Australian Standard®

Off-street parking

Part 2: Commercial vehicle facilities

This Australian Standard was prepared by Committee CE/1, Off-street Parking Guidelines. It was approved on behalf of the Council of Standards Australia on 14 February 1989 and published on 14 April 1989.

The following interests are represented on Committee CE/1:

Australian Automobile Association
Australian Council of Local Government Associations
Australian Council of Local Government Engineers Associations
Australian Road Transport Federation
Bicycle Federation of Australia
Building Owners and Managers Association of Australia
Commercial Vehicle Industry Association of Australia
Department of Health, New South Wales
Department of Transport and Works
Institution of Engineers, Australia
Local Government Planners Association of New South Wales
Monash University
National Association of Australian State Road Authorities
National Capital Development Commission
National Parking Association
Royal Australian Institute of Architects
State Bicycle Advisory Committee, New South Wales
Traffic Authority of New South Wales
University of Queensland
University of Sydney
University of Wollongong
Urban Transit Authority of New South Wales
Western Australian Institute of Technology

Additional interests participating in preparation of this Standard:

Australian Road Research Board
Traffic Engineering Services
Central District Ambulance Service

This Standard was issued in draft form for comment as DR 86092.

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First published as AS 2890.2—1989.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 5535 1

PREFACE

This Standard was prepared by Standards Australia's Committee on Off-street Parking Guidelines.

This is Part 2 of the AS 2890 series which covers the design of off-street parking areas for motor vehicles including light vehicles and motorcycles, commercial vehicles and buses. Other Standards in the series deal with car parking and bus facilities.

In determination of the turning paths of vehicles, reference was made to the following publications:

(a) Vaughan, Rodney G and Sims, Arthur G. *Determination of Swept Paths of Vehicles*, Traffic Accident Research Unit, Department of Motor Transport, New South Wales, Report No 3/70, July 1970.

(b) Hill, G.J. 'Prediction of Vehicle Swept Paths', *The Highway Engineer*, December 1978.

(c) Green, P.N. 'Simulation of Vehicle Manoeuvres', *The Journal of the Institution of Highway Engineers*, July 1980.

Reference was also made to the *Australian Design Rules for Motor Vehicles and Trailers* (3rd edition), issued by the Federal Department of Transport and published under the auspices of Australian Transport Advisory Council (ATAC). Acknowledgment is made of the assistance received from the above sources.

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SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard sets out the minimum requirements for the layout of off-street parking facilities for the loading and unloading of commercial vehicles.

NOTES:

1. The requirements specified in this Standard may be varied in order to comply with the requirements of the determining Authority or dependent upon circumstances applicable to a particular development (e.g. road frontage type, access to the development, and intensity of development and its use).
2. The design vehicle characteristics and use of vehicle types are described in Appendix A.

1.2 APPLICATION. This Standard shall be applied in the design of off-street parking facilities for commercial vehicles whether they are surface areas or multistorey.

1.3 DEFINITIONS. For the purpose of this Standard, the definitions given in the 'Australian Design Rules (ADRs) for Motor Vehicles and Trailers' and those below apply.

1.3.1 Apron—the manoeuvring area in front of the loading dock including the service bay (see Figure 1.1).

1.3.2 Apron extent—distance past the last service bay required for manoeuvring parallel to the dock (see Figure 1.1).

1.3.3 Apron width—distance between the loading dock and furthermost forward manoeuvring point, and is made up of two distinct dimensions: the entry clearance and the bay length (see Figure 1.1).

1.3.4 Bay length—overall length of the service bay (see Figure 1.1).

1.3.5 Driveway—crossing of a footpath or public area to join the carriageway and the service area at the property line.

1.3.6 Entry angle—the angle through which a design vehicle turns before commencing the reverse manoeuvre.

1.3.7 Entry clearance—distance between the vehicle entry path (near side) and the point furthest from the service bay reached during the forward manoeuvre (see Figure 1.1).

1.3.8 Loading dock—specific area set aside for loading and unloading a commercial vehicle. Commonly the operation is carried out from a raised platform to which the vehicle is backed. Loading and unloading can, however, take place from the side or from ground level.

1.3.9 Minimum apron width—distance between the furthest point reached during the forward manoeuvre and the first position at which vehicle is aligned parallel to the service bay ready for reversing to the final position against the dock (see Figure 1.1). If the vehicle is allowed to protrude into the manoeuvring area of the vehicles, this is the furthest forward the loading dock can be placed.

1.3.10 Service area—the area in a development set aside for the manoeuvring, laybye and loading or unloading of commercial vehicles for the delivery of goods or freight.

1.3.11 Service bay—specific area in a loading dock which is delineated for the vehicle. When a service bay is of minimum dimensions a vehicle has to place the body or trailer into its final alignment at the point of entry into the bay. As the width of the service bay is widened, the additional clearance may be used for the final alignment of the vehicle to penetrate into the service bay thus reducing the required width of pavement.