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A collaborative program between the
ADA National Network and the
U.S. Access Board



The Session is Scheduled to begin at 2:30pm Eastern Time
We will be testing sound quality periodically

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1



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2



Listening to the Webinar, *continued*

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Listening to the Webinar, *continued*

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4



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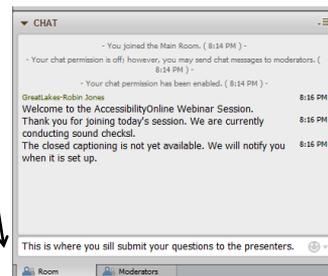
- Once selected you will have the option to resize the captioning window, change the font size and save the transcript.

5



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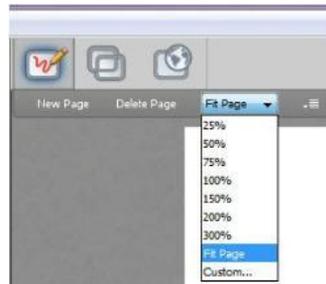
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6



Customize Your View

- Resize the Whiteboard where the Presentation slides are shown to make it smaller or larger by choosing from the drop down menu located above and to the left of the whiteboard. The default is “fit page”



7



Customize Your View *continued*

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8

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 - Select “Edit” from the tool bar at the top of your screen
 - From the drop down menu select “Preferences”
 - Scroll down to “General”
 - select “Audible Notifications” Uncheck anything you don’t want to receive and “apply”
 - Select “Visual Notifications” Uncheck anything you don’t want to receive and “apply”
 - For Screen Reader User – Set preferences through the setting options within the Activity Window (Ctrl+slash opens the activity window)

9



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 2. Email webinars@accessibilityonline.org ; or
 3. Call 877-232-1990 (V/TTY)

10

Accessible Offices Spaces and Interior Design

11

Presenters



Fernando Arias



Rex Pace

12

Session Agenda

- **Meeting the Need Through Interior Design**
- **Office Design and Federal Accessibility Standards**
- **Key Requirements of the Standards**
- **Design Strategies**

13

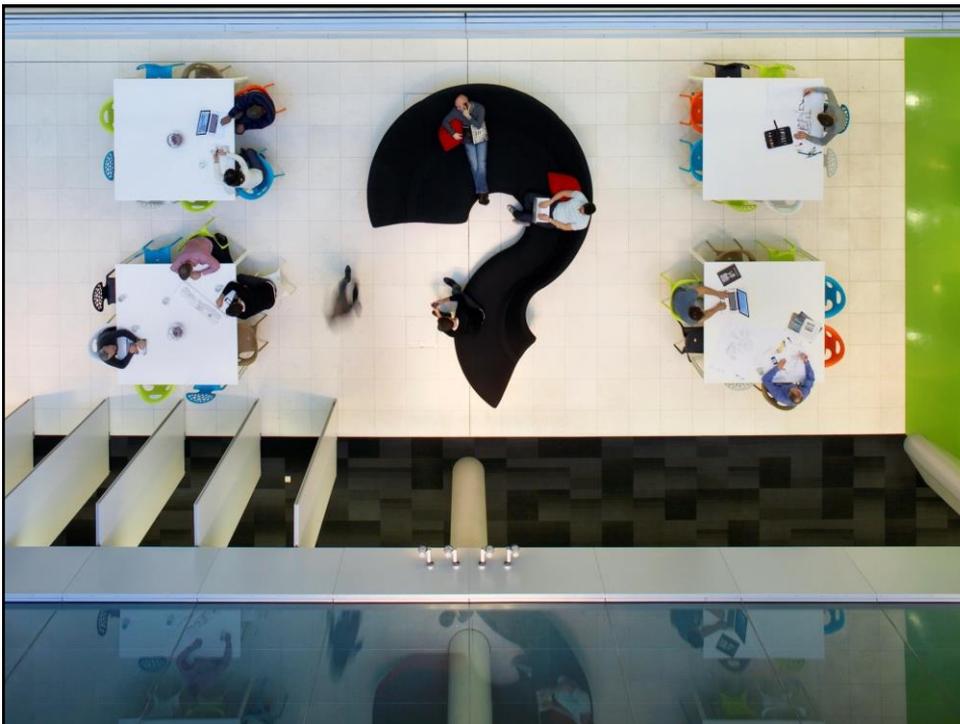
Meeting the Need Through Interior Design

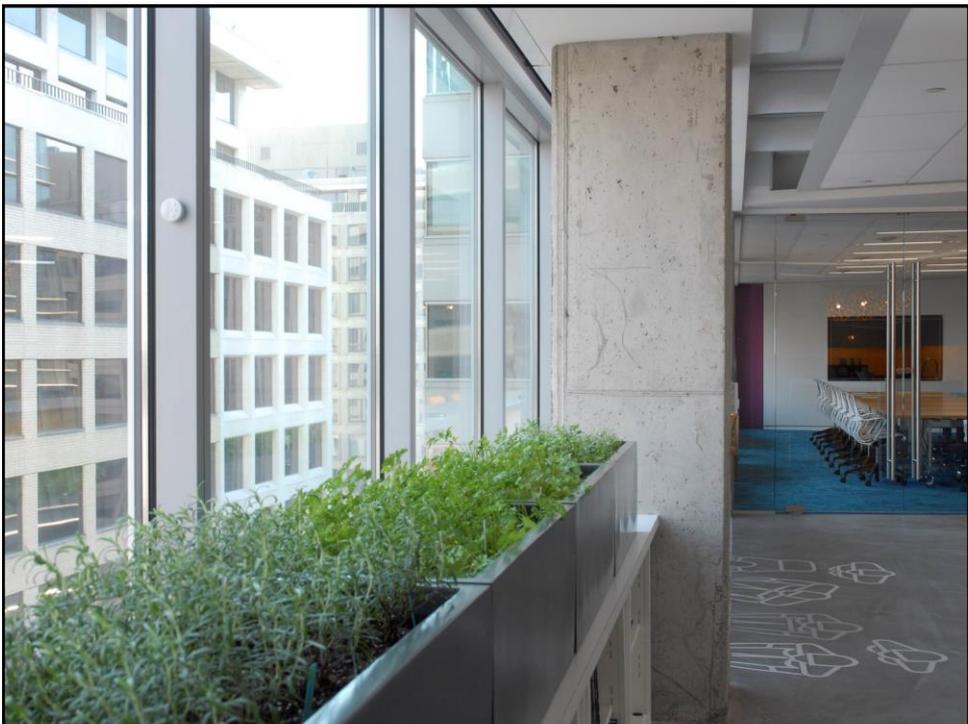
14

Workplace of the Future:

- **Socially inclusive, functional environments improve “presentism”**
- **Accessible design + universal design = “wellness”**
- **Designing with nature key to promoting integrated culture**

15





Overview: Office Design and Federal Accessibility Standards

19

Federal Laws Requiring Accessibility

- **Americans with Disabilities Act (ADA)**
- **Architectural Barriers Act (ABA)**
- **Rehabilitation Act**

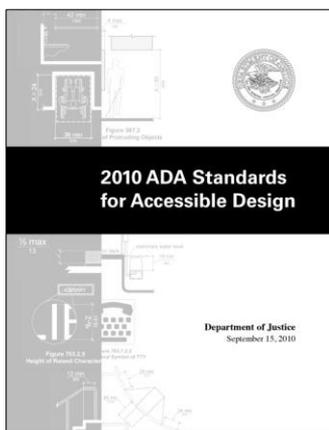
20

Accessibility Standards

- **2010 ADA Standard for Accessible Design – required by Titles II and III of the ADA**
- **ABA Standards – required by the regulations and directives of the USPS, GSA, HUD, and DOD**

21

2010 ADA Standards

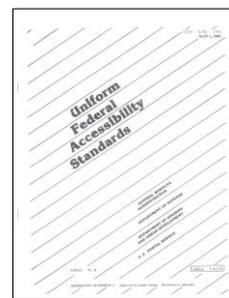


DOJ's 2010 ADA Standards

Effective Now
(March 15, 2012)



1991 Standards



**UFAS Option
(title II entities)** 22

Architectural Barriers Act

- facilities that are designed, constructed, altered, or leased by, or on behalf of, the United States.
- facilities receiving certain types of Federal financial assistance.

23

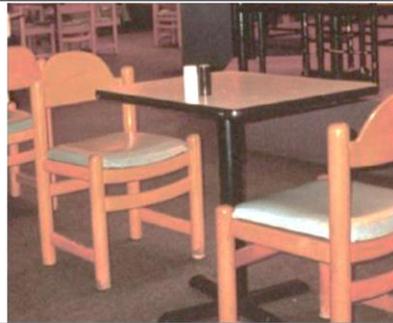
Differences between ABA and ADA Standards

1. Modifications and Waivers (§ F103)
2. Some Definitions (§ F106.5)
3. Employee Work Areas
4. Additions (§ F202.2)
5. Leased Facilities Section (§ F202.6)
6. Existing Elements (§ F203.2)
7. Elevator Exceptions (§ F206.2.3)
8. Outdoor Developed Areas on Federal Lands
9. Military Exclusions

24



VS.



**Fixed and
Built-in**

**Furniture and
Movable Equipment**

25

Fixed/Built-in vs. Movable Furniture and Equipment

**§ 35.151 (d) and
§ 36.406 (b)**

Scope of coverage

“2010 Standards apply to fixed or built-in elements of buildings, structures, site improvements, and pedestrian routes or vehicular ways located on a site.”



26

Key Requirements of the ADA & ABA Standards

27

ADA Standards Chapters

Chapter 1: Application and Administration

Chapter 2: Scoping Requirements

Chapter 3: Building Blocks

Chapter 4: Accessible Routes

Chapter 5: General Site and Building Elements

Chapter 6: Plumbing Elements and Facilities

Chapter 7: Communication Elements and Features

Chapter 8: Special Rooms, Spaces, and Elements

Chapter 9: Built-in Elements

Chapter 10: Recreation Facilities

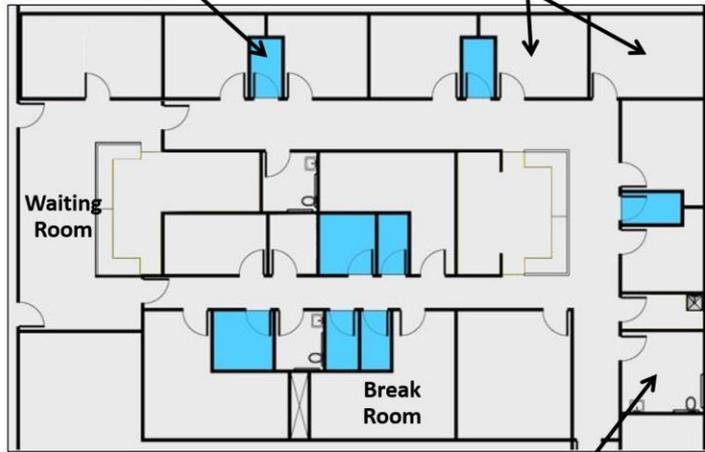
28

ADA Example: Medical Care Suite

Public & Common Use Areas: Full Access

 Dressing Rooms: access to at least 5% of each type

Exams Rooms & Doctors' Offices: 100% scoping (public access)



Toilet rooms – access to all
(50%: clustered single user of same type)

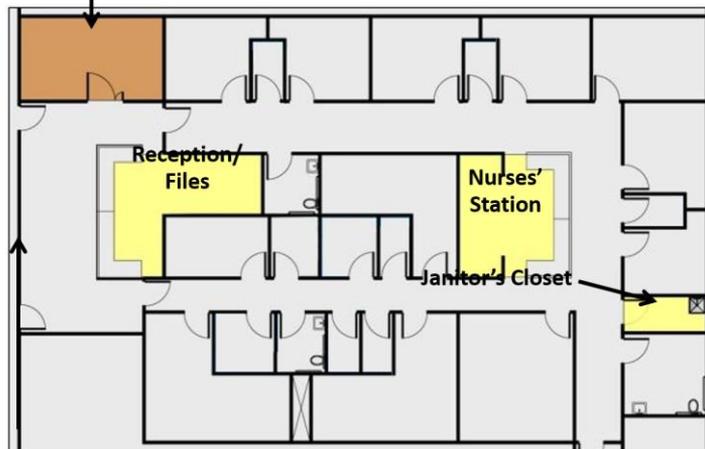
29

ADA Example: Medical Care Suite

Employee Work Areas & Exempt Spaces

Mechanical (exempt)

 Employee Only Work Areas

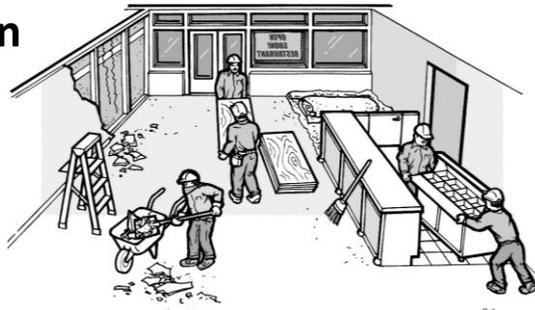


30

Alterations (§202.3)

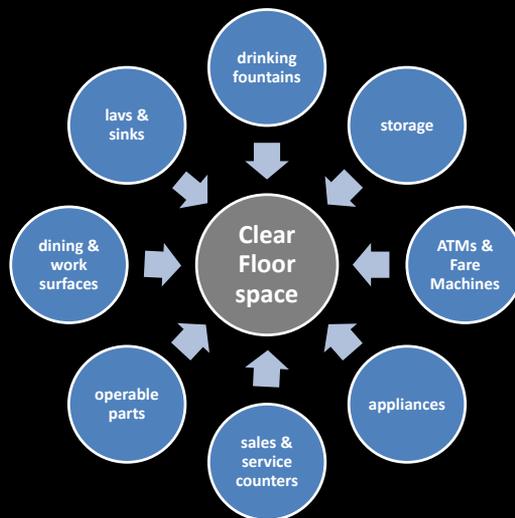
Standards apply based on:

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



Chapter 3: Building Blocks

Example: clear floor space references



32

Clear Floor and Ground Space (§305)



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

33

Size and Centering



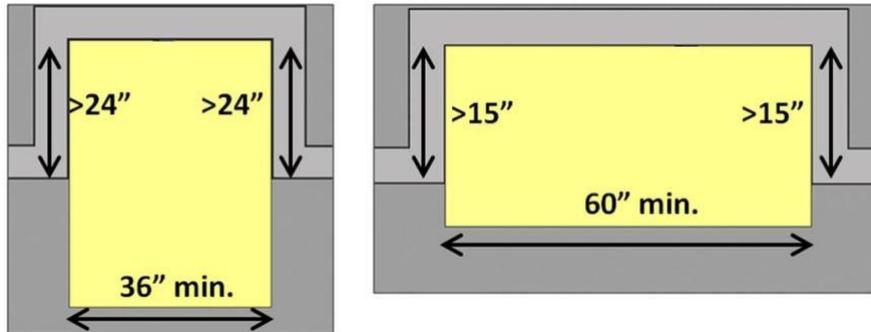
Minimum size:
30" x 48"
(unconfined)



Centering = required at only certain elements:
DFs, kitchen work surfaces, washers & dryers

34

Size (Confined)



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

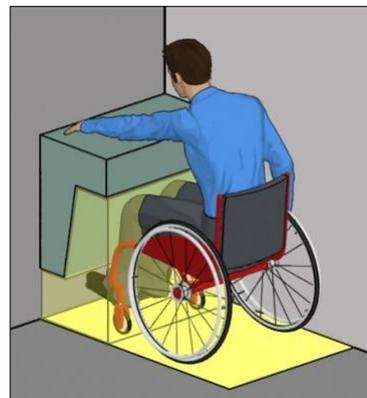
35

Knee and Toe Space (§306)

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



Toe Space



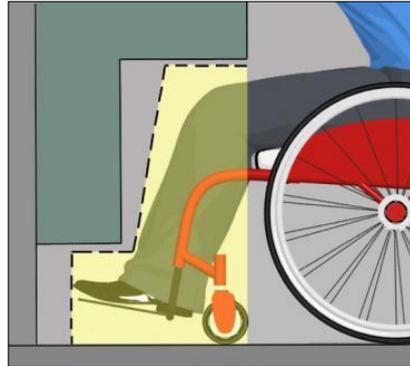
Knee & Toe Space

36

Knee and Toe Space

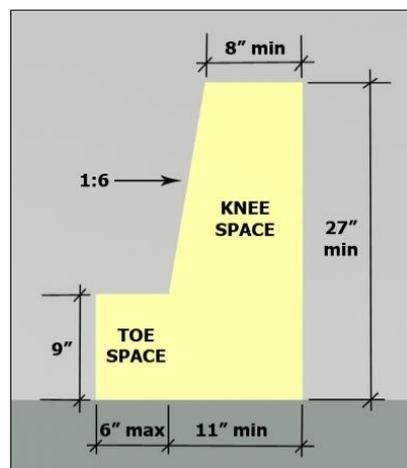
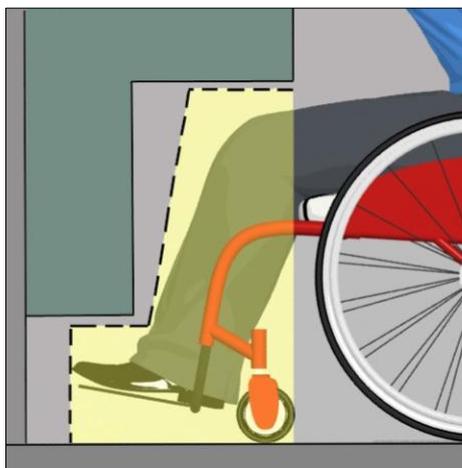
Required at :

- drinking fountains
- lavatories & most sinks
- dining/ work surfaces
- sales & service counters providing forward approach



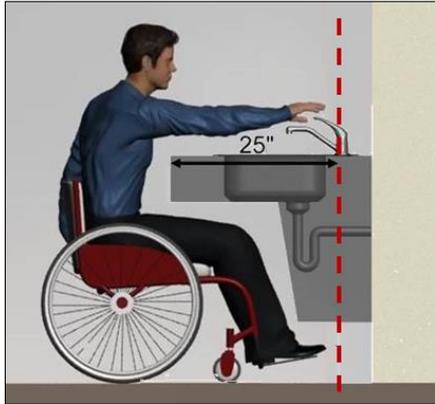
37

Knee and Toe Space



38

Knee and Toe Space



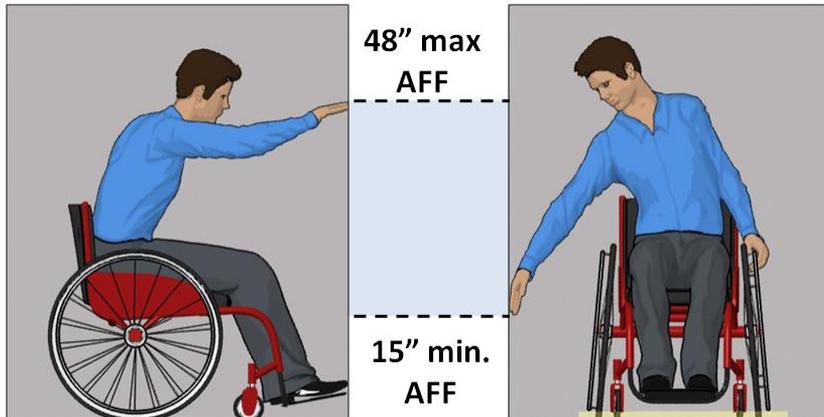
reach cannot exceed depth
of usable knee & toe space
—limited to 25" max



specifications and
drawings critical

39

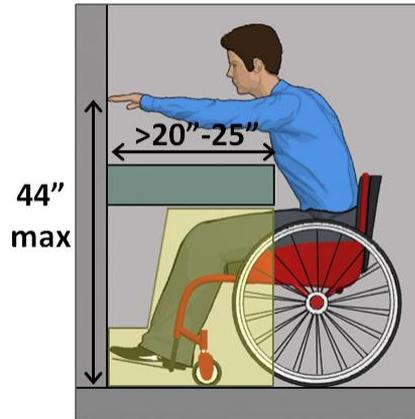
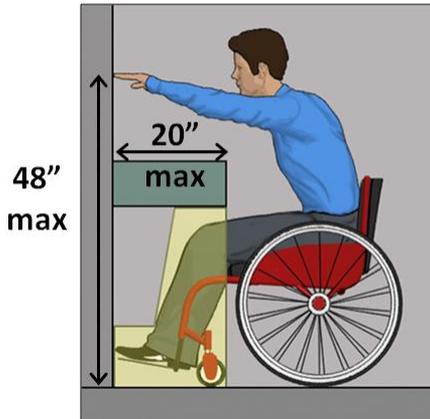
Reach Ranges (§308)



Unobstructed forward and side reaches

40

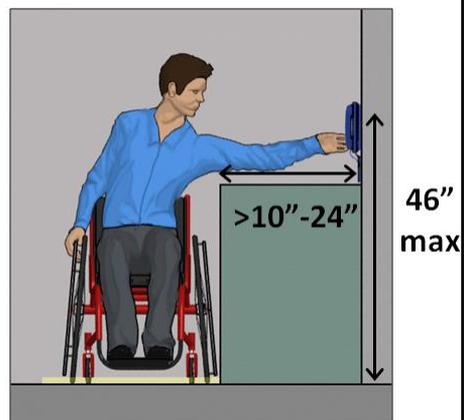
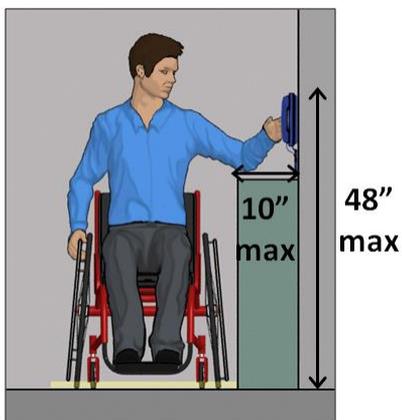
Forward Reach (Obstructed)



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

41

Side Reach (Obstructed)



Obstructed reach: 46" max. if reach depth exceeds 10"

42

Obstructed Reach



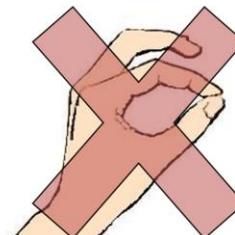
Outlets Over Countertops and Work Surfaces

43

Operability (§309)



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



44

Operability

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

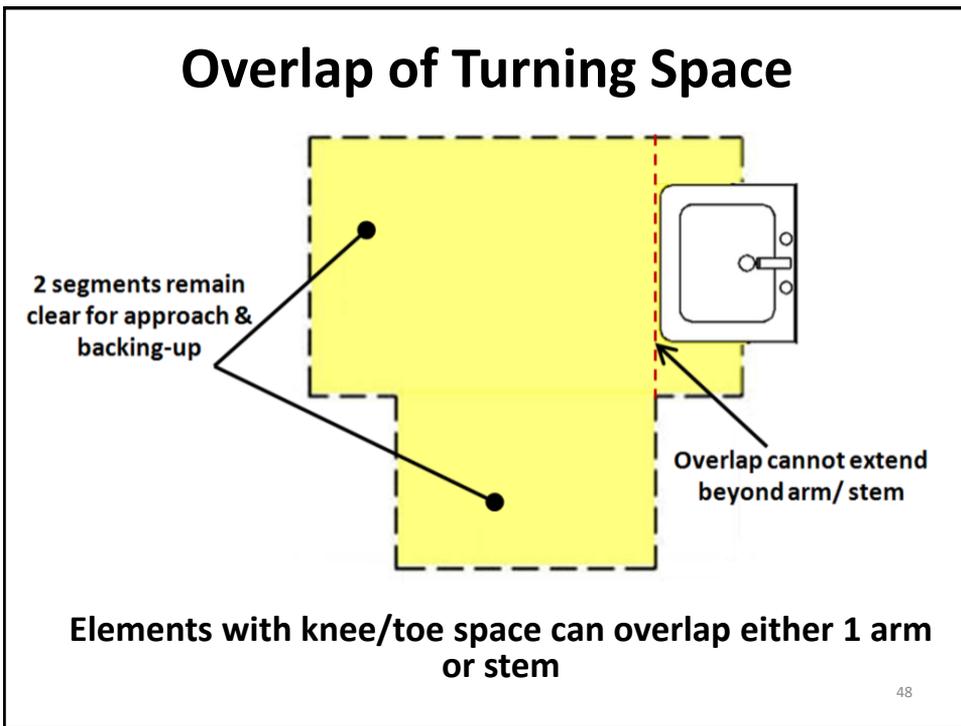
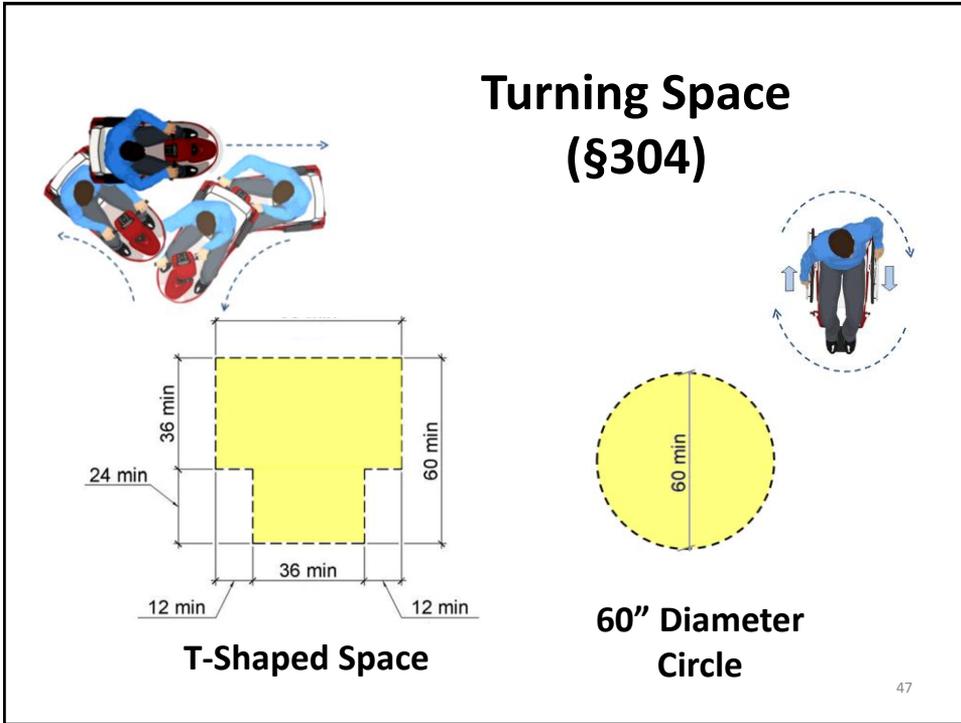


45

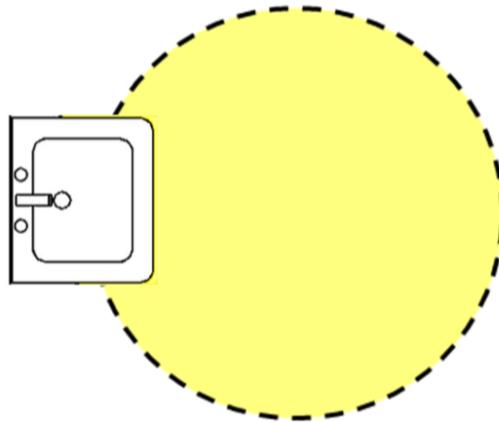
Operability – Cabinet Pulls Choices



46



Overlap of Turning Space



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

49

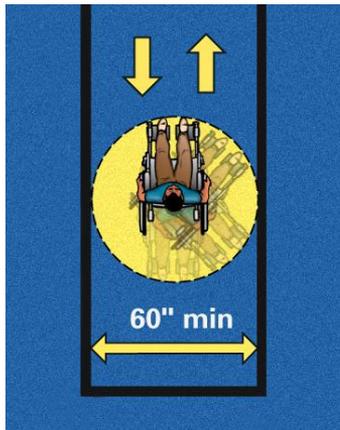
Where Turning Space is Required

- 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

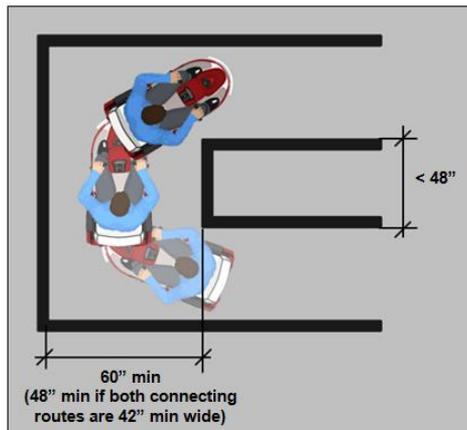


50

Corridors and Aisles



Dead end corridors
Turning space recommended
– NOT REQUIRED



180 degree turns around obstructions less than 48" long
– REQUIRED (unless route at least 42" wide)

51

Accessibility for Individuals Who are Blind or Have Low Vision



52

Signs (§216/§703)



wayfinding

John Smith
Director
Accounting
123

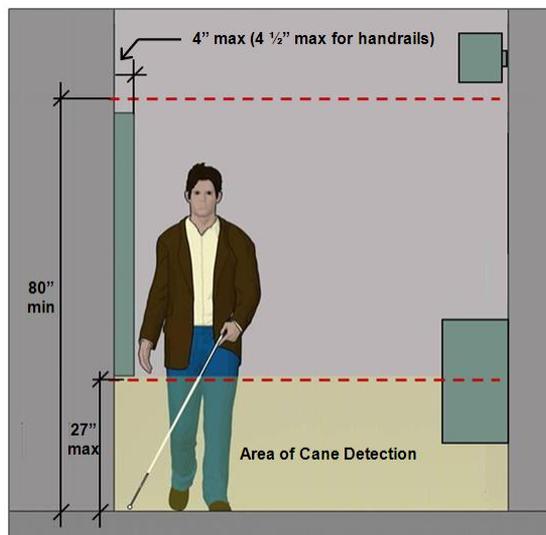
permanent space
designations



directional and
informational signs

53

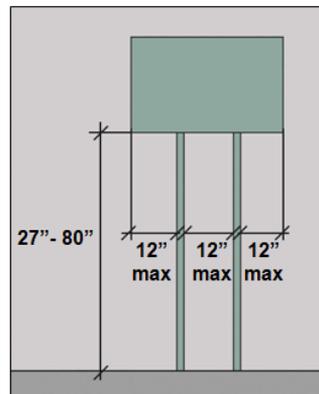
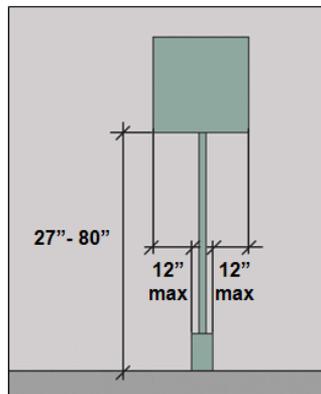
Protrusion Limits (§307.2)



54

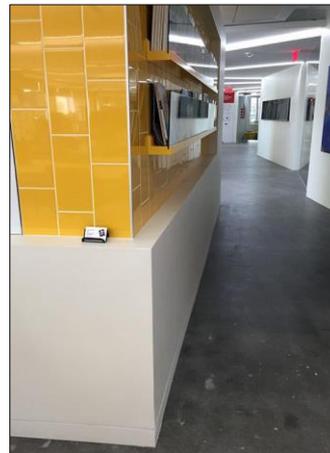
Post-Mounted Objects (§307.3)

Objects with leading edges 27" - 80" high on posts/ pylons:
12" max. protrusion into circulation paths.



55

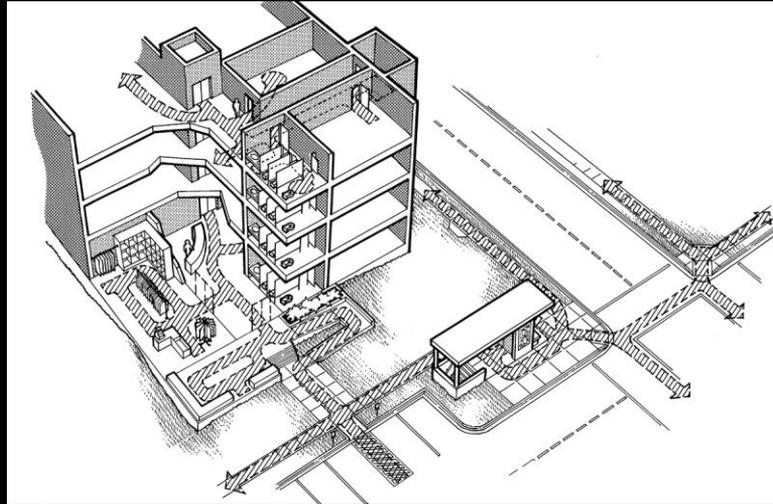
Protruding Objects (§307)



Example of methods to prevent hazardous protruding objects.

56

Accessible Routes

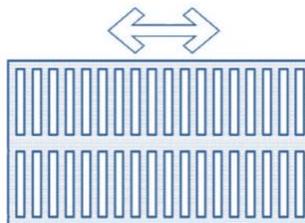


tie the accessible features and spaces together

57

Ground & Floor Surfaces (§302)

- Slip-resistance: specific value (coefficient of friction) not specified
- Carpet
- Openings (prevent passage of $\frac{1}{2}$ diameter sphere; elongated = perpendicular to dominant travel direction)



58

Carpet

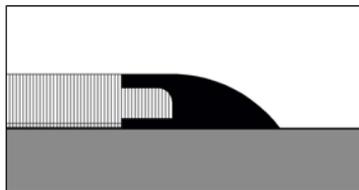
- 1/2" max. pile height (measured to the backing, cushion, or pad)
- Texture: level or textured loop, level cut pile, or level cut/uncut pile
- Firm backing, cushions, pads (avoid cushions/pads for greater firmness)
- firm securement, edging



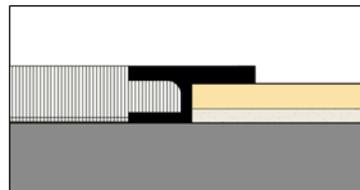
59

Carpet

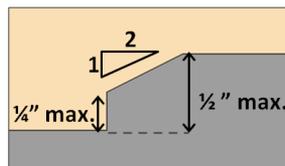
Trim required along exposed edges – must be fastened to the floor to prevent curling and meet changes in level specifications.



1/2" max height,
1:2 max beveled edge



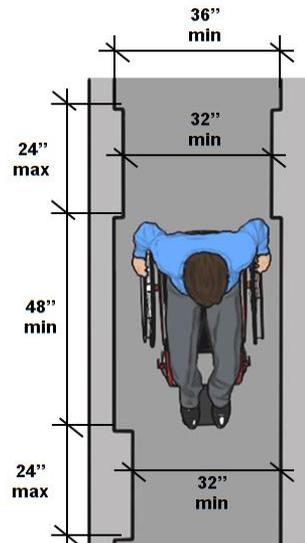
1/4" max high
vertical edge permitted



60

Walking Surfaces (§403)

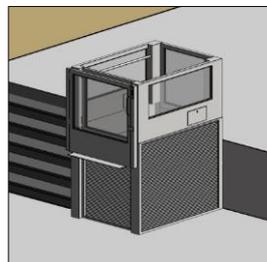
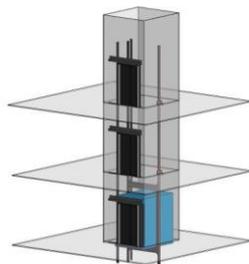
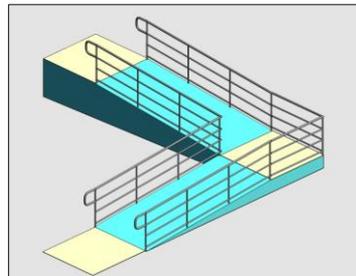
- Clear width
- Passing Space
- Running Slope 1:20 max.
- Cross Slope 1:48 max.
- Changes in level
- Surfaces
- Handrails



51

Accessible Vertical Circulation

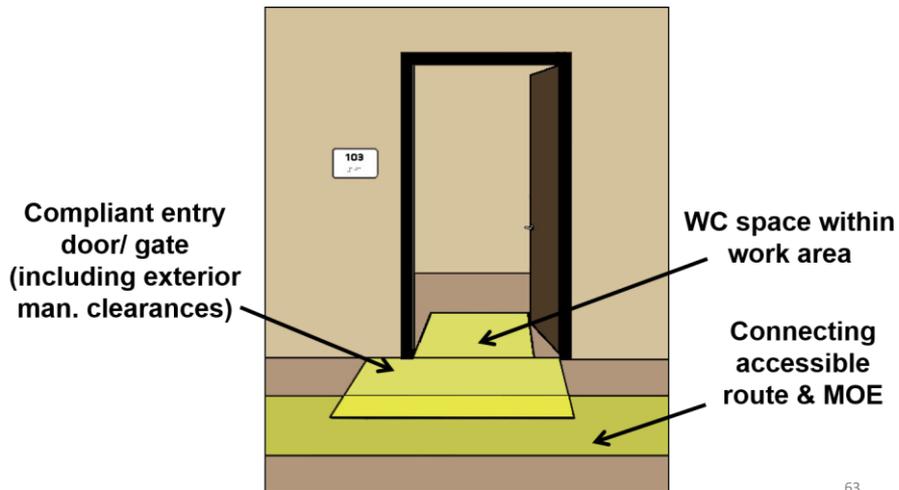
- Ramps
- Elevators
- Platform Lifts



62

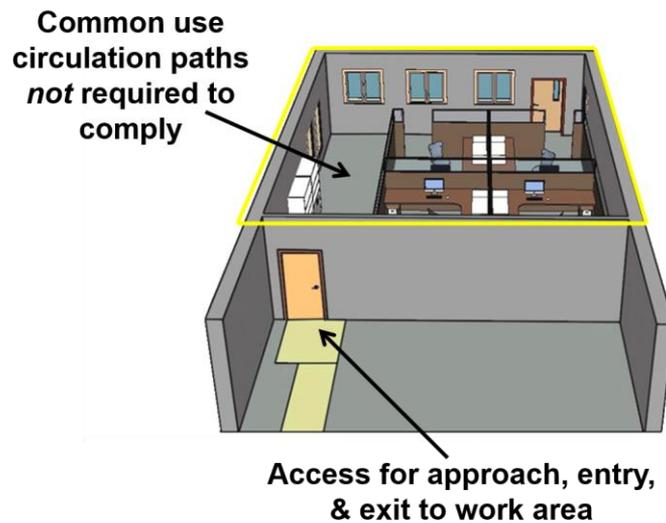
Employee Work Areas (§203.9)

Access for “approach, entry, & exit”



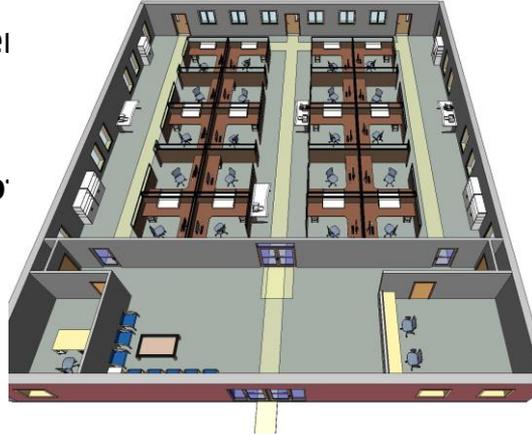
Employee Work Areas

Less than 1,000 SF



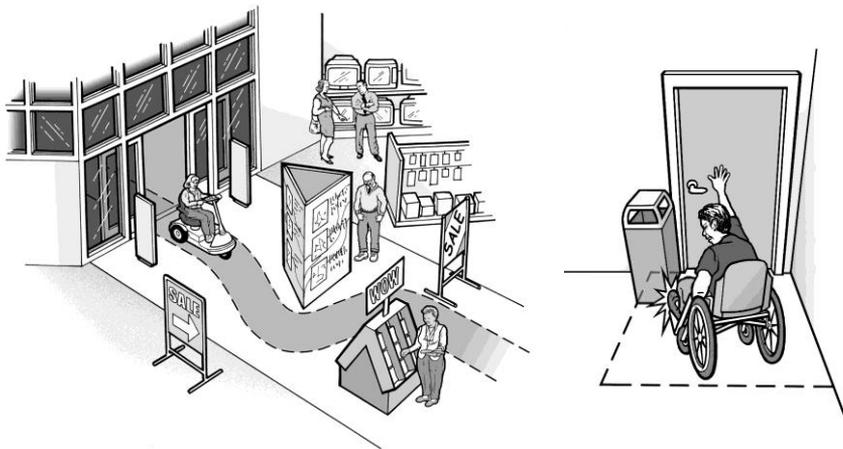
Employee Work Areas

- circulation paths
(in areas greater than or equal to 1000 sq ft)
- accessible means of egress



65

Maintaining the Accessible Route



Free-standing Items and Furniture

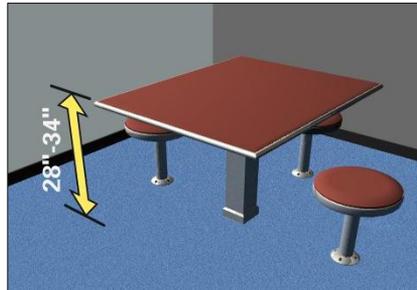
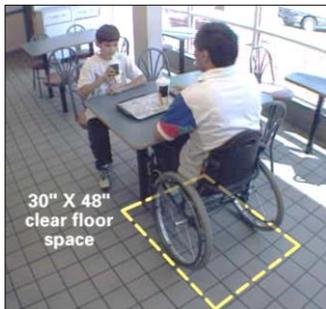
66

Built-in Elements

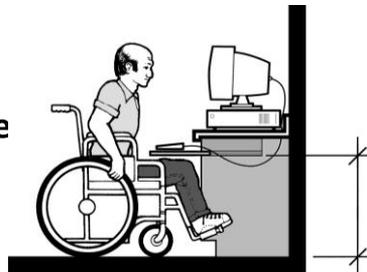


67

Dining and Work Surfaces (§902)



- Scope section - 226
- Clear Floor or Ground Space
- Knee and Toe Space
- Height



68

Work Surfaces



Adjustable height Work Stations

69

Sales and Service Counters (§904.4)

Parallel Approach

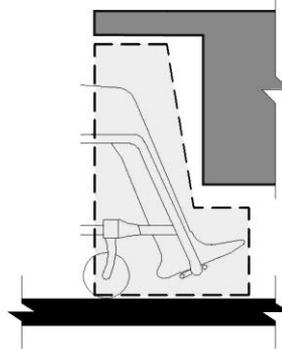
- Scope section – 227
- Clear floor space and approach
- Length and height of accessible portion



70

Sales and Service Counters

Forward Approach



71

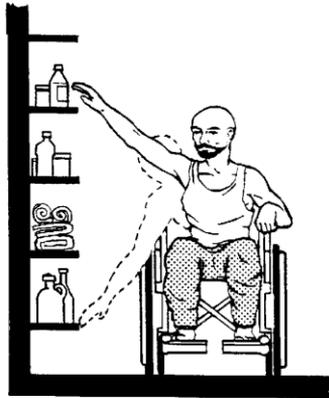
Reception Areas



**Interactive
Welcome
Screen and
Staff Directory**

72

Storage



- Sections – 225/811
- Building Blocks

73

Break Rooms and Lounges



606.2 Clear Floor Space – EXCEPTION 1
A parallel approach permitted to a kitchen sink where cook top or conventional range is NOT provided

74

Design Strategies

75

The screenshot shows a website header with the Perkins+Will logo on the left, a 'Main menu' link, and navigation links for 'About Us', 'Locations', and 'Global' on the right. Below the header is a search bar. The main content area features an 'Office News' section dated '06.28.16'. The article title is 'Perkins+Will Creates Workplace of the Future for Leading Interior Design Professional Society'. The sub-headline is 'American Society of Interior Designers (ASID) Tapped Perkins+Will for Design of Cutting Edge Headquarters in Nation's Capital'. The article text states that Perkins+Will has completed the design of the new headquarters for the American Society of Interior Designers (ASID), intended to be a living laboratory and establish a model for the "office of the future." The new ASID headquarters embodies innovative workplace environments where wellness, sustainability, collaboration, flexibility and new technologies were key drivers shaping the design. A quote from Ken Wilson, a principal at Perkins+Will's Washington, D.C. office, states that the new ASID headquarters is tracking Platinum under the LEED for Commercial Interiors Rating system, is also on track to be the region's first to achieve Platinum Certification under the new WELL Building Standard, which focuses specifically on maximizing the health and wellness impacts of a space on occupants.

ASID Washington HQ as “learning laboratory” includes flexibility overtime (10yr lease contract)

76

Workplace of the Future:

1) Establish Project Goals

2) Set Priorities

HEALTH + WELLNESS // protocol // material selection // quiet rooms // biophilia

WORKSTYLES // hospitality + residential hybrid // private meeting spaces // impromptu meeting areas // designated pin-up space // open seating

FLEXIBILITY // private zones // quiet // active // open // design for ten years from now // add personal employee identity

TECHNOLOGY // webinar room // projection screen // standardization of technology

SUSTAINABILITY // thermal comfort of rooms // marquee offices for sustainable protocols

RESILIENCY // create multi-functional amenities for staging site // refuge place // operations to accommodate employees // create assurances

SOCIAL RESPONSIBILITY // materials that support other communities // messaging that demonstrates community outreach

ADVOCACY // encourage the right to practice in different platforms // communicate mission statement // engage the public // educate

MISCELLANEOUS // nod to the past // representation of industry milestones

77

Better health for people with disabilities



1 Over **BILLION** people globally experience disability



1 in 7 people

People with disabilities have the same general health care needs as others

But they are:

2x more likely to find health care providers' skills and facilities **inadequate**

3x more likely to be **denied** health care

4x more likely to be treated **badly** in the health care system



1/2 of people with disabilities cannot afford health care

They are: **50%** more likely to suffer catastrophic health expenditure



These out-of-pocket health care payments can push a family into poverty

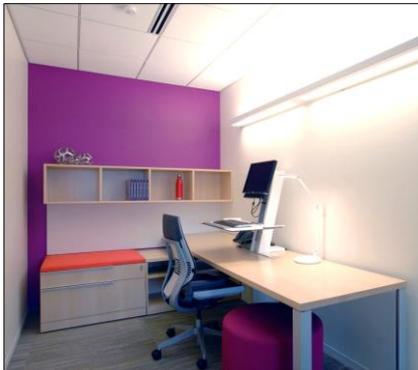
70

Workplace of the Future:

- Socially inclusive, functional environments improve “presentism”
- Accessible design + Universal design = “Wellness”
- Designing with Nature key to promoting integrated culture

79

Flexible Office Spaces



Privacy/Conference Rooms

80

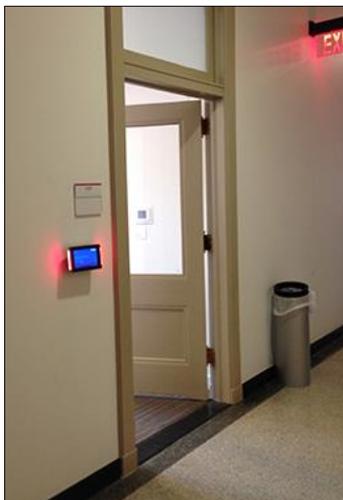
Open Floor Plans



ASID HQ – open plan, lots of flexibility

81

Reservation Systems



82

ASID HQ – Noise Reduction strategies have included:

- **Air Supply:** Larger relative units tend to produce less noise, and provide for air moving at lower velocity
- **Textures:** Sound absorptive textiles in furnishings



ASID HQ – biophilic design strategies have included:

- **Herbal garden near kitchen areas**
- **Artwork with abstract, nature-inspired patterns**

The benefits of biophilia include improved stress recovery rates, lower blood pressure, improved cognitive functions, enhanced mental stamina and focus, decreased violence and criminal activity, elevated moods, and increased learning rates. – Joye, 2007



THE ECONOMICS OF BIOPHILIA

TERRAPIN BRIGHT GREEN

Biophilic Design: Improving Health and Well-Being in the Built Environment

Biophilia is the concept that humans have an innate desire to connect with nature and natural systems. Biophilic design builds on this human-nature connection to give designers a new framework to create spaces where people are healthier, more satisfied, and more productive. It goes beyond simple ideas like putting plants in a space or using natural materials to deeper forms and characteristics that evoke nature in a space. Biophilic design is based on research that identifies specific design patterns that have measurable, positive impacts on human health. ASD has adapted this course for interior designers from the report, 14 Patterns of Biophilic Design, by Terrapin Bright Green, a sustainability consulting and strategic planning firm. The course reviews the science behind biophilic design and introduces 14 biophilic design patterns, tools for understanding design opportunities, which interior designers can apply to a wide range of projects, from residential interiors to offices to healthcare facilities.

In partnership with Terrapin Bright Green.

Learning Objectives

- Define biophilic design.
- Describe how biophilic design affects the mind and body.
- Identify examples of the 14 biophilic design patterns.
- Describe the considerations of good biophilic design.

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WHY DESIGNING WITH NATURE IN MIND MAKES FINANCIAL SENSE

The Economics of Biophilia © 2012 Terrapin Bright Green LLC

85

Questions?

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86



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87

**Thank you for participating
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88