comprises some 5,880m² of the overall site area, as demonstrated in **Figure 6**.

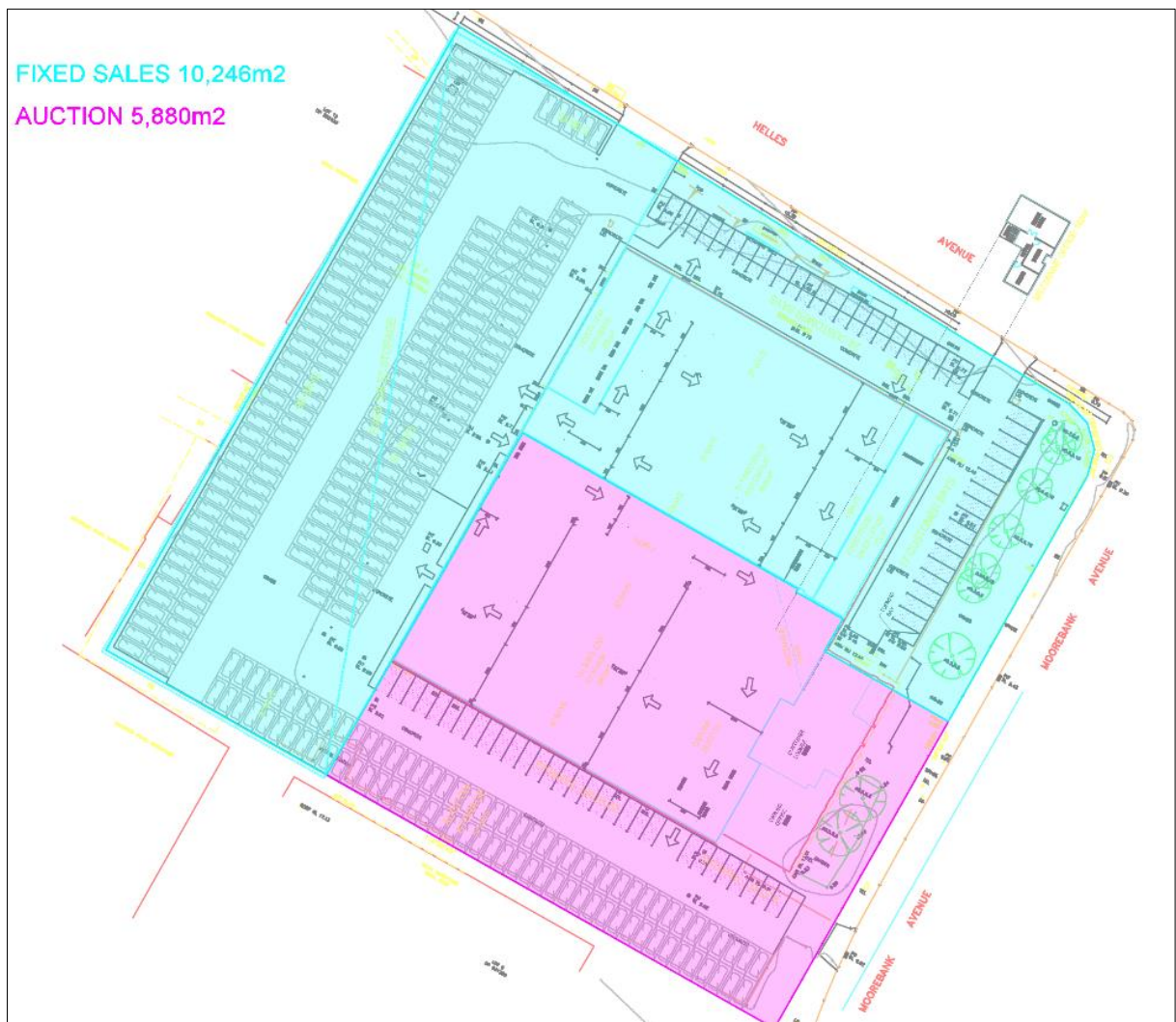


Figure 6: Site Area Allocation by Land-use

Applying the vehicle showroom rate to the relevant site area of 10,246m² associated with vehicles sales results in a parking requirement of 79 spaces.

5.1.2 First Principles Assessment

As discussed above, the number of parking spaces nominally required by the DCP is excessive in the context of the known operational requirements of the proposed development. Accordingly, a first-principles analysis has been undertaken to determine future car parking demands. This analysis investigates the parking demands projected to occur under 2 scenarios:

- Typical daily operations no auction customer demands; and
- During auctions concurrent fixed sales and auction demands.

The JTW mode share data for the locality (based on TZ3816) shows that 83% of people working in the area are considered “vehicle drivers”. Accordingly, it is assumed that 83% of staff will drive to the site.

Based on the survey data contained in the *Land Use Traffic Generation for Car Sales and Spares*, which underpins the *RMS Guide Traffic Generating Developments*, the average vehicle occupancy rate for vehicle sales facilities is 1.4 persons per car.

Having regard for the above, the projected parking demands arising from typical daily conditions and during auctions is presented in **Table 3**.

Table 3: Projected Parking Demands

Person Type	Typical (Fixed Sales Only)		Auction	
	Number of Persons	Parking Demand	Number of Persons	Parking Demand
Staff	20	17	20	17
Customer	5	4	30	21
Total	25	21	50	38

Having regard for the above, the projected parking demands are a total of 21 spaces during normal day-to-day operations, with up to 38 spaces demand during auction events.

5.1.3 Car Parking Provision

The plans include provision for a total of 71 car parking spaces for staff and customers. This exceeds the projected demands of up to 38 spaces, as outlined in Section 5.1.2 above, and forms a suitable compromise between projected demands and Council’s nominal DCP requirements.

Vehicles associated with the subject site are not to be parked on-street and, in this regard, it is emphasised that there is sufficient on-site hardstand and parking areas that additional car parking can be readily provided in response to demands as they occur should the operational characteristics of the development change in the future.

Notwithstanding, parking provisions are a detailed matter for assessment during subsequent Development Application submissions. The key point at this stage being that a suitable level of on-site parking can readily be provided should on-site vehicles sales be permitted, as is sought by this Planning Proposal.

5.2 Accessible Parking

Council's DCP states that disabled car parking shall be provided at the following rate for industrial land use for car parking areas over 20 spaces:

- 1 per 100 spaces

With a total projected demand of 38 spaces, there is a requirement for a single accessible parking spaces to be provided. This is a detailed matter that can be addressed as part of subsequent Development Application submissions.

5.3 Servicing and Waste Collection

As a vehicle sales facility, it is anticipated that access to the site will be required for large car carriers, up to 19 metres in length. These vehicles will unload within the fixed sales hardstand area.

Vehicular access and internal circulation implications are discussed further in Section 7.

6 Traffic Assessment

6.1 Traffic Generation

6.1.1 Generation Rates

The RMS *Guide to Traffic Generation Developments* (2002) recommends the following traffic generation rates:

- Industrial 0.5 veh/hr per 100m² warehouse GFA
 1.0 veh/hr per 100m² factory GFA
- Motor showroom 0.7 veh/hr per 100m² of site area

Application of these traffic generation rates to the development permissible on-site under both existing controls and as sought by the proposal are discussed below.

6.1.2 Existing Traffic Generation

During site investigations, the subject site was observed to generate relatively low traffic volumes during peak periods.

From a land-use planning perspective, consideration should also be given to what might be generated historically by the site as a warehouse development. In this regard, application of the above industrial trip rates to the existing 5,780m² building area would result in an implicit traffic generation of between 29-58 vehicles per hour associated with the site, under existing controls.

6.1.3 Development Traffic Generation

This application seeks approval for vehicle sales and car auction activities on the site.

The RMS Guide does not specify a rate for car auctions. Notwithstanding, car auctions will typically occur between 10.00AM to 3.00PM which is outside of typical on-street peak periods. Therefore, auction traffic can be omitted from the analysis for the purposes of peak hour network performance.

Application of the “motor showroom” rate to the total site area results in a total of 133 vehicle trips per hour during peak periods, or 72 vehicles per hour if applied to the effective site area associated with the sales use (10,246m²). Notwithstanding, these rates assume substantially higher parking demands than are projected in Section 5.1.2. Accordingly, a similar first-principles analysis is to be undertaken in relation to projected peak hour traffic generation.

Having regard for the number of staff and customers, the projected traffic generation was determined using the same methodology as outlined in Section 5.1.2. This assumes the conservative scenario whereby all staff and fixed sales customers arrive during over a one-hour period that corresponds to the network peak period. A summary of the staff and customer traffic generation during peak periods is presented in **Table 4**.

Table 4: Projected On-street Peak Hour Traffic Generation

	Number of people	Traffic Generation
Staff	20	17
Customer	5	4
Total	25	21

Vehicle sales and auctions on-site are expected to generate approximately 21 vehicle trips during on-street peak periods.

6.2 Traffic Impacts

As outlined above, the proposed use of the site for vehicle sales and auctions is expected to generate in the order of 21 vehicle trips per hour during peak periods. This compares with between 29-58 vehicles per hour that might reasonably occur under existing controls should the site revert back to a typical industrial use.

Accordingly, the proposal is expected to result in less traffic on the surrounding road network during critical peak periods. In this regard, the proposal will not exacerbate existing traffic conditions in the locality nor compromise future changes to the surrounding road network that may be considered in the future (to resolve existing issues more generally). Accordingly, surrounding intersections in the locality are expected to continue to operate as occurs with similar delays and queues.

7 Design Commentary

7.1 Relevant Design Standards

The site access, car park and loading areas have been designed to comply with the following relevant Australian Standards:

- AS2890.1 for car parking areas;
- AS2890.2 for commercial vehicle loading areas;
- AS2890.6 for accessible (disabled) parking.

It is expected that any detailed construction drawings in relation to any modified areas of the car park or site access would comply with these Standards. Furthermore, compliance with the above Standards would be expected to form a standard condition of consent to any development approval.

7.2 Site Access Arrangements

Access to the site is proposed via the 2 existing driveways to Helles Avenue. Access to the site by trucks and other commercial vehicles is limited to the western access to limit the interaction of light and heavy vehicles on-site. Notwithstanding, light vehicles (cars) shall have access to both the eastern and western driveways.

No direct vehicular access to Moorebank Avenue is proposed.

7.3 Internal Design Commentary

The proposed has been generally designed having regard for the above Standards, noting that some minor changes may occur as part of the Construction Certificate design development.

As discussed in Section 5.3, access to the site is required for up to an included 19 metre articulated trucks for the delivery of vehicles. In this regard, reference is made to the swept path analysis provided in **Appendix B**, which demonstrate site access and manoeuvrability through the site.

8 Conclusions

The key findings of this Traffic Impact Assessment are:

- The Planning Proposal relates to the site at 2A Helles Avenue, Moorebank and seeks to permit vehicle sales and auction activities to occur on-site. It lies within the Liverpool Council LGA and is subject to the requirements of the Liverpool LEP and DCP.
- Four bus stops are available within 400 walking distance of the Site which provides connections to Liverpool Station and Holsworthy Station. Review of mode share data for the surrounding area indicates moderate usage of train services (4%) despite the site being approximately 1.4 kilometres from Liverpool Station. Notwithstanding, mode share to 'car driver' is still relatively high at 83%.
- Other than Helles Avenue, the site is generally surrounded by Classified Roads (such as Moorebank Avenue to the east and the M5 Motorway to the south) carrying relatively high traffic volumes during peak periods. In this regard, the key local intersection of Helles Avenue with Moorebank Avenue exceeds theoretical capacity under existing baseline conditions.
- Having regard for the Liverpool Council controls, the proposed development would require 125 car parking spaces based on the generic vehicle showroom rate outlined by the DCP. However, only part of the site area is to be used for day-to-day sales purposes and, accordingly, this nominal rate is not considered representative of the form of development proposed.
- In this regard, a first-principles assessment of parking demands based on projected mode share data for staff and average car occupancy figures obtained from RMS research indicates the following parking demands for the 2 scenarios under consideration:
 - Day-to-day activities 21 spaces
 - During auctions 38 spaces
- In response, 71 car parking spaces are provided which includes 41 customer spaces and 30 staff spaces. This provision exceeds that of the projected demands and will ensure that all parking demands generated by the Proposal would be accommodated on-site and would not have adverse impacts to the availability of on-street parking in the area.
- Under existing controls, as a standard industrial warehouse / factory use, the site could reasonably generate in the order of 29 – 58 vehicles per hour during peak periods.
- The proposed vehicle sales and auctions are expected to generate 21 vehicle trips per hour during on-street peak periods.
- Accordingly, the proposal is expected to result in less traffic on the surrounding road network during critical peak periods. In this regard, the proposal will not exacerbate existing traffic conditions in the locality nor compromise future changes to the surrounding road network that may be considered

in the future (to resolve existing issues more generally). Accordingly, surrounding intersections in the locality are expected to continue to operate as occurs with similar delays and queues.

- The access and car park design has generally been designed having regard for relevant Australian Standards (AS2890 series). A standard condition of consent requiring compliance with AS2890 would be considered sufficient to ensure that any minor changes to the plans required, if any, could be undertaken as part of detailed Construction Certificate documentation, post development approval.

In summary, the Proposal is supportable on traffic planning grounds and will not result in any adverse impacts on the surrounding road network or the availability of on-street parking.

Appendix A

SIDRA Modelling Outputs

MOVEMENT SUMMARY

Site: 101 [Helles Ave / Moorebank Ave AM]

Helles Ave / Moorebank Ave

Period: AM Peak

Giveway / Yield (Two-Way)

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	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Moorebank Ave											
1	L2	140	2.0	0.557	5.6	LOS A	0.0	0.0	0.00	0.08	56.8
2	T1	1997	2.0	0.557	0.1	LOS A	0.0	0.0	0.00	0.04	59.1
Approach		2137	2.0	0.557	0.4	NA	0.0	0.0	0.00	0.04	58.9
North: Moorebank Ave											
8	T1	594	2.0	0.308	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
9	R2	32	2.0	0.971	311.2	LOS F	3.9	27.8	1.00	1.20	7.3
Approach		625	2.0	0.971	15.7	NA	3.9	27.8	0.05	0.06	39.4
West: Helles Ave											
10	L2	36	2.0	0.096	12.9	LOS A	0.3	2.2	0.74	0.88	40.6
12	R2	24	2.0	4.035	3126.1	LOS F	20.5	145.6	1.00	1.36	0.8
Approach		60	2.0	4.035	1269.1	LOS F	20.5	145.6	0.84	1.07	1.8
All Vehicles		2822	2.0	4.035	30.8	NA	20.5	145.6	0.03	0.07	28.7

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road 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.

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MOVEMENT SUMMARY

Site: 101 [Helles Ave / Moorebank Ave PM]

Helles Ave / Moorebank Ave

Period: PM Peak

Giveway / Yield (Two-Way)

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	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Moorebank Ave											
1	L2	21	2.0	0.188	5.6	LOS A	0.0	0.0	0.00	0.03	57.4
2	T1	701	2.0	0.188	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
Approach		722	2.0	0.188	0.2	NA	0.0	0.0	0.00	0.02	59.5
North: Moorebank Ave											
8	T1	1877	2.0	0.502	0.2	LOS A	0.7	5.2	0.03	0.01	59.3
9	R2	18	2.0	0.502	14.3	LOS A	0.7	5.2	0.07	0.01	51.2
Approach		1895	2.0	0.502	0.4	NA	0.7	5.2	0.03	0.01	59.1
West: Helles Ave											
10	L2	56	2.0	0.060	6.1	LOS A	0.2	1.5	0.39	0.60	45.3
12	R2	59	2.0	9.825	8170.3	LOS F	55.1	392.2	1.00	1.42	0.3
Approach		115	2.0	9.825	4200.6	LOS F	55.1	392.2	0.71	1.02	0.6
All Vehicles		2732	2.0	9.825	176.7	NA	55.1	392.2	0.05	0.05	8.6

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

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

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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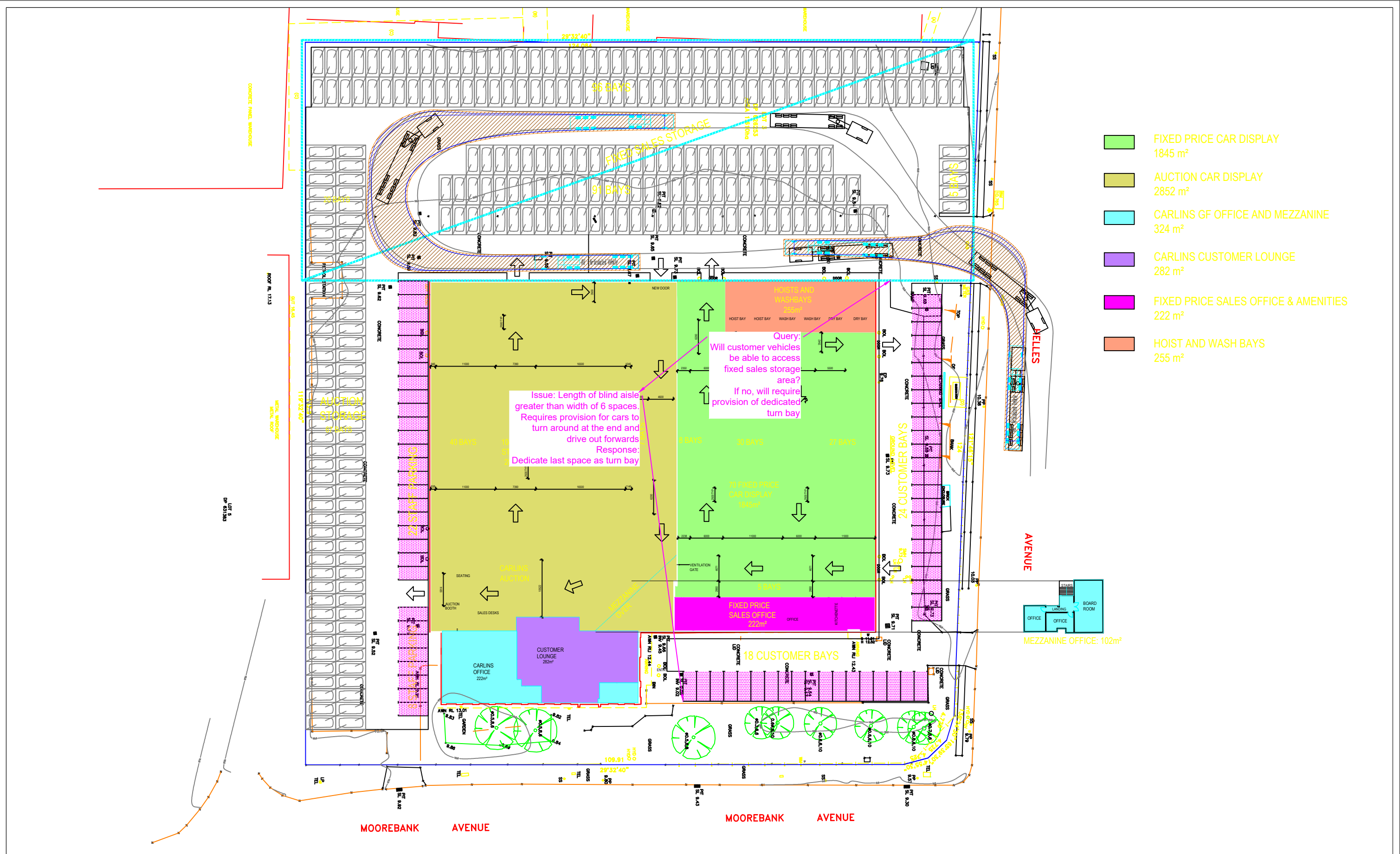
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Appendix B

Swept Paths



Revision notes:		
Rev:	Date:	Notes:
For information purposes only - not for construction		

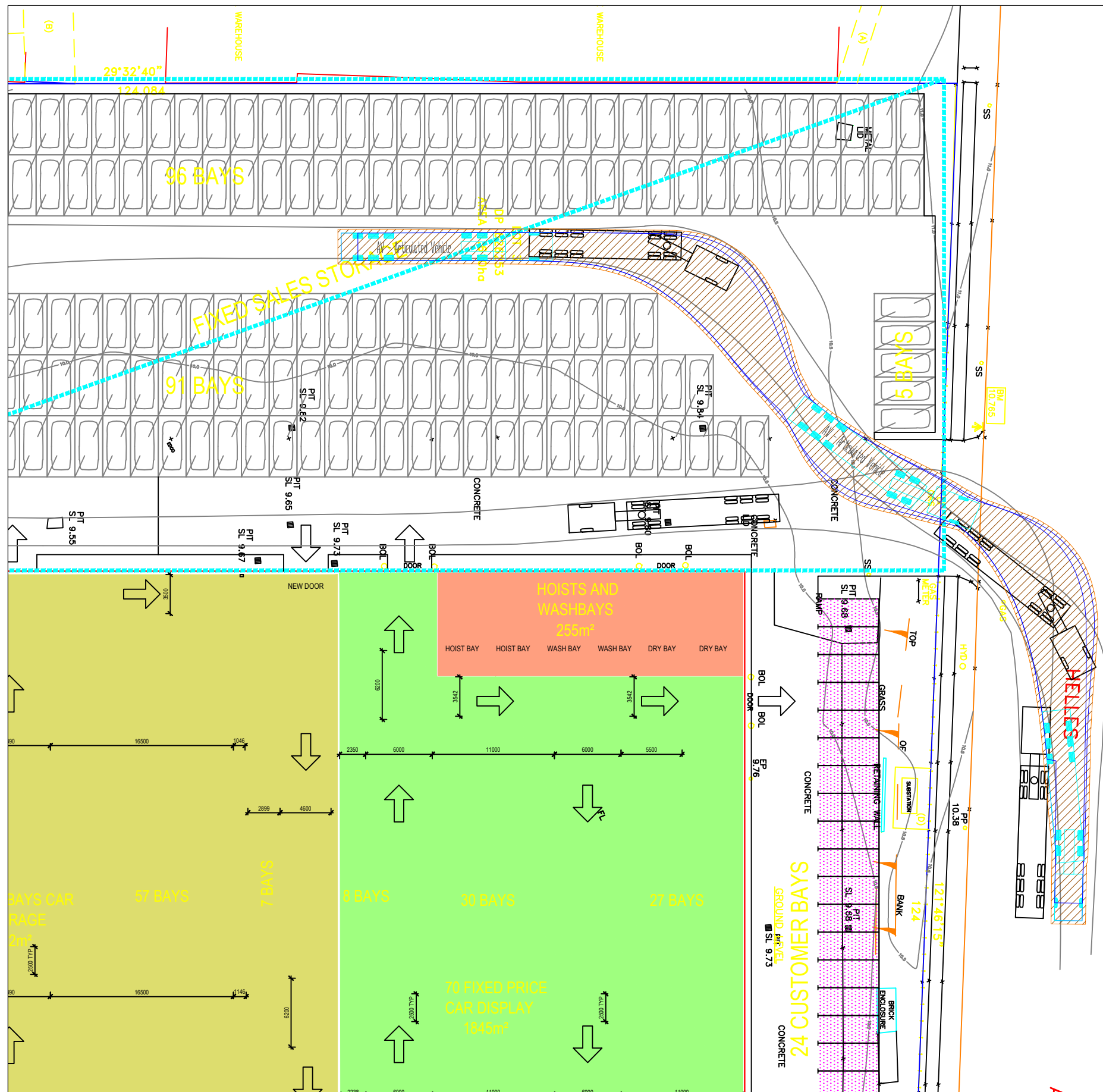
Drawn By:
CT
Client:
Willowtree Planning

Project:
0498 2A Helles Avenue, Moorebank
Drawing Title:
Swept Paths

Date:
23-Aug-17
Scale @ A3:
[scale]
Drawing Number:
AG.01



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- FIXED PRICE CAR DISPLAY
1845 m²
- AUCTION CAR DISPLAY
2852 m²
- CARLINS GF OFFICE AND MEZZANINE
324 m²
- CARLINS CUSTOMER LOUNGE
282 m²
- FIXED PRICE SALES OFFICE & AMENITIES
222 m²
- HOIST AND WASH BAYS
255 m²

Revision notes:		Drawn By: CT	Project: 0498 2A Helles Avenue, Moorebank	Date: 23-Aug-17	
Rev:	Date:				
For information purposes only - not for construction		Client: Willowtree Planning	Drawing Title: Swept Paths		