



CARPARK CERTIFICATION OF PROPOSED BOARDING HOUSE

14 Wyatt Avenue in Belrose

Prepared for: Northern Beaches Essential Accommodation

N1815945A (Version 1d)

December 2021

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1. INTRODUCTION

ML Traffic Engineers was commissioned by Northern Beaches Essential Accommodation to prepare a car parking certification report of a proposed essential services accommodation at 14 Wyatt Avenue in Belrose

Vehicle access and egress to the car parking areas is via two way driveway that runs off 14 Wyatt Avenue. Access to the lower building on 16 Wyatt is also provided via the same driveway. Therefore, traffic control lights are provided at numerous locations along the driveway to avoid vehicle conflict.

Parking is provided on one basement level.

A near straight driveway is provided and is followed by a curved ramp.

Reference is made to AS2890.1, AS2890.6 and Council's Development Control Plan for compliance.

2. DRIVEWAY

The details of the driveway from the boundary to the curved ramp section are as follows from the perspective of the inbound movement for descriptive purposes only:

- The width of the existing driveway is 4.5 metres
- Vehicle waiting bays have been provided to allow two-way traffic movement.
- The gradients along the driveway to the curved ramp are as follows:
 - 6.8 percent for 7 metres
 - 13 percent for 7 metres
 - 15.4 percent for 15.6 metres
 - 12.5 percent for 7 metres
 - 6.25 percent for 24.6 metres
 - 8.75 percent for 12.88 metres
 - 6.25 percent for 7 metres
 - Flat for the T-junction

3. CURVED RAMP

The curved ramp is 3.9 metres wide.

- 4.5 percent for 2.2 meters
- 13.2 percent for 2.5 meters
- 1.2 percent for 2.4 metres
- 4.4 percent for 2.9 metres
- 8 percent for 2.5 metres

Convex safety mirror should be provided at the top and bottom of the curved section of the ramp.

4. CAR SPACES

The details of the car parking areas are as follows:

Basement 2

- The car parking aisle is 5.8 metres wide minimum
- The general 90-degree car spaces are 5.4 metres long and 2.4 metres wide
- The disabled car space is 2.4 metres wide and 5.4 metres long
 - The shared zone is of the same dimension
- Column setbacks comply with standards
- The car spaces adjacent to wall is 2.7 metres wide which compensates the lack of blind aisle width
- Motorcycle spaces are 1.2 metres wide and 1.8 metres long
- Bicycle spaces are provided

5. SWEPT PATHS

Swept Paths Analysis has been done using a B85 car and a B99 car to confirm that the vehicle movements are adequate. The following Swept Paths have been performed:

- B99 Inbound Ramp Movement passing through B85 in Waiting Bay
- B99 Outbound Ramp Movement passing through B85 in Waiting Bay

The swept paths show adequate manoeuvrability.

The swept paths are provided in Appendix A.

6. SIGHT DISTANCE

The car driver's sight distance requirement to enter the external road is stated in Figure 3.2 of AS2890.1.

The sight distance varies according to the speed of the external road. Wyatt Avenue has a speed limit of 50km/hr.

The minimum sight distance required is 45 metres. The minimum vehicle sight distance is met.

The pedestrian sight distance triangle is met as set out in Figure 3.3 of AS2890.1.

7. CONCLUSIONS AND RECOMMENDATIONS

The car parking area is overall compliant with Australian Standards.

The rate of change of grade for the driveway/ramp is compliant with Australian Standards for a Heavy Rigid Vehicle.

APPENDIX A – SWEPT PATHS