19 September 2019

Evan Boloutis
EB Traffic Solutions Pty Ltd
evan@ebtraffic.com.au
0408 395 729

Ms Esther Hughes
Esther@mraconsulting.com.au

Dear Ms Hughes

TRAFFIC ENGINEERING ASSESSMENT: 115-119 COWPASTURE ROAD WETHERILL PARK, NSW

The traffic engineering assessment has been based upon:

- Discussions with and information provided by the applicant;
- AutoTURN computer software for the swept path analysis;
- Letter from Fairfield Council to Zhinar Architects, Ref: 631.1/2018/NK, dated 15 August 2019;
- Traffic Impact Assessment report prepared by EB Traffic Solutions for the proposed development at 115-117 Cowpasture Road Wetherill Park (NSW), Rev B, dated 28 August 2018 and addendum reports, dated 21 March 2019 and 7 May 2019 (Rev B); and
- Layout plans prepared by Zhinar Architects, Job 8621, Sheet DA 428.1/2018, Dwgs DA 001 (Stage 1) and DA 002 (Stage 2), Rev B, dated 19 September 2019.

In response to Council's letter dated 15 August 2019, the development layout plans for Stages 1 and 2 have been updated to incorporate a detailed layout of the warehouses and ancillary offices, weighbridge and car park layout with associated pedestrian pavement markings.

The layout plans used as a basis for the traffic engineering assessment are shown in **Attachment A.**

An assessment was undertaken on the updated layout plans to examine the ability for the applicant's largest trucks to enter the development access, manoeuvre onto the weighbridge, enter and exit the warehouse loading docks to then exit from the site in a forward manner.

It is further understood that, to minimise the potential for conflict between arriving and departing trucks using the on-site weighbridge facility, a public weighbridge will be used to weigh articulated vehicles only which have departed from the development site.

Information provided by the client indicates that the largest trucks arriving and departing the site on a daily basis will be an 8.5 m long skip bin truck. In addition, it is understood that a 19 m articulated truck will arrive and depart from the site on one occasion per week, which is expected to be during the off-peak operating periods on weekdays between 7 am and 8 am or after 5 pm. The 19 m articulated vehicle will remove processed material from the site.

The analysis was undertaken with the use of the AutoTURN computer software using (conservatively) an 8.8 m Medium Rigid Vehicle for the development's day to day operations (refer **Attachment B**) and a 19 m articulated vehicle, which will visit the site once per week (refer **Attachment C**).

The Stage 2 layout plan has been adopted for the swept path assessment given that the location of the warehouse loading dock areas, weighbridge and car park layout with associated pedestrian pavement markings are identical for both Stages 1 and 2.

The directional manoeuvres examined at the development access point was based upon information provided by the client indicating that trucks will arrive at the site from the south and will therefore undertake a right turn manoeuvre into the site and, upon exiting from the site, the trucks will undertake a left turn manoeuvre out of the development access to travel to the south.

The swept path analysis indicates that:

- An 8.8 m MRV can safely enter and depart the development access in a forward manner, can safely manoeuvre onto the weighbridge and can safely reverse into both loading dock bays to then exit from the loading dock bays in a forward manner; and

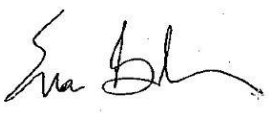
- A 19 m AV can safely enter and depart the development access in a forward manner, can safely manoeuvre onto the weighbridge and can safely reverse into both loading dock bays to then exit from the loading dock bays in a forward manner.

It is further understood that a communication system will be introduced between the administrative offices and all skip bin trucks. The communication system will ensure that truck arrivals are staggered to minimise the potential for queuing within the site's accessway.

In the event that two trucks arrive concurrently, then there is adequate provision for the initial truck to prop on the weighbridge whilst the second truck momentarily props within the accessway. Following the weighing procedure which is expected to take 3-5 minutes, the subsequent truck can be manoeuvred onto the weighbridge with the use of spotters.

At these times when trucks are manoeuvring into and out of the warehouse loading dock bays, it is recommended that traffic management control, in the form of a spotter, be used to temporarily hold any vehicles or pedestrians circulating within the site until the trucks have safely reversed into the warehouse loading dock bays or until the trucks have safely exited from the warehouse loading dock bays and from the site in a forward manner.

The spotter, who could be a staff member associated with the proposed development, is to be trained in Traffic Management Control.

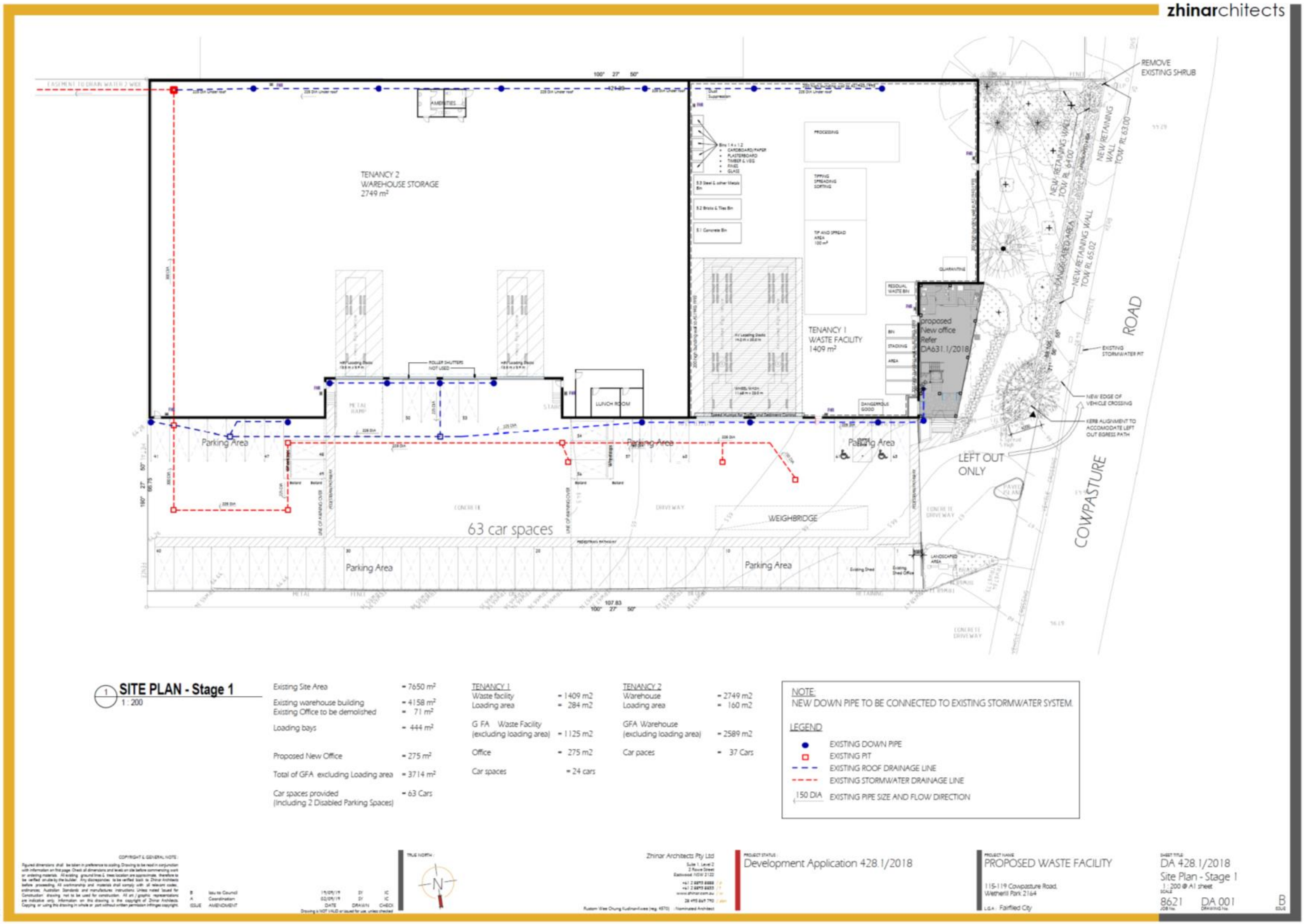


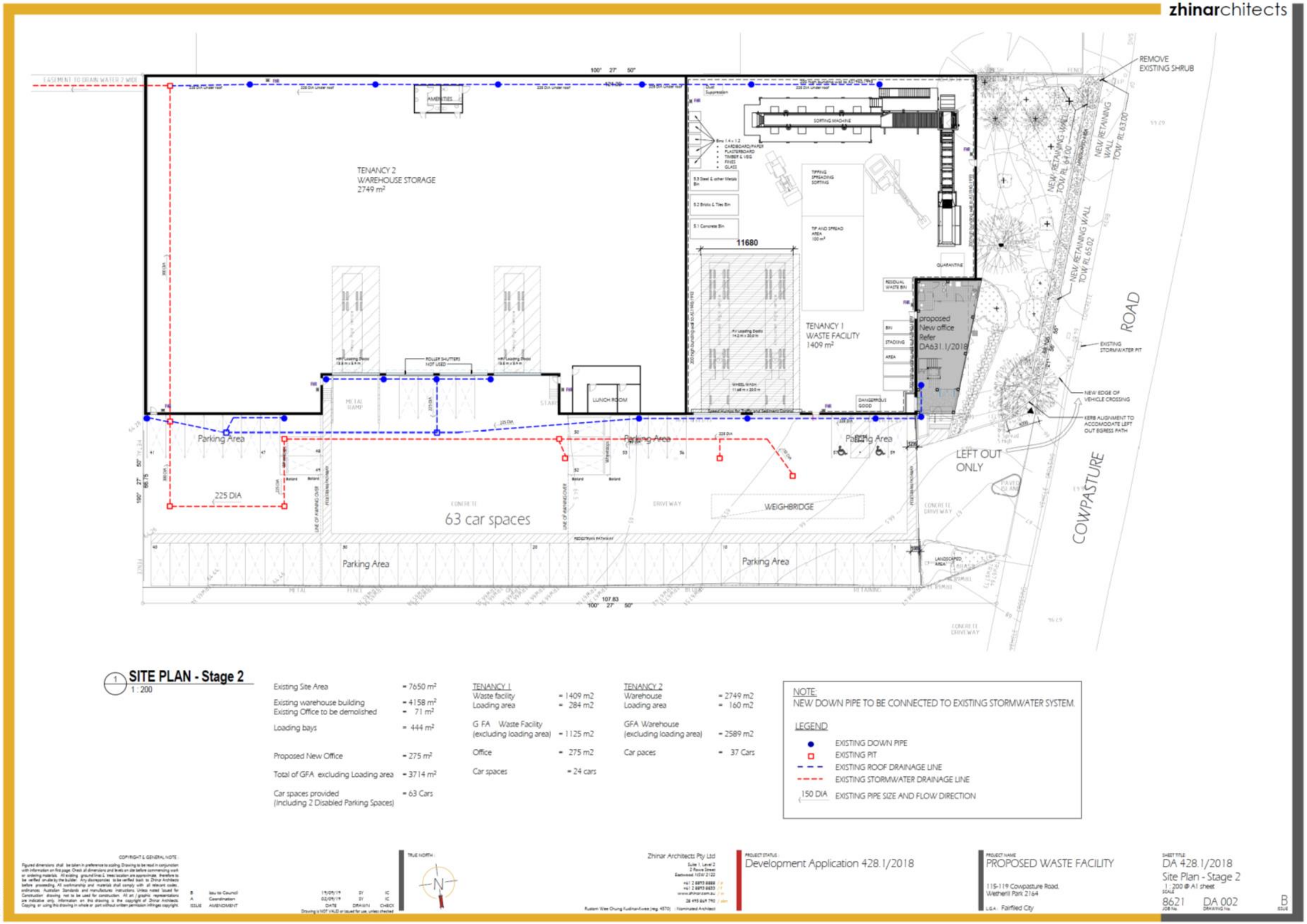
Evan Boloutis
Director
EB Traffic Solutions Pty Ltd

B.Eng (Civil), MEng Sc (Traffic), MBA

ATTACHMENT A

DEVELOPMENT LAYOUT PLANS


zhinarchitects
TENANCY 2
WAREHOUSE STORAGE
2749 m²
TENANCY 1
WASTE FACILITY
1409 m²
Proposed
New office
Refer
DA631.1/2018
LUNCH ROOM
AMENITIES
WEIGHBRIDGE
Parking Area
Parking Area
Parking Area
Parking Area
63 car spaces
LEFT OUT
ONLY
COWPASTURE
ROAD
REMOVE
EXISTING SHRUB
NEW RETAINING WALL
EXISTING STORMWATER PIT
NEW EDGE OF VEHICLE CROSSING
KERB ALIGNMENT TO ACCOMODATE LEFT OUT EGRESS PATH
SITE PLAN - Stage 1
1 : 200
Existing Site Area = 7650 m²
Existing warehouse building = 4158 m²
Existing Office to be demolished = 71 m²
Loading bays = 444 m²
Proposed New Office = 275 m²
Total of GFA excluding Loading area = 3714 m²
Car spaces provided = 63 Cars
(Including 2 Disabled Parking Spaces)
TENANCY 1
Waste facility = 1409 m2
Loading area = 284 m2
G FA Waste Facility (excluding loading area) = 1125 m2
Office = 275 m2
Car spaces = 24 cars
TENANCY 2
Warehouse = 2749 m2
Loading area = 160 m2
GFA Warehouse (excluding loading area) = 2589 m2
Car paces = 37 Cars
NOTE:
NEW DOWN PIPE TO BE CONNECTED TO EXISTING STORMWATER SYSTEM.
LEGEND
EXISTING DOWN PIPE
EXISTING PIT
EXISTING ROOF DRAINAGE LINE
EXISTING STORMWATER DRAINAGE LINE
150 DIA EXISTING PIPE SIZE AND FLOW DIRECTION
Zhinar Architects Pty Ltd
Development Application 428.1/2018
PROPOSED WASTE FACILITY
115-119 Cowpasture Road,
Wetherill Park 2164
L.G.A.: Fairfield City
DA 428.1/2018
Site Plan - Stage 1
1 : 200 @ A1 sheet
8621
DA 001
B


zhinarchitects
TENANCY 2
WAREHOUSE STORAGE
2749 m²
TENANCY 1
WASTE FACILITY
1409 m²
proposed
New office
Refer
DA631.1/2018
SORTING MACHINE
TIPPING SPREADING SORTING
TIP AND SPREAD AREA
QUARANTINE
RESIDUAL WASTE BIN
DANGEROUS GOOD
11680
AMENITIES
LUNCH ROOM
ROLLER SHUTTERS NOT USED
METAL RAMP
STAIR
Parking Area
Parking Area
Parking Area
Parking Area
225 DIA
63 car spaces
WEIGHBRIDGE
CONCRETE
DRIVEWAY
LEFT OUT
ONLY
COWPASTURE
ROAD
REMOVE
EXISTING SHRUB
NEW RETAINING WALL
TOW RL 64.00
NEW RETAINING WALL
TOW RL 63.00
NEW RETAINING WALL
TOW RL 65.02
EXISTING STORMWATER PIT
NEW EDGE OF VEHICLE CROSSING
KERB ALIGNMENT TO ACCOMMODATE LEFT OUT EGRESS PATH
CONCRETE DRIVEWAY
LANDSCAPED AREA
100° 27' 50"
107.83
SITE PLAN - Stage 2
1 : 200
Existing Site Area = 7650 m²
Existing warehouse building = 4158 m²
Existing Office to be demolished = 71 m²
Loading bays = 444 m²
Proposed New Office = 275 m²
Total of GFA excluding Loading area = 3714 m²
Car spaces provided = 63 Cars
(Including 2 Disabled Parking Spaces)
TENANCY 1
Waste facility = 1409 m2
Loading area = 284 m2
G FA Waste Facility
(excluding loading area) = 1125 m2
Office = 275 m2
Car spaces = 24 cars
TENANCY 2
Warehouse = 2749 m2
Loading area = 160 m2
GFA Warehouse
(excluding loading area) = 2589 m2
Car paces = 37 Cars
NOTE:
NEW DOWN PIPE TO BE CONNECTED TO EXISTING STORMWATER SYSTEM.
LEGEND
EXISTING DOWN PIPE
EXISTING PIT
EXISTING ROOF DRAINAGE LINE
EXISTING STORMWATER DRAINAGE LINE
150 DIA EXISTING PIPE SIZE AND FLOW DIRECTION
TRUE NORTH
Zhinar Architects Pty Ltd
Development Application 428.1/2018
PROPOSED WASTE FACILITY
115-119 Cowpasture Road,
Wetherill Park 2164
L.G.A.: Fairfield City
DA 428.1/2018
Site Plan - Stage 2
1 : 200 @ A1 sheet
8621
DA 002
B

ATTACHMENT B

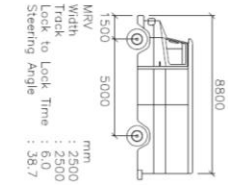
SWEPT PATH ANALYSIS (8.8 M MRV)

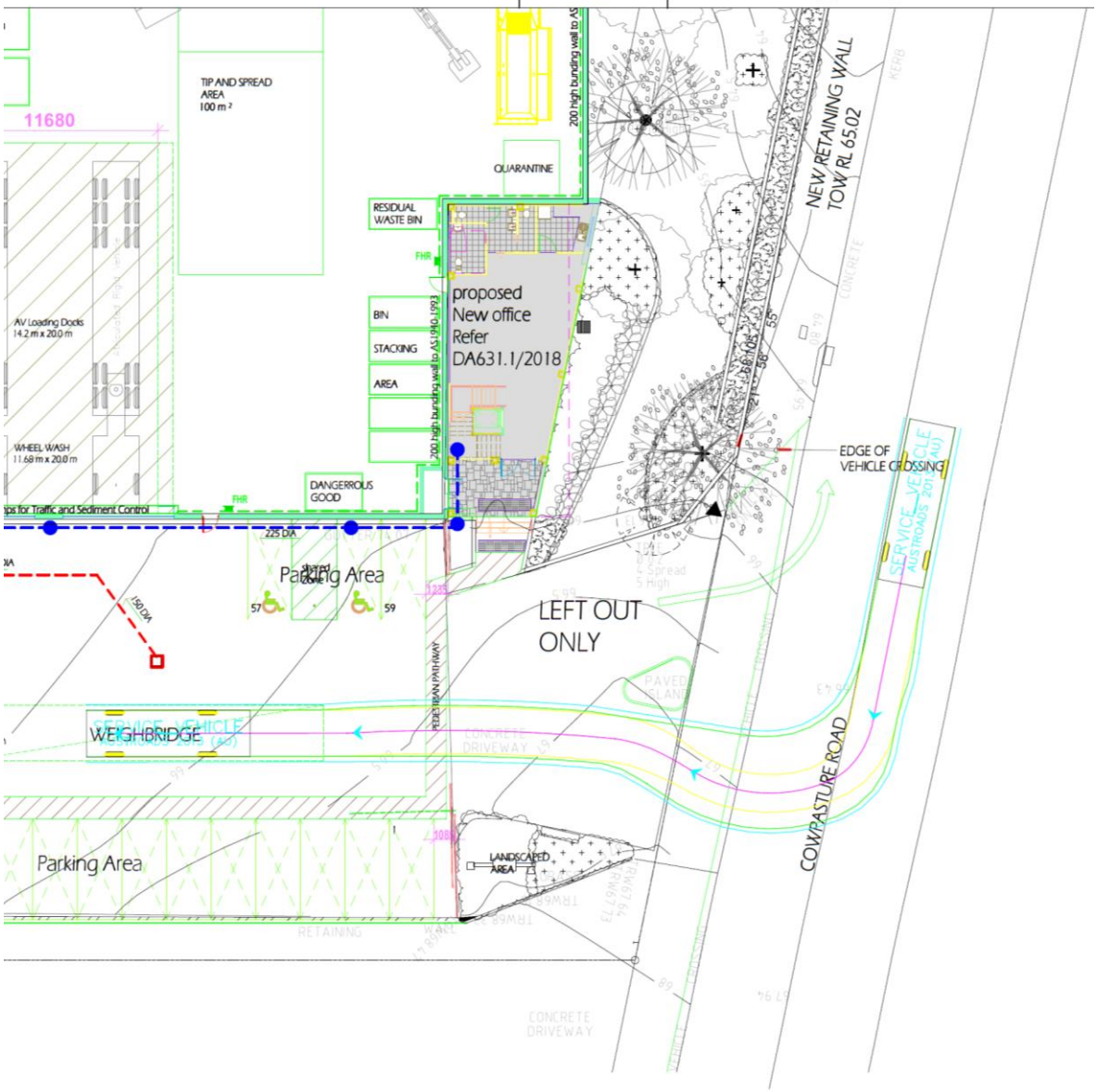
115 - 117 Cowpasture Road, Wetherill Park (NSW)

Scale 1:200 @ A3
Swept Path Diagram (Rigid Truck)
Plan prepared by EB Traffic Solutions Pty Ltd
Date: 13/09/2019 Sheet 07

EB Traffic Solutions

Design Vehicle

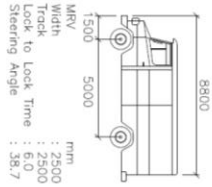




EB Traffic Solutions

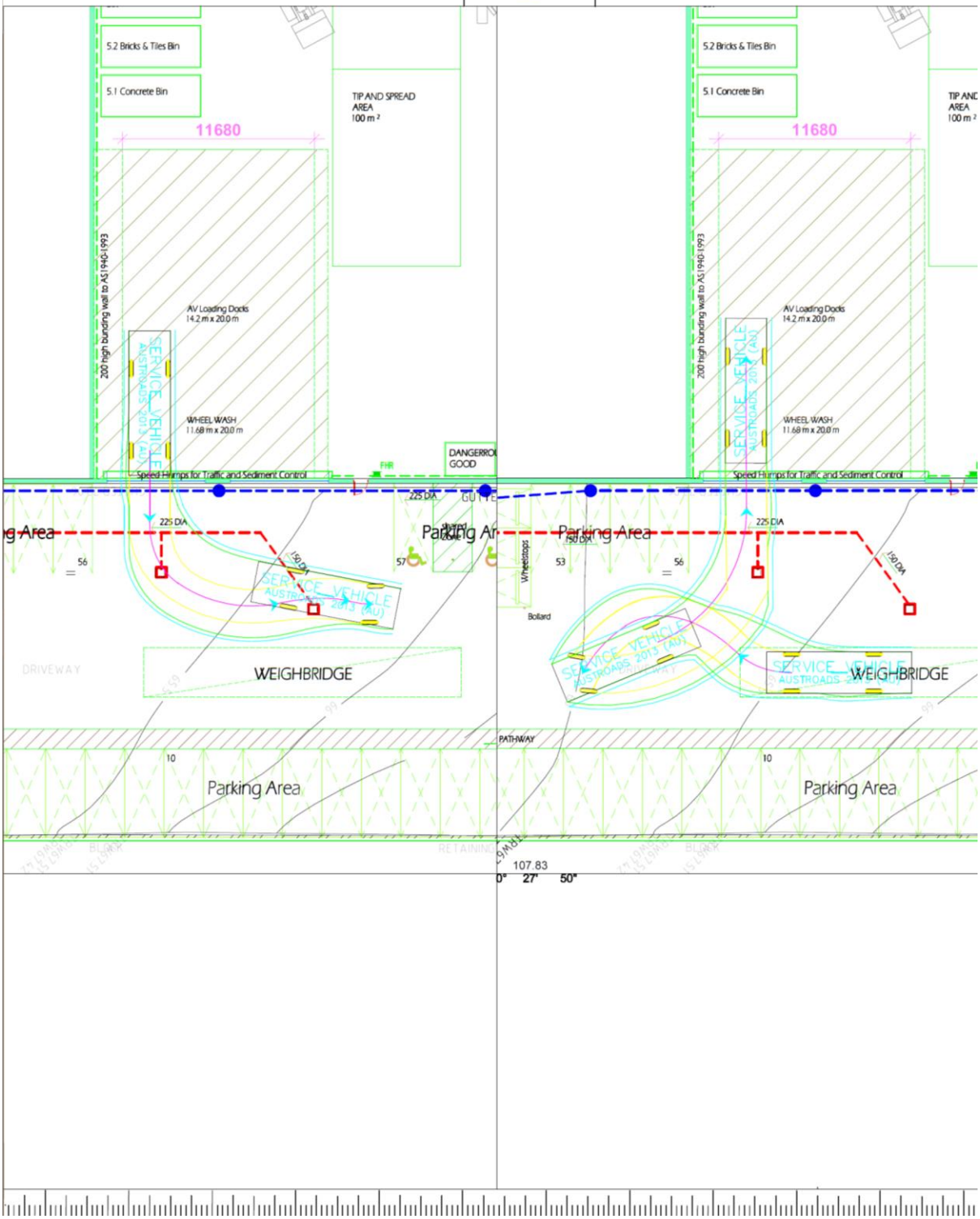
115 - 117 Cowpasture Road, Wetherill Park (NSW)

Scale 1:200 @ A3
Swept Path Diagram (Rigid Truck)
Plan prepared by EB Traffic Solutions Pty Ltd
Date: 15/09/2019 Sheet 11

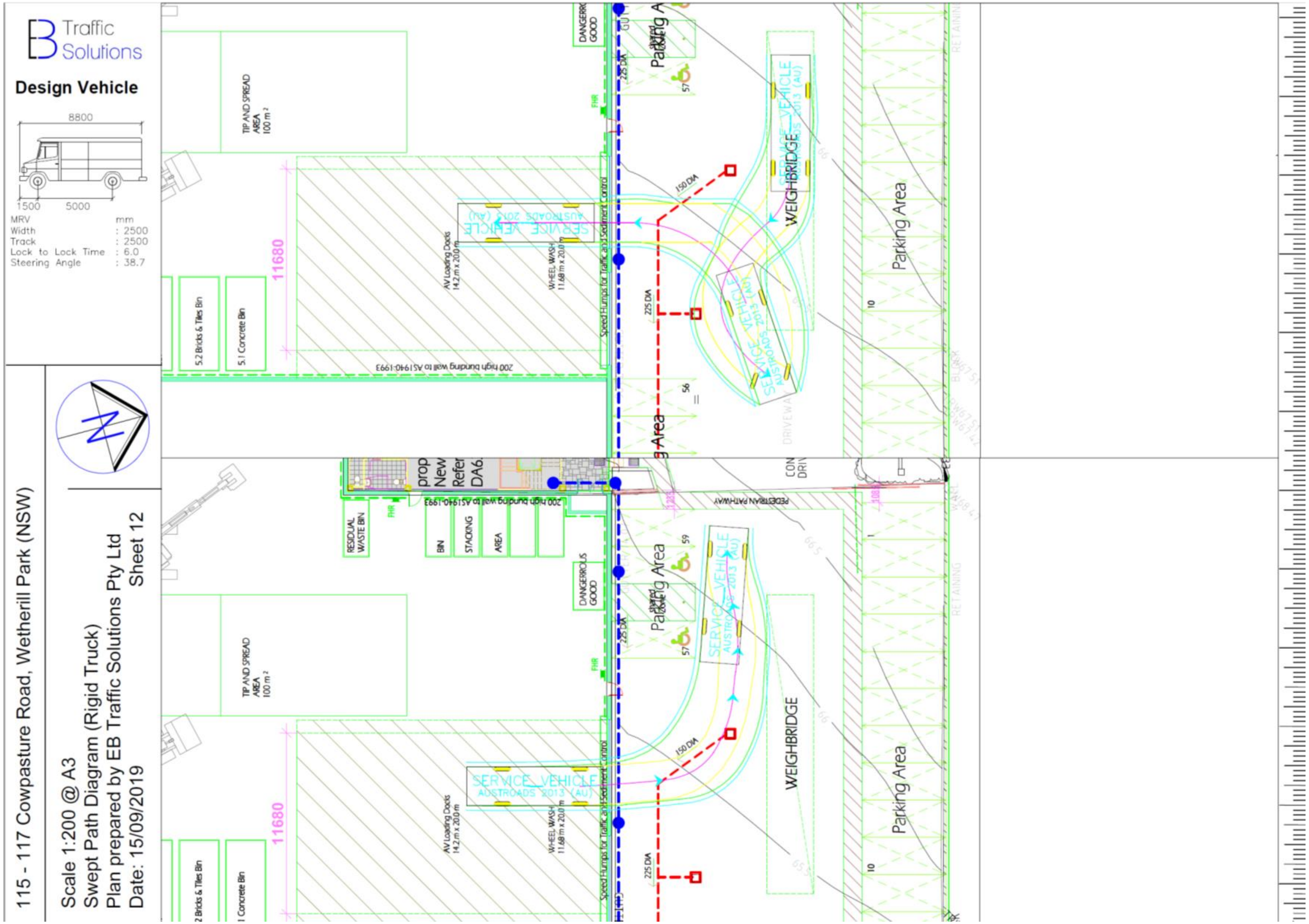


Design Vehicle

EB Traffic Solutions



EB Traffic Solutions

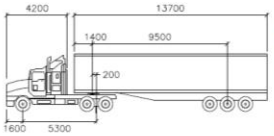

EB Traffic Solutions
Design Vehicle
8800
1500 5000
MRV mm
Width : 2500
Track : 2500
Lock to Lock Time : 6.0
Steering Angle : 38.7
115 - 117 Cowpasture Road, Wetherill Park (NSW)
Scale 1:200 @ A3
Swept Path Diagram (Rigid Truck)
Plan prepared by EB Traffic Solutions Pty Ltd
Date: 15/09/2019
Sheet 12
TIP AND SPREAD AREA 100 m²
11680
AV Loading Docks 14.2 m x 20.0 m
WHEEL WASH 11.68 m x 20.0 m
5.2 Bricks & Tiles Bin
5.1 Concrete Bin
200 high bunding wall to AS1940-1993
Speed Humps for Traffic and Sediment Control
SERVICE_VEHICLE AUSTROADS 2013 (AU)
WEIGHBRIDGE
Parking Area
150 DIA
225 DIA
DANGEROUS GOOD
RESIDUAL WASTE BIN
BIN
STACKING
AREA
PEDESTRIAN PATHWAY

ATTACHMENT C

SWEPT PATH ANALYSIS (19 M ARTICULATED TRUCK)

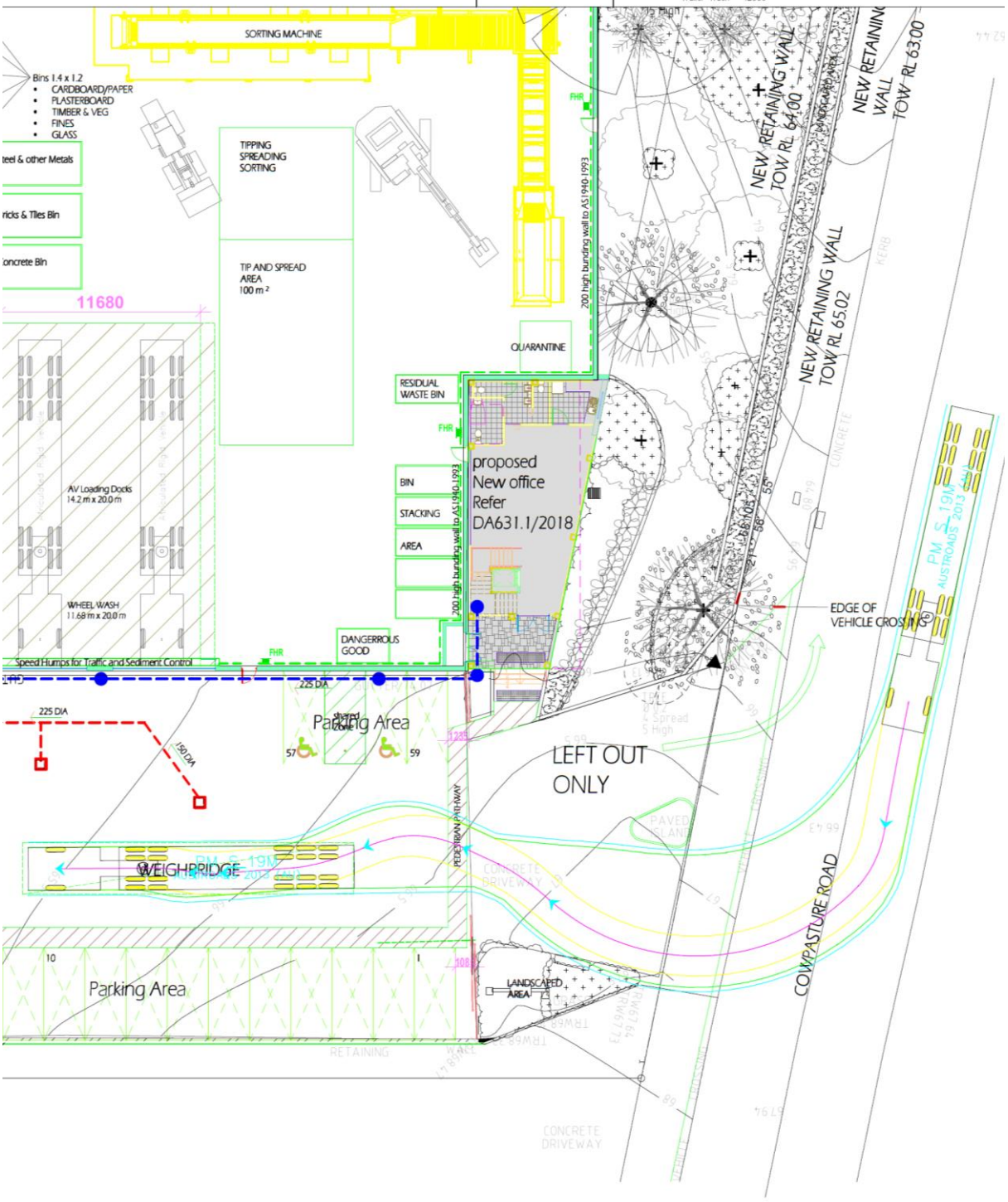
115 - 117 Cowpasture Road, Wetherill Park (NSW)

Scale 1:200 @ A3
Swept Path Diagram (Articulated Truck)
Plan prepared by EB Traffic Solutions Pty Ltd
Date: 11/09/2019 Sheet 01



Design Vehicle

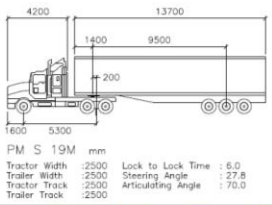
EB Traffic Solutions



EB Traffic Solutions

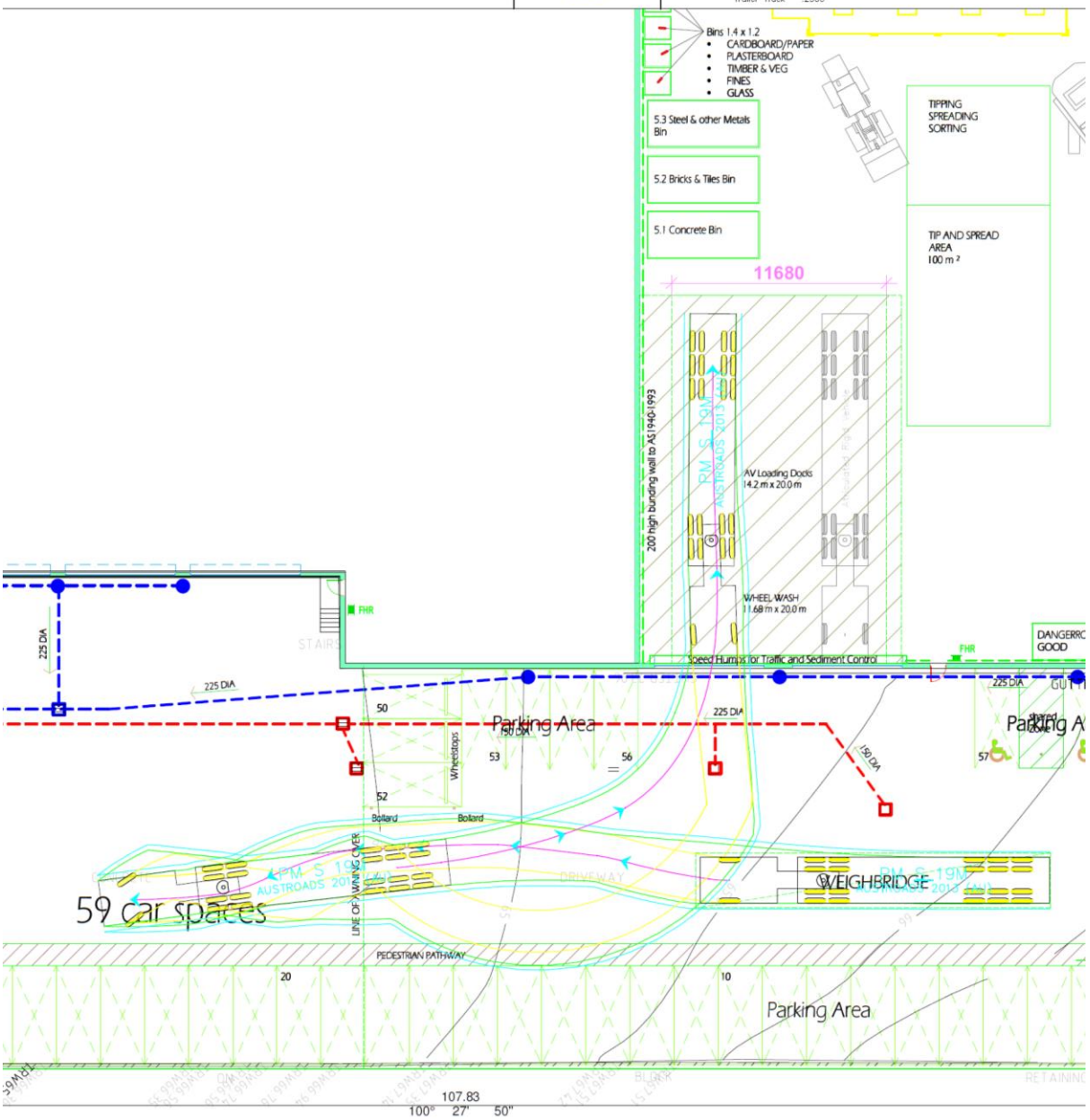
115 - 117 Cowpasture Road, Wetherill Park (NSW)

Scale 1:200 @ A3
Swept Path Diagram (Articulated Truck)
Plan prepared by EB Traffic Solutions Pty Ltd
Date: 11/09/2019 Sheet 02



Design Vehicle

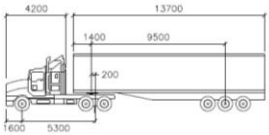
EB Traffic Solutions



EB Traffic Solutions

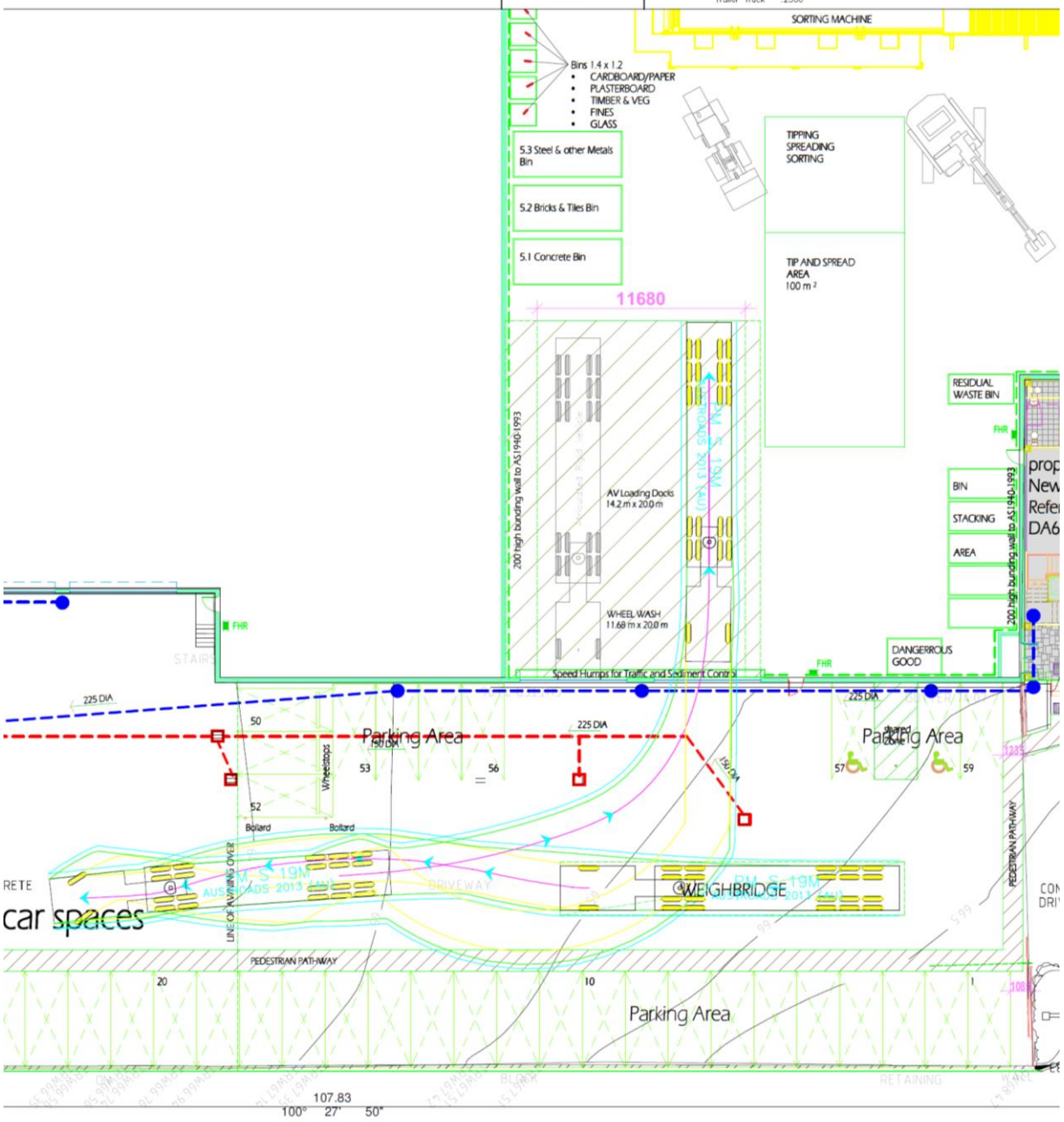
115 - 117 Cowpasture Road, Wetherill Park (NSW)

Scale 1:200 @ A3
Swept Path Diagram (Articulated Truck)
Plan prepared by EB Traffic Solutions Pty Ltd
Date: 11/09/2019 Sheet 04



Design Vehicle

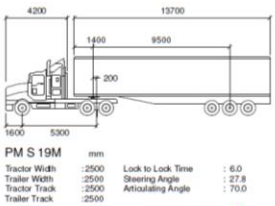
EB Traffic Solutions



EB Traffic Solutions

115 - 117 Cowpasture Road, Wetherill Park (NSW)

Scale 1:200 @ A3
Swept Path Diagram (Articulated Truck)
Plan prepared by EB Traffic Solutions Pty Ltd
Date: 18/09/2019 Sheet 01



Design Vehicle

EB Traffic Solutions

WASTE FACILITY
SUBJECT TO SEPERATE
DA APPLICATION
(DA428.1/2018)

Office
Total GFA = 275 m ²
DA 631.1/2018
Refer detailed plan

TENANCY 1
WASTE FACILITY
1409 m ²

AV Loading Docks
14.2 m x 20.0 m

WHEEL WASH
11.68 m x 20.0 m

NEW RETAINING WALL TOW RL 64.00

NEW RETAINING WALL TOW RL 65.02

LANDSCAPED AREA

ROAD

EXISTING STORMWATER PIT

NEW EDGE OF VEHICLE CROSSING

KERB ALIGNMENT TO ACCOMODATE LEFT OUT EGRESS PATH

LEFT OUT ONLY
1.8 m x 1.8 m
SIGN AT GATE

shared Zone

225 DIA

150 DIA

WEIGHBRIDGE

CONCRETE DRIVEWAY

PAVED ISLAND

COWPASTURE

Existing Shed

Existing Shed Office

LANDSCAPED AREA

RETAINING WALL

CONCRETE DRIVEWAY

MESH FENCE

EB Traffic Solutions