

Barrier Free Design Guide

A Supplement to the Architectural
Barriers Act Accessibility Standards



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INTRODUCTION

The Architectural Barriers Act (ABA) insures that buildings financed with federal funds are so designed and constructed as to be accessible to everyone. This law requires all construction, renovation, or leasing with federal funds to meet the [Architectural Barriers Act Accessibility Standard \(ABAAS\)](#). ABAAS was made effective May 9, 2006 for new construction and alterations, June 30, 2006 for lease-construction facilities, and February 7, 2007 for all other leased facilities. ABAAS replaces the [Uniform Federal Accessibility Standards \(UFAS\)](#), which was VA's previous standard for accessibility.

This supplement to ABAAS tailors some of the requirements to better meet the barrier free needs of the Department of Veterans Affairs (VA) in its health care facilities.

Previous requirements have been simplified and abbreviated so that these five pages replace the former 26-page VA Barrier Free Design Handbook (H-08-13).

The following comparison table is to assist contracted Architect/Engineer firms and VA staff in designing accessible health care facilities for the VA. Paragraph numbers correspond to ABAAS paragraph numbers. Planners and designers are to be guided by ABAAS, the exception being where the more stringent VA requirement is noted in the table.

**VA GUIDELINES ARE THE SAME AS ABAAS FOR MOST REQUIREMENTS.
WHERE VA REQUIREMENTS DIFFER, SEE BELOW.**

| REQUIREMENT | VA | ABAAS | NOTES |
|--|-----------------------------------|-----------------------------------|-------|
| Minimum requirements | | | |
| Sites - parking spaces accessible | 3% of total spaces | 2% of total spaces | 1 |
| SCI/D facilities | Dedicated lot 1.5 spaces per bed | 20% of total spaces | 8 |
| Buildings- accessible seating, assembly areas | 3% of total seating | 2% of total seating | 2 |
| Accessible route | | | |
| Width, minimum | 1500 mm (5'-0") | 900 mm (3'-0") | 3 |
| Slope, maximum (including parking spaces) | 1:33 (3%) | 1:20 (5%) | 4 |
| Minimum gradient of walk requiring rest areas every 60 000 mm (200') | 1:50 | 1:33 | 5 |
| Minimum size of level platforms at doors | 1800 mm x 1800 mm (6'-0" x 6'-0") | 1500 mm x 1500 mm (5'-0" x 5'-0") | 6 |
| Floor surfaces | | | |
| Changes in level | Not permitted on SCI floors | No requirement | 7 |

| REQUIREMENT | VA | ABAAS | NOTES |
|---|---|---|-------|
| Carpet cushion or padding | Not permitted | Permitted | |
| Parking & passenger loading zones | | | |
| Access aisle requirement for accessible parking spaces | 1500 mm (5'-0") each side | 1525*mm (5'-0") 1 per 2 spaces. | 9 |
| Passenger loading area "communication system" for assistance at SCI units | Yes | No requirement | 10 |
| Curb Ramps | | | |
| Width, minimum | 1200 mm (4'-0") | 900 mm (3'-0") | 11 |
| Ramps | | | |
| Maximum slope | 1:20 | 1:12 | 12 |
| Maximum length, within range of 1:33 -1:24 | 12 000 mm (40') | 60 000 mm (200') | 13 |
| Maximum length, within range of 1:25 -1:20 | 10 500 mm (35') | 60 000 mm (200') | 13 |
| Minimum clear width | 1200 mm (4'-0") | 900 mm (3'-0") | 14 |
| Minimum size level landing, where doors swing into landing | 1800 mm x 1800 mm (6'-0" x 6'-0") | 1500 mm x 1500 mm (5'-0" x 5'-0") | 15 |
| Stairs | | | |
| Handrail height | 850 mm (34") | 750 mm-850 mm (30"-34") | 16 |
| Elevators (Passenger) | | | |
| Minimum width of elevator doors | 1200 mm (4'-0") | 900 mm (3'-0") | 17 |
| Minimum car size | 2400 mm x 1850 mm (8'-0" x 6'-2") platform size | 1730*mm x 1370*mm (68" x 54") car inside dimensions | 18 |
| Double set of handrails | Yes | No requirement | 19 |
| Windows | | | |
| Sill height in patient bedrooms | 600 mm (24") maximum | No requirement | 20 |
| Doors and doorways | | | |
| Patient bedroom door, minimum width | 1150 mm (3' -10") | 1100 mm (3' -8") | 21 |
| Water closets | | | |

| REQUIREMENT | VA | ABAAS | NOTES |
|--|--|---|--------------------------------------|
| Grab bar configuration | Double swing-up bars for most toilets on Nursing Units | Side & back bars for all accessible water closets. | |
| Toilet stalls | | | |
| Minimum accessible stall size | 1650 mm x 1800 mm (5'-6" x 6'-0") | 1500 mm x 1420*mm (5'-0" x 4'-8") | 23 |
| Minimum size wheelchair "front-transfer" stall | 1050 mm x 1800 mm (3'-6" x 6'-0") | 900 mm x 1650 mm (3'-0" x 5'-6") | 26 |
| Grab bars | Required in all stalls | Required in accessible stalls | |
| Shower stalls (Patient) | | | |
| Minimum stall dimensions | 1200 mm x 1200 mm (4'-0" x 4'-0") | 900 mm x 900 mm (3'-0" x 3'-0") or 750 mm x 1500 mm (2'-6" x 5'-0") | 24 |
| Grab bars | Horizontal plus vertical bars | Horizontal bars only | See VA Std. Detail #13.1, 13.2, 13.3 |
| Toilet rooms | | | |
| Min. width of toilet room entrance doors | 900 mm (36") | 850 mm (34") | 25 |
| Cafeterias | | | |
| Knee clearance, for minimum 5% tables | 675 mm (2'-3") and 725 mm (2'-5") for at least 5% | 675 mm (2'-3") | 27 |
| Cutlery and supply height | 1000 mm-1200 mm (40" - 48") | 1350 mm (54") max. | 28 |
| Health Care Facilities | | | |
| Medical/Surgical Nursing Units, percent of patient bedrooms accessible | 100% | 10% | 29 |
| Medical/Surgical Nursing Units, percent of toilet rooms accessible | 100% | 10% | 29 |

*ABAAS indicates slightly different metric equivalents than the ones which VA has adopted.

Information gathered from data provided by the Department of Health and Human Services; the National Center for Health Statistics; and the Department of Veterans

Affairs, Office of Planning and Management Analysis (see SURVEY OF DISABLED VETERANS, OPMA-M 043-90-1).

1. The percent of disabled at VA hospitals is much higher than the percent of disabled in the general population. Two percent may be adequate for the general population. The percentage of disabled drivers/passengers is much higher in the veteran population.
2. A higher percentage of sick and disabled make up the VA population than make up the general population.
3. It takes a minimum of 1500 mm (5'-0") for two wheelchairs to pass.
4. The disabled population used by ABAAS to determine an acceptable slope for using public accommodations is stronger and younger than are veterans at VA facilities.
5. Previous studies used a younger, more fit population to determine the minimum slope and distance for a disabled person's travel capability.
6. Older, ill veterans need more room to maneuver and a larger safety envelope.
7. Current standards are based on an active, independent population.
8. VHA study shows patient's vehicle + visitor's vehicle + outpatient's vehicle equals nearly 2.0 cars per patient. Additionally, parking spaces are required for employees and visitors with no allowance for patients.
9. Disabled veterans come to VA facilities either driving or riding. Both sides of the parking space must be available to allow disembarking from either side of the car.
10. This feature, not mentioned in other standards, allow SCI veterans to contact Nursing Service, Pharmacy, or Security for their appropriate needs without the extra burden of unloading their wheelchair and leaving their car.
11. Sick veterans in wheelchairs are often weak, disoriented, and unskilled in wheelchair operation. Studies show the additional 300 mm (1'-0") provides a much needed margin of safety.
12. Tests show only those with good upper body strength can manage a ramp slope of 1:12. Slopes greater than 1:16 create safety hazards for any wheeled vehicle.
13. Long uninterrupted ramps have caused accidents at VA facilities. Weak, unskilled wheelchair users need frequent stops for safety.
14. The 300 mm (1'-0") added width is necessary to ensure all VA wheelchair users can get up and down the ramp, safely.
15. Older, frail, confused, disabled veterans need a larger level platform to maneuver a wheelchair.
16. Life Safety Code (NFPA 101) requires 850 mm (34") to 950 mm (38").

17. Hospital elevator doors need to be 1200 mm (4'-0") wide to more easily facilitate the movement of gurneys, beds, and multiple wheelchairs.

18. See Transport Systems Design Manual. The larger car size is required for movement of gurneys and multiple wheelchairs.

19. Handrails protect the car walls and provide stability for patients; the lower rail for wheelchairs, the higher rail for gurney riders and standers.

20. Window sills must be low enough that seated (wheelchair) and bedridden patients can see outside.

21. A 1150 mm (3'-10") door to bedrooms is needed because beds with accessories are frequently moved from one room to another.

22. An 800 mm (2'-8") opening is not adequate for some wheelchairs and most gurneys.

23. Disabled patients in wheelchairs aren't skilled in maneuvering wheelchairs, are usually weakened, and space is often needed for someone to help.

24. The 900 mm x 900 mm (3'-0" x 3'-0") shower has a folding seat which requires the patient to transfer from the wheelchair. The 750 mm x 1500 mm (2'-6" x 5'-0") shower admits a wheelchair, but just barely. There is no room for the patient to maneuver or for attendants to help.

25. VA uses a standard 900 mm (3'-0") door to ensure a 850 mm (34") clear opening.

26. The additional width allows correct door width and makes the stall usable by wheelchair users.

27. Many disabled veterans use electric wheelchairs with a control stick that will not go under a table with only 675 mm (2'-3") clearance.

28. Frail, disabled patients have a more limited reach than independent, more physically sound, wheelchair users.

29. The VA Under Secretary for Health has advised that 100% accessibility makes nursing simpler, puts less strain on staff, gives patients more independence, and requires less patient supervision by a limited staff.