Reference: #N141920

19 December 2017

Sell and Parker
PO Box 755
MATRAVILLE NSW 2036

Attention: Ms Catherine Maddox

Dear Catherine

RE: KING PARK RECYCLING CENTRE - SECTION 96 TRAFFIC ADDENDUM

Sell and Parker is submitting a Section 96 Application to the NSW Department of Planning and Environment for the modification of Development Consent to increase the capacity of the waste metal recovery, processing and recycling facility at 45 Tattersall Road.

Sell and Parker engaged GTA Consultants (GTA) to provide a traffic, transport and parking assessment in relation to a Section 96 application to amend the design of the proposed development. The alterations included a reduction of the number of parking spaces provided and minor changes in the internal operation of trucks and in the design of the facilities, as follow:

- new annex to building C (awning)
- removal of one weigh bridge
- modification of the height of the acoustic fence on the Western boundary of the site.

This transport impact assessment has been prepared to address the transport impacts of the design alterations based on the architectural plan prepared by Algorry Zappia & Associates dated 14 December 2017 drawing number 2182-17-A101, which is shown in Appendix A.

Car Parking

The car parking provision requirements are based on the gross floor area (GFA) of the development. For industrial developments, at the time of the development application (DA), the requirements were set out in Part E of Blacktown City Council's Development Control Plan (DCP) 2006 as summarised in Table 1.

Table 1: DCP 2006 car parking requirements

Description/ use	GFA	DCP 2006 car parking rate
Factory, Warehouse and Bulk Storage	≤ 7,500 m^2	One space per 75 m^2 GFA.
	> 7,500 m^2	One space per 200 m^2 GFA only for the area in excess of 7,500 m^2 where there is a specific end user which would not demand a higher rate and where employee parking is adequately catered for.

The Blacktown DCP 2015 sets slightly different requirements as shown in Table 2.

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Table 2: DCP 2015 car parking requirements

Description/ use	DCP 2006 car parking rate
Light Industry, general industry, heavy industry and warehouse or distribution centre	One space per 75 m^2 GFA. Plus 1 space per 40 m^2 GFA for the office component

Blacktown Local Environmental Plan (LEP) 2015 defines GFA as follows:

"Gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:
(a) the area of a mezzanine, and
(b) habitable rooms in a basement or an attic, and
(c) any shop, auditorium, cinema, and the like, in a basement or attic,
but excludes:
(d) any area for common vertical circulation, such as lifts and stairs, and
(e) any basement:
(i) storage, and
(ii) vehicular access, loading areas, garbage and services, and
(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
(g) car parking to meet any requirements of the consent authority (including access to that car parking), and
(h) any space used for the loading or unloading of goods (including access to it), and
(i) terraces and balconies with outer walls less than 1.4 metres high, and
(j) voids above a floor at the level of a storey or storey above."

Therefore, the proposed annex to existing Building C, which consists of an awning only, would be excluded from the GFA calculation. The total GFA of the development remains unchanged from the approved DA and is of 10,539 square metres. The development area schedule is summarised in Table 3.

Table 3: Development schedule

Building	Description/ use	GFA (m^2)		
		Warehouse/ equipment	Office/ administration	Total
A	Non-Ferrous Shed (including office)	1,278	24	1,302
B	Non-Ferrous Processing (including office)	3,162	438	3,600
C	Post Shredder Processing	2,981	0	2,981
D	Storage Work Shed	415	0	415
E	Administration Building	0	984	984
F	Truck Wash	494	0	494
G	Dangerous Goods Storage	81	0	81
H	Metal Awning	25	0	25
J	Electrical Switch Room	17	0	17
K	Overhead Weighbridge Office	0	47	47
L	Trommel Lid	593	0	593
	Total	**9,046**	**1,493**	**10,539**

Based on this schedule, the proposed development is required to provide a minimum of 116 on-site car parking spaces according to the DCP 2006 and 147 car parking spaces according to the DCP 2015 as shown in Table 4 and Table 5.

Table 4: Development car parking requirements – DCP 2006

Development area	DCP 2006 car parking rate	DCP 2006 car parking requirements
10,539 m²	One space per 75 m² GFA for the area ≤ 7,500 m²	100
	One space per 200 m² GFA only for the area in excess of 7,500 m²	16
	Total	**116**

Table 5: Development car parking requirements – DCP 2015

Development area	DCP 2015 car parking rate	DCP 2015 car parking requirements
10,539 m² (10,030 warehouse/ equipment and 509 m² office)	One space per 75 m² GFA for the industrial component	134
	One space per 40 m² GFA for the office component	13
	Total	**147**

The revised design does not include any changes in the parking provision, which remains at a provision of 147 car spaces. The proposed car spaces provision meets the DCP requirements and is considered appropriate for the use of the site.

It is noted that the requirement of 147 car spaces could be slightly overstated considering that some equipment items have been included in the development schedule in Table 3 (as per the original DA plans) that do not generate traffic, being:

- Building F Truck Wash: 494 m²
- Building G Oil Storage: 81 m²
- Building H Awning: 25 m²
- Building J Electrical Switch Room: 17 m²
- Building L Trommel Lid: 593 m².

Traffic Impact

For the original DA for the site, the traffic assessment highlighted the fact that for this development, the application of generic average rates per square metre GFA from the Roads and Maritime Services (Roads and Maritime) *Guide to Traffic Generating Developments* (October 2002) was not considered appropriate and that the traffic generating characteristics of the proposed development was considered to be directly related to three key parameters:

- number of on-site employees
- handling/ processing capacity
- operating hours.

This is in line with the Roads and Maritime *Guide to Traffic Generating Developments* (October 2002), which acknowledges that peak period traffic generation of industrial land uses varies significantly depending on the specific industrial development type and that "*…peak traffic generation period for industrial land use is generally determined by three key factors: employee density, travel mode and peak period travel distribution.*"

Table 6 summarises the value of the three key parameters identified previously.

Table 6: Key traffic generation parameters

Parameter	Pre-development	Post-development (DA)	Post-development (Section 96)
Employees	204	84	84
Processing capacity	90,000 tonnes/ annum	350,000 tonnes/ annum	350,000 tonnes/ annum
Operating hours	6:30am to 4:30pm Monday to Friday, 6:30am to 12:00pm Saturdays (55.5 hours/ week)	6am to 9pm, Monday to Saturday (90 hours/ week)	6am to 9pm, Monday to Saturday (90 hours/ week)

As there is no modification of those parameters, there will be no change in the traffic generation as estimated in the original DA documentation.

Queuing Analysis

The DA design included two weigh bridges on the western edge of the site, close to the heavy vehicle site entrance. The revised design removes one weigh bridge.

The estimated traffic generation in the original DA is of 52 vehicles (two-way movements) per hour in the morning peak and 26 vehicles per hour (two-way movements) in the afternoon peak, with the following inbound and outbound distribution for heavy vehicles:

- AM peak: 60% inbound, 40% outbound
- PM peak: 40% inbound, 60% outbound.

The arrival and departure demands are shown in Table 7.

Table 7: Peak hour arrival demand

Period	Total traffic (vehicles)	Arrival demand (vehicles)	Departure demand (vehicles)
AM peak	52	31	21
PM peak	26	10	16

The highest vehicle arrival rate is of 31 vehicles per hour during the morning peak and the time required for the operation at the weigh bridge averages one minute per vehicle. Applying queueing theory formulae, the 95th percentile queue is four vehicles, including the vehicle at the weigh bridge. Therefore, space must be provided for three heavy vehicles to queue on approach to the weigh bridge. Heavy vehicles entering the site are 19 metre articulated trucks and if a length of 20 metres is allowed for each queued vehicle, a storage length of at least 60 metres should be provided.

The setback available between the weigh bridge and the street entry is about 71.3 metres, as such, the provided setback is appropriate to accommodate the expected queuing of vehicles at the weigh bridge and the removal of one weigh bridge has no traffic impact on the public domain (no queuing of trucks into the street).

It is observed that at a later stage Sell and Parker may wish to install the second entry weighbridge as per the DA approved plans.

Vehicle access and circulation

A swept path assessment was undertaken to check the proposed heavy vehicle access and internal circulation, which has been slightly modified with the proposed revised design.

The revised design can adequately accommodate a 19-metre articulated vehicle circulating. It is noted that on entering or exiting the site, there will be some impact on the opposing traffic as the vehicle will cross the centreline of road, but this is supportable for a local road.

Overall, swept paths are acceptable with the assessment provided in Appendix B.

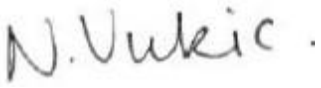
Conclusion

The proposed amendments are consistent with the approved DA from a traffic and parking perspective, with no additional impacts on the public domain.

I trust the above clearly outlines the design alterations proposed as part of the Section 96 application. However, should you have any questions or require any further information, please do not hesitate to contact me on (02) 8448 1800.

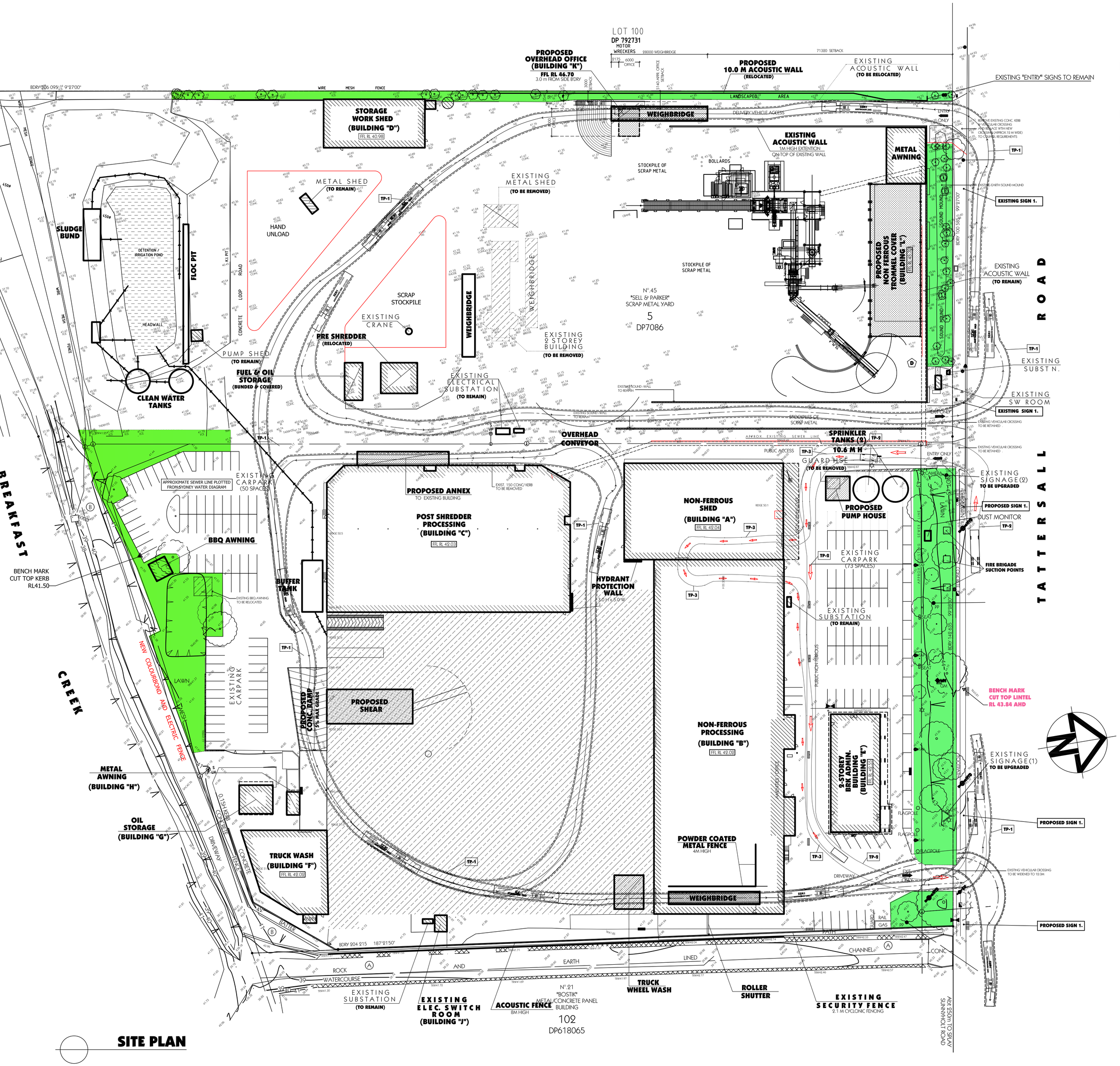
Yours sincerely

GTA CONSULTANTS



Nicole Vukic
Director

Appendix A: Development Plan



SITE PLAN

LEGEND

- EXISTING STRUCTURE TO REMAIN
- EXISTING STRUCTURE TO BE REMOVED
- PROPOSED NEW STRUCTURE
- EXISTING STRUCTURE TO BE FOR REUSE OR TO BE RELOCATED

LEGEND VEHICLE TURN TEMPLATES

- **TP-1** TURNING TEMPLATE - ARTICULATED VEHICLE 12.5 M RADIUS CLEARANCE HT 4.5 M A.S 2890.2 - 2002
- **TP-2** TURNING TEMPLATE - HEAVY RIGID VEHICLE 12.5 M RADIUS CLEARANCE HT 4.5 M A.S 2890.2 - 2002
- **TP-3** TURNING TEMPLATE - B99 CAR 6.3 M RADIUS

DEVELOPMENT DATA

SITE AREA	59 475 M2 approx.		
	FLOOR AREAS		
	W'HOUSE / EQUIPMENT STORE	OFFICE /AMEN	AWNING
BUILD "A"	1278 M2	24 M2	
BUILD "B"	3162 M2	438 M2	
BUILD "C"	2981 M2	--------	106 M2
BUILD "D"	415 M2	--------	
BUILD "E"	984 M2	--------	
BUILD "F"	494 M2	--------	
BUILD "G"	81 M2	--------	
BUILD "H"	25 M2	--------	
BUILD "J"	17 M2	--------	
BUILD "K"	47 M2	--------	
BUILD "L"	593 M2	--------	
TOTAL	10 077 M2	462 M2	106 M2

Issue	By	Description	Date
A	CZ	FOR SECTION 96	00/11/17

GENERAL NOTES

1) All dimensions and floor areas are to be verified by the Builder prior to the commencement of any building work. Any discrepancies are to be brought to the attention of the designer.
2) Levels shown are approximate unless accompanied by reduced levels.
3) Figured dimensions must be taken in preference to scaling.
4) All boundary clearances must be verified by the surveyor prior to the commencement of any building works.
5) Where engineering drawings are required such must take preference to this drawing.
6) Stormwater to be discharged to Councils' requirements and AS 3500.3–1990.
7) All services to be located and verified by the Builder with relevant authorities before any building work commences.

PRELIMINARY 04

HARDCOPY DATE : 14/12/17

Consultants

Date	NOVEMBER 2017
Scale	1:500 UNO
Drawn	J.LARIA
Checked	C.ZAPPIA
Certified	

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Project: PORPOSED ALTERATIONS TO EXISTING RECYCLING CENTRE
LOT 2 DP550522 & LOT 5 DP7086 , No 23 & 45
TATTERSALL RD, KINGS PARK

Client: SELL & PARKER METAL

Project No.: P4144

Title: DEVELOPMENT APPLICATION
SITE PLAN

Activity Type: DA

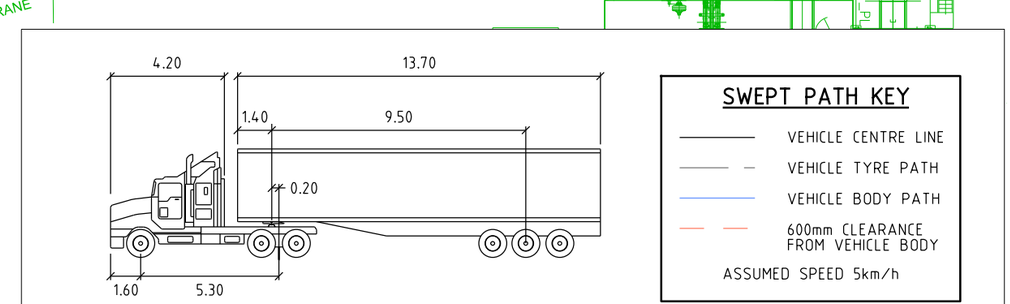
Job No.: 2182-17

Sheet No.: A101

Issue:

B1 SHEET

Appendix B: Swept Path Assessment



PM S 19M

metres

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

SWEPT PATH KEY

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 600mm CLEARANCE FROM VEHICLE BODY

ASSUMED SPEED 5km/h

EXISTING ACOUSTIC WALL
1M HIGH EXTENTION
ON TOP OF EXISTING WALL

METAL AWNING

WEIGHBRIDGE

DELIVERY VEHICLE ACCESS

LANDSCAPED AREA

ENTRY ONLY

INDICATIVE EDGE EDGE OF ROADWAY

INDICATIVE ROAD CENTRE LINE

EXISTING SIGN 1.

IMPACT ON OPPOSING TRAFFIC AND POTENTIAL IMPACT ON EXISTING KERBSIDE PARKING. VEHICLE WILL CROSS CENTRELINE OF ROAD, WHICH IS SUPPORTABLE FOR A LOCAL ROAD

EXISTING ACOUSTIC WALL (TO REMAIN)

PROPOSED NON FERROUS TROMMEL COVER (BUILDING "L") FFL RL 42.70

SOUND MOUND

TATTERSALL ROAD

STOCKPILE OF SCRAP METAL

BOLLARDS

CRANE

RIDGE

STOCKPILES OF SCRAP METAL

SPRINKLER TANKS (2)

APPROX. EXISTING SEWER LINE

5 DP7086

NOTE:

SITE TRUCK ROUTE TO BE CONFIRMED

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N141920-01-01-P2
23 AND 45 TATTERSALL ROAD, KINGS PARK
SWEPT PATHS ASSESSMENT
18 DECEMBER 2017
SCALE : NTS

TRUCK ROUTES TO BE CONFIRMED

SCRAP STOCKPILE

EXISTING CRANE

PRE SHREDDER (RELOCATED)

JMP SHED (TO REMAIN)

FUEL & OIL STORAGE (BUNDED & COVERED)

WEIGHBRIDGE

WEIGHBRIDGE

EXISTING 2 STOREY BUILDING (TO BE REMOVED)

EXISTING ELECTRICAL SUBSTATION (TO REMAIN)

EXISTING SOUND -WALL TO REMAIN

EXISTING SOUND -WALL TO REMAIN

OVERHEAD CONVEYOR

EXISTING CARPARK (50 SPACES)

PROPOSED ANNEX TO EXISTING BUILDING

EXIST. 150 CONC/ KERB TO BE REMOVED

POST SHREDDER PROCESSING (BUILDING "C")

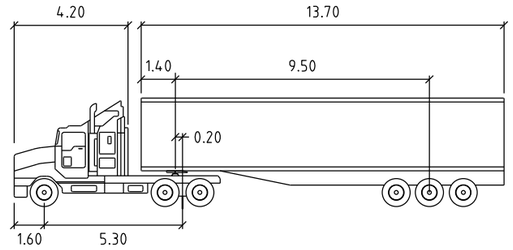
FFL RL 42.03

RIDGE 52.5

BUFFER TANK

HYDRANT PROTECTION WALL

APPROX.



SWEPT PATH KEY

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 600mm CLEARANCE FROM VEHICLE BODY

ASSUMED SPEED 5km/h

PM S 19M

metres

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

NOTE:

SITE TRUCK ROUTE TO BE CONFIRMED

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N141920-01-02-P2
23 AND 45 TATTERSALL ROAD, KINGS PARK
SWEPT PATHS ASSESSMENT
18 DECEMBER 2017
SCALE : NTS

EXISTING CARPARK
(50 SPACES)

EXISTING BBQ AWNING
TO BE RELOCATED

BUFFER TANK

PROPOSED ANNEX
TO EXISTING BUILDING

POST SHREDDER PROCESSING
(BUILDING "C")
FFL RL 42.03

EXIST. 150 CONC/ KERB
TO BE REMOVED

EXISTING RETAINING WALL
TO REMAIN

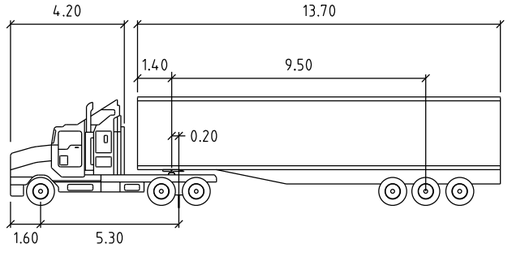
OVERHEAD CONVEYOR

HYDRANT PROTECTION WALL
3.0 H x 5.0 W

NON-FERROUS SHED
(BUILDING "A")
FFL RL 42.04

APPROX.

PROPOSED CONC RAMP
15% MAX GRADE



PM S 19M

	metres		
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SWEPT PATH KEY

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 600mm CLEARANCE FROM VEHICLE BODY

ASSUMED SPEED 5km/h

NOTE:

SITE TRUCK ROUTE TO BE CONFIRMED

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GTA CONSULTANTS MARK-UP
N141920-01-03-P2
23 AND 45 TATTERSALL ROAD, KINGS PARK
SWEPT PATHS ASSESSMENT
18 DECEMBER 2017
SCALE : NTS