



M^CLAREN TRAFFIC ENGINEERING

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Division of RAMTRANS Australia ABN: 45067491678 RPEQ: 19457

Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

2 March 2021

Reference: 210043.01FC

W & J Lee Property Investments Pty Ltd
c/- EMM Consulting
Ground Floor
20 Chandos Streety
St Leonards NSW 2065
Attention: Mr Allan Young

LETTER OF ADVICE FOR RESOURCE RECOVERY FACILITY AT 2F THE CRESCENT, KINGSGROVE

Dear Mr Allan,

Reference is made to your request to provide Letter of Advice for the Resource Recovery Facility at 2F The Crescent, Kingsgrove. This letter is supplementary to *M^CLaren Traffic Engineering's (MTE's) Traffic and Parking Impact Assessment* dated 3 June 2020 (ref: 190039.01FB) and provides compliance advice and revised swept path testing with respect to the updated site layout, as depicted in **Annexure A**.

1 Compliance Assessment

The updated car parking layout as depicted in **Annexure A**, has been assessed to achieve the relevant clauses and objectives of *AS2890.1:2004*, *AS2890.2:2002* and *AS2890.6:2009*. Any variances from standards are addressed in the following subsections including required changes, if any. The proposed car parking and vehicular access design achieves the following:

- 7.5m width one-way access driveway shared between light and heavy vehicles, facilitating access from The Crescent;
- 7.5m width one-way egress driveway for light vehicles only, facilitating egress to The Crescent;
- 10.2m width two-way driveway for heavy vehicles only, facilitating access and egress to The Crescent;
- 7.5m to 9.0m width circulation roadway for heavy vehicles, with the ability to cater for up to three (3) queued trucks prior to the storage shed;
- Minimum 6.0m width parking aisles for light vehicles;
- Minimum 5.4m length, 2.6m width spaces for staff and visitors;

- Minimum 5.4m length, 2.4m width disabled spaces with adjacent associated 5.4m length, 2.4m width shared space;
- Motorcycle spaces with minimum dimensions of 1.2m by 2.5m.

Whilst the plans have been assessed to comply with the relevant standards, it is usual and expected that a design certificate be required at the Construction Certificate stage to account for any changes following the development application.

2 Swept Path Testing

The updated access arrangement proposes to service heavy vehicles accessing the proposed site from The Crescent. Swept path testing of the largest design vehicles, being an 18.7m length Truck and Dog and 17m length Articulated Vehicle, have been conducted and are reproduced in **Annexure B** for reference. Swept path testing is successful, noting that it has been advised that access to the warehouse is made via a large sliding door (akin to a hangar), with width able to accommodate the swept paths as shown.

Further, it is noted that the weighbridge is located such that an 18.7m Truck and Dog vehicle and a 12.5m Heavy Rigid Vehicle can enter and exit the site in a forward direction without requiring reverse manoeuvres in order to position onto the weighbridge.

With regard to access to the site for 17m Articulated Vehicles, it is proposed that entry be made from the eastern-most driveway and be controlled under a Plan of Management, if necessary. As these types of vehicles are expected to access the site only occasionally and with truck drivers in radio contact with onsite management, it is appropriate for this arrangement to occur.

Please contact Mr Matthew Elyard or the undersigned on 8355 2440 should you require further information or assistance.

Yours faithfully,

McLaren Traffic Engineering



Matthew M^cCarthy
Senior Traffic Engineer
BE Civil Engineering
Masters of Engineering Science
RMS Accredited Level 1 Road Safety Auditor
RMS Accredited Work Zone Traffic Management Plan Designer and Inspector



**ANNEXURE A: UPDATED PLANS
(1 SHEET)**

NOTES:

HURSTVILLE LEP 2012 (MAP 4)

LAND ZONING	= IN2	= LIGHT INDUSTRIAL
FSR	= N	= 1:1
HEIGHT	= K	= 10 METERS MAX

BUILDING CODE OF AUSTRALIA - SORTING SHED

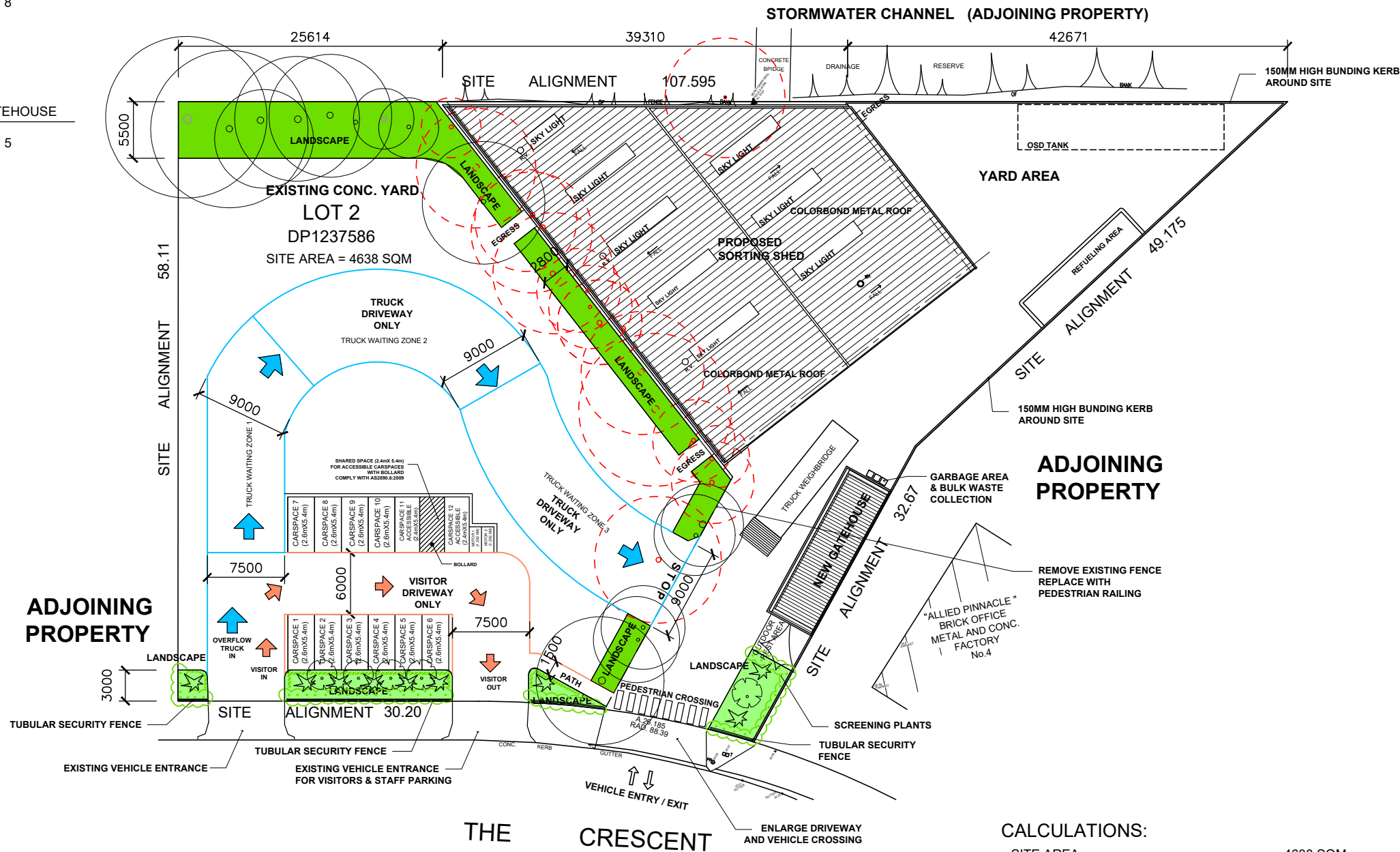
CLASSIFICATION	- CLASS 8
RISE IN STOREY	= 1
TYPE OF CONSTRUCTION	= C

BUILDING CODE OF AUSTRALIA - GATEHOUSE

CLASSIFICATION	- CLASS 5
RISE IN STOREY	= 2
TYPE OF CONSTRUCTION	= C

EXTERNAL WALLS (FRL)

LESS THAN 1.5M	= 90/90/90
1.5M TO 3.0M	= 60/60/60
3M OR MORE	= -/-/-
EXTERNAL COLUMNS LESS THAN 1.5M	= 90/-/-
1.5M TO 3.0M	= 60/-/-
ROOF	= -/-/-



LEGEND:

	EXISTING TREES TO BE REMOVED (16 OFF)
	EXISTING TREES TO RETAIN

CALCULATIONS:

SITE AREA	= 4638 SQM
CAR PARKING SPACE (INCL. DISABLED CAR SPACE)	= 12 SPACES
MOTOR BIKE PARKING SPACE	= 2 SPACES
LANDSCAPE AREA	= 381.8 SQM
	= 8.23% OF SITE AREA



PROPOSED SITE PLAN

REFER TO ARBORIST REPORT FOR DETAILS OF EXISTING TREES.

NOTE:
VERIFY ALL DIMENSIONS WITH ACTUAL JOB SIZES AND MODIFY WHERE NECESSARY BEFORE COMMENCING SITE WORK OR SHOP FABRICATION.

N°	DATE	REVISION
A	17.10.19	SUBMIT FOR DA
B	11.12.19	SUBMIT FOR DA
C	20.12.19	SUBMIT FOR DA
E	02.03.21	REVISION FOR DA

PROPOSED RESOURCE RECOVERY FACILITY

at
2F THE CRESCENT
KINGSGROVE
(LOT2, DP 1237586)
(Georges River Council)

for
W & J LEE PROPERTY INVESTMENT PTY LTD

DRAWING TITLE

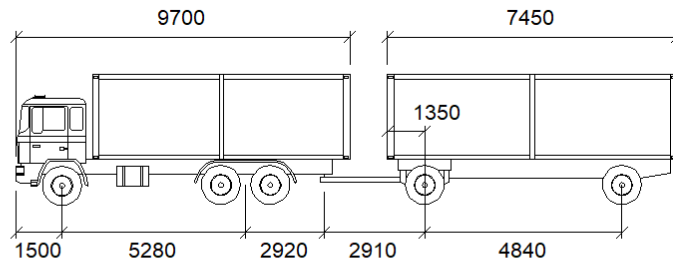
PROPOSED SITE PLAN

ROBERT LEE ARCHITECTS PTY LTD
ABN 25 000 971 488
SUITE 7 LEVEL 1
578 RAILWAY PDE. HURSTVILLE
NSW 2220
TELEPHONE: (02) 9570 1644
FACSIMILE: (02) 9570 3034
NOMINATED ARCHITECT:
RUSSELL C. LEE (ARN 4190)

SHEET SIZE	A3	SCALE	1:500
DATE	MAR 2021	DRG No.	
DRAWN BY	Fang Zhou		DA-01E

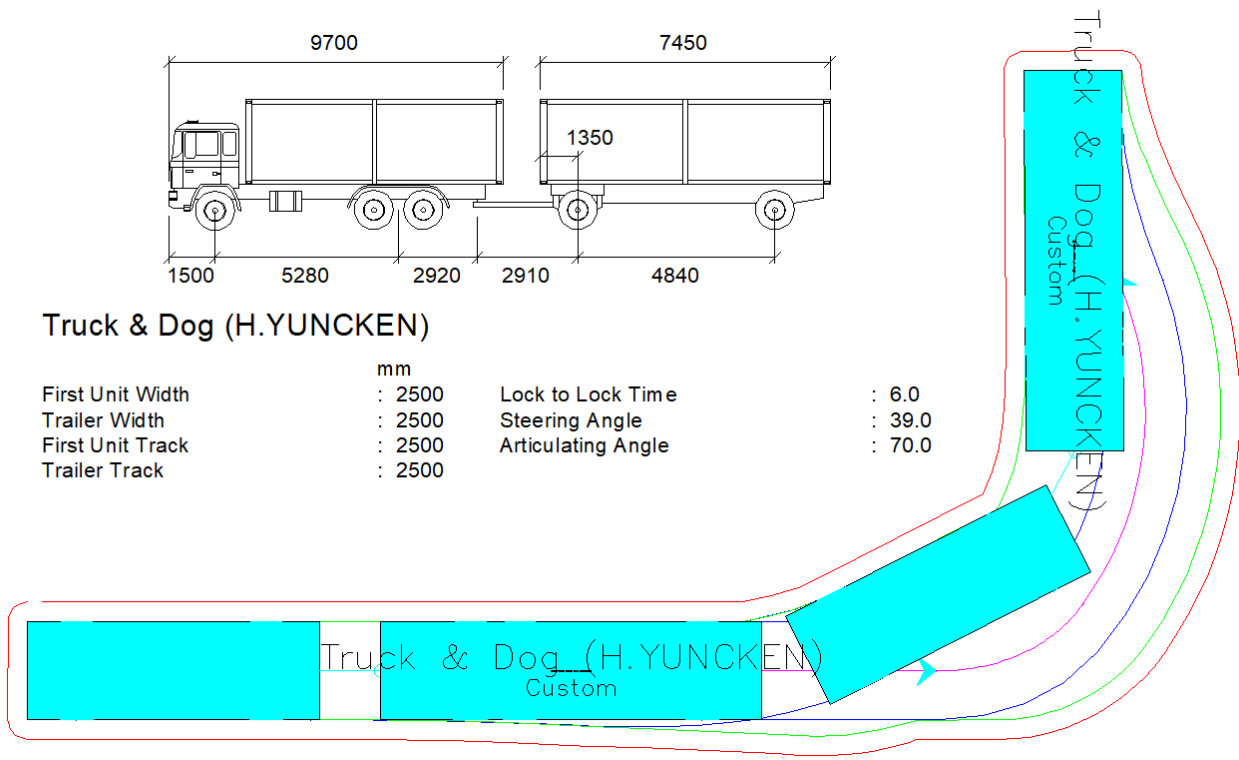


**ANNEXURE B: SWEPT PATH TESTING
(15 SHEETS)**

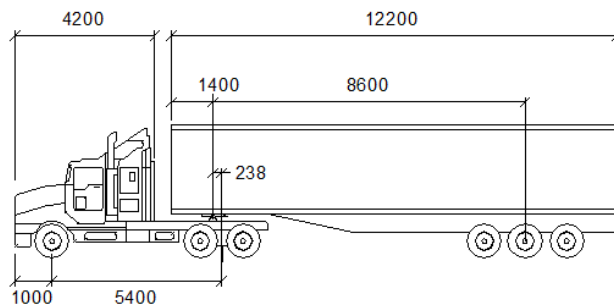


Truck & Dog (H.YUNCKEN)

	mm		
First Unit Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 39.0
First Unit Track	: 2500	Articulating Angle	: 70.0
Trailer Track	: 2500		

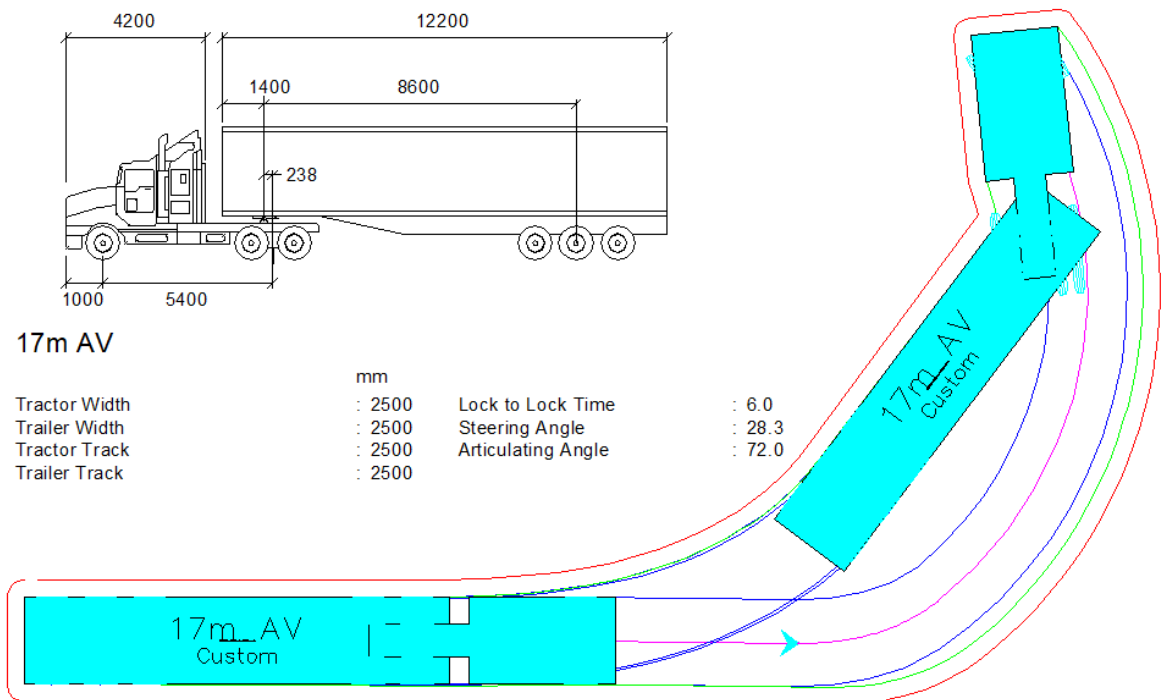


18.7M LENGTH TRUCK AND DOG VEHICLE



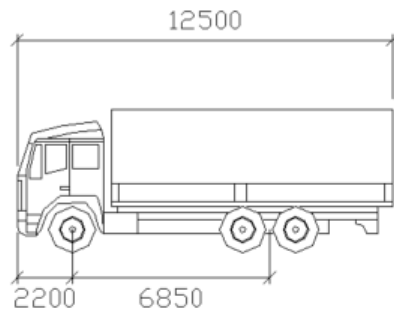
17m AV

	mm		
Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 28.3
Tractor Track	: 2500	Articulating Angle	: 72.0
Trailer Track	: 2500		



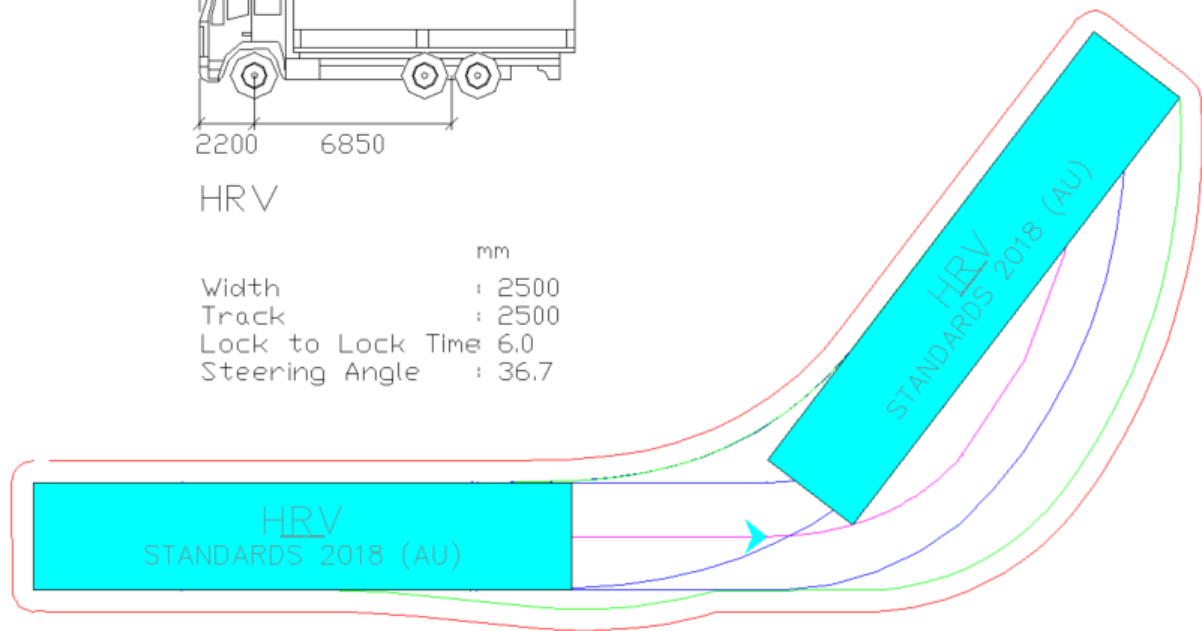
17M LENGTH ARTICULATED VEHICLE

Blue – Tyre Path
Green – Vehicle Body
Red – 500mm Clearance



HRV

mm
 Width : 2500
 Track : 2500
 Lock to Lock Time 6.0
 Steering Angle : 36.7

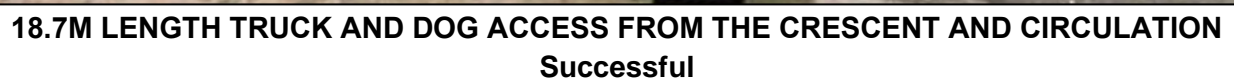


AUSTRALIAN STANDARD HEAVY RIGID VEHICLE (HRV)

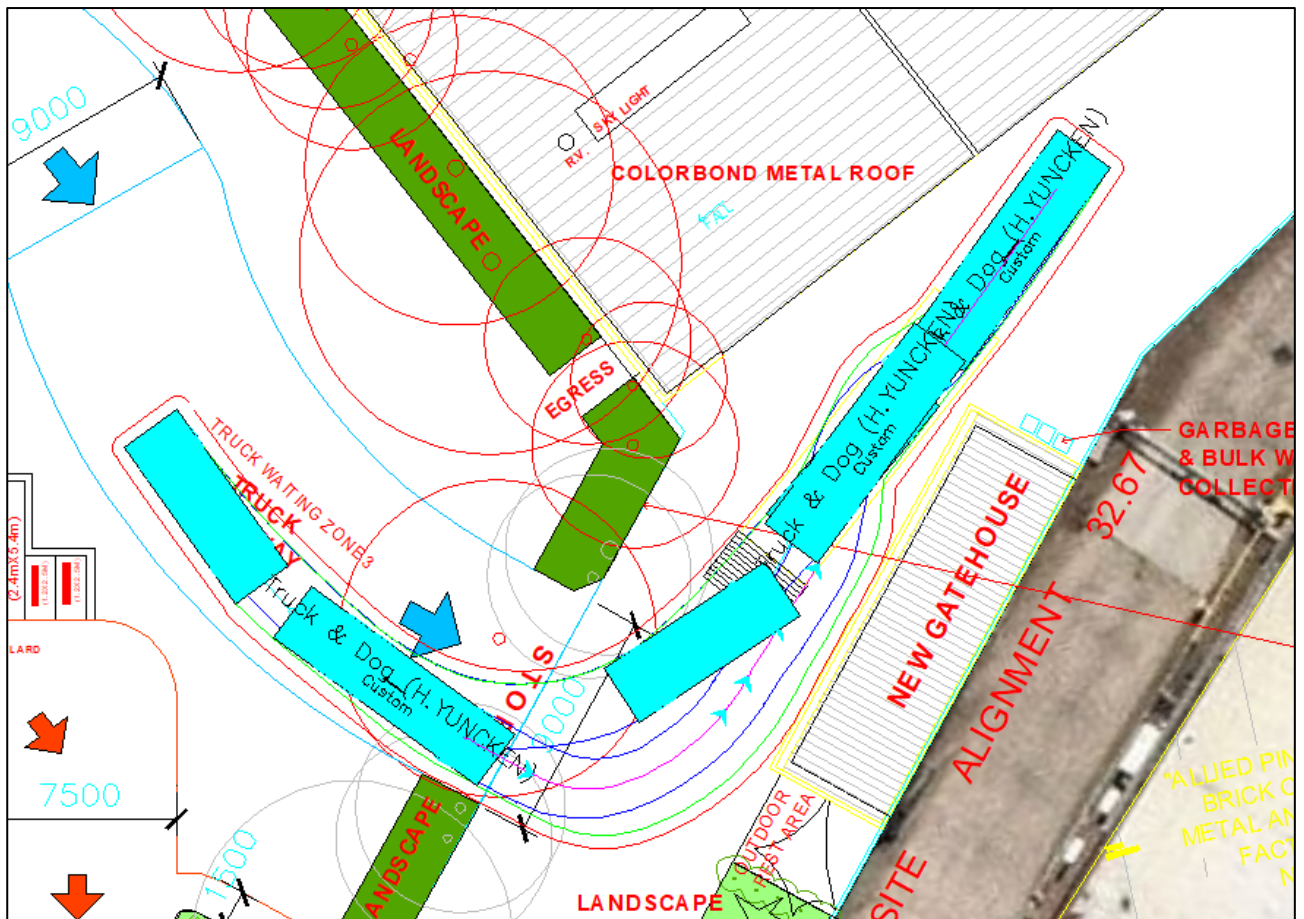
Blue – Tyre Path

Green – Vehicle Body

Red – 500mm Clearance

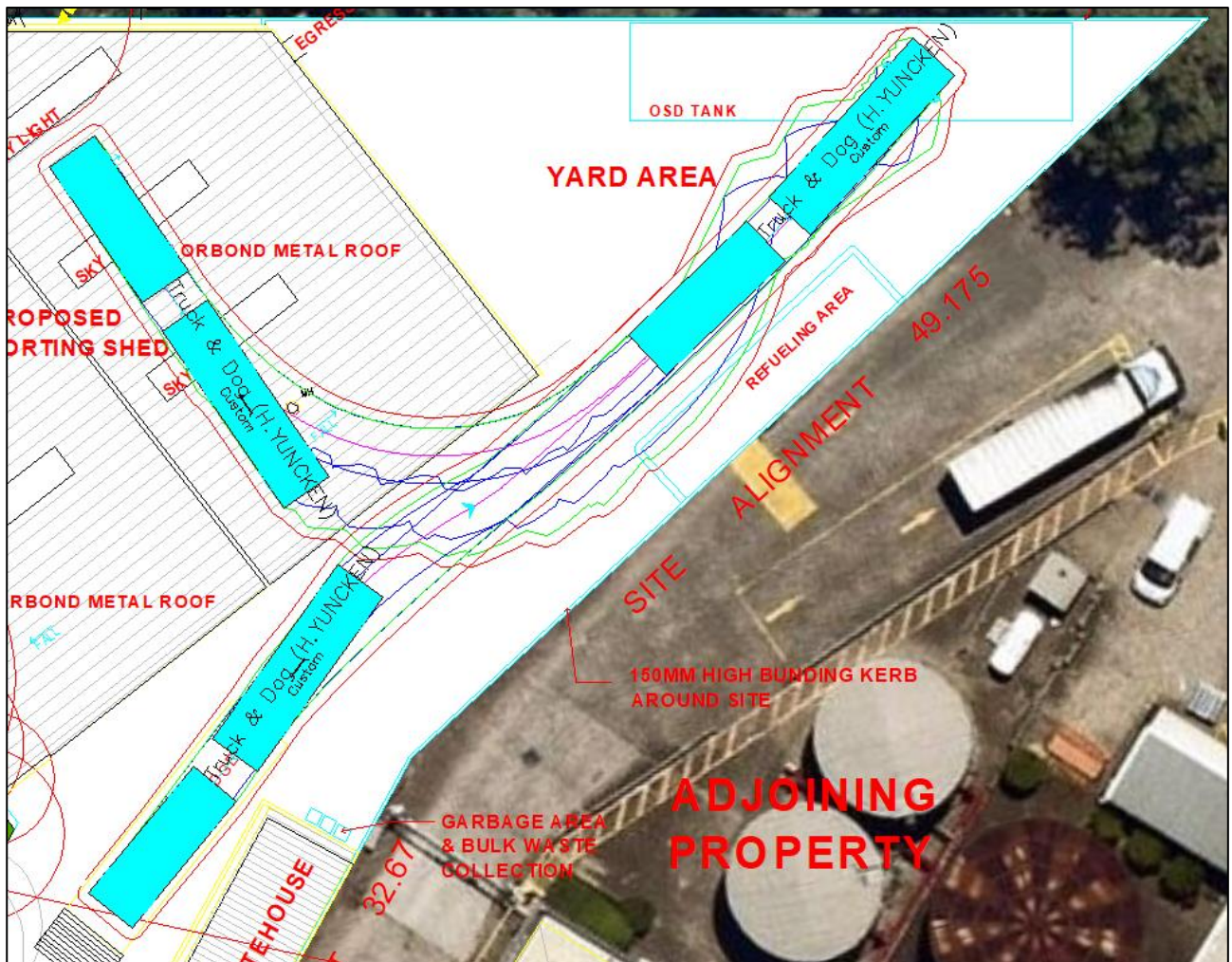


Successful

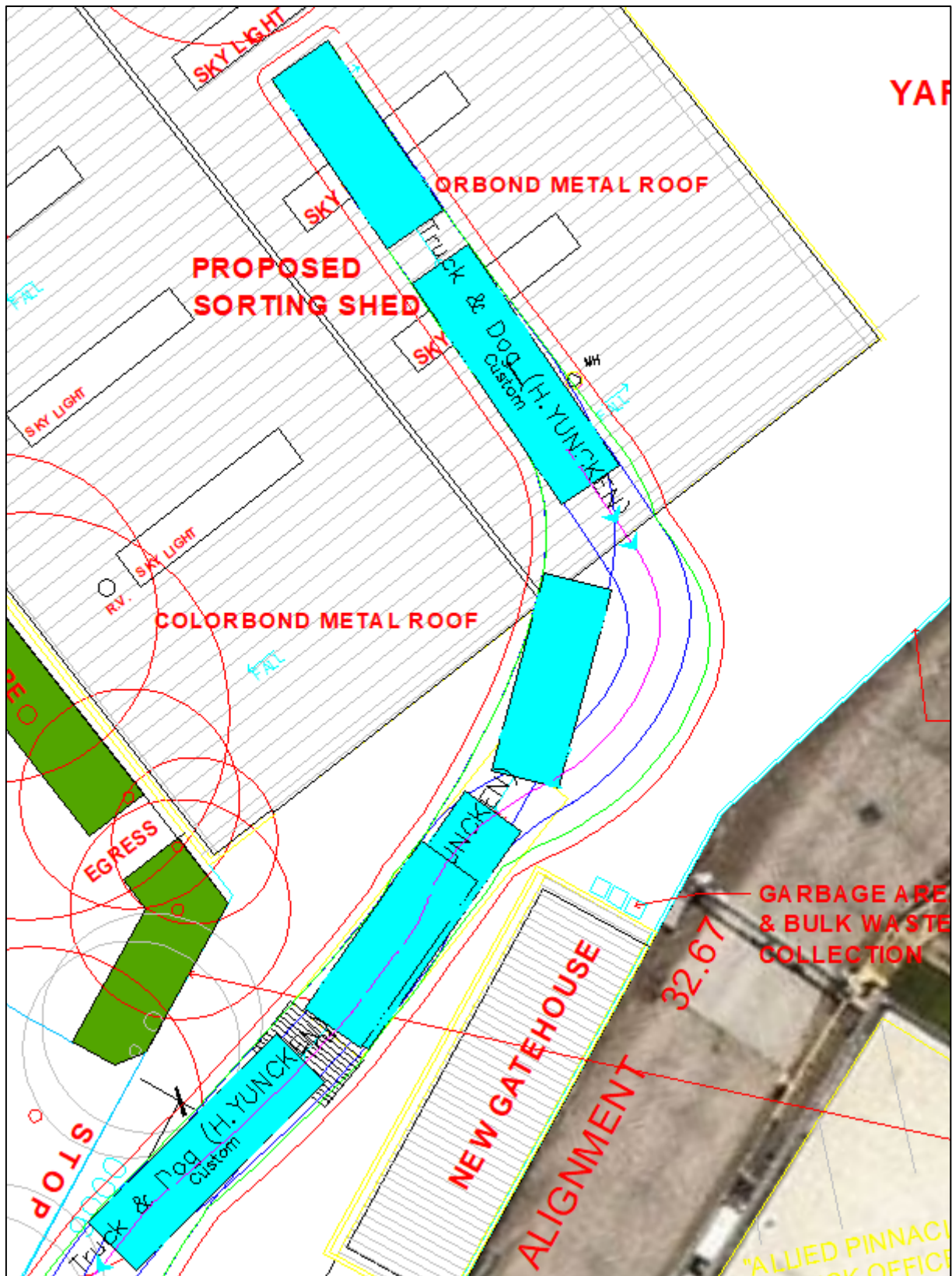


18.7M LENGTH TRUCK AND DOG ONTO WEIGHBRIDGE

Successful – Both truck and dog (trailer) can be fully accommodated on weighbridge from waiting area in a single forward movement.

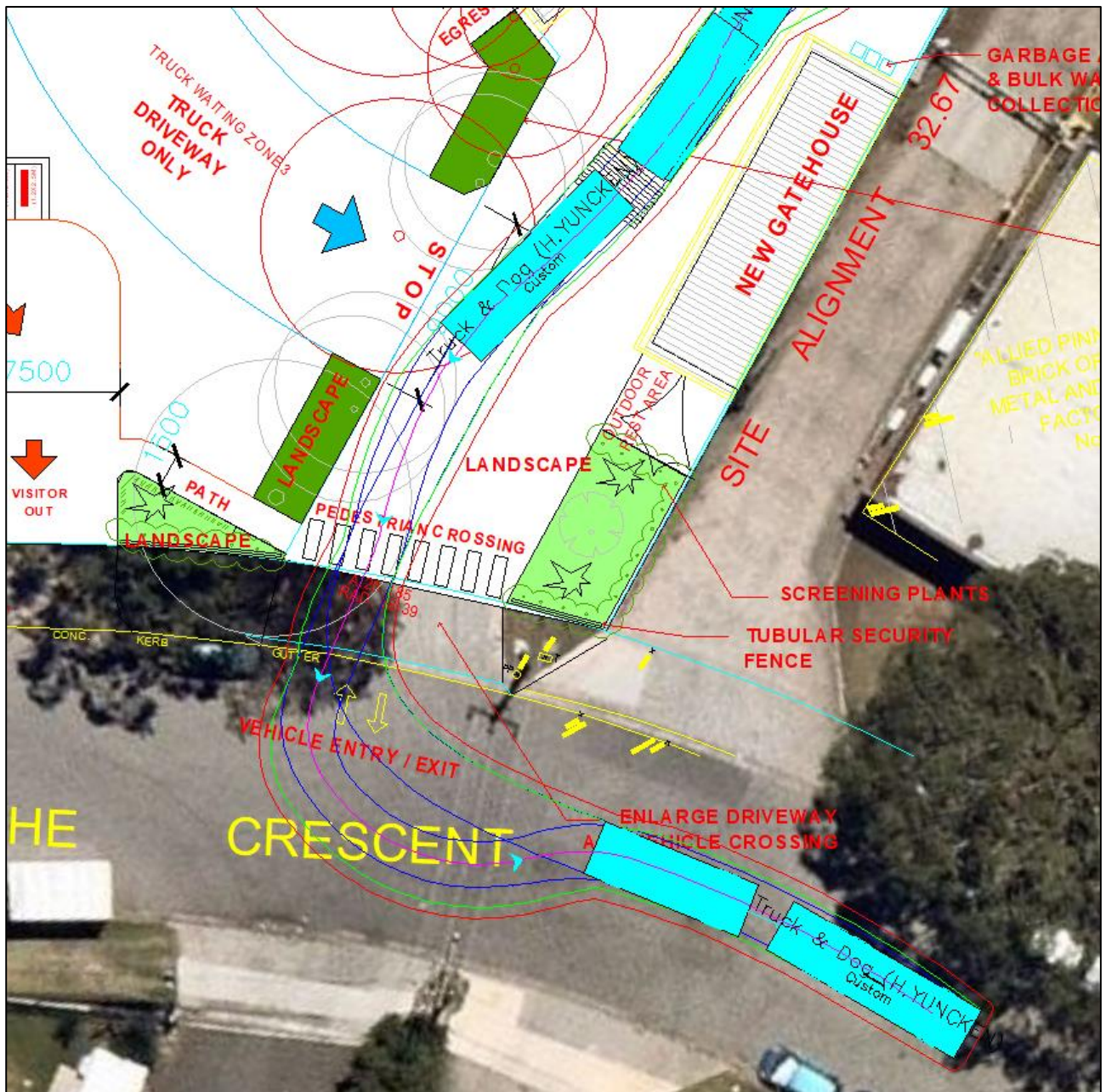


18.7M LENGTH TRUCK AND DOG ENTRY INTO WAREHOUSE FROM WEIGHBRIDGE
Successful – Reverse into warehouse achieved.

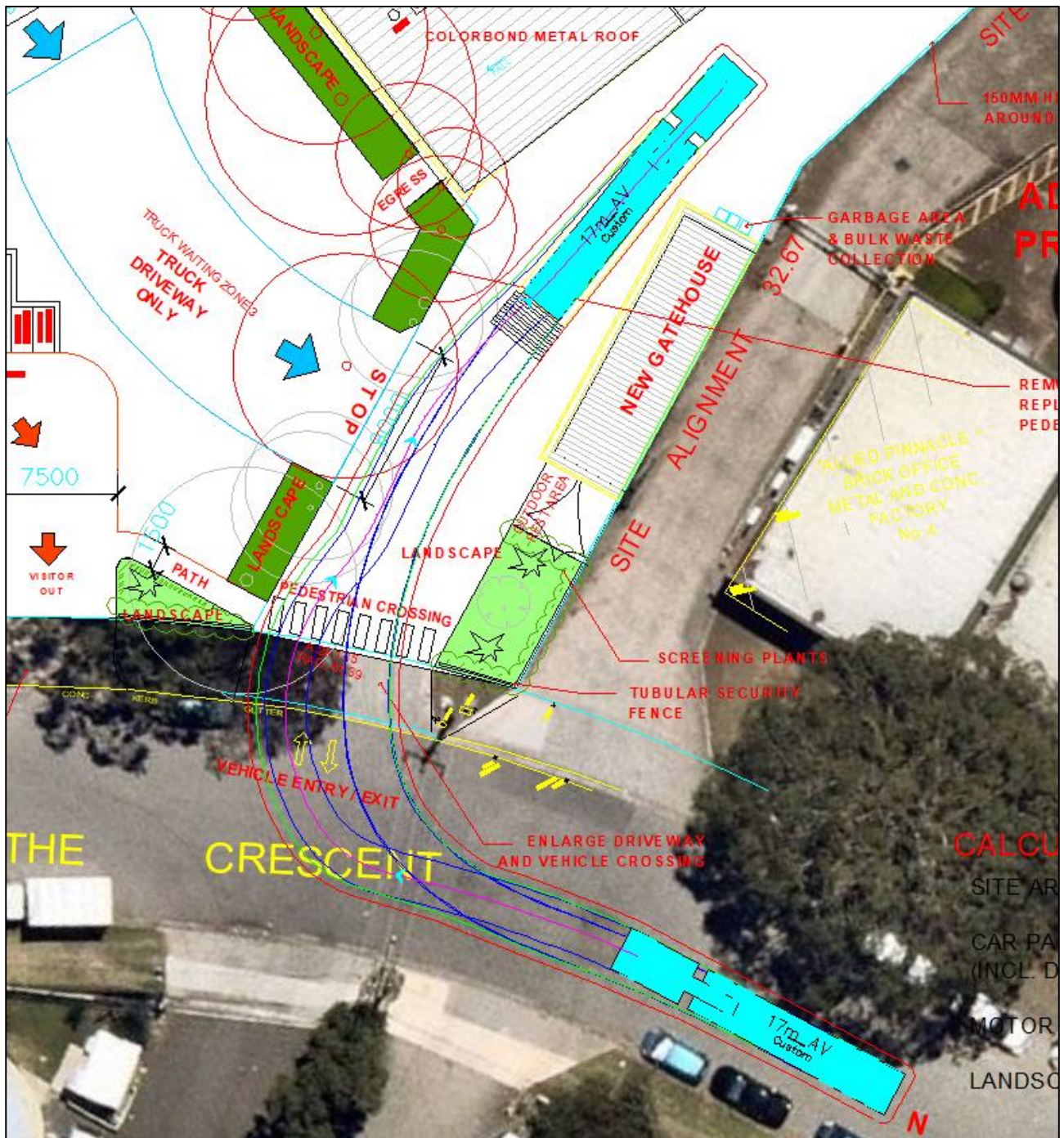


18.7M LENGTH TRUCK AND DOG EXIT FROM WAREHOUSE TO WEIGHBRIDGE

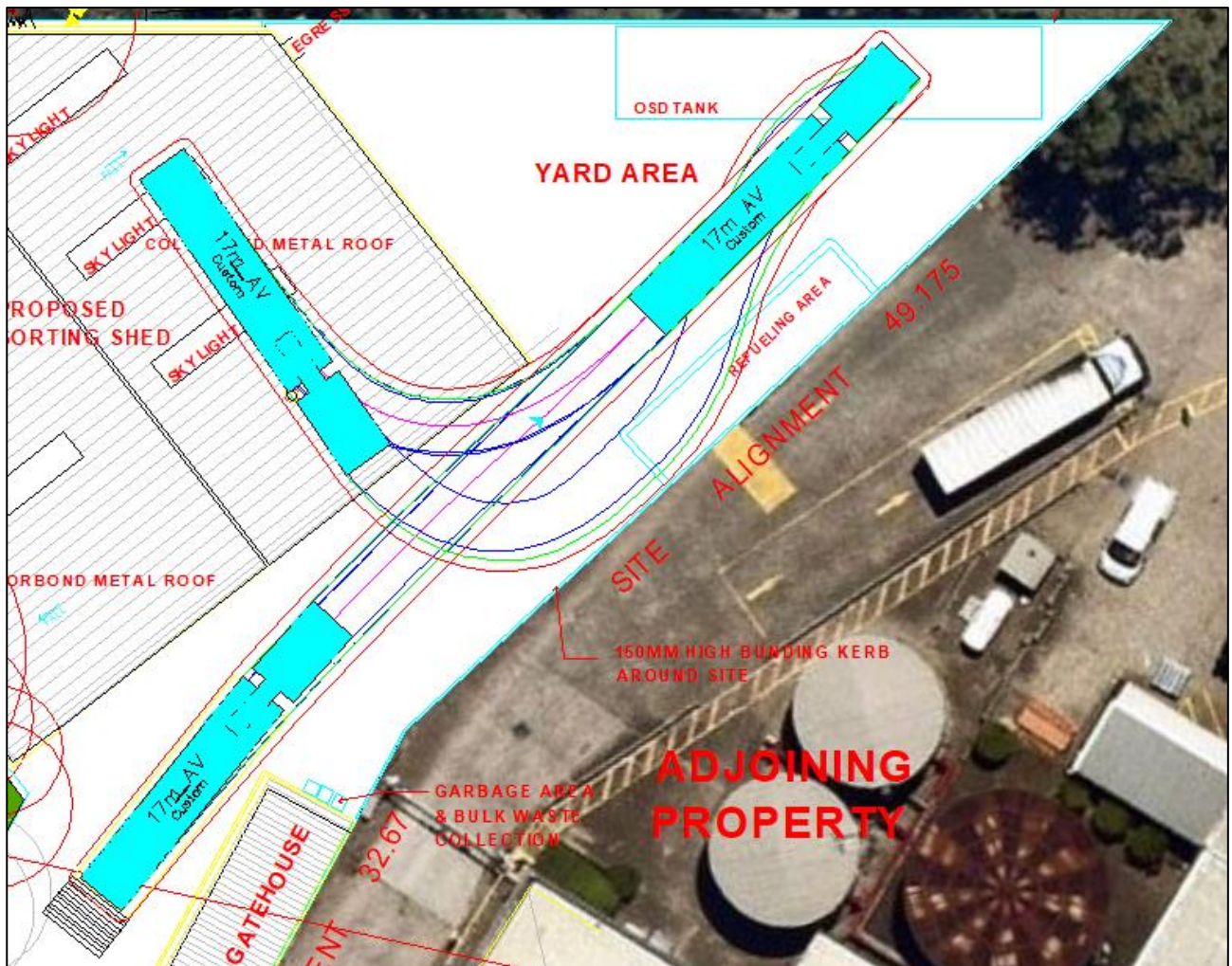
Successful – Forward egress achieved. Both truck and dog (trailer) can be fully accommodated on weighbridge from shed in a single forward movement.



18.7M LENGTH TRUCK AND DOG EXIT FROM WEIGHBRIDGE ONTO THE CRESCENT
Successful – Forward egress achieved.

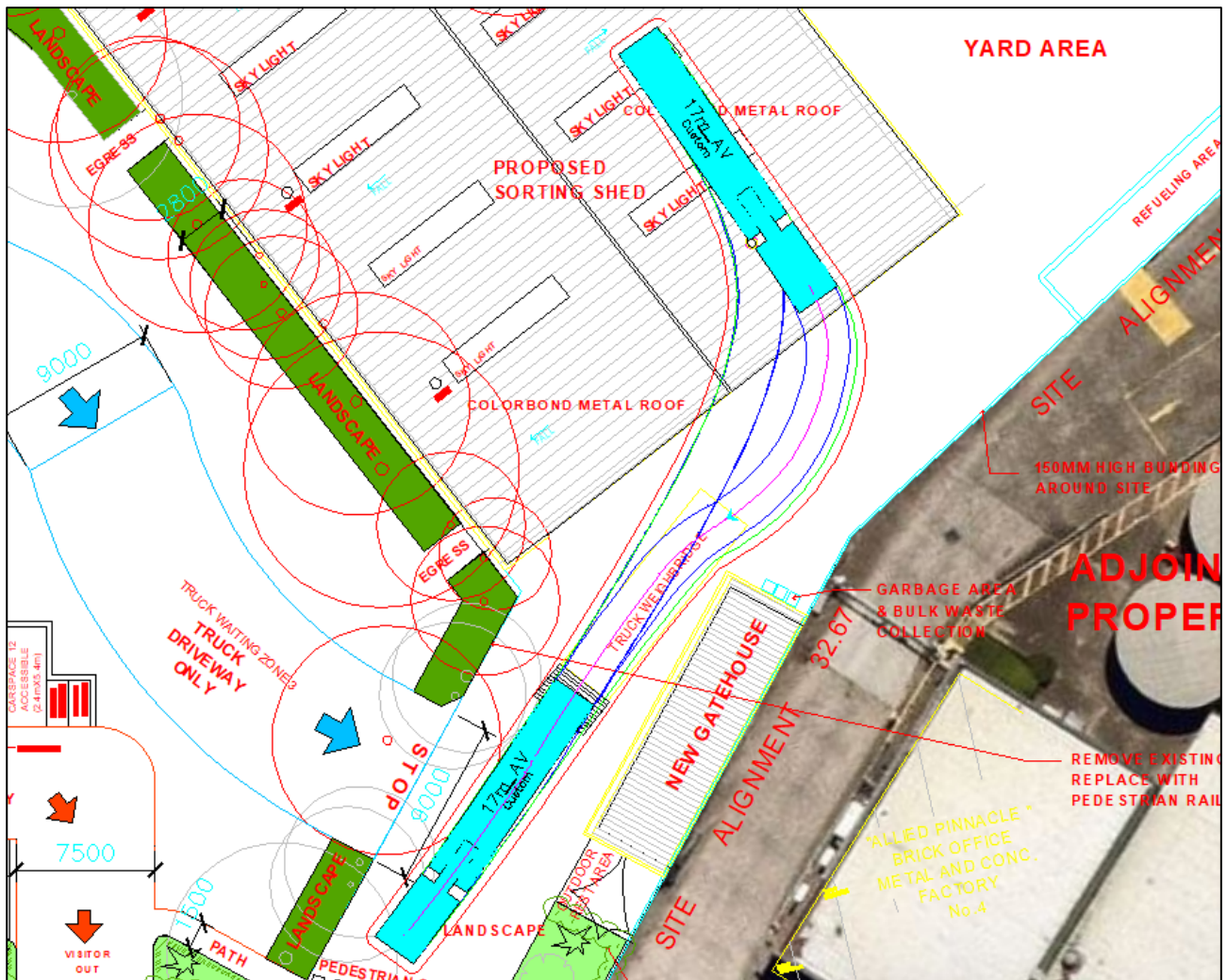


17M LENGTH ARTICULATED VEHICLE ACCESS FROM THE CRESCENT TO WEIGHBRIDGE
Successful – Trailer fully accommodated on weighbridge.

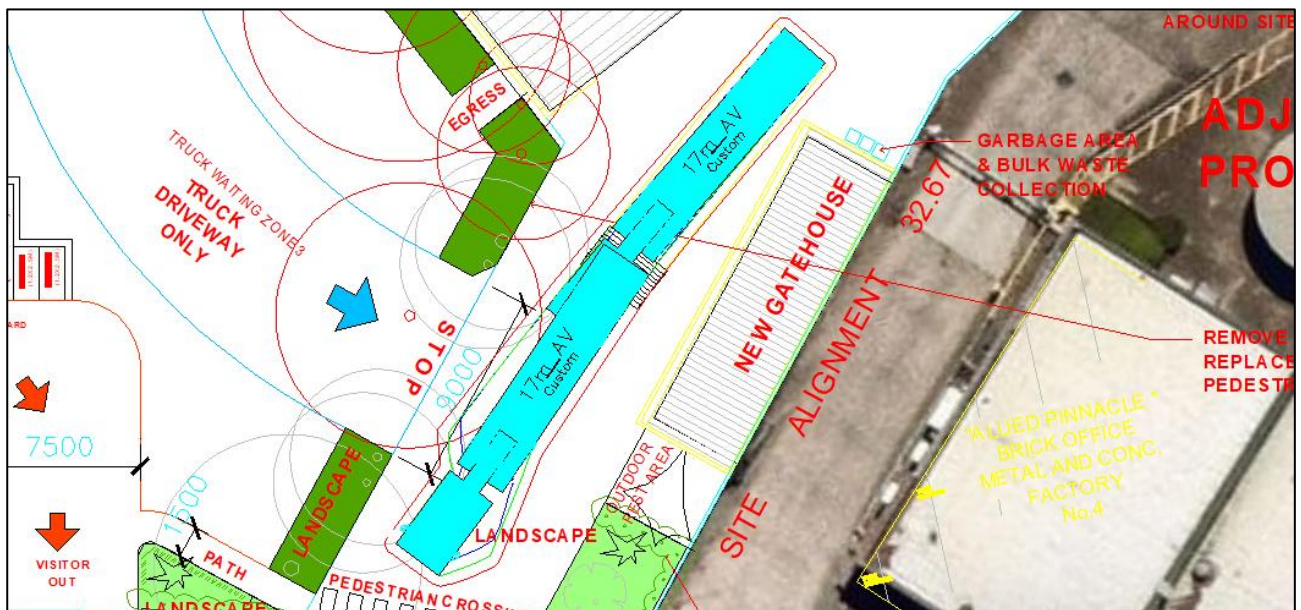


17M LENGTH ARTICULATED VEHICLE ENTRY INTO WAREHOUSE

Successful – Reverse into warehouse achieved.



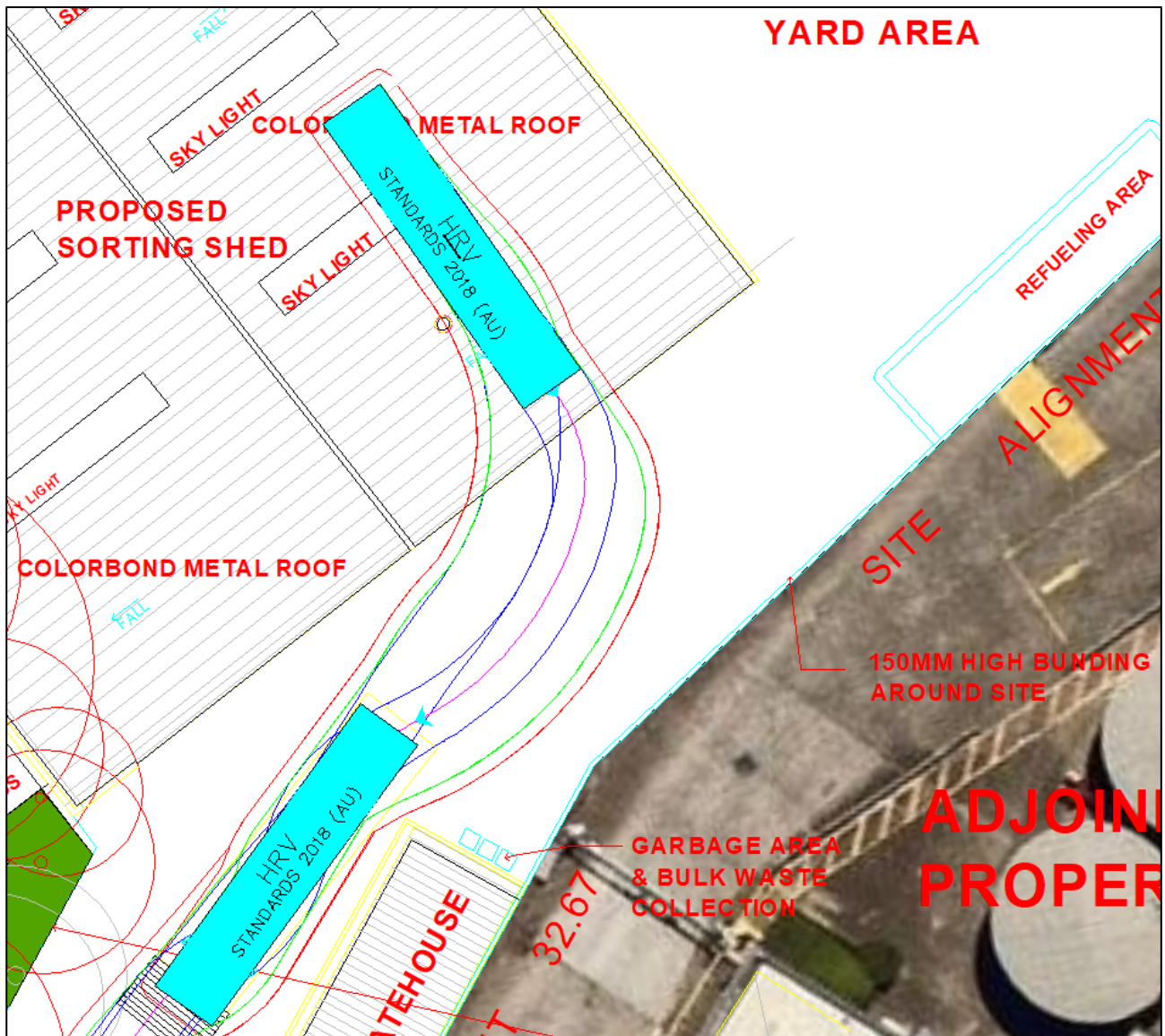
17M LENGTH ARTICULATED VEHICLE EXIT FROM WAREHOUSE
Successful – Forward egress achieved.



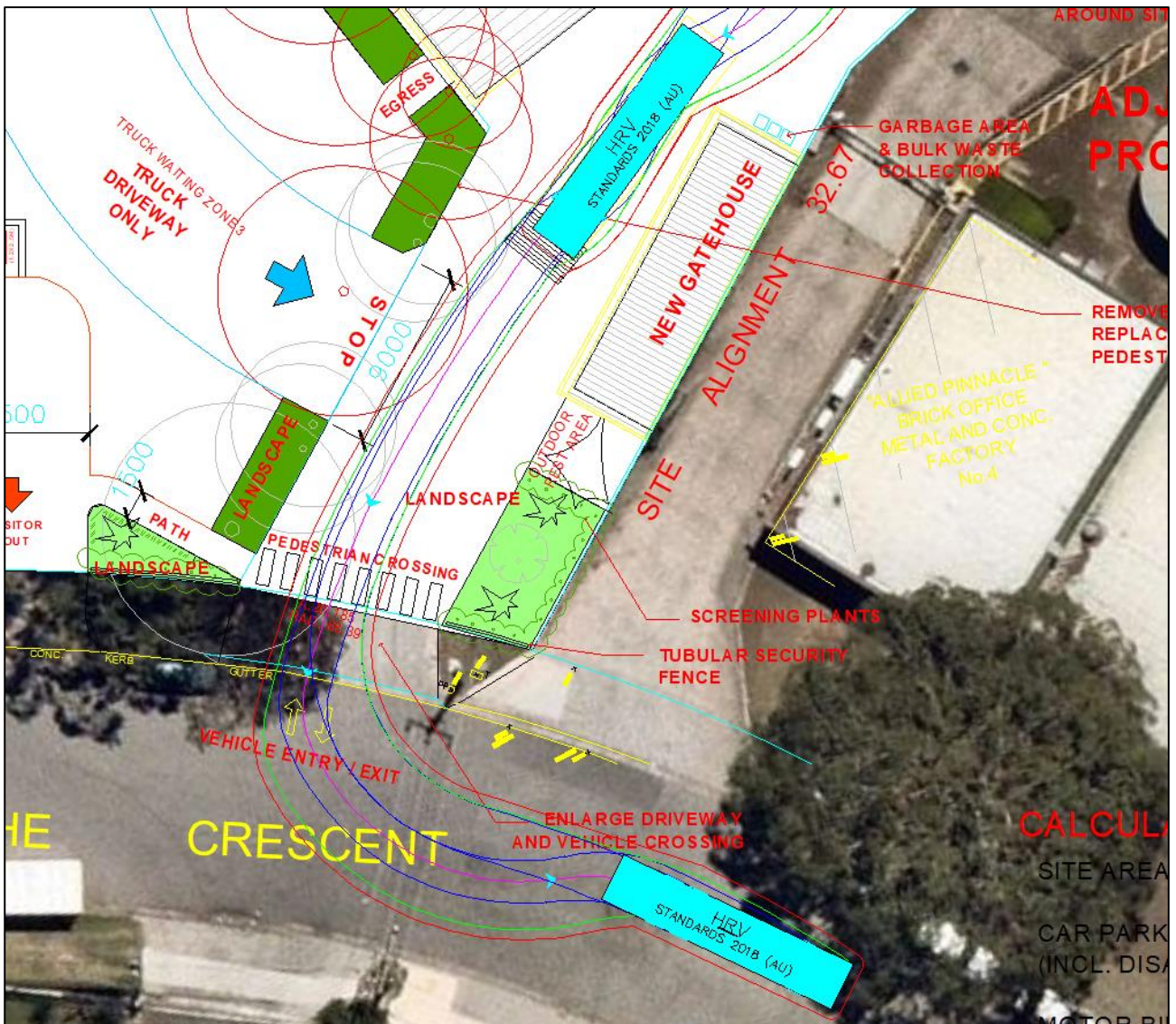
17M LENGTH ARTICULATED VEHICLE POSITIONING ONTO WEIGHBRIDGE
Successful – 1 reverse manoeuvre required. This is to be conducted under a plan of management if required, whereby any other truck onsite is within the waiting zones. This type of movement is expected to be minor and infrequent.



Successful – Forward egress achieved.



12.5M LENGTH HEAVY RIGID VEHICLE EXIT FROM WAREHOUSE TO WEIGHBRIDGE
Successful – Forward egress achieved, and wheelbase fully accommodated on weighbridge.



12.5M LENGTH HEAVY RIGID VEHICLE EXIT TO THE CRESCENT FROM WEIGHBRIDGE
Successful – Forward egress achieved.