GENERAL REQUIREMENTS OVERVIEW FOR ACCESSIBILITY COMPLIANCE

CHAPTER 1: APPLICATION & ADMINISTRATION

CHAPTER 2: SCOPING REQUIREMENTS

212 KITCHENS, KITCHENETTES, AND SINKS

212.1 GENERAL: Where provided, kitchens, kitchenettes, and sinks shall comply with 212.

212.2 KITCHENS & KITCHENETTES: Kitchens and kitchenettes shall comply with 804.

212.3 SINKS: Where sinks are provided, at least 5 percent, but no fewer than one, of each type provided in each accessible room or space shall comply with 606. EXCEPTION: Mop or service sinks shall not be required to comply with 212.3.

225 STORAGE

225.2 Lockers. Where lockers are provided, at least 5 percent, but no fewer than one of each type, shall comply with 811.

DEPOSITORIES, VENDING & CHANGE MACHINES, 228 MAIL BOXES, AND FUEL DISPENSERS

228.1 GENERAL:
Where provided, at least one of each type of depository, vending machine, change machine, and fuel dispenser shall comply with 309.

CHAPTER 3: BUILDING BLOCKS

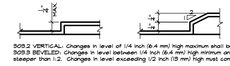
302 FLOOR OR GROUND SURFACES

302.1 GENERAL: Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302. EXCEPTIONS: 1. In animal containment areas, floor & ground surfaces shall not be required to be stable, firm, & slip resistant.
2. Areas of sport activity shall not be required to comply with 302.

302.2 CARPET: Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Pile height shall be 1/2 inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge. Carpet edge trim shall comply with 302.

302.3 OPENINGS: Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.2.3, 409.4.3, 410.4.3, 412.6.3, and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

303 CHANGES IN LEVEL



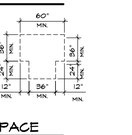
303.2 VERTICAL: Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.
303.3 BEVELED: Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2. Changes in level exceeding 1/2 inch (13 mm) high must comply with 405(Ramps) or 406(Curb Ramps).

304 TURNING SPACE

304.1 GENERAL: Turning space shall comply with 304.

304.2 FLOOR OR GROUND SURFACES: Floor or ground surfaces of a turning space shall comply with 302. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

304.3 SIZE:
304.3.1 CIRCULAR SPACE: shall be a space of 60 inches diameter minimum.
304.3.2 T-SHAPED SPACE: Turning space can be clear floor or ground space. T-Shape Space: The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306. T-Shaped Space: The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.



305 CLEAR FLOOR OR GROUND SPACE

305.1 GENERAL: Clear floor or ground space shall comply with 305.

305.2 FLOOR OR GROUND SURFACES: Floor or ground surfaces of a clear floor or ground space shall comply with 302. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

305.3 SIZE: The clear floor or ground space shall be 30 inches (760 mm) minimum by 48 inches (1220 mm) minimum.

305.4 KNEE AND TOE CLEARANCE: Unless otherwise specified, clear floor or ground space shall be permitted to include knee and toe clearance complying with 306.

305.5 POSITION: Unless otherwise specified, clear floor or ground space shall be positioned for either forward or parallel approach to an element.

305.6 APPROACH: One full unobstructed side of the clear floor or ground space shall adjoin an accessible route or adjoin another clear floor or ground space.

305.7 MANEUVERING CLEARANCE: Where a clear floor or ground space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearance shall be provided in accordance with 305.7.1 and 305.7.2.
305.7.1 Forward Approach. Alcoves shall be 36 inches (915 mm)wide minimum where the depth exceeds 24 inches (610 mm).
305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

306 KNEE AND TOE CLEARANCE

306.1 GENERAL: Where space beneath an element is included as part of clear floor or ground space or turning space, the space shall comply with 306. Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear floor or ground space or turning space.

306.2 TOE CLEARANCE:
306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm)above the finish floor or ground shall be considered toe clearance and shall comply with 306.2.
306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an element.
306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element.
306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.
306.2.5 Width. Toe clearance shall be 30 inches (760 mm) wide minimum. 306.3 Knee Clearance.

306.3 KNEE CLEARANCE:
306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm)above the finish floor or ground shall be considered knee clearance and shall comply with 306.3.
306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the finish floor or ground.
306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.
306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.
306.3.5 Width. Knee clearance shall be 30 inches (760 mm) wide minimum.

307 PROTRUDING OBJECTS

307.1 GENERAL: Protruding objects shall comply with 307.

307.2 PROTRUSION LIMITS: Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path. EXCEPTION: Handrails shall be permitted to protrude 4-1/2 inches (115 mm) maximum.

307.3 POST-MOUNTED OBJECTS: Free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches (305 mm) maximum when located 27 inches (685 mm) minimum and 80 inches (2030 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the finish floor or ground. EXCEPTION: The sloping portions of handrails and guards 34 inches (865 mm) minimum and 38 inches (965 mm) maximum above ramps shall be permitted to comply with 307.3.

307.4 VERTICAL CLEARANCE: Vertical clearance shall be 80 inches (2030 mm) high minimum. Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm) high. The leading edge of such guardrail or barrier shall be located 27 inches (685 mm) maximum above the finish floor or ground. EXCEPTION:Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

307.5 REQUIRED CLEAR WIDTH: Protruding objects shall not reduce the clear width required for accessible routes.

308 REACH RANGES

308.1 GENERAL: Reach ranges shall comply with 308.

308.2 FORWARD REACH:
308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.
308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.

308.3 SIDE REACH:
308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground. EXCEPTION: 1. An obstruction shall be permitted between the element and the side reach provided that the depth of the obstruction is 10 inches (255 mm) maximum.
2. Operable parts of fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on islands or pedestals.
308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the high side reach shall be 48 inches (1220 mm) maximum. The high side reach shall be 46 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be reduced 1 inch (25 mm) for each additional inch (25 mm) of reach depth. EXCEPTIONS: 1. The top of washing machines and clothes dryers shall be permitted to be 36 inches (915 mm) maximum above the finish floor.
2. SAME AS 308.3.1

309 OPERABLE PARTS

309.1 GENERAL: Operable parts shall comply with 309.

309.2 CLEAR FLOOR SPACE: A clear floor or ground space complying with 305 shall be provided.

309.3 HEIGHT: Operable parts shall be placed within one or more of the reach ranges specified in 308.

309.4 OPERATION: Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2N) maximum. EXCEPTION: Bale pump nozzles shall not be required to provide operable parts that have an activating force of 8 pounds (35.6N) maximum.

CHAPTER 4: ACCESSIBLE ROUTES

402 ACCESSIBLE ROUTES

402.2 COMPONENTS: Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

403 WALKING SURFACES

403.1 GENERAL: Walking surfaces that are a part of an accessible route shall comply with 403.

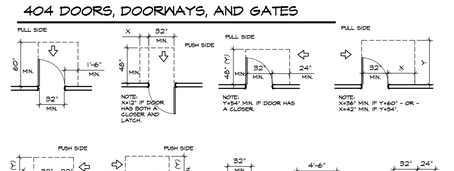
403.2 FLOOR OR GROUND SURFACE: Floor or ground surfaces shall comply with 302.

403.3 SLOPE: The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 CHANGES IN LEVEL: Changes in level shall comply with 303.

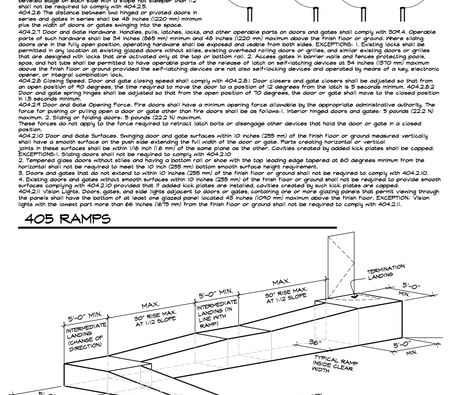
403.5 CLEARANCES: Walking surfaces shall provide clearances complying with 403.5. EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.
403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.
403.5.2 Clear Width at Turns. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be provided in segments and separated by segments that are 42 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.
403.5.3 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn. EXCEPTION: Where the clear width at the turn is 60 inches (1525 mm) minimum compliance with 403.5.2 shall not be required.
403.5.5 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either: a space 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or, an intersection of two walking surfaces providing a T-shaped space complying with 304.3.2 where the base and arms of the T-shaped extend 48 inches (1220 mm) minimum beyond the intersection.
403.6 HANDRAILS: Where handrails are provided along walking surfaces with running slopes not steeper than 1:20 they shall comply with 505.

404 DOORS, DOORWAYS, AND GATES



404.2.4.4 Floor or ground surfaces of a turning space shall comply with 302. Changes in level are not permitted. EXCEPTIONS:
1. Slopes not steeper than 1:48 shall be permitted. 2. Changes in level at thresholds complying with 404.2.5 shall be permitted.
404.2.5 Thresholds. If provided at doorways, shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303. EXCEPTION: Existing or altered thresholds 3/4 inch(19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.
404.2.6 The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of doors or gates swinging into the space.
404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Doors and gates in the fully open position, operating hardware shall be exposed and usable from both sides. EXCEPTIONS: 1. Sliding locks shall be permitted in any location at existing glazed doors without stiles, existing overhead rolling doors or grilles, and similar existing doors or grilles that are designed to only be locked and unlocked only at the top or bottom rail. 2. Access gates in correctional facilities and detention facilities, spas, and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finish floor or ground provided that self-latching devices are not also self-locking devices and operable by means of a key, electronic opener, or integral combination lock.
404.2.8 Closing Speed. Door and gate closing speed shall comply with 404.2.8.1 Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum. 404.2.8.2 Spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.
404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum. 2. Sliding or folding doors: 5 pounds (22.2 N) maximum.
These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position in 13 seconds minimum.
404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped. EXCEPTIONS:1. Sliding doors shall not be required to comply with 404.2.10.
2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at 60 degrees minimum from the horizontal shall not be required to meet the 10 inch (255 mm) bottom smooth surface height requirement.
3. Doors and gates that do not extend to within 10 inches (255 mm) of the finish floor or ground shall not be required to comply with 404.2.10.
4. Existing doors and gates without smooth surfaces within 10 inches (255 mm) of the finish floor or ground shall not be required to provide smooth surfaces complying with 404.2.10 provided that if added kick plates are installed, cavities created by such kick plates are capped.
404.2.11 Vision Lights. Fire doors shall have vision lights with fire protection ratings equivalent to the fire door assembly. Vision lights in doors other than fire doors shall have the bottom of at least one glazed panel located 43 inches (1092 mm) maximum above the finish floor. EXCEPTION: Vision lights with the lowest part more than 66 inches (1675 mm) from the finish floor or ground shall not be required to comply with 404.2.11.

405 RAMPS



406 CURB RAMPS

406.1 GENERAL:Curb ramps on accessible routes shall comply with 406, 405.2 through 405.5, and 405.10.

406.2 CONTINUOUS SLOPE:Curb ramps and the flared sides of curb ramps shall be constructed with a continuous slope that shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.

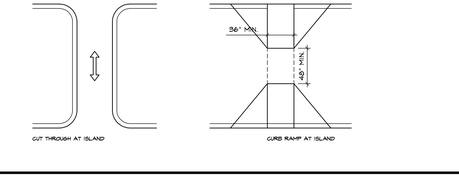
406.3 SIDES OF CURB RAMPS:Where provided, curb ramp flares shall not be steeper than 1:10.

406.4 LANDINGS:Landings shall be provided at the tops of curb ramps. The landing clear length shall be 36 inches (915 mm) minimum. The landing clear width shall be at least as wide as the curb ramp, not including the flared sides, leading to the landing. EXCEPTION:In alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.

406.5 LOCATION:Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.6 RAMPS:Ramps shall be provided where a change in level between the curb ramp and the adjacent street or turning space is greater than 1/2 inch (13 mm). Ramps and flares shall comply with 405. Curb ramps at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the curb ramp and within the marked crossing.

406.7 ISLANDS: Raised islands in crossings shall be cut through level with the street or have curb ramps on both sides. Each curb ramp shall have a level area 48 inches (1220 mm) long minimum by 36 inches (915 mm) wide minimum at the top of the curb ramp in the part of the island intersected by the crossings. Each 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum level area shall be oriented so thatthe 48 inch (1220 mm) minimum length is in the direction of the running slope of the curb ramp it serves. The 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum areas and the accessible route shall be permitted to overlap.



CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

502 PARKING SPACES

502.1 GENERAL: Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings. EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 VEHICLE SPACES: See Diagrams Shown

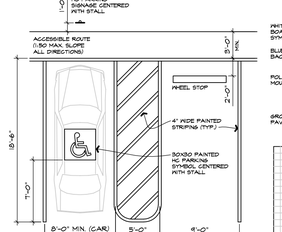
502.3 ACCESS AISLE: See Diagrams Shown
502.3.1 Width. Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) wide minimum.
502.3.2 Length. Access aisles shall extend the full length of the parking spaces they serve.
502.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.
502.3.4 Location. Access aisles serving parking spaces shall be located on the shortest accessible route of travel. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

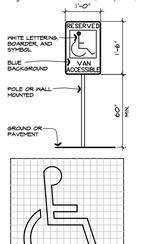
502.4 FLOOR OR GROUND SURFACES: Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

502.5 VERTICAL CLEARANCE: Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

502.6 IDENTIFICATION: Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches (1525 mm) minimum above the finish floor or ground surface measured to the bottom of the sign.

502.7 RELATIONSHIP TO ACCESSIBLE ROUTES: Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.





504 STAIRWAYS

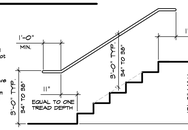
504.1 GENERAL: Stairs shall comply with 504.

504.2 TREADS AND RISERS: See Diagrams Shown

504.3 OPEN RISERS: Open risers are not permitted.

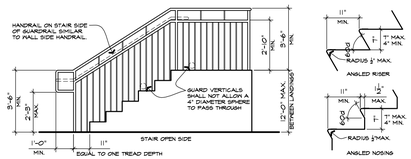
504.4 TREAD SURFACE: Stair treads shall comply with 302. Changes in level are not permitted. EXCEPTION: Treads shall be permitted to have a slope not steeper than 1:48.

504.5 NOSINGS: The radius of curvature at the leading edge of the tread shall be 1/2 inch (13 mm) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from the vertical. The permitted projection of the leading edge shall extend 1 1/2 inches (38 mm) maximum over the tread below.



504.6 HANDRAILS: Stairs shall have handrails complying with 505.

504.7 PIT CONDITIONS: Stair treads and landings subject to net conditions shall be designed to prevent the accumulation of water.



505 HANDRAILS

505.1 GENERAL: Handrails provided along walking surfaces complying with 403, required at ramps complying with 405, and required at stairs complying with 504 shall comply with 505.

505.2 WHERE REQUIRED: Handrails shall be provided on both sides of stairs and ramps. EXCEPTION: In assembly areas, handrails shall not be required on both sides of stairs or ramps where a handrail is provided at either side or within the aisle width.

505.3 CONTINUITY: Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs. EXCEPTION: In assembly areas, handrails on ramps shall not be required to be continuous in front of seating.

505.4 HEIGHT: Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

505.5 GRIPPING SURFACE: Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1 1/2 inches (38 mm) minimum below the bottom of the handrail gripping surface. EXCEPTIONS:
1. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are installed adjacent to a solid surface.
2. The gripping surfaces between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch (3.2 mm) for each 1/2 inch (13 mm) of additional handrail perimeter dimension that exceeds 4 inches (100 mm).

505.7 CROSS SECTION: Handrail gripping surfaces shall have a cross section complying with 505.7.1 or 505.7.2.
505.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.
505.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6-1/4 inches (160 mm) maximum and a cross section dimension of 2-1/4 inches (57 mm) maximum.

505.8 SURFACES: Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

505.9 FITTINGS: Handrails shall not rotate within their fittings.

505.10 HANDRAIL EXTENSIONS: Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs in accordance with 505.10. EXCEPTIONS:
1. Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps.
2. In assembly areas, extensions shall not be required for ramp handrails in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within aisles.
3. In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.
505.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.
505.10.2 Top Extension at Stairs. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.
505.10.3 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

602 DRINKING FOUNTAINS

602.1 GENERAL: Drinking fountains shall comply with 307 and 602.

602.2 CLEAR FLOOR SPACE: Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided. EXCEPTION:A parallel approach complying with 305 shall be permitted at units for children's use where the spout is 30 inches (760 mm) maximum above the finish floor or ground and is 5 inches (140 mm) maximum from the front edge of the unit, including bumpers.

602.3 OPERABLE PARTS: Operable parts shall comply with 309.

602.4 SPOUT HEIGHT: Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.5 SPOUT LOCATION: The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.

602.6 WATER FLOW: The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) from the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

602.7 DRINKING FOUNTAINS FOR STANDING PERSONS: Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1092 mm) maximum above the finish floor or ground.

CHAPTER 7: COMMUNICATION ELEMENTS

702 FIRE ALARM SYSTEMS

702.1 GENERAL: Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1) except that the minimum soundlevel sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3.9 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition). EXCEPTION: Fire alarm systems in medical care facilities shall be permitted to be provided in accordance with industry practice.

703 SIGNS

703.2 RAISED CHARACTERS:
703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.
703.2.2 Case. Characters shall be uppercase.
703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.
703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".
703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I". EXCEPTION:Where separate raised and visual characters with the same information are provided, raised character height shall be permitted to be 1/2 inch (13 mm) minimum.
703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent minimum and 30 percent maximum of the height of the character. Stroke thickness of adjacent raised characters within a message, excluding round spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5mm) minimum.
703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.3 BRAILLE:
Braille shall be contracted (Grade 2) and shall comply with 703.3 and table 703.4
703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters in a word shall not be required where the first word of sentences, proper nouns & names, individual letters of the alphabet, initials, & acronyms.
Table 703.3 BRAILLE DIMENSIONS:

Measurement Range	Minimum in inches to Maximum in inches
Dot base diameter	0.059 (1.5 mm) to 0.063 (1.6 mm)
Distance between two dots in the same cell	0.090 (2.3 mm) to 0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells	0.241 (6.1 mm