

TRAFFIC IMPACT ASSESSMENT

79 Gow Street, Padstow

PREPARED FOR:

Orange Bins Group Pty Ltd

REFERENCE:

0828r01v02

DATE:

12/09/2023



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ABN: 82 633 257 388

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Revision History

VERSION	DATE	PREPARED	REVIEWED	APPROVED	SIGNED
01	4/09/2023	Revathy Madhu	Julius Boncato	Paul Corbett	Original Signed
02	12/09/2023	Julius Boncato	Julius Boncato	Paul Corbett	

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1. Introduction

1.1. Overview

PDC Consultants has been commissioned by Orange Bins Group Pty Ltd (the Proponent) to undertake a traffic impact assessment to accompany a S4.55 modification application (S4.55 application) to modify an existing Development Application (DA), DA-283 / 2011 (the existing consent), for the site at 79 Gow Street, Padstow. The S4.55 application will consist of the following characteristics:

- No changes to the existing floor areas of the warehouse and office buildings.
- No changes to the approved operation of the site to process a maximum of 29,000 tonnes / year of construction materials.
- Minor reconfiguration of the car parking arrangements to maintain a total of 34 car spaces.
- Provision of a total of eight truck parking spaces to accommodate vehicles up to and including a 9.0-metre-long rigid truck.
- Designated external areas within the hardstand areas to allow for the storage of empty skip bins. The empty skip bins will be placed on top of 500mm high steel grates.
- Retention of the existing vehicle access driveway onto Gow Street.

Having regard for the above, the Proposal does not require referral of the DA to Transport for New South Wales (TfNSW), under the provisions of the State Environmental Planning Policy (Transport and Infrastructure) 2021.

The site is located within the Canterbury-Bankstown Council (Council) local government area and has therefore been assessed in accordance with the Canterbury-Bankstown Local Environmental Plan 2023 (CBLEP) and Canterbury-Bankstown Development Control Plan 2023 (CBDPC).

1.2. Existing Consent

The existing consent permits the operation of the site under the following approved conditions:

- A two-storey office building with a building area of 324m².
- A warehouse and office building with a building area of 1,940m².
- A recycling facility with a building area of 2,698m² and permitted to process a maximum of 29,000 tonnes per annum of construction materials.
- At-grade car parking for 34 car spaces.
- A vehicle access driveway onto Gow Street.

1.3. Structure of this Report

This report documents the findings of our investigations in relation to the anticipated traffic and parking impacts of the Proposal and should be read in the context of the Statement of Environmental Effects (SEE), prepared separately. The remainder of this report is structured as follows:

- Section 2: Describes the site and existing traffic and parking conditions in the locality.
- Section 3: Describes the Proposal.
- Section 4: Assesses the parking requirements of the development.
- Section 5: Assesses the traffic impacts of the development.
- Section 6: Discusses the proposed access and internal design arrangements.
- Section 7: Presents the overall study conclusions.

1.4. References

In preparing this report, reference has been made to the following guidelines / standards:

- Canterbury-Bankstown Local Environmental Plan 2023 (CBLEP).
- Canterbury-Bankstown Development Control Plan 2023 (CBDCP).
- State Environmental Planning Policy (Transport and Infrastructure) 2021.
- Australian Standard AS 2890.1-2004, Part 1: Off-Street Car Parking (AS 2890.1).
- Australian Standard AS 2890.2-2018, Part 2: Off-Street Commercial Vehicle Facilities (AS 2890.2).
- Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, 2013 (Integrated Public Transport Planning Guidelines 2013).
- RMS Guide to Traffic Generating Development 2002 (RMS Guide).
- RMS Technical Direction TDT 2013/04a – Guide to Traffic Generating Developments, Updated Traffic Surveys (RMS Guide Update).

2. Existing Conditions

2.1. Location and Site

The subject site is located at 79 Gow Street, Padstow, being situated approximately 18 kilometres southwest of the Sydney CBD, and 1.5 kilometres north of Padstow Railway Station. More specifically, the site is located on the southern side of Gow Street between its intersections with Wordie Place in the east and Gatwood Close in the west.

The site is comprised of a single lot, formally identified as Lot 3, DP 371357. The site is polygonal in configuration with a total area of approximately 8,600 m². The site has one street frontage, being Gow Street to the north. The eastern, western and southern boundaries border neighbouring industrial developments.

The site currently accommodates three separate buildings including:

- A two-storey office building at the north-western corner of the site with a building area of 324m².
- A warehouse and office building with a building area of 1,940m².
- A recycling facility with a building area of 2,698m².

Figure 1 and **Figure 2** provide an appreciation of the site's location in a local and broader context, respectively.

2.2. Road Network

The road hierarchy in the vicinity of the site is shown by **Figure 2**, with the following roads considered noteworthy:

- **Fairford Road:** forms part of a classified State Road, MR 190. Fairford Road runs in a north-south direction intersecting Stacey Street and Macauley Avenue in the north and Davies Road and Watson Road in the south. Near the site, Fairford Road is subject to 70km/h speed zoning restrictions and carries three lanes of traffic in each direction within a 23-metre-wide divided carriageway.
- **Gow Street:** a local road that runs in an east-west direction between Fairford Road in the east and Gibson Avenue in the west. It is subject to 50km/h speed zoning restrictions and accommodates a single lane of traffic in both directions. Unrestricted parallel parking is permitted along both kerbsides.



Figure 1: Site Plan

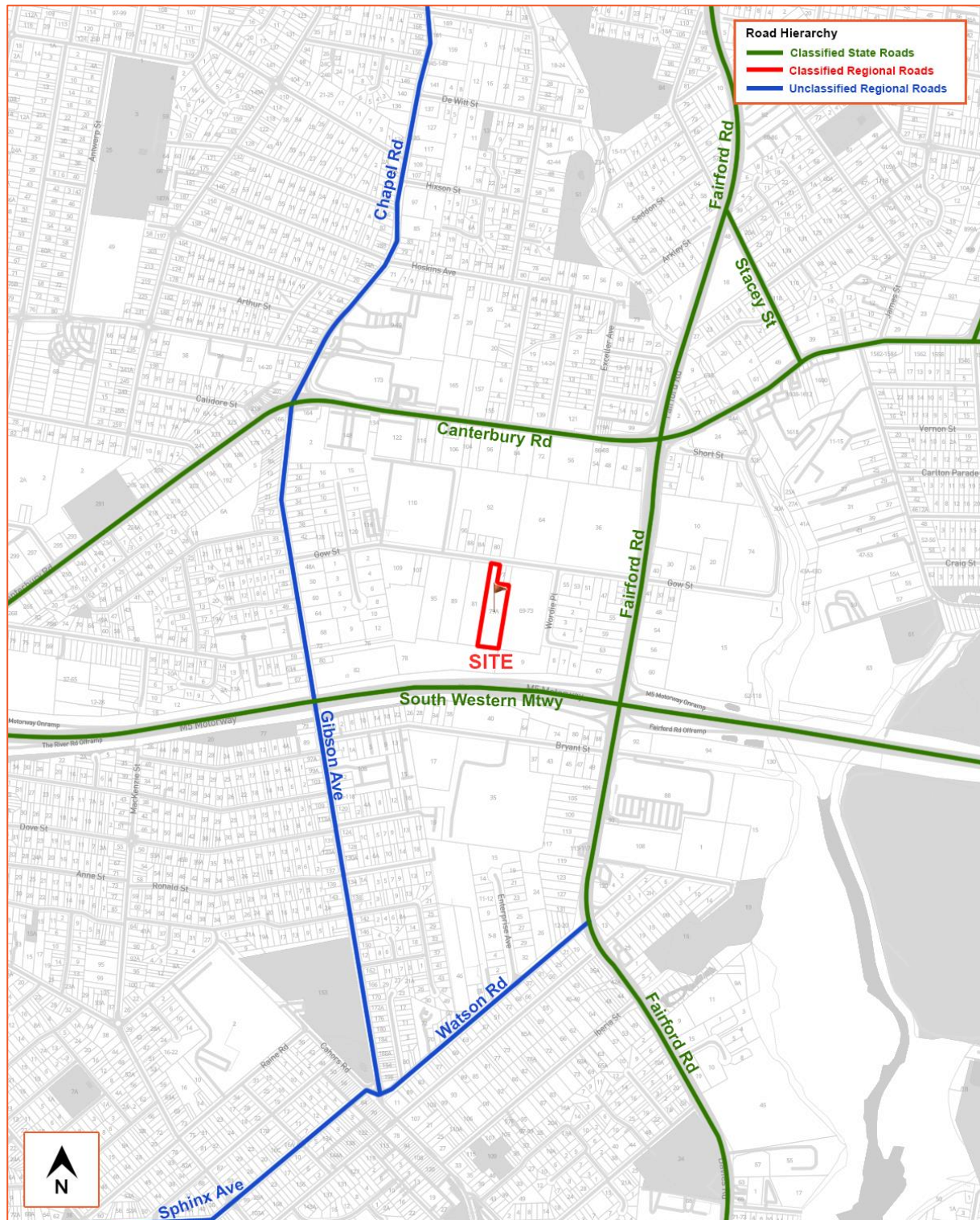


Figure 2: Location and Road Hierarchy Plan

2.3. Public and Active Transport

2.3.1. Rail Services

The Integrated Public Transport Service Planning Guidelines 2013 states that the walking catchment for metropolitan railway stations includes all areas within an 800 metre radius of a station. It can be seen from **Figure 3:** that Padstow Railway Station is located approximately 1.5 kilometres south of the site and hence, falls outside the typical walking catchment area. Nevertheless, workers of the site would be able to access Padstow Railway Station and the Sydney rail network as part of a multi-modal journey (e.g. bus and rail or cycle and rail).

Padstow Railway Station is serviced by a single railway line, being the T8 Airport and South Line. **Table 1** below shows the notable town centres that are accessible along the abovementioned railway line and the average service headways during peak and off-peak periods.

Table 1: Rail Services

RAILWAY LINE	NOTABLE TOWN CENTRES ALONG LINE	AVERAGE HEADWAY
T8 Airport and South Line	Macarthur, Campbelltown, East Hills, Revesby, Turrella, Wolli Creek, International Airport, Domestic Airport, Redfern and Sydney CBD	Weekdays: 5 – 15 minutes Weekends: 5 – 15 minutes

2.3.2. Bus Services

The Integrated Public Transport Service Planning Guidelines 2013 states that the walking catchment for metropolitan bus services includes all areas within a 400 metre radius of a bus stop. As can be seen from **Figure 3:**, the site is situated within 400 metres of two bus stops located on Fairford Road serviced by one bus route. An additional seven bus routes are available within 800 metres of the site along Gibson Avenue, Canterbury Road, and Chapel Road. Accordingly, the site has excellent access to bus services, with workers expected to utilise these services for journeys to and from the site.

Table 2 shows the notable town centres that are accessible via the abovementioned bus services and the average service headways during the peak and off-peak periods.

2.3.3. Cycle Network

Figure 3: shows the site has relatively good access to the local bicycle network with on-road cycle paths provided along the South Western Motorway and Bryant Street and off-road cycle paths adjacent to Salt Pan Creek. These cycle paths are located south and east of the site respectively and provide connections to the wider bicycle and active transport network.

Table 2: Bus Services

ROUTE NO.	ROUTE (TO / FROM)	ROUTE DESCRIPTION	AVERAGE HEADWAY
487	Bankstown Central to Canterbury	Via Bankstown, Punchbowl, Roselands, Campsie, Canterbury	Weekdays: 20 – 30 minutes peak / 30 minutes peak Saturdays: 30 minutes Sundays & Public Holidays: 1 hour
922	East Hills to Bankstown via Milperra	Via East Hills, Milperra, Revesby, Bankstown	Weekdays: 30 minutes Saturdays: 1 hour Sundays & Public Holidays: 1 hour
923	Panania to Bankstown via Picnic Point	Via Panania, Picnic Point, Revesby and Bankstown	Weekdays: 20 – 30 minutes peak Saturdays: 1 hour Sundays & Public Holidays: 1 hour
924	East Hills to Bankstown via Panania	Via East Hills, Panania, Revesby, Bankstown	Weekdays: 30 – 60 minutes Saturdays: 1 hour Sundays & Public Holidays: 1 hour
926	Revesby Heights to Bankstown	Via Revesby Heights, Revesby, Bankstown, Condell Park, Bankstown Central	Weekdays: 30 minutes peak / 1 hour off peak Saturdays: 1 hour Sundays & Public Holidays: 1 hour
927	One Tree Point to Padstow	Via Padstow, Padstow Heights	Weekdays: 30 minutes peak / 1 hour off peak Saturdays: No services Sundays & Public Holidays: No services
M90	Burwood to Liverpool	Via Burwood, Strathfield, Strathfield South, Greenacre, Bankstown, Revesby, Milperra, Chipping Norton, Moorebank, Liverpool	Weekdays: 10 minutes peak / 15 minutes off peak Saturdays: 20 minutes Sundays & Public Holidays: 20 minutes
M91	Hurstville to Parramatta via Padstow & Chester Hill	Via Hurstville, Penshurst, Peakhurst, Padstow Heights, Padstow, Bankstown, Yagoona, Bass Hill, Chester Hill, South Granville, Granville, Parramatta	Weekdays: 10 minutes peak / 15 minutes off peak Saturdays: 20 minutes Sundays & Public Holidays: 20 minutes
M92	Sutherland to Parramatta	Via Sutherland, Bangor, Menai, Illawong, Padstow, Bankstown, Yagoona, Regents Park, Lidcombe, Rosehill, Parramatta	Weekdays: 10 minutes peak / 15 minutes off peak Saturdays: 20 minutes Sundays & Public Holidays: 20 minutes

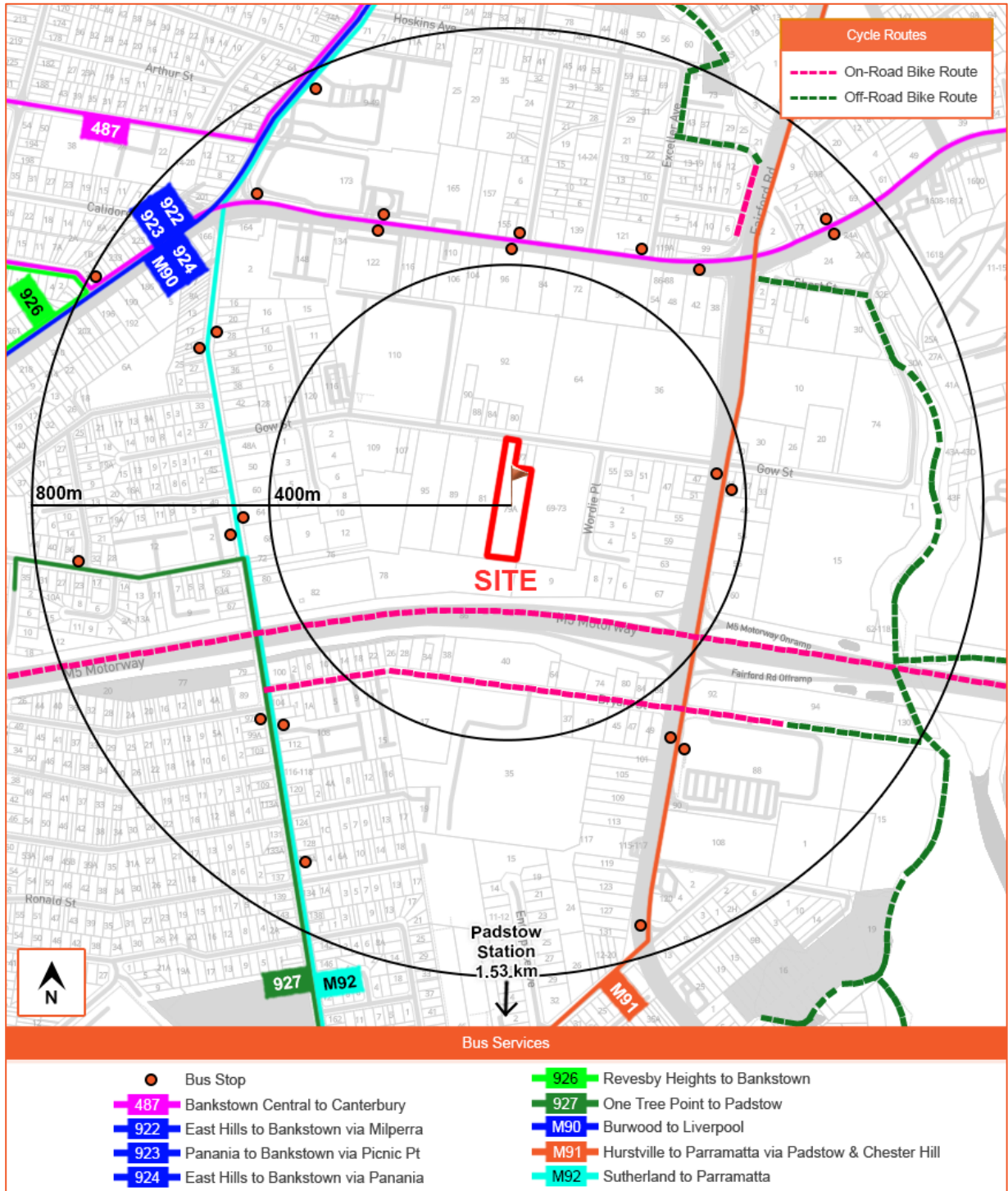


Figure 3: Public & Active Transport Services

2.4. Existing Traffic Generation

To gain an appreciation of the existing (and actual) traffic generation of the site, liaison was undertaken with the client to understand the typical light vehicle (e.g. staff and workers) and heavy vehicle movements. Relevant details are as follows:

- Hours of operation being: 5:30 am – 5:00 pm.
- There are a total of 13 staff on-site at any one-time including eight site workers and five drivers (some site staff may drive trucks).
- A total of eight trucks are kept on-site.
- Each truck will arrive back to the site four to five times before close of business. This equates eight to ten daily truck movements per truck over approximately 12 hours (or 1 – 2 truck movements per hour).

With the above information, a first principles approach could be undertaken to determine the peak period traffic generation of the existing operations of the site during the typical 7:00 am – 9:00 am (AM) and 4:00 pm – 6:00 pm (PM) commuter peak periods.

Error! Reference source not found. provides an appreciation of the existing peak period traffic generation of the site based on actual site operations.

Table 3: Existing Traffic Generation

TYPE	NO.	PEAK PERIOD	IN / OUT SPLIT (%)	TRAFFIC GENERATION
Light Vehicles (Staff)	13 staff	AM	100 / 0	13 trips / hour (13 in / 0 out)
		PM	0 / 100	13 trips / hour (0 in / 13 out)
Heavy Vehicles (Trucks)	8 trucks	AM	50 / 50	5 – 7 trips / hour (2 – 3 in / 3 – 4 out)
		PM	50 / 50	5 – 7 trips / hour (3 – 4 in / 2 – 3 out)
AM TOTAL:				18 – 20 trips / hour (15 – 16 in / 3 – 4 out)
PM TOTAL:				18 – 20 trips / hour (3 – 4 in / 15 – 16 out)

Notes:

¹: For a conservative assessment, it has been assumed all staff arrive within a single 1-hour period in the AM and vice versa in the PM.

As previously mentioned, the subject S4.55 application does not propose any change to the existing GFAs or operations of the business.

3. The Proposal

A detailed description of the Proposal for which approval is now sought, is outlined in the Statement of Environmental Effects prepared separately. In summary, the S4.55 application to modify the existing consent with the following development characteristics:

- No changes to the existing floor areas of the warehouse and office buildings.
- No changes to the approved operation of the site to process a maximum of 29,000 tonnes / year of construction materials.
- Minor reconfiguration of the car parking arrangements to provide a total of 34 car spaces.
- Provision of a total of eight truck parking spaces to accommodate vehicles up to and including a 9.0-metre-long rigid truck.
- Designated external areas within the hardstand areas to allow for the storage of empty skip bins. The empty skip bins will be placed on top of 500mm high steel grates.
- Retention of the existing vehicle access driveway onto Gow Street.

The parking and traffic implications arising from the Proposal are discussed in Sections 4 and 5 respectively. A copy of the relevant architectural drawings, prepared by Argent Design, are included in **Appendix A**.

4. Parking Requirements

4.1. Car Parking

For context, Condition 12 of the existing consent states the following:

12) Car parking spaces for 34 vehicles shall be provided for the site in marked spaces in the manner generally shown on the approved site plan. The car parking spaces, driveways and manoeuvring areas are to be used for employee and visitors vehicles only and not for the storage of new or used materials, finished goods or commercial vehicles.

A site inspection was conducted on 10 August 2023 which confirms that the site does not comply with the above condition and the current spatial arrangements are not consistent with the approved stamped plans.

Notwithstanding the above, a design assessment of the existing site arrangements has been undertaken to provide the approved car parking space provision required under Condition 12 of the existing consent. With reference to the development drawings included as **Appendix A**, the proposed car parking arrangements will provide 34 car spaces which would enable the site (and existing operations) to comply with the Condition 12 of the existing consent. The proposed car parking arrangements and provision is therefore acceptable.

4.2. Service Vehicle Parking

No changes are proposed to the service vehicle arrangements of the existing buildings. As per the development drawings included as **Appendix A**, the Proposal will continue to provide:

- Sub-leased warehouse building:
 - Two roller door openings on the northern side of the building.
- Recycling yard storage are building:
 - A roller door opening on the southern side of the building.
- Main recycling facility shed:
 - Two roller door openings on the northern side of the building.

In addition to the above, the S4.55 application seeks to formalise truck parking bays along the western property boundary. The client has confirmed that a maximum of eight trucks are kept on-site including:

- Two, 7.3-metre-long skip trucks.
- Four, 8.8-metre-long skip trucks.
- Two, 9.0-metre-long hook trucks.

To accommodate the abovementioned vehicles, a total of eight service bays are provided along the western property boundary. Swept path analysis has been undertaken of the new service bays using a 9.0-metre-long rigid truck, in accordance with AS 2890.2. The results included as **Appendix B** confirm satisfactory access can be achieved to and from the additional service bays and importantly, trucks can enter and exit the site in forward direction.

The existing and proposed service vehicle arrangements are considered to be acceptable.

5. Traffic Impacts

5.1. Trip Generation & Traffic Impacts

As previously discussed, the S4.55 application does not propose any changes to the existing building GFAs nor any business operations that would result in any increase in site traffic generation. Per **Table 3**, the site will continue to generate:

- 18 – 20 vehicle trips / hour (15 – 16 in / 3 – 4 out) during the AM peak period.
- 18 – 20 vehicle trips / hour (3 – 4 in / 15 – 16 out) during the PM peak period.

There will be no net change in traffic generation as a result of the S4.55 application and the traffic impacts of the Proposal are therefore acceptable.

6. Design Aspects

6.1. Access

No changes are proposed to the existing 5.9-metre-wide combined entry and exit driveway onto Gow Street. The existing access arrangements will continue to operate safely and efficiently and is acceptable under the S4.55 application.

6.2. Internal Design

The proposed internal parking arrangements comply with the relevant requirements of AS 2890.1 and AS 2890.2 with the following design aspects considered noteworthy:

6.2.1. Car Parking Modules

- All car parking spaces are provided in accordance with the User Class 1 requirements of AS 2890.1, having a space width of 2.4 metres and length of 5.4 metres, with a minimum aisle width of 5.8 metres.
- The row of car parking spaces adjacent to Lot 1 and 2, DP 371357 has an effective car space length of 5.4 metres including a 4.8-metre linemarked space and 0.6m overhang over the existing kerb at the rear of the spaces in accordance with Clause 2.4.5.2 of AS 2890.1
- All walls, columns and storage areas are located outside of the space design envelope, as required under Figure 5.2 of AS 2890.1.

6.2.2. Service Vehicle Bays

- No changes are proposed to the roller door openings of the existing buildings as described in Section 4.2.
- The proposed service bays, along the western property boundary, are provided with space dimensions of 3.5-metre widths and 9.0-metre lengths and will accommodate the largest truck to be accommodated on-site, being a 9.0-metre-long hook truck.
- Swept path analysis has been undertaken of the new service bays using a 9.0-metre-long rigid truck, in accordance with AS 2890.2. The results included as **Appendix B** confirm satisfactory access can be achieved to and from the additional service bays and importantly, trucks can enter and exit the site in forward direction.

6.2.3. Head Heights

- A minimum clear head height of 2.2 metres is required above the five staff car spaces located underneath the awning connected to the front office building in accordance with Clause 5.3.1 of AS 2890.1.
- No overhead structure is proposed above the remaining 29 car parking spaces and accordingly, the head clearance requirements under AS 2890.1 are achieved.
- No overhead structure is proposed above the proposed eight 9-metre-long service bays along the western property boundary and accordingly, the head clearance requirements under Table 3.1 of AS 2890.2 are achieved.

6.2.4. Other Design Aspects

- A 2.5 by 2.0 metre visual splay is provided along the egress side of the driveway, at the property boundary, in accordance with Figure 3.3 of AS 2890.1.

In summary, the internal parking arrangements have been designed in accordance with AS 2890.1 and AS 2890.2,. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

7. Conclusions

In summary:

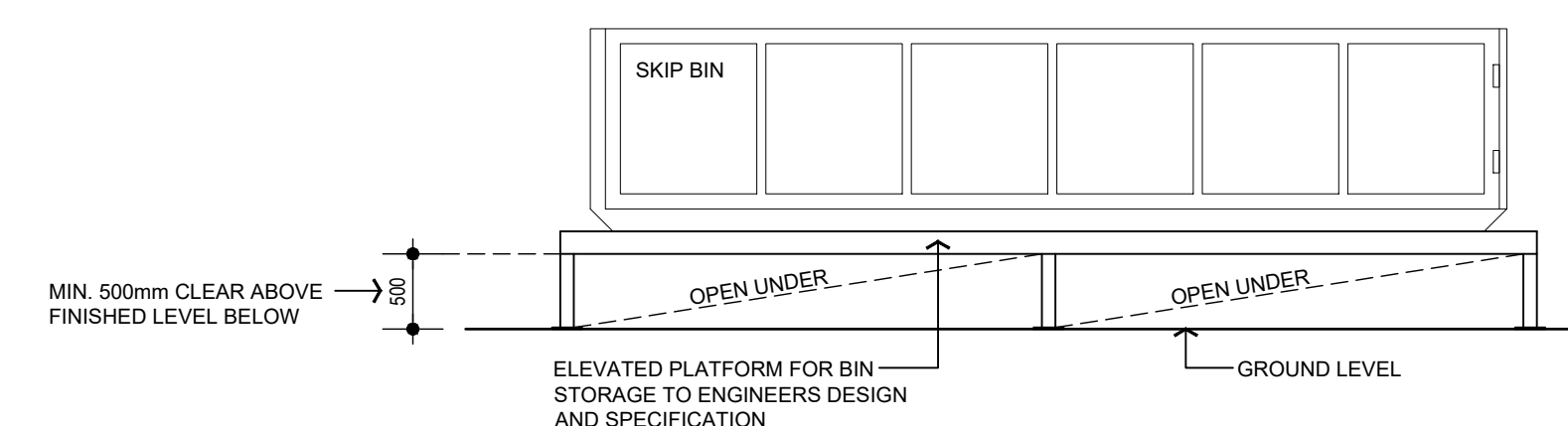
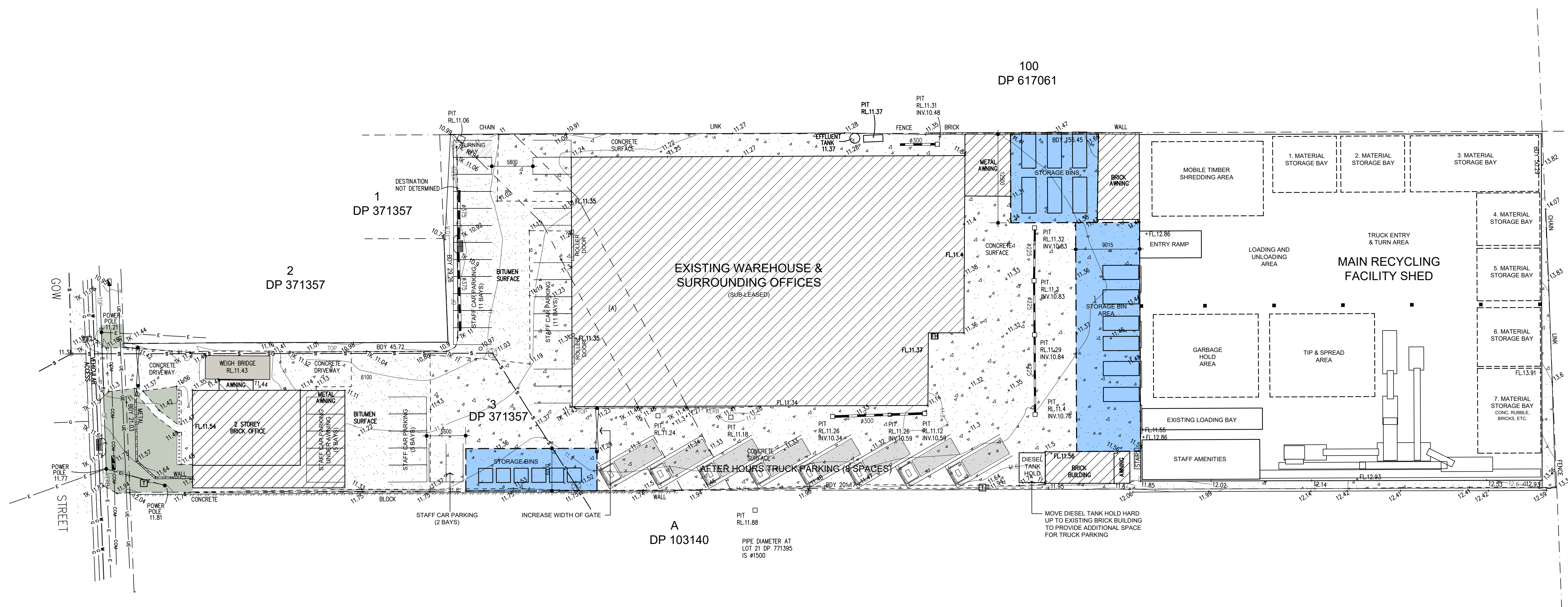
- PDC Consultants has been commissioned by Orange Bins Group Pty Ltd to undertake a traffic impact assessment of a S4.55 application for the site at 79 Gow Street, Padstow. The S4.55 application will consist of the following characteristics:
 - No changes to the existing floor areas of the warehouse and office buildings.
 - No changes to the approved operation of the site to process a maximum of 29,000 tonnes / year of construction materials.
 - Minor reconfiguration of the car parking arrangements to provide a total of 34 car spaces.
 - Provision of a total of eight truck parking spaces to accommodate vehicles up to and including a 9.0-metre-long rigid truck.
 - Designated external areas within the hardstand areas to allow for the storage of empty skip bins. The empty skip bins will be placed on top of 500mm high steel grates.
 - Retention of the existing vehicle access driveway onto Gow Street.
- The traffic generation assessment confirms that the existing development (and site operations) currently generates in the order of 18 – 20 vehicle trips / hour during the AM and PM peak periods. The assessment is based on a first principles approach having regard for the typical site operations and characteristics provided by the client. The S4.55 application does not propose any change in building GFAs or business operations and accordingly, there will be no change in traffic generation. The traffic impacts of the Proposal are therefore acceptable.
- The S4.55 application will seek to provide the required 34 car spaces required under Condition 12 of the existing consent which the site does not currently provide. The S4.55 application does not propose any change in building GFAs and accordingly, there will be no change car parking requirement. The proposed (or existing) car parking provision is therefore acceptable.
- The S4.55 will provide an additional eight, 9.0-metre-long service bays, along the western property boundary and will wholly accommodate all trucks that are parked overnight at the site. The service vehicle bay provision and arrangements are acceptable.
- The existing and proposed access and internal parking arrangements comply with the relevant requirements of AS 2890.1 and AS 2890.2. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

It is therefore concluded that the Proposal is supportable on traffic planning grounds.

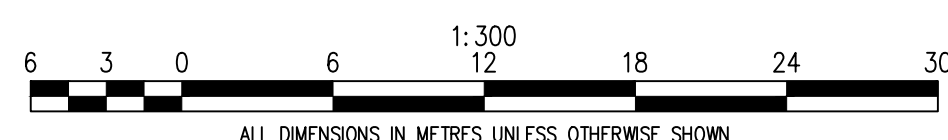


Appendix A

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NOTE:
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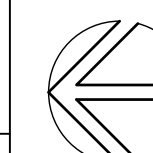
Rev.	Date	Description	By
A	31.8.23	ISSUE FOR DA	SB
B	5.9.23	AMEND PARKING RE-ISSUE FOR DA	SB

PROPOSED SITE PLAN



ORANGE BINS
79 GOW STREET, PADSTOWN

SITE PLAN

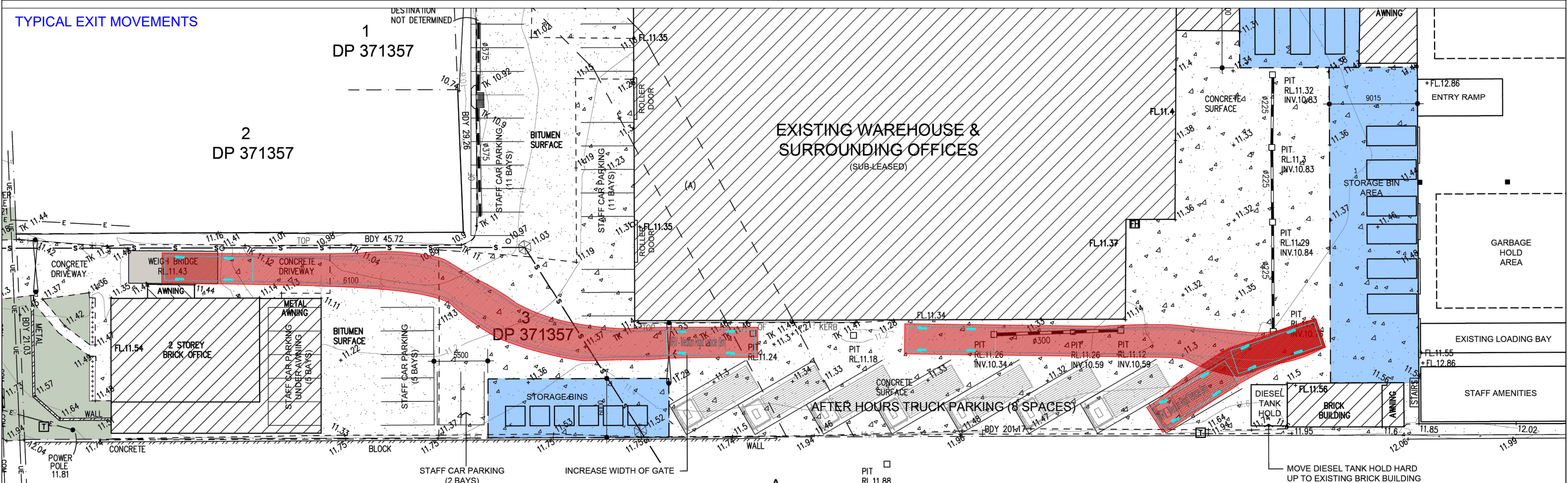
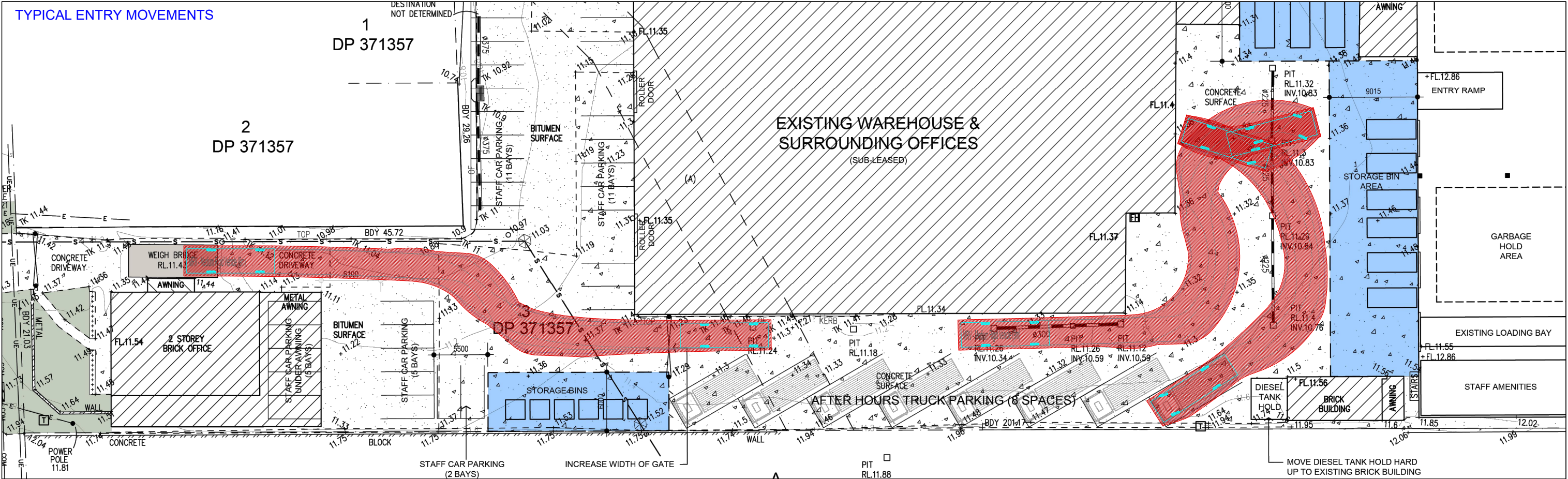


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Appendix B



Drawing Prepared By 	North 	Swept Path Key ----- Vehicle Wheel Path ----- Vehicle Body Envelope ----- 300mm Vehicle Clearance	Project 79 Gow Street, Padstow	Drawing Title Site Plan 9.0-metre-long Rigid Truck Swept Path Analysis Typical Circulation & Parking Movements	Drawing No. 001	Revision No. -
			Project No 0828	Sheet Status NOT FOR CONSTRUCTION	Drawn By JB	Date 12/09/2023
			Scale 1:400 @ A3 			

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