AS 2890.6:2022

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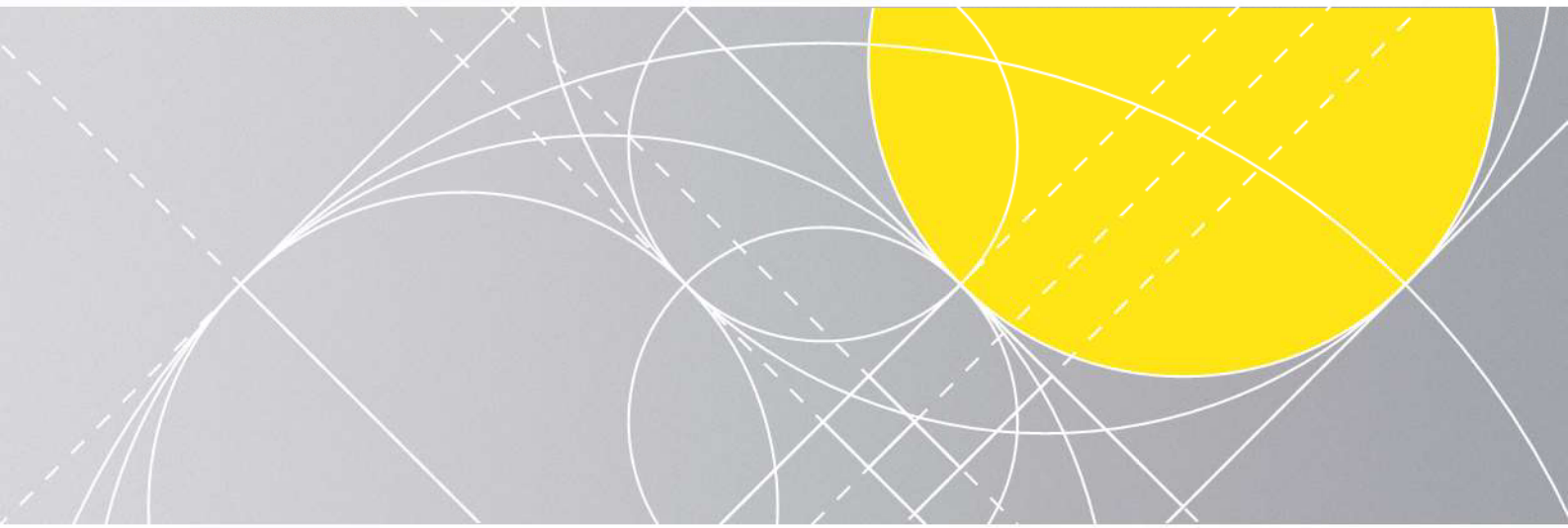
Parking facilities

Part 6: Off-street parking for people with disabilities



AS 2890.6:2022

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The following are represented on Committee CE-001:

Association of Consultants in Access Australia
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Parking facilities

Part 6: Off-street parking for people with disabilities

Originated as part of AS 2890.1—1993.
Jointly revised and redesignated as AS/NZS 2890.6:2009.
Revised and redesignated as AS 2890.6:2022.

Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee CE-001, Parking Facilities, to supersede AS/NZS 2890.6:2009.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this document as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this document is to provide minimum requirements for off-street parking facilities for people with disabilities.

A list of all parts in the AS(AS/NZS) 2890 series can be found in the Standards Australia online catalogue.

The major changes in this edition are as follows:

(a) Clarification and improved definition of shared areas.

(b) Addition of location and distance of accessible parking from entrances.

(c) Clarification of height clearances.

(d) Addition of requirements for slip resistance.

(e) Clarification of space sizes adjacent to vehicles.

(f) Clarification of kerb ramp requirements.

(g) Clarification of bollard provisions.

(h) Deletion of New Zealand-specific references.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

Contents

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Australian Standard®

Parking facilities

Part 6: Off-street parking for people with disabilities

Section 1 Scope and general

1.1 Scope

This document specifies minimum requirements for the provision of off-street parking facilities for people with disabilities.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 1428.1, *Design for access and mobility, Part 1: General requirements for access — New building work*

AS 4586, *Slip resistance classification of new pedestrian surface materials*

1.3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

1.3.1
accessible entrance
entrance to a facility or establishment served by the car park, suitable for pedestrian or wheelchair use by people with disabilities

1.3.2
accessible path of travel
uninterrupted path of travel to or within a building providing pedestrian or wheelchair access for people with disabilities from a parking space to all required facilities

1.3.3
accessible space
parking space designed for the parking of vehicles used by people with disabilities

1.3.4
angle parking
any parking which is not parallel to the parking aisle

1.3.5
circulation roadway
roadway within an off-street car park which is used solely for circulation and to gain access to parking aisles, and on which there is no parking

1.3.6
may
indicates the presence of an option

1.3.7
parking aisle
roadway or an area of pavement used by vehicles to gain access to, and to manoeuvre into and out of parking spaces

1.3.8
rest point
area where a pedestrian may rest or pause on an accessible path of travel

1.3.9
shall
indicates that a statement is mandatory

1.3.10
shared area
area adjacent to an accessible space provided for access or egress by the driver and/or passenger to or from a parked vehicle, and movement by driver and/or passenger from a parked vehicle to an accessible path of travel to the accessible entrance

Note 1 to entry: The shared areas may be shared with any other purpose that does not involve other than transitory obstruction of the area, e.g. a walkway, parking aisle, or dual use with another adjacent accessible space.

Note 2 to entry: For requirements relating to shared areas, see Clause 2.3.

1.3.11
should
indicates a recommendation

Section 2 Parking space layout and access

2.1 General

This section specifies layout requirements for parking spaces including headroom requirements and requirements for pedestrian and vehicular access to those spaces.

NOTE A commentary on this section is provided in Appendix A.

2.2 Location of accessible spaces

Accessible parking spaces shall be located within 50 m of an accessible entrance or, where this is impractical, within 100 m with a rest point at 40 m to 60 m, as measured along the accessible path of travel. The rest point shall have dimensions of 1 200 mm × 1 000 mm with a maximum gradient of 1:40.

An accessible path of travel shall be maintained between the accessible entrance and accessible parking space. Speed humps, signs or any other physical item shall not obstruct this travel path.

2.3 Shared area

2.3.1 General

Shared areas shall be located to the rear and a minimum of one side of every accessible parking space. Where forward-in parking is prohibited, a shared area shall be provided at the rear and a minimum of one side of the vehicle.

2.3.2 Side of vehicle

A shared area shall be provided to one side of all accessible parking spaces. A shared area can be located between two accessible parking spaces.

A shared area to the side of an accessible parking space shall not be located in a circulation roadway or parking aisle.

2.3.3 Rear of vehicle

A shared area shall be provided to the rear of all accessible parking spaces, having the same width as the associated accessible parking space and be a minimum of 2 400 mm in length.

Where a shared area is located in a parking aisle to the rear of an accessible car parking space, it shall only be located in areas that have —

(a) an unobstructed sight line a minimum of 1 000 mm between a circulating vehicle and the rear of an accessible parking space and its rear shared area; or

(b) a posted speed limit no greater than 10 km/h

2.4 Zone for bollards, posts and columns

A bollard, a post or a column shall be located within the shared area to prevent the use of the shared area for car or motorcycle parking.

The bollard, post or column shall have an installed height of a minimum 1 300 mm with a minimum 300 mm retro-reflective coloured band, located at a minimum of 900 mm in height above the car park floor, that provides minimum 30 % luminance contrast to the pavement measured in accordance with AS 1428.1.

NOTE Refer to AS 1906.1 for further information on retro-reflective surfaces.

For 90 degree angle parking, the bollard, post or column shall be located within an area commencing at 750 mm and extending up to 1 750 mm from the edge of the parking aisle.

For angled parking of 45 degrees, the bollard, post or column shall be located within an area commencing at 2 350 mm and extending up to 3 650 mm from the edge of the parking aisle.

For angles other than 45 degrees, the location of the bollard, post or column shall be positioned such that it does not impede the wheelchair unloading area and vehicles manoeuvring into and out of the parking space.

Installation of the bollard, post or column shall ensure a minimum 1 000 mm clear access path adjacent to a single accessible parking space and on both sides where located between two accessible parking spaces.

Examples of bollard and column positions are shown in Figures 2.2, 2.3, 2.4, 2.5, 2.6, 2.8 and 2.9.

2.5 Parking spaces — Dimensions

2.5.1 Angle parking spaces

An angle parking space shall comprise a combination of areas as illustrated in Figure 2.1 with —

(a) an accessible space that is a minimum of 2 400 mm wide × 5 400 mm long;

(b) a shared area on one side of the accessible space that is a minimum of 2 400 mm wide × 5 400 mm long. It may be entirely on the left or entirely on the right side of the accessible space; and

(c) a shared area that is a minimum of 2 400 mm long × 2 400 mm wide at one end of the accessible space. It may be entirely at the front or entirely at the rear of the accessible space.

The accessible space and the shared area shall be at the same level unless as specified in Clause 2.5.2(b).

The angle parking angle shall be between 45 degrees and 90 degrees. All spaces within a car park need not be at the same parking angle.

Where the side boundary of an accessible space is a wall or vertical obstruction greater than 150 mm in height, an additional 300 mm shall be added to the width of the accessible space.

NOTE Examples of angle parking spaces are shown in Figures 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8 and 2.9.

Where the shared area adjoins an accessible path of travel and the accessible path of travel is at a different level, a kerb ramp shall be provided in accordance with AS 1428.1.

Dimensions in millimetres

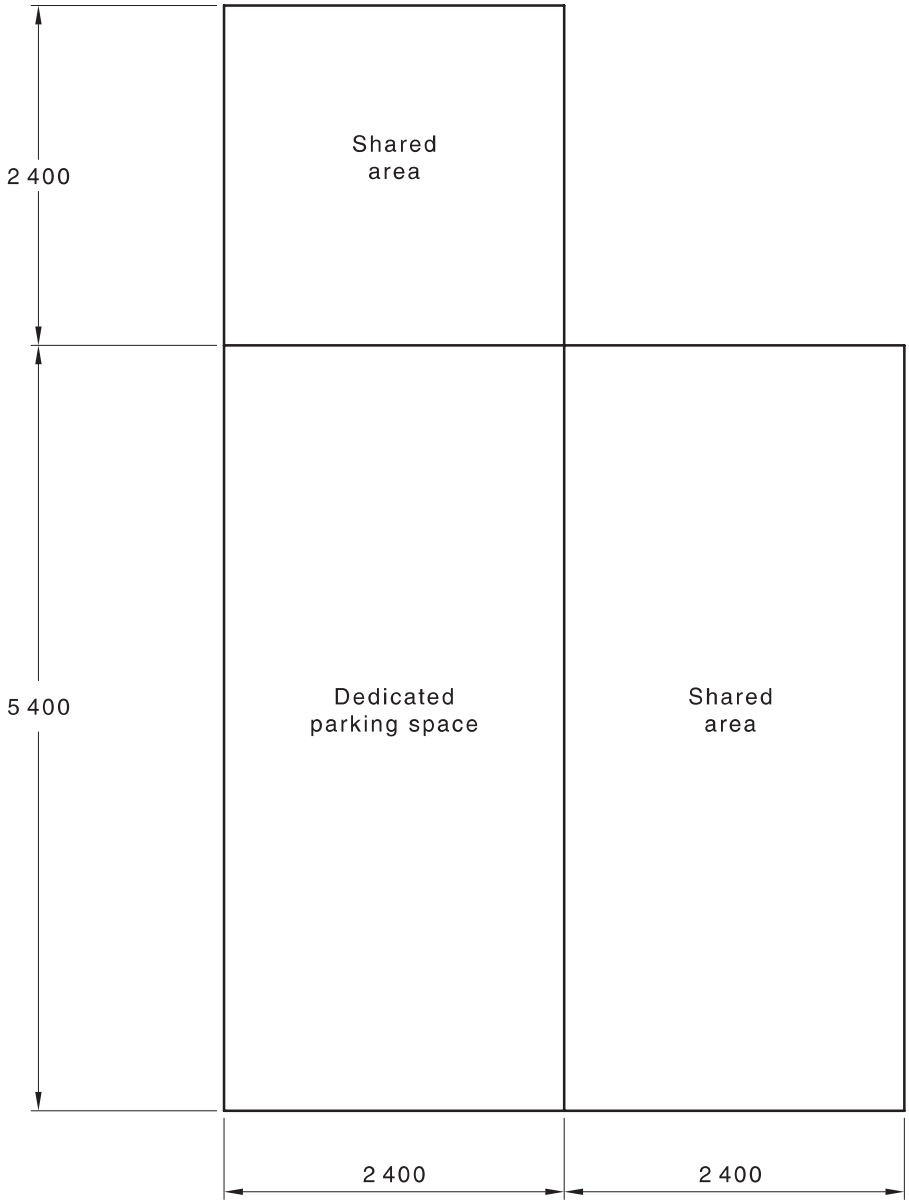
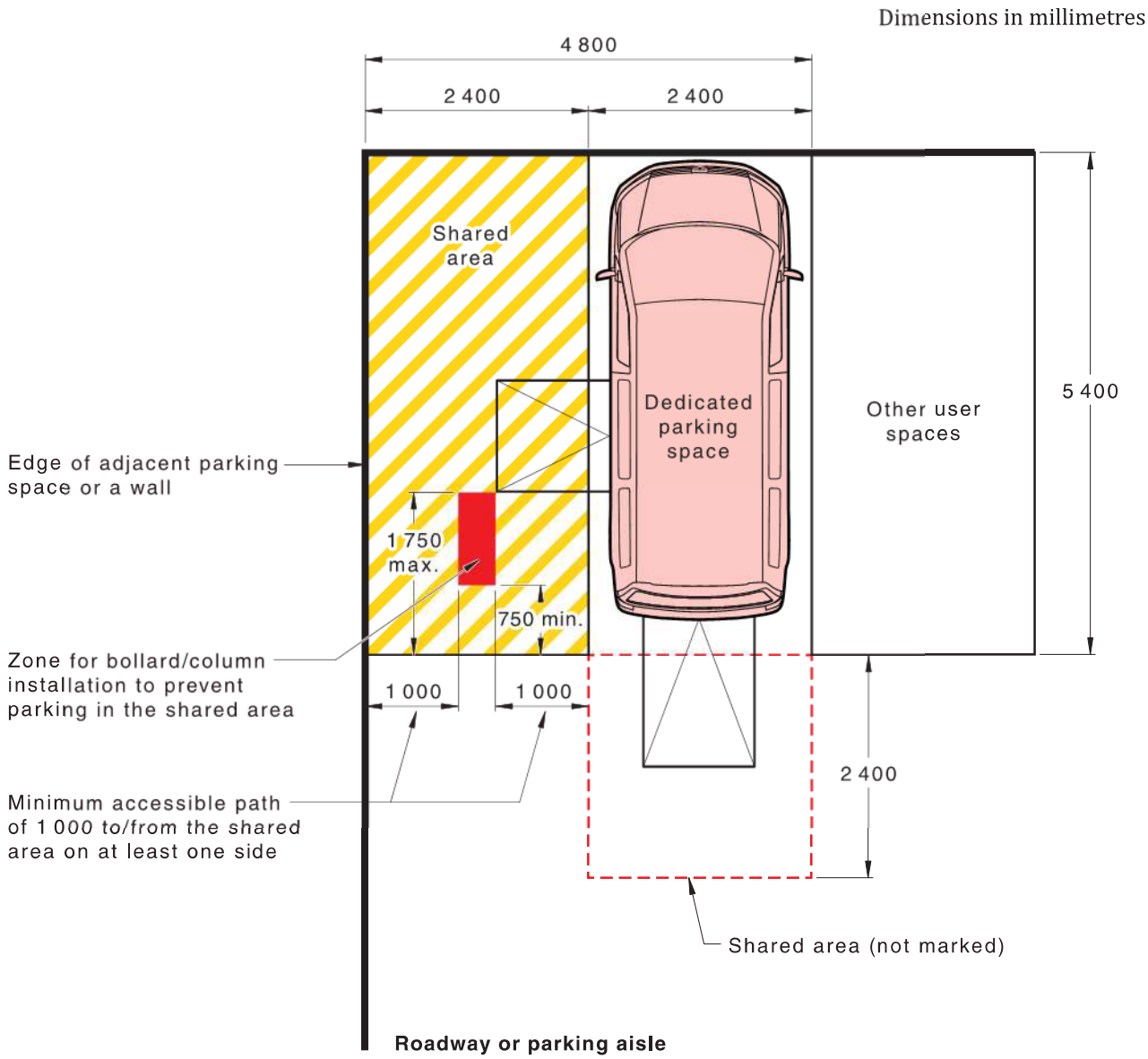
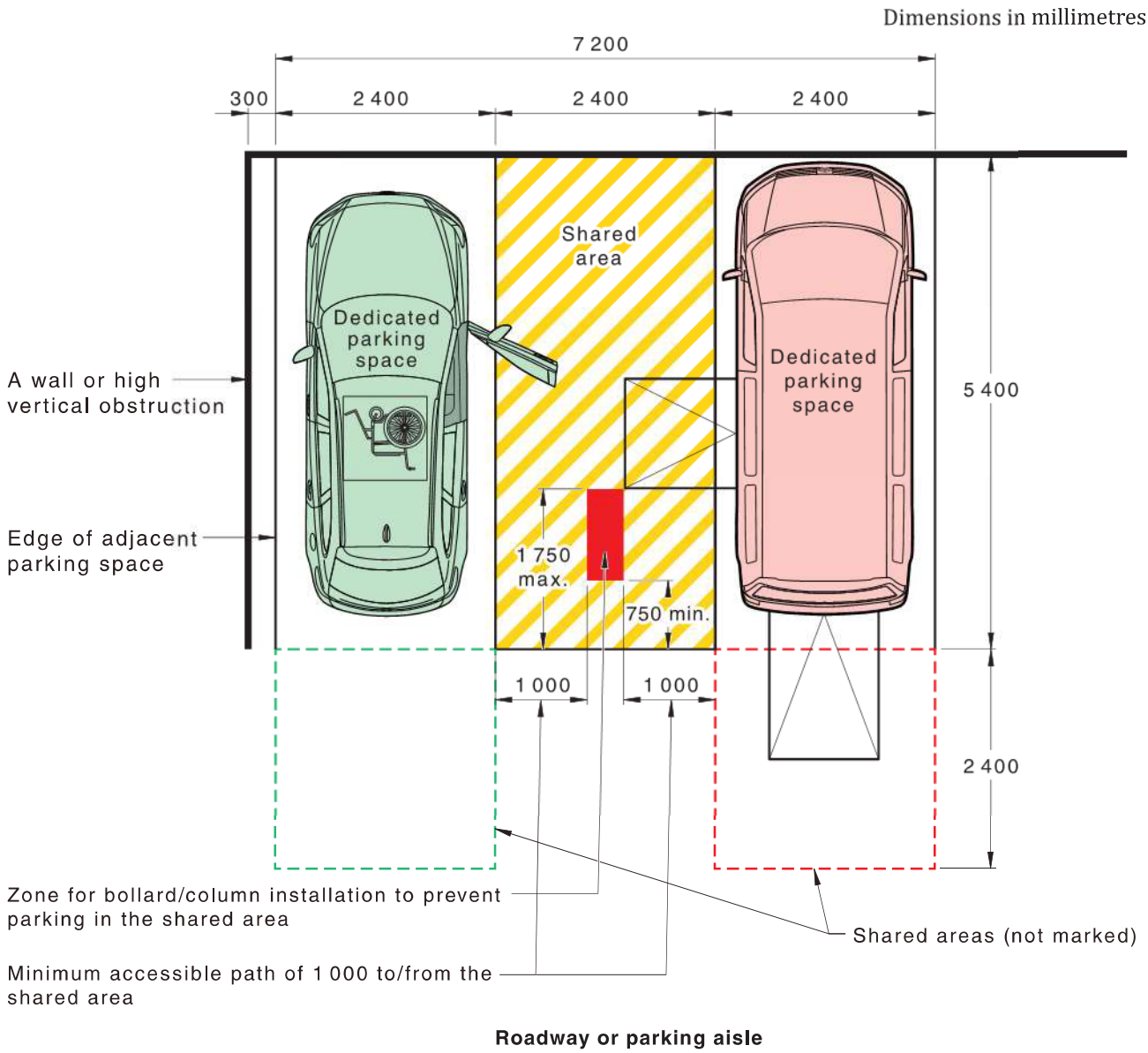


Figure 2.1 — Dimensions of angle parking spaces



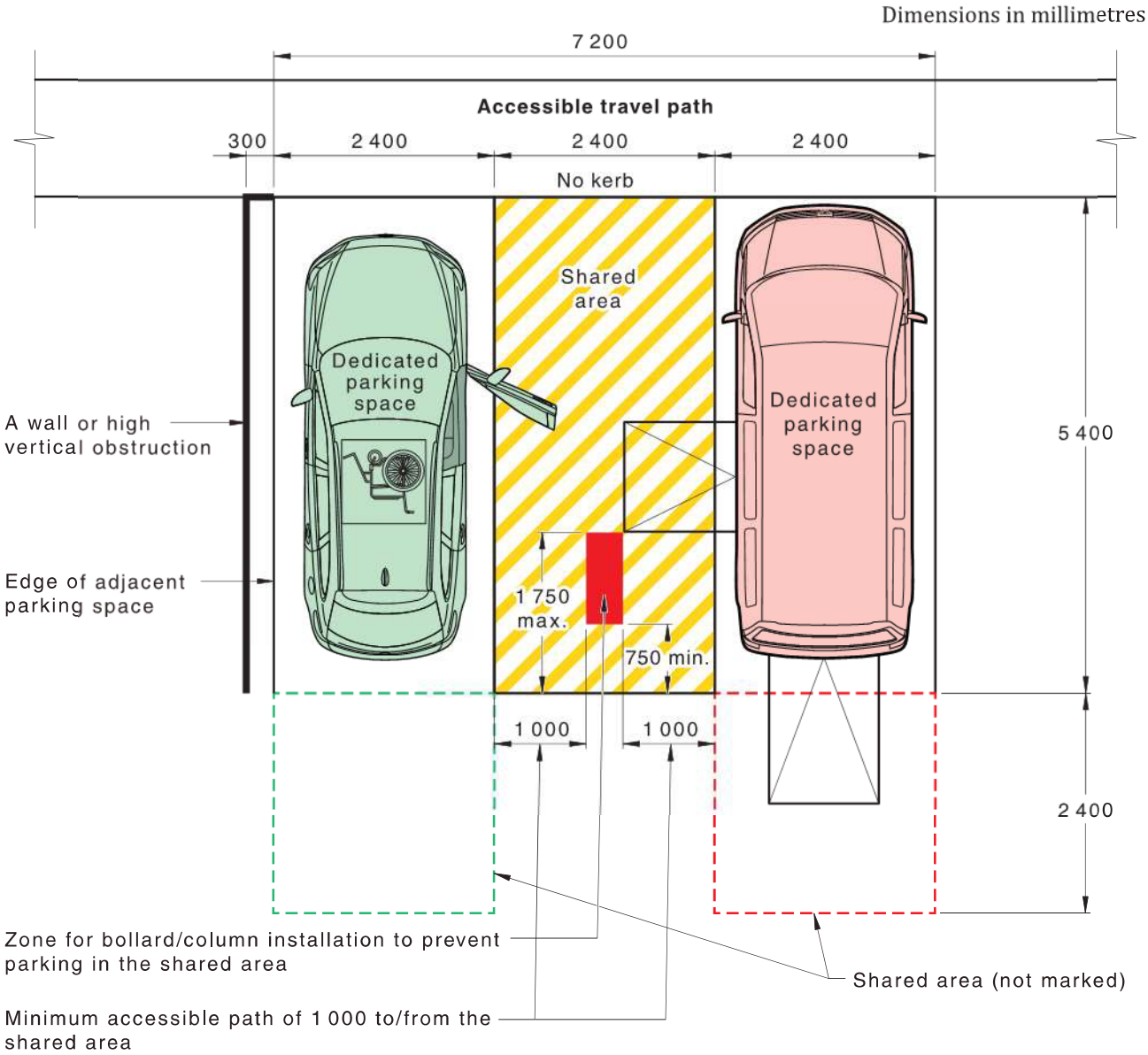
NOTE All dimensions in Figure 2.2 are minimum unless specified otherwise.

Figure 2.2 — Example of a single angle parking space with shared area on one side only



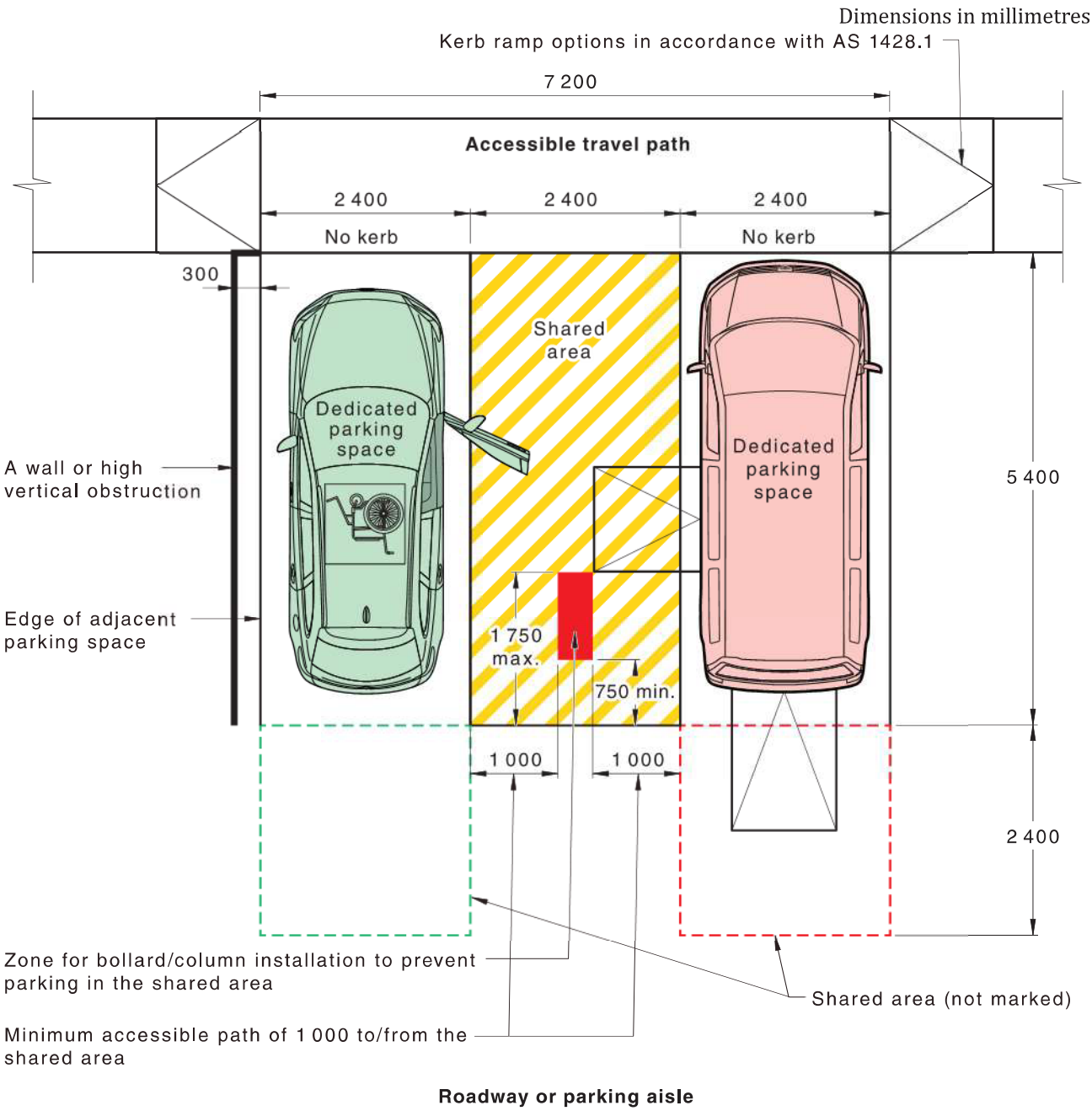
NOTE All dimensions in Figure 2.3 are minimum unless specified otherwise.

Figure 2.3 — Example of two parking spaces with a common shared area and wall



NOTE All dimensions in Figure 2.4 are minimum unless specified otherwise.

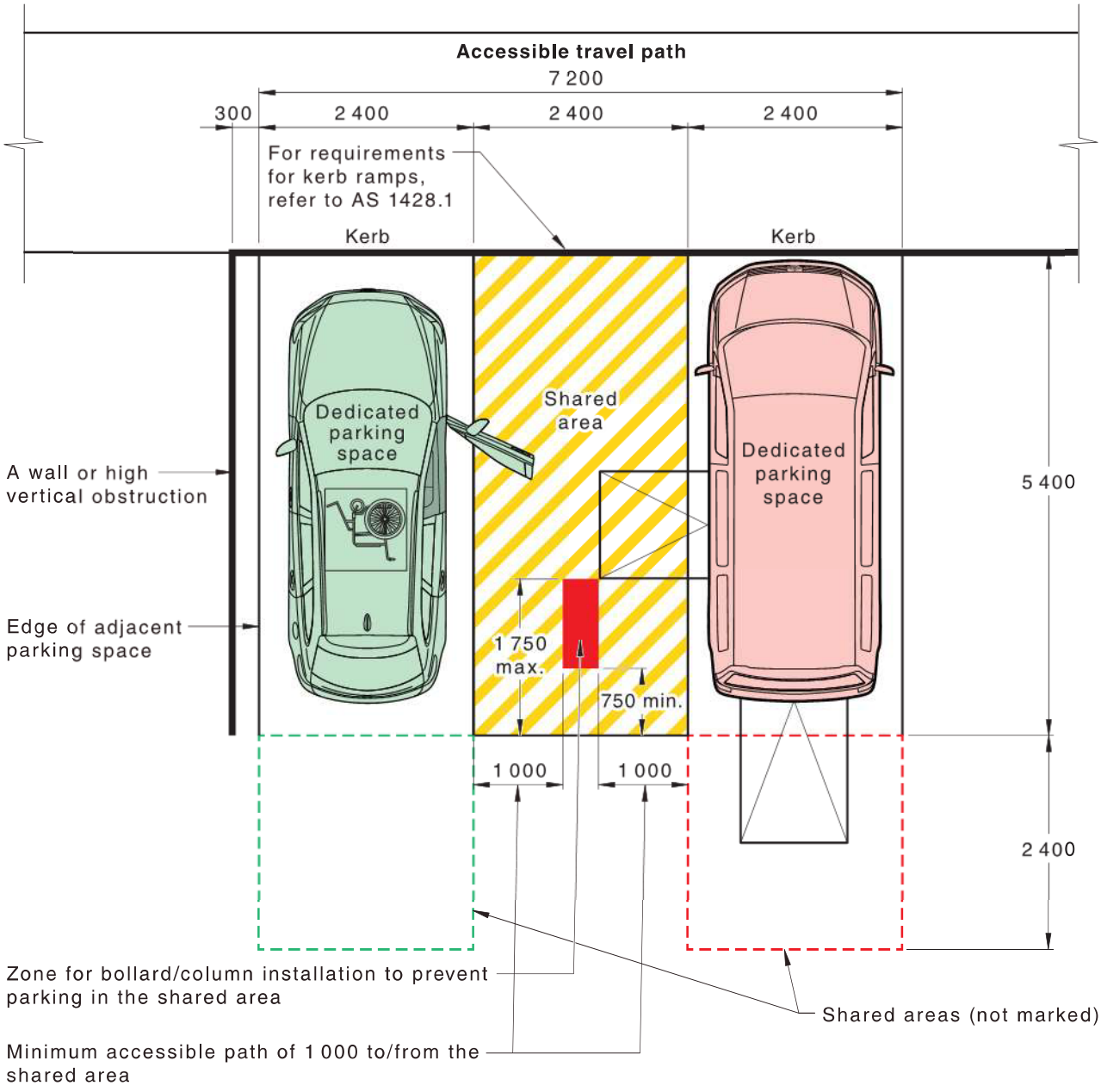
Figure 2.4 — Example of two parking spaces with a common shared area and accessible path of travel at grade with parking spaces



NOTE All dimensions in Figure 2.5 are minimum unless specified otherwise.

Figure 2.5 — Example of two parking spaces with a common shared area and in-line kerb ramps

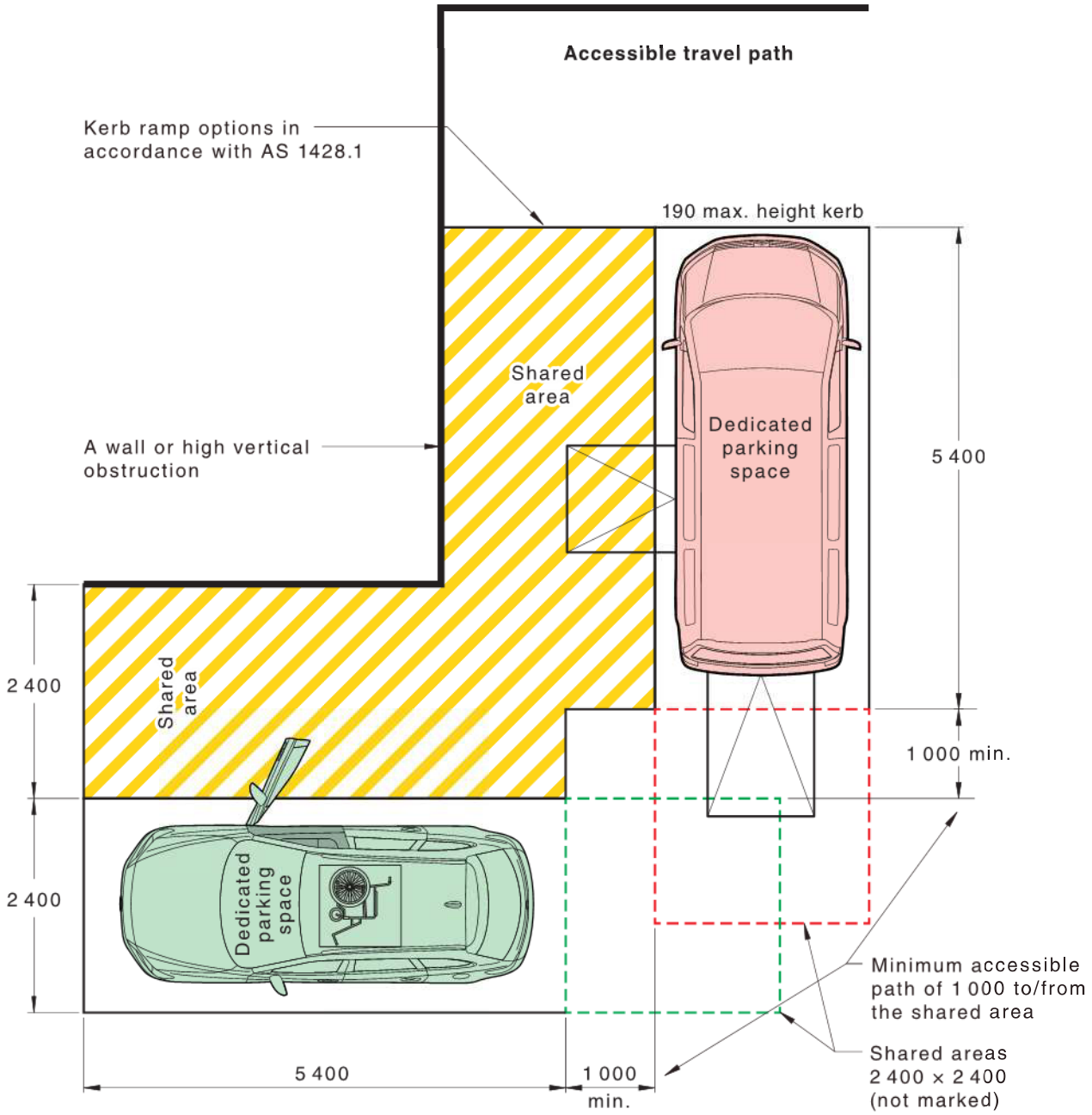
Dimensions in millimetres



NOTE All dimensions in Figure 2.6 are minimum unless specified otherwise.

Figure 2.6 — Example of two parking spaces with a common shared area and accessible path of travel with kerb ramp

Dimensions in millimetres



NOTE All dimensions in Figure 2.7 are minimum unless specified otherwise.

Figure 2.7 — Example of two parking spaces at a 90 degree angle to each other with overlapping shared areas

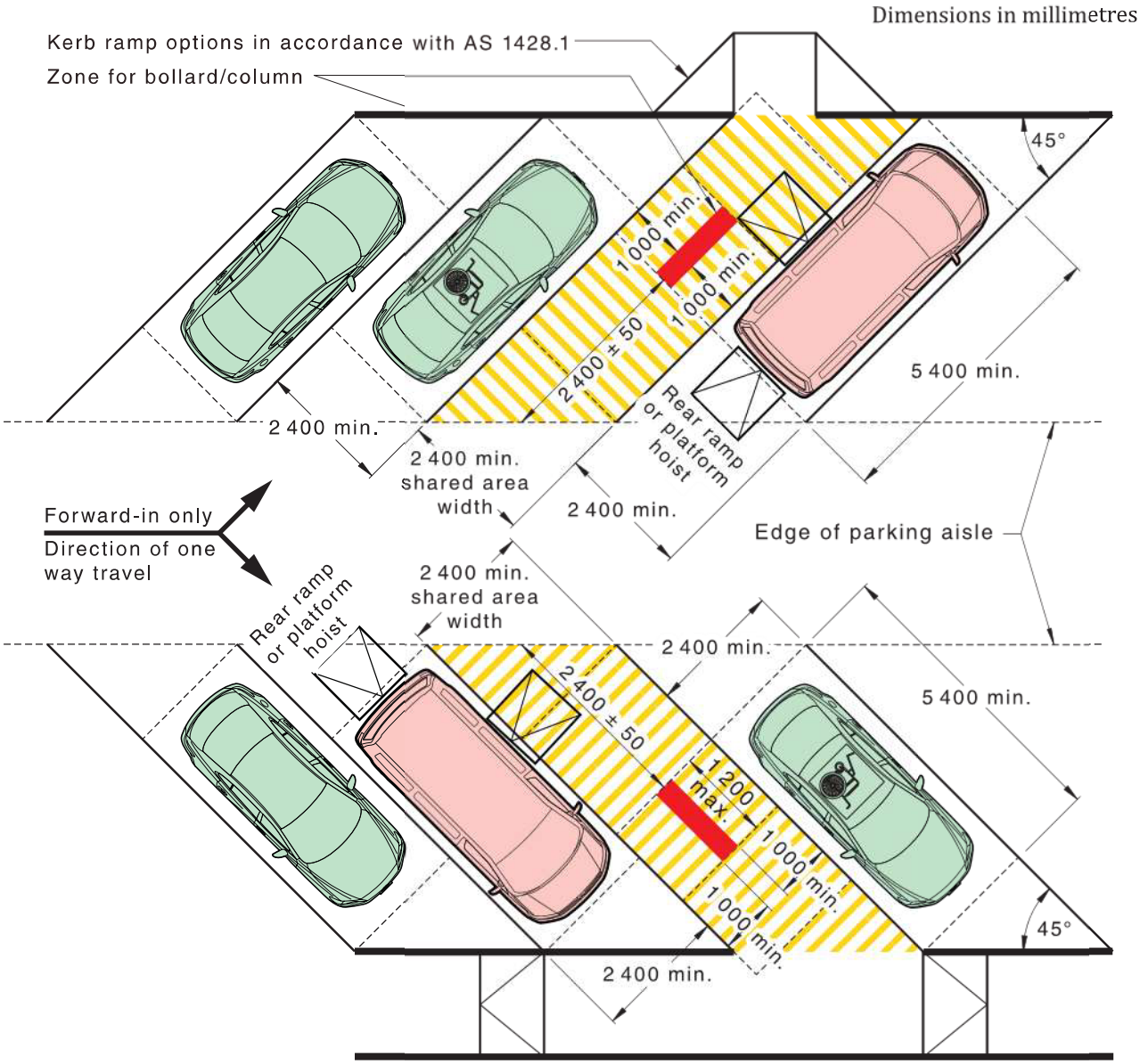


Figure 2.8 — Example of an angle parking space of 45 degrees with an adjacent shared area and a kerb ramp or an in-line kerb ramp (for parking layouts allowing forward-in parking only)

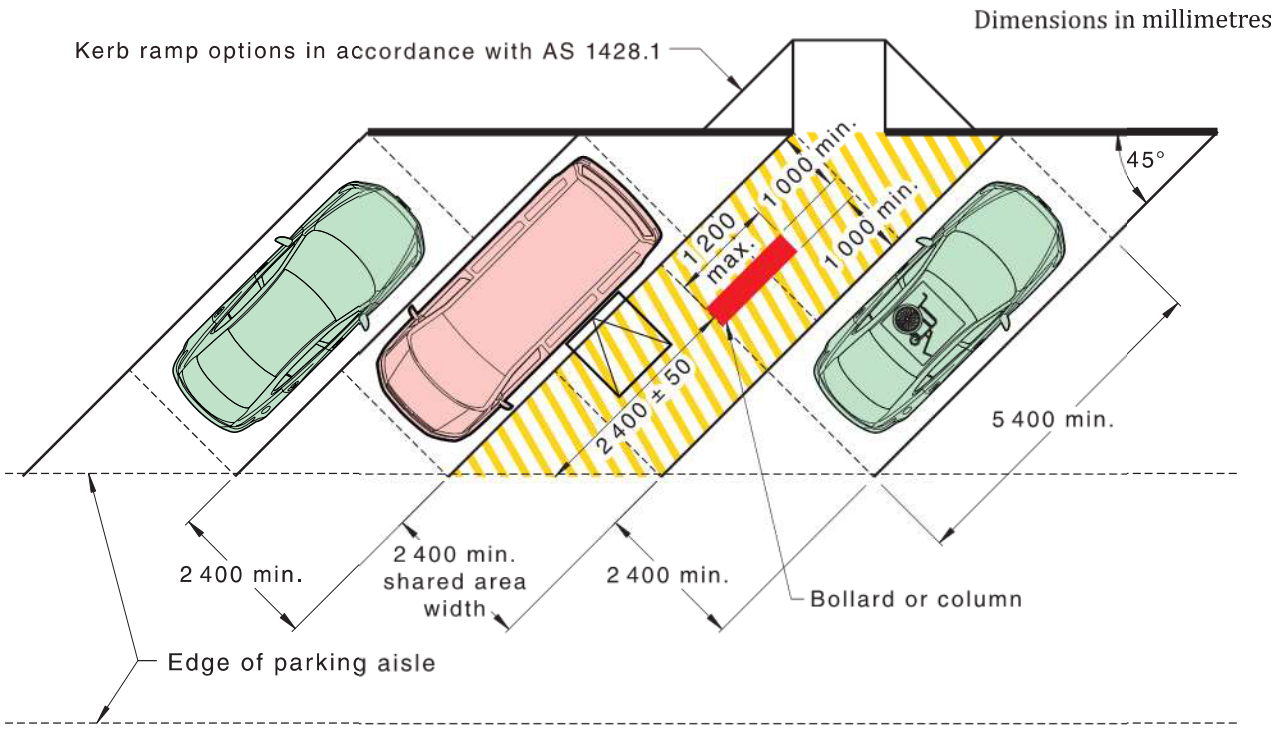


Figure 2.9 — Example of a 45 degree angle parking adjacent to a two-way parking aisle with an adjacent shared area and a kerb ramp option (for parking layouts allowing for both forward-in and reverse-in parking)

2.5.2 Parallel parking spaces

A parallel parking space shall comprise areas as illustrated in Figure 2.10 with —

(a) an accessible space that is a minimum of 3 200 mm wide × 7 800 mm long and at the same level throughout the space; and

(b) a shared area adjacent to the non-trafficked side of the accessible space that is a minimum of 1 600 mm wide × 7 800 mm long.

Where a shared area is at a higher level than the accessible space, it shall be separated by a kerb not more than 190 mm high and increased in width to accommodate kerb ramps in accordance with AS 1428.1.

NOTE Examples of parallel parking spaces are shown in Figures 2.11 and 2.12.

Dimensions in millimetres

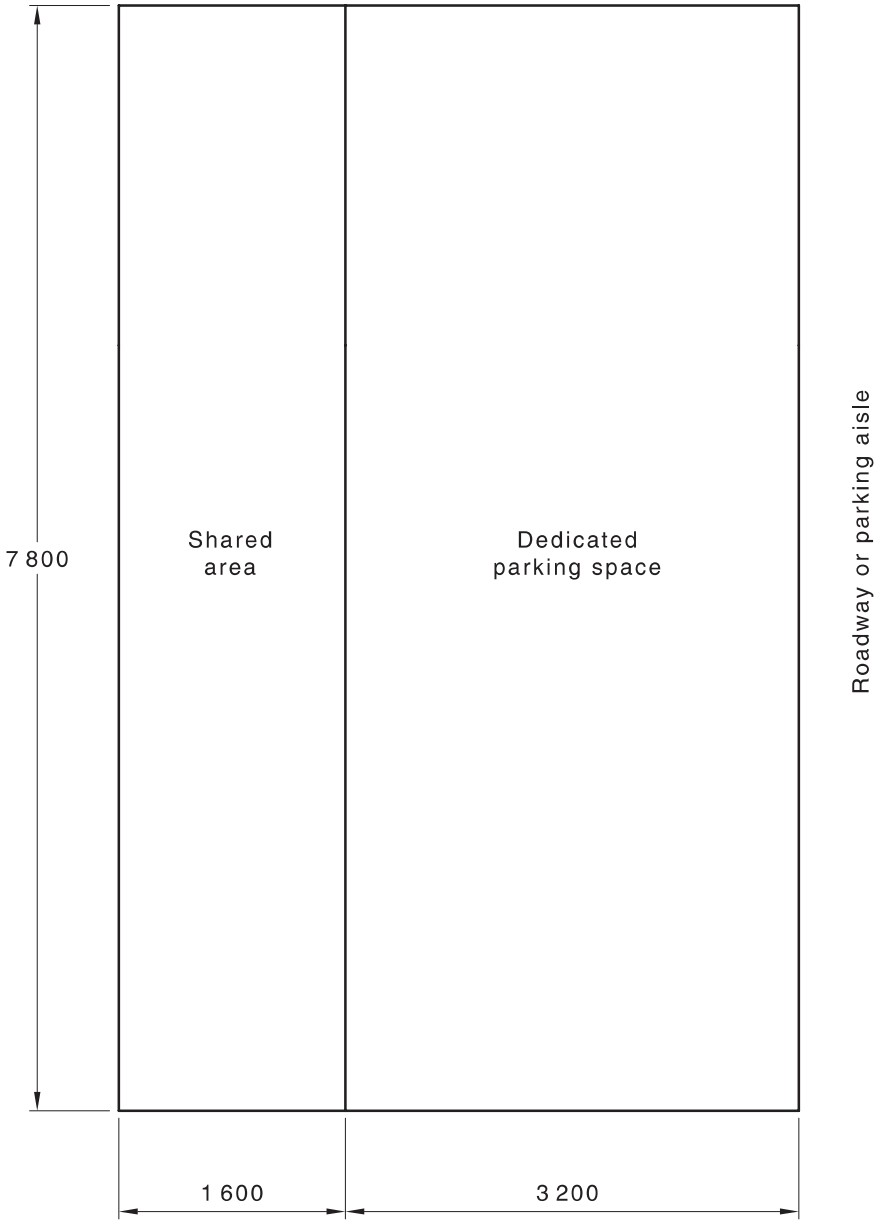


Figure 2.10 — Dimensions of parallel parking spaces

Dimensions in millimetres

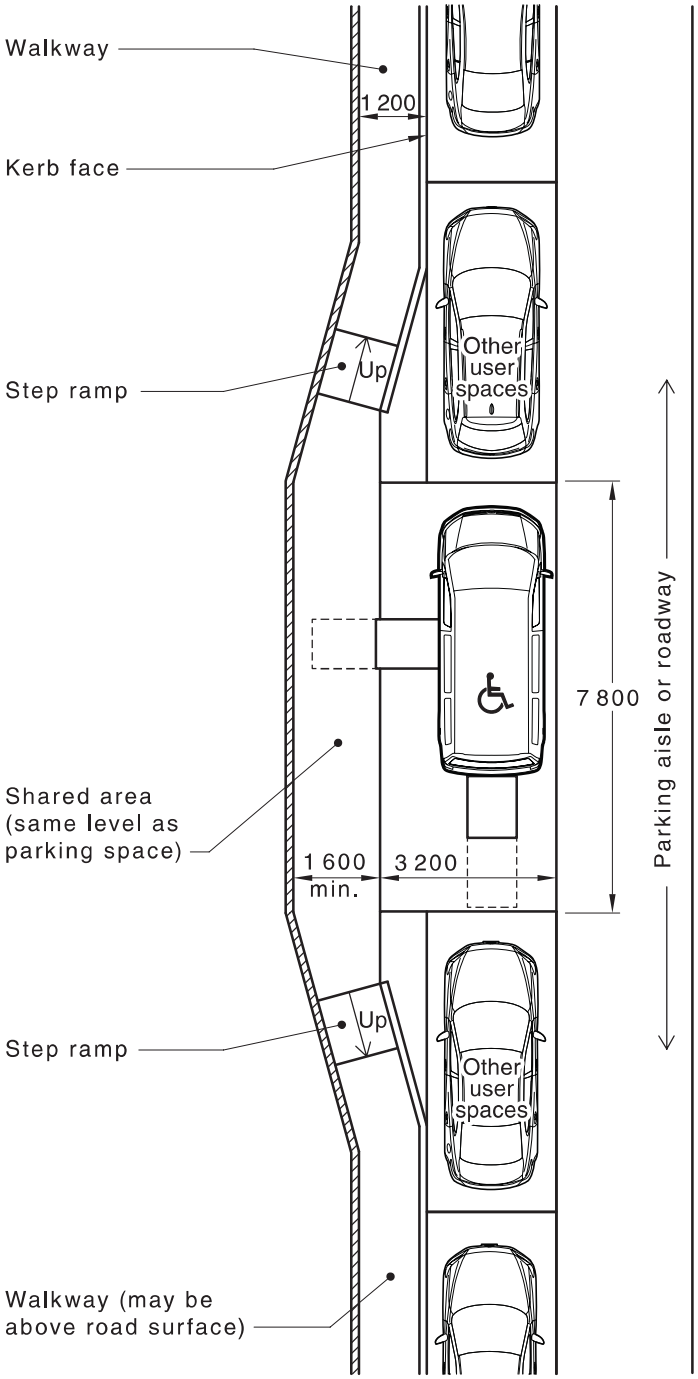


Figure 2.11 — Example of a parallel parking space with shared area at same level

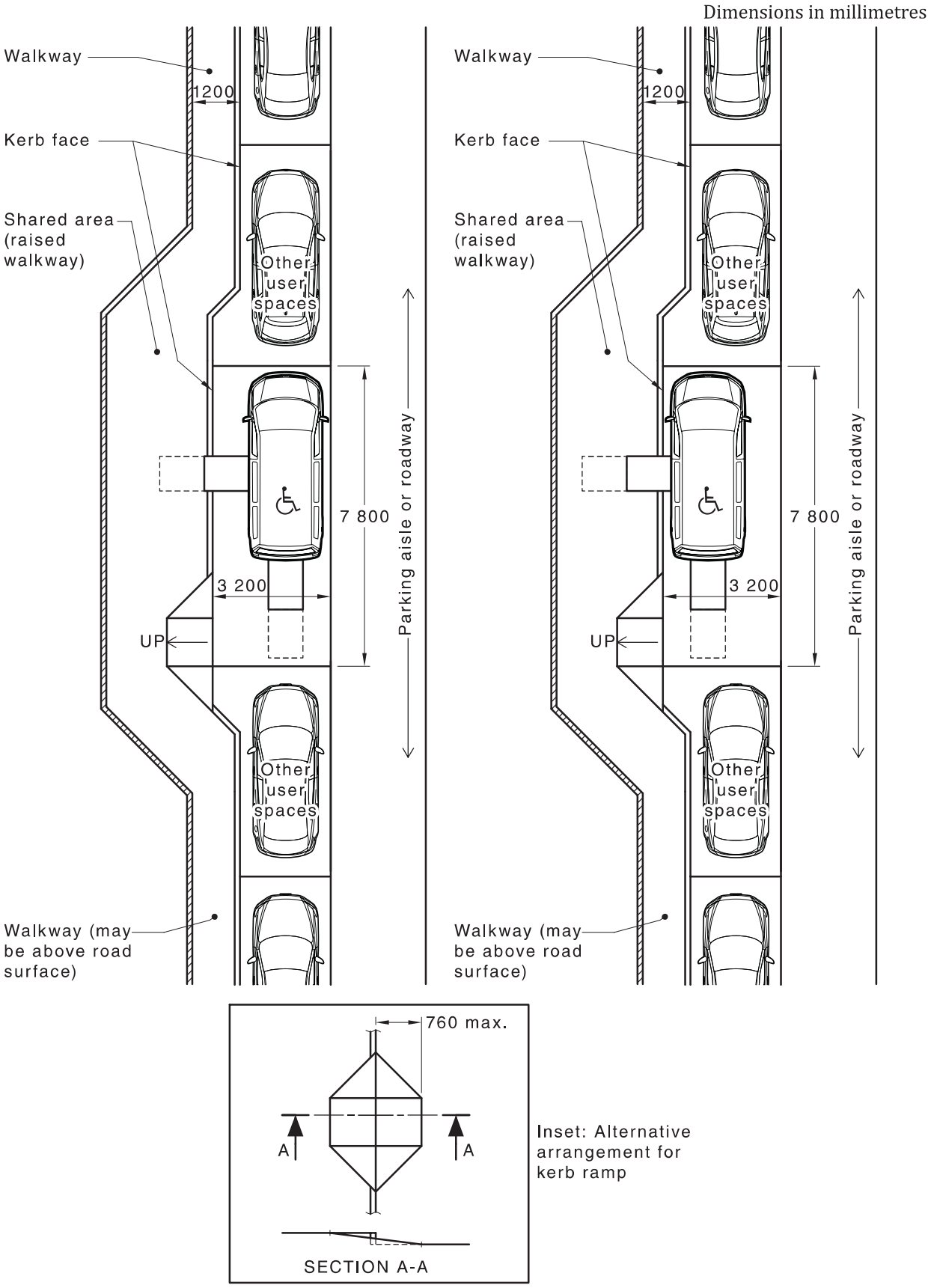


Figure 2.12 — Example of a parallel parking space with shared area raised

2.6 Pavement slope and surface

Each parking space for people with disabilities and wheelchair unloading areas shall comprise a firm plane surface with a fall not exceeding 1:40 in any direction. Where the surface is a bituminous seal and the parking space is uncovered in outdoor locations, the fall may be 1:33. Slip resistance requirements shall also apply to all pavement markings.

The surface shall be free of any elements that may present a hazard to pedestrians.

NOTE Examples of elements that may present a hazard are drainage grates, grills or lids.

These areas and the accessible path of travel shall have a slip-resistant surface with a classification of not less than that specified in Table 2.6 when tested in accordance with AS 4586.

Table 2.6 — Slip resistant surfaces classifications

Application	Classification for dry surface conditions[a]	Classification for wet surface conditions[a]
Accessible parking space, shared areas not exceeding 1:33	P3 or R10	P4 or R11
Pedestrian access ways to car park exits not exceeding 1:14	P3 or R10	P4 or R11
Pedestrian access ways to car park exits steeper than 1:14	P4 or R11	P5 or R12
[a] Slip resistance classifications as defined in AS 4586.		

2.7 Headroom

The headroom is the vertical distance from the floor level of the accessible space or shared area to any overhead obstructions. The path of vehicular travel from the car park entrance to all parking spaces for people with disabilities and from those spaces to the car park exit shall have a minimum headroom of 2 200 mm.

The headroom shall be a minimum of 2 500 mm for a minimum length of 1 900 mm in the centre of the accessible space as shown in Figure 2.13(A) and (B), for the whole width of the space. Where reduced headroom is provided at either end of an accessible space, it shall be for a maximum length of 1 750 mm from either end of an accessible space.

The headroom above the shared area shall be —

(a) a minimum of 2 500 mm for the same length as provided in the adjacent accessible parking space; and

(b) a minimum width of 800 mm from the edge of the adjacent accessible space.

NOTE 1 Where a wheelchair hoist is used, although the wheelchair is stored on the vehicle roof in a flat position, it is raised to full wheelchair height (in addition to the height of the roof rack) during the hoisting process.

NOTE 2 The method of measuring headroom is given in AS/NZS 2890.1.

Dimensions in millimetres

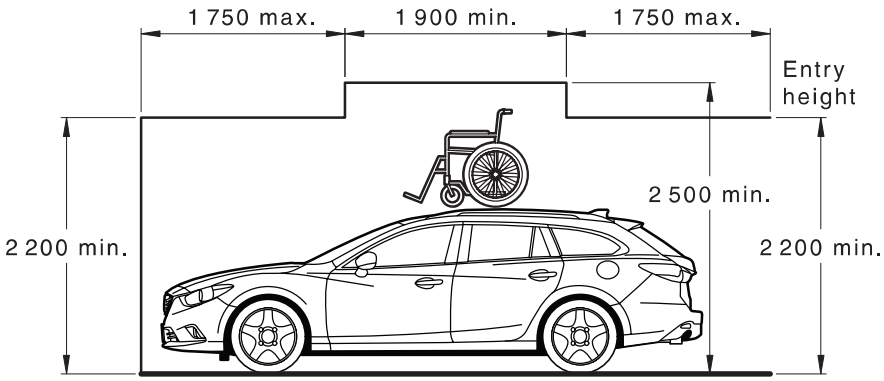


Figure 2.13(A) — Headroom required above car spaces for people with disabilities — Side on

Dimensions in millimetres

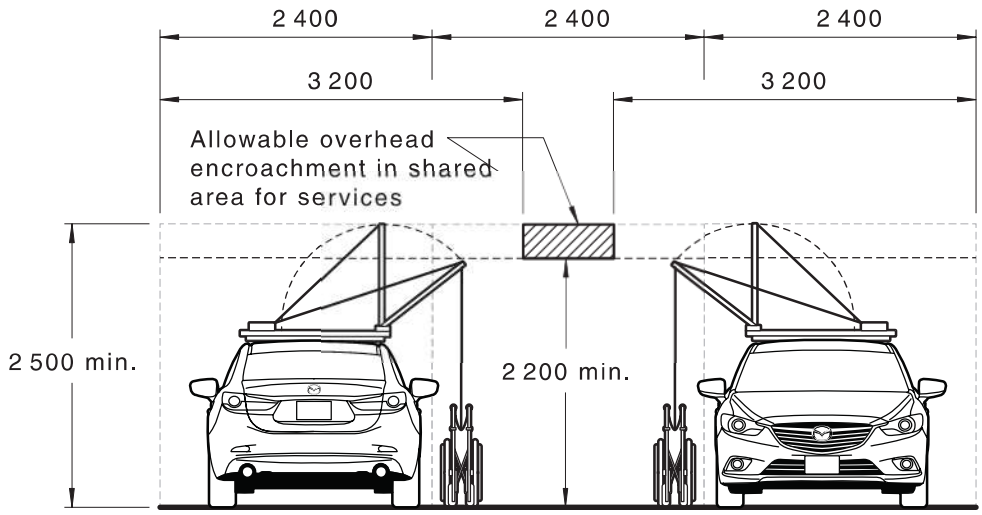


Figure 2.13(B) — Headroom required above car spaces for people with disabilities — Cross-section

2.8 Kerb ramps

Where kerb ramps are to be provided, they shall serve the shared area which is located adjacent to the parking space. Where a kerb ramp is provided within the shared area, it shall intrude no further than 1 200 mm into the shared area.

NOTE Details of kerb ramps are given in AS 1428.1.

Section 3 Space identification and delineation

3.1 Space identification

3.1.1 Non residential

Each accessible space shall be identified by means of a white symbol of access in accordance with AS 1428.1, between 800 mm and 1 000 mm high placed on a blue rectangle with no side more than 1 200 mm, and placed as a pavement marking in the centre of the space between 500 mm and 600 mm from its entry point, as illustrated in Figure 3.1.

Dimensions in millimetres

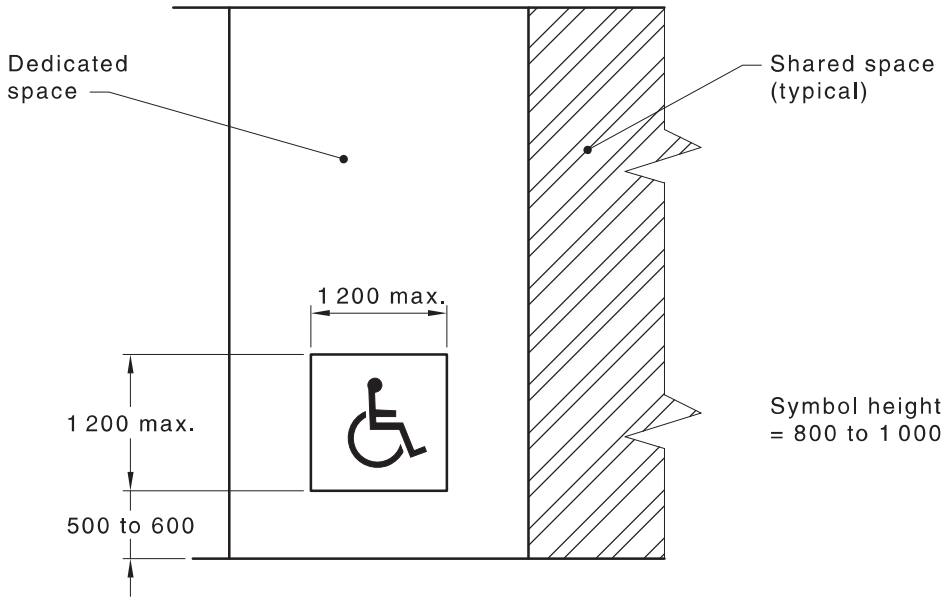


Figure 3.1 — Use of symbol of access to identify spaces

3.1.2 Residential

The requirement in Clause 3.1.1 for a symbol of access to be placed on the pavement shall not apply to any privately owned parking space for people with disabilities associated with a single residence and designed primarily for use by the occupants of that residence.

Where accessible resident parking spaces allocated to or owned by individual residences use the same shared area, then a bollard, post or column shall be installed in accordance with Clause 2.4.

The requirement in Clause 3.1.1 for space and shared area identification and a bollard shall not apply to any privately owned enclosed parking space (e.g. a garage) for people with disabilities associated with a single residence and designed primarily for use by the occupants of that residence.

3.2 Space delineation and shared area marking

3.2.1 General

Space delineation and shared area pavement markings shall be yellow and have a slip-resistant surface as specified in Table 2.6. Raised pavement markers shall not be used for space delineation.

3.2.2 Pavement markings for accessible parking spaces

Accessible parking spaces shall be outlined with unbroken lines 80 mm to 100 mm wide on the long edge of an angled parking space and the short edge of a parallel parking space (except where any side is delineated by a kerb, barrier or wall).

Where defined by line marking, all measurements shall be taken from the centre of the marked lines.

3.2.3 Pavement markings for shared areas

Walkways within or partly within a shared area shall be marked with unbroken longitudinal lines on both sides of the walkway (except where any side is delineated by a kerb, barrier or wall).

Shared areas shall be marked with unbroken lines 80 mm to 100 mm wide on all sides and marked with diagonal stripes 150 mm to 200 mm wide with spaces 200 mm to 300 mm between stripes. The stripes shall be at an angle of 45 degrees ± 10 degrees to the side of the space.

3.2.4 Pavement markings

Pavement markings shall conform to the slip resistance requirements of Clause 2.6.

Appendix A
(informative)

Commentary on provision of parking for people with disabilities

A.1 General

The purpose of this commentary is to explain the various requirements of this document for the provision of parking and related facilities for people with disabilities including how and why those requirements have been specified. Recommendations related to the signposting, safe location of spaces and provision of access-controlled entry devices are also given.

A.2 Drop-off zones

Where a drop-off or collection point is provided within a car park, allowance should be made for headroom and other space requirements to facilitate loading and unloading of accessible vehicles.

Allowance should be considered for the path of travel for vehicles taller than 2 200 mm (e.g. the Toyota Hiace Commuter van which has a height of 2 285 mm).

A.3 Provision of parking spaces

A.3.1 Basic space requirement

Parking spaces for people with disabilities need to be substantially wider and longer than other spaces in a car park to facilitate the various methods and vehicle adaptations used by people with mobility impairments.

The design of accessible spaces will need to accommodate driver or passenger transfer methods, although not simultaneously.

Typical vehicle adaptations and transfer methods are the following:

(a) Driver or passenger with a mobility impairment who uses a wheelchair will enter the vehicle from the rear of a vehicle using a ramp or platform hoist. The person may stay seated in their wheelchair or transfer into a vehicle seat depending on individual ability and vehicle adaptation.

This method needs a minimum of 2 400 mm width × 2 400 mm length of clearance at the rear of the vehicle to deploy a ramp or platform hoist and for manoeuvring a wheelchair onto and off a ramp or platform hoist. There also needs to be a continuous accessible path of travel from the transfer area to and from the building and car park entry and exit.

(b) Driver or passenger with a mobility impairment who uses a wheelchair will enter the vehicle from the side of a vehicle using a ramp or platform hoist. The person may stay seated in their wheelchair or transfer into a vehicle seat depending on individual ability and vehicle adaptation.

This method needs a minimum of 2 400mm width × 3 600 mm length of clearance at the side of the vehicle to deploy a ramp or platform hoist and for manoeuvring a wheelchair onto and off a ramp or platform hoist.

(c) Driver or passenger with a mobility impairment will make a direct transfer into the front seat of a vehicle from either a wheelchair, walking frame or similar means. Examples of transfer

methods and vehicle adaptations may include a roof-mounted wheelchair hoist, a vehicle seat that turns and projects out of the vehicle, direct transfer from their wheelchair into the seat followed by a range of systems to stow their wheelchair during transit.

This method needs a transfer area at the side of the vehicle similar to method (b) but at the front row seat of the vehicle. In addition to the transfer area, the height clearance needs to provide a minimum of 2 500 mm over the cabin area of a sedan type vehicle for a minimum length of 1 900 mm to enable a roof-mounted wheelchair hoist to open and lower the wheelchair to the floor.

Accessible spaces will also need to provide for the unloading of roof-mounted wheelchairs and large mobility aids.

A.3.2 Angle parking spaces

For the provision of angle parking spaces, this document takes the standard minimum width other-user space of 2 400 mm as an accessible space for the vehicle and adds to it a 2 400 mm wide shared area. See Clause 2.5.1 for angle parking spaces requirements.

The entire 2 400 mm wide shared area needs to be all at the same level as the accessible space.

The shared area can be shared with any other suitable use, noting that it should be accessible as specified in AS 1428.1 and free of other than transitory obstructions at all times. In a typical case, as illustrated in Figures 2.3, 2.4, 2.5, 2.6, 2.7, 2.8 and 2.9, a 2 400 mm area can be shared between two adjacent accessible spaces. Any such arrangement can be conveniently provided in a parking configuration comprising a series of 2 400 mm minimum width standard modules. Depending on which side of the vehicle the disabled user needs to alight, one or other of the vehicles may need to back into the shared area.

A similar area of length 2 400 mm should also be provided at the end of the accessible space for rear unloading/loading of a wheelchair. This can also be a shared area at the same level as the accessible space. It is commonly shared with the parking aisle as illustrated in Figures 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7.

A.3.3 Parallel parking spaces

A parallel parking space needs to be an accessible space that is a minimum of 3 200 mm wide and 7 800 mm long all at the one level, see Clause 2.5.2 and Figure 2.10.

The 3 200 mm width should be entirely accessible because a vehicle will normally have to face in one particular direction when using it and consequently will have to park hard against one edge or other of the space depending on which side the person with a disability is to alight.

An extra width of a minimum of 1 600 mm is needed for side ramp or platform hoist unloading and can either be shared on the traffic side with the roadway or on the non-traffic side with other usage space, e.g. a walkway. For parallel parking, this extra space need not be at the same level as the parking space but may be raised. Figures 2.11 and 2.12 illustrate typical layouts respectively without and with a kerb separating the accessible space and shared area. A kerb, if present, needs to be not more than 190 mm high and have kerb ramps. To accommodate kerb ramps, the width behind the kerb may need to be increased as shown in Figure 2.11.

The extra length (i.e. to provide a total space length of 7 800 mm) is needed to allow rear ramp unloading.

A.4 Signposting

Signs should be provided where necessary as follows:

(a) *Direction signs* — If the route to parking spaces for people with disabilities is not readily apparent from the vehicular entrance to the car park, direction signs comprising the international symbol of access and an arrow should be used at the entrance and at each change

of direction to direct traffic to the spaces. The symbol should point in the same direction as a left or right arrow.

(b) *Space reservation signs* — In public car parks, linear parking control signs bearing the user limitation "(Access Symbol) ONLY" should be used to formally reserve spaces for their intended use.

NOTE 1 Additional words such as "PERMIT MUST BE DISPLAYED" may be added to the signs.

NOTE 2 Linear parking control signs are shown in AS 1742.11.

A.5 Access-controlled entry

Refer to AS/NZS 2890.1 for information regarding access-controlled entry.

Bibliography

AS 1742.11, *Manual of uniform traffic control devices, Part 11: Parking controls*

AS 1906.1, *Retroreflective materials and devices for road traffic control purposes, Part 1: Retroreflective sheeting*

AS/NZS 2890.1, *Parking facilities, Part 1: Off-street car parking*

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