

Item	Fire Safety Provisions	Minimum Requirements	Low Hazard	Ordinary	High Hazard
8.1.2.2(2)		Exterior stair or basket ladder-type fire escape that is accessible from all working levels of the structure, provides access to adjoining structures, and provides a continuous path to the means of egress described in 8.1.3.	Required	Required	Required
8.1.2.3	Stair Enclosures	Stair enclosures in existing structures shall be permitted to have non-fire-rated dust-resistant enclosures.	Required	Required	Required
8.1.3	MEANS OF EGRESS TO FINISHED GROUND LEVEL	An exterior stair or basket ladder-type fire escape shall provide passage to the finished ground level from the top of the end of an adjoining structure, such as a silo, conveyor, gallery, or gantry.	Required	Required	Required
8.1.4	UNDERGROUND SPACES				
8.1.4.1	Number of Means of Egress	Underground spaces shall have not less than two means of egress, except as permitted in 8.1.4.2	Required	Required	Required
8.1.4.2		Where the horizontal travel distance to the means of egress is less than 15 m in normally unoccupied spaces, a single means of egress shall be permitted.	Required	Permitted	NP-Not Permitted
8.1.5	TRAVEL DISTANCE (TD) TO EXITS	Travel distance shall not exceed that provided by 8.1.5.1 and 8.1.5.2.	Required	Required	NA
8.1.5.1		Travel distance in bulk storage facilities shall not exceed 61 m.	Required	Required	NA
8.1.5.2		Travel distance in bulk storage facilities protected throughout by an approved, supervised automatic sprinkler system, shall not exceed 122 m.	Required	Required	NA
8.2	(Reserved).				
9.0	SPECIAL PROVISIONS for PARKING STRUCTURES.	Parking Structures shall comply with the applicable NFPA codes and standards and this FLS Occupancy Chapter.			
9.1	APPLICATIONS	The provisions of item 9.0 shall apply to parking structures of the closed or open type, above or below grade plane.			



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9.1.1		The provisions of item 9.0 shall not apply to assisted mechanical-type or automated-type parking facilities that are not occupied by customers.	NA-Not Applicable	Required	NA
9.1.2		For further information and other provisions on parking structures, see the latest NFPA 88A Standard for Parking Structures.	NA	Required	NA
9.2	MULTIPLE OCCUPANCIES				
9.2.1		Where both parking and repair operations are conducted in the same building, the entire building shall comply with the provisions for Industrial Occupancies except as modified by item 9.2.1.1.	NA	Required	NA
9.2.2	SEPARATED OCCUPANCIES	Where the parking and repair sections are separated by not less than 1-hour fire-rated construction, the parking and repair sections shall be treated separately.	NA	Required	NA
9.2.3		In areas where repair operations are conducted, the means of egress shall comply with the means of egress provisions of industrial occupancies.	NA	Required	NA
9.3	OPEN PARKING STRUCTURES				
9.3.1	AREA OF WALL OPENING	For natural ventilation purposes, the exterior sides of the structure shall have uniformly distributed openings on two or more sides.	NA	Required	NA
9.3.2		The area of such openings in exterior walls on a level shall be not less than 20 percent of the total perimeter wall area of each level.	NA	Required	NA
9.3.3		The aggregate length of the openings considered to be providing natural ventilation shall be not less than 40 percent of the perimeter of the level.	NA	Required	NA



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9.3.4		Where the required openings are uniformly distributed over two opposing sides of the building, item 9.3.3 shall not apply.	NA	Required	NA
9.3.5		Interior wall lines and column lines shall be at least 20 percent open, with openings uniformly distributed to provide ventilation.	NA-Not Applicable	Required	NA
9.4	CLASSIFICATION OF OCCUPANCIES				
9.4.1		Incidental vehicle parking in another occupancy shall not be the basis for overall occupancy classification.	NA	Required	NA
9.5	CLASSIFICATION OF HAZARD OF CONTENTS				
9.5.1		Parking structures used only for the storage of vehicles shall be classified as ordinary hazard in accordance with item 1.4	NA	Required	NA
9.5.2		The presence of gasoline, diesel fuel, and alternative fuels such as compressed natural gas in closed automobile fuel tanks or gas cylinders does not warrant a high hazard classification.	NA	Permitted	NA
9.6	MINIMUM CONSTRUCTION REQUIREMENTS				
9.6.1		Those parts of parking structures located within, immediately below, attached to, or less than 3000 mm from a building used for any other purpose shall be separated by walls, partitions, floors, or floor-ceiling assemblies having fire resistance ratings of not less than 2 hours.	NA	Required	NA
9.6.2		No fire-rated separation shall be required when parts of a parking structure and a building used for any other purpose are separated by 3000 mm or more, and are attached only via open pedestrian balconies or bridges or open vehicle bridges.	NA	Permitted	NA



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9.6.3		Those portions of an open parking structure located within or immediately below a building used for another purpose shall have the principal supporting members and bearing walls in all levels of the parking structure protected to provide a fire-resistive rating equivalent to that required for the other occupancy.	NA	Required	NA
9.6.4		Offices or other similar spaces that are related to the operation of the parking structure and are less than 300 m ² in area, other than cashier or attendant booths, shall be separated from parking areas by walls or partitions that resist the passage of smoke.	NA	Required	NA
9.6.5		Floor surfaces shall be of noncombustible material.	NA	Required	NA
9.6.6		Combustible construction is not permitted.	NA	NP	NA
9.6.7		Asphalt shall be permitted on grade.	NA	Permitted	NA
9.6.8	ENCLOSED PARKING STRUCTURES	The maximum building height, number of stories, and area limitations for enclosed parking structures shall be in accordance with NFPA 5000 chap. 7.	NA	Required	NA
9.6.9	OPEN PARKING STRUCTURES	Open parking structures shall be of Type I or Type II construction in accordance with NFPA 5000 chapter 7 and as defined in NFPA 220.	NA	Required	NA
9.6.9.1		Heights and floor areas of open parking structures of Type I, Type II (222), or Type II (111) construction shall be permitted to be unlimited.	NA	Required	NA
9.6.9.2		Open parking structures of Type II (000) construction shall be permitted to be of unlimited area where both of the following conditions are met:	NA	Required	NA
9.6.9.2(2)		The height does not exceed 25 m.	NA	Required	NA
9.6.9.2(2)		The horizontal distance from any point on any parking level to an exterior wall opening on a street, an alley, a courtyard, or other similar permanent open space does not exceed 60 m.	NA	Required	NA



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9.7	MEANS OF EGRESS REQUIREMENTS				
9.7.1	MEANS OF EGRESS COMPONENTS	Components of means of egress shall be limited to the types described in items 9.7.1.1 through 9.7.1.2	NA	Required	NA
9.7.1.1	Doors	Doors in accordance with item 2.1.1.	NA	Permitted	NA
9.7.1.1(1)		Special locking arrangements complying with NFPA 101 section 7.2.1.6.	NA	Permitted	NA
9.7.1.1(2)		An opening for the passage of automobiles shall be permitted to serve as an exit from a street floor, provided that no door or shutter is installed therein.	NA	Permitted	NA
9.7.1.2	Stairs	Stairs in accordance with 2.1.2 shall be permitted, unless otherwise permitted by item 9.7.1.2.1.	NA	Required	NA
9.7.1.2(1)	Stair Enclosures	In open parking structures, stairs are not required to be enclosed.	NA	Permitted	NA
9.7.1.2(2)	Winders	Winders shall be not be permitted.	NA	NP	NA
9.7.1.3	Smokeproof Enclosures	Smokeproof enclosures complying with item 2.1.3.	NA	Permitted	NA
9.7.1.4	Horizontal Exits	Horizontal exits complying with item 2.1.4.	NA	Permitted	NA
9.7.1.5	Ramps	Ramps shall be permitted in accordance with any of the following conditions:	NA	Permitted	NA
9.7.1.5(1)	Ramps Usage	Ramps complying with item 2.1.5 shall be permitted and shall not be subject to normal vehicular traffic where used as an exit.	NA	Permitted	NA
9.7.1.5(2)	Ramps as Second Means of Egress	In a ramp-type open parking structure with open vehicle ramps not subject to closure, the ramp shall be permitted to serve in lieu of the second means of egress from floors above the level of exit discharge, provided that the ramp discharges directly outside at the street level.	NA-Not Applicable	Permitted	NA
9.7.1.5(3)		For parking structures extending only one floor level below the level of exit discharge, a vehicle ramp leading directly to the outside shall be permitted to serve in lieu of the second means of egress, provided that no door or shutter is installed therein.	NA	Permitted	NA



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9.7.1.6	Exit Passageways	Exit passageways complying with item 2.1.6.	NA	Permitted	NA
9.7.1.7	Fire Escape Stairs	Fire escape stairs complying with item 2.1.7.	NA	Permitted	NA
9.7.1.8	Areas of Refuge	Areas of refuge complying with item 2.1.9.	NA	Permitted	NA
9.7.1.8(1)		In open-air parking structures, the area of refuge requirements shall not apply.	NA	Permitted	NA
9.7.2	NUMBER OF MEANS OF EGRESS	The number of means of egress shall comply with items 9.7.2.1 and 9.7.2.2.	NA	Required	NA
9.7.2.1		Not less than two means of egress shall be provided from every floor or section of every parking structure.	NA	Required	NA
9.7.2.2		Floors or portions thereof with an occupant load of more than 500 - <1000 shall have the minimum 3 number of separate and remote means of egress.	NA	Required	NA
9.7.3	ARRANGEMENT OF MEANS OF EGRESS				
9.7.3.1	Common Path of Travel	A common path of travel shall be permitted for the first 15 m from any point in the parking structure.	NA	Required	NA
9.7.3.2	Dead-Ends	Dead ends shall not exceed 15 m.	NA	Required	NA
9.7.3.3	Fuel Dispensing Devices within Parking Structures	Where fuel-dispensing devices are located within a parking structure, items 9.7.3.3(1) and 9.7.3.3(2) shall apply.	NA	Required	NA
9.7.3.3(1)		Travel away from the fuel-dispensing device in any direction shall lead to an exit with no dead end in which occupants might be trapped by fire.	NA	Required	NA
9.7.3.3(2)		Within closed parking structures containing fuel-dispensing devices, exits shall be arranged and located to meet all of the following additional requirements:	NA	Required	NA
9.7.3.3(2)(a)		Exits shall lead to the outside of the building on the same level or to stairs, with no upward travel permitted, unless direct outside exits are available from that floor.	NA-Not Applicable	Required	NA



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9.7.3.3(2)(b)		Any story below the story at which fuel is being dispensed shall have exits leading directly to the outside via outside stairs or doors at the finished ground level.	NA	Required	NA
9.7.4	TRAVEL DISTANCE (TD) TO EXITS	Travel distance shall not exceed that provided by items 9.7.4.1 and 9.7.4.2, except as otherwise permitted in item 9.7.4.5.	NA	Required	NA
9.7.4.1	Enclosed Parking Structures	Travel distance in enclosed parking structures shall not exceed 46 m.	NA	Required	NA
9.7.4.2		Travel distance in enclosed parking structures protected with an approved automatic sprinkler system shall not exceed 61 m.	NA	Required	NA
9.7.4.3	Open Parking Structures	Travel distance in open parking structures shall not exceed 91 m.	NA	Required	NA
9.7.4.4		Travel distance in open parking structures protected with an approved automatic sprinkler system shall not exceed 122 m.	NA	Required	NA
9.7.4.5	Parking Structure Open Not Less than 50% on All Sides	Travel distance in parking structure open not less than 50% on all sides shall not exceed 122 m.	NA	Required	NA
9.7.4.6	Open Parking Structures	In open parking structures, travel distance shall comply with one of the following:	NA	Required	NA
9.7.4.6(1)		The travel distance to an exit shall not exceed the travel distance specified in items 9.7.4.1 through 9.7.4.2.	NA	Required	NA
9.7.4.6(2)		The travel distance to a stair that does not meet the provisions for an exit enclosure shall not exceed the travel distance specified in items 9.7.4.1 and 9.7.4.2, and travel along the stair shall not be limited.	NA	Required	NA
9.7.5	DISCHARGE FROM EXITS	Exit discharge shall comply with item 2.5.	NA	Required	NA
9.7.6	ILLUMINATION OF MEANS OF EGRESS	Means of egress shall be illuminated in accordance with item 2.6 or with natural lighting that provides the required level of illumination in structures occupied only during daylight hours.	NA	Required	NA
9.7.7	EMERGENCY LIGHTING	Parking structures shall be provided with emergency lighting in accordance item 2.7, except for structures occupied only during daylight hours and arranged to provide the required level of illumination of all portions of the means of egress by natural means.	NA-Not Applicable	Required	NA



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9.7.8	MARKINGS OF MEANS OF EGRESS	Means of egress shall have signs in accordance with item 2.8.	NA	Required	NA
9.8	PROTECTION				
9.8.1	PROTECTION OF VERTICAL OPENINGS				
9.8.1.1	Vertical Openings in Enclosed Parking Structures	Vertical openings through floors in enclosed parking structures four stories or more in height shall be enclosed with walls or partitions having a fire resistance rating of not less than 2 hours.	NA	Required	NA
9.8.1.2		Vertical openings through floors in enclosed parking structures less than four stories in height shall be enclosed with walls or partitions having a fire resistance rating of not less than 1 hour.	NA	Required	NA
9.8.1.3	Ramps	Ramps in enclosed parking structures shall not be required to be enclosed where the parking structure is protected throughout by an approved, automatic sprinkler system.	NA	Permitted	NA
9.8.1.4		Ramps in enclosed parking structures shall not be required to be enclosed where the parking structure is protected throughout by an approved, supervised, automatic fire detection system and a mechanical ventilation system in accordance with item 9.8.5.	NA	Permitted	NA
9.8.1.5	Openings in Floor Assembly between Enclosed Parking Structure and Open Parking Structure	Openings in the floor assembly between an enclosed parking structure and an open parking structure, except exit openings, shall not be required to be enclosed where the enclosed parking structure is protected in accordance with item 9.8.1.3 or 9.8.1.4.	NA	Permitted	NA
9.8.1.6	Vertical Openings in Open Parking Structures	Unprotected vertical openings through floors in open parking structures shall be permitted.	NA	Permitted	NA
9.8.2	INTERIOR FINISH				
9.8.2.1	Interior Wall and Ceiling Finish	Interior wall and ceiling finish materials shall be Class A, Class B, or Class C in parking structures and shall be as required by item 3.3.1 in exit enclosures.	NA	Required	NA
9.8.2.2	Interior Floor Finish	Interior floor finish in exit enclosures and exit access corridors shall be Class I or Class II.	NA-Not Applicable	Required	NA



9.8.3	DETECTION, ALARM AND COMMUNICATIONS	A fire alarm system shall be required for parking structures, except as modified by 9.8.3.1 and 9.8.3.2.	NA	Required	NA
9.8.3.1		Open parking structures shall not be required to have a fire detection system.	NA	NR	NA
9.8.3.2		Parking structures protected throughout by an approved automatic sprinkler system shall not be required to have a fire detection system.	NA	Required	NA
9.8.3.3	Initiation	Initiation of the fire alarm system required in item 9.8.3, shall be in accordance with the requirements for storage occupancies in item 3.4.	NA	Required	NA
9.8.3.4	Notification (Sounder and Flasher)	The required fire alarm system in item 9.8.3 shall activate an audible and visible alarm in a continuously attended location for purposes of initiating emergency action.	NA	Required	NA
9.8.4	AUTOMATIC SPRINKLER SYSTEM				
9.8.4.1	Enclosed Parking Structures	Enclosed parking structures located at or above grade plane, within or immediately below a building used for another occupancy, shall have an automatic sprinkler system throughout the parking structure.	NA	Required	NA
9.8.4.1(1)	Open Parking Structures	Automatic sprinkler system shall not be required in open parking structures.	NA	NR	NA
9.8.4.1.2	High-rise, Open Parking Structures	Open parking structures located under other occupancies within a high-rise building, shall be protected throughout by an approved, supervised automatic sprinkler system.	NA	Required	NA
9.8.5	SMOKE CONTROL SYSTEM	See 3.6.5 for requirements.			
9.9	(Reserved).				

