

| | | | | | | | | | | |
|------------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | A | UL | UL | UL | UL | UL | UL | UL | UL | UL |
| B | S | UL | 11 | 5 | 4 | 5 | 4 | 5 | 3 | 2 |
| | A | UL | UL | 37,500 | 23,000 | 28,500 | 19,000 | 36,000 | 18,000 | 9,000 |
| E | S | UL | 5 | 3 | 2 | 3 | 2 | 3 | 1 | 1 |
| | A | UL | UL | 26,500 | 14,500 | 23,500 | 14,500 | 25,500 | 18,500 | 9,500 |
| F-1 | S | UL | 11 | 4 | 2 | 3 | 2 | 4 | 2 | 1 |
| | A | UL | UL | 25,000 | 15,500 | 19,000 | 12,000 | 33,500 | 14,000 | 8,500 |
| F-2 | S | UL | 11 | 5 | 3 | 4 | 3 | 5 | 3 | 2 |
| | A | UL | UL | 37,500 | 23,000 | 28,500 | 18,000 | 50,500 | 21,000 | 13,000 |
| H-1 | S | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | NP |
| | A | 21,000 | 16,500 | 11,000 | 7,000 | 9,500 | 7,000 | 10,500 | 7,500 | NP |
| H-2 ^d | S | UL | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 1 |
| | A | 21,000 | 16,500 | 11,000 | 7,000 | 9,500 | 7,000 | 10,500 | 7,500 | 3,000 |
| H-3 ^d | S | UL | 6 | 4 | 2 | 4 | 2 | 4 | 2 | 1 |
| | A | UL | 60,000 | 26,500 | 14,000 | 17,500 | 13,000 | 25,500 | 10,000 | 5,000 |
| H-4 | S | UL | 7 | 5 | 3 | 5 | 3 | 5 | 3 | 2 |
| | A | UL | UL | 37,500 | 17,500 | 28,500 | 17,500 | 36,000 | 18,000 | 6,500 |
| H-5 | S | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| | A | UL | UL | 37,500 | 23,000 | 28,500 | 19,000 | 36,000 | 18,000 | 9,000 |
| I-1 | S | UL | 5 | 2 | NP | 2 | NP | NP | 2 | NP |
| | A | UL | 55,000 | 19,000 | NP | 16,500 | NP | NP | 10,500 | NP |
| I-2/I-2.1 ^f | S | UL | 4 | 2 | 1 | 1 | NP | 1 | 1 | NP |
| | A | UL | UL | 15,000 | 11,000 | 12,000 | NP | 12,000 | 9,500 | NP |
| I-3 ^e | S | UL | 2 | NP | NP | NP | NP | NP | NP | NP |
| | A | UL | 15,100 | NP | NP | NP | NP | NP | NP | NP |
| I-4 | S | UL | 5 | 3 | 2 | 3 | 2 | 3 | 1 | 1 |
| | A | UL | 60,500 | 26,500 | 13,000 | 23,500 | 13,000 | 25,500 | 18,500 | 9,000 |
| L | S | UL | 6 | 5 | 3 | 5 | 3 | 5 | 3 | 2 |
| | A | UL | 60,000 | 37,500 | 17,500 | 28,500 | 17,500 | 36,000 | 18,000 | 6,500 |
| M | S | UL | 11 | 4 | 4 | 4 | 4 | 4 | 3 | 1 |
| | A | UL | UL | 21,500 | 12,500 | 18,500 | 12,500 | 20,500 | 14,000 | 9,000 |
| R-1 | S | UL | 11 | 4 | 4 | 4 | 4 | 4 | 3 | 2 |
| | A | UL | UL | 24,000 | 16,000 | 24,000 | 16,000 | 20,500 | 12,000 | 7,000 |
| R-2 | S | UL | 11 | 4 | 4 | 4 | 4 | 4 | 3 | 2 |
| | A | UL | UL | 24,000 | 16,000 | 24,000 | 16,000 | 20,500 | 12,000 | 7,000 |
| R-3/R-3.1 | S | UL | 11 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |
| | A | UL | UL | UL | UL | UL | UL | UL | UL | UL |
| R-4 | S | UL | 11 | 4 | 4 | 4 | 4 | 4 | 3 | 2 |
| | A | UL | UL | 24,000 | 16,000 | 24,000 | 16,000 | 20,500 | 12,000 | 7,000 |
| S-1 | S | UL | 11 | 4 | 3 | 3 | 3 | 4 | 3 | 1 |

| | | | | | | | | | | |
|--------------------|---|----|--------|--------|--------|--------|--------|--------|--------|--------|
| | A | UL | 48,000 | 26,000 | 17,500 | 26,000 | 17,500 | 25,500 | 14,000 | 9,000 |
| S-2 ^{b,c} | S | UL | 11 | 5 | 4 | 4 | 4 | 5 | 4 | 2 |
| | A | UL | 79,000 | 39,000 | 26,000 | 39,000 | 26,000 | 38,500 | 21,000 | 13,500 |
| U ^c | S | UL | 5 | 4 | 2 | 3 | 2 | 4 | 2 | 1 |
| | A | UL | 35,500 | 19,000 | 8,500 | 14,000 | 8,500 | 18,000 | 9,000 | 5,500 |

Determine Occupancy separation requirements for mixed occupancies

Mixed occupancies (Section 508) occur where two or more occupancies occur in the same building and this condition can be treated in several different ways:

- *Incidental uses* (Section 508.2) – areas not treated as separate occupancies, separation requirements as shown in table 508.2.5
- *Accessory occupancy* (Section 508.3.1) – occupancy subsidiary to primary occupancy it occupies less than 10% of total building area and is in compliance with requirements of Table 503 – it does not need to be separated
- *Non-separated occupancies* (Section 508.3.2) – mixed occupancies do not have to be separated if they comply with requirements of this section
- *Separated occupancies* (Section 508.3.3) – mixed occupancies not covered by one of the previous conditions shall be separated per provisions in Table 508.3.3

TABLE 508.3.3 REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

| OCCUPANCY | A ^e , E | | I | | R ^d | | F-2, S-2 ^{c,d} , U ^d | | B ^b , F-1, M ^b , S-1 | | H-1 | | H-2 | | H-3, H-4, H-5 | |
|--|--------------------|----|---|----|----------------|----|--|----|--|----------------|-----|----|-----|----|---------------|----------------|
| | S | NS | S | NS | S | NS | S | NS | S | NS | S | NS | S | NS | S | NS |
| A ^e , E ^c | N | N | 2 | 2 | 1 | 2 | N | 1 | 1 | 2 | NP | NP | 3 | 4 | 2 | 3 ^a |
| I | — | — | N | N | 2 | NP | 2 | 2 | 2 ^f | 2 ^f | NP | NP | 4 | NP | 4 | NP |
| R ^d | — | — | — | — | N | N | 1 | 2 | 1 | 2 | NP | NP | 3 | NP | 2 | NP |
| F-2, S-2 ^{c,d} , U ^d | — | — | — | — | — | — | N | N | 1 | 2 | NP | NP | 3 | 4 | 2 | 3 ^a |
| B ^b , F-1, M ^b , S-1 | — | — | — | — | — | — | — | — | N | N | NP | NP | 2 | 3 | 1 | 2 ^a |
| H-1 | — | — | — | — | — | — | — | — | — | — | N | NP | NP | NP | NP | NP |
| H-2 | — | — | — | — | — | — | — | — | — | — | — | — | N | NP | 1 | NP |
| H-3, H-4, H-5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | N | NP |
| L | 2 | NP | 2 | NP | 4 | NP | 1 | NP | 1 | NP | NP | NP | 2 | NP | 1 | NP |

Determine Fire resistance is met for your type of construction

TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

| BUILDING ELEMENT | TYPE I | | TYPE II | | TYPE III | | TYPE IV | TYPE V | |
|---|-----------------|-------------------|-------------------|----------------|-------------------|----------------|-------------------------------------|-------------------|---|
| | A | B | A ^e | B | A ^e | B | HT | A ^e | B |
| Structural frame ^a | 3 ^b | 2 ^b | 1 | 0 | 1 | 0 | HT | 1 | 0 |
| Bearing walls | | | | | | | | | |
| Exterior ^g | 3 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 0 |
| Interior | 3 ^b | 2 ^b | 1 | 0 | 1 | 0 | 1/HT | 1 | 0 |
| Nonbearing walls and partitions Exterior | See Table 602 | | | | | | | | |
| Nonbearing walls and partitions Interior ^f | 0 | 0 | 0 | 0 | 0 | 0 | See Section 602.4.6 | 0 | 0 |
| Floor construction Including supporting beams and joists | 2 | 2 | 1 | 0 | 1 | 0 | HT | 1 | 0 |
| Roof construction Including supporting beams and joists | 1½ ^c | 1 ^{c, d} | 1 ^{c, d} | 0 ^d | 1 ^{c, d} | 0 ^d | HT | 1 ^{c, d} | 0 |

Determine Fire separation distance is met for your type of construction

TABLE 602 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE^{a, e}

| FIRE SEPARATION DISTANCE = X (feet) | TYPE OF CONSTRUCTION | OCCUPANCY GROUP H, L | OCCUPANCY GROUP F-1, M, S-1 | OCCUPANCY GROUP A, B, E, F-2, I, R ^f , S-2, U ^{b, f} |
|-------------------------------------|----------------------|----------------------|-----------------------------|--|
| $x < 5^c$ | All | 3 | 2 | 1 |
| $5 \leq x < 10$ | IA | 3 | 2 | 1 |
| | Others | 2 | 1 | 1 |
| $10 \leq x < 30$ | IA, IB | 2 | 1 | 1 ^d |

| | | | | |
|--------|---------|---|---|----------------|
| | IIB, VB | 1 | 0 | 0 |
| | Others | 1 | 1 | 1 ^d |
| X ≥ 30 | All | 0 | 0 | 0 |

Determine Maximum area of exterior openings based on fire separation

**TABLE 705.8 MAXIMUM AREA OF EXTERIOR WALL OPENINGS
BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF
OPENING PROTECTION**

| FIRE SEPARATION DISTANCE (feet) | DEGREE OF OPENING PROTECTION | ALLOWABLE AREA ^a |
|---------------------------------------|---|-----------------------------|
| 0 to less than 3 ^{b, c} | Unprotected, Nonsprinklered (UP, NS) | Not Permitted |
| | Unprotected, Sprinklered (UP, S) ⁱ | Not Permitted |
| | Protected (P) | Not Permitted |
| 3 to less than 5 ^{d, e} | Unprotected, Nonsprinklered (UP, NS) | Not Permitted |
| | Unprotected, Sprinklered (UP, S) ⁱ | 15% |
| | Protected (P) | 15% |
| 5 to less than 10 ^{e, f} | Unprotected, Nonsprinklered (UP, NS) | 10% ^h |
| | Unprotected, Sprinklered (UP, S) ⁱ | 25% |
| | Protected (P) | 25% |
| 10 to less than 15 ^{e, f, g} | Unprotected, Nonsprinklered (UP, NS) | 15% ^h |
| | Unprotected, Sprinklered (UP, S) ⁱ | 45% |
| | Protected (P) | 45% |
| 15 to less than 20 ^{f, g} | Unprotected, Nonsprinklered (UP, NS) | 25% |
| | Unprotected, Sprinklered (UP, S) ⁱ | 75% |
| | Protected (P) | 75% |
| 20 to less than 25 ^{f, g} | Unprotected, Nonsprinklered (UP, NS) | 45% |
| | Unprotected, Sprinklered (UP, S) ⁱ | No Limit |
| | Protected (P) | No Limit |
| 25 to less than 30 ^{f, g} | Unprotected, Nonsprinklered (UP, NS) | 70% |
| | Unprotected, Sprinklered (UP, S) ⁱ | No Limit |
| | Protected (P) | No Limit |
| 30 or greater | Unprotected, Nonsprinklered (UP, NS) | No Limit |
| | Unprotected, Sprinklered (UP, S) ⁱ | Not Required |
| | Protected (P) | Not Required |

Determine required rating of openings in rated assemblies

TABLE 715.4 FIRE DOOR AND FIRE SHUTTER FIRE PROTECTION RATINGS

| TYPE OF ASSEMBLY | ASSEMBLY RATING (hours) | MINIMUM FIRE DOOR AND FIRE SHUTTER ASSEMBLY RATING (hours) | |
|--|-------------------------|--|-----|
| Fire walls and fire barriers having a required fire-resistance rating greater than 1 hour | 4 | 3 | |
| | 3 | 3 ^a | |
| | 2 | 1 ^{1/2} | |
| | 1 ^{1/2} | 1 ^{1/2} | |
| Fire barriers having a required fire-resistance rating of 1 hour: Shaft, exit enclosure and exit passageway walls | 1 | 1 | |
| | Other fire barriers | 3/4 | |
| Fire partitions: Corridor walls | 1 | 1/3 ^b | |
| | 0.5 | 1/3 ^b | |
| | Other fire partitions | 1 | 3/4 |
| | | 0.5 | 1/3 |
| Exterior walls | 3 | 1 ^{1/2} | |
| | 2 | 1 ^{1/2} | |
| | 1 | 3/4 | |
| Smoke barriers | 1 | 1/3 ^b | |

Determine finish rating requirements for space

TABLE 803.9 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY k

| GROUP | SPRINKLERED ¹ | | | NONSPRINKLERED | | |
|-----------------------------|--|-----------|--|--|----------------|--|
| | Exit enclosures and exit passageways ^{a, b} | Corridors | Rooms and enclosed spaces ^c | Exit enclosures and exit passageways ^{a, b} | Corridors | Rooms and enclosed spaces ^c |
| A-1 & A-2 | B | B | C | A | A ^d | B ^e |
| A-3 ^f , A-4, A-5 | B | B | C | A | A ^d | C |
| B, E, M, R-1 | B | C | C | A | B | C |

| | | | | | | |
|------------|-----------------|----------------|-------------------|-----------------|----|----|
| R-4 | B | C | C | A | B | B |
| F | C | C | C | B | C | C |
| H,L | B | B | C ^g | A | A | B |
| I-2, I-2.1 | B | B | B ^{h, i} | A | A | B |
| I-3 | A | A ^j | B | NP | NP | NP |
| I-4 | B | B | B ^{h, i} | A | A | B |
| R-2 | C | C | C | B | B | C |
| R-2.1 | B | C | C | A | B | B |
| R-3 | C | C | C | C | C | C |
| S | C | C | C | B | B | C |
| U | No restrictions | | | No restrictions | | |

Confirm placement of fire extinguishers

TABLE 906.3(1) FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS [F]

| | LIGHT (Low) HAZARD OCCUPANCY | ORDINARY (Moderate) HAZARD OCCUPANCY | EXTRA (High) HAZARD OCCUPANCY |
|--|---|---|--|
| Minimum Rated Single Extinguisher | 2-A ^c | 2-A | 4-A ^a |
| Maximum Floor Area Per Unit of A | 3,000 square feet | 1,500 square feet | 1,000 square feet |
| Maximum Floor Area for Extinguisher ^b | 11,250 square feet | 11,250 square feet | 11,250 square feet |
| Maximum Travel Distance to Extinguisher | 75 feet | 75 feet | 75 feet |

Calculate your occupant load for each area

TABLE 1004.1.1 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

| FUNCTION OF SPACE | FLOOR AREA IN SQ. FT. PER OCCUPANT |
|--|------------------------------------|
| Accessory storage areas, mechanical equipment room | 300 gross |
| Agricultural building | 300 gross |
| Aircraft hangars | 500 gross |
| Airport terminal | |
| Baggage claim | 20 gross |
| Baggage handling | 300 gross |
| Concourse | 100 gross |
| Waiting areas | 15 gross |

| | |
|--|-------------------------------------|
| Assembly Gaming floors (keno, slots, etc.) | 11 gross |
| Assembly with fixed seats | See Section 1004.7 |
| Assembly without fixed seats Concentrated (chairs only-not fixed) Standing space Unconcentrated (tables and chairs) | 7 net 5 net 15 net |
| Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas | 7 net |
| Business areas | 100 gross |
| Courtrooms-other than fixed seating areas | 40 net |
| Day care | 35 net |
| Dormitories | 50 gross |
| Educational Classroom area Shops and other vocational room areas | 20 net 50 net |
| Exercise rooms | 50 gross |
| H-5 Fabrication and manufacturing areas | 200 gross |
| Industrial areas | 100 gross |
| Institutional areas Inpatient treatment areas Outpatient areas Sleeping areas | 240 gross 100 gross 120 gross |
| Kitchens, commercial | 200 gross |
| Laboratory Educational Laboratories, non-educational Laboratory suitea | 50 net 100 net 200 gross |
| Library Reading rooms Stack area | 50 net 100 gross |
| Locker rooms | 50 gross |
| Mercantile Areas on other floors Basement and grade floor areas Storage, stock, shipping areas | 60 gross 30 gross 300 gross |
| Parking garages | 200 gross |
| Residential | 200 gross |
| Skating rinks, swimming pools Rink and pool Decks | 50 gross 15 gross |
| Stages and platforms | 15 net |
| Warehouses | 500 gross |

Determine number of required means of egress

TABLE 1015.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

| OCCUPANCY | MAXIMUM OCCUPANT LOAD |
|--------------------------------|-------------------------------------|
| A, B, E ^a , F, M, U | 49 |
| H-1, H-2, H-3 | 3 |
| H-4, H-5, I-2.1, I-3, I-4, R | 10 |
| S | 29 |
| L | See Section 443.6.1 |

TABLE 1021.1 MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD

| OCCUPANT LOAD (persons per story) | MINIMUM NUMBER OF EXITS (per story) |
|--------------------------------------|--|
| 1-500 | 2 |
| 501-1,000 | 3 |
| More than 1,000 | 4 |

Determine Maximum Exit Access Travel Distance

TABLE 1016.1 EXIT ACCESS TRAVEL DISTANCE ^a

| OCCUPANCY | WITHOUT SPRINKLER SYSTEM (feet) | WITH SPRINKLER SYSTEM (feet) |
|----------------------|---------------------------------------|---------------------------------------|
| A, E, F-1, M, R, S-1 | 200 | 250 ^b |
| R-2.1 | Not Permitted | 250 ^c |
| B | 200 | 300 ^c |
| F-2, S-2, U | 300 | 400 ^c |
| H-1 | Not Permitted | 75 ^c |
| H-2 | Not Permitted | 100 ^c |
| H-3 | Not Permitted | 150 ^c |
| H-4 | Not Permitted | 175 ^c |

| | | |
|----------------------------------|---------------|------------------|
| H-5 | Not Permitted | 200 ^c |
| I-2,I-2.1,I-3 ^d , I-4 | Not Permitted | 200 ^c |
| L | Not Permitted | 200 ^c |

TABLE 1021.2 STORIES WITH ONE EXIT

| STORY | OCCUPANCY | MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE |
|-------------------------|--|---|
| First story or basement | A, B ^d , E ^e , F ^d , M, U ^d , S ^d | 49 occupants and 75 feet travel distance |
| | H-2, H-3,L | 3 occupants and 25 feet travel distance |
| | H-4, H-5, I, R | 10 occupants and 75 feet travel distance |
| | S ^a | 29 occupants and 100 feet travel distance |
| | I-2, I-2.1 | 7 occupants and 50 feet travel distance |
| Second story | B ^b , F, M, S ^a | 29 occupants and 75 feet travel distance |
| | R-2 | 4 dwelling units and 50 feet travel distance |
| Third story | R-2 ^c | 4 dwelling units and 50 feet travel distance |

Determine Maximum Common Path of Travel

1014.3 Common path of egress travel. In occupancies other than Groups H-1, H-2 and H-3, the *common path of egress travel* shall not exceed 75 feet (22 860 mm). In Group H-1, H-2 and H-3 occupancies, the *common path of egress travel* shall not exceed 25 feet (7620 mm). For *common path of egress travel* in Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see [Section 1028.8](#).

Exceptions:

1. The length of a *common path of egress travel* in Group B, F and S occupancies shall not be more than 100 feet (30 480 mm), provided that the building is equipped throughout with an *automatic sprinkler system* installed in accordance with [Section 903.3.1.1](#).
2. Where a tenant space in Group B, S and U occupancies has an *occupant load* of not more than 30, the length of a *common path of egress travel* shall not be more than 100 feet (30 480 mm).
3. The length of a *common path of egress travel* in a Group I-3 occupancy shall not be more than 100 feet (30 480 mm).
4. The length of a common path of egress travel in a Group R-2 occupancy shall not be more than 125 feet (38 100 mm), provided that the building is protected throughout with an *approved automatic sprinkler system* in accordance with [Section 903.3.1.1](#) or [903.3.1.2](#).
5. *Suites in a Group I-2 occupancy constructed in accordance with [Section 1014.2.3](#) or [1014.2.4](#).*

Determine Minimum Separation of Exits

1015.2 Exit or exit access doorway arrangement. Required *exits* shall be located in a manner that makes their availability obvious. *Exits* shall be unobstructed at all times. *Exit* and *exit access doorways* shall be arranged in accordance with [Sections 1015.2.1](#) and [1015.2.2](#).

1015.2.1 Two exits or exit access doorways. Where two *exits* or *exit access doorways* are required from any portion of the *exit access*, the *exit* doors or *exit access doorways* shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between *exit* doors or *exit access doorways*. Interlocking or *scissor stairs* shall be counted as one *exit stairway*.

Exceptions:

1. Where *exit enclosures* are provided as a portion of the required *exit* and are interconnected by a 1-hour fire-resistance-rated *corridor* conforming to the requirements of [Section 1018](#), the required *exit* separation shall be measured along the shortest direct line of travel within the *corridor*.
2. Where a building is equipped throughout with an *automatic sprinkler system* in accordance with [Section 903.3.1.1](#) or [903.3.1.2](#), the separation distance of the *exit* doors or *exit access doorways* shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.

Provide Emergency Escape and Rescue openings as required

Group R occupancies require emergency escape and rescue openings from basements and sleeping rooms below fourth story above the grade plane that egress directly into a public way or yard or court as described in Section 1029.

1029.2 Minimum size. *Emergency escape and rescue openings* shall have a minimum net clear opening of 5.7 square feet (0.53 m²).

Exception: The minimum net clear opening for *emergency escape and rescue* grade-floor *openings* shall be 5 square feet (0.46 m²).

1029.2.1 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1029.3 Maximum height from floor. *Emergency escape and rescue openings* shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

ACCESSIBILITY

Accessible Route

Intent of accessible route is to allow persons with disabilities to enter a building, get into and out of spaces where desired functions occur, and then exit the building by providing a continuous and unobstructed route. It also includes the site accessibility and it starts at the point where the disabled person enters the site from public way, parks their vehicle or is dropped off by public transportation or private vehicle, to all the required entries and throughout the publicly accessible areas of the building.

Pedestrian Grade Separations: Cross slopes of walking surfaces shall be the minimum possible and shall not exceed one unit vertical in 50 units horizontal (2-percent slope). The slope of any appreciably warped walking surface shall not exceed one unit vertical in 12 units horizontal (8.33-percent slope) in any direction. Where pedestrian grade separations cross streets or other vehicular traffic ways, and where a street level crossing can reasonably and safely be used by persons with physical disabilities, there shall be provided conforming curb ramps and a usable pathway.

Parking: Each lot or parking structure where parking is provided for the public as clients, guests or employees, shall provide accessible parking which shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility. In buildings with multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located closest to the accessible entrances.

TABLE 11B-6 SPACES REQUIRED

| TOTAL NUMBER OF PARKING SPACES IN LOT OR GARAGE | MINIMUM REQUIRED NUMBER OF SPACES |
|--|--|
| 1-25 | 1 |
| 26-50 | 2 |
| 51-75 | 3 |
| 76-100 | 4 |
| 101-150 | 5 |
| 151-200 | 6 |
| 201-300 | 7 |
| 301-400 | 8 |
| 401-500 | 9 |
| 501-1,000 | * |
| 1,001 and over | ** |

* *Two percent of total.*

** *Twenty plus one for each 100, or fraction over 1,001.*

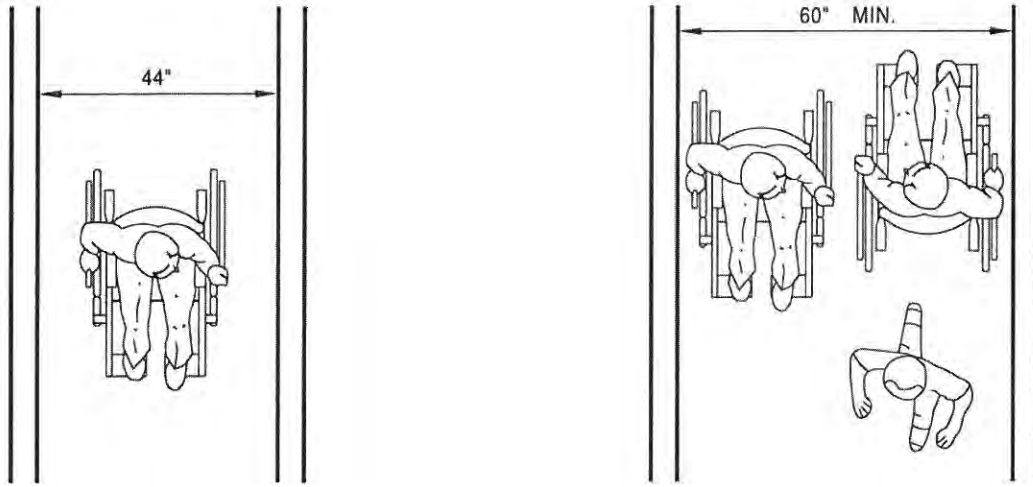
Entrances and exterior ground floor exit doors: All entrances and exterior ground-floor exit doors to buildings and facilities shall be made accessible to persons with disabilities. Such entrances shall be connected by an accessible route to public transportation stops, to accessible parking and passenger loading zones and to public streets or sidewalks, if available. Entrances shall be connected by an accessible route to all accessible spaces or elements within the building or facility.

Door operations: The maximum force required to push or pull open a door shall be 15 lbf for required fire doors and 5 lbf for other doors. Hand-activated door opening hardware, handles, pulls, latches, locks and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching or twisting of the wrist to operate. Hardware shall be centered between 30 inches and 44 inches above the floor. Latching and locking doors that are hand-activated and which are in a path of travel shall be operable by lever-type hardware, panic bars, push-pull activating bars, U-shaped handles or other hardware designed to provide passage. Locked exit doors shall operate as above in egress direction.

Corridors, Hallways, Walks and Sidewalks: Pedestrian ways shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding $\frac{1}{2}$ inch. If the way has less than 60 inch clear width, then passing spaces at least 60 inches by 60 inches shall be located at reasonable intervals not to exceed 200 feet. A T-intersection is an acceptable passing place.

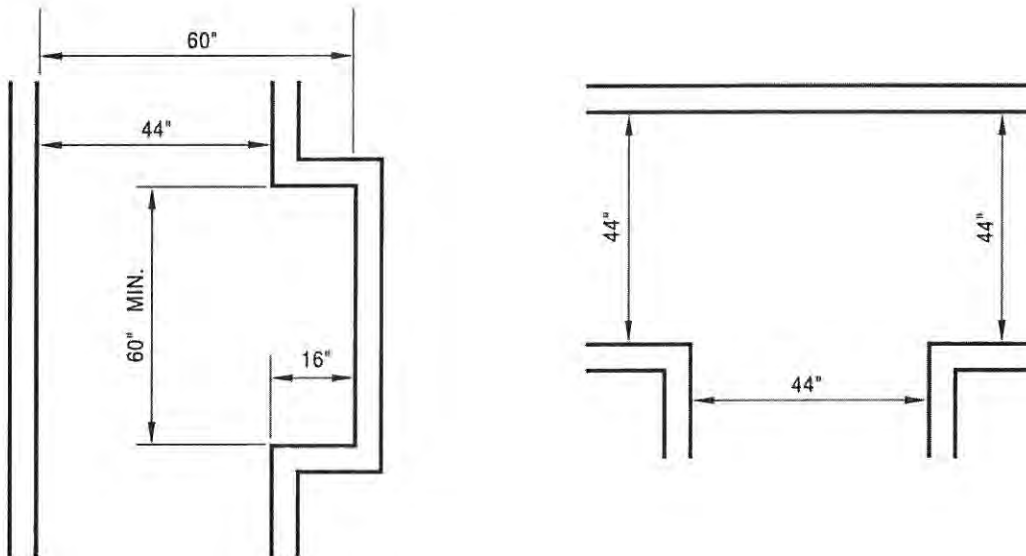
Warning Curbs: Abrupt changes in level, except between a walk or sidewalk and an adjacent street or driveway, exceeding 4 inches in a vertical dimension, shall be identified by curbs projecting at least 6 inches in height above the walk or sidewalk surface to warn the blind of a potential drop off.

Detectable warnings: If a walk crosses or adjoins a vehicular way, and the walking surfaces are not separated by curbs, railings or other elements between the pedestrian areas and vehicular areas, the boundary between the areas shall be defined by a continuous detectable warning which is 36 inches wide.



(a) MINIMUM CORRIDOR WIDTH

(b) MINIMUM WIDTH FOR CORRIDORS OVER 200'



(c) PASSING ALCOVES FOR CORRIDORS OVER 200' IN LIEU OF 60" MIN. WIDTH

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-34—CORRIDOR OVER 200 FEET (60 960 mm)

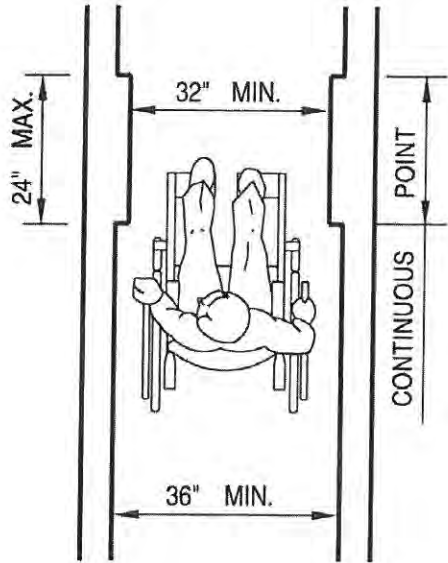


FIGURE 11B-10—MINIMUM CLEAR WIDTH FOR SINGLE WHEELCHAIR

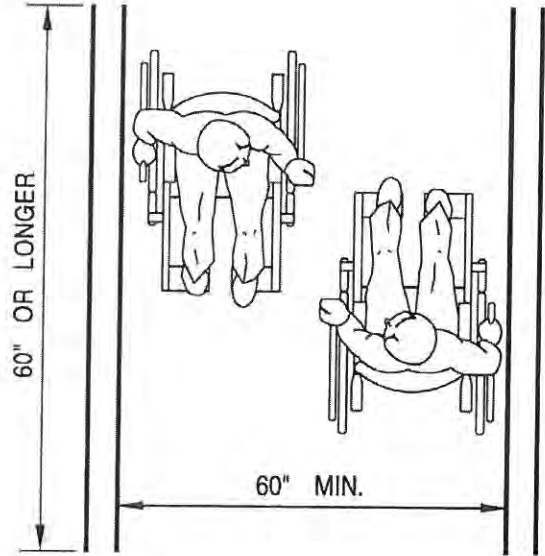
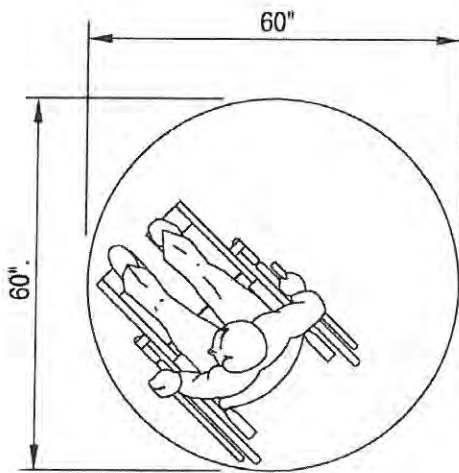
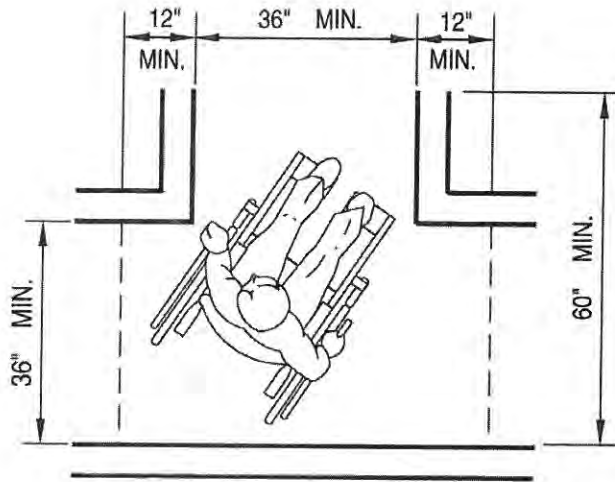


FIGURE 11B-11—MINIMUM CLEAR WIDTH FOR TWO WHEELCHAIRS



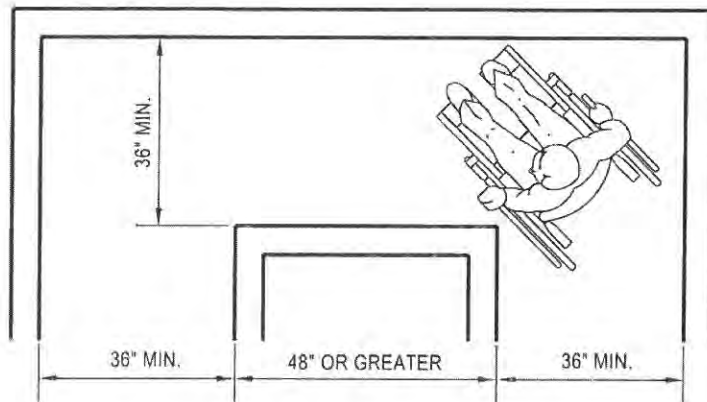
(a) 60 INCHES DIAMETER SPACE



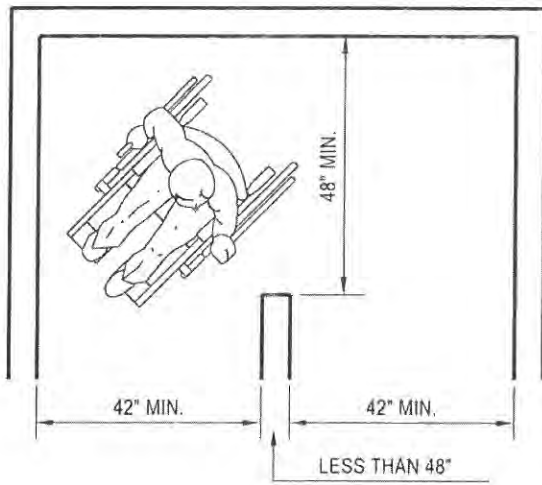
(b) T-SHAPED SPACE FOR 180° TURNS

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

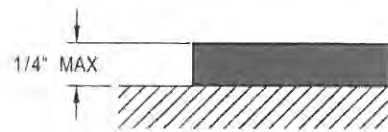
FIGURE 11B-12—WHEELCHAIR TURNING SPACE



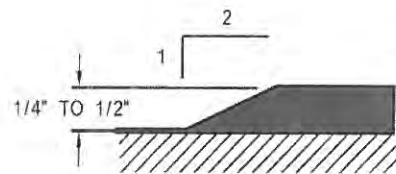
(a) 90 ° TURN



(b) TURNS AROUND AN OBSTRUCTION



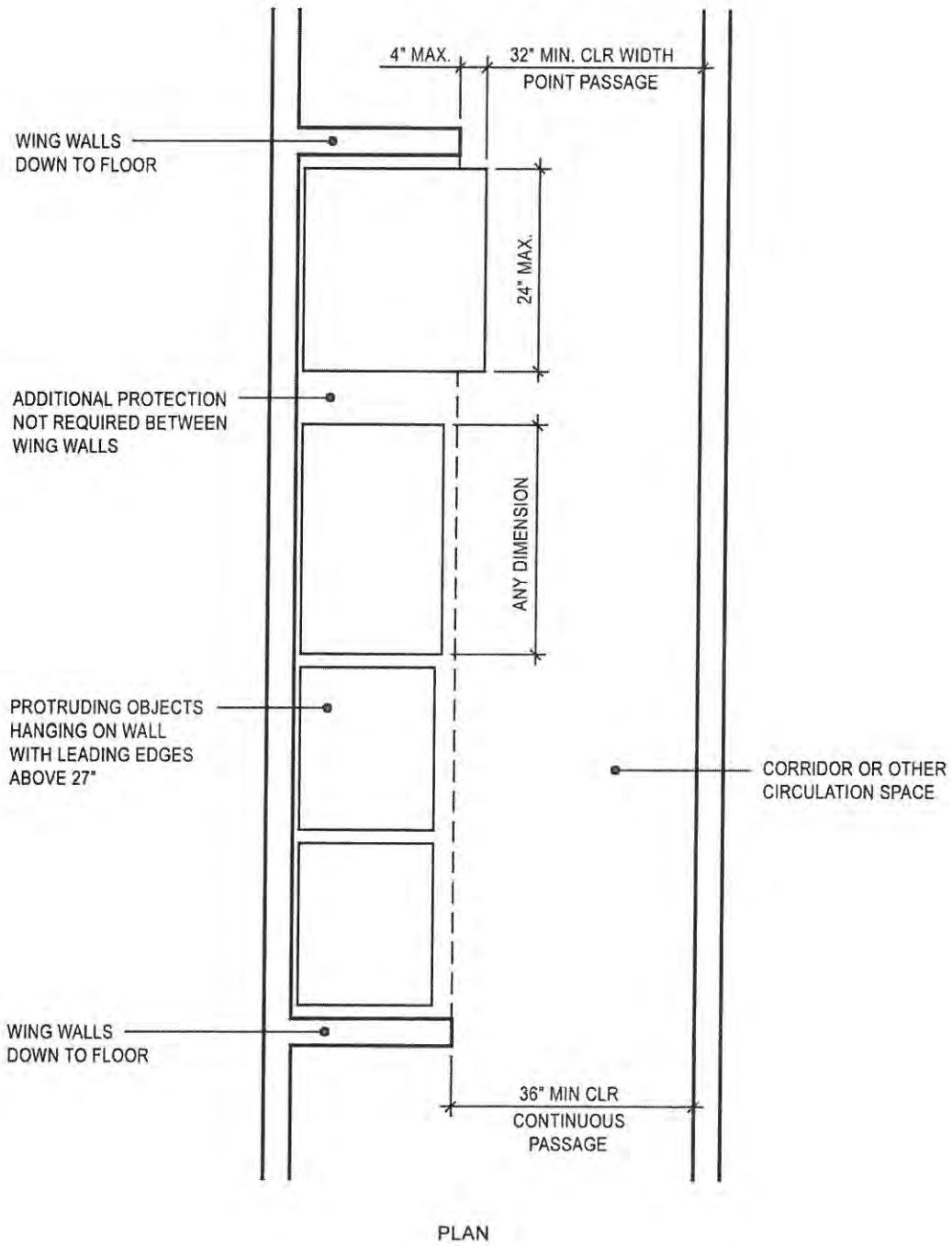
(c) CHANGE IN LEVEL



(d) CHANGE IN LEVEL

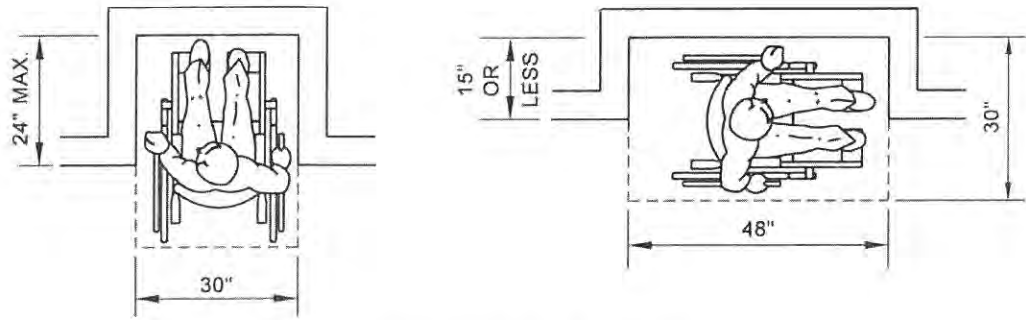
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-5E—WIDTH OF ACCESSIBLE ROUTE

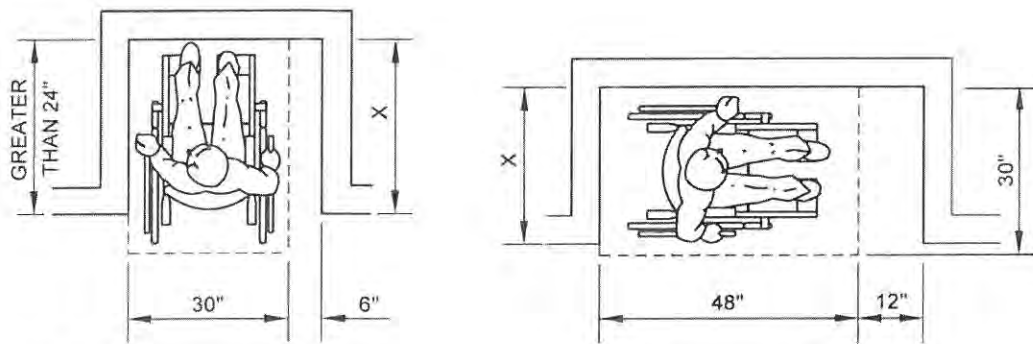


EXAMPLE OF PROTECTION AROUND WALL-MOUNTED OBJECTS
AND MEASUREMENTS OF CLEAR WIDTHS

FIGURE 11B-7D—PROTECTION AROUND WALL-MOUNTED OBJECTS



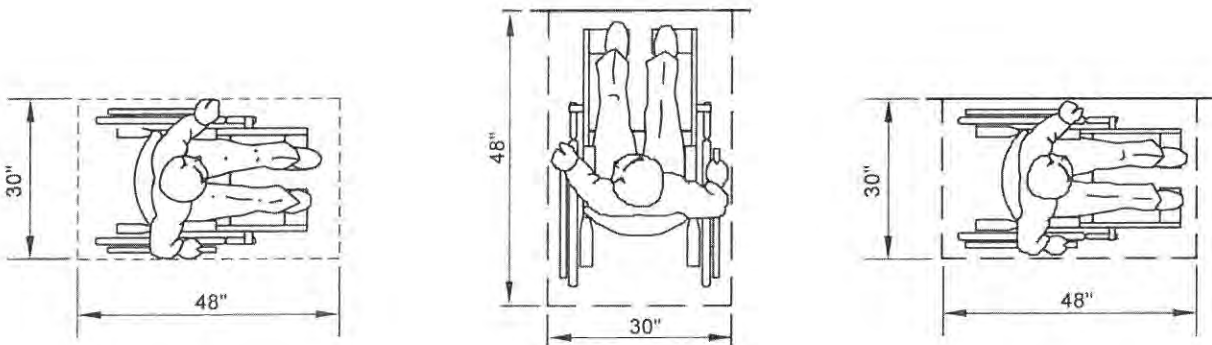
(a) CLEAR FLOOR SPACE IN ALCOVES



NOTE IF X > 24 INCHES, THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 6 INCHES SHALL BE PROVIDED AS SHOWN

NOTE IF X > 15 INCHES, THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 12 INCHES SHALL BE PROVIDED AS SHOWN

(b) ADDITIONAL MANEUVERING CLEARANCE FOR ALCOVES



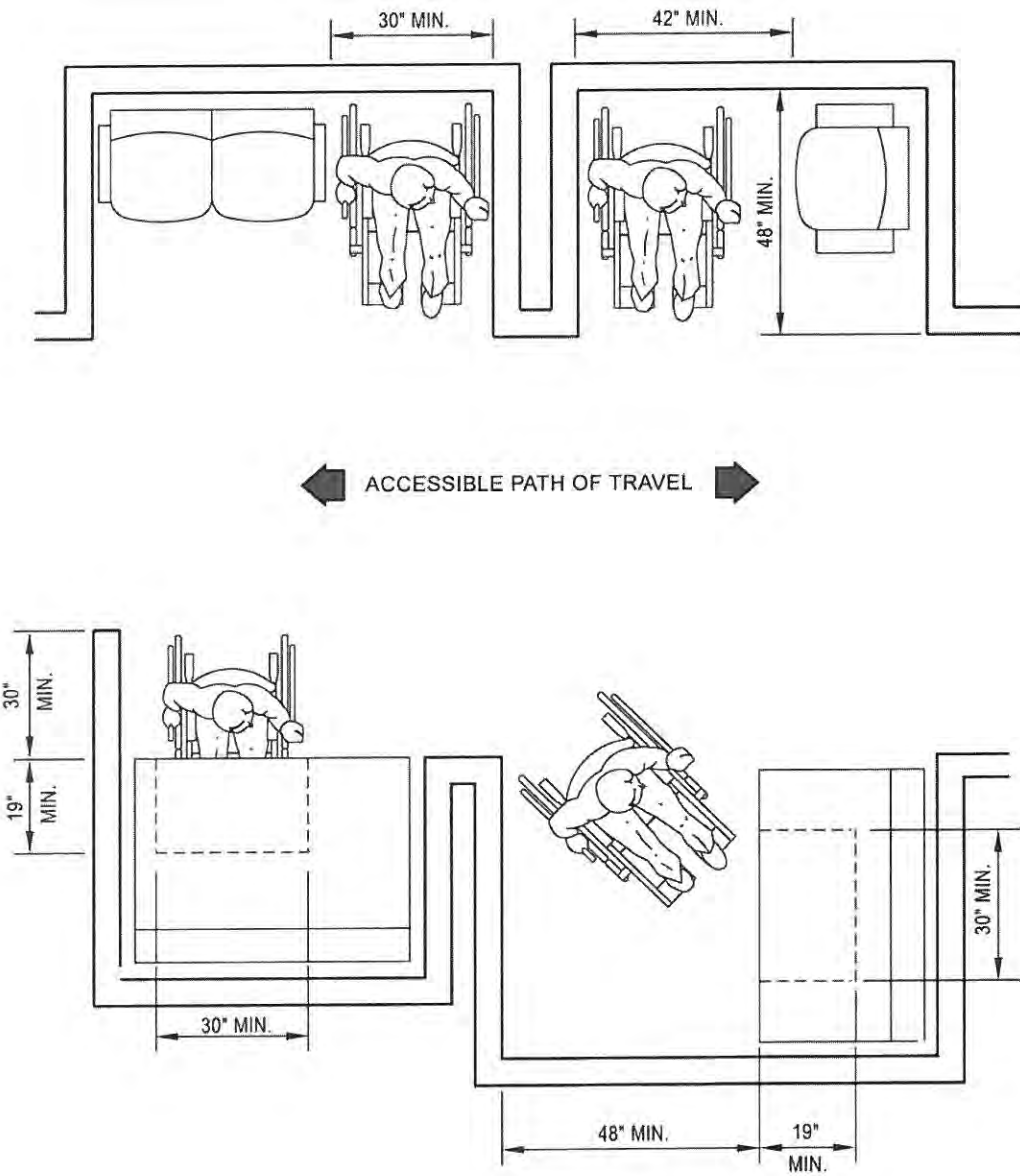
(c) CLEAR FLOOR SPACE

(d) FORWARD APPROACH

(e) PARALLEL APPROACH

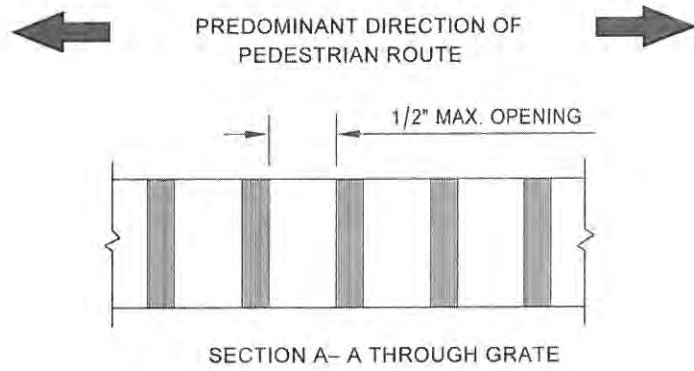
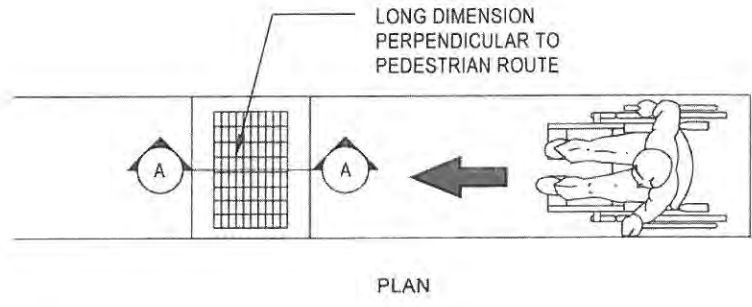
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-5A—MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIRS

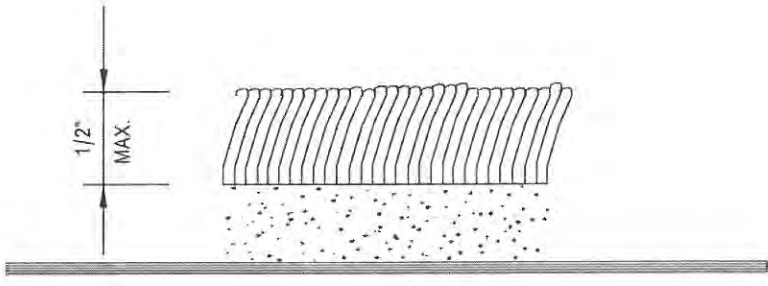


THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-13—MINIMUM CLEARANCES FOR SEATING AND TABLE



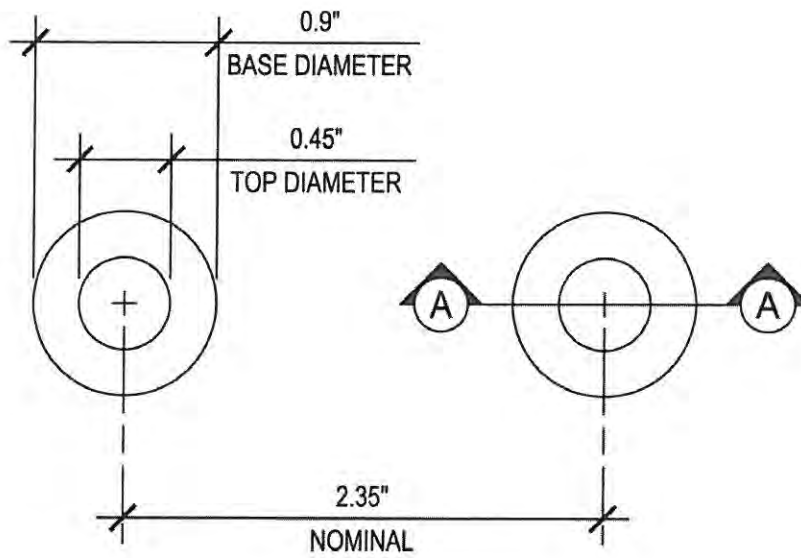
(a) GRATE ORIENTATION TO PATH OF TRAVEL



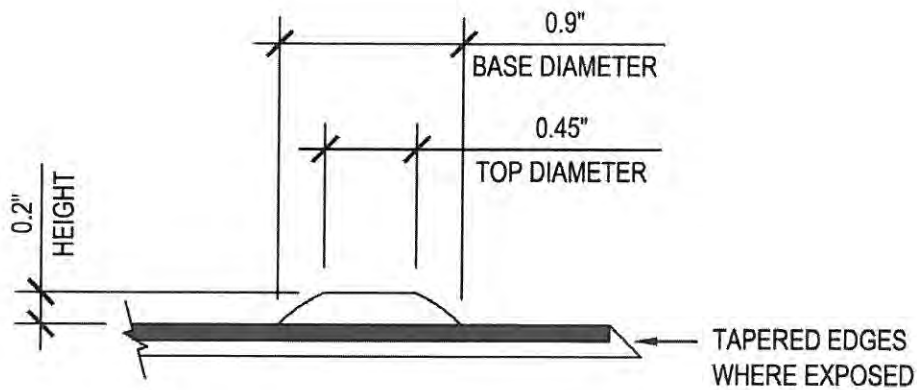
(b) CARPET PILE THICKNESS

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-7E

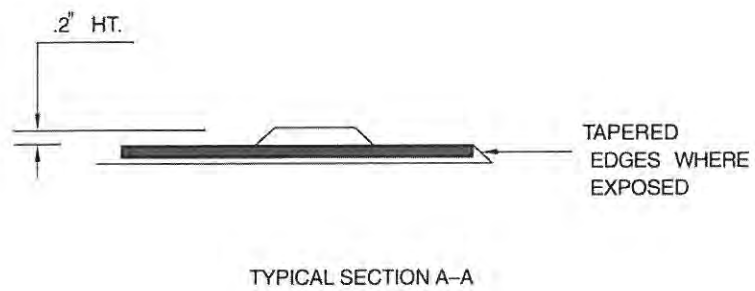
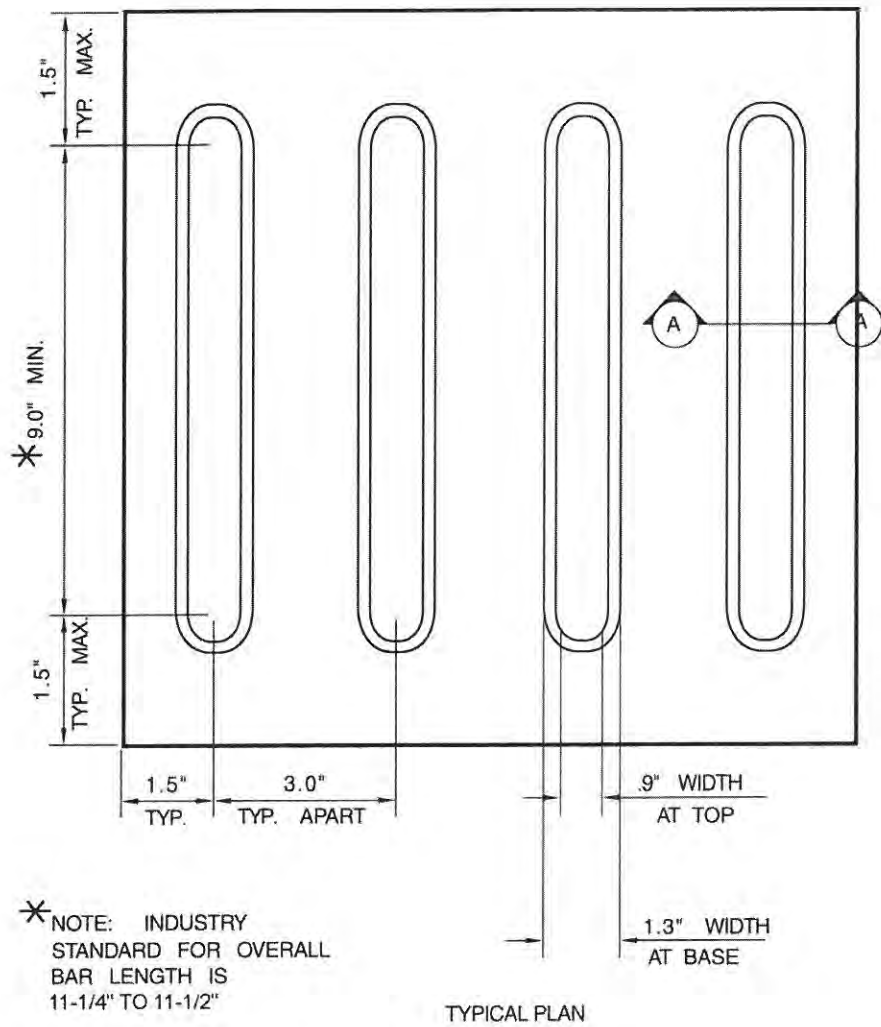


(a) TRUNCATED DOME SPACING



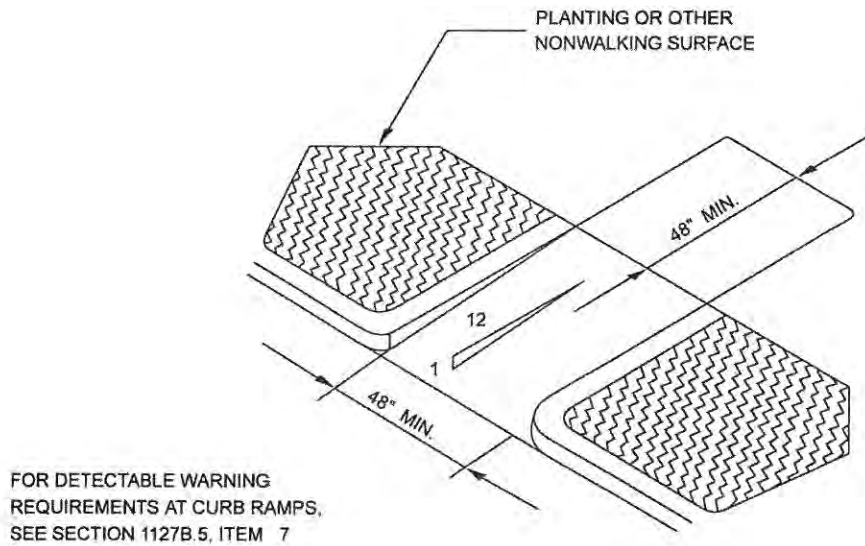
(b) TRUNCATED DOME SECTION A-A

FIGURE 11B-23A—TRUNCATED DOMES

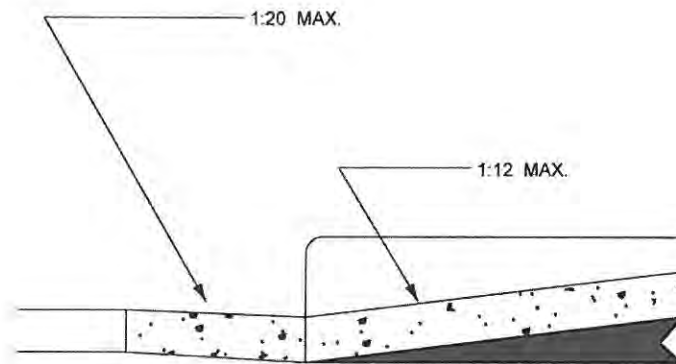


THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-23B—DIRECTIONAL BARS



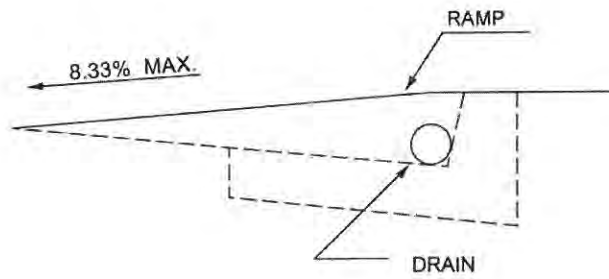
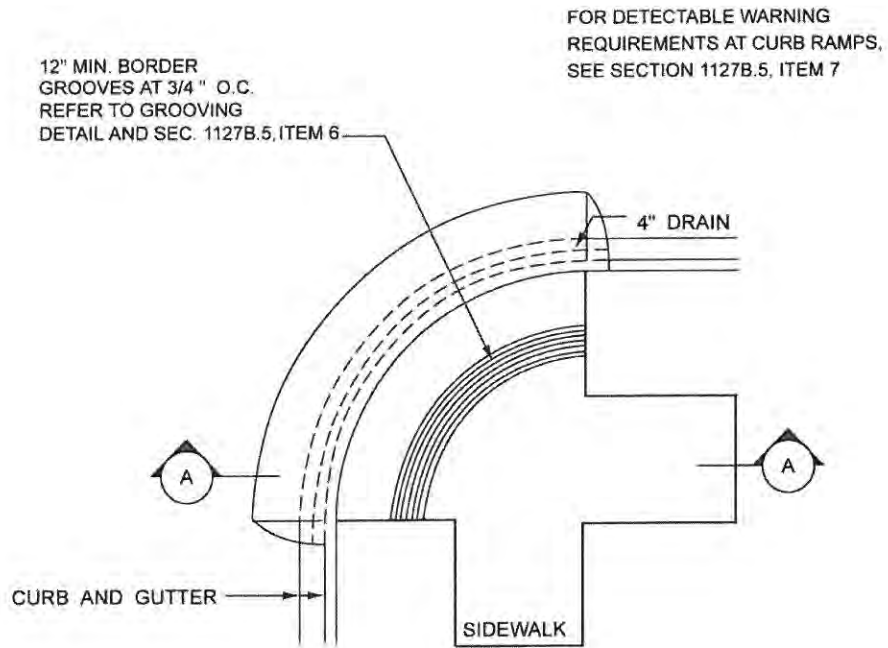
(a)



(b)

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

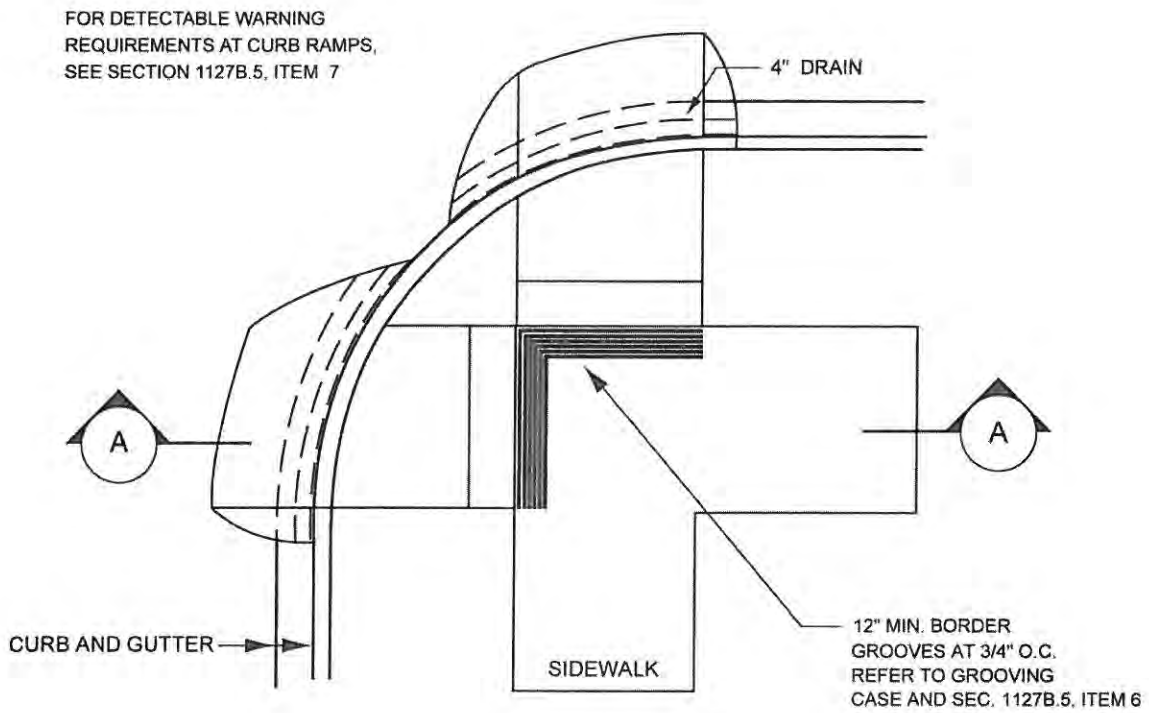
FIGURE 11B-21—RETURNED CURB STYLE



SECTION A-A

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

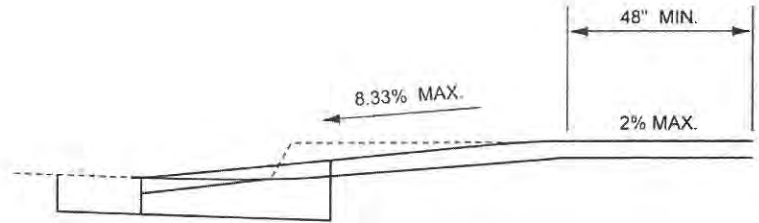
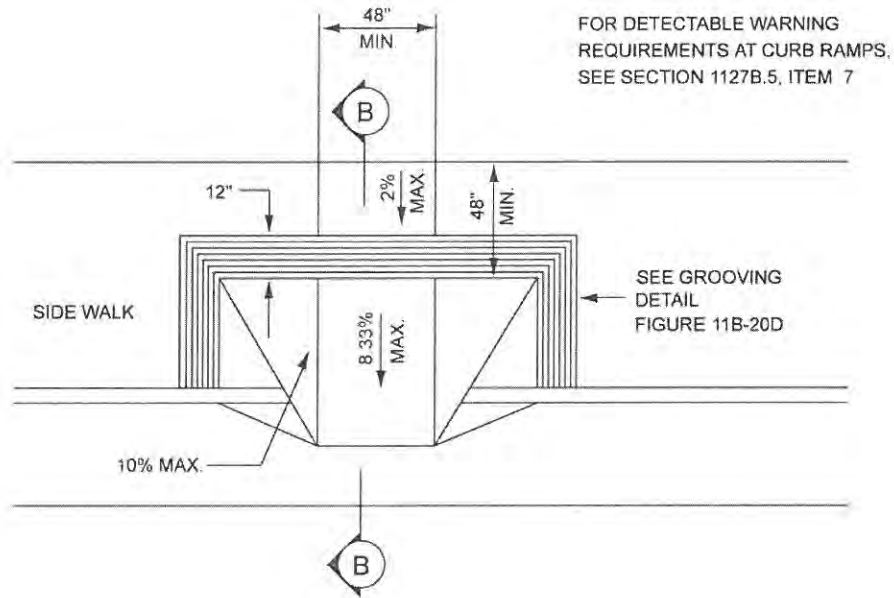
FIGURE 11B-19A—CURB DETAILS



SEE FIGURE 11B-19A

THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

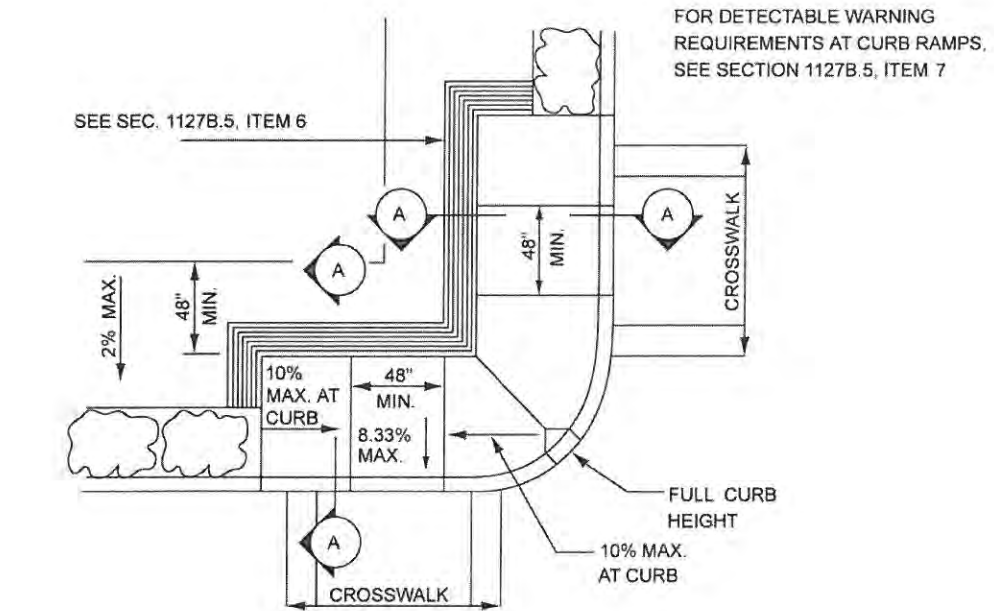
FIGURE 11B-19B—CURB DETAIL



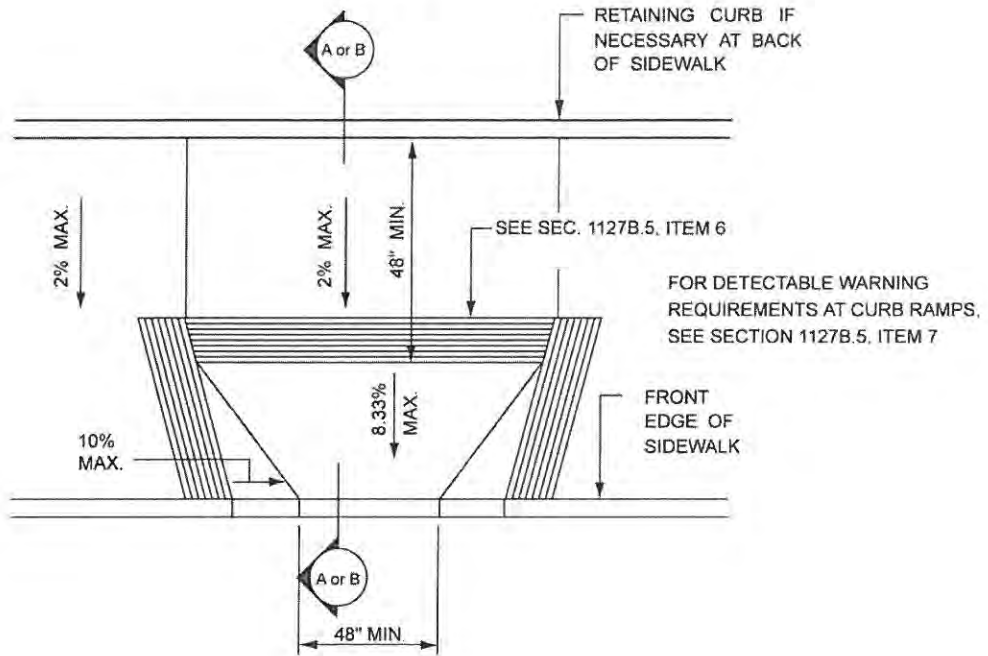
SECTION B-B

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-19C—CURB DETAIL



CASE A

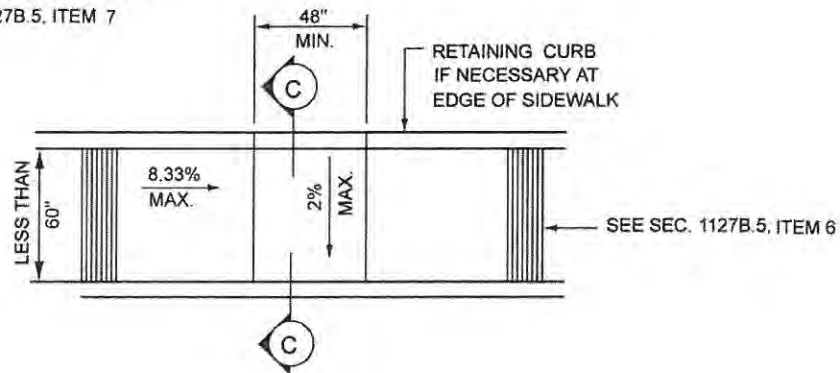


CASE B

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-20A—CURB DETAIL—CASES A AND B

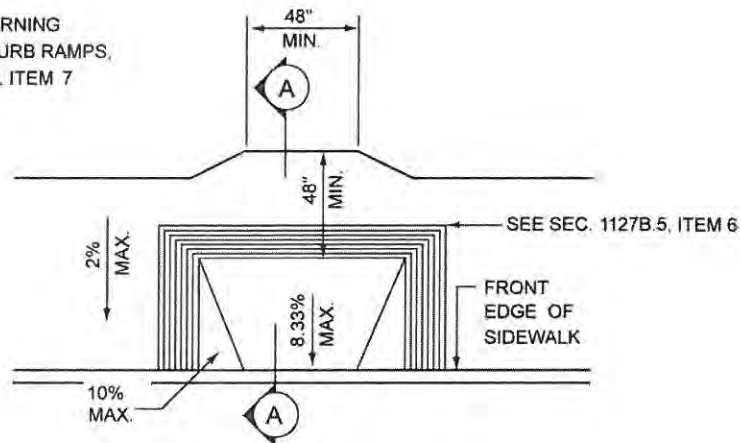
FOR DETECTABLE WARNING
REQUIREMENTS AT CURB RAMP,
SEE SECTION 1127B.5. ITEM 7



CASE C

SIDEWALK LESS THAN 60" WIDE

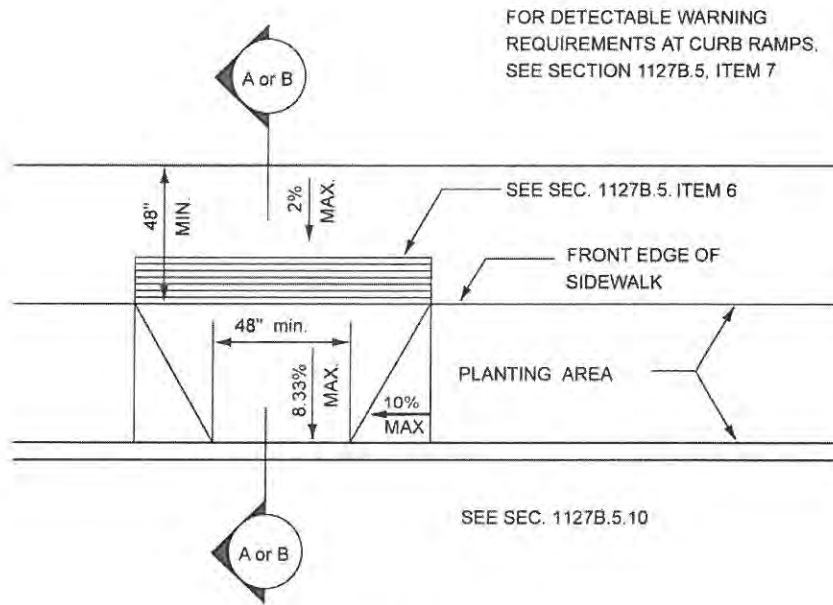
FOR DETECTABLE WARNING
REQUIREMENTS AT CURB RAMP,
SEE SECTION 1127B.5. ITEM 7



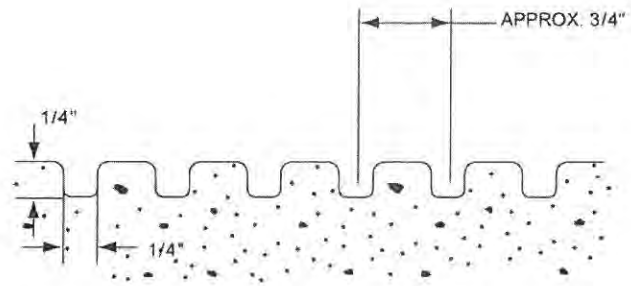
CASE D

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS
OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID
FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-20B—CURB DETAIL—CASES C AND D



CASE G

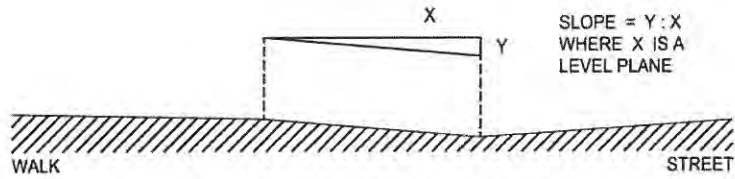


GROOVING DETAIL

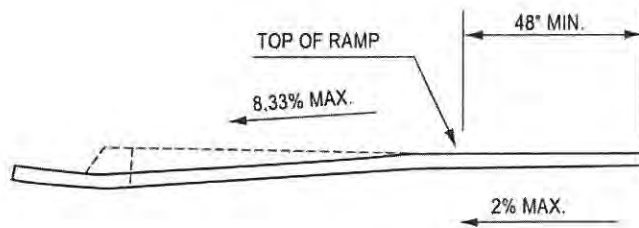
CASE H

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

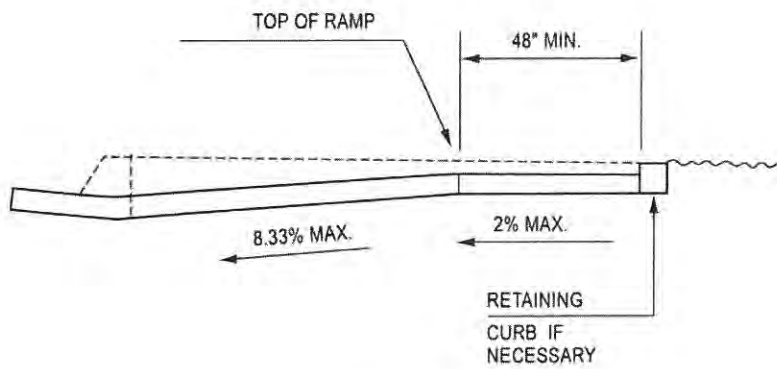
FIGURE 11B-20D—CURB DETAIL—CASES G AND H



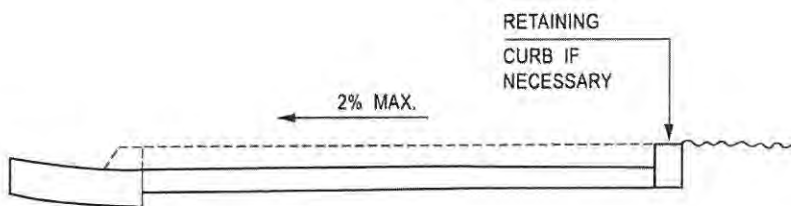
MEASUREMENT OF CURB RAMP SLOPES



SECTION A-A



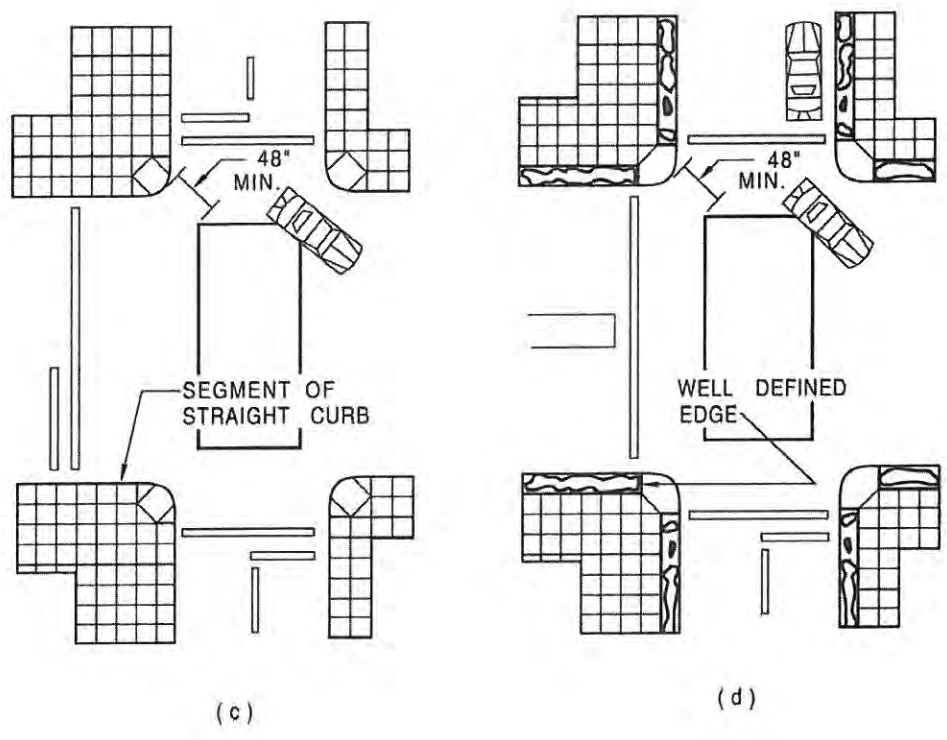
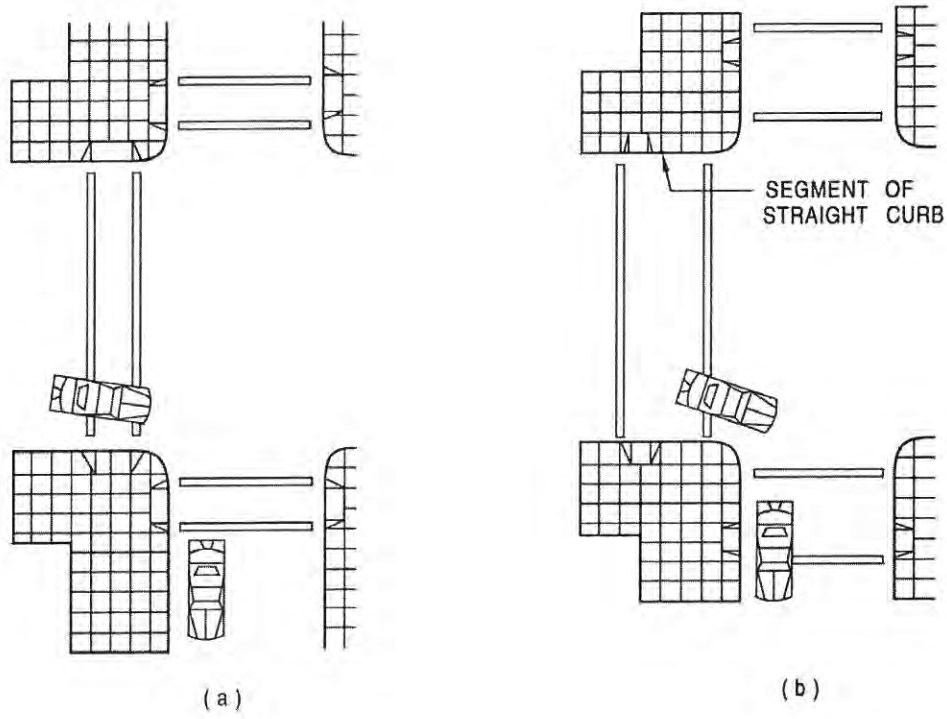
SECTION B-B
DEPRESS ENTIRE SIDEWALK AS REQUIRED



SECTION C-C

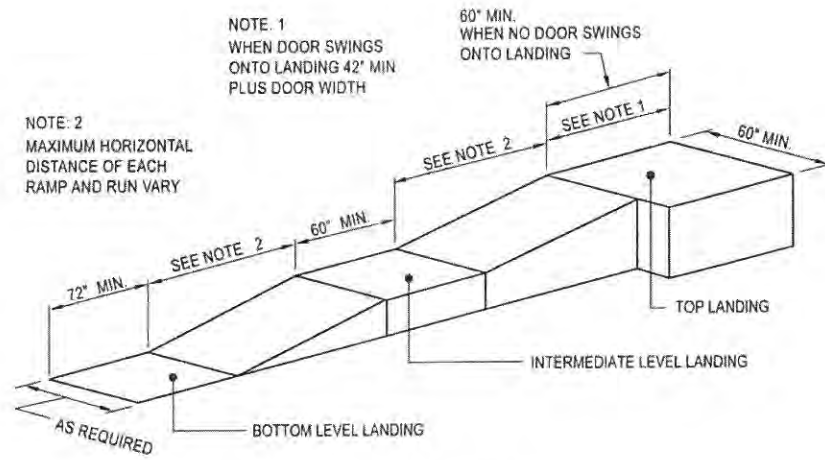
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-20E—CURB SECTIONS

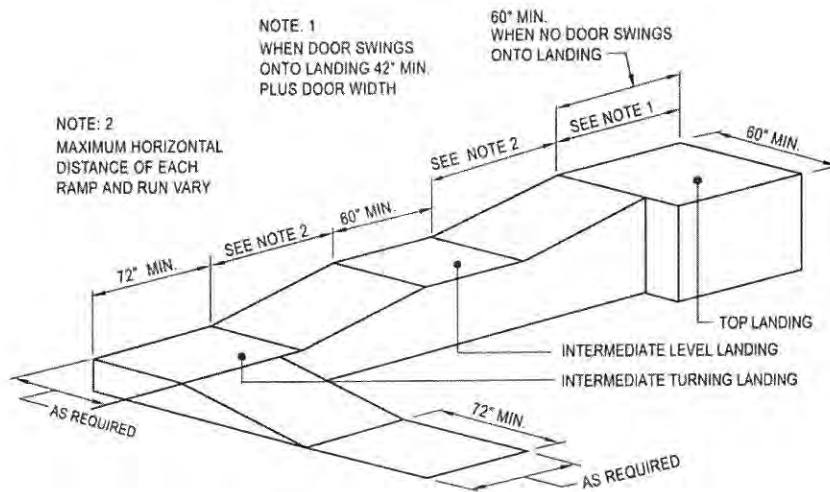


THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-22—CURB RAMPS AT MARKED CROSSING



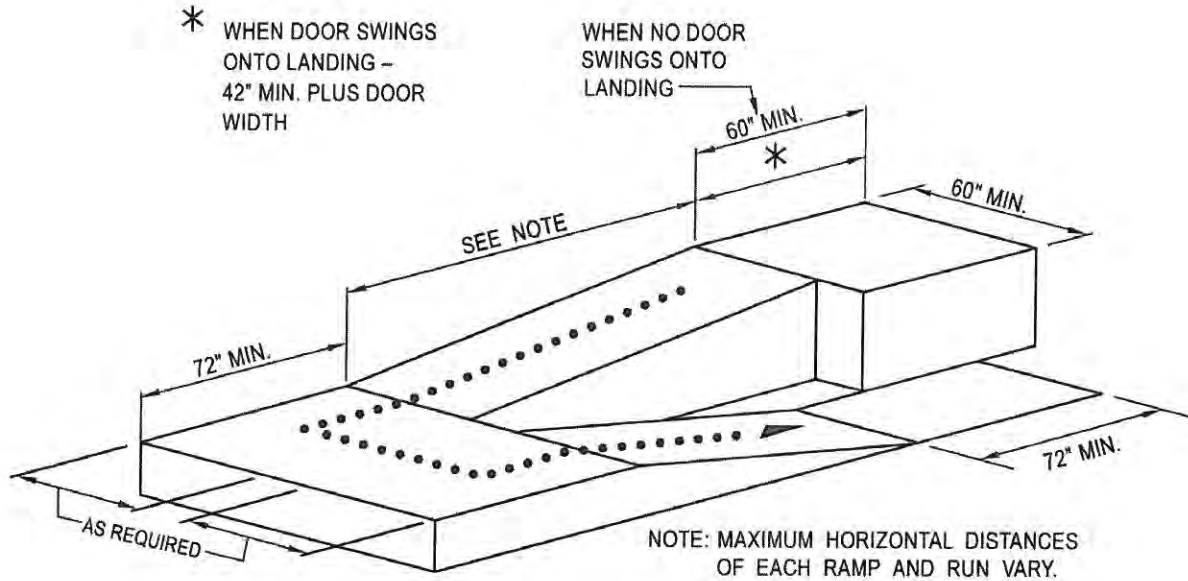
(a) STRAIGHT RAMP RUN



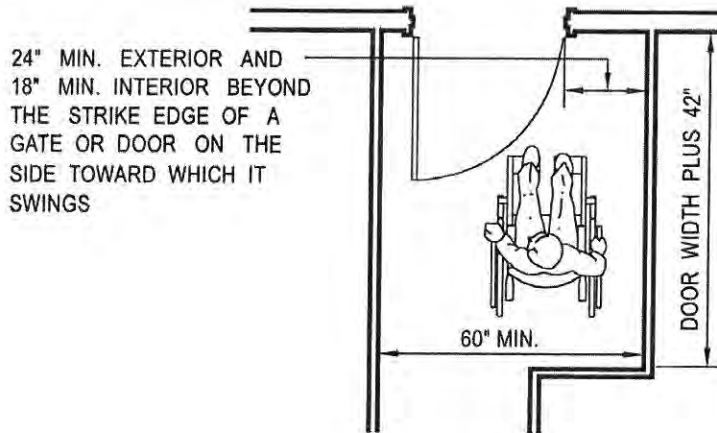
(b) RAMP WITH TURNING LANDING

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-38—RAMP DIMENSIONS



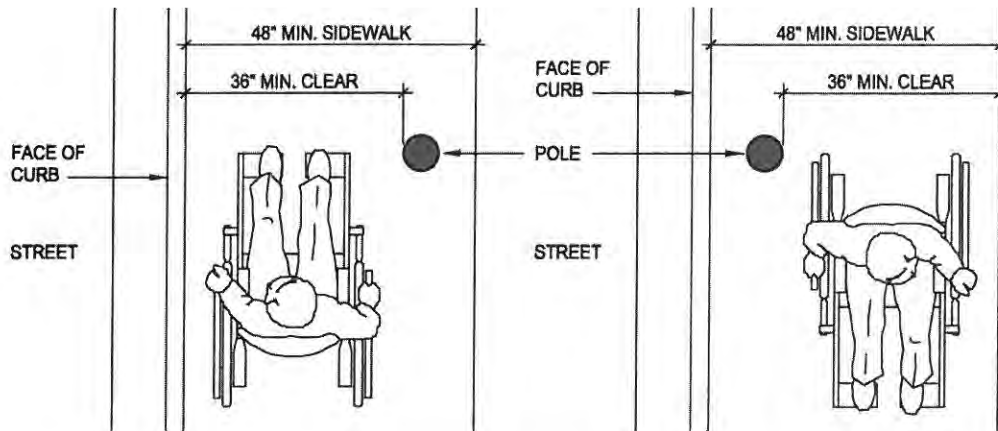
(a) RAMP WITH INTERMEDIATE SWITCH BACK LANDING



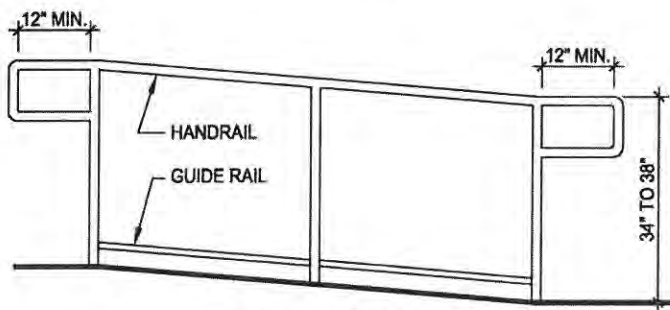
(b) RAMP LANDING AT DOORWAY

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

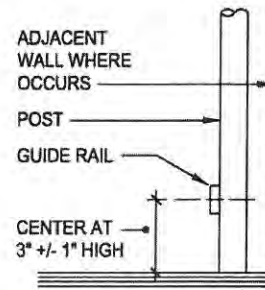
FIGURE 11B-39—RAMP LANDING AND DOORWAY



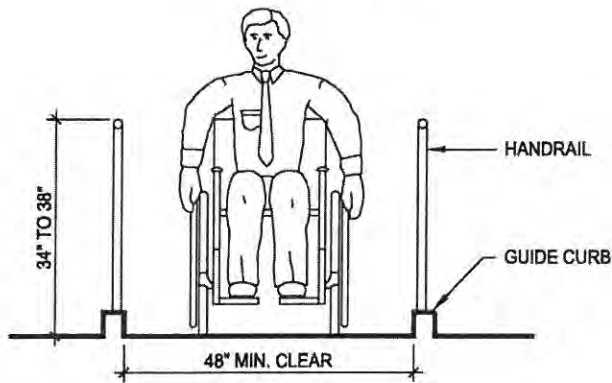
(a) SIDEWALK OBSTRUCTIONS



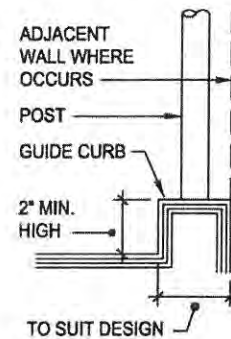
(b) HANDRAIL AND GUIDE RAIL



GUIDE RAIL DETAIL

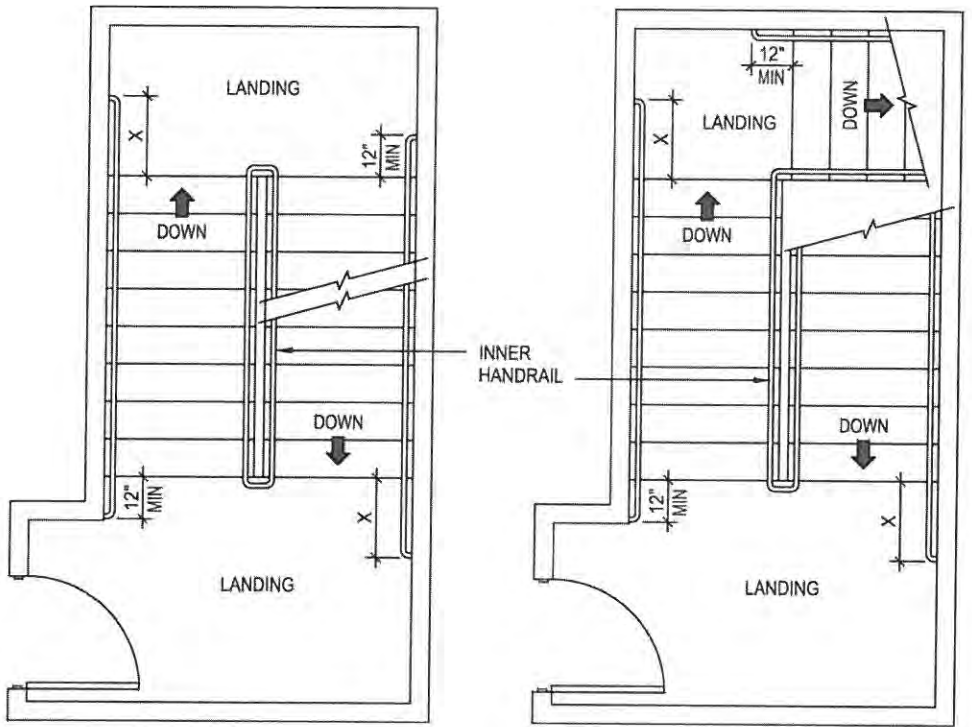


(c) GUIDE CURB



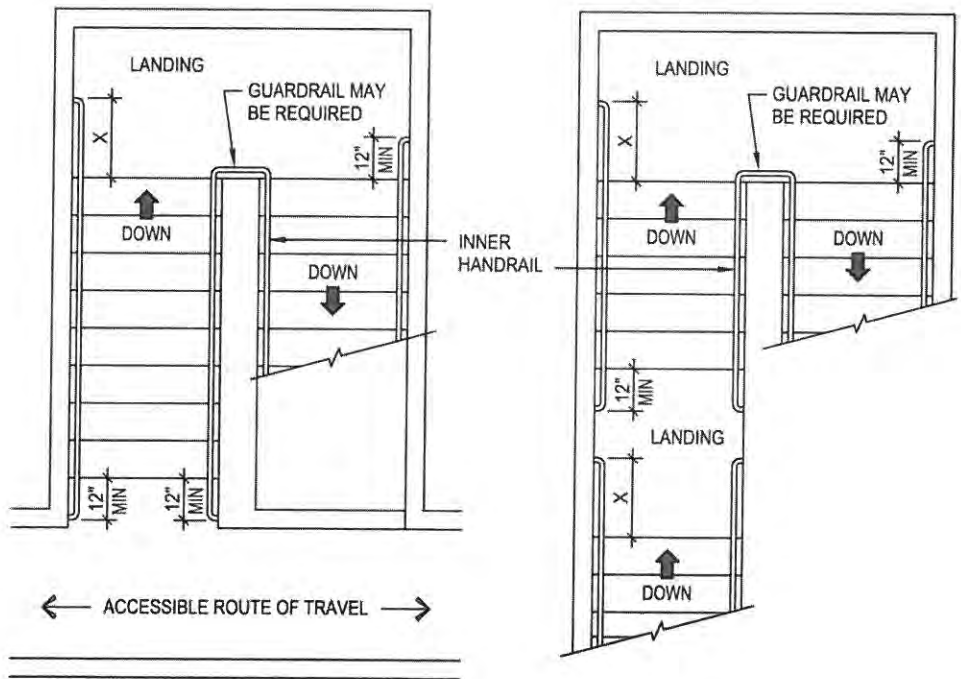
GUIDE CURB DETAIL

FIGURE 11B-27—RAMPS AND SIDEWALKS



NOTE: INNER HANDRAIL AT LANDINGS OF STAIRS THAT DOUBLE BACK OR IMMEDIATELY TURN SHALL BE CONTINUOUS AND SHALL NOT EXTEND INTO LANDING OR ACCESSIBLE ROUTE OF TRAVEL

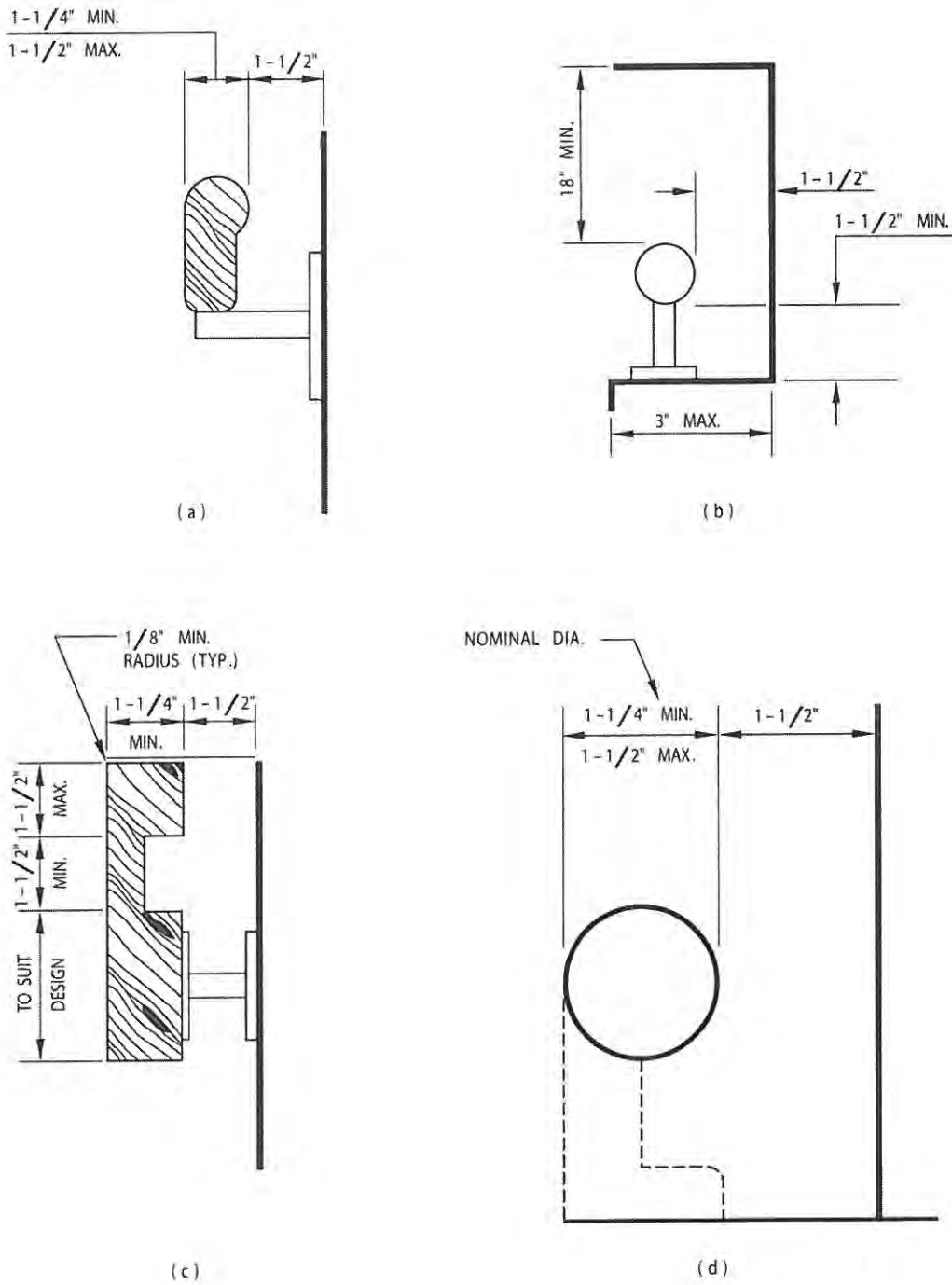
X = EXTENSION OF HANDRAIL SHALL BE EQUAL TO THE TREAD WIDTH PLUS 12 INCHES MINIMUM



← ACCESSIBLE ROUTE OF TRAVEL →

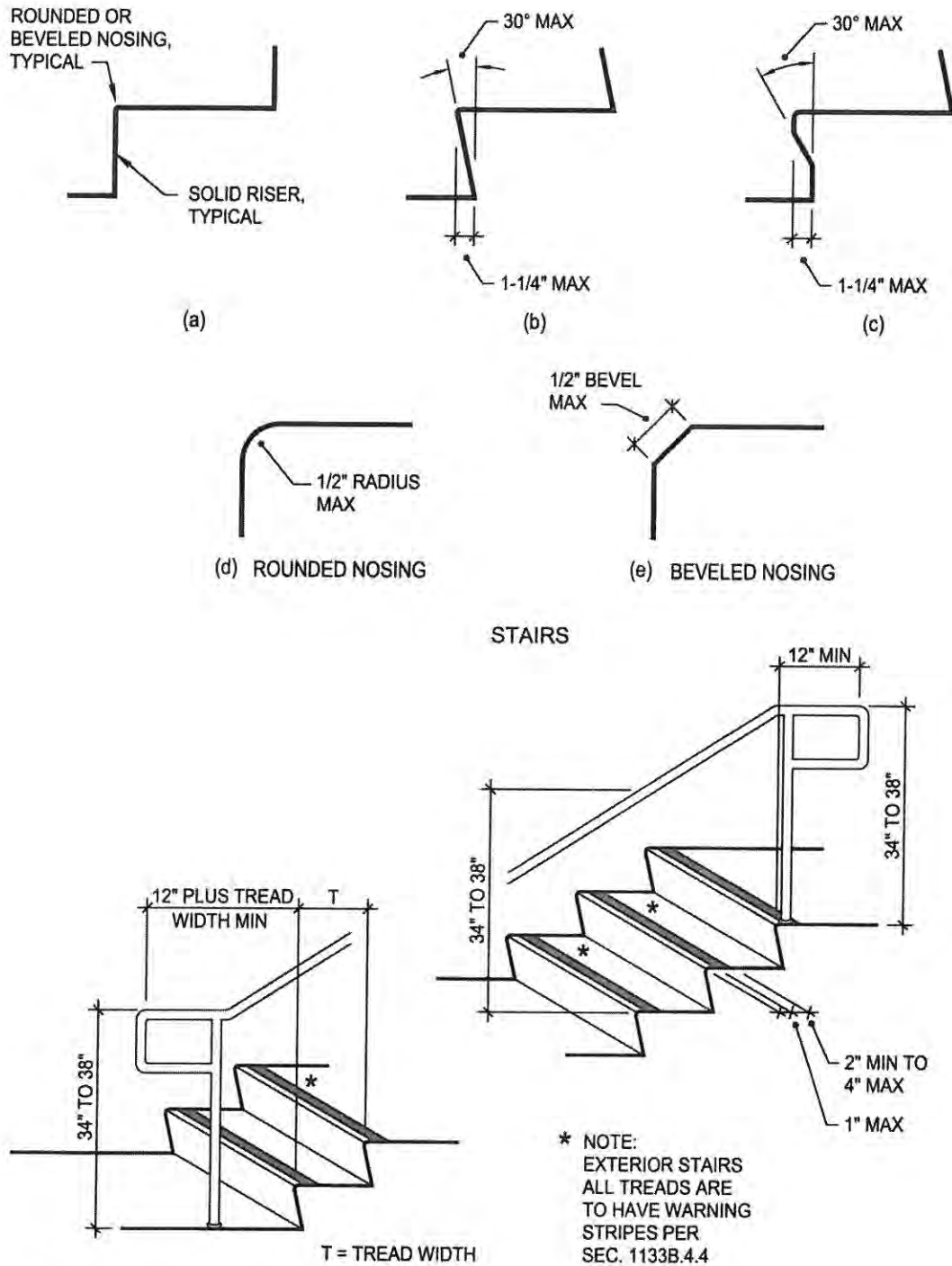
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-37—STAIR HANDRAILS



THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-36—STAIR HANDRAILS



THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-35—WARNING STRIPING AND HANDRAIL EXTENSIONS

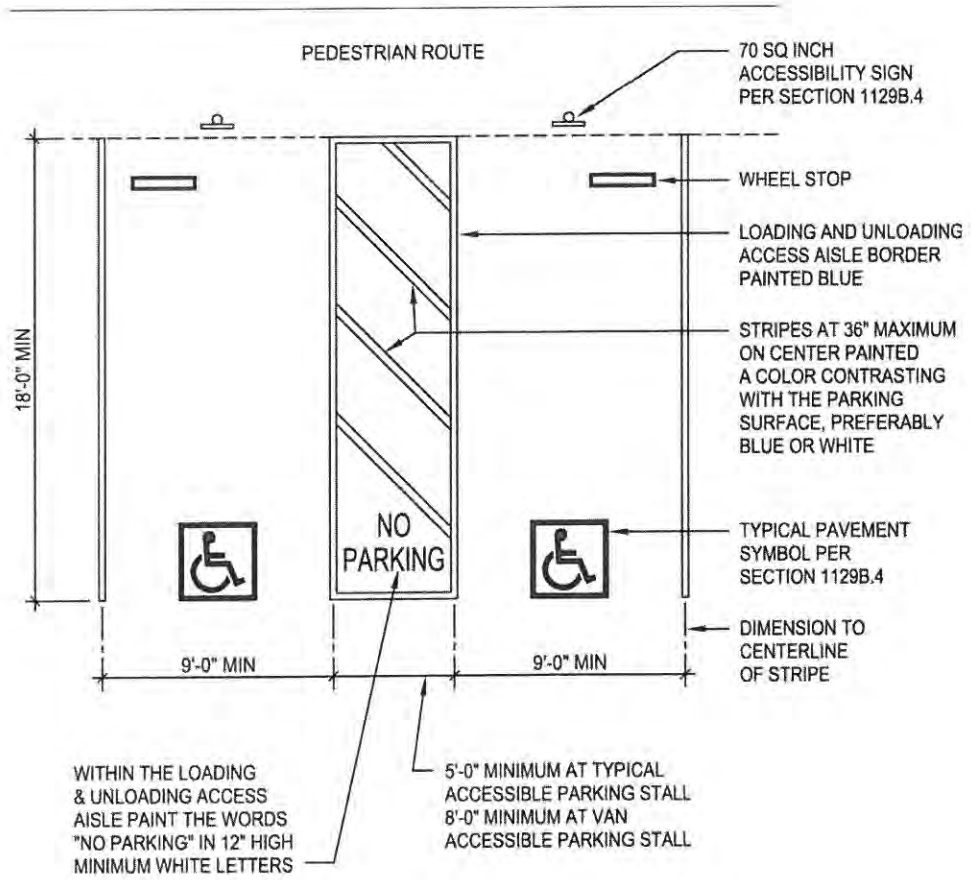


FIGURE 11B-18A—DOUBLE PARKING STALLS

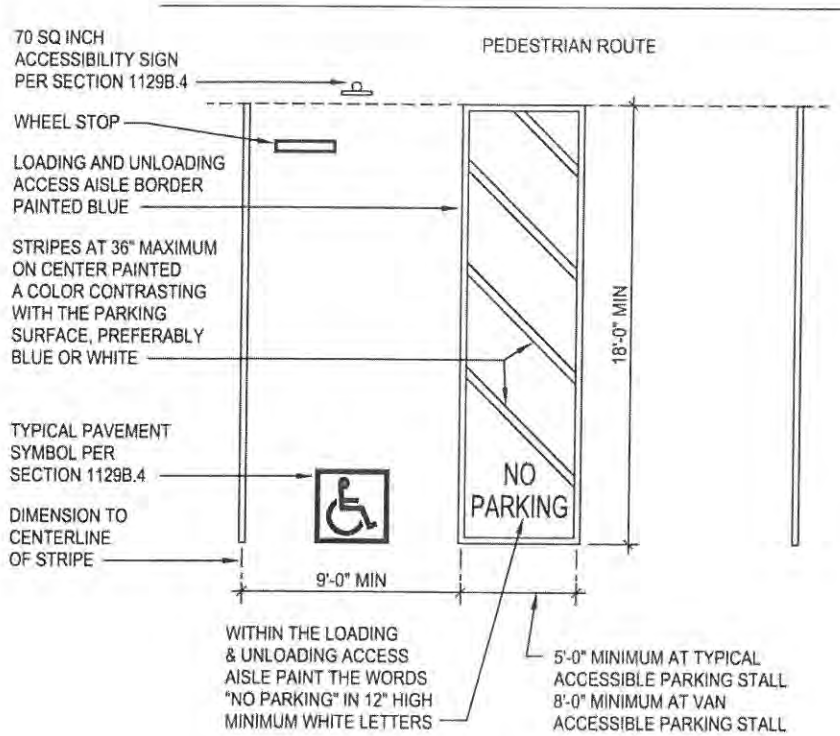


FIGURE 11B-18B—SINGLE PARKING STALLS

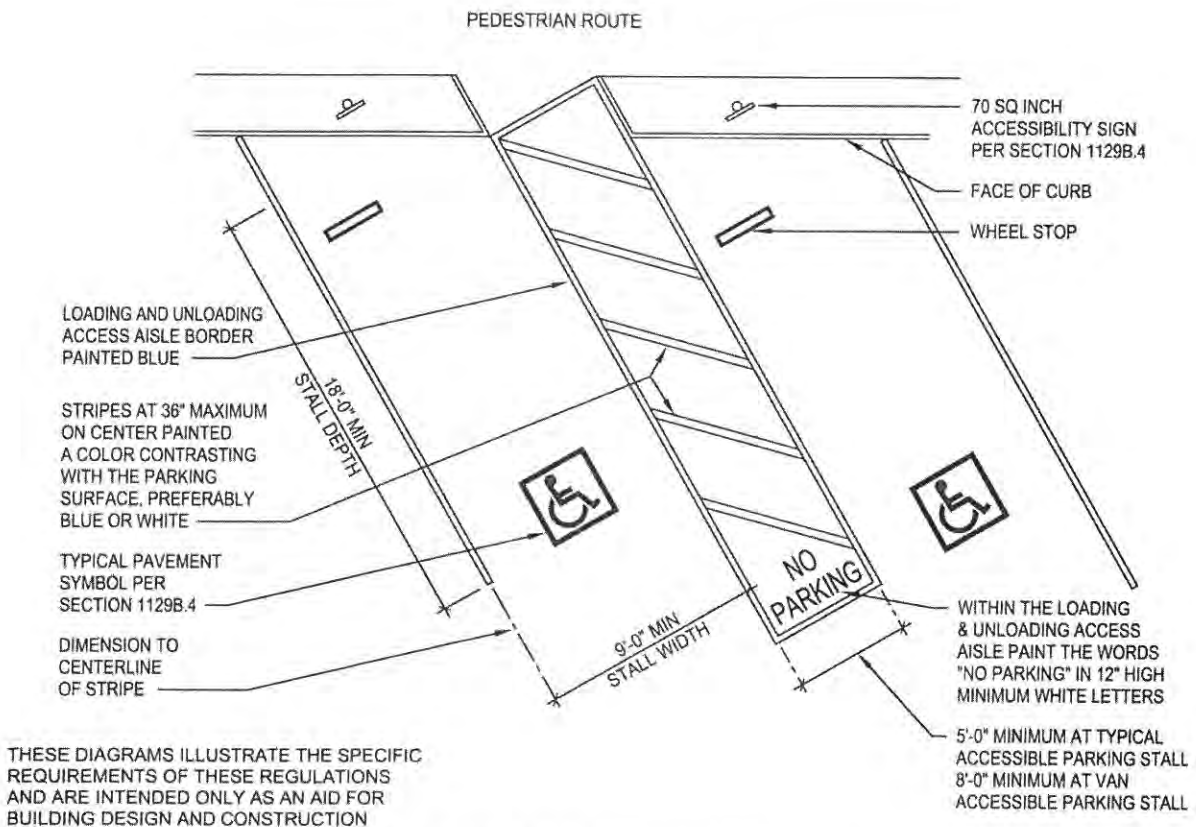
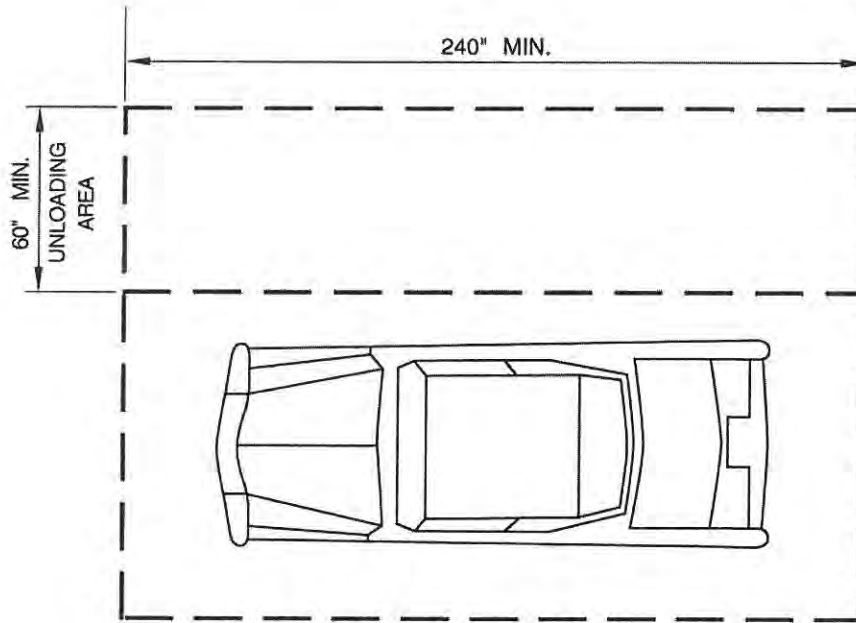


FIGURE 11B-18C—DIAGONAL PARKING STALLS



THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-24—ACCESS AISLE AT PASSENGER LOADING ZONES

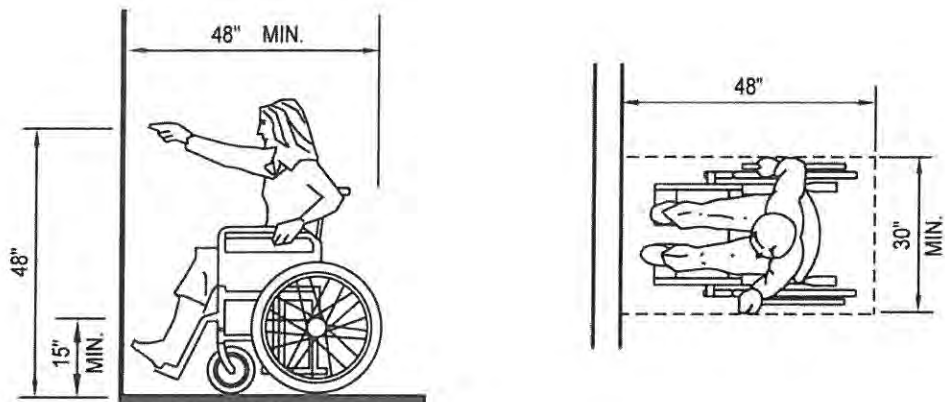
Accessible Facilities

All building facilities shall be accessible except where modified by Chapters 11A and 11B. When multiple facilities are provided, typically only a certain percentage needs to be fully accessible. There are also special provisions for different occupancy types which should be consulted.

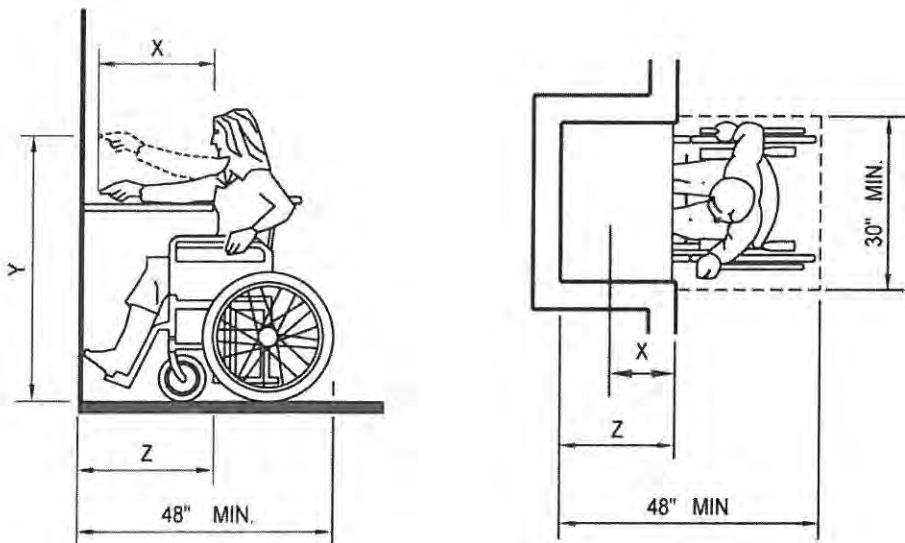
M Occupancies: Sales employee workstations shall be located on accessible levels, and the customer side of sales or check-out stations shall be accessible. Employee work areas shall be sized and arranged to provide access to employees in wheelchairs. Where check stands are provided, the minimum number of accessible check stands is required and a minimum of one accessible check stand shall always be available. Shelves or display units allowing self-service by customers in mercantile occupancies shall be located on an accessible route of travel and circulation aisles and pedestrian ways shall be sized according to functional requirements and in no case shall be less than 36 inches in clear width.

R Occupancies: Public- and common use rooms and similar areas shall be made accessible to persons with disabilities and at least one of each type of amenity in each common area shall be accessible and shall be located on an accessible route to any accessible unit or sleeping accommodation. Accessible guest rooms or suites shall be dispersed among the various classes of sleeping accommodations to provide a range of options applicable to room sizes, costs, amenities provided and the number of beds provided. Accessible sleeping rooms shall have a 36-inch clear width maneuvering space located along both sides of a bed, except that where two beds are provided, this requirement can be met by providing a 36-inch-wide maneuvering space located between the beds. In addition, there shall be a clear space under the bed for the use of a personal lift device.

Bathing and Toilet Facilities: Bathing and toilet facilities that serve buildings, facilities or portions of buildings or facilities that are required to be accessible to persons with disabilities and shall be on an accessible route. Where separate facilities are provided for persons of each sex, these facilities shall be accessible to persons with disabilities. Where unisex facilities are provided, these facilities shall be accessible to persons with disabilities. Where facilities are to be used solely by small children, the specific heights and clearances may be adjusted to meet their accessibility needs. Where facilities for bathing are provided for the public, clients or employees, including showers or bathtubs, at least one shower or bathtub and support facilities such as lockers, and not less than 1 percent of all facilities, shall be accessible.



(a) HIGH FORWARD REACH LIMIT

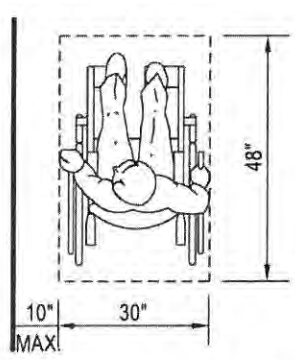


NOTE :
 X SHALL BE LESS THAN OR EQUAL TO 25 INCHES. Z SHALL BE GREATER THAN OR EQUAL TO X. WHEN X IS LESS THAN 20 INCHES, THEN Y SHALL BE 48 INCHES MAXIMUM. WHEN X IS 20 TO 25 INCHES, THEN Y SHALL BE 44 INCHES MAXIMUM.

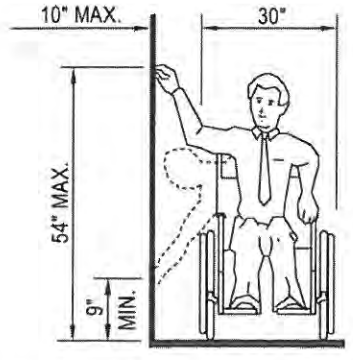
(b) MAXIMUM FORWARD REACH OVER AN OBSTRUCTION

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

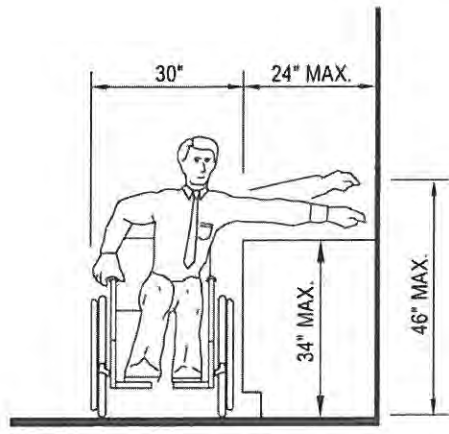
FIGURE 11B-5C—FORWARD REACH



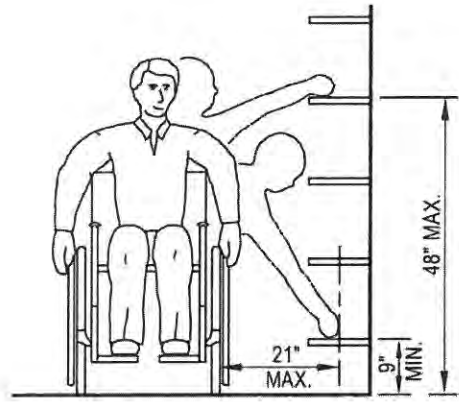
(a) CLEAR FLOOR SPACE PARALLEL APPROACH



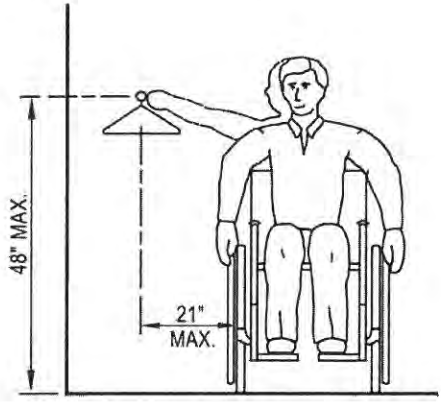
(b) HIGH AND LOW SIDE REACH LIMITS



(c) MAXIMUM SIDE REACH OVER OBSTRUCTION



(d) SHELVES



(e) CLOSETS

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-5D—SIDE REACH

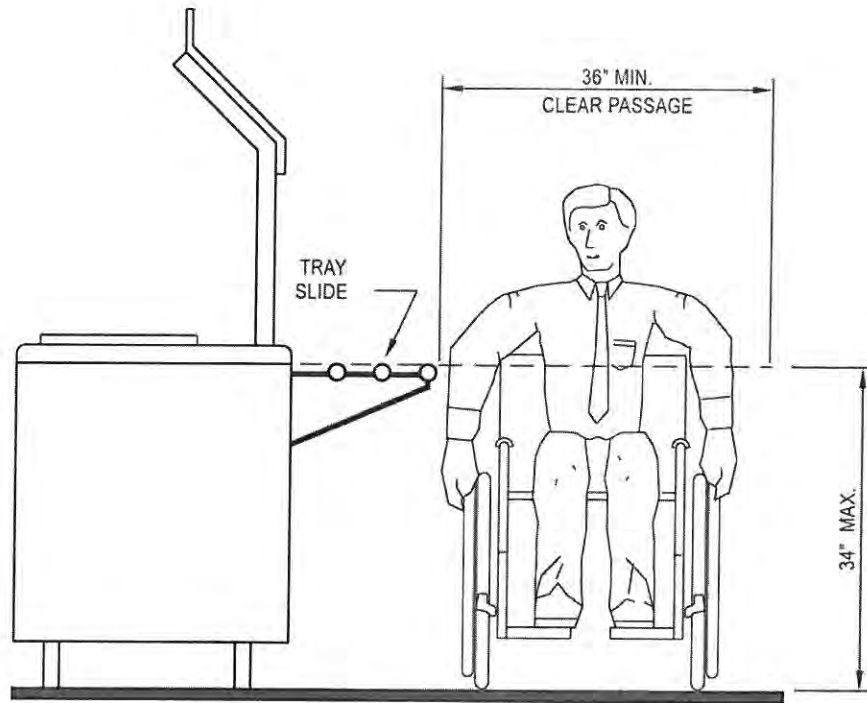
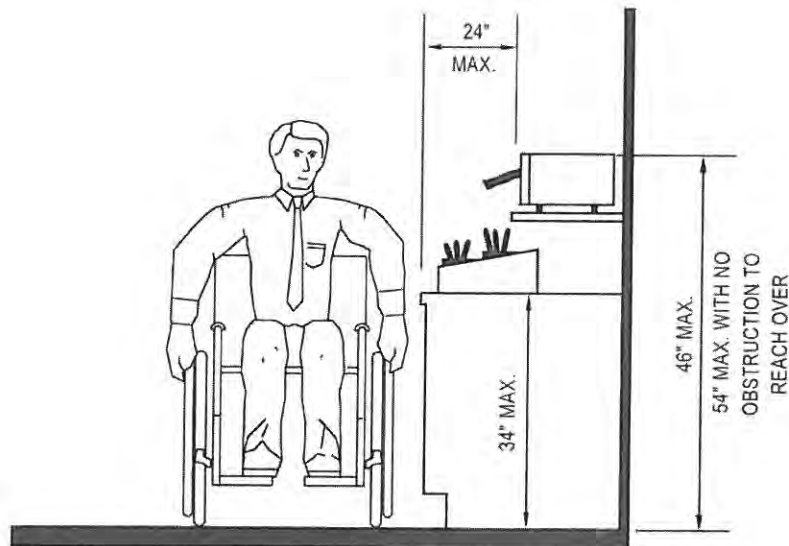
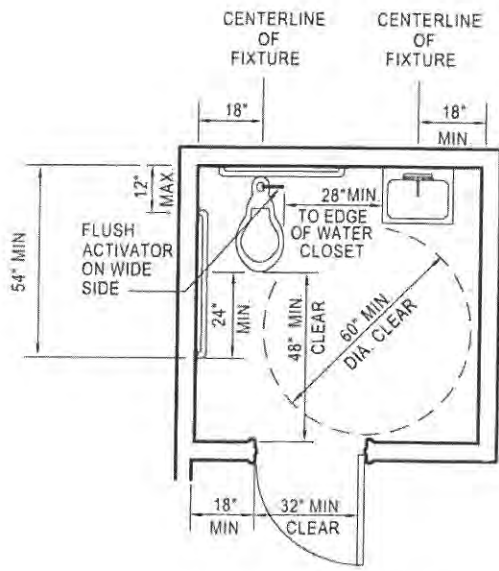


FIGURE 11B-16—FOOD SERVICE LINES

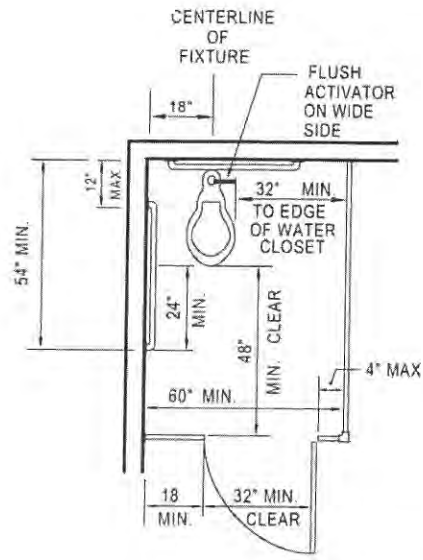


THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

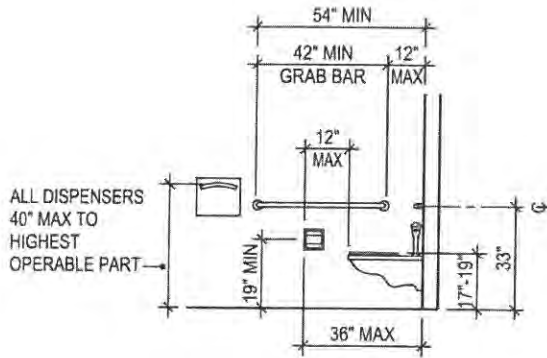
FIGURE 11B-17—TABLEWARE AREAS



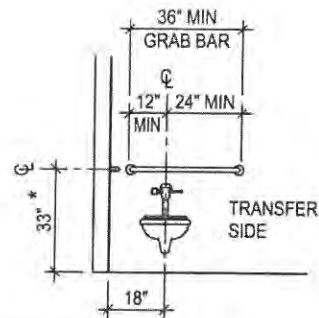
SINGLE-ACCOMMODATION TOILET FACILITY



ACCESSIBLE WATER CLOSET COMPARTMENT WITHIN A MULTIPLE-ACCOMMODATION TOILET FACILITY



SIDE WALL ELEVATION

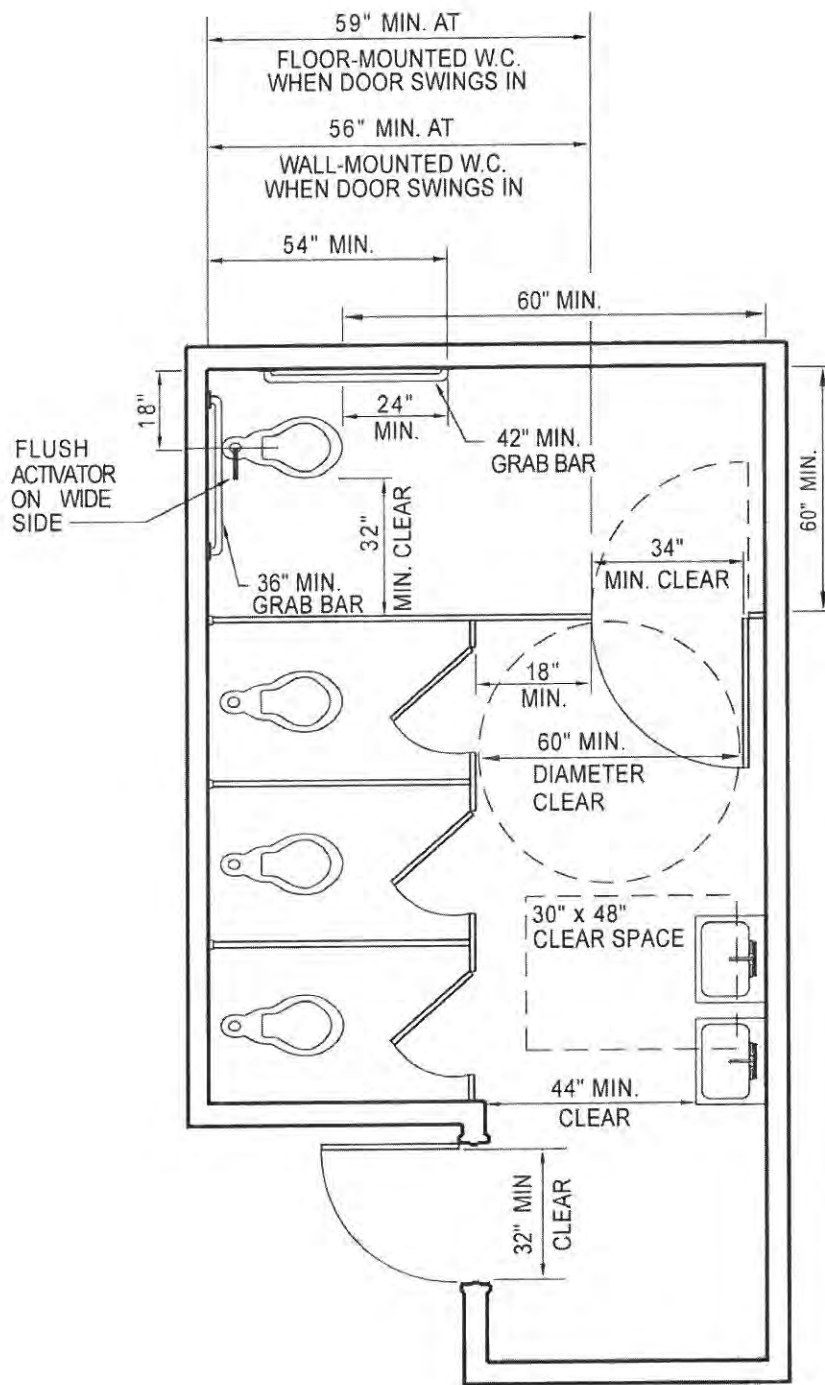


* REAR GRAB BAR ALLOWED AT 36" A.F.F. AT TANK-TYPE TOILET

REAR WALL ELEVATION

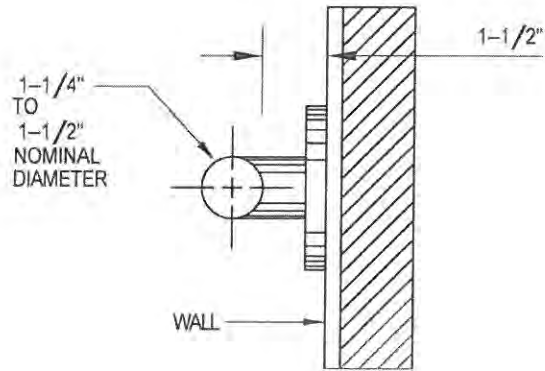
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-1A



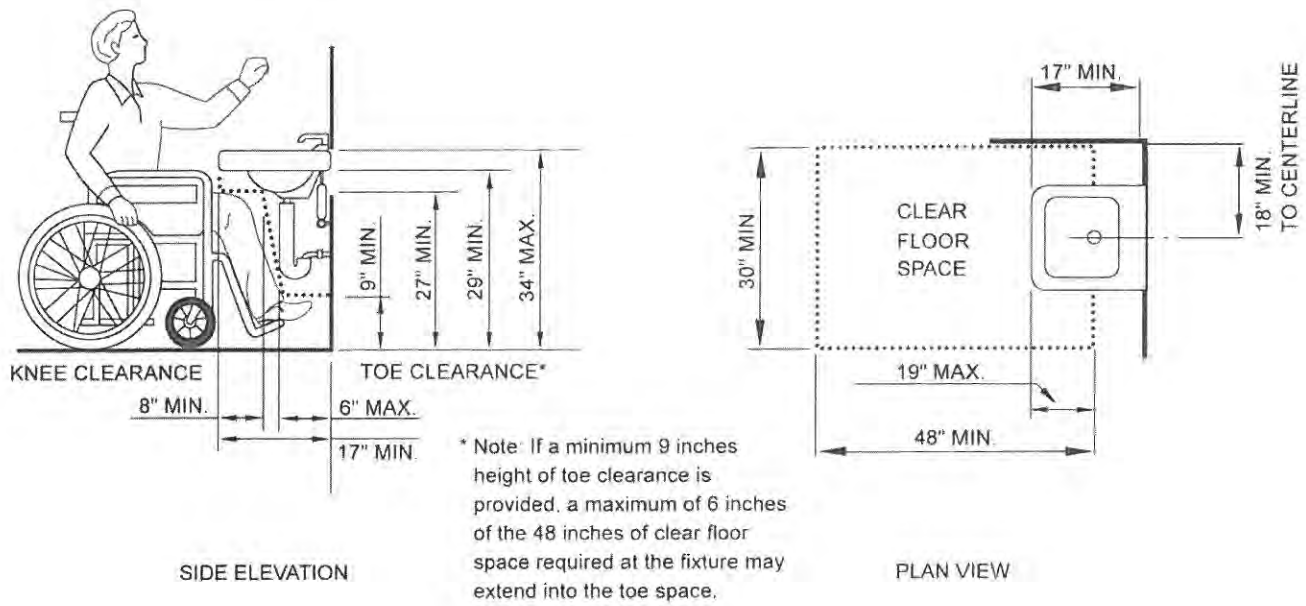
THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-1B—MULTIPLE-ACCOMMODATION TOILET FACILITY



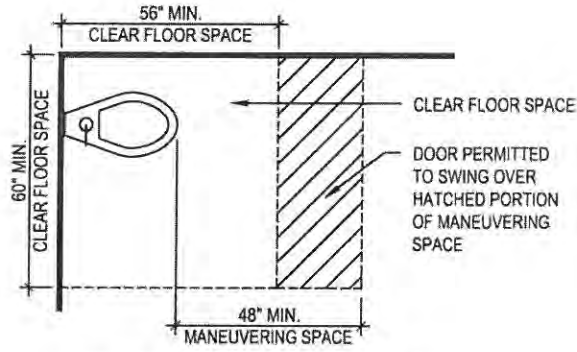
THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11B-1C—TYPICAL GRAB BAR SECTION

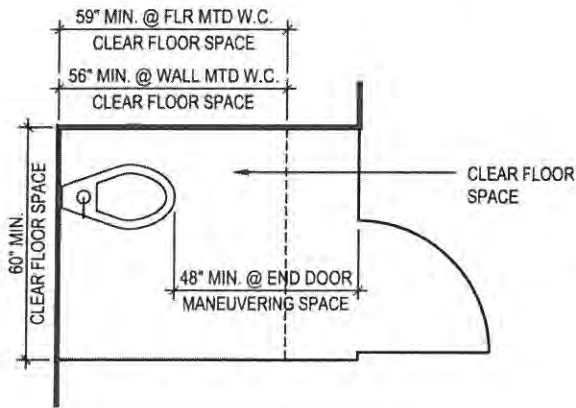


THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

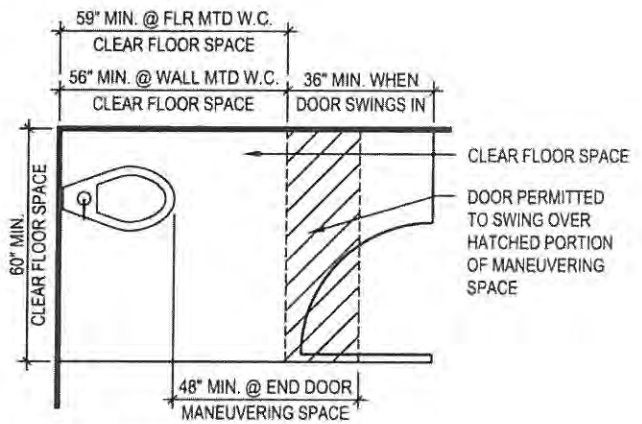
FIGURE 11B-1D—KNEE CLEARANCE



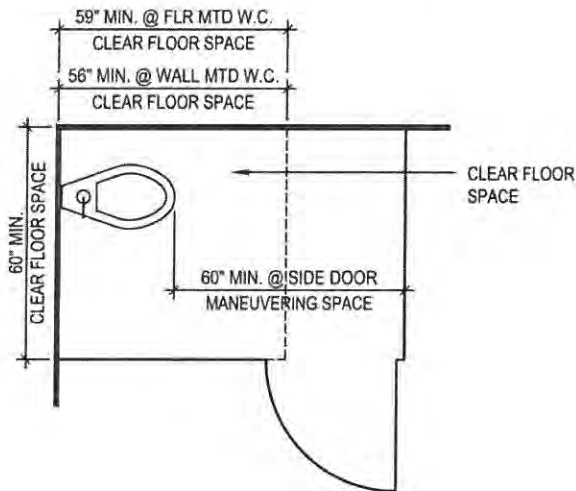
(a) CLEARANCES AT WATER CLOSET



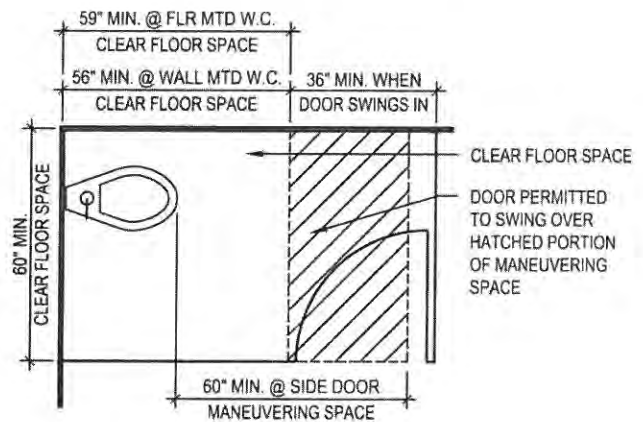
(b) CLEARANCES AT WATER CLOSET IN COMPARTMENT WITH OUT-SWINGING END-OPENING DOOR



(c) CLEARANCES AT WATER CLOSET IN COMPARTMENT WITH IN-SWINGING END-OPENING DOOR



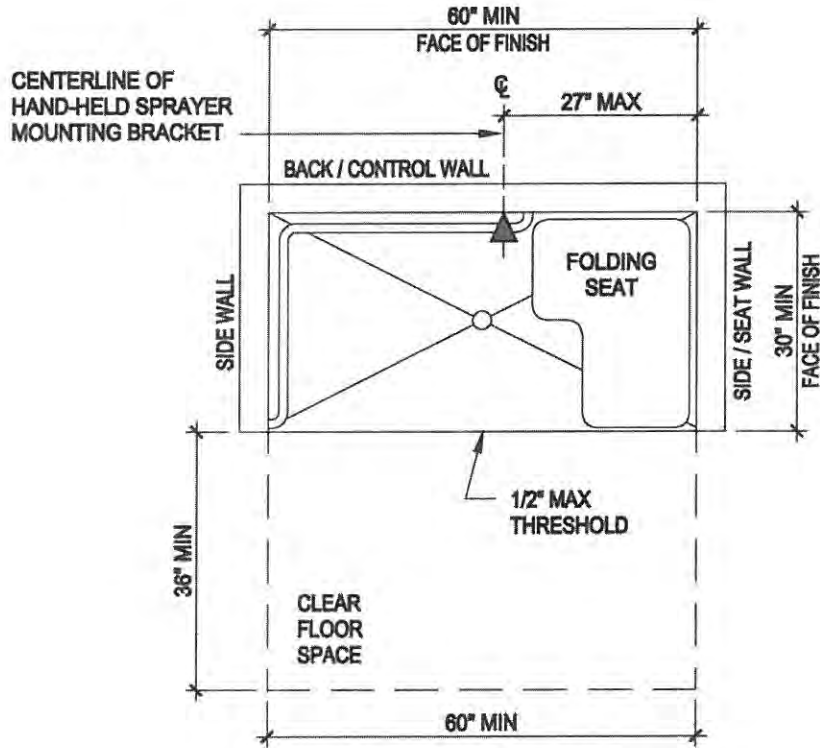
(d) CLEARANCES AT WATER CLOSET IN COMPARTMENT WITH OUT-SWINGING SIDE-OPENING DOOR



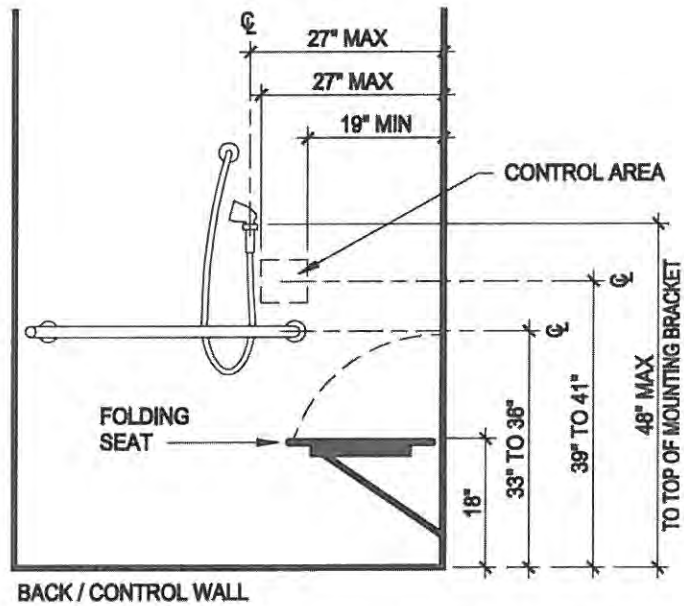
(e) CLEARANCES AT WATER CLOSET IN COMPARTMENT WITH IN-SWINGING SIDE-OPENING DOOR

NOTE: SEE SECTION 1115B.3.1, ITEM 4.5 FOR COMPARTMENT DOOR MANEUVERING SPACE REQUIREMENTS

FIGURE 11B-1E—CLEARANCES AT WATER CLOSETS



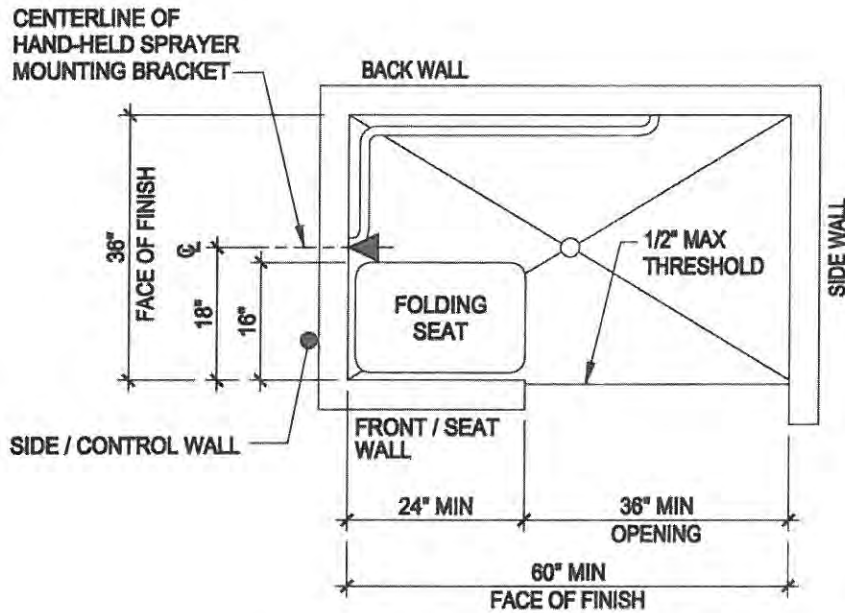
(a) 60" MINIMUM X 30" MINIMUM ROLL-IN SHOWER



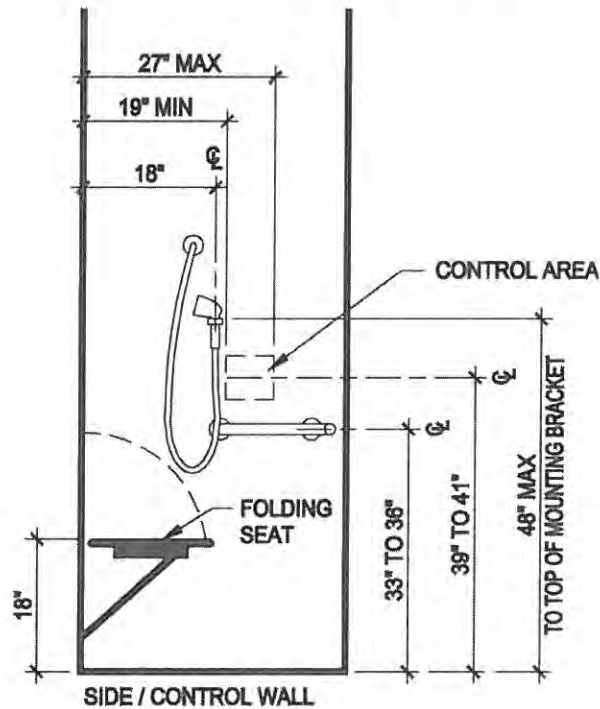
(b) ELEVATION - 60" MINIMUM X 30" MINIMUM ROLL-IN SHOWER

FIGURE 11B-2A—SHOWER STALLS

(continued)

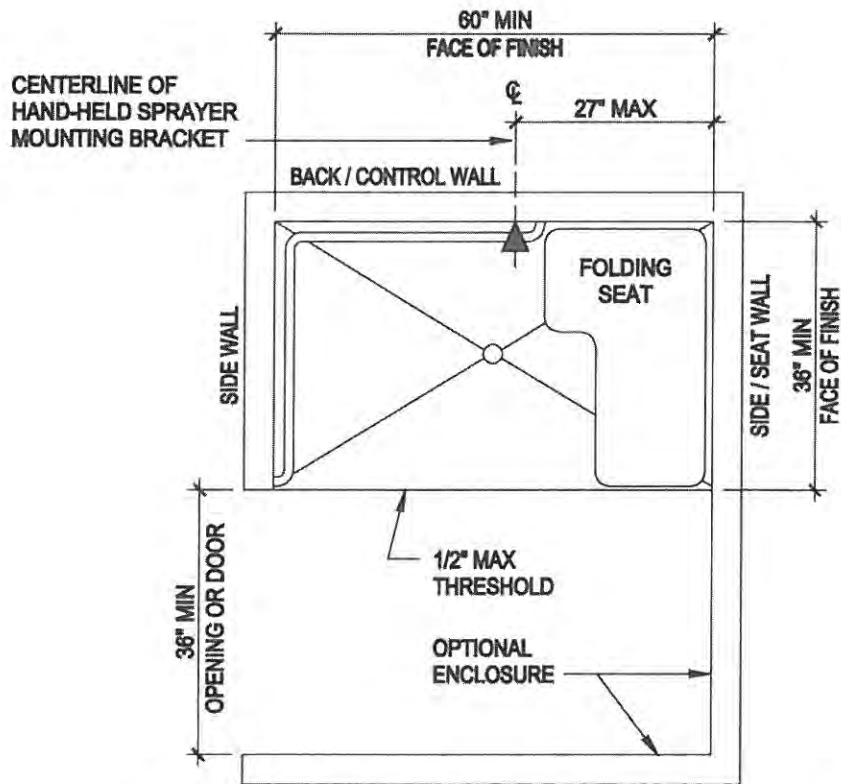


(a) 60" MINIMUM X 36" ALTERNATE ROLL-IN SHOWER

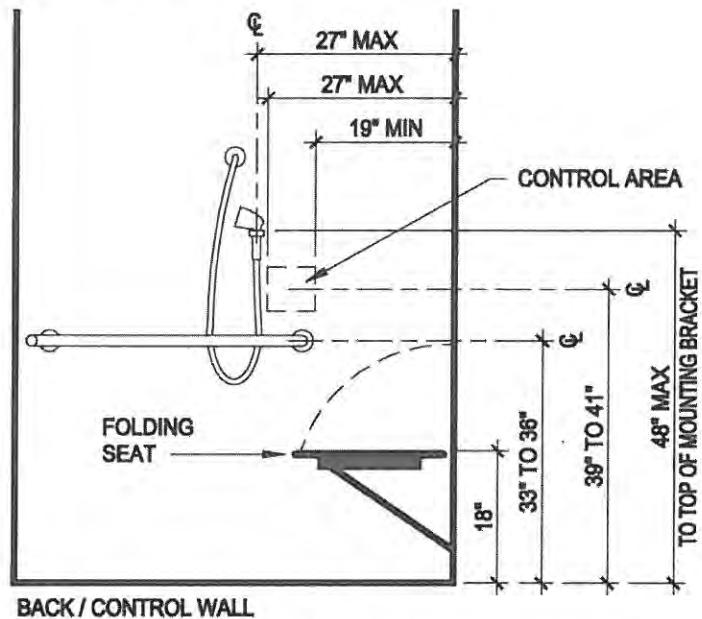


(b) ELEVATION - 60" MINIMUM X 36" ALTERNATE ROLL-IN SHOWER

FIGURE 11B-2B—SHOWER STALLS—continued



(a) 60" MINIMUM X 36" MINIMUM ALTERNATE ROLL-IN SHOWER WITH OPTIONAL ENCLOSURE



(b) ELEVATION - 60" MINIMUM X 36" MINIMUM ALTERNATE ROLL-IN SHOWER WITH OPTIONAL ENCLOSURE

FIGURE 11B-2C—SHOWER STALLS—continued

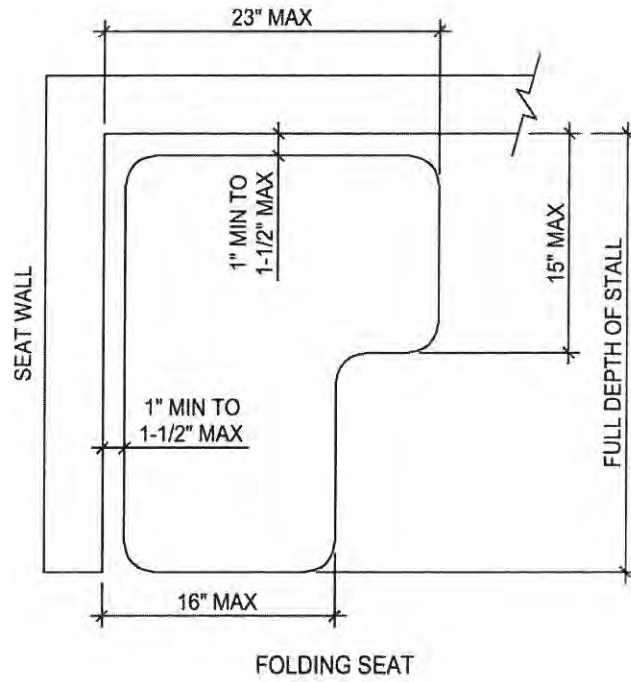
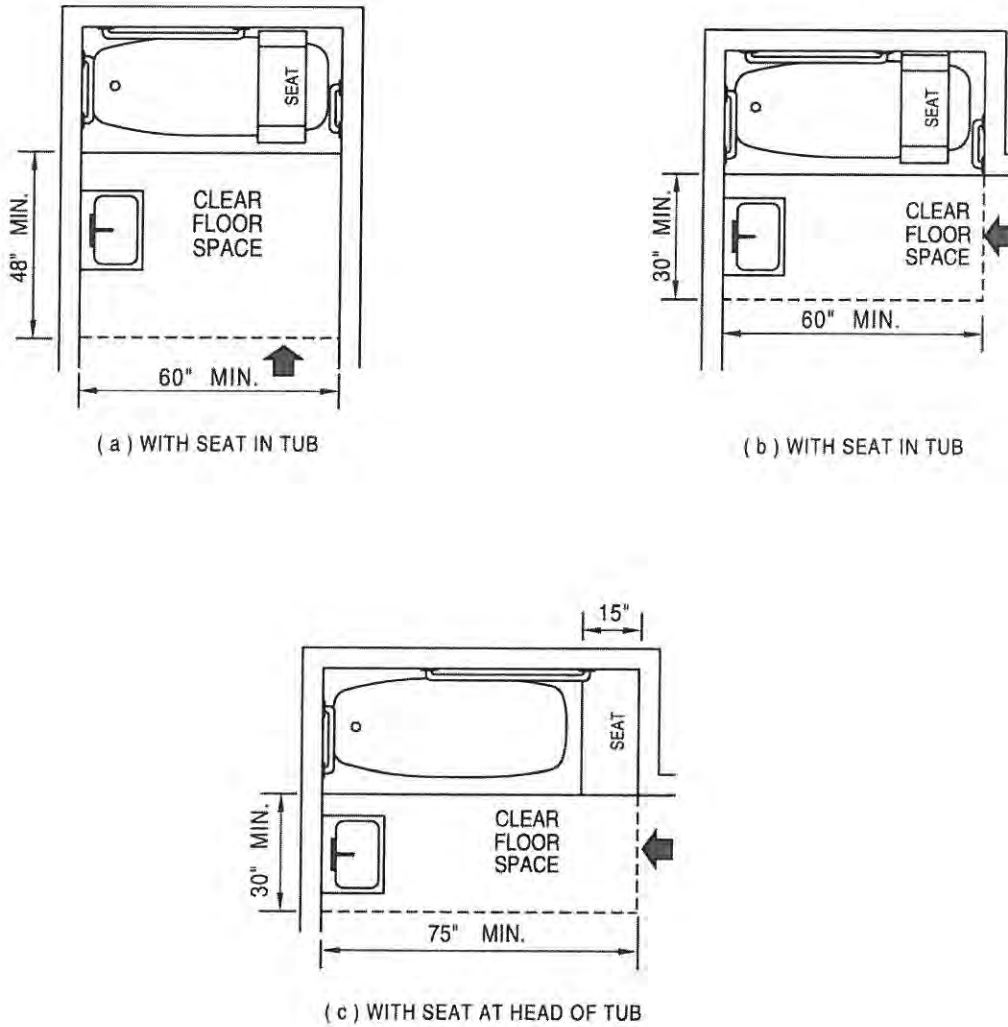
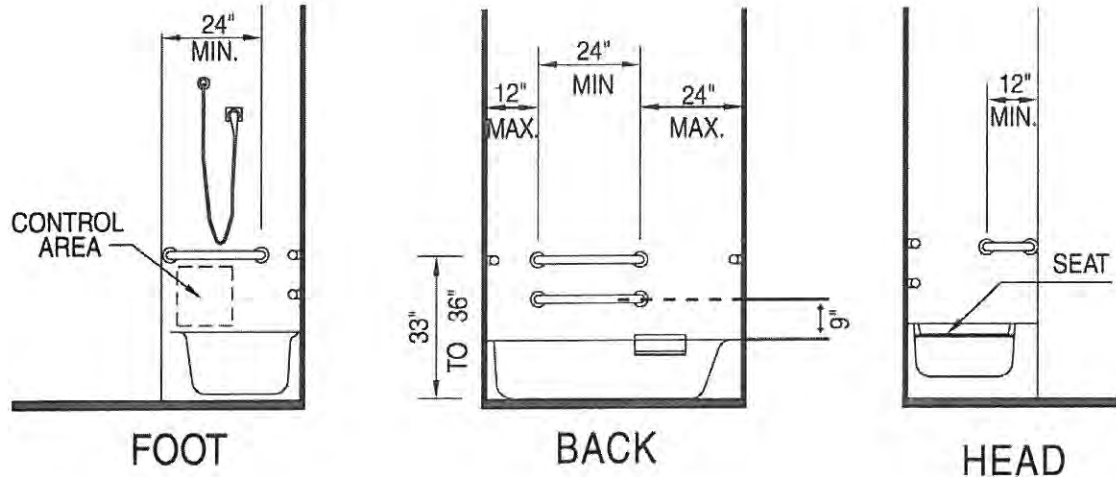


FIGURE 11B-2D—SHOWER SEAT

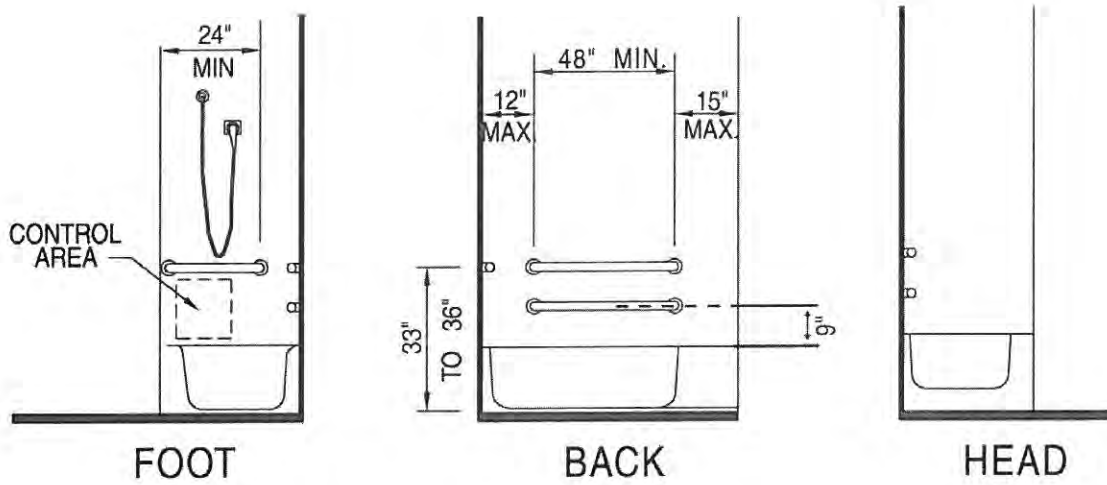


THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-8—CLEAR FLOOR SPACE AT BATHTUBS



(a) WITH SEAT IN TUB



(b) WITH SEAT AT HEAD OF TUB

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-9—GRAB BARS AT BATHTUBS