



**Department of
Veterans Affairs**

Barrier Free Design Guide

A Supplement to the Uniform Federal
Accessibility Regulations



INTRODUCTION

The Architectural Barriers Act, Public Law 90-480, 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 Uniform Federal Accessibility Standards (UFAS).

This supplement to UFAS 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 UFAS paragraph numbers. Planners and designers are to be guided by UFAS, the exception being where the more stringent VA requirement is noted in the table.

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

UFAS REFERENCE	REQUIREMENT	VA	UFAS	NOTES
4.1	Minimum requirements			
4.1.1(5)(e)(i)	Sites - parking spaces accessible	3% of total spaces	2% of total spaces	1
4.1.1(5)(e)(iii)	SCI/D facilities	Dedicated lot 1.5 spaces per bed	20% of total spaces	8
4.1.2(18)(a)	Buildings- accessible seating, assembly areas	3% of total seating	2% of total seating	2
4.3	Accessible route			
4.3.3	Width, minimum	1500 mm (5'-0")	900 mm (3'-0")	3
4.3.7	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
4.5	Floor surfaces			
4.5.2	Changes in level	Not permitted on SCI floors	No requirement	7
4.5.3	Carpet cushion or padding	Not permitted	Permitted	
4.6	Parking & passenger loading zones			
4.6.3.	Access aisle requirement for accessible parking spaces	1500 mm (5'-0") each side	1525*mm (5'-0") 1 per 2 spaces.	9
4.6.5	Passenger loading area "communication system" for assistance at SCI units	Yes	No requirement	10
4.7	Curb Ramps			
4.7.3	Width, minimum	1200 mm (4'-0")	900 mm (3'-0")	11
4.8	Ramps			
4.8.2	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
4.8.3	Minimum clear width	1200 mm (4'-0")	900 mm (3'-0")	14

UFAS REFERENCE	REQUIREMENT	VA	UFAS	NOTES
4.8.4(4)	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
4.9	Stairs			
4.9.4. (5)	Handrail height	850 mm (34")	750 mm-850 mm (30"-34")	16
4.10.	Elevators (Passenger)			
4.10.9	Minimum width of elevator doors	1200 mm (4'-0")	900 mm (3'-0")	17
4.10.9	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
No reference	Double set of handrails	Yes	No requirement	19
4.12	Windows			
No reference	Sill height in patient bedrooms	600 mm (24") maximum	No requirement	20
4.13	Doors and doorways			
	Patient bedroom door, minimum width	1150 mm (3' - 10")	1100 mm (3' - 8")	21
	Minimum clear opening to other rooms	850 mm (2' - 10")	800 mm (2' - 8")	22
4.16	Water closets			
4.16.4	Grab bar configuration	Double swing-up bars for most toilets on Nursing Units	Side & back bars for all accessible water closets.	
4.17	Toilet stalls			
4.17.3	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
4.17.3	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
4.17.6	Grab bars	Required in all stalls	Required in accessible stalls	See VA Std. Detail #12
4.21	Shower stalls (Patient)			
4.21.2	Minimum stall dimensions	1200 mm x 1200 mm (4'-0"	900 mm x 900 mm (3'-0" x 3'-	24

UFAS REFERENCE	REQUIREMENT	VA	UFAS	NOTES
		x 4'-0"	0") or 750 mm x 1500 mm (2'-6" x 5'- 0")	
4.21.4	Grab bars	Horizontal plus vertical bars	Horizontal bars only	See VA Std. Detail #13.1, 13.2, 13.3
4.22	Toilet rooms			
	Min. width of toilet room entrance doors	900 mm (36")	850 mm (34")	25
5.0.	Cafeterias			
5.1	Knee clearance, for minimum 5% tables	675 mm (2'-3") and 725 mm (2'-5") for at least 5%	675 mm (2'- 3")	27
5.3	Cutlery and supply height	1000 mm-1200 mm (40" - 48")	1350 mm (54") max.	28
6.0.	Health Care Facilities			
6.3	Medical/Surgical Nursing Units, percent of patient bedrooms accessible	100%	10%	29
6.3	Medical/Surgical Nursing Units, percent of toilet rooms accessible	100%	10%	29

*UFAS 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 used for UFAS. Two percent may be adequate for the general population. The percentage of disabled drivers/passengers is much higher in the veterans population.

2. A higher percentage of sick and disabled make up the VA population than make up the general population used for UFAS.

3. It takes a minimum of 1500 mm (5'-0") for two wheelchairs to pass.

4. The disabled population used by UFAS to determine an acceptable slope for using public accommodations is stronger and younger than are veterans at VA facilities.
5. UFAS 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. UFAS is based on an active, independent population. Little consideration was given to accessibility in medical care facilities, except in Section 6.
8. VHA study shows patient's vehicle + visitor's vehicle + outpatient's vehicle equals nearly 2.0 cars per patient. Additionally, UFAS 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 UFAS 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 UFAS 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.