CHAPTER 4
PARKING LOTS, CURB CUTS/CURB RAMPS AND PASSENGER LOADING ZONES

4.1 GENERAL REQUIREMENTS

4.1.1 If parking lots and/or parking decks are furnished for buildings to which 1.2 applies, then accessible parking spaces shall be provided. **Vol. I-C, 3.4(a), 3.4(c); ADAAG 4.1.2(5)**

4.1.1.1 Parking lots and/or parking decks serving a general area (as distinct from serving a particular building, or group of buildings on the same site) shall have accessible parking spaces in compliance with this Chapter. **Derived From FR 7/26/91 At 35431**

*4.1.2 ***General Statutes 20-37.5 and 20-37.6 contain the definition of handicapped and parking privileges of the handicapped; legal signage, including maximum penalty signage for illegal parking, and use of accessible parking spaces are all included in Appendices A, B, C, and H.*** **Vol. I-C, 3.4(a)**

4.2 MINIMUM NUMBER OF SPACES

4.1.2 And 4.2.1 Satisfy ADAAG 4.1.2(7)(a)

*4.2.1 Accessible parking spaces shall be provided in compliance with the following table ***and shall be identified with above-ground signs as specified in General Statutes 20-37.6 and 136-30 (see Appendices C and H), and the North Carolina Department of Transportation Manual on Uniform Traffic Control Devices:***

TOTAL NUMBER OF SPACES IN LOT	MINIMUM NUMBER OF ACCESSIBLE SPACES
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	two percent (2%) of total
1,001 and over	20 plus 1 for each 100 over 1,000

Vol. I-C, 3.4(b)(1); ADAAG 4.1.2(5)(a)

4.2.2 One in every eight (1 in 8) accessible parking spaces, or a minimum of one (whichever is the greater number), shall be van accessible and shall be identified with the words "Van Accessible" on an above-ground sign. Van accessible parking spaces shall be open to all vehicles properly identified in compliance with General Statute 20-37.6. **ADAAG 4.1.2(5)(b) ADAAG 4.6.4**

4.2.2.1 If only one (1) accessible parking space is required, then it shall be van accessible. **Derived From FR 7/26/91 At 35416**

*4.2.3 ***Accessible parking spaces and access aisles located on hard or paved surfaces (e.g., asphalt, concrete, etc.) shall be marked by painted lines or other suitable means.*** Access aisles shall be clearly delineated (e.g., painted lines, change in ground surface materials, solid color, etc.). **FR 7/26/91 At 35432**

4.3 SPECIAL APPLICATIONS

4.3.1 MULTI-FAMILY DWELLINGS: See 30.4.1.4. **Cross-Reference**

4.3.2 FACILITIES PROVIDING MEDICAL CARE AND MEDICALLY RELATED SERVICES FOR PERSONS WITH MOBILITY IMPAIRMENTS: See 28.1.4 **Cross-Reference**

***4.3.3 AUTOMOBILE/MOTOR VEHICLE SHOWROOMS**

4.3.3.1** ***The minimum number of accessible parking spaces required in compliance with 4.2.1 shall be computed from the total number of spaces provided for customers and employees. **Vol. I-C Interpretation**

4.3.3.2 The number of van accessible parking spaces shall be determined in compliance with 4.2.2 or 4.2.2.1, as applicable. **ADAAG 4.1.2(5)(b)**

4.4 SIZES OF ACCESSIBLE PARKING SPACES AND OVERHEAD CLEARANCE

4.4.1 Accessible parking spaces shall have a 96 inches (2440 mm) minimum width and a minimum 60 inches (1525 mm) wide access aisle. Two adjacent accessible parking spaces may share a common access aisle. **Vol. I-C, 3.4(b)(6); ADAAG 4.1.2(5)(a), 4.6.3**

4.4.2 Van accessible parking spaces shall have a 96 inches (2440 mm) minimum width and a minimum 96 inches (2440 mm) wide access aisle. Two adjacent van accessible parking spaces may share a common access aisle. (**NOTE:** If all accessible parking spaces comply with this Paragraph, then "Van Accessible" signs are not required.) **ADAAG 4.6.3, Figure 9** **ADAAG 4.1.2(5)(b)** **ADAAG A4.6.3**

4.4.2.1 If a van accessible parking space shares a common access aisle with an accessible parking space intended for a standard (i.e., non-van) vehicle, then the access aisle shall be have a 96 inches (2440 mm) minimum width. **Derived From FR 7/26/91 At 35416**

4.4.3 The front of the access aisle shall connect to the accessible route that leads to an accessible entrance of the building or facility **FR 7/26/91 At 5432**

4.4.4 Parked vehicle overhangs shall not reduce the minimum clear width of an accessible route. **ADAAG 4.6.3**

*4.4.5 Van accessible spaces and the vehicular route to these spaces from the site or parking deck entrance(s) or exit(s) shall have a ***108 inches (2.75 m)*** minimum overhead clearance. (***NOTE: Overhead clearance at accessible parking spaces serving standard [i.e., non-van] vehicles is not regulated by this Code.***) **108": Vol. I-C, 3.4(c)(3)**

*4.4.6 Accessible parking spaces and access aisles may have ***a 1/4 inch per foot (6mm per 305 mm)*** maximum slope in all directions for drainage. **Vol. I-C, 3.4(b)(6); ADAAG 4.6.3**

4.5 PARKING DECKS

4.5.1 Parking decks serving non-medical buildings and facilities shall comply with 4.2 and the applicable requirements of 4.4. (For decks serving outpatient units and facilities, or units and facilities specializing in the treatment or services for mobility impaired persons, see 28.1.4.1 or 28.1.4.2, as applicable.) **From Vol. I-C, 3.4(c)(1); ADAAG 4.1.2(5)(b)**

*4.5.2 All accessible spaces may be located on one level of a parking deck provided that the designated parking level furnishes access to the building which it serves. ***For a parking deck that serves more than one building, the required number of spaces shall be divided proportionally between the number of buildings and dispersed as necessary on the designated parking level(s).*** **Vol. I-C, 3.4(c)(2); ADAAG 4.1.2(5)(b)**

4.6 LOCATION AND TRAVEL DISTANCE

*4.6.1 ***Travel distance along accessible routes from accessible parking spaces to accessible entrances shall not exceed 200 feet (61 m).*** **Vol. I-C, 3.4(b)(7)**

4.6.1.1 For buildings having multiple accessible entrances with adjacent parking, accessible spaces shall be dispersed and located to the serve those entrances. **ADAAG 4.6.2**
(**E.G.:** For a multiple entrance building such as a shopping mall the accessible parking spaces shall be dispersed among the several accessible mall and major tenant entrances. For a multiple tenant building such as a shopping center, the accessible parking spaces shall be dispersed so as to afford access to the several tenant entrances.) **FR 7/26/91 At 35431**

4.6.2 A parking lot (or lots) that serves multiple buildings shall have the required number of accessible spaces located on an accessible route that connects parking access aisles to the accessible entrance(s) of the several buildings. **Derived From FR 7/26/91 At 35431**

SIGN R7-8

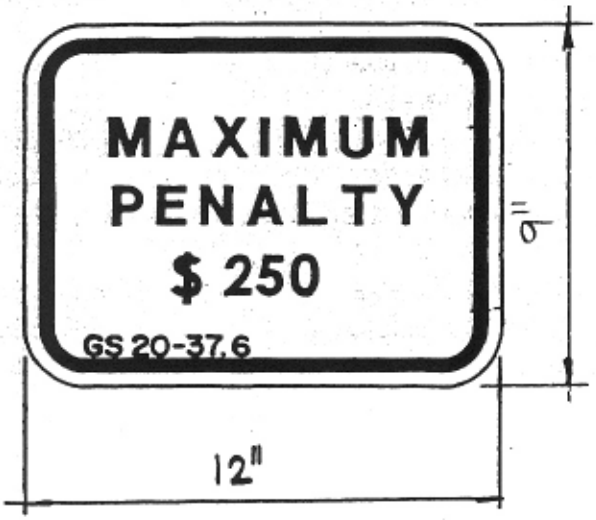
STANDARD COLORS (ALL SIGNS):
BACKGROUND - WHITE
LETTERING/BORDER - GREEN
ARROW - GREEN

FIGURE - WHITE ON BLUE FIELD

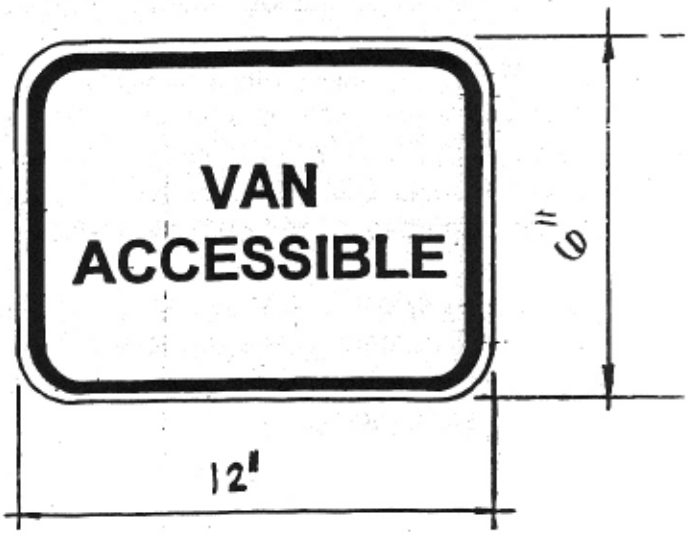
CORNER RADIUS - 1½" (TYPICAL)

SIGN SIZE REVISED BY NCDoT AUG. 2000; ADOPTED BY BUILDING CODE COUNCIL JUNE 2001

MAXIMUM PENALTY INCREASED BY NC GENERAL ASSEMBLY: HOUSE BILL 143, SESSION LAW 1999-265



SIGN R7-8D

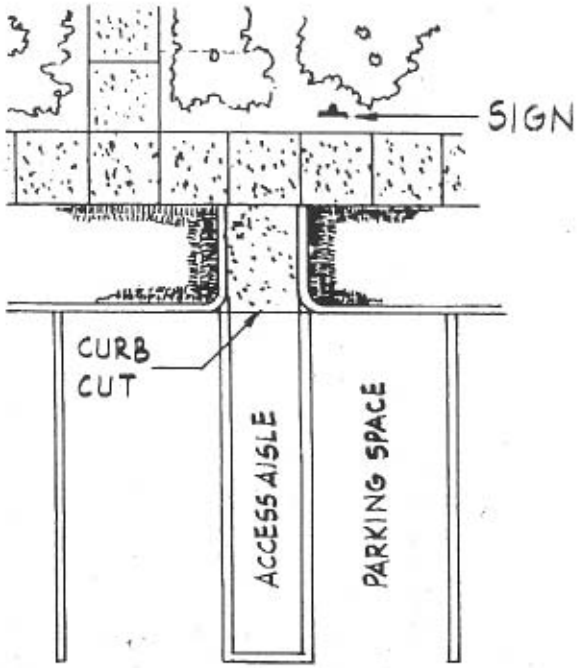


VAN ACCESSIBLE SIGN

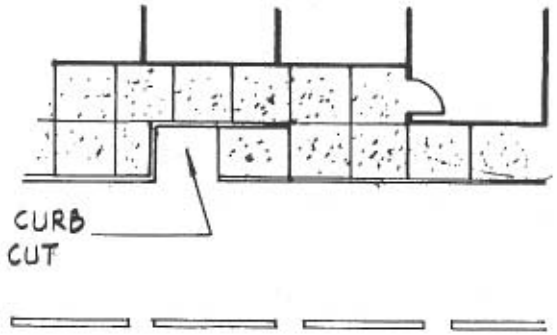
SIGN R7-8E

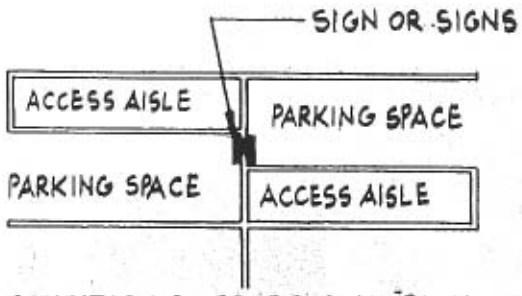
(COLORS/CORNER RADII SAME AS 4.1.2-PART 1)

THIS SIGN MAY BE USED IN PLACE OF SIGNS R7-8/R7-8D (SEE 4.1.2-PART 3)

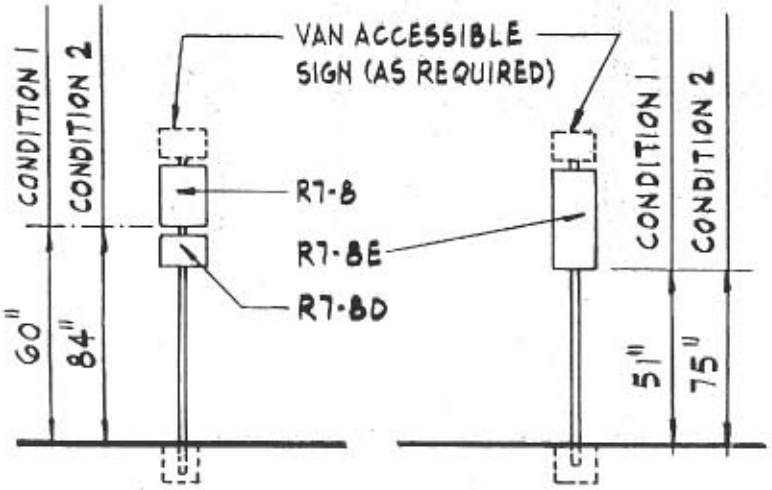


CONDITION 1: PEDESTRIAN PATH DOES NOT PASS UNDER OR AROUND SIGN.





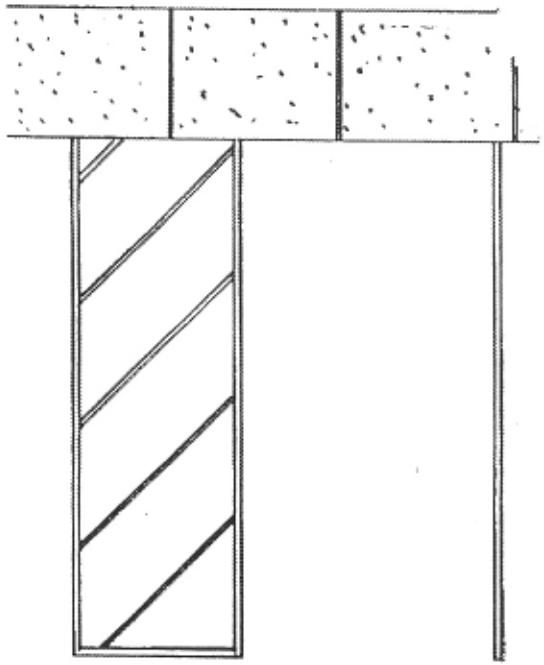
CONDITION 2: PEDESTRIAN PATH GOES BY, UNDER, OR AROUND SIGN.



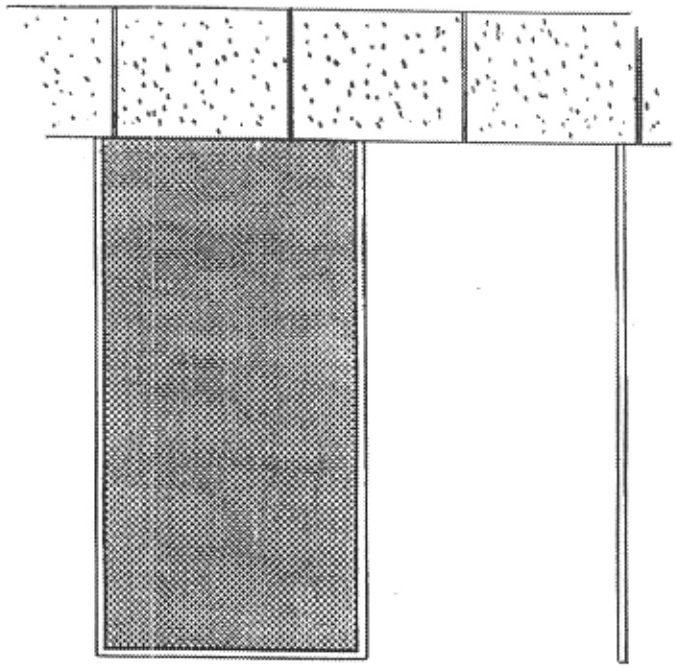
GENERAL NOTES:

1. REGARDLESS OF AGE, ALL ACCESSIBLE SPACES SHALL BE IDENTIFIED BY ABOVE-GROUND SIGNS ONLY. (SEE N.C.G.S.)
2. NEW SPACES SHALL NOT USE GROUND-PAINTED SYMBOLS.
3. ACCESSIBLE SPACES ARE REQUIRED TO BE STRIPED OFF ONLY; BLUE COLORING IS NOT NECESSARY NOR REQUIRED.
4. STRIPING IS WHITE ON DARK PAVEMENT; BLACK ON LIGHT PAVEMENT. (N.C.D.O.T.)

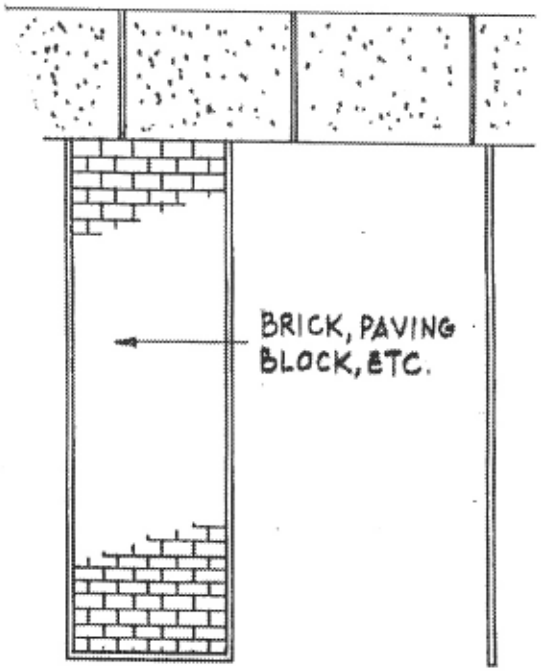
4.1.2- SIGN MOUNTING HEIGHTS AT ACCESSIBLE SPACES (PART 3)



STRIPING



SOLID COLOR

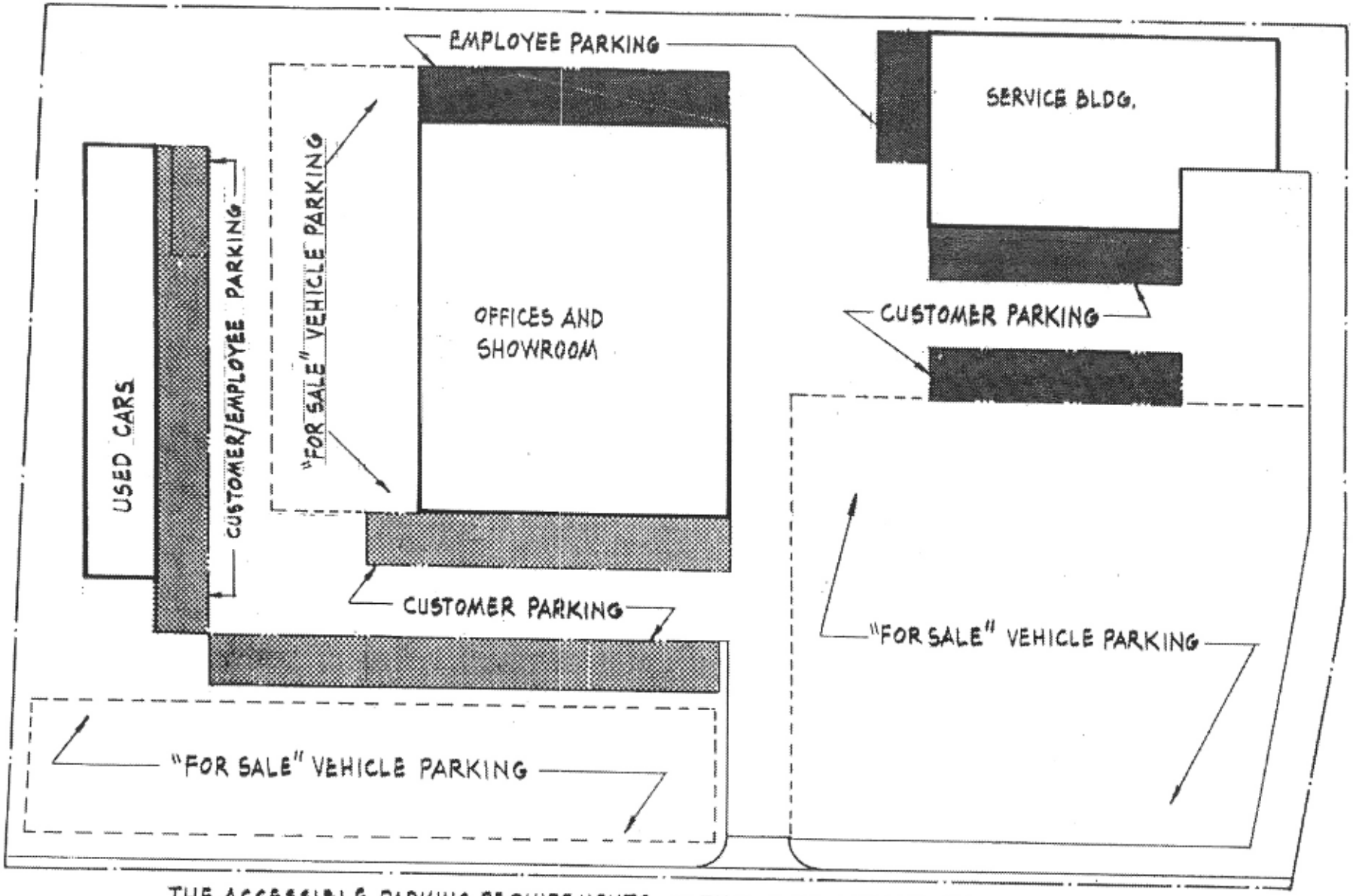


CHANGE IN MATERIALS

ACCESS AISLES SHALL BE CLEARLY MARKED OUT:

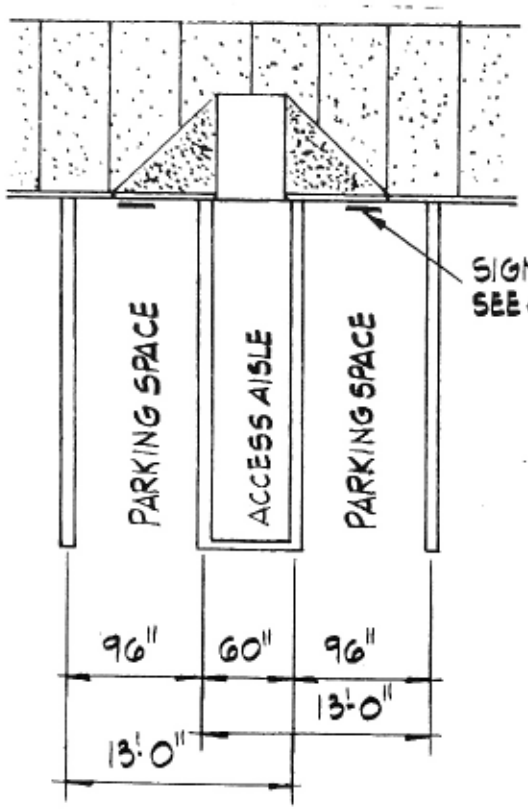
1. METHODS FOR MARKING ARE NOT LIMITED TO THE EXAMPLES ILLUSTRATED ABOVE.
2. CHANGE IN MATERIALS INCLUDES COMPLIANCE WITH CHAPTER 9 BOTH AT THE TRANSITION PERIMETER AND IN THE ACCESS AISLE ITSELF.
3. FOR UNPAVED PARKING FIELDS (CLAY, MARL, ETC.) WHICH WILL NOT HOLD PAINT, AN ACCESSIBLE PARKING AREA(S) SHALL BE IDENTIFIED WITH THE APPROPRIATE ABOVE-GROUND SIGNS.

4.2.3 - DELINEATION (MARKING) OF PARKING ACCESS AISLES

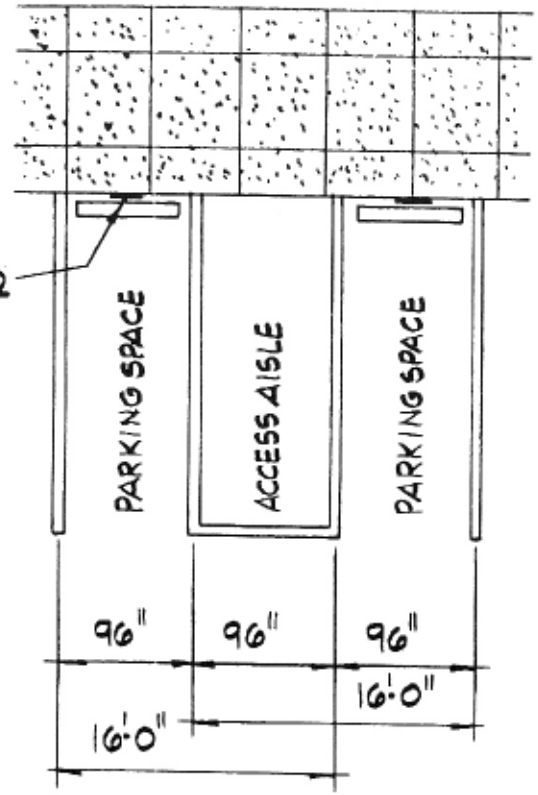


THE ACCESSIBLE PARKING REQUIREMENTS OF THIS CODE APPLY TO THE SHADED AREAS ONLY.

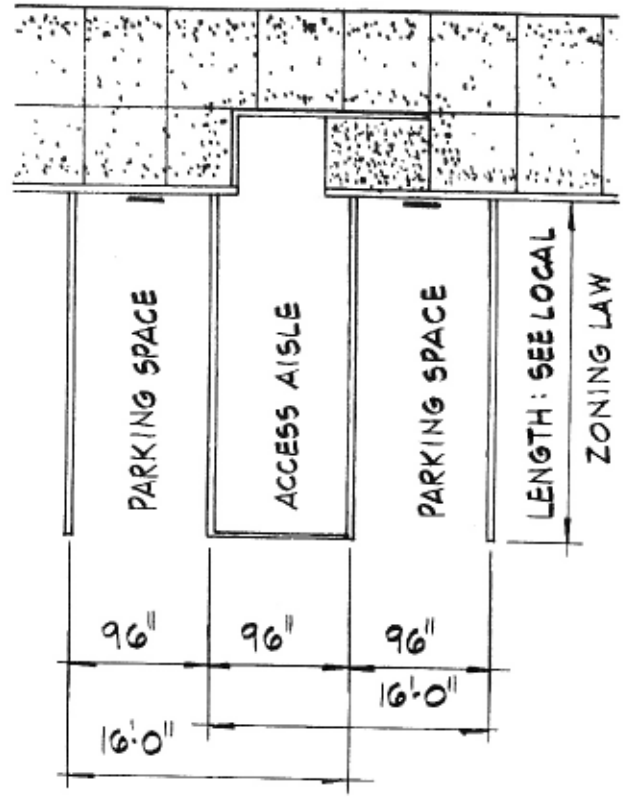
4.3.3 – ACCESSIBLE PARKING: AUTOMOBILE/MOTOR VEHICLE SHOWROOMS



4.4.1-PARKING SPACE(S) FOR STANDARD (NON-VAN) VEHICLES



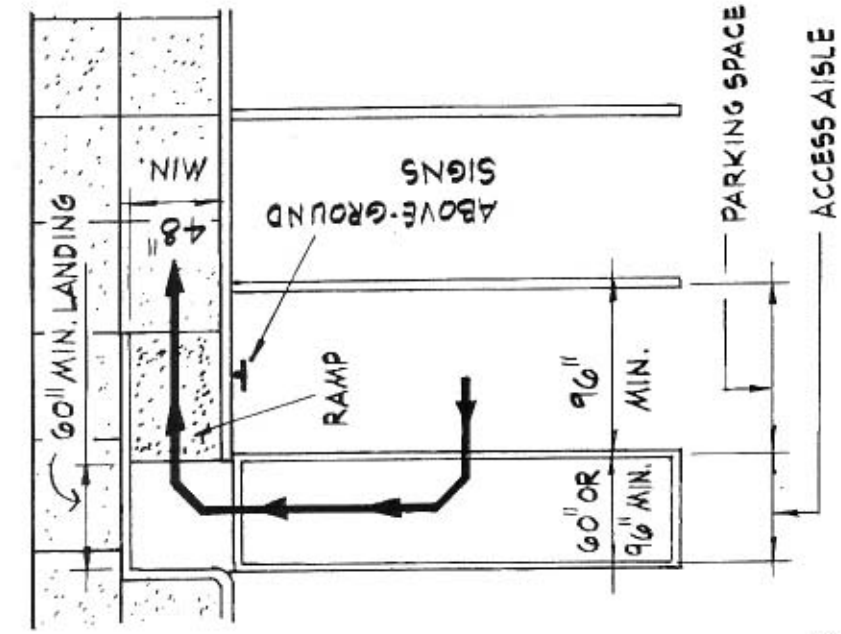
4.4.2-PARKING SPACE(S) FOR VANS



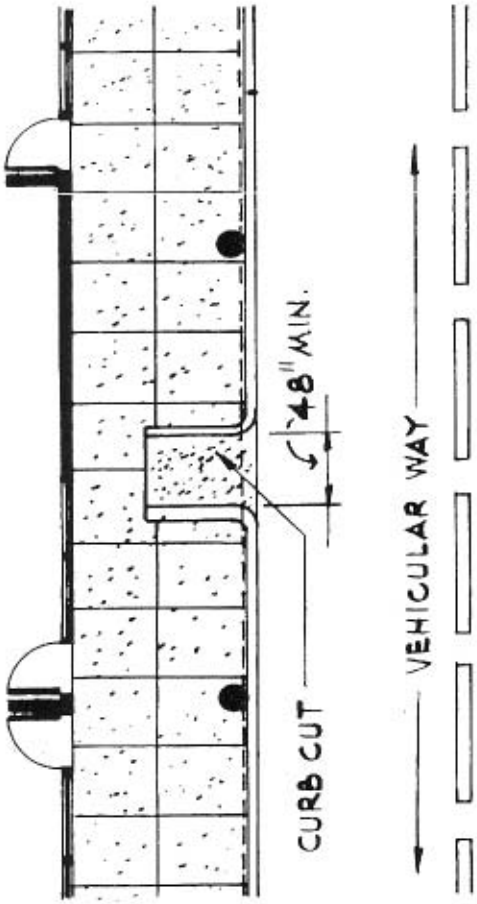
4.4.2.1-IF A NON-VAN PARKING SPACE SHARES AN ACCESS AISLE WITH A VAN ACCESSIBLE SPACE, THEN THE ACCESS AISLE SHALL BE 96" WIDE.

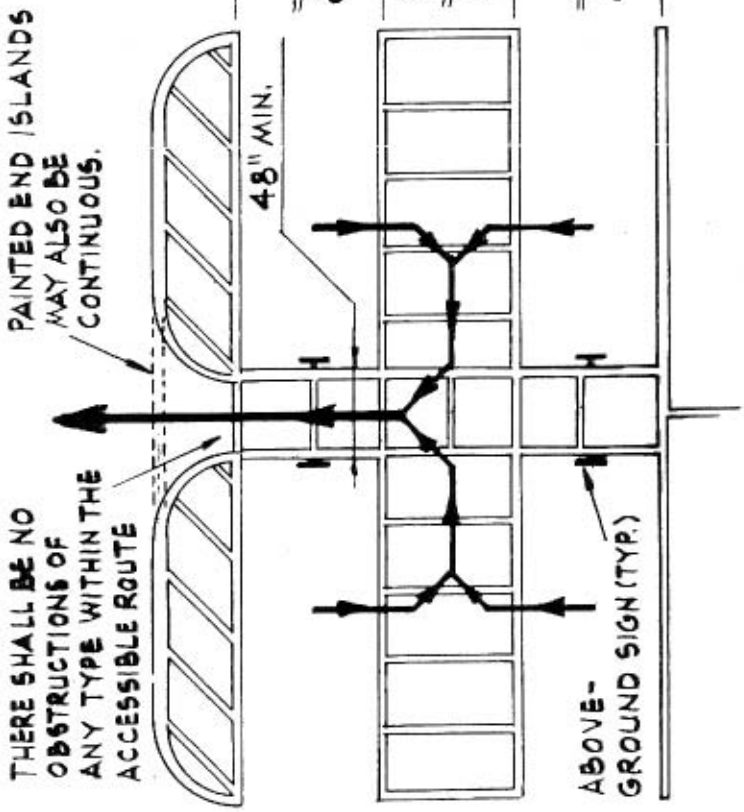
ALL DIMENSIONS ARE MINIMUM

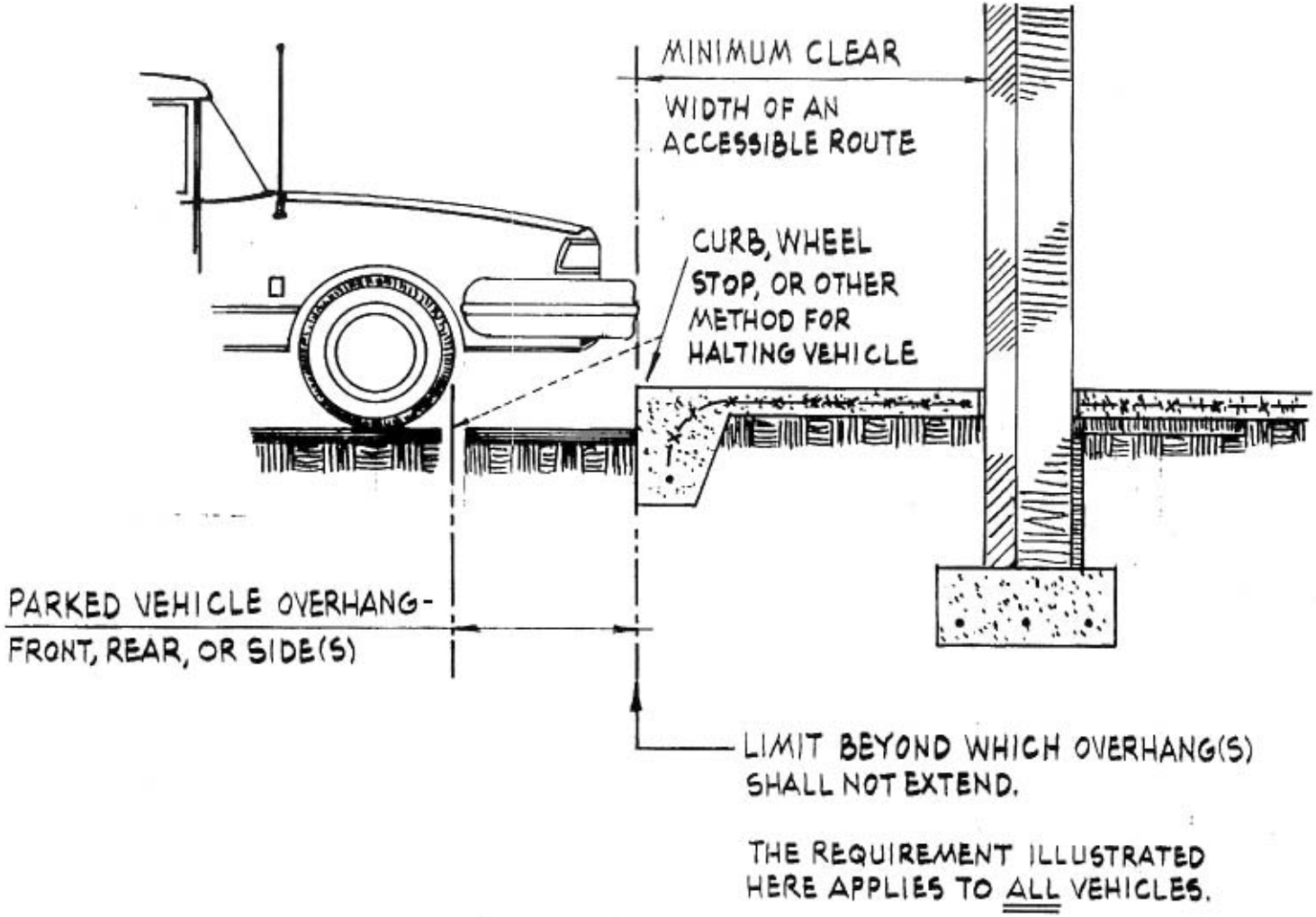
4.4-SIZES OF ACCESSIBLE PARKING SPACES



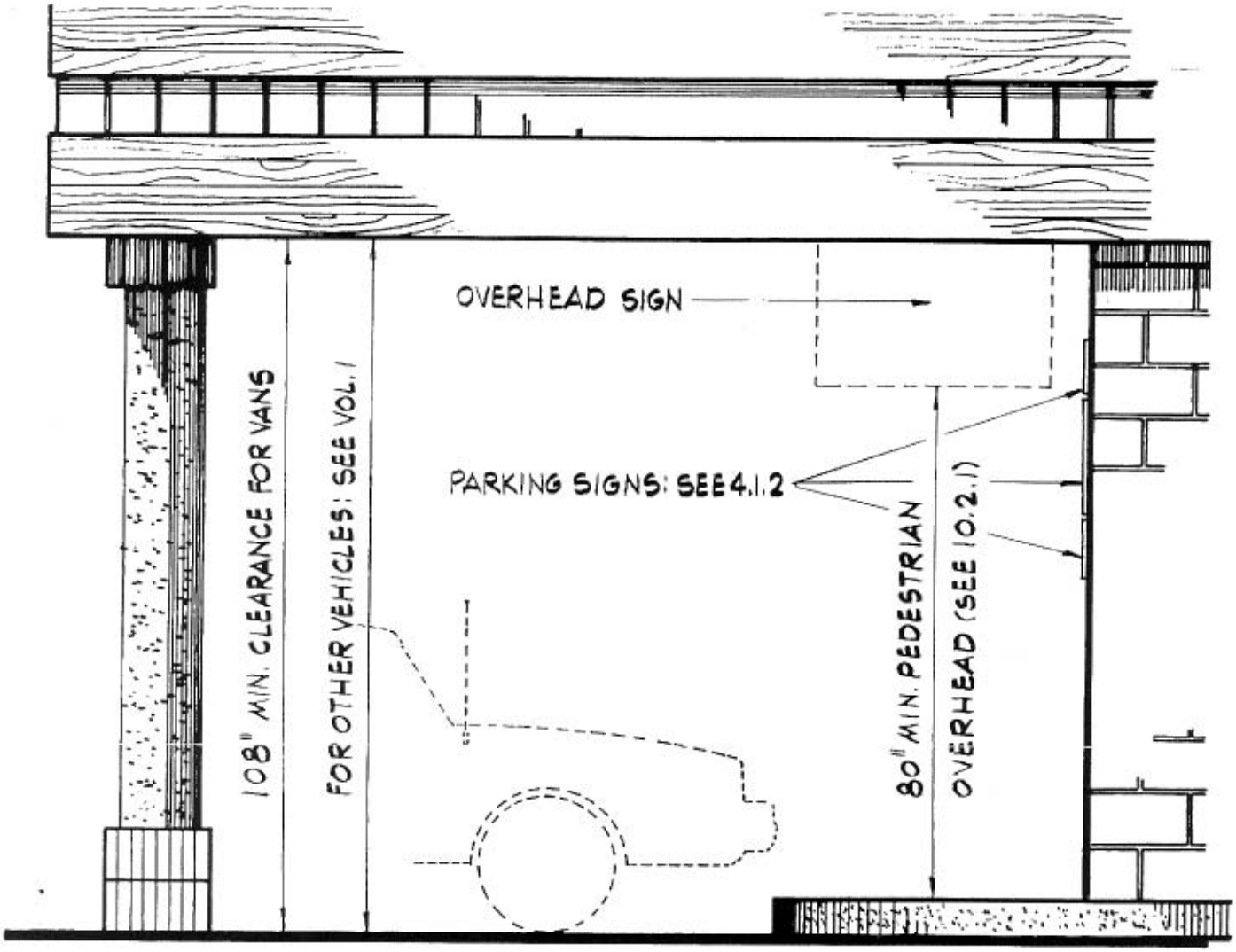
4.4.3- CONNECTION TO THE ACCESSIBLE ROUTE LEADING TO THE ACCESSIBLE ENTRANCE SHALL BE FROM THE FRONT OF THE ACCESS AISLE.



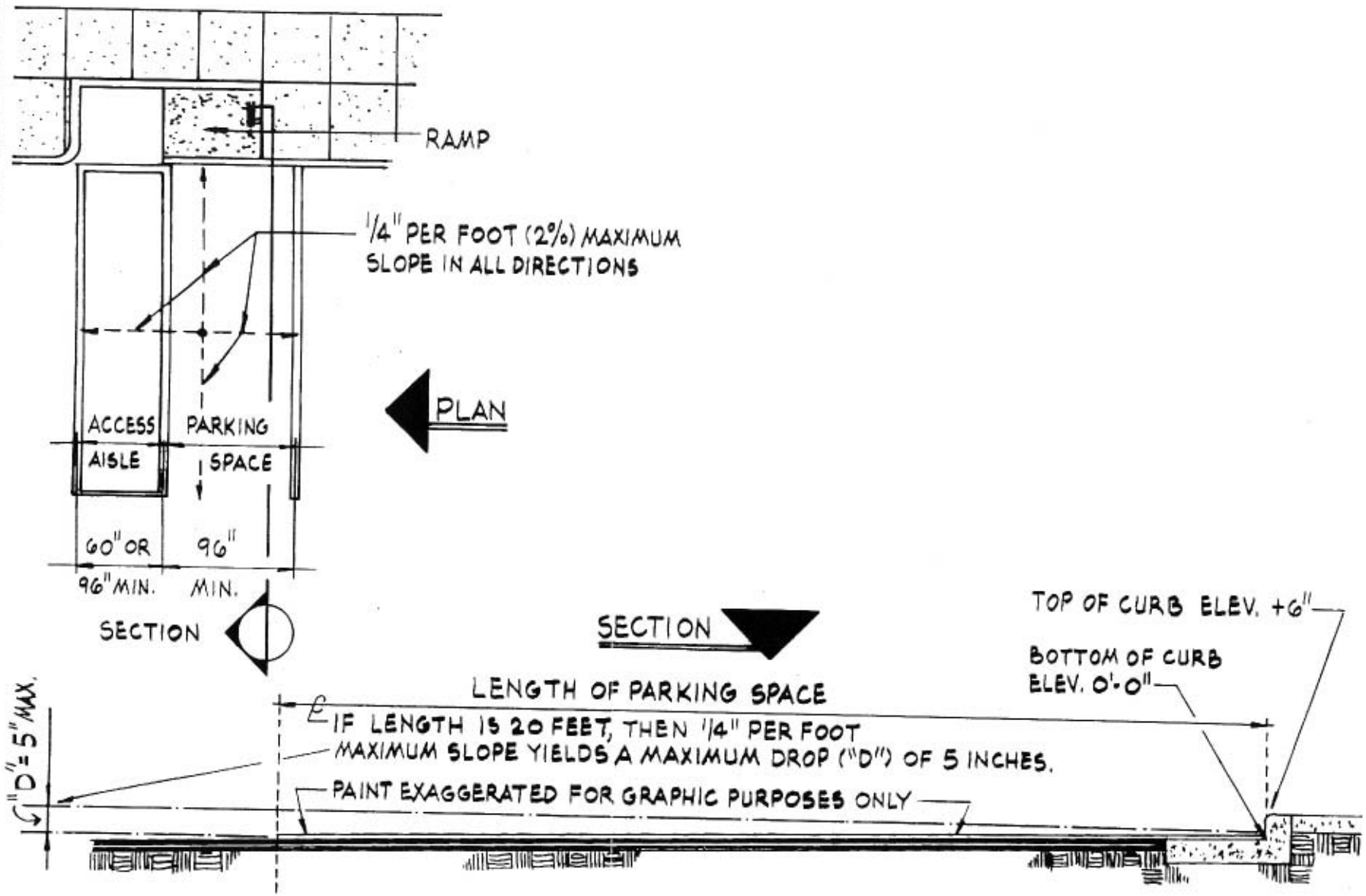




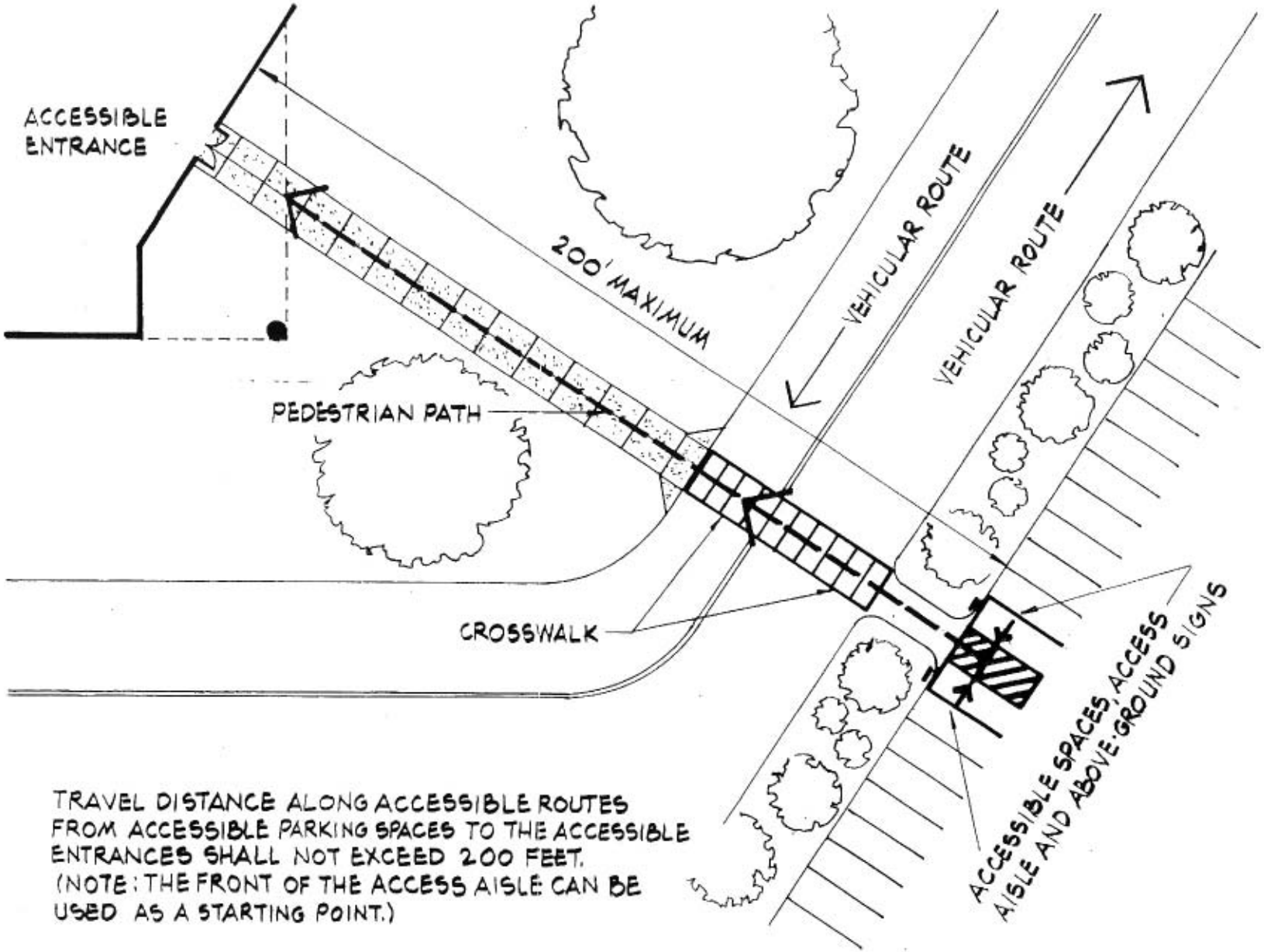
4.4.4.- ACCESSIBLE ROUTE AND PARKED VEHICLE OVERHANG(S)



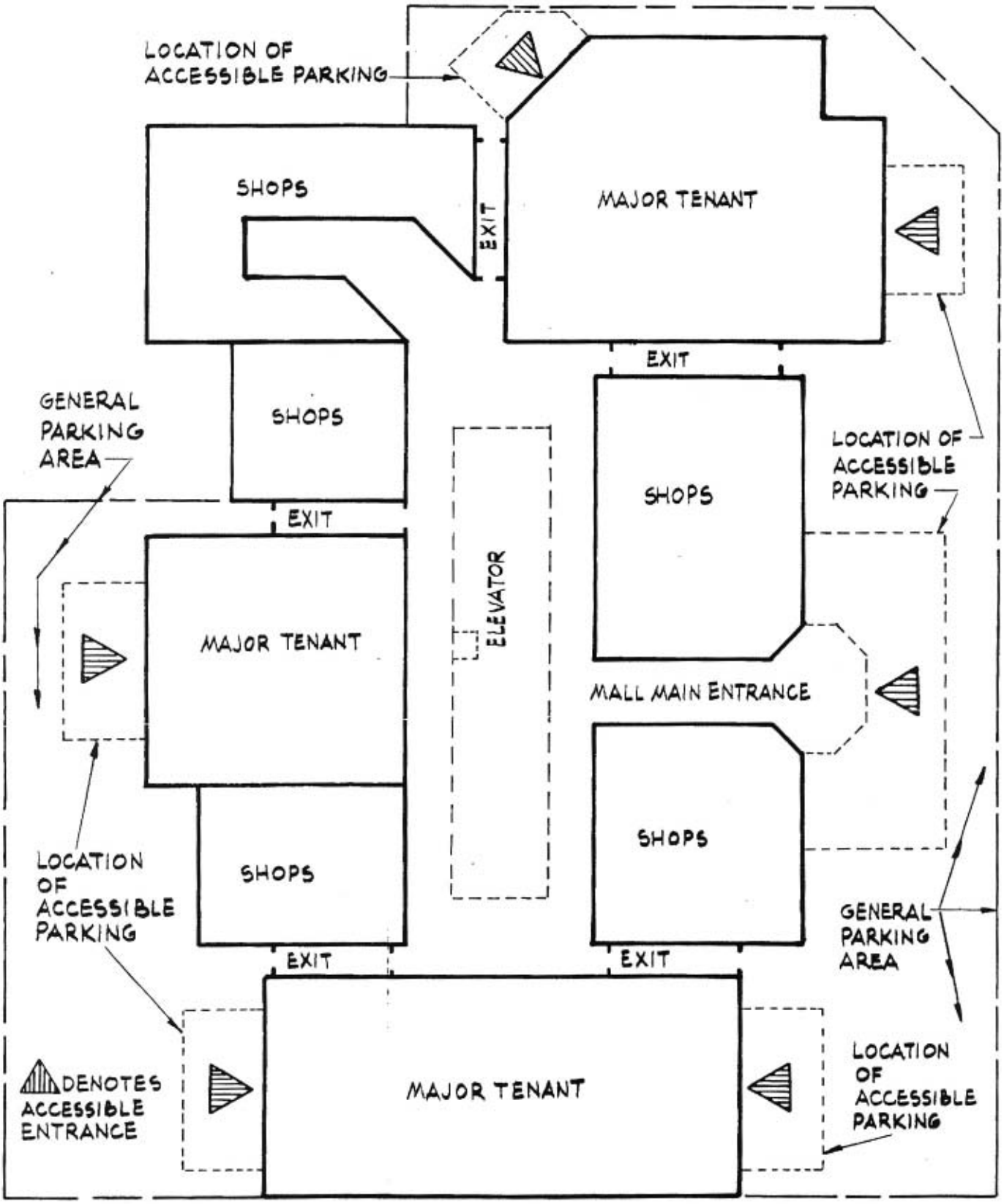
4.4.5- THE VEHICULAR ROUTE TO, FROM, AND AT VAN ACCESSIBLE PARKING SPACES SHALL HAVE A 108" MINIMUM OVERHEAD CLEARANCE.



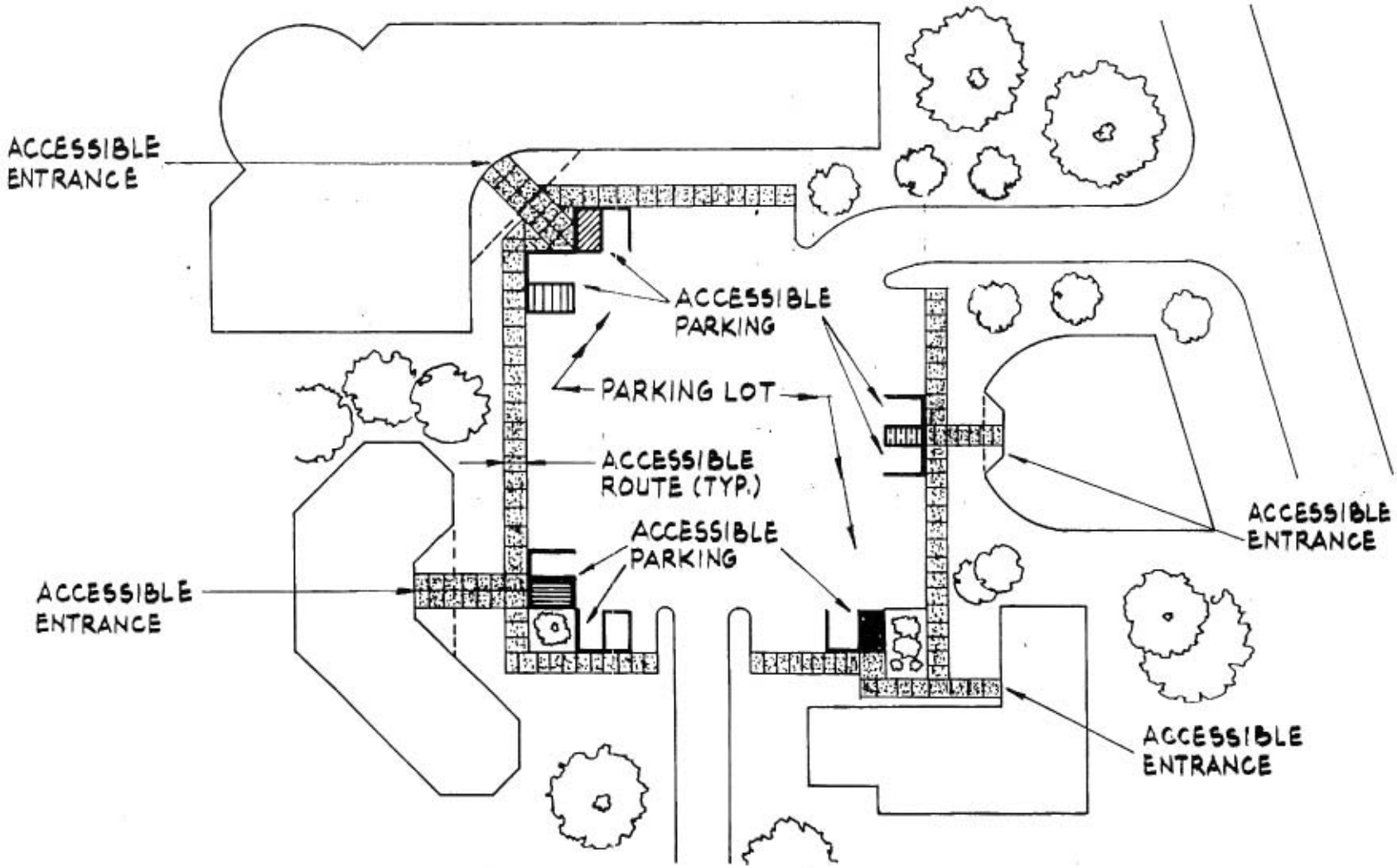
4.4.6 – DRAINAGE SLOPE: PARKING SPACES/ACCESS AISLES



4.6.1- ACCESSIBLE PARKING: LOCATION AND TRAVEL DISTANCE



4.6.1.1 – FOR A BUILDING (OR FACILITY) WITH MULTIPLE ACCESSIBLE ENTRANCES THE REQUIRED NUMBER OF ACCESSIBLE PARKING SPACES SHALL BE DISPERSED AND LOCATED TO SERVE THOSE ENTRANCES



4.6.2- FOR A PARKING LOT (OR LOTS) SERVING MULTIPLE BUILDINGS ACCESSIBLE PARKING SHALL CONNECT TO THE ACCESSIBLE ROUTE LEADING TO THE ACCESSIBLE ENTRANCE(S)

4.7 CURB CUTS AND CURB RAMPS

4.7.1 GENERAL REQUIREMENTS

4.7.1.1 Curb cuts and curb ramps provided at accessible parking spaces shall be located within the boundaries of the access aisle. Access aisles and curb cuts/curb ramps shall be open and unobstructed by planters, curbs, wheel stops, vehicle overhangs, etc. — **ADAAG 4.7.8; FR 7/26/91 At 35432**

4.7.1.1.1 Curb ramps shall not be permitted to project into any vehicular traffic lane nor shall they project into any access aisle — **ADAAG 4.7.6; FR 7/26/91 At 35432**

*__4.7.1.2__ Curb cuts and curb ramps shall be constructed of materials that are fixed, firm and non-slip (e.g., brick, concrete, wood, etc.). ***Curb ramps shall not be constructed of materials that are subject to crumbling, deterioration, or permanent deformation due to vehicular contact, exposure to heat, sun, light, water, or the weather.*** — **Sim. To: Vol. I-C, 4.1(a)(2); ADAAG 4.7.4**

*__4.7.1.3__ Walking surfaces of curb cuts or curb ramps shall have a ***48 inches (1220 mm) minimum clear width*** and a 1:12 (25mm:305mm) maximum slope. There shall be no abrupt changes where the curb cut or curb ramp meets walks, gutters, streets, parking lots, etc. Gutter and road surfaces immediately adjacent to a curb cut or curb ramp shall have a 1:20 (25mm:510mm) maximum slope. — **Vol. I-C, 3.2(b)(1); ADAAG 4.7.2 (1:20)**

4.7.1.4 Curb cuts located outside the 90 degree arc of a curb shall comply with 4.7.2. — **ADAAG 4.7.9, Figures 15(a), 15(b)**

4.7.1.5 Curb cuts that are constructed within the 90 degree arc of a curb are diagonal (corner) curb cuts and shall comply with 4.8. — **ADAAG Figures 15(c), 15(d)**

4.7.1.6 For handrails, see 5.4. — **ADAAG 4.8.5**

4.7.2 CURB CUTS

4.7.2.1 If the distance between the top of a curb cut and the far side of a public walk is 48 inches (1220 mm) or greater and pedestrians may walk across the curb cut, then side flares having a 1:10 (25mm:255mm) maximum slope shall be provided on both sides. — **ADAAG 4.7.5, Figure 12(a)**

4.7.2.2 If the distance between the top of a curb cut and the far side of a public walk is less than 48 inches (1220 mm) and pedestrians must walk across the curb cut, then side flares having a 1:12 (25mm:305mm) maximum slope shall be provided on both sides. — **ADAAG 4.7.5, Figure 12(a)**

4.7.2.3 If a curb cut is located so that pedestrians would not walk across it, then side flares are not required and the curb on both sides may return for the full depth of the curb cut. **ADAAG 4.7.5, Figure 12(b)**

4.7.2.4 If handrails or guardrails are provided, then the side flares may be omitted. **ADAAG 4.7.5**

4.7.2.5 Curb cuts shall have a continuous common surface as required by 3.3.3. **Vol. I-C, 3.3(b); ADAAG 4.7.2**

4.7.2.6 Curb cuts located at marked crossings shall be contained within the boundaries of the crossing markings, side flares excluded. **ADAAG 4.7.9**

4.7.3 CURB RAMPS

4.7.3.1 If pedestrians may walk across the ramp, then the side flares shall slope at 1:12 (25mm:305mm) maximum. If pedestrians do not walk across the ramp, then the side flares shall slope at 1:10 (25mm:255mm) maximum. **ADAAG 4.7.5**

4.7.3.2 If a curb ramp is constructed without side flares (i.e, it has straight, vertical sides), then handrails or edge protection shall be provided. **ADAAG 4.7.5**
(**NOTE:** For handrails, see 5.4; for edge protection, see 5.5.)

4.8 CORNER (DIAGONAL) CURB CUTS

4.8.1 The minimum clear width and maximum slope of a corner curb cut shall comply with 4.7.1.3. **ADAAG 4.7.2 (4.8.2)**

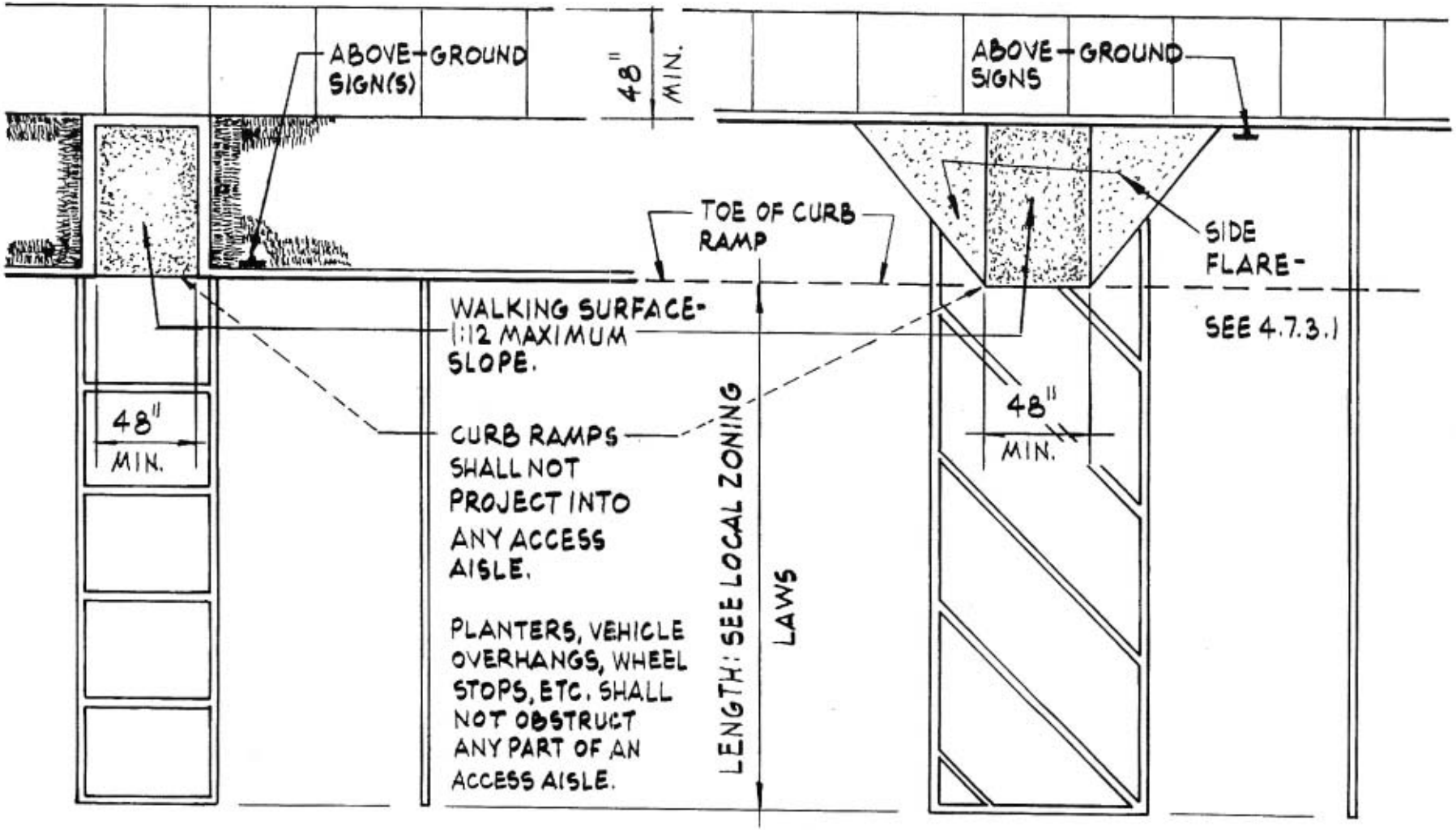
4.8.1.1 If side flares are provided, then a minimum 24 inches (610 mm) long straight curb segment shall be provided on each side of the curb cut beginning at the high point of the side flares and working away from the the curb cut. The straight segments, side flares and curb cut shall all be contained within the crosswalk markings. **ADAAG 4.7.10, Figure 15(c)**

4.8.1.2 If corner curb cuts are provided with returned curbs or other well defined edges (e.g., planter ends, knee walls, etc.), then such returned edges shall be parallel to the direction of pedestrian travel. **ADAAG 4.7.10, Figure 15(d)**

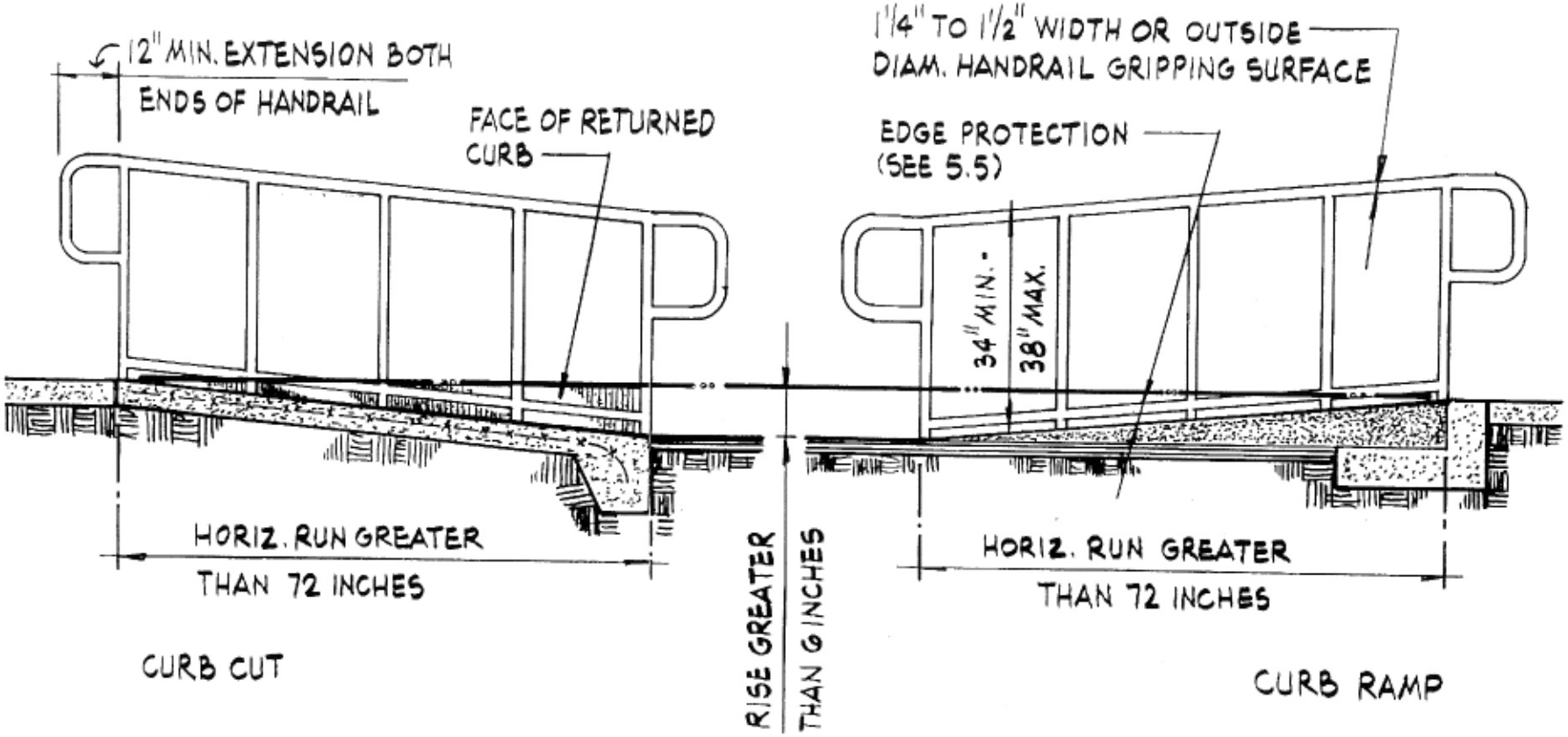
4.8.2 At the bottom of all corner curb cuts there shall be a 48 inches (1220 mm) minimum clear space measured from the mid-point of the arc of the curb at the toe to the nearest adjacent ground markings. The entire curb cut shall be contained within the crosswalk markings. **ADAAG 4.7.10, Fig. 15(c),15(d)**

* **4.8.3** ***Curb cuts or curb ramps provided under 4.7 or 4.8 are not required to comply with the 60 inches by 60 inches (1525 mm by 1525 mm) top landing requirement of 5.3.3.*** **Vol. I-C, 4.1(d)—NOTE**

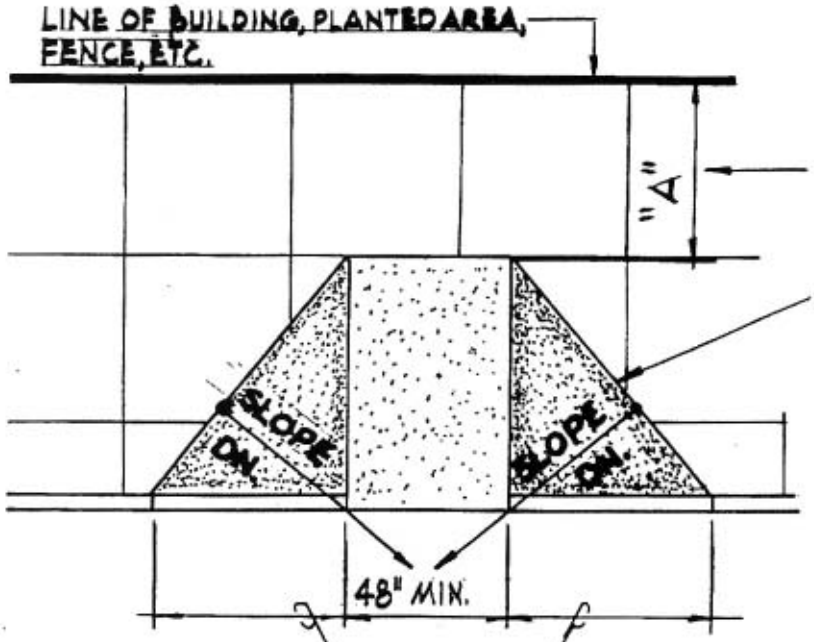
4.9 DETECTABLE WARNINGS ON CURB CUTS AND CURB RAMPS:
(RESERVED) **Temporarily Suspended: FR 4/12/94**



4.7.1- CURB CUTS AND CURB RAMPS: GENERAL REQUIREMENTS
(NOTE: THIS DRAWING DOES NOT ILLUSTRATE ALL REQUIREMENTS. REFER, ALSO, TO THE TEXT.)

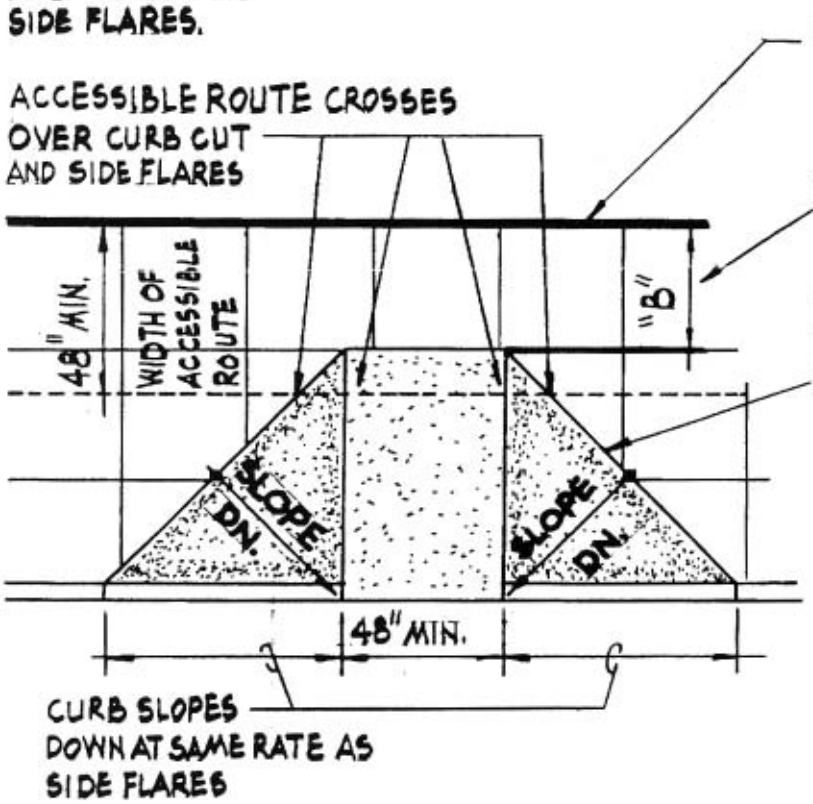


4.7.1.6- HANDRAILS SHALL BE REQUIRED ON CURB CUTS OR CURB RAMPS THAT HAVE A RISE GREATER THAN 6 INCHES OR A HORIZONTAL RUN GREATER THAN 72 INCHES.



4.7.2.1-

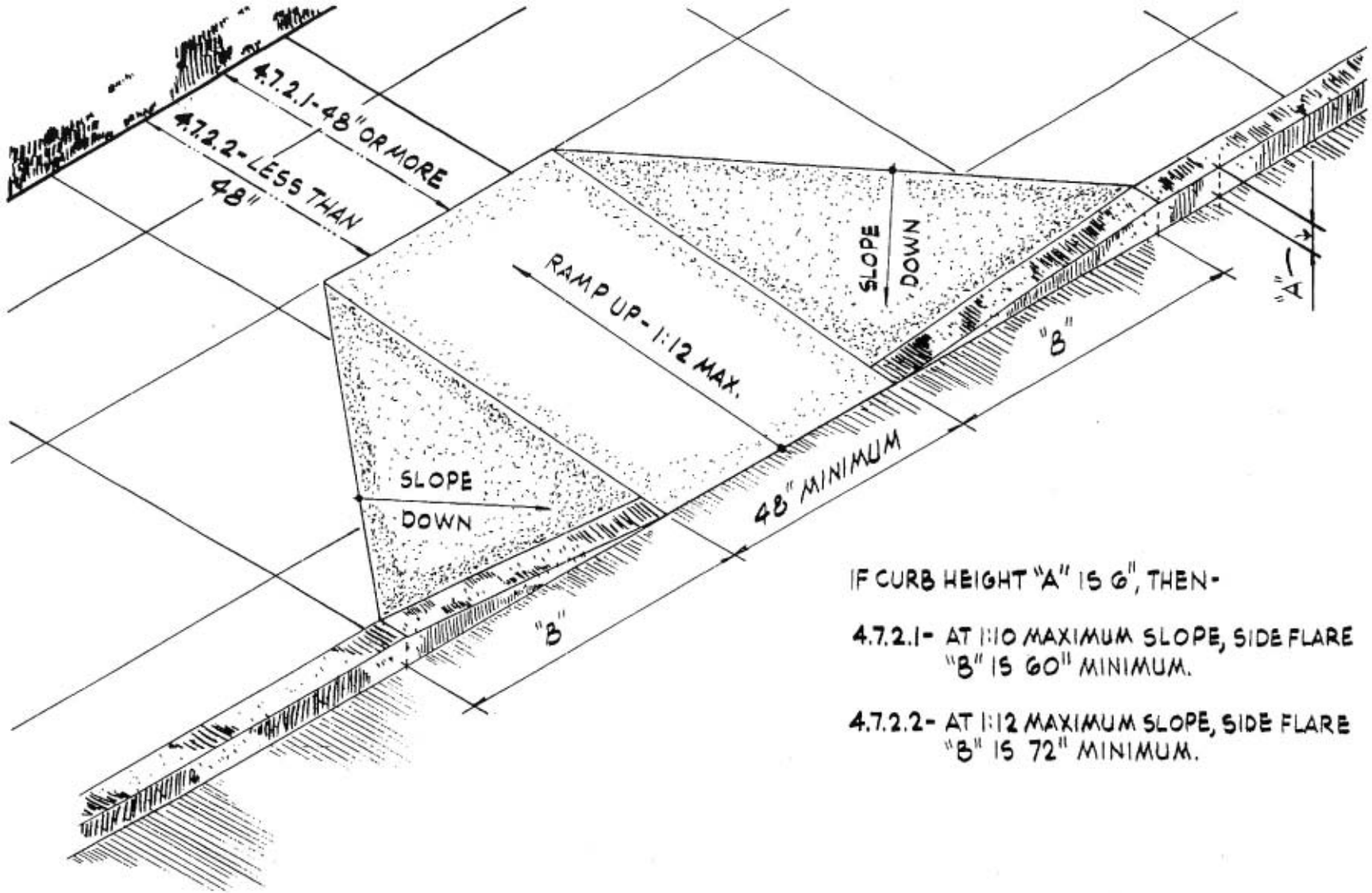
IF DIMENSION "A" IS 48" OR GREATER AND PEDESTRIANS MAY WALK ACROSS THE CURB CUT, THEN SIDE FLARES SHALL HAVE A 1:10 MAXIMUM SLOPE.



4.7.2.2-

IF DIMENSION "B" IS LESS THAN 48" AND PEDESTRIANS MUST WALK ACROSS THE CURB CUT, THEN SIDE FLARES SHALL HAVE A 1:12 MAXIMUM SLOPE.

4.7.2- CURB CUTS AND SIDE FLARES

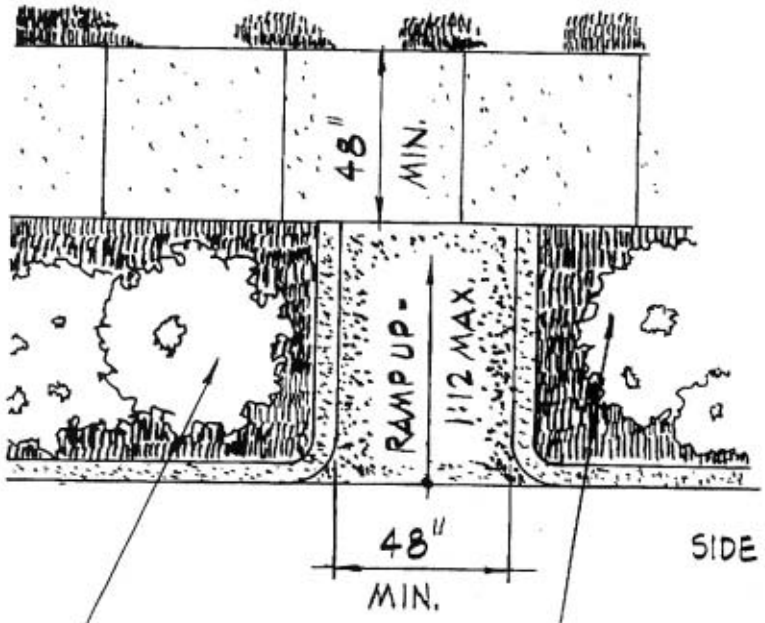


IF CURB HEIGHT "A" IS 6", THEN-

4.7.2.1- AT 1:10 MAXIMUM SLOPE, SIDE FLARE "B" IS 60" MINIMUM.

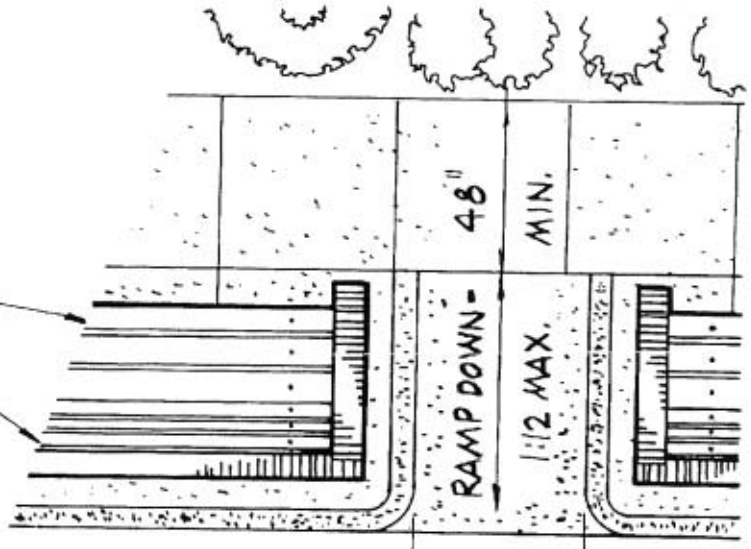
4.7.2.2- AT 1:12 MAXIMUM SLOPE, SIDE FLARE "B" IS 72" MINIMUM.

4.7.2- CURB CUTS AND SIDE FLARES



SIDE FLARES NOT REQUIRED

PLANTED AREAS
OR OTHER SURFACE MATERIAL
THAT IS NOT A PREPARED
PEDESTRIAN PATH

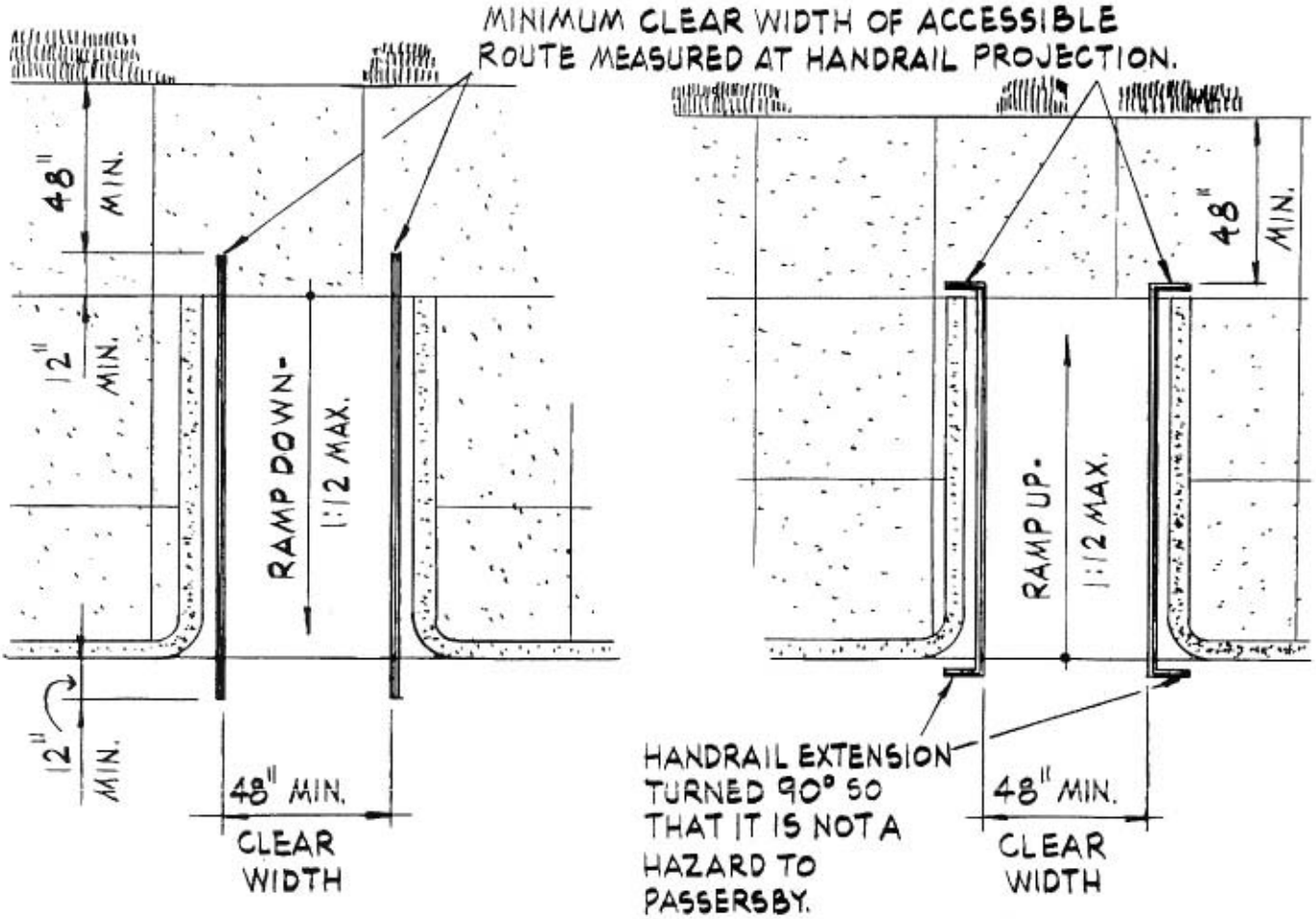


BENCH (SHOWN) OR
OTHER PERMANENTLY
INSTALLED ELEMENT

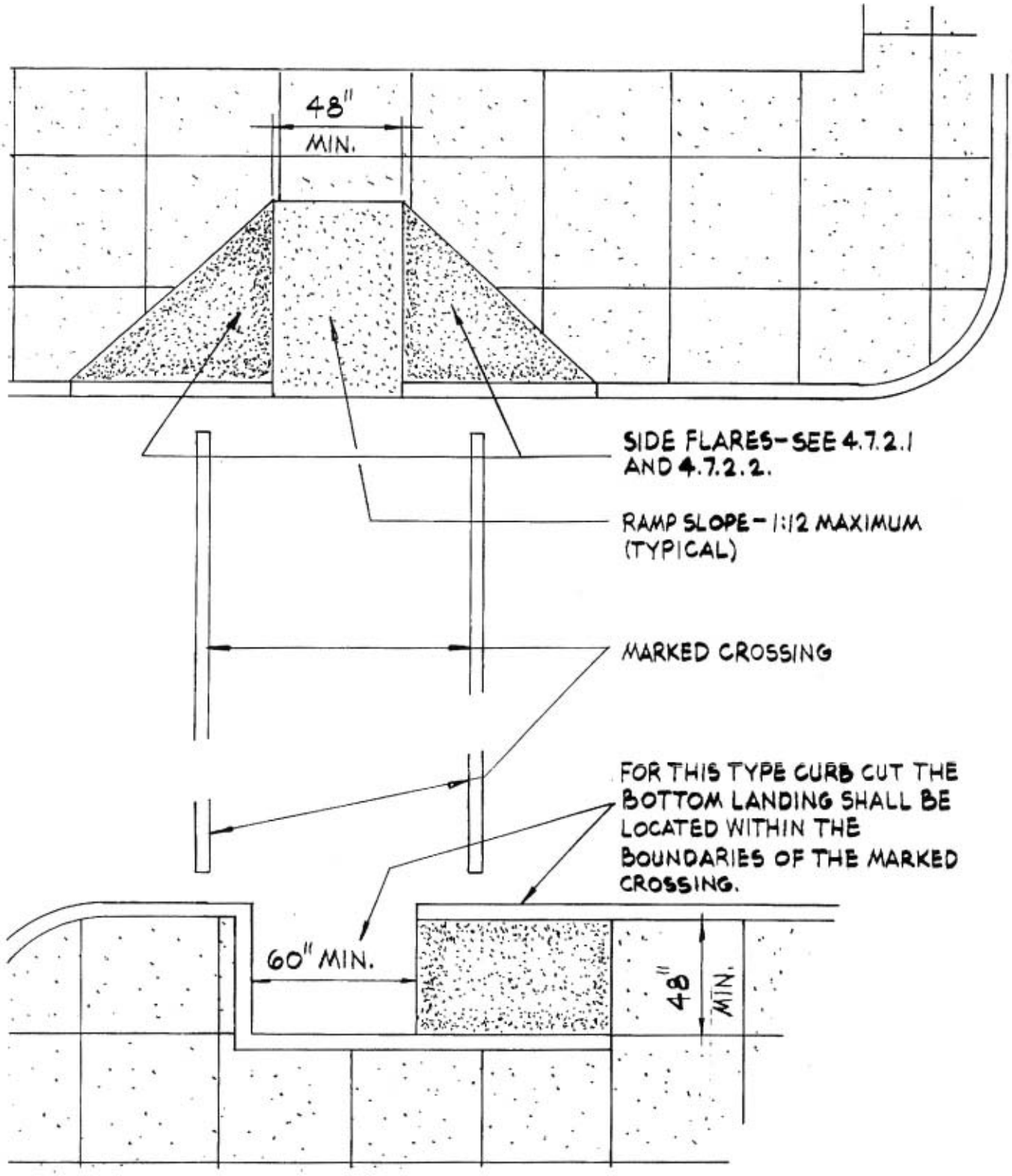
SIDE FLARES NOT REQUIRED

48"
MIN.

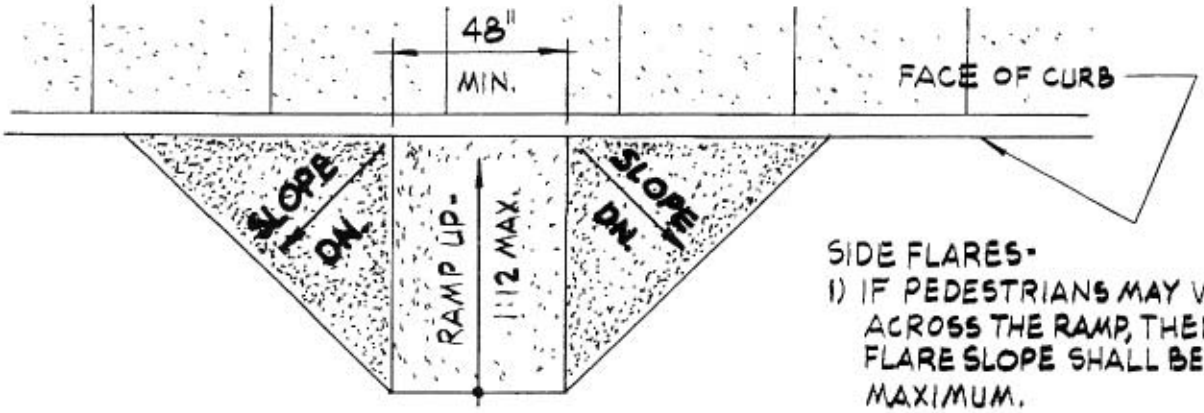
4.7.2.3- IF PEDESTRIANS DO NOT CROSS THE CURB CUT, THEN SIDE FLARES ARE NOT REQUIRED AND CURB ON BOTH SIDES MAY RETURN FOR FULL DEPTH OF CURB CUT.



4.7.2.4- CURB CUTS EQUIPPED WITH HANDRAILS MAY HAVE THE SIDE FLARES OMITTED.



4.7.2.6- EXCLUDING SIDE FLARES, CURB CUTS LOCATED AT MARKED CROSSINGS SHALL BE CONTAINED WITHIN THE BOUNDARIES OF THE CROSSING MARKINGS.



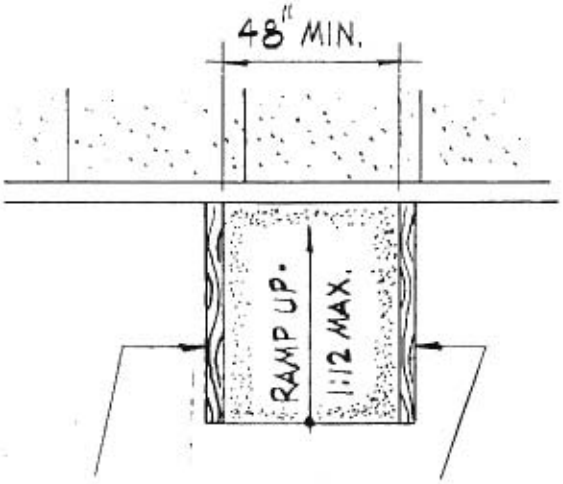
SIDE FLARES-

1) IF PEDESTRIANS MAY WALK ACROSS THE RAMP, THEN SIDE FLARE SLOPE SHALL BE 1:12 MAXIMUM.

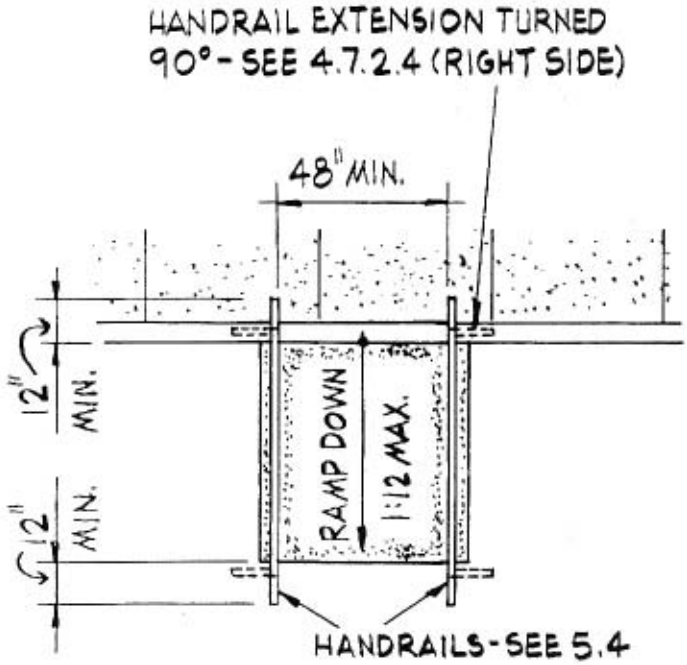
2) IF PEDESTRIANS DO NOT WALK ACROSS THE RAMP, THEN SIDE FLARE SLOPE SHALL BE 1:10 MAXIMUM.

4.7.3.1– CURB RAMP WITH SIDE FLARES

4.7.1.1.1– CURB RAMPS SHALL NOT PROJECT INTO ANY VEHICULAR TRAFFIC LANE.

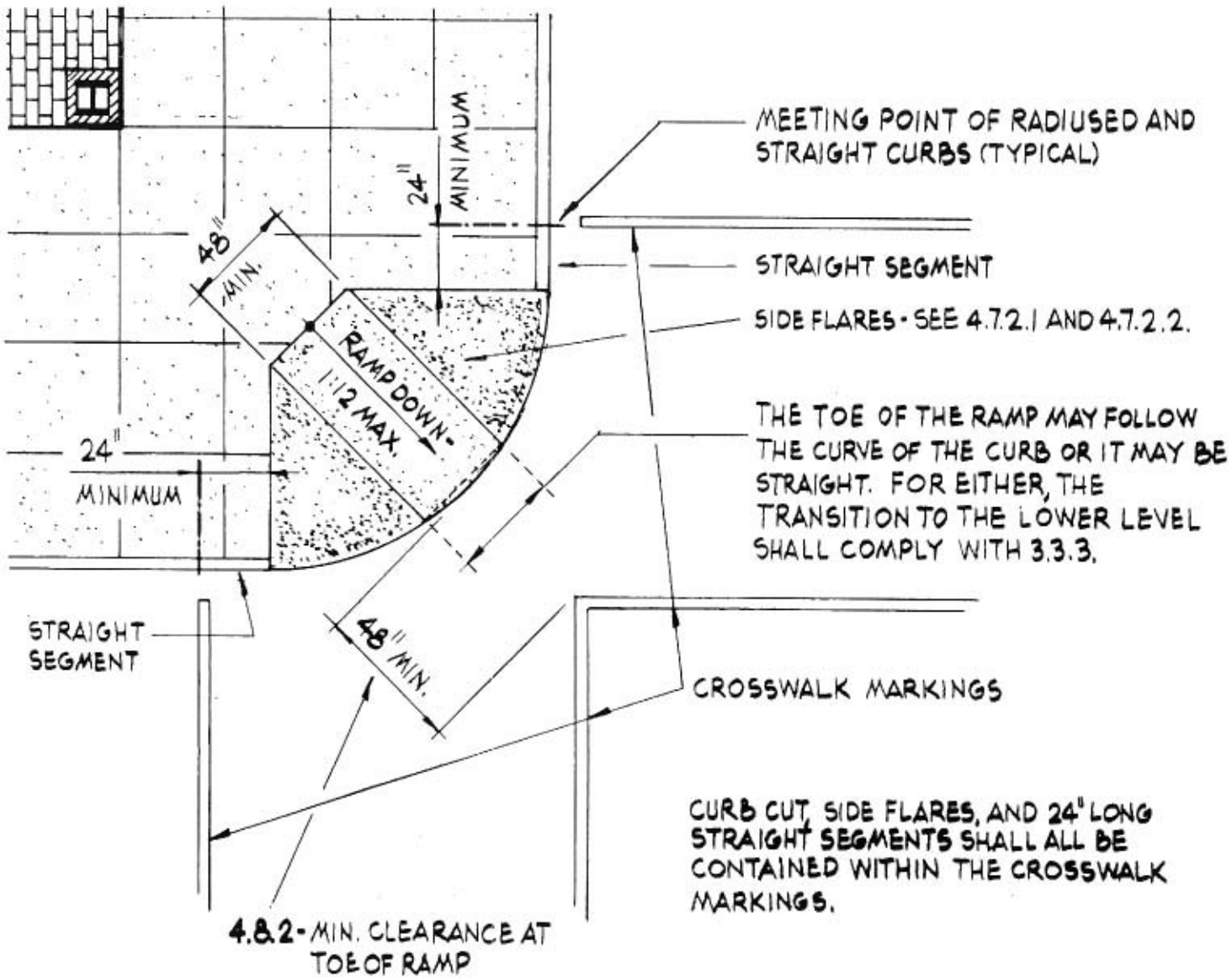


EDGE PROTECTION - TREATED WOOD (SHOWN), CONCRETE, BRICK, CONCRETE BLOCK, ETC.

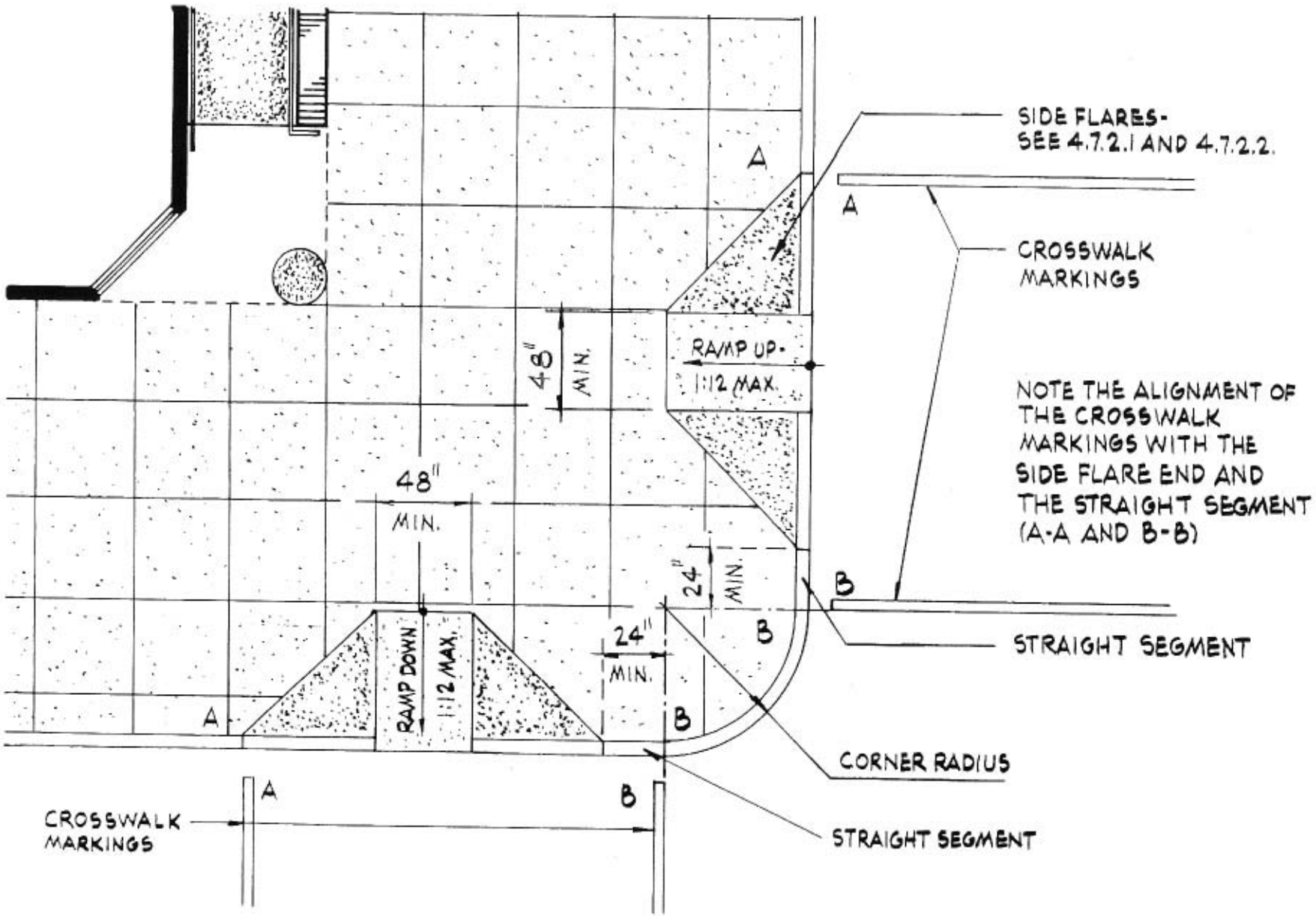


4.7.3.2– CURB RAMPS WITHOUT SIDE FLARES

4.7.3.– CURB RAMPS



4.8.1.1 - CORNER CURB CUT (PART I - DIAGONAL)



4.8.1.1- CORNER CURB CUT (PART 2- ADJACENT TO CORNER CURB)