

3.5. Parking

3.5.1. Parking shall be provided with smoke control systems in accordance with Table 10.23.

Table 10.23.: Parking Smoke Control System Requirements

LOCATION SYSTEM REQUIREMENTS

1. ENCLOSED PARKING

- i. Every parking which does not comply with the "open parking" definition as per Chapter 1, Table 1.9.34. and Table 10.23.2.1., every enclosed parking, enclosed parking structure, enclosed Robotic parking structure and parking at an enclosed basement shall be provided with a mechanical smoke purging system using a dedicated ducting in accordance with Section 2.13.
- ii. Make-up air or replacement air shall not be required for single basement carparks, having an area less than 3600 m². The drive ways (Entry and Exit) shall be permanently open and provide for the required make-up air.
- iii. A jet fan system shall not be permitted in enclosed parking.
- iv. Stairs at enclosed parking buildings or structures having a height of more than 23 m from the fire access level, shall be provided with a stair pressurization system in accordance with Section 2.6.

2. OPEN PARKING

1. "OPEN PARKING" DEFINITION

- i. Open parking shall comply with Chapter 1, Table 1.9.34.
- ii. Each parking level shall have permanent wall openings open to the exterior or atmosphere, for an area of not less than 0.4 m² for each linear meter of its exterior perimeter.
- . Such openings shall be distributed over 40 percent of the building perimeter surface or uniformly over each of at least two opposing side surfaces.
- iv. Interior wall lines, column lines and obstructions shall be at least 20 percent open, with openings distributed evenly to provide ventilation.
- v. Any part of the parking shall be within 30 m of the permanent natural ventilation opening on the perimeter surface, required by **Table 10.23.2.1.iii.**

2. "OPEN PARKING" HAVING A FLOOR AREA UP TO 4000 m²

- i. Open parking complying with **Table 10.23.2.1.**, and having a total floor area of up to 4000 m² shall not be required to have any smoke purging or ventilation system.
- ii. Stairs at open parking buildings or structures having a height of more than 23 m from the fire access level, shall be provided with a stair pressurization system in accordance with Section 2.6.

3. "OPEN PARKING" HAVING A FLOOR AREA MORE THAN 4000 m²

- i. Open parking complying with Table 10.23.2.1., and having a total floor area of more than 4000 m², shall be provided with either mechanical smoke purging system using ducting in accordance with Section 2.13. OR Jet fan system in accordance with Section 2.14 OR combination thereof as a hybrid system.
- ii. Stairs at open parking buildings or structures having a height of more than 23 m from the fire access level, shall be provided with a stair pressurization system in accordance with Section 2.6.
- iii. Smoke management system zoning shall be permitted to be 4000 m².

