A quick reference guide specially designed to help emerging design professionals on how to identify and resolve accessibility elements during early design development. This guide is compatible with practices in Architecture, Interior Design, Landscape Architecture, and Historic Preservation at the Boston Architectural College.

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What is Inclusive Design?

A worldwide movement promoting design as a support for independence and participation, Inclusive Design has evolved in response to an expanding demographic and social reality: more people living with a wide array of disabilities and chronic health conditions than ever before and the longest lifespans in history. Inclusive Design is also called Universal Design, Design-for-All and Lifespan Design. It is not a design style but an orientation to any design process that starts with a responsibility to the experience of the user. No matter what it's called, the message is the same:

If it works well for people with disabilities, it works better for everyone!

Legally mandated requirements for accessible design, framed within a civil rights context, provide a vital basis for autonomy and opportunity. Effectiveness is contingent on establishing an infrastructure of information and enforcement in order to ensure meaningful compliance. Inevitably, the legal mandates establish a set of minimums, a floor. Laws are an invaluable beginning but they are inherently limited. Legal design requirements for accessibility tend to focus on the needs of people with mobility limitations, especially wheelchair users, with some attention to people with vision limitations.

Legal mandates are limited to specific types of places and set minimum requirements focused on specific users, especially people who use wheelchairs.

Design details can substantially reduce the impact of the spectrum of limitations common to aging but legally required accessibility contributes minimally to that potential. Legal mandates and minimum requirements are almost guaranteed to result in “just tell me what I have to do” attitudes by covered parties that miss the potential and power of design as a social art that shapes everyone’s daily experience and sense of self.

This is not about code compliance. This is about civil rights!

The way disability is defined and understood has also changed in the last decade. Disability was once assumed as a way to characterize a particular set of largely stable limitations. Now the World Health Organization (WHO) has moved toward a new international classification system, the International Classification of Functioning, Disability and Health (ICF 2001). The WHO defines disability as a contextual variable, dynamic over time and in relation to circumstances. One is more or less disabled based on the interaction between the person and the individual, institutional and social environments.

The World Health Organization redefined disability as a contextual phenomenon, dictated by the intersection of a person and his/her environment.

This means that, as designers, we have the power to create environments that may or may not be disabling to those using them. This is not about a certain group of people, this is about all of us! The three accreditation bodies that impact degree programs at the BAC – NAAB, LAAB, and NCIDQ – agree with this idea. At the BAC, students are now required to be introduced to accessible and inclusive design as part of their studies.

Are you ready to make a positive difference with your design?
1950 Development of National Barrier Free Standards
Disabled veterans and people with disabilities begin the barrier-free movement, resulting in standards for “barrier-free” buildings.

1953 Korean War Ends
Over 92,000 are injured and/or disabled.

1954 ANSI Passes A117.1 Accessible and Usable Buildings and Facilities
Created standards for private sector facilities.

1961 Civil Rights Act
Banned discrimination by private businesses against women and racial or ethnic minorities and by public accommodations against minorities.

1964 Fair Housing Act
Passed shortly after the assassination of Dr. Martin Luther King, it prohibited discrimination based on race, color, religion and national origin.

1968 Architectural Barriers Act
It marks one of the first efforts to ensure equal access to public buildings for Americans with disabilities.

1988 Fair Housing Act Amended
The act was amended to include discrimination against people with disabilities and families with children.
For technical assistance, see the Fair Housing Act Accessibility FIRST website, www.fairhousingfirst.org.

1984 Uniform Federal Accessibility Standards
Specifies requirements to fulfill compliance with 1968 ABA.

1985 Gulf War Ends
Over 800 are injured and/or disabled. One in four Gulf War veterans suffer from Gulf War Illness.

2001- Present War on Terror: Iraq and Afghanistan
Over 42,000 are injured and/or disabled. Over 247,000 veterans diagnosed with PTSD.

2010 ADA Standards for Accessible Design
The Department of Justice published revised regulations for the ADA of 1990. New construction and alterations must now comply with the 2010 Standards.
http://www.ada.gov/2010ADAstandards_index.htm

1990 Americans with Disabilities Act (ADA)
Prohibits discrimination on the basis of disability; establishes design requirements for the construction or alteration of facilities required to be accessible. It covers facilities in the private sector and the public sector.
http://dredf.org/publications/ada_history.shtml

1995 Gulf War Ends
Over 800 are injured and/or disabled. One in four Gulf War veterans suffer from Gulf War Illness.

2010 Fair Housing Act
New guidance released by HUD and DOJ reinforces the Fair Housing Act requirement that multifamily housing be designed and constructed so as to be accessible to persons with disabilities.

1990’s

1980’s

1970’s

1960’s

1950’s

1940’s

1945 WWII Ends
Over 670,800 are injured and/or disabled.

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Over 670,800 are injured and/or disabled.
An accessible route must be provided from public transportation stops, accessible parking spaces, accessible passenger loading zones, and public streets or sidewalks to accessible building entrances.

For more information, visit http://www.huduser.org/portal/publications/pdf/fairhousing/fairch1.pdf.

Site Arrival Points

How would everyone arrive at your project?

Exterior accessible routes to accessible entrances may include parking access aisles, drop-off areas, bus stops.

The pedestrian environment should be safe. Pedestrian crosswalks should ensure the mobility of all users by accommodating the needs of people regardless of age or ability.

Sidewalks should be paved with a smooth, stable and slip-resistant material to accommodate wheelchairs, bicycles and strollers. Changes in level over 1/4” are considered tripping hazards.

Curb ramps should be provided at both ends of pedestrian crosswalks. Additionally, detectable warnings should provide a tactile cue to pedestrians with vision impairments.

Sidewalks should be clear of obstructions, including overhanging branches, utility poles, and signs. A minimum headroom of 80" should be provided at all exterior pedestrian routes.
If parking is provided for the public, an adequate number of accessible spaces must be provided. The table below describes the relation between the total number of parking spaces and the required accessible parking spaces:

<table>
<thead>
<tr>
<th>Total Spaces</th>
<th>Accessible Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 25</td>
<td>1</td>
</tr>
<tr>
<td>26 - 50</td>
<td>2</td>
</tr>
<tr>
<td>51 - 75</td>
<td>3</td>
</tr>
<tr>
<td>76 - 100</td>
<td>4</td>
</tr>
<tr>
<td>100+</td>
<td>see 2010 Standards 208.2</td>
</tr>
</tbody>
</table>

For every six or fraction of six accessible parking spaces required by the table above, at least one should be a van accessible space.

Accessible parking spaces must be on the shortest accessible route to the accessible building entrance.

Accessible parking spaces should have an access aisle located adjacent to them to permit a person using a wheelchair to enter or exit the car. These spaces should be level and must be identified with a sign.

At van designated spaces, a vertical clearance of 96” should be provided to safely and comfortably accommodate vans and wheelchair lifts and other specialized equipment.

Van designated spaces may be 11’ wide if the access aisle is 5’ wide. Alternatively, van designated spaces may be 8’ wide if the access aisle is also 8’ wide.

Accessible spaces should connect to the shortest possible accessible route to the accessible building entrance or facility they serve.

The international symbol of accessibility should be placed in front of the parking space mounted at least 5’ above the ground, measured to the bottom of the sign. Signs for van spaces should include the words ‘van accessible’. 
Entrances

Entrance doors should be at least 36” wide and should have the required maneuvering clearance on both sides. A sidelight can be provided for privacy and safety.

In addition to the regular peephole, a lowered peep hole (42” - 48” above the floor) provides security for children, shorter people, or for those using wheeled mobility devices.

Changes in level greater than 1/2” create tripping hazards for people with mobility impairments and barriers for those using wheeled mobility devices. Whenever possible, use no or low-profile threshold as well as recessed floor mats.

Door hardware should have handles with latches that are operable without tight grasping, pinching, or twisting. Lever-type door hardware is highly recommended.

Kickplates on the push side of doors can reduce the wear caused by someone pushing the door with the wheelchair foot rests. Kickplates should extend from the floor surface up to a height of at least 10”.

Additional Features for Residential Entrances:

- At least one no-step entrance with a cover;
- Sensor light at the entry focusing on the front-door lock;
- Non-slip flooring on both sides of the door;
- Doorbell and mailbox at an accessible height;
- Surface to place packages on when opening door.

For more information, visit http://www.huduser.org/portal/publications/pdf/fairhousing/fairch3.pdf.
Public buildings should have at least one accessible entrance. Wherever possible, this should be the main entrance intended for use by the general public.

In existing buildings, if for architectural or technical reasons the main entrance cannot be made accessible, an alternative accessible entrance should be provided.

An accessible route should connect each accessible entrance to accessible indoor or outdoor parking areas, local public transit stops and drop-off areas.

An accessible entrance must provide doors with maneuvering space, accessible door hardware, low or flush threshold, and enough clear width to allow people using wheeled mobility devices to use it.

In multi-story buildings, the accessible entrance should permit access to a conveniently located accessible elevator or lift.

All public buildings must have at least one accessible building entrance on an accessible route. Main factors which must be addressed are:

- minimum clear width of open doorway 32 inches
- low or no threshold
- clear maneuvering space inside and outside the door;
- force needed to open the door
- accessible door hardware;
- safe door closing speed.

For more information, visit http://www.huduser.org/portal/publications/pdf/fairhousing/fairch1.pdf.
Hallways:

Protruding Objects
- Height from floor = max. 27"
- Height from above = min. 80"
- Applies to outdoors spaces as well

Doors:

- Width = min. 32"
- Opening Force = max. 5 LBF
- Closing Speed = min. 3 secs
- Threshold = max. 1/2"
- Hardware = max. 48"
- Maneuvering Clearances

Vertical Circulation:

Elevators:
- Passenger
- Service
- LU/LA (not acceptable for new buildings)
- Residential

Lifts:
- Inclined
- Vertical
- Chair lift (residential use)
**Signage:**
- Character Proportion & Height
- Raised and Braille Characters
- Finish & Contrast
- Mounting Location & Height = 48” to 60”, located on the latch side of doors for consistency
- Symbols of Accessibility

**Stairways:**
- Treads & Risers
- Nosings
- Handrails = the only ‘safety net’ for people while using the stairways. Required cross section offers an effective pinch grip for those who rely on the handrails for balance and support.

**Ramps:**
- Run = max. 30’
- Rise = max. 30”
- Handrails
- Width (between railings) = min. 48” in MA, min. 36” ADA
- Landings = min. 60” X 60”, every 30’ or at any change of direction or at top and bottom of ramp
- Slope = max. 8.3%
Would everyone be able to use the bathroom in your building?

1. A clear floor space of 30” x 48” at fixtures as well as a 60” turnaround space allows those using wheeled mobility devices to maneuver inside the bathroom.

2. A knee space under the lavatory provides a forward approach for those using wheeled mobility devices.

3. Mirrors or medicine cabinets above the lavatory should be mounted low enough for people who are seated, people of short stature and children.

4. Handles, faucets, and controls should not require gripping and twisting—lever-type fixtures are recommended. Control location can greatly improve the usability and safety in the bathroom.

5. Walls around toilets, grab bars, and showers should be reinforced with blocking or plywood for future installation of grab bars.
Plumbing below the lavatory should be covered to protect legs and knees from burns and abrasions.

In single-user or inside accessible toilet stalls of multi-user bathrooms, grab bars are critical for many people with mobility impairments to be able to safely transfer on and off the toilet.

Accessible toilet stalls should be on an accessible route and must meet the requirements for toilets, size and arrangement, toe clearances, doors, and grab bars.

The highest operable part of dispensers, receptacles, and other accessories should be mounted at a maximum height of 48" above the floor.

Urinals should be mounted no higher than 17" above the floor and a clear floor space should be provided to allow a forward approach.

Bathrooms within accessible dwelling units as well as bathrooms in public buildings, should be accessible. Accessibility standards impose strict regulations on the fixtures and accessories in these spaces.

Because cooktops can be individually installed at varying heights with knee space underneath, they are a good choice for people with mobility impairments.

Light switches and appliance controls (range hood, garbage disposal, etc.) could be placed on an apron for added convenience and flexibility from a seated position.

Kitchen hardware (fixture and appliance controls, cabinetry handles) should be operable with one hand without tight grasping, pinching, or twisting of the wrist.

A 30” x 48” clear floor space should be provided at each kitchen appliance or fixture. Each of these clear floor spaces should adjoin the accessible route that must pass into and through the kitchen.

Work surfaces should be located immediately adjacent to appliances. A convenient pull-out counter beneath a built-in single wall oven allows for easy transfer of dishes.

Would everyone be able to use the kitchen in your building?
A shallow sink with a drain closer to the side or rear of the basin provides more usable knee clearance for a forward approach.

The ‘work triangle’ is a design concept that accommodates cooks, even those in wheelchairs or with limited mobility. It refers to the positioning of the stove, the refrigerator, and the sink.

A shallow sink with a drain closer to the side or rear of the basin provides more usable knee clearance for a forward approach.

Kitchens within accessible dwelling units as well as kitchenettes in public buildings, should be accessible. The design of kitchens usable by a person with a disability demands careful consideration and thoughtful planning. Careful location of appliances, plumbing fixtures and cabinetry is essential to achieve the required maneuvering clearances and clear floor spaces that are required in an accessible and functional kitchen. Careful design will produce a kitchen that provides an accessible and functionally efficient layout that is easily usable by a person with a disability or mobility impairment, as well as an able-bodied person.

For more information, visit http://www.huduser.org/portal/publications/pdf/fairhousing/fairch7.pdf.
Common Use Areas

Mailboxes serving accessible dwelling units should be located on an accessible route and should be installed within accessible reach range (48” maximum) for forward or side approach.

In a laundry room, at least one washer and one dryer should be located along an accessible route with controls within reach range. Front-loading appliances are easier to use than top-loading ones.

Common use areas include game rooms, which should be accessible and connected by an accessible route to the accessible dwelling units.

Meeting rooms and lounges are also part of common use areas. Special attention to furniture layout should be given when providing an accessible route to these spaces.

Within a building containing accessible dwelling units, trash chutes and recycling amenities should be accessible and should be on an accessible route.

Would everyone be able to use all amenities in your building?

Public and common use areas that must be accessible include, but are not limited to, such spaces and elements as selected on-site walks, parking, corridors, lobbies, drinking fountains and water coolers, swimming pool decks or aprons, playgrounds, rental offices, mailbox areas, trash rooms/refuse disposal areas, lounges, clubhouses, tennis courts, health spas, game rooms, toilet rooms and bathing facilities, laundries, community rooms, and portions of common use tenant storage.

For more information, visit http://www.huduser.org/portal/publications/pdf/fairhousing/fairch2.pdf.
Accessible features should be provided into and throughout an entire accessible dwelling unit, including the bedroom. The accessible route must be sufficiently wide and lacking in abrupt changes in level so residents with disabilities (and/or their guests with disabilities) can safely use all rooms and spaces, including storage areas and, under most circumstances, exterior balconies and patios that may be part of their dwelling unit.

For more information, visit http://www.huduser.org/portal/publications/pdf/fairhousing/fairch4.pdf.

**More Info**

Accessible features should be provided into and throughout an entire accessible dwelling unit, including the bedroom. The accessible route must be sufficiently wide and lacking in abrupt changes in level so residents with disabilities (and/or their guests with disabilities) can safely use all rooms and spaces, including storage areas and, under most circumstances, exterior balconies and patios that may be part of their dwelling unit.

For more information, visit http://www.huduser.org/portal/publications/pdf/fairhousing/fairch4.pdf.

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**Bedrooms**

**Are bedrooms in your building functional for everyone?**

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A clear floor space for a turning circle of 5’ within the room allows full accessibility for those using wheeled mobility devices.

A clear floor space of 30” x 48” should be provided adjacent to the bed for easy transfer.

Light switches should be provided at the entry door as well as next to the bed. Outlets, switches, and thermostats should be mounted between 15” and 18” above the floor.

Wardrobes and closets should provide adjustable shelving as well as hanging rods at varied heights. A light fixture inside the closet improves the ease of locating items.

Many people have difficulty opening and closing single-and double-hung windows due to the physical strength and reach required. Crank-operated (casement) or light weight sliding windows are preferable.
Resources for Other Spaces and Facilities

- Amusement Rides

- Assembly Areas (or Places of Assembly)

- Commercial Buildings

- Detention Facilities & Correctional Facilities

- Dressing, Fitting, & Locker Rooms

- Educational Facilities

- Exercise Machines & Equipment

- Fishing Piers & Platforms

- Golf Facilities

- Houses of Worship

- Judicial Facilities

- Medical Care & Long-Term Care Facilities

- Miniature Golf Facilities

- Play Areas

- Recreational Boating Facilities

- Recreational Facilities

- Restaurants

- Saunas and Steam Rooms

- Shooting Facilities with Firing Positions

- Swimming Pools, Wading Pools, & Spas

- Transient Lodging Facilities

- Transportation Facilities (or Terminals)

For comprehensive best practice guidance on how to design spaces that can be used by all people, regardless of size, age, or ability, consider downloading the following material:

- The NYC Guidebook to Accessibility and Universal Design

- City of Winnipeg: Universal Design Guiding Principles
  http://winnipeg.ca/ppd/Universal_Design.stm

- Building for Everyone: A Universal Design Approach
  http://www.universaldesign.ie/buildingforeveryone

- ADA in 3D App: An interactive version of 2010 ADA Standards
  http://www.universaldesignstyle.com/ada-in-3d/

- Universal Design & Green Home Survey Checklist
  http://www.homemods.org/resources/PDF/UDGreenHomeChecklist061609-FINAL.pdf
Institute for Human Centered Design (IHCD)
The Institute for Human Centered Design, founded in Boston in 1978 as Adaptive Environments, is an international non-governmental educational organization (NGO) committed to advancing the role of design in expanding opportunity and enhancing experience for people of all ages and abilities through excellence in design. IHCD’s work balances expertise in legally required accessibility with promotion of best practices in human-centered or universal design. IHCD’s core beliefs are:

• Design is powerful and profoundly influences our daily lives and our sense of confidence, comfort, and control;
• Variation in human ability is ordinary, not special, and affects most of us for some part of our lives.

www.IHCDesign.org
200 Portland Street, 1st floor
Boston, MA 02114

Fair Housing Center of Greater Boston (FHCGB)
Founded in 1998, the Fair Housing Center of Greater Boston is the only comprehensive fair housing organization working to eliminate housing discrimination and promote open communities throughout the region. The FHCGB pursues its mission in Suffolk, Norfolk, Middlesex, Essex and Plymouth counties through offering a full tool kit of fair housing services: Testing, Case Advocacy, Training, Community Outreach, Policy Advocacy, and Research. Funded by the U.S. Department of Housing and Urban Development, foundation and corporate donors, and individual supporters, the FHCGB works to break the silence surrounding housing discrimination, to offer recourse to people harmed by discrimination, and educate and inform housing professionals and residents of their rights and responsibilities.

www.bostonfairhousing.org
262 Washington Street, 10th Floor
Boston, MA 02108

Boston Center for Independent Living (BCIL)
BCIL is a non-profit organization that has provided services to people with disabilities since the organization’s founding in 1974, when it became the second independent living center in the country. The organization was created by people with disabilities seeking full integration into society. BCIL accomplishes this by empowering people with disabilities with the practical skills and self-confidence to take control over their lives and become active members of the communities in which they live. At the same time, BCIL works to promote access and change within society and responds with programs and services to the needs of people of all ages with a wide range of disabilities. BCIL is a frontline civil rights organization led by people with disabilities that advocates to eliminate discrimination, isolation and segregation by providing advocacy, information and referral, peer support, skills training, and PCA services in order to enhance the independence of people with disabilities.

www.bostoncil.org
60 Temple Place, 5th Floor
Boston, MA 02111

Universal Design Case Study Collection
This website hosts an international collection of Universal Design case studies of the built environment designed to appeal to a global audience of design practitioners, educators, students and other built-environment project stakeholders ranging from individuals to governments. This project seeks to explore the current “best practices” in Universal Design in the built environment and make this information freely available for individuals planning projects in the built environment. This resource will enable quick and easy access to state-of-the-art case studies of Universal Design in the built environment that illustrate good examples for a diverse audience. With the case studies available anywhere anytime, someone planning to build a new school or health center or to renovate an historic cultural facility would readily access information about inclusively designed precedents. Each case study will include descriptions of the project’s Universal Design and environmental design features, evaluations, photos, images and information about the team that designed and built the project. The categories are health, outdoor places, transport, commercial, culture, education, housing, public buildings and historic preservation and worship spaces. Case studies are rich in visual supports.

www.udcasestudies.org

Access to Design Professions
Access to Design Professions is a Leadership Initiative Project funded by the National Endowment for the Arts. It was inspired by and dedicated to the late Ron Mace, the creator of the term “universal design”. The project will find ways that people with disabilities can enter and sustain themselves in the professions of architecture, industrial design, interior design, and landscape architecture. We believe that they will use their personal experience of disability to contribute to great universal design, as did Ron Mace. The current lack of designers with disabilities perpetuates the practice of design that isolates, excludes and stigmatizes people with disabilities. As we evolve our definition and practice of universal design into a more holistic, socially inclusive approach, we need diversity of practitioners. In 2002, ADP published Building a World Fit for People: Designers with Disabilities at Work, a book that describes the career development of 21 designers with disabilities from around the world. This valuable resource can be downloaded for free at http://www.humancentereddesign.org/adp/profiles/index.php.

www.humancentereddesign.org/projects/access-to-design-professions/features
### Accessibility Terms Glossary

**Access Aisle.** An accessible pedestrian space adjacent to parking spaces that allows people using wheelchairs and other mobility aids to safely enter and exit vehicles.

**Accessible Means of Egress.** A continuous and unobstructed way of egress travel from any point in a building or facility that provides an accessible route to an area of refuge, a horizontal exit, or a public way.

**Accessible Route.** A continuous, unobstructed path connecting all accessible elements and spaces within or between buildings or facilities. Interior accessible routes may include corridors, floors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include parking, access aisles, curb cuts, crosswalks at vehicular ways, walkways, ramps, and lifts.

**Area of Rescue Assistance.** An area, which has direct access to an exit or an area adjacent to an exit discharge, where people who are unable to use stairs or are unable to travel more than 100 feet to a public way may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

**Assembly Area.** A building or facility, or portion thereof, used for the purpose of entertainment, educational or civic gatherings, or similar purposes. Assembly areas include, but are not limited to, classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, motion picture houses, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheaters, arenas, stadiums, grandstands, or convention centers.

**Circulation Path.** An exterior or interior way of passage provided for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways, and landings.

**Common Use.** Interior or exterior circulation paths, rooms, spaces, or elements that are not for public use and are made available for the shared use of two or more people.

**Cross Slope.** The slope that is perpendicular to the running slope and the direction of travel.

**Curb Ramp (or Curb Cut).** A short ramp cutting through a curb or built up to it.

**Detectable Warning.** A standardized surface feature built in or applied to walking surfaces or other elements to warn of hazards on a circulation path.

**Entrance.** Any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibule if provided, the entry door or gate, and the hardware of the entry door or gate.
Knee / Toe Clearance. The knee and toe clearances are required underneath certain accessible elements (lavatories, sinks, drinking fountains, tables, etc.) in addition to the clear floor space. The knee clearance should be 27 inches minimum from the floor to the underside of the lavatory which extends 8 inches minimum measured from the front edge underneath the lavatory back towards the wall. The toe clearance is the space available below the knee space and the floor.

Level Surface. Any surface with a slope no more than 1:50 or 2%.

Limited-use/limited-application elevators (LU/LA). A limited use/limited application elevator is a power passenger elevator in which the use and application is limited by size, capacity, speed, and rise. These low-rise elevator systems bridge the gap between conventional commercial elevators and other undesirable lifts used to provide solutions for architectural barriers.

Marked Crossing. A crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

Maneuvering Clearance. A required minimum clear floor area provided on both sides of doors and gates (elbow room) and other accessible elements.

Persons with Disabilities. Individuals who experience substantial limitations in one or more major life activities, including but not limited to such functions as performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working. Persons with disabilities shall include but not be limited to those who have the inability to walk, difficulty walking, hearing disabilities, lack of coordination, reaching and manipulation disabilities stamina, difficulty interpreting and reacting to sensory information and extremes in physical size.

Play Area. A portion of a site containing play components designed and constructed for children.

Public Entrance. An entrance that is not a service entrance or a restricted entrance.

Ramp. A walking surface that has a running slope steeper than 1:20.

Running Slope. The slope that is parallel to the direction of travel.

Turning Space. The space required for a wheelchair to make a 180-degree turn is a clear space of 60 inches diameter or a T-shaped space.