

CARPARK CERTIFICATION OF A PROPOSED RESIDENTIAL DEVELOPMENT

29-31 Castlereagh Street in Penrith

Prepared for: BB & B Penrith Pty Ltd

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1. INTRODUCTION

Motion Traffic Engineers was commissioned by BB & B Penrith Pty Ltd to prepare a car parking certification report of a proposed residential development at 29-31 Castlereagh Street in Penrith.

Vehicle access and egress to the car parking areas is via Castlereagh Street.

Parking is provided on two basement levels.

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

2. DRIVEWAY AND RAMPS

The details of the driveway/ramp from Castlereagh Street to basement 1 are as follows from the perspective of the inbound movement for descriptive purposes only:

- The width of the driveway is 6 metres at the property line and narrows to 3.6 metres between the kerbs at the ramp.
- Convex safety mirror has been provided at the end of the ramp and curved section of the aisle.
- The gradients along the centre line are as follows:
 - 5 percent for 6 metres
 - 12.5 percent for 2 metres
 - 25 percent for 8 meters
 - 12.5 percent for 5 meters

The details of the ramp from basement 1 to basement 2 are as follows from the perspective of the inbound movement for descriptive purposes only:

- The width of the driveway is 5.55 metres between the kerbs and remains constant throughout the length of the ramp.
- A clearance of 300mm between kerb and wall have been provided on both sides of the ramp.
- The gradients along the centre line are as follows:
 - 12.5 percent for 2 metres
 - 25 percent for 10.47 meters
 - 12.5 percent for 5 meters

A convex safety mirror has been provided at at the bottom of the ramp on basement 2 to increase the sight distance of the driver of oncoming vehicle.

3. CAR SPACES

The details of the car parking areas are as follows:

Basement 1

- The parking aisle has flat gradient.
- The car parking aisle is 5.8 metres wide minimum.
- The general 90-degree car spaces are 2.4 metres wide and 5.4 metres long.
- Spaces adjacent to walls have an additional 300mm width generally.
- The disabled car space is 2.4 metres wide with a length of 5.4 metres.
 - Shared zone is 2.4 metres wide and 5.4 metres long.
 - Appropriate bollards have been placed in shared zones.
- The circulating lane is 3.5 metres wide
- Column setbacks of 750mm have been provided.

Basement 2

- The parking aisle has flat gradient.
- The car parking aisle is 5.8 metres wide minimum.
- The general 90-degree car spaces are a minimum 2.4 metres wide and 5.4 metres long
- Spaces adjacent to walls have an additional 300mm width.
- Column setbacks of 800mm have been provided.
 - As per AS2890.1 the column setback must be 750mm.
- Blind aisle extensions of 1 metres minimum have been

4. 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. Castlereagh Street 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.

5. CONCLUSIONS AND RECOMMENDATIONS

The car parking area and driveway is compliant with Australian Standards and Council's DCP.