Traffic Impact Assessment

Proposed Industrial Development

1-23 Lenore Drive and 55 Lenore Drive, Erskine Park

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Reference: 18.069r01v02 TRAFFIX TIA
Date: April 2018

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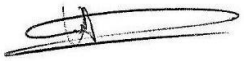
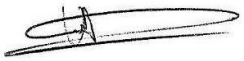
Document Verification

Job Number:	18.069			
Project:	1-23 Lenore Drive and 55 Lenore Drive, Erskine Park			
Client:	Mr Frank Nicholopoulos			
Revision	**Date**	**Prepared By**	**Checked By**	**Signed**
v01-DRAFT	12/04/2018	Hayden Dimitrovski	Vince Doan	
v02	16/04/2018	Hayden Dimitrovski	Vince Doan	

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Contents

Appendices

1. Introduction

TRAFFIX has been commissioned by Mr Frank Nicholopoulos to undertake a Traffic Impact Assessment of a Development Application relating to a proposed industrial development located at 1-23 Lenore Drive and 55 Lenore Drive, Erskine Park.

The property is situated in the Penrith Council Local Government Area and has been assessed under that Council's controls. It is noted that the proposed development is more than 4,000m^2 in area and requires referral of this DA to the Roads and Maritime Services (RMS) under the provisions *of State Environmental Planning Policy (Infrastructure) 2007*.

This report documents the findings of our investigations and should be read in the context of the Statement of Environmental Effects (SEE) prepared separately.

The report is structured as follows:

- Section 2: Describes the site and its location;
- Section 3: Documents existing traffic conditions;
- Section 4: Describes the proposed development;
- Section 5: Assesses the parking requirements;
- Section 6: Assesses traffic impacts;
- Section 7: Discusses access and internal design aspects;
- Section 8: Presents the overall study conclusions.

2. Location and Site

The site is located at 1-23 Lenore Drive and 55 Lenore Drive, Erskine Park and is legally known as Lot 1, DP 1071114 and Lot 55 DP 1170183. It is currently a vacant lot and is approximately 40 kilometres west of Sydney CBD. More specifically it is on the southern corner of Erskine Park Road and Lenore Drive.

The site is triangular in configuration having a total site area of 13,351m^2, with a northeast frontage to Lenore Drive and a northwest frontage to Erskine Park Road. The remaining southern boundary borders an environmental conservation area. The site currently has a total of two (2) vehicular accesses from Lenore Drive and Erskine Park Road.

A Location Plan is presented in **Figure 1**, with a Site Plan presented in **Figure 2**.

Figure 1: Location Plan

Figure 2: Site Plan

3. Existing Traffic Conditions

3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3**, with the following of particular interest:

- Erskine Park Road: an RMS Main Road (MR 629) that traverses in a northeast-southwest direction between the Western Motorway (M4) in the northeast and Mamre Road in the southwest. It is generally subject to a 70km/hr speed zoning and can accommodate two (2) lanes of traffic in both directions within the vicinity of the site.

- Lenore Drive: an RMS Main Road (MR 693) that traverses in an east-west direction between Old Wallgrove Road in the east and Erskine Park Road in the west. It is subject to an 80km/hr speed zoning and can accommodate two (2) lanes of traffic in both directions.

- Mamre Road: an RMS Main Road (MR 536) that traverses in a north-south direction between the Great Western Highway (HW 5) in the north and Elizabeth Drive in the south. It is subject to an 80km/hr speed zoning and can accommodate a single lane of traffic in both directions.

It can be seen from Figure 3 that the site is conveniently located with respect to the arterial and local road systems serving the region. It is therefore able to effectively distribute traffic onto the wider road network, minimising traffic impacts.

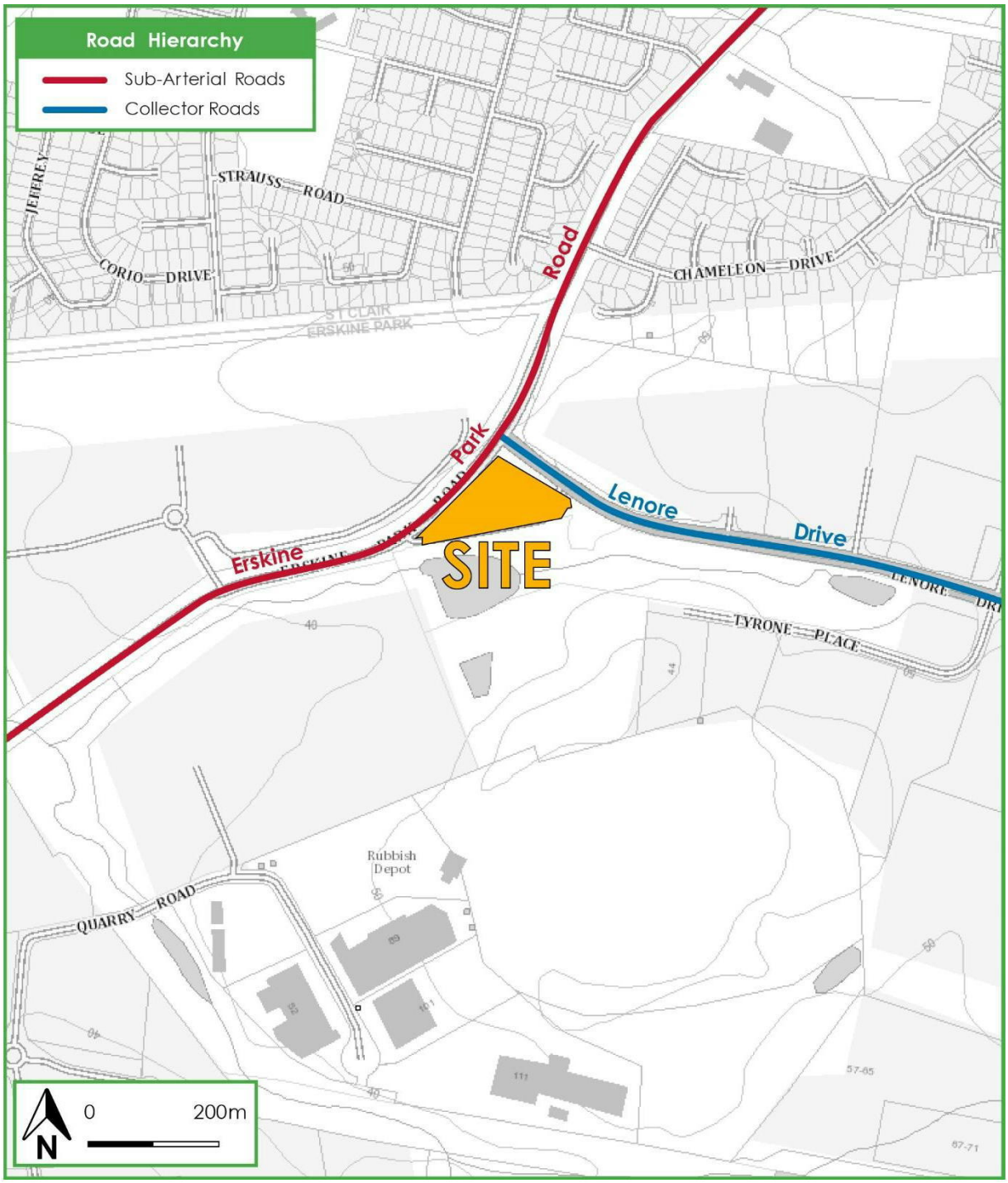

Figure 3: Road Hierarchy

3.2 Public Transport

The existing public transport services that operate in the locality are shown in **Figure 4**. This includes connections to Erskine Park, St Marys, Western Sydney University and Prairiewood. These bus stops are located within optimal walking distance (400 metres) of the site along Erskine Park Road with alternative bus stops also available on Lenore Drive.

Figure 4: Public Transport

4. Description of Proposed Development

A detailed description of the proposed development is provided in the Statement of Environmental Effects prepared separately. In summary, the development for which approval is now sought comprises of the following components:

- A total Gross Floor Area (GFA) of 6,955m^2 containing:
  - 6 x 150m^2 Units (including 30m^2 Office Mezzanine);
  - 13 x 225m^2 Units (including 45m^2 Office Mezzanine);
  - 6 x 300m^2 Units (including 60m^2 Office Mezzanine);
  - 2 x 250m^2 Units (including 55m^2 Office Mezzanine);
  - 2 x 375m^2 Units (including 75m^2 Office Mezzanine); and
  - An ancillary café with 80m^2.
- A total car parking provision of 111 parking spaces containing:
  - 49 car parking spaces located at the at grade carpark; and
  - 62 car parking spaces located at the basement level carpark.

The parking requirements and traffic impacts arising from the development are discussed in **Section 5** and **Section 6** respectively. Reference should be made to the plans submitted separately to Council, which are presented at reduced scale in **Appendix A**.

5. Parking Requirements

5.1 Council Controls

The Penrith City Council DCP Part C10 (2014) requires a minimum parking provision to be provided at the following rates show in **Table 1**. The café (80m^2) is considered an ancillary use to the proposed development and will not attract additional visitors itself but is provided for staff which are already accounted for within the development. Therefore, the car parking analysis does not take into account the parking requirements of the café area as no additional car parking is required and is considered acceptable.

Table 1: Council Parking Requirement

Use	Proposed GFA (m^2) / Staff	Council's Minimum Parking Rate	Parking Required*	Proposed Parking
Industries, including ancillary offices	6,875	1 space per 75m^2 of GFA	92	111
	120	1 space per 2 employees	60	
Greater of the two provisions - TOTAL			**92**	**111**

** Parking numbers rounded up to the nearest whole number.*

Council requires the greater of the two parking provisions, which results in a minimum requirement of 92 car parking spaces. The development proposes 111 car parking spaces which exceeds (superior to) Council's minimum requirement and is therefore considered acceptable.

5.2 Accessible Parking

The Penrith Council's DCP states that accessible parking is to be provided in accordance with the Access to Premises Standards. The rate for a commercial purpose building is one space per 100 car parking spaces or part thereof. The development proposes a provision of 111 spaces, therefore two (2) spaces must be provided as accessible spaces. The development proposes four (4) accessible spaces which satisfies the minimum requirement of this condition and is considered acceptable.

5.3 Bicycle Parking

The Penrith City Council's DCP requires bicycle parking in accordance with the New South Wales Government's Planning guidelines for walking and cycling. The rate for staff and visitor bicycle parking is provided in **Table 2** below.

Table 1 - Bicycle Parking Rates and Provision for Proposed Development

Type	No. of Staff	Rates	Range*
Staff	120	3% – 5% of total staff	4 – 6
Visitor		5% – 10% of total staff	6 – 12
Total			**10 – 18**

** Parking numbers rounded up to the nearest whole number.*

Table 2 shows that a requirement of 10 – 18 bicycle parking spaces are required with 4 – 6 for staff and 6 – 12 for visitors. It is noted that the basement car park provides sufficient area to accommodate the bicycle parking. This can be dealt with prior to the release of a Construction Certificate as a condition of consent (if required).

5.4 Servicing and Refuse Collection

The industrial complex is proposed to contain a total of 29 loading docks (one for each unit). The units will be serviced by vehicles up to an 8.8 metre medium rigid vehicle (MRV). The site will be accessed via two (2) vehicular accesses with one on Erskine Park Road and the other on Lenore Drive, both allowing MRVs to pass.

It has been advised that waste collection will occur on site by Council's waste collection vehicle being a 10.5 metre long truck.

6. Traffic Impacts

6.1 Existing Traffic Generation

The site is currently vacant and therefore it is assumed to have no traffic generation.

6.2 Future Traffic Generation

In accordance with Roads & Maritime Services (RMS) Guide to Traffic Generating Development Technical Direction TDT 2013/04a (August 2013), the site would come under a business park and industrial estate. Therefore, application of rate set out in **Table 3** below is considered most suitable.

Table 3: RMS Guide to Traffic Generating Developments

Development Type	Peak Period	RMS Rate
Business Parks and Industrial Estates	AM peak period	0.52 trips per 100m^2 of GFA
	PM peak period	0.56 trips per 100m^2 of GFA

The proposed development will provide 6,875m^2 GFA (noting that the café is considered an ancillary use to the proposed development). Application of these rates to the proposed development will result in a traffic generation of 36 vehicle trips during the AM peak hour period and 39 vehicle trips in the PM peak hour period. When an 80/20 directional split is applied to these rates, the traffic generation of the proposed development will be as follows:

- 36 vehicle trips per hour during the AM peak period (29 in, 7 out); and
- 39 vehicle trips per hour during the PM peak period (8 in, 31 out).

It should be noted that the traffic generation for the development is likely to occur outside of the network peak. Therefore, the impact of the increase in traffic is considered minor and will be accommodated by the proposed road network. In addition, both access are left in and left out due to the medians on both Erskine Park Road and Lenore Drive which will minimise the impact of the increased traffic generation. Therefore, the above traffic generation is considered a minor impact to the surrounding road network.

7. Access & Internal Design Aspects

7.1 Access

The proposed development with a total of 111 User Class 1A car parking spaces is required to provide a Category 3 Driveway under AS 2890.1 (2004), being separated entry and exit driveways of width 6.0 metres for the entry and 4.0m – 6.0m for the exit. The Category 3 driveway is designed to cater for all movements to and from the site (being both left and right movements). Whilst compliance with AS 2890.1 is not technically achieved, the design of the access is considered acceptable as a median is provided along Lenore Drive and Erskine Park Road at the site frontage which in turns restricts all vehicular movements to left-in and left out. In response, the development proposes two (2) vehicular accesses to allow for the truck movements that will also occur on site.

7.1.1 Lenore Drive Access

A combined 12 metre wide driveway from Lenore Drive is proposed for the development, which allows for left in entry and left out exit movements. In addition, the access also allows two 8.8m long Medium Rigid Vehicles (MRV) to pass entering and exiting the site therefore the access is considered acceptable.

7.1.2 Erskine Park Road Access

The development also proposes a separated entry and exit driveway from Erskine Park Road with a 13.4 metre wide entry driveway and a 5.2 metre wide exit driveway, which complies with the standard. This access also allows two 8.8m long Medium Rigid Vehicles to pass entering and exiting the site therefore the access is considered acceptable for the site.

7.1.3 Summary

The proposed accesses are considered satisfactory and will operate in accordance with the intent of the standard. In addition, swept path analysis of both accesses has been provided in **Appendix B** to show compliance with AS2890.2 (2002).

7.2 RMS Requirements

The development proposes two accesses to allow for vehicles travelling south on Erskine Park Road to access the site, which reduces unnecessary detours to allow vehicles travelling west on the M4 Motorway to access the site. In addition, the Lenore Drive access allows vehicles exiting to turn right on to Erskine Park Road. The Lenore Drive access also reduces pressure on the Erskine Park Road access and left turn slip lane at the intersection of Lenore Drive preventing unnecessary queuing. Therefore, it is considered appropriate to allow for the two accesses to the property.

As both accesses are on RMS classified roads the RMS must provide concurrence to allow access to the development. The RMS has provided pre DA advice says deceleration lanes should be considered for both accesses within the site boundary. The access on Lenore Drive is at the corner of the property boundary and therefore a deceleration lane within the boundary is not possible. The access on Erskine Park Drive has been assessed in accordance with the Austroads warrants during the critical AM peak which has approximately 712 vehicles per hour in the westbound direction (as surveyed in 2016). Therefore, Lenore Drive has approximately 312 vehicles per hour in the left lane and a turn volume of up to 15 vehicles per hour. From assessment of the above volumes in accordance with Austroads, Lenore Drive access does not warrant a deceleration lane. A deceleration lane would only be warranted if the turn volume was above 50 vehicles per hour. Therefore, deceleration lanes are not considered necessary for either access of the development.

7.3 Internal Design

The loading areas, at-grade and basement car park generally complies with the requirements of AS 2890.1 (2004), AS 2890.2 (2002) and AS 2890.6 (2009) with the following characteristics considered noteworthy:

7.3.1 Parking Modules

- All staff and visitor parking spaces meet the requirements for a Class 1A user under AS2890.1. The design includes the provision of a minimum space length of 5.4m a minimum width of 2.4m and a minimum aisle width of 5.8m.
- All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm.

- All accessible parking spaces are designed in accordance with AS2890.6. Spaces are provided with a clear width of 2.4m and located adjacent to a minimum shared area of 2.4m.

- A swept path analysis of all critical movements has been undertaken to confirm geometry and compliance with the relevant standards. The swept path assessment is included in **Appendix B**.

7.3.2 Clear Head Heights (Light Vehicles)

- A clear head height of 2.5m is required to be provided above all accessible spaces and shared areas as required by AS2890.6.

- A minimum clear head height of 2.2m is required to be provided for all other areas within the at-grade and basement car park as required by AS2890.1.

7.3.3 Other Considerations

- All columns are required to be located outside of the parking space design envelope shown in Figure 5.2 of AS 2890.1 (2004).

- Appropriate visual splays are provided in accordance with the requirements of Figure 3.3 of AS2890.1 at all accesses.

- A swept path analysis of all critical movements has been undertaken to confirm geometry and compliance with the relevant standards. The swept path assessment is included in **Appendix B**.

- The ramp to the basement level parking has been designed in accordance with AS2890.1 with a maximum grade of 1:5 (20%) and 2 metre transitions at each end with a maximum gradient of 1 in 8 (12.5%).

7.3.4 Service Area Design

- The internal design of the service area has been undertaken in accordance with the requirements of AS28090.2 for the maximum length vehicle permissible on-site being an 8.8m MRV. The separated access on Erskine Park Road has been designed to allow for Council's waste collection vehicle which will be the largest vehicle to traverse the site.

- The waste collection vehicle will be the largest vehicle to service the site. Swept path analysis showing compliance and is attached in **Appendix B**.

- A minimum clear head height of 4.5m is required to be provided within all areas trucks traverse and service areas.

- A swept path analysis has been undertaken as permissible under AS2890.2 and confirms the internal design. The swept path assessment is included in **Appendix B**.

In summary, the internal configuration of the car park and loading areas have been designed in accordance with both AS2890.1 and AS2890.2. It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

8. Conclusions

In summary:

- TRAFFIX has been commissioned by Mr Frank Nicholopoulos to undertake a Traffic Impact Assessment of a Development Application relating to a proposed industrial development located at 1 – 23 Lenore Drive and 55 Lenore Drive, Erskine Park.

- The development for which approval is now sought comprises a total Gross Floor Area (GFA) of 6,955m^2 comprised of 29 industrial units with ancillary office space and an ancillary café. In addition, a total car parking provision of 111 parking spaces containing 49 car parking spaces located at the at grade carpark; and 62 car parking spaces located at the basement level carpark.

- Penrith City Council's DCP requires the development to provide a minimum of 92 off-street car parking spaces for the proposed development. In response, the development provides a total of 111 car parking spaces. The proposed car parking provision therefore satisfies the requirement of Council's DCP and is considered acceptable.

- All servicing and waste collection will be contained on-site, with all vehicles entering and exiting in a forward direction. The units will be serviced by vehicles up to an 8.8m MRV and Council's waste collection vehicle will be the largest vehicle to service the site. This arrangement is considered acceptable.

- By applying RMS rates to the development, this will results in a traffic generation of 36 vehicle trips during the AM peak hour period and 39 vehicle trips in the PM peak hour period. It should be noted that the traffic generation for the development is likely to occur outside of the network peak. Therefore, the impact of the increase in traffic is considered minor and will be accommodated by the surrounding road network.

- The proposed internal car parking and loading dock arrangements generally comply with AS 2890.1 (2004), AS 2890.2(2002) & AS 2890.6 (2009). It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such 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 proposed development is supportable on traffic planning grounds and will operate satisfactorily.

Appendix A

Reduced Architectural Plans

STREET VIEW FROM ERSKINE PARK ROAD

STREET VIEW FROM LENORE DRIVE

WAREHOUSE
12M HIGH

CAPRAL
WAREHOUSE
12M HIGH

WINTER SUN

LINFOX
WAREHOUSE
12M HIGH

SOUTH WESTERLY
WINTER WINDS

SUMMER SUN

TEMPERATE NORTH
EAST BREEZE

TEMPERATE SOUTH
EASTERLY BREEZE

ERSKINE PARK ROAD

LENORE LANE

LENORE D

WAREHOUSE
12M HIGH

1 SITE ANALYSIS

1 : 2000

20 10 0 10 20 30 40 50 100mm

ISSUE	DATE	REVISION
2	11.04.18	ISSUED FOR COORDINATION
C	31.01.18	DRAFT DA ISSUE & CONS COORDINATION
B	14.11.17	ISSUED FOR URBAN DESIGN MEETING
A	27.03.17	PRE DA ISSUE - FOR COORDINATION
1	06.03.17	Preliminary issue

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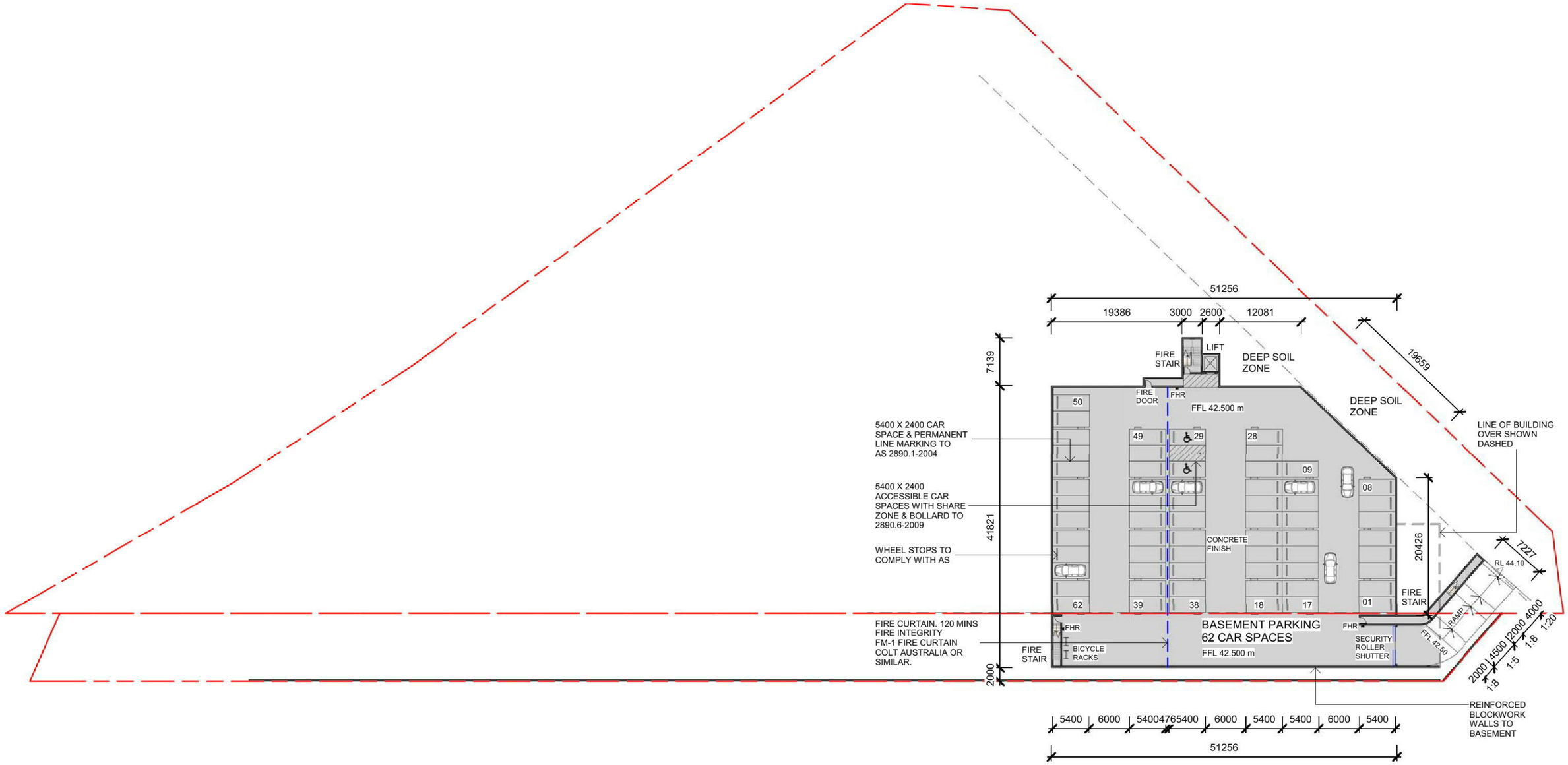
project:
INDUSTRIAL COMPLEX
PROPOSED INDUSTRIAL DEVELOPMENT
AT 1-23 LENORE DRIVE & ERSKINE PARK
ROAD, ERSKINE PARK NSW 2759.
LOT 1 DP 1071114 & LOT 55 DP 1170183

drawing title:
SITE ANALYSIS

print date: 11.04.18
drawn: HC
checked: HC
scale: 1 : 2000 @A3

DA ISSUE

job no. 17221
drawing no. A0001
issue. 2



1 PROPOSED BASEMENT FLOOR PLAN

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ISSUE	DATE	REVISION
3	11.04.18	ISSUED FOR COORDINATION
D	31.01.18	DRAFT DA ISSUE & CONS COORDINATION
C	26.11.17	URBAN DESIGN AMENDMENT
B	14.11.17	ISSUED FOR URBAN DESIGN MEETING
A	11.09.17	PRE DA ISSUE
2	10.09.17	CONCEPT SKETCH ISSUE - OPTION 3
1	01.09.17	CONCEPT SKETCH ISSUE

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project:
INDUSTRIAL COMPLEX
PROPOSED INDUSTRIAL DEVELOPMENT AT 1-23 LENORE DRIVE & ERSKINE PARK ROAD, ERSKINE PARK NSW 2759.
LOT 1 DP 1071114 & LOT 55 DP 1170183

drawing title:
PROPOSED BASEMENT PLAN

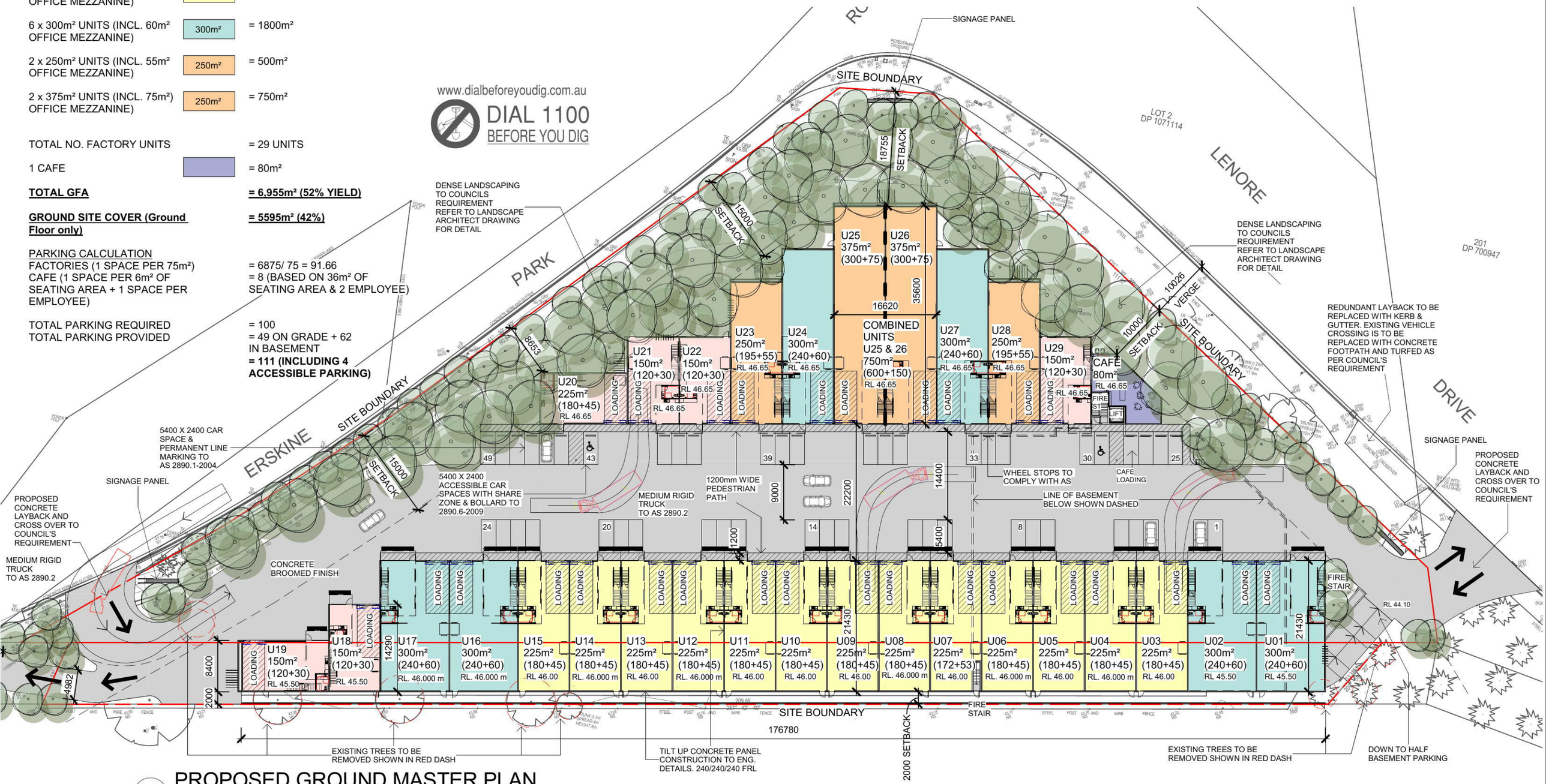
print date: 11.04.18
drawn: HC
checked: HC
scale: 1 : 600 @A3

DA ISSUE

job no. 17221
drawing no. A1001
issue. 3

DEVELOPMENT DATA

LOT 1 DP 1071114		= 11,220m²
LOT 55 DP 1170183		= 2,131m²
TOTAL SITE AREA		**= 13,351m²**
6 x 150m² UNITS (INCL. 30m² OFFICE MEZZANINE)	150m²	= 900m²
13 x 225m² UNITS (INCL. 45m² OFFICE MEZZANINE)	225m²	= 2925m²
6 x 300m² UNITS (INCL. 60m² OFFICE MEZZANINE)	300m²	= 1800m²
2 x 250m² UNITS (INCL. 55m² OFFICE MEZZANINE)	250m²	= 500m²
2 x 375m² UNITS (INCL. 75m²) OFFICE MEZZANINE)	250m²	= 750m²
TOTAL NO. FACTORY UNITS		= 29 UNITS
1 CAFE		= 80m²
TOTAL GFA		**= 6,955m² (52% YIELD)**
GROUND SITE COVER (Ground Floor only)		**= 5595m² (42%)**
PARKING CALCULATION		
FACTORIES (1 SPACE PER 75m²)		= 6875/ 75 = 91.66
CAFE (1 SPACE PER 6m² OF SEATING AREA + 1 SPACE PER EMPLOYEE)		= 8 (BASED ON 36m² OF SEATING AREA & 2 EMPLOYEE)
TOTAL PARKING REQUIRED		= 100
TOTAL PARKING PROVIDED		= 49 ON GRADE + 62 IN BASEMENT **= 111 (INCLUDING 4 ACCESSIBLE PARKING)**



1 PROPOSED GROUND MASTER PLAN

1 : 600

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ISSUE	DATE	REVISION
2	11.04.18	ISSUED FOR COORDINATION
F	31.01.18	DRAFT DA ISSUE & CONS COORDINATION
E	30.11.17	FURTHER AMENDMENT FOR COMMENTS
D	30.11.17	FURTHER AMENDMENT FOR COMMENTS
C	26.11.17	URBAN DESIGN AMENDMENT
B	14.11.17	ISSUED FOR URBAN DESIGN MEETING
A	11.09.17	PRE DA ISSUE

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LOT 1 DP 1071114 & LOT 55 DP 1170183

drawing title: PROPOSED GROUND MASTER PLAN

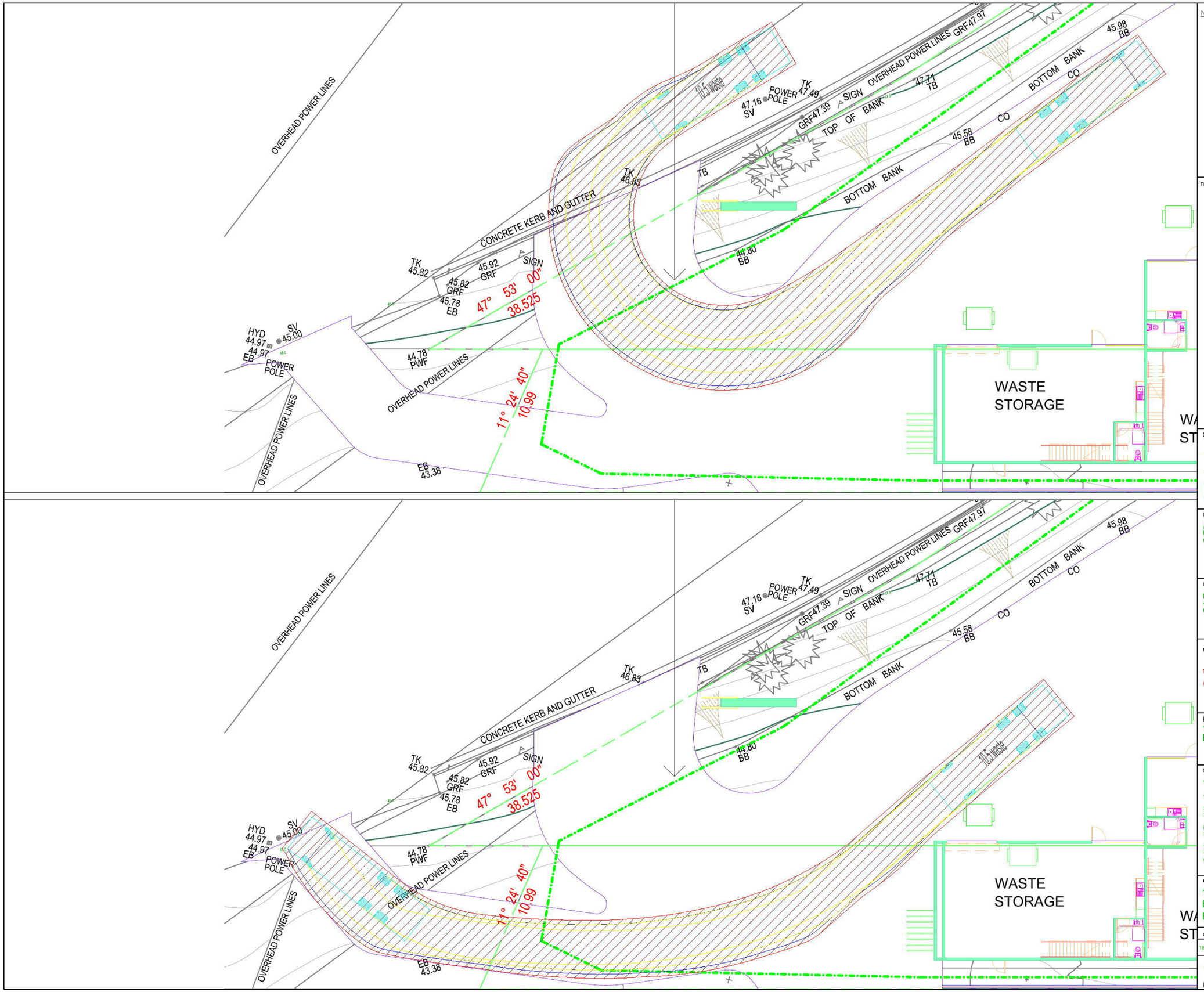
print date: 11.04.18
drawn: HC
checked: HC
scale: As indicated @A3

DA ISSUE

job no. 17221
drawing no. A1002
issue. 2

Appendix B

Swept Path Analysis



Notes

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TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (*AS/NZS 2890.1-2004 Parking facilities - Off-street car parking*, and/or *AS 2890.2-2002 Parking facilities - Off-street commercial vehicle facilities*). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

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scale

1:250 @ A3

0m 2 4 6 8

project

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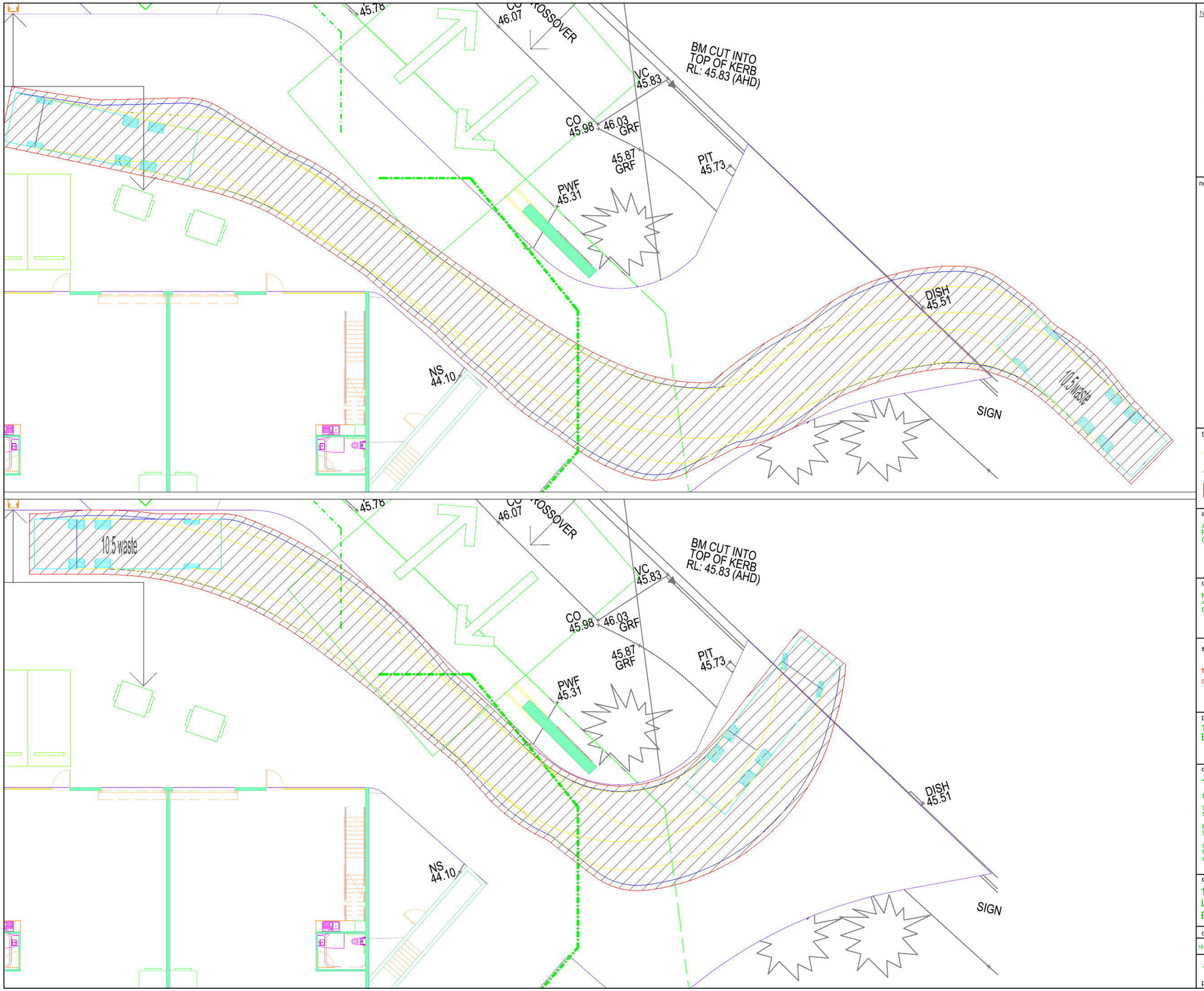
drawing title

10.5m Waste Collection Vehicle
Erskine Park Road Access
Entry and Exit

drawn:	checked:	date:
HD	VD	12-04-2018

18.069d02v01 TRAFFIX [180411 Plans] Design Review.dwg

project no.	drawing phase.	drawing no.	rev
18.069	-	TX.01	-



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Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

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1:200 @ A3

0m 2 4 6 8

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1 - 23 Lenore Drive
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drawing title

10.5m Waste Collection Vehicle
Lenore Drive Access
Entry and Exit

drawn:	checked:	date:
HD	VD	12-04-2018

18.069d02v01 TRAFFIX [180411 Plans] Design Review.dwg

project no.	drawing phase.	drawing no.	rev
18.069	-	TX.02	-

TO ENSURE 100% CAPTURE)

ERS

OVERHEAD POWER LINES

CONCRETE KERB AND GUTTER

TK 45.82

45.82 GRF

45.92 GRF

45.82 GRF

45.78 EB

SIGN

47° 53' 00"

38.525

HYD 44.97

SV 45.00

EB

POWER POLE

44.78 PWF

OVERHEAD POWER LINES

11° 24' 40"

10.99

EB 43.38

OVERHEAD POWER LINES

POWER POLE

43.08 NS

43.04 PWF

STEEL POST AND WIRE FENCE

43.00 NS

43.21 NS

43.38 NS

43.07 SVP

43.27 SMH

TK 46.83

TB

TK 48.09

47.78 TB

TOP OF BANK

GRF

SIGN

TK 47.49

47.16 SV

POWER POLE

OVERHEAD POWER LINES

GRF 47.97

GRF 47.39

SIGN

TOP OF BANK

47.71 TB

45.98 BB

BOTTOM BANK

CO

45.58 BB

CO

BOTTOM BANK

44.80 BB

HRV - Medium Rigid Vehicle

HRV - Medium Rigid Vehicle

WASTE STORAGE

W

S

Notes

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TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (*AS/NZS 2890.1-2004 Parking facilities - Off-street car parking*, and/or *AS 2890.2-2002 Parking facilities - Off-street commercial vehicle facilities*). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect

ArkExpress
P.O. Box 6213
CANLEY VALE NSW 2166

client

Mr Frank Nicholopoulos
40 Doncaster Avenue
CLAREMONT MEADOWS NSW 2747

scale

1:200 @ A3

0m 2 4 6 8

project

1 - 23 Lenore Drive
ERSKINE PARK NSW 2759

drawing prepared by

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traffix
traffic & transport planners

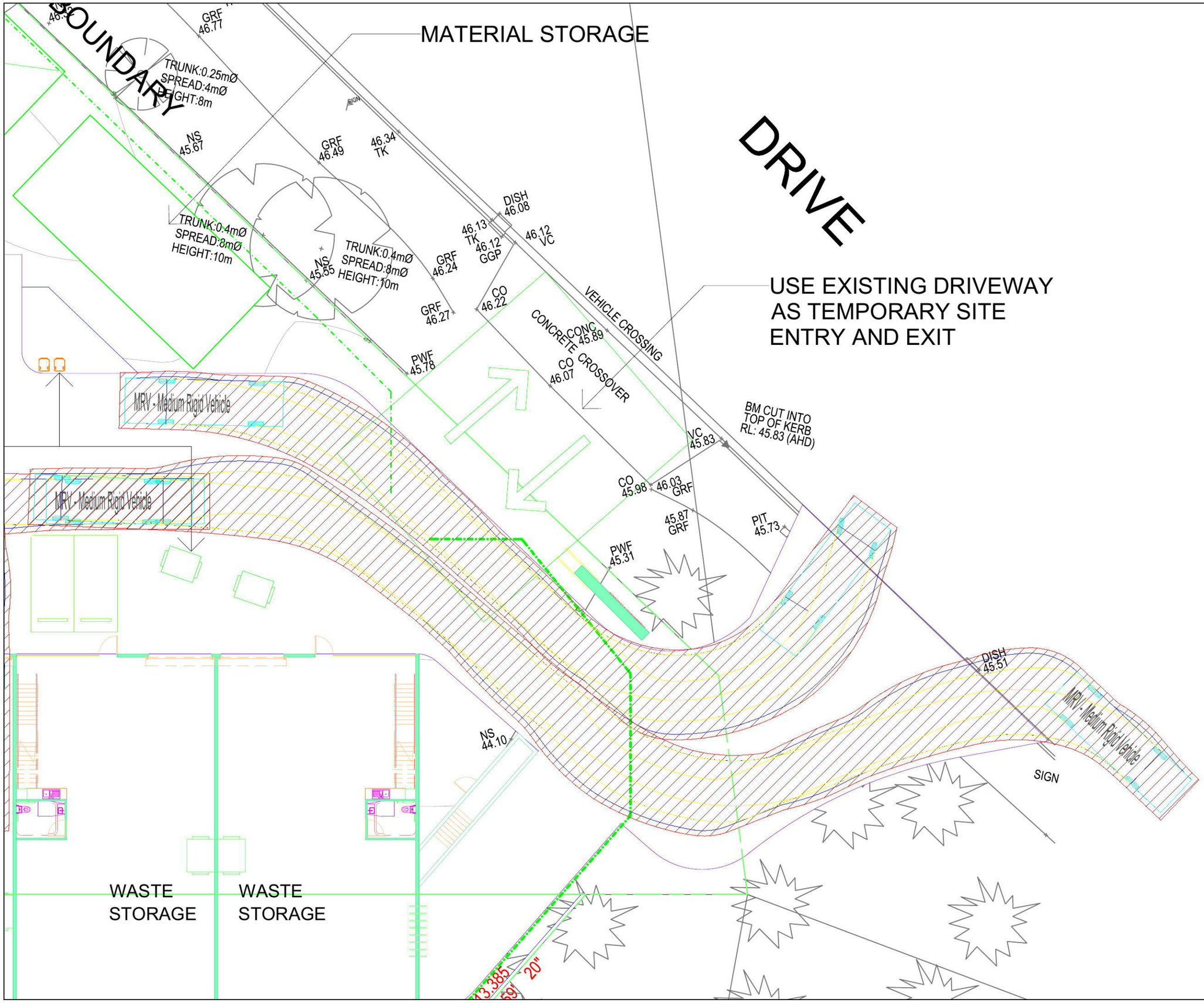
drawing title

8.8m Medium Rigid Vehicle
Erskine Park Road Access
Entry and Exit

drawn:	checked:	date:
HD	VD	12-04-2018

18.069d02v01 TRAFFIX [180411 Plans] Design Review.dwg

project no.	drawing phase.	drawing no.	rev
18.069	-	TX.03	-



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scale

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0m 2 4 6 8

project

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drawing title

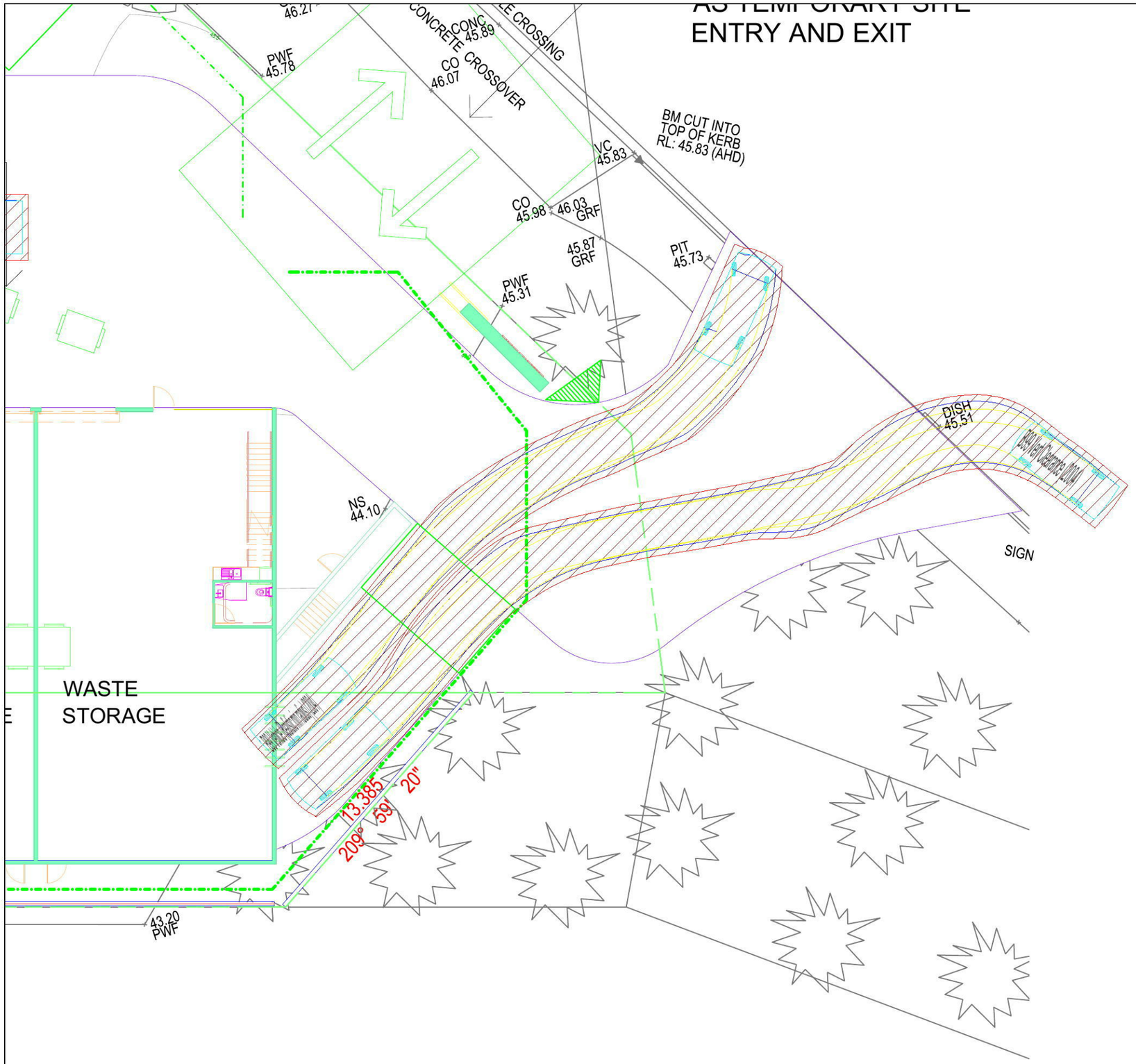
8.8m Medium Rigid Vehicle
Lenore Drive
Entry and Exit

drawn:	checked:	date:
HD	VD	12-04-2018

18.069d02v01 TRAFFIX [180411 Plans] Design Review.dwg

project no.	drawing phase.	drawing no.	rev
18.069	-	TX.04	-

AS TEMPORARY SITE ENTRY AND EXIT



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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect

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client

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CLAREMONT MEADOWS NSW 2747

scale

1:200 @ A3

0m 2 4 6 8

project

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traffix
traffic & transport planners

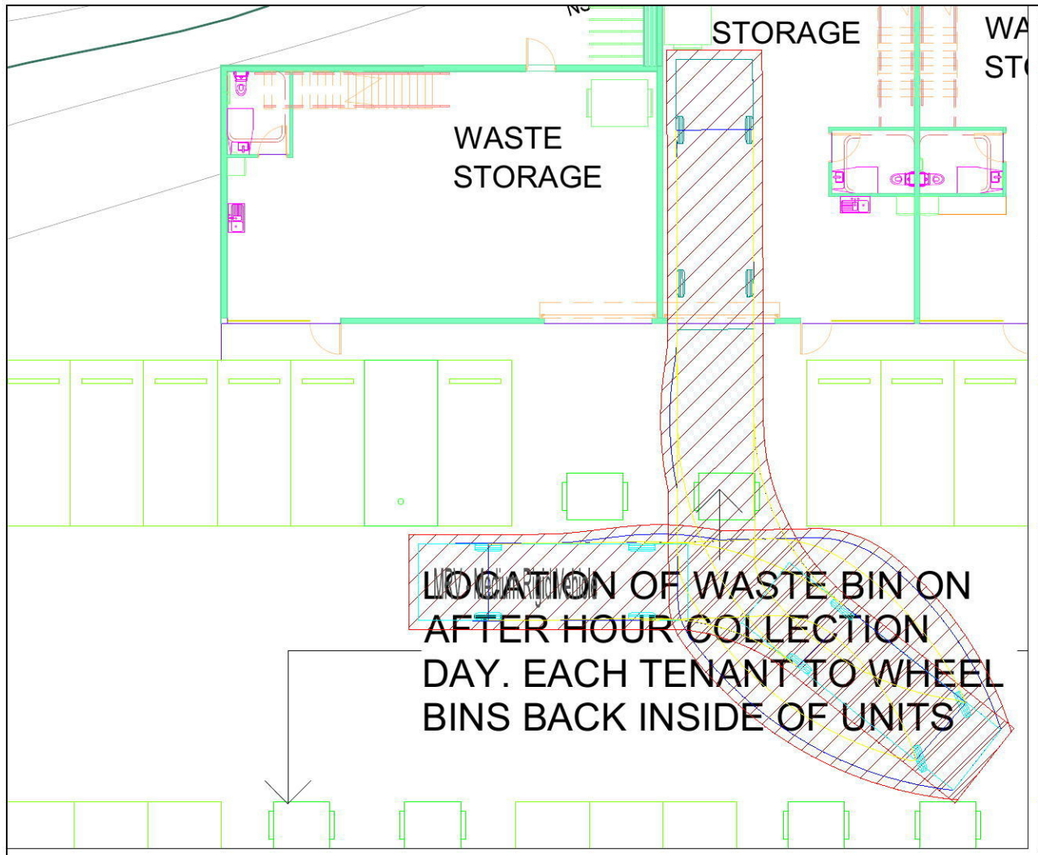
drawing title

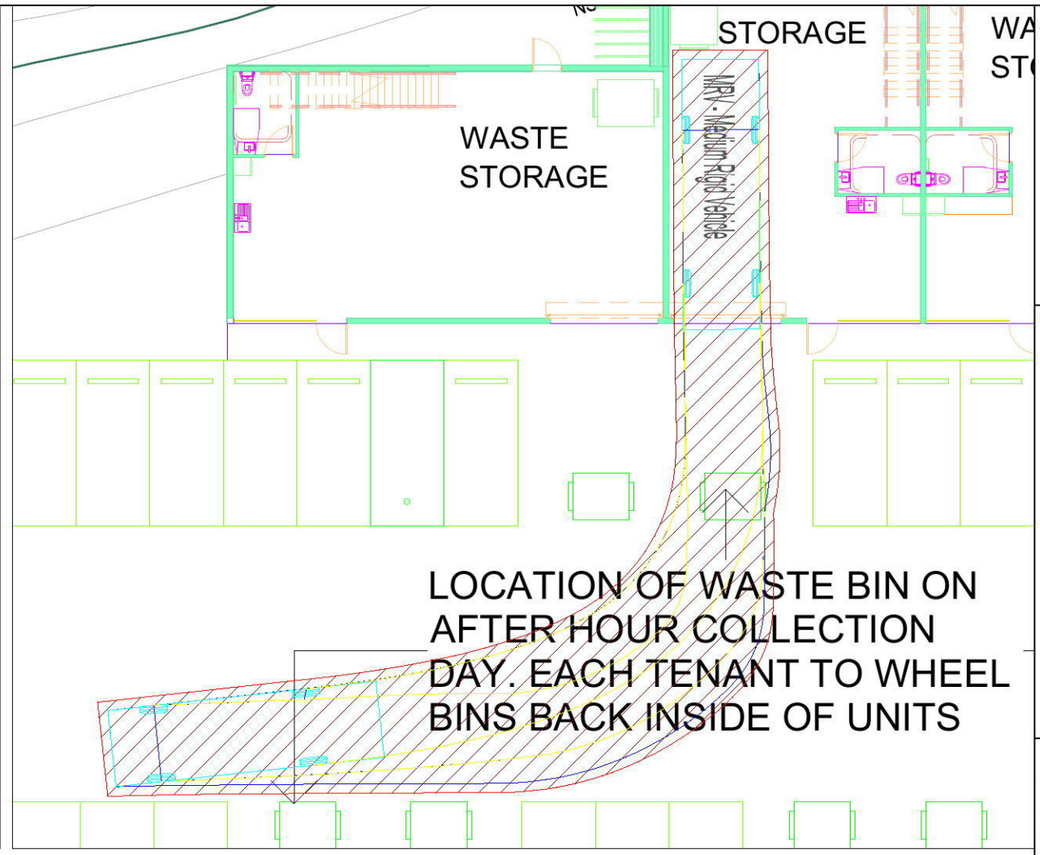
B99 Vehicle
Lenore Drive and Basement 1
Entry and Exit

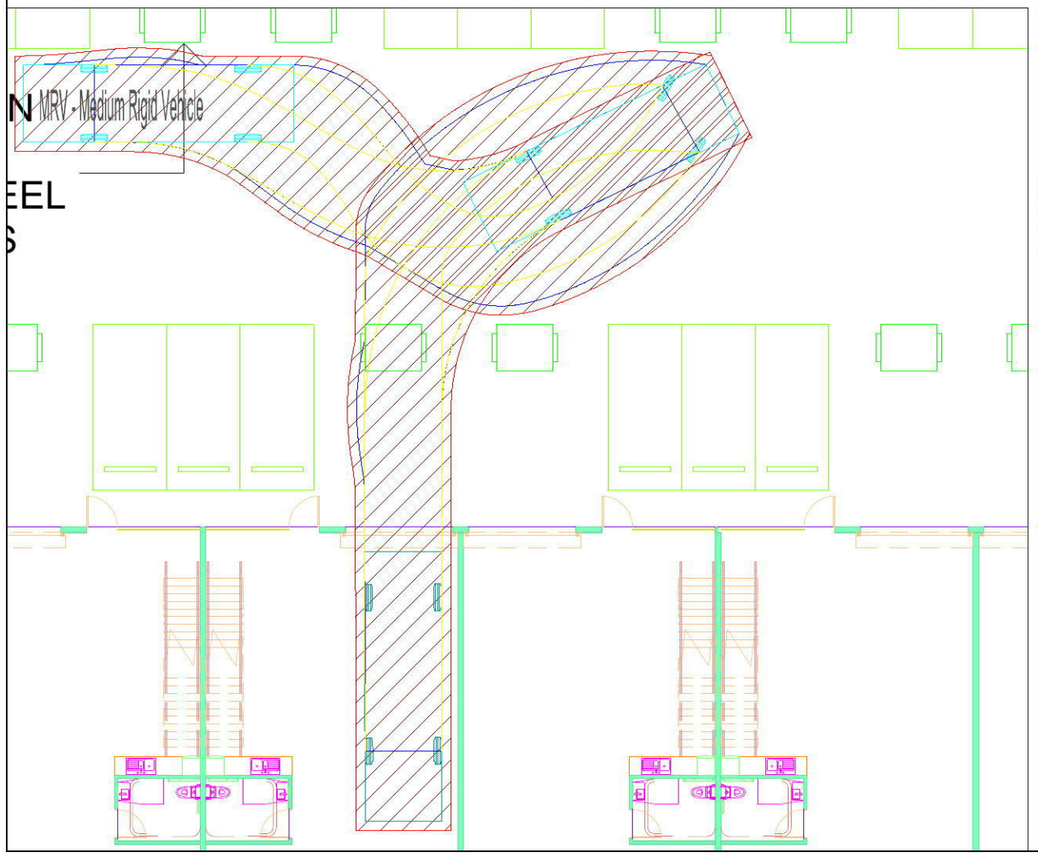
drawn:	checked:	date:
HD	VD	12-04-2018

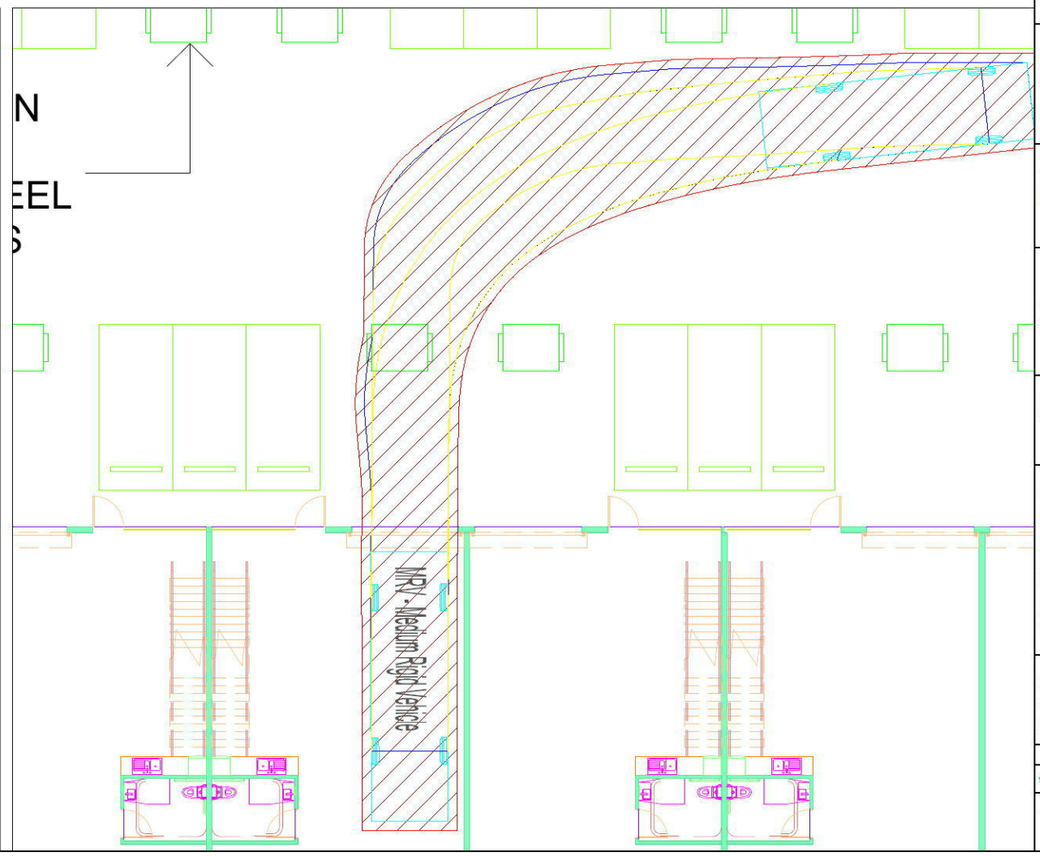
18.069d02v01 TRAFFIX [180411 Plans] Design Review.dwg

project no.	drawing phase.	drawing no.	rev
18.069	-	TX.05	-









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- Clearance Envelope (300mm)

architect

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scale

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0m 2 4 6 8

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drawing prepared by

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traffix
traffic & transport planners

drawing title

8.8m MRV Vehicle
Vehicular Access to Units
Entry and Exit

drawn:	checked:	date:
HD	VD	12-04-2018

18.069d02v01 TRAFFIX [180411 Plans] Design Review.dwg

project no.	drawing phase.	drawing no.	rev
18.069	-	TX.06	-