

# ADA Standards Part 1

### Agenda

- Access onto Sites
- Entrances & Doors
- Spaces Covered
- Operable Parts & Elements
   (Chapters 1 5)

## ADA Standards (2010)

### Apply to:

- State/ local gov't facilities
- Places of public accommodation
- Commercial facilities
- Transportation facilities (DOT's 2006 Standards)

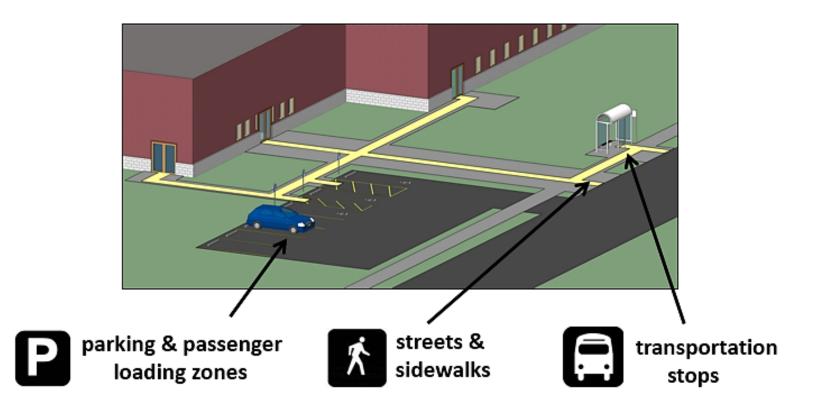






### **Application**

Standards fully apply within boundary of the site starting with site arrival points (at least one accessible route to accessible entrance)



### **Parking Spaces**

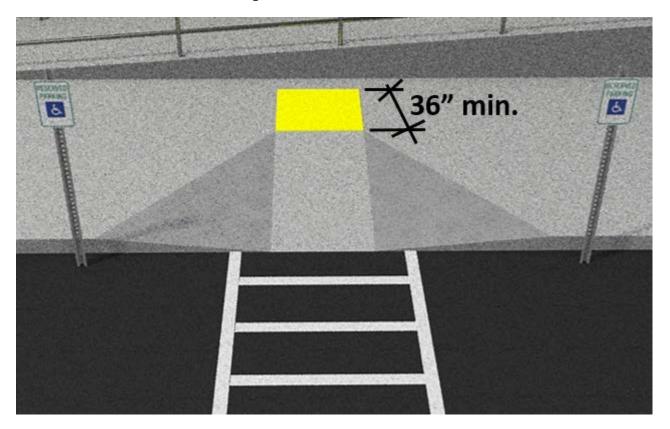
AR must connect to access aisles at accessible parking spaces



Recommended: connect AR to front of aisle to prevent travel behind parked cars

## Curb Ramps (§406)

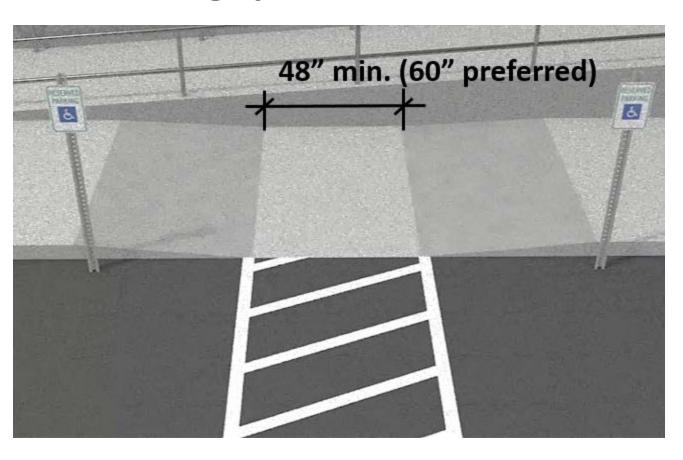
Landing 36" deep min. required at top of curb ramps in new construction



Curb ramps cannot protrude into access aisle

### **Curb Ramps**

Parallel curb ramps can be used where top landing space is unavailable



## **Detectable Warnings**

### Required on curb ramps at:

- Transit facilities (DOT standards 406.8)
- FHWY funded projects
- Public sidewalks (recommended new ROW guidelines will address)

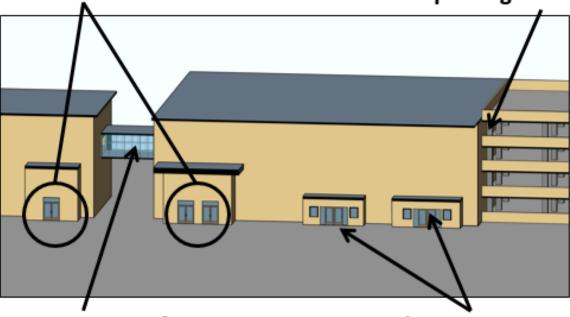
Not required on curb ramps at other facilities or hazardous vehicular areas

Required on rail station boarding platforms

### **Entrances (§206.4)**

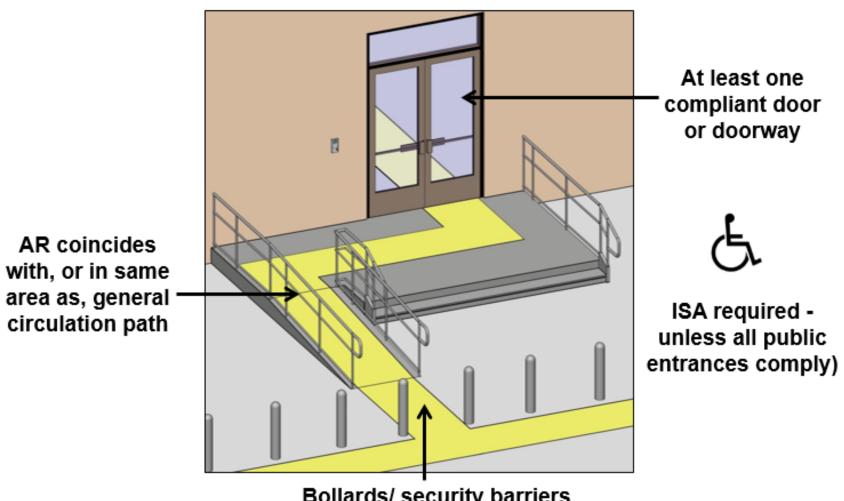
### **Minimum Number**

At least 60% of public entrances At least 1 entrance serving each direct access from parking structures



At least 1 entrance from each elevated walkway or pedestrian tunnel At least 1 entrance to each tenancy in a facility

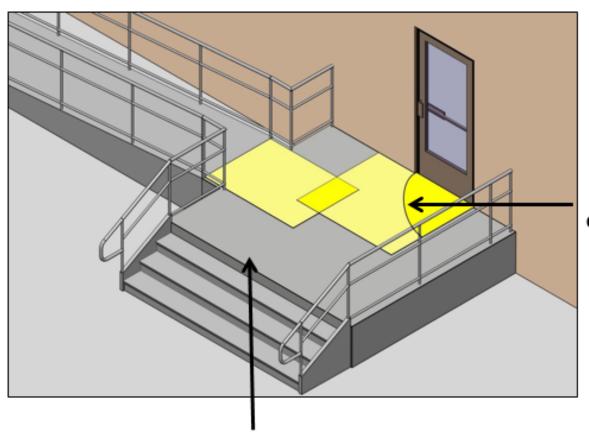
### **Entrances**



Bollards/ security barriers cannot obstruct AR

### **Entrances**

### Landings must accommodate door man. clearances



Recommended: locate door swing outside ramp landing

Recommended: locate clearances away from stair openings/ drop-offs

### **Entrances**

### **Exterior Doors: Automation Recommended**





# Which rooms and spaces must comply?

## **New Construction (§201)**

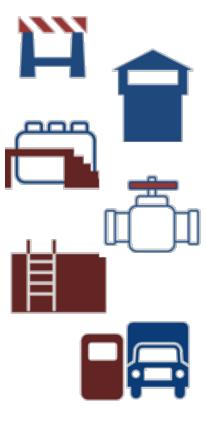
**All** areas must comply except:

- Exempted structures/ spaces
- Employee Work areas
- Partially scoped spaces



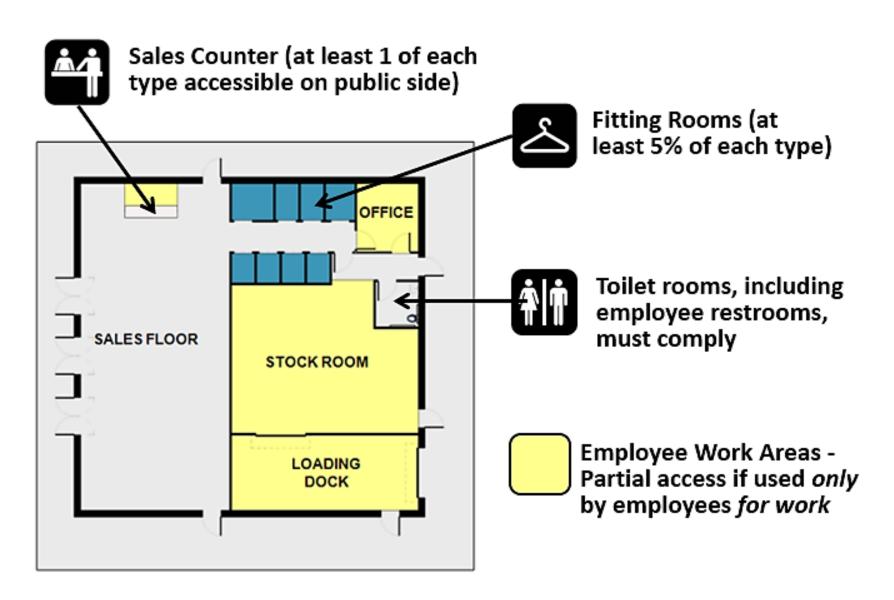
## **General Exceptions (§203)**

- construction sites
- areas raised for security, life/fire safety
- raised work areas
- machinery spaces
- spaces accessed by ladders, catwalks, crawl spaces, very narrow passageways
- certain single occupant structures (e.g., toll booths)
- certain sports structures (e.g., referee standards, boxing rings, diving platforms)





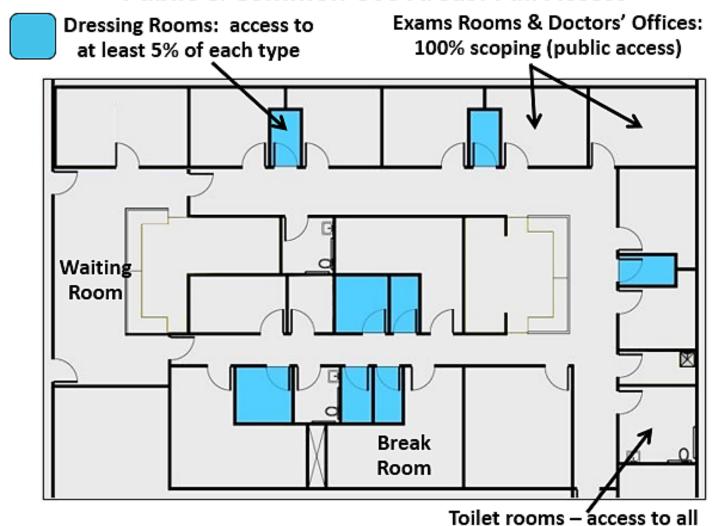
### **Example: Retail Facility**





### **Example: Medical Care Suite**

#### Public & Common Use Areas: Full Access

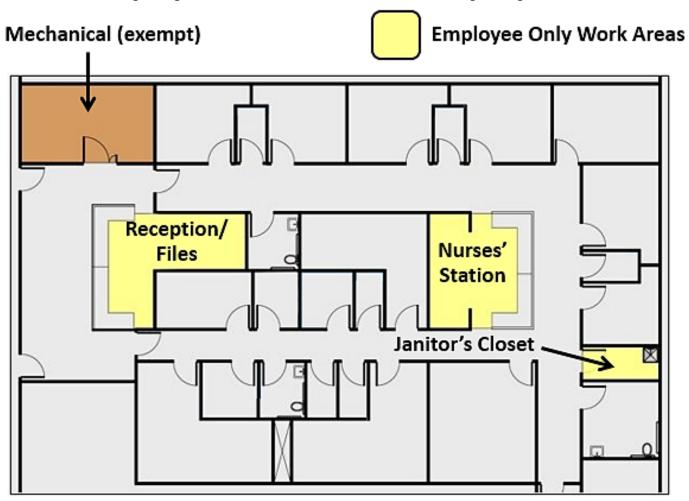


(50%: clustered single user of same type)



### **Example: Medical Care Suite**

#### **Employee Work Areas & Exempt Spaces**



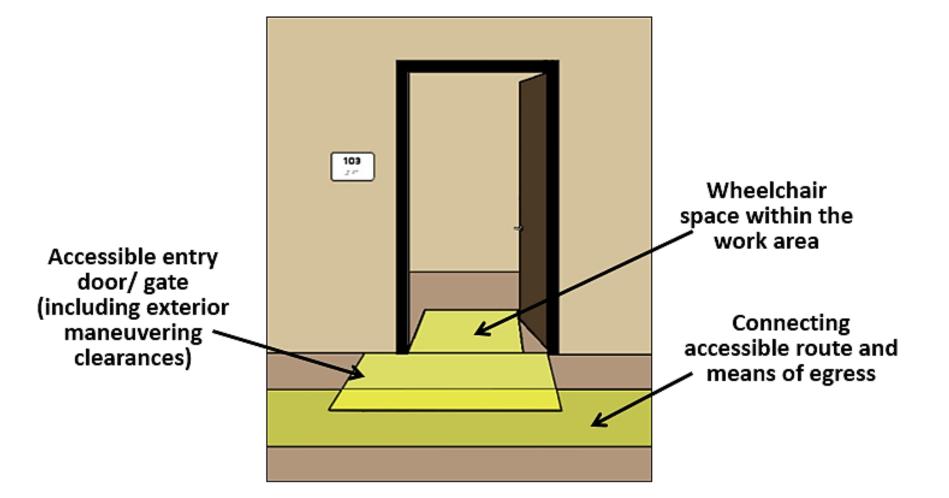
## Employee Work Areas (§203.9) Minimum requirements:

- "approach, entry, & exit"
- circulation paths (in areas ≥ 1000 sq ft)
- means of egress
- visual alarm connection



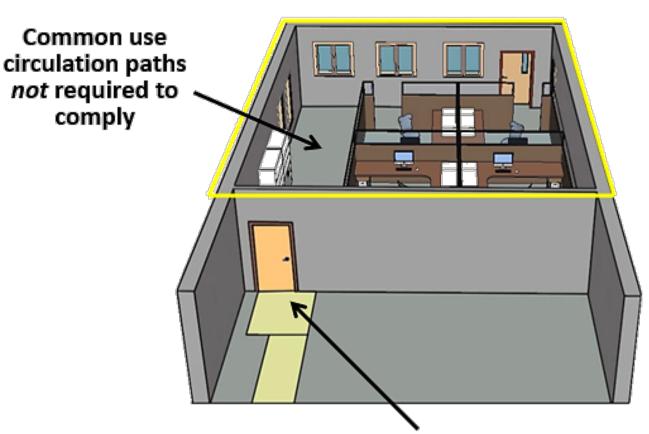
## **Employee Work Areas**

Access for "approach, entry, & exit"



### **Employee Work Areas**

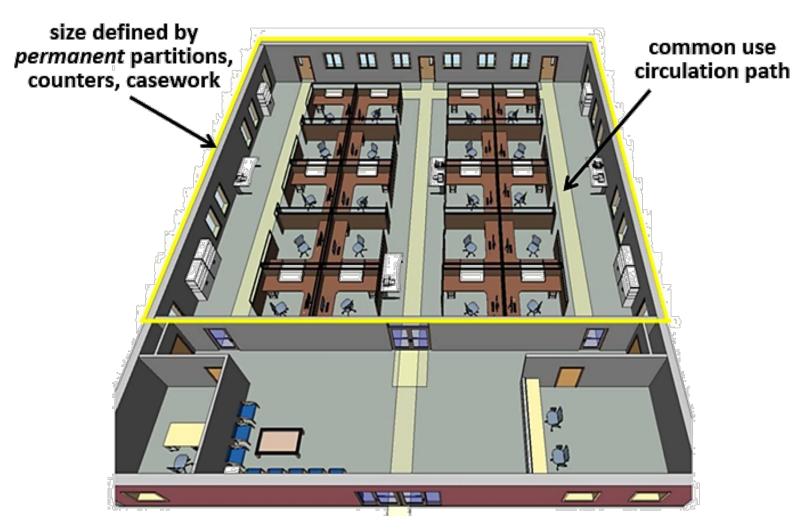
Less than 1,000 SF



Access for approach, entry, and exit to work area required

### **Employee Work Areas**

1,000 SF or more in size

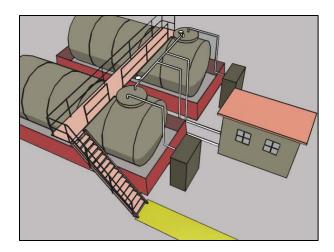


### Employee Work Areas (§206.2.8)

Common use circulation paths must comply in work areas 1,000 SF or more in size

### **Exempt:**

- exterior areas fully exposed to weather
- portions of paths integral to equipment

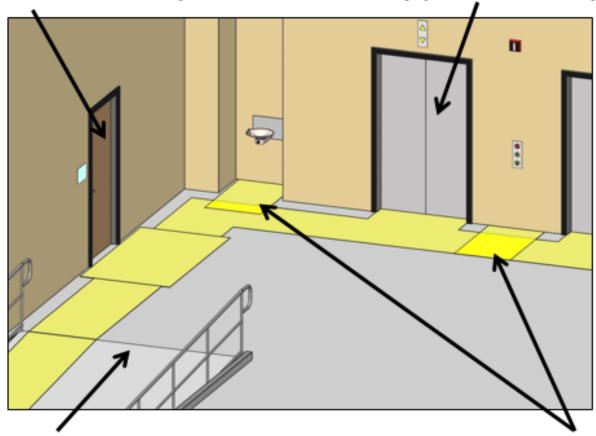


### **Accessible Routes**

#### Must connect to:

each accessible <u>room and space</u>

each story (unless an exception applies)

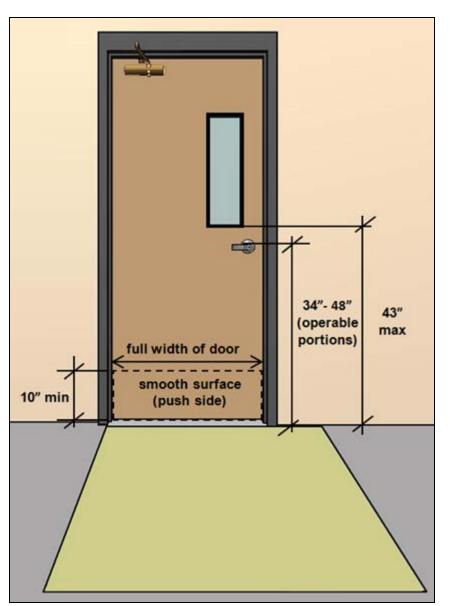


each level on a floor required to be accessible

each accessible element

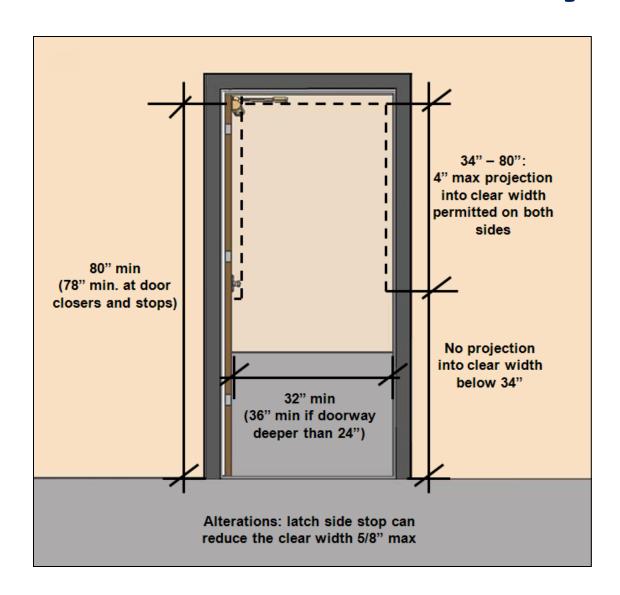
## Doors, Doorways, and Gates

## Doors, Doorways, Gates (§404)



- Clear Width (32" min.)
- Closing Speed
- Opening Force (5 lbf max)
- Vision/ Side Lights
- Compliant Hardware
- Smooth Surface (bottom, push side)
- Thresholds (1/2" max)
- Maneuvering Clearance (both sides unless usable in 1 direction only)

### Doors, Doorways, Gates



Limited projections into door clear width

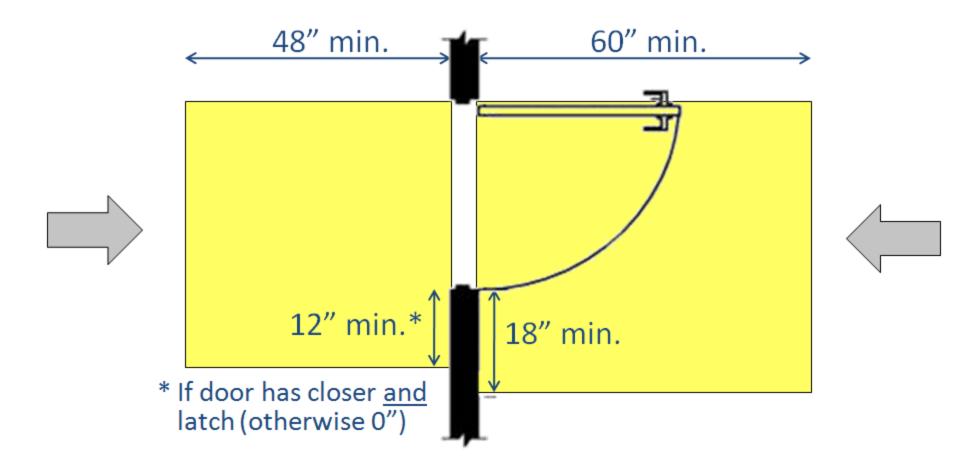
Hardware height: 34" – 48"

### Minimum space for positioning/ maneuvering at doors

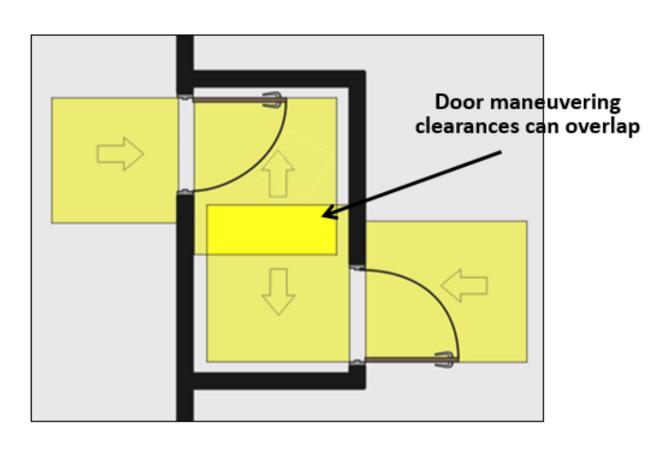




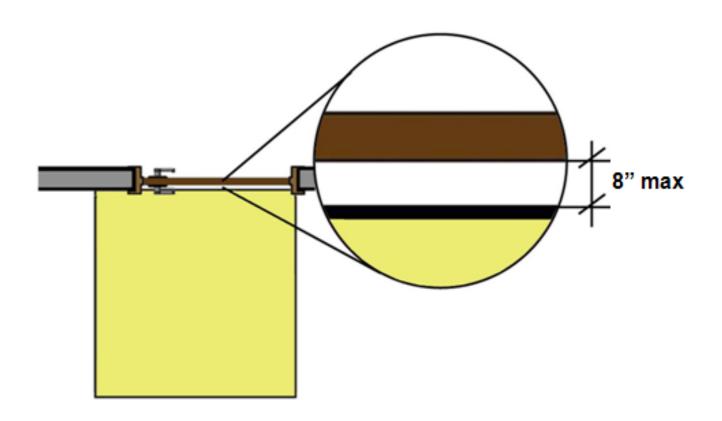
### **Forward Approach**



Required at each accessible door based on approach & swing



Maneuvering clearance measured from the wall - cannot be offset more than 8" from the face of the door



8" max. offset from face of door



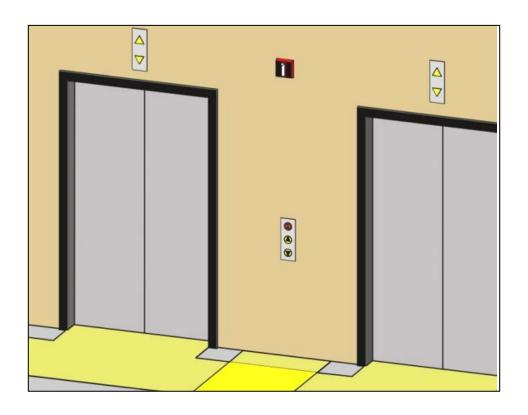


Recess > 8": maneuvering clearance for <u>forward</u> <u>approach</u> located 8" max. from face of door

## Accessible Routes Between Stories

### Multi-Story Facilities (§206.2.3)

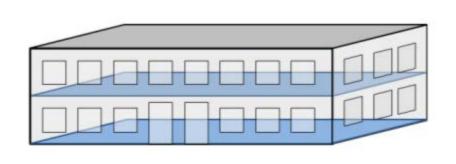
At least one accessible route must connect each story and mezzanine unless an exception applies

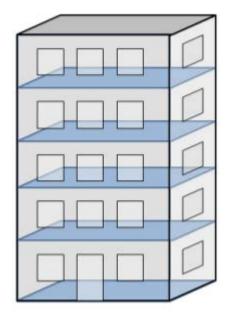


## **Exceptions (§206.2.3)**

AR between floors ("elevator exception")

<u>Private</u> sector facilities only:





less than 3 stories

<u>OR</u>

less than 3,000 sf/flr)

#### **Exception not allowed for:**

- Shopping centers/ malls with 5 or more sales or rental establishments)

 Professional offices of health care providers



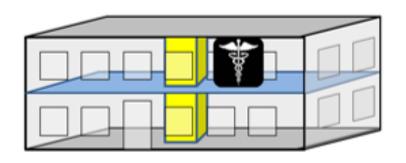
Terminal, depots, or stations used for public transportation

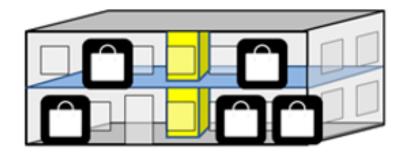


Government Facilities



#### Accessible route required to upper story:

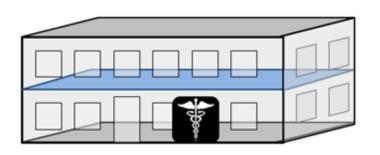


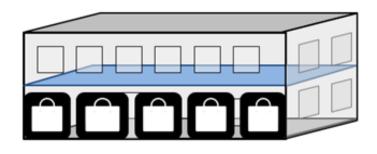


containing a health care facility

containing a sales/rental establishment (if facility contains at least 5 total)

 Accessible route <u>not</u> required to upper story without a health care facility or a sales/rental establishment





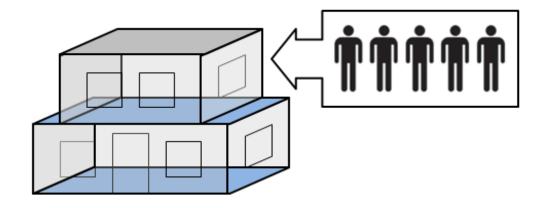
If facility qualifies for exception,

- all other provisions in the standards still apply to stories/ mezzanines not served by AR
- elevators provided anyway must fully comply (as standard or LULA elevators)
- vertical access still may be required by state or local code.

## **Exception: Gov't Buildings**

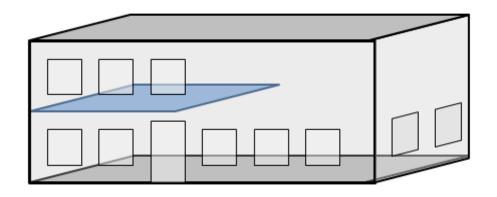
**Exception for <u>public</u>** (government) buildings:

- 2 story only <u>AND</u>
- 1 floor has: no public space <u>AND</u> max.
   occupancy of 5



#### **Exceptions: Mezzanines**

AR not required to mezzanines in buildings not required to have an elevator





Additional conditions for restaurants & cafeterias

#### **Additional exceptions:**

- detention and correctional facilities
- residential facilities
- transient lodging (multi-story units)
- air traffic control tower cab
- qualified historic facilities
- press boxes







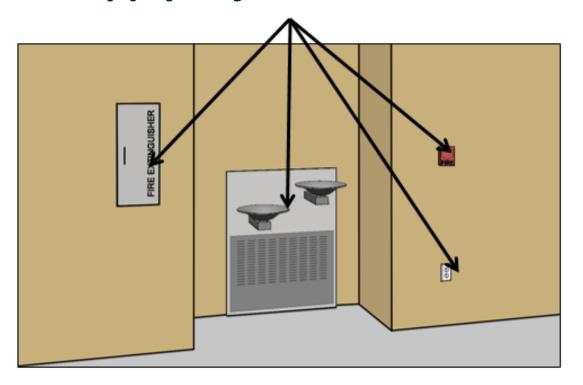




# Operable Parts & Elements

#### **Operable Parts**

Standards apply to *fixed or built-in* elements



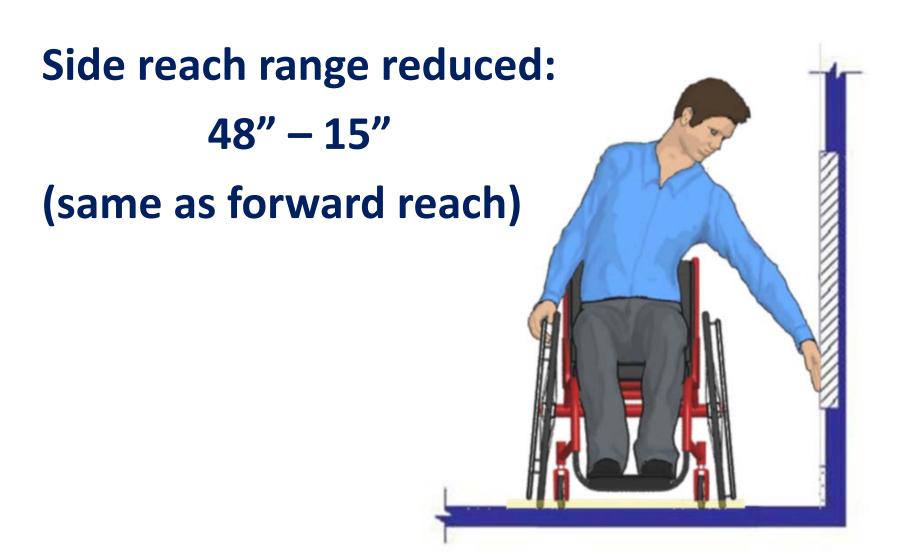
Moveable elements/ furnishings not covered by the standards

## **Operable Parts (§309)**

- Operability
- Reach range
- Clear floor space
- AR connection



## Reach Ranges (§308)



## Clear Floor Space (§305)

#### **Forward Approach**



#### Required at:

- dining/ work surfaces
- drinking fountains
- lavatories & most sinks

#### **Side Approach**



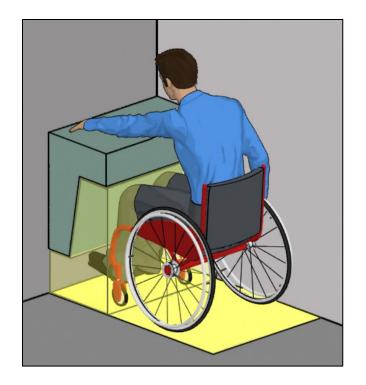
Allowed at other elements (including sales/service counters), specified for: beds & most appliances

#### Clear Floor Space (§306)

Forward Approach: Objects with knee/toe clearance can overlap a portion of the space (required at some elements, e.g. DFs & lavs)



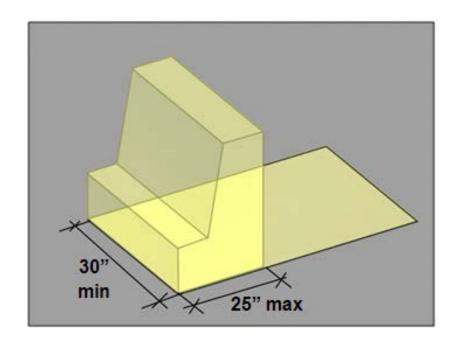
Toe space (9" high min.): Max. depth 6"



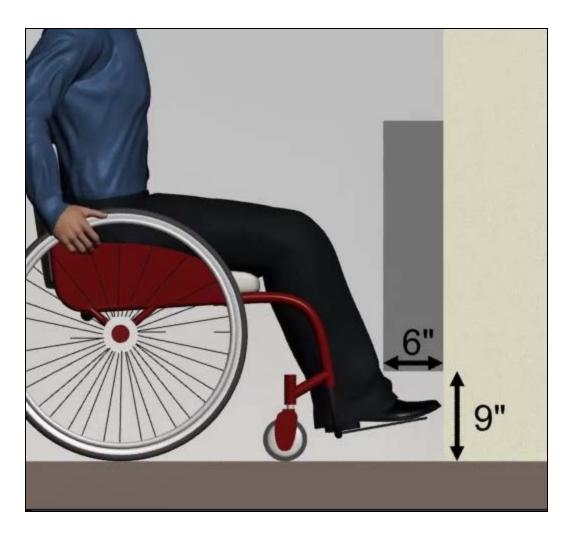
Knee & Toe Space: Max. depth 25"

#### **Clear Floor Space**

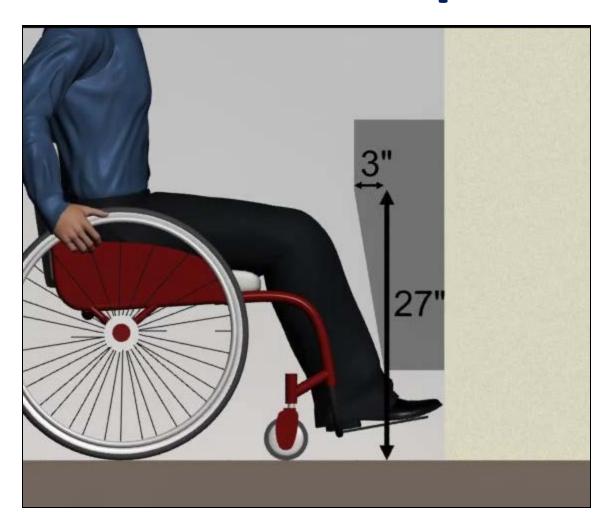
Knee/toe specifications allow space for plumbing, enclosures, and supports



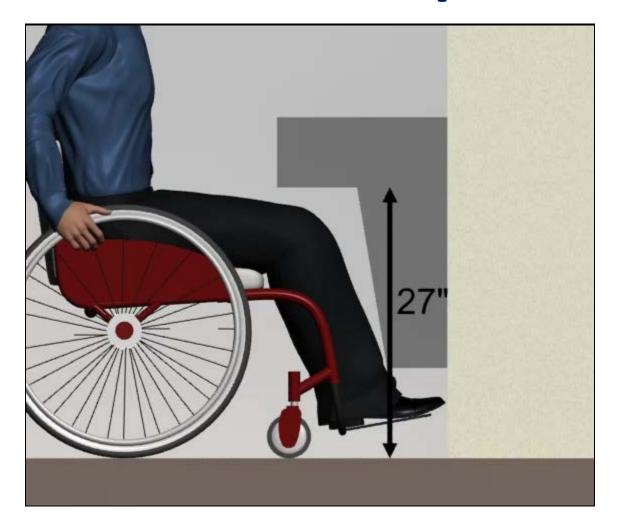
No object can protrude into min. clearances (other than dip of overflow at lavs & sinks)



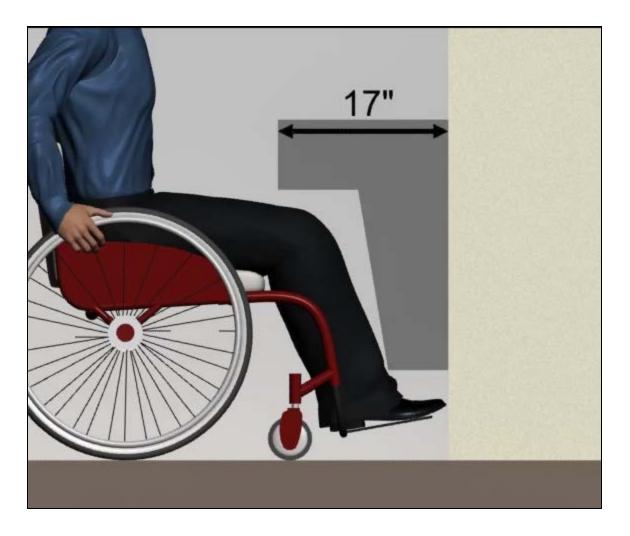
Toe space



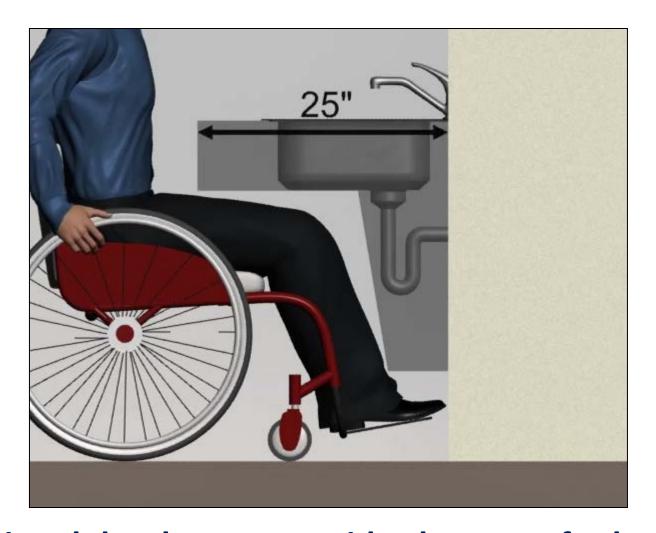
Beyond toe space, clearance increases from 9" to 27" min. high over 3" span (6:1 slope)



Knee Space (8" deep min. where knee space required)



Required knee & toe space must be at least 17" deep



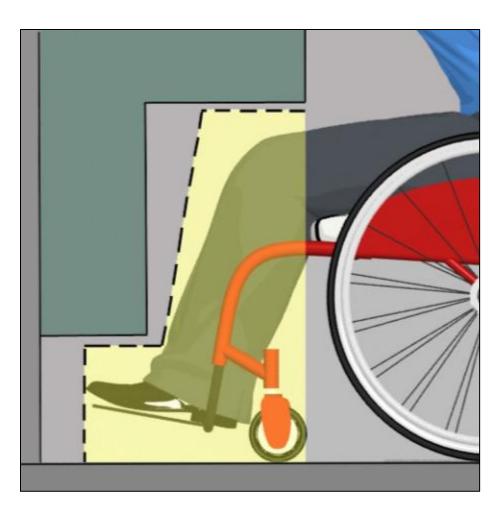
Additional depth must provide clearance for knees (27" high min.)

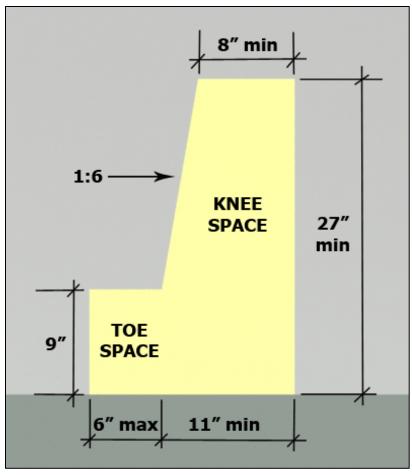


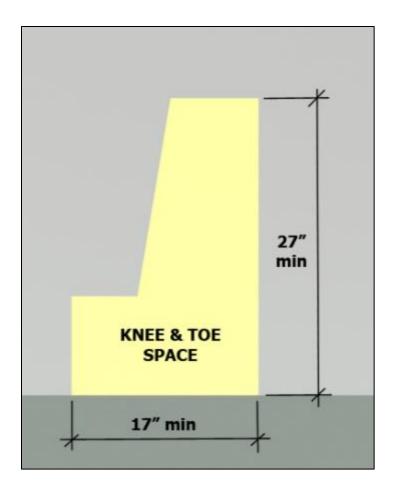
Space beyond 25" depth can exist but is not usable

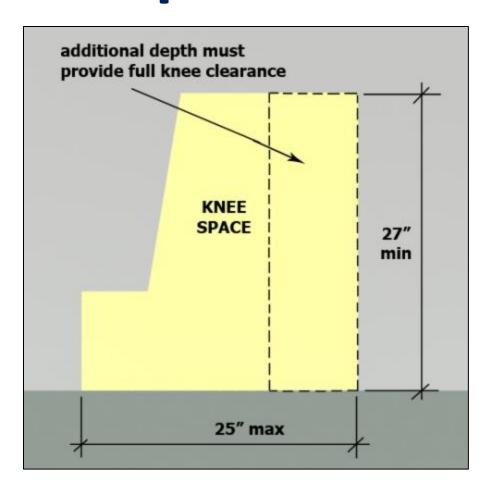
## Knee & Toe Space (§306)

#### **Knee and Toe Clearances**





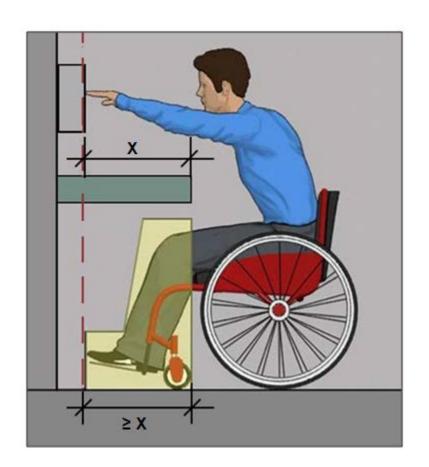




17" min. depth at DFs, lavs, sinks, dining/work surfaces

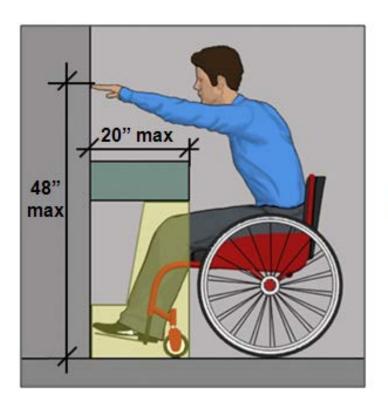
25" max. depth (all elements)

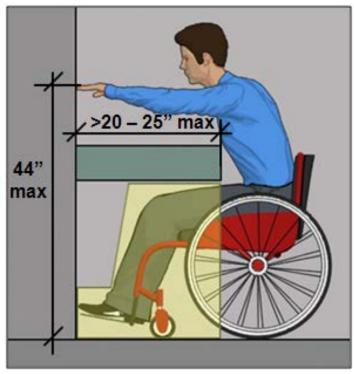
Knee/ toe space must equal or exceed the reach depth over obstruction



## Reach Range (§308)

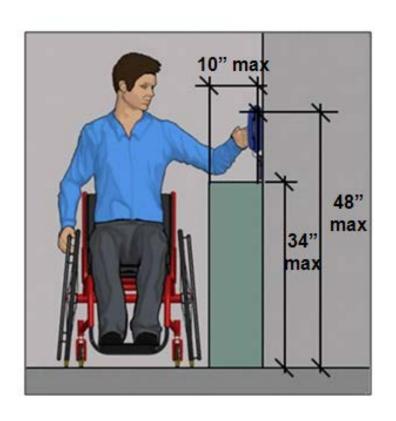
Forward reach depth over obstruction limited to 25" (max. height reduced to 44" when depth exceeds 20")

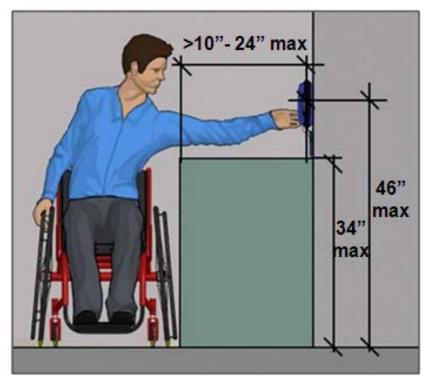




#### Reach Range

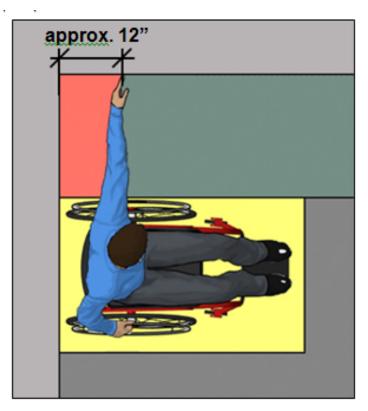
Side reach depth over obstruction limited to 24" (max. height reduced to 46" when depth exceeds 10")

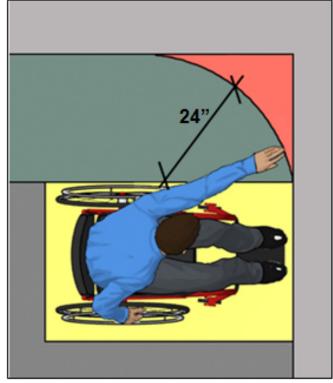




#### Reach Range

Elements in corners can be hard to reach (side approach) Recommendation: locate away from corners where possible or within reach radius

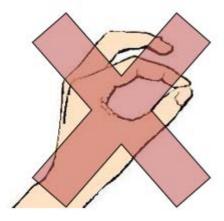




## Operability

- 1 hand operation
- no tight grasping, pinching, twisting of wrist
- 5 lbf max.





#### **Technical Guides on the Standards**

#### Available on the Board's website



## Questions?



## **U.S.** Access Board

(800) 872-2253 (voice) (800) 993-2822 (TTY)

E-mail: ta@access-board.gov www.access-board.gov



## ADA Standards Part 2

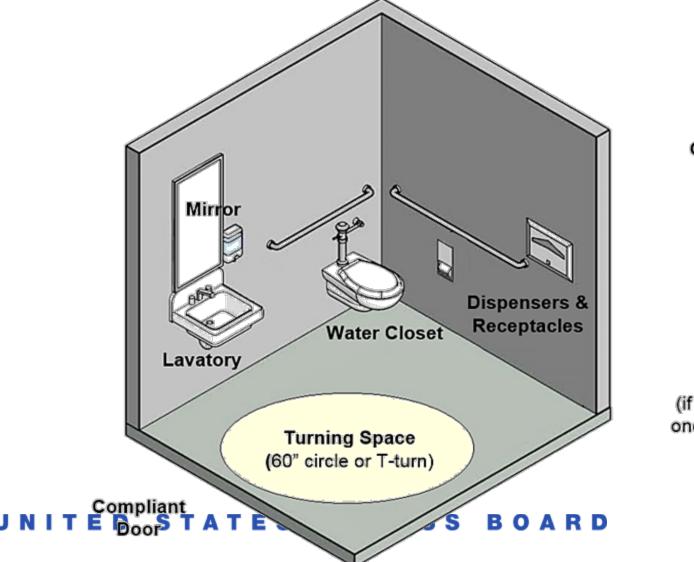
#### Toilet & Bathing Facilities (§213)

In new construction, all toilet and bathing facilities must be accessible, except:

- portable units (5% min)
- clustered single user toilet rooms (50% min)



## Toilet Rooms (§603)



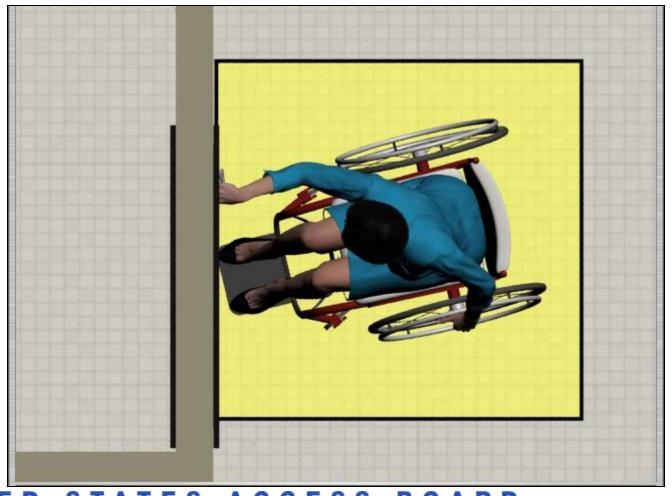
Coat Hooks & Shelves



Urinal (if more than one provided)

#### **Toilet Rooms**

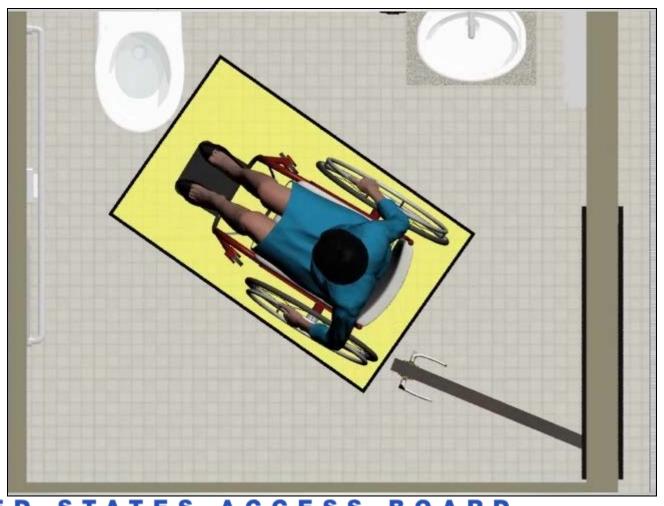
**Door maneuvering clearance (exterior)** 



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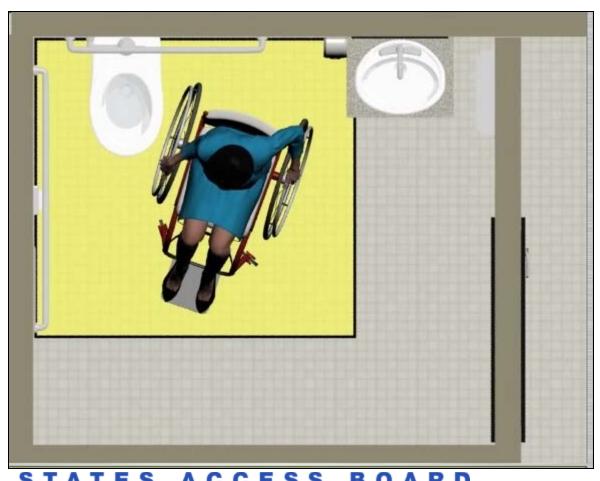
#### **Toilet Rooms**

Wheelchair space beyond door swing

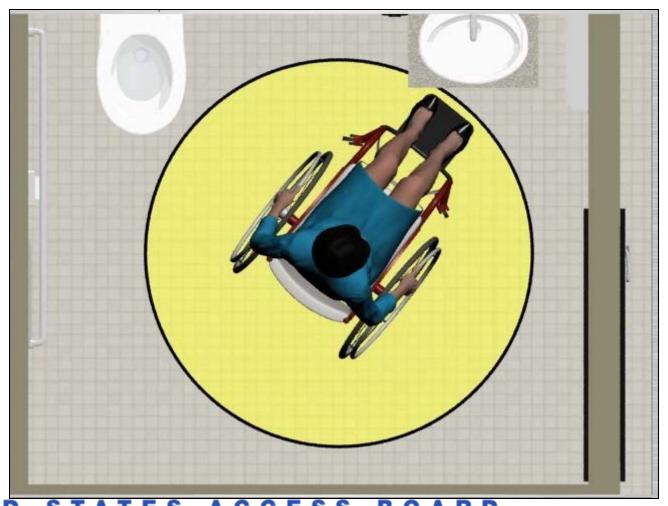


UNITED STATES ACCESS BOARD

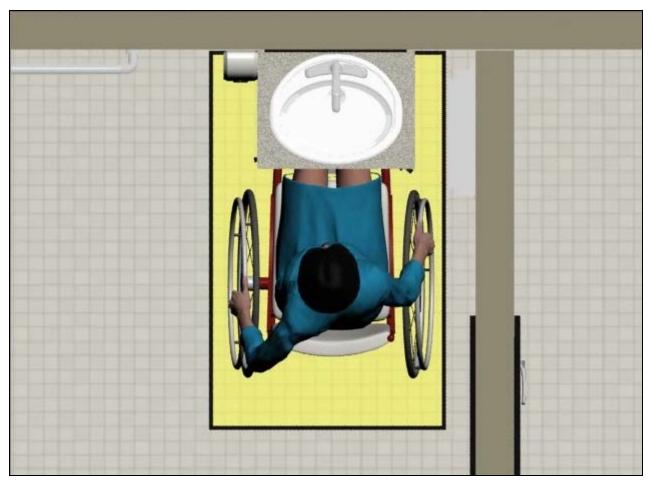
Clear floor space at toilet for approach & transfer



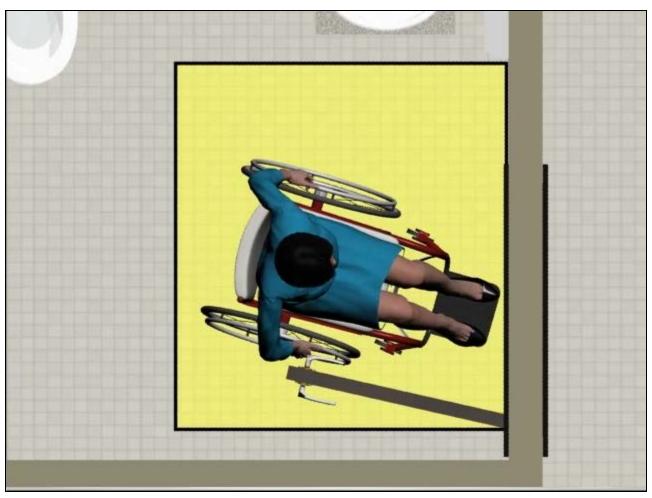
**Turning space (circular or T-shaped)** 



Clear floor space at fixtures & elements



Interior door maneuvering clearance



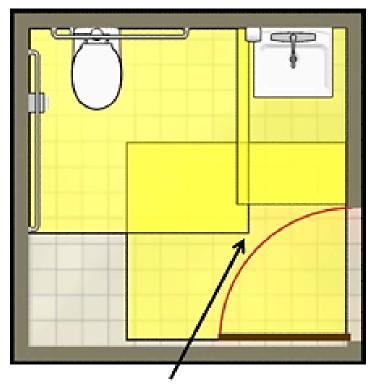
- Size of toilet rooms determined by:
- Room layout
- Number & configuration of fixtures
- Swing of doors
- Other factors

Overall room dimensions not specified

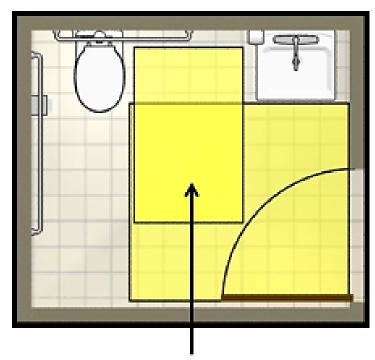
Lavatory cannot overlap toilet clearance (except in dwelling units)



#### **Door maneuvering clearance**



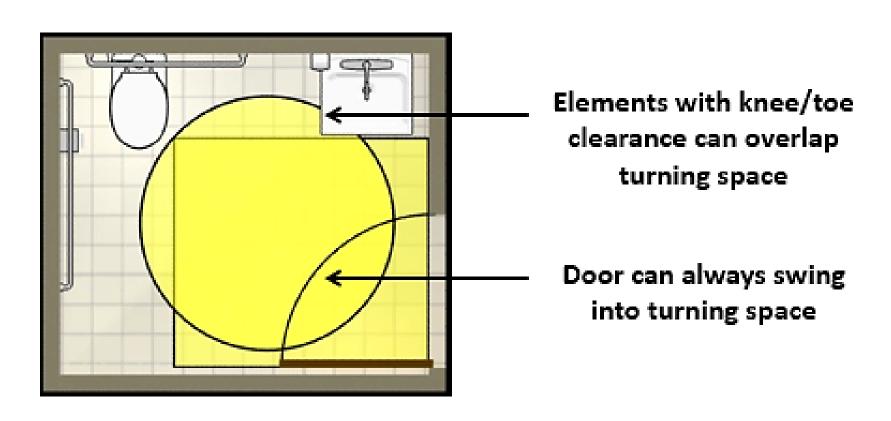
Keep swing outside fixture clearances or ...



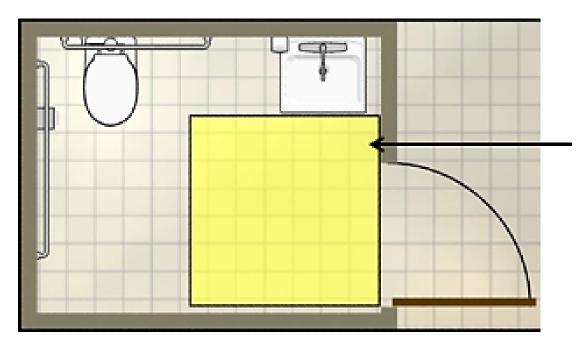
... provide unobstructed clear floor space (30" x 48" min.) outside swing (location not specified)

#### **Turning Space:**

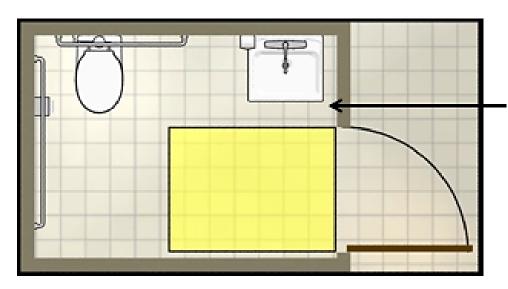
60" diameter circle or "T" shaped space



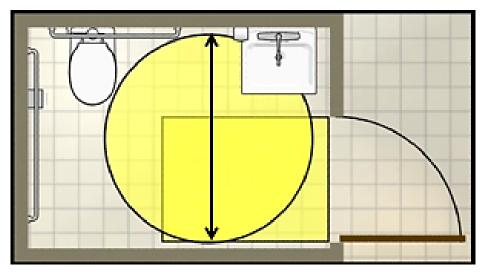
Doors: Out-swinging doors allow smaller room size (require less interior maneuvering clearance)



12" min. latch-side clearance required on push side (forward approach) if door has <u>both</u> a closer & latch

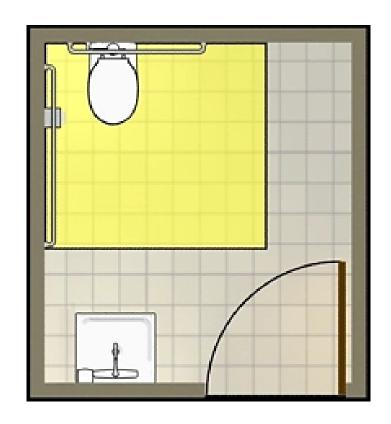


If out-swinging door does not have both a closer & latch, no additional clearance beyond opening required.

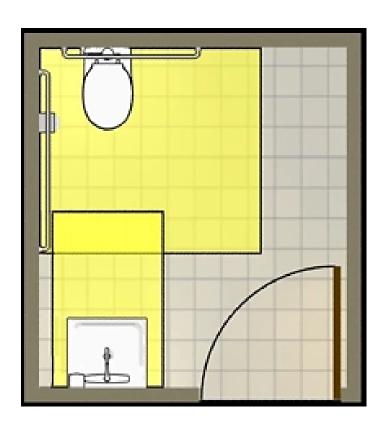


In this case, room depth is usually determined by turning space.

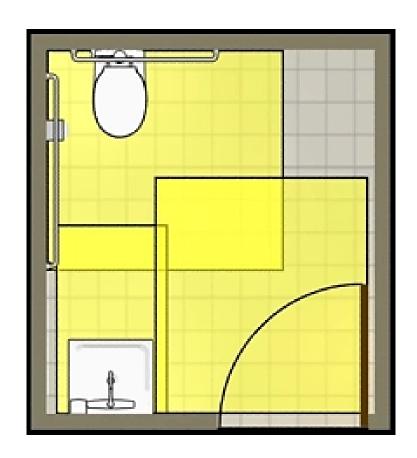
#### These requirements apply to all types of layouts



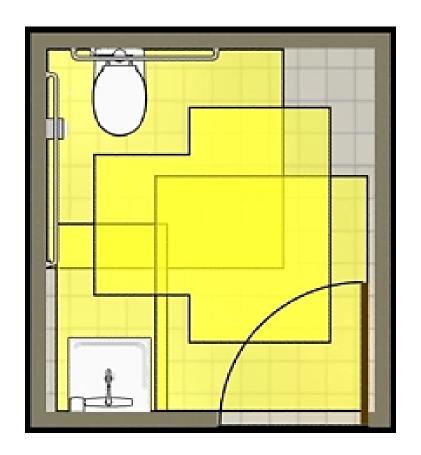




Lavatory clearance



Door maneuvering clearance (swing outside fixture clearances unless clear floor space beyond swing provided)



Turning space (can overlap fixture clearances and door swing)

# Ch. 6: Plumbing Elements & Facilities

- Drinking Fountains
- Toilet & Bathing Rooms
- Water Closets & Urinals
- Lavatories & Sinks
- Bathtubs & Shower Compartments
- Washing Machines & Clothes Dryers
- Saunas & Steam Rooms

# Ch. 7: Communication Elements & Features

- Fire Alarm Systems
- Signs
- Telephones
- Detectable Warnings
- Assistive Listening Systems
- ATMs & Fare Machines
- Two-Way Communication Systems



# Signs (§216, §703)

- Tactile/ visual labels for <u>permanent</u> rooms
   & spaces, exit doors
- Visual only directional or informational signs
- Exempt: temporary signs, building menus, directories, addresses, company names and logos

# **Tactile Signs**

Signs identifying "permanent" rooms & spaces:

- designations not likely to change over time (or without significant alteration of room/space)
- typically located at doorways



# **Tactile Signs**

- room and floor numbers/letters
- room names



- labels for restrooms, locker rooms, cafeterias, mechanical rooms, and other permanent rooms/spaces
- doors at exit stairways, exit passageways, and exit discharge (label required)
- signs identifying rail stations/entrances

# Signs

**Tactile & Visual** 

Visual Only

"Room 123"

"Exit  $\rightarrow$ "

"Restroom"

"Employees Only"

"Mechanical Room"

"Visitors must sign in"

"Exit" (at certain doors)

"Floor B"

**Exempt** 

"Ballroom A"

building directory

"C. Smith Room"

"Mr. C. Smith, Accountant"

# Signs

#### **International Symbol of Accessibility**

- entrances
- toilet and bathing rooms
- check-out aisles
- parking
- existing elevators





Not required where all are accessible

# Ch. 8: Special Rooms, Spaces, & Elements



**Assembly Areas** 



Dressing, Fitting, & Locker Rooms



**Kitchens/Kitchenettes** 



Medical/ Long-term
Care



**Transient Lodging** 



**Prison Cells** 



**Courtrooms** 



**Dwelling Units** 



Transportation Facilities



Storage

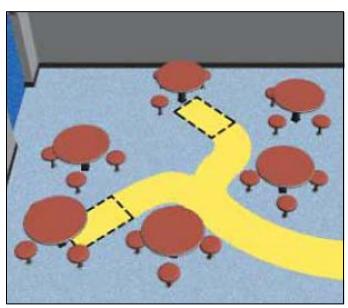
## Ch. 9: Built-In Elements

- Dining Surfaces & Work Surfaces
- Benches
- Sales & Service Counters, Check-out Aisles



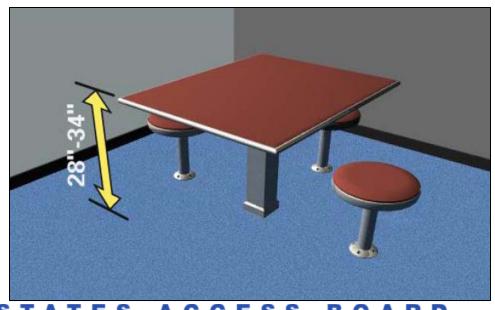
# Dining & Work Surfaces (§226)

- Access to at least 5% of seating & standing spaces at dining surfaces
- Access to at least 5% of work surfaces (other than those used by employees)
- Dispersion



# Dining & Work Surfaces (§902)

- 28" 34" surface height
- Forward approach access (knee/toe space)
- Alternative dimensions for children's use



# Sales & Service Counters (§227)

At least one of each type of sales and service counter must comply

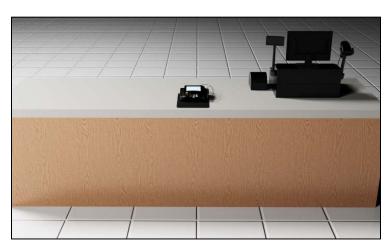


Queues/ waiting lines and food service lines also addressed

# Sales & Service Counters (§904)

- 36" max. height (accessible portion)
- applies to full depth of counter
- forward or side approach
- method to facilitate voice communication required where security glazing provided





# Check-out aisles (§227)

- aisle width
- 38" max. counter height (2" max. high edge protection)
- check writing surface 28" 34" high
- labeled by ISA (unless all accessible)

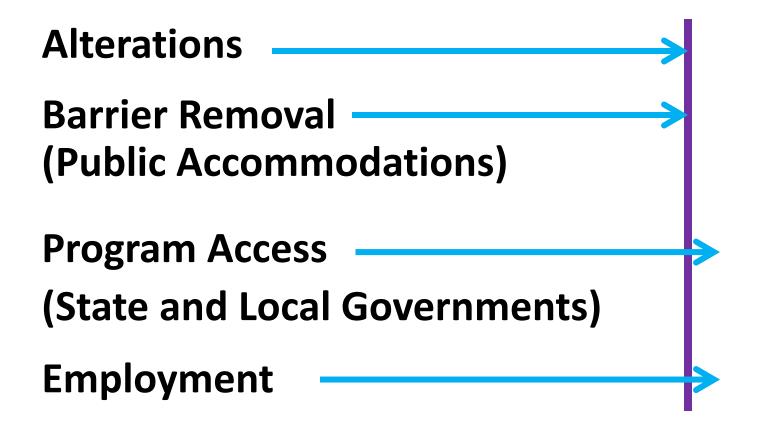


## Ch. 10: Recreation Facilities

- Amusement Rides
- Recreational Boating Facilities
- Exercise Machines & Equipment
- Fishing Piers & Platforms
- Golf & Miniature Golf Facilities
- Play Areas
- Swimming Pools, Wading Pools, & Spas
- Shooting Facilities



# **Existing Facility Goal**



Goal = meet new construction unless an exception applies

# **Toilet Room Example**

**213.2 Toilet Rooms and Bathing Rooms.** Where toilet rooms are provided, <u>each</u> toilet room shall comply with 603. Where bathing rooms are provided, <u>each</u> bathing room shall comply with 603.

- **EXCEPTIONS: 1.** In <u>alterations</u> ... *technically infeasible ...* unisex toilet room or bathing ... same area ... same floor ... .
- **2.** ... <u>alterations</u> to *qualified historic buildings or facilities* ... no fewer than one toilet room for each sex ... or one unisex toilet room ... shall be provided.
- **3...** multiple single user <u>portable</u> toilet or bathing units are clustered at a single location, no more than 5 percent of the toilet units and bathing units at each cluster ...
- **4.** Where multiple <u>single user</u> toilet rooms are <u>clustered</u> at a single location, no more than 50 percent of the single user toilet rooms for each use at each cluster ....

# Alterations (§F202.3)

"A change to a building or facility that affects or could affect the usability of the building or facility or portion thereof."

#### Standards apply based on:

- planned scope of work
- technical feasibility
- primary function areas/ path of travel

#### Including (but not limited to):

- remodeling
- renovation
- rehabilitation/ reconstruction
- historic restoration
- resurfacing of circulation paths/ vehicular ways
- changes/ rearrangement of structural parts, elements, or plan configuration of walls & fullheight partitions

Not alterations (unless usability affected):

- normal maintenance
- reroofing
- painting or wallpapering
- changes to mechanical and electrical systems



**Example: Parking Lot**Filling potholes = maintenance



**Example: Parking Lot** 

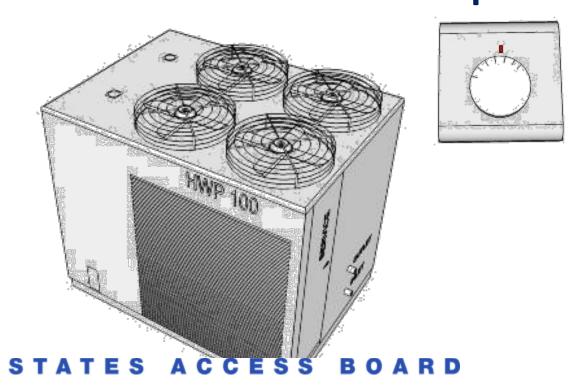
Resurfacing and restriping of lot = alteration



Example: Replace HVAC system

Covered where usability affected

(e.g., new thermostats installed – operable parts)



Within an altered space, standards apply to those elements that are altered



(accessible route not required unless circulation paths altered or path of travel required)

#### **Recommendation:**

Maximize opportunities for access beyond minimum required where possible – often more cost-effective when work is already underway.

Specific provisions for alterations located throughout standards (refer to "alterations" or "existing facilities")



### **Specific Provisions**

Example (scoping): Elevators

If car altered, <u>all</u> cars programmed to respond to the same hall call also must be altered (§206.6.1)



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## **Specific Provisions**

Example (technical): Ramp Slope
Steeper running slopes allowed for short ramps where space is limited (§405.2):

6" max. rise: 1:10 max. slope

3" max. rise: 1:8 max. slope

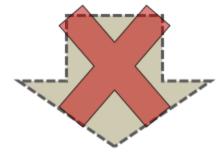
New construction = basis for alterations (aside from specific provisions/ exceptions)



#### **Alterations:**

not required to exceed NC level of access (§202.3.2)

#### **NEW CONSTRUCTION LEVEL OF ACCESS**



can't reduce access below NC level (§202.3.1)

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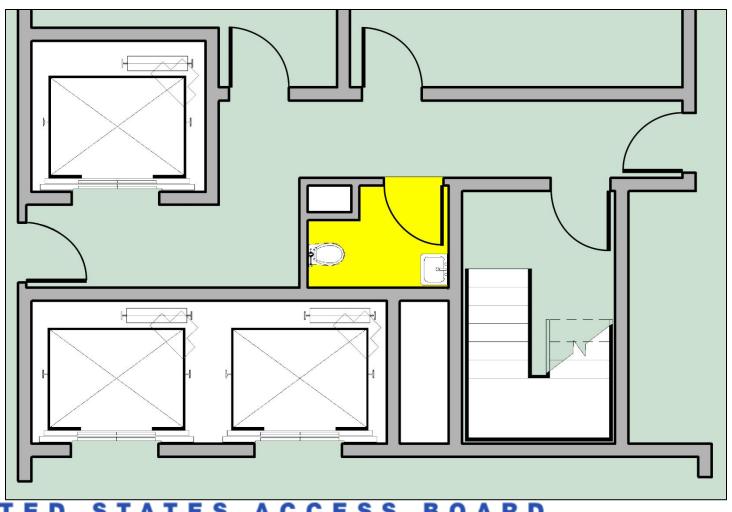
## Technical Infeasibility (§106.5)

#### **Defined as:**

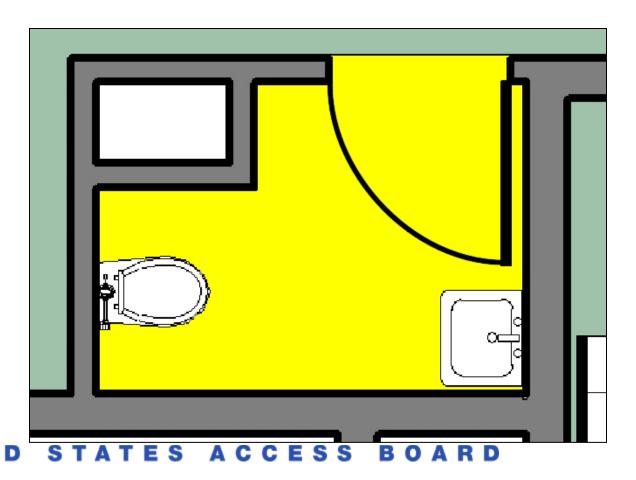
"Something that has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member that is an essential part of the structural frame ...

"... or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with the minimum requirements."

Space limitations and technical infeasibility



Compliance required to the "maximum extent feasible"





Is relative to scope of work; where renovation =

more extensive, technical infeasibility = less likely

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- case-by-case determination
- based on existing constraints/ conditions, scope of work
- compliance required to the maximum extent feasible

### **Primary Function Areas (§202.4)**

Additional requirements for alterations (and additions) that affect or could affect usability of/ access to areas containing a "primary function" (i.e., major activity for which the facility is intended)

## **Primary Function Areas**

#### **Examples include (not limited to):**

- dining areas of a restaurant
- retail space in a store
- exam rooms in a doctor's office
- guest rooms in a hotel
- classrooms in a school
- offices & other work areas where activities of a covered entity are carried out

## **Primary Function Areas**

#### **Not** primary function areas:

- entrances & corridors
- break rooms & employee locker rooms
- mechanical & electrical closets
- supply storage rooms
- restrooms (unless primary purpose of a facility, e.g., highway rest stop)

### **Primary Function Areas**

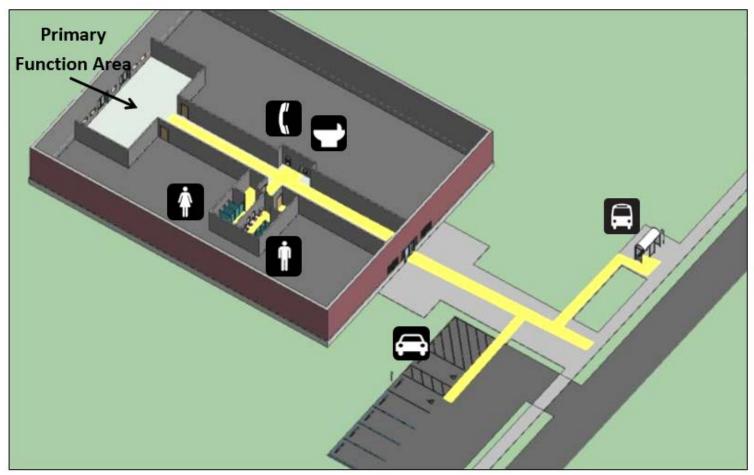
Required: Accessible "path of travel":

- accessible route from PF area to facility entrance & site arrival points (e.g., parking)
- restrooms (for each sex unless only unisex provided)
- phones
- drinking fountains

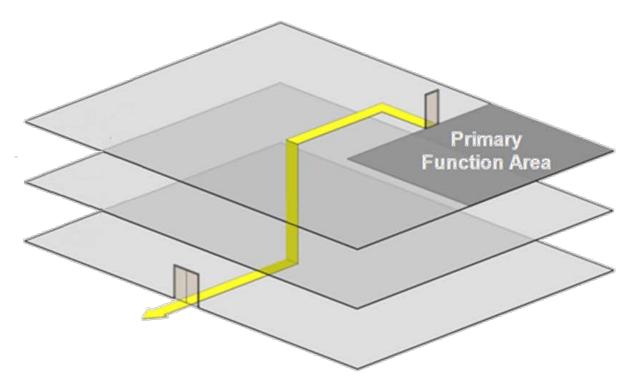


### **Alterations: Path of Travel**

#### Example of "path of travel"



Path of travel may require vertical access between floors



Exceptions for vertical access allowed in new

Path of travel is required to the extent that it is not "disproportionate" to the project cost (more than 20%)

Compliance required up to the 20% limit

#### Example project calculation:



Total cost of all alterations: \$200,000

Cost pertaining to **PF** areas: \$100,000

Path of travel cost cap: \$20,000 (20%)

Recommended prioritization if 20% cap reached:

- 1. entrance
- 2. route connecting primary function area
- 3. restrooms
- 4. phone
- 5. drinking fountain
- 6. other elements (e.g. parking, storage, etc.)

### **PF Areas & Path of Travel**

- Excluded: alterations to windows, hardware, controls, electrical outlets, signs
- POT components that meet earlier standards (e.g., 1991 ADAAG) do not have to be upgraded to the current standards (unless altered)
- Series of smaller alterations costs of alterations over 3 year period must be included in 20% calculation



# **U.S.** Access Board

(800) 872-2253 (voice) (800) 993-2822 (TTY)

E-mail: ta@access-board.gov www.access-board.gov