Colston Budd Rogers & Kafes Pty Ltd
as Trustee for C & B Unit Trust
ABN 27 623 918 759

Our Ref: SK/11555/mr

Transport Planning
Traffic Studies
Parking Studies

16 December, 2020

Woolworths Limited
PO Box 8000
BAULKHAM HILLS NSW 2153

Attention: Michael Rumble
Email: MRumble@woolworths.com.au

Dear Sir,

RE: STATE SIGNIFICANT DEVELOPMENT APPLICATION FOR PROPOSED CUSTOMER FULFILLMENT CENTRE 11-13 PERCY STREET, AUBURN

1. As requested, we are writing regarding traffic matters raised in submissions in relation to the above development. We have previously prepared a traffic report which was submitted with SSDA.

2. Submissions to the SSDA have been made by Cumberland City Council, Transport for NSW (TfNSW), Department of Planning, Industry and Environment (DPIE).

3. Matters raised by Cumberland City Council in their letter dated 25 November 2020 are discussed below.

Cumberland City Council

- *The proposed driveway next to the northern boundary shall be a minimum 1 metre from the northern boundary to minimise the impact on the adjoining sites.*

4. Matter noted. The northern driveway has been relocated to provide a 1 metre separation from the northern boundary of the site.

- *The driveway next to the southern boundary shall be relocated a minimum 2.0m from the southern boundary to provide the pedestrian sight distance as per Australian standard AS2890.1.*

5. Matter noted. The southern driveway has been relocated to provide a 2 metre separation from the southern boundary of the site.

Suite 1801/Tower A, Zenith Centre, 821 Pacific Highway, Chatswood NSW 2067
P.O. Box 5186 West Chatswood NSW 1515 Tel: (02) 9411 2411 Fax: (02) 9411 2422
Directors - Geoff Budd - Stan Kafes - Tim Rogers - Joshua Hollis ACN 002 334 296
EMAIL: cbrk@cbrk.com.au

- *The left turn manoeuvring of trucks shall not encroach into the centre of the road.*

6. As shown on Figures 1 and 2, the northern driveway providing access to the inbound docks has been modified to ensure that trucks do not cross the centreline of Percy Street when exiting the site.

- *The parcel pick-up exit manoeuvring conflicts with delivery truck movements. In this regard, the exit arrangement shall be reviewed and conflicts shall be minimised to improve vehicle safety.*

7. The driveway, located adjacent to the southern boundary of the site, will provide access to the customer pick-up facility and emergency vehicle access to the to the inbound dock area, via the southern perimeter internal circulation road. The security gate to the east of the customer pick-up facility (separating the customer pick-up facility and the van parking area adjacent to the southern boundary of the site) will be closed to ensure that delivery vans utilise the two northern driveways when entering and exiting the site.

- *Appropriate survey or other relevant data shall be used to determine the numbers of parcel pick-up areas required for the development site to prevent any queuing outside the subject site.*

8. The drive through pick-up will have a service capacity of some 60 vehicles per hour, although the peak number of pick-ups will be limited to some 20 customers per hour. An operational management plan will be prepared for the customer pick-up facility. Pick-ups will be scheduled through a customer booking system, with 20 pick-ups scheduled per hour. The booking system will give customers a time period that their online order will be available for collection.

9. With regards to potential traffic queues, the 95th percentile queue for the pick-up operation would be two vehicles, which will readily be accommodated within the drive through (six pick-up bays).

- *Adequate queuing areas shall be provided within the site at the control points at the driveway entrances.*

10. No access controls in the form of boom gates will be provided at the driveway entrances to the site, allowing free flow enter and exit arrangements. The security gates at the access driveways to the inbound dock area, outbound delivery docks, staff parking area and customer pick-up facility will be opened during the operating hours of the facility.

- *Driveway access for trucks shall be designed in such a way that trucks can pass each other within the site without queuing within the street.*

11. As shown on Figures 1 to 4, the access driveways have been modified to provide appropriate area within the site for cars and service vehicles to pass.

- *Parking layout shall comply with Australian standard AS2890.1 and AS2890.6.*

12. This matter is noted. We agree that the internal layout and parking area should be designed in accordance with the Australian Standards. We have checked the design and it generally satisfies the standard. An appropriate condition of consent could be included requiring compliance with the Australian Standard.

- *Loading area design shall comply with AS2890.2.*

13. This matter is noted. We agree that the loading areas should be designed in accordance with the Australian Standards. An appropriate condition of consent could be included requiring compliance with the Australian Standard.

- *Accessible parking numbers shall comply with BCA requirements.*

14. This matter is noted. An appropriate condition of consent could be included to address this matter.

15. Matters raised by DPIE in their letter dated 26 November 2020 are discussed below.

Department of Planning, Industry and Environment

Customer Pick Up Facility

- *Please demonstrate that safe ingress/egress can be achieved by customers utilising the customer pick up facility without conflicting with truck movements.*

16. The access driveway to the customer pick-up facility has been modified as shown on Figure 5. Separate entry and exit lanes have been provided, with clear and convenient access to the pick-up bays. The proposed facility provides good sight lines for motorists and convenient circulation for vehicles to manoeuvre through the facility and to enter and exit the site in a forward direction.

17. As previously discuss, the southern driveway will provide access to the customer pick-up facility and emergency vehicle access to the to the inbound dock area, via the southern perimeter internal circulation road. The security gate to the east of the customer pick-up facility (separating the customer pick-

up facility and the van parking area adjacent to the southern boundary of the site) will be closed to ensure that delivery vans do not access the site from this driveway. Delivery vans will be required to utilise the two northern driveways when entering and exiting the site.

Operational traffic movements

- *The development will increase heavy vehicular movements in the local area, potentially impacting the residential area to the north-west of the site. Please consider restricting truck movements to Percy Street, avoiding residential areas along St Hilliers Road. Such restrictions could be proposed through the implementation of a Driver Code of Conduct.*

18. The site is located within the Auburn industrial area and is currently occupied by two warehouse buildings. Adjacent land uses along Percy Street are predominately industrial and warehouse developments.

19. Roads within the area, including St Hilliers Road, Hall Street, Percy Street, Silverwater Road, Parramatta Road, M4 Motorway, Rawson Street, Boorea Street and Olympic Drive are designated heavy vehicle routes for use by large service vehicles, including articulated vehicles and B-Double.

20. Notwithstanding this, the proposed development will only generate some 10 to 15 articulated vehicles per day. These vehicles will be semi-trailers up to 19 metres in length. The balance of the service vehicles will be delivery vans and small rigid trucks up to 6.4 metres in length. The proposed development will not generate B-Doubles.

21. Large service vehicles accessing the site will be restricted to the designated heavy vehicle truck routes, as shown on Figure 6. The truck routes will restrict articulated vehicles to the main road network and ensure that large service vehicles do not access residential streets in the vicinity of the site.

22. Truck drivers will be advised of the designated truck route to and from the site and in particular they will not be permitted to access residential streets to the west of St Hilliers Road.

23. Matters raised by TfNSW in their letter dated 24 November 2020 are discussed below.

Transport for NSW

Detail of heavy vehicle route

Comment

- *As per SEARs, the EIS should include "details of access to, from and within the site to/from the local road and strategic (motorway) network; and a Traffic Impact Assessment (TIA) including a description of vehicle access routes and the impacts on nearby intersections." However, the detail of heavy vehicle route description has not been included in the EIS or TIA. Furthermore, traffic count as well as intersection assessment of A44/A6 and M4/A6 have not been provided.*

Recommendation

- *Further information in regards to the above comment should be provided as part of the Responses to Submissions.*

24. As discussed above, large service vehicles accessing the site, including semi-trailers, will be restricted to the designated heavy vehicle truck routes, as shown on Figure 6. These routes include the following:

    - M4 Motorway, Silverwater Road, St Hilliers Road, Hall Street and Percy Street; and
    - Olympic Drive, Boorea Street, St Hilliers Road, Hall Street and Percy Street.

25. With regards to the traffic effects of the proposed development, we prepared the traffic report (dated September 2020) that was submitted with the SSDA. As part of that report, Cumberland City Council required a traffic assessment of the following intersections in the vicinity of the site:

    - St Hilliers Road/Hall Street;
    - Rawson Street/Boorea Street/ St Hilliers Road;
    - Boorea Street/Percy Street; and
    - Percy Street/Hall Street.

26. The results of the traffic assessment, and the operation of these intersections during the morning and afternoon peak periods, are set out in the traffic report.

27. Subsequent to this assessment, and as required by TfNSW, additional traffic counts have been undertaken at the intersection of Parramatta Road/ Silverwater Road/St Hilliers Road (A44/A6) and M4 Motorway/Silverwater Road (M4/A6) during the weekday morning and afternoon peak periods, on Tuesday

8 December 2020. The results of these traffic counts are shown on Figures 7 and 8.

28. The SIDRA 9 Network Model, undertaken as part of the traffic report that supported the SSDA, has been updated to include intersection modelling of the above additional intersections.

29. The results of the SIDRA analysis are summarised in Table 1 (attached). Electronic copies of the SIDRA files will be sent separately to Council and TfNSW.

30. Examination of Table 1 revealed the following:

- Existing Intersection Operation

    - the signalised intersections of Parramatta Road/Silverwater Road/St Hilliers Road and St Hilliers Road/Rawson Street/Boorea Street are currently operating with average delays of less than 40 seconds per vehicle in the morning and less than 50 seconds per vehicle in the afternoon peak periods. This represents level of service C and D respectively for the morning and afternoon peak periods, which are satisfactory levels of service;

    - the signalised intersection of Silverwater Road and the on and off ramps to/from the M4 Motorway is currently operation with average delays of 27 seconds per vehicle during the morning and 22 seconds per vehicle during the afternoon peak periods. This represents a level of service B, a good level of intersection operation;

    - the signalised intersection of St. Hilliers Road and Hall Street is currently operating with average delays of less than 15 seconds per vehicle in the morning and afternoon peak periods. This represents level of service A/B, a good level of intersection operation;

    - the priority controlled intersections of Boorea Street/Percy Street and Percy Street/Hall Street are currently operating with average delays, for the movement with the highest average delay, of less than 15 seconds per vehicle in the morning and afternoon peak periods. This represents level of service A/B, a good level of service;

- Plus Development Traffic

    - the signalised intersections of Parramatta Road/Silverwater Road/St Hilliers Road and St Hilliers Road/Rawson Street/Boorea Street will continue to operate with average delays of less than 40 seconds per vehicle in the morning and less than 50 seconds per vehicle in the afternoon peak periods. This represents level of service C and D respectively for the morning and afternoon peak periods, which are satisfactory levels of service;

    - the signalised intersection of Silverwater Road and the on and off ramps to/from the M4 Motorway will continue to operate at level of service B during peak periods. Average delays will be 28 seconds per vehicle during the morning and 25 seconds per vehicle during the afternoon peak periods. This represents a good level of intersection operation;

    - the signalised intersection of St. Hilliers Road and Hall Street will continue to operate with average delays of less than 15 seconds per vehicle in the morning and afternoon peak periods. This represents level of service A/B, a good level of intersection operation; and

    - the priority controlled intersections of Boorea Street/Percy Street and Percy Street/Hall Street will continue to operate with average delays, for the movement with the highest average delay, of less than 15 seconds per vehicle in the morning and afternoon peak periods. This represents level of service A/B, a good level of service.

31. With the additional development traffic, intersections in the vicinity of the site will continue to operate at the same level of service as today. Therefore, the road network will be able to cater for the proposed development traffic.

Types of heavy vehicles to be used for operation

Comment

- *Section 3.28 of the TIA indicates that "Inbound deliveries to the online fulfilment centre will be made by semi-trailers up to 20 metres long". 20m semi-trailer is not a general access vehicle and will require a permit (PBS) to operate. Left turn from Parramatta Road to Percy Street is not permitted for heavy vehicles exceeding 19 metres in length. Also, Percy Street is not on a PBS level 1 network.*

Recommendation

- *The applicant should note the above and respond as part of the Response to Submissions, with particular detail and analysis to be provided in how heavy vehicle movements are to be accommodated. This should include route paths but also amendments to the traffic modelling.*

32. This matter is noted. Inbound deliveries to the online fulfilment centre will be made by articulated vehicles up to 19 metres long. Some 10 to 15 inbound deliveries are expected per day. Outbound deliveries from the online fulfilment facility will be made by delivery vans/small rigid trucks (6.4 metres long), generally outside peak times.

33. Articulated vehicles, will be restricted to the designated heavy vehicle truck routes, as shown on Figure 6.

Queuing/Overflow area

Comment

- *The assessment has not specified queuing/overflow area is required for inbound trucks and delivery vans.*

Recommendation

- *Clarification should be provided in regards to the need of queuing/overflow area in support of the proposed operation.*

34. No access or security controls will be required at the driveway entrances to the site, allowing free flow entry for all inbound trucks and delivery vans. The security gates at the access driveways to the inbound dock area, outbound delivery docks, staff parking area and customer pick-up facility will be opened during the operating hours of the facility.

SIDRA modelling

Comment

- *TfNSW advises that network capacity on the surrounding classified and local roads is limited and during peak periods is subject to queuing. It has been estimated in the TIA that the proposed daily traffic generation of the site would be 1100 vehicles per day (two way movement).*

Recommendation

- *To ensure that the traffic generated by the development can be accommodated, without further impacting the Level of Service (LoS) of the surrounding network, TfNSW recommends that the proponent provide the electronic copy of the SIDRA modelling for further review and comment as part of the Response to Submissions.*

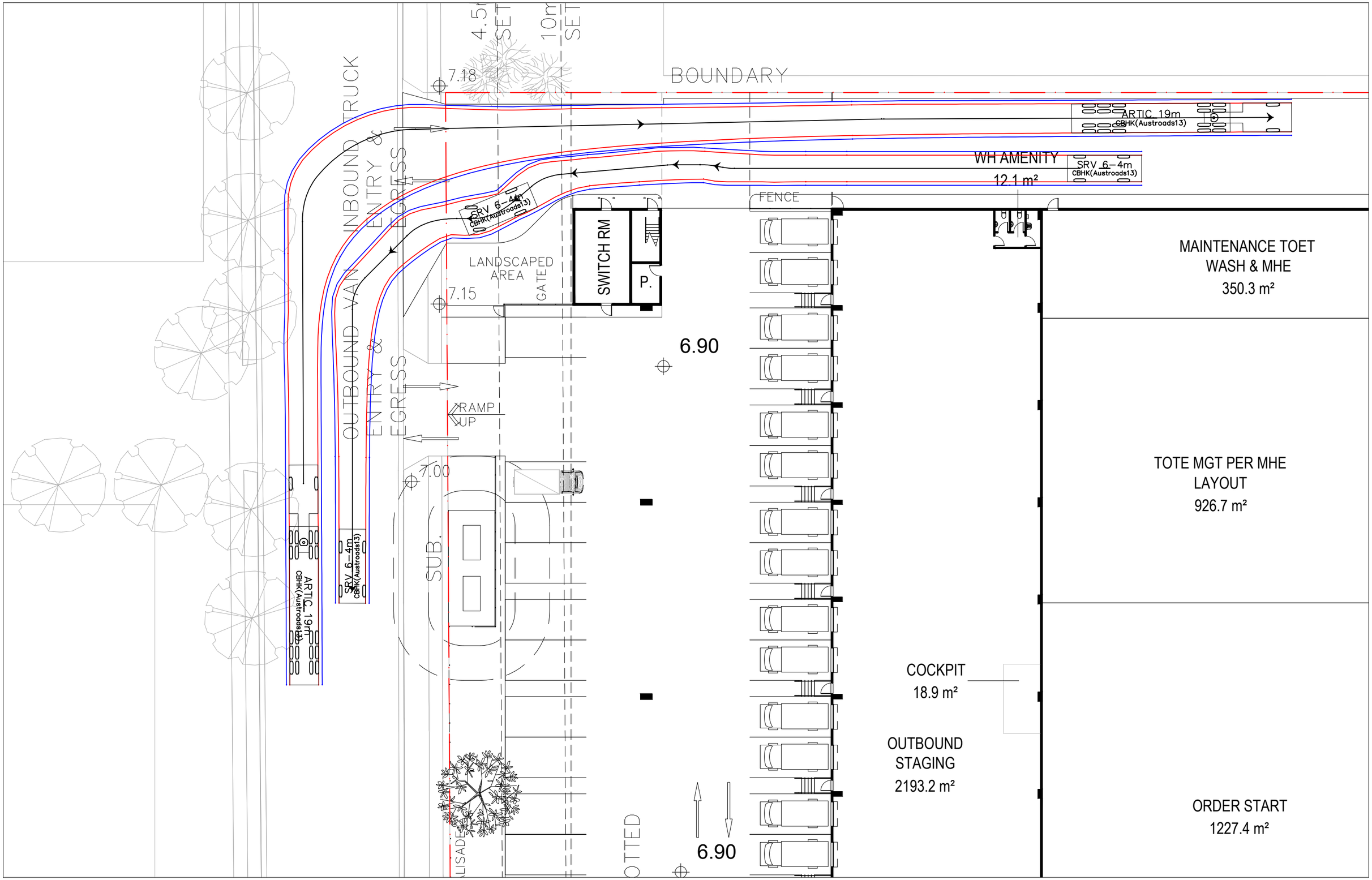
35. This matter is noted. Electronic copies of the SIDRA files will be sent separately to Council and TfNSW.

36. We trust the above provides the information you require. Finally, if you should have any queries, please do not hesitate to contact us.

Yours faithfully,
COLSTON BUDD ROGERS & KAFES PTY LTD

S. Kafes
Director

Table 1	**Summary of SIDRA Analysis**				
Intersection	Output	Existing Intersection Operation		Plus Development Traffic	
		AM	PM	AM	PM
Silverwater Road/M4 Motorway	Average Delay (seconds/vehicle)	27	22	28	25
	Level of Service (LOS)	B	B	B	B
Paramatta Road/Silverwater Road/St Hilliers Road	Average Delay (seconds/vehicle)	38	46	40	48
	Level of Service (LOS)	C	D	C	D
St Hilliers Road/Hall Street	Average Delay (seconds/vehicle)	<15	<15	<15	<15
	Level of Service (LOS)	A/B	A/B	A/B	A/B
St Hilliers Road/Rawson Street/Boorea Street	Average Delay (seconds/vehicle)	37	46	39	48
	Level of Service (LOS)	C	D	C	D
Boorea Street/Percy Street	Average Delay (seconds/vehicle)	<15	16	<15	<15
	Level of Service (LOS)	A/B	B	A/B	A/B
Percy Street/Hall Street	Average Delay (seconds/vehicle)	<15	<15	<15	<15
	Level of Service (LOS)	A/B	A/B	A/B	A/B



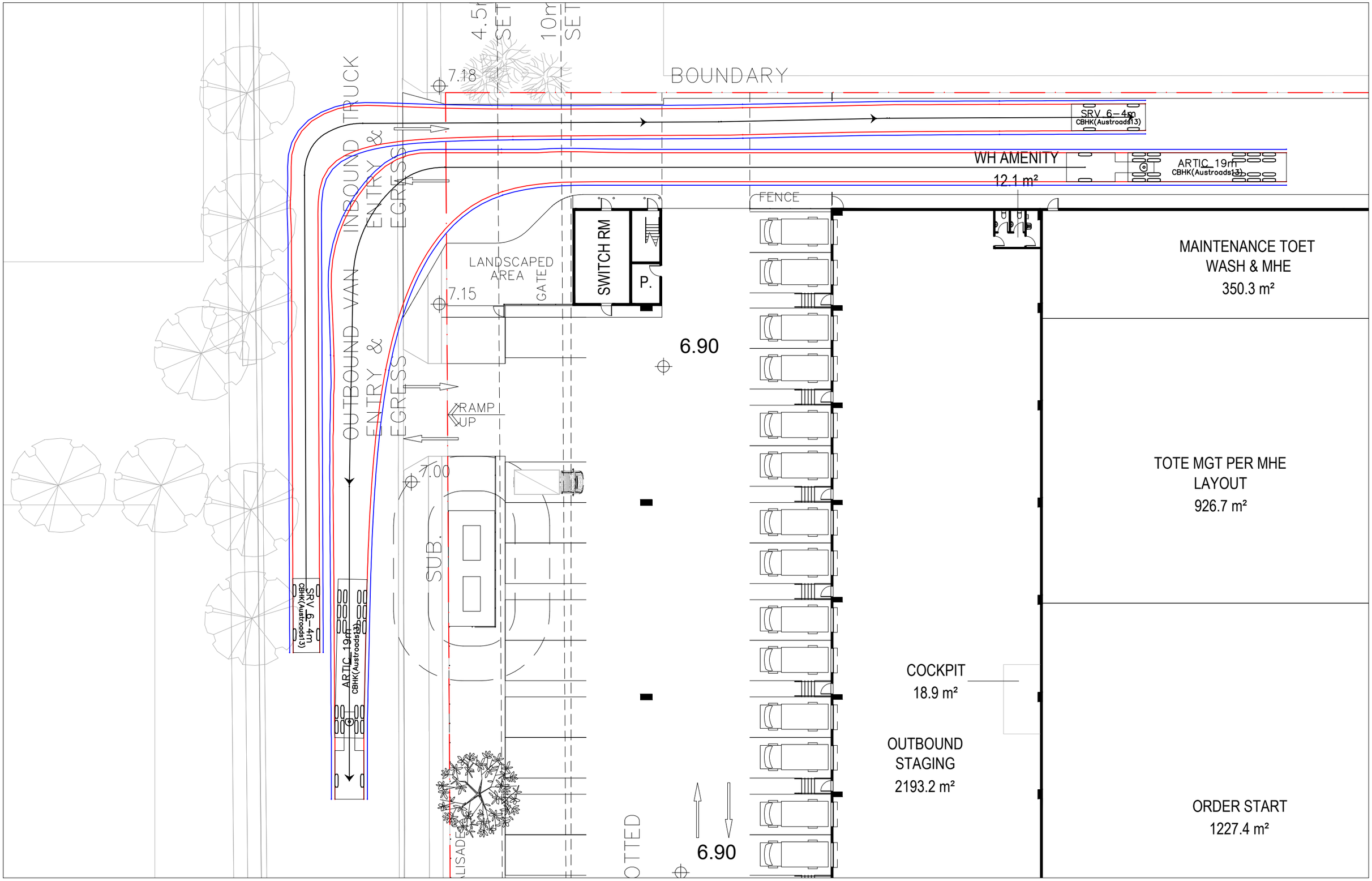
NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

6.4m SMALL RIGID PASSING 19.0m ARTICULATED VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mr Ref: 11555 15 December 2020

1



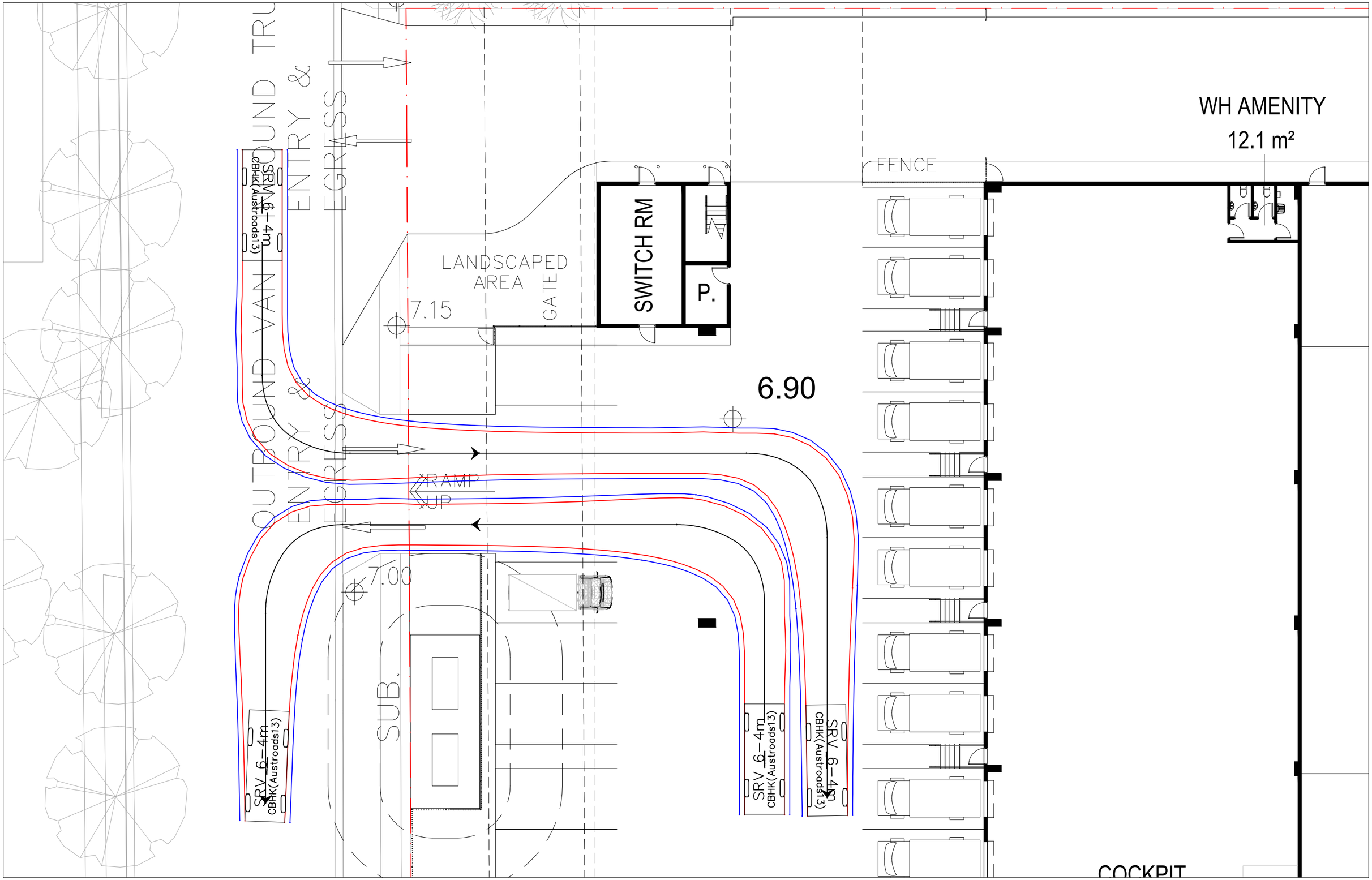
NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

6.4m SMALL RIGID PASSING 19.0m ARTICULATED VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mr Ref: 11555 15 December 2020

2

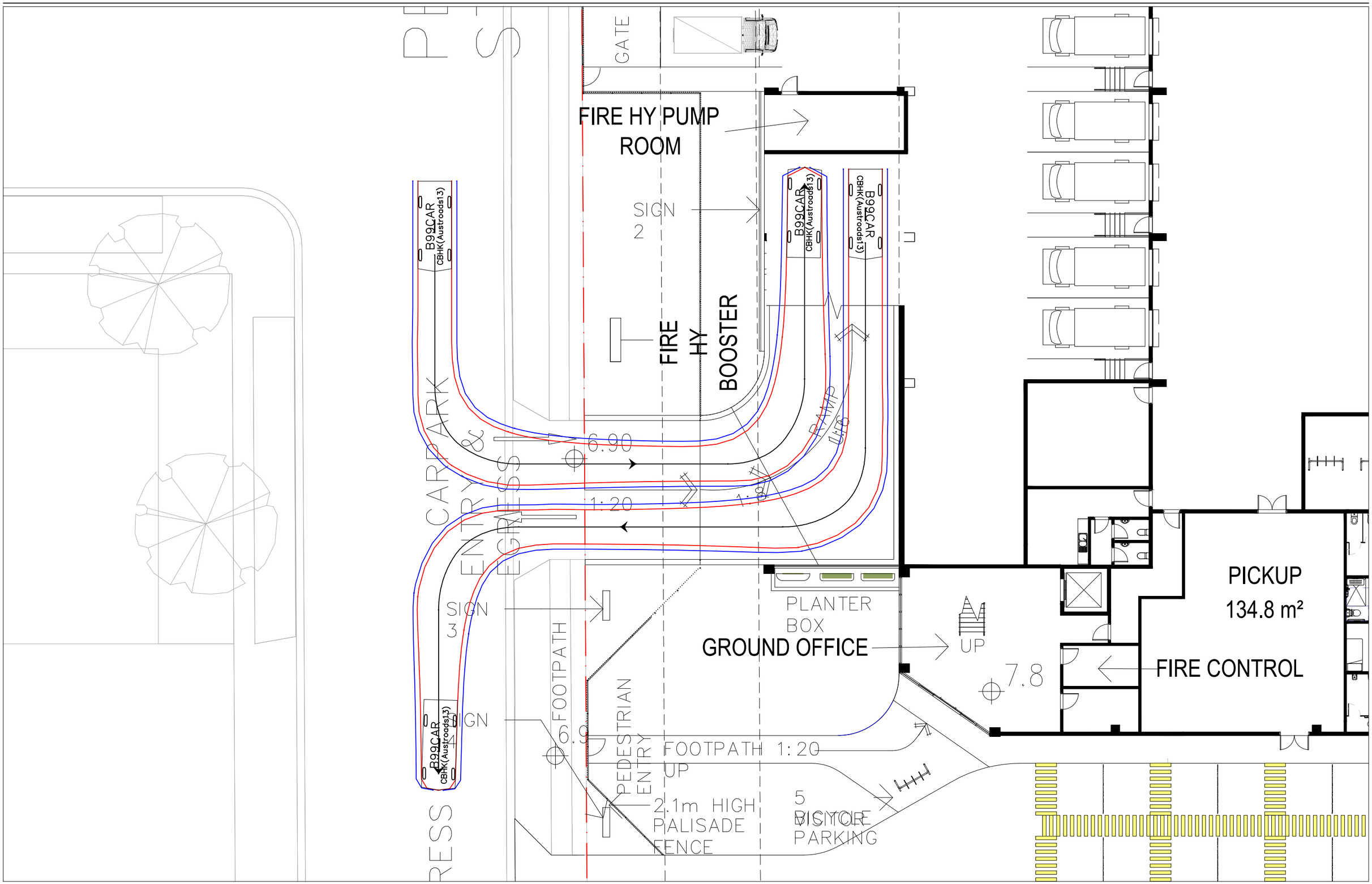


NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

6.4m SMALL RIGID VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mr Ref: 11555 15 December 2020

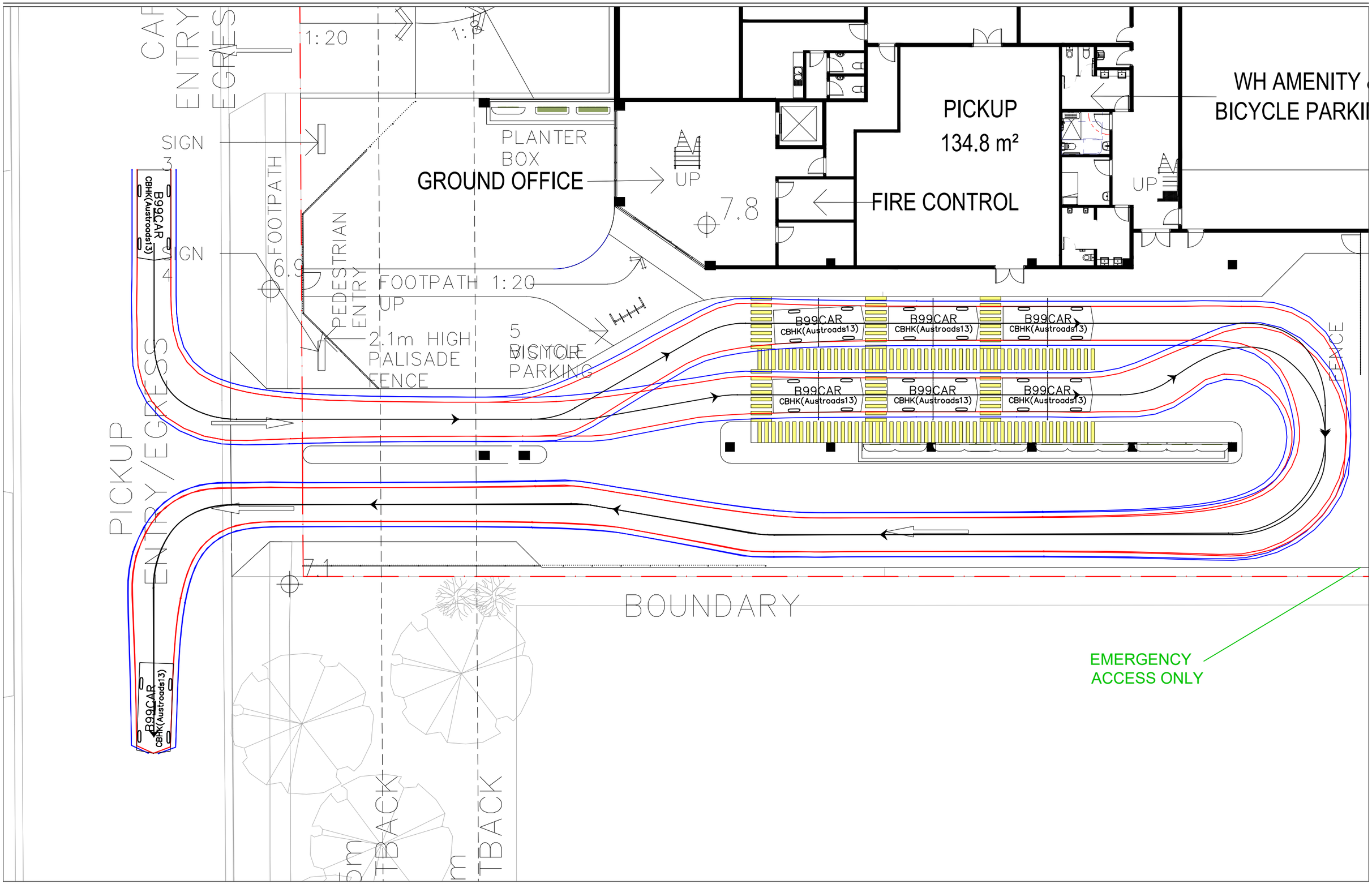


NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B99 VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mr Ref: 11555 15 December 2020

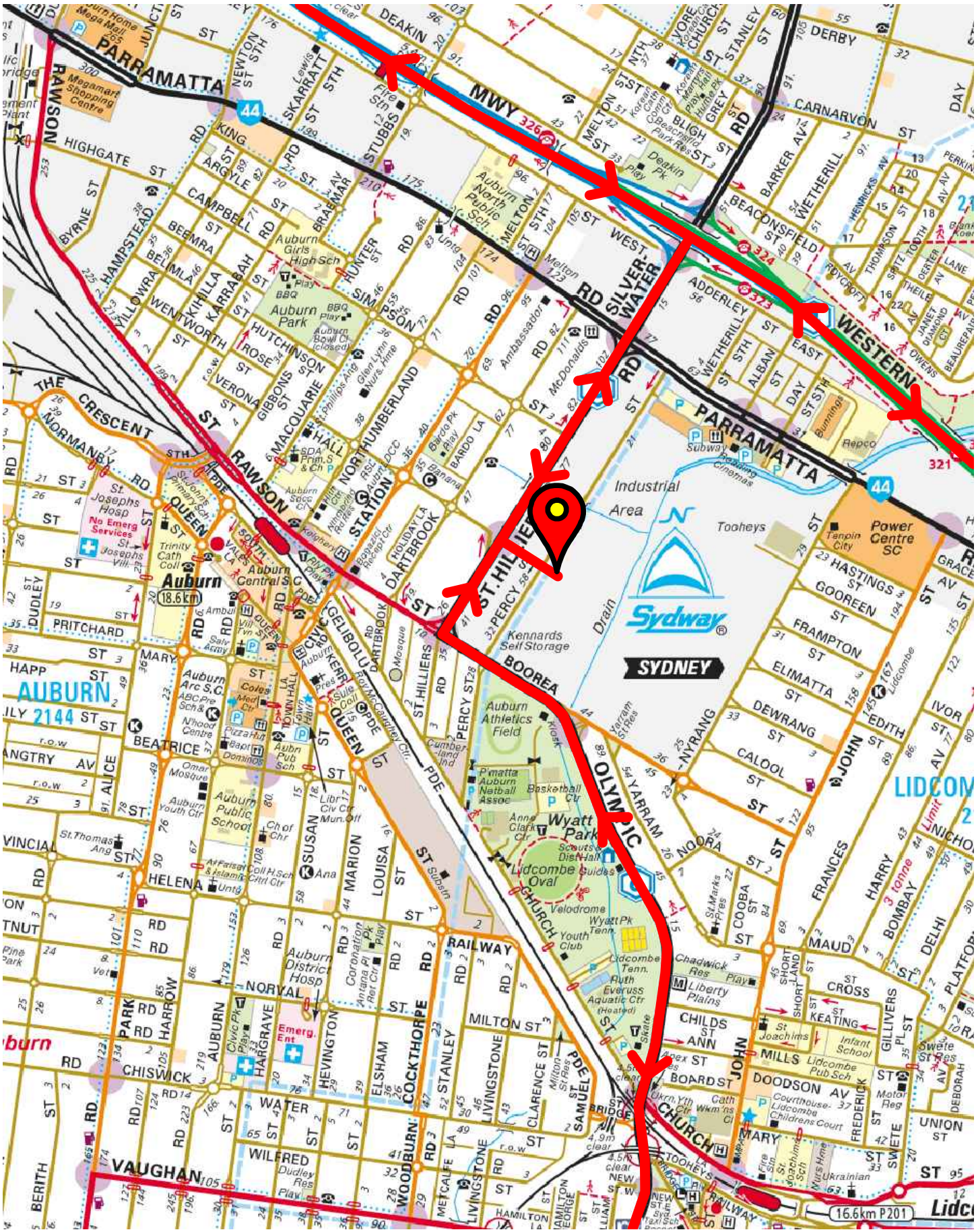


NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

B99 VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mr Ref: 11555 15 December 2020

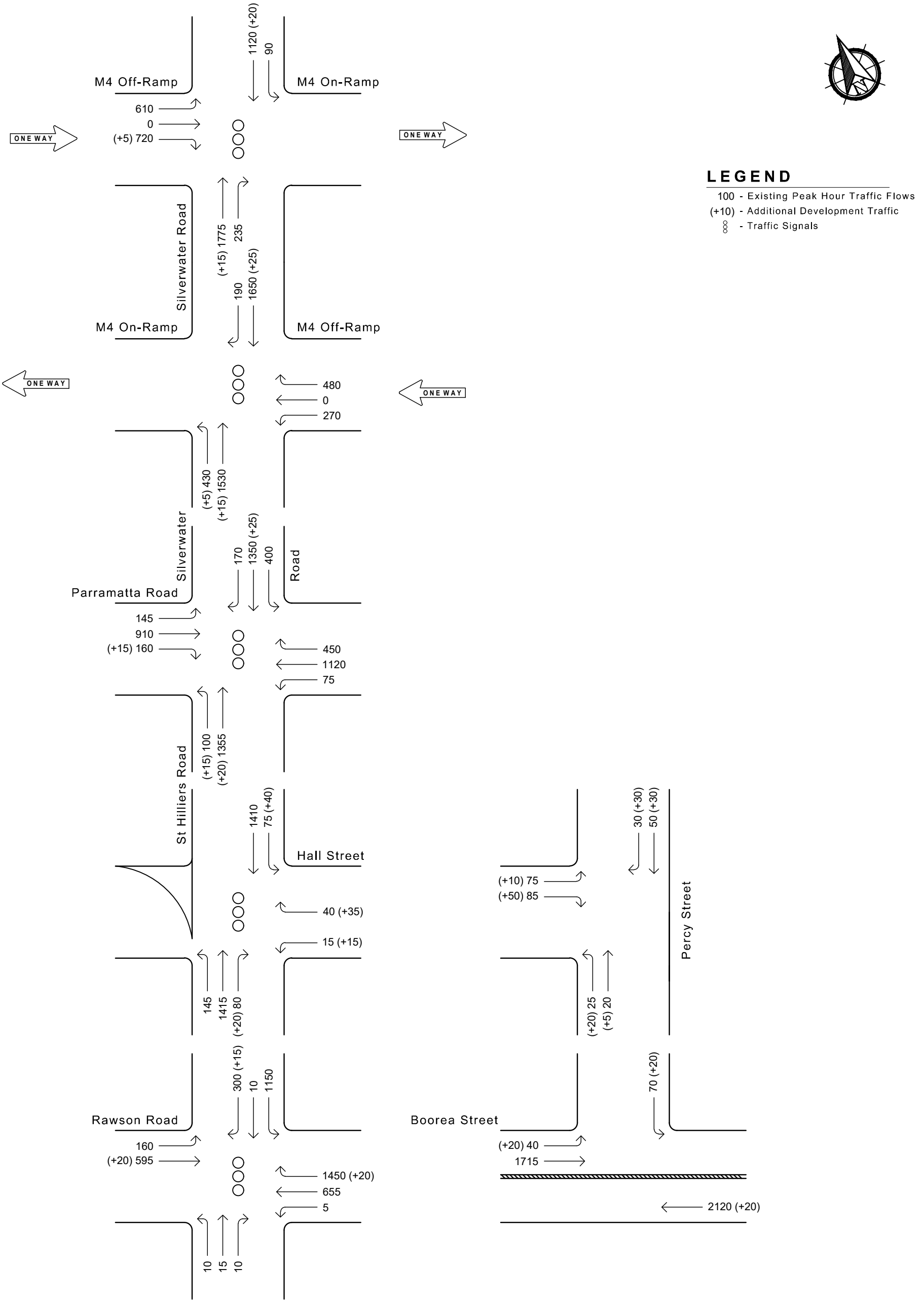


Heavy Vehicle Truck Route Plan

Colston Budd Rogers & Kafes Pty Ltd

Drawn By: CBRK Pty Ltd_mr Ref: 11555 15 December 2020

Figure 6



LEGEND

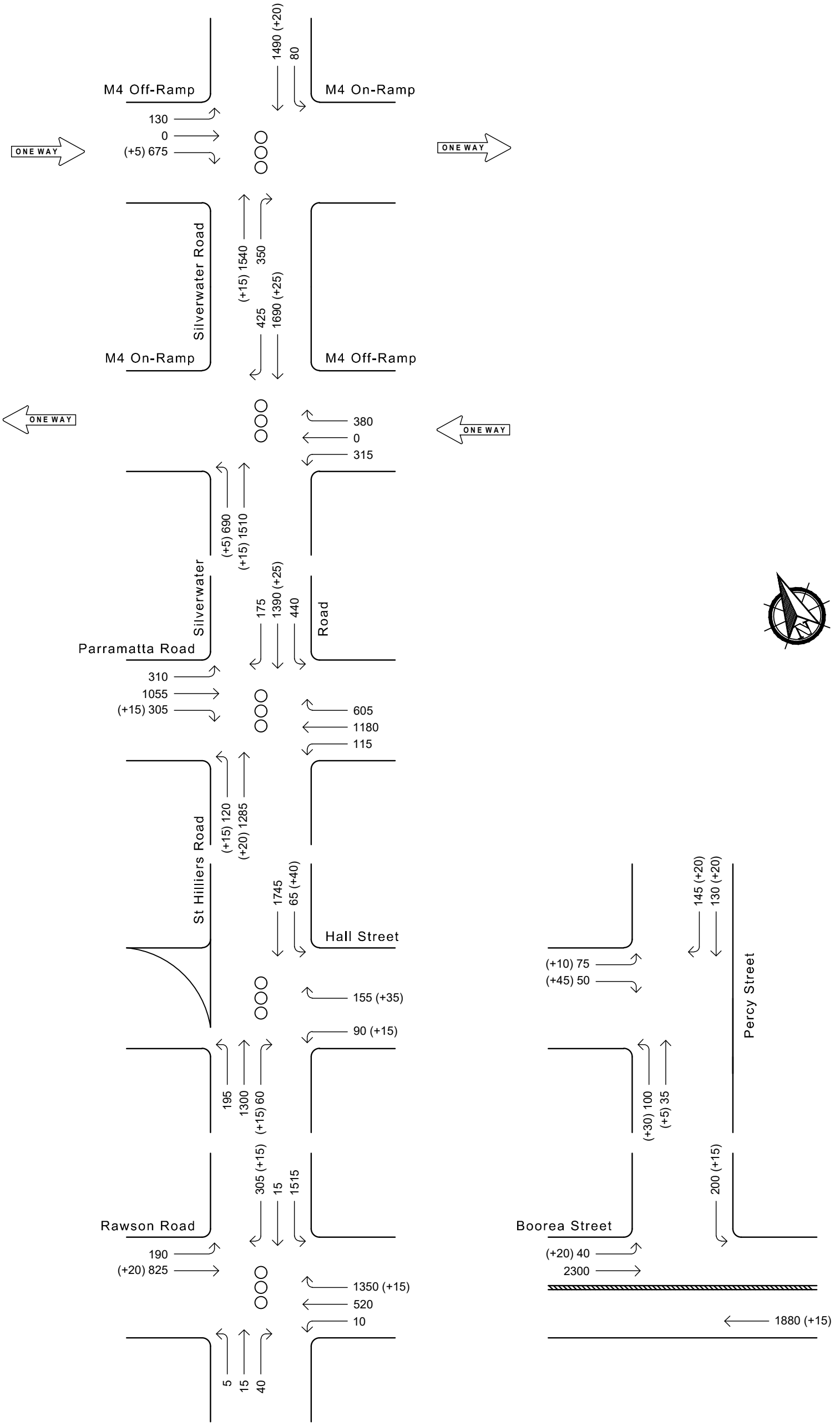
100 - Existing Peak Hour Traffic Flows
(+10) - Additional Development Traffic
- Traffic Signals

Existing weekday morning peak hour traffic flows plus development traffic

Figure 7

Colston Budd Rogers & Kafes Pty Ltd

Drawn By: CBRK Pty Ltd_hs Ref: 11555 09.12.2020



Existing weekday afternoon peak hour traffic flows plus development traffic

Figure 8

Colston Budd Rogers & Kafes Pty Ltd

Drawn By: CBRK Pty Ltd_hs Ref: 11555 09.12.2020