



Light Industrial Guideline for Phase 2

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- Introduction**
1. 1.1. This guideline will be applicable to the ‘Light Industrial lands’ to be developed in Hulhumalé, Phase 2.
 - 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. EIA: Environmental Impact Assessment
 - 2.2. GPON: Gigabit Passive Optical Network which is used to deliver broadband access to buildings.
 - 2.3. HPA: Health Protection Agency
 - 2.4. MNDF: Maldives National Defense Force
 - 2.5. SQFT: Square feet
 - 2.6. PWD: People with disabilities
 - 2.7. MWSC: Male’ Water and Sewerage Company
 - 2.8. 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
 - 2.9. Developer: A developer in this guideline is identified as the owner of the land and develops the acquired land through construction.

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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 is provided with the Development guideline drawing along with the building height.
- 4.2. F.S.I is calculated as:

$$\text{Floor Space Index (F.S.I.)} = \frac{\text{Total area of the building}}{\text{Total area of the land}}$$

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- 4.3. The following spaces will be excluded from GFA:
- 4.3.1. Basement parking
 - 4.3.2. Ramp dedicated for parking
 - 4.3.3. Open void
 - 4.3.4. Service duct
 - 4.3.5. Lift Void
 - 4.3.6. Stair void of the top floor
 - 4.3.7. Balcony
- 4.4. The building height is subjective to the plot location, area of the plot and land usage. (Refer to guideline drawings for maximum building height, footprint and gross floor area).
- 4.5. The point to calculate the height of the building will be taken from the pavement level to the upper surface of the highest slab/roof beam.
- 4.6. No part of the building such as roof eaves, gutters, and door/window panels, etc. should be projected out into the road beyond the building setback line.
- 4.7. The setback area at ground level can be utilized for circulation or parking but should not be covered above at any level.
- 4.8. All floors should have a minimum clear height of 2.4m from the lower surface of the sheet/deck to the floor surface level.
- 4.9. A lift is required if the building height exceeds 15m. The upper surface of the lift hoistway slab should not exceed 4.5m. However, a maximum height of 7m for a lift to accommodate the machine room is

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allowable with the submission of lift specification detail.

- 4.10. The maximum height for the covered area in terrace should not exceed 4.5m.
- 4.11. If the building has a lift, the highest point of the roof (sloped roof or roof slab) must not exceed 4.5m from the terrace floor level.
- 4.12. If the building height is lower than 15m and does not have a lift, the highest point of the roof slab must not exceed 3m from the terrace floor level. If the building has a sloped roof, the highest point of the slope should not exceed 1.2m from the roof beam level.

If the development has a basement, the minimum clear height between the floor level and ceiling shall be 2.2m.

Foundation depth

- 5.**
 - 5.1. The depth of foundation for each building shall be determined by the structural engineer of the development.
 - 5.2. The foundation protection method should be submitted with the final detail drawings.
 - 5.3. An Environment Impact Assessment Report and Soil Inspection Report needs to be submitted with the detail drawings if:
 - 5.3.1 The foundation of the structure is deeper than 1.8m below natural ground level.
 - 5.3.2 The building height exceeds 31m from the natural ground level.

Services

- 6.**
 - 6.1. Consultation is to be done at concept level with service providers of electricity, plumbing, sewerage

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as to how these could be economically and sustainably incorporated into the development,

- 6.2. If development is in Phase 2 developer must consult with GPON consultants as to how it could be economically and sustainably incorporated into the development
- 6.3. All developments should provide the GPON fiber cabling system for industrial. Refer to in-building cabling guidelines if the development is in Phase 2 of Hulhumalé.
- 6.4. A waste disposal mechanism with ease of loading should be established on the ground floor level of the development.
- 6.5. 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.
- 6.6. Dedicated utility space at either ground or first floor level should be provided for the provision and/or installation of relevant services as required.
- 6.7. The water quality should comply with the standards set forth by the Utility Regulatory Authority (URA) if proposed to use a private water supply.
- 6.8. An approved firefighting layout for the development should be obtained from Maldives National Defense Force (MNDF) Fire and Rescue Services.
- 6.9. The discharge of foul water should be to a sewer network approved by the relevant service provider.
- 6.10. The layout of each utility network within the development should generally be in accordance

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with the established practice of the relevant service provider.

- 6.11. In-building wiring should adhere to all requirements set forth in HDC's In-building wiring guideline if the development is in Phase 2 of Hulhumalé.
- 6.12. Optical Network Terminal (ONT) provisioning should be facilitated in each apartment with proper enclosure (recommended Height: 12", Width: 12", Depth: 4") including 1 (One) AC 220 power socket if the development is in Phase 2 of Hulhumalé.

Access and circulation

- 7. 7.1. An adequate number of staircases should be proposed based on the MNDF fire protection guidelines.
- 7.2. Wherever parking is provided appropriate floor paint marking must be given.
- 7.3. 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.
- 7.4. Both pedestrian and vehicular circulation routes as well as entrances should be well defined and well lit.

Structural and civil works

- 8. 8.1. The designed lifespan of the main structure should be a minimum of 50 years.
- 8.2. 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

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and should get the drawings stamped by an accredited structural checker.

- 8.3. Necessary standards for construction to ensure the quality of workmanship and site safety during construction should be followed.
- 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.

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**CHAPTER 2
SPECIFIC REQUIREMENTS**

- | | | |
|----------------------|------------|---|
| Land usage | 10. | <p>10.1. These allocated land plots are allocated for industrial uses</p> <p>10.2. The following uses are allowed in the allocated plots:</p> <p style="padding-left: 40px;">10.2.1. General good storage.</p> <p style="padding-left: 40px;">10.2.2. Dry food storage.</p> <p style="padding-left: 40px;">10.2.6. Sale of wholesale items shall be in accordance with guidelines forth by the relevant authorities designated by the Government.</p> <p style="padding-left: 40px;">10.2.7. Showrooms</p> <p>10.3. The following uses are not allowed in the allocated plots:</p> <p style="padding-left: 40px;">10.3.1. Heavy industrial work: Industrial use where the process of which generates fumes, gases, smoke, vapours, vibrations, noise or glare.</p> <p style="padding-left: 40px;">10.3.2. Storage of construction materials, carpentry and workshops.</p> <p style="padding-left: 40px;">10.3.3. Accommodation.</p> |
| Boundary wall | 11. | <p>11.1. A boundary wall or a fence must be constructed within 3 months from the agreement signing date.</p> <p>11.2. The boundary wall or fence should be constructed as follows:</p> <p style="padding-left: 40px;">11.2.1. Should either be a solid wall or a fence.</p> |

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- 11.2.2. The height of the wall should be 2m from natural ground level (This is including the capping beam height).
- 11.2.3. Drawing of the placement of main gate in the boundary should be approved by HDC prior to installation.
- 11.2.4. Maximum 6m of width will be allowed for gate installation.
- 11.2.5. Placement of the gate in the corner of the plots is not allowed.
- 11.2.6. The address board can be placed on the boundary wall, on the right side of the main entrance. The maximum height to install the address board is 1.2m from the ground level.
- 11.2.7. No parts of the boundary wall should exceed the plot line.

Parking and Loading/Unloading

- 12. 12.1. Please refer to the Annex 1 and Annex 2 for the parking requirements for the industrial use.
- 12.2. All development related parking should be provided within the development.
- 12.3. No vehicle related to the development is to be parked outside the allocated plot.
- 12.4. All vehicles including staff vehicles/operational vehicles and vehicles coming in for service should be accommodated within the development.
- 12.5. Visitor parking should be provided accordingly within the development.

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- 12.6. The entrance for the parking area should have a sufficient opening for easy entry and exit simultaneously.
- 12.7. If the developer opts for a mechanical parking system, the manufacturers' specifications for the cause shall be submitted to HDC.
- 12.8. The loading and unloading space should be located where it won't be difficult to exit in case of an emergency.
- 12.9. Minimal entry and exit from the plot / will be allowed based on the concept design.

Balcony and Terrace (Railing/Parapet)

- 13.** 13.1. The minimum height of the parapet wall or the railing of the balcony and the terrace should be 1.2m from the floor finished level.

Voids, Doors and Windows

- 14.** 14.1. No doors/windows should exceed the plot line when opened.
- 14.2. Doors/windows should not be placed on the wall towards the adjacent building. However, glass blocks and fixed frosted glass for light penetration are allowable.
- 14.3. The voids of the building shall be as shown in Annex 3. Any void along the plot line should have a minimum of 0.75m inwards with a minimum clear width of 0.6m. Voids within the plot shall have a minimum clear dimension of 0.6m on all sides.
- 14.4. In the case where ventilation is required for a space, ventilation is measured up to 6m from the opening. If the opening is not less than 15% of the floor area, ventilation is measured up to 7.5 from the opening.

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In both of these cases, ventilation of an opening is measured up to 4m from both sides of the opening.

Support Facilities

- 19.** 19.1. A maximum of 40% of the GFA can be used to accommodate supporting facilities for the intended use, within the given plot.
- 19.2. The support facilities for industrial plots should be as follows:
 - 19.2.1. Utilities and maintenance
 - 19.2.2. Office
 - 19.2.3. Security Room
 - 19.2.4. Toilets & washrooms
 - 19.2.5. For any other use, a written approval from HDC must be obtained prior to the commencement of work.
- 19.3. Residential and staff accommodation is not allowed.

Gutter Pipeline

- 20.** 20.1. If the building is constructed with a roof, provision for a gutter should be sufficient in the roof awning.
- 20.2. The gutter should be connected to a soak pit through a pipeline, within the plot area.
- 20.3. The soak pit locations should be identified in the floor plans during the submission of the final detailed drawing.


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- Drainage** **21**
- 21.1. Provision to drain the water collected from rain or other means must be provided within the plot area.
 - 21.2. The mechanism to collect the rainwater (either from terrace drainage or gutter pipeline) must be shown in the drawing during the submission of the final detailed drawing.
 - 21.3. In case of maintenance or blockage of drainage, a mechanism to discharge the water to the sea must be established.

- Sewerage** **22**
- 22.1. If the area does not have a proper sewerage system, the waste discharge should be disposed to a septic tank within the plot area.

- Development Requirements** **23**
- 23.1. Working areas within the plot must be screened from public view, and measures should be taken to control any odours, noise, dust, or fumes generated. These emissions should not pose a danger to the public.
 - 23.3. If any discharge of used or waste oil within the development, an oil trap must be installed within the development to filter out waste before releasing it to the public sewage system.
 - 23.4. Toilets must be provided at the development where required.
 - 23.5. The building has to be designed in a way that it does not hinder the privacy of the surrounding private residential plots.
 - 23.6. It is encouraged for the building to be aesthetically designed consisting of different elements of sustainability.

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- 23.7. The services are to be screened away from public view and should not be a hindrance to the aesthetics of the development.
- 23.8. The whole development should follow all updated and the most recent guidelines set by relevant authorities of the government.

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

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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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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.

**REVIEW OF
PARKING
PROVISION**

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.

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CAR PARKING PLACES

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

Parking Lot Dimensions	Minimum Requirements
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 defined as any large element 175mm above

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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**.

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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.

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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.

Parking Lot Dimensions	Minimum Requirements
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 requirement to have 10 bicycle lots within a development.

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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.

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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

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

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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.
- 12.1.6 By implementing clear signage and road markings within parking areas, drivers can

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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 intersection of movements between vehicles, cyclists, and pedestrians.

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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 sufficient line of sight to spot approaching pedestrians and vice versa. To maintain

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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**

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Figure. 1.0 Minimum dimensions for car parking

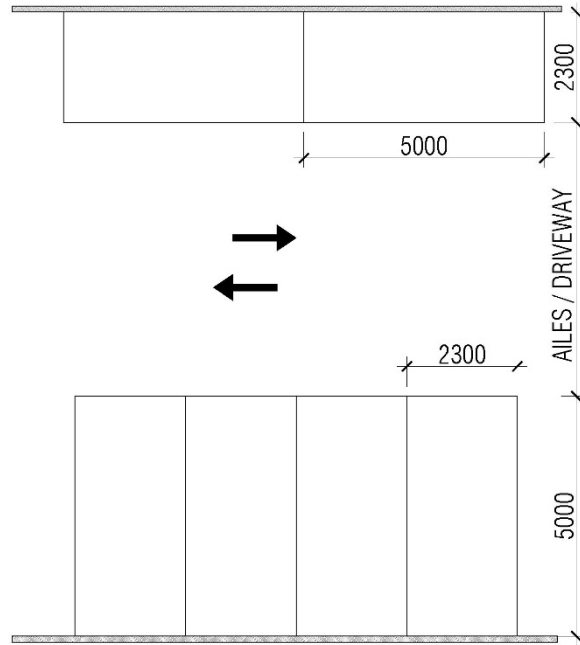
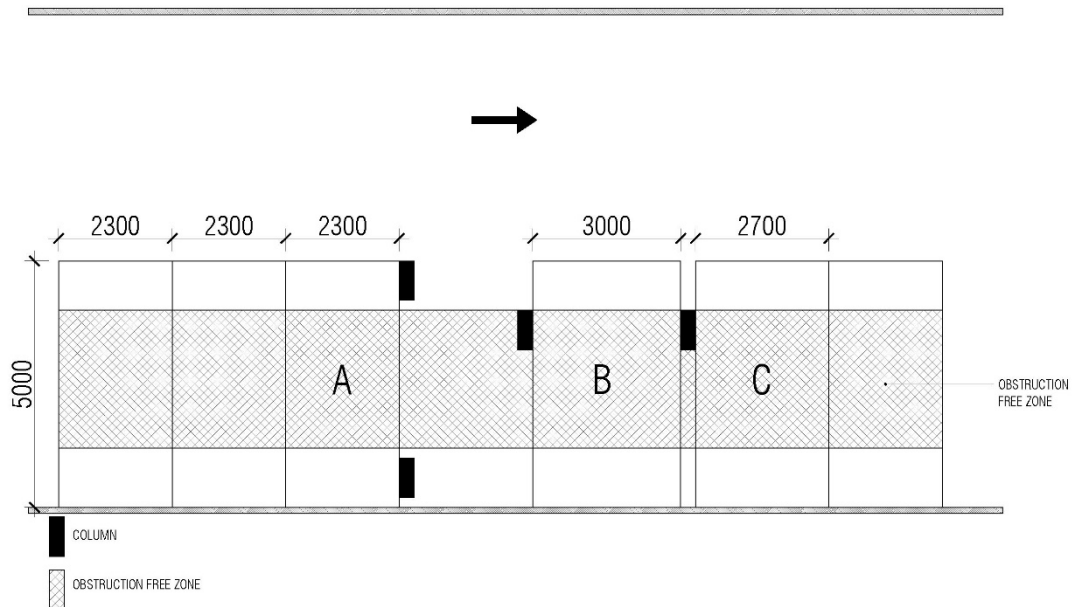


Figure. 1.1 Parking lots with adjacent obstructions



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Figure. 1.2 Minimum headroom clearance

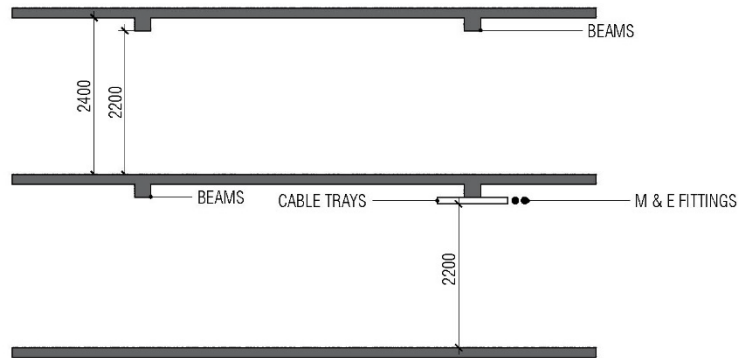


Figure. 1.3 Width of Parallel parking lots

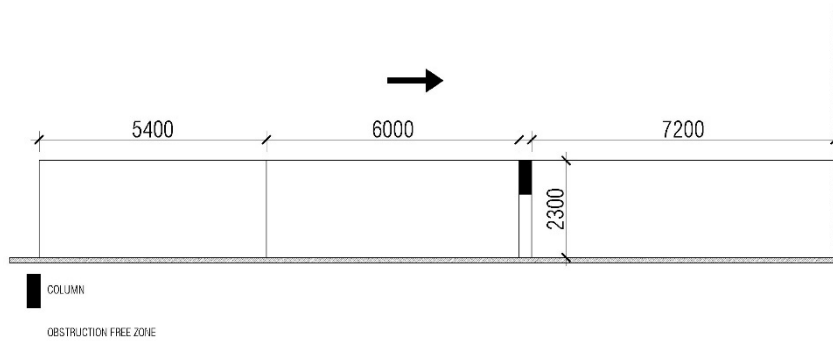
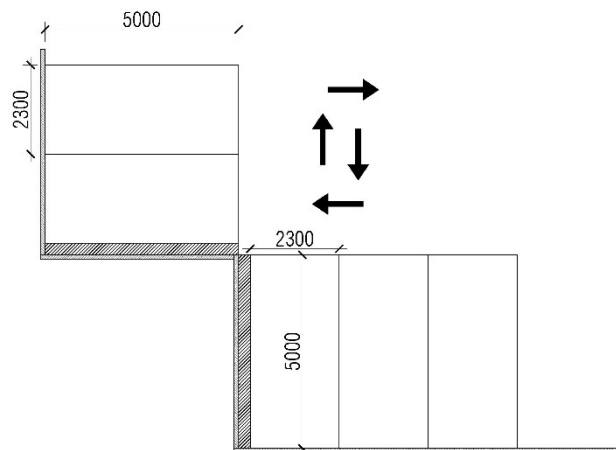


Figure. 1.4 Plan showing increase in width of perpendicular lots



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Figure. 1.5 Increase width of end-lot two way

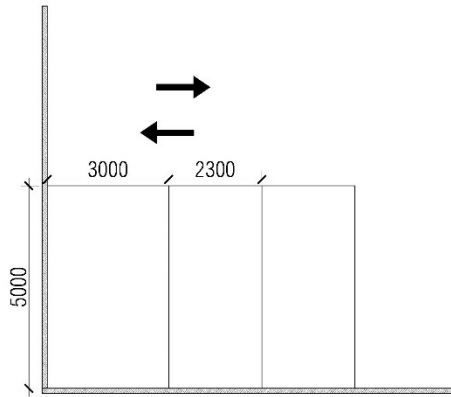


Figure. 1.6 Increase width of end-lot one way

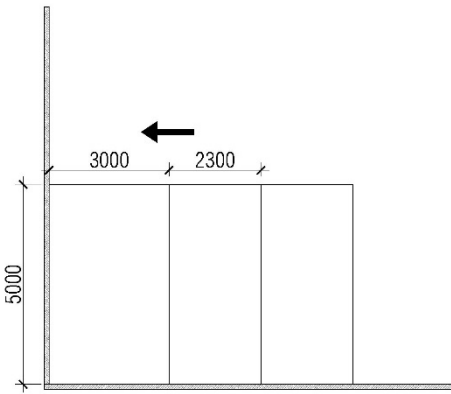
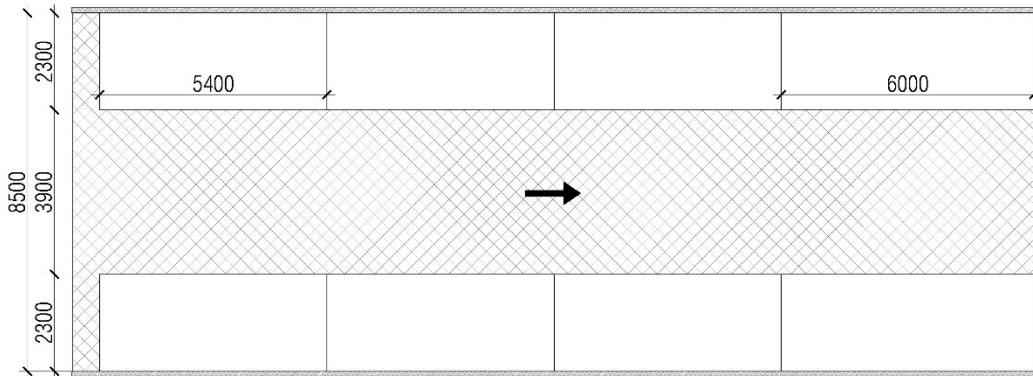


Figure. 1.7 parallel parking dimensions one-way



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Figure. 1.8 Parallel parking dimensions two-way

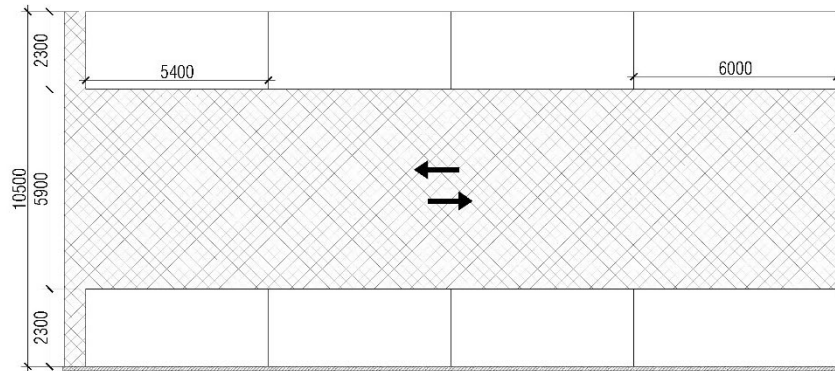


Figure. 1.9 30° angled parking one-way

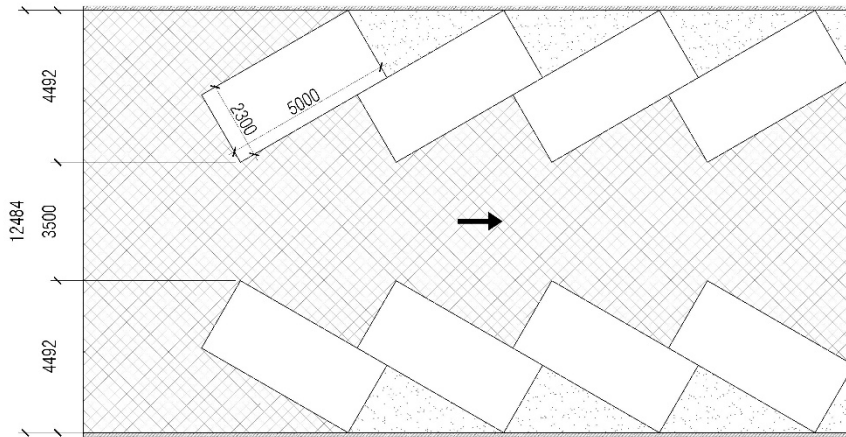
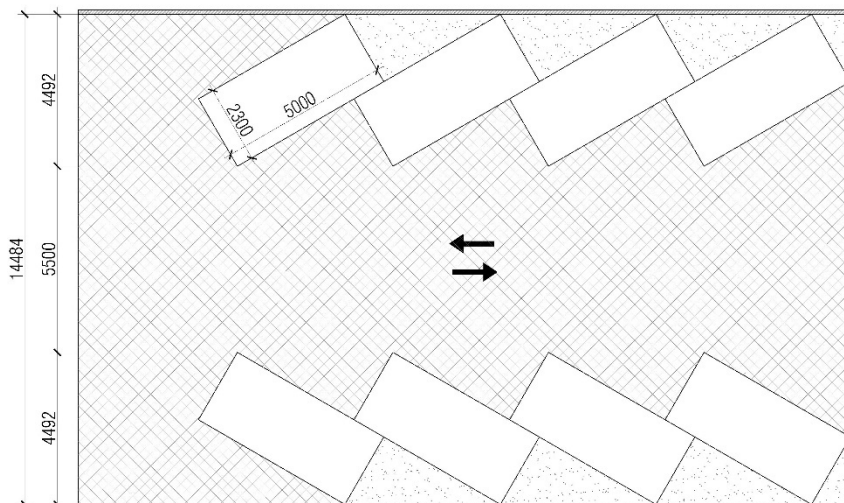


Figure. 1.10 30° angled parking two-way



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Figure. 1.11 45° angled parking one-way

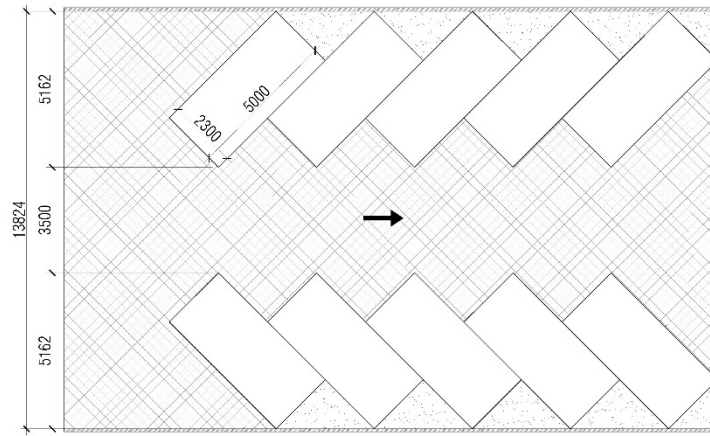


Figure. 1.12 45° angled parking two-way

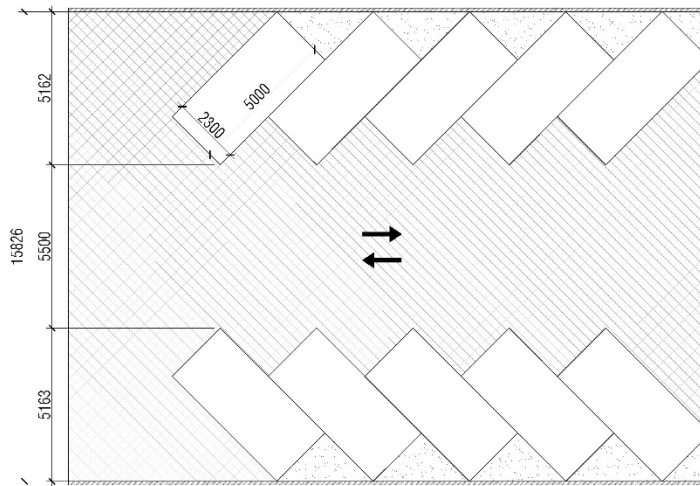
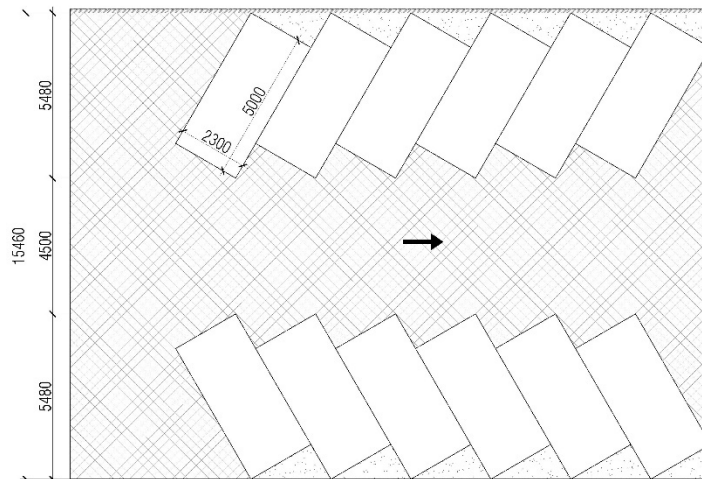


Figure. 1.13 60° angled parking one-way



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Figure. 1.14 60° angled parking two-way

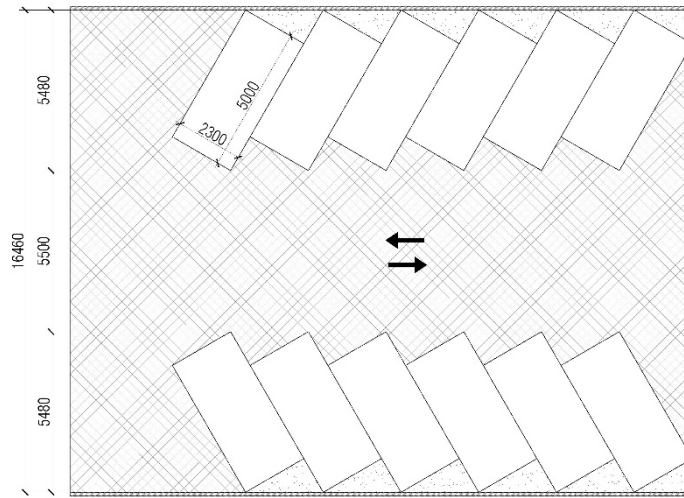


Figure. 1.15 90° angled parking one-way

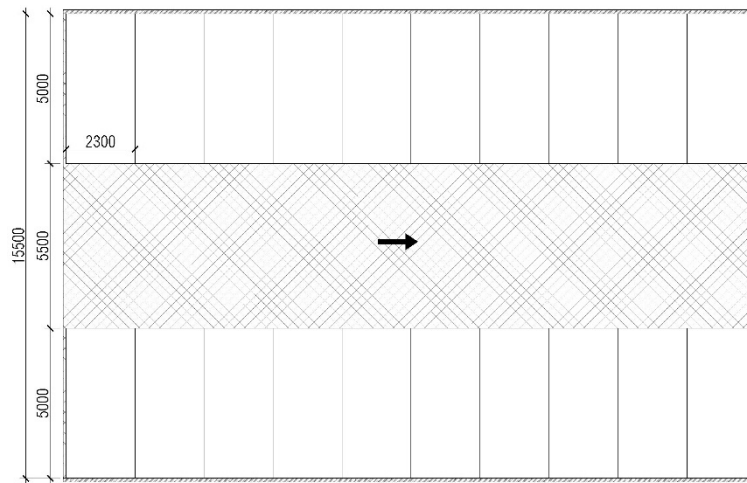
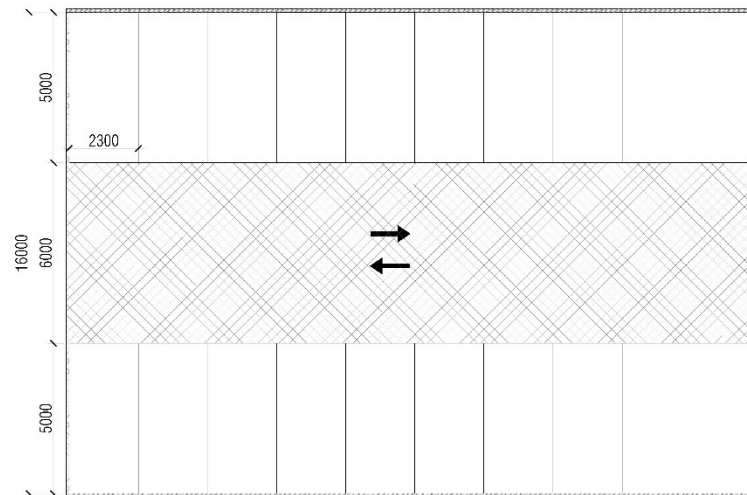


Figure. 1.16 90° angled parking two-way



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Figure. 1.17 Extent of parking aisle

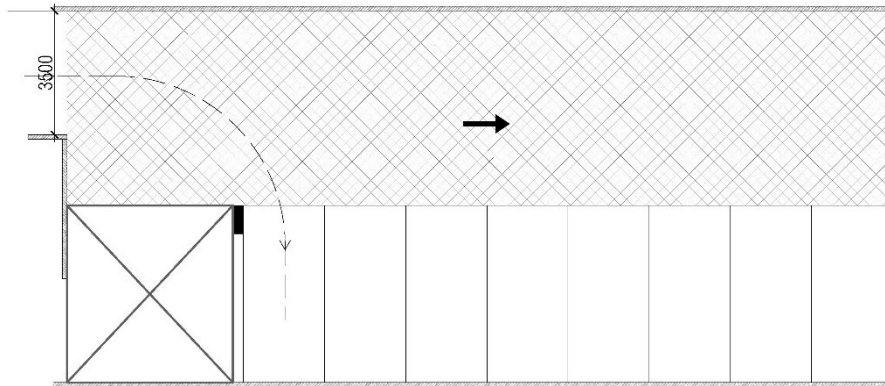


Figure. 1.18 Extent of parking aisle



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

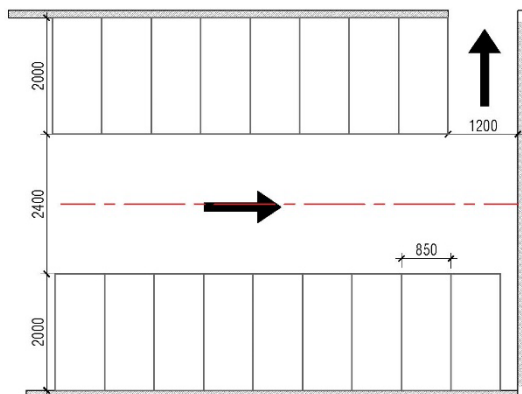
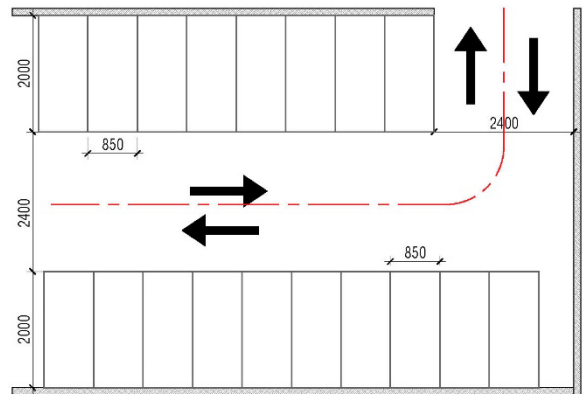


Figure. 1.20 Minimum dimensions for 90° motorbike parking two-way



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

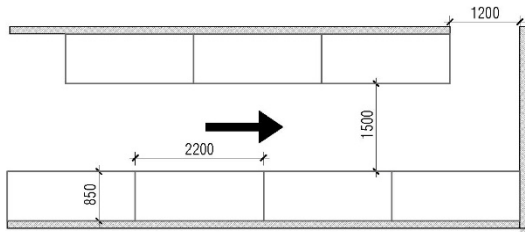


Figure. 1.22 Minimum dimensions for parallel motorbike parking two-way

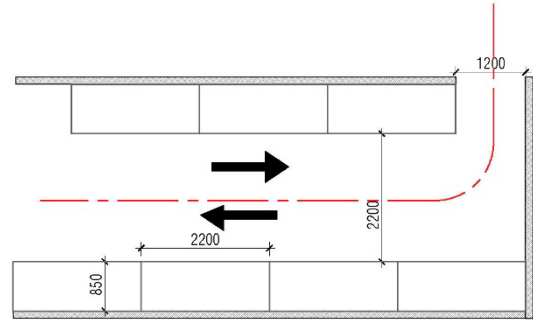


Figure. 1.23 Single-tier bicycle parking layout

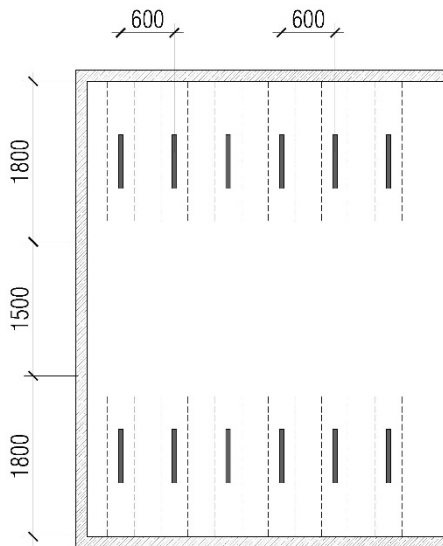


Figure. 1.24 Double-tier bicycle parking layout

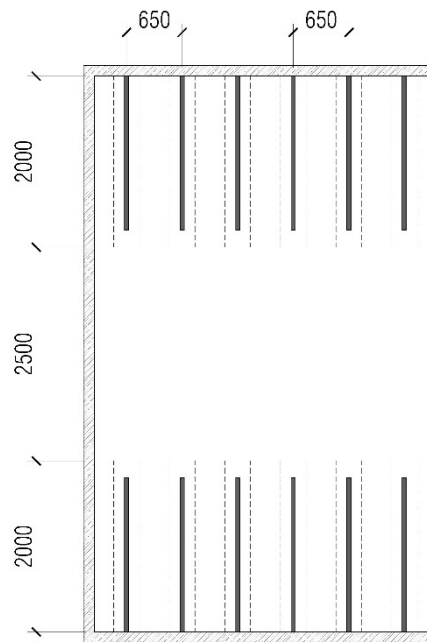
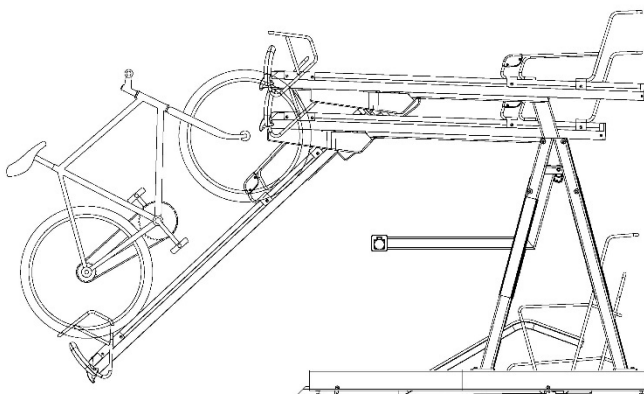


Figure. 1.25 Example of double-tier bicycle rack



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

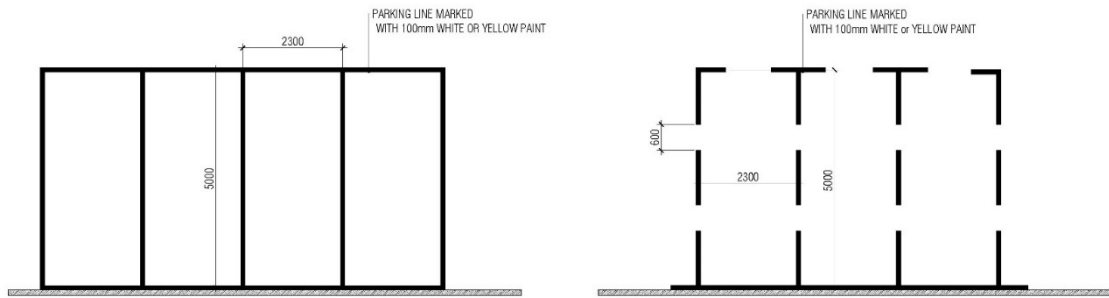


Figure. 1.28 PWD parking lot dimensions

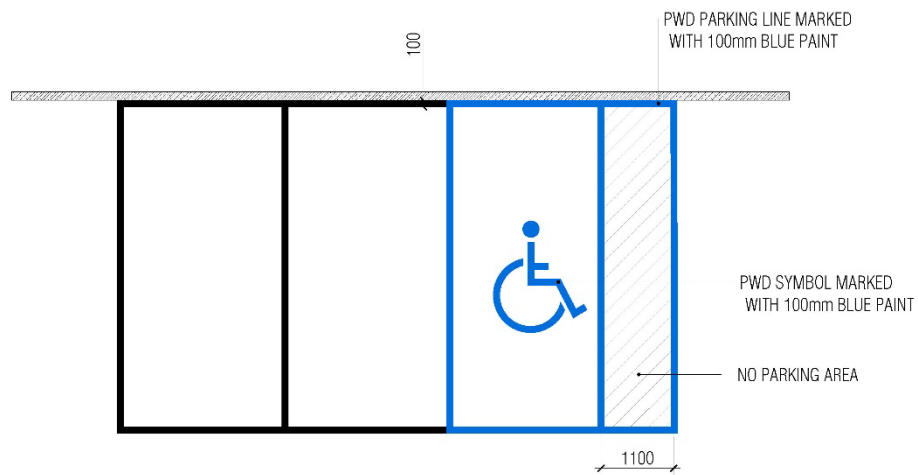
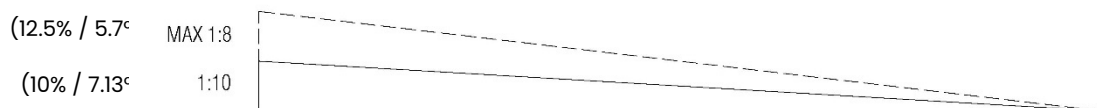


Figure. 1.29 Ramp details



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Figure. 1.30 Example of clearway ramp and accessway

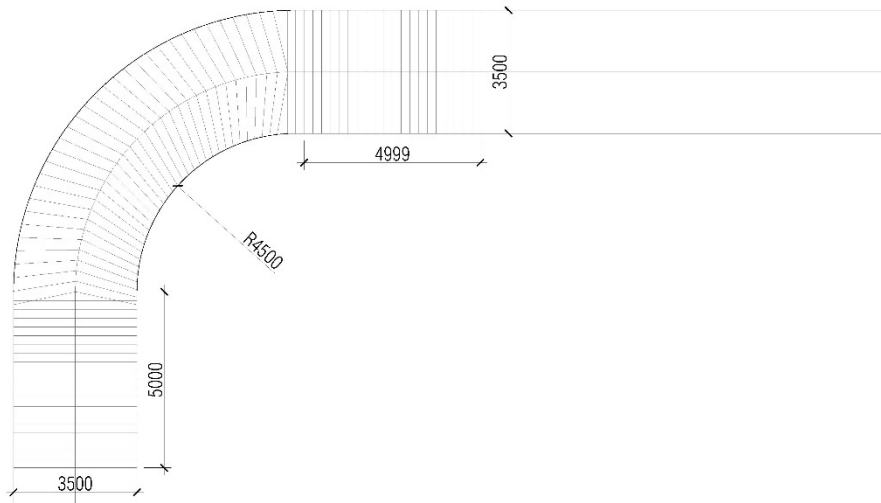


Figure. 1.31 Multi lane curved accessways & ramps without physical divider

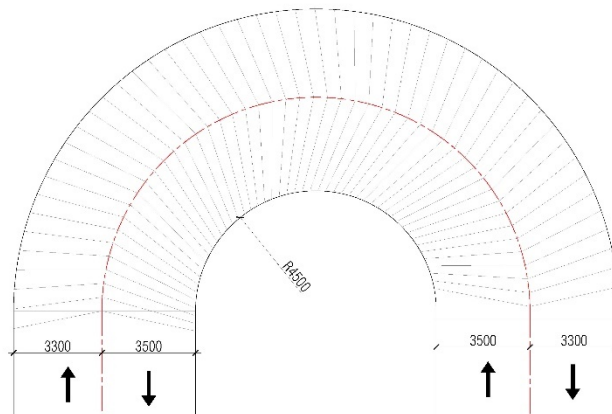
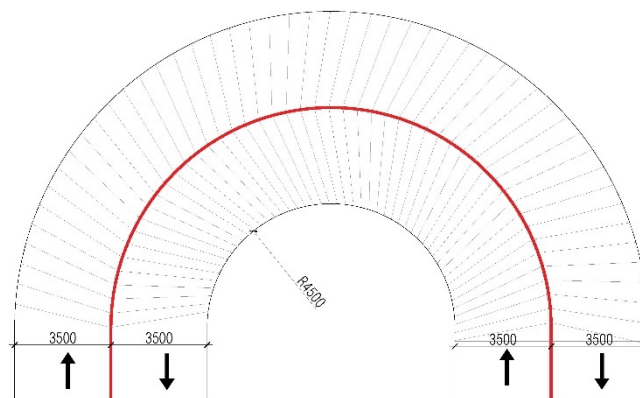
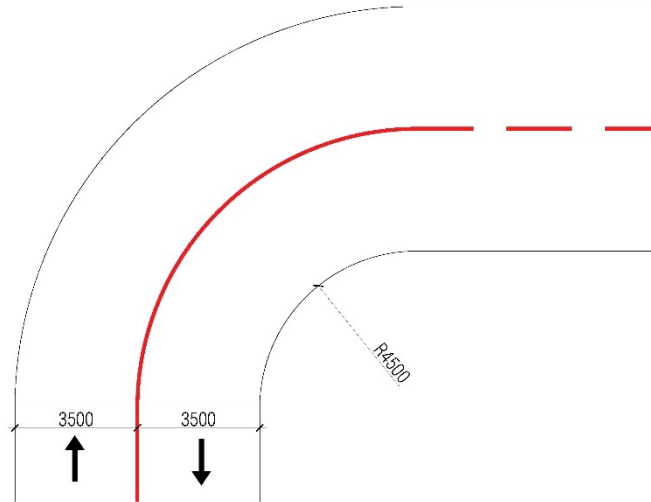


Figure. 1.32 Multi lane curved accessways & ramps with physical divider



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



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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.



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Figure. 2.4 Improve visibility at car park exit

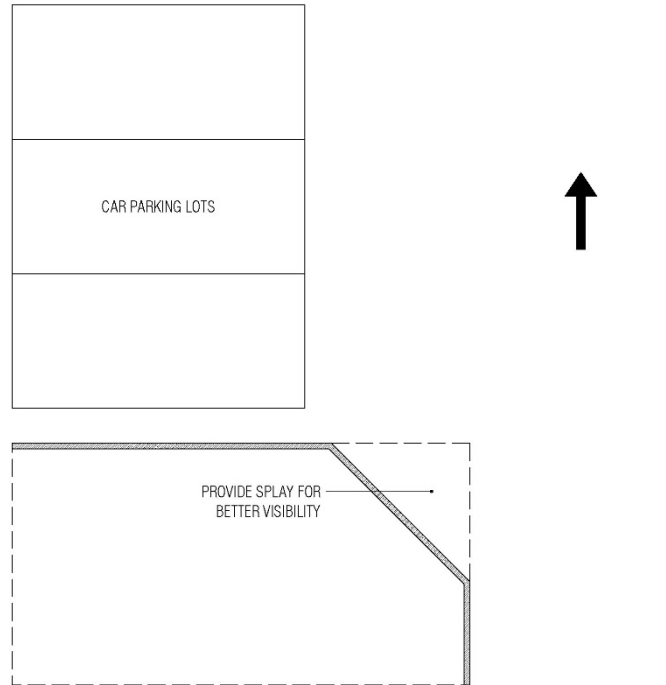
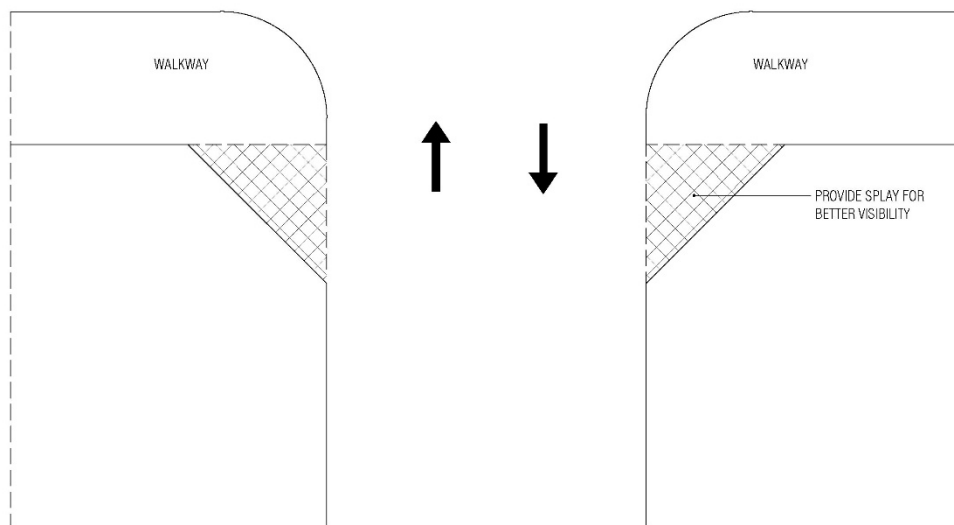


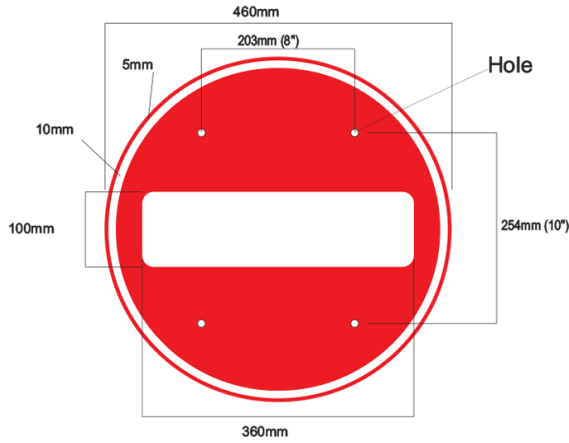
Figure. 2.5 Improve visibility where there are walls



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NO ENTRY



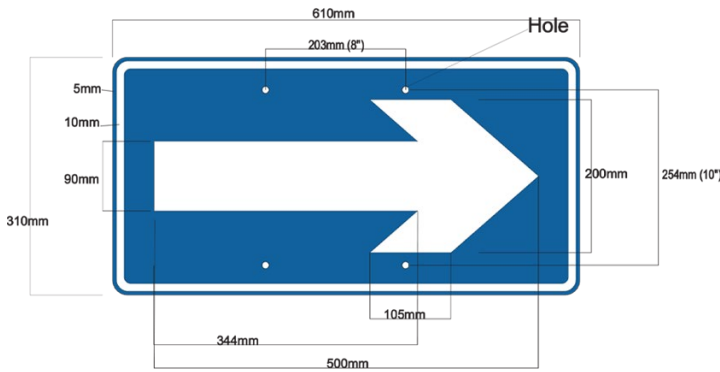
COLOR

- Reflective Signal Red
- Reflective White
- Solid Dark Grey in the rear side

USE

Exit areas only

ONE WAY



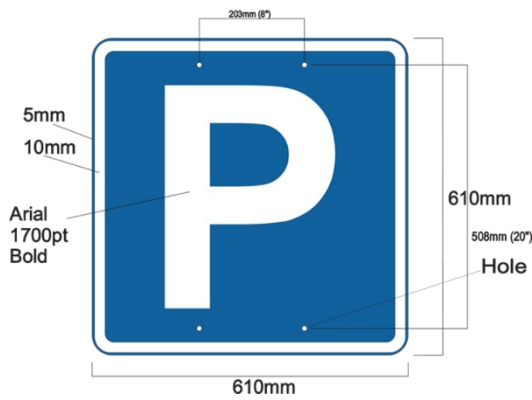
COLOR

- Reflective Blue
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- Solid Dark Grey in the rear side

USE

One-way roads

PARKING



COLOR

- Reflective Blue
- Reflective White
- Solid Dark Grey in the rear side

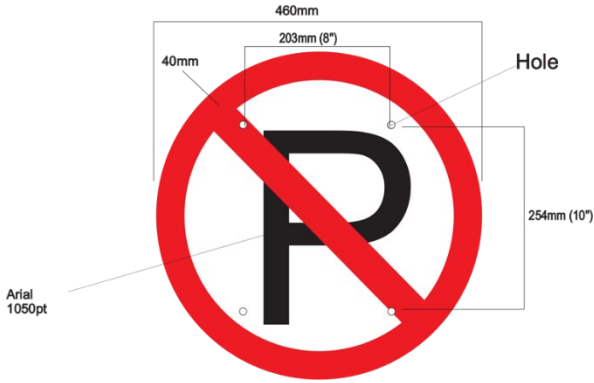
USE

Parking zones

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NO PARKING



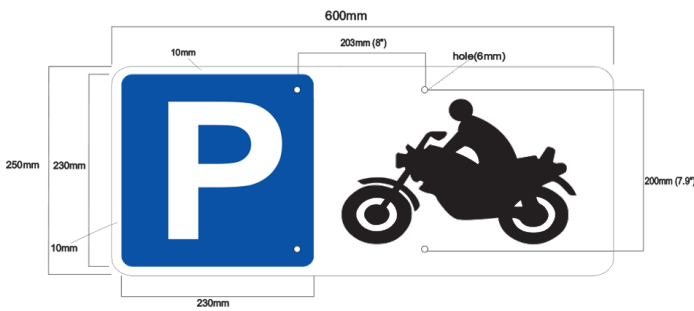
COLOR

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

USE

Parking prohibited areas

MOTORBIKE PARKING



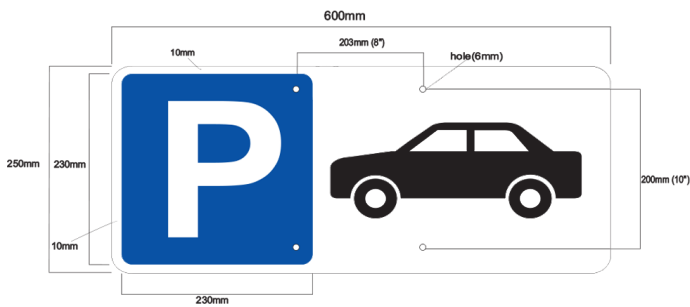
COLOR

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

USE

Only motorbike parking zone

CAR PARKING



COLOR

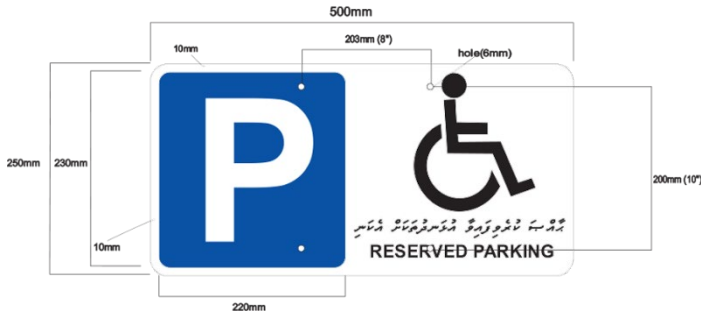
- Reflective Blue
- Reflective White
- Solid Black
- Solid Dark Gret in the rear side

USE

Only carparking zone

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RESERVED PARKING



COLOR

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

USE

Pickup-up & drop off only areas

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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

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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		Car	1 Car parking space per every 500 sqm administrative GFA. And 1 additional

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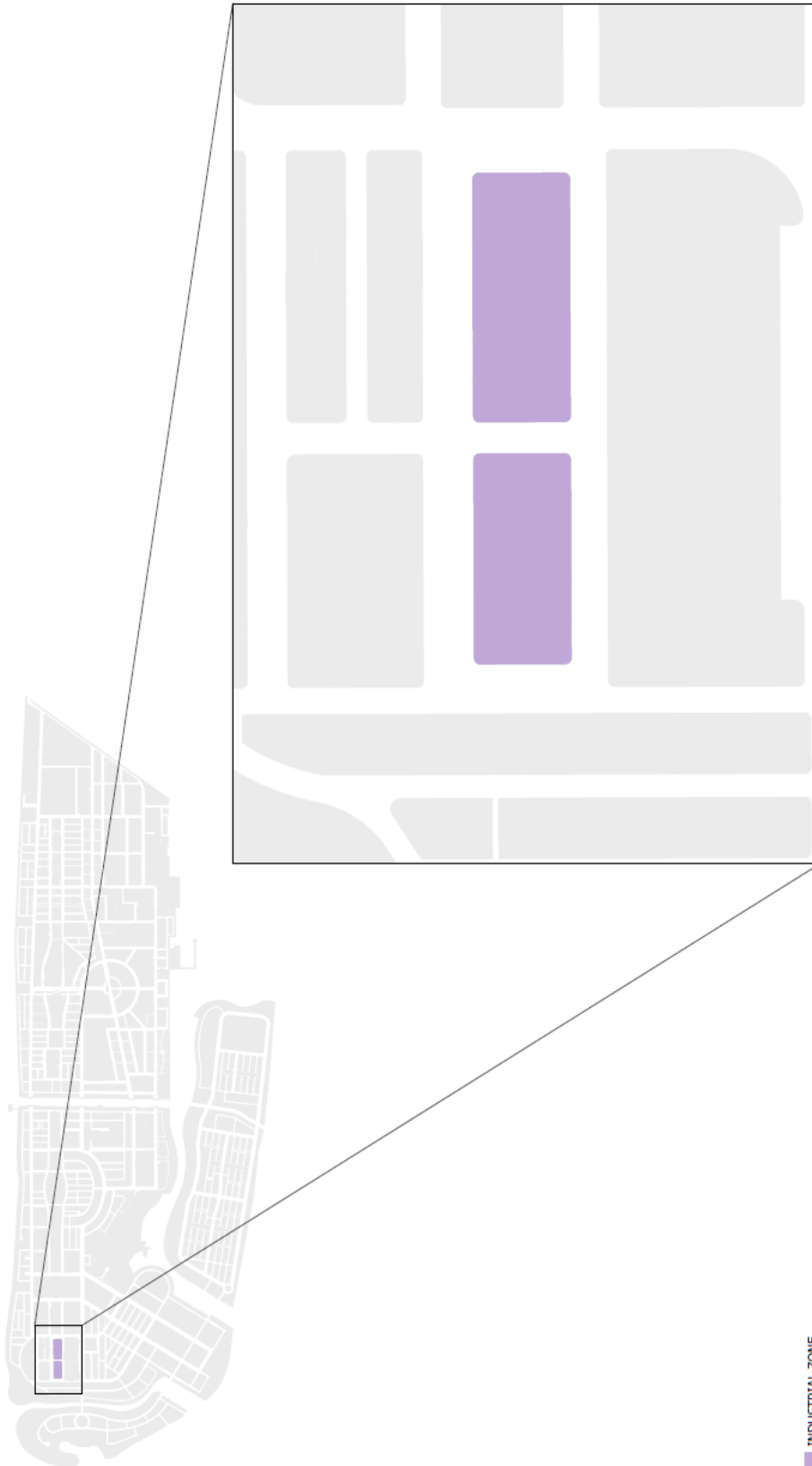
	Polytechnics College and Universities		carparking per every 50-student population.
		Motorbike	1 Motorbike parking space per every 5 students + staff population
		Bicycle	10 Bicycle parking spaces
		HV	1 Loading and unloading space
14	Nursing Homes	Car	1 Car per every 50 beds
		Motorbike	1 Motorbike 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

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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	-

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ANNEX 3 – Phase 2 Industrial Zone



INDUSTRIAL ZONE- HULHUMALÉ PHASE 2

INDUSTRIAL ZONE

Scale: 1:1,750

Drawn date: 02 October 2024

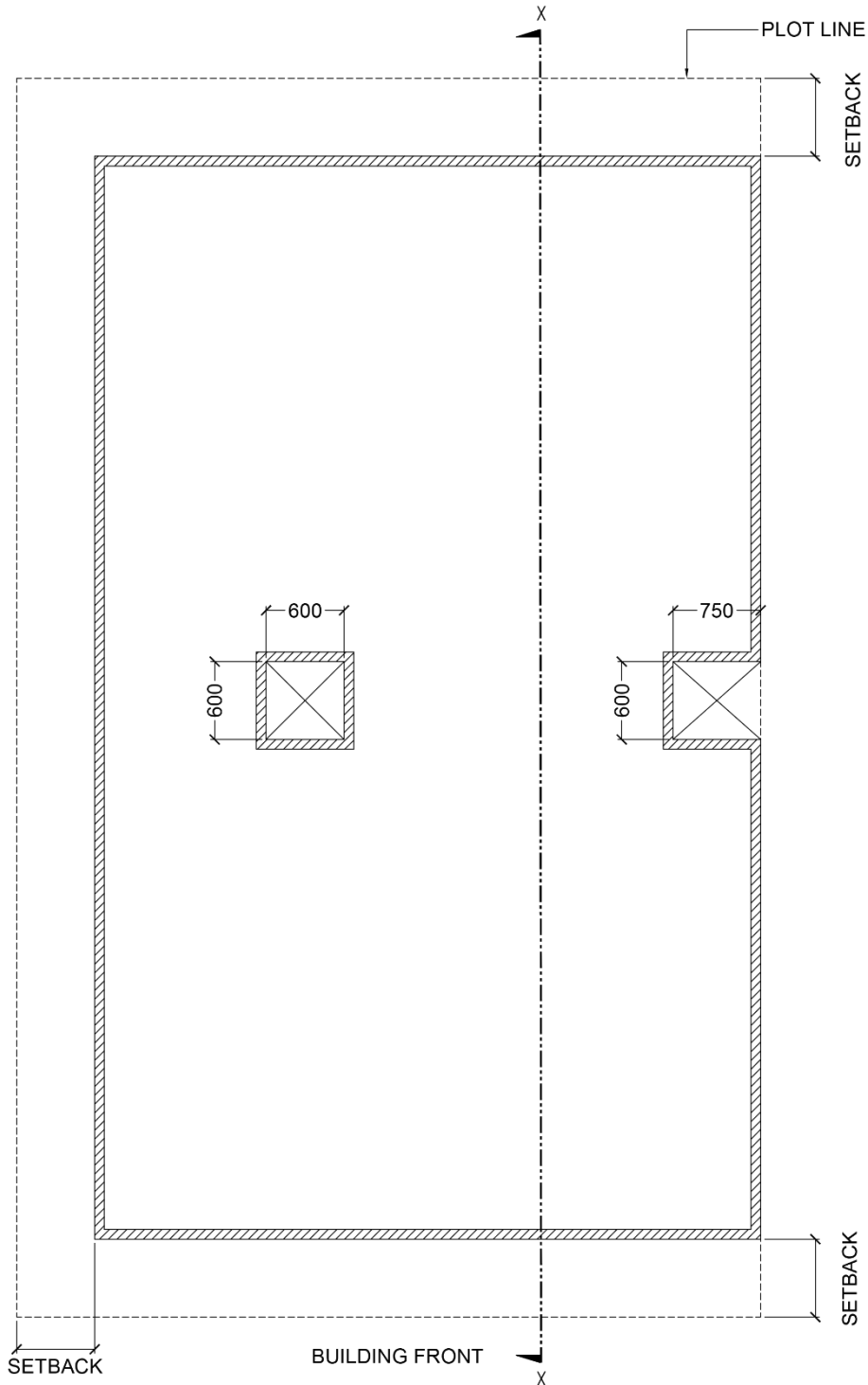
Drawing By : Afraan

Drawing Name: Map

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Doc ID:	UBP-2024-DGL027
Version:	1.2
Classification:	Public
Effective Date:	2 nd October 2024

ANNEX 4 – Voids



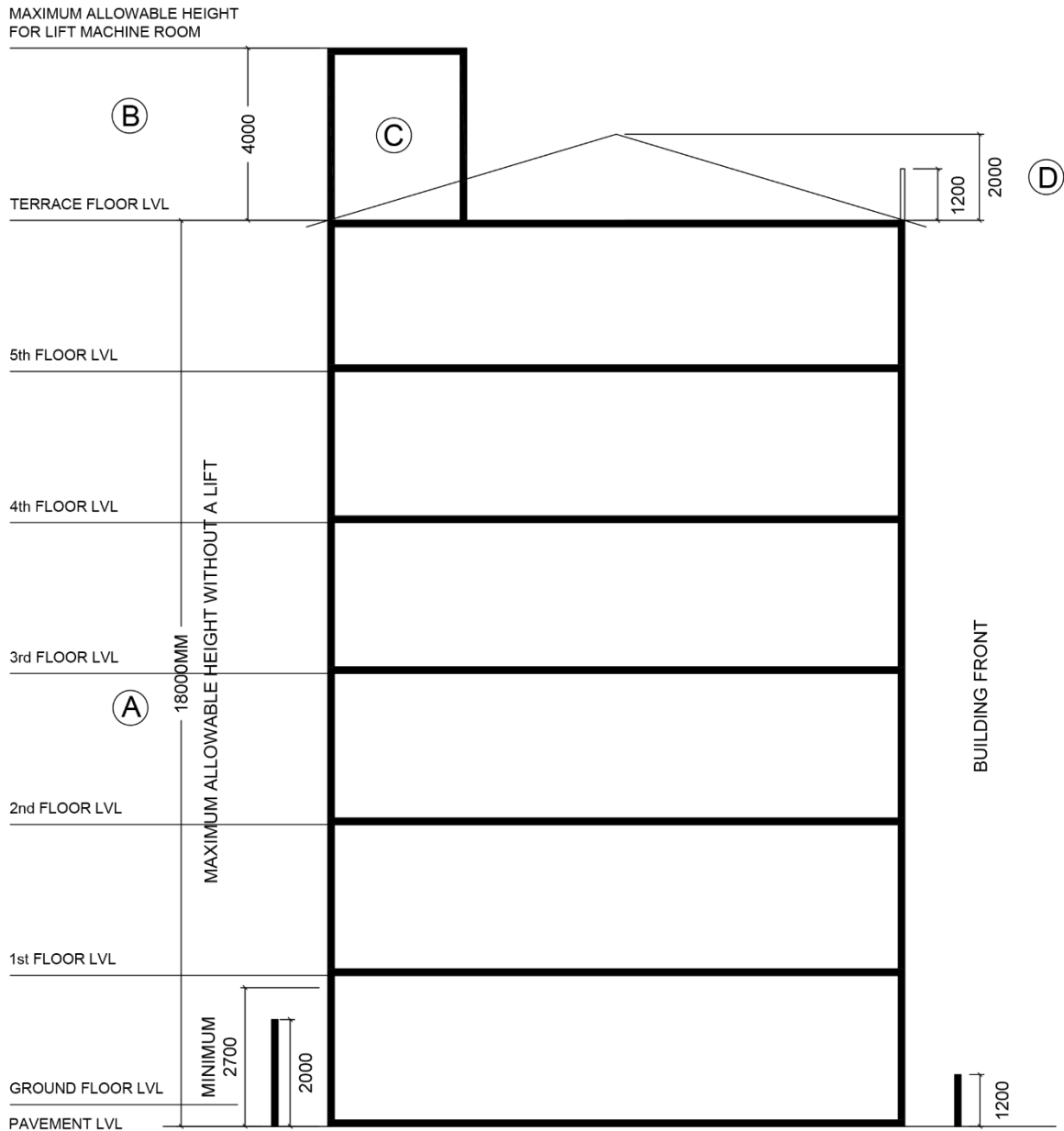
MINIMUM VOID DIMENSIONS

Voids should have the minimum dimensions as given above to be used for ventilation

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ANNEX 5 – Maximum Building Height



A – Maximum Building Height is 18m

B – Lift machine room and staircase enclosed area should have a maximum of 4m from terrace slab level

C – If the building contains only a staircase without a lift, staircase area should have a maximum of 3m in height from terrace floor slab level

D – If a pitch roof is provided, it should have a maximum height of 2m from the terrace floor level (roof beam spring line level)

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