

# 2015 IBC<sup>®</sup> Accessibility

Based on the 2015 International Building Code<sup>®</sup>  
and the ICC/ANSI A117.1 - 2009 Accessible and  
Usable Buildings and Facilities

# Disability Definition

“A physical or mental impairment which substantially limits one or more of a person’s major life activities.”



# Built Environment

- Physical impairments



**What are we talking about?**

**disability**



# ICC Goals

- Coordinate the building code requirements with the



# 2015 IBC - Philosophy 101

Everything must be accessible, and then allow for a degree of inaccessibility that is logical and reasonable.

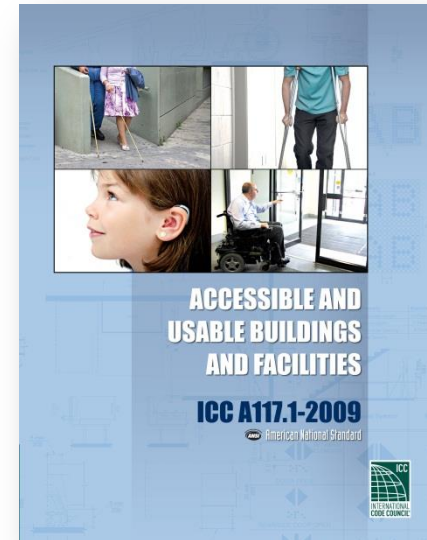


# Requirements

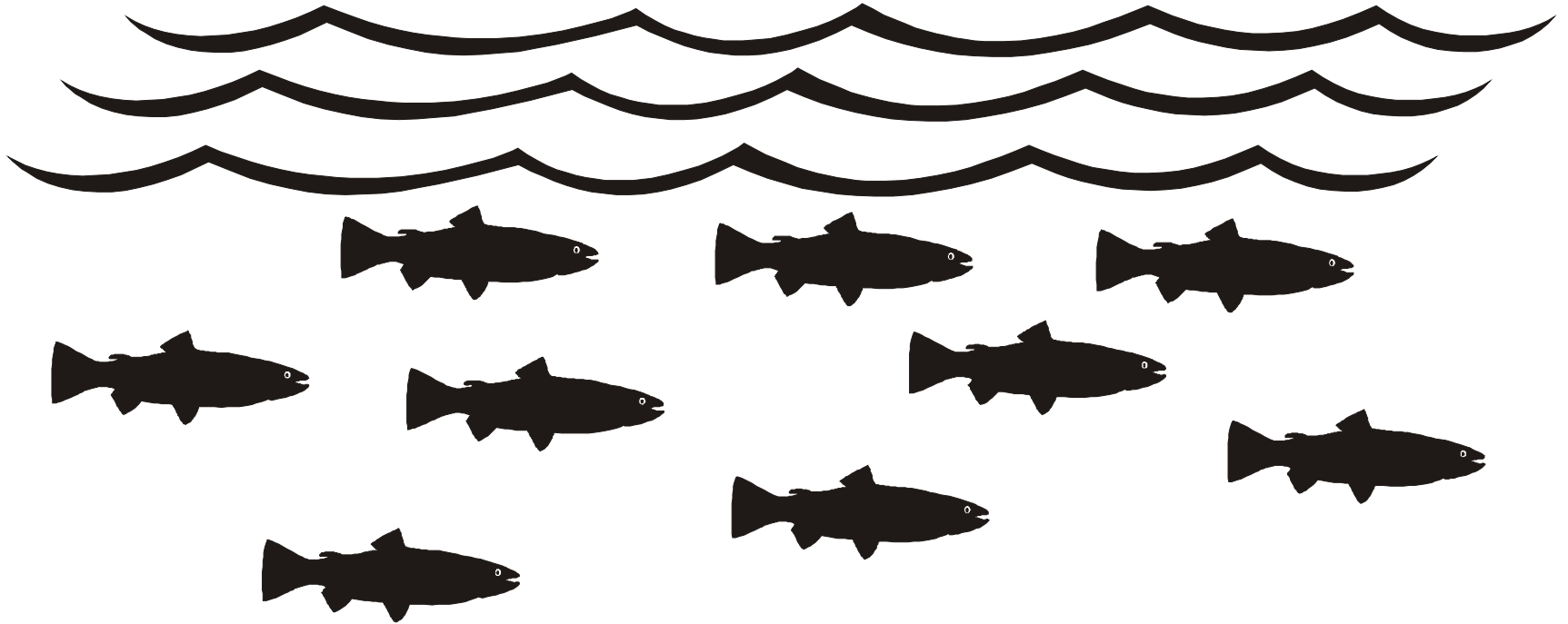
- Scoping Requirements:
  - “What, Where and How Many”
  - (2015 IBC®)



- Technical Requirements:
  - “How”
  - (ICC/ANSI A117.1-2009)



# Mainstreaming

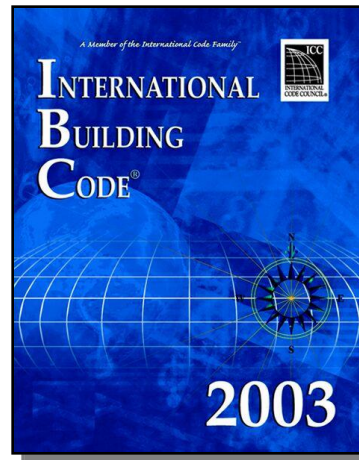
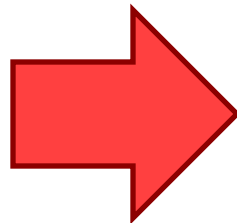




# ADA & ABA Standards

## Section 207

- Require compliance with the International Building Code (IBC) for accessible means of egress



IBC 2003  
Section 1007

OR



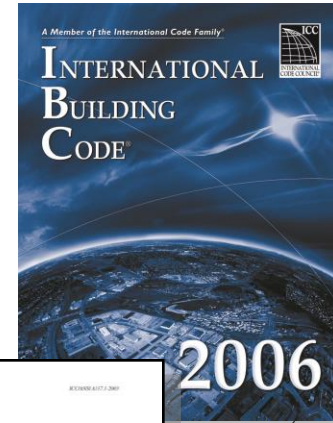
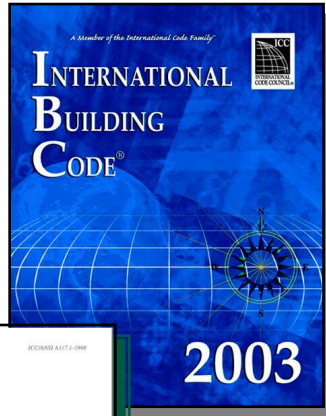
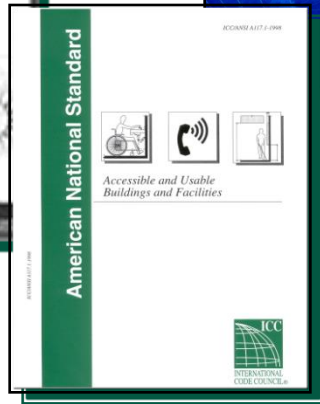
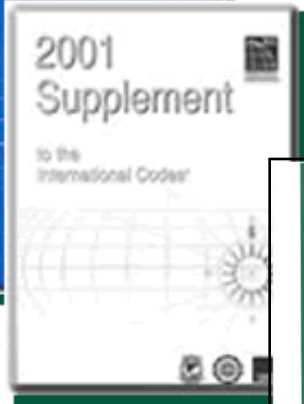
IBC 2000 with  
2001 Supplement  
Section 1003.2.13

# ADA & ABA Standards

- What about compliance with later editions?
- Permitted where equivalent or better (“equivalent facilitation” in the ADA Standards Section 103)

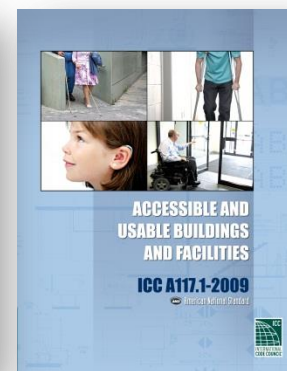
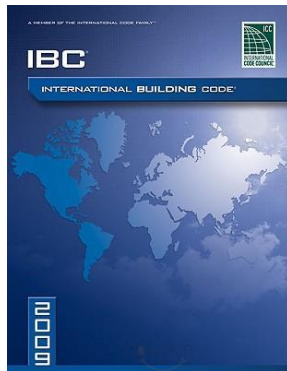


# "SAFE HARBOR"



# “Safe Harbor” means...

- that requirements in the document have been reviewed by HUD and meet or exceed the building construction requirements in the FHA.
- 2009, 2012 and 2015 IBC and 2009 ICC A117.1 are currently under review by HUD.



# Role of the Code Official



# Enforcement of Federal Requirements



Complaints



Inspection and Review



Mediation



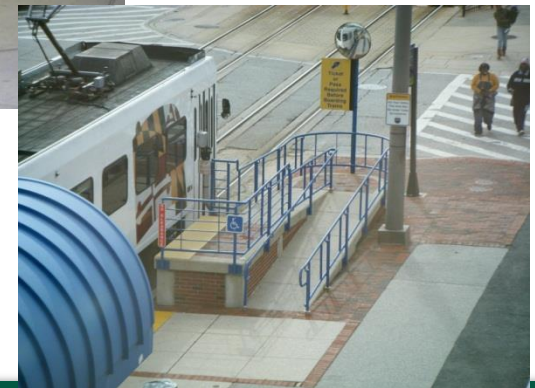
Through the courts

The background features a dark blue field with a light blue grid of thin lines that curves across the bottom right. Overlaid on this are several semi-transparent, overlapping squares in various shades of blue and white, creating a layered, architectural effect.

# Exterior Accessible Route

# Public Arrival Points

- Accessible routes start at public arrival points such as:
  - Accessible parking spaces
  - Bus drop offs
  - Public transportation stops
  - Where a building sidewalk connects to the public sidewalk





# Accessible Entrances

- Accessible routes connection public arrival points to accessible entrances



# Signage

Where not all entrances are accessible

- At accessible entrances
- Directional signage at non-accessible entrances



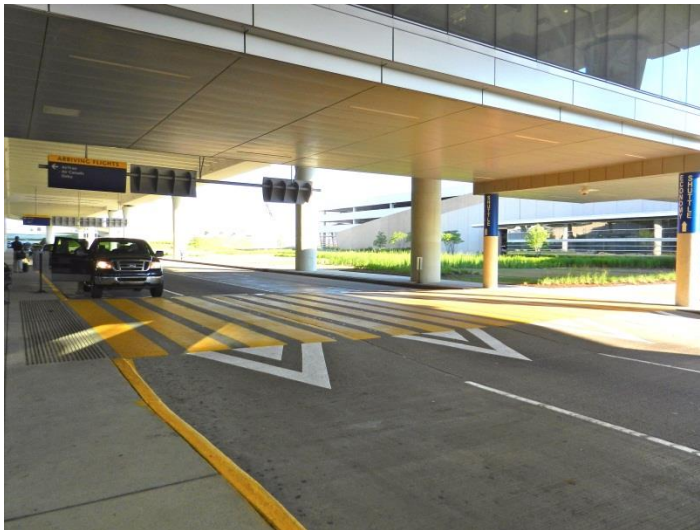
# Other elements on the site

- Accessible routes are required to all facilities offered on the site.
- Exception: Where the only access is by a vehicular route, then the accessible route can also be provided by that vehicular route.



# Hazards

- Grates
- Platform edges
- Raised and marked crossings



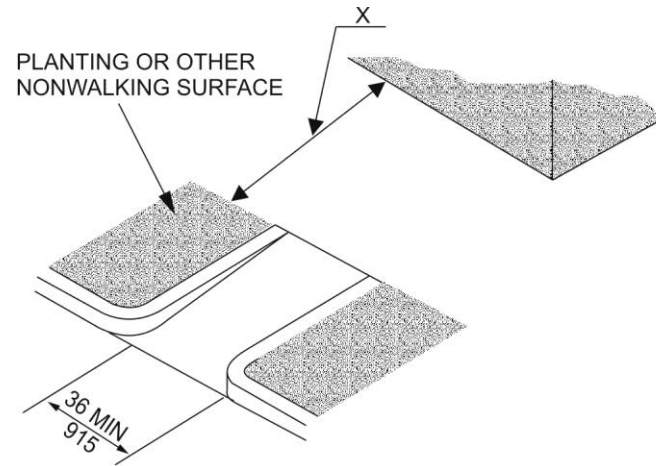
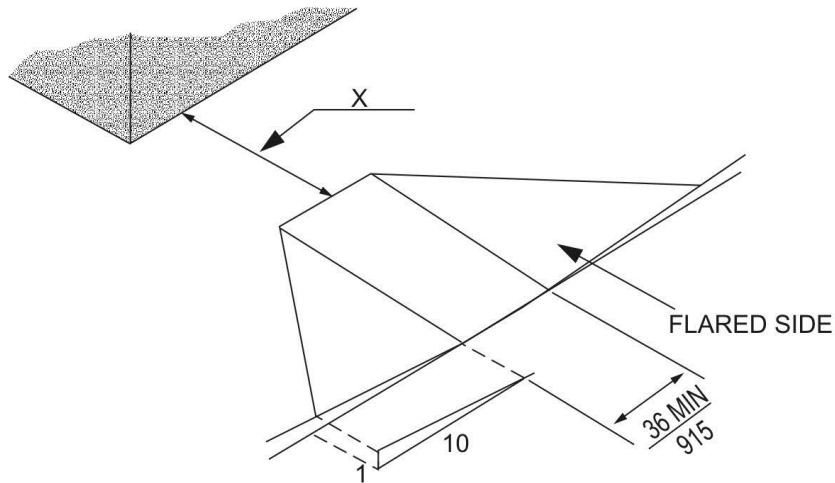
# Protruding Objects



# Protruding Objects



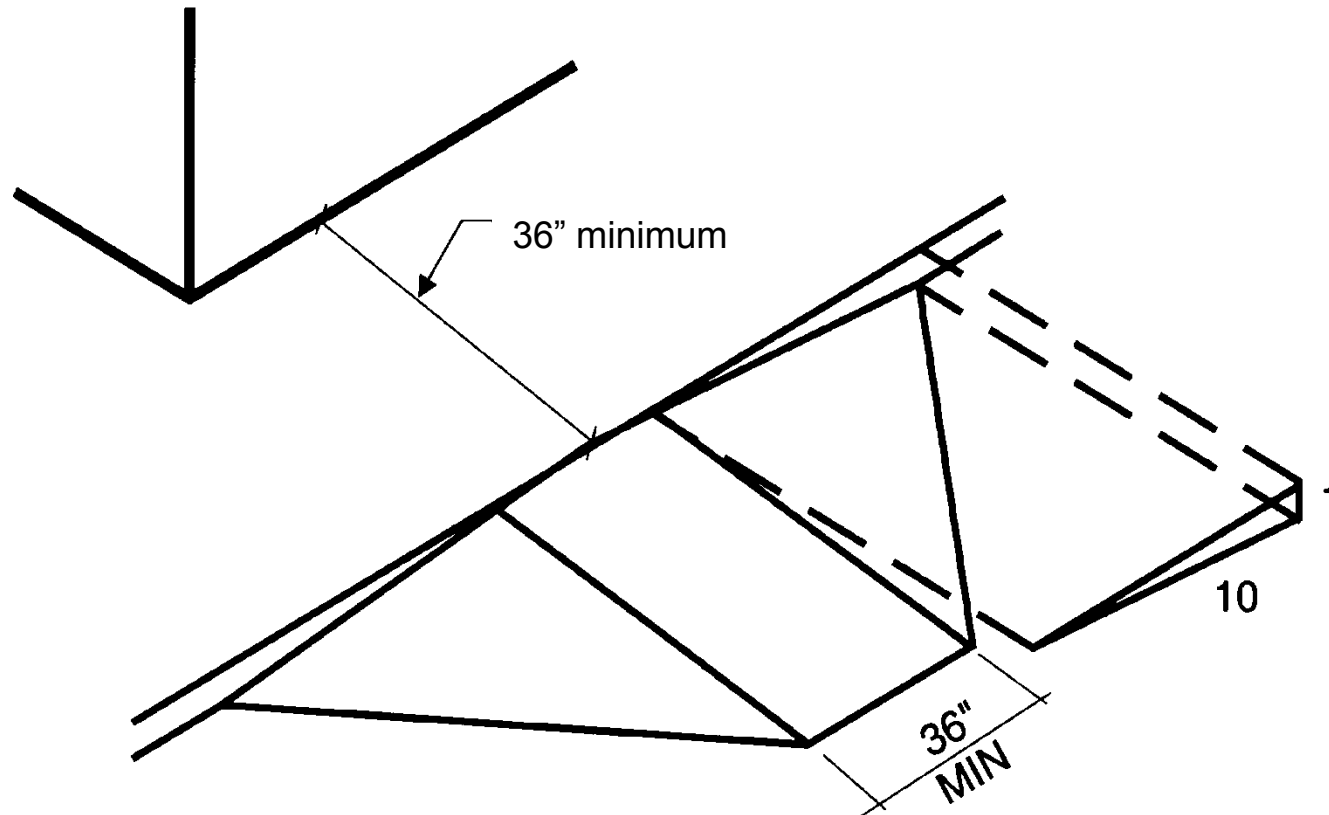
# Cut-in Curb Ramps



X = 36" minimum in new construction

On existing sites, if landing is <36" then slope of flared sides shall not exceed 1:12.

# Built-Up Curb Ramps

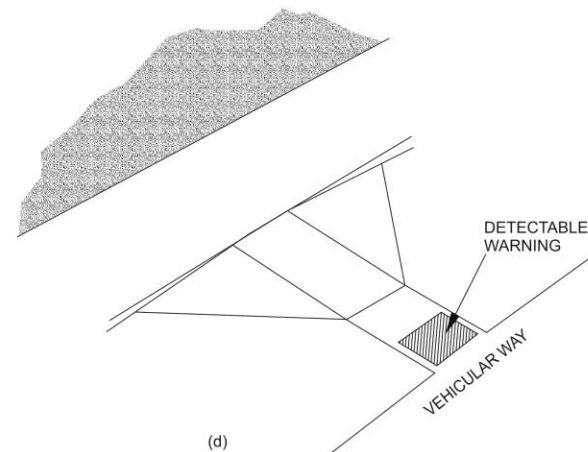
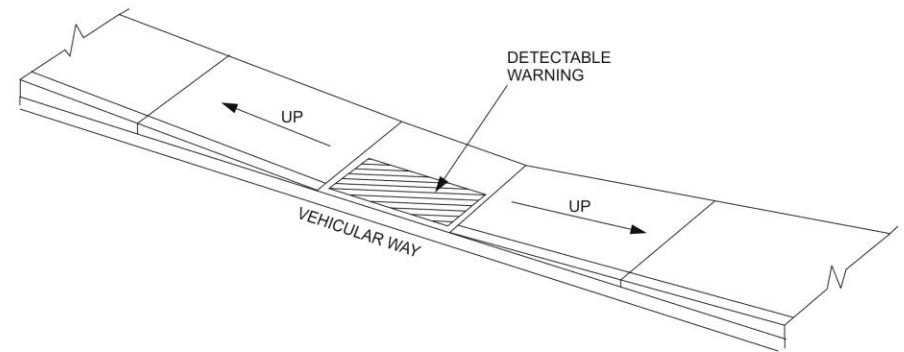
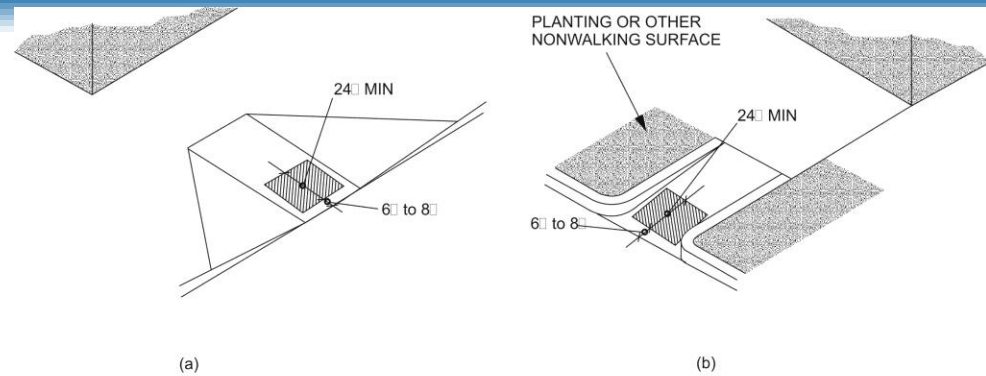


On existing sites, if landing is <36" then slope of flared sides shall not exceed 1:12.



# Detectable Warnings at Curb Ramps

- Detectable warnings are not required on curb ramps by IBC or A117.1
- If a designer chooses to provide detectable warnings, then technical provisions are provided for area covered, location, pattern and contrast.



The background features a dark blue field with a subtle, light blue grid pattern that appears to curve across the frame. Overlaid on this are several semi-transparent, overlapping squares in various shades of blue and white, creating a layered, architectural effect. The squares vary in size and are positioned at different depths, some appearing to float above others.

# **Accessible parking and passenger loading zones**

# Accessible Parking Spaces

- Based on number of parking spaces provided.
- Number of parking spaces required per zoning ordinances.
- Accessible spaces required:
  - Table 1106.1 for general parking.
  - 2% for Group R-2 and R-3.
  - 10% at hospitals facilities.
  - 20% at mobility treatment centers.
  - 1 of 6 accessible spaces sized for a van

# Dispersion by Type

- Parking lots
- Parking garages
- Carports
- Private garages
- Pay/free
- Employee/visitor only



# Parking Locations

- Locate on the shortest accessible route to an accessible entrance.
- Multi-entrance building or multi-building sites – disperse spaces
- Exception:
  - Van spaces on ground level of parking garages (vertical clearance of 98 inches)
  - Grouped where better access is provided



# Signage

- Accessible parking must have a sign
- Exceptions:
  - Fewer than 4 total parking spaces
  - In Group I-1, R-2, R-3 and R-4 where parking is assigned to residents
- Access aisles should be marked to discourage parking on them
- The space is not required to be marked
- Accessible passenger loading zones must have a sign



# Passenger Loading Zones


- At least one in Group I-1 and I-2
- At the entrance where valet parking is provided
- Where passenger loading zones are provided, they must be accessible

# Allowances



- Passenger loading zones do not have to have a confined length. The intent is to allow for a location where people can transfer in safety.
- Vertical clearance is 114” minimum

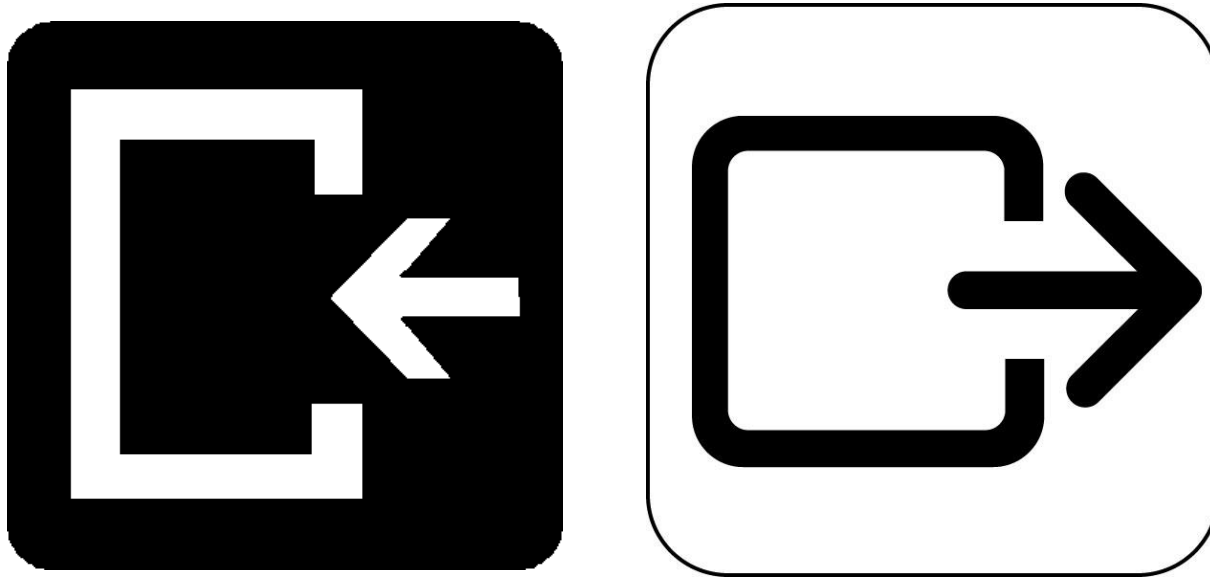


The background features a dark blue field with a subtle grid of thin, light blue lines. Overlaid on this are several overlapping squares in various shades of blue and white, creating a layered, geometric effect. The squares vary in opacity and position, with some appearing to be in front of others.

# **Accessible Entry vs. Accessible Exits**

# Entrance/Exit Requirements—Introduction

- Requirements for both entry and egress must be addressed and the most restrictive applied.



# Accessible Entrance



- Special entrances – at least one:
  - Parking garages
  - Tunnels
  - Elevated walkways
  - Restricted
  - Inmates or detainees
- Public entrances – 60%.
- Individual entrance
  - Tenants
  - Accessible Group I and R dwelling and sleeping units

# Exceptions

- Areas not required to be accessible.
- Doors that serve as means of egress only.
- Service entrances that are not the only entrance to a tenant.

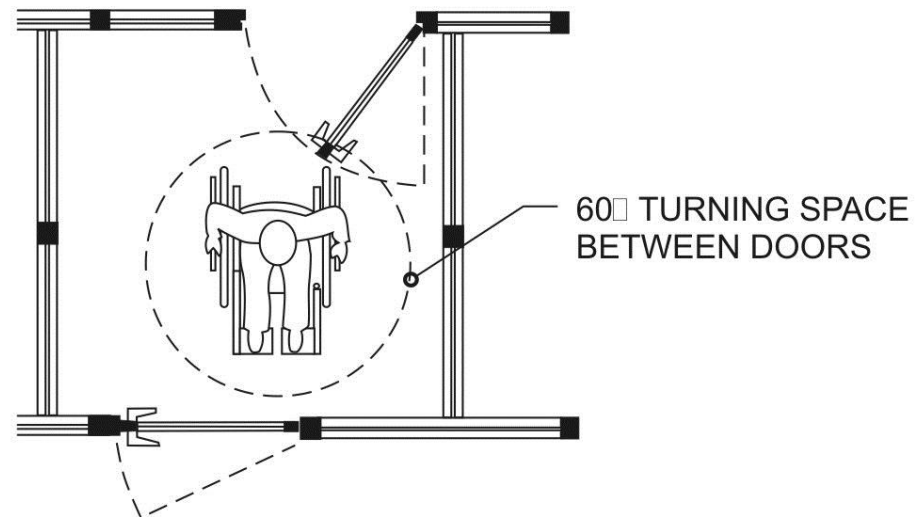
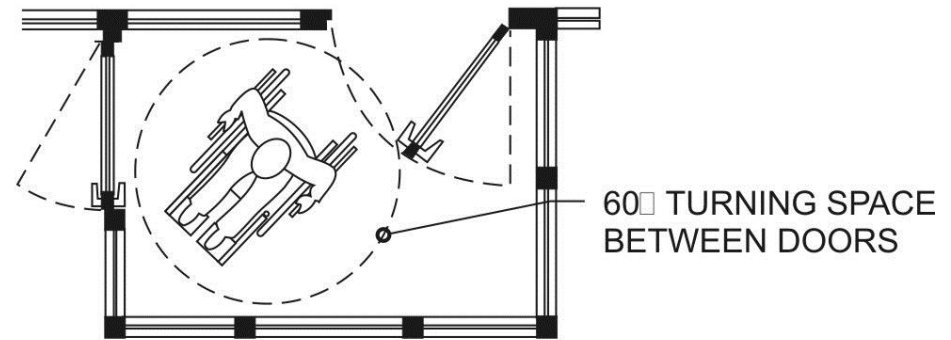
# Doors


- Size
- Swing
- Vestibules
- Hardware
- Opening force
- Maneuvering clearance
- Surface
- Vision panels
- Automatic doors



# Vestibules

- Where doors at a vestibule are not in a straight line of travel, they still have to meet the vestibule requirements.
- A wheelchair space should be provided past the swing of the first door.
- A turning space must be available in the vestibule in case the 2<sup>nd</sup> door is locked or too difficult to open.



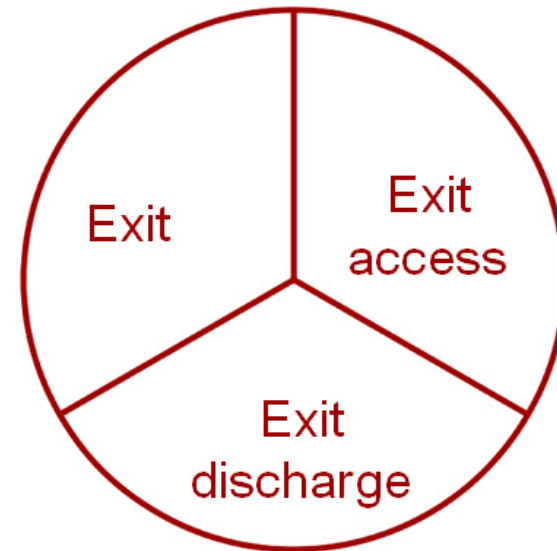
The background features a dark blue field with a subtle, light blue grid pattern that appears to curve and recede into the distance. Overlaid on this are several semi-transparent, overlapping squares in various shades of blue and white, creating a layered, architectural effect.

# **Accessible Means of Egress (MOE)**

# Means of Egress (MOE)

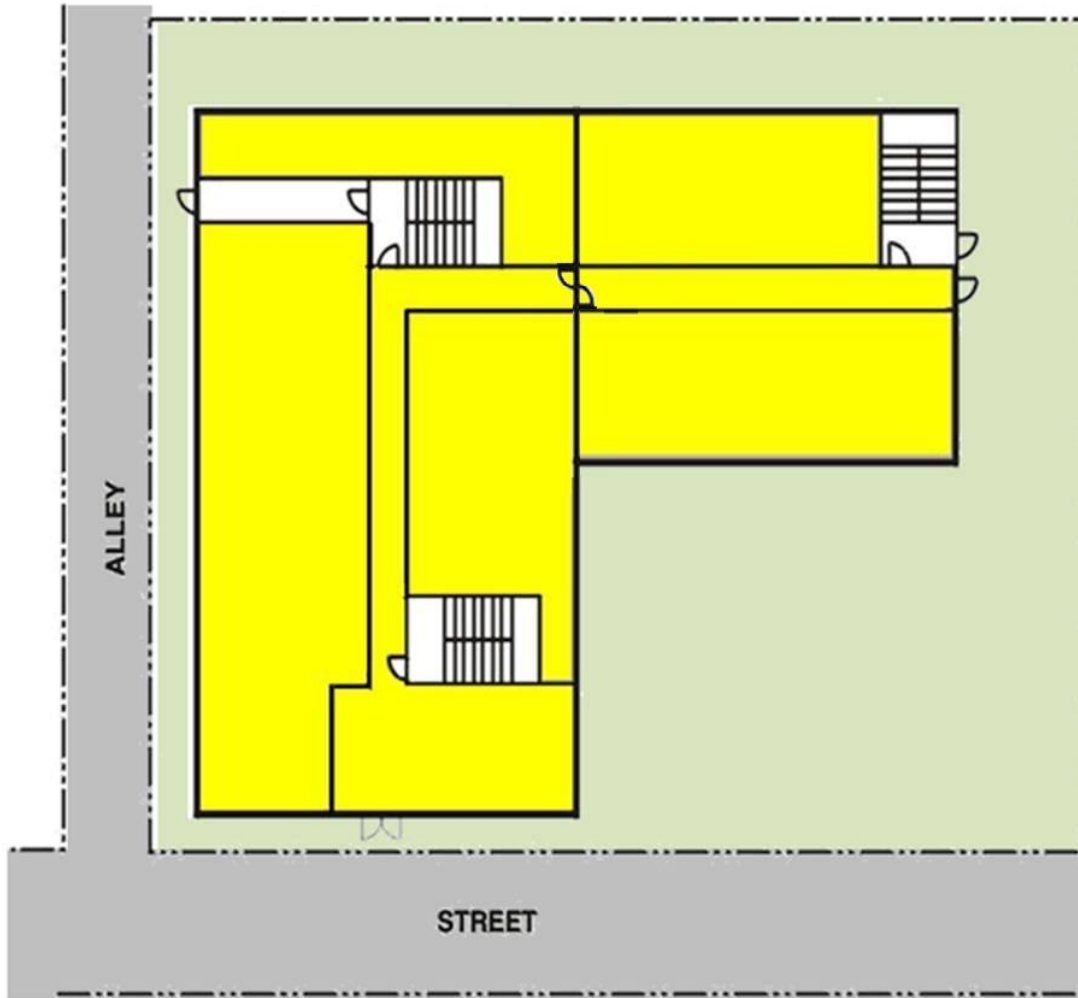
- A means of egress is
- an unobstructed path to leave buildings, structures, and spaces

- Comprised of:
  - Exit Access
  - Exits
  - Exit Discharge





# MOE: Exit Access



- The path from any location in a building to an exit
-

# Accessible Exit Access

Ramps

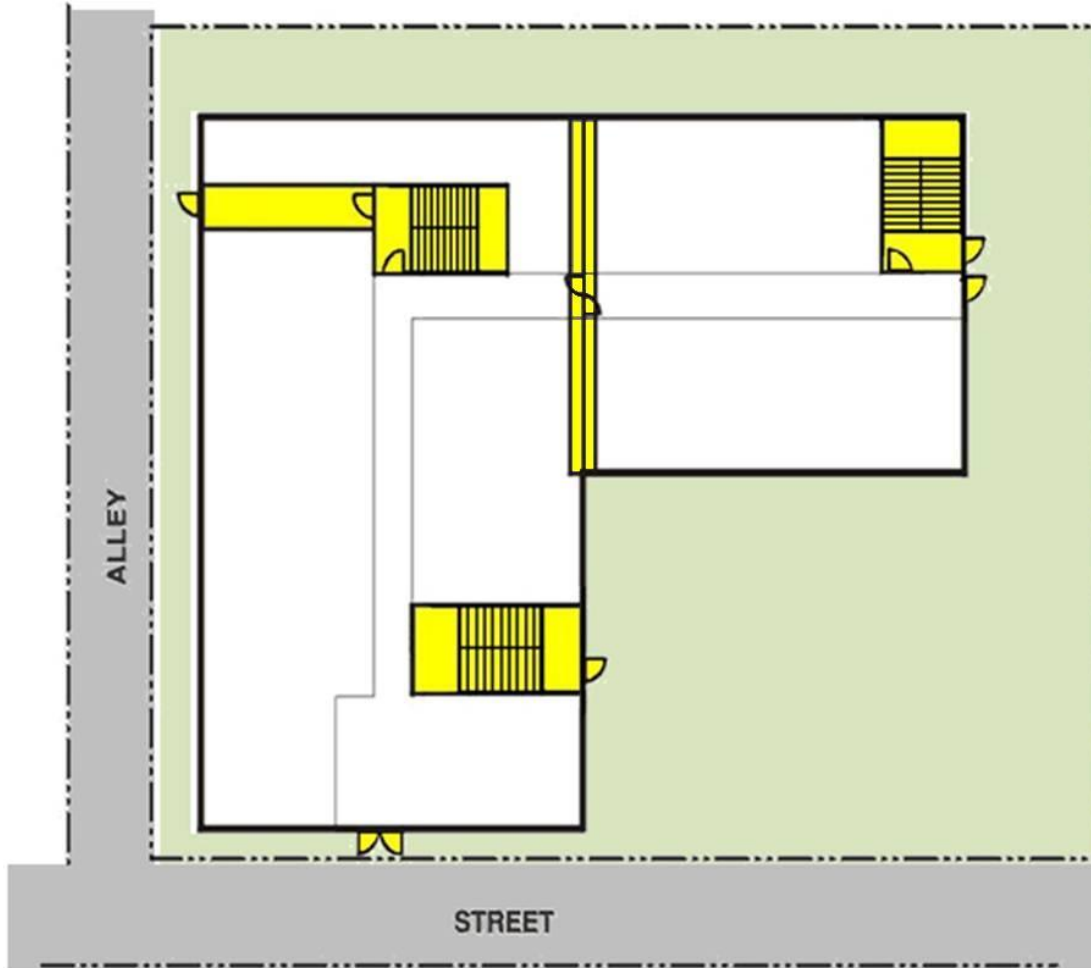


Horizontal surfaces



Platform lifts with standby power

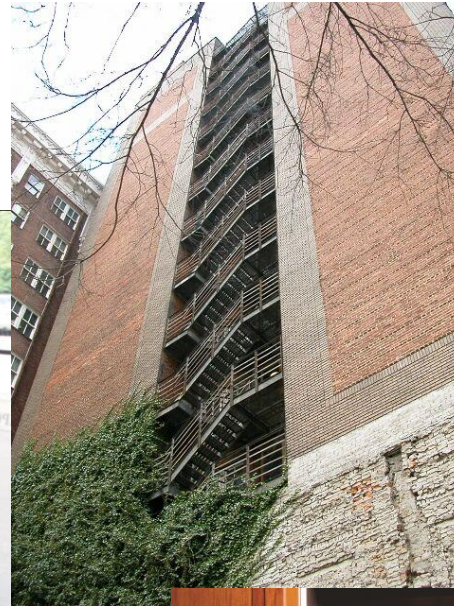
# MOE: Exits



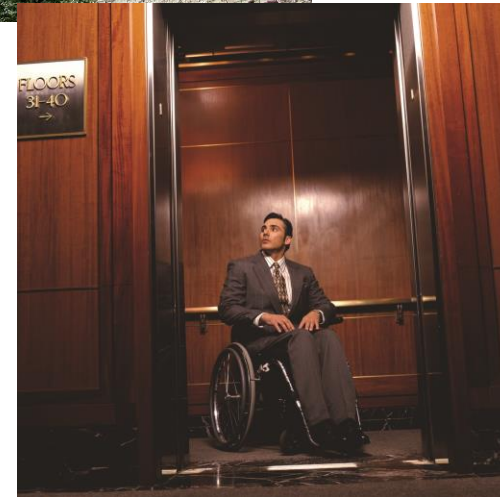
- Exits include doors to the outside, enclosed exit stairways, or horizontal exits

# Accessible Exit

Exit Door

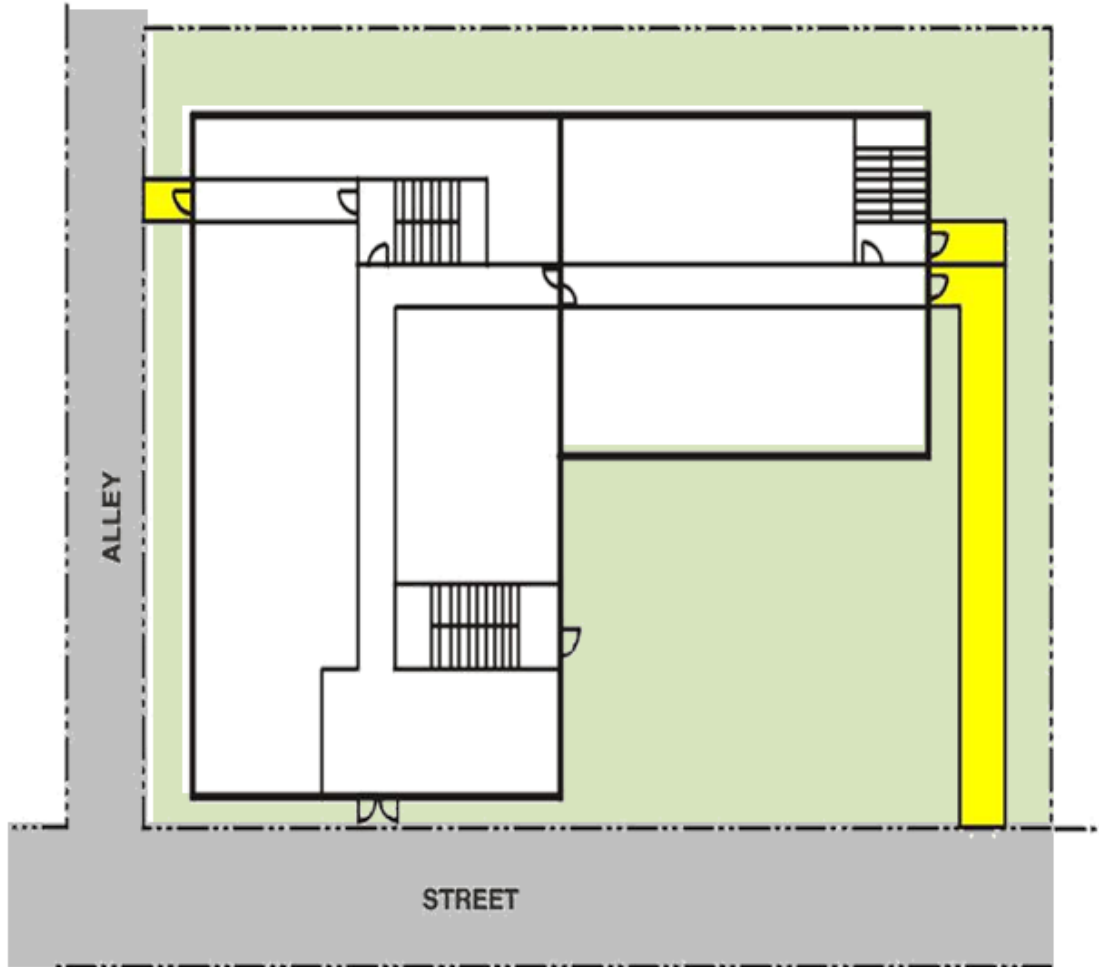


Horizontal Exit



Elevator with standby power

# MOE: Exit Discharge



- The path from an exit to a public way (i.e., street or alley)

# Accessible Exit Discharge



# Accessible MOE

- Assisted rescue when necessary
- Defend in place (i.e., hospitals, jails)
- Assisted evacuation at stairways
- Assisted evacuation at elevators with standby power



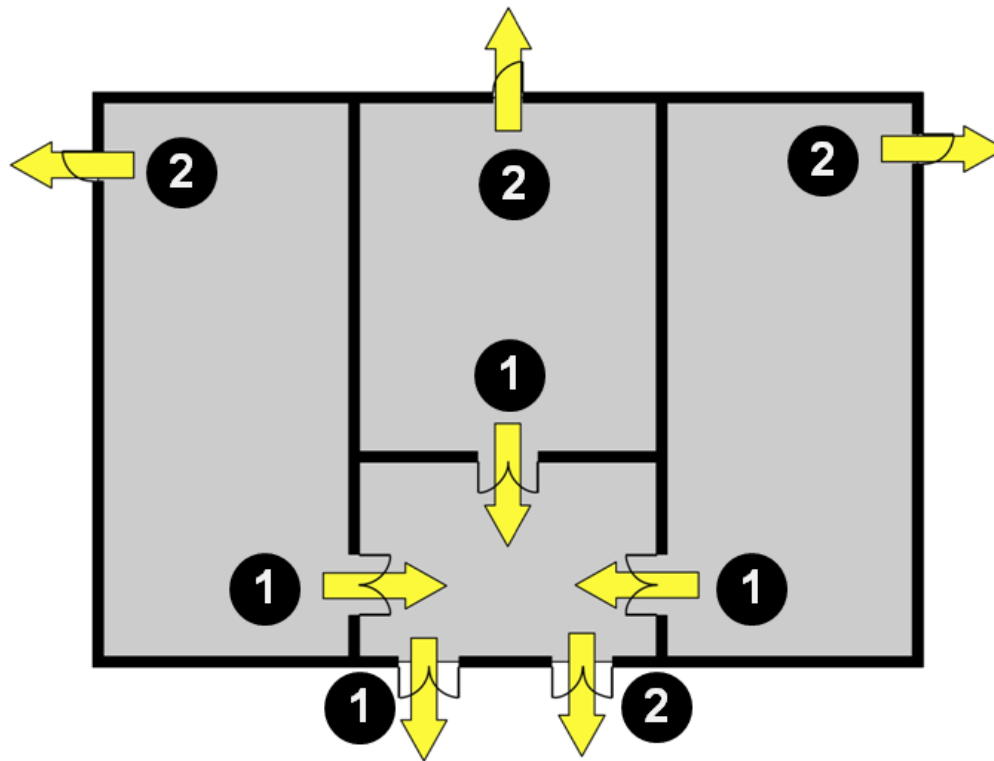
# Accessible MOE

- An accessible means of egress is:
- A continuous and unobstructed accessible route of egress travel from any accessible point in a building or facility to a public way.



# MOE: Minimum Number

MOE required from each space and room



Drawing courtesy of Access Board

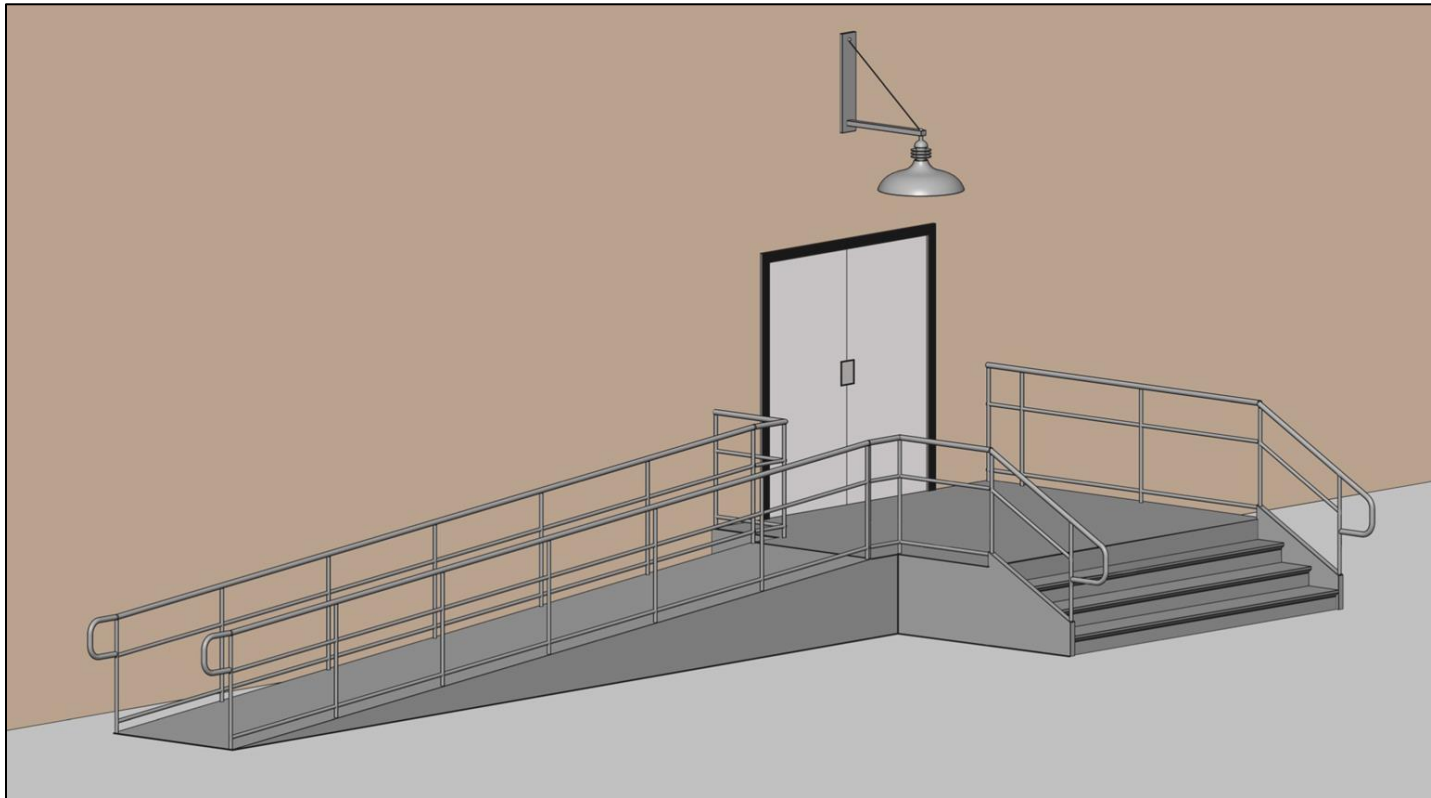
# Accessible Exit Discharge

- If exit discharge is not accessible:
  - Steps
  - Steep site
  - Snow
- Interior area of refuge, or
- Exterior area of rescue assistance.
- No exceptions for sprinklered buildings.



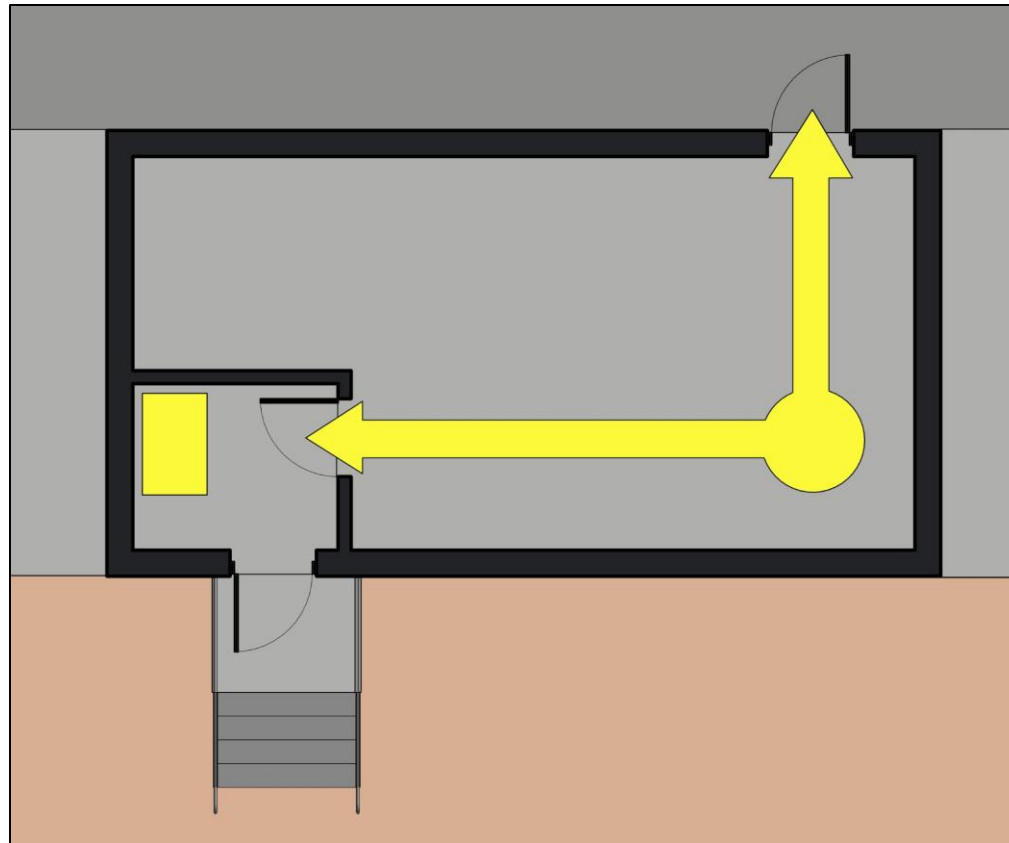
# Accessible Exit Discharge

Allow for self evacuation when possible



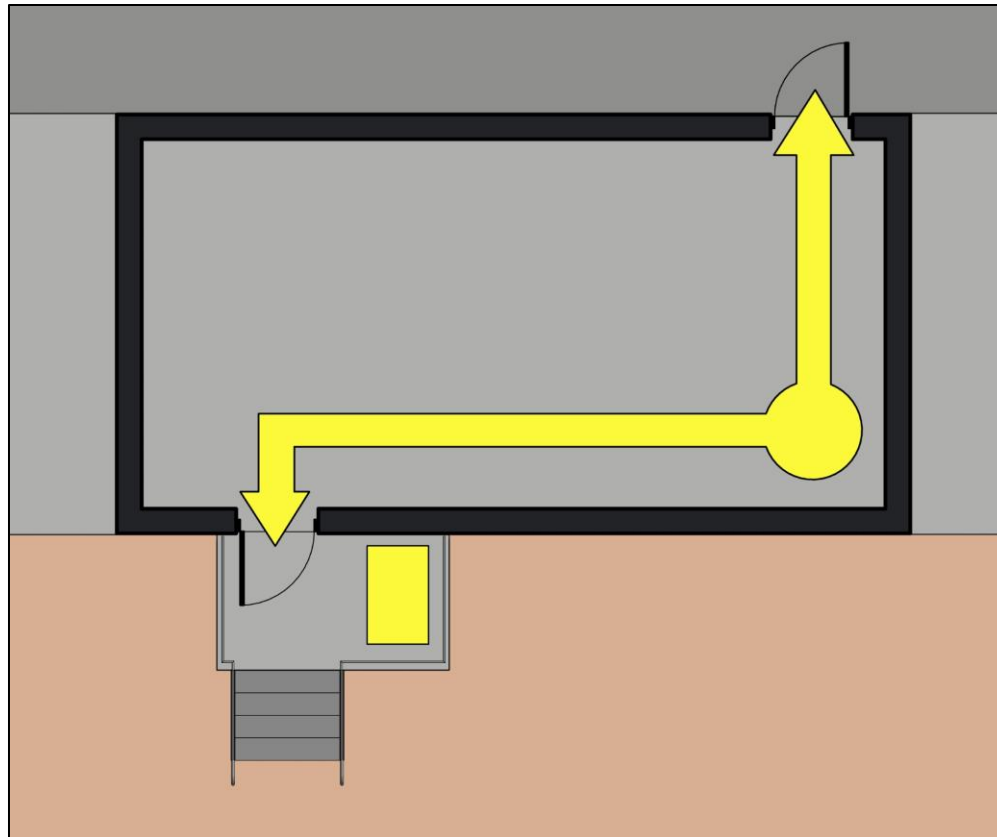
# Exit Discharge

## Interior Area of Refuge

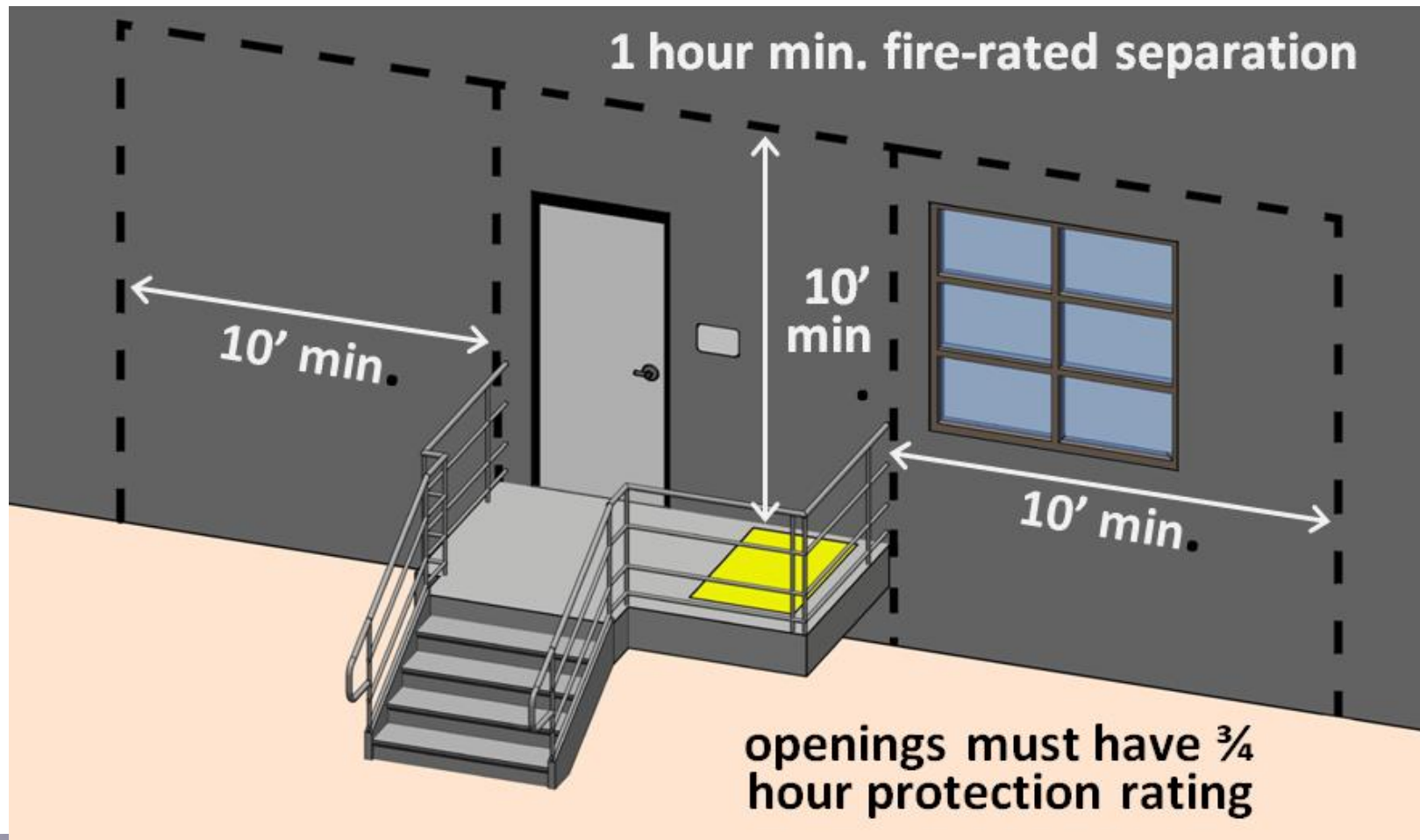


# Exit Discharge

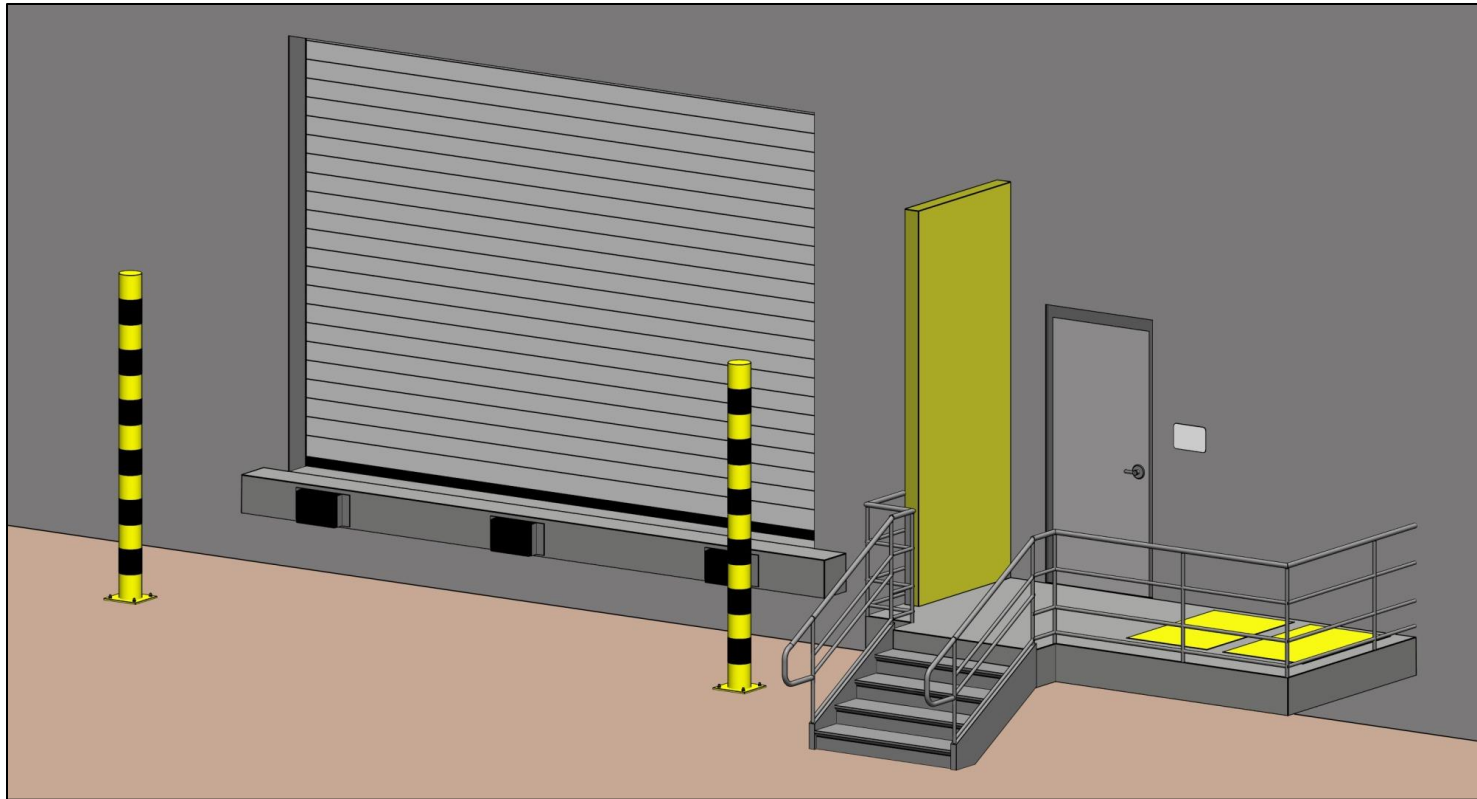
Exterior Area for Assisted Rescue



# Exterior Area for Assisted Rescue



# Exterior Area for Assisted Rescue



2012 IBC: New provision for alternative protection from opening on one side



The background features a dark blue field with a subtle, light blue grid pattern that curves across the bottom right. Overlaid on this are several semi-transparent, overlapping squares in various shades of blue and white, arranged in a staggered, architectural pattern that suggests a staircase or a series of steps.

# Stairways and Ramps



# Stairways

- Not part of the accessible route into building.
- Part of an accessible means of egress out of building with assistance.
- Mainstreamed requirements with no reference to ICC A117.1.
- Safety provisions for persons with mobility and visually impairments addressed in IBC.



**11 inches min. tread depth**

**Riser height 4" to 7"**

**1-1/4" max projection of nosings**

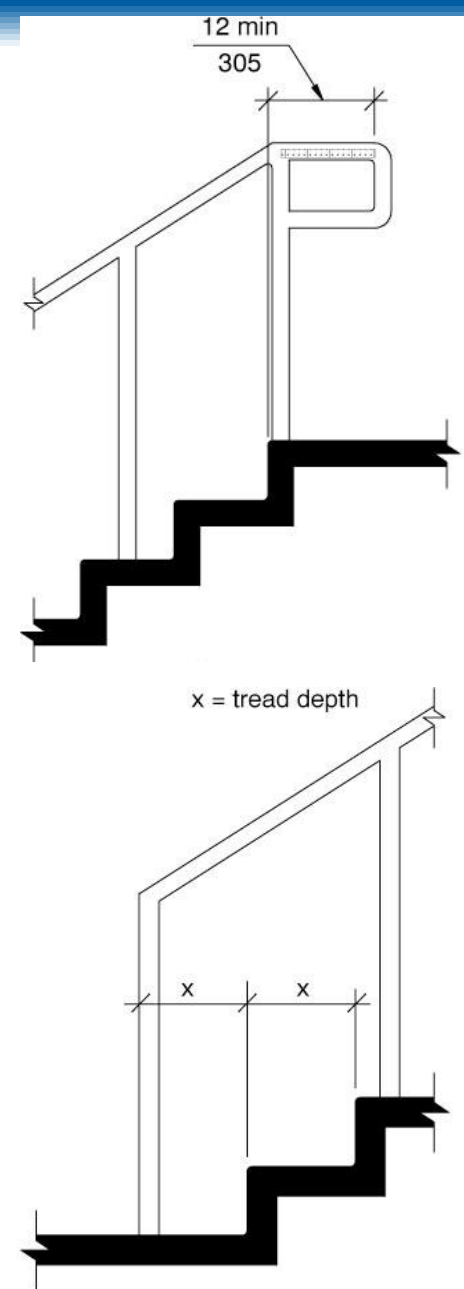
**Handrails and Guards**

**Handrail Extensions**

**Stairway width**

# Handrail Extension

- The handrail extension at the bottom is 1 tread depth minimum and sloped.
- The 2010 ADA has removed the requirement for the additional 12" horizontal extension at the bottom.
- The handrail extension at the top is 12" minimum horizontal.
- The extension must be in the direction of the stairway run



# Solid tread and risers?

- Treads allow for opening  $\frac{1}{2}$ " or smaller
- Risers should not allow for someone to get their foot caught under the tread.

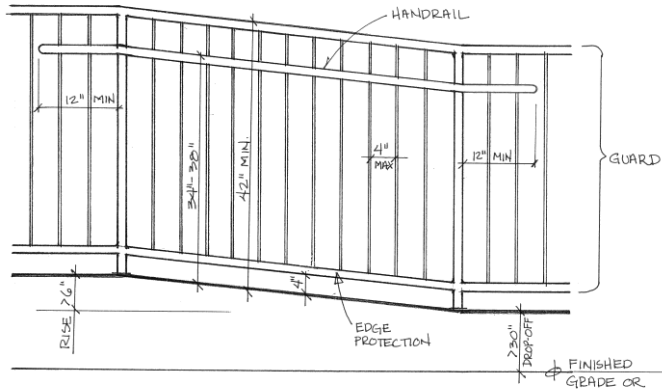


# Ramp Technical Criteria

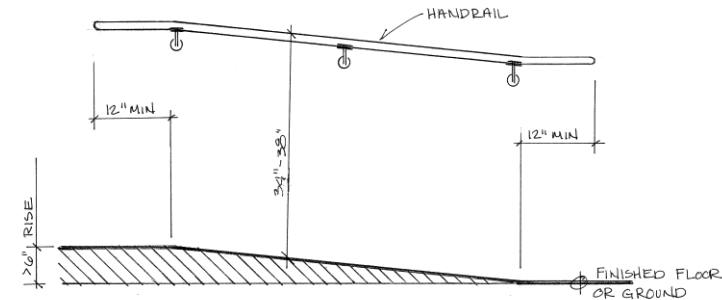
- $>1:20$  slope.
- $1:12$  slope maximum on accessible routes.
- Change in level at start of ramp
- Surfaces – slip resistant
- Cross slope -  $< 1:48$
- Minimum width – 36” between handrails
- Maximum rise – 30” between landings
- Adequate landings



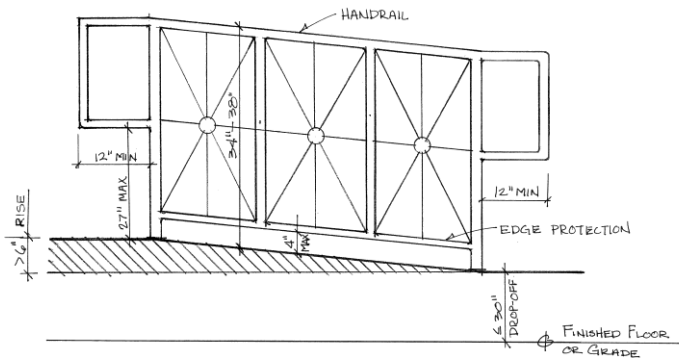
# Edge Protection, Handrails & Guards



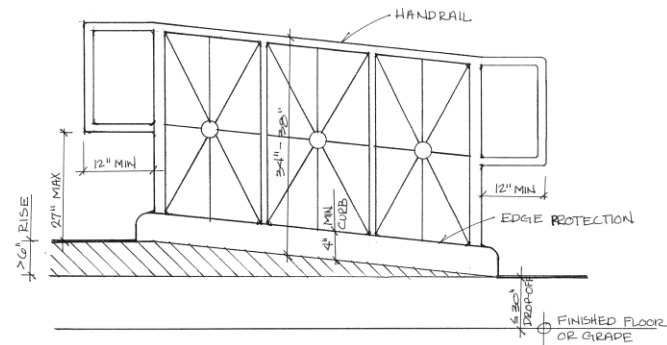
Guards >30" drop off



No drop off



Curb or rail edge protection with  $\leq 30$ " drop off



# Ramp Allowances

- Ramps can have grilled surfaces in cold or wet areas.
- Where the ramp moves up with the grade, edge protection may be provided by a wider surface



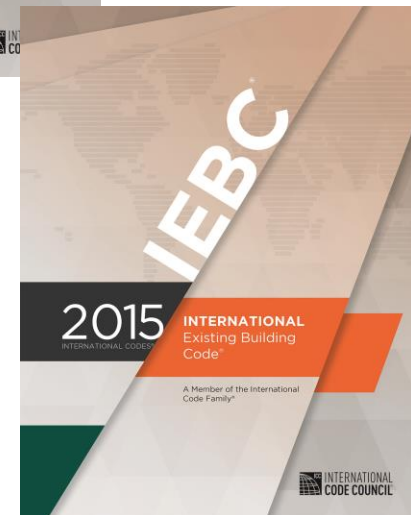
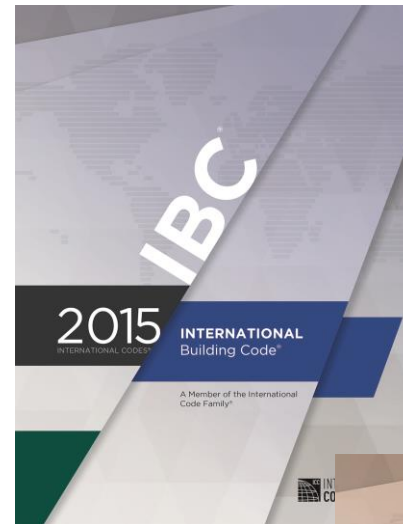
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# Existing buildings



# Which book to use?

- Chapter 34 was deleted from the 2015 IBC
- The 2015 IEBC has three options –
  - Prescriptive Compliance Method – Chapter 4
  - Work Area Method – Chapters 5 through 13
  - Performance compliance method – Chapter 14



# Where are the accessibility provisions?

- There are accessibility requirements in the prescriptive and work area method. These provisions are intended to be consistent. There are some variations due to the chapters being heard by different code development committees.
- The performance method references the other two methods for accessibility.
- In the prescriptive method, the accessibility provisions are in Section 410.
- In the work area method, most of the provisions are in Section 705, however, they are split up somewhat into the different chapters.



# Maintenance

A facility that is constructed accessible must be maintained accessible.



# Existing Buildings

- Maintenance.
- Alteration.
- Change of occupancy.
- Addition.
- Historic buildings.



# Extent of Application

When an existing facility is being altered, it is not required to provide a higher level of accessibility than that which would be required for a new building.



# Alterations to Existing Buildings – Part 1

When altering an existing building, everything that is altered must meet new construction requirements for accessibility.



# General Exceptions

- Accessible means of egress.
- Technically infeasible.
- When historical significance is adversely affected.
- Type B units when the alteration is to less than 50% of the area of the building (Level 1 or 2)



# Technically Infeasible

- Removal or *alteration* of a load-bearing member that is an essential part of the structural frame
- Existing physical or site constraints



# Alterations to Existing Buildings

## – Part 2

- If the area being altered contains a primary function area, the route to that area and any toilet rooms or drinking fountains that serve that area must be evaluated for accessibility.
- If they are not accessible, additional improvements are required.

# Primary Function Area

- A major activity for which the facility is intended.
- Excluding areas such as:
  - Mechanical room or boiler room
  - Supply storage
  - Employee lounge or locker room
  - Janitors closet
  - Entrances
  - Corridors
  - Restrooms

# Extent of application for additional accessible route criteria

- The route improvements (including improving the bathrooms and drinking fountains) are limited to those that serve the area being altered.
- For example, if an alteration is only to the first floor, and the route is compliant, a designer is not required to fix non-compliant items on the upper floors.

# HISTORIC BUILDING.

Any building or structure that is one or more of the following:

1. Listed, or certified as eligible for listing, by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places.
2. Designated as historic under an applicable state or local law.
3. Certified as a contributing resource within a National Register, state designated or locally designated historic district.



# IEBC Appendix B

Section B101: Qualified historical buildings and facilities.

- Explains what a qualified historic building is
- Requires consultations with interested persons
- Where compliance with accessibility would threaten the historical significance, alternatives are available.



# Historic Building

- When compliance would be detrimental to the historical significance of a registered building.
- Minimum requirements
  - Site arrival points.
  - Access to main level.
  - Alternative entrance.
  - Unisex toilet room.



# Special Scoping

- Entrances.
- Elevators.
- Platform lifts.
- Stair and Escalators.
- Ramps.
- Dwelling and sleeping units – Accessible, Type A and Type B.

# Special Scoping

- Jury boxes and witness stands.
- Toilet rooms.
- Dressing, fitting and locker rooms.
- Fuel dispensers.
- Thresholds.
- Amusement rides.





**Thank you for attending.**

**Questions?**