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

Our Ref: SK/10843/sk

16 March, 2018

Transport Planning
Traffic Studies
Parking Studies

Australian Executors Trustee ATF Auburn Ownership Trust
Governor Phillip Tower
Level 21
1 Farrer Place
SYDNEY NSW 2000

Attention: Pishoy Gobran
PGobran@eg.com.au

Dear Sir,

RE: PROPOSED RESIDENTIAL DEVELOPMENT AT 1A AND 1B QUEEN STREET, AUBURN

1. As requested, we are writing to respond to matters raised by council in relation to the above development. We have previously prepared a traffic report[1] which was submitted as part of the development application (DA-382/0217).

2. In an letter dated 20 February 2018, council raised a number of traffic matters. These matters, and our responses, are set out below:

   - *Traffic impact study has not been submitted. Detail traffic impact study shall be submitted to ensure that the proposed development will not have any adverse impact on the surrounding road networks and the intersections in the vicinity of the development. The traffic impact assessment report shall also address queuing, parking, traffic generation, entry and exit.*

3. The site has been rezoned by Cumberland Council (Auburn City Council) for high density residential development. A traffic report[2] and subsequent updated traffic modelling report[3] were prepared to support the planning

[1] Traffic and Parking Report for Proposed Residential Development, 1A and 1B Queen Street, Auburn, August 2017.
[2] "EG Funds Management, 1A Queen Street, Auburn, Transport Assessment", 15 August 2014, Arup;
[3] "EG Funds Management, 1A Queen Street, Auburn, Updated Traffic Modelling Report", 21 July 2016, Arup.

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proposal, which comprised up to 644 residential units. In association with the rezoning, intersection improvements were identified and agreed with Council. The identified road works form part of the Voluntary Planning Agreement (VPA), which included the dedication of land for external road work improvements and the reconstruction of the roundabout at the intersection of Queen Street and Marion Street.

4. The proposed development of some 595 residential units is similar in scale to that assessed in the planning proposal. The traffic effects will therefore be similar to the development assessed for the rezoning and the works set down in the VPA will therefore be appropriate for the proposed development. The traffic effects of the proposed development have therefore previously been assessed.

- *Proposed parking spaces are not adequate. Additional 6 car parking spaces shall be provided.*

5. The car parking arrangements have been reconfigured, as shown on plans prepared by AJ+C Architects, to increase parking from 648 to 654 parking spaces, comprising 535 residential spaces and 119 visitor spaces. This parking provision is in accordance with RMS parking rates for high density residential developments located within metropolitan sub-regional centres.

- *Visitor parking spaces shall be annotated on the plan. Width of the visitor parking spaces shall be minimum 2.6m. Turning area shall be provided in accordance with Australian standard requirements, if visitor parking spaces located in the blind aisles.*

6. Residential visitor spaces in basement car parks typically have the same dimensions as residential spaces, due to the constraints of column grids. For this development wider visitor spaces at 2.5 metres wide are provided. This width satisfies the requirement of User Class 2 (medium turnover parking), as set out in the Australian Standard AS2890.1-2004. The requirement for 2.6 metre wide parking spaces (User Class 3) is not appropriate for residential visitor parking spaces as this requirement is for short term, high turnover parking.

7. In accordance with the Australian Standard, residential visitor parking spaces are User Class 2 parking spaces and are required to be provided with minimum dimension of 2.5 metres wide by 5.4 metres long and aisle widths of 5.8 metres. Visitor parking, as shown on plans prepared by AJ+C

Architects, will be provided in accordance with the Australian Standards AS2890.1-2004 and is considered appropriate.

8. As shown on plans prepared by AJ+C Architects, no visitor parking spaces will be located in blind aisles. Visitor parking will be located along the main western circulation aisle.

- *A crest shall be provided in the access ramp within the site to prevent stormwater runoff from the site enters into the basement. The crest shall be minimum 100mm above the adjacent top of kerb level. Detail longitudinal section of the access ramp shall be provided.*

9. This comment is noted and will be addressed by AJ+C Architects.

- *Minimum 2.2m headroom clearance shall be provided for the car park. Head room shall be measured perpendicular to the wheelbase as shown on the Figure 5.3 of AS 2890.1. Head room details shall be marked on the plan. In this regard, detail longitudinal sections of the access ramps along both internal and external curves of the ramp to a scale of 1:20 shall be submitted.*

10. This comment is noted. The minimum height clearance of 2.2 metres within the car park could form part of the conditions of consent. The longitudinal sections of the access ramps will be prepared by AJ+C Architects.

- *Curved roadways/ramps shall comply with the Section 2.5 of the Australian standard AS2890.1. In this regard, ramp widths shall comply with Table 2.2 of the Australian standard AS2890. 1.*

11. Application of the design requirements set out in Table 2.2 of AS2890.1-2004 are not appropriate at this location as the design criteria is to allow two cars to pass in a satisfactory manner. In this regard the bend in the car park access, at the northern access driveway, should comply with clause 2.5.2 (c) which requires a B85 and a B99 vehicle to pass, as demonstrated with vehicle swept paths shown in Figure 2 attached.

- *A separator or median shall be provided in the curved roadway/ramp where radius of outer curve is less than 15m.*

12. As discussed in paragraph 10, the bend in the car park access should allow a B85 and a B99 vehicle to pass, as demonstrated in Figure 2 attached. A separator or median is therefore not required.

- *Parking space layout and ramp gradients shall comply with Australian Standard AS2890.1, AS2890.2 and AS2890.6.*

13. This comment is noted. Car parking layout, including ramp grades could form part of the conditions of consent.

14. In accordance with the Australian Standards, parking spaces will be provided at 2.4 metres by 5.4 metres long for residential tenant spaces and 2.5 metres wide by 5.4 metres long for visitor spaces. Spaces located adjacent to structure will be 300mm wider to allow for door opening, and columns will be set back 750mm from the front of the space. Access to car parking spaces will be provided from 5.8 to 6.4 metre wide circulation aisles. Dead end aisles will incorporate a one metre extension to allow appropriate access to end parking bays.

15. Disabled and accessible parking spaces have been assessed separately by an access consultant.

16. Height clearance of 2.5 metres will be provided above disabled parking spaces and 2.2 metres elsewhere in the car park. These arrangements are in accordance with the Australian Standards and are considered appropriate.

- *The intersection of the basement aisles and the access ramps shall be designed such a way that B99 and B85 vehicles can pass each other safely to comply with Clause 2.5.2 (c). In this regard swept path analysis shall be provided.*

17. Swept paths shown on Figure 2 show that a B85 and a B99 vehicle can comfortably pass each other within the car park. Intersections within the car park will be controlled by Give Way signs. These arrangements are in accordance with the Australian Standards and are considered appropriate.

- *Substations shall be clear of sight lines for pedestrian safety.*

18. This comment is noted. The location of the sub-station, as shown on plans prepared by AJ+C Architects, will be clear of the access driveways, with appropriate sight lines available for vehicles exiting the site to observe pedestrians.

- *Width of the two-way access ramp shall be minimum 6.1m. All the necessary dimensions shall be annotated on the plan.*

19. As shown on plans prepared by AJ+C Architects, the two-way access ramps will be provided with widths ranging from 6.1 to 6.7 metres.

- *Details of the roller door or any access controls shall be provided in order to ensure adequate queuing area is provided within the site in accordance with Australian standard AS2890.1.*

20. Access to on-site basement parking will be provided via two driveways onto Queen Street. The driveways will be controlled by security roller shutters with access for residents available via remote control and for visitors via a centrally located intercom on approach to the roller shutters. The roller shutters will be set back from the property boundary with on-site queuing available for some 12 vehicles, in accordance with the Australian Standards. With 654 parking spaces, the Australian Standard AS2890.1-2004 requires queuing for 10 vehicles (three for the first 100 spaces, two for the next 100 spaces and one per 100 thereafter.

- *Draft construction traffic management plan shall be submitted.*

21. At this point in time (prior to DA approval), tenders for construction have not been called and a builder has not been appointed. Therefore, the construction methodology, process and staging have not been identified for the proposed development. The appointed builder will be responsible for the preparation of a construction traffic management plan, which will be prepared prior to the commencement of work, taking into account relevant consent conditions. The plan will include consideration of the following:

    - vehicle access to the site during demolition, excavation and construction;
    - hours of work;
    - construction vehicle routes;
    - construction vehicle management;

- traffic and parking effects;
- measures to manage and protect pedestrian movements;
- on-street work zones;
- construction of VPA road works;
- measures to manage and control construction traffic at the site;
- community public consultation.

22. During the construction of the residential development, an on-site work zone, materials handling area and construction site facilities will be established on the southern part of the site, adjacent to Queen Street. Construction and containment fencing will be erected around the perimeter of the site compound.

23. Temporary construction access to the site compound will be provided to/from Queen Street, with trucks entering and exiting the site in a forward direction. In order to minimize construction traffic on the surrounding street, trucks will approach and depart the site along designated truck routes to/from the main road network through the area.

24. Construction of the proposed development will be staged. Construction will commence with the demolition of the existing warehouse buildings followed by excavation of the basement level. Demolition will commence at the northern end of the site, adjacent to Marion Street, and will progress in a southerly direction.

25. The loading of demolition and excavation material onto trucks, and the delivery of construction material to the site, including concrete deliveries, will predominately be carried out on-site. An on-street Works Zone may be required during the staged construction process, as a secondary construction zone. The Works Zone would be located on Queen Street adjacent to the site and would be used for the delivery of construction material and concrete pours. A separate application will be made for the proposed Works Zone, for approval by Council.

26. It is expected that two tower cranes will be erected on the site to assist with the delivery of construction material and the construction of the various buildings on the site. Construction material will be stored on-site within designated material handling areas.

27. The pedestrian footpaths adjacent to the site will be maintained during the construction period. Pedestrian activity along Queen Street and Marion Street will be protected with the provision of a Class A construction fence

erected around the perimeter of the construction site. Scaffolding and overhead protection will be provided, where required.

28. Openings in the construction fencing and the construction access driveways will be managed and controlled by qualified site personnel. Pedestrian movements across the access driveways and the movement of trucks entering and exiting the site compound will be managed and controlled by traffic controllers. Pedestrian warning signs will be erected adjacent to the driveway.

29. Work associated with the construction activity will be carried out in accordance with the approved hours of construction.

30. The site contractor will be responsible to instruct and control sub-contractors regarding the hours of work. Any work outside the approved construction hours would be subject to prior approval from Council.

31. The control or hours of operation avoids truck movements during the early morning and evening periods. To facilitate an efficient program, the arrival and departure of trucks associated with the construction works will be regulated and on-site works will be carefully managed and controlled by site personnel. Trucks will be called onto the site when required. Trucks will not be permitted to park on-street in Queen Street and Marion Street (outside to the designated Works Zone) or within surrounding local streets.

32. The overall principles for traffic management during construction will be:

- provide a convenient and appropriate environment for pedestrians;
- minimise effects on pedestrian movements and amenity;
- construction activity to be staged;
- provide appropriate safety fencing around the perimeter of the site compound, with overhead protection where required;
- management and control construction vehicle movements to and from the site;
- maintain current traffic arrangements along Queen Street and Marion Street adjacent to the site;

- maintain traffic capacity at intersections and mid-block in the vicinity of the site;
- construction vehicles to be accommodated on-site and within a possible on-street Works Zone (if required);
- to the extent practical, maintain on-street parking in the vicinity of the site;
- maintain access to adjacent properties;
- ensure that construction vehicles do not stop or park on-street along Queen Street and Marion Street (outside to the designated Works Zone) or within surrounding local streets;
- restrict construction vehicle routes to designated truck routes to/from the site (to be determined by the appointed builder and approved by Council);
- construction access driveways and pedestrians to be managed and controlled by qualified site personnel;
- construction vehicles to enter and exit the site in a forward direction;
- construction activity to be carried out in accordance with approved hours of construction;
- maintain safety for construction workers and the general public;
- manage and control vehicle activity in the vicinity of the site;
- the preparation of the construction traffic management plan, signage detail, control of pedestrians and control and management of construction activity/vehicles in the vicinity of the site will be the responsibility of the appointed builder.

- *Plan shows only one waste collection point within the site. In this regard details of waste collection arrangement shall be provided.*

33. This comment is noted and will be addressed by the waste consultant.

- *Detail calculations shall be provided to show that adequate storage area has been provided.*

34. This comment is noted and will be addressed by AJ+C Architects.

- *Waste truck swept path shall be designed for a medium rigid truck. Waste truck and delivery truck shall enter and leave the site in a forward direction. In this regard detail swept path analysis shall be provided.*

35. Swept paths shown on Figure 3 indicate that a medium rigid tuck can enter and exit the site in a forward direction. Service vehicle access will be controlled by a signaling system located within car park and within the northern access driveway. Entering service vehicles will activate the signals via a height sensor within the driveway, at which point cars exiting the car park will be held within the car park on approach to the roller shutter. Once the service vehicle has entered the loading dock the signals will change to allow vehicles to enter and exit the car park normally.

36. On exiting the loading dock, service vehicles will again activate the signals to hold cars entering and exiting the car park. Appropriate passing bays will be provided within the car park and within the access driveway.

- *Waste collection access ramp gradient and transitions shall comply with Australian Standard AS2890.2.*

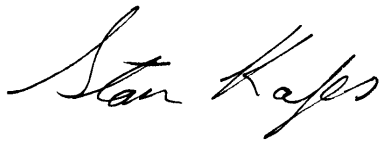
37. As shown on plans prepared by AJ+C Architects, the waste collection access ramp (northern access driveway) has been designed with a maximum grade of 1 in 8 and transition at the top and bottom of the ramp of 1 in 16 to 1 in 20. The maximum grade within the service vehicle manoeuvring area adjacent to the loading dock (service vehicle reversing area) will be 1 in 16. These ramp grades and transitions are in accordance with the Australian Standard AS2890.2-2002, and are considered appropriate.

- *Width of the access ramp/circulation aisle shall be designed in such a way that a car and a medium rigid truck can pass each other along the circulation aisle.*

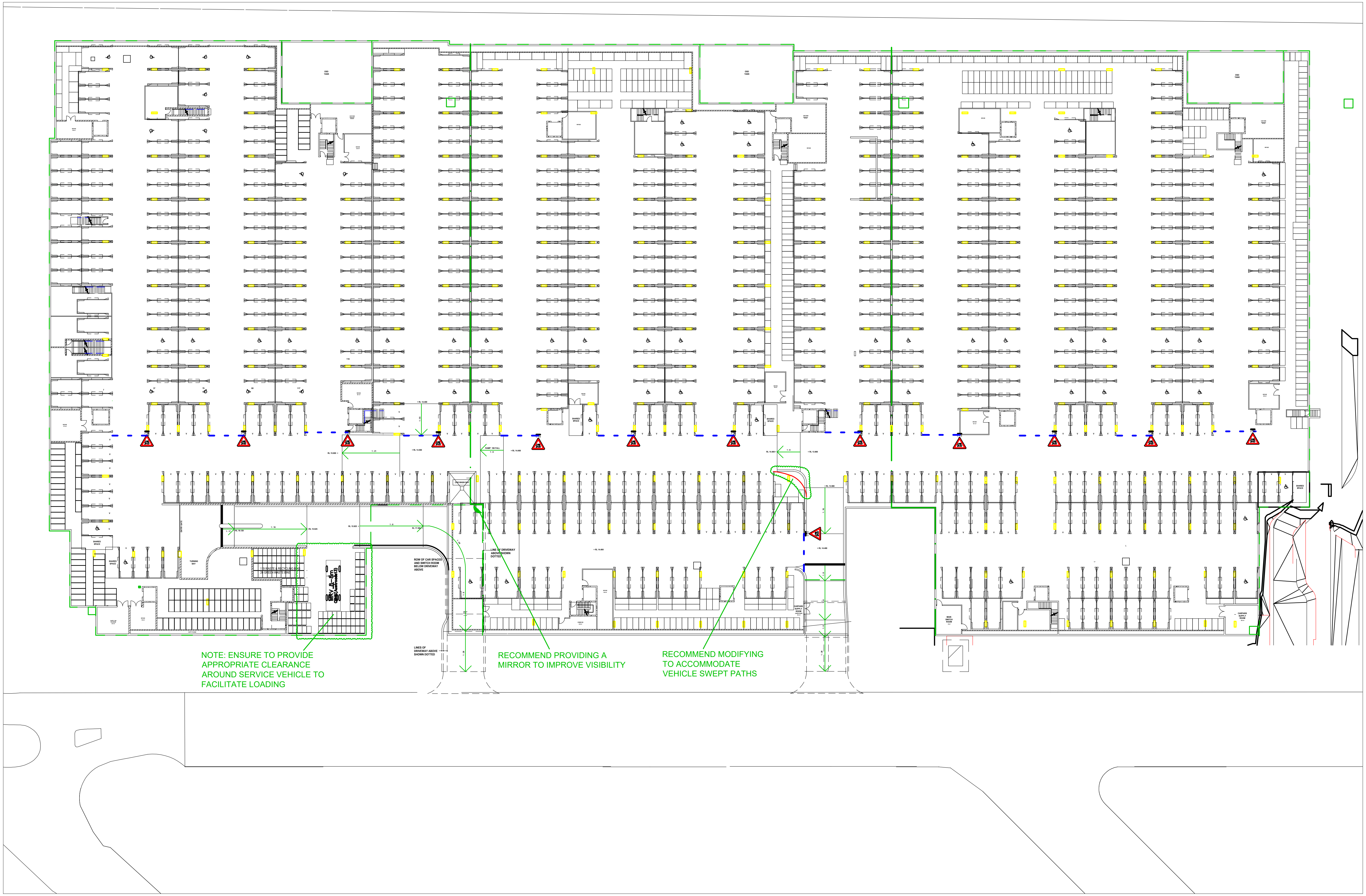
38. As shown on plans prepared by AJ+C Architects and Figure 3, the northern access driveway has been modified to allow a medium rigid truck to pass a car.

39. 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



S. Kafes
Director



NOTE:
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COMPLIANCE CHECK
AS2890.1-2004 & AS2890.2-2002

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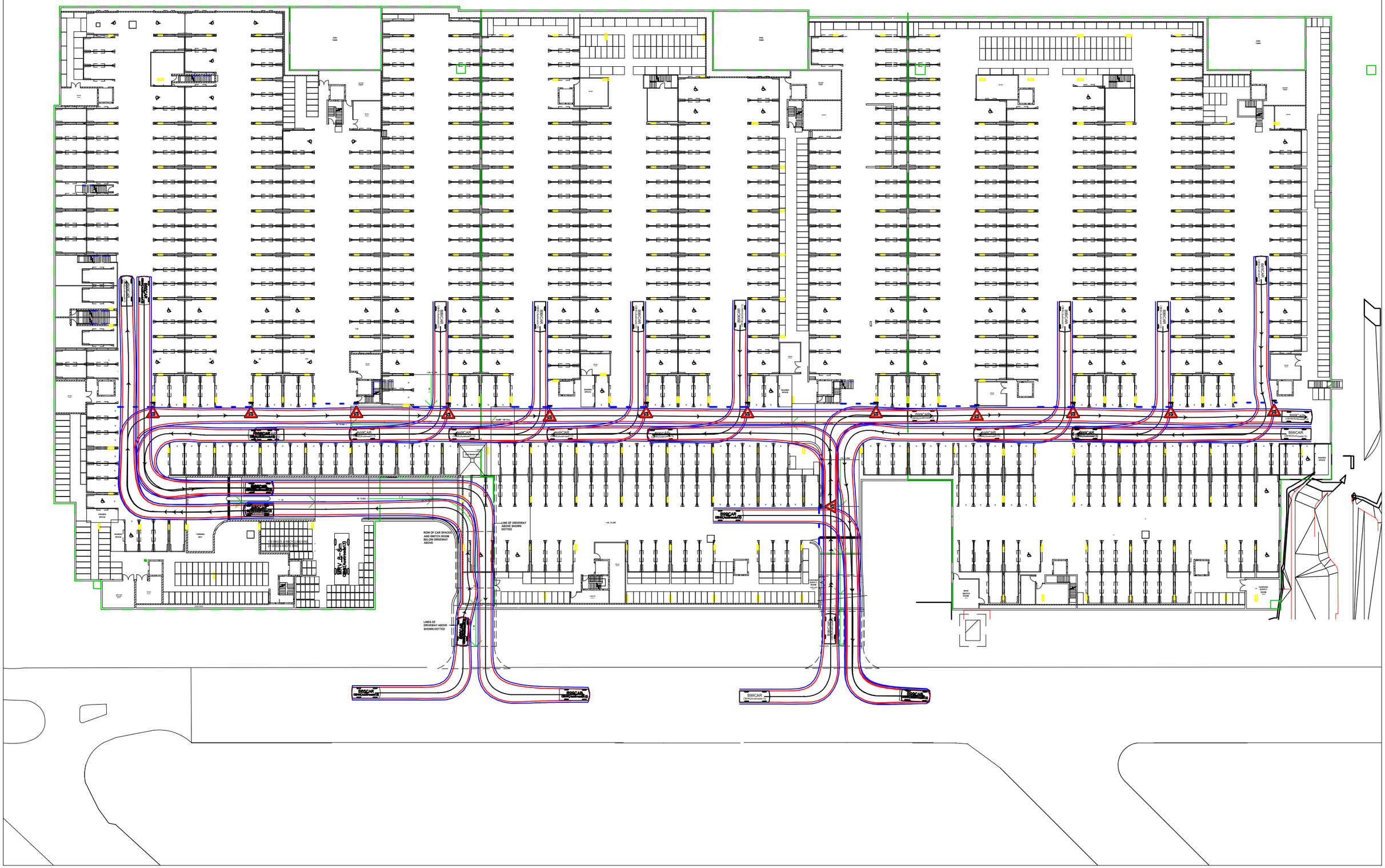
1



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

B85 & B99 VEHICLE SWEPT PATHS

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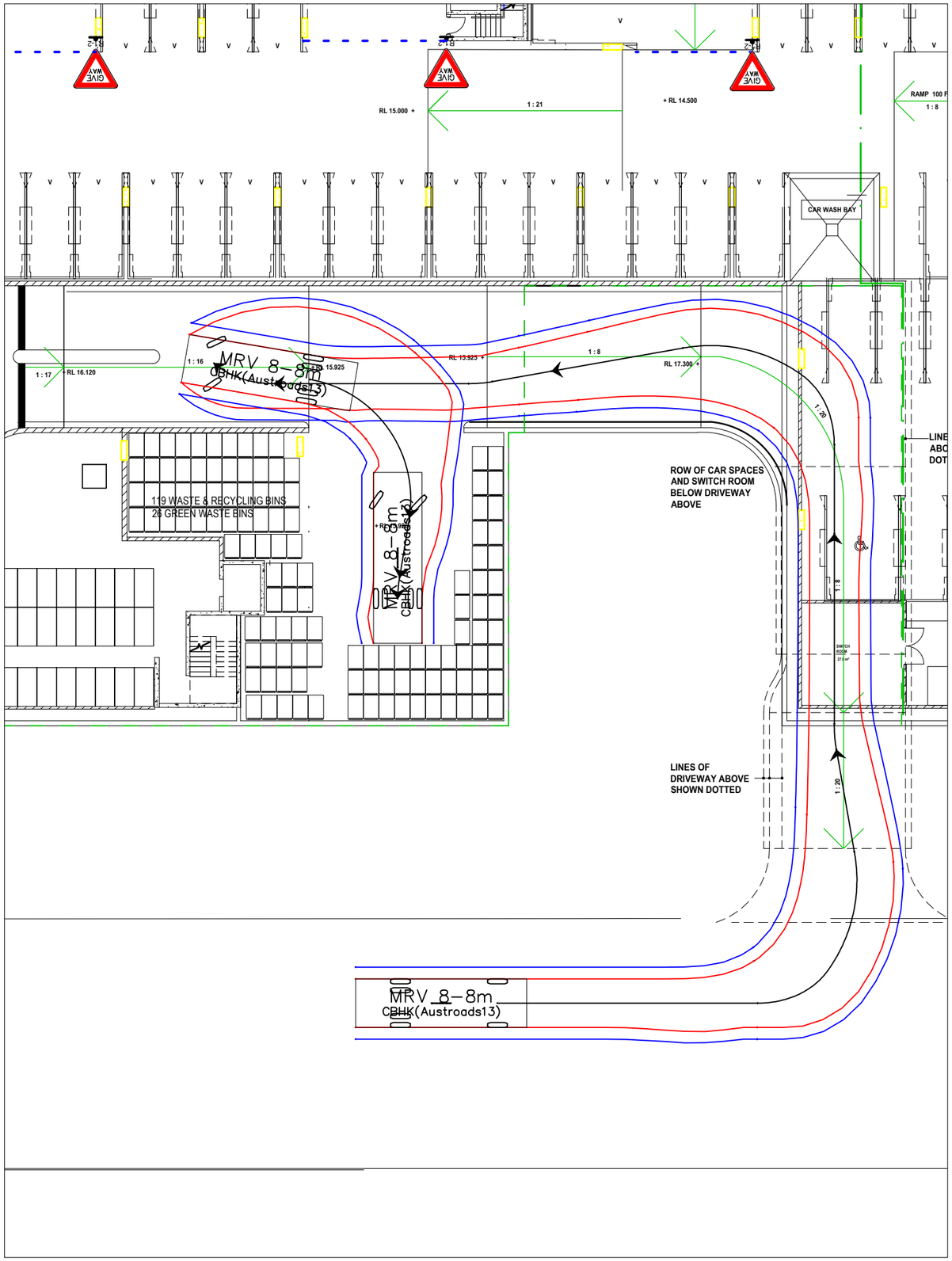
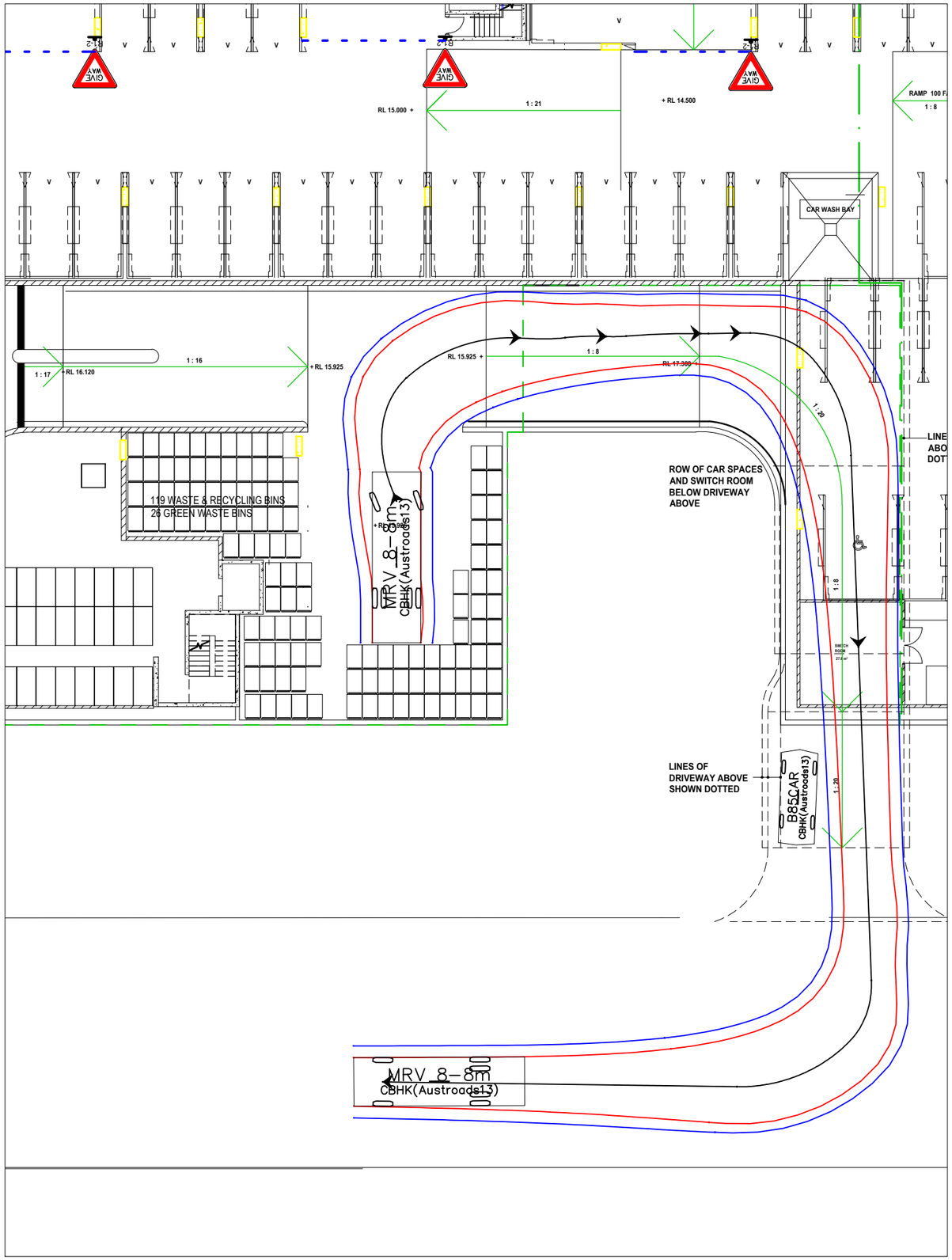
2





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

8.8m MEDIUM RIGID VEHICLE SWEPT PATHS

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