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Presenters

Jim Pecht  
Dave Yanchulis
ADA Standards: “The Basics”
Session Agenda

Chapter 3: Building Blocks
• Floor or Ground Surfaces (§302 & 303)
• Space Requirements (§304 & 305)
• Knee and Toe Clearance (§306)
• Protruding Objects (§307)
• Operable Parts/ Reach Ranges (§308 & 309)

“Building Blocks”

Other technical chapters reference Ch. 3 provisions

Floor & Ground Surfaces
Ground/ Floor Surfaces (§302)

Firm, stable, and “slip resistant”

Ground/ Floor Surfaces

Loose surface materials:
- most do not comply unless properly treated (e.g., binders, consolidants, compaction, and grid forms)
- repeated maintenance often required

Slip Resistance

Slip resistance – minimum level ("coefficient of friction") not specified

- Standard practices for minimizing slipperiness often suffice
- Specify according to likely conditions (e.g. exposure to moisture)
Surface Smoothness

Surface smoothness – changes in level
Avoid rough surfaces composed of cobblestones, Belgian blocks, etc. = difficult or painful to negotiate

Carpet

• 1/2” max. pile height (measured to the backing, cushion, or pad)
• Texture: level or textured loop, level cut pile, or level cut/uncut pile
• Firm backing, cushions, pads (avoid cushions/pads for greater firmness)
• Firm securement, edging

Carpet

Securement/attachment to prevent rolling or buckling (which makes maneuvering difficult)
Openings

½” max. in one dimension

Long dimension = perpendicular to travel direction

Changes in Level (§303)

¾” maximum – no treatment
½” maximum – 1:2 max. bevel
> ½” – treatment as ramp/ other means of vertical access

Changes in Level

Apply to all level changes along accessible routes, including thresholds
Turning Space

60" Diameter Circle  T-Shaped Space

Overlap of Turning Space

Elements with knee/toe space can overlap either 1 arm or stem

Overlap of Turning Space

Overlap of circular space (25" max)
Recommended: avoid any overlap or limit to approximately 12" (wheelchair space remains clear)
Turning Space

Turning space can overlap other clearances; door can swing into turning space

Turning Space along Routes

Required at 180 degree turns around narrow obstructions (< 48" long) unless route width at least 42" wide

Turning Space in Rooms and Spaces

- toilet/ bathing facilities
- dressing/ fitting/ locker rooms
- transient lodging guest rooms
- dwelling units (all rooms on accessible routes)
- patient bedrooms
- holding and housing cells
- saunas and steam rooms
- courtrooms (raised stations served by ramps)
- certain recreation spaces
Clear Floor/Ground Space

Clear Floor/ Ground Space (§305)

Clearances required at all accessible elements (e.g., storage cabinets, drinking fountains, outlets, etc.)

Clear Floor/ Ground Space

Forward Approach:
Required at dining/ work surfaces, DFs, lavatories, most sinks, urinals

Side Approach:
Specified/ usually provided at sales & service counters, beds, and most appliances

Either approach allowed at other elements
Size/ Centering

Minimum size: 30” x 48” (unconfined)

Centering = required at only certain elements (DFs, kitchen work surfaces, washers/ dryers)

Size (Confined)

Additional clearance where space confined on 3 sides (and more than half of space depth confined)

Knee & Toe Space

Elements providing knee/ toe clearance can overlap space; can help reduce reach to operable parts

Toe Space: 9” high 6” deep max

Knee & Toe Space: 27” min. high (knee) 25” deep max
Knee & Toe Space

Knee/ toe space required at certain elements:

- DFs,
- lavatories
- most sinks,
- dining/ work surfaces

17” min (where knee/toe space required)

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Knee & Toe Space

6” max.

9”

Toe space

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Knee & Toe Space

Beyond toe space, clearance increases from 9” to 27” min. over 3” span (6:1 slope)
Knee & Toe Space

Remainder of space must provide full clearance for knees (27” min.)

Knee & Toe Space

Additional depth must provide 27” min. clearance (9” of depth can be less than 27”)

Knee & Toe Space

Knee/ toe space must be at least as deep as the reach to any operable parts (both limited to 25” depth)
Operable Parts & Reach Ranges

Operable Parts (§309)

Examples of Operable Parts

Operable Parts

- Operability
- Reach range
- Clear floor space
- Connected by accessible route
Reach Ranges (§308)

Unobstructed forward and side reaches

Forward Reach (Obstructed)

Obstructed reach: 44” max. if reach depth exceeds 20”

Side Reach (Obstructed)

Obstructed reach: 46” max. if reach depth exceeds 10”
Side Reach (Obstructed)
Recommendation: consider standard reach radius in locating operable parts accessed from side approach

Elements in corners can be hard to reach from side approach

Children’s Reach Ranges
Advisory (non-mandatory): Forward & Side

Maximum
- 44” (9 – 12 yrs)
- 40” (5-8 yrs)
- 36” (3 & 4 yrs)

Minimum
- 20” (3 & 4 yrs)
- 18” (5-8 yrs)
- 16” (9 - 12 yrs)

Operability
- 1 hand operation
- no tight grasping, pinching, or twisting of wrist
- 5 lbf maximum
Operability

Closed fist operation = good, but not mandatory
Many other types comply (e.g., U-shaped pulls)

Operability

Recommended:
- buttons - raised/flush (not recessed)
- no simultaneous action/ movement
- hand or finger dexterity not required

Not required to comply: non-fixed portions (e.g., keys, access cards)

Protruding Objects
Protruding Objects (§307)

Protrusion limits apply to all areas of circulation – not limited to accessible routes.

Protruding Objects

Examples of protruding objects

Protrusion limits apply to all areas of circulation – not limited to accessible routes.

Protruding Objects

Drinking Fountains

Elements often recessed to comply (e.g., drinking fountains at standard heights).
Protruding Objects
Post-mounted objects

Protrusion limits also apply to objects mounted on posts

Protruding Objects
Post-mounted objects

Questions?
You may type and submit questions in the Chat Area Text Box or press Control-M and enter text in the Chat Area
Thank you for participating in today’s webinar

Next scheduled session:
Accessible Communication Elements and Features
May 3, 2012
2:30 - 4:00 (ET)

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