



# Commercial Development Guidelines

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**Created by:**

Urban Planning Department

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A handwritten signature in black ink, appearing to be 'R. H. H.', is located below the text of the approval.

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- Introduction**
1. 1.1. This guideline will be applicable to the commercial buildings to be developed in Phase 2, Hulhumalé.
  - 1.2. Developments coming under this guideline will follow the general and specific requirements to the development based on the usage.
  - 1.3. Prior drawing and construction approvals need to be obtained from this corporation before the construction of any building in Hulhumalé.
  - 1.4. Prior building permit for building use needs to be obtained from this corporation once the construction works have been completed for any such building.

- Definitions & abbreviations**
2. 2.1. MHLUD: Ministry of Housing, Land and Urban Development
  - 2.2. EIA: Environmental Impact Assessment
  - 2.3. GPON: Gigabit Passive Optical Network which is used to deliver broadband access to buildings.
  - 2.4. HPA: Health Protection Agency
  - 2.5. MNDF: Maldives National Defense Force
  - 2.6. SQFT: Square feet
  - 2.7. PWD: People with disabilities
  - 2.8. MWSC: Male' Water and Sewerage Company
  - 2.9. Building: A constructed dwelling that is not movable/portable within a given plot, and one that is finished using different materials and is constructed to a certain standard that is acceptable to HDC



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## CHAPTER 1

### GENERAL REQUIREMENTS

#### **Planning approvals**

3. 3.1. Concept-level drawings (site plan showing the surrounding context, floor plans, conceptual sections and elevations) and spatial layout, showing the overall classifications and requirements of the development, must be submitted to this corporation for comments before proceeding to the final architectural and structural drawings.
- 3.2. The final architectural and structural drawings shall be stamped by a local architectural and structural checker registered as a professional in relevant authorities.
- 3.3. A detailed breakdown with the list of spaces and the area allocated for the spaces must be provided at each submission stage.
- 3.4. Before the construction, all the related approvals for the purpose must be obtained from This corporation.
- 3.5. The permit to use the building will be issued after the construction works, followed by an inspection of the development.

#### **Building height, F.S.I and setback plan**

4. 4.1. Building setback plan, allowable maximum height and F.S.I will be provided in the guideline drawings.



4.2. F.S.I is calculated as:

$$\text{Floor Space Index (F.S.I)} = \frac{\text{Gross floor area}}{\text{Plot Area}}$$

4.3. The following spaces will be excluded from GFA:

4.3.1. Basement parking

4.3.2. Terrace communal open areas

4.3.3. Ramp dedicated to parking

4.3.4. Open voids

4.3.5. Service ducts

4.3.6. Lift void

4.3.7. Stair void of the top floor

4.4. Building Height is subjective to the plot location, area of the plot, and land usage. (Please refer to the guideline drawings for maximum height, footprint, and gross floor area)

4.5. Minimum height between finished floor levels to slab soffit in any habitable space should be 2.7 meters.

4.6. No part of the building such as roof eaves, gutters, door/window panels, etc. should be projected beyond the building setback line.

4.7. The setback area at ground level can be utilized for circulation but should not be covered above at any level.

4.8. An additional 4 meters height from the terrace slab is allowed for a lift machine room.

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**Foundation depth**

- 5.1. The structural engineer of the development will decide the foundation depth for each building.
- 5.2. The foundation protection method should be submitted with the final detailed drawings.
- 5.3. The foundation system shall be approved by the relevant government entity and submitted with detailed drawings if:
  - 5.3.1 The building height exceeds 37m from the natural ground level; OR
  - 5.3.2 The structure’s foundation is deeper than 2m below the natural ground level.

**Services**

- 6.1. Consultation is to be done at the concept level with service providers of electricity, plumbing, and sewerage, as to how these could be economically and sustainably incorporated into the development.
- 6.2. Any space required by the relevant service provider for the installation or provision of a supporting facility (transformer, pump rooms, storage tanks, service stations, etc.) should be provided well within the given area for the development.
- 6.3. Dedicated utility space at ground floor level should be provided for the provision and/or installation of relevant services as required.
- 6.4. The water quality should comply with the standards set forth by the Health Protection Agency (HPA) if proposed to use a private water supply.
- 6.5. An approved firefighting layout for the development should be obtained from Maldives National Defense Force (MNDF) Fire and Rescue Services.



- 6.6. The discharge of foul water should be to a sewer network approved by the relevant service provider.
- 6.7. The layout of each utility network within the development should generally be in accordance with the established practice of the relevant service provider.
- 6.8. The building should accommodate sufficient vehicle parking (both motorcycle and car parking), security post and a service area which is easily accessible by service providers. Developer may choose to have half basement level or first floor parking in order to cater for its users.
- 6.9. Electrical and such provisions should be done to give connection to air conditioning easily within the development.
- 6.10. If a café or a restaurant is proposed within the development, all requirements set forth by the Food & Drug Authority relating to food storage/preparation/service and disposal should be adhered to.
- 6.11. A Waste Management Room must be provided within the development.
- 6.12. The Waste Management Room must be provided in accordance with any laws, guidelines, or regulations implemented by the Utilities Regulatory Authority, Waste Management Corporation, or any of the other regulatory bodies mandated with the regulation of Solid Waste Management/Collection within the Greater Male' Area.





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- 6.13. Waste management zones must be planned to guarantee waste separation. Waste Management Rooms must be constructed to prevent cross-contamination of waste and must adhere to the segregation act.
- 6.14. A waste management plan is to be developed along with the waste management authority to minimize public intrusion and ease of access
- 6.15. Any telecom-related infrastructure/ equipment can be installed on the buildings with prior approval from this corporation
- 6.16. A minimum space of 8 sqft should be allocated within the equipment/server room for this corporation’s equipment rack

**Access and circulation**

**7.**

- 7.1. Ground floor level should accommodate sufficient vehicle parking (both motorcycle and car parking), security post and a service area which is easily accessible by service providers. Developer may choose to have half basement level or first floor parking in order to cater for its users.
- 7.2. Frontage of the site and pedestrian & vehicular access ways into the site should be designed & constructed by the developer. This includes but is not limited to the pathways, lighting, softscapes, hardscapes & urban furniture.
- 7.3. All circulation routes and entrances should be well defined and well lit. The entrance should be highlighted as well and should be welcoming for walk-in entrances



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- 7.4. An adequate number of elevators should be provided along with an elevator traffic analysis report justifying the number of elevators.
- 7.5. At least one elevator must be fire rated and must be able to accommodate a stretcher.
- 7.6. An adequate number of staircases should be proposed based on the MNDF fire protection guidelines.
- 7.7. Routes for pedestrians should be marked off, and illumination should be adequate.
- 7.8. Disability access should be integrated at all pedestrian and vehicular drop-off/pick-up points.
- 7.9. If shared pathways (for vehicles and pedestrians) are to be provided within the development, appropriate markings should be used to indicate pedestrian prominence over vehicles.
- 7.10. Any corridor or walkway should have a minimum width of 1250mm.
- 7.11. When stepped access is necessary, especially at ground level, the stairs should be made to accommodate wheelchair users or physically disabled people.
- 7.12. Any slope provided for vehicular access should be between 1:8 to 1:12 and with a firm and even surface.
- 7.13. Any slope provided for pedestrian/PWD access should be between 1:12 to 1:20 with railings and a firm & even surface.
- 7.14. There must be egress facilities for the building's occupant load on each floor.



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- 7.15. Vehicular pathways within the plot should be designed safely, with minimum interruption to both pedestrian pathways and green verges within the plot and during ingress and egress
- 7.16. Use scored, colored, textured, and/or similar paving that is distinguishable from the travel lane at the drop-off area.
- 7.17. All loading/unloading must be accommodated for from the rear side of the building
- 7.18. Illuminate all outdoor parking areas with illumination towards the paved areas only and not into any adjacent buildings.
- 7.19. Wherever parking is provided appropriate floor paint marking must be given.
- 7.20. Car parking size: 2.4m x 4.8m (100mm line thickness). Give an additional 300mm for the width of parking at every end.
- 7.21. Motorbike parking size: 2m x 1m (100mm line thickness)
- 7.22. Car parking spaces for people with disability: 3.4m x 4.8m with an adjacent minimum 2.4 m wide shared space for wheelchair transfers. (100mm line thickness)
- 7.23. Motorbike parking spaces for people with disability: 2m x 1.5m (100mm line thickness)
- 7.24. Motorbike parking spaces for people with disability: 2m x 1.5m (100mm line thickness)



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**Structural  
and civil  
works**

- 8.**
- 8.1. The structural design must be done in accordance with British standards or any superseded European standard (Eurocode). The developer must include a local registered engineer during the design process and should get the drawings stamped by an accredited structural checker.
  - 8.2. Necessary standards for construction to ensure the quality of workmanship and site safety during construction should be followed
  - 8.3. At the concept stage as a deliverable, the developer should propose a structural system/material as well as the proposed methodology brief with the above-mentioned standards
  - 8.4. At the concept stage as a deliverable, the developer should propose a structural system/material as well as the proposed methodology brief with the above-mentioned standards



**CHAPTER 2****SPECIFIC REQUIREMENTS**

- Land usage**
- 9.**
- 9.1. This allocated land plot is for the construction of a commercial retail building, with ground and upper floors to be used for retail purposes, and parking to be provided on ground floor and basement.
- 9.2. The supporting facilities that will be included are:
- a) Café
  - b) Restaurant
  - c) Recreation space
  - d) Office space (within 10% of building's total GFA)
  - e) Loading/Unloading
  - f) Utility services
  - g) Maintenance and store rooms
  - h) Waste collection area
- 9.3. In case of any other commercial use, approvals need to be obtained from HDC in written format before the commencement of work.
- 9.4. Following is prohibited uses within this development:
- a) Residential use
  - b) Any industrial use, any use involving the use of combustible materials, any use that disturbs the public due to loud noises, smell or dust-generating activities, building go downs, etc.
- Boundary wall**
- 10.**
- 10.1. Boundary walls are not allowed to be built on the commercial front to encourage urban interaction at street level and to provide urban interaction.



10.2. If required the developer may choose to demarcate the plot boundary with a natural green verge.

**Parking**

**11.** 11.1. Please refer to the Annex 1 and Annex 2 for the parking requirements for the parking building.

**Universal/  
PWD  
Access**

**12.** 12.1. The entrance should be a safe transit point to go between internal and external spaces, as well as within the internal spaces, for people with limited mobility and wheelchair uses.

12.3. Male, female, and a universal PWD toilet must be provided at the development on all floors to be used by visitors and staff

12.4. PWD toilets should have a minimum turning diameter of 1.5m and an outward opening door with clear access of minimum 900mm.

12.5. Ensure that all aspects of the building comply with the Maldives Disability Act

**Developm  
ent  
Requirem  
ents**

**13.** 13.1. The building must be designed so that it does not infringe upon the privacy of the surrounding residential plots. Windows must not be placed on sides of the building facing residential developments.

13.2. It is encouraged for the building to be aesthetically designed consisting different elements of sustainability.

13.3. The services are to be screened away from public view and should not be a hindrance to the aesthetics of the development



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- 13.4. Design methods to provide both aspects of natural lighting & ventilation should be taken into consideration when designing
- 13.5. Vehicular access for loading and unloading will be given from the main pathway at specified times.

**Note:** *In addition to the aforementioned requirements, refer to the guideline drawings issued by this corporation with details specific to the allocated development.*



## ANNEX 1 – Parking Standards

**DEFINITIONS &  
ABBREVIATIONS**

1. 1.1. **PWD:** Person with Disabilities.
- 1.2. **QP:** Qualified Person. (Architect, Civil Engineer, Urban Planner)
- 1.3. **Accessway:** A driveway that provides access to the parking place, without any adjacent parking lots.
- 1.4. **Clearway Ramps:** Inclined floors that provide access between two levels, but without any parking lots adjacent to them.
- 1.5. **Inside lane of curve:** The innermost lane, nearest to the centre point of curve.
- 1.6. **Inside radius of lane of curved accessway and driveway:** The distance measured from the inside curve edge to the centre point of the curve.
- 1.7. **Multi-lane:** Where more than one vehicle can pass through at any given time and there is no physical separation/divider, such as curbs, railings, parapets or walls, between the lanes.
- 1.8. **Maximum gradient:** The steepest gradient of ramp measured along the centre line of the lane.
- 1.9. **Outside lane of curve:** Any lane positioned after the innermost lane
- 1.10. **Parking Lot:** The space for parking of one vehicle. The parking lot should be rectangular, with the longer side known as length and the shorter side is the width. In parallel parking, the





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longer side is parallel to the parking aisle or driveway.

- 1.11. **Parking aisle:** An access lane or driveway with adjacent parking lots.
- 1.12. **Parking angle:** The angle measured between the longer side of the parking lot and the line of traffic flow of the aisle.
- 1.13. **Parking ramps:** Inclined floors that provide access to adjacent parking lots. These are sloping aisles with parking lots adjacent to them.
- 1.14. **Single-lane:** A lane where only one vehicle can pass through at any given time.
- 1.15. **Traffic Flow:** The direction of vehicle movement

**CAR PARKING**

- 2. 2.1. The Rules in Hulhumale allow for a range-based parking provision for developments throughout the island. Number of parking lots should not exceed +/- 10% from this guideline.
- 2.2. Within this range, developers may propose a parking provision that meets their needs without the need for additional approval.

**MOTORBIKE PARKING**

- 3. 3.1. Developers in Hulhumale are required to provide dedicated parking for motor-cycle within their developments. Parking should not be allowed on walkways and carriageways.
- 3.2. This requirement helps to ensure that motorcycles are parked in designated areas and do not cause obstruction to pedestrians or traffic.



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3.3. Building owners are also encouraged to allow dispatch riders to park temporarily at their loading/unloading bays to facilitate delivery by motorcycles. This initiative aims to make delivery processes more efficient and convenient for both riders and building owners.

**LOADING AND UNLOADING**

**4.** 4.1. Loading Bays, Coach and Other Heavy Vehicle Parking Facilities:

4.1.1 The Parking Places (Provision of Parking Places and Parking Lots) Rules in Hulhumale stipulate requirements for loading bays, coach, bus, and lorry parking for different types of developments such as office, retail, hotel, school, industrial, and warehouse uses.

4.1.2. Arrangement should be made for loading and un-loading for residential plots with commercial activities, in a way that does not block or hinder road movement, traffic and pedestrian paths. This initiative aims to make the delivery processes more efficient and convenient for both residents and delivery drivers.

**COMPUTATION FOR THE NUMBER OF PARKING LOTS REQUIRED**

**5.** 5.1. The parking provision standards outlined in Annex 2 are used to determine the number of parking lots required for a development in Hulhumale.



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**REVIEW OF  
PARKING  
PROVISION**

- 5.2. The calculation for the number of required parking lots for the lower and upper bound is to be rounded to the nearest integer.
- 5.3. It is essential to note that rounding off is done for each use before adding up to obtain the total requirement for the development.
- 6. 6.1. Developers and designers are required to comply with the parking standards within the development boundary. However, this corporation has the discretion to review the parking provision for a development below the lower bound if they are convinced that it is technically and physically impossible to make full parking provision. In such cases, the QP and the developer must demonstrate that the deficiency would not result in illegal or indiscriminate parking.
- 6.2. For provision of parking lots above the upper bound, the developer must provide justifications for the overprovision. Information such as the nature of business, staff population, visitor-ship, parking/travel demand management measures, traffic and parking impact study, etc. must be submitted for evaluation.



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**PARKING  
LAYOUTS AND  
DIMENSIONS**

7. 7.1. The Parking Places (Provision of Parking Places and Parking Lots) Rules mandate the adherence to minimum parking layout dimensions for various types of vehicles such as cars, heavy vehicles, motorcycles, and bicycles. It is the responsibility of QPs to ensure that all geometric dimensions are met when designing a parking place.
- 7.2. Additionally, QPs are required to provide parking dimensions that exceed the minimum requirements to cater to the actual parking needs of the development.
- 7.3. When designing a parking place, QPs must consider the presence of columns, ducts, services, and other factors that may affect the standard parking dimensions.
- 7.4. These items must be clearly indicated on the plans and must not impede the minimum dimensions stipulated in the Rules in a completed or constructed parking place.
- 7.5. Furthermore, QPs are advised to consider the best practices outlined in Chapter 4 during the design and implementation of the parking place.



**CAR PARKING PLACES**

8. 8.1. The minimum dimensions required for a car parking lot are as follows:

<b>Parking Lot Dimensions</b>	<b>Minimum Requirements</b>
Width	2.3 meters
Length	5.0 meters
Length for Parallel Parking	5.4 meters

8.2. Additionally, the area of each lot should be flat and free from any obstructions such as kerbs or other encumbrances. It is important to comply with these minimum dimensions to ensure adequate space for vehicles to park and manoeuvre safely.

The minimum dimensions of car parking lots with adjacent obstructions is as shown in **Figure 1.0**.

13.2.1. Lot A: without any obstruction within Obstruction Free Zone

13.2.2. Lot B: with obstruction on both sides

13.2.3. Lot C: with obstruction on one side

8.3. In cases where an object or obstruction is located within the middle of a parking lot's length, the lot must be widened. If the obstruction is on one side, the minimum lot width required is 2700mm. If the obstruction is on both sides, the minimum lot width required is 3000mm. An obstruction is



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defined as any large element 175mm above finished floor level, such as columns, walls, or ducts.

- 8.4. Compliance with these minimum dimensions is crucial to ensure that vehicles can park and manoeuvre safely without any obstructions.

A figure of the parking lots with adjacent obstructions & minimum headroom clearance can be seen as in **Figure 1.1 and 1.2** respectively.

- 8.5. To parallel park a car, there are specific minimum length requirements for the parking lot. These requirements depend on whether the lot is adjacent to any obstructions. If the parking lot is clear of any obstructions, then the minimum length needed for parallel parking is 7.2 meters.
- 8.6. However, if the lot is next to an obstruction like a wall or another parked car, then the minimum length needed for parallel parking is reduced to 6.0 meters.
- 8.7. It is important for drivers to be aware of these requirements to ensure they have enough space to safely park their vehicle without causing any damage to their own car or other vehicles nearby.



Figure showing minimum dimensions of parallel parking lots can be seen as shown in **Figure 1.3**.

- 8.8. This extra space allows for drivers to manoeuvre their vehicles in and out of the parking spaces without blocking neighbouring spaces or causing any damage to their cars.

The plan showing increase in width of perpendicular lots can be seen as shown in **Figure 1.4, 2.5 and 1.6**.

- 8.9. Additionally, this gap can improve accessibility for disabled motorbike drivers who require more space to enter and exit their vehicles. By taking into consideration these recommendations, parking lot designers can create a safer and more accommodating environment for all users.

(Refer to **Figures 1.7 – 1.18**)

- 8.10. Minimum of 2.5% parking spaces in any parking place should be specified for PWD parking.

## **MOTORBIKE PARKING PLACES**

9. 9.1. Developers must ensure that their developments include designated areas for motor-cycle parking.
- 9.2. These parking areas should be located at corners or any available space within the parking



premises, and it is advisable to separate them from car parking areas.

- 9.3. These motor-cycle parking lots should not impede the movement of other vehicles and pedestrians. If they are situated adjacent to car parking spaces, a clearance of 500mm should be maintained between them.

<b>Parking Lot Dimensions</b>	<b>Minimum Requirements</b>
Width	0.85 meters
Length	2.0 meters
Length for Parallel Parking	2.2 meters
Access-way (Single Lane)	1.2 meters
Access-way (Double Lane)	2.4 meters

The minimum dimension of car parking lots with adjacent obstructions can be seen as shown in **Figures 1.19 – 1.22.**

**BICYCLE PARKING SPACES**

- 10. 10.1. Bicycle parking lots shall be should be located at spots that are visible and convenient. While allocating bicycle parking lots, any cycling paths in the vicinity should be taken into consideration.
- 10.2. In any case there are constraints to consolidate all bicycle parking lots in one location, it is acceptable to propose more than one bicycle location within a development. It is a minimum





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requirement to have 10 bicycle lots within a development.

- 10.3. Bicycle parking and car parking should be segregated, in cases where possible. The route cyclist take to reach the bicycle parking lots shall avoid vehicular ramps and driveways.
- 10.4. A bicycle parking rack shall be provided for each bicycle parking lots and must be anchored to the ground so as to allow cyclists to lock the bicycles. The rack should be strong enough to support the bicycle upright by its frame.

For high density parking, double-tier bicycle racks can be used.

The Figures for bicycle parking dimensions are as shown in **Figures 1.23 – 1.25.**

**MARKING OF PARKING LOTS**

- 11. 11.1. In order to ensure efficient use of space and safety for all drivers, it is essential to have clear demarcation lines in parking lots.
- 11.2. These lines serve as a visual guide for drivers to park their vehicles within the designated area and in the center of the parking spot.
- 11.3. Without clear demarcation lines, drivers may park too close to another vehicle or encroach on other



parking spots, leading to unnecessary inconvenience and potential accidents.

The Figure for Parking lot marking is as shown in **Figures 1.26 – 1.28.**

- 11.4. When drivers encounter a bend or corner within a two-way driveway, it is important that they remain within their designated lane to avoid collisions and ensure the safety of all drivers.
- 11.5. One effective strategy is to include a continuous white line on the road surface, which helps to clearly demarcate the boundaries of each lane.
- 11.6. Additionally, QPs can use chevron markings, which are triangular symbols painted on the road surface that point in the direction of the turn.
- 11.7. These markings serve as a visual cue to remind drivers to stay in their lane and follow the curvature of the roadway.
- 11.8. By incorporating both continuous white lines and chevron markings, QPs can create a clear and intuitive visual guide for drivers to follow when navigating turns and bends within a two-way driveway.
- 11.9. This can help to reduce the risk of accidents and promote safer driving practices

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Figures for corner road marking are shown in **Figures 1.29–1.33.**

**BEST  
PRACTICES**

**12.** 12.1. Provide Clear Information:

12.1.1 To prevent drivers from becoming disoriented in a parking area, it is crucial to provide clear directions through adequate signage and road markings.

12.1.2 Chevron markings, guiding lines, and different coloured or textured paving stones can be utilized to guide drivers and their vehicles in specific directions.

12.1.3 Directional information should be prominently displayed at the entrances and throughout the parking facility to aid in traffic flow and proper use of parking spaces.

12.1.4 Signage within parking facilities should consist of a coordinated system of signs and graphics, offering directional information and a professional appearance.

12.1.5 This includes parking availability signs at the entrance of car parks and on each parking level, which assist drivers in making informed decisions about where to park.



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12.1.6 By implementing clear signage and road markings within parking areas, drivers can navigate through the space safely and efficiently, leading to a more positive parking experience for all.

12.1.7 No-entry signs at the end of one-way aisles could aid in the reduction on movement in the wrong direction.

12.1.8 If parking is available for visitors this should be displayed clearly at the entrances of parking areas as shown in **Figure 2.1**.

12.1.9 Directional arrows, markings on the floor surfaces and walls/columns aids motorists to pause and make decisions before moving off.

12.1.10 Height clearance signs serve to inform drivers of the presence of height restrictions in a car park. A clearance bar could also be suspended at the entrance, so that any tall vehicle or vehicles with protruding objects can reverse out of the car park. An example of this shown in **Figure 3.2 & 3.3**.

**VEHICLE  
CONFLICT WITH  
OTHER USERS**

**13.** 13.1. Vehicle Conflict with Other Users:

13.1.1 An essential aspect to consider in the design of parking facilities is the



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intersection of movements between vehicles, cyclists, and pedestrians.

13.1.2 To mitigate potential conflicts and enhance safety, it is beneficial to separate these user groups through the development of designated paths or walkways. This separation minimizes exposure to risk and accounts for the varying speeds and vulnerabilities of different user groups.

13.1.3 In the parking network design, efforts should be made to reduce conflict between drivers and pedestrian/cyclist movements. Circulation roads and driveways should prioritize vehicular traffic, minimizing pedestrian and cyclist movement along these areas. Moreover, special attention should be given to areas with high pedestrian flow to reduce the flow of vehicles and ensure the safety of pedestrians.

13.1.4 To ensure safe interactions at driveways, it is crucial to provide adequate sight distance for drivers. This can be achieved by incorporating "clear sight distance triangles" or splay corners for exiting driveways, allowing drivers to have



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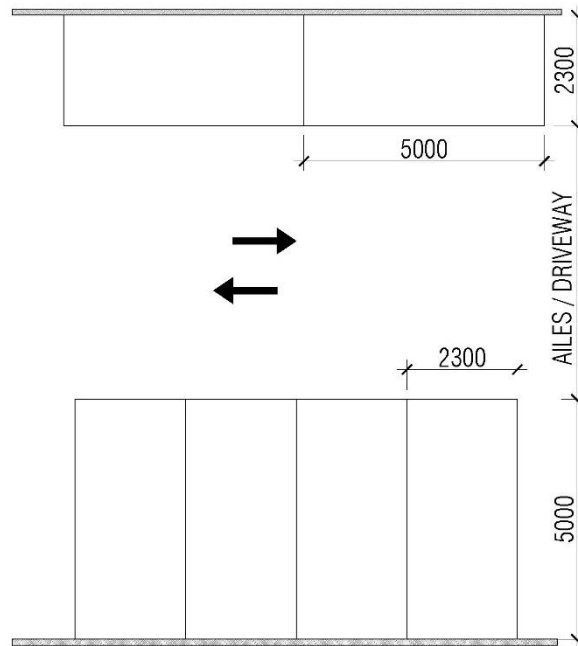
sufficient line of sight to spot approaching pedestrians and vice versa. To maintain clear visibility, no obstructions such as signs or walls should be erected within these sight distance triangles. Alternatively, convex mirrors can be strategically placed at sharp building edges and blind spot areas to enhance safety measures.

13.1.5 By implementing these measures, development proposals can create parking facilities that prioritize safety, minimize conflicts, and foster a harmonious coexistence between drivers, cyclists, and pedestrians. This approach aligns with the Code of Practice on Vehicle Parking Provision and enhances the overall functionality and safety of the parking areas.

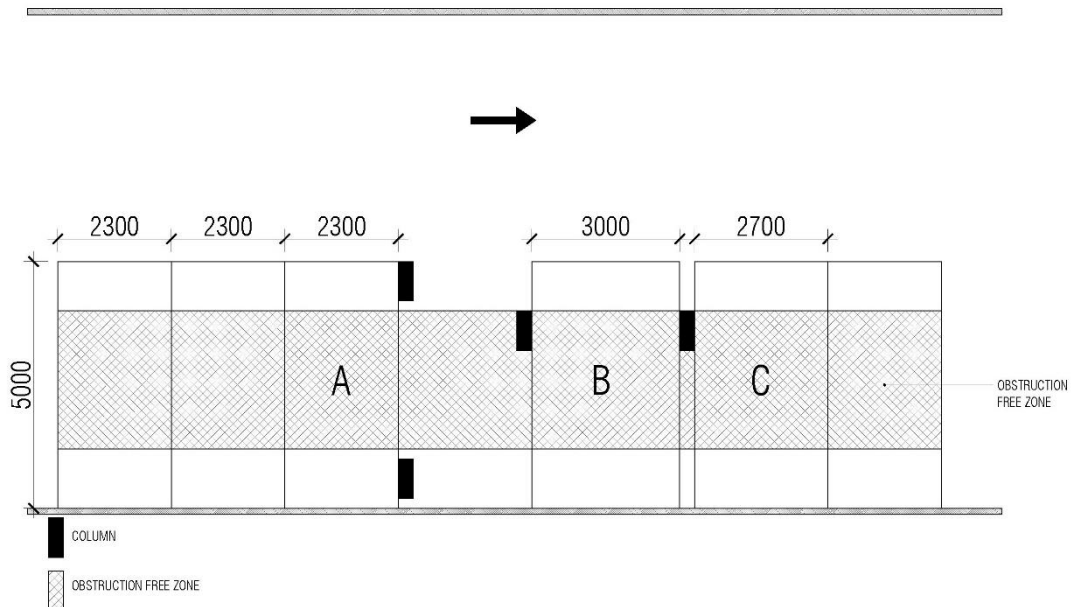
Examples are shown in **Figures 3.4 & 3.5**



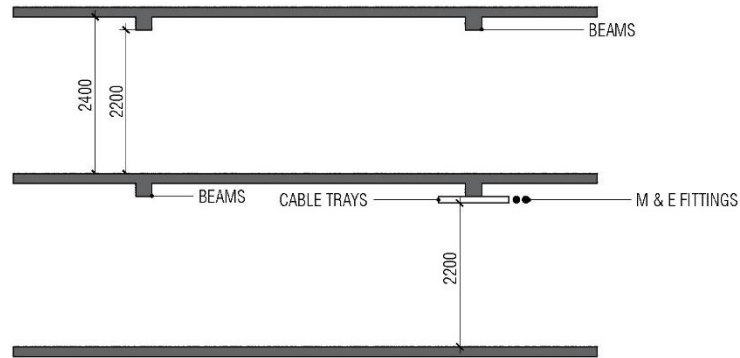
**Figure. 1.0** Minimum dimensions for car parking



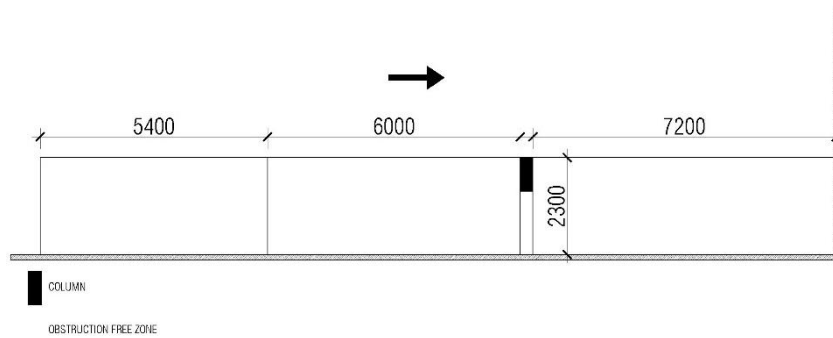
**Figure. 1.1** Parking lots with adjacent obstructions



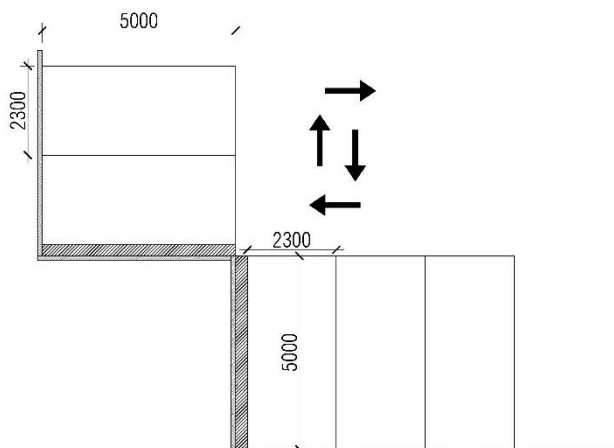
**Figure. 1.2** Minimum headroom clearance



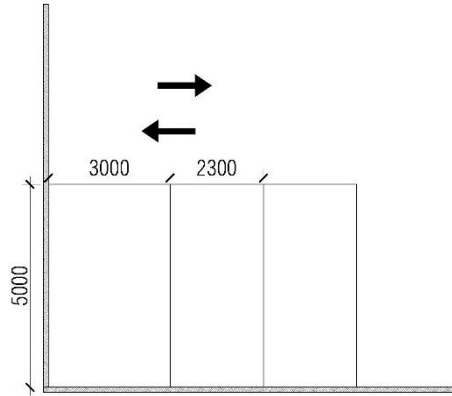
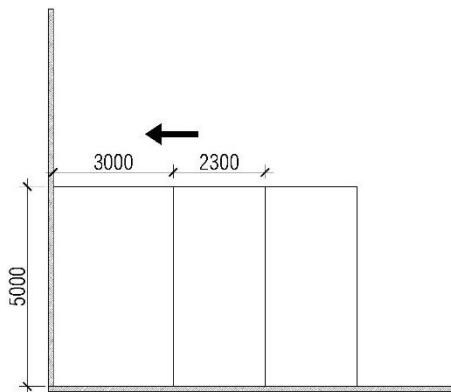
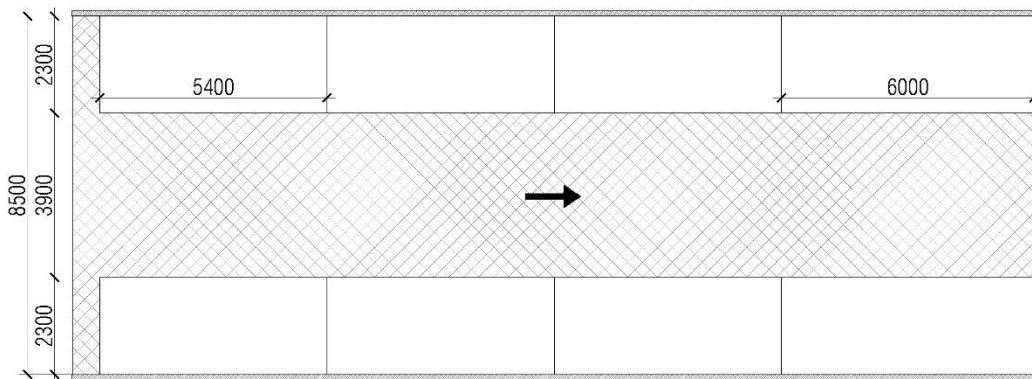
**Figure. 1.3** Width of Parallel parking lots



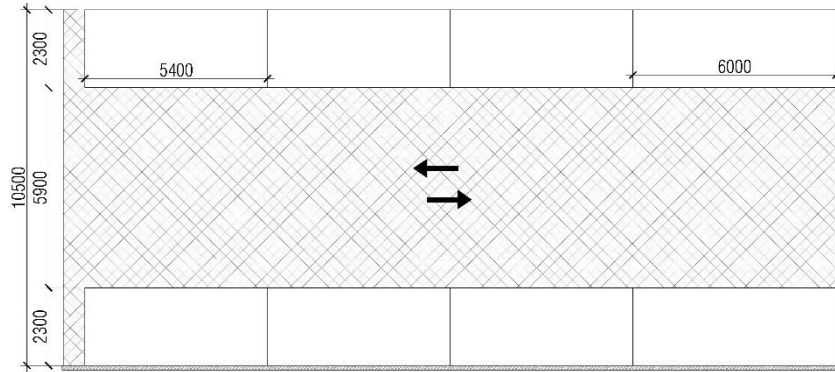
**Figure. 1.4** Plan showing increase in width of perpendicular lots



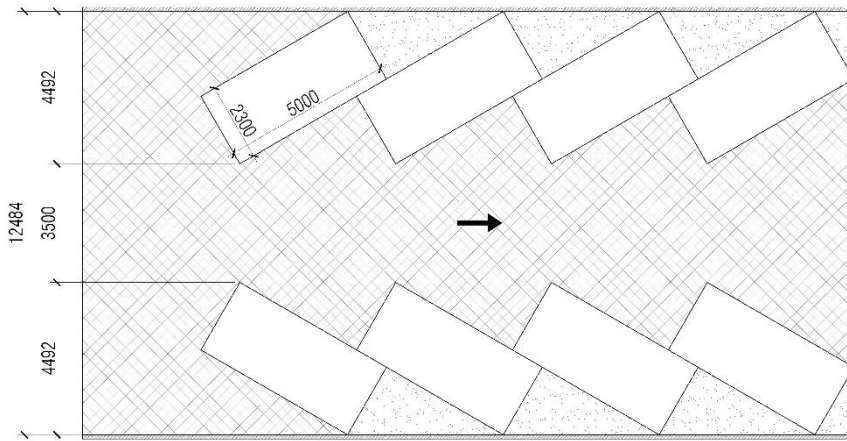


**Figure. 1.5** Increase width of end-lot two way**Figure. 1.6** Increase width of end-lot one way**Figure. 1.7** parallel parking dimensions one-way

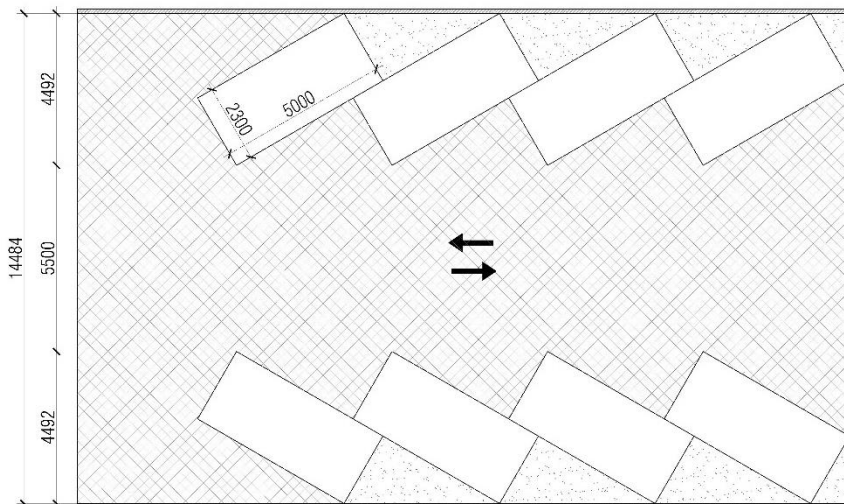
**Figure. 1.8** Parallel parking dimensions two-way

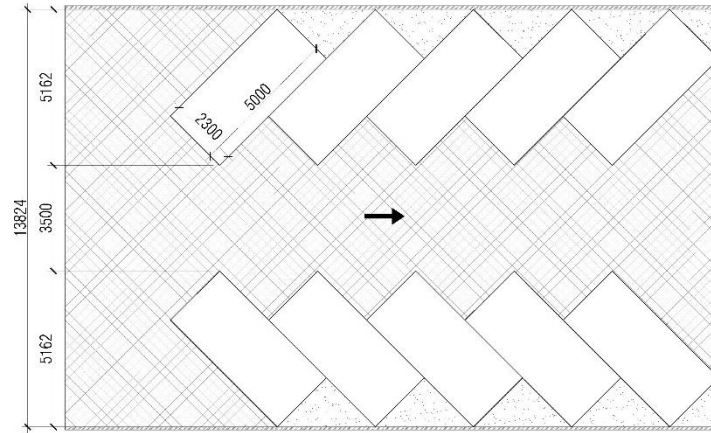
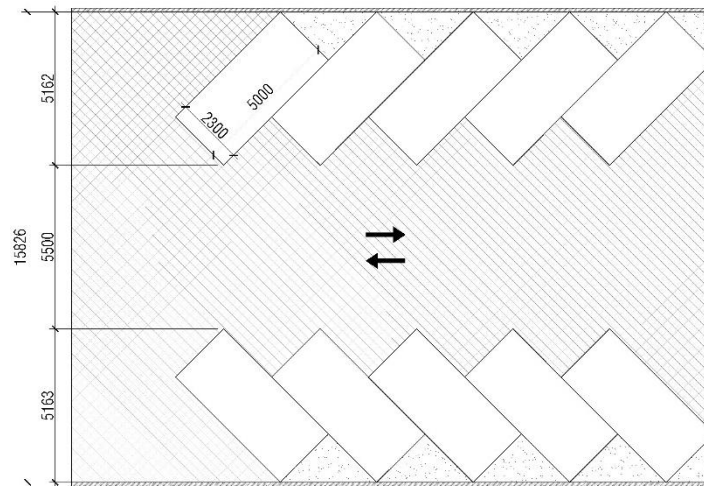
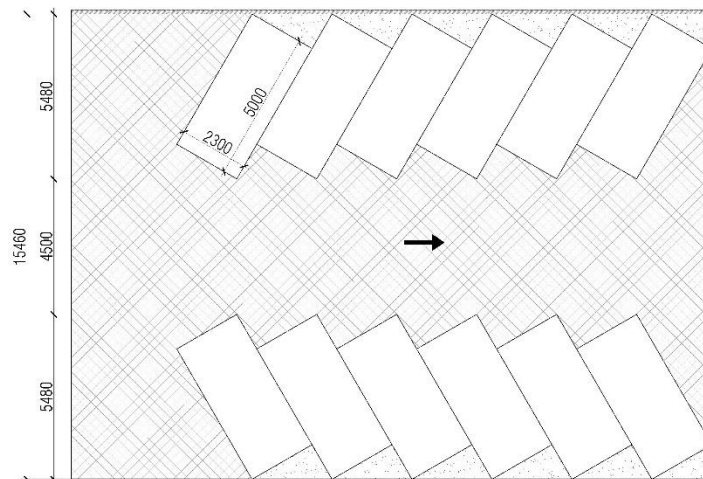


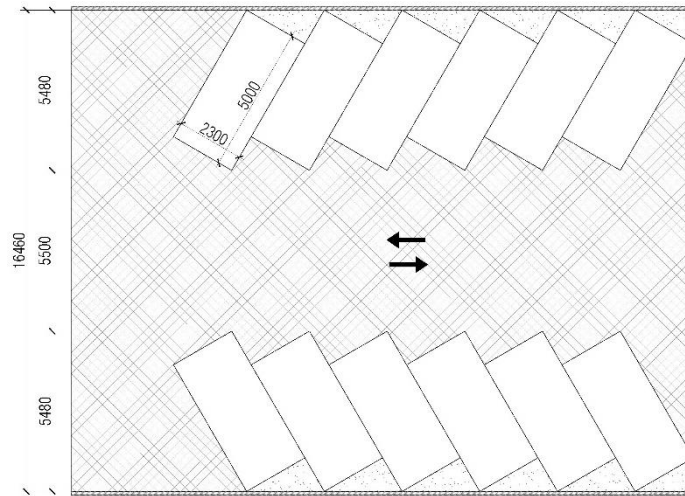
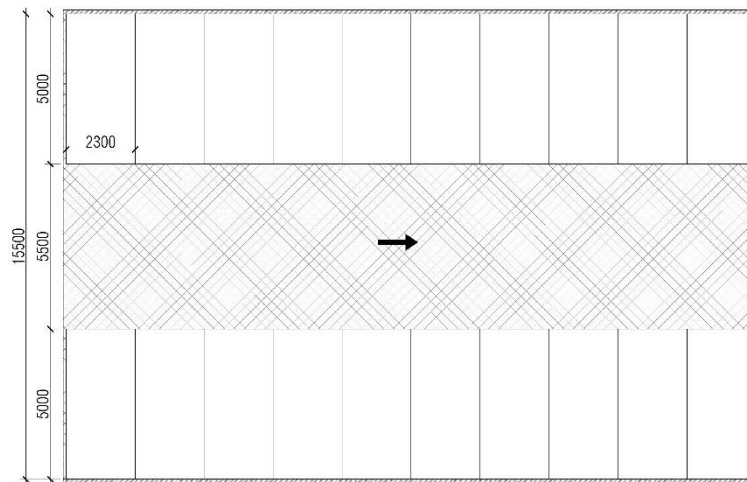
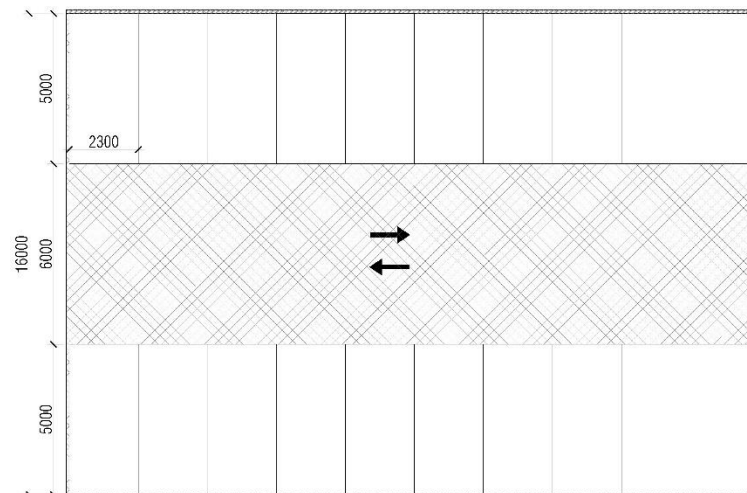
**Figure. 1.9** 30° angled parking one-way



**Figure. 1.10** 30° angled parking two-way

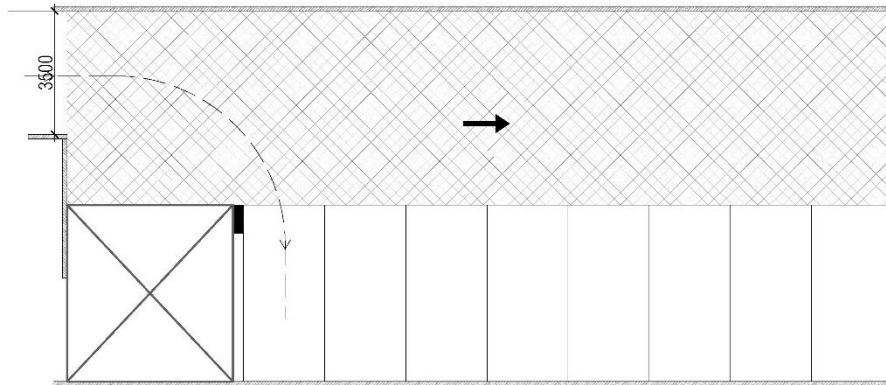


**Figure. 1.11** 45° angled parking one-way**Figure. 1.12** 45° angled parking two-way**Figure. 1.13** 60° angled parking one-way

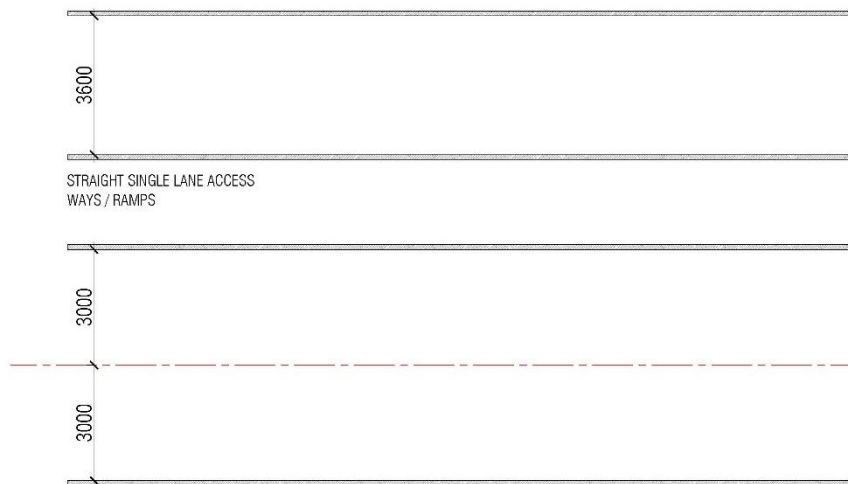
**Figure. 1.14** 60° angled parking two-way**Figure. 1.15** 90° angled parking one-way**Figure. 1.16** 90° angled parking two-way

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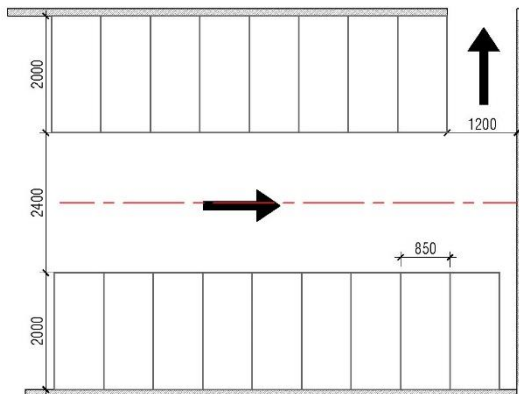
**Figure. 1.17** Extent of parking aisle



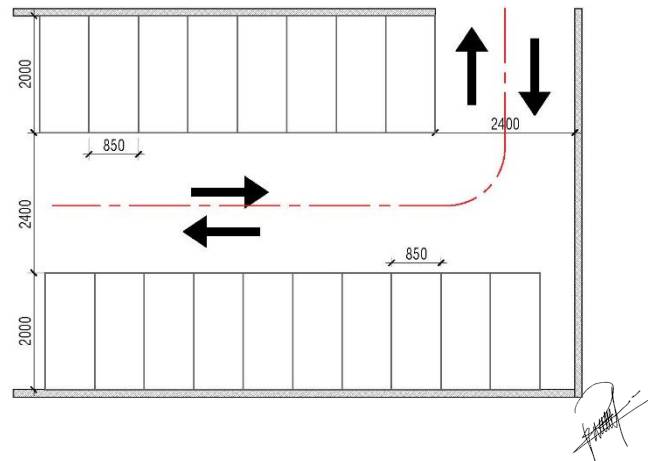
**Figure. 1.18** Extent of parking aisle



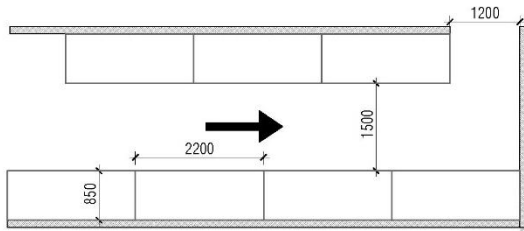
**Figure. 1.19** Minimum dimensions for 90° motorbike parking one-way



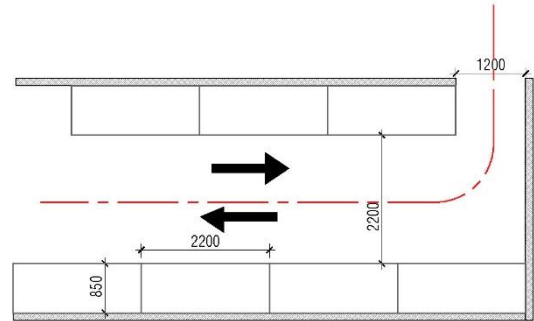
**Figure. 1.20** Minimum dimensions for 90° motorbike parking two-way



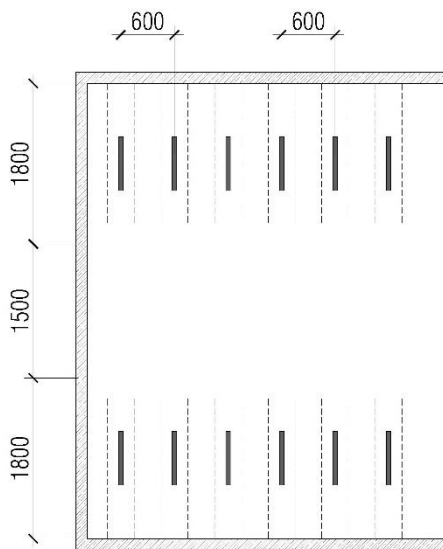
**Figure. 1.21** Minimum dimensions for parallel motorbike parking one-way



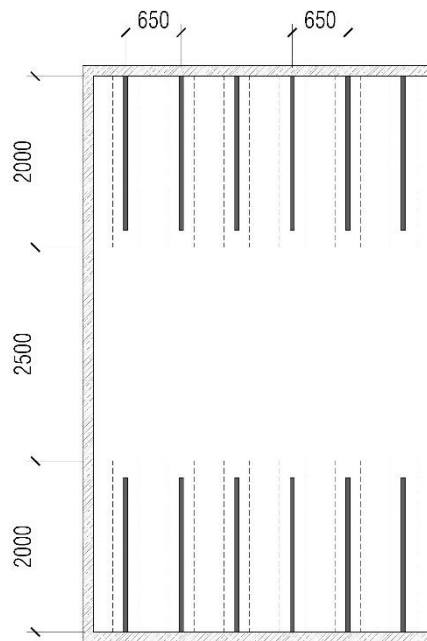
**Figure. 1.22** Minimum dimensions for parallel motorbike parking two-way



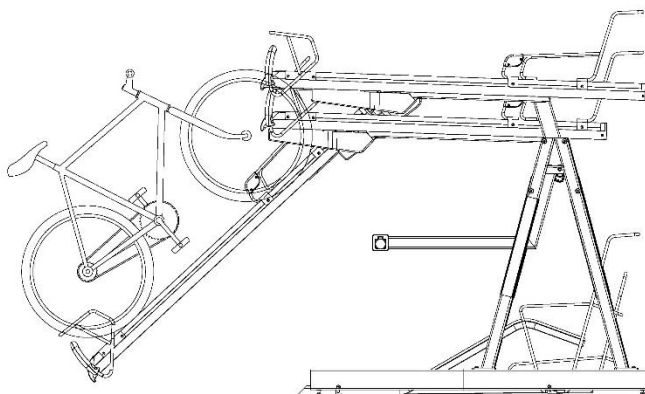
**Figure. 1.23** Single-tier bicycle parking layout



**Figure. 1.24** Double-tier bicycle parking layout

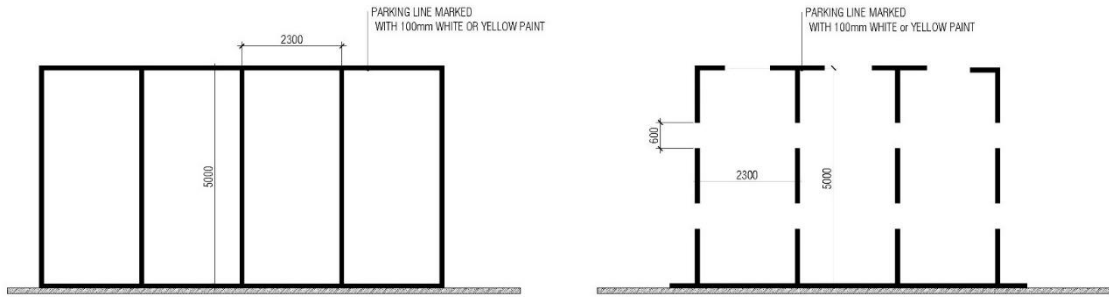


**Figure. 1.25** Example of double-tier bicycle rack

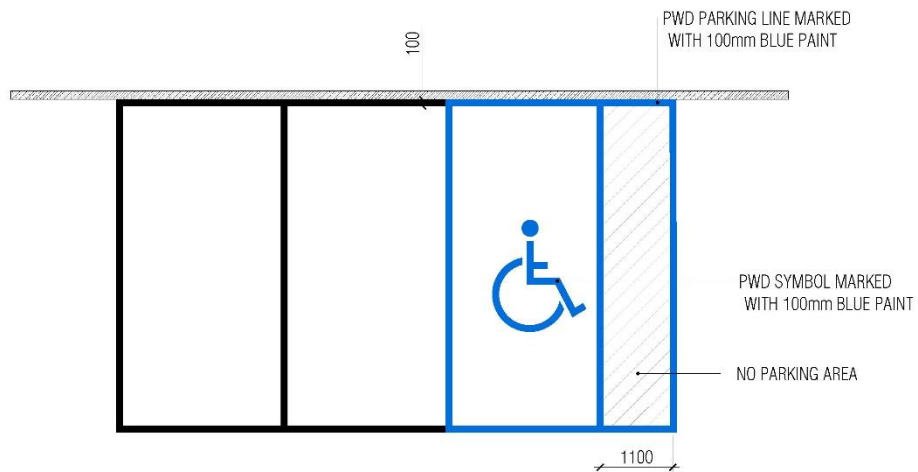


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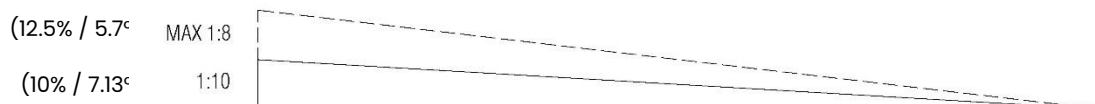
**Figure. 1.26, 1.27** Ways to demarcate parking lots & numbering



**Figure. 1.28** PWD parking lot dimensions



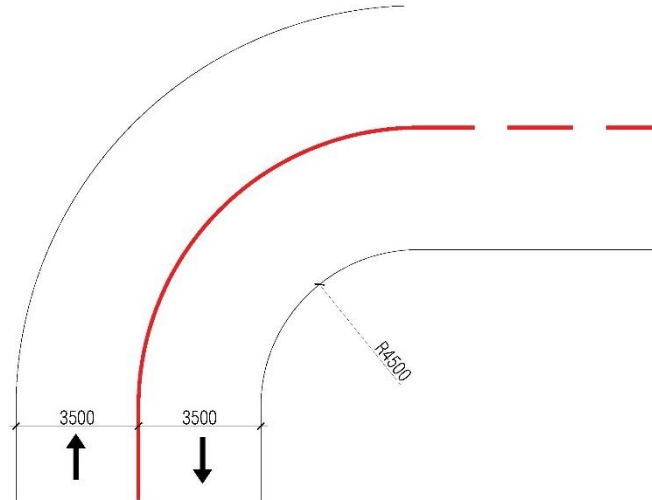
**Figure. 1.29** Ramp details







**Figure. 1.33** Provide a continuous line at bends and corners of multi-lane driveways



**Figure. 2.1** Parking availability sign

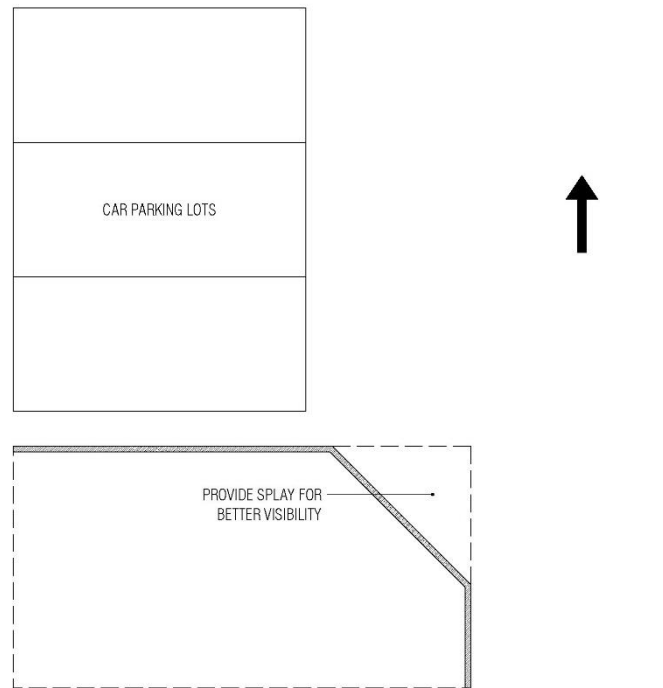
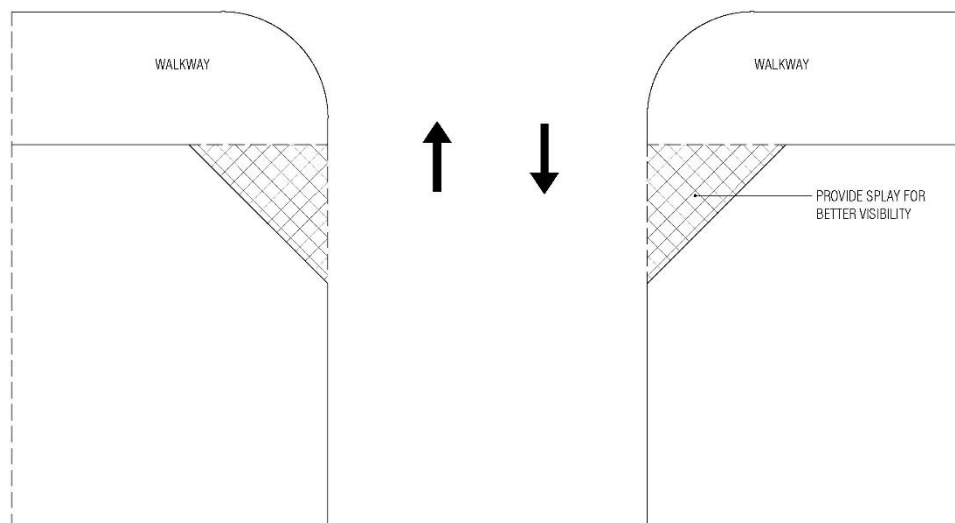


**Figure. 2.2** Height clearance bar and height limits



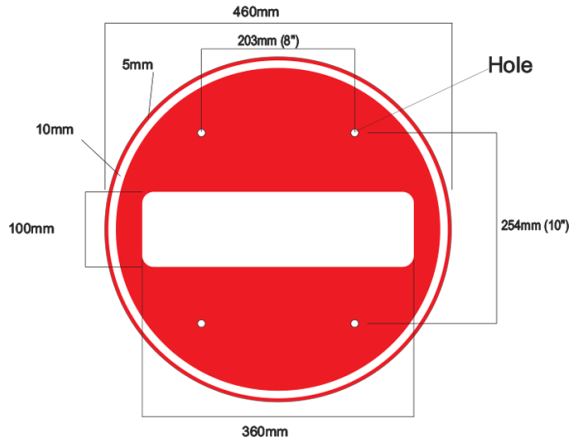
**Figure. 2.3** Convex mirror can be provided at corners and blind spot areas to provide better visibility for motorists and pedestrian.



**Figure. 2.4** Improve visibility at car park exit**Figure. 2.5** Improve visibility where there are walls

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**NO ENTRY**



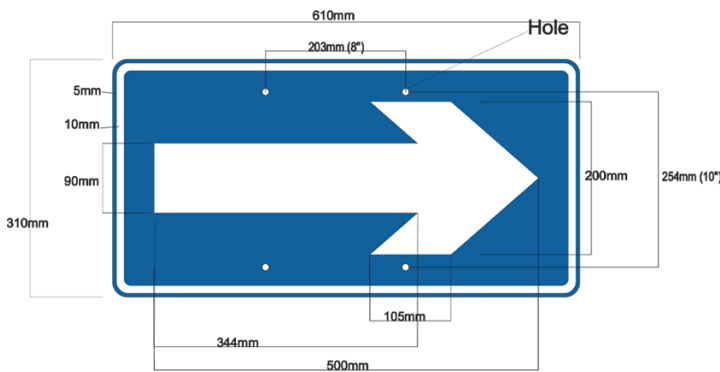
**COLOR**

Reflective Signal Red  
 Reflective White  
 Solid Dark Gret in the rear side

**USE**

Exit areas only

**ONE WAY**



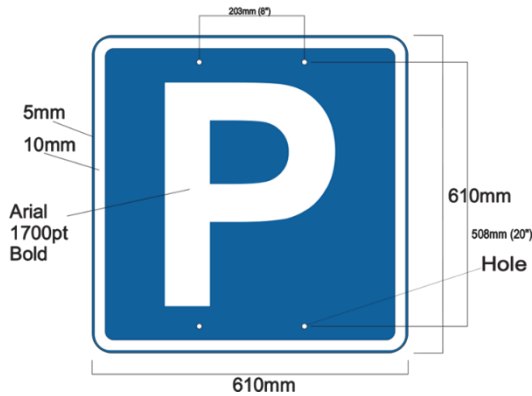
**COLOR**

Reflective Blue  
 Reflective White  
 Solid Dark Gret in the rear side

**USE**

One-way roads

**PARKING**



**COLOR**

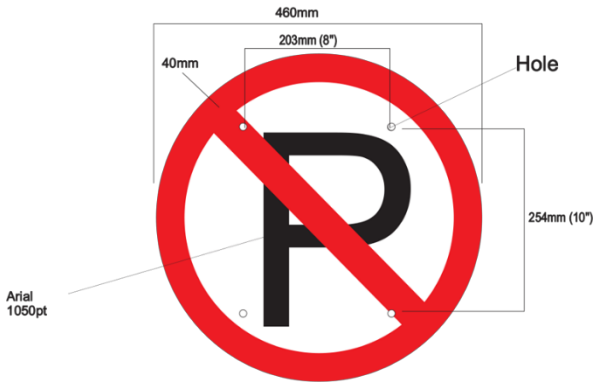
Reflective Blue  
 Reflective White  
 Solid Dark Gret in the rear side

**USE**

Parking zones

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**NO PARKING**



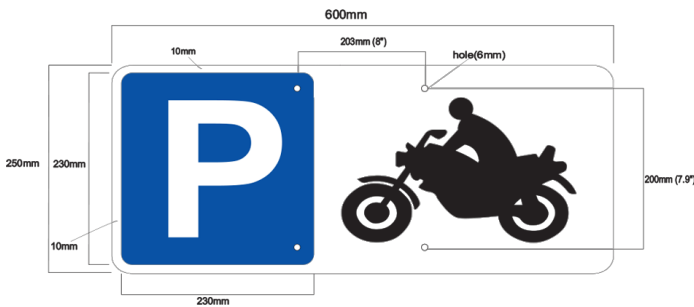
**COLOR**

- Reflective Signal Red
- Reflective White
- Solid Black
- Solid Dark Gret in the rear side

**USE**

Parking prohibited areas

**MOTORBIKE PARKING**



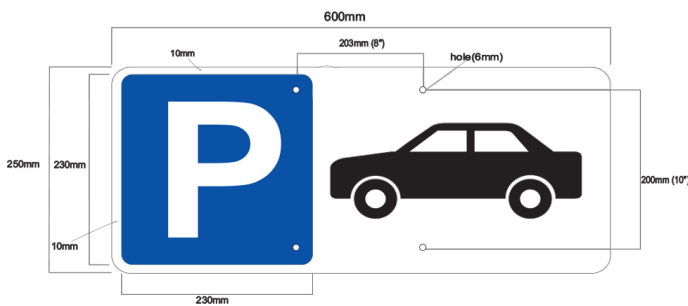
**COLOR**

- Reflective Blue
- Reflective White
- Solid Black
- Solid Dark Gret in the rear side

**USE**

Only motorbike parking zone

**CAR PARKING**



**COLOR**

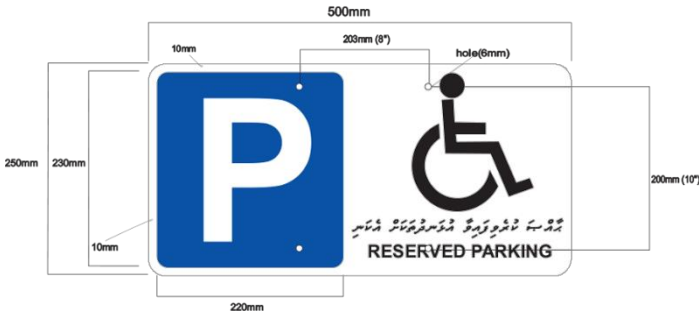
- Reflective Blue
- Reflective White
- Solid Black
- Solid Dark Gret in the rear side

**USE**

Only carparking zone

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**RESERVED PARKING**



**COLOR**

- Reflective Blue
- Reflective White
- Solid Black
- Solid Dark Gret in the rear side

**USE**

Only reserved parking / PWD parking zone

**NO PARKING WITH DROP-OFF AND PICK-UP ONLY**



**COLOR**

- Reflective Signal Red
- Reflective Blue
- Reflective White
- Solid Black
- Solid Dark Gret in the rear side

**USE**

Pickup-up & drop off only areas

## ANNEX 2 – Parking Requirements

NO	USE	TYPE	MINIMUM PARKING REQUIREMENT
1	Residential Lots with Commercial Spaces	Car	-
		Motorbike	1 Motorbike parking space for every 100 sqm GFA
		Bicycle	10 Bicycle parking spaces
		HV	
2	Social Housing	Car	1 Car parking space for every 4 dwelling units
		Motorbike	2 Motorbike parking space for every dwelling unit
		Bicycle	10 Bicycle parking spaces
		HV	
3	Mid-range Apartments	Car	1 Car parking space for every 3 dwelling units
		Motorbike	2 Motorbike parking space for every dwelling unit
		Bicycle	10 Bicycle parking spaces
		HV	
4	Luxury apartments	Car	1 Car parking space for every dwelling unit
		Motorbike	2 Motorbike parking space for every dwelling unit
		Bicycle	10 Bicycle parking spaces
		HV	
5	Office	Car	1 Car parking space for every 250 sqm GFA.
		Motorbike	1 Motorbike for every 60 sqm GFA
		Bicycle	10 Bicycle parking spaces
		HV	1 Loading and unloading space for first 5000 sqm GFA and additional loading and unloading space for every subsequent 10,000 sqm GFA.
6	Retail shops / Department stores/showrooms	Car	1 Car parking lot for every 250 sqm GFA
		Motorbike	1 Motorbike parking space for every 100 sqm GFA
		Bicycle	10 Bicycle parking spaces
		HV	1 Loading and unloading space for every 5000 sqm GFA

7	Supermarkets (GFA > 2000 sqm)	Car	1 Car parking lot for every 1000 sqm GFA
		Motorbike	1 motorbike parking space for every 200 sqm GFA
		Bicycle	10 bicycle parking spaces
		HV	1 Loading and unloading space for every 5000 sqm GFA
8	Restaurants, Cafés, Canteens and Cafeterias	Car	1 Car parking Space per every 250 sqm dining area
		Motorbike	1 Motorbike parking space for every 100 sqm dining area
		Bicycle	10 Bicycle parking spaces
		HV	
9	Guest Houses	Car	1 Car/Van parking space per guest house
		Motorbike	10% of the plot area divided by 5
		Bicycle	10 Bicycle parking spaces
		HV	-
10	Hotels	Car	1 Car/Van parking space per every 1000 sqm GFA
		Motorbike	10% of the plot area divided by 5
		Bicycle	10 Bicycle parking spaces
		HV	
11	Pre Schools / Primary Schools / Secondary Schools	Car	1 Car parking space per every 500 sqm administrative (include teacher's rooms) GFA.
		Motorbike	1 Motorbike parking space for every 60 sqm administrative (include teachers' room) GFA.
		Bicycle	10 Bicycle parking spaces
		HV	-
12	High Schools	Car	1 Car parking space per every 250 sqm administrative (include teacher's rooms) GFA.
		Motorbike	1 motorbike parking space per every 10 students + staff population
		Bicycle	10 Bicycle parking spaces
		HV	





13	Polytechnics College and Universities	Car	1 Car parking space per every 500 sqm administrative GFA. And 1 additional carparking per every 50-student population.
		Motorbike	1 Motorbike parking space per every 5 students + staff population
		Bicycle	10 Bicycle parking spaces
		HV	1 Loading and unloading space
14	Nursing Homes	Car	1 Car per every 50 beds
		Motorbike	1 Motorbike parking per every 10 beds
		Bicycle	10 Bicycle parking spaces
		HV	-
15	Convention Facilities and Exhibition Centres	Car	1 Car parking lot per every 500 SQM GFA
		Motorbike	1 Motorbike parking per every 70 sqm GFA
		Bicycle	10 Bicycle parking spaces
		HV	1 Loading and unloading space for up to 5,000 sqm GFA and 1 Loading and unloading space for every subsequent 10,000 sqm GFA
16	Public Parks	Car	5 Car parking space per hectare
		Motorbike	50 Motorbike parking space per hectare
		Bicycle	10 Bicycle parking per hectare
		HV	
17	Cinemas	Car	1 Car parking space per every 20 seats
		Motorbike	1 Motorbike parking space per every 5 seats
		Bicycle	10 Bicycle parking spaces
		HV	-
18	Public Libraries	Car	1 Car parking space per every 500 sqm GFA
		Motorbike	1 Motorbike parking space per every 100 sqm GFA.
		Bicycle	10 Bicycle parking spaces
		HV	
19	Foreign Workers Accommodation	Car	-
		Motorbike	1 Motorbike parking space for every 20 beds
		Bicycle	1 Bicycle parking space for every 5 beds
		HV	1 Loading and unloading space per every 300 beds



20	Warehouse	Car	
		Motorbike	1 Motorbike parking space per every 200 sqm GFA
		Bicycle	10 Bicycle parking spaces
		HV	1 Lorry / loading and unloading for first 2500 sqm GFA and 1 parking for every subsequent 5000 sqm GFA
21	Factories	Car	1 Car parking space for every 5000 sqm GFA
		Motorbike	1 Motorbike parking space for every 100 sqm GFA
		Bicycle	10 Bicycle parking spaces
		HV	1 Lorry / loading and unloading for first 2500 sqm GFA and 1 parking for every subsequent 5000 sqm GFA
22	Mosques	Car	-
		Motorbike	10 Motorbike space for every 100 worshipers
		Bicycle	10 Bicycle parking spaces
		HV	-
23	Sport Facilities	Car	1 Car parking space per every 20 spectators
		Motorbike	1 Motorbike parking space per every 10 spectators with 1 Motorbike parking for every 60 sqm staff area
		Bicycle	10 Bicycle parking spaces
		HV	-
24	Hospitals and medical facilities	Car	1 Car parking space per every 20 beds
		Motorbike	1 Motorbike parking for every 60 sqm staff area and 1 motorbike parking for every 20 seats in waiting area
		Bicycle	10 Bicycle parking spaces
		HV	-

