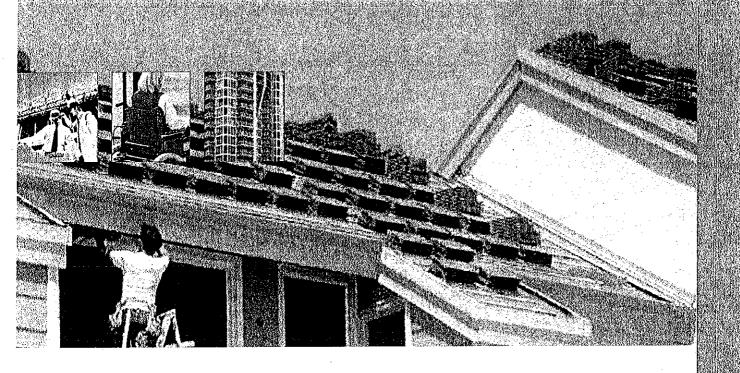
Common Design and Construction Violations and Solutions



Participant Workbook







Designed and Developed by:

The BearingPoint Team
for
U.S. Dept of Housing and Urban Development
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Using the Participant Workbook

Workbook Layout and Content

As a participant in the course, the Participant Workbook serves as your focal point. It follows the sequence of the class activities and discussion topics. It includes:

- All slides presented by the instructor
- Space for you to take notes
- Key points not contained on slides
- Detailed instructions for exercises
- Resources to supplement the curriculum

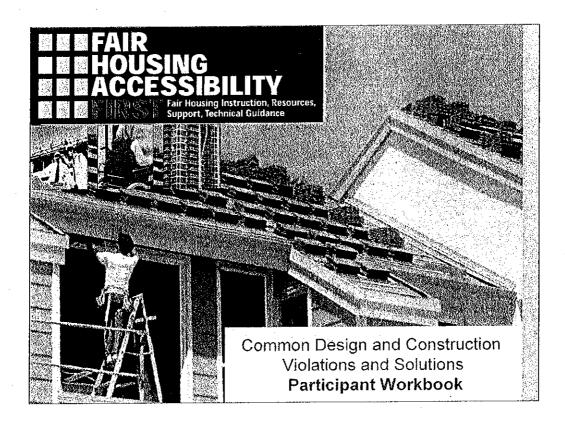
To make the Participant Workbook easy to use, the format of each two-page layout is consistent. The left side of the two-page layout is reserved for the slides that the facilitator displays overhead, key points, and space for you to take notes. The right side of the two-page layout contains extra information or topic pointers to further facilitate comprehension of the course material and slides.

Symbols Used

The following symbols are used to indicate various features of the Participant Workbook.

Notes:

Indicates an area reserved for you to take notes.



Welcome to Fair Housing Accessibility FIRST, a training and technical guidance program created by the U. S. Department of Housing and Urban Development (HUD).

This session is one hour and a half in length.

Fair Housing Accessibility FIRST Overview
Offer training and technical guidance on accessibility requirements of the Fair Housing Act
Increase the supply of accessible multifamily housing units nationwide

Fair Housing Accessibility FIRST Overview Gathered opinions and ideas from over 850 stakeholders Stakeholder Groups Providers Property managers Disability rights advocates Media Government officials Code officials Trade associations Enforcement agents

	Fair Housing Accessibility FIRST Overview
	Comprehensive training curriculum
	Technical guidance via a website and toll free hotline
19. 19. 19.	> 1-888-FH1RST1
	> www.fairhousingfirst.org

Refer to the Fair Housing Accessibility FIRST Training Curriculum.



Common Design and Construction Violations and Solutions Introduction

During this training session, we will discuss:

- The seven design and construction requirements of the Fair Housing Act
- The most common violations of each requirement
- The effect of the violations on people with disabilities
- Requirements for compliance
- Design techniques that will avoid violations

Common Design and Construction Violations and Solutions Introduction

At the end of the session, you will:

- Be able to list the seven design and construction requirements of the Fair Housing Act
- Be able to cite examples of the most common violations for each Fair Housing Act requirement
- Be able to identify the obstacles that Fair Housing Act violations present to persons with disabilities

Motes:

Common Design and Construction Violations and Solutions Introduction

At the end of the session, you will:

- Be able to identify key solutions for some of the most common violations under each requirement
- Be able to list ways to avoid non-compliance related to each of the seven requirements

-	Name four personal learning goals
	for this session.
1 2 3 4	
2.	
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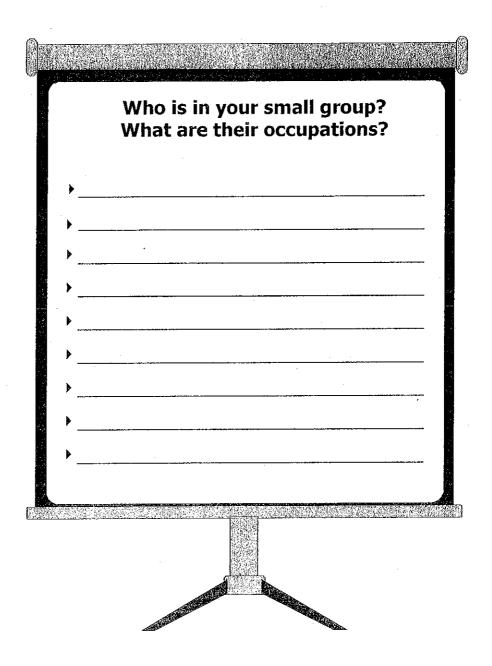
Goals should be:

Specific
Measurable
Achievable
Relevant
Timely

Example: I will learn three ways to avoid violating the requirements of the Fair Housing Act.

Common Design and Construction Violations and Solutions Introduction Small group exercises will be conducted to reinforce key concepts you have learned You are encouraged to ask questions throughout the training session A questionnaire will be distributed to obtain your feedback on training content, delivery, and materials





Overview of the Fair Housing Act



Common Design and Construction Violations and Solutions Agenda

- Overview of the Fair Housing Act
- Requirement 1
- Requirement 2
- Requirement 3
- Requirement 4
- Requirement 5
- Requirement 6
- Requirement 7
- Resources

History of the Fair Housing Act

- Fair Housing Act was passed in 1968
 Fair Housing Amendments Act, with new coverage of disability, was enacted in 1988
- Enforced by:
 - The Department of Housing and Urban Development
 - The Department of Justice
 - State and local fair housing enforcement agencies
 - Private lawsuits in federal and state courts

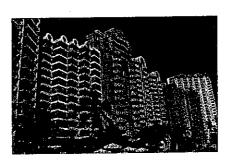






Units Covered by the Fair Housing Act

The design and construction requirements apply to "covered multifamily dwellings" designed and constructed for first occupancy after March 13, 1991



Units Covered by the Fair Housing Act

The Fair Housing Act design and construction requirements apply to "covered multifamily dwellings" designed and constructed "for first occupancy" after March 13, 1991.

A building was not designed or constructed for first occupancy if:

- It was occupied on or before March 13, 1991
- If the last building permit or renewal of a building permit was issued on or before June 15, 1990

Buildings where the last building permit was issued on or before June 15, 1990 are not covered by the design and construction requirements. Even if the last building permit was issued after June 15, 1990, if the building was occupied before March 13, 1991, it is not covered. HUD adopted these dates to allow time for the requirements to be considered during the design and construction phase of new properties.

The "first occupancy" language in the statute has been defined in HUD's Fair Housing Act regulations as "a building that has never before been used for any purpose." This means buildings that are rehabilitated are not covered by the design and construction requirements even if rehabilitation occurs after March 13, 1991 and even if it is substantial rehabilitation.

Units Covered by the Fair Housing Act

Covered Multifamily Dwellings Include:

- <u>All</u> dwelling units in buildings containing four or more units, with an<u>elevator</u>
- All ground floor units in buildings containing four or more units, without an elevator

Units Covered by the Fair Housing Act (cont)

A dwelling unit includes:

- A single-family unit in buildings with four or more units
- An apartment
- A room in which people sleep even if they share kitchens or bathrooms, like transitional housing

The design and construction requirements apply to "covered multifamily dwellings." Covered multifamily dwellings are:

- 1. All dwelling units in buildings containing four or more dwelling units if the buildings have one or more elevators AND
- 2. All ground floor units in other buildings containing four or more units, without an elevator.

This includes housing that is for rental or for sale and applies whether the housing is privately or publicly funded.

Condominiums and apartment buildings are covered by the design and construction requirements. So are time-shares, dormitories, transitional housing, homeless shelters that are used as a residence, student housing, assisted living housing, and others.

, i	Scoping Parameters of the Fair Housing Act
	What is Covered
	Housing in buildings with four or more units
	 In elevator buildings, all units
	 In buildings without an elevator, ground floor units
	 Constructed for first occupancy after March 13, 1991
:	What is not Covered
	Detached single family houses
1.4 1.4	 Duplexes or triplexes
	Multistory townhouses
	Special Issues
, t - +	
3 tg	

Scoping Parameters of the Fair Housing Act

So, housing in buildings with four or more units is covered, if built after March 13, 1991. In elevator buildings, all units are covered. In buildings without elevators, ground floor units are covered.

There are some kinds of units that are not covered by the FHAct's design and construction requirements. First, buildings that were designed and constructed for first occupancy before March 13, 1991 are not covered.

Because of the way that "covered multifamily dwellings" are defined, buildings with three or fewer units are also not covered by the design and construction requirements. Detached single family houses and duplexes and triplexes are not covered.

Another common situation that is not covered are multistory townhouses. Townhouses with finished living space on more than one level are not covered, unless there is an elevator in the building. If none of the covered units are required to be accessible because they are all multistory townhouses, the FHAct does not require that the public and common-use areas be accessible.

Scoping Parameters of the Fair Housing Act (continued)

But remember that other federal laws, such as Title III of the Americans with Disabilities Act, may require rental and sales offices to be accessible regardless of whether the FHAct would require them to be accessible.

The Act does not require any specific number of accessible dwelling units in a project, such as 5%. Rather, all units in buildings with elevators and all ground floor units in buildings without elevators are covered.

	Other Key Issues	
	Other reg isodes	
	Dwelling units where four or more units are separated by a breezeway or stairway <u>are</u> covered	
Carrent Carrier	Dwelling units in a single structure and separated by firewalls <u>are</u> covered	:
	Additions of four or more units that are added to buildings built before March 13, 1991 are covered	:
	Alterations of dwelling units built before March 13, 1991 are <u>NOT</u> covered	
		3

Other Key Issues

There are a few other technical considerations about the general application of the design and construction requirements:

- Units that are connected by a breezeway or stairway are still considered to be in "a building with four or more units."
- Dwelling units within a single structure that are separated by firewalls do not constitute separate buildings. So buildings with four or more units that are separated by firewalls are still covered multifamily dwellings.
- If additions of four or more units are added to existing buildings, they are covered by the design and construction requirements. If this happens, existing public and common-use areas do not have to be made accessible simply because newly constructed dwellings are added. (However, if the entrance to an addition is through an existing building, that entrance and the route to it, must be made accessible.)
- The FHAct does not cover properties that existed before March 13, 1991 even if they are renovated after March 13, 1991. It also does not cover buildings that were used previously for purposes other than housing, that have been renovated since March 13, 1991, to include dwelling units. However, renovations of covered multifamily dwellings built in compliance cannot be altered in a way that makes them non-compliant.

Fair Housing Act – Seven Design and Construction Requirements

- 1. Accessible building entrance on an accessible route
- 2. Accessible and usable public and common-use areas
- 3. Usable doors
- 4. Accessible routes into and through covered unit
- 5. Light switches, electrical outlets, thermostats, and other environmental controls in accessible locations
- Reinforced walls for later installation of grab bars
- 7. Usable kitchens and bathrooms



Fair Housing Act – Seven Design and Construction Requirements

The FHAct's design and construction requirements are broken down into seven basic requirements.

- 1. Accessible building entrance on an accessible route
- 2. Accessible and usable public and common use areas
- 3. Usable doors
- 4. Accessible routes into and through covered unit
- 5. Light switches, electrical outlets, thermostats, and other environmental controls in accessible locations
- 6. Reinforced walls in bathrooms for later installation of grab bars
- 7. Usable kitchens and bathrooms

Fair Housing Act - Seven Design and Construction Requirements

- 1. The first is that all covered multifamily dwellings must have **at least one building entrance on an accessible route** unless it is impractical to do so because of the terrain or unusual characteristics of the site. Obviously, there is little point in having an accessible unit in buildings that people cannot enter.
 - An accessible route means a continuous, unobstructed path connecting accessible elements and spaces within a building or site that can be negotiated by a person with a disability who uses a wheelchair, and that is also safe for and usable by people with other disabilities.
 - An accessible entrance is a building entrance connected by an accessible route to public transit stops, accessible parking and passenger loading zones, or public streets and sidewalks.
 - 2. The second requirement is that covered housing must have accessible and usable public and common-use areas. Public and common-use areas cover all parts of the housing outside individual units. They include, for example: building-wide fire alarms, parking lots, storage areas, indoor and outdoor recreational areas, lobbies, mailrooms and mailboxes, and laundry areas.
 - 3. The third requirement is that all *doors that allow passage into and within all premises must be wide enough to allow passage by persons using wheelchairs.*
 - 4. The fourth requirement is that *there must be an accessible route into and through each covered unit*.
 - 5. The fifth requirement is that *light switches, electrical outlets, thermostats and other environmental controls must be in accessible locations.*
 - 6. The sixth requirement is *reinforcements in bathroom walls so that grab bars can be added when needed*. The law does not require installation of grab bars in bathrooms.
 - 7. The seventh requirement is that *kitchens and bathrooms must be usable* that is, designed and constructed so an individual in a wheelchair can maneuver in the space provided.

Fair Housing Act – Safe Harbors for Compliance

- HUD Fair Housing Accessibility Guidelines and the Supplemental Notice
- ANSI A117.1 (1986), used with the Fair Housing Act, HUD's regulations, and the Guidelines
- 3. CABO/ANSI A117.1 (1992) used with the Fair Housing Act, HUD's regulations, and the Guidelines
- 4. ICC/ANSI A117.1 (1998) used with the Fair Housing Act, HUD's regulations, and the Guidelines
- 5. The Fair Housing Act Design Manual
- Code Requirements for Housing Accessibility 2000 (ICC/CRHA)
- 7. International Building Code 2000 with 2001 Supplement

Fair Housing Act - Safe Harbors Used for Training

These are the seven access standards that HUD has identified:

- 1. The Fair Housing Act Accessibility Guidelines (issued on March 6, 1991), and the Supplemental Notice to Fair Housing Accessibility Guidelines: Questions and Answers about the Guidelines (issued June 28, 1994).
- ANSI A117.1 (1986), used with the FHAct, HUD's FHAct regulations, and the Guidelines.
- 3. CABO/ANSI A117.1 (1992), used with the FHAct, HUD's FHAct regulations, and the Guidelines.
- 4. ICC/ANSI A117.1 (1998), used with the FHAct, HUD's FHAct regulations, and the Guidelines.
- 5. The Fair Housing Act Design Manual.
- 6. Code Requirements for Housing Accessibility 2000 (CRHA) published by the International Code Council in October, 2000.

Fair Housing Act – Safe Harbors Used for Training (continued)

7. International Building Code 2000, as amended by the IBC's 2001 Supplement to the International Codes.

It is important to note that the ANSI A117.1 standard contains only technical criteria, whereas the Fair Housing Act, the regulations and the Guidelines contain both scoping and technical criteria. Therefore, in using any of the ANSI standards it is necessary to also consult the Act, HUD's regulations, and the Guidelines.

Other means of providing access that provide an equal or greater degree of accessibility may also be used to comply with the Fair Housing Act's access requirements, but they are not a safe harbor.

This training relies on the provisions of the Fair Housing Act and its regulations, the Accessibility Guidelines and the Supplemental Questions and Answers, ANSI A117.1 (1986) and the Design Manual for the guidance that it provides about compliance with the technical design and construction requirements in the Act.

CAUTION:

Safe harbor standards constitute safe harbors only when adopted and implemented in accordance with the policy statement that HUD published in the Federal Register on March 23, 2000. That policy statement notes, for example, that if a jurisdiction adopts a model building Code that HUD has determined conforms with the design and construction requirements of the Act, then covered residential buildings that are constructed in accordance with plans and specifications approved during the building permitting process will be in compliance with the requirements of the Act unless the building code official has waived one or more of those requirements or the building code official has incorrectly interpreted or applied the building code provisions. In addition, adoption of a HUD recognized safe harbor does not change HUD's responsibility to conduct an investigation if it receives a complaint.

Importance of Attention to Access
Accessibility is frequently measured in inches
Accessibility requires attention to detail
Accessibility requires conscious application of design principles



Importance of Attention to Access

This photograph illustrates the need for accessible design, and its importance to persons with disabilities.

What Are Common Violations?
There is documented non-compliance with the design and construction requirements
The most common violations are drawn from enforcement, industry, and advocacy sources

Refer to "Common Violations of the Fair Housing Act Design and Construction Requirements".

Requirement 1



Common Design and Construction Violations and Solutions Agenda

- Overview of the Fair Housing Act
- Requirement 1
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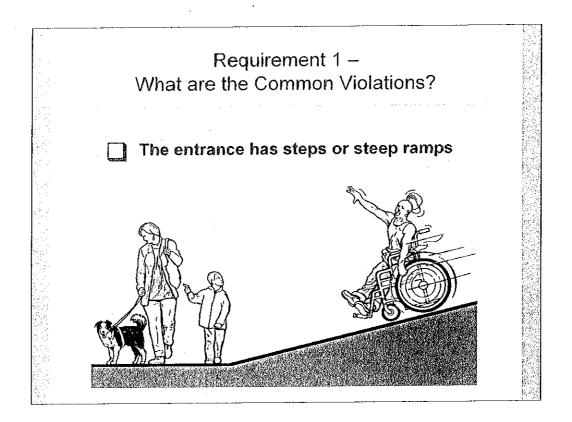
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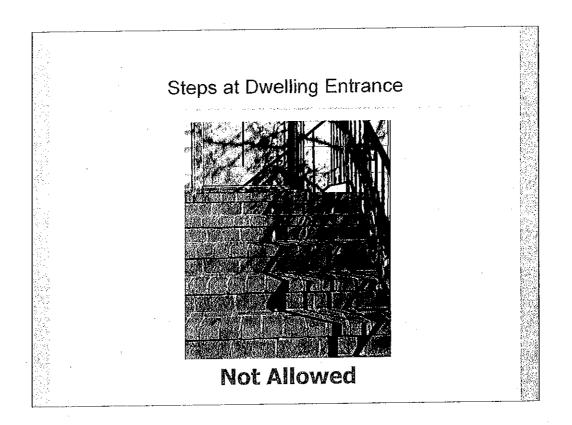
Refer to page 1.1 of the Design Manual.

Requirement 1

An Accessible Building Entrance on an Accessible Route

"...Covered multifamily dwellings shall be designed and constructed to have at least one building entrance on an accessible route unless it is impractical to do so because of terrain or unusual characteristics of the site."



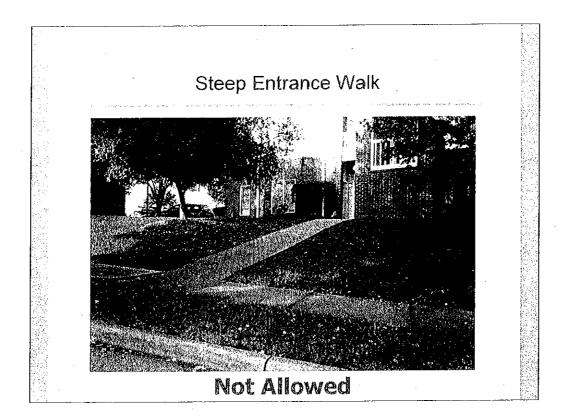


Steps at Dwelling Entrance

This photograph shows a multifamily dwelling with multiple steps up to the building entrance.

Requirement 1 requires at least one ground-floor entrance to be on an accessible route unless it is impractical due to terrain or unusual site characteristics.

The steps in this photograph are an obvious violation of Requirement 1.



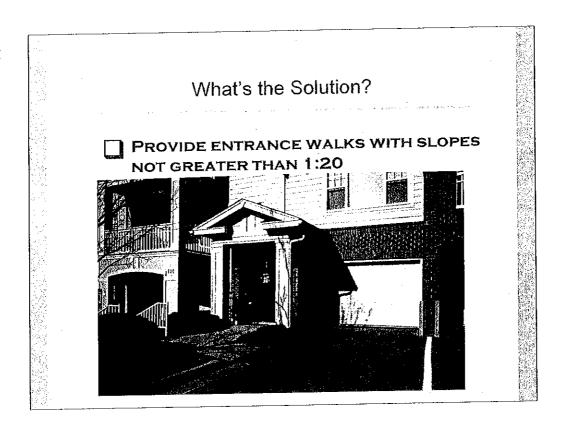
Steep Entrance Walk

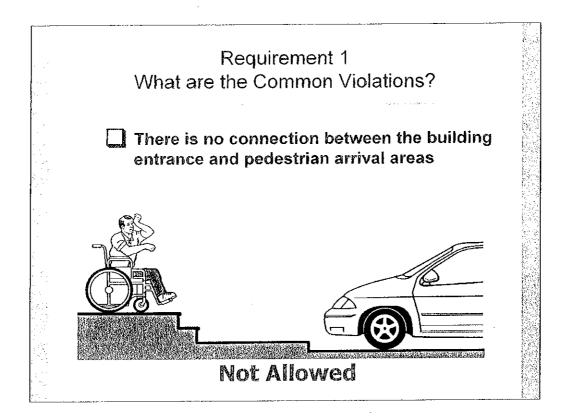
This photograph shows a very steep entrance walk leading from the parking area to the dwelling entrance.

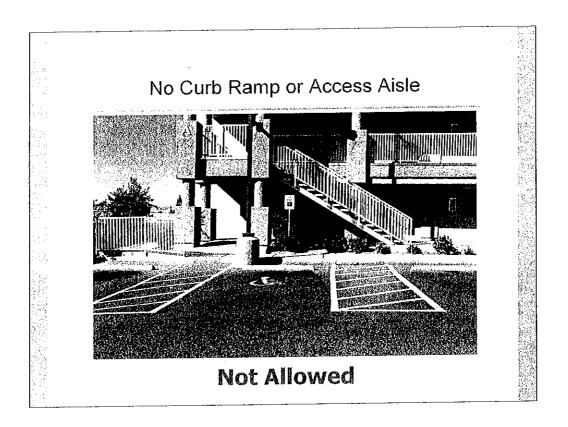
Entrance walks required to be accessible under Requirement 1 must connect the building entrance with pedestrian arrival points—in most cases to parking areas. The specifications that required entrance walks must comply with are found in the ANSI standard. Some of the key features that walks must have are:

- Slopes that do not exceed 1:20 (one inch of rise for every 20 inches of run, or length).
- Or, if slopes exceed 1:20, walks must be designed as ramps. Ramps must have railings on both sides, have edge protection, and appropriate size landings at the top and bottom of the ramp. Ramps must not have slopes that are steeper than 1:12.

The walk in this photograph has slopes in excess of 1:20. It therefore should meet the specifications for ramps. However, it does not have railing or edge protection and it may have a slope greater than 1:12.







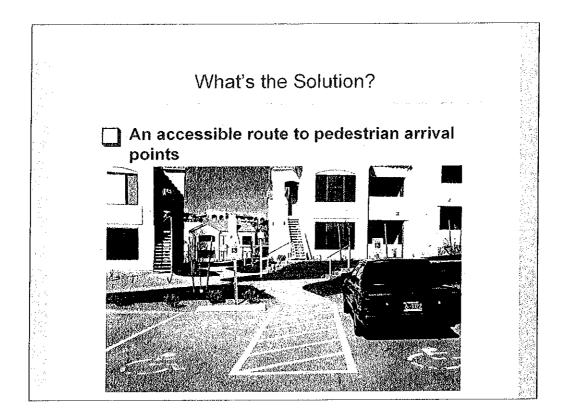
No Curb Ramp or Access Aisle

This photograph shows an entrance walk that does not lead from the building entrance to a pedestrian arrival area, in this case a parking lot. There is no curb ramp provided at the access aisles.

When entrance walks are required to be accessible under Requirement 1, they must be accessible and lead from the dwelling entrance to the pedestrian arrival area.

When accessible walks lead to a parking area there must not be any steps. Curb ramps must be provided or a curbless design may be used to provide access.

Access aisles must adjoin an accessible route to the walks.



Requirement 2



Common Design and Construction Violations and Solutions Agenda

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Notes:

Refer to page 2.1 of the Design Manual.

Requirement 2

Accessible and Usable Public and Common-Use Areas

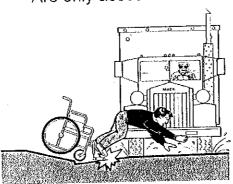
"...covered multifamily dwellings with a building entrance on an accessible route shall be designed in such a manner that the public and common-use areas are readily accessible to and usable by [people with disabilities]."

Common Design and Construction Violations and Solutions

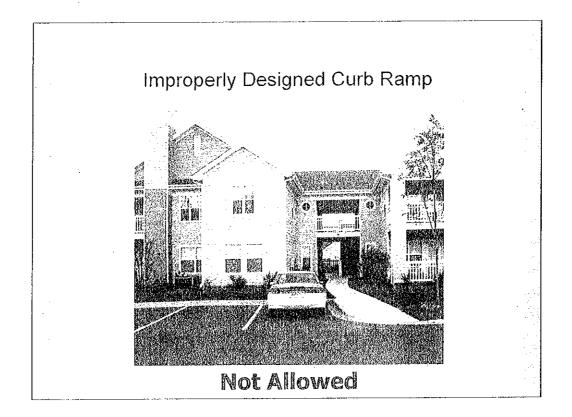
Requirement 2 What are the Common Violations?

Curb ramps:

- · Are too steep,
- · Have steep flared edges, or
- Are only accessed from heavily trafficked areas



Not Allowed

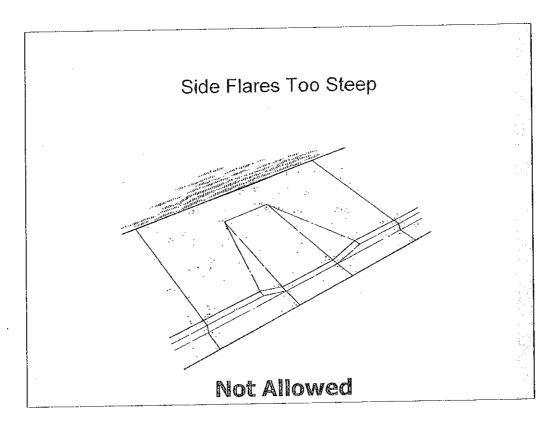


Improperly Designed Curb Ramp

This photograph shows a curb ramp that does not comply with ANSI A117.1 (1986), as required by the Guidelines. Some of the key features that curb ramps must have are:

- 1. Running slopes that do not exceed 1:12.
- 2. A total vertical rise that does not exceed 6 inches, unless handrails are provided.
- 3. A width not less than 36 inches.
- 4. Side flares that are sloped 1:10 or less and sometimes 1:12 or less, depending on the design of adjacent sidewalks.

Since this ramp protrudes out into the parking area, it is required to have flared edges on both sides. This ramp has an abrupt drop off on the edge facing the parking lot, which could prove a hazard for someone who may fall off the edge. Protruding ramps such as this should have flared edges or the edge may be protected by a raised curb along the exposed edge.

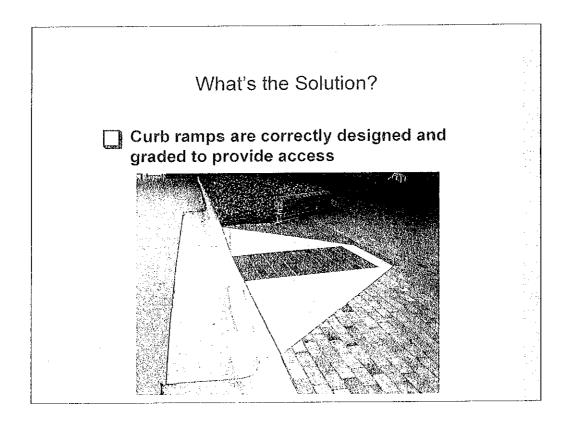


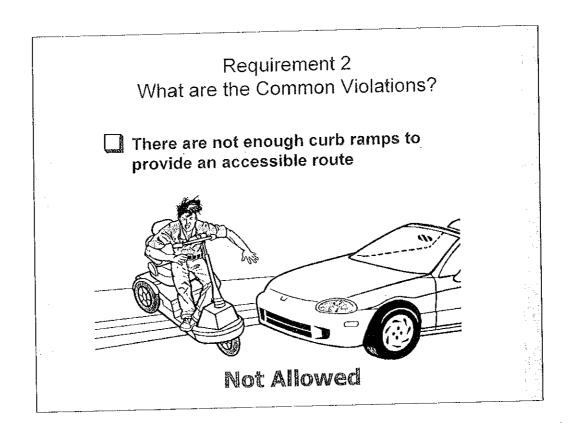
Side Flares Too Steep

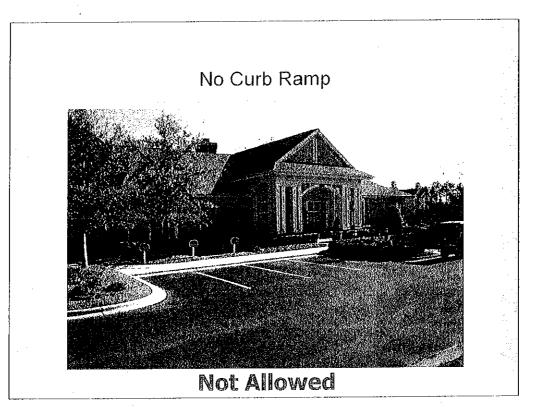
This illustration shows a curb ramp that forms part of the walkway, subject to pedestrian cross traffic.

The Guidelines and ANSI require curb ramps that are subject to cross traffic to have side flares that are gently sloped no steeper than 1:12.

The side flares on this ramp are too steep.





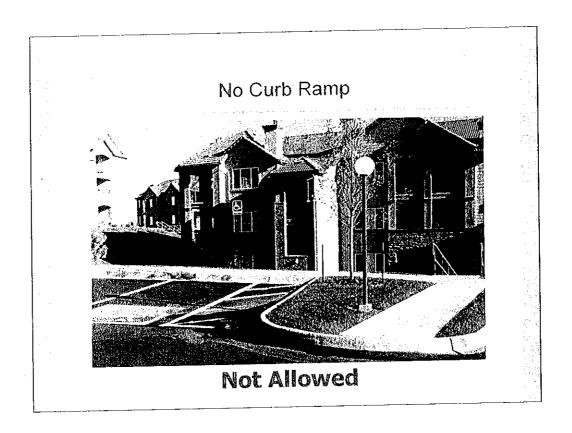


No Curb Ramp

This photograph shows a sidewalk leading to a public use facility, but there is no curb ramp, which makes it inaccessible.

Accessible routes are the key element allowing persons with mobility disabilities to travel around a site and use the facilities.

Curb ramps are a crucial link in creating accessible routes when pedestrian sidewalks are raised above the level of vehicular traffic areas.

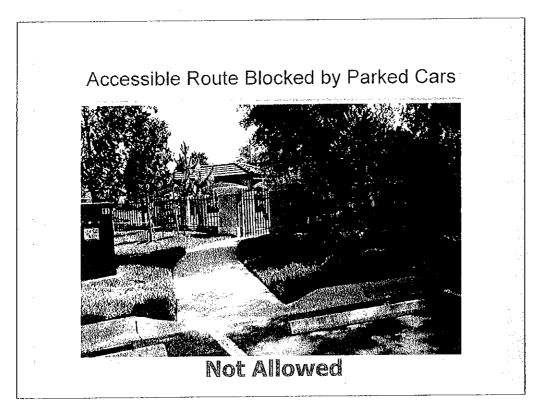


No Curb Ramp

This photograph illustrates another example of an improperly designed site due to missing curb ramps.

In this case, the sidewalk provides access to the housing and also serves the adjacent accessible parking space.

Due to the missing curb ramps, both the sidewalk and the accessible parking space are not on an accessible route, which is a violation of Requirement 2.

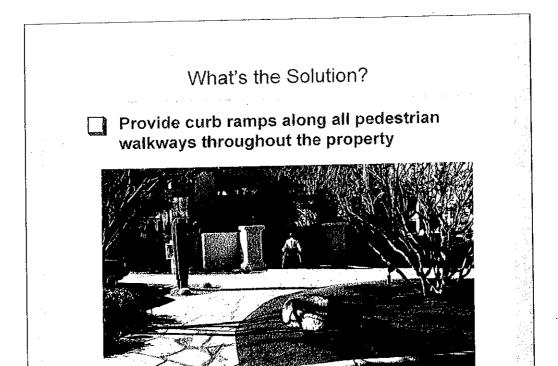


Accessible Route Blocked by Parked Cars

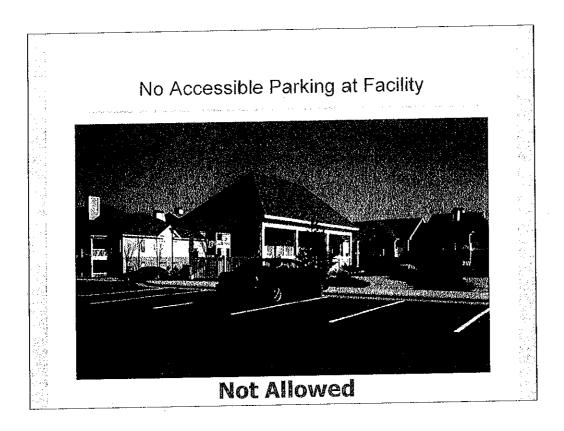
This photograph provides an example of an accessible route that will be blocked by cars.

This sidewalk leads to a bus stop visible in the distance. When cars are parked, access to this facility would be denied to people who use wheelchairs or other mobility aids.

There must be an access aisle in the parking lot to provide permanent access to the walkway.







No Accessible Parking at Facility

This photograph shows a community mail room in a multifamily development. The Guidelines, in Requirement 2, require that accessible parking be provided at public and common-use facilities.

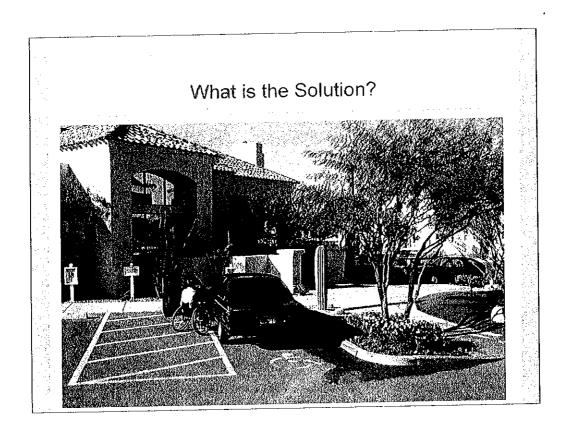
This provision allows persons with mobility disabilities to drive to the facility and access it.

An accessible parking space must be designed and built according to specifications in the ANSI standard. Some key features required are:

- A parking space at least 8 feet wide with signage showing the symbol of accessibility;
- 2. A 5 foot minimum width transfer/access aisle adjacent to the parking space, that is also on an accessible route to the facility. This allows a person using a wheelchair to transfer out of their vehicle and access the facility.

What's the Solution?

- Provide accessible parking at public and common-use areas where parking is provided
 - √ Rental and management offices
 - ✓ Model units
 - ✓ Mail box kiosks
 - √ Swimming pools
 - √ Tennis courts
 - √ Club houses
 - √ Garbage dumpsters
 - ✓ Playgrounds



Common Design and Construction Violations and Solutions

Requirement 3



Common Design and Construction Violations and Solutions Agenda

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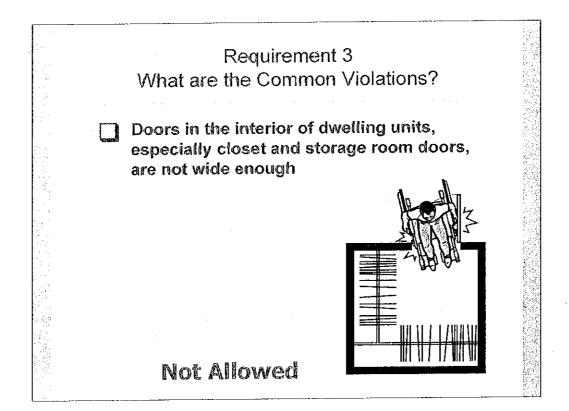
Notes

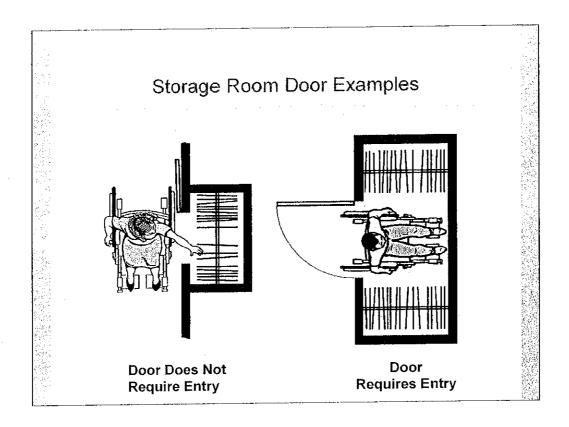
Refer to page 3.1 of the Design Manual.

Requirement 3

Usable Doors

"...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."





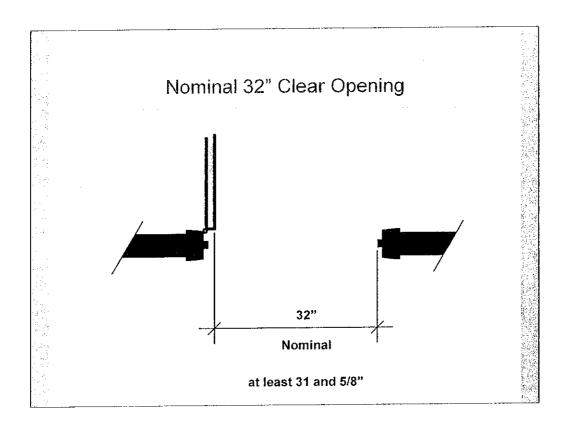
Storage Room Door Examples

The floor plan illustrations show two closets.

The closet on the left is a reach-in closet that can be accessed. Since the door is not a door intended for passage, it may be of any width. The maximum depth for a reach-in closet is 24".

The closet on the right is a deeper closet that requires passage through the door to access the closet. Because it is a door intended for passage it would be required to provide a nominal 32" clear opening.

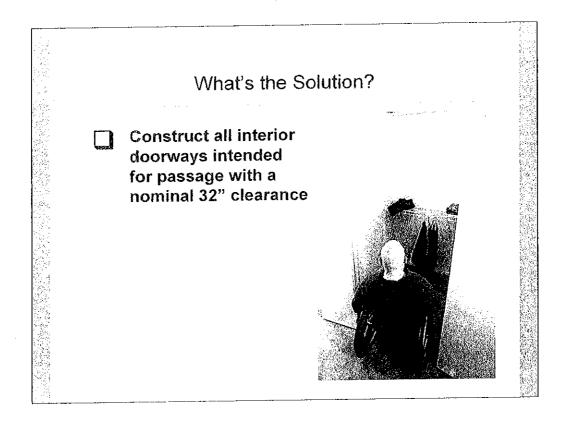
This discussion applies to all storage type rooms within covered dwellings including closets, storage rooms, and kitchen pantries.

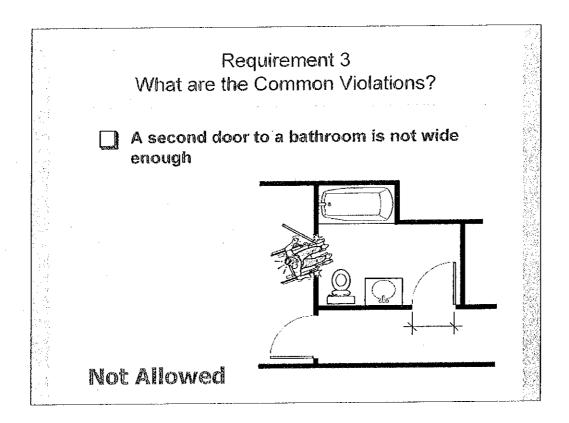


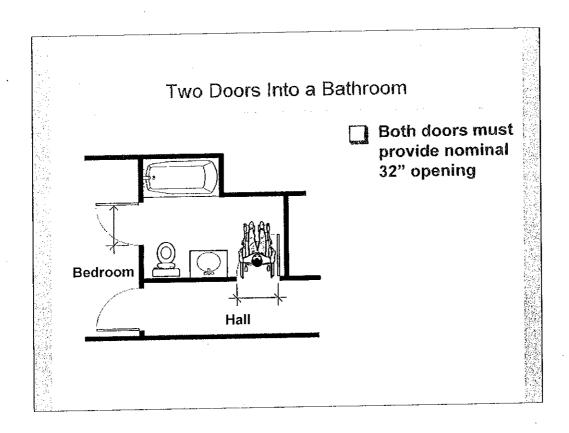
Nominal 32" Clear Opening

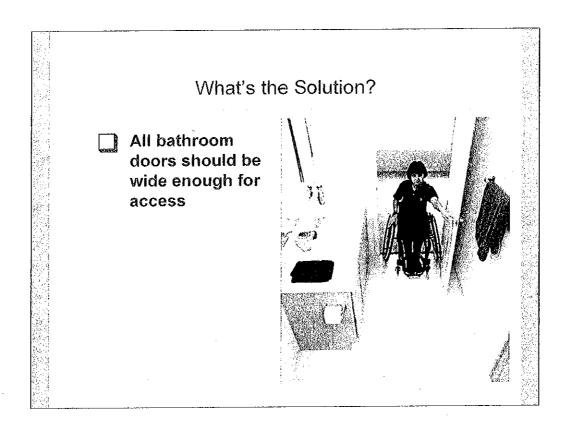
The Guidelines adopt the term "nominal" to distinguish between the door width requirement in the interior of dwelling units from the door width in public areas that must provide an actual 32" clear opening.

This specification allows builders and designers to use standard 34" wide doors which sometimes are shy of providing an actual 32" clear opening. A nominal 32" clear opening is between 31 5/8" and 32" wide.









Requirement 4



Common Design and Construction Violations and Solutions Agenda

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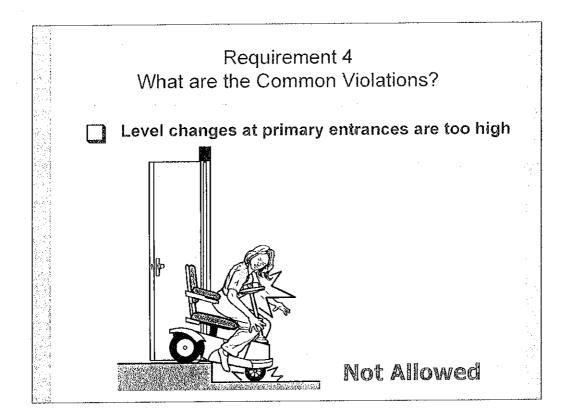
Notes:

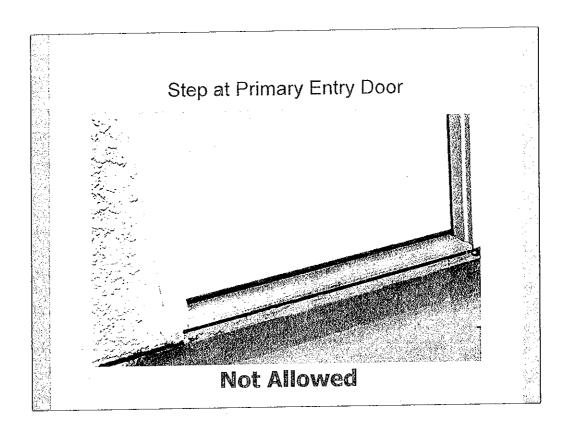
Refer to page 4.1 of the Design Manual.

Requirement 4

Accessible Route Into and Through the Unit

"...covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain an accessible route into and through the covered dwelling unit."

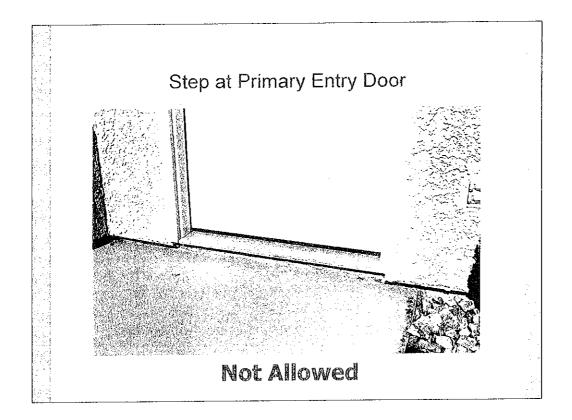




Step at Primary Entry Door

Under Requirement 4, the Guidelines specify that the primary exterior entrance landing to a ground floor dwelling must be no more than 1/2" below the finish floor of the unit if the landing is made of impervious material, like concrete. At the primary entrance, if the landing is of pervious material (i.e. wood decking) the landing must be flush with the finish floor.

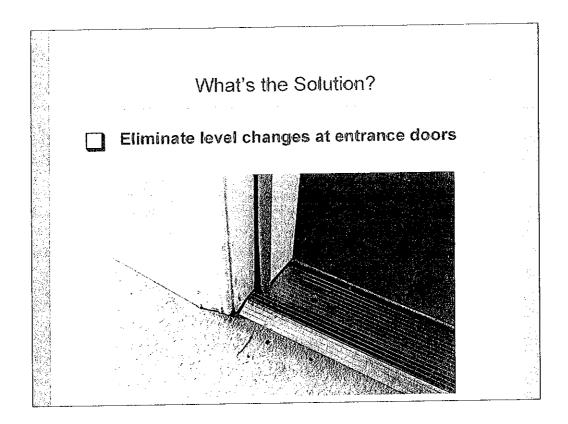
This photograph shows a common violation, where the entrance landing is 4" to 5" below the floor of the dwelling.



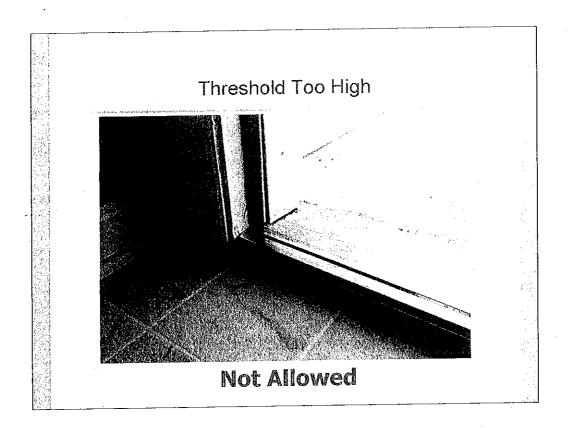
Step at Primary Entry Door

This photograph provides another example of a step at a primary entry door, this time only 1'' to 2'' below the finish floor of the unit.

Frequently, the architectural plans may specify that the landing be flush with the finish floor, but during construction the contractor may drop the landing a few inches, following a convention which is not allowed.



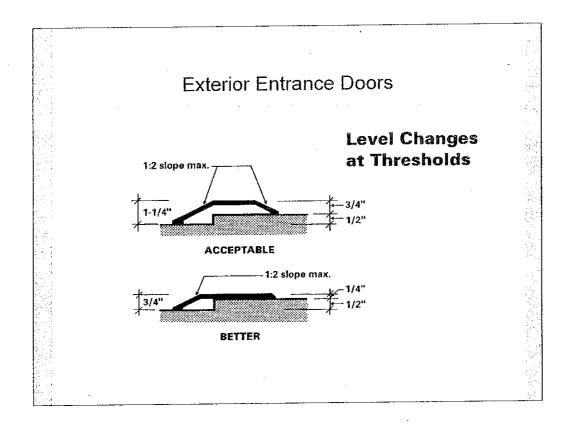




Threshold Too High

This photograph shows a threshold with an abrupt level change.

The Guidelines require that exterior door thresholds must be no higher than 3/4" above finish floor, and they must be beveled 1:2 or less.



Exterior Entrance Doors

These cross sections show two compliant solutions for a primary entrance door.

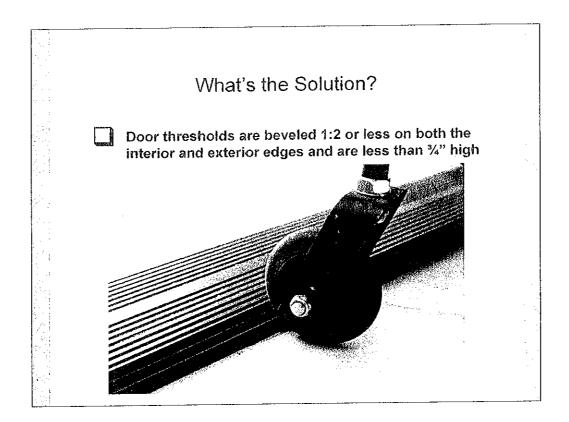
The top profile is the absolute maximum allowed by the Guidelines:

- 1. The exterior landing is dropped 1/2" below finish floor.
- 2. The top of the threshold is 3/4" above finish floor.
- 3. From the exterior, the top of the threshold is 1 1/4" above the landing.
- 4. Both the interior and exterior sides of the threshold must be beyeled 1:2 or less.

Exterior Entrance Doors (continued)

The bottom diagram shows a flatter design that exceeds Guideline specifications. The top of the threshold is only $1/4^{\prime\prime}$ above finish floor.

- 1. The exterior landing is still dropped 1/2", leaving the top of the threshold from the exterior 3/4" above the landing.
- 2. The exterior of the threshold must be beveled 1:2 or less. The interior side does not have to be beveled because abrupt level changes up to 1/4" are allowed.



Requirement 5



Common Design and Construction Violations and Solutions Agenda

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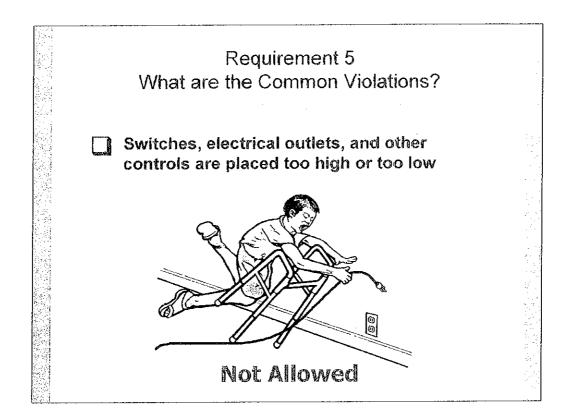
Notes:

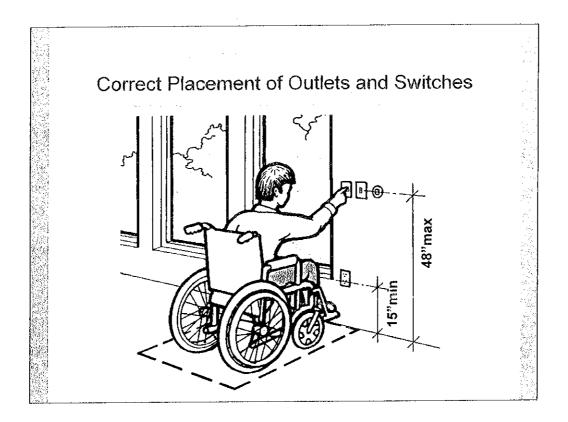
Refer to page 5.1 of the Design Manual.

Requirement 5

Light Switches, Electrical Outlets, Thermostats and Other Environmental Controls in Accessible Locations

"...covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain light switches, electrical outlets, thermostats and other environmental controls in accessible locations."



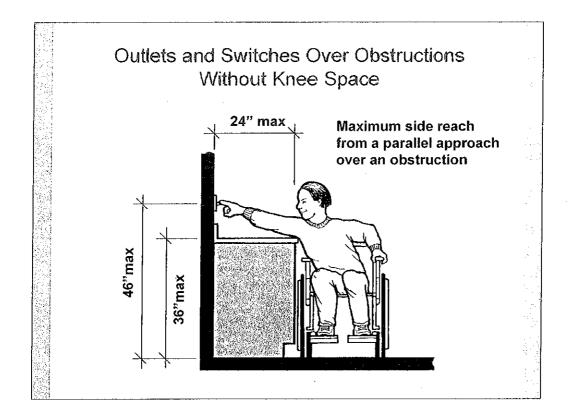


Correct Placement of Outlets and Switches

The Guidelines require that outlets be placed no lower than 15" above finish floor.

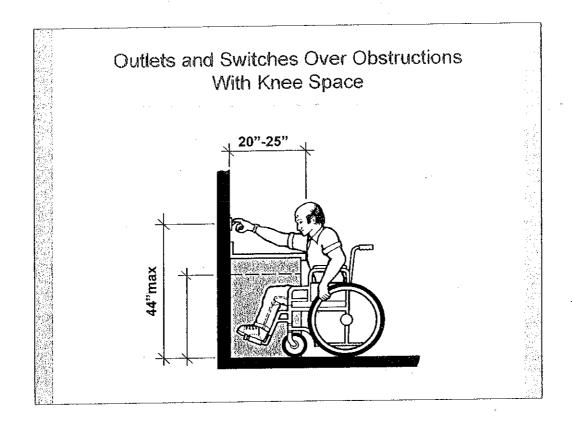
When a typical duplex outlet is used, both receptacles must be $15^{\prime\prime}$ above the floor.

Outlets, switches, and thermostats not located over countertops or other obstructions must be no higher than 48" above finish floor.



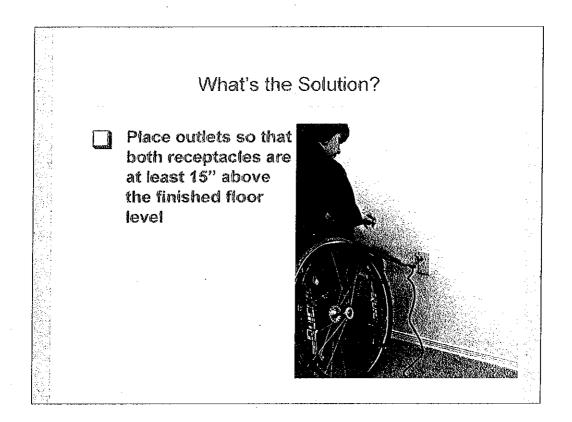
Outlets and Switches Over Obstructions Without Knee Space

Outlets and switches over kitchen counters must be placed appropriately to ensure that operable parts of the device are no higher than 46" above the finish floor.



Outlets and Switches Over Obstructions With Knee Space

If outlets and switches are located over obstructions 20" - 25" deep and the obstruction has knee space, they must be no higher than 44" above the finish floor.



Requirement 6



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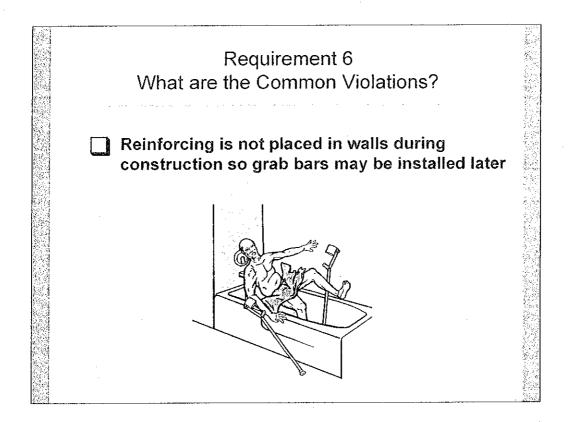
Notes:

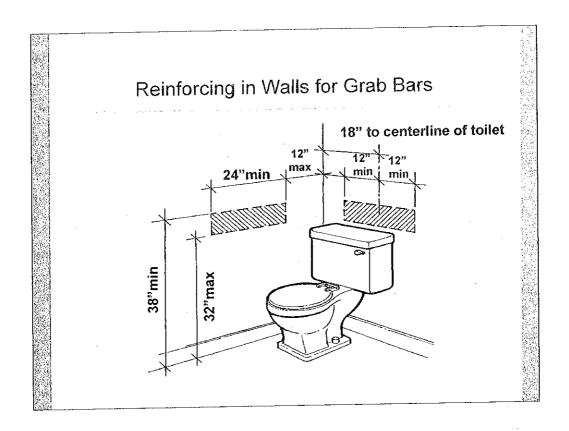
Refer to page 6.1 of the Design Manual.

Requirement 6

Reinforced Walls in Bathrooms For Later Installation of Grab Bars

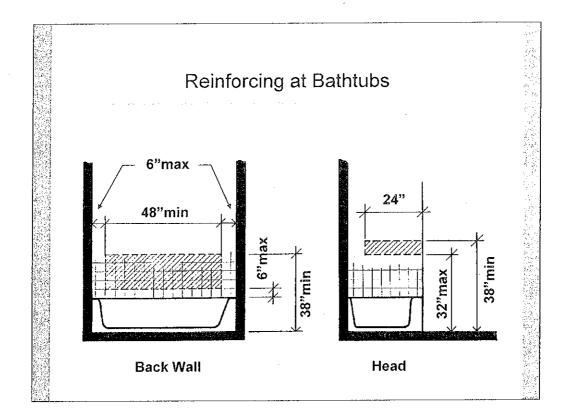
"...covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in a manner that all premises within covered multifamily dwelling units contain reinforcements in bathroom walls to allow later installation of grab bars around toilet, tub, shower stall, and shower seat, where such facilities are provided."





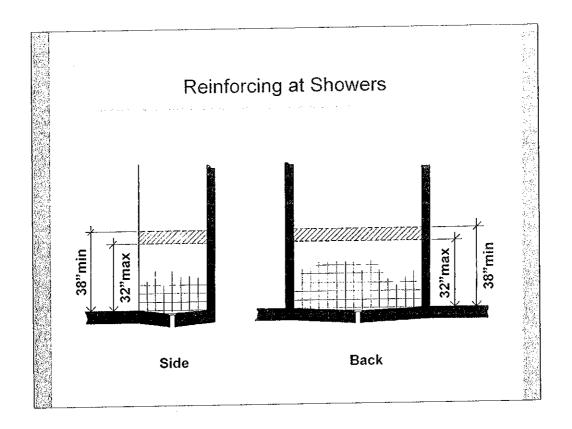
Reinforcing in Walls for Grab Bars

The Guidelines illustrate the specifications for the areas around toilets where reinforcing for grab bars must be provided.



Reinforcing at Bathtubs

At bathtubs also, the Guidelines illustrate minimum areas around the back wall and both end walls of a bathtub where reinforcing must be placed.

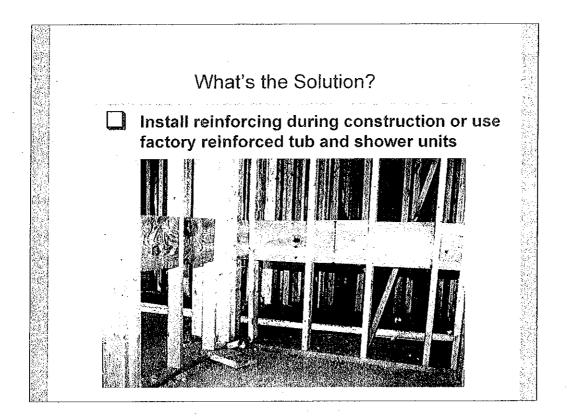


Reinforcing at Showers

Finally, the Guidelines illustrate minimum areas to reinforce in the walls around showers.

In certain situations, for instance, if a shower is the only bathing fixture, it is also required to have reinforcing for a wall-hung shower seat.

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Requirement 7



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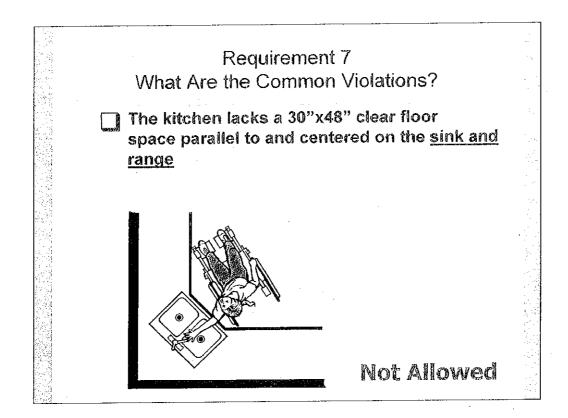
Notes:

Refer to page 7.1 of the Design Manual.

Requirement 7

Usable Kitchens and Bathrooms

"...covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain usable kitchens and bathrooms such that an individual in a wheelchair can maneuver about the space."



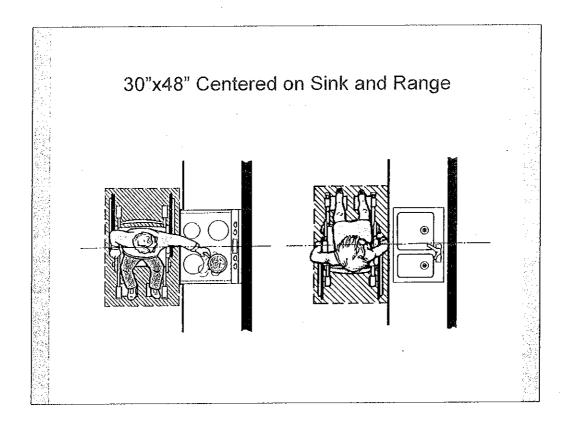


No 30"x48" Clear Floor Space Parallel to and Centered on Sink

Unless a kitchen sink has ANSI-compliant knee space beneath, the Guidelines require a 30"x48" clear floor space that is parallel to and centered on the kitchen sink.

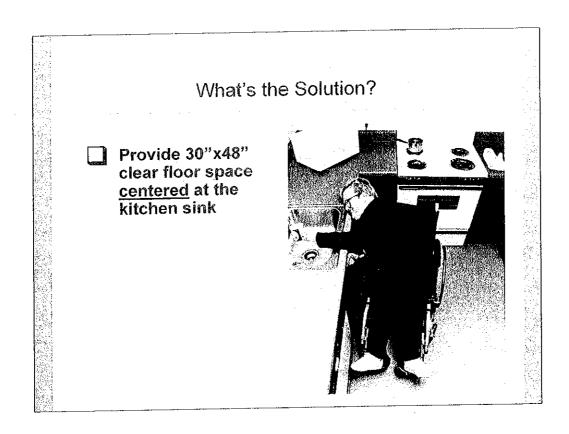
This photograph shows a sink jammed tight into the corner of an L-shaped cabinet design.

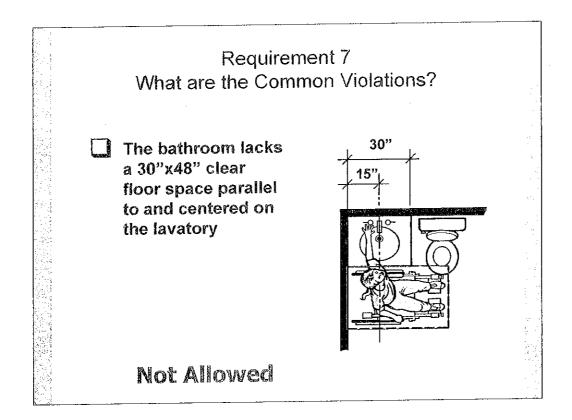
In this situation, in order to meet this requirement, there would need to be 24" from the centerline of the sink to the face of the adjacent cabinets.



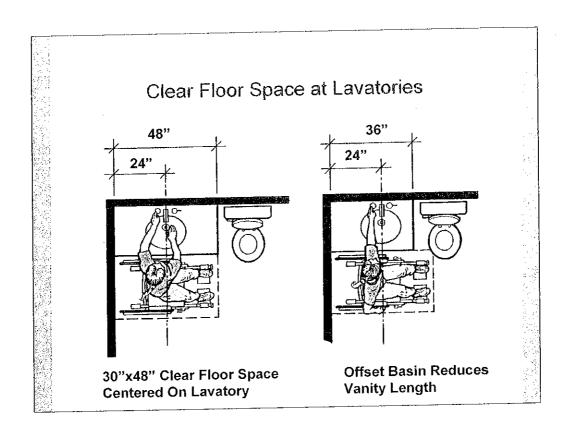
30"x48" Centered on Sink and Range

The clear floor space provided in this parallel and centered orientation allows a person using a wheelchair to make a close side approach, permitting a safer and shorter reach to the sink and range/cooktop.





Motes:

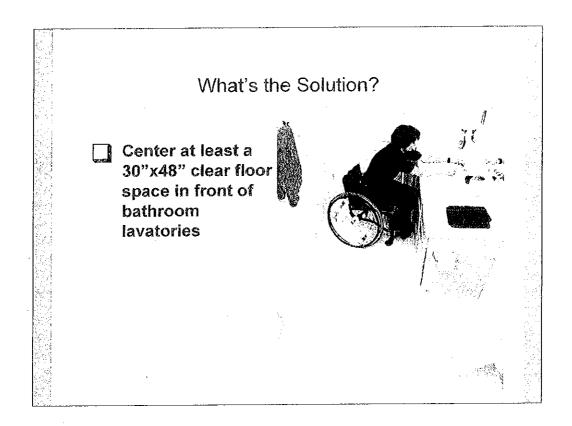


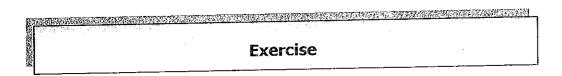
Clear Floor Space at Lavatories

The Guidelines require a 30"x48" clear floor space at the lavatory so a person who uses a wheelchair can get close enough to the basin and controls to use the fixtures.

The required 30"x48" clear floor space must be parallel to and centered on the basin.

For a 48" wide vanity up against an adjacent side wall, the basin could be centered. However, for a 36" wide vanity the sink would have to be offset to obtain the required clear floor space.



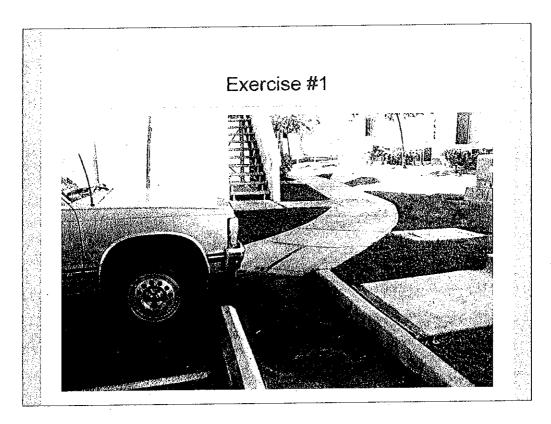


Exercise Objective:

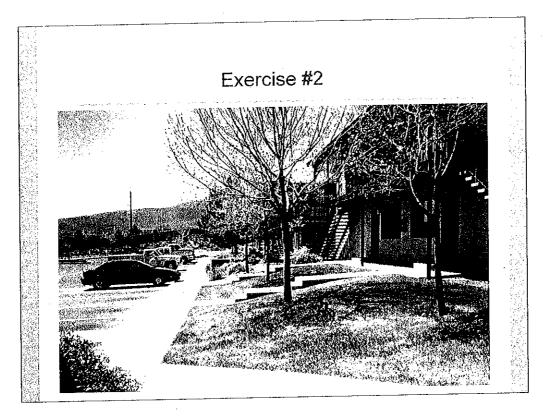
You will learn how to identify common violations by reviewing and analyzing photographs of features that do not comply with design and construction standards. You will then discuss the areas of non-compliance, the effects of the non-compliance, and strategies for achieving a design that complies with the standards.

Exercise Assignment:

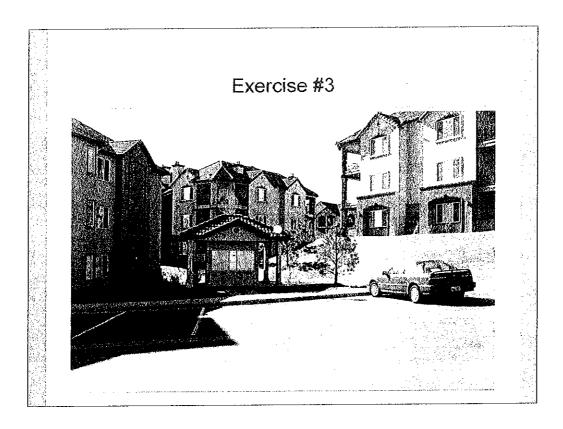
Identify the violations shown in the photographs and suggest solutions.



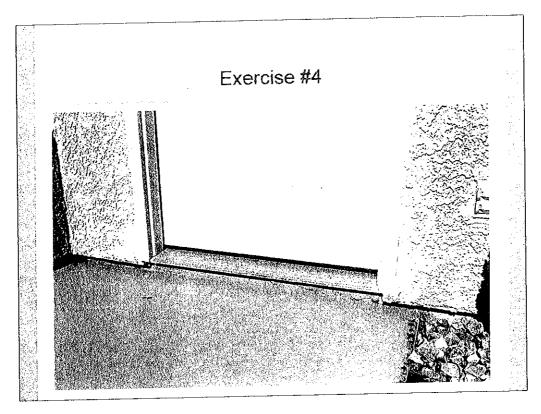
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	Violations and Suggested Solutions
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	Violations and Suggested Solutions
	



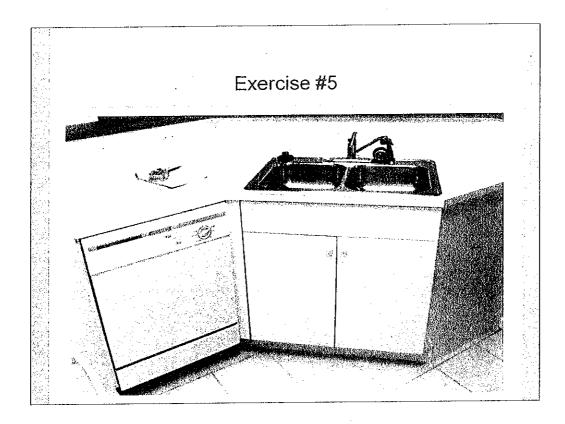
Violations and Suggested Solutions



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Participant Workbook

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Resources



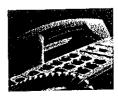
Common Design and Construction Violations and Solutions Agenda

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Fair Housing Accessibility FIRST Resources

Fair Housing Accessibility FIRST Information Line 1-888-FH1RST1

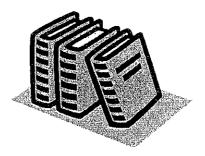


Fair Housing Accessibility FIRST Website www.fairhousingfirst.org



Notes:

Comprehensive Training Curriculum



Course Thire	engiji (eiusag)
Fair Housing Act Accessibility Requirements Overview	3
Fair Housing Act Accessibility Requirements Overview	1
Disability Rights Laws	1.5
Common Design and Construction Violations and Solutions	1.5
Strategies for Compliant Kitchens	1.5
Strategies for Compliant Bathrooms	1.5
Fair Housing Act Enforcement	1.5
Accessible Routes	1.5
Accessible Public and Common-Use Area	1.5

The Fair Housing Act requires that new construction of "covered multifamily dwellings"; both private and public, comply with the Fair Housing Act's design and construction requirements. Covered multifamily dwellings are in buildings that have four or more units. It includes all of the ground floor units, and, in an elevator building, all units in these buildings. It applies to housing that was designed or constructed for first occupancy after March 13, 1991.

Successful accessibility is often measured in inches, so attention to detail can make the difference between achieving access and excluding or injuring someone. When the minimum requirements are not met, the results can limit access for a person with a disability or exclude them from the housing altogether. Sometimes lack of access can even be dangerous.

This is a sampling of common accessibility errors or omissions that have been identified through review of a number of properties that do not comply with the requirements. It is not intended to be comprehensive or exhaustive. Any failure to comply with the requirements violates the Fair Housing Act.

REQUIREMENT 1 - ACCESSIBLE BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE

Error:

The dwelling entrance has steps or the entrance walk is too steep, exceeding allowable slopes. Accessible entrance walks cannot be steeper than 1:20 (5%) unless they are designed as ramps. Ramps cannot be steeper than 1:12 (8.33%) and must have railings and edge protection.

Result:

Steps can block access completely for people who are disabled. Steep ramps without safety provisions like handrails, edges and landings can be dangerous because people using walkers, canes and wheelchairs may fall off them. Wheelchair users and other people with disabilities cannot go up and down the ramp or may lose control while using it.

Error:

Even though an accessible entrance walk may be provided to the dwelling entrance, many times it does not connect to a pedestrian arrival area (often a parking lot). Typical barriers are no curb ramps and no access aisles.

Result:

People with disabilities cannot travel from the site entry points to accessible entrances. They cannot get from parking to the building entrance.

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REQUIREMENT 2 - ACCESSIBLE AND USABLE PUBLIC AND COMMON USE AREAS

Error: Curb ramps may be steep, lack side wings, or be accessed only

from heavily trafficked areas. Curb ramps must be designed and

built in a way that is compliant with ANSI standards.

Result: Steep and improperly designed curb ramps are a hazard for

everyone and can cause injury to both ambulatory and non-

ambulatory persons.

Error: There are not enough curb ramps provided to make the site

accessible.

Result: People using wheelchairs may run into "dead ends" at sidewalks

causing them to travel far in excess of persons who can step over a 6" curb, or it may cause them to use the parking lot and driveway

as a means of getting around the site. If automobile and pedestrian traffic is segregated on a site, then persons with

disabilities should be able to use the pedestrian sidewalk system.

Error: There is no accessible parking at site facilities. Accessible parking is

required at facilities such as mailbox kiosk, laundry rooms,

playgrounds, tennis courts, leasing office, garbage dumpsters, etc.

<u>Result:</u> Many sites are large, and one way for a person using a wheelchair

or other mobility aid to enjoy full use of the housing is to get in their cars and <u>drive</u> to the facility. Also, many sites are too steep for a pedestrian accessible route to connect each building entrance with site facilities. When accessible parking is not provided at

facilities and amenities, persons with disabilities may not be able to

get to and use the facility.

REQUIREMENT 3 - USABLE DOORS

Error: Doors to walk-in closets and storage rooms do not provide a

nominal 32" clear opening (31 5/8").

Result: Many people who use wheelchairs, scooters or walkers cannot use

a door with a less than 32" clear opening because the wheelchair is too wide to get through the door. All doors intended for passage

must be accessible.

Error: The second door into a bathroom, when more than one door is

provided, does not provide a nominal 32" clear opening (31 5/8"). Many times a bathroom has both a door from a hallway and a second door from a bedroom. Both doors are required to be

accessible.

Result: Multiple doors into a bathroom are provided as an amenity to

residents to allow privacy and convenience. If one of the doors is too narrow, this amenity/feature may not be available to residents

or their guests who are in wheelchairs.

REQUIREMENT 4 - ACCESSIBLE ROUTE INTO AND THROUGH THE UNIT

Error: Level changes at primary entrances exceed the allowable ½" between the finished floor of the unit and the exterior entry landing.

Result: Even small steps or level changes can completely block access for

people who are disabled.

Error: Door thresholds exceed the maximum height of ¾" and are not

beveled 1:2 or less.

Result: Abrupt level changes can be extremely difficult to go over for

people using mobility aids such as wheelchairs, walkers and canes. Also, people who do not lift their feet completely may experience difficulty passing over excessively high thresholds that are not

beveled.

REQUIREMENT 5 – LIGHT SWITCHES, ELECTRICAL OUTLETS, THERMOSTATS AND OTHER ENVIRONMENTAL CONTROLS IN ACCESSIBLE LOCATIONS.

Error: Outlets are placed too low. Both outlets must be located at least

15" above the finished floor.

Result: People with limited reach, such as people using wheel chairs and

people who have back problems, may not be able to reach and

use the outlet.

<u>Error:</u> Switches are placed too high. Thermostats and other

environmental switches are placed higher than 48" above the

finished floor.

Result: People with limited reach may not be able to reach the thermostats

and switches.

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REQUIREMENT 6 - REINFORCING IN WALLS FOR GRAB BARS

Error: Reinforcing is not placed in walls during construction around tubs, toilets and showers.

Result: People who need to install a grab bar may not be able to adapt

their dwelling without extensive construction. Fiberglass tub/shower units, which are very frequently used, are most effectively

reinforced by having the reinforcement cast into the sidewalls of

the unit at the factory.

REQUIREMENT 7 - USABLE KITCHENS AND BATHROOMS

Error: In the kitchen there is not 30" x 48" clear floor area parallel to and centered on the kitchen sink and range. Many times the sink or

range is positioned into the "elbow" of an L-shaped kitchen, or sometimes in a small angled section of counter that doesn't provide

a full 48" clear floor area.

Result: The purpose of the 30" x 48" clear floor area in front of the sink or

range is to allow people using a wheelchair to position themselves in front of the sink and use it. If there is not a clear floor area centered in front of the sink, a person using a wheelchair may

encounter obstructions that can keep them from being able to

reach the faucets and use the sink.

Error: Sinks in bathrooms are not positioned with 30" x 48" clear floor area

parallel to and centered on the sink

Result: A person using a wheelchair cannot reach faucets or the sink to use

ìt.

RESOURCES

Fair Housing Act and Related Standards

Standard	Where to Obtain
Fair Housing Act as Amended (Title VIII of the Civil Rights Act)	www.fairhousingfirst.org
Fair Housing Act Guidelines*	www.fairhousingfirst.org
Fair Housing Act Design Manual*	Disseminated at training www.huduser.org (800) 245-2691 TDD: (800) 483-2209
International Building Code*	www.intlcode.org (703) 931-4533
ANSI A117.1 (1986)*	www.intlcode.org (703) 931-4533
CABO/ANSI A117.1 (1992)*	www.intlcode.org (703) 931-4533
ICC/ANSI A117.1 (1998)*	www.inticode.org (703) 931-4533
Code Requirements for Housing Accessibility 2000 (CRHA)*	www.intlcode.org (703) 931-4533
Section 504 of the Rehabilitation Act	www.hudclips.org (301) 519-5395
Uniform Federal Accessibility Standards	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253
Architectural Barriers Act of 1968	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253
Americans with Disabilities Act of 1991, Title II and Title III	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253
ADA Accessibility Guidelines	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253
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^{*}Denotes HUD Safe Harbor

Publications

Listed in alphabetical order with the following designations based on topic.

C - Code; D - Design; L - Legal; DA - Disability Advocacy

	PARTICIPATE PROPERTY CONTRACTOR C		
Туре	Resource Name	Description	Where to Obtain
ا ۵	Accessible Cabinetry	Describes state-of-the-art cabinetry designed to	www.design.ncsu.edu/cud/
		facilitate use by people with disabilities.	(800) 647-6777 (voice or TTY)
<u></u>	Accessible Environments: Toward	Overview of the concept of universal design in	www.design.ncsu.edu/cud/
	Universal Design	everyday environments. Contains design illustrations	(800) 647-6777 (voice or TTY)
		and history of the disability rights movement.	
Δ	Accessible Plumbing	Describes state-of-the-art in accessible plumbing	www.design.ncsu.edu/cud/
		fixtures and accessories.	(800) 647-6777 (voice or TTY)
Δ	Accessible Stock House Plans Catalog	Contains floor plans and perspectives for six	www.design.ncsu.edu/cud/
		accessible homes.	(800) 647-6777 (voice or TTY)
<u></u>	A Consumer's Guide to Home	Includes worksheets for evaluating needs in the	www.design.ncsu.edu/cud/
	Adaptation	home, illustrated construction plans for grab bars,	(800) 647-6777 (voice or TTY)
		ramps, and other accessible elements, and resource	
		listings for products.	
U	HUD Review of Model Building Codes		www.hud.gov/offices/fheo/disabiliti
	Final Report		es/modelcodes/
DA	New Mobility Magazine		www.newmobility.com
<u></u>	The New Fair Multifamily Housing: A	Provides a basic understanding of the accessibility	www.design.ncsu.edu/cud/
	Design Primer to Assist in	requirements of the FHAct. Also includes illustrated	(800) 647-6777 (voice or TTY)
	Understanding the Accessibility Guidelines of the FHAct	solutions and examples from existing projects.	
	Rights and Responsibilities of	Outlines the rights and responsibilities of tenants with	www design nost edu/cud/
	Tenants and Landlords under the Fair	disabilities and landlords under the FHAct.	(800) 647-6777 (voice or TTY)
	Housing Amendments Act		
۵	Tenant's Guide to Apartment	Presents illustrated ideas for low-cost modification	www.design.ncsu.edu/cud/
	Modifications: An Idea Source	that are commonly made to rental dwellings.	(800) 647-6777 (voice or TTY)
	Pamphlet to Simple, Low-cost		
	Modifications to Increase		
	Accessibility in Apartments		

Fair Housing Accessibility FIRST

Websites and Organizations

Listed in alphabetical order with the following designations based on topic.

C – Code; D – Design; DA – Disability Advocacy; G – Government; L – Legal; T – Trade; O – Other

Time	Organization	URL
Туре		www.aarp.org
0	American Association of Retired Persons	www.aapd.org
DA	American Association of People with Disabilities	www.access-board.gov
<u>G</u>	Access Board	
С	Adaptive Environments	www.adaptenv.org
DA	American Association of People with Disabilities	www.aapd-dc.org
<u>T</u>	American Bankers Association	www.aba.com
T	American Bar Association	www.abanet.org
DA	American Disabled for Attendant Programs Today	www.adapt.org
T	American Institute of Architects	www.aia.org
DA	American Seniors Housing Association	www.seniorshousing.org
T	American Society of Civil Engineers	www.asce.org
T	American Society of Interior Designers	www.asid.org
L	Bazelon Center for Mental Health Law	www.bazelon.org
D	Bob Vila	www.bobvila.com - special features
D	Center for Inclusive Design and Environmental Access	www.ap.buffalo.edu
D	Center for Universal Design	www.design.ncsu.edu/cud/index.html
G	Centers for Medicare and Medicaid Services	www.cmms.gov
DA	Consortium for Citizens with Disabilities	www.c-c-d.org
D,L	Cornucopia of Disability Information (CODI)	www.codi.buffalo.edu
G	Department of Agriculture	www.usda.gov
G	Department of Justice	www.usdoj.gov
G	Department of Treasury	www.treasury.gov
DA	Disability Rights Action Coalition for Housing	www.libertyresources.org/housing/nac.html
DA	Eastern Paralyzed Veterans Association	www.epva.org
Т	Institute for Real Estate Management	www.irem.org
С	International Code Council	www.intlcode.org
L	The John Marshall Law School Fair Housing Legal Support	http://law170.jmls.edu/
:	Center	
D	NAHB Research Center	www.nahbrc.org
T	National Affordable Housing Mgmt. Assoc.	www.nahma.org
Ť	National Apartment Association	www.naahg.org
Т	National Association of Home Builders	www.nahb.org
T	National Association of Realtors	www.nar.realtor.com
T, D	National Association of the Remodeling Industries	www.nari.org
G	National Council on Disability	www.ncd.gov
С	National Conference of States on Building Codes and	www.ncsbcs.org
	Standards (NCSBCS)	
DA, L	National Fair Housing Advocate Online	www.fairhousing.com
DA	National Fair Housing Alliance	www.nationalfairhousing.org
D	National Kitchen and Bath Association	www.nkba.org
Ť	National Low Income Housing Coalition	www.nlihc.org
T	National Multi Housing Council	www.nmhc.org
DA	National Organization on Disability	www.nod.org
D, DA	National Resource Center on Supportive Housing and Home	www.homemods.org
-, -, \	Modification	
DA	Paralyzed Veterans of America	www.pva.org
D	Technical Assistance Collaborative	www.toolbase.org
DA	Wemedia	www.wemedia.com
DA	World Institute on Disability	www.wid.org
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