
Chapter Three:

REQUIREMENT 3

Usable Doors

3

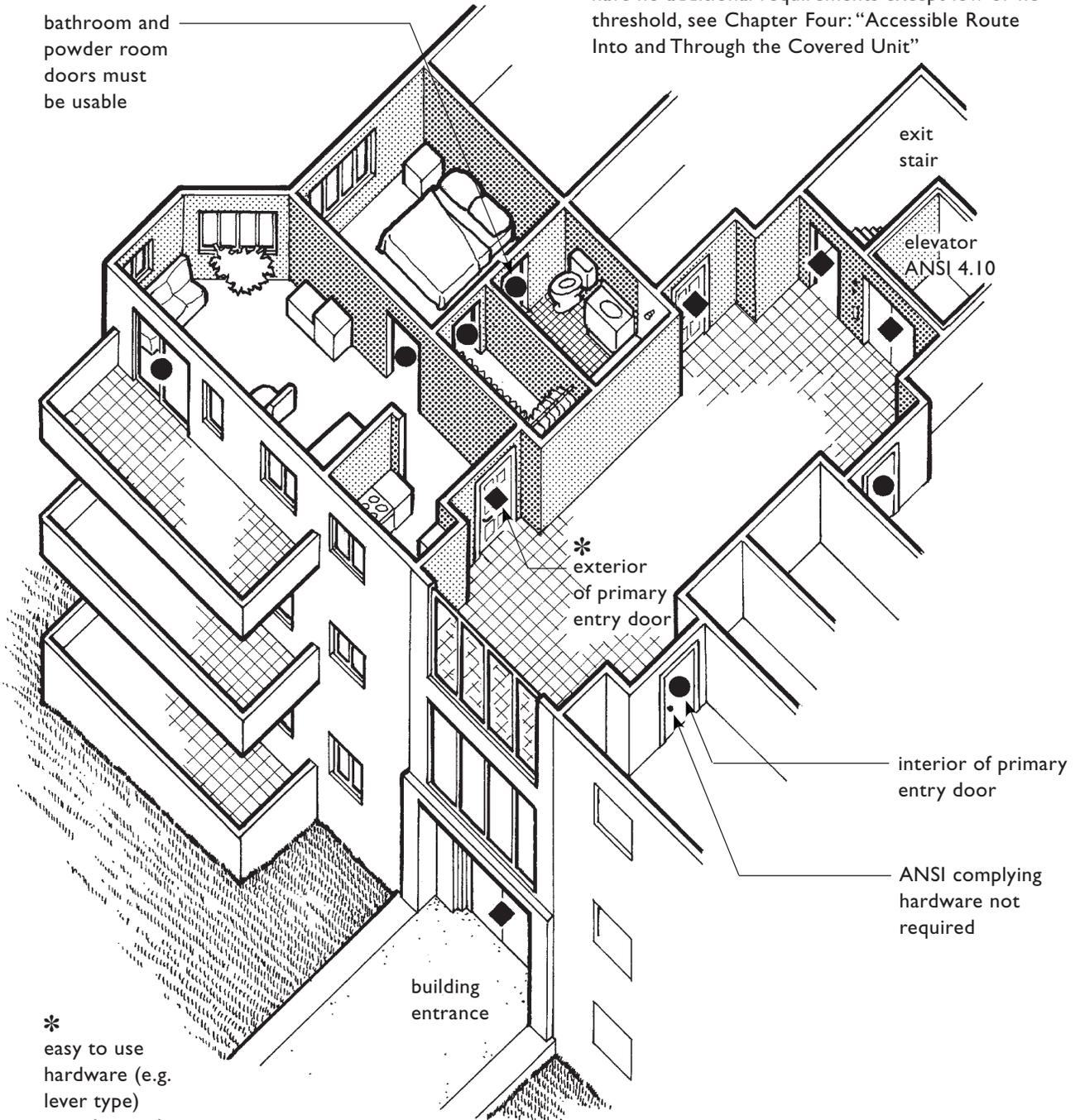


...covered multifamily dwellings with a building entrance on an accessible route shall be designed in such a manner that all the doors designed to allow passage into and within all premises are sufficiently wide to allow passage by handicapped persons in wheelchairs.

Fair Housing Act Regulations, 24 CFR 100.205

- ◆ **accessible doors** (in public and common use spaces and on public side of dwelling unit entry door)
 - must provide 32" minimum clear width
 - must meet ANSI 4.13 Doors

- **usable doors** (within interior of dwelling unit)
 - must provide 32" nominal clear width (see page 3.5)
 - have no additional requirements except low or no threshold, see Chapter Four: "Accessible Route Into and Through the Covered Unit"



bathroom and powder room doors must be usable

exit stair
elevator
ANSI 4.10

* exterior of primary entry door

interior of primary entry door

ANSI complying hardware not required

building entrance

* easy to use hardware (e.g. lever type) complies with ANSI 4.13.9

**Accessible and Usable Doors
in Buildings Containing Covered Dwelling Units**

INTRODUCTION

The regulations for the Fair Housing Act state that **all** doors “designed to allow passage into and within all premises are sufficiently wide to allow passage by...persons in wheelchairs.” The Fair Housing Act Guidelines (the Guidelines) apply the requirements to doors that are part of an accessible route in public and common use areas of multi-family housing developments, as well as doors into and within covered dwelling units.

The Fair Housing Act and the Guidelines cover all doors designed to allow passage into and within all premises. However, doors in public and common use areas and primary entry doors of covered dwelling units must meet more stringent requirements for accessibility than doors that are located inside each dwelling unit. Therefore, to clarify this difference, this chapter refers to doors in public and common use areas and primary entry doors of covered dwelling units as **accessible doors**. Doors which are interior to the dwelling unit and which are subject to less stringent requirements for accessibility are referred to as **usable doors**.

Accessible doors must meet the ANSI 4.13 requirements for clear width, maneuvering clearances, thresholds, hardware, and opening force. Accessible doors are:

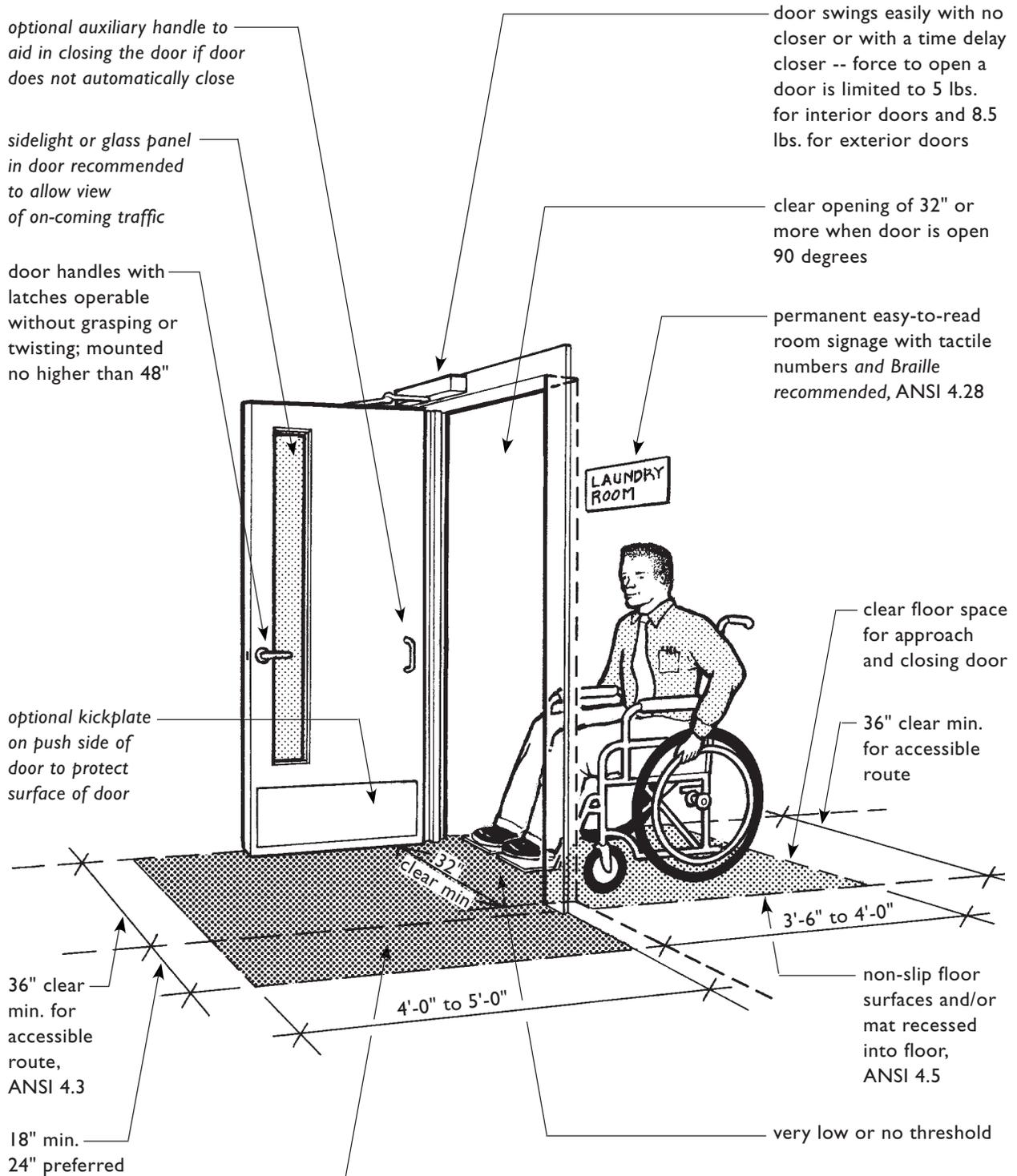
1. Doors that are part of an accessible route in public and common use spaces. They include, but are not limited to, doors residents use to enter buildings and doors into and within clubhouses, public restrooms, laundry rooms, and rental offices.
2. Primary entry doors to covered dwelling units – exterior side only. Entry doors may open from a

corridor or lobby or can be private individual entry doors accessed directly from the outside.

Usable doors are doors within the dwelling unit intended for user passage and must be usable in terms of clear opening width. Doors within the unit are not required to meet the ANSI 4.13 Doors requirements for maneuvering clearances, hardware, and opening force; but because an accessible route must be provided within the unit, thresholds must be low or nonexistent, see Chapter Four: “Accessible Route Into and Through the Covered Dwelling Unit.”

Usable doors include all secondary exterior doors at dwelling units that open onto private decks, balconies, and patios. Usable doors also include all passage doors within the covered dwelling unit, such as doors between rooms, doors into walk-in closets, and doors into utility/storage rooms or rooms that contain washers and dryers. Not covered are doors to small closets such as linen closets which typically have shelves within easy reach. Also not covered are access doors to small mechanical closets dedicated specifically to furnaces or hot water heaters.

In addition, the Guidelines also require that usable doors be provided to areas of the dwelling that may not be accessible at the completion of construction, such as an unfinished basement or a garage attached to a single-story dwelling unit (in the latter case, another door is used for the accessible entrance). Usable doors at these locations will allow people with mobility impairments to modify their unit later to provide accessibility to these areas, such as installing a ramp from the dwelling unit into the garage. Usable doors also are important for people with walkers or crutches so they may have improved access to such areas.



Features of ANSI Complying Accessible Doors

ANSI 4.13

Notes in italic type are recommendations only and are not required by ANSI or the Guidelines.

clear floor space beside door on pull side so user can get out of way of door swing; the actual maneuvering clearances required depend on the direction of approach to both sides of the door, ANSI 4.13.6

DOORWAY WIDTH AND DEPTH

DOORWAY CLEAR OPENING

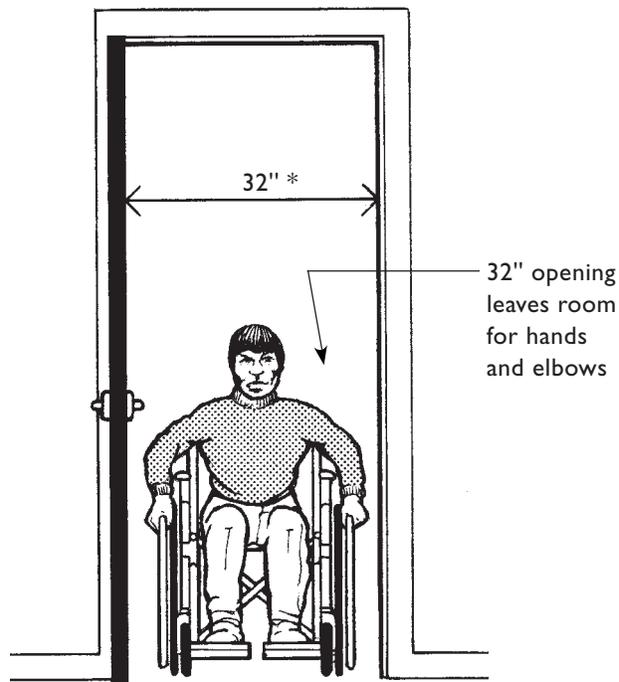
The commonly used hinged, folding, or sliding doors installed in the standard manner provide a passage width that is reduced by both the door standing in the doorway and door stops, if present. Thus, the available passage width is less than the size of the door.

Accessible doors in public and common use spaces and primary entry doors of dwelling units must provide a clear opening of **32 inches minimum**. This means the clear opening must not be less than 32 inches, but it may be more. The Guidelines allow **usable doors** (secondary exterior doors and doors that allow passage within the dwelling unit) to be a **nominal 32 inches** clear width. Usable doors are intended to provide 32 inches of clear width. But because of normal installation practices, adjacent conditions, variation in products such as hinges, and thicknesses of available materials, the doorway may vary from the 32-inch clear width by a nominal or small amount. Tolerances of 1/4 inch to 3/8 inch are considered an acceptable range for usable doors. This tolerance does not apply to accessible doors.

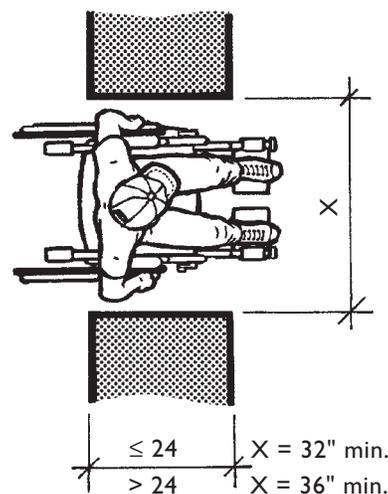
DOORWAY DEPTH

In both public and common use spaces and within dwelling units, the wall thickness of all cased openings must be no greater than 24 inches if the width of the doorway or passage is the minimum 32 inches. Doorways with a depth greater than 24 inches must be widened to provide the 36-inch minimum clear width for an accessible route.

- * 32" clear minimum for accessible doors
- 32" nominal clear width for usable doors



Doorway Clear Opening



Doorway Depth

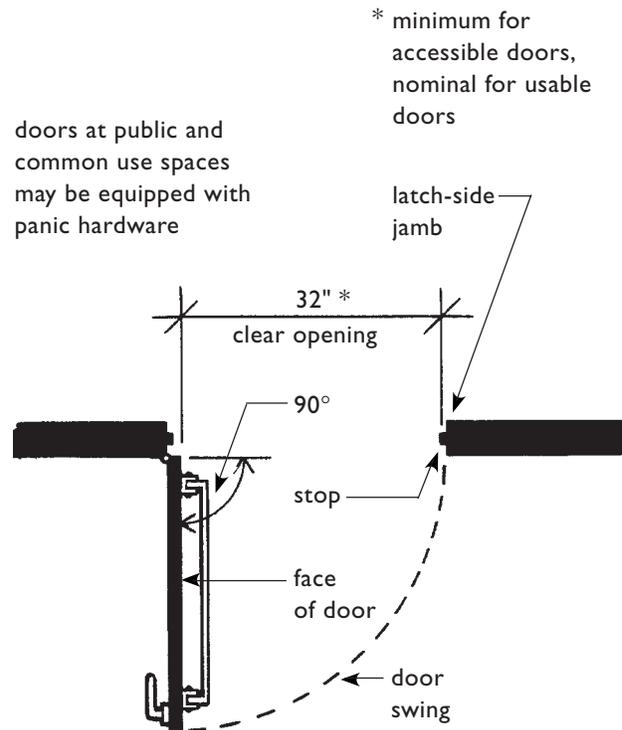
TYPES OF DOORS

HINGED DOORS, SINGLE-LEAF

At hinged doors the 32-inch opening is measured from the stop on the latch side jamb to the face of the door when standing in a 90-degree open position. Because the door, when open, remains in the doorway, the size of door used for the main entry door must be wide enough so that when open 90 degrees, it provides 32 inches minimum clear width. Main entry doors to dwelling units may be thicker than doors used within the unit, often making it necessary to install a door wider than 34 inches at the main entry. (In addition, most building codes require a 36-inch door at the main entry.) Within the dwelling unit, a 34-inch wide door, hung in the standard manner, is considered a usable door because it provides an “acceptable” nominal 32-inch clear opening of at least 31-5/8 inches clear.

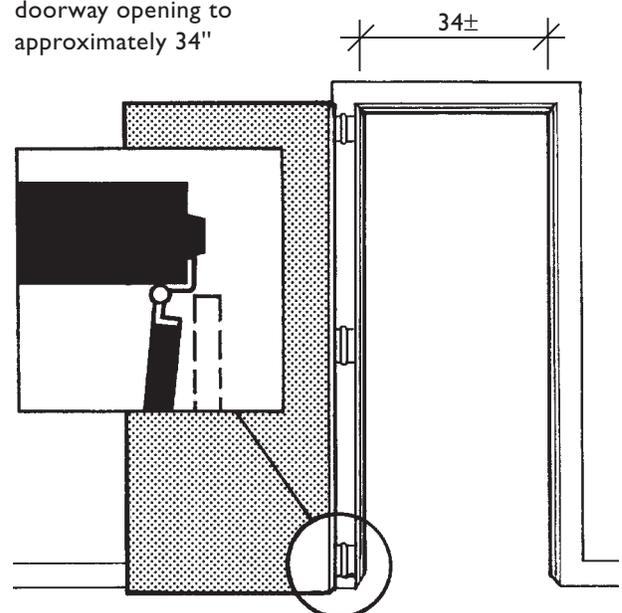
Accessible hinged doors in public and common use spaces may be equipped with push bar or panic type hardware even though the bar may protrude into the 32-inch clear width. The hardware should be mounted high enough (approximately 36 inches minimum above the floor) to allow sufficient room for people pushing themselves in manual wheelchairs to get through the doorway without catching their arms, shoulders, or clothing on the panic hardware. In no case may the bar extend more than 4 inches from the door because it then becomes a hazardous protruding object, see ANSI 4.4 Protruding Objects.

In the interior of dwelling units it is possible for residents or landlords to adapt the nominal 32-inch clear opening to create a wider and more usable doorway by installing offset or swing-clear hinges, by removing the lower portion



Measuring Clear Width at Hinged Doors

installation of swing-clear hinges is a modification that increases a 32" doorway opening to approximately 34"



Use of Swing-Clear Hinges

of the door stop, or by doing both. With standard hinges, a door, when open, remains in the door opening; swing-clear hinges allow a door to swing completely out of the doorway and increase the clear opening of the doorway. See Product Resource List, Appendix A, for manufacturers of swing-clear hinges. Builders are cautioned that they may not install a 32-inch wide door (which effectively yields a 30 to 30-1/2 inch opening) and expect residents to make modifications later to bring the door up to the 32-inch nominal width required at the time of initial construction.

HINGED DOORS, DOUBLE-LEAF

Two narrow, double-leaf doors (two hinged doors) mounted in a single frame may be slightly more difficult to open and close than a single door. Double-leaf doors can be a useful choice where space for the door swing is limited and where doors are likely to stand open. If narrow double-leaf doors are used, the nominal 32-inch clear opening must be maintained between door faces when in a 90-degree open position. Where larger double-leaf doors are installed, and if only one leaf is active, that leaf must be usable, i.e., provide the nominal 32-inch clear opening.

POCKET, SLIDING, AND FOLDING DOORS

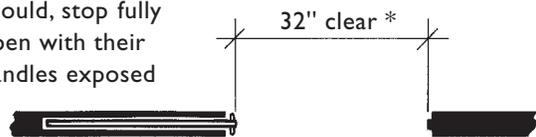
Pocket, sliding (e.g., automatic sliding doors at a main entrance), and folding doors may be installed in public and common use areas and at those times must meet the technical requirements of ANSI 4.13 Doors. The following discussion will focus on this category of doors when installed within dwelling units.

Unlike hinged doors, pocket, sliding, and folding doors, encroach little or not at all upon

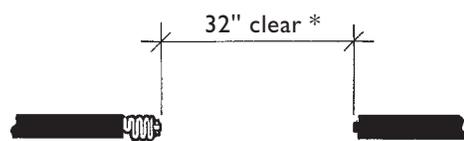
clear floor space and may, therefore, be an advantage when planning small rooms. This category of doors has additional features pertaining to the amount of space the door occupies within the doorway and the type of hardware installed. Hardware on interior dwelling unit doors is not covered by the Guidelines; however, recommendations are made to increase ease of use of the hardware, and thus the door.

*minimum for accessible doors, nominal for usable doors

accessible sliding doors must, and usable sliding doors should, stop fully open with their handles exposed

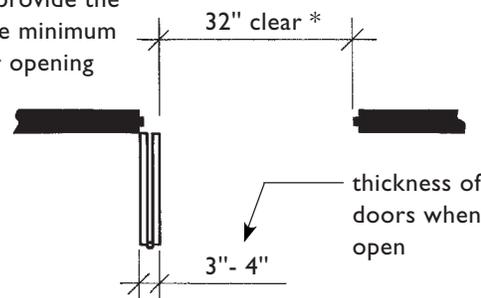


Clear Width at Sliding/Pocket Door



Clear Width at Accordion-Fold Door

a 3'- 0" door is the narrowest bi-fold door that can be installed and still provide the accessible minimum 32" clear opening

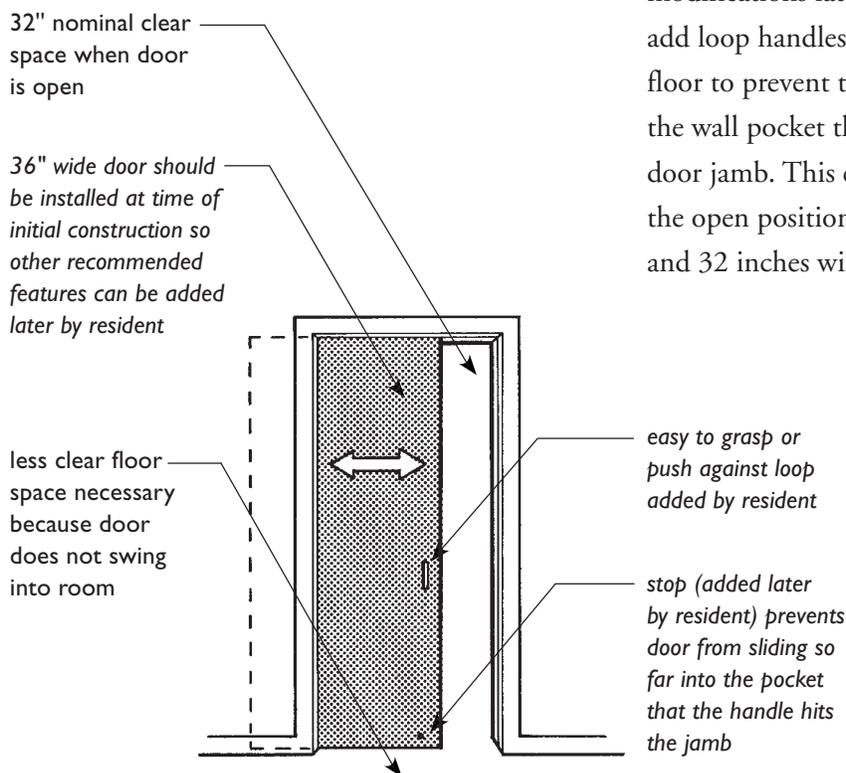


Clear Width at Bi-Fold Door

Pocket Doors. The traditional handle and latch installed in pocket doors are difficult for many people to operate because the hardware is recessed into the face of the door so the door can slide completely into the wall pocket. If carefully monitored, it may be possible to install a 32-inch wide pocket door that yields a nominal 32-inch clear opening; however, without modifying the door hardware, the door is still difficult to open and close.

Lacking complete control of variables such as the specific manufacturer's design of the door track assembly, the builder's installation method, the decision to install door stops (which vary in thickness), and other field conditions, it is recommended that pocket doors wider than 32 inches be installed. If a 36-inch wide door is installed, residents may make the following simple modifications later so the door is easier to operate: add loop handles on the door and a stop at the floor to prevent the door from sliding so far into the wall pocket that the handle is tight against the door jamb. This ensures that when the door is in the open position the handle will remain exposed and 32 inches will remain clear for passage.

Notes in italic type are recommendations only and are not required by ANSI or the Guidelines.

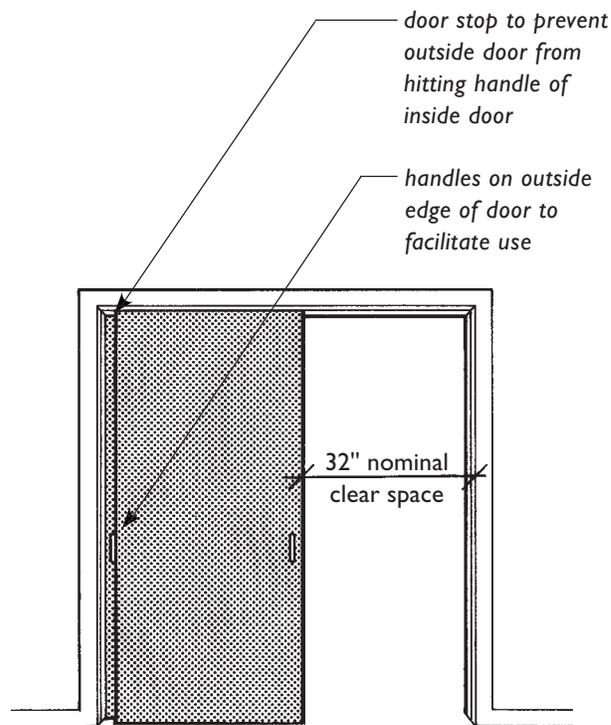


Usable Sliding/Pocket Door

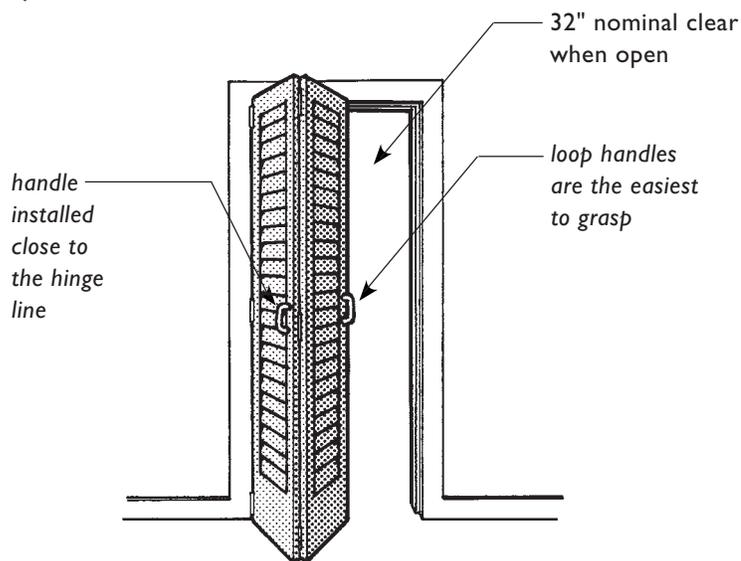
Sliding Doors. Interior sliding doors are generally used as closet doors since they avoid problems caused by door swings. If installed, each panel or door must provide a nominal clear opening of at least 32 inches. It is recommended that loop handles be installed rather than the more common recessed finger cups. Exterior sliding doors are discussed on page 3.10.

Folding Doors. Folding doors typically found in dwelling units are either accordion or bi-fold. They are made up of two or more attached or hinged panels that fold together when opened. When either type of door is in the open position, the clear opening is reduced by the thickness of the folded door. Considering this, the smallest doorway in which either a bi-fold assembly or accordion type door assembly can be installed is 36 inches.

To improve the ease of use of bi-folding doors, loop handles can be installed in the recommended locations as shown in the adjacent drawing. Magnet catches and latches on accordion-folding doors often are difficult to line up with the receiving end of the catch for people with any hand or grasp limitation.



Usable Sliding Door



Usable Folding Door

Notes in italic type are recommendations only and are not required by ANSI or the Guidelines.

DWELLING UNIT DOORS

PRIMARY ENTRY DOOR

The exterior of the primary entry door of covered dwelling units is part of public and common use spaces, therefore, it must be on an accessible route and be accessible, i.e., meet the ANSI requirements of 4.13 Doors. This is true both of entry doors opening off interior corridors internal to a building containing multiple dwelling units, and of separate exterior ground floor dwelling unit entrances.

Because primary entry doors to covered units must be on an accessible route, thresholds at these doors must be no higher than 3/4 inch and must be beveled with a slope no greater than 1:2. See additional discussion of thresholds and accessible route at dwelling units on page 4.12.

SECONDARY EXTERIOR DOORS

All secondary exterior doors from the same or different rooms that provide passage onto exterior decks, patios, or balconies must be usable. For example, if a deck is served by French doors or other double-leaf doors, and if only one leaf is active, that leaf must be usable, i.e., provide a nominal 32-inch clear opening. If both leaves are active, one leaf would not have to provide a nominal 32-inch clear opening as long as both leaves, when open, do provide the nominal 32-inch clear opening.

Since an accessible route must be provided throughout the unit, thresholds at secondary exterior doors also are limited to a maximum height of 3/4 inch. However, secondary doors that exit onto exterior decks, patios, or balcony surfaces are allowed to have a 4-inch maximum step (or more if required by local building code) to prevent

water infiltration at door sills only if the exterior surface is constructed of an impervious material such as concrete, brick, or flagstone. If the exterior surface is a pervious material such as a wood deck that will drain adequately, the decking must be maintained to within 1/2 inch of the interior floor level. See Chapter Four: “Accessible Route Into and Through the Covered Dwelling Unit.”

Sliding glass doors are often installed as secondary exterior doors. The Guidelines state that “the nominal 32-inch clear opening provided by a standard 6-foot sliding patio door assembly is acceptable.” Unfortunately, many of the standard 6-foot sliding glass door assemblies yield only a 28-1/2-inch maximum clear opening in the full open position. Note: 28-1/2 inches is not an acceptable 32-inch nominal dimension. Builders and product specifiers must carefully select door assemblies that yield the 32-inch nominal clear opening (a clear opening from 31-5/8 to 32 inches or more). Some economy suppliers have 6-foot sliding glass doors that will meet the required width. Other assemblies on the market larger than 6 feet also provide the required width. See Product Resource List, Appendix A.

good general illumination

color contrast between door and frame

door closer with safe sweep period, ANSI 4.13.10

low force to open door, ANSI 4.13.11

clear width of open doorway min. 32", ANSI 4.13.5

clear, readable, high contrast signage

lever or other easy to use door hardware, ANSI 4.13.9

low or no threshold, see Chapter 4

maneuvering space on exterior side of door next to latch varies depending upon direction of approach to door, ANSI 4.13.6

outside landing 0" to 1/2" below interior floor level depending upon construction of porch or landing surface, see Chapter 4

adequate slope to prevent ice build-up

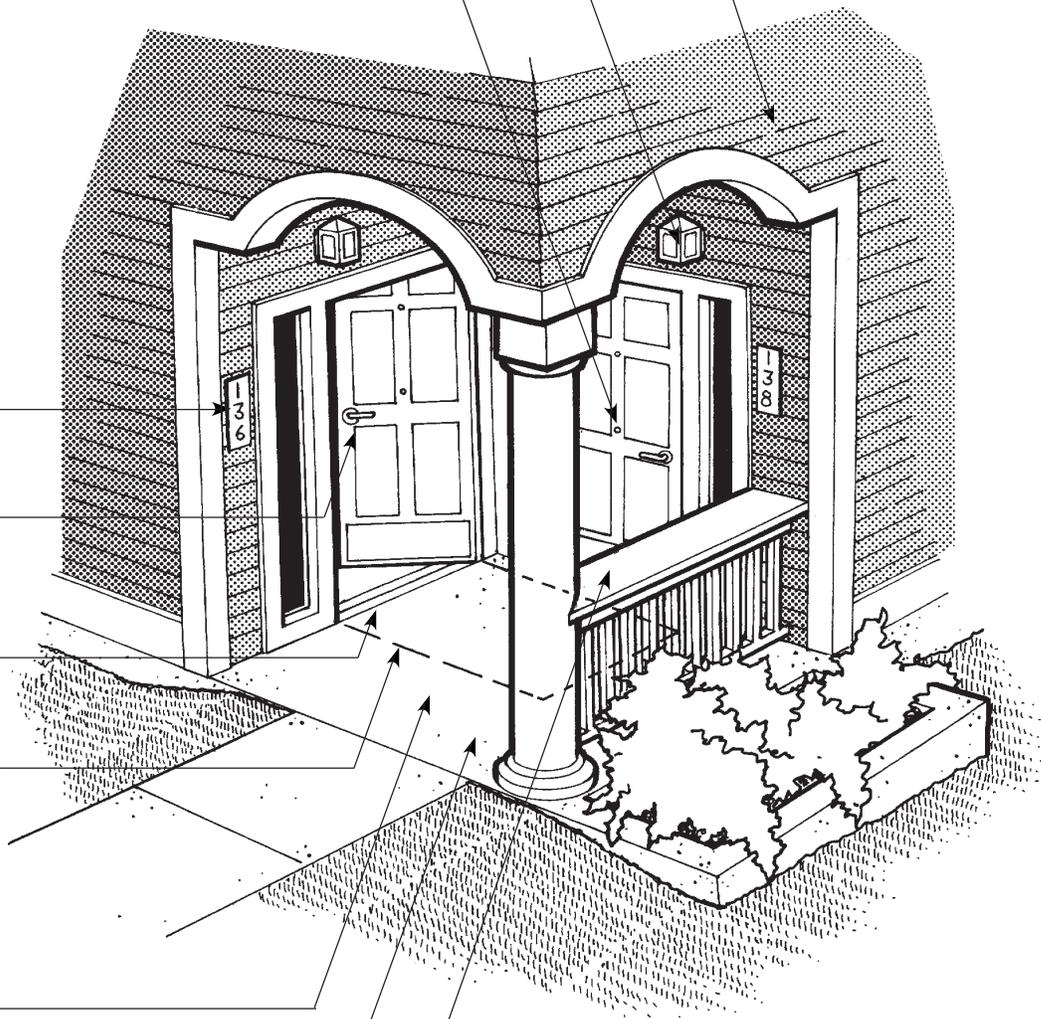
package shelf

high intensity lighting focused at locks for people with low vision

view window (or wide angle peep hole)

lighted doorbell buttons

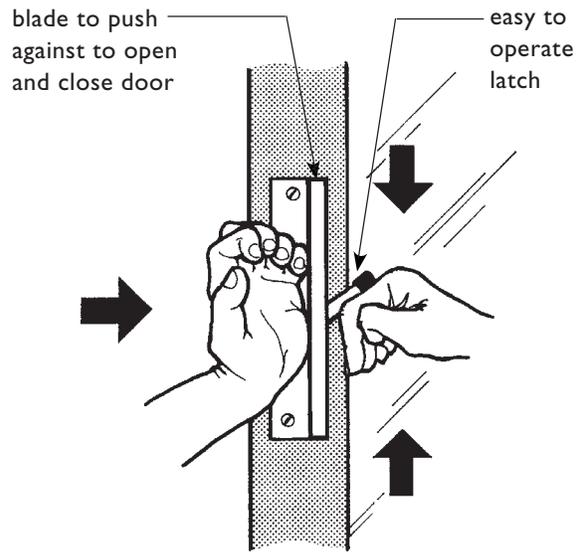
weather protection



**Accessible Primary Entry Door
at Covered Dwelling Unit**
See ANSI 4.13 Doors

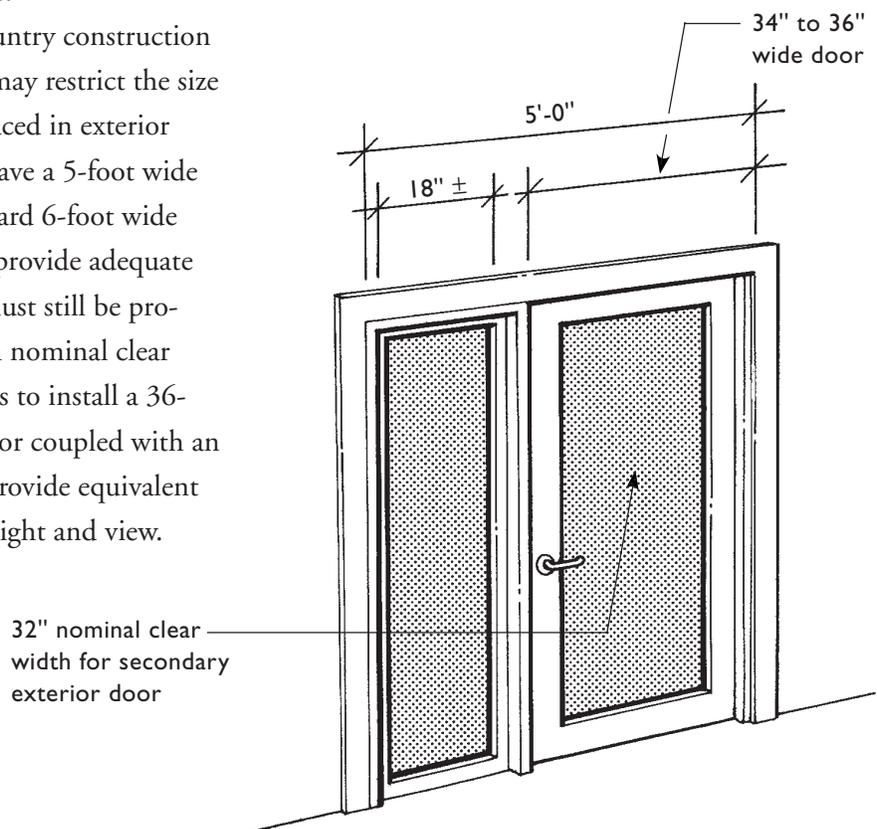
Notes in italic type are recommendations only and are not required by ANSI or the Guidelines. All recommended features are helpful to people with and without disabilities.

Where sliding glass doors are used, it also may be necessary to modify the threshold either by sinking the frame into the floor, or by adding a beveled edge. See Chapter Four: “Accessible Route into and Through the Covered Unit” for additional discussion of thresholds along accessible routes. Locks and latches on sliding glass doors are often difficult to operate for someone with any hand limitation. Although not required by the Guidelines, but because sliding glass door hardware is more difficult to modify at a later time if needed than hardware on hinged doors, it is recommended that locks be installed that can be raised and lowered with a closed fist or that require no finger manipulation. When sliding glass doors are being selected, doors with loop handles or large blades to push or pull against are the easiest to use.



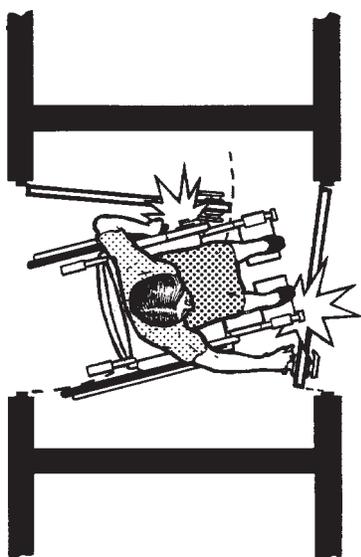
Sliding Glass Door Hardware that Requires No Twisting, Turning, or Fine Finger Manipulation to Operate Recommended

In some parts of the country construction or building code requirements may restrict the size of window or door openings placed in exterior walls. Where it is necessary to have a 5-foot wide maximum opening or if a standard 6-foot wide sliding door assembly does not provide adequate passage width, a passage door must still be provided that will yield the 32-inch nominal clear width. One suggested solution is to install a 36-inch wide full glass swinging door coupled with an appropriate width sidelight to provide equivalent or similar glass area for natural light and view.



Substitution of a 36" Hinged Door Plus Sidelight When a 5' or 6' Sliding Door Assembly Cannot Provide a 32" Door Opening

after maneuvering to get around the first door, the user cannot open the second door and is trapped



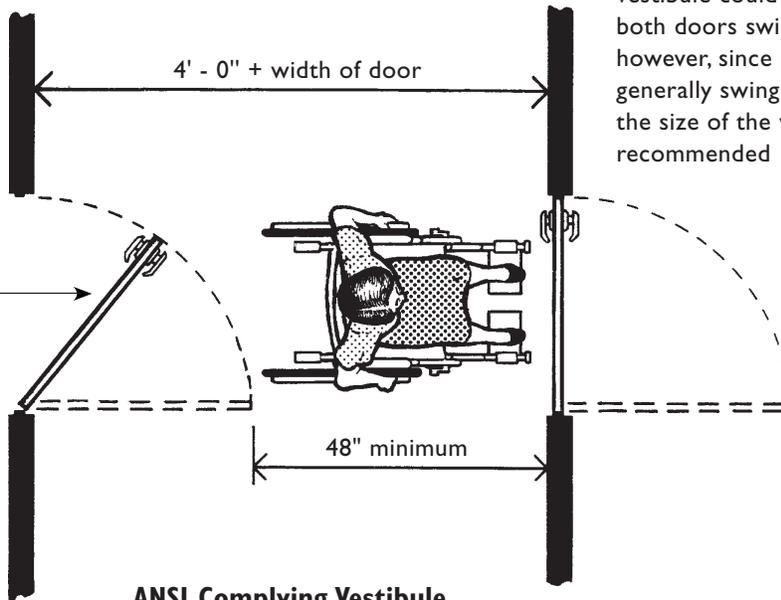
Inadequate Space in Vestibule

**DOORS IN SERIES
OR DOUBLE DOOR VESTIBULE**

Doors in a series are not typically part of an individual dwelling unit but are used at entrances to buildings. As such they are part of public and common use spaces and subject to the design specifications found in ANSI 4.13 Doors. However, where doors in a series are provided as part of a dwelling unit (to form an air lock when extremes of climate exist or to create a privacy vestibule), the requirements of an accessible route into and through the dwelling unit would apply.

If a vestibule is too small, people using mobility aids may get trapped and not be able to open the second door and exit the vestibule. For this reason, even though doors on the interior of the unit only must be usable (or have a 32-inch nominal clear width) the distance between the doors must be sufficient to allow users to maneuver to get the second door open and pass through. This is especially critical for safe egress in emergency situations. Guidance can be found at ANSI 4.13.7.

user is able to maneuver out of way of first door and get into position to open second door



exterior of primary entry door (ANSI complying)

vestibule could be smaller provided both doors swing out of the vestibule; however, since primary entry doors generally swing into the dwelling unit, the size of the vestibule as shown is recommended

ANSI Complying Vestibule

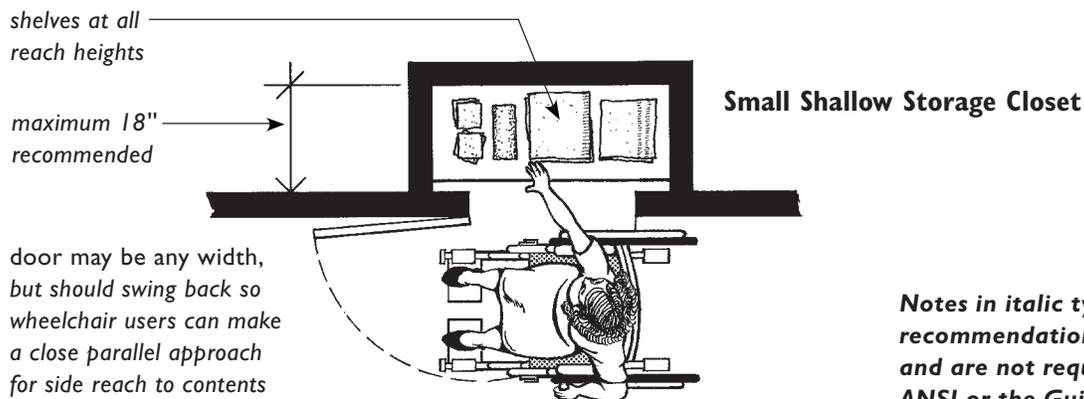
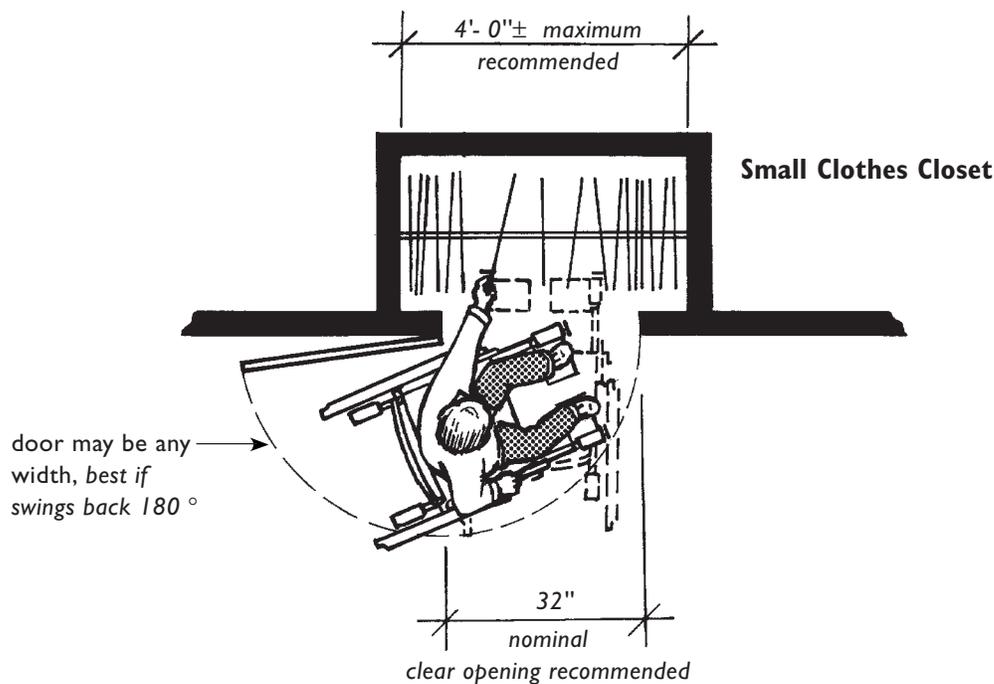
CLOSET DOORS

Closets that require users to pass through the doorway to reach the contents must have doors that provide at least 32 inches nominal clear opening. Closets that permit the user to access the contents from outside the closet have no door width specifications whatsoever.

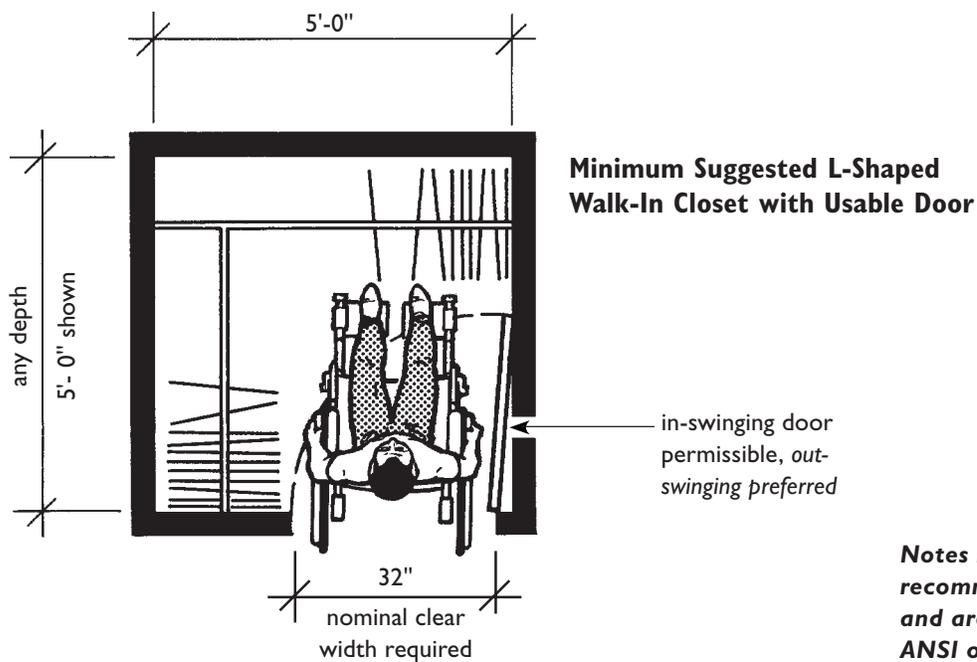
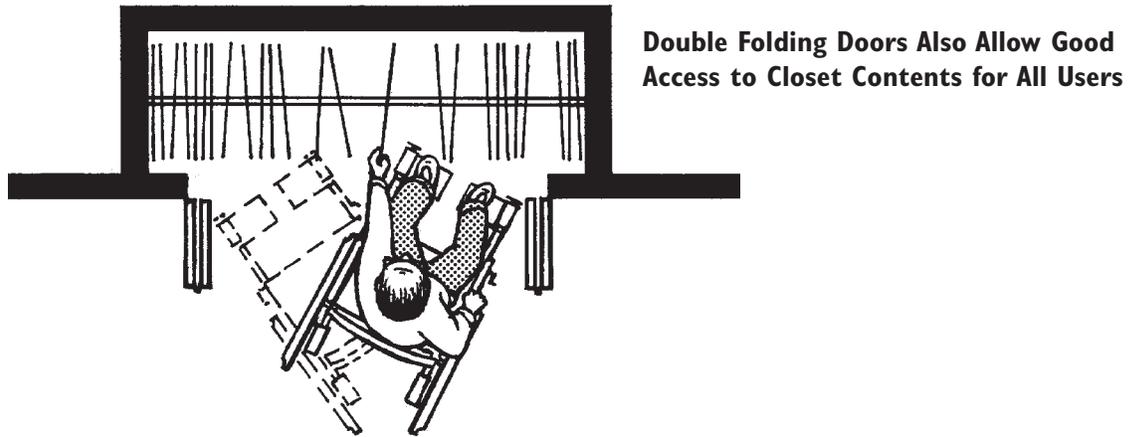
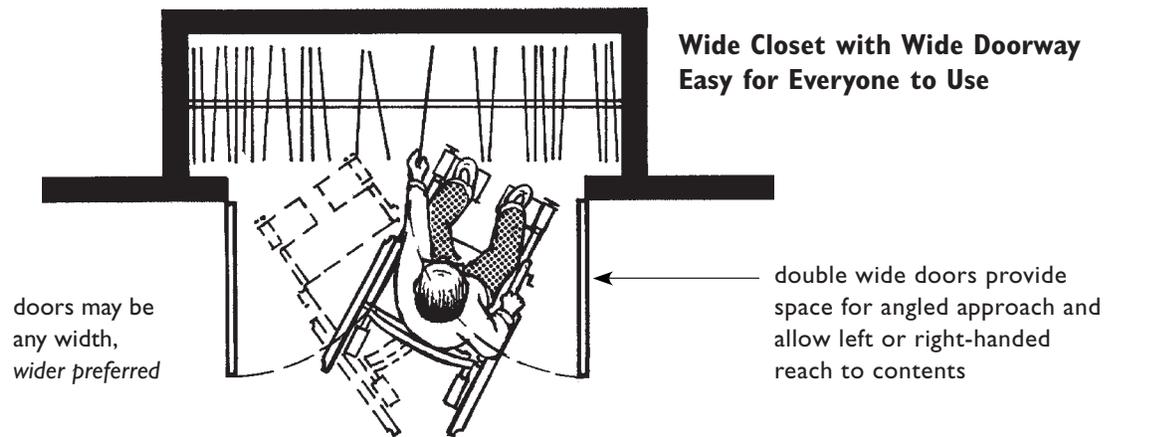
Closets for hanging clothes are usually 24 inches deep and of variable width. Small clothes and linen closets should be no more than 48 inches

long to avoid dead space at the ends that is difficult or impossible for most users to reach, seated or standing, even if a 34-inch door is installed.

If wider closets are provided it is best that doors be double (hinged or bi-folding preferred) to provide maneuvering space and clear view of contents. If “walk-in” closets are planned, they must have usable doors to provide adequate space for passage of a person using a wheelchair.



Notes in italic type are recommendations only and are not required by ANSI or the Guidelines.



Notes in italic type are recommendations only and are not required by ANSI or the Guidelines.