

302 FLOOR OR GROUND SPACE

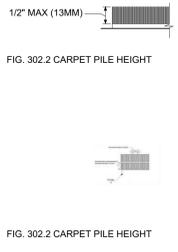
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NOTES:

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 UNCOIT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" (13MM) MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF EXPOSED EDGE. CARPET EDGE TRIM SHALL COMPLY WITH SECTION 303.

ADVISORY 302.2 CARPET. CARPETS AND PERMANENTLY AFFIXED MATS CAN SIGNIFICANTLY INCREASE THE AMOUNT OF FORCE (ROLL RESISTANCE) NEEDED TO PROPUL A WHEEL CHAIR OVER A SURFACE. THE FIRMER THE CARPETING AND BACKING, THE LOWER THE ROLL RESISTANCE. A PILE THICKNESS UP TO 1/2" (13MM) IS ALLOWED, ALTHOUGH A LOWER PILE PROVIDES EASIER WHEELCHAIR MANEUVERING. IF A BACKING, CUSHION OR PAD IS USED, IT MUST BE FIRM. PREFERABLY, CARPET PAD SHOULD NOT BE USED.

302.3. OPENINGS. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" (13MM) DIAMETER EXCEPT AS ALLOWED IN 407.4.3, 407.4.3.1, 410.5 AND 510.10. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.



303 CHANGES IN LEVEL

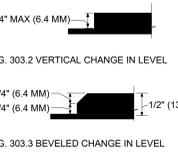
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NOTES:

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" (6.4 MM) HIGH MINIMUM AND 1/2" (13 MM) HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.

ADVISORY 303.3 BEVELED. A CHANGE IN LEVEL OF 1/2" (13 MM) IS PERMITTED TO BE 1/4" (6.4 MM) VERTICAL PLUS 1/2" (6.4 MM) BEVELED. HOWEVER, IN NO CASE MAY THE COMBINED CHANGE IN LEVEL EXCEED 1/2" (13 MM). CHANGES IN LEVEL EXCEEDING 1/2" (13 MM) MUST COMPLY WITH 405 (RAMPS) OR 406 (CURB RAMPS).



304 TURNING SPACE

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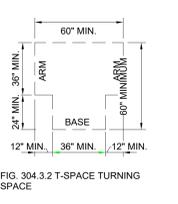
NOTES:

304.2. FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACES OF A TURNING SPACE SHALL COMPLY 302. CHANGES IN LEVEL ARE NOT PERMITTED.

EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

304.3.1. CIRCULAR SPACE. THE TURNING SPACE SHALL BE A SPACE OF 60" (1525) DIAMETER MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.

304.3.2. T-SHAPED SPACE. THE TURNING 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

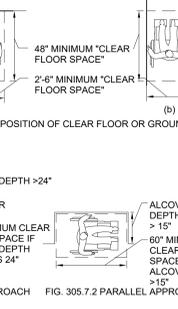
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NOTES:

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.

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.

305.6. APPROACH. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE.



306 KNEE AND TOE CLEARANCE

NOT TO SCALE

NOTES:

306.2. KNEE AND TOE CLEARANCE.

306.2.1. GENERAL. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 27" (685 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" (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" (430 MM) MINIMUM UNDER AN ELEMENT.

306.2.4. ADDITIONAL CLEARANCE. SPACE EXTENDING GREATER THAN 6" (150 MM) BEYOND THE AVAILABLE KNEE CLEARANCE AT 9" (230 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.

306.3. KNEE CLEARANCE.

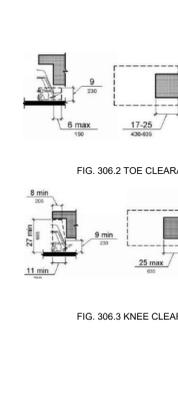
306.3.1. GENERAL. SPACE UNDER AN ELEMENT BETWEEN 9" (230 MM) AND 27" (685 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED KNEE CLEARANCE AND SHALL COMPLY WITH 306.3.

306.3.2. MAXIMUM DEPTH. KNEE CLEARANCE SHALL EXTEND 25" (635 MM) MAXIMUM UNDER AN ELEMENT THAT IS PROVIDED THAT THE CLEARANCE SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48" (1220 MM) LONG MINIMUM AND 36" (915 MM) WIDE MINIMUM.

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" (280 MM) DEEP MINIMUM AT 27" (685 MM) ABOVE THE FINISH FLOOR OR GROUND.

306.3.4. CLEARANCE REDUCTION. BETWEEN 9" (230 MM) AND 27" (685 MM) ABOVE THE FINISH FLOOR OR GROUND, THE KNEE CLEARANCE SHALL BE PERMITTED TO REDUCE AT A RATE OF 1" (25 MM) IN DEPTH FOR EACH 4" (100 MM) IN RISE.

306.3.5. WIDTH. KNEE CLEARANCE SHALL BE 36" (915 MM) WIDE MINIMUM.



307 PROTRUDING OBJECTS

NOT TO SCALE

NOTES:

307.2. PROTRUSION LIMITS. OBJECTS WITH LEADING EDGES MORE THAN 27" (685 MM) AND NOT MORE THAN 60" (2030) ABOVE THE FINISH FLOOR OR GROUND SHALL PROTRUDE 4" (100 MM) MAXIMUM HORIZONTALLY INTO THE CIRCULATION.

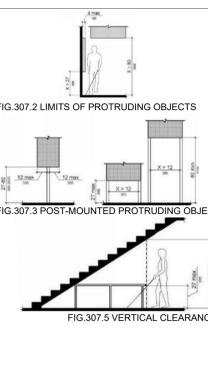
EXCEPTION: HANDRAILS SHALL BE PERMITTED TO PROTRUDE 4" (115 MM) MAXIMUM.

307.3. POST MOUNTED OBJECTS. FREE-STANDING OBJECTS MOUNTED ON POSTS OR PLYONS SHALL OVERHANG CIRCULATION PATHS 12" (305 MM) MAXIMUM WHEN LOCATED 27" (685 MM) MINIMUM AND 80" (2030) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE A SIGN OR OTHER OBSTRUCTION IS MOUNTED BETWEEN POSTS OR PLYONS AND THE CLEAR DISTANCE BETWEEN THE POSTS AND PLYONS IS GREATER THAN 12" (305 MM), THE LOWEST EDGE OF SUCH SIGN OR OBSTRUCTION SHALL BE 27" (685 MM) MAXIMUM OR 80" (2030) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

EXCEPTION: THE SLOPING PORTIONS OF HANDRAILS SERVING STAIRS AND RAMPS SHALL NOT BE REQUIRED TO COMPLY WITH 307.3.

307.4. VERTICAL CLEARANCE. VERTICAL CLEARANCE SHALL BE 80" (2030 MM) HIGH MINIMUM. GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE IS LESS THAN 80" (2030) MM HIGH. THE LEADING EDGE OF SUCH GUARDRAIL OR BARRIER SHALL BE LOCATED 27" (685 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

EXCEPTION: DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78" (1980 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.



308 REACH RANGES

NOT TO SCALE

NOTES:

308.2. FORWARD REACH.

308.2.1. UNOBSTRUCTED. WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALL BE 48" (1220 MM) MAXIMUM AND THE LOW FORWARD REACH SHALL BE 15" (380 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

308.2.2. OBSTRUCTED HIGH FORWARD 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 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.

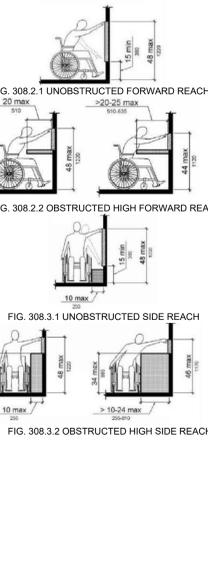
308.3. SIDE REACH.

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" (1220 MM) MAXIMUM. THE MINIMUM PLUS THE WIDTH OF DOORS OR GATES SWINGING INTO THE SPACE.

308.3.2. OBSTRUCTED HIGH SIDE REACH. WHERE A HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34" (865 MM) MAXIMUM AND THE DEPTH SHALL BE 24" (610 MM) MAXIMUM. THE HIGH SIDE REACH SHALL BE 48" (1220 MM) MAXIMUM FOR A REACH DEPTH OF 10 INCHES (255 MM) MAXIMUM, WHERE THE REACH DEPTH EXCEEDS 10 INCHES (255 MM) MAXIMUM. THE HIGH SIDE REACH SHALL BE 44" (1120 MM) MAXIMUM FOR A REACH DEPTH OF 24" (610 MM) MAXIMUM.

EXCEPTION: 1. THE TOP OF WASHING MACHINES AND CLOTHES DRYERS SHALL BE PERMITTED TO BE 36" (915 MM) MAXIMUM ABOVE THE FINISH FLOOR.

2. OPERABLE PARTS OF FLUID DISPENSERS SHALL BE PERMITTED TO BE 54" (1370 MM) MAXIMUM MEASURED FROM THE SURFACE OF THE VEHICULAR WAY WHERE FUEL DISPENSERS ARE INSTALLED ON EXISTING CURBS.



402 ACCESSIBLE ROUTES

NOT TO SCALE

NOTES:

402.1. GENERAL. ACCESSIBLE ROUTES SHALL COMPLY WITH 402.

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

NOT TO SCALE

NOTES:

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 CLEARANCE COMPLYING WITH 403.5.

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" (915 MM) MINIMUM.

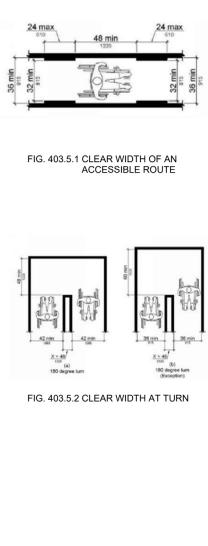
EXCEPTION: THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32" (815 MM) MINIMUM FOR A LENGTH OF 24" (610 MM) MAXIMUM THAT ARE A PART OF COMMON USE CIRCULATION PATHS THAT ARE SEPARATED BY SEGMENTS THAT ARE 48" (1220 MM) LONG MINIMUM AND 36" (915 MM) WIDE MINIMUM.

403.5.2. CLEAR WIDTH AT TURN. WHERE THE ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN ELEMENT WHICH IS LESS THAN 48" (1220 MM) WIDE, CLEAR WIDTH SHALL BE 42" (1065 MM) MINIMUM APPROACHING THE TURN, 48" (1220 MM) MINIMUM AT THE TURN AND 42" (1065 MM) MINIMUM LEAVING THE TURN.

EXCEPTION: WHERE THE CLEAR WIDTH AT THE TURN IS 60" (1525 MM) MINIMUM COMPLIANCE WITH 403.5.2 SHALL NOT BE REQUIRED.

403.5.3. PASSING SPACES. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60" (1525 MM) SHALL PROVIDE SPACES AT INTERVALS OF 200' (610) MAXIMUM. PASSING SPACES SHALL BE EITHER A SPACE 60" (1525 MM) MINIMUM BY 60" (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 T-SHAPED SURFACES PROVIDING A T-SHAPED SPACE EXTEND 48" (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

NOT TO SCALE

NOTES:

404.2. DOUBLE-LEAF DOORS AND GATES. AT LEAST ONE OF THE ACTIVE LEAVES OF DOORWAYS WITH TWO LEAVES SHALL COMPLY WITH 404.2.3 AND 404.2.4.

404.2.3. CLEAR WIDTH. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32" (815 MM) MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOORS AND THE STOP. WHERE THE DOOR OPEN IS 90 DEGREES, OPENINGS MORE THAN 24" (610 MM) DEEP SHALL PROVIDE A CLEAR OPENING OF 36" (915 MM) MINIMUM. THERE SHALL BE NO PROTRUSION INTO THE REQUIRED CLEAR OPENING WITH LOWER THAN 34" (865 MM) ABOVE THE FINISH FLOOR OR GROUND.

EXCEPTION: 1. IN ALTERATIONS, A PROJECTION OF 58" (1465 MM) MAXIMUM INTO THE REQUIRED CLEAR WIDTH SHALL BE PERMITTED FOR THE LATCH SIDE STOP. 2. DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78" (1980 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

404.2.4. SWINGING DOORS AND GATES. SWINGING DOORS AND GATES SHALL HAVE MANEUVERING CLEARANCES COMPLYING WITH TABLE 404.2.4.1.

404.2.4.1. SWINGING DOORS AND GATES. SWINGING DOORS AND GATES SHALL HAVE MANEUVERING CLEARANCES COMPLYING WITH TABLE 404.2.4.1.

404.2.4.2. DOORWAYS WITHOUT DOORS OR GATES, SLIDING DOORS, AND FOLDING DOORS. DOORWAYS WITHOUT DOORS OR GATES, SLIDING DOORS, OR FOLDING DOORS SHALL HAVE MANEUVERING CLEARANCES COMPLYING WITH TABLE 404.2.4.2.

404.2.4.3. RECESSED DOORS AND GATES. MANEUVERING CLEARANCE FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18" (455 MM) OF THE LATCH SIDE OF A DOORWAY PROJECTS MORE THAN 205 MM BEYOND THE FACE OF THE DOORWAY PROJECTS MORE THAN 8" (205 MM) BEYOND THE FACE OF THE DOOR, MEASURED FROM THE LEADING EDGE OF THE DOOR OR GATE.

ADVISORY 404.2.4.3 RECESSED DOORS AND GATES. A DOOR CAN BE RECESSED DUE TO THICKNESS OR BECAUSE OF THE PLACEMENT OF CASEWORK OR OTHER FIXED ELEMENTS ADJACENT TO THE DOORWAY. THIS PROVISION MUST BE APPLIED WHEREVER DOORS ARE RECESSED.

404.2.5. THRESHOLDS. THRESHOLDS, IF PROVIDED AT DOORWAYS, SHALL BE 1/2" (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" (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. DOORS AND GATES IN SERIES. THE DISTANCE BETWEEN TWO HINGED OR PIVOTED DOORS IN SERIES AND GATES IN SERIES SHALL BE 48" (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" (865 MM) MINIMUM AND 48" (1220 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND, WHERE SLIDING DOORS ARE IN FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.

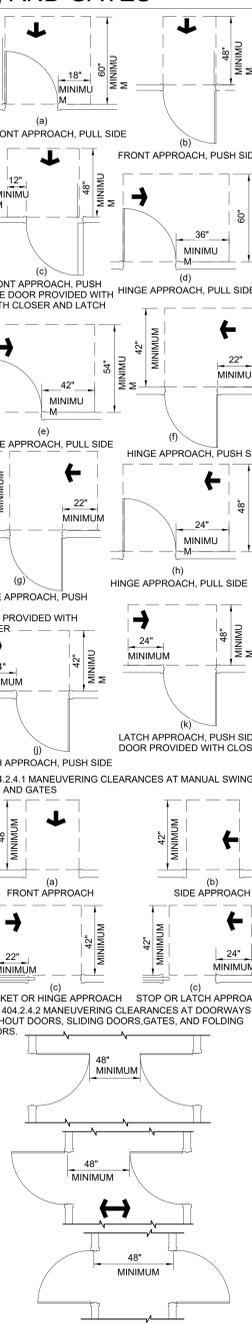
EXCEPTION: 1. EXISTING LOCKS SHALL BE PERMITTED IN ANY LOCATION AT EXISTING GLAZED DOORS WITHOUT STILES. EXISTING OVERHEAD ROLLING DOORS OR GRILLES AND SIMILAR EXISTING DOORS OR GRILLES THAT ARE DESIGNED WITH AND THAT ARE ACTIVATED ONLY AT THE TOP OR BOTTOM RAIL. 2. ACCESS GATES IN BARRIER WALLS AND FENCES PROTECTING POOLS, SPAS, AND HOT TUBS SHALL BE PERMITTED TO HAVE OPERABLE PARTS OF THE RELEASE OF LATCH OR SELF-LATCHING DEVICES AT 54" (1370 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND PROVIDED THE SELF-LATCHING DEVICES ARE NOT ALSO SELF-LOCKING DEVICES. MEANS OF A KEY, ELECTRONIC OPENER, OR INTEGRAL COMBINATION LOCK.

ADVISORY 404.2.7 DOOR AND GATE HARDWARE. DOOR HARDWARE THAT CAN BE OPERATED WITH A CLOSED FIST OR A LOOSE GRIP ACCOMMODATED THE GREATEST RANGE OF USERS. HARDWARE THAT REQUIRES SIMULTANEOUS HAND AND FINGER MOVEMENTS REQUIRE GREATER DEXTERITY AND COORDINATION, AND IS NOT RECOMMENDED.

404.2.8.1. DOOR CLOSERS AND GATE CLOSERS. 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.

404.2.9. 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 AND GATES SHALL BE AS FOLLOWS:

1. INTERIOR HINGED DOORS: 5 POUNDS (22.7 N) MAXIMUM.
2. SLIDING OR FOLDING DOORS: 5 POUNDS (22.7 N) MAXIMUM.
3. EXTERIOR HINGED DOORS SHALL BE DESIGNED SO THAT SUCH DOORS CAN BE PUSHED OR PULLED OPEN WITH A FORCE NOT EXCEEDING 6.5 POUNDS (29.8 N).



405 RAMPS

NOT TO SCALE

NOTES:

405.2. SLOPE. RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12. EXCEPTION: IN EXISTING SITES, BUILDINGS, AND FACILITIES, RAMPS SHALL BE PERMITTED TO HAVE RUNNING SLOPES STEEPER THAN 1:12 COMPLYING WITH TABLE 405.2 WHERE SUCH SLOPES ARE NECESSARY DUE TO SPACE LIMITATIONS.

ADVISORY 405.2 SLOPE. TO ACCOMMODATE THE WIDEST RANGE OF USERS, PROVIDE RAMPS WITH THE LEAST POSSIBLE RUNNING SLOPE AND, WHEREVER POSSIBLE, ACCOMPANY RAMPS WITH STAIRS FOR USE BY THOSE INDIVIDUALS FOR WHOM DISTANCE PRESENTS A GREATER BARRIER THAN STEPS, E.G., PEOPLE WITH HEART DISEASE OR LIMITED STAMINA.

405.3. CROSS SLOPE. CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 1:48.

ADVISORY 405.3 CROSS SLOPE. CROSS SLOPE IS THE SLOPE OF THE SURFACE PERPENDICULAR TO THE DIRECTION OF THE RAMP. CROSS SLOPE IS MEASURED THE SAME WAY AS SLOPE IS MEASURED (I.E., THE RISE OVER THE RUN).

405.5. CLEAR WIDTH. THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36" (915 MM) MINIMUM.

EXCEPTION: WITHIN EMPLOYEE WORK AREAS, THE REQUIRED CLEAR WIDTH OF RAMPS THAT ARE A PART OF COMMON USE CIRCULATION PATHS THAT ARE SEPARATED BY SEGMENTS THAT ARE 48" (1220 MM) LONG MINIMUM AND 36" (915 MM) WIDE MINIMUM.

405.6. RISE. THE RISE FOR ANY RAMP RUN SHALL BE 36" (915 MM) MAXIMUM.

405.7. LANDINGS. RAMPS SHALL HAVE LANDINGS AT THE TOP AND THE BOTTOM OF EACH RAMP RUN. LANDINGS SHALL COMPLY WITH 405.7.

ADVISORY 405.7 LANDINGS. RAMPS THAT DO NOT HAVE LEVEL LANDINGS AT CHANGES IN DIRECTION CAN CREATE A COINING SLOPE THAT WILL NOT MEET THE REQUIREMENTS OF THIS CODE. CIRCULAR OR CURVED RAMPS CONTINUALLY CHANGE DIRECTION. CURVILINEAR RAMPS WITH SMALL RADII ALSO CAN CREATE COMPOUND CROSS SLOPES AND CANNOT, BY THEIR NATURE, MEET THE REQUIREMENTS FOR ACCESSIBLE ROUTES. A LEVEL LANDING IS NEEDED AT THE ACCESSIBLE DOOR TO PERMIT MANEUVERING AND SIMULTANEOUSLY DOOR OPERATION.

405.7.1. SLOPE. LANDINGS SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED.

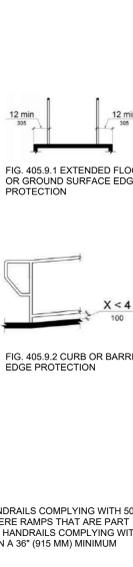
EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

405.7.2. WIDTH. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING.

405.7.3. LENGTH. THE LANDING CLEAR LENGTH SHALL BE 60" (1525 MM) LONG MINIMUM.

405.8. HANDRAILS. RAMP RUNS WITH A RISE GREATER THAN 6" (150 MM) SHALL HAVE HANDRAILS COMPLYING WITH 505.

EXCEPTION: WITHIN EMPLOYEE WORK AREAS, HANDRAILS SHALL NOT BE REQUIRED WHERE RAMPS THAT ARE PART OF COMMON USE CIRCULATION PATHS ARE DESIGNED TO PERMIT THE INSTALLATION OF HANDRAILS COMPLYING WITH 505. RAMPS NOT SUBJECT TO THE REQUIREMENTS OF 405.8 SHALL BE DESIGNED TO MAINTAIN A 36" (915 MM) MINIMUM CLEAR WIDTH WHEN HANDRAILS ARE INSTALLED.



405.9. EDGE PROTECTION. EDGE PROTECTION COMPLYING WITH 405.9.1 OR 405.9.2 SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH SIDE OF RAMP LANDINGS.

EXCEPTIONS: 1. EDGE PROTECTION SHALL NOT BE REQUIRED ON RAMPS THAT ARE NOT REQUIRED TO HAVE HANDRAILS AND HAVE SIDES COMPLYING WITH 405.9. 2. EDGE PROTECTION SHALL NOT BE REQUIRED ON THE SIDES OF RAMP LANDINGS SERVING AN ADJOINING RAMP RUN OR STAIRWAY. 3. EDGE PROTECTION SHALL NOT BE REQUIRED ON THE SIDES OF RAMP LANDINGS HAVING A VERTICAL DROP-OFF OF 1/2" (13 MM) MAXIMUM WITHIN 10" (255 MM) HORIZONTALLY OF THE MINIMUM LANDING AREA SPECIFIED IN 405.7.

405.9.1. EXTENDED FLOOR OR GROUND SURFACE. THE FLOOR OR GROUND SURFACE OF THE RAMP RUN OR LANDING SHALL EXTEND 12" (305 MM) BEYOND THE FINISH FLOOR OR GROUND SURFACE COMPLYING WITH 302.

ADVISORY 405.9.1 EXTENDED FLOOR OR GROUND SURFACE. THE EXTENDED SURFACE PREVENTS WHEELCHAIR CASTERS AND CRUTCH TIPS FROM SLIPPING OFF THE RAMP SURFACE.

405.9.2. CURB OR BARRIER. A CURB OR BARRIER SHALL BE PROVIDED THAT PREVENTS THE PASSAGE OF A 4" (100MM) DIAMETER SPHERE, WHERE ANY PORTION OF THE RISE IS WITHIN 4" OF FINISH FLOOR OR GROUND SURFACE.

406 CURB RAMPS

NOT TO SCALE

NOTES:

406.1. GENERAL. CURB RAMPS ON ACCESSIBLE ROUTES SHALL COMPLY WITH 406, 405.2 THROUGH 405.5, AND 405.10.

406.2. COUNTER SLOPE. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP 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.

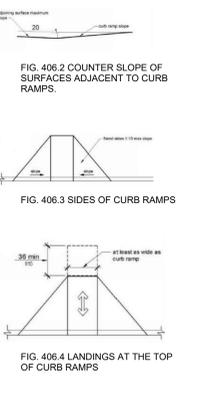
406.4. LANDINGS. LANDINGS SHALL BE PROVIDED AT THE TOPS OF CURB RAMPS. THE LANDING CLEAR LENGTH SHALL BE 36" (915 MM) MINIMUM. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING.

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.

406.6. DIAGONAL CURB RAMPS. DIAGONAL OR CORNER TYPE CURB RAMPS WITH RETURNED CURBS OR OTHER WELL-DEFINED EDGES SHALL HAVE THE EDGES PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW. THE BOTTOM OF DIAGONAL CURB RAMPS SHALL HAVE A CLEAR SPACE 48" (1220 MM) MINIMUM OUTSIDE ACTIVE TRAFFIC LANES OF THE ROADWAY. DIAGONAL CURB RAMPS PROVIDED AT MARKED CROSSINGS SHALL PROVIDE THE 48" (1220 MM) MINIMUM CLEAR SPACE WITHIN THE MARKINGS. DIAGONAL 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 AT BOTH SIDES. EACH CURB RAMP SHALL HAVE A LEVEL AREA 48" (1220 MM) MINIMUM WIDE MINIMUM AT THE TOP OF THE RAMP CURB IN THE PART OF THE ISLAND INTERSECTED BY THE CROSSINGS.

EXCEPTION: EACH 48 INCH (1220 MM) MINIMUM BY 36 INCH (915 MM) MINIMUM AREA SHALL BE ORIENTED SO THAT THE 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.



407 ELEVATORS

NOT TO SCALE

NOTES:

407.2.1. CALL CONTROLS. WHERE ELEVATOR CALL BUTTONS OR KEYPADS ARE PROVIDED, THEY SHALL COMPLY WITH 407.2.1 AND 309.4. CALL BUTTONS SHALL BE RAISED OR FLUSH.

EXCEPTION: EXISTING ELEVATORS SHALL BE PERMITTED TO HAVE RECESSED CALL BUTTONS.

407.2.1.1. HEIGHT. CALL BUTTONS AND KEYPADS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308, MEASURED TO THE CENTERLINE OF THE HIGHEST OPERABLE PART.

EXCEPTION: EXISTING CALL BUTTONS AND EXISTING KEYPADS SHALL BE PERMITTED TO BE LOCATED AT 54" (1370 MM) MAXIMUM ABOVE THE FINISH FLOOR, MEASURED TO THE CENTERLINE OF THE HIGHEST OPERABLE PART.

407.2.2. HALL SIGNALS. HALL SIGNALS, INCLUDING IN-CAR SIGNALS, SHALL COMPLY WITH 407.2.2.

407.2.2.1. SIZE. CALL BUTTONS SHALL BE 3/4" (19MM) MINIMUM IN THE SMALLEST DIMENSION.

EXCEPTION: EXISTING ELEVATOR CALL BUTTON SHALL NOT BE REQUIRED TO COMPLY WITH 407.2.2.1.2.

407.2.3.1. FLOOR DESIGNATION. FLOOR DESIGNATIONS COMPLY WITH 703.2 AND 703.4.1 SHALL BE PROVIDED ON BOTH JAMBS OF ELEVATOR HOISTWAY ENTRANCES. FLOOR DESIGNATIONS SHALL BE PROVIDED IN BOTH TACTILE CHARACTERS AND BRAILLE. TACTILE CHARACTERS SHALL BE 2" (50 MM) HIGH MINIMUM. A TACTILE STAR SHALL BE PROVIDED ON BOTH JAMBS AT THE MAIN ENTRY LEVEL.

407.3. OPERATION. ELEVATOR HOISTWAY AND CAR DOORS SHALL OPEN AND CLOSE AUTOMATICALLY.

EXCEPTION: EXISTING MANUALLY OPERATED HOISTWAY SWING DOORS SHALL BE PERMITTED PROVIDED THAT THEY COMPLY WITH 404.2.3 AND 404.2.9. CAR DOOR CLOSING SHALL NOT BE INITIATED UNTIL THE HOISTWAY DOOR IS CLOSED.

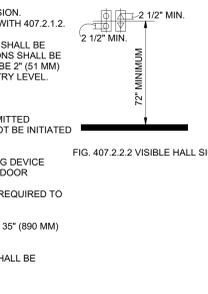
407.3.1. REOPENING DEVICE. ELEVATOR DOORS SHALL BE PROVIDED WITH A REOPENING DEVICE COMPLYING WITH 407.3.1 THAT SHALL STOP AND REOPEN A CAR DOOR AND HOISTWAY DOOR AUTOMATICALLY IF THE DOOR BECOMES OBSTRUCTED BY AN OBJECT OR PERSON.

EXCEPTION: EXISTING ELEVATORS WITH MANUALLY OPERATED DOORS SHALL NOT BE REQUIRED TO COMPLY WITH 407.3.1.

407.4.6.4.1. HEIGHT. EMERGENCY CONTROL BUTTONS SHALL HAVE THEIR CENTERLINES 35" (890 MM) MINIMUM ABOVE THE FINISH FLOOR.

407.4.6.4.2. LOCATION. EMERGENCY CONTROLS INCLUDING THE EMERGENCY ALARM, SHALL BE GROUPED AT THE BOTTOM OF THE PANEL.

410.5. OPERABLE PARTS. CONTROLS FOR PLATFORM LIFTS SHALL COMPLY WITH 309.



504 STAIRWAYS

NOT TO SCALE

NOTES:

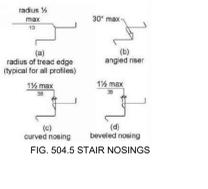
504.1. GENERAL. STAIRS SHALL COMPLY WITH 504.

504.2. TREADS AND RISERS. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND UNIFORM TREAD DEPTHS. RISER SHALL BE 4" (100 MM) HIGH MINIMUM AND 7" (180 MM) HIGH MAXIMUM. TREADS SHALL BE 11" (280 MM) DEEP MINIMUM.

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.

ADVISORY 504.4 TREAD SURFACE. CONSIDER PROVIDING VISUAL CONTRAST ON TREAD NOSINGS, OR AT THE LEADING EDGES OF TREADS, TO ASSIST THE VISUALLY IMPAIRED, SO THAT STAIR TREADS ARE MORE VISIBLE FOR PEOPLE WITH LOW VISION.



505 HANDRAILS

NOT TO SCALE

NOTES:

505.4. HEIGHT. TOP OF GRIPPING SURFACES OF HANDRAILS SHALL BE 34" (865 MM) MINIMUM AND 38" (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.

ADVISORY 505.4 HEIGHT. THE REQUIREMENTS FOR STAIR AND RAMP HANDRAILS IN THIS CODE ARE FOR CHILDREN WHOSE CHILDREN ARE THE PRINCIPAL USERS IN A BUILDING OR FACILITY (E.G., ELEMENTARY SCHOOLS). A SECOND SET OF HANDRAILS AT APPROXIMATELY 48" (1220 MM) HEIGHT CAN ASSIST THE ELDERLY IN PREVENTING ACCIDENTS. A MAXIMUM HEIGHT OF 28" (710 MM) MEASURED TO THE TOP OF THE GRIPPING SURFACE FROM THE RAMP SURFACE OR STAIR NOSING IS RECOMMENDED FOR HANDRAILS DESIGNED FOR CHILDREN. SUFFICIENT VERTICAL CLEARANCE BETWEEN UPPER AND LOWER HANDRAILS, 9" (230 MM) MINIMUM, SHOULD BE PROVIDED TO HELP PREVENT ENTRAPMENT.

505.5. CLEARANCE. CLEARANCE BETWEEN HANDRAIL, GRIPPING SURFACES AND ADJACENT SURFACES SHALL BE 1 1/2" (38 MM) MINIMUM.

505.10.1. TOP AND BOTTOM EXTENSION AT RAMPS. RAMP HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12" (305 MM) MINIMUM BEYOND THE LAST RAMP RUN. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP RUN.

505.10.2. TOP EXTENSION AT STAIRS. AT THE TOP OF A STAIR FLIGHT, HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING FOR 12" (305 MM) MINIMUM BEGINNING DIRECTLY ABOVE THE FIRST RISER NOSE. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR 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 NOSE. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT.

