

The Commonwealth of Massachusetts

OFFICE OF THE SECRETARY STATE HOUSE, BOSTON, MASS.

*Rules and Regulations filed in this Office under the provisions of
CHAPTER 30A as amended.*

Filed by ARCHITECTURAL BARRIERS BOARD
BUILDINGS, FACILITIES, ETC. FOR THE VISUALLY & PHYSICALLY HANDICAPPED

Date Filed February 25, 1977

Date Published March 3, 1977

Chapter 233, sec. 75

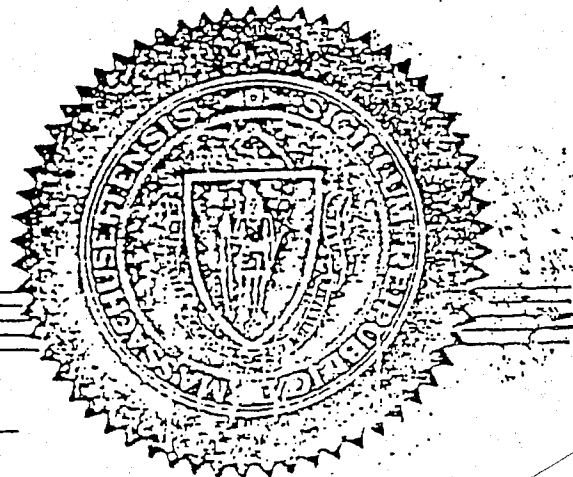
Printed copies of rules and regulations purporting to be issued by authority of any department, commission, board or Officer of the Commonwealth or any city or town having authority to adopt them, or printed copies of any ordinances or town by-laws, shall be admitted without certification or attestations, but if this genuineness is questioned, the court may require such certifications or attestations thereof as it deems necessary.

Attested as a true copy

PAUL GUZZI

Paul Guzzi

SECRETARY OF THE COMMONWEALTH





The Commonwealth of Massachusetts

Department of Public Safety ARCHITECTURAL BARRIERS BOARD

One Ashburton Place
Room 1319
Boston, Massachusetts 02108
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SECRETARY OF STATE
RULES AND REGULATIONS
DIVISION

FEB 25 10 00 AM '77

February 25, 1977

Honorable Paul Guzzi
Secretary of the Commonwealth
Room 304, State House
Boston, MA

Dear Secretary Guzzi:

In accordance with the provisions of Section 37 Chapter 30 of the General Laws, I am forwarding to you herewith an attested copy of the Rules and Regulations which are to be promulgated by the Architectural Barriers Board, as provided by Section 13A of Chapter 22 of the General Laws.

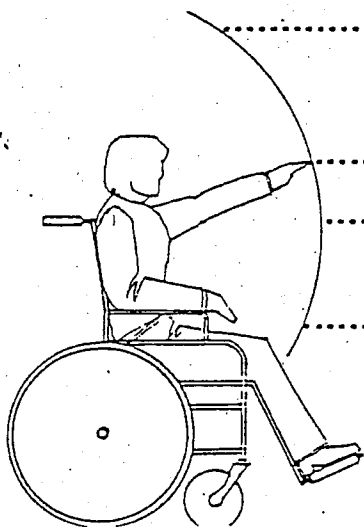
A public hearing was held on these Rules and Regulations on January 24, 1977, in the McCormack State Office Building, One Ashburton Place, Boston, (21st Floor, Conference Room Number 3).

Yours very truly,

Robert J. Harris
Chairman

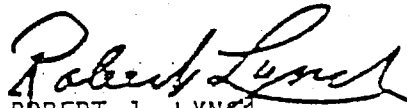
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Enclosure

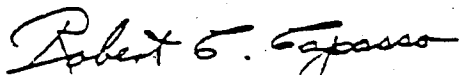


RULES AND REGULATIONS OF THE ARCHITECTURAL BARRIERS BOARD

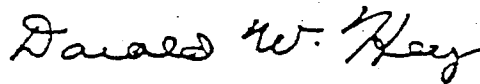
ARCHITECTURAL BARRIERS BOARD



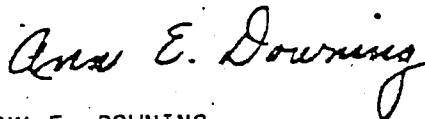
ROBERT J. LYNCH
Member, Chairman
10/7/74 to 9/16/76



ROBERT C. CAPASSO
Member,
Secretary of Public Safety Designee



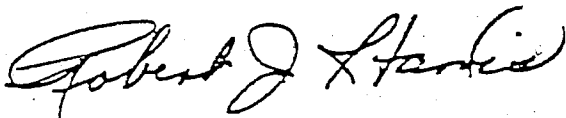
DONALD W. HEY
Member



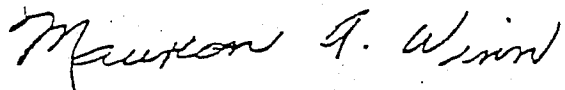
ANN E. DOWNING
Member,
Secretary of Elder Affairs Designee



MICHAEL A. ROSS
Member



ROBERT J. HARRIS
Member, Chairman
9/20/76 to present



MAUREEN A. WINN
Member

ARCHITECTURAL BARRIERS BOARD
RULES AND REGULATIONS

a true copy, attest

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The developmental costs for illustrating the Rules and Regulations of the Architectural Barriers Board were made possible through a grant from the Massachusetts Developmental Disabilities Council (MDDC) under the provisions of the Developmental Disabilities Services and Facilities Construction Act, P.L. 91-517, as amended by P.L. 94-103, to the Easter Seal Society for Crippled Children and Adults of Massachusetts, Inc. The MDDC grant also provided the funds for the initial printing and dissemination costs for 5,000 copies of the illustrated Rules and Regulations of the Architectural Barriers Board.

The graphics and illustrations were prepared by Interface Architects, Newton, Massachusetts, under a sub-contract with the Easter Seal Society. This sub-contract was implemented under the direction of Janet Minch and Carole Gratton, subject to the supervision and review of the Architectural Barriers Board.

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PART A

administrative:

- 1.1 These Rules and Regulations are promulgated by the Architectural Barriers Board pursuant to authority granted by General Laws, Chapter 22, Section 13A (see Appendix).
- 1.2 Under the provisions of Chapter 528 of the Acts of 1974, Section 2, all orders, rules and regulations duly made and all licenses, permits, certificates and approvals duly granted by the Board to Facilitate the Use of Public Buildings by the Physically Handicapped which were in force immediately prior to the effective date of said Chapter, shall continue in force and the provisions thereof to be enforced until superseded, revised, rescinded or cancelled in accordance with law by the Architectural Barriers Board.
- 1.3 These Rules and Regulations supersede and revise the Rules and Regulations of the Architectural Barriers Board, Form 16-1 filed with the Secretary of the Commonwealth on May 29, 1975.

PURPOSE AND SCOPE

- 2.1 These Rules and Regulations are designed to make public buildings accessible to, functional for and safe for use by the physically handicapped persons.
- 2.2 It is the intent of these Rules and Regulations to provide the physically handicapped full and free use of all buildings and facilities so that they may have the education, employment, living, and recreation opportunities necessary to be as self-sufficient as possible and to assume full responsibilities as citizens.
- 2.3 These Rules and Regulations are deemed to be a specialized code as referred to in Section 19 of Chapter 23B State Building Code (see Appendix) the violation of which shall be the subject to the provisions of Section 17 of said Chapter as well as the additional powers granted to the Architectural Barriers Board as provided in Chapter 22, Section 13A.

- 2.4 There shall be no construction, reconstruction, alteration or remodeling of a public building except in conformity with these Rules and Regulations, nor shall the use of any building be changed to a use in which the building is open to and used by the public as defined in these Rules and Regulations until such building so conforms or until a copy of the plans and specifications has been approved as provided in the General Laws, showing compliance with these Rules and Regulations and provided, however, that if this Board determines that compliance with these Rules and Regulations is impracticable in the particular case, it may provide for modification of, or substitution for such Rules and Regulations.

3 APPEAL AND VARIANCE

- 3.1 If the Board determines that compliance with these Rules and Regulations is impracticable in the particular case, it may provide for modification of, or substitution for, such rule or regulation.
- 3.2 Application for such modification or substitution shall be made to the Board by the owner or by one in possession of the facility or upon application of the person in charge of said construction, reconstruction, alteration or remodeling.
- Said application shall be made upon a form provided by the Board and shall contain such information as is required by the Board and be signed by the applicant.
- 3.3 The Board may require the applicant to appear at a hearing before the Board to present evidence and give testimony before a decision is rendered.
- Said hearing shall be held under the provisions of the Rules of Adjudicatory Proceedings of the Board and under the provisions of General Laws, Chapter 30A, (Administrative Procedure Act).
- 3.4 If the applicant has any new facts or new evidence, the applicant may request a re-hearing within thirty (30) days after receipt of such decision.

3.5 Any person aggrieved by final decision of the Board may file an appeal within thirty (30) days after receipt of such decision, in accordance with the provisions of General Laws, Chapter 30A.

3.6 The Board may issue an advisory opinion concerning the interpretation or the applicability of these Rules and Regulations upon proper application therefor.

Said advisory opinion may be relied upon by any agency or official of the city, town, or region, or agency or official of the State charged with the administration or enforcement of General Laws, Chapter 22, Section 13A, or any of these Rules and Regulations.

3.7 Upon application, the Board may vary the applicability of these Regulations in the following instances:

3.7.1 Where literal application of Section 13 - Public Toilet Rooms - is impractical because of limiting conditions, private toilet or lavatory rooms may be allowed by the Board.

A private lavatory room is one which is not generally open to the public but is restricted to the use of specially authorized personnel.

3.7.2 If the function or service performed on upper floors in buildings under the jurisdiction of these Regulations is also available on an accessible level, a variance may be granted by the Board on the requirement for an elevator.

3.7.3 Private offices or power maintenance areas or other such private areas in an otherwise public building which, because of their intended use, are normally not open to and used by the public, may be exempt by the Board from these Regulations.

3.7.4 A government building that is not open to public use or open to and used by the public, such as a power plant or garage for government vehicles, may be exempted from these Regulations.

3.7.5 When a building is occupied for two (2) or more uses not included in the same use group, as defined in these Regulations, the provisions of these Regulations applying to each use shall apply to such parts of the building, whether horizontally or vertically, as come within that use: and if there are conflicting provisions, the Regulations securing the greater accessibility for the handicapped shall apply.

3.7.5 (Continued)

If a building has multi-purpose use, these Regulations apply to the entire building by virtue of the combined use if any one of the uses is within the jurisdiction of the Board.

3.7.6 For historical buildings owned or protected by the government, the Board may allow alternate accessibility.

3.7.7 A building owned, controlled, or operated by a private club or organization which is not ordinarily open to the general public may be exempt by the Board from these Regulations to those portions of the premises which are not open to public use.

4 DEFINITIONS

- 4.1 As used in these Rules and Regulations, the following words shall have the given meaning unless the context otherwise requires:
- 4.2 "ACCESSIBLE": A condition that conforms to these Rules and Regulations.
- 4.3 "ALTERATION": External or internal rehabilitation or renovation for which a building permit is needed or for which the cost of such rehabilitation or renovation equal or exceeds five percent (5%) of the full and fair cash value of the building, or any work determined to be alteration by a state or local building inspector.
- 4.4 "BOARD": The "Architectural Barriers Board" of the Massachusetts Department of Public Safety.
- 4.5 "CHANGE OF USE": Varying the occupancy of a building to one in which the building is open to and used by the public.
- 4.6 "CONSTRUCTION": Work for which a building permit is required, work determined to be construction by a state or local building inspector, or work for which a certificate of occupancy is necessary upon completion.

4.7 "FULL AND FAIR CASH VALUE OF THE BUILDING": The assessed valuation of the building as recorded in the Assessor's office of the municipality as equalized at one hundred percent (100%) valuation; or, if no assessed value, the fair market value, and a building constructed by the Commonwealth or any political subdivision thereof, the replacement cost.

4.7.1 The one hundred percent (100%) equalized assessed value shall be based upon Massachusetts Department of Corporations and Taxation most recent determination of the particular city's or town's assessment ratio.

Example:

Town X has an assessment ratio of forty percent (40%), the particular building in question is assessed at \$200,000.00; to determine the equalized assessed value of this building, divide \$200,000.00 by .40 and the equalized assessed value equals \$500,000.00.

4.7.2 The following formula shall apply and govern reconstruction, alteration, remodeling or change of use:

- A. If the work being performed amounts to less than five percent (5%) of the one hundred percent (100%) equalized assessed value of the building, these Regulations do not apply.
- B. If the work being performed amounts to five percent (5%) through twenty-five percent (25%) of the one hundred percent (100%) equalized assessed value of the building, and
 1. the cost of the work is less than \$50,000.00, only that portion of the work being performed shall comply with these Regulations.
 2. the cost of the work is \$50,000.00 or more, then that portion of the work being performed shall comply with these Regulations and an accessible entrance and a toilet usable by a person in a wheelchair shall both be provided.
- C. If the work being performed amounts to more than twenty-five percent (25%) of the one hundred percent (100%) equalized assessed value of the building, the entire facility shall comply with these Regulations.

- 4.7.3 When the work performed on each building is divided into separate phases or projects, or under separate building permits, the total cost of such work in the twenty-four (24) months next preceding shall be added together in applying the formula in this definition.
- 4.7.4 The performance of any work which is governed by Section 5 (Site Conditions) of these Regulations shall be considered construction, and therefore must fully comply with these Regulations.
- 4.8 "MEANS OF EGRESS": A continuous and unobstructed path of travel from any point in a building or facility to a public space; a means of egress comprises the vertical and horizontal means of travel and shall include sidewalks, walkways, sidewalk ramps, intervening room spaces, doors, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts and yards; such means of egress shall be in no instance less than thirty-six (36) inches wide, except as provided in these Regulations.
- 4.9 "NON-SLIP": A condition in which a rubber heel, cane tip or crutch tip will not slip when pressure is applied at an angle of seventy (70) degrees with a level wet surface.
- 4.10 "PHYSICALLY HANDICAPPED PERSON": (for purposes of abbreviation, these Regulations may refer to this definition as "the handicapped").
- 4.10.1 a person confined to a wheelchair.
- 4.10.2 a person who, because of the use of braces or crutches or because of the loss of a foot or a leg, or because of an arthritic, spastic, pulmonary or cardiac condition, walks with difficulty or insecurity.
- 4.10.3 A person who, due to a brain, spinal or peripheral nerve injury, suffers from faulty coordination or palsy.
- 4.10.4 a person who is blind or whose sight is so impaired that, functioning in a public area, he is insecure or exposed to danger.
- 4.10.5 a person whose hearing is so impaired that he is unable to hear warning signals.
- 4.10.6 a person whose mobility, flexibility, coordination and perceptiveness are significantly reduced by aging.

4.11 "PUBLIC BUILDING": The following shall be under the jurisdiction of these Rules and Regulations.

4.11.1 A BUILDING CONSTRUCTED BY THE COMMONWEALTH OR ANY POLITICAL SUBDIVISION THEREOF WITH PUBLIC FUNDS AND OPEN TO PUBLIC USE, INCLUDING BUT NOT LIMITED TO THOSE CONSTRUCTED BY:

- 4.11.1.1 public housing authorities
- 4.11.1.2 the Massachusetts Port Authority
- 4.11.1.3 the Massachusetts Parking Authority
- 4.11.1.4 the Massachusetts Turnpike Authority
- 4.11.1.5 the Massachusetts Bay Transportation Authority
- 4.11.1.6 building authorities of any public educational institution or their successors

4.11.2 PRIVATELY FINANCED BUILDINGS THAT ARE OPEN TO AND USED BY THE PUBLIC. PRIVATELY FINANCED BUILDINGS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

- 4.11.2.1 transportation terminals
- 4.11.2.2 institutional buildings
- 4.11.2.3 commercial buildings exceeding two (2) stories in height in which more than forty (40) persons are employed
- 4.11.2.4 buildings having places of assembly with a capacity of more than one hundred fifty (150) persons
- 4.11.2.5 hotels
- 4.11.2.6 motels
- 4.11.2.7 dormitories
- 4.11.2.8 public-parking areas or lots with a capacity of twenty-five (25) or more automobiles
- 4.11.2.9 public sidewalks and ways

4.11.2 (Continued)

4.11.2.10 public areas of apartment buildings and condominiums containing twelve (12) or more units

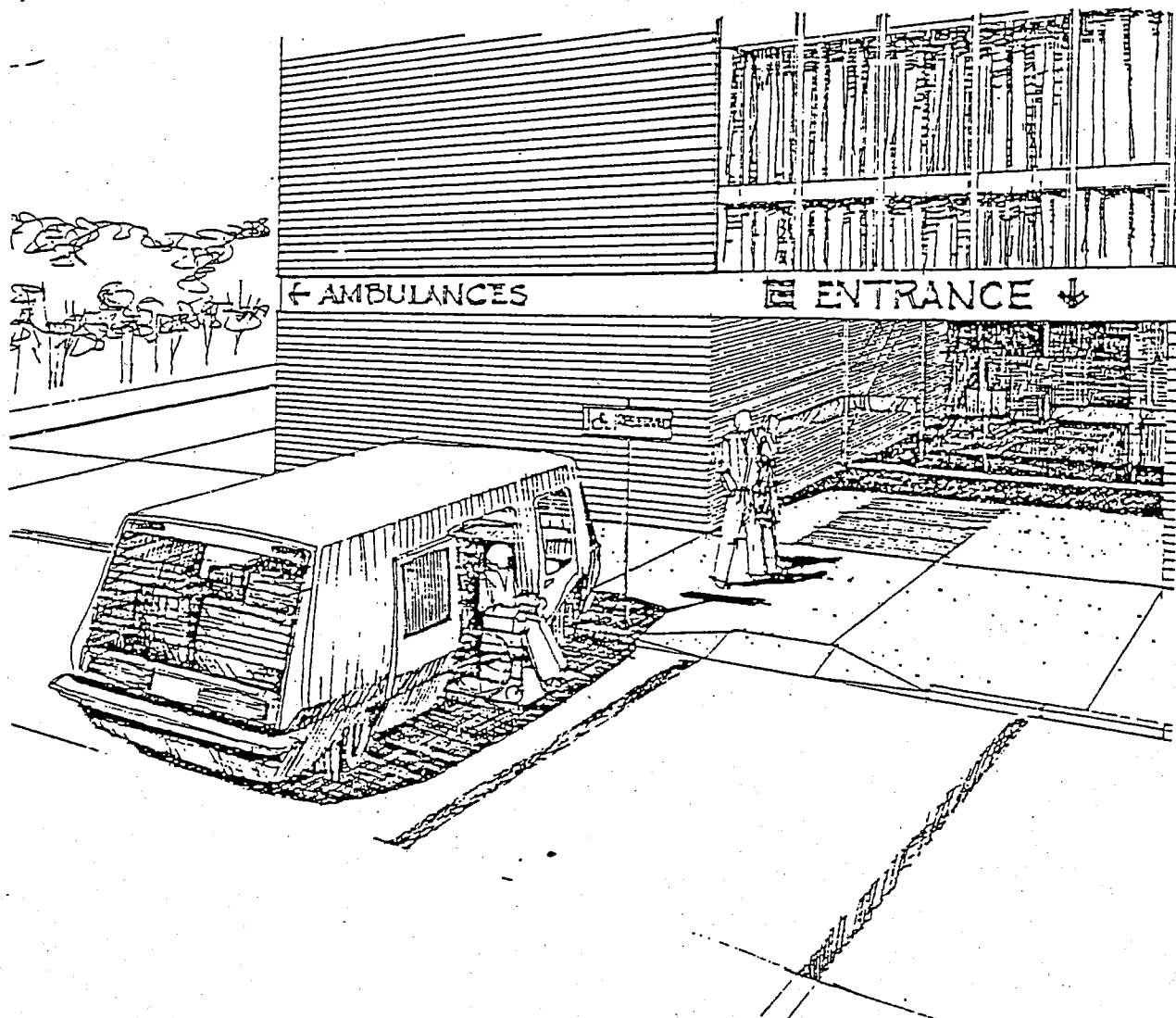
4.11.2.11 public areas of funeral homes

4.11.2.12 public rest rooms and public areas of shopping centers and restaurants

4.12 "RECONSTRUCTION": Construction work to a building which is gutted so that the shell of the building remains; also, the tearing down, removal, demolition or replacement of a public building or part of a public building.

4.13 "REMODELING": Modification beyond an interior decoration or involving any structural change, or the redecorating of a public building for which the cost of such refurbishing, updating or redecorating equals or exceeds five percent (5%) of the full and fair cash value of the building.

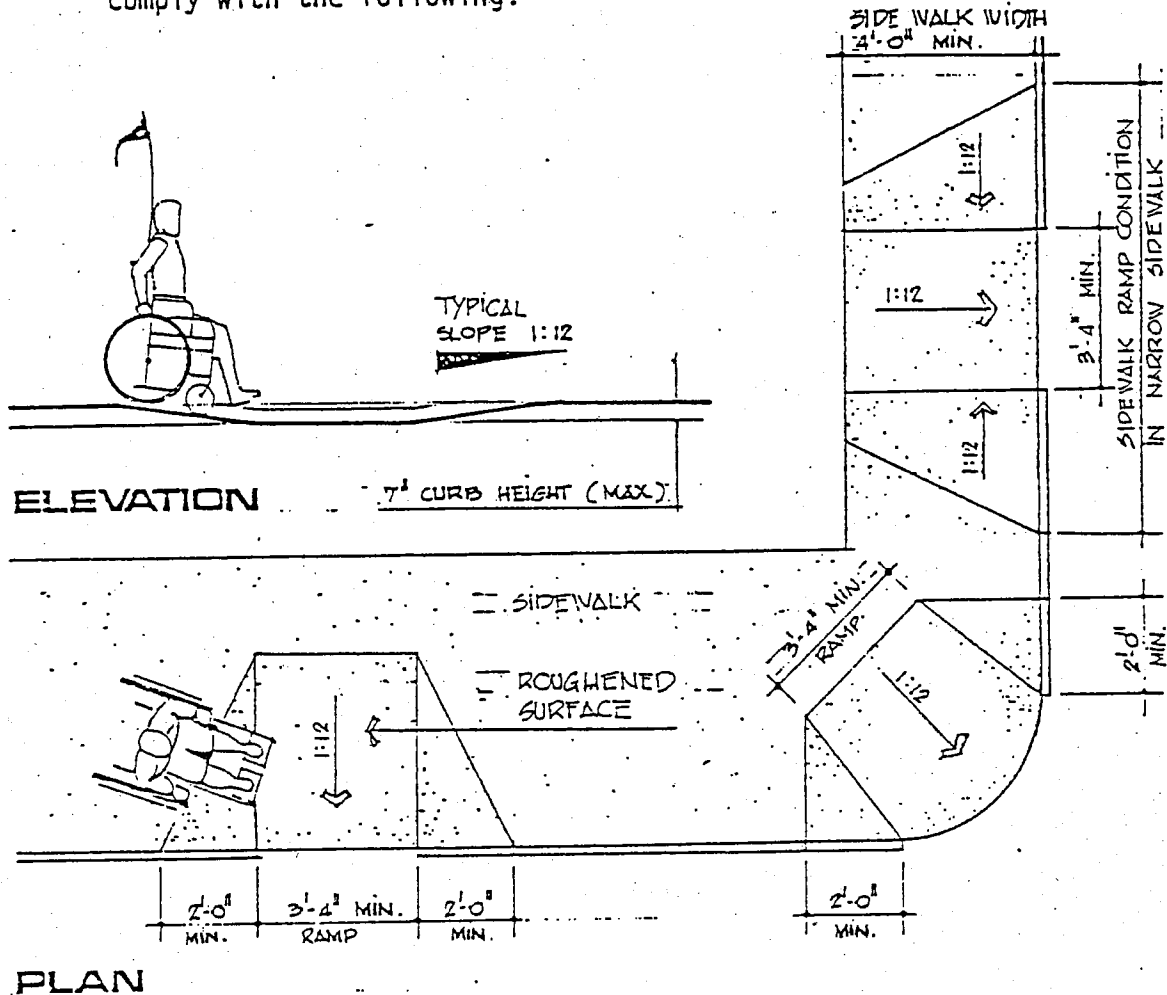
- 5.1 Disembarking areas for vehicles shall be provided at an accessible primary entrance.
- 5.2 Topography or grounds shall be graded so as to attain a level area (pitched to drain) at each entrance.
- 5.3 Site grading and drainage of topography shall be designed so as to minimize pooling of water or accumulation of ice or flow of water across sidewalks, and driveways.



PART B

applicable to
all buildings and facilities:

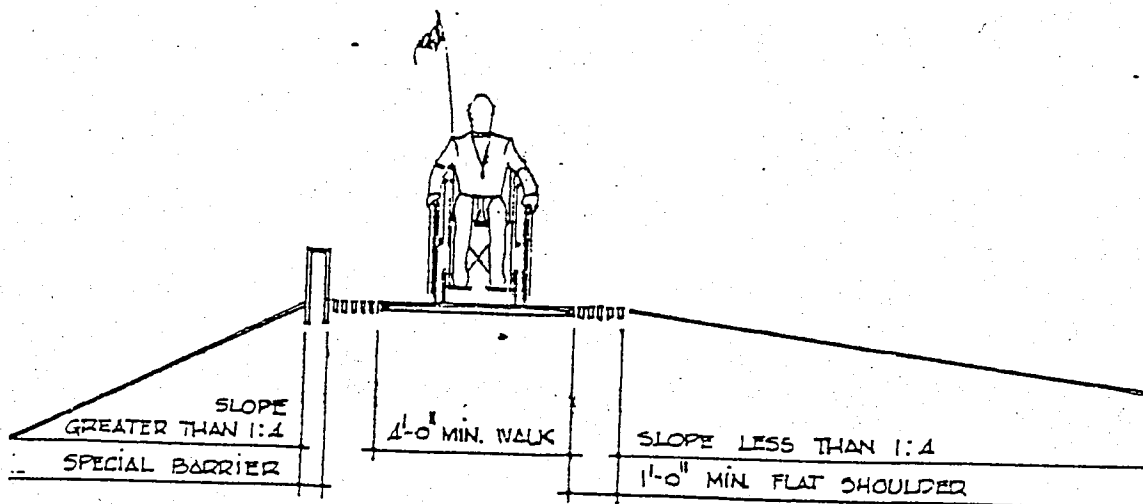
- 5.4 Sidewalk ramps, (curb cuts) are required wherever sidewalks on streets and ways or curbs are being constructed, reconstructed, or other repair improvements being made thereon, and they shall comply with the following:



- 5.4.1 Location: Sidewalk ramps shall be located, one (1) at each corner of each intersection and also at each street crossing which is not at an intersection. Sidewalk ramps at corners shall be as close as possible to the apex or the center of the radius of curb intersection with consideration for the intersection geometry and safety hazards.

When curbs or sidewalks are constructed or reconstructed on only one side of the street, sidewalk ramps shall be installed on the opposite side(s) of the street. If driveways have side curbs, sidewalk ramps shall also be provided therein.

- 5.4.2 Slope of sidewalk ramps shall not exceed one-in-twelve (1:12) and slope shall blend to meet the roadway gutter with a one-half ($\frac{1}{2}$) inch maximum lip for drainage. Where sidewalks are too narrow to install a straight-line sidewalk ramp at a slope of one-in-twelve (1:12), the sides of the sidewalk ramp shall also slope at one-in-twelve (1:12).
- 5.4.3 Width of sidewalk ramps shall be not less than forty (40) inches, not including sloped sides.
- 5.4.4 The sides of sidewalk ramps shall extend no less than twenty-four (24) inches at the curb. There shall be no vertical curbing at the side of the sidewalk ramp.
- 5.4.5 Curb height at intersections shall not exceed seven (7) inches.
- 5.4.6 Texture of sidewalk ramp surface, including sloping sides, shall be roughened in direction of slope.
- 5.5 The sidewalks on streets and ways shall be not less than forty-eight (48) inches in width, and the slope shall be determined by the natural topography of the ground without the application of Section 8 (Ramps).
- 5.6 Where sides of walks drop sharply below walk surface, they shall be protected by at least a one (1) foot flat shoulder having a texture other than the sidewalk and an adjacent slope no greater than one-in-four (1:4). Where slope is greater than one-in-four (1:4) it shall be protected by a curb or other reasonable barrier.



SECTION

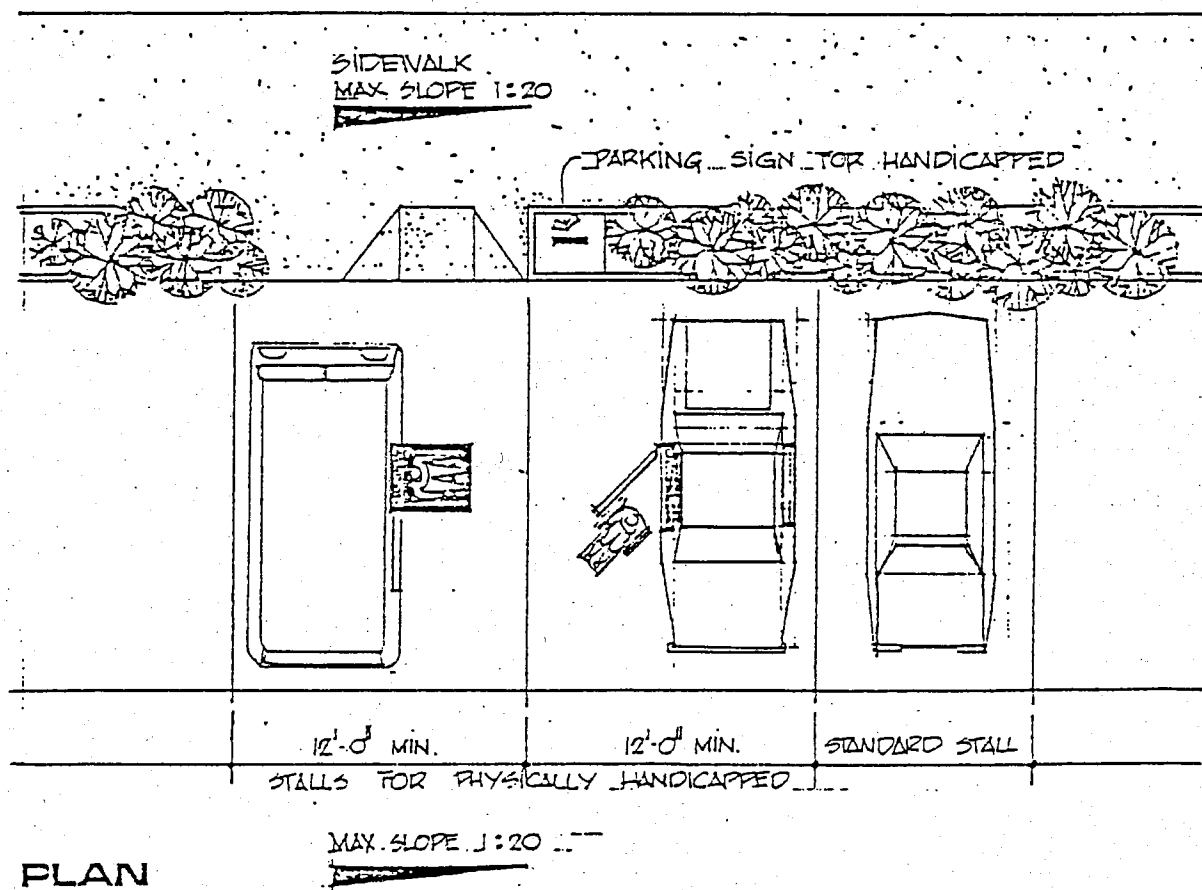


- 6.1 Width of walks and walkways shall be not less than forty-eight (48) inches. Where the slope of walks exceeds one-in-twenty (1:20) or five percent (5%) it shall be treated as a ramp and the Regulations applicable to ramps shall apply.
- 6.2 Such walks and walkways shall have a continuous common surface, not interrupted by steps or abrupt changes in level greater than one-half ($\frac{1}{2}$) inch and shall have a non-slip surface.
- 6.3 Only a non-slip finish material may be applied to any walk or walkway.
- 6.4 Wherever there is an intersection of walks or walkways, streets, public ways, driveways or parking lots, each shall blend to a common level.
- 6.5 Pedestrian bridges shall be considered as walkways or ramps and shall comply with Sections 6 and 8.



- 7.1 Specially designated parking spaces for the physically handicapped shall be located closest to the accessible entrance(s):
- 7.2 Number: Such spaces shall be provided as follows:
- | <u>All Spaces</u> | <u>Special Spaces</u> |
|-------------------|-----------------------------------|
| - 25 | 1 space |
| 26 - 40 | 5% but not less than 2 spaces |
| 41 - 100 | 4% but not less than 3 spaces |
| 101 - 200 | 3% but not less than 4 spaces |
| 201 - 500 | 2% but not less than 6 spaces |
| 501 - 1,000 | 1.5% but not less than 10 spaces |
| 1,001 - 2,000 | 1% but not less than 15 spaces |
| 2,001 - 5,000 | .075% but not less than 20 spaces |
| 5,001 - | .050% but not less than 30 spaces |
- 7.3 Width: Such parking spaces which are perpendicular or diagonal to the parking roadway shall be twelve (12) feet wide. Spaces shall allow persons in wheelchairs to enter or leave an automobile on a uniform surface suitable for wheeling and walking.
- 7.4 Sidewalks: Where sidewalks are provided at such parking spaces, a sidewalk ramp (curb cut) shall be installed at each specially designated space or pair of spaces, so that such persons are not required to enter the stream of traffic to attain access to sidewalks.
- 7.5 Identification: Such spaces shall be identified by a sign at each space or pair of spaces which states that these spaces are reserved for the physically handicapped. This sign shall be located at a height not less than six (6) feet nor more than ten (10) feet above the ground or floor. The sign shall also contain the "International Symbol of Accessibility" as shown in Section 19 of these Rules and Regulations.

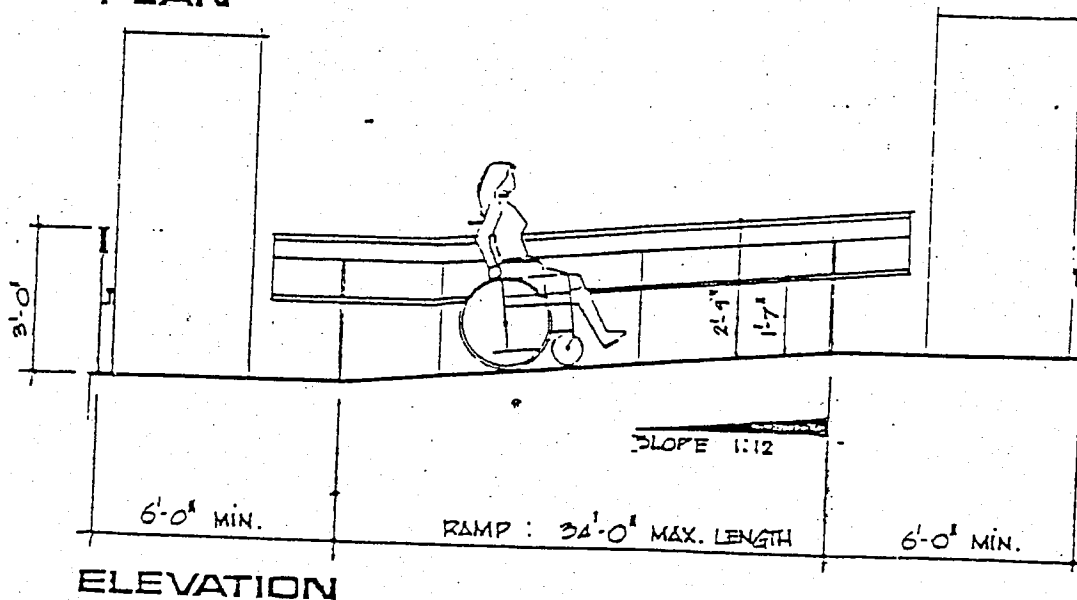
- 7.6 Walks and ramps required as a means of egress leading from specially designated parking spaces for the handicapped in parking lots, garages or other parking facilities shall be in conformity with all sections of these Regulations.
- 7.7 Parking surface areas required to be accessible for the handicapped shall not slope more than one-in-twenty (1:20) or five percent (5%).

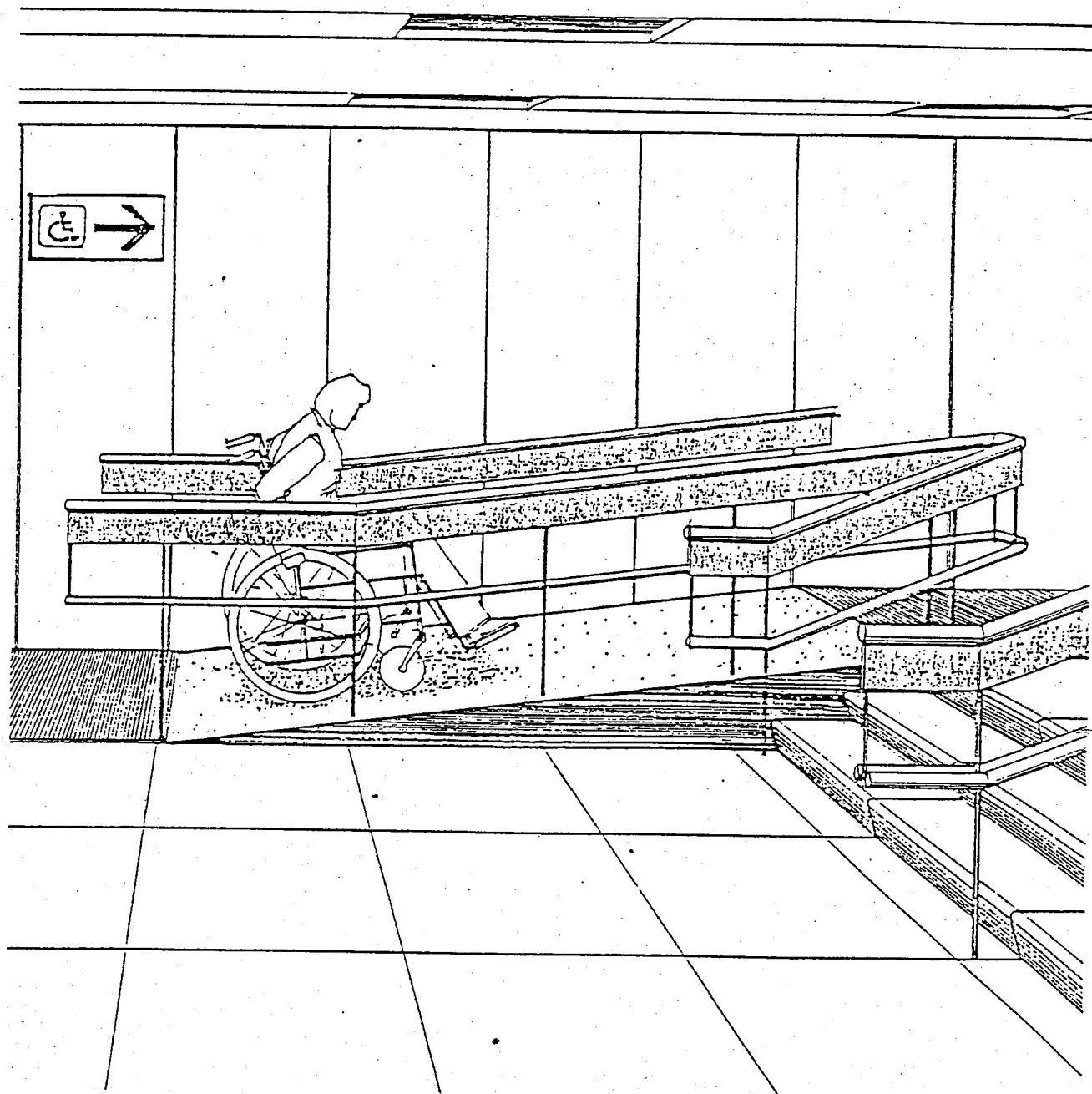


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- A hand-drawn diagram illustrating a wheelchair ramp and platform layout. The diagram includes the following annotations:
- Top Left:** "6'-0" MIN. LEVEL LANDING AREA" with a dimension line indicating a width of "1'-6" MIN."
 - Top Right:** "6'-0" MIN. LEVEL LANDING AREA" with a dimension line indicating a width of "1'-6" MIN."
 - Left Side:** "MIN. OF 6'-0" LEVEL AREA WHERE DOOR SWINGS OUT."
 - Center:** A wheelchair icon is shown on a horizontal ramp section.
 - Bottom Center:** An arrow pointing left with the text "RAMP UP SLOPE 1:12".
 - Right Side:** A "LEVEL PLATFORM" with a curved ramp leading up to it. A dimension line indicates a "5'-0" MIN. LEVEL AREA" and another indicates a "4'-0" MIN. RAMP WIDTH".
 - Platforms:** Two "LEVEL PLATFORM" areas are labeled, one on the left and one on the right.

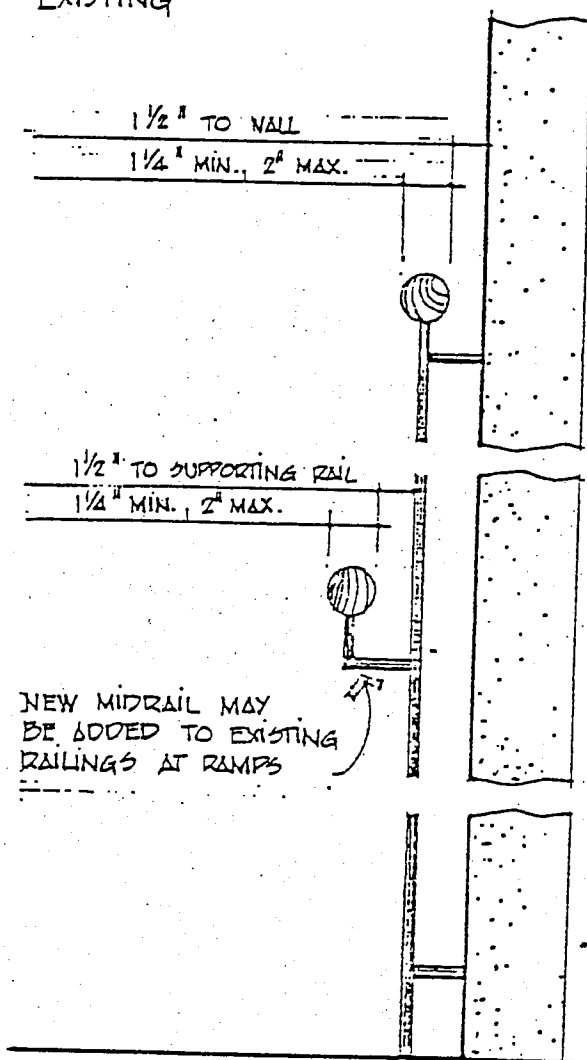
PLAN





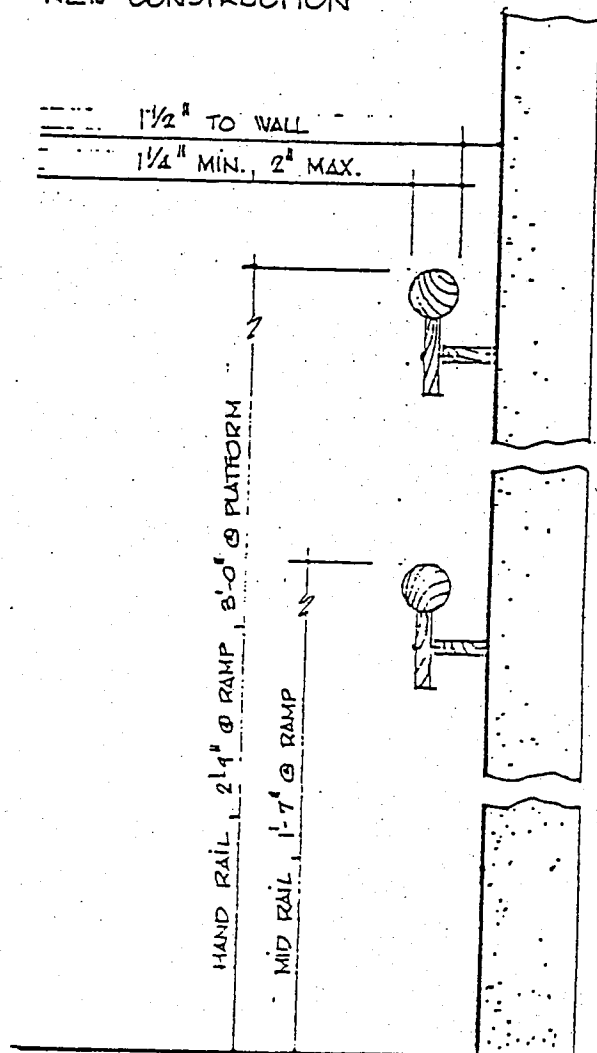
- 8.4 Handrails shall be set on both sides of ramps at a height of thirty-three (33) inches, and a lower hand rail nineteen (19) inches in height, measured vertically from the surface of the ramp. Handrails shall extend eighteen (18) inches beyond the top and bottom of the ramp at a height of thirty-six (36) inches, but need not so extend if it would cause a safety hazard. The handrip portion of handrails shall not be less than one and one quarter ($1\frac{1}{4}$) inches nor more than two (2) inches in outside diameter and shall be basically round or oval in cross-section, and shall have smooth surface with no sharp corners. A clearance of one and one-half ($1\frac{1}{2}$) inches shall exist between a wall and the wall rail.

EXISTING



SECTION

NEW CONSTRUCTION



SECTION

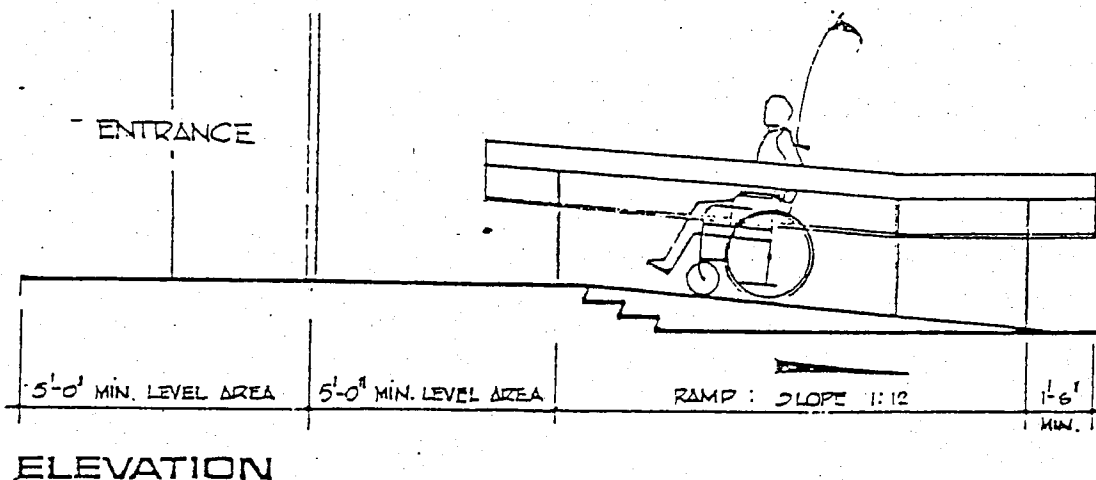
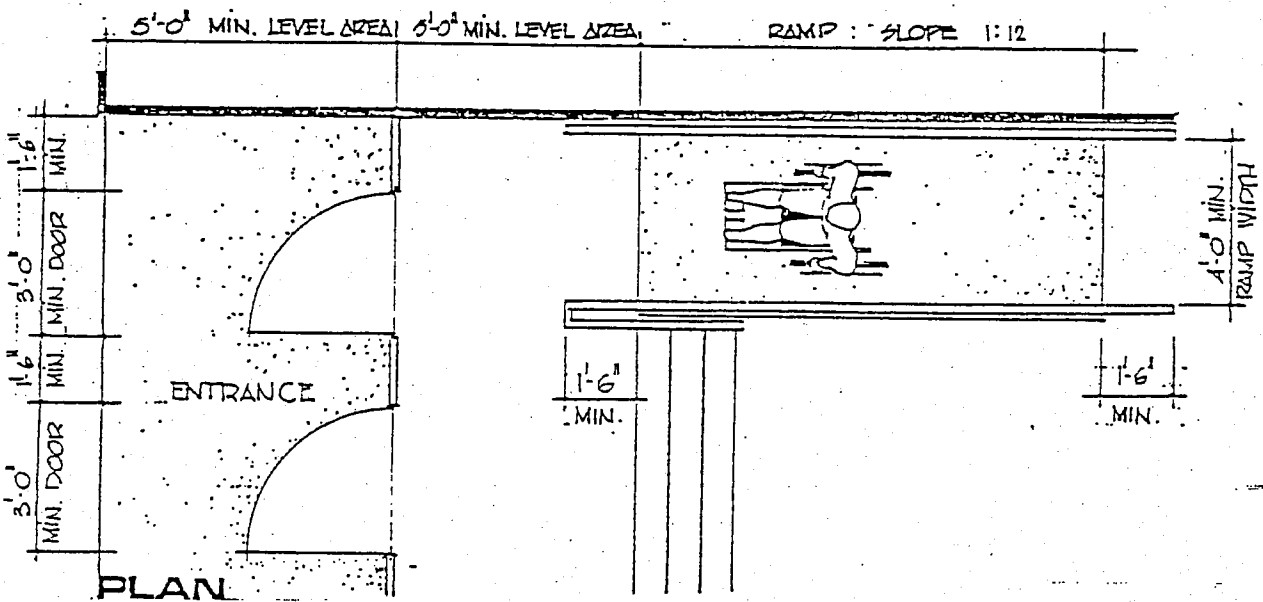
8.5 A ramp shall have a surface that is non-slip.

8.5.1 Only non-slip finish material may be applied to any ramp.

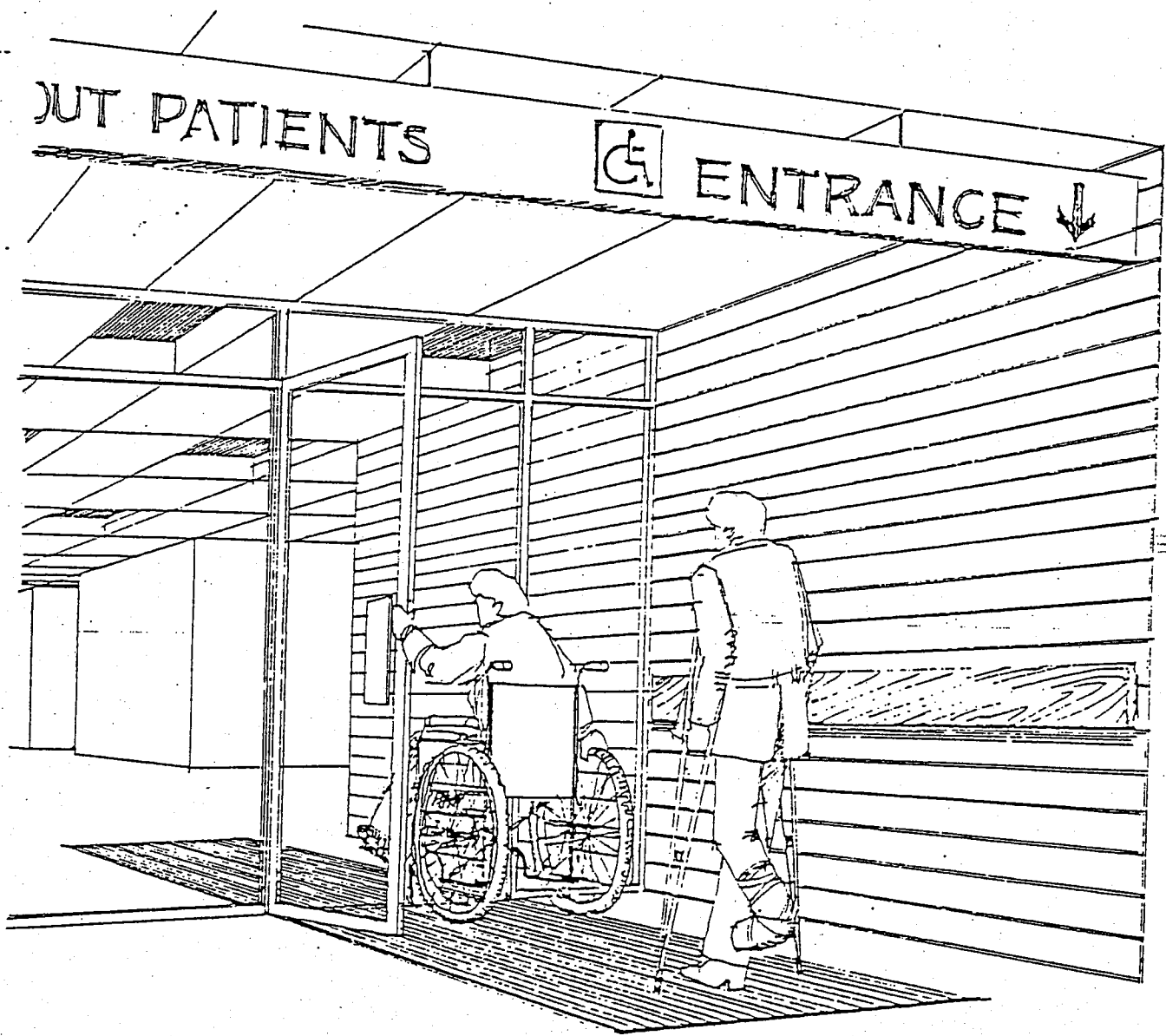
8.5.2 Ramps shall not be carpeted except with carpeting specified as high density, low pile, non-absorbent, stretched tautly, securely anchored, and without padding. Carpet ending in the path of travel must be secured with an edging strip not higher than three-eighths ($3/8$) of an inch.

8.6 Each ramp shall have at least sixty (60) inches level clearance at the lower end.

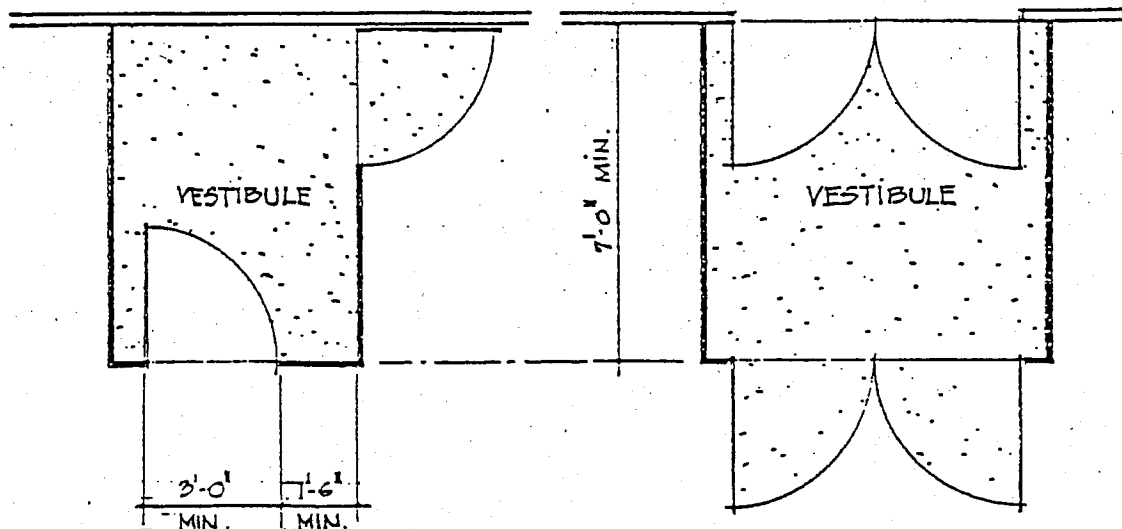
8.7 Each ramp shall have level platforms at intervals not exceeding thirty-four (34) feet for purposes of rest and safety and shall have level platforms wherever they turn.



- 9.1 The primary public entrance(s)/exit(s) of a building shall be accessible by persons in wheelchairs.
- 9.2 The approach to such entrance(s)/exit(s) shall be a paved walk or ramp uninterrupted by steps, with non-slip surface, and such entrance(s) shall have a level space (pitched to drain) for a distance of sixty (60) inches on each side of the entrance doors.
- 9.3 The accessible entrance(s)/exit(s) shall be on a level which provides a means of egress for the handicapped from the elevators.



- 9.4 Vestibules, lobbies, foyers, etc., shall have one (1) dimension of eighty-four (84) inches.



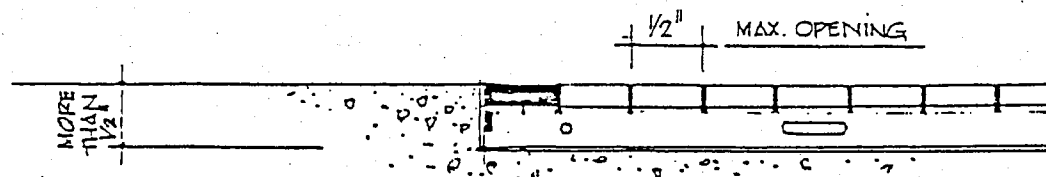
PLAN

PLAN

- 9.5 Door mats less than one-half ($\frac{1}{2}$) inch thick shall be securely anchored at all edges to avoid tripping. Door mats thicker than one-half ($\frac{1}{2}$) inch shall be recessed. Grates shall have openings not exceeding one-half ($\frac{1}{2}$) an inch in the least direction. Obstacles shall not impede the means of egress.

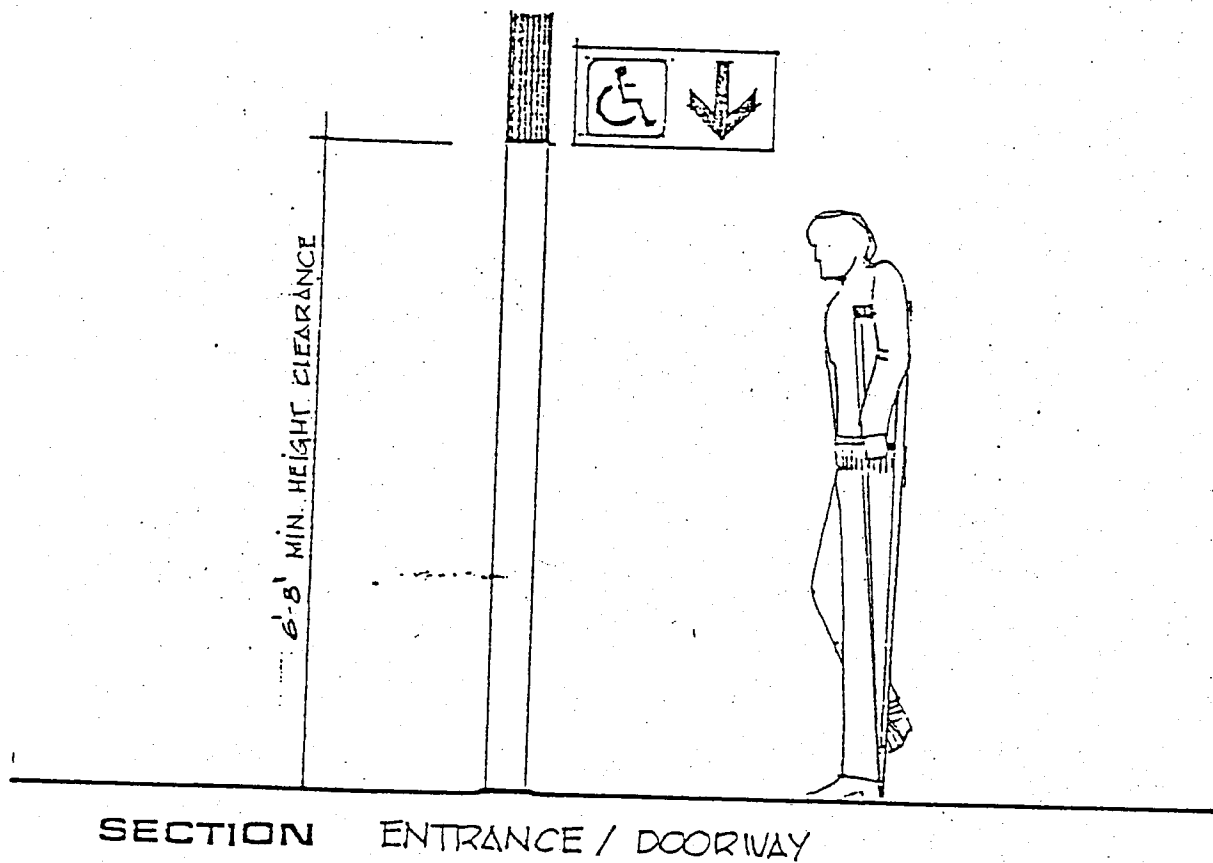


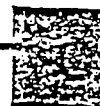
ANCHORED - DOORMATS.



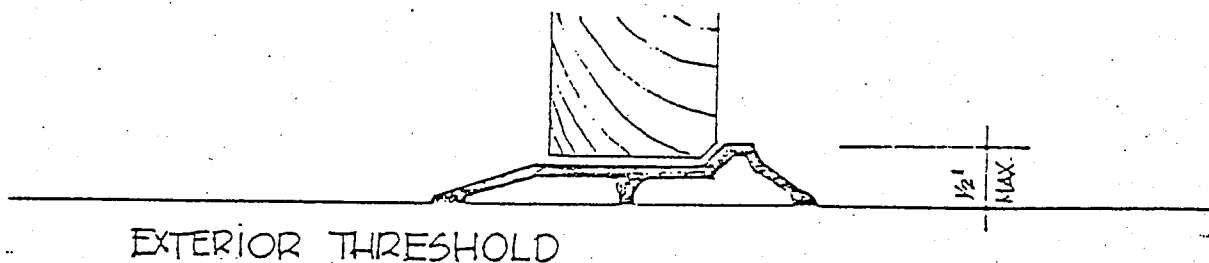
RECESSED FOR THICK DOORMATS OR GRATES

- 9.6 Objects which protrude into entranceways, such as suspended lights, signs, fixtures, etc., shall be at a height not less than eighty (80) inches above the floor. Door closers shall not remain within the opening of a doorway when a door is open and shall not protrude hazardously into entrances or corridors when the door is closed. Closing speed duration shall be set at not less than six (6) seconds.
- 9.7 Identification: Each entrance of a facility not accessible by persons in wheelchairs shall have a sign clearly indicating the location of the accessible entrance (see Section 19).





- 10.1 All doors and doorways required as a means of egress for the handicapped shall comply with the following:
- 10.2 Doors and walk-in closet doors shall have a minimum width of thirty-six (36) inches. Pivoted and balanced hardware doors and other non-hinged doors, shall have a minimum clear opening not less than thirty-four (34) inches.
- 10.3 Each door of a pair of doors shall have a minimum width of thirty-six (36) inches, or shall produce a minimum clear opening of not less than thirty-four (34) inches.
- 10.4 Maximum pressure applied to the latch area to open exterior doors shall not exceed fifteen (15) pounds, and for interior doors which have a self-closing feature, required pressure shall not exceed eight (8) pounds. Doors requiring greater force to activate shall be equipped with compensating devices to reduce the operating force or shall be equipped with automatic opening devices.
- 10.5 Exterior thresholds shall not exceed one-half ($\frac{1}{2}$) inch in height, beveled on both sides. Interior thresholds shall be flush with the floor. Change in floor finish material may require an edge strip or threshold flush with higher material and beveled at one-in-four (1:4).

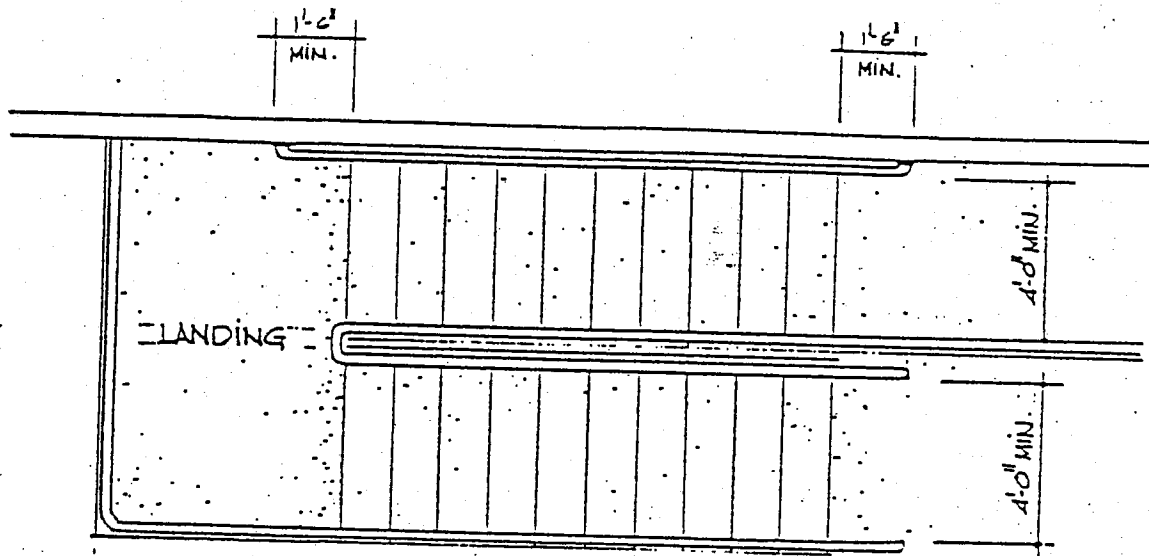


- 10.6 The floor inside and outside of each doorway shall be level for a distance of sixty (60) inches from the door.
- 10.7 Height: Hand-operated door-opening hardware shall be centered thirty-six (36) inches to forty-two (42) inches above the floor. When hardware is provided or changed on doors in the means of egress, it shall be levers, push plates, pull bars, panic hardware, etc., but not conventionally operating door knobs nor thumb latch pull devices.
- 10.8 Doors adjacent to revolving doors shall be unlocked whenever revolving doors are unlocked.

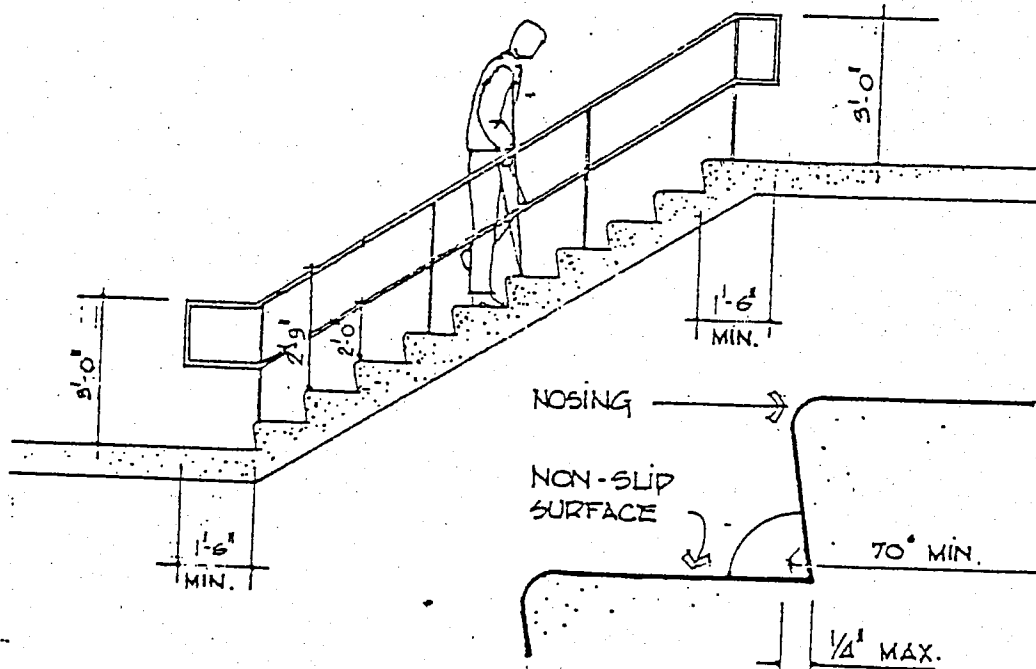
- 10.9 Doors in paths of egress shall be operable with one (1) hand and with a single effort. Doors in paths of ingress shall be able to be unlocked and opened with one (1) hand.
- 10.10 Doors opening into hazardous areas from the means of egress shall have door-opening hardware which is knurled or has a roughened surface to give tactile warning to the visually handicapped, i.e., doors leading to loading platforms, boiler rooms, stages, electrical equipment rooms, etc.
- 10.11 When a walk, walkway or ramp leads to or passes a door or gate, there shall be a level area (pitched to drain) at the doorway or gate not less than six (6) feet wide and five (5) feet deep. The level clear space shall extend a minimum of eighteen (18) inches beyond the latch side of the doorway or gate, and preferably twenty-four (24) inches.



- 11.1 All stairs required as a means of egress by the State Building Code shall comply with the following regulations:
- 11.2 Such stairs shall be located as close as possible to the accessible entrance.
- 11.3 Such stairs shall be constructed without abrupt projection of tread nosings. Risers may slope no more than one and one-quarter ($1\frac{1}{4}$) inch of horizontal projection, and the angle which the riser makes with the tread shall not be less than seventy (70) degrees. Open risers are not permitted.
- 11.4 Handrails shall be set on both sides of such stairs at a height of thirty-three (33) inches above the intersection of tread and riser. Wall rails on each set of such stairs shall extend where ever possible, eighteen (18) inches beyond the top and bottom riser at a height of thirty-six (36) inches above the floor or landing, but need not so extend if it would cause a safety hazard or if space does not permit.
- 11.5 An additional lower handrail shall be required in buildings primarily used by small children, and shall be located on each side at a height of twenty-four (24) inches.
- 11.6 The hand-grip portion of handrails shall be not less than one and one-quarter ($1\frac{1}{4}$) inches and not more than two (2) inches in outside diameter, shall be basically round or oval or a rounded rectangle with a one-quarter ($\frac{1}{4}$) inch radius, not exceeding two (2) inches in cross-section and shall have a smooth surface with no sharp corners.
- 11.7 Clearance between a wall and its wall rail shall be one and one-half ($1\frac{1}{2}$) inches.
- 11.8 Stair treads shall have a non-slip surface and only a non-slip finish material may be applied.
- 11.9 In alteration amounting to less than twenty-five percent (25%) of the one hundred percent (100%) equalized assessed value of the building, where an elevator is providing accessibility to all levels, the interior stairs need not comply with Section 11.
- 11.10 Exterior stairs shall comply with these Regulations where ever applicable.

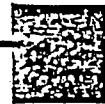


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STAIR SECTION

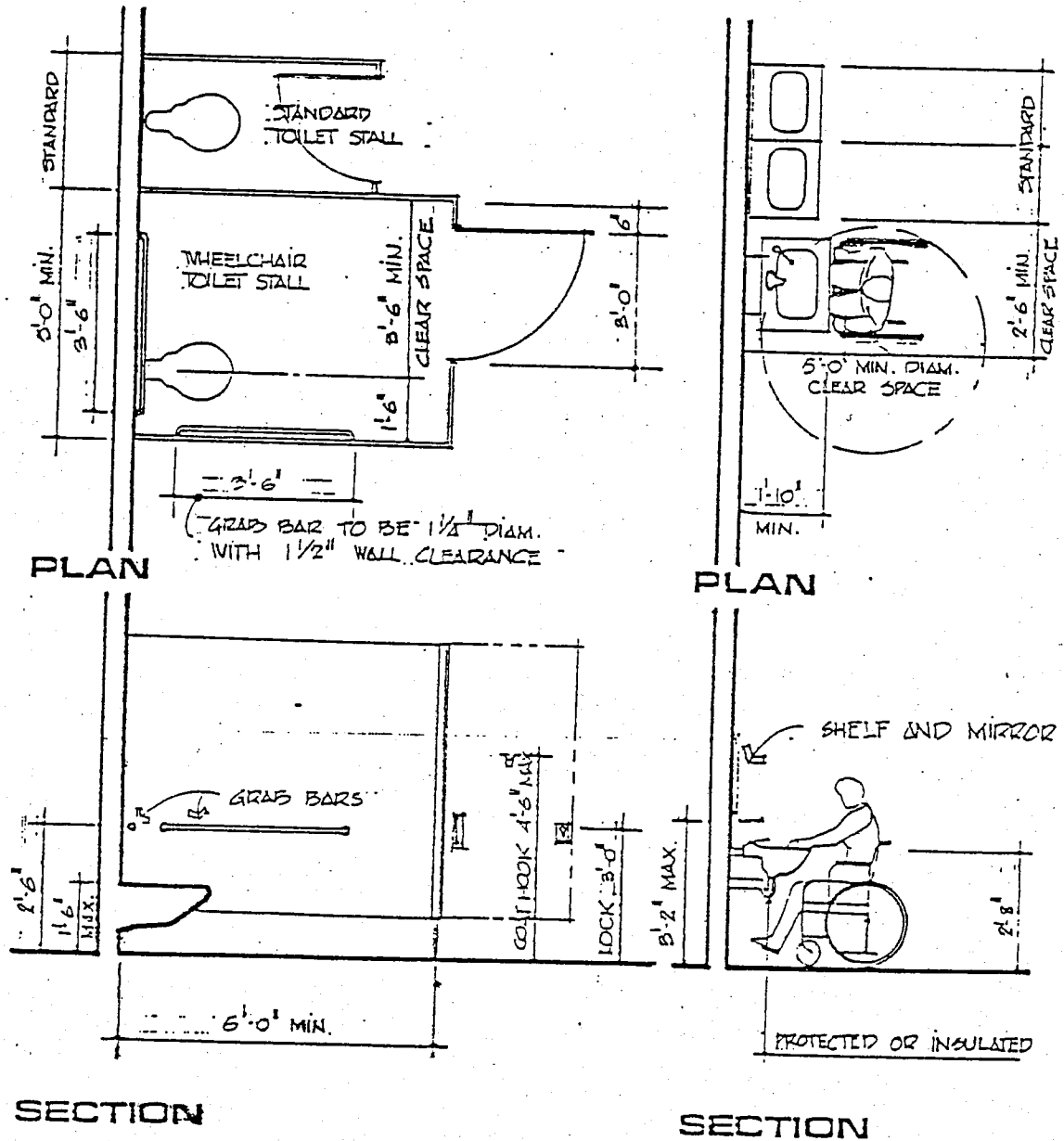
DETAIL



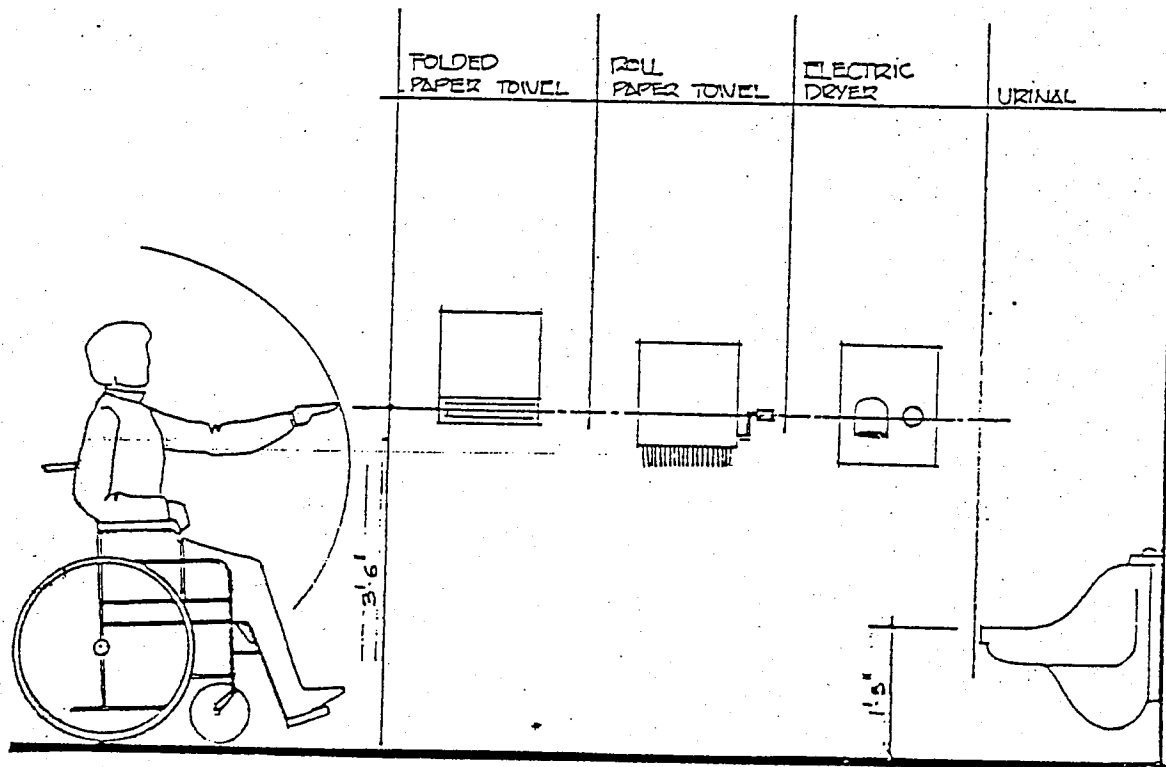
- 12.1 Floors in the means of egress shall have a surface that is non-slip, and only a non-slip finish material may be applied.
- 12.2 Floor on a given story shall be of a common level throughout or be connected by a ramp as defined in Section 8.
- 12.3 Carpeting shall be specified as high density, low pile, non-absorbent, stretched tautly and securely anchored at all open edges. Edging strip shall not be higher than three-eighths ($3/8$) of an inch above the floor. If padding is installed, it shall not exceed one-quarter ($1/4$) of an inch thickness, shall have specifications which indicate it as being firm and when installed shall be secured taut to the floor.

- 13.1 In each toilet room required by other codes, at least one water closet and one lavatory shall be accessible by persons in wheel-chairs including employees toilet rooms.
- 13.2 The space where lavatories are located shall have a minimum clear space of sixty (60) inches in diameter measured twelve (12) inches above the floor to permit turning of wheelchair without coming into contact with any fixtures or plumbing.
- 13.3 One lavatory or sink shall be wall-mounted without legs or pedestal at a height of thirty-two (32) inches to top of rim or counter and shall extend at least twenty-two (22) inches from the wall; or may be counter-type with clear open knee space of thirty (30) inches minimum. Exposed drain pipes and hot water pipes shall be recessed, insulated or guarded.
- Knob type faucets are not allowed, and spring activated faucets are allowed only if water running time is at least ten (10) seconds. Lever handle faucets are preferred.
- 13.4 Toilet Stalls: Each public toilet room shall have at least one (1) stall which:
- 13.4.1 is sixty (60) inches wide and seventy-two (72) inches deep,
- 13.4.2 has a door or opening that is thirty-six (36) inches wide, swings out or slides, and has an automatic self-closing hinge or a pull device at the hinge side to assist in closing the door, and has a lock located approx. thirty-six (36) inches above the floor. Maximum height of coat hook shall be fifty-four (54) inches above the floor.
- 13.4.3 locates the water closet eighteen (18) inches from the centerline of the fixture to the nearest side wall, and maintains at least forty-two (42) inch clear space measured from centerline of water closet to the farthest wall or other fixture; has a narrow understructure that recedes sharply; and has a seat eighteen (18) inches above the floor, maximum.

- 13.4.4 has two (2) grab bars forty-two (42) inches long, one on the wall in back of the water closet and one on the side wall closest to the water closet and set at a height of thirty (30) inches above and parallel to the floor. Grab bars shall be one and one-quarter ($1\frac{1}{4}$) inches outside diameter and with one and one-half ($1\frac{1}{2}$) inch clearance between bar and wall.

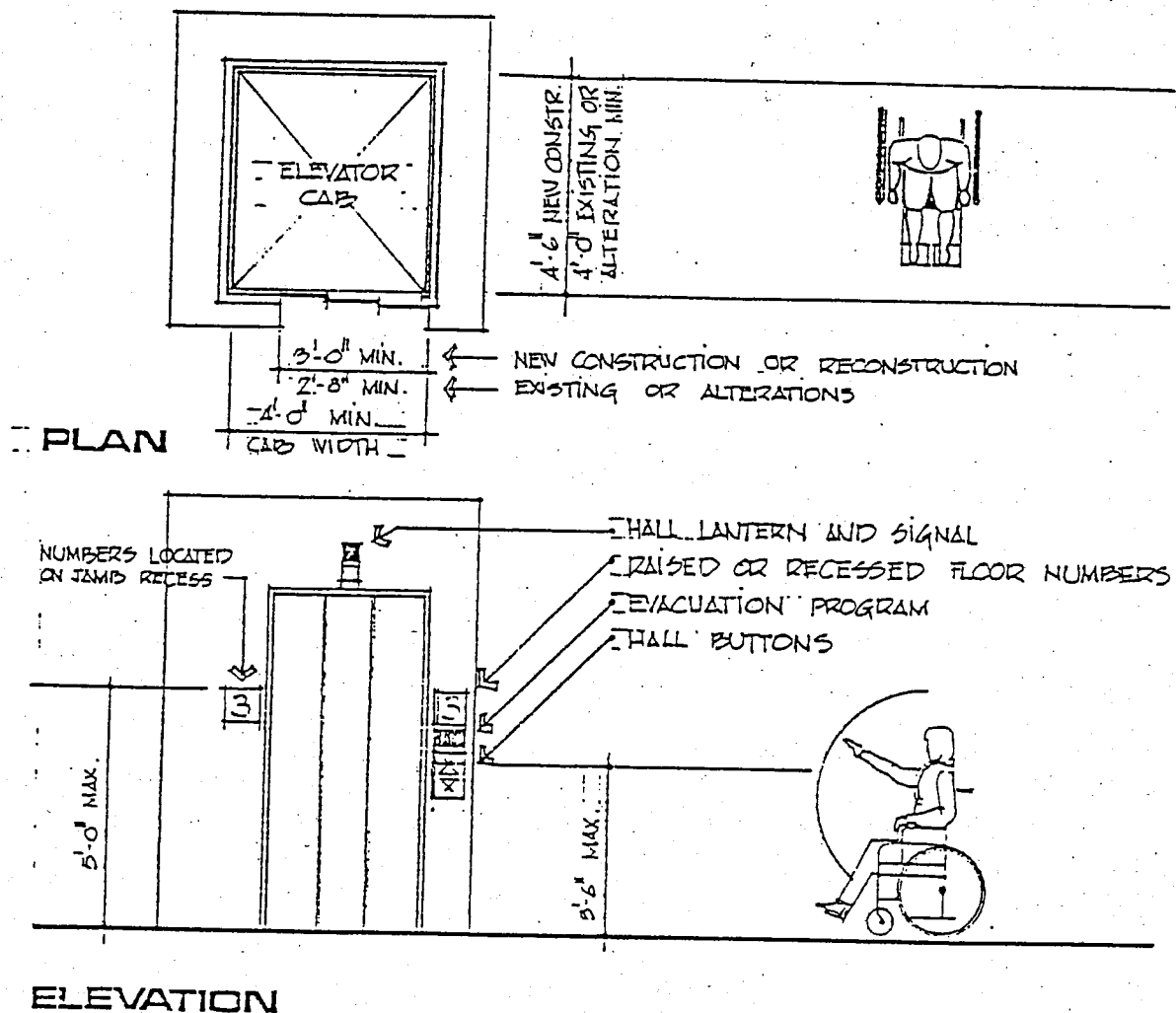


- 13.5 Where urinals are provided in public toilet rooms, one urinal shall be wall-mounted with the rim of the basin fifteen (15) inches above the floor.
- 13.6 Mirror and shelf where provided over the lavatory shall be set at a height no greater than thirty-eight (38) inches above the floor, measured from top of shelf or bottom of mirror. Tilted mirrors where provided shall be installed at a height of forty-two (42) inches above the floor. At least one mirror shall be located within reach of the accessible lavatory.
- 13.7 Dispensers: Public toilet rooms having towel dispensers, drying devices or other types of dispensers, shall have at least one each mounted so as to be usable at a height of forty-two (42) inches above the floor and at least one located within reach of the accessible lavatory.



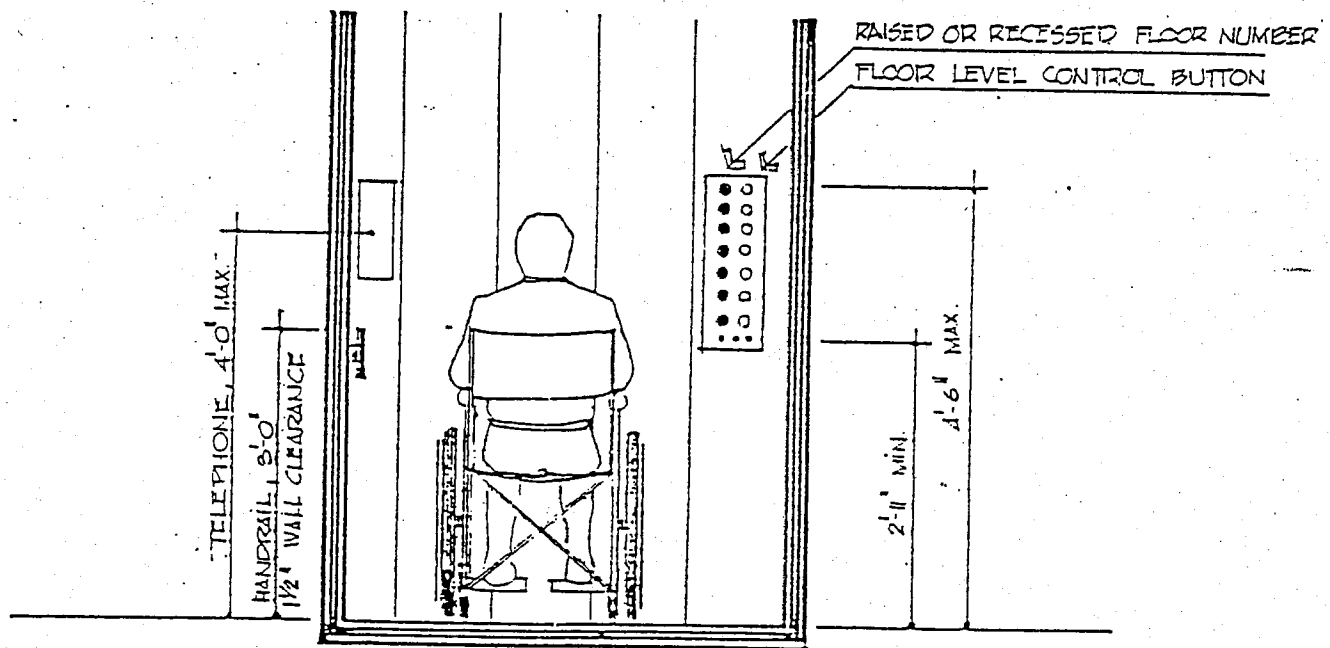
ELEVATION

- 14.1 Buildings under the jurisdiction of these Regulations having two (2) levels shall provide ramp or elevator to each level.
- 14.2 OPERATION: All elevators which may be used by the public shall be automatic, shall be self-leveling with tolerance of plus or minus one-half ($\frac{1}{2}$) inch under all loading conditions.
- 14.3 Doors to elevators in constructed or reconstructed buildings shall provide a clear opening of thirty-six (36) inches minimum width.
- 14.3.1 Doors to elevators in buildings having alterations performed shall provide a clear opening of thirty-two (32) inches minimum width.
- 14.3.2 Doors shall be power-operated and automatic, (moving at a closing speed of approximately one (1) foot per second).
- 14.3.3 A door reopening device shall be provided to stop and reopen car door and adjacent hoistway door when car door is obstructed while closing. A non-contact sensing/reopening device may be substituted for door safety edge if effective area extends full door height. A localized non-contact device such as electric eye may be used in addition to a full door height contact reopening device provided the localized device operates at five (5) inches and twenty-nine (29) inches above the floor. Such non-contact sensing device is not required if a timer is set to hold doors open a minimum of six (6) seconds at each stop. If a non-contact sensing device is provided, minimum time for door to remain fully open is three (3) seconds.
- 14.3.4 Door delay: The distance from a call button to center of farthest elevator door in a corridor or lobby shall determine the minimum time from notification that a car is answering a call (hall lantern and audible signal) until the doors of that car start to close. That time shall be interpolated as follows:
- | | | | |
|---------------|-----------|---------------|------------|
| 5 feet | 4 seconds | 15 feet | 10 seconds |
| 10 feet | 7 seconds | 20 feet | 13 seconds |
- 14.4 Car size measured from wall-to-wall and wall-to-door, shall not be less than forty-eight (48) inches wide by fifty-four (54) inches deep minimum in new construction; and forty-eight (48) inches by forty-eight (48) inches minimum in buildings undergoing alteration.



- 14.5 Car controls shall be located no lower than thirty-five (35) inches and no higher than fifty-four (54) inches measured from button centerline to floor. Floor numbers, letters or symbols shall be three-quarters (3/4) of an inch size, raised or recessed four hundredths (.04) of an inch, on contrasting background and located at left of floor buttons, not on the buttons. Permanent adhesive plates are acceptable. Emergency controls shall be grouped at the bottom of the control panel. Braille letters and numbers may be used in addition to but not instead of large raised or recessed characters.

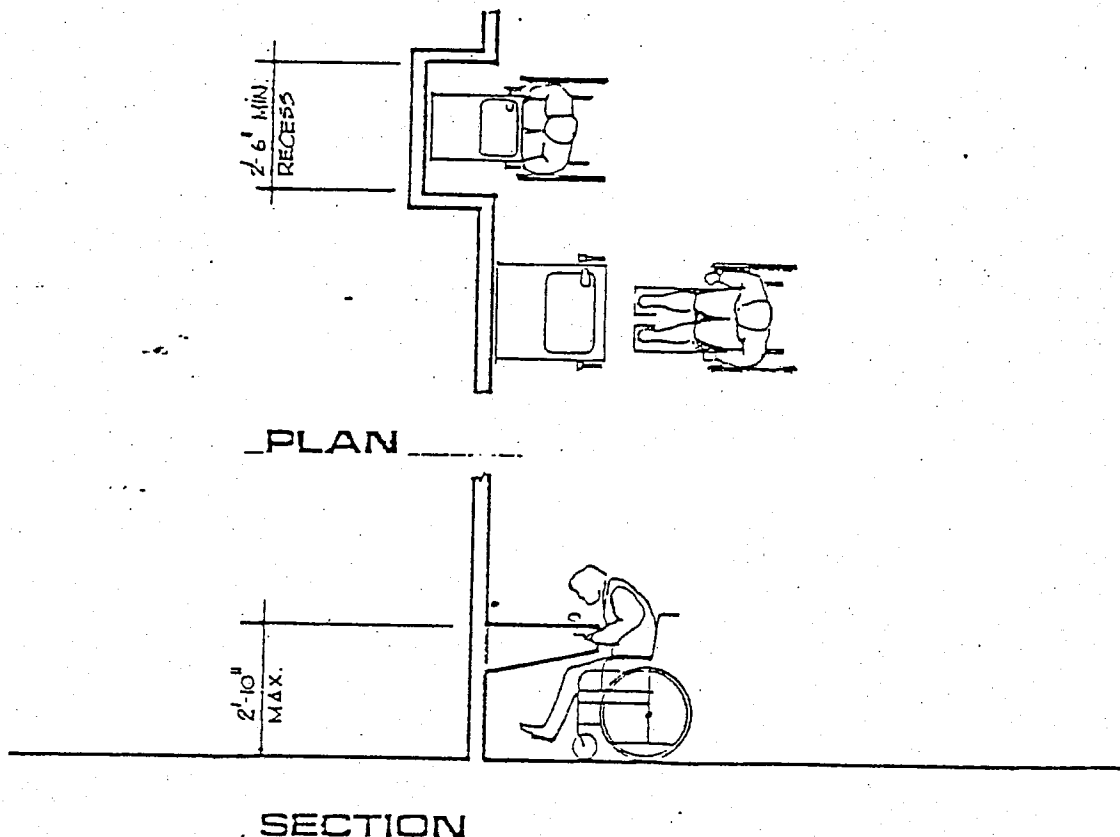
- 14.6 Car position indicator where provided, shall be located above the control panel or door illuminated on contrasting background. In addition, audible signals shall indicate passing floors.
- 14.7 Hall buttons shall be located not higher than forty-two (42) inches from highest button centerline to floor. Button numbers, letters or symbols shall be three-quarter ($3/4$) inches high. No ashtrays nor other obstacles shall be placed directly below or above the call buttons.
- 14.8 Audible signal shall differentiate direction of travel as standardized nationally: one sound signal for up, two signals for down. An in-car lantern is permitted in lieu of hall lanterns where there is no more than one elevator and provided door delay time is equivalent to 14.3.4.
- 14.9 Floor numbers shall be provided on both sides of floor jambs at sixty (60) inches above the floor. Numbers shall be a minimum of two and one-half ($2\frac{1}{2}$) inches in height and shall contrast with jamb background. They shall be raised at least four hundredths (.04) of an inch and may be adhesive type plates.

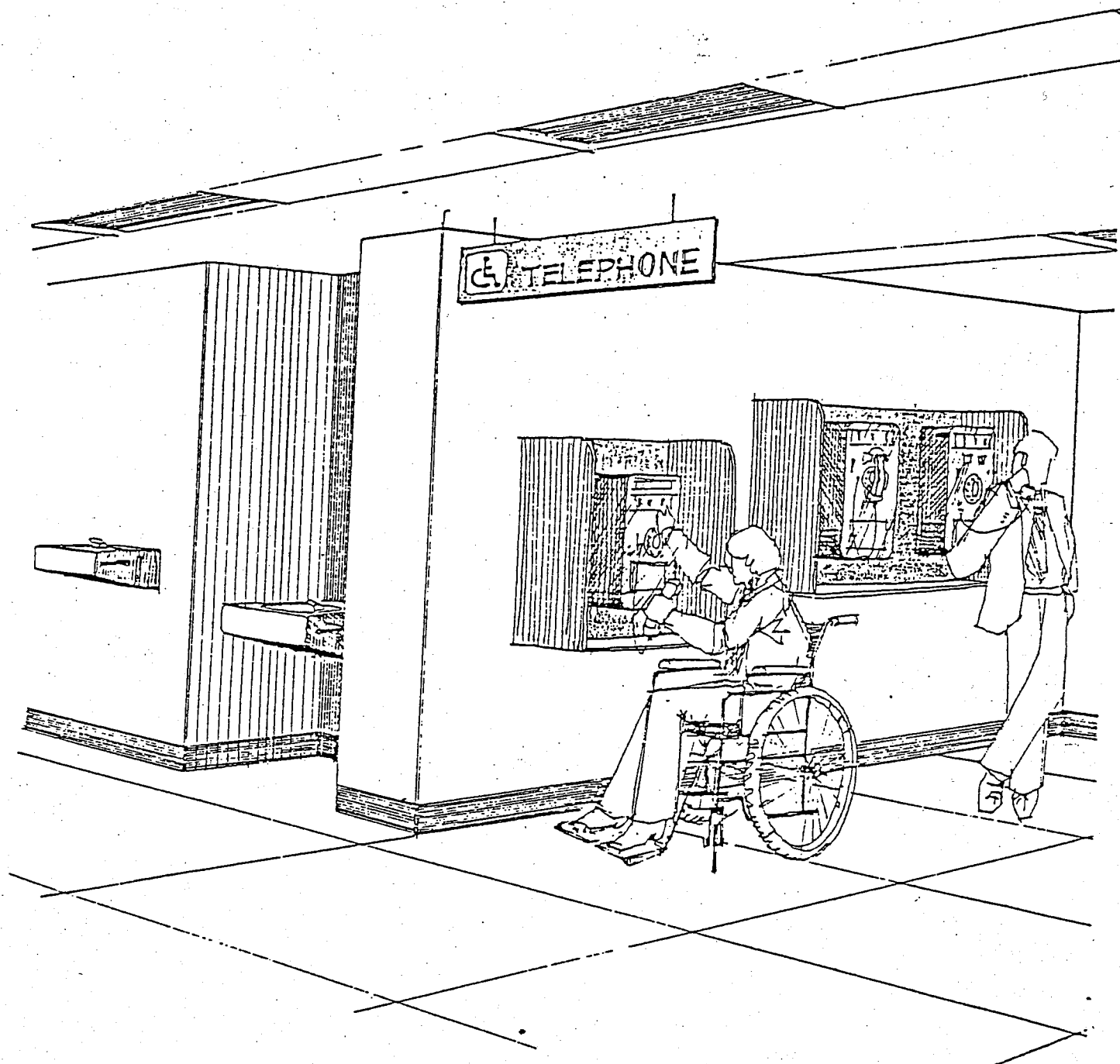


SECTION - ELEVATOR CAB

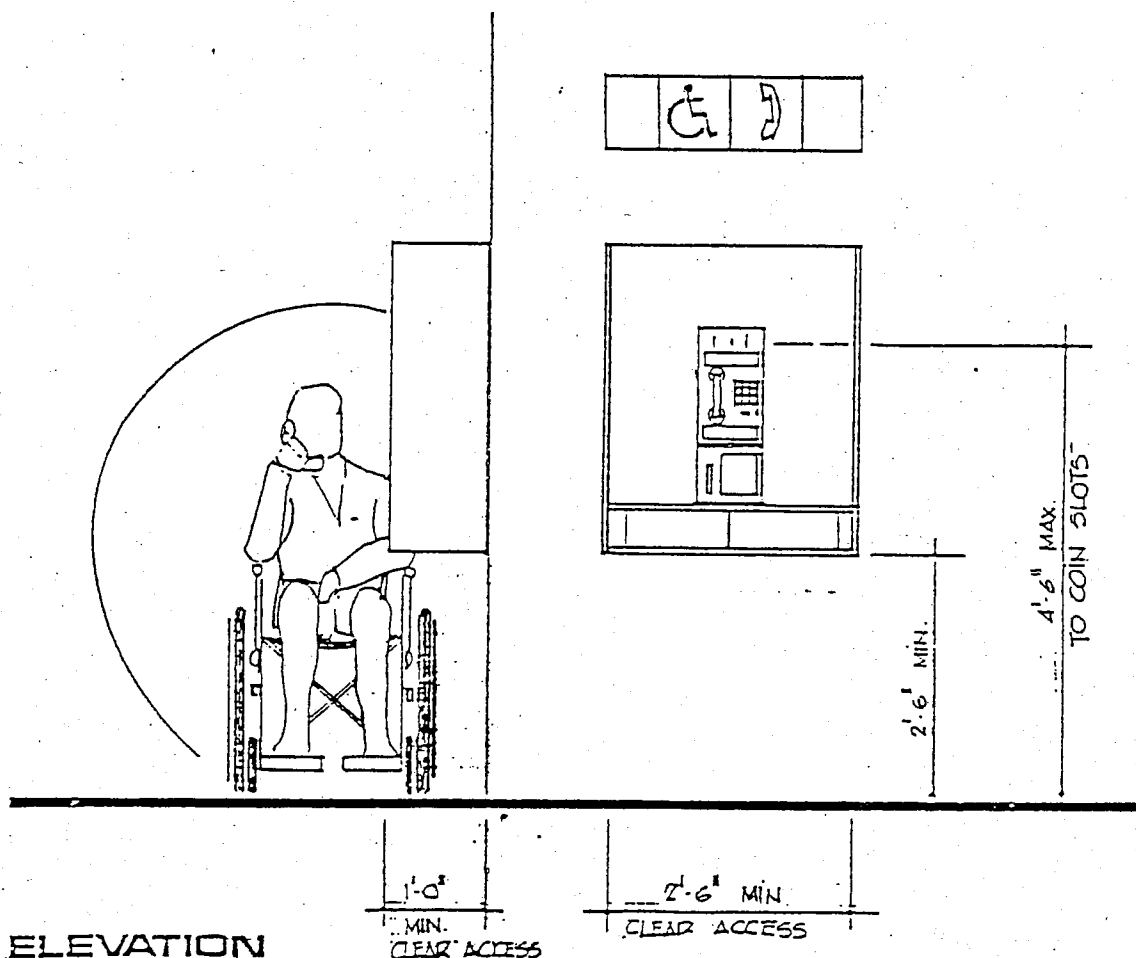
- 14.10 Handrails shall be located on at least one wall at thirty-six (36) inches above the car floor, with one and one-half ($1\frac{1}{2}$) inch clearance from wall.
- 14.11 Floor coverings shall be non-slip. Carpeting shall be specified as high density, low pile, non-absorbent. It shall be stretched tautly and securely anchored at all edges. Edging strip shall not be higher than three-eighths ($\frac{3}{8}$) of an inch above the floor. If padding is installed, it shall not exceed one-quarter ($\frac{1}{4}$) of an inch in thickness, shall have specifications which indicate it as being firm and when installed shall be secured taut to the floor.
- 14.12 Telephone or two-way communication system shall be provided at maximum height of forty-eight (48) inches above the car floor and connected to a 24-hour service location nearby. Cord shall be thirty-six (36) inches long. Provide telephone symbol similar to car control numbers.
- 14.13 Illumination level at control panel and floor shall be five foot candles.
- 14.14 Emergency Use: Since elevators may not be used as an emergency exit, a written program to evacuate the physically handicapped shall be posted on every floor on the wall above the hall buttons.
- 14.15 Wheelchair lift devices such as vertical and inclined wheelchair lifts may be permitted by this Board where consistent with the Regulations of the Massachusetts Elevator Regulations Board.

- 15.1 Where drinking fountains or coolers are provided, at least one shall be accessible by persons in a wheelchair.
- 15.2 Drinking fountains shall have hand-operated push-button or lever controls and spout located near the front. Spout shall direct a stream of water as parallel to front of fountain as possible. Knob type faucet is not allowed. Other types of controls may be installed in addition to, but not instead of, hand-operated controls.
- 15.3 Wall-mounted drinking fountains shall be mounted with the basin rim set thirty-four (34) inches, maximum, above the floor.
- 15.4 If floor-mounted drinking fountains are used with a basin rim higher than thirty-four (34) inches, either another lower fountain or a paper cup dispenser shall be provided usable at thirty-four (34) inches, maximum.
- 15.5 Where drinking fountains are located in a recess, that recess shall not be less than thirty (30) inches wide and not deeper than the depth of the drinking fountain.

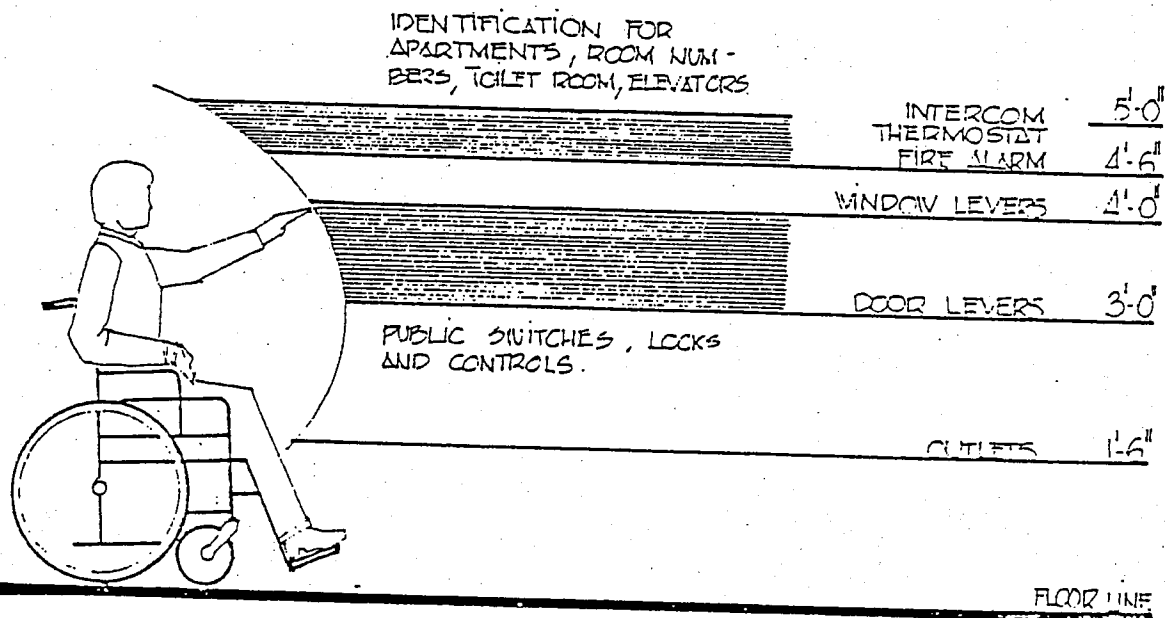




- 16.1 Height: Where public telephones are provided, at least one (1) public telephone shall be accessible to and usable by a person in a wheelchair. The dial, handset and coin deposit slots, or the highest operating part, shall be mounted not more than fifty-four (54) inches above the floor assuming vertical access.
- 16.2 The receiver shall be equipped with an inductive coil to provide a magnetic field for hearing aid telephone switches and so identified.
- 16.3 Unobstructed access within twelve (12) inches of the telephone shall be provided. Such access shall be a clear opening not less than thirty (30) inches in width and height.



- 17.1 Where switches, locks and controls are provided for public use they shall be placed no higher than forty-eight (48) inches nor lower than thirty-six (36) inches from the floor, with the exception of thermostats, intercoms, and fire alarms which may be centered no higher than fifty-four (54) inches, and electrical outlets which may be centered no lower than eighteen (18) inches from the floor.



CONTROL LOCATIONS



IDENTIFICATION BY THE VISUALLY HANDICAPPED



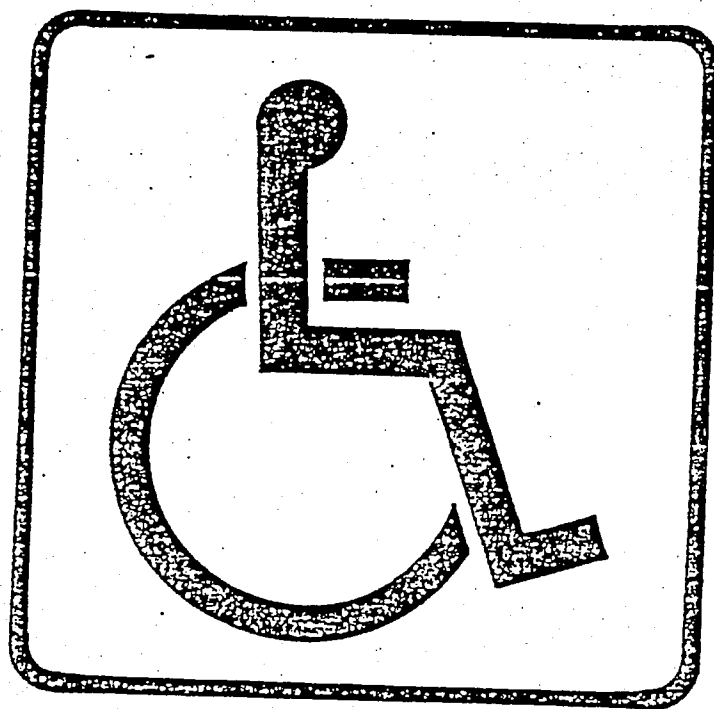
- 18.1 Location of identification for apartments, room numbers, toilet rooms and elevators shall be placed at a height not less than fifty-four (54) inches and not higher than sixty (60) inches above the floor and located within eighteen (18) inches of the door latch jamb or recess.
- 18.2 Where such signs, numbers or graphics are being provided in the means of egress, they shall be permanently fixed, raised or recessed, one and one-quarter ($1\frac{1}{4}$) inches minimum height, and with background of contrasting color. Braille letters and numbers may be used in addition to but not instead of raised or recessed characters.
- 18.3 Where warning signals such as fire alarms are provided they shall be equipped with visual signals as well as audible signals, flashing no faster than five (5) cycles per second.



IDENTIFICATION OF ACCESSIBLE FACILITIES



- 19.1 The International Symbol of Accessibility shall be displayed in the following conditions:
- A. At accessible entrances to a building or facility if not all of the entrances are accessible.
 - B. At entrances to accessible public toilet rooms if not all of the public toilet rooms in a building are accessible.
 - C. At the origins of accessible means of egress to major publicly-used spaces if not all means of egress to specific spaces are accessible.
 - D. On directional signs showing where accessible entrances, elevators, and toilet rooms are located.
 - E. At special parking spaces for the handicapped.



INTERNATIONAL
SYMBOL OF ACCESSIBILITY

PART C

applicable to
particular buildings and facilities:

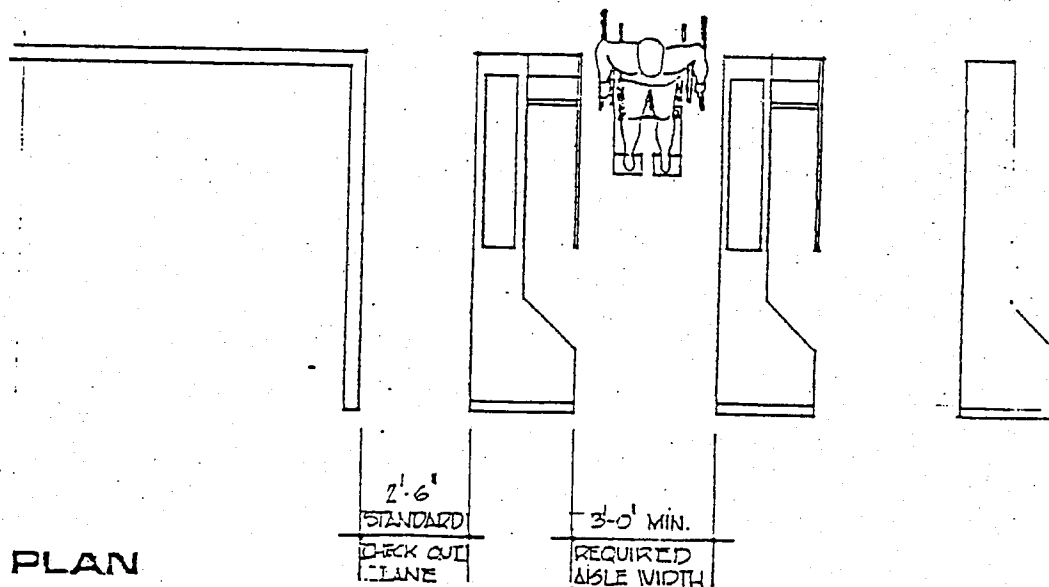
in addition to PART B, following
rules and regulations shall apply:

- 20.1 Governmental facility: A building constructed by or used by the Commonwealth or any political subdivision thereof and open to public use shall include but not be limited to libraries, town halls, police and fire stations, court houses, polling booth locations, etc., (for further regulations see: educational facilities, detention facilities, and sleeping facilities in fire stations).
- 20.2 In new construction and reconstruction, all two-story buildings shall provide a ramp or elevator service to each level. Buildings of more than two (2) levels shall provide elevator service to each level. Ramps may only be used to provide interior access to one floor above or one floor below primary entrance level.
- 20.3 Library aisles between fixed stacks shall be a minimum width of thirty-two (32) inches.
- 20.4 In such governmental facilities, when a toilet room is not required by other codes, it shall have at least one water closet and one lavatory accessible by persons in wheelchairs.

COMMERCIAL BUILDINGS

- 21.1 Those spaces in retail establishments where the service or product is offered to the public, and those premises in which a member of the public may enter in a commercial building of more than two (2) stories in height and in which more than forty (40) persons are employed shall comply with these regulations.

- 22.1 The public areas of stores, shopping centers, restaurants and funeral homes that are under the jurisdiction of these Regulations shall be those areas where the service or product of the establishment is offered to the public; the public toilet rooms provided for clientele in said areas; walks, stairs and the primary entrance to said buildings.
- 22.2 Stores in shopping centers shall provide the following:
- 22.2.1 Aisles shall have a minimum clear width of thirty-six (36) inches.
- 22.2.2 All check-out lanes shall have a clear minimum width of thirty-two (32) inches or one lane with a minimum clear width of thirty-six (36) inches.
- 22.2.3 Wherever a turnstile is provided, an adjacent alternate gate or door shall be provided with a minimum clear width of thirty-six (36) inches.



- 23.1 There shall be no construction, reconstruction, alteration, re-modeling or change of use of a lodging or residential facility for rent, hire, or lease containing twenty (20) or more units unless five percent (5%) of the units shall be made accessible to, functional for and safe for use by the physically handicapped persons in accordance with these Regulations.
- 23.2 Lodging or residential facilities shall be all buildings and structures or parts thereof in which families or households live or in which sleeping accommodations are provided for individuals with or without dining facilities. Such buildings and spaces shall include those which are primarily occupied for the shelter and sleeping accommodations of individuals on a day-to-day or week-to-week basis, and shall include hotels, lodging houses, boarding houses and similar occupancies and shall also include buildings intended for living and sleeping accommodations of families or individuals on a long-term basis and shall include multiple-family dwellings and apartment houses.
- 23.3 In determining the application of the five percent (5%) rule of Section 23.1 to residential facilities which consist of more than one building, all of the units in the entire complex or project shall be considered in determining the total number of units for the handicapped to be contained therein.
- 23.4 Units designed for handicapped persons shall be proportionally distributed as to the number of bedrooms, size, quality and price as all other units in the facility.
- 23.5 A means of egress in lodging or residential facilities must be provided to all the living units for the handicapped, and said means of egress must totally comply with these Regulations.
- 23.6 The public areas of privately-owned condominiums containing twelve (12) or more units which are under the jurisdiction of these Regulations shall be the walks, primary entrances, and the front vestibules, lobbies, and foyer.

- 23.7 The public area of an apartment building containing twelve (12) or more units which are under the jurisdiction of these Regulations shall be the walks, primary entrances, vestibules, lobbies, foyers, stairs, elevators where provided and the community facilities.
- 23.8 The public areas in hotels and motels that are considered open to and used by the public shall be the general public function areas, recreation and meeting areas, restaurants, public toilet rooms, walks, stairs, elevators where provided, and the primary entrance to said buildings as well as the stairs and corridors leading to the individual rooms used by the physically handicapped persons.
- 23.9 Public areas as defined herein of privately owned condominiums, apartment buildings, hotels and motels shall be accessible.
- 23.10 At least one of each of the services provided in said lodging or residential facility, hotel, or motel, such as vending areas, laundry rooms, public telephones, shall also be accessible to the handicapped.
- 23.11 In publicly funded housing for the elderly or elderly oriented, Sections 10.7 and 10.9 shall apply.

EDUCATIONAL INSTITUTIONS

24

- 24.1 Educational institutions shall include but not be limited to public and private schools, colleges and universities, training facilities and facilities of building authorities of a public educational institution including dormitories that are a part thereof.
- 24.2 Dormitories shall comply with these Regulations.
- 24.3 Dormitories for personnel in training in the occupations not ordinarily accessible to the handicapped, (such as, maritime academy and aviation school) are exempt from the elevator regulations (14.1) and the five percent (5%) regulation (23.1).
- 24.4 Amphitheaters and lecture halls with step seating shall provide level student stations which are accessible at the main entrance levels.

HEALTH INSTITUTIONS OR FACILITIES

25

- 25.1 Health institutions or facilities shall be those buildings in which people suffering from physical limitations because of health or age are harbored for medical or other care or treatment and shall also include but not be limited to hospitals, clinics, sanatoriums, boarding or rest homes, convalescent or nursing homes, rehabilitation centers, alcohol and drug detoxification centers, community health centers, mental health centers and buildings in which one or more doctors are providing health services similar to those provided by any of the above.
- 25.2 Sidewalk ramps (curb cuts) shall be provided at the accessible entrances.
- 25.3 There shall be at least one accessible toilet on an accessible level.
- 25.4 Walks, primary entrances, front vestibules, lobbies, foyers, stairs, elevators where provided, corridors and all examination and treatment rooms shall be made accessible.

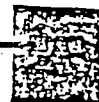


- 26.1 Recreational facilities in a building exceeding two (2) stories in height or in a place of assembly with a capacity of more than one hundred fifty (150) persons shall include but not be limited to rinks, swimming pools, gymnasiums, arenas, stadiums, and other such facilities.
- 26.2 A means of egress in a building containing recreational facilities from the street to all such facilities shall be accessible.
- 26.3 Swimming pools open to the public shall be accessible.
- 26.3.1 Entrance to such pools shall be made available to the physically handicapped by means of either a ramp with a non-slip surface extending into the pool toward the shallow end thirty (30) inches wide clear, with railings on each side, with a slope not exceeding one-in-six (1:6), or by a removable or portable sling-lifting device.
- 26.3.2 Such pools shall provide and maintain an unobstructed means of egress around the pool not less than forty-eight (48) inches wide. Such area shall have a surface that is non-slip.
- 26.4 Bowling alleys on floors otherwise accessible shall provide at least two (2) adjacent lanes accessible to wheelchairs.
- 26.5 Locker rooms in a building open to the public shall be located so as to be accessible by an unobstructed means of egress to at least five percent (5%) of the lockers.
- 26.5.1 Shower facilities adjoining rooms shall be accessible.
- 26.5.2 Locker room and shower floor shall have a surface that is non-slip.
- 26.6 Parks, campsites, and roadside parks: If the sidewalk, walk or walkway in the park, campsite, or roadside park is a means of passage through the area and not passage solely to the recreational facility, then these Regulations apply.
- 26.7 Spectator facilities shall provide seating capacity to be accessible and on a level area for those in wheelchairs. Such area may have removable seating. (See Sections 7.2 and 29.)

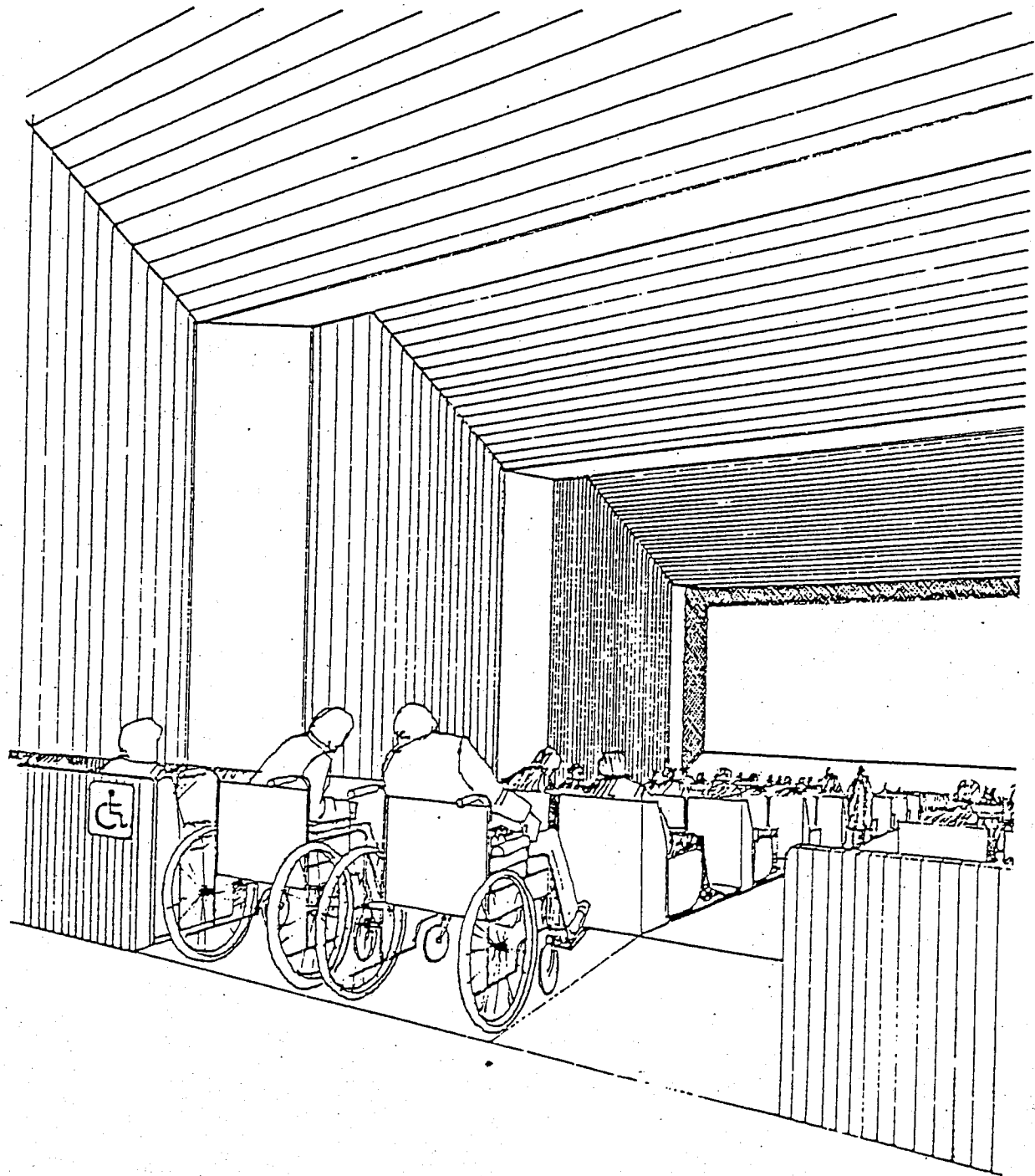
27.1 Detention facilities shall include but not be limited to those buildings designed for the detention of people under restraint and shall include but not be limited to jails, prisons, reformatories, insane asylums and similar uses.

27.1.1 Areas of detention facilities open to the public shall comply with Sections 1-20.

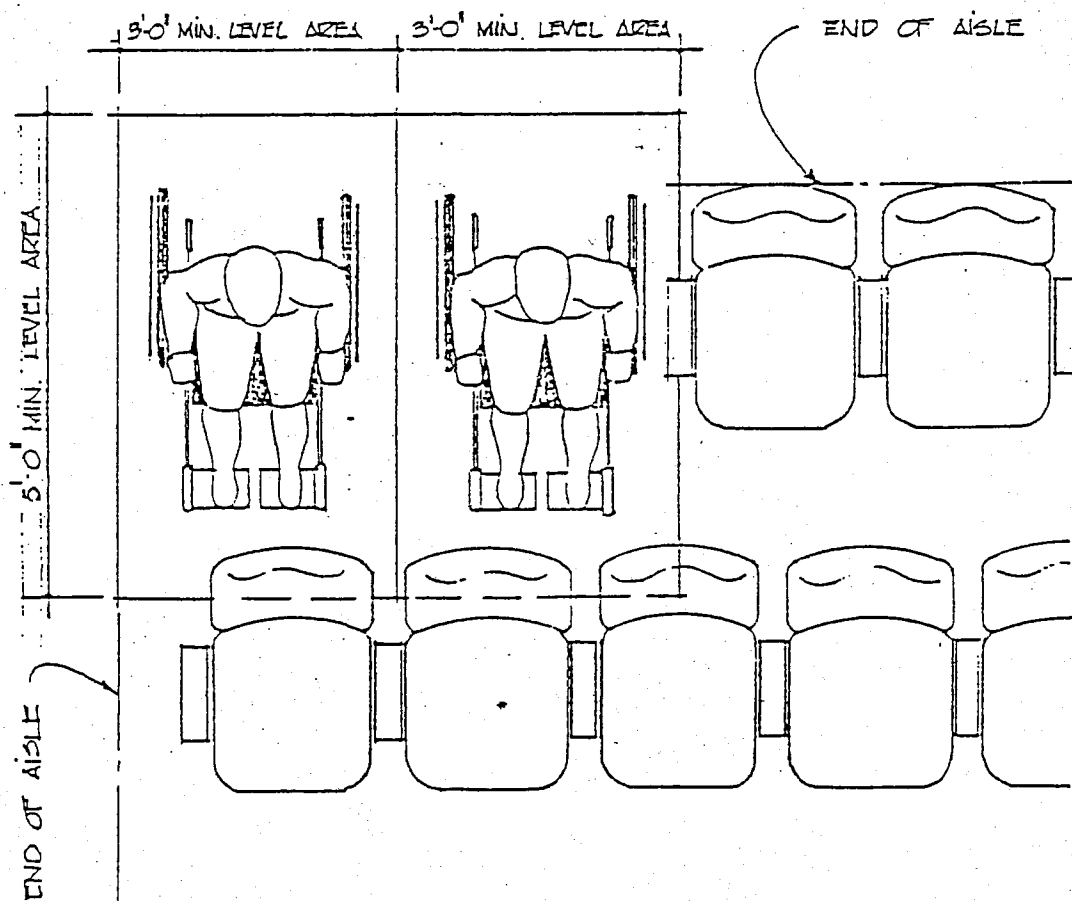
27.1.2 Secure areas are exempt provided that accessible areas are available to the physically handicapped detained person.



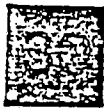
- 28.1 Transportation terminals shall include but not be limited to airports, bus and train stations.
- 28.2 Overhead protection and/or snow-melting provisions shall be incorporated in the immediate exterior area of the terminal entrances.
- 28.3 Where the means of egress includes change of level, accessible alternatives shall be provided for the physically handicapped.
- 28.4 To facilitate horizontal circulation, the following shall be provided:
 - 28.4.1 Distance between platform and vehicle at boarding platform shall not exceed two (2) inches.
 - 28.4.2 The edge of the platform shall have a band of different texture and color of at least eighteen (18) inches in width warning of a danger zone.
 - 28.4.3 Rest area with seating at intervals not to exceed two hundred fifty (250) feet.
- 28.5 Ancillary facilities (public toilet, telephone, etc.) shall comply with these Regulations and such facilities shall be identified as accessible.
- 28.6 Fare transaction areas and entry gates shall be accessible to physically handicapped persons.



- 29.1 Places of assembly of a capacity of more than one hundred fifty (150) persons such as theaters, auditoriums, armories, chapels, lecture halls, etc., under the provisions of these Regulations shall conform to the following requirements, in addition to requirements set forth in other codes and ordinances.
- 29.2 Such places of assembly shall provide a clear level space for wheelchair occupants; such spaces shall be provided as in Section 7.2. Each wheelchair space shall be sixty (60) inches long and thirty-six (36) inches wide. In lieu of a clear space, there may be provided sections of fixed seating which can be readily unfastened and removed when the occasion warrants. These wheelchair spaces may be on one side only of double aisles, and on side aisles.
- 29.3 Such designated areas shall in no way interfere with the required exit facilities of the place of assembly.
- 29.4 Where public toilets are required by other codes, they shall be provided on the accessible seating level, and shall comply with these Regulations. (See Section 13.)



PLAN - ASSEMBLY SEATING



HOUSES OF WORSHIP



- 30.1 Houses of Worship which constitute places of assembly shall include but not be limited to churches, chapels, synagogues and meeting halls.
- 30.2 The Regulations of Section 29 shall not apply to this Section.
- 30.3 An accessible toilet or a private lavatory shall be provided on the accessible seating level.

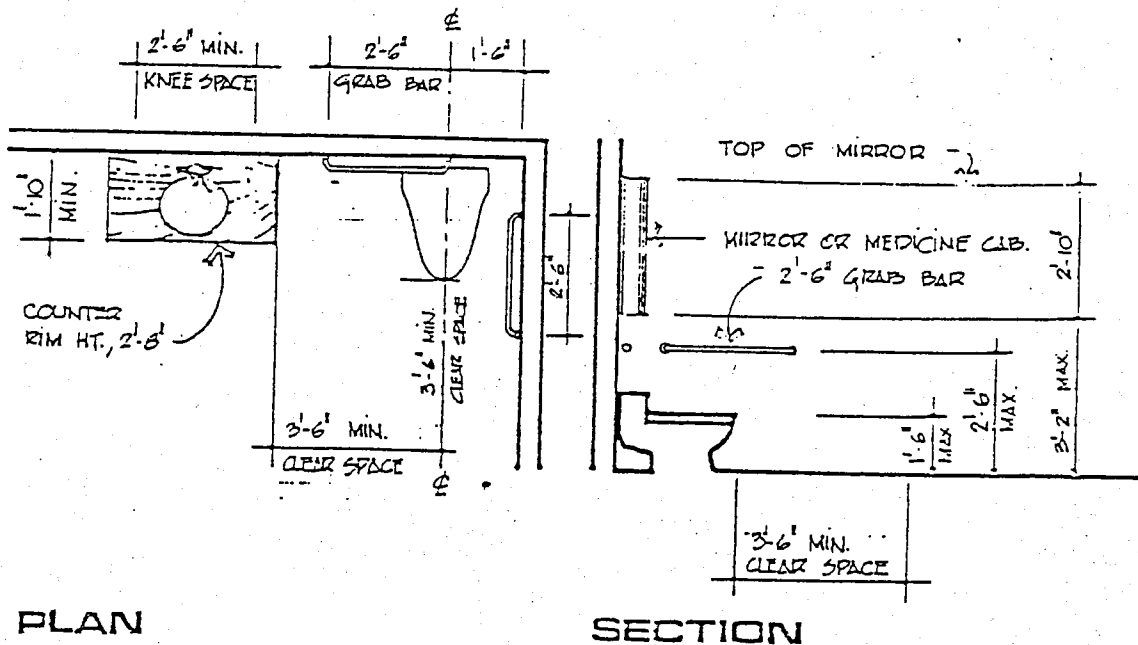


RESTAURANTS

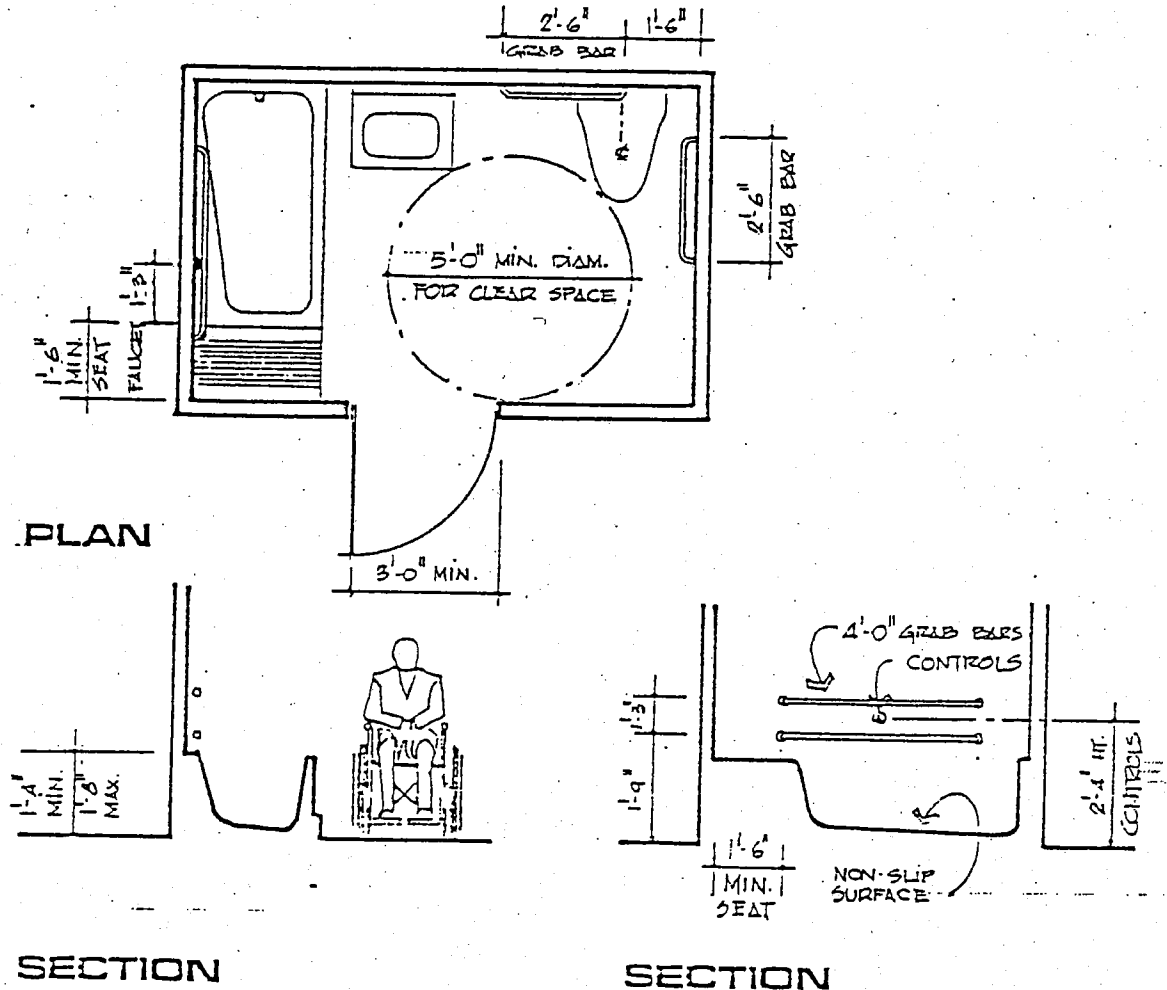


- 31.1 Restaurants shall include but not be limited to cafeterias, lounges, bars, and other places where food or beverages are served and are open to the public.
- 31.2 There shall be an unobstructed means of egress through the dining area not less than thirty-six (36) inches wide
- 31.3 Cafeterias: food selection aisles shall provide a minimum clear width of thirty-six (36) inches, including exit and entrance.
- 31.4 Cutlery and food display racks shall be visible and within reach of a person seated in a wheelchair.
- 31.5 Fixed tables shall provide clear space under table top not less than thirty (30) inches wide per seating space nor less than twenty-seven (27) inches clear height to a depth of twelve (12) inches from the edge of the table.

- 32.1 Five percent (5%) of the total number of units in lodging or residential facilities for rent, hire, or lease containing twenty (20) or more units must comply with the following:
- 32.2 Bathrooms shall provide or be adjustable to provide the following:
- 32.2.1 Size: Such bathrooms shall have a minimum clear space of sixty (60) inches in diameter measured twelve (12) inches above the floor to permit turning of wheelchair without coming into contact with any fixtures. The door shall be thirty-six (36) inches wide and shall swing out or slide.
- 32.2.2 Water closet shall be located eighteen (18) inches from the centerline of the fixture to the nearest side wall and maintain at least forty-two (42) inches clear space measured from centerline of water closet to the farthest wall or other fixture and at least forty-two (42) inches clear space in front of water closet; shall have a narrow understructure that recedes sharply and shall have a seat set no higher than eighteen (18) inches above the floor; shall have two grab bars thirty (30) inches long, one on the wall in back of the water closet and one on the side wall closest to the water closet, and set at a height of thirty (30) inches above and parallel to the floor.



- 32.2.3 Lavatory or sink shall be wall mounted without legs or pedestal, set at a height of thirty-two (32) inches to top of rim or counter and shall extend at least twenty-two (22) inches from wall with all exposed drain pipes and hot water pipes recessed, insulated or guarded. Alternatively, lavatory may be counter type with clear open knee space of thirty (30) inch minimum width.



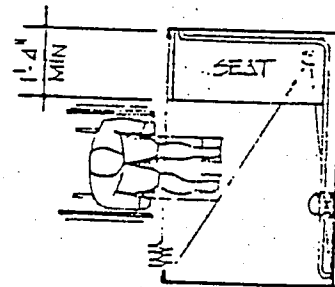
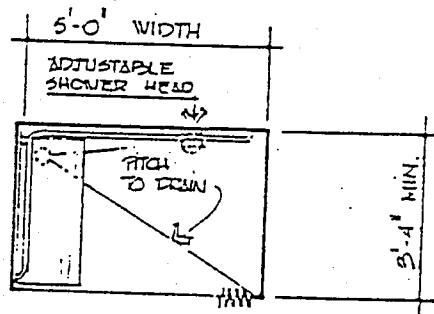
Lavatory shall be capable of supporting two hundred fifty (250) pounds for five (5) minutes. Mirror over lavatory shall be set at height no greater than thirty-eight (38) inches measured from the floor to the bottom of the mirror. Tilted mirrors may be installed at a height of forty-two (42) inches. Knob type faucets are not allowed and spring-activated faucets are allowed only if water running time is at least ten (10) seconds.

32.2.4 Bathtubs shall not be less than sixteen (16) inches nor more than twenty (20) inches above the floor line measured to the rim. A built-in seat eighteen (18) inches deep shall be provided beyond the head of the tub for safe transfer area. Tub bottom and seat shall have a non-slip surface. Tub controls shall be approximately fifteen (15) inches from tub seat on long wall at approximately twenty-eight (28) inches above the floor line and shall operate by a single control lever with a pressure-balanced mixing valve. Tub shall also provide a shower head attached to a flexible metal hose with adjustable wall mounting, with water supplied from tub mixing valve, centered over controls.

32.2.5 Showers where provided in lieu of tubs shall be wheel-in type with no curb. Stall shall be either sixty (60) inches wide and not less than forty (40) inches deep or not less than thirty-six (36) inches wide and forty-eight (48) inches deep with floor pitched to drain within stall at corner farthest from entrance. Floor shall be carborundum or grit-face tile or other non-slip surface. Shower shall operate by a single control lever with a pressure-balanced mixing valve, and all controls located at center of long wall. Shower stall shall provide a shower head attached to a flexible metal hose with wall mounting adjustable from forty-two (42) inches to seventy-two (72) inches above the floor line.

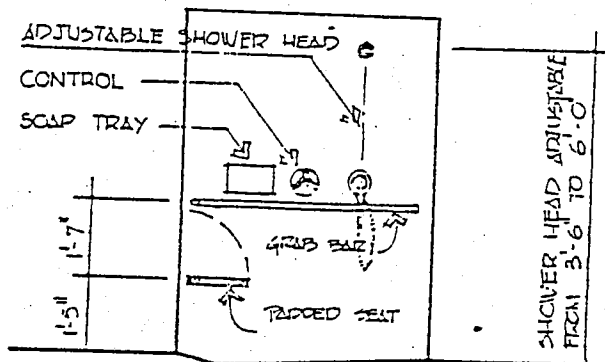
Soap tray shall be approximately twelve (12) inches wide by eight (8) inches high and recessed, and shall not incorporate hand hold feature unless it can support two hundred fifty (250) pounds for five (5) minutes. Stall shall include a hinged, padded seat sixteen (16) inches deep, minimum, folding upward, securely attached to the side wall and set seventeen (17) inches above the floor line.

- 32.2.6 Grab bars shall be able to support two hundred fifty (250) pounds for five (5) minutes, shall be non-rusting and acid-etched or roughened, shall be one and one-quarter ($1\frac{1}{4}$) inches in outside diameter and set not more than one and one-half ($1\frac{1}{2}$) inches clear from the wall. Walls shall be structurally capable of securing grab bars at any reasonable height. Grab bars at tub shall be forty-eight (48) inches long and set at twenty-one (21) inches and thirty-six (36) inches above the floor line on the long wall located so as to extend six (6) inches beyond the seat at the head of the tub. Grab bars in shower stalls shall be either L-shaped approximately thirty-six (36) inches by sixty (60) inches long and placed horizontal at thirty-six (36) inches above the floor line, or one thirty-six (36) inches long and one forty-eight (48) inches long and so located.

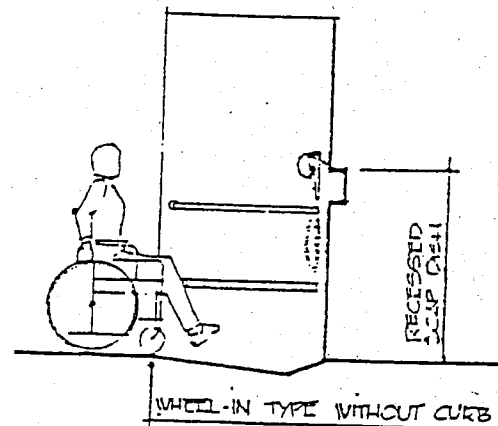


PLAN - shower

ALTERNATE PLAN : MIN. 3'-0" WIDTH x 4'-0"

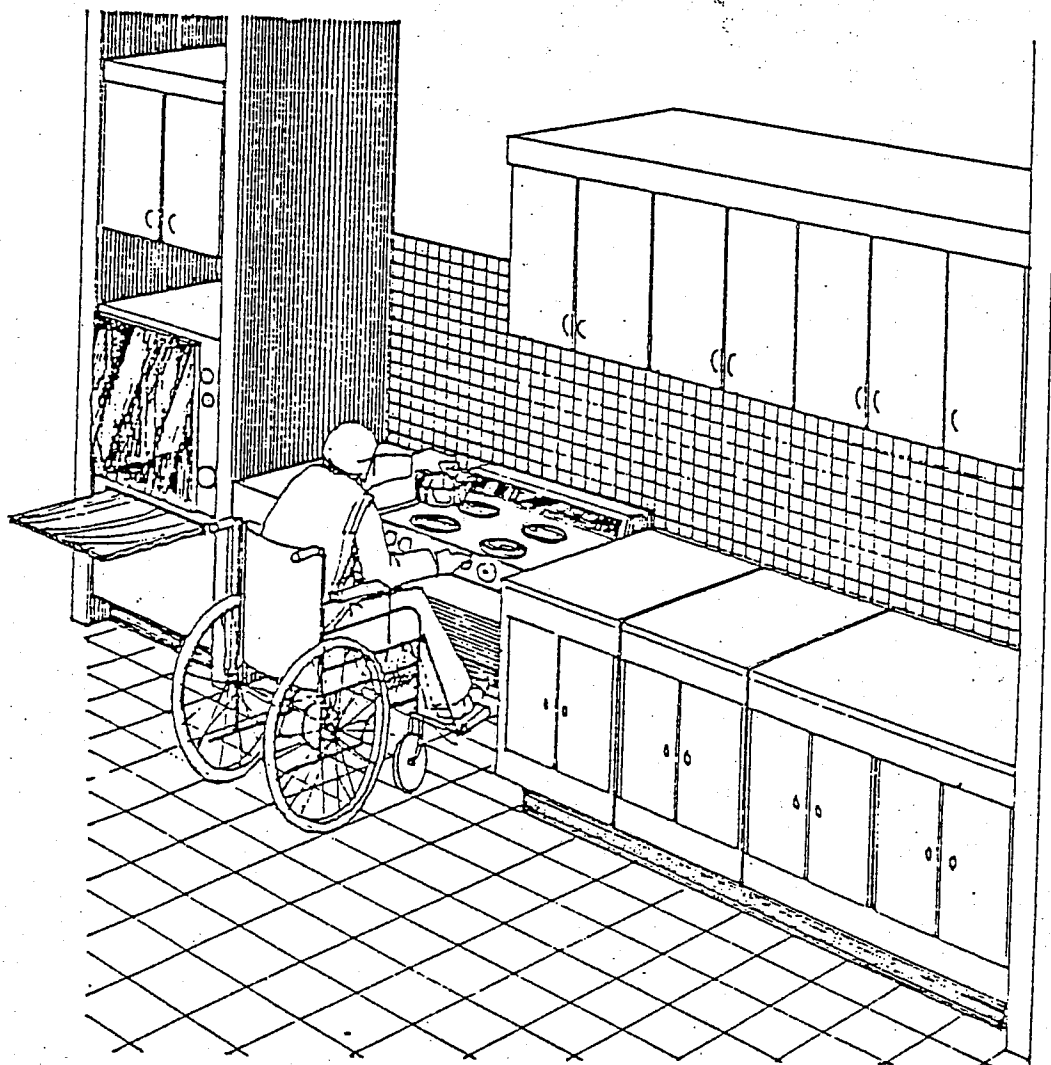


ELEVATION



SECTION

- 32.2.7 Accessories: Bottom of mirror over lavatory shall be thirty-eight (38) inches above the floor line; top of mirror shall be not lower than seventy-two (72) inches. Medicine cabinets shall be set no higher than thirty-eight (38) inches above the floor line to bottom of cabinet.
- 32.2.8 Towel racks shall be grab bars able to support two hundred fifty (250) pounds for five (5) minutes.



32.3 Kitchen size shall allow persons in wheelchairs to use all kitchen facilities and shall provide not less than a clear space of sixty (60) inches in diameter, measured twelve (12) inches above the floor.

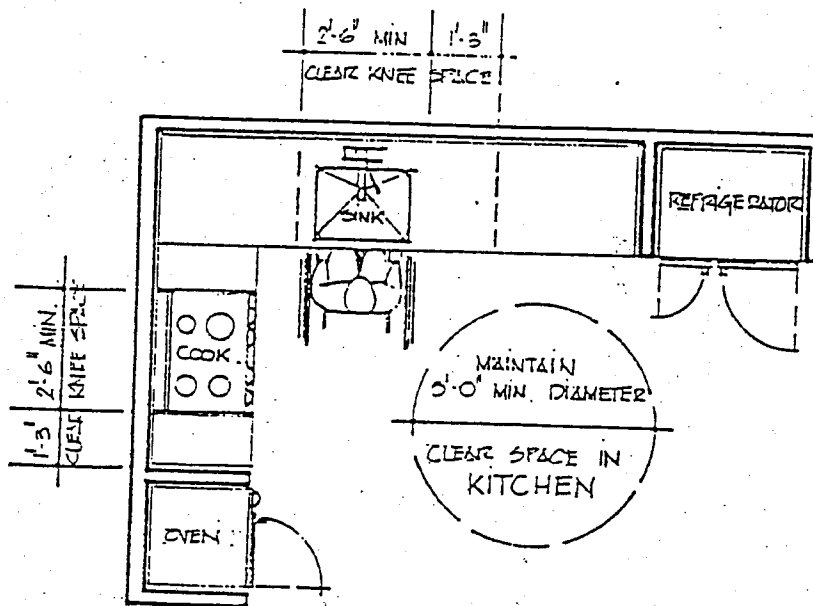
32.3.1 Counter tops shall contain a sink and a cooking unit, and structural support shall be provided to relocate the sink and cooking unit counter top height from thirty (30) inches to forty (40) inches measured from the floor to the surface of the counter. A minimum of fifteen (15) inches counter space width shall be provided on at least one side of the cooking unit and sink which shall have a clear space underneath.

Wall cabinets may be one of the following:

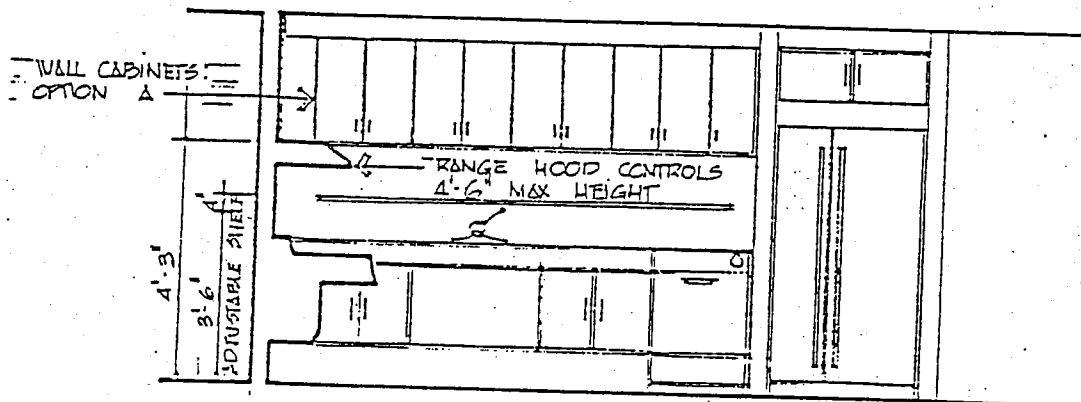
- (a) permanently fixed in height if the bottom of the cabinet is set at fifty-one (51) inches from the floor and provided that an adjustable shelf is installed between the counter top and the bottom of the fixed cabinet, which shelf is adjustable from forty-two (42) inches to forty-six (46) inches from the floor;
- (b) or a wall cabinet with a structural support shall be provided so as to make the cabinet adjustable from forty-two (42) inches to fifty-six (56) inches from the floor;
- (c) or a tall cabinet with dimensions of thirty (30) inches wide minimum and approximately seventy-two (72) inches in height may be installed. Cabinet opening devices shall be located at top of base cabinets and at bottom of wall cabinets.

32.3.2 Access spaces for the knees and feet of wheelchair user shall be provided under cooktop and sink, and elsewhere as space and storage considerations permit. Each such space shall be not less than thirty (30) inches wide. Where sink and cooking unit are within fifteen (15) inches of each other, access spaces under counter shall be continuous.

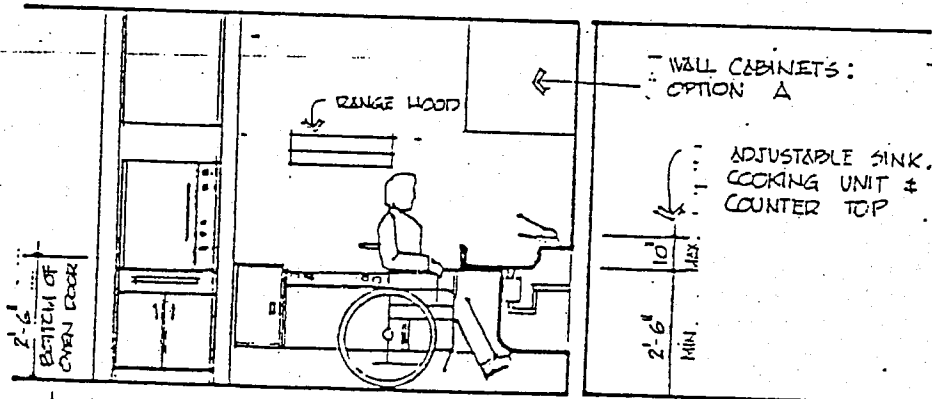
32.3.3 Counter shall be capable of adjustment in height from thirty (30) inches to forty (40) inches, measured from floor to counter top.



PLAN



ELEVATION



SECTION

- 32.4 Sink depth shall not exceed six (6) inches. Sink trap shall be located as close to rear wall as possible. Plumbing pipes shall be recessed, insulated, or guarded. Spout may swivel, shall have aerator, shall operate by a single lever and shall provide a flexible spray hose. Garbage disposals shall be provided in units for the handicapped, with control switch under counter at the front.
- 32.5 Cooking unit shall be the in-counter type, with controls at front, with open access space under counter. Where hood is provided, controls shall be located no higher than fifty-four (54) inches above the floor, or relocated within reach. Oven shall be wall-oven type set at such height that bottom of door is thirty (30) inches above the floor. Door to oven shall be side-hinged and shall swing away from cooking unit, with retractable "bread board" type of shelf concealed under counter at oven.
- 32.6 Refrigerator in dwelling units for the handicapped shall be combination refrigerator-freezer type with two (2) doors side by side and self-defrosting. Where space limitations require, two door freezer-above-refrigerator unit will be permitted provided bottom of freezer is no higher than forty-four (44) inches above the floor.
- 32.7 Bedrooms, dormitory rooms, hotel and motel rooms for the handicapped shall provide access space for persons in wheelchairs to use all furniture, to reach the windows and the closet pole, and shall provide clear space of sixty (60) inches in diameter minimum at one side of bed.
- 32.8 Closet shelves and pole shall be adjustable from forty-two (42) inches to seventy-two (72) inches. Closet doors shall permit access to the entire closet width.
- 32.9 When windows can be opened, they shall be operable by a person in a wheelchair.
- 32.10 Electrical outlets shall be located no lower than eighteen (18) inches from the floor.

General Laws, Chapter 22, Section 13A.

There shall be in the department a board to be known as the architectural barriers board, which shall consist of the secretary of the executive office of public safety or his designee, the secretary of the executive office of elder affairs or his designee, and five members appointed by the secretary of the executive office of public safety, with the approval of the governor, three of whom shall be selected from a list of nominees submitted by advocacy groups in behalf of the physically handicapped. The members initially appointed by said secretary shall serve for one, two, three and four years, respectively, according to the terms of their respective appointments. Upon expiration of the term of a member appointed by said secretary, his successor shall be appointed for a term of four years. Any vacancy in the office of a member appointed by the secretary of public safety shall be filled for the unexpired term. At all times, at least three members of the board shall be physically handicapped persons and the chairman of the board shall be elected annually by the members. Employees of the board shall not be subject to the provisions of chapter thirty-one.

Each board member appointed by said secretary shall be paid for each day while in the actual performance of official functions at such rate as shall be approved by the commissioner of administration and shall also receive from the commonwealth all expenses necessarily incurred in connection with such official functions. Any board member appointed by said secretary absent from three consecutive board meetings, which absence is not for reasons of health, may be removed from membership by said secretary upon request of a majority of the members of the board.

The board shall make and from time to time alter, amend and repeal, in accordance with the provisions of chapter thirty A, rules and regulations designed to make public buildings accessible to, functional for, and safe for use by the physically handicapped persons and shall cause the dissemination of said rules and regulations, any amendments or revisions thereof, and other information, to persons requesting such information, including but not limited to, design and building professionals, architects, engineers, contractors, each state and local building inspector and building commissioner, state and local public works officials, each chief executive of cities and towns, and handicapped persons. All public newspaper solicitations for bids on projects regulated by this section shall state the requirement of conformity to rules and regulations of the board. Said rules and regulations shall be deemed to be a specialized code as referred to in section nineteen of chapter twenty-three B, violation of which shall be subject to the provisions of section seventeen of said chapter, and which shall constitute gross negligence for the purposes of clause (d) of section sixty G of chapter one hundred and twelve. In addition to the penalties

provided for violations of the state building code, the board shall have the power of local and state inspectors in the enforcement of its rules and regulations, including but not limited to, the right to enter all public buildings as defined by this section, and the power to institute and prosecute proceedings in the superior court to compel such compliance. In any such proceedings, the board or any member thereof may appear pro se or be represented by the attorney general or by counsel employed or designated by it for such purpose. The board shall not be required to pay any entry fee in connection with the institution of any such proceedings.

There shall be no construction, reconstruction, alteration or remodeling of a public building except in conformity with said rules and regulations, nor shall the use of any buildings be changed to a use in which the building is open to and used by the public as defined in this section until such building so conforms, nor until a copy of the plans and specifications have been approved as provided in this section and in section three W of chapter one hundred and forty-three, showing compliance with said rules and regulations; provided, however, that if the said board determines that compliance with said rules and regulations is impracticable in the particular case, it may provide for modification of, or substitution for, such rule or regulation.

Five percent of the units in lodging or residential facilities for hire, rent or lease, containing twenty or more units, shall be accessible, functional and safe units for physically handicapped persons.

The board shall receive complaints of noncompliance with this section or any rule or regulation promulgated hereunder from any person. The board shall investigate each such complaint and take such action thereon as is consistent with this section. The board shall, within sixty days of receipt of any such complaint, give notice in writing to the complaining party of its actions or proposed actions.

The following words, as used in this section, shall have the following meanings:-

"Alteration", external or internal rehabilitation or renovation for which a building permit is needed or for which the cost of such rehabilitation or renovation equals or exceeds five percent of the full and fair cash value of the building or, any work determined to be alteration by a state or local building inspector.

"Board", the architectural barriers board established by this section.

"Construction", work for which a building permit is required, work determined to be construction by a state or local building inspector, or work for which a certificate of occupancy is necessary upon completion.

"Physically handicapped person", a person confined to a wheelchair; a person who, because of the use of braces or crutches or because of the loss of a foot or a leg, or because of an arthritic, spastic, pulmonary or cardiac condition, walks with difficulty or insecurity; a person who, due to a brain, spinal or peripheral nerve injury, suffers from faulty coordination or palsy; a person who is blind or whose sight is so impaired that, functioning in a public area, he is insecure or exposed to danger; a person whose hearing is so impaired that he is unable to hear warning signals; and a person whose mobility, flexibility, coordination, and perceptiveness are significantly reduced by aging.

"Public building", buildings constructed by the commonwealth or any political subdivision thereof with public funds and open to public use, including but not limited to those constructed by public housing authorities, the Massachusetts Port Authority, the Massachusetts Parking Authority, the Massachusetts Turnpike Authority, the Massachusetts Bay Transportation Authority, or building authorities of any public educational institution, or their successors; and privately financed buildings that are open to and used by the public.

Buildings that are open to and used by the public shall include but not be limited to the following buildings: transportation terminals, institutional buildings, commercial buildings exceeding two stories in height in which more than forty persons are employed, buildings having places of assembly of a capacity of more than one hundred and fifty persons, hotels, motels, dormitories, public parking garages or lots with a capacity of twenty-five or more automobiles, public sidewalks and ways, public areas of apartment buildings and condominiums containing twelve or more units and of funeral homes, and rest rooms and public areas of shopping centers and restaurants.

"Reconstruction", the tearing down, removal, demolition or replacement of a public building or part of a public building.

"Remodeling", modification beyond an interior decoration or involving any structural change, or the refurbishing, updating or redecorating of a public building for which the cost of such refurbishing, updating or redecorating equals or exceeds five percent of the full and fair cash value of the building.

General Laws, Chapter 23B, Section 17, Paragraph (a).

.....Whoever violates any provisions of the state building code, except any specialized code, as described in section nineteen (19), which heretofore may have provided different penalties, shall be punished by a fine of not more than one thousand dollars or by imprisonment for not more than one year, or both, for each such violation. Each day during which any portion of a violation is permitted to exist shall constitute a separate offense.

General Laws, Chapter 23B, Section 19, Incorporation of Specialized Codes, Rules or Regulations.

The state building code shall incorporate any specialized construction codes, rules or regulations pertaining to building construction, reconstruction, alteration, repair or demolition promulgated by and under the authority of the various boards which have been authorized from time to time by the general court. The specialized codes referred to in this section shall include, but not be limited to, the state plumbing code, electrical code, fire safety code and elevator code.

GENERAL INFORMATION

- 1.1 Wheelchair dimensions: The collapsible-model wheelchair of tubular-metal construction with cloth or plastic upholstery is the most prevalent model manufactured and typically has the following dimensions:
 - 1.1.1 Length forty-eight (48) inches.
 - 1.1.2 Width when opened: twenty-eight (28) inches.
 - 1.1.3 Width when collapsed: thirteen and one-half ($13\frac{1}{2}$) inches.
 - 1.1.4 Height of seat from floor: nineteen (19) inches.
 - 1.1.5 Height of arm rest from floor: twenty-nine (29) inches.
- 1.2 Wheelchair use characteristics:
 - 1.2.1 Space required to turn a wheelchair three hundred and sixty (360) degrees is approximately sixty (60) inches by sixty (60) inches or approximately a sixty (60) inch diameter circle.
 - 1.2.2 Space required for two wheelchairs to pass each other is sixty (60) inches.
 - 1.2.3 Vertical reach averages sixty (60) inches above the floor.
 - 1.2.4 Horizontal reach (at tables, desk, etc.) averages thirty (30) inches.
 - 1.2.5 Diagonal reach (at wall-mounted dial telephone, towel dispenser, shelf, etc.) averages forty-eight (48) inches above the floor.
- 1.3 Crutch use characteristics:
 - 1.3.1 Width of path of travel of an individual five (5) feet six (6) inches tall averages thirty-one (31) inches.
Width of path of travel of an individual six (6) feet tall averages thirty-two and one-half ($32\frac{1}{2}$) inches.
Width of path of travel of an individual six (6) feet six (6) inches tall averages thirty-four (34) inches.